

US EPA ARCHIVE DOCUMENT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Tel: (314)298-8566

TestAmerica Job ID: 160-3052-1  
Client Project/Site: West Lake Landfill

For:  
Engineering Management Support, Inc.  
7220 W. Jefferson AVE  
Suite 406  
Lakewood, Colorado 80235

Attn: Mr. Paul Rosasco

*Rhonda Ridenhower*

---

Authorized for release by:  
7/31/2013 5:20:19 PM

Rhonda Ridenhower, Customer Service Manager  
[rhonda.ridenhower@testamericainc.com](mailto:rhonda.ridenhower@testamericainc.com)

### LINKS

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results through  
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[www.testamericainc.com](http://www.testamericainc.com)

*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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## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Job ID: 160-3052-1**

**Laboratory: TestAmerica St. Louis**

**Narrative**

### CASE NARRATIVE

**Client: Engineering Management Support, Inc.**

**Project: West Lake Landfill**

**Report Number: 160-3052-1**

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.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

Per client request to report all analytical runs, analyses included in the package that were not used in the final report were re-analyzed due to QC failures in the analytical sequence

#### RECEIPT

The samples were received on 07/19/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

#### VOLATILE ORGANIC COMPOUNDS (GC MS)

Samples FIELD BLANK @ I-73 (160-3052-1), I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8), DUPLICATE 08 (160-3052-9) and TRIP BLANK (160-3052-10) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/23/2013 and 07/24/2013.

#### Analytical batch 62292

The continuing calibration verification (CCV) for Chloroethane associated with batch 62292 recovered above the upper control limit. The

## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Job ID: 160-3052-1 (Continued)

#### Laboratory: TestAmerica St. Louis (Continued)

samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 62292 were outside control limits for Chloroethane. The associated laboratory control sample (LCS) recovery met acceptance criteria. No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

#### **METALS (ICP)- Dissolved and Total**

Samples I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8) and DUPLICATE 08 (160-3052-9) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/25/2013 and analyzed on 07/26/2013 and 07/29/2013..

#### Analytical batch 63280

The following samples were diluted to bring the concentration of target analytes (calcium, magnesium, sodium, and iron) within the calibration range. Magnesium also interferes with iron and iron interferes with arsenic, chromium, selenium, and zinc: (160-3052-2 SD), DUPLICATE 08 (160-3052-9), I-73 (160-3052-2), I-73 (160-3052-2 MS), I-73 (160-3052-2 MSD), PZ-102R-SS (160-3052-4), PZ-102-SS (160-3052-6), PZ-103-SS (160-3052-3), PZ-106-KS (160-3052-8), PZ-107-SS (160-3052-7), PZ-200-SS (160-3052-5). Elevated reporting limits (RLs) are provided.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 62880 were outside control limits for silver, manganese, zinc, and barium. The RPD was within method limits indicating a possible matrix interference. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Due to the high concentration of iron, magnesium, and sodium, the matrix spike / matrix spike duplicate (MS/MSD) for prep batch 62880 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

#### Analytical batch 63435

The following samples were diluted to bring the concentration of target analytes (calcium) within the calibration range: (160-3052-2 SD), I-73 (160-3052-2), I-73 (160-3052-2 MS), I-73 (160-3052-2 MSD). Elevated reporting limits (RLs) are provided.

Due to the high concentration of calcium, the matrix spike / matrix spike duplicate (MS/MSD) for prep batch 62880 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

#### Analytical batch 63744

The following samples were diluted to bring the concentration of target analytes within the calibration range: (160-3052-2 SD), DUPLICATE 08 (160-3052-9), I-73 (160-3052-2), I-73 (160-3052-2 MS), I-73 (160-3052-2 MSD), PZ-102R-SS (160-3052-4), PZ-102-SS (160-3052-6), PZ-103-SS (160-3052-3), PZ-106-KS (160-3052-8), PZ-107-SS (160-3052-7), PZ-200-SS (160-3052-5). Elevated reporting limits (RLs) are provided.

The initial calibration verification (ICV) for prep batch 62879 was above the upper control limit for thallium indicating a potential high bias. The affected samples are ND for Thallium and the data have been qualified and reported.

Due to the high concentration of Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for prep batch 62879 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Due to the high concentration of magnesium, and sodium, the matrix spike / matrix spike duplicate (MS/MSD) for prep batch 62879 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Analytical batch 63435 and 63744: The sample results for iron and magnesium. and were observed outside the dissolved verses total criteria. All other elements were within QC limits, indicating that this is an anomaly due to matrix interference.

#### **Metals Observations**

Method(s) 3010A: prep 62879

Samples were prepped at a dilution due to their matrix. Samples were light brown in color and had a strong odor.

## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Job ID: 160-3052-1 (Continued)

#### Laboratory: TestAmerica St. Louis (Continued)

Method(s) 3010A: prep 62880

Samples were prepped at a dilution due to their matrix. Samples were light brown in color and had a strong odor.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### DISSOLVED MERCURY (CVAA)

Samples I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8) and DUPLICATE 08 (160-3052-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 07/24/2013.

Due to matrix interference, the matrix spike / matrix spike duplicate (MS/MSD) recoveries were below control limits. The RPD and associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the mercury analysis.

All other quality control parameters were within the acceptance limits.

#### TOTAL MERCURY

Samples I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8) and DUPLICATE 08 (160-3052-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 07/24/2013.

Due to matrix interference, the matrix spike / matrix spike duplicate (MS/MSD) recoveries were below control limits. The RPD and associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the mercury analysis.

All other quality control parameters were within the acceptance limits.

#### ANIONS

Samples I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8) and DUPLICATE 08 (160-3052-9) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/20/2013 and 07/24/2013.

The following samples were diluted to bring the concentrations of Chloride, Sulfate, and Bromide within the calibration range in IC batch 62889: DUPLICATE 08 (160-3052-9), I-73 (160-3052-2), PZ-102R-SS (160-3052-4), PZ-102-SS (160-3052-6), PZ-103-SS (160-3052-3), PZ-106-KS (160-3052-8), PZ-107-SS (160-3052-7), PZ-200-SS (160-3052-5). Elevated reporting limits (RLs) are provided.

The following sample was analyzed at dilution to start (2x), based on sample appearance and high conductivity. I-73 (160-3052-2) Nitrate is reported ND at dilution for this sample, as an undiluted analysis was inadvisable. An elevated Reporting Limit (RL) is provided.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

#### ALKALINITY

Samples I-73 (160-3052-2), PZ-103-SS (160-3052-3), PZ-102R-SS (160-3052-4), PZ-200-SS (160-3052-5), PZ-102-SS (160-3052-6), PZ-107-SS (160-3052-7), PZ-106-KS (160-3052-8) and DUPLICATE 08 (160-3052-9) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 07/30/2013.

The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: (160-3052-2 DU), I-73 (160-3052-2 MS). Elevated reporting limits (RLs) are provided..

## Case Narrative

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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### Job ID: 160-3052-1 (Continued)

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#### Laboratory: TestAmerica St. Louis (Continued)

No other difficulties were encountered during the alkalinity analysis.

All other quality control parameters were within the acceptance limits.

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TestAmerica St. Louis

13715 Rider Trail North  
 Earth City, MO 63045  
 Phone (314) 298-8566 Fax (314) 298-8757

Chain of Custody Record

TestAmerica

7811 - 10/10/09 - 10/10/09 - 10/10/09

|  |  |  |   |                         |                                |
|--|--|--|---|-------------------------|--------------------------------|
| <b>Client Information</b>                  |  | Sampler: <u>Herst &amp; Associates, Inc.</u> | Lab PM: <u>Ridenhower, Rhonda E</u>                 | Carrier Tracking No(s): | COC No<br><u>160-499-253.1</u> |
| Client Contact:<br><u>Mr. Paul Rosasco</u> |  | Phone: <u>636-939-9111</u>                   | E-Mail: <u>rhonda.ridenhower@testamericainc.com</u> |                         | Page:<br><u>Page 1 of 10</u>   |

|   |  |   |  |  |  |  |
|---|--|---|--|--|--|--|
| Company:<br><u>Engineering Management Support, Inc.</u> |  | <b>Analysis Requested</b>                   |  |  |  | Job #:   |
| Address:<br><u>7220 W. Jefferson AVE Suite 406</u>      |  | Due Date Requested:                         |  |  |  | Preservation Codes:<br>A - HCL                      M - Hexane<br>B - NaOH                    N - None<br>C - Zn Acetate              O - AsNaO2<br>D - Nitric Acid              P - Na2O4S<br>E - NaHSO4                 Q - Na2SO3<br>F - MeOH                    R - Na2S2SO3<br>G - Amchlor                S - H2SO4<br>H - Ascorbic Acid         T - TSP Dodecahydrate<br>I - Ice                         U - Acetone<br>J - DI Water                V - MCAA<br>K - EDTA                    W - ph 4-5<br>L - EDA                      Z - other (specify) |
| City:<br><u>Lakewood</u>                                |  | TAT Requested (days):                       |  |  |  |  |
| State, Zip:<br><u>CO, 80235</u>                         |  | PO #:<br><u>Purchase Order not required</u> |  |  |  |  |
| Phone:  |  | WO #:                                       |  |  |  |  |
| Email:<br><u>paulrosasco@emsdenver.com</u>              |  | Project #:<br><u>16002280</u>               |  |  |  |  |
| Project Name:<br><u>West Lake Landfill- July</u>        |  | SSOW#:                                      |  |  |  |  |
| Site:   |  |   |  |  |  | Other:   |

| Sample Identification | Sample Date | Sample Time | Sample Type<br>(C=Comp, G=grab) | Matrix<br>(Water, Solid, Waste, etc) | Field Filled Sample (Yes or No) | Analysis Requested         |                                    |               |              |             |                       |                        |  |  |  |  |    | Total Number of containers           | Special Instructions/Note: |  |  |  |
|-----------------------|-------------|-------------|---------------------------------|--------------------------------------|---------------------------------|----------------------------|------------------------------------|---------------|--------------|-------------|-----------------------|------------------------|--|--|--|--|----|--------------------------------------|----------------------------|--|--|--|
|                       |             |             |                                 |                                      |                                 | 310.1 - Alkalinity - 310.0 | Petroleum Hydrocarbons (C15 or No) | 300 - Arsenic | 6010C, 7470A | 8280C - VOA | 8280C - Standard List | Disposal - GORC, 7470A |  |  |  |  |    |                                      |                            |  |  |  |
| Preservation Code:    |             |             |                                 |                                      | X                               | X                          | N                                  | N             | D            | A           | A                     | D                      |  |  |  |  |    |                                      |                            |  |  |  |
| Field Blank @ I-73    | 7/19/13     | 0850        | G                               | Water                                | X                               |                            |                                    |               |              |             | X                     |                        |  |  |  |  | 3  | * VOAs effervesced; sent unpreserved |                            |  |  |  |
| I-73 *                | ↑           | 0855        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 10 |                                      |                            |  |  |  |
| PZ-103-SS *           |             | 0945        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| PZ-102R-SS            |             | 1015        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| PZ-200-SS             |             | 1019        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| PZ-102-SS             |             | 1030        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| PZ-107-SS *           |             | 1210        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| PZ-106-KS             |             | 1309        | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| Duplicate 08 *        |             | —           | G                               | Water                                | X                               | X                          | X                                  | X             | X            | X           | X                     | X                      |  |  |  |  | 7  |                                      |                            |  |  |  |
| Trip Blank            | 7/19/13     | —           | G                               | Water                                |                                 |                            |                                    |               |              |             | X                     |                        |  |  |  |  | 3  |                                      |                            |  |  |  |

|  |  |  |  |
|--|--|--|--|
| Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)<br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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: <u>Matt Stewart</u> | Date/Time: <u>7/19/13 1410</u> | Company: | Received by: <u>Paul Her</u> | Date/Time: <u>7/19/13 1410</u> | Company:                    |
| Relinquished by: <u>Waldor</u>       | Date/Time: <u>7/19/13 1420</u> | Company: | Received by: <u>Paul Her</u> | Date/Time: <u>7/19/13/1420</u> | Company: <u>TestAmerica</u> |
| Relinquished by:                     | Date/Time:                     | Company: | Received by:                 | Date/Time:                     | Company:                    |

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

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## Login Sample Receipt Checklist

Client: Engineering Management Support, Inc.

Job Number: 160-3052-1

**Login Number: 3052**

**List Source: TestAmerica St. Louis**

**List Number: 1**

**Creator: Clarke, Jill C**

| Question   | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is <=/ background as measured by a survey meter. | True   |         |
| The cooler's custody seal, if present, is intact.                                | True   |         |
| Sample custody seals, if present, are intact.                                    | N/A    |         |
| 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 containers received and the COC.          | True   |         |
| Samples are received within Holding Time.  | True   |         |
| Sample containers have legible labels.   | True   |         |
| Containers are not broken or leaking.  | True   |         |
| Sample collection date/times are provided.                                       | True   |         |
| Appropriate sample containers are used.  | True   |         |
| Sample bottles are completely filled.  | True   |         |
| Sample Preservation Verified.  | True   |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |         |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").  | False  |         |
| Multiphasic samples are not present.   | True   |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Residual Chlorine Checked.   | N/A    |         |

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# Definitions/Glossary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| F         | MS or MSD exceeds the control limits   |

### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  |
| E         | Result exceeded calibration range.  |
| B         | Compound was found in the blank and sample.   |
| ^         | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.  |
| F         | MS or MSD exceeds the control limits  |
| 4         | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |

### General Chemistry

| Qualifier | Qualifier Description   |
|-----------|---|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  |
| B         | Compound was found in the blank and sample.   |
| 4         | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |
| F         | MS or MSD exceeds the control limits  |
| *         | LCS or LCSD exceeds the control limits  |

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CNF            | Contains no Free Liquid   |
| DER            | Duplicate error ratio (normalized absolute difference)  |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision level concentration  |
| MDA            | Minimum detectable activity   |
| EDL            | Estimated Detection Limit   |
| MDC            | Minimum detectable concentration  |
| 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  |
| 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)   |

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# Method Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

| Method | Method Description                  | Protocol | Laboratory |
|--------|-------------------------------------|----------|------------|
| 8260C  | Volatile Organic Compounds by GC/MS | SW846    | TAL SL     |
| 6010C  | Metals (ICP)                        | SW846    | TAL SL     |
| 7470A  | Mercury (CVAA)                      | SW846    | TAL SL     |
| 300.0  | Anions, Ion Chromatography          | MCAWW    | TAL SL     |
| 310.1  | Alkalinity                          | MCAWW    | TAL SL     |

**Protocol References:**

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

**Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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# Sample Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

| Lab Sample ID | Client Sample ID   | Matrix | Collected      | Received       |
|---------------|--------------------|--------|----------------|----------------|
| 160-3052-1    | FIELD BLANK @ I-73 | Water  | 07/19/13 08:50 | 07/19/13 14:10 |
| 160-3052-2    | I-73               | Water  | 07/19/13 08:55 | 07/19/13 14:10 |
| 160-3052-3    | PZ-103-SS          | Water  | 07/19/13 09:45 | 07/19/13 14:10 |
| 160-3052-4    | PZ-102R-SS         | Water  | 07/19/13 10:15 | 07/19/13 14:10 |
| 160-3052-5    | PZ-200-SS          | Water  | 07/19/13 10:19 | 07/19/13 14:10 |
| 160-3052-6    | PZ-102-SS          | Water  | 07/19/13 10:30 | 07/19/13 14:10 |
| 160-3052-7    | PZ-107-SS          | Water  | 07/19/13 12:10 | 07/19/13 14:10 |
| 160-3052-8    | PZ-106-KS          | Water  | 07/19/13 13:09 | 07/19/13 14:10 |
| 160-3052-9    | DUPLICATE 08       | Water  | 07/19/13 00:00 | 07/19/13 14:10 |
| 160-3052-10   | TRIP BLANK         | Water  | 07/19/13 00:00 | 07/19/13 14:10 |

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## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: FIELD BLANK @ I-73**

**Lab Sample ID: 160-3052-1**

No Detections.

**Client Sample ID: I-73**

**Lab Sample ID: 160-3052-2**

| Analyte                     | Result  | Qualifier | RL     | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|-----------------------------|---------|-----------|--------|-------|------|---------|---|--------|-----------|
| Acetone                     | 90      |           | 20     | 6.7   | ug/L | 1       |   | 8260C  | Total/NA  |
| Benzene                     | 57      |           | 5.0    | 0.25  | ug/L | 1       |   | 8260C  | Total/NA  |
| 2-Butanone (MEK)            | 82      |           | 20     | 0.39  | ug/L | 1       |   | 8260C  | Total/NA  |
| Chlorobenzene               | 42      |           | 5.0    | 0.38  | ug/L | 1       |   | 8260C  | Total/NA  |
| cis-1,2-Dichloroethene      | 2.5     | J         | 5.0    | 0.16  | ug/L | 1       |   | 8260C  | Total/NA  |
| Ethylbenzene                | 2.8     | J         | 5.0    | 0.30  | ug/L | 1       |   | 8260C  | Total/NA  |
| Isopropylbenzene            | 1.4     | J         | 5.0    | 0.26  | ug/L | 1       |   | 8260C  | Total/NA  |
| 4-Methyl-2-pentanone (MIBK) | 32      |           | 20     | 0.33  | ug/L | 1       |   | 8260C  | Total/NA  |
| Methyl tert-butyl ether     | 1.4     | J         | 5.0    | 0.40  | ug/L | 1       |   | 8260C  | Total/NA  |
| Toluene                     | 10      |           | 5.0    | 1.0   | ug/L | 1       |   | 8260C  | Total/NA  |
| m-Xylene & p-Xylene         | 3.1     | J         | 5.0    | 0.57  | ug/L | 1       |   | 8260C  | Total/NA  |
| o-Xylene                    | 1.7     | J         | 5.0    | 0.32  | ug/L | 1       |   | 8260C  | Total/NA  |
| Xylenes, Total              | 4.8     | J         | 10     | 0.85  | ug/L | 1       |   | 8260C  | Total/NA  |
| Aluminum                    | 9600    |           | 400    | 160   | ug/L | 1       |   | 6010C  | Total/NA  |
| Aluminum                    | 9800    |           | 4000   | 1600  | ug/L | 10      |   | 6010C  | Total/NA  |
| Antimony                    | 14      | J         | 20     | 7.9   | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic                     | 130     |           | 20     | 3.9   | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic                     | 110     | J         | 200    | 39    | ug/L | 10      |   | 6010C  | Total/NA  |
| Barium                      | 3100    |           | 100    | 7.9   | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium                      | 3100    |           | 1000   | 79    | ug/L | 10      |   | 6010C  | Total/NA  |
| Calcium                     | 730000  | E         | 2000   | 210   | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium                     | 1000000 | E         | 20000  | 2100  | ug/L | 10      |   | 6010C  | Total/NA  |
| Calcium                     | 1200000 |           | 100000 | 11000 | ug/L | 50      |   | 6010C  | Total/NA  |
| Chromium                    | 12      | J         | 20     | 6.3   | ug/L | 1       |   | 6010C  | Total/NA  |
| Chromium                    | 100     | J         | 200    | 63    | ug/L | 10      |   | 6010C  | Total/NA  |
| Cobalt                      | 87      | J         | 100    | 7.9   | ug/L | 1       |   | 6010C  | Total/NA  |
| Cobalt                      | 190     | J         | 1000   | 79    | ug/L | 10      |   | 6010C  | Total/NA  |
| Copper                      | 32      | J         | 50     | 9.1   | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                        | 150000  |           | 200    | 56    | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                        | 150000  |           | 2000   | 560   | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead                        | 58      |           | 20     | 3.0   | ug/L | 1       |   | 6010C  | Total/NA  |
| Lead                        | 88      | J         | 200    | 30    | ug/L | 10      |   | 6010C  | Total/NA  |
| Magnesium                   | 260000  | E         | 2000   | 260   | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium                   | 270000  |           | 20000  | 2600  | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese                   | 3700    |           | 30     | 6.6   | ug/L | 1       |   | 6010C  | Total/NA  |
| Manganese                   | 3800    |           | 300    | 66    | ug/L | 10      |   | 6010C  | Total/NA  |
| Nickel                      | 360     |           | 80     | 27    | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel                      | 420     | J         | 800    | 270   | ug/L | 10      |   | 6010C  | Total/NA  |
| Potassium                   | 22000   |           | 10000  | 3300  | ug/L | 1       |   | 6010C  | Total/NA  |
| Selenium                    | 15      | J         | 30     | 5.3   | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                      | 690000  | E         | 2000   | 650   | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                      | 690000  |           | 20000  | 6500  | ug/L | 10      |   | 6010C  | Total/NA  |
| Vanadium                    | 25      | J         | 100    | 8.1   | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc                        | 4700    |           | 40     | 10    | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc                        | 5100    |           | 400    | 100   | ug/L | 10      |   | 6010C  | Total/NA  |
| Antimony                    | 13      | J         | 20     | 7.9   | ug/L | 1       |   | 6010C  | Dissolved |
| Arsenic                     | 130     |           | 20     | 3.9   | ug/L | 1       |   | 6010C  | Dissolved |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis



## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: I-73 (Continued)**

**Lab Sample ID: 160-3052-2**

| Analyte           | Result  | Qualifier | RL     | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|-------------------|---------|-----------|--------|--------|------|---------|---|--------|-----------|
| Arsenic           | 130     | J         | 200    | 39     | ug/L | 10      |   | 6010C  | Dissolved |
| Barium            | 3100    |           | 100    | 7.9    | ug/L | 1       |   | 6010C  | Dissolved |
| Barium            | 3200    |           | 1000   | 79     | ug/L | 10      |   | 6010C  | Dissolved |
| Calcium           | 720000  | E         | 2000   | 210    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium           | 1000000 |           | 20000  | 2100   | ug/L | 10      |   | 6010C  | Dissolved |
| Calcium           | 1100000 |           | 100000 | 11000  | ug/L | 50      |   | 6010C  | Dissolved |
| Cobalt            | 82      | J         | 100    | 7.9    | ug/L | 1       |   | 6010C  | Dissolved |
| Cobalt            | 190     | J         | 1000   | 79     | ug/L | 10      |   | 6010C  | Dissolved |
| Iron              | 140000  |           | 200    | 56     | ug/L | 1       |   | 6010C  | Dissolved |
| Iron              | 140000  |           | 2000   | 560    | ug/L | 10      |   | 6010C  | Dissolved |
| Lead              | 10      | J         | 20     | 3.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Lead              | 38      | J         | 200    | 30     | ug/L | 10      |   | 6010C  | Dissolved |
| Magnesium         | 270000  | E         | 2000   | 260    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium         | 280000  |           | 20000  | 2600   | ug/L | 10      |   | 6010C  | Dissolved |
| Manganese         | 3600    | B         | 30     | 6.6    | ug/L | 1       |   | 6010C  | Dissolved |
| Manganese         | 3800    | B         | 300    | 66     | ug/L | 10      |   | 6010C  | Dissolved |
| Nickel            | 340     |           | 80     | 27     | ug/L | 1       |   | 6010C  | Dissolved |
| Nickel            | 390     | J         | 800    | 270    | ug/L | 10      |   | 6010C  | Dissolved |
| Potassium         | 20000   |           | 10000  | 3300   | ug/L | 1       |   | 6010C  | Dissolved |
| Selenium          | 11      | J         | 30     | 5.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium            | 700000  | E         | 2000   | 650    | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium            | 700000  |           | 20000  | 6500   | ug/L | 10      |   | 6010C  | Dissolved |
| Vanadium          | 12      | J         | 100    | 8.1    | ug/L | 1       |   | 6010C  | Dissolved |
| Zinc              | 1100    | B         | 40     | 10     | ug/L | 1       |   | 6010C  | Dissolved |
| Zinc              | 1200    | B         | 400    | 100    | ug/L | 10      |   | 6010C  | Dissolved |
| Iodide            | 11      |           | 1.0    | 0.10   | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity        | 2500    | B         | 25     | 2.7    | mg/L | 5       |   | 310.1  | Total/NA  |
| Nitrate as N - DL | 0.010   | J         | 0.040  | 0.0080 | mg/L | 2       |   | 300.0  | Total/NA  |
| Sulfate - DL      | 1.1     |           | 1.0    | 0.10   | mg/L | 2       |   | 300.0  | Total/NA  |
| Bromide - DL2     | 11      |           | 5.0    | 0.50   | mg/L | 20      |   | 300.0  | Total/NA  |
| Chloride - DL4    | 1700    |           | 400    | 40     | mg/L | 2000    |   | 300.0  | Total/NA  |

