Hillsborough County
Florida

Office of the County Administrator
Michael S. Merrill

April 1, 2013

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Solid Waste Section
13051 Telecom Parkway
Temple Terrace, FL 33637

Re: **Southeast County Landfill**
Leachate Treatment Plant
Effluent Analytical Data – First Quarter (January-March, 2013)

Dear Mr. Morris:

In accordance with Specific Condition E.9.b(2) of the Southeast County Landfill (SCLF) Operation Permit No. 35435-014-SO/01, the Hillsborough County Public Utilities Department (County), is pleased to provide the laboratory analytical data for the first quarter effluent sampling of the leachate treatment plant located at 15960 County Road 672 in Lithia, Florida.

The referenced permit requires the monthly sampling of the leachate treatment plant effluent and the recording of the plant pH values. Monthly effluent samples are collected by the County and analyzed for Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), and Nitrate.

The daily pH values recorded by plant personnel during this quarterly period ranged from 7.4 - 8.2 pH units and the monthly analytical samples ranged from 7.97 - 8.16 pH units. These values represent compliance with the State of Florida Secondary Drinking Water Standard (FAC Ch. 62-550.320) for pH. County personnel collected the effluent samples from the dedicated sampling port at the treatment plant on January 10, February 6, and March 6, 2013.

All collected samples were analyzed by our contracted laboratory, Test America, Inc. and the analytical data reports are provided herein for your technical review. No significant changes in the concentrations of any parameters were noted during this quarterly reporting period.

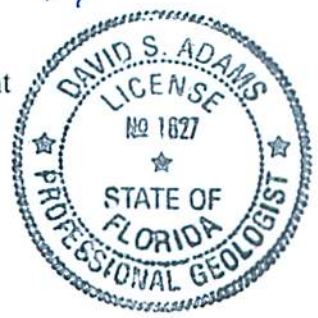
Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact us at (813) 663-3221 or (813) 663-3222.

Sincerely,

Michael D. Townsel 4-1-2013
Senior Hydrologist
Public Utilities Department
Environmental Services

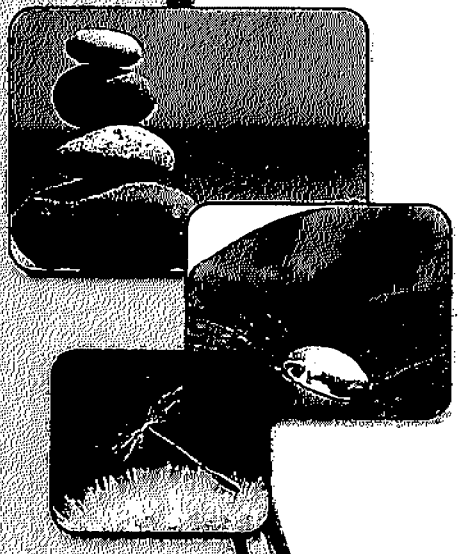
Sincerely,

David S. Adams, P.G. 4/1/2013
Environmental Manager
Public Utilities Department
Environmental Services



DSA/mdt
Enclosures
xc: Larry Ruiz, Public Utilities
Andy Berry, Public Utilities
Ron Cope, EPC

G:enviro/self/leachate plant/ltp-effluent-1stqtr2013.doc



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: 660-52098-1
Client Project/Site: Leachate Effluent

For:
Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
1/22/2013 9:10:00 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Table of Contents

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-52098-1	LEACHATE EFFLUENT	Water	01/10/13 11:30	01/10/13 16:00
660-52098-2	BLANK EQUIPMENT	Water	01/10/13 11:20	01/10/13 16:00

Job ID: 660-52098-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-52098-1

Comments
No additional comments.

Receipt
The samples were received on 1/10/2013 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.3° C, 3.3° C and 4.0° C.

General Chemistry
Method SM 2540D: The sample duplicate %RPD associated with batch 133434 was outside the control limits.

Method SM 5220D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 263099 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Qualifiers

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.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Glossary

Abbreviation	Those 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
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Client Sample ID: LEACHATE EFFLUENT — Lab Sample ID: 660-52098-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	17		0.50	0.10	mg/L	1		353.2	Total/NA
Total Dissolved Solids	5700		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	73		1.7	1.7	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	47		24	24	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	580		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	7.97				SU	1		Field Sampling	Total/NA
Field Temperature	28.31				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.65				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11413				umhos/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT — Lab Sample ID: 660-52098-2

No Detections

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Client Sample ID: LEACHATE EFFLUENT
Date Collected: 01/10/13 11:30
Date Received: 01/10/13 16:00

Lab Sample ID: 660-52098-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	17		0.50	0.10	mg/L			01/12/13 08:12	1
Total Dissolved Solids	5700		250	250	mg/L			01/16/13 13:34	1
Total Suspended Solids	73		1.7	1.7	mg/L			01/14/13 10:17	1
Biochemical Oxygen Demand	47		24	24	mg/L			01/11/13 12:10	1
Chemical Oxygen Demand	580		20	6.3	mg/L			01/17/13 12:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.97				SU			01/10/13 11:30	1
Field Temperature	28.31				Degrees C			01/10/13 11:30	1
Oxygen, Dissolved	4.65				mg/L			01/10/13 11:30	1
Specific Conductance	11413				umhos/cm			01/10/13 11:30	1

