



Public Utilities

July 31, 2014

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Public Utilities

PO Box 1110
Tampa, FL 33601-1110
Phone: (813) 272-5977
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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
Quarterly Analytical Data Report
Second Quarter: April - June 2014**

Dear Mr. Morris:

In accordance with Part 9.1.2 of the June 2013 Southeast County Landfill (SCLF) Leachate Management Plan (LMP), the Hillsborough County Public Utilities Department (County), is pleased to provide the quarterly laboratory analytical data for the sampling of effluent at the leachate treatment plant, located at the SCLF at 15960 County Road 672 in Lithia, Florida.

The referenced plan requires the monthly sampling of the leachate treatment plant effluent and the daily 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 ranged from 7.0 - 8.1 pH units, and the monthly analytical samples ranged from 7.77 – 8.11 pH units. These values are in compliance with the State of Florida Secondary Drinking Water Standard (FAC Ch. 62-550.320) for pH. County personnel collected effluent samples from the designated sampling port at the treatment plant on April 2, May 5, and June 3, 2014.

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

John Morris, P.G.
July 31, 2014
Page 2

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.

Respectfully,



Michael D. Townsel
Senior Hydrologist
Public Utilities Department
Environmental Services

7/31/2014



David S. Adams, P.G.
Environmental Manager
Public Utilities Department
Environmental Services

7/31/2014



DSA/mdt
G:enviro/self/leachate plant/ltp-effluent-2ndqtr2014.doc

Enclosures

xc: Kim Byer, Solid Waste-Public Works Dept.
Larry Ruiz, Solid Waste-Public Works Dept.
Cindy Pelley, Solid Waste-Public Works Dept.

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 660-59970-1

Client Project/Site: SELF Leachate Effluent

For:

Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams



Authorized for release by:
4/10/2014 11:28:35 AM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.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.

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Sample Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-59970-1	LEACHATE EFFLUENT	Water	04/02/14 12:10	04/02/14 13:55
660-59970-2	BLANK FIELD	Water	04/02/14 11:55	04/02/14 13:55

Case Narrative

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Job ID: 660-59970-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-59970-1

Comments

No additional comments.

Receipt

The samples were received on 4/2/2014 1:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7° C.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)
NC	Not Calculated
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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-59970-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	68		50	10	mg/L	100		353.2	Total/NA
Total Dissolved Solids	7300		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	48		6.9	6.9	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	140		40	40	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	610		100	50	mg/L	10		SM 5220D	Total/NA
Field pH	8.11				SU	1		Field Sampling	Total/NA
Field Temperature	26.37				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	3.83				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11490				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-59970-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-59970-1

Date Collected: 04/02/14 12:10

Matrix: Water

Date Received: 04/02/14 13:55

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	68		50	10	mg/L			04/02/14 16:47	100
Total Dissolved Solids	7300		50	50	mg/L			04/03/14 09:39	1
Total Suspended Solids	48		6.9	6.9	mg/L			04/03/14 05:58	1
Biochemical Oxygen Demand	140		40	40	mg/L			04/03/14 07:28	1
Chemical Oxygen Demand	610		100	50	mg/L			04/09/14 11:13	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.11				SU			04/02/14 12:10	1
Field Temperature	26.37				Degrees C			04/02/14 12:10	1
Oxygen, Dissolved	3.83				mg/L			04/02/14 12:10	1
Specific Conductance	11490				uS/cm			04/02/14 12:10	1

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-59970-2

Date Collected: 04/02/14 11:55

Matrix: Water

Date Received: 04/02/14 13:55

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			04/02/14 16:47	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			04/03/14 09:39	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			04/03/14 05:58	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			04/03/14 07:28	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			04/09/14 11:13	1

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-147340/12

Matrix: Water

Analysis Batch: 147340

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			04/02/14 16:47	1

Lab Sample ID: LCS 660-147340/13

Matrix: Water

Analysis Batch: 147340

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	0.985		mg/L		99	90 - 110
Nitrite as N	0.500	0.491	I	mg/L		98	90 - 110

Lab Sample ID: 660-59946-A-1 MS

Matrix: Water

Analysis Batch: 147340

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	J3 U	1.00	0.814	J3	mg/L		81	90 - 110
Nitrite as N	0.10	U	0.500	0.488	I	mg/L		98	90 - 110

