

SCS ENGINEERS

July 15, 2011
File No. 09210021.03

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

Subject: Citrus County Central Landfill
Quarterly Leachate Sampling – Second Quarter 2011
Permit No. 21375-018-SO/01

Dear Mr. Morris:

SCS Engineers (SCS) is providing the Second Quarter Leachate Effluent monitoring results on behalf of the Citrus County Solid Waste Management Division (County) for the Central Landfill located in Citrus County, Florida (the site). This report provides copies of the final laboratory reports, field forms, and a CD containing an electronic copy of this report and the electronic data deliverable (EDD) in the "ADaPT" format provided by TestAmerica Laboratories Inc., (TestAmerica).

The leachate effluent sample was analyzed in compliance with the permit and for the quarterly parameters listed in Specific Condition Part E.9.b.2 (quarterly) of the permit. The resulting data from the quarterly sampling event are included in Attachment 1 (Effluent data is located on pages 5 and 6, of 23 of the laboratory analytical report.) and Table 1, Attachment 3. These concentrations are similar to historic concentrations (Table 1, Attachment 3). Due to detections of ammonia as N, outside the range of historic data in the effluent sample, a resample event was conducted on May 25, 2011, in order to verify the concentrations (resample data indicate that the concentrations were less than the original results and below the permit required MCL). With the exception of arsenic, sodium, chloride, and total dissolved solids (TDS), the leachate effluent sample complied with the groundwater standards and minimum criteria referenced in Florida Administrative Code (FAC) Chapters 62-520.420 and 62-520.400, respectively. As per Specific Condition Part E.9.b, arsenic, sodium, chloride, and TDS are not required to meet the groundwater standards and minimum criteria at the discharge point; however, they must comply at monitoring well MW-6 (Table 3, Attachment 3).

Second Quarter leachate quality sampling, physical readings and measurements, and leachate quality analyses were performed by TestAmerica. Field work, sampling methodologies, data evaluation, and data Quality Assurance/Quality Control (QA/QC) were conducted in accordance with FAC Chapter 62-160 Standard Operating Procedures (DEP-SOP-001/01) and the TestAmerica quality manual. Laboratory analyses were performed in accordance with Chapter 62-160, FAC DEP-SOP-001/01. TestAmerica is certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).



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TestAmerica mobilized to the site on April 28, 2011 and May 25, 2011, to collect leachate samples following the FDEP Standard Operating Procedures (SOPs) as guidance for the collection of these samples. Copies of the laboratory report and field forms are presented in Attachment 1.

Monthly samples of the leachate effluent were analyzed for the parameters listed in Specific Condition Part E.9.b.2 (monthly) of the Permit. The monthly samples are collected by the site and analyzed by their contract laboratory. The analytical laboratory reports from the monthly sampling events for April, May, and June of 2011, are included in Attachment 2 and summarized on Table 2, Attachment 3.

If you have any questions regarding this report, please contact the undersigned at (813) 621-0080.

Sincerely,



Ken Guilbeault, LEP
Project Manager



C. Ed Hilton, P.E. 7/15/11
Vice President
SCS ENGINEERS

KEG/CEH:ael

cc: T. Casey Stephens – Citrus County
Solid Waste Administrator, FDEP - Tallahassee

Attachments

Florida Department of Environmental Protection

Bob Martinez Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(31), F.A.C

Form Title: Water Quality Monitoring
Certification

Effective Date January 6, 2011

Incorporated in Rule 62-701.510(9), F.A.C.

WATER QUALITY MONITORING CERTIFICATION

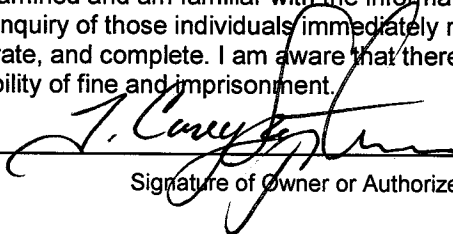
PART I GENERAL INFORMATION

- (1) Facility Name Citrus County Central Landfill
Address PO BOX 340
City Lecanto Zip 34460
Telephone Number (352) 527-7670
- (2) WACS Facility ID 39859
- (3) DEP Permit Number 21375-018-SO/01
- (4) Authorized Representative Name Casey Stephens, Title Director of Solid Waste
Address PO BOX 340
City Lecanto Zip 34460
Telephone Number (352) 527-7670

CERTIFICATION

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

Date: 07/14/2011


Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization TestAmerica Laboratories, Inc
Analytical Lab NELAC / HRS Certification # NELAP Certifications E84282 and E81005
Lab Name TestAmerica Laboratories, Inc
Address 6712 Benjamin Road, Suite 100, Tampa, FL 33634
Phone Number (813) 885-7427
Email address (if available) nancy.robertson@testamericainc.com

ATTACHMENT 1

LABORATORY ANALYTICAL RESULTS
AND FIELD FORMS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-41000-1

Client Project/Site: Citrus County Leachate EFF

For:

SCS Engineers
4041 Park Oaks Blvd
Suite 100
Tampa, Florida 33610

Attn: Ken Guilbeault



Authorized for release by:
05/12/2011 05:43:26 PM

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com

LINKS

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Visit us at:

www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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Qualifier Definition/Glossary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Qualifiers

GC/MS VOA

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

GC Semi VOA

Qualifier	Qualifier Description
D1	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Metals

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

General Chemistry

Qualifier	Qualifier Description
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Job ID: 660-41000-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-41000-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

Method 8011: Due to the high concentration of EDB, the matrix spike (MS) for EDB in batch 109889 failed for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

General Chemistry

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 109885 were outside control limits for chloride. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Detection Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Client Sample ID: Leachate Eff

Lab Sample ID: 660-41000-1

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field pH	8.13				SU	1		Field Sampling	Total/NA
Field Temperature	27.3				Degrees C	1		Field Sampling	Total/NA
Specific Conductance	3780				umhos/cm	1		Field Sampling	Total/NA
Oxygen, Dissolved	8.38				mg/L	1		Field Sampling	Total/NA
Turbidity	10.8				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	197.6				millivolts	1		Field Sampling	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	36		10	4.0	ug/L	1		6010B	Total Recovers
Sodium - DL	630		10	6.2	mg/L	20		6010B	Total Recovers
Ammonia as N	10		0.080	0.040	mg/L	4		350.1	Total/NA
Chloride - DL	960		25	10	mg/L	50		300.0	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	2400		17	17	mg/L	1		SM 2540C	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 660-41000-2

No Detections.

