
CEDAR HILLS REGIONAL LANDFILL QUARTERLY ENVIRONMENTAL MONITORING REPORT

Fourth Quarter 2013



Department of Natural Resources and Parks
Solid Waste Division

KING COUNTY
CEDAR HILLS REGIONAL LANDFILL
QUARTERLY ENVIRONMENTAL MONITORING REPORT

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Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring Fourth Quarter of 2013

This summary contains a discussion of quarterly environmental monitoring results for groundwater and surface water quality and landfill gas migration monitoring for Cedar Hills Regional Landfill.

Environmental samples were collected and analyzed in accordance with the Quality Assurance Project Plan for Environmental Monitoring at King County Solid Waste Facilities (QAPP). This document contains procedures to ensure data quality, consistency and documentation.

1.0 Quarterly Results and Analysis

This Section discusses the monitoring results and how they compare to previously collected data at the site.

1.1 Groundwater

Groundwater monitoring well details and locations are presented in Table 1 and Figure 1. Monitoring activities for the second quarter are listed in Table 2.

1.11 Regional Aquifer

Regional aquifer analysis results for this quarter are consistent with past results.

For discussion and graphical presentation, monitoring wells are grouped together according to the flow path analysis for the regional aquifer, which was developed in the *Cedar Hills Regional Landfill Technical Memorandum Phase I Investigations Groundwater Monitoring Well System Enhancements*, 2007, and refined in the *Cedar Hills Regional Landfill Regional Aquifer Technical Memorandum*, 2011.

Groundwater elevations and potentiometric surfaces are within historical ranges and reflect seasonal responses to precipitation. Potentiometric Surface Map and Groundwater Flow Analysis can be found in Appendix A. Elevations measured this quarter conform to the current hydrogeologic model.

Exceedances of regulatory standards are tabulated and presented in Table 3. Groundwater samples were analyzed for both dissolved and total metal fractions per WAC 173-351-430(2)(b)(ii) as revised. Results for metals listed in WAC 173-351-990 Appendix I were compared to water quality standards. This has resulted in more exceedances for arsenic but does not indicate a change in water quality as the dissolved concentrations remained similar. These results reflect the change in analytical procedure.

Primary Ground Water Quality Criteria were exceeded for total arsenic in upgradient and crossgradient wells MW-93, MW-21 and MW-99; wells interior, vertical to facilities MW-64, MW-68, MW-77 and MW-100; and downgradient wells MW-69, MW-80, MW-86, MW-87, MW-88, MW-89 and MW-91. Trichloroethylene exceeded the groundwater criterion in upgradient wells MW-76 and MW-94; and vinyl chloride exceeded criteria in MW-65. Secondary standards (dissolved iron and dissolved

manganese) were exceeded in numerous regional wells. These results are consistent with past analyses.

The change to a comparison of Appendix I metals to standards using the total fraction leads to concentration increases as a result of dissolving particulates in the sample rather than filtering them out. This was an expected result of the methodology change.

Trilinear Diagrams (Figures 2 through 6) indicate water quality type (hydrochemical facie) based on dissolved ion distribution. The diagrams are useful to recognize spatial variability, potential analytical error or change in hydrochemical facie over time. All regional samples are within the calcium-magnesium-bicarbonate hydrochemical facie. Data are consistent with previous quarters. Ion balance calculations (Table 4) indicate no analytical error in regional aquifer samples as all samples are within 10% on the ion balance.

Intra-well prediction limits are calculated annually using data collected through the end of the previous calendar year (2012). Comparison to calculated prediction limits provides an indication of whether a change in concentration represents normal variability or a change in water quality. This quarter, *cis*-1,2-dichloroethene in upgradient well MW-59, nitrate in MW-66 and barium in MW-87 exceeded prediction limits (Table 5).

Volatile Organic Compound (VOC) detections are presented in Table 6. Present are regularly occurring detections of chlorinated VOCs and their breakdown products from the upgradient Queen City Farms (QCF) Site, which include trichloroethene (TCE) in monitoring wells MW-76, MW-78, MW-83, and MW-94; *cis*-1,2-dichloroethene was detected in MW-24, MW-56, MW-59 and MW-76; tetrachloroethene (PCE) in MW-76 and vinyl chloride (VC) in MW-65. These upgradient well detections are consistent with past data and continuing migration from QCF.

Acetone was detected in Field Blanks, Trip Blanks and Method Blanks as well as multiple groundwater samples, methylene chloride was detected in several trip blanks, all probable laboratory artifacts. Quality Assurance /Quality Control (QA/QC) samples (trip blanks, and method blanks) detections appear in Table 13.

1.12 Perched Zones

Analysis results for the perched zones this quarter are consistent with past results.

Groundwater elevations measured during the quarter are within historical ranges. Samples were collected from eight perched wells, three in the north and west areas of the landfill (MW-27A, MW-28, and MW-55), four in the east perched zone (MW-30A, MW-47, MW-62 and MW-EB6), and MW-101 in the South Solid Waste Area. Groundwater quality data for the regularly sampled Perched Zone samples collected during the second quarter of 2013 are consistent with previous samples.

Exceedances of regulatory standards are tabulated and presented in Table 7. All are

consistent with past analyses and known impacts.

Trilinear plots for perched zones samples are all within the calcium-magnesium-bicarbonate hydrochemical facie, as in past samples (Table 8 and Figures 7-9). Cation/Anion balances indicate no potential analytical error (greater than 10% ion imbalance) in any perched zones samples with the exception of MW-EB6. MW-EB6 is a low-yield, slow recovery well and is difficult to obtain representative samples from, which is likely the case here.

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2012 and any exceedances of these limits by current results are tabulated (Table 9). There were no prediction limits exceedances in the perched zone.

Volatile Organic Compound detections in the perched zones are presented in Table 10. All are consistent with previous analyses.

1.2 Surface Water

Surface water sampling is attempted monthly at stations located along the drainage courses around the landfill. Samples were collected at 14 surface water stations having adequate flow during the quarter. Monitoring activities are listed in Table 11.

Cedar Hills Regional Landfill is covered by an Industrial Stormwater General Permit issued by the Washington State Department of Ecology. The permit defines discharge Benchmarks, applicable to all facilities and Effluent Limits, applicable specifically to landfills. These values are reproduced in Table 15. Stations SW-N4, SW-SL3 and SW-GS1 are the designated points for comparison to permit benchmarks and effluent limits. Samples were obtained from each designated compliance station monthly this quarter. Compliance sample exceedances are presented in Table 12. The Benchmark for turbidity and Effluent Criteria for Total Suspended Solids (TSS) were exceeded in one SW-GS1 sample this quarter.

1.3 Landfill Gas

A network of compliance probes are monitored for landfill gas migration around the perimeter of the landfill. Probes are monitored by the landfill gas crew monthly to monitor system performance and quarterly for compliance.

Detections above the regulatory limit in landfill gas probe GP-33C in September of 2011 prompted actions including: monitoring frequency increases, operational adjustments to increase LFG recovery rates, off-site structure monitoring and preparation of a response plan.

Operational review resulted in modifications to enhance extraction from unlined areas and under liner spaces that could potentially act as gas conveyance pathways.

The plan initiated installation of extraction wells targeting the potential zone of LFG

migration in the native sediments with seven LFG extraction wells. These seven original extraction wells continue under active extraction, are currently monitored weekly for methane, carbon dioxide, oxygen, pressure and flow.

Six additional borings (MGPW1700, MGPW1703, MGPW1708, MGPW17010S, MGPW17010D and MGPW17014) targeting highly transmissive sediments were completed in February 2013.

Weekly monitoring of these borings and LFG migration probes GP-30B and GP-33C, located along the western property, continued through the end of October. MGPW1703 has been connected to the active extraction system since October 10, 2013 after methane was detected at 10.3% by volume. GP-30B and GP-33C have returned to monthly monitoring and the remaining probes are monitored bimonthly. The only methane detections in the fourth quarter occurred at MGPW1703 prior to conversion to extraction.

Data indicate the system has been effective in controlling LFG migration to the perimeter probes with no methane detections this quarter.

Compliance Probe, On-site Buildings and supplemental Monitoring Probe results are presented in Appendix B.

2.0 Analytical Methods

Groundwater quality is evaluated by comparison of analysis results to regulatory standards, geochemical analysis and statistical evaluation. Water quality analytical results for surface water runoff discharged from the landfill site are compared to the limits set in the Industrial Stormwater General Permit. Following is a brief description of each.

2.1 Regulatory Standards

Groundwater monitoring results are compared to Washington State Groundwater Quality Criteria, WAC 173-200 (Table 14). Surface water monitoring results are compared to the *Industrial Stormwater General Permit* Benchmark Criteria or WAC 173-201A Water Quality Standards for Surface Waters of the State of Washington.

2.2 Trilinear Diagrams and Major Ion Balance

Geochemical data are presented on trilinear diagrams. Major cations and anions are plotted on individual triangles as percentages of total milliequivalents per liter (meq/L). These diagrams illustrate differences in major ion chemistry between groundwater samples and can be used to categorize water composition into identifiable groups or hydrochemical facies. These hydrochemical facies reflect distinct compositions of cation and anion concentrations. The value of the diagram

lies in pointing out relationships that exist among individual samples. Trilinear Diagrams are included with ionic balance calculations in this report. Ion balance calculations are useful for determining analytical correctness and can be of value in detecting laboratory error or variation in field sampling procedures.

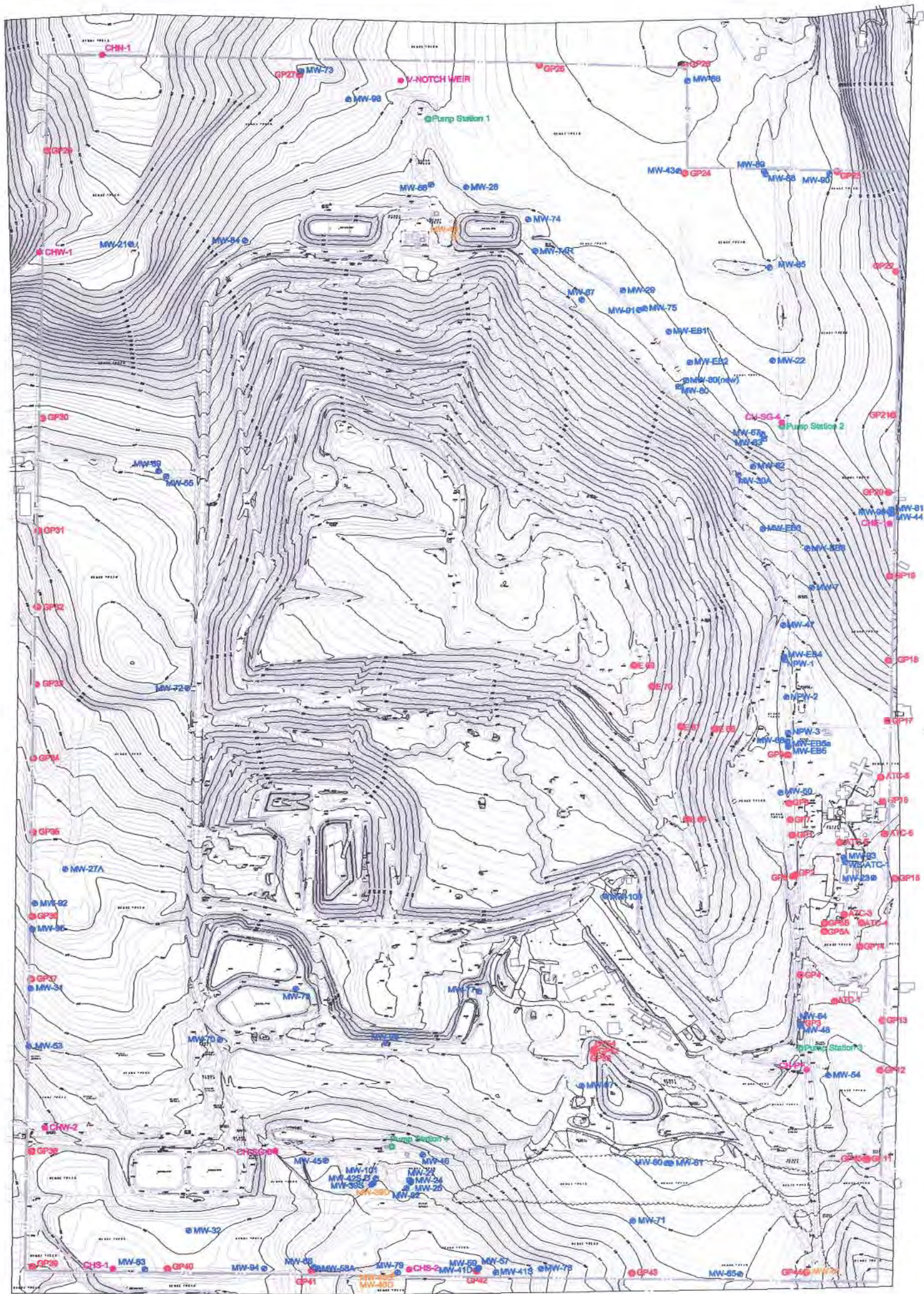
2.3 Prediction Limits

The Prediction Limit is an intra-well statistical test that compares an analytical result to a computed limit value. The limit value is derived from past analytical results from the same well, considered representative historical well data. A value outside of this limiting value is considered evidence that the result is not drawn from the same sample population distribution. The prediction limits generated in this report are based on a 1% false positive rate (type I error) and depend on the background distribution. For each parameter tested, an appropriate background data set is chosen. This background set is updated annually to include recent data that more accurately defines background water quality. The data set is tested for normality by application of the Shapiro-Wilk Test for Normality. If the data fail the test for normality, log transformed data are tested. When normal or transformed normal data sets are determined, a parametric prediction limit is calculated and future results compared to this value. When transformations fail the test for normality, a non-parametric method is applied and future results are compared to this limit.