Lab Sample ID: 660-59946-A-1 MSD

Matrix: Water

Analysis Batch: 147340

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	J3 U	1.00	0.844	J3	mg/L		84	90 - 110	4	30
Nitrite as N	0.10	U	0.500	0.516		mg/L		103	90 - 110	6	30

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

Lab Sample ID: MB 660-147338/1

Matrix: Water

Analysis Batch: 147338

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			04/03/14 09:39	1

Lab Sample ID: LCS 660-147338/2

Matrix: Water

Analysis Batch: 147338

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	9970		mg/L		100	80 - 120

Lab Sample ID: 660-59960-A-1 DU

Matrix: Water

Analysis Batch: 147338

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	350		364		mg/L		3	20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

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

Lab Sample ID: MB 660-147332/1

Matrix: Water

Analysis Batch: 147332

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	5.0	U	5.0	5.0	mg/L	-		04/03/14 05:58	1

Lab Sample ID: LCS 660-147332/2

Matrix: Water

Analysis Batch: 147332

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	95.6		mg/L	-	96	80 - 120

Lab Sample ID: 660-59970-1 DU

Matrix: Water

Analysis Batch: 147332

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	48		54.6		mg/L	-	12	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-147333/2

Matrix: Water

Analysis Batch: 147333

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	-		04/03/14 07:28	1

Lab Sample ID: USB 660-147333/1

Matrix: Water

Analysis Batch: 147333

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	-		04/03/14 07:28	1

Lab Sample ID: LCS 660-147333/3

Matrix: Water

Analysis Batch: 147333

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	198		mg/L	-	100	85 - 115

Lab Sample ID: 660-59973-B-1 DU

Matrix: Water

Analysis Batch: 147333

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	530		514		mg/L	-	3	20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Method: SM 5220D - COD

Lab Sample ID: MB 680-323604/3

Matrix: Water

Analysis Batch: 323604

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	5.0	U	10	5.0	mg/L			04/09/14 11:13	1

Lab Sample ID: LCS 680-323604/4

Matrix: Water

Analysis Batch: 323604

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	50.0	51.7		mg/L		103	90 - 110

Lab Sample ID: LLCS 680-323604/5

Matrix: Water

Analysis Batch: 323604

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	10.0	13.1		mg/L		131	

Lab Sample ID: 640-47360-E-1 MS

Matrix: Water

Analysis Batch: 323604

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	620		500	1090		mg/L		94	90 - 110

Lab Sample ID: 640-47360-E-1 MSD

Matrix: Water

Analysis Batch: 323604

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	620		500	1100		mg/L		95	90 - 110	1	30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

General Chemistry

Analysis Batch: 147332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-59970-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-59970-2	BLANK FIELD	Total/NA	Water	SM 2540D	
LCS 660-147332/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-147332/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 147333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-59970-2	BLANK FIELD	Total/NA	Water	SM 5210B	
660-59973-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-147333/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-147333/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-147333/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 147338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59960-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-59970-2	BLANK FIELD	Total/NA	Water	SM 2540C	
LCS 660-147338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-147338/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 147340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59946-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-59946-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-59970-2	BLANK FIELD	Total/NA	Water	353.2	
LCS 660-147340/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-147340/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 323604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-47360-E-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
640-47360-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
660-59970-2	BLANK FIELD	Total/NA	Water	SM 5220D	
LCS 680-323604/4	Lab Control Sample	Total/NA	Water	SM 5220D	
LLCS 680-323604/5	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-323604/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 147335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59970-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 04/02/14 12:10

Date Received: 04/02/14 13:55

Lab Sample ID: 660-59970-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		100	147340	04/02/14 16:47	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	147338	04/03/14 09:39	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	147332	04/03/14 05:58	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	147333	04/03/14 07:28	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		10	323604	04/09/14 11:13	JER	TAL SAV
Total/NA	Analysis	Field Sampling		1	147335	04/02/14 12:10		TAL TAM

Client Sample ID: BLANK FIELD

Date Collected: 04/02/14 11:55

Date Received: 04/02/14 13:55

Lab Sample ID: 660-59970-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	147340	04/02/14 16:47	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	147338	04/03/14 09:39	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	147332	04/03/14 05:58	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	147333	04/03/14 07:28	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		1	323604	04/09/14 11:13	JER	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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-14

