

SUMTER COUNTY
(CLOSED) LANDFILL
QUARTERLY GROUNDWATER
MONITORING REPORT
Quarter II (May) 2012

Prepared for:

**SUMTER COUNTY
SOLID WASTE DEPARTMENT
SUMTER COUNTY, FLORIDA**

Prepared by:

THE COLINAS GROUP, INC.
377 Maitland Avenue, Suite 2012
Altamonte Springs, Florida 32701

Dept. of Environmental
Protection
JUL 16 2012
Southwest District

Prepared by:

Richard L. Potts, Jr., P.G.
FL License No. PG1113

June 2012

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

Ground Water Monitoring Report Certification Form Rule 62-520.600(11)

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUL 16 2012
SOUTHWEST DISTRICT
TAMPA

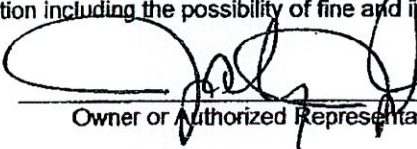
PART I GENERAL INFORMATION

- (1) Facility Name Sumter County Closed Class I Landfill
Address 835 C.R. 529
City Lake Panasoffkee Zip 33538 County Sumter
Telephone Number (352)-793-3368 E-mail address jackey.jackson@sumtercountyfl.gov
- (2) WACS_Facility 53008
- (3) DEP Permit Number 22926-004-SF
- (4) Authorized Representative's Name Jackey Jackson Title Ass't. Director Public Works
Address 319 E. Anderson Avenue
City Bushnell Zip 33513 County Sumter
Telephone Number (352)-793-0240 E-mail address jackey.jackson@sumtercountyfl.gov
- (5) Type of Discharge NA
- (6) Method of Discharge NA

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 submission of false information including the possibility of fine and imprisonment.

7-10-12
Date


Owner or Authorized Representative's Signature

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Name & DOH # The Colinas Group, Inc. / 870148G/3
Analytical Lab Organization DOH # E53076 E84589 E82574
Lab Name Advanced Environmental Laboratories, Inc.
Address 6601 Southport Parkway, Jacksonville, Florida 32216
Phone Number (904)-363-9350
E-mail Address msantiago@aellab.com

THE COLINAS GROUP, INC.

HYDROGEOLOGISTS & ENGINEERS

July 10, 2012

Mr. John Morris, P.G.

Florida Department of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

Subj: **Quarter II (May) 2012 Groundwater Monitoring Report
Sumter County Closed Class I Landfill
Sumter County, Florida
FDEP Permit No. 22926-003-SF**

Dear Mr. Morris:

On behalf of Sumter County Board of County Commissioners, The Colinas Group, Inc. (TCG) herewith submits one Electronic Data Deliverable and one (1) bound paper copy of the report prepared by TCG entitled:

**Sumter County (Closed) Landfill Quarterly Groundwater Monitoring Report,
Quarter II (May) 2012**

The report was prepared and is submitted in satisfaction of part of the requirements of the Sumter County Closed Landfill Long-Term Care Permit.

If you have any questions concerning the contents of the report please do not hesitate to contact me at your convenience.

Very truly yours,
THE COLINAS GROUP, INC.

Richard L. Potts, Jr., P.G.
Principal Consultant
Fl. P.G. Reg. No. 1113

cc: Mr. Jackey Jackson (Sumter County)
Ms. Denise Warnock (Sumter County)

**SUMTER COUNTY (CLOSED) LANDFILL
GROUNDWATER MONITORING REPORT
SUMTER COUNTY, FLORIDA
Quarter II (May) 2012**

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**Sumter County (Closed) Landfill
Quarterly Groundwater Monitoring Report
Quarter II (May) 2012**

INTRODUCTION

The Colinas Group, Inc. (TCG) has reviewed the groundwater monitoring well sampling and analytical results for the Quarter II (May) 2012 sampling event at the Sumter County (Closed) Landfill near Lake Panasoffkee in Sumter County. The sampling event was completed in accordance with the quarterly water quality monitoring and reporting requirements of the closed landfill FDEP Long-Term Care Permit #22926-003-SF.

Two new water level monitoring piezometers, **MW-4C** and **MW-4D** were recently installed in the northwest portion of the landfill property at the request of the FDEP. Both piezometers were constructed in accordance with design requirements of Chapters 62-520 / 62-701, F.A.C. for groundwater monitoring wells at solid waste facilities. TCG sampled the new piezometers this quarter for the list of parameters specified for the existing monitoring wells in the landfill's long-term care permit.

SAMPLING EVENT

The Quarter II 2012 sampling event at the Sumter County Landfill was completed during the period May 22 - 23, 2012. Sampling was performed by TCG in accordance with the Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOP) for Field Activities. Water samples collected from the facility groundwater monitoring wells were tested for the required field parameters. Monitoring wells were purged and the groundwater discharge allowed to stabilize prior to sample collection.

The results of field testing were recorded as part of the Field Reports (Attachment 3) and are listed in Table I. All samples were preserved and stored as required prior to shipment to the analytical laboratory.

Laboratory analytical services were provided by Advanced Environmental Laboratories, Inc. (AEL) in accordance with the laboratory's NELAC and FDHRS Certification No. E53076, E84589, and E82574. The original analytical reports prepared by AEL are presented in Attachment 2 to this report.

Water table depth measurements in each facility groundwater monitoring well and piezometer were recorded on May 23, 2012. These measurements were used to construct the Groundwater Contour Map shown on Figure 1 (Attachment 1) for the uppermost receiving groundwater aquifer beneath the site. Depth to water table measurements and corresponding groundwater elevations are listed in Table II.

monitoring wells **MW-4**, **MW-4A** and **MW-9A** (18 mg/l - 25 mg/l) appear slightly elevated as compared to the other wells. The SDWS MCL for chloride in groundwater is 250 mg/l.

Sodium also appears slightly higher at monitoring wells **MW-4**, **MW-4A** and **MW-9A** (19 mg/l - 33 mg/l) as compared to background and other downgradient monitoring wells. The PDWS MCL for sodium is 160 mg/l.

SAMPLING EVENT SUMMARY

Chemical characteristics of groundwater monitored at the Sumter County Closed Landfill are reported for the Quarter II (May) 2012 sampling event. Exceedances of specific constituent regulatory maximum concentration levels (MCLs) are reported at specific monitoring wells for the Florida Secondary Drinking Water Standards (FSDWS) parameters aluminum, iron, manganese, and total dissolved solids (TDS). Nitrate nitrogen is reported slightly above the Florida Primary Drinking Water Standards (FPDWS) MCL at one monitoring well.

Elevated **dissolved oxygen** (DO) levels were measured in five of the eleven groundwater monitoring wells and piezometers, including the facility background monitoring well **MW-6A** and up-gradient well **MW-8**. Aside from new well **MW-4D** which has a limited sample history, these wells routinely produce groundwater with elevated DO levels.

Aluminum was reported by the laboratory at concentrations above the FSDWS MCL at five monitoring wells and at both new piezometers. The highest aluminum value is reported for new well **MW-4D**. Aluminum has routinely been reported above the MCL in monitoring wells at the landfill, including background well **MW-6A**. The most likely source of dissolved aluminum in groundwater is naturally-occurring aluminum-silicate clay minerals occurring near the top of rock throughout the landfill property.

Dissolved **iron** slightly above the FSDWS MCL was reported for monitoring well **MW-9A**. **Manganese** was also reported above the FSDWS MCL at **MW-9A**. Both iron and manganese occur naturally in sediments and carbonate rocks penetrated by the monitoring wells.

Nitrate nitrogen was reported at monitoring well **MW-4A** at 15 mg/l, exceeding the FPDWS MCL of 10 mg/l. Nearby wells **MW-4**, **MW-4B**, **MW-4C** and **MW-4D** each reported nitrate nitrogen at concentrations below the 10 mg/l MCL.

TDS was reported slightly above the FSDWS provisional MCL (500 mg/l) at well **MW-9A** at 590 mg/l. Past analytical data from the monitoring network indicates that dissolved calcium carbonate accounts for a large part of the TDS load in groundwater at the landfill.

* * * * *

TABLE I
FIELD PARAMETER RESULTS SUMMARY,
SUMTER COUNTY (CLOSED) LANDFILL
SUMTER COUNTY, FLORIDA
Quarter II (May) 2012

Sampling Point	Temp. (C)	Dissolved Oxygen (mg/l)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)
MW-2	27.91	4.62	6.74	192	1.21
MW-4	26.05	0.77	7.20	549	5.52
MW-4A	26.55	0.59	7.11	649	3.12
MW-4B	25.71	4.11	8.69	148	2.13
MW-4C	26.79	1.35	7.21	499	16.8
MW-4D	25.22	3.78	7.75	358	11.3
MW-6A	24.92	6.88	7.83	265	10.5
MW-8	24.38	4.85	7.30	341	3.29
MW-9A	25.19	0.41	6.45	908	13.5
MW-10	25.41	0.37	6.99	540	6.50
MW-11	25.75	0.73	6.55	555	14.0

Notes: **Bold lettering indicates:** Exceedance of FDEP 20% saturation dissolved oxygen limit
Exceedance of secondary standards pH range (6.5 - 8.5)
Exceedance of FDEP-recommended turbidity (20 NTU)

TABLE II
SUMMARY OF GROUNDWATER LEVELS
SUMTER COUNTY (CLOSED) LANDFILL
SUMTER COUNTY, FLORIDA
Quarter II (May) 2012

Well No.	MP Elev. ^{1/} (ft. +NGVD)	Depth to Water ^{2/} (ft. - MP)	Groundwater Elevation (ft. +NGVD)
MW-1	70.10	28.76	41.34
MW-2	68.96	27.47	41.49
MW-2A	71.98	30.52	41.46
MW-4	70.33	28.89	41.44
MW-4A	75.49	34.08	41.41
MW-4B	73.49	32.15	41.34
MW-4C	70.88	29.56	41.32
MW-4D	73.35	31.95	41.40
MW-6A	77.48	35.72	41.76
MW-7	72.93	31.43	41.50
MW-8	68.63	26.53	42.10
MW-9	72.62	31.12	41.50
MW-9A	75.14	33.58	41.56
MW-10	68.14	26.51	41.63
MW-11	70.02	28.65	41.37

Notes: ^{1/} Measuring Point is top of PVC well casing.

