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October 2, 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

Third Quarter (July-September 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 (Modified to 020-SO/MM), 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, 15960 County Road 672 in Lithia, Florida.

The referenced permit 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 7.5 - 8.2 pH units, and the monthly analytical samples ranged from 7.73 - 8.32 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 the effluent samples from the designated sampling port at the treatment plant on July 2, August 2, and September 6, 2013.

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.

Mr. John Morris October 2, 2013 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.

Sincerely,

Michael D. Townsel

Senior Hydrologist

Public Utilities Department

Environmental Services

DSA/mdt Enclosures

xc:

Larry Ruiz, Public Utilities Andy Berry, Public Utilities

G:enviro/self/leachate plant/ltp-effluent-3rdqtr2013.doc

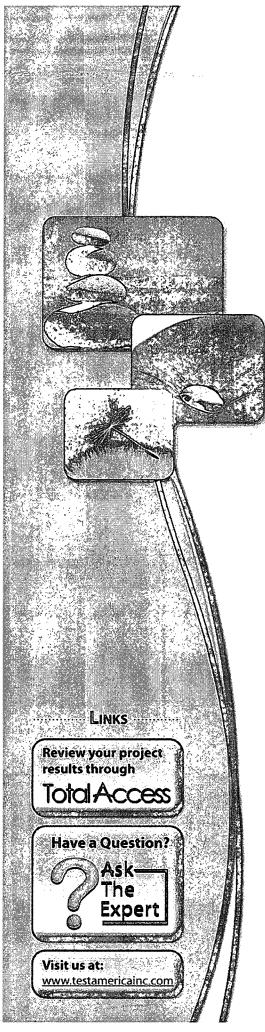
Sincerely,

David S. Adams, P.G.

Environmental Manager Public Utilities Department

10/2/2013

Environmental Services



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: 660-55251-1 Client Project/Site: SELF 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: 7/17/2013 9:03:16 AM

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.

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Sample Summary

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

TestAmerica Job ID: 660-55251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-55251-1	LEACHATE EFFLUENT	Water	07/02/13 11:40	07/02/13 15:05
660-55251-2	BLANK EQUIPMENT 55251	Water	07/02/13 11:25	07/02/13 15:05





















Case Narrative

Client: Hillsborough County Public Utilities Dep

TestAmerica Job ID: 660-55251-1

Project/Site: SELF Leachate Effluent

Job ID: 660-55251-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-55251-1

Comments

No additional comments.

Receipt

The samples were received on 7/2/2013 3:05 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

No analytical or quality issues were noted.

TestAmerica Tampa 7/17/2013

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Definitions/Glossary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Qualifiers

General Chemistry

Qualifier	

Qualifier Description

Indicates that the compound was analyzed for but not detected.

Toxicity Equivalent Quotient (Dioxin)

Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
3	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
ИL	Minimum Level (Dioxin)
1C	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
₹L	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Detection Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-5	525	1-1
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Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	35		25	5.0	mg/L	50	_	353.2	Total/NA
Total Dissolved Solids	5900		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	18		1.0	1.0	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	470		20	6.3	mg/L			SM 5220D	Total/NA
Field pH	8.32				SU	1		Field Sampling	Total/NA
Field Temperature	31.76				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	6.89				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10665				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT 55251

Lab Sample ID: 660-55251-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 07/02/13 11:40 Date Received: 07/02/13 15:05

Chemical Oxygen Demand

Lab Sample ID: 660-55251-1

07/08/13 11:20

Matrix: Water

General Chemistry								
Analyte	Result Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	35	25	5.0	mg/L			07/03/13 15:56	50
Total Dissolved Solids	5900	250	250	mg/L			07/08/13 11:10	1
Total Suspended Solids	18	1.0	1.0	mg/L			07/08/13 07:27	. 1
Biochemical Oxygen Demand	12 U	12	12	mg/L			07/03/13 09:47	1

470

Method: Field Sampling -	Field Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.32				SU			07/02/13 11:40	1
Field Temperature	31.76				Degrees C			07/02/13 11:40	1
Oxygen, Dissolved	6.89				mg/L			07/02/13 11:40	1
Specific Conductance	10665				uS/cm			07/02/13 11:40	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: BLANK EQUIPMENT 55251

Date Collected: 07/02/13 11:25

Date Received: 07/02/13 15:05

Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	Ü	0.50	0.10	mg/L			07/03/13 15:53	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			07/08/13 11:10	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			07/08/13 07:27	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/03/13 09:47	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			07/08/13 13:57	1

QC Sample Results

			Q	5 Sam	hie i	Resu	ILO								
Client: Hillsborough County Public Uti Project/Site: SELF Leachate Effluent	lities De	p ,	.*			ter yearsts		e e e	,	7, 1		TestAme	erica Job ID): 660-t	55251-
Nethod: 353.2 - Nitrate															-
Lab Sample ID: MB 660-139094/1												Client S	Sample ID:	Metho	d Blar
Matrix: Water													•	Гуре: Т	
Analysis Batch: 139094														7	-
•		MB	MB												
Analyte	R	esult	Qualifier		PQL		MDL	Unit		D	P	repared	Analy	zed	Dil F
Nitrate as N		0.10	U		0.50		0.10	mg/L					07/03/13	15:51	
Lab Sample ID: LCS 660-139094/2										С	lient	t Sample	D: Lab C	ontrol	Samp
Matrix: Water													Prep ?	Гуре: Т	otal/N
Analysis Batch: 139094															
				Spike			LCS						%Rec.		
Analyte				Added		Result	Qual	ifier	Unit		D	%Rec	Limits		
Nitrate Nitrite as N				1.00		1.04			mg/L			104	90 - 110		
Nitrite as N				0.500		0.507			mg/L			101	90 _ 110		
Lab Sample ID: 660-55257-A-1 MS												Client	Sample ID		-
Matrix: Water													Prep 7	Гуре: Т	otal/N
Analysis Batch: 139094															
	Sample		-	Spike			MS						%Rec.		
Analyte	Result		ifier	Added		Result	Qual	ifier	Unit		<u>D</u>	%Rec	Limits		
Nitrate Nitrite as N	0.10	-		1.00		1.05			mg/L			105	90 - 110		
Nitrite as N	0.10	U		0.500		0.516			mg/L			103	90 - 110		
Lab Sample ID: 660-55257-A-1 MSE)									Clier	nt Sa	ample ID): Matrix S _l	pike Dı	uplica
Matrix: Water													Prep 1	Гуре: Т	otal/N
Analysis Batch: 139094															
	Sample		•	Spike			MSD						%Rec.		RI
Analyte	Result		lifier —————	Added		Result	Qual	lifier	Unit		D	%Rec	Limits	RPD	
Nitrate Nitrite as N	0.10			1.00		1.04			mg/L			104	90 - 110	1	
Nitrite as N	0.10	U		0.500		0.511			mg/L			102	90 - 110	1	: ;
flethod: SM 2540C - Solids, To	tal Dis	sol	ved (TDS	S)											
Lab Sample ID: MB 660-139161/1												Client S	ample ID:	Metho	d Blar
Matrix: Water														Гуре: Т	
Analysis Batch: 139161													•		
•		MB	MB												
Analyte	R	esult	Qualifier		PQL		MDL	Unit		D	P	repared	Analyz	:ed	Dil F
Total Dissolved Solids		5.0	Ū	_	5.0		5.0	mg/L					07/08/13	11:10	
Lab Sample ID: LCS 660-139161/2										CI	lient	Sample	ID: Lab C	ontrol	Samp
Matrix: Water													Prep 1	Гуре: Т	otal/N
Analysis Batch: 139161															
Austra				Spike			LCS				_	a. =	%Rec.		
Analyte Salida				Added	-	Result	Quai	iitier	Unit		D	%Rec	Limits		
Total Dissolved Solids				10000		9910			mg/L			99	80 - 120		
Lab Sample ID: 640-44177-A-1 DU												Clie	ent Sample		

TestAmerica Tampa

Prep Type: Total/NA

RPD

Limit

20

Sample Sample

280

Result Qualifier

DU DU

296

Result Qualifier

Unit

mg/L

D

Matrix: Water

Total Dissolved Solids

Analyte

Analysis Batch: 139161

PQL

1.0

Client Sample ID: Method Blank

Project/Site: SELF Leachate Effluent

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

Lab Sample ID: MB 660-139148/1

Matrix: Water

Analysis Batch: 139148

MR MR

Analyte

Result Qualifier 1.0 H

MDL Unit 1.0 mg/L Prepared

Analyzed

Client Sample ID: Lab Control Sample

Dil Fac

07/08/13 07:27

Prep Type: Total/NA

Prep Type: Total/NA

Lab Sample ID: LCS 660-139148/2

Matrix: Water

Total Suspended Solids

Total Suspended Solids

Analyte

Analyte

Total Suspended Solids

Analysis Batch: 139148

Spike Added

100

LCS LCS Result Qualifier

99.2

Unit mg/L

D %Rec

Limits

80 - 120

%Rec.

Lab Sample ID: 660-55252-A-2 DU

Matrix: Water

Analysis Batch: 139148

Sample Sample Result Qualifier

3200

DU DU Result Qualifier

3160

Unit mg/L Client Sample ID: Duplicate Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Method Blank

RPD Limit 0.2 20

Prep Type: Total/NA

Prep Type: Total/NA

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-139045/2 SCB

Matrix: Water

Analysis Batch: 139045

Biochemical Oxygen Demand

SCB SCB Result Qualifier

2.0 U

PQL 2.0 MDL Unit 2.0 mg/L

Prepared Analyzed 07/03/13 06:08

Dil Fac

Lab Sample ID: USB 660-139045/1 USB

Matrix: Water

Analysis Batch: 139045

Analyte Biochemical Oxygen Demand USB USB

Sample Sample Result Qualifier

1600

Result Qualifier 2.0 Ū

PQL 20 MDL Unit 2.0 mg/L

Prepared

Analyzed 07/03/13 06:08

Client Sample ID: Lab Control Sample

Dil Fac

Lab Sample ID: LCS 660-139045/3

Matrix: Water

Analysis Batch: 139045

Analyte

Biochemical Oxygen Demand

Lab Sample ID: 660-55233-B-1 DU Matrix: Water

Analysis Batch: 139045

Biochemical Oxygen Demand

LCS LCS Spike Added

Result Qualifier 189

DU DU

1640

Result Qualifier

Unit mg/L

Unit

mg/L

85 - 115

%Rec.

