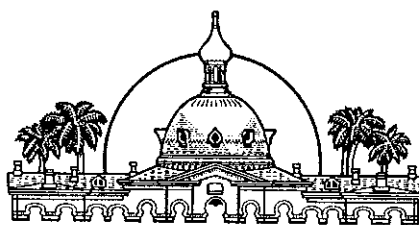


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February 8, 2011

Ms. Susan Pelz, P.E.
Florida Department of Environmental Protection
Solid Waste Section
13051 Telecom Parkway
Temple Terrace, FL 33637

Dept. Of Environmental Protection

FEB 11 2011

Southwest District

Re: **Southeast County Landfill
Leachate Treatment Plant
Annual Sludge Testing Analytical Data**

Dear Ms. Pelz:

In accordance with Specific Condition, Part E, No. 9(c) of the Operation Permit No. 35435-014-SO/01, the Hillsborough County Public Utilities Department, Solid Waste Management Division (SWMD) is pleased to provide the analytical data for the annual sampling of the sludge at the Southeast County Leachate Treatment Facility. The referenced permit requires the SWMD to sample and analyze the waste sludge for Toxicity Characteristic Leaching Procedure (TCLP) listed in 40 CFR Part 261.24, Table 1. In addition to the analysis from the referenced table, copper, molybdenum, nickel, zinc, pH, percent solids, total nitrogen, total potassium, and total phosphorous were collected.

On January 5, 2011, the SWMD collected the annual sludge sample from the rolloff container that is located inside the leachate treatment facility. The laboratory analytical results indicated all parameters were within applicable standards in the above-referenced Table 1. These samples were analyzed by our contracted laboratory, Test America, Inc. and the data sheets are attached.

Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact me at (813) 276-2908 or David Adams at (813) 276-2944.

Sincerely,



Patricia V. Berry
Executive Manager
Public Utilities Department
Solid Waste Management Division

PVB/mdt
Enclosures

xc: Ron Cope, EPC
Larry Ruiz, SWMD
David Adams, P.G., SWMD

enviro/projects/self/leachate plant/ltp-sludgesampling2011.doc

Dept. Of Environmental Protection

FEB 11 2011

Southwest District

ANALYTICAL REPORT

Job Number: 660-39081-1

Job Description: Leachate Annual Sludge

For:

Hillsborough County
Solid Waste Management Department
601 East Kennedy Blvd
24th Floor County Center
Tampa, FL 33601

Attention: Mr. David S Adams



Approved for release.
Nancy Robertson
Project Manager II
1/20/2011 1:20 PM

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com
01/20/2011

Methods: FDEP, DOH Certification #: TestAmerica Tampa E84282

These test results meet all the requirements of NELAC unless specified in the case narrative. All questions regarding this test report should be directed to the TestAmerica Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request. The results contained in this test report relate only to these samples included herein.

TestAmerica Laboratories, Inc.

TestAmerica Tampa 6712 Benjamin Road, Suite 100, Tampa, FL 33634

Tel (813) 885-7427 Fax (813) 885-7049 www.testamericainc.com



**Job Narrative
660-39081-1**

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC/MS Semi VOA

Method 8270C: The matrix spike (MS) recoveries and RPDs for batch 105177 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

GC Semi VOA

Method 8081A: The matrix spike duplicate (MSD) recovery for batch 105073 was outside control limits for methoxychlor. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for potassium in batch 104978 were outside control limits with the parent sample greater than 4x the spike level. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 105199 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

General Chemistry

Method 365.4: Due to the high concentration of total phosphorus, the matrix spike / matrix spike duplicate (MS/MSD) for batch 105068 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Dept. Of Environmental Protection

FEB 11 2011

Southwest District

EXECUTIVE SUMMARY - Detections

Client: Hillsborough County

Job Number: 660-39081-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
660-39081-1	LEACHATE SLUDGE ANNUAL				
Arsenic		11	4.1	mg/Kg	6010B
Copper		50	17	mg/Kg	6010B
Potassium		1.0	0.083	Percent	6010B
Molybdenum		6.4 I	8.3	mg/Kg	6010B
Nickel		15 I	33	mg/Kg	6010B
Lead		4.7	4.1	mg/Kg	6010B
Selenium		6.2 I	8.3	mg/Kg	6010B
Zinc		350	17	mg/Kg	6010B
Percent Solids		12	0.10	%	2540G
Phosphorus, Total		1.8	0.41	Percent	365.4
pH		7.67 Q	1.00	SU	9045C
Nitrogen, Total		6.5	0.000020	Percent	Total Nitrogen
TCLP					
m & p - Cresol		180	50	ug/L	8270C

METHOD SUMMARY

Client: Hillsborough County

Job Number: 660-39081-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL TAM	SW846 8260B	
TCLP Extraction	TAL TAM		SW846 1311
Purge and Trap	TAL TAM		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL TAM	SW846 8270C	
TCLP Extraction	TAL TAM		SW846 1311
Liquid-Liquid Extraction (Continuous)	TAL TAM		SW846 3520C
Organochlorine Pesticides (GC)	TAL TAM	SW846 8081A	
TCLP Extraction	TAL TAM		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL TAM		SW846 3510C
Herbicides (GC)	TAL TAM	SW846 8151A	
TCLP Extraction	TAL TAM		SW846 1311
Extraction (Herbicides)	TAL TAM		SW846 8151A
Metals (ICP)	TAL TAM	SW846 6010B	
Preparation, Metals	TAL TAM		SW846 3050B
Metals (ICP)	TAL TAM	SW846 6010B	
TCLP Extraction	TAL TAM		SW846 1311
Preparation, Total Metals	TAL TAM		SW846 3010A
Mercury (CVAA)	TAL TAM	SW846 7470A	
TCLP Extraction	TAL TAM		SW846 1311
Preparation, Mercury	TAL TAM		SW846 7470A
Mercury (CVAA)	TAL TAM	SW846 7471A	
Preparation, Mercury	TAL TAM		SW846 7471A
2540G	TAL TAM	SM18 2540G	
Phosphorus, Total	TAL TAM	EPA 365.4	
Phosphorus, Total	TAL TAM		MCAWW 365.2/365.3/365
pH	TAL TAM	SW846 9045C	
Deionized Water Leaching Procedure	TAL TAM		ASTM DI Leach
Nitrogen, Total	TAL TAM	EPA Total Nitrogen	