Analytical Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Client Sample ID: Leachate Eff

Lab Sample ID: 660-41000-1

Date Collected: 04/28/11 10:09

Matrix: Water

Date Received: 04/29/11 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	1.0	0.50	ug/L			05/10/11 15:48	1
Ethylbenzene	0.44	U	1.0	0.44	ug/L			05/10/11 15:48	1
Toluene	0.51	U	1.0	0.51	ug/L			05/10/11 15:48	1
Xylenes, Total	0.50	U	3.0	0.50	ug/L			05/10/11 15:48	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/10/11 15:48	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130					05/10/11 15:48	1
Dibromofluoromethane	105		70 - 130					05/10/11 15:48	1
4-Bromofluorobenzene	103		70 - 130					05/10/11 15:48	1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	0.011	U	0.021	0.011	ug/L		05/10/11 10:45	05/10/11 16:28	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	135		60 - 140				05/10/11 10:45	05/10/11 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	36		10	4.0	ug/L		05/05/11 07:15	05/06/11 08:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	630		10	6.2	mg/L		05/05/11 07:15	05/06/11 09:21	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	10		0.080	0.040	mg/L			05/12/11 14:42	4
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2400		17	17	mg/L			05/03/11 14:52	1

General Chemistry - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	960		25	10	mg/L			05/10/11 12:58	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.13				SU			04/28/11 10:09	1
Field Temperature	27.3				Degrees C			04/28/11 10:09	1
Specific Conductance	3780				umhos/cm			04/28/11 10:09	1
Oxygen, Dissolved	8.38				mg/L			04/28/11 10:09	1
Turbidity	10.8				NTU			04/28/11 10:09	1
Oxidation Reduction Potential	197.6				millivolts			04/28/11 10:09	1

TestAmerica Tampa

Analytical Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Client Sample ID: Trip Blank

Lab Sample ID: 660-41000-2

Date Collected: 04/28/11 00:00

Matrix: Water

Date Received: 04/29/11 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	1.0	0.50	ug/L			05/10/11 16:09	1
Ethylbenzene	0.44	U	1.0	0.44	ug/L			05/10/11 16:09	1
Toluene	0.51	U	1.0	0.51	ug/L			05/10/11 16:09	1
Xylenes, Total	0.50	U	3.0	0.50	ug/L			05/10/11 16:09	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/10/11 16:09	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130					05/10/11 16:09	1
Dibromofluoromethane	105		70 - 130					05/10/11 16:09	1
4-Bromofluorobenzene	104		70 - 130					05/10/11 16:09	1

Surrogate Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	DBFM (70-130)	BFB (70-130)
660-41000-1	Leachate Eff	104	105	103
660-41000-2	Trip Blank	104	105	104
660-41142-B-7 DU	660-41142-B-7 DU	103	104	103
660-41142-C-8 MS	660-41142-C-8 MS	104	102	102
LCS 660-109894/3	LCS 660-109894/3	100	93	100
MB 660-109894/4	MB 660-109894/4	105	107	103

Surrogate Legend

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane

BFB = 4-Bromofluorobenzene

Method: 8011 - EDB

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TCEA2 (60-140)		
660-41000-1	Leachate Eff	135		

Surrogate Legend

TCEA = 1,1,1,2-Tetrachloroethane

Method: 8011 - EDB

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TCEA1 (60-140)		
660-41000-G-1-B MS	660-41000-G-1-B MS	0 D1		
660-41062-B-2-A DU	660-41062-B-2-A DU	80		
LCS 660-109889/2-A	LCS 660-109889/2-A	95		
MB 660-109889/1-A	MB 660-109889/1-A	100		

Surrogate Legend

TCEA = 1,1,1,2-Tetrachloroethane

Quality Control Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 660-109894/4

Matrix: Water

Analysis Batch: 109894

Client Sample ID: MB 660-109894/4

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	1.0	0.50	ug/L			05/10/11 08:16	1
Ethylbenzene	0.44	U	1.0	0.44	ug/L			05/10/11 08:16	1
Toluene	0.51	U	1.0	0.51	ug/L			05/10/11 08:16	1
Xylenes, Total	0.50	U	3.0	0.50	ug/L			05/10/11 08:16	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/10/11 08:16	1

Surrogate	MB % Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		70 - 130		05/10/11 08:16	1
Dibromofluoromethane	107		70 - 130		05/10/11 08:16	1
4-Bromofluorobenzene	103		70 - 130		05/10/11 08:16	1

Lab Sample ID: LCS 660-109894/3

Matrix: Water

Analysis Batch: 109894

Client Sample ID: LCS 660-109894/3

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	20.0	18.5		ug/L		93	68 - 134
Ethylbenzene	20.0	20.3		ug/L		102	70 - 130
Toluene	20.0	20.4		ug/L		102	70 - 131
Vinyl chloride	20.0	19.7		ug/L		98	48 - 147

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
Dibromofluoromethane	93		70 - 130
4-Bromofluorobenzene	100		70 - 130

Lab Sample ID: 660-41142-C-8 MS

Matrix: Water

Analysis Batch: 109894

Client Sample ID: 660-41142-C-8 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	0.50	U	20.0	17.1		ug/L		86	68 - 134
Ethylbenzene	0.44	U	20.0	16.5		ug/L		83	70 - 130
Toluene	0.51	U	20.0	17.5		ug/L		88	70 - 131
Vinyl chloride	0.50	U	20.0	14.1		ug/L		70	48 - 147

Surrogate	MS % Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	104		70 - 130
Dibromofluoromethane	102		70 - 130
4-Bromofluorobenzene	102		70 - 130

Lab Sample ID: 660-41142-B-7 DU

Matrix: Water

Analysis Batch: 109894

Client Sample ID: 660-41142-B-7 DU

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Benzene	0.50	U	0.50	U	ug/L		NC	30
Ethylbenzene	0.44	U	0.44	U	ug/L		NC	30
Toluene	0.51	U	0.51	U	ug/L		NC	30

TestAmerica Tampa

Quality Control Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

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

Lab Sample ID: 660-41142-B-7 DU

Matrix: Water

Analysis Batch: 109894

Client Sample ID: 660-41142-B-7 DU

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Xylenes, Total	0.50	U	0.50	U	ug/L		NC	30
Vinyl chloride	0.50	U	0.50	U	ug/L		NC	30
Surrogate	% Recovery	DU Qualifier	DU	Limits				
Toluene-d8 (Surr)	103			70 - 130				
Dibromofluoromethane	104			70 - 130				
4-Bromofluorobenzene	103			70 - 130				

