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Sent: Thursday, February 15, 2018 5:39 PM
To: Tafuni, Steven
Cc: Madden, Melissa; Morgan, Steve; Dilmore, Cory; Freedenberg, Henry; Kimberly Byer (ByerK@hillsboroughcounty.org); RuizLE@hillsboroughcounty.org; O'Neill, Joseph(Hillsborough County); Pelley, Cindy (Hillsborough County); Clark, Bruce; Spradlin, Kollan; Devitt, Caroline; Michael Townsel; Chamberlain, Justin; Hsu, Benjamin; Curtis, Bob
Subject: Southeast County Landfill OGC File No. 17-0058 - Liquid Assessment Monitoring Monthly Progress Report for January 2018
Attachments: R20180215 January Liquid Assessment Monitoring Monthly Report.pdf

Dear Mr. Tafuni,

On behalf of Hillsborough County Public Works Department, Solid Waste Management Division, SCS Engineers is submitting the attached PDF of the January 2018 monthly progress report for the liquid assessment monitoring and dewatering activities completed at the Southeast County Landfill. This update is being submitted as a requirement of condition 9.(f) of the July 28, 2017 Consent Agreement between the State of Florida Department of Environmental Protection and Hillsborough County.

Please contact Ken Guilbeault (813-804-6716) or Bob Curtis (813-804-6701) if you have any questions or require additional information.

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LIQUID ASSESSMENT MONITORING MONTHLY PROGRESS REPORT FOR JANUARY 2018

SOUTHEAST COUNTY LANDFILL LITHIA, FLORIDA

Submitted to:

Hillsborough County Public Works Department
Solid Waste Management Division
322 N. Falkenburg Rd.
Tampa, Florida 33619



**Hillsborough
County Florida**

Prepared by:

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February 15, 2018
File No. 09215600.05

Offices Nationwide
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FOR JANUARY 2018**

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Lithia, Florida**

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2-15-2018

Robert B. Curtis, P.E.
No. 73758

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1 INTRODUCTION

On behalf of Hillsborough County Public Works Department, Solid Waste Management Division (SWMD), SCS Engineers (SCS) is submitting this report to present the January 2018 monthly progress for the liquid assessment monitoring and dewatering activities completed at the Southeast County Landfill (SCLF) located in Lithia, Florida. This update is being submitted as a requirement of condition 9.(f) of the July 28, 2017, Consent Agreement between the State of Florida Department of Environmental Protection (FDEP) and Hillsborough County, Florida (the County). Condition 9.(f) states that the County shall submit a monthly progress report that, “shall include the preceding monthly leachate generation rates and weekly piezometers readings for the site.”

2 BACKGROUND

In June 2016, the SWMD and SCS initiated an investigation related to elevated groundwater quality parameters at monitoring well TH-67 and its possible connection to the leachate liquid levels in Phase II of the SCLF. Investigations of Phases I-VI indicate elevated liquid levels in the Phases I and II areas.

Efforts have been made to collect reliable liquid level data and install measures to provide supplemental pumping of leachate from the landfill. Several reports have been submitted to the FDEP updating the liquid assessment investigation and monitoring. Of note are two major reports. Information from February 2016 through December 2016 was presented in the Liquid Assessment Monitoring Findings Report dated December 13, 2016 (December 2016 Report). Information from December 2016 through May 2017 was presented in the Liquid Assessment Monitoring Supplemental Findings Report dated June 13, 2017 (June 2017 Report).

Progress reports have been submitted monthly since July 2017. The following sections update and summarize data collected and actions initiated for the month of January 2018. Leachate pumpage data, piezometer readings, and dewatering activities are addressed below.

3 LEACHATE PUMPAGE DATA

Historically, a pump at permanent Pump Station B (PS-B) has removed leachate from Phases I-VI. As part of the on-going supplemental leachate removal at the SCLF, the SWMD has been pumping from additional locations. The supplemental pump locations are shown in **Figure 1**.

3.1 SUPPLEMENTAL DEWATERING LOCATIONS

3.1.1 Landfill Gas Extraction Well Network Phases I - VI

The SWMD has installed pneumatic pumps in existing Landfill Gas (LFG) Extraction Wells (EW) and Condensate Traps (CT) in the Phase I and II areas. Pumps were installed in four LFG EWs (EW-38, EW-44, EW-48, and EW-66) and three CTs (CT-1, CT-2, and CT-3). Air lines to operate the pumps and discharge lines were connected to the existing LFG system.

3.1.2 Pump Stations

TPS-2

In February 2017, the SWMD excavated trenches in the waste along the eastern side of Phase II in an attempt to locate the Phase II header pipe. The SWMD installed a temporary sump at the southeast portion of the eastern footprint of Phase II. A vacuum assisted diesel pump was installed to remove leachate from this location. This location is referred to as Temporary Pump Station 2 (TPS-2). Leachate from this pump was conveyed to the Main Leachate Pump Station (MLPS). On August 7, 2017, a pneumatic pump was installed in TPS-2 replacing the diesel pump. That pump was removed on August 18, 2017 due to low pumping rates. Historical data is still presented in the leachate pumpage tables in **Appendix A**.

PS-2 and TPS-2B

Following the installation of the cut-off trench along the east and southern sides of Phase II, pumps were installed in the cleanouts of the pipeline within the cut-off trench. Pump Station 2 (PS-2) has a vacuum assisted diesel pump located at the eastern edge of Phase II in Cleanout 2-1. PS-2 pumps leachate from the Phase II header. Temporary Pump Station 2B (TPS-2B) has a diesel pump installed at Cleanout 2-2 at the southeast corner of Phase II. TPS-2B pumps leachate from the cut-off trench pipe. Leachate from these pumps is conveyed to the MLPS.

3.1.3 Dewatering Wells

In May 2017, two leachate dewatering wells, with two pumps each, were installed in Phases I and II. The wells extend through the waste and drainage sand to the top of clay. The dewatering wells in Phase I are referred to as DW 1-1 and DW 1-2. The dewatering wells in Phase II are referred to as DW 2-1 and DW 2-2. A set of pneumatic pumps were installed in each of these wells in order to pump leachate from the lower waste and drainage sand layer, thus removing leachate at the lowest elevation possible.

3.2 SUPPLEMENTAL LEACHATE PUMPAGE DATA

As part of the on-going investigation of liquid, the SWMD collects pumping data from each of the supplemental dewatering locations described above. **Table 1** summarizes the monthly pumping totals for January 2018. The daily leachate pumpage data through the end of January 2018 is provided in **Appendix A**.

Table 1. Summary of January 2018 Supplemental Pumping Data

Pump	Phase	Days Operation	Monthly Total (Gallons)
CT-1	II	29	516,477
CT-2	I	19	3,437
CT-3	I	0	0
EW-38	II	0	0
EW-44	I	28	7,941
EW-48	I	29	8,742
EW-66	II	30	175,342
DW 1-1	I	30	30,828
DW 1-2	I	0	0
DW 2-1	II	30	18,895
DW 2-2	II	0	0
PS-2 (CO 2-1)	II	24	595,211
TPS-2B (CO 2-2)	II	0	0
JANUARY TOTAL			1,336,873

3.3 SUPPLEMENTAL LEACHATE PUMPAGE DATA OBSERVATIONS FOR JANUARY 2018

- A total of approximately 1,336,873 gallons was removed from the Phase I and II areas from supplemental pumping in January 2018. The average daily supplemental withdrawal was 43,125 gallons per day (GPD).
- The pneumatic pumps installed in three LFG extraction wells (EW-44, EW-48, and EW-66) and condensate traps CT-1 and CT-2 removed approximately 22,966 (avg.) GPD combined in January 2018.
- Condensate Trap CT-3 continued to be dry.
- LFG extraction well EW-38 was dry. This extraction well has been dry since September 2017. On January 3, 2018, SCS verified that the liquid level is below the top of pump and the pump is functioning properly.
- All pumps were turned off on January 9 and 10 for the SWMD to conduct a tracer dye test in the Phase II header pipe. Results of the Phase II tracer dye test were reported with the December 2017 progress report.
- PS-2, located on the east side of Phase II, was turned off for 7 days for cleaning and inspection of the Phase II header.
- TPS-2B, located on the south side of Phase II, was turned off for all of January 2018. Following modifications to the cut-off trench, there is limited accumulation at CO 2-2 and liquid flows to CO 2-1.

- DW 1-1 and DW 2-1 each pumped for 30 days and averaged 994 and 610 GPD, respectively. DW 1-2 and DW 2-2 did not pump during January 2018.
- During January 2018, the total pumping increased by approximately 246,100 gallons compared to December 2017. This is most likely due to the fact that PS-2 operated more days in January 2018 compared to December 2017.

4 PIEZOMETER READINGS

As part of the on-going investigation of liquid, the SWMD measures piezometer water levels once a week. Piezometers are differentiated by two construction types, Series-1 and Series-2. The Series-1 piezometers are screened in waste. They were originally intended to be temporary and do not prevent the downward migration of “perched liquids” intersected above the temporary piezometer screen (if any). Therefore, liquid levels in Series-1 piezometers may not be representative of true head over liner conditions at the SCLF. The Series-2 piezometers are screened in the drainage sand layer only. Installation of the Series-2 piezometers was completed to more accurately measure liquid levels. Locations of the current monitoring points are shown in **Figure 2**.

Additionally, daily precipitation data is collected from multiple rain gauges across the site and averaged for a daily rainfall total that is then presented as cumulative weekly rainfall. Weekly water level and precipitation data collected through the end of January is presented in **Appendix B**.

4.1 SERIES 1 PIEZOMETER AND PRECIPITATION DATA OBSERVATIONS FOR JANUARY 2018

The Series-1 piezometers continue to exhibit water levels that fluctuate with total rainfall. An average of 3.63-inches of rain was recorded at the on-site rain gauges in January. Most piezometers show a downward trend in depth during the month of January.

4.2 RESPONSE OF SERIES-2 PIEZOMETERS

Most Series-2 piezometers show a downward trend during October through January (**Appendix B**). This demonstrates that the piezometers are responding to the supplemental leachate removal.

Piezometer SB-25D, located in Phase I, was damaged in September 2017. Attempts were made by the SWMD to implement repairs, but it was determined that SB-25D could not be repaired.

4.3 PHASE II CUT-OFF TRENCH

Monitoring and dewatering of the cut-off trench continues. The liquid levels in monitoring points MP 2-2 and MP 2-3 remained below 2 feet during January 2018. With the modifications to the cut-off trench completed in December 2017, the liquid elevations at MP 2-2 and MP 2-3 are approximately equal. Record drawings for the cut-off trench are included in **Appendix C**.

5 LIQUID REMOVAL ACTIVITIES

The SWMD has been following the activities outlined in the Corrective Action Plan (CAP) submitted to the FDEP on June 26, 2017. A draft of a revised CAP was submitted for review and comments on November 27, 2017. Written comments were provided by the FDEP on December 22, 2017. The SWMD will submit a revised CAP to the FDEP. Upon acceptance of the final submittal by the FDEP, the SWMD will begin to implement any changes in activities per the revised CAP.

5.1 ADDITIONAL LIQUID REMOVAL ACTIVITIES

5.1.1 Phase II Dye Tracer Test

On January 9, 2018, SWMD personnel conducted a dye tracer test in the main header of the Phase II Leachate Collection and Recovery System (LCRS). The test confirmed connectivity and continuity of the collection pipeline in the Phase II disposal, through Phase III, and into PS-B. Results of the Phase II tracer dye test were included in the December 2017 progress report.

5.1.2 Phase I Dye Tracer Test

On January 31, 2018, SWMD personnel conducted a dye tracer test in the main header of the Phase I LCRS. A fluorescent dye was mixed with water and pumped into the Phase I header through the CO 1-1 intake pipe. Liquid samples were collected at Pump Station A (PS-A), which received discharge from PS-B. An auto-sampler device was used to collect samples each half-hour after the injection of the dye and water mixture. Dye was only injected in the Phase I header and not in any other locations, so the test shows that the dye was coming from the Phase I disposal area.

The dye was visually observed in the sample collected approximately one hour and 45 minutes after the initial dye was injected. Samples from one hour and 15 minutes, one hour and 45 minutes, and two hours and 15 minutes after the initial injection were sent to Environmental Conservation Laboratories in Orlando, Florida for fluorescence analysis under optimal dye wavelength.

A memorandum describing the field activities with conclusions and recommendations is included in **Appendix D**.

6 WATER BALANCE

Per the Consent Agreement, the SWMD has been submitting monthly water balance reports to the FDEP prior to the 15th of each month. These reports contain leachate pumpage and storage data at the SCLF. A copy of the January 2018 Water Balance letter is presented in **Appendix E**.

7 WATER QUALITY

7.1 NOVEMBER 2017 QUARTERLY SAMPLING AND ANALYSIS

Per Condition 10 of the Consent Agreement, the SWMD continued supplemental quarterly evaluation monitoring of select groundwater monitoring wells in November 2017. Results of the August 2017 sampling event show improving water quality at TH-67. The November 2017 sampling event was completed and the analytical results were submitted to the FDEP on January 18, 2018. The next round of supplemental sampling will be conducted in February 2018 and the analytical results will be presented to the FDEP under separate cover within 30-days of receipt of the laboratory data.

8 CONCLUSIONS

The SWMD continues to conduct liquid level assessment and dewatering activities in an effort to gain a more comprehensive understanding of the leachate movement within the landfill and to expedite dewatering in Phases I and II. The SWMD will continue to monitor leachate pumping rates and piezometer liquid levels.

FIGURES

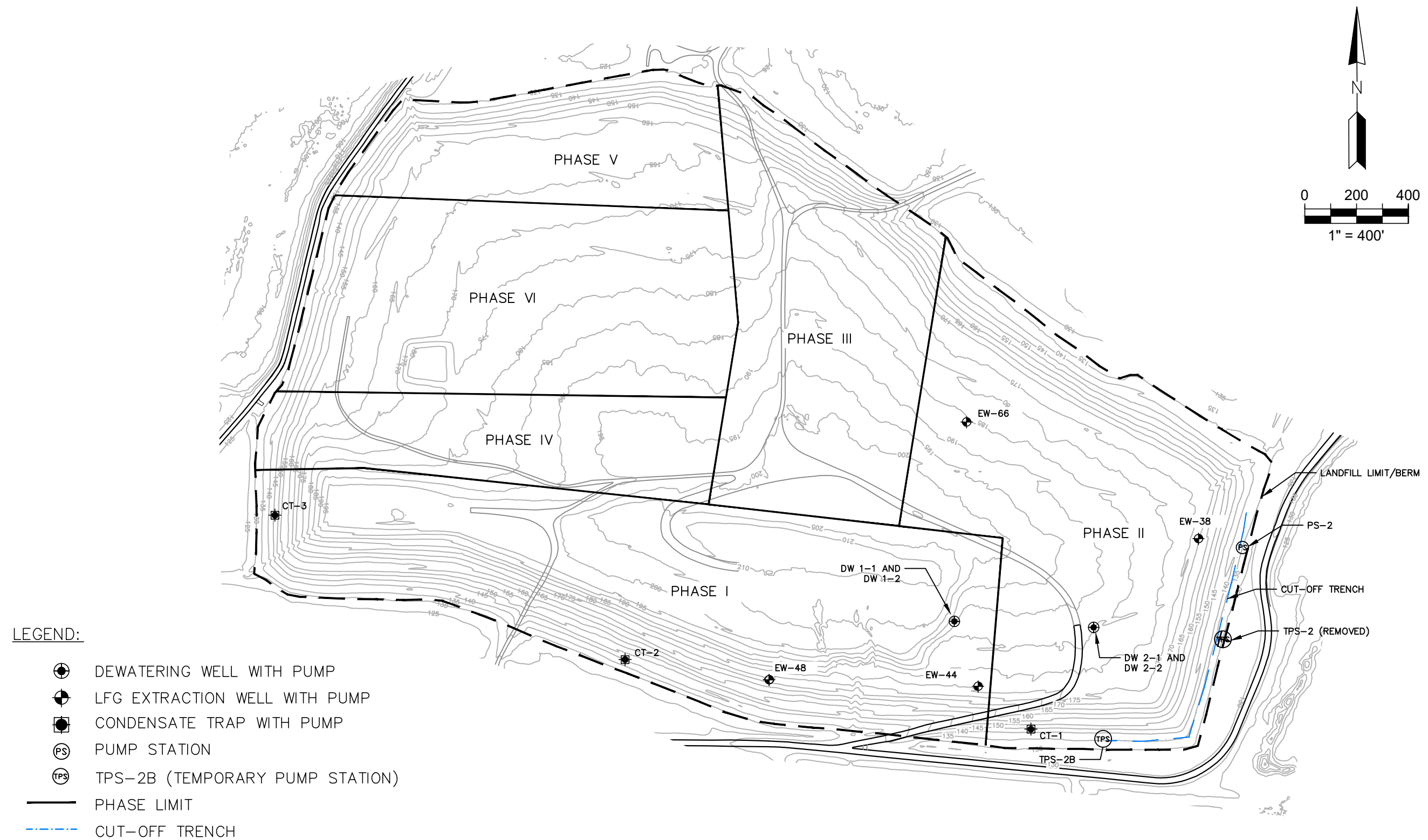


FIGURE 1. MAP OF SUPPLEMENTAL DEWATERING LOCATIONS
SOUTHEAST COUNTY LANDFILL
FEBRUARY 2018

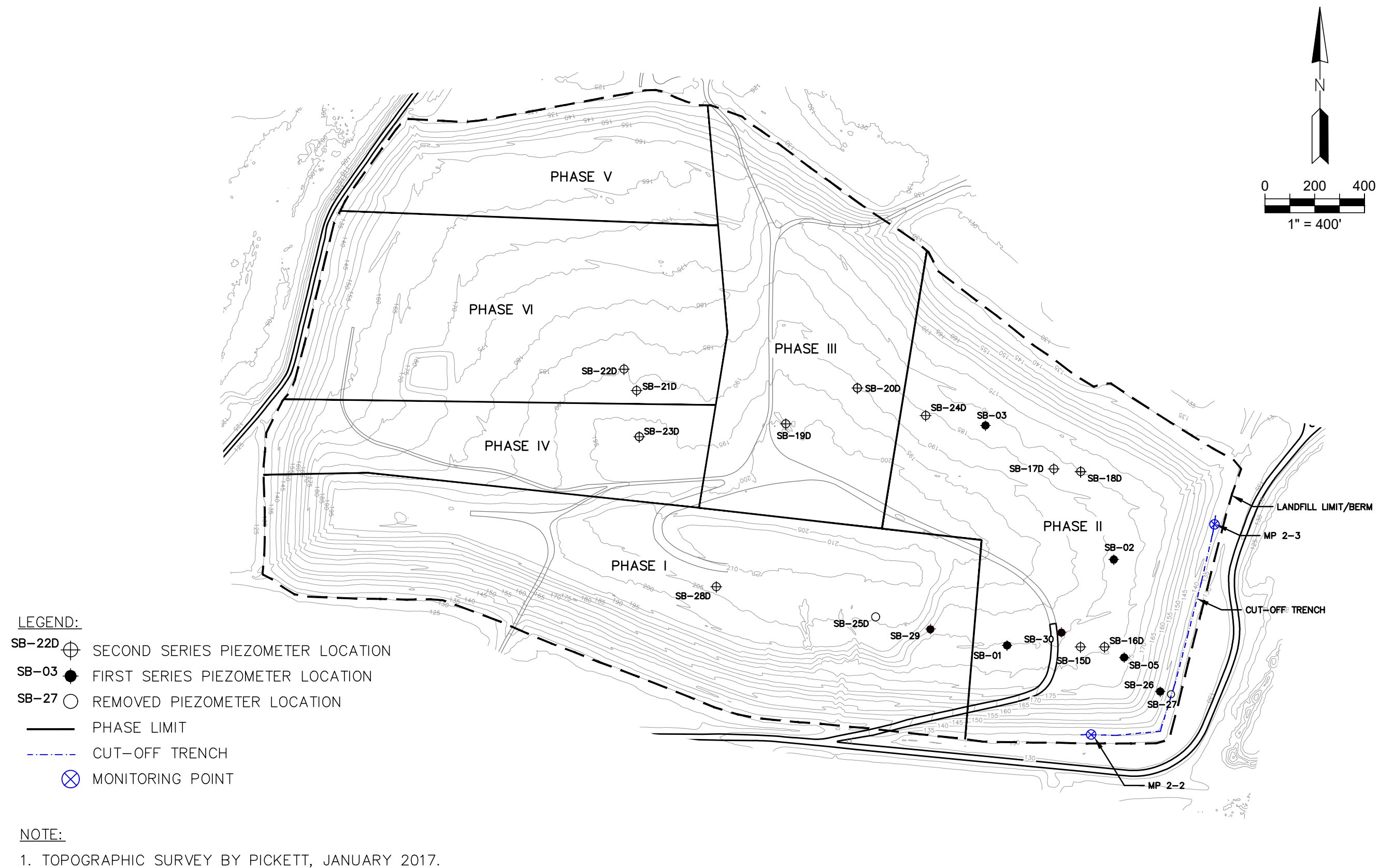


FIGURE 2. MAP OF PIEZOMETERS AND MONITORING POINTS
SOUTHEAST COUNTY LANDFILL
FEBRUARY 2018

Appendix A

Daily Pumpage Data and Graphs

Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
12/21/2016	0	0	0	0	988	537	0	1,525			0		1,525	
12/22/2016	0	0	0	0	754	433	0	1,187			0		1,187	
12/23/2016	0	0	0	0	1,016	568	0	1,584	4,296	614	0		1,584	
12/24/2016	0	0	0	0	0	0	0	0			0		0	
12/25/2016	0	0	0	0	165	91	0	256			0		256	
12/26/2016	0	0	0	0	1,526	745	0	2,271			0		2,271	
12/27/2016	0	0	0	0	710	500	0	1,210			0		1,210	
12/28/2016	0	0	0	0	1,192	500	0	1,692			0		1,692	
12/29/2016	0	0	0	0	854	468	0	1,322			0		1,322	
12/30/2016	0	0	0	0	824	449	0	1,273	8,024	1146	0		1,273	
12/31/2016	0	0	0	0	0	0	0	0			0		0	
1/1/2017	0	0	0	0	231	124	0	355			0		355	
1/2/2017	0	0	0	0	1,483	730	0	2,213			0		2,213	
1/3/2017	0	0	0	0	823	422	0	1,245			0		1,245	
1/4/2017	0	0	0	0	893	470	0	1,363			0		1,363	
1/5/2017	2,004	0	0	0	799	421	0	3,224			2004		1,220	
1/6/2017	514	0	0	0	791	427	0	1,732	10,132	1447	514		1,218	
1/7/2017	0	0	0	0	0	0	0	0			0		0	
1/8/2017	806	0	0	0	280	139	0	1,225			806		419	
1/9/2017	761	0	0	0	584	1,451	0	2,796			761		2,035	
1/10/2017	0	0	0	0	0	0	0	0			0		0	
1/11/2017	4,435	0	0	0	1,722	117	0	6,274			4435		1,839	
1/12/2017	2,341	0	0	0	897	652	0	3,890			2341		1,549	
1/13/2017	2,173	0	0	0	808	551	0	3,532	17,717	2531	2173		1,359	
1/14/2017	812	0	0	0	290	247	0	1,349			812		537	
1/15/2017	0	934	0	0	0	0	0	934			934		0	
1/16/2017	2,884	584	0	0	1,386	1,133	0	5,987			3468		2,519	
1/17/2017	2,610	89	0	0	914	789	0	4,402			2699		1,703	
1/18/2017	2,700	106	0	0	871	747	0	4,424			2806		1,618	
1/19/2017	2,068	260	0	0	635	601	0	3,564			2328		1,236	
1/20/2017	2,569	336	0	0	777	714	0	4,396	25,056	3579	2905		1,491	
1/21/2017	0	0	0	0	0	0	0	0			0		0	
1/22/2017	973	430	0	0	259	266	0	1,928			1403		525	
1/23/2017	3,074	164	0	0	1,305	1,113	0	5,656			3238		2,418	
1/24/2017	2,030	173	0	0	737	615	0	3,555			2203		1,352	
1/25/2017	1,737	488	0	0	666	623	0	3,514			2225		1,289	
1/26/2017	1,680	469	0	0	646	642	0	3,437			2149		1,288	
1/27/2017	1,531	250	0	0	608	473	0	2,862	20,952	2993	1781		1,081	
1/28/2017	1,664	87	0	0	608	401	0	2,760			1751		1,009	
1/29/2017	1,664	77	0	0	608	401	0	2,750			1741		1,009	
1/30/2017	808	0	0	0	647	386	0	1,841			808		1,033	
1/31/2017	2,139	36	0	0	776	412	0	3,363			2175		1,188	
2/1/2017	1,887	62	0	0	661	434	0	3,044			1949		1,095	
2/2/2017	1887	62	0	0	661	434	0	3,044			1949		1,095	
2/3/2017	2992	626	0	0	959	684	0	5,261	22,063	3152	3618		1,643	
2/4/2017	2992	626	0	0	1109	685	0	5,412			3618		1,794	
2/5/2017	0	0	0	0	0	0	0	0			0		0	
2/6/2017	1164	351	0	0	643	370	0	2,528			1515		1,013	
2/7/2017	0	434	0	0	579	439	0	1,452			434		1,018	
2/8/2017	6303	434	0	0	770	449	0	7,956			6737		1,219	
2/9/2017	8443	436	0	0	686	424	0	9,989			8879		1,110	
2/10/2017	7597	382	0	0	516	355	0	8,850	36,187	5170	7979		871	
2/11/2017	9119	322	0	0	645	443	0	10,529			9441		1,088	
2/12/2017	9119	322	0	0	645	443	0	10,529			9441		1,088	
2/13/2017	9208	0	0	0	813	444	0	10,465			9208		1,257	
2/14/2017	9731	0	0	0	1178	452	0	11,361			9731		1,630	
2/15/2017	9807	0	0	0	886	445	0	11,138			9807		1,331	
2/16/2017	9233	0	0	0	712	404	0	10,349			9233		1,116	
2/17/2017	7652	0	0	0	552	342	0	8,546	72,917	10417	7652		894	
2/18/2017	9223	1	0	0	543	399	0	10,166			9224		942	

Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
2/19/2017	9223	1	0	0	543	399	0	10,166			9224		942	
2/20/2017	9480	0	0	0	516	424	0	10,420			9480		940	
2/21/2017	9836	0	0	0	578	427	0	10,841			9836		1,005	
2/22/2017	9142	0	0	0	595	421	0	10,158			9142		1,016	
2/23/2017	4816	83	0	0	580	496	0	5,975			4899		1,076	
2/24/2017	4923	32	0	0	480	410	0	5,845	63,571	9082	4955		890	
2/25/2017	3677	0	0	0	459	368	0	4,504			3677		827	
2/26/2017	3677	0	0	0	459	368	0	4,504			3677		827	
2/27/2017	1580	2	0	0	439	418	0	2,439			1582		857	
2/28/2017	1574	0	0	0	481	447	0	2,502			1574		928	
3/1/2017	1667	158	0	0	504	455	0	2,784			1825		959	
3/2/2017	2182	364	0	0	429	515	0	3,490			2546		944	
3/3/2017	1327	168	0	0	201	329	0	2,025	22,248	3178	1495	2339	530	839
3/4/2017	1327	168	0	0	201	329	0	2,025			1495		530	
3/5/2017	1327	168	0	0	201	329	0	2,025			1495		530	
3/6/2017	1392	358	0	0	330	326	0	2,406			1750		656	
3/7/2017	1635	803	0	0	519	422	0	3,379			2438		941	
3/8/2017	1424	133	0	0	458	367	0	2,382			1557		825	
3/9/2017	1680	205	0	0	510	418	0	2,813			1885		928	
3/10/2017	2090	366	0	0	543	420	0	3,419	18,449	2636	2456	1868	963	768
3/11/2017	2289	268	0	0	585	382	0	3,524			2557		967	
3/12/2017	2289	268	0	0	585	382	0	3,524			2557		967	
3/13/2017	2625	13	0	0	647	346	0	3,631			2638		993	
3/14/2017	2039	287	0	0	501	350	0	3,177			2326		851	
3/15/2017	1356	476	0	0	453	306	0	2,591			1832		759	
3/16/2017	1018	409	0	0	385	268	0	2,080			1427		653	
3/17/2017	1028	0	0	0	443	336	0	1,807	20,334	2905	1028	2052	779	853
3/18/2017	1430	195	0	0	524	452	0	2,601			1625		976	
3/19/2017	1430	195	0	0	524	452	0	2,601			1625		976	
3/20/2017	917	282	0	0	400	229	0	1,828			1199		629	
3/21/2017	1599	467	0	0	487	409	0	2,962			2066		896	
3/22/2017	1618	412	0	0	510	335	0	2,875			2030		845	
3/23/2017	1327	411	0	0	452	299	0	2,489			1738		751	
3/24/2017	1622	313	0	0	608	322	0	2,865	18,221	2603	1935	1745	930	858
3/25/2017	1739	0	0	0	298	370	0	2,407			1739		668	
3/26/2017	1739	0	0	0	298	370	0	2,407			1739		668	
3/27/2017	1500	0	0	0	360	403	0	2,263			1500		763	
3/28/2017	1324	0	0	0	339	409	0	2,072			1324		748	
3/29/2017	1042	0	0	0	335	383	0	1,760			1042		718	
3/30/2017	1408	0	0	0	388	445	0	2,241			1408		833	
3/31/2017	1056	0	0	0	411	390	0	1,857	15,007	2144	1056	1401	801	743
4/1/2017	982	0	0	0	426	427	0	1,835			982		853	
4/2/2017	982	0	0	0	426	427	0	1,835			982		853	
4/3/2017	909	0	0	0	366	411	0	1,686			909		777	
4/4/2017	786	0	0	0	185	352	0	1,323			786		537	
4/5/2017	827	1	0	0	376	440	0	1,644			828		816	
4/6/2017	643	1	8	0	245	306	0	1,203			652		551	
4/7/2017	537	1	0	0	204	283	0	1,025	10,551	1507	538	811	487	696
4/8/2017	90	0	0	0	59	64	0	213			90		123	
4/9/2017	0	0	0	0	0	0	0	0			0		0	
4/10/2017	241	0	0	0	368	239	0	848			241		607	
4/11/2017	464	0	0	141	304	234	0	1,143			464		679	
4/12/2017	795	2	0	111	320	379	1121	2,728			797		1,931	
4/13/2017	952	0	0	90	292	374	510	2,218			952		1,266	
4/14/2017	747	1	0	55	345	316	363	1,827	8,977	1282	748	470	1,079	812
4/15/2017	638	0	0	55	397	336	334	1,760			638		1,122	
4/16/2017	638	0	0	55	397	336	334	1,760			638		1,122	
4/17/2017	136	0	0	59	403	347	298	1,243			136		1,107	
4/18/2017	1118	0	0	46	451	364	335	2,314			1118		1,196	
4/19/2017	407	0	0	40	336	252	233	1,268			407		861	

Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
4/20/2017	551	0	0	49	437	333	293	1,663			551		1,112	
4/21/2017	537	0	0	66	396	287	281	1,567	11,575	1654	537	575	1,030	1079
4/22/2017	661	0	0	76	460	347	283	1,827			661		1,166	
4/23/2017	661	0	0	76	460	347	283	1,827			661		1,166	
4/24/2017	566	0	0	57	353	255	248	1,479			566		913	
4/25/2017	529	0	0	31	380	281	256	1,477			529		948	
4/26/2017	478	0	0	24	369	293	258	1,422			478		944	
4/27/2017	376	0	0	12	355	307	264	1,314			376		938	
4/28/2017	258	0	0	0	351	293	235	1,137	10,483	1498	258	504	879	993
4/29/2017	287	0	0	2	376	284	243	1,192			287		905	
4/30/2017	287	0	0	2	376	284	243	1,192			287		905	
5/1/2017	311	0	0	2	378	271	243	1,205			311		894	
5/2/2017	316	0	2	4	380	279	240	1,221			318		903	
5/3/2017	343	0	0	4	340	275	241	1,203			343		860	
5/4/2017	429	0	0	38	340	264	256	1,327			429		898	
5/5/2017	334	0	0	15	340	219	220	1,128	8,468	1210	334	330	794	880
5/6/2017	87	0	0	0	340	274	218	919			87		832	
5/7/2017	87	0	0	0	340	274	218	919			87		832	
5/8/2017	95	0	0	0	340	185	213	833			95		738	
5/9/2017	233	0	0	0	340	266	215	1,054			233		821	
5/10/2017	187	0	0	0	340	289	207	1,023			187		836	
5/11/2017	259	0	0	0	340	329	234	1,162			259		903	
5/12/2017	331	0	0	8	344	318	213	1,214	7,124	1018	331	183	883	835
5/13/2017	335	4	0	10	371	303	62	1,085			339		746	
5/14/2017	335	4	0	10	371	303	62	1,085			339		746	
5/15/2017	239	0	0	0	335	276	0	850			239		611	
5/16/2017	204	0	0	0	300	235	233	972			204		768	
5/17/2017	247	0	0	0	328	308	0	883			247		636	
5/18/2017	243	0	0	0	351	340	0	934			243		691	
5/19/2017	204	0	0	0	304	291	0	799	6,608	944	204	259	595	685
5/20/2017	255	0	0	0	332	309	274	1,170			255		915	
5/21/2017	255	0	0	0	332	309	274	1,170			255		915	
5/22/2017	334	0	0	0	302	285	240	1,161			334		827	
5/23/2017	338	0	0	0	317	270	230	1,155			338		817	
5/24/2017	394	0	0	3	337	278	237	1,249			394		855	
5/25/2017	306	0	0	0	314	252	208	1,080			306		774	
5/26/2017	286	0	0	0	270	229	190	975	7,960	1137	286	310	689	827
5/27/2017	353	0	0	0	294	261	197	1,105			353		752	
5/28/2017	353	0	0	0	294	261	197	1,105			353		752	
5/29/2017	353	0	0	0	294	261	197	1,105			353		752	
5/30/2017	355	0	0	0	288	264	191	1,098			355		743	
5/31/2017	355	0	0	0	301	266	189	1,111			355		756	
6/1/2017	315	0	0	0	304	262	194	1,075			315		760	
6/2/2017	371	0	0	0	277	207	189	1,044	7,643	1092	371	351	673	741
6/3/2017	364	0	0	0	302	218	189	1,073			364		709	
6/4/2017	364	0	0	0	302	218	189	1,073			364		709	
6/5/2017	425	0	0	0	308	208	187	1,128			425		703	
6/6/2017	402	0	0	0	316	204	216	1,138			402		736	
6/7/2017	449	0	0	0	32	195	197	873			449		424	
6/8/2017	442	0	0	0	556	176	159	1,333			442		891	
6/9/2017	454	0	0	0	262	205	0	921	7,539	1077	454	414	467	663
6/10/2017	488	0	0	0	279	199	0	966			488		478	
6/11/2017	488	0	0	0	279	199	0	966			488		478	
6/12/2017	424	0	0	0	270	186	0	880			424		456	
6/13/2017	428	0	0	0	248	192	0	868			428		440	
6/14/2017	442	0	0	0	276	198	0	916			442		474	
6/15/2017	511	0	0	0	296	237	0	1,044			511		533	
6/16/2017	395	0	0	0	281	227	0	903	6,543	935	395	454	508	481
6/17/2017	96	0	0	2	101	99	279	577			96		481	
6/18/2017	96	0	0	2	101	99	279	577			96		481	

Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
6/19/2017	113	0	0	19	314	190	500	1,136			113		1,023	
6/20/2017	415	0	0	8	301	256	0	980			415		565	
6/21/2017	585	0	0	0	274	234	0	1,093			585		508	
6/22/2017	663	0	0	0	288	247	0	1,198			663		535	
6/23/2017	619	0	0	0	268	250	0	1,137	6,698	957	619	370	518	587
6/24/2017	571	0	0	0	263	244	0	1,078			571		507	
6/25/2017	571	0	0	0	263	244	0	1,078			571		507	
6/26/2017	518	0	0	0	266	241	0	1,025			518		507	
6/27/2017	495	0	0	0	267	240	0	1,002			495		507	
6/28/2017	490	0	0	0	260	242	395	1,387			490		897	
6/29/2017	484	0	0	0	277	243	234	1,238			484		754	
6/30/2017	190	0	0	0	241	192	0	623	7,431	1062	190	474	433	587
7/1/2017	113	0	0	0	235	199	0	547			113		434	
7/2/2017	113	0	0	0	235	199	0	547			113		434	
7/3/2017	388	0	0	0	278	250	0	916			388		528	
7/4/2017	388	0	0	0	278	250	0	916			388		528	
7/5/2017	411	0	0	0	204	265	337	1,217			411		806	
7/6/2017	473	0	0	0	339	291	0	1,103			473		630	
7/7/2017	483	0	0	0	255	295	393	1,426	6,672	953	483	338	943	615
7/8/2017	492	0	0	0	286	296	0	1,074			492		582	
7/9/2017	492	0	0	0	286	296	0	1,074			492		582	
7/10/2017	451	0	0	12	288	295	220	1,266			451		815	
7/11/2017	399	0	0	0	241	296	15	951			399		552	
7/12/2017	342	0	0	0	259	304	50	955			342		613	
7/13/2017	473	0	0	0	281	371	1	1,126			473		653	
7/14/2017	873	0	0	0	263	316	0	1,452	7,898	1128	873	503	579	625
7/15/2017	475	0	0	0	269	496	1	1,241			475		766	
7/16/2017	475	0	0	0	269	496	1	1,241			475		766	
7/17/2017	529	0	0	0	221	642	0	1,392			529		863	
7/18/2017	389	0	0	0	226	520	0	1,135			389		746	
7/19/2017	505	0	0	0	331	847	0	1,683			505		1,178	
7/20/2017	435	0	0	0	257	712	0	1,404			435		969	
7/21/2017	464	0	0	0	273	756	1814	3,307	11,403	1629	464	467	2,843	1162
7/22/2017	470	0	0	0	285	712	608	2,075			470		1,605	
7/23/2017	470	0	0	0	285	712	608	2,075			470		1,605	
7/24/2017	523	0	0	0	304	838	424	2,089			523		1,566	
7/25/2017	513	0	0	0	301	843	363	2,020			513		1,507	
7/26/2017	529	0	0	0	323	919	328	2,099			529		1,570	
7/27/2017	540	0	0	0	340	873	94	1,847			540		1,307	
7/28/2017	528	0	0	0	319	771	0	1,618	13,823	1975	528	510	1,090	1464
7/29/2017	526	0	0	0	330	730	0	1,586			526		1,060	
7/30/2017	526	0	0	0	330	730	0	1,586			526		1,060	
7/31/2017	2884	105	0	1027	398	613	0	5,027			2989		2,038	
8/1/2017	1634	0	0	886	406	895	5	3,826			1634		2,192	
8/2/2017	656	0	0	735	318	377	1353	3,439			656		2,783	
8/3/2017	942	0	0	902	348	941	6393	9,526			942		8,584	
8/4/2017	1005	0	0	833	324	990	5261	8,413	33,403	4772	1005	1183	7,408	3589
8/5/2017	986	0	0	1267	357	1331	6135	10,076			986		9,090	
8/6/2017	986	0	0	1267	357	1331	6135	10,076			986		9,090	
8/7/2017	1041	0	0	1579	391	1574	6173	10,758			1041		9,717	
8/8/2017	828	0	0	1512	363	1193	5553	9,449			828		8,621	
8/9/2017	913	0	0	1518	412	1364	5862	10,069			913		9,156	
8/10/2017	898	0	0	1571	426	1349	6181	10,425			898		9,527	
8/11/2017	889	0	0	1535	451	1313	5949	10,137	70,990	10141	889	934	9,248	9207
8/12/2017	720	0	0	1399	455	1019	5697	9,290			720		8,570	
8/13/2017	720	0	0	1399	455	1019	5697	9,290			720		8,570	
8/14/2017	748	0	0	1427	493	1049	5987	9,704			748		8,956	
8/15/2017	696	0	0	1378	502	1089	5921	9,586			696		8,890	
8/16/2017	674	0	0	1341	510	980	5974	9,479			674		8,805	
8/17/2017	701	0	0	1341	540	959	5976	9,517			701		8,816	

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Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
8/18/2017	630	0	0	1378	543	1044	6632	10,227	67,093	9585	630	698	9,597	8886
8/19/2017	665	0	0	1314	509	1041	6540	10,069			665		9,404	
8/20/2017	665	0	0	1314	509	1041	6540	10,069			665		9,404	
8/21/2017	662	0	0	1093	453	932	5934	9,074			662		8,412	
8/22/2017	595	0	0	1215	437	896	6642	9,785			595		9,190	
8/23/2017	669	0	0	1220	610	856	6367	9,722			669		9,053	
8/24/2017	730	0	0	1190	509	845	5965	9,239			730		8,509	
8/25/2017	866	0	0	1112	498	702	6612	9,790	67,748	9678	866	693	8,924	8985
8/26/2017	4390	13	0	1235	550	719	6530	13,437			4403		9,034	
8/27/2017	4390	13	0	1235	550	719	6530	13,437			4403		9,034	
8/28/2017	6605	0	0	1017	465	842	5286	14,215			6605		7,610	
8/29/2017	5418	0	0	1268	0	1012	6422	14,120			5418		8,702	
8/30/2017	16198	0	0	1409	1290	1467	6447	26,811			16198		10,613	
8/31/2017	12471	0	0	1504	518	2345	5610	22,448			12471		9,977	
9/1/2017	5913	0	0	2207	607	1948	4675	15,350	119,818	19970	5913	7916	9,437	7853
9/2/2017	8289	0	0	3816	915	2967	9150	25,137			8289		16,848	
9/3/2017	4144	0	0	1908	458	1483	4575	12,568			4144		8,424	
9/4/2017	4144	0	0	1908	458	1483	4575	12,568			4144		8,424	
9/5/2017	6165	0	0	1597	425	1278	3723	13,188			6165		7,023	
9/6/2017	12707	12	0	3395	732	2692	5786	25,324			12719		12,605	
9/7/2017	0	13	0	0	0	0	0	13			13		0	
9/8/2017	26709	0	0	5127	1493	4083	11836	49,248	138,046	23008	26709	8883	22,539	10838
9/9/2017	0	0	0	0	0	0	0	0			0		0	
9/10/2017	0	0	0	0	0	0	0	0			0		0	
9/11/2017	0	0	0	0	0	0	0	0			0		0	
9/12/2017	0	0	0	0	0	0	0	0			0		0	
9/13/2017	0	0	0	0	0	0	0	0			0		0	
9/14/2017	21344	0	0	3502	1320	2680	8439	37,285			21344		15,941	
9/15/2017	0	0	0	0	0	0	0	0	37,285	6214	0	3049	0	2277
9/16/2017	0	0	0	0	0	0	0	0			0		0	
9/17/2017	0	0	0	0	0	0	1	1			0		1	
9/18/2017	0	0	0	0	0	0	0	0			0		0	
9/19/2017	7629	31	0	392	0	4315	0	12,367			7660		4,707	
9/20/2017	140	0	0	511	0	521	0	1,172			140		1,032	
9/21/2017	0	5110	0	0	0	0	0	5,110			5110		0	
9/22/2017	8150	2	0	6725	0	5399	6674	26,950	45,600	6514	8152	3009	18,798	3505
9/23/2017	26000	1	0	2702	0	3368	6243	38,314			26001		12,313	
9/24/2017	11193	1	0	0	0	2774	6248	20,216			11194		9,022	
9/25/2017	10065	1	0	1	0	2183	5053	17,303			10066		7,237	
9/26/2017	9428	3	0	0	0	2637	5344	17,412			9431		7,981	
9/27/2017	8577	726	0	0	0	1729	4877	15,909			9303		6,606	
9/28/2017	0	1	0	1	0	2032	1	2,035			1		2,034	
9/29/2017	9529	2	0	0	0	2217	4744	16,492	127,681	18240	9531	10790	6,961	7451
9/30/2017	9140	329	0	0	0	2175	6076	17,720			9469		8,251	
10/1/2017	9140	329	0	0	0	2175	6076	17,720			9469		8,251	
10/2/2017	7072	123	0	0	0	1615	5565	14,375			7195		7,180	
10/3/2017	8375	139	0	0	0	1806	6147	16,467			8514		7,953	
10/4/2017	7611	152	0	0	1797	1729	5180	16,469			7763		8,706	
10/5/2017	8547	122	0	0	1465	1606	6413	18,153			8669		9,484	
10/6/2017	9391	141	0	0	724	1769	5029	17,054	117,958	16851	9532	8659	7,522	8192
10/7/2017	9752	138	0	0	875	1554	4700	17,019			9890		7,129	
10/8/2017	9752	138	0	0	875	1554	4700	17,019			9890		7,129	
10/9/2017	9719	142	0	0	753	1322	4344	16,280			9861		6,419	
10/10/2017	9255	152	0	0	808	1002	4416	15,633			9407		6,226	
10/11/2017	12813	184	0	0	1081	1642	7263	22,983			12997		9,986	
10/12/2017	8344	116	0	0	845	809	5178	15,292			8460		6,832	
10/13/2017	10651	142	0	0	704	872	6218	18,587	122,813	17545	10793	10185	7,794	7359
10/14/2017	12707	151	0	0	747	1233	7480	22,318			12858		9,460	
10/15/2017	12707	151	0	0	747	1233	7480	22,318			12858		9,460	
10/16/2017	8834	100	0	0	516	803	5286	15,539			8934		6,605	

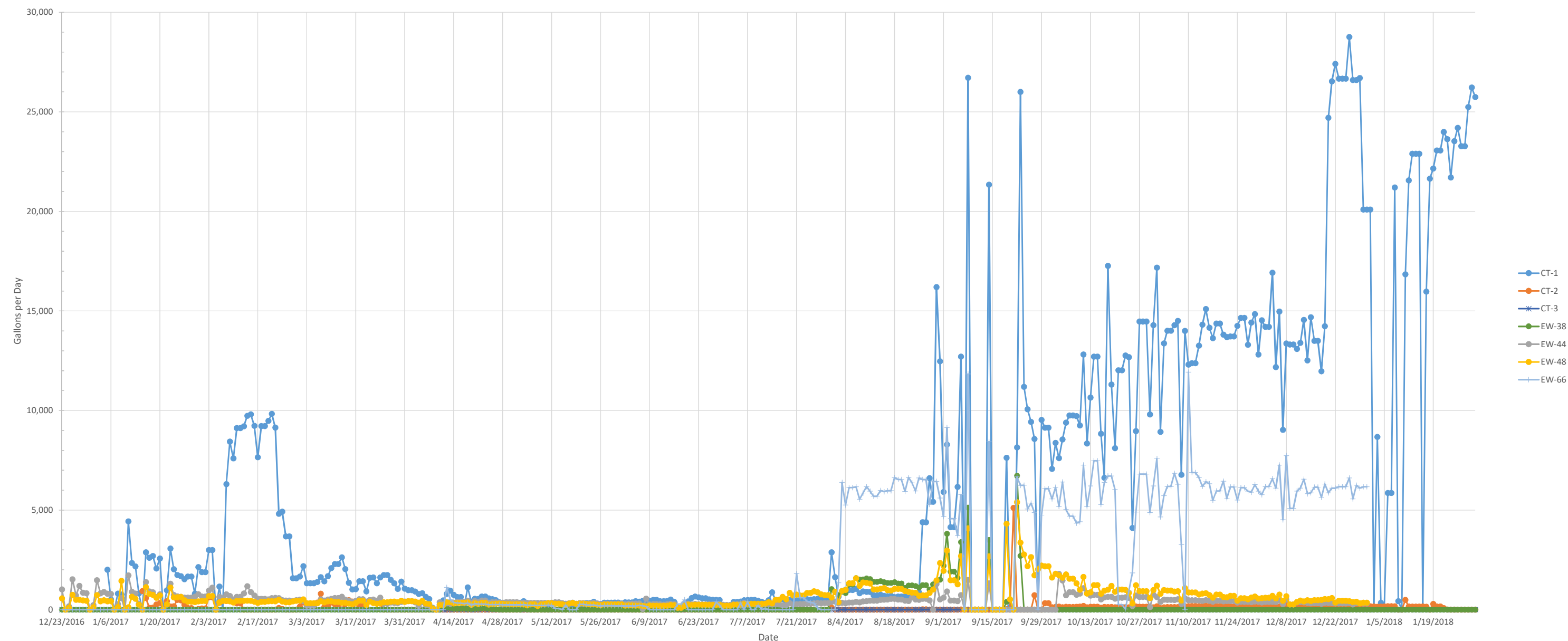
Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
10/17/2017	6624	134	0	0	617	954	6393	14,722			6758		7,964	
10/18/2017	17264	132	0	0	646	1002	6711	25,755			17396		8,359	
10/19/2017	11304	137	0	0	646	1192	6715	19,994			11441		8,553	
10/20/2017	8111	114	0	0	556	901	6031	15,713	136,359	19480	8225	11210	7,488	8270
10/21/2017	12024	130	0	0	600	1014	255	14,023			12154		1,869	
10/22/2017	12024	130	0	0	600	1014	255	14,023			12154		1,869	
10/23/2017	12762	126	0	0	623	989	34	14,534			12888		1,646	
10/24/2017	12685	115	0	0	590	844	942	15,176			12800		2,376	
10/25/2017	4103	37	0	0	179	316	1850	6,485			4140		2,345	
10/26/2017	8968	159	0	0	714	1229	4901	15,971			9127		6,844	
10/27/2017	14467	147	0	0	635	931	6809	22,989	103,201	14743	14614	11125	8,375	3618
10/28/2017	14467	147	0	0	635	931	6809	22,989			14614		8,375	
10/29/2017	14467	147	0	0	635	931	6809	22,989			14614		8,375	
10/30/2017	9801	0	0	0	130	577	4877	15,385			9801		5,584	
10/31/2017	14288	117	0	0	756	983	6217	22,361			14405		7,956	
11/1/2017	17179	165	0	0	633	1207	7588	26,772			17344		9,428	
11/2/2017	8928	80	0	0	395	802	4657	14,862			9008		5,854	
11/3/2017	13372	118	0	0	501	983	5728	20,702	146,060	20866	13490	13325	7,212	7541
11/4/2017	14005	129	0	0	494	961	6190	21,779			14134		7,645	
11/5/2017	14005	129	0	0	494	961	6190	21,779			14134		7,645	
11/6/2017	14288	131	0	0	484	911	6847	22,661			14419		8,242	
11/7/2017	14501	132	0	0	522	929	6299	22,383			14633		7,750	
11/8/2017	6774	134	0	0	281	459	3261	10,909			6908		4,001	
11/9/2017	14000	166	0	0	575	1078	0	15,819			14166		1,653	
11/10/2017	12305	176	0	0	473	868	11930	25,752	141,082	20155	12481	12982	13,271	7172
11/11/2017	12380	188	0	0	474	867	6886	20,795			12568		8,227	
11/12/2017	12380	188	0	0	474	867	6886	20,795			12568		8,227	
11/13/2017	13259	165	0	0	461	765	6631	21,281			13424		7,857	
11/14/2017	14314	180	0	0	443	807	6189	21,933			14494		7,439	
11/15/2017	15099	193	0	0	479	825	6423	23,019			15292		7,727	
11/16/2017	14156	182	0	0	444	735	6326	21,843			14338		7,505	
11/17/2017	13634	125	0	0	401	607	5496	20,263	149,929	21418	13759	13778	6,504	7641
11/18/2017	14368	183	0	0	452	756	5962	21,721			14551		7,170	
11/19/2017	14368	183	0	0	452	756	5962	21,721			14551		7,170	
11/20/2017	13812	174	0	0	420	636	6450	21,492			13986		7,506	
11/21/2017	13691	177	0	0	431	621	5573	20,493			13868		6,625	
11/22/2017	13723	162	0	0	437	695	6165	21,182			13885		7,297	
11/23/2017	13723	162	0	0	437	695	6165	21,182			13885		7,297	
11/24/2017	14257	140	0	0	360	456	5504	20,717	148,508	21215	14397	14160	6,320	7055
11/25/2017	14654	150	0	0	393	575	6124	21,896			14804		7,092	
11/26/2017	14654	150	0	0	393	575	6124	21,896			14804		7,092	
11/27/2017	13301	155	0	0	387	524	5953	20,320			13456		6,864	
11/28/2017	14420	187	0	0	374	612	5900	21,493			14607		6,886	
11/29/2017	14844	192	0	0	409	664	6286	22,395			15036		7,359	
11/30/2017	12815	167	0	0	394	553	5949	19,878			12982		6,896	
12/1/2017	14531	167	0	0	365	579	5773	21,415	149,293	21328	14698	14341	6,717	6987
12/2/2017	14202	181	0	0	387	599	6185	21,554			14383		7,171	
12/3/2017	14202	181	0	0	387	599	6185	21,554			14383		7,171	
12/4/2017	16926	233	0	0	390	693	6577	24,819			17159		7,660	
12/5/2017	12181	137	0	0	386	565	6100	19,369			12318		7,051	
12/6/2017	14969	152	0	0	466	755	7260	23,602			15121		8,481	
12/7/2017	9028	199	0	0	279	445	4518	14,469			9227		5,242	
12/8/2017	13367	227	0	0	504	676	7734	22508	147,875	21125	13594	13741	8,914	7384
12/9/2017	13317	143	0	0	261	264	5086	19,071			13460		5,611	
12/10/2017	13317	143	0	0	261	264	5086	19,071			13460		5,611	
12/11/2017	13095	182	0	0	362	381	5955	19,975			13277		6,698	
12/12/2017	13396	172	0	0	382	457	6103	20,510			13568		6,942	
12/13/2017	14552	153	0	0	373	417	6550	22,045			14705		7,340	
12/14/2017	12515	170	0	0	346	473	5825	19,329			12685		6,644	
12/15/2017	14688	167	0	0	319	434	5868	21,476	141,477	20211	14855	13716	6,621	6495

Appendix A - Pumping Data
Extraction Wells and Condensate Traps
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Condensate Traps			LFG Extraction Wells				All (gpd)	WEEKLY TOTAL (gal)	Daily Avg (gpd)	CTs		EWs	
	CT-1 (gal)	CT-2 (gal)	CT-3 (gal)	EW-38 (gal)	EW-44 (gal)	EW-48 (gal)	EW-66 (gal)				Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
12/16/2017	13500	169	0	0	329	478	6152	20,628			13669		6,959	
12/17/2017	13500	169	0	0	329	478	6152	20,628			13669		6,959	
12/18/2017	11973	161	0	0	302	489	5642	18,567			12134		6,433	
12/19/2017	14234	185	0	0	352	537	6312	21,620			14419		7,201	
12/20/2017	24701	164	0	0	334	531	5865	31,595			24865		6,730	
12/21/2017	26536	176	0	0	329	587	6102	33,730			26712		7,018	
12/22/2017	27409	169	0	0	312	360	6102	34,352	181,120	25874	27578	19007	6,774	6868
12/23/2017	26669	174	0	0	315	446	6180	33,784			26843		6,941	
12/24/2017	26669	174	0	0	315	446	6180	33,784			26843		6,941	
12/25/2017	26669	174	0	0	315	446	6180	33,784			26843		6,941	
12/26/2017	28762	180	0	0	330	430	6618	36,320			28942		7,378	
12/27/2017	26600	155	0	0	265	384	5565	32,969			26755		6,214	
12/28/2017	26598	173	0	0	331	398	6250	33,750			26771		6,979	
12/29/2017	26701	166	0	0	315	321	6109	33,612	238,003	34000	26867	27123	6,745	6877
12/30/2017	20093	166	0	0	309	354	6172	27,094			20259		6,835	
12/31/2017	20093	166	0	0	309	354	6172	27,094			20259		6,835	
1/1/2018	20093	166	0	0	309	354	6172	27,094			20259		6,835	
1/2/2018	109	159	0	0	310	301	6266	7,145			268		6,877	
1/3/2018	8675	144	0	0	306	276	6279	15,680			8819		6,861	
1/4/2018	348	158	0	0	269	311	5939	7,025			506		6,519	
1/5/2018	90	163	0	0	262	326	6164	7,005	118,137	16877	253	10089	6,752	6788
1/6/2018	5863	171	0	0	282	356	6175	12,847			6034		6,813	
1/7/2018	5863	171	0	0	282	356	6175	12,847			6034		6,813	
1/8/2018	21201	166	0	0	300	469	5978	28,114			21367		6,747	
1/9/2018	426	2	0	0	8	5	193	634			428		206	
1/10/2018	0	2	0	0	1	1	0	4			2		2	
1/11/2018	16841	493	0	0	479	593	5338	23,744			17334		6,410	
1/12/2018	21557	159	0	0	0	385	6030	28,131	106,321	15189	21716	10416	6,415	4772
1/13/2018	22898	155	0	0	379	232	6152	29,816			23053		6,763	
1/14/2018	22898	155	0	0	379	232	6152	29,816			23053		6,763	
1/15/2018	22898	155	0	0	379	232	6152	29,816			23053		6,763	
1/16/2018	13	164	0	0	78	263	6081	6,599			177		6,422	
1/17/2018	15975	149	0	0	317	265	6098	22,804			16124		6,680	
1/18/2018	21643	6	0	0	271	209	5784	27,913			21649		6,264	
1/19/2018	22155	289	0	0	281	257	5570	28,552	175,316	25045	22444	18508	6,108	6538
1/20/2018	23061	161	0	0	277	303	6305	30,107			23222		6,885	
1/21/2018	23061	161	0	0	277	303	6305	30,107			23222		6,885	
1/22/2018	23993	78	0	0	292	374	6420	31,157			24071		7,086	
1/23/2018	23632	10	0	0	258	292	6102	30,294			23642		6,652	
1/24/2018	21700	0	0	0	218	228	5526	27,672			21700		5,972	
1/25/2018	23530	0	0	0	242	224	6295	30,291			23530		6,761	
1/26/2018	24192	0	0	0	234	273	5771	30,470	210,098	30014	24192	23368	6,278	6646
1/27/2018	23276	0	0	0	270	314	5947	29,807			23276		6,531	
1/28/2018	23276	0	0	0	270	314	5947	29,807			23276		6,531	
1/29/2018	25242	0	0	0	240	243	5991	31,716			25242		6,474	
1/30/2018	26225	0	0	0	222	210	5869	32,526			26225		6,301	
1/31/2018	25743	0	0	0	249	241	6166	32,399			25743		6,656	

Appendix A - Pumping Data
LFG Extraction Wells and Condensate Traps



Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
2/17/2017	-	-	-	-	2000	-	-	2000	2000	2000	0		2000	
2/18/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/19/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/20/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/21/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/22/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/23/2017	-	-	-	-	2000	-	-	2000			0		2000	
2/24/2017	-	-	-	-	1600	-	-	1600	13,600	1,943	0		1600	
2/25/2017	-	-	-	-	1600	-	-	1600			0		1600	
2/26/2017	-	-	-	-	1600	-	-	1600			0		1600	
2/27/2017	-	-	-	-	1600	-	-	1600			0		1600	
2/28/2017	-	-	-	-	1600	-	-	1600			0		1600	
3/1/2017	-	-	-	-	1600	-	-	1600			0		1600	
3/2/2017	-	-	-	-	1600	-	-	1600			0		1600	
3/3/2017	-	-	-	-	5000	-	-	5000	14,600	2,086	0		5000	
3/4/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/5/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/6/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/7/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/8/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/9/2017	-	-	-	-	5000	-	-	5000			0		5000	
3/10/2017	-	-	-	-	12000	-	-	12000	42,000	6,000	0		12000	
3/11/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/12/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/13/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/14/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/15/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/16/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/17/2017	-	-	-	-	12000	-	-	12000	84,000	12,000	0		12000	
3/18/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/19/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/20/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/21/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/22/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/23/2017	-	-	-	-	12000	-	-	12000			0		12000	
3/24/2017	-	-	-	-	9000	-	-	9000	81,000	11,571	0		9000	
3/25/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/26/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/27/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/28/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/29/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/30/2017	-	-	-	-	9000	-	-	9000			0		9000	
3/31/2017	-	-	-	-	9000	-	-	9000	63,000	9,000	0		9000	
4/1/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/2/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/3/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/4/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/5/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/6/2017	-	-	-	-	7000	-	-	7000			0		7000	
4/7/2017	-	-	-	-	7000	-	-	7000	49,000	7,000	0		7000	
4/8/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/9/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/10/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/11/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/12/2017	-	-	-	-	6000	-	-	6000			0		6000	

Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
4/13/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/14/2017	-	-	-	-	6000	-	-	6000	42,000	6,000	0		6000	
4/15/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/16/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/17/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/18/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/19/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/20/2017	-	-	-	-	6000	-	-	6000			0		6000	
4/21/2017	-	-	-	-	5000	-	-	5000	41,000	5,857	0		5000	
4/22/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/23/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/24/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/25/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/26/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/27/2017	-	-	-	-	5000	-	-	5000			0		5000	
4/28/2017	-	-	-	-	4600	-	-	4600	34,600	4,943	0		4600	
4/29/2017	-	-	-	-	4600	-	-	4600			0		4600	
4/30/2017	-	-	-	-	4600	-	-	4600			0		4600	
5/1/2017	-	-	-	-	4600	-	-	4600			0		4600	
5/2/2017	-	-	-	-	4600	-	-	4600			0		4600	
5/3/2017	-	-	-	-	4600	-	-	4600			0		4600	
5/4/2017	-	-	-	-	4600	-	-	4600			0		4600	
5/5/2017	-	-	-	-	4000	-	-	4000	31,600	4,514	0		4000	
5/6/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/7/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/8/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/9/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/10/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/11/2017	-	-	-	-	4000	-	-	4000			0		4000	
5/12/2017	-	-	-	-	3000	-	-	3000	27,000	3,857	0		3000	
5/13/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/14/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/15/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/16/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/17/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/18/2017	-	-	-	-	3000	-	-	3000			0		3000	
5/19/2017	578	252	317	22	6,100	-	-	7,269	25,269	12,634.5	1169		6,100	
5/20/2017	578	252	317	22	6,045	-	-	7,214			1169		6,045	
5/21/2017	579	252	317	22	4,835	-	-	6,005			1170		4,835	
5/22/2017	443	15	278	0	5,269	-	-	6,005			736		5,269	
5/23/2017	431	6	277	0	5,037	-	-	5,751			714		5,037	
5/24/2017	520	421	292	0	4,566	-	-	5,799			1233		4,566	
5/25/2017	575	418	252	0	4,404	-	-	5,649			1245		4,404	
5/26/2017	429	448	228	2	3,984	-	-	5,091	41,514	5,930.6	1107		3,984	
5/27/2017	436	464	239	2	3,468	-	-	4,609			1141	1049	3,468	4509
5/28/2017	436	464	239	0	3,459	-	-	4,598			1139		3,459	
5/29/2017	436	464	239	0	1,926	-	-	3,065			1139		1,926	
5/30/2017	399	677	225	0	4,831	-	-	6,132			1301		4,831	
5/31/2017	415	167	236	0	3,552	-	-	4,370			818		3,552	
6/1/2017	406	422	239	0	3,295	-	-	4,362			1067		3,295	
6/2/2017	354	419	219	0	3,406	-	-	4,398	31,534	4,504.9	992	1085	3,406	3420
6/3/2017	393	442	242	0	3,325	-	-	4,402			1077		3,325	
6/4/2017	393	442	242	0	3,320	-	-	4,397			1077		3,320	
6/5/2017	425	414	240	0	3,317	-	-	4,396			1079		3,317	
6/6/2017	387	443	268	0	3,455	-	-	4,553			1098		3,455	

Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
6/7/2017	435	442	264	0	3,554	-	-	4,695			1141		3,554	
6/8/2017	450	374	241	0	3,786	-	-	4,851			1065		3,786	
6/9/2017	417	383	214	0	3,276	-	-	4,290	31,584	4,489	1014	1079	3,276	3433
6/10/2017	447	387	210	0	3,005	-	-	4,049			1044		3,005	
6/11/2017	447	387	210	0	2,750	-	-	3,794			1044		2,750	
6/12/2017	386	356	197	6	2,850	-	-	3,795			945		2,850	
6/13/2017	595	581	0	205	2,679	-	-	4,060			1381		2,679	
6/14/2017	653	730	0	239	2,283	-	-	3,905			1622		2,283	
6/15/2017	527	853	0	282	2,305	-	-	3,967			1662		2,305	
6/16/2017	412	743	0	267	2,764	-	-	4,186	27,756	3,965.1	1422	1303	2,764	2662
6/17/2017	103	166	1	52	4,013	-	-	4,335			322		4,013	
6/18/2017	103	166	1	52	3,082	-	-	3,404			322		3,082	
6/19/2017	0	0	7	234	3,162	-	-	3,403			241		3,162	
6/20/2017	0	0	0	331	3,207	-	-	3,538			331		3,207	
6/21/2017	0	0	0	362	3,072	-	-	3,434			362		3,072	
6/22/2017	0	0	0	296	3,038	-	-	3,334			296		3,038	
6/23/2017	0	0	0	189	3,161	-	-	3,350	24,798	3,542.6	189	295	3,161	3248
6/24/2017	0	0	0	0	3,331	-	-	3,331			0		3,331	
6/25/2017	0	0	0	0	3,162	-	-	3,162			0		3,162	
6/26/2017	1876	1	73	1	1,212	-	-	3,163			1951		1,212	
6/27/2017	1356	1	5	0	3,825	-	-	5,187			1362		3,825	
6/28/2017	1143	1	0	0	3,699	-	-	4,843			1144		3,699	
6/29/2017	1130	0	0	0	3,174	-	-	4,304			1130		3,174	
6/30/2017	1007	0	1	0	3,009	-	-	4,017	28,007	4,001.0	1008	942	3,009	3059
7/1/2017	933	0	0	0	2,943	-	-	3,876			933		2,943	
7/2/2017	933	0	0	0	3,253	-	-	4,186			933		3,253	
7/3/2017	770	183	0	0	3,234	-	-	4,187			953		3,234	
7/4/2017	770	183	0	0	8,575	-	-	9,528			953		8,575	
7/5/2017	530	519	0	4	8,476	-	-	9,529			1053		8,476	
7/6/2017	864	59	1	285	5,905	-	-	7,114			1209		5,905	
7/7/2017	793	31	251	47	3,325	-	-	4,447	42,867	6,123.9	1122	1022	3,325	5102
7/8/2017	597	401	248	2	3,999	-	-	5,247			1248		3,999	
7/9/2017	597	401	248	2	5,302	-	-	6,550			1248		5,302	
7/10/2017	514	498	306	2	5,231	-	-	6,551			1320		5,231	
7/11/2017	408	454	200	3	6,111	-	-	7,176			1065		6,111	
7/12/2017	464	486	195	0	5,409	-	-	6,554			1145		5,409	
7/13/2017	49	916	214	20	5,436	-	-	6,635			1199		5,436	
7/14/2017	0	1048	296	0	5,537	-	-	6,881	45,594	6,513.4	1344	1224	5,537	5289
7/15/2017	0	1450	287	0	9,639	-	-	11,376			1737		9,639	
7/16/2017	0	1450	287	0	8,925	-	-	10,662			1737		8,925	
7/17/2017	0	333	46	0	10,283	-	-	10,662			379		10,283	
7/18/2017	1	1159	177	10	4,666	-	-	6,013			1347		4,666	
7/19/2017	0	266	146	13	8,470	-	-	8,895			425		8,470	
7/20/2017	3	1092	127	3	8,208	-	-	9,433			1225		8,208	
7/21/2017	888	165	155	1	940	-	-	2,149	59,190	8,455.7	1209	1151	940	7304
7/22/2017	1191	0	135	0	0	-	-	1,326			1326		0	
7/23/2017	1191	0	135	0	0	-	-	1,326			1326		0	
7/24/2017	1194	0	128	0	0	-	-	1,322			1322		0	
7/25/2017	399	544	89	4	21,828	-	-	22,864			1036		21,828	
7/26/2017	0	825	75	0	10,750	-	-	11,650			900		10,750	
7/27/2017	872	108	205	3	3,065	-	-	4,253			1188		3,065	
7/28/2017	684	110	168	15	10,683	-	-	11,660	54,401	7,772	977	1154	10,683	6618
7/29/2017	1824	0	448	0	19,027	-	-	21,299			2272		19,027	
7/30/2017	912	0	224	0	9,513	-	-	10,649			1136		9,513	
7/31/2017	878	0	254	0	8,065	-	-	9,197			1132		8,065	

Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
8/1/2017	886	0	247	0	8,084	-	-	9,217			1133		8,084	
8/2/2017	536	138	188	5	-	19,748	-	20,615			867		19,748	
8/3/2017	726	260	242	0	-	17,426	-	18,654			1228		17,426	
8/4/2017	622	297	193	0	-	16,767	-	17,879	107,510	15,359	1112	1269	16,767	14090
8/5/2017	714	284	205	0	-	16,491	-	17,694			1203		16,491	
8/6/2017	714	284	205	0	-	16,491	-	17,694			1203		16,491	
8/7/2017	768	273	214	0	0	18,036	-	19,291			1255		18,036	
8/8/2017	742	241	196	0	0	18,861	-	20,040			1179		18,861	
8/9/2017	757	277	211	0	0	22,684	-	23,929			1245		22,684	
8/10/2017	235	84	71	0	5	23,493	-	23,888			390		23,498	
8/11/2017	629	389	208	0	0	21,995	32,268	55,489	178,025	25,432	1226	1100	54,263	24332
8/12/2017	753	300	241	2	0	10,060	11,356	22712			1296		21,416	
8/13/2017	753	300	241	0	0	21,416	0	22710			1294		21,416	
8/14/2017	650	349	241	0	0	10,005	12,244	23489			1240		22,249	
8/15/2017	657	300	243	0	0	261	15,433	16894			1200		15,694	
8/16/2017	718	261	236	0	0	0	7,980	9195			1215		7,980	
8/17/2017	796	275	259	0	0	26,657	14,179	42166			1330		40,836	
8/18/2017	858	257	261	0	-	5,270	13,046	19692	156,858	22,408	1376	1279	18,316	21130
8/19/2017	799	231	248	0	-	0	4,948	6226			1278		4,948	
8/20/2017	799	231	248	0	-	0	4,648	5926			1278		4,648	
8/21/2017	742	267	252	0	-	23,431	16,855	41547			1261		40,286	
8/22/2017	761	333	269	0	-	7,787	12,595	21745			1363		20,382	
8/23/2017	741	382	280	0	-	1,197	11,900	14500			1403		13,097	
8/24/2017	780	380	291	0	-	16,447	11,438	29336			1451		27,885	
8/25/2017	735	361	267	0	-	16,921	11,209	29493	148,773	21,253	1363	1342	28,130	19911
8/26/2017	763	345	289	0	-	18,515	2,269	22181			1397		20,784	
8/27/2017	763	345	289	0	-	20,784	0	22181			1397		20,784	
8/28/2017	909	389	379	0	-	15,222	18,861	35760			1677		34,083	
8/29/2017	997	5	315	0	-	18,113	14,360	33790			1317		32,473	
8/30/2017	983	0	323	0	-	17,940	15,094	34340			1306		33,034	
8/31/2017	1002	1	273	0	-	17,466	17,586	36328			1276		35,052	
9/1/2017	1084	134	288	0	-	0	21,149	22655	207,235	34,539	1506	1411	21,149	28194
9/2/2017	1509	0	502	0	-	1,774	6,036	9821			2011		7,810	
9/3/2017	755	0	251	0	-	887	3,018	4911			1006		3,905	
9/4/2017	755	0	251	0	-	887	3,018	4911			1006		3,905	
9/5/2017	676	1	230	0	-	117	9,442	10466			907		9,559	
9/6/2017	1133	566	442	0	-	33,613	23,292	59046			2141		56,905	
9/7/2017	1121	0	381	0	-	24,017	24,785	50304			1502		48,802	
9/8/2017	953	0	386	0	-	1,992	0	3331	142,790	23,798	1339	1416	1,992	18982.57
9/9/2017	1522	1	643	0	-	0	0	2166			2166		0	
9/10/2017	0	0	0	0	-	0	0	0			0		0	
9/11/2017	0	0	0	0	-	0	0	0			0		0	
9/12/2017	0	0	0	0	-	13,816	595	14411			0		14,411	
9/13/2017	0	0	0	0	-	41,478	35,164	76642			0		76,642	
9/14/2017	136	1	167	0	-	27,893	24,925	53122			304		52,818	
9/15/2017	0	0	15	0	-	326	27,079	27420	173,761	24,823	15	355	27,405	27405
9/16/2017	0	0	0	0	-	0	23,113	23113			0		23,113	
9/17/2017	0	0	0	0	-	24,524	0	24524			0		24,524	
9/18/2017	0	0	0	0	-	23,611	12,159	35770			0		35,770	
9/19/2017	0	0	728	0	-	0	0	728			728		0	
9/20/2017	1	987	213	1	-	0	1,550	2752			1202		1,550	
9/21/2017	0	1904	659	0	-	21,442	14,527	38532			2563		35,969	
9/22/2017	0	1824	771	0	-	18,799	12,365	33759	159,178	22,740	2595	1013	31,164	21727
9/23/2017	0	1622	703	0	-	13,958	24,934	41217			2325		38,892	
9/24/2017	0	1562	765	0	-	23,817	0	26144			2327		23,817	

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Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
9/25/2017	0	1244	644	0	-	11,059	22,574	35521			1888		33,633	
9/26/2017	0	1534	758	0	-	13,528	27,890	43710			2292		41,418	
9/27/2017	0	1092	643	0	-	4,633	0	6368			1735		4,633	
9/28/2017	0	1079	630	27	-	15,018	0	16754			1736		15,018	
9/29/2017	0	1264	804	0	-	7,818	36,447	46333	216,047	30,864	2068	2053	44,265	28811
9/30/2017	0	1124	762	0	-	1,053	12,721	15660			1886		13,774	
10/1/2017	0	1124	762	0	-	30,267	12,721	44874			1886		42,988	
10/2/2017	0	1118	781	0	-	37,705	30,377	69981			1899		68,082	
10/3/2017	0	1003	702	0	-	9,687	20,029	31421			1705		29,716	
10/4/2017	0	1024	710	27	-	299	23,119	25179			1761		23,418	
10/5/2017	0	559	848	0	-	34,708	24,613	60728			1407		59,321	
10/6/2017	0	646	847	0	-	26,894	21,754	50141	297,984	42,569	1493	1720	48,648	40850
10/7/2017	0	1029	797	0	-	2,077	6,381	10284			1826		8,458	
10/8/2017	0	1029	797	0	-	2,077	6,381	10284			1826		8,458	
10/9/2017	0	1048	571	49	-	0	0	1668			1668		0	
10/10/2017	1	0	164	3,519	-	36,733	0	40417			3684		36,733	
10/11/2017	0	0	0	0	-	26,442	28,217	54659			0		54,659	
10/12/2017	0	0	5	0	-	741	20,369	21115			5		21,110	
10/13/2017	0	0	0	0	-	474	21,723	22197	160,624	22,946	0	1287	22,197	21659
10/14/2017	0	0	0	0	-	586	21,068	21654			0		21,654	
10/15/2017	0	0	0	0	-	2,356	1,010	3366			0		3,366	
10/16/2017	0	0	0	0	-	0	29,881	29881			0		29,881	
10/17/2017	0	0	0	0	-	659	20,122	20781			0		20,781	
10/18/2017	0	0	1	0	-	21,773	16,262	38036			1		38,035	
10/19/2017	0	0	0	0	-	0	35,665	35665			0		35,665	
10/20/2017	0	0	0	0	-	0	5,506	5506	154,889	22,127	0	0	5,506	22127
10/21/2017	0	0	0	0	-	43,501	16,424	59925			0		59,925	
10/22/2017	0	0	0	0	-	18,294	14,582	32876			0		32,876	
10/23/2017	0	0	0	0	-	36,759	17,024	53783			0		53,783	
10/24/2017	0	0	0	0	-	35,472	17,011	52483			0		52,483	
10/25/2017	0	0	1	0	-	42,371	15,386	57758			1		57,757	
10/26/2017	0	0	1791	0	-	40,120	17,948	59859			1791		58,068	
10/27/2017	0	0	1290	0	-	17,197	12,450	30937	347,621	49,660	1290	440	29,647	49220
10/28/2017	0	0	1286	0	-	34,129	13,510	48925			1286		47,639	
10/29/2017	0	0	1193	0	-	35,409	1,879	38481			1193		37,288	
10/30/2017	0	0	1104	0	-	38,355	17,192	56651			1104		55,547	
10/31/2017	2821	0	1062	0	-	16,445	15,185	35513			3883		31,630	
11/1/2017	1858	0	1041	0	-	36,937	10,956	50792			2899		47,893	
11/2/2017	1568	0	1057	0	-	33,057	15,019	50701			2625		48,076	
11/3/2017	1589	0	1164	0	-	14,920	12,226	29899	310,962	44,423	2753	2249	27,146	42174
11/4/2017	1424	0	1041	0	-	32,528	9,053	44046			2465		41,581	
11/5/2017	1484	0	1090	0	-	3,103	0	5677			2574		3,103	
11/6/2017	1426	0	1047	0	-	2,152	1,069	5694			2473		3,221	
11/7/2017	1297	0	1018	0	-	20,425	20,740	43480			2315		41,165	
11/8/2017	711	0	618	0	-	20,143	14,220	35692			1329		34,363	
11/9/2017	1545	0	1329	0	-	17,977	12,650	33501			2874		30,627	
11/10/2017	1120	0	996	0	-	26,372	0	28488	196,578	28,083	2116	2307	26,372	25776
11/11/2017	1060	0	961	0	-	19,113	9,738	30872			2021		28,851	
11/12/2017	1074	0	1000	0	-	16,512	10,802	29388			2074		27,314	
11/13/2017	1101	0	1016	0	-	9,132	8,201	19450			2117		17,333	
11/14/2017	1123	0	1059	0	-	13,277	10,726	26185			2182		24,003	
11/15/2017	1123	0	1064	0	-	18,256	11,303	31746			2187		29,559	
11/16/2017	1055	0	998	0	-	0	8,508	10561			2053		8,508	
11/17/2017	1101	0	1021	0	-	34,175	7,328	43625	191,827	27,404	2122	2108	41,503	25296
11/18/2017	1085	0	1005	0	-	34,240	7,777	44107			2090		42,017	

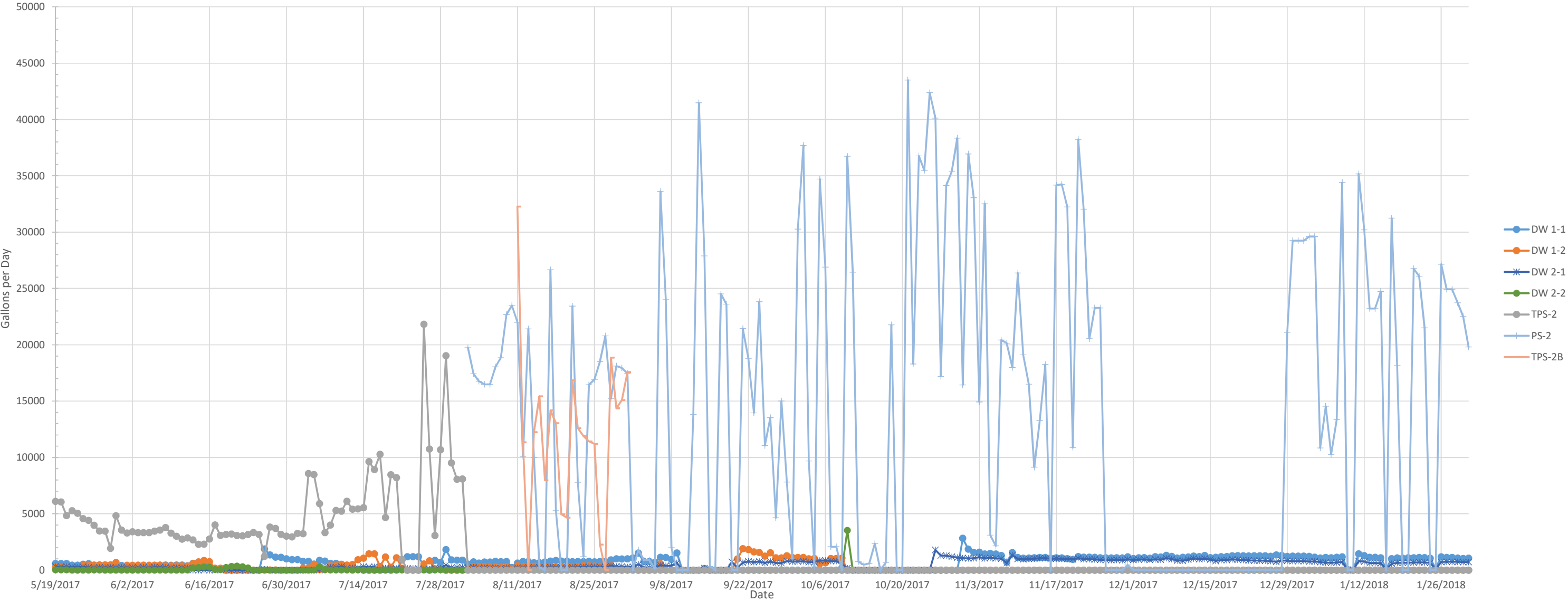
Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
11/19/2017	1017	0	1001	0	-	32,236	9,604	43858			2018		41,840	
11/20/2017	953	0	964	0	-	10,862	9,583	22362			1917		20,445	
11/21/2017	1198	0	1065	0	-	38,238	7,959	48460			2263		46,197	
11/22/2017	1147	0	977	0	-	32,043	3,039	37206			2124		35,082	
11/23/2017	1147	0	977	0	-	20,541	3,039	25704			2124		23,580	
11/24/2017	1132	0	952	0	-	23,275	13,576	38935	260,632	37,233	2084	2089	36,851	35145
11/25/2017	1091	0	913	0	-	23,275	470	25749			2004		23,745	
11/26/2017	1091	0	913	0	-	0	470	2474			2004		470	
11/27/2017	1076	0	891	0	-	0	0	1967			1967		0	
11/28/2017	1100	0	912	0	-	0	18,108	20120			2012		18,108	
11/29/2017	1082	0	885	0	-	0	11,527	13494			1967		11,527	
11/30/2017	1178	0	948	0	-	464	11,725	14315			2126		12,189	
12/1/2017	1030	0	903	0	-	0	9,693	11626	89,745	12,821	1933	2002	9,693	10819
12/2/2017	1098	0	932	0	-	0	9,201	11231			2030		9,201	
12/3/2017	1112	0	940	0	-	0	9,117	11169			2052		9,117	
12/4/2017	1055	0	910	0	-	0	8,567	10532			1965		8,567	
12/5/2017	1192	0	953	0	-	0	8,903	11048			2145		8,903	
12/6/2017	1168	0	924	0	-	0	8,647	10739			2092		8,647	
12/7/2017	1307	0	1052	0	-	0	0	2359			2359		0	
12/8/2017	1217	0	975	0	-	0	0	2192	59,270	8,467	2192	2119	0	6348
12/9/2017	1064	0	853	0	-	0	0	1917			1917		0	
12/10/2017	1129	0	829	0	-	0	0	1958			1958		0	
12/11/2017	1158	0	939	0	-	0	0	2097			2097		0	
12/12/2017	1238	0	1027	0	-	0	7,755	10020			2265		7,755	
12/13/2017	1204	0	971	0	-	0	11,415	13590			2175		11,415	
12/14/2017	1291	0	1012	0	-	0	10,031	12334			2303		10,031	
12/15/2017	1112	0	931	0	-	0	8,513	10556	52,472	7,496	2043	2108	8,513	5388
12/16/2017	1129	0	813	0	-	0	6,083	8025			1942		6,083	
12/17/2017	1189	0	893	0	-	0	3,838	5920			2082		3,838	
12/18/2017	1197	0	890	0	-	0	0	2087			2087		0	
12/19/2017	1269	0	947	0	-	0	7,810	10026			2216		7,810	
12/20/2017	1280	0	924	0	-	0	658	2862			2204		658	
12/21/2017	1268	0	894	0	-	0	14,271	16433			2162		14,271	
12/22/2017	1255	0	869	0	-	0	3,042	5166	50,519	7,217	2124	2117	3,042	5100
12/23/2017	1272	0	842	0	-	0	5,191	7305			2114		5,191	
12/24/2017	1272	0	842	0	-	0	5,191	7305			2114		5,191	
12/25/2017	1272	0	842	0	-	0	5,191	7305			2114		5,191	
12/26/2017	1234	0	800	0	-	0	11,034	13068			2034		11,034	
12/27/2017	1354	0	730	0	-	0	7,832	9916			2084		7,832	
12/28/2017	1297	0	852	0	-	0	0	2149			2149		0	
12/29/2017	1217	0	820	0	-	21,115	0	23152	70,200	10,029	2037	2092	21,115	7936
12/30/2017	1248	0	805	0	-	29,240	0	31293			2053		29,240	
12/31/2017	1248	0	805	0	-	29,240	0	31293			2053		29,240	
1/1/2018	1248	0	805	0	-	29,240	0	31293			2053		29,240	
1/2/2018	1219	0	753	0	-	29,615	0	31587			1972		29,615	
1/3/2018	1145	0	769	0	-	29,614	0	31528			1914		29,614	
1/4/2018	1063	0	710	0	-	10,842	0	12615			1773		10,842	
1/5/2018	1123	0	667	0	-	14,541	0	16331	185,940	26,563	1790	1944	14,541	24619
1/6/2018	1091	0	658	0	-	10,274	0	12023			1749		10,274	
1/7/2018	1129	0	675	0	-	13,359	0	15163			1804		13,359	
1/8/2018	1177	0	724	0	-	34,404	0	36305			1901		34,404	
1/9/2018	53	0	30	0	-	0	0	83			83		0	
1/10/2018	0	0	0	0	-	0	0	0			0		0	
1/11/2018	1450	0	797	0	-	35,168	0	37415			2247		35,168	
1/12/2018	1279	0	754	0	-	30,194	0	32227	133,216	19,031	2033	1402	30,194	17628

Appendix A - Pumping Data
Dewatering Wells and Pump Stations
Liquid Assessment Monitoring
Southeast County Landfill

DATE	Dewatering Wells				Pump Stations			Total (gpd)	WEEKLY	Daily Avg (gpd)	DWs		PSs	
	DW 1-1 (gal)	DW 1-2 (gal)	DW 2-1 (gal)	DW 2-2 (gal)	TPS-2 (gal)	PS-2 (CO 2-1) (gal)	TPS-2B (CO 2-2) (gal)		TOTAL (gal)		Total (gal)	Daily Avg (gpd)	Total (gal)	Daily Avg (gpd)
1/13/2018	1135	0	631	0	-	23,223	0	24989			1766		23,223	
1/14/2018	1135	0	631	0	-	23,223	0	24989			1766		23,223	
1/15/2018	1099	0	617	0	-	24,740	0	26456			1716		24,740	
1/16/2018	136	0	67	0	-	0	0	203			203		0	
1/17/2018	1011	0	567	0	-	31,253	0	32831			1578		31,253	
1/18/2018	1082	0	648	0	-	18,148	0	19878			1730		18,148	
1/19/2018	1050	0	644	0	-	0	0	1694	131,040	18,720	1694	1493	0	17227
1/20/2018	1095	0	662	0	-	0	0	1757			1757		0	
1/21/2018	1095	0	662	0	-	26,763	0	28520			1757		26,763	
1/22/2018	1120	0	687	0	-	26,084	0	27891			1807		26,084	
1/23/2018	1112	0	683	0	-	21,495	0	23290			1795		21,495	
1/24/2018	1054	0	641	0	-	0	0	1695			1695		0	
1/25/2018	146	0	91	0	-	0	0	237			237		0	
1/26/2018	1181	0	713	0	-	27,148	0	29042	112,432	16,062	1894	1563	27,148	14499
1/27/2018	1125	0	732	0	-	24,918	0	26775			1857		24,918	
1/28/2018	1125	0	732	0	-	24,918	0	26775			1857		24,918	
1/29/2018	1064	0	727	0	-	23,729	0	25520			1791		23,729	
1/30/2018	1026	0	703	0	-	22,511	0	24240			1729		22,511	
1/31/2018	1060	0	715	0	-	19,807	0	21582			1775		19,807	

Appendix A - Pumping Data
Dewatering Wells and Pump Stations



Weekly Supplemental Leachate Pumping Data
Liquid Assessment Monitoring
Southeast County Landfill

