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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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Tel: (314)298-8566

TestAmerica Job ID: 160-2078-1

Client Project/Site: West Lake Landfill

For:

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Attn: Mr. Paul Rosasco

Rhonda Ridenhower

Authorized for release by:
4/30/2013 4:15:49 PM

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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: 160-2078-1

Job ID: 160-2078-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Engineering Management Support, Inc.

Project: West Lake Landfill

Report Number: 160-2078-1

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.

RECEIPT

The samples were received on 04/12/2013; 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 S-53 (160-2078-1), PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), FB@D-3 (160-2078-7), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13), DUP 06 (160-2078-14) and TRIP BLANK (160-2078-15) were analyzed for volatile organic compounds (GC MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/15/2013 and 04/16/2013.

Analytical batch 46185

ICAL-8260C-F5mL-RSD15Low
F130325B

The ICV %D for Vinyl acetate is within the method upper QC limit of +30%D; it is outside the upper limit of 20% required by some clients.

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Case Narrative

Client: Engineering Management Support, Inc.
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Job ID: 160-2078-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

The sample will require re-analysis if this analyte is found above the reporting limit in samples with the 20% requirement. sec-Butylbenzene was removed from the initial calibration highest point due to elevated response. The surrogate compounds (Dibromofluoromethane, 1,2-Dichloroethane-d4, Toluene-d8 and 4-Bromofluorobenzene) were not spiked at the initial calibration highest point because the recoveries do not warrant the high concentration. The initial calibration still meets the TestAmerica's point selection policy. No further action is required.

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 46185 exceeded control limits for the following analytes: Acetone. The %RPD for the MS/MSD in batch 46185 meet the QC limits.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 5 analytes to recover outside criteria for this method when a full list spike is utilized. The MS/MSD associated with batch 46185 had 2 and 4 analytes outside control limits which meet criteria; therefore, re-extraction/re-analysis was not performed.

Analytical batch 46433

ICAL-8260C-F5mL-RSD15Low
F130325B

The ICV %D for Vinyl acetate is within the method upper QC limit of +30%D; it is outside the upper limit of 20% required by some clients. The sample will require re-analysis if this analyte is found above the reporting limit in samples with the 20% requirement. sec-Butylbenzene was removed from the initial calibration highest point due to elevated response. The surrogate compounds (Dibromofluoromethane, 1,2-Dichloroethane-d4, Toluene-d8 and 4-Bromofluorobenzene) were not spiked at the initial calibration highest point because the recoveries do not warrant the high concentration. The initial calibration still meets the TestAmerica's point selection policy. No further action is required.

The following samples in batch 46433 were diluted to bring the concentration of target analytes within the calibration range: DUP 06 (160-2078-14), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5). Elevated reporting limits (RLs) are provided.

The continuing calibration verification (CCV) for 1,2-Dichloro-1,1,2,2-tetrafluoroethane, Chloromethane, Acrolein, Acetonitrile, Acetone, and 2,2-Dichloropropane associated with batch 46433 recovered above the upper control limit. The samples associated with this CCV were re-analyzed for Tetrahydrofuran, Benzene and Toluene only; therefore, the data is not affected by these compounds being out in the CCV.

No MS/MSD was performed with batch 46433 since this was a re-analysis for 3 compounds only. An LCS/LCSD was performed to demonstrate accuracy and replicate precision. No further action is required.

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICP)-Dissolved

Samples PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/16/2013 and analyzed on 04/22/2013 and 04/23/2013.

Prep batch 46238, analytical batch 47331

The following samples were diluted to bring the concentration of target analytes (calcium) within the calibration range: (160-2078-8 MS), (160-2078-8 MSD), (160-2078-8 SD), D-3 (160-2078-8), D-85 (160-2078-9), PZ-113-AD (160-2078-6). Elevated reporting limits (RLs) are provided.

Due to the high concentration of calcium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 46238 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Prep batch 46238, analytical batch 47292

Case Narrative

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

TestAmerica Job ID: 160-2078-1

Job ID: 160-2078-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

The following samples were diluted due to the nature of the sample matrix. The sample digestates were yellow in color: (160-2078-8 MS), (160-2078-8 MSD), (160-2078-8 SD), D-3 (160-2078-8), D-85 (160-2078-9), DUP 06 (160-2078-14), PZ-102R-SS (160-2078-3), PZ-102-SS (160-2078-2), PZ-104-KS (160-2078-13), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-109-SS (160-2078-12), PZ-113-AD (160-2078-6), S-5 (160-2078-11), S-84 (160-2078-10). Elevated reporting limits (RLs) are provided

Due to the high concentration of magnesium and sodium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 46238 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other difficulties were encountered during the ICP analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Samples S-53 (160-2078-1), PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/16/2013 and analyzed on 04/22/2013 and 04/23/2013.

Prep batch 46237, analytical batch 47331

The following samples was diluted to bring the concentration of target analytes (calcium) within the calibration range: (160-2078-8 MS), (160-2078-8 MSD), (160-2078-8 SD), D-3 (160-2078-8), D-85 (160-2078-9), PZ-113-AD (160-2078-6). Elevated reporting limits (RLs) are provided

Due to the high concentration of calcium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 46237 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Prep batch 46237, analytical batch 47292

The following samples were diluted due to the nature of the sample matrix. The sample digestates were yellow in color: (160-2078-8 MS), (160-2078-8 MSD), (160-2078-8 SD), D-3 (160-2078-8), D-85 (160-2078-9), DUP 06 (160-2078-14), PZ-102R-SS (160-2078-3), PZ-102-SS (160-2078-2), PZ-104-KS (160-2078-13), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-109-SS (160-2078-12), PZ-113-AD (160-2078-6), S-5 (160-2078-11), S-53 (160-2078-1), S-84 (160-2078-10). Elevated reporting limits (RLs) are provided.

Due to the high concentration of sodium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 46237 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/24/2013.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with sample 2078-8; MS/MSD was instead performed on sample 2078-9.

No other difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples S-53 (160-2078-1), PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12),

Case Narrative

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

TestAmerica Job ID: 160-2078-1

Job ID: 160-2078-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/24/2013.

The matrix spike (MS) recoveries for batch 47769 were outside control limits. The RPD and the associated laboratory control sample (LCS) recovery met acceptance criteria.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with sample 2078-8; MS/MSD was instead performed on sample 2078-9.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

ANIONS

Samples S-53 (160-2078-1), PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/12/2013 and 04/16/2013.

The following samples were diluted to bring the concentrations of Chloride, Sulfate, and Bromide within the calibration range in IC batch 47566: D-3 (160-2078-8), D-85 (160-2078-9), DUP 06 (160-2078-14), PZ-102R-SS (160-2078-3), PZ-102-SS (160-2078-2), PZ-104-KS (160-2078-13), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-109-SS (160-2078-12), PZ-113-AD (160-2078-6), S-5 (160-2078-11), S-53 (160-2078-1), S-84 (160-2078-10). Elevated reporting limits (RLs) are provided.

The following sample was reported ND at dilution for Iodide in batch 46720 due to matrix interference with the Iodide retention time in the undiluted analysis. This interference was confirmed with an undiluted reanalysis of the sample: PZ-104-SD (160-2078-4). An elevated reporting limit (RL) is provided for this sample.

No other difficulties were encountered during the anions analyses.

All quality control parameters were within the acceptance limits.

ALKALINITY

Samples S-53 (160-2078-1), PZ-102-SS (160-2078-2), PZ-102R-SS (160-2078-3), PZ-104-SD (160-2078-4), PZ-104-SS (160-2078-5), PZ-113-AD (160-2078-6), D-3 (160-2078-8), D-85 (160-2078-9), S-84 (160-2078-10), S-5 (160-2078-11), PZ-109-SS (160-2078-12), PZ-104-KS (160-2078-13) and DUP 06 (160-2078-14) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/18/2013 and 04/23/2013.

For the Alkalinity analysis of the associated samples in batch #46737, the samples were analyzed at a dilution based on high concentrations of target analytes. The reporting limit has been adjusted accordingly. (160-2078-8 DU), (160-2078-8 MS), D-3 (160-2078-8), PZ-113-AD (160-2078-6), S-5 (160-2078-11)

No other difficulties were encountered during the alkalinity analyses.

All quality control parameters were within the acceptance limits.

Login Sample Receipt Checklist

Client: Engineering Management Support, Inc.

Job Number: 160-2078-1

Login Number: 2078

List Source: TestAmerica St. Louis

List Number: 1

Creator: Clarke, Jill

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Definitions/Glossary

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

TestAmerica Job ID: 160-2078-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
*	LCS or LCSD 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.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
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

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.
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.

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)
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)

Method Summary

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

TestAmerica Job ID: 160-2078-1

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

Sample Summary

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

TestAmerica Job ID: 160-2078-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-2078-1	S-53	Water	04/11/13 08:30	04/12/13 08:20
160-2078-2	PZ-102-SS	Water	04/11/13 09:10	04/12/13 08:20
160-2078-3	PZ-102R-SS	Water	04/11/13 11:30	04/12/13 08:20
160-2078-4	PZ-104-SD	Water	04/11/13 11:38	04/12/13 08:20
160-2078-5	PZ-104-SS	Water	04/11/13 12:59	04/12/13 08:20
160-2078-6	PZ-113-AD	Water	04/11/13 13:35	04/12/13 08:20
160-2078-7	FB@D-3	Water	04/11/13 13:50	04/12/13 08:20
160-2078-8	D-3	Water	04/11/13 14:24	04/12/13 08:20
160-2078-9	D-85	Water	04/11/13 14:45	04/12/13 08:20
160-2078-10	S-84	Water	04/11/13 15:30	04/12/13 08:20
160-2078-11	S-5	Water	04/11/13 15:31	04/12/13 08:20
160-2078-12	PZ-109-SS	Water	04/11/13 16:08	04/12/13 08:20
160-2078-13	PZ-104-KS	Water	04/11/13 17:08	04/12/13 08:20
160-2078-14	DUP 06	Water	04/11/13 00:00	04/12/13 08:20
160-2078-15	TRIP BLANK	Water	04/11/13 00:00	04/12/13 08:20

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Detection Summary

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-53

Lab Sample ID: 160-2078-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	62000		1000	400	ug/L	5		6010C	Total/NA
Arsenic	42	J	50	9.9	ug/L	5		6010C	Total/NA
Barium	1400		250	20	ug/L	5		6010C	Total/NA
Beryllium	5.5	J	25	3.1	ug/L	5		6010C	Total/NA
Calcium	230000		5000	530	ug/L	5		6010C	Total/NA
Chromium	98		50	16	ug/L	5		6010C	Total/NA
Cobalt	46	J	250	20	ug/L	5		6010C	Total/NA
Copper	95	J	130	23	ug/L	5		6010C	Total/NA
Iron	100000		500	140	ug/L	5		6010C	Total/NA
Lead	140		50	7.5	ug/L	5		6010C	Total/NA
Magnesium	62000		5000	660	ug/L	5		6010C	Total/NA
Manganese	8900		75	17	ug/L	5		6010C	Total/NA
Nickel	180	J	200	67	ug/L	5		6010C	Total/NA
Potassium	22000	J	25000	8300	ug/L	5		6010C	Total/NA
Sodium	48000		5000	1600	ug/L	5		6010C	Total/NA
Vanadium	160	J	250	20	ug/L	5		6010C	Total/NA
Zinc	680	B	100	26	ug/L	5		6010C	Total/NA
Mercury	0.20		0.20	0.060	ug/L	1		7470A	Total/NA
Bromide	3.2		0.25	0.025	mg/L	1		300.0	Total/NA
Iodide	0.29	J	1.0	0.10	mg/L	1		300.0	Total/NA
Alkalinity	500		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	32		4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	170		10	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: PZ-102-SS

Lab Sample ID: 160-2078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	26000		1000	400	ug/L	5		6010C	Total/NA
Arsenic	19	J	50	9.9	ug/L	5		6010C	Total/NA
Barium	690		250	20	ug/L	5		6010C	Total/NA
Beryllium	3.5	J	25	3.1	ug/L	5		6010C	Total/NA
Calcium	150000		5000	530	ug/L	5		6010C	Total/NA
Chromium	33	J	50	16	ug/L	5		6010C	Total/NA
Copper	29	J	130	23	ug/L	5		6010C	Total/NA
Iron	34000		500	140	ug/L	5		6010C	Total/NA
Lead	57		50	7.5	ug/L	5		6010C	Total/NA
Magnesium	57000		5000	660	ug/L	5		6010C	Total/NA
Manganese	1000		75	17	ug/L	5		6010C	Total/NA
Nickel	80	J	200	67	ug/L	5		6010C	Total/NA
Sodium	38000		5000	1600	ug/L	5		6010C	Total/NA
Vanadium	65	J	250	20	ug/L	5		6010C	Total/NA
Zinc	170	B	100	26	ug/L	5		6010C	Total/NA
Arsenic	11	J	50	9.9	ug/L	5		6010C	Dissolved
Barium	430		250	20	ug/L	5		6010C	Dissolved
Calcium	110000		5000	530	ug/L	5		6010C	Dissolved
Iron	3500		500	140	ug/L	5		6010C	Dissolved
Magnesium	42000		5000	660	ug/L	5		6010C	Dissolved
Manganese	260		75	17	ug/L	5		6010C	Dissolved
Sodium	37000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	28	J B	100	26	ug/L	5		6010C	Dissolved

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: 160-2078-1

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

Lab Sample ID: 160-2078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.14	J	0.20	0.060	ug/L	1		7470A	Total/NA
Sulfate	15		0.50	0.050	mg/L	1		300.0	Total/NA
Alkalinity	510		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	5.0		4.0	0.40	mg/L	20		300.0	Total/NA

Client Sample ID: PZ-102R-SS

Lab Sample ID: 160-2078-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3500		1000	400	ug/L	5		6010C	Total/NA
Barium	110	J	250	20	ug/L	5		6010C	Total/NA
Calcium	130000		5000	530	ug/L	5		6010C	Total/NA
Iron	6700		500	140	ug/L	5		6010C	Total/NA
Lead	9.5	J	50	7.5	ug/L	5		6010C	Total/NA
Magnesium	51000		5000	660	ug/L	5		6010C	Total/NA
Manganese	36	J	75	17	ug/L	5		6010C	Total/NA
Sodium	26000		5000	1600	ug/L	5		6010C	Total/NA
Zinc	120	B	100	26	ug/L	5		6010C	Total/NA
Barium	82	J	250	20	ug/L	5		6010C	Dissolved
Calcium	120000		5000	530	ug/L	5		6010C	Dissolved
Iron	220	J	500	140	ug/L	5		6010C	Dissolved
Magnesium	46000		5000	660	ug/L	5		6010C	Dissolved
Sodium	33000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	60	J B	100	26	ug/L	5		6010C	Dissolved
Mercury	0.11	J	0.20	0.060	ug/L	1		7470A	Total/NA
Nitrate as N	0.014	J	0.020	0.0040	mg/L	1		300.0	Total/NA
Bromide	0.030	J	0.25	0.025	mg/L	1		300.0	Total/NA
Alkalinity	440		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	9.8		4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	77		10	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: PZ-104-SD

Lab Sample ID: 160-2078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	4.1	J	5.0	0.35	ug/L	1		8260C	Total/NA
Benzene	820		50	2.5	ug/L	1		8260C	Total/NA
Chloroethane	2.1	J	10	0.38	ug/L	1		8260C	Total/NA
Ethylbenzene	18		5.0	0.30	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.4	J	5.0	0.26	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	3.3	J	5.0	0.40	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	33		5.0	0.57	ug/L	1		8260C	Total/NA
o-Xylene	11		5.0	0.32	ug/L	1		8260C	Total/NA
Toluene	1500		50	10	ug/L	1		8260C	Total/NA
Xylenes, Total	44		10	0.85	ug/L	1		8260C	Total/NA
Arsenic	20	J	50	9.9	ug/L	5		6010C	Total/NA
Barium	1600		250	20	ug/L	5		6010C	Total/NA
Calcium	150000		5000	530	ug/L	5		6010C	Total/NA
Chromium	42	J	50	16	ug/L	5		6010C	Total/NA
Iron	22000		500	140	ug/L	5		6010C	Total/NA
Magnesium	91000		5000	660	ug/L	5		6010C	Total/NA
Manganese	180		75	17	ug/L	5		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: 160-2078-1

Client Sample ID: PZ-104-SD (Continued)

Lab Sample ID: 160-2078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	34000		25000	8300	ug/L		5	6010C	Total/NA
Sodium	260000		5000	1600	ug/L		5	6010C	Total/NA
Vanadium	34	J	250	20	ug/L		5	6010C	Total/NA
Barium	660		250	20	ug/L		5	6010C	Dissolved
Calcium	120000		5000	530	ug/L		5	6010C	Dissolved
Chromium	19	J	50	16	ug/L		5	6010C	Dissolved
Iron	7900		500	140	ug/L		5	6010C	Dissolved
Magnesium	65000		5000	660	ug/L		5	6010C	Dissolved
Manganese	160		75	17	ug/L		5	6010C	Dissolved
Potassium	18000	J	25000	8300	ug/L		5	6010C	Dissolved
Sodium	120000		5000	1600	ug/L		5	6010C	Dissolved
Zinc	26	J B	100	26	ug/L		5	6010C	Dissolved
Mercury	0.067	J	0.20	0.060	ug/L		1	7470A	Dissolved
Nitrate as N	0.031		0.020	0.0040	mg/L		1	300.0	Total/NA
Bromide	1.1		0.25	0.025	mg/L		1	300.0	Total/NA
Alkalinity	670		5.0	0.54	mg/L		1	310.1	Total/NA
Sulfate - DL	88		10	1.0	mg/L		20	300.0	Total/NA
Chloride - DL2	250		40	4.0	mg/L		200	300.0	Total/NA

Client Sample ID: PZ-104-SS

Lab Sample ID: 160-2078-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	7.4		5.0	0.35	ug/L		1	8260C	Total/NA
2-Butanone (MEK)	84		20	0.39	ug/L		1	8260C	Total/NA
2-Hexanone	78		20	0.59	ug/L		1	8260C	Total/NA
Acetone	62	*	20	6.7	ug/L		1	8260C	Total/NA
Benzene	1900		50	2.5	ug/L		1	8260C	Total/NA
Carbon disulfide	0.48	J	5.0	0.37	ug/L		1	8260C	Total/NA
Chloroethane	4.3	J	10	0.38	ug/L		1	8260C	Total/NA
Ethylbenzene	25		5.0	0.30	ug/L		1	8260C	Total/NA
Isopropylbenzene	2.6	J	5.0	0.26	ug/L		1	8260C	Total/NA
Methyl tert-butyl ether	7.5		5.0	0.40	ug/L		1	8260C	Total/NA
m-Xylene & p-Xylene	46		5.0	0.57	ug/L		1	8260C	Total/NA
o-Xylene	19		5.0	0.32	ug/L		1	8260C	Total/NA
Toluene	150		5.0	1.0	ug/L		1	8260C	Total/NA
Xylenes, Total	65		10	0.85	ug/L		1	8260C	Total/NA
Barium	99	J	250	20	ug/L		5	6010C	Total/NA
Calcium	94000		5000	530	ug/L		5	6010C	Total/NA
Iron	2100		500	140	ug/L		5	6010C	Total/NA
Magnesium	53000		5000	660	ug/L		5	6010C	Total/NA
Manganese	49	J	75	17	ug/L		5	6010C	Total/NA
Sodium	11000		5000	1600	ug/L		5	6010C	Total/NA
Zinc	26	J B	100	26	ug/L		5	6010C	Total/NA
Barium	96	J	250	20	ug/L		5	6010C	Dissolved
Calcium	93000		5000	530	ug/L		5	6010C	Dissolved
Iron	2100		500	140	ug/L		5	6010C	Dissolved
Magnesium	52000		5000	660	ug/L		5	6010C	Dissolved
Manganese	51	J	75	17	ug/L		5	6010C	Dissolved
Sodium	11000		5000	1600	ug/L		5	6010C	Dissolved
Nitrate as N	0.022		0.020	0.0040	mg/L		1	300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SS (Continued)

Lab Sample ID: 160-2078-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromide	0.025	J	0.25	0.025	mg/L	1		300.0	Total/NA
Sulfate	0.96		0.50	0.050	mg/L	1		300.0	Total/NA
Alkalinity	440		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	4.2		4.0	0.40	mg/L	20		300.0	Total/NA

Client Sample ID: PZ-113-AD

Lab Sample ID: 160-2078-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Hexanone	11	J	20	0.59	ug/L	1		8260C	Total/NA
Benzene	3.1	J	5.0	0.25	ug/L	1		8260C	Total/NA
Carbon disulfide	0.42	J	5.0	0.37	ug/L	1		8260C	Total/NA
Barium	2200		250	20	ug/L	5		6010C	Total/NA
Calcium	270000	E	5000	530	ug/L	5		6010C	Total/NA
Calcium	280000		10000	1100	ug/L	10		6010C	Total/NA
Iron	34000		500	140	ug/L	5		6010C	Total/NA
Lead	7.5	J	50	7.5	ug/L	5		6010C	Total/NA
Magnesium	85000		5000	660	ug/L	5		6010C	Total/NA
Manganese	650		75	17	ug/L	5		6010C	Total/NA
Potassium	26000		25000	8300	ug/L	5		6010C	Total/NA
Sodium	350000		5000	1600	ug/L	5		6010C	Total/NA
Zinc	27	J B	100	26	ug/L	5		6010C	Total/NA
Barium	2200		250	20	ug/L	5		6010C	Dissolved
Calcium	270000	E	5000	530	ug/L	5		6010C	Dissolved
Calcium	280000		10000	1100	ug/L	10		6010C	Dissolved
Iron	35000		500	140	ug/L	5		6010C	Dissolved
Magnesium	86000		5000	660	ug/L	5		6010C	Dissolved
Manganese	650		75	17	ug/L	5		6010C	Dissolved
Potassium	26000		25000	8300	ug/L	5		6010C	Dissolved
Sodium	350000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	30	J B	100	26	ug/L	5		6010C	Dissolved
Mercury	0.080	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.083	J	0.20	0.060	ug/L	1		7470A	Dissolved
Sulfate	0.45	J	0.50	0.050	mg/L	1		300.0	Total/NA
Iodide	0.45	J	1.0	0.10	mg/L	1		300.0	Total/NA
Bromide - DL	15		5.0	0.50	mg/L	20		300.0	Total/NA
Alkalinity - DL	1200		25	2.7	mg/L	5		310.1	Total/NA
Chloride - DL2	450		40	4.0	mg/L	200		300.0	Total/NA

Client Sample ID: FB@D-3

Lab Sample ID: 160-2078-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.49	J	5.0	0.25	ug/L	1		8260C	Total/NA

Client Sample ID: D-3

Lab Sample ID: 160-2078-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.29	J	5.0	0.25	ug/L	1		8260C	Total/NA
Chlorobenzene	1.5	J	5.0	0.38	ug/L	1		8260C	Total/NA
Barium	2300		250	20	ug/L	5		6010C	Total/NA
Calcium	280000	E	5000	530	ug/L	5		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: 160-2078-1

Client Sample ID: D-3 (Continued)

