TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-12230-1

Job Description: 995|Waimanalo Gulch LF

For:
Waste Management
Waimanalo Gulch Landfill
92-460 Farrington Highway
Kapolei, HI 96707

Attention: Mr. Justin Lottig

Approved for release.
Betsy A Sara
Project Manager II
2/15/2011 12:44 PM

Betsy A Sara
Project Manager II
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02/15/2011

cc: Mr. John Fong
Mr. Tom Hanneman
Mr. Pete LaPlaca

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

The Lab Certification ID# is E87667.

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

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ACCREDITED IN ACCORDANCE WITH nelac

WMH003600

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CASE NARRATIVE

Client: Waste Management

Project: 995|Waimanalo Gulch LF

Report Number: 280-12230-1

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

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The sample was received on 02/04/2011; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.4 C.

Holding Times

All holding times were met.

Method Blanks

Ammonia Method 350.1 was detected in the Method Blank below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

All other Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

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

The method required MS/MSD could not be performed for Method 625 due to insufficient sample volume; however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for Ammonia Method 350.1. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample SED POND was selected to fulfill the laboratory batch quality control requirements for Method 350.1. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Ammonia below the lower control limit indicating the possible presence of a matrix interference.

All other MS and MSD samples were within established control limits.

General Comments

The analyses for Biochemical Oxygen Demand (BOD) and Hexavalent Chromium were performed at TestAmerica's Honolulu facility.
TestAmerica Honolulu
99-193 Aiea Heights Drive
Suite 121
Aiea, HI 96701
Phone: 808.486.5227

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-12230-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
280-12230-1	**SED POND**					
Mercury		0.000055	J	0.00020	mg/L	245.1
HEM		2.0	J	5.0	mg/L	1664A
Bromide		0.85		0.20	mg/L	300.0A
Chloride		120		1.3	mg/L	300.0A
Sulfate		110		5.0	mg/L	300.0A
Ammonia		0.30	B	0.10	mg/L	350.1
Nitrate Nitrite as N		0.072	J	0.10	mg/L	353.2
Phosphorus, Total		0.21		0.050	mg/L	365.1
Chemical Oxygen Demand		36		20	mg/L	410.4
Total Alkalinity		170		5.0	mg/L	SM 2320B
Bicarbonate Alkalinity		170		5.0	mg/L	SM 2320B
Carbonate Alkalinity		4.7	J	5.0	mg/L	SM 2320B
Total Suspended Solids		26		4.0	mg/L	SM 2540D
Nitrogen, Total		1.9		0.10	mg/L	Total Nitrogen
Total Recoverable						
Arsenic		0.0057	J	0.015	mg/L	200.7 Rev 4.4
Calcium		48		0.20	mg/L	200.7 Rev 4.4
Iron		4.6		0.10	mg/L	200.7 Rev 4.4
Magnesium		25		0.20	mg/L	200.7 Rev 4.4
Potassium		5.8		3.0	mg/L	200.7 Rev 4.4
Sodium		110		5.0	mg/L	200.7 Rev 4.4
Zinc		0.019	J	0.020	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management | Job Number: 280-12230-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	40CFR136A 625	
Liquid-Liquid Extraction	TAL DEN		40CFR136A 625
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Mercury (CVAA)	TAL DEN	EPA 245.1	
Preparation, Mercury	TAL DEN		EPA 245.1
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0A	
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Phosphorus, Total	TAL DEN	EPA 365.1	
Phosphorus, Total	TAL DEN		MCAWW 365.2/365.3/365
COD	TAL DEN	MCAWW 410.4	
Alkalinity	TAL DEN	SM SM 2320B	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
Nitrogen, Total	TAL DEN	EPA Total Nitrogen	
General Sub Contract Method	TAL HON	Subcontract	

Lab References:

TAL DEN = TestAmerica Denver

TAL HON = TestAmerica Honolulu

Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

WMH003604

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-12230-1

Method	Analyst	Analyst ID
40CFR136A 625	Kiekel, Daniel C	DCK
EPA 200.7 Rev 4.4	Bowen, Heidi E	HEB
EPA 245.1	Stoltz, Katie	KS
1664A 1664A	Gheorghe, Philip A	PAG
MCAWW 300.0A	Phan, Thu L	TLP
MCAWW 350.1	Stosak, Lara E	LES
MCAWW 353.2	Doherty, Jillian A	JAD
EPA 365.1	Scott, Samantha J	SJS
MCAWW 410.4	Derosia, Marcia R	MRD
SM SM 2320B	Derosia, Marcia R	MRD
SM SM 2540D	Gheorghe, Philip A	PAG
EPA Total Nitrogen	Elkin, David	DE

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-12230-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-12230-1	SED POND	Water	02/02/2011 1000	02/04/2011 1000

SAMPLE RESULTS

Client: Waste Management | Job Number: 280-12230-1

Client Sample ID: **SED POND**

Lab Sample ID: 280-12230-1 | Date Sampled: 02/02/2011 1000
Client Matrix: Water | Date Received: 02/04/2011 1000

625 Semivolatile Organic Compounds (GC/MS)

Method:	625	Analysis Batch: 280-53061		Instrument ID:	MSS_B
Preparation:	625	Prep Batch: 280-52357		Lab File ID:	B3175.D
Dilution:	1.0			Initial Weight/Volume:	951.9 mL
Date Analyzed:	02/11/2011 2302			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		0.0021	0.010
Benzoic acid	ND		0.011	0.050
p-Cresol	ND		0.00026	0.010
Pentachlorophenol	ND		0.021	0.060
Phenol	ND		0.0021	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		36 - 120
2-Fluorophenol	87		30 - 120
2,4,6-Tribromophenol	92		50 - 120
Nitrobenzene-d5	94		45 - 120
Phenol-d5	90		36 - 120
Terphenyl-d14	79		52 - 120

Client: Waste Management

Job Number: 280-12230-1

Client Sample ID: **SED POND**

Lab Sample ID: 280-12230-1

Client Matrix: Water

Date Sampled: 02/02/2011 1000

Date Received: 02/04/2011 1000

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Method:	200.7 Rev 4.4	Analysis Batch: 280-52404		Instrument ID:	MT_026
Preparation:	200.7	Prep Batch: 280-52034		Lab File ID:	26a020811.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1728			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1430				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	0.0057	J	0.0044	0.015
Cadmium	ND		0.00045	0.0050
Calcium	48		0.034	0.20
Iron	4.6		0.022	0.10
Lead	ND		0.0026	0.0090
Magnesium	25		0.011	0.20
Potassium	5.8		0.24	3.0
Selenium	ND		0.0049	0.015
Silver	ND		0.00093	0.010
Sodium	110		0.092	5.0
Zinc	0.019	J	0.0045	0.020

245.1 Mercury (CVAA)

Method:	245.1	Analysis Batch: 280-52409		Instrument ID:	MT_033
Preparation:	245.1	Prep Batch: 280-51724		Lab File ID:	120208AB.txt
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	02/08/2011 1546			Final Weight/Volume:	10 mL
Date Prepared:	02/08/2011 1120				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.000055	J	0.000027	0.00020

General Chemistry

Client Sample ID: **SED POND**

Lab Sample ID: 280-12230-1 Date Sampled: 02/02/2011 1000
Client Matrix: Water Date Received: 02/04/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	2.0	J	mg/L	1.3	5.0	1.0	1664A
Analysis Batch: 280-52101	Date Analyzed: 02/07/2011 1127						
Prep Batch: 280-52094	Date Prepared: 02/07/2011 1102						
Bromide	0.85		mg/L	0.11	0.20	1.0	300.0A
Analysis Batch: 280-52586	Date Analyzed: 02/08/2011 1948						
Chloride	120		mg/L	1.3	1.3	5.0	300.0A
Analysis Batch: 280-52586	Date Analyzed: 02/09/2011 0255						
Sulfate	110		mg/L	1.2	5.0	5.0	300.0A
Analysis Batch: 280-52586	Date Analyzed: 02/09/2011 0255						
Ammonia	0.30	B	mg/L	0.022	0.10	1.0	350.1
Analysis Batch: 280-52776	Date Analyzed: 02/10/2011 1435						
Nitrate Nitrite as N	0.072	J	mg/L	0.019	0.10	1.0	353.2
Analysis Batch: 280-52777	Date Analyzed: 02/10/2011 1435						
Phosphorus, Total	0.21		mg/L	0.0050	0.050	1.0	365.1
Analysis Batch: 280-52293	Date Analyzed: 02/08/2011 1133						
Prep Batch: 280-52113	Date Prepared: 02/07/2011 1155						
Chemical Oxygen Demand	36		mg/L	4.1	20	1.0	410.4
Analysis Batch: 280-52583	Date Analyzed: 02/09/2011 1710						
Total Alkalinity	170		mg/L	1.1	5.0	1.0	SM 2320B
Analysis Batch: 280-52136	Date Analyzed: 02/04/2011 2202						
Bicarbonate Alkalinity	170		mg/L	1.1	5.0	1.0	SM 2320B
Analysis Batch: 280-52136	Date Analyzed: 02/04/2011 2202						
Carbonate Alkalinity	4.7	J	mg/L	1.1	5.0	1.0	SM 2320B
Analysis Batch: 280-52136	Date Analyzed: 02/04/2011 2202						
Total Suspended Solids	26		mg/L	1.1	4.0	1.0	SM 2540D
Analysis Batch: 280-52340	Date Analyzed: 02/08/2011 1626						
Nitrogen, Total	1.9		mg/L	0.042	0.10	1.0	Total Nitrogen
Analysis Batch: 280-52939	Date Analyzed: 02/11/2011 1427						

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-12230-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	F	MS/MSD Recovery or RPD 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.