This test is performed on parameters listed in WAC 173-351-990 Appendix I and is used to detect a change in the population distribution of the individual well. Exceedances detected in Appendix I parameters for the quarter are presented in Table 5 (Regional Aquifer Wells) and Table 9 (Perched Zones Wells).

2.4 Laboratory Data Quality

Laboratory analytical data is reviewed to verify meeting data quality objectives (DQOs) as defined in the Quality Assurance Project Plan for Environmental Monitoring at King County Solid Waste Facilities (QAPP). Occasionally, results identified during this process are deemed to be unsuitable for evaluation purposes. A summary of suspect results can be found in Table 16.



LEGEND

- MW-9 Monitoring Well
- GP-19 Gas Probe
- MW-8 Decommissioned Monitoring Well
- GP-13 Decommissioned Gas Probe
- Pump Station NO. ___
- MW-9 Surface Water Stations



	DATE: Oct. 2007	SITE MAP Cedar Hills Landfill Maple Valley, Washington	Aero-Metric Aerial Photo taken August 24, 2007	PROJECT NO.
	DESIGNED BY:			FIGURE NO. 1

TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Aquifer	Zone ¹	Purpose ²	Ground	Top of	Total Well	Screened Interval		Screened Interval		Coordinates	
					Surface Elevation	Well Casing Elevation	Depth	Depth	Depth	Elevation	Elevation	Northing	Easting
MW-24	6/1/1983	Regional	US	WL/WQ	473.8	475.99	193.0	187	192	286.8	281.8	167767.76	1702441.65
MW-54	9/26/1986	Regional	US	WL	579.3	580.43	360.0	329	351	250.3	228.3	168435.53	1702154.28
MW-56	10/12/1988	Regional	US	WL/WQ	479.2	480.33	170.5	156	166	323.2	313.2	167214.82	1698980.77
MW-57	8/22/1988	Regional	US	WL/WQ	455.7	456.64	145.5	129	144	326.7	311.7	167201.99	1699993.32
MW-58A	9/26/1988	Regional	US	WL/WQ	478.6	479.27	220.5	208.5	218.5	270.1	260.1	167207.16	1699006.59
MW-59	8/16/1988	Regional	US	WL/WQ	455.6	457.13	185.5	170.5	180.5	285.1	275.1	167193.44	1699983.91
MW-60	9/13/1991	Regional	US	WL/WQ	564.8	567.15	266.4	230	239	334.8	325.8	167873.2	1701154.47
MW-65	3/29/1993	Regional	US	WL/WQ	543.2	545.83	236.9	225.5	234.3	317.7	308.9	167146.55	1701602.10
MW-76	10/25/1999	Regional	US	WL/WQ	489.8	491.71	155.9	138.7	148.2	351.1	341.6	167193.13	1700376.23
MW-82	11/2/2000	Regional	US	WL/WQ	472.8	474.85	139.5	123.9	133.4	348.9	339.4	167725.31	1699553.72
MW-83	10/27/2000	Regional	US	WL/WQ	494.5	496.81	160.0	144.3	153.8	350.2	340.7	167212.27	1697939.89
MW-94	7/2/2002	Regional	US	WL/WQ	493.2	495.51	168.0	136	144.7	357.2	348.5	167210.22	1698674.21
MW-21	5/17/1983	Regional	UNW	WL/WQ	418.2	420.66	180.0	155	163	263.2	255.2	173876.38	1697901.86
MW-73	7/3/1999	Regional	UNW	WL/WQ	484.3	485.70	218.0	196.2	205.5	288.1	278.8	174995.59	1698954.95
MW-84	10/20/2000	Regional	UNW	WL/WQ	528.7	530.80	250.5	236.2	245.7	292.5	283.0	173894.54	1698602.89
MW-81	10/3/2002	Regional	UNE	WL/WQ	492.2	493.66	199.0	183	192	309.2	300.2	172113.99	1702568.87
MW-99	8/30/2002	Regional	UNE	WL/WQ	491.8	493.64	287.0	270	279	221.8	212.8	172098.73	1702556.06
MW-93	6/24/2002	Regional	CG	WL/WQ	630.2	632.15	350.0	310.3	320.1	319.9	310.1	169851.24	1702259.35
MW-95	7/22/2002	Regional	CG	WL/WQ	568.6	571.54	311.0	254	262.7	314.6	305.9	169426.92	1697265.32
MW-106	2/19/2009	Regional	CG	WL	473.0	475.47	270.0	193	203	280.0	270.0	173461.69	1702536.99
MW-70	5/11/1993	Regional	I	WL/WQ	527.9	530.57	221.5	205.1	218.8	322.8	309.1	168699.89	1698412.97
MW-77	10/12/1999	Regional	I	WL/WQ	550.5	552.67	251.5	230	239.5	320.5	311.0	168999.71	1700007.63
MW-78	10/8/1999	Regional	I	WL/WQ	535.3	537.35	229.5	213	225.5	322.3	309.8	169027.58	1698881.94
MW-100	8/26/2002	Regional	I	WL/WQ	618.4	620.32	124.7	299.3	309.3	319.1	309.1	169610.46	1700791.72
MW-22	5/25/1983	Regional	V	WL	515.0	517.09	284.0	279	283.8	236.0	231.2	173088.17	1701844.34
MW-64	3/22/1993	Regional	V	WL/WQ	594.3	596.55	276.3	260.3	274.1	334.0	320.2	168772.19	1701980.27
MW-66	4/5/1993	Regional	V	WL/WQ	528.6	531.28	250.7	234.2	248	294.4	280.6	174250.32	1699750.19
MW-67	4/28/1993	Regional	V	WL/WQ	514.1	516.43	232.4	216.3	230.1	297.8	284.0	172610.65	1701776.69
MW-68	4/15/1993	Regional	V	WL/WQ	644.8	647.07	354.6	333.5	352.5	311.3	292.3	170609.35	1701917.32
MW-69	4/23/1993	Regional	DW	WL/WQ	651.0	653.69	368.8	357.4	371	293.6	280.0	172400.20	1698061.86
MW-72	8/7/1998	Regional	DW	WL/WQ	669.8	671.87	389.0	366.2	375.8	303.6	294.0	170987.71	1698229.92
MW-74	11/1/2000	Regional	DG	WL/WQ	529.2	531.26	270.0	239.3	248.8	289.9	280.4	173813.79	1700386.85
MW-75	9/24/1999	Regional	DG	WL/WQ	529.8	532.40	287.0	258.7	268.8	271.1	261.0	173432.42	1701059.70
MW-80	2/27/2001	Regional	DG	WL/WQ	528.5	530.41	270.0	249.3	258.8	279.2	269.7	172964.99	1701309.78
MW-85	12/1/2000	Regional	DG	WL/WQ	529.8	531.76	270.0	247.2	256.7	282.6	273.1	173694.52	1701828.95
MW-86	12/12/2000	Regional	DG	WL/WQ	533.9	536.04	282.0	250.5	259.3	283.4	274.6	174917.90	1701331.25
MW-87	11/21/2000	Regional	DG	WL/WQ	535.2	537.31	272.5	251.5	260.8	283.7	274.4	173493.76	1700670.27
MW-88	9/13/2001	Regional	DG	WL/WQ	511.2	513.68	248.5	229.7	239	281.5	272.2	174303.06	1701807.87
MW-89	11/12/2001	Regional	DG	WL/WQ	510.7	512.82	328.0	281.5	290.8	229.2	219.9	174319.44	1701799.57
MW-90	8/14/2002	Regional	DG	WL/WQ	500.2	502.22	300.0	265	274	235.2	226.2	174300.67	1702203.13
MW-91	10/26/2001	Regional	DG	WL/WQ	529.7	532.02	331.0	268.9	289	260.8	240.7	173423.94	1701023.09
MW-43	4/30/1985	Regional	DNF	WL/WQ	544.6	547.06	325.0	299	309	245.6	235.6	174327.14	1701274.23
WS-ATC-1	2/7/1972	Regional	--	WL	624.9	625.51	535.0	325	340	299.9	284.9	169823.34	1702268.95
WS-NPW-1	8/22/1990	Regional	--	WL	644.6	646.33	382.0	365.7	375.7	278.9	268.9	171138.99	1701906.96
WS-NPW-3	6/5/1990	Regional	--	WL	644.3	645.81	376.0	359.4	367.4	284.9	276.9	170663.28	1701922.88

TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Aquifer	Zone ¹	Purpose ²	Ground	Top of	Total Well					Coordinates	
					Surface Elevation	Well Casing Elevation	Depth	Screened Interval Depth	Screened Interval Elevation	Screened Interval Depth	Screened Interval Elevation	Northing	Easting
MW-30A	9/6/1989	Perched	EPZ	WL/WQ	567.7	568.43	40.0	25	35	542.7	532.7	172345.48	1701628.59
MW-47	6/31/1985	Perched	EPZ	WL/WQ	633.6	634.60	50.0	23.5	43.5	610.1	590.1	171365.53	1701898.69
MW-48	5/24/1985	Perched	EPZ	WL	593.6	594.49	63.0	37	47	556.6	546.6	168758.73	1701985.17
MW-50	6/3/1985	Perched	EPZ	WL	636.2	637.02	39.5	27.5	37.5	608.7	598.7	170276.14	1701873.92
MW-62	2/1/1990	Perched	EPZ	WL/WQ	555.3	556.21	65.5	44	54	511.3	501.3	172397.77	1701719.18
MW-63	2/12/1990	Perched	EPZ	WL	513.8	515.88	22.0	12	17	501.8	496.8	172580.25	1701786.72
MW-102	1/27/2009	Perched	EPZ	WL	549.7	552.48	50	35	50	515.2	500.2	172313.75	1701858.76
MW-103	1/28/2009	Perched	EPZ	WL	636.8	639.08	40.00	25	35	611.8	601.8	170473.99	1702210.55
MW-104	1/29/2009	Perched	EPZ	WL	626.9	629.68	35.00	22	32	604.9	594.9	171153.34	1702169.14
MW-EB6	11/28/1990	Perched	EPZ	WL/WQ	587.9	589.61	50.0	20	30	567.9	557.9	171862.72	1702049.75
MW-27A	10/3/1985	Perched	NW	WL/WQ	583.2	584.23	80.0	59	69	524.2	514.2	169817.29	1697470.72
MW-28	6/21/1983	Perched	NW	WL/WQ	526.2	527.75	39.0	27	37	499.2	489.2	174231.84	1699966.20
MW-29	6/23/1983	Perched	NW	WL/WQ	531.7	532.92	60.0	17	27	514.7	504.7	173552.23	1700926.39
MW-55	10/2/1986	Perched	NW	WL/WQ	651.1	652.29	67.0	37.5	47.5	613.6	603.6	172364.53	1698110.11
MW-98	3/9/2001	Perched	NW	WL	501.6	503.73	22.5	10.7	20	490.9	481.6	174810.64	1699245.65
MW-25	6/3/1983	Perched	SSWA	WL	473.2	474.41	43.0	18	38	455.2	435.2	167760.97	1699580.14
MW-41S	7/12/1983	Perched	SSWA	WL	460.7	462.44	51.0	8	18	452.7	442.7	167171.51	1700100.82
MW-41D	7/12/1983	Perched	SSWA	WL	460.7	462.32	51.0	30	50	430.7	410.7	167171.51	1700100.82
MW-45	5/17/1985	Perched	SSWA	WL	487.7	488.40	64.0	31	41	447.6	457.6	167907.28	1699058.03
MW-79	11/5/1999	Perched	SSWA	WL	456.9	459.17	56.0	40.5	50	416.4	406.9	167175.91	1699495.56
MW-96	12/18/2001	Perched	SSWA	WL	545.4	547.74	102.9	88.8	97.5	456.6	447.9	168667.73	1699434.47
MW-97	9/5/2001	Perched	SSWA	WL	562.5	564.54	124.7	101	110	461.5	452.5	168380.87	1700636.96
MW-101	6/2/2006	Perched	SSWA	WL/WQ	472.1	474.72	57.50	44	54	428.1	418.1	167791.40	1699364
MW-105	1/30/2009	Perched	SSWA	WL	518.7	521.23	30.00	18	28	500.7	490.7	167697.49	1698320.49

Notes ¹Position of the well screen in the regional aquifer flow path analysis relative to waste placement and site utilities. .