Lab Sample ID: 160-2078-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	280000		10000	1100	ug/L	10		6010C	Total/NA
Iron	31000		500	140	ug/L	5		6010C	Total/NA
Lead	8.5	J	50	7.5	ug/L	5		6010C	Total/NA
Magnesium	85000		5000	660	ug/L	5		6010C	Total/NA
Manganese	500		75	17	ug/L	5		6010C	Total/NA
Potassium	28000		25000	8300	ug/L	5		6010C	Total/NA
Sodium	390000		5000	1600	ug/L	5		6010C	Total/NA
Barium	2300		250	20	ug/L	5		6010C	Dissolved
Calcium	270000	E	5000	530	ug/L	5		6010C	Dissolved
Calcium	280000		10000	1100	ug/L	10		6010C	Dissolved
Iron	30000		500	140	ug/L	5		6010C	Dissolved
Magnesium	83000		5000	660	ug/L	5		6010C	Dissolved
Manganese	500		75	17	ug/L	5		6010C	Dissolved
Potassium	27000		25000	8300	ug/L	5		6010C	Dissolved
Sodium	380000		5000	1600	ug/L	5		6010C	Dissolved
Vanadium	27	J	250	20	ug/L	5		6010C	Dissolved
Zinc	28	J B	100	26	ug/L	5		6010C	Dissolved
Mercury	0.069	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.074	J	0.20	0.060	ug/L	1		7470A	Dissolved
Sulfate	0.26	J	0.50	0.050	mg/L	1		300.0	Total/NA
Iodide	0.49	J	1.0	0.10	mg/L	1		300.0	Total/NA
Bromide - DL	17		5.0	0.50	mg/L	20		300.0	Total/NA
Alkalinity - DL	1300		25	2.7	mg/L	5		310.1	Total/NA
Chloride - DL2	490		40	4.0	mg/L	200		300.0	Total/NA

Client Sample ID: D-85

Lab Sample ID: 160-2078-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.73	J	5.0	0.25	ug/L	1		8260C	Total/NA
Chlorobenzene	59		5.0	0.38	ug/L	1		8260C	Total/NA
Aluminum	33000		1000	400	ug/L	5		6010C	Total/NA
Arsenic	71		50	9.9	ug/L	5		6010C	Total/NA
Barium	4100		250	20	ug/L	5		6010C	Total/NA
Beryllium	3.5	J	25	3.1	ug/L	5		6010C	Total/NA
Calcium	430000	E	5000	530	ug/L	5		6010C	Total/NA
Calcium	460000		10000	1100	ug/L	10		6010C	Total/NA
Chromium	59		50	16	ug/L	5		6010C	Total/NA
Cobalt	57	J	250	20	ug/L	5		6010C	Total/NA
Copper	110	J	130	23	ug/L	5		6010C	Total/NA
Iron	180000		500	140	ug/L	5		6010C	Total/NA
Lead	100		50	7.5	ug/L	5		6010C	Total/NA
Magnesium	95000		5000	660	ug/L	5		6010C	Total/NA
Manganese	5200		75	17	ug/L	5		6010C	Total/NA
Nickel	460		200	67	ug/L	5		6010C	Total/NA
Potassium	13000	J	25000	8300	ug/L	5		6010C	Total/NA
Sodium	160000		5000	1600	ug/L	5		6010C	Total/NA
Vanadium	89	J	250	20	ug/L	5		6010C	Total/NA
Zinc	370	B	100	26	ug/L	5		6010C	Total/NA
Aluminum	500	J	1000	400	ug/L	5		6010C	Dissolved
Arsenic	40	J	50	9.9	ug/L	5		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: 160-2078-1

Client Sample ID: D-85 (Continued)

Lab Sample ID: 160-2078-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	1900		250	20	ug/L		5	6010C	Dissolved
Calcium	270000	E	5000	530	ug/L		5	6010C	Dissolved
Calcium	280000		10000	1100	ug/L		10	6010C	Dissolved
Iron	57000		500	140	ug/L		5	6010C	Dissolved
Lead	8.5	J	50	7.5	ug/L		5	6010C	Dissolved
Magnesium	69000		5000	660	ug/L		5	6010C	Dissolved
Manganese	1100		75	17	ug/L		5	6010C	Dissolved
Potassium	8400	J	25000	8300	ug/L		5	6010C	Dissolved
Sodium	170000		5000	1600	ug/L		5	6010C	Dissolved
Vanadium	23	J	250	20	ug/L		5	6010C	Dissolved
Zinc	28	J B	100	26	ug/L		5	6010C	Dissolved
Mercury	0.14	J	0.20	0.060	ug/L		1	7470A	Total/NA
Bromide	0.35		0.25	0.025	mg/L		1	300.0	Total/NA
Iodide	0.18	J	1.0	0.10	mg/L		1	300.0	Total/NA
Alkalinity	700		5.0	0.54	mg/L		1	310.1	Total/NA
Sulfate - DL	39		10	1.0	mg/L		20	300.0	Total/NA
Chloride - DL2	360		40	4.0	mg/L		200	300.0	Total/NA

Client Sample ID: S-84

Lab Sample ID: 160-2078-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.5	J	5.0	0.25	ug/L		1	8260C	Total/NA
Chlorobenzene	11		5.0	0.38	ug/L		1	8260C	Total/NA
cis-1,2-Dichloroethene	0.60	J	5.0	0.16	ug/L		1	8260C	Total/NA
Aluminum	2500		1000	400	ug/L		5	6010C	Total/NA
Arsenic	140		50	9.9	ug/L		5	6010C	Total/NA
Barium	900		250	20	ug/L		5	6010C	Total/NA
Calcium	170000		5000	530	ug/L		5	6010C	Total/NA
Cobalt	43	J	250	20	ug/L		5	6010C	Total/NA
Iron	73000		500	140	ug/L		5	6010C	Total/NA
Lead	18	J	50	7.5	ug/L		5	6010C	Total/NA
Magnesium	58000		5000	660	ug/L		5	6010C	Total/NA
Manganese	2300		75	17	ug/L		5	6010C	Total/NA
Nickel	67	J	200	67	ug/L		5	6010C	Total/NA
Sodium	35000		5000	1600	ug/L		5	6010C	Total/NA
Zinc	90	J B	100	26	ug/L		5	6010C	Total/NA
Arsenic	130		50	9.9	ug/L		5	6010C	Dissolved
Barium	730		250	20	ug/L		5	6010C	Dissolved
Calcium	150000		5000	530	ug/L		5	6010C	Dissolved
Iron	62000		500	140	ug/L		5	6010C	Dissolved
Lead	11	J	50	7.5	ug/L		5	6010C	Dissolved
Magnesium	51000		5000	660	ug/L		5	6010C	Dissolved
Manganese	2000		75	17	ug/L		5	6010C	Dissolved
Sodium	34000		5000	1600	ug/L		5	6010C	Dissolved
Nitrate as N	0.040		0.020	0.0040	mg/L		1	300.0	Total/NA
Bromide	1.1		0.25	0.025	mg/L		1	300.0	Total/NA
Sulfate	0.33	J	0.50	0.050	mg/L		1	300.0	Total/NA
Iodide	0.30	J	1.0	0.10	mg/L		1	300.0	Total/NA
Alkalinity	550		5.0	0.54	mg/L		1	310.1	Total/NA
Chloride - DL	68		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: 160-2078-1

Client Sample ID: S-5

Lab Sample ID: 160-2078-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1.7	J B	5.0	0.28	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	9.8		5.0	0.35	ug/L	1		8260C	Total/NA
Benzene	4.7	J	5.0	0.25	ug/L	1		8260C	Total/NA
Chlorobenzene	3.1	J	5.0	0.38	ug/L	1		8260C	Total/NA
Chloroethane	0.49	J	10	0.38	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	2.5	J	10	0.45	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.5	J	5.0	0.26	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.53	J	5.0	0.40	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	13		5.0	0.57	ug/L	1		8260C	Total/NA
o-Xylene	6.6		5.0	0.32	ug/L	1		8260C	Total/NA
Toluene	5.0		5.0	1.0	ug/L	1		8260C	Total/NA
Xylenes, Total	20		10	0.85	ug/L	1		8260C	Total/NA
Arsenic	12	J	50	9.9	ug/L	5		6010C	Total/NA
Barium	450		250	20	ug/L	5		6010C	Total/NA
Calcium	65000		5000	530	ug/L	5		6010C	Total/NA
Iron	19000		500	140	ug/L	5		6010C	Total/NA
Lead	8.5	J	50	7.5	ug/L	5		6010C	Total/NA
Magnesium	58000		5000	660	ug/L	5		6010C	Total/NA
Manganese	240		75	17	ug/L	5		6010C	Total/NA
Nickel	75	J	200	67	ug/L	5		6010C	Total/NA
Potassium	180000		25000	8300	ug/L	5		6010C	Total/NA
Sodium	400000		5000	1600	ug/L	5		6010C	Total/NA
Zinc	55	J B	100	26	ug/L	5		6010C	Total/NA
Arsenic	10	J	50	9.9	ug/L	5		6010C	Dissolved
Barium	470		250	20	ug/L	5		6010C	Dissolved
Calcium	66000		5000	530	ug/L	5		6010C	Dissolved
Iron	18000		500	140	ug/L	5		6010C	Dissolved
Lead	9.0	J	50	7.5	ug/L	5		6010C	Dissolved
Magnesium	59000		5000	660	ug/L	5		6010C	Dissolved
Manganese	240		75	17	ug/L	5		6010C	Dissolved
Potassium	190000		25000	8300	ug/L	5		6010C	Dissolved
Sodium	420000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	31	J B	100	26	ug/L	5		6010C	Dissolved
Mercury	0.071	J	0.20	0.060	ug/L	1		7470A	Total/NA
Mercury	0.064	J	0.20	0.060	ug/L	1		7470A	Dissolved
Nitrate as N	0.0049	J	0.020	0.0040	mg/L	1		300.0	Total/NA
Bromide	3.5		0.25	0.025	mg/L	1		300.0	Total/NA
Sulfate	8.7		0.50	0.050	mg/L	1		300.0	Total/NA
Iodide	0.13	J	1.0	0.10	mg/L	1		300.0	Total/NA
Alkalinity - DL	1900		25	2.7	mg/L	5		310.1	Total/NA
Chloride - DL2	210		40	4.0	mg/L	200		300.0	Total/NA

Client Sample ID: PZ-109-SS

Lab Sample ID: 160-2078-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	67	J	250	20	ug/L	5		6010C	Total/NA
Calcium	93000		5000	530	ug/L	5		6010C	Total/NA
Lead	10	J	50	7.5	ug/L	5		6010C	Total/NA
Magnesium	55000		5000	660	ug/L	5		6010C	Total/NA
Sodium	19000		5000	1600	ug/L	5		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: 160-2078-1

Client Sample ID: PZ-109-SS (Continued)

Lab Sample ID: 160-2078-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	39	J B	100	26	ug/L	5		6010C	Total/NA
Barium	68	J	250	20	ug/L	5		6010C	Dissolved
Calcium	93000		5000	530	ug/L	5		6010C	Dissolved
Magnesium	56000		5000	660	ug/L	5		6010C	Dissolved
Sodium	18000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	40	J B	100	26	ug/L	5		6010C	Dissolved
Nitrate as N	0.036		0.020	0.0040	mg/L	1		300.0	Total/NA
Chloride	3.8		0.20	0.020	mg/L	1		300.0	Total/NA
Alkalinity	450		5.0	0.54	mg/L	1		310.1	Total/NA
Sulfate - DL	34		10	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: PZ-104-KS

Lab Sample ID: 160-2078-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	790	J	1000	400	ug/L	5		6010C	Total/NA
Barium	63	J	250	20	ug/L	5		6010C	Total/NA
Calcium	77000		5000	530	ug/L	5		6010C	Total/NA
Iron	1300		500	140	ug/L	5		6010C	Total/NA
Magnesium	37000		5000	660	ug/L	5		6010C	Total/NA
Manganese	25	J	75	17	ug/L	5		6010C	Total/NA
Sodium	35000		5000	1600	ug/L	5		6010C	Total/NA
Zinc	40	J B	100	26	ug/L	5		6010C	Total/NA
Barium	61	J	250	20	ug/L	5		6010C	Dissolved
Calcium	75000		5000	530	ug/L	5		6010C	Dissolved
Iron	810		500	140	ug/L	5		6010C	Dissolved
Magnesium	37000		5000	660	ug/L	5		6010C	Dissolved
Manganese	19	J	75	17	ug/L	5		6010C	Dissolved
Sodium	35000		5000	1600	ug/L	5		6010C	Dissolved
Zinc	30	J B	100	26	ug/L	5		6010C	Dissolved
Bromide	0.041	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	350		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	23		4.0	0.40	mg/L	20		300.0	Total/NA

Client Sample ID: DUP 06

Lab Sample ID: 160-2078-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	6.5		5.0	0.35	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	78		20	0.39	ug/L	1		8260C	Total/NA
2-Hexanone	69		20	0.59	ug/L	1		8260C	Total/NA
Acetone	50	*	20	6.7	ug/L	1		8260C	Total/NA
Benzene	2000		50	2.5	ug/L	1		8260C	Total/NA
Chloroethane	4.6	J	10	0.38	ug/L	1		8260C	Total/NA
Ethylbenzene	24		5.0	0.30	ug/L	1		8260C	Total/NA
Isopropylbenzene	2.5	J	5.0	0.26	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	7.0		5.0	0.40	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	43		5.0	0.57	ug/L	1		8260C	Total/NA
o-Xylene	18		5.0	0.32	ug/L	1		8260C	Total/NA
Toluene	140		5.0	1.0	ug/L	1		8260C	Total/NA
Xylenes, Total	61		10	0.85	ug/L	1		8260C	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: 160-2078-1

Client Sample ID: DUP 06 (Continued)

Lab Sample ID: 160-2078-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	98	J	250	20	ug/L	5		6010C	Total/NA
Calcium	93000		5000	530	ug/L	5		6010C	Total/NA
Iron	2100		500	140	ug/L	5		6010C	Total/NA
Magnesium	53000		5000	660	ug/L	5		6010C	Total/NA
Manganese	48	J	75	17	ug/L	5		6010C	Total/NA
Sodium	11000		5000	1600	ug/L	5		6010C	Total/NA
Zinc	29	J B	100	26	ug/L	5		6010C	Total/NA
Barium	97	J	250	20	ug/L	5		6010C	Dissolved
Calcium	94000		5000	530	ug/L	5		6010C	Dissolved
Iron	2100		500	140	ug/L	5		6010C	Dissolved
Magnesium	53000		5000	660	ug/L	5		6010C	Dissolved
Manganese	48	J	75	17	ug/L	5		6010C	Dissolved
Sodium	11000		5000	1600	ug/L	5		6010C	Dissolved
Mercury	0.062	J	0.20	0.060	ug/L	1		7470A	Dissolved
Nitrate as N	0.012	J	0.020	0.0040	mg/L	1		300.0	Total/NA
Bromide	0.029	J	0.25	0.025	mg/L	1		300.0	Total/NA
Sulfate	0.92		0.50	0.050	mg/L	1		300.0	Total/NA
Alkalinity	410		5.0	0.54	mg/L	1		310.1	Total/NA
Chloride - DL	4.2		4.0	0.40	mg/L	20		300.0	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 160-2078-15

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: 160-2078-1

Client Sample ID: S-53

Lab Sample ID: 160-2078-1

Date Collected: 04/11/13 08:30

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 12:53	1
1,1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 12:53	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 12:53	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 12:53	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 12:53	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 12:53	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 12:53	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 12:53	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 12:53	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 12:53	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 12:53	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 12:53	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 12:53	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 12:53	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 12:53	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 12:53	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 12:53	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 12:53	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 12:53	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 12:53	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 12:53	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 12:53	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 12:53	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 12:53	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 12:53	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 12:53	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 12:53	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 12:53	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 12:53	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 12:53	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 12:53	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 12:53	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 12:53	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 12:53	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 12:53	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 12:53	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 12:53	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 12:53	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 12:53	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 12:53	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 12:53	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 12:53	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 12:53	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 12:53	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 12:53	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 12:53	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 12:53	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 12:53	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 12:53	1

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TestAmerica St. Louis

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-53

Lab Sample ID: 160-2078-1

Date Collected: 04/11/13 08:30

Matrix: Water

Date Received: 04/12/13 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		82 - 121		04/15/13 12:53	1
Dibromofluoromethane (Surr)	107		85 - 119		04/15/13 12:53	1
1,2-Dichloroethane-d4 (Surr)	103		82 - 132		04/15/13 12:53	1
Toluene-d8 (Surr)	101		85 - 115		04/15/13 12:53	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	62000		1000	400	ug/L		04/16/13 14:01	04/22/13 16:02	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:02	5
Arsenic	42	J	50	9.9	ug/L		04/16/13 14:01	04/22/13 16:02	5
Barium	1400		250	20	ug/L		04/16/13 14:01	04/22/13 16:02	5
Beryllium	5.5	J	25	3.1	ug/L		04/16/13 14:01	04/22/13 16:02	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:02	5
Calcium	230000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:02	5
Chromium	98		50	16	ug/L		04/16/13 14:01	04/22/13 16:02	5
Cobalt	46	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:02	5
Copper	95	J	130	23	ug/L		04/16/13 14:01	04/22/13 16:02	5
Iron	100000		500	140	ug/L		04/16/13 14:01	04/22/13 16:02	5
Lead	140		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:02	5
Magnesium	62000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:02	5
Manganese	8900		75	17	ug/L		04/16/13 14:01	04/22/13 16:02	5
Nickel	180	J	200	67	ug/L		04/16/13 14:01	04/22/13 16:02	5
Potassium	22000	J	25000	8300	ug/L		04/16/13 14:01	04/22/13 16:02	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:02	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:02	5
Sodium	48000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:02	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:02	5
Vanadium	160	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:02	5
Zinc	680	B	100	26	ug/L		04/16/13 14:01	04/22/13 16:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 14:00	1
Bromide	3.2		0.25	0.025	mg/L			04/12/13 14:00	1
Iodide	0.29	J	1.0	0.10	mg/L			04/16/13 01:50	1
Alkalinity	500		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32		4.0	0.40	mg/L			04/12/13 14:15	20
Sulfate	170		10	1.0	mg/L			04/12/13 14:15	20

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102-SS

Lab Sample ID: 160-2078-2

Date Collected: 04/11/13 09:10

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 13:18	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 13:18	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 13:18	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 13:18	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 13:18	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 13:18	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 13:18	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 13:18	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 13:18	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 13:18	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 13:18	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 13:18	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 13:18	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 13:18	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 13:18	1
Acetone	ND *		20	6.7	ug/L			04/15/13 13:18	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 13:18	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 13:18	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 13:18	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 13:18	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 13:18	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 13:18	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 13:18	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 13:18	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 13:18	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 13:18	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 13:18	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 13:18	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 13:18	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 13:18	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 13:18	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 13:18	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 13:18	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 13:18	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 13:18	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 13:18	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 13:18	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 13:18	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 13:18	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 13:18	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 13:18	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 13:18	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 13:18	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 13:18	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 13:18	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 13:18	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 13:18	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 13:18	1

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TestAmerica St. Louis

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102-SS

Lab Sample ID: 160-2078-2

Date Collected: 04/11/13 09:10

Matrix: Water

Date Received: 04/12/13 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		82 - 121		04/15/13 13:18	1
Dibromofluoromethane (Surr)	102		85 - 119		04/15/13 13:18	1
1,2-Dichloroethane-d4 (Surr)	105		82 - 132		04/15/13 13:18	1
Toluene-d8 (Surr)	99		85 - 115		04/15/13 13:18	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	26000		1000	400	ug/L		04/16/13 14:01	04/22/13 16:06	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:06	5
Arsenic	19	J	50	9.9	ug/L		04/16/13 14:01	04/22/13 16:06	5
Barium	690		250	20	ug/L		04/16/13 14:01	04/22/13 16:06	5
Beryllium	3.5	J	25	3.1	ug/L		04/16/13 14:01	04/22/13 16:06	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:06	5
Calcium	150000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:06	5
Chromium	33	J	50	16	ug/L		04/16/13 14:01	04/22/13 16:06	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:06	5
Copper	29	J	130	23	ug/L		04/16/13 14:01	04/22/13 16:06	5
Iron	34000		500	140	ug/L		04/16/13 14:01	04/22/13 16:06	5
Lead	57		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:06	5
Magnesium	57000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:06	5
Manganese	1000		75	17	ug/L		04/16/13 14:01	04/22/13 16:06	5
Nickel	80	J	200	67	ug/L		04/16/13 14:01	04/22/13 16:06	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:06	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:06	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:06	5
Sodium	38000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:06	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:06	5
Vanadium	65	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:06	5
Zinc	170	B	100	26	ug/L		04/16/13 14:01	04/22/13 16:06	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:22	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:22	5
Arsenic	11	J	50	9.9	ug/L		04/16/13 14:09	04/22/13 17:22	5
Barium	430		250	20	ug/L		04/16/13 14:09	04/22/13 17:22	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:22	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:22	5
Calcium	110000		5000	530	ug/L		04/16/13 14:09	04/22/13 17:22	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:22	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:22	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:22	5
Iron	3500		500	140	ug/L		04/16/13 14:09	04/22/13 17:22	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:22	5
Magnesium	42000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:22	5
Manganese	260		75	17	ug/L		04/16/13 14:09	04/22/13 17:22	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:22	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 17:22	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:22	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:22	5

TestAmerica St. Louis



Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102-SS

Lab Sample ID: 160-2078-2

Date Collected: 04/11/13 09:10

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	37000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:22	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:22	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:22	5
Zinc	28	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	J	0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:13	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		04/24/13 08:45	04/24/13 17:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 15:29	1
Bromide	ND		0.25	0.025	mg/L			04/12/13 15:29	1
Sulfate	15		0.50	0.050	mg/L			04/12/13 15:29	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 02:34	1
Alkalinity	510		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		4.0	0.40	mg/L			04/12/13 15:44	20

Client Sample ID: PZ-102R-SS

Lab Sample ID: 160-2078-3

Date Collected: 04/11/13 11:30

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 13:43	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 13:43	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 13:43	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 13:43	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 13:43	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 13:43	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 13:43	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 13:43	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 13:43	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 13:43	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 13:43	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 13:43	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 13:43	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 13:43	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 13:43	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 13:43	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 13:43	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 13:43	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 13:43	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 13:43	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102R-SS

Lab Sample ID: 160-2078-3

Date Collected: 04/11/13 11:30

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		10	0.40	ug/L			04/15/13 13:43	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 13:43	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 13:43	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 13:43	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 13:43	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 13:43	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 13:43	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 13:43	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 13:43	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 13:43	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 13:43	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 13:43	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 13:43	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 13:43	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 13:43	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 13:43	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 13:43	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 13:43	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 13:43	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 13:43	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 13:43	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 13:43	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 13:43	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 13:43	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 13:43	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 13:43	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 13:43	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 13:43	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		82 - 121		04/15/13 13:43	1
Dibromofluoromethane (Surr)	103		85 - 119		04/15/13 13:43	1
1,2-Dichloroethane-d4 (Surr)	107		82 - 132		04/15/13 13:43	1
Toluene-d8 (Surr)	98		85 - 115		04/15/13 13:43	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3500		1000	400	ug/L		04/16/13 14:01	04/22/13 16:09	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:09	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:09	5
Barium	110	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:09	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:09	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:09	5
Calcium	130000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:09	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:09	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:09	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:09	5
Iron	6700		500	140	ug/L		04/16/13 14:01	04/22/13 16:09	5
Lead	9.5	J	50	7.5	ug/L		04/16/13 14:01	04/22/13 16:09	5

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102R-SS

Lab Sample ID: 160-2078-3

Date Collected: 04/11/13 11:30

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	51000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:09	5
Manganese	36	J	75	17	ug/L		04/16/13 14:01	04/22/13 16:09	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:09	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:09	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:09	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:09	5
Sodium	26000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:09	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:09	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:09	5
Zinc	120	B	100	26	ug/L		04/16/13 14:01	04/22/13 16:09	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:26	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:26	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 17:26	5
Barium	82	J	250	20	ug/L		04/16/13 14:09	04/22/13 17:26	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:26	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:26	5
Calcium	120000		5000	530	ug/L		04/16/13 14:09	04/22/13 17:26	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:26	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:26	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:26	5
Iron	220	J	500	140	ug/L		04/16/13 14:09	04/22/13 17:26	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:26	5
Magnesium	46000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:26	5
Manganese	ND		75	17	ug/L		04/16/13 14:09	04/22/13 17:26	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:26	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 17:26	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:26	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:26	5
Sodium	33000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:26	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:26	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:26	5
Zinc	60	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:26	5