Prep Type: Total/NA

Client Sample ID: Duplicate

Prep Type: Total/NA

RPD RPD Limit

0.5

20

TestAmerica Tampa

7/17/2013

QC Sample Results

Method: SM 5220D - COD													
Lab Sample ID: MB 680-283593/3 Matrix: Water										Client S	Sample ID: M Prep Ty		
Analysis Batch: 283593													
A mak da	_	MB MB						_	_				D'' 5-
Analyte Chemical Oxygen Demand	R	6.3 Qualifie	<u>r</u>	PQL 20		MDL U	nit g/L	_ D	P	repared	07/08/13 1		Dil Fa
Lab Sample ID: LCS 680-283593/4 Matrix: Water					٠			c	lient	Sample	ID: Lab Cor Prep Ty		
Analysis Batch: 283593											Fieb is	pe. it	Jiai/N/
analysis Batch. 200090			Spike		LCS	LCS					%Rec.		
Analyte			Added		Result	Qualifie	r Unit		D	%Rec	Limits		
Chemical Oxygen Demand			100		110		mg/	-		110	90 - 110		
ab Sample ID: 640-44186-D-1 MS Matrix: Water										Client	Sample ID: Prep Ty		-
Analysis Batch: 283593													
	Sample	•	Spike			MS					%Rec.		
analyte		Qualifier	Added			Qualifie			. <u>D</u>	%Rec	Limits		
themical Oxygen Demand	71		100		161		mg/	-		91	90 _ 110		
.ab Sample ID: 640-44186-D-1 MSD flatrix: Water)							Clie	nt Sa	ample IC): Matrix Spi Prep Ty		-
Analysis Batch: 283593													
	Sample	•	Spike		MSD						%Rec.		RPI
analyte		Qualifier	Added		Result	Qualifie			. <u>D</u>	%Rec	Limits	RPD	Limi 30
hemical Oxygen Demand	71		100		161		mg/l	-		91	90 - 110	0	31
ab Sample ID: MB 680-283634/3									•	Client S	ample ID: N	lethod	l Blani
Matrix: Water											Prep Ty		
Analysis Batch: 283634												•	
		MB MB											
nalyte	Re	esult Qualifie	r	PQL		MDL U	nit	D	P	repared	Analyze		Dil Fac
themical Oxygen Demand		6.3 U		20		6.3 m	g/L				07/08/13 13	3:57	1
ab Sample ID: LCS 680-283634/4 Matrix: Water								C	lient	Sample	ID: Lab Co Prep Ty		-
Analysis Batch: 283634											0/ 5		
nalyte			Spike Added			LCS Qualifie	r Unit		D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			100		110	Qualific	mg/			110	90 - 110		
ab Sample ID: 680-91559-V-2 MS										Client	Sample ID: Prep Ty		-
Analysis Batch: 283634											- •		
	Sample		Spike		MS	MS					%Rec.		
chaniyte Chemical Oxygen Demand		Qualifier	Added 100		Result 115	Qualifie			- <u>D</u>	%Rec 93	Limits 90 - 110		
memicai Oxygen Demand .	22		100		115		mg/	-		შა	90 - 110 .		
_ab Sample ID: 680-91559-V-2 MSD Natrix: Water								Clie	nt S	ample IC): Matrix Spi Prep Ty		-
											i icp iy	PU	J COL 11 1 1 1 1
Analysis Batch: 283634	Sample		Spike			MSD					%Rec.	po. 1.	RPE

TestAmerica Tampa

RPD

Limit

Limits

90 - 110

%Rec

102

Result Qualifier

124

Unit

mg/L

Added

100

Result Qualifier

22

Analyte

Chemical Oxygen Demand

QC Sample Results

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-55251-1

QC Association Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

General	Chemistry
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55233-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 5210B	
LCS 660-139045/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-139045/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-139045/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 139094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	353.2	
660-55257-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-55257-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-139094/2	Lab Control Sample	Total/NA	Water	353.2	
MB 660-139094/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 139148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 2540D	
660-55252-A-2 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 660-139148/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-139148/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 139161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-44177-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 2540C	
LCS 660-139161/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-139161/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 283593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-44186-D-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	-
640-44186-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
LCS 680-283593/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-283593/3	Method Blank	Total/NA	Water	SM 5220D	

Analysis Batch: 283634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 5220D	
680-91559-V-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-91559-V-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-283634/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-283634/3	Method Blank	Total/NA	Water	SM 5220D	

QC Association Summary

Client: Hillshorough County Public Utilities Dep .TestAmerica Job ID: 660-55251-1 Project/Site: SELF Leachate Effluent Field Service / Mobile Lab Analysis Batch: 139382

Lab Sample ID Method Client Sample ID Prep Type Matrix Prep Batch 660-55251-1 LEACHATE EFFLUENT Total/NA Water Field Sampling

Lab Chronicle

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 07/02/13 11:40 Date Received: 07/02/13 15:05 Lab Sample ID: 660-55251-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	139045	07/03/13 09:47	AJG	TAL TAM
Total/NA	Analysis	353.2		50	139094	07/03/13 15:56	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	139148	07/08/13 07:27	тко	TAL TAM
Total/NA	Analysis	SM 2540C		1	139161	07/08/13 11:10	тко	TAL TAM
Total/NA	Analysis	SM 5220D		1	283593	07/08/13 11:20	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	139382	07/02/13 11:40		TAL TAM

Client Sample ID: BLANK EQUIPMENT 55251

Date Collected: 07/02/13 11:25 Date Received: 07/02/13 15:05

Lab Sample ID: 660-55251-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	139045	07/03/13 09:47	AJG	TAL TAM
Total/NA	Analysis	353.2		1	139094	07/03/13 15:53	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	139148	07/08/13 07:27	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	139161	07/08/13 11:10	тко	TAL TAM
Total/NA	Analysis	SM 5220D		1	283634	07/08/13 13:57	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: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

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 Department

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

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	06-30-14
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		399.01	07-31-13
A2LA	ISO/IEC 17025		399.01	02-28-15
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
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	12-31-13
Georgia	State Program	4	N/A	06-30-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
lowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-14
New York	NELAP	2	10842	04-01-14
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
Puerto Rico	State Program	2	GA00006	01-01-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
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	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13
Wisconsin	State Program		999819810	08-31-13

TestAmerica Tampa

7/17/2013

^{*} Expired certification is currently pending renewal and is considered valid.

Serial Number

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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



Client Information (Sub Contract Lab)	Sampler:			F	b PM: oberts	on, N	Vancy						Carrie	er Trac	king f	Vo(s):				COC No. 660-57514.1	
Client Contact: Shipping/Receiving	Phone:				Mail; ancy.re	obert	son@	testa	тетіса	ainc.c	om									Page: Page 1 of 1	- 3.5
Company:	1		-		Ť					naly		Pog		tod						Job #:	
TestAmerica Laboratories, Inc. Address:	Due Date Reques	ited:					T	T	T^	lialy	515	Req	ues	teu	T	T		_		660-55251-1 Preservation Cod	es:
5102 LaRoche Avenue,	7/10/2013 TAT Requested (4			_															A - HCL	M - Hexane
City: Savannah	TAT Requested (days):											- 1							B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zlp: GA, 31404											-									D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone	PO#											.						1		F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
912-354-7858(Tel) 912-352-0165(Fax)	WO#.				- No.															H - Ascorbic Acid	T - TSP Dodecahydr U - Acetone
Project Name:	Project #.				es or	No.	ra.												ers	J - DI Water K - EDTA	V - MCAA W - ph 4-5
SELF, Leachate Trucks, EFF	66003914		7-A-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		ole (Y	es	Savannah												containers	L - EDA	Z - other (specify)
Site. Leachate, Tank Trucks	SSOW#				Sami	MSMISD (Yes or No)	sub to S						1							Other:	
			Sample	Matrix	ered	W.S.	ins a						-						Total Number of		***************************************
			Туре	(W≃water S≃solid,	11.		D/ COD					-			-				Non		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	(C≍comp, G=grab)	O-wasteld BT=Tissue, A		Релот	5220D/												Tota	Special In	structions/Note:
		> <	Preserval	ion Code	X	X													X		
LEACHATE EFFLUENT (not blank) (660-55251-1)	7/2/13	11:40 Eastern		Water			X												1		
BLANK EQUIPMENT (660-55251-2)	7/2/13	11:25 Eastern		Water			X												1		1
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Page 19 of 21

type of extrapellar and the Login Sample Receipt Checklist (1994) and the contraction of the contraction of

Client: Hillsborough County Public Utilities Dep

Job Number: 660-55251-1

Login Number: 55251

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

• · · ·	_	_
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	

- Annalist Checklist (1994) - Login Sample Receipt Checklist (1994) - 1994 - 1994 - 1994

Client: Hillsborough County Public Utilities Dep

Job Number: 660-55251-1

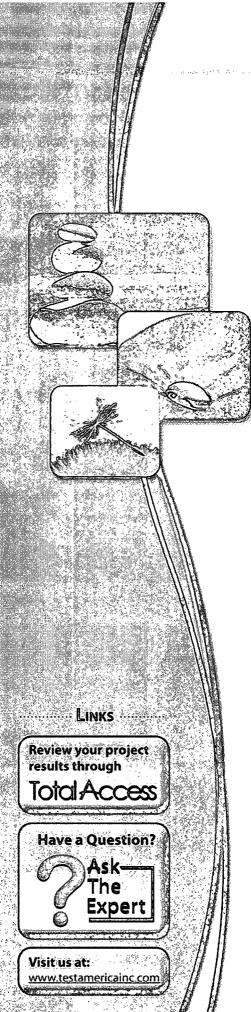
Login Number: 55251

List Number: 1

Creator: Conner, Keaton

List Source: TestAmerica Savannah List Creation: 07/06/13 09:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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: 660-55780-1

Client Project/Site: SELF 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: 8/15/2013 2:35:40 PM

& labert

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.



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QC Sample Results	9
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Lab Chronicle	15
Method Summary	16
Certification Summary	17
Chain of Custody	19
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Receipt Checklists	23

Sample Summary

Client: Hillsborough County Public Utilities Dep

TestAmerica Job ID: 660-55780-1

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	Pro	oject/	Site:	SELF	L	_eachate	Εſ	fluent		

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-55780-1	LEACHATE EFFLUENT	Water	08/02/13 10:27 0	08/02/13 14:20
660-55780-2	BLANK EQUIPMENT	Water	08/02/13 10:15 0	08/02/13 14:20















Case Narrative

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-55780-1

Job ID: 660-55780-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-55780-1

Comments

No additional comments.