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Client Sample ID: BLANK EQUIPMENT
Date Collected: 01/10/13 11:20
Date Received: 01/10/13 16:00

Lab Sample ID: 660-52098-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			01/12/13 08:12	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			01/16/13 13:34	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			01/15/13 06:44	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			01/11/13 12:10	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			01/17/13 12:32	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-133506/5
Matrix: Water
Analysis Batch: 133506

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			01/12/13 08:12	1

Lab Sample ID: LCS 660-133506/6
Matrix: Water
Analysis Batch: 133506

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.960		mg/L		96	90 - 110
Nitrite as N	0.500	0.495	I	mg/L		99	90 - 110

Lab Sample ID: 660-52102-B-2 MS
Matrix: Water
Analysis Batch: 133506

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	1.00	1.04		mg/L		104	90 - 110
Nitrite as N	0.10	U	0.500	0.523		mg/L		105	90 - 110

Lab Sample ID: 660-52102-B-2 MSD
Matrix: Water
Analysis Batch: 133506

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	1.00	1.05		mg/L		105	90 - 110	1	30
Nitrite as N	0.10	U	0.500	0.522		mg/L		104	90 - 110	0	30

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

Lab Sample ID: MB 660-133505/1
Matrix: Water
Analysis Batch: 133505

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			01/16/13 13:34	1

Lab Sample ID: LCS 660-133505/2
Matrix: Water
Analysis Batch: 133505

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9900		mg/L		99	80 - 120

Lab Sample ID: 640-41852-K-2 DU
Matrix: Water
Analysis Batch: 133505

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	5800		5100		mg/L		13	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-133394/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133394

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			01/14/13 10:17	1

Lab Sample ID: LCS 660-133394/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	96.0		mg/L		96	80 - 120

Lab Sample ID: 660-52098-1 DU — **Client Sample ID: LEACHATE EFFLUENT**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133394

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	73		66.7		mg/L		9	20

Lab Sample ID: MB 660-133434/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133434

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			01/15/13 06:44	1

Lab Sample ID: LCS 660-133434/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	92.8		mg/L		93	80 - 120

Lab Sample ID: 660-52100-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133434

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	21		28.4	J3	mg/L		31	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-133345/2 SCB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133345

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			01/11/13 09:02	1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: USB 660-133345/1 USB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133345

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			01/11/13 09:02	1

Lab Sample ID: LCS 660-133345/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	178		mg/L		90	85 - 115

Lab Sample ID: 640-41827-C-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133345

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	120		122		mg/L		0.4	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-263099/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263099

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			01/17/13 12:32	1

Lab Sample ID: LCS 680-263099/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	96.9		mg/L		97	90 - 110

Lab Sample ID: 640-41827-G-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263099

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	280	J3	100	362	J3	mg/L		82	90 - 110

Lab Sample ID: 640-41827-G-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263099

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	280	J3	100	362	J3	mg/L		82	90 - 110	0	30

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

General Chemistry

Analysis Batch: 133345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-41827-C-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-52098-2	BLANK EQUIPMENT	Total/NA	Water	SM 5210B	
LCS 660-133345/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-133345/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-133345/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 133394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-52098-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
LCS 660-133394/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-133394/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 133434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52098-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540D	
660-52100-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 660-133434/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-133434/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 133505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-41852-K-2 DU	Duplicate	Total/NA	Water	SM 2540C	
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-52098-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540C	
LCS 660-133505/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-133505/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 133506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-52098-2	BLANK EQUIPMENT	Total/NA	Water	353.2	
660-52102-B-2 MS	Matrix Spike	Total/NA	Water	353.2	
660-52102-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-133506/6	Lab Control Sample	Total/NA	Water	353.2	
MB 660-133506/5	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 263099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-41827-G-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
640-41827-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
660-52098-2	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
LCS 660-263099/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 660-263099/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 133388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52098-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-52098-1

Date Collected: 01/10/13 11:30

Matrix: Water

Date Received: 01/10/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	133345	01/11/13 12:10	AG	TAL TAM
Total/NA	Analysis	SM 2540D		1	133394	01/14/13 10:17	TO	TAL TAM
Total/NA	Analysis	SM 2540C		1	133505	01/16/13 13:34	TO	TAL TAM
Total/NA	Analysis	353.2		1	133506	01/12/13 08:12	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	263099	01/17/13 12:32	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	133388	01/10/13 11:30		TAL TAM

Client Sample ID: BLANK EQUIPMENT

Lab Sample ID: 660-52098-2

Date Collected: 01/10/13 11:20

Matrix: Water

Date Received: 01/10/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	133345	01/11/13 12:10	AG	TAL TAM
Total/NA	Analysis	SM 2540D		1	133434	01/15/13 06:44	TO	TAL TAM
Total/NA	Analysis	SM 2540C		1	133505	01/16/13 13:34	TO	TAL TAM
Total/NA	Analysis	353.2		1	133506	01/12/13 08:12	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	263099	01/17/13 12:32	TAR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
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.

