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SUMTER COUNTY
(CLOSED) LANDFILL
QUARTERLY GROUNDWATER
MONITORING REPORT,
Quarter I (March) 2006

Dept. of Environmental
Protection

APR 14 2006

Prepared for:

Southwest District

SUMTER COUNTY
SOLID WASTE DEPARTMENT
SUMTER COUNTY, FLORIDA

Prepared by:

THE COLINAS GROUP, INC.
509 N. Virginia Avenue
Winter Park, Florida 32789

NO REPORT FORMS PROVIDED

OMITTED QUARTERLY
PARAMETERS INCLUDE

- ANTIMONY
- ARSENIC
- BERYLLIUM
- CHROMIUM
- CIRCONIUM
- LEAD
- THALLIUM

ELEVATED D.O. REPORTED
AT 3 OF 7 WELLS

ELEVATED TURBIDITY REPORTED
AT 0 OF 7 WELLS

TABLE II & CONTINUE MAP PROVIDED
DIFFERENT GND DOW C MN-ZA,
MARCH, MAR-04

April 2006

MAR 2006
SAMPLING
EVENT

THE COLINAS GROUP, INC.

ENGINEERING AND ENVIRONMENTAL CONSULTANTS

April 10, 2006

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

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

APR 14 2006

SOUTHWEST DISTRICT
TAMPA

Subj: **Quarter I 2006 Groundwater Monitoring Report**
Sumter County Closed Class I Landfill
Sumter County, Florida
Consent Order/OGC File No. 04-0131
FDEP Permit No.22926-003-SF

Dear Mr. Morris:

Enclosed please find one (1) copy of the following report:

Sumter County (Closed) Landfill Quarterly Groundwater Monitoring Report, Quarter I (March) 2006

The report was prepared by The Colinas Group, Inc. for Kessler Consulting, Inc. on behalf of Sumter County Board of County Commissioners. The report is submitted in satisfaction of Specific Condition 20 of FDEP Long-Term Care Permit No.22926-003-SF, issued to Sumter County in June 2004.

Please let me know if you have any questions concerning our report.

Very truly yours,
THE COLINAS GROUP, INC.


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

cc: Jackey Jackson (Sumter County)
Miriam Zimms (Kessler Consulting, Inc.)

SUMTER COUNTY (CLOSED) LANDFILL
GROUNDWATER MONITORING REPORT,
SUMTER COUNTY, FLORIDA
Quarter I (March) 2006

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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

APR 14 2006

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TAMPA

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ATTACHMENTS:

1. Quarter I (March 6) 2006 Groundwater Contour Map
2. Water Quality Laboratory Analytical Reports (FDEP Format)
3. Field Data and Testing Reports
4. Chain-of-Custody Forms
5. Laboratory/Field Quality Control Reports
6. FDEP Validator Disc - (In Pocket)

* * * * *

**Sumter County (Closed) Landfill
Quarterly Groundwater Monitoring Report
Quarter I (March) 2006**

INTRODUCTION

The Colinas Group, Inc. (TCG) has reviewed the groundwater monitoring well sampling and analytical results for the Quarter I (March) 2006 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.

The Groundwater Monitoring Plan for the closed landfill was amended in 2004 to replace three (3) existing monitoring wells deemed unsuitably located with respect to closed solid waste disposal areas. Existing wells MW-1, MW-7 and MW-9 were replaced by installation of new wells MW-11, MW-10 and MW-9A, respectively. The existing wells will continue to be used as water level measuring points (piezometers). The current array of groundwater monitoring wells and piezometers at the facility is shown on Figure 1.

In accordance with Specific Condition 16d of the facility Long-Term Care Permit, sampling and analytical chemical parameters for this sampling event included the normal list of quarterly monitoring parameters. The Long-Term Care Permit requires an expanded parameter list, to include 40 CFR Appendix II parameters, during Quarter IV of each year.

Six (6) of the normal quarterly monitoring parameters were inadvertently omitted from the laboratory Chain-of-Custody by TCG. The following constituents were not analyzed and therefore, are not reported:

Antimony	Lead
Cadmium	Silver
Chromium	Thallium

Rarely detected in groundwater samples at the landfill, chromium, lead and silver have never approached respective MCLs. Antimony, cadmium and thallium, constituents with very low MCL values, each have been detected above MCL once in one well since 1999.

Since the omitted parameters do have long laboratory holding time standards TCG has requested our subcontract analytical laboratory to run analyses for these constituents on remaining groundwater samples retained by the laboratory. Analytical results for the constituents will be submitted to the Department under separate cover as soon as reported by the laboratory. TCG will ensure that the full list of parameters in the Long-Term Care Permit is reported in future quarterly monitoring reports.

SAMPLING EVENT

The Quarter I 2006 sampling event at the Sumter County Landfill occurred on March 6-7, 2006. All sampling was performed by TCG personnel 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 US Biosystems, Inc. in accordance with the laboratory's NELAC and FDHRS Certification No.E86240. The original analytical reports prepared by US Biosystems are presented in Attachment 2 to this report.

Water table depth measurements in each facility groundwater monitoring well and piezometer were recorded on March 6, 2006. These measurements were used to develop 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.

RESULTS

Field Tested Parameters

Results of field testing completed at groundwater monitoring wells for the March 2006 sampling event are summarized in Table I. Field tests were completed by TCG sampling personnel in strict accordance with the FDEP SOP requirements.

pH

The field testing results indicate pH of groundwater in the uppermost aquifer was within the FDEP secondary standard (6.5 - 8.5 pH units) at all seven (7) groundwater monitoring wells sampled during the March 2006 event. The nearly neutral to slightly basic pH values measured are consistent across the landfill property and appear normal considering the monitoring well screen intervals at and near the top of carbonate rocks and sediments.

Fluid Temperature

Temperature of each water sample was measured in the field immediately following discharge into the flow cell used to accept flow from the purging pump. Temperature measurements of groundwater from the seven (7) monitoring wells ranged from a low of 25.4 C at well MW-8 to 27.2 C at three (3) wells.

Dissolved Oxygen

Dissolved oxygen (DO) exceeded the FDEP sampling guidance level of 20% saturation at three (3) of the seven (7) monitoring wells sampled, including the facility background monitoring well MW-6A. These wells consistently produce groundwater with elevated DO concentrations.

Specific Conductance

Specific conductance of groundwater samples collected during this sampling event are included in Table I. Specific conductance values varied through a relatively narrow range of 167 umhos/cm to 645 umhos/cm.

Turbidity

The FDEP recommends attainment of turbidity values less than 10 to 20 NTUs in groundwater samples obtained from monitoring wells. As shown in Table I, groundwater samples collected had measured turbidity values less than 20 NTUs. Fluid turbidity slightly exceeded 10 NTUs at wells MW-6A, MW-9A and MW-10.

Regulatory Exceedances

A summary of groundwater laboratory analytical results that exceeded the regulatory level for the particular parameter in the March 2006 sample set is presented in Table III. As shown, four (4) parameters were reported for certain monitoring wells at concentrations that exceed applicable regulatory levels. Exceeded parameters were iron, manganese, nitrate nitrogen and total dissolved solids (TDS).