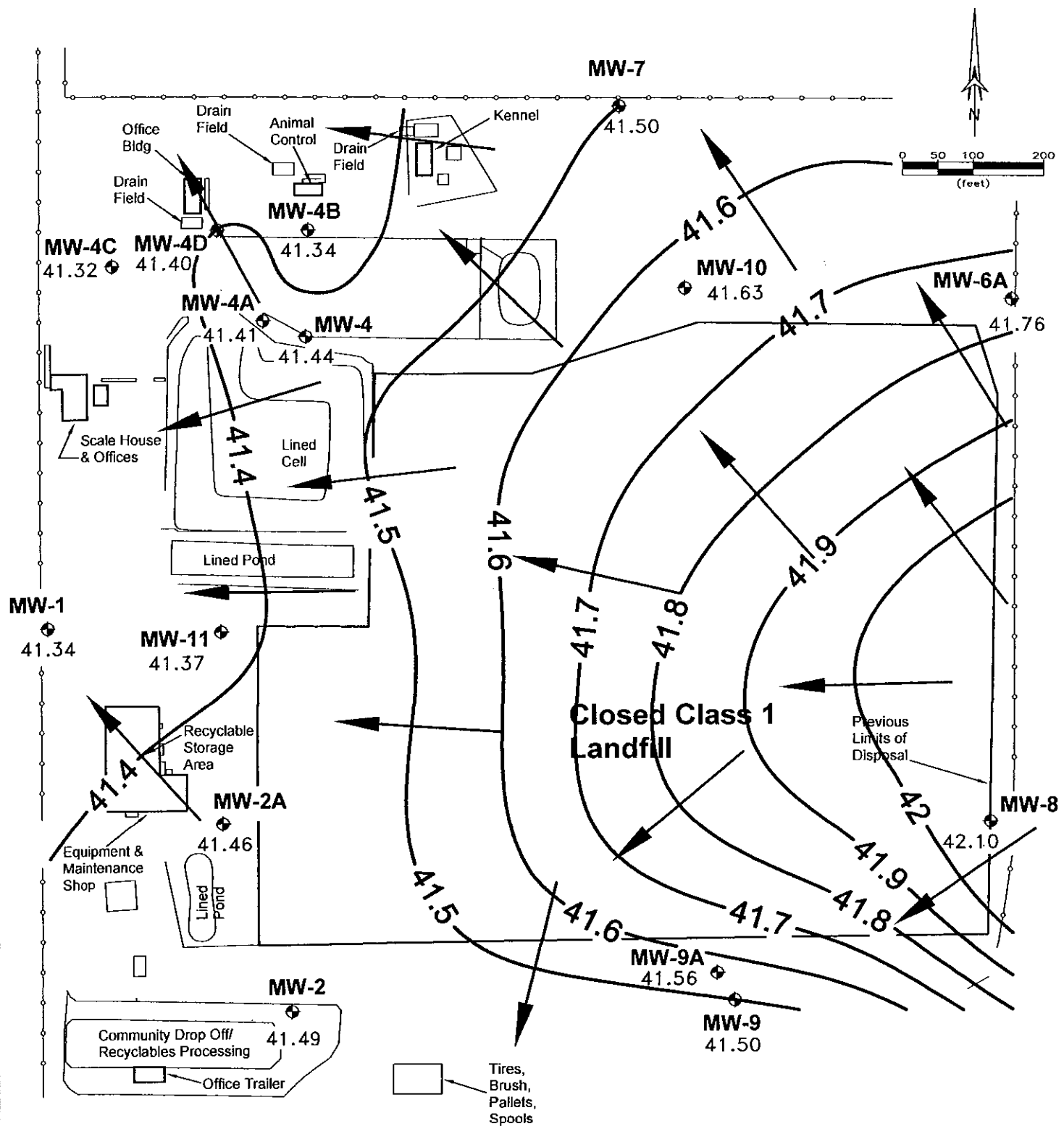
^{2/} Water levels recorded on May 23, 2012

**TABLE III
SUMMARY OF LABORATORY RESULTS
SUMTER COUNTY (CLOSED) LANDFILL
QUARTER II (May) 2012**

Parameter	units	MW-2	MW-4	MW-4A	MW-4B	MW-4C	MW-4D	MW-6A	MW-8	MW-9A	MW-10	MW-11	MCL
Ammonia	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.46	BDL	BDL	2.8
Aluminum	ug/l	BDL	190	BDL	130	810	1,200	BDL	BDL	360	360	720	200
Antimony	ug/l	0.20	0.11	BDL	0.54	0.30	0.21	0.074	BDL	BDL	0.16	0.095	6
Cadmium	ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.83	0.35	2.3	5
Chloride	mg/l	4.7	17	26	4.5	14	10	7.9	7.9	20	7.2	3.8	250
Chromium	ug/l	0.81	3.4	1.9	3.4	3.3	5.4	8.2	3.6	7.6	1.3	7.6	100
Fluoride	mg/l	0.13	0.12	BDL	0.13	0.15	0.15	0.13	0.11	0.16	0.14	0.18	4
Gr. Alpha	pCi/l	1.8 ± 0.8	4.1 ± 1.9	5.0 ± 1.6	3.2 ± 1.0	10.8 ± 1.8	2.8 ± 1.1	2.1 ± 0.9	3.1 ± 1.1	12.7 ± 2.7	12.1 ± 2.1	15.4 ± 2.4	15
Iron	ug/l	BDL	BDL	BDL	BDL	89	88	BDL	44	860	140	120	300
Lead	ug/l	BDL	0.11	BDL	0.58	BDL	BDL	BDL	BDL	0.22	0.19	0.57	15
Manganese	ug/l	BDL	3.3	1.8	BDL	17	BDL	BDL	0.58	81	13	3.6	50
Mercury	ug/l	BDL	0.022	BDL	BDL	BDL	BDL	BDL	BDL	0.082	BDL	0.046	2
Nitrate	mg/l	2.6	7.3	15	3.9	7.6	7.8	5.8	1.9	0.32	1.8	4.8	10
Radium 226	pCi/l	0.4 ± 0.4	2.0 ± 0.7	1.7 ± 0.7	0.4 ± 0.4	1.8 ± 0.7	1.2 ± 0.5	0.7 ± 0.5	1.2 ± 0.5	5.5 ± 1.1	2.8 ± 0.9	4.4 ± 1.0	---
Radium 228	pCi/l	0.0 ± 0.7	0.4 ± 0.8	0.0 ± 0.6	0.1 ± 0.7	0.0 ± 0.7	0.0 ± 0.7	0.0 ± 0.7	0.0 ± 0.7	0.8 ± 0.7	0.3 ± 0.9	0.6 ± 0.8	---
Silver	ug/l	BDL	BDL	BDL	0.071	BDL	BDL	BDL	BDL	BDL	BDL	BDL	100
Sodium	mg/l	3.8 (v)	33 (v)	25 (v)	9.2 (v)	15 (v)	8.8 (v)	3.3 (v)	5.0 (v)	19 (v)	6.3 (v)	8.8 (v)	160
TDS	mg/l	170	350	430	96	300	240	210	220	590	320	320	500
Thallium	ug/l	BDL	0.10	0.23	0.072	BDL	0.093	BDL	BDL	0.15	BDL	0.11	2

Notes: 1). BDL means below laboratory method detection limit 2). **Bold lettering** indicates result exceeds MCL/Guidance concentration 3). (v) indicates constituent was detected in the laboratory method blank.

I



LEGEND

MW-2

41.49 Monitor Well Location
Groundwater Elevation (ft, NGVD, 5/23/12)

41.5

Groundwater Contour (Potentiometric Surface, 5/23/12)

Estimated Groundwater Flow Direction (5/23/12)

The Colinas Group, Inc.
377 Maitland Avenue
Suite 2012
Altamonte Springs, Florida 32701

PROJ. NO.: P-468

DATE: JUNE 2012

SCALE: 1" = 200'

GROUNDWATER CONTOUR MAP
QUARTER II (MAY) 2012
SUMTER COUNTY LANDFILL

FIGURE 1

2



ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268001

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-2

Date Collected: 05/22/12 15:22

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	192	umhos/cm		1			5/22/2012 15:07	A^
Dissolved Oxygen	4.62	mg/L		1			5/22/2012 15:07	A^
Groundwater Elevation	41.56	feet		1			5/22/2012 15:07	A^
Temperature	27.91	°C		1			5/22/2012 15:07	A^
Turbidity	1.21	NTU		1			5/22/2012 15:07	A^
pH	6.74	pH unit		1			5/22/2012 15:07	A^

METALS

Analysis Desc: SW846 6010B
Analysis, Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

Aluminum	61	ug/L	U	1	200	61	5/30/2012 23:33	J
Barium	13	ug/L		1	2.0	0.28	5/30/2012 23:33	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/30/2012 23:33	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/30/2012 23:33	J
Chromium	0.81	ug/L	I	1	4.0	0.50	5/30/2012 23:33	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/30/2012 23:33	J
Iron	38	ug/L	U	1	200	38	5/30/2012 23:33	J
Manganese	0.24	ug/L	U	1	1.0	0.24	5/30/2012 23:33	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 15:19	J
Sodium	3.8	mg/L	V	1	0.20	0.026	5/30/2012 23:33	J
Vanadium	1.1	ug/L	I	1	1.5	0.18	5/30/2012 23:33	J
Zinc	9.3	ug/L	I	1	10	2.0	5/30/2012 23:33	J

Analysis Desc: SW846 6020B
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

Antimony	0.20	ug/L	I	1	0.60	0.073	5/29/2012 22:10	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 22:10	J
Copper	2.1	ug/L		1	0.70	0.10	5/29/2012 22:10	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/29/2012 22:10	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 22:10	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 22:10	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/29/2012 22:10	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 13:54	J
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268001
Sample ID: MW-2

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 15:22

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
WET CHEMISTRY								
Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	4.7	mg/L	I	1	10	0.87	5/24/2012 07:34	A
Fluoride	0.13	mg/L	I	1	0.20	0.078	5/24/2012 07:34	A
Nitrate	2.6	mg/L		1	0.20	0.094	5/24/2012 07:34	A
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	170	mg/L		1	20	20	5/29/2012 12:27	M

Lab ID: A1204268002
Sample ID: MW-4

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 14:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	549	umhos/cm		1			5/22/2012 14:12	A^
Dissolved Oxygen	0.77	mg/L		1			5/22/2012 14:12	A^
Groundwater Elevation	40.92	feet		1			5/22/2012 14:12	A^
Temperature	26.05	°C		1			5/22/2012 14:12	A^
Turbidity	5.52	NTU		1			5/22/2012 14:12	A^
pH	7.2	pH unit		1			5/22/2012 14:12	A^
METALS								
Analysis Desc: SW846 6010B		Preparation Method: SW-846 3010A						
Analysis,Water		Analytical Method: SW-846 6010						
Aluminum	190	ug/L	I	1	200	61	5/30/2012 23:57	J
Barium	8.2	ug/L		1	2.0	0.28	5/30/2012 23:57	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/30/2012 23:57	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/30/2012 23:57	J
Chromium	3.4	ug/L	I	1	4.0	0.50	5/30/2012 23:57	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268002

