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July 2, 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
JUL 03 2013
Southwest District

**Re: Manatee County Lena Road Landfill
Monthly Report – June 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
 JUNE, 2013

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-Jun-13	0	0	0	0	0	1.47	6,706,453
02-Jun-13	0	0	0	0	0	0.21	958,065
03-Jun-13	47,180	4,810	51,990	45,800	97,790	0.77	3,512,904
04-Jun-13	13,840	540	14,380	15,600	29,980	0.47	2,144,240
05-Jun-13	14,940	490	15,430	20,200	35,630	0.65	2,965,438
06-Jun-13	21,500	430	21,930	24,500	46,430	2.50	11,405,533
07-Jun-13	31,570	850	32,420	28,100	60,520	0.00	0
08-Jun-13	0	0	0	0	0	6.03	27,510,145
09-Jun-13	0	0	0	0	0	1.00	4,562,213
10-Jun-13	79,760	6,110	85,870	94,800	180,670	0.15	684,332
11-Jun-13	27,160	1,340	28,500	38,500	67,000	0.20	912,443
12-Jun-13	25,280	1,380	26,660	30,100	56,760	0.25	1,140,553
13-Jun-13	26,340	2,650	28,990	28,100	57,090	0.00	0
14-Jun-13	27,280	1,360	28,640	25,000	53,640	0.00	0
15-Jun-13	0	0	0	0	0	0.02	91,244
16-Jun-13	0	0	0	0	0	0.00	0
17-Jun-13	71,470	3,560	75,030	63,200	138,230	0.00	0
18-Jun-13	21,110	630	21,740	15,900	37,640	0.00	0
19-Jun-13	23,640	960	24,600	17,500	42,100	1.63	7,436,407
20-Jun-13	24,440	1,370	25,810	0	25,810	0.00	0
21-Jun-13	20,000	1,650	21,650	36,300	57,950	0.70	3,193,549
22-Jun-13	0	0	0	0	0	0.08	364,977
23-Jun-13	0	0	0	0	0	0.90	4,105,992
24-Jun-13	67,470	8,680	76,150	55,700	131,850	0.27	1,231,798
25-Jun-13	21,930	2,090	24,020	20,900	44,920	0.32	1,459,908
26-Jun-13	22,890	2,430	25,320	22,000	47,320	0.00	0
27-Jun-13	23,580	1,330	24,910	20,800	45,710	0.27	1,231,798
28-Jun-13	25,850	2,590	28,440	20,900	49,340	0.02	91,244
29-Jun-13	0	0	0	0	0	0.78	3,558,526
30-Jun-13	0	0	0	0	0	0.78	3,558,526
	0	0	0	0	0	0.00	0
TOTAL	637,230	45,250	682,480	623,900	1,306,380	19.47	88,826,288
Leachate Pumped as Percentage of Rainfall			1.3%	1.8%			

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			0		0		
AUGUST			0		0		
SEPTEMBER			0		0		
OCTOBER			0		0		
NOVEMBER			0		0		
DECEMBER			0		0		
TOTAL	3,575,180	1,654,000	5,229,180	30.72	140,151,185	4.2%	3.0%

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 jun	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	1.47	0.006	39.60	31.10
2	0.21	0.006	39.70	31.20
3	0.77	0.006	39.80	31.20
4	0.47	0.008	39.90	31.40
5	0.65	0.008	40.00	31.60
6	2.50	0.011	40.30	31.90
7	0.00	0.011	40.30	31.90
8	6.03	0.009	40.40	31.90
9	1.00	0.013	41.20	32.70
10	0.15	0.014	41.20	31.80
11	0.20	0.010	41.30	32.00
12	0.25	0.010	41.30	32.80
13	0.00	0.009	41.40	32.90
14	0.00	0.009	41.40	32.90
15	0.02	0.008	41.50	32.90
16	0.00	0.007	41.40	32.80
17	0.00	0.008	41.50	32.90
18	0.00	0.007	41.40	32.90
19	1.63	0.008	41.70	33.00
20	0.00	0.007	41.60	33.00
21	0.70	0.007	41.70	33.00
22	0.08	0.007	41.70	33.00
23	0.90	0.007	41.80	33.10
24	0.27	0.008	41.80	33.00
25	0.32	0.007	41.80	33.00
26	0.00	0.008	41.90	33.10
27	0.27	0.001	42.00	33.10
28	0.02	0.008	42.00	33.00
29	0.78	0.008	42.20	33.10
30	0.78	0.007	42.30	33.20
31				
TOTAL	19.47	0.243		
AVG		0.008		
MIN				
MAX	6.03	0.014		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: JUNE 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	30.23	<i>inward</i>	GW-1	38.68	35.02
P-2	42.32	30.10	<i>inward</i>	GW-2	40.92	35.65
P-3	40.36	25.23	<i>inward</i>	GW-3	39.40	34.72
P-4	40.78	23.76	<i>inward</i>	GW-4	40.53	33.76
P-5	40.73	23.71	<i>inward</i>	GW-5	39.90	33.27
P-6	40.74	23.68	<i>inward</i>	GW-6	38.95	32.73
P-7	40.60	23.63	<i>inward</i>	GW-7	39.49	31.67
P-8	40.21	23.70	<i>inward</i>	GW-8	39.75	30.62
P-9	39.97	23.66	<i>inward</i>	GW-9	39.65	30.94
P-10	39.86	22.74	<i>inward</i>	GW-10	38.34	31.92
P-11	40.52	23.90	<i>inward</i>	GW-11	38.26	31.79
P-12	43.28	30.35	<i>inward</i>	GW-12	42.09	32.34
P-13	44.78	30.76	<i>inward</i>	GW-13	44.79	35.31
P-14	45.09	30.74	<i>inward</i>	GW-14	39.63	35.23
P-15	45.57	31.11	<i>inward</i>	GW-15	42.33	35.62
P-16	44.67	31.25	<i>inward</i>	GW-16	44.41	35.02
P-17	44.28	30.18	<i>inward</i>	GW-17	42.19	35.60

Comments:

Date Data Collected: June 14, 2013

Form Revised December 6, 2004