Lab References:

TAL TAM = TestAmerica Tampa

Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

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

METHOD / ANALYST SUMMARY

Client: Hillsborough County

Job Number: 660-39081-1

Method	Analyst	Analyst ID
SW846 8260B	Campbell, Ed	EC
SW846 8270C	Petterson, Alyssa	AP
SW846 8081A	Myers, Randy	RM
SW846 8151A	Myers, Randy	RM
SW846 6010B	Fox, Greg	GF
SW846 7470A	Wieland, Kristen	KW
SW846 7471A	Wieland, Kristen	KW
SM18 2540G	Cooper, Christopher	CC
EPA 365.4	Office, Trey	TO
SW846 9045C	Cooper, Christopher	CC
EPA Total Nitrogen	Mangrum, Lori	LM

SAMPLE SUMMARY

Client: Hillsborough County

Job Number: 660-39081-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
660-39081-1	Leachate Sludge Annual	Solid	01/05/2011 1055	01/05/2011 1350

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1
 Client Matrix: Solid

Date Sampled: 01/05/2011 1055
 Date Received: 01/05/2011 1350

8260B Volatile Organic Compounds (GC/MS)-TCLP

Method:	8260B	Analysis Batch: 660-105228	Instrument ID:	BVMG5973
Preparation:	5030B		Lab File ID:	1GA1407.D
Dilution:	10	Leachate Batch: 660-105216	Initial Weight/Volume:	5 mL
Date Analyzed:	01/14/2011 0834		Final Weight/Volume:	5 mL
Date Prepared:	01/14/2011 0834			
Date Leached:	01/12/2011 1510			

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
Benzene		5.0	U	5.0	10
Carbon tetrachloride		4.2	U	4.2	10
Chlorobenzene		6.3	U	6.3	10
Chloroform		9.0	U	9.0	10
1,4-Dichlorobenzene		5.2	U	5.2	10
1,2-Dichloroethane		5.7	U	5.7	10
1,1-Dichloroethene		4.5	U	4.5	10
2-Butanone (MEK)		84	U	84	100
Trichloroethene		5.0	U	5.0	10
Tetrachloroethene		5.0	U	5.0	10
Vinyl chloride		5.0	U	5.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	96		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1

Date Sampled: 01/05/2011 1055

Client Matrix: Solid

Date Received: 01/05/2011 1350

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Method:	8270C	Analysis Batch: 660-105177	Instrument ID: BSMD5973
Preparation:	3520C	Prep Batch: 660-105076	Lab File ID: 1DA12024.D
Dilution:	1.0	Leachate Batch: 660-105051	Initial Weight/Volume: 200 mL
Date Analyzed:	01/12/2011 1900		Final Weight/Volume: 1 mL
Date Prepared:	01/11/2011 1244		Injection Volume: 1 uL
Date Leached:	01/10/2011 1700		

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
Pyridine		8.6	U J3	8.6	250
Pentachlorophenol		5.8	U J3	5.8	250
Nitrobenzene		6.1	U J3	6.1	50
Hexachloroethane		8.9	U	8.9	50
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-		9.7	U	9.7	50
Hexachlorobenzene		4.8	U	4.8	50
2-Methylphenol		6.8	U J3	6.8	50
m & p - Cresol		180		6.6	50
1,4-Dichlorobenzene		7.7	U J3	7.7	50
2,4-Dinitrotoluene		5.4	U J3	5.4	50
2,4,5-Trichlorophenol		6.8	U J3	6.8	50
2,4,6-Trichlorophenol		4.8	U J3	4.8	50

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	47		29 - 143
2-Fluorophenol	38		29 - 121
Phenol-d6 (Surr)	37		25 - 128
Nitrobenzene-d5	58		34 - 130
2-Fluorobiphenyl	57		36 - 124
Terphenyl-d14	33		14 - 148

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1

Date Sampled: 01/05/2011 1055

Client Matrix: Solid

Date Received: 01/05/2011 1350

8081A Organochlorine Pesticides (GC)-TCLP

Method:	8081A	Analysis Batch: 660-105237	Instrument ID:	BSGJ
Preparation:	3510C	Prep Batch: 660-105073	Initial Weight/Volume:	20 mL
Dilution:	1.0	Leachate Batch: 660-105051	Final Weight/Volume:	2 mL
Date Analyzed:	01/11/2011 2237		Injection Volume:	2 uL
Date Prepared:	01/11/2011 1234		Result Type:	PRIMARY
Date Leached:	01/10/2011 1700			

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
Chlordane (technical)		3.4	U	3.4	25
Endrin		0.61	U	0.61	5.0
gamma-BHC (Lindane)		0.21	U	0.21	2.5
Heptachlor		0.36	U	0.36	2.5
Heptachlor epoxide		0.22	U	0.22	2.5
Methoxychlor		0.44	U J3	0.44	25
Toxaphene		19	U	19	250
Surrogate		%Rec	Qualifier	Acceptance Limits	
DCB Decachlorobiphenyl		89		30 - 150	
Tetrachloro-m-xylene		77		30 - 150	