Method: 8011 - EDB

Lab Sample ID: MB 660-109889/1-A

Matrix: Water

Analysis Batch: 109963

Client Sample ID: MB 660-109889/1-A

Prep Type: Total/NA

Prep Batch: 109889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	0.010	U	0.020	0.010	ug/L		05/10/11 10:45	05/10/11 15:47	1
Surrogate	% Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,1,1,2-Tetrachloroethane	100		60 - 140	05/10/11 10:45	05/10/11 15:47	1			

Lab Sample ID: LCS 660-109889/2-A

Matrix: Water

Analysis Batch: 109963

Client Sample ID: LCS 660-109889/2-A

Prep Type: Total/NA

Prep Batch: 109889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Ethylene Dibromide	0.250	0.234		ug/L		94	70 - 130
Surrogate	% Recovery	LCS Qualifier	Limits				
1,1,1,2-Tetrachloroethane	95		60 - 140				

Lab Sample ID: 660-41000-G-1-B MS

Matrix: Water

Analysis Batch: 109963

Client Sample ID: 660-41000-G-1-B MS

Prep Type: Total/NA

Prep Batch: 109889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Ethylene Dibromide	2.1		0.257	2.00	J3	ug/L		-48	70 - 130
Surrogate	% Recovery	MS Qualifier	Limits						
1,1,1,2-Tetrachloroethane	0	D1	60 - 140						

Lab Sample ID: 660-41062-B-2-A DU

Matrix: Water

Analysis Batch: 109963

Client Sample ID: 660-41062-B-2-A DU

Prep Type: Total/NA

Prep Batch: 109889

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ethylene Dibromide	0.010		0.0097	U	ug/L		NC	40

TestAmerica Tampa

Quality Control Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method: 8011 - EDB (Continued)

Lab Sample ID: 660-41062-B-2-A DU
Matrix: Water
Analysis Batch: 109963

Client Sample ID: 660-41062-B-2-A DU
Prep Type: Total/NA
Prep Batch: 109889

Surrogate	% Recovery	DU Qualifier	DU Limits
1,1,1,2-Tetrachloroethane	80		60 - 140

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-109718/1-A
Matrix: Water
Analysis Batch: 109799

Client Sample ID: MB 660-109718/1-A
Prep Type: Total Recoverable
Prep Batch: 109718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		05/05/11 07:15	05/06/11 08:11	1
Sodium	0.31	U	0.50	0.31	mg/L		05/05/11 07:15	05/06/11 08:11	1

Lab Sample ID: LCS 660-109718/2-A
Matrix: Water
Analysis Batch: 109799

Client Sample ID: LCS 660-109718/2-A
Prep Type: Total Recoverable
Prep Batch: 109718

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Arsenic	1000	993		ug/L		99	75 - 125
Sodium	10.0	10.1		mg/L		101	75 - 125

Lab Sample ID: 660-41058-D-1-B MS
Matrix: Water
Analysis Batch: 109799

Client Sample ID: 660-41058-D-1-B MS
Prep Type: Total Recoverable
Prep Batch: 109718

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Arsenic	4.0	U	1000	1000		ug/L		100	75 - 125
Sodium	31		10.0	42.1		mg/L		112	75 - 125

Lab Sample ID: 660-41058-D-1-C MSD
Matrix: Water
Analysis Batch: 109799

Client Sample ID: 660-41058-D-1-C MSD
Prep Type: Total Recoverable
Prep Batch: 109718

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Arsenic	4.0	U	1000	994		ug/L		99	75 - 125	1	20
Sodium	31		10.0	41.0		mg/L		101	75 - 125	3	20

Method: 300.0 - Chloride

Lab Sample ID: MB 660-109885/3
Matrix: Water
Analysis Batch: 109885

Client Sample ID: MB 660-109885/3
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U	0.50	0.20	mg/L			05/09/11 19:50	1

Quality Control Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method: 300.0 - Chloride (Continued)

Lab Sample ID: LCS 660-109885/4

Matrix: Water

Analysis Batch: 109885

Client Sample ID: LCS 660-109885/4

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	10.0	9.97		mg/L		100	90 - 110

Lab Sample ID: 660-40976-C-11 MS

Matrix: Water

Analysis Batch: 109885

Client Sample ID: 660-40976-C-11 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	34	J3	10.0	42.1	J3	mg/L		85	90 - 110

Lab Sample ID: 660-40976-C-11 MSD

Matrix: Water

Analysis Batch: 109885

Client Sample ID: 660-40976-C-11 MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Chloride	34	J3	10.0	42.4	J3	mg/L		88	90 - 110	1	30

Lab Sample ID: MB 660-109941/3

Matrix: Water

Analysis Batch: 109941

Client Sample ID: MB 660-109941/3

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U	0.50	0.20	mg/L			05/10/11 09:19	1

Lab Sample ID: LCS 660-109941/4

Matrix: Water

Analysis Batch: 109941

Client Sample ID: LCS 660-109941/4

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 660-110022/11

Matrix: Water

Analysis Batch: 110022

Client Sample ID: MB 660-110022/11

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.010	U	0.020	0.010	mg/L			05/12/11 14:02	1

Lab Sample ID: LCS 660-110022/12

Matrix: Water

Analysis Batch: 110022

Client Sample ID: LCS 660-110022/12

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Ammonia as N	0.500	0.523		mg/L		105	90 - 110

Quality Control Data

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 660-41140-B-1 MS

Matrix: Water

Analysis Batch: 110022

Client Sample ID: 660-41140-B-1 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Ammonia as N	0.14		1.00	1.06		mg/L		92	90 - 110

Lab Sample ID: 660-41140-B-1 MSD

Matrix: Water

Analysis Batch: 110022

Client Sample ID: 660-41140-B-1 MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Ammonia as N	0.14		1.00	1.05		mg/L		91	90 - 110	1	30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-109642/1

Matrix: Water

Analysis Batch: 109642

Client Sample ID: MB 660-109642/1

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			05/03/11 14:45	1

Lab Sample ID: LCS 660-109642/2

Matrix: Water

Analysis Batch: 109642

Client Sample ID: LCS 660-109642/2

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Total Dissolved Solids	10000	9840		mg/L		98	80 - 120

