

SCS ENGINEERS

July 6, 2009
File No. 09208040.02

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

Subject: Citrus County Central Landfill
Quarterly Leachate Sampling – Second Quarter 2009
Permit No. 21375-008-SO/01

Dear Mr. Morris:

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

The leachate effluent sample was analyzed in compliance with the permit and for the quarterly parameters listed in Specific Condition Part E.9.b.2 (quarterly) of the permit. The resulting data from the quarterly sampling event are included in Attachment 1 (Effluent data is located on page 5 of 17 of the laboratory analytical report.) and Table 1, Attachment 3. These concentrations are similar to historic concentrations (Table 1, Attachment 3). With the exception of sodium, chloride, and total dissolved solids (TDS), the leachate effluent sample complied with the groundwater standards and minimum criteria referenced in Florida Administrative Code (FAC) Chapters 62-520.420 and 62-520.400, respectively. As per Specific Condition Part E.9.b, sodium, chloride, and TDS are not required to meet the groundwater standards and minimum criteria at the discharge point; however they must comply at the edge of the zone of discharge along the western boundary.

Second Quarter 2009 leachate quality sampling and physical readings and measurements were performed by SCS. Second Quarter 2009 leachate quality analyses were performed by Pace. Field work, sampling methodologies, data evaluation, and data Quality Assurance/Quality Control (QA/QC) were conducted in accordance with FAC Chapter 62-160 Standard Operating Procedures (DEP-SOP-001/01) and the SCS quality manual. Laboratory analyses were performed in accordance with Chapter 62-160, FAC DEP-SOP-001/01. Pace is certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).

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by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).

SCS mobilized to the site on April 20, 2009, to collect leachate samples following the FDEP Standard Operating Procedures (SOPs) as guidance for the collection of these samples. Copies of the laboratory report and field forms are presented in Attachment 1.

Monthly samples of the leachate effluent were analyzed for the parameters listed in Specific Condition Part E.9.b.2 (monthly) of the Permit. The monthly samples are collected by the site and analyzed by their contract laboratory. The analytical laboratory reports from the monthly sampling events for April, May, and June of 2009 are included in Attachment 2 and summarized on Table 2, Attachment 3.

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

Sincerely,



Ken Guilbeault, LEP
Senior Project Professional



John A. Banks, P.E.
Project Director
SCS ENGINEERS

KEG/JAB:keg

cc: Susan Metcalfe – Citrus County
Solid Waste Administrator, FDEP - Tallahassee

Attachments

DEP Form # <u>62-522.900(2)</u>
Form Title <u>Ground Water Monitoring Report</u>
Effective Date _____
DEP Application No. _____

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

GROUND WATER MONITORING REPORT
Rule 62-522.600(11)

PART I GENERAL INFORMATION

- (1) Facility Name Citrus County Central Landfill
 Address PO BOX 340
 City Lecanto Zip 34460
 Telephone Number (352) 527-7670
- (2) Facility WACS Number SWD/09/39859
- (3) DEP Permit Number 21375-008-SO/01
- (4) Authorized Representative Name Susan Metcalfe, P.G., Director of Solid Waste
 Address PO BOX 340
 City Lecanto Zip 34460
 Telephone Number (352) 527-7670
- (5) Type of Discharge Treated Class I Landfill Leachate
- (6) Method of Discharge Groundwater via Percolation

Certification

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

Date: 6/29/09

Susan J Metcalfe
Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # NA
 Analytical Lab Comp QAP # /HRS Certification # NELAP Certification E83079
 Lab Name Pace Analytical Services, Inc.
 Address 8 East Tower Circle, Ormond Beach, FL 32174
 Phone Number (386) 672-5668

ATTACHMENT 1
LABORATORY ANALYTICAL RESULTS
AND FIELD FORMS

May 01, 2009

Mr. Mark Tumlin
SCS Engineers
4041 Park Oaks Blvd.
Suite100
Tampa, FL 33610

RE: Citrus County Leachate/09208040.22

Order No.: F09040840

Dear Mr. Mark Tumlin:

Pace Analytical Services, Inc received 3 samples on 4/20/2009 2:05:00 PM for the analyses presented in the following report. The results included in this report relate only to the samples received. Analyses are performed with method-required calibration and QA/QC samples whenever applicable. Method performance, which is based on the calibration and QA/QC samples, establishes the validity and certainty of the reported sample results. This data is provided along with the sample results when requested.