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1
Client Matrix: Solid

Date Sampled: 01/05/2011 1055
Date Received: 01/05/2011 1350

8151A Herbicides (GC)-TCLP

Method:	8151A	Analysis Batch: 660-105313	Instrument ID:	BSGJ
Preparation:	8151A	Prep Batch: 660-105098	Initial Weight/Volume:	25 mL
Dilution:	1.0	Leachate Batch: 660-105051	Final Weight/Volume:	5 mL
Date Analyzed:	01/14/2011 1749		Injection Volume:	2 uL
Date Prepared:	01/11/2011 1648		Result Type:	PRIMARY
Date Leached:	01/10/2011 1700			

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
2,4-D		7.5	U	7.5	25
Silvex (2,4,5-TP)		1.6	U	1.6	25

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	97		33 - 120

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1

Date Sampled: 01/05/2011 1055

Client Matrix: Solid

% Moisture: 87.9

Date Received: 01/05/2011 1350

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 660-105022	Instrument ID:	ICPA
Preparation:	3050B	Prep Batch: 660-104978	Lab File ID:	11A10A
Dilution:	1.0		Initial Weight/Volume:	1.0 g
Date Analyzed:	01/10/2011 1441		Final Weight/Volume:	50 mL
Date Prepared:	01/10/2011 0804			

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	PQL
Arsenic		11		1.9	4.1
Cadmium		0.72	U	0.72	4.1
Copper		50		4.1	17
Molybdenum		6.4	I	1.3	8.3
Nickel		15	I	3.6	33
Lead		4.7		1.2	4.1
Selenium		6.2	I	3.1	8.3
Zinc		350		4.1	17

Analyte	DryWt Corrected: Y	Result (Percent)	Qualifier	MDL	PQL
Potassium		1.0		0.013	0.083

6010B Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 660-105139	Instrument ID:	ICPC
Preparation:	3010A	Prep Batch: 660-105087	Lab File ID:	11A12C.asc
Dilution:	5.0	Leachate Batch: 660-105052	Initial Weight/Volume:	50 mL
Date Analyzed:	01/12/2011 1414		Final Weight/Volume:	50 mL
Date Prepared:	01/11/2011 1415			
Date Leached:	01/10/2011 1700			

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
Silver		50	U	50	500
Arsenic		120	U	120	1000
Barium		30	U	30	500
Cadmium		18	U	18	500
Chromium		50	U	50	1000
Lead		40	U	40	1000
Selenium		150	U	150	500

7470A Mercury (CVAA)-TCLP

Method:	7470A	Analysis Batch: 660-105199	Instrument ID:	PS200II
Preparation:	7470A	Prep Batch: 660-105173	Lab File ID:	11A13PS.PRN
Dilution:	1.0	Leachate Batch: 660-105052	Initial Weight/Volume:	25 mL
Date Analyzed:	01/13/2011 1451		Final Weight/Volume:	25 mL
Date Prepared:	01/13/2011 0930			
Date Leached:	01/10/2011 1700			

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	PQL
Mercury		0.36	U J3	0.36	0.50

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1

Date Sampled: 01/05/2011 1055

Client Matrix: Solid

% Moisture: 87.9

Date Received: 01/05/2011 1350

7471A Mercury (CVAA)

Method: 7471A

Analysis Batch: 660-104911

Instrument ID: PS200II

Preparation: 7471A

Prep Batch: 660-104890

Lab File ID: 11A06PS.PRN

Dilution: 1.0

Initial Weight/Volume: 0.32 g

Date Analyzed: 01/06/2011 1412

Final Weight/Volume: 50 mL

Date Prepared: 01/06/2011 1000

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	PQL
Mercury		0.078	U	0.078	0.23

Analytical Data

Client: Hillsborough County

Job Number: 660-39081-1

General Chemistry

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-39081-1

Date Sampled: 01/05/2011 1055

Client Matrix: Solid

% Moisture: 87.9

Date Received: 01/05/2011 1350

Analyte	Result	Qual	Units	MDL	PQL	Dil	Method
Phosphorus, Total	1.8		Percent	0.33	0.41	20	365.4
	Analysis Batch: 660-105068		Date Analyzed: 01/11/2011 1217				DryWt Corrected: Y
	Prep Batch: 660-105026		Date Prepared: 01/10/2011 1500				
Nitrogen, Total	6.5		Percent	0.0000036	0.000020	1.0	Total Nitrogen
	Analysis Batch: 660-105178		Date Analyzed: 01/13/2011 1052				DryWt Corrected: N
Analyte	Result	Qual	Units	PQL	PQL	Dil	Method
Percent Solids	12		%	0.10	0.10	1.0	2540G
	Analysis Batch: 660-105054		Date Analyzed: 01/11/2011 0957				DryWt Corrected: N
pH	7.67	Q	SU	1.00	1.00	1.0	9045C
	Analysis Batch: 660-104998		Date Analyzed: 01/07/2011 1529				DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: Hillsborough County

Job Number: 660-39081-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates that the compound was analyzed for but not detected.
GC/MS Semi VOA		
	J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
	J1	Estimated value; value may not be accurate. Surrogate recovery outside of criteria.
	U	Indicates that the compound was analyzed for but not detected.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
GC Semi VOA		
	J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
	U	Indicates that the compound was analyzed for but not detected.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
Metals		
	J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
	U	Indicates that the compound was analyzed for but not detected.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

DATA REPORTING QUALIFIERS

Client: Hillsborough County

Job Number: 660-39081-1

Lab Section	Qualifier	Description
General Chemistry	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.
	Q	Sample held beyond the accepted holding time.