Zone Designations

US = Upgradient South Site Wells

UNW = Upgradient Northwest

UNE = Upgradient Northeast

CG = Cross Gradient

DW = Westside Downgradient

V = Vertical Key Facilities

I = Interior

DNF = Downgradient of North End Facilities outside Refuse Cells

DG = Downgradient Groundwater Flow

²WL = Water Level WQ = Water Quality

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2013

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-21	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-21	Regional	10/22/13	Groundwater Sampling	W21-131022-	
MW-22	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/17/13	Groundwater Sampling	W24-131017-	
MW-25	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-27A	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-27A	Perched	10/8/13	Groundwater Sampling	W27A131008-	
MW-28	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-28	Perched	10/18/13	Groundwater Sampling	W28-131018-	
MW-29	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-29	Perched	NA	Groundwater Sampling	NA	Tube is too short to put a fitting on.
MW-30A	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-30A	Perched	10/14/13	Groundwater Sampling	W30A131014-	
MW-41D	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-41S	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-43	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-43	Regional	10/17/13	Groundwater Sampling	W43-131017-	
MW-45	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/28/13	Groundwater Sampling	W47-131028-	
MW-48	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-50	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-54	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-55	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-55	Perched	10/8/13	Groundwater Sampling	W55-131008-	
MW-56	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-56	Regional	10/3/13	Groundwater Sampling	W56-131003-	
MW-57	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-57	Regional	10/9/13	Groundwater Sampling	W57-131009-	
MW-58A	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-58A	Regional	NA	Groundwater Sampling	NA	
MW-59	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/9/13	Groundwater Sampling	W59-131009-	
MW-60	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-60	Regional	10/15/13	Groundwater Sampling	W60-131015-	
MW-62	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-62	Perched	10/28/13	Groundwater Sampling	W62-131028-	
MW-63	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-64	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-64	Regional	10/7/13	Groundwater Sampling	W64-131007-	
MW-65	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-65	Regional	10/15/13	Groundwater Sampling	W65-131015-	
MW-66	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-66	Regional	10/15/13	Groundwater Sampling	W66-131016-	
MW-67	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-67	Regional	10/15/13	Groundwater Sampling	W67-131015-	
MW-68	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-68	Regional	10/18/13	Groundwater Sampling	W68-131018-	
MW-69	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-69	Regional	10/17/13	Groundwater Sampling	W69-131017-	
MW-70	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-70	Regional	10/21/13	Groundwater Sampling	W70-131021-	
MW-72	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-72	Regional	10/10/13	Groundwater Sampling	W72-131010-	
MW-73	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-73	Regional	10/16/13	Groundwater Sampling	W73-131016-	
MW-74	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-74	Regional	10/24/13	Groundwater Sampling	W74R131024-	
MW-74	Regional	11/22/13	Groundwater Sampling	W74R131122-	
MW-74	Regional	12/20/13	Groundwater Sampling	W74R131220-	
MW-75	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-75	Regional	10/24/13	Groundwater Sampling	W75-131024-	
MW-75	Regional	11/22/13	Groundwater Sampling	W75-131122-	
MW-75	Regional	12/20/13	Groundwater Sampling	W75-131220-	
MW-76	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-76	Regional	10/31/13	Groundwater Sampling	W76-131031-	
MW-77	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-77	Regional	10/25/13	Groundwater Sampling	W77-131025-	
MW-78	Regional	10/1/13	Groundwater Elevation Measurement	NA	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2013

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-78	Regional	10/25/13	Groundwater Sampling	W78-131025-	
MW-79	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-80	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-80	Regional	10/31/13	Groundwater Sampling	W80-131031-	
MW-81	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-81	Regional	10/25/13	Groundwater Sampling	W81-131025-	
MW-82	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-82	Regional	10/1/13	Groundwater Sampling	W82-130723-	
MW-83	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-83	Regional	10/3/13	Groundwater Sampling	W83-131003-	
MW-84	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-84	Regional	10/10/13	Groundwater Sampling	W84-131010-	
MW-85	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-85	Regional	10/23/13	Groundwater Sampling	W85-131029-	
MW-86	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-86	Regional	10/29/13	Groundwater Sampling	W86-131029-	
MW-87	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-87	Regional	10/22/13	Groundwater Sampling	W87-131022-	
MW-87	Regional	11/21/13	Groundwater Sampling	W87-131121-	
MW-87	Regional	12/20/13	Groundwater Sampling	W87-131220-	
MW-88	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-88	Regional	10/28/13	Groundwater Sampling	W88-131028-	
MW-89	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-89	Regional	10/28/13	Groundwater Sampling	W89-131028-	
MW-90	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-90	Regional	10/18/13	Groundwater Sampling	W90-131018-	
MW-91	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-91	Regional	10/28/13	Groundwater Sampling	W91-131028-	
MW-93	Regional	10/29/13	Groundwater Sampling	W93-131029-	
MW-93	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-94	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-94	Regional	10/25/13	Groundwater Sampling	W94-131025-	
MW-95	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-95	Regional	10/24/13	Groundwater Sampling	W95-131024-	
MW-96	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-97	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-98	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-99	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-99	Regional	10/22/13	Groundwater Sampling	W99-131022-	
MW-99	Regional	11/21/13	Groundwater Sampling	W99-131121-	
MW-99	Regional	12/20/13	Groundwater Sampling	W99-131220-	
MW-100	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-100	Regional	10/17/13	Groundwater Sampling	W100131017-	
MW-101	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-101	Perched	10/22/13	Groundwater Sampling	W101131022-	
MW-102	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-103	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-104	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-105	Perched	10/1/13	Groundwater Elevation Measurement	NA	
MW-106	Regional	10/1/13	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	10/1/13	Groundwater Elevation Measurement	NA	Dry
MW-EB6	Perched	11/20/13	Groundwater Sampling	WB6-131120-	
Equipment Blank	NA	10/22/13	QA/QC Sample	WU1S131022E	
Equipment Blank	NA	10/22/13	QA/QC Sample	WU1H131022E	
Field Blank	NA	10/8/13	QA/QC Sample	W27A131008F	
Field Blank	NA	10/24/13	QA/QC Sample	W95-131024F	
Field Blank	NA	10/31/13	QA/QC Sample	W76-131031F	
Field Blank	NA	11/20/13	QA/QC Sample	WB6-131120F	
MW-28	Perched	10/18/13	QA/QC Sample	W28-131018D	Field Duplicate
WS-NPW-1	Regional	10/1/13	Groundwater Elevation Measurement	NA	
WS-NPW-3	Regional	10/1/13	Groundwater Elevation Measurement	NA	

NA = No sample ID assigned, No sample collected.

TABLE 3
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
South, Northeast and Northwest Upgradient and Crossgradient Wells					
pH (field)	(pH units)	MW-73	10/16/2013	W73-131016-	6.12
		MW-76	10/31/2013	W76-131031-	6.27
Arsenic (Total)	(mg/L)	MW-21	10/22/2013	W21-131022-	0.00108
		MW-93	10/29/2013	W93-131029-	0.00135
		MW-99	10/22/2013	W99-131022-	0.00215
Iron (Dissolved)	(mg/L)	MW-21	10/22/2013	W21-131022-	1.74
		MW-24	10/17/2013	W24-131017-	2.79
		MW-57	10/9/2013	W57-131009-	7.7
		MW-59	10/9/2013	W59-131009-	3.78
		MW-65	10/15/2013	W65-131015-	3.97
Manganese (Dissolved)	(mg/L)	MW-21	10/22/2013	W21-131022-	0.0758
		MW-24	10/17/2013	W24-131017-	0.0997
		MW-56	10/3/2013	W56-131003-	0.142
		MW-57	10/9/2013	W57-131009-	0.229
		MW-59	10/9/2013	W59-131009-	0.0952
		MW-65	10/15/2013	W65-131015-	0.194
		MW-93	10/29/2013	W93-131029-	0.288
		MW-95	10/24/2013	W95-131024-	0.138
		MW-99	10/22/2013	W99-131022-	0.0701
Trichloroethene	(ug/L)	MW-76	10/31/2013	W76-131031-	8.07
Vinyl Chloride	(ug/L)	MW-65	10/15/2013	W65-131015-	0.0414
Interior and Vertical to Facilities Wells					
pH	(pH units)	MW-78	10/25/2013	W78-131025-	6.36
Arsenic (Total)	(mg/L)	MW-64	10/7/2013	W64-131007-	0.00389
		MW-68	10/18/2013	W68-131018-	0.0328
		MW-100	10/17/2013	W100131017-	0.00202
Iron (Dissolved)	(mg/L)	MW-68	10/18/2013	W68-131018-	0.73
		MW-100	10/17/2013	W100131017-	1.71
Manganese (Dissolved)	(mg/L)	MW-67	10/15/2013	W67-131015-	0.0812
		MW-68	10/18/2013	W68-131018-	0.236
		MW-100	10/17/2013	W100131017-	0.233

TABLE 3
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Wells Downgradient to Waste Cells and North end Facilities					
Arsenic (Total)	(mg/L)	MW-69	10/17/2013	W69-131017-	0.00277
		MW-80	10/31/2013	W80-131031-	0.00581
		MW-86	10/29/2013	W86-131029-	0.00114
		MW-87	10/22/2013	W87-131022-	0.00182
		MW-88	10/28/2013	W88-131028-	0.00102
		MW-89	10/28/2013	W89-131028-	0.00368
		MW-91	10/28/2013	W91-131028-	0.0408
Iron (Dissolved)	(mg/L)	MW-43	10/17/2013	W43-131017-	0.411 H
		MW-69	10/17/2013	W69-131017-	0.949
		MW-72	10/10/2013	W72-131010-	1.59
		MW-75	10/24/2013	W75-131024-	1.74
		MW-80	10/31/2013	W80-131031-	1.44
		MW-86	10/29/2013	W86-131029-	0.345
		MW-87	10/22/2013	W87-131022-	3.88
		MW-89	10/28/2013	W89-131028-	0.785
		MW-90	10/18/2013	W90-131018-	0.947
		MW-91	10/28/2013	W91-131028-	2.36
Manganese (Dissolved)	(mg/L)	MW-43	10/17/2013	W43-131017-	0.199
		MW-69	10/17/2013	W69-131017-	0.202
		MW-72	10/10/2013	W72-131010-	0.276
		MW-75	10/24/2013	W75-131024-	0.159
		MW-80	10/31/2013	W80-131031-	0.268
		MW-87	10/22/2013	W87-131022-	0.336
		MW-89	10/28/2013	W89-131028-	0.254
		MW-90	10/18/2013	W90-131018-	0.239
		MW-91	10/28/2013	W91-131028-	0.358

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

Site ID			Upgradient South																	
			MW-24 10/17/13			MW-56 10/3/13			MW-57 10/9/13			MW-82 No Sample			MW-59 10/9/13			MW-60 10/15/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	12.2	0.60878	37.7	14.8	0.73852	46.7	14.8	0.73852	37.5				13.1	0.65369	38.5	15.6	0.77844	47.5
Magnesium	24.3	2	8.0	0.66077	40.9	7.3	0.59659	37.7	8.2	0.67147	34.1				8.0	0.65501	38.6	7.4	0.61057	37.3
Potassium	39.1	1	0.8	0.02023	1.3	1.1	0.02762	1.7	0.8	0.02049	1.0				0.9	0.02389	1.4	1.0	0.02499	1.5
Sodium	23.0	1	5.0	0.21879	13.5	4.9	0.21227	13.4	5.8	0.25098	12.8				5.2	0.22445	13.2	5.1	0.22097	13.5
Iron	55.8	2	2.79	0.09992	6.2	0.03	0.00115	0.1	7.70	0.27575	14.0				3.78	0.13537	8.0	0.04	0.0014	0.1
Manganese	54.9	2	0.10	0.00363	0.2	0.14	0.00517	0.3	0.23	0.00834	0.4				0.10	0.00347	0.2	0.00	3.6E-05	0.0
Ammonia-N	14.0	1	0.04	0.00275	0.2	0.01	0.00071	0.0	0.03	0.002	0.1				0.01	0.00086	0.1	0.01	0.00071	0.0
Total Cations (meq/L)			1.6			1.6			2.0						1.7			1.6		
Anions																				
Alkalinity, Total			59			52			64						57			72		
Carbonate	60.0	2	0.0492	0.00164	0.1	0.033	0.0011	0.1	0.0201	0.00067	0.0				0.0322	0.00107	0.1	0.0392	0.00131	0.1
Bicarbonate	61.0	1	72.25	1.18418	73.0	63.86	1.04674	67.3	77.67	1.27314	70.4				69.96	1.14675	69.9	87.15	1.42848	82.4
Chloride	35.5	1	3.7	0.10408	6.4	3.9	0.10888	7.0	5.9	0.16614	9.2				4.6	0.12834	7.8	2.4	0.06657	3.8
Nitrate-N	14.0	1	0.01	0.00071	0.0	0.02	0.00164	0.1	0.02	0.00114	0.1				0.01	0.00071	0.0	1.33	0.09495	5.5
Sulfate	96.1	2	15.9	0.33105	20.4	19.1	0.39768	25.6	17.7	0.36853	20.4				17.5	0.36436	22.2	6.8	0.14137	8.2
Total Anions (meq/L)			1.6			1.6			1.8						1.6			1.7		
Total Ions (meq/L)			3.2			3.1			3.8						3.3			3.4		
Cation/Anion Ratio			1.00			1.02			1.09						1.03			0.94		
Percent Difference			-0.2			0.8			4.2						1.7			-2.8		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.51			1.57			1.68						1.56			1.63		
Calcium			40.35			46.89			43.92						41.98			47.61		
Magnesium			43.80			37.88			39.93						42.07			37.34		
Sodium + Potassium			15.84			15.23			16.14						15.95			15.04		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.62			1.55			1.81						1.64			1.64		
Sulfate			20.423			25.584			20.378						22.210			8.632		
Chloride			6.421			7.004			9.187						7.823			4.065		
Bicarbonate + Carbonate			73.156			67.411			70.436						69.967			87.303		