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4

Date Collected: 05/22/12 14:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Cobalt	0.91	ug/L	I	1	4.0	0.60	5/30/2012 23:57	J
Iron	38	ug/L	U	1	200	38	5/30/2012 23:57	J
Manganese	3.3	ug/L		1	1.0	0.24	5/30/2012 23:57	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 15:34	J
Sodium	33	mg/L	V	1	0.20	0.026	5/30/2012 23:57	J
Vanadium	9.1	ug/L		1	1.5	0.18	5/30/2012 23:57	J
Zinc	8.7	ug/L	I	1	10	2.0	5/30/2012 23:57	J
Analysis Desc: SW846 6020B					Preparation Method: SW-846 3010A			
Analysis, Total					Analytical Method: SW-846 6020			
Antimony	0.11	ug/L	I	1	0.60	0.073	5/29/2012 22:19	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 22:19	J
Copper	1.6	ug/L		1	0.70	0.10	5/29/2012 22:19	J
Lead	0.11	ug/L	I	1	0.70	0.076	5/29/2012 22:19	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 22:19	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 22:19	J
Thallium	0.10	ug/L	I	1	0.20	0.067	5/29/2012 22:19	J
Analysis Desc: SW846 7470A					Preparation Method: SW-846 7470A			
Analysis, Water					Analytical Method: SW-846 7470A			
Mercury	0.022	ug/L	I	1	0.10	0.014	6/5/2012 14:02	J
WET CHEMISTRY								
Analysis Desc: IC, E300.0, Water					Analytical Method: EPA 300.0			
Chloride	17	mg/L		1	10	0.87	5/24/2012 08:21	A
Fluoride	0.12	mg/L	I	1	0.20	0.078	5/24/2012 08:21	A
Nitrate	7.3	mg/L		1	0.20	0.094	5/24/2012 08:21	A
Analysis Desc: Ammonia, E350.1, Water					Analytical Method: EPA 350.1			
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids, SM2540C					Analytical Method: SM 2540C			
Total Dissolved Solids	350	mg/L		1	20	20	5/29/2012 12:27	M

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268003

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4A

Date Collected: 05/22/12 13:35

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	649	umhos/cm		1			5/22/2012 13:26	A^
Dissolved Oxygen	0.59	mg/L		1			5/22/2012 13:26	A^
Groundwater Elevation	36.17	feet		1			5/22/2012 13:26	A^
Temperature	26.55	°C		1			5/22/2012 13:26	A^
Turbidity	3.12	NTU		1			5/22/2012 13:26	A^
pH	7.11	pH unit		1			5/22/2012 13:26	A^

METALS

Analysis Desc: SW846 6010B
Analysis, Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

Aluminum	61	ug/L	U	1	200	61	5/31/2012 00:01	J
Barium	12	ug/L		1	2.0	0.28	5/31/2012 00:01	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:01	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:01	J
Chromium	1.9	ug/L	I	1	4.0	0.50	5/31/2012 00:01	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:01	J
Iron	38	ug/L	U	1	200	38	5/31/2012 00:01	J
Manganese	1.8	ug/L		1	1.0	0.24	5/31/2012 00:01	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:01	J
Sodium	25	mg/L	V	1	0.20	0.026	5/31/2012 00:01	J
Vanadium	5.3	ug/L		1	1.5	0.18	5/31/2012 00:01	J
Zinc	9.4	ug/L	I	1	10	2.0	5/31/2012 00:01	J

Analysis Desc: SW846 6020B
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

Antimony	0.073	ug/L	U	1	0.60	0.073	5/29/2012 22:28	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 22:28	J
Copper	0.74	ug/L		1	0.70	0.10	5/29/2012 22:28	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/29/2012 22:28	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 22:28	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 22:28	J
Thallium	0.23	ug/L		1	0.20	0.067	5/29/2012 22:28	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:09	J
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268003
Sample ID: MW-4A

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 13:35

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
WET CHEMISTRY								
Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	26	mg/L		1	10	0.87	5/24/2012 09:07	A
Fluoride	0.078	mg/L	U	1	0.20	0.078	5/24/2012 09:07	A
Nitrate	15	mg/L		1	0.20	0.094	5/24/2012 09:07	A
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	430	mg/L		1	20	20	5/25/2012 13:24	M

Lab ID: A1204268004
Sample ID: MW-4B

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/23/12 12:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	148	umhos/cm		1			5/23/2012 12:15	A^
Dissolved Oxygen	4.11	mg/L		1			5/23/2012 12:15	A^
Groundwater Elevation	41.54	feet		1			5/23/2012 12:15	A^
Temperature	25.71	°C		1			5/23/2012 12:15	A^
Turbidity	2.13	NTU		1			5/23/2012 12:15	A^
pH	8.69	pH unit		1			5/23/2012 12:15	A^
METALS								
Analysis Desc: SW846 6010B		Preparation Method: SW-846 3010A						
Analysis,Water		Analytical Method: SW-846 6010						
Aluminum	130	ug/L	I	1	200	61	5/31/2012 00:06	J
Barium	3.3	ug/L		1	2.0	0.28	5/31/2012 00:06	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:06	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:06	J
Chromium	3.4	ug/L	I	1	4.0	0.50	5/31/2012 00:06	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268004
Sample ID: MW-4B

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/23/12 12:25

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:06	J
Iron	38	ug/L	U	1	200	38	5/31/2012 00:06	J
Manganese	0.24	ug/L	U	1	1.0	0.24	5/31/2012 00:06	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:06	J
Sodium	9.2	mg/L	V	1	0.20	0.026	5/31/2012 00:06	J
Vanadium	12	ug/L		1	1.5	0.18	5/31/2012 00:06	J
Zinc	8.6	ug/L	I	1	10	2.0	5/31/2012 00:06	J
Analysis Desc: SW846 6020B Analysis, Total					Preparation Method: SW-846 3010A Analytical Method: SW-846 6020			
Antimony	0.54	ug/L	I	1	0.60	0.073	5/29/2012 22:56	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 22:56	J
Copper	1.2	ug/L		1	0.70	0.10	5/29/2012 22:56	J
Lead	0.58	ug/L	I	1	0.70	0.076	5/29/2012 22:56	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 22:56	J
Silver	0.071	ug/L	I	1	0.30	0.059	5/29/2012 22:56	J
Thallium	0.072	ug/L	I	1	0.20	0.067	5/29/2012 22:56	J
Analysis Desc: SW846 7470A Analysis, Water					Preparation Method: SW-846 7470A Analytical Method: SW-846 7470A			
Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:11	J
WET CHEMISTRY Analysis Desc: IC, E300.0, Water					Analytical Method: EPA 300.0			
Chloride	4.5	mg/L	I	1	10	0.87	5/24/2012 23:09	A
Fluoride	0.13	mg/L	I	1	0.20	0.078	5/24/2012 23:09	A
Nitrate	3.9	mg/L		1	0.20	0.094	5/24/2012 23:09	A
Analysis Desc: Ammonia, E350.1, Water					Analytical Method: EPA 350.1			
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids, SM2540C					Analytical Method: SM 2540C			
Total Dissolved Solids	96	mg/L		1	20	20	5/29/2012 12:27	M

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268005

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4C

Date Collected: 05/22/12 12:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	499	umhos/cm		1			5/22/2012 12:32	A [^]
Dissolved Oxygen	1.35	mg/L		1			5/22/2012 12:32	A [^]
Groundwater Elevation	41.14	feet		1			5/22/2012 12:32	A [^]
Temperature	26.79	°C		1			5/22/2012 12:32	A [^]
Turbidity	16.8	NTU		1			5/22/2012 12:32	A [^]
pH	7.21	pH unit		1			5/22/2012 12:32	A [^]

METALS

Analysis Desc: SW846 6010B
Analysis, Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

Aluminum	810	ug/L		1	200	61	5/31/2012 00:11	J
Barium	15	ug/L		1	2.0	0.28	5/31/2012 00:11	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:11	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:11	J
Chromium	3.3	ug/L	I	1	4.0	0.50	5/31/2012 00:11	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:11	J
Iron	89	ug/L	I	1	200	38	5/31/2012 00:11	J
Manganese	17	ug/L		1	1.0	0.24	5/31/2012 00:11	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:11	J
Sodium	15	mg/L	V	1	0.20	0.026	5/31/2012 00:11	J
Vanadium	5.6	ug/L		1	1.5	0.18	5/31/2012 00:11	J
Zinc	9.4	ug/L	I	1	10	2.0	5/31/2012 00:11	J

Analysis Desc: SW846 6020B
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

Antimony	0.30	ug/L	I	1	0.60	0.073	5/29/2012 23:05	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 23:05	J
Copper	0.41	ug/L	I	1	0.70	0.10	5/29/2012 23:05	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/29/2012 23:05	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:05	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:05	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/29/2012 23:05	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:13	J
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268005

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4C

Date Collected: 05/22/12 12:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
WET CHEMISTRY								
Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	14	mg/L		1	10	0.87	5/24/2012 09:22	A
Fluoride	0.15	mg/L	I	1	0.20	0.078	5/24/2012 09:22	A
Nitrate	7.6	mg/L		1	0.20	0.094	5/24/2012 09:22	A
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	300	mg/L		1	20	20	5/25/2012 13:24	M

Lab ID: A1204268006

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4D

Date Collected: 05/23/12 13:30

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	358	umhos/cm		1			5/23/2012 13:21	A^
Dissolved Oxygen	3.78	mg/L		1			5/23/2012 13:21	A^
Groundwater Elevation	41.25	feet		1			5/23/2012 13:21	A^
Temperature	25.22	°C		1			5/23/2012 13:21	A^
Turbidity	11.3	NTU		1			5/23/2012 13:21	A^
pH	7.75	pH unit		1			5/23/2012 13:21	A^

METALS

Analysis Desc: SW846 6010B
Analysis,Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

Aluminum	1200	ug/L		1	200	61	5/31/2012 00:40	J
Barium	9.8	ug/L		1	2.0	0.28	5/31/2012 00:40	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:40	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:40	J
Chromium	5.4	ug/L		1	4.0	0.50	5/31/2012 00:40	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268006

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-4D

Date Collected: 05/23/12 13:30

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:40	J
Iron	88	ug/L	I	1	200	38	5/31/2012 00:40	J
Manganese	0.24	ug/L	U	1	1.0	0.24	5/31/2012 00:40	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:16	J
Sodium	8.8	mg/L	V	1	0.20	0.026	5/31/2012 00:40	J
Vanadium	18	ug/L		1	1.5	0.18	5/31/2012 00:40	J
Zinc	11	ug/L		1	10	2.0	5/31/2012 00:40	J
Analysis Desc: SW846 6020B					Preparation Method: SW-846 3010A			
Analysis, Total					Analytical Method: SW-846 6020			
Antimony	0.21	ug/L	I	1	0.60	0.073	5/29/2012 23:14	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/29/2012 23:14	J
Copper	1.2	ug/L		1	0.70	0.10	5/29/2012 23:14	J
Lead	0.58	ug/L	I	1	0.70	0.076	5/29/2012 23:14	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:14	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:14	J
Thallium	0.093	ug/L	I	1	0.20	0.067	5/29/2012 23:14	J
Analysis Desc: SW846 7470A					Preparation Method: SW-846 7470A			
Analysis, Water					Analytical Method: SW-846 7470A			
Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:14	J
WET CHEMISTRY								
Analysis Desc: IC, E300.0, Water					Analytical Method: EPA 300.0			
Chloride	10	mg/L		1	10	0.87	5/24/2012 23:56	A
Fluoride	0.15	mg/L	I	1	0.20	0.078	5/24/2012 23:56	A
Nitrate	7.8	mg/L		1	0.20	0.094	5/24/2012 23:56	A
Analysis Desc: Ammonia, E350.1, Water					Analytical Method: EPA 350.1			
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids, SM2540C					Analytical Method: SM 2540C			
Total Dissolved Solids	240	mg/L		1	20	20	5/29/2012 12:27	M