Lab Sample ID: 660-40976-C-6 DU

Matrix: Water

Analysis Batch: 109642

Client Sample ID: 660-40976-C-6 DU

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	130		130		mg/L		2	20

QC Association Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

GC/MS VOA

Analysis Batch: 109894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-109894/3	LCS 660-109894/3	Total/NA	Water	8260B	
MB 660-109894/4	MB 660-109894/4	Total/NA	Water	8260B	
660-41142-B-7 DU	660-41142-B-7 DU	Total/NA	Water	8260B	
660-41142-C-8 MS	660-41142-C-8 MS	Total/NA	Water	8260B	
660-41000-1	Leachate Eff	Total/NA	Water	8260B	
660-41000-2	Trip Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 109889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109889/1-A	MB 660-109889/1-A	Total/NA	Water	8011	
LCS 660-109889/2-A	LCS 660-109889/2-A	Total/NA	Water	8011	
660-41000-1	Leachate Eff	Total/NA	Water	8011	
660-41000-G-1-B MS	660-41000-G-1-B MS	Total/NA	Water	8011	
660-41062-B-2-A DU	660-41062-B-2-A DU	Total/NA	Water	8011	

Analysis Batch: 109963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-109889/2-A	LCS 660-109889/2-A	Total/NA	Water	8011	109889
660-41000-G-1-B MS	660-41000-G-1-B MS	Total/NA	Water	8011	109889
660-41062-B-2-A DU	660-41062-B-2-A DU	Total/NA	Water	8011	109889
MB 660-109889/1-A	MB 660-109889/1-A	Total/NA	Water	8011	109889
660-41000-1	Leachate Eff	Total/NA	Water	8011	109889

Metals

Prep Batch: 109718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109718/1-A	MB 660-109718/1-A	Total Recoverable	Water	3005A	
LCS 660-109718/2-A	LCS 660-109718/2-A	Total Recoverable	Water	3005A	
660-41058-D-1-B MS	660-41058-D-1-B MS	Total Recoverable	Water	3005A	
660-41058-D-1-C MSD	660-41058-D-1-C MSD	Total Recoverable	Water	3005A	
660-41000-1	Leachate Eff	Total Recoverable	Water	3005A	
660-41000-1 - DL	Leachate Eff	Total Recoverable	Water	3005A	

Analysis Batch: 109799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109718/1-A	MB 660-109718/1-A	Total Recoverable	Water	6010B	109718
LCS 660-109718/2-A	LCS 660-109718/2-A	Total Recoverable	Water	6010B	109718
660-41058-D-1-B MS	660-41058-D-1-B MS	Total Recoverable	Water	6010B	109718
660-41058-D-1-C MSD	660-41058-D-1-C MSD	Total Recoverable	Water	6010B	109718
660-41000-1	Leachate Eff	Total Recoverable	Water	6010B	109718
660-41000-1 - DL	Leachate Eff	Total Recoverable	Water	6010B	109718

General Chemistry

Analysis Batch: 109642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109642/1	MB 660-109642/1	Total/NA	Water	SM 2540C	
LCS 660-109642/2	LCS 660-109642/2	Total/NA	Water	SM 2540C	
660-40976-C-6 DU	660-40976-C-6 DU	Total/NA	Water	SM 2540C	

TestAmerica Tampa

QC Association Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

General Chemistry (Continued)

Analysis Batch: 109642 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-41000-1	Leachate Eff	Total/NA	Water	SM 2540C	

Analysis Batch: 109885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109885/3	MB 660-109885/3	Total/NA	Water	300.0	
LCS 660-109885/4	LCS 660-109885/4	Total/NA	Water	300.0	
660-40976-C-11 MS	660-40976-C-11 MS	Total/NA	Water	300.0	
660-40976-C-11 MSD	660-40976-C-11 MSD	Total/NA	Water	300.0	

Analysis Batch: 109941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-109941/3	MB 660-109941/3	Total/NA	Water	300.0	
LCS 660-109941/4	LCS 660-109941/4	Total/NA	Water	300.0	
660-41000-1 - DL	Leachate Eff	Total/NA	Water	300.0	

Analysis Batch: 110022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-110022/11	MB 660-110022/11	Total/NA	Water	350.1	
LCS 660-110022/12	LCS 660-110022/12	Total/NA	Water	350.1	
660-41140-B-1 MS	660-41140-B-1 MS	Total/NA	Water	350.1	
660-41140-B-1 MSD	660-41140-B-1 MSD	Total/NA	Water	350.1	
660-41000-1	Leachate Eff	Total/NA	Water	350.1	

Field Service / Mobile Lab

Analysis Batch: 109612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-41000-1	Leachate Eff	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Client Sample ID: Leachate Eff

Date Collected: 04/28/11 10:09

Date Received: 04/29/11 10:00

Lab Sample ID: 660-41000-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	109894	05/10/11 15:48	EC	TAL TAM
Total/NA	Prep	8011			109889	05/10/11 10:45	JB	TAL TAM
Total/NA	Analysis	8011		1	109963	05/10/11 16:28	JB	TAL TAM
Total Recoverable	Prep	3005A			109718	05/05/11 07:15	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	109799	05/06/11 08:37	GF	TAL TAM
Total Recoverable	Prep	3005A	DL		109718	05/05/11 07:15	GF	TAL TAM
Total Recoverable	Analysis	6010B	DL	20	109799	05/06/11 09:21	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	109642	05/03/11 14:52	TO	TAL TAM
Total/NA	Analysis	300.0	DL	50	109941	05/10/11 12:58	TS	TAL TAM
Total/NA	Analysis	350.1		4	110022	05/12/11 14:42	TO	TAL TAM
Total/NA	Analysis	Field Sampling		1	109612	04/28/11 10:09		TAL TAM

Client Sample ID: Trip Blank

Date Collected: 04/28/11 00:00

Date Received: 04/29/11 10:00

Lab Sample ID: 660-41000-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	109894	05/10/11 16:09	EC	TAL TAM

Laboratory References:

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Certification Summary

Client: SCS Engineers

TestAmerica Job ID: 660-41000-1

Project/Site: Citrus County Leachate EFF

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Tampa		USDA		P330-11-00177
TestAmerica Tampa	Alabama	State Program	4	40610
TestAmerica Tampa	Florida	NELAC	4	E84282
TestAmerica Tampa	Georgia	State Program	4	905
TestAmerica Tampa	Kentucky	Kentucky UST	4	67

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL TAM
8011	EDB	EPA	TAL TAM
6010B	Metals (ICP)	SW846	TAL TAM
300.0	Chloride	40CFR136A	TAL TAM
350.1	Nitrogen, Ammonia	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

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",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Sample Summary

Client: SCS Engineers
Project/Site: Citrus County Leachate EFF

TestAmerica Job ID: 660-41000-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-41000-1	Leachate Eff	Water	04/28/11 10:09	04/29/11 10:00
660-41000-2	Trip Blank	Water	04/28/11 00:00	04/29/11 10:00