Thank you for this opportunity to be of service. If you have any questions regarding this data, please feel free to call me at (386) 676-4806.

Sincerely,
Jeff Baylor



Project Manager
Pace Analytical Services, Inc.
P.O. Box 468
Ormond Beach, FL 32175-0468

The test results in this report meet the requirements
of the 2003 NELAC standards unless otherwise
noted.

The following acronyms may be utilized within this report:

%REC	Percent Recovery
A	Absent
ABLK	Analytical Method Blank
CG	Confluent Growth
CGB	Confluent Growth Without Coliforms
CGC	Confluent Growth With Coliforms
DUP	Sample Duplicate
dw	Dry Weight
kg	Kilograms
L	Liter
LCS	Laboratory Control Spike (may also be appended with an abbreviation indicating spiking level)
MBLK	Preparation Method Blank
MDL	Laboratory Method Detection Limit
mg	Milligrams
ml	Milliliter
MS	Matrix Spike (may also be appended with an abbreviation indicating spiking level)
MSD	Matrix Spike Duplicate (may also be appended with an abbreviation indicating spiking level)
P	Present
PQL	Practical Quantitation Limit
QCS	Alternate source Calibration Verification Standard (may also be reported as analytical LCS in some
RL	Reporting Limit
RPD	Relative Percent Difference
SPK	Spike
SUB	Indicates subcontracted analytical results
TIC	Tentatively Identified Compound
TNTC	Too Numerous To Count
ug	Micrograms

The following notes may apply to analytical results within this report:

Residue (solids) analysis may employ a single, heated drying process of at least 12 hours duration in lieu of employing short, repeated drying cycles, which represents a deviation from the methodology.

Because the EPA-recommended holding time for pH, residual chlorine, chloramines and chlorine dioxide is 15 minutes from time of collection, these analyses are routinely performed outside of their EPA-recommended holding time when performed in the laboratory.

Analytical results for ammonia analysis, or calculated analytical results depending on ammonia analysis, do not include a sample distillation procedure. A study comparing distilled versus non-distilled analytical results has been performed to document the validity of the analysis without prior distillation, and represents equivalent results for the represented project matrices.

Since N-nitrosodiphenylamine decomposes in the GC inlet and cannot be chromatographically resolved from diphenylamine, these compounds are reported as a single analyte in the report.

Since m-cresol and p-cresol cannot be chromatographically resolved, these compounds are reported as a single analyte in the report.

Because 1,2-diphenylhydrazine breaks down rapidly to azobenzene at the GC inlet after initial sample injection, all results for this compound will be quantified as azobenzene.

All analytical results are provided on an "as received" basis unless units include the term "dw", indicating that the analytical results are provided on a dry weight basis.

The following certifications may apply to analytical results within this report:

Alabama	DEM	41320
Arizona	DHS	AZ0640
Colorado	DPHE	FL NELAC Reciprocity
Connecticut	DPH	PH-0216
Florida	DOH	E83079
Georgia	DNR	955
Kentucky	DEP	90050
Louisiana	DHH	LA090012
Maine	LCP	FL020
Massachusetts	DEP	M-FL1264
Michigan	DEQ	9911
Mississippi	DOH	FL NELAC Reciprocity
Nevada	EP	NAC 445A
New Hampshire	DES	2958
New Jersey	DEP	FL765
New York	DOH	11608
North Carolina	NCPH	12710
Pennsylvania	DEP	68-547
Puerto Rico	DOH	FL 00020
Tennessee	DOH	TN02974
Texas	CEQ	TX246
Virginia	DGS	432

Case Narrative

CLIENT: SCS Engineers
Project: Citrus County Leachate/09208040.22
Lab Order: F09040840

I. SAMPLE RECEIVING/ CUSTODY

The samples were received and processed by the Sample Custody section of the laboratory. There were no significant logistics or quality problems unless noted below. All sample containers received for this report were collected by either the client or an agent of the client. Any field data results contained within this report were therefore generated by the client and were reported at the request of the client.

II. ANALYTICAL DATA

The samples were analyzed according to the laboratory's Standard Operating Procedures for the methodologies requested. There were no significant logistics or quality problems unless noted below or in the text of the report.

On 5/1/09, the client requested that the sample ID for F09040840-001 be revised due to an error on the chain of custody. A revised report was generated on 5/1/09.

SW8011: A heavy emulsion was generated during the extraction process employed in the preparation of sample F09040840-001 for this analysis.