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Method Blank - Batch: 660-105228

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 660-105228/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/14/2011 0759
Date Prepared: 01/14/2011 0759

Analysis Batch: 660-105228
Prep Batch: N/A
Units: ug/L

Instrument ID: BVMG5973
Lab File ID: 1GA1406.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	PQL
Benzene	0.50	U	0.50	1.0
Carbon tetrachloride	0.42	U	0.42	1.0
Chlorobenzene	0.63	U	0.63	1.0
Chloroform	0.90	U	0.90	1.0
1,4-Dichlorobenzene	0.52	U	0.52	1.0
1,2-Dichloroethane	0.57	U	0.57	1.0
1,1-Dichloroethane	0.45	U	0.45	1.0
2-Butanone (MEK)	8.4	U	8.4	10
Trichloroethene	0.50	U	0.50	1.0
Tetrachloroethene	0.50	U	0.50	1.0
Vinyl chloride	0.50	U	0.50	1.0

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	98	70 - 130
Dibromofluoromethane	104	70 - 130
Toluene-d8 (Surr)	99	70 - 130

Lab Control Sample - Batch: 660-105228

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 660-105228/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/14/2011 0714
Date Prepared: 01/14/2011 0714

Analysis Batch: 660-105228
Prep Batch: N/A
Units: ug/L

Instrument ID: BVMG5973
Lab File ID: 1GA1404.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	20.2	101	68 - 134	
Carbon tetrachloride	20.0	19.2	96	61 - 134	
Chlorobenzene	20.0	19.5	97	70 - 130	
Chloroform	20.0	20.8	104	68 - 130	
1,4-Dichlorobenzene	20.0	19.7	99	70 - 130	
1,2-Dichloroethane	20.0	20.6	103	70 - 130	
1,1-Dichloroethane	20.0	19.9	100	51 - 150	
2-Butanone (MEK)	40.0	51.3	128	63 - 140	
Trichloroethene	20.0	20.0	100	63 - 139	
Tetrachloroethene	20.0	11.5	58	50 - 143	
Vinyl chloride	20.0	21.8	109	48 - 147	

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105228**

**Method: 8260B
Preparation: 5030B
TCLP**

MS Lab Sample ID: 660-39081-1 Analysis Batch: 660-105228
Client Matrix: Solid Prep Batch: N/A
Dilution: 10
Date Analyzed: 01/14/2011 0906
Date Prepared: 01/14/2011 0906
Date Leached: 01/12/2011 1510 Leachate Batch: 660-105216

Instrument ID: BVMG5973
Lab File ID: 1GA1408.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 660-39081-1 Analysis Batch: 660-105228
Client Matrix: Solid Prep Batch: N/A
Dilution: 10
Date Analyzed: 01/14/2011 0928
Date Prepared: 01/14/2011 0928
Date Leached: 01/12/2011 1510 Leachate Batch: 660-105216

Instrument ID: BVMG5973
Lab File ID: 1GA1409.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	106	106	68 - 134	1	30		
Carbon tetrachloride	97	97	61 - 134	0	30		
Chlorobenzene	103	102	70 - 130	2	30		
Chloroform	106	108	68 - 130	2	30		
1,4-Dichlorobenzene	103	104	70 - 130	1	30		
1,2-Dichloroethane	107	110	70 - 130	2	30		
1,1-Dichloroethene	103	99	51 - 150	4	30		
2-Butanone (MEK)	115	115	63 - 140	0	30		
Trichloroethene	106	104	63 - 139	2	30		
Tetrachloroethene	59	59	50 - 143	0	30		
Vinyl chloride	96	106	48 - 147	10	30		

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	73	29 - 143
2-Fluorophenol	55	29 - 121
Phenol-d6 (Surr)	47	25 - 128
Nitrobenzene-d5	77	34 - 130
2-Fluorobiphenyl	75	36 - 124
Terphenyl-d14	74	14 - 148

Method Blank - Batch: 660-105076

Method: 8270C
Preparation: 3520C

Lab Sample ID: MB 660-105076/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/12/2011 1741
Date Prepared: 01/11/2011 1244

Analysis Batch: 660-105177
Prep Batch: 660-105076
Units: ug/L

Instrument ID: BSMD5973
Lab File ID: 1DA12021.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	PQL
Pyridine	8.6	U	8.6	250
Pentachlorophenol	5.8	U	5.8	250
Nitrobenzene	6.1	U	6.1	50
Hexachloroethane	8.9	U	8.9	50
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	9.7	U	9.7	50
Hexachlorobenzene	4.8	U	4.8	50
2-Methylphenol	6.8	U	6.8	50
m & p - Cresol	6.6	U	6.6	50
1,4-Dichlorobenzene	7.7	U	7.7	50
2,4-Dinitrotoluene	5.4	U	5.4	50
2,4,5-Trichlorophenol	6.8	U	6.8	50
2,4,6-Trichlorophenol	4.8	U	4.8	50

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	76	29 - 143
2-Fluorophenol	60	29 - 121
Phenol-d6 (Surr)	52	25 - 128
Nitrobenzene-d5	77	34 - 130
2-Fluorobiphenyl	77	36 - 124
Terphenyl-d14	90	14 - 148

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

TCLP SPLPE Leachate Blank - Batch: 660-105076

Method: 8270C
Preparation: 3520C
TCLP

Lab Sample ID: LB 660-105051/3-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/12/2011 1834
Date Prepared: 01/11/2011 1244
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105177
Prep Batch: 660-105076
Units: ug/L

Instrument ID: BSMD5973
Lab File ID: 1DA12023.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Leachate Batch: 660-105051

