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Dept. Of Environmental Protection
JAN 13 2011
Southwest District

January 7, 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

**Re: Manatee County Lena Road Landfill
Monthly Report – December 2010**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2010 (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,

A handwritten signature in blue ink that reads 'Joe Miller'.

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
DECEMBER, 2010

Dept. Of Environmental Protection
JAN 13 2011
 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-Dec-10 | 16,480 | 230 | 16,710 | 7,400 | 24,110 | 0.06 | 273,733 |
| 02-Dec-10 | 10,740 | 10,270 | 21,010 | 7,200 | 28,210 | 0.00 | 0 |
| 03-Dec-10 | 13,030 | 6,990 | 20,020 | 13,300 | 33,320 | 0.00 | 0 |
| 04-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 |
| 05-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.05 | 228,111 |
| 06-Dec-10 | 47,270 | 8,470 | 55,740 | 15,900 | 71,640 | 0.00 | 0 |
| 07-Dec-10 | 14,130 | 14,470 | 28,600 | 7,000 | 35,600 | 0.00 | 0 |
| 08-Dec-10 | 13,730 | 12,860 | 26,590 | 7,000 | 33,590 | 0.00 | 0 |
| 09-Dec-10 | 15,050 | 10,350 | 25,400 | 7,100 | 32,500 | 0.11 | 501,843 |
| 10-Dec-10 | 12,780 | 12,380 | 25,160 | 6,600 | 31,760 | 0.00 | 0 |
| 11-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 |
| 12-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.11 | 501,843 |
| 13-Dec-10 | 50,110 | 25,690 | 75,800 | 21,300 | 97,100 | 0.05 | 228,111 |
| 14-Dec-10 | 13,010 | 10,830 | 23,840 | 6,700 | 30,540 | 0.00 | 0 |
| 15-Dec-10 | 11,850 | 16,300 | 28,150 | 7,000 | 35,150 | 0.00 | 0 |
| 16-Dec-10 | 14,330 | 9,220 | 23,550 | 7,400 | 30,950 | 0.00 | 0 |
| 17-Dec-10 | 13,990 | 10,820 | 24,810 | 6,700 | 31,510 | 0.00 | 0 |
| 18-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.34 | 1,551,152 |
| 19-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 |
| 20-Dec-10 | 14,760 | 20,580 | 35,340 | 20,300 | 55,640 | 0.00 | 0 |
| 21-Dec-10 | 0 | 6,600 | 6,600 | 6,200 | 12,800 | 0.00 | 0 |
| 22-Dec-10 | 35,090 | 9,710 | 44,800 | 6,800 | 51,600 | 0.00 | 0 |
| 23-Dec-10 | 16,960 | 5,290 | 22,250 | 6,500 | 28,750 | 0.00 | 0 |
| 24-Dec-10 | 15,000 | 6,440 | 21,440 | 7,000 | 28,440 | 0.00 | 0 |
| 25-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 |
| 26-Dec-10 | 0 | 0 | 0 | 0 | 0 | 0.07 | 319,355 |
| 27-Dec-10 | 45,340 | 29,770 | 75,110 | 20,300 | 95,410 | 0.00 | 0 |
| 28-Dec-10 | 9,410 | 9,030 | 18,440 | 4,600 | 23,040 | 0.00 | 0 |
| 29-Dec-10 | 12,400 | 9,610 | 22,010 | 1,000 | 23,010 | 0.00 | 0 |
| 30-Dec-10 | 14,760 | 9,730 | 24,490 | 14,700 | 39,190 | 0.00 | 0 |
| 31-Dec-10 | 13,440 | 8,630 | 22,070 | 6,200 | 28,270 | 0.00 | 0 |
| TOTAL | 423,660 | 264,270 | 687,930 | 214,200 | 902,130 | 0.79 | 3,604,148 |
| Leachate Pumped as Percentage of Rainfall | | | 31.4% | 15.1% | | | |