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-12230-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-52357					
LCS 280-52357/2-A	Lab Control Sample	T	Water	625	
LCSD 280-52357/3-A	Lab Control Sample Duplicate	T	Water	625	
MB 280-52357/1-A	Method Blank	T	Water	625	
280-12230-1	SED POND	T	Water	625	
Analysis Batch:280-53061					
LCS 280-52357/2-A	Lab Control Sample	T	Water	625	280-52357
LCSD 280-52357/3-A	Lab Control Sample Duplicate	T	Water	625	280-52357
MB 280-52357/1-A	Method Blank	T	Water	625	280-52357
280-12230-1	SED POND	T	Water	625	280-52357

Report Basis

T = Total

Client: Waste Management

Job Number: 280-12230-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-51724					
LCS 280-51724/2-A	Lab Control Sample	T	Water	245.1	
MB 280-51724/1-A	Method Blank	T	Water	245.1	
280-12094-F-1-G MS	Matrix Spike	T	Water	245.1	
280-12094-F-1-H MSD	Matrix Spike Duplicate	T	Water	245.1	
280-12230-1	SED POND	T	Water	245.1	
Prep Batch: 280-52034					
LCS 280-52034/2-A	Lab Control Sample	R	Water	200.7	
MB 280-52034/1-A	Method Blank	R	Water	200.7	
280-12209-A-1-B MS	Matrix Spike	R	Water	200.7	
280-12209-A-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
280-12230-1	SED POND	R	Water	200.7	
Analysis Batch:280-52404					
LCS 280-52034/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-52034
MB 280-52034/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-52034
280-12209-A-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-52034
280-12209-A-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-52034
280-12230-1	SED POND	R	Water	200.7 Rev 4.4	280-52034
Analysis Batch:280-52409					
LCS 280-51724/2-A	Lab Control Sample	T	Water	245.1	280-51724
MB 280-51724/1-A	Method Blank	T	Water	245.1	280-51724
280-12094-F-1-G MS	Matrix Spike	T	Water	245.1	280-51724
280-12094-F-1-H MSD	Matrix Spike Duplicate	T	Water	245.1	280-51724
280-12230-1	SED POND	T	Water	245.1	280-51724

Report Basis

R = Total Recoverable

T = Total

Client: Waste Management

Job Number: 280-12230-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-52094					
LCS 280-52094/2-A	Lab Control Sample	T	Water	1664A	
LCSD 280-52094/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-52094/1-A	Method Blank	T	Water	1664A	
280-12218-A-1-A MS	Matrix Spike	T	Water	1664A	
280-12218-C-1-A MSD	Matrix Spike Duplicate	T	Water	1664A	
280-12230-1	SED POND	T	Water	1664A	
Analysis Batch:280-52101					
LCS 280-52094/2-A	Lab Control Sample	T	Water	1664A	280-52094
LCSD 280-52094/3-A	Lab Control Sample Duplicate	T	Water	1664A	280-52094
MB 280-52094/1-A	Method Blank	T	Water	1664A	280-52094
280-12218-A-1-A MS	Matrix Spike	T	Water	1664A	280-52094
280-12218-C-1-A MSD	Matrix Spike Duplicate	T	Water	1664A	280-52094
280-12230-1	SED POND	T	Water	1664A	280-52094
Prep Batch: 280-52113					
LCS 280-52113/1-A	Lab Control Sample	T	Water	365.2/365.3/365	
LCSD 280-52113/2-A	Lab Control Sample Duplicate	T	Water	365.2/365.3/365	
MB 280-52113/3-A	Method Blank	T	Water	365.2/365.3/365	
280-12125-C-1-E MS	Matrix Spike	T	Water	365.2/365.3/365	
280-12125-C-1-F MSD	Matrix Spike Duplicate	T	Water	365.2/365.3/365	
280-12230-1	SED POND	T	Water	365.2/365.3/365	
Analysis Batch:280-52136					
LCS 280-52136/4	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-52136/5	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-52136/6	Method Blank	T	Water	SM 2320B	
280-12220-A-1 DU	Duplicate	T	Water	SM 2320B	
280-12230-1	SED POND	T	Water	SM 2320B	
Analysis Batch:280-52293					
LCS 280-52113/1-A	Lab Control Sample	T	Water	365.1	280-52113
LCSD 280-52113/2-A	Lab Control Sample Duplicate	T	Water	365.1	280-52113
MB 280-52113/3-A	Method Blank	T	Water	365.1	280-52113
280-12125-C-1-E MS	Matrix Spike	T	Water	365.1	280-52113
280-12125-C-1-F MSD	Matrix Spike Duplicate	T	Water	365.1	280-52113
280-12230-1	SED POND	T	Water	365.1	280-52113
Analysis Batch:280-52340					
LCS 280-52340/2	Lab Control Sample	T	Water	SM 2540D	
LCSD 280-52340/3	Lab Control Sample Duplicate	T	Water	SM 2540D	
MB 280-52340/1	Method Blank	T	Water	SM 2540D	
280-12217-B-5 DU	Duplicate	T	Water	SM 2540D	
280-12230-1	SED POND	T	Water	SM 2540D	

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QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-52583					
LCS 280-52583/3	Lab Control Sample	T	Water	410.4	
LCSD 280-52583/4	Lab Control Sample Duplicate	T	Water	410.4	
MB 280-52583/5	Method Blank	T	Water	410.4	
280-12220-B-1 MS	Matrix Spike	T	Water	410.4	
280-12220-B-1 MSD	Matrix Spike Duplicate	T	Water	410.4	
280-12230-1	SED POND	T	Water	410.4	
Analysis Batch:280-52586					
LCS 280-52586/27	Lab Control Sample	T	Water	300.0A	
LCSD 280-52586/28	Lab Control Sample Duplicate	T	Water	300.0A	
MB 280-52586/29	Method Blank	T	Water	300.0A	
280-12230-1	SED POND	T	Water	300.0A	
280-12270-A-1 DU	Duplicate	T	Water	300.0A	
280-12270-A-1 MS	Matrix Spike	T	Water	300.0A	
280-12270-A-1 MSD	Matrix Spike Duplicate	T	Water	300.0A	
Analysis Batch:280-52776					
LCS 280-52776/105	Lab Control Sample	T	Water	350.1	
LCSD 280-52776/106	Lab Control Sample Duplicate	T	Water	350.1	
MB 280-52776/104	Method Blank	T	Water	350.1	
280-12230-1	SED POND	T	Water	350.1	
280-12230-1MS	Matrix Spike	T	Water	350.1	
280-12230-1MSD	Matrix Spike Duplicate	T	Water	350.1	
Analysis Batch:280-52777					
LCS 280-52777/105	Lab Control Sample	T	Water	353.2	
LCSD 280-52777/106	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-52777/104	Method Blank	T	Water	353.2	
280-12230-1	SED POND	T	Water	353.2	
280-12230-1MS	Matrix Spike	T	Water	353.2	
280-12230-1MSD	Matrix Spike Duplicate	T	Water	353.2	
Analysis Batch:280-52939					
MB 280-52939/1	Method Blank	T	Water	Total Nitrogen	
280-12230-1	SED POND	T	Water	Total Nitrogen	

Report Basis
T = Total

Client: Waste Management

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Surrogate Recovery Report

625 Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
280-12230-1	SED POND	86	87	92	94	90	79
MB 280-52357/1-A		82	91	87	95	94	83
LCS 280-52357/2-A		80	86	96	90	90	86
LCSD 280-52357/3-A		82	87	95	89	89	86

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	36-120
2FP = 2-Fluorophenol	30-120
TBP = 2,4,6-Tribromophenol	50-120
NBZ = Nitrobenzene-d5	45-120
PHL = Phenol-d5	36-120
TPH = Terphenyl-d14	52-120

Client: Waste Management

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Method Blank - Batch: 280-52357

