Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	Riverbend Landfill Company	ODEQ File No./Facility ID:	106959
Facility Common Name:	Riverbend Landfill	Reporting Period:	July 1, 2016 to June 30, 2017
Facility Location:	13469 SW Highway 18, McMinnville, OR	Laboratory Name:	TestAmerica Laboratories - Denver, CO / Alexin Analytical Laboratories, Inc. - Tigard OR
County:	Yamhill	ORELAP#	CO200001 / OR100013 SIC Code(s): 4953

State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP and use the sampling point name or number from your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of laboratory results sheet(s).

Benchmark Sampling: 4 times per year, every year

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH	Total Suspended Solids	Oil and Grease, Total	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
Sampling Point 1B	11/15/16	6.71	750	ND (5.0)	0.31	0.30	0.83	> 2,420
	12/09/16	6.45	460	ND (5.0)	0.081	0.071	0.26	1,414
	03/29/17	6.92	43	ND (5.0)	0.024	0.018	0.066	1,986
	04/19/17	7.52	160	ND (5.0)	0.048	0.040	0.15	1,553
Geometric Mean (Note 3)			**221**	**2.5**	**0.0733**	**0.0626**	**0.2150**	**1,802**
Sampling Point 1C	10/17/16	W	W	W	W	W	W	2,420
	11/15/16	W	W	W	W	W	W	> 2,420
	03/29/17	W	W	W	W	W	W	> 2,420
	04/19/17	W	W	W	W	W	W	ND (1.0)
Geometric Mean (Note 3)			**W**	**W**	**W**	**W**	**W**	**290**
Sampling Point 2	10/17/16	W	W	W	W	W	W	W
	11/15/16	W	W	W	W	W	W	W
	03/29/17	W	W	W	W	W	W	W
	04/19/17	W	W	W	W	W	W	W
Geometric Mean (Note 3)			**W**	**W**	**W**	**W**	**W**	**W**
Sampling Point 4	10/17/16	W	W	W	W	W	W	W
	11/15/16	W	W	W	W	W	W	W
	03/29/17	W	W	W	W	W	W	W
	04/19/17	W	W	W	W	W	W	W
Geometric Mean (Note 3)			**W**	**W**	**W**	**W**	**W**	**W**
Permit Benchmark		**5.5 - 9.0**	**100**	**10**	**0.020**	**0.040**	**0.12**	**406**

* E. coli only required for landfills and sewage treatment plants.

Fill out only those rows and columns that apply to your specific site.

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "W" in the column(s)-see permit-Schedule B.3. You are not required to report the geometric mean for pollutant(s) that have a monitoring waiver. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit or minimum quantification limit in parentheses - e.g. ND (0.001).

Note 3: The geometric mean is required in the second year of coverage. For non-detect sampling results, record following note 2 above; the spreadsheet will automatically use 1/2 the detection limit to calculate the geometric mean. You are not required to report the geometric mean for pollutant(s) that have a monitoring waiver. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

Note 4: If a sampling event is missed or a sampling parameter is not analyzed or sampled, enter "NS" in each applicable column for that row.

Note 5: If there was no discharge then state "No Discharge" in the row after the sampling date for any applicable sampling point.

Name/Title Principal Executive Officer or Authorized Delegate

(Please Print) First Name: James *Last Name:* Denson *Title:* PNW/BC Environmental Protection Manager

Telephone: (602) 757-3352 *Email:* jdenson@wm.com

40 CFR 122.22 I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sign Here: Date: 7/21/2017

Additional Sampling

		8 samples during first 3 years				4 samples during first 3 years	
		All Permittees				Auto Salvage & Scrap Recycling Facilities	Scrap Recycling Facilities
Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	Cadmium, Total	Nickel, Total	Chromium, Total		Mercury, Total	Total PCBs *
		mg/L	mg/L	mg/L		mg/L	mg/L
Sampling Point 1B	11/15/16	0.0023	0.062	0.078			
	12/09/16	0.00043	0.018	0.026			
	03/29/17	0.00016	0.0045	0.0069			
	04/19/17	0.00031	0.010	0.014			
Sampling Point 1C	10/17/16	0.00014	0.0086	0.0024			
	11/15/16	0.00011	0.0081	0.0020			
Sampling Point 2							
Sampling Point 4							
		Use method 3113B, 200.8, or other method specified in 40CFR136 for NPDES reporting			MQL	0.0024	0.002

*** PCBs should be reported as the sum of the following aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260. Do not use any value for any aloclor that is non-detect, Should all Aloclors be non-detect report the ND value for the highest non-detect value from the lab report; typically, this will be ND (0.002).**

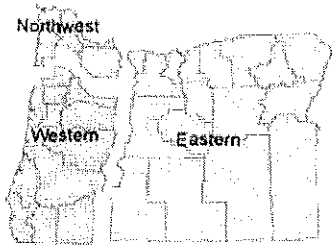
For facilities located within the following local jurisdictions, please submit one (1) copy of this report, the laboratory results sheet(s), QA/QC documentation and Chain of Custody (COC) forms to the local jurisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) to the appropriate DEQ regional office annually by July 31st:



DEQ Northwest Region Office
700 Lloyd Building at 700 NE Multnomah St., Suite #600
Portland, OR 97232
Phone: (503) 229-5263
Hours: 8 am - 5 pm

DEQ Eastern Region Office
475 NE Bellevue Drive, Suite 110
Bend, OR 97701
Phone: (541) 388-633-2033
Hours: 8 am - 5 pm

DEQ Western Region Office
165 East 7th Ave., Suite 100
Eugene, OR 97401
Phone: (541) 686-7838
Hours: 8 am - 5 pm

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	Riverbend Landfill Company	ODEQ File No./Facility ID:	106959
Facility Common Name:	Riverbend Landfill	Reporting Period:	July 1, 2015 to June 30, 2016
Facility Location:	13469 SW Highway 18, McMinnville, OR	Laboratory Name:	TestAmerica Laboratories - Denver, CO / Alexin Analytical Laboratories, Inc. - Tigard OR
County:	Yamhill	ORELAP#	CO200001 / OR100013 SIC Code(s): 4953

DEQ
State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP and use the sampling point name or number from your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of laboratory results sheet(s).

Benchmark Sampling: 4 times per year, every year

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH	Total Suspended Solids	Oil and Grease, Total	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
Sampling Point 6	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge
	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge
	03/29/17	7.21	32	ND (5.0)	ND (0.004)	ND (0.005)	0.008	56
	04/19/17	7.25	18	ND (5.0)	ND (0.004)	ND (0.005)	0.0054	40
Geometric Mean (Note 3)			**24**	**2.5**	**0.0020**	**0.0025**	**0.0066**	**47**
Geometric Mean (Note 3)								
Geometric Mean (Note 3)								
Geometric Mean (Note 3)								
Permit Benchmark		**5.5 - 9.0**	**100**	**10**	**0.020**	**0.040**	**0.12**	**406**

*** E. coli only required for landfills and sewage treatment plants.**

Fill out only those rows and columns that apply to your specific site.

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(Please Print) First Name: James *Last Name:* Denson *Title:* PNW/BC Environmental Protection Manager

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Sign Here: Date: 7/21/2017

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		8 samples during first 3 years				4 samples during first 3 years	
		All Permittees				Auto Salvage & Scrap Recycling Facilities	Scrap Recycling Facilities
Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	Cadmium, Total	Nickel, Total	Chromium, Total		Mercury, Total	Total PCBs *
		mg/L	mg/L	mg/L		mg/L	mg/L
Sampling Point 6	No Discharge	No Discharge	No Discharge	No Discharge			
	No Discharge	No Discharge	No Discharge	No Discharge			
	03/29/17	ND (0.0001)	0.0024	0.0018			
	04/19/17	ND (0.0001)	0.0028	0.0013			
		Use method 3113B, 200.8, or other method specified in 40CFR136 for NPDES reporting			MQL	0.0024	0.002

* PCBs should be reported as the sum of the following aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260. Do not use any value for any aloclor that is non-detect, Should all Aloclors be non-detect report the ND value for the highest non-detect value from the lab report; typically, this will be ND (0.002).

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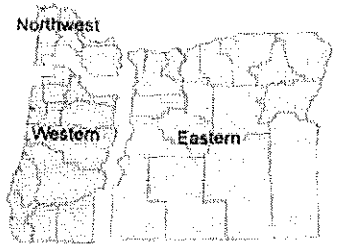

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County:	Yamhill	ORELAP#	CO200001 / OR100013 SIC Code(s): 4953

Sector Specific Benchmark Sampling: 4 times per year, every year

Please refer to the permit assignment letter to determine if sector specific benchmark sampling is required.

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	Iron, Total	Aluminum, Total	Nitrate + Nitrite Nitrogen	COD	BOD_5	Ammonia	Phosphorus, Total	Arsenic, Total	Cadmium, Total	Mercury, Total	Nickel, Total
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sampling Point 1B	11/15/16	120										
	12/09/16	54										
	03/29/17	9.6										
	04/19/17	22										
Geometric Mean		34.2										
Sampling Point 1C	10/17/16	3.2										
	11/15/16	1.8										
	03/29/17	4.1										
	04/19/17	1.7										
Geometric Mean		2.5										
Sampling Point 2	10/17/16	5.2										
	11/15/16	2.6										
	03/29/17	4.6										
	04/19/17	2.1										
Geometric Mean		3.4										
Sampling Point 4	10/17/16	1.1										
	11/15/16	1.3										
	03/29/17	2.1										
	04/19/17	0.70										
Geometric Mean		1.2										
Permit Benchmark		**1.0**	**0.75**	**0.68**	**120**	**30**	**2.14**	**2.0**	**0.0021**	**0.001**	**0.0024**	**0.5**

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

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Facility Common Name:	Riverbend Landfill	Reporting Period:	July 1, 2016 to June 30, 2017
Facility Location:	13469 SW Highway 18, McMinnville, OR	Laboratory Name:	TestAmerica Laboratories - Denver, CO / Alexin Analytical Laboratories, Inc. - Tigard OR
County:	Yamhill	ORELAP#	CO200001 / OR100013 SIC Code(s): 4953

Exceedance of Numeric Effluent Limit in Schedule A.2 of the permit - Conduct follow-up monitoring of any pollutant that exceeds the numeric effluent limit(s) within 30 days (or during the next measurable storm event should none occur within 30 days) of receiving the monitoring results. If the follow-up monitoring exceeds the numeric effluent limit, the permit registrant must monitor the discharge four times per year until compliance with the numeric effluent limit.

Sector Specific Sampling For Sites With Discharge Limits: once per year, unless exceedence occurs

Please refer to the permit assignment letter to determine if disharge limit sampling is required.

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date		TSS	Oil & Grease	pH		TSS	pH
			mg/L	mg/L	s.u.		mg/L	s.u.
		Asphalt Emulsion Facilities				Material Storage Piles at Cement Manufacturing Facilities & Coal Storage Piles at Steam Generating Plants		
Limit			23.0	15.0	6.0-9.0		50	6.0-9.0

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date		BOD_5	TSS	Ammonia	TSS	Alpha Terpineol	Benzoic Acid	p-Cresol	Phenol	Zinc, Total	pH
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	s.u.
Sampling Point 6	03/29/17	Non-Hazardous Waste Landfills	4.0	32	ND (0.1)	32	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.01)	0.008	7.21
Limit			140	88	10	50	0.033	0.12	0.025	0.026	0.20	6.0-9.0

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date		BOD_5	TSS	Ammonia	Alpha Terpineol	Aniline	Benzoic Acid	Naphthalene	p-Cresol	Phenol	Pyridine
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		Hazardous Waste Landfills										
Limit			220	88	10	0.042	0.024	0.119	0.059	0.024	0.048	0.072

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date		Aniline	Benzoic Acid	Arsenic, Total	Chromium, Total	Zinc, Total	pH
			mg/L	mg/L	mg/L	mg/L	mg/L	s.u.
		Hazardous Waste Landfills						
Limit			0.024	0.119	0.059	0.024	0.048	6.0-9.0

ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

October 17, 2016
Stormwater Discharge Sampling Event
(Sampling Points 1C, 2, and 4)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-89885-1

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Betsy Sara

Approved for release.
Betsy A Sara
Project Manager II
10/31/2016 12:12 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
10/31/2016

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-89885-1

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.

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.

Sample Receiving

The samples were received on 10/18/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.3 C.

Holding Times

The holding times were met.

Method Blanks

All Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

All MS and MSD results were within established control limits.

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratories, Inc.. Alexin is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
Alexin Analytical Laboratories, Inc.
13035 SW Pacific Hwy
Tigard, OR 97223
Telephone: 503-639-9311

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-89885-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 1C	10/17/2016 11:10	1	Cadmium	0.00014	NO	NA	mg/L	200.8
SAMPLING POINT 1C	10/17/2016 11:10	1	Chromium	0.0024	NO	NA	mg/L	200.8
SAMPLING POINT 1C	10/17/2016 11:10	1	Nickel	0.0086	NO	NA	mg/L	200.8

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result </= Benchmark

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-89885-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-89885-1	**SAMPLING POINT 1C**					
Cadmium		0.00014		0.00010	mg/L	200.8
Chromium		0.0024		0.0010	mg/L	200.8
Nickel		0.0086		0.0010	mg/L	200.8
Total Recoverable						
Iron		3.2		0.10	mg/L	200.7 Rev 4.4
280-89885-2	**SAMPLING POINT 2**					
Total Recoverable						
Iron		5.2		0.10	mg/L	200.7 Rev 4.4
280-89885-3	**SAMPLING POINT 4**					
Total Recoverable						
Iron		1.1		0.10	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-89885-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Metals (ICP/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-89885-1

Method	Analyst	Analyst ID
EPA 200.7 Rev 4.4	Rhoades, Chris R	CRR
EPA 200.8	Mooney, Joseph C	JM

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-89885-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-89885-1	SAMPLING POINT 1C	Water	10/17/2016 1110	10/18/2016 0955
280-89885-2	SAMPLING POINT 2	Water	10/17/2016 1200	10/18/2016 0955
280-89885-3	SAMPLING POINT 4	Water	10/17/2016 1140	10/18/2016 0955

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-89885-1

Client Sample ID: **SAMPLING POINT 1C**

Lab Sample ID: 280-89885-1
Client Matrix: Water

Date Sampled: 10/17/2016 1110
Date Received: 10/18/2016 0955

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-348635	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0258			Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	3.2		0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-348288	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-347910	Lab File ID:	199SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/26/2016 0311			Final Weight/Volume:	50 mL
Prep Date:	10/25/2016 0730				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.00014		0.00010
Chromium	0.0024		0.0010
Nickel	0.0086		0.0010

Client: Waste Management

Job Number: 280-89885-1

Client Sample ID: **SAMPLING POINT 2**

Lab Sample ID: 280-89885-2
Client Matrix: Water

Date Sampled: 10/17/2016 1200
Date Received: 10/18/2016 0955

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-348635	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0301			Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	5.2		0.10

Client: Waste Management

Job Number: 280-89885-1

Client Sample ID: **SAMPLING POINT 4**

Lab Sample ID: 280-89885-3
Client Matrix: Water

Date Sampled: 10/17/2016 1140
Date Received: 10/18/2016 0955

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-348635	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0303			Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.1		0.10