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TestAmerica Tampa
6712 Benjamin Road Suite 100
Tampa, FL 33634
Phone (813) 885-7427 Fax (813) 885-7049

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

660-41000

Client Information		Sample: <u>Leachate Effluent</u>		Lab POC: <u>Robertson, Nancy</u>		Carrier Tracking No(s):	
Client Contact: Mr. Ken Guilbeault		Phone:		E-Mail: nancy.robertson@testamerica.com		Page: Page 1 of 1	
Company: SCS Engineers		Due Date Requested:		Analysis Requested			
Address: 4041 Park Oaks Blvd Suite 100		TAT Requested (days):		Field Filtered Sample (Yes or No)			
City: Tampa		State, Zip: FL 33610		Perform MS/MSD (Yes or No)			
Phone:		PO #:		350.1 - Ammonia as N			
Email: kguilbeault@scsengineers.com		Purchase Order not requir		6010B - Arsenic, Sodium			
Project Name: Citrus County		Project #: 66002924		8260B - Volatiles w/THMs			
Site:		SSOM#:		2540C - Total Dissolved Solids			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sewer, Stormwater, Other)	8011 - EDB	
<u>Leachate Effluent</u>		<u>4/29/11</u>	<u>1004</u>	<u>G</u>	<u>Water</u>	300.0_28D - Chloride	
						Total Number of Containers	
						Special Instructions/Note:	
						Preservation Codes:	
						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
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)			
Deliverable Requested: I, II, III, IV, Other (specify)				☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months			
Empty Kit Relinquished by: <u>BAH</u>		Date: <u>4/27/11</u>	Time: <u>1140</u>	Method of Shipment: <u>307er</u>			
Relinquished by: <u>BAH</u>		Date/Time: <u>4/28/11 1212</u>	Company:	Received by: <u>Carol McMillan</u>		Date/Time: <u>4/29/11 1501</u>	Company:
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature (°C) and Other Remarks: <u>4.5°C CO-02</u>			

Meter #'s: M1 / T-2

PAGE: of

Form FD 9000-7: Field Parameter Data Sheet for Surface Water

CLIENT NAME: SCS Engineers
SURVEY/PROJECT: Quarterly EIR

SAMPLERS:

Time Out: _____
Time In: _____[illegible]

Instrument Calibrations: YSI 3500 Calibrated to pH 7.00, slope to pH 4.00, pH 6.00 = 2.562 calibrate log

KCL Conductivity Standards: 0.001M = _____ (147µS/cm) 0.01M = _____ (1413µS/cm) YSI 85 D.O. Meter Calibrated to _____

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KCL Conductivity Standards: 0.001M =
Signature: 37/1 Rel

and boys:

பெயர்:

Time: 12811

15763

Cooler Temp: ____°C

Date Completed:

Received by:

Date:

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FIELD CONDITIONS FOR STATION#

DN#

AT TIME

■ **1**

CLOUD COVER (%):

WIND DIRECTION:

TIDAL STAGE:

PREVIOUS RAINFALL:

WIND SPEED (MPH/KNOTS):

MAVE CONDITIONS:

Note: This Sheet is used for recording Sample Data – Calibration information must also be documented

Field Calibration Logbook

Name: Bret Haden Date: 4/28/11 Instrument #: M-2 H-2 Make/Model: YSI 556 / HACH 2106P

pH:

	pH Buffer	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)	Temp. (°C)
Initial	7.00	NT09963	9/12	807	7.00	Y	ICV	24.6
	4.00	NT09962	"	807	4.00	Y	"	"
	10.00							
Post	7.00	NT09963	9/12	1401	7.00	Y	CCV	25.1
	4.00	NT09962	"	1402	4.00	N	"	25.1
	10.00							

CONDUCTIVITY STANDARD:

	Conductivity (uS/cm)	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	100	2009646	9/12	810	100	Y	ICV
	1000						
	10000						
Post	100	2009646	9/12	1404	100	N	CCV
	1000						
	10000						

DISSOLVED OXYGEN: (Reference Table FS2200-2)*

Temperature Probe Annual Calibration: Date:

NIST Therm. ID#:

	Temp. (°C)	DO*(mg/L)	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	24.6	8.32	811	9.32/24.6	Y	ICV
Post	25.1	8.24	1406	8.24/25.1	N	CCV

ORP: (Reference Table 6.2 Zobell Solution Values)*

	ORP (milliVolts)*	Element #	Exp. Date	Time	Temp. (°C)	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	229	NT0775	4/11	815	24.6	229	Y	ICV
Post	229	NT0775	"	1410	25.1	229	N	CCV

TURBIDITY:

	Turbidity (NTU)	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	<0.10	0201	4/11	820	120	Y	CCV
	20	0250		821	20.1		
	100	0223		822	98.9		
	800	0226		823	790		
Post	<0.10	"	"	416	20	N	CCV
	20	"	"	417	20.1		
	100	"	"	418	98.9		
	800	"	"	419	790		

Acceptance Criteria: 1-10 NTU=10%, 11-40 NTU=8%, 41-100 NTU=6.5%, >100 NTU=5%

Calibrated only in Calibrate Mode

ICV- Initial Calibration Verification (perform only in Run Mode)

CCV- Continuing Calibration Verification (perform only in Run Mode)

Signature: Bret HadenDate: 4/28/11

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 660-41000-1

Login Number: 41000

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

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	4.5 degrees C Cu-07
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-41476-1

Client Project/Site: Citrus County Landfill

For:

SCS Engineers
4041 Park Oaks Blvd
Suite 100
Tampa, Florida 33610

Attn: Mr. Ken Guilbeault



Authorized for release by:
06/08/2011 03:55:28 PM

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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Definitions/Glossary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Qualifiers

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Job ID: 660-41476-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-41476-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

General Chemistry

No analytical or quality issues were noted.