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52098-1

Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13
USDA	Federal		P330-11-00177	04-20-14

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	02-28-13
A2LA	ISO/IEC 17025		399.01	02-28-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-12
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-12
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	02-28-13
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-12
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-12
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	12-31-12
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-13
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-12

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

660-52098

HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT COC SHEET
LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT

PRECLEANED SAMPLE CONTAINERS:

		DATE	TIME
RELINQUISHED BY:	REP. OF CONTRACT LAB.		
ACCEPTED BY: Jim Clayton	REP. OF SOLID WASTE DEPT.	1.10.13	9:20

LOCATION: **LEACHATE EFFLUENT** SAMPLE MATRIX: **WATER** OTHER MATRIX: ___

PERSONAL ENGAGED IN SAMPLE COLLECTION: ☑ A.Balloon ☑ J. Clayton ☐

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
ABC	11:30	28.31	11413	7.97	4.65	N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	1	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
2	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLORS & SHEENS: YES N/A NO

COLLECTED
DATE | TIME
1.10.13 | 11:30

ANALYSIS REQUESTED:

MONTHLY LEACHATE PLANT PARAMETERS BOD TSS NITRATE TDS COD

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 c

ABOVE LISTED SAMPLES:		DATE	TIME
RELINQUISHED BY:	REP. OF SOLID WASTE DEPT.	1.10.13	4:00
ACCEPTED BY:	REP. OF CONTRACT LAB.	1.10.13	4:00

COMMENT`S:

3.3, 2.3, 4.0c CV-07

HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT COC SHEET

LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT EQUIPMENT BLANK

PRECLEANED SAMPLE CONTAINERS: | DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Lin Clayton REP. OF SOLID WASTE DEPT. 1.10.13 | 9:20

LOCATION: **EQUIPMENT BLANK** SAMPLE MATRIX: **WATER** OTHER MATRIX: ___

PERSONAL ENGAGED IN SAMPLE COLLECTION: ☑ A.Balloon ☑ J Clayton ☐

FIELD PARAMETERS: N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	1	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
2	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLORS & SHEENS: YES N/A NO

COLLECTED DATE | TIME
1.10.13 | 11:20

ANALYSIS REQUESTED:

MONTHLY LEACHATE PLANT PARAMETERS **BOD** **TSS** **NITRATE** **TDS** **COD**

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 c

ABOVE LISTED SAMPLES: DATE | TIME

RELINQUISHED BY: _____ REP. OF SOLID WASTE DEPT. 1.10.13 | 4:00

ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.10.13 | 4:00

COMMENT`S: _____

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

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-52038.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**		Job #: 660-52098-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 1/17/2013			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	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)	8225C COD	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LEACHATE EFFLUENT (660-52098-1)	1/10/13	11:30 Eastern		Water			X		
BLANK EQUIPMENT (660-52098-2)	1/10/13	11:20 Eastern		Water			X		

Possible Hazard Identification
Unconfirmed

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: Erika Edwards	Date/Time: 1/11/13 1655	Company: TA Tampa	Received by:	Date/Time: 1/12/13 0710	Company: TA TPA
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: 1.3°C

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-52098-1

Login Number: 52098
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa

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

Login Sample Receipt Checklist

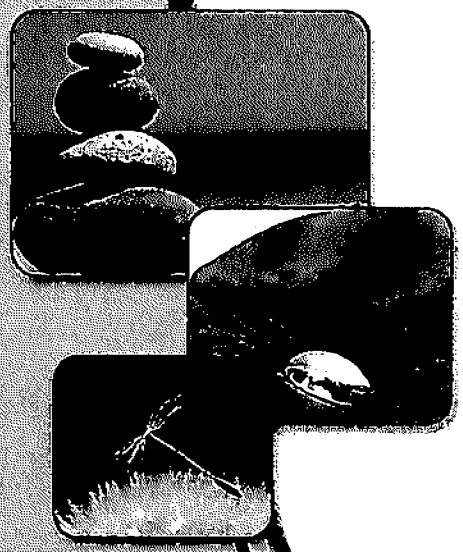
Client: Hillsborough County Public Utilities Dep

Job Number: 660-52098-1

Login Number: 52098
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 01/12/13 08:49 AM

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



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: 660-52543-1
Client Project/Site: Leachate Effluent

For:
Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
2/19/2013 3:22:28 PM

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

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. 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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-52543-1	Leachate Effluent	Water	02/06/13 13:36	02/06/13 15:55
660-52543-2	Duplicate	Water	02/06/13 00:00	02/06/13 15:55
660-52543-3	Equipment Blank	Water	02/06/13 13:31	02/06/13 15:55

Case Narrative

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Job ID: 660-52543-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-52543-1

Comments
No additional comments.

Receipt
The samples were received on 2/6/2013 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

General Chemistry
Method SM 2540C: The following samples were analyzed outside of analytical holding time for TDS due to Lab Error: Duplicate (660-52543-2), Equipment Blank (660-52543-3), Leachate Effluent (660-52543-1). The sample is consistent with historical results. The samples are flagged with Q.

No other analytical or quality issues were noted.

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
Q	Sample held beyond the accepted holding time.