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-89885-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-347910					
LCS 280-347910/2-A	Lab Control Sample	T	Water	200.8	
MB 280-347910/1-A	Method Blank	T	Water	200.8	
280-89799-A-2-B MS	Matrix Spike	T	Water	200.8	
280-89799-A-2-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-89885-1	SAMPLING POINT 1C	T	Water	200.8	
Analysis Batch:280-348288					
LCS 280-347910/2-A	Lab Control Sample	T	Water	200.8	280-347910
MB 280-347910/1-A	Method Blank	T	Water	200.8	280-347910
280-89799-A-2-B MS	Matrix Spike	T	Water	200.8	280-347910
280-89799-A-2-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-347910
280-89885-1	SAMPLING POINT 1C	T	Water	200.8	280-347910
Prep Batch: 280-348340					
LCS 280-348340/2-A	Lab Control Sample	R	Water	200.7	
MB 280-348340/1-A	Method Blank	R	Water	200.7	
280-89885-1	SAMPLING POINT 1C	R	Water	200.7	
280-89885-2	SAMPLING POINT 2	R	Water	200.7	
280-89885-3	SAMPLING POINT 4	R	Water	200.7	
280-89982-C-1-B MS	Matrix Spike	R	Water	200.7	
280-89982-C-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Analysis Batch:280-348635					
LCS 280-348340/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-348340
MB 280-348340/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-348340
280-89885-1	SAMPLING POINT 1C	R	Water	200.7 Rev 4.4	280-348340
280-89885-2	SAMPLING POINT 2	R	Water	200.7 Rev 4.4	280-348340
280-89885-3	SAMPLING POINT 4	R	Water	200.7 Rev 4.4	280-348340
280-89982-C-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-348340
280-89982-C-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-348340

Report Basis
R = Total Recoverable
T = Total

Client: Waste Management

Job Number: 280-89885-1

Method Blank - Batch: 280-348340

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-348340/1-A	Analysis Batch:	280-348635	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0229	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	ND		0.10

Lab Control Sample - Batch: 280-348340

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-348340/2-A	Analysis Batch:	280-348635	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0232	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	0.953	95	89 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-348340

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-89982-C-1-B MS	Analysis Batch:	280-348635	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0239			Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				
Leach Date:	N/A				

MSD Lab Sample ID:	280-89982-C-1-C MSD	Analysis Batch:	280-348635	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-348340	Lab File ID:	25D102716.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/28/2016 0241			Final Weight/Volume:	50 mL
Prep Date:	10/27/2016 1500				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	97	99	89 - 115	1	20		

Client: Waste Management

Job Number: 280-89885-1

Method Blank - Batch: 280-347910

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-347910/1-A	Analysis Batch:	280-348288	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-347910	Lab File ID:	190_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/26/2016 0236	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	10/25/2016 0730				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Nickel	ND		0.0010

Lab Control Sample - Batch: 280-347910

Method: 200.8
Preparation: 200.8

Lab Sample ID:	LCS 280-347910/2-A	Analysis Batch:	280-348288	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-347910	Lab File ID:	191_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/26/2016 0240	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	10/25/2016 0730				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.0400	0.0416	104	89 - 111	
Chromium	0.0400	0.0406	102	86 - 115	
Nickel	0.0400	0.0409	102	86 - 115	

Client: Waste Management

Job Number: 280-89885-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-347910

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-89799-A-2-B MS	Analysis Batch:	280-348288	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-347910	Lab File ID:	194SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/26/2016 0252			Final Weight/Volume:	50 mL
Prep Date:	10/25/2016 0730				
Leach Date:	N/A				

MSD Lab Sample ID:	280-89799-A-2-C MSD	Analysis Batch:	280-348288	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-347910	Lab File ID:	195SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/26/2016 0256			Final Weight/Volume:	50 mL
Prep Date:	10/25/2016 0730				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	99	100	89 - 111	2	20		
Chromium	99	101	86 - 115	2	20		
Nickel	98	101	86 - 115	3	20		

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 10/25/2016
Received: 10/17/16
Sampled By: Jason Davendonis
Work Order: 6291021

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Stormwater
Project # : -
Permit # : -
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 10 ± 1 °C

Lab Number	Sample ID	Sample Type	
6291021-01	**Sampling Point 1C (280-89885-1)**		**Sampled: 10/17/16 11:10**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	2420	1	10/17/16 14:27

Analyzed: 10/18/16 08:30 Analyzed by: VG

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by: _____
Steve Williams
Microbiology Technical Director

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Alexin Analytical LABORATORIES, INC.

Professional Laboratory Services

Chain of Custody Record

Laboratory Job Number: 0291021

13035 SW Pacific Hwy Tigard, OR 97223 ph: 503.639.9311 fax: 503.684.1588 email:mail@alexinlabs.com

Client Contact Information	Results Reporting Information	Invoicing Information
Company/Client Name: TestAmerica Denver	Project Manager: Betsy Sara	Accounts Payable Contact:
Address: 4955 Yarrow St	Mailing Address: -SAME-	Mailing Address:
City/State/Zip: Arvada CO 80002	City/State/Zip:	City/State/Zip:
phone: (303) 736-0100	phone:	phone:
fax or email: betsy.sara@testamerica.com	fax or email:	fax or email:

SAMPLING INFORMATION

Sampling Location: Riverbend Landfill		P.O. #:	PWSID #:
Sampled By: Jason Davendonis	Project Name: Stormwater	Project #:	Permit #: 1200-Z

Send results to OR State Health Division? (Please circle) Yes (No)

Analysis Requested**

Lab ID (Lab use only)	Sample Identification (Please enter a unique ID per line for each separate sample)	Date Collected	Time Collected (Begin-End if comp.)	Sample Matrix*	# of cont. rec'd	EC Col-18 1200COLS MPN								SEE ATTACHED	Sample Specific Notes/Field Data (for each WW sample, specify Grab / Composite; for each DW sample, specify Raw / Treated, Source / Distribution, Single / Combined WHERE APPLICABLE)
01	Sampling Point 1C	10/17/16	1110	W	1	X									

Relinquished By (print):	Company:	Date/Time:	Signature:	Received By:	Company:	Date/Time:	Signature:
Jason Davendonis	SCS	10/17/16 1350					
Relinquished By (print):	Company:	Date/Time:	Signature:	Received By:	Company:	Date/Time:	Signature:

The most current revision of SOP-10-003 was used when these samples were collected ☐

Received by Laboratory Log-In Staff: 10/17/16 Date/Time: 13:49pm

Temp. on receipt: 9.8 °C On ice? (Y) N

Containers intact? (Y) N ID: TRM-10-003

* Drinking water (DW), effluent (EFF), ground water (GW), influent (INF), non-aqueous liquid (NAL), paint chips, raw water (RW), sludge, soil, solid, source water (SOURCE), spring, stormwater (SW), surface water, wastewater (WW), well water (WELL)

** Analyses for SOC, Radionuclide, Radon, and Asbestos are subcontracted out to other accredited laboratories.

COC-90-006rev0.1

Carrie Seidl

From: Sara, Betsy <Betsy.Sara@testamericainc.com>
Sent: Monday, October 24, 2016 10:35 AM
To: carrie@alexinlabs.com
Subject: Riverbend Sampling Point 1C (280-89885-1)

Hi Carrie,

The job for Riverbend Sampling Point 1C is 280-89885-1.

Sampling date: 10/17/16

I can't find the e-mail you originally sent to me☺

Thanks!

Betsy Sara
Project Manager II

TestAmerica Denver
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 303.736.0189
betsy.sara@testamericainc.com
www.testamericainc.com

Chain of Custody Record

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL 4124-280 (0508)

Client: Waste Management	Project Manager: Jason Davendonis	Date: 10/17/16	Chain of Custody Number: 129311
Address: 16947 SW Highway 18	Telephone Number (Area Code)/Fax Number: 503 639-9548	Lab Number	Page 1 of 1
City: McMinnville; State: OR; Zip Code	Site Contact: Jeff O'Leary	Lab Contact: Betsy Sara	
Project Name and Location (State): Riverbend Landfill (OR)	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: Stormwater			

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	Total Fe	Total Cd,Cr,Ni	E.coli	Special Instructions/ Conditions of Receipt
Sampling Point 1C	10/17/16	1110		X					1				X	X	X	E.coli subbed to Alexin
Sampling Point 2	10/17/16	1200		X					1				X			
Sampling Point 4	10/17/16	1140		X					1				X			

280-89885 Chain of Custody

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) 1.3 IR HS C O Transfer RP 10 18-16

	Date	Time		Date	Time
1. Relinquished By: Jason Davendonis	10/17/16	1450	1. Received By: Recd RP	10-18-16	0955
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

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

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-89885-1

Login Number: 89885
List Number: 1
Creator: Pottruff, Reed W

List Source: TestAmerica Denver

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

November 15, 2016
Stormwater Discharge Sampling Event
(Sampling Points 1B, 1C, 2, and 4)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-91088-1

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Approved for release.
Betsy A Sara
Project Manager II
12/13/2016 9:21 AM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
12/13/2016
Revision: 1

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-91088-1

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

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

Sample Receiving

The samples were received on 11/16/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.5 C.

Holding Times

The holding times were met.

Method Blanks

All Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

The method required MS/MSD could not be performed for Method 1664A due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

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

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratory. Alexin Analytical Laboratory is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
12232 S.W. Garden Place
Tigard, OR 97223
Phone: 503.718.2323

Report Revision

This submission was revised to remove Total Copper, Total Lead and Total Zinc for the sample SAMPLING POINT 1C per the client's request.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-91088-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 1B	11/15/2016 12:00	1	O&G	ND	NO	10	mg/L	1664A
SAMPLING POINT 1B	11/15/2016 12:00	1	Cadmium	0.0023	NO	NA	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	Chromium	0.078	NO	NA	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	Copper	0.31	**BENCH**	0.020	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	Lead	0.30	**BENCH**	0.040	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	Nickel	0.062	NO	NA	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	Zinc	0.83	**BENCH**	0.12	mg/L	200.8
SAMPLING POINT 1B	11/15/2016 12:00	1	TSS	750	**BENCH**	100	mg/L	SM 2540D

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result <= Benchmark

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-91088-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 1C	11/15/2016 12:15	2	Cadmium	0.00011	NO	NA	mg/L	200.8
SAMPLING POINT 1C	11/15/2016 12:15	2	Chromium	0.0020	NO	NA	mg/L	200.8
SAMPLING POINT 1C	11/15/2016 12:15	2	Nickel	0.0081	NO	NA	mg/L	200.8

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result </= Benchmark

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-91088-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-91088-1	**SAMPLING POINT 1B**					
Cadmium		0.0023		0.00010	mg/L	200.8
Chromium		0.078		0.0010	mg/L	200.8
Copper		0.31		0.0040	mg/L	200.8
Lead		0.30		0.0050	mg/L	200.8
Nickel		0.062		0.0010	mg/L	200.8
Zinc		0.83		0.0050	mg/L	200.8
Total Suspended Solids		750		14	mg/L	SM 2540D
Total Recoverable						
Iron		120		0.10	mg/L	200.7 Rev 4.4
280-91088-2	**SAMPLING POINT 1C**					
Cadmium		0.00011		0.00010	mg/L	200.8
Chromium		0.0020		0.0010	mg/L	200.8
Nickel		0.0081		0.0010	mg/L	200.8
Total Recoverable						
Iron		1.8		0.10	mg/L	200.7 Rev 4.4
280-91088-3	**SAMPLING POINT 2**					
Total Recoverable						
Iron		2.6		0.10	mg/L	200.7 Rev 4.4
280-91088-4	**SAMPLING POINT 4**					
Total Recoverable						
Iron		1.3		0.10	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-91088-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Metals (ICP/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-91088-1

Method	Analyst	Analyst ID
EPA 200.7 Rev 4.4	Lackey, Cara M	CML
EPA 200.8	Mooney, Joseph C	JM
1664A 1664A	Duplin, Alysha 1	A1D
SM SM 2540D	Cherry, Scott V	SVC

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-91088-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-91088-1	SAMPLING POINT 1B	Water	11/15/2016 1200	11/16/2016 1000
280-91088-2	SAMPLING POINT 1C	Water	11/15/2016 1215	11/16/2016 1000
280-91088-3	SAMPLING POINT 2	Water	11/15/2016 1120	11/16/2016 1000
280-91088-4	SAMPLING POINT 4	Water	11/15/2016 0950	11/16/2016 1000

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-91088-1

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-91088-1
Client Matrix: Water

Date Sampled: 11/15/2016 1200
Date Received: 11/16/2016 1000

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-352993	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/23/2016 2358			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				

Analyte	Result (mg/L)	Qualifier	RL
Iron	120		0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-352414	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-352028	Lab File ID:	092SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2111			Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.0023		0.00010
Chromium	0.078		0.0010
Copper	0.31		0.0040
Lead	0.30		0.0050
Nickel	0.062		0.0010
Zinc	0.83		0.0050

Client: Waste Management

Job Number: 280-91088-1

Client Sample ID: **SAMPLING POINT 1C**

Lab Sample ID: 280-91088-2
Client Matrix: Water

Date Sampled: 11/15/2016 1215
Date Received: 11/16/2016 1000

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-352993	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/24/2016 0000			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.8		0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-352414	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-352028	Lab File ID:	093SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2115			Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.00011		0.00010
Chromium	0.0020		0.0010
Nickel	0.0081		0.0010

Client: Waste Management

Job Number: 280-91088-1

Client Sample ID: **SAMPLING POINT 2**

Lab Sample ID: 280-91088-3
Client Matrix: Water

Date Sampled: 11/15/2016 1120
Date Received: 11/16/2016 1000

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-352993	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/24/2016 0003			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.6		0.10

Client: Waste Management

Job Number: 280-91088-1

Client Sample ID: **SAMPLING POINT 4**

Lab Sample ID: 280-91088-4
Client Matrix: Water

Date Sampled: 11/15/2016 0950
Date Received: 11/16/2016 1000

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-352993	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	11/24/2016 0005			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.3		0.10

General Chemistry

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-91088-1

Client Matrix: Water

Date Sampled: 11/15/2016 1200

Date Received: 11/16/2016 1000

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-354289	Analysis Date: 12/05/2016 1412					
Prep Batch: 280-354251	Prep Date: 12/05/2016 0955					
Total Suspended Solids	750		mg/L	14	1.0	SM 2540D
Analysis Batch: 280-352718	Analysis Date: 11/22/2016 1639					