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

Site ID			Upgradient South														
			MW-65 10/15/13			MW-76 10/31/13			MW-58A No Sample			MW-83 10/3/13			MW-94 10/25/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	11.3	0.56387	37.7	18.0	0.8982	46.0				37.3	1.86128	53.4	27.4	1.36727	50.3
Magnesium	24.3	2	6.7	0.54804	36.6	8.3	0.68052	34.9				14.9	1.22609	35.2	12.1	0.99568	36.6
Potassium	39.1	1	0.8	0.02161	1.4	1.2	0.03018	1.5				2.7	0.07008	2.0	2.2	0.05499	2.0
Sodium	23.0	1	4.9	0.2127	14.2	7.9	0.34233	17.5				7.5	0.32667	9.4	6.9	0.301	11.1
Iron	55.8	2	3.97	0.14217	9.5	0.01	0.00036	0.0				0.01	0.00036	0.0	0.01	0.00036	0.0
Manganese	54.9	2	0.19	0.00706	0.5	0.00	3.6E-05	0.0				0.00	3.6E-05	0.0	0.00	3.6E-05	0.0
Ammonia-N	14.0	1	0.01	0.001	0.1	0.01	0.00071	0.0				0.01	0.00071	0.0	0.01	0.00071	0.0
Total Cations (meq/L)				1.5			2.0						3.5			2.7	
Anions																	
Alkalinity, Total			50			56						123			97		
Carbonate	60.0	2	0.0239	0.0008	0.1	0.0063	0.00021	0.0				0.0548	0.00183	0.1	0.0652	0.00217	0.1
Bicarbonate	61.0	1	61.07	1.00105	68.4	68.80	1.12762	65.6				149.95	2.4578	69.1	117.96	1.93353	74.0
Chloride	35.5	1	4.2	0.11706	8.0	10.6	0.29899	17.4				30.6	0.86311	24.3	17.4	0.49079	18.8
Nitrate-N	14.0	1	0.01	0.00086	0.1	0.50	0.03534	2.1				0.78	0.0554	1.6	0.90	0.0644	2.5
Sulfate	96.1	2	16.5	0.34354	23.5	12.3	0.2561	14.9				8.5	0.17719	5.0	5.9	0.12326	4.7
Total Anions (meq/L)				1.5			1.7						3.6			2.6	
Total Ions (meq/L)				3.0			3.7						7.0			5.3	
Cation/Anion Ratio				1.02			1.14						0.98			1.04	
Percent Difference				1.1			6.4						-1.0			2.0	
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)				1.35			1.95						3.48			2.72	
Calcium					41.89			46.03						53.42			50.29
Magnesium					40.71			34.88						35.19			36.62
Sodium + Potassium					17.41			19.09						11.39			13.09
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				1.46			1.68						3.50			2.55	
Sulfate					23.491			15.217						5.063			4.834
Chloride					8.004			17.766						24.661			19.249
Bicarbonate + Carbonate					68.505			67.017						70.277			75.917

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

Site ID			Upgradient Northwest									Upgradient Northeast					
			MW-21 10/22/13			MW-73 10/16/13			MW-84 10/10/13			MW-81 10/25/13			MW-99 10/22/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	10.5	0.52395	43.0	10.4	0.51896	57.3	10.3	0.51397	36.0	11.2	0.55888	42.4	9.2	0.46108	40.2
Magnesium	24.3	2	4.9	0.39909	32.8	3.0	0.24439	27.0	7.9	0.65336	45.8	6.0	0.49126	37.3	3.7	0.30611	26.7
Potassium	39.1	1	1.1	0.02813	2.3	0.7	0.01818	2.0	0.9	0.02292	1.6	0.8	0.01949	1.5	0.9	0.02197	1.9
Sodium	23.0	1	4.6	0.20139	16.5	2.8	0.12266	13.5	5.4	0.23576	16.5	5.7	0.24707	18.7	8.0	0.34798	30.4
Iron	55.8	2	1.74	0.06231	5.1	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.03	0.00093	0.1
Manganese	54.9	2	0.08	0.00276	0.2	0.00	3.6E-05	0.0	0.00	7.7E-05	0.0	0.00	3.6E-05	0.0	0.07	0.00255	0.2
Ammonia-N	14.0	1	0.01	0.00078	0.1	0.01	0.00086	0.1	0.01	0.00071	0.1	0.01	0.00071	0.1	0.08	0.00565	0.5
Total Cations (meq/L)				1.2			0.9			1.4			1.3			1.1	
Anions																	
Alkalinity, Total			49			33			54			43			49		
Carbonate	60.0	2	0.1095	0.00365	0.3	0.0026	8.7E-05	0.0	0.024	0.0008	0.1	0.0765	0.00255	0.2	0.3099	0.01033	0.8
Bicarbonate	61.0	1	59.80	0.9802	84.7	40.01	0.65581	65.1	65.71	1.07704	72.7	52.55	0.86132	70.2	58.66	0.96153	78.8
Chloride	35.5	1	2.8	0.07841	6.8	2.5	0.06995	6.9	3.7	0.10465	7.1	3.5	0.09929	8.1	3.0	0.0849	7.0
Nitrate-N	14.0	1	0.01	0.00071	0.1	1.31	0.09352	9.3	0.58	0.04112	2.8	1.62	0.11566	9.4	0.12	0.00885	0.7
Sulfate	96.1	2	4.5	0.09453	8.2	9.0	0.1876	18.6	12.4	0.25818	17.4	7.1	0.14741	12.0	7.4	0.1547	12.7
Total Anions (meq/L)				1.2			1.0			1.5			1.2			1.2	
Total Ions (meq/L)				2.4			1.9			2.9			2.5			2.4	
Cation/Anion Ratio				1.05			0.90			0.96			1.07			0.94	
Percent Difference				2.6			-5.3			-1.9			3.6			-3.1	
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)				1.15			0.90			1.43			1.32			1.14	
Calcium					45.46			57.39			36.04			42.45			40.55
Magnesium					34.63			27.03			45.82			37.31			26.92
Sodium + Potassium					19.91			15.58			18.14			20.24			32.53
					100.0			100.0			100.0						
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				1.16			0.91			1.44			1.11			1.21	
Sulfate					8.171			20.537			17.921			13.274			12.770
Chloride					6.779			7.658			7.264			8.940			7.008
Bicarbonate + Carbonate					85.050			71.805			74.815			77.786			80.222

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

Site ID			Cross Gradient						Interior											
			MW-93 10/29/13			MW-95 10/24/13			MW-70 10/21/13			MW-77 10/25/13			MW-78 10/25/13			MW-100 10/17/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	37.5	1.87126	47.7	20.1	1.00299	46.0	19.0	0.9481	49.8	21.0	1.0479	44.8	16.2	0.80838	45.7	25.1	1.2525	42.4
Magnesium	24.3	2	19.2	1.57992	40.3	10.7	0.88048	40.4	8.4	0.69039	36.3	11.4	0.93808	40.1	7.7	0.63361	35.8	14.7	1.20963	40.9
Potassium	39.1	1	1.6	0.04169	1.1	1.2	0.03044	1.4	1.6	0.03964	2.1	1.3	0.03427	1.5	2.2	0.05525	3.1	1.7	0.04399	1.5
Sodium	23.0	1	9.5	0.41323	10.5	5.9	0.25838	11.9	5.2	0.22445	11.8	7.3	0.31797	13.6	6.2	0.26969	15.3	8.7	0.37756	12.8
Iron	55.8	2	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	0.01	0.00036	0.0	1.71	0.06124	2.1
Manganese	54.9	2	0.29	0.01048	0.3	0.14	0.00502	0.2	0.00	3.6E-05	0.0	0.00	0.00015	0.0	0.00	3.6E-05	0.0	0.23	0.00848	0.3
Ammonia-N	14.0	1	0.05	0.00383	0.1	0.02	0.00156	0.1	0.01	0.00071	0.0	0.01	0.00071	0.0	0.01	0.00071	0.0	0.01	0.00071	0.0
Total Cations (meq/L)				3.9			2.2			1.9			2.3			1.8			3.0	
Anions																				
Alkalinity, Total			102			77			74			92			64			121		
Carbonate	60.0	2	0.1016	0.00339	0.1	0.15	0.005	0.2	0.1495	0.00498	0.3	0.0303	0.00101	0.0	0.0088	0.00029	0.0	0.0564	0.00188	0.1
Bicarbonate	61.0	1	124.23	2.0363	54.9	94.00	1.54077	76.3	89.49	1.4668	77.0	111.93	1.83471	84.1	78.31	1.28351	74.9	147.51	2.41775	82.9
Chloride	35.5	1	2.7	0.07503	2.0	5.0	0.14103	7.0	5.0	0.14188	7.4	4.4	0.12383	5.7	7.1	0.20055	11.7	3.1	0.08659	3.0
Nitrate-N	14.0	1	0.02	0.00121	0.0	0.01	0.00071	0.0	0.05	0.00348	0.2	0.83	0.05911	2.7	1.12	0.07996	4.7	0.01	0.00079	0.0
Sulfate	96.1	2	76.5	1.59279	42.9	16.0	0.33313	16.5	13.8	0.28733	15.1	7.8	0.16219	7.4	7.2	0.14908	8.7	19.7	0.41017	14.1
Total Anions (meq/L)				3.7			2.0			1.9			2.2			1.7			2.9	
Total Ions (meq/L)				7.6			4.2			3.8			4.5			3.5			5.9	
Cation/Anion Ratio				1.06			1.08			1.00			1.07			1.03			1.01	
Percent Difference				2.8			3.8			0.0			3.5			1.6			0.6	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)				3.91			2.17			1.90			2.34			1.77			2.88	
Calcium					47.91			46.17			49.83			44.82			45.75			43.43
Magnesium					40.45			40.53			36.29			40.12			35.86			41.95
Sodium + Potassium					11.65			13.30			13.88			15.06			18.39			14.62
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				3.71			2.02			1.90			2.12			1.63			2.92	
Sulfate					42.961			16.492			15.115			7.644			9.127			14.064
Chloride					2.024			6.982			7.463			5.836			12.278			2.969
Bicarbonate + Carbonate					55.015			76.526			77.422			86.520			78.596			82.967

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

Site ID			Vertical to Facilities												Downgradient Northwest					
			MW-64 10/7/13			MW-66 10/16/13			MW-67 10/15/13			MW-68 10/18/13			MW-69 10/17/13			MW-72 10/10/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	18.2	0.90818	39.3	18.7	0.93313	37.6	27.2	1.35729	43.8	24.1	1.20259	44.6	26.4	1.31737	48.2	25.1	1.2525	43.2
Magnesium	24.3	2	13.1	1.07797	46.7	14.6	1.2014	48.4	16.3	1.34129	43.3	13.3	1.09443	40.6	12.5	1.02859	37.6	15.1	1.24254	42.9
Potassium	39.1	1	1.4	0.03683	1.6	1.1	0.02839	1.1	1.4	0.03606	1.2	1.5	0.03709	1.4	1.5	0.03785	1.4	1.6	0.04169	1.4
Sodium	23.0	1	6.4	0.27882	12.1	7.3	0.31666	12.8	8.1	0.35277	11.4	7.5	0.32754	12.1	7.1	0.30796	11.3	6.8	0.29491	10.2
Iron	55.8	2	0.10	0.00342	0.1	0.01	0.00036	0.0	0.14	0.00509	0.2	0.73	0.02614	1.0	0.95	0.03399	1.2	1.59	0.05694	2.0
Manganese	54.9	2	0.04	0.00153	0.1	0.00	3.6E-05	0.0	0.08	0.00296	0.1	0.24	0.00859	0.3	0.20	0.00735	0.3	0.28	0.01005	0.3
Ammonia-N	14.0	1	0.03	0.00213	0.1	0.01	0.00071	0.0	0.01	0.00071	0.0	0.02	0.00109	0.0	0.01	0.00071	0.0	0.01	0.00101	0.0
Total Cations (meq/L)				2.3	99.9		2.5			3.1			2.7			2.7			2.9	
Anions																				
Alkalinity, Total			81			107			121			128			121			107		
Carbonate	60.0	2	0.0518	0.00173	0.1	0.1576	0.00525	0.2	0.1449	0.00483	0.1	0.1163	0.00388	0.1	0.2458	0.00819	0.3	0.0791	0.00264	0.1
Bicarbonate	61.0	1	98.10	1.60803	73.5	130.22	2.13443	78.9	147.33	2.41481	72.1	155.92	2.55574	86.0	147.12	2.41144	85.9	130.38	2.13704	70.1
Chloride	35.5	1	3.7	0.10521	4.8	7.5	0.21098	7.8	4.7	0.13144	3.9	2.7	0.07729	2.6	4.2	0.11706	4.2	4.7	0.13201	4.3
Nitrate-N	14.0	1	0.09	0.00612	0.3	0.76	0.05419	2.0	0.43	0.03063	0.9	0.01	0.00071	0.0	0.01	0.00071	0.0	0.01	0.00071	0.0
Sulfate	96.1	2	22.4	0.46639	21.3	14.5	0.3019	11.2	36.8	0.76621	22.9	16.1	0.33522	11.3	13.0	0.27067	9.6	37.2	0.77454	25.4
Total Anions (meq/L)				2.2	100.0		2.7			3.3			3.0			2.8			3.0	
Total Ions (meq/L)				4.5			5.2			6.4			5.7			5.5			5.9	
Cation/Anion Ratio				1.06			0.92			0.92			0.91			0.97			0.95	
Percent Difference				2.7			-4.4			-3.9			-4.9			-1.3			-2.5	
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)				2.30			2.48			3.09			2.66			2.69			2.83	
Calcium					39.46			37.63			43.96			45.18			48.94			44.23
Magnesium					46.83			48.45			43.44			41.12			38.21			43.88
Sodium + Potassium					13.71			13.92			12.59			13.70			12.85			11.89
					100.0															
sum (SO ₄ , Cl, HCO ₃ +CO ₃)				2.18			2.65			3.32			2.97			2.81			3.05	
Sulfate					21.381			11.382			23.097			11.279			9.641			25.426
Chloride					4.823			7.954			3.962			2.600			4.170			4.333
Bicarbonate + Carbonate					73.796			80.665			72.940			86.121			86.189			70.240
					100.0															