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
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Client Sample ID: Leachate Effluent — Lab Sample ID: 660-52543-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	130		50	10	mg/L	100		353.2	Total/NA
Total Dissolved Solids	6100	Q	250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	48		1.3	1.3	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	89		40	40	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	620		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	8.16				SU	1		Field Sampling	Total/NA
Field Temperature	25.61				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	5.66				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11404				umhos/cm	1		Field Sampling	Total/NA

Client Sample ID: Duplicate — Lab Sample ID: 660-52543-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	130		50	10	mg/L	100		353.2	Total/NA
Total Dissolved Solids	5700	Q	250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	67		1.6	1.6	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	92		40	40	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	610		20	6.3	mg/L	1		SM 5220D	Total/NA

Client Sample ID: Equipment Blank — Lab Sample ID: 660-52543-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	15	I	20	6.3	mg/L	1		SM 5220D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-52543-1

Date Collected: 02/06/13 13:36
Date Received: 02/06/13 15:55

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	130		50	10	mg/L			02/08/13 06:06	100
Total Dissolved Solids	6100	Q	250	250	mg/L			02/14/13 15:16	1
Total Suspended Solids	48		1.3	1.3	mg/L			02/12/13 09:46	1
Biochemical Oxygen Demand	89		40	40	mg/L			02/07/13 10:59	1
Chemical Oxygen Demand	620		20	6.3	mg/L			02/13/13 11:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.16				SU			02/06/13 13:36	1
Field Temperature	25.61				Degrees C			02/06/13 13:36	1
Oxygen, Dissolved	5.66				mg/L			02/06/13 13:36	1
Specific Conductance	11404				umhos/cm			02/06/13 13:36	1

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Client Sample ID: Duplicate
Date Collected: 02/06/13 00:00
Date Received: 02/06/13 15:55

Lab Sample ID: 660-52543-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	130		50	10	mg/L			02/08/13 06:06	100
Total Dissolved Solids	5700	Q	250	250	mg/L			02/14/13 15:16	1
Total Suspended Solids	67		1.6	1.6	mg/L			02/12/13 09:46	1
Biochemical Oxygen Demand	92		40	40	mg/L			02/07/13 12:07	1
Chemical Oxygen Demand	610		20	6.3	mg/L			02/13/13 11:13	1

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Client Sample ID: Equipment Blank
Date Collected: 02/06/13 13:31
Date Received: 02/06/13 15:55

Lab Sample ID: 660-52543-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			02/08/13 06:06	1
Total Dissolved Solids	5.0	Q U	5.0	5.0	mg/L			02/14/13 15:16	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			02/12/13 09:46	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			02/07/13 12:07	1
Chemical Oxygen Demand	15	I	20	6.3	mg/L			02/13/13 11:13	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-134249/5
Matrix: Water
Analysis Batch: 134249

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			02/08/13 06:06	1

Lab Sample ID: LCS 660-134249/6
Matrix: Water
Analysis Batch: 134249

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.974		mg/L		97	90 - 110
Nitrite as N	0.500	0.499	I	mg/L		100	90 - 110

Lab Sample ID: 660-52536-H-2 MS
Matrix: Water
Analysis Batch: 134249

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	1.00	1.05		mg/L		105	90 - 110
Nitrite as N	0.10	U	0.500	0.507		mg/L		101	90 - 110

Lab Sample ID: 660-52536-H-2 MSD
Matrix: Water
Analysis Batch: 134249

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	1.00	1.03		mg/L		103	90 - 110	2	30
Nitrite as N	0.10	U	0.500	0.494	I	mg/L		99	90 - 110	3	30

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

Lab Sample ID: MB 660-134491/1
Matrix: Water
Analysis Batch: 134491

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			02/14/13 15:16	1

Lab Sample ID: LCS 660-134491/2
Matrix: Water
Analysis Batch: 134491

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9820		mg/L		98	80 - 120

Lab Sample ID: 640-42234-A-3 DU
Matrix: Water
Analysis Batch: 134491

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	590		567		mg/L		3	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-134365/1
Matrix: Water
Analysis Batch: 134365

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			02/12/13 09:46	1

Lab Sample ID: LCS 660-134365/2
Matrix: Water
Analysis Batch: 134365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	98.8		mg/L		99	80 - 120

Lab Sample ID: 660-52554-A-24 DU
Matrix: Water
Analysis Batch: 134365

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	320		333		mg/L		4	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-134200/2 SCB
Matrix: Water
Analysis Batch: 134200

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

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			02/07/13 07:41	1

Lab Sample ID: USB 660-134200/1 USB
Matrix: Water
Analysis Batch: 134200

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

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			02/07/13 07:41	1

Lab Sample ID: LCS 660-134200/3
Matrix: Water
Analysis Batch: 134200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	181		mg/L		91	85 - 115

Lab Sample ID: 660-52536-B-4 DU
Matrix: Water
Analysis Batch: 134200

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	2.0	U	2.0	U	mg/L		NC	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-266163/3
Matrix: Water
Analysis Batch: 266163

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			02/13/13 11:13	1

Lab Sample ID: LCS 680-266163/4
Matrix: Water
Analysis Batch: 266163

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	94.7		mg/L		95	90 - 110

Lab Sample ID: 680-87171-E-2 MS
Matrix: Water
Analysis Batch: 266163

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	17	I	100	117		mg/L		100	90 - 110