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		04/24/13 07:30	04/24/13 16:14	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		04/24/13 08:45	04/24/13 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	J	0.020	0.0040	mg/L			04/12/13 16:29	1
Bromide	0.030	J	0.25	0.025	mg/L			04/12/13 16:29	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 03:17	1
Alkalinity	440		5.0	0.54	mg/L			04/18/13 13:46	1

TestAmerica St. Louis

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-102R-SS

Lab Sample ID: 160-2078-3

Date Collected: 04/11/13 11:30

Matrix: Water

Date Received: 04/12/13 08:20

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.8		4.0	0.40	mg/L			04/12/13 16:44	20
Sulfate	77		10	1.0	mg/L			04/12/13 16:44	20

Client Sample ID: PZ-104-SD

Lab Sample ID: 160-2078-4

Date Collected: 04/11/13 11:38

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 14:08	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 14:08	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 14:08	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 14:08	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 14:08	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 14:08	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 14:08	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 14:08	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 14:08	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 14:08	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 14:08	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 14:08	1
1,4-Dichlorobenzene	4.1	J	5.0	0.35	ug/L			04/15/13 14:08	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 14:08	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 14:08	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 14:08	1
Acetone	ND *		20	6.7	ug/L			04/15/13 14:08	1
Benzene	820		50	2.5	ug/L			04/16/13 14:04	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 14:08	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 14:08	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 14:08	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 14:08	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 14:08	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 14:08	1
Chloroethane	2.1	J	10	0.38	ug/L			04/15/13 14:08	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 14:08	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 14:08	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 14:08	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 14:08	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 14:08	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 14:08	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 14:08	1
Ethylbenzene	18		5.0	0.30	ug/L			04/15/13 14:08	1
Isopropylbenzene	1.4	J	5.0	0.26	ug/L			04/15/13 14:08	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 14:08	1
Methyl tert-butyl ether	3.3	J	5.0	0.40	ug/L			04/15/13 14:08	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 14:08	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 14:08	1
m-Xylene & p-Xylene	33		5.0	0.57	ug/L			04/15/13 14:08	1
o-Xylene	11		5.0	0.32	ug/L			04/15/13 14:08	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 14:08	1

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SD

Lab Sample ID: 160-2078-4

Date Collected: 04/11/13 11:38

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 14:08	1
Toluene	1500		50	10	ug/L			04/16/13 14:04	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 14:08	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 14:08	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 14:08	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 14:08	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 14:08	1
Xylenes, Total	44		10	0.85	ug/L			04/15/13 14:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		82 - 121					04/15/13 14:08	1
4-Bromofluorobenzene (Surr)	105		82 - 121					04/16/13 14:04	1
Dibromofluoromethane (Surr)	89		85 - 119					04/15/13 14:08	1
Dibromofluoromethane (Surr)	100		85 - 119					04/16/13 14:04	1
1,2-Dichloroethane-d4 (Surr)	90		82 - 132					04/15/13 14:08	1
1,2-Dichloroethane-d4 (Surr)	105		82 - 132					04/16/13 14:04	1
Toluene-d8 (Surr)	99		85 - 115					04/15/13 14:08	1
Toluene-d8 (Surr)	100		85 - 115					04/16/13 14:04	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:13	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:13	5
Arsenic	20	J	50	9.9	ug/L		04/16/13 14:01	04/22/13 16:13	5
Barium	1600		250	20	ug/L		04/16/13 14:01	04/22/13 16:13	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:13	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:13	5
Calcium	150000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:13	5
Chromium	42	J	50	16	ug/L		04/16/13 14:01	04/22/13 16:13	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:13	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:13	5
Iron	22000		500	140	ug/L		04/16/13 14:01	04/22/13 16:13	5
Lead	ND		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:13	5
Magnesium	91000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:13	5
Manganese	180		75	17	ug/L		04/16/13 14:01	04/22/13 16:13	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:13	5
Potassium	34000		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:13	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:13	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:13	5
Sodium	260000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:13	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:13	5
Vanadium	34	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:13	5
Zinc	ND		100	26	ug/L		04/16/13 14:01	04/22/13 16:13	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:30	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:30	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 17:30	5
Barium	660		250	20	ug/L		04/16/13 14:09	04/22/13 17:30	5

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SD

Lab Sample ID: 160-2078-4

Date Collected: 04/11/13 11:38

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:30	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:30	5
Calcium	120000		5000	530	ug/L		04/16/13 14:09	04/22/13 17:30	5
Chromium	19	J	50	16	ug/L		04/16/13 14:09	04/22/13 17:30	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:30	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:30	5
Iron	7900		500	140	ug/L		04/16/13 14:09	04/22/13 17:30	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:30	5
Magnesium	65000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:30	5
Manganese	160		75	17	ug/L		04/16/13 14:09	04/22/13 17:30	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:30	5
Potassium	18000	J	25000	8300	ug/L		04/16/13 14:09	04/22/13 17:30	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:30	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:30	5
Sodium	120000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:30	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:30	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:30	5
Zinc	26	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:16	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.067	J	0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.031		0.020	0.0040	mg/L			04/12/13 16:59	1
Bromide	1.1		0.25	0.025	mg/L			04/12/13 16:59	1
Alkalinity	670		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	88		10	1.0	mg/L			04/12/13 17:14	20
Iodide	ND		10	1.0	mg/L			04/16/13 12:10	10

General Chemistry - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250		40	4.0	mg/L			04/12/13 17:29	200

Client Sample ID: PZ-104-SS

Lab Sample ID: 160-2078-5

Date Collected: 04/11/13 12:59

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 14:33	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 14:33	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 14:33	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SS

Lab Sample ID: 160-2078-5

Date Collected: 04/11/13 12:59

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 14:33	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 14:33	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 14:33	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 14:33	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 14:33	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 14:33	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 14:33	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 14:33	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 14:33	1
1,4-Dichlorobenzene	7.4		5.0	0.35	ug/L			04/15/13 14:33	1
2-Butanone (MEK)	84		20	0.39	ug/L			04/15/13 14:33	1
2-Hexanone	78		20	0.59	ug/L			04/15/13 14:33	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 14:33	1
Acetone	62 *		20	6.7	ug/L			04/15/13 14:33	1
Benzene	1900		50	2.5	ug/L			04/16/13 14:50	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 14:33	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 14:33	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 14:33	1
Carbon disulfide	0.48 J		5.0	0.37	ug/L			04/15/13 14:33	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 14:33	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 14:33	1
Chloroethane	4.3 J		10	0.38	ug/L			04/15/13 14:33	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 14:33	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 14:33	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 14:33	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 14:33	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 14:33	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 14:33	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 14:33	1
Ethylbenzene	25		5.0	0.30	ug/L			04/15/13 14:33	1
Isopropylbenzene	2.6 J		5.0	0.26	ug/L			04/15/13 14:33	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 14:33	1
Methyl tert-butyl ether	7.5		5.0	0.40	ug/L			04/15/13 14:33	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 14:33	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 14:33	1
m-Xylene & p-Xylene	46		5.0	0.57	ug/L			04/15/13 14:33	1
o-Xylene	19		5.0	0.32	ug/L			04/15/13 14:33	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 14:33	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 14:33	1
Toluene	150		5.0	1.0	ug/L			04/15/13 14:33	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 14:33	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 14:33	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 14:33	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 14:33	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 14:33	1
Xylenes, Total	65		10	0.85	ug/L			04/15/13 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		82 - 121		04/15/13 14:33	1
4-Bromofluorobenzene (Surr)	110		82 - 121		04/16/13 14:50	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SS

Lab Sample ID: 160-2078-5

Date Collected: 04/11/13 12:59

Matrix: Water

Date Received: 04/12/13 08:20

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		85 - 119		04/15/13 14:33	1
Dibromofluoromethane (Surr)	95		85 - 119		04/16/13 14:50	1
1,2-Dichloroethane-d4 (Surr)	92		82 - 132		04/15/13 14:33	1
1,2-Dichloroethane-d4 (Surr)	99		82 - 132		04/16/13 14:50	1
Toluene-d8 (Surr)	108		85 - 115		04/15/13 14:33	1
Toluene-d8 (Surr)	100		85 - 115		04/16/13 14:50	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:17	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:17	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:17	5
Barium	99	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:17	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:17	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:17	5
Calcium	94000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:17	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:17	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:17	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:17	5
Iron	2100		500	140	ug/L		04/16/13 14:01	04/22/13 16:17	5
Lead	ND		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:17	5
Magnesium	53000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:17	5
Manganese	49	J	75	17	ug/L		04/16/13 14:01	04/22/13 16:17	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:17	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:17	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:17	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:17	5
Sodium	11000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:17	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:17	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:17	5
Zinc	26	J B	100	26	ug/L		04/16/13 14:01	04/22/13 16:17	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:33	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:33	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 17:33	5
Barium	96	J	250	20	ug/L		04/16/13 14:09	04/22/13 17:33	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:33	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:33	5
Calcium	93000		5000	530	ug/L		04/16/13 14:09	04/22/13 17:33	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:33	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:33	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:33	5
Iron	2100		500	140	ug/L		04/16/13 14:09	04/22/13 17:33	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:33	5
Magnesium	52000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:33	5
Manganese	51	J	75	17	ug/L		04/16/13 14:09	04/22/13 17:33	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:33	5

TestAmerica St. Louis



Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-SS

Lab Sample ID: 160-2078-5

Date Collected: 04/11/13 12:59

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 17:33	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:33	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:33	5
Sodium	11000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:33	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:33	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:33	5
Zinc	ND		100	26	ug/L		04/16/13 14:09	04/22/13 17:33	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:18	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		04/24/13 08:45	04/24/13 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.022		0.020	0.0040	mg/L			04/12/13 17:44	1
Bromide	0.025	J	0.25	0.025	mg/L			04/12/13 17:44	1
Sulfate	0.96		0.50	0.050	mg/L			04/12/13 17:44	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 03:46	1
Alkalinity	440		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		4.0	0.40	mg/L			04/12/13 17:59	20

Client Sample ID: PZ-113-AD

Lab Sample ID: 160-2078-6

Date Collected: 04/11/13 13:35

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 14:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 14:58	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 14:58	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 14:58	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 14:58	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 14:58	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 14:58	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 14:58	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 14:58	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 14:58	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 14:58	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 14:58	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 14:58	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 14:58	1
2-Hexanone	11	J	20	0.59	ug/L			04/15/13 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 14:58	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 14:58	1

TestAmerica St. Louis

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-113-AD

Lab Sample ID: 160-2078-6

Date Collected: 04/11/13 13:35

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.1	J	5.0	0.25	ug/L			04/15/13 14:58	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 14:58	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 14:58	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 14:58	1
Carbon disulfide	0.42	J	5.0	0.37	ug/L			04/15/13 14:58	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 14:58	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 14:58	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 14:58	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 14:58	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 14:58	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 14:58	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 14:58	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 14:58	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 14:58	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 14:58	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 14:58	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 14:58	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 14:58	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 14:58	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 14:58	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 14:58	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 14:58	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 14:58	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 14:58	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 14:58	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 14:58	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 14:58	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 14:58	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 14:58	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 14:58	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 14:58	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		82 - 121		04/15/13 14:58	1
Dibromofluoromethane (Surr)	101		85 - 119		04/15/13 14:58	1
1,2-Dichloroethane-d4 (Surr)	97		82 - 132		04/15/13 14:58	1
Toluene-d8 (Surr)	101		85 - 115		04/15/13 14:58	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:21	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:21	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:21	5
Barium	2200		250	20	ug/L		04/16/13 14:01	04/22/13 16:21	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:21	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:21	5
Calcium	270000	E	5000	530	ug/L		04/16/13 14:01	04/22/13 16:21	5
Calcium	280000		10000	1100	ug/L		04/16/13 14:01	04/23/13 10:06	10
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:21	5

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-113-AD

Lab Sample ID: 160-2078-6

Date Collected: 04/11/13 13:35

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:21	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:21	5
Iron	34000		500	140	ug/L		04/16/13 14:01	04/22/13 16:21	5
Lead	7.5	J	50	7.5	ug/L		04/16/13 14:01	04/22/13 16:21	5
Magnesium	85000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:21	5
Manganese	650		75	17	ug/L		04/16/13 14:01	04/22/13 16:21	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:21	5
Potassium	26000		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:21	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:21	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:21	5
Sodium	350000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:21	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:21	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:21	5
Zinc	27	J B	100	26	ug/L		04/16/13 14:01	04/22/13 16:21	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:37	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:37	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 17:37	5
Barium	2200		250	20	ug/L		04/16/13 14:09	04/22/13 17:37	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:37	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:37	5
Calcium	270000	E	5000	530	ug/L		04/16/13 14:09	04/22/13 17:37	5
Calcium	280000		10000	1100	ug/L		04/16/13 14:09	04/23/13 10:28	10
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:37	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:37	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:37	5
Iron	35000		500	140	ug/L		04/16/13 14:09	04/22/13 17:37	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:37	5
Magnesium	86000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:37	5
Manganese	650		75	17	ug/L		04/16/13 14:09	04/22/13 17:37	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:37	5
Potassium	26000		25000	8300	ug/L		04/16/13 14:09	04/22/13 17:37	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:37	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:37	5
Sodium	350000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:37	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:37	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:37	5
Zinc	30	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080	J	0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.083	J	0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:37	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-113-AD

Lab Sample ID: 160-2078-6

Date Collected: 04/11/13 13:35

Matrix: Water

Date Received: 04/12/13 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 19:13	1
Sulfate	0.45	J	0.50	0.050	mg/L			04/12/13 19:13	1
Iodide	0.45	J	1.0	0.10	mg/L			04/16/13 04:00	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	15		5.0	0.50	mg/L			04/12/13 19:28	20
Alkalinity	1200		25	2.7	mg/L			04/18/13 13:46	5

General Chemistry - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450		40	4.0	mg/L			04/12/13 19:43	200

Client Sample ID: FB@D-3

Lab Sample ID: 160-2078-7

Date Collected: 04/11/13 13:50

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 15:23	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 15:23	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 15:23	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 15:23	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 15:23	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 15:23	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 15:23	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 15:23	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 15:23	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 15:23	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 15:23	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 15:23	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 15:23	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 15:23	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 15:23	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 15:23	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 15:23	1
Benzene	0.49	J	5.0	0.25	ug/L			04/15/13 15:23	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 15:23	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 15:23	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 15:23	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 15:23	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 15:23	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 15:23	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 15:23	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 15:23	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 15:23	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 15:23	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 15:23	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 15:23	1
Cyclohexanone	ND		100	18	ug/L			04/15/13 15:23	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: FB@D-3

Lab Sample ID: 160-2078-7

Date Collected: 04/11/13 13:50

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 15:23	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 15:23	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 15:23	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 15:23	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 15:23	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 15:23	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 15:23	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 15:23	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 15:23	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 15:23	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 15:23	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 15:23	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 15:23	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 15:23	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 15:23	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 15:23	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 15:23	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 15:23	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		82 - 121		04/15/13 15:23	1
Dibromofluoromethane (Surr)	103		85 - 119		04/15/13 15:23	1
1,2-Dichloroethane-d4 (Surr)	105		82 - 132		04/15/13 15:23	1
Toluene-d8 (Surr)	102		85 - 115		04/15/13 15:23	1

Client Sample ID: D-3

Lab Sample ID: 160-2078-8

Date Collected: 04/11/13 14:24

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 12:28	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 12:28	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 12:28	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 12:28	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 12:28	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 12:28	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 12:28	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 12:28	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 12:28	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 12:28	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 12:28	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 12:28	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 12:28	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 12:28	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 12:28	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 12:28	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 12:28	1
Benzene	0.29	J	5.0	0.25	ug/L			04/15/13 12:28	1

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: D-3

Lab Sample ID: 160-2078-8

Date Collected: 04/11/13 14:24

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 12:28	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 12:28	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 12:28	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 12:28	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 12:28	1
Chlorobenzene	1.5	J	5.0	0.38	ug/L			04/15/13 12:28	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 12:28	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 12:28	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 12:28	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 12:28	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 12:28	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 12:28	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 12:28	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 12:28	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 12:28	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 12:28	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 12:28	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 12:28	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 12:28	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 12:28	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 12:28	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 12:28	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 12:28	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 12:28	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 12:28	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 12:28	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 12:28	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 12:28	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 12:28	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 12:28	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		82 - 121		04/15/13 12:28	1
1,2-Dichloroethane-d4 (Surr)	105		82 - 132		04/15/13 12:28	1
Toluene-d8 (Surr)	102		85 - 115		04/15/13 12:28	1
Dibromofluoromethane (Surr)	103		85 - 119		04/15/13 12:28	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:24	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:24	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:24	5
Barium	2300		250	20	ug/L		04/16/13 14:01	04/22/13 16:24	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:24	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:24	5
Calcium	280000	E	5000	530	ug/L		04/16/13 14:01	04/22/13 16:24	5
Calcium	280000		10000	1100	ug/L		04/16/13 14:01	04/23/13 10:10	10
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:24	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:24	5

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: D-3

Lab Sample ID: 160-2078-8

Date Collected: 04/11/13 14:24

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:24	5
Iron	31000		500	140	ug/L		04/16/13 14:01	04/22/13 16:24	5
Lead	8.5	J	50	7.5	ug/L		04/16/13 14:01	04/22/13 16:24	5
Magnesium	85000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:24	5
Manganese	500		75	17	ug/L		04/16/13 14:01	04/22/13 16:24	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:24	5
Potassium	28000		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:24	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:24	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:24	5
Sodium	390000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:24	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:24	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:24	5
Zinc	ND		100	26	ug/L		04/16/13 14:01	04/22/13 16:24	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 17:41	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:41	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 17:41	5
Barium	2300		250	20	ug/L		04/16/13 14:09	04/22/13 17:41	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:41	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:41	5
Calcium	270000	E	5000	530	ug/L		04/16/13 14:09	04/22/13 17:41	5
Calcium	280000		10000	1100	ug/L		04/16/13 14:09	04/23/13 10:32	10
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:41	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:41	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:41	5
Iron	30000		500	140	ug/L		04/16/13 14:09	04/22/13 17:41	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 17:41	5
Magnesium	83000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:41	5
Manganese	500		75	17	ug/L		04/16/13 14:09	04/22/13 17:41	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:41	5
Potassium	27000		25000	8300	ug/L		04/16/13 14:09	04/22/13 17:41	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:41	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:41	5
Sodium	380000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:41	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:41	5
Vanadium	27	J	250	20	ug/L		04/16/13 14:09	04/22/13 17:41	5
Zinc	28	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069	J	0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:21	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.074	J	0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:39	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: D-3

Lab Sample ID: 160-2078-8

Date Collected: 04/11/13 14:24

Matrix: Water

Date Received: 04/12/13 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 19:58	1
Sulfate	0.26	J	0.50	0.050	mg/L			04/12/13 19:58	1
Iodide	0.49	J	1.0	0.10	mg/L			04/16/13 04:15	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	17		5.0	0.50	mg/L			04/12/13 20:13	20
Alkalinity	1300		25	2.7	mg/L			04/18/13 13:46	5

General Chemistry - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	490		40	4.0	mg/L			04/12/13 20:28	200

Client Sample ID: D-85

Lab Sample ID: 160-2078-9

Date Collected: 04/11/13 14:45

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 15:48	1
1,1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 15:48	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 15:48	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 15:48	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 15:48	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 15:48	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 15:48	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 15:48	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 15:48	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 15:48	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 15:48	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 15:48	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 15:48	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 15:48	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 15:48	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 15:48	1
Benzene	0.73	J	5.0	0.25	ug/L			04/15/13 15:48	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 15:48	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 15:48	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 15:48	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 15:48	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 15:48	1
Chlorobenzene	59		5.0	0.38	ug/L			04/15/13 15:48	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 15:48	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 15:48	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 15:48	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 15:48	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 15:48	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 15:48	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 15:48	1

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: D-85

Lab Sample ID: 160-2078-9

Date Collected: 04/11/13 14:45

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 15:48	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 15:48	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 15:48	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 15:48	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 15:48	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 15:48	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 15:48	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 15:48	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 15:48	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 15:48	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 15:48	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 15:48	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 15:48	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 15:48	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 15:48	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 15:48	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 15:48	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		82 - 121		04/15/13 15:48	1
Dibromofluoromethane (Surr)	105		85 - 119		04/15/13 15:48	1
1,2-Dichloroethane-d4 (Surr)	106		82 - 132		04/15/13 15:48	1
Toluene-d8 (Surr)	99		85 - 115		04/15/13 15:48	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	33000		1000	400	ug/L		04/16/13 14:01	04/22/13 16:46	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:46	5
Arsenic	71		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:46	5
Barium	4100		250	20	ug/L		04/16/13 14:01	04/22/13 16:46	5
Beryllium	3.5 J		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:46	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:46	5
Calcium	430000 E		5000	530	ug/L		04/16/13 14:01	04/22/13 16:46	5
Calcium	460000		10000	1100	ug/L		04/16/13 14:01	04/23/13 10:25	10
Chromium	59		50	16	ug/L		04/16/13 14:01	04/22/13 16:46	5
Cobalt	57 J		250	20	ug/L		04/16/13 14:01	04/22/13 16:46	5
Copper	110 J		130	23	ug/L		04/16/13 14:01	04/22/13 16:46	5
Iron	180000		500	140	ug/L		04/16/13 14:01	04/22/13 16:46	5
Lead	100		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:46	5
Magnesium	95000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:46	5
Manganese	5200		75	17	ug/L		04/16/13 14:01	04/22/13 16:46	5
Nickel	460		200	67	ug/L		04/16/13 14:01	04/22/13 16:46	5
Potassium	13000 J		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:46	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:46	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:46	5
Sodium	160000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:46	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:46	5
Vanadium	89 J		250	20	ug/L		04/16/13 14:01	04/22/13 16:46	5
Zinc	370 B		100	26	ug/L		04/16/13 14:01	04/22/13 16:46	5

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: D-85

Lab Sample ID: 160-2078-9

Date Collected: 04/11/13 14:45

Matrix: Water

Date Received: 04/12/13 08:20

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	500	J	1000	400	ug/L		04/16/13 14:09	04/22/13 17:55	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 17:55	5
Arsenic	40	J	50	9.9	ug/L		04/16/13 14:09	04/22/13 17:55	5
Barium	1900		250	20	ug/L		04/16/13 14:09	04/22/13 17:55	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 17:55	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:55	5
Calcium	270000	E	5000	530	ug/L		04/16/13 14:09	04/22/13 17:55	5
Calcium	280000		10000	1100	ug/L		04/16/13 14:09	04/23/13 10:54	10
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 17:55	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 17:55	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 17:55	5
Iron	57000		500	140	ug/L		04/16/13 14:09	04/22/13 17:55	5
Lead	8.5	J	50	7.5	ug/L		04/16/13 14:09	04/22/13 17:55	5
Magnesium	69000		5000	660	ug/L		04/16/13 14:09	04/22/13 17:55	5
Manganese	1100		75	17	ug/L		04/16/13 14:09	04/22/13 17:55	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 17:55	5
Potassium	8400	J	25000	8300	ug/L		04/16/13 14:09	04/22/13 17:55	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 17:55	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 17:55	5
Sodium	170000		5000	1600	ug/L		04/16/13 14:09	04/22/13 17:55	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 17:55	5
Vanadium	23	J	250	20	ug/L		04/16/13 14:09	04/22/13 17:55	5
Zinc	28	J B	100	26	ug/L		04/16/13 14:09	04/22/13 17:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	J	0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:22	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		04/24/13 08:45	04/24/13 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 20:43	1
Bromide	0.35		0.25	0.025	mg/L			04/12/13 20:43	1
Iodide	0.18	J	1.0	0.10	mg/L			04/16/13 04:29	1
Alkalinity	700		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	39		10	1.0	mg/L			04/12/13 20:58	20

General Chemistry - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		40	4.0	mg/L			04/12/13 21:13	200