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-91088-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-352028					
LCS 280-352028/2-A	Lab Control Sample	T	Water	200.8	
MB 280-352028/1-A	Method Blank	T	Water	200.8	
280-91054-A-1-B MS	Matrix Spike	T	Water	200.8	
280-91054-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-91088-1	SAMPLING POINT 1B	T	Water	200.8	
280-91088-2	SAMPLING POINT 1C	T	Water	200.8	
Analysis Batch:280-352414					
LCS 280-352028/2-A	Lab Control Sample	T	Water	200.8	280-352028
MB 280-352028/1-A	Method Blank	T	Water	200.8	280-352028
280-91054-A-1-B MS	Matrix Spike	T	Water	200.8	280-352028
280-91054-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-352028
280-91088-1	SAMPLING POINT 1B	T	Water	200.8	280-352028
280-91088-2	SAMPLING POINT 1C	T	Water	200.8	280-352028
Prep Batch: 280-352735					
LCS 280-352735/2-A	Lab Control Sample	R	Water	200.7	
MB 280-352735/1-A	Method Blank	R	Water	200.7	
280-91022-E-2-B MS	Matrix Spike	R	Water	200.7	
280-91022-E-2-C MSD	Matrix Spike Duplicate	R	Water	200.7	
280-91088-1	SAMPLING POINT 1B	R	Water	200.7	
280-91088-2	SAMPLING POINT 1C	R	Water	200.7	
280-91088-3	SAMPLING POINT 2	R	Water	200.7	
280-91088-4	SAMPLING POINT 4	R	Water	200.7	
Analysis Batch:280-352993					
LCS 280-352735/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-352735
MB 280-352735/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-352735
280-91022-E-2-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-352735
280-91022-E-2-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-352735
280-91088-1	SAMPLING POINT 1B	R	Water	200.7 Rev 4.4	280-352735
280-91088-2	SAMPLING POINT 1C	R	Water	200.7 Rev 4.4	280-352735
280-91088-3	SAMPLING POINT 2	R	Water	200.7 Rev 4.4	280-352735
280-91088-4	SAMPLING POINT 4	R	Water	200.7 Rev 4.4	280-352735

Report Basis
R = Total Recoverable
T = Total

Client: Waste Management

Job Number: 280-91088-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-352718					
LCS 280-352718/1	Lab Control Sample	T	Water	SM 2540D	
MB 280-352718/2	Method Blank	T	Water	SM 2540D	
280-91074-A-2 DU	Duplicate	T	Water	SM 2540D	
280-91088-1	SAMPLING POINT 1B	T	Water	SM 2540D	
Prep Batch: 280-354251					
LCS 280-354251/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-354251/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-354251/3-A	Method Blank	T	Water	1664A	
280-91088-1	SAMPLING POINT 1B	T	Water	1664A	
Analysis Batch:280-354289					
LCS 280-354251/1-A	Lab Control Sample	T	Water	1664A	280-354251
LCSD 280-354251/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-354251
MB 280-354251/3-A	Method Blank	T	Water	1664A	280-354251
280-91088-1	SAMPLING POINT 1B	T	Water	1664A	280-354251

Report Basis
T = Total

Client: Waste Management

Job Number: 280-91088-1

Method Blank - Batch: 280-352735

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-352735/1-A	Analysis Batch:	280-352993	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/23/2016 2322	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	ND		0.10

Lab Control Sample - Batch: 280-352735

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-352735/2-A	Analysis Batch:	280-352993	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/23/2016 2325	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.03	103	89 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-352735

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-91022-E-2-B MS	Analysis Batch:	280-352993	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/23/2016 2343			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				
Leach Date:	N/A				

MSD Lab Sample ID:	280-91022-E-2-C MSD	Analysis Batch:	280-352993	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-352735	Lab File ID:	25E112316.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/23/2016 2345			Final Weight/Volume:	50 mL
Prep Date:	11/23/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	92	99	89 - 115	2	20		

Client: Waste Management

Job Number: 280-91088-1

Method Blank - Batch: 280-352028

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-352028/1-A	Analysis Batch:	280-352414	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-352028	Lab File ID:	078_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2017	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	ND		0.0010
Zinc	ND		0.0050

Lab Control Sample - Batch: 280-352028

Method: 200.8
Preparation: 200.8

Lab Sample ID:	LCS 280-352028/2-A	Analysis Batch:	280-352414	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-352028	Lab File ID:	079_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2021	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.0400	0.0430	108	89 - 111	
Chromium	0.0400	0.0413	103	86 - 115	
Copper	0.0400	0.0407	102	90 - 115	
Lead	0.0400	0.0412	103	88 - 115	
Nickel	0.0400	0.0405	101	86 - 115	
Zinc	0.0400	0.0418	105	88 - 115	

Client: Waste Management

Job Number: 280-91088-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-352028

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-91054-A-1-B MS	Analysis Batch:	280-352414	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-352028	Lab File ID:	081SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2029			Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				
Leach Date:	N/A				

MSD Lab Sample ID:	280-91054-A-1-C MSD	Analysis Batch:	280-352414	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-352028	Lab File ID:	082SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/18/2016 2033			Final Weight/Volume:	50 mL
Prep Date:	11/18/2016 1510				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	105	108	89 - 111	4	20		
Chromium	103	101	86 - 115	2	20		
Copper	107	109	90 - 115	1	20		
Lead	104	106	88 - 115	2	20		
Nickel	101	106	86 - 115	4	20		
Zinc	103	94	88 - 115	3	20		

Client: Waste Management

Job Number: 280-91088-1

Method Blank - Batch: 280-354251

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-354251/3-A	Analysis Batch:	280-354289	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-354251	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/05/2016 1412	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/05/2016 0955				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-354251

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-354251/1-A	Analysis Batch:	280-354289	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-354251	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/05/2016 1412	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/05/2016 0955				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-354251/2-A	Analysis Batch:	280-354289	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-354251	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/05/2016 1412	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/05/2016 0955				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	98	93	78 - 114	4	18		

Client: Waste Management

Job Number: 280-91088-1

Method Blank - Batch: 280-352718

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-352718/2	Analysis Batch:	280-352718	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/22/2016 1639	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Suspended Solids	ND		4.0

Lab Control Sample - Batch: 280-352718

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 280-352718/1	Analysis Batch:	280-352718	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/22/2016 1639	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	100	93.6	94	86 - 114	

Duplicate - Batch: 280-352718

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	280-91074-A-2 DU	Analysis Batch:	280-352718	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/22/2016 1639	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	35	33.6	5	10	

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 11/21/2016
Received: 11/15/16
Sampled By: B McMullen
Work Order: 6320019

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Riverbend STW
Project # : -
Permit # : -
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 5 ± 1 °C

Lab Number	Sample ID	Sample Type	
6320019-01	**Sampling Point 1B (280-91088-1)**		**Sampled: 11/15/16 12:00**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	>2,420	1	11/15/16 14:11

Analyzed: 11/16/16 11:00 Analyzed by: VG

6320019-02 Sampling Point 1C (280-91088-2) **Sampled: 11/15/16 12:15**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	>2,420	1	11/15/16 14:11

Analyzed: 11/16/16 11:00 Analyzed by: VG

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by: _____
Steve Williams
Microbiology Technical Director

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Mail

From: Sara, Betsy <Betsy.Sara@testamericainc.com>
Sent: Thursday, November 17, 2016 12:58 PM
To: Mail
Subject: RE: Samples (Riverbend STW 280-91088)
Attachments: 20161116124241.pdf

Howdy!

This is our job 280-91088-1.

Thanks!

Betsy Sara
betsy.sara@testamericainc.com
303-736-0189

From: Mail [mailto:mail@alexinlabs.com]
Sent: Wednesday, November 16, 2016 12:37 PM
To: Sara, Betsy
Subject: Samples

Good morning!

Here are two samples that need numbers.

Thank you!

Carrie Seidl

Alexin Analytical Laboratories, Inc.
(503) 639-9311
www.alexinlabs.com

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Chain of Custody Record

Laboratory Job Number: 0320019

Page 1 of 1

13035 SW Pacific Hwy Tigard, OR 97223 ph: 503.639.9311 fax: 503.684.1588 email:mail@alexinlabs.com

Client Contact Information	Results Reporting Information	Invoicing Information
Company/Client Name: TestAmerica Denver	Project Manager: Betsy Sara	Accounts Payable Contact:
Address: 4955 Yarrow St	Mailing Address: -SAME-	Mailing Address:
City/State/Zip: Arvada CO 80002	City/State/Zip:	City/State/Zip:
phone: (303) 736-0100	phone:	phone:
fax or email: betsy.sara@testamerica.com	fax or email:	fax or email:

SAMPLING INFORMATION

Sampling Location: Riverbend Landfill P.O. #: PWSID #:

Sampled By: R McMullen Project Name: Riverbend STW Project #: Permit #:

Send results to OR State Health Division? (Please circle) Yes No

Analysis Requested**

Lab ID (Lab use only)	Sample Identification (Please enter a unique ID per line for each separate sample)	Date Collected	Time Collected (Begin-End if comp.)	Sample Matrix*	# of cont. rec'd	e. coli 1200COLS MPN								SEE ATTACHED	Sample Specific Notes/Field Data (for each WW sample, specify Grab / Composite; for each DW sample, specify Raw / Treated, Source / Distribution, Single / Combined WHERE APPLICABLE)
-01	Sampling Point 1B	11/15/16	1200	W	1	x									
-02	Sampling Point 1C	11/15/16	1215	W	1	x									

Relinquished By (print)	Company	Date/Time	Signature	Received By	Company	Date/Time	Signature
T Andrews	SCS	11/15/16 @1335		AA		11/15/16 1335	
Relinquished By (print)	Company	Date/Time	Signature	Received By	Company	Date/Time	Signature

The most current revision of SOP-10-003 was used when these samples were collected ☐

Received by Laboratory Log-In Staff: AS 11/15/16 1339 Date/Time: Temp. on receipt: 3.4 °C Containers Intact? (Y) N On ice? (Y) N ID: TRM-10-003

* Drinking water (DW), effluent (EFF), ground water (GW), influent (INF), non-aqueous liquid (NAL), paint chips, raw water (RW), sludge, soil, solid, source water (SOURCE), spring, stormwater (SW), surface water, wastewater (WW), well water (WELL)

** Analyses for SOC, Radionuclide, Radon, and Asbestos are subcontracted out to other accredited laboratories.

COC-90-006rev0.1

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Bmcmullen	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-20112-9168.1
Client Contact: Mr. Jeff O'Leary	Phone: 503 716 2740	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: Waste Management				Job #:
Address: 13469 SW Highway 18	Due Date Requested:			
City: McMinnville	TAT Requested (days):			
State, Zip: OR, 97128				
Phone: 503-8575870(Tel)	PO #: Purchase Order not required			
Email: joleary@wm.com	WO #:			
Project Name: 1003|Riverbend Landfill STW Event Desc: Quarterly NPDES Stormwater	Project #: 28003391			
Site: Oregon	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wastewater, Solid, Oil, Waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	Total Metals	TSS	O&G	E. Coli	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	D	N	S		X	
Sampling Point 1B	11/15/16	1200	G	W	X			X	X	X		4	E. Coli Subbed
Sampling Point 1C	11/15/16	1215	G	W	X			X				1	to local lab
Sampling point 2	11/15/16	1120	G	W	X			X				1	due to short hold
Sampling Point 4	11/15/16	0950	G	W	X			X				1	times.
													Sampling Point 1B
													field PH: 6.71

280-91088 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: BMcMullen	Date/Time: 11/15/16 @ 1630	Company: SCS	Received by: [illegible]	Date/Time: 11/16/16 1000	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.5 IR#5		

12/13/2016

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-91088-1

Login Number: 91088
List Number: 1
Creator: Arasate, Erin A

List Source: TestAmerica Denver

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

December 9, 2016
Stormwater Discharge Sampling Event
(Sampling Point 1B)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-92144-1

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Approved for release.
Betsy A Sara
Project Manager II
12/29/2016 5:20 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
12/29/2016

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-92144-1

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 12/13/2016; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.4 C.

Holding Times

The holding times were met.

Method Blanks

All Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron Method 200.7 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The method required MS/MSD could not be performed for Method 1664A due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

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

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratory. Alexin Analytical Laboratory is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
12232 S.W. Garden Place
Tigard, OR 97223
Phone: 503.718.2323

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-92144-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 1B	12/09/2016 13:30	1	O&G	ND	NO	10	mg/L	1664A
SAMPLING POINT 1B	12/09/2016 13:30	1	Cadmium	0.00043	NO	NA	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	Chromium	0.026	NO	NA	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	Copper	0.081	**BENCH**	0.020	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	Lead	0.071	**BENCH**	0.040	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	Nickel	0.018	NO	NA	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	Zinc	0.26	**BENCH**	0.12	mg/L	200.8
SAMPLING POINT 1B	12/09/2016 13:30	1	TSS	460	**BENCH**	100	mg/L	SM 2540D

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result </= Benchmark

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-92144-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-92144-1	**SAMPLING POINT 1B**					
Cadmium		0.00043		0.00010	mg/L	200.8
Chromium		0.026		0.0010	mg/L	200.8
Copper		0.081		0.0040	mg/L	200.8
Lead		0.071		0.0050	mg/L	200.8
Nickel		0.018		0.0010	mg/L	200.8
Zinc		0.26		0.0050	mg/L	200.8
Total Suspended Solids		460		5.5	mg/L	SM 2540D
Total Recoverable						
Iron		54		0.10	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-92144-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Metals (ICP/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-92144-1

Method	Analyst	Analyst ID
EPA 200.7 Rev 4.4	Scott, Samantha J	SJS
EPA 200.8	Mooney, Joseph C	JM
1664A 1664A	Duplin, Alysha 1	A1D
SM SM 2540D	Cherry, Scott V	SVC

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-92144-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-92144-1	SAMPLING POINT 1B	Water	12/09/2016 1330	12/13/2016 0905

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-92144-1

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-92144-1
Client Matrix: Water

Date Sampled: 12/09/2016 1330
Date Received: 12/13/2016 0905

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-357235	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-356553	Lab File ID:	25B122816.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/28/2016 1541			Final Weight/Volume:	50 mL
Prep Date:	12/27/2016 1400				

Analyte	Result (mg/L)	Qualifier	RL
Iron	54		0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-355940	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-355732	Lab File ID:	130SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/16/2016 0216			Final Weight/Volume:	50 mL
Prep Date:	12/15/2016 1531				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.00043		0.00010
Chromium	0.026		0.0010
Copper	0.081		0.0040
Lead	0.071		0.0050
Nickel	0.018		0.0010
Zinc	0.26		0.0050

General Chemistry

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-92144-1
Client Matrix: Water

Date Sampled: 12/09/2016 1330
Date Received: 12/13/2016 0905

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-356352	Analysis Date: 12/20/2016 1640					
Prep Batch: 280-356304	Prep Date: 12/20/2016 1108					
Total Suspended Solids	460		mg/L	5.5	1.0	SM 2540D
Analysis Batch: 280-355707	Analysis Date: 12/14/2016 1805					

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-92144-1

Lab Section	Qualifier	Description
Metals		
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-92144-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-355732					
LCS 280-355732/2-A	Lab Control Sample	T	Water	200.8	
MB 280-355732/1-A	Method Blank	T	Water	200.8	
280-92118-E-2-B MS	Matrix Spike	T	Water	200.8	
280-92118-E-2-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-92144-1	SAMPLING POINT 1B	T	Water	200.8	
Analysis Batch:280-355940					
LCS 280-355732/2-A	Lab Control Sample	T	Water	200.8	280-355732
MB 280-355732/1-A	Method Blank	T	Water	200.8	280-355732
280-92118-E-2-B MS	Matrix Spike	T	Water	200.8	280-355732
280-92118-E-2-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-355732
280-92144-1	SAMPLING POINT 1B	T	Water	200.8	280-355732
Prep Batch: 280-356553					
LCS 280-356553/2-A	Lab Control Sample	R	Water	200.7	
MB 280-356553/1-A	Method Blank	R	Water	200.7	
280-92144-1	SAMPLING POINT 1B	R	Water	200.7	
280-92349-D-1-B MS	Matrix Spike	R	Water	200.7	
280-92349-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Analysis Batch:280-357235					
LCS 280-356553/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-356553
MB 280-356553/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-356553
280-92144-1	SAMPLING POINT 1B	R	Water	200.7 Rev 4.4	280-356553
280-92349-D-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-356553
280-92349-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-356553