Lab Sample ID: 680-87171-E-2 MSD
Matrix: Water
Analysis Batch: 266163

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	17	I	100	117		mg/L		100	90 - 110	0	30

General Chemistry

Analysis Batch: 134200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52536-B-4 DU	Duplicate	Total/NA	Water	SM 5210B	
660-52543-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-52543-2	Duplicate	Total/NA	Water	SM 5210B	
660-52543-3	Equipment Blank	Total/NA	Water	SM 5210B	
LCS 660-134200/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-134200/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-134200/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 134249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52536-H-2 MS	Matrix Spike	Total/NA	Water	353.2	
660-52536-H-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-52543-1	Leachate Effluent	Total/NA	Water	353.2	
660-52543-2	Duplicate	Total/NA	Water	353.2	
660-52543-3	Equipment Blank	Total/NA	Water	353.2	
LCS 660-134249/6	Lab Control Sample	Total/NA	Water	353.2	
MB 660-134249/5	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 134365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52543-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-52543-2	Duplicate	Total/NA	Water	SM 2540D	
660-52543-3	Equipment Blank	Total/NA	Water	SM 2540D	
660-52554-A-24 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 660-134365/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-134365/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 134491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42234-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	
660-52543-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-52543-2	Duplicate	Total/NA	Water	SM 2540C	
660-52543-3	Equipment Blank	Total/NA	Water	SM 2540C	
LCS 660-134491/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-134491/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 266163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52543-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-52543-2	Duplicate	Total/NA	Water	SM 5220D	
660-52543-3	Equipment Blank	Total/NA	Water	SM 5220D	
680-87171-E-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-87171-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-266163/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-266163/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 134430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52543-1	Leachate Effluent	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public.Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-52543-1

Date Collected: 02/06/13 13:36
Matrix: Water
Date Received: 02/06/13 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	134200	02/07/13 10:59	AG	TAL TAM
Total/NA	Analysis	353.2		100	134249	02/08/13 06:06	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	134365	02/12/13 09:46	TO	TAL TAM
Total/NA	Analysis	SM 2540C		1	134491	02/14/13 15:16	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	266163	02/13/13 11:13	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	134430	02/06/13 13:36		TAL TAM

Client Sample ID: Duplicate

Lab Sample ID: 660-52543-2

Date Collected: 02/06/13 00:00
Matrix: Water
Date Received: 02/06/13 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	134200	02/07/13 12:07	AG	TAL TAM
Total/NA	Analysis	353.2		100	134249	02/08/13 06:06	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	134365	02/12/13 09:46	TO	TAL TAM
Total/NA	Analysis	SM 2540C		1	134491	02/14/13 15:16	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	266163	02/13/13 11:13	TAR	TAL SAV

Client Sample ID: Equipment Blank

Lab Sample ID: 660-52543-3

Date Collected: 02/06/13 13:31
Matrix: Water
Date Received: 02/06/13 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	134200	02/07/13 12:07	AG	TAL TAM
Total/NA	Analysis	353.2		1	134249	02/08/13 06:06	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	134365	02/12/13 09:46	TO	TAL TAM
Total/NA	Analysis	SM 2540C		1	134491	02/14/13 15:16	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	266163	02/13/13 11:13	TAR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
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.

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-52543-1

Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13
USDA	Federal		P330-11-00177	04-20-14

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	02-28-13
A2LA	ISO/IEC 17025		399.01	02-28-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-12
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-12
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	02-28-13
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-12
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	12-31-12
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-13
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-12
West Virginia DEP	State Program	3	94	06-30-13

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

660-52543

HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT COC SHEET
LEACHATE TRUCKS AND TANKS MONITORING PROGRAM
LEACHATE PLANT

PRECLEANED SAMPLE CONTAINERS:

		DATE	TIME
RELINQUISHED BY:	REP. OF CONTRACT LAB.		
ACCEPTED BY:	REP. OF SOLID WASTE DEPT.	1-30-13	12:30

LOCATION: **LEACHATE EFFLUENT** SAMPLE MATRIX: **WATER** OTHER MATRIX: ___

PERSONAL ENGAGED IN SAMPLE COLLECTION: ☑ A.Balloon ☑ JC ☐

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB JC	1:32	25.41	11404	8.14	5.66	N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	1	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
2	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLORS & SHEENS: YES N/A NO

COLLECTED DATE	TIME
2.6.13	1:36

ANALYSIS REQUESTED:

MONTHLY LEACHATE PLANT PARAMETERS BOD TSS NITRATE TDS COD

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 c

ABOVE LISTED SAMPLES:		DATE	TIME
RELINQUISHED BY:	REP. OF SOLID WASTE DEPT.	2.6.13	3:55
ACCEPTED BY:	REP. OF CONTRACT LAB.	2.6.13	3:55

COMMENT`S:

4.1°C mo7

HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT COC SHEET

LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT

PRECLEANED SAMPLE CONTAINERS: | DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: AB REP. OF SOLID WASTE DEPT. 1-30-13 | 1230

LOCATION: **Duplicate** SAMPLE MATRIX: **WATER** OTHER MATRIX: ___

PERSONAL ENGAGED IN SAMPLE COLLECTION: ☑ A.Balloon ☑ JC ☐

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB JC	NA					N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	1	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
2	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLORS & SHEENS: YES N/A NO