**Client Sample ID: PZ-103-SS**

**Lab Sample ID: 160-3052-3**

| Analyte             | Result | Qualifier | RL  | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|---------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| Benzene             | 140    |           | 5.0 | 0.25 | ug/L | 1       |   | 8260C  | Total/NA  |
| 1,4-Dichlorobenzene | 9.8    |           | 5.0 | 0.35 | ug/L | 1       |   | 8260C  | Total/NA  |
| Ethylbenzene        | 7.9    |           | 5.0 | 0.30 | ug/L | 1       |   | 8260C  | Total/NA  |
| Isopropylbenzene    | 1.3    | J         | 5.0 | 0.26 | ug/L | 1       |   | 8260C  | Total/NA  |
| Styrene             | 0.98   | J         | 5.0 | 0.35 | ug/L | 1       |   | 8260C  | Total/NA  |
| Toluene             | 17     |           | 5.0 | 1.0  | ug/L | 1       |   | 8260C  | Total/NA  |
| m-Xylene & p-Xylene | 16     |           | 5.0 | 0.57 | ug/L | 1       |   | 8260C  | Total/NA  |
| o-Xylene            | 8.8    |           | 5.0 | 0.32 | ug/L | 1       |   | 8260C  | Total/NA  |
| Xylenes, Total      | 25     |           | 10  | 0.85 | ug/L | 1       |   | 8260C  | Total/NA  |
| Aluminum            | 21000  |           | 200 | 80   | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony            | 5.7    | J         | 10  | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic             | 12     |           | 10  | 2.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium              | 610    |           | 50  | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Beryllium           | 1.3    | J         | 5.0 | 0.61 | ug/L | 1       |   | 6010C  | Total/NA  |
| Cadmium             | 3.3    | J         | 5.0 | 0.91 | ug/L | 1       |   | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

## Detection Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-103-SS (Continued)**

**Lab Sample ID: 160-3052-3**

| Analyte       | Result | Qualifier | RL    | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|---------------|--------|-----------|-------|-------|------|---------|---|--------|-----------|
| Calcium       | 170000 | E         | 1000  | 110   | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium       | 210000 |           | 10000 | 1100  | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium      | 40     |           | 10    | 3.1   | ug/L | 1       |   | 6010C  | Total/NA  |
| Cobalt        | 15     | J         | 50    | 4.0   | ug/L | 1       |   | 6010C  | Total/NA  |
| Copper        | 21     | J         | 25    | 4.6   | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron          | 40000  |           | 100   | 28    | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron          | 39000  |           | 1000  | 280   | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead          | 23     |           | 10    | 1.5   | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium     | 58000  | E         | 1000  | 130   | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium     | 57000  |           | 10000 | 1300  | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese     | 470    |           | 15    | 3.3   | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel        | 81     |           | 40    | 13    | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium     | 8300   |           | 5000  | 1700  | ug/L | 1       |   | 6010C  | Total/NA  |
| Silver        | 6.2    | J         | 10    | 6.0   | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium        | 77000  |           | 1000  | 320   | ug/L | 1       |   | 6010C  | Total/NA  |
| Vanadium      | 72     |           | 50    | 4.1   | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc          | 340    |           | 20    | 5.2   | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic       | 2.1    | J         | 10    | 2.0   | ug/L | 1       |   | 6010C  | Dissolved |
| Barium        | 400    |           | 50    | 4.0   | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 95000  | E         | 1000  | 110   | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 110000 |           | 10000 | 1100  | ug/L | 10      |   | 6010C  | Dissolved |
| Iron          | 11000  |           | 100   | 28    | ug/L | 1       |   | 6010C  | Dissolved |
| Iron          | 11000  |           | 1000  | 280   | ug/L | 10      |   | 6010C  | Dissolved |
| Lead          | 2.7    | J         | 10    | 1.5   | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium     | 56000  | E         | 1000  | 130   | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium     | 58000  |           | 10000 | 1300  | ug/L | 10      |   | 6010C  | Dissolved |
| Manganese     | 270    | B         | 15    | 3.3   | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium     | 4500   | J         | 5000  | 1700  | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium        | 91000  |           | 1000  | 320   | ug/L | 1       |   | 6010C  | Dissolved |
| Mercury       | 0.067  | J         | 0.20  | 0.060 | ug/L | 1       |   | 7470A  | Total/NA  |
| Bromide       | 0.037  | J         | 0.25  | 0.025 | mg/L | 1       |   | 300.0  | Total/NA  |
| Sulfate       | 16     |           | 0.50  | 0.050 | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity    | 690    | B         | 5.0   | 0.54  | mg/L | 1       |   | 310.1  | Total/NA  |
| Chloride - DL | 7.7    |           | 4.0   | 0.40  | mg/L | 20      |   | 300.0  | Total/NA  |

**Client Sample ID: PZ-102R-SS**

**Lab Sample ID: 160-3052-4**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|------|------|---------|---|--------|-----------|
| Aluminum  | 2400   |           | 200   | 80   | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium    | 76     |           | 50    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium   | 110000 | E         | 1000  | 110  | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium   | 130000 |           | 10000 | 1100 | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium  | 4.1    | J         | 10    | 3.1  | ug/L | 1       |   | 6010C  | Total/NA  |
| Cobalt    | 4.0    | J         | 50    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron      | 1800   |           | 100   | 28   | ug/L | 1       |   | 6010C  | Total/NA  |
| Lead      | 3.7    | J         | 10    | 1.5  | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium | 41000  |           | 1000  | 130  | ug/L | 1       |   | 6010C  | Total/NA  |
| Manganese | 39     |           | 15    | 3.3  | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium | 3600   | J         | 5000  | 1700 | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium    | 26000  |           | 1000  | 320  | ug/L | 1       |   | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

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## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Client Sample ID: PZ-102R-SS (Continued)

Lab Sample ID: 160-3052-4

| Analyte       | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|---------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| Zinc          | 29     |           | 20    | 5.2    | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium        | 73     |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 110000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 120000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Dissolved |
| Magnesium     | 42000  |           | 1000  | 130    | ug/L | 1       |   | 6010C  | Dissolved |
| Manganese     | 23     | B         | 15    | 3.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium     | 3500   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium        | 26000  |           | 1000  | 320    | ug/L | 1       |   | 6010C  | Dissolved |
| Zinc          | 14     | J B       | 20    | 5.2    | ug/L | 1       |   | 6010C  | Dissolved |
| Nitrate as N  | 0.10   |           | 0.020 | 0.0040 | mg/L | 1       |   | 300.0  | Total/NA  |
| Bromide       | 0.031  | J         | 0.25  | 0.025  | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity    | 450    | B         | 5.0   | 0.54   | mg/L | 1       |   | 310.1  | Total/NA  |
| Chloride - DL | 7.3    |           | 4.0   | 0.40   | mg/L | 20      |   | 300.0  | Total/NA  |
| Sulfate - DL  | 65     |           | 10    | 1.0    | mg/L | 20      |   | 300.0  | Total/NA  |

### Client Sample ID: PZ-200-SS

Lab Sample ID: 160-3052-5

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|------|------|---------|---|--------|-----------|
| Aluminum  | 830    |           | 200   | 80   | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony  | 5.2    | J         | 10    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic   | 27     |           | 10    | 2.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium    | 880    |           | 50    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium   | 180000 | E         | 1000  | 110  | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium   | 230000 |           | 10000 | 1100 | ug/L | 10      |   | 6010C  | Total/NA  |
| Cobalt    | 29     | J         | 50    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Copper    | 13     | J         | 25    | 4.6  | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron      | 31000  |           | 100   | 28   | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron      | 32000  |           | 1000  | 280  | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead      | 6.0    | J         | 10    | 1.5  | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium | 99000  | E         | 1000  | 130  | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium | 100000 |           | 10000 | 1300 | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese | 7300   |           | 15    | 3.3  | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel    | 140    |           | 40    | 13   | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium | 2100   | J         | 5000  | 1700 | ug/L | 1       |   | 6010C  | Total/NA  |
| Selenium  | 7.1    | J         | 15    | 2.7  | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium    | 18000  |           | 1000  | 320  | ug/L | 1       |   | 6010C  | Total/NA  |
| Thallium  | 7.3    | J         | 20    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Vanadium  | 9.5    | J         | 50    | 4.1  | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc      | 24     |           | 20    | 5.2  | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony  | 4.9    | J         | 10    | 4.0  | ug/L | 1       |   | 6010C  | Dissolved |
| Arsenic   | 3.8    | J         | 10    | 2.0  | ug/L | 1       |   | 6010C  | Dissolved |
| Barium    | 850    |           | 50    | 4.0  | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium   | 180000 | E         | 1000  | 110  | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium   | 210000 |           | 10000 | 1100 | ug/L | 10      |   | 6010C  | Dissolved |
| Iron      | 7200   |           | 100   | 28   | ug/L | 1       |   | 6010C  | Dissolved |
| Iron      | 7300   |           | 1000  | 280  | ug/L | 10      |   | 6010C  | Dissolved |
| Lead      | 3.9    | J         | 10    | 1.5  | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium | 99000  | E         | 1000  | 130  | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium | 98000  |           | 10000 | 1300 | ug/L | 10      |   | 6010C  | Dissolved |
| Manganese | 6800   | B         | 15    | 3.3  | ug/L | 1       |   | 6010C  | Dissolved |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Client Sample ID: PZ-200-SS (Continued)

Lab Sample ID: 160-3052-5

| Analyte        | Result | Qualifier | RL   | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|------|-------|------|---------|---|--------|-----------|
| Potassium      | 1900   | J         | 5000 | 1700  | ug/L | 1       |   | 6010C  | Dissolved |
| Selenium       | 5.0    | J         | 15   | 2.7   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium         | 18000  |           | 1000 | 320   | ug/L | 1       |   | 6010C  | Dissolved |
| Thallium       | 5.9    | J ^       | 20   | 4.0   | ug/L | 1       |   | 6010C  | Dissolved |
| Bromide        | 0.16   | J         | 0.25 | 0.025 | mg/L | 1       |   | 300.0  | Total/NA  |
| Sulfate        | 17     |           | 0.50 | 0.050 | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity     | 820    | B         | 5.0  | 0.54  | mg/L | 1       |   | 310.1  | Total/NA  |
| Chloride - DL2 | 110    |           | 20   | 2.0   | mg/L | 100     |   | 300.0  | Total/NA  |

### Client Sample ID: PZ-102-SS

Lab Sample ID: 160-3052-6

| Analyte       | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|---------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| Aluminum      | 21000  |           | 200   | 80     | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony      | 5.9    | J         | 10    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic       | 14     |           | 10    | 2.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium        | 790    |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Beryllium     | 1.1    | J         | 5.0   | 0.61   | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium       | 130000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium       | 170000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium      | 25     |           | 10    | 3.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Cobalt        | 16     | J         | 50    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Copper        | 17     | J         | 25    | 4.6    | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron          | 27000  |           | 100   | 28     | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron          | 30000  |           | 1000  | 280    | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead          | 23     |           | 10    | 1.5    | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium     | 54000  | E         | 1000  | 130    | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium     | 58000  |           | 10000 | 1300   | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese     | 1200   |           | 15    | 3.3    | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel        | 57     |           | 40    | 13     | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium     | 8100   |           | 5000  | 1700   | ug/L | 1       |   | 6010C  | Total/NA  |
| Selenium      | 3.4    | J         | 15    | 2.7    | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium        | 29000  |           | 1000  | 320    | ug/L | 1       |   | 6010C  | Total/NA  |
| Vanadium      | 47     | J         | 50    | 4.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc          | 100    |           | 20    | 5.2    | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony      | 5.5    | J         | 10    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Arsenic       | 4.0    | J         | 10    | 2.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Barium        | 360    |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 100000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 110000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Dissolved |
| Iron          | 1700   |           | 100   | 28     | ug/L | 1       |   | 6010C  | Dissolved |
| Lead          | 2.5    | J         | 10    | 1.5    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium     | 40000  |           | 1000  | 130    | ug/L | 1       |   | 6010C  | Dissolved |
| Manganese     | 190    | B         | 15    | 3.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium     | 3300   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium        | 27000  |           | 1000  | 320    | ug/L | 1       |   | 6010C  | Dissolved |
| Nitrate as N  | 0.031  |           | 0.020 | 0.0040 | mg/L | 1       |   | 300.0  | Total/NA  |
| Bromide       | 0.032  | J         | 0.25  | 0.025  | mg/L | 1       |   | 300.0  | Total/NA  |
| Sulfate       | 20     |           | 0.50  | 0.050  | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity    | 520    | B         | 5.0   | 0.54   | mg/L | 1       |   | 310.1  | Total/NA  |
| Chloride - DL | 4.7    |           | 4.0   | 0.40   | mg/L | 20      |   | 300.0  | Total/NA  |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

# Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-107-SS**

**Lab Sample ID: 160-3052-7**

| Analyte                 | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| Benzene                 | 0.95   | J         | 5.0   | 0.25   | ug/L | 1       |   | 8260C  | Total/NA  |
| Dichlorodifluoromethane | 14     |           | 10    | 0.45   | ug/L | 1       |   | 8260C  | Total/NA  |
| Methylene Chloride      | 2.5    | J         | 5.0   | 1.7    | ug/L | 1       |   | 8260C  | Total/NA  |
| Aluminum                | 15000  |           | 200   | 80     | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony                | 4.9    | J         | 10    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic                 | 6.5    | J         | 10    | 2.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium                  | 720    |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Beryllium               | 1.0    | J         | 5.0   | 0.61   | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium                 | 210000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium                 | 270000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium                | 15     |           | 10    | 3.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Cobalt                  | 4.1    | J         | 50    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Copper                  | 9.3    | J         | 25    | 4.6    | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                    | 10000  |           | 100   | 28     | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                    | 11000  |           | 1000  | 280    | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead                    | 18     |           | 10    | 1.5    | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium               | 120000 | E         | 1000  | 130    | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium               | 120000 |           | 10000 | 1300   | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese               | 240    |           | 15    | 3.3    | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel                  | 52     |           | 40    | 13     | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium               | 4900   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Total/NA  |
| Selenium                | 2.7    | J         | 15    | 2.7    | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                  | 110000 | E         | 1000  | 320    | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                  | 110000 |           | 10000 | 3200   | ug/L | 10      |   | 6010C  | Total/NA  |
| Vanadium                | 18     | J         | 50    | 4.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc                    | 130    |           | 20    | 5.2    | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic                 | 3.2    | J         | 10    | 2.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Barium                  | 620    |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium                 | 190000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium                 | 240000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Dissolved |
| Iron                    | 1400   |           | 100   | 28     | ug/L | 1       |   | 6010C  | Dissolved |
| Iron                    | 1500   |           | 1000  | 280    | ug/L | 10      |   | 6010C  | Dissolved |
| Lead                    | 2.8    | J         | 10    | 1.5    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium               | 110000 | E         | 1000  | 130    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium               | 120000 |           | 10000 | 1300   | ug/L | 10      |   | 6010C  | Dissolved |
| Manganese               | 170    | B         | 15    | 3.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Nickel                  | 41     |           | 40    | 13     | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium               | 4100   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium                  | 110000 | E         | 1000  | 320    | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium                  | 120000 |           | 10000 | 3200   | ug/L | 10      |   | 6010C  | Dissolved |
| Vanadium                | 4.5    | J         | 50    | 4.1    | ug/L | 1       |   | 6010C  | Dissolved |
| Zinc                    | 11     | J B       | 20    | 5.2    | ug/L | 1       |   | 6010C  | Dissolved |
| Mercury                 | 0.11   | J         | 0.20  | 0.060  | ug/L | 1       |   | 7470A  | Total/NA  |
| Nitrate as N            | 0.020  |           | 0.020 | 0.0040 | mg/L | 1       |   | 300.0  | Total/NA  |
| Bromide                 | 2.1    |           | 0.25  | 0.025  | mg/L | 1       |   | 300.0  | Total/NA  |
| Iodide                  | 0.65   | J         | 1.0   | 0.10   | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity              | 840    | B         | 5.0   | 0.54   | mg/L | 1       |   | 310.1  | Total/NA  |
| Sulfate - DL            | 51     |           | 10    | 1.0    | mg/L | 20      |   | 300.0  | Total/NA  |
| Chloride - DL2          | 300    |           | 20    | 2.0    | mg/L | 100     |   | 300.0  | Total/NA  |

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This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis



## Detection Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-106-KS**

**Lab Sample ID: 160-3052-8**

| Analyte       | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|---------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| Barium        | 46     | J         | 50    | 4.0    | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium       | 58000  | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium       | 62000  |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium      | 5.7    | J         | 10    | 3.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron          | 250    |           | 100   | 28     | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium     | 37000  |           | 1000  | 130    | ug/L | 1       |   | 6010C  | Total/NA  |
| Manganese     | 5.0    | J         | 15    | 3.3    | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium     | 2100   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium        | 64000  |           | 1000  | 320    | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc          | 7.8    | J         | 20    | 5.2    | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium        | 44     | J         | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 53000  | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium       | 56000  |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Dissolved |
| Cobalt        | 4.6    | J         | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Iron          | 220    |           | 100   | 28     | ug/L | 1       |   | 6010C  | Dissolved |
| Lead          | 2.1    | J         | 10    | 1.5    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium     | 36000  |           | 1000  | 130    | ug/L | 1       |   | 6010C  | Dissolved |
| Manganese     | 4.1    | J B       | 15    | 3.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium     | 2000   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium        | 61000  |           | 1000  | 320    | ug/L | 1       |   | 6010C  | Dissolved |
| Nitrate as N  | 0.0092 | J         | 0.020 | 0.0040 | mg/L | 1       |   | 300.0  | Total/NA  |
| Bromide       | 0.056  | J         | 0.25  | 0.025  | mg/L | 1       |   | 300.0  | Total/NA  |
| Sulfate       | 12     |           | 0.50  | 0.050  | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity    | 410    | B         | 5.0   | 0.54   | mg/L | 1       |   | 310.1  | Total/NA  |
| Chloride - DL | 14     |           | 4.0   | 0.40   | mg/L | 20      |   | 300.0  | Total/NA  |

**Client Sample ID: DUPLICATE 08**

**Lab Sample ID: 160-3052-9**

| Analyte                 | Result | Qualifier | RL    | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------|--------|-----------|-------|------|------|---------|---|--------|-----------|
| Dichlorodifluoromethane | 15     |           | 10    | 0.45 | ug/L | 1       |   | 8260C  | Total/NA  |
| Aluminum                | 16000  |           | 200   | 80   | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony                | 4.4    | J         | 10    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Arsenic                 | 6.2    | J         | 10    | 2.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Barium                  | 730    |           | 50    | 4.0  | ug/L | 1       |   | 6010C  | Total/NA  |
| Beryllium               | 1.0    | J         | 5.0   | 0.61 | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium                 | 210000 | E         | 1000  | 110  | ug/L | 1       |   | 6010C  | Total/NA  |
| Calcium                 | 260000 |           | 10000 | 1100 | ug/L | 10      |   | 6010C  | Total/NA  |
| Chromium                | 13     |           | 10    | 3.1  | ug/L | 1       |   | 6010C  | Total/NA  |
| Copper                  | 8.1    | J         | 25    | 4.6  | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                    | 11000  |           | 100   | 28   | ug/L | 1       |   | 6010C  | Total/NA  |
| Iron                    | 11000  |           | 1000  | 280  | ug/L | 10      |   | 6010C  | Total/NA  |
| Lead                    | 18     |           | 10    | 1.5  | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium               | 120000 | E         | 1000  | 130  | ug/L | 1       |   | 6010C  | Total/NA  |
| Magnesium               | 120000 |           | 10000 | 1300 | ug/L | 10      |   | 6010C  | Total/NA  |
| Manganese               | 240    |           | 15    | 3.3  | ug/L | 1       |   | 6010C  | Total/NA  |
| Nickel                  | 50     |           | 40    | 13   | ug/L | 1       |   | 6010C  | Total/NA  |
| Potassium               | 4900   | J         | 5000  | 1700 | ug/L | 1       |   | 6010C  | Total/NA  |
| Selenium                | 2.8    | J         | 15    | 2.7  | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                  | 110000 | E         | 1000  | 320  | ug/L | 1       |   | 6010C  | Total/NA  |
| Sodium                  | 110000 |           | 10000 | 3200 | ug/L | 10      |   | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

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## Detection Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Client Sample ID: DUPLICATE 08 (Continued)

### Lab Sample ID: 160-3052-9

| Analyte        | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| Vanadium       | 18     | J         | 50    | 4.1    | ug/L | 1       |   | 6010C  | Total/NA  |
| Zinc           | 120    |           | 20    | 5.2    | ug/L | 1       |   | 6010C  | Total/NA  |
| Antimony       | 4.1    | J         | 10    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Arsenic        | 2.6    | J         | 10    | 2.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Barium         | 640    |           | 50    | 4.0    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium        | 190000 | E         | 1000  | 110    | ug/L | 1       |   | 6010C  | Dissolved |
| Calcium        | 250000 |           | 10000 | 1100   | ug/L | 10      |   | 6010C  | Dissolved |
| Chromium       | 3.1    | J         | 10    | 3.1    | ug/L | 1       |   | 6010C  | Dissolved |
| Iron           | 1400   |           | 100   | 28     | ug/L | 1       |   | 6010C  | Dissolved |
| Iron           | 1500   |           | 1000  | 280    | ug/L | 10      |   | 6010C  | Dissolved |
| Lead           | 2.8    | J         | 10    | 1.5    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium      | 120000 | E         | 1000  | 130    | ug/L | 1       |   | 6010C  | Dissolved |
| Magnesium      | 120000 |           | 10000 | 1300   | ug/L | 10      |   | 6010C  | Dissolved |
| Manganese      | 170    | B         | 15    | 3.3    | ug/L | 1       |   | 6010C  | Dissolved |
| Nickel         | 42     |           | 40    | 13     | ug/L | 1       |   | 6010C  | Dissolved |
| Potassium      | 4200   | J         | 5000  | 1700   | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium         | 120000 | E         | 1000  | 320    | ug/L | 1       |   | 6010C  | Dissolved |
| Sodium         | 120000 |           | 10000 | 3200   | ug/L | 10      |   | 6010C  | Dissolved |
| Vanadium       | 6.1    | J         | 50    | 4.1    | ug/L | 1       |   | 6010C  | Dissolved |
| Zinc           | 9.4    | J B       | 20    | 5.2    | ug/L | 1       |   | 6010C  | Dissolved |
| Mercury        | 0.078  | J         | 0.20  | 0.060  | ug/L | 1       |   | 7470A  | Total/NA  |
| Nitrate as N   | 0.012  | J         | 0.020 | 0.0040 | mg/L | 1       |   | 300.0  | Total/NA  |
| Bromide        | 2.1    |           | 0.25  | 0.025  | mg/L | 1       |   | 300.0  | Total/NA  |
| Iodide         | 0.64   | J         | 1.0   | 0.10   | mg/L | 1       |   | 300.0  | Total/NA  |
| Alkalinity     | 830    | B         | 5.0   | 0.54   | mg/L | 1       |   | 310.1  | Total/NA  |
| Sulfate - DL   | 52     |           | 10    | 1.0    | mg/L | 20      |   | 300.0  | Total/NA  |
| Chloride - DL2 | 300    |           | 20    | 2.0    | mg/L | 100     |   | 300.0  | Total/NA  |

### Client Sample ID: TRIP BLANK

### Lab Sample ID: 160-3052-10

No Detections.