Iron

Dissolved iron was detected in two (2) monitoring wells at a concentration above the Florida Secondary Drinking Water Standards (FSDWS) MCL of 300 ug/l. Iron was reported at 370 ug/l at well MW-9A and at 2,900 ug/l at well MW-10. Iron was either detected below 300 ug/l or undetected in samples from the remaining monitoring wells.

Manganese

Manganese was measured at concentrations above the FSDWS MCL of 50 ug/l in two (2) monitoring wells: MW-9A (97 ug/l) and MW-10 (73ug/l). Manganese was detected in wells MW-2, MW-4, and MW-11 at concentrations well below 50 ug/l.

Nitrate Nitrogen

Nitrate nitrogen was measured above the Florida Primary Drinking Water Standards (FPDWS) MCL of 10 mg/l in groundwater samples from monitoring well MW-4 at 12 mg/l.

While not exceeding the FPDWS MCL, groundwater from the facility background monitoring well (MW-6A) and detection well MW-2 produced elevated nitrate levels at 5.5 mg/l and 4.8 mg/l, respectively. Nitrate nitrogen was not detected in the remaining four (4) monitoring wells.

Total Dissolved Solids (TDS)

TDS concentration was slightly above the FSDWS MCL (500 mg/l) at monitoring well MW-9A at 520 mg/l. TDS was measured below 500 mg/l in the other monitoring wells.

No other exceedance of a parameter regulatory concentration level was reported in the laboratory analytical results for samples from groundwater monitoring wells at the Sumter County Closed Landfill.

Other Detected Parameters

Sodium and chloride concentrations reported for six (6) of the seven (7) monitoring wells appear consistent between individual wells and typical for natural shallow groundwaters in Florida. Although significantly below respective regulatory MCLs, sodium (44 mg/l) and chloride (40 mg/l) concentrations at monitoring well MW-4 and chloride (26 mg/l) at MW-9A are slightly elevated above samples from the other monitoring wells.

SUMMARY

Chemical characteristics of groundwater monitored at the Sumter County Landfill are reported for the Quarter I (March) 2006 sampling event. Exceedances of specific constituent regulatory maximum concentration levels (MCLs) are reported at specific monitoring wells for iron, manganese, nitrate nitrogen and total dissolved solids (TDS). Elevated dissolved oxygen (DO) levels were measured in three of the seven groundwater monitoring wells, including the facility background monitoring well. Prior sampling data indicate that elevated DO levels occur frequently and in the same monitoring wells, suggesting that high DO in groundwater at these locations may be a natural condition. DO levels in groundwater samples will be addressed in detail in the forthcoming Groundwater Monitoring Evaluation Report covering the prior three-year period Quarter I 2003 through Quarter I 2006 and due on June 15, 2006. (Specific Condition 21b, FDEP Long-Term Care Permit No.22926-003-SF)

Nitrate nitrogen dissolved in groundwater was reported above the FPDWS MCL of 10 mg/l at monitoring well MW-4 at 12 mg/l. Elevated concentrations of nitrate nitrogen were reported at detection well MW-2 and at background well MW-6A, at 4.8 mg/l, and 5.5 mg/l, respectively. As shown on the groundwater contour map for the March 2006 sampling event (Figure 1) wells MW-2, MW-4, and MW-26A were upgradient of the closed landfill waste disposal area, suggesting movement of high-nitrate groundwaters from agricultural areas to the east of the closed landfill and from the north in the vicinity of the county's animal control facility and MW-4.

Concentrations of manganese above the FSDWS MCL were reported for more recently-constructed monitoring wells MW-9A and MW-10. Iron was detected above the FSDWS MCL in wells MW-9A and MW-10. Both of these elements occur naturally in sediments and carbonate rocks penetrated by the monitoring wells and may be artifacts of well construction. Reported concentrations of iron manganese in both wells have been declining since initial sampling in March 2005.

TDS concentration was reported slightly above the FSDWS 500 mg/l MCL at monitoring well MW-9A (520 mg/l). Past analytical data for well MW-9A indicates that dissolved calcium carbonate accounts for a large part of the TDS load at this well.

* * * * *

TABLE I
FIELD PARAMETER RESULTS SUMMARY,
SUMTER COUNTY (CLOSED) LANDFILL
SUMTER COUNTY, FLORIDA
Quarter I (March) 2006

Sampling Point	Temp. (C)	Dissolved Oxygen (mg/l)	pH	Specific Conductance (umhos/cm)	Turbidity (NTU)
MW-2	27.2	4.38	7.29	167	1.10
MW-4	27.2	0.75	7.35	505	8.8
MW-6A	25.9	7.80	8.29	179	11.6
MW-8	25.4	7.83	7.69	286	3.07
MW-9A	27.2	0.20	6.89	645	10.03
MW-10	26.1	0.71	7.29	454	10.54
MW-11	26.6	0.34	6.97	439	7.44

Notes: **Bold** lettering indicates exceedance of FDEP 20% dissolved oxygen limit

TABLE II
SUMMARY OF GROUNDWATER LEVELS
SUMTER COUNTY (CLOSED) LANDFILL
SUMTER COUNTY, FLORIDA
March 6, 2006

Well No.	Measuring Point Elevation (ft. +NGVD)	Depth to Water (ft. - MP)	Groundwater Elevation (ft. +NGVD)
MW-1	70.17	24.06	46.11 ✓
MW-2	69.13	22.78	46.35 ✓
MW-2A	72.11	25.81	46.30 ✓ <small>CONTOL MP 46.22</small>
MW-4	70.36	24.20	46.16 ✓
MW-4A	75.73	29.40	46.33 ✓ <small>CONTOL MP 46.14</small>
MW-4B	73.83	27.48	46.35 ✓
MW-6A	77.54	30.95	46.59 ✓
MW-7	73.14	26.82	46.32 ✓
MW-8	69.26	21.68	47.58 ✓
MW-9	71.95	25.54	46.41 ✓
MW-9A	74.26	28.86	45.40 ✓ <small>NOT USED on CONTOL MAP</small>
MW-10	68.28	21.82	46.46 ✓
MW-11	70.21	23.97	46.24 ✓