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

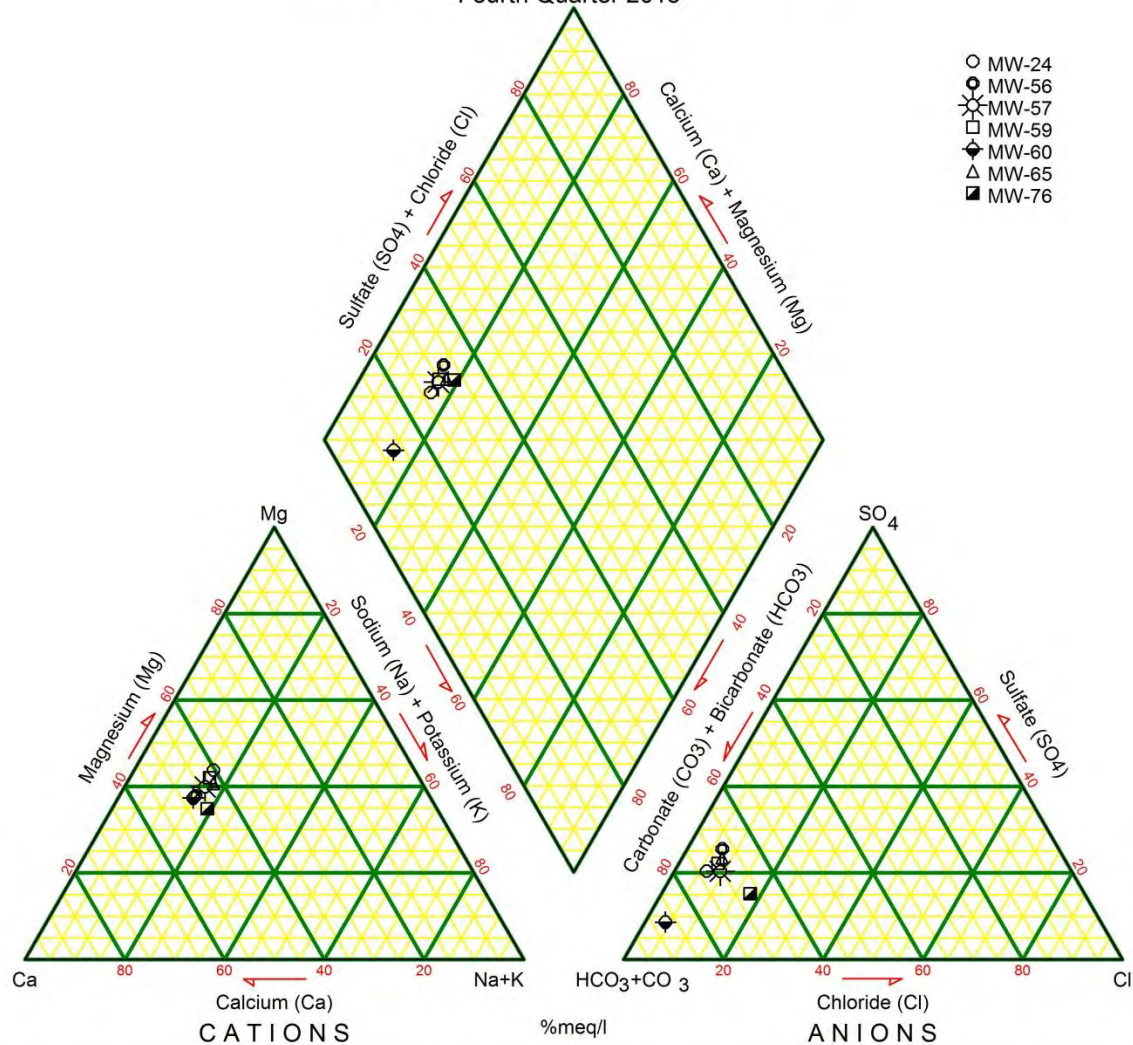
Site ID		Downgradient																	
		MW-74 10/24/13			MW-75 10/24/13			MW-80 10/31/13			MW-85 10/29/13			MW-86 10/29/13			MW-87 10/22/13		
Cations	MW n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1 2	41.4	2.06587	39.6	23.9	1.19261	38.2	28.4	1.41717	46.7	24.4	1.21756	42.9	13.5	0.67365	39.0	38.8	1.93613	47.5
Magnesium	24.3 2	31.5	2.59206	49.7	17.7	1.45649	46.7	14.4	1.18494	39.1	15.0	1.23431	43.5	9.0	0.74306	43.0	19.7	1.62107	39.8
Potassium	39.1 1	2.0	0.05192	1.0	1.8	0.04501	1.4	1.6	0.04067	1.3	1.5	0.03709	1.3	1.2	0.02992	1.7	2.1	0.05448	1.3
Sodium	23.0 1	11.6	0.50457	9.7	8.2	0.35799	11.5	7.6	0.32884	10.8	8.0	0.34755	12.2	6.2	0.26751	15.5	7.1	0.31057	7.6
Iron	55.8 2	0.01	0.00036	0.0	1.74	0.06231	2.0	1.44	0.05157	1.7	0.01	0.00036	0.0	0.35	0.01236	0.7	3.88	0.13895	3.4
Manganese	54.9 2	0.00	3.6E-05	0.0	0.16	0.00579	0.2	0.27	0.00976	0.3	0.00	3.6E-05	0.0	0.01	0.00032	0.0	0.34	0.01223	0.3
Ammonia-N	14.0 1	0.01	0.00071	0.0	0.01	0.00071	0.0	0.01	0.00071	0.0	0.02	0.00107	0.0	0.01	0.00071	0.0	0.01	0.00104	0.0
Total Cations (meq/L)			5.2			3.1			3.0			2.8			1.7			4.1	
Anions																			
Alkalinity, Total		198			89			83			84			59			81		
Carbonate	60.0 2	0.106	0.00353	0.1	0.0398	0.00133	0.0	0.0704	0.00235	0.1	0.0392	0.00131	0.1	0.0168	0.00056	0.0	0.0435	0.00145	0.0
Bicarbonate	61.0 1	241.34	3.95587	77.4	108.87	1.7844	60.7	101.12	1.6574	60.7	102.40	1.67844	64.5	71.34	1.16926	70.0	98.98	1.62231	35.7
Chloride	35.5 1	22.9	0.64593	12.6	8.1	0.22819	7.8	5.5	0.15626	5.7	7.5	0.21268	8.2	4.8	0.13624	8.2	5.9	0.16529	3.6
Nitrate-N	14.0 1	0.45	0.03177	0.6	0.01	0.00071	0.0	0.02	0.00121	0.0	0.20	0.01421	0.5	0.32	0.02299	1.4	0.01	0.00071	0.0
Sulfate	96.1 2	22.9	0.4768	9.3	44.5	0.92653	31.5	43.8	0.91195	33.4	33.5	0.6975	26.8	16.4	0.34146	20.4	132.0	2.74835	60.6
Total Anions (meq/L)			5.1			2.9			2.7			2.6			1.7			4.5	
Total Ions (meq/L)			10.3			6.1			5.8			5.4			3.4			8.6	
Cation/Anion Ratio			1.02			1.06			1.11			1.09			1.03			0.90	
Percent Difference			1.0			3.0			5.3			4.3			1.7			-5.4	
Trilinear Diagram Data																			
sum (Ca, Mg, Na+K)			5.21			3.05			2.97			2.84			1.71			3.92	
Calcium				39.62			39.08			47.69			42.92			39.30			49.36
Magnesium				49.71			47.72			39.88			43.52			43.35			41.33
Sodium + Potassium				10.67			13.20			12.43			13.56			17.35			9.31
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			5.08			2.94			2.73			2.59			1.65			4.54	
Sulfate				9.382			31.510			33.430			26.931			20.726			60.571
Chloride				12.710			7.760			5.728			8.212			8.269			3.643
Bicarbonate + Carbonate				77.908			60.730			60.842			64.857			71.005			35.786

Table 4
Ion Balance Calculations
Cedar Hills Landfill Regional Aquifer Groundwater Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

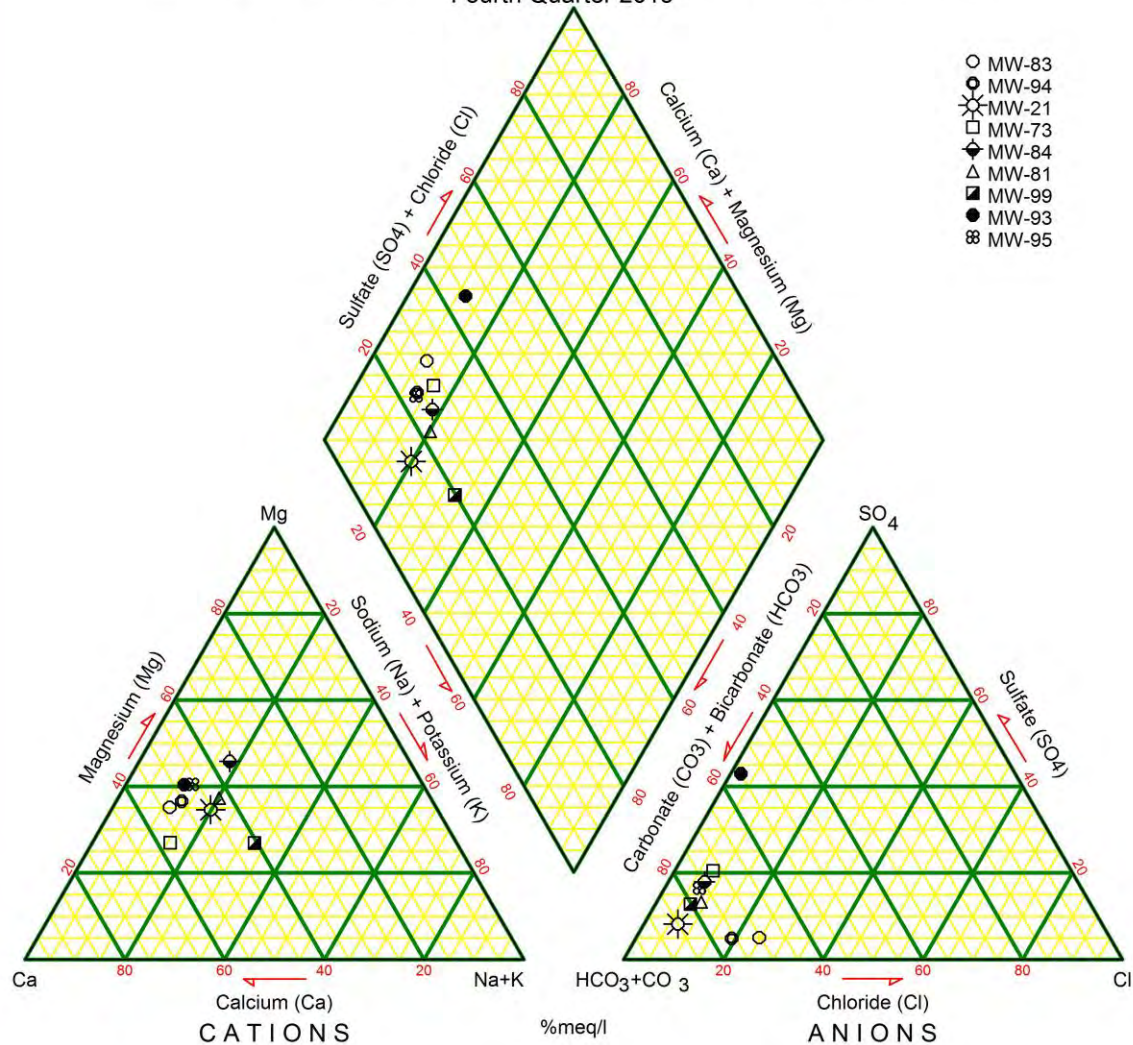
Site ID			Downgradient of North End Facilities														
			MW-88 10/28/13			MW-89 11/28/13			MW-90 10/18/13			MW-91 10/28/13			MW-43 10/17/13		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	8.9	0.44561	35.1	13.7	0.68363	35.7	15.5	0.77345	42.0	22.9	1.14271	40.8	11.9	0.59381	37.8
Magnesium	24.3	2	6.7	0.55297	43.6	9.8	0.80642	42.2	9.0	0.74388	40.4	14.5	1.19317	42.6	8.2	0.67723	43.1
Potassium	39.1	1	0.8	0.02156	1.7	1.5	0.03734	2.0	1.2	0.03095	1.7	1.7	0.04374	1.6	1.2	0.03044	1.9
Sodium	23.0	1	5.7	0.24707	19.5	8.0	0.34711	18.1	5.7	0.24968	13.6	7.4	0.32058	11.4	5.6	0.24489	15.6
Iron	55.8	2	0.01	0.00036	0.0	0.79	0.02811	1.5	0.95	0.03391	1.8	2.36	0.08452	3.0	0.41	0.01472	0.9
Manganese	54.9	2	0.00	3.6E-05	0.0	0.25	0.00925	0.5	0.24	0.0087	0.5	0.36	0.01303	0.5	0.20	0.00724	0.5
Ammonia-N	14.0	1	0.01	0.00071	0.1	0.02	0.00131	0.1	0.01	0.00089	0.0	0.04	0.00263	0.1	0.02	0.00154	0.1
Total Cations (meq/L)			1.3			1.9			1.8			2.8			1.6		
Anions																	
Alkalinity, Total			47			68			65			81			64		
Carbonate	60.0	2	0.07384	0.00246	0.2	0.10292	0.00343	0.2	0.08665	0.00289	0.1	0.03068	0.00102	0.0	0.10818	0.00361	0.2
Bicarbonate	61.0	1	56.95	0.9334	79.3	83.12	1.36236	75.6	78.51	1.28692	66.5	98.64	1.61673	60.2	77.86	1.2762	76.8
Chloride	35.5	1	2.2	0.06262	5.3	4.0	0.11395	6.3	4.0	0.11283	5.8	8.0	0.22509	8.4	3.8	0.10775	6.5
Nitrate-N	14.0	1	0.61	0.04362	3.7	0.01	0.00079	0.0	0.01	0.00086	0.0	0.03	0.00214	0.1	0.01	0.00071	0.0
Sulfate	96.1	2	6.5	0.13429	11.4	15.5	0.32272	17.9	25.5	0.53093	27.4	40.4	0.84116	31.3	13.1	0.27275	16.4
Total Anions (meq/L)			1.2			1.8			1.9			2.7			1.7		
Total Ions (meq/L)			2.4			3.7			3.8			5.5			3.2		
Cation/Anion Ratio			1.08			1.06			0.95			1.04			0.95		
Percent Difference			3.8			3.0			-2.5			2.1			-2.8		
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)			1.27			1.87			1.80			2.70			1.55		
Calcium						35.16						43.02			42.32		
Magnesium						43.64						41.37			44.19		
Sodium + Potassium						21.20						15.61			13.49		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.13			1.80			1.93			2.68			1.66		
Sulfate						11.855			17.904			27.459			31.340		
Chloride						5.528			6.322			5.835			8.386		
Bicarbonate + Carbonate						82.617			75.773			66.706			60.274		