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268007

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-6A

Date Collected: 05/23/12 15:00

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	265	umhos/cm		1			5/23/2012 14:50	A^
Dissolved Oxygen	6.88	mg/L		1			5/23/2012 14:50	A^
Groundwater Elevation	41.71	feet		1			5/23/2012 14:50	A^
Temperature	24.92	°C		1			5/23/2012 14:50	A^
Turbidity	10.5	NTU		1			5/23/2012 14:50	A^
pH	7.83	pH unit		1			5/23/2012 14:50	A^
METALS								
Analysis Desc: Ammonia, E350.1, Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: SW846 6010B			Preparation Method: SW-846 3010A					
Analysis, Water			Analytical Method: SW-846 6010					
Aluminum	61	ug/L	U	1	200	61	5/31/2012 00:45	J
Barium	2.1	ug/L		1	2.0	0.28	5/31/2012 00:45	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:45	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:45	J
Chromium	5.2	ug/L		1	4.0	0.50	5/31/2012 00:45	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:45	J
Iron	38	ug/L	U	1	200	38	5/31/2012 00:45	J
Manganese	0.24	ug/L	U	1	1.0	0.24	5/31/2012 00:45	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:21	J
Sodium	3.3	mg/L	V	1	0.20	0.026	5/31/2012 00:45	J
Vanadium	7.5	ug/L		1	1.5	0.18	5/31/2012 00:45	J
Zinc	8.6	ug/L	I	1	10	2.0	5/31/2012 00:45	J
Analysis Desc: SW846 6020B			Preparation Method: SW-846 3010A					
Analysis, Total			Analytical Method: SW-846 6020					
Antimony	0.074	ug/L	I	1	0.60	0.073	5/29/2012 23:24	J
Arsenic	0.57	ug/L	I	1	1.0	0.36	5/29/2012 23:24	J
Copper	0.38	ug/L	I	1	0.70	0.10	5/29/2012 23:24	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/29/2012 23:24	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:24	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:24	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/29/2012 23:24	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268007

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-6A

Date Collected: 05/23/12 15:00

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:16	J
WET CHEMISTRY								
Analysis Desc: IC, E300.0, Water		Analytical Method: EPA 300.0						
Chloride	8.2	mg/L	I	1	10	0.87	5/25/2012 00:11	A
Fluoride	0.13	mg/L	I	1	0.20	0.078	5/25/2012 00:11	A
Nitrate	5.8	mg/L		1	0.20	0.094	5/25/2012 00:11	A
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	210	mg/L	J3	1	20	20	5/29/2012 12:27	M

Lab ID: A1204268008

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-8

Date Collected: 05/23/12 10:52

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	341	umhos/cm		1			5/23/2012 10:41	A^
Dissolved Oxygen	4.85	mg/L		1			5/23/2012 10:41	A^
Groundwater Elevation	42.72	feet		1			5/23/2012 10:41	A^
Temperature	24.38	°C		1			5/23/2012 10:41	A^
Turbidity	3.29	NTU		1			5/23/2012 10:41	A^
pH	7.3	pH unit		1			5/23/2012 10:41	A^
METALS								
Analysis Desc: SW846 6010B		Preparation Method: SW-846 3010A						
Analysis, Water		Analytical Method: SW-846 6010						
Aluminum	61	ug/L	U	1	200	61	5/31/2012 00:49	J
Barium	3.1	ug/L		1	2.0	0.28	5/31/2012 00:49	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:49	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 00:49	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268008

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-8

Date Collected: 05/23/12 10:52

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Chromium	3.6	ug/L	I	1	4.0	0.50	5/31/2012 00:49	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:49	J
Iron	44	ug/L	I	1	200	38	5/31/2012 00:49	J
Manganese	0.58	ug/L	I	1	1.0	0.24	5/31/2012 00:49	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:25	J
Sodium	5.0	mg/L	V	1	0.20	0.026	5/31/2012 00:49	J
Vanadium	8.0	ug/L		1	1.5	0.18	5/31/2012 00:49	J
Zinc	4.3	ug/L	I	1	10	2.0	5/31/2012 00:49	J

Analysis Desc: SW846 6020B
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

Antimony	0.073	ug/L	U	1	0.60	0.073	5/29/2012 23:33	J
Arsenic	0.54	ug/L	I	1	1.0	0.36	5/29/2012 23:33	J
Copper	0.30	ug/L	I	1	0.70	0.10	5/29/2012 23:33	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/29/2012 23:33	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:33	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:33	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/29/2012 23:33	J

Analysis Desc: SW846 7470A
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:18	J
---------	-------	------	---	---	------	-------	----------------	---

WET CHEMISTRY

Analysis Desc: IC, E300.0, Water

Analytical Method: EPA 300.0

Chloride	7.9	mg/L	I	1	10	0.87	5/25/2012 00:26	A
Fluoride	0.11	mg/L	I	1	0.20	0.078	5/25/2012 00:26	A
Nitrate	1.9	mg/L		1	0.20	0.094	5/25/2012 00:26	A

Analysis Desc: Ammonia, E350.1, Water

Analytical Method: EPA 350.1

Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
-------------	-------	------	---	---	------	-------	-----------------	---

Analysis Desc: Tot Dissolved
Solids, SM2540C

Analytical Method: SM 2540C

Total Dissolved Solids	220	mg/L		1	20	20	5/29/2012 12:27	M
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268009
Sample ID: MW-9A

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/23/12 10:08

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	908	umhos/cm		1			5/23/2012 09:59	A [^]
Dissolved Oxygen	0.41	mg/L		1			5/23/2012 09:59	A [^]
Groundwater Elevation	35.06	feet		1			5/23/2012 09:59	A [^]
Temperature	25.19	°C		1			5/23/2012 09:59	A [^]
Turbidity	13.5	NTU		1			5/23/2012 09:59	A [^]
pH	6.45	pH unit		1			5/23/2012 09:59	A [^]
METALS								
Analysis Desc: SW846 6010B			Preparation Method: SW-846 3010A					
Analysis, Water			Analytical Method: SW-846 6010					
Aluminum	360	ug/L		1	200	61	5/31/2012 00:54	J
Barium	12	ug/L		1	2.0	0.28	5/31/2012 00:54	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:54	J
Cadmium	0.83	ug/L		1	0.60	0.32	5/31/2012 00:54	J
Chromium	7.6	ug/L		1	4.0	0.50	5/31/2012 00:54	J
Cobalt	18	ug/L		1	4.0	0.60	5/31/2012 00:54	J
Iron	860	ug/L		1	200	38	5/31/2012 00:54	J
Manganese	81	ug/L		1	1.0	0.24	5/31/2012 00:54	J
Nickel	9.5	ug/L		1	6.5	1.1	5/31/2012 16:30	J
Sodium	19	mg/L	V	1	0.20	0.026	5/31/2012 00:54	J
Vanadium	2.4	ug/L		1	1.5	0.18	5/31/2012 00:54	J
Zinc	12	ug/L		1	10	2.0	5/31/2012 00:54	J
Analysis Desc: SW846 6020B			Preparation Method: SW-846 3010A					
Analysis, Total			Analytical Method: SW-846 6020					
Antimony	0.10	ug/L	I	1	0.60	0.073	5/29/2012 23:42	J
Arsenic	1.2	ug/L		1	1.0	0.36	5/29/2012 23:42	J
Copper	2.1	ug/L		1	0.70	0.10	5/29/2012 23:42	J
Lead	0.22	ug/L	I	1	0.70	0.076	5/29/2012 23:42	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:42	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:42	J
Thallium	0.15	ug/L	I	1	0.20	0.067	5/29/2012 23:42	J
Analysis Desc: SW846 7470A			Preparation Method: SW-846 7470A					
Analysis, Water			Analytical Method: SW-846 7470A					
Mercury	0.082	ug/L	I	1	0.10	0.014	6/5/2012 14:19	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268009

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-9A

Date Collected: 05/23/12 10:08

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
WET CHEMISTRY								
Analysis Desc: IC,E300.0,Water		Analytical Method: EPA 300.0						
Chloride	20	mg/L		1	10	0.87	5/25/2012 08:55	A
Fluoride	0.16	mg/L	I	1	0.20	0.078	5/25/2012 08:55	A
Nitrate	0.32	mg/L		1	0.20	0.094	5/25/2012 08:55	A
Analysis Desc: Ammonia,E350.1,Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.46	mg/L		1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids,SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	590	mg/L		1	20	20	5/29/2012 12:27	M

Lab ID: A1204268010

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-10

Date Collected: 05/23/12 11:42

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance		Analytical Method: DISRES						
Conductance	540	umhos/cm		1			5/23/2012 11:28	A^
Dissolved Oxygen	0.37	mg/L		1			5/23/2012 11:28	A^
Groundwater Elevation	41.38	feet		1			5/23/2012 11:28	A^
Temperature	25.41	°C		1			5/23/2012 11:28	A^
Turbidity	6.5	NTU		1			5/23/2012 11:28	A^
pH	6.99	pH unit		1			5/23/2012 11:28	A^
METALS								
Analysis Desc: SW846 6010B		Preparation Method: SW-846 3010A						
Analysis,Water		Analytical Method: SW-846 6010						
Aluminum	360	ug/L		1	200	61	5/31/2012 00:59	J
Barium	11	ug/L		1	2.0	0.28	5/31/2012 00:59	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 00:59	J
Cadmium	0.35	ug/L	I	1	0.60	0.32	5/31/2012 00:59	J
Chromium	1.3	ug/L	I	1	4.0	0.50	5/31/2012 00:59	J

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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268010

Date Received: 05/23/12 16:47 Matrix: Water

Sample ID: MW-10

Date Collected: 05/23/12 11:42

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 00:59	J
Iron	140	ug/L	I	1	200	38	5/31/2012 00:59	J
Manganese	13	ug/L		1	1.0	0.24	5/31/2012 00:59	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:35	J
Sodium	6.3	mg/L	V	1	0.20	0.026	5/31/2012 00:59	J
Vanadium	10	ug/L		1	1.5	0.18	5/31/2012 00:59	J
Zinc	9.7	ug/L	I	1	10	2.0	5/31/2012 00:59	J
Analysis Desc: SW846 6020B					Preparation Method: SW-846 3010A			
Analysis, Total					Analytical Method: SW-846 6020			
Antimony	0.16	ug/L	I	1	0.60	0.073	5/29/2012 23:51	J
Arsenic	1.1	ug/L		1	1.0	0.36	5/29/2012 23:51	J
Copper	0.65	ug/L	I	1	0.70	0.10	5/29/2012 23:51	J
Lead	0.19	ug/L	I	1	0.70	0.076	5/29/2012 23:51	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/29/2012 23:51	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/29/2012 23:51	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/29/2012 23:51	J
Analysis Desc: SW846 7470A					Preparation Method: SW-846 7470A			
Analysis, Water					Analytical Method: SW-846 7470A			
Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:21	J
WET CHEMISTRY					Analytical Method: EPA 300.0			
Analysis Desc: IC, E300.0, Water								
Chloride	7.2	mg/L	I	1	10	0.87	5/25/2012 01:13	A
Fluoride	0.14	mg/L	I	1	0.20	0.078	5/25/2012 01:13	A
Nitrate	1.8	mg/L		1	0.20	0.094	5/25/2012 01:13	A
Analysis Desc: Ammonia, E350.1, Water					Analytical Method: EPA 350.1			
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids, SM2540C					Analytical Method: SM 2540C			
Total Dissolved Solids	320	mg/L		1	20	20	5/29/2012 12:27	M