Analyte	Result	Qual	MDL	PQL
Pyridine	8.6	U	8.6	250
Pentachlorophenol	5.8	U	5.8	250
Nitrobenzene	6.1	U	6.1	50
Hexachloroethane	8.9	U	8.9	50
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	9.7	U	9.7	50
Hexachlorobenzene	4.8	U	4.8	50
2-Methylphenol	6.8	U	6.8	50
m & p - Cresol	6.6	U	6.6	50
1,4-Dichlorobenzene	7.7	U	7.7	50
2,4-Dinitrotoluene	5.4	U	5.4	50
2,4,5-Trichlorophenol	6.8	U	6.8	50
2,4,6-Trichlorophenol	4.8	U	4.8	50

Lab Control Sample - Batch: 660-105076

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 660-105076/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/18/2011 1605
Date Prepared: 01/11/2011 1244

Analysis Batch: 660-105345
Prep Batch: 660-105076
Units: ug/L

Instrument ID: BSMC5973
Lab File ID: 1CA18026.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pyridine	500	131	26	10 - 130	I
Pentachlorophenol	506	302	60	38 - 130	
Nitrobenzene	500	333	67	40 - 138	
Hexachloroethane	500	330	66	38 - 130	
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	500	340	68	38 - 130	
Hexachlorobenzene	500	358	72	29 - 130	
2-Methylphenol	502	309	62	56 - 130	
1,4-Dichlorobenzene	500	326	65	43 - 130	
2,4-Dinitrotoluene	500	332	66	45 - 130	
2,4,5-Trichlorophenol	501	385	77	47 - 130	
2,4,6-Trichlorophenol	504	367	73	50 - 130	

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105076**

**Method: 8270C
Preparation: 3520C
TCLP**

MS Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/12/2011 1926
Date Prepared: 01/11/2011 1244
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105177
Prep Batch: 660-105076

Instrument ID: BSMD5973
Lab File ID: 1DA12025.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Leachate Batch: 660-105051

MSD Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/12/2011 1951
Date Prepared: 01/11/2011 1244
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105177
Prep Batch: 660-105076

Instrument ID: BSMD5973
Lab File ID: 1DA12026.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Leachate Batch: 660-105051

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Pyridine	19	33	10 - 130	53	50	I	I J3
Pentachlorophenol	27	40	38 - 130	38	33	I J3	I J3
Nitrobenzene	43	55	40 - 138	24	21		J3
Hexachloroethane	41	54	38 - 130	28	35		
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	41	53	38 - 130	25	30		
Hexachlorobenzene	29	39	29 - 130	30	31		
2-Methylphenol	25	41	56 - 130	47	27	J3	J3
1,4-Dichlorobenzene	42	56	43 - 130	28	31	J3	
2,4-Dinitrotoluene	40	50	45 - 130	23	32	J3	
2,4,5-Trichlorophenol	32	46	47 - 130	35	28	J3	J3
2,4,6-Trichlorophenol	32	47	50 - 130	37	22	J3	J3

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	91	30 - 150
Tetrachloro-m-xylene	77	30 - 150

Method Blank - Batch: 660-105073

Method: 8081A
Preparation: 3510C

Lab Sample ID: MB 660-105073/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/11/2011 2156
Date Prepared: 01/11/2011 1234

Analysis Batch: 660-105237
Prep Batch: 660-105073
Units: ug/L

Instrument ID: BSGJ
Lab File ID: 1A1111J014.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	PQL
Chlordane (technical)	3.4	U	3.4	25
Endrin	0.61	U	0.61	5.0
gamma-BHC (Lindane)	0.21	U	0.21	2.5
Heptachlor	0.36	U	0.36	2.5
Heptachlor epoxide	0.22	U	0.22	2.5
Methoxychlor	0.44	U	0.44	25
Toxaphene	19	U	19	250

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	93	30 - 150
Tetrachloro-m-xylene	74	30 - 150

TCLP SPLPE Leachate Blank - Batch: 660-105073

Method: 8081A
Preparation: 3510C
TCLP

Lab Sample ID: LB 660-105051/1-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2011 2223
Date Prepared: 01/11/2011 1234
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105237
Prep Batch: 660-105073
Units: ug/L

Leachate Batch: 660-105051

Instrument ID: BSGJ
Lab File ID: 1A1111J016.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	PQL
Chlordane (technical)	3.4	U	3.4	25
Endrin	0.61	U	0.61	5.0
gamma-BHC (Lindane)	0.21	U	0.21	2.5
Heptachlor	0.36	U	0.36	2.5
Heptachlor epoxide	0.22	U	0.22	2.5
Methoxychlor	0.44	U	0.44	25
Toxaphene	19	U	19	250

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Lab Control Sample - Batch: 660-105073

Method: 8081A
Preparation: 3510C

Lab Sample ID: LCS 660-105073/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/11/2011 2210
Date Prepared: 01/11/2011 1234

Analysis Batch: 660-105237
Prep Batch: 660-105073
Units: ug/L

Instrument ID: BSGJ
Lab File ID: 1A1111J015.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Endrin	5.00	5.19	104	49 - 130	
gamma-BHC (Lindane)	5.00	4.93	99	53 - 130	
Heptachlor	5.00	4.90	98	36 - 130	
Heptachlor epoxide	5.00	4.76	95	41 - 130	
Methoxychlor	5.00	6.44	129	45 - 130	I

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105073**

Method: 8081A
Preparation: 3510C
TCLP

MS Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2011 2250
Date Prepared: 01/11/2011 1234
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105237
Prep Batch: 660-105073

Leachate Batch: 660-105051

Instrument ID: BSGJ
Lab File ID: 1A1111J018.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 uL
Column ID: PRIMARY

MSD Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2011 2303
Date Prepared: 01/11/2011 1234
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105237
Prep Batch: 660-105073