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	06-30-14
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	04-17-14 *
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	LA100015	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	03-31-15
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14 *
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia DEP	State Program	3	94	06-30-14
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-59970-1

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
Wyoming	State Program	8	8TMS-L	06-30-14

THE LEADER OF THE CHURCH

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660-59970 Chain of Custody

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Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SBCE LEACHATE	SITE LOCATION:
WELL NO: FIELD BLANK	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (Inches): N/A	TUBING DIAMETER (Inches): N/A	WELL SCREEN INTERVAL DEPTH: ~ feet to ~ 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)				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
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)
FIELD BLANK											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88
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 = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 11:55	SAMPLING ENDED AT: 12:00
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N)	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y N Dedicated TUBING Y N Dedicated		DUPLICATE: Y (N)	

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

SEE COC FOR 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 = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = 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 2009

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-59970-1

Login Number: 59970

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 $<6\text{mm}$ (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 Co Public Utilities Dept

Job Number: 660-59970-1

Login Number: 59970

List Source: TestAmerica Savannah

List Number: 1

List Creation: 04/03/14 09:00 AM

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
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: 660-60489-1

Client Project/Site: SELF Leachate Effluent

For:

Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams



Authorized for release by:
5/12/2014 3:35:43 PM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

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results through
TotalAccess

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www.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.

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Sample Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-60489-1	Leachate Effluent	Water	05/05/14 13:30	05/05/14 15:10
660-60489-2	Field Blank	Water	05/05/14 13:20	05/05/14 15:10

Case Narrative

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Job ID: 660-60489-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-60489-1

Comments

No additional comments.

Receipt

The samples were received on 5/5/2014 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)
NC	Not Calculated
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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-60489-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	200		100	20	mg/L	200		353.2	Total/NA
Total Dissolved Solids	7600		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	16		5.0	5.0	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	6.3		6.0	6.0	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	420		100	50	mg/L	10		SM 5220D	Total/NA
Field pH	7.92				SU	1		Field Sampling	Total/NA
Field Temperature	30.09				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	6.80				mg/L	1		Field Sampling	Total/NA
Specific Conductance	12977				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: Field Blank

Lab Sample ID: 660-60489-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Client Sample ID: Leachate Effluent

Date Collected: 05/05/14 13:30

Date Received: 05/05/14 15:10

Lab Sample ID: 660-60489-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	200		100	20	mg/L			05/07/14 12:07	200
Total Dissolved Solids	7600		50	50	mg/L			05/06/14 11:13	1
Total Suspended Solids	16		5.0	5.0	mg/L			05/06/14 10:25	1
Biochemical Oxygen Demand	6.3		6.0	6.0	mg/L			05/07/14 06:40	1
Chemical Oxygen Demand	420		100	50	mg/L			05/07/14 13:45	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.92				SU			05/05/14 13:30	1
Field Temperature	30.09				Degrees C			05/05/14 13:30	1
Oxygen, Dissolved	6.80				mg/L			05/05/14 13:30	1
Specific Conductance	12977				uS/cm			05/05/14 13:30	1

Client Sample ID: Field Blank

Date Collected: 05/05/14 13:20

Date Received: 05/05/14 15:10

Lab Sample ID: 660-60489-2

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			05/07/14 12:10	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			05/06/14 11:13	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			05/06/14 10:25	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			05/07/14 06:40	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			05/07/14 13:45	1

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-148135/12

Matrix: Water

Analysis Batch: 148135

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			05/07/14 12:05	1

Lab Sample ID: LCS 660-148135/13

Matrix: Water

Analysis Batch: 148135

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	0.989		mg/L		99	90 - 110
Nitrite as N	0.500	0.474	I	mg/L		95	90 - 110

Lab Sample ID: 660-60506-A-1 MS

Matrix: Water

Analysis Batch: 148135

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	0.958		mg/L		96	90 - 110
Nitrite as N	0.10	U	0.500	0.494	I	mg/L		99	90 - 110

Lab Sample ID: 660-60506-A-1 MSD

Matrix: Water

Analysis Batch: 148135

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	0.971		mg/L		97	90 - 110	1	30
Nitrite as N	0.10	U	0.500	0.511		mg/L		102	90 - 110	3	30