SW8260: For samples F09040840-001 and -002, the recovery for surrogate 1,2-Dichloroethane-d4 exceeded method guidance criteria (high bias).

III. QUALITY CONTROL

There were no significant quality control problems unless noted below or in the text of the report.

Analytical Report

CLIENT: SCS Engineers	Client Sample ID: Leachate Effluent
Lab Order: F09040840	Collection Date: 4/20/2009 11:10:00 AM
Project: Citrus County Leachate/09208040.22	Sample Description: 172
Lab ID: F09040840-001	Matrix: Waste Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS			SW6010	PrepDate: 4/22/2009 9:15:00 A			Analyst: TPI	
Sodium	820		5.0	10	mg/L	10	04/23/09 15:45	61070
8011: EDB AND DBCP			SW8011	PrepDate: 4/21/2009 1:30:00 P			Analyst: LMA	
Ethylene Dibromide	0.0064	U	0.0064	0.010	µg/L	1	04/22/09 02:37	61034
8260: VOLATILE ORGANIC COMPOUNDS			SW8260	PrepDate: 4/24/2009 10:00:00			Analyst: JH	
Benzene	0.50	U	0.50	1.0	µg/L	1	04/24/09 21:36	61179
Ethylbenzene	0.50	U	0.50	1.0	µg/L	1	04/24/09 21:36	61179
Toluene	0.50	U	0.50	1.0	µg/L	1	04/24/09 21:36	61179
Vinyl chloride	0.50	U	0.50	1.0	µg/L	1	04/24/09 21:36	61179
Xylenes, Total	1.0	U	1.0	3.0	µg/L	1	04/24/09 21:36	61179
Surr: 4-Bromofluorobenzene	82.2		0	70-114	%REC	1	04/24/09 21:36	61179
Surr: Dibromofluoromethane	117		0	88-117	%REC	1	04/24/09 21:36	61179
Surr: 1,2-Dichloroethane-d4	125	S	0	86-125	%REC	1	04/24/09 21:36	61179
Surr: Toluene-d8	103		0	87-113	%REC	1	04/24/09 21:36	61179
ANIONS BY ION CHROMATOGRAPHY			E300.0	PrepDate:			Analyst: AMD	
Chloride	1500	x	0.43	10	mg/L	20	04/21/09 05:35	R78288c
NITROGEN, AMMONIA			E350.1	PrepDate:			Analyst: TKE	
Nitrogen, Ammonia (As N)	0.19		0.020	0.050	mg/L	1	04/21/09 14:40	R78296E
SOLIDS, TOTAL DISSOLVED			SM2540 C	PrepDate: 4/21/2009 8:16:09 A			Analyst: JPE	
Solids, Total Dissolved	3000	x	5.0	5.0	mg/L	1	04/21/09 09:19	61039

Data	I Analyte detected below quantitation limits	S Spike Recovery outside accepted recovery limits
Qualifier	U Not Detected Above the MDL	x Value exceeds Maximum Contaminant Level
Code Key:		

Analytical Report

CLIENT: SCS Engineers	Client Sample ID: Blank 1
Lab Order: F09040840	Collection Date: 4/22/2009 11:20:00 AM
Project: Citrus County Leachate/09208040.22	Sample Description:
Lab ID: F09040840-002	Matrix: Drinking Water