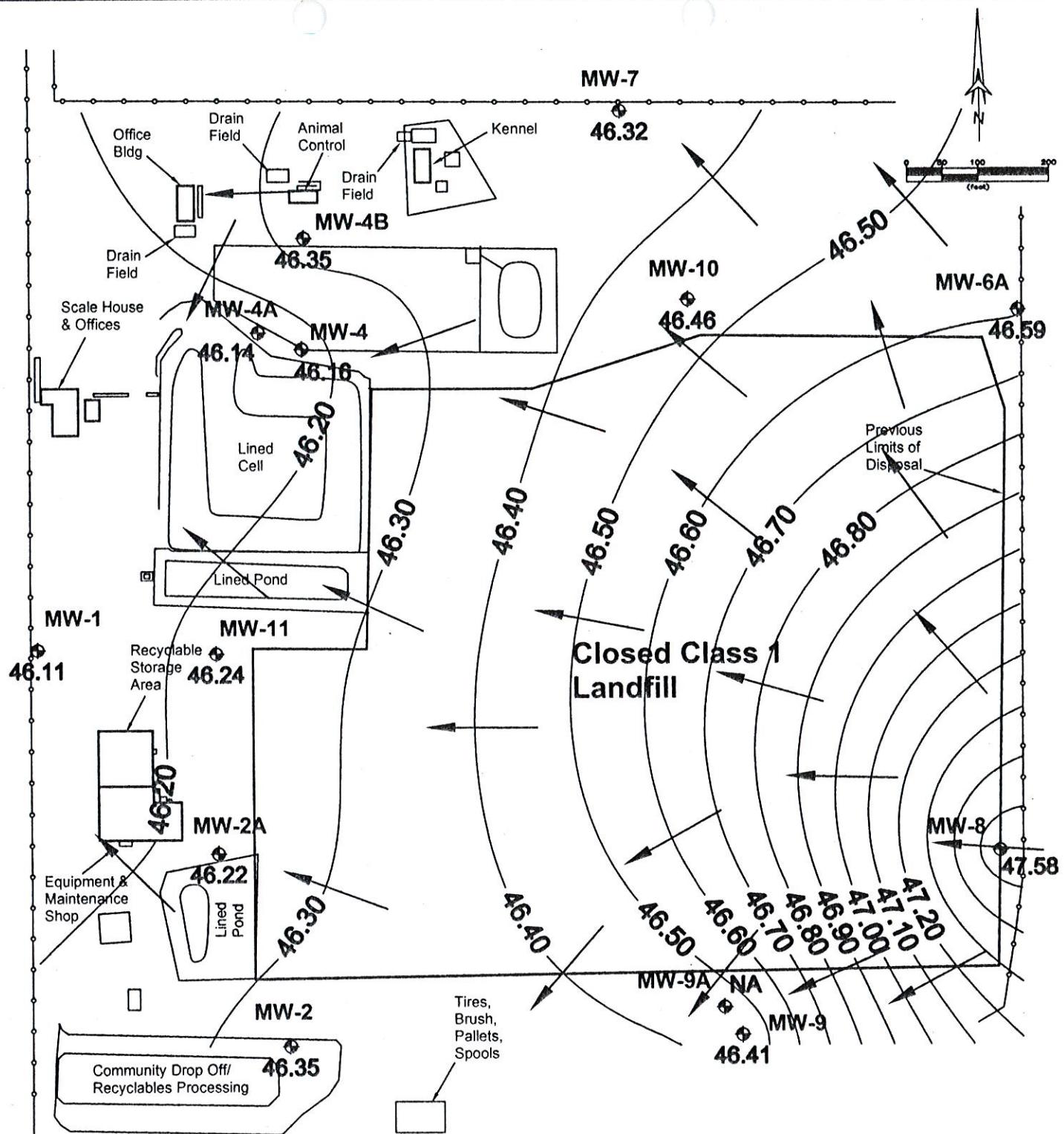
Notes: 1. Measuring Point is top of PVC well casing.
 2. Water levels recorded on March 6, 2006

TABLE III
SUMMARY OF LABORATORY RESULTS
SUMTER COUNTY (CLOSED) LANDFILL
QUARTER I (March) 2006

Parameter	units	MW-2	MW-4	MW-6A	MW-8	MW-9A	MW-10	MW-11	MCL
Ammonia	mg/l	0.026	0.059	0.061	0.014	0.24	0.18	BDL	2.8
Aluminum	ug/l	46	36	36	21	42	82	36	200
Antimony	ug/l								6
Cadmium	ug/l								5
Chloride	mg/l	2.4	40	6.8	10	26	11	3.2	250
Chromium	ug/l								100
Fluoride	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4
Gross Alpha	pCi/l	<1.3+-1.0	5.2+-1.2	1.5+-1.1	<1.5+-1.2	4.5+-1.7	6.0+-1.1	12.1+-1.4	15
Iron	ug/l	40	BDL	24	BDL	370	2,900	BDL	300
Lead	ug/l								15
Manganese	ug/l	3.6	13	BDL	BDL	97	73	7.1	50
Mercury	ug/l	BDL	BDL	BDL	BDL	0.24	BDL	BDL	2
Nitrate, as N	mg/l	4.8	12	5.5	BDL	BDL	BDL	BDL	10
pH	s.u.	7.29	7.35	8.29	7.69	6.89	7.29	6.97	6.5-8.5
Radium 226	pCi/l	0.4+-0.2	1.3+-0.4	0.5+-0.3	0.7+-0.3	4.0+-0.6	3.8+-0.6	4.1+-0.7	---
Radium 228	pCi/l	<0.8+-0.5	<0.9+-0.6	<0.9+-0.6	<0.9+-0.5	<0.9+-0.6	<0.8+-0.5	1.5+-0.6	---
Silver	ug/l								100
Sodium	mg/l	4.3	44	3.1	5.6	15	11	13	160
TDS	mg/l	170	370	180	210	520	340	320	500
Thallium	ug/l								2

Notes: 1). BDL means below laboratory method detection limit
 2). Bold lettering indicates result exceeds MCL/Guidance concentration

1



LEGEND

MW-2 Monitor Well Location
46.35 Groundwater Elevation (ft, NGVD, 3/6/06)

46.40 Groundwater Contour (Potentiometric Surface, 3/6/06)

← Estimated Groundwater Flow Direction (3/6/06)

2

Client #: ORL-12-060401
Address: The Colinas Group
 509 N. Virginia Ave.
 Winter Park, FL 32789
 Attn: Rick Potts

Page: Page 1 of 2
Date: 04/06/2006
Log #: L127406-1

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-2
Date Sampled: 03/07/06
Time Sampled: 11:53
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	46 I	ug/l	3010/6010	0.021	0.050	03/14 14:07	04/03 12:07	TB
Iron	40 I	ug/l	3010/6010	0.012	0.050	03/14 14:07	04/03 12:07	TB
Manganese	3.6 I	ug/l	3010/6010	0.0022	0.010	03/14 14:07	04/03 12:07	TB
Sodium	4.3	mg/l	3010/6010	0.040	0.50	03/14 14:07	04/03 12:07	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:39	VK
General Chemistry								
Ammonia as N	0.026	mg/l	350.1	0.0075	0.020	03/15 10:23	03/15 10:23	EF
Chloride	2.4	mg/l	300.0	0.13	0.50	03/09 06:46	03/09 06:46	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/09 06:46	03/09 06:46	EF
NO3 as N	4.8	mg/l	300.0	0.018	0.050	03/09 06:46	03/09 06:46	EF
Total Dissolved Solids	170	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550.310(6)								
Gross Alpha	<1.3+/-1.0	pCi/l	900.0	1.3	3.0	03/15 06:30	03/16 07:41	SUB
Radium 226	0.4+/-0.2	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 08:33	SUB
Radium 228	<0.8+/-0.5	pCi/l	Ra-05	0.80	1.0	03/13 12:29	03/23 11:04	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/06/2006
Log #: L127406-1