COLLECTED

DATE | TIME

2.6.13 |

ANALYSIS REQUESTED:

MONTHLY LEACHATE PLANT PARAMETERS BOD TSS NITRATE TDS COD

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 c

ABOVE LISTED SAMPLES: DATE | TIME

RELINQUISHED BY: _____ REP. OF SOLID WASTE DEPT. 2.6.13 | 3:55

ACCEPTED BY: _____ REP. OF CONTRACT LAB. 2.6.13 | 3:55

COMMENT`S: _____

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET

LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT EQUIPMENT BLANK

		DATE	TIME
PRECLEANED SAMPLE CONTAINERS:			
RELINQUISHED BY:	REP. OF CONTRACT LAB.		
ACCEPTED BY:	REP. OF SOLID WASTE DEPT.	1-30-13	12:50

LOCATION: **EQUIPMENT BLANK** SAMPLE MATRIX: **WATER** OTHER MATRIX: ___

PERSONAL ENGAGED IN SAMPLE COLLECTION: ☑ A.Balloon ☑ SC ☐

FIELD PARAMETERS: N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	1	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
2	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLORS & SHEENS: YES N/A NO

COLLECTED	
DATE	TIME
2.6.13	1:31

ANALYSIS REQUESTED:

BOD5 COD TSS Nitrate-N TDS

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 c

		DATE	TIME
ABOVE LISTED SAMPLES:			
RELINQUISHED BY:	REP. OF SOLID WASTE DEPT.	2.6.13	3:55
ACCEPTED BY:	REP. OF CONTRACT LAB.	2.6.13	3:55

COMMENT`S: ___

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

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-52832.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 660-52543-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 2/13/2013	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)
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email	WO #:			Other:
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

Sample Identification - Client ID (Lab ID)	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)	5220D/ COD sub to Savannah	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate Effluent (660-52543-1)	2/6/13	13:38 Eastern		Water			X		
Duplicate (660-52543-2)	2/6/13	Eastern		Water			X		
Equipment Blank (660-52543-3)	2/6/13	13:31 Eastern		Water			X		

Possible Hazard Identification Unconfirmed	*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: Erika Edwards	Date/Time: 2/7/13 1548	Company: TAT Tampa	Received by:	Date/Time: 02/09/13 0805	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: 4.4°C		

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-52543-1

Login Number: 52543
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa

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

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-52543-1

Login Number: 52543
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 02/09/13 09:51 AM

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

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: 660-53060-1
Client Project/Site: Leachate Effluent

For:
Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
3/21/2013 12:35:01 PM

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

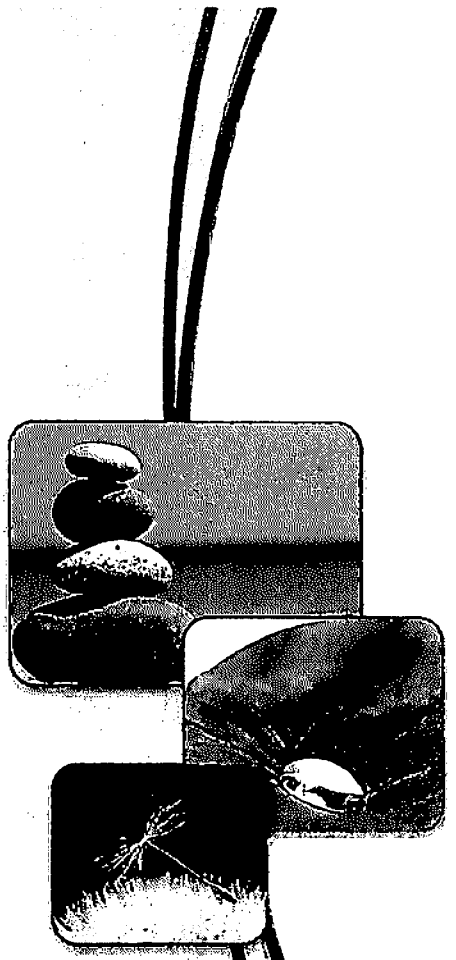


Table of Contents

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-53060-1	LEACHATE EFFLUENT	Water	03/06/13 12:22	03/06/13 15:24
660-53060-2	BLANK EQUIPMENT 53060	Water	03/06/13 12:15	03/06/13 15:24

Case Narrative

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Job ID: 660-53060-1

Laboratory: TestAmerica Tampa

4

Narrative

Job Narrative
660-53060-1

Comments
No additional comments.

Receipt
The samples were received on 3/6/2013 3:24 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.5° C.

General Chemistry
No analytical or quality issues were noted.