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-84

Lab Sample ID: 160-2078-10

Date Collected: 04/11/13 15:30

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 16:13	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 16:13	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 16:13	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 16:13	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 16:13	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 16:13	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 16:13	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 16:13	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 16:13	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 16:13	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 16:13	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 16:13	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 16:13	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 16:13	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 16:13	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 16:13	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 16:13	1
Benzene	3.5	J	5.0	0.25	ug/L			04/15/13 16:13	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 16:13	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 16:13	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 16:13	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 16:13	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 16:13	1
Chlorobenzene	11		5.0	0.38	ug/L			04/15/13 16:13	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 16:13	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 16:13	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 16:13	1
cis-1,2-Dichloroethene	0.60	J	5.0	0.16	ug/L			04/15/13 16:13	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 16:13	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 16:13	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 16:13	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 16:13	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 16:13	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 16:13	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 16:13	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 16:13	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 16:13	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 16:13	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 16:13	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 16:13	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 16:13	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 16:13	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 16:13	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 16:13	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 16:13	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 16:13	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 16:13	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 16:13	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 16:13	1

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TestAmerica St. Louis

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-84

Lab Sample ID: 160-2078-10

Date Collected: 04/11/13 15:30

Matrix: Water

Date Received: 04/12/13 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		82 - 121		04/15/13 16:13	1
Dibromofluoromethane (Surr)	112		85 - 119		04/15/13 16:13	1
1,2-Dichloroethane-d4 (Surr)	111		82 - 132		04/15/13 16:13	1
Toluene-d8 (Surr)	102		85 - 115		04/15/13 16:13	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2500		1000	400	ug/L		04/16/13 14:01	04/22/13 16:50	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:50	5
Arsenic	140		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:50	5
Barium	900		250	20	ug/L		04/16/13 14:01	04/22/13 16:50	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:50	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:50	5
Calcium	170000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:50	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:50	5
Cobalt	43 J		250	20	ug/L		04/16/13 14:01	04/22/13 16:50	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:50	5
Iron	73000		500	140	ug/L		04/16/13 14:01	04/22/13 16:50	5
Lead	18 J		50	7.5	ug/L		04/16/13 14:01	04/22/13 16:50	5
Magnesium	58000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:50	5
Manganese	2300		75	17	ug/L		04/16/13 14:01	04/22/13 16:50	5
Nickel	67 J		200	67	ug/L		04/16/13 14:01	04/22/13 16:50	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:50	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:50	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:50	5
Sodium	35000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:50	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:50	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:50	5
Zinc	90 J B		100	26	ug/L		04/16/13 14:01	04/22/13 16:50	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 18:06	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 18:06	5
Arsenic	130		50	9.9	ug/L		04/16/13 14:09	04/22/13 18:06	5
Barium	730		250	20	ug/L		04/16/13 14:09	04/22/13 18:06	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 18:06	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 18:06	5
Calcium	150000		5000	530	ug/L		04/16/13 14:09	04/22/13 18:06	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 18:06	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:06	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 18:06	5
Iron	62000		500	140	ug/L		04/16/13 14:09	04/22/13 18:06	5
Lead	11 J		50	7.5	ug/L		04/16/13 14:09	04/22/13 18:06	5
Magnesium	51000		5000	660	ug/L		04/16/13 14:09	04/22/13 18:06	5
Manganese	2000		75	17	ug/L		04/16/13 14:09	04/22/13 18:06	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 18:06	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 18:06	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 18:06	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 18:06	5

TestAmerica St. Louis



Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-84

Lab Sample ID: 160-2078-10

Date Collected: 04/11/13 15:30

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	34000		5000	1600	ug/L		04/16/13 14:09	04/22/13 18:06	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 18:06	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:06	5
Zinc	ND		100	26	ug/L		04/16/13 14:09	04/22/13 18:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 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		04/24/13 08:45	04/24/13 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.040		0.020	0.0040	mg/L			04/12/13 21:57	1
Bromide	1.1		0.25	0.025	mg/L			04/12/13 21:57	1
Sulfate	0.33	J	0.50	0.050	mg/L			04/12/13 21:57	1
Iodide	0.30	J	1.0	0.10	mg/L			04/16/13 04:43	1
Alkalinity	550		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68		4.0	0.40	mg/L			04/12/13 22:12	20

Client Sample ID: S-5

Lab Sample ID: 160-2078-11

Date Collected: 04/11/13 15:31

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 16:39	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 16:39	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 16:39	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 16:39	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 16:39	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 16:39	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 16:39	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 16:39	1
1,2-Dichlorobenzene	1.7	J B	5.0	0.28	ug/L			04/15/13 16:39	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 16:39	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 16:39	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 16:39	1
1,4-Dichlorobenzene	9.8		5.0	0.35	ug/L			04/15/13 16:39	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 16:39	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 16:39	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 16:39	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 16:39	1
Benzene	4.7	J	5.0	0.25	ug/L			04/15/13 16:39	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 16:39	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 16:39	1

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-5

Lab Sample ID: 160-2078-11

Date Collected: 04/11/13 15:31

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		10	0.40	ug/L			04/15/13 16:39	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 16:39	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 16:39	1
Chlorobenzene	3.1	J	5.0	0.38	ug/L			04/15/13 16:39	1
Chloroethane	0.49	J	10	0.38	ug/L			04/15/13 16:39	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 16:39	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 16:39	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 16:39	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 16:39	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 16:39	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 16:39	1
Dichlorodifluoromethane	2.5	J	10	0.45	ug/L			04/15/13 16:39	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 16:39	1
Isopropylbenzene	1.5	J	5.0	0.26	ug/L			04/15/13 16:39	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 16:39	1
Methyl tert-butyl ether	0.53	J	5.0	0.40	ug/L			04/15/13 16:39	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 16:39	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 16:39	1
m-Xylene & p-Xylene	13		5.0	0.57	ug/L			04/15/13 16:39	1
o-Xylene	6.6		5.0	0.32	ug/L			04/15/13 16:39	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 16:39	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 16:39	1
Toluene	5.0		5.0	1.0	ug/L			04/15/13 16:39	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 16:39	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 16:39	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 16:39	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 16:39	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 16:39	1
Xylenes, Total	20		10	0.85	ug/L			04/15/13 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		82 - 121		04/15/13 16:39	1
1,2-Dichloroethane-d4 (Surr)	104		82 - 132		04/15/13 16:39	1
Toluene-d8 (Surr)	102		85 - 115		04/15/13 16:39	1
Dibromofluoromethane (Surr)	107		85 - 119		04/15/13 16:39	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:53	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:53	5
Arsenic	12	J	50	9.9	ug/L		04/16/13 14:01	04/22/13 16:53	5
Barium	450		250	20	ug/L		04/16/13 14:01	04/22/13 16:53	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:53	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:53	5
Calcium	65000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:53	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:53	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:53	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:53	5
Iron	19000		500	140	ug/L		04/16/13 14:01	04/22/13 16:53	5
Lead	8.5	J	50	7.5	ug/L		04/16/13 14:01	04/22/13 16:53	5

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-5

Lab Sample ID: 160-2078-11

Date Collected: 04/11/13 15:31

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	58000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:53	5
Manganese	240		75	17	ug/L		04/16/13 14:01	04/22/13 16:53	5
Nickel	75	J	200	67	ug/L		04/16/13 14:01	04/22/13 16:53	5
Potassium	180000		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:53	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:53	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:53	5
Sodium	400000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:53	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:53	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:53	5
Zinc	55	J B	100	26	ug/L		04/16/13 14:01	04/22/13 16:53	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 18:10	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 18:10	5
Arsenic	10	J	50	9.9	ug/L		04/16/13 14:09	04/22/13 18:10	5
Barium	470		250	20	ug/L		04/16/13 14:09	04/22/13 18:10	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 18:10	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 18:10	5
Calcium	66000		5000	530	ug/L		04/16/13 14:09	04/22/13 18:10	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 18:10	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:10	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 18:10	5
Iron	18000		500	140	ug/L		04/16/13 14:09	04/22/13 18:10	5
Lead	9.0	J	50	7.5	ug/L		04/16/13 14:09	04/22/13 18:10	5
Magnesium	59000		5000	660	ug/L		04/16/13 14:09	04/22/13 18:10	5
Manganese	240		75	17	ug/L		04/16/13 14:09	04/22/13 18:10	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 18:10	5
Potassium	190000		25000	8300	ug/L		04/16/13 14:09	04/22/13 18:10	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 18:10	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 18:10	5
Sodium	420000		5000	1600	ug/L		04/16/13 14:09	04/22/13 18:10	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 18:10	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:10	5
Zinc	31	J B	100	26	ug/L		04/16/13 14:09	04/22/13 18:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.071	J	0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.064	J	0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0049	J	0.020	0.0040	mg/L			04/12/13 22:27	1
Bromide	3.5		0.25	0.025	mg/L			04/12/13 22:27	1
Sulfate	8.7		0.50	0.050	mg/L			04/12/13 22:27	1
Iodide	0.13	J	1.0	0.10	mg/L			04/16/13 04:58	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: S-5

Lab Sample ID: 160-2078-11

Date Collected: 04/11/13 15:31

Matrix: Water

Date Received: 04/12/13 08:20

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	1900		25	2.7	mg/L			04/18/13 13:46	5

General Chemistry - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		40	4.0	mg/L			04/12/13 22:57	200

Client Sample ID: PZ-109-SS

Lab Sample ID: 160-2078-12

Date Collected: 04/11/13 16:08

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 17:04	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 17:04	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 17:04	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 17:04	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 17:04	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 17:04	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 17:04	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 17:04	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 17:04	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 17:04	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 17:04	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 17:04	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 17:04	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 17:04	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 17:04	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 17:04	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 17:04	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 17:04	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 17:04	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 17:04	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 17:04	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 17:04	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 17:04	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 17:04	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 17:04	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 17:04	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 17:04	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 17:04	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 17:04	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 17:04	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 17:04	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 17:04	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 17:04	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 17:04	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 17:04	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 17:04	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 17:04	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 17:04	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-109-SS

Lab Sample ID: 160-2078-12

Date Collected: 04/11/13 16:08

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 17:04	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 17:04	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 17:04	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 17:04	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 17:04	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 17:04	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 17:04	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 17:04	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 17:04	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 17:04	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 17:04	1
Surrogate									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		82 - 121					04/15/13 17:04	1
Dibromofluoromethane (Surr)	105		85 - 119					04/15/13 17:04	1
1,2-Dichloroethane-d4 (Surr)	102		82 - 132					04/15/13 17:04	1
Toluene-d8 (Surr)	100		85 - 115					04/15/13 17:04	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 16:57	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 16:57	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 16:57	5
Barium	67	J	250	20	ug/L		04/16/13 14:01	04/22/13 16:57	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 16:57	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 16:57	5
Calcium	93000		5000	530	ug/L		04/16/13 14:01	04/22/13 16:57	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 16:57	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:57	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 16:57	5
Iron	ND		500	140	ug/L		04/16/13 14:01	04/22/13 16:57	5
Lead	10	J	50	7.5	ug/L		04/16/13 14:01	04/22/13 16:57	5
Magnesium	55000		5000	660	ug/L		04/16/13 14:01	04/22/13 16:57	5
Manganese	ND		75	17	ug/L		04/16/13 14:01	04/22/13 16:57	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 16:57	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 16:57	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 16:57	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 16:57	5
Sodium	19000		5000	1600	ug/L		04/16/13 14:01	04/22/13 16:57	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 16:57	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 16:57	5
Zinc	39	J B	100	26	ug/L		04/16/13 14:01	04/22/13 16:57	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 18:14	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 18:14	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 18:14	5
Barium	68	J	250	20	ug/L		04/16/13 14:09	04/22/13 18:14	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 18:14	5

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-109-SS

Lab Sample ID: 160-2078-12

Date Collected: 04/11/13 16:08

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 18:14	5
Calcium	93000		5000	530	ug/L		04/16/13 14:09	04/22/13 18:14	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 18:14	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:14	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 18:14	5
Iron	ND		500	140	ug/L		04/16/13 14:09	04/22/13 18:14	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 18:14	5
Magnesium	56000		5000	660	ug/L		04/16/13 14:09	04/22/13 18:14	5
Manganese	ND		75	17	ug/L		04/16/13 14:09	04/22/13 18:14	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 18:14	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 18:14	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 18:14	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 18:14	5
Sodium	18000		5000	1600	ug/L		04/16/13 14:09	04/22/13 18:14	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 18:14	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:14	5
Zinc	40	J B	100	26	ug/L		04/16/13 14:09	04/22/13 18:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:38	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		04/24/13 08:45	04/24/13 17:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.036		0.020	0.0040	mg/L			04/12/13 23:12	1
Chloride	3.8		0.20	0.020	mg/L			04/12/13 23:12	1
Bromide	ND		0.25	0.025	mg/L			04/12/13 23:12	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 05:12	1
Alkalinity	450		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	34		10	1.0	mg/L			04/12/13 23:27	20

Client Sample ID: PZ-104-KS

Lab Sample ID: 160-2078-13

Date Collected: 04/11/13 17:08

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 17:29	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 17:29	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 17:29	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 17:29	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 17:29	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 17:29	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 17:29	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-KS

Lab Sample ID: 160-2078-13

Date Collected: 04/11/13 17:08

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 17:29	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 17:29	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 17:29	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 17:29	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 17:29	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 17:29	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 17:29	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 17:29	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 17:29	1
Acetone	ND	*	20	6.7	ug/L			04/15/13 17:29	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 17:29	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 17:29	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 17:29	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 17:29	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 17:29	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 17:29	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 17:29	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 17:29	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 17:29	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 17:29	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 17:29	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 17:29	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 17:29	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 17:29	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 17:29	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 17:29	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 17:29	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 17:29	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 17:29	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 17:29	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 17:29	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 17:29	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 17:29	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 17:29	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 17:29	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 17:29	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 17:29	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 17:29	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 17:29	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 17:29	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 17:29	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		82 - 121		04/15/13 17:29	1
Dibromofluoromethane (Surr)	105		85 - 119		04/15/13 17:29	1
1,2-Dichloroethane-d4 (Surr)	107		82 - 132		04/15/13 17:29	1
Toluene-d8 (Surr)	97		85 - 115		04/15/13 17:29	1

TestAmerica St. Louis

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-KS

Lab Sample ID: 160-2078-13

Date Collected: 04/11/13 17:08

Matrix: Water

Date Received: 04/12/13 08:20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	790	J	1000	400	ug/L		04/16/13 14:01	04/22/13 17:01	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 17:01	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 17:01	5
Barium	63	J	250	20	ug/L		04/16/13 14:01	04/22/13 17:01	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 17:01	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 17:01	5
Calcium	77000		5000	530	ug/L		04/16/13 14:01	04/22/13 17:01	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 17:01	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 17:01	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 17:01	5
Iron	1300		500	140	ug/L		04/16/13 14:01	04/22/13 17:01	5
Lead	ND		50	7.5	ug/L		04/16/13 14:01	04/22/13 17:01	5
Magnesium	37000		5000	660	ug/L		04/16/13 14:01	04/22/13 17:01	5
Manganese	25	J	75	17	ug/L		04/16/13 14:01	04/22/13 17:01	5
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 17:01	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 17:01	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 17:01	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 17:01	5
Sodium	35000		5000	1600	ug/L		04/16/13 14:01	04/22/13 17:01	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 17:01	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 17:01	5
Zinc	40	J B	100	26	ug/L		04/16/13 14:01	04/22/13 17:01	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 18:17	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 18:17	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 18:17	5
Barium	61	J	250	20	ug/L		04/16/13 14:09	04/22/13 18:17	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 18:17	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 18:17	5
Calcium	75000		5000	530	ug/L		04/16/13 14:09	04/22/13 18:17	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 18:17	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:17	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 18:17	5
Iron	810		500	140	ug/L		04/16/13 14:09	04/22/13 18:17	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 18:17	5
Magnesium	37000		5000	660	ug/L		04/16/13 14:09	04/22/13 18:17	5
Manganese	19	J	75	17	ug/L		04/16/13 14:09	04/22/13 18:17	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 18:17	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 18:17	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 18:17	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 18:17	5
Sodium	35000		5000	1600	ug/L		04/16/13 14:09	04/22/13 18:17	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 18:17	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:17	5
Zinc	30	J B	100	26	ug/L		04/16/13 14:09	04/22/13 18:17	5

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TestAmerica St. Louis

Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: PZ-104-KS

Lab Sample ID: 160-2078-13

Date Collected: 04/11/13 17:08

Matrix: Water

Date Received: 04/12/13 08:20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:39	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		04/24/13 08:45	04/24/13 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.020	0.0040	mg/L			04/12/13 23:42	1
Bromide	0.041	J	0.25	0.025	mg/L			04/12/13 23:42	1
Sulfate	16		0.50	0.050	mg/L			04/12/13 23:42	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 06:10	1
Alkalinity	350		5.0	0.54	mg/L			04/18/13 13:46	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		4.0	0.40	mg/L			04/12/13 23:57	20

Client Sample ID: DUP 06

Lab Sample ID: 160-2078-14

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 17:53	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 17:53	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 17:53	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 17:53	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 17:53	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 17:53	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 17:53	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 17:53	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 17:53	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 17:53	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 17:53	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 17:53	1
1,4-Dichlorobenzene	6.5		5.0	0.35	ug/L			04/15/13 17:53	1
2-Butanone (MEK)	78		20	0.39	ug/L			04/15/13 17:53	1
2-Hexanone	69		20	0.59	ug/L			04/15/13 17:53	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 17:53	1
Acetone	50	*	20	6.7	ug/L			04/15/13 17:53	1
Benzene	2000		50	2.5	ug/L			04/16/13 15:16	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 17:53	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 17:53	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 17:53	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 17:53	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 17:53	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 17:53	1
Chloroethane	4.6	J	10	0.38	ug/L			04/15/13 17:53	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 17:53	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: DUP 06

Lab Sample ID: 160-2078-14

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	0.55	ug/L			04/15/13 17:53	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 17:53	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 17:53	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 17:53	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 17:53	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 17:53	1
Ethylbenzene	24		5.0	0.30	ug/L			04/15/13 17:53	1
Isopropylbenzene	2.5 J		5.0	0.26	ug/L			04/15/13 17:53	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 17:53	1
Methyl tert-butyl ether	7.0		5.0	0.40	ug/L			04/15/13 17:53	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 17:53	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 17:53	1
m-Xylene & p-Xylene	43		5.0	0.57	ug/L			04/15/13 17:53	1
o-Xylene	18		5.0	0.32	ug/L			04/15/13 17:53	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 17:53	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 17:53	1
Toluene	140		5.0	1.0	ug/L			04/15/13 17:53	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 17:53	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 17:53	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 17:53	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 17:53	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 17:53	1
Xylenes, Total	61		10	0.85	ug/L			04/15/13 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		82 - 121		04/15/13 17:53	1
4-Bromofluorobenzene (Surr)	100		82 - 121		04/16/13 15:16	1
Dibromofluoromethane (Surr)	93		85 - 119		04/15/13 17:53	1
Dibromofluoromethane (Surr)	98		85 - 119		04/16/13 15:16	1
1,2-Dichloroethane-d4 (Surr)	92		82 - 132		04/15/13 17:53	1
1,2-Dichloroethane-d4 (Surr)	96		82 - 132		04/16/13 15:16	1
Toluene-d8 (Surr)	102		85 - 115		04/15/13 17:53	1
Toluene-d8 (Surr)	99		85 - 115		04/16/13 15:16	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:01	04/22/13 17:04	5
Antimony	ND		50	20	ug/L		04/16/13 14:01	04/22/13 17:04	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:01	04/22/13 17:04	5
Barium	98 J		250	20	ug/L		04/16/13 14:01	04/22/13 17:04	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:01	04/22/13 17:04	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 17:04	5
Calcium	93000		5000	530	ug/L		04/16/13 14:01	04/22/13 17:04	5
Chromium	ND		50	16	ug/L		04/16/13 14:01	04/22/13 17:04	5
Cobalt	ND		250	20	ug/L		04/16/13 14:01	04/22/13 17:04	5
Copper	ND		130	23	ug/L		04/16/13 14:01	04/22/13 17:04	5
Iron	2100		500	140	ug/L		04/16/13 14:01	04/22/13 17:04	5
Lead	ND		50	7.5	ug/L		04/16/13 14:01	04/22/13 17:04	5
Magnesium	53000		5000	660	ug/L		04/16/13 14:01	04/22/13 17:04	5
Manganese	48 J		75	17	ug/L		04/16/13 14:01	04/22/13 17:04	5

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: DUP 06

Lab Sample ID: 160-2078-14

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		200	67	ug/L		04/16/13 14:01	04/22/13 17:04	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:01	04/22/13 17:04	5
Selenium	ND		75	13	ug/L		04/16/13 14:01	04/22/13 17:04	5
Silver	ND		50	30	ug/L		04/16/13 14:01	04/22/13 17:04	5
Sodium	11000		5000	1600	ug/L		04/16/13 14:01	04/22/13 17:04	5
Thallium	ND		100	20	ug/L		04/16/13 14:01	04/22/13 17:04	5
Vanadium	ND		250	20	ug/L		04/16/13 14:01	04/22/13 17:04	5
Zinc	29	J B	100	26	ug/L		04/16/13 14:01	04/22/13 17:04	5

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1000	400	ug/L		04/16/13 14:09	04/22/13 18:21	5
Antimony	ND		50	20	ug/L		04/16/13 14:09	04/22/13 18:21	5
Arsenic	ND		50	9.9	ug/L		04/16/13 14:09	04/22/13 18:21	5
Barium	97	J	250	20	ug/L		04/16/13 14:09	04/22/13 18:21	5
Beryllium	ND		25	3.1	ug/L		04/16/13 14:09	04/22/13 18:21	5
Cadmium	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 18:21	5
Calcium	94000		5000	530	ug/L		04/16/13 14:09	04/22/13 18:21	5
Chromium	ND		50	16	ug/L		04/16/13 14:09	04/22/13 18:21	5
Cobalt	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:21	5
Copper	ND		130	23	ug/L		04/16/13 14:09	04/22/13 18:21	5
Iron	2100		500	140	ug/L		04/16/13 14:09	04/22/13 18:21	5
Lead	ND		50	7.5	ug/L		04/16/13 14:09	04/22/13 18:21	5
Magnesium	53000		5000	660	ug/L		04/16/13 14:09	04/22/13 18:21	5
Manganese	48	J	75	17	ug/L		04/16/13 14:09	04/22/13 18:21	5
Nickel	ND		200	67	ug/L		04/16/13 14:09	04/22/13 18:21	5
Potassium	ND		25000	8300	ug/L		04/16/13 14:09	04/22/13 18:21	5
Selenium	ND		75	13	ug/L		04/16/13 14:09	04/22/13 18:21	5
Silver	ND		50	30	ug/L		04/16/13 14:09	04/22/13 18:21	5
Sodium	11000		5000	1600	ug/L		04/16/13 14:09	04/22/13 18:21	5
Thallium	ND		100	20	ug/L		04/16/13 14:09	04/22/13 18:21	5
Vanadium	ND		250	20	ug/L		04/16/13 14:09	04/22/13 18:21	5
Zinc	ND		100	26	ug/L		04/16/13 14:09	04/22/13 18:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:41	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062	J	0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:58	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			04/12/13 18:14	1
Bromide	0.029	J	0.25	0.025	mg/L			04/12/13 18:14	1
Sulfate	0.92		0.50	0.050	mg/L			04/12/13 18:14	1
Iodide	ND		1.0	0.10	mg/L			04/16/13 06:24	1
Alkalinity	410		5.0	0.54	mg/L			04/23/13 14:58	1

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Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: DUP 06

Lab Sample ID: 160-2078-14

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		4.0	0.40	mg/L			04/12/13 18:28	20