Sample Description:

Sumnter Co. Landfill

Analytical Report: MW-2
Date Sampled: 03/07/06
Time Sampled: 11:53
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Radionuclides 62-550.310(6) (continued)								
All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.								
Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.								
Flags: CFR-Pb/Cu rule; ND-non detect (RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code								
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol								
FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank								
FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL								
FLDOH/NELAC# E86240 NC CERT# 444 SC CERT# 96031001 IL/NELAC CERT# 200020 VA CERT# 00395	KS/NELAC# E-10360 ADEM ID# 40850 TN CERT# 02985 GA CERT# 917 USDA Soil Permit# S-35240					Respectfully submitted,		
							Steve Walton Client Technical Svcs. Manager	

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/06/2006
Log #: L127406-2

Sample Description:

Sumneter Co. Landfill

Analytical Report: MW-4
Date Sampled: 03/07/06
Time Sampled: 09:33
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	36 I	ug/l	3010/6010	21	50	03/14 14:07	04/03 15:00	TB
Iron	U	ug/l	3010/6010	130	130	03/14 14:07	04/03 15:00	TB
Manganese	13	ug/l	3010/6010	2.2	10	03/14 14:07	04/03 15:00	TB
Sodium	44	mg/l	3010/6010	0.040	0.50	03/14 14:07	04/03 15:00	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 16:41	03/15 16:41	VK
General Chemistry								
Ammonia as N	0.059	mg/l	350.1	0.0075	0.020	03/15 10:23	03/15 10:23	EF
Chloride	40	mg/l	300.0	0.13	0.50	03/09 06:46	03/09 06:46	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/09 06:46	03/09 06:46	EF
NO ₃ as N	12	mg/l	300.0	0.018	0.050	03/09 06:46	03/09 06:46	EF
Total Dissolved Solids	370	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550.310(6)								
Gross Alpha	5.2+/-1.2	pCi/l	900.0	1.1	3.0	03/15 06:30	03/16 13:03	SUB
Radium 226	1.3+/-0.4	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 08:33	SUB
Radium 228	<0.9+/-0.6	pCi/l	Ra-05	0.90	1.0	03/13 12:29	03/23 11:04	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/06/2006
Log #: L127406-2

Sample Description:

Sumnter Co. Landfill

Analytical Report: MW-4
Date Sampled: 03/07/06
Time Sampled: 09:33
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep.	Analysis	
						Date	Date	AN

Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect(RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240	KS/NELAC# E-10360
NC CERT# 444	ADEM ID# 40850
SC CERT# 96031001	TN CERT# 02985
IL/NELAC CERT# 200020	GA CERT# 917
VA CERT# 00395	USDA Soil Permit# S-35240

[Handwritten signature]
Respectfully submitted,

[Handwritten signature]
Steve Walton
Client Technical Svcs. Manager

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/06/2006
Log #: L127406-3

Sample Description:

Sumnter Co. Landfill

Analytical Report: MW-6A
Date Sampled: 03/07/06
Time Sampled: 10:57
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	36 I	ug/l	3010/6010	21	50	03/14 14:07	04/03 15:07	TB
Iron	24 I	ug/l	3010/6010	12	50	03/14 14:07	04/03 15:07	TB
Manganese	U	ug/l	3010/6010	2.2	10	03/14 14:07	04/03 15:07	TB
Sodium	3.1	mg/l	3010/6010	0.040	0.50	03/14 14:07	04/03 15:07	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:43	VK
General Chemistry								
Ammonia as N	0.061	mg/l	350.1	0.0075	0.020	03/15 13:28	03/15 13:28	EF
Chloride	6.8	mg/l	300.0	0.13	0.50	03/09 06:46	03/09 06:46	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/09 06:46	03/09 06:46	EF
NO ₃ as N	5.5	mg/l	300.0	0.018	0.050	03/09 06:46	03/09 06:46	EF
Total Dissolved Solids	180	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550.310(6)								
Gross Alpha	1.5+/-1.1	pCi/l	900.0	1.3	3.0	03/15 06:30	03/16 07:41	SUB
Radium 226	0.5+/-0.3	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 08:33	SUB
Radium 228	<0.9+/-0.6	pCi/l	Ra-05	0.90	1.0	03/13 12:29	03/23 12:08	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/06/2006
Log #: L127406-3

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-6A
Date Sampled: 03/07/06
Time Sampled: 10:57
Date Received: 03/07/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep.	Analysis	
						Date	Date	AN

Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect (RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240	KS/NELAC# E-10360
NC CERT# 444	ADEM ID# 40850
SC CERT# 96031001	TN CERT# 02985
IL/NELAC CERT# 200020	GA CERT# 917
VA CERT# 00395	USDA Soil Permit# S-35240

Respectfully submitted,



Steve Walton
Client Technical Svcs. Manager

USBIOSYSTEMS

Client #: ORL-12-060401
Address: The Colinas Group
 509 N. Virginia Ave.
 Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/12/2006
Log #: L127348-1

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-8
Date Sampled: 03/06/06
Time Sampled: 13:07
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	21 I	ug/l	3010/6010	16	50	03/10 16:45	03/18 02:54	TB
Iron	U	ug/l	3010/6010	12	50	03/18 00:00	03/18 00:00	TB
Manganese	U	ug/l	3010/6010	2.2	10	03/10 16:45	03/18 02:54	TB
Selenium	U J	ug/l	3010/6010	5.5	10	03/10 16:45	03/18 02:54	TB
Sodium	5.6	mg/l	3010/6010	0.097	0.50	03/10 16:45	03/18 02:54	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:30	VK
General Chemistry								
Ammonia as N	0.014 I	mg/l	350.1	0.0075	0.020	03/08 15:04	03/08 15:04	EF
Chloride	10	mg/l	300.0	0.13	0.50	03/08 07:37	03/08 07:37	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/08 07:37	03/08 07:37	EF
NO3 as N	U	mg/l	300.0	0.017	0.050	03/08 07:37	03/08 07:37	EF
Total Dissolved Solids	210	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550,310(6)								
Gross Alpha	<1.5+-1.2	pCi/l	900.4	1.5	3.0	03/15 06:30	03/16 07:44	SUB
Radium 226	0.7+-0.3	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 08:33	SUB
Radium 228	<0.9+-0.5	pCi/l	Ra-05	0.90	1.0	03/13 12:29	03/23 12:08	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/12/2006
Log #: L127348-1

Sample Description:

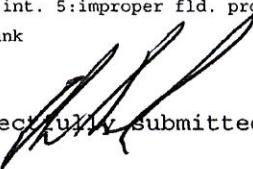
Sumpter Co. Landfill

Analytical Report: MW-8
Date Sampled: 03/06/06
Time Sampled: 13:07
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
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Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.
Flags: CFR-Pb/Cu rule; ND-non detect (RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol
FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank
FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL


Respectfully submitted,

Steve Walton
Client Technical Svcs. Manager

FLDOH/NELAC# E86240	KS/NELAC# E-10360
NC CERT# 444	ADEM ID# 40850
SC CERT# 96031001	TN CERT# 02985
IL/NELAC CERT# 200020	GA CERT# 917
VA CERT# 00395	USDA Soil Permit# S-35240

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/12/2006
Log #: L127348-2

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-9A
Date Sampled: 03/06/06
Time Sampled: 12:12
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	42 I	ug/l	3010/6010 + 16	50	03/10 16:45	03/18 03:02	TB	
Iron	370	ug/l	3010/6010 + 12	50	03/18 00:00	03/18 00:00	TB	
Manganese	97	ug/l	3010/6010 + 2.2	10	03/10 16:45	03/18 03:02	TB	
Selenium	U J	ug/l	3010/6010 + 5.5	10	03/10 16:45	03/18 03:02	TB	
Sodium	15	mg/l	3010/6010 + 0.097	0.50	03/10 16:45	03/18 03:02	TB	
Mercury	0.24	ug/l	245.1 + 0.030	0.20	03/15 12:00	03/15 16:30	VK	
General Chemistry								
Ammonia as N	0.24	mg/l	350.1 + 0.0075	0.020	03/08 15:04	03/08 15:04	EF	
Chloride	26	mg/l	300.0 + 0.13	0.50	03/08 07:37	03/08 07:37	EF	
Fluoride	U	mg/l	300.0 + 0.12	0.20	03/08 07:37	03/08 07:37	EF	
NO ₃ as N	U	mg/l	300.0 + 0.017	0.050	03/08 07:37	03/08 07:37	EF	
Total Dissolved Solids	520	mg/l	160.1 + 7.4	10	03/10 17:00	03/10 17:00	SA	
Radionuclides 62-550.310(6)								
Gross Alpha	4.5+/-1.7	pCi/l	900.0 + 2.4	3.0	03/15 06:30	03/16 13:30	SUB	
Radium 226	4.0+/-0.6	pCi/l	900.4 + 0.20	1.0	03/13 12:29	03/24 09:34	SUB	
Radium 228	<0.9+/-0.6	pCi/l	Ra-05 + 0.90	1.0	03/13 12:29	03/23 12:08	SUB	

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/12/2006
Log #: L127348-2

Sample Description:

Sumnter Co. Landfill

Analytical Report: MW-9A
Date Sampled: 03/06/06
Time Sampled: 12:12
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
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Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect(RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

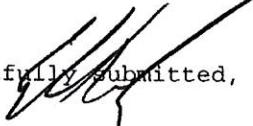
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240 KS/NELAC# E-10360
NC CERT# 444 ADEM ID# 40850
SC CERT# 96031001 TN CERT# 02985
IL/NELAC CERT# 200020 GA CERT# 917
VA CERT# 00395 USDA Soil Permit# S-35240

Respectfully submitted,


Steve Walton
Client Technical Svcs. Manager

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/12/2006
Log #: L127348-3

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-10
Date Sampled: 03/06/06
Time Sampled: 14:08
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	82	ug/l	3010/6010	16	50	03/10 16:45	03/18 03:10	TB
Iron	2900	ug/l	3010/6010	12	50	03/18 00:00	03/18 00:00	TB
Manganese	73	ug/l	3010/6010	2.2	10	03/10 16:45	03/18 03:10	TB
Selenium	U J	ug/l	3010/6010	5.5	10	03/10 16:45	03/18 03:10	TB
Sodium	11	mg/l	3010/6010	0.097	0.50	03/10 16:45	03/18 03:10	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:59	VK
General Chemistry								
Ammonia as N	0.18	mg/l	350.1	0.0075	0.020	03/08 15:04	03/08 15:04	EF
Chloride	11	mg/l	300.0	0.13	0.50	03/08 07:37	03/08 07:37	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/08 07:37	03/08 07:37	EF
NO3 as N	U	mg/l	300.0	0.017	0.050	03/08 07:37	03/08 07:37	EF
Total Dissolved Solids	340	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550.310(6)								
Gross Alpha	6.0+/-1.1	pCi/l	900.0	1.0	3.0	03/15 06:30	03/16 13:03	SUB
Radium 226	3.8+/-0.6	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 09:34	SUB
Radium 228	<0.8+/-0.5	pCi/l	Ra-05	0.80	1.0	03/13 12:29	03/23 12:06	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/12/2006
Log #: L127348-3

Sample Description:

Summter Co. Landfill

Analytical Report: MW-10
Date Sampled: 03/06/06
Time Sampled: 14:08
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
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Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect (RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

PLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240 KS/NELAC# E-10360
NC CERT# 444 ADEM ID# 40850
SC CERT# 96031001 TN CERT# 02985
IL/NELAC CERT# 200020 GA CERT# 917
VA CERT# 00395 USDA Soil Permit# S-35240

Respectfully submitted,

[Signature]
Steve Walton
Client Technical Svcs. Manager

Client #: ORL-12-060401
Address: The Colinas Group
 509 N. Virginia Ave.
 Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/12/2006
Log #: L127348-4

Sample Description:

Sumneter Co. Landfill

Analytical Report: MW-11
Date Sampled: 03/06/06
Time Sampled: 15:04
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	36 I	ug/l	3010/6010	16	50	03/10 16:45	03/18 01:54	TB
Iron	U	ug/l	3010/6010	33	50	03/18 00:00	03/18 00:00	TB
Manganese	7.1 I	ug/l	3010/6010	2.2	10	03/10 16:45	03/18 01:54	TB
Selenium	U J	ug/l	3010/6010	5.5	10	03/10 16:45	03/18 01:54	TB
Sodium	13	mg/l	3010/6010	0.097	0.50	03/10 16:45	03/18 01:54	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:34	VK
General Chemistry								
Ammonia as N.	U	mg/l	350.1	0.0075	0.020	03/08 15:04	03/08 15:04	EF
Chloride	3.2	mg/l	300.0	0.13	0.50	03/08 07:37	03/08 07:37	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/08 07:37	03/08 07:37	EF
NO3 as N	U	mg/l	300.0	0.017	0.050	03/08 07:37	03/08 07:37	EF
Total Dissolved Solids	320	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550-310(6)								
Gross Alpha	12.1+/-1.4	pCi/l	900.0	1.2	3.0	03/15 06:30	03/16 13:30	SUB
Radium 226	4.1+/-0.7	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 09:34	SUB
Radium 228	1.5+/-0.6	pCi/l	Ra-05	0.80	1.0	03/13 12:29	03/23 12:06	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/12/2006
Log #: L127348-4

Sample Description:

Sumnster Co. Landfill

Analytical Report: MW-11
Date Sampled: 03/06/06
Time Sampled: 15:04
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
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Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect(RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

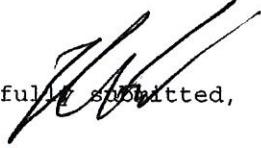
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240	KS/NELAC# E-10360
NC CERT# 444	ADEM ID# 40950
SC CERT# 96031001	TN CERT# 02985
IL/NELAC CERT# 200020	GA CERT# 917
VA CERT# 00395	USDA Soil Permit# S-35240