Method: 625
Preparation: 625

Lab Sample ID:	MB 280-52357/1-A	Analysis Batch:	280-53061	Instrument ID:	MSS_B
Client Matrix:	Water	Prep Batch:	280-52357	Lab File ID:	B3171.D
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	02/11/2011 2140			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

Analyte	Result	Qual	MDL	RL
Alpha-Terpineol	ND		0.0020	0.010
Benzoic acid	ND		0.010	0.050
p-Cresol	ND		0.00025	0.010
Pentachlorophenol	ND		0.020	0.060
Phenol	ND		0.0020	0.010

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	82	36 - 120
2-Fluorophenol	91	30 - 120
2,4,6-Tribromophenol	87	50 - 120
Nitrobenzene-d5	95	45 - 120
Phenol-d5	94	36 - 120
Terphenyl-d14	83	52 - 120

Client: Waste Management

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Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52357

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-52357/2-A	Analysis Batch:	280-53061	Instrument ID:	MSS_B
Client Matrix:	Water	Prep Batch:	280-52357	Lab File ID:	B3151.D
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	02/11/2011 1453			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

LCSD Lab Sample ID:	LCSD 280-52357/3-A	Analysis Batch:	280-53061	Instrument ID:	MSS_B
Client Matrix:	Water	Prep Batch:	280-52357	Lab File ID:	B3152.D
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	02/11/2011 1513			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acenaphthene	85	86	47 - 120	1	30		
Acenaphthylene	88	89	33 - 120	1	30		
Anthracene	87	87	52 - 120	0	30		
Benzidine	71	66	10 - 218	7	50	J	J
Benzo[a]anthracene	87	86	54 - 120	1	30		
Benzo[b]fluoranthene	83	84	51 - 120	1	90		
Benzo[k]fluoranthene	91	93	49 - 120	3	50		
Benzo[a]pyrene	75	76	39 - 120	0	73		
Bis(2-chloroethoxy)methane	93	90	50 - 120	3	30		
Bis(2-chloroethyl)ether	96	95	35 - 120	1	30		
Bis(2-ethylhexyl) phthalate	99	97	56 - 120	1	30		
4-Bromophenyl phenyl ether	88	87	53 - 120	1	34		
Butyl benzyl phthalate	92	92	53 - 120	1	30		
4-Chloro-3-methylphenol	95	93	57 - 120	2	30		
2-Chloronaphthalene	83	86	60 - 118	3	30		
2-Chlorophenol	92	92	34 - 120	0	30		
4-Chlorophenyl phenyl ether	90	89	51 - 120	1	30		
Chrysene	85	85	51 - 120	0	30		
Dibenz(a,h)anthracene	89	91	45 - 120	2	78		
Di-n-butyl phthalate	93	94	57 - 118	1	30		
1,2-Dichlorobenzene	80	86	32 - 120	8	42		
1,3-Dichlorobenzene	77	84	23 - 120	9	47		
1,4-Dichlorobenzene	77	84	24 - 120	9	49		
3,3'-Dichlorobenzidine	68	59	18 - 120	14	50		J
2,4-Dichlorophenol	93	91	46 - 120	3	30		
Diethyl phthalate	91	89	59 - 114	2	30		
2,4-Dimethylphenol	81	79	44 - 119	2	35		
Dimethyl phthalate	91	90	58 - 112	1	30		
4,6-Dinitro-2-methylphenol	93	93	40 - 120	0	55		
2,4-Dinitrophenol	88	88	20 - 121	0	61		
2,4-Dinitrotoluene	98	95	57 - 120	3	35		
2,6-Dinitrotoluene	92	90	56 - 120	2	30		
Di-n-octyl phthalate	89	89	56 - 120	0	30		
Fluoranthene	90	91	58 - 120	1	30		

Client: Waste Management

Job Number: 280-12230-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52357

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-52357/2-A	Analysis Batch:	280-53061	Instrument ID:	MSS_B
Client Matrix:	Water	Prep Batch:	280-52357	Lab File ID:	B3151.D
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	02/11/2011 1453			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

LCSD Lab Sample ID:	LCSD 280-52357/3-A	Analysis Batch:	280-53061	Instrument ID:	MSS_B
Client Matrix:	Water	Prep Batch:	280-52357	Lab File ID:	B3152.D
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	02/11/2011 1513			Final Weight/Volume:	1000 uL
Date Prepared:	02/08/2011 1800			Injection Volume:	0.5 uL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Fluorene	88	88	59 - 120	0	30		
Hexachlorobenzene	87	88	53 - 120	1	30		
Hexachlorobutadiene	78	85	27 - 116	9	41		
Hexachlorocyclopentadiene	33	32	10 - 120	2	82	J	J
Hexachloroethane	78	86	40 - 113	10	52		
Indeno[1,2,3-cd]pyrene	90	89	50 - 120	1	73		
Isophorone	93	91	50 - 120	3	30		
p-Cresol	86	85	42 - 120	1	39		
Naphthalene	81	85	37 - 120	6	30		
Nitrobenzene	94	93	46 - 120	1	30		
2-Nitrophenol	97	96	47 - 120	1	30		
4-Nitrophenol	95	95	53 - 120	1	42		
N-Nitrosodimethylamine	92	90	37 - 120	2	30		
N-Nitrosodiphenylamine	85	84	46 - 203	2	50		
N-Nitrosodi-n-propylamine	95	94	50 - 120	1	30		
Pentachlorophenol	92	92	46 - 120	1	30		
Phenanthrene	86	85	54 - 120	1	30		
Phenol	95	94	37 - 112	1	30		
Pyrene	87	88	55 - 115	0	30		
1,2,4-Trichlorobenzene	74	79	44 - 120	6	35		
2,4,6-Trichlorophenol	95	93	51 - 120	2	30		
2-Methylphenol	92	91	38 - 120	2	35		
Benzo[g,h,i]perylene	88	89	48 - 120	2	64		
2,2'-Oxybis(1-chloropropane)	90	92	37 - 120	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2-Fluorobiphenyl	80	82	36 - 120
2-Fluorophenol	86	87	30 - 120
2,4,6-Tribromophenol	96	95	50 - 120
Nitrobenzene-d5	90	89	45 - 120
Phenol-d5	90	89	36 - 120
Terphenyl-d14	86	86	52 - 120

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52357

Method: 625
Preparation: 625

LCS Lab Sample ID: LCS 280-52357/2-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1453
Date Prepared: 02/08/2011 1800

LCSD Lab Sample ID: LCSD 280-52357/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1513
Date Prepared: 02/08/2011 1800

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual		LCSD Result/Qual	
Acenaphthene	0.0800	0.0800	0.0678		0.0684	
Acenaphthylene	0.0800	0.0800	0.0705		0.0709	
Anthracene	0.0800	0.0800	0.0699		0.0697	
Benzidine	0.200	0.200	0.141	J	0.132	J
Benzo[a]anthracene	0.0800	0.0800	0.0693		0.0689	
Benzo[b]fluoranthene	0.0800	0.0800	0.0661		0.0669	
Benzo[k]fluoranthene	0.0800	0.0800	0.0728		0.0748	
Benzo[a]pyrene	0.0800	0.0800	0.0603		0.0605	
Bis(2-chloroethoxy)methane	0.0800	0.0800	0.0744		0.0721	
Bis(2-chloroethyl)ether	0.0800	0.0800	0.0767		0.0761	
Bis(2-ethylhexyl) phthalate	0.0800	0.0800	0.0789		0.0777	
4-Bromophenyl phenyl ether	0.0800	0.0800	0.0706		0.0700	
Butyl benzyl phthalate	0.0800	0.0800	0.0734		0.0740	
4-Chloro-3-methylphenol	0.0800	0.0800	0.0759		0.0740	
2-Chloronaphthalene	0.0800	0.0800	0.0668		0.0689	
2-Chlorophenol	0.0800	0.0800	0.0738		0.0735	
4-Chlorophenyl phenyl ether	0.0800	0.0800	0.0719		0.0714	
Chrysene	0.0800	0.0800	0.0680		0.0677	
Dibenz(a,h)anthracene	0.0800	0.0800	0.0710		0.0725	
Di-n-butyl phthalate	0.0800	0.0800	0.0743		0.0748	
1,2-Dichlorobenzene	0.0800	0.0800	0.0637		0.0691	
1,3-Dichlorobenzene	0.0800	0.0800	0.0617		0.0676	
1,4-Dichlorobenzene	0.0800	0.0800	0.0617		0.0674	
3,3'-Dichlorobenzidine	0.0800	0.0800	0.0542		0.0472	J
2,4-Dichlorophenol	0.0800	0.0800	0.0743		0.0724	
Diethyl phthalate	0.0800	0.0800	0.0729		0.0715	
2,4-Dimethylphenol	0.0800	0.0800	0.0649		0.0635	
Dimethyl phthalate	0.0800	0.0800	0.0727		0.0722	
4,6-Dinitro-2-methylphenol	0.0800	0.0800	0.0742		0.0743	
2,4-Dinitrophenol	0.0800	0.0800	0.0705		0.0708	
2,4-Dinitrotoluene	0.0800	0.0800	0.0785		0.0758	
2,6-Dinitrotoluene	0.0800	0.0800	0.0734		0.0722	
Di-n-octyl phthalate	0.0800	0.0800	0.0714		0.0713	
Fluoranthene	0.0800	0.0800	0.0723		0.0728	
Fluorene	0.0800	0.0800	0.0701		0.0701	
Hexachlorobenzene	0.0800	0.0800	0.0700		0.0705	
Hexachlorobutadiene	0.0800	0.0800	0.0622		0.0680	
Hexachlorocyclopentadiene	0.0800	0.0800	0.0265	J	0.0258	J
Hexachloroethane	0.0800	0.0800	0.0621		0.0687	
Indeno[1,2,3-cd]pyrene	0.0800	0.0800	0.0719		0.0713	
Isophorone	0.0800	0.0800	0.0746		0.0726	