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Detection Summary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Client Sample ID: Leachate Eff

Lab Sample ID: 660-41476-1

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field pH	7.81				SU	1		Field Sampling	Total/NA
Field Temperature	27.6				Degrees C	1		Field Sampling	Total/NA
Specific Conductance	4701				umhos/cm	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.14				mg/L	1		Field Sampling	Total/NA
Turbidity	7.04				NTU	1		Field Sampling	Total/NA
Oxidation Reduction Potential	216.7				millivolts	1		Field Sampling	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.70		0.020	0.010	mg/L	1		350.1	Total/NA

Client Sample Results

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Client Sample ID: Leachate Eff

Lab Sample ID: 660-41476-1

Date Collected: 05/25/11 10:15

Matrix: Water

Date Received: 05/26/11 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.70		0.020	0.010	mg/L			06/06/11 17:58	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.81				SU			05/25/11 10:15	1
Field Temperature	27.6				Degrees C			05/25/11 10:15	1
Specific Conductance	4701				umhos/cm			05/25/11 10:15	1
Oxygen, Dissolved	0.14				mg/L			05/25/11 10:15	1
Turbidity	7.04				NTU			05/25/11 10:15	1
Oxidation Reduction Potential	216.7				millivolts			05/25/11 10:15	1

QC Sample Results

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 660-110961/3

Matrix: Water

Analysis Batch: 110961

Client Sample ID: MB 660-110961/3

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.010	U	0.020	0.010	mg/L			06/06/11 17:49	1

Lab Sample ID: LCS 660-110961/4

Matrix: Water

Analysis Batch: 110961

Client Sample ID: LCS 660-110961/4

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Ammonia as N	0.500	0.502		mg/L		100	90 - 110

Lab Sample ID: 660-41453-A-1 MS

Matrix: Water

Analysis Batch: 110961

Client Sample ID: 660-41453-A-1 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Ammonia as N	0.018	I	1.00	1.12		mg/L		110	90 - 110

Lab Sample ID: 660-41453-A-1 MSD

Matrix: Water

Analysis Batch: 110961

Client Sample ID: 660-41453-A-1 MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	Limit
Ammonia as N	0.018	I	1.00	1.12		mg/L		110	90 - 110	0	30

QC Association Summary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

General Chemistry

Analysis Batch: 110961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-110961/3	MB 660-110961/3	Total/NA	Water	350.1	
LCS 660-110961/4	LCS 660-110961/4	Total/NA	Water	350.1	
660-41453-A-1 MS	660-41453-A-1 MS	Total/NA	Water	350.1	
660-41453-A-1 MSD	660-41453-A-1 MSD	Total/NA	Water	350.1	
660-41476-1	Leachate Eff	Total/NA	Water	350.1	

Field Service / Mobile Lab

Analysis Batch: 110642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-41476-1	Leachate Eff	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Client Sample ID: Leachate Eff
Date Collected: 05/25/11 10:15
Date Received: 05/26/11 10:00

Lab Sample ID: 660-41476-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	110961	06/06/11 17:58	TO	TAL TAM
Total/NA	Analysis	Field Sampling		1	110642	05/25/11 10:15		TAL TAM

Laboratory References:
TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Certification Summary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Tampa	Alabama	State Program	4	40610
TestAmerica Tampa	Florida	NELAC	4	E84282
TestAmerica Tampa	Georgia	State Program	4	905
TestAmerica Tampa	Kentucky	Kentucky UST	4	67
TestAmerica Tampa	USDA	USDA	0	P330-11-00177

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL TAM
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Sample Summary

Client: SCS Engineers
Project/Site: Citrus County Landfill

TestAmerica Job ID: 660-41476-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-41476-1	Leachate Eff	Water	05/25/11 10:15	05/26/11 10:00

1

2

3

4

5

6

7

8

9

10

11

12

13

14

6712 Benjamin Road Suite 100

Tampa, FL 33634

Phone (813) 885-7427 Fax (813) 885-7049

Chain of Custody Record



Client Information

Client Contact:

Mr. Ken Guilbeault

Lab POC: Roberton, Nancy

Carrier Tracking No(s):

COG No: 660-35317-11399.1

Company:

SCS Engineers

E-Mail: nancy.robertson@testamerica.com

Analysis Requested

Address:

4041 Park Oaks Blvd Suite 100

Due Date Requested:

City:

Tampa

TAT Requested (days):

State, Zip:

FL 33610

PO #:

Phone:

Purchase Order not requir

Email:

kguilbeault@scsengineers.com

Project #:

Project Name:

Citrus County

SSOW#: 68002924

Site:

Leachate Eff Citrus County

Field Filtered Sample (Yes or No)

Sample Identification

Leachate Eff

Perform MS/MSD (Yes or No)

Sample Date

5/25/11

350.1 - Ammonia as N

Sample Time

10:15

6010B - Arsenic, Sodium

Sample Type

G

6260B - Volatiles w/THMs

Matrix

Water

2540C - Total Dissolved Solids

Field Filtered Sample (Yes or No)

Yes

8011 - EDB

Perform MS/MSD (Yes or No)

Yes

300.0_28D - Chloride

Sample Type

G

Special Instructions/Note:

Matrix

Water

Resample

Field Filtered Sample (Yes or No)

Yes

Special Instructions/Note:

Perform MS/MSD (Yes or No)

Yes

Special Instructions/Note:

Sample Type

G

Special Instructions/Note:

Matrix

Water

Special Instructions/Note:

Field Filtered Sample (Yes or No)

Yes

Special Instructions/Note:

Perform MS/MSD (Yes or No)

Yes

Special Instructions/Note:

Sample Type

G

Special Instructions/Note:

Matrix

Water

Special Instructions/Note:

Field Filtered Sample (Yes or No)

Yes

Special Instructions/Note:

Perform MS/MSD (Yes or No)

Yes

Special Instructions/Note:

Sample Type

G

Special Instructions/Note:

Matrix

Water

Special Instructions/Note:

Field Filtered Sample (Yes or No)

Yes

Special Instructions/Note:

Perform MS/MSD (Yes or No)

Yes

Special Instructions/Note:

Sample Type

G

Special Instructions/Note:

Matrix

Water

Special Instructions/Note:

Field Calibration Logbook

Name: Brett Hawley Date: 5-25-11 Instrument #: 1A-1 Make/Model: YSI 550

pH:

	pH Buffer	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)	Temp. (°C)
Initial	7.00	NV02882	1/13	726	7.00	Y	ICV	24.7
	4.00	NV09986	8/12	728	4.00	"	"	"
	10.00							
Post	7.00	"	"	1238	7.00	N	CCV	25.1
	4.00	"	"	1239	4.00	N	"	25.1
	10.00							

CONDUCTIVITY STANDARD:

	Conductivity (uS/cm)	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	100	2009646	7/1	730	100	N	CCV
	1000						
	10000						
Post	100	"	"	1240	100	N	CCV
	1000						
	10000						

DISSOLVED OXYGEN: (Reference Table FS2200-2)*

Temperature Probe Annual Calibration: Date:

NIST Therm. ID#:

	Temp. (°C)	DO*(mg/L)	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	24.7	8.30	733	8.30	Y	24.7 ICV
Post	25.1	8.25	1245	9.25	N	CCV