Respectfully submitted,


Steve Walton
Client Technical Svcs. Manager

3

FIELD LOG

FIELD LOG

NAME: Dale Claytor

PROJ #

PROJECT

NAME:

NAME:
PROJECT

**PROJECT
LOCATION.**

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill	SITE LOCATION: Sumterville, FL	
WELL NO: MW-2	SAMPLE ID: MW-2	DATE: 3/7/06

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 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)

$$= (\quad \textbf{31.92'} \quad \text{feet} - \quad \text{feet}) \times \quad \text{gallons/foot} = \quad \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$\text{1 Equip Vol} = .02 \text{ gallons} + (.010 \text{ gallons/foot} \times 88 \text{ feet}) + .25 \text{ gallons} = .34 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~29' FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~29' PURGING INITIATED AT: PURGING ENDED AT: TOTAL VOLUME PURGED (gallons):

No screen

WELL CAPACITY (Gallons Per Foot): $0.76'' = 0.02$; $1'' = 0.04$; $1.25'' = 0.06$; $2'' = 0.16$; $3'' = 0.37$; $4'' = 0.65$; $5'' = 1.02$; $6'' = 1.47$; $12'' = 5.88$
TUBING INSIDE DIA. CAPACITY (Gal./Fl.): $1/8'' = 0.0006$; $3/16'' = 0.0014$; $1/4'' = 0.0026$; $5/16'' = 0.004$; $3/8'' = 0.006$; $1/2'' = 0.010$; $5/8'' = 0.016$

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: H. L. Claytor, Envirotech, LLC				SAMPLER(S) SIGNATURES:		SAMPLING INITIATED AT: 1145	SAMPLING ENDED AT: 1153	
PUMP OR TUBING DEPTH IN WELL (feet): ~29		SAMPLE PUMP FLOW RATE (mL per minute): VOC's ~250 mL/min		TUBING		MATERIAL CODE: PE		
FIELD DECONTAMINATION: Y <input checked="" type="radio"/> N		FIELD-FILTERED: Y <input checked="" type="radio"/> N FILTER SIZE: _____ μm Filtration Equipment Type: _____				DUPLICATE: Y <input checked="" type="radio"/> 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-2	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	---	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	---	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	---	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

1130: Inserted ESP and new 3/8" PE tubing to ~ 29' BSL and began purging @ 125 gpm.

1135: WL 23.14' @ 125 gpm, G.W. is clear.

1137: WL 23.14' @ 125 9pm, drawdown has stabilized

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) _____

Equipment Codes: RPP - Reverse flow Penstane Pump, SM - Straw Method

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, ± 0.02 mg/L or $\pm 10\%$ (whichever is greater); Turbidity: all readings < 20 NTU, $\pm 5\%$ NTU; ≥ 20 NTU, $\pm 10\%$ (whichever is greater).

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill	SITE LOCATION: Sumterville, FL	
WELL NO: MW-4	SAMPLE ID: MW-4	DATE: 3/7/00

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 24.24'	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)

$$= (36.35' \text{ feet} - 24.24' \text{ feet}) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$1 \text{ Equip Vol} = .02 \text{ gallons} + (.006 \text{ gallons/foot} \times 38' \text{ feet}) + .25 \text{ gallons} = .498 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
---	---	--------------------------	----------------------	-----------------------------------

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0920	1.6	1.6	.20	24.55	7.10	26.4	.508	1.30	22.6	Clear	None
0922	.4	2.0	.20	24.55	7.22	26.9	.508	1.02	14.5	Clear	None
0924	.4	2.4	.20	24.56	7.30	27.0	.506	.88	11.1	Clear	None
0926	.4	2.8	.20	24.56	7.35	27.2	.505	.75	8.8	Clear	None

No shear

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: H. L. Claytor, Envirotech, LLC	SAMPLER(S) SIGNATURES: 	SAMPLING INITIATED AT: 0928	SAMPLING ENDED AT: 0933					
PUMP OR TUBING DEPTH IN WELL (feet): ~33'	SAMPLE PUMP: NOG's 250 FLOW RATE (mL per minute): <100 mL min	TUBING MATERIAL CODE: PE						
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ μm	DUPPLICATE: 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-4	2	PE	1 Ltr	HN03	None	—	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	—	Ammonia	ESP
"	1	PE	250 mL	HN03	None	—	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	—	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

0912: Inserted ESP and new 3/8" PE tubing to ~33' bfc and began purging @ .20 gpm.

0915: WL 24.62' @ .20 gpm, GW is clear.

0918: WL 24.58' @ .20 gpm, drawdown is stabilizing.

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-6A		SAMPLE ID: MW-6A		DATE: 3/7/06							
PURGING DATA											
WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 30.99	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)											
= (50.84' 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 52 feet) + .25 gallons = .24 gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~ 47	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~ 47	PURGING INITIATED AT: 1035		PURGING ENDED AT:							
TOTAL VOLUME PURGED (gallons):											
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1037	3.52	3.52	.16	31.00	8.23	25.7	.180	7.56	26.7	Clear	None
1040	148	4	.16	31.00	8.25	25.9	.179	8.10	20.9	Clear	None
1043	.48	4.48	.16	31.00	8.27	25.9	.179	8.12	16.0	Clear	None
1046	148	4.96	.16	31.00	8.29	25.9	.179	7.80	11.6	Clear	None
No shear											
WELL CAPACITY (Gallons Per Foot): 0.76" = 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: H. L. Claytor, Envirotech, LLC		SAMPLER(S) SIGNATURES: 		SAMPLING INITIATED AT: 1047	SAMPLING ENDED AT: 1057			
PUMP OR TUBING DEPTH IN WELL (feet): ~47'		SAMPLE PUMP VEE5-250	TUBING 100 mL	MATERIAL CODE: PE				
FIELD DECONTAMINATION: Y <input checked="" type="radio"/> N		FIELD-FILTERED: Y <input checked="" type="radio"/> N FILTER SIZE: _____ μm Filtration Equipment Type:			DUPPLICATE: Y <input checked="" type="radio"/> 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-6A	2	PE	1 Ltr	HN03	None	--	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	--	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	--	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	--	Chloride, Fluoride, Nitrate, TDS	ESP

REMARKS:

REMARKS:
1015: Inserted ESP and new 3/8" Peterington or 47' stock and began purging @ 16 gpm.
1018: WL 31.00' @ 16 gpm, GW is turbid (milky white). This well has a history of high-turbidity. Will over purge to clean it up.
1032: WL 31.00' @ 16 gpm, drawdown has stabilized. Turbidity is 50 NTU's.

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: RFP = 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): ± 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); Total Dissolved Solids: $\pm 10\%$ (whichever is greater).