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52357

Method: 625
Preparation: 625

LCS Lab Sample ID: LCS 280-52357/2-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1453
Date Prepared: 02/08/2011 1800

LCSD Lab Sample ID: LCSD 280-52357/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/11/2011 1513
Date Prepared: 02/08/2011 1800

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
p-Cresol	0.160	0.160	0.137	0.136
Naphthalene	0.0800	0.0800	0.0645	0.0682
Nitrobenzene	0.0800	0.0800	0.0750	0.0742
2-Nitrophenol	0.0800	0.0800	0.0778	0.0770
4-Nitrophenol	0.0800	0.0800	0.0761	0.0757
N-Nitrosodimethylamine	0.0800	0.0800	0.0734	0.0722
N-Nitrosodiphenylamine	0.0683	0.0683	0.0583	0.0570
N-Nitrosodi-n-propylamine	0.0800	0.0800	0.0761	0.0753
Pentachlorophenol	0.0800	0.0800	0.0739	0.0734
Phenanthrene	0.0800	0.0800	0.0686	0.0679
Phenol	0.0800	0.0800	0.0760	0.0754
Pyrene	0.0800	0.0800	0.0700	0.0702
1,2,4-Trichlorobenzene	0.0800	0.0800	0.0595	0.0633
2,4,6-Trichlorophenol	0.0800	0.0800	0.0758	0.0745
2-Methylphenol	0.0800	0.0800	0.0738	0.0727
Benzo[g,h,i]perylene	0.0800	0.0800	0.0701	0.0712
2,2'-Oxybis(1-chloropropane)	0.0800	0.0800	0.0718	0.0733

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52034

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: MB 280-52034/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1610
Date Prepared: 02/07/2011 1430

Analysis Batch: 280-52404
Prep Batch: 280-52034
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26a020811.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Calcium	ND		0.034	0.20
Iron	ND		0.022	0.10
Lead	ND		0.0026	0.0090
Magnesium	ND		0.011	0.20
Potassium	ND		0.24	3.0
Selenium	ND		0.0049	0.015
Silver	ND		0.00093	0.010
Sodium	ND		0.092	5.0
Zinc	ND		0.0045	0.020

Lab Control Sample - Batch: 280-52034

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: LCS 280-52034/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1613
Date Prepared: 02/07/2011 1430

Analysis Batch: 280-52404
Prep Batch: 280-52034
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26a020811.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.00	1.02	102	88 - 110	
Cadmium	0.100	0.0988	99	88 - 111	
Calcium	50.0	48.4	97	90 - 111	
Iron	1.00	0.960	96	89 - 115	
Lead	0.500	0.505	101	89 - 110	
Magnesium	50.0	50.3	101	90 - 113	
Potassium	50.0	50.6	101	89 - 114	
Selenium	2.00	2.10	105	85 - 112	
Silver	0.0500	0.0490	98	85 - 115	
Sodium	50.0	52.8	106	90 - 115	
Zinc	0.500	0.496	99	85 - 111	

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52034

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-12209-A-1-B MS	Analysis Batch:	280-52404	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-52034	Lab File ID:	26a020811.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1718			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1430				

MSD Lab Sample ID:	280-12209-A-1-C MSD	Analysis Batch:	280-52404	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-52034	Lab File ID:	26a020811.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1720			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1430				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	102	104	88 - 110	1	20		
Cadmium	100	101	88 - 111	1	20		
Calcium	99	105	90 - 111	1	20		
Iron	98	105	89 - 115	2	20		
Lead	99	100	89 - 110	1	20		
Magnesium	103	99	90 - 113	1	20		
Potassium	105	107	89 - 114	2	20		
Selenium	94	95	85 - 112	1	20		
Silver	103	102	85 - 115	1	20		
Sodium	111	113	90 - 115	0	20		
Zinc	97	97	85 - 111	1	20		

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52034

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID: 280-12209-A-1-B MS
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1718
Date Prepared: 02/07/2011 1430

MSD Lab Sample ID: 280-12209-A-1-C MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1720
Date Prepared: 02/07/2011 1430

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	0.0052	J	1.00	1.00	1.03	1.04
Cadmium	ND		0.100	0.100	0.100	0.101
Calcium	150		50.0	50.0	204	207
Iron	2.2		1.00	1.00	3.14	3.21
Lead	ND		0.500	0.500	0.494	0.498
Magnesium	130		50.0	50.0	180	178
Potassium	9.8		50.0	50.0	62.3	63.4
Selenium	ND		2.00	2.00	1.88	1.90
Silver	ND		0.0500	0.0500	0.0513	0.0509
Sodium	160		50.0	50.0	210	212
Zinc	0.010	J	0.500	0.500	0.497	0.494

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-51724

Method: 245.1
Preparation: 245.1

Lab Sample ID:	MB 280-51724/1-A	Analysis Batch:	280-52409	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-51724	Lab File ID:	120208AB.txt
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	10 mL
Date Analyzed:	02/08/2011 1526			Final Weight/Volume:	10 mL
Date Prepared:	02/08/2011 1120				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.000027	0.00020

Lab Control Sample - Batch: 280-51724

Method: 245.1
Preparation: 245.1

Lab Sample ID:	LCS 280-51724/2-A	Analysis Batch:	280-52409	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-51724	Lab File ID:	120208AB.txt
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	10 mL
Date Analyzed:	02/08/2011 1528			Final Weight/Volume:	10 mL
Date Prepared:	02/08/2011 1120				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00475	95	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-51724

Method: 245.1
Preparation: 245.1

MS Lab Sample ID:	280-12094-F-1-G MS	Analysis Batch:	280-52409	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-51724	Lab File ID:	120208AB.txt
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	02/08/2011 1537			Final Weight/Volume:	10 mL
Date Prepared:	02/08/2011 1120				

MSD Lab Sample ID:	280-12094-F-1-H MSD	Analysis Batch:	280-52409	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-51724	Lab File ID:	120208AB.txt
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	02/08/2011 1539			Final Weight/Volume:	10 mL
Date Prepared:	02/08/2011 1120				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	99	98	80 - 120	0	10		

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-51724

Method: 245.1
Preparation: 245.1

MS Lab Sample ID:	280-12094-F-1-G MS	Units: mg/L	MSD Lab Sample ID: 280-12094-F-1-H MSD
Client Matrix:	Water		Client Matrix: Water
Dilution:	1.0		Dilution: 1.0
Date Analyzed:	02/08/2011 1537		Date Analyzed: 02/08/2011 1539
Date Prepared:	02/08/2011 1120		Date Prepared: 02/08/2011 1120

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.000027	J	0.00500	0.00500	0.00495	0.00494

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52094

Method: 1664A
Preparation: 1664A

Lab Sample ID: MB 280-52094/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analysis Batch: 280-52101
Prep Batch: 280-52094
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM	ND		1.4	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52094

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID: LCS 280-52094/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analysis Batch: 280-52101
Prep Batch: 280-52094
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

LCSD Lab Sample ID: LCSD 280-52094/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analysis Batch: 280-52101
Prep Batch: 280-52094
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
HEM	86	87	81 - 107	1	22		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52094

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID: LCS 280-52094/2-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

LCSD Lab Sample ID: LCSD 280-52094/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	40.0	40.0	34.5	34.9

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52094

Method: 1664A
Preparation: 1664A

MS Lab Sample ID: 280-12218-A-1-A MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analysis Batch: 280-52101
Prep Batch: 280-52094

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1027 mL
Final Weight/Volume: 1000 mL

MSD Lab Sample ID: 280-12218-C-1-A MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analysis Batch: 280-52101
Prep Batch: 280-52094

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1023 mL
Final Weight/Volume: 1000 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
HEM	32	32	78 - 114	0	20	F	F