Receipt

The samples were received on 8/2/2013 2:20 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

Method 353.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140300 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Definitions/Glossary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
1	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.
n	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)
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 County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job iD: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-55780-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	120		0.50	0.10	mg/L	1	_	353.2	Total/NA
Total Dissolved Solids	5200		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	83		2.3	2.3	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	700		200	63	mg/L	10		SM 5220D	Total/NA
Field pH	7.81				SU	1		Field Sampling	Total/NA
Field Temperature	32.68				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	3.70				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10680				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT

Lab Sample ID: 660-55780-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

8/15/2013

Page 6 of 24



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Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 08/02/13 10:27 Date Received: 08/02/13 14:20 Lab Sample ID: 660-55780-1

Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	120		0.50	0.10	mg/L			08/13/13 16:24	1
Total Dissolved Solids	5200		250	250	mg/L			08/08/13 13:09	1
Total Suspended Solids	83		2.3	2.3	mg/L			08/08/13 09:47	1
Biochemical Oxygen Demand	6.0	U	6.0	6.0	mg/L			08/03/13 10:30	1
Chemical Oxygen Demand	700		200	63	mg/L			08/08/13 13:44	10

Method: Field Sampling - Field Sam	npling						
Analyte	Result Qualifier	PQL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.81		SU			08/02/13 10:27	1
Field Temperature	32.68		Degrees C			08/02/13 10:27	1
Oxygen, Dissolved	3.70		mg/L			08/02/13 10:27	1
Specific Conductance	10680		uS/cm			08/02/13 10:27	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: BLANK EQUIPMENT

Date Collected: 08/02/13 10:15 Date Received: 08/02/13 14:20 Lab Sample ID: 660-55780-2

Matrix: Water

General Chemistry		•							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	Ū	0.50	0.10	mg/L			08/13/13 16:24	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			08/08/13 13:09	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			08/08/13 09:47	1
Biochemical Oxygen Demand	2.0	Ü	2.0	2.0	mg/L			08/03/13 10:30	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			08/08/13 13:44	1



QC Sample Results

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

Nitrate Nitrite as N

TestAmerica Job ID: 660-55780-1

Analyte Ro Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Ro	0 ample	MB MB esult Qualifier .305	Spike Added 0.500 Spike Added 0.500	PQL 0.50	LCS Result 0.494	MDL Unit 0.10 mg/L LCS Qualifier	Unit mg/L Unit mg/L		D <u>%</u> Samp	Rec	Analyze O8/03/13 1 EID: Lab Co Prep Ty %Rec. Limits 90 - 110 ELEACHAT Prep Ty %Rec. Limits	ed 11:01 ontrol S ype: To	Dil Fac
Analyte Nitrate as N Lab Sample ID: LCS 660-140063/13 Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Ref	0 ample Result	esult Qualifier .305	Added 0.500 Spike Added		LCS Result 0.494 MS Result	0.10 mg/L LCS Qualifier	mg/L	Clie	ent Sa	Rec 99	08/03/13 1 e ID: Lab Co Prep Ty %Rec. Limits 90 - 110 e: LEACHAT Prep Ty %Rec.	entrol S ype: To	ampletal/NA
Nitrate as N Lab Sample ID: LCS 660-140063/13 Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Analysis Batch: 140063 San Analyte Analysis Batch: 140063	0 ample Result	esult Qualifier .305	Added 0.500 Spike Added		LCS Result 0.494 MS Result	0.10 mg/L LCS Qualifier	mg/L	Clie	ent Sa	Rec 99	08/03/13 1 e ID: Lab Co Prep Ty %Rec. Limits 90 - 110 e: LEACHAT Prep Ty %Rec.	entrol S ype: To	ampletal/NA
Nitrate as N Lab Sample ID: LCS 660-140063/13 Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Analysis Batch: 140063 San Analyte Analysis Batch: 140063	0 ample Result	Sample	Added 0.500 Spike Added		LCS Result 0.494 MS Result	0.10 mg/L LCS Qualifier	mg/L	Clie	ent Sa	Rec 99	08/03/13 1 e ID: Lab Co Prep Ty %Rec. Limits 90 - 110 e: LEACHAT Prep Ty %Rec.	entrol S ype: To	ampletal/NA
Lab Sample ID: LCS 660-140063/13 Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Analysis Batch: 140063 Sai Analyte Analysis Batch: 140063	ample Result	Sample	Added 0.500 Spike Added		Result 0.494 MS Result	LCS Qualifier	mg/L		D <u>%</u> Samp	Rec 99	%Rec. Limits 90 - 110 C: LEACHAT Prep Ty	entrol S ype: To	tal/NA
Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Analysis Batch: 140063	Result		Added 0.500 Spike Added		Result 0.494 MS Result	Qualifier MS	mg/L		D <u>%</u> Samp	Rec 99	Prep Ty %Rec. Limits 90 - 110 ELEACHAT Prep Ty %Rec.	ype: To	tal/NA
Matrix: Water Analysis Batch: 140063 Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Analysis Batch: 140063	Result		Added 0.500 Spike Added		Result 0.494 MS Result	Qualifier MS	mg/L		D <u>%</u> Samp	Rec 99	Prep Ty %Rec. Limits 90 - 110 ELEACHAT Prep Ty %Rec.	ype: To	uEN1
Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re Analyte Re	Result		Added 0.500 Spike Added		Result 0.494 MS Result	Qualifier MS	mg/L	Client	Samp	99 DIE ID	Limits 90 - 110 9: LEACHAT Prep Ty %Rec.		
Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re	Result		Added 0.500 Spike Added		Result 0.494 MS Result	Qualifier MS	mg/L	Client	Samp	99 DIE ID	Limits 90 - 110 9: LEACHAT Prep Ty %Rec.		
Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re	Result		0.500 Spike Added		0.494 MS Result	MS	mg/L	Client	Samp	99 DIE ID	90 - 110 P: LEACHAT Prep Ty %Rec.		
Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Ro Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Ro	Result		Spike Added		MS Result	MS	Unit		•	ole ID	: LEACHAT Prep Ty %Rec.		
Matrix: Water Analysis Batch: 140063 Sai Analyte Re Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re	Result		Added		Result	-	Unit		•		Prep Ty %Rec.		
Matrix: Water Analysis Batch: 140063 Sai Analyte Re Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sai Analyte Re	Result		Added		Result	-	Unit		•		Prep Ty %Rec.		
Analyte Re Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Re	Result		Added		Result	-			D %	Rec	%Rec.		
Analyte Ro Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte Ro	Result		Added		Result	-			D %	Rec			
Nitrite as N Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 San Analyte		Qualifier				Qualifier		-	D %	Rec	l imite		
Lab Sample ID: 660-55780-1 MS Matrix: Water Analysis Batch: 140063 Sar Analyte Ro	0.50		0.500		0.978		mg/L						
Matrix: Water Analysis Batch: 140063 Sai Analyte Re										95	90 _ 110		
Matrix: Water Analysis Batch: 140063 Sai Analyte Re								Client	Samr	do ID	: LEACHAT	C ECC!	HENT
Analysis Batch: 140063 Sai Analyte Re								Cilent	Sann	ne ib	Prep Ty		
Sar Analyte Ro												, po	
	ample	Sample	Spike		MS	MS					%Rec.		
Nitrite as N	Result	Qualifier	Added		Result	Qualifier	Unit		D %	Rec	Limits		
	0.51		1.00		1.47		mg/L			96	90 - 110		
Lab Cample ID: 660 EF700 4 MCD								O!:4	C	. I ID	- 1 - 4 - 114 -		HENT
Lab Sample ID: 660-55780-1 MSD Matrix: Water								Cilent	Samp	ole ID	: LEACHAT Prep Ty		
Analysis Batch: 140063											riep i	ype. Io	Laii INF
-	ample	Sample	Spike		MSD	MSD					%Rec.		RPD
Analyte Re	Result	Qualifier	Added		Result	Qualifier	Unit	ı	D %	Rec	Limits	RPD	Limi
Nitrite as N	0.50		0.500		1.00		mg/L			99	90 - 110	2	30
									_				
Lab Sample ID: 660-55780-1 MSD								Client	Samp	e ID	: LEACHAT		
Matrix: Water Analysis Batch: 140063											Prep Ty	ype: 10	tai/NA
_	ample	Sample	Spike		MSD	MSD					%Rec.		RPD
	-	Qualifier	Added			Qualifier	Unit	1	D %	Rec	Limits	RPD	Limi
Nitrite as N	0.51		1.00		1.50		mg/L			99	90 - 110	2	30
Lab Sample ID: MB 660-140300/12									Cli	ent S	Sample ID: N		
Matrix: Water											Prep Ty	ype: To	tai/NA
Analysis Batch: 140300		мв мв											
Analyte	Re	esult Qualifier		PQL		MDL Unit		D	Prepa	ared	Analyze	ed .	Dil Fac
Nitrate as N		0.10 U		0.50		0.10 mg/L		- - -			08/09/13 1		
						5 -							
Lab Sample ID: LCS 660-140300/13								Clie	ent Sa	mple	D: Lab Co	ntrol S	ampl
Matrix: Water											Prep Ty	ype: To	tai/N/
Analysis Batch: 140300													
Analyte			Spike Added			LCS Qualifier	Unit		D %	Rec	%Rec. Limits		

TestAmerica Tampa

90 - 110

1.02

1.00

QC Sample Results

Client: Hillsborough County Public Utilities Dep

TestAmerica Job ID: 660-55780-1

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Project/Site: SELF Leachate Effluent

Lab Sample ID: LCS 660-140300/13 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 140300

LCS LCS Spike %Rec. Added Result Qualifier Limits Nitrite as N 0.500 0.456 90 - 110 mg/L

Lab Sample ID: 660-55896-D-1 MS

Matrix: Water

Analysis Batch: 140300

7a.yo.o	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate Nitrite as N	0.10	U	1.00	0.798		mg/L		80	90 - 110	
Nitrite as N	0.10	U	0.500	0.405	1	mg/L		81	90 _ 110	

Lab Sample ID: 660-55896-D-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Ratch: 140300

	Allalysis Datolli. 170000												
		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
ĺ	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
	Nitrate Nitrite as N	0.10	Ū	1.00	0.800		mg/L		80	90 - 110	0	30	
	Nitrite as N	0.10	U	0.500	0.409	1	mg/L		82	90 - 110	1	30	

Lab Sample ID: 660-55902-A-13 MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Water

Analysis Batch: 140300										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate Nitrite as N	0.10	U	1.00	0.945		mg/L		95	90 - 110	
Nitrite as N	0.10	U	0.500	0.410	1	mg/L		82	90 - 110	

Lab Sample ID: 660-55902-A-13 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Amelicaia Databi 440200

Analysis Datell. 140300	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate Nitrite as N	0.10	U	1.00	0.960		mg/L		96	90 - 110	2	30
Nitrite as N	0.10	U	0.500	0.417	1	mg/L		83	90 - 110	2	30

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

Lab Sample ID: MB 660-140243/1 Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA

Analysis Batch: 140243

MB MB Analyte Result Qualifier PQL MDL Unit Dil Fac Analyzed Prepared Total Dissolved Solids 5.0 U 5.0 5.0 mg/L 08/08/13 13:09

Lab Sample ID: LCS 660-140243/2 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water Analysis Batch: 140243

Spike LCS LCS %Rec. Analyte Added Limits Result Qualifier Unit %Rec Total Dissolved Solids 10000 9910 80 - 120 ma/L

Client Sample ID: Duplicate

Project/Site: SELF Leachate Effluent

Lab Sample ID: 660-55798-B-1 DU

Matrix: Water

Total Dissolved Solids

Analysis Batch: 140243

Sample Sample

Result Qualifier 860

DU DU Result Qualifier 840

mg/L

Prep Type: Total/NA

Prep Type: Total/NA

RPD

Prep Type: Total/NA

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

Lab Sample ID: MB 660-140231/1

Matrix: Water

Analyte

Analysis Batch: 140231

Total Suspended Solids

MB MB

Result Qualifier 1.0 Ū

Sample Sample

83

Result Qualifier

SCB SCB Result Qualifier

USB USB

2.0 U

Result Qualifier

2.0

Ū

PQL 1.0

MDL Unit 1.0 mg/L Prepared

Analyzed 08/08/13 09:47

Client Sample ID: Lab Control Sample

%Rec.