GROUNDWATER SAMPLING LOG

SITE NAME: Sumter County Landfill	SITE LOCATION: Sumterville, FL
WELL NO: MW-8	SAMPLE ID: MW-8

DATE: 3/6/06

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH <u>21.68'</u> TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

$$= (43.24' \text{ feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$1 \text{ Equip Vol} = .02 \text{ gallons} + (.006 \text{ gallons/foot} \times 45' \text{ feet}) + .25 \text{ gallons} = .54 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
~40'	~40'	1242	1258	2.24

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1252	1.4	1.4	.14	21.71	7.75	24.9	.283	7.94	9.94	Clear	None
1254	.28	1.68	.14	21.71	7.70	25.8	.288	7.97	6.23	Clear	None
1256	.28	1.96	.14	21.71	7.69	25.6	.286	7.85	4.33	Clear	None
1258	.28	2.24	.14	21.71	7.69	25.4	.286	7.83	3.07	Clear	None
										No shear	

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: H. L. Claytor, Envirotech, LLC	SAMPLER(S) SIGNATURES: 	SAMPLING INITIATED AT: 1300	SAMPLING ENDED AT: 1307
PUMP OR TUBING DEPTH IN WELL (feet): ~40'	SAMPLE PUMP FLOW RATE (mL per minute): <u>VOG's <250</u> <u><100 mL mL</u>	TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ μm	DUPPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERI AL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
MW-8	2	PE	1 Ltr	HN03	None	—	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	—	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	—	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	—	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

1242: Inserted ESP and new 3/8 PE tubing to ~40' GAC and began purging @ .14 gpm.

1245: WL 21.70 @ .14 gpm, GW is clear.

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 = Bailey; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: RFP = 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: 3/6/06

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 28.86	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 + (.010 gallons/foot X 48 feet) + .25 gallons	.006	53	588.768 gallons
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~ 48'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~ 48'	PURGING INITIATED AT: 1030	PURGING ENDED AT: 1202	TOTAL VOLUME PURGED (gallons): 10.24

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1158	12.18	12.18	.14	28.99	6.90	27.0	1645	49	13.60	Clear	None
1200	12.28	12.46	.14	28.98	6.89	27.2	1645	33	10.58	Clear	None
1202	12.28	12.74	.14	28.96	6.89	27.2	1645	20	10.03	Clear	None
<i>No shear</i>											

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: H. L. Claytor, Envirotech, LLC	SAMPLER(S) SIGNATURES: 	SAMPLING INITIATED AT: 1204	SAMPLING ENDED AT: 1212					
PUMP OR TUBING DEPTH IN WELL (feet): ~ 48'	SAMPLE PUMP V005 <250 mL FLOW RATE (mL per minute): <100 mL	TUBING MATERIAL CODE: PE						
FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	FIELD-FILTERED: Y <input checked="" type="checkbox"/> N FILTER SIZE: _____ μm Filtration Equipment Type: _____	DUPPLICATE: Y <input checked="" type="checkbox"/>						
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-9A	2	PE	1 Ltr	HN03	None	---	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	--	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	--	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	--	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

1030: Inserted ESP and new 3/8" PE tubing to ~ 48' bftc and began purging @ .14 gpm. This well has a history of high turbidity, will over purge.

1157: WL 28.99' @ .14 gpm, GW is clear. Drawdown has stabilized.

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-10	SAMPLE ID: MW-10	DATE: 3/6/06

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

$$= (45.35' \text{ feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$1 \text{ Equip Vol} = .02 \text{ gallons} + (.006 \text{ gallons/foot} \times 48' \text{ feet}) + .25 \text{ gallons} = .558 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~43' FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~43' PURGING INITIATED AT: 1337 PURGING ENDED AT: 1400 TOTAL VOLUME PURGED (gallons): 12.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1356	11.8	11.8	.20	23.02	7.37	26.0	1446	.79	11.5	clear	None
1358	.4	12.20	.20	23.02	7.33	26.1	1451	.77	10.63	clear	None
1400	.4	12.60	.20	23.02	7.29	26.1	1454	.71	10.54	clear	None
<i>No shear</i>											

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: H. L. Claytor, Envirotech, LLC	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1402	SAMPLING ENDED AT: 1408
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP <i>vee's 250 mL</i> FLOW RATE (mL per minute): <i><100 mL</i>	TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N	FIELD-FILTERED: Y <input checked="" type="radio"/> N FILTER SIZE: _____ μm Filtration Equipment Type: _____	DUPLICATE: Y <input checked="" type="radio"/>	

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-10	2	PE	1 Ltr	HN03	None	--	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2S04	None	--	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	--	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	--	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

1337: Inserted ESP and new 3/8" PE tubing to ~ 43' 6ft c and began purging @ 138pm. This well has a history of high turbidity and requires over purging to clear it up.

1347: Purged 10 gallons, GW is clearing up nicely, reduced flow to 100 mL/min.

1351: WL 23.13' @ 29pm, GW is clear.

1354: WL 23.03' @ 29pm, & drawdown is stabilizing

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): ± 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

PURGING DATA

WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH 23.97 TO WATER (feet):	PURGE PUMP TYPE OR BAILER: ESP
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY.
(only fill out if applicable)

$$= (\quad \mathbf{40.15'} \quad \text{feet} - \quad \text{feet}) \times \quad \text{gallons/foot} = \quad \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY **.006** X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$\mathbf{1 \text{ Equip Vol}} = \mathbf{.02 \text{ gallons}} + (\mathbf{.010 \text{ gallons/foot}} \times \mathbf{43'} \text{ feet}) + \mathbf{.25 \text{ gallons}} = \mathbf{.528 \text{ gallons}}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
~ 38'	~ 38'	1438	1454	7.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1450	6.75	6.75	.25	24.05	7.06	26.5	.439	.42	12.0	Clear	Afona
1452	6.75 7.25	7.25	.25	24.06	7.00	26.6	.439	.34	8.99	Clear	None
1454	.5	7.25	.25	24.06	6.97	26.6	.439	.34	2.44	Clear	None
<i>No shear</i>											

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: H. L. Clayton, Envirotech, LLC	SAMPLER(S) SIGNATURES: <i>H. L. Clayton</i>	SAMPLING INITIATED AT: 1456	SAMPLING ENDED AT: 1504					
PUMP OR TUBING DEPTH IN WELL (feet): ~ 38'	SAMPLE PUMP 100's < 250 FLOW RATE (ml per minute): < 100 ml/m	TUBING	MATERIAL CODE: PE					
FIELD DECONTAMINATION Y N	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: μm	DUPPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION	SAMPLE PRESERVATION							
SAMPLE ID CODE	# CONTAINERS	MATERI AL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
MW-11	2	PE	1 Ltr	HN03	None	--	GrossAlpha, RA226,RA228	ESP
"	1	PE	250 mL	H2S04	None	--	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	--	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	--	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

- 1438:** Inserted ESP and new 3/8" PE tubing to ~ 38' Gloc and began purging @ 1 gpm. This well has a history of high turbidity requiring over purging to clear it up.
- 1443:** Reduced flow to .25 gpm, purged 5+ gallons, Gw is clearing up nicely.
- 1448:** w/ 24.05 @ .25 gpm, Gw is clear, drawdown is stabilizing.