Cedar Hills Regional Landfill
 Figure 2. Regional Aquifer South Upgradient Wells
 Fourth Quarter 2013



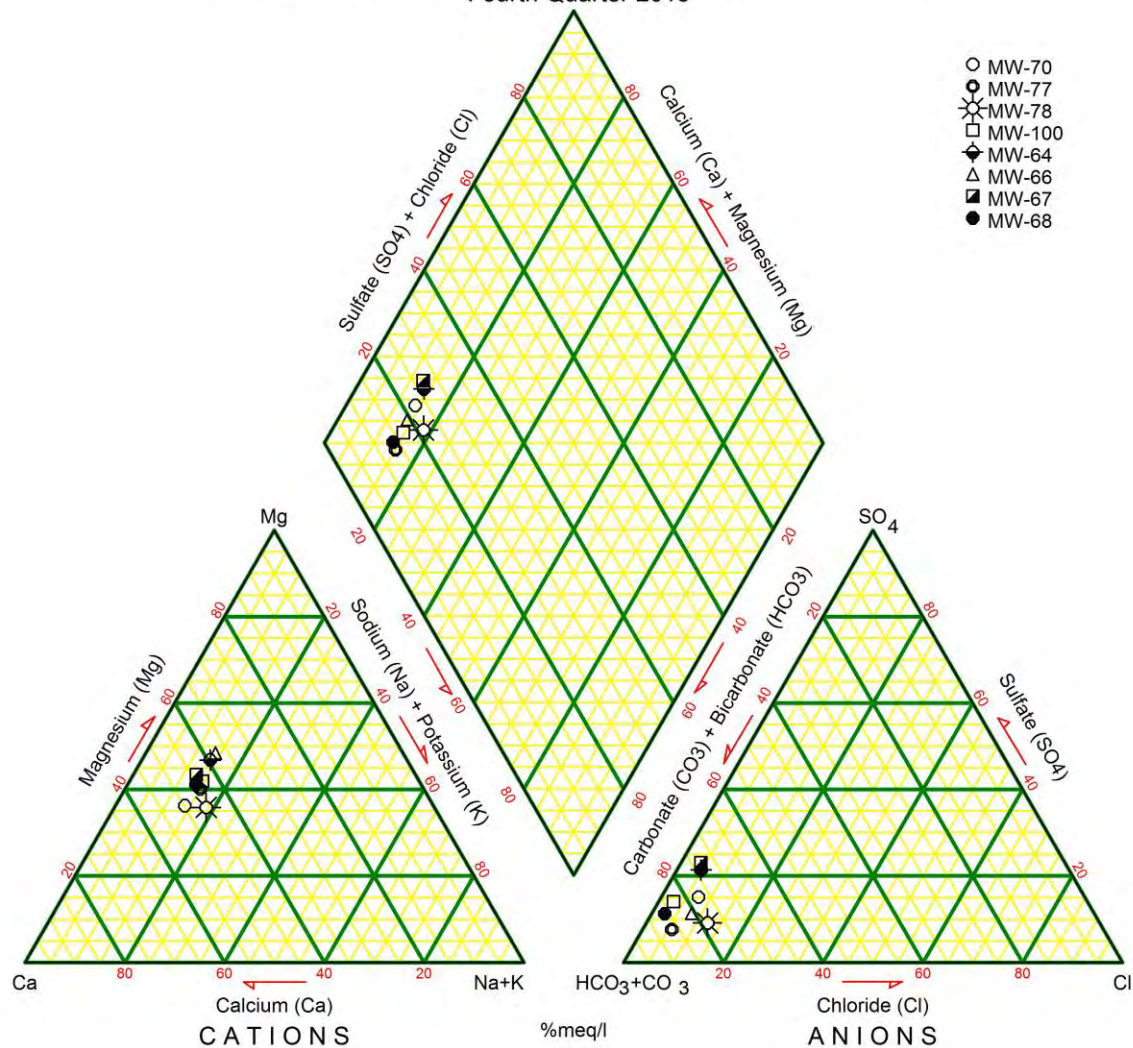
Cedar Hills Regional Landfill

Figure 3. Regional Aquifer S NE NW Upgradient and Crossgradient Wells
Fourth Quarter 2013

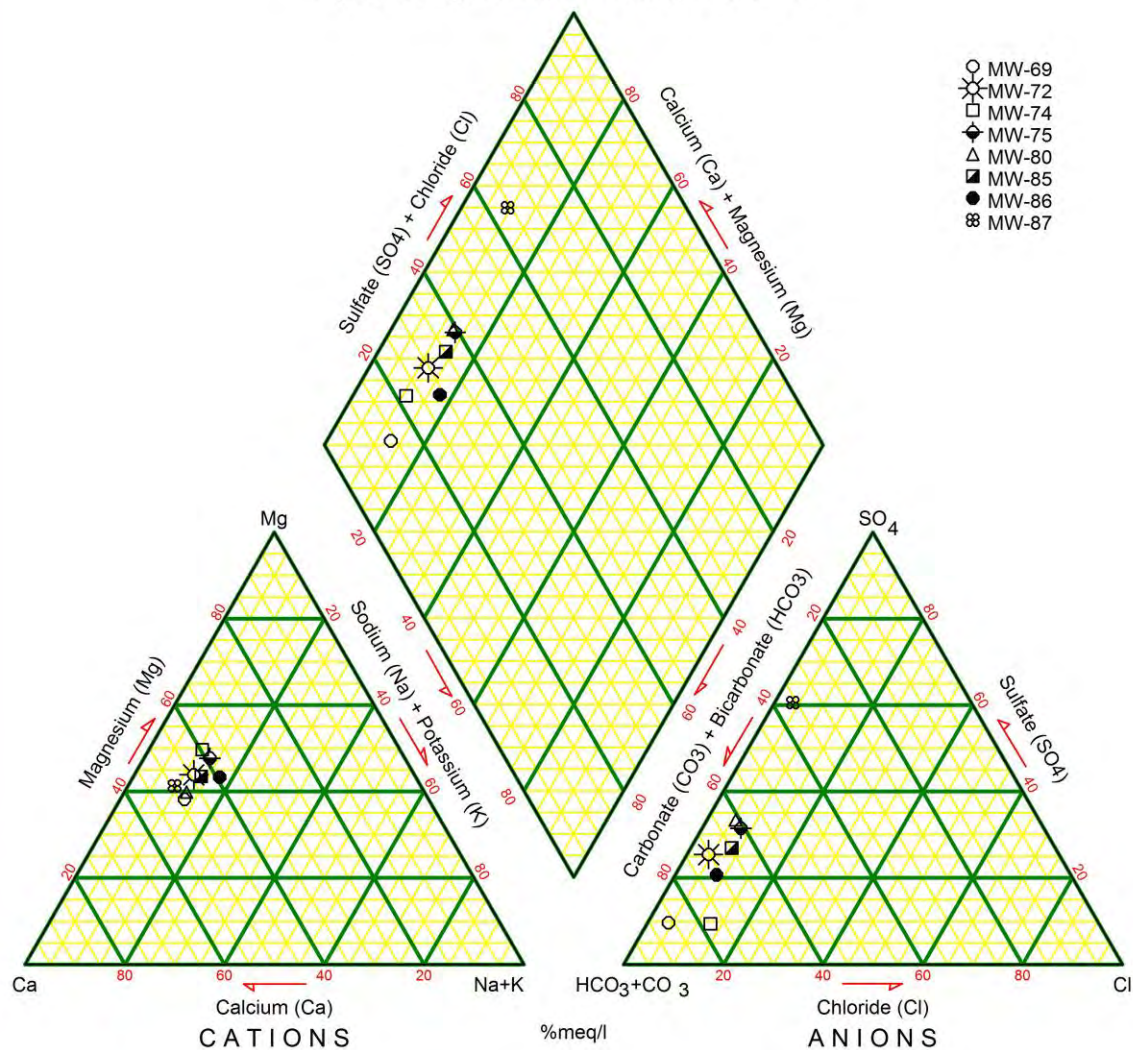


Cedar Hills Regional Landfill

Figure 4. Regional Aquifer Wells Interior and Vertical to Facilities
Fourth Quarter 2013



Cedar Hills Regional Landfill
Figure 5. Regional Aquifer Downgradient Wells



Cedar Hills Regional Landfill
Figure 6. Regional Aquifer Wells Downgradient of North End Facilities
Fourth Quarter 2013

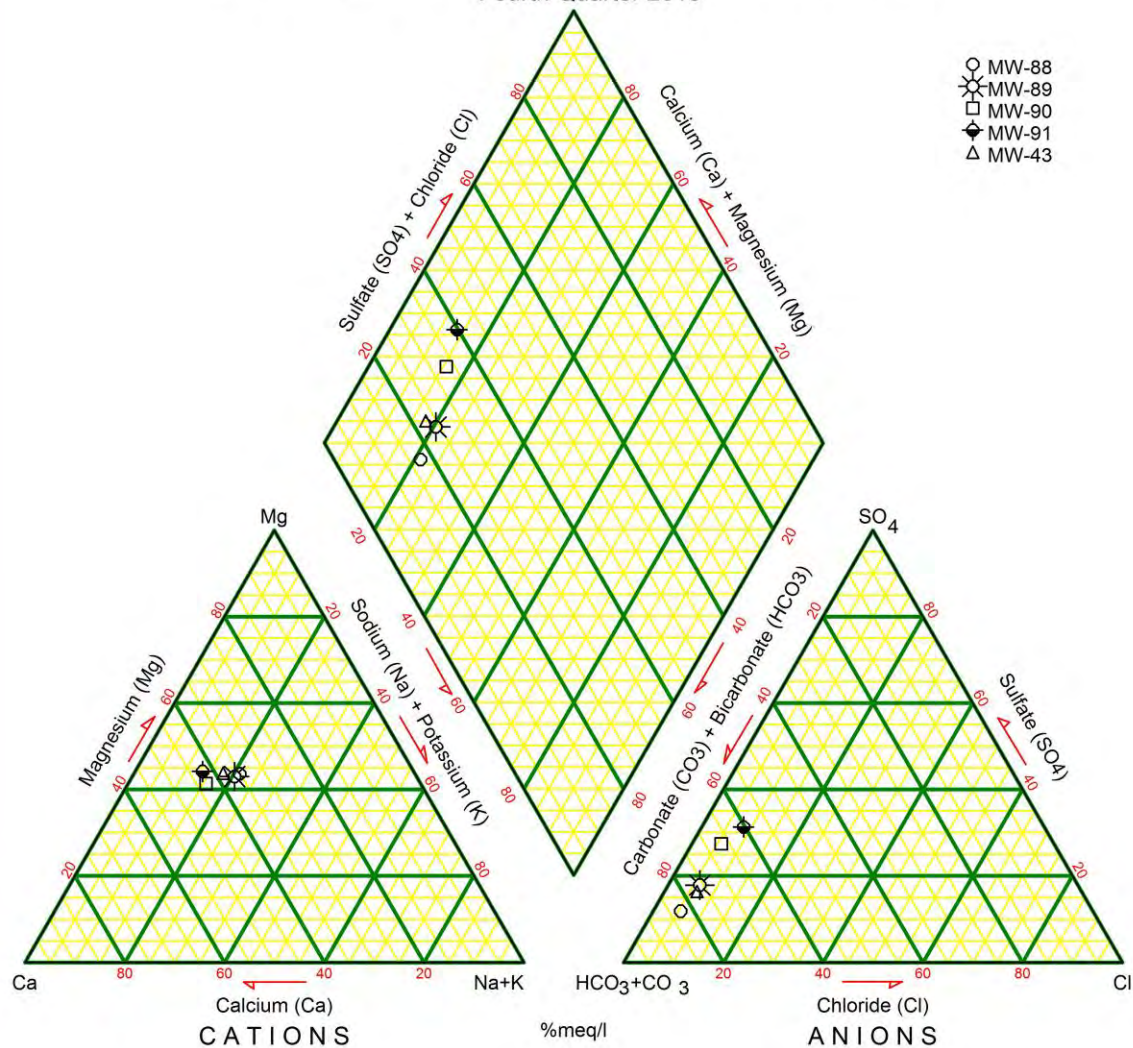


TABLE 5
CEDAR HILLS REGIONAL LANDFILL REGIONAL AQUIFER
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample Value	Intrawell Limit Value
Upgradient South Wells					
cis -1,2 dichloroethene	ug/L	MW-59	10/09/13	0.836	0.67
Downgradient Wells					
Barium Dissolved	mg/L	MW-87	10/22/13	0.0216	0.02
Nitrate as N	mg/L	MW-66	10/15/13	0.759	0.72