Leachate Batch: 660-105051

Instrument ID: BSGJ
Lab File ID: 1A1111J019.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Endrin	100	102	49 - 130	1	30		
gamma-BHC (Lindane)	93	91	53 - 130	2	30		
Heptachlor	98	96	36 - 130	2	30		
Heptachlor epoxide	90	89	41 - 130	1	30		
Methoxychlor	125	131	45 - 130	4	30	I	I J3

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	92	33 - 120

Method Blank - Batch: 660-105098

Method: 8151A
Preparation: 8151A

Lab Sample ID: MB 660-105098/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/14/2011 1659
Date Prepared: 01/11/2011 1648

Analysis Batch: 660-105313
Prep Batch: 660-105098
Units: ug/L

Instrument ID: BSGJ
Lab File ID: 1A1411J011.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 5 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	PQL
2,4-D	7.5	U	7.5	25
Silvex (2,4,5-TP)	1.6	U	1.6	25

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	93	33 - 120

TCLP SPLPE Leachate Blank - Batch: 660-105098

Method: 8151A
Preparation: 8151A
TCLP

Lab Sample ID: LB 660-105051/1-C
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/14/2011 1732
Date Prepared: 01/11/2011 1648
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105313
Prep Batch: 660-105098
Units: ug/L

Leachate Batch: 660-105051

Instrument ID: BSGJ
Lab File ID: 1A1411J013.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 5 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	PQL
2,4-D	7.5	U	7.5	25
Silvex (2,4,5-TP)	1.6	U	1.6	25

Lab Control Sample - Batch: 660-105098

Method: 8151A
Preparation: 8151A

Lab Sample ID: LCS 660-105098/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/14/2011 1715
Date Prepared: 01/11/2011 1648

Analysis Batch: 660-105313
Prep Batch: 660-105098
Units: ug/L

Instrument ID: BSGJ
Lab File ID: 1A1411J012.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 5 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	40.0	39.2	98	10 - 141	
Silvex (2,4,5-TP)	40.0	33.0	82	10 - 138	

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105098**

**Method: 8151A
Preparation: 8151A
TCLP**

MS Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/14/2011 1806
Date Prepared: 01/11/2011 1648
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105313
Prep Batch: 660-105098

Instrument ID: BSGJ
Lab File ID: 1A1411J015.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 5 mL
Injection Volume: 2 uL
Column ID: PRIMARY

MSD Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/14/2011 1823
Date Prepared: 01/11/2011 1648
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105313
Prep Batch: 660-105098

Instrument ID: BSGJ
Lab File ID: 1A1411J016.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 5 mL
Injection Volume: 2 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	95	98	10 - 141	3	78		
Silvex (2,4,5-TP)	80	83	10 - 138	3	66		

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Method Blank - Batch: 660-104978

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 660-104978/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/10/2011 1359
Date Prepared: 01/10/2011 0804

Analysis Batch: 660-105022
Prep Batch: 660-104978
Units: mg/Kg

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	PQL
Arsenic	0.23	U	0.23	0.50
Copper	0.50	U	0.50	2.0
Cadmium	0.087	U	0.087	0.50
Molybdenum	0.16	U	0.16	1.0
Nickel	0.43	U	0.43	4.0
Lead	0.15	U	0.15	0.50
Selenium	0.37	U	0.37	1.0
Zinc	0.50	U	0.50	2.0

Method Blank - Batch: 660-104978

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 660-104978/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/10/2011 1359
Date Prepared: 01/10/2011 0804

Analysis Batch: 660-105022
Prep Batch: 660-104978
Units: Percent

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	PQL
Potassium	0.0016	U	0.0016	0.010

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Lab Control Sample - Batch: 660-104978

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 660-104978/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/10/2011 1405
Date Prepared: 01/10/2011 0804

Analysis Batch: 660-105022
Prep Batch: 660-104978
Units: mg/Kg

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	50.0	50.4	101	75 - 125	
Copper	50.0	52.1	104	75 - 125	
Cadmium	50.0	53.0	106	75 - 125	
Molybdenum	50.0	53.1	106	75 - 125	
Nickel	50.0	52.3	105	75 - 125	
Lead	50.0	52.3	105	75 - 125	
Selenium	50.0	49.1	98	75 - 125	
Zinc	50.0	51.8	104	75 - 125	

Lab Control Sample - Batch: 660-104978

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 660-104978/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/10/2011 1405
Date Prepared: 01/10/2011 0804

Analysis Batch: 660-105022
Prep Batch: 660-104978
Units: Percent

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	0.0501	0.0503	100	75 - 125	

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 660-104978

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 660-39126-A-1-B MS Analysis Batch: 660-105022
Client Matrix: Solid Prep Batch: 660-104978
Dilution: 1.0
Date Analyzed: 01/10/2011 1423
Date Prepared: 01/10/2011 0804

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 660-39126-A-1-C MSD Analysis Batch: 660-105022
Client Matrix: Solid Prep Batch: 660-104978
Dilution: 1.0
Date Analyzed: 01/10/2011 1429
Date Prepared: 01/10/2011 0804

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	89	94	75 - 125	6	20		
Copper	92	98	75 - 125	6	20		
Cadmium	93	98	75 - 125	4	20		
Molybdenum	91	98	75 - 125	7	20		
Nickel	90	97	75 - 125	7	20		
Lead	90	94	75 - 125	4	20		
Selenium	87	92	75 - 125	6	20		
Zinc	84	83	75 - 125	2	20		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 660-104978

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 660-39126-A-1-B MS Analysis Batch: 660-105022
Client Matrix: Solid Prep Batch: 660-104978
Dilution: 1.0
Date Analyzed: 01/10/2011 1423
Date Prepared: 01/10/2011 0804