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

Lab Sample ID: MB 660-148092/1

Matrix: Water

Analysis Batch: 148092

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			05/06/14 11:13	1

Lab Sample ID: LCS 660-148092/2

Matrix: Water

Analysis Batch: 148092

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: 660-60489-1 DU

Matrix: Water

Analysis Batch: 148092

Client Sample ID: Leachate Effluent

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	7600		7560		mg/L		0	20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

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

Lab Sample ID: MB 660-148089/1

Matrix: Water

Analysis Batch: 148089

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	5.0	U	5.0	5.0	mg/L	-		05/06/14 10:25	1

Lab Sample ID: LCS 660-148089/2

Matrix: Water

Analysis Batch: 148089

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	95.2		mg/L	-	95	80 - 120

Lab Sample ID: 660-60489-1 DU

Matrix: Water

Analysis Batch: 148089

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	16		14.8		mg/L	-	5	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-148106/2

Matrix: Water

Analysis Batch: 148106

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	-		05/07/14 06:40	1

Lab Sample ID: USB 660-148106/1

Matrix: Water

Analysis Batch: 148106

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	-		05/07/14 06:40	1

Lab Sample ID: LCS 660-148106/3

Matrix: Water

Analysis Batch: 148106

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	213		mg/L	-	107	85 - 115

Lab Sample ID: 660-60493-B-1 DU

Matrix: Water

Analysis Batch: 148106

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	600		632		mg/L	-	5	20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Method: SM 5220D - COD

Lab Sample ID: MB 680-327964/3

Matrix: Water

Analysis Batch: 327964

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	5.0	U	10	5.0	mg/L			05/07/14 13:45	1

Lab Sample ID: LCS 680-327964/4

Matrix: Water

Analysis Batch: 327964

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	50.0	49.8		mg/L		100	90 - 110

Lab Sample ID: 660-60484-F-5 MS

Matrix: Water

Analysis Batch: 327964

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	6.6	I	50.0	54.7		mg/L		96	90 - 110

Lab Sample ID: 660-60484-F-5 MSD

Matrix: Water

Analysis Batch: 327964

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	6.6	I	50.0	55.7		mg/L		98	90 - 110	2	30

TestAmerica Tampa

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

General Chemistry

Analysis Batch: 148089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60489-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-60489-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-60489-2	Field Blank	Total/NA	Water	SM 2540D	
LCS 660-148089/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-148089/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 148092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60489-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-60489-1 DU	Leachate Effluent	Total/NA	Water	SM 2540C	
660-60489-2	Field Blank	Total/NA	Water	SM 2540C	
LCS 660-148092/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-148092/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 148106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60489-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-60489-2	Field Blank	Total/NA	Water	SM 5210B	
660-60493-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-148106/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-148106/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-148106/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 148135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60489-1	Leachate Effluent	Total/NA	Water	353.2	
660-60489-2	Field Blank	Total/NA	Water	353.2	
660-60506-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-60506-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-148135/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-148135/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 327964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60484-F-5 MS	Matrix Spike	Total/NA	Water	SM 5220D	
660-60484-F-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-60489-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-60489-2	Field Blank	Total/NA	Water	SM 5220D	
LCS 680-327964/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-327964/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 148132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60489-1	Leachate Effluent	Total/NA	Water	Field Sampling	

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Client Sample ID: Leachate Effluent

Date Collected: 05/05/14 13:30

Date Received: 05/05/14 15:10

Lab Sample ID: 660-60489-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		200	148135	05/07/14 12:07	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	148092	05/06/14 11:13	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	148089	05/06/14 10:25	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	148106	05/07/14 06:40	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		10	327964	05/07/14 13:45	DL1	TAL SAV
Total/NA	Analysis	Field Sampling		1	148132	05/05/14 13:30		TAL TAM

Client Sample ID: Field Blank

Date Collected: 05/05/14 13:20

Date Received: 05/05/14 15:10

Lab Sample ID: 660-60489-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	148135	05/07/14 12:10	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	148092	05/06/14 11:13	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	148089	05/06/14 10:25	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	148106	05/07/14 06:40	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		1	327964	05/07/14 13:45	DL1	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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-14

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14 *
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14 *
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	803	06-30-14 *
Guam	State Program	9	09-005r	04-17-14 *
Hawaii	State Program	9	N/A	06-30-14 *
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-14 *
Louisiana	NELAP	6	LA100015	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14 *
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-14 *
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14 *
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-14 *
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14 *
Virginia	NELAP	3	460161	06-14-14 *
Washington	State Program	10	C805	06-10-14 *
West Virginia DEP	State Program	3	94	06-30-14 *
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60489-1