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 -- 2010

| | 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 | 680,510 | 605,300 | 1,285,810 | 3.21 | 14,644,704 | 7.7% | 10.5% |
| FEBRUARY | 728,310 | 543,100 | 1,271,410 | 2.72 | 12,409,219 | 9.7% | 11.1% |
| MARCH | 890,130 | 579,900 | 1,470,030 | 4.36 | 19,891,249 | 7.4% | 7.4% |
| APRIL | 780,100 | 485,800 | 1,265,900 | 2.54 | 11,588,021 | 11.1% | 10.7% |
| MAY | 536,970 | 374,700 | 911,670 | 1.78 | 8,120,739 | 10.9% | 11.7% |
| JUNE | 600,970 | 367,900 | 968,870 | 8.68 | 39,600,009 | 2.5% | 2.4% |
| JULY | 1,012,160 | 376,100 | 1,388,260 | 6.59 | 30,064,984 | 5.5% | 3.2% |
| AUGUST | 846,480 | 404,900 | 1,251,380 | 12.26 | 55,932,732 | 2.5% | 1.8% |
| SEPTEMBER | 1,015,480 | 335,600 | 1,351,080 | 1.89 | 8,622,583 | 19.4% | 9.9% |
| OCTOBER | 590,250 | 250,400 | 840,650 | 0.00 | 0 | N/A | N/A |
| NOVEMBER | 560,780 | 264,300 | 825,080 | 1.67 | 7,618,896 | 12.1% | 8.8% |
| DECEMBER | 687,930 | 214,200 | 902,130 | 0.79 | 3,604,148 | 31.4% | 15.1% |
| TOTAL | 8,930,070 | 4,802,200 | 13,732,270 | 46.49 | 212,097,284 | 6.9% | 5.8% |

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 |

LECHATE DECEMBER 2010

| DATE | LEACHATE | | | STORMWATER | | COMMENTS | NAME |
|----------|-----------|-----------|-----------|------------|-----------|----------|--------|
| | METER # 1 | METER # 2 | METER # 3 | S. G. # 1 | S. G. # 2 | | |
| 12/11/10 | 5855022 | 3015080 | 2769955 | 32.29 | | OK | R.B. |
| 12/21/10 | 5856096 | 3025450 | 2770027 | 32.27 | Dry | OK | R.B. |
| 12/31/10 | 5857399 | 3032940 | 2770160 | 32.25 | Dry | OK | R.B. |
| 12/6/10 | 5862126 | 3041410 | 2770389 | 32.20 | Dry | OK | R.B. |
| 12/7/10 | 5863534 | 3055880 | 2770389 | 32.19 | Dry | OK | R.B. |
| 12/8/10 | 5864612 | 3068740 | 2770459 | 32.17 | Dry | OK | R.B. |
| 12/9/10 | 5866407 | 3079090 | 2770530 | 32.17 | Dry | OK | R.B. |
| 12/10/10 | 5867675 | 3091970 | 2770576 | 32.17 | Dry | OK | R.B. |
| 12/13/10 | 5872702 | 3171160 | 2770801 | 32.12 | Dry | OK | R.B. |
| 12/14/10 | 5874007 | 3127990 | 2770876 | 32.11 | Dry | OK | R.B. |
| 12/15/10 | 5875192 | 3144000 | 2770946 | 32.10 | Dry | OK | R.B. |
| 12/16/10 | 5876025 | 3153510 | 2771020 | 32.09 | Dry | OK | R.B. |
| 12/17/10 | 5878024 | 3164330 | 2771087 | 32.08 | Dry | OK | M.Bell |
| 12/20/10 | 5878200 | 3185010 | 2771240 | 32.10 | Dry | OK | R.B. |
| 12/21/10 | 5879500 | 3191510 | 2771352 | 32.10 | Dry | OK | R.B. |
| 12/22/10 | 5882001 | 3203000 | 2771422 | 32.09 | Dry | OK | R.B. |
| 12/23/10 | 5883002 | 3215000 | 2771492 | 32.08 | Dry | OK | R.B. |
| 12/24/10 | 5886205 | 3212950 | 2771555 | 32.07 | Dry | OK | M.Bell |
| 12/27/10 | 5890300 | 3242000 | 2771750 | 32.06 | Dry | OK | R.B. |
| 12/28/10 | 5891600 | 3251000 | 2771820 | 32.04 | Dry | OK | R.B. |
| 12/29/10 | 5893000 | 3261000 | 2771890 | 32.02 | Dry | OK | R.B. |
| 12/30/10 | 5894000 | 3271000 | 2771960 | 32.02 | Dry | OK | R.B. |
| 12/31/10 | 5895000 | 3281000 | 2772030 | 32.01 | Dry | OK | R.B. |