Client Sample ID: TRIP BLANK

Lab Sample ID: 160-2078-15

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 12:03	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 12:03	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 12:03	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 12:03	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 12:03	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/15/13 12:03	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 12:03	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 12:03	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/15/13 12:03	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 12:03	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 12:03	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/15/13 12:03	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 12:03	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 12:03	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 12:03	1
Acetone	ND *		20	6.7	ug/L			04/15/13 12:03	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 12:03	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 12:03	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 12:03	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 12:03	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 12:03	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 12:03	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 12:03	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 12:03	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 12:03	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 12:03	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 12:03	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 12:03	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 12:03	1
Cyclohexanone	ND		100	18	ug/L			04/15/13 12:03	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 12:03	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 12:03	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 12:03	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 12:03	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 12:03	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 12:03	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 12:03	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 12:03	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 12:03	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 12:03	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 12:03	1

TestAmerica St. Louis

US EPA ARCHIVE DOCUMENT



Client Sample Results

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

TestAmerica Job ID: 160-2078-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 160-2078-15

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:20

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			04/15/13 12:03	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 12:03	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 12:03	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 12:03	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 12:03	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 12:03	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/15/13 12:03	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		82 - 121					04/15/13 12:03	1
Dibromofluoromethane (Surr)	99		85 - 119					04/15/13 12:03	1
1,2-Dichloroethane-d4 (Surr)	102		82 - 132					04/15/13 12:03	1
Toluene-d8 (Surr)	96		85 - 115					04/15/13 12:03	1

US EPA ARCHIVE DOCUMENT

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: MB 160-46185/2

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			04/15/13 11:37	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/15/13 11:37	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/15/13 11:37	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/15/13 11:37	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/15/13 11:37	1
1,2,4-Trichlorobenzene	0.884	J	5.0	0.55	ug/L			04/15/13 11:37	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/15/13 11:37	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/15/13 11:37	1
1,2-Dichlorobenzene	0.412	J	5.0	0.28	ug/L			04/15/13 11:37	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/15/13 11:37	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/15/13 11:37	1
1,3-Dichlorobenzene	0.380	J	5.0	0.23	ug/L			04/15/13 11:37	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/15/13 11:37	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/15/13 11:37	1
2-Hexanone	ND		20	0.59	ug/L			04/15/13 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/15/13 11:37	1
Acetone	ND		20	6.7	ug/L			04/15/13 11:37	1
Benzene	ND		5.0	0.25	ug/L			04/15/13 11:37	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/15/13 11:37	1
Bromoform	ND		5.0	0.37	ug/L			04/15/13 11:37	1
Bromomethane	ND		10	0.40	ug/L			04/15/13 11:37	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/15/13 11:37	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/15/13 11:37	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/15/13 11:37	1
Chloroethane	ND		10	0.38	ug/L			04/15/13 11:37	1
Chloroform	ND		5.0	0.15	ug/L			04/15/13 11:37	1
Chloromethane	ND		10	0.55	ug/L			04/15/13 11:37	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/15/13 11:37	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/15/13 11:37	1
Cyclohexane	ND		10	0.36	ug/L			04/15/13 11:37	1
Cyclohexanone	ND		100	18	ug/L			04/15/13 11:37	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/15/13 11:37	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/15/13 11:37	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/15/13 11:37	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/15/13 11:37	1
Methyl acetate	ND		5.0	2.3	ug/L			04/15/13 11:37	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/15/13 11:37	1
Methylcyclohexane	ND		10	0.26	ug/L			04/15/13 11:37	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/15/13 11:37	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/15/13 11:37	1
o-Xylene	ND		5.0	0.32	ug/L			04/15/13 11:37	1
Styrene	ND		5.0	0.35	ug/L			04/15/13 11:37	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/15/13 11:37	1
Toluene	ND		5.0	1.0	ug/L			04/15/13 11:37	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/15/13 11:37	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/15/13 11:37	1
Trichloroethene	ND		5.0	0.29	ug/L			04/15/13 11:37	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/15/13 11:37	1

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: MB 160-46185/2

Matrix: Water

Analysis Batch: 46185

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			04/15/13 11:37	1
Xylenes, Total	ND		10	0.85	ug/L			04/15/13 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		82 - 121		04/15/13 11:37	1
1,2-Dichloroethane-d4 (Surr)	101		82 - 132		04/15/13 11:37	1
Dibromofluoromethane (Surr)	101		85 - 119		04/15/13 11:37	1
Toluene-d8 (Surr)	101		85 - 115		04/15/13 11:37	1

Lab Sample ID: LCS 160-46185/4

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	50.3		ug/L		101	85 - 115
1,1,1-Trichloroethane	50.0	46.3		ug/L		93	85 - 115
1,1,2,2-Tetrachloroethane	50.0	49.1		ug/L		98	84 - 115
1,1,2-Trichloroethane	50.0	49.5		ug/L		99	85 - 115
1,1-Dichloroethane	50.0	49.0		ug/L		98	85 - 115
1,1-Dichloroethene	50.0	44.2		ug/L		88	85 - 118
1,1-Dichloropropene	50.0	47.0		ug/L		94	85 - 115
1,2,3-Trichlorobenzene	50.0	44.7		ug/L		89	72 - 120
1,2,3-Trichloropropane	50.0	45.7		ug/L		91	80 - 115
1,2,4-Trichlorobenzene	50.0	46.7		ug/L		93	75 - 124
1,2,4-Trimethylbenzene	50.0	53.7		ug/L		107	85 - 115
1,2-Dibromo-3-chloropropane	50.0	42.3		ug/L		85	71 - 123
1,2-Dibromoethane	50.0	49.4		ug/L		99	85 - 115
1,2-Dichloro-1,1,2,2-tetrafluoroethane	50.0	52.0		ug/L		104	47 - 130
1,2-Dichlorobenzene	50.0	49.7		ug/L		99	85 - 115
1,2-Dichloroethane	50.0	48.6		ug/L		97	79 - 122
1,2-Dichloroethene, Total	100	90.9		ug/L		91	85 - 115
1,2-Dichloropropane	50.0	47.3		ug/L		95	85 - 115
1,3,5-Trimethylbenzene	50.0	53.8		ug/L		108	85 - 117
1,3-Dichlorobenzene	50.0	49.0		ug/L		98	85 - 115
1,3-Dichloropropane	50.0	49.1		ug/L		98	84 - 115
1,4-Dichlorobenzene	50.0	49.7		ug/L		99	85 - 115
1,4-Dioxane	1000	845		ug/L		84	26 - 141
1-Butanol	500	418		ug/L		84	49 - 132
2,2-Dichloropropane	50.0	50.3		ug/L		101	85 - 127
2-Butanone (MEK)	50.0	49.7		ug/L		99	71 - 123
2-Chloro-1,3-butadiene	50.0	49.1		ug/L		98	70 - 115
2-Chloroethyl vinyl ether	50.0	48.7		ug/L		97	64 - 125
2-Chlorotoluene	50.0	51.7		ug/L		103	83 - 119
2-Hexanone	50.0	54.1		ug/L		108	66 - 121
2-Nitropropane	100	97.7		ug/L		98	63 - 115
4-Chlorotoluene	50.0	51.2		ug/L		102	84 - 118
4-Isopropyltoluene	50.0	54.6		ug/L		109	85 - 119

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCS 160-46185/4

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methyl-2-pentanone (MIBK)	50.0	51.1		ug/L		102	74 - 123
Acetone	50.0	41.3		ug/L		83	51 - 140
Acetonitrile	250	231		ug/L		92	44 - 140
Acrolein	250	285		ug/L		114	79 - 115
Acrylonitrile	250	252		ug/L		101	78 - 126
Allyl chloride	50.0	49.1		ug/L		98	76 - 119
Benzene	50.0	47.8		ug/L		96	85 - 115
Bromobenzene	50.0	48.4		ug/L		97	85 - 115
Bromochloromethane	50.0	46.7		ug/L		93	84 - 117
Bromodichloromethane	50.0	47.6		ug/L		95	85 - 117
Bromoform	50.0	48.8		ug/L		98	85 - 115
Bromomethane	50.0	35.9		ug/L		72	70 - 135
Carbon disulfide	50.0	44.8		ug/L		90	85 - 123
Carbon tetrachloride	50.0	47.6		ug/L		95	85 - 118
Chlorobenzene	50.0	50.6		ug/L		101	85 - 115
Chloroethane	50.0	38.9		ug/L		78	75 - 125
Chloroform	50.0	47.8		ug/L		96	85 - 115
Chloromethane	50.0	48.5		ug/L		97	73 - 132
cis-1,2-Dichloroethene	50.0	46.0		ug/L		92	85 - 115
cis-1,3-Dichloropropene	50.0	46.6		ug/L		93	85 - 127
Cyclohexane	50.0	47.6		ug/L		95	73 - 115
Cyclohexanone	500	445		ug/L		89	29 - 122
Dibromochloromethane	50.0	47.7		ug/L		95	85 - 115
Dibromomethane	50.0	48.1		ug/L		96	85 - 115
Dichlorodifluoromethane	50.0	47.0		ug/L		94	62 - 115
Ethyl acetate	100	104		ug/L		104	67 - 119
Ethyl ether	100	98.7		ug/L		99	77 - 115
Ethyl methacrylate	50.0	52.2		ug/L		104	67 - 115
Ethylbenzene	50.0	51.9		ug/L		104	85 - 115
Hexachlorobutadiene	50.0	50.0		ug/L		100	74 - 127
Iodomethane	50.0	44.0		ug/L		88	83 - 124
Isobutanol	1000	971		ug/L		97	51 - 136
Isopropylbenzene	50.0	54.1		ug/L		108	85 - 124
Methacrylonitrile	250	266		ug/L		106	70 - 115
Methyl acetate	50.0	50.2		ug/L		100	73 - 135
Methyl methacrylate	50.0	44.4		ug/L		89	61 - 115
Methyl tert-butyl ether	50.0	45.2		ug/L		90	73 - 115
Methylcyclohexane	50.0	49.7		ug/L		99	85 - 134
Methylene Chloride	50.0	45.7		ug/L		91	84 - 115
m-Xylene & p-Xylene	100	107		ug/L		107	85 - 115
Naphthalene	50.0	43.1		ug/L		86	70 - 123
n-Butylbenzene	50.0	54.8		ug/L		110	85 - 116
n-Hexane	50.0	48.9		ug/L		98	85 - 139
N-Propylbenzene	50.0	54.0		ug/L		108	85 - 117
o-Xylene	50.0	50.5		ug/L		101	85 - 115
Propionitrile	250	276		ug/L		110	66 - 115
sec-Butylbenzene	50.0	53.0		ug/L		106	85 - 118
Styrene	50.0	51.9		ug/L		104	85 - 115

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCS 160-46185/4

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	50.0	54.3		ug/L		109	85 - 124
Tetrachloroethene	50.0	49.6		ug/L		99	85 - 115
Tetrahydrofuran	250	239		ug/L		96	63 - 117
Toluene	50.0	52.5		ug/L		105	85 - 115
trans-1,2-Dichloroethene	50.0	44.9		ug/L		90	85 - 115
trans-1,3-Dichloropropene	50.0	50.8		ug/L		102	85 - 123
trans-1,4-Dichloro-2-butene	50.0	53.6		ug/L		107	77 - 115
Trichloroethene	50.0	46.9		ug/L		94	85 - 115
Trichlorofluoromethane	50.0	48.0		ug/L		96	85 - 116
Vinyl acetate	50.0	53.4		ug/L		107	39 - 124
Vinyl chloride	50.0	44.7		ug/L		89	68 - 133
Xylenes, Total	150	158		ug/L		105	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		82 - 121
1,2-Dichloroethane-d4 (Surr)	98		82 - 132
Dibromofluoromethane (Surr)	98		85 - 119
Toluene-d8 (Surr)	103		85 - 115

Lab Sample ID: LCSD 160-46185/5

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	53.5		ug/L		107	85 - 115	6	20
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	85 - 115	14	20
1,1,2,2-Tetrachloroethane	50.0	52.0		ug/L		104	84 - 115	6	20
1,1,2-Trichloroethane	50.0	49.5		ug/L		99	85 - 115	0	20
1,1-Dichloroethane	50.0	53.6		ug/L		107	85 - 115	9	20
1,1-Dichloroethene	50.0	49.5		ug/L		99	85 - 118	11	20
1,1-Dichloropropene	50.0	50.2		ug/L		100	85 - 115	7	20
1,2,3-Trichlorobenzene	50.0	51.1		ug/L		102	72 - 120	13	20
1,2,3-Trichloropropene	50.0	50.5		ug/L		101	80 - 115	10	20
1,2,4-Trichlorobenzene	50.0	53.0		ug/L		106	75 - 124	13	20
1,2,4-Trimethylbenzene	50.0	55.6		ug/L		111	85 - 115	3	20
1,2-Dibromo-3-chloropropane	50.0	49.2		ug/L		98	71 - 123	15	20
1,2-Dibromoethane	50.0	49.5		ug/L		99	85 - 115	0	20
1,2-Dichloro-1,1,2,2-tetrafluoroethane	50.0	61.1		ug/L		122	47 - 130	16	20
1,2-Dichlorobenzene	50.0	52.3		ug/L		105	85 - 115	5	20
1,2-Dichloroethane	50.0	50.5		ug/L		101	79 - 122	4	20
1,2-Dichloroethene, Total	100	99.0		ug/L		99	85 - 115	9	20
1,2-Dichloropropane	50.0	51.2		ug/L		102	85 - 115	8	20
1,3,5-Trimethylbenzene	50.0	57.2		ug/L		114	85 - 117	6	20
1,3-Dichlorobenzene	50.0	53.0		ug/L		106	85 - 115	8	20
1,3-Dichloropropane	50.0	50.0		ug/L		100	84 - 115	2	20
1,4-Dichlorobenzene	50.0	53.2		ug/L		106	85 - 115	7	20
1,4-Dioxane	1000	991		ug/L		99	26 - 141	16	20

TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCSD 160-46185/5

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
1-Butanol	500	479		ug/L		96	49 - 132	14	20
2,2-Dichloropropane	50.0	56.4		ug/L		113	85 - 127	11	20
2-Butanone (MEK)	50.0	43.3		ug/L		87	71 - 123	14	20
2-Chloro-1,3-butadiene	50.0	53.2		ug/L		106	70 - 115	8	20
2-Chloroethyl vinyl ether	50.0	46.5		ug/L		93	64 - 125	5	20
2-Chlorotoluene	50.0	55.1		ug/L		110	83 - 119	6	20
2-Hexanone	50.0	54.3		ug/L		109	66 - 121	0	20
2-Nitropropane	100	106		ug/L		106	63 - 115	8	20
4-Chlorotoluene	50.0	52.4		ug/L		105	84 - 118	2	20
4-Isopropyltoluene	50.0	57.5		ug/L		115	85 - 119	5	20
4-Methyl-2-pentanone (MIBK)	50.0	57.3		ug/L		115	74 - 123	11	20
Acetone	50.0	58.7	*	ug/L		117	51 - 140	35	20
Acetonitrile	250	302	*	ug/L		121	44 - 140	27	20
Acrolein	250	319	*	ug/L		128	79 - 115	11	20
Acrylonitrile	250	268		ug/L		107	78 - 126	6	20
Allyl chloride	50.0	53.2		ug/L		106	76 - 119	8	20
Benzene	50.0	52.1		ug/L		104	85 - 115	9	20
Bromobenzene	50.0	49.8		ug/L		100	85 - 115	3	20
Bromochloromethane	50.0	52.7		ug/L		105	84 - 117	12	20
Bromodichloromethane	50.0	50.3		ug/L		101	85 - 117	6	20
Bromoform	50.0	49.5		ug/L		99	85 - 115	1	20
Bromomethane	50.0	41.4		ug/L		83	70 - 135	14	20
Carbon disulfide	50.0	52.2		ug/L		104	85 - 123	15	20
Carbon tetrachloride	50.0	52.1		ug/L		104	85 - 118	9	20
Chlorobenzene	50.0	51.2		ug/L		102	85 - 115	1	20
Chloroethane	50.0	44.1		ug/L		88	75 - 125	13	20
Chloroform	50.0	51.7		ug/L		103	85 - 115	8	20
Chloromethane	50.0	59.0		ug/L		118	73 - 132	19	20
cis-1,2-Dichloroethene	50.0	49.8		ug/L		100	85 - 115	8	20
cis-1,3-Dichloropropene	50.0	47.1		ug/L		94	85 - 127	1	20
Cyclohexane	50.0	55.3		ug/L		111	73 - 115	15	20
Cyclohexanone	500	524		ug/L		105	29 - 122	16	20
Dibromochloromethane	50.0	50.9		ug/L		102	85 - 115	6	20
Dibromomethane	50.0	49.4		ug/L		99	85 - 115	3	20
Dichlorodifluoromethane	50.0	55.4		ug/L		111	62 - 115	16	20
Ethyl acetate	100	111		ug/L		111	67 - 119	7	20
Ethyl ether	100	105		ug/L		105	77 - 115	6	20
Ethyl methacrylate	50.0	55.4		ug/L		111	67 - 115	6	20
Ethylbenzene	50.0	53.3		ug/L		107	85 - 115	3	20
Hexachlorobutadiene	50.0	56.4		ug/L		113	74 - 127	12	20
Iodomethane	50.0	49.2		ug/L		98	83 - 124	11	20
Isobutanol	1000	1150		ug/L		115	51 - 136	17	20
Isopropylbenzene	50.0	55.9		ug/L		112	85 - 124	3	20
Methacrylonitrile	250	271		ug/L		109	70 - 115	2	20
Methyl acetate	50.0	54.7		ug/L		109	73 - 135	9	20
Methyl methacrylate	50.0	44.6		ug/L		89	61 - 115	0	20
Methyl tert-butyl ether	50.0	53.1		ug/L		106	73 - 115	16	20
Methylcyclohexane	50.0	55.5		ug/L		111	85 - 134	11	20

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCSD 160-46185/5

Matrix: Water

Analysis Batch: 46185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							RPD	Limit		
Methylene Chloride	50.0	52.7		ug/L		105	84 - 115	14	20	
m-Xylene & p-Xylene	100	113		ug/L		113	85 - 115	5	20	
Naphthalene	50.0	50.2		ug/L		100	70 - 123	15	20	
n-Butylbenzene	50.0	57.8		ug/L		116	85 - 116	5	20	
n-Hexane	50.0	53.0		ug/L		106	85 - 139	8	20	
N-Propylbenzene	50.0	56.3		ug/L		113	85 - 117	4	20	
o-Xylene	50.0	54.5		ug/L		109	85 - 115	8	20	
Propionitrile	250	306 *		ug/L		123	66 - 115	10	20	
sec-Butylbenzene	50.0	54.7		ug/L		109	85 - 118	3	20	
Styrene	50.0	56.4		ug/L		113	85 - 115	8	20	
tert-Butylbenzene	50.0	54.4		ug/L		109	85 - 124	0	20	
Tetrachloroethene	50.0	50.0		ug/L		100	85 - 115	1	20	
Tetrahydrofuran	250	273		ug/L		109	63 - 117	13	20	
Toluene	50.0	53.8		ug/L		108	85 - 115	3	20	
trans-1,2-Dichloroethene	50.0	49.2		ug/L		98	85 - 115	9	20	
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	85 - 123	2	20	
trans-1,4-Dichloro-2-butene	50.0	52.8		ug/L		106	77 - 115	2	20	
Trichloroethene	50.0	48.7		ug/L		97	85 - 115	4	20	
Trichlorofluoromethane	50.0	53.4		ug/L		107	85 - 116	11	20	
Vinyl acetate	50.0	52.9		ug/L		106	39 - 124	1	20	
Vinyl chloride	50.0	51.5		ug/L		103	68 - 133	14	20	
Xylenes, Total	150	168		ug/L		112		6	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		82 - 121
1,2-Dichloroethane-d4 (Surr)	100		82 - 132
Dibromofluoromethane (Surr)	101		85 - 119
Toluene-d8 (Surr)	105		85 - 115

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier				RPD	Limit
1,1,1,2-Tetrachloroethane	ND		50.0	48.7		ug/L		97	85 - 115	
1,1,1-Trichloroethane	ND		50.0	46.1		ug/L		92	85 - 118	
1,1,1,2-Tetrachloroethane	ND		50.0	48.6		ug/L		97	85 - 116	
1,1,2-Trichloroethane	ND		50.0	47.5		ug/L		95	85 - 115	
1,1-Dichloroethane	ND		50.0	48.2		ug/L		96	85 - 115	
1,1-Dichloroethene	ND		50.0	45.3		ug/L		91	85 - 118	
1,1-Dichloropropene	ND		50.0	44.1		ug/L		88	85 - 115	
1,2,3-Trichlorobenzene	ND		50.0	44.5		ug/L		89	70 - 120	
1,2,3-Trichloropropane	ND		50.0	43.6		ug/L		87	80 - 115	
1,2,4-Trichlorobenzene	ND		50.0	45.7		ug/L		91	75 - 124	
1,2,4-Trimethylbenzene	ND		50.0	51.0		ug/L		102	85 - 115	
1,2-Dibromo-3-chloropropane	ND		50.0	44.5		ug/L		89	71 - 123	
1,2-Dibromoethane	ND		50.0	47.8		ug/L		96	85 - 115	

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		50.0	52.8		ug/L		106	47 - 130
1,2-Dichlorobenzene	ND		50.0	41.8		ug/L		84	84 - 115
1,2-Dichloroethane	ND		50.0	46.2		ug/L		92	80 - 125
1,2-Dichloroethene, Total	ND		100	90.9		ug/L		91	85 - 115
1,2-Dichloropropane	ND		50.0	45.7		ug/L		91	85 - 117
1,3,5-Trimethylbenzene	ND		50.0	51.4		ug/L		103	85 - 116
1,3-Dichlorobenzene	ND		50.0	43.0		ug/L		86	84 - 115
1,3-Dichloropropane	ND		50.0	47.7		ug/L		95	85 - 115
1,4-Dichlorobenzene	ND		50.0	47.5		ug/L		95	85 - 115
1,4-Dioxane	ND		1000	1070		ug/L		107	36 - 157
1-Butanol	ND		500	512		ug/L		102	53 - 140
2,2-Dichloropropane	ND		50.0	51.7		ug/L		103	80 - 122
2-Butanone (MEK)	ND		50.0	48.6		ug/L		97	73 - 133
2-Chloro-1,3-butadiene	ND		50.0	48.8		ug/L		98	70 - 115
2-Chloroethyl vinyl ether	ND		50.0	51.7		ug/L		103	15 - 147
2-Chlorotoluene	ND		50.0	45.7		ug/L		91	84 - 117
2-Hexanone	ND		50.0	52.6		ug/L		105	66 - 121
2-Nitropropane	ND		100	98.4		ug/L		98	64 - 118
4-Chlorotoluene	ND		50.0	43.4		ug/L		87	85 - 115
4-Isopropyltoluene	ND		50.0	52.6		ug/L		105	85 - 116
4-Methyl-2-pentanone (MIBK)	ND		50.0	58.3		ug/L		117	77 - 134
Acetone	ND *		50.0	51.2		ug/L		102	38 - 150
Acetonitrile	ND		250	305		ug/L		122	44 - 141
Acrolein	ND		250	336 F		ug/L		135	60 - 122
Acrylonitrile	ND		250	266		ug/L		106	78 - 128
Allyl chloride	ND		50.0	49.4		ug/L		99	76 - 119
Benzene	0.29 J		50.0	47.7		ug/L		95	85 - 115
Bromobenzene	ND		50.0	46.6		ug/L		93	85 - 115
Bromochloromethane	ND		50.0	45.5		ug/L		91	85 - 115
Bromodichloromethane	ND		50.0	45.1		ug/L		90	56 - 119
Bromoform	ND		50.0	47.2		ug/L		94	84 - 116
Bromomethane	ND		50.0	35.8		ug/L		72	70 - 135
Carbon disulfide	ND		50.0	50.0		ug/L		100	85 - 127
Carbon tetrachloride	ND		50.0	46.6		ug/L		93	85 - 121
Chlorobenzene	1.5 J		50.0	44.8		ug/L		87	85 - 115
Chloroethane	ND		50.0	36.0 F		ug/L		72	73 - 123
Chloroform	ND		50.0	46.8		ug/L		94	85 - 115
Chloromethane	ND		50.0	57.4		ug/L		115	67 - 130
cis-1,2-Dichloroethene	ND		50.0	46.1		ug/L		92	80 - 116
cis-1,3-Dichloropropene	ND		50.0	45.4		ug/L		91	85 - 124
Cyclohexane	ND		50.0	50.5		ug/L		101	73 - 115
Cyclohexanone	ND		500	501		ug/L		100	26 - 121
Dibromochloromethane	ND		50.0	48.6		ug/L		97	85 - 115
Dibromomethane	ND		50.0	45.1		ug/L		90	85 - 115
Dichlorodifluoromethane	ND		50.0	47.1		ug/L		94	85 - 119
Ethyl acetate	ND		100	116		ug/L		116	71 - 116
Ethyl ether	21		100	119		ug/L		99	79 - 115

TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Ethyl methacrylate	ND		50.0	55.1		ug/L		110	67 - 115
Ethylbenzene	ND		50.0	50.0		ug/L		100	85 - 115
Hexachlorobutadiene	ND		50.0	47.4		ug/L		95	64 - 134
Iodomethane	ND		50.0	46.7		ug/L		93	78 - 126
Isobutanol	ND		1000	1090		ug/L		109	51 - 137
Isopropylbenzene	ND		50.0	45.8		ug/L		92	85 - 124
Methacrylonitrile	ND		250	259		ug/L		104	70 - 118
Methyl acetate	ND		50.0	46.8		ug/L		94	49 - 150
Methyl methacrylate	ND		50.0	46.6		ug/L		93	61 - 115
Methyl tert-butyl ether	ND		50.0	46.2		ug/L		92	75 - 115
Methylcyclohexane	ND		50.0	50.1		ug/L		100	85 - 137
Methylene Chloride	ND		50.0	47.4		ug/L		95	85 - 115
m-Xylene & p-Xylene	ND		100	98.7		ug/L		99	85 - 115
Naphthalene	ND		50.0	42.7		ug/L		85	70 - 123
n-Butylbenzene	ND		50.0	52.6		ug/L		105	85 - 115
n-Hexane	ND		50.0	49.8		ug/L		100	85 - 137
N-Propylbenzene	ND		50.0	46.7		ug/L		93	85 - 115
o-Xylene	ND		50.0	44.3		ug/L		89	85 - 118
Propionitrile	ND		250	288		ug/L		115	69 - 120
sec-Butylbenzene	ND		50.0	44.7		ug/L		89	83 - 117
Styrene	ND		50.0	52.1		ug/L		104	85 - 115
tert-Butylbenzene	ND		50.0	43.4		ug/L		87	85 - 122
Tetrachloroethene	ND		50.0	45.1		ug/L		90	85 - 118
Tetrahydrofuran	36		250	292		ug/L		102	63 - 115
Toluene	ND		50.0	50.2		ug/L		100	85 - 118
trans-1,2-Dichloroethene	ND		50.0	44.8		ug/L		90	84 - 115
trans-1,3-Dichloropropene	ND		50.0	48.3		ug/L		97	85 - 127
trans-1,4-Dichloro-2-butene	ND		50.0	48.9		ug/L		98	76 - 115
Trichloroethene	ND		50.0	43.9		ug/L		88	85 - 115
Trichlorofluoromethane	ND		50.0	51.2		ug/L		102	85 - 115
Vinyl acetate	ND		50.0	62.6		ug/L		125	24 - 136
Vinyl chloride	ND		50.0	47.1		ug/L		94	63 - 129
Xylenes, Total	ND		150	143		ug/L		95	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	91		82 - 121
1,2-Dichloroethane-d4 (Surr)	96		82 - 132
Dibromofluoromethane (Surr)	99		85 - 119
Toluene-d8 (Surr)	102		85 - 115

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		50.0	46.2		ug/L		92	85 - 115	5	20
1,1,1,1-Trichloroethane	ND		50.0	44.2		ug/L		88	85 - 118	4	20
1,1,1,2-Tetrachloroethane	ND		50.0	47.1		ug/L		94	85 - 116	3	20

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US EPA ARCHIVE DOCUMENT

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1,2-Trichloroethane	ND		50.0	46.4		ug/L		93	85 - 115	2	20
1,1-Dichloroethane	ND		50.0	47.2		ug/L		94	85 - 115	2	20
1,1-Dichloroethene	ND		50.0	42.0	F	ug/L		84	85 - 118	8	20
1,1-Dichloropropene	ND		50.0	44.8		ug/L		90	85 - 115	1	20
1,2,3-Trichlorobenzene	ND		50.0	43.6		ug/L		87	70 - 120	2	20
1,2,3-Trichloropropane	ND		50.0	44.2		ug/L		88	80 - 115	1	20
1,2,4-Trichlorobenzene	ND		50.0	45.4		ug/L		91	75 - 124	1	20
1,2,4-Trimethylbenzene	ND		50.0	51.0		ug/L		102	85 - 115	0	20
1,2-Dibromo-3-chloropropane	ND		50.0	39.8		ug/L		80	71 - 123	11	20
1,2-Dibromoethane	ND		50.0	45.7		ug/L		91	85 - 115	4	20
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		50.0	45.9		ug/L		92	47 - 130	14	20
1,2-Dichlorobenzene	ND		50.0	41.9		ug/L		84	84 - 115	0	20
1,2-Dichloroethane	ND		50.0	44.5		ug/L		89	80 - 125	4	20
1,2-Dichloroethene, Total	ND		100	87.5		ug/L		88	85 - 115	4	20
1,2-Dichloropropane	ND		50.0	45.0		ug/L		90	85 - 117	2	20
1,3,5-Trimethylbenzene	ND		50.0	51.8		ug/L		104	85 - 116	1	20
1,3-Dichlorobenzene	ND		50.0	43.0		ug/L		86	84 - 115	0	20
1,3-Dichloropropane	ND		50.0	47.2		ug/L		94	85 - 115	1	20
1,4-Dichlorobenzene	ND		50.0	48.2		ug/L		96	85 - 115	1	20
1,4-Dioxane	ND		1000	899		ug/L		90	36 - 157	17	20
1-Butanol	ND		500	488		ug/L		98	53 - 140	5	20
2,2-Dichloropropane	ND		50.0	47.9		ug/L		96	80 - 122	8	20
2-Butanone (MEK)	ND		50.0	45.4		ug/L		91	73 - 133	7	20
2-Chloro-1,3-butadiene	ND		50.0	47.6		ug/L		95	70 - 115	3	20
2-Chloroethyl vinyl ether	ND		50.0	50.9		ug/L		102	15 - 147	2	20
2-Chlorotoluene	ND		50.0	45.6		ug/L		91	84 - 117	0	20
2-Hexanone	ND		50.0	51.4		ug/L		103	66 - 121	2	20
2-Nitropropane	ND		100	95.0		ug/L		95	64 - 118	4	20
4-Chlorotoluene	ND		50.0	44.0		ug/L		88	85 - 115	1	20
4-Isopropyltoluene	ND		50.0	52.7		ug/L		105	85 - 116	0	20
4-Methyl-2-pentanone (MIBK)	ND		50.0	52.6		ug/L		105	77 - 134	10	20
Acetone	ND *		50.0	52.5		ug/L		105	38 - 150	2	20
Acetonitrile	ND		250	264		ug/L		106	44 - 141	14	20
Acrolein	ND		250	304		ug/L		121	60 - 122	10	20
Acrylonitrile	ND		250	248		ug/L		99	78 - 128	7	20
Allyl chloride	ND		50.0	46.4		ug/L		93	76 - 119	6	20
Benzene	0.29 J		50.0	46.1		ug/L		92	85 - 115	3	20
Bromobenzene	ND		50.0	45.9		ug/L		92	85 - 115	2	20
Bromochloromethane	ND		50.0	42.7		ug/L		85	85 - 115	7	20
Bromodichloromethane	ND		50.0	44.0		ug/L		88	56 - 119	2	20
Bromoform	ND		50.0	45.3		ug/L		91	84 - 116	4	20
Bromomethane	ND		50.0	32.0	F	ug/L		64	70 - 135	11	20
Carbon disulfide	ND		50.0	46.8		ug/L		94	85 - 127	7	20
Carbon tetrachloride	ND		50.0	44.0		ug/L		88	85 - 121	6	20
Chlorobenzene	1.5 J		50.0	44.5		ug/L		86	85 - 115	1	20
Chloroethane	ND		50.0	31.6	F	ug/L		63	73 - 123	13	20
Chloroform	ND		50.0	45.0		ug/L		90	85 - 115	4	20

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TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloromethane	ND		50.0	54.0		ug/L		108	67 - 130	6	20
cis-1,2-Dichloroethene	ND		50.0	44.6		ug/L		89	80 - 116	3	20
cis-1,3-Dichloropropene	ND		50.0	44.6		ug/L		89	85 - 124	2	20
Cyclohexane	ND		50.0	46.5		ug/L		93	73 - 115	8	20
Cyclohexanone	ND		500	460		ug/L		92	26 - 121	8	20
Dibromochloromethane	ND		50.0	46.7		ug/L		93	85 - 115	4	20
Dibromomethane	ND		50.0	43.5		ug/L		87	85 - 115	4	20
Dichlorodifluoromethane	ND		50.0	41.7	F	ug/L		83	85 - 119	12	20
Ethyl acetate	ND		100	97.6		ug/L		98	71 - 116	17	20
Ethyl ether	21		100	112		ug/L		91	79 - 115	6	20
Ethyl methacrylate	ND		50.0	53.0		ug/L		106	67 - 115	4	20
Ethylbenzene	ND		50.0	49.1		ug/L		98	85 - 115	2	20
Hexachlorobutadiene	ND		50.0	48.7		ug/L		97	64 - 134	3	20
Iodomethane	ND		50.0	43.1		ug/L		86	78 - 126	8	20
Isobutanol	ND		1000	921		ug/L		92	51 - 137	17	20
Isopropylbenzene	ND		50.0	46.2		ug/L		92	85 - 124	1	20
Methacrylonitrile	ND		250	246		ug/L		98	70 - 118	5	20
Methyl acetate	ND		50.0	45.9		ug/L		92	49 - 150	2	20
Methyl methacrylate	ND		50.0	45.0		ug/L		90	61 - 115	4	20
Methyl tert-butyl ether	ND		50.0	43.1		ug/L		86	75 - 115	7	20
Methylcyclohexane	ND		50.0	47.8		ug/L		96	85 - 137	5	20
Methylene Chloride	ND		50.0	43.4		ug/L		87	85 - 115	9	20
m-Xylene & p-Xylene	ND		100	97.1		ug/L		97	85 - 115	2	20
Naphthalene	ND		50.0	40.9		ug/L		82	70 - 123	4	20
n-Butylbenzene	ND		50.0	52.0		ug/L		104	85 - 115	1	20
n-Hexane	ND		50.0	47.8		ug/L		96	85 - 137	4	20
N-Propylbenzene	ND		50.0	46.5		ug/L		93	85 - 115	0	20
o-Xylene	ND		50.0	43.3		ug/L		87	85 - 118	2	20
Propionitrile	ND		250	251		ug/L		100	69 - 120	14	20
sec-Butylbenzene	ND		50.0	44.8		ug/L		90	83 - 117	0	20
Styrene	ND		50.0	50.8		ug/L		102	85 - 115	3	20
tert-Butylbenzene	ND		50.0	45.4		ug/L		91	85 - 122	5	20
Tetrachloroethene	ND		50.0	46.0		ug/L		92	85 - 118	2	20
Tetrahydrofuran	36		250	281		ug/L		98	63 - 115	4	20
Toluene	ND		50.0	50.2		ug/L		100	85 - 118	0	20
trans-1,2-Dichloroethene	ND		50.0	42.9		ug/L		86	84 - 115	4	20
trans-1,3-Dichloropropene	ND		50.0	49.7		ug/L		99	85 - 127	3	20
trans-1,4-Dichloro-2-butene	ND		50.0	44.4		ug/L		89	76 - 115	10	20
Trichloroethene	ND		50.0	43.5		ug/L		87	85 - 115	1	20
Trichlorofluoromethane	ND		50.0	46.9		ug/L		94	85 - 115	9	20
Vinyl acetate	ND		50.0	63.9		ug/L		128	24 - 136	2	20
Vinyl chloride	ND		50.0	41.9		ug/L		84	63 - 129	12	20
Xylenes, Total	ND		150	140		ug/L		94	70 - 130	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	93		82 - 121
1,2-Dichloroethane-d4 (Surr)	92		82 - 132
Dibromofluoromethane (Surr)	95		85 - 119

TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 46185

Client Sample ID: D-3

Prep Type: Total/NA

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	100		85 - 115

Lab Sample ID: MB 160-46433/2

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Analyte</i>	<i>MB</i> <i>Result</i>	<i>MB</i> <i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1,1-Trichloroethane	ND		5.0	0.29	ug/L			04/16/13 13:13	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.43	ug/L			04/16/13 13:13	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/L			04/16/13 13:13	1
1,1-Dichloroethane	ND		5.0	0.39	ug/L			04/16/13 13:13	1
1,1-Dichloroethene	ND		5.0	0.37	ug/L			04/16/13 13:13	1
1,2,4-Trichlorobenzene	ND		5.0	0.55	ug/L			04/16/13 13:13	1
1,2-Dibromo-3-chloropropane	ND		10	1.2	ug/L			04/16/13 13:13	1
1,2-Dibromoethane	ND		5.0	0.44	ug/L			04/16/13 13:13	1
1,2-Dichlorobenzene	ND		5.0	0.28	ug/L			04/16/13 13:13	1
1,2-Dichloroethane	ND		5.0	0.37	ug/L			04/16/13 13:13	1
1,2-Dichloropropane	ND		5.0	0.32	ug/L			04/16/13 13:13	1
1,3-Dichlorobenzene	ND		5.0	0.23	ug/L			04/16/13 13:13	1
1,4-Dichlorobenzene	ND		5.0	0.35	ug/L			04/16/13 13:13	1
2-Butanone (MEK)	ND		20	0.39	ug/L			04/16/13 13:13	1
2-Hexanone	ND		20	0.59	ug/L			04/16/13 13:13	1
4-Methyl-2-pentanone (MIBK)	ND		20	0.33	ug/L			04/16/13 13:13	1
Acetone	ND		20	6.7	ug/L			04/16/13 13:13	1
Benzene	ND		5.0	0.25	ug/L			04/16/13 13:13	1
Bromodichloromethane	ND		5.0	0.25	ug/L			04/16/13 13:13	1
Bromoform	ND		5.0	0.37	ug/L			04/16/13 13:13	1
Bromomethane	ND		10	0.40	ug/L			04/16/13 13:13	1
Carbon disulfide	ND		5.0	0.37	ug/L			04/16/13 13:13	1
Carbon tetrachloride	ND		5.0	0.36	ug/L			04/16/13 13:13	1
Chlorobenzene	ND		5.0	0.38	ug/L			04/16/13 13:13	1
Chloroethane	ND		10	0.38	ug/L			04/16/13 13:13	1
Chloroform	ND		5.0	0.15	ug/L			04/16/13 13:13	1
Chloromethane	ND		10	0.55	ug/L			04/16/13 13:13	1
cis-1,2-Dichloroethene	ND		5.0	0.16	ug/L			04/16/13 13:13	1
cis-1,3-Dichloropropene	ND		5.0	0.34	ug/L			04/16/13 13:13	1
Cyclohexane	ND		10	0.36	ug/L			04/16/13 13:13	1
Cyclohexanone	ND		100	18	ug/L			04/16/13 13:13	1
Dibromochloromethane	ND		5.0	0.33	ug/L			04/16/13 13:13	1
Dichlorodifluoromethane	ND		10	0.45	ug/L			04/16/13 13:13	1
Ethylbenzene	ND		5.0	0.30	ug/L			04/16/13 13:13	1
Isopropylbenzene	ND		5.0	0.26	ug/L			04/16/13 13:13	1
Methyl acetate	ND		5.0	2.3	ug/L			04/16/13 13:13	1
Methyl tert-butyl ether	ND		5.0	0.40	ug/L			04/16/13 13:13	1
Methylcyclohexane	ND		10	0.26	ug/L			04/16/13 13:13	1
Methylene Chloride	ND		5.0	1.7	ug/L			04/16/13 13:13	1
m-Xylene & p-Xylene	ND		5.0	0.57	ug/L			04/16/13 13:13	1
o-Xylene	ND		5.0	0.32	ug/L			04/16/13 13:13	1

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: MB 160-46433/2

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.0	0.35	ug/L			04/16/13 13:13	1
Tetrachloroethene	ND		5.0	0.28	ug/L			04/16/13 13:13	1
Toluene	ND		5.0	1.0	ug/L			04/16/13 13:13	1
trans-1,2-Dichloroethene	ND		5.0	0.18	ug/L			04/16/13 13:13	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/L			04/16/13 13:13	1
Trichloroethene	ND		5.0	0.29	ug/L			04/16/13 13:13	1
Trichlorofluoromethane	ND		5.0	0.22	ug/L			04/16/13 13:13	1
Vinyl chloride	ND		5.0	0.43	ug/L			04/16/13 13:13	1
Xylenes, Total	ND		10	0.85	ug/L			04/16/13 13:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		82 - 121		04/16/13 13:13	1
1,2-Dichloroethane-d4 (Surr)	103		82 - 132		04/16/13 13:13	1
Dibromofluoromethane (Surr)	97		85 - 119		04/16/13 13:13	1
Toluene-d8 (Surr)	100		85 - 115		04/16/13 13:13	1

Lab Sample ID: LCS 160-46433/4

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/L		103	85 - 115
1,1,1-Trichloroethane	50.0	52.2		ug/L		104	85 - 115
1,1,1,2-Tetrachloroethane	50.0	50.7		ug/L		101	84 - 115
1,1,2-Trichloroethane	50.0	50.6		ug/L		101	85 - 115
1,1-Dichloroethane	50.0	54.2		ug/L		108	85 - 115
1,1-Dichloroethene	50.0	49.5		ug/L		99	85 - 118
1,1-Dichloropropene	50.0	51.1		ug/L		102	85 - 115
1,2,3-Trichlorobenzene	50.0	50.1		ug/L		100	72 - 120
1,2,3-Trichloropropane	50.0	47.8		ug/L		96	80 - 115
1,2,4-Trichlorobenzene	50.0	51.1		ug/L		102	75 - 124
1,2,4-Trimethylbenzene	50.0	53.8		ug/L		108	85 - 115
1,2-Dibromo-3-chloropropane	50.0	51.1		ug/L		102	71 - 123
1,2-Dibromoethane	50.0	49.7		ug/L		99	85 - 115
1,2-Dichloro-1,1,2,2-tetrafluoroethane	50.0	59.6		ug/L		119	47 - 130
1,2-Dichlorobenzene	50.0	52.1		ug/L		104	85 - 115
1,2-Dichloroethane	50.0	52.0		ug/L		104	79 - 122
1,2-Dichloroethene, Total	100	101		ug/L		101	85 - 115
1,2-Dichloropropane	50.0	51.0		ug/L		102	85 - 115
1,3,5-Trimethylbenzene	50.0	55.3		ug/L		111	85 - 117
1,3-Dichlorobenzene	50.0	51.3		ug/L		103	85 - 115
1,3-Dichloropropane	50.0	49.7		ug/L		99	84 - 115
1,4-Dichlorobenzene	50.0	51.2		ug/L		102	85 - 115
1,4-Dioxane	1000	975		ug/L		98	26 - 141
1-Butanol	500	418		ug/L		84	49 - 132
2,2-Dichloropropane	50.0	57.3		ug/L		115	85 - 127
2-Butanone (MEK)	50.0	51.7		ug/L		103	71 - 123

TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCS 160-46433/4

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloro-1,3-butadiene	50.0	52.1		ug/L		104	70 - 115
2-Chloroethyl vinyl ether	50.0	52.5		ug/L		105	64 - 125
2-Chlorotoluene	50.0	52.8		ug/L		106	83 - 119
2-Hexanone	50.0	55.4		ug/L		111	66 - 121
2-Nitropropane	100	101		ug/L		101	63 - 115
4-Chlorotoluene	50.0	52.1		ug/L		104	84 - 118
4-Isopropyltoluene	50.0	55.4		ug/L		111	85 - 119
4-Methyl-2-pentanone (MIBK)	50.0	56.1		ug/L		112	74 - 123
Acetone	50.0	42.3		ug/L		85	51 - 140
Acetonitrile	250	333		ug/L		133	44 - 140
Acrolein	250	315	*	ug/L		126	79 - 115
Acrylonitrile	250	294		ug/L		118	78 - 126
Allyl chloride	50.0	52.6		ug/L		105	76 - 119
Benzene	50.0	53.2		ug/L		106	85 - 115
Bromobenzene	50.0	49.1		ug/L		98	85 - 115
Bromochloromethane	50.0	52.3		ug/L		105	84 - 117
Bromodichloromethane	50.0	50.5		ug/L		101	85 - 117
Bromoform	50.0	50.6		ug/L		101	85 - 115
Bromomethane	50.0	38.0		ug/L		76	70 - 135
Carbon disulfide	50.0	50.9		ug/L		102	85 - 123
Carbon tetrachloride	50.0	52.1		ug/L		104	85 - 118
Chlorobenzene	50.0	51.2		ug/L		102	85 - 115
Chloroethane	50.0	41.0		ug/L		82	75 - 125
Chloroform	50.0	54.1		ug/L		108	85 - 115
Chloromethane	50.0	57.6		ug/L		115	73 - 132
cis-1,2-Dichloroethene	50.0	52.0		ug/L		104	85 - 115
cis-1,3-Dichloropropene	50.0	50.4		ug/L		101	85 - 127
Cyclohexane	50.0	54.2		ug/L		108	73 - 115
Cyclohexanone	500	495		ug/L		99	29 - 122
Dibromochloromethane	50.0	50.4		ug/L		101	85 - 115
Dibromomethane	50.0	52.3		ug/L		105	85 - 115
Dichlorodifluoromethane	50.0	54.1		ug/L		108	62 - 115
Ethyl acetate	100	132	*	ug/L		132	67 - 119
Ethyl ether	100	109		ug/L		109	77 - 115
Ethyl methacrylate	50.0	54.8		ug/L		110	67 - 115
Ethylbenzene	50.0	53.2		ug/L		106	85 - 115
Hexachlorobutadiene	50.0	52.4		ug/L		105	74 - 127
Iodomethane	50.0	48.2		ug/L		96	83 - 124
Isobutanol	1000	1110		ug/L		111	51 - 136
Isopropylbenzene	50.0	54.7		ug/L		109	85 - 124
Methacrylonitrile	250	278		ug/L		111	70 - 115
Methyl acetate	50.0	59.1		ug/L		118	73 - 135
Methyl methacrylate	50.0	48.8		ug/L		98	61 - 115
Methyl tert-butyl ether	50.0	50.6		ug/L		101	73 - 115
Methylcyclohexane	50.0	55.8		ug/L		112	85 - 134
Methylene Chloride	50.0	52.3		ug/L		105	84 - 115
m-Xylene & p-Xylene	100	110		ug/L		110	85 - 115
Naphthalene	50.0	48.9		ug/L		98	70 - 123

TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCS 160-46433/4

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	50.0	55.7		ug/L		111	85 - 116
n-Hexane	50.0	52.8		ug/L		106	85 - 139
N-Propylbenzene	50.0	54.9		ug/L		110	85 - 117
o-Xylene	50.0	53.3		ug/L		107	85 - 115
Propionitrile	250	305	*	ug/L		122	66 - 115
sec-Butylbenzene	50.0	52.9		ug/L		106	85 - 118
Styrene	50.0	54.6		ug/L		109	85 - 115
tert-Butylbenzene	50.0	52.8		ug/L		106	85 - 124
Tetrachloroethene	50.0	48.8		ug/L		98	85 - 115
Tetrahydrofuran	250	282		ug/L		113	63 - 117
Toluene	50.0	53.0		ug/L		106	85 - 115
trans-1,2-Dichloroethene	50.0	49.3		ug/L		99	85 - 115
trans-1,3-Dichloropropene	50.0	51.4		ug/L		103	85 - 123
trans-1,4-Dichloro-2-butene	50.0	48.2		ug/L		96	77 - 115
Trichloroethene	50.0	49.8		ug/L		100	85 - 115
Trichlorofluoromethane	50.0	53.8		ug/L		108	85 - 116
Vinyl acetate	50.0	59.3		ug/L		119	39 - 124
Vinyl chloride	50.0	49.5		ug/L		99	68 - 133
Xylenes, Total	150	163		ug/L		109	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		82 - 121
1,2-Dichloroethane-d4 (Surr)	107		82 - 132
Dibromofluoromethane (Surr)	108		85 - 119
Toluene-d8 (Surr)	105		85 - 115