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This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: FIELD BLANK @ I-73**

**Lab Sample ID: 160-3052-1**

**Date Collected: 07/19/13 08:50**

**Matrix: Water**

**Date Received: 07/19/13 14:10**

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/23/13 19:42 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Acetone                     | ND     |           | 20  | 6.7  | ug/L |   |          | 07/23/13 19:42 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Bromodichloromethane        | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Bromoform                   | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Bromomethane                | ND     |           | 10  | 0.40 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Carbon disulfide            | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Chloroethane                | ND     |           | 10  | 0.38 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Chloromethane               | ND     |           | 10  | 0.55 | ug/L |   |          | 07/23/13 19:42 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/23/13 19:42 | 1       |
| cis-1,3-Dichloropropene     | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Cyclohexane                 | ND     |           | 10  | 0.36 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Dibromochloromethane        | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Dichlorodifluoromethane     | ND     |           | 10  | 0.45 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Methyl acetate              | ND     |           | 25  | 2.3  | ug/L |   |          | 07/23/13 19:42 | 1       |
| Methyl tert-butyl ether     | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Methylcyclohexane           | ND     |           | 10  | 0.26 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/23/13 19:42 | 1       |
| m-Xylene & p-Xylene         | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 19:42 | 1       |
| o-Xylene                    | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Styrene                     | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Toluene                     | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/23/13 19:42 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/23/13 19:42 | 1       |
| trans-1,3-Dichloropropene   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Trichlorofluoromethane      | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 19:42 | 1       |
| Xylenes, Total              | ND     |           | 10  | 0.85 | ug/L |   |          | 07/23/13 19:42 | 1       |

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TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: FIELD BLANK @ I-73**

**Lab Sample ID: 160-3052-1**

Date Collected: 07/19/13 08:50

Matrix: Water

Date Received: 07/19/13 14:10

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 82 - 132 |          | 07/23/13 19:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 82 - 121 |          | 07/23/13 19:42 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 85 - 119 |          | 07/23/13 19:42 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 85 - 115 |          | 07/23/13 19:42 | 1       |

**Client Sample ID: I-73**

**Lab Sample ID: 160-3052-2**

Date Collected: 07/19/13 08:55

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                               | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                               | 90     |           | 20  | 6.7  | ug/L |   |          | 07/23/13 20:56 | 1       |
| Benzene                               | 57     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Bromodichloromethane                  | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Bromoform                             | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Bromomethane                          | ND     |           | 10  | 0.40 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 2-Butanone (MEK)                      | 82     |           | 20  | 0.39 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Carbon disulfide                      | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Carbon tetrachloride                  | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Chlorobenzene                         | 42     |           | 5.0 | 0.38 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Dibromochloromethane                  | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Chloroethane                          | ND     |           | 10  | 0.38 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Chloroform                            | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Chloromethane                         | ND     |           | 10  | 0.55 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Cyclohexane                           | ND     |           | 10  | 0.36 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,2-Dibromo-3-Chloropropane           | ND     |           | 10  | 1.2  | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,2-Dibromoethane (EDB)               | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,2-Dichlorobenzene                   | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,3-Dichlorobenzene                   | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,4-Dichlorobenzene                   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Dichlorodifluoromethane               | ND     |           | 10  | 0.45 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,1-Dichloroethane                    | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,2-Dichloroethane                    | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 20:56 | 1       |
| cis-1,2-Dichloroethene                | 2.5    | J         | 5.0 | 0.16 | ug/L |   |          | 07/23/13 20:56 | 1       |
| trans-1,2-Dichloroethene              | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,1-Dichloroethene                    | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,2-Dichloropropane                   | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 20:56 | 1       |
| cis-1,3-Dichloropropene               | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/23/13 20:56 | 1       |
| trans-1,3-Dichloropropene             | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Ethylbenzene                          | 2.8    | J         | 5.0 | 0.30 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 2-Hexanone                            | ND     |           | 20  | 0.59 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Isopropylbenzene                      | 1.4    | J         | 5.0 | 0.26 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Methyl acetate                        | ND     |           | 25  | 2.3  | ug/L |   |          | 07/23/13 20:56 | 1       |
| Methylcyclohexane                     | ND     |           | 10  | 0.26 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Methylene Chloride                    | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/23/13 20:56 | 1       |
| 4-Methyl-2-pentanone (MIBK)           | 32     |           | 20  | 0.33 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Methyl tert-butyl ether               | 1.4    | J         | 5.0 | 0.40 | ug/L |   |          | 07/23/13 20:56 | 1       |
| Styrene                               | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 20:56 | 1       |
| 1,1,2,2-Tetrachloroethane             | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 20:56 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: I-73**

**Lab Sample ID: 160-3052-2**

Date Collected: 07/19/13 08:55

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                             | Result           | Qualifier        | RL            | MDL  | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------------|------------------|------------------|---------------|------|------|---|-----------------|-----------------|----------------|
| Tetrachloroethene                   | ND               |                  | 5.0           | 0.28 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| <b>Toluene</b>                      | <b>10</b>        |                  | 5.0           | 1.0  | ug/L |   |                 | 07/23/13 20:56  | 1              |
| 1,2,4-Trichlorobenzene              | ND               |                  | 5.0           | 0.55 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| 1,1,1-Trichloroethane               | ND               |                  | 5.0           | 0.29 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| 1,1,2-Trichloroethane               | ND               |                  | 5.0           | 0.57 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| Trichloroethene                     | ND               |                  | 5.0           | 0.29 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| Trichlorofluoromethane              | ND               |                  | 5.0           | 0.22 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| Vinyl chloride                      | ND               |                  | 5.0           | 0.43 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| <b>m-Xylene &amp; p-Xylene</b>      | <b>3.1 J</b>     |                  | 5.0           | 0.57 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| <b>o-Xylene</b>                     | <b>1.7 J</b>     |                  | 5.0           | 0.32 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| <b>Xylenes, Total</b>               | <b>4.8 J</b>     |                  | 10            | 0.85 | ug/L |   |                 | 07/23/13 20:56  | 1              |
| <i>Surrogate</i>                    | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |      |      |   | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| <i>4-Bromofluorobenzene (Surr)</i>  | 85               |                  | 82 - 121      |      |      |   |                 | 07/23/13 20:56  | 1              |
| <i>1,2-Dichloroethane-d4 (Surr)</i> | 99               |                  | 82 - 132      |      |      |   |                 | 07/23/13 20:56  | 1              |
| <i>Toluene-d8 (Surr)</i>            | 103              |                  | 85 - 115      |      |      |   |                 | 07/23/13 20:56  | 1              |
| <i>Dibromofluoromethane (Surr)</i>  | 103              |                  | 85 - 119      |      |      |   |                 | 07/23/13 20:56  | 1              |

**Method: 6010C - Metals (ICP)**

| Analyte          | Result           | Qualifier | RL     | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|------------------|-----------|--------|-------|------|---|----------------|----------------|---------|
| <b>Aluminum</b>  | <b>9600</b>      |           | 400    | 160   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Aluminum</b>  | <b>9800</b>      |           | 4000   | 1600  | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Antimony</b>  | <b>14 J</b>      |           | 20     | 7.9   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Antimony         | ND               |           | 200    | 79    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Arsenic</b>   | <b>130</b>       |           | 20     | 3.9   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Arsenic</b>   | <b>110 J</b>     |           | 200    | 39    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Barium</b>    | <b>3100</b>      |           | 100    | 7.9   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Barium</b>    | <b>3100</b>      |           | 1000   | 79    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| Beryllium        | ND               |           | 10     | 1.2   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Beryllium        | ND               |           | 100    | 12    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| Cadmium          | ND               |           | 10     | 1.8   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Cadmium          | ND               |           | 100    | 18    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Calcium</b>   | <b>730000 E</b>  |           | 2000   | 210   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Calcium</b>   | <b>1000000 E</b> |           | 20000  | 2100  | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Calcium</b>   | <b>1200000</b>   |           | 100000 | 11000 | ug/L |   | 07/25/13 11:42 | 07/29/13 12:31 | 50      |
| <b>Chromium</b>  | <b>12 J</b>      |           | 20     | 6.3   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Chromium</b>  | <b>100 J</b>     |           | 200    | 63    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Cobalt</b>    | <b>87 J</b>      |           | 100    | 7.9   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Cobalt</b>    | <b>190 J</b>     |           | 1000   | 79    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Copper</b>    | <b>32 J</b>      |           | 50     | 9.1   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Copper           | ND               |           | 500    | 91    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Iron</b>      | <b>150000</b>    |           | 200    | 56    | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Iron</b>      | <b>150000</b>    |           | 2000   | 560   | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Lead</b>      | <b>58</b>        |           | 20     | 3.0   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Lead</b>      | <b>88 J</b>      |           | 200    | 30    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Magnesium</b> | <b>260000 E</b>  |           | 2000   | 260   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Magnesium</b> | <b>270000</b>    |           | 20000  | 2600  | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Manganese</b> | <b>3700</b>      |           | 30     | 6.6   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Manganese</b> | <b>3800</b>      |           | 300    | 66    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Nickel</b>    | <b>360</b>       |           | 80     | 27    | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: I-73**

**Lab Sample ID: 160-3052-2**

Date Collected: 07/19/13 08:55

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) (Continued)**

| Analyte          | Result        | Qualifier | RL     | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|---------------|-----------|--------|-------|------|---|----------------|----------------|---------|
| <b>Nickel</b>    | <b>420</b>    | <b>J</b>  | 800    | 270   | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Potassium</b> | <b>22000</b>  |           | 10000  | 3300  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Potassium        | ND            |           | 100000 | 33000 | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Selenium</b>  | <b>15</b>     | <b>J</b>  | 30     | 5.3   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Selenium         | ND            |           | 300    | 53    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| Silver           | ND            |           | 20     | 12    | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Silver           | ND            |           | 200    | 120   | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Sodium</b>    | <b>690000</b> | <b>E</b>  | 2000   | 650   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Sodium</b>    | <b>690000</b> |           | 20000  | 6500  | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| Thallium         | ND            |           | 40     | 7.9   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Thallium         | ND            |           | 400    | 79    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Vanadium</b>  | <b>25</b>     | <b>J</b>  | 100    | 8.1   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| Vanadium         | ND            |           | 1000   | 81    | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |
| <b>Zinc</b>      | <b>4700</b>   |           | 40     | 10    | ug/L |   | 07/25/13 11:42 | 07/26/13 17:51 | 1       |
| <b>Zinc</b>      | <b>5100</b>   |           | 400    | 100   | ug/L |   | 07/25/13 11:42 | 07/26/13 19:31 | 10      |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte          | Result         | Qualifier | RL     | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|----------------|-----------|--------|-------|------|---|----------------|----------------|---------|
| Aluminum         | ND             |           | 400    | 160   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Aluminum         | ND             |           | 4000   | 1600  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Antimony</b>  | <b>13</b>      | <b>J</b>  | 20     | 7.9   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Antimony         | ND             |           | 200    | 79    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Arsenic</b>   | <b>130</b>     |           | 20     | 3.9   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Arsenic</b>   | <b>130</b>     | <b>J</b>  | 200    | 39    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Barium</b>    | <b>3100</b>    |           | 100    | 7.9   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Barium</b>    | <b>3200</b>    |           | 1000   | 79    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| Beryllium        | ND             |           | 10     | 1.2   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Beryllium        | ND             |           | 100    | 12    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| Cadmium          | ND             |           | 10     | 1.8   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Cadmium          | ND             |           | 100    | 18    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Calcium</b>   | <b>720000</b>  | <b>E</b>  | 2000   | 210   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Calcium</b>   | <b>1000000</b> |           | 20000  | 2100  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Calcium</b>   | <b>1100000</b> |           | 100000 | 11000 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:59 | 50      |
| Chromium         | ND             |           | 20     | 6.3   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Chromium         | ND             |           | 200    | 63    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Cobalt</b>    | <b>82</b>      | <b>J</b>  | 100    | 7.9   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Cobalt</b>    | <b>190</b>     | <b>J</b>  | 1000   | 79    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| Copper           | ND             |           | 50     | 9.1   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Copper           | ND             |           | 500    | 91    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Iron</b>      | <b>140000</b>  |           | 200    | 56    | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Iron</b>      | <b>140000</b>  |           | 2000   | 560   | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Lead</b>      | <b>10</b>      | <b>J</b>  | 20     | 3.0   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Lead</b>      | <b>38</b>      | <b>J</b>  | 200    | 30    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Magnesium</b> | <b>270000</b>  | <b>E</b>  | 2000   | 260   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Magnesium</b> | <b>280000</b>  |           | 20000  | 2600  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Manganese</b> | <b>3600</b>    | <b>B</b>  | 30     | 6.6   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Manganese</b> | <b>3800</b>    | <b>B</b>  | 300    | 66    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Nickel</b>    | <b>340</b>     |           | 80     | 27    | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Nickel</b>    | <b>390</b>     | <b>J</b>  | 800    | 270   | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Potassium</b> | <b>20000</b>   |           | 10000  | 3300  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: I-73**

**Lab Sample ID: 160-3052-2**

Date Collected: 07/19/13 08:55

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

| Analyte         | Result        | Qualifier | RL     | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|---------------|-----------|--------|-------|------|---|----------------|----------------|---------|
| Potassium       | ND            |           | 100000 | 33000 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Selenium</b> | <b>11</b>     | <b>J</b>  | 30     | 5.3   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Selenium        | ND            |           | 300    | 53    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| Silver          | ND            |           | 20     | 12    | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Silver          | ND            |           | 200    | 120   | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Sodium</b>   | <b>700000</b> | <b>E</b>  | 2000   | 650   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Sodium</b>   | <b>700000</b> |           | 20000  | 6500  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| Thallium        | ND            | ^         | 40     | 7.9   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Thallium        | ND            | ^         | 400    | 79    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Vanadium</b> | <b>12</b>     | <b>J</b>  | 100    | 8.1   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| Vanadium        | ND            |           | 1000   | 81    | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |
| <b>Zinc</b>     | <b>1100</b>   | <b>B</b>  | 40     | 10    | ug/L |   | 07/25/13 11:37 | 07/29/13 21:22 | 1       |
| <b>Zinc</b>     | <b>1200</b>   | <b>B</b>  | 400    | 100   | ug/L |   | 07/25/13 11:37 | 07/29/13 23:01 | 10      |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:16 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:03 | 1       |

**General Chemistry**

| Analyte           | Result      | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| <b>Iodide</b>     | <b>11</b>   |           | 1.0 | 0.10 | mg/L |   |          | 07/24/13 16:48 | 1       |
| <b>Alkalinity</b> | <b>2500</b> | <b>B</b>  | 25  | 2.7  | mg/L |   |          | 07/30/13 09:42 | 5       |

**General Chemistry - DL**

| Analyte             | Result       | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------|--------------|-----------|-------|--------|------|---|----------|----------------|---------|
| <b>Nitrate as N</b> | <b>0.010</b> | <b>J</b>  | 0.040 | 0.0080 | mg/L |   |          | 07/20/13 01:30 | 2       |
| <b>Sulfate</b>      | <b>1.1</b>   |           | 1.0   | 0.10   | mg/L |   |          | 07/20/13 01:30 | 2       |

**General Chemistry - DL2**

| Analyte        | Result    | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|-----------|-----|------|------|---|----------|----------------|---------|
| <b>Bromide</b> | <b>11</b> |           | 5.0 | 0.50 | mg/L |   |          | 07/20/13 01:47 | 20      |

**General Chemistry - DL4**

| Analyte         | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Chloride</b> | <b>1700</b> |           | 400 | 40  | mg/L |   |          | 07/20/13 02:21 | 2000    |

**Client Sample ID: PZ-103-SS**

**Lab Sample ID: 160-3052-3**

Date Collected: 07/19/13 09:45

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte              | Result     | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone              | ND         |           | 20  | 6.7  | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Benzene</b>       | <b>140</b> |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Bromodichloromethane | ND         |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Bromoform            | ND         |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Bromomethane         | ND         |           | 10  | 0.40 | ug/L |   |          | 07/23/13 23:49 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-103-SS**

**Lab Sample ID: 160-3052-3**

Date Collected: 07/19/13 09:45

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                               | Result        | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|---------------|-----------|-----|------|------|---|----------|----------------|---------|
| 2-Butanone (MEK)                      | ND            |           | 20  | 0.39 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Carbon disulfide                      | ND            |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Carbon tetrachloride                  | ND            |           | 5.0 | 0.36 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Chlorobenzene                         | ND            |           | 5.0 | 0.38 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Dibromochloromethane                  | ND            |           | 5.0 | 0.33 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Chloroethane                          | ND            |           | 10  | 0.38 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Chloroform                            | ND            |           | 5.0 | 0.15 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Chloromethane                         | ND            |           | 10  | 0.55 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Cyclohexane                           | ND            |           | 10  | 0.36 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2-Dibromo-3-Chloropropane           | ND            |           | 10  | 1.2  | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2-Dibromoethane (EDB)               | ND            |           | 5.0 | 0.44 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2-Dichlorobenzene                   | ND            |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,3-Dichlorobenzene                   | ND            |           | 5.0 | 0.23 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>1,4-Dichlorobenzene</b>            | <b>9.8</b>    |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Dichlorodifluoromethane               | ND            |           | 10  | 0.45 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1-Dichloroethane                    | ND            |           | 5.0 | 0.39 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2-Dichloroethane                    | ND            |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 23:49 | 1       |
| cis-1,2-Dichloroethene                | ND            |           | 5.0 | 0.16 | ug/L |   |          | 07/23/13 23:49 | 1       |
| trans-1,2-Dichloroethene              | ND            |           | 5.0 | 0.18 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1-Dichloroethene                    | ND            |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2-Dichloropropane                   | ND            |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 23:49 | 1       |
| cis-1,3-Dichloropropene               | ND            |           | 5.0 | 0.34 | ug/L |   |          | 07/23/13 23:49 | 1       |
| trans-1,3-Dichloropropene             | ND            |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Ethylbenzene</b>                   | <b>7.9</b>    |           | 5.0 | 0.30 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND            |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 2-Hexanone                            | ND            |           | 20  | 0.59 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Isopropylbenzene</b>               | <b>1.3 J</b>  |           | 5.0 | 0.26 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Methyl acetate                        | ND            |           | 25  | 2.3  | ug/L |   |          | 07/23/13 23:49 | 1       |
| Methylcyclohexane                     | ND            |           | 10  | 0.26 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Methylene Chloride                    | ND            |           | 5.0 | 1.7  | ug/L |   |          | 07/23/13 23:49 | 1       |
| 4-Methyl-2-pentanone (MIBK)           | ND            |           | 20  | 0.33 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Methyl tert-butyl ether               | ND            |           | 5.0 | 0.40 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Styrene</b>                        | <b>0.98 J</b> |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1,2,2-Tetrachloroethane             | ND            |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Tetrachloroethene                     | ND            |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Toluene</b>                        | <b>17</b>     |           | 5.0 | 1.0  | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,2,4-Trichlorobenzene                | ND            |           | 5.0 | 0.55 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1,1-Trichloroethane                 | ND            |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 23:49 | 1       |
| 1,1,2-Trichloroethane                 | ND            |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Trichloroethene                       | ND            |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Trichlorofluoromethane                | ND            |           | 5.0 | 0.22 | ug/L |   |          | 07/23/13 23:49 | 1       |
| Vinyl chloride                        | ND            |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>m-Xylene &amp; p-Xylene</b>        | <b>16</b>     |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>o-Xylene</b>                       | <b>8.8</b>    |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 23:49 | 1       |
| <b>Xylenes, Total</b>                 | <b>25</b>     |           | 10  | 0.85 | ug/L |   |          | 07/23/13 23:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr)  | 94        |           | 82 - 121 |          | 07/23/13 23:49 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 82 - 132 |          | 07/23/13 23:49 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 85 - 115 |          | 07/23/13 23:49 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-103-SS**

**Lab Sample ID: 160-3052-3**

Date Collected: 07/19/13 09:45

Matrix: Water

Date Received: 07/19/13 14:10

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

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr) | 103       |           | 85 - 119 |          | 07/23/13 23:49 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | 21000  |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Antimony  | 5.7    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Arsenic   | 12     |           | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Barium    | 610    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Beryllium | 1.3    | J         | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Cadmium   | 3.3    | J         | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Calcium   | 170000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Calcium   | 210000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 19:53 | 10      |
| Chromium  | 40     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Cobalt    | 15     | J         | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Copper    | 21     | J         | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Iron      | 40000  |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Iron      | 39000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:42 | 07/26/13 19:53 | 10      |
| Lead      | 23     |           | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Magnesium | 58000  | E         | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Magnesium | 57000  |           | 10000 | 1300 | ug/L |   | 07/25/13 11:42 | 07/26/13 19:53 | 10      |
| Manganese | 470    |           | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Nickel    | 81     |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Potassium | 8300   |           | 5000  | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Selenium  | ND     |           | 15    | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Silver    | 6.2    | J         | 10    | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Sodium    | 77000  |           | 1000  | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Thallium  | ND     |           | 20    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Vanadium  | 72     |           | 50    | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |
| Zinc      | 340    |           | 20    | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:14 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND     |           | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Antimony  | ND     |           | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Arsenic   | 2.1    | J         | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Barium    | 400    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Calcium   | 95000  | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Calcium   | 110000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:16 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Iron      | 11000  |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Iron      | 11000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:16 | 10      |
| Lead      | 2.7    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Magnesium | 56000  | E         | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Magnesium | 58000  |           | 10000 | 1300 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:16 | 10      |
| Manganese | 270    | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-103-SS**

**Lab Sample ID: 160-3052-3**

Date Collected: 07/19/13 09:45

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

| Analyte          | Result       | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Nickel           | ND           |           | 40   | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| <b>Potassium</b> | <b>4500</b>  | <b>J</b>  | 5000 | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Selenium         | ND           |           | 15   | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Silver           | ND           |           | 10   | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| <b>Sodium</b>    | <b>91000</b> |           | 1000 | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Thallium         | ND           | ^         | 20   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Vanadium         | ND           |           | 50   | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |
| Zinc             | ND           |           | 20   | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:37 | 1       |

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

| Analyte        | Result       | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------|------|-------|------|---|----------------|----------------|---------|
| <b>Mercury</b> | <b>0.067</b> | <b>J</b>  | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:23 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:14 | 1       |

**General Chemistry**

| Analyte           | Result       | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------|--------------|-----------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N      | ND           |           | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 02:38 | 1       |
| <b>Bromide</b>    | <b>0.037</b> | <b>J</b>  | 0.25  | 0.025  | mg/L |   |          | 07/20/13 02:38 | 1       |
| <b>Sulfate</b>    | <b>16</b>    |           | 0.50  | 0.050  | mg/L |   |          | 07/20/13 02:38 | 1       |
| Iodide            | ND           |           | 1.0   | 0.10   | mg/L |   |          | 07/24/13 17:33 | 1       |
| <b>Alkalinity</b> | <b>690</b>   | <b>B</b>  | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

**General Chemistry - DL**

| Analyte         | Result     | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| <b>Chloride</b> | <b>7.7</b> |           | 4.0 | 0.40 | mg/L |   |          | 07/20/13 02:55 | 20      |

**Client Sample ID: PZ-102R-SS**

**Lab Sample ID: 160-3052-4**

Date Collected: 07/19/13 10:15

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/24/13 00:13 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/24/13 00:13 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102R-SS**