Landfill

| LANDFILL SHEET | | | LAKE LEVEL DATA IN FEET NGVD | |
|----------------|--------------|-----------------|---------------------------------|-------------------|
| 2010 Dec | RAIN FALL | LEACHATE MGD | SOUTH (86 ACRE) | EAST (63 ACRE) |
| 1 | 0.06 | 0.010 | 38.40 | 29.40 |
| 2 | 0.00 | 0.008 | 38.30 | 29.70 |
| 3 | 0.00 | 0.009 | 38.30 | 29.40 |
| 4 | 0.00 | 0.010 | 38.20 | 29.30 |
| 5 | 0.05 | 0.010 | 38.20 | 29.50 |
| 6 | 0.00 | 0.009 | 38.30 | 29.20 |
| 7 | 0.00 | 0.009 | 38.10 | 29.20 |
| 8 | 0.00 | 0.009 | 38.10 | 28.90 |
| 9 | 0.11 | 0.009 | 38.10 | 28.50 |
| 10 | 0.00 | 0.009 | 37.90 | 28.50 |
| 11 | 0.00 | 0.010 | 37.90 | 28.40 |
| 12 | 0.11 | 0.011 | 38.00 | 28.10 |
| 13 | 0.05 | 0.010 | 37.90 | 28.20 |
| 14 | 0.00 | 0.008 | 37.70 | 27.70 |
| 15 | 0.00 | 0.008 | 37.60 | 27.30 |
| 16 | 0.00 | 0.009 | 37.50 | 27.00 |
| 17 | 0.00 | 0.009 | 37.40 | 26.80 |
| 18 | 0.34 | 0.009 | 37.50 | 26.90 |
| 19 | 0.00 | 0.006 | 37.50 | 27.30 |
| 20 | 0.00 | 0.005 | 37.50 | 27.30 |
| 21 | 0.00 | 0.010 | 37.30 | 27.00 |
| 22 | 0.00 | 0.011 | 37.20 | 27.00 |
| 23 | 0.00 | 0.010 | 37.20 | 26.80 |
| 24 | 0.00 | 0.009 | 37.10 | 26.80 |
| 25 | 0.00 | 0.010 | 36.90 | 26.40 |
| 26 | 0.07 | 0.010 | 36.90 | 26.60 |
| 27 | 0.00 | 0.008 | 36.80 | 26.30 |
| 28 | 0.00 | 0.007 | 36.70 | 26.10 |
| 29 | 0.00 | 0.009 | 36.50 | 25.80 |
| 30 | 0.00 | 0.009 | 36.30 | 25.60 |
| 31 | 0.00 | 0.009 | 36.20 | 25.30 |
| TOTAL | 0.79 | 0.279 | | |
| AVG | | 0.009 | | |
| MIN | | | | |
| MAX | 0.34 | 0.011 | | |

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: DECEMBER 2010

| 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 | 29.51 | <i>inward</i> | GW-1 | 38.68 | 29.78 |
| P-2 | 42.32 | 28.66 | <i>inward</i> | GW-2 | 40.92 | 29.81 |
| P-3 | 40.36 | 24.95 | <i>inward</i> | GW-3 | 39.40 | 30.94 |
| P-4 | 40.78 | 21.91 | <i>inward</i> | GW-4 | 40.53 | 30.26 |
| P-5 | 40.73 | 20.76 | <i>inward</i> | GW-5 | 39.90 | 29.87 |
| P-6 | 40.74 | 19.73 | <i>inward</i> | GW-6 | 38.95 | 29.07 |
| P-7 | 40.60 | 18.80 | <i>inward</i> | GW-7 | 39.49 | 26.68 |
| P-8 | 40.21 | 18.46 | <i>inward</i> | GW-8 | 39.75 | 25.31 |
| P-9 | 39.97 | 19.30 | <i>inward</i> | GW-9 | 39.65 | 26.04 |
| P-10 | 39.86 | 19.19 | <i>inward</i> | GW-10 | 38.34 | 25.84 |
| P-11 | 40.52 | 22.30 | <i>inward</i> | GW-11 | 38.26 | 29.18 |
| P-12 | 43.28 | 29.21 | <i>inward</i> | GW-12 | 42.09 | 30.04 |
| P-13 | 44.78 | 30.59 | <i>inward</i> | GW-13 | 44.79 | 32.13 |
| P-14 | 45.09 | 29.80 | <i>inward</i> | GW-14 | 39.63 | 31.82 |
| P-15 | 45.57 | 30.91 | <i>inward</i> | GW-15 | 42.33 | 33.33 |
| P-16 | 44.67 | 31.00 | <i>inward</i> | GW-16 | 44.41 | 32.24 |
| P-17 | 44.28 | 29.98 | <i>inward</i> | GW-17 | 42.19 | 31.86 |

Comments:

Date Data Collected: December 16, 2010

Form Revised December 6, 2004