



Atkins North America, Inc.
482 South Keller Road
Orlando, Florida 32810-6101
Telephone: +1.407.647.7275
www.atkinsglobal.com/northamerica

August 6, 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

Dept. of Environmental
Protection
AUG 08 2012
Southwest District

**Re: Manatee County Lena Road Landfill
Monthly Report – July 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
JULY, 2012

FLORIDA DEPARTMENT OF
 ENVIRONMENTAL PROTECTION
AUG 08 2012
 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-Jul-12	0	0	0	0	0	0.00	0
02-Jul-12	85,040	0	85,040	72,900	157,940	0.00	0
03-Jul-12	0	0	0	22,300	22,300	0.00	0
04-Jul-12	0	0	0	0	0	0.00	0
05-Jul-12	0	240	240	43,000	43,240	0.00	0
06-Jul-12	0	310	310	22,800	23,110	0.20	912,443
07-Jul-12	0	0	0	0	0	0.17	775,576
08-Jul-12	0	0	0	0	0	0.21	958,065
09-Jul-12	0	1,800	1,800	57,700	59,500	1.75	7,983,873
10-Jul-12	104,100	210	104,310	24,000	128,310	0.75	3,421,660
11-Jul-12	53,310	1,020	54,330	24,700	79,030	2.12	9,671,892
12-Jul-12	47,150	910	48,060	27,100	75,160	0.00	0
13-Jul-12	43,520	740	44,260	27,300	71,560	1.53	6,980,186
14-Jul-12	0	0	0	0	0	0.93	4,242,858
15-Jul-12	0	0	0	0	0	0.51	2,326,729
16-Jul-12	135,300	2,840	138,140	118,400	256,540	0.80	3,649,770
17-Jul-12	68,470	300	68,770	32,700	101,470	2.50	11,405,533
18-Jul-12	27,780	80	27,860	31,200	59,060	0.02	91,244
19-Jul-12	41,920	160	42,080	30,600	72,680	0.00	0
20-Jul-12	41,880	140	42,020	28,800	70,820	0.00	0
21-Jul-12	0	0	0	0	0	0.87	3,969,125
22-Jul-12	0	0	0	0	0	0.89	4,060,370
23-Jul-12	119,640	970	120,610	67,300	187,910	0.00	0
24-Jul-12	37,510	10	37,520	30,700	68,220	0.00	0
25-Jul-12	40,070	0	40,070	29,000	69,070	0.00	0
26-Jul-12	37,720	10	37,730	26,000	63,730	0.00	0
27-Jul-12	35,470	40	35,510	25,500	61,010	0.00	0
28-Jul-12	0	0	0	0	0	0.00	0
29-Jul-12	0	0	0	0	0	0.00	0
30-Jul-12	100,520	660	101,180	67,000	168,180	0.00	0
31-Jul-12	31,830	20	31,850	22,300	54,150	0.00	0
TOTAL	1,051,230	10,460	1,061,690	831,300	1,892,990	13.25	60,449,323
Leachate Pumped as Percentage of Rainfall			2.9%	3.5%			

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 LEACHATE (gallons)	STAGE III LEACHATE (gallons)	TOTAL LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	STAGE I LEACHATE/ RAINFALL (%)	STAGE III LEACHATE /RAINFALL (%)
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							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
TOTAL	4,160,590	2,625,200	6,785,790	48.70	222,179,775	3.1%	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 (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