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed	Batch ID
ICP METALS			SW6010		PrepDate: 4/22/2009 9:15:00 A		Analyst: TPI	
Sodium	0.50	U	0.50	1.0	mg/L	1	04/22/09 22:56	61070
8011: EDB AND DBCP			SW8011		PrepDate: 4/21/2009 1:30:00 P		Analyst: LMA	
Ethylene Dibromide	0.0063	U	0.0063	0.010	µg/L	1	04/22/09 02:53	61034
8260: VOLATILE ORGANIC COMPOUNDS			SW8260		PrepDate: 4/24/2009 10:00:00		Analyst: JH	
Benzene	0.50	U	0.50	1.0	µg/L	1	04/24/09 22:12	61179
Ethylbenzene	0.50	U	0.50	1.0	µg/L	1	04/24/09 22:12	61179
Toluene	0.50	U	0.50	1.0	µg/L	1	04/24/09 22:12	61179
Vinyl chloride	0.50	U	0.50	1.0	µg/L	1	04/24/09 22:12	61179
Xylenes, Total	1.0	U	1.0	3.0	µg/L	1	04/24/09 22:12	61179
Surr: 4-Bromofluorobenzene	86.8		0	70-114	%REC	1	04/24/09 22:12	61179
Surr: Dibromofluoromethane	113		0	88-117	%REC	1	04/24/09 22:12	61179
Surr: 1,2-Dichloroethane-d4	128	S	0	86-125	%REC	1	04/24/09 22:12	61179
Surr: Toluene-d8	105		0	87-113	%REC	1	04/24/09 22:12	61179
ANIONS BY ION CHROMATOGRAPHY			E300.0		PrepDate:		Analyst: AMD	
Chloride	0.021	U	0.021	0.50	mg/L	1	04/21/09 05:51	R78288c
NITROGEN, AMMONIA			E350.1		PrepDate:		Analyst: TKE	
Nitrogen, Ammonia (As N)	0.029	I	0.020	0.050	mg/L	1	04/21/09 14:41	R78296E
SOLIDS, TOTAL DISSOLVED			SM2540 C		PrepDate: 4/21/2009 8:16:09 A		Analyst: JPE	
Solids, Total Dissolved	5.0	U	5.0	5.0	mg/L	1	04/21/09 09:20	61039

Data	I Analyte detected below quantitation limits	S Spike Recovery outside accepted recovery limits
Qualifier	U Not Detected Above the MDL	x Value exceeds Maximum Contaminant Level
Code Key:		

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: 8011_W

Sample ID	MB-61034	SampType:	MBLK	TestCode:	8011_W	Units:	µg/L	Prep Date:	4/21/2009	RunNo:	78385	
Client ID:	MB-61034	Batch ID:	61034	TestNo:	SW8011	SW8011		Analysis Date:	4/21/2009	SeqNo:	2400144	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylene Dibromide 0.0062 U 0.0062

Sample ID	LCS-61034	SampType:	LCS	TestCode:	8011_W	Units:	µg/L	Prep Date:	4/21/2009	RunNo:	78385	
Client ID:	LCS-61034	Batch ID:	61034	TestNo:	SW8011	SW8011		Analysis Date:	4/21/2009	SeqNo:	2400145	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylene Dibromide 0.25 0.0062 0.25 0 101 60 140

Sample ID	F09040819-001BMS	SampType:	MS	TestCode:	8011_W	Units:	µg/L	Prep Date:	4/21/2009	RunNo:	78385	
		Batch ID:	61034	TestNo:	SW8011	SW8011		Analysis Date:	4/21/2009	SeqNo:	2400148	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylene Dibromide 0.48 0.010 0.42 0 113 60 140

Sample ID	F09040819-001BMSD	SampType:	MSD	TestCode:	8011_W	Units:	µg/L	Prep Date:	4/21/2009	RunNo:	78385	
		Batch ID:	61034	TestNo:	SW8011	SW8011		Analysis Date:	4/22/2009	SeqNo:	2400149	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylene Dibromide 0.49 0.010 0.42 0 116 60 140 0.48 1.84 40

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID	MB-61179	SampType:	MBLK	TestCode:	8260_W	Units:	µg/L	Prep Date:	4/24/2009	RunNo:	78474	
Client ID:	MB-61179	Batch ID:	61179	TestNo:	SW8260	SW5030A		Analysis Date:	4/24/2009	SeqNo:	2402538	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Benzene		0.50	U	0.50								
Ethylbenzene		0.50	U	0.50								
Toluene		0.50	U	0.50								
Vinyl chloride		0.50	U	0.50								
Xylenes, Total		1.0	U	1.0								
Surr: 4-Bromofluorobenzene		36		0	40	0	89.7	70	114			
Surr: Dibromofluoromethane		44		0	40	0	110	88	117			
Surr: 1,2-Dichloroethane-d4		48		0	40	0	120	86	125			
Surr: Toluene-d8		41		0	40	0	103	87	113			

Sample ID	LCS-61179	SampType:	LCS	TestCode:	8260_W	Units:	µg/L	Prep Date:	4/24/2009	RunNo:	78474	
Client ID:	LCS-61179	Batch ID:	61179	TestNo:	SW8260	SW5030A		Analysis Date:	4/24/2009	SeqNo:	2402540	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylbenzene		22		0.50	20	0	112	79	140			
Toluene		23		0.50	20	0	114	69	140			
Vinyl chloride		23		0.50	20	0	115	62	140			
Surr: 4-Bromofluorobenzene		41		0	40	0	102	70	114			
Surr: Dibromofluoromethane		41		0	40	0	103	88	117			
Surr: 1,2-Dichloroethane-d4		43		0	40	0	107	86	125			
Surr: Toluene-d8		42		0	40	0	104	87	113			