Week Ending	Condensate Traps (gal)	LFG Extraction Wells (gal)	Dewatering Wells (gal)	Pump Stations (gal)	Weekly Total (gal)	Daily Average (gpd)
12/23/2016	-	4,296	-	-	4,296	1,074
12/30/2016	-	8,024	-	-	8,024	1,146
1/6/2017	2,518	7,614	-	-	10,132	1,447
1/13/2017	10,516	7,201	-	-	17,717	2,531
1/20/2017	15,952	9,104	-	-	25,056	3,579
1/27/2017	12,999	7,953	-	-	20,952	2,993
2/3/2017	13,991	8,072	-	-	22,063	3,152
2/10/2017	29,162	7,025	-	-	36,187	5,170
2/17/2017	64,513	8,404	-	2,000	74,917	10,702
2/24/2017	56,760	6,811	-	13,600	77,171	11,024
3/3/2017	16,376	5,872	-	14,600	36,848	5,264
3/10/2017	13,076	5,373	-	42,000	60,449	8,636
3/17/2017	14,365	5,969	-	84,000	104,334	14,905
3/24/2017	12,218	6,003	-	81,000	99,221	14,174
3/31/2017	9,808	5,199	-	63,000	78,007	11,144
4/7/2017	5,677	4,874	-	49,000	59,551	8,507
4/14/2017	3,292	5,685	-	42,000	50,977	7,282
4/21/2017	4,025	7,550	-	41,000	52,575	7,511
4/28/2017	3,529	6,954	-	34,600	45,083	6,440
5/5/2017	2,309	6,159	-	31,600	40,068	5,724
5/12/2017	1,279	5,845	-	27,000	34,124	4,875
5/19/2017	1,815	4,793	1,169	24,100	31,877	4,554
5/26/2017	2,168	5,792	7,374	34,140	49,474	7,068
6/2/2017	2,455	5,188	7,597	23,937	39,177	5,597
6/9/2017	2,900	4,639	7,551	24,033	39,123	5,589
6/16/2017	3,176	3,367	9,120	18,636	34,299	4,900
6/23/2017	2,587	4,111	2,063	22,735	31,496	4,499
6/30/2017	3,319	4,112	6,595	21,412	35,438	5,063
7/7/2017	2,369	4,303	7,156	35,711	49,539	7,077
7/14/2017	3,522	4,376	8,569	37,025	53,492	7,642
7/21/2017	3,272	8,131	8,059	51,131	70,593	10,085
7/28/2017	3,573	10,250	8,075	46,326	68,224	9,746
8/4/2017 ¹	8,278	25,125	8,880	98,630	140,913	20,130
8/11/2017	6,541	64,449	7,701	170,324	249,015	35,574
8/18/2017	4,889	62,204	8,951	147,907	223,951	31,993
8/25/2017	4,852	62,896	9,397	139,376	216,521	30,932

Weekly Supplemental Leachate Pumping Data
Liquid Assessment Monitoring
Southeast County Landfill

	Condensate Traps	LFG Extraction Wells	Dewatering Wells	Pump Stations	Weekly Total	Daily Average
Week Ending	(gal)	(gal)	(gal)	(gal)	(gal)	(gpd)
9/1/2017	55,411	64,407	9,876	197,359	327,053	46,722
9/8/2017	62,183	75,863	9,912	132,878	280,836	40,119
9/15/2017 ²	21,344	15,941	2,485	171,276	211,046	30,149
9/22/2017 ²	21,062	24,538	7,088	152,090	204,778	29,254
9/29/2017	75,527	52,154	14,371	201,676	343,728	49,104
10/6/2017	60,611	57,347	12,037	285,947	415,942	59,420
10/13/2017	71,298	51,515	9,009	151,615	283,437	40,491
10/20/2017 ³	78,470	57,889	1	154,888	291,248	41,607
10/27/2017	77,877	25,324	3,082	344,539	450,822	64,403
11/3/2017	93,276	52,784	15,743	295,219	457,022	65,289
11/10/2017	90,875	50,207	16,146	180,432	337,660	48,237
11/17/2017	96,443	53,486	14,756	177,071	341,756	48,822
11/24/2017	99,123	49,385	14,620	246,012	409,140	58,449
12/1/2017 ⁴	100,387	48,906	14,013	75,732	239,038	34,148
12/8/2017 ^{4,5}	96,185	51,690	14,835	44,435	207,145	29,592
12/15/2017 ⁴	96,010	45,467	14,758	37,714	193,949	27,707
12/22/2017 ⁴	133,046	48,074	14,817	35,702	231,639	33,091
12/29/2017 ⁸	189,864	48,139	14,646	55,554	308,203	44,029
1/5/2018 ⁶	70,623	47,514	13,608	172,332	304,077	43,440
1/12/2018 ⁷	72,915	33,406	9,817	123,399	239,537	34,220
1/19/2018 ⁸	129,553	45,763	10,453	120,587	306,356	43,765
1/26/2018 ⁸	163,579	46,519	10,942	101,490	322,530	46,076
Total	1,056,015	941,692	208,007	3,688,742	5,894,456	

Notes

1. Installed suction line in Phase II header.
2. Pumps shut down during and following Hurricane Irma.
3. Dewatering wells shut down for maintenance 10/12/17 through 10/26/17.
4. PS-2 shut down for construction at cut-off trench from 11/27/17 through 12/28/17.
5. PS-2B shut down for construction at cut-off trench from 12/7/17 through 12/11/17.
6. PS-2B shut down to check liquid Levels in MP 2-2 and MP 2-3 from 12/28/17 through 1/5/18.
7. All supplemental dewatering pumps shut down for Phase II dye tracer test 1/9/18 and 1/10/18.
8. PS-2 shut down for maintenance 1/16, 1/19, 1/20, 1/24, and 1/25.

Appendix B

Weekly Water Level and Precipitation Data

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-01	6/3/2016	56.9	188.35	131.5	118.3	13.2
		6/8/2016	59.5		128.9		10.6
		6/9/2016	61.3		127.1		8.8
		6/16/2016	61.2		127.2		8.9
		6/21/2016	61.1		127.3		9.0
		6/22/2016	61.5		126.9		8.6
		6/28/2016	61.2		127.2		8.9
		7/13/2016	61.1		127.3		9.0
		7/29/2016	61.8		126.6		8.3
		8/5/2016	60.7		127.7		9.3
		8/12/2016	60.4		128.0		9.6
		8/19/2016	60.3		128.1		9.8
		8/26/2016	60.2		128.2		9.8
		9/2/2016	60.0		128.4		10.1
		9/9/2016	60.0		128.4		10.1
		9/16/2016	59.8		128.6		10.3
		9/23/2016	59.2		129.2		10.9
		9/30/2016	58.8		129.6		11.3
		10/11/2016	58.6		129.8		11.5
		10/14/2016	58.6		129.8		11.5
		10/21/2016	57.8		130.6		12.3
		10/28/2016	58.0		130.4		12.1
		11/4/2016	58.0		130.4		12.1
		11/11/2016	58.2		130.2		11.9
		11/18/2016	58.5		129.9		11.6
		11/25/2016	58.8		129.6		11.3
		12/2/2016	58.2		130.2		11.9
		12/9/2016	58.7		129.7		11.4
		12/16/2016	58.7		129.7		11.4
		12/23/2016	58.7		129.7		11.4
		12/30/2016	58.7		129.7		11.4
		1/6/2017	58.6		129.8		11.5
		1/13/2017	59.2		129.2		10.9
		1/20/2017	58.8		129.6		11.3
		1/27/2017	59.3		129.1		10.8
		2/3/2017	59.6		128.8		10.5
		2/10/2017	59.7		128.7		10.4
		2/17/2017	59.6		128.8		10.5
		2/24/2017	59.3		129.1		10.8
		3/3/2017	59.9		128.5		10.2
		3/10/2017	59.5		128.9		10.6
		3/17/2017	60.0		128.4		10.1
		3/24/2017	59.9		128.5		10.2
		3/31/2017	59.5		128.9		10.6
		4/7/2017	59.8		128.6		10.3
		4/13/2017	59.9		128.5		10.2
		4/21/2017	59.9		128.5		10.2
		4/28/2017	60.0		128.4		10.1
		5/5/2017	59.6		128.8		10.5
		5/12/2017	59.8		128.6		10.3
		5/19/2017	60.2		128.2		9.8
		5/26/2017	60.3		128.1		9.8

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-01	6/2/2017	60.2		128.2		9.8
		6/9/2017	59.7		128.7		10.4
		6/16/2017	58.6		129.8		11.5
		6/23/2017	60.1		128.3		10.0
		6/30/2017	60.7		127.7		9.3
		7/7/2017	60.8		127.6		9.3
		7/14/2017	56.5		131.9		13.6
		7/21/2017	58.5		129.9		11.6
		7/28/2017	60.4		128.0		9.6
		8/4/2017	60.1		128.3		10.0
		8/11/2017	60.6		127.8		9.5
		8/18/2017	59.8		128.6		10.3
		8/25/2017	60.7		127.7		9.3
		9/1/2017	60.7		127.7		9.3
		9/8/2017	59.8		128.6		10.3
		9/15/2017	54.5		133.9		15.6
		9/22/2017	59.2		129.2		10.9
		9/29/2017	59.3		129.1		10.8
		10/6/2017	59.0		129.4		11.1
		10/13/2017	59.0		129.4		11.1
		10/20/2017	59.0		129.4		11.1
		10/27/2017	59.2		129.2		10.9
		11/3/2017	59.3		129.1		10.8
		11/10/2017	59.3		129.1		10.8
		11/17/2017	59.5		128.9		10.6
		11/24/2017	59.3		129.1		10.8
		12/1/2017	59.8		128.6		10.3
		12/8/2017	59.4		129.0		10.7
		12/15/2017	59.7		128.7		10.4
		12/22/2017	59.7		128.7		10.4
		12/29/2017	59.8		128.6		10.3
		1/5/2018	60.2		128.2		9.8
		1/12/2018	59.7		128.7		10.4
		1/19/2018	59.7		128.7		10.4
		1/26/2018	60.4		128.0		9.6
					-		-
					-		-

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-02	6/9/2016	54.5	187.62	133.1	117.9	15.2
		6/11/2016	56.5		131.2		13.3
		6/14/2016	56.0		131.7		13.8
		6/16/2016	54.6		133.0		15.1
		6/21/2016	56.2		131.4		13.5
		6/22/2016	55.4		132.2		14.3
		6/28/2016	56.1		131.5		13.6
		7/13/2016	54.8		132.9		15.0
		7/29/2016	54.9		132.8		14.9
		8/5/2016	56.3		131.3		13.4
		8/12/2016	55.6		132.0		14.1
		8/19/2016	55.8		131.8		13.9
		8/26/2016	55.8		131.8		13.9
		9/2/2016	55.7		131.9		14.0
		9/9/2016	55.7		131.9		14.0
		9/16/2016	55.5		132.1		14.2
		9/23/2016	54.9		132.7		14.8
		9/30/2016	54.6		133.0		15.1
		10/11/2016	54.3		133.3		15.4
		10/14/2016	54.5		133.1		15.2
		10/21/2016	54.0		133.6		15.7
		10/28/2016	55.5		132.1		14.2
		11/4/2016	54.0		133.6		15.7
		11/11/2016	54.4		133.2		15.3
		11/18/2016	54.5		133.1		15.2
		11/25/2016	54.6		133.0		15.1
		12/2/2016	54.9		132.7		14.8
		12/9/2016	55.0		132.6		14.7
		12/16/2016	55.0		132.6		14.7
		12/23/2016	55.0		132.6		14.7
		12/30/2016	55.1		132.5		14.6
		1/6/2017	55.0		132.6		14.7
		1/13/2017	55.4		132.2		14.3
		1/20/2017	54.9		132.7		14.8
		1/27/2017	55.4		132.2		14.3
		2/3/2017	55.6		132.0		14.1
		2/10/2017	55.6		132.0		14.1
		2/17/2017	55.6		132.0		14.1
		2/24/2017	55.4		132.2		14.3
		3/3/2017	55.9		131.7		13.8
		3/10/2017	55.8		131.8		13.9
		3/17/2017	56.2		131.4		13.5
		3/24/2017	56.2		131.4		13.5
		3/31/2017	55.8		131.8		13.9
		4/7/2017	56.4		131.2		13.3
		4/13/2017	56.5		131.1		13.2
		4/21/2017	56.4		131.2		13.3
		4/28/2017	56.7		130.9		13.0
		5/5/2017	56.4		131.2		13.3
		5/12/2017	56.7		130.9		13.0
		5/19/2017	56.9		130.7		12.8
		5/26/2017	57.1		130.5		12.6

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-02	6/2/2017	57.0		130.6		12.7
		6/9/2017	57.1		130.5		12.6
		6/16/2017	57.0		130.6		12.7
		6/23/2017	57.1		130.5		12.6
		6/30/2017	57.2		130.4		12.5
		7/7/2017	57.2		130.4		12.5
		7/14/2017	57.2		130.4		12.5
		7/21/2017	57.0		130.6		12.7
		7/28/2017	56.8		130.8		12.9
		8/4/2017	56.6		131.0		13.1
		8/11/2017	55.9		131.7		13.8
		8/18/2017	55.4		132.2		14.3
		8/25/2017	55.0		132.6		14.7
		9/1/2017	54.9		132.7		14.8
		9/8/2017	54.4		133.2		15.3
		9/15/2017	53.8		133.8		15.9
		9/22/2017	52.9		134.7		16.8
		9/29/2017	52.6		135.0		17.1
		10/6/2017	52.5		135.1		17.2
		10/13/2017	52.9		134.7		16.8
		10/20/2017	53.1		134.5		16.6
		10/27/2017	53.9		133.7		15.8
		11/3/2017	54.2		133.4		15.5
		11/10/2017	54.2		133.4		15.5
		11/17/2017	54.3		133.3		15.4
		11/24/2017	54.6		133.0		15.1
		12/1/2017	54.6		133.0		15.1
		12/8/2017	54.6		133.0		15.1
		12/15/2017	54.6		133.0		15.1
		12/22/2017	54.6		133.0		15.1
		12/29/2017	54.9		132.7		14.8
		1/5/2018	55.5		132.1		14.2
		1/12/2018	54.7		132.9		15.0
		1/19/2018	54.6		133.0		15.1
		1/26/2018	55.7		131.9		14.0
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-03	6/10/2016	51.7	185.73	134.0	117.4	16.6
		6/11/2016	58.5		127.3		9.9
		6/13/2016	59.6		126.1		8.7
		6/16/2016	59.7		126.1		8.7
		6/21/2016	59.8		126.0		8.6
		6/22/2016	59.9		125.9		8.5
		6/28/2016	58.0		127.8		10.4
		7/13/2016	56.2		129.6		12.2
		7/29/2016	59.7		126.1		8.7
		8/5/2016	56.2		129.5		12.1
		8/12/2016	56.0		129.7		12.3
		8/19/2016	56.2		129.5		12.1
		8/26/2016	55.8		129.9		12.5
		9/2/2016	56.0		129.7		12.3
		9/9/2016	55.9		129.8		12.4
		9/16/2016	55.0		130.7		13.3
		9/23/2016	55.0		130.7		13.3
		9/30/2016	55.0		130.7		13.3
		10/11/2016	55.0		130.7		13.3
		10/14/2016	55.0		130.7		13.3
		10/21/2016	54.8		130.9		13.5
		10/28/2016	54.7		131.0		13.6
		11/4/2016	54.9		130.8		13.4
		11/11/2016	54.3		131.4		14.0
		11/18/2016	54.3		131.4		14.0
		11/25/2016	54.3		131.4		14.0
		12/2/2016	54.2		131.5		14.1
		12/9/2016	54.9		130.8		13.4
		12/16/2016	54.8		130.9		13.5
		12/23/2016	54.9		130.8		13.4
		12/30/2016	55.1		130.6		13.2
		1/6/2017	54.9		130.8		13.4
		1/13/2017	54.4		131.3		13.9
		1/20/2017	55.0		130.7		13.3
		1/27/2017	55.2		130.5		13.1
		2/3/2017	55.4		130.3		12.9
		2/10/2017	55.7		130.0		12.6
		2/17/2017	55.8		129.9		12.5
		2/24/2017	55.5		130.2		12.8
		3/3/2017	55.9		129.8		12.4
		3/10/2017	55.8		129.9		12.5
		3/17/2017	56.1		129.6		12.2
		3/24/2017	56.1		129.6		12.2
		3/31/2017	55.9		129.8		12.4
		4/7/2017	56.3		129.4		12.0
		4/13/2017	56.2		129.5		12.1
		4/21/2017	56.3		129.4		12.0
		4/28/2017	56.5		129.2		11.8
		5/5/2017	56.3		129.4		12.0
		5/12/2017	56.5		129.2		11.8
		5/19/2017	56.7		129.0		11.6
		5/26/2017	56.8		128.9		11.5

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-03	6/2/2017	56.8		128.9		11.5
		6/9/2017	57.0		128.7		11.3
		6/16/2017	56.9		128.8		11.4
		6/23/2017	57.1		128.6		11.2
		6/30/2017	57.1		128.6		11.2
		7/7/2017	57.1		128.6		11.2
		7/14/2017	57.1		128.6		11.2
		7/21/2017	56.8		128.9		11.5
		7/28/2017	56.4		129.3		11.9
		8/4/2017	56.2		129.5		12.1
		8/11/2017	55.5		130.2		12.8
		8/18/2017	55.0		130.7		13.3
		8/25/2017	54.5		131.2		13.8
		9/1/2017	54.4		131.3		13.9
		9/8/2017	53.8		131.9		14.5
		9/15/2017	52.8		132.9		15.5
		9/22/2017	52.0		133.7		16.3
		9/29/2017	51.6		134.1		16.7
		10/6/2017	51.4		134.3		16.9
		10/13/2017	51.6		134.1		16.7
		10/20/2017	51.8		133.9		16.5
		10/27/2017	52.3		133.4		16.0
		11/3/2017	52.7		133.0		15.6
		11/10/2017	52.9		132.8		15.4
		11/17/2017	53.2		132.5		15.1
		11/24/2017	53.1		132.6		15.2
		12/1/2017	53.8		131.9		14.5
		12/8/2017	53.7		132.0		14.6
		12/15/2017	54.0		131.7		14.3
		12/22/2017	53.8		131.9		14.5
		12/29/2017	54.3		131.4		14.0
		1/5/2018	54.7		131.0		13.6
		1/12/2018	54.3		131.4		14.0
		1/19/2018	54.9		130.8		13.4
		1/26/2018	55.1		130.6		13.2
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-05	6/22/2016	51.7	180.19	128.5	118.5	10.0
		6/28/2016	52.4		127.8		9.3
		7/13/2016	52.3		127.9		9.4
		7/29/2016	52.8		127.4		8.9
		8/5/2016	52.1		128.1		9.6
		8/12/2016	52.0		128.2		9.7
		8/19/2016	52.2		128.0		9.5
		8/26/2016	52.0		128.2		9.7
		9/2/2016	52.0		128.2		9.7
		9/9/2016	52.0		128.2		9.7
		9/16/2016	51.2		129.0		10.5
		9/23/2016	50.9		129.3		10.8
		9/30/2016	50.3		129.9		11.4
		10/11/2016	50.1		130.1		11.6
		10/14/2016	50.0		130.2		11.7
		10/21/2016	50.0		130.2		11.7
		10/28/2016	50.1		130.1		11.6
		11/4/2016	50.3		129.9		11.4
		11/11/2016	50.9		129.3		10.8
		11/18/2016	51.0		129.2		10.7
		11/25/2016	51.0		129.2		10.7
		12/2/2016	51.1		129.1		10.6
		12/9/2016	51.6		128.6		10.1
		12/16/2016	51.3		128.9		10.4
		12/23/2016	51.2		129.0		10.5
		12/30/2016	51.1		129.1		10.6
		1/6/2017	51.4		128.8		10.3
		1/13/2017	51.6		128.6		10.1
		1/20/2017	51.3		128.9		10.4
		1/27/2017	51.8		128.4		9.9
		2/3/2017	51.3		128.9		10.4
		2/10/2017	51.4		128.8		10.3
		2/17/2017	52.2		128.0		9.5
		2/24/2017	52.1		128.1		9.6
		3/3/2017	51.5		128.7		10.2
		3/10/2017	52.3		127.9		9.4
		3/17/2017	53.0		127.2		8.7
		3/24/2017	53.2		127.0		8.5
		3/31/2017	53.3		126.9		8.4
		4/7/2017	53.7		126.5		8.0
		4/13/2017	53.9		126.3		7.8
		4/21/2017	53.9		126.3		7.8
		4/28/2017	54.1		126.1		7.6
		5/5/2017	54.0		126.2		7.7
		5/12/2017	54.1		126.1		7.6
		5/19/2017	54.2		126.0		7.5
		5/26/2017	54.3		125.9		7.4

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-05	6/2/2017	54.3		125.9		7.4
		6/9/2017	54.3		125.9		7.4
		6/16/2017	54.3		125.9		7.4
		6/23/2017	54.4		125.8		7.3
		6/30/2017	54.5		125.7		7.2
		7/7/2017	54.5		125.7		7.2
		7/14/2017	54.6		125.6		7.1
		7/21/2017	54.6		125.6		7.1
		7/28/2017	54.3		125.9		7.4
		8/4/2017	53.9		126.3		7.8
		8/11/2017	53.1		127.1		8.6
		8/18/2017	54.2		126.0		7.5
		8/25/2017	51.1		129.1		10.6
		9/1/2017	52.1		128.1		9.6
		9/8/2017	51.4		128.8		10.3
		9/15/2017	50.8		129.4		10.9
		9/22/2017	50.0		130.2		11.7
		9/29/2017	50.0		130.2		11.7
		10/6/2017	50.3		129.9		11.4
		10/13/2017	50.3		129.9		11.4
		10/20/2017	51.2		129.0		10.5
		10/27/2017	51.5		128.7		10.2
		11/3/2017	51.8		128.4		9.9
		11/10/2017	51.9		128.3		9.8
		11/17/2017	52.5		127.7		9.2
		11/24/2017	52.3		127.9		9.4
		12/1/2017	52.7		127.5		9.0
		12/8/2017	52.8		127.4		8.9
		12/15/2017	52.9		127.3		8.8
		12/22/2017	52.8		127.4		8.9
		12/29/2017	53.2		127.0		8.5
		1/5/2018	53.3		126.9		8.4
		1/12/2018	53.0		127.2		8.7
		1/19/2018	53.3		126.9		8.4
		1/26/2018	53.4		126.8		8.3
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-15D	2/21/2017	55.8	184.44	128.6	117.0	11.6
		2/23/2017	57.75		126.7		9.7
		2/24/2017	57.9		126.5		9.5
		3/3/2017	58.6		125.8		8.8
		3/10/2017	58.4		126.0		9.0
		3/17/2017	59.0		125.4		8.4
		3/24/2017	59.3		125.1		8.1
		3/31/2017	59.4		125.0		8.0
		4/7/2017	59.8		124.6		7.6
		4/13/2017	59.9		124.5		7.5
		4/21/2017	59.9		124.5		7.5
		4/28/2017	60.2		124.2		7.2
		5/5/2017	59.9		124.5		7.5
		5/12/2017	60.2		124.2		7.2
		5/19/2017	60.4		124.0		7.0
		5/26/2017	60.5		123.9		6.9
		6/2/2017	60.5		123.9		6.9
		6/9/2017	60.4		124.0		7.0
		6/16/2017	60.5		123.9		6.9
		6/23/2017	60.6		123.8		6.8
		6/30/2017	60.7		123.7		6.7
		7/7/2017	60.6		123.8		6.8
		7/14/2017	60.7		123.7		6.7
		7/21/2017	60.8		123.6		6.6
		7/28/2017	60.7		123.7		6.7
		8/4/2017	60.9		123.5		6.5
		8/11/2017	60.7		123.7		6.7
		8/18/2017	60.7		123.7		6.7
		8/25/2017	60.5		123.9		6.9
		9/1/2017	60.5		123.9		6.9
		9/8/2017	60.1		124.3		7.3
		9/15/2017	59.7		124.7		7.7
		9/22/2017	59.1		125.3		8.3
		9/29/2017	58.8		125.6		8.6
		10/6/2017	58.7		125.7		8.7
		10/13/2017	58.6		125.8		8.8
		10/20/2017	58.8		125.6		8.6
		10/27/2017	59.0		125.4		8.4
		11/3/2017	59.3		125.1		8.1
		11/10/2017	59.4		125.0		8.0
		11/17/2017	59.6		124.8		7.8
		11/24/2017	59.6		124.8		7.8
		12/1/2017	60.0		124.4		7.4
		12/8/2017	59.8		124.6		7.6
		12/15/2017	60.0		124.4		7.4
		12/22/2017	60.1		124.3		7.3
		12/29/2017	60.1		124.3		7.3

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-15D	1/5/2018	60.4		124.0		7.0
		1/12/2018	60.0		124.4		7.4
		1/19/2018	60.4		124.0		7.0
		1/26/2018	60.4		124.0		7.0
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-16D	2/16/2017	54.5	183.60	129.1	117.2	11.9
		2/17/2017	58.36		125.2		8.0
		2/20/2017	58.3		125.3		8.1
		2/23/2017	57.65		126.0		8.7
		2/24/2017	57.8		125.8		8.6
		3/3/2017	58.4		125.2		8.0
		3/10/2017	58.2		125.4		8.2
		3/17/2017	59.6		124.0		6.8
		3/24/2017	59.9		123.7		6.5
		3/31/2017	59.7		123.9		6.7
		4/7/2017	60.3		123.3		6.1
		4/13/2017	60.3		123.3		6.1
		4/21/2017	60.3		123.3		6.1
		4/28/2017	60.5		123.1		5.9
		5/5/2017	60.2		123.4		6.2
		5/12/2017	60.4		123.2		6.0
		5/19/2017	60.4		123.2		6.0
		5/26/2017	60.7		122.9		5.7
		6/2/2017	60.6		123.0		5.8
		6/9/2017	60.6		123.0		5.8
		6/16/2017	60.6		123.0		5.8
		6/23/2017	60.6		123		5.8
		6/30/2017	60.7		122.9		5.7
		7/7/2017	60.7		122.9		5.7
		7/14/2017	60.6		123.0		5.8
		7/21/2017	60.7		122.9		5.7
		7/28/2017	60.5		123.1		5.9
		8/4/2017	60.4		123.2		6.0
		8/11/2017	59.7		123.9		6.7
		8/18/2017	60.0		123.6		6.4
		8/25/2017	61.0		122.6		5.4
		9/1/2017	60.2		123.4		6.2
		9/8/2017	59.6		124.0		6.8
		9/15/2017	59.3		124.3		7.1
		9/22/2017	58.6		125.0		7.8
		9/29/2017	58.5		125.1		7.9
		10/6/2017	58.5		125.1		7.9
		10/13/2017	58.8		124.8		7.6
		10/20/2017	59.4		124.2		7.0
		10/27/2017	59.6		124.0		6.8
		11/3/2017	59.7		123.9		6.7
		11/10/2017	59.7		123.9		6.7
		11/17/2017	59.9		123.7		6.5
		11/24/2017	59.8		123.8		6.6
		12/1/2017	59.6		124.0		6.8
		12/8/2017	60.1		123.5		6.3
		12/15/2017	60.3		123.3		6.1
		12/22/2017	60.4		123.2		6.0
		12/29/2017	60.4		123.2		6.0

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-16D	1/5/2018	60.4		123.2		6.0
		1/12/2018	59.8		123.8		6.6
		1/19/2018	60.1		123.5		6.3
		1/26/2018	60.1		123.5		6.3
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-17D	2/16/2017	60.3	185.47	125.2	119.6	5.6
		2/17/2017	60.31		125.2		5.6
		2/20/2017	60.2		125.3		5.7
		2/23/2017	59.90		125.6		6.0
		2/24/2017	60.1		125.4		5.8
		3/3/2017	60.7		124.8		5.2
		3/10/2017	60.6		124.9		5.3
		3/17/2017	60.9		124.6		5.0
		3/24/2017	60.9		124.6		5.0
		3/31/2017	60.6		124.9		5.3
		4/7/2017	61.0		124.5		4.9
		4/13/2017	61.1		124.4		4.8
		4/21/2017	61.2		124.3		4.7
		4/28/2017	61.3		124.2		4.6
		5/5/2017	61.1		124.4		4.8
		5/12/2017	61.3		124.2		4.6
		5/19/2017	61.3		124.2		4.6
		5/26/2017	61.5		124.0		4.4
		6/2/2017	61.5		124.0		4.4
		6/9/2017	61.5		124.0		4.4
		6/16/2017	61.6		123.9		4.3
		6/23/2017	61.7		123.8		4.2
		6/30/2017	61.8		123.7		4.1
		7/7/2017	61.8		123.7		4.1
		7/14/2017	61.8		123.7		4.1
		7/21/2017	61.8		123.7		4.1
		7/28/2017	61.7		123.8		4.2
		8/4/2017	61.6		123.9		4.3
		8/11/2017	61.7		123.8		4.2
		8/18/2017	61.5		124.0		4.4
		8/25/2017	60.8		124.7		5.1
		9/1/2017	60.8		124.7		5.1
		9/8/2017	60.1		125.4		5.8
		9/15/2017	59.3		126.2		6.6
		9/22/2017	58.3		127.2		7.6
		9/29/2017	57.6		127.9		8.3
		10/6/2017	57.1		128.4		8.8
		10/13/2017	57.2		128.3		8.7
		10/20/2017	57.2		128.3		8.7
		10/27/2017	57.9		127.6		8.0
		11/3/2017	58.5		127.0		7.4
		11/10/2017	58.6		126.9		7.3
		11/17/2017	58.9		126.6		7.0
		11/24/2017	58.8		126.7		7.1
		12/1/2017	59.6		125.9		6.3
		12/8/2017	59.3		126.2		6.6
		12/15/2017	59.4		126.1		6.5
		12/22/2017	59.6		125.9		6.3
		12/29/2017	59.7		125.8		6.2

