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December 6, 2011

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

Dept. of Environmental
Protection
DEC 08 2011
Southwest District

**Re: Manatee County Lena Road Landfill
Monthly Report – November 2011**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2011 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

An inward gradient was present in the Stage I Landfill and the Stage III Landfill.

If you should have any questions concerning this report, please call me at 407/806-4153.

Sincerely,

Joe Miller, P.E.
Senior Project Manager

Attachments

cc: Mike Gore, Manatee County Solid Waste Division Manager
Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor
File – 120498.94 0100

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EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY

LENA ROAD LANDFILL

MONTHLY WATER BALANCE REPORT

NOVEMBER, 2011

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DEC 08 2011
SOUTHWEST DISTRICT
TAMPA

A	B	C	D	E	F	G	H
DATE	LEACHATE STAGE I Lift Station 1 (gallons)	LEACHATE STAGE I Lift Station 2 (gallons)	LEACHATE STAGE I TOTAL (gallons)	LEACHATE STAGE III TOTAL (gallons)	TOTAL LEACHATE PUMPED (gallons)	RAINFALL (inches)	RAINFALL (gallons)
01-Nov-11	16,890	3,040	19,930	7,800	27,730	0.00	0
02-Nov-11	14,910	7,100	22,010	5,900	27,910	0.00	0
03-Nov-11	16,940	7,540	24,480	9,900	34,380	0.00	0
04-Nov-11	22,060	13,270	35,330	9,500	44,830	0.05	228,111
05-Nov-11	0	0	0	0	0	0.00	0
06-Nov-11	0	0	0	0	0	0.05	228,111
07-Nov-11	48,140	9,680	57,820	21,300	79,120	0.00	0
08-Nov-11	17,850	3,840	21,690	9,700	31,390	0.00	0
09-Nov-11	18,920	4,730	23,650	9,100	32,750	0.00	0
10-Nov-11	22,620	4,680	27,300	11,100	38,400	0.00	0
11-Nov-11	12,140	6,200	18,340	3,700	22,040	0.00	0
12-Nov-11	0	0	0	0	0	0.00	0
13-Nov-11	0	0	0	0	0	0.00	0
14-Nov-11	44,050	23,370	67,420	21,200	88,620	0.00	0
15-Nov-11	19,830	2,910	22,740	9,200	31,940	0.00	0
16-Nov-11	17,970	400	18,370	7,500	25,870	0.00	0
17-Nov-11	16,830	60	16,890	5,900	22,790	0.02	91,244
18-Nov-11	14,220	3,870	18,090	24,600	42,690	0.00	0
19-Nov-11	0	0	0	0	0	0.00	0
20-Nov-11	0	0	0	0	0	0.00	0
21-Nov-11	42,520	4,700	47,220	0	47,220	0.10	456,221
22-Nov-11	16,470	0	16,470	9,600	26,070	0.00	0
23-Nov-11	16,820	1,970	18,790	5,700	24,490	0.20	912,443
24-Nov-11	0	0	0	0	0	0.02	91,244
25-Nov-11	29,550	7,390	36,940	13,200	50,140	0.00	0
26-Nov-11	0	0	0	0	0	0.00	0
27-Nov-11	0	0	0	0	0	0.00	0
28-Nov-11	54,110	20,120	74,230	22,300	96,530	0.40	1,824,885
29-Nov-11	16,950	4,770	21,720	7,300	29,020	0.00	0
30-Nov-11	15,600	7,180	22,780	7,400	30,180	0.00	0
	0	0	0	0	0	0.00	0
TOTAL	495,390	136,820	632,210	221,900	854,110	0.84	3,832,259
Leachate Pumped as Percentage of Rainfall			27.2%	14.7%			

Column Notes:

A - Date of reading.

B - Leachate pumped (gallons) from Stage I by lift station 1.

C - Leachate pumped (gallons) from Stage I by lift station 2.

D - Total Stage I leachate pumpage (B+C).