Sample ID	F09040954-002AMS	SampType:	MS	TestCode:	8260_W	Units:	µg/L	Prep Date:	4/24/2009	RunNo:	78474	
		Batch ID:	61179	TestNo:	SW8260	SW5030A		Analysis Date:	4/24/2009	SeqNo:	2402555	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Ethylbenzene		20		0.50	20	0	102	79	140			
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Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID	F09040954-002AMS	SampType:	MS	TestCode:	8260_W	Units:	µg/L	Prep Date:	4/24/2009	RunNo:	78474
		Batch ID:	61179	TestNo:	SW8260		SW5030A	Analysis Date:	4/24/2009	SeqNo:	2402555
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Toluene	20		0.50	20	0	102	69	140			
Vinyl chloride	23		0.50	20	0	115	62	140			
Surr: 4-Bromofluorobenzene	41		0	40	0	102	70	114			
Surr: Dibromofluoromethane	42		0	40	0	105	88	117			
Surr: 1,2-Dichloroethane-d4	44		0	40	0	111	86	125			
Surr: Toluene-d8	42		0	40	0	106	87	113			

Sample ID	F09040954-002AMSD	SampType:	MSD	TestCode:	8260_W	Units:	µg/L	Prep Date:	4/24/2009	RunNo:	78474
		Batch ID:	61179	TestNo:	SW8260		SW5030A	Analysis Date:	4/25/2009	SeqNo:	2402556
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Ethylbenzene	21		0.50	20	0	104	79	140	20	1.31	40
Toluene	20		0.50	20	0	102	69	140	20	0.638	40
Vinyl chloride	24		0.50	20	0	118	62	140	23	2.80	40
Surr: 4-Bromofluorobenzene	40		0	40	0	101	70	114	41	0	0
Surr: Dibromofluoromethane	42		0	40	0	105	88	117	42	0	0
Surr: 1,2-Dichloroethane-d4	44		0	40	0	109	86	125	44	0	0
Surr: Toluene-d8	42		0	40	0	105	87	113	42	0	0

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: IC300_W

Sample ID MB	SampType: MBLK	TestCode: IC300_W	Units: mg/L	Prep Date:	RunNo: 78288						
Client ID: MB	Batch ID: R78288c	TestNo: E300.0		Analysis Date: 4/21/2009	SeqNo: 2394887						
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chloride	0.028	U	0.028								
Nitrogen, Nitrate	0.0054	U	0.0054								

Sample ID LCS	SampType: LCS	TestCode: IC300_W	Units: mg/L	Prep Date:	RunNo: 78288						
Client ID: LCS	Batch ID: R78288c	TestNo: E300.0		Analysis Date: 4/21/2009	SeqNo: 2394888						
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chloride	23		0.028	25	0	91.5	90	110			
Nitrogen, Nitrate	2.3		0.0054	2.5	0	93.3	90	110			

Sample ID F09040783-006AMS	SampType: MS	TestCode: IC300_W	Units: mg/L	Prep Date:	RunNo: 78288						
	Batch ID: R78288c	TestNo: E300.0		Analysis Date: 4/21/2009	SeqNo: 2394899						
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chloride	13	S	0.028	10	4.4	88.2	90	110			
Nitrogen, Nitrate	0.88	QS	0.0054	1.0	0	88.3	90	110			

Sample ID F09040783-006AMSD	SampType: MSD	TestCode: IC300_W	Units: mg/L	Prep Date:	RunNo: 78288						
	Batch ID: R78288c	TestNo: E300.0		Analysis Date: 4/21/2009	SeqNo: 2394900						
Analyte	Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Chloride	13	S	0.028	10	4.4	89.0	90	110	13	0.634	20
Nitrogen, Nitrate	0.90	QS	0.0054	1.0	0	89.6	90	110	0.88	1.43	20

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: ICP-6010_W

Sample ID	MB-61070	SampType:	MBLK	TestCode:	ICP-6010_W	Units:	µg/L	Prep Date:	4/22/2009	RunNo:	78329		
Client ID:	MB-61070	Batch ID:	61070	TestNo:	SW6010		SW3005A	Analysis Date:	4/22/2009	SeqNo:	2399162		
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Sodium 500 U 500