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-17D	1/5/2018	60.3		125.2		5.6
		1/12/2018	60.0		125.5		5.9
		1/19/2018	60.8		124.7		5.1
		1/26/2018	60.9		124.6		5.0
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-18D	2/16/2017	55.1	182.71	127.6	120.3	7.3
		2/17/2017	58.91		123.8		3.5
		2/20/2017	58.8		123.9		3.6
		2/23/2017	58.70		124.0		3.7
		2/24/2017	58.9		123.8		3.5
		3/3/2017	59.2		123.5		3.2
		3/10/2017	59.2		123.5		3.2
		3/17/2017	59.4		123.3		3.0
		3/24/2017	59.6		123.1		2.8
		3/31/2017	59.2		123.5		3.2
		4/7/2017	59.5		123.2		2.9
		4/13/2017	59.7		123.0		2.7
		4/21/2017	59.5		123.2		2.9
		4/28/2017	59.7		123.0		2.7
		5/5/2017	59.5		123.2		2.9
		5/12/2017	59.6		123.1		2.8
		5/19/2017	59.7		123.0		2.7
		5/26/2017	59.7		123.0		2.7
		6/2/2017	59.6		123.1		2.8
		6/9/2017	59.5		123.2		2.9
		6/16/2017	59.5		123.2		2.9
		6/23/2017	59.6		123.1		2.8
		6/30/2017	59.8		122.9		2.6
		7/7/2017	59.7		123.0		2.7
		7/14/2017	59.7		123.0		2.7
		7/21/2017	60.1		122.6		2.3
		7/28/2017	60.0		122.7		2.4
		8/4/2017	60.2		122.5		2.2
		8/11/2017	60.1		122.6		2.3
		8/18/2017	60.0		122.7		2.4
		8/25/2017	59.9		122.8		2.5
		9/1/2017	59.7		123.0		2.7
		9/8/2017	59.1		123.6		3.3
		9/15/2017	58.1		124.6		4.3
		9/22/2017	57.0		125.7		5.4
		9/29/2017	56.2		126.5		6.2
		10/6/2017	56.5		126.2		5.9
		10/13/2017	56.4		126.3		6.0
		10/20/2017	56.7		126.0		5.7
		10/27/2017	58.0		124.7		4.4
		11/3/2017	58.2		124.5		4.2
		11/10/2017	58.1		124.6		4.3
		11/17/2017	58.4		124.3		4.0
		11/24/2017	58.4		124.3		4.0
		12/1/2017	58.7		124.0		3.7
		12/8/2017	58.7		124.0		3.7
		12/15/2017	58.5		124.2		3.9
		12/22/2017	58.8		123.9		3.6
		12/29/2017	59.1		123.6		3.3

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-18D	1/5/2018	59.7		123.0		2.7
		1/12/2018	59.5		123.2		2.9
		1/19/2018	60.0		122.7		2.4
		1/26/2018	60.0		122.7		2.4
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
III	SB-19D	2/16/2017	87.5	203.06	115.6	114.2	1.4
		2/17/2017	87.30		115.8		1.6
		2/20/2017	87.2		115.9		1.7
		2/23/2017	87.10		116.0		1.8
		2/24/2017	86.5		116.6		2.4
		3/3/2017	87.3		115.8		1.6
		3/10/2017	87.2		115.9		1.7
		3/17/2017	87.3		115.8		1.6
		3/24/2017	87.3		115.8		1.6
		3/31/2017	87.2		115.9		1.7
		4/7/2017	87.3		115.8		1.6
		4/13/2017	87.3		115.8		1.6
		4/21/2017	87.4		115.7		1.5
		4/28/2017	87.4		115.7		1.5
		5/5/2017	87.2		115.9		1.7
		5/12/2017	87.3		115.8		1.6
		5/19/2017	87.4		115.7		1.5
		5/26/2017	87.4		115.7		1.5
		6/2/2017	87.3		115.8		1.6
		6/9/2017	87.1		116.0		1.8
		6/16/2017	86.4		116.7		2.5
		6/23/2017	86.5		116.6		2.4
		6/30/2017	87.1		116.0		1.8
		7/7/2017	86.9		116.2		2.0
		7/14/2017	86.7		116.4		2.2
		7/21/2017	86.7		116.4		2.2
		7/28/2017	87.0		116.1		1.9
		8/4/2017	86.5		116.6		2.4
		8/11/2017	86.8		116.3		2.1
		8/18/2017	86.8		116.3		2.1
		8/25/2017	86.8		116.3		2.1
		9/1/2017	86.3		116.8		2.6
		9/8/2017	86.2		116.9		2.7
		9/15/2017	85.6		117.5		3.3
		9/22/2017	85.7		117.4		3.2
		9/29/2017	85.8		117.3		3.1
		10/6/2017	85.8		117.3		3.1
		10/13/2017	86.3		116.8		2.6
		10/20/2017	86.6		116.5		2.3
		10/27/2017	86.9		116.2		2.0
		11/3/2017	87.0		116.1		1.9
		11/10/2017	86.9		116.2		2.0
		11/17/2017	87.0		116.1		1.9
		11/24/2017	87.1		116.0		1.8
		12/1/2017	87.1		116.0		1.8
		12/8/2017	87.0		116.1		1.9
		12/15/2017	87.0		116.1		1.9
		12/22/2017	87.2		115.9		1.7
		12/29/2017	87.1		116.0		1.8

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
III	SB-19D	1/5/2018	87.3		115.8		1.6
		1/12/2018	87.0		116.1		1.9
		1/19/2018	87.3		115.8		1.6
		1/26/2018	87.2		115.9		1.7
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
III	SB-19S	3/3/2017	78.6	203.36	DRY	N/A	N/A
		3/10/2017	78.6		DRY		N/A
		3/17/2017	78.5		DRY		N/A
		3/24/2017	78.5		DRY		N/A
		3/31/2017	78.5		DRY		N/A
		4/7/2017	78.4		DRY		N/A
		4/13/2017	78.5		DRY		N/A
		4/21/2017	78.6		DRY		N/A
		4/28/2017	78.5		DRY		N/A
		5/5/2017	78.5		DRY		N/A
		5/12/2017	78.6		DRY		N/A
		5/19/2017	78.5		DRY		N/A
		5/26/2017	78.5		DRY		N/A
		6/2/2017	78.5		DRY		N/A
		6/9/2017	78.5		DRY		N/A
		6/16/2017	78.5		DRY		N/A
		6/23/2017	78.5		DRY		N/A
		6/30/2017	78.5		DRY		N/A
		7/7/2017	78.6		DRY		N/A
		7/14/2017	78.6		DRY		N/A
		7/21/2017	78.6		DRY		N/A
		7/28/2017	78.6		DRY		N/A
		8/4/2017	78.5		DRY		N/A
		8/11/2017	78.5		DRY		N/A
		8/18/2017	78.6		DRY		N/A
		8/25/2017	78.6		DRY		N/A
		9/1/2017	78.6		DRY		N/A
		9/8/2017	78.5		DRY		N/A
		9/15/2017	78.4		DRY		N/A
		9/22/2017	78.4		DRY		N/A
		9/29/2017	78.5		DRY		N/A
		10/6/2017	78.5		DRY		N/A
		10/13/2017	78.6		DRY		N/A
		10/20/2017	78.5		DRY		N/A
		10/27/2017	78.5		DRY		N/A
		11/3/2017	78.5		DRY		N/A
		11/10/2017	78.4		DRY		N/A
		11/17/2017	78.4		DRY		N/A
		11/24/2017	78.5		DRY		N/A
		12/1/2017	78.5		DRY		N/A
		12/8/2017	78.5		DRY		N/A
		12/15/2017	78.5		DRY		N/A
		12/22/2017	78.5		DRY		N/A
		12/29/2017	78.5		DRY		N/A
		1/5/2018	78.5		DRY		N/A
		1/12/2018	78.5		DRY		N/A
		1/19/2018	78.6		DRY		N/A
		1/26/2018	78.5		DRY		N/A

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
III	SB-20D	2/16/2017	74.4	192.86	118.5	115.0	3.5
		2/17/2017	75.83		117.0		2.0
		2/20/2017	75.7		117.2		2.2
		2/23/2017	75.65		117.2		2.2
		2/24/2017	75.7		117.2		2.2
		3/3/2017	75.9		117.0		2.0
		3/10/2017	75.8		117.1		2.1
		3/17/2017	75.7		117.2		2.2
		3/24/2017	75.9		117.0		2.0
		3/31/2017	75.8		117.1		2.1
		4/7/2017	75.9		117.0		2.0
		4/13/2017	76.0		116.9		1.9
		4/21/2017	75.9		117.0		2.0
		4/28/2017	76.1		116.8		1.8
		5/5/2017	75.9		117.0		2.0
		5/12/2017	76.0		116.9		1.9
		5/19/2017	76.1		116.8		1.8
		5/26/2017	76.0		116.9		1.9
		6/2/2017	76.0		116.9		1.9
		6/9/2017	76.1		116.8		1.8
		6/9/2017	76.1		116.8		1.8
		6/16/2017	76.1		116.8		1.8
		6/23/2017	76.1		116.8		1.8
		6/30/2017	76.2		116.7		1.7
		7/7/2017	76.2		116.7		1.7
		7/14/2017	76.1		116.8		1.8
		7/21/2017	76.1		116.8		1.8
		7/28/2017	76.0		116.9		1.9
		8/4/2017	76.1		116.8		1.8
		8/11/2017	76.1		116.8		1.8
		8/18/2017	75.9		117.0		2.0
		8/25/2017	75.8		117.1		2.1
		9/1/2017	75.8		117.1		2.1
		9/8/2017	75.8		117.1		2.1
		9/15/2017	75.6		117.3		2.3
		9/22/2017	75.6		117.3		2.3
		9/29/2017	75.2		117.7		2.7
		10/6/2017	75.1		117.8		2.8
		10/13/2017	75.1		117.8		2.8
		10/20/2017	75.0		117.9		2.9
		10/27/2017	75.0		117.9		2.9
		11/3/2017	74.9		118.0		3.0
		11/10/2017	74.8		118.1		3.1
		11/17/2017	74.8		118.1		3.1
		11/24/2017	74.8		118.1		3.1
		12/1/2017	74.8		118.1		3.1
		12/8/2017	74.7		118.2		3.2
		12/15/2017	74.8		118.1		3.1
		12/22/2017	75.0		117.9		2.9
		12/29/2017	75.0		117.9		2.9

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
III	SB-20D	1/5/2018	75.1		117.8		2.8
		1/12/2018	74.8		118.1		3.1
		1/19/2018	75.0		117.9		2.9
		1/26/2018	75.0		117.9		2.9
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
VI	SB-21D	2/16/2017	79.1	194.30	115.2	113.0	2.2
		2/17/2017	79.18		115.1		2.1
		2/20/2017	79.4		114.9		1.9
		2/23/2017	79.05		115.3		2.3
		2/24/2017	79.2		115.1		2.1
		3/3/2017	79.2		115.1		2.1
		3/10/2017	79.2		115.1		2.1
		3/17/2017	79.1		115.2		2.2
		3/24/2017	79.2		115.1		2.1
		3/31/2017	79.0		115.3		2.3
		4/7/2017	79.2		115.1		2.1
		4/13/2017	79.2		115.1		2.1
		4/21/2017	79.2		115.1		2.1
		4/28/2017	79.3		115.0		2.0
		5/5/2017	79.2		115.1		2.1
		5/12/2017	79.2		115.1		2.1
		5/19/2017	79.3		115.0		2.0
		5/26/2017	79.4		114.9		1.9
		6/2/2017	79.3		115.0		2.0
		6/9/2017	79.4		114.9		1.9
		6/16/2017	79.2		115.1		2.1
		6/23/2017	79.4		114.9		1.9
		6/30/2017	79.4		114.9		1.9
		7/7/2017	79.4		114.9		1.9
		7/14/2017	79.4		114.9		1.9
		7/21/2017	79.3		115.0		2.0
		7/28/2017	79.2		115.1		2.1
		8/4/2017	79.0		115.3		2.3
		8/11/2017	79.0		115.3		2.3
		8/18/2017	79.0		115.3		2.3
		8/25/2017	78.9		115.4		2.4
		9/1/2017	78.9		115.4		2.4
		9/8/2017	78.7		115.6		2.6
		9/15/2017	78.4		115.9		2.9
		9/22/2017	78.2		116.1		3.1
		9/29/2017				See Note 11	
		10/6/2017	87.6	203.99	116.4	See Note 11	3.4
		10/13/2017	87.8		116.2		3.2
		10/20/2017	88.0		116.0		3.0
		10/27/2017		208.67		See Note 11	
		11/3/2017				See Note 11	
		11/10/2017				See Note 11	
		11/17/2017				See Note 11	
		11/24/2017				See Note 11	
		12/1/2017				See Note 11	
		12/8/2017				See Note 11	
		12/15/2017	93.8		114.9		1.9
		12/22/2017	93.8		114.9		1.9
		12/29/2017	93.8		114.9		1.9

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
VI	SB-21D	1/5/2018	93.9		114.8		1.8
		1/12/2018	93.6		115.1		2.1
		1/19/2018	93.5		115.2		2.2
		1/26/2018	93.8		114.9		1.9
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
VI	SB-22D	2/17/2017	78.5	193.05	114.6	113.2	1.4
		2/17/2017	78.97		114.1		0.9
		2/20/2017	78.8		114.3		1.1
		2/23/2017	78.00		115.1		1.9
		2/24/2017	78.1		115.0		1.8
		3/3/2017	78.1		115.0		1.8
		3/10/2017	78.2		114.9		1.7
		3/17/2017	78.1		115.0		1.8
		3/24/2017	78.0		115.1		1.9
		3/31/2017	77.9		115.2		2.0
		4/7/2017	78.0		115.1		1.9
		4/13/2017	78.1		115.0		1.8
		4/21/2017	78.2		114.9		1.7
		4/28/2017	78.2		114.9		1.7
		5/5/2017	78.1		115.0		1.8
		5/12/2017	78.2		114.9		1.7
		5/19/2017	78.2		114.9		1.7
		5/26/2017	78.2		114.9		1.7
		6/2/2017	78.2		114.9		1.7
		6/9/2017	78.4		114.7		1.5
		6/16/2017	78.2		114.9		1.7
		6/23/2017	78.2		114.9		1.7
		6/30/2017	78.4		114.7		1.5
		7/7/2017	78.2		114.9		1.7
		7/14/2017	78.2		114.9		1.7
		7/21/2017	78.2		114.9		1.7
		7/28/2017	78.1		115.0		1.8
		8/4/2017	78.1		115.0		1.8
		8/11/2017	78.1		115.0		1.8
		8/18/2017	78.2		114.9		1.7
		8/25/2017	78.2		114.9		1.7
		9/1/2017	78.0		115.1		1.9
		9/8/2017	77.8		115.3		2.1
		9/15/2017	77.5		115.6		2.4
		9/22/2017	77.1		116.0		2.8
		9/29/2017	77.1		116.0		2.8
		10/6/2017	77.1		116.0		2.8
		10/13/2017	77.3		115.8		2.6
		10/20/2017	77.5		115.6		2.4
		10/27/2017	77.5		115.6		2.4
		11/3/2017	77.7		115.4		2.2
		11/10/2017	77.7		115.4		2.2
		11/17/2017	77.7		115.4		2.2
		11/24/2017	77.8		115.3		2.1
		12/1/2017	78.0		115.1		1.9
		12/8/2017	78.0		115.1		1.9
		12/15/2017	78.0		115.1		1.9
		12/22/2017	78.1		115.0		1.8
		12/29/2017	78.1		115.0		1.8

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
VI	SB-22D	1/5/2018	78.1		115.0		1.8
		1/12/2018	78.1		115.0		1.8
		1/19/2018	78.0		115.1		1.9
		1/26/2018	78.1		115.0		1.8
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
IV	SB-23D	2/16/2017	83.9	199.70	115.8	113.3	2.5
		2/17/2017	84.0		115.7		2.4
		2/20/2017	84.1		115.6		2.3
		2/23/2017	83.85		115.9		2.6
		2/24/2017	83.9		115.8		2.5
		3/3/2017	84.0		115.7		2.4
		3/10/2017	84.0		115.7		2.4
		3/17/2017	84.0		115.7		2.4
		3/24/2017	83.9		115.8		2.5
		3/31/2017	84.5		115.2		1.9
		4/7/2017	83.9		115.8		2.5
		4/13/2017	84.0		115.7		2.4
		4/21/2017	84.1		115.6		2.3
		4/28/2017	84.1		115.6		2.3
		5/5/2017	84.1		115.6		2.3
		5/12/2017	84.3		115.4		2.1
		5/19/2017	84.2		115.5		2.2
		5/26/2017	84.2		115.5		2.2
		6/2/2017	84.2		115.5		2.2
		6/9/2017	84.3		115.4		2.1
		6/16/2017	84.1		115.6		2.3
		6/23/2017	84.2		115.5		2.2
		6/30/2017	84.3		115.4		2.1
		7/7/2017	84.2		115.5		2.2
		7/14/2017	84.3		115.4		2.1
		7/21/2017	84.1		115.6		2.3
		7/28/2017	84.1		115.6		2.3
		8/4/2017	84.0		115.7		2.4
		8/11/2017	83.9		115.8		2.5
		8/18/2017	84.0		115.7		2.4
		8/25/2017	83.9		115.8		2.5
		9/1/2017	83.8		115.9		2.6
		9/8/2017	83.7		116.0		2.7
		9/15/2017		208.90		See Note 10	
		9/22/2017				See Note 10	
		9/29/2017				See Note 10	
		10/6/2017	92.6		116.3		3.0
		10/13/2017	92.7		116.2		2.9
		10/20/2017	92.9		116.0		2.7
		10/27/2017	92.8		116.1		2.8
		11/3/2017	93.2		115.7		2.4
		11/10/2017	93.2		115.7		2.4
		11/17/2017	93.6		115.3		2.0
		11/24/2017	93.3		115.6		2.3
		12/1/2017	93.4		115.5		2.2
		12/8/2017	93.4		115.5		2.2
		12/15/2017	93.4		115.5		2.2
		12/22/2017	93.6		115.3		2.0
		12/29/2017	93.5		115.4		2.1

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
IV	SB-23D	1/5/2018	93.6		115.3		2.0
		1/12/2018	93.4		115.5		2.2
		1/19/2018	93.4		115.5		2.2
		1/26/2018	93.5		115.4		2.1
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
IV	SB-23S	2/23/2017	80.4	199.45	DRY	N/A	N/A
		2/24/2017	80.4		DRY		N/A
		3/3/2017	80.4		DRY		N/A
		3/10/2017	80.3		DRY		N/A
		3/17/2017	80.3		DRY		N/A
		3/24/2017	80.3		DRY		N/A
		3/31/2017	80.3		DRY		N/A
		4/7/2017	80.2		DRY		N/A
		4/13/2017	80.2		DRY		N/A
		4/21/2017	80.2		DRY		N/A
		4/28/2017	80.2		DRY		N/A
		5/5/2017	80.2		DRY		N/A
		5/12/2017	80.1		DRY		N/A
		5/19/2017	80.1		DRY		N/A
		5/26/2017	80.1		DRY		N/A
		6/2/2017	80.1		DRY		N/A
		6/9/2017	80.1		DRY		N/A
		6/16/2017	80.1		DRY		N/A
		6/23/2017	80.1		DRY		N/A
		6/30/2017	80.1		DRY		N/A
		7/7/2017	80.2		DRY		N/A
		7/14/2017	80.1		DRY		N/A
		7/21/2017	80.2		DRY		N/A
		7/28/2017	80.2		DRY		N/A
		8/4/2017	80.1		DRY		N/A
		8/11/2017	80.1		DRY		N/A
		8/18/2017	80.1		DRY		N/A
		8/25/2017	80.1		DRY		N/A
		9/1/2017	80.1		DRY		N/A
		9/8/2017	80.1		DRY		N/A
		9/15/2017		208.78		See Note 10	
		9/22/2017				See Note 10	
		9/29/2017				See Note 10	
		10/6/2017				See Note 10	
		10/13/2017				See Note 10	
		10/20/2017				See Note 10	
		10/27/2017	89.4		DRY		N/A
		11/3/2017	89.4		DRY		N/A
		11/10/2017	89.4		DRY		N/A
		11/17/2017	89.4		DRY		N/A
		11/24/2017	89.4		DRY		N/A
		12/1/2017	89.4		DRY		N/A
		12/8/2017	89.4		DRY		N/A
		12/15/2017	89.4		DRY		N/A
		12/22/2017	89.4		DRY		N/A
		12/29/2017	89.3		DRY		N/A

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
IV	SB-23S	1/5/2018	89.3		DRY		N/A
		1/12/2018	89.3		DRY		N/A
		1/19/2018	89.3		DRY		N/A
		1/26/2018	89.3		DRY		N/A

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-24D	3/3/2017	66.3	188.82	122.5	117.6	4.9
		3/10/2017	66.3		122.5		4.9
		3/17/2017	66.5		122.3		4.7
		3/24/2017	66.6		122.2		4.6
		3/31/2017	66.3		122.5		4.9
		4/7/2017	66.6		122.2		4.6
		4/13/2017	66.8		122.0		4.4
		4/21/2017	66.8		122.0		4.4
		4/28/2017	67.0		121.8		4.2
		5/5/2017	66.8		122.0		4.4
		5/12/2017	67.2		121.6		4.0
		5/19/2017	67.3		121.5		3.9
		5/26/2017	67.3		121.5		3.9
		6/2/2017	67.4		121.4		3.8
		6/9/2017	67.4		121.4		3.8
		6/16/2017	67.5		121.3		3.7
		6/23/2017	67.5		121.3		3.7
		6/30/2017	67.5		121.3		3.7
		7/7/2017	67.4		121.4		3.8
		7/14/2017	67.2		121.6		4.0
		7/21/2017	66.7		122.1		4.5
		7/28/2017	66.1		122.7		5.1
		8/4/2017	65.3		123.5		5.9
		8/11/2017	64.3		124.5		6.9
		8/18/2017	63.8		125.0		7.4
		8/25/2017	63.9		124.9		7.3
		9/1/2017	63.7		125.1		7.5
		9/8/2017	62.8		126.0		8.4
		9/15/2017	62.0		126.8		9.2
		9/22/2017	61.6		127.2		9.6
		9/29/2017	62.0		126.8		9.2
		10/6/2017	62.3		126.5		8.9
		10/13/2017	62.3		126.5		8.9
		10/20/2017	63.4		125.4		7.8
		10/27/2017	63.7		125.1		7.5
		11/3/2017	64.1		124.7		7.1
		11/10/2017	64.2		124.6		7.0
		11/17/2017	64.4		124.4		6.8
		11/24/2017	64.5		124.3		6.7
		12/1/2017	64.9		123.9		6.3
		12/8/2017	64.8		124.0		6.4
		12/15/2017	65.1		123.7		6.1
		12/22/2017	65.2		123.6		6.0
		12/29/2017	65.3		123.5		5.9
		1/5/2018	65.5		123.3		5.7
		1/12/2018	65.4		123.4		5.8
		1/19/2018	65.8		123.0		5.4
		1/26/2018	66.0		122.8		5.2
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
I	SB-25D	3/10/2017	80.6	208.83	128.2	117.5	10.7
		3/17/2017	80.8		128.0		10.5
		3/24/2017	80.8		128.0		10.5
		3/31/2017	80.4		128.4		10.9
		4/7/2017	80.6		128.2		10.7
		4/13/2017	80.8		128.0		10.5
		4/21/2017	80.8		128.0		10.5
		4/28/2017	85.5	213.83	128.3	See Note 3	10.8
		5/5/2017	85.2		128.6		11.1
		5/15/2017	83.6	211.40	127.8	See Note 4	10.3
		5/19/2017	83.8		127.6		10.1
		5/26/2017	83.8		127.6		10.1
		6/2/2017	83.9		127.5		10.0
		6/9/2017	83.8		127.6		10.1
		6/16/2017	84.0		127.4		9.9
		6/23/2017	84.0		127.4		9.9
		6/30/2017	84.1		127.3		9.8
		7/7/2017	84.1		127.3		9.8
		7/14/2017	84.2		127.2		9.7
		7/21/2017	84.1		127.3		9.8
		7/28/2017	84.1		127.3		9.8
		8/4/2017	84.1		127.3		9.8
		8/11/2017	84.0		127.4		9.9
		8/18/2017	83.9		127.5		10.0
		8/25/2017	83.8		127.6		10.1
		9/1/2017	-			See Note 9	

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-26	4/14/2017	25.3	148.36	123.1	119.3	3.8
		4/17/2017	25.3		123.1		3.8
		4/19/2017	25.2		123.2		3.9
		4/21/2017	25.1		123.3		4.0
		4/26/2017	25.12		123.24		3.94
		4/28/2017	25.2		123.2		3.9
		5/5/2017	25.1		123.3		4.0
		5/12/2017	25.3		123.1		3.8
		5/19/2017	25.3		123.1		3.8
		5/26/2017	25.5		122.9		3.6
		6/2/2017	25.5		122.9		3.6
		6/9/2017	25.5		122.9		3.6
		6/16/2017	25.5		122.9		3.6
		6/23/2017	25.4		123.0		3.7
		6/30/2017	25.4		123.0		3.7
		7/7/2017	23.8		124.6		5.3
		7/14/2017	23.6		124.8		5.5
		7/21/2017	23.7		124.7		5.4
		7/28/2017	23.6		124.8		5.5
		8/4/2017	23.2		125.2		5.9
		8/11/2017	23.2		125.2		5.9
		8/18/2017	23.3		125.1		5.8
		8/25/2017	23.2		125.2		5.9
		9/1/2017	23.5		124.9		5.6
		9/8/2017	23.2		125.2		5.9
		9/15/2017	22.2		126.2		6.9
		9/22/2017	22.0		126.4		7.1
		9/29/2017	22.1		126.3		7.0
		10/6/2017	22.4		126.0		6.7
		10/13/2017	22.4		126.0		6.7
		10/20/2017	23.0		125.4		6.1
		10/27/2017	23.5		124.9		5.6
		11/3/2017	23.5		124.9		5.6
		11/10/2017	24.2		124.2		4.9
		11/17/2017	24.4		124.0		4.7
		11/24/2017	24.5		123.9		4.6
		12/1/2017	24.8		123.6		4.3
		12/8/2017	24.8		123.6		4.3
		12/15/2017	25.0		123.4		4.1
		12/22/2017	25.1		123.3		4.0
		12/29/2017	25.2		123.2		3.9
		1/5/2018	25.1		123.3		4.0
		1/12/2018	24.8		123.6		4.3
		1/19/2018	24.8		123.6		4.3
		1/26/2018	24.9		123.5		4.2
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-27	4/13/2017	15.7	138.11	122.4	120.6	1.8
		4/17/2017	15.7		122.4		1.8
		4/19/2017	15.7		122.4		1.8
		4/21/2017	15.6		122.5		1.9
		4/26/2017	15.52		122.59		1.99
		4/28/2017	15.7		122.4		1.8
		5/5/2017	15.6		122.5		1.9
		5/12/2017	15.6		122.5		1.9
		5/19/2017	15.7		122.4		1.8
		5/26/2017	15.8		122.3		1.7
		6/2/2017	15.7		122.4		1.8
		6/9/2017	15.7		122.4		1.8
		6/16/2017	15.6		122.5		1.9
		6/23/2017	15.6		122.5		1.9
		6/30/2017	15.6		122.5		1.9
		7/7/2017	Removed		-	See Note 5	-

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
I	SB-28D	5/5/2017	87.5	208.62	121.1	116.7	4.4
		5/12/2017	87.3		121.3		4.6
		5/19/2017	87.3		121.3		4.6
		5/26/2017	87.3		121.3		4.6
		6/2/2017	87.5		121.1		4.4
		6/9/2017	87.2		121.4		4.7
		6/16/2017	87.3		121.3		4.6
		6/23/2017	87.5		121.1		4.4
		6/30/2017	87.4		121.2		4.5
		7/7/2017	87.5		121.1		4.4
		7/14/2017	87.5		121.1		4.4
		7/21/2017	87.4		121.2		4.5
		7/28/2017	87.2		121.4		4.7
		8/4/2017	87.3		121.3		4.6
		8/11/2017	87.3		121.3		4.6
		8/18/2017	87.0		121.6		4.9
		8/25/2017	86.9		121.7		5.0
		9/1/2017	86.9		121.7		5.0
		9/8/2017	86.6		122.0		5.3
		9/15/2017	86.5		122.1		5.4
		9/22/2017	86.1		122.5		5.8
		9/29/2017	86.0		122.6		5.9
		10/6/2017	85.9		122.7		6.0
		10/13/2017	86.1		122.5		5.8
		10/20/2017	86.1		122.5		5.8
		10/27/2017	86.1		122.5		5.8
		11/3/2017	86.1		122.5		5.8
		11/10/2017	86.2		122.4		5.7
		11/17/2017	86.4		122.2		5.5
		11/24/2017	86.2		122.4		5.7
		12/1/2017	86.6		122.0		5.3
		12/8/2017	86.4		122.2		5.5
		12/15/2017	86.6		122.0		5.3
		12/22/2017	86.6		122.0		5.3
		12/29/2017	86.8		121.8		5.1
		1/5/2018	86.7		121.9		5.2
		1/12/2018	86.7		121.9		5.2
		1/19/2018	86.7		121.9		5.2
		1/26/2018	87.1		121.5		4.8
					-		-
					-		-