E - Leachate pumped (gallons) from Stage III.

F - Total leachate pumped to WWTP storage tank (D+E).

G - Rainfall (inches) recorded on this date.

H - Rainfall (gallons) calculated based on open area (G x Area x 27,156 gal/acre-in).

	Stage I (acres)	Stage III (acres)	TOTAL (acres)
Initial Cover	--	66.0	66.0
Intermediate Cover	102.0	--	102.0
Closed	30.0	--	30.0
TOTAL	132.0	66.0	198.0
Open Area	102.0	66.0	168.0

Comments

EXHIBIT B

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY LENA ROAD LANDFILL MONTHLY LEACHATE TRACKING SUMMARY -- 2011

	B	C	D	E	F	G	H
MONTH	STAGE I LEACHATE (gallons)	STAGE III LEACHATE (gallons)	TOTAL LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	STAGE I LEACHATE/ RAINFALL (%)	STAGE III LEACHATE/ RAINFALL (%)
JANUARY	563,230	153,700	716,930	3.67	16,743,322	5.5%	2.3%
FEBRUARY	463,860	61,000	524,860	0.97	4,425,347	17.3%	3.5%
MARCH	522,550	237,300	759,850	8.59	39,189,410	2.2%	1.5%
APRIL	666,280	305,100	971,380	2.93	13,367,284	8.2%	5.8%
MAY	559,070	477,800	1,036,870	1.11	5,064,056	18.2%	24.0%
JUNE	463,120	642,500	1,105,620	5.21	23,769,130	3.2%	6.9%
JULY	333,160	348,300	681,460	6.57	29,973,740	1.8%	3.0%
AUGUST	760,350	84,100	844,450	7.17	32,711,067	3.8%	0.7%
SEPTEMBER	740,990	335,200	1,076,190	6.56	29,928,118	4.1%	2.9%
OCTOBER	674,600	331,100	1,005,700	3.53	16,104,612	6.9%	5.2%
NOVEMBER	632,210	221,900	854,110	0.84	3,832,259	27.2%	14.7%
DECEMBER							
TOTAL	6,379,420	3,198,000	9,577,420	47.15	215,108,345	4.9%	3.8%

Notes:

1. (B) Total leachate pumped from Stage I.
2. (C) Total leachate pumped from Stage III.
3. (D) Total leachate (Column B+C) pumped to the WWTP storage tank.
4. (E) Total rainfall in inches.
5. (F) Total rainfall in gallons (Stage I and III Open Area of 168-acres x Rainfall)
6. (G) Stage I leachate pumped as a percentage of rainfall.
7. (H) Stage III leachate pumped as a percentage of rainfall.

Landfill Stage Land Areas

	Stage I (acres)	Stage III (acres)	TOTAL (acres)
Initial Cover	--	66.0	66.0
Intermediate Cov.	102.0	--	102.0
Closed	30.0	--	30.0
TOTAL	132.0	66.0	198.0
Open Area	102.0	66.0	168.0

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
11/1/11	6412308	3832790	2801862	33.96	30.50	OK	J.G.
11/2/11	6418799	3839890	2801921	33.94	30.40	OK	R.B.
11/3/11	6420493	3847430	2802020	33.93	30.32	OK	R.B.
11/4/11	6422699	3860700	2802115	33.92	30.22	OK	R.B.
11/7/11	6427513	3870380	2802328	33.89	30.04	OK	R.B.
11/8/11	6429298	3874220	2802425	33.88	30.00	OK	R.B.
11/9/11	6431190	3878950	2802516	33.87	29.92	OK	R.B.
11/10/11	6433452	3883630	2802627	33.86	29.84	OK	M.B.
11/11/11	6434666	3889830	2802664	33.84	29.75	OK	M.B.
11/14/11	6439071	3913200	2802876	33.80	29.55	OK	R.B.
11/15/11	6441054	3916110	2802868	33.79	29.48	OK	R.B.
11/16/11	6442851	3916510	2803043	33.79	29.46	OK	R.B.
11/17/11	6444534	3916570	2803102	33.78	29.39	OK	R.B.
11/18/11	6445956	3920440	2803158	33.77	29.30	OK	R.B.
11/21/11	6450208	3925140	2803348	33.74	Dry	OK	R.B.
11/22/11	6451855	3925140	2803444	33.73	Dry	OK	R.B.
11/23/11	6453537	3927110	2803501	33.72	Dry	OK	R.B.
11/25/11	6456492	3924500	2803633	33.71	Dry	OK	J.G.
11/28/11	6461903	3954620	2803856	33.66	Dry	OK	R.B.
11/29/11	6463598	3959390	2803929	33.67	Dry	OK	R.B.
11/30/11	6465158	3966570	2804003	33.66	Dry	OK	R.B.