Sample ID	LCS-61070	SampType:	LCS	TestCode:	ICP-6010_W	Units:	µg/L	Prep Date:	4/22/2009	RunNo:	78329		
Client ID:	LCS-61070	Batch ID:	61070	TestNo:	SW6010		SW3005A	Analysis Date:	4/22/2009	SeqNo:	2399163		
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Sodium 12000 500 12000 0 96.0 80 120

Sample ID	F09040832-004BMS	SampType:	MS	TestCode:	ICP-6010_W	Units:	µg/L	Prep Date:	4/22/2009	RunNo:	78329		
		Batch ID:	61070	TestNo:	SW6010		SW3005A	Analysis Date:	4/22/2009	SeqNo:	2399174		
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Sodium 12000 500 12000 0 96.8 75 125

Sample ID	F09040832-004BMSD	SampType:	MSD	TestCode:	ICP-6010_W	Units:	µg/L	Prep Date:	4/22/2009	RunNo:	78329		
		Batch ID:	61070	TestNo:	SW6010		SW3005A	Analysis Date:	4/22/2009	SeqNo:	2399175		
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Sodium 12000 500 12000 0 98.4 75 125 500 U 1.64 20

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: N-NH3_W

Sample ID	QCS	SampType:	QCS	TestCode:	N-NH3_W	Units:	mg/L	Prep Date:		RunNo:	78296	
Client ID:	QCS	Batch ID:	R78296	TestNo:	E350.1			Analysis Date:	4/21/2009	SeqNo:	2396065	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Nitrogen, Ammonia (As N) 9.8 0.020 10 0 98.1 90 110

Sample ID	MB-R78296E	SampType:	MBLK	TestCode:	N-NH3_W	Units:	mg/L	Prep Date:		RunNo:	78296	
Client ID:	MB-R78296E	Batch ID:	R78296E	TestNo:	E350.1			Analysis Date:	4/21/2009	SeqNo:	2396270	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Nitrogen, Ammonia (As N) 0.020 U 0.020

Sample ID	LCS-R78296E	SampType:	LCS	TestCode:	N-NH3_W	Units:	mg/L	Prep Date:		RunNo:	78296	
Client ID:	LCS-R78296E	Batch ID:	R78296E	TestNo:	E350.1			Analysis Date:	4/21/2009	SeqNo:	2396283	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Nitrogen, Ammonia (As N) 1.0 0.020 1.0 0 99.6 90 110

Sample ID	F09040837-004AMS	SampType:	MS	TestCode:	N-NH3_W	Units:	mg/L	Prep Date:		RunNo:	78296	
		Batch ID:	R78296E	TestNo:	E350.1			Analysis Date:	4/21/2009	SeqNo:	2396297	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Nitrogen, Ammonia (As N) 6.9 0.020 1.0 5.9 96.7 90 110

Sample ID	F09040837-004ADUP	SampType:	DUP	TestCode:	N-NH3_W	Units:	mg/L	Prep Date:		RunNo:	78296	
		Batch ID:	R78296E	TestNo:	E350.1			Analysis Date:	4/21/2009	SeqNo:	2396292	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Nitrogen, Ammonia (As N) 5.9 0.020 5.9 0.101 20

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CLIENT: SCS Engineers
Work Order: F09040840
Project: Citrus County Leachate/09208040.22

ANALYTICAL QC SUMMARY REPORT

TestCode: SOLIDS-TDS

Sample ID	MB-61039	SampType:	MBLK	TestCode:	SOLIDS-TDS	Units:	mg/L	Prep Date:	4/21/2009	RunNo:	78285	
Client ID:	MB-61039	Batch ID:	61039	TestNo:	SM2540 C	SM2540 C		Analysis Date:	4/21/2009	SeqNo:	2399021	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Solids, Total Dissolved 5.0 U 5.0

Sample ID	LCS-61039	SampType:	LCS	TestCode:	SOLIDS-TDS	Units:	mg/L	Prep Date:	4/21/2009	RunNo:	78285	
Client ID:	LCS-61039	Batch ID:	61039	TestNo:	SM2540 C	SM2540 C		Analysis Date:	4/21/2009	SeqNo:	2399023	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Solids, Total Dissolved 300 5.0 300 0 100 90 110