Report Basis
R = Total Recoverable
T = Total

Client: Waste Management

Job Number: 280-92144-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-355707					
LCS 280-355707/1	Lab Control Sample	T	Water	SM 2540D	
MB 280-355707/2	Method Blank	T	Water	SM 2540D	
280-92065-E-1 DU	Duplicate	T	Water	SM 2540D	
280-92144-1	SAMPLING POINT 1B	T	Water	SM 2540D	
Prep Batch: 280-356304					
LCS 280-356304/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-356304/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-356304/3-A	Method Blank	T	Water	1664A	
280-92144-1	SAMPLING POINT 1B	T	Water	1664A	
Analysis Batch:280-356352					
LCS 280-356304/1-A	Lab Control Sample	T	Water	1664A	280-356304
LCSD 280-356304/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-356304
MB 280-356304/3-A	Method Blank	T	Water	1664A	280-356304
280-92144-1	SAMPLING POINT 1B	T	Water	1664A	280-356304

Report Basis
T = Total

Client: Waste Management

Job Number: 280-92144-1

Method Blank - Batch: 280-356553

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-356553/1-A	Analysis Batch:	280-357235	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-356553	Lab File ID:	25B122816.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/28/2016 1533	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/27/2016 1400				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	ND		0.10

Lab Control Sample - Batch: 280-356553

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-356553/2-A	Analysis Batch:	280-357235	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-356553	Lab File ID:	25B122816.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/28/2016 1536	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/27/2016 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.02	102	89 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-356553

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-92349-D-1-B MS	Analysis Batch:	280-357235	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-356553	Lab File ID:	25B122816.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/28/2016 1548			Final Weight/Volume:	50 mL
Prep Date:	12/27/2016 1400				
Leach Date:	N/A				

MSD Lab Sample ID:	280-92349-D-1-C MSD	Analysis Batch:	280-357235	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-356553	Lab File ID:	25B122816.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/28/2016 1550			Final Weight/Volume:	50 mL
Prep Date:	12/27/2016 1400				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	134	122	70 - 130	2	20	4	4

Client: Waste Management

Job Number: 280-92144-1

Method Blank - Batch: 280-355732

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-355732/1-A	Analysis Batch:	280-355940	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-355732	Lab File ID:	124_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/16/2016 0153	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/15/2016 1531				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	ND		0.0010
Zinc	ND		0.0050

Lab Control Sample - Batch: 280-355732

Method: 200.8
Preparation: 200.8

Lab Sample ID:	LCS 280-355732/2-A	Analysis Batch:	280-355940	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-355732	Lab File ID:	125_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/16/2016 0157	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/15/2016 1531				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.0400	0.0366	91	89 - 111	
Chromium	0.0400	0.0369	92	86 - 115	
Copper	0.0400	0.0371	93	90 - 115	
Lead	0.0400	0.0386	96	88 - 115	
Nickel	0.0400	0.0381	95	86 - 115	
Zinc	0.0400	0.0398	99	88 - 115	

Client: Waste Management

Job Number: 280-92144-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-355732

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-92118-E-2-B MS	Analysis Batch:	280-355940	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-355732	Lab File ID:	128SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/16/2016 0209			Final Weight/Volume:	50 mL
Prep Date:	12/15/2016 1531				
Leach Date:	N/A				

MSD Lab Sample ID:	280-92118-E-2-C MSD	Analysis Batch:	280-355940	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-355732	Lab File ID:	129SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/16/2016 0212			Final Weight/Volume:	50 mL
Prep Date:	12/15/2016 1531				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	94	94	89 - 111	0	20		
Chromium	93	93	86 - 115	0	20		
Copper	92	90	90 - 115	2	20		
Lead	98	97	88 - 115	1	20		
Nickel	92	93	86 - 115	1	20		
Zinc	94	102	88 - 115	3	20		

Client: Waste Management

Job Number: 280-92144-1

Method Blank - Batch: 280-356304

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-356304/3-A	Analysis Batch:	280-356352	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-356304	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/20/2016 1640	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/20/2016 1108				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-356304

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-356304/1-A	Analysis Batch:	280-356352	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-356304	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/20/2016 1640	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/20/2016 1108				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-356304/2-A	Analysis Batch:	280-356352	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-356304	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/20/2016 1640	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/20/2016 1108				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	95	98	78 - 114	3	18		

Client: Waste Management

Job Number: 280-92144-1

Method Blank - Batch: 280-355707

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-355707/2	Analysis Batch:	280-355707	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/14/2016 1805	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Suspended Solids	ND		4.0

Lab Control Sample - Batch: 280-355707

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 280-355707/1	Analysis Batch:	280-355707	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/14/2016 1805	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	100	94.8	95	86 - 114	

Duplicate - Batch: 280-355707

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	280-92065-E-1 DU	Analysis Batch:	280-355707	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/14/2016 1805	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	4.4	4.00	10	10	

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 12/16/2016
Received: 12/09/16
Sampled By: Jason Davendonis
Work Order: 6344018

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Stormwater
Project # : 04212024.16
Permit # : 1200-Z
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 6 ± 1 °C

Lab Number	Sample ID	Sample Type	
6344018-01	**Sampling Point 1B (280-92144-1)**		**Sampled: 12/9/16 13:30**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	1414	1	12/09/16 15:00

Analyzed: 12/10/16 10:36 Analyzed by: SW

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by: _____
Steve Williams
Microbiology Technical Director

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: JASON DAVENDONIS	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-20116-9170.1
Client Contact: Mr Jeff O'Leary	Phone: 503 639-9548	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: Waste Management				Job #:
Address: 13469 SW Highway 18	Due Date Requested:			
City: McMinnville	TAT Requested (days):			
State, Zip: OR, 97128				
Phone: 503-8575870(Tel)	PO #: Purchase Order not required			
Email: joleary@wm.com	WO #:			
Project Name: 1003jRiverbend Landfill STW	Project #: 28003391			
Site: Oregon	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	Total Metals (Cu, Pb, Zn, Fe, Cd, Cr, Ni)	Ammonia	~~SO4~~	TSS	BOD	CBC	E. coli (Alexa)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	D	S	N	N	N			X	
SAMPLING POINT 1B	12/9/16	1330	G	W				X			X		X	X		Field pH = 6.45

280-92144 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Davendonis	12/12/16 1430	SCS	Rand Rich	12-13-16 705	TAD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.6 IR# 5-0.2 Transfer RP 12-13-16

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-92144-1

Login Number: 92144
List Number: 1
Creator: Pottruff, Reed W

List Source: TestAmerica Denver

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

March 29, 2017
Stormwater Discharge Sampling Event
(Sampling Points 1B, 1C, 2, and 4)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-95318-1

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Approved for release.
Betsy A Sara
Project Manager II
4/11/2017 4:32 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
04/11/2017

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-95318-1

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

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

Sample Receiving

The samples were received on 03/30/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.9 C.

Holding Times

The holding times were met.

Method Blanks

Total Iron Method 200.7 was detected in the Method Blank above the project established reporting limit. Because the associated samples had levels of Total Iron greater than ten times that of the Method Blank value, corrective action was deemed unnecessary.

All other Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron Method 200.7 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The method required MS/MSD could not be performed for Method 1664A due to insufficient sample volume, however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

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

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratory. Alexin Analytical Laboratory is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
12232 S.W. Garden Place
Tigard, OR 97223
Phone: 503.718.2323

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-95318-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-95318-2	**SAMPLING POINT 1B**					
Cadmium		0.00016		0.00010	mg/L	200.8
Chromium		0.0069		0.0010	mg/L	200.8
Copper		0.024		0.0040	mg/L	200.8
Lead		0.018		0.0050	mg/L	200.8
Nickel		0.0045		0.0010	mg/L	200.8
Zinc		0.066		0.0050	mg/L	200.8
Total Suspended Solids		43		4.0	mg/L	SM 2540D
Total Recoverable						
Iron		9.6	B	0.10	mg/L	200.7 Rev 4.4
280-95318-3	**SAMPLING POINT 1C**					
Total Recoverable						
Iron		4.1		0.10	mg/L	200.7 Rev 4.4
280-95318-4	**SAMPLING POINT 2**					
Total Recoverable						
Iron		4.6		0.10	mg/L	200.7 Rev 4.4
280-95318-5	**SAMPLING POINT 4**					
Total Recoverable						
Iron		2.1		0.10	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-95318-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Metals (ICP/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-95318-1

Method	Analyst	Analyst ID
EPA 200.7 Rev 4.4	Lackey, Cara M	CML
EPA 200.7 Rev 4.4	Scott, Samantha J	SJS
EPA 200.8	Mooney, Joseph C	JM
1664A 1664A	Duplin, Alysha 1	A1D
SM SM 2540D	Cherry, Scott V	SVC

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-95318-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-95318-2	SAMPLING POINT 1B	Water	03/29/2017 0940	03/30/2017 0850
280-95318-3	SAMPLING POINT 1C	Water	03/29/2017 1000	03/30/2017 0850
280-95318-4	SAMPLING POINT 2	Water	03/29/2017 1140	03/30/2017 0850
280-95318-5	SAMPLING POINT 4	Water	03/29/2017 1120	03/30/2017 0850

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-95318-1

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-95318-2
Client Matrix: Water

Date Sampled: 03/29/2017 0940
Date Received: 03/30/2017 0850

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-368444	Instrument ID:	MT_051
Prep Method:	200.7	Prep Batch:	280-367827	Lab File ID:	51a040617c.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/07/2017 0124			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	9.6	B	0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-367796	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-367512	Lab File ID:	220SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0628			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.00016		0.00010
Chromium	0.0069		0.0010
Copper	0.024		0.0040
Lead	0.018		0.0050
Nickel	0.0045		0.0010
Zinc	0.066		0.0050

Client: Waste Management

Job Number: 280-95318-1

Client Sample ID: **SAMPLING POINT 1C**

Lab Sample ID: 280-95318-3
Client Matrix: Water

Date Sampled: 03/29/2017 1000
Date Received: 03/30/2017 0850

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-368807	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1610			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	4.1		0.10

Client: Waste Management

Job Number: 280-95318-1

Client Sample ID: **SAMPLING POINT 2**

Lab Sample ID: 280-95318-4
Client Matrix: Water

Date Sampled: 03/29/2017 1140
Date Received: 03/30/2017 0850

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-368807	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1623			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	4.6		0.10

Client: Waste Management

Job Number: 280-95318-1

Client Sample ID: **SAMPLING POINT 4**

Lab Sample ID: 280-95318-5
Client Matrix: Water

Date Sampled: 03/29/2017 1120
Date Received: 03/30/2017 0850

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-368807	Instrument ID:	MT_025
Prep Method:	200.7	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1626			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.1		0.10

General Chemistry

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-95318-2

Client Matrix: Water

Date Sampled: 03/29/2017 0940

Date Received: 03/30/2017 0850

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-367603	Analysis Date: 03/31/2017 1109					
Prep Batch: 280-367562	Prep Date: 03/31/2017 0806					
Total Suspended Solids	43		mg/L	4.0	1.0	SM 2540D
Analysis Batch: 280-367639	Analysis Date: 03/31/2017 1444					

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-95318-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-95318-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-367506					
LCS 280-367506/2-A	Lab Control Sample	R	Water	200.7	
MB 280-367506/1-A	Method Blank	R	Water	200.7	
280-95318-3	SAMPLING POINT 1C	R	Water	200.7	
280-95318-4	SAMPLING POINT 2	R	Water	200.7	
280-95318-5	SAMPLING POINT 4	R	Water	200.7	
280-95328-D-1-B MS	Matrix Spike	R	Water	200.7	
280-95328-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Prep Batch: 280-367512					
LCS 280-367512/2-A	Lab Control Sample	T	Water	200.8	
LCSD 280-367512/3-A	Lab Control Sample Duplicate	T	Water	200.8	
MB 280-367512/1-A	Method Blank	T	Water	200.8	
280-95274-A-1-B MS	Matrix Spike	T	Water	200.8	
280-95274-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-95318-2	SAMPLING POINT 1B	T	Water	200.8	
Analysis Batch:280-367796					
LCS 280-367512/2-A	Lab Control Sample	T	Water	200.8	280-367512
LCSD 280-367512/3-A	Lab Control Sample Duplicate	T	Water	200.8	280-367512
MB 280-367512/1-A	Method Blank	T	Water	200.8	280-367512
280-95274-A-1-B MS	Matrix Spike	T	Water	200.8	280-367512
280-95274-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-367512
280-95318-2	SAMPLING POINT 1B	T	Water	200.8	280-367512
Prep Batch: 280-367827					
LCS 280-367827/2-A	Lab Control Sample	R	Water	200.7	
MB 280-367827/1-A	Method Blank	R	Water	200.7	
280-95318-2	SAMPLING POINT 1B	R	Water	200.7	
280-95389-A-1-B MS	Matrix Spike	R	Water	200.7	
280-95389-A-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Analysis Batch:280-368444					
LCS 280-367827/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-367827
MB 280-367827/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-367827
280-95318-2	SAMPLING POINT 1B	R	Water	200.7 Rev 4.4	280-367827
280-95389-A-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-367827
280-95389-A-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-367827

Client: Waste Management

Job Number: 280-95318-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-368807					
LCS 280-367506/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-367506
MB 280-367506/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-367506
280-95318-3	SAMPLING POINT 1C	R	Water	200.7 Rev 4.4	280-367506
280-95318-4	SAMPLING POINT 2	R	Water	200.7 Rev 4.4	280-367506
280-95318-5	SAMPLING POINT 4	R	Water	200.7 Rev 4.4	280-367506
280-95328-D-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-367506
280-95328-D-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-367506

Report Basis
R = Total Recoverable
T = Total

General Chemistry					
Prep Batch: 280-367562					
LCS 280-367562/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-367562/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-367562/3-A	Method Blank	T	Water	1664A	
280-95318-2	SAMPLING POINT 1B	T	Water	1664A	
Analysis Batch:280-367603					
LCS 280-367562/1-A	Lab Control Sample	T	Water	1664A	280-367562
LCSD 280-367562/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-367562
MB 280-367562/3-A	Method Blank	T	Water	1664A	280-367562
280-95318-2	SAMPLING POINT 1B	T	Water	1664A	280-367562
Analysis Batch:280-367639					
LCS 280-367639/1	Lab Control Sample	T	Water	SM 2540D	
MB 280-367639/2	Method Blank	T	Water	SM 2540D	
280-95318-2	SAMPLING POINT 1B	T	Water	SM 2540D	
280-95318-2DU	Duplicate	T	Water	SM 2540D	

Report Basis
T = Total

Client: Waste Management

Job Number: 280-95318-1

Method Blank - Batch: 280-367506

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-367506/1-A	Analysis Batch:	280-368807	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1552	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	ND		0.10

Lab Control Sample - Batch: 280-367506

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-367506/2-A	Analysis Batch:	280-368807	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1555	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.00	100	89 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-367506