Client Sample ID: Method Blank

Dil Fac

Lab Sample ID: LCS 660-140231/2

Matrix: Water

Analysis Batch: 140231

Analyte

Total Suspended Solids

Spike Added

100

LCS LCS

Result Qualifier

Unit mg/L

%Rec Limits 80 - 120

Client Sample ID: LEACHATE EFFLUENT

Prep Type: Total/NA

RPD

RPD

Limit

Dil Fac

Dil Fac

20

Lab Sample ID: 660-55780-1 DU

Matrix: Water

Analysis Batch: 140231

Analyte Total Suspended Solids

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-140062/2 SCB

Matrix: Water

Analysis Batch: 140062

Biochemical Oxygen Demand

Lab Sample ID: USB 660-140062/1 USB

Matrix: Water Analysis Batch: 140062

Analyte Biochemical Oxygen Demand

Matrix: Water Analysis Batch: 140062

Lab Sample ID: LCS 660-140062/3

Biochemical Oxygen Demand

PQL

20

PQL

2.0

98.8

DU DU

68.2

Result Qualifier Unit

MDL Unit

MDL Unit

2.0 mg/L

2.0 mg/L

Prepared

Prepared

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

Analyzed

08/03/13 10:30

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

08/03/13 10:30

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Spike LCS LCS %Rec. Added Limits Unit 207 mg/L

QC Sample Results

Client: Hillsborough County Public Utilities Dep

TestAmerica Job ID: 660-55780-1

Client Sample ID: Duplicate

Project/Site: SELF Leachate Effluent

Lab Sample ID: 660-55790-B-1 DU

Matrix: Water Analysis Batch: 140062

Sample Sample

Qualifier

Result

DU DU Result

228

Qualifier

Unit mg/L

RPD Limit

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

20

Method: SM 5220D - COD

Biochemical Oxygen Demand

Lab Sample ID: MB 680-288395/3

Matrix: Water

Analyte

Analysis Batch: 288395

Chemical Oxygen Demand

МВ MB

Result Qualifier 6.3 Ū

POL

20

MDL Unit 6.3 mg/L Prepared

%Rec

98

Analyzed 08/08/13 13:44

Client Sample ID: Lab Control Sample

%Rec.

Limits

90 - 110

Client Sample ID: Method Blank

Dil Fac

Lab Sample ID: LCS 680-288395/4

Matrix: Water

Analysis Batch: 288395

Analyte Chemical Oxygen Demand

Lab Sample ID: 400-78188-B-1 MS

Matrix: Water

Matrix: Water

Analyte

Analysis Batch: 288395

Chemical Oxygen Demand

Lab Sample ID: 400-78188-B-1 MSD

Sample Sample

Result Qualifier 98 J3

Added 100

Spike

Spike

Added

100

Result 189

MS MS

Qualifier

LCS LCS

97.6

Result Qualifier

Unit mg/L

%Rec 91

Limits 90 - 110

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

%Rec.

%Rec.

Prep Type: Total/NA

Analysis Batch: 288395

Chemical Oxygen Demand

Sample Sample Result Qualifier 98 J3

Spike Added 100

MSD MSD Result Qualifier 196

Unit

Unit

mg/L

%Rec

Limits 90 - 110

RPD Limit

RPD

30

QC Association Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-55780-1

General	Chemistry

Analy	eie.	Batch:	14	0062
Allal	7 O I O	Datell.	14	VVUZ

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 5210B	•
660-55790-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-140062/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-140062/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-140062/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 140063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1 MS	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MS	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MSD	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MSD	LEACHATE EFFLUENT	Total/NA	Water	353.2	
LCS 660-140063/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-140063/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 140231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55780-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540D	
LCS 660-140231/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-140231/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 140243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540C
660-55798-B-1 DU	Duplicate	Total/NA	Water	SM 2540C
LCS 660-140243/2	Lab Control Sample	Total/NA	Water	SM 2540C
MB 660-140243/1	Method Blank	Total/NA	Water	SM 2540C

Analysis Batch: 140300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55896-D-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-55896-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-55902-A-13 MS	Matrix Spike	Total/NA	Water	353.2	
660-55902-A-13 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-140300/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-140300/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 140406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	353.2	

Analysis Batch: 288395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-78188-B-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
400-78188-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	

QC Association Summary

Client: Hillsborough County Public Utilities Dep

TestAmerica Job ID: 660-55780-1

Project/Site: SELF Leachate Effluent

General Chemistry (Continued)

Analysis Batch: 288395 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
LCS 680-288395/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-288395/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 140130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1 ⁻	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 08/02/13 10:27

Date Received: 08/02/13 14:20

Lab Sample ID: 660-55780-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	140062	08/03/13 10:30	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	140231	08/08/13 09:47	тко	TAL TAM
Total/NA	Analysis	SM 2540C		1	140243	08/08/13 13:09	тко	TAL TAM
Total/NA	Analysis	353.2		1	140406	08/13/13 16:24	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		10	288395	08/08/13 13:44	JER	TAL SAV
Total/NA	Analysis	Field Sampling		1	140130	08/02/13 10:27		TAL TAM

Client Sample ID: BLANK EQUIPMENT

Date Collected: 08/02/13 10:15

Date Received: 08/02/13 14:20

Lab Sample ID: 660-55780-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B			140062	08/03/13 10:30	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	140231	08/08/13 09:47	тко	TAL TAM
Total/NA	Analysis	SM 2540C		1	140243	08/08/13 13:09	тко	TAL TAM
Total/NA	Analysis	353.2		1	140406	08/13/13 16:24	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		1	288395	08/08/13 13:44	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

TestAmerica Tampa

Method Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-55780-1.

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
M 5210B	BOD, 5-Day	SM	TAL TAM
M 5220D	COD	SM	TAL SAV
ield 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

TestAmerica Tampa

Certification Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

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	06-30-14
Florida	NELAP	4	E84282	06-30-14
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	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-13 *
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-13
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	12-31-13
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
lowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program		GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
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	01-01-14
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		10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13 *
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
√irginia	NELAP	3	460161	06-14-14
<i>W</i> ashington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13

^{*} Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

8/15/2013

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Certification Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-55780-1

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	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13 *

TestAmerica Tampa

^{*} Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

Custody Seals Intact:

Δ Yes Δ No

Custody Seal No.:

24

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cuo7

6712 Benjamin Road Suite 100 Tampa FL 33634 THE LEADER IN ENVIRONMENTAL TESTING Phone (813) 885-7427 Fax (813) 885-7049 COC No: Carrier Tracking No(s): ZACK PATTERSON 660-49819-16225.1 Client Information Robertson, Nancy Page: Client Contact hone Michael Townsel nancy.robertson@testamericainc.com Page 1 of 1 Company: Analysis Requested Hillsborough County Public Utilities Dep Due Date Requested: Preservation Codes: Solid Waste Management Group Brandon Support Operations Co M - Hexane TAT Requested (days): N - None B - NaOH Tampa O - AsNaO2 C - Zn Acetate State Zip D - Nitric Acid P - Na2O4S E - NaHSO4 O - Na2SO3 FL. 33619 R - Na2S2SO3 E MOOH Phone: S - H2504 G - Amchior DPSW11616001 H - Ascorbic Acid T - TSP Dodecahydrate U - Acetone Email: WO# 1 100 V-MCAA J - DI Water townselm@hillsboroughcounty.org W - ph 4-5 K-EDTA 5226D - Chemical Oxygen Derr Project Name: L-EDA Z - other (specify) SELF Leachate Trucks, EFF 66003914 Other Florida 63.2 - Nitrate Matrix Sample (w-water, Type S=solid, (C=comp. Special Instructions/Note: Sample Identification Time Sample Date G=grab) BT=Tissue, A=Air TO THE THE THE TANK DESCRIPTION OF THE TRANSPORT OF THE T Water ×× × Leachate Efficient 8.2.13 10.27 XX Equipment Blank 8.2-13 6 Water 10.15 Possible Hazard Identification Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Non-Hazard Flammable Disposal By Lab Skin Irritant Poison B Unknown Return To Client Archive For Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements: Empty Kit Relinguished by: Time: 09/ Refinauished by: Date/Time Received by: 8.2-13 Relinquished by: Company Received by: Relinquished by: Date/Time: Received by:

Cooler Temperature(s) *C and Other Remarks:

TestAmerica Tampa

6712 Benjamin Road Suite 100

Tampa, FL 33634 Phone (813) 885-7427 Fax (813) 885-7049

Chain of Custody Record



THE LEADER IN ENVIRORMENTAL TESTING

Client Information (Cult Contract Lab)	Sampler:	ab PM	PM: bertson, Nancy						Carrier Tracking No(s):							COC No: 660-58523.1							
Client Information (Sub Contract Lab)	Phone;				Mail:	tson,	Nan	СУ	-				\dashv								Page:		
Shipping/Receiving				n	ancy	robe	rtson	@tes	stame	ricai	nc.cor	n									Page 1 of 1		
Company: TestAmerica Laboratories, Inc.										An	alysi	is F	Regu	ies	ted						Job #: 660-55780-1		
Address:	Due Date Request	ed:			ling			П		1	Ť	T		T	T		1				Preservation Cod	ies;	
5102 LaRoche Avenue, City: Savannah State, Zip:	8/9/2013 TAT Requested (d.	avel.								- 1			ļ								A - HCL B - NaOH	M - Hexane N - None	3
Savannah	TAT Requested (d.	aysı.			1000					- 1					-						C - Zn Acetate	O - AsNaO2	9
GA, 31404					1000																D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			47-1-1-1	Talbalan.							1									F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S2SQ3 S - H2SQ4 T - TSP Dodeca	hudrato
Email:	WO#:				13.0	0 0								1						8	I - Ice J - DI Water	U - Acetone V - MCAA	arryurate
Project Name:	Project#:				- 2	or A	to Savannah			Ì					ĺ					containers	K - EDTA L - EDA	W - ph 4-5 Z - other (specif	(v)
SELF,Leachate Trucks, EFF Site:	66003914 SSOW#:				- 3	(Ver	Sava						l			-				ţ. O	Other:		
Leachate, Tank Trucks	0001111				1	USD W	sub to			- 1					ĺ	-				ŏ			15
			Sample Type	Matrix (W=water,	1 0	TINE IN	000													Total Number			
		Sample	(C≔comp,	S=solid, O≃waste/ol		erro	52200/									1				otai			
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	BY=Tissue, A= ation Code			5.											5.00E	EMANS.		Special In	structions/No	ote:
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BLANK EQUIPMENT (660-55780-2)	8/2/13	10:15 Eastern		Water		_	Х					1	_			1							
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Possible Hazard Identification						Sai	mple	Disp	osal	(At	fee ma	y b	e as	sess	ed if	san	nple	s ar			ed longer than 1		5.
Unconfirmed					-				To C				Dis	spos	al By	Lab		ļ.,	/	Arch	ive For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)						Spe	eciai	instru	action	S/QC	Requ	ıırer	nents	S:									3
Empty Kit Relinquished by:		Date:				ime:								N	lethod	of Si	hipme	nt					- 3
Relinquisher of Deal		@ /6	600	Company 174	D	PA		ived b	1	Lu	my	KI	_					8	03	de	5 0820	Company Se	J
Rejuquistantoy:	Date/Time: Company			Company		Received by:						Date/Time:								Company	1		
Refinquished by: □ate/Time:							Recei	ived b	y:							Ε	Date/T	ime:				Company	9
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						(res	Coole		peratu	re(s)	°C and (Other	r Rem	arks:			3	>. (0	L			55

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Form FD 9000-24 GROUNDWATER SAMPLING LOG

INTIAL PUMP OR TUBING DEPTH IN WELL (teet) DEPTH IN WELL (teet	SITE NAME:	5 t	LF							ITE DCATION:	• • • • • • • • • • • • • • • • • • • •						
VELL CAPACITY (Gallons)	WELL NO	l: 51	ELF	leach	a.N	e Eff	ven	SAMPLE	ID: Le	achate		Efflue	nt.	DATE: S.	2.13		•
DIAMETER (Inches): DIAMETER (Inches): DEPTH: Set to feet To WATER (Beet): OR BAILER:																	
Conty File Conty	DIAMETE			DIA	/ETE			DEI	PTH: 🎺 🎋	eet to f	eet	TO WATE	ER (feet):	OF		IYPE	/
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME Gallons + (, I WHELL	OLC) —	0,7	L WILLE DEI		(1)0 DE1 111 1		· ·			oot =		gallone
INTIAL PUMP OR TUBING PENAL PUMP OR TUBING DEPTH IN WELL (feet) PURGED (gallons) DEPTH IN WELL (feet) PURGED (gallons) PURGED (gallo				URGE: 1 E	QUIF	PMENT	OL.:	***************************************	UME + (TUE			χπ	UBING LENGTH) + FLOW C	ELL VOLUME		gallons
DEPTH IN WELL (free)	INITIAL D	UND OD	TIEDIA	· · · · · · · · · · · · · · · · · · ·	_	CIMAL	21 18 05					t X) +	-		gallons
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VELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.26" = 0.08; 2" = 0.18; 3" = 0.37; 4" = 0.65; 6" = 1.02; 6" = 1.47; 12" = 5.88	10.36					1		1	7.80		10(674			lighte	eenn	N/A
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MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Sillcone; T = Tefion; C = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump;									<u>'</u>					 		Jiner ((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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Form FD 9000-24 GROUNDWATER SAMPLING LOG

SITE NAME:	SELF	EQ	Blon	k			SITE	ATION:							
WELL NO:	Eguip	ment	Blo	nk	SAMP	LE ID:	EFF	PIA	νT	EQ		DATE:	8.2	.13	
						Ρl	JRGI	NG DA	TΑ				•		
WELL	·		TUBING	V		ELL SCR	EEN IN	TERVAL		STATIC E		-		E PUMP TY	PE
DIAMETE	R (inches):		DIAMETI	ER (inches):		EPTH:	feet			TO WAT			OR BA	ILER:	
	LUME PURG		LL VOL	JME = (TO	TAL WELL D	EPTH -	STATI	C DEPTH TO	O WA	PER) X	WELL CAPAC	CITY			
	•••		. =	= (feet -		10.040400	57	feet) X	UBING LENGTH		ns/foot		gallons
(only fill ou	NT VOLUME t if applicable	PURGE:	1 EQUI	PMENT VO	L. = PUMP V: 	JLUME	(IORIN	IG CAPACII	¥	х т	UBING LENGT	1) + FLO	M CELL	VOLUME	
(,	,	·				gallons +	(gallo	ns/fool	t X	fee	t) +		gallons	= gallons
	JMP OR TUB WELL (feet):	ING			MP OR TUBI WELL (feet)	NG		PURGING			PURGING ENDED AT			OTAL VOL URGED (g	
DEF ITTH	VVELL (1991).			DEFININ			$\neg \top$	1 1111111111			DISSOLVED	· 		CITCLE (8	
TIME	VOLUME PURGED (gallons)	VOI PUI	MUL. LUME RGED	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pl (stand unit	dard	TEMP. (°C)	(ci rcl µ m i	OND. le units) nos/cm µS/cm	OXYGEN (circle units) · mg/L or % saturation		BIDITY TUs)	COLOF (describ	
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	 PACITY (Galle ISIDE DIA, C					1,25" 6" = 0.00	= 0.06; 14: 1	2" = 0.16 1/4" = 0.0026		" = 0.37; 5/16" = 0.		5" = 1.0 0.006;			12" = 5.88 5/8" = 0.016
	EQUIPMENT			Bailer;	BP = Bladde			P = Electric (Peristaltic			her (Specify)
						SA	MPL	ING DA	TA						
SAMPLED	BY (PRINT)		_		SAMPLER(S) SIGNA	TURE(S): /	.1	V Store	-SAMPLING	T: 11.1	-	SAMPLING	
		ZAU	k far	ibeson	~					\	INITIATED A		3	ENDED A	
PUMP OR DEPTH IN	TUBING WELL (feet):		γ. γ.		TUBING MATERIAL	CODE:	Ŋ	A	•		-FILTERED: Yon Equipment T			FILTER SI	ZE:µm
	CONTAMINA	TON:	PUMP	ΥI	N/A	TUB	NG	AN (re	olaced		DUPLICATE	************	1 (N)	
SAMI	PLE CONTAIL	NER SPE	CIFICAT		10///	SAMPI	E PRE	SERVATION	1		INTEND	ED.	SAN	PLING	SAMPLE PUMP
SAMPLE	#	MATE	DIAI	OLUME	PRESERV			TAL VOL		FINAL	ANALYSIS A	AND/OR	EQUI	PMENT ODE	FLOW RATE (mL per minute)
ID CODE	CONTAINERS		DE	VOLUME	USED	<i>!</i>	ADDED	IN FIELD (n	1L)	pH		·	ļ <u>-</u>		(IIIC per Iranice)
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REMARKS	C.					1									
	00000				A 1 A 1			landa e c	-		0 · · · · · · · ·			0 = 0	than (Can-if.)
MATERIAL			Imber G		= Clear Glass		Polyet			olypropyl			= Teflor		ther (Specify)
SAMPLING	EQUIPMEN	CODES			eristaltic Pum se Flow Peris	• •	≍ Bailer ıp; S			er Pump; d (Tubing	ESP = Elect Gravity Drain);		ne r sible F Other (S _l		

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

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

Revision Date: February 12, 2009

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

Login Number: 55780

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.</td <td>N/A</td> <td></td>	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

Containers requiring zero headspace have no headspace or bubble is

Job Number: 660-55780-1

Login Number: 55780 List Number: 1

Creator: Conner, Keaton

List Source: TestAmerica Savannah List Creation: 08/03/13 09:17 AM

ordator, odmior, reactor		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	

True

True

True

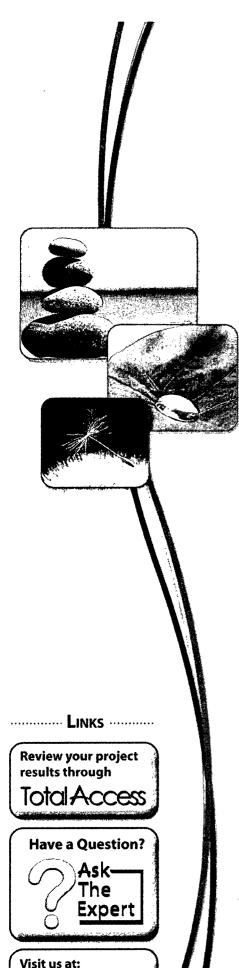
N/A

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.



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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: 660-56355-1

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: 9/16/2013 10:55:06 AM

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

of labert

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: 660-56355-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-56355-1	Leachate Effluent	Water	09/06/13 10:35	09/06/13 13:00
660-56355-2	BLANK FIELD	Water	09/06/13 10:30	09/06/13 13:00



Case Narrative

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

TestAmerica Job ID: 660-56355-1

Job ID: 660-56355-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-56355-1

Comments

No additional comments.

Receipt

The samples were received on 9/6/2013 1:00 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 2540D: The matrix duplicate % RPD in batch 141344 was outside the control limits.

No other analytical or quality issues were noted.

4

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

Qualifiers	
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General Chen	· · · · · · · · · · · · · · · · · · ·
Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
0	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: 660-56355-1

Client Sample	ID:	Leachate	Effluent
---------------	-----	----------	----------

Lab Sample ID: 660-56355-1

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	6000		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	120		4.2	4.2	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	350		120	120	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	960		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	7.73		•		SU	1		Field Sampling	Total/NA
Field Temperature	32.32				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.62				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10534				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-56355-2

No Detections.