**Lab Sample ID: 160-3052-4**

Date Collected: 07/19/13 10:15

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                   | ND     |           | 20  | 6.7  | ug/L |   |          | 07/24/13 00:13 | 1       |
| Benzene                   | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Bromodichloromethane      | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Bromoform                 | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Bromomethane              | ND     |           | 10  | 0.40 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Carbon disulfide          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Carbon tetrachloride      | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Chlorobenzene             | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Chloroethane              | ND     |           | 10  | 0.38 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Chloroform                | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Chloromethane             | ND     |           | 10  | 0.55 | ug/L |   |          | 07/24/13 00:13 | 1       |
| cis-1,2-Dichloroethene    | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 00:13 | 1       |
| cis-1,3-Dichloropropene   | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Cyclohexane               | ND     |           | 10  | 0.36 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Dibromochloromethane      | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Dichlorodifluoromethane   | ND     |           | 10  | 0.45 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Ethylbenzene              | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Isopropylbenzene          | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Methyl acetate            | ND     |           | 25  | 2.3  | ug/L |   |          | 07/24/13 00:13 | 1       |
| Methyl tert-butyl ether   | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Methylcyclohexane         | ND     |           | 10  | 0.26 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Methylene Chloride        | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 00:13 | 1       |
| m-Xylene & p-Xylene       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 00:13 | 1       |
| o-Xylene                  | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Styrene                   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Tetrachloroethene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Toluene                   | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 00:13 | 1       |
| trans-1,2-Dichloroethene  | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 00:13 | 1       |
| trans-1,3-Dichloropropene | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Trichloroethene           | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Trichlorofluoromethane    | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Vinyl chloride            | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 00:13 | 1       |
| Xylenes, Total            | ND     |           | 10  | 0.85 | ug/L |   |          | 07/24/13 00:13 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108       |           | 82 - 132 |          | 07/24/13 00:13 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 82 - 121 |          | 07/24/13 00:13 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 85 - 119 |          | 07/24/13 00:13 | 1       |
| Toluene-d8 (Surr)            | 104       |           | 85 - 115 |          | 07/24/13 00:13 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte         | Result        | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|---------------|-----------|-------|------|------|---|----------------|----------------|---------|
| <b>Aluminum</b> | <b>2400</b>   |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Antimony        | ND            |           | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Arsenic         | ND            |           | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| <b>Barium</b>   | <b>76</b>     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Beryllium       | ND            |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Cadmium         | ND            |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| <b>Calcium</b>  | <b>110000</b> | <b>E</b>  | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| <b>Calcium</b>  | <b>130000</b> |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 19:57 | 10      |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102R-SS**

**Lab Sample ID: 160-3052-4**

Date Collected: 07/19/13 10:15

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) (Continued)**

| Analyte   | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Chromium  | 4.1    | J         | 10   | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Cobalt    | 4.0    | J         | 50   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Copper    | ND     |           | 25   | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Iron      | 1800   |           | 100  | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Lead      | 3.7    | J         | 10   | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Magnesium | 41000  |           | 1000 | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Manganese | 39     |           | 15   | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Nickel    | ND     |           | 40   | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Potassium | 3600   | J         | 5000 | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Selenium  | ND     |           | 15   | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Silver    | ND     |           | 10   | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Sodium    | 26000  |           | 1000 | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Thallium  | ND     |           | 20   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Vanadium  | ND     |           | 50   | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |
| Zinc      | 29     |           | 20   | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:18 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND     |           | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Antimony  | ND     |           | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Arsenic   | ND     |           | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Barium    | 73     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Calcium   | 110000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Calcium   | 120000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:28 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Iron      | ND     |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Lead      | ND     |           | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Magnesium | 42000  |           | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Manganese | 23     | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Nickel    | ND     |           | 40    | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Potassium | 3500   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Selenium  | ND     |           | 15    | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Sodium    | 26000  |           | 1000  | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Thallium  | ND     | ^         | 20    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Vanadium  | ND     |           | 50    | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |
| Zinc      | 14     | J B       | 20    | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:41 | 1       |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:25 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:16 | 1       |

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## Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102R-SS**

**Lab Sample ID: 160-3052-4**

Date Collected: 07/19/13 10:15

Matrix: Water

Date Received: 07/19/13 14:10

### General Chemistry

| Analyte      | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N | 0.10   |           | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 04:36 | 1       |
| Bromide      | 0.031  | J         | 0.25  | 0.025  | mg/L |   |          | 07/20/13 04:36 | 1       |
| Iodide       | ND     |           | 1.0   | 0.10   | mg/L |   |          | 07/24/13 17:48 | 1       |
| Alkalinity   | 450    | B         | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

### General Chemistry - DL

| Analyte  | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Chloride | 7.3    |           | 4.0 | 0.40 | mg/L |   |          | 07/20/13 04:53 | 20      |
| Sulfate  | 65     |           | 10  | 1.0  | mg/L |   |          | 07/20/13 04:53 | 20      |

**Client Sample ID: PZ-200-SS**

**Lab Sample ID: 160-3052-5**

Date Collected: 07/19/13 10:19

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/24/13 00:38 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Acetone                     | ND     |           | 20  | 6.7  | ug/L |   |          | 07/24/13 00:38 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Bromodichloromethane        | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Bromoform                   | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Bromomethane                | ND     |           | 10  | 0.40 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Carbon disulfide            | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Chloroethane                | ND     |           | 10  | 0.38 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Chloromethane               | ND     |           | 10  | 0.55 | ug/L |   |          | 07/24/13 00:38 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 00:38 | 1       |
| cis-1,3-Dichloropropene     | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Cyclohexane                 | ND     |           | 10  | 0.36 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Dibromochloromethane        | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Dichlorodifluoromethane     | ND     |           | 10  | 0.45 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 00:38 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-200-SS**

**Lab Sample ID: 160-3052-5**

Date Collected: 07/19/13 10:19

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methyl acetate            | ND     |           | 25  | 2.3  | ug/L |   |          | 07/24/13 00:38 | 1       |
| Methyl tert-butyl ether   | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Methylcyclohexane         | ND     |           | 10  | 0.26 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Methylene Chloride        | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 00:38 | 1       |
| m-Xylene & p-Xylene       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 00:38 | 1       |
| o-Xylene                  | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Styrene                   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Tetrachloroethene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Toluene                   | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 00:38 | 1       |
| trans-1,2-Dichloroethene  | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 00:38 | 1       |
| trans-1,3-Dichloropropene | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Trichloroethene           | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Trichlorofluoromethane    | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Vinyl chloride            | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 00:38 | 1       |
| Xylenes, Total            | ND     |           | 10  | 0.85 | ug/L |   |          | 07/24/13 00:38 | 1       |

  

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 82 - 132 |          | 07/24/13 00:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 82 - 121 |          | 07/24/13 00:38 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 85 - 119 |          | 07/24/13 00:38 | 1       |
| Toluene-d8 (Surr)            | 104       |           | 85 - 115 |          | 07/24/13 00:38 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | 830    |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Antimony  | 5.2    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Arsenic   | 27     |           | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Barium    | 880    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Calcium   | 180000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Calcium   | 230000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:01 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Cobalt    | 29     | J         | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Copper    | 13     | J         | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Iron      | 31000  |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Iron      | 32000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:42 | 07/26/13 20:01 | 10      |
| Lead      | 6.0    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Magnesium | 99000  | E         | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Magnesium | 100000 |           | 10000 | 1300 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:01 | 10      |
| Manganese | 7300   |           | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Nickel    | 140    |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Potassium | 2100   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Selenium  | 7.1    | J         | 15    | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Sodium    | 18000  |           | 1000  | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Thallium  | 7.3    | J         | 20    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Vanadium  | 9.5    | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |
| Zinc      | 24     |           | 20    | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:22 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-200-SS**

**Lab Sample ID: 160-3052-5**

Date Collected: 07/19/13 10:19

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND     |           | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Antimony  | 4.9    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Arsenic   | 3.8    | J         | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Barium    | 850    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Calcium   | 180000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Calcium   | 210000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:32 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Iron      | 7200   |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Iron      | 7300   |           | 1000  | 280  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:32 | 10      |
| Lead      | 3.9    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Magnesium | 99000  | E         | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Magnesium | 98000  |           | 10000 | 1300 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:32 | 10      |
| Manganese | 6800   | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Nickel    | ND     |           | 40    | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Potassium | 1900   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Selenium  | 5.0    | J         | 15    | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Sodium    | 18000  |           | 1000  | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Thallium  | 5.9    | J ^       | 20    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Vanadium  | ND     |           | 50    | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |
| Zinc      | ND     |           | 20    | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:45 | 1       |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:26 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:18 | 1       |

**General Chemistry**

| Analyte      | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N | ND     |           | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 03:11 | 1       |
| Bromide      | 0.16   | J         | 0.25  | 0.025  | mg/L |   |          | 07/20/13 03:11 | 1       |
| Sulfate      | 17     |           | 0.50  | 0.050  | mg/L |   |          | 07/20/13 03:11 | 1       |
| Iodide       | ND     |           | 1.0   | 0.10   | mg/L |   |          | 07/24/13 18:33 | 1       |
| Alkalinity   | 820    | B         | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

**General Chemistry - DL2**

| Analyte  | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Chloride | 110    |           | 20 | 2.0 | mg/L |   |          | 07/20/13 03:45 | 100     |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102-SS**

**Lab Sample ID: 160-3052-6**

**Date Collected: 07/19/13 10:30**

**Matrix: Water**

**Date Received: 07/19/13 14:10**

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/24/13 01:03 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Acetone                     | ND     |           | 20  | 6.7  | ug/L |   |          | 07/24/13 01:03 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Bromodichloromethane        | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Bromoform                   | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Bromomethane                | ND     |           | 10  | 0.40 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Carbon disulfide            | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Chloroethane                | ND     |           | 10  | 0.38 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Chloromethane               | ND     |           | 10  | 0.55 | ug/L |   |          | 07/24/13 01:03 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 01:03 | 1       |
| cis-1,3-Dichloropropene     | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Cyclohexane                 | ND     |           | 10  | 0.36 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Dibromochloromethane        | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Dichlorodifluoromethane     | ND     |           | 10  | 0.45 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Methyl acetate              | ND     |           | 25  | 2.3  | ug/L |   |          | 07/24/13 01:03 | 1       |
| Methyl tert-butyl ether     | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Methylcyclohexane           | ND     |           | 10  | 0.26 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 01:03 | 1       |
| m-Xylene & p-Xylene         | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:03 | 1       |
| o-Xylene                    | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Styrene                     | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Toluene                     | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 01:03 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 01:03 | 1       |
| trans-1,3-Dichloropropene   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Trichlorofluoromethane      | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:03 | 1       |
| Xylenes, Total              | ND     |           | 10  | 0.85 | ug/L |   |          | 07/24/13 01:03 | 1       |

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TestAmerica St. Louis



# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102-SS**

**Lab Sample ID: 160-3052-6**

Date Collected: 07/19/13 10:30

Matrix: Water

Date Received: 07/19/13 14:10

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 82 - 132 |          | 07/24/13 01:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 82 - 121 |          | 07/24/13 01:03 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 85 - 119 |          | 07/24/13 01:03 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 85 - 115 |          | 07/24/13 01:03 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | 21000  |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Antimony  | 5.9    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Arsenic   | 14     |           | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Barium    | 790    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Beryllium | 1.1    | J         | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Calcium   | 130000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Calcium   | 170000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:05 | 10      |
| Chromium  | 25     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Cobalt    | 16     | J         | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Copper    | 17     | J         | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Iron      | 27000  |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Iron      | 30000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:42 | 07/26/13 20:05 | 10      |
| Lead      | 23     |           | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Magnesium | 54000  | E         | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Magnesium | 58000  |           | 10000 | 1300 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:05 | 10      |
| Manganese | 1200   |           | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Nickel    | 57     |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Potassium | 8100   |           | 5000  | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Selenium  | 3.4    | J         | 15    | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Sodium    | 29000  |           | 1000  | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Thallium  | ND     |           | 20    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Vanadium  | 47     | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |
| Zinc      | 100    |           | 20    | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:26 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND     |           | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Antimony  | 5.5    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Arsenic   | 4.0    | J         | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Barium    | 360    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Calcium   | 100000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Calcium   | 110000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:35 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Iron      | 1700   |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Lead      | 2.5    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Magnesium | 40000  |           | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Manganese | 190    | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-102-SS**

**Lab Sample ID: 160-3052-6**

Date Collected: 07/19/13 10:30

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

| Analyte          | Result       | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| Nickel           | ND           |           | 40   | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| <b>Potassium</b> | <b>3300</b>  | <b>J</b>  | 5000 | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Selenium         | ND           |           | 15   | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Silver           | ND           |           | 10   | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| <b>Sodium</b>    | <b>27000</b> |           | 1000 | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Thallium         | ND           | ^         | 20   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Vanadium         | ND           |           | 50   | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |
| Zinc             | ND           |           | 20   | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 21:56 | 1       |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:28 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:19 | 1       |

**General Chemistry**

| Analyte             | Result       | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------|--------------|-----------|-------|--------|------|---|----------|----------------|---------|
| <b>Nitrate as N</b> | <b>0.031</b> |           | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 06:18 | 1       |
| <b>Bromide</b>      | <b>0.032</b> | <b>J</b>  | 0.25  | 0.025  | mg/L |   |          | 07/20/13 06:18 | 1       |
| <b>Sulfate</b>      | <b>20</b>    |           | 0.50  | 0.050  | mg/L |   |          | 07/20/13 06:18 | 1       |
| Iodide              | ND           |           | 1.0   | 0.10   | mg/L |   |          | 07/24/13 19:17 | 1       |
| <b>Alkalinity</b>   | <b>520</b>   | <b>B</b>  | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

**General Chemistry - DL**

| Analyte         | Result     | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|------------|-----------|-----|------|------|---|----------|----------------|---------|
| <b>Chloride</b> | <b>4.7</b> |           | 4.0 | 0.40 | mg/L |   |          | 07/20/13 06:35 | 20      |

**Client Sample ID: PZ-107-SS**

**Lab Sample ID: 160-3052-7**

Date Collected: 07/19/13 12:10

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                     | Result      | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                     | ND          |           | 20  | 6.7  | ug/L |   |          | 07/24/13 01:27 | 1       |
| <b>Benzene</b>              | <b>0.95</b> | <b>J</b>  | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Bromodichloromethane        | ND          |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Bromoform                   | ND          |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Bromomethane                | ND          |           | 10  | 0.40 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 2-Butanone (MEK)            | ND          |           | 20  | 0.39 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Carbon disulfide            | ND          |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Carbon tetrachloride        | ND          |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Chlorobenzene               | ND          |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Dibromochloromethane        | ND          |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Chloroethane                | ND          |           | 10  | 0.38 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Chloroform                  | ND          |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Chloromethane               | ND          |           | 10  | 0.55 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Cyclohexane                 | ND          |           | 10  | 0.36 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND          |           | 10  | 1.2  | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,2-Dibromoethane (EDB)     | ND          |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 01:27 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-107-SS**

**Lab Sample ID: 160-3052-7**

**Date Collected: 07/19/13 12:10**

**Matrix: Water**

**Date Received: 07/19/13 14:10**

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

| Analyte                               | Result       | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dichlorobenzene                   | ND           |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,3-Dichlorobenzene                   | ND           |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,4-Dichlorobenzene                   | ND           |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:27 | 1       |
| <b>Dichlorodifluoromethane</b>        | <b>14</b>    |           | 10  | 0.45 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1-Dichloroethane                    | ND           |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,2-Dichloroethane                    | ND           |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:27 | 1       |
| cis-1,2-Dichloroethene                | ND           |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 01:27 | 1       |
| trans-1,2-Dichloroethene              | ND           |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1-Dichloroethene                    | ND           |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,2-Dichloropropane                   | ND           |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:27 | 1       |
| cis-1,3-Dichloropropene               | ND           |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 01:27 | 1       |
| trans-1,3-Dichloropropene             | ND           |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Ethylbenzene                          | ND           |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND           |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 2-Hexanone                            | ND           |           | 20  | 0.59 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Isopropylbenzene                      | ND           |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Methyl acetate                        | ND           |           | 25  | 2.3  | ug/L |   |          | 07/24/13 01:27 | 1       |
| Methylcyclohexane                     | ND           |           | 10  | 0.26 | ug/L |   |          | 07/24/13 01:27 | 1       |
| <b>Methylene Chloride</b>             | <b>2.5 J</b> |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 01:27 | 1       |
| 4-Methyl-2-pentanone (MIBK)           | ND           |           | 20  | 0.33 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Methyl tert-butyl ether               | ND           |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Styrene                               | ND           |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1,2,2-Tetrachloroethane             | ND           |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Tetrachloroethene                     | ND           |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Toluene                               | ND           |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,2,4-Trichlorobenzene                | ND           |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1,1-Trichloroethane                 | ND           |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:27 | 1       |
| 1,1,2-Trichloroethane                 | ND           |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Trichloroethene                       | ND           |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Trichlorofluoromethane                | ND           |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Vinyl chloride                        | ND           |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:27 | 1       |
| m-Xylene & p-Xylene                   | ND           |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:27 | 1       |
| o-Xylene                              | ND           |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:27 | 1       |
| Xylenes, Total                        | ND           |           | 10  | 0.85 | ug/L |   |          | 07/24/13 01:27 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr)  | 96        |           | 82 - 121 |          | 07/24/13 01:27 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 82 - 132 |          | 07/24/13 01:27 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 85 - 115 |          | 07/24/13 01:27 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 85 - 119 |          | 07/24/13 01:27 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte          | Result          | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------|------|------|------|---|----------------|----------------|---------|
| <b>Aluminum</b>  | <b>15000</b>    |           | 200  | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| <b>Antimony</b>  | <b>4.9 J</b>    |           | 10   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| <b>Arsenic</b>   | <b>6.5 J</b>    |           | 10   | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| <b>Barium</b>    | <b>720</b>      |           | 50   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| <b>Beryllium</b> | <b>1.0 J</b>    |           | 5.0  | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Cadmium          | ND              |           | 5.0  | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| <b>Calcium</b>   | <b>210000 E</b> |           | 1000 | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-107-SS**

**Lab Sample ID: 160-3052-7**

Date Collected: 07/19/13 12:10

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) (Continued)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Calcium   | 270000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:09 | 10      |
| Chromium  | 15     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Cobalt    | 4.1    | J         | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Copper    | 9.3    | J         | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Iron      | 10000  |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Iron      | 11000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:42 | 07/26/13 20:09 | 10      |
| Lead      | 18     |           | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Magnesium | 120000 | E         | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Magnesium | 120000 |           | 10000 | 1300 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:09 | 10      |
| Manganese | 240    |           | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Nickel    | 52     |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Potassium | 4900   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Selenium  | 2.7    | J         | 15    | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Sodium    | 110000 | E         | 1000  | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Sodium    | 110000 |           | 10000 | 3200 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:09 | 10      |
| Thallium  | ND     |           | 20    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Vanadium  | 18     | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |
| Zinc      | 130    |           | 20    | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:29 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND     |           | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Antimony  | ND     |           | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Arsenic   | 3.2    | J         | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Barium    | 620    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Calcium   | 190000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Calcium   | 240000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:39 | 10      |
| Chromium  | ND     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Iron      | 1400   |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Iron      | 1500   |           | 1000  | 280  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:39 | 10      |
| Lead      | 2.8    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Magnesium | 110000 | E         | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Magnesium | 120000 |           | 10000 | 1300 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:39 | 10      |
| Manganese | 170    | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Nickel    | 41     |           | 40    | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Potassium | 4100   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Selenium  | ND     |           | 15    | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Sodium    | 110000 | E         | 1000  | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Sodium    | 120000 |           | 10000 | 3200 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:39 | 10      |
| Thallium  | ND     | ^         | 20    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Vanadium  | 4.5    | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |
| Zinc      | 11     | J B       | 20    | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:00 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-107-SS**

**Lab Sample ID: 160-3052-7**

Date Collected: 07/19/13 12:10

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | 0.11   | J         | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:33 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:21 | 1       |

**General Chemistry**

| Analyte      | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N | 0.020  |           | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 07:25 | 1       |
| Bromide      | 2.1    |           | 0.25  | 0.025  | mg/L |   |          | 07/20/13 07:25 | 1       |
| Iodide       | 0.65   | J         | 1.0   | 0.10   | mg/L |   |          | 07/24/13 19:32 | 1       |
| Alkalinity   | 840    | B         | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

**General Chemistry - DL**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Sulfate | 51     |           | 10 | 1.0 | mg/L |   |          | 07/20/13 07:42 | 20      |

**General Chemistry - DL2**

| Analyte  | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Chloride | 300    |           | 20 | 2.0 | mg/L |   |          | 07/20/13 07:59 | 100     |

**Client Sample ID: PZ-106-KS**

**Lab Sample ID: 160-3052-8**

Date Collected: 07/19/13 13:09

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/24/13 01:52 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Acetone                     | ND     |           | 20  | 6.7  | ug/L |   |          | 07/24/13 01:52 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Bromodichloromethane        | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Bromoform                   | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Bromomethane                | ND     |           | 10  | 0.40 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Carbon disulfide            | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 01:52 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-106-KS**

**Lab Sample ID: 160-3052-8**

Date Collected: 07/19/13 13:09

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Chloroethane              | ND     |           | 10  | 0.38 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Chloroform                | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Chloromethane             | ND     |           | 10  | 0.55 | ug/L |   |          | 07/24/13 01:52 | 1       |
| cis-1,2-Dichloroethene    | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 01:52 | 1       |
| cis-1,3-Dichloropropene   | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Cyclohexane               | ND     |           | 10  | 0.36 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Dibromochloromethane      | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Dichlorodifluoromethane   | ND     |           | 10  | 0.45 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Ethylbenzene              | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Isopropylbenzene          | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Methyl acetate            | ND     |           | 25  | 2.3  | ug/L |   |          | 07/24/13 01:52 | 1       |
| Methyl tert-butyl ether   | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Methylcyclohexane         | ND     |           | 10  | 0.26 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Methylene Chloride        | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 01:52 | 1       |
| m-Xylene & p-Xylene       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 01:52 | 1       |
| o-Xylene                  | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Styrene                   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Tetrachloroethene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Toluene                   | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 01:52 | 1       |
| trans-1,2-Dichloroethene  | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 01:52 | 1       |
| trans-1,3-Dichloropropene | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Trichloroethene           | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Trichlorofluoromethane    | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Vinyl chloride            | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 01:52 | 1       |
| Xylenes, Total            | ND     |           | 10  | 0.85 | ug/L |   |          | 07/24/13 01:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 82 - 132 |          | 07/24/13 01:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 82 - 121 |          | 07/24/13 01:52 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 85 - 119 |          | 07/24/13 01:52 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 85 - 115 |          | 07/24/13 01:52 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte          | Result       | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum         | ND           |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Antimony         | ND           |           | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Arsenic          | ND           |           | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Barium</b>    | <b>46</b>    | <b>J</b>  | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Beryllium        | ND           |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Cadmium          | ND           |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Calcium</b>   | <b>58000</b> | <b>E</b>  | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Calcium</b>   | <b>62000</b> |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:12 | 10      |
| <b>Chromium</b>  | <b>5.7</b>   | <b>J</b>  | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Cobalt           | ND           |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Copper           | ND           |           | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Iron</b>      | <b>250</b>   |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Lead             | ND           |           | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Magnesium</b> | <b>37000</b> |           | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Manganese</b> | <b>5.0</b>   | <b>J</b>  | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Nickel           | ND           |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-106-KS**

**Lab Sample ID: 160-3052-8**

Date Collected: 07/19/13 13:09

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) (Continued)**

| Analyte          | Result       | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|-----------|------|------|------|---|----------------|----------------|---------|
| <b>Potassium</b> | <b>2100</b>  | <b>J</b>  | 5000 | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Selenium         | ND           |           | 15   | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Silver           | ND           |           | 10   | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Sodium</b>    | <b>64000</b> |           | 1000 | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Thallium         | ND           |           | 20   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| Vanadium         | ND           |           | 50   | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |
| <b>Zinc</b>      | <b>7.8</b>   | <b>J</b>  | 20   | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:33 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte          | Result       | Qualifier  | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|------------|-------|------|------|---|----------------|----------------|---------|
| Aluminum         | ND           |            | 200   | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Antimony         | ND           |            | 10    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Arsenic          | ND           |            | 10    | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Barium</b>    | <b>44</b>    | <b>J</b>   | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Beryllium        | ND           |            | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Cadmium          | ND           |            | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Calcium</b>   | <b>53000</b> | <b>E</b>   | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Calcium</b>   | <b>56000</b> |            | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:43 | 10      |
| Chromium         | ND           |            | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Cobalt</b>    | <b>4.6</b>   | <b>J</b>   | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Copper           | ND           |            | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Iron</b>      | <b>220</b>   |            | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Lead</b>      | <b>2.1</b>   | <b>J</b>   | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Magnesium</b> | <b>36000</b> |            | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Manganese</b> | <b>4.1</b>   | <b>J B</b> | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Nickel           | ND           |            | 40    | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Potassium</b> | <b>2000</b>  | <b>J</b>   | 5000  | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Selenium         | ND           |            | 15    | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Silver           | ND           |            | 10    | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| <b>Sodium</b>    | <b>61000</b> |            | 1000  | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Thallium         | ND ^         |            | 20    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Vanadium         | ND           |            | 50    | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |
| Zinc             | ND           |            | 20    | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:04 | 1       |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:34 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:22 | 1       |