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 660-39126-A-1-C MSD Analysis Batch: 660-105022
Client Matrix: Solid Prep Batch: 660-104978
Dilution: 1.0
Date Analyzed: 01/10/2011 1429
Date Prepared: 01/10/2011 0804

Instrument ID: ICPA
Lab File ID: 11A10A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Potassium	219	132	75 - 125	40	20	J3	J3

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

TCLP SPLPE Leachate Blank - Batch: 660-105087

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LB 660-105052/1-B ^5
Client Matrix: Solid
Dilution: 5.0
Date Analyzed: 01/12/2011 1237
Date Prepared: 01/11/2011 1415
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105139
Prep Batch: 660-105087
Units: ug/L

Instrument ID: ICPC
Lab File ID: 11A12C.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Leachate Batch: 660-105052

Analyte	Result	Qual	MDL	PQL
Silver	50	U	50	500
Arsenic	120	U	120	1000
Barium	30	U	30	500
Cadmium	18	U	18	500
Chromium	50	U	50	1000
Lead	40	U	40	1000
Selenium	150	U	150	500

Lab Control Sample - Batch: 660-105087

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 660-105087/2-A ^5
Client Matrix: Water
Dilution: 5.0
Date Analyzed: 01/12/2011 1240
Date Prepared: 01/11/2011 1415

Analysis Batch: 660-105139
Prep Batch: 660-105087
Units: ug/L

Instrument ID: ICPC
Lab File ID: 11A12C.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	1000	978	98	75 - 125	
Arsenic	1000	1020	102	75 - 125	
Barium	1000	991	99	75 - 125	
Cadmium	1000	1010	101	75 - 125	
Chromium	990	989	100	75 - 125	
Lead	1000	1030	103	75 - 125	
Selenium	1000	1030	103	75 - 125	

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105087**

**Method: 6010B
Preparation: 3010A
TCLP**

MS Lab Sample ID: 660-39110-A-1-E MS ^5 Analysis Batch: 660-105139
 Client Matrix: Solid Prep Batch: 660-105087
 Dilution: 5.0
 Date Analyzed: 01/12/2011 1251
 Date Prepared: 01/11/2011 1415
 Date Leached: 01/10/2011 1700 Leachate Batch: 660-105052

Instrument ID: ICPC
 Lab File ID: 11A12C.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 660-39110-A-1-F MSD Analysis Batch: 660-105139
 Client Matrix: Solid Prep Batch: 660-105087
 Dilution: 5.0
 Date Analyzed: 01/12/2011 1254
 Date Prepared: 01/11/2011 1415
 Date Leached: 01/10/2011 1700 Leachate Batch: 660-105052

Instrument ID: ICPC
 Lab File ID: 11A12C.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Silver	98	101	75 - 125	4	20		
Arsenic	98	98	75 - 125	1	20		
Barium	93	98	75 - 125	2	20		
Cadmium	99	100	75 - 125	1	20		
Chromium	98	99	75 - 125	1	20		
Lead	96	96	75 - 125	0	20		
Selenium	98	100	75 - 125	1	20		

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

TCLP SPLPE Leachate Blank - Batch: 660-105173

**Method: 7470A
Preparation: 7470A
TCLP**

Lab Sample ID: LB 660-105052/1-C
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/13/2011 1438
Date Prepared: 01/13/2011 0930
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105199
Prep Batch: 660-105173
Units: ug/L

Instrument ID: PS200II
Lab File ID: 11A13PS.PRN
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Leachate Batch: 660-105052

Analyte	Result	Qual	MDL	PQL
Mercury	0.36	U	0.36	0.50

Lab Control Sample - Batch: 660-105173

**Method: 7470A
Preparation: 7470A**

Lab Sample ID: LCS 660-105173/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/13/2011 1446
Date Prepared: 01/13/2011 0930

Analysis Batch: 660-105199
Prep Batch: 660-105173
Units: ug/L

Instrument ID: PS200II
Lab File ID: 11A13PS.PRN
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	1.00	0.878	88	80 - 120	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105173**

**Method: 7470A
Preparation: 7470A
TCLP**

MS Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/13/2011 1454
Date Prepared: 01/13/2011 0930
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105199
Prep Batch: 660-105173

Instrument ID: PS200II
Lab File ID: 11A13PS.PRN
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Leachate Batch: 660-105052

MSD Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/13/2011 1456
Date Prepared: 01/13/2011 0930
Date Leached: 01/10/2011 1700

Analysis Batch: 660-105199
Prep Batch: 660-105173

Instrument ID: PS200II
Lab File ID: 11A13PS.PRN
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Leachate Batch: 660-105052

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	75	77	80 - 120	2	20	J3	J3

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Method Blank - Batch: 660-104890

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 660-104890/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/06/2011 1336
Date Prepared: 01/06/2011 1000

Analysis Batch: 660-104911
Prep Batch: 660-104890
Units: mg/Kg

Instrument ID: PS200II
Lab File ID: 11A06PS.PRN
Initial Weight/Volume: 0.30 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	PQL
Mercury	0.010	U	0.010	0.030

Lab Control Sample - Batch: 660-104890

Method: 7471A
Preparation: 7471A

Lab Sample ID: LCS 660-104890/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/06/2011 1338
Date Prepared: 01/06/2011 1000

Analysis Batch: 660-104911
Prep Batch: 660-104890
Units: mg/Kg

Instrument ID: PS200II
Lab File ID: 11A06PS.PRN
Initial Weight/Volume: 0.30 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.167	0.166	100	80 - 120	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-104890**