LEACHATE JULY 2012

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
7/2/12	6179653	4637000	2826822	38.44	37.07	OK	Jim
7/3/12	6179653	4637000	2826822	38.38	37.09	OK	Jim
7/4/12	6179653	4637000	2826822	38.38	37.09	OK	Jim
7/5/12	6179653	4637000	2826822	38.24	37.93	OK	Jim
7/6/12	6179653	4637000	2826822	38.15	37.77	OK	Jim
7/9/12	6179653	4637000	2826822	38.00	37.50	OK	Jim
7/10/12	6179653	4637000	2826822	37.09	36.02	OK	R.B.
7/11/12	6179653	4637000	2826822	37.21	36.30	OK	R.B.
7/12/12	6179653	4637000	2826822	38.08	37.38	OK	R.B.
7/13/12	6179653	4637000	2826822	38.77	38.40	OK	R.B.
7/16/12	6179653	4637000	2826822	38.17	37.33	OK	R.B.
7/17/12	6179653	4637000	2826822	38.71	38.40	OK	R.B.
7/18/12	6179653	4637000	2826822	38.49	38.34	OK	R.B.
7/19/12	6179653	4637000	2826822	38.45	38.30	OK	R.B.
7/20/12	6179653	4637000	2826822	38.31	38.20	OK	R.B.
7/23/12	6179653	4637000	2826822	38.45	38.33	OK	R.B.
7/24/12	6179653	4637000	2826822	38.47	38.22	OK	R.B.
7/25/12	6179653	4637000	2826822	38.27	38.41	OK	R.B.
7/26/12	6179653	4637000	2826822	38.20	38.11	OK	R.B.
7/27/12	6179653	4637000	2826822	38.32	38.42	OK	R.B.
7/30/12	6179653	4637000	2826822	38.42	38.23	OK	R.B.
7/31/12	6179653	4637000	2826822	38.22	38.42	OK	R.B.

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2012 JUL	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.005	43.90	33.70
2	0.00	0.001	43.90	34.10
3	0.00	0.005	44.10	34.10
4	0.00	0.005	44.00	33.90
5	0.00	0.005	44.00	34.00
6	0.20	0.004	44.00	34.10
7	0.17	0.004	44.00	34.30
8	0.21	0.005	44.00	34.50
9	1.75	0.011	44.30	34.50
10	0.75	0.019	44.50	34.70
11	2.12	0.019	44.70	35.20
12	0.00	0.013	44.70	35.50
13	1.53	0.012	44.80	35.80
14	0.93	0.016	44.80	36.20
15	0.51	0.014	45.10	36.50
16	0.80	0.015	45.30	36.70
17	2.50	0.015	45.50	37.00
18	0.02	0.013	45.70	37.10
19	0.00	0.013	46.00	37.10
20	0.00	0.013	46.20	37.10
21	0.87	0.012	46.50	37.00
22	0.89	0.011	46.80	37.10
23	0.00	0.011	47.10	37.30
24	0.00	0.013	47.20	37.40
25	0.00	0.012	47.40	37.50
26	0.00	0.012	47.50	37.40
27	0.00	0.011	47.60	37.40
28	0.00	0.010	47.70	37.30
29	0.00	0.010	47.90	37.30
30	0.00	0.011	47.90	37.30
31	0.00	0.011	47.90	37.30
TOTAL	13.25	0.331		
AVG		0.011		
MIN				
MAX	2.50	0.019		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: JULY 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	30.43	<i>inward</i>	GW-1	38.68	35.13
P-2	42.32	30.32	<i>inward</i>	GW-2	40.92	35.52
P-3	40.36	25.38	<i>inward</i>	GW-3	39.40	35.37
P-4	40.78	23.81	<i>inward</i>	GW-4	40.53	34.83
P-5	40.73	23.76	<i>inward</i>	GW-5	39.90	33.69
P-6	40.74	23.73	<i>inward</i>	GW-6	38.95	33.27
P-7	40.60	23.62	<i>inward</i>	GW-7	39.49	32.10
P-8	40.21	23.63	<i>inward</i>	GW-8	39.75	31.00
P-9	39.97	23.75	<i>inward</i>	GW-9	39.65	32.02
P-10	39.86	22.78	<i>inward</i>	GW-10	38.34	31.52
P-11	40.52	23.86	<i>inward</i>	GW-11	38.26	31.91
P-12	43.28	30.36	<i>inward</i>	GW-12	42.09	32.56
P-13	44.78	30.80	<i>inward</i>	GW-13	44.79	34.89
P-14	45.09	30.75	<i>inward</i>	GW-14	39.63	35.50
P-15	45.57	31.13	<i>inward</i>	GW-15	42.33	35.94
P-16	44.67	31.21	<i>inward</i>	GW-16	44.41	35.57
P-17	44.28	30.15	<i>inward</i>	GW-17	42.19	35.78

Comments:

Date Data Collected: July 12, 2012

Form Revised December 6, 2004