Lab Sample ID: LCSD 160-46433/5

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	50.0		ug/L		100	85 - 115	3	20
1,1,1-Trichloroethane	50.0	51.4		ug/L		103	85 - 115	2	20
1,1,2,2-Tetrachloroethane	50.0	53.1		ug/L		106	84 - 115	5	20
1,1,2-Trichloroethane	50.0	51.7		ug/L		103	85 - 115	2	20
1,1-Dichloroethane	50.0	53.7		ug/L		107	85 - 115	1	20
1,1-Dichloroethene	50.0	48.6		ug/L		97	85 - 118	2	20
1,1-Dichloropropene	50.0	51.2		ug/L		102	85 - 115	0	20
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	72 - 120	3	20
1,2,3-Trichloropropane	50.0	50.8		ug/L		102	80 - 115	6	20
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	75 - 124	3	20
1,2,4-Trimethylbenzene	50.0	54.7		ug/L		109	85 - 115	2	20
1,2-Dibromo-3-chloropropane	50.0	47.7		ug/L		95	71 - 123	7	20
1,2-Dibromoethane	50.0	51.7		ug/L		103	85 - 115	4	20
1,2-Dichloro-1,1,2,2-tetrafluoroethane	50.0	56.5		ug/L		113	47 - 130	5	20
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	85 - 115	4	20
1,2-Dichloroethane	50.0	51.0		ug/L		102	79 - 122	2	20

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCSD 160-46433/5

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
1,2-Dichloroethene, Total	100	99.9		ug/L		100	85 - 115	1	20
1,2-Dichloropropane	50.0	50.2		ug/L		100	85 - 115	1	20
1,3,5-Trimethylbenzene	50.0	55.2		ug/L		110	85 - 117	0	20
1,3-Dichlorobenzene	50.0	51.4		ug/L		103	85 - 115	0	20
1,3-Dichloropropane	50.0	51.3		ug/L		103	84 - 115	3	20
1,4-Dichlorobenzene	50.0	51.1		ug/L		102	85 - 115	0	20
1,4-Dioxane	1000	842		ug/L		84	26 - 141	15	20
1-Butanol	500	465		ug/L		93	49 - 132	11	20
2,2-Dichloropropane	50.0	55.3		ug/L		111	85 - 127	4	20
2-Butanone (MEK)	50.0	49.4		ug/L		99	71 - 123	5	20
2-Chloro-1,3-butadiene	50.0	52.8		ug/L		106	70 - 115	1	20
2-Chloroethyl vinyl ether	50.0	57.1		ug/L		114	64 - 125	8	20
2-Chlorotoluene	50.0	52.6		ug/L		105	83 - 119	0	20
2-Hexanone	50.0	55.6		ug/L		111	66 - 121	0	20
2-Nitropropane	100	99.6		ug/L		100	63 - 115	2	20
4-Chlorotoluene	50.0	53.1		ug/L		106	84 - 118	2	20
4-Isopropyltoluene	50.0	55.6		ug/L		111	85 - 119	0	20
4-Methyl-2-pentanone (MIBK)	50.0	56.1		ug/L		112	74 - 123	0	20
Acetone	50.0	52.1	*	ug/L		104	51 - 140	21	20
Acetonitrile	250	327		ug/L		131	44 - 140	2	20
Acrolein	250	345	*	ug/L		138	79 - 115	9	20
Acrylonitrile	250	282		ug/L		113	78 - 126	4	20
Allyl chloride	50.0	51.8		ug/L		104	76 - 119	2	20
Benzene	50.0	52.5		ug/L		105	85 - 115	1	20
Bromobenzene	50.0	49.5		ug/L		99	85 - 115	1	20
Bromochloromethane	50.0	50.6		ug/L		101	84 - 117	3	20
Bromodichloromethane	50.0	49.9		ug/L		100	85 - 117	1	20
Bromoform	50.0	51.8		ug/L		104	85 - 115	2	20
Bromomethane	50.0	35.6		ug/L		71	70 - 135	7	20
Carbon disulfide	50.0	50.6		ug/L		101	85 - 123	1	20
Carbon tetrachloride	50.0	51.5		ug/L		103	85 - 118	1	20
Chlorobenzene	50.0	50.4		ug/L		101	85 - 115	2	20
Chloroethane	50.0	39.0		ug/L		78	75 - 125	5	20
Chloroform	50.0	52.1		ug/L		104	85 - 115	4	20
Chloromethane	50.0	56.2		ug/L		112	73 - 132	3	20
cis-1,2-Dichloroethene	50.0	50.8		ug/L		102	85 - 115	2	20
cis-1,3-Dichloropropene	50.0	50.8		ug/L		102	85 - 127	1	20
Cyclohexane	50.0	52.9		ug/L		106	73 - 115	2	20
Cyclohexanone	500	511		ug/L		102	29 - 122	3	20
Dibromochloromethane	50.0	50.4		ug/L		101	85 - 115	0	20
Dibromomethane	50.0	48.3		ug/L		97	85 - 115	8	20
Dichlorodifluoromethane	50.0	51.5		ug/L		103	62 - 115	5	20
Ethyl acetate	100	112		ug/L		112	67 - 119	16	20
Ethyl ether	100	109		ug/L		109	77 - 115	0	20
Ethyl methacrylate	50.0	57.2		ug/L		114	67 - 115	4	20
Ethylbenzene	50.0	52.3		ug/L		105	85 - 115	2	20
Hexachlorobutadiene	50.0	52.9		ug/L		106	74 - 127	1	20
Iodomethane	50.0	46.9		ug/L		94	83 - 124	3	20

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCSD 160-46433/5

Matrix: Water

Analysis Batch: 46433

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Isobutanol	1000	1110		ug/L		111	51 - 136	0	20
Isopropylbenzene	50.0	55.2		ug/L		110	85 - 124	1	20
Methacrylonitrile	250	281		ug/L		112	70 - 115	1	20
Methyl acetate	50.0	56.6		ug/L		113	73 - 135	4	20
Methyl methacrylate	50.0	46.5		ug/L		93	61 - 115	5	20
Methyl tert-butyl ether	50.0	49.1		ug/L		98	73 - 115	3	20
Methylcyclohexane	50.0	54.0		ug/L		108	85 - 134	3	20
Methylene Chloride	50.0	50.6		ug/L		101	84 - 115	3	20
m-Xylene & p-Xylene	100	108		ug/L		108	85 - 115	2	20
Naphthalene	50.0	49.1		ug/L		98	70 - 123	0	20
n-Butylbenzene	50.0	55.2		ug/L		110	85 - 116	1	20
n-Hexane	50.0	57.1		ug/L		114	85 - 139	8	20
N-Propylbenzene	50.0	55.8		ug/L		112	85 - 117	2	20
o-Xylene	50.0	51.4		ug/L		103	85 - 115	4	20
Propionitrile	250	304 *		ug/L		122	66 - 115	0	20
sec-Butylbenzene	50.0	53.0		ug/L		106	85 - 118	0	20
Styrene	50.0	53.7		ug/L		107	85 - 115	2	20
tert-Butylbenzene	50.0	53.6		ug/L		107	85 - 124	2	20
Tetrachloroethene	50.0	49.0		ug/L		98	85 - 115	0	20
Tetrahydrofuran	250	262		ug/L		105	63 - 117	7	20
Toluene	50.0	53.0		ug/L		106	85 - 115	0	20
trans-1,2-Dichloroethene	50.0	49.1		ug/L		98	85 - 115	0	20
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	85 - 123	0	20
trans-1,4-Dichloro-2-butene	50.0	54.8		ug/L		110	77 - 115	13	20
Trichloroethene	50.0	50.2		ug/L		100	85 - 115	1	20
Trichlorofluoromethane	50.0	52.2		ug/L		104	85 - 116	3	20
Vinyl acetate	50.0	62.1		ug/L		124	39 - 124	5	20
Vinyl chloride	50.0	46.0		ug/L		92	68 - 133	7	20
Xylenes, Total	150	159		ug/L		106		2	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		82 - 121
1,2-Dichloroethane-d4 (Surr)	100		82 - 132
Dibromofluoromethane (Surr)	100		85 - 119
Toluene-d8 (Surr)	102		85 - 115

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-46237/1-A

Matrix: Water

Analysis Batch: 47292

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46237

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		200	80	ug/L		04/16/13 14:01	04/22/13 15:55	1
Antimony	ND		10	4.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Arsenic	ND		10	2.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Barium	ND		50	4.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Beryllium	ND		5.0	0.61	ug/L		04/16/13 14:01	04/22/13 15:55	1

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: MB 160-46237/1-A

Matrix: Water

Analysis Batch: 47292

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46237

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		5.0	0.91	ug/L		04/16/13 14:01	04/22/13 15:55	1
Calcium	ND		1000	110	ug/L		04/16/13 14:01	04/22/13 15:55	1
Chromium	ND		10	3.1	ug/L		04/16/13 14:01	04/22/13 15:55	1
Cobalt	ND		50	4.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Copper	ND		25	4.6	ug/L		04/16/13 14:01	04/22/13 15:55	1
Iron	ND		100	28	ug/L		04/16/13 14:01	04/22/13 15:55	1
Lead	ND		10	1.5	ug/L		04/16/13 14:01	04/22/13 15:55	1
Magnesium	ND		1000	130	ug/L		04/16/13 14:01	04/22/13 15:55	1
Manganese	ND		15	3.3	ug/L		04/16/13 14:01	04/22/13 15:55	1
Nickel	ND		40	13	ug/L		04/16/13 14:01	04/22/13 15:55	1
Potassium	ND		5000	1700	ug/L		04/16/13 14:01	04/22/13 15:55	1
Selenium	ND		15	2.7	ug/L		04/16/13 14:01	04/22/13 15:55	1
Silver	ND		10	6.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Sodium	ND		1000	320	ug/L		04/16/13 14:01	04/22/13 15:55	1
Thallium	ND		20	4.0	ug/L		04/16/13 14:01	04/22/13 15:55	1
Vanadium	ND		50	4.1	ug/L		04/16/13 14:01	04/22/13 15:55	1
Zinc	6.00	J	20	5.2	ug/L		04/16/13 14:01	04/22/13 15:55	1

Lab Sample ID: LCS 160-46237/2-A

Matrix: Water

Analysis Batch: 47292

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	500	529		ug/L		106	80 - 120
Arsenic	1000	1010		ug/L		101	80 - 120
Barium	1000	1010		ug/L		101	80 - 120
Beryllium	1000	1010		ug/L		101	80 - 120
Cadmium	1000	1030		ug/L		103	80 - 120
Calcium	10000	10500		ug/L		105	80 - 120
Chromium	1000	1060		ug/L		106	80 - 120
Cobalt	1000	1100		ug/L		110	80 - 120
Copper	1000	1040		ug/L		104	80 - 120
Iron	10000	10200		ug/L		102	80 - 120
Lead	1000	1050		ug/L		105	80 - 120
Magnesium	10000	10400		ug/L		104	80 - 120
Manganese	1000	1020		ug/L		102	80 - 120
Nickel	1000	1110		ug/L		111	80 - 120
Potassium	10000	9790		ug/L		98	80 - 120
Selenium	1000	1010		ug/L		101	80 - 120
Silver	100	97.7		ug/L		98	80 - 120
Sodium	10000	9990		ug/L		100	80 - 120
Thallium	200	221		ug/L		110	80 - 120
Vanadium	1000	1030		ug/L		103	80 - 120
Zinc	1000	1060		ug/L		106	80 - 120

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Aluminum	ND		10000	10300		ug/L		103		75 - 125
Antimony	ND		500	520		ug/L		104		75 - 125
Arsenic	ND		1000	1030		ug/L		103		75 - 125
Barium	2300		1000	3380		ug/L		106		75 - 125
Beryllium	ND		1000	1040		ug/L		104		75 - 125
Cadmium	ND		1000	1040		ug/L		104		75 - 125
Calcium	280000	E	10000	289000	E 4	ug/L		135		75 - 125
Chromium	ND		1000	1060		ug/L		106		75 - 125
Cobalt	ND		1000	1090		ug/L		109		75 - 125
Copper	ND		1000	1030		ug/L		103		75 - 125
Iron	31000		10000	42000		ug/L		107		75 - 125
Lead	8.5	J	1000	1040		ug/L		103		75 - 125
Magnesium	85000		10000	95500	4	ug/L		109		75 - 125
Manganese	500		1000	1540		ug/L		104		75 - 125
Nickel	ND		1000	1120		ug/L		112		75 - 125
Potassium	28000		10000	38800		ug/L		108		75 - 125
Selenium	ND		1000	1000		ug/L		100		75 - 125
Silver	ND		100	97.0		ug/L		97		75 - 125
Sodium	390000		10000	408000	4	ug/L		162		75 - 125
Thallium	ND		200	229		ug/L		114		75 - 125
Vanadium	ND		1000	1060		ug/L		106		75 - 125
Zinc	ND		1000	1080		ug/L		108		75 - 125

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 47331

Client Sample ID: D-3

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Calcium	280000		10000	296000	4	ug/L		193		75 - 125

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Aluminum	ND		10000	10200		ug/L		102		75 - 125	1	20
Antimony	ND		500	523		ug/L		105		75 - 125	1	20
Arsenic	ND		1000	1030		ug/L		103		75 - 125	0	20
Barium	2300		1000	3370		ug/L		105		75 - 125	0	20
Beryllium	ND		1000	1030		ug/L		103		75 - 125	1	20
Cadmium	ND		1000	1040		ug/L		104		75 - 125	1	20
Calcium	280000	E	10000	289000	E 4	ug/L		140		75 - 125	0	20
Chromium	ND		1000	1050		ug/L		105		75 - 125	1	20
Cobalt	ND		1000	1080		ug/L		108		75 - 125	1	20
Copper	ND		1000	1030		ug/L		103		75 - 125	1	20
Iron	31000		10000	41900		ug/L		107		75 - 125	0	20
Lead	8.5	J	1000	1030		ug/L		103		75 - 125	0	20
Magnesium	85000		10000	95000	4	ug/L		104		75 - 125	1	20

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Manganese	500		1000	1520		ug/L		102	75 - 125	1	20
Nickel	ND		1000	1120		ug/L		112	75 - 125	0	20
Potassium	28000		10000	38700		ug/L		107	75 - 125	0	20
Selenium	ND		1000	996		ug/L		100	75 - 125	1	20
Silver	ND		100	94.0		ug/L		94	75 - 125	3	20
Sodium	390000		10000	407000	4	ug/L		150	75 - 125	0	20
Thallium	ND		200	226		ug/L		113	75 - 125	1	20
Vanadium	ND		1000	1020		ug/L		102	75 - 125	3	20
Zinc	ND		1000	1080		ug/L		108	75 - 125	0	20

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 47331

Client Sample ID: D-3

Prep Type: Total/NA

Prep Batch: 46237

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Calcium	280000		10000	295000	4	ug/L		179	75 - 125	0	20

Lab Sample ID: MB 160-46238/1-A

Matrix: Water

Analysis Batch: 47292

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46238

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		200	80	ug/L		04/16/13 14:09	04/22/13 17:08	1
Antimony	ND		10	4.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Arsenic	ND		10	2.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Barium	ND		50	4.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Beryllium	ND		5.0	0.61	ug/L		04/16/13 14:09	04/22/13 17:08	1
Cadmium	ND		5.0	0.91	ug/L		04/16/13 14:09	04/22/13 17:08	1
Calcium	ND		1000	110	ug/L		04/16/13 14:09	04/22/13 17:08	1
Chromium	ND		10	3.1	ug/L		04/16/13 14:09	04/22/13 17:08	1
Cobalt	ND		50	4.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Copper	ND		25	4.6	ug/L		04/16/13 14:09	04/22/13 17:08	1
Iron	ND		100	28	ug/L		04/16/13 14:09	04/22/13 17:08	1
Lead	ND		10	1.5	ug/L		04/16/13 14:09	04/22/13 17:08	1
Magnesium	ND		1000	130	ug/L		04/16/13 14:09	04/22/13 17:08	1
Manganese	ND		15	3.3	ug/L		04/16/13 14:09	04/22/13 17:08	1
Nickel	ND		40	13	ug/L		04/16/13 14:09	04/22/13 17:08	1
Potassium	ND		5000	1700	ug/L		04/16/13 14:09	04/22/13 17:08	1
Selenium	ND		15	2.7	ug/L		04/16/13 14:09	04/22/13 17:08	1
Silver	ND		10	6.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Sodium	ND		1000	320	ug/L		04/16/13 14:09	04/22/13 17:08	1
Thallium	ND		20	4.0	ug/L		04/16/13 14:09	04/22/13 17:08	1
Vanadium	ND		50	4.1	ug/L		04/16/13 14:09	04/22/13 17:08	1
Zinc	6.00	J	20	5.2	ug/L		04/16/13 14:09	04/22/13 17:08	1

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TestAmerica St. Louis

QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: LCS 160-46238/2-A

Matrix: Water

Analysis Batch: 47292

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46238

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	10200		ug/L		102	80 - 120
Antimony	500	532		ug/L		106	80 - 120
Arsenic	1000	1020		ug/L		102	80 - 120
Barium	1000	1030		ug/L		103	80 - 120
Beryllium	1000	1020		ug/L		102	80 - 120
Cadmium	1000	1030		ug/L		103	80 - 120
Calcium	10000	10500		ug/L		105	80 - 120
Chromium	1000	1060		ug/L		106	80 - 120
Cobalt	1000	1090		ug/L		109	80 - 120
Copper	1000	1040		ug/L		104	80 - 120
Iron	10000	10300		ug/L		103	80 - 120
Lead	1000	1060		ug/L		106	80 - 120
Magnesium	10000	10500		ug/L		105	80 - 120
Manganese	1000	1040		ug/L		104	80 - 120
Nickel	1000	1100		ug/L		110	80 - 120
Potassium	10000	9910		ug/L		99	80 - 120
Selenium	1000	1020		ug/L		102	80 - 120
Silver	100	97.4		ug/L		97	80 - 120
Sodium	10000	10000		ug/L		100	80 - 120
Thallium	200	221		ug/L		110	80 - 120
Vanadium	1000	1030		ug/L		103	80 - 120
Zinc	1000	1050		ug/L		105	80 - 120

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Dissolved

Prep Batch: 46238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10000	10200		ug/L		102	75 - 125
Antimony	ND		500	519		ug/L		104	75 - 125
Arsenic	ND		1000	1030		ug/L		103	75 - 125
Barium	2300		1000	3410		ug/L		115	75 - 125
Beryllium	ND		1000	1040		ug/L		104	75 - 125
Cadmium	ND		1000	1030		ug/L		103	75 - 125
Calcium	270000	E	10000	292000	E 4	ug/L		192	75 - 125
Chromium	ND		1000	1040		ug/L		104	75 - 125
Cobalt	ND		1000	1080		ug/L		108	75 - 125
Copper	ND		1000	1020		ug/L		102	75 - 125
Iron	30000		10000	42500		ug/L		121	75 - 125
Lead	ND		1000	1030		ug/L		103	75 - 125
Magnesium	83000		10000	97000	4	ug/L		138	75 - 125
Manganese	500		1000	1560		ug/L		106	75 - 125
Nickel	ND		1000	1100		ug/L		110	75 - 125
Potassium	27000		10000	38900		ug/L		117	75 - 125
Selenium	ND		1000	1010		ug/L		101	75 - 125
Silver	ND		100	93.0		ug/L		93	75 - 125
Sodium	380000		10000	412000	4	ug/L		275	75 - 125
Thallium	ND		200	227		ug/L		113	75 - 125

TestAmerica St. Louis



QC Sample Results

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

TestAmerica Job ID: 160-2078-1

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

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Dissolved

Prep Batch: 46238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	27	J	1000	1030		ug/L		101	75 - 125
Zinc	28	J B	1000	1070		ug/L		104	75 - 125

Lab Sample ID: 160-2078-8 MS

Matrix: Water

Analysis Batch: 47331

Client Sample ID: D-3

Prep Type: Dissolved

Prep Batch: 46238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	280000		10000	301000	4	ug/L		216	75 - 125

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 47292

Client Sample ID: D-3

Prep Type: Dissolved

Prep Batch: 46238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10000	10100		ug/L		101	75 - 125	1	20
Antimony	ND		500	512		ug/L		102	75 - 125	1	20
Arsenic	ND		1000	1030		ug/L		103	75 - 125	0	20
Barium	2300		1000	3320		ug/L		106	75 - 125	2	20
Beryllium	ND		1000	1020		ug/L		102	75 - 125	1	20
Cadmium	ND		1000	1020		ug/L		102	75 - 125	1	20
Calcium	270000	E	10000	281000	E 4	ug/L		87	75 - 125	4	20
Chromium	ND		1000	1040		ug/L		104	75 - 125	1	20
Cobalt	ND		1000	1060		ug/L		106	75 - 125	1	20
Copper	ND		1000	1020		ug/L		102	75 - 125	0	20
Iron	30000		10000	41400		ug/L		110	75 - 125	3	20
Lead	ND		1000	1020		ug/L		102	75 - 125	0	20
Magnesium	83000		10000	93300	4	ug/L		101	75 - 125	4	20
Manganese	500		1000	1530		ug/L		103	75 - 125	2	20
Nickel	ND		1000	1090		ug/L		109	75 - 125	2	20
Potassium	27000		10000	37600		ug/L		104	75 - 125	3	20
Selenium	ND		1000	1000		ug/L		100	75 - 125	1	20
Silver	ND		100	96.0		ug/L		96	75 - 125	3	20
Sodium	380000		10000	396000	4	ug/L		112	75 - 125	4	20
Thallium	ND		200	220		ug/L		110	75 - 125	3	20
Vanadium	27	J	1000	1020		ug/L		99	75 - 125	2	20
Zinc	28	J B	1000	1060		ug/L		103	75 - 125	1	20

Lab Sample ID: 160-2078-8 MSD

Matrix: Water

Analysis Batch: 47331

Client Sample ID: D-3

Prep Type: Dissolved

Prep Batch: 46238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	280000		10000	296000	4	ug/L		166	75 - 125	2	20

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-47517/1-A
Matrix: Water
Analysis Batch: 47769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 07:30	04/24/13 16:07	1

Lab Sample ID: LCS 160-47517/2-A
Matrix: Water
Analysis Batch: 47769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.980		ug/L		98	80 - 120

Lab Sample ID: 160-2078-9 MS
Matrix: Water
Analysis Batch: 47769

Client Sample ID: D-85
Prep Type: Total/NA
Prep Batch: 47517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	J	1.00	1.39	F	ug/L		125	80 - 120

Lab Sample ID: 160-2078-9 MSD
Matrix: Water
Analysis Batch: 47769

Client Sample ID: D-85
Prep Type: Total/NA
Prep Batch: 47517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.14	J	1.00	1.31		ug/L		118	80 - 120	6	20

Lab Sample ID: MB 160-47519/1-A
Matrix: Water
Analysis Batch: 47769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.060	ug/L		04/24/13 08:45	04/24/13 17:23	1

Lab Sample ID: LCS 160-47519/2-A
Matrix: Water
Analysis Batch: 47769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.01		ug/L		101	80 - 120