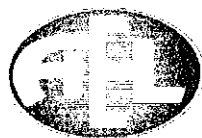
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Fax: (407)937-1597

ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268011
Sample ID: MW-11

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 10:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
FIELD PARAMETERS								
Analysis Desc: FIELD - Conductance			Analytical Method: DISRES					
Conductance	555	umhos/cm		1			5/22/2012 10:36	A^
Dissolved Oxygen	0.73	mg/L		1			5/22/2012 10:36	A^
Groundwater Elevation	41.38	feet		1			5/22/2012 10:34	A^
Temperature	25.75	°C		1			5/22/2012 10:36	A^
Turbidity	14	NTU		1			5/22/2012 10:36	A^
pH	6.55	pH unit		1			5/22/2012 10:36	A^
METALS								
Analysis Desc: SW846 6010B			Preparation Method: SW-846 3010A					
Analysis, Water			Analytical Method: SW-846 6010					
Aluminum	720	ug/L		1	200	61	5/31/2012 01:04	J
Barium	8.8	ug/L		1	2.0	0.28	5/31/2012 01:04	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 01:04	J
Cadmium	2.3	ug/L		1	0.60	0.32	5/31/2012 01:04	J
Chromium	7.6	ug/L		1	4.0	0.50	5/31/2012 01:04	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 01:04	J
Iron	120	ug/L	I	1	200	38	5/31/2012 01:04	J
Manganese	3.6	ug/L		1	1.0	0.24	5/31/2012 01:04	J
Nickel	1.5	ug/L	I	1	6.5	1.1	5/31/2012 16:40	J
Sodium	8.8	mg/L	V	1	0.20	0.026	5/31/2012 01:04	J
Vanadium	11	ug/L		1	1.5	0.18	5/31/2012 01:04	J
Zinc	12	ug/L		1	10	2.0	5/31/2012 01:04	J
Analysis Desc: SW846 6020B			Preparation Method: SW-846 3010A					
Analysis, Total			Analytical Method: SW-846 6020					
Antimony	0.095	ug/L	I	1	0.60	0.073	5/30/2012 00:01	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/30/2012 00:01	J
Copper	2.0	ug/L		1	0.70	0.10	5/30/2012 00:01	J
Lead	0.57	ug/L	I	1	0.70	0.076	5/30/2012 00:01	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/30/2012 00:01	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/30/2012 00:01	J
Thallium	0.11	ug/L	I	1	0.20	0.067	5/30/2012 00:01	J
Analysis Desc: SW846 7470A			Preparation Method: SW-846 7470A					
Analysis, Water			Analytical Method: SW-846 7470A					
Mercury	0.046	ug/L	I	1	0.10	0.014	6/5/2012 14:23	J

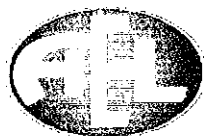
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268011
Sample ID: MW-11

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 10:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
WET CHEMISTRY								
Analysis Desc: IC,E300.0,Water			Analytical Method: EPA 300.0					
Chloride	3.8	mg/L	I	1	10	0.87	5/24/2012 09:38	A
Fluoride	0.18	mg/L	I	1	0.20	0.078	5/24/2012 09:38	A
Nitrate	4.8	mg/L		1	0.20	0.094	5/24/2012 09:38	A
Analysis Desc: Ammonia,E350.1,Water			Analytical Method: EPA 350.1					
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids,SM2540C			Analytical Method: SM 2540C					
Total Dissolved Solids	320	mg/L		1	20	20	5/25/2012 13:24	M

Lab ID: A1204268012
Sample ID: EQ BLANK

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 09:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
METALS								
Analysis Desc: SW846 6010B			Preparation Method: SW-846 3010A					
Analysis,Water			Analytical Method: SW-846 6010					
Aluminum	61	ug/L	U	1	200	61	5/31/2012 01:09	J
Barium	0.28	ug/L	U	1	2.0	0.28	5/31/2012 01:09	J
Beryllium	0.13	ug/L	U	1	0.30	0.13	5/31/2012 01:09	J
Cadmium	0.32	ug/L	U	1	0.60	0.32	5/31/2012 01:09	J
Chromium	0.50	ug/L	I	1	4.0	0.50	5/31/2012 01:09	J
Cobalt	0.60	ug/L	U	1	4.0	0.60	5/31/2012 01:09	J
Iron	38	ug/L	U	1	200	38	5/31/2012 01:09	J
Manganese	0.24	ug/L	U	1	1.0	0.24	5/31/2012 01:09	J
Nickel	1.1	ug/L	U	1	6.5	1.1	5/31/2012 16:45	J
Sodium	0.32	mg/L	V	1	0.20	0.026	5/31/2012 01:09	J
Vanadium	0.18	ug/L	U	1	1.5	0.18	5/31/2012 01:09	J
Zinc	6.9	ug/L	I	1	10	2.0	5/31/2012 01:09	J

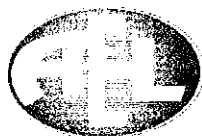
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ANALYTICAL RESULTS

Workorder: A1204268 Sumter Co Landfill

Lab ID: A1204268012
Sample ID: EQ BLANK

Date Received: 05/23/12 16:47 Matrix: Water
Date Collected: 05/22/12 09:45

Sample Description:

Location:

Parameters	Results	Units	Qual	DF	Adjusted PQL	Adjusted MDL	Analyzed	Lab
Analysis Desc: SW846 6020B		Preparation Method: SW-846 3010A						
Analysis, Total		Analytical Method: SW-846 6020						
Antimony	0.073	ug/L	U	1	0.60	0.073	5/30/2012 00:10	J
Arsenic	0.36	ug/L	U	1	1.0	0.36	5/30/2012 00:10	J
Copper	0.46	ug/L	I	1	0.70	0.10	5/30/2012 00:10	J
Lead	0.076	ug/L	U	1	0.70	0.076	5/30/2012 00:10	J
Selenium	2.2	ug/L	U	1	5.0	2.2	5/30/2012 00:10	J
Silver	0.059	ug/L	U	1	0.30	0.059	5/30/2012 00:10	J
Thallium	0.067	ug/L	U	1	0.20	0.067	5/30/2012 00:10	J
Analysis Desc: SW846 7470A		Preparation Method: SW-846 7470A						
Analysis, Water		Analytical Method: SW-846 7470A						
Mercury	0.014	ug/L	U	1	0.10	0.014	6/5/2012 14:24	J
WET CHEMISTRY		Analytical Method: EPA 300.0						
Analysis Desc: IC, E300.0, Water		Analytical Method: EPA 300.0						
Chloride	0.87	mg/L	U	1	10	0.87	5/24/2012 09:53	A
Fluoride	0.078	mg/L	U	1	0.20	0.078	5/24/2012 09:53	A
Nitrate	0.094	mg/L	U	1	0.20	0.094	5/24/2012 09:53	A
Analysis Desc: Ammonia, E350.1, Water		Analytical Method: EPA 350.1						
Ammonia (N)	0.025	mg/L	U	1	0.10	0.025	5/29/2012 13:43	T
Analysis Desc: Tot Dissolved Solids, SM2540C		Analytical Method: SM 2540C						
Total Dissolved Solids	20	mg/L	U	1	20	20	5/25/2012 13:24	M

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ANALYTICAL RESULTS QUALIFIERS

Workorder: A1204268 Sumter Co Landfill

PARAMETER QUALIFIERS

- U 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.
- V Method Blank Contamination
- J3 Lab QC Failure

LAB QUALIFIERS

- A DOH Certification #E53076(AEL-A)(FL NELAC Certification)
- A^ Not Certified
- J DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)
- M DOH Certification #E82535(AEL-M)(FL NELAC Certification)
- T DOH Certification #E84589(AEL-T)(FL NELAC Certification)

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2742 N. Florida Ave.
P.O. Box 1833
Tampa, Florida 33601
(813) 229-2879
Fax (813) 229-0002

Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268001
MW-2
Sample Collection: 05-22-12/1522
Lab ID No: 12.4661
Lab Custody Date: 05-25-12/1500
Sample description: WATER

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Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	1.8 ± 0.8	05-30-12/0800	EPA 900.0	0.9
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.4 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	0.4 ± 0.4	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.0 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in black ink, reading "James W. Hayes". The signature is written in a cursive, flowing style.

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAP standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



2742 N. Florida Ave.
P.O. Box 1833
Tampa, Florida 33601
(813) 229-2879
Fax (813) 229-0002

Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268002
MW-4
Sample Collection: 05-22-12/1425
Lab ID No: 12.4662
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	4.1 ± 1.9	05-30-12/0800	EPA 900.0	1.5
Combined Radium (Radium-226 + Radium 228)	pCi/l	2.4 ± 0.8	Calc	Calc	1.0
Radium-226	pCi/l	2.0 ± 0.7	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.4 ± 0.8	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in black ink, reading "James W. Hayes". The signature is written in a cursive, flowing style.

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.

Page 1 of 1



Report Date: June 4, 2012

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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268003
MW-4A
Sample Collection: 05-22-12/1335
Lab ID No: 12.4663
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	5.0 ± 1.6	05-30-12/0800	EPA 900.0	1.5
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.7 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	1.7 ± 0.7	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.0 ± 0.6	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in black ink, reading "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Fax (813) 229-0002

Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268004
MW-4B
Sample Collection: 05-23-12/1225
Lab ID No: 12.4664
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	3.2 ± 1.0	05-30-12/0800	EPA 900.0	0.9
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.5 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	0.4 ± 0.4	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.1 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th 230

A handwritten signature in black ink, reading "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268005
MW-4C
Sample Collection: 05-22-12/1245
Lab ID No: 12.4665
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	10.8 ± 1.8	05-30-12/0800	EPA 900.0	1.2
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.8 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	1.8 ± 0.7	06-01-12/1210	EPA 903.0	0.7
Radium-228	pCi/l	0.0 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



LABORATORY SERVICES

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Tampa, Florida 33601
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Fax (813) 229-0002

Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268006
MW-4D
Sample Collection: 05-23-12/1330
Lab ID No: 12.4666
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	2.8 ± 1.1	05-30-12/0800	EPA 900.0	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.2 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	1.2 ± 0.5	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.0 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th 230

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268007
MW-6A
Sample Collection: 05-23-12/1500
Lab ID No: 12.4667
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	2.1 ± 0.9	05-30-12/0800	EPA 900.0	1.0
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.7 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	0.7 ± 0.5	06-01-12/1210	EPA 903.0	0.6
Radium-228	pCi/l	0.0 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268008
MW-8
Sample Collection: 05-23-12/1052
Lab ID No: 12.4668
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	3.1 ± 1.1	05-30-12/0800	EPA 900.0	1.1
Combined Radium (Radium-226 + Radium 228)	pCi/l	1.2 ± 0.7	Calc	Calc	1.0
Radium-226	pCi/l	1.2 ± 0.5	06-01-12/1210	EPA 903.0	0.5
Radium-228	pCi/l	0.0 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: In-230

A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.