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: NA	SAMPLE ID: EQB			DATE: 3/6/06							
PURGING DATA											
WELL 2" PVC DIAMETER (inches):	TUBING .5" PE DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet		STATIC DEPTH 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)											
= (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)											
= gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:		PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):				
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (mS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
<i>DI Water</i>											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: H. L. Claytor, Envirotech, LLC		SAMPLER(S) SIGNATURES:		SAMPLING INITIATED AT: 1000	SAMPLING ENDED AT: 1007			
PUMP OR TUBING DEPTH IN WELL (feet):		SAMPLE PUMP FLOW RATE (mL per minute): <i>VOC's < 250 < 100 mL min</i>	TUBING MATERIAL CODE: PE					
FIELD DECONTAMINATION: (Y) N		FIELD-FILTERED: Y N Filtration Equipment Type: _____	FILTER SIZE: _____ μm	DUPPLICATE: 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	--	GrossAlpha, RA226RA228	ESP
"	1	PE	250 mL	H2SO4	None	--	Total Ammonia	ESP
"	1	PE	250 mL	HN03	None	--	Al,Fe,Mn,Hg,Na	ESP
"	1	PE	500 mL	None	None	--	Chloride,Fluoride, Nitrate, TDS	ESP

REMARKS:

Field decontaminated ESP and Water level probe and 5 gallon PE bucket, filled bucket with DI Water, inserted ESP and WL probe. Circulated DI Water through ESP and over WL probe for ~1 minute. Collected EOB samples.

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: $\pm 5\%$; Dissolved Oxygen: all readings $< 20\%$ saturation (see Table FS 2200-2), optionally, $\pm .02$ mg/L or $\pm 10\%$ (whichever is greater);

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US BIOSYSTEMS

3231 NW 7th Ave, Boca Raton, FL 33431

www.usbiosystems.com

MAIL OF CUSTOMER RECORDS

Log# 627348 T#S 5

Quote: _____

Company Name Colina Group # 172020

Address: 500 N. Virginia Ave

City: Winter Park State: FL Zip: 32789

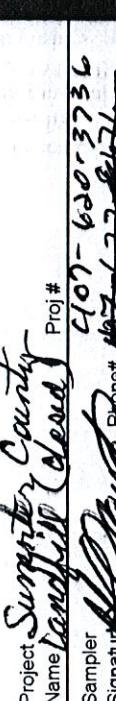
Attn: Rick Potts Fax# 407-622-28196

ext: 407-633-8176

email: rick.potts@colinagroup.com

Project: SunTrust Country

Name: Landfill Head Proj #

Signature:  Proj# 407-622-3736

Phone# 407-622-8476

Matrix Code*

Signature: 

Container Types

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PLC	Plastic container
AL	Amber Litter	PLJ	Plastic Jar
CL	Clear Litter	ZBLOC	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other			

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other
Example: 4ozP = 4oz Plastic, 8ozS = 8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	GW	Ground Water
INF	Effluent Influunt	EFF	Effluent

Pres Codes

A. None	E. HCl	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

REMARKS

(2) 100% 1320



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Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#) Horiba U-10/Lamotte 2020 **INSTRUMENT #**

PARAMETERS:

TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CL DO OTHER _____

STANDARDS: *(Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased)*

Standard A Calitech Autocal Solution Exp: 6/2/07

Standard B Lamotte 2020 Standard 1 NTU

Standard C Lamotte 2020 Standard 10 NTU's

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 1 of 2
Date: 04/12/2006
Log #: L127348-5

Sample Description:

Sumnster Co. Landfill

Analytical Report: Equipment Blank
Date Sampled: 03/06/06
Time Sampled: 10:07
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
Subcontracted Services								
Subcontract Lab 1	E83033		RADS					SUB
Metals								
Aluminum	U	ug/l	3010/6010	16	50	03/10 16:45	03/18 03:18	TB
Iron	U	ug/l	3010/6010	12	50	03/18 00:00	03/18 00:00	TB
Manganese	U	ug/l	3010/6010	2.2	10	03/10 16:45	03/18 03:18	TB
Selenium	U J	ug/l	3010/6010	5.5	10	03/10 16:45	03/18 03:18	TB
Sodium	U	mg/l	3010/6010	0.097	0.50	03/10 16:45	03/18 03:18	TB
Mercury	U	ug/l	245.1	0.030	0.20	03/15 12:00	03/15 16:36	VK
General Chemistry								
Ammonia as N	U	mg/l	350.1	0.0075	0.020	03/08 15:04	03/08 15:04	EF
Chloride	U	mg/l	300.0	0.13	0.50	03/08 07:37	03/08 07:37	EF
Fluoride	U	mg/l	300.0	0.12	0.20	03/08 07:37	03/08 07:37	EF
NO ₃ as N	U	mg/l	300.0	0.017	0.050	03/08 07:37	03/08 07:37	EF
Total Dissolved Solids	U	mg/l	160.1	7.4	10	03/10 17:00	03/10 17:00	SA
Radionuclides 62-550.310(6)								
Gross Alpha	<1.0+/-0.7	pCi/l	900.0	1.0	3.0	03/15 06:30	03/16 07:44	SUB
Radium 226	0.5+/-0.3	pCi/l	903.1	0.20	1.0	03/13 12:29	03/24 09:34	SUB
Radium 228	<0.8+/-0.5	pCi/l	Ra-05	0.80	1.0	03/13 12:29	03/23 12:06	SUB

Client #: ORL-12-060401
Address: The Colinas Group
509 N. Virginia Ave.
Winter Park, FL 32789
Attn: Rick Potts

Page: Page 2 of 2
Date: 04/12/2006
Log #: L127348-5

Sample Description:

Sumniter Co. Landfill

Analytical Report: Equipment Blank
Date Sampled: 03/06/06
Time Sampled: 10:07
Date Received: 03/06/06
Collected By: Client

Parameter	Results	Units	Method	MDL	RL	Prep. Date	Analysis Date	AN
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Radionuclides 62-550.310(6) (continued)

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.

Flags: BDL or U-below reporting limit; DL-diluted out; IL-meets internal lab limits; MI-matrix interference; NA-not appl.

Flags: CFR-Pb/Cu rule; ND-non detect(RL estimated); NFL-no free liquids; dw-dry wt; ww-wet wt; C(#)-see attached USB code

FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol

FLDEP Flags: L-exceeds calibration; Q-holding time exceeded; T-value < MDL; V-present in blank

FLDEP Flags: Y-improper preservation; B-colonies exceed range; I-result between MDL and PQL

FLDOH/NELAC# E86240	KS/NELAC# E-10360
NC CERT# 444	ADEM ID# 40850
SC CERT# 96031001	TN CERT# 02985
IL/NELAC CERT# 200020	GA CERT# 917
VA CERT# 00395	USDA Soil Permit# S-35240

[Handwritten signature]
Respectfully submitted,

Steve Walton
Client Technical Svcs. Manager