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52094

Method: 1664A
Preparation: 1664A

MS Lab Sample ID: 280-12218-A-1-A MS
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

MSD Lab Sample ID: 280-12218-C-1-A MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/07/2011 1127
Date Prepared: 02/07/2011 1102

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
HEM	34	38.9	39.1	46.6	F	46.8	F

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52586

Method: 300.0A
Preparation: N/A

Lab Sample ID: MB 280-52586/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1607
Date Prepared: N/A

Analysis Batch: 280-52586
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: 138.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Bromide	ND		0.11	0.20
Chloride	ND		0.25	0.50
Sulfate	ND		0.23	5.0

Method Reporting Limit Check - Batch: 280-52586

Method: 300.0A
Preparation: N/A

Lab Sample ID: MRL 280-52586/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1520
Date Prepared: N/A

Analysis Batch: 280-52586
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: 135.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.196	98	50 - 150	J
Chloride	1.00	1.05	105	50 - 150	J
Sulfate	1.00	0.948	95	50 - 150	J

Client: Waste Management

Job Number: 280-12230-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52586

Method: 300.0A
Preparation: N/A

LCS Lab Sample ID: LCS 280-52586/27
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1536
Date Prepared: N/A

Analysis Batch: 280-52586
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: 136.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-52586/28
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1551
Date Prepared: N/A

Analysis Batch: 280-52586
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: 137.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Bromide	107	107	90 - 110	0	10		
Chloride	100	100	90 - 110	0	10		
Sulfate	98	98	90 - 110	0	10		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52586

Method: 300.0A
Preparation: N/A

LCS Lab Sample ID: LCS 280-52586/27
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1536
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-52586/28
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1551
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Bromide	5.00	5.00	5.37	5.36
Chloride	25.0	25.0	25.1	25.0
Sulfate	25.0	25.0	24.5	24.5

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52586

Method: 300.0A
Preparation: N/A

MS Lab Sample ID:	280-12270-A-1 MS	Analysis Batch:	280-52586	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch: N/A		Lab File ID:	150.TXT
Dilution:	1.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	02/08/2011 1917			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

MSD Lab Sample ID:	280-12270-A-1 MSD	Analysis Batch:	280-52586	Instrument ID:	WC_IC7
Client Matrix:	Water	Prep Batch: N/A		Lab File ID:	151.TXT
Dilution:	1.0			Initial Weight/Volume:	1.0 mL
Date Analyzed:	02/08/2011 1933			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bromide	107	109	80 - 120	1	20		
Chloride	103	104	80 - 120	1	20		
Sulfate	102	103	80 - 120	1	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52586

Method: 300.0A
Preparation: N/A

MS Lab Sample ID:	280-12270-A-1 MS	Units: mg/L		MSD Lab Sample ID:	280-12270-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	02/08/2011 1917			Date Analyzed:	02/08/2011 1933
Date Prepared:	N/A			Date Prepared:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Bromide	ND		5.00	5.00	5.37	5.43
Chloride	2.3		25.0	25.0	28.1	28.4
Sulfate	4.6	J	25.0	25.0	29.9	30.3

Client: Waste Management

Job Number: 280-12230-1

Duplicate - Batch: 280-52586

Method: 300.0A
Preparation: N/A

Lab Sample ID: 280-12270-A-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1901
Date Prepared: N/A

Analysis Batch: 280-52586
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: 149.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bromide	ND		ND	NC	15	
Chloride	2.3		2.42	6	15	
Sulfate	4.6	J	4.67	3	15	J

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52776

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 280-52776/104
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1430
Date Prepared: N/A

Analysis Batch: 280-52776
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Ammonia	0.0241	J	0.022	0.10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52776

Method: 350.1
Preparation: N/A

LCS Lab Sample ID: LCS 280-52776/105
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1432
Date Prepared: N/A

Analysis Batch: 280-52776
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-52776/106
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1433
Date Prepared: N/A

Analysis Batch: 280-52776
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RS
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ammonia	98	100	90 - 110	2	10		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52776

Method: 350.1
Preparation: N/A

LCS Lab Sample ID: LCS 280-52776/105
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1432
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-52776/106
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1433
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Ammonia	5.00	5.00	4.92	5.00

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52776

Method: 350.1
Preparation: N/A

MS Lab Sample ID: 280-12230-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1436
Date Prepared: N/A

Analysis Batch: 280-52776
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-12230-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1438
Date Prepared: N/A

Analysis Batch: 280-52776
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia	75	73	90 - 110	3	20	F	F

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52776

Method: 350.1
Preparation: N/A

MS Lab Sample ID:	280-12230-1	Units: mg/L	MSD Lab Sample ID:	280-12230-1
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	02/10/2011 1436		Date Analyzed:	02/10/2011 1438
Date Prepared:	N/A		Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Ammonia	0.30	4.00	4.00	3.29	F	3.20	F

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52777

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 280-52777/104
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1430
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Reporting Limit Check - Batch: 280-52777

Method: 353.2
Preparation: N/A

Lab Sample ID: MRL 280-52777/22
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1221
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.100	0.0966	97	50 - 150	J

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52777

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 280-52777/105
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1432
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-52777/106
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1433
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RS
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate Nitrite as N	99	102	90 - 110	3	10		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52777

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 280-52777/105
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1432
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-52777/106
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1433
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	4.97	5.12

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52777

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-12230-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1436
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-12230-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/10/2011 1438
Date Prepared: N/A

Analysis Batch: 280-52777
Prep Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0210ANXN.RST
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate Nitrite as N	110	102	72 - 113	8	17		

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52777

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	280-12230-1	Units: mg/L	MSD Lab Sample ID:	280-12230-1
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	02/10/2011 1436		Date Analyzed:	02/10/2011 1438
Date Prepared:	N/A		Date Prepared:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	0.072	J	4.00	4.00	4.49	4.14

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52113

Method: 365.1
Preparation: 365.2/365.3/365

Lab Sample ID:	MB 280-52113/3-A	Analysis Batch:	280-52293	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-52113	Lab File ID:	020811TPHOS2.xls
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1133			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1155				

Analyte	Result	Qual	MDL	RL
Phosphorus, Total	ND		0.0050	0.050

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52113

Method: 365.1
Preparation: 365.2/365.3/365

LCS Lab Sample ID:	LCS 280-52113/1-A	Analysis Batch:	280-52293	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-52113	Lab File ID:	020811TPHOS2.xls
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1133			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1155				

LCSD Lab Sample ID:	LCSD 280-52113/2-A	Analysis Batch:	280-52293	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-52113	Lab File ID:	020811TPHOS2.xls
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	50 mL
Date Analyzed:	02/08/2011 1133			Final Weight/Volume:	50 mL
Date Prepared:	02/07/2011 1155				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phosphorus, Total	108	106	90 - 110	2	10		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52113

Method: 365.1
Preparation: 365.2/365.3/365

LCS Lab Sample ID: LCS 280-52113/1-A
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1133
Date Prepared: 02/07/2011 1155

LCSD Lab Sample ID: LCSD 280-52113/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1133
Date Prepared: 02/07/2011 1155

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Phosphorus, Total	0.500	0.500	0.541	0.530

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52113

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID: 280-12125-C-1-E MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1133
Date Prepared: 02/07/2011 1155

Analysis Batch: 280-52293
Prep Batch: 280-52113

Instrument ID: WC_Konelab
Lab File ID: 020811TPHOS2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-12125-C-1-F MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1133
Date Prepared: 02/07/2011 1155

Analysis Batch: 280-52293
Prep Batch: 280-52113

Instrument ID: WC_Konelab
Lab File ID: 020811TPHOS2.xls
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phosphorus, Total	105	108	71 - 128	2	22		

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52113

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-12125-C-1-E MS	Units: mg/L	MSD Lab Sample ID: 280-12125-C-1-F MSD
Client Matrix:	Water		Client Matrix: Water
Dilution:	1.0		Dilution: 1.0
Date Analyzed:	02/08/2011 1133		Date Analyzed: 02/08/2011 1133
Date Prepared:	02/07/2011 1155		Date Prepared: 02/07/2011 1155

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Phosphorus, Total	0.049	J	0.500	0.500	0.576	0.587

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52583

Method: 410.4
Preparation: N/A

Lab Sample ID: MB 280-52583/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/09/2011 1710
Date Prepared: N/A

Analysis Batch: 280-52583
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	MDL	RL
Chemical Oxygen Demand	ND		4.1	20

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52583

Method: 410.4
Preparation: N/A

LCS Lab Sample ID: LCS 280-52583/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/09/2011 1710
Date Prepared: N/A

Analysis Batch: 280-52583
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-52583/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/09/2011 1710
Date Prepared: N/A

Analysis Batch: 280-52583
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 100 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chemical Oxygen Demand	95	98	90 - 110	4	11		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52583