ORP: (Reference Table 6.2 Zobell Solution Values)*

	ORP (milliVolts)*	Element #	Exp. Date	Time	Temp. (°C)	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	229	NV0775		736	24.7	229	N	ICV
Post	229	"		1246	25.1	229	N	CCV

TURBIDITY:

	Turbidity (NTU)	Element #	Exp. Date	Time	Inst. Response	Calibrated (Y/N)	Type (ICV, CCV)
Initial	<0.10	0201	6/1	739	.20	Y	ICV
	20	0230		740	20.5		
	100	0223		741	101		
	800	0228		742	785		
Post	<0.10			1247	.20	N	CCV
	20			1248	20.5		
	100			1249	101		
	800			1250	785		

Acceptance Criteria: 1-10 NTU=10%, 11-40 NTU=8%, 41-100 NTU=6.5%, >100 NTU=5%

Calibrated only in Calibrate Mode

ICV- Initial Calibration Verification (perform only in Run Mode)

CCV- Continuing Calibration Verification (perform only in Run Mode)

Signature: [Signature]Date: 5/25/11

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 660-41476-1

Login Number: 41476

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

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	3.9 degrees C CU-07
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ATTACHMENT 2

MONTHLY LEACAHATE QUALITY
ANALYTICAL RESULTS FOR
APRIL, MAY, AND JUNE 2011

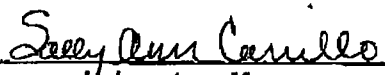
S.A.C. ENVIRONMENTAL LABORATORY INC
FLDOH CERTIFICATION #84492
ANALYTICAL REPORT

SOLID WASTE MANAGEMENT
PO BOX 340
LECANTO FL 34460

Invoice Number 11644

Client CITRUS COUNTY UTILITIES **Sample Number** E110671
Project LANDFILL LEACHATE PLANT **Date/Time Sampled** 4/14/11 1024 HRS
Sample Description WWTP/EFF **Date/Time Received** 4/14/11 1119 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	4.42	0.30 mg/L	SJL	4/14/11 1150 HRS
SM2540-D	TSS	mg/L	7.50	1.00 mg/L	SJL	4/15/11 0916 HRS
SM4500-NO3-E	NITRATE	mg/L	0.28	0.06 mg/L	SJL	4/14/11 1315 HRS


Laboratory Manager

These results relate only to this sample.

For all results qualified with an I, the PQL is defined to be 4 times the MDL

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514

S.A.C. ENVIRONMENTAL LABORATORY INC
FLDOH CERTIFICATION #84492
ANALYTICAL REPORT

SOLID WASTE MANAGEMENT
PO BOX 340
LECANTO FL 34460

Invoice Number 11694

Client	CITRUS COUNTY UTILITIES	Sample Number	E110845
Project	LANDFILL LEACHATE PLANT	Date/Time Sampled	5/10/11 1110 HRS
Sample Description	WWTP/EFF	Date/Time Received	5/10/11 1239 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	3.74	0.30 mg/L	SJL	5/11/11 1405 HRS
SM2540-D	TSS	mg/L	2.50	1.00 mg/L	SJL	5/11/11 0944 HRS
SM4500-NO3-E	NITRATE	mg/L	0.24	0.06 mg/L	SJL	5/11/11 1000 HRS

Sally Ann Cassella
Laboratory Manager

These results relate only to this sample.

For all results qualified with an I, the PQL is defined to be 4 times the MDL

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514

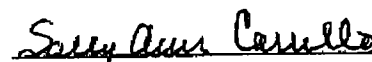
S.A.C. ENVIRONMENTAL LABORATORY INC
FLDOH CERTIFICATION #84492
ANALYTICAL REPORT

SOLID WASTE MANAGEMENT
PO BOX 340
LECANTO FL 34460

Invoice Number 11754

Client CITRUS COUNTY UTILITIES Sample Number E111083
Project LANDFILL LEACHATE PLANT Date/Time Sampled 6/16/11 0850 HRS
Sample Description WWTP/EFF Date/Time Received 6/16/11 0952 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.50	0.30 mg/L	SJL	6/16/11 1437 HRS
SM2540-D	TSS	mg/L	3.50	1.00 mg/L	SJL	6/17/11 0908 HRS
SM4500-NO3-E	NITRATE	mg/L	0.94	0.06 mg/L	SJL	6/16/11 1130 HRS


Laboratory Manager

These results relate only to this sample.