Client Sample Results

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

TestAmerica Job ID: 660-56355-1

Client Sample ID: Leachate Effluent

Date Collected: 09/06/13 10:35 Date Received: 09/06/13 13:00 Lab Sample ID: 660-56355-1

Matrix: Water

General Chemistry Analyte	Result Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	130	50	10	mg/L			09/07/13 14:23	100
Total Dissolved Solids	6000	50	50	mg/L			09/12/13 10:15	1
Total Suspended Solids	120	4.2	4.2	mg/L			09/12/13 07:04	1
Biochemical Oxygen Demand	350	120	120	mg/L			09/07/13 11:06	1
Chemical Oxygen Demand	960	20	6.3	mg/L			09/13/13 12:15	1



[Method: Field Sampling - Field Sa	mpling								
1	Analyte	Result (Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Field pH	7.73				SU			09/06/13 10:35	1
1	Field Temperature	32.32				Degrees C			09/06/13 10:35	1
	Oxygen, Dissolved	2.62				mg/L			09/06/13 10:35	1
	Specific Conductance	10534				uS/cm			09/06/13 10:35	1

Client Sample Results

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

TestAmerica Job ID: 660-56355-1

Client Sample ID: BLANK FIELD

Date Received: 09/06/13 13:00

Lab Sample ID: 660-56355-2 Date Collected: 09/06/13 10:30

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			09/07/13 08:38	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			09/12/13 10:15	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			09/12/13 07:04	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			09/07/13 11:06	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			09/13/13 12:15	1



Lab Sample ID: MB 660-141200/12 Matrix: Water												Client S	ample ID: N Prep Ty		
Analysis Batch: 141200															
			MB												
Analyte	R		Qualifier		PQL		MDL			. D	P	repared	Analyze		Dil Fac
Nitrate as N		0.10	U		0.50		0.10	mg/L					09/07/13 0	8:30	•
Lab Sample ID: LCS 660-141200/13 Matrix: Water										CI	ient	Sample	ID: Lab Co Prep Ty		•
Analysis Batch: 141200														, po	
				Spike		LCS	LCS						%Rec.		
Analyte				Added		Result	Qual	ifier	Unit		D	%Rec	Limits		
Nitrate Nitrite as N				1.00		0.984			mg/L			98	90 - 110		
Nitrite as N				0.500		0.518			mg/L			104	90 - 110		
Lab Sample ID: 660-56344-B-1 MS												Client	Sample ID:		
Matrix: Water													Prep Ty	pe: Ic	otal/NA
Analysis Batch: 141200	Sample	e a m	nla	Spike		Me	MS						%Rec.		
Amalida	Result		•	Added		Result		ifine.	11-14		D	0/ D	MRec. Limits		
Analyte Nitrate Nitrite as N	0.10			1.00		0.966	Quai		Unit		_	%Rec 97	90 - 110		
Nitrite as N	0.10			0.500		0.497	ı		mg/L mg/L			99	90 - 110		
									J						
Lab Sample ID: 660-56344-B-1 MSD Matrix: Water)									Clien	t Sa	imple ID	: Matrix Sp Prep Ty		-
Analysis Batch: 141200															
·	Sample	Sam	ple	Spike		MSD	MSD						%Rec.		RPD
Analyte	Result	Qua	lifier	Added		Result	Qual	ifier	Unit		D	%Rec	Limits	RPD	Limi
Nitrate Nitrite as N	0.10	Ū		1.00		1.03			mg/L		_	103	90 - 110	6	30
Nitrite as N	0.10	U		0.500		0.534			mg/L			107	90 - 110	7	30
Lab Sample ID: MB 660-141202/1												Client S	ample ID: N	lethod	I Blank
Matrix: Water												Onene o	Prep Ty		
Malin, Waler														•	
Analysis Batch: 141202															
		мв	мв												
Analysis Batch: 141202	R		MB Qualifier		PQL		MDL	Unit		D	Pi	repared	Analyze	d	Dil Fac
Analysis Batch: 141202	R			<u>. </u>	PQL 0.50			Unit mg/L		D	Pi	repared	Analyze 09/07/13 1		Dil Fac
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2	R	esult	Qualifier	<u> </u>									09/07/13 1	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water	R	esult	Qualifier										09/07/13 1	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N	R	esult	Qualifier	Spike		LCS							09/07/13 1	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202	R	esult	Qualifier	Spike Added		LCS Result	0.10 LCS	mg/L					09/07/13 1 ID: Lab Co Prep Ty	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202	R	esult	Qualifier				0.10 LCS	mg/L	Unit mg/L		ent	Sample	09/07/13 1 ID: Lab Co Prep Ty %Rec.	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N	R	esult	Qualifier	Added		Result	0.10 LCS	mg/L			ent	Sample	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits	4:20 ntrol S	Sample
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N	R	esult	Qualifier	Added 1.00		Result 1.01	0.10 LCS	mg/L	mg/L		ent	%Rec 101 105	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits 90 - 110 90 - 110	4:20 ntrol S pe: To	Sample otal/NA
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N Lab Sample ID: 660-56365-A-2 MS	R	esult	Qualifier	Added 1.00		Result 1.01	0.10 LCS	mg/L	mg/L		ent	%Rec 101 105	09/07/13 1 ID: Lab Co	ntrol S pe: To	Sample otal/NA
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N Lab Sample ID: 660-56365-A-2 MS Matrix: Water	R	esult	Qualifier	Added 1.00		Result 1.01	0.10 LCS	mg/L	mg/L		ent	%Rec 101 105	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits 90 - 110 90 - 110	ntrol S pe: To	Sample otal/NA
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N		0.10	Qualifier U	1.00 0.500		1.01 0.525	0.10 LCS Qual	mg/L	mg/L		ent	%Rec 101 105	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits 90 - 110 90 - 110 Sample ID: Prep Ty	ntrol S pe: To	Sample otal/NA
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N Lab Sample ID: 660-56365-A-2 MS Matrix: Water Analysis Batch: 141202	Sample	0.10	Qualifier U	1.00 0.500 Spike		1.01 0.525 MS	0.10 LCS Qual	mg/L	mg/L mg/L		D	%Rec 101 105	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits 90 - 110 90 - 110 Sample ID: Prep Ty %Rec.	ntrol S pe: To	Sample otal/NA
Analysis Batch: 141202 Analyte Nitrate as N Lab Sample ID: LCS 660-141202/2 Matrix: Water Analysis Batch: 141202 Analyte Nitrate Nitrite as N Nitrite as N Lab Sample ID: 660-56365-A-2 MS Matrix: Water		0.10 Sam Qua	Qualifier U	1.00 0.500		1.01 0.525	0.10 LCS Qual	mg/L	mg/L		ent	%Rec 101 105	09/07/13 1 ID: Lab Co Prep Ty %Rec. Limits 90 - 110 90 - 110 Sample ID: Prep Ty	ntrol S pe: To	Sample otal/NA

TestAmerica Tampa

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

Lab Sample ID: 660-56365-A-2 MSI	D							Client	t Sa	imple ID	: Matrix Spi Prep Ty		
Matrix: Water											Prep Ty	pe: 10	Lai/IV/
Analysis Batch: 141202	Sample	Sample	Spike		MSD	MSD					%Rec.		RPI
Analyte	-	Qualifier	Added			Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Nitrate Nitrite as N	0.10		1.00		1.03		mg/L		_	103	90 - 110	- 0	30
Nitrite as N	0.10		0.500		0.536		mg/L			107	90 - 110	0	3
lethod: SM 2540C - Solids, To	otal Dis	OT) baylos	181										
Lab Sample ID: MB 660-141356/1	otal Dic									Client S	ample ID: N	lethod	Blani
Matrix: Water											Prep Ty		
Analysis Batch: 141356												•	
,0.0 2 4.0 1		мв мв											
Analyte	R	esult Qualifier		PQL		MDL Unit		D	P	repared	Analyze	d	Dil Fac
Total Dissolved Solids		5.0 U		5.0		5.0 mg/L					09/12/13 1		
l ah Sampla ID: CS 660 141356/3								Cli	ont	Cample	ID: Lab Co	ntral S	am niz
Lab Sample ID: LCS 660-141356/2								CII	ent	Sample			
Matrix: Water											Prep Ty	pe: 10	tal/NA
Analysis Batch: 141356			Cuita		1.00						0/ 0		
			Spike	_		LCS			_		%Rec.		
Analyte			Added	F		Qualifier	Unit		D	%Rec	Limits		
Fotal Dissolved Solids			10000		9960		mg/L			100	80 - 120		
_ab Sample ID: 640-44944-H-5 DU										Clie	ent Sample l	D: Dup	licate
Matrix: Water											Prep Ty		
Analysis Batch: 141356												P 0 0.	
Analysis Baton. 141000	Sample	Sample			DU	DU							RPE
Analyte	•	Qualifier		B		Qualifier	Unit		D			RPD	Limi
Total Dissolved Solids	390				373		mg/L		-			4	20
lethod: SM 2540D - Solids, To	otal Su	spended (T	SS)										
Lab Sample ID: MB 660-141344/1										Client S	ample ID: N		
											Prep Ty	pe: Tot	tal/NA
		мв мв											
Analysis Batch: 141344	R	MB MB esult Qualifier		PQL		MDL Unit		D	·Pı	repared	Analyze	d	Dil Fac
Analysis Batch: 141344 _{Analyte}	R			PQL 1.0		MDL Unit		D	Pı	repared	Analyze 09/12/13 0		Dil Fac
Analysis Batch: 141344 Analyte Total Suspended Solids	R	esult Qualifier									09/12/13 0	7:04	•
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2	R	esult Qualifier									09/12/13 0	7:04 ntrol Sa	ample
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water	R	esult Qualifier									09/12/13 0	7:04 ntrol Sa	ample
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water	R	esult Qualifier	Spike		LCS	1.0 mg/L					09/12/13 0	7:04 ntrol Sa	ample
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344	R	esult Qualifier	•	1.0	LCS	1.0 mg/L	Unit	Cli	ent	Sample	09/12/13 0 ID: Lab Co Prep Ty %Rec.	7:04 ntrol Sa	ample
Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344	R	esult Qualifier	Spike Added	1.0	LCS	1.0 mg/L	Unit mg/L	Cli			09/12/13 0	7:04 ntrol Sa	ample
Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Fotal Suspended Solids	R	esult Qualifier	Added	1.0	LCS Result	1.0 mg/L		Clie	ent	Sample *Rec 105	09/12/13 0 ID: Lab Coprep Ty %Rec. Limits 80 - 120	ntrol Sa pe: Tol	ample
Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: 660-56355-1 DU	R	esult Qualifier	Added	1.0	LCS Result	1.0 mg/L		Clie	ent	Sample *Rec 105	09/12/13 0 ID: Lab Coperp Ty %Rec. Limits 80 - 120 Die ID: Leac	7:04 ntrol Sa pe: Tol	ample tal/NA
Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Fotal Suspended Solids Lab Sample ID: 660-56355-1 DU Matrix: Water	R	esult Qualifier	Added	1.0	LCS Result	1.0 mg/L		Clie	ent	Sample *Rec 105	09/12/13 0 ID: Lab Coprep Ty %Rec. Limits 80 - 120	7:04 ntrol Sa pe: Tol	ample tal/NA
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: 660-56355-1 DU Matrix: Water		esult Qualifier 1.0 U	Added	1.0	LCS Result 105	1.0 mg/L LCS Qualifier		Clie	ent	Sample *Rec 105	09/12/13 0 ID: Lab Coperp Ty %Rec. Limits 80 - 120 Die ID: Leac	7:04 ntrol Sa pe: Tol	ampletal/NA
Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: 660-56355-1 DU Matrix: Water Analysis Batch: 141344	Sample	esult Qualifier 1.0 U	Added	1.0	LCS Result 105	1.0 mg/L LCS Qualifier	mg/L	Clid	ent D	Sample *Rec 105	09/12/13 0 ID: Lab Coperp Ty %Rec. Limits 80 - 120 Die ID: Leac	7:04 ntrol Sape: Tol	ample tal/NA fluent tal/NA
Matrix: Water Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: LCS 660-141344/2 Matrix: Water Analysis Batch: 141344 Analyte Total Suspended Solids Lab Sample ID: 660-56355-1 DU Matrix: Water Analysis Batch: 141344 Analyte Total Suspended Solids	Sample	esult Qualifier 1.0 U	Added	1.0	LCS Result 105	1.0 mg/L LCS Qualifier DU Qualifier		Clid	ent	Sample *Rec 105	09/12/13 0 ID: Lab Coperp Ty %Rec. Limits 80 - 120 Die ID: Leac	7:04 ntrol Sa pe: Tol	ampletal/NA