Sample ID	F09040811-004DDUP	SampType:	DUP	TestCode:	SOLIDS-TDS	Units:	mg/L	Prep Date:	4/21/2009	RunNo:	78285	
		Batch ID:	61039	TestNo:	SM2540 C	SM2540 C		Analysis Date:	4/21/2009	SeqNo:	2399029	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Solids, Total Dissolved 560 x 5.0 560 0 20

Sample ID	F09040840-002ADUP	SampType:	DUP	TestCode:	SOLIDS-TDS	Units:	mg/L	Prep Date:	4/21/2009	RunNo:	78285	
Client ID:	Blank 1 DUP	Batch ID:	61039	TestNo:	SM2540 C	SM2540 C		Analysis Date:	4/21/2009	SeqNo:	2399049	
Analyte		Result	Qual	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit

Solids, Total Dissolved 5.0 U 5.0 5.0 U 0 20

Data I Analyte detected below quantitation limits Q Holding times for preparation or analysis exceeded
Qualifier S Spike Recovery outside accepted recovery limits U Not Detected Above the MDL
Code Key:

CHAIN OF CUSTODY RECORD

LAB NUMBER: _____

CLIENT: <i>Scs Engineers</i>		PROJECT NAME: <i>Citrus County</i>				BOTTLE SIZE & TYPE															
ADDRESS: <i>4541 Parklands Blvd E/10 Tampa FL 33610</i>		P.O. NUMBER/PROJECT NUMBER: <i>09208040.02</i>				A R E Q U I R E D															L A B N U M B E R
PHONE: <i>(813) 621-0080</i> FAX: <i>(813) 623-6757</i>		PROJECT LOCATION: <i>Citrus County Court Hill</i>																			
CONTACT: <i>Ken Gumbert</i>		SAMPLED BY: <i>Scott Brady</i>																			
TURNAROUND TIME: <input checked="" type="checkbox"/> STANDARD Due Date <input type="checkbox"/> RUSH Due Date		REMARKS / SPECIAL INSTRUCTIONS: <i>Inorganic 100 Metals Nitrogen, Ammonia VOC Soil EDB & DBCP</i>																			
WW=wastewater SW=surface water GW=groundwater DW=drinking water OIL A=air SO=soil SL=sludge		Preserv																			
SAMPLE ID	SAMPLE DESCRIPTION	Grab/Composite	SAMPLING		MATRIX	NUMBER OF CONTAINERS															
			DATE	TIME																	
<i>1</i>	<i>Soil</i>	<i>Grab</i>	<i>1-27-09</i>	<i>12:00</i>	<i>Soil</i>	<i>8</i>															
<i>2</i>	<i>Soil</i>	<i>Grab</i>	<i>1-27-09</i>	<i>12:10</i>	<i>Soil</i>	<i>8</i>															
I=Ice H=(HCl) S=(H2SO4) N=(HNO3) NaT=(Sodium Thiosulfate)		Relinquished by:		Date		Time		Received by:		Date		Time									
Laboratory:		1 <i>Scott Brady</i>		1-27-09		1550		<i>Bo... [Signature]</i>		1-27-09		1550									
		2																			
		3																			
		4																			

ATTACHMENT 2

MONTHLY LEACAHATE QUALITY
ANALYTICAL RESULTS FOR
APRIL, MAY, AND JUNE 2009

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

SOLID WASTE MANAGEMENT
 PO BOX 340
 LECANTO FL 34460

Invoice Number 10287

Client CITRUS COUNTY UTILITIES **Sample Number** E090673
Project LANDFILL LEACHATE PLANT **Date/Time Sampled** 4/1/09 0855 HRS
Sample Description WWTP/EFF **Date/Time Received** 4/1/09 1114 HRS

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.78	1.4 mg/L	SJL	4/2/09 1103 HRS
SM2540-D	TSS	mg/L	3.00	1.0 mg/L	SJL	4/3/09 0920 HRS
SM4500-NO3-E	NITRATE	mg/L	1.85	0.10 mg/L	CK	4/2/09 0930 HRS

Sally Ann Carrillo
 Laboratory Manager

These results relate only to this sample.