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-95328-D-1-B MS	Analysis Batch:	280-368807	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1633			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95328-D-1-C MSD	Analysis Batch:	280-368807	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-367506	Lab File ID:	25B041017.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2017 1636			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	101	100	70 - 130	1	20		

Client: Waste Management

Job Number: 280-95318-1

Method Blank - Batch: 280-367827

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-367827/1-A	Analysis Batch:	280-368444	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-367827	Lab File ID:	51a040617c.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/07/2017 0112	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	0.281		0.10

Lab Control Sample - Batch: 280-367827

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-367827/2-A	Analysis Batch:	280-368444	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-367827	Lab File ID:	51a040617c.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/07/2017 0115	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.05	105	89 - 115	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-367827

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-95389-A-1-B MS	Analysis Batch:	280-368444	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-367827	Lab File ID:	51a040617c.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/07/2017 0147			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95389-A-1-C MSD	Analysis Batch:	280-368444	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-367827	Lab File ID:	51a040617c.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/07/2017 0150			Final Weight/Volume:	50 mL
Prep Date:	04/04/2017 1500				
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	70	49	70 - 130	2	20	4	4

Client: Waste Management

Job Number: 280-95318-1

Method Blank - Batch: 280-367512

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-367512/1-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	209_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0546	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	ND		0.0010
Zinc	ND		0.0050

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367512

Method: 200.8
Preparation: 200.8

LCS Lab Sample ID:	LCS 280-367512/2-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	210_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0550	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367512/3-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	211SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0554	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Cadmium	103	102	89 - 111	1	20		
Chromium	105	105	86 - 115	0	20		
Copper	107	105	90 - 115	1	20		
Lead	107	105	88 - 115	2	20		
Nickel	106	104	86 - 115	2	20		
Zinc	108	110	88 - 115	2	20		

Client: Waste Management

Job Number: 280-95318-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-367512

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-95274-A-1-B MS	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	213SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0602			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95274-A-1-C MSD	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	214SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0605			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	103	101	89 - 111	2	20		
Chromium	105	106	86 - 115	1	20		
Copper	103	102	90 - 115	1	20		
Lead	104	105	88 - 115	1	20		
Nickel	103	103	86 - 115	0	20		
Zinc	103	103	88 - 115	0	20		

Client: Waste Management

Job Number: 280-95318-1

Method Blank - Batch: 280-367562

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-367562/3-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367562

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-367562/1-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367562/2-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	96	87	78 - 114	10	18		

Client: Waste Management

Job Number: 280-95318-1

Method Blank - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-367639/2	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Suspended Solids	ND		4.0

Lab Control Sample - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 280-367639/1	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	100	91.6	92	86 - 114	

Duplicate - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	280-95318-2	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	43	42.4	0.9	10	

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 03/30/2017
Received: 03/29/17
Sampled By: Jason Davendonis
Work Order: 7088021

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Stormwater
Project # : 280-95318-1
Permit # : 1200Z
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 10 ± 1 °C

Lab Number	Sample ID	Sample Type	
7088021-01	**Sampling Point 1B**		**Sampled: 3/29/17 9:40**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	1986	1	03/29/17 13:40

Analyzed: 03/30/17 09:22 Analyzed by: VG

7088021-02 Sampling Point 1C **Sampled: 3/29/17 10:00**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	>2,420	1	03/29/17 13:40

Analyzed: 03/30/17 09:22 Analyzed by: VG

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by: _____
Steve Williams
Microbiology Technical Director

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Mail

From: Sara, Betsy <Betsy.Sara@testamericainc.com>
Sent: Thursday, March 30, 2017 3:44 PM
To: 'Mail'
Subject: RE: Chain of custody (280-95318-1 and 280-95318-2)
Attachments: 022.pdf; 021.pdf

Hi Carrie!

Here are the job numbers:

Sampling Point 1B and 1C: 280-95318-1
Sampling Point 6: 280-95318-2

Thanks!

Betsy Sara
betsy.sara@testamericainc.com
303-736-0189

-----Original Message-----
From: Mail [mailto:mail@alexinlabs.com]
Sent: Thursday, March 30, 2017 11:09 AM
To: Sara, Betsy
Subject: Chain of custody

Good morning-

Got in a couple storm waters yesterday.

Thank you!

Carrie Seidl

Alexin Analytical Laboratories, Inc.
(503) 639-9311
www.alexinlabs.com

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Your message is ready to be sent with the following file or link

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jason Davendonis	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-20112-9168.1
Client Contact: Mr. Jeff O'Leary	Phone: 503 639-9548	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: Waste Management				Job #:
Address: 13469 SW Highway 18	Due Date Requested:			
City: McMinnville	TAT Requested (days):			
State, Zip: OR, 97128				
Phone: 503-8575870(Tel)	PO #: Purchase Order not required			
Email: joleary@wm.com	WO #:			
Project Name: 1003|Riverbend Landfill STW Event Desc: Quarterly NPDES Stormwater	Project #: 28003391			
Site: Oregon	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	Total Metals	TSS	O&G	E. coli (Alert)	Fe only							Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	S										
Sampling Point 1B	3/29/17	940	G	W				X	X	X	X								4	Field pH= 6.92
Sampling Point 1C	3/29/17	1000	G	W							X	X							1	
Sampling Point 2	3/29/17	1140	G	W								X							1	
Sampling Point 4	3/29/17	1120	G	W								X							1	

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jason Davendonis	3/29/17 1430	SCS	[illegible]	3/30/17 0850	TAD

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

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-95318-1

Login Number: 95318
List Number: 1
Creator: True, Joshua A

List Source: TestAmerica Denver

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

March 29, 2017
Stormwater Discharge Sampling Event
(Sampling Point 6)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-95318-2

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Approved for release.
Betsy A Sara
Project Manager II
4/11/2017 4:13 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
04/11/2017

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-95318-2

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 03/30/2017; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.9 C.

Holding Times

The holding times were met.

Method Blanks

All Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

The method required MS/MSD could not be performed for Method 625 and Method 1664A due to insufficient sample volume, however, LCS/LCSD pairs were 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.

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

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratory. Alexin Analytical Laboratory is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
12232 S.W. Garden Place
Tigard, OR 97223
Phone: 503.718.2323

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-95318-2

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-95318-1	**SAMPLING POINT 6**					
Chromium		0.0018		0.0010	mg/L	200.8
Nickel		0.0024		0.0010	mg/L	200.8
Zinc		0.0080		0.0050	mg/L	200.8
Total Suspended Solids		32		4.0	mg/L	SM 2540D
Biochemical Oxygen Demand		4.0		2.0	mg/L	SM5210B

METHOD SUMMARY

Client: Waste Management

Job Number: 280-95318-2

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/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
BOD, 5 Day	TAL DEN	SM SM5210B	
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

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"

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-95318-2

Method	Analyst	Analyst ID
40CFR136A 625	Kiekel, Daniel C	DCK
EPA 200.8	Mooney, Joseph C	JM
1664A 1664A	Duplin, Alysha 1	A1D
MCAWW 350.1	Spedale, Morgan A	MAS
SM SM 2540D	Cherry, Scott V	SVC
SM SM5210B	Martinez, Rut S	RSM

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-95318-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-95318-1	SAMPLING POINT 6	Water	03/29/2017 1040	03/30/2017 0850

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-95318-2

Client Sample ID: **SAMPLING POINT 6**

Lab Sample ID: 280-95318-1
Client Matrix: Water

Date Sampled: 03/29/2017 1040
Date Received: 03/30/2017 0850

625 Semivolatile Organic Compounds (GC/MS)

Analysis Method:	625	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Prep Method:	625	Prep Batch:	280-367697	Lab File ID:	K20134.D
Dilution:	1.0			Initial Weight/Volume:	1045.9 mL
Analysis Date:	04/06/2017 0420			Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	RL
Alpha-Terpineol	ND		10
Benzoic acid	ND		50
p-Cresol	ND		10
Phenol	ND		10

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	102		16 - 147
2-Fluorobiphenyl	98		43 - 120
2-Fluorophenol	100		16 - 136
Nitrobenzene-d5	96		52 - 120
Phenol-d5	107		11 - 145
Terphenyl-d14	61		10 - 145

Client: Waste Management

Job Number: 280-95318-2

Client Sample ID: **SAMPLING POINT 6**

Lab Sample ID: 280-95318-1
Client Matrix: Water

Date Sampled: 03/29/2017 1040
Date Received: 03/30/2017 0850

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-367796	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-367512	Lab File ID:	219SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0625			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	ND		0.00010
Chromium	0.0018		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	0.0024		0.0010
Zinc	0.0080		0.0050

General Chemistry

Client Sample ID: **SAMPLING POINT 6**

Lab Sample ID: 280-95318-1
Client Matrix: Water

Date Sampled: 03/29/2017 1040
Date Received: 03/30/2017 0850

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-367603	Analysis Date: 03/31/2017 1109					
Prep Batch: 280-367562	Prep Date: 03/31/2017 0806					
Ammonia	ND		mg/L	0.10	1.0	350.1
Analysis Batch: 280-368386	Analysis Date: 04/06/2017 1358					
Total Suspended Solids	32		mg/L	4.0	1.0	SM 2540D
Analysis Batch: 280-367639	Analysis Date: 03/31/2017 1444					
Biochemical Oxygen Demand	4.0		mg/L	2.0	1.0	SM5210B
Analysis Batch: 280-367476	Analysis Date: 03/30/2017 1724					

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-95318-2

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.
General Chemistry		
	F1	MS and/or MSD Recovery is outside acceptance limits.

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-95318-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-367697					
LCS 280-367697/2-A	Lab Control Sample	T	Water	625	
LCSD 280-367697/3-A	Lab Control Sample Duplicate	T	Water	625	
MB 280-367697/1-A	Method Blank	T	Water	625	
280-95318-1	SAMPLING POINT 6	T	Water	625	
Analysis Batch:280-368215					
LCS 280-367697/2-A	Lab Control Sample	T	Water	625	280-367697
LCSD 280-367697/3-A	Lab Control Sample Duplicate	T	Water	625	280-367697
MB 280-367697/1-A	Method Blank	T	Water	625	280-367697
280-95318-1	SAMPLING POINT 6	T	Water	625	280-367697

Report Basis
T = Total

Metals					
Prep Batch: 280-367512					
LCS 280-367512/2-A	Lab Control Sample	T	Water	200.8	
LCSD 280-367512/3-A	Lab Control Sample Duplicate	T	Water	200.8	
MB 280-367512/1-A	Method Blank	T	Water	200.8	
280-95274-A-1-B MS	Matrix Spike	T	Water	200.8	
280-95274-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-95318-1	SAMPLING POINT 6	T	Water	200.8	
Analysis Batch:280-367796					
LCS 280-367512/2-A	Lab Control Sample	T	Water	200.8	280-367512
LCSD 280-367512/3-A	Lab Control Sample Duplicate	T	Water	200.8	280-367512
MB 280-367512/1-A	Method Blank	T	Water	200.8	280-367512
280-95274-A-1-B MS	Matrix Spike	T	Water	200.8	280-367512
280-95274-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-367512
280-95318-1	SAMPLING POINT 6	T	Water	200.8	280-367512

Report Basis
T = Total

Client: Waste Management

Job Number: 280-95318-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-367476					
LCS 280-367476/3	Lab Control Sample	T	Water	SM5210B	
MB 280-367476/4	Method Blank	T	Water	SM5210B	
280-95318-1	SAMPLING POINT 6	T	Water	SM5210B	
280-95320-C-2 DU	Duplicate	T	Water	SM5210B	
Prep Batch: 280-367562					
LCS 280-367562/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-367562/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-367562/3-A	Method Blank	T	Water	1664A	
280-95318-1	SAMPLING POINT 6	T	Water	1664A	
Analysis Batch:280-367603					
LCS 280-367562/1-A	Lab Control Sample	T	Water	1664A	280-367562
LCSD 280-367562/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-367562
MB 280-367562/3-A	Method Blank	T	Water	1664A	280-367562
280-95318-1	SAMPLING POINT 6	T	Water	1664A	280-367562
Analysis Batch:280-367639					
LCS 280-367639/1	Lab Control Sample	T	Water	SM 2540D	
MB 280-367639/2	Method Blank	T	Water	SM 2540D	
280-95318-1	SAMPLING POINT 6	T	Water	SM 2540D	
280-95318-C-2 DU	Duplicate	T	Water	SM 2540D	
Analysis Batch:280-368386					
LCS 280-368386/18	Lab Control Sample	T	Water	350.1	
LCSD 280-368386/19	Lab Control Sample Duplicate	T	Water	350.1	
MB 280-368386/20	Method Blank	T	Water	350.1	
280-95317-C-1 MS	Matrix Spike	T	Water	350.1	
280-95317-C-1 MSD	Matrix Spike Duplicate	T	Water	350.1	
280-95318-1	SAMPLING POINT 6	T	Water	350.1	

Report Basis
T = Total

Surrogate Recovery Report

625 Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPHL %Rec
280-95318-1	SAMPLING POINT 6	102	98	100	96	107	61
MB 280-367697/1-A		112	104	95	94	102	125
LCS 280-367697/2-A		114	107	102	99	108	120
LCSD 280-367697/3-A		114	103	96	96	103	118

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	16-147
FBP = 2-Fluorobiphenyl	43-120
2FP = 2-Fluorophenol	16-136
NBZ = Nitrobenzene-d5	52-120
PHL = Phenol-d5	11-145
TPHL = Terphenyl-d14	10-145

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367697

Method: 625
Preparation: 625

Lab Sample ID:	MB 280-367697/1-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20121.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2223	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
1,2,4-Trichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
2,2'-Oxybis(1-chloropropane)	ND		10
2,4,6-Trichlorophenol	ND		20
2,4-Dichlorophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dinitrophenol	ND		60
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
2-Chloronaphthalene	ND		10
2-Chlorophenol	ND		10
2-Methylphenol	ND		10
2-Nitrophenol	ND		20
3,3'-Dichlorobenzidine	ND		50
4,6-Dinitro-2-methylphenol	ND		60
4-Bromophenyl phenyl ether	ND		10
4-Chloro-3-methylphenol	ND		10
4-Chlorophenyl phenyl ether	ND		10
4-Nitrophenol	ND		50
Acenaphthene	ND		10
Acenaphthylene	ND		10
Alpha-Terpineol	ND		10
Anthracene	ND		10
Benzidine	ND		150
Benzo[a]anthracene	ND		10
Benzo[a]pyrene	ND		10
Benzo[b]fluoranthene	ND		10
Benzo[g,h,i]perylene	ND		10
Benzo[k]fluoranthene	ND		10
Benzoic acid	ND		50
Bis(2-chloroethoxy)methane	ND		10
Bis(2-chloroethyl)ether	ND		10
Bis(2-ethylhexyl) phthalate	ND		10
Butyl benzyl phthalate	ND		10
Chrysene	ND		10
Dibenz(a,h)anthracene	ND		10
Diethyl phthalate	ND		10
Dimethyl phthalate	ND		10
Di-n-butyl phthalate	ND		10
Di-n-octyl phthalate	ND		10
Fluoranthene	ND		10
Fluorene	ND		10
Hexachlorobenzene	ND		10