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2011 Nov	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.007	39.20	37.70
2	0.00	0.007	39.20	37.50
3	0.00	0.008	39.20	37.40
4	0.05	0.009	39.20	37.30
5	0.00	0.007	39.20	36.90
6	0.05	0.006	39.20	36.80
7	0.00	0.007	40.10	36.60
8	0.00	0.006	40.10	36.20
9	0.00	0.006	40.10	36.20
10	0.00	0.006	39.20	35.90
11	0.00	0.004	38.90	35.60
12	0.00	0.004	38.90	35.30
13	0.00	0.005	38.90	35.10
14	0.00	0.005	38.70	35.00
15	0.00	0.006	38.70	34.70
16	0.00	0.006	38.70	34.60
17	0.02	0.006	38.60	34.20
18	0.00	0.004	38.60	34.00
19	0.00	0.005	38.60	33.90
20	0.00	0.005	38.60	33.40
21	0.10	0.006	38.20	33.20
22	0.00	0.007	38.40	33.10
23	0.20	0.007	38.40	33.20
24	0.02	0.006	38.60	32.90
25	0.00	0.006	38.60	32.80
26	0.00	0.006	38.60	32.70
27	0.00	0.006	38.50	32.40
28	0.40	0.006	38.60	32.50
29	0.00	0.005	38.50	32.30
30	0.00	0.005	38.50	32.20
31				
TOTAL	0.84	0.179		
AVG		0.006		
MIN				
MAX	0.40	0.009		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: NOVEMBER 2011

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	30.06	<i>inward</i>	GW-1	38.68	31.85
P-2	42.32	30.12	<i>inward</i>	GW-2	40.92	31.87
P-3	40.36	25.16	<i>inward</i>	GW-3	39.40	32.21
P-4	40.78	23.80	<i>inward</i>	GW-4	40.53	31.91
P-5	40.73	23.75	<i>inward</i>	GW-5	39.90	31.22
P-6	40.74	23.67	<i>inward</i>	GW-6	38.95	30.46
P-7	40.60	23.65	<i>inward</i>	GW-7	39.49	28.17
P-8	40.21	23.62	<i>inward</i>	GW-8	39.75	26.75
P-9	39.97	23.62	<i>inward</i>	GW-9	39.65	26.65
P-10	39.86	22.62	<i>inward</i>	GW-10	38.34	26.59
P-11	40.52	23.76	<i>inward</i>	GW-11	38.26	29.08
P-12	43.28	29.96	<i>inward</i>	GW-12	42.09	30.95
P-13	44.78	30.65	<i>inward</i>	GW-13	44.79	33.68
P-14	45.09	30.69	<i>inward</i>	GW-14	39.63	33.60
P-15	45.57	31.07	<i>inward</i>	GW-15	42.33	34.01
P-16	44.67	31.14	<i>inward</i>	GW-16	44.41	33.89
P-17	44.28	30.01	<i>inward</i>	GW-17	42.19	33.71

Comments:

Date Data Collected: November 30, 2011

Form Revised December 6, 2004