TestAmerica Tampa

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

Method: SM 5210B - BOD, 5-Da	ay													
Lab Sample ID: SCB 660-141201/2	SCB											Client S	Sample ID: Metho	
Analysis Batch: 141201														
	S	СВ	SCB											
Analyte	Res	ult	Qualifier		PQL		MDL	Unit		Đ	Ρ	repared	Analyzed	Dil Fac
Biochemical Oxygen Demand		2.0	U		2.0		2.0	mg/L					09/07/13 09:59	1
Lab Sample ID: USB 660-141201/1	USB											Client S	sample ID: Metho	d Blank
Matrix: Water													Prep Type:	Γotal/NA
Analysis Batch: 141201														
	U	SB	USB											
Analyte	Res	ult	Qualifier		PQL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
Biochemical Oxygen Demand		2.0	U		2.0		2.0	mg/L					09/07/13 09:59	1
Lab Sample ID: LCS 660-141201/3 Matrix: Water										CI	ient	Sample	ID: Lab Control Prep Type:	-
Analysis Batch: 141201				Calle		1.00	1.00						9/ Dee	
Analyto				Spike Added			LCS	ifio-	Unit		г.	0/ Baa	%Rec. Limits	
Analyte Biochemical Oxygen Demand				198		Result 185	Quai	itier 	mg/L		D	%Rec 93	85 - 115	
 														
Lab Sample ID: 660-56355-1 DU											Clie	nt Sam	ple ID: Leachate	Effluent
Matrix: Water													Prep Type:	Γotal/NA
Analysis Batch: 141201														
	Sample S	amı	ole			DU	DU							RPD
Analyte	Result C)uali	ifier			Result	Qual	ifier	Unit		D		RP	D Limit
Biochemical Oxygen Demand	350					343			mg/L				0.	6 20
Method: SM 5220D - COD														
_ Lab Sample ID: MB 680-293710/3												Client S	ample ID: Metho	d Blank
Matrix: Water													Prep Type:	Γotal/NA
Analysis Batch: 293710													• • •	
·	_													
	N	1B	MB											
Analyte			MB Qualifier		PQL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
Analyte Chemical Oxygen Demand	Res		Qualifier		PQL 20			Unit mg/L		D	P	repared	Analyzed 09/13/13 12:15	Dil Fac
Chemical Oxygen Demand	Res	ult	Qualifier										09/13/13 12:15	1
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4	Res	ult	Qualifier										09/13/13 12:15	Sample
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water	Res	ult	Qualifier										09/13/13 12:15	Sample
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4	Res	ult	Qualifier	Spike		LCS							09/13/13 12:15	Sample
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710	Res	ult	Qualifier	Spike Added			6.3 LCS	mg/L	Unit			Sample	09/13/13 12:15 PID: Lab Control Prep Type:	Sample
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water	Res	ult	Qualifier			LCS Result	6.3 LCS	mg/L	Unit mg/L		ient		09/13/13 12:15 ID: Lab Control Prep Type:	Sample
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710 Analyte Chemical Oxygen Demand	Res	ult	Qualifier	Added		Result	6.3 LCS	mg/L			ient	Sample %Rec 102	09/13/13 12:15 PID: Lab Control Prep Type: **Rec. Limits** 90 - 110	Sample Fotal/NA
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710 Analyte Chemical Oxygen Demand Lab Sample ID: 400-79757-B-1 MS	Res	ult	Qualifier	Added		Result	6.3 LCS	mg/L			ient	Sample %Rec 102	09/13/13 12:15 ID: Lab Control Prep Type: %Rec. Limits 90 - 110 Sample ID: Matr	Sample Fotal/NA
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710 Analyte Chemical Oxygen Demand Lab Sample ID: 400-79757-B-1 MS Matrix: Water	Res	ult	Qualifier	Added		Result	6.3 LCS	mg/L			ient	Sample %Rec 102	09/13/13 12:15 PID: Lab Control Prep Type: **Rec. Limits** 90 - 110	Sample Fotal/NA
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710 Analyte Chemical Oxygen Demand Lab Sample ID: 400-79757-B-1 MS	Res	ult 3.3	Qualifier Ū	Added 100		Result 102	6.3 LCS	mg/L			ient	Sample %Rec 102	09/13/13 12:15 ID: Lab Control Prep Type: *Rec. Limits 90 - 110 Sample ID: Matri Prep Type: **The Prep Type: **The Pre	Sample Fotal/NA
Chemical Oxygen Demand Lab Sample ID: LCS 680-293710/4 Matrix: Water Analysis Batch: 293710 Analyte Chemical Oxygen Demand Lab Sample ID: 400-79757-B-1 MS Matrix: Water	Res	ult 3.3	Qualifier Ū	Added		Result 102	6.3 LCS Qual	mg/L ifier			ient	Sample %Rec 102	09/13/13 12:15 ID: Lab Control Prep Type: %Rec. Limits 90 - 110 Sample ID: Matr	Sample Fotal/NA

QC Sample Results

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

TestAmerica Job ID: 660-56355-1

Lab Sample ID: 400-79757-B-1 MS Matrix: Water Analysis Batch: 293710	D						Client S	ample II): Matrix S _I Prep T	pike Dup ype: Tot	
	•	Sample	Spike		MSD		_	~-	%Rec.		RPD
Analyte Chemical Oxygen Demand	Result 100	Qualifier	Added 100	Result 200	Qualifier	Unit mg/L	D	%Rec 96	90 - 110	RPD 0	Limit 30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-56355-1

nalysis Batch: 141200					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
660-56344-B-1 MS	Matrix Spike	Total/NA	Water	353.2	1700 5410
660-56344-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-56355-2	BLANK FIELD	Total/NA	Water	353.2	
LCS 660-141200/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-141200/12	Method Blank	Total/NA	Water	353.2	
nalysis Batch: 141201					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	, Prep Bate
660-56355-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-56355-1 DU	Leachate Effluent	Total/NA	Water	SM 5210B	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 5210B	
LCS 660-141201/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-141201/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-141201/1 USB	Method Blank	Total/NA	Water	SM 5210B	
nalysis Batch: 141202					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bate
660-56355-1	Leachate Effluent	Total/NA	Water	353.2	
660-56365-A-2 MS	Matrix Spike	Total/NA	Water	353.2	
660-56365-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-141202/2	Lab Control Sample	Total/NA	Water	353.2	•
MB 660-141202/1	Method Blank	Total/NA	Water	353.2	
nalysis Batch: 141344	•				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
660-56355-1	Leachate Effluent	Total/NA	Water	SM 2540D	-
660-56355-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 2540D	
LCS 660-141344/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-141344/1	Method Blank	Total/NA	Water	SM 2540D	
nalysis Batch: 141356			**		
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bate
640-44944-H-5 DU	Duplicate	Total/NA	Water	SM 2540C	
660-56355-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 2540C	
LCS 660-141356/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-141356/1	Method Blank	Total/NA	Water	SM 2540C	
nalysis Batch: 293710					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bate
400-79757-B-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
400-79757-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-56355-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-56355-2	BLANK FIELD Lab Control Sample	Total/NA	Water	SM 5220D	
LCS 680-293710/4		Total/NA	Water	SM 5220D	

QC Association Summary

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

TestAmerica Job ID: 660-56355-1

Field Service / Mobile Lab	

Analysis Batch: 141218

 Lab Sample ID
 Client Sample ID
 Prep Type
 Matrix
 Method
 Prep Batch

 660-56355-1
 Leachate Effluent
 Total/NA
 Water
 Field Sampling

Lab Chronicle

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

TestAmerica Job ID: 660-56355-1

Client Sample ID: Leachate Effluent

Date Collected: 09/06/13 10:35

Lab Sample ID: 660-56355-1

Matrix: Water

Date Received: 09/06/13 13:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	141201	09/07/13 11:06	ELE	TAL TAM
Total/NA	Analysis	353.2		100	141202	09/07/13 14:23	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	141344	09/12/13 07:04	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	141356	09/12/13 10:15	TKO	TAL TAM
Total/NA	Analysis	SM 5220D		1	293710	09/13/13 12:15	JER	TAL SAV
Total/NA	Analysis	Field Sampling		1	141218	09/06/13 10:35		TAL TAM

Client Sample ID: BLANK FIELD

Date Collected: 09/06/13 10:30

Date Received: 09/06/13 13:00

Lab Sample ID: 660-56355-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	141200	09/07/13 08:38	ELE	TAL TAM
Total/NA	Analysis	SM 5210B		1	141201	09/07/13 11:06	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	141344	09/12/13 07:04	тко	TAL TAM
Total/NA	Analysis	SM 2540C		1	141356	09/12/13 10:15	тко	TAL TAM
Total/NA	Analysis	SM 5220D		1	293710	09/13/13 12:15	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: 660-56355-1

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

TestAmerica Tampa

TestAmerica Job ID: 660-56355-1

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

Laboratory: TestAmerica Tampa

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

Authority Alabama	Program State Program	EPA Region 4	Certification ID 40610	Expiration Date
Florida	NELAP	4	E84282	06-30-14
Georgia	State Program	4	905	06-30-14
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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	07-31-14
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-13
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	12-31-13
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-14
lowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
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	01-01-14
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	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-13 *
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13 *
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14

^{*} Expired certification is currently pending renewal and is considered valid.