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367697

Method: 625
Preparation: 625

Lab Sample ID:	MB 280-367697/1-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20121.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2223	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		50
Hexachloroethane	ND		10
Indeno[1,2,3-cd]pyrene	ND		10
Isophorone	ND		10
Naphthalene	ND		10
Nitrobenzene	ND		10
N-Nitrosodimethylamine	ND		10
N-Nitrosodi-n-propylamine	ND		10
N-Nitrosodiphenylamine	ND		10
p-Cresol	ND		10
Pentachlorophenol	ND		60
Phenanthrene	ND		10
Phenol	ND		10
Pyrene	ND		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	112	16 - 147
2-Fluorobiphenyl	104	43 - 120
2-Fluorophenol	95	16 - 136
Nitrobenzene-d5	94	52 - 120
Phenol-d5	102	11 - 145
Terphenyl-d14	125	10 - 145

Client: Waste Management

Job Number: 280-95318-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367697

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-367697/2-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2251	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367697/3-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2318	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,2,4-Trichlorobenzene	84	80	44 - 120	5	35		
1,2-Dichlorobenzene	86	78	32 - 120	10	42		
1,3-Dichlorobenzene	84	78	23 - 120	7	47		
1,4-Dichlorobenzene	86	78	24 - 120	9	49		
2,2'-Oxybis(1-chloropropane)	83	80	37 - 120	4	30		
2,4,6-Trichlorophenol	94	94	51 - 120	1	30		
2,4-Dichlorophenol	88	88	46 - 120	1	30		
2,4-Dimethylphenol	74	72	44 - 119	3	35		
2,4-Dinitrophenol	79	82	20 - 121	3	61		
2,4-Dinitrotoluene	96	96	57 - 120	1	35		
2,6-Dinitrotoluene	92	92	56 - 120	0	30		
2-Chloronaphthalene	89	86	60 - 118	3	30		
2-Chlorophenol	87	84	34 - 120	4	30		
2-Methylphenol	88	87	38 - 120	2	35		
2-Nitrophenol	89	88	47 - 120	2	30		
3,3'-Dichlorobenzidine	85	81	18 - 120	5	50		
4,6-Dinitro-2-methylphenol	91	90	40 - 120	1	55		
4-Bromophenyl phenyl ether	91	89	53 - 120	3	34		
4-Chloro-3-methylphenol	91	92	57 - 120	1	30		
4-Chlorophenyl phenyl ether	90	88	51 - 120	2	30		
4-Nitrophenol	98	97	53 - 120	0	42		
Acenaphthene	92	90	47 - 120	2	30		
Acenaphthylene	90	87	33 - 120	4	30		
Anthracene	93	91	52 - 120	3	30		
Benzidine	26	22	10 - 218	19	50		
Benzo[a]anthracene	92	93	54 - 120	1	30		
Benzo[a]pyrene	94	92	39 - 120	3	73		
Benzo[b]fluoranthene	95	93	51 - 120	2	90		
Benzo[g,h,i]perylene	91	88	48 - 120	3	64		
Benzo[k]fluoranthene	96	94	49 - 120	2	50		
Bis(2-chloroethoxy)methane	88	88	50 - 120	0	30		
Bis(2-chloroethyl)ether	91	87	35 - 120	5	30		
Bis(2-ethylhexyl) phthalate	97	99	56 - 120	1	30		
Butyl benzyl phthalate	99	100	53 - 120	1	30		
Chrysene	92	93	51 - 120	1	30		

Client: Waste Management

Job Number: 280-95318-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367697

Method: 625
Preparation: 625

LCS Lab Sample ID:	LCS 280-367697/2-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2251	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367697/3-A	Analysis Batch:	280-368215	Instrument ID:	SMS_K
Client Matrix:	Water	Prep Batch:	280-367697	Lab File ID:	K20123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/05/2017 2318	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/02/2017 0535			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	91	88	45 - 120	2	78		
Diethyl phthalate	94	95	59 - 114	1	30		
Dimethyl phthalate	94	93	58 - 112	1	30		
Di-n-butyl phthalate	95	94	57 - 118	1	30		
Di-n-octyl phthalate	97	97	56 - 120	0	30		
Fluoranthene	90	89	58 - 120	1	30		
Fluorene	92	91	59 - 120	2	30		
Hexachlorobenzene	89	87	53 - 120	3	30		
Hexachlorobutadiene	81	76	27 - 116	7	41		
Hexachlorocyclopentadiene	19	16	10 - 120	16	82	J	J
Hexachloroethane	86	76	40 - 113	12	52		
Indeno[1,2,3-cd]pyrene	84	84	50 - 120	0	73		
Isophorone	82	82	50 - 120	0	30		
Naphthalene	86	83	37 - 120	4	30		
Nitrobenzene	86	84	46 - 120	2	30		
N-Nitrosodimethylamine	82	77	37 - 120	7	30		
N-Nitrosodi-n-propylamine	85	83	50 - 120	2	30		
N-Nitrosodiphenylamine	93	90	46 - 203	3	50		
p-Cresol	88	86	42 - 120	2	39		
Pentachlorophenol	79	79	46 - 120	1	30		
Phenanthrene	94	91	54 - 120	3	30		
Phenol	83	82	37 - 112	2	30		
Pyrene	97	98	55 - 115	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	114	114	16 - 147
2-Fluorobiphenyl	107	103	43 - 120
2-Fluorophenol	102	96	16 - 136
Nitrobenzene-d5	99	96	52 - 120
Phenol-d5	108	103	11 - 145
Terphenyl-d14	120	118	10 - 145

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367512

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-367512/1-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	209_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0546	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	ND		0.0010
Zinc	ND		0.0050

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367512

Method: 200.8
Preparation: 200.8

LCS Lab Sample ID:	LCS 280-367512/2-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	210_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0550	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367512/3-A	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	211SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0554	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Cadmium	103	102	89 - 111	1	20		
Chromium	105	105	86 - 115	0	20		
Copper	107	105	90 - 115	1	20		
Lead	107	105	88 - 115	2	20		
Nickel	106	104	86 - 115	2	20		
Zinc	108	110	88 - 115	2	20		

Client: Waste Management

Job Number: 280-95318-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-367512

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-95274-A-1-B MS	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	213SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0602			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95274-A-1-C MSD	Analysis Batch:	280-367796	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-367512	Lab File ID:	214SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/01/2017 0605			Final Weight/Volume:	50 mL
Prep Date:	03/31/2017 1420				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	103	101	89 - 111	2	20		
Chromium	105	106	86 - 115	1	20		
Copper	103	102	90 - 115	1	20		
Lead	104	105	88 - 115	1	20		
Nickel	103	103	86 - 115	0	20		
Zinc	103	103	88 - 115	0	20		

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367562

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-367562/3-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-367562

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-367562/1-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-367562/2-A	Analysis Batch:	280-367603	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-367562	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/31/2017 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/31/2017 0806				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	96	87	78 - 114	10	18		

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-368386

Method: 350.1
Preparation: N/A

Lab Sample ID:	MB 280-368386/20	Analysis Batch:	280-368386	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\040617A.R:
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/06/2017 1338	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Ammonia	ND		0.10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-368386

Method: 350.1
Preparation: N/A

LCS Lab Sample ID:	LCS 280-368386/18	Analysis Batch:	280-368386	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\040617A.R
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/06/2017 1334	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-368386/19	Analysis Batch:	280-368386	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\040617A.R
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/06/2017 1336	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ammonia	95	97	90 - 110	1	10		

Client: Waste Management

Job Number: 280-95318-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-368386

Method: 350.1
Preparation: N/A

MS Lab Sample ID:	280-95317-C-1 MS	Analysis Batch:	280-368386	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\040617A.R:
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	04/06/2017 1344			Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95317-C-1 MSD	Analysis Batch:	280-368386	Instrument ID:	WC_Alp 3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\040617A.R:
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	04/06/2017 1346			Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia	112	109	90 - 110	3	10	F1	

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-367639/2	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Suspended Solids	ND		4.0

Lab Control Sample - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 280-367639/1	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	100	91.6	92	86 - 114	

Duplicate - Batch: 280-367639

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	280-95318-C-2 DU	Analysis Batch:	280-367639	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/31/2017 1444	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	43	42.4	0.9	10	

Client: Waste Management

Job Number: 280-95318-2

Method Blank - Batch: 280-367476

Method: SM5210B
Preparation: N/A

Lab Sample ID:	MB 280-367476/4	Analysis Batch:	280-367476	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2017 1724	Units:	mg/L	Final Weight/Volume:	300 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Biochemical Oxygen Demand	ND		2.0

Lab Control Sample - Batch: 280-367476

Method: SM5210B
Preparation: N/A

Lab Sample ID:	LCS 280-367476/3	Analysis Batch:	280-367476	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2017 1724	Units:	mg/L	Final Weight/Volume:	300 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biochemical Oxygen Demand	198	170	86	85 - 115	

Duplicate - Batch: 280-367476

Method: SM5210B
Preparation: N/A

Lab Sample ID:	280-95320-C-2 DU	Analysis Batch:	280-367476	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2017 1724	Units:	mg/L	Final Weight/Volume:	300 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Biochemical Oxygen Demand	3.8	4.05	7	20	

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 03/30/2017
Received: 03/29/17
Sampled By: Jason Davendonis
Work Order: 7088022

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Stormwater
Project # : 280-95318-2
Permit # : 1200Z
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 10 ± 1 °C

Lab Number	Sample ID	Sample Type	
7088022-01	**Sampling Point 6**		**Sampled: 3/29/17 10:40**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	56	1	03/29/17 13:40

Analyzed: 03/30/17 09:22 Analyzed by: VG

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by:

Steve Williams
Microbiology Technical Director

This report shall not be reproduced, except in full, without the written approval of the laboratory.

Mail

From: Sara, Betsy <Betsy.Sara@testamericainc.com>
Sent: Thursday, March 30, 2017 3:44 PM
To: 'Mail'
Subject: RE: Chain of custody (280-95318-1 and 280-95318-2)
Attachments: 022.pdf; 021.pdf

Hi Carrie!

Here are the job numbers:

Sampling Point 1B and 1C: 280-95318-1
Sampling Point 6: 280-95318-2

Thanks!

Betsy Sara
betsy.sara@testamericainc.com
303-736-0189

-----Original Message-----
From: Mail [mailto:mail@alexinlabs.com]
Sent: Thursday, March 30, 2017 11:09 AM
To: Sara, Betsy
Subject: Chain of custody

Good morning-

Got in a couple storm waters yesterday.

Thank you!

Carrie Seidl

Alexin Analytical Laboratories, Inc.
(503) 639-9311
www.alexinlabs.com

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Your message is ready to be sent with the following file or link

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jason Davendonis	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-20112-9168.1
Client Contact: Mr. Jeff O'Leary	Phone: 503 639 9548	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: Waste Management				Job #:
Address: 13469 SW Highway 18	Due Date Requested:			
City: McMinnville	TAT Requested (days):			
State, Zip: OR, 97128				
Phone: 503-8575870(Tel)	PO #: Purchase Order not required			
Email: joleary@wm.com	WO #:			
Project Name: 1003|Riverbend Landfill STW	Project #: 28003391			
Site: Oregon	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	Total Metals (Ca, K, Zn, Cd, Cr, Ni)	TSS	O&G	BOD	SVOCs	Ammonia	E. coli (Alex)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	S	N	N	S			
Sampling Point 6	3/29/17	1040	G	W				X	X	X	X	X	X	X	8	Field pH = 7.21

280-95318 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jason Davendonis	3/29/17 1430	SCS	[signature]	3/30/17 0850	TAD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.9+0.0 IR#7 5r 3/30/17

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-95318-2

Login Number: 95318
List Number: 1
Creator: True, Joshua A

List Source: TestAmerica Denver

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

April 19, 2017
Stormwater Discharge Sampling Event
(Sampling Points 1B, 1C, 2, 4, and 6)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-96128-1

Job Description: 1003|Riverbend Landfill STW

For:
Waste Management
13469 SW Highway 18
McMinnville, OR 97128

Attention: Mr. Jeff O'Leary

Approved for release.
Betsy A Sara
Project Manager II
5/8/2017 12:29 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
05/08/2017

cc: Ms. Tiffany Andrews
Mr. Jason Davendonis
Mr. Brian McMullen

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 4025.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

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CASE NARRATIVE

Client: Waste Management

Project: 1003|Riverbend Landfill STW

Report Number: 280-96128-1

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

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

Sample Receiving

The samples were received on 04/20/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.7 C.

Holding Times

The holding times were met.

Method Blanks

All Method Blanks met method criteria.

Laboratory Control Samples (LCS)

All Laboratory Control Sample recoveries were within control limits.

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

All MS and MSD results were within established control limits.

General Comments

The analysis for E. Coli was performed at Alexin Analytical Laboratory. Alexin Analytical Laboratory is not a TestAmerica approved subcontract laboratory and assumes no liability for the data.
12232 S.W. Garden Place
Tigard, OR 97223
Phone: 503.718.2323

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-96128-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 1B	04/19/2017 11:20	1	O&G	ND	NO	10	mg/L	1664A
SAMPLING POINT 1B	04/19/2017 11:20	1	Cadmium	0.00031	NO	NA	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	Chromium	0.014	NO	NA	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	Copper	0.048	**BENCH**	0.020	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	Lead	0.040	NO	0.040	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	Nickel	0.010	NO	NA	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	Zinc	0.15	**BENCH**	0.12	mg/L	200.8
SAMPLING POINT 1B	04/19/2017 11:20	1	TSS	160	**BENCH**	100	mg/L	SM 2540D

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result <= Benchmark

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Waste Management

EXECUTIVE SUMMARY - Exceedance Report

Lot/SDG Number: 280-96128-1

Permit Number: 1200-Z

Site Name: 1003|Riverbend Landfill STW

Client Sample Id	Collected	Sample	Analyte	Result	Exceedance?	Benchmark	Units	Method
SAMPLING POINT 6	04/19/2017 12:10	5	O&G	ND	NO	10	mg/L	1664A
SAMPLING POINT 6	04/19/2017 12:10	5	Cadmium	ND	NO	NA	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	Chromium	0.0013	NO	NA	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	Copper	ND	NO	0.020	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	Lead	ND	NO	0.040	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	Nickel	0.0028	NO	NA	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	Zinc	0.0054	NO	0.12	mg/L	200.8
SAMPLING POINT 6	04/19/2017 12:10	5	TSS	18	NO	100	mg/L	SM 2540D

NA = Not Available
BENCH = Result > Benchmark = **RESPONSE ACTION REQUIRED**
NO = Result </= Benchmark

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-96128-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-96128-1	**SAMPLING POINT 1B**					
Cadmium		0.00031		0.00010	mg/L	200.8
Chromium		0.014		0.0010	mg/L	200.8
Copper		0.048		0.0040	mg/L	200.8
Lead		0.040		0.0050	mg/L	200.8
Nickel		0.010		0.0010	mg/L	200.8
Zinc		0.15		0.0050	mg/L	200.8
Total Suspended Solids		160		4.0	mg/L	SM 2540D
Total Recoverable						
Iron		22		0.10	mg/L	200.7 Rev 4.4
280-96128-2	**SAMPLING POINT 1C**					
Total Recoverable						
Iron		1.7		0.10	mg/L	200.7 Rev 4.4
280-96128-3	**SAMPLING POINT 2**					
Total Recoverable						
Iron		2.1		0.10	mg/L	200.7 Rev 4.4
280-96128-4	**SAMPLING POINT 4**					
Total Recoverable						
Iron		0.70		0.10	mg/L	200.7 Rev 4.4
280-96128-5	**SAMPLING POINT 6**					
Chromium		0.0013		0.0010	mg/L	200.8
Nickel		0.0028		0.0010	mg/L	200.8
Zinc		0.0054		0.0050	mg/L	200.8
Total Suspended Solids		18		4.0	mg/L	SM 2540D