Method: 7471A
Preparation: 7471A

MS Lab Sample ID: 660-39039-A-21-C MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/06/2011 1345
Date Prepared: 01/06/2011 1000

Analysis Batch: 660-104911
Prep Batch: 660-104890

Instrument ID: PS200II
Lab File ID: 11A06PS.PRN
Initial Weight/Volume: 0.32 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 660-39039-A-21-D MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/06/2011 1347
Date Prepared: 01/06/2011 1000

Analysis Batch: 660-104911
Prep Batch: 660-104890

Instrument ID: PS200II
Lab File ID: 11A06PS.PRN
Initial Weight/Volume: 0.30 g
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	99	100	80 - 120	8	20		

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Method Blank - Batch: 660-105026

Method: 365.4
Preparation: 365.2/365.3/365

Lab Sample ID: MB 660-105026/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2011 1217
Date Prepared: 01/10/2011 1500

Analysis Batch: 660-105068
Prep Batch: 660-105026
Units: Percent

Instrument ID: SEAL1
Lab File ID: N/A
Initial Weight/Volume: 0.1000 g
Final Weight/Volume: 20 mL

Analyte	Result	Qual	MDL	PQL
Phosphorus, Total	0.0020	U	0.0020	0.0025

Lab Control Sample - Batch: 660-105026

Method: 365.4
Preparation: 365.2/365.3/365

Lab Sample ID: LCS 660-105026/4-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/11/2011 1217
Date Prepared: 01/10/2011 1500

Analysis Batch: 660-105068
Prep Batch: 660-105026
Units: Percent

Instrument ID: SEAL1
Lab File ID: N/A
Initial Weight/Volume: 0.1000 g
Final Weight/Volume: 20 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phosphorus, Total	0.0200	0.0209	105	90 - 110	

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 660-105026**

Method: 365.4
Preparation: 365.2/365.3/365

MS Lab Sample ID: 660-39055-A-1-K MS
Client Matrix: Solid
Dilution: 40
Date Analyzed: 01/11/2011 1217
Date Prepared: 01/10/2011 1500

Analysis Batch: 660-105068
Prep Batch: 660-105026

Instrument ID: SEAL1
Lab File ID: N/A
Initial Weight/Volume: 0.1000 g
Final Weight/Volume: 20 mL

MSD Lab Sample ID: 660-39055-A-1-L MSD
Client Matrix: Solid
Dilution: 40
Date Analyzed: 01/11/2011 1217
Date Prepared: 01/10/2011 1500

Analysis Batch: 660-105068
Prep Batch: 660-105026

Instrument ID: SEAL1
Lab File ID: N/A
Initial Weight/Volume: 0.1011 g
Final Weight/Volume: 20 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phosphorus, Total	1108	437	90 - 110	5	30	J3	J3

Quality Control Results

Client: Hillsborough County

Job Number: 660-39081-1

Method Blank - Batch: 660-104998

Lab Sample ID: MB 660-104995/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/07/2011 1529
Date Prepared: N/A
Date Leached: 01/07/2011 1138

Analysis Batch: 660-104998
Prep Batch: N/A
Units: SU
Leachate Batch: 660-104995

Method: 9045C
Preparation: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	PQL	PQL
pH	6.990		1.00	1.00

Lab Control Sample - Batch: 660-104998

Lab Sample ID: LCS 660-104995/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/07/2011 1529
Date Prepared: N/A
Date Leached: 01/07/2011 1138

Analysis Batch: 660-104998
Prep Batch: N/A
Units: SU
Leachate Batch: 660-104995

Method: 9045C
Preparation: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	6.00	5.950	99	98 - 102	

Duplicate - Batch: 660-104998

Lab Sample ID: 660-39081-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/07/2011 1529
Date Prepared: N/A
Date Leached: 01/07/2011 1138

Analysis Batch: 660-104998
Prep Batch: N/A
Units: SU
Leachate Batch: 660-104995

Method: 9045C
Preparation: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.67	7.740	0.9	20	Q

660-39081

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT

PRECLEANED SAMPLE CONTAINERS: _____ DATE | TIME
RELINQUISHED BY: Amanda Jamison REP. OF CONTRACT LAB. 1-3-11 | 1:00
ACCEPTED BY: Li Clifton REP. OF SOLID WASTE DEPT. 1-4-11 | 1:45 P

LOCATION: LEACHATE Sludge Annual (February)
SAMPLE MATRIX: WATER OTHER MATRIX: _____
PERSONAL ENGAGED IN SAMPLE COLLECTION: A. Balloon Li

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
						N/A =

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
1	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
3	250 ml. PLASTIC		250 ml. PLASTIC	
3	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

7 TOTAL No. OF SAMPLES COLLECTED:
COLORS & SHEENS: YES N/A NO

COLLECTED
DATE | TIME
1.5.11 | 10:55A

ANALYSIS REQUESTED:

Total Nitrogen% by weight Total Phosphorous% by weight Total Potassium% by weight
Cadmium mg/kg dry weight Lead mg/kg dry weight Molybdenum mg/kg dry weight
Selenium mg/kg dry weight pH Arsenic mg/kg dry weight Copper mg/kg dry weight
Mercury mg/kg dry weight Nickel mg/kg dry weight Zinc mg/kg dry weight Solids %
TCLP compounds listed in 40 CFR Part 261.24 Table 1 _____

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Li Clifton REP. OF SOLID WASTE DEPT. 1.5.11 | 1:50P
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.5.11 | 1:50P

COMMENT'S: _____

Login Sample Receipt Check List

Client: Hillsborough County

Job Number: 660-39081-1

Login Number: 39081
Creator: Redding, Charles S
List Number: 1

List Source: TestAmerica Tampa

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.5 degrees C Cu-07
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	