Page 1 of 1



LABORATORY SERVICES
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Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268009
MW-9A
Sample Collection: 05-23-12/1008
Lab ID No: 12.4669
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	12.7 ± 2.7	05-30-12/0800	EPA 900.0	2.1
Combined Radium (Radium-226 + Radium 228)	pCi/l	6.3 ± 1.1	Calc	Calc	1.0
Radium-226	pCi/l	5.5 ± 1.1	06-01-12/1210	EPA 903.0	0.7
Radium-228	pCi/l	0.8 ± 0.7	06-01-12/1150	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAP standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268010
MW-10
Sample Collection: 05-23-12/1142
Lab ID No: 12.4670
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	12.1 ± 2.1	05-30-12/0800	EPA 900.0	1.4
Combined Radium (Radium-226 + Radium 228)	pCi/l	3.1 ± 0.9	Calc	Calc	1.0
Radium-226	pCi/l	2.8 ± 0.9	06-02-12/1405	EPA 903.0	0.8
Radium-228	pCi/l	0.3 ± 0.8	06-04-12/1030	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268011
MW-11
Sample Collection: 05-22-12/1045
Lab ID No: 12.4671
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	15.4 ± 2.4	05-30-12/0800	EPA 900.0	1.6
Combined Radium (Radium-226 + Radium 228)	pCi/l	5.0 ± 1.0	Calc	Calc	1.0
Radium-226	pCi/l	4.4 ± 1.0	06-02-12/1405	EPA 903.0	0.7
Radium-228	pCi/l	0.6 ± 0.8	06-04-12/1030	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in cursive script that reads "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.



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Report Date: June 4, 2012

Advanced Environmental Labs
528 S. North Lake Blvd. Suite 1016
Altamonte Springs, FL 32701

Attn: Myrna Santiago

Field Custody: Client
Client/Field ID: A1204268012
EQ BLANK
Sample Collection: 05-22-12/0945
Lab ID No: 12.4672
Lab Custody Date: 05-25-12/1500
Sample description: WATER

CERTIFICATE OF ANALYSIS

Parameter	Units	Results	Analysis Date	Method	Detection Limit
Gross Alpha	pCi/l	0.4 ± 0.6	05-30-12/0800	EPA 900.0	0.8
Combined Radium (Radium-226 + Radium 228)	pCi/l	0.2 ± 0.6	Calc	Calc	1.0
Radium-226	pCi/l	0.0 ± 0.2	06-02-12/1405	EPA 903.0	0.6
Radium-228	pCi/l	0.2 ± 0.6	06-04-12/1030	EPA Ra-05	1.0

Alpha Standard: Th-230

A handwritten signature in black ink, appearing to read "James W. Hayes".

James W. Hayes
Laboratory Manager

Test results meet all requirements of NELAC standards. Test results refer only to sample(s) listed. Contact person: Jim Hayes (813) 229-2879.

3

FIELD LOG
Well Water Levels

PROJ # P-468 NAME: Dale Chrysler
PROJECT NAME: Summer Co. Landfill DATE: 5/23/12
PROJECT LOCATION: Sumterville, FL

TIME	COMMENTS
MW-1	28.76'
MW-2	27.47'
MW-2A	30.52'
MW-4	28.89'
MW-4A	34.08'
MW-4B	32.15'
MW-4C	29.56'
MW-4D	31.95'
MW-6A	35.72'
MW-7	31.43'
MW-8	26.53'
MW-9	31.12'
MW-9A	33.58'
MW-10	26.51'
MW-11	28.65'

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-2	SAMPLE ID: MW-2	DATE: 5/22/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 27.45'	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable											
1 Well Vol = (31.92' feet - 22.45' feet) X .16 gallons/foot = .7152 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X feet) + .125 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~29'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~29'	PURGING INITIATED AT: 1448	PURGING ENDED AT: 1507	TOTAL VOLUME PURGED (gallons): .95							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1503	.75	.75	.05	22.57	6.79	22.90	198	4.80	1.14	Clear	None
1505	.1	.85	.05	22.57	6.77	22.91	195	4.67	0.88	Clear	None
1507	.1	.95	.05	22.57	6.74	22.91	192	4.62	1.21	Clear	None
No Show											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: 1508	SAMPLING ENDED AT: 1522
PUMP OR TUBING DEPTH IN WELL (feet): ~29'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: (Y) N		FIELD FILTERED: (Y) N FILTER SIZE: _____ µm		DUPLICATE: (Y) (N)	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-2	2	PE	1 Ltr	HN03	None
"	1	PE	250 mL	H2S04	None
"	1	PE	250 mL	HN03	None
"	250	PE	250 mL	None	None
				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
				Gross Alpha, RA226RA228	APP
				Total Ammonia	APP
				Metals	APP
				Chloride, Fluoride, Nitrate, TDS	APP

REMARKS:

1448: Set dedicated 1/4" PE tubing @ ~29' GAC and started pump @ 105 gpm.

1458: WL 27.58' @ .05 gpm, GW is clear.

1502: WL 27.57' @ .05 gpm, drawdown is stable. All parameters are stable or in range except for DO @ 4.8 mg/L. This is typical for this well. Will use optional stabilization criteria below.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump

EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3J): H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

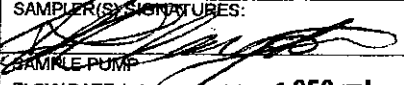
GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4	SAMPLE ID: MW-4	DATE: 5/22/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 28.84'	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable											
Well Vol = (36.35' feet - 28.84' feet) X .16 gallons/foot = 1.2016 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X feet) + .125 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~30.5'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~30.5'	PURGING INITIATED AT: 1359	PURGING ENDED AT: 1412	TOTAL VOLUME PURGED (gallons): 3.25							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1408	2.25	2.25	.25	29.44'	7.21	26.11	547	0.84	6.32	Clear	None
1410	.5	2.75	.25	29.44'	7.20	26.09	548	0.79	5.61	Clear	None
1412	.5	3.25	.25	29.44'	7.20	26.05	549	0.77	5.52	Clear	None
No skew											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Clayton, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1413	SAMPLING ENDED AT: 1425			
PUMP OR TUBING DEPTH IN WELL (feet): ~30.5'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE				
FIELD DECONTAMINATION: Y N		FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type: _____		DUPLICATE: Y N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-4	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	---	Ammonia	ESP
"	1	PE	250 mL	HN03	None	---	Metals	ESP
"	2	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS	ESP

REMARKS:

1359: Inserted SS ESP and dedicated 3/8" PE tubing to ~30.5' btoe and started pump @ .25 gpm.

1405: WL 29.44' @ .25 gpm, GW is clear.

1407: WL 29.44' @ .25 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes

2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump

EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

5.66

DEP-SOP-001/01

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4A	SAMPLE ID: MW-4A	DATE: 5/22/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 34.05' TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (45.23' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME X3 = 1.245 (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X 45' feet) + 1.125 gallons = 1.415 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	PURGING INITIATED AT: 1304	PURGING ENDED AT: 1326	TOTAL VOLUME PURGED (gallons): 8.00							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1322	2.00	2.00	.25	34.18	7.16	26.62	650	0.86	5.11	Clear	None
1324	.5	2.50	.25	34.19	7.12	26.59	650	0.67	3.48	Clear	None
1326	.5	8.00	.25	34.19	7.11	26.55	649	0.59	3.12	Clear	None
No screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal/Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLER(S) SIGNATURES: 				SAMPLING INITIATED AT: 1327		SAMPLING ENDED AT: 1335	
PUMP OR TUBING DEPTH IN WELL (feet): ~40'				SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL				TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: ☒ Y ☐ N				FIELD-FILTERED: ☒ Y ☐ N FILTER SIZE: _____ µm				DUPLICATE: ☐ Y ☒ N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-4A	2	PE	1 Ltr	HN03	None	—	Gross Alpha, RA226/RA228		ESP		
"	1	PE	250 mL	H2S04	None	—	Total Ammonia		ESP		
"	1	PE	250 mL	HN03	None	—	Metals		ESP		
"	2	PE	250 mL	None	None	—	Chloride, Fluoride, Nitrate, TDS		ESP		
REMARKS: 1304: Inserted ESP and dedicated 3/8" PE tubing to ~40' bto and started pump @ .5 gpm. This well is typically turbid at start of purge and required over purging at a high rate of flow to clean it up. 1314: Turbidity is @ 45 NTUs, reduced flow to .25 gpm. 1317: WL 34.17' @ .25 gpm. Turbidity is @ 11 NTUs. 1320: WL 34.18' @ .25 gpm, drawdown is stable. All parameters are stable or in range. Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes 2) Packed samples on ice immediately upon collection											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)											

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3): H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4B	SAMPLE ID: MW-4B	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 32.15	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable											
$1 \text{ Well Vol} = (38.49' \text{ feet} - 32.15' \text{ feet}) \times 1.6 \text{ gallons/foot} = 10.144 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
only fill out if applicable											
$1 \text{ Equip Vol} = .02 \text{ gallons} + (.006 \text{ gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~34'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~34'	PURGING INITIATED AT: 1202	PURGING ENDED AT: 1215	TOTAL VOLUME PURGED (gallons): 2.60							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1211	1.80	1.80	.2	32.30	8.54	25.70	146	4.48	2.67	Clear	None
1213	.4	2.20	.2	32.30	8.61	25.67	145	4.26	2.40	Clear	None
1215	.4	2.60	.2	32.29	8.69	25.71	148	4.71	2.13	Clear	None
No screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1216	SAMPLING ENDED AT: 1225
PUMP OR TUBING DEPTH IN WELL (feet): ~34'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: (Y) N		FIELD-FILTERED: (Y) N FILTER SIZE: µm		DUPLICATE: (Y) N	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-4B	2	PE	1 Ltr	HN03	None
"	1	PE	250 mL	H2S04	None
"	1	PE	250 mL	HN03	None
"	2	PE	250 mL	None	None
				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
				Gross Alpha, RA226RA228	ESP
				Total Ammonia	ESP
				Metals	ESP
				Chloride, Fluoride, Nitrate, TDS	ESP

REMARKS:

1202: Inserted SS ESP and dedicated 3/8" PE tubing to ~34' stop and started pump @ .2 gpm.

1208: WL 32.30' @ .2 gpm, GW is clear. DO is high @ 4.71 mg/L, but is typical for this well. Will use optional stabilization criteria below.