Method: 410.4
Preparation: N/A

LCS Lab Sample ID: LCS 280-52583/3
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/09/2011 1710
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-52583/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/09/2011 1710
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chemical Oxygen Demand	100	100	94.8	98.2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52583

Method: 410.4
Preparation: N/A

MS Lab Sample ID: 280-12220-B-1 MS
Analysis Batch: 280-52583
Instrument ID: WC_HACH SPEC
Client Matrix: Water
Prep Batch: N/A
Lab File ID: N/A
Dilution: 1.0
Initial Weight/Volume: 2 mL
Date Analyzed: 02/09/2011 1710
Final Weight/Volume: 100 mL
Date Prepared: N/A

MSD Lab Sample ID: 280-12220-B-1 MSD
Analysis Batch: 280-52583
Instrument ID: WC_HACH SPEC
Client Matrix: Water
Prep Batch: N/A
Lab File ID: N/A
Dilution: 1.0
Initial Weight/Volume: 2 mL
Date Analyzed: 02/09/2011 1710
Final Weight/Volume: 100 mL
Date Prepared: N/A

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chemical Oxygen Demand	99	93	90 - 110	6	11		

Client: Waste Management

Job Number: 280-12230-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-52583

Method: 410.4
Preparation: N/A

MS Lab Sample ID:	280-12220-B-1 MS	Units: mg/L	MSD Lab Sample ID:	280-12220-B-1 MSD
Client Matrix:	Water		Client Matrix:	Water
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	02/09/2011 1710		Date Analyzed:	02/09/2011 1710
Date Prepared:	N/A		Date Prepared:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chemical Oxygen Demand	ND	50.0	50.0	49.4	46.7

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52136

Method: SM 2320B
Preparation: N/A

Lab Sample ID: MB 280-52136/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2018
Date Prepared: N/A

Analysis Batch: 280-52136
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: 020411.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Total Alkalinity	ND		1.1	5.0
Bicarbonate Alkalinity	ND		1.1	5.0
Carbonate Alkalinity	ND		1.1	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52136

Method: SM 2320B
Preparation: N/A

LCS Lab Sample ID: LCS 280-52136/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2001
Date Prepared: N/A

Analysis Batch: 280-52136
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: 020411.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-52136/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2010
Date Prepared: N/A

Analysis Batch: 280-52136
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: 020411.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Alkalinity	99	101	90 - 110	2	10		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52136

Method: SM 2320B
Preparation: N/A

LCS Lab Sample ID: LCS 280-52136/4
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2001
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-52136/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2010
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Alkalinity	200	200	199	202

Duplicate - Batch: 280-52136

Method: SM 2320B
Preparation: N/A

Lab Sample ID: 280-12220-A-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/04/2011 2035
Date Prepared: N/A

Analysis Batch: 280-52136
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: 020411.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Alkalinity	280	284	2	10	

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52340

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-52340/1	Analysis Batch:	280-52340	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	250 mL
Date Analyzed:	02/08/2011 1626			Final Weight/Volume:	250 mL
Date Prepared:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	ND		1.1	4.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-52340

Method: SM 2540D
Preparation: N/A

LCS Lab Sample ID:	LCS 280-52340/2	Analysis Batch:	280-52340	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	100 mL
Date Analyzed:	02/08/2011 1626			Final Weight/Volume:	250 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 280-52340/3	Analysis Batch:	280-52340	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	100 mL
Date Analyzed:	02/08/2011 1626			Final Weight/Volume:	250 mL
Date Prepared:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Suspended Solids	92	96	86 - 114	4	20		

Client: Waste Management

Job Number: 280-12230-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-52340

Method: SM 2540D
Preparation: N/A

LCS Lab Sample ID: LCS 280-52340/2
Units: mg/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1626
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-52340/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1626
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Suspended Solids	100	100	92.0	96.0

Duplicate - Batch: 280-52340

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 280-12217-B-5 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 02/08/2011 1626
Date Prepared: N/A

Analysis Batch: 280-52340
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 250 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	35	34.8	1	10	

Client: Waste Management

Job Number: 280-12230-1

Method Blank - Batch: 280-52939

Method: Total Nitrogen
Preparation: N/A

Lab Sample ID:	MB 280-52939/1	Analysis Batch:	280-52939	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	
Date Analyzed:	02/11/2011 1427			Final Weight/Volume:	1.0 mL
Date Prepared:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Total	ND		0.042	0.10

Client: Waste Management

Job Number: 280-12230-1

Laboratory Chronicle

Lab ID: **280-12230-1** **Client ID:** **SED POND**

Sample Date/Time: 02/02/2011 10:00 Received Date/Time: 02/04/2011 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	280-12230-C-1-A		280-53061	280-52357	02/08/2011 18:00	1	TAL DEN	EJP
A:625	280-12230-C-1-A		280-53061	280-52357	02/11/2011 23:02	1	TAL DEN	DCK
P:200.7	280-12230-H-1-A		280-52404	280-52034	02/07/2011 14:30	1	TAL DEN	JM
A:200.7 Rev 4.4	280-12230-H-1-A		280-52404	280-52034	02/08/2011 17:28	1	TAL DEN	HEB
P:245.1	280-12230-H-1-B		280-52409	280-51724	02/08/2011 11:20	1	TAL DEN	KS
A:245.1	280-12230-H-1-B		280-52409	280-51724	02/08/2011 15:46	1	TAL DEN	KS
P:1664A	280-12230-A-1-A		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	280-12230-A-1-A		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	280-12230-E-1		280-52586		02/08/2011 19:48	1	TAL DEN	TLP
A:300.0A	280-12230-E-1		280-52586		02/09/2011 02:55	5	TAL DEN	TLP
A:350.1	280-12230-G-1		280-52776		02/10/2011 14:35	1	TAL DEN	LES
A:353.2	280-12230-G-1		280-52777		02/10/2011 14:35	1	TAL DEN	JAD
P:365.2/365.3/365	280-12230-G-1-B		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	280-12230-G-1-B		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	280-12230-G-1		280-52583		02/09/2011 17:10	1	TAL DEN	MRD
A:SM 2320B	280-12230-E-1		280-52136		02/04/2011 22:02	1	TAL DEN	MRD
A:SM 2540D	280-12230-E-1		280-52340		02/08/2011 16:26	1	TAL DEN	PAG
A:Total Nitrogen	280-12230-A-1		280-52939		02/11/2011 14:27	1	TAL DEN	DE

Lab ID: **280-12230-1 MS** **Client ID:** **SED POND**

Sample Date/Time: 02/02/2011 10:00 Received Date/Time: 02/04/2011 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:350.1	280-12230-G-1 MS		280-52776		02/10/2011 14:36	1	TAL DEN	LES
A:353.2	280-12230-G-1 MS		280-52777		02/10/2011 14:36	1	TAL DEN	JAD

Lab ID: **280-12230-1 MSD** **Client ID:** **SED POND**

Sample Date/Time: 02/02/2011 10:00 Received Date/Time: 02/04/2011 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:350.1	280-12230-G-1 MSD		280-52776		02/10/2011 14:38	1	TAL DEN	LES
A:353.2	280-12230-G-1 MSD		280-52777		02/10/2011 14:38	1	TAL DEN	JAD

Client: Waste Management

Job Number: 280-12230-1

Laboratory Chronicle

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

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

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	MB 280-52357/1-A		280-53061	280-52357	02/08/2011 18:00	1	TAL DEN	EJP
A:625	MB 280-52357/1-A		280-53061	280-52357	02/11/2011 21:40	1	TAL DEN	DCK
P:200.7	MB 280-52034/1-A		280-52404	280-52034	02/07/2011 14:30	1	TAL DEN	JM
A:200.7 Rev 4.4	MB 280-52034/1-A		280-52404	280-52034	02/08/2011 16:10	1	TAL DEN	HEB
P:245.1	MB 280-51724/1-A		280-52409	280-51724	02/08/2011 11:20	1	TAL DEN	KS
A:245.1	MB 280-51724/1-A		280-52409	280-51724	02/08/2011 15:26	1	TAL DEN	KS
P:1664A	MB 280-52094/1-A		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	MB 280-52094/1-A		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	MB 280-52586/29		280-52586		02/08/2011 16:07	1	TAL DEN	TLP
A:350.1	MB 280-52776/104		280-52776		02/10/2011 14:30	1	TAL DEN	LES
A:353.2	MB 280-52777/104		280-52777		02/10/2011 14:30	1	TAL DEN	JAD
P:365.2/365.3/365	MB 280-52113/3-A		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	MB 280-52113/3-A		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	MB 280-52583/5		280-52583		02/09/2011 17:10	1	TAL DEN	MRD
A:SM 2320B	MB 280-52136/6		280-52136		02/04/2011 20:18	1	TAL DEN	MRD
A:SM 2540D	MB 280-52340/1		280-52340		02/08/2011 16:26	1	TAL DEN	PAG
A:Total Nitrogen	MB 280-52939/1		280-52939		02/11/2011 14:27	1	TAL DEN	DE