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Certification Summary

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

TestAmerica Job ID: 660-56355-1

Laboratory: TestAmerica Savannah (Continued)

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

Authority West Virginia	Program State Program	EPA Region	Certification ID 9950C	Expiration Date
West Virginia DEP	State Program	3	94	09-30-13 *
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

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

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Serial Number

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TESTAMERICA (L. Nancy Robe	AB) PROJECT MA	_	PO NUMBER		CONTRACT NO.	$\dagger \dagger$	Ť	Ī				_								STANDA DELIVER	RD REPORT	0	
CLIENT (SITE) PM Michael Tow CLIENT NAME			CLIENT PHONE (813) 663-3. CLIENT EMAIL	222	(813) 274-6801	MOTCATE			BOLVENT.									1		EXPEDIT DELIVER			
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TestAmerica Tampa

6712 Benjamin Road Suite 100

TestAmerica Laboratories, Inc.

SELF, Leachate Trucks, EFF

Leachate, Tank Trucks

912-354-7858(Tel) 912-352-0165(Fax)

Sample Identification - Client ID (Lab ID)

Leachate Effluent (660-56355-1)

Equipment Blank (660-56355-2)

Possible Hazard Identification

Empty Kit Relinquished by:

Custody Seals Intact: Δ Yes · Δ No

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

Custody Seal No .:

Unconfirmed

Relinquished by:

9/16/2013

Tampa, FL 33634

Shipping/Receiving

5102 LaRoche Avenue,

Client Contact:

Company:

Address:

Savannah

GA, 31404

Project Name

Page 20 of

State, Zip:

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

Client Information (Sub Contract Lab)

Phone:

Due Date Requested:

TAT Requested (days):

9/13/2013

PQ#:

WO #:

Project #:

66003914 SSOW#:

Sample Date

9/6/13

Chain of Custody Record

sub to Savannah

Robertson, Nancy

E-Mail:

Matrix

(W-water,

Water

Water

Company

Sample

Type

(C=comp.

G=grab) BT=Tissue, A-Al Preservation Code:

Sample

Time

10:35

Eastern 10:30

Eastern

9-6-13@ 1505

THE LEADER IN ENVERONMENTAL TESTING Carrier Tracking No(s): COC No: 660-59622.1 Page: Page 1 of 1 nancy.robertson@testamericainc.com Job #: 660-56355-1 Analysis Requested Preservation Codes: A - HCL M - Hexane B - NaOH N - None O - AsNaO2 C - Zn Acetate P - Na204S D - Nitric Acid E - NaHSO4 Q - Na2SO3 R - Na2S2SO3 F - MeOH S - H2SO4 G - Amchior H - Ascorbic Acid T - TSP Dodecahydrate U - Acetone I-Ice V - MCAA J - DI Water W - ph 4-5 K-EDTA L-EDA Z - other (specify) Other:

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e:	-			-			_		Metho	od of S	Shipme	ent:	_	-	
	Recei	ived b	y.				7	_			Date/	lime:			Company
_	Recel	ved b	y:								Date/	Time:			Company
-	Recei	ived b	5	200		iac					Date	Time:	/2/	1,.	Company TARAV
	Coole	r Tem	perati			d Othe		narks			8	e. /			
	19.9	11.	ilai. Y	1		1.0			-52	5	08	(1.5	

SI

Form FD 9000-24 GROUNDWATER SAMPLING LOG

SITE NAME:	SELF	TAMP	,			TE CATION:	LITH	IH FL			
WELL NO:		achate		SA	MPLE ID:				DATE: 9~	6-13	
					PURC	ING DA	TA				
WELL DIAMETER (Inches): TUBING DIAMETER (Inches): DIAMETER (Inches): WELL SORT DEPTH: WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH -				WELL SCREEN DEPTH: W/A fe	feet to MA feet TO WATER (feet): N			PURGE PUMP TYPE OR BAILER:			
(only fill out it	IME PURGE:	1 WELL VOL	JME = (TOTA	L WELI	DEPTH - STA	TIC DEPTH	rowater) X feet) X	WELL CAPAC	Gallons/foot	=	gallons
EQUIPMENT (only fill out it	VOLUME PU	RGE: 1 EQUI	PMENT VOL.	= PUMF	VOLUME TUB	/ / /	ITY X T	UBING LENGTH) + FLOW CELL	VOLUME	
INITIAL DIES	ID OD TUDIN		TIMAL DUBA	= 	gallons + (/	galli PURGIN	ons/foot X	feet	·	gailons ≔ TOTAL VOLUM	galions
DEPTH IN W	IP OR TUBINO ÆLL (feet):	·	FINAL PUM DEPTH IN V			INITIATI		ENDED AT:		PURGED (gallor	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEP TO WAT (fee	er (standard	TEMP (°C)	COND. (circle units) µmhos/cm or us/cm	DISSOLVED OXYGEN (circle units) One % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10.35					7.73	32.32	10534	2.62		Browns	s nang
						50.55			ļ		10044
TUBING INS		Per Foot): 0. ACITY (Gal./Ft DDES: B =): 1/B" = 0.0		3/16" = 0.0014;	1/4" = 0.002		004; $3/8^n = 0$			= 5.88 = 0.018 (Specify)
						LING DA	ATA				
	Y (PRINT) / AF			AMPLE	RESIGNATURE	:(S):		SAMPLING INITIATED A	.10.35	SAMPLING ENDED AT:	0.48
PUMP OR TU DEPTH IN W	JBING	N/	7.A. I '	UBING	AL CODE:	,		-FILTERED: Y		FILTER SIZE;	htm
	NTAMINATIO					Y N (re	placed).	DUPLICATE:		N)	
SAMPL	E CONTAINER	R SPECIFICAT	ION		SAMPLE PR	ESERVATIO	N	INTENDI	ED SAN		MPLE PUMP
SAMPLE ID CODE C	** CONTAINERS	MATERIAL ,	OLUME	PRESER		OTAL VOL D IN FIELD (I	mL) FINAL	ANALYSIS A METHO			LOW RATE per minute)
				,							
DEMARKS											
REMARKS:		500		α		ANALYS					
MATERIAL C		AG ≔ Amber G			ess; PE = Poly		PP = Polypropy				(Specify)
	QUIPMENT C	RF		Flow Pe		SM = Straw	Bladder Pump; Method (Tubing	Gravity Drain);	ic Submersible I O = Other (S		

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

Form FD 9000-24 GROUNDWATER SAMPLING LOG

SITE NAME:		SELF I	AMP		SIT	E CATION:	Lithia	, FL			
WELL NO			Blank	SAMPLE	ID:				DATE:	1-6-13	
PURGING DATA											
WELL VO	ut if applicable)	1 WELL VO	TER (Inches): LUME = (TO	DEP	TH - STAT	t to fo IC DEPTH T		R (feet): WELL CAPAC	OI	JRGE PUMP T R BAILER:	YPE gallons
	NT VOLUME P ut if applicable)	URGE: 1 EQ	UIPMENT VOI	L. = PUMP VOLU	UME + (TUBI		ns/foot X	JBING LENGTH	_	ELL VOLUME gallons	
				MP OR TUBING WELL (feet):	`	PURGIN	PURGING INITIATED AT:		<u> </u>	PURGED (gellons):	
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	TURBID (NTUs		
									ļ		
				<u> </u>					<u> </u>		
				+							
	ļ	ļ	_				()				
· · · · · · · · · · · · · · · · · · ·							K11	1-1-1-	<u> </u>		
				17	13	D	1>2L/1	11/17	<u> </u>		
				الد ا	1						
	PACITY (Gallor NSIDE DIA, CA				1.25" = 0.06; = 0.0014;	2" = 0.16 1/4" = 0.0026			6" = 1.02; 0.006; 1/ 5		12" = 5,88 5/8" = 0.016
PURGING	EQUIPMENT (ODES: B	= Bailer;	BP = Bladder Pu			Submersible Pur	np; PP = P	eristattic Pur	mp; 0 = 0	ther (Specify)
SAMPLED	BY (PRINT) / A	FFILIATION:	· · · · · · · ·	SAMPLER(S)		ING DA	IA.	CALADIANO		Leaner	
SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SAMPLINE(S): SAMPLING INITIATED AT: 10.30 SAMPLING ENDED AT:							T: 10.40				
PUMP OR	TUBING			TUBING				FILTERED: Y			IZE; μm
	WELL (feet):			MATERIAL CO				n Equipment Ty			
	CONTAMINATIO				TUBING		placed)	DUPLICATE			
SAMPLE	PLE CONTAINE	R SPECIFICA MATERIAL		PRESERVATIV	SAMPLE PRE	SERVATION	FINAL	INTEND ANALYSIS A		SAMPLING QUIPMENT	SAMPLE PUMP FLOW RATE
ID CODE	CONTAINERS	CODE	VOLUME	USED		IN FIELD (m		METHO		CODE	(mL per minute)
				·····			1	-			
REMARKS	3:	·			<u> </u>	1					
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 Peristatitic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristatic Pump; SN = 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

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-56355-1

Login Number: 56355

List Source: TestAmerica Tampa

List Number: 1 Creator: McNulty, Carol

	_	_
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	
s 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 <pre><6mm (1/4").</pre>	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: 660-56355-1

List Source: TestAmerica Savannah

List Creation: 09/07/13 09:30 AM

Login Number: 56355 List Number: 1

Creator: Mulvehill, Dana J

			·	
Question	Answer	Comment	 *****	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td> <td></td> <td></td>	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			
s 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 <6mm (1/4").	True			
Multiphasic samples are not present.	True			
Samples do not require splitting or compositing.	True			
Residual Chlorine Checked.	N/A			