1210: WL 32.30' @ .2 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3): pH: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4C	SAMPLE ID: MW-4C	DATE: 5/22/12	

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING 3/8" 1/4" DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 29.53' TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP APP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable)											
= (44.62' feet - 29.53' feet) X 0.02 gallons/foot = 0.30 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = 0.30 gallons + (0.0026 gallons/foot X 44' feet) + .125 gallons = 0.2394 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~39'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~39'	PURGING INITIATED AT: 1118	PURGING ENDED AT: 1232	TOTAL VOLUME PURGED (gallons): 4.23							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1228	3.99	3.99	0.06	29.74	7.18	26.89	500	1.51	20.0	Clear	None
1230	1.2	4.11	0.06	29.74	7.20	26.83	499	1.40	19.6	Clear	None
1232	1.2	4.23	0.06	29.74	7.21	26.79	499	1.35	16.8	Clear	None
No Sheen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Clayton, Colinas Group, Inc.				SAMPLER(S) SIGNATURES: 				SAMPLING INITIATED AT: 1233		SAMPLING ENDED AT: 1245	
PUMP OR TUBING DEPTH IN WELL (feet): ~39'				SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL				TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: Y ☒ N ☐				FIELD-FILTERED: Y ☐ N ☒ FILTER SIZE: 0.45 µm				DUPLICATE: Y ☐ N ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-4C	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228		-ESP APP		
"	1	PE	250 mL	H2SO4	None	---	Ammonia		-ESP APP		
"	1	PE	250 mL	HN03	None	---	Metals		-ESP APP		
"	2	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		-ESP APP		

REMARKS:

1118: Inserted new 1/4" PE tubing to ~39' btoC and started pump @ .06 gpm.

1128: GW is extremely turbid at 1000+ NTUs, continuing purge.

1135: Turbidity is @ 119 NTUs, continuing purge, WL 29.76' btoC @ .06 gpm.

1145: Turbidity is @ 59 NTUs, continuing purge, WL 29.76' @ .06 gpm, drawdown is stable.

1150: Turbidity is @ 49 NTUs, reduced flow to .03 gpm.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

(over)

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

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

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3): H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-4D	SAMPLE ID: MW-4D	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 31.95'	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
= (44.62' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X 44' feet) + .125 gallons = 1.227 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~39'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~39'	PURGING INITIATED AT: 1246	PURGING ENDED AT: 1321	TOTAL VOLUME PURGED (gallons): 23.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1317	0.90	2.90	.5	32.10	7.83	25.44	357	3.83	13.9	Clear	None
1319	1	3.90	.5	32.09	7.79	25.41	357	3.75	13.1	Clear	None
1321	1	4.90	.5	32.10	7.75	25.22	358	3.78	11.3	Clear	None
No stream											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER/SIGNATURE: <i>[Signature]</i>		SAMPLING INITIATED AT: 1322	SAMPLING ENDED AT: 1402		
PUMP OR TUBING DEPTH IN WELL (feet): ~39'		SAMPLE PUMP FLOW RATE (ml per minute): < 250 mL		TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: (Y) N		FIELD-FILTERED: (Y) N FILTER SIZE: μm		DUPLICATE: (Y) N			
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	SAMPLING EQUIPMENT CODE
MW-4D	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228
"	1	PE	250 mL	H2SO4	None	---	Ammonia
"	1	PE	250 mL	HN03	None	---	Metals
"	2	PE	500 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS

REMARKS:

1246: Inserted SS ESP and dedicated 3/8" PE tubing to ~39' static and started pump @ .6 gpm.

1254: Turbidity is @ 117 NTUs, increased flow to 1.3 gpm.

1301: Turbidity is @ 108 NTUs, reduced flow to .5 gpm.

1306: Turbidity is @ 40 NTUs, continuing purge at .5 gpm. WL 32.11' @ .5 gpm.

1314: WL 32.10' @ .5 gpm, drawdown is stable. Turbidity is @ 18 NTUs. DO is high @ 3.91 mg/L, but appears normal for this well.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes. All other parameters are stable or in range.

2) Packed samples on ice immediately upon collection.

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

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump

EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-6A	SAMPLE ID: MW-6A	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC		TUBING 3/8"		WELL SCREEN INTERVAL		STATIC DEPTH 35.2'		PURGE PUMP TYPE			
DIAMETER (inches):		DIAMETER (inches):		DEPTH: feet to feet		TO WATER (feet):		OR BAILER: ESP			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable)											
= (50.84' feet - 35.2' feet) X 1.335 gallons/foot = 19.5 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X 50') + .125 gallons = .445 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 244'		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 244'		PURGING INITIATED AT: 1422		PURGING ENDED AT: 1450		TOTAL VOLUME PURGED (gallons): 16.5			
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1446	14.5	14.5	.5	35.84	7.89	25.00	265	6.93	14.0	Clear	None
1448	1	15.5	.5	35.84	7.84	24.96	265	6.88	11.1	Clear	None
1450	1	16.5	.5	35.83	7.83	24.92	265	6.88	10.5	Clear	None
No shown											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLER(S) SIGNATURES:				SAMPLING INITIATED AT: 1451		SAMPLING ENDED AT: 1500	
PUMP OR TUBING DEPTH IN WELL (feet): 244'				SAMPLE PUMP				TUBING		MATERIAL CODE: PE	
FIELD DECONTAMINATION: ☒ Y ☐ N				FLOW RATE (ml per minute): < 250 mL				FIELD-FILTERED: ☒ Y ☐ N		FILTER SIZE: µm	
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-6A	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228		ESP		
"	1	PE	250 mL	H2S04	None	---	Total Ammonia		ESP		
"	1	PE	250 mL	HN03	None	---	Metals		ESP		
"	Detd	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		ESP		

REMARKS:

1422: Inserted SS ESP and dedicated 3/8" PE tubing to ~44' static and started pump @ 1 gpm.

1427: Turbidity is at 52 NTUs, reduced flow to .5 gpm. This well typically requires over purging at a high flow rate to clean up turbidity.

1432: Turbidity is @ 26 NTUs, continuing purge @ .5 gpm. WL 35.85' @ .5 gpm.

1443: Turbidity is @ 19 NTUs. DO is high @ 7.22 mg/L, but is typical for this well. WL 35.84' and is stable. All other parameters are in range or stable. Will use optional cartridge below.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection in a range or stable. Will use optional cartridge below.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)	
SAMPLING/PURGING: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump	
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)	

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-8	SAMPLE ID: MW-8	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC	TUBING 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 26.53' TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (43.24' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME 2968 (only fill out if applicable)											
1 Equip Vol = 0.02 gallons + (0.006 gallons/foot X 43' feet) + .125 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~38'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~38'	PURGING INITIATED AT: 1029	PURGING ENDED AT: 1041	TOTAL VOLUME PURGED (gallons): 1.20							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1037	.80	.80	.1	26.54'	7.27	24.42	342	4.80	2.77	Clear	None
1039	.2	1.00	.1	26.54'	7.29	24.38	342	4.91	3.23	Clear	None
1041	.2	1.20	.1	26.54'	7.30	24.38	341	4.85	3.29	Clear	None
No Slurries											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1042	SAMPLING ENDED AT: 1052
PUMP OR TUBING DEPTH IN WELL (feet): ~38'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: ☒ Y N W/Probe only		FIELD-FILTERED: ☒ Y N W/Probe only		FILTER SIZE: 0.45 µm	
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-8	2	PE	1 Ltr	HN03	None
"	1	PE	250 mL	H2S04	None
"	1	PE	250 mL	HN03	None
"	2	PE	250 mL	None	None
				FINAL pH	
				Gross Alpha, RA226RA228	
				Total Ammonia	
				Metals	
				Chloride, Fluoride, Nitrate, TDS	

REMARKS:
1029: Inserted new 1/4" PE tubing to ~38' btec and started PP @ 1 gpm.
1034: WL 26.54' @ 1 gpm, GW is clear. DO is high @ 5.11 mg/L, but is typical for this well. Will use optional stabilization criteria below.
1036: WL 26.54' @ 1 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump

EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-9A	SAMPLE ID: MW-9A	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 33.58 TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= (50.17' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X feet) + .125 gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~45	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~45	PURGING INITIATED AT: 0925	PURGING ENDED AT: 0959	TOTAL VOLUME PURGED (gallons): 18.30							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (uS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0955	16.70	16.70	1.4	37.21	6.42	25.22	913	0.78	12.7	Clear	Slight
0957	.8	17.50	.4	37.21	6.44	25.21	908	0.45	15.8	Clear	Same
0959	.8	18.30	.4	37.20	6.45	25.19	908	0.41	13.5	Clear	Same
No stream											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Clayton, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: 1000	SAMPLING ENDED AT: 1008
PUMP OR TUBING DEPTH IN WELL (feet): ~45		SAMPLE PUMP FLOW RATE (mL per minute):		TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N		FIELD-FILTERED: Y N		FILTER SIZE: μm	
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)
MW-9A	2	PE	1 Ltr	HN03	None
"	1	PE	250 mL	H2S04	None
"	1	PE	250 mL	HN03	None
"	12	PE	250 mL	None	None
				FINAL pH	
				Gross Alpha, RA226RA228	
				Total Ammonia	
				Metals	
				Chloride, Fluoride, Nitrate, TDS	

REMARKS:

0925: Inserted 95 ESP and dedicated 3/8" PE tubing to ~45' btoe and started pump @ .5 gpm. This well is typically extremely turbid at beginning of purge and requires over purging at a high flow rate to clean it up.

0937: Turbidity is @ 101 NTUs, continuing purge. Increased flow to 175 gpm.

0947: Turbidity is at 74 NTUs, reduced flow to 14 gpm.

0951: Turbidity is @ 19 NTUs. All other parameters are stable or in range. Well is at 37.23 btoe and slowly recovering.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes

2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-10	SAMPLE ID: MW-10	DATE: 5/23/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL	STATIC DEPTH 26.51	PURGE PUMP TYPE							
DIAMETER (inches):	DIAMETER (inches):	DEPTH: feet to feet	TO WATER (feet):	OR BAILER: ESP PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY											
only fill out if applicable)											
= (45.35' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME											
(only fill out if applicable)											
1 Equip Vol = 0.006 gallons + (0.006 gallons/foot X 45') + .125 gallons = 0.241 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~40'	PURGING INITIATED AT: 1113	PURGING ENDED AT: 1128	TOTAL VOLUME PURGED (gallons): 1.50							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1124	1.10	1.10	.1	26.90'	6.91	25.57	543	0.48	8.26	Clear	None
1126	.2	1.30	.1	26.90'	6.99	25.48	543	0.45	7.29	Clear	None
1128	.2	1.50	.1	26.90'	6.99	25.41	540	0.37	6.50	Clear	None
No Show											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1129	SAMPLING ENDED AT: 1142			
PUMP OR TUBING DEPTH IN WELL (feet): ~40'		SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL		TUBING MATERIAL CODE: PE				
FIELD DECONTAMINATION: (Y) No Probe Only		FIELD-FILTERED: (Y) N FILTER SIZE: µm		DUPLICATE: Y (N)				
SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-10	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228	DC-ESP APP
"	1	PE	250 mL	H2S04	None	---	Total Ammonia	DC-ESP APP
"	1	PE	250 mL	HN03	None	---	Metals	DC-ESP APP
"	250	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS	DC-ESP APP

REMARKS:

1113: Inserted new 1/4" PE tubing to ~ 40' stop and started PP @ 1:08 PM.

1118: WL 26.90' @ .1 gpm, GW is clear.