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

5376 S SUNCOAST BOULEVARD HOMOSSA FL 34446 352.621.3513 FAX 352.621.3514

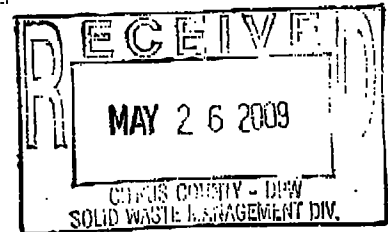
S.A.C. ENVIRONMENTAL LABORATORY INC
FLDOH CERTIFICATION #84492
ANALYTICAL REPORT

SOLID WASTE MANAGEMENT
PO BOX 340
LECANTO FL 34460

Invoice Number 10345

Client	CITRUS COUNTY UTILITIES	Sample Number	E090967
Project	LANDFILL LEACHATE PLANT	Date/Time Sampled	5/12/09 1315 HRS
Sample Description	WWTP/EFF	Date/Time Received	5/12/09 1353 HRS

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	3.30	1.4 mg/L	SJL	5/14/09 1030 HRS
SM2540-D	TSS	mg/L	7.00	1.0 mg/L	SJL	5/13/09 0925 HRS
SM4500-NO3-E	NITRATE	mg/L	0.52	0.10 mg/L	CK	5/14/09 0945 HRS



Sally Ann Casullo
Laboratory Manager

These results relate only to this sample.
For all results qualified with an I, the PQL is defined to be 4 times the MDL

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

SOLID WASTE MANAGEMENT
PO BOX 340
LECANTO FL 34460

Invoice Number 10423

Client	CITRUS COUNTY UTILITIES	Sample Number	E091130
Project	LANDFILL LEACHATE PLANT	Date/Time Sampled	6/4/09 0935 HRS
Sample Description	WWTP/EFF	Date/Time Received	6/4/09 1140 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	10.04	1.4 mg/L	SJL	6/4/09 1530 HRS
SM2540-D	TSS	mg/L	1.00	1.0 mg/L	SJL	6/5/09 0955 HRS
SM4500-NO3-E	NITRATE	mg/L	0.46	0.10 mg/L	CK	6/4/09 1430 HRS

Sally Ann Casillo
Laboratory Manager

These results relate only to this sample.
For all results qualified with an I, the PQL is defined to be 4 times the MDL

ATTACHMENT 3

TABLES

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

Parameter	Standard	MCL	Units	Leachate Effluent		
				10/15/2008	1/27/2009	4/20/2009
Volatile Organics						
Benzene	PDWS	1	ug/L	0.5 U	1 U	0.5 U
Ethylbenzene	SDWS	30	ug/L	0.5 U	1 U	0.5 U
Ethylene Dibromide	PDWS	0.02	ug/L	0.0061 U	0.0064 U	0.0064 U
Toluene	SDWS	40	ug/L	0.5 U	1 U	0.5 U
Vinyl chloride	PDWS	1	ug/L	0.53 U	1.1 U	0.53 U
Xylenes, Total	SDWS	20	ug/L	1 U	2.1 I	1 U
Trihalomethanes						
Bromodichloromethane	See Total THMs		ug/L	---	14	---
Bromoform	See Total THMs		ug/L	---	2.9	---
Chloroform	See Total THMs		ug/L	---	11	---
Dibromochloromethane	See Total THMs		ug/L	---	6.9	---
Total THMs	Permit	100	ug/L	---	34.8	---
General Chemistry						
Ammonia, Total	GCTL	2.8	mg/L	0.094	1.1	0.19
Chloride	SDWS	250	mg/L	940	1300	1500
Sodium	PDWS	160	mg/L	570	800	820
TDS	SDWS	500	mg/L	2400	2800	3000
General Field Parameters						
Conductivity	NS	NS	umhos/cm	3929	4907	4820
Dissolved Oxygen	NS	NS	mg/L	2.96	0.93	2.78
pH	SDWS	6.5-8.5	pH Units	7.87	7.79	7.68
Temperature, Water	NS	NS	deg C	26.55	17.35	24.83
Turbidity	NS	NS	NTU	1.07	1.65	5

Notes

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

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

Parameter	Standard	MCL	Units	Leachate Effluent					
				1/7/2009	2/4/2009	3/4/2009	4/1/2009	5/12/2009	6/4/2009
CBOD	Permit	20	mg/L	1.38	4.56	4.4	2.78	3.3	10.04
TSS	Permit	20	mg/L	<1	3	7.5	3	7	1
Nitrate	Permit	10	mg/L	5	6.03	3.85	1.85	0.52	0.46

Notes

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

ATTACHMENT 4

COMPACT DISK CONTAINING
REPORT IN PDF FORMAT AND
VALIDATOR FILE