TABLE 6
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN REGIONAL AQUIFER WELLS
(Data Collected from October 1, 2013 to December 31, 2013)

Analyte	Site ID	Date	Sample ID	ug/L
South, Northeast and Northwest Upgradient and Crossgradient Wells				
Acetone	MW-21	10/22/2013	W21-131022-	9.22 B
	MW-56	10/3/2013	W56-131003-	4.77
	MW-59	10/9/2013	W59-131009-	6.04
	MW-76	10/31/2013	W76-131031-	4.37
cis-1,2-Dichloroethene	MW-24	10/17/2013	W24-131017-	0.27 T
	MW-56	10/3/2013	W56-131003-	1.06
	MW-59	10/9/2013	W59-131009-	0.836
	MW-76	10/31/2013	W76-131031-	0.44
Methylene Chloride	MW-83	10/03/13	W83-131003-	0.3 T
Tetrachloroethene	MW-76	10/31/2013	W76-131031-	0.453
Trichloroethene	MW-76	10/31/2013	W76-131031-	8.07
	MW-78	10/25/2013	W78-131025-	0.584
	MW-83	10/3/2013	W83-131003-	1.53
	MW-94	10/25/2013	W94-131025-	3.26
Vinyl Chloride	MW-65	10/15/2013	W65-131015-	0.0414
Interior and Vertical to Facilities Wells				
Acetone	MW-64	10/7/2013	W64-131007-	5.19
	MW-77	10/25/2013	W77-131025-	4.09
Methylene Chloride	MW-64	10/07/13	W64-131007-	0.38 T
Downgradient Wells				
Acetone	MW-74	10/24/13	W74R131024-	4.75
	MW-74	12/20/13	W74R131220-	4.06 B
	MW-80	10/31/13	W80-131031-	9.08
	MW-85	10/29/13	W85-131029-	4.54 B
	MW-87	11/21/13	W87-131121-	4.67

TABLE 7
SUMMARY OF EXCEEDANCES OF WAC 173-200-040
WATER QUALITY STANDARDS FOR GROUND WATERS OF THE STATE OF WASHINGTON

CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Standard(s) Exceeded
North and West Perched Wells						
pH (field)	(pH units)	MW-28	10/18/13	W28-131018-	5.98	SGW2
Arsenic (Total)	(mg/L)	MW-27A	10/8/2013	W27A131008-	0.0156	F1, SGW1
Iron (Dissolved)	(mg/L)	MW-55	10/8/2013	W55-131008-	0.304	SGW2
Manganese (Dissolved)	(mg/L)	MW-27A	10/8/2013	W27A131008-	0.0523	SGW2
		MW-55	10/8/2013	W55-131008-	0.144	SGW2
East Perched Zone Wells						
pH (field)	(pH units)	MW-30A	10/14/13	W30A131014-	6.29	SGW2
		MW-EB6	11/20/13	WB6-131120-	5.41	SGW2
Arsenic (Total)	(mg/L)	MW-EB6	11/20/13	WB6-131120-	0.00117	SGW1
Iron (Dissolved)	(mg/)	MW-47	10/28/13	W47-131028-	0.336	SGW2
		MW-EB6	11/20/13	WB6-131120-	0.923	SGW2
Manganese (Dissolved)	(mg/L)	MW-47	10/28/13	W47-131028-	1.96	SGW2
		MW-EB6	11/20/13	WB6-131120-	0.479	SGW2
1,1-Dichloroethane	(ug/L)	MW-30A	10/14/13	W30A131014-	2.33	SGW1
Total Dissolved Solids	(mg/L)	MW-47	10/28/13	W47-131028-	678	SGW2
Vinyl Chloride	(ug/L)	MW-47	10/28/13	W47-131028-	5.11	F1, SGW1
South Solid Waste Area Perched Wells						
Arsenic (Total)	(mg/L)	MW-101	10/22/2013	W101131022-	0.00285	SGW1
Iron (Dissolved)	(mg/)	MW-101	10/22/2013	W101131022-	0.673	SGW2
Manganese (Dissolved)	(mg/L)	MW-101	10/22/2013	W101131022-	0.902 D	SGW2
Vinyl Chloride	(ug/L)	MW-101	10/22/2013	W101131022-	0.381	SGW1

See Data Qualifier List for Qualifier Information.

Table 8
Ion Balance Calculations
Cedar Hills Landfill Perched Zones GW Monitoring Wells

Data Collected from October 1, 2013 to December 31, 2013

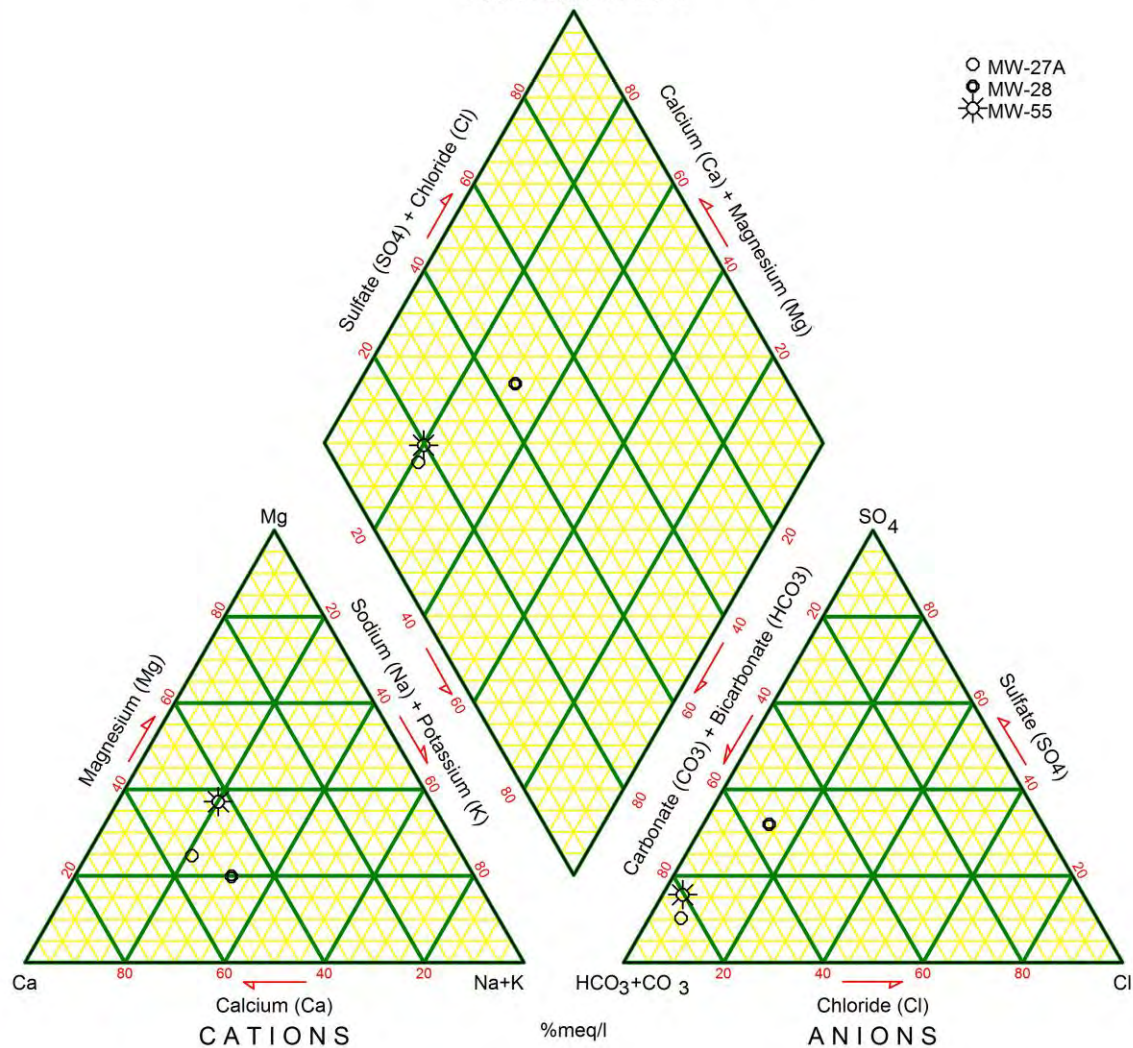
		North and West Perched Wells											
Site ID		MW-27A			MW-28			MW-29			MW-55		
Date		10/8/13			10/18/13			No Sample			10/8/13		
Cations	MW	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	18.3	0.91317	53.7	8.6	0.43014	48.6			11.6	0.57884	42.0
Magnesium	24.3	2	5.1	0.41638	24.5	2.1	0.1761	19.9			6.1	0.50442	36.6
Potassium	39.1	1	3.3	0.08543	5.0	0.8	0.02166	2.4			1.5	0.03811	2.8
Sodium	23.0	1	6.2	0.26969	15.9	5.9	0.2562	28.9			5.4	0.23532	17.1
Iron	55.8	2	0.0	0.00036	0.0	0.0	0.00036	0.0			0.3	0.01089	0.8
Manganese	54.9	2	0.1	0.0019	0.1	0.0	5.8E-05	0.0			0.1	0.00524	0.4
Ammonia-N	14.0	1	0.2	0.01399	0.8	0.0	0.00071	0.1			0.1	0.00403	0.3
Total Cations (meq/L)			1.7			0.9	99.9				1.4		
Anions													
Alkalinity, Total			78			25.9					57.7		
Carbonate	60.0	2	0.26266	0.00876	0.5	0.00149	5E-05	0.0			0.16913	0.00564	0.4
Bicarbonate	61.0	1	94.75	1.55301	82.8	31.59	0.51787	53.8			70.05	1.14819	79.9
Chloride	35.5	1	4.2	0.11931	6.4	4.4	0.12439	12.9			2.0	0.05754	4.0
Nitrate-N	14.0	1	0.0	0.0015	0.1	0.3	0.01878	1.9			0.0	0.00157	0.1
Sulfate	96.1	2	9.2	0.19197	10.2	14.5	0.3019	31.4			10.8	0.22487	15.6
Total Anions (meq/L)			1.9			1.0	100.0				1.4		
Total Ions (meq/L)			3.6			1.8					2.8		
Cation/Anion Ratio			0.91			0.92					0.96		
Percent Difference			-4.9			-4.2					-2.2		
TRILINEAR DIAGRAM DATA													
sum (Ca, Mg, Na+K)			1.68			0.88					1.36		
Calcium				54.2			48.7					42.7	
Magnesium				24.7			19.9					37.2	
Sodium + Potassium				21.1			31.4					20.2	
							100.0						
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.87			0.94					1.44		
Sulfate				10.2			32.0					15.7	
Chloride				6.4			13.2					4.0	
Bicarbonate + Carbonate				83.4			54.9					80.3	

Table 8
Ion Balance Calculations
Cedar Hills Landfill Perched Zones GW Monitoring Wells

