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September 3, 2013

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
SEP 05 2013
Southwest District

**Re: Manatee County Lena Road Landfill
Monthly Report – August 2013**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2013 (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

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 LENA ROAD LANDFILL
 MONTHLY WATER BALANCE REPORT
 AUGUST, 2013

Dept. of Environmental Protection
SEP 05 2013
 Southwest District

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-Aug-13	26,180	5,160	31,340	21,800	53,140	0.00	0
02-Aug-13	28,720	8,980	37,700	24,000	61,700	0.02	91,244
03-Aug-13	0	0	0	0	0	0.00	0
04-Aug-13	0	0	0	0	0	0.30	1,368,664
05-Aug-13	71,290	19,030	90,320	59,500	149,820	0.00	0
06-Aug-13	25,670	12,150	37,820	19,600	57,420	0.97	4,425,347
07-Aug-13	25,580	5,410	30,990	30,300	61,290	1.79	8,166,361
08-Aug-13	27,430	0	27,430	21,100	48,530	0.00	0
09-Aug-13	24,990	7,520	32,510	21,100	53,610	0.35	1,596,775
10-Aug-13	0	0	0	0	0	0.00	0
11-Aug-13	0	0	0	0	0	0.00	0
12-Aug-13	73,030	22,610	95,640	60,700	156,340	0.00	0
13-Aug-13	25,890	6,410	32,300	21,300	53,600	0.00	0
14-Aug-13	28,650	6,170	34,820	22,200	57,020	0.00	0
15-Aug-13	24,450	9,150	33,600	18,000	51,600	0.44	2,007,374
16-Aug-13	24,620	4,820	29,440	19,700	49,140	0.02	91,244
17-Aug-13	0	0	0	0	0	1.21	5,520,278
18-Aug-13	0	0	0	0	0	1.47	6,706,453
19-Aug-13	76,980	18,010	94,990	66,300	161,290	1.17	5,337,789
20-Aug-13	26,020	8,640	34,660	24,200	58,860	0.22	1,003,687
21-Aug-13	26,790	10,280	37,070	24,000	61,070	0.32	1,459,908
22-Aug-13	27,270	8,320	35,590	25,700	61,290	0.71	3,239,171
23-Aug-13	30,850	9,610	40,460	28,900	69,360	0.02	91,244
24-Aug-13	0	0	0	0	0	2.30	10,493,090
25-Aug-13	0	0	0	0	0	0.32	1,459,908
26-Aug-13	88,580	44,820	133,400	78,300	211,700	0.27	1,231,798
27-Aug-13	30,680	19,680	50,360	29,300	79,660	0.28	1,277,420
28-Aug-13	31,100	20,230	51,330	26,500	77,830	0.00	0
29-Aug-13	29,110	11,180	40,290	23,100	63,390	0.00	0
30-Aug-13	31,480	15,300	46,780	24,900	71,680	0.00	0
31-Aug-13	0	0	0	0	0	0.03	136,866
TOTAL	805,360	273,480	1,078,840	690,500	1,769,340	12.21	55,704,621
Leachate Pumped as Percentage of Rainfall			3.2%	3.2%			

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 -- 2013

	B	C	D	E	F	G	H
MONTH	STAGE I	STAGE III	TOTAL			STAGE I	STAGE III
	LEACHATE	LEACHATE	LEACHATE	RAINFALL	RAINFALL	LEACHATE/ RAINFALL	LEACHATE /RAINFALL
	(gallons)	(gallons)	(gallons)	(inches)	(gallons)	(%)	(%)
JANUARY	620,550	296,600	917,150	0.73	3,330,416	30.7%	22.7%
FEBRUARY	544,840	235,500	780,340	1.21	5,520,278	16.3%	10.9%
MARCH	621,720	19,300	641,020	1.47	6,706,453	15.3%	0.7%
APRIL	592,420	0	592,420	4.13	18,841,940	5.2%	0.0%
MAY	513,170	478,700	991,870	3.71	16,925,810	5.0%	7.2%
JUNE	682,480	623,900	1,306,380	19.47	88,826,288	1.3%	1.8%
JULY	1,072,350	706,000	1,778,350	12.61	57,529,506	3.1%	3.1%
AUGUST	1,078,840	690,500	1,769,340	12.21	55,704,621	3.2%	3.2%
SEPTEMBER			0		0		
OCTOBER			0		0		
NOVEMBER			0		0		
DECEMBER			0		0		
TOTAL	5,726,370	3,050,500	8,776,870	55.54	253,385,312	3.7%	3.1%

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	Stage III	TOTAL
	(acres)	(acres)	(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

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2013 Aug	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.008	46.40	36.30
2	0.02	0.008	46.50	36.90
3	0.00	0.008	46.60	36.90
4	0.30	0.009	46.80	36.90
5	0.00	0.008	46.80	36.90
6	0.97	0.008	47.00	36.90
7	1.79	0.009	47.00	36.90
8	0.00	0.010	47.30	36.90
9	0.35	0.009	47.20	36.90
10	0.00	0.009	47.30	36.90
11	0.00	0.009	47.20	36.90
12	0.00	0.008	47.20	36.90
13	0.00	0.008	47.20	36.90
14	0.00	0.009	47.20	36.90
15	0.44	0.008	47.20	36.90
16	0.02	0.005	47.10	36.90
17	1.21	0.007	47.20	36.90
18	1.47	0.005	47.20	36.90
19	1.17	0.006	47.40	36.90
20	0.22	0.007	47.40	36.90
21	0.32	0.007	47.40	36.90
22	0.71	0.007	47.50	36.90
23	0.02	0.008	47.50	36.90
24	2.30	0.005	47.50	36.90
25	0.32	0.005	47.80	36.90
26	0.27	0.005	47.80	36.90
27	0.28	0.002	47.80	36.90
28	0.00	0.002	47.80	36.90
29	0.00	0.003	47.70	36.90
30	0.00	0.004	47.80	36.90
31	0.03	0.000	47.90	36.90
TOTAL	12.21	0.206		
AVG		0.007		
MIN				
MAX	2.30	0.010		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: AUGUST 2013

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	30.26	<i>inward</i>	GW-1	38.68	33.98
P-2	42.32	30.13	<i>inward</i>	GW-2	40.92	34.86
P-3	40.36	25.28	<i>inward</i>	GW-3	39.40	35.25
P-4	40.78	23.72	<i>inward</i>	GW-4	40.53	33.86
P-5	40.73	23.67	<i>inward</i>	GW-5	39.90	33.37
P-6	40.74	23.62	<i>inward</i>	GW-6	38.95	32.55
P-7	40.60	23.58	<i>inward</i>	GW-7	39.49	31.65
P-8	40.21	23.56	<i>inward</i>	GW-8	39.75	30.37
P-9	39.97	23.41	<i>inward</i>	GW-9	39.65	30.30
P-10	39.86	22.68	<i>inward</i>	GW-10	38.34	30.74
P-11	40.52	23.90	<i>inward</i>	GW-11	38.26	31.92
P-12	43.28	30.40	<i>inward</i>	GW-12	42.09	32.43
P-13	44.78	30.76	<i>inward</i>	GW-13	44.79	33.84
P-14	45.09	30.65	<i>inward</i>	GW-14	39.63	34.25
P-15	45.57	31.04	<i>inward</i>	GW-15	42.33	34.79
P-16	44.67	31.23	<i>inward</i>	GW-16	44.41	35.42
P-17	44.28	30.12	<i>inward</i>	GW-17	42.19	34.11

Comments:

Date Data Collected: AUGUST 12, 2013

Form Revised December 6, 2004