**General Chemistry**

| Analyte             | Result        | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------|---------------|-----------|-------|--------|------|---|----------|----------------|---------|
| <b>Nitrate as N</b> | <b>0.0092</b> | <b>J</b>  | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 08:16 | 1       |
| <b>Bromide</b>      | <b>0.056</b>  | <b>J</b>  | 0.25  | 0.025  | mg/L |   |          | 07/20/13 08:16 | 1       |
| <b>Sulfate</b>      | <b>12</b>     |           | 0.50  | 0.050  | mg/L |   |          | 07/20/13 08:16 | 1       |
| Iodide              | ND            |           | 1.0   | 0.10   | mg/L |   |          | 07/24/13 19:47 | 1       |
| <b>Alkalinity</b>   | <b>410</b>    | <b>B</b>  | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: PZ-106-KS**

**Lab Sample ID: 160-3052-8**

Date Collected: 07/19/13 13:09

Matrix: Water

Date Received: 07/19/13 14:10

**General Chemistry - DL**

| Analyte  | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Chloride | 14     |           | 4.0 | 0.40 | mg/L |   |          | 07/20/13 08:33 | 20      |

**Client Sample ID: DUPLICATE 08**

**Lab Sample ID: 160-3052-9**

Date Collected: 07/19/13 00:00

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                               | Result    | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|-----|------|------|---|----------|----------------|---------|
| Acetone                               | ND        |           | 20  | 6.7  | ug/L |   |          | 07/24/13 02:17 | 1       |
| Benzene                               | ND        |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Bromodichloromethane                  | ND        |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Bromoform                             | ND        |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Bromomethane                          | ND        |           | 10  | 0.40 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 2-Butanone (MEK)                      | ND        |           | 20  | 0.39 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Carbon disulfide                      | ND        |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Carbon tetrachloride                  | ND        |           | 5.0 | 0.36 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Chlorobenzene                         | ND        |           | 5.0 | 0.38 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Dibromochloromethane                  | ND        |           | 5.0 | 0.33 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Chloroethane                          | ND        |           | 10  | 0.38 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Chloroform                            | ND        |           | 5.0 | 0.15 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Chloromethane                         | ND        |           | 10  | 0.55 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Cyclohexane                           | ND        |           | 10  | 0.36 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2-Dibromo-3-Chloropropane           | ND        |           | 10  | 1.2  | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2-Dibromoethane (EDB)               | ND        |           | 5.0 | 0.44 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2-Dichlorobenzene                   | ND        |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,3-Dichlorobenzene                   | ND        |           | 5.0 | 0.23 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,4-Dichlorobenzene                   | ND        |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 02:17 | 1       |
| <b>Dichlorodifluoromethane</b>        | <b>15</b> |           | 10  | 0.45 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,1-Dichloroethane                    | ND        |           | 5.0 | 0.39 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2-Dichloroethane                    | ND        |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 02:17 | 1       |
| cis-1,2-Dichloroethene                | ND        |           | 5.0 | 0.16 | ug/L |   |          | 07/24/13 02:17 | 1       |
| trans-1,2-Dichloroethene              | ND        |           | 5.0 | 0.18 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,1-Dichloroethene                    | ND        |           | 5.0 | 0.37 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2-Dichloropropane                   | ND        |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 02:17 | 1       |
| cis-1,3-Dichloropropene               | ND        |           | 5.0 | 0.34 | ug/L |   |          | 07/24/13 02:17 | 1       |
| trans-1,3-Dichloropropene             | ND        |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Ethylbenzene                          | ND        |           | 5.0 | 0.30 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND        |           | 5.0 | 0.25 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 2-Hexanone                            | ND        |           | 20  | 0.59 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Isopropylbenzene                      | ND        |           | 5.0 | 0.26 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Methyl acetate                        | ND        |           | 25  | 2.3  | ug/L |   |          | 07/24/13 02:17 | 1       |
| Methylcyclohexane                     | ND        |           | 10  | 0.26 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Methylene Chloride                    | ND        |           | 5.0 | 1.7  | ug/L |   |          | 07/24/13 02:17 | 1       |
| 4-Methyl-2-pentanone (MIBK)           | ND        |           | 20  | 0.33 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Methyl tert-butyl ether               | ND        |           | 5.0 | 0.40 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Styrene                               | ND        |           | 5.0 | 0.35 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,1,2,2-Tetrachloroethane             | ND        |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Tetrachloroethene                     | ND        |           | 5.0 | 0.28 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Toluene                               | ND        |           | 5.0 | 1.0  | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,2,4-Trichlorobenzene                | ND        |           | 5.0 | 0.55 | ug/L |   |          | 07/24/13 02:17 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: DUPLICATE 08**

**Lab Sample ID: 160-3052-9**

Date Collected: 07/19/13 00:00

Matrix: Water

Date Received: 07/19/13 14:10

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

| Analyte                | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 02:17 | 1       |
| 1,1,2-Trichloroethane  | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Trichloroethene        | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Trichlorofluoromethane | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Vinyl chloride         | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/24/13 02:17 | 1       |
| m-Xylene & p-Xylene    | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/24/13 02:17 | 1       |
| o-Xylene               | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/24/13 02:17 | 1       |
| Xylenes, Total         | ND     |           | 10  | 0.85 | ug/L |   |          | 07/24/13 02:17 | 1       |

  

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr)  | 88        |           | 82 - 121 |          | 07/24/13 02:17 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 82 - 132 |          | 07/24/13 02:17 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 85 - 115 |          | 07/24/13 02:17 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 85 - 119 |          | 07/24/13 02:17 | 1       |

**Method: 6010C - Metals (ICP)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Aluminum  | 16000  |           | 200   | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Antimony  | 4.4    | J         | 10    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Arsenic   | 6.2    | J         | 10    | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Barium    | 730    |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Beryllium | 1.0    | J         | 5.0   | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Calcium   | 210000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Calcium   | 260000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:16 | 10      |
| Chromium  | 13     |           | 10    | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Copper    | 8.1    | J         | 25    | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Iron      | 11000  |           | 100   | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Iron      | 11000  |           | 1000  | 280  | ug/L |   | 07/25/13 11:42 | 07/26/13 20:16 | 10      |
| Lead      | 18     |           | 10    | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Magnesium | 120000 | E         | 1000  | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Magnesium | 120000 |           | 10000 | 1300 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:16 | 10      |
| Manganese | 240    |           | 15    | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Nickel    | 50     |           | 40    | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Potassium | 4900   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Selenium  | 2.8    | J         | 15    | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Sodium    | 110000 | E         | 1000  | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Sodium    | 110000 |           | 10000 | 3200 | ug/L |   | 07/25/13 11:42 | 07/26/13 20:16 | 10      |
| Thallium  | ND     |           | 20    | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Vanadium  | 18     | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |
| Zinc      | 120    |           | 20    | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 18:37 | 1       |

**Method: 6010C - Metals (ICP) - Dissolved**

| Analyte  | Result | Qualifier | RL  | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Aluminum | ND     |           | 200 | 80  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Antimony | 4.1    | J         | 10  | 4.0 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Arsenic  | 2.6    | J         | 10  | 2.0 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Barium   | 640    |           | 50  | 4.0 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: DUPLICATE 08**

**Lab Sample ID: 160-3052-9**

Date Collected: 07/19/13 00:00

Matrix: Water

Date Received: 07/19/13 14:10

**Method: 6010C - Metals (ICP) - Dissolved (Continued)**

| Analyte   | Result | Qualifier | RL    | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|------|------|---|----------------|----------------|---------|
| Beryllium | ND     |           | 5.0   | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Cadmium   | ND     |           | 5.0   | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Calcium   | 190000 | E         | 1000  | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Calcium   | 250000 |           | 10000 | 1100 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:47 | 10      |
| Chromium  | 3.1    | J         | 10    | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Cobalt    | ND     |           | 50    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Copper    | ND     |           | 25    | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Iron      | 1400   |           | 100   | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Iron      | 1500   |           | 1000  | 280  | ug/L |   | 07/25/13 11:37 | 07/29/13 23:47 | 10      |
| Lead      | 2.8    | J         | 10    | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Magnesium | 120000 | E         | 1000  | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Magnesium | 120000 |           | 10000 | 1300 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:47 | 10      |
| Manganese | 170    | B         | 15    | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Nickel    | 42     |           | 40    | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Potassium | 4200   | J         | 5000  | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Selenium  | ND     |           | 15    | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Silver    | ND     |           | 10    | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Sodium    | 120000 | E         | 1000  | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Sodium    | 120000 |           | 10000 | 3200 | ug/L |   | 07/25/13 11:37 | 07/29/13 23:47 | 10      |
| Thallium  | ND     | ^         | 20    | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Vanadium  | 6.1    | J         | 50    | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |
| Zinc      | 9.4    | J B       | 20    | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 22:08 | 1       |

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

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | 0.078  | J         | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 16:36 | 1       |

**Method: 7470A - Mercury (CVAA) - Dissolved**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 17:24 | 1       |

**General Chemistry**

| Analyte      | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N | 0.012  | J         | 0.020 | 0.0040 | mg/L |   |          | 07/20/13 08:50 | 1       |
| Bromide      | 2.1    |           | 0.25  | 0.025  | mg/L |   |          | 07/20/13 08:50 | 1       |
| Iodide       | 0.64   | J         | 1.0   | 0.10   | mg/L |   |          | 07/24/13 20:02 | 1       |
| Alkalinity   | 830    | B         | 5.0   | 0.54   | mg/L |   |          | 07/30/13 09:42 | 1       |

**General Chemistry - DL**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Sulfate | 52     |           | 10 | 1.0 | mg/L |   |          | 07/20/13 09:07 | 20      |

**General Chemistry - DL2**

| Analyte  | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Chloride | 300    |           | 20 | 2.0 | mg/L |   |          | 07/20/13 09:24 | 100     |

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# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 160-3052-10**

**Date Collected: 07/19/13 00:00**

**Matrix: Water**

**Date Received: 07/19/13 14:10**

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

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,1,2-Trichloroethane       | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.39 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2,4-Trichlorobenzene      | ND     |           | 5.0 | 0.55 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 10  | 1.2  | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2-Dibromoethane (EDB)     | ND     |           | 5.0 | 0.44 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,2-Dichloropropane         | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.23 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 2-Butanone (MEK)            | ND     |           | 20  | 0.39 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 2-Hexanone                  | ND     |           | 20  | 0.59 | ug/L |   |          | 07/23/13 19:17 | 1       |
| 4-Methyl-2-pentanone (MIBK) | ND     |           | 20  | 0.33 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Acetone                     | ND     |           | 20  | 6.7  | ug/L |   |          | 07/23/13 19:17 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Bromodichloromethane        | ND     |           | 5.0 | 0.25 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Bromoform                   | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Bromomethane                | ND     |           | 10  | 0.40 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Carbon disulfide            | ND     |           | 5.0 | 0.37 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.36 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.38 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Chloroethane                | ND     |           | 10  | 0.38 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.15 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Chloromethane               | ND     |           | 10  | 0.55 | ug/L |   |          | 07/23/13 19:17 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.16 | ug/L |   |          | 07/23/13 19:17 | 1       |
| cis-1,3-Dichloropropene     | ND     |           | 5.0 | 0.34 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Cyclohexane                 | ND     |           | 10  | 0.36 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Dibromochloromethane        | ND     |           | 5.0 | 0.33 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Dichlorodifluoromethane     | ND     |           | 10  | 0.45 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.26 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Methyl acetate              | ND     |           | 25  | 2.3  | ug/L |   |          | 07/23/13 19:17 | 1       |
| Methyl tert-butyl ether     | ND     |           | 5.0 | 0.40 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Methylcyclohexane           | ND     |           | 10  | 0.26 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 1.7  | ug/L |   |          | 07/23/13 19:17 | 1       |
| m-Xylene & p-Xylene         | ND     |           | 5.0 | 0.57 | ug/L |   |          | 07/23/13 19:17 | 1       |
| o-Xylene                    | ND     |           | 5.0 | 0.32 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Styrene                     | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.28 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Toluene                     | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/23/13 19:17 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.18 | ug/L |   |          | 07/23/13 19:17 | 1       |
| trans-1,3-Dichloropropene   | ND     |           | 5.0 | 0.35 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.29 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Trichlorofluoromethane      | ND     |           | 5.0 | 0.22 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.43 | ug/L |   |          | 07/23/13 19:17 | 1       |
| Xylenes, Total              | ND     |           | 10  | 0.85 | ug/L |   |          | 07/23/13 19:17 | 1       |

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TestAmerica St. Louis

# Client Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 160-3052-10**

**Date Collected: 07/19/13 00:00**

**Matrix: Water**

**Date Received: 07/19/13 14:10**

| <i>Surrogate</i>             | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|------------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 1,2-Dichloroethane-d4 (Surr) | 101              |                  | 82 - 132      |                 | 07/23/13 19:17  | 1              |
| 4-Bromofluorobenzene (Surr)  | 88               |                  | 82 - 121      |                 | 07/23/13 19:17  | 1              |
| Dibromofluoromethane (Surr)  | 99               |                  | 85 - 119      |                 | 07/23/13 19:17  | 1              |
| Toluene-d8 (Surr)            | 99               |                  | 85 - 115      |                 | 07/23/13 19:17  | 1              |

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

**Lab Sample ID: MB 160-62292/3-A**

**Matrix: Water**

**Analysis Batch: 62292**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

| Analyte                               | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromo-3-Chloropropane           | ND        |              | 10  | 1.2  | ug/L |   |          | 07/23/13 18:28 | 1       |
| 2-Butanone (MEK)                      | ND        |              | 20  | 0.39 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,2-Dibromoethane (EDB)               | ND        |              | 5.0 | 0.44 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,2-Dichlorobenzene                   | ND        |              | 5.0 | 0.28 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,3-Dichlorobenzene                   | ND        |              | 5.0 | 0.23 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,4-Dichlorobenzene                   | ND        |              | 5.0 | 0.35 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Acetone                               | ND        |              | 20  | 6.7  | ug/L |   |          | 07/23/13 18:28 | 1       |
| Benzene                               | ND        |              | 5.0 | 0.25 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1-Dichloroethane                    | ND        |              | 5.0 | 0.39 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Bromodichloromethane                  | ND        |              | 5.0 | 0.25 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,2-Dichloroethane                    | ND        |              | 5.0 | 0.37 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Bromoform                             | ND        |              | 5.0 | 0.37 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Bromomethane                          | ND        |              | 10  | 0.40 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Carbon disulfide                      | ND        |              | 5.0 | 0.37 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1-Dichloroethene                    | ND        |              | 5.0 | 0.37 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Carbon tetrachloride                  | ND        |              | 5.0 | 0.36 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,2-Dichloropropane                   | ND        |              | 5.0 | 0.32 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Chlorobenzene                         | ND        |              | 5.0 | 0.38 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Chloroethane                          | ND        |              | 10  | 0.38 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Chloroform                            | ND        |              | 5.0 | 0.15 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Chloromethane                         | ND        |              | 10  | 0.55 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND        |              | 5.0 | 0.25 | ug/L |   |          | 07/23/13 18:28 | 1       |
| cis-1,2-Dichloroethene                | ND        |              | 5.0 | 0.16 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 2-Hexanone                            | ND        |              | 20  | 0.59 | ug/L |   |          | 07/23/13 18:28 | 1       |
| cis-1,3-Dichloropropene               | ND        |              | 5.0 | 0.34 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Cyclohexane                           | ND        |              | 10  | 0.36 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Dibromochloromethane                  | ND        |              | 5.0 | 0.33 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Dichlorodifluoromethane               | ND        |              | 10  | 0.45 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 4-Methyl-2-pentanone (MIBK)           | ND        |              | 20  | 0.33 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Ethylbenzene                          | ND        |              | 5.0 | 0.30 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Isopropylbenzene                      | ND        |              | 5.0 | 0.26 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Methyl acetate                        | ND        |              | 25  | 2.3  | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1,2,2-Tetrachloroethane             | ND        |              | 5.0 | 0.43 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Methyl tert-butyl ether               | ND        |              | 5.0 | 0.40 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Methylcyclohexane                     | ND        |              | 10  | 0.26 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Methylene Chloride                    | ND        |              | 5.0 | 1.7  | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,2,4-Trichlorobenzene                | ND        |              | 5.0 | 0.55 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1,1-Trichloroethane                 | ND        |              | 5.0 | 0.29 | ug/L |   |          | 07/23/13 18:28 | 1       |
| 1,1,2-Trichloroethane                 | ND        |              | 5.0 | 0.57 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Styrene                               | ND        |              | 5.0 | 0.35 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Tetrachloroethene                     | ND        |              | 5.0 | 0.28 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Toluene                               | ND        |              | 5.0 | 1.0  | ug/L |   |          | 07/23/13 18:28 | 1       |
| m-Xylene & p-Xylene                   | ND        |              | 5.0 | 0.57 | ug/L |   |          | 07/23/13 18:28 | 1       |
| trans-1,2-Dichloroethene              | ND        |              | 5.0 | 0.18 | ug/L |   |          | 07/23/13 18:28 | 1       |
| o-Xylene                              | ND        |              | 5.0 | 0.32 | ug/L |   |          | 07/23/13 18:28 | 1       |
| trans-1,3-Dichloropropene             | ND        |              | 5.0 | 0.35 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Trichloroethene                       | ND        |              | 5.0 | 0.29 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Trichlorofluoromethane                | ND        |              | 5.0 | 0.22 | ug/L |   |          | 07/23/13 18:28 | 1       |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: MB 160-62292/3-A

Matrix: Water

Analysis Batch: 62292

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Vinyl chloride | ND        |              | 5.0 | 0.43 | ug/L |   |          | 07/23/13 18:28 | 1       |
| Xylenes, Total | ND        |              | 10  | 0.85 | ug/L |   |          | 07/23/13 18:28 | 1       |

  

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr)  | 94           |              | 82 - 121 |          | 07/23/13 18:28 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 82 - 132 |          | 07/23/13 18:28 | 1       |
| Toluene-d8 (Surr)            | 104          |              | 85 - 115 |          | 07/23/13 18:28 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 85 - 119 |          | 07/23/13 18:28 | 1       |

Lab Sample ID: LCS 160-62292/4-A

Matrix: Water

Analysis Batch: 62292

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromo-3-Chloropropane | 50.0        | 57.5       |               | ug/L |   | 115  | 71 - 123     |
| 2-Butanone (MEK)            | 50.0        | 60.6       |               | ug/L |   | 121  | 71 - 123     |
| 1,2-Dibromoethane (EDB)     | 50.0        | 52.2       |               | ug/L |   | 104  | 85 - 115     |
| 1,2-Dichlorobenzene         | 50.0        | 49.4       |               | ug/L |   | 99   | 85 - 115     |
| 1,3-Dichlorobenzene         | 50.0        | 50.0       |               | ug/L |   | 100  | 85 - 115     |
| 1,4-Dichlorobenzene         | 50.0        | 49.8       |               | ug/L |   | 100  | 85 - 115     |
| Acetone                     | 50.0        | 48.5       |               | ug/L |   | 97   | 51 - 140     |
| Benzene                     | 50.0        | 50.2       |               | ug/L |   | 100  | 85 - 115     |
| 1,1-Dichloroethane          | 50.0        | 50.4       |               | ug/L |   | 101  | 85 - 115     |
| Bromodichloromethane        | 50.0        | 52.5       |               | ug/L |   | 105  | 85 - 117     |
| 1,2-Dichloroethane          | 50.0        | 50.6       |               | ug/L |   | 101  | 79 - 122     |
| Bromoform                   | 50.0        | 44.3       |               | ug/L |   | 89   | 85 - 115     |
| Bromomethane                | 50.0        | 50.2       |               | ug/L |   | 100  | 70 - 135     |
| Carbon disulfide            | 50.0        | 48.9       |               | ug/L |   | 98   | 85 - 123     |
| 1,1-Dichloroethene          | 50.0        | 47.8       |               | ug/L |   | 96   | 85 - 118     |
| Carbon tetrachloride        | 50.0        | 48.2       |               | ug/L |   | 96   | 85 - 118     |
| 1,2-Dichloropropane         | 50.0        | 53.2       |               | ug/L |   | 106  | 85 - 115     |
| Chlorobenzene               | 50.0        | 52.5       |               | ug/L |   | 105  | 85 - 115     |
| Chloroethane                | 50.0        | 59.0       |               | ug/L |   | 118  | 75 - 125     |
| Chloroform                  | 50.0        | 47.7       |               | ug/L |   | 95   | 85 - 115     |
| Chloromethane               | 50.0        | 49.1       |               | ug/L |   | 98   | 73 - 132     |
| cis-1,2-Dichloroethene      | 50.0        | 48.8       |               | ug/L |   | 98   | 85 - 115     |
| 2-Hexanone                  | 50.0        | 59.4       |               | ug/L |   | 119  | 66 - 121     |
| cis-1,3-Dichloropropene     | 50.0        | 54.3       |               | ug/L |   | 109  | 85 - 127     |
| Cyclohexane                 | 50.0        | 49.5       |               | ug/L |   | 99   | 73 - 115     |
| Dibromochloromethane        | 50.0        | 51.3       |               | ug/L |   | 103  | 85 - 115     |
| Dichlorodifluoromethane     | 50.0        | 45.2       |               | ug/L |   | 90   | 62 - 115     |
| 4-Methyl-2-pentanone (MIBK) | 50.0        | 58.0       |               | ug/L |   | 116  | 74 - 123     |
| Ethylbenzene                | 50.0        | 46.9       |               | ug/L |   | 94   | 85 - 115     |
| Isopropylbenzene            | 50.0        | 49.3       |               | ug/L |   | 99   | 85 - 124     |
| Methyl acetate              | 250         | 292        |               | ug/L |   | 117  | 73 - 135     |
| 1,1,2,2-Tetrachloroethane   | 50.0        | 52.2       |               | ug/L |   | 104  | 84 - 115     |
| Methyl tert-butyl ether     | 50.0        | 52.7       |               | ug/L |   | 105  | 73 - 115     |
| Methylcyclohexane           | 50.0        | 51.9       |               | ug/L |   | 104  | 85 - 134     |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: LCS 160-62292/4-A

Matrix: Water

Analysis Batch: 62292

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Methylene Chloride        | 50.0        | 49.2       |               | ug/L |   | 98   | 84 - 115     |
| 1,2,4-Trichlorobenzene    | 50.0        | 46.5       |               | ug/L |   | 93   | 75 - 124     |
| 1,1,1-Trichloroethane     | 50.0        | 47.1       |               | ug/L |   | 94   | 85 - 115     |
| 1,1,2-Trichloroethane     | 50.0        | 55.6       |               | ug/L |   | 111  | 85 - 115     |
| Styrene                   | 50.0        | 51.8       |               | ug/L |   | 104  | 85 - 115     |
| Tetrachloroethene         | 50.0        | 49.9       |               | ug/L |   | 100  | 85 - 115     |
| Toluene                   | 50.0        | 50.4       |               | ug/L |   | 101  | 85 - 115     |
| m-Xylene & p-Xylene       | 50.0        | 50.3       |               | ug/L |   | 101  | 85 - 115     |
| trans-1,2-Dichloroethene  | 50.0        | 47.3       |               | ug/L |   | 95   | 85 - 115     |
| o-Xylene                  | 50.0        | 49.3       |               | ug/L |   | 99   | 85 - 115     |
| trans-1,3-Dichloropropene | 50.0        | 54.0       |               | ug/L |   | 108  | 85 - 123     |
| Trichloroethene           | 50.0        | 49.4       |               | ug/L |   | 99   | 85 - 115     |
| Trichlorofluoromethane    | 50.0        | 48.1       |               | ug/L |   | 96   | 85 - 116     |
| Vinyl chloride            | 50.0        | 49.7       |               | ug/L |   | 99   | 68 - 133     |
| Xylenes, Total            | 100         | 99.6       |               | ug/L |   | 100  | 70 - 130     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr)  | 96            |               | 82 - 121 |
| 1,2-Dichloroethane-d4 (Surr) | 105           |               | 82 - 132 |
| Toluene-d8 (Surr)            | 102           |               | 85 - 115 |
| Dibromofluoromethane (Surr)  | 103           |               | 85 - 119 |

