

DEC 05 2012

ATKINS

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December 3, 2012

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

**Re: Manatee County Lena Road Landfill
Monthly Report – November 2012**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2012 (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

NOVEMBER, 2012

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-12	17,670	3,600	21,270	11,200	32,470	0.00	0
02-Nov-12	17,390	1,760	19,150	11,000	30,150	0.00	0
03-Nov-12	0	0	0	0	0	0.00	0
04-Nov-12	0	0	0	0	0	0.00	0
05-Nov-12	56,570	5,530	62,100	35,100	97,200	0.00	0
06-Nov-12	22,340	1,710	24,050	12,700	36,750	0.49	2,235,484
07-Nov-12	21,110	4,870	25,980	11,400	37,380	0.00	0
08-Nov-12	17,050	6,020	23,070	11,200	34,270	0.00	0
09-Nov-12	13,330	6,110	19,440	9,500	28,940	0.00	0
10-Nov-12	0	0	0	0	0	0.00	0
11-Nov-12	0	0	0	0	0	0.00	0
12-Nov-12	49,000	11,000	60,000	29,600	89,600	0.25	1,140,553
13-Nov-12	19,880	470	20,350	12,300	32,650	0.02	91,244
14-Nov-12	19,270	760	20,030	10,700	30,730	0.00	0
15-Nov-12	19,200	1,030	20,230	10,900	31,130	0.00	0
16-Nov-12	18,340	760	19,100	11,000	30,100	0.00	0
17-Nov-12	0	0	0	0	0	0.00	0
18-Nov-12	0	0	0	0	0	0.00	0
19-Nov-12	53,940	4,080	58,020	31,300	89,320	0.00	0
20-Nov-12	19,550	2,660	22,210	10,600	32,810	0.00	0
21-Nov-12	20,400	1,630	22,030	12,400	34,430	0.00	0
22-Nov-12	0	0	0	0	0	0.00	0
23-Nov-12	34,130	6,500	40,630	20,500	61,130	0.00	0
24-Nov-12	0	0	0	0	0	0.00	0
25-Nov-12	0	0	0	0	0	0.00	0
26-Nov-12	53,000	11,480	64,480	29,100	93,580	0.00	0
27-Nov-12	16,900	1,510	18,410	10,800	29,210	0.00	0
28-Nov-12	17,730	230	17,960	9,100	27,060	0.00	0
29-Nov-12	16,390	2,330	18,720	10,800	29,520	0.00	0
30-Nov-12	14,740	890	15,630	7,600	23,230	0.00	0
	0	0	0	0	0	0.00	0
TOTAL	537,930	74,930	612,860	318,800	931,660	0.76	3,467,282
Leachate Pumped as Percentage of Rainfall			29.1%	23.4%			

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 -- 2012

	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	524,770	212,500	737,270	0.94	4,288,480	20.2%	12.6%
FEBRUARY	500,670	193,200	693,870	0.64	2,919,816	28.2%	16.8%
MARCH	497,140	214,600	711,740	2.84	12,956,685	6.3%	4.2%
APRIL	448,000	284,900	732,900	4.66	21,259,913	3.5%	3.4%
MAY	401,400	277,100	678,500	2.30	10,493,090	6.3%	6.7%
JUNE	726,920	611,600	1,338,520	24.07	109,812,468	1.1%	1.4%
JULY	1,061,690	831,300	1,892,990	13.25	60,449,323	2.9%	3.5%
AUGUST	909,100	665,100	1,574,200	11.62	53,012,916	2.8%	3.2%
SEPTEMBER	756,290	499,200	1,255,490	3.67	16,743,322	7.4%	7.6%
OCTOBER	827,830	480,900	1,308,730	3.44	15,694,013	8.7%	7.8%
NOVEMBER	612,860	318,800	931,660	0.76	3,467,282	29.1%	23.4%
DECEMBER							
TOTAL	7,266,670	4,589,200	11,855,870	68.19	311,097,307	3.8%	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	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