For all results qualified with an L, the PQL is defined to be 4 times the MDL

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514

ATTACHMENT 3

TABLES

**Table 1. Summary of Leachate Effluent Quality Analytical Results
Citrus County Central Landfill**

Parameter	Standard	MCL	Units	Leachate Effluent												4/28/2011	5/25/2011
				10/15/2008	1/27/2009	4/20/2009	7/21/2009	9/9/2009	10/14/2009	1/26/2010	5/12/2010	7/27/2010	9/9/2010	10/27/2010	1/19/2011		
Volatile Organics								Resample					Resample				Resample
Acetone	GCTL	6300	ug/L	---	---	---	21	---	---	---	---	40	15 I	---	---	---	---
Benzene	PDWS	1	ug/L	0.5 U	1 U	0.5 U	0.5 U	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	---
Carbon Tetrachloride	PDWS	3	ug/L	---	---	---	1 U	---	---	---	---	1.2	0.45 I	---	---	---	---
Chlorobromomethane	GCTL	91	ug/L	---	---	---	0.58 U	0.58 U	---	---	---	5.7	0.58 U	---	---	---	---
Chloromethane	GCTL	2.7	ug/L	---	---	---	1 U	---	---	---	---	2.4 I	1.0 U	---	---	---	---
Dibromomethane	GCTL	70	ug/L	---	---	---	0.41 U	---	---	---	---	5.8	0.41 U	---	---	---	---
Ethylbenzene	SDWS	30	ug/L	0.5 U	1 U	0.5 U	0.44 U	---	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	---
Ethylene Dibromide	PDWS	0.02	ug/L	0.0061 U	0.0064 U	0.0064 U	0.5 U	---	0.0061 U	0.0098 U	0.0096 U	0.010 U	---	0.010 U	0.0097 U	0.011 U	---
Toluene	SDWS	40	ug/L	0.5 U	1 U	0.5 U	0.51 U	---	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	---
Vinyl chloride	PDWS	1	ug/L	0.53 U	1.1 U	0.53 U	0.5 U	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	---
Xylenes, Total	SDWS	20	ug/L	1 U	2.1 I	1 U	0.5 U	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	---
Trihalomethanes																	
Bromodichloromethane	See Total THMs		ug/L	---	14	---	410	0.35 U	---	13	---	870	170	0.35 U	0.35 U	---	---
Bromoform	See Total THMs		ug/L	---	2.9	---	71	0.58 U	---	7	---	190	36	0.58 U	0.58 U	---	---
Chloroform	See Total THMs		ug/L	---	11	---	370	0.90 U	---	8.3	---	900	110	0.90 U	0.9 U	---	---
Dibromochloromethane	See Total THMs		ug/L	---	6.9	---	280	0.58 U	---	9.7	---	670	110	0.34 U	0.34 U	---	---
Total THMs	Permit	100	ug/L	---	34.8	---	1131	Not Detected	---	38	---	2630	426	Not Detected	Not Detected	---	---
Metals																	
Antimony	PDWS	0.006	mg/L	---	---	---	---	---	---	---	---	0.0031 I	---	---	---	---	---
Arsenic	PDWS	0.01	mg/L	---	---	---	0.0091 I	---	---	---	---	0.025	0.02	0.034	0.012	36	---
Barium	PDWS	2	mg/L	---	---	---	0.058	---	---	---	---	0.081	---	---	---	---	---
Cobalt	GCTL	0.14	mg/L	---	---	---	0.011	---	---	---	---	0.019	---	---	---	---	---
Chromium	PDWS	0.1	mg/L	---	---	---	0.0058 I	---	---	---	---	0.0066	---	---	---	---	---
Copper	SDWS	1	mg/L	---	---	---	0.014	---	---	---	---	0.024	---	---	---	---	---
Lead	PDWS	0.015	mg/L	---	---	---	0.002 U	---	---	---	---	0.0031	---	---	---	---	---
Nickel	PDWS	0.1	mg/L	---	---	---	0.046	---	---	---	---	0.071	---	---	---	---	---
Iron	SDWS	0.3	mg/L	---	---	---	0.068 I	---	---	---	---	0.058 I	---	---	---	---	---
Zinc	SDWS	5	mg/L	---	---	---	0.020 I	---	---	---	---	0.031	---	---	---	---	---
General Chemistry																	
Ammonia, Total	GCTL	2.8	mg/L	0.094	1.1	0.19	0.16	---	0.010 U	0.086	0.17	0.09	---	0.013 I	0.01	10	0.7
Chloride	SDWS	250	mg/L	940	1300	1500	710	---	910	1000	1200	1300	---	1000	750	960	---
Cyanide	PDWS	0.2	mg/L	---	---	---	0.014	---	---	---	---	---	---	---	---	---	---
Sodium	PDWS	160	mg/L	570	800	820	430	---	570	580	750	830	---	670	400	630	---
TDS	SDWS	500	mg/L	2400	2800	3000	1800	---	2000	2200	2900	1500	---	2500	1600	2400	---
TOC	NS	NS	mg/L	---	---	---	---	---	---	---	---	---	---	140	---	---	---
General Field Parameters																	
Conductivity	NS	NS	umhos/cm	3929	4907	4820	3462	2786	3772	3475	4752	4617	4167	4358	3176	3780	4701
Dissolved Oxygen	NS	NS	mg/L	2.96	0.93	2.78	1.34	0.3	0.72	7.01	0.75	1.22	1.42	1.36	6.01	8.38	0.14
pH	SDWS	6.5-8.5	pH Units	7.87	7.79	7.68	7.49	7.94	7.83	7.27	7.52	7.37	7.69	8.1	7.52	8.13	7.81
Oxygen Reduction Potential	NS	NS	mV	---	---	---	---	---	228	25.8	350.7	-1.8	164.3	40.2	197.6	216.7	---
Temperature, Water	NS	NS	deg C	26.55	17.35	24.83	31.5	27.9	27.9	17.1	27.2	28.5	29.4	26.2	---	27.3	27.5
Turbidity	NS	NS	NTU	1.07	1.65	5	---	6.67	4.73	1.84	7.94	3.4	2.71	4.55	---	10.8	7.04

Notes

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.).
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.).
3. GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.).
4. THMs = Trihalomethanes
5. NS = No numeric standard has been set for this analyte.
6. --- = Parameter not analyzed.
7. mg/l: milligrams per liter.
8. ug/l: micrograms per liter.
9. NTU: nephelometric turbidity units.
10. Yellow Shaded values indicate parameter concentrations exceeded primary, secondary Drinking Water Standards or groundwater cleanup target levels.
11. I = Analyte detected below quantitation limits.
12. U = Analyte concentration was below the laboratory detection limit (value shown).

**Table 2. Twelve Month Summary of Leachate Effluent Monthly Analytical Results
Citrus County Central Landfill**

Parameter	Standard	MCL	Units												
				7/14/2010	8/4/2010	9/15/2010	10/5/2010	11/2/2010	12/8/2010	1/5/2011	2/2/2011	3/9/2011	4/14/2011	5/10/2011	6/16/2011
CBOD	Permit	20	mg/L	1.85	1.92	3.45	2.35	2.07	1.72	3.11	6.44	17.13	4.42	3.74	2.5
TSS	Permit	20	mg/L	1.0 U	2.5	1.5	1.5	1.0 U	2	<1	3	15.5	7.5	2.5	3.5
Nitrate	Permit	10	mg/L	4.2	1.65	6.02	1.87	1.55	5.95	0.12	2.48	0.42	0.28	0.24	0.94

Notes

1. mg/l: milligrams per liter.
2. ug/l: micrograms per liter.
3. Yellow Shaded values indicate parameter concentrations exceeded Permit MCL levels.
4. I = Analyte detected below quantitation limits.
5. U = Analyte concentration was below the laboratory detection limit (value shown).

**Table 3. 2010 and 2011 Summary of Monitoring Well MW-6
for Arsenic, Sodium, Chloride, and TDS Citrus County Central Landfill**

Parameter	Standard	MCL	Units	MW-6		
				1/26/2010	7/27/2010	1/19/2011
Arsenic	PDWS	10	mg/L	1.3 U	1.3 U	1.3 U
Sodium	PDWS	160	mg/L	120	100	100
Chloride	SDWS	250	mg/L	220	220	220
TDS	SDWS	500	mg/L	400	400	380

Notes

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.).
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.).
3. mg/l: milligrams per liter.
4. ug/l: micrograms per liter.
5. Yellow Shaded values indicate parameter concentrations exceeded primary or secondary Drinking Water Standards.
6. **I** = Analyte detected below quantitation limits.
7. **U** = Analyte concentration was below the laboratory detection limit (value shown).

ATTACHMENT 4

COMPACT DISK CONTAINING
REPORT IN PDF FORMAT AND
ADaPT FILE