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
Wyoming	State Program	8	8TMS-L	06-30-14 *

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

FILED UNDER THE EVIDENCE ACT. EXHIBIT 100

Phone:

Fax: _____

660-60489 Chain of Custody

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF Leachate EFF		SITE LOCATION:	
WELL NO: Field Blank	SAMPLE ID:	DATE: 5-5-14	

PURGING DATA

WELL DIAMETER (Inches): N/A	TUBING DIAMETER (Inches): N/A	WELL SCREEN INTERVAL DEPTH: — feet to — 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)				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
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)
13.20											
FIELD BLANK											

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" = 5.88
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 / ZACK PATTERSON		SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>		SAMPLING INITIATED AT: 13.20	SAMPLING ENDED AT: 13.30
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: — μm	
FIELD DECONTAMINATION: PUMP Y <input type="radio"/> N <input checked="" type="radio"/> Dedicated		TUBING Y <input type="radio"/> N <input checked="" type="radio"/> Dedicated		DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/>	

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

SEE COC FOR 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 2009

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-60489-1

Login Number: 60489

List Source: TestAmerica Tampa

List Number: 1

Creator: Williams, Jennifer

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

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-60489-1

Login Number: 60489

List Number: 1

Creator: West, Lauren H

List Source: TestAmerica Savannah

List Creation: 05/06/14 05:56 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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?	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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 660-60952-1

Client Project/Site: SELF Leachate Effluent

For:

Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams



Authorized for release by:
6/24/2014 11:26:34 AM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

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www.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.

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Sample Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-60952-1	LEACHATE EFFLUENT	Water	06/03/14 14:15	06/03/14 15:22
660-60952-2	BLANK FIELD	Water	06/03/14 14:05	06/03/14 15:22

Case Narrative

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Job ID: 660-60952-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-60952-1

Comments

No additional comments.

Receipt

The samples were received on 6/3/2014 3:22 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)
NC	Not Calculated
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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-60952-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	170		0.50	0.10	mg/L	1		353.2	Total/NA
Total Dissolved Solids	7500		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	50		7.8	7.8	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	16		6.0	6.0	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	270		100	50	mg/L	10		SM 5220D	Total/NA
Field pH	7.77				SU	1		Field Sampling	Total/NA
Field Temperature	32.15				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.26				mg/L	1		Field Sampling	Total/NA
Specific Conductance	14599				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-60952-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-60952-1

Date Collected: 06/03/14 14:15

Matrix: Water

Date Received: 06/03/14 15:22

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	170		0.50	0.10	mg/L			06/11/14 12:55	1
Total Dissolved Solids	7500		50	50	mg/L			06/04/14 13:18	1
Total Suspended Solids	50		7.8	7.8	mg/L			06/04/14 09:58	1
Biochemical Oxygen Demand	16		6.0	6.0	mg/L			06/04/14 05:43	1
Chemical Oxygen Demand	270		100	50	mg/L			06/11/14 14:00	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.77				SU			06/03/14 14:15	1
Field Temperature	32.15				Degrees C			06/03/14 14:15	1
Oxygen, Dissolved	4.26				mg/L			06/03/14 14:15	1
Specific Conductance	14599				uS/cm			06/03/14 14:15	1

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-60952-2

Date Collected: 06/03/14 14:05

Matrix: Water

Date Received: 06/03/14 15:22

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			06/04/14 16:07	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			06/04/14 13:18	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			06/04/14 09:58	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			06/04/14 05:43	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			06/11/14 14:00	1

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-148781/5

Matrix: Water

Analysis Batch: 148781

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			06/04/14 15:46	1

Lab Sample ID: MB 660-148781/6

Matrix: Water

Analysis Batch: 148781

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			06/04/14 15:48	1

Lab Sample ID: LCS 660-148781/7

Matrix: Water

Analysis Batch: 148781

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	1.04		mg/L		104	90 - 110
Nitrite as N	0.500	0.519		mg/L		104	90 - 110

Lab Sample ID: LCS 660-148781/8

Matrix: Water

Analysis Batch: 148781

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	1.06		mg/L		106	90 - 110
Nitrite as N	0.500	0.522		mg/L		104	90 - 110