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 62292

Client Sample ID: I-73

Prep Type: Total/NA

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Acetone                     | 90            |                  | 50.0        | 142       |              | ug/L |   | 105  | 38 - 150     |
| Benzene                     | 57            |                  | 50.0        | 108       |              | ug/L |   | 102  | 85 - 115     |
| Bromodichloromethane        | ND            |                  | 50.0        | 50.5      |              | ug/L |   | 101  | 56 - 119     |
| Bromoform                   | ND            |                  | 50.0        | 42.8      |              | ug/L |   | 86   | 84 - 116     |
| Bromomethane                | ND            |                  | 50.0        | 60.0      |              | ug/L |   | 120  | 70 - 135     |
| 2-Butanone (MEK)            | 82            |                  | 50.0        | 135       |              | ug/L |   | 105  | 73 - 133     |
| Carbon disulfide            | ND            |                  | 50.0        | 50.1      |              | ug/L |   | 100  | 85 - 127     |
| Carbon tetrachloride        | ND            |                  | 50.0        | 48.6      |              | ug/L |   | 97   | 85 - 121     |
| Chlorobenzene               | 42            |                  | 50.0        | 94.4      |              | ug/L |   | 104  | 85 - 115     |
| Dibromochloromethane        | ND            |                  | 50.0        | 45.1      |              | ug/L |   | 90   | 85 - 115     |
| Chloroethane                | ND            |                  | 50.0        | 82.0      | F            | ug/L |   | 164  | 73 - 123     |
| Chloroform                  | ND            |                  | 50.0        | 49.7      |              | ug/L |   | 99   | 85 - 115     |
| Chloromethane               | ND            |                  | 50.0        | 51.2      |              | ug/L |   | 102  | 67 - 130     |
| Cyclohexane                 | ND            |                  | 50.0        | 53.5      |              | ug/L |   | 107  | 73 - 115     |
| 1,2-Dibromo-3-Chloropropane | ND            |                  | 50.0        | 45.3      |              | ug/L |   | 91   | 71 - 123     |
| 1,2-Dibromoethane (EDB)     | ND            |                  | 50.0        | 48.0      |              | ug/L |   | 96   | 85 - 115     |
| 1,2-Dichlorobenzene         | ND            |                  | 50.0        | 50.0      |              | ug/L |   | 100  | 84 - 115     |
| 1,3-Dichlorobenzene         | ND            |                  | 50.0        | 52.4      |              | ug/L |   | 105  | 84 - 115     |
| 1,4-Dichlorobenzene         | ND            |                  | 50.0        | 51.6      |              | ug/L |   | 103  | 85 - 115     |
| Dichlorodifluoromethane     | ND            |                  | 50.0        | 46.5      |              | ug/L |   | 93   | 85 - 119     |
| 1,1-Dichloroethane          | ND            |                  | 50.0        | 53.8      |              | ug/L |   | 108  | 85 - 115     |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

**Lab Sample ID: 160-3052-2 MS**

**Matrix: Water**

**Analysis Batch: 62292**

**Client Sample ID: I-73**

**Prep Type: Total/NA**

| Analyte                     | Sample | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec.    |
|-----------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|
|                             | Result | Qualifier | Added | Result | Qualifier |      |   |      |          |
| 1,2-Dichloroethane          | ND     |           | 50.0  | 49.6   |           | ug/L |   | 99   | 80 - 125 |
| cis-1,2-Dichloroethene      | 2.5    | J         | 50.0  | 53.6   |           | ug/L |   | 102  | 80 - 116 |
| trans-1,2-Dichloroethene    | ND     |           | 50.0  | 48.4   |           | ug/L |   | 97   | 84 - 115 |
| 1,1-Dichloroethene          | ND     |           | 50.0  | 47.6   |           | ug/L |   | 95   | 85 - 118 |
| 1,2-Dichloropropane         | ND     |           | 50.0  | 56.0   |           | ug/L |   | 112  | 85 - 117 |
| cis-1,3-Dichloropropene     | ND     |           | 50.0  | 53.9   |           | ug/L |   | 108  | 85 - 124 |
| trans-1,3-Dichloropropene   | ND     |           | 50.0  | 49.2   |           | ug/L |   | 98   | 85 - 127 |
| Ethylbenzene                | 2.8    | J         | 50.0  | 51.8   |           | ug/L |   | 98   | 85 - 115 |
| 2-Hexanone                  | ND     |           | 50.0  | 52.9   |           | ug/L |   | 106  | 66 - 121 |
| Isopropylbenzene            | 1.4    | J         | 50.0  | 53.9   |           | ug/L |   | 105  | 85 - 124 |
| Methyl acetate              | ND     |           | 250   | 255    |           | ug/L |   | 102  | 49 - 150 |
| Methylcyclohexane           | ND     |           | 50.0  | 56.2   |           | ug/L |   | 112  | 85 - 137 |
| Methylene Chloride          | ND     |           | 50.0  | 50.3   |           | ug/L |   | 101  | 85 - 115 |
| 4-Methyl-2-pentanone (MIBK) | 32     |           | 50.0  | 95.4   |           | ug/L |   | 126  | 77 - 134 |
| Methyl tert-butyl ether     | 1.4    | J         | 50.0  | 51.8   |           | ug/L |   | 101  | 75 - 115 |
| Styrene                     | ND     |           | 50.0  | 56.5   |           | ug/L |   | 113  | 85 - 115 |
| 1,1,2,2-Tetrachloroethane   | ND     |           | 50.0  | 50.1   |           | ug/L |   | 100  | 85 - 116 |
| Tetrachloroethene           | ND     |           | 50.0  | 49.8   |           | ug/L |   | 100  | 85 - 118 |
| Toluene                     | 10     |           | 50.0  | 63.4   |           | ug/L |   | 106  | 85 - 118 |
| 1,2,4-Trichlorobenzene      | ND     |           | 50.0  | 39.7   |           | ug/L |   | 79   | 75 - 124 |
| 1,1,1-Trichloroethane       | ND     |           | 50.0  | 48.5   |           | ug/L |   | 97   | 85 - 118 |
| 1,1,2-Trichloroethane       | ND     |           | 50.0  | 55.9   |           | ug/L |   | 112  | 85 - 115 |
| Trichloroethene             | ND     |           | 50.0  | 51.7   |           | ug/L |   | 103  | 85 - 115 |
| Trichlorofluoromethane      | ND     |           | 50.0  | 47.6   |           | ug/L |   | 95   | 85 - 115 |
| Vinyl chloride              | ND     |           | 50.0  | 57.2   |           | ug/L |   | 114  | 63 - 129 |
| m-Xylene & p-Xylene         | 3.1    | J         | 50.0  | 57.0   |           | ug/L |   | 108  | 85 - 115 |
| o-Xylene                    | 1.7    | J         | 50.0  | 57.6   |           | ug/L |   | 112  | 85 - 118 |
| Xylenes, Total              | 4.8    | J         | 100   | 115    |           | ug/L |   | 110  | 70 - 130 |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 4-Bromofluorobenzene (Surr)  | 92           |              | 82 - 121 |
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 82 - 132 |
| Toluene-d8 (Surr)            | 103          |              | 85 - 115 |
| Dibromofluoromethane (Surr)  | 102          |              | 85 - 119 |

**Lab Sample ID: 160-3052-2 MSD**

**Matrix: Water**

**Analysis Batch: 62292**

**Client Sample ID: I-73**

**Prep Type: Total/NA**

| Analyte              | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD | RPD Limit |
|----------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-----------|
|                      | Result | Qualifier | Added | Result | Qualifier |      |   |      |          |     |           |
| Acetone              | 90     |           | 50.0  | 139    |           | ug/L |   | 99   | 38 - 150 | 2   | 20        |
| Benzene              | 57     |           | 50.0  | 108    |           | ug/L |   | 102  | 85 - 115 | 0   | 20        |
| Bromodichloromethane | ND     |           | 50.0  | 52.5   |           | ug/L |   | 105  | 56 - 119 | 4   | 20        |
| Bromoform            | ND     |           | 50.0  | 42.6   |           | ug/L |   | 85   | 84 - 116 | 1   | 20        |
| Bromomethane         | ND     |           | 50.0  | 55.0   |           | ug/L |   | 110  | 70 - 135 | 9   | 20        |
| 2-Butanone (MEK)     | 82     |           | 50.0  | 140    |           | ug/L |   | 115  | 73 - 133 | 4   | 20        |
| Carbon disulfide     | ND     |           | 50.0  | 50.1   |           | ug/L |   | 100  | 85 - 127 | 0   | 20        |
| Carbon tetrachloride | ND     |           | 50.0  | 48.9   |           | ug/L |   | 98   | 85 - 121 | 1   | 20        |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 62292

Client Sample ID: I-73

Prep Type: Total/NA

| Analyte                     | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD | Limit |
|-----------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|                             | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   |     |       |
| Chlorobenzene               | 42     |           | 50.0  | 95.0   |           | ug/L |   | 105  | 85 - 115 | 1   | 20    |
| Dibromochloromethane        | ND     |           | 50.0  | 47.3   |           | ug/L |   | 95   | 85 - 115 | 5   | 20    |
| Chloroethane                | ND     |           | 50.0  | 71.2   | F         | ug/L |   | 142  | 73 - 123 | 14  | 20    |
| Chloroform                  | ND     |           | 50.0  | 50.2   |           | ug/L |   | 100  | 85 - 115 | 1   | 20    |
| Chloromethane               | ND     |           | 50.0  | 50.1   |           | ug/L |   | 100  | 67 - 130 | 2   | 20    |
| Cyclohexane                 | ND     |           | 50.0  | 53.5   |           | ug/L |   | 107  | 73 - 115 | 0   | 20    |
| 1,2-Dibromo-3-Chloropropane | ND     |           | 50.0  | 46.4   |           | ug/L |   | 93   | 71 - 123 | 2   | 20    |
| 1,2-Dibromoethane (EDB)     | ND     |           | 50.0  | 48.8   |           | ug/L |   | 98   | 85 - 115 | 2   | 20    |
| 1,2-Dichlorobenzene         | ND     |           | 50.0  | 51.5   |           | ug/L |   | 103  | 84 - 115 | 3   | 20    |
| 1,3-Dichlorobenzene         | ND     |           | 50.0  | 53.6   |           | ug/L |   | 107  | 84 - 115 | 2   | 20    |
| 1,4-Dichlorobenzene         | ND     |           | 50.0  | 52.7   |           | ug/L |   | 105  | 85 - 115 | 2   | 20    |
| Dichlorodifluoromethane     | ND     |           | 50.0  | 46.4   |           | ug/L |   | 93   | 85 - 119 | 0   | 20    |
| 1,1-Dichloroethane          | ND     |           | 50.0  | 53.1   |           | ug/L |   | 106  | 85 - 115 | 1   | 20    |
| 1,2-Dichloroethane          | ND     |           | 50.0  | 49.5   |           | ug/L |   | 99   | 80 - 125 | 0   | 20    |
| cis-1,2-Dichloroethene      | 2.5    | J         | 50.0  | 54.1   |           | ug/L |   | 103  | 80 - 116 | 1   | 20    |
| trans-1,2-Dichloroethene    | ND     |           | 50.0  | 49.4   |           | ug/L |   | 99   | 84 - 115 | 2   | 20    |
| 1,1-Dichloroethene          | ND     |           | 50.0  | 48.6   |           | ug/L |   | 97   | 85 - 118 | 2   | 20    |
| 1,2-Dichloropropane         | ND     |           | 50.0  | 55.7   |           | ug/L |   | 111  | 85 - 117 | 0   | 20    |
| cis-1,3-Dichloropropene     | ND     |           | 50.0  | 54.9   |           | ug/L |   | 110  | 85 - 124 | 2   | 20    |
| trans-1,3-Dichloropropene   | ND     |           | 50.0  | 50.7   |           | ug/L |   | 101  | 85 - 127 | 3   | 20    |
| Ethylbenzene                | 2.8    | J         | 50.0  | 52.5   |           | ug/L |   | 99   | 85 - 115 | 1   | 20    |
| 2-Hexanone                  | ND     |           | 50.0  | 53.2   |           | ug/L |   | 106  | 66 - 121 | 1   | 20    |
| Isopropylbenzene            | 1.4    | J         | 50.0  | 54.8   |           | ug/L |   | 107  | 85 - 124 | 2   | 20    |
| Methyl acetate              | ND     |           | 250   | 255    |           | ug/L |   | 102  | 49 - 150 | 0   | 20    |
| Methylcyclohexane           | ND     |           | 50.0  | 54.7   |           | ug/L |   | 109  | 85 - 137 | 3   | 20    |
| Methylene Chloride          | ND     |           | 50.0  | 51.1   |           | ug/L |   | 102  | 85 - 115 | 2   | 20    |
| 4-Methyl-2-pentanone (MIBK) | 32     |           | 50.0  | 93.1   |           | ug/L |   | 121  | 77 - 134 | 2   | 20    |
| Methyl tert-butyl ether     | 1.4    | J         | 50.0  | 52.0   |           | ug/L |   | 101  | 75 - 115 | 0   | 20    |
| Styrene                     | ND     |           | 50.0  | 56.1   |           | ug/L |   | 112  | 85 - 115 | 1   | 20    |
| 1,1,1,2-Tetrachloroethane   | ND     |           | 50.0  | 48.9   |           | ug/L |   | 98   | 85 - 116 | 2   | 20    |
| Tetrachloroethene           | ND     |           | 50.0  | 47.9   |           | ug/L |   | 96   | 85 - 118 | 4   | 20    |
| Toluene                     | 10     |           | 50.0  | 61.7   |           | ug/L |   | 103  | 85 - 118 | 3   | 20    |
| 1,2,4-Trichlorobenzene      | ND     |           | 50.0  | 44.8   |           | ug/L |   | 90   | 75 - 124 | 12  | 20    |
| 1,1,1-Trichloroethane       | ND     |           | 50.0  | 49.9   |           | ug/L |   | 100  | 85 - 118 | 3   | 20    |
| 1,1,2-Trichloroethane       | ND     |           | 50.0  | 56.4   |           | ug/L |   | 113  | 85 - 115 | 1   | 20    |
| Trichloroethene             | ND     |           | 50.0  | 52.2   |           | ug/L |   | 104  | 85 - 115 | 1   | 20    |
| Trichlorofluoromethane      | ND     |           | 50.0  | 49.4   |           | ug/L |   | 99   | 85 - 115 | 4   | 20    |
| Vinyl chloride              | ND     |           | 50.0  | 53.5   |           | ug/L |   | 107  | 63 - 129 | 7   | 20    |
| m-Xylene & p-Xylene         | 3.1    | J         | 50.0  | 57.5   |           | ug/L |   | 109  | 85 - 115 | 1   | 20    |
| o-Xylene                    | 1.7    | J         | 50.0  | 57.9   |           | ug/L |   | 112  | 85 - 118 | 1   | 20    |
| Xylenes, Total              | 4.8    | J         | 100   | 115    |           | ug/L |   | 111  | 70 - 130 | 1   | 20    |

| Surrogate                    | MSD       | MSD       | Limits   |
|------------------------------|-----------|-----------|----------|
|                              | %Recovery | Qualifier |          |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 82 - 121 |
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 82 - 132 |
| Toluene-d8 (Surr)            | 103       |           | 85 - 115 |
| Dibromofluoromethane (Surr)  | 104       |           | 85 - 119 |

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TestAmerica St. Louis

## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: MB 160-62879/1-A

Matrix: Water

Analysis Batch: 63744

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62879

| Analyte   | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND        |              | 200  | 80   | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Antimony  | ND        |              | 10   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Arsenic   | ND        |              | 10   | 2.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Barium    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Beryllium | ND        |              | 5.0  | 0.61 | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Cadmium   | ND        |              | 5.0  | 0.91 | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Calcium   | ND        |              | 1000 | 110  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Chromium  | ND        |              | 10   | 3.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Cobalt    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Copper    | ND        |              | 25   | 4.6  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Iron      | ND        |              | 100  | 28   | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Lead      | ND        |              | 10   | 1.5  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Magnesium | ND        |              | 1000 | 130  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Manganese | 15.7      |              | 15   | 3.3  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Nickel    | ND        |              | 40   | 13   | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Potassium | ND        |              | 5000 | 1700 | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Selenium  | ND        |              | 15   | 2.7  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Silver    | ND        |              | 10   | 6.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Sodium    | ND        |              | 1000 | 320  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Thallium  | ND        | ^            | 20   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Vanadium  | ND        |              | 50   | 4.1  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |
| Zinc      | 5.20      | J            | 20   | 5.2  | ug/L |   | 07/25/13 11:37 | 07/29/13 20:32 | 1       |

Lab Sample ID: MB 160-62879/1-A

Matrix: Water

Analysis Batch: 63920

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62879

| Analyte   | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND        |              | 200  | 80   | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Antimony  | ND        |              | 10   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Arsenic   | ND        |              | 10   | 2.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Barium    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Beryllium | ND        |              | 5.0  | 0.61 | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Cadmium   | ND        |              | 5.0  | 0.91 | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Calcium   | ND        |              | 1000 | 110  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Chromium  | ND        |              | 10   | 3.1  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Cobalt    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Copper    | ND        |              | 25   | 4.6  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Iron      | ND        |              | 100  | 28   | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Lead      | ND        |              | 10   | 1.5  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Magnesium | ND        |              | 1000 | 130  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Manganese | 11.4      | J            | 15   | 3.3  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Nickel    | ND        |              | 40   | 13   | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Potassium | ND        |              | 5000 | 1700 | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Selenium  | ND        |              | 15   | 2.7  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Silver    | ND        |              | 10   | 6.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Sodium    | ND        |              | 1000 | 320  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Thallium  | ND        |              | 20   | 4.0  | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: MB 160-62879/1-A

Matrix: Water

Analysis Batch: 63920

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62879

| Analyte  | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------|-----------|--------------|----|-----|------|---|----------------|----------------|---------|
| Vanadium | ND        |              | 50 | 4.1 | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |
| Zinc     | 7.40      | J            | 20 | 5.2 | ug/L |   | 07/25/13 11:37 | 07/30/13 15:40 | 1       |

Lab Sample ID: LCS 160-62879/2-A

Matrix: Water

Analysis Batch: 63744

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62879

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Aluminum  | 10000       | 9890       |               | ug/L |   | 99   | 80 - 120    |
| Antimony  | 500         | 501        |               | ug/L |   | 100  | 80 - 120    |
| Arsenic   | 1000        | 969        |               | ug/L |   | 97   | 80 - 120    |
| Barium    | 1000        | 1040       |               | ug/L |   | 104  | 80 - 120    |
| Beryllium | 1000        | 1020       |               | ug/L |   | 102  | 80 - 120    |
| Cadmium   | 1000        | 990        |               | ug/L |   | 99   | 80 - 120    |
| Calcium   | 10000       | 9900       |               | ug/L |   | 99   | 80 - 120    |
| Chromium  | 1000        | 987        |               | ug/L |   | 99   | 80 - 120    |
| Cobalt    | 1000        | 1010       |               | ug/L |   | 101  | 80 - 120    |
| Copper    | 1000        | 1020       |               | ug/L |   | 102  | 80 - 120    |
| Iron      | 10000       | 10200      |               | ug/L |   | 102  | 80 - 120    |
| Lead      | 1000        | 1010       |               | ug/L |   | 101  | 80 - 120    |
| Magnesium | 10000       | 10000      |               | ug/L |   | 100  | 80 - 120    |
| Manganese | 1000        | 1030       |               | ug/L |   | 103  | 80 - 120    |
| Nickel    | 1000        | 1000       |               | ug/L |   | 100  | 80 - 120    |
| Potassium | 10000       | 9950       |               | ug/L |   | 99   | 80 - 120    |
| Selenium  | 1000        | 1010       |               | ug/L |   | 101  | 80 - 120    |
| Silver    | 100         | 83.5       |               | ug/L |   | 84   | 80 - 120    |
| Sodium    | 10000       | 9940       |               | ug/L |   | 99   | 80 - 120    |
| Thallium  | 200         | 220        | ^             | ug/L |   | 110  | 80 - 120    |
| Vanadium  | 1000        | 1000       |               | ug/L |   | 100  | 80 - 120    |
| Zinc      | 1000        | 989        |               | ug/L |   | 99   | 80 - 120    |

Lab Sample ID: MB 160-62880/1-A

Matrix: Water

Analysis Batch: 63280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Aluminum  | ND        |              | 200  | 80   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Antimony  | ND        |              | 10   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Arsenic   | ND        |              | 10   | 2.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Barium    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Beryllium | ND        |              | 5.0  | 0.61 | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Cadmium   | ND        |              | 5.0  | 0.91 | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Calcium   | ND        |              | 1000 | 110  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Chromium  | ND        |              | 10   | 3.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Cobalt    | ND        |              | 50   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Copper    | ND        |              | 25   | 4.6  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Iron      | ND        |              | 100  | 28   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Lead      | ND        |              | 10   | 1.5  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Magnesium | ND        |              | 1000 | 130  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: MB 160-62880/1-A

Matrix: Water

Analysis Batch: 63280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | MB     | MB        | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
|           | Result | Qualifier |      |      |      |   |                |                |         |
| Manganese | ND     |           | 15   | 3.3  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Nickel    | ND     |           | 40   | 13   | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Potassium | ND     |           | 5000 | 1700 | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Selenium  | ND     |           | 15   | 2.7  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Silver    | ND     |           | 10   | 6.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Sodium    | ND     |           | 1000 | 320  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Thallium  | ND     |           | 20   | 4.0  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Vanadium  | ND     |           | 50   | 4.1  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |
| Zinc      | ND     |           | 20   | 5.2  | ug/L |   | 07/25/13 11:42 | 07/26/13 17:02 | 1       |

Lab Sample ID: LCS 160-62880/2-A

Matrix: Water

Analysis Batch: 63280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Spike Added | LCS    | LCS       | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|--------|-----------|------|---|------|--------------|
|           |             | Result | Qualifier |      |   |      |              |
| Aluminum  | 10000       | 10100  |           | ug/L |   | 101  | 80 - 120     |
| Antimony  | 500         | 528    |           | ug/L |   | 106  | 80 - 120     |
| Arsenic   | 1000        | 1040   |           | ug/L |   | 104  | 80 - 120     |
| Barium    | 1000        | 1050   |           | ug/L |   | 105  | 80 - 120     |
| Beryllium | 1000        | 1040   |           | ug/L |   | 104  | 80 - 120     |
| Cadmium   | 1000        | 1050   |           | ug/L |   | 105  | 80 - 120     |
| Calcium   | 10000       | 10900  |           | ug/L |   | 109  | 80 - 120     |
| Chromium  | 1000        | 1080   |           | ug/L |   | 108  | 80 - 120     |
| Cobalt    | 1000        | 1090   |           | ug/L |   | 109  | 80 - 120     |
| Copper    | 1000        | 1060   |           | ug/L |   | 106  | 80 - 120     |
| Iron      | 10000       | 10400  |           | ug/L |   | 104  | 80 - 120     |
| Lead      | 1000        | 1100   |           | ug/L |   | 110  | 80 - 120     |
| Magnesium | 10000       | 10400  |           | ug/L |   | 104  | 80 - 120     |
| Manganese | 1000        | 1050   |           | ug/L |   | 105  | 80 - 120     |
| Nickel    | 1000        | 1090   |           | ug/L |   | 109  | 80 - 120     |
| Potassium | 10000       | 10000  |           | ug/L |   | 100  | 80 - 120     |
| Selenium  | 1000        | 1060   |           | ug/L |   | 106  | 80 - 120     |
| Silver    | 100         | 88.7   |           | ug/L |   | 89   | 80 - 120     |
| Sodium    | 10000       | 10200  |           | ug/L |   | 102  | 80 - 120     |
| Thallium  | 200         | 233    |           | ug/L |   | 117  | 80 - 120     |
| Vanadium  | 1000        | 1020   |           | ug/L |   | 102  | 80 - 120     |
| Zinc      | 1000        | 1060   |           | ug/L |   | 106  | 80 - 120     |