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

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

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCS 280-52357/2-A		280-53061	280-52357	02/08/2011 18:00	1	TAL DEN	EJP
A:625	LCS 280-52357/2-A		280-53061	280-52357	02/11/2011 14:53	1	TAL DEN	DCK
P:200.7	LCS 280-52034/2-A		280-52404	280-52034	02/07/2011 14:30	1	TAL DEN	JM
A:200.7 Rev 4.4	LCS 280-52034/2-A		280-52404	280-52034	02/08/2011 16:13	1	TAL DEN	HEB
P:245.1	LCS 280-51724/2-A		280-52409	280-51724	02/08/2011 11:20	1	TAL DEN	KS
A:245.1	LCS 280-51724/2-A		280-52409	280-51724	02/08/2011 15:28	1	TAL DEN	KS
P:1664A	LCS 280-52094/2-A		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	LCS 280-52094/2-A		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	LCS 280-52586/27		280-52586		02/08/2011 15:36	1	TAL DEN	TLP
A:350.1	LCS 280-52776/105		280-52776		02/10/2011 14:32	1	TAL DEN	LES
A:353.2	LCS 280-52777/105		280-52777		02/10/2011 14:32	1	TAL DEN	JAD
P:365.2/365.3/365	LCS 280-52113/1-A		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	LCS 280-52113/1-A		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	LCS 280-52583/3		280-52583		02/09/2011 17:10	1	TAL DEN	MRD
A:SM 2320B	LCS 280-52136/4		280-52136		02/04/2011 20:01	1	TAL DEN	MRD
A:SM 2540D	LCS 280-52340/2		280-52340		02/08/2011 16:26	1	TAL DEN	PAG

Client: Waste Management

Job Number: 280-12230-1

Laboratory Chronicle

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

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

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCSD 280-52357/3-A		280-53061	280-52357	02/08/2011 18:00	1	TAL DEN	EJP
A:625	LCSD 280-52357/3-A		280-53061	280-52357	02/11/2011 15:13	1	TAL DEN	DCK
P:1664A	LCSD 280-52094/3-A		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	LCSD 280-52094/3-A		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	LCSD 280-52586/28		280-52586		02/08/2011 15:51	1	TAL DEN	TLP
A:350.1	LCSD 280-52776/106		280-52776		02/10/2011 14:33	1	TAL DEN	LES
A:353.2	LCSD 280-52777/106		280-52777		02/10/2011 14:33	1	TAL DEN	JAD
P:365.2/365.3/365	LCSD 280-52113/2-A		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	LCSD 280-52113/2-A		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	LCSD 280-52583/4		280-52583		02/09/2011 17:10	1	TAL DEN	MRD
A:SM 2320B	LCSD 280-52136/5		280-52136		02/04/2011 20:10	1	TAL DEN	MRD
A:SM 2540D	LCSD 280-52340/3		280-52340		02/08/2011 16:26	1	TAL DEN	PAG

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

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

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0A	MRL 280-52586/26		280-52586		02/08/2011 15:20	1	TAL DEN	TLP
A:353.2	MRL 280-52777/22		280-52777		02/10/2011 12:21	1	TAL DEN	JAD

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

Sample Date/Time: 02/03/2011 11:10 Received Date/Time: 02/04/2011 10:54

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-12209-A-1-B MS		280-52404	280-52034	02/07/2011 14:30	1	TAL DEN	JM
A:200.7 Rev 4.4	280-12209-A-1-B MS		280-52404	280-52034	02/08/2011 17:18	1	TAL DEN	HEB
P:245.1	280-12094-F-1-G MS		280-52409	280-51724	02/08/2011 11:20	1	TAL DEN	KS
A:245.1	280-12094-F-1-G MS		280-52409	280-51724	02/08/2011 15:37	1	TAL DEN	KS
P:1664A	280-12218-A-1-A MS		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	280-12218-A-1-A MS		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	280-12270-A-1 MS		280-52586		02/08/2011 19:17	1	TAL DEN	TLP
P:365.2/365.3/365	280-12125-C-1-E MS		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	280-12125-C-1-E MS		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	280-12220-B-1 MS		280-52583		02/09/2011 17:10	1	TAL DEN	MRD

Client: Waste Management

Job Number: 280-12230-1

Laboratory Chronicle

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

Sample Date/Time: 02/03/2011 11:10 Received Date/Time: 02/04/2011 10:54

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-12209-A-1-C MSD		280-52404	280-52034	02/07/2011 14:30	1	TAL DEN	JM
A:200.7 Rev 4.4	280-12209-A-1-C MSD		280-52404	280-52034	02/08/2011 17:20	1	TAL DEN	HEB
P:245.1	280-12094-F-1-H MSD		280-52409	280-51724	02/08/2011 11:20	1	TAL DEN	KS
A:245.1	280-12094-F-1-H MSD		280-52409	280-51724	02/08/2011 15:39	1	TAL DEN	KS
P:1664A	280-12218-C-1-A MSD		280-52101	280-52094	02/07/2011 11:02	1	TAL DEN	PAG
A:1664A	280-12218-C-1-A MSD		280-52101	280-52094	02/07/2011 11:27	1	TAL DEN	PAG
A:300.0A	280-12270-A-1 MSD		280-52586		02/08/2011 19:33	1	TAL DEN	TLP
P:365.2/365.3/365	280-12125-C-1-F MSD		280-52293	280-52113	02/07/2011 11:55	1	TAL DEN	SJS
A:365.1	280-12125-C-1-F MSD		280-52293	280-52113	02/08/2011 11:33	1	TAL DEN	SJS
A:410.4	280-12220-B-1 MSD		280-52583		02/09/2011 17:10	1	TAL DEN	MRD

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

Sample Date/Time: 02/07/2011 10:37 Received Date/Time: 02/07/2011 13:13

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0A	280-12270-A-1 DU		280-52586		02/08/2011 19:01	1	TAL DEN	TLP
A:SM 2320B	280-12220-A-1 DU		280-52136		02/04/2011 20:35	1	TAL DEN	MRD
A:SM 2540D	280-12217-B-5 DU		280-52340		02/08/2011 16:26	1	TAL DEN	PAG

Lab References:

TAL DEN = TestAmerica Denver

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Honolulu
99-193 Aiea Heights Drive, Suite 121
Aiea, HI 96701
Tel: 808-486-5227

TestAmerica Job ID: HUB0014
TestAmerica Sample Delivery Group: HUB0014
Client Project/Site: WGSL Detention Pond
Client Project Description: WGSL Detention Pond

For:
AECOM Technical Services, Inc.
Bishop Square, American Savings Bank Tower, 1001 Bishop Street, S
Honolulu, HI 96813

Attn: Frank Cioffi

Authorized for release by:
2/14/2011 12:50 PM

Angelique Showman
Project Manager
angelique.showman@testamericainc.com

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

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Qualifier Definition/Glossary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Qualifiers

WetChem

Qualifier	Qualifier Description
K	The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore the reported result is an estimated value only.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

Job ID: HUB0014

Laboratory: TestAmerica Honolulu

Narrative

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory unless otherwise stated in the report. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. TestAmerica Analytical Testing Corporation certifies that the analytical results contained herein apply only to the specific sample(s) analyzed.

The Chain(s) of Custody are included and are an integral part of this report. This entire report was reviewed and approved for release.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(808)486-5227

LABORATORY REPORT

At sample receipt, the cooler/sample was 10 degrees C.
NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Sample Summary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
HUB0014-01	SED POND	Water - NonPotable	02/02/11 10:00	02/02/11 11:05

Detection Summary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Client Sample ID: SED POND — Lab Sample ID: HUB0014-01

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
BOD - 5 Day	4.18		2.00		mg/L	1.00		EPA 405.1	total

Analytical Data

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Client Sample ID: SED POND
Date Collected: 02/02/11 10:00
Date Received: 02/02/11 11:05

Lab Sample ID: HUB0014-01
Matrix: Water - NonPotable

Method: EPA 405.1 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BOD - 5 Day	4.18		2.00		mg/L		02/03/11 18:52	02/08/11 11:02	1.00

Method: EPA 7196 - Hexavalent Chromium by EPA Method 7196A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	ND		10.0		ug/L		02/02/11 13:48	02/02/11 13:50	1.00

Quality Control Data

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Method: EPA 405.1 - General Chemistry Parameters

Lab Sample ID: 11B0030-BLK1 — **Client Sample ID: 11B0030-BLK1**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0030 — **Prep Batch: 11B0030_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BOD - 5 Day	ND		2.00		mg/L		02/03/11 18:52	02/08/11 11:02	1.00