METHOD SUMMARY

Client: Waste Management

Job Number: 280-96128-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Metals (ICP/MS)	TAL DEN	EPA 200.8	
Preparation, Total Metals	TAL DEN		EPA 200.8
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
General Sub Contract Method	AAL	Subcontract	

Lab References:

AAL = AAL

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-96128-1

Method	Analyst	Analyst ID
EPA 200.7 Rev 4.4	Lackey, Cara M	CML
EPA 200.8	Trudell, Lynn-Anne M	LMT
1664A 1664A	Hirshman, Philip A	PAH
SM SM 2540D	Cherry, Scott V	SVC

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-96128-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-96128-1	SAMPLING POINT 1B	Water	04/19/2017 1120	04/20/2017 0900
280-96128-2	SAMPLING POINT 1C	Water	04/19/2017 1150	04/20/2017 0900
280-96128-3	SAMPLING POINT 2	Water	04/19/2017 1235	04/20/2017 0900
280-96128-4	SAMPLING POINT 4	Water	04/19/2017 1245	04/20/2017 0900
280-96128-5	SAMPLING POINT 6	Water	04/19/2017 1210	04/20/2017 0900

SAMPLE RESULTS

Client: Waste Management

Job Number: 280-96128-1

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-96128-1
Client Matrix: Water

Date Sampled: 04/19/2017 1120
Date Received: 04/20/2017 0900

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-371176	Instrument ID:	MT_051
Prep Method:	200.7	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1535			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 0625				

Analyte	Result (mg/L)	Qualifier	RL
Iron	22		0.10

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-370658	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-370136	Lab File ID:	034SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1323			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	0.00031		0.00010
Chromium	0.014		0.0010
Copper	0.048		0.0040
Lead	0.040		0.0050
Nickel	0.010		0.0010
Zinc	0.15		0.0050

Client: Waste Management

Job Number: 280-96128-1

Client Sample ID: **SAMPLING POINT 1C**

Lab Sample ID: 280-96128-2
Client Matrix: Water

Date Sampled: 04/19/2017 1150
Date Received: 04/20/2017 0900

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-371176	Instrument ID:	MT_051
Prep Method:	200.7	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1537			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 0625				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.7		0.10

Client: Waste Management

Job Number: 280-96128-1

Client Sample ID: **SAMPLING POINT 2**

Lab Sample ID: 280-96128-3
Client Matrix: Water

Date Sampled: 04/19/2017 1235
Date Received: 04/20/2017 0900

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-371176	Instrument ID:	MT_051
Prep Method:	200.7	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1540			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 0625				

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.1		0.10

Client: Waste Management

Job Number: 280-96128-1

Client Sample ID: **SAMPLING POINT 4**

Lab Sample ID: 280-96128-4
Client Matrix: Water

Date Sampled: 04/19/2017 1245
Date Received: 04/20/2017 0900

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-371176	Instrument ID:	MT_051
Prep Method:	200.7	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1543			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 0625				

Analyte	Result (mg/L)	Qualifier	RL
Iron	0.70		0.10

Client: Waste Management

Job Number: 280-96128-1

Client Sample ID: **SAMPLING POINT 6**

Lab Sample ID: 280-96128-5
Client Matrix: Water

Date Sampled: 04/19/2017 1210
Date Received: 04/20/2017 0900

200.8 Metals (ICP/MS)

Analysis Method:	200.8	Analysis Batch:	280-370658	Instrument ID:	MT_078
Prep Method:	200.8	Prep Batch:	280-370136	Lab File ID:	035SMPL.d
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1327			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				

Analyte	Result (mg/L)	Qualifier	RL
Cadmium	ND		0.00010
Chromium	0.0013		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	0.0028		0.0010
Zinc	0.0054		0.0050

General Chemistry

Client Sample ID: **SAMPLING POINT 1B**

Lab Sample ID: 280-96128-1

Client Matrix: Water

Date Sampled: 04/19/2017 1120

Date Received: 04/20/2017 0900

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-371260	Analysis Date: 04/27/2017 1310					
Prep Batch: 280-371036	Prep Date: 04/26/2017 1142					
Total Suspended Solids	160		mg/L	4.0	1.0	SM 2540D
Analysis Batch: 280-370273	Analysis Date: 04/20/2017 1703					

General Chemistry

Client Sample ID: **SAMPLING POINT 6**

Lab Sample ID: 280-96128-5

Client Matrix: Water

Date Sampled: 04/19/2017 1210

Date Received: 04/20/2017 0900

Analyte	Result	Qual	Units	RL	Dil	Method
Oil & Grease (HEM)	ND		mg/L	5.0	1.0	1664A
Analysis Batch: 280-371713	Analysis Date: 05/01/2017 1726					
Prep Batch: 280-371579	Prep Date: 05/01/2017 0728					
Total Suspended Solids	18		mg/L	4.0	1.0	SM 2540D
Analysis Batch: 280-370273	Analysis Date: 04/20/2017 1703					

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

QUALITY CONTROL RESULTS

Client: Waste Management

Job Number: 280-96128-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-370136					
LCS 280-370136/2-A	Lab Control Sample	T	Water	200.8	
MB 280-370136/1-A	Method Blank	T	Water	200.8	
280-96059-A-1-B MS	Matrix Spike	T	Water	200.8	
280-96059-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	
280-96128-1	SAMPLING POINT 1B	T	Water	200.8	
280-96128-5	SAMPLING POINT 6	T	Water	200.8	
Prep Batch: 280-370213					
LCS 280-370213/2-A	Lab Control Sample	R	Water	200.7	
MB 280-370213/1-A	Method Blank	R	Water	200.7	
280-96081-D-2-E MS	Matrix Spike	R	Water	200.7	
280-96081-D-2-F MSD	Matrix Spike Duplicate	R	Water	200.7	
280-96128-1	SAMPLING POINT 1B	R	Water	200.7	
280-96128-2	SAMPLING POINT 1C	R	Water	200.7	
280-96128-3	SAMPLING POINT 2	R	Water	200.7	
280-96128-4	SAMPLING POINT 4	R	Water	200.7	
Analysis Batch:280-370658					
LCS 280-370136/2-A	Lab Control Sample	T	Water	200.8	280-370136
MB 280-370136/1-A	Method Blank	T	Water	200.8	280-370136
280-96059-A-1-B MS	Matrix Spike	T	Water	200.8	280-370136
280-96059-A-1-C MSD	Matrix Spike Duplicate	T	Water	200.8	280-370136
280-96128-1	SAMPLING POINT 1B	T	Water	200.8	280-370136
280-96128-5	SAMPLING POINT 6	T	Water	200.8	280-370136
Analysis Batch:280-371176					
LCS 280-370213/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-370213
MB 280-370213/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-370213
280-96081-D-2-E MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-370213
280-96081-D-2-F MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-370213
280-96128-1	SAMPLING POINT 1B	R	Water	200.7 Rev 4.4	280-370213
280-96128-2	SAMPLING POINT 1C	R	Water	200.7 Rev 4.4	280-370213
280-96128-3	SAMPLING POINT 2	R	Water	200.7 Rev 4.4	280-370213
280-96128-4	SAMPLING POINT 4	R	Water	200.7 Rev 4.4	280-370213

Report Basis
R = Total Recoverable
T = Total

Client: Waste Management

Job Number: 280-96128-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-370273					
LCS 280-370273/1	Lab Control Sample	T	Water	SM 2540D	
LCSD 280-370273/2	Lab Control Sample Duplicate	T	Water	SM 2540D	
MB 280-370273/3	Method Blank	T	Water	SM 2540D	
280-96099-A-1 DU	Duplicate	T	Water	SM 2540D	
280-96128-1	SAMPLING POINT 1B	T	Water	SM 2540D	
280-96128-5	SAMPLING POINT 6	T	Water	SM 2540D	
Prep Batch: 280-371036					
LCS 280-371036/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-371036/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-371036/3-A	Method Blank	T	Water	1664A	
280-95596-E-27-A MS	Matrix Spike	T	Water	1664A	
280-95596-F-27-A MSD	Matrix Spike Duplicate	T	Water	1664A	
280-96128-1	SAMPLING POINT 1B	T	Water	1664A	
Analysis Batch:280-371260					
LCS 280-371036/1-A	Lab Control Sample	T	Water	1664A	280-371036
LCSD 280-371036/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-371036
MB 280-371036/3-A	Method Blank	T	Water	1664A	280-371036
280-95596-E-27-A MS	Matrix Spike	T	Water	1664A	280-371036
280-95596-F-27-A MSD	Matrix Spike Duplicate	T	Water	1664A	280-371036
280-96128-1	SAMPLING POINT 1B	T	Water	1664A	280-371036
Prep Batch: 280-371579					
LCS 280-371579/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-371579/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-371579/3-A	Method Blank	T	Water	1664A	
280-96128-5	SAMPLING POINT 6	T	Water	1664A	
280-96412-B-4-A MS	Matrix Spike	T	Water	1664A	
280-96412-C-4-A MSD	Matrix Spike Duplicate	T	Water	1664A	
Analysis Batch:280-371713					
LCS 280-371579/1-A	Lab Control Sample	T	Water	1664A	280-371579
LCSD 280-371579/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-371579
MB 280-371579/3-A	Method Blank	T	Water	1664A	280-371579
280-96128-5	SAMPLING POINT 6	T	Water	1664A	280-371579
280-96412-B-4-A MS	Matrix Spike	T	Water	1664A	280-371579
280-96412-C-4-A MSD	Matrix Spike Duplicate	T	Water	1664A	280-371579

Report Basis
T = Total

Client: Waste Management

Job Number: 280-96128-1

Method Blank - Batch: 280-370213

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	MB 280-370213/1-A	Analysis Batch:	280-371176	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1500	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2017 1118				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Iron	ND		0.10

Lab Control Sample - Batch: 280-370213

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID:	LCS 280-370213/2-A	Analysis Batch:	280-371176	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1503	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/20/2017 1118				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	0.998	100	89 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-370213

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

MS Lab Sample ID:	280-96081-D-2-E MS	Analysis Batch:	280-371176	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1514			Final Weight/Volume:	50 mL
Prep Date:	04/20/2017 1118				
Leach Date:	N/A				

MSD Lab Sample ID:	280-96081-D-2-F MSD	Analysis Batch:	280-371176	Instrument ID:	MT_051
Client Matrix:	Water	Prep Batch:	280-370213	Lab File ID:	51a042617a.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2017 1517			Final Weight/Volume:	50 mL
Prep Date:	04/20/2017 1118				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	113	122	70 - 130	7	20		

Client: Waste Management

Job Number: 280-96128-1

Method Blank - Batch: 280-370136

Method: 200.8
Preparation: 200.8

Lab Sample ID:	MB 280-370136/1-A	Analysis Batch:	280-370658	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-370136	Lab File ID:	027_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1256	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Cadmium	ND		0.00010
Chromium	ND		0.0010
Copper	ND		0.0040
Lead	ND		0.0050
Nickel	ND		0.0010
Zinc	ND		0.0050

Lab Control Sample - Batch: 280-370136

Method: 200.8
Preparation: 200.8

Lab Sample ID:	LCS 280-370136/2-A	Analysis Batch:	280-370658	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-370136	Lab File ID:	028_LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1300	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.0400	0.0420	105	89 - 111	
Chromium	0.0400	0.0410	102	86 - 115	
Copper	0.0400	0.0414	104	90 - 115	
Lead	0.0400	0.0423	106	88 - 115	
Nickel	0.0400	0.0424	106	86 - 115	
Zinc	0.0400	0.0422	106	88 - 115	

Client: Waste Management

Job Number: 280-96128-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-370136

Method: 200.8
Preparation: 200.8

MS Lab Sample ID:	280-96059-A-1-B MS	Analysis Batch:	280-370658	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-370136	Lab File ID:	030SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1308			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				
Leach Date:	N/A				

MSD Lab Sample ID:	280-96059-A-1-C MSD	Analysis Batch:	280-370658	Instrument ID:	MT_078
Client Matrix:	Water	Prep Batch:	280-370136	Lab File ID:	031SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2017 1311			Final Weight/Volume:	50 mL
Prep Date:	04/21/2017 1430				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cadmium	102	101	89 - 111	1	20		
Chromium	90	96	86 - 115	2	20		
Copper	101	100	90 - 115	0	20		
Lead	106	106	88 - 115	1	20		
Nickel	101	99	86 - 115	1	20		
Zinc	100	102	88 - 115	1	20		

Client: Waste Management

Job Number: 280-96128-1

Method Blank - Batch: 280-371036

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-371036/3-A	Analysis Batch:	280-371260	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371036	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/27/2017 1310	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	04/26/2017 1142				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-371036

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-371036/1-A	Analysis Batch:	280-371260	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371036	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/27/2017 1310	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	04/26/2017 1142				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-371036/2-A	Analysis Batch:	280-371260	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371036	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/27/2017 1310	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	04/26/2017 1142				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	94	95	78 - 114	1	18		

Client: Waste Management

Job Number: 280-96128-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-371036

Method: 1664A
Preparation: 1664A

MS Lab Sample ID:	280-95596-E-27-A MS	Analysis Batch:	280-371260	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371036	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1058 mL
Analysis Date:	04/27/2017 1310			Final Weight/Volume:	1000 mL
Prep Date:	04/26/2017 1142				
Leach Date:	N/A				

MSD Lab Sample ID:	280-95596-F-27-A MSD	Analysis Batch:	280-371260	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371036	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1051 mL
Analysis Date:	04/27/2017 1310			Final Weight/Volume:	1000 mL
Prep Date:	04/26/2017 1142				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Oil & Grease (HEM)	88	86	78 - 114	1	18		

Client: Waste Management

Job Number: 280-96128-1

Method Blank - Batch: 280-371579

Method: 1664A
Preparation: 1664A

Lab Sample ID:	MB 280-371579/3-A	Analysis Batch:	280-371713	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371579	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/01/2017 1726	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	05/01/2017 0728				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Oil & Grease (HEM)	ND		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-371579

Method: 1664A
Preparation: 1664A

LCS Lab Sample ID:	LCS 280-371579/1-A	Analysis Batch:	280-371713	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371579	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/01/2017 1726	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	05/01/2017 0728				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-371579/2-A	Analysis Batch:	280-371713	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371579	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/01/2017 1726	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	05/01/2017 0728				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Oil & Grease (HEM)	87	88	78 - 114	2	18		

Client: Waste Management

Job Number: 280-96128-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-371579

Method: 1664A
Preparation: 1664A

MS Lab Sample ID:	280-96412-B-4-A MS	Analysis Batch:	280-371713	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371579	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	915 mL
Analysis Date:	05/01/2017 1726			Final Weight/Volume:	1000 mL
Prep Date:	05/01/2017 0728				
Leach Date:	N/A				