Lab Sample ID: 660-60937-A-1 MS

Matrix: Water

Analysis Batch: 148781

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	0.524		mg/L		105	90 - 110

Lab Sample ID: 660-60937-A-1 MSD

Matrix: Water

Analysis Batch: 148781

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	1.07		mg/L		107	90 - 110	2	30
Nitrite as N	0.10	U	0.500	0.536		mg/L		107	90 - 110	2	30

Lab Sample ID: 660-60947-A-2 MS

Matrix: Water

Analysis Batch: 148781

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	1.03		mg/L		103	90 - 110
Nitrite as N	0.10	U	0.500	0.508		mg/L		102	90 - 110

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Method: 353.2 - Nitrate (Continued)

Lab Sample ID: 660-60947-A-2 MSD

Matrix: Water

Analysis Batch: 148781

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	1.07		mg/L		107	90 - 110	4	30
Nitrite as N	0.10	U	0.500	0.530		mg/L		106	90 - 110	4	30

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

Lab Sample ID: MB 660-148762/1

Matrix: Water

Analysis Batch: 148762

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			06/04/14 13:18	1

Lab Sample ID: LCS 660-148762/2

Matrix: Water

Analysis Batch: 148762

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	9870		mg/L		99	80 - 120

Lab Sample ID: 660-60951-B-4 DU

Matrix: Water

Analysis Batch: 148762

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	240		248		mg/L		5	20

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

Lab Sample ID: MB 660-148745/1

Matrix: Water

Analysis Batch: 148745

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	5.0	U	5.0	5.0	mg/L			06/04/14 09:58	1

Lab Sample ID: LCS 660-148745/2

Matrix: Water

Analysis Batch: 148745

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	89.2		mg/L		89	80 - 120

Lab Sample ID: 660-60940-C-5 DU

Matrix: Water

Analysis Batch: 148745

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	27		24.4		mg/L		11	20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-148734/2

Matrix: Water

Analysis Batch: 148734

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			06/04/14 05:43	1

Lab Sample ID: USB 660-148734/1

Matrix: Water

Analysis Batch: 148734

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			06/04/14 05:43	1

Lab Sample ID: LCS 660-148734/3

Matrix: Water

Analysis Batch: 148734

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	196		mg/L		99	85 - 115

Lab Sample ID: 660-60938-B-1 DU

Matrix: Water

Analysis Batch: 148734

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	320		326		mg/L		2	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-333689/3

Matrix: Water

Analysis Batch: 333689

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	5.0	U	10	5.0	mg/L			06/11/14 14:00	1

Lab Sample ID: LCS 680-333689/4

Matrix: Water

Analysis Batch: 333689

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	50.0	48.2		mg/L		96	90 - 110

Lab Sample ID: 680-101878-D-15 MS

Matrix: Water

Analysis Batch: 333689

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	5.0	U	50.0	51.1		mg/L		102	90 - 110

TestAmerica Tampa

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: 680-101878-D-15 MSD

Matrix: Water

Analysis Batch: 333689

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	5.0	U	50.0	47.2		mg/L		94	90 - 110	8	30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

General Chemistry

Analysis Batch: 148734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60938-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-60952-2	BLANK FIELD	Total/NA	Water	SM 5210B	
LCS 660-148734/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-148734/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-148734/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 148745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60940-C-5 DU	Duplicate	Total/NA	Water	SM 2540D	
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-60952-2	BLANK FIELD	Total/NA	Water	SM 2540D	
LCS 660-148745/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-148745/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 148762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60951-B-4 DU	Duplicate	Total/NA	Water	SM 2540C	
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-60952-2	BLANK FIELD	Total/NA	Water	SM 2540C	
LCS 660-148762/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-148762/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 148781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60937-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-60937-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-60947-A-2 MS	Matrix Spike	Total/NA	Water	353.2	
660-60947-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-60952-2	BLANK FIELD	Total/NA	Water	353.2	
LCS 660-148781/7	Lab Control Sample	Total/NA	Water	353.2	
LCS 660-148781/8	Lab Control Sample	Total/NA	Water	353.2	
MB 660-148781/5	Method Blank	Total/NA	Water	353.2	
MB 660-148781/6	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 148936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	

Analysis Batch: 333689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
660-60952-2	BLANK FIELD	Total/NA	Water	SM 5220D	
680-101878-D-15 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-101878-D-15 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-333689/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-333689/3	Method Blank	Total/NA	Water	SM 5220D	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Field Service / Mobile Lab