**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
I	SB-29	5/5/2017	78.5	207.86	129.4	117.5	11.9
		5/12/2017	77.2		130.7		13.2
		5/19/2017	77.4		130.5		13.0
		5/26/2017	79.3		128.6		11.1
		6/2/2017	82.3		125.6		8.1
		6/9/2017	82.4		125.5		8.0
		6/16/2017	81.9		126.0		8.5
		6/23/2017	77.1		130.8		13.3
		6/30/2017	82.9		125.0		7.5
		7/7/2017	82.7		125.2		7.7
		7/14/2017	83.0		124.9		7.4
		7/21/2017	83.3		124.6		7.1
		7/28/2017	82.9		125.0		7.5
		8/4/2017	82.8		125.1		7.6
		8/11/2017	81.2		126.7		9.2
		8/18/2017	81.2		126.7		9.2
		8/25/2017	82.8		125.1		7.6
		9/1/2017	82.8		125.1		7.6
		9/8/2017	82.8		125.1		7.6
		9/15/2017	79.4		128.5		11.0
		9/22/2017	82.3		125.6		8.1
		9/29/2017	82.6		125.3		7.8
		10/6/2017	81.1		126.8		9.3
		10/13/2017	81.1		126.8		9.3
		10/20/2017	82.6		125.3		7.8
		10/27/2017	77.0		130.9		13.4
		11/3/2017	77.1		130.8		13.3
		11/10/2017	83.2		124.7		7.2
		11/17/2017	82.2		125.7		8.2
		11/24/2017	82.2		125.7		8.2
		12/1/2017	82.7		125.2		7.7
		12/8/2017	82.5		125.4		7.9
		12/15/2017	82.7		125.2		7.7
		12/22/2017	82.6		125.3		7.8
		12/29/2017	82.7		125.2		7.7
		1/5/2018	82.8		125.1		7.6
		1/12/2018	82.5		125.4		7.9
		1/19/2018	82.4		125.5		8.0
		1/26/2018	80.9		127.0		9.5
					-		-
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	SB-30	5/5/2017	64.3	189.53	125.2	117.8	7.4
		5/12/2017	64.7		124.8		7.0
		5/19/2017	64.8		124.7		6.9
		5/26/2017	65.7		123.8		6.0
		6/2/2017	65.7		123.8		6.0
		6/9/2017	65.7		123.8		6.0
		6/16/2017	65.6		123.9		6.1
		6/23/2017	65.6		123.9		6.1
		6/30/2017	65.2		124.3		6.5
		7/7/2017	65.7		123.8		6.0
		7/14/2017	65.8		123.7		5.9
		7/21/2017	66.0		123.5		5.7
		7/28/2017	66.0		123.5		5.7
		8/4/2017	66.0		123.5		5.7
		8/11/2017	65.6		123.9		6.1
		8/18/2017	65.8		123.7		5.9
		8/25/2017	65.8		123.7		5.9
		9/1/2017	65.9		123.6		5.8
		9/8/2017	65.5		124.0		6.2
		9/15/2017	64.4		125.1		7.3
		9/22/2017	64.7		124.8		7.0
		9/29/2017	64.7		124.8		7.0
		10/6/2017	64.8		124.7		6.9
		10/13/2017	63.4		126.1		8.3
		10/20/2017	63.2		126.3		8.5
		10/27/2017	65.4		124.1		6.3
		11/3/2017	65.4		124.1		6.3
		11/10/2017	65.3		124.2		6.4
		11/17/2017	65.4		124.1		6.3
		11/24/2017	65.5		124.0		6.2
		12/1/2017	65.6		123.9		6.1
		12/8/2017	65.4		124.1		6.3
		12/15/2017	65.5		124.0		6.2
		12/22/2017	65.6		123.9		6.1
		12/29/2017	65.7		123.8		6.0
		1/5/2018	65.8		123.7		5.9
		1/12/2018	65.6		123.9		6.1
		1/19/2018	65.6		123.9		6.1
		1/26/2018	65.6		123.9		6.1
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**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	MP 2-2 ⁶	7/21/2017	14.5	136.85	122.4	121.5	0.9
		7/28/2017	14.1	top HDPE	122.8		1.3
		8/4/2017	13.7		123.2		1.7
		8/11/2017	12.8	See Note 7	124.1		2.6
		8/18/2017	13.6		123.3		1.8
		8/25/2017	13.7		123.2		1.7
		9/1/2017	13.4		123.5		2.0
		9/8/2017	13.1		123.8		2.3
		9/15/2017	12.8		124.1		2.6
		9/22/2017	12.8		124.1		2.6
		9/29/2017	12.7		124.2		2.7
		10/6/2017	13.1		123.8		2.3
		10/13/2017	13.1		123.8		2.3
		10/20/2017	15.2		121.7		0.2
		10/27/2017	14.7		122.2		0.7
		11/3/2017	14.5		122.4		0.9
		11/10/2017	13.8		123.1		1.6
		11/17/2017	13.8		123.1		1.6
		11/24/2017	13.9		123.0		1.5
		12/1/2017	15.2		121.7		0.2
		12/8/2017	14.2		122.7	See Note 13	1.2
		12/15/2017	15.0		121.9		0.4
		12/22/2017	15.2		121.7		0.2
		12/29/2017	14.3		122.6		1.1
		1/5/2018	14.0		122.9		1.4
		1/12/2018	13.8		123.1		1.6
		1/19/2018	14.0		122.9		1.4
		1/26/2018	13.9		123.0		1.5
					-		-
					-		-

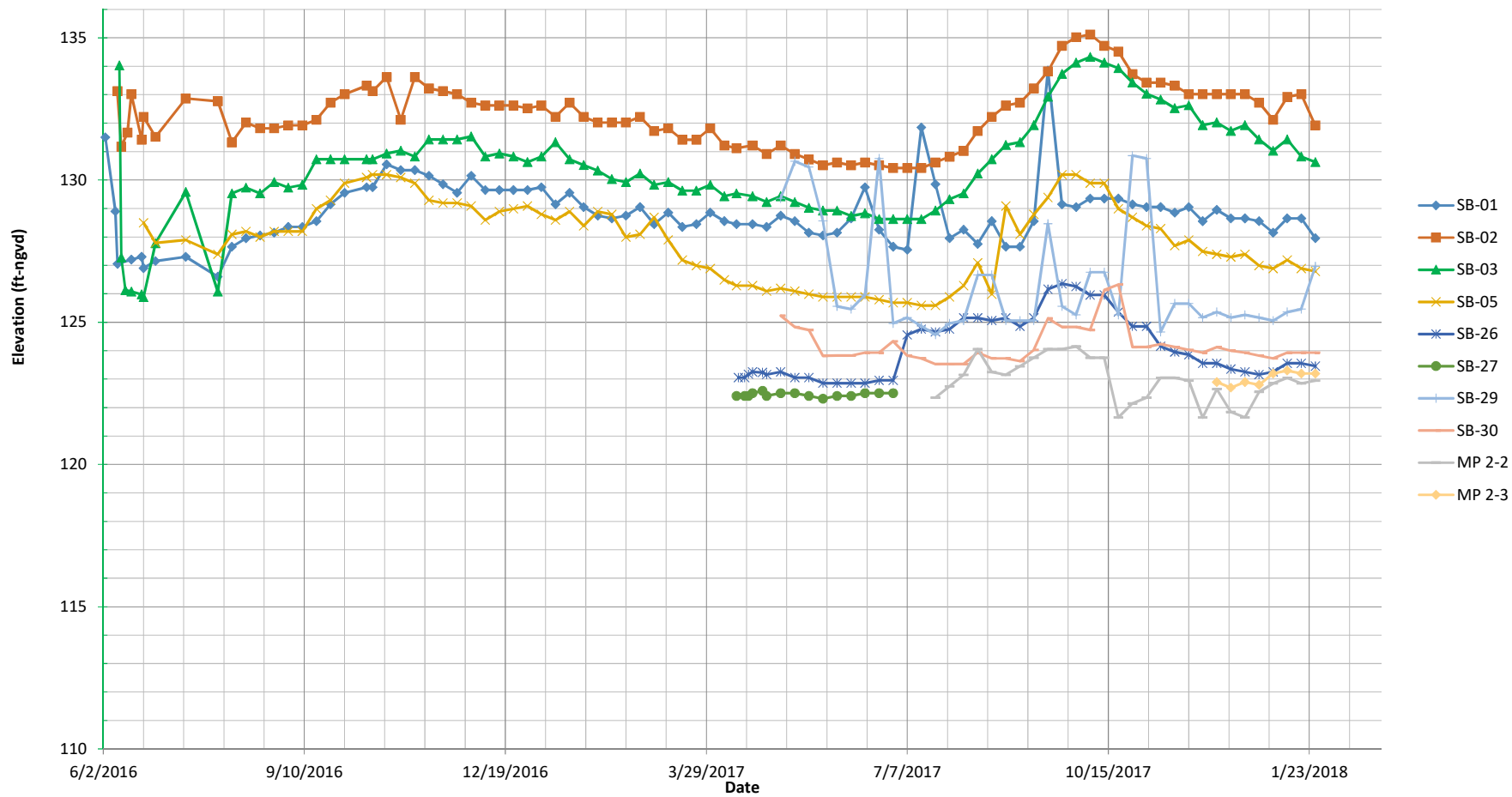
**Appendix B - Water Level Data
Liquid Assessment Monitoring
Southeast County Landfill**

Phase	Soil Boring #	Date ¹	Depth to water (ft tpvc)	Elevation Top PVC (NGVD)	Water Elevation (NGVD)	Top of Clay Elev (NGVD)	Liquid Depth Over Clay (ft)
II	MP 2-3 ⁶	7/21/2017	15.0	141.05	DRY	122.4	DRY
		7/28/2017	15.0	top HDPE	DRY	See Note 8	DRY
		8/4/2017	15.0		DRY		DRY
		8/11/2017	15.0		DRY		DRY
		8/18/2017	15.0		DRY		DRY
		8/25/2017	15.0		DRY		DRY
		9/1/2017	15.0		DRY		DRY
		9/8/2017	15.0		DRY		DRY
		9/15/2017	15.0		DRY		DRY
		9/22/2017	15.0		DRY		DRY
		9/29/2017	15.0		DRY		DRY
		10/6/2017	15.0		DRY		DRY
		10/13/2017	15.0		DRY		DRY
		10/20/2017	15.0		DRY		DRY
		10/27/2017	15.0		DRY		DRY
		11/3/2017	15.0		DRY		DRY
		11/10/2017	15.0		DRY		DRY
		11/17/2017	15.0		DRY		DRY
		11/24/2017	15.0		DRY		DRY
		12/1/2017	-		DRY	See Note 12	DRY
		12/8/2017	19.4	142.3	122.9		0.5
		12/15/2017	19.6		122.7		0.3
		12/22/2017	19.4		122.9		0.5
		12/29/2017	19.5		122.8		0.4
		1/5/2018	19.1		123.2		0.8
		1/12/2018	19.0		123.3		0.9
		1/19/2018	19.1		123.2		0.8
		1/26/2018	19.1		123.2		0.8
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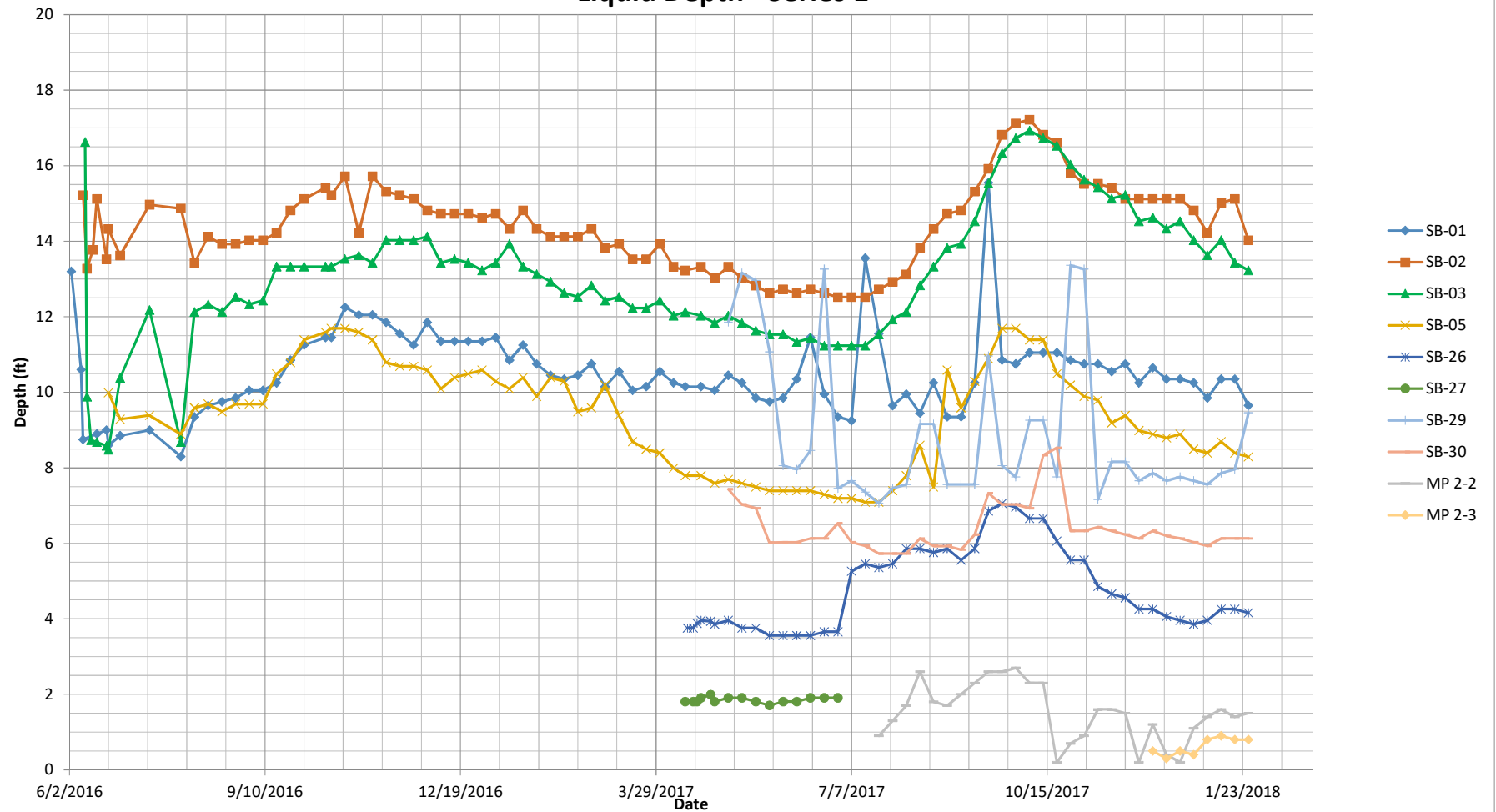
Notes:

1. Water levels collected in SB-15 through SB-23D on 2/16/17 are prior to development.
2. Approximate elevations based on raw survey data.
3. Extended riser at SB-25D due to waste filling operations.
4. Lowered riser at SB-25D in order to conduct pump test.
5. Removed SB-27 during construction of cut-off trench during week of 7-10-2017. Replaced with MP-1 and MP-2.
6. Monitoring Points MP 2-2 and MP 2-3 are vertical HDPE risers installed in cutoff trench.
7. Installed pump at CO 2-2 on 8/11/2017. MP 2-2 may be affected by pumping.
8. Clay elevation at MP 2-3 is estimated based on bottom of trench survey points north and south of riser.
9. SB-25D appeared to be blocked on 9/1/2017. Investigations were conducted with an excavation that determined the piezometer is broken at 14' B.G.
10. Actively filling in the Phase IV area. SWMD extended risers at SB-23D and SB-23S.
11. Actively filling in the Phase IV and VI area. SWMD extended riser at SB-21D.
12. Construction activity at CO 2-1 on 12/1 adjusting depth of MP 2-3.
13. Pump at CO 2-2 turned off to evaluate effects of construction activity at cut-off trench.

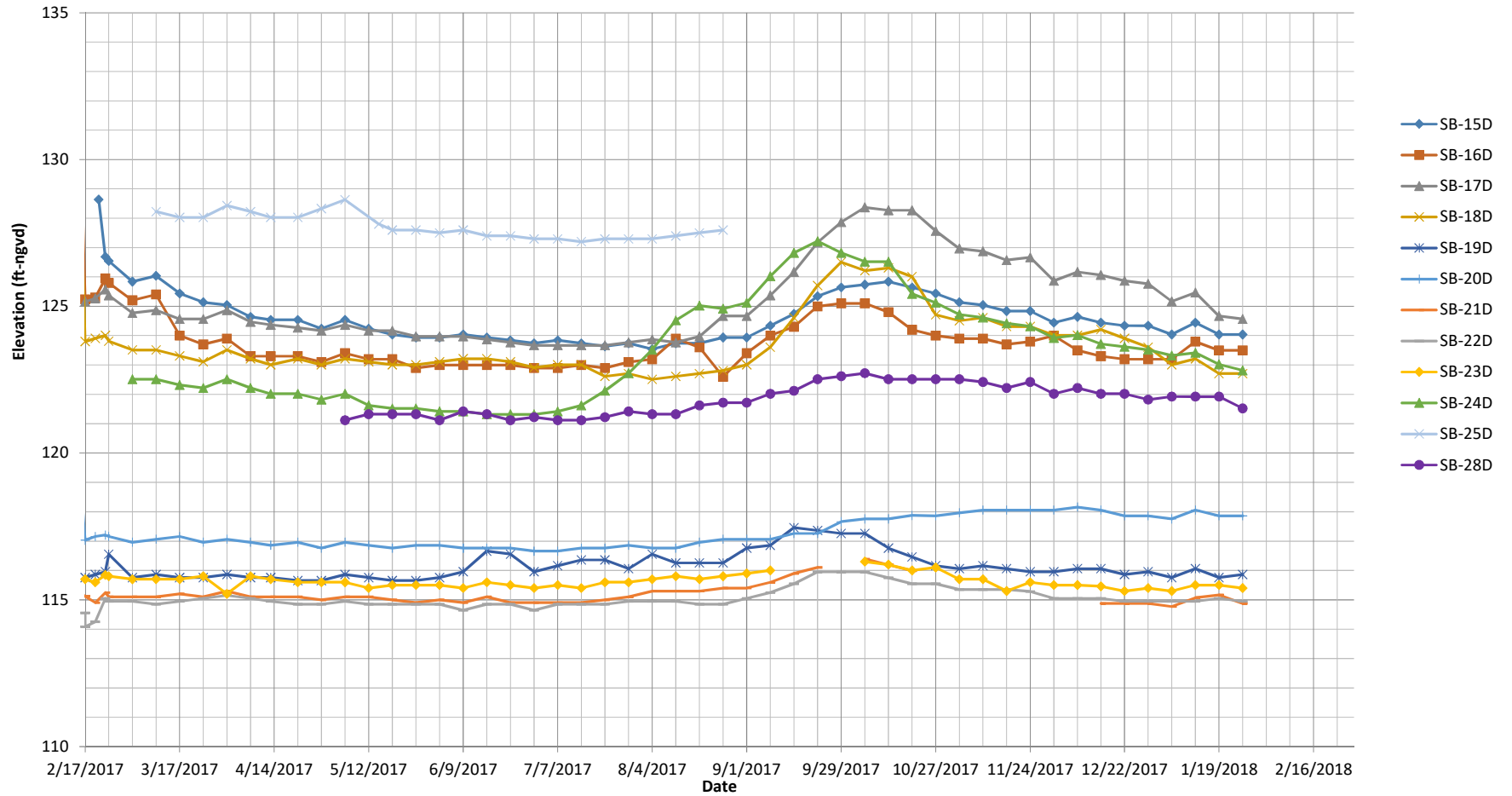
Appendix B Liquid Elevation - Series 1



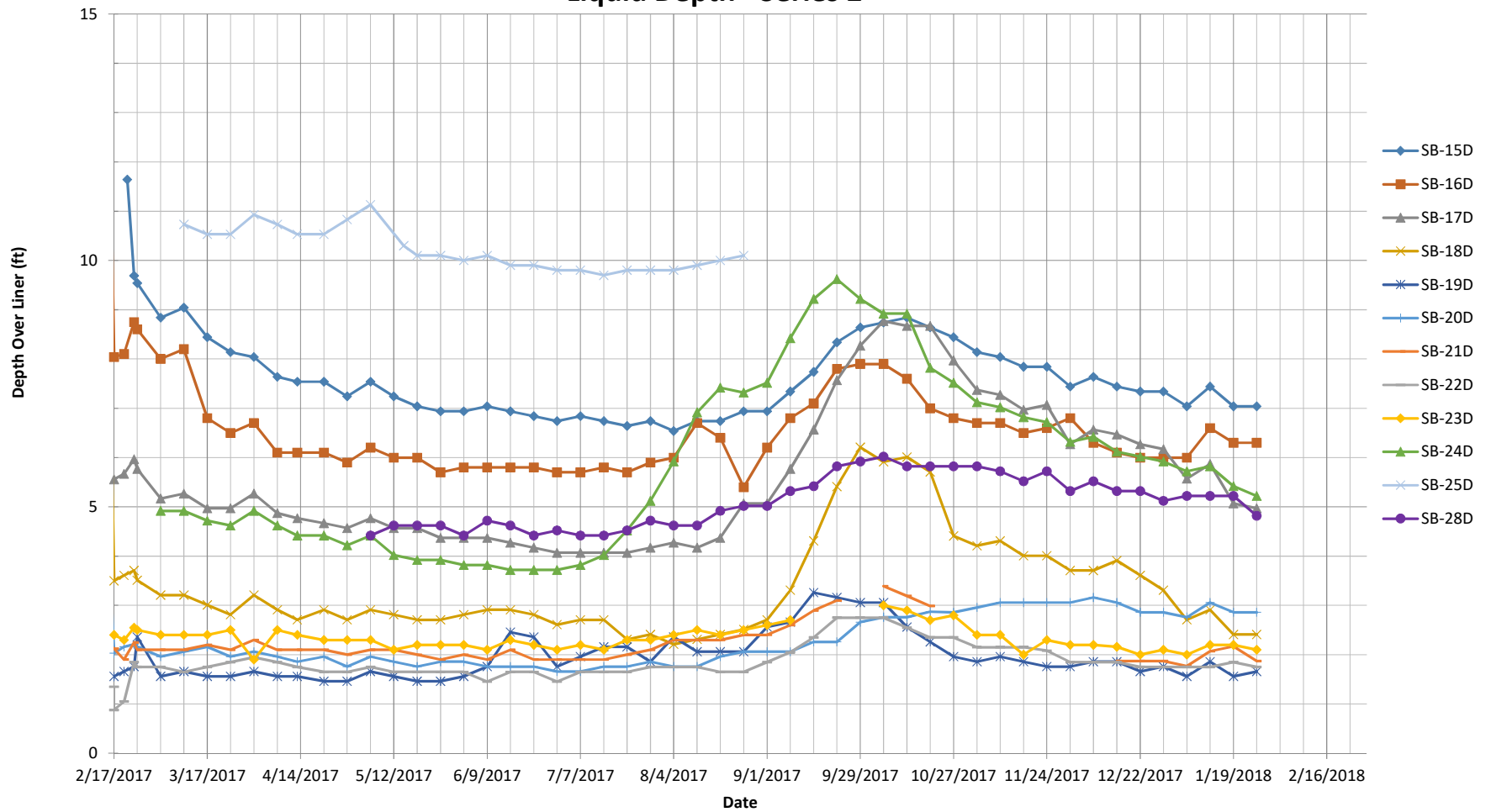
Appendix B Liquid Depth - Series 1



Appendix B Liquid Elevation - Series 2



Appendix B Liquid Depth - Series 2



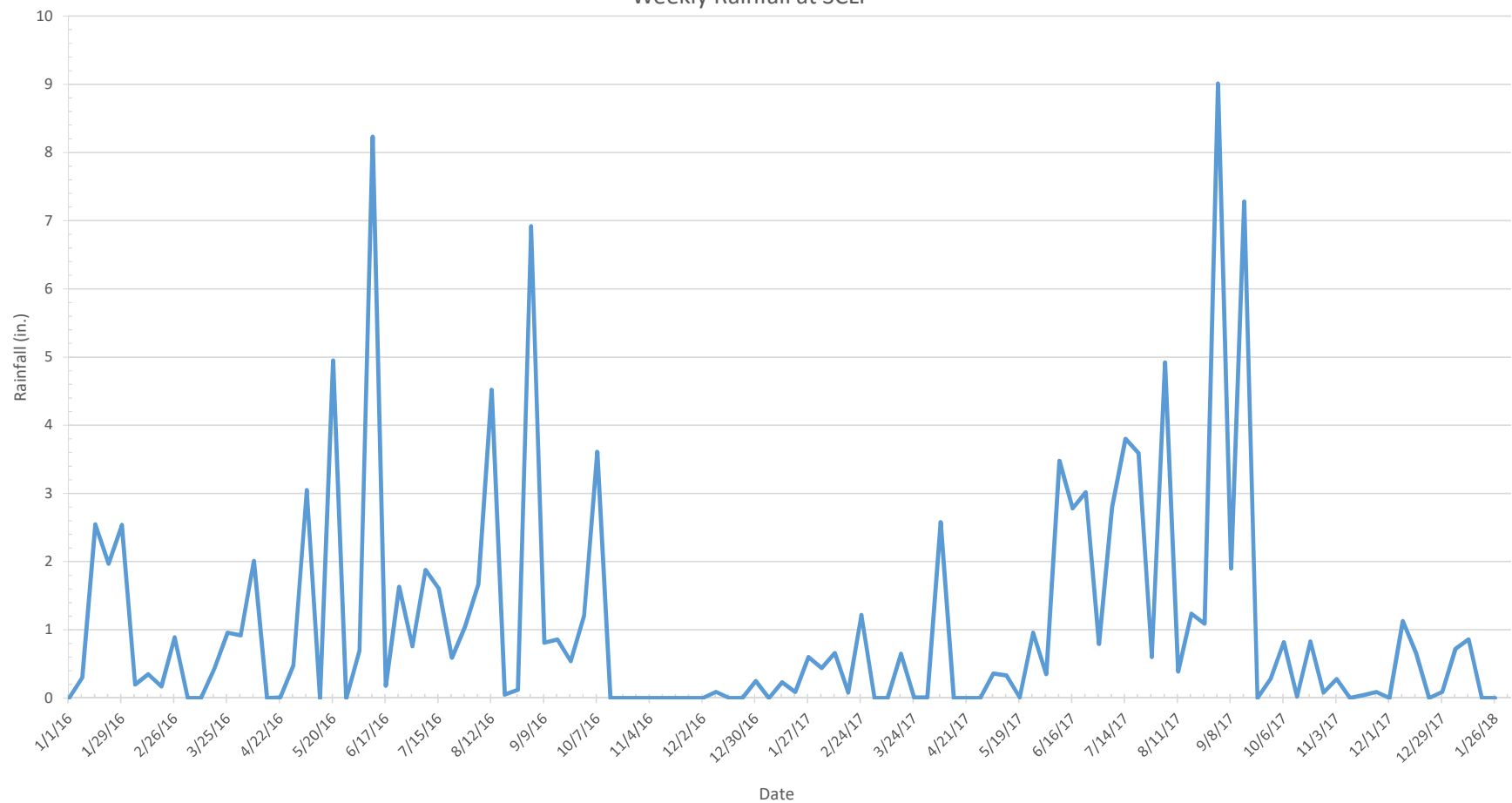
**Appendix B - Rainfall Data
Liquid Assessment Monitoring
Southeast County Landfill**

Week Ending	Rainfall (in.)	Remarks
1/1/16	0	
1/8/16	0.3	
1/15/16	2.55	
1/22/16	1.97	
1/29/16	2.54	
2/5/16	0.2	
2/12/16	0.35	
2/19/16	0.17	
2/26/16	0.89	
3/4/16	0	
3/11/16	0	
3/18/16	0.43	
3/25/16	0.96	
4/1/16	0.92	
4/8/16	2.01	
4/15/16	0	
4/22/16	0.01	
4/29/16	0.48	
5/6/16	3.05	
5/13/16	0	
5/20/16	4.95	
5/27/16	0	
6/3/16	0.69	
6/10/16	8.23	
6/17/16	0.18	
6/24/16	1.63	
7/1/16	0.76	
7/8/16	1.88	
7/15/16	1.61	
7/22/16	0.59	
7/29/16	1.05	
8/5/16	1.66	
8/12/16	4.52	
8/19/16	0.05	
8/26/16	0.12	
9/2/16	6.92	
9/9/16	0.81	
9/16/16	0.86	
9/23/16	0.54	
9/30/16	1.21	
10/7/16	3.61	
10/14/16	0	
10/21/16	0	
10/28/16	0	
11/4/16	0	
11/11/16	0	
11/18/16	0	
11/25/16	0	
12/2/16	0	
12/9/16	0.09	
12/16/16	0	
12/23/16	0	
12/30/16	0.25	
1/6/17	0	
1/13/17	0.23	
1/20/17	0.09	
1/27/17	0.6	

**Appendix B - Rainfall Data
Liquid Assessment Monitoring
Southeast County Landfill**

Week Ending	Rainfall (in.)	Remarks
2/3/17	0.44	
2/10/17	0.66	
2/17/17	0.08	
2/24/17	1.22	
3/3/17	0	
3/10/17	0	
3/17/17	0.65	
3/24/17	0.01	
3/31/17	0.01	
4/7/17	2.58	
4/14/17	0	
4/21/17	0	
4/28/17	0	
5/5/17	0.36	
5/12/17	0.33	
5/19/17	0.01	
5/26/17	0.96	
6/2/17	0.35	
6/9/17	3.48	
6/16/17	2.78	
6/23/17	3.02	
6/30/17	0.79	
7/7/17	2.8	
7/14/17	3.8	
7/21/17	3.59	
7/28/17	0.6	
8/4/17	4.92	
8/11/17	0.39	
8/18/17	1.24	
8/25/17	1.09	
9/1/17	9.01	
9/8/17	1.9	
9/15/17	7.28	
9/22/17	0	
9/29/17	0.28	
10/6/17	0.82	
10/13/17	0.02	
10/20/17	0.83	
10/27/17	0.08	
11/3/17	0.28	
11/10/17	0	
11/17/17	0.04	
11/24/17	0.09	
12/1/17	0	
12/8/17	1.13	
12/15/17	0.66	
12/22/17	0	
12/29/17	0.09	
1/5/18	0.72	
1/12/18	0.86	
1/19/18	0	
1/26/18	0	

