

# 2016 Leachate Quantity Analysis Report Tomoka Farms Road Landfill Class I North Cell

---



Presented To:  
Florida Department of Environmental Protection  
3319 Maguire Blvd, Suite 232  
Orlando, Florida 32803

Presented By  
Volusia County Solid Waste  
1990 Tomoka Farms Road  
Port Orange, Florida 32124  
(Via Email)

**Table of Contents**

Summary and Analysis ..... 3

Figure 1 (Leachate Flow vs. Rainfall)..... 3

Table 1 (monthly leachate flow) ..... 4

The following report is provided to satisfy Section 2 – Specific Conditions, (C) (12) (g) of the permit to operate the Tomoka Farms Road Landfill, North Cell Class I disposal area. Permit Number 0078767-030-SO-01.

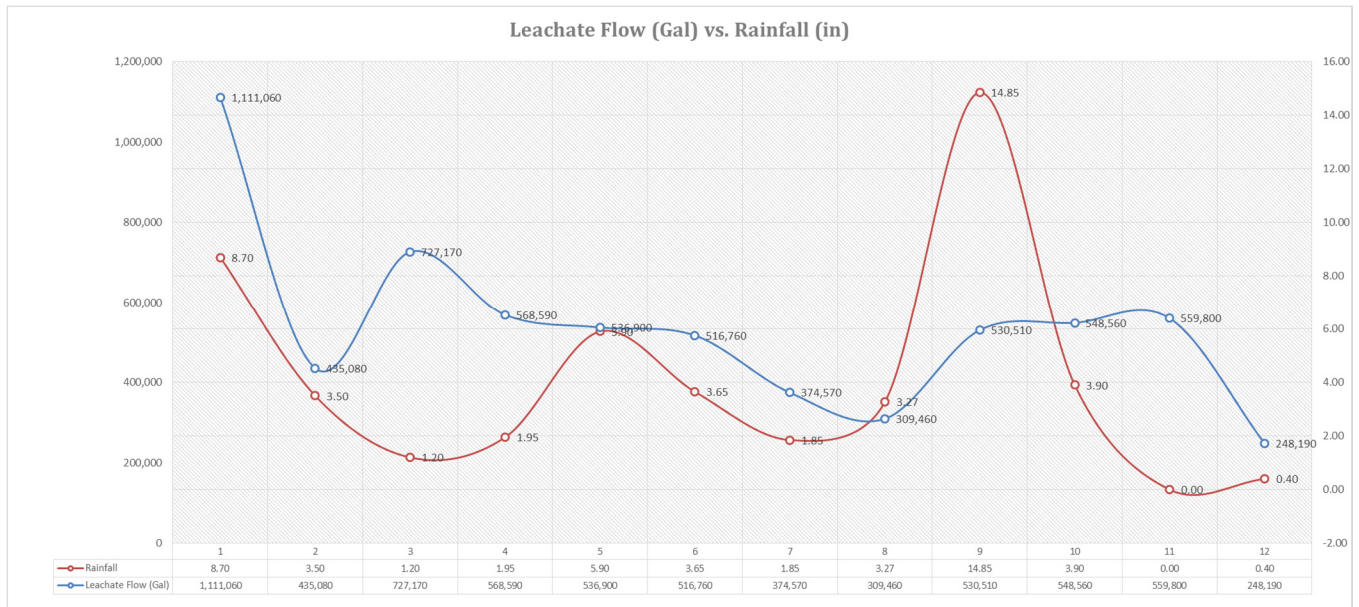
*g. Leachate Quantity Analysis Report. The permittee shall annually provide the Department a graphical representation of the monthly leachate generation rate for each of the 6 pumps and an analysis of the data. Any significant drop in leachate generation shall be explained or the root cause determined. The report must be submitted not later than January 31 following the reporting year.*

### Summary and Analysis

The leachate generation rates for the North Cell of the Tomoka Farms Road Landfill and the leachate collection system are monitored on a daily basis with flows recorded weekly. Daily inspections consists of a visual inspection looking for any alarm lights, physical damage to the panel or riser, and check the liquid level insuring that the readings are within the set parameters. If any damage is noticed or the system is not operating properly, troubleshooting and repairs are initiated. If the riser will be down for greater than 24 hours for repairs, a temporary pump is set up and leachate is pumped to the closest riser or cleanout.

Weekly meter readings are gathered in the field, then entered into a spreadsheet, tracked throughout the year, compared to the recent rainfall, and analyzed. If the analysis shows an unusual rise or drop in leachate generation as compared to the rainfall for that period, troubleshooting and subsequent repairs to the system are made and documented. Rainfall is recorded daily directly adjacent to the North Cell at the leachate treatment facility. During the reporting period, January 2016 through December 2016, the leachate generation rates tracked closely with the rainfall trending up with an increase in rain and trending down with a decrease in rainfall. Figure 1 is provided as a graphical representation of leachate generation rates vs. rainfall for the period of January 2016 through December 2016.

**Figure 1 (Leachate Flow vs. Rainfall)**



**Table 1 (monthly leachate flow)**

2016 Leachate Collection Riser Sumps Tomoka Landfill Class I																	
Month	Riser 1		Riser 2		Riser 3		Riser 4		Riser 5		Riser 6		Riser 7		Total		
	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	
January	22	185,640	4	33,875	0.35	4,500	5.5	55,275	16	118,560	5.1	37,650		675,560	52.95	1,111,060	
February	26	192,200	3	24,900	0.25	2,200	7.1	69,860	7.6	121,970	2.8	23,950	29	497,900	46.75	435,080	
March	47	217,850	6	48,700	5	36,400	11.5	125,300	24.5	248,580	5.7	50,340	27	487,200	99.7	727,170	
April	41	286,050	4	33,800	2	7,400	8.2	79,860	12.3	122,700	5.2	38,780	46	230,100	72.7	568,590	
May	45	281,360	4	31,800	1	300	7.1	69,580	19	111,360	4.8	42,500	15	134,600	80.9	536,900	
June	40	285,310	4	45,900	2	12,800	5.4	55,100	8.8	94,470	2.8	23,180	7	84,700	63	516,760	
July	33	206,830	5	29,100	3	14,600	7.6	68,500	5.5	55,500	0.15	40	6	76,600	54.25	374,570	
August	42	178,520	0.15	100	0	0	1.8	15,960	2	19,770	8.4	68,610	4	26,500	58	309,460	
September	52	257,190	0	0	0	0	8.7	76,500	17	142,080	5.3	54,740	0	0	83	530,510	
October	66	253,090	0.25	900	0	0	16.3	124,930	18	124,570	5.4	45,070	0	0	106	548,560	
November	71	177,630	0.75	8,700	1.75	16,100	9.6	76,260	11	89,200	8.1	65,410	14	126,500	116	559,800	
December	7	48,270	1	12,500	2	21,000	4.9	41,660	8	65,800	5.5	46,560	3	12,400	31	248,190	
Total Annual Flow Per Riser		2,569,940		270,275		115,300		858,785		1,314,560		496,830		2,352,060		6,466,650	