MSD Lab Sample ID:	280-96412-C-4-A MSD	Analysis Batch:	280-371713	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	280-371579	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	881 mL
Analysis Date:	05/01/2017 1726			Final Weight/Volume:	1000 mL
Prep Date:	05/01/2017 0728				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Oil & Grease (HEM)	88	89	78 - 114	5	18		

Client: Waste Management

Job Number: 280-96128-1

Method Blank - Batch: 280-370273

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 280-370273/3	Analysis Batch:	280-370273	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/20/2017 1703	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Suspended Solids	ND		4.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-370273

Method: SM 2540D
Preparation: N/A

LCS Lab Sample ID:	LCS 280-370273/1	Analysis Batch:	280-370273	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/20/2017 1703	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-370273/2	Analysis Batch:	280-370273	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/20/2017 1703	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Suspended Solids	96	98	86 - 114	2	20		

Duplicate - Batch: 280-370273

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	280-96099-A-1 DU	Analysis Batch:	280-370273	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/20/2017 1703	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	4.0	4.00	0	10	

Alexin Analytical LABORATORIES, INC.
Professional Laboratory Services
13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

ORELAP Accredited Lab#: OR-100013

Reported: 04/21/2017
Received: 04/19/17
Sampled By: T Andrews
Work Order: 7109036

CLIENT
Test America - Denver
Attn: Betsy Sara
4955 Yarrow St
Arvada CO, 80002
Phone: (303) 736-0100

Project: Stormwater
Project # : 280-96128-1
Permit # : 1200Z
PO # : -

Sampling Location: Riverbend Landfill
Sample Matrix: Water
Temperature Upon Receipt: 7 ± 1 °C

Lab Number	Sample ID	Sample Type	
7109036-01	**Sampling Point 1B**		**Sampled: 4/19/17 11:20**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	1553	1	04/19/17 14:30

Analyzed: 04/20/17 09:20 Analyzed by: VG

7109036-02 Sampling Point 1C **Sampled: 4/19/17 11:50**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	<1	1	04/19/17 14:30

Analyzed: 04/20/17 09:20 Analyzed by: VG

7109036-03 Sampling Point 6 **Sampled: 4/19/17 12:10**

Microbiological Analysis	Method	Units	Result	MRL	Date/ Time Analysis Begun
†*E. coli*	SM 9223B (colilert-18) 21st Ed.	MPN/100 mL	40	1	04/19/17 14:30

Analyzed: 04/20/17 09:20 Analyzed by: VG

MRL = Minimum Reporting Limit MPN= Most Probable Number

†All procedures for this analysis conform to NELAC standards.

Approved by: _____
Steve Williams
Microbiology Technical Director

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Mail

From: Sara, Betsy <Betsy.Sara@testamericainc.com>
Sent: Thursday, April 20, 2017 4:14 PM
To: 'Mail'
Subject: RE: Samples (Riverbend)
Attachments: 37.pdf; 36.pdf

Hi Carrie!

Here are the job numbers:

280-96123-1: SYR SW-1 and SYR SW-2

280-96128-1: Sampling Point 1B, Sampling Point 1C and Sampling Point 6 7109036

Thanks!
Betsy Sara
betsy.sara@testamericainc.com
303-736-0189

-----Original Message-----
From: Mail [mailto:mail@alexinlabs.com]
Sent: Thursday, April 20, 2017 12:02 PM
To: Sara, Betsy
Subject: Samples

April showers bring....April storm water samples? We got a handful yesterday that need numbers.

Thank you!

Carrie Seidl

Alexin Analytical Laboratories, Inc.
(503) 639-9311
www.alexinlabs.com

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Your message is ready to be sent with the following file or link attachments:

37.pdf

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: TAndrews	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-20112-9168.1
Client Contact: Mr. Jeff O'Leary	Phone: 503 724-6112	E-Mail: betsy.sara@testamericainc.com		Page: Page 1 of 1
Company: Waste Management				Job #:
Address: 13469 SW Highway 18	Due Date Requested:			
City: McMinnville	TAT Requested (days):			
State, Zip: OR, 97128				
Phone: 503-8575870(Tel)	PO #: Purchase Order not required			
Email: joleary@wm.com	WO #:			
Project Name: 1003[Riverbend Landfill STW	Project #: 28003391			
Site: Oregon	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	Total Metals	TSS	O&G	Fe Cl (Air x)	Fe Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	S				
Sampling Point 1B	4/19/17	1120	G	W				X	X	X	X			field pH 7.50
Sampling Point 1C	4/19/17	1150	G	W							X	X		
Sampling Point 2	4/19/17	1235	G	W								X		
Sampling Point 4	4/19/17	1245	G	W								X		
Sampling Point 6	4/19/17	1210	G	W				X	X	X	X			field pH 7.35

280-96128 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/19/17 @ 1600	SCS	[signature]	4/20/17 0900	TAD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7+0.6 =R#7 transferred by JT 4/20/17

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-96128-1

Login Number: 96128
List Number: 1
Creator: True, Joshua A

List Source: TestAmerica Denver

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

RIVERBEND LANDFILL COMPANY
13469 SW Highway 18
McMinnville, OR 97128
(503) 472-8788
(503) 434-9770 Fax

WASTE MANAGEMENT

July 21, 2017

Ms. Jill Seale
Western Region Permit Coordinator
Oregon Department of Environmental Quality
165 E 7th Avenue, Suite 100
Eugene, Oregon 97401

SUBJECT: Submittal of the 2016-2017 Annual Stormwater Discharge Monitoring Report Form, Riverbend Landfill Company, Riverbend Landfill, McMinnville, Yamhill County, Oregon, NPDES Permit No. 1200-Z, File No. 106959

Dear Ms. Seale:

Please find enclosed the 2016-2017 National Pollutant Discharge Elimination System (NPDES) annual stormwater discharge monitoring report (DMR) form for the Riverbend Landfill (RL). The report was prepared for the Riverbend Landfill Company (RLC) by SCS Engineers (SCS) in Portland, Oregon.

Monitoring Variance

Consistent with Schedule B Section 3.b.iii of the Permit, RLC requests a monitoring variance for collecting four stormwater grab samples from Outfall 6 (Sampling Point 6) location for the 2016-2017 monitoring year. This is because no discharge was observed from this location during this monitoring period except on March 29 and April 19, 2017 when RL personnel manually dewatered the accumulated stormwater from Detention Pond 2 to create discharge at Outfall 6. The no stormwater discharge conditions observed for the monitoring year are attributed to the water levels within the Detention Pond 2 being below each discharge point. During rain events throughout the monitoring year, RL site personnel routinely inspected Outfall 6 for stormwater discharge and no discharge was observed; inspections were conducted during normal operating business days and hours. As such, no stormwater discharges samples could be collected at Outfall 6 during this monitoring period except for the March 29 and April 19, 2016 samples.

Please contact Morgan Ireland (503-857-5870) if you have any questions or require additional information.

Sincerely,

James L. Denson, Jr.
PNW/BC Environmental Protection Manager

Enclosure – RL DMR

Cc (w/enclosure): Greg Hemmen; WM
Morgan Ireland, WM
Nick Godfrey, RLC

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JUL 25 2017
WESTERN REGION/EUGENE
DEPT. ENVIRONMENTAL QUALITY

Environmental Consultants
and Contractors

15940 SW 72nd Avenue
Portland, OR 97224

PH 503 639-9201
FAX 503 639-6948
www.scsengineers.com

SCS ENGINEERS

July 21, 2017
Project No. 04212024.17

Mr. James L. Denson, Jr.
Riverbend Landfill Company
13469 SW Highway 18
McMinnville, OR 97128

Re: 2016-2017 National Pollutant Discharge Elimination System Annual Stormwater Discharge Monitoring Report, Riverbend Landfill Company, Riverbend Landfill, DEQ NPDES Permit No. 1200-Z, File No. 106959

Dear Mr. Denson:

This report presents the analytical results for stormwater discharge grab samples collected during the 2016-2017 monitoring year (July 1, 2016 to June 30, 2017) at the Riverbend Landfill (RL). SCS Engineers (SCS) in Portland, Oregon prepared this report for RL at the request of the Riverbend Landfill Company (RLC).

RL is located at 13469 SW Highway 18 in the City of McMinnville, Yamhill County, Oregon. The stormwater sampling events were performed in accordance with RL's: (1) updated stormwater pollution control plan (SWPCP) and (2) National Pollution Discharge Elimination System (NPDES) Stormwater Discharge Permit Number 1200-Z (Permit) issued by the Oregon Department of Environmental Quality (DEQ). The Permit provides benchmark concentrations for the regulated parameters, which are included in the attached Discharge Monitoring Report (DMR) form (Attachment A).

STORMWATER MONITORING WAIVERS

Consistent with Schedule B Section 4.a.i.1 of the Permit, RL requested and received monitoring waivers from the DEQ for collecting and analyzing stormwater discharge grab samples at Sampling Points 1C, 2, and 4 for all Permit statewide benchmark parameters (total oil and grease [O&G], total suspended solids [TSS], pH, total copper [Cu], total lead [Pb], zinc [Zn]) and *E. coli*) except for E. coli at the Sampling Point 1C location.[1]

RL fulfilled the requirement to sample and analyze for the Permit's additional parameters (cadmium [Cd], chromium [Cr], and nickel [Ni]) eight times during the first three years of the Permit coverage at (1) Sampling Point 2 in November 2015, (2) Sampling Point 4 in May 2015, and (3) Sampling Point 1C in November 2016.

[1] RLC received monitoring waivers from the DEQ for the statewide benchmark parameters at Sampling Points 1C, 2, and 4 as documented in letters dated March 10, 2016, December 10, 2014, and November 12, 2014, respectively.

STORMWATER MONITORING ACTIVITIES

Benchmark Monitoring for Sampling Points 1B, 1C, 2, and 4

The stormwater discharge grab sampling events were performed consistent with the monitoring requirements established in the Permit for non-contaminated[2] stormwater and the approved monitoring waivers at the Sampling Points 1B, 1C, 2, and 4 locations (see Attachment B). The 2016-2017 stormwater discharge events were performed on October 17, November 15, and December 9, 2016 and March 29 and April 19, 2017, and were representative of non-contaminated[2] stormwater discharges at Sampling Points 1B, 1C, 2, and 4.

The stormwater samples collected at Sampling Points 1B, 1C, 2, and 4 were submitted to TestAmerica Laboratories (TestAmerica) in Arvada, Colorado for analysis of the Permit-required parameters summarized in the DMR form (see Attachment A), except for *E. coli* analyses, which were submitted to Alexin Analytical Laboratories, Inc. (Alexin) in Tigard, Oregon.

Sampling Point 6 Monitoring

Consistent with RL's Permit and updated SWPCP, SCS collected stormwater discharge grab samples on March 29 and April 19, 2017 at the Sampling Point 6 monitoring location when the site manually dewatered the accumulated stormwater in Detention Pond 2 to create stormwater discharge at this location. Stormwater discharge was not observed at the Sampling Point 6 location for the remainder of the monitoring year because the water levels within the Detention Pond 2 were below the discharge location.

The Sampling Point 6 stormwater samples collected in 2017 were analyzed for the following Permit parameters:

- Numeric Effluent Limit Parameters for Contaminated Stormwater in March 2017:[3] TSS, ammonia, alpha terpineol, benzoic acid, p-cresol, phenol, pH and Zn.[4,5]

- Statewide Benchmark Parameters in March and April 2017: TSS, O&G, Cu, Pb, Zn, pH, and *E. coli*.

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[2] Schedule E Subpart L of the Permit defines stormwater as non-contaminated if it does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

[3] Schedule E Subpart L of the Permit defines contaminated stormwater as stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include, but are not limited to (1) the open face of an active landfill with exposed waste (no cover added); (2) the areas around wastewater treatment operations; (3) trucks, equipment, or machinery that has been in direct contact with the waste; and (4) waste dumping areas.

[4] At the DEQ's request in a letter dated March 7, 2016, Sampling Point 6 was sampled and analyzed for the numeric effluent limit parameters included in Schedule E.L.7 of the Permit. Consistent with Schedule E.L.6 of the Permit, the sector-specific benchmark parameter total iron (Fe) is not required for Sampling Point 6 because this monitoring location is subject to the numeric effluent limit monitoring program.

[5] TSS, pH, and Zn are included in both the benchmark and numeric effluent limit programs and one sample was collected and analyzed for these parameters to fulfill the monitoring requirement for both programs.

- Additional Parameters in March and April 2017: Cd, Cr, and Ni.

The Sampling Point 6 stormwater sample was submitted to TestAmerica for analysis, except for *E. coli* analyses, which was submitted to Alexin.

STORMWATER MONITORING RESULTS

Benchmark Monitoring Results for Sampling Points 1B, 1C, 2, and 4

All stormwater discharges for the monitoring period at Sampling Points 1B, 1C, 2, and 4 met the definition of non-contaminated[2], and no discharges meeting the definition of contaminated[3] occurred at these locations during the 2016-2017 monitoring year. Analytical results of the stormwater samples collected at Sampling Points 1B, 1C, 2, and 4 during the 2016-2017 monitoring year were below the Permit benchmark concentrations for the required monitoring parameters, except for those noted below (see Attachment A and Attachment B, Laboratory Analytical Reports).

- Sampling Point 1B: TSS and Zn in the samples collected on November 15 and December 9, 2016, and April 19, 2017; Pb in the samples collected on November 15 and December 9, 2016; and *E. coli,* Cu, and Fe in all four samples collected during the monitoring year.

- Sampling Point 1C: *E. coli* in the samples collected on October 17 and November 15, 2016, and March 29, 2017; and Fe in all four samples collected during the monitoring year.

- Sampling Point 2: Fe in all four samples collected during the monitoring year.

- Sampling Point 4: Fe in the samples collected on October 17 and November 15, 2016, and March 29, 2017.

Additionally, the field pH value of the stormwater discharge samples collected at Sampling Point 1B during the 2016-2017 monitoring year were within the benchmark range specified in the Permit (see Attachment A).

Sampling Point 6 Monitoring Results

Review of the analytical data of the March and April 2017 stormwater sample collected at Sampling Point 6 indicated that all statewide benchmark and numeric effluent limit parameters were below the benchmark concentrations and limits, respectively (see Attachment A and Attachment B).

It should be noted that there are no benchmark concentrations associated with the additional Permit parameters Cd, Cr, and Ni for comparison to the 2016-2017 monitoring year analytical results.

Consistent with the Schedule A.10 of the Permit, RL performed Tier I corrective actions in response to the results above the benchmark concentration in the stormwater samples collected at Sampling Points 1B, 1C, 2, and 4 in the 2016-2017 monitoring year. The Tier I corrective action responses are not required to be submitted to DEQ as part of the DMR submittal and are retained on site and available to the DEQ during site inspections or by request.

SCS ENGINEERS

Jason Davendonis
Senior Project Professional

Louis Caruso
Vice President/Project Director

Attachments: Attachment A - DMR Form
Attachment B – Laboratory Analytical Reports

cc: Nick Godfrey; RL
Morgan Ireland; WM
Greg Hemmen; WM

ATTACHMENT A

DISCHARGE MONITORING REPORT FORM