Appendix B
Weekly Rainfall at SCLF



Appendix C

Cut-off Trench Record Drawings

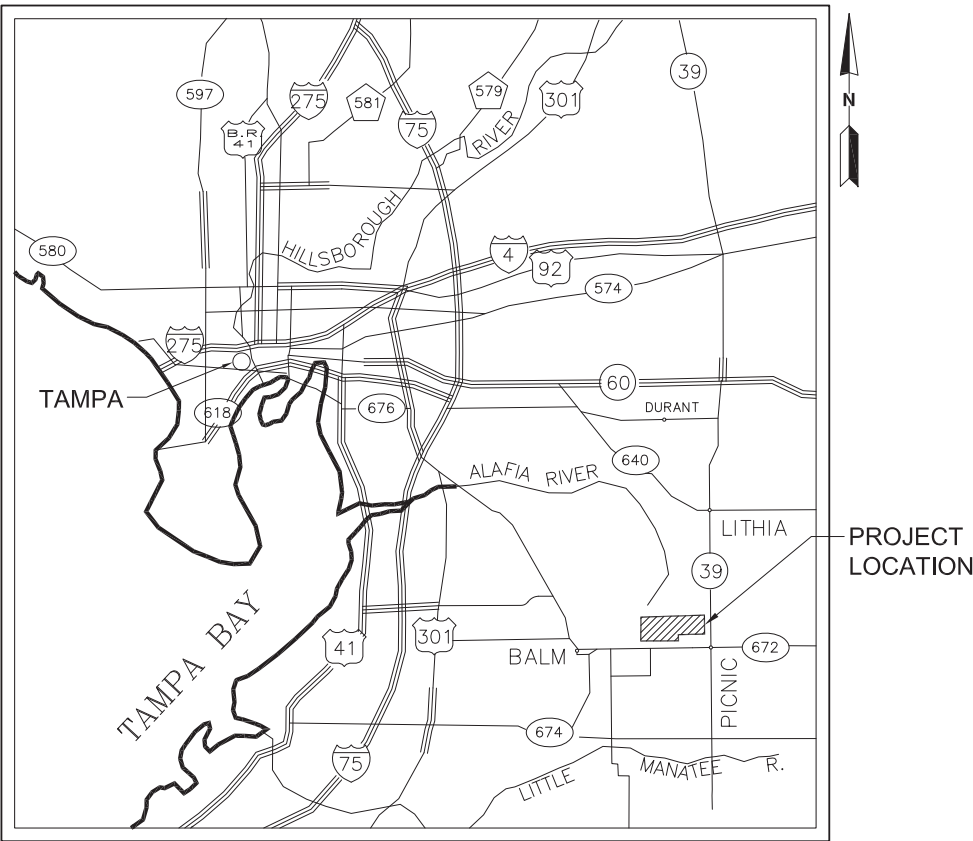
PHASE II CUT-OFF TRENCH SOUTHEAST COUNTY LANDFILL HILLSBOROUGH COUNTY

TAMPA, FLORIDA
SEPTEMBER 2017



BOARD OF COUNTY COMMISSIONERS

SANDRA L. MURMAN	- DISTRICT 1
VICTOR D. CRIST	- DISTRICT 2
LESLEY MILLER, JR.	- DISTRICT 3
STACY R. WHITE	- DISTRICT 4
KEN HAGAN	- DISTRICT 5
PAT KEMP	- DISTRICT 6
AL HIGGINBOTHAM	- DISTRICT 7



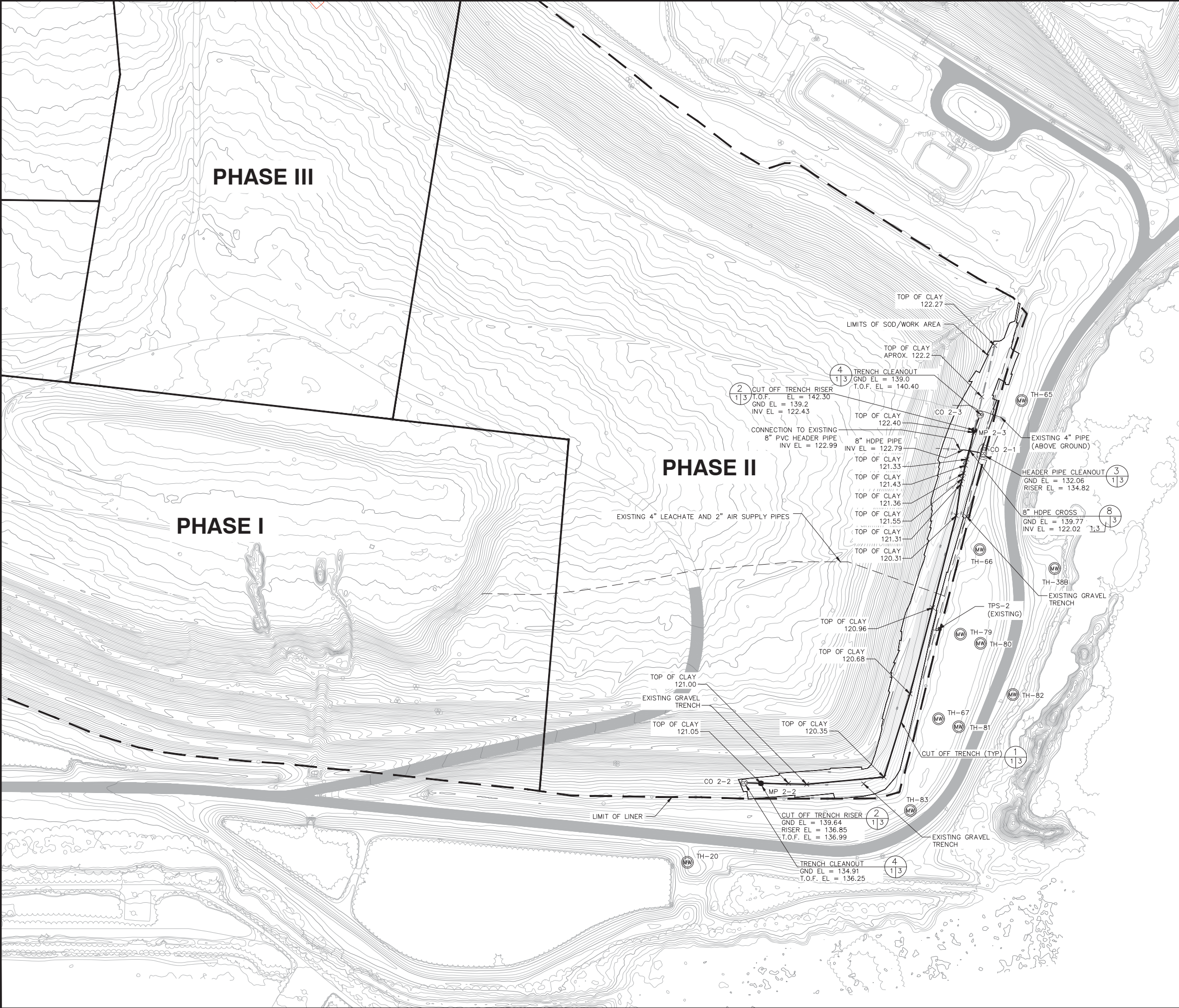
LOCATION MAP
NOT TO SCALE

INDEX OF DRAWINGS	
DRAWING NO.	DRAWING TITLE
	COVER SHEET
C-1	PLAN
C-2	PROFILES
C-3	DETAILS

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
3922 Coconut Palm Drive, SUITE 102
TAMPA, FLORIDA 33619
PH. (813) 621-0080 FAX. (813) 623-6757
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

SCS PROJECT NO. 09215600.04

ROBERT B. CURTIS, P.E.
LICENSE NO. 73758



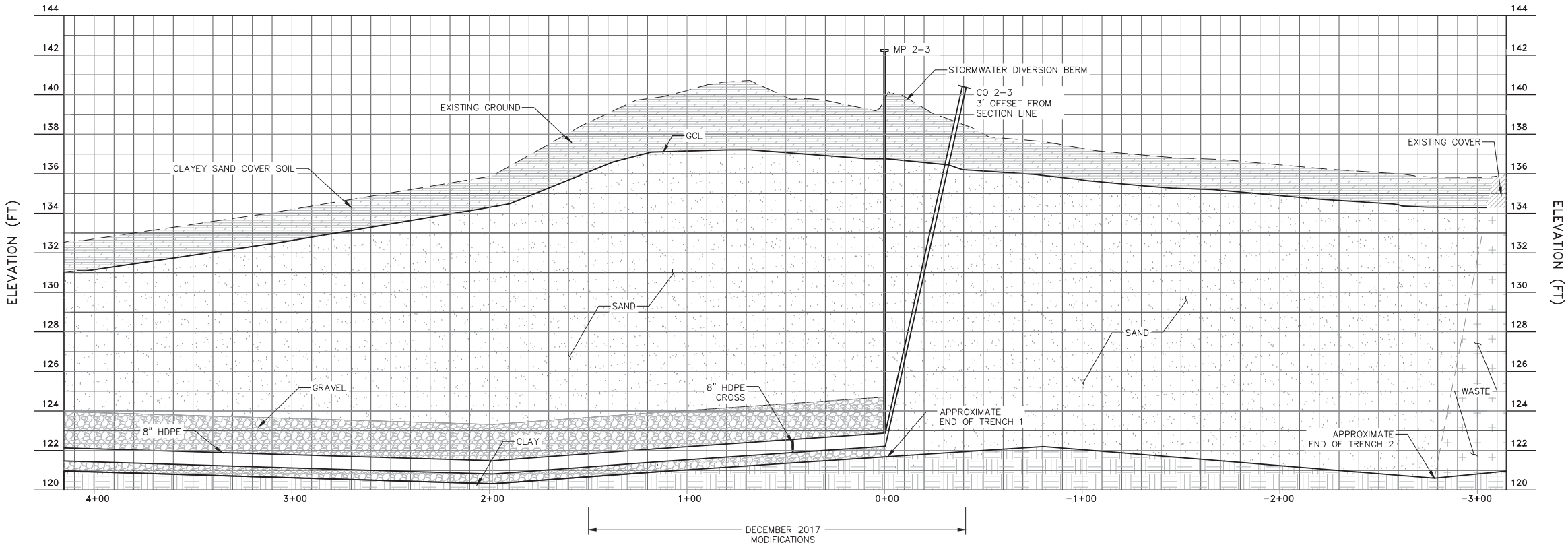
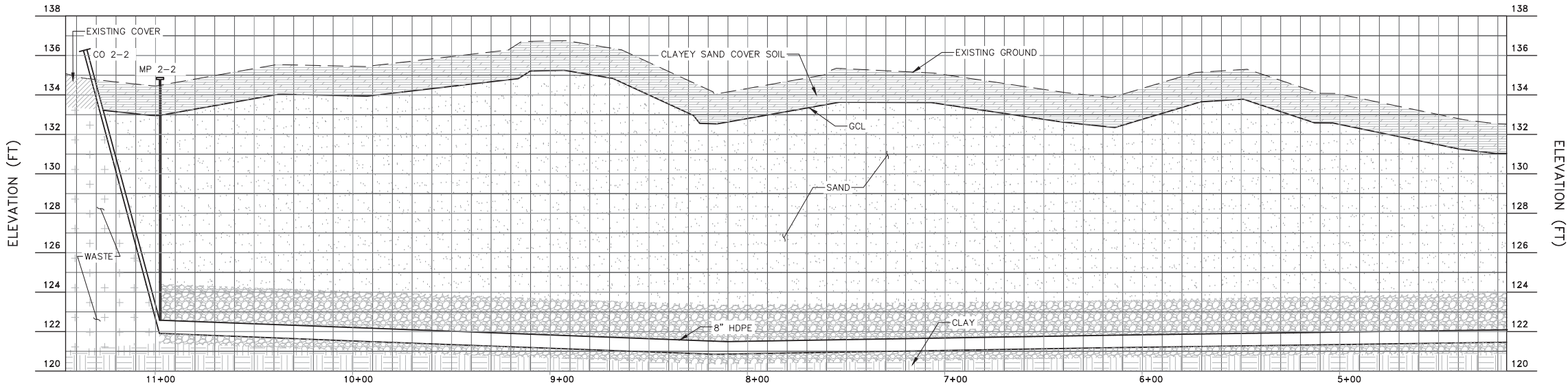
- NOTES:
- EXISTING CONTOURS FROM A SURVEY DATED 01/06/17 BY PICKETT & ASSOCIATES.
 - CONTOURS WITHIN THE LIMITS OF SOD/WORK AREA FROM A SURVEYS DATED 07/26/17 AND 1/9/18 BY PEAVEY & ASSOCIATES.
 - TOP OF CLAY, PIPE, AND SPOT GROUND ELEVATIONS FROM SURVEYS DATED 7/12/17, 7/19/17, 7/26/17, 8/8/17 AND 1/9/18 BY PEAVEY & ASSOCIATES
 - TOP OF CLAY IS ALSO BOTTOM OF TRENCH. PIPE IS SET APPROXIMATELY 6" ABOVE TOP OF CLAY UNLESS OTHERWISE NOTED.

- LEGEND:
- CO 2-1 CLEAN OUT
 - MP 2-2 MONITORING POINT/FLANGE
 - TH-81 MONITORING WELLS
 - HEADER PIPE IN TRENCH
 - LANDFILL LIMIT/BERM
 - LIMITS OF WORK AREA
 - TRENCH WITH NO PIPE
 - T.O.F. TOP OF FLANGE

SHEET TITLE		PLAN		PROJECT TITLE	
HILLSBOROUGH COUNTY		SOUTHEAST COUNTY LANDFILL		PHASE II CUT-OFF TRENCH	
PUBLIC WORKS DEPARTMENT		RECORD DRAWING		DATE	
SOLID WASTE MANAGEMENT DIVISION		01/30/18		CHK BY	
TAMPA, FL 33619		REV		DESCRIPTION	
		1		01/06/17 BY PICKETT & ASSOCIATES.	
		2		CONTOURS WITHIN THE LIMITS OF SOD/WORK AREA FROM A SURVEYS DATED 07/26/17 AND 1/9/18 BY PEAVEY & ASSOCIATES.	
		3		TOP OF CLAY, PIPE, AND SPOT GROUND ELEVATIONS FROM SURVEYS DATED 7/12/17, 7/19/17, 7/26/17, 8/8/17 AND 1/9/18 BY PEAVEY & ASSOCIATES	
		4		TOP OF CLAY IS ALSO BOTTOM OF TRENCH. PIPE IS SET APPROXIMATELY 6" ABOVE TOP OF CLAY UNLESS OTHERWISE NOTED.	
				ROBERT B. CURTIS, P.E.	
				LICENSE NO. 73758	

SCS ENGINEERS		CADD FILE:	
STEARN, CONRAD AND SCHMIDT		09215600.04-C-1 CUTOFF TRENCH AB	
CONSULTING ENGINEERS, INC.		DATE:	
3922 Coconut Palm Drive, Suite 102, TAMPA, FL 33619		SEPTEMBER 2017	
PH (813) 621-0080 FAX (813) 623-6757		SCALE:	
FL CERTIFICATE OF AUTHORIZATION NO. 00004892		AS SHOWN	
PROJ. NO. 09215600.05		DRAWING NO.	
DSN. BY: CEC		C-1	
CHK. BY: BJC		SHEET	
APP. BY: REC		2 of 4	

G:\PROJECT\Hillsborough\09215600.03 - Solid Waste\Engineering Drawings\Asbuilt-Cutoff trench\09215600.04-C-2 cutoff trench-section AB.dwg Feb 07, 2018 - 10:58am Layout Name: PROFILES By: 4280ced



0 15 30 60
HORIZONTAL 1" = 30'
VERTICAL 1" = 3'

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 3922 Coconut Palm Drive, SUITE 102, TAMPA, FL 33619 PH. (813) 621-0080 FAX. (813) 623-6757 FL CERTIFICATE OF AUTHORIZATION NO. 00004892										HILLSBOROUGH COUNTY PUBLIC WORKS DEPARTMENT DIVISION SOLID WASTE MANAGEMENT DIVISION TAMPA, FL 33619										SHEET TITLE		PROFILES		PROJECT TITLE		SOUTHEAST COUNTY LANDFILL PHASE II CUT-OFF TRENCH		REV		DATE		DESCRIPTION		CHK BY			
CADD FILE: 09215600.04-C-2 CUTOFF TRENCH-SECTION AB.DWG																				DATE: SEPTEMBER 2017		SCALE: AS SHOWN		DRAWING NO. C-2		SHEET 3 of 4											
PROD. NO. 156000.05 DWG. BY: KJC CHK. BY: KJC DES. BY: RBC										B/C B/C B/C B/C																										ROBERT B. CURTIS, P.E. LICENSE NO. 73758	

SHEET 4 of 4

Appendix D

Phase I Dye Tracer Test Memorandum

SCS ENGINEERS

February 12, 2018
File No. 09215600.05

MEMORANDUM

TO: Mr. Larry Ruiz, S.C.

FROM: Mr. Ken Guilbeault, P.G. *KG*
Mr. Kollan Spradlin, P.E. *KL*

SUBJECT: Phase I Leachate Collection and Recovery System Tracer Dye Test
Southeast County Landfill

CC: Mr. Joe O'Neill, P.E.
File

As requested by the Hillsborough County Public Works Department, Solid Waste Management Division (SWMD), SCS Engineers (SCS) has prepared this memorandum of the observations made during the recent Phase I Leachate Collection and Recovery System (LCRS) tracer dye test at the Southeast County Landfill (SCLF). The tracer dye test was conducted on January 31, 2018. Observations and results of the test are provided below:

BACKGROUND

The SWMD and SCS continue to evaluate the functionality of the SCLF LCRS. This investigation involves flow from areas of Phase I. Leachate collected in Phase I flows by gravity through a header that runs northerly from Phase I, through Phase IV, and into Phase VI. A sump (PS-B) in Phase VI collects the leachate and it is pumped to a wet well (PS-A) on the north side of Phase V. Leachate is pumped from PS-A to the Main Leachate Pump Station (MLPS). From the MLPS, leachate is pumped to the on-site leachate treatment and reclamation facility for treatment and trucking to an off-site wastewater treatment plant. The LCRS is shown on

Figure 1.

Until recently, inspection of the header pipes in Phases I and II was not practical since there were no cleanouts. The typical design and solid waste rules and regulations at the time Phases I, II, and III were constructed did not require cleanouts. In March 2017, the SWMD excavated along the southern side of the SCLF and located the Phase I header pipe, an 8-inch diameter perforated PVC pipe. At that time, a cleanout riser pipe (CO 1-1) was installed to provide future access to the main LCRS header pipe from the southern side of Phase I.

Subsequent cleaning and inspection of the Phase I header was completed in June 2017 and December 2017. The Phase I header pipe was jet cleaned approximately 985 feet, running south

to north from CO 1-1 in June 2017. Based on the plans of the LCRS, this is the installed length. This indicates that the pipe is not obstructed and leachate along this section is flowing freely.

In order to further assess the Phase I and IV header pipes for the presence of obstructions or restrictions, the SWMD conducted the following tracer dye test. If the header pipe is functioning as designed, a tracer dye inserted at CO 1-1 should be detected at PS-A. An absence of tracer dye in the leachate pumped from PS-B could indicate a liquid conveyance issue within the Phase I or Phase IV LCRS. **Figure 1** provides a plan view of the SCLF LCRS.

FIELD OBSERVATIONS

An SCS representative was on site January 31, 2018, to observe and document the process and the results of the tracer dye test. The photograph log, included as **Attachment 1**, documents the field activities and includes pictures of the auto-sampler and visual documentation of the laboratory results.

Sample Collection Methodology

SWMD personnel set up an auto-sampler device at PS-A to collect leachate samples from the PS-A wet well (**Photograph 1**). The auto sampler was programmed to collect one 500-milliliter sample at the top of each half hour beginning at 10:30 a.m. An initial sample was collected at 10:30 a.m. prior to injecting the fluorescent dye at CO 1-1 (**Photograph 2**). The 10:30 sample was used as a background sample for absorption comparison.

Tracer Dye Injection

SWMD personnel added one gallon of the Bright Dyes Yellow/Green fluorescent dye manufactured by Kingscote Chemicals to a portable water tank containing 1,000 gallons of non-potable water (**Photograph 3**). At 10:45 a.m., the water and dye mixture (dye mixture) was pumped into the header access point. The dye mixture was delivered through a ¾-inch hose inserted approximately 30 feet into a 4-inch HDPE pipe that extended 300 feet into CO 1-1 (**Photograph 4**). SWMD originally intended to use a portable pump connected to the 4-inch HDPE pipe to inject the dye mixture at 10:30 a.m., but technical difficulties with the portable pump required that a smaller pump be utilized to deliver the dye mixture. The 1,000 gallons of dye mixture was pumped into CO 1-1 from 10:45 a.m. to 12:25 p.m. From 12:30 p.m. to 12:48 p.m., the larger portable pump was used to inject an additional 2,000 gallons of non-potable water into the 4-inch HDPE pipe following resolution of the technical difficulties (**Photograph 5**).

Observations and Samples

Visual observations were made at PS-A for the duration of the test. The on-site SCS field representative noted the start and stop times of the PS-B pump cycle. Following each cycle, the on-site SCS field representative observed the color of the liquid within the PS-A wet well. Fluorescent dye was not observed in the first four samples collected (10:30 a.m., 11:00 a.m.,

11:30 a.m., or 12:00 p.m.). The first visual observation of dye within the PS-A wet well was at 12:25 p.m., immediately following a pump cycle and five minutes prior to the 12:30 p.m. sample (**Photograph 6**). The dye was visually observed in the sample collected from PS-A at 12:30 p.m.; one hour and 45 minutes after the initial dye was pumped into CO 1-1.

SWMD personnel and the on-site SCS representative collected representative sub-samples from the auto-sampler at 10:30 a.m., 12:00 p.m., 12:30 p.m., and 1:00 p.m. for laboratory analysis. The samples were transported to Environmental Conservation Laboratories (ENCO) in Orlando, Florida for light absorbance analysis by spectrophotometer under the optimal observation wavelength as published by the tracer dye manufacturer.

The liquid sample collected from the PS-A wet well at 10:30 a.m. was utilized as the control sample due to the fact that was collected from the sampling location prior to the injection of the dye mixture (**Photograph 7**). The auto-sampler device was allowed to continue operation through 1:00 p.m. for a total of six samples. The samples collected at 12:30 p.m. and 1:00 p.m. appeared to have observable dye in the liquid (**Photograph 8 and Photograph 9**). Visual observations were noted and photographs of the samples were taken, but no additional sub-samples were collected for laboratory analysis (**Photograph 10 and Photograph 11**).

LABORATORY RESULTS

The laboratory analysis of the four liquid samples provided as **Attachment 2** indicates that the samples collected prior to 12:30 p.m. did not contain enough of the fluorescent tracer dye to be considered a positive result. Laboratory analysis confirms the visual observation of the presence of dye at the 12:30 p.m. sample. **Table 1** summarizes the raw absorbance at 490nm as measured in absorbance units. The analytical laboratory report and chain of custody are provided as **Attachment 2**. Additional photographs of the samples at the laboratory are included in the laboratory report.

Table 1. Summary of Sample Raw Absorbance Data

Sample Identification	Raw Absorbance at 490nm (Absorbance Units)
1-1 Sample 1 (BG)	0.349
1-1 Sample 2 (12:00 pm)	0.363
1-1 Sample 3 (12:30 pm)	1.164
1-1 Sample 4 (1:00 pm)	2.319

CONCLUSION

The field test and the laboratory results indicate that the tested sections of Phase I and Phase IV LCRS headers appear to be functional and are able to convey liquid from Phase I and Phase IV to PS-B. The leachate is subsequently pumped to PS-A where the dye was observed and verified by laboratory testing approximately one hour and 45 minutes after the initial dye was injected.

Figure 1

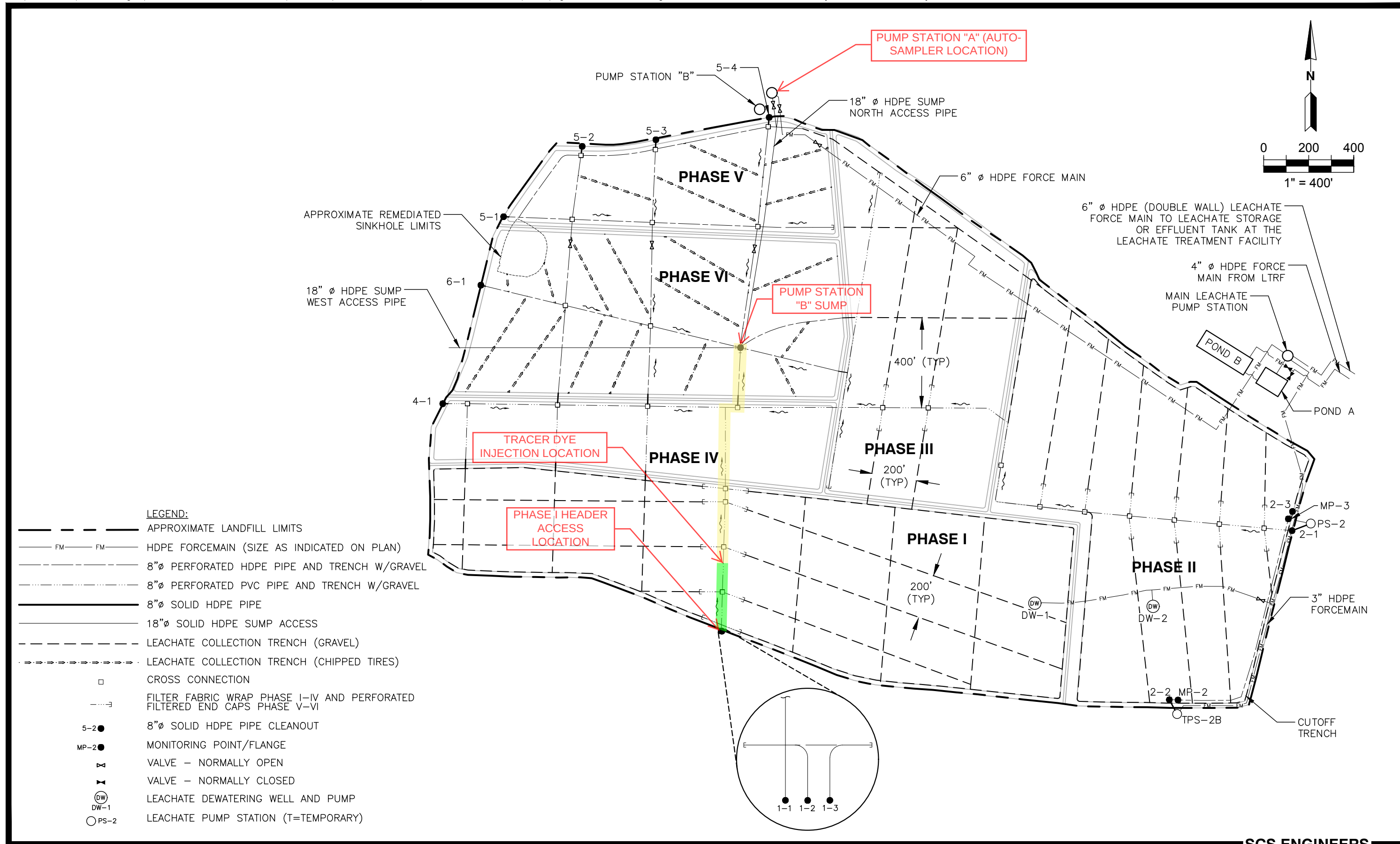


FIGURE 1 - PHASES I-VI LEACHATE COLLECTION SYSTEM
HILLSBOROUGH COUNTY
FEBRUARY 2018

Attachment 1
Photograph Log

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 1. Auto-Sampler Setup on Pump Station A (PS-A)

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 2. Phase I Header Access Point (CO 1-1)

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 3. 1,000 Gallon Portable Tank Used to Mix Water and Dye

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 4. $\frac{3}{4}$ " Hose from the Tank Trailer Pump Delivering the Dye Mixture into CO 1-1

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 5. Portable Pump Used to Inject 2,000 Gallons of Water

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 6. First Observation of Dye in the PS-A Wet Well at 12:25 p.m.