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
11/1/12	7113740	4722880	2848880	33.30	DRY	OK	R.B.
11/2/12	7115479	4724640	2848990	33.33	DRY	OK	R.B.
11/5/12	7121136	4730170	2849341	33.37	DRY	OK	R.B.
11/6/12	7123370	4731880	2849462	33.37	DRY	OK	R.B.
11/7/12	7125481	4736750	2849580	33.43	DRY	OK	R.B.
11/8/12	7127186	4742770	2849694	33.43	DRY	OK	R.B.
11/9/12	7128519	4748880	2849789	33.42	DRY	OK	R.B.
11/12/12	7133419	4759880	2850085	33.43	DRY	OK	M.Bell
11/13/12	7135407	4760350	2850208	33.45	DRY	OK	R.B.
11/14/12	7137334	4761110	2850315	33.45	DRY	OK	R.B.
11/15/12	7139254	4762140	2850424	33.46	DRY	OK	R.B.
11/16/12	7141088	4762900	2850534	33.47	DRY	OK	R.B.
11/19/12	7146482	4766980	2850847	33.48	DRY	OK	R.B.
11/20/12	7148437	4769640	2850953	33.48	DRY	OK	R.B.
11/21/12	7150477	4771270	2851077	33.48	DRY	OK	M.Bell
11/23/12	7153890	4777770	2851282	33.47	DRY	OK	M.Bell
11/26/12	7159190	4789250	2851572	33.47	DRY	OK	R.B.
11/27/12	7160880	4790760	2851681	33.47	DRY	OK	R.B.
11/28/12	7162653	4790990	2851772	33.48	DRY	OK	R.B.
11/29/12	7164242	4793320	2851880	33.48	DRY	OK	R.B.
11/30/12	7165764	4794210	2851956	33.48	DRY	OK	R.B.

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2012 Nov	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.006	48.30	39.30
2	0.00	0.006	48.10	39.20
3	0.00	0.006	48.10	39.10
4	0.00	0.006	47.90	39.00
5	0.00	0.008	47.70	39.00
6	0.49	0.007	47.70	39.00
7	0.00	0.007	47.70	38.90
8	0.00	0.006	47.70	38.80
9	0.00	0.005	47.50	38.70
10	0.00	0.005	47.40	38.60
11	0.00	0.006	47.20	38.60
12	0.25	0.006	47.00	38.60
13	0.02	0.007	46.80	38.50
14	0.00	0.003	46.90	38.30
15	0.00	0.007	46.50	38.20
16	0.00	0.006	46.50	38.10
17	0.00	0.007	46.20	38.10
18	0.00	0.006	46.10	38.00
19	0.00	0.007	45.90	38.00
20	0.00	0.007	45.70	38.00
21	0.00	0.006	45.50	37.80
22	0.00	0.005	45.30	37.70
23	0.00	0.006	45.20	37.50
24	0.00	0.006	44.90	37.40
25	0.00	0.005	44.80	37.40
26	0.00	0.006	44.60	37.20
27	0.00	0.006	44.50	37.20
28	0.00	0.006	44.20	37.10
29	0.00	0.006	44.00	36.90
30	0.00	0.006	43.90	36.90
31				
TOTAL	0.76	0.182		
AVG		0.006		
MIN				
MAX	0.49	0.008		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: NOVEMBER 2012

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	30.14	<i>inward</i>	GW-1	38.68	31.83
P-2	42.32	30.30	<i>inward</i>	GW-2	40.92	31.87
P-3	40.36	25.00	<i>inward</i>	GW-3	39.40	31.87
P-4	40.78	23.75	<i>inward</i>	GW-4	40.53	31.04
P-5	40.73	23.70	<i>inward</i>	GW-5	39.90	30.82
P-6	40.74	23.64	<i>inward</i>	GW-6	38.95	30.10
P-7	40.60	23.67	<i>inward</i>	GW-7	39.49	27.70
P-8	40.21	23.59	<i>inward</i>	GW-8	39.75	26.33
P-9	39.97	23.65	<i>inward</i>	GW-9	39.65	26.49
P-10	39.86	22.65	<i>inward</i>	GW-10	38.34	26.38
P-11	40.52	23.83	<i>inward</i>	GW-11	38.26	28.34
P-12	43.28	30.14	<i>inward</i>	GW-12	42.09	30.74
P-13	44.78	30.72	<i>inward</i>	GW-13	44.79	33.53
P-14	45.09	30.70	<i>inward</i>	GW-14	39.63	33.98
P-15	45.57	31.09	<i>inward</i>	GW-15	42.33	34.96
P-16	44.67	31.18	<i>inward</i>	GW-16	44.41	35.09
P-17	44.28	30.10	<i>inward</i>	GW-17	42.19	33.52

Comments:

Date Data Collected: November 29, 2012

Form Revised December 6, 2004