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample | Sample    | Spike Added | MS     | MS        | Unit | D | %Rec | %Rec. Limits |
|-----------|--------|-----------|-------------|--------|-----------|------|---|------|--------------|
|           | Result | Qualifier |             | Result | Qualifier |      |   |      |              |
| Aluminum  | 9600   |           | 20000       | ND     | F         | ug/L |   | 0    | 75 - 125     |
| Antimony  | 14     | J         | 1000        | ND     | F         | ug/L |   | 0    | 75 - 125     |
| Arsenic   | 130    |           | 2000        | ND     | F         | ug/L |   | 0    | 75 - 125     |
| Barium    | 3100   |           | 2000        | ND     | F         | ug/L |   | 0    | 75 - 125     |
| Beryllium | ND     |           | 2000        | ND     | F         | ug/L |   | 0    | 75 - 125     |
| Cadmium   | ND     |           | 2000        | ND     | F         | ug/L |   | 0    | 75 - 125     |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec. | Limits   |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|-------|----------|
|           | Result | Qualifier |       | Result | Qualifier |      |   |      |       |          |
| Calcium   | 730000 | E         | 20000 | ND     | 4         | ug/L |   | 0    |       | 75 - 125 |
| Chromium  | 12     | J         | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Cobalt    | 87     | J         | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Copper    | 32     | J         | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Iron      | 150000 |           | 20000 | ND     | 4         | ug/L |   | 0    |       | 75 - 125 |
| Lead      | 58     |           | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Magnesium | 260000 | E         | 20000 | ND     | 4         | ug/L |   | 0    |       | 75 - 125 |
| Manganese | 3700   |           | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Nickel    | 360    |           | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Potassium | 22000  |           | 20000 | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Selenium  | 15     | J         | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Silver    | ND     |           | 200   | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Sodium    | 690000 | E         | 20000 | ND     | 4         | ug/L |   | 0    |       | 75 - 125 |
| Thallium  | ND     |           | 400   | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Vanadium  | 25     | J         | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |
| Zinc      | 4700   |           | 2000  | ND     | F         | ug/L |   | 0    |       | 75 - 125 |

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample  | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec. | Limits   |
|-----------|---------|-----------|-------|--------|-----------|------|---|------|-------|----------|
|           | Result  | Qualifier |       | Result | Qualifier |      |   |      |       |          |
| Aluminum  | 9800    |           | 20000 | 32300  |           | ug/L |   | 112  |       | 75 - 125 |
| Antimony  | ND      |           | 1000  | 1000   |           | ug/L |   | 100  |       | 75 - 125 |
| Arsenic   | 110     | J         | 2000  | 1960   |           | ug/L |   | 92   |       | 75 - 125 |
| Barium    | 3100    |           | 2000  | 4640   |           | ug/L |   | 75   |       | 75 - 125 |
| Beryllium | ND      |           | 2000  | 1840   |           | ug/L |   | 92   |       | 75 - 125 |
| Cadmium   | ND      |           | 2000  | 1850   |           | ug/L |   | 93   |       | 75 - 125 |
| Calcium   | 1000000 | E         | 20000 | 925000 | 4         | ug/L |   | -480 |       | 75 - 125 |
| Chromium  | 100     | J         | 2000  | 1910   |           | ug/L |   | 91   |       | 75 - 125 |
| Cobalt    | 190     | J         | 2000  | 2010   |           | ug/L |   | 91   |       | 75 - 125 |
| Copper    | ND      |           | 2000  | 1870   |           | ug/L |   | 93   |       | 75 - 125 |
| Iron      | 150000  |           | 20000 | 149000 | 4         | ug/L |   | -11  |       | 75 - 125 |
| Lead      | 88      | J         | 2000  | 1970   |           | ug/L |   | 94   |       | 75 - 125 |
| Magnesium | 270000  |           | 20000 | 252000 | 4         | ug/L |   | -89  |       | 75 - 125 |
| Manganese | 3800    |           | 2000  | 5120   | F         | ug/L |   | 66   |       | 75 - 125 |
| Nickel    | 420     | J         | 2000  | 2260   |           | ug/L |   | 92   |       | 75 - 125 |
| Potassium | ND      |           | 20000 | 38000  | J         | ug/L |   | NC   |       | 75 - 125 |
| Selenium  | ND      |           | 2000  | 1900   |           | ug/L |   | 95   |       | 75 - 125 |
| Silver    | ND      |           | 200   | 146    | J F       | ug/L |   | 73   |       | 75 - 125 |
| Sodium    | 690000  |           | 20000 | 620000 | 4         | ug/L |   | -342 |       | 75 - 125 |
| Thallium  | ND      |           | 400   | 428    |           | ug/L |   | 107  |       | 75 - 125 |
| Vanadium  | ND      |           | 2000  | 1880   |           | ug/L |   | 94   |       | 75 - 125 |
| Zinc      | 5100    |           | 2000  | 6410   | F         | ug/L |   | 63   |       | 75 - 125 |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63435

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Calcium | 1200000       |                  | 20000       | 1180000   | 4            | ug/L |   | -70  | 75 - 125     |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Aluminum  | 9600          |                  | 20000       | 35500      | F             | ug/L |   | 129  | 75 - 125     | NC  | 20        |
| Antimony  | 14            | J                | 1000        | 1010       |               | ug/L |   | 100  | 75 - 125     | NC  | 20        |
| Arsenic   | 130           |                  | 2000        | 2140       |               | ug/L |   | 101  | 75 - 125     | NC  | 20        |
| Barium    | 3100          |                  | 2000        | 5110       |               | ug/L |   | 99   | 75 - 125     | NC  | 20        |
| Beryllium | ND            |                  | 2000        | 2040       |               | ug/L |   | 102  | 75 - 125     | NC  | 20        |
| Cadmium   | ND            |                  | 2000        | 1980       |               | ug/L |   | 99   | 75 - 125     | NC  | 20        |
| Calcium   | 730000        | E                | 20000       | 762000     | E 4           | ug/L |   | 138  | 75 - 125     | NC  | 20        |
| Chromium  | 12            | J                | 2000        | 1920       |               | ug/L |   | 95   | 75 - 125     | NC  | 20        |
| Cobalt    | 87            | J                | 2000        | 1960       |               | ug/L |   | 94   | 75 - 125     | NC  | 20        |
| Copper    | 32            | J                | 2000        | 1980       |               | ug/L |   | 98   | 75 - 125     | NC  | 20        |
| Iron      | 150000        |                  | 20000       | 162000     | 4             | ug/L |   | 72   | 75 - 125     | NC  | 20        |
| Lead      | 58            |                  | 2000        | 1900       |               | ug/L |   | 92   | 75 - 125     | NC  | 20        |
| Magnesium | 260000        | E                | 20000       | 278000     | E 4           | ug/L |   | 69   | 75 - 125     | NC  | 20        |
| Manganese | 3700          |                  | 2000        | 5530       |               | ug/L |   | 92   | 75 - 125     | NC  | 20        |
| Nickel    | 360           |                  | 2000        | 2220       |               | ug/L |   | 93   | 75 - 125     | NC  | 20        |
| Potassium | 22000         |                  | 20000       | 43800      |               | ug/L |   | 109  | 75 - 125     | NC  | 20        |
| Selenium  | 15            | J                | 2000        | 2060       |               | ug/L |   | 102  | 75 - 125     | NC  | 20        |
| Silver    | ND            |                  | 200         | 170        |               | ug/L |   | 85   | 75 - 125     | NC  | 20        |
| Sodium    | 690000        | E                | 20000       | 686000     | E 4           | ug/L |   | -45  | 75 - 125     | NC  | 20        |
| Thallium  | ND            |                  | 400         | 371        |               | ug/L |   | 93   | 75 - 125     | NC  | 20        |
| Vanadium  | 25            | J                | 2000        | 2000       |               | ug/L |   | 99   | 75 - 125     | NC  | 20        |
| Zinc      | 4700          |                  | 2000        | 6770       |               | ug/L |   | 103  | 75 - 125     | NC  | 20        |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Aluminum  | 9800          |                  | 20000       | 28800      |               | ug/L |   | 95   | 75 - 125     | 12  | 20        |
| Antimony  | ND            |                  | 1000        | 896        |               | ug/L |   | 90   | 75 - 125     | 11  | 20        |
| Arsenic   | 110           | J                | 2000        | 1780       |               | ug/L |   | 83   | 75 - 125     | 10  | 20        |
| Barium    | 3100          |                  | 2000        | 4190       | F             | ug/L |   | 53   | 75 - 125     | 10  | 20        |
| Beryllium | ND            |                  | 2000        | 1680       |               | ug/L |   | 84   | 75 - 125     | 9   | 20        |
| Cadmium   | ND            |                  | 2000        | 1700       |               | ug/L |   | 85   | 75 - 125     | 9   | 20        |
| Calcium   | 1000000       | E                | 20000       | 845000     | 4             | ug/L |   | -880 | 75 - 125     | 9   | 20        |
| Chromium  | 100           | J                | 2000        | 1770       |               | ug/L |   | 84   | 75 - 125     | 8   | 20        |
| Cobalt    | 190           | J                | 2000        | 1810       |               | ug/L |   | 81   | 75 - 125     | 10  | 20        |
| Copper    | ND            |                  | 2000        | 1710       |               | ug/L |   | 85   | 75 - 125     | 9   | 20        |
| Iron      | 150000        |                  | 20000       | 135000     | 4             | ug/L |   | -84  | 75 - 125     | 10  | 20        |
| Lead      | 88            | J                | 2000        | 1820       |               | ug/L |   | 87   | 75 - 125     | 8   | 20        |
| Magnesium | 270000        |                  | 20000       | 228000     | 4             | ug/L |   | -210 | 75 - 125     | 10  | 20        |

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63280

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte   | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD |       |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|           | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   | RPD | Limit |
| Manganese | 3800   |           | 2000  | 4650   | F         | ug/L |   | 42   | 75 - 125 | 10  | 20    |
| Nickel    | 420    | J         | 2000  | 2080   |           | ug/L |   | 83   | 75 - 125 | 8   | 20    |
| Potassium | ND     |           | 20000 | 34200  | J         | ug/L |   | NC   | 75 - 125 | 11  | 20    |
| Selenium  | ND     |           | 2000  | 1740   |           | ug/L |   | 87   | 75 - 125 | 8   | 20    |
| Silver    | ND     |           | 200   | 142    | J F       | ug/L |   | 71   | 75 - 125 | 3   | 20    |
| Sodium    | 690000 |           | 20000 | 557000 | 4         | ug/L |   | -657 | 75 - 125 | 11  | 20    |
| Thallium  | ND     |           | 400   | 376    | J         | ug/L |   | 94   | 75 - 125 | 13  | 20    |
| Vanadium  | ND     |           | 2000  | 1650   |           | ug/L |   | 82   | 75 - 125 | 13  | 20    |
| Zinc      | 5100   |           | 2000  | 5850   | F         | ug/L |   | 36   | 75 - 125 | 9   | 20    |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63435

Client Sample ID: I-73

Prep Type: Total/NA

Prep Batch: 62880

| Analyte | Sample  | Sample    | Spike | MSD     | MSD       | Unit | D | %Rec | %Rec.    | RPD |       |
|---------|---------|-----------|-------|---------|-----------|------|---|------|----------|-----|-------|
|         | Result  | Qualifier | Added | Result  | Qualifier |      |   |      | Limits   | RPD | Limit |
| Calcium | 1200000 |           | 20000 | 1140000 | 4         | ug/L |   | -265 | 75 - 125 | 3   | 20    |

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte   | Sample | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec.    | RPD |       |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|           | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   | RPD | Limit |
| Aluminum  | ND     |           | 20000 | OVER   | E         | ppm  |   |      | 75 - 125 |     |       |
| Antimony  | 13     | J         | 1000  | 948    |           | ug/L |   | 94   | 75 - 125 |     |       |
| Arsenic   | 130    |           | 2000  | 1960   |           | ug/L |   | 92   | 75 - 125 |     |       |
| Barium    | 3100   |           | 2000  | OVER   | E         | ppm  |   |      | 75 - 125 |     |       |
| Beryllium | ND     |           | 2000  | OVER   | E         | ppm  |   |      | 75 - 125 |     |       |
| Cadmium   | ND     |           | 2000  | 1830   |           | ug/L |   | 92   | 75 - 125 |     |       |
| Calcium   | 720000 | E         | 20000 | 682000 | E 4       | ug/L |   | -180 | 75 - 125 |     |       |
| Chromium  | ND     |           | 2000  | 1780   |           | ug/L |   | 89   | 75 - 125 |     |       |
| Cobalt    | 82     | J         | 2000  | 1760   |           | ug/L |   | 84   | 75 - 125 |     |       |
| Copper    | ND     |           | 2000  | 1830   |           | ug/L |   | 91   | 75 - 125 |     |       |
| Iron      | 140000 |           | 20000 | OVER   | E 4       | ppm  |   |      | 75 - 125 |     |       |
| Lead      | 10     | J         | 2000  | 1650   |           | ug/L |   | 82   | 75 - 125 |     |       |
| Magnesium | 270000 | E         | 20000 | OVER   | E 4       | ppm  |   |      | 75 - 125 |     |       |
| Manganese | 3600   | B         | 2000  | OVER   | E         | ppm  |   |      | 75 - 125 |     |       |
| Nickel    | 340    |           | 2000  | 1970   |           | ug/L |   | 82   | 75 - 125 |     |       |
| Potassium | 20000  |           | 20000 | OVER   | E         | ppm  |   |      | 75 - 125 |     |       |
| Selenium  | 11     | J         | 2000  | 1890   |           | ug/L |   | 94   | 75 - 125 |     |       |
| Silver    | ND     |           | 200   | 160    |           | ug/L |   | 80   | 75 - 125 |     |       |
| Sodium    | 700000 | E         | 20000 | OVER   | E 4       | ppm  |   |      | 75 - 125 |     |       |
| Thallium  | ND     | ^         | 400   | 333    | ^         | ug/L |   | 83   | 75 - 125 |     |       |
| Vanadium  | 12     | J         | 2000  | 1850   |           | ug/L |   | 92   | 75 - 125 |     |       |
| Zinc      | 1100   | B         | 2000  | 2880   |           | ug/L |   | 87   | 75 - 125 |     |       |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte   | Sample  | Sample Qualifier | Spike Added | MS      | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|---------|------------------|-------------|---------|--------------|------|---|------|--------------|
|           | Result  |                  |             | Result  |              |      |   |      |              |
| Aluminum  | ND      |                  | 20000       | 20300   |              | ug/L |   | 102  | 75 - 125     |
| Antimony  | ND      |                  | 1000        | 1090    |              | ug/L |   | 109  | 75 - 125     |
| Arsenic   | 130     | J                | 2000        | 2130    |              | ug/L |   | 100  | 75 - 125     |
| Barium    | 3200    |                  | 2000        | 5100    |              | ug/L |   | 98   | 75 - 125     |
| Beryllium | ND      |                  | 2000        | 2070    |              | ug/L |   | 104  | 75 - 125     |
| Cadmium   | ND      |                  | 2000        | 2040    |              | ug/L |   | 102  | 75 - 125     |
| Calcium   | 1000000 |                  | 20000       | 1000000 | E 4          | ug/L |   | 22   | 75 - 125     |
| Chromium  | ND      |                  | 2000        | 2040    |              | ug/L |   | 102  | 75 - 125     |
| Cobalt    | 190     | J                | 2000        | 2150    |              | ug/L |   | 98   | 75 - 125     |
| Copper    | ND      |                  | 2000        | 2080    |              | ug/L |   | 104  | 75 - 125     |
| Iron      | 140000  |                  | 20000       | 156000  | 4            | ug/L |   | 77   | 75 - 125     |
| Lead      | 38      | J                | 2000        | 2080    |              | ug/L |   | 102  | 75 - 125     |
| Magnesium | 280000  |                  | 20000       | 288000  | 4            | ug/L |   | 45   | 75 - 125     |
| Manganese | 3800    | B                | 2000        | 5730    |              | ug/L |   | 95   | 75 - 125     |
| Nickel    | 390     | J                | 2000        | 2390    |              | ug/L |   | 100  | 75 - 125     |
| Potassium | ND      |                  | 20000       | 39200   | J            | ug/L |   | NC   | 75 - 125     |
| Selenium  | ND      |                  | 2000        | 2090    |              | ug/L |   | 104  | 75 - 125     |
| Silver    | ND      |                  | 200         | 168     | J            | ug/L |   | 84   | 75 - 125     |
| Sodium    | 700000  |                  | 20000       | 694000  | 4            | ug/L |   | -50  | 75 - 125     |
| Thallium  | ND      | ^                | 400         | 452     | ^            | ug/L |   | 113  | 75 - 125     |
| Vanadium  | ND      |                  | 2000        | 2080    |              | ug/L |   | 104  | 75 - 125     |
| Zinc      | 1200    | B                | 2000        | 3200    |              | ug/L |   | 99   | 75 - 125     |

Lab Sample ID: 160-3052-2 MS

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte | Sample  | Sample Qualifier | Spike Added | MS      | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------|------------------|-------------|---------|--------------|------|---|------|--------------|
|         | Result  |                  |             | Result  |              |      |   |      |              |
| Calcium | 1100000 |                  | 20000       | 1110000 | 4            | ug/L |   | -15  | 75 - 125     |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte   | Sample | Sample Qualifier | Spike Added | MSD    | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD |       |
|-----------|--------|------------------|-------------|--------|---------------|------|---|------|--------------|-----|-------|
|           | Result |                  |             | Result |               |      |   |      |              | RPD | Limit |
| Aluminum  | ND     |                  | 20000       | 19900  |               | ug/L |   | 100  | 75 - 125     | NC  | 20    |
| Antimony  | 13     | J                | 1000        | 963    |               | ug/L |   | 95   | 75 - 125     | 2   | 20    |
| Arsenic   | 130    |                  | 2000        | 2010   |               | ug/L |   | 94   | 75 - 125     | 2   | 20    |
| Barium    | 3100   |                  | 2000        | 5120   |               | ug/L |   | 100  | 75 - 125     | NC  | 20    |
| Beryllium | ND     |                  | 2000        | 2010   |               | ug/L |   | 100  | 75 - 125     | NC  | 20    |
| Cadmium   | ND     |                  | 2000        | 1860   |               | ug/L |   | 93   | 75 - 125     | 2   | 20    |
| Calcium   | 720000 | E                | 20000       | 711000 | E 4           | ug/L |   | -37  | 75 - 125     | 4   | 20    |
| Chromium  | ND     |                  | 2000        | 1740   |               | ug/L |   | 87   | 75 - 125     | 2   | 20    |
| Cobalt    | 82     | J                | 2000        | 1790   |               | ug/L |   | 85   | 75 - 125     | 2   | 20    |
| Copper    | ND     |                  | 2000        | 1860   |               | ug/L |   | 93   | 75 - 125     | 2   | 20    |
| Iron      | 140000 |                  | 20000       | 152000 | 4             | ug/L |   | 82   | 75 - 125     | NC  | 20    |
| Lead      | 10     | J                | 2000        | 1680   |               | ug/L |   | 84   | 75 - 125     | 2   | 20    |
| Magnesium | 270000 | E                | 20000       | 281000 | E 4           | ug/L |   | 61   | 75 - 125     | NC  | 20    |

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte   | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD |       |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|           | Result | Qualifier |       | Result | Qualifier |      |   |      | Limits   | RPD | Limit |
| Manganese | 3600   | B         | 2000  | 5480   |           | ug/L |   | 93   | 75 - 125 | NC  | 20    |
| Nickel    | 340    |           | 2000  | 2010   |           | ug/L |   | 84   | 75 - 125 | 2   | 20    |
| Potassium | 20000  |           | 20000 | 40800  |           | ug/L |   | 102  | 75 - 125 | NC  | 20    |
| Selenium  | 11     | J         | 2000  | 1940   |           | ug/L |   | 97   | 75 - 125 | 3   | 20    |
| Silver    | ND     |           | 200   | 162    |           | ug/L |   | 81   | 75 - 125 | 2   | 20    |
| Sodium    | 700000 | E         | 20000 | 696000 | E 4       | ug/L |   | -22  | 75 - 125 | NC  | 20    |
| Thallium  | ND     | ^         | 400   | 341    | ^         | ug/L |   | 85   | 75 - 125 | 2   | 20    |
| Vanadium  | 12     | J         | 2000  | 1980   |           | ug/L |   | 99   | 75 - 125 | 7   | 20    |
| Zinc      | 1100   | B         | 2000  | 2960   |           | ug/L |   | 90   | 75 - 125 | 3   | 20    |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte   | Sample  | Sample    | Spike | MSD     | MSD       | Unit | D | %Rec | %Rec.    | RPD |       |
|-----------|---------|-----------|-------|---------|-----------|------|---|------|----------|-----|-------|
|           | Result  | Qualifier |       | Result  | Qualifier |      |   |      | Limits   | RPD | Limit |
| Aluminum  | ND      |           | 20000 | 20000   |           | ug/L |   | 100  | 75 - 125 | 1   | 20    |
| Antimony  | ND      |           | 1000  | 1110    |           | ug/L |   | 111  | 75 - 125 | 2   | 20    |
| Arsenic   | 130     | J         | 2000  | 2150    |           | ug/L |   | 101  | 75 - 125 | 1   | 20    |
| Barium    | 3200    |           | 2000  | 5140    |           | ug/L |   | 99   | 75 - 125 | 1   | 20    |
| Beryllium | ND      |           | 2000  | 2060    |           | ug/L |   | 103  | 75 - 125 | 1   | 20    |
| Cadmium   | ND      |           | 2000  | 2030    |           | ug/L |   | 102  | 75 - 125 | 0   | 20    |
| Calcium   | 1000000 |           | 20000 | 1020000 | E 4       | ug/L |   | 122  | 75 - 125 | 2   | 20    |
| Chromium  | ND      |           | 2000  | 2000    |           | ug/L |   | 100  | 75 - 125 | 2   | 20    |
| Cobalt    | 190     | J         | 2000  | 2200    |           | ug/L |   | 100  | 75 - 125 | 2   | 20    |
| Copper    | ND      |           | 2000  | 2060    |           | ug/L |   | 103  | 75 - 125 | 1   | 20    |
| Iron      | 140000  |           | 20000 | 159000  | 4         | ug/L |   | 90   | 75 - 125 | 2   | 20    |
| Lead      | 38      | J         | 2000  | 2090    |           | ug/L |   | 103  | 75 - 125 | 0   | 20    |
| Magnesium | 280000  |           | 20000 | 292000  | 4         | ug/L |   | 63   | 75 - 125 | 1   | 20    |
| Manganese | 3800    | B         | 2000  | 5780    |           | ug/L |   | 97   | 75 - 125 | 1   | 20    |
| Nickel    | 390     | J         | 2000  | 2400    |           | ug/L |   | 101  | 75 - 125 | 1   | 20    |
| Potassium | ND      |           | 20000 | 39100   | J         | ug/L |   | NC   | 75 - 125 | 0   | 20    |
| Selenium  | ND      |           | 2000  | 2090    |           | ug/L |   | 105  | 75 - 125 | 0   | 20    |
| Silver    | ND      |           | 200   | 160     | J         | ug/L |   | 80   | 75 - 125 | 5   | 20    |
| Sodium    | 700000  |           | 20000 | 699000  | 4         | ug/L |   | -25  | 75 - 125 | 1   | 20    |
| Thallium  | ND      | ^         | 400   | 450     | ^         | ug/L |   | 113  | 75 - 125 | 0   | 20    |
| Vanadium  | ND      |           | 2000  | 2060    |           | ug/L |   | 103  | 75 - 125 | 1   | 20    |
| Zinc      | 1200    | B         | 2000  | 3240    |           | ug/L |   | 101  | 75 - 125 | 1   | 20    |