Lab Sample ID: 160-2078-9 MS
Matrix: Water
Analysis Batch: 47769

Client Sample ID: D-85
Prep Type: Dissolved
Prep Batch: 47519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		1.00	1.14		ug/L		114	80 - 120

Lab Sample ID: 160-2078-9 MSD
Matrix: Water
Analysis Batch: 47769

Client Sample ID: D-85
Prep Type: Dissolved
Prep Batch: 47519

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		1.00	1.05		ug/L		105	80 - 120	8	20

TestAmerica St. Louis

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-46720/37

Matrix: Water

Analysis Batch: 46720

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			04/16/13 01:22	1

Lab Sample ID: LCS 160-46720/38

Matrix: Water

Analysis Batch: 46720

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	4.05		mg/L		101	90 - 110

Lab Sample ID: 160-2078-1 MS

Matrix: Water

Analysis Batch: 46720

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodide	0.29	J	4.00	4.40		mg/L		103	90 - 110

Lab Sample ID: 160-2078-12 MS

Matrix: Water

Analysis Batch: 46720

Client Sample ID: PZ-109-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	3.83		mg/L		96	90 - 110

Lab Sample ID: 160-2078-1 DU

Matrix: Water

Analysis Batch: 46720

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Iodide	0.29	J	0.306	J	mg/L		5	20

Lab Sample ID: MB 160-47566/9

Matrix: Water

Analysis Batch: 47566

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			04/12/13 13:30	1
Chloride	ND		0.20	0.020	mg/L			04/12/13 13:30	1
Bromide	ND		0.25	0.025	mg/L			04/12/13 13:30	1
Sulfate	ND		0.50	0.050	mg/L			04/12/13 13:30	1

Lab Sample ID: LCS 160-47566/10

Matrix: Water

Analysis Batch: 47566

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	0.378		mg/L		95	90 - 110
Chloride	2.00	1.93		mg/L		97	90 - 110
Bromide	2.00	1.94		mg/L		97	90 - 110
Sulfate	8.00	7.68		mg/L		96	90 - 110

TestAmerica St. Louis

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-2078-1 MS

Matrix: Water

Analysis Batch: 47566

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Nitrate as N	ND		0.400	0.376		mg/L		94	90 - 110
Bromide	3.2		2.00	5.30		mg/L		105	90 - 110

Lab Sample ID: 160-2078-13 MS

Matrix: Water

Analysis Batch: 47566

Client Sample ID: PZ-104-KS

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Nitrate as N	ND		0.400	0.375		mg/L		94	90 - 110
Bromide	0.041	J	2.00	1.83		mg/L		90	90 - 110
Sulfate	16		4.00	19.7		mg/L		99	90 - 110

Lab Sample ID: 160-2078-1 DU

Matrix: Water

Analysis Batch: 47566

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Nitrate as N	ND		ND		mg/L		NC		20
Bromide	3.2		3.24		mg/L		1		20

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-2078-1 MS

Matrix: Water

Analysis Batch: 47566

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Chloride - DL	32		40.0	70.1		mg/L		94	90 - 110
Sulfate - DL	170		80.0	248		mg/L		97	90 - 110

Lab Sample ID: 160-2078-13 MS

Matrix: Water

Analysis Batch: 47566

Client Sample ID: PZ-104-KS

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Chloride - DL	23		40.0	60.1		mg/L		93	90 - 110

Lab Sample ID: 160-2078-1 DU

Matrix: Water

Analysis Batch: 47566

Client Sample ID: S-53

Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Chloride - DL	32		32.4		mg/L		0.01		20
Sulfate - DL	170		168		mg/L		1		20

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-46737/1
 Matrix: Water
 Analysis Batch: 46737

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		1.3	0.14	mg/L			04/18/13 13:46	1

Lab Sample ID: LCS 160-46737/3
 Matrix: Water
 Analysis Batch: 46737

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	380		mg/L		95	90 - 110

Lab Sample ID: LLCS 160-46737/2
 Matrix: Water
 Analysis Batch: 46737

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	188		mg/L		94	90 - 110

Lab Sample ID: MB 160-47359/1
 Matrix: Water
 Analysis Batch: 47359

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		1.3	0.14	mg/L			04/23/13 14:58	1

Lab Sample ID: LCS 160-47359/3
 Matrix: Water
 Analysis Batch: 47359

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

Lab Sample ID: LLCS 160-47359/2
 Matrix: Water
 Analysis Batch: 47359

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	186		mg/L		93	90 - 110

Method: 310.1 - Alkalinity - DL

Lab Sample ID: 160-2078-8 MS
 Matrix: Water
 Analysis Batch: 46737

Client Sample ID: D-3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity - DL	1300		100	1360	4	mg/L		90	80 - 120

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QC Sample Results

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

TestAmerica Job ID: 160-2078-1

Method: 310.1 - Alkalinity - DL (Continued)

Lab Sample ID: 160-2078-8 DU
Matrix: Water
Analysis Batch: 46737

Client Sample ID: D-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity - DL	1300		1270		mg/L		0.4	20

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QC Association Summary

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

TestAmerica Job ID: 160-2078-1

GC/MS VOA

Analysis Batch: 46185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	8260C	
160-2078-2	PZ-102-SS	Total/NA	Water	8260C	
160-2078-3	PZ-102R-SS	Total/NA	Water	8260C	
160-2078-4	PZ-104-SD	Total/NA	Water	8260C	
160-2078-5	PZ-104-SS	Total/NA	Water	8260C	
160-2078-6	PZ-113-AD	Total/NA	Water	8260C	
160-2078-7	FB@D-3	Total/NA	Water	8260C	
160-2078-8	D-3	Total/NA	Water	8260C	
160-2078-8 MS	D-3	Total/NA	Water	8260C	
160-2078-8 MSD	D-3	Total/NA	Water	8260C	
160-2078-9	D-85	Total/NA	Water	8260C	
160-2078-10	S-84	Total/NA	Water	8260C	
160-2078-11	S-5	Total/NA	Water	8260C	
160-2078-12	PZ-109-SS	Total/NA	Water	8260C	
160-2078-13	PZ-104-KS	Total/NA	Water	8260C	
160-2078-14	DUP 06	Total/NA	Water	8260C	
160-2078-15	TRIP BLANK	Total/NA	Water	8260C	
LCS 160-46185/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-46185/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-46185/2	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 46433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-4	PZ-104-SD	Total/NA	Water	8260C	
160-2078-5	PZ-104-SS	Total/NA	Water	8260C	
160-2078-14	DUP 06	Total/NA	Water	8260C	
LCS 160-46433/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-46433/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-46433/2	Method Blank	Total/NA	Water	8260C	

Metals

Prep Batch: 46237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	3010A	
160-2078-2	PZ-102-SS	Total/NA	Water	3010A	
160-2078-3	PZ-102R-SS	Total/NA	Water	3010A	
160-2078-4	PZ-104-SD	Total/NA	Water	3010A	
160-2078-5	PZ-104-SS	Total/NA	Water	3010A	
160-2078-6	PZ-113-AD	Total/NA	Water	3010A	
160-2078-8	D-3	Total/NA	Water	3010A	
160-2078-8 MS	D-3	Total/NA	Water	3010A	
160-2078-8 MSD	D-3	Total/NA	Water	3010A	
160-2078-9	D-85	Total/NA	Water	3010A	
160-2078-10	S-84	Total/NA	Water	3010A	
160-2078-11	S-5	Total/NA	Water	3010A	
160-2078-12	PZ-109-SS	Total/NA	Water	3010A	
160-2078-13	PZ-104-KS	Total/NA	Water	3010A	
160-2078-14	DUP 06	Total/NA	Water	3010A	
LCS 160-46237/2-A	Lab Control Sample	Total/NA	Water	3010A	

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QC Association Summary

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

TestAmerica Job ID: 160-2078-1

Metals (Continued)

Prep Batch: 46237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-46237/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 46238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-2	PZ-102-SS	Dissolved	Water	3010A	
160-2078-3	PZ-102R-SS	Dissolved	Water	3010A	
160-2078-4	PZ-104-SD	Dissolved	Water	3010A	
160-2078-5	PZ-104-SS	Dissolved	Water	3010A	
160-2078-6	PZ-113-AD	Dissolved	Water	3010A	
160-2078-8	D-3	Dissolved	Water	3010A	
160-2078-8 MS	D-3	Dissolved	Water	3010A	
160-2078-8 MSD	D-3	Dissolved	Water	3010A	
160-2078-9	D-85	Dissolved	Water	3010A	
160-2078-10	S-84	Dissolved	Water	3010A	
160-2078-11	S-5	Dissolved	Water	3010A	
160-2078-12	PZ-109-SS	Dissolved	Water	3010A	
160-2078-13	PZ-104-KS	Dissolved	Water	3010A	
160-2078-14	DUP 06	Dissolved	Water	3010A	
LCS 160-46238/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-46238/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 47292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	6010C	46237
160-2078-2	PZ-102-SS	Total/NA	Water	6010C	46237
160-2078-2	PZ-102-SS	Dissolved	Water	6010C	46238
160-2078-3	PZ-102R-SS	Total/NA	Water	6010C	46237
160-2078-3	PZ-102R-SS	Dissolved	Water	6010C	46238
160-2078-4	PZ-104-SD	Total/NA	Water	6010C	46237
160-2078-4	PZ-104-SD	Dissolved	Water	6010C	46238
160-2078-5	PZ-104-SS	Total/NA	Water	6010C	46237
160-2078-5	PZ-104-SS	Dissolved	Water	6010C	46238
160-2078-6	PZ-113-AD	Total/NA	Water	6010C	46237
160-2078-6	PZ-113-AD	Dissolved	Water	6010C	46238
160-2078-8	D-3	Total/NA	Water	6010C	46237
160-2078-8	D-3	Dissolved	Water	6010C	46238
160-2078-8 MS	D-3	Total/NA	Water	6010C	46237
160-2078-8 MS	D-3	Dissolved	Water	6010C	46238
160-2078-8 MSD	D-3	Total/NA	Water	6010C	46237
160-2078-8 MSD	D-3	Dissolved	Water	6010C	46238
160-2078-9	D-85	Total/NA	Water	6010C	46237
160-2078-9	D-85	Dissolved	Water	6010C	46238
160-2078-10	S-84	Total/NA	Water	6010C	46237
160-2078-10	S-84	Dissolved	Water	6010C	46238
160-2078-11	S-5	Total/NA	Water	6010C	46237
160-2078-11	S-5	Dissolved	Water	6010C	46238
160-2078-12	PZ-109-SS	Total/NA	Water	6010C	46237
160-2078-12	PZ-109-SS	Dissolved	Water	6010C	46238
160-2078-13	PZ-104-KS	Total/NA	Water	6010C	46237
160-2078-13	PZ-104-KS	Dissolved	Water	6010C	46238
160-2078-14	DUP 06	Total/NA	Water	6010C	46237

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QC Association Summary

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

TestAmerica Job ID: 160-2078-1

Metals (Continued)

Analysis Batch: 47292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-14	DUP 06	Dissolved	Water	6010C	46238
LCS 160-46237/2-A	Lab Control Sample	Total/NA	Water	6010C	46237
LCS 160-46238/2-A	Lab Control Sample	Total/NA	Water	6010C	46238
MB 160-46237/1-A	Method Blank	Total/NA	Water	6010C	46237
MB 160-46238/1-A	Method Blank	Total/NA	Water	6010C	46238

Analysis Batch: 47331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-6	PZ-113-AD	Total/NA	Water	6010C	46237
160-2078-6	PZ-113-AD	Dissolved	Water	6010C	46238
160-2078-8	D-3	Total/NA	Water	6010C	46237
160-2078-8	D-3	Dissolved	Water	6010C	46238
160-2078-8 MS	D-3	Total/NA	Water	6010C	46237
160-2078-8 MS	D-3	Dissolved	Water	6010C	46238
160-2078-8 MSD	D-3	Total/NA	Water	6010C	46237
160-2078-8 MSD	D-3	Dissolved	Water	6010C	46238
160-2078-9	D-85	Total/NA	Water	6010C	46237
160-2078-9	D-85	Dissolved	Water	6010C	46238

Prep Batch: 47517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	7470A	
160-2078-2	PZ-102-SS	Total/NA	Water	7470A	
160-2078-3	PZ-102R-SS	Total/NA	Water	7470A	
160-2078-4	PZ-104-SD	Total/NA	Water	7470A	
160-2078-5	PZ-104-SS	Total/NA	Water	7470A	
160-2078-6	PZ-113-AD	Total/NA	Water	7470A	
160-2078-8	D-3	Total/NA	Water	7470A	
160-2078-9	D-85	Total/NA	Water	7470A	
160-2078-9 MS	D-85	Total/NA	Water	7470A	
160-2078-9 MSD	D-85	Total/NA	Water	7470A	
160-2078-10	S-84	Total/NA	Water	7470A	
160-2078-11	S-5	Total/NA	Water	7470A	
160-2078-12	PZ-109-SS	Total/NA	Water	7470A	
160-2078-13	PZ-104-KS	Total/NA	Water	7470A	
160-2078-14	DUP 06	Total/NA	Water	7470A	
LCS 160-47517/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-47517/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 47519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-2	PZ-102-SS	Dissolved	Water	7470A	
160-2078-3	PZ-102R-SS	Dissolved	Water	7470A	
160-2078-4	PZ-104-SD	Dissolved	Water	7470A	
160-2078-5	PZ-104-SS	Dissolved	Water	7470A	
160-2078-6	PZ-113-AD	Dissolved	Water	7470A	
160-2078-8	D-3	Dissolved	Water	7470A	
160-2078-9	D-85	Dissolved	Water	7470A	
160-2078-9 MS	D-85	Dissolved	Water	7470A	
160-2078-9 MSD	D-85	Dissolved	Water	7470A	
160-2078-10	S-84	Dissolved	Water	7470A	

TestAmerica St. Louis



QC Association Summary

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

TestAmerica Job ID: 160-2078-1

Metals (Continued)

Prep Batch: 47519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-11	S-5	Dissolved	Water	7470A	
160-2078-12	PZ-109-SS	Dissolved	Water	7470A	
160-2078-13	PZ-104-KS	Dissolved	Water	7470A	
160-2078-14	DUP 06	Dissolved	Water	7470A	
LCS 160-47519/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-47519/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 47769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	7470A	47517
160-2078-2	PZ-102-SS	Total/NA	Water	7470A	47517
160-2078-2	PZ-102-SS	Dissolved	Water	7470A	47519
160-2078-3	PZ-102R-SS	Total/NA	Water	7470A	47517
160-2078-3	PZ-102R-SS	Dissolved	Water	7470A	47519
160-2078-4	PZ-104-SD	Total/NA	Water	7470A	47517
160-2078-4	PZ-104-SD	Dissolved	Water	7470A	47519
160-2078-5	PZ-104-SS	Total/NA	Water	7470A	47517
160-2078-5	PZ-104-SS	Dissolved	Water	7470A	47519
160-2078-6	PZ-113-AD	Total/NA	Water	7470A	47517
160-2078-6	PZ-113-AD	Dissolved	Water	7470A	47519
160-2078-8	D-3	Total/NA	Water	7470A	47517
160-2078-8	D-3	Dissolved	Water	7470A	47519
160-2078-9	D-85	Total/NA	Water	7470A	47517
160-2078-9	D-85	Dissolved	Water	7470A	47519
160-2078-9 MS	D-85	Total/NA	Water	7470A	47517
160-2078-9 MS	D-85	Dissolved	Water	7470A	47519
160-2078-9 MSD	D-85	Total/NA	Water	7470A	47517
160-2078-9 MSD	D-85	Dissolved	Water	7470A	47519
160-2078-10	S-84	Total/NA	Water	7470A	47517
160-2078-10	S-84	Dissolved	Water	7470A	47519
160-2078-11	S-5	Total/NA	Water	7470A	47517
160-2078-11	S-5	Dissolved	Water	7470A	47519
160-2078-12	PZ-109-SS	Total/NA	Water	7470A	47517
160-2078-12	PZ-109-SS	Dissolved	Water	7470A	47519
160-2078-13	PZ-104-KS	Total/NA	Water	7470A	47517
160-2078-13	PZ-104-KS	Dissolved	Water	7470A	47519
160-2078-14	DUP 06	Total/NA	Water	7470A	47517
160-2078-14	DUP 06	Dissolved	Water	7470A	47519
LCS 160-47517/2-A	Lab Control Sample	Total/NA	Water	7470A	47517
LCS 160-47519/2-A	Lab Control Sample	Total/NA	Water	7470A	47519
MB 160-47517/1-A	Method Blank	Total/NA	Water	7470A	47517
MB 160-47519/1-A	Method Blank	Total/NA	Water	7470A	47519

General Chemistry

Analysis Batch: 46720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	300.0	
160-2078-1 DU	S-53	Total/NA	Water	300.0	
160-2078-1 MS	S-53	Total/NA	Water	300.0	

TestAmerica St. Louis



QC Association Summary

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

TestAmerica Job ID: 160-2078-1

General Chemistry (Continued)

Analysis Batch: 46720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-2	PZ-102-SS	Total/NA	Water	300.0	
160-2078-3	PZ-102R-SS	Total/NA	Water	300.0	
160-2078-4 - DL	PZ-104-SD	Total/NA	Water	300.0	
160-2078-5	PZ-104-SS	Total/NA	Water	300.0	
160-2078-6	PZ-113-AD	Total/NA	Water	300.0	
160-2078-8	D-3	Total/NA	Water	300.0	
160-2078-9	D-85	Total/NA	Water	300.0	
160-2078-10	S-84	Total/NA	Water	300.0	
160-2078-11	S-5	Total/NA	Water	300.0	
160-2078-12	PZ-109-SS	Total/NA	Water	300.0	
160-2078-12 MS	PZ-109-SS	Total/NA	Water	300.0	
160-2078-13	PZ-104-KS	Total/NA	Water	300.0	
160-2078-14	DUP 06	Total/NA	Water	300.0	
LCS 160-46720/38	Lab Control Sample	Total/NA	Water	300.0	
MB 160-46720/37	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 46737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	310.1	
160-2078-2	PZ-102-SS	Total/NA	Water	310.1	
160-2078-3	PZ-102R-SS	Total/NA	Water	310.1	
160-2078-4	PZ-104-SD	Total/NA	Water	310.1	
160-2078-5	PZ-104-SS	Total/NA	Water	310.1	
160-2078-6 - DL	PZ-113-AD	Total/NA	Water	310.1	
160-2078-8 - DL	D-3	Total/NA	Water	310.1	
160-2078-8 DU - DL	D-3	Total/NA	Water	310.1	
160-2078-8 MS - DL	D-3	Total/NA	Water	310.1	
160-2078-9	D-85	Total/NA	Water	310.1	
160-2078-10	S-84	Total/NA	Water	310.1	
160-2078-11 - DL	S-5	Total/NA	Water	310.1	
160-2078-12	PZ-109-SS	Total/NA	Water	310.1	
160-2078-13	PZ-104-KS	Total/NA	Water	310.1	
LCS 160-46737/3	Lab Control Sample	Total/NA	Water	310.1	
LLCS 160-46737/2	Lab Control Sample	Total/NA	Water	310.1	
MB 160-46737/1	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 47359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-14	DUP 06	Total/NA	Water	310.1	
LCS 160-47359/3	Lab Control Sample	Total/NA	Water	310.1	
LLCS 160-47359/2	Lab Control Sample	Total/NA	Water	310.1	
MB 160-47359/1	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 47566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-1	S-53	Total/NA	Water	300.0	
160-2078-1 - DL	S-53	Total/NA	Water	300.0	
160-2078-1 DU - DL	S-53	Total/NA	Water	300.0	
160-2078-1 DU	S-53	Total/NA	Water	300.0	
160-2078-1 MS - DL	S-53	Total/NA	Water	300.0	
160-2078-1 MS	S-53	Total/NA	Water	300.0	

TestAmerica St. Louis

QC Association Summary

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

TestAmerica Job ID: 160-2078-1

General Chemistry (Continued)

Analysis Batch: 47566 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-2078-2	PZ-102-SS	Total/NA	Water	300.0	
160-2078-2 - DL	PZ-102-SS	Total/NA	Water	300.0	
160-2078-3	PZ-102R-SS	Total/NA	Water	300.0	
160-2078-3 - DL	PZ-102R-SS	Total/NA	Water	300.0	
160-2078-4	PZ-104-SD	Total/NA	Water	300.0	
160-2078-4 - DL	PZ-104-SD	Total/NA	Water	300.0	
160-2078-4 - DL2	PZ-104-SD	Total/NA	Water	300.0	
160-2078-5	PZ-104-SS	Total/NA	Water	300.0	
160-2078-5 - DL	PZ-104-SS	Total/NA	Water	300.0	
160-2078-6	PZ-113-AD	Total/NA	Water	300.0	
160-2078-6 - DL	PZ-113-AD	Total/NA	Water	300.0	
160-2078-6 - DL2	PZ-113-AD	Total/NA	Water	300.0	
160-2078-8	D-3	Total/NA	Water	300.0	
160-2078-8 - DL	D-3	Total/NA	Water	300.0	
160-2078-8 - DL2	D-3	Total/NA	Water	300.0	
160-2078-9	D-85	Total/NA	Water	300.0	
160-2078-9 - DL	D-85	Total/NA	Water	300.0	
160-2078-9 - DL2	D-85	Total/NA	Water	300.0	
160-2078-10	S-84	Total/NA	Water	300.0	
160-2078-10 - DL	S-84	Total/NA	Water	300.0	
160-2078-11	S-5	Total/NA	Water	300.0	
160-2078-11 - DL2	S-5	Total/NA	Water	300.0	
160-2078-12	PZ-109-SS	Total/NA	Water	300.0	
160-2078-12 - DL	PZ-109-SS	Total/NA	Water	300.0	
160-2078-13	PZ-104-KS	Total/NA	Water	300.0	
160-2078-13 - DL	PZ-104-KS	Total/NA	Water	300.0	
160-2078-13 MS - DL	PZ-104-KS	Total/NA	Water	300.0	
160-2078-13 MS	PZ-104-KS	Total/NA	Water	300.0	
160-2078-14	DUP 06	Total/NA	Water	300.0	
160-2078-14 - DL	DUP 06	Total/NA	Water	300.0	
LCS 160-47566/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-47566/9	Method Blank	Total/NA	Water	300.0	

US EPA ARCHIVE DOCUMENT

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Surrogate Summary

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

TestAmerica Job ID: 160-2078-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (82-121)	DBFM (85-119)	12DCE (82-132)	TOL (85-115)
160-2078-1	S-53	102	107	103	101
160-2078-2	PZ-102-SS	99	102	105	99
160-2078-3	PZ-102R-SS	98	103	107	98
160-2078-4	PZ-104-SD	98	89	90	99
160-2078-4	PZ-104-SD	105	100	105	100
160-2078-5	PZ-104-SS	101	96	92	108
160-2078-5	PZ-104-SS	110	95	99	100
160-2078-6	PZ-113-AD	97	101	97	101
160-2078-7	FB@D-3	103	103	105	102
160-2078-8	D-3	107	103	105	102
160-2078-8 MS	D-3	91	99	96	102
160-2078-8 MSD	D-3	93	95	92	100
160-2078-9	D-85	96	105	106	99
160-2078-10	S-84	97	112	111	102
160-2078-11	S-5	95	107	104	102
160-2078-12	PZ-109-SS	96	105	102	100
160-2078-13	PZ-104-KS	97	105	107	97
160-2078-14	DUP 06	103	93	92	102
160-2078-14	DUP 06	100	98	96	99
160-2078-15	TRIP BLANK	100	99	102	96
LCS 160-46185/4	Lab Control Sample	92	98	98	103
LCS 160-46433/4	Lab Control Sample	97	108	107	105
LCSD 160-46185/5	Lab Control Sample Dup	92	101	100	105
LCSD 160-46433/5	Lab Control Sample Dup	95	100	100	102
MB 160-46185/2	Method Blank	100	101	101	101
MB 160-46433/2	Method Blank	109	97	103	100

Surrogate Legend

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

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