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 7. 10:30 a.m. Check on Auto-Sampler at PS-A – Used as a Background Sample

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 8. 12:30 p.m. Check on Auto-Sampler at PS-A – Observable Fluorescent Dye

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018

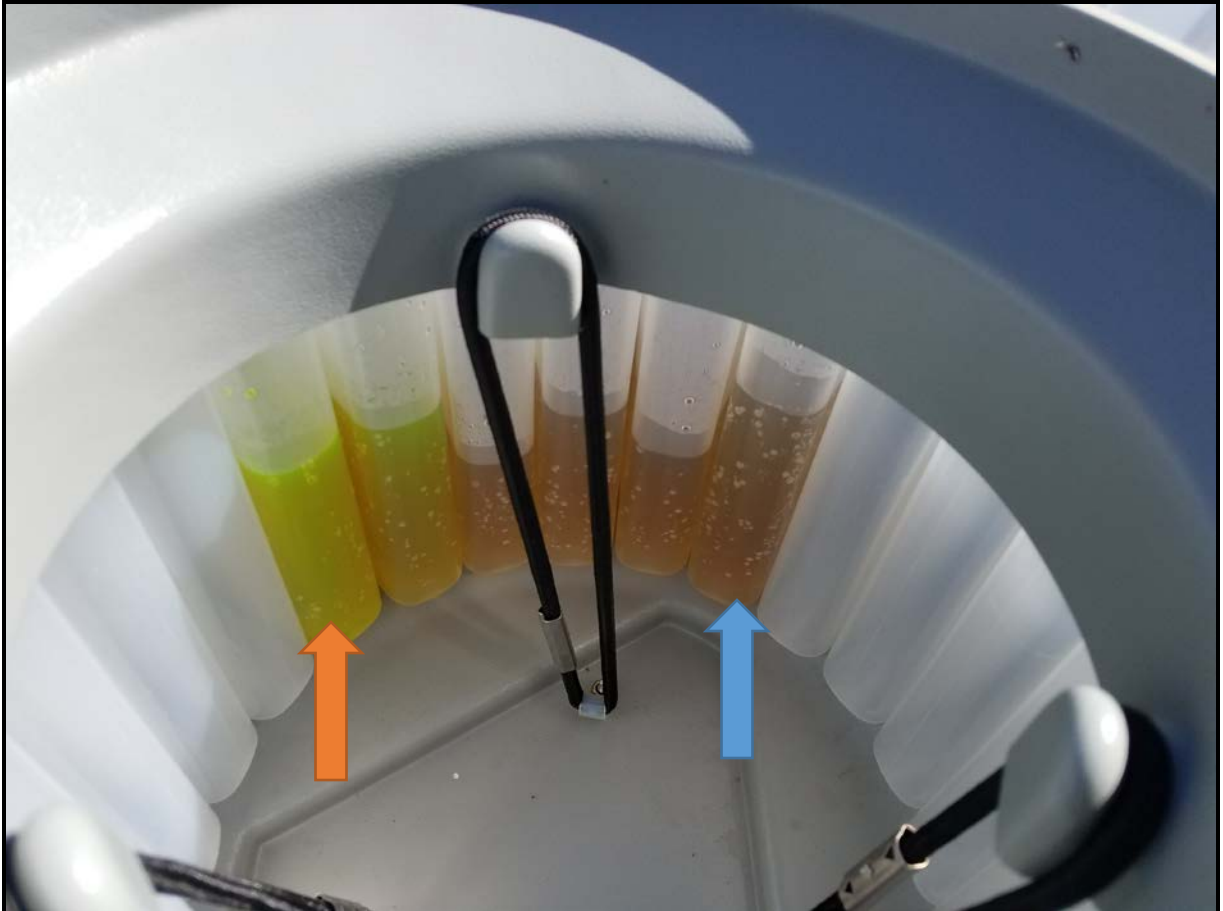


Photograph 9. 1:00 p.m. Check on Auto-Sampler at PS-A – Observable Fluorescent Dye

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 10. Samples from 10:30 a.m., 11:00 a.m., 11:30 a.m., 12:00 p.m., 12:30 p.m., and 1:00 p.m. The Samples Were Collected Counter-Clockwise. The Blue Arrow Points at the 10:30 Sample and the Orange Arrow Points to the 1:00 p.m. Sample

SCS ENGINEERS PHOTO LOG

Project: SCLF Phase I LCRS Tracer Dye Test
Owner: Hillsborough County

Project Number: 09215600.05
Date: 01/31/2018



Photograph 11. 1-1 Sample 1 (10:30 a.m.), 1-1 Sample 2 (12:00 p.m.), 1-1 Sample 3 (12:30 p.m.), and 1-1 Sample 4 (1:00 p.m.) Prior to Submission to ENCO

Attachment 2
Laboratory Report

Environmental Conservation Laboratories, Inc.

10775 Central Port Drive, Orlando, FL 32824

4810 Executive Park Court, Suite 111, Jacksonville, FL 32216

102-A Woodwinds Industrial Ct, Cary, NC 27511



February 1, 2018

On February 1, 2018 four samples were received by the laboratory. Container identification matched the provided chain of custody (attached). Sample ID's were as follows: "1-1 Sample 1 (BG)", "1-1 Sample 2", "1-1 Sample 3", "1-1 Sample 4". The intent was to identify the presence of a water tracking dye (Bright Dyes yellow/Green) in each sample. According to the technical bulletin obtained from the manufacturer this can be done visually under UV light and also with the aid of spectrophotometer at wavelength 490nm or 520nm where maximum absorbance occurs. The results obtained are summarized below:

UV Light Detection:

In the image below samples are identified from left to right as "1-1 Sample 1 (BG)", "1-1 Sample 2", "1-1 Sample 3", "1-1 Sample 4". Visual inspection under UV light reveals bright green/yellow luminescence in sample "1-1 Sample 3" and "1-1 Sample 4" while no luminescence was observed in other samples.



Environmental Conservation Laboratories, Inc.

10775 Central Port Drive, Orlando, FL 32824

4810 Executive Park Court, Suite 111, Jacksonville, FL 32216

102-A Woodwinds Industrial Ct, Cary, NC 27511

**Absorbance Measurements:**

A Hach DR2010 spectrophotometer was utilized to assess light absorbance in each sample at 490nm. The instrument baseline was established with de-ionized water. The absorbance of each sample was assessed immediately thereafter and summarized in the table below.

Sample	Abs ₄₉₀
1-1 Sample 1 (BG)	.349
1-1 Sample 2	.363
1-1 Sample 3	1.164
1-1 Sample 4	2.319

Sample "1-1 Sample 3" and "1-1 Sample 4" exhibited luminescence under UV light. This was confirmed by Visible light spectrophotometer at wavelength 490. Provided sample "1-1 Sample 1 (BG)" is a dye-free sample control then absorbance for sample "1-1 Sample 2" does not suggest the presence of dye.

If any additional information is required please feel free to contact me.

Sincerely,

Matthew Foti, Ph.D.
Operations Director

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.

Orlando, FL 32824

(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111

Jacksonville, FL 32216-6069

(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.

Cary, NC 27511

(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Page 1 of 1

Client Name SCS Engineers		Project Number 09215600.05 T11100		Requested Analyses								Requested Turnaround Times			
Address 3922 Coconut Palm Dr., Suite 102		Project Name/Desc SCLF Phase I Dye test										Raw Absorbance @ 490nm		Note : Rush requests subject to acceptance by the facility	
City/ST/Zip Tampa, FL 33619		PO # / Billing Info 09215600.05 T11100												___ Standard	
Tel (813) 621-0080	Fax	Reporting Contact Darryl Paul & Kellan Spradlin												___ Expedited	
Sampler(s) Name, Affiliation (Print) Kellan Spradlin, SCS Engineers		Billing Contact Accounts Payable												Due ___/___/___	
Sampler(s) Signature Kellan Spradlin		Site Location / Time Zone SCLF										Lab Workorder			

[illegible]

Sample Kit Prepared By <i>J. Hayden</i>	Date/Time <i>1-27-18 0600</i>	Relinquished By <i>J. Hayden</i>	Date/Time <i>1-27-18 0600</i>	Received By <i>John Gu</i>	Date/Time <i>1/30/18 6:30pm</i>
Comments/Special Reporting Requirements		Relinquished By <i>Kamryn</i>	Date/Time <i>1/31/18 1523</i>	Received By <i>Joseph Hayden</i>	Date/Time <i>1/31/18 1523</i>
		Relinquished By <i>Joseph Hayden</i>	Date/Time <i>1/31/18 2130</i>	Received By <i>me</i>	Date/Time <i>2/1/18 1030</i>
	Cooler #'s & Temps on Receipt				Condition Upon Receipt ☒ Acceptable ☐ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist.

Appendix E

January 2018 Water Balance



Hillsborough County Florida

PUBLIC WORKS

PO Box 1110 Tampa, FL 33601-1110
(813) 272-5912 | Fax: (813) 272-5811

MEMORANDUM

DATE: February 13, 2018

TO: Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

FROM: Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

SUBJECT: Leachate Water Balance Report Forms for January 2018
Southeast County Landfill, Hillsborough County, Florida

BOARD OF COUNTY COMMISSIONERS
Victor D. Crist
Ken Hagan
Al Higginbotham
Pat Kemp
Lesley "Les" Miller, Jr.
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COUNTY ADMINISTRATOR
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COUNTY ATTORNEY
Chip Fletcher

INTERNAL AUDITOR
Peggy Caskey

CHIEF DEV. & INFRA. SERVICES ADMINISTRATOR
Lucia E. Garsys

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2018 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 3.63 inches of rainfall recorded at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.5 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent stored in Pond B was 1.9.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month PS-B was below the normal operation level except January 4th, 23rd, 27th, 28th and 30th due to power outages and pump malfunctions. The average recorded depth of leachate in the PS-B sump was 18.1 inches.

Leachate Pumped to Pump Station A Sump from Phases I-VI Condensate Line (Column VI)

Column VI presents the daily amount of leachate, in gallons, collected from the Phases I-VI condensate line and pumped to Pump Station A (PS-A). The average daily amount of leachate pumped from the Phases I-VI condensate line was 57 gallons. A total of 1,755 gallons of leachate was pumped this month.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VIII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. This column also includes the Phase II data from the dewatering wells and temporary pump stations TPS-2B and PS-2. The average daily amount of leachate pumped from PS-A was 87,150 gallons. A total of 2,701,650 gallons of leachate was pumped this month.

Leachate Pumped from Sections 7-8 LDS (Column VIII)

Column IX presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month a total of 125 gallons of leachate was removed from the leak detection system of Sections 7-8.

Leachate Pumped to MLPS from Sections 7-8 (Column IX)

Column X presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column IX). This month a total of 132,787 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column X)

Column XI presents the total quantity of leachate pumped to the LTRF from Phases I-VI (including condensate removed from LFG Wells and Condensate Traps), and Sections 7-8. This month a total of 2,834,437 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XI)

Column XII presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 136,192 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XII)

Column XIII presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month a leachate was not removed from the leak detection system.

Leachate Pumped from Compost Area Sump (Column XIII)

Column XIV presents the total quantity of leachate pumped to the LTRF and Pond B from the Compost Project Area Sump. This month there was no leachate from the compost area pumped to the LTRF.

Leachate in 575,000-Gallon Tank (Column XIV)

Column XV presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank T1 at the LTRF. The amount of leachate stored in T1 is calculated based on the circumference of the tank and the daily level reading. This month an average of 302,600 gallons of leachate was stored in the tank.

Effluent in 575,000-Gallon Tank (Column XV)

Column XVI typically presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank T6 at the LTRF. The amount of effluent stored in T6 is calculated based on the circumference of the tank and the daily level reading. This month an average of 366,100 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XVI)

Column XVII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 728,100 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 2,278,282 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVIII)

Column XIX presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month a total of 9,334 gallons of leachate was used for dust control.

Pond A Storage (Column XIX)

Column XX presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column III). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 70,500 gallons of effluent was stored in Pond A.

Pond B Storage (Column XX)

Column XXI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of liquid in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of leachate/effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated; however during January the storage pond was empty and then filled with effluent. This month a daily average of 72,000 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXI)

Column XXII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXVI. This month a total of 100,548 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXII)

Column XXIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases IV-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 410,330 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXIII)

Column XXIV presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month effluent was not sprayed as dust control.

Total Effluent Hauled (Column XXIV)

Column XXV presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month a total of 249,302 gallons was hauled off site.

Total Evaporation (Column XXV)

Column XXVI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 340,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,971,615 gallons. Total outflow quantity from the LTRF was 3,015,716 gallons. The change in storage for the month decreased by 44,101 gallons.

Please advise should you have any questions concerning the information provided.

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JANUARY 2018
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Phases I - VI Condensate Meter (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sections 7-8 LDS (gal.)	Leachate Pumped to MLPS from Sections 7-8 (gal.)	Leachate Pumped to LTRF from MPLS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Compost Leachate (gal.)	Leachate in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.03	3.2	1.9	14.7	0	103,552	0	4,362	107,914	6,224	0	0	421,000	353,000	27,000	0	0	118,000	64,000	0	0	0	0	0
2	0.01	3.1	1.8	14.3	0	103,847	0	4,362	108,208	6,224	0	0	475,000	355,000	27,000	131,990	0	113,000	64,000	0	0	0	0	0
3	0.67	3.1	1.9	16.8	0	101,379	0	5,173	106,552	0	0	0	415,000	365,000	27,000	161,290	0	113,000	72,000	0	0	0	0	0
4	0.01	3.1	1.9	42.2	7	63,768	0	2,683	66,451	0	0	0	322,000	374,000	18,800	131,899	0	113,000	72,000	0	23,871	0	7,813	19,100
5	0.00	3.4	1.9	13.3	0	100,482	0	134	100,616	0	0	0	259,000	367,000	20,300	103,287	0	129,000	72,000	93,586	24,092	0	21,339	24,000
6	0.00	3.0	1.9	13.0	0	78,991	0	10,360	89,351	723	0	0	221,000	369,000	27,400	70,859	0	0	72,000	0	31,599	0	0	25,300
7	0.00	2.4	1.9	16.0	0	83,791	0	5,008	88,799	1,560	0	0	216,000	391,000	27,400	0	0	0	72,000	0	26,159	0	0	20,900
8	0.00	1.9	1.9	14.7	0	111,077	0	5,068	116,145	1,787	0	0	283,000	415,000	27,400	81,135	0	0	72,000	0	23,309	0	0	18,600
9	0.58	2.4	1.9	13.8	0	76,915	4	252	77,167	2,380	0	0	293,000	396,000	17,700	59,682	0	0	72,000	0	0	0	0	0
10	0.00	2.9	1.9	12.5	0	81,600	0	4,725	86,325	2,477	0	0	293,000	398,000	35,100	124,592	0	103,000	72,000	0	0	0	0	0
11	0.28	3.1	1.0	18.1	0	120,160	0	9,400	129,560	2,296	0	0	238,000	403,000	25,000	7,532	0	113,000	19,000	0	0	0	0	67,177
12	0.00	3.4	2.0	11.9	451	111,091	0	5,715	116,806	2,889	0	0	324,000	345,000	26,800	116,728	0	129,000	80,000	6,962	0	0	14,901	300
13	0.00	3.4	2.0	11.3	282	97,730	83	768	98,498	2,896	0	0	302,000	343,000	20,300	49,709	0	129,000	80,000	0	16,167	0	0	12,900
14	0.00	3.3	2.0	12.0	102	81,979	14	4,806	86,785	38,432	0	0	342,000	362,000	20,300	0	0	123,000	80,000	0	0	0	0	0
15	0.00	3.1	2.0	12.6	102	83,447	14	4,806	88,252	38,432	0	0	381,000	381,000	20,300	87,707	6,233	113,000	80,000	0	52,199	0	0	46,700
16	0.00	2.0	2.0	11.2	4	57,483	7	4,249	61,732	0	0	0	355,000	403,000	20,300	81,400	0	61,000	80,000	0	0	0	0	0
17	0.00	2.4	2.0	18.6	0	101,526	0	3,037	104,563	0	0	0	317,000	401,000	19,200	116,867	0	79,000	80,000	0	0	0	7,308	0
18	0.00	2.8	2.0	18.2	113	84,607	0	331	84,938	0	0	0	269,000	391,000	17,500	124,316	0	98,000	80,000	0	33,404	0	0	26,700
19	0.00	2.7	2.0	9.8	0	62,600	0	7,543	70,143	1,201	0	0	209,000	381,000	21,500	29,169	0	93,000	80,000	0	0	0	58,508	0
20	0.00	2.7	2.0	12.3	181	65,754	4	5,860	71,614	1,703	0	0	221,000	329,000	21,200	42,471	0	93,000	80,000	0	49,590	0	0	39,700
21	0.00	2.3	2.0	14.0	79	93,037	0	4,759	97,796	2,282	0	0	290,000	344,000	21,200	0	0	74,000	80,000	0	0	0	0	0
22	0.00	1.8	2.0	15.7	79	92,407	0	4,759	97,166	2,282	0	0	360,000	360,000	21,200	89,349	0	0	80,000	0	42,590	0	0	34,100
23	0.00	1.5	2.0	50.1	227	51,616	0	3,366	54,982	2,322	0	0	309,000	353,000	21,900	81,985	0	0	80,000	0	0	0	0	0
24	0.00	1.7	2.0	13.9	125	94,823	0	3,703	98,526	2,543	0	0	309,000	367,000	21,100	131,941	0	48,000	80,000	0	0	0	0	0
25	0.00	2.3	2.0	10.1	5	67,877	0	6,348	74,225	1,925	0	0	235,000	348,000	20,100	72,842	0	74,000	80,000	0	33,281	0	43,651	26,600
26	0.00	1.7	2.0	18.8	0	93,973	0	454	94,427	2,595	0	0	218,000	302,000	25,300	72,271	0	48,000	80,000	0	0	0	0	7,303
27	0.00	1.8	2.0	40.1	0	58,996	0	324	59,320	2,466	0	0	158,000	322,000	27,000	21,242	0	52,000	80,000	0	54,069	0	21,302	43,300
28	1.80	1.6	1.7	29.3	0	105,943	0	1,289	107,232	2,510	0	0	256,000	337,000	27,000	0	0	44,000	51,000	0	0	0	0	0
29	0.20	1.4	1.3	18.5	0	104,688	0	1,289	105,977	2,510	0	0	353,000	353,000	27,000	87,402	0	36,000	33,000	0	0	0	0	0
30	0.05	1.4	1.9	28.4	0	88,626	0	9,169	97,795	2,652	0	0	386,000	372,000	22,700	81,278	0	36,000	72,000	0	0	0	0	0
31	0.00	1.8	1.9	14.2	0	77,887	0	8,688	86,575	2,881	0	0	350,000	369,000	26,100	119,339	3,101	52,000	72,000	0	0	0	0	2,500
Total	3.63				1,755	2,701,650	125	132,787	2,834,437	136,192	0	0			728,100	2,278,282	9,334			100,548	410,330	0	249,302	340,700
Daily Average		2.5	1.9	18.1	57	87,150	4	4,283	91,433	4,393	0	0	302,600	366,100				70,500	72,000					
Mo. Average																	300				13,200	0	8,000	10,990

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- Notes:
1. NR = No Records, NA = Not Available.
 2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
 3. Daily average is calculated by dividing the total by the actual days measured in the month.
 4. Monthly average calculated by dividing the total by the number of days of the month.
 5. Column II, Trace is less than 0.01 inches and is not included in total.
 6. Columns III and IV, field measured at staff gauges.
 7. Columns IX & X, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 8. Column XV and XVI, calculated from depth in 575,000 gal. tanks.
 9. Columns VI-XIV, XVII-XIX, and XXII-XXV, quantities from flow meters.
 10. Column XXVI includes 80% of the daily values from Columns XIX, XXIII, and XXIV plus 5% of the daily values from column XXII.

**TABLE 2. FIELD DATA ENTRY FORM
JANUARY 2018
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Day	Rainfall (in.)	Phases I - VI Condensate Meter (gal.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pump 1 (gal.)	Section 9 Pump 2 (gal.)	Section 9 LDS (gal.)	Compost Leachate (gal.)	Sections 7-8 Pump (gal.)	Sections 7-8 LDS (gal.)	Pond B Depth (ft.)	Pond B Effluent Sprayed (gal)	Pond A Depth (ft.)	Effluent Spray Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal)
		Contractor (gal.)	County (gal.)																				
1	0.03	432,695	1,722,889	14.70	182,596	213,555	5,846,333	157	5,466,223	51,696	1.85	0.00	3.15	0	14.64	12.28	27,013	0	0	0	0	0	0
2	0.01	432,695	1,795,148	14.30	185,741	216,633	5,846,333	157	5,470,584	51,696	1.80	0.0	3.10	0	16.50	12.33	27,013	45,275	86,715	0	0	0	0
3	0.67	432,695	1,865,000	16.80	185,741	216,633	5,846,333	157	5,475,757	51,696	1.90	0.0	3.10	0	14.42	12.67	26,965	82,405	78,885	0	0	0	0
4	0.01	432,702	1,916,146	42.20	185,741	216,633	5,846,333	157	5,478,440	51,696	1.90	0.0	3.10	23,871	11.17	13.00	18,790	67,124	64,775	3,225	0	7,813	0
5	0.00	432,702	2,000,298	13.30	185,741	216,633	5,846,333	157	5,478,574	51,696	1.90	93586.0	3.40	24,092	9.00	12.75	20,272	82,066	21,221	0	0	21,339	0
6	0.00	432,702	2,067,266	13.00	186,383	216,714	5,846,333	157	5,488,934	51,696	1.90	0	3.00	31,599	7.67	12.83	27,375	0	70,859	0	0	0	0
7	0.00	432,702	2,135,895	16.00	187,617	217,040	5,846,333	157	5,493,942	51,696	1.90	0.0	2.40	26,159	7.50	13.58	27,375	0	0	0	0	0	0
8	0.00	432,702	2,210,668	14.70	188,476	217,968	5,846,333	157	5,499,010	51,696	1.90	0.0	1.90	23,309	9.83	14.42	27,376	37,143	43,992	0	0	0	0
9	0.58	432,702	2,287,500	13.80	190,277	218,547	5,846,333	157	5,499,262	51,700	1.90	0.0	2.40	0	10.17	13.75	17,747	52,361	7,321	0	0	0	0
10	0.00	432,702	2,369,100	12.50	192,259	219,042	5,846,333	157	5,503,987	51,700	1.90	0	2.90	0	10.17	13.83	35,085	82,160	42,432	0	0	0	0
11	0.28	432,702	2,451,846	18.10	194,191	219,406	5,846,333	157	5,513,387	51,700	1.00	0.0	3.10	0	8.25	14.00	25,024	7,532	0	67,177	0	0	0
12	0.00	433,153	2,530,260	11.90	196,238	220,248	5,846,333	157	5,519,102	51,700	2.00	6962.0	3.40	0	11.25	12.00	26,771	67,021	49,707	0	14,901	0	0
13	0.00	433,435	2,602,719	11.30	198,450	220,932	5,846,333	157	5,519,870	51,783	2.00	0	3.40	16,167	10.50	11.92	20,271	0	49,709	0	0	0	0
14	0.00	433,537	2,659,608	11.95	203,741	254,073	5,846,333	157	5,524,676	51,797	2.00	0	3.25	0	11.88	12.59	20,271	0	0	0	0	0	0
15	0.00	433,638	2,716,497	12.60	209,032	287,214	5,846,333	157	5,529,481	51,810	2.00	0.0	3.10	52,199	13.25	13.25	20,271	45,340	42,367	0	0	0	0
16	0.00	433,642	2,773,773	11.20	209,032	287,214	5,846,333	157	5,533,730	51,817	2.00	0.0	2.00	0	12.33	14.00	20,271	37,423	43,977	0	0	0	0
17	0.00	433,642	2,842,468	18.60	209,032	287,214	5,846,333	157	5,536,767	51,817	2.00	0.0	2.40	0	11.00	13.92	19,174	37,567	79,300	0	0	7,308	0
18	0.00	433,755	2,907,084	18.20	209,032	287,214	5,846,333	157	5,537,098	51,817	2.00	0.0	2.80	33,404	9.33	13.58	17,473	45,059	79,257	0	0	0	0
19	0.00	433,755	2,967,991	9.80	209,590	287,857	5,846,333	157	5,544,641	51,817	2.00	0.0	2.70	0	7.25	13.25	21,510	15,039	14,130	0	30,211	28,297	0
20	0.00	433,936	3,031,806	12.30	210,441	288,709	5,846,333	157	5,550,501	51,821	2.00	0.0	2.70	49,590	7.67	11.42	21,243	0	42,471	0	0	0	0
21	0.00	434,015	3,096,244	14.00	212,250	289,183	5,846,333	157	5,555,260	51,821	2.00	0	2.25	0	10.09	11.96	21,243	0	0	0	0	0	0
22	0.00	434,093	3,160,682	15.70	214,058	289,656	5,846,333	157	5,560,019	51,821	2.00	0.0	1.80	42,590	12.50	12.50	21,243	45,368	43,981	0	0	0	0
23	0.00	434,320	3,188,782	50.10	214,835	291,201	5,846,333	157	5,563,385	51,821	2.00	0.0	1.50	0	10.75	12.25	21,911	45,300	36,685	0	0	0	0
24	0.00	434,445	3,281,785	13.90	216,904	291,675	5,846,333	157	5,567,088	51,821	2.00	0.0	1.70	0	10.75	12.75	21,138	45,305	86,636	0	0	0	0
25	0.00	434,450	3,349,421	10.10	218,010	292,494	5,846,333	157	5,573,436	51,821	2.00	0.0	2.30	33,281	8.17	12.08	20,145	29,861	42,981	0	7,407	36,244	0
26	0.00	434,450	3,414,352	18.80	220,231	292,868	5,846,333	157	5,573,890	51,821	2.00	0.0	1.70	0	7.58	10.50	25,287	36,788	35,483	0	0	7,303	0
27	0.00	434,450	3,446,573	40.10	222,534	293,031	5,846,333	157	5,574,214	51,821	2.00	0.0	1.80	54,069	5.50	11.17	26,982	0	21,242	0	0	21,302	0
28	1.80	434,450	3,525,741	29.30	224,172	293,903	5,846,332	157	5,575,503	51,821	1.65	0	1.60	0	8.88	11.71	26,982	0	0	0	0	0	0
29	0.20	434,450	3,604,909	18.50	225,810	294,775	5,846,331	157	5,576,791	51,821	1.3	0.0	1.40	0	12.25	12.25	26,982	37,589	49,813	0	0	0	0
30	0.05	434,450	3,669,295	28.4	227,658	295,579	5,846,331	157	5,585,960	51,821	1.9	0.0	1.40	0	13.42	12.92	22,744	37,415	43,863	0	0	0	0
31	0.00	434,450	3,725,600	14.2	229,109	297,009	5,846,331	157	5,594,648	51,821	1.9	0.0	1.80	0	12.17	12.83	26,145	75,308	44,031	0	0	0	0
Totals	3.63											100,548		410,330			728,092	1,056,449	1,221,833	3,225	119,696	129,606	0

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Notes:

- NR = No Records, NA = Not Available.
- Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
- Columns I and L include quantities from leak detection system.
- Column B, trace is less than 0.01 inches.
- Columns C, D, E, G, H, I, J, K, L, N, P, S-X and Y are quantities from flow meters.
- Columns M and O measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 9 acres
Open	5	0
Intermediate	134.4	15
Final	23	0
Not Opened	0	0

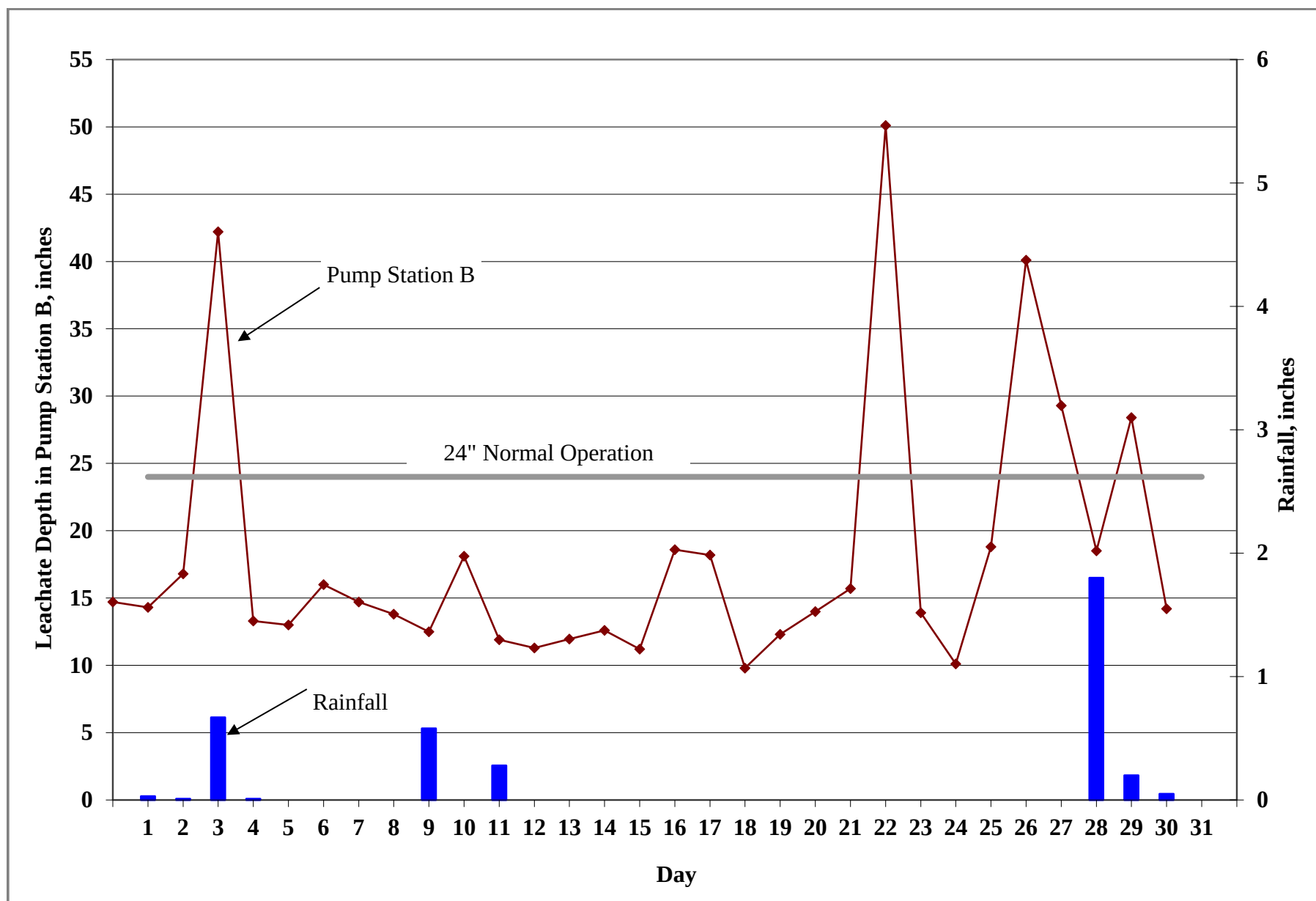


Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2018.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2018**

Month	Rainfall (in.)	Leachate Arriving at LTRF					Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG CS-1 (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Compost Leachate (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage ³ (gal.)
January	3.63	986	136,192	132,787	2,701,650	0	2,278,282	9,334	728,100	249,302	0	410,330	2,971,615	3,015,716	-44,101
February															
March															
April															
May															
June															
July															
August															
September															
October															
November															
December															
YTD Total	3.63	986	136,192	132,787	2,701,650	0	2,278,282	9,334	728,100	249,302	0	410,330	2,971,615	3,015,716	-44,101

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Change in storage represents total inflow to LTRF minus total outflow from LTRF.