Lab Sample ID: 160-3052-2 MSD

Matrix: Water

Analysis Batch: 63744

Client Sample ID: I-73

Prep Type: Dissolved

Prep Batch: 62879

| Analyte | Sample  | Sample    | Spike | MSD     | MSD       | Unit | D | %Rec | %Rec.    | RPD |       |
|---------|---------|-----------|-------|---------|-----------|------|---|------|----------|-----|-------|
|         | Result  | Qualifier |       | Result  | Qualifier |      |   |      | Limits   | RPD | Limit |
| Calcium | 1100000 |           | 20000 | 1110000 | 4         | ug/L |   | -30  | 75 - 125 | 0   | 20    |

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# QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-62431/1-A  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 62431

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.060 | ug/L |   | 07/24/13 10:11 | 07/24/13 15:53 | 1       |

Lab Sample ID: LCS 160-62431/2-A  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 62431

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 5.00        | 5.64       |               | ug/L |   | 113  | 80 - 120     |

Lab Sample ID: 160-3052-2 MS  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: I-73  
Prep Type: Total/NA  
Prep Batch: 62431

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Mercury | ND            |                  | 5.00        | 1.84      | F            | ug/L |   | 37   | 80 - 120     |

Lab Sample ID: 160-3052-2 MSD  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: I-73  
Prep Type: Total/NA  
Prep Batch: 62431

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 5.00        | 1.67       | F             | ug/L |   | 33   | 80 - 120     | 10  | 20        |

Lab Sample ID: MB 160-62433/1-A  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 62433

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.060 | ug/L |   | 07/24/13 10:13 | 07/24/13 16:41 | 1       |

Lab Sample ID: LCS 160-62433/2-A  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 62433

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 5.00        | 5.54       |               | ug/L |   | 111  | 80 - 120     |

Lab Sample ID: 160-3052-2 MS  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: I-73  
Prep Type: Dissolved  
Prep Batch: 62433

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Mercury | ND            |                  | 5.00        | 1.70      | F            | ug/L |   | 34   | 80 - 120     |

Lab Sample ID: 160-3052-2 MSD  
Matrix: Water  
Analysis Batch: 62861

Client Sample ID: I-73  
Prep Type: Dissolved  
Prep Batch: 62433

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 5.00        | 1.67       | F             | ug/L |   | 33   | 80 - 120     | 2   | 20        |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-62889/9

Matrix: Water

Analysis Batch: 62889

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte      | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|-----------|--------------|-------|--------|------|---|----------|----------------|---------|
| Nitrate as N | ND        |              | 0.020 | 0.0040 | mg/L |   |          | 07/19/13 13:39 | 1       |
| Chloride     | ND        |              | 0.20  | 0.020  | mg/L |   |          | 07/19/13 13:39 | 1       |
| Bromide      | ND        |              | 0.25  | 0.025  | mg/L |   |          | 07/19/13 13:39 | 1       |
| Sulfate      | ND        |              | 0.50  | 0.050  | mg/L |   |          | 07/19/13 13:39 | 1       |

Lab Sample ID: LCS 160-62889/10

Matrix: Water

Analysis Batch: 62889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Nitrate as N | 0.400       | 0.379      |               | mg/L |   | 95   | 90 - 110     |
| Chloride     | 2.00        | 1.85       |               | mg/L |   | 92   | 90 - 110     |
| Bromide      | 2.00        | 1.90       |               | mg/L |   | 95   | 90 - 110     |
| Sulfate      | 8.00        | 7.53       |               | mg/L |   | 94   | 90 - 110     |

Lab Sample ID: 160-3052-4 MS

Matrix: Water

Analysis Batch: 62889

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Nitrate as N | 0.10          |                  | 0.400       | 0.495     |              | mg/L |   | 97   | 90 - 110     |
| Bromide      | 0.031         | J                | 2.00        | 1.97      |              | mg/L |   | 97   | 90 - 110     |

Lab Sample ID: 160-3052-4 DU

Matrix: Water

Analysis Batch: 62889

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte      | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|--------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Nitrate as N | 0.10          |                  | 0.104     |              | mg/L |   | 1   | 20        |
| Bromide      | 0.031         | J                | 0.0292    | J            | mg/L |   | 4   | 20        |

Lab Sample ID: MB 160-62933/9

Matrix: Water

Analysis Batch: 62933

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Iodide  | ND        |              | 1.0 | 0.10 | mg/L |   |          | 07/24/13 16:18 | 1       |

Lab Sample ID: LCS 160-62933/10

Matrix: Water

Analysis Batch: 62933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Iodide  | 4.00        | 4.04       |               | mg/L |   | 101  | 90 - 110     |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-3052-4 MS

Matrix: Water

Analysis Batch: 62933

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Iodide  | ND            |                  | 4.00        | 3.82      |              | mg/L |   | 95   | 90 - 110     |

Lab Sample ID: 160-3052-4 DU

Matrix: Water

Analysis Batch: 62933

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Iodide  | ND            |                  | ND        |              | mg/L |   | NC  | 20        |

### Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-3052-4 MS

Matrix: Water

Analysis Batch: 62889

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Chloride - DL | 7.3           |                  | 40.0        | 46.8      |              | mg/L |   | 99   | 90 - 110     |
| Sulfate - DL  | 65            |                  | 80.0        | 142       |              | mg/L |   | 96   | 90 - 110     |

Lab Sample ID: 160-3052-4 DU

Matrix: Water

Analysis Batch: 62889

Client Sample ID: PZ-102R-SS

Prep Type: Total/NA

| Analyte       | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD  | RPD Limit |
|---------------|---------------|------------------|-----------|--------------|------|---|------|-----------|
| Chloride - DL | 7.3           |                  | 7.31      |              | mg/L |   | 0.09 | 20        |
| Sulfate - DL  | 65            |                  | 64.8      |              | mg/L |   | 0.6  | 20        |

### Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-63730/1

Matrix: Water

Analysis Batch: 63730

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte    | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Alkalinity | 0.250     | J            | 1.3 | 0.14 | mg/L |   |          | 07/30/13 09:42 | 1       |

Lab Sample ID: LCS 160-63730/3

Matrix: Water

Analysis Batch: 63730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Alkalinity                      | 400         | 376        |               | mg/L |   | 94   | 90 - 110     |
| Bicarbonate Alkalinity as CaCO3 | 400         | 376        |               | mg/L |   | 94   | 90 - 110     |
| Carbonate Alkalinity as CaCO3   | 400         | ND         | *             | mg/L |   | 0    | 90 - 110     |
| Hydroxide Alkalinity            | 400         | ND         | *             | mg/L |   | 0    | 90 - 110     |
| Phenolphthalein Alkalinity      | 400         | ND         | *             | mg/L |   | 0    | 90 - 110     |

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## QC Sample Results

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

### Method: 310.1 - Alkalinity (Continued)

**Lab Sample ID: LLCS 160-63730/2**

**Matrix: Water**

**Analysis Batch: 63730**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

| Analyte                         | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|
| Alkalinity                      | 200         | 189         |                | mg/L |   | 95   | 90 - 110     |
| Bicarbonate Alkalinity as CaCO3 | 200         | 189         |                | mg/L |   | 95   | 90 - 110     |
| Carbonate Alkalinity as CaCO3   | 200         | ND          | *              | mg/L |   | 0    | 90 - 110     |
| Hydroxide Alkalinity            | 200         | ND          | *              | mg/L |   | 0    | 90 - 110     |
| Phenolphthalein Alkalinity      | 200         | ND          | *              | mg/L |   | 0    | 90 - 110     |

**Lab Sample ID: 160-3052-2 MS**

**Matrix: Water**

**Analysis Batch: 63730**

**Client Sample ID: I-73**

**Prep Type: Total/NA**

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Alkalinity                      | 2500          | B                | 100         | 2560      | 4            | mg/L |   | 95   | 80 - 120     |
| Bicarbonate Alkalinity as CaCO3 | 2500          |                  | 100         | 2560      | 4            | mg/L |   | 95   | 80 - 120     |
| Carbonate Alkalinity as CaCO3   | ND            |                  | 100         | ND        | F            | mg/L |   | 0    | 80 - 120     |
| Hydroxide Alkalinity            | ND            |                  | 100         | ND        | F            | mg/L |   | 0    | 80 - 120     |
| Phenolphthalein Alkalinity      | ND            |                  | 100         | ND        | F            | mg/L |   | 0    | 80 - 120     |

**Lab Sample ID: 160-3052-2 DU**

**Matrix: Water**

**Analysis Batch: 63730**

**Client Sample ID: I-73**

**Prep Type: Total/NA**

| Analyte    | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Alkalinity | 2500          | B                | 2470      |              | mg/L |   | 0.2 | 20        |

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# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## GC/MS VOA

### Analysis Batch: 62292

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-1        | FIELD BLANK @ I-73 | Total/NA  | Water  | 8260C  |            |
| 160-3052-2        | I-73               | Total/NA  | Water  | 8260C  |            |
| 160-3052-2 MS     | I-73               | Total/NA  | Water  | 8260C  |            |
| 160-3052-2 MSD    | I-73               | Total/NA  | Water  | 8260C  |            |
| 160-3052-3        | PZ-103-SS          | Total/NA  | Water  | 8260C  |            |
| 160-3052-4        | PZ-102R-SS         | Total/NA  | Water  | 8260C  |            |
| 160-3052-5        | PZ-200-SS          | Total/NA  | Water  | 8260C  |            |
| 160-3052-6        | PZ-102-SS          | Total/NA  | Water  | 8260C  |            |
| 160-3052-7        | PZ-107-SS          | Total/NA  | Water  | 8260C  |            |
| 160-3052-8        | PZ-106-KS          | Total/NA  | Water  | 8260C  |            |
| 160-3052-9        | DUPLICATE 08       | Total/NA  | Water  | 8260C  |            |
| 160-3052-10       | TRIP BLANK         | Total/NA  | Water  | 8260C  |            |
| LCS 160-62292/4-A | Lab Control Sample | Total/NA  | Water  | 8260C  |            |
| MB 160-62292/3-A  | Method Blank       | Total/NA  | Water  | 8260C  |            |

## Metals

### Prep Batch: 62431

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2        | I-73               | Total/NA  | Water  | 7470A  |            |
| 160-3052-2 MS     | I-73               | Total/NA  | Water  | 7470A  |            |
| 160-3052-2 MSD    | I-73               | Total/NA  | Water  | 7470A  |            |
| 160-3052-3        | PZ-103-SS          | Total/NA  | Water  | 7470A  |            |
| 160-3052-4        | PZ-102R-SS         | Total/NA  | Water  | 7470A  |            |
| 160-3052-5        | PZ-200-SS          | Total/NA  | Water  | 7470A  |            |
| 160-3052-6        | PZ-102-SS          | Total/NA  | Water  | 7470A  |            |
| 160-3052-7        | PZ-107-SS          | Total/NA  | Water  | 7470A  |            |
| 160-3052-8        | PZ-106-KS          | Total/NA  | Water  | 7470A  |            |
| 160-3052-9        | DUPLICATE 08       | Total/NA  | Water  | 7470A  |            |
| LCS 160-62431/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |
| MB 160-62431/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 62433

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2        | I-73               | Dissolved | Water  | 7470A  |            |
| 160-3052-2 MS     | I-73               | Dissolved | Water  | 7470A  |            |
| 160-3052-2 MSD    | I-73               | Dissolved | Water  | 7470A  |            |
| 160-3052-3        | PZ-103-SS          | Dissolved | Water  | 7470A  |            |
| 160-3052-4        | PZ-102R-SS         | Dissolved | Water  | 7470A  |            |
| 160-3052-5        | PZ-200-SS          | Dissolved | Water  | 7470A  |            |
| 160-3052-6        | PZ-102-SS          | Dissolved | Water  | 7470A  |            |
| 160-3052-7        | PZ-107-SS          | Dissolved | Water  | 7470A  |            |
| 160-3052-8        | PZ-106-KS          | Dissolved | Water  | 7470A  |            |
| 160-3052-9        | DUPLICATE 08       | Dissolved | Water  | 7470A  |            |
| LCS 160-62433/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |
| MB 160-62433/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |

### Analysis Batch: 62861

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 160-3052-2    | I-73             | Dissolved | Water  | 7470A  | 62433      |

TestAmerica St. Louis



# QC Association Summary

Client: Engineering Management Support, Inc.  
 Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## Metals (Continued)

### Analysis Batch: 62861 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2        | I-73               | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-2 MS     | I-73               | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-2 MS     | I-73               | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-2 MSD    | I-73               | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-2 MSD    | I-73               | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-3        | PZ-103-SS          | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-3        | PZ-103-SS          | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-4        | PZ-102R-SS         | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-4        | PZ-102R-SS         | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-5        | PZ-200-SS          | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-5        | PZ-200-SS          | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-6        | PZ-102-SS          | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-6        | PZ-102-SS          | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-7        | PZ-107-SS          | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-7        | PZ-107-SS          | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-8        | PZ-106-KS          | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-8        | PZ-106-KS          | Total/NA  | Water  | 7470A  | 62431      |
| 160-3052-9        | DUPLICATE 08       | Dissolved | Water  | 7470A  | 62433      |
| 160-3052-9        | DUPLICATE 08       | Total/NA  | Water  | 7470A  | 62431      |
| LCS 160-62431/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 62431      |
| LCS 160-62433/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 62433      |
| MB 160-62431/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 62431      |
| MB 160-62433/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 62433      |

### Prep Batch: 62879

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2        | I-73               | Dissolved | Water  | 3010A  |            |
| 160-3052-2 MS     | I-73               | Dissolved | Water  | 3010A  |            |
| 160-3052-2 MSD    | I-73               | Dissolved | Water  | 3010A  |            |
| 160-3052-3        | PZ-103-SS          | Dissolved | Water  | 3010A  |            |
| 160-3052-4        | PZ-102R-SS         | Dissolved | Water  | 3010A  |            |
| 160-3052-5        | PZ-200-SS          | Dissolved | Water  | 3010A  |            |
| 160-3052-6        | PZ-102-SS          | Dissolved | Water  | 3010A  |            |
| 160-3052-7        | PZ-107-SS          | Dissolved | Water  | 3010A  |            |
| 160-3052-8        | PZ-106-KS          | Dissolved | Water  | 3010A  |            |
| 160-3052-9        | DUPLICATE 08       | Dissolved | Water  | 3010A  |            |
| LCS 160-62879/2-A | Lab Control Sample | Total/NA  | Water  | 3010A  |            |
| MB 160-62879/1-A  | Method Blank       | Total/NA  | Water  | 3010A  |            |

### Prep Batch: 62880

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 160-3052-2     | I-73             | Total/NA  | Water  | 3010A  |            |
| 160-3052-2 MS  | I-73             | Total/NA  | Water  | 3010A  |            |
| 160-3052-2 MSD | I-73             | Total/NA  | Water  | 3010A  |            |
| 160-3052-3     | PZ-103-SS        | Total/NA  | Water  | 3010A  |            |
| 160-3052-4     | PZ-102R-SS       | Total/NA  | Water  | 3010A  |            |
| 160-3052-5     | PZ-200-SS        | Total/NA  | Water  | 3010A  |            |
| 160-3052-6     | PZ-102-SS        | Total/NA  | Water  | 3010A  |            |
| 160-3052-7     | PZ-107-SS        | Total/NA  | Water  | 3010A  |            |
| 160-3052-8     | PZ-106-KS        | Total/NA  | Water  | 3010A  |            |
| 160-3052-9     | DUPLICATE 08     | Total/NA  | Water  | 3010A  |            |

TestAmerica St. Louis

# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## Metals (Continued)

### Prep Batch: 62880 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 160-62880/2-A | Lab Control Sample | Total/NA  | Water  | 3010A  |            |
| MB 160-62880/1-A  | Method Blank       | Total/NA  | Water  | 3010A  |            |

### Analysis Batch: 63280

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2        | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2        | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MS     | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MS     | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MSD    | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MSD    | I-73               | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-3        | PZ-103-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-3        | PZ-103-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-4        | PZ-102R-SS         | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-4        | PZ-102R-SS         | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-5        | PZ-200-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-5        | PZ-200-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-6        | PZ-102-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-6        | PZ-102-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-7        | PZ-107-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-7        | PZ-107-SS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-8        | PZ-106-KS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-8        | PZ-106-KS          | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-9        | DUPLICATE 08       | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-9        | DUPLICATE 08       | Total/NA  | Water  | 6010C  | 62880      |
| LCS 160-62880/2-A | Lab Control Sample | Total/NA  | Water  | 6010C  | 62880      |
| MB 160-62880/1-A  | Method Blank       | Total/NA  | Water  | 6010C  | 62880      |

### Analysis Batch: 63435

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 160-3052-2     | I-73             | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MS  | I-73             | Total/NA  | Water  | 6010C  | 62880      |
| 160-3052-2 MSD | I-73             | Total/NA  | Water  | 6010C  | 62880      |

### Analysis Batch: 63744

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 160-3052-2     | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2     | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2     | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MS  | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MS  | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MS  | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MSD | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MSD | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-2 MSD | I-73             | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-3     | PZ-103-SS        | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-3     | PZ-103-SS        | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-4     | PZ-102R-SS       | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-4     | PZ-102R-SS       | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-5     | PZ-200-SS        | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-5     | PZ-200-SS        | Dissolved | Water  | 6010C  | 62879      |

TestAmerica St. Louis

# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## Metals (Continued)

### Analysis Batch: 63744 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-6        | PZ-102-SS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-6        | PZ-102-SS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-7        | PZ-107-SS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-7        | PZ-107-SS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-8        | PZ-106-KS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-8        | PZ-106-KS          | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-9        | DUPLICATE 08       | Dissolved | Water  | 6010C  | 62879      |
| 160-3052-9        | DUPLICATE 08       | Dissolved | Water  | 6010C  | 62879      |
| LCS 160-62879/2-A | Lab Control Sample | Total/NA  | Water  | 6010C  | 62879      |
| MB 160-62879/1-A  | Method Blank       | Total/NA  | Water  | 6010C  | 62879      |

### Analysis Batch: 63920

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| MB 160-62879/1-A | Method Blank     | Total/NA  | Water  | 6010C  | 62879      |

## General Chemistry

### Analysis Batch: 62889

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2 - DL    | I-73               | Total/NA  | Water  | 300.0  |            |
| 160-3052-2 - DL2   | I-73               | Total/NA  | Water  | 300.0  |            |
| 160-3052-2 - DL4   | I-73               | Total/NA  | Water  | 300.0  |            |
| 160-3052-3         | PZ-103-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-3 - DL    | PZ-103-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-4         | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 - DL    | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 DU      | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 DU - DL | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 MS      | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 MS - DL | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-5         | PZ-200-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-5 - DL2   | PZ-200-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-6         | PZ-102-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-6 - DL    | PZ-102-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-7         | PZ-107-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-7 - DL    | PZ-107-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-7 - DL2   | PZ-107-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-8         | PZ-106-KS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-8 - DL    | PZ-106-KS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-9         | DUPLICATE 08       | Total/NA  | Water  | 300.0  |            |
| 160-3052-9 - DL    | DUPLICATE 08       | Total/NA  | Water  | 300.0  |            |
| 160-3052-9 - DL2   | DUPLICATE 08       | Total/NA  | Water  | 300.0  |            |
| LCS 160-62889/10   | Lab Control Sample | Total/NA  | Water  | 300.0  |            |
| MB 160-62889/9     | Method Blank       | Total/NA  | Water  | 300.0  |            |

### Analysis Batch: 62933

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 160-3052-2    | I-73             | Total/NA  | Water  | 300.0  |            |
| 160-3052-3    | PZ-103-SS        | Total/NA  | Water  | 300.0  |            |
| 160-3052-4    | PZ-102R-SS       | Total/NA  | Water  | 300.0  |            |

TestAmerica St. Louis

# QC Association Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

## General Chemistry (Continued)

### Analysis Batch: 62933 (Continued)

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-4 DU    | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-4 MS    | PZ-102R-SS         | Total/NA  | Water  | 300.0  |            |
| 160-3052-5       | PZ-200-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-6       | PZ-102-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-7       | PZ-107-SS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-8       | PZ-106-KS          | Total/NA  | Water  | 300.0  |            |
| 160-3052-9       | DUPLICATE 08       | Total/NA  | Water  | 300.0  |            |
| LCS 160-62933/10 | Lab Control Sample | Total/NA  | Water  | 300.0  |            |
| MB 160-62933/9   | Method Blank       | Total/NA  | Water  | 300.0  |            |

### Analysis Batch: 63730

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 160-3052-2       | I-73               | Total/NA  | Water  | 310.1  |            |
| 160-3052-2 DU    | I-73               | Total/NA  | Water  | 310.1  |            |
| 160-3052-2 MS    | I-73               | Total/NA  | Water  | 310.1  |            |
| 160-3052-3       | PZ-103-SS          | Total/NA  | Water  | 310.1  |            |
| 160-3052-4       | PZ-102R-SS         | Total/NA  | Water  | 310.1  |            |
| 160-3052-5       | PZ-200-SS          | Total/NA  | Water  | 310.1  |            |
| 160-3052-6       | PZ-102-SS          | Total/NA  | Water  | 310.1  |            |
| 160-3052-7       | PZ-107-SS          | Total/NA  | Water  | 310.1  |            |
| 160-3052-8       | PZ-106-KS          | Total/NA  | Water  | 310.1  |            |
| 160-3052-9       | DUPLICATE 08       | Total/NA  | Water  | 310.1  |            |
| LCS 160-63730/3  | Lab Control Sample | Total/NA  | Water  | 310.1  |            |
| LLCS 160-63730/2 | Lab Control Sample | Total/NA  | Water  | 310.1  |            |
| MB 160-63730/1   | Method Blank       | Total/NA  | Water  | 310.1  |            |

US EPA ARCHIVE DOCUMENT

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# Surrogate Summary

Client: Engineering Management Support, Inc.  
Project/Site: West Lake Landfill

TestAmerica Job ID: 160-3052-1

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|--------------------|--|-----------------|------------------|-----------------|
|                   |                    | 12DCE<br>(82-132)                              | BFB<br>(82-121) | DBFM<br>(85-119) | TOL<br>(85-115) |
| 160-3052-1        | FIELD BLANK @ I-73 | 101  | 90              | 101              | 103             |
| 160-3052-2        | I-73               | 99   | 85              | 103              | 103             |
| 160-3052-2 MS     | I-73               | 99   | 92              | 102              | 103             |
| 160-3052-2 MSD    | I-73               | 104  | 100             | 104              | 103             |
| 160-3052-3        | PZ-103-SS          | 109  | 94              | 103              | 108             |
| 160-3052-4        | PZ-102R-SS         | 108  | 97              | 103              | 104             |
| 160-3052-5        | PZ-200-SS          | 111  | 98              | 107              | 104             |
| 160-3052-6        | PZ-102-SS          | 107  | 95              | 99               | 101             |
| 160-3052-7        | PZ-107-SS          | 105  | 96              | 100              | 102             |
| 160-3052-8        | PZ-106-KS          | 102  | 89              | 102              | 106             |
| 160-3052-9        | DUPLICATE 08       | 106  | 88              | 105              | 107             |
| 160-3052-10       | TRIP BLANK         | 101  | 88              | 99               | 99              |
| LCS 160-62292/4-A | Lab Control Sample | 105  | 96              | 103              | 102             |
| MB 160-62292/3-A  | Method Blank       | 104  | 94              | 101              | 104             |

### Surrogate Legend

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

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