1129: WL 26.90' @ .1 gpm, drawdown is stable. All parameters are stable or in range.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

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

SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

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

2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill		SITE LOCATION: Sumterville, FL	
WELL NO: MW-11	SAMPLE ID: MW-11	DATE: 5/22/12	

PURGING DATA

WELL 2" PVC	TUBING 3/8"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 28.62 TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY only fill out if applicable)											
= (40.15' feet - feet) X gallons/foot = gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME X 3 = 1.155 (only fill out if applicable)											
1 Equip Vol = .02 gallons + (.006 gallons/foot X 40' feet) + .125 gallons = .385 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~35'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~35'	PURGING INITIATED AT: 1019	PURGING ENDED AT: 1036	TOTAL VOLUME PURGED (gallons): 6.50							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1032	5.50	5.50	.25	28.85	6.53	25.25	553	0.97	13.6	Clear	None
1034	.5	6.00	.25	28.83	6.55	25.82	552	0.80	17.1	Clear	None
1036	.5	6.50	.25		6.55	25.75	555	0.73	14.0	Clear	None
No screen											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dale Clayton, Colinas Group, Inc.				SAMPLER(S) SIGNATURES: <i>[Signature]</i>				SAMPLING INITIATED AT: 1032		SAMPLING ENDED AT: 1045	
PUMP OR TUBING DEPTH IN WELL (feet): ~35'				SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL				TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: ☒ Y ☐ N				FIELD-FILTERED: ☒ Y ☐ N FILTER SIZE: _____ µm				DUPLICATE: ☐ Y ☒ N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-11	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226, RA228		ESP		
"	1	PE	250 mL	H2S04	None	---	Total Ammonia		ESP		
"	1	PE	250 mL	HN03	None	---	Metals		ESP		
"	2	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS		ESP		

REMARKS:
1019: Inserted SS ESP and dedicated 3/8" PE tubing for ~35' stop and started pump @ .5 gpm. This well typically has high turbidity at beginning of purge requiring extra purging at a high flow rate to clean it up.
1028: Turbidity is @ 20 NTUs, reduced flow to .25 gpm.
1030: At 28.85' @ .25 gpm, turbidity is @ 11 NTUs. All other parameters are stable or in range. Drawdown is stable.

Notes: 1) Used a graduated 5 gallon bucket and timed to measure purge volumes
2) Packed samples on ice immediately upon collection

MATERIAL CODES:	AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES:	APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± .02 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

[illegible]

SAMPLED BY (PRINT) / AFFILIATION: Dale Claytor, Colinas Group, Inc.				SAMPLE(S) SIGNATURE: 			SAMPLING INITIATED AT: 0940		SAMPLING ENDED AT: 0945	
PUMP OR TUBING DEPTH IN WELL (feet):				SAMPLE PUMP FLOW RATE (mL per minute): < 250 mL			TUBING MATERIAL CODE: PE			
FIELD DECONTAMINATION: Y N				FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type: _____			DUPLICATE: Y N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
EQB	2	PE	1 Ltr	HN03	None	---	Gross Alpha, RA226RA228	ESP		
"	1	PE	250 mL	H2S04	None	---	Total Ammonia	ESP		
"	1	PE	250 mL	HN03	None	---	Metals	ESP		
"	2 Bc	PE	250 mL	None	None	---	Chloride, Fluoride, Nitrate, TDS	ESP		
Various				Various	None		Appendix I Parameters	ESP		

Field decont 5 gallon PE bucket, SS ESP and WL probe
IAW DEP-SOP-001/01, FC 1000. Paired 1.5 gallons of DI
Water into PE bucket and inserted SS ESP and WL probe.
Circulated DI Water through pump and over WL probe
for ~4 minutes and collected EOB samples.

Notes: 1. The above do not constitute all the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)H: ± 0.2 units; Temperature: ± 0.2 degrees C; Specific Conductance: $\pm 5\%$; Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, $\pm .02$ mg/L or $\pm 10\%$ (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

4



**Advanced
Environmental Laboratories, Inc.**

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☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tallahassee:** 1288 Cedar Center Drive, Tallahassee, FL
☐ **Tampa:** 9810 Princess Palm Ave. • Tampa, FL 33619 • 61

Client Name: <u>The Colinas Group, Inc.</u>				Project Name: <u>Sumter Co. Landfill</u>				BOT. LE SIZE & TYPE		ANALYSIS REQUIRED		Gross Alpha AA 226+AA 228 Metals		TDS		Ammonia F, Cl, NO3		LABORATORY I.D. NUMBER	
Address: <u>377 Highland Ave, Suite 2012</u> <u>Altamonte Springs, FL 32701</u>				P.O. Number/Project Number: <u>P-453</u>															
Phone: <u>407-622-8176</u>				Project Location: <u>Sumterville, FL</u>				REMARKS/SPECIAL INSTRUCTIONS											
FAX: <u>407-622-8196</u>																			
Contact: <u>Rick Potts</u>																			
Sampled By: <u>Dale Clayton</u>																			
Turn Around Time: ☒ STANDARD ☐ RUSH																			
Page <u>1</u> of <u>2</u>																			

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING		MATRIX	NO. COUNT	PRESER- VATION	IN	IN	IN	I	IS	I						
			DATE	TIME															
	MW-2	G	5/24/12	1522	GW	6		X	X	X	X	X	X						01
	MW-4	G		1425	GW	6		X	X	X	X	X	X						02
	MW-4A	G		1335	GW	6		X	X	X	X	X	X						03
	MW-4B	G	5/23/12	1245	GW	6		X	X	X	X	X	X						04
	MW-4C	G	5/24/12	1245	GW	6		X	X	X	X	X	X						05
	MW-4D	G	5/23/12	1330	GW	6		X	X	X	X	X	X						06
	MW-6A	G		1500	GW	6		X	X	X	X	X	X						07
	MW-8	G		1052	GW	6		X	X	X	X	X	X						08
	MW-9A	G		1008	GW	6		X	X	X	X	X	X						09
	MW-10	G		1142	GW	6		X	X	X	X	X	X						10

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HCl) S=(H2SO4) N=(HNO3) T=(Sodium Thiosulfate)

Received on ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank

☐ Where required, pH checked Temperature when received 3 (in degrees Celsius)

Form revised 06/15/2010

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A 3A M: 1A

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>5/24/12</u>	<u>1647</u>	<u>C. Ferg</u>	<u>5/23/12</u>	<u>1647</u>

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site Address: _____



☒ **Altamonte Springs:** 528 S. Northlake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597

☐ **Gainesville:** 6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639

☐ **Jacksonville:** 6607 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354

☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281

☐ **Tallahassee:** 1288 Cedar Center Drive, Tallahassee, FL 32301 • 850.219.6274 • Fax 850.219.6275

☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327

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[illegible]

Received on ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank

☐ Where required, pH checked Temperature when received (in degrees Celsius)

Form revised 06/15/2010

Device used for measuring Temp by unique identifier (circle IR temp gun used): J: 9A G: LT-1 LT-2 T: 10A 3A M: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1		5/23/12	1647	C. J. [illegible]	5/23/12	1647
2						
3						
4						

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site-Address:

Results Requested By 6/3/2012[illegible]

DUE: 6-7-12

12.4/661-72

1/15/15 05-25-12/1500

Chain of Custody

Document 19641 - HBN 14868

Workorder

Sumter Co Landfill

Results Requested By 6/3/2012

Report To:	Subcontract To:	Results Requested By 6/3/2012																								
Myma Santiago Advanced Environmental Laboratories, Inc. 6601 Southpoint Parkway Jacksonville, FL 32216 Phone (904)363-9350 Fax (904)363-9354	KNL-FL KNL Laboratory Services, Inc. 2742 North Florida Avenue Tampa, FL 33602 Phone Fax																									
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	HNO ₃	EPA 8081	EPA 8082	EPA 8083	EPA 8084	EPA 8085	EPA 8086	EPA 8087	EPA 8088	EPA 8089	EPA 8090	EPA 8091	EPA 8092	EPA 8093	EPA 8094	EPA 8095	EPA 8096	EPA 8097	EPA 8098	EPA 8099	EPA 9000	LAB USE ONLY
13																										
14																										
15																										
16																										
Report		Electronic Data Deliverables				Comments																				
☐ Standard (Results only) ☐ Standard with Batch QC ☐ CLP ☐ Other _____		☐ SEDD Stage 2A ☐ SEDD Stage 2B ☐ SEDD Stage 3 ☐ Other _____																								
Preservative					Transfers	Released By					Date/Time					Received By					Date/Time					
HNO ₃ = HNO ₃					1	[Signature]					5/24/12					B/S					5/24/12					
					2																					
					3																					
					4																					
					5																					
																5-25-12					1500					

5

INSTRUMENT (MAKE/MODEL#) YSI 556/Hanna INSTRUMENT #

☒ TEMPERATURE ☒ CONDUCTIVITY ☐ SALINITY ☒ pH ☐ ORP
☒ TURBIDITY ☐ RESIDUAL CL ☒ DO ☐ OTHER _____

Standard A	Oakton pH Standard 4.01 Units	Exp: 8/2013
Standard B	Oakton pH Standard 7.00 Units	Exp: 9/2013
Standard C	Oakton Conductivity Standard 1500 uS/cm	Exp: 2/2013
Standard D	Hanna 0.1 NTU Standard	Exp: 4/2013
Standard E	Hanna 15 NTU Standard	Exp: 4/2013

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS	
5/22/12	0950	A	4.01	4.01		Yes	IC	HC	pH
		B	7.00	7.00					pH
		C	1500	1500					Cond
		--	--	8.31					DO
		--	--	24.69					Temp
		D	0.1	0.1					Turb
		E	15	15.0					Turb
5/22/12	1010	A	4.01	4.02		Yes	ICV	HC	pH
		B	7.00	7.06					pH
		C	1500	1501					Cond
		--	--	8.30					DO
		--	--	24.93					Temp
		D	0.1	0.08					Turb
		E	15	15.0					Turb
5/22/12	1540	A	4.01	4.04		Yes	CC	HC	pH
		B	7.00	7.00					pH
		C	1500	1493					Cond
		--	--	8.26					DO
		--	--	25.26					Temp
		D	0.1	0.09					Turb
		E	15	15.1					Turb

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS	
5/23/12	0830	A	4.01	4.01		Yes	IC	HE	pH
		B	7.00	7.00					pH
		C	1500	1500					Cond
		--	--	8.63					DO
		--	--	22.67					Temp
		D	0.1	0.1					Turb
		E	15	15.0					Turb
5/23/12	0850	A	4.01	4.03		Yes	ICV	HE	pH
		B	7.00	6.98					pH
		C	1500	1499					Cond
		--	--	8.62					DO
		--	--	22.77					Temp
		D	0.1	0.09					Turb
		E	15	14.9					Turb
5/23/12	1510	A	4.01	4.01		Yes	CC	HE	pH
		B	7.00	6.99					pH
		C	1500	1496					Cond
		--	--	8.43					DO
		--	--	24.27					Temp
		D	0.1	0.08					Turb
		E	15	15.1					Turb