Qualifiers

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
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
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Client Sample ID: LEACHATE EFFLUENT — Lab Sample ID: 660-53060-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	95		25	5.0	mg/L	50		353.2	Total/NA
Total Dissolved Solids	6100		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	80		1.8	1.8	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	16		12	12	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	520		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	8.04				SU	1		Field Sampling	Total/NA
Field Temperature	22.18				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	5.82				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11107				umhos/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT 53060 — Lab Sample ID: 660-53060-2

No Detections

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-53060-1

Date Collected: 03/06/13 12:22
Date Received: 03/06/13 15:24

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	95		25	5.0	mg/L			03/07/13 08:09	50
Total Dissolved Solids	6100		250	250	mg/L			03/11/13 14:56	1
Total Suspended Solids	80		1.8	1.8	mg/L			03/12/13 08:08	1
Biochemical Oxygen Demand	18		12	12	mg/L			03/07/13 10:20	1
Chemical Oxygen Demand	520		20	6.3	mg/L			03/12/13 11:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.04				SU			03/06/13 12:22	1
Field Temperature	22.18				Degrees C			03/06/13 12:22	1
Oxygen, Dissolved	5.82				mg/L			03/06/13 12:22	1
Specific Conductance	11107				umhos/cm			03/06/13 12:22	1

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Client Sample ID: BLANK EQUIPMENT 53060
Date Collected: 03/06/13 12:15
Date Received: 03/06/13 15:24

Lab Sample ID: 660-53060-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			03/07/13 08:09	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			03/11/13 14:56	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			03/12/13 08:08	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			03/07/13 10:20	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			03/18/13 13:53	1

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Method: 353.2 - Nitrate

Lab Sample ID: MB 660-135177/5
Matrix: Water
Analysis Batch: 135177

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			03/07/13 08:09	1

Lab Sample ID: LCS 660-135177/6
Matrix: Water
Analysis Batch: 135177

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.959		mg/L		96	90 - 110
Nitrite as N	0.500	0.494	I	mg/L		99	90 - 110

Lab Sample ID: 660-53034-D-1 MS
Matrix: Water
Analysis Batch: 135177

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	1.00	0.931		mg/L		93	90 - 110
Nitrite as N	0.10	U	0.500	0.482	I	mg/L		96	90 - 110

Lab Sample ID: 660-53034-D-1 MSD
Matrix: Water
Analysis Batch: 135177

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	1.00	0.928		mg/L		93	90 - 110	0	30
Nitrite as N	0.10	U	0.500	0.483	I	mg/L		97	90 - 110	0	30

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

Lab Sample ID: MB 660-135269/1
Matrix: Water
Analysis Batch: 135269

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			03/11/13 14:56	1

Lab Sample ID: LCS 660-135269/2
Matrix: Water
Analysis Batch: 135269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9890		mg/L		99	80 - 120

Lab Sample ID: 660-53037-C-1 DU
Matrix: Water
Analysis Batch: 135269

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1070		mg/L		0.9	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-135280/1
Matrix: Water
Analysis Batch: 135280

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			03/12/13 08:08	1

Lab Sample ID: LCS 660-135280/2
Matrix: Water
Analysis Batch: 135280

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	97.2		mg/L		97	80 - 120

Lab Sample ID: 660-53060-1 DU
Matrix: Water
Analysis Batch: 135280

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	80		78.5		mg/L		2	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-135130/2 SCB
Matrix: Water
Analysis Batch: 135130

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

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			03/07/13 08:08	1

Lab Sample ID: USB 660-135130/1 USB
Matrix: Water
Analysis Batch: 135130

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

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			03/07/13 08:08	1

Lab Sample ID: LCS 660-135130/3
Matrix: Water
Analysis Batch: 135130

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	173		mg/L		87	85 - 115

Lab Sample ID: 660-53053-A-1 DU
Matrix: Water
Analysis Batch: 135130

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	20		21.3		mg/L		8	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-269070/3
Matrix: Water
Analysis Batch: 269070

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			03/12/13 11:43	1

Lab Sample ID: LCS 680-269070/4
Matrix: Water
Analysis Batch: 269070

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	99.1		mg/L		99	90 - 110

Lab Sample ID: 640-42546-D-1 MS
Matrix: Water
Analysis Batch: 269070

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50		100	146		mg/L		96	90 - 110

Lab Sample ID: 640-42546-D-1 MSD
Matrix: Water
Analysis Batch: 269070

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	50		100	146		mg/L		96	90 - 110	0	30

Lab Sample ID: MB 680-269739/3
Matrix: Water
Analysis Batch: 269739

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			03/18/13 13:53	1

Lab Sample ID: LCS 680-269739/4
Matrix: Water
Analysis Batch: 269739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	96.9		mg/L		97	90 - 110

Lab Sample ID: 660-53155-Q-1 MS
Matrix: Water
Analysis Batch: 269739

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	39		100	130		mg/L		91	90 - 110

Lab Sample ID: 660-53155-Q-1 MSD
Matrix: Water
Analysis Batch: 269739

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	39		100	130		mg/L		91	90 - 110	0	30

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QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

General Chemistry

Analysis Batch: 135130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53053-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-53060-2	BLANK EQUIPMENT 53060	Total/NA	Water	SM 5210B	
LCS 660-135130/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-135130/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-135130/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 135177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53034-D-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-53034-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-53060-2	BLANK EQUIPMENT 53060	Total/NA	Water	353.2	
LCS 660-135177/6	Lab Control Sample	Total/NA	Water	353.2	
MB 660-135177/5	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 135269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53037-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-53060-2	BLANK EQUIPMENT 53060	Total/NA	Water	SM 2540C	
LCS 660-135269/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-135269/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 135280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-53060-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-53060-2	BLANK EQUIPMENT 53060	Total/NA	Water	SM 2540D	
LCS 660-135280/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-135280/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 269070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42546-D-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
640-42546-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
LCS 680-269070/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-269070/3	Method Blank	Total/NA	Water	SM 5220D	