Lab Sample ID: 11B0030-BS1 — **Client Sample ID: 11B0030-BS1**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0030 — **Prep Batch: 11B0030_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
BOD - 5 Day	198	170		mg/L		86	85 - 115

Lab Sample ID: 11B0030-DUP1 — **Client Sample ID: HUB0033-01**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0030 — **Prep Batch: 11B0030_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
BOD - 5 Day	0.432		0.462	K	mg/L		7	20

Method: EPA 7196 - Hexavalent Chromium by EPA Method 7196A

Lab Sample ID: 11B0056-BLK1 — **Client Sample ID: 11B0056-BLK1**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0056 — **Prep Batch: 11B0056_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hexavalent	ND		10.0		ug/L		02/02/11 13:48	02/02/11 13:49	1.00

Lab Sample ID: 11B0056-BS1 — **Client Sample ID: 11B0056-BS1**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0056 — **Prep Batch: 11B0056_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chromium, Hexavalent	500	603	L	ug/L		121	80 - 120

Lab Sample ID: 11B0056-MS1 — **Client Sample ID: SED POND**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0056 — **Prep Batch: 11B0056_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Chromium, Hexavalent	ND		500	586		ug/L		117	75 - 125

Lab Sample ID: 11B0056-MSD1 — **Client Sample ID: SED POND**
Matrix: Water - NonPotable — **Prep Type: total**
Analysis Batch: 11B0056 — **Prep Batch: 11B0056_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Chromium, Hexavalent	ND		500	555		ug/L		111	75 - 125	6	20

QC Association Summary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

WetChem

Analysis Batch: 11B0030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11B0030-BLK1	11B0030-BLK1	total	Water - NonPotable	EPA 405.1	11B0030_P
11B0030-BS1	11B0030-BS1	total	Water - NonPotable	EPA 405.1	11B0030_P
11B0030-DUP1	HUB0033-01	total	Water - NonPotable	EPA 405.1	11B0030_P
HUB0014-01	SED POND	total	Water - NonPotable	EPA 405.1	11B0030_P

Prep Batch: 11B0030_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11B0030-BLK1	11B0030-BLK1	total	Water - NonPotable	Default Prep GenChem	
11B0030-BS1	11B0030-BS1	total	Water - NonPotable	Default Prep GenChem	
11B0030-DUP1	HUB0033-01	total	Water - NonPotable	Default Prep GenChem	
HUB0014-01	SED POND	total	Water - NonPotable	Default Prep GenChem	

Analysis Batch: 11B0056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11B0056-BLK1	11B0056-BLK1	total	Water - NonPotable	EPA 7196	11B0056_P
11B0056-BS1	11B0056-BS1	total	Water - NonPotable	EPA 7196	11B0056_P
11B0056-MS1	SED POND	total	Water - NonPotable	EPA 7196	11B0056_P
HUB0014-01	SED POND	total	Water - NonPotable	EPA 7196	11B0056_P
11B0056-MSD1	SED POND	total	Water - NonPotable	EPA 7196	11B0056_P

Prep Batch: 11B0056_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11B0056-BLK1	11B0056-BLK1	total	Water - NonPotable	Default Prep GenChem	
11B0056-BS1	11B0056-BS1	total	Water - NonPotable	Default Prep GenChem	
11B0056-MS1	SED POND	total	Water - NonPotable	Default Prep GenChem	
HUB0014-01	SED POND	total	Water - NonPotable	Default Prep GenChem	
11B0056-MSD1	SED POND	total	Water - NonPotable	Default Prep GenChem	

Lab Chronicle

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Client Sample ID: SED POND
Date Collected: 02/02/11 10:00
Date Received: 02/02/11 11:05

Lab Sample ID: HUB0014-01
Matrix: Water - NonPotable

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	Default Prep GenChem		1.00	11B0030_P	02/03/11 18:52	JLM	TestAmerica Honolulu
total	Analysis	EPA 405.1		1.00	11B0030	02/08/11 11:02	JLM	TestAmerica Honolulu
total	Prep	Default Prep GenChem		1.00	11B0056_P	02/02/11 13:48	JLM	TestAmerica Honolulu
total	Analysis	EPA 7196		1.00	11B0056	02/02/11 13:50	BWN	TestAmerica Honolulu

Certification Summary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Laboratory	Authority	Program	EPA Region	Certification ID	* Expiration Date
TestAmerica Honolulu		USDA		HON-S-206	01/31/12
TestAmerica Honolulu	Florida	NELAC	4	E87907	06/30/11
TestAmerica Honolulu	Hawaii	State Program	9		06/28/11
TestAmerica Honolulu	L-A-B	DoD ELAP	0	L2250	04/23/13

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.
* Any expired certifications in this list are currently pending renewal and are considered valid.

Method Summary

Client: AECOM Technical Services, Inc.
Project/Site: WGSL Detention Pond

TestAmerica Job ID: HUB0014
SDG: HUB0014

Method	Method Description	Protocol	Laboratory
EPA 405.1	General Chemistry Parameters		TAL HON
EPA 7196	Hexavalent Chromium by EPA Method 7196A		TAL HON

Protocol References:

Laboratory References:

TAL HON = TestAmerica Honolulu, 99-193 Aiea Heights Drive, Suite 121, Aiea, HI 96701, TEL 808-486-5227

Chain of Custody Record

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

HUB0014

Client: AECOM / Waste Management	Project Manager: Frank Cioffi / Justin Lottig	Date: 2/2/11	Chain of Custody Number: 137931
Address: 1001 Bishop St Suite 1600	Telephone Number (Area Code)/Fax Number: 808-523-8874	Lab Number	Page 1 of 1
City: Honolulu; State: HI; Zip Code: 96813	Site Contact: John Fong	Lab Contact	
Project Name and Location (State): WGSL Detention Pond	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	BOD (5-Day) 405.1	Hex Chromium (EPA 218.6)	Special Instructions/ Conditions of Receipt
Sed Pond	2/2/11	1000		✓			1						✓	✓	HUB0014-01

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

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

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Pete LaPlaca	Date: 2/2/11	Time: 1105	1. Received By: El Ateel	Date: 2/2/11	Time: 1105
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: 10°C intact/ret

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica

Rush TAT Confirmation (Initial/Date) _____

Sample Receipt Checklist

Client Name: AECOM **Date/ Time Received:** 2/2/11 1105

Received By: 09

Matrices: Aq **Carrier:** Client **Airbill# :**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Chain of Custody present?	Yes ☑	No ☐	☐
Chain of Custody Signed when relinquished and received?	Yes ☑	No ☐	
Chain of Custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sample containers on ice?	Yes ☑	No ☐	Type: wet
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Water - VOA Vials have Zero Headspace?	Yes ☐	No ☐	No VOA vials present: ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Checked: ☑
pH Adjusted?	Yes ☐	No ☑	Final pH:
Encores / MI-VOC / 5035 Vials Present?	Yes ☐	No ☑	Location:
Sample Filtration Needed?	Yes ☐	No ☑	Filtered in Field: ☐
Dry Weight Corrected Results?	Yes ☐	No ☑	Take Action: ☐
DODQSM / QAPP Project?	Yes ☐	No ☑	Type:

Temperature Blank Present? Yes ☑ No ☐ 2/2/11

Sample Container Temperature: 10 °C

Comments/ Sampling Handling Notes:

WMH003669

Chain of Custody Record

TAL-4124-280 (0508)

Sampler ID _____

Temperature on Receipt 3.4

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: AECOM	Project Manager: Frank Ciotti	Date: 2/2/11	Chain of Custody Number: 137932
Address: 1001 Bishop St Suite 1600	Telephone Number (Area Code)/Fax Number: 808-523-8874	Lab Number	Page 1 of 1
City: Honolulu; State: Hi; Zip Code: 96813	Site Contact: John Fong	Lab Contact: Betry Sara	
Project Name and Location (State): WGSL Sediment Pond	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): HEM (Oil & Grease)	Alpha-Terpinol	Benzoic Acid	P-Cresol	Pentachlorophenol	Phenol	Tot Metals	Ammonia	Nitrate-Nitrite as N	COD	TSS	Bromide, Chloride, Sulfate	Alkalinity (Tot. Carb.)	Total Phosphorus	Tot Nitrogen	Special Instructions/ Conditions of Receipt
Sed Pond	2/2/11	1000		✓				3	4	1					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

PRL

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

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

Turn Around Time Required: ☑ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Pete LaPlaca	Date: 2/2/11	Time: 1300	1. Received By	Date: 2/4/11	Time: 1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

WMH003670

Login Sample Receipt Check List

Client: Waste Management

Job Number: 280-12230-1

Login Number: 12230

List Source: TestAmerica Denver

Creator: Harrington, Nicholas

List Number: 2

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	