Analysis Batch: 148792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-60952-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 06/03/14 14:15

Date Received: 06/03/14 15:22

Lab Sample ID: 660-60952-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	148936	06/11/14 12:55	RWF	TAL TAM
Total/NA	Analysis	SM 2540C		1	148762	06/04/14 13:18	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	148745	06/04/14 09:58	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	148734	06/04/14 05:43	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		10	333689	06/11/14 14:00	JJW	TAL SAV
Total/NA	Analysis	Field Sampling		1	148792	06/03/14 14:15	FS	TAL TAM

Client Sample ID: BLANK FIELD

Date Collected: 06/03/14 14:05

Date Received: 06/03/14 15:22

Lab Sample ID: 660-60952-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	148781	06/04/14 16:07	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	148762	06/04/14 13:18	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	148745	06/04/14 09:58	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	148734	06/04/14 05:43	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		1	333689	06/11/14 14:00	JJW	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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-14 *

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14 *
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14 *
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	803	06-30-14 *
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-14 *
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	02-28-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14 *
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-14 *
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-14 *
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-14 *
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia DEP	State Program	3	94	06-30-14 *
West Virginia DHHR	State Program	3	9950C	12-31-14

* Certification renewal pending - certification considered valid.

TestAmerica Tampa

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-60952-1

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	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14 *

* Certification renewal pending - certification considered valid.

TestAmerica Tampa

TestAmerica

THE LANCET IN EXPERIMENTAL MEDICINE

Alternate Laboratory Name/Location:

Fax (813) 885 7049

Fax:

680-80952 Chain of Custody

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Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF LEACH. PLANT EFF		SITE LOCATION: LITHIA, FL	
WELL NO: FIELD BLANK	SAMPLE ID:	DATE: 6-3-14	

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: — feet to — 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)				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
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)
<div style="font-size: 48px; font-weight: bold; transform: rotate(-10deg); opacity: 0.5;">FIELD BLANK</div>											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.85; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 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 / ZACK PATTERSON		SAMPLER(S) SIGNATURE(S): 		SAMPLING INITIATED AT: 14:05	SAMPLING ENDED AT: 14:15
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N)		FILTER SIZE: — μm	
FIELD DECONTAMINATION: PUMP Y N Dedicated		TUBING Y N Dedicated		DUPLICATE: Y (N)	

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

SEE COC FOR 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; RFPF = 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 2009

Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving		Lab Pmt: Robertson, Nancy E-Mail: nancy.robertson@testamericainc.com	Carrier Tracking No(s): 660-68676.1	COC No: 660-68676.1				
Company: TestAmerica Laboratories, Inc. Address: 5102 LaRoche Avenue, City: Savannah State, Zip: GA, 31404 Phone: 912-354-7858(Tel) 912-352-0165(Fax) Email: Project #: 66003914 Project Name: SELF Tank Trucks, EFF Site: Leachate, Tank Trucks		Due Date Requested: 6/13/2014 TAT Requested (days): PO #: WO #: Project #: 66003914 SOW#:	Page 1 of 1 Job #: 660-60952-1	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 - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify) Other:				
Sample Identification - Client ID (Lab ID)		Sample Date 6/3/14 6/3/14	Sample Time 14:15 Eastern 14:05 Eastern	Sample Type (G=grab) Water Water	Matrix (W=water, S=solid, O=other (oil)) Water Water	Field Filtered Sample (Yes or No) 5220D / COD X X	Total Number of Containers X X	Special Instructions/Note:
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:						
Empty Kit Relinquished by: Relinquished by: <i>RPRCE</i> Relinquished by: Relinquished by:		Date: 6-4-14 1414 Date/Time: Date/Time: Date/Time:	Company: Company: Company:	Method of Shipment: Date/Time: Date/Time: Date/Time:	Received by: Relinquished by: Received by:	Date/Time: Date/Time: Date/Time:	Company: Company: Company:	Cooler Temperature(s) °C and Other Remarks: 3.2

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-60952-1

Login Number: 60952

List Source: TestAmerica Tampa

List Number: 1

Creator: Williams, Jennifer

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

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-60952-1

Login Number: 60952

List Number: 2

Creator: West, Lauren H

List Source: TestAmerica Savannah

List Creation: 06/05/14 07:33 AM

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