Analysis Batch: 269739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53060-2	BLANK EQUIPMENT 53060	Total/NA	Water	SM 5220D	
660-53155-Q-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
660-53155-Q-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-269739/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-269739/3	Method Blank	Total/NA	Water	SM 5220D	

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Field Service / Mobile Lab

Analysis Batch: 135186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53060-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

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Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-53060-1

Date Collected: 03/06/13 12:22
Matrix: Water
Date Received: 03/06/13 15:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	135130	03/07/13 10:20	DK	TAL TAM
Total/NA	Analysis	353.2		50	135177	03/07/13 08:09	RWF	TAL TAM
Total/NA	Analysis	SM 2540C		1	135269	03/11/13 14:56	TO	TAL TAM
Total/NA	Analysis	SM 2540D		1	135280	03/12/13 08:08	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	269070	03/12/13 11:43	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	135186	03/06/13 12:22		TAL TAM

Client Sample ID: BLANK EQUIPMENT 53060

Lab Sample ID: 660-53060-2

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Date Collected: 03/06/13 12:15
Matrix: Water
Date Received: 03/06/13 15:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	135130	03/07/13 10:20	DK	TAL TAM
Total/NA	Analysis	353.2		1	135177	03/07/13 08:09	RWF	TAL TAM
Total/NA	Analysis	SM 2540C		1	135269	03/11/13 14:56	TO	TAL TAM
Total/NA	Analysis	SM 2540D		1	135280	03/12/13 08:08	TO	TAL TAM
Total/NA	Analysis	SM 5220D		1	269739	03/18/13 13:53	TAR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
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.

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Effluent

TestAmerica Job ID: 660-53060-1

Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13
USDA	Federal		P330-11-00177	04-20-14

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	03-31-13
A2LA	ISO/IEC 17025		399.01	03-31-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	03-31-13
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

Serial Number

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

660-53060

TestAmerica Tampa
6712 Benjamin Rd, Suite 100
Tampa, FL 33634
www.testamericainc.com
Phone: (813) 885 7427
Fax: (813) 885 7049

Alternate Laboratory Name/Location:
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION
SELF Leachate Effluent		Lithia, FL
TESTAMERICA (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Nancy Robertson		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Michael Townsel	(813) 663-3222	(813) 274-6801
CLIENT NAME	CLIENT EMAIL	
Hills. County Public Utilities	townselm@hillsboroughcounty.org	
CLIENT ADDRESS		
332 North Falkenburg Road Tampa, Florida 33619		
COMPANY CONTRACTING THIS WORK	SAMPLER'S SIGNATURE	

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT...)

REQUIRED ANALYSES: COD (H2SO4); BOD (Ice); TDS (Ice); TSS (Ice); Nitrate (Ice)

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE)

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	COD (H2SO4)	BOD (Ice)	TDS (Ice)	TSS (Ice)	Nitrate (Ice)	REMARKS
3-6-13	12:22	LEACHATE EFFLUENT	G	X				4	4	4	4	4	4 BOTTLES TOTAL
3-6-13	12:15	EQUIPMENT BLANK	G	X				X	X	X	X	X	4 BOTTLES TOTAL

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	3-6-13	3:24						
RECEIVED BY: (SIGNATURE) Carol McNulty	DATE 3-6-13	TIME 3:24	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES NO	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
						3.5° C Ch.07

Original - Return to Laboratory with Sample(s)

FCU036:12.20.00:2

3/21/2013

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SOUTHEAST COUNTY LANDFILL	SITE LOCATION: LITHIA, FL	
WELL NO: LEACHATE EFFLUENT	SAMPLE ID: LEACHATE EFFLUENT	DATE: 3-6-13

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: N/A feet to N/A feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: N/A

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (N/A feet – N/A feet) X N/A gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1230	N/A	N/A	N/A	N/A	8.04	22.18	11,107	5.82	N/A	BROWN	YES-EFFLUENT

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 6.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / MIKE TOWNIE	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1222	SAMPLING ENDED AT: 1222
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: N/A	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)

REMARKS: SEE COC FOR SAMPLE ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

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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

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-53688.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 660-53080-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 3/13/2013	Analysis Requested		Preservation Codes:
City: Savannah	TAT Requested (days):			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)
State, Zip: GA, 31404	PO #			
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	WO #			Other:
Email:	Project #: 66003914			
Project Name: SELF,Leachate Trucks, EFF	SSOW#:			
Site: Leachate, Tank Trucks				

Sample Identification - Client ID (Lab ID)	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)	5220D/ COD sub to Savannah	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LEACHATE EFFLUENT (660-53060-1)	3/6/13	12:22 Eastern		Water			X	1	
BLANK EQUIPMENT (660-53060-2)	3/6/13	12:15 Eastern		Water			X	1	

Possible Hazard Identification Unconfirmed	*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: 3/13/13 1419	Company:	Received by:	Date/Time:	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(s) °C and Other Remarks	3.1°C.

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-53060-1

Login Number: 53060
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa

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

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-53060-1

Login Number: 53060
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 03/08/13 08:42 AM

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