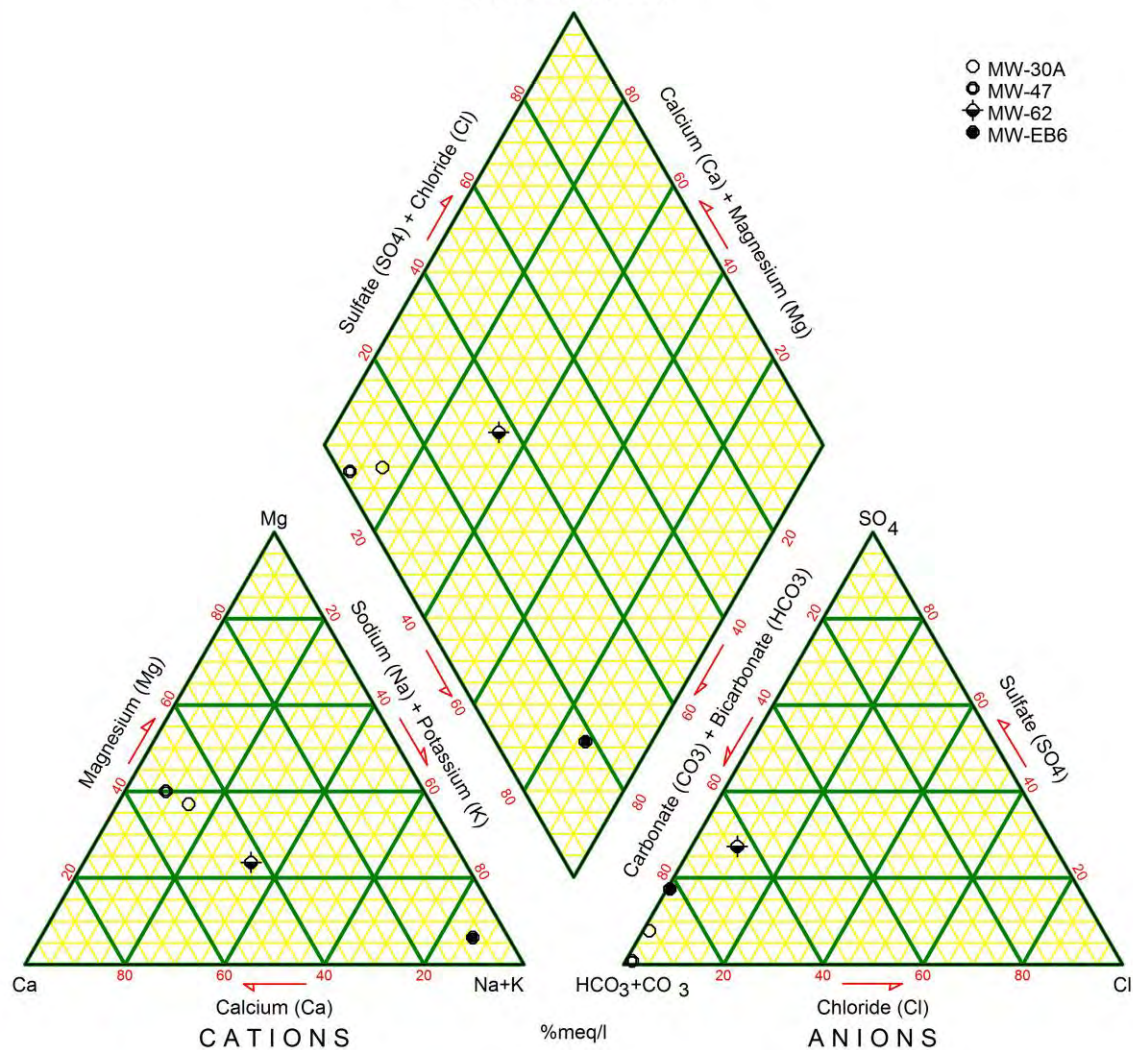
Data Collected from October 1, 2013 to December 31, 2013

Site ID	Date	MW	n	East Perched Zone												SSWA		
				MW-30A			MW-47			MW-62			MW-EB6			MW-101		
				10/14/13			10/28/13			10/28/13			11/20/13			10/21/13		
Cations				mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2		37.2	1.85629	48.6	126.0	6.28743	51.4	15.1	0.75349	42.9	8.7	0.43613	6.9	56.8	2.83433	51.3
Magnesium	24.3	2		17.2	1.41535	37.1	59.2	4.87143	39.8	5.0	0.41473	23.6	4.6	0.37852	6.0	24.0	1.9749	35.7
Potassium	39.1	1		1.9	0.04834	1.3	5.9	0.1509	1.2	0.9	0.02327	1.3	2.7	0.06931	1.1	2.4	0.06138	1.1
Sodium	23.0	1		11.4	0.49587	13.0	19.4	0.84385	6.9	13.0	0.56547	32.2	120.0	5.21971	82.6	13.8	0.60027	10.9
Iron	55.8	2		0.0	0.00036	0.0	0.3	0.01203	0.1	0.0	0.00036	0.0	0.9	0.03305	0.5	0.7	0.0241	0.4
Manganese	54.9	2		0.0	3.6E-05	0.0	2.0	0.07135	0.6	0.0	4.8E-05	0.0	0.5	0.01744	0.3	0.9	0.03284	0.6
Ammonia-N	14.0	1		0.0	0.00071	0.0	0.1	0.0063	0.1	0.0	0.00071	0.0	2.4	0.16777	2.7	0.0	0.00071	0.0
Total Cations (meq/L)					3.8			12.2			1.8	100.0		6.3	97.3		5.5	
Anions																		
Alkalinity, Total				169			676			49.2			160			286		
Carbonate	60.0	2		0.01981	0.00066	0.0	0.2285	0.00762	0.1	0.01823	0.00061	0.0	0.00247	8.2E-05	0.0	0.11357	0.00379	0.1
Bicarbonate	61.0	1		206.14	3.37883	88.3	824.26	13.5103	97.8	59.99	0.98324	54.6	195.19	3.19944	68.7	348.69	5.71535	96.4
Chloride	35.5	1		1.7	0.04682	1.2	6.3	0.17855	1.3	5.0	0.1416	7.9	0.8	0.0224	0.5	3.9	0.11113	1.9
Nitrate-N	14.0	1		1.6	0.1128	2.9	0.0	0.00071	0.0	3.5	0.25202	14.0	10.6	0.75676	16.2	0.0	0.00071	0.0
Sulfate	96.1	2		13.9	0.28941	7.6	5.3	0.11098	0.8	20.3	0.42266	23.5	32.7	0.68084	14.6	4.8	0.09932	1.7
Total Anions (meq/L)					3.8			13.8			1.8	100.0		4.7	100.0		5.9	
Total Ions (meq/L)					7.6			26.1			3.6			11.0			11.5	
Cation/Anion Ratio					1.00			0.89			0.98			1.36			0.93	
Percent Difference					-0.2			-6.0			-1.2			15.1			-4	
TRILINEAR DIAGRAM DATA																		
sum (Ca, Mg, Na+K)					3.82			12.15			1.76			6.10			5.47	
Calcium						48.6			51.7			42.89			7.15			51.81
Magnesium						37.1			40.1			23.60			6.20			36.10
Sodium + Potassium						14.3			8.2			33.51			86.65			12.09
												100.0			100.0			
sum (SO ₄ , Cl, HCO ₃ +CO ₃)					3.72			13.81			1.55			3.90			5.93	
Sulfate						7.8			0.8			27.3			17.4			1.7
Chloride						1.3			1.3			9.1			0.6			1.9
Bicarbonate + Carbonate						91.0			97.9			63.6			82.0			96.5
												100.0			100.0			

Cedar Hills Regional Landfill
Figure 7. Perched Zone Wells North and West
Fourth Quarter 2013



Cedar Hills Regional Landfill
Figure 8. East Perched Zone Wells
Fourth Quarter 2013



Cedar Hills Regional Landfill
 Figure 9. SSWA Perched Zone Wells
 Fourth Quarter 2013

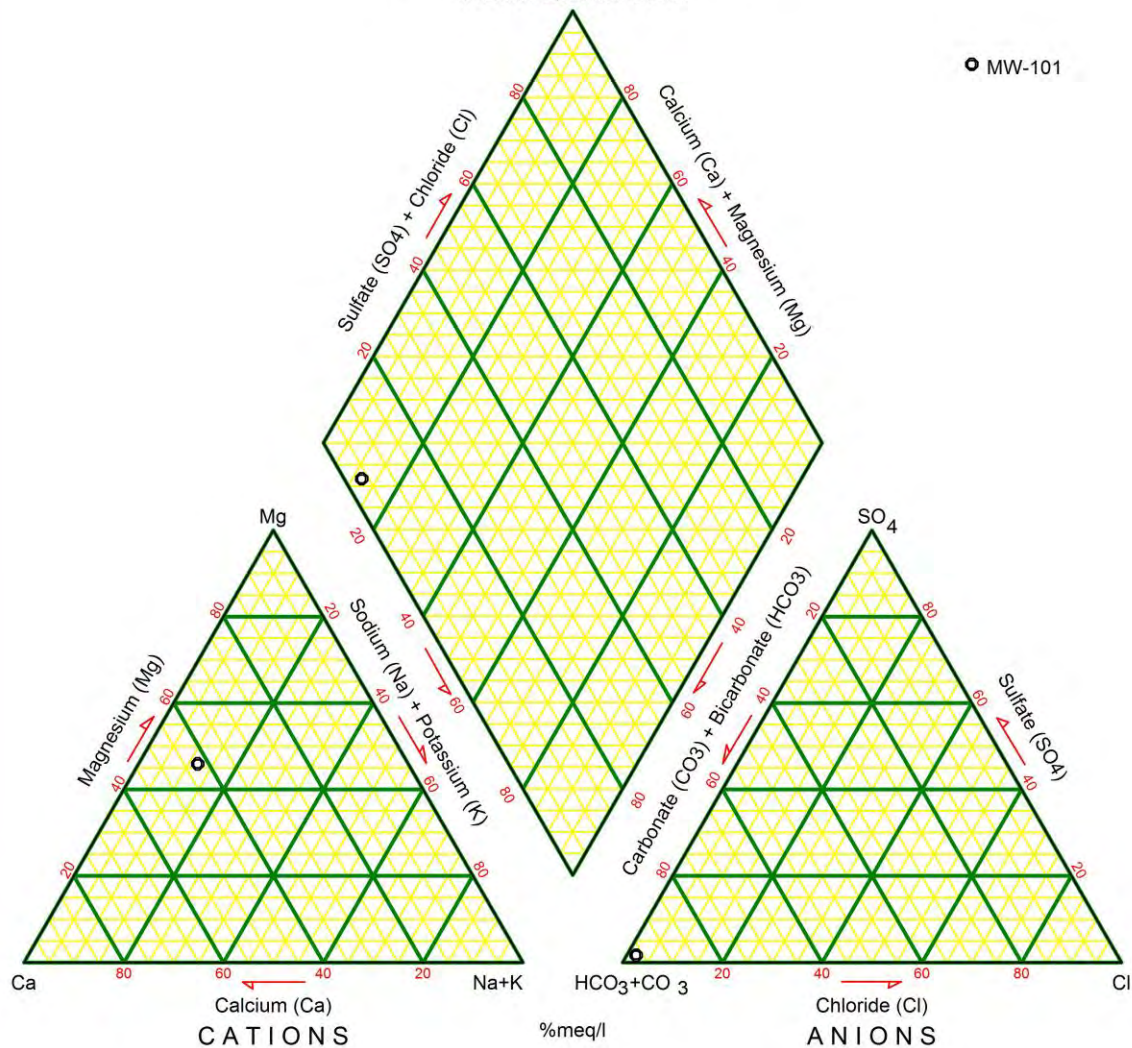


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample Value	Limit Value
NO PERCHED ZONE PREDICTION LIMIT EXCEEDANCES THIS QUARTER					

TABLE 10
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN PERCHED ZONE WELLS
(Data Collected from October 1, 2013 to December 31, 2013)

Analyte	Site ID	Date	Sample ID	ug/L
North and West Perched Wells				
Acetone	MW-55	10/08/13	W55-131008-	6.19
Methylene Chloride	MW-55	10/08/13	W55-131008-	0.26 T
East Perched Zone Wells				
1,1-Dichloroethane	MW-30A	10/14/2013	W30A131014-	2.33
	MW-47	10/28/2013	W47-131028-	0.67
	MW-62	10/28/2013	W62-131028-	0.764
Acetone	MW-EB6	11/20/2013	WB6-131120-	4.08
Chloroethane	MW-47	10/28/2013	W47-131028-	0.28 T
cis-1,2-Dichloroethene	MW-30A	10/14/2013	W30A131014-	6.54
	MW-47	10/28/2013	W47-131028-	1.76
	MW-62	10/28/2013	W62-131028-	1.85
Dichlorodifluoromethane	MW-47	10/28/2013	W47-131028-	4.29
Trichloroethene	MW-30A	10/14/2013	W30A131014-	1.29
Vinyl Chloride	MW-47	10/28/2013	W47-131028-	5.11
South Solid Waste Area Perched Wells				
Chloroethane	MW-101	10/22/2013	W101131022-	0.25 T
cis-1,2-Dichloroethene	MW-101	10/22/2013	W101131022-	0.21 T
Methylene Chloride	MW-101	10/22/2013	W101131022-	0.21 T
Vinyl Chloride	MW-101	10/22/2013	W101131022-	0.381

See Data Qualifier List for Qualifier Information.

Table 11
Surface Water Monitoring Activities 4th Quarter 2013

Station ID	Date	Planned Activity	Sample ID	Comment
SW-E1	10/29/13	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-E1	11/12/13	Quarterly Characterization Sample	SE1-131112Q	No Flow, No Sample
SW-E1	12/18/13	Monthly Characterization Sample	SE1-131218M	No Flow, No Sample
SW-GS1	10/24/13	Quarterly Characterization Sample	SGS1131024Q	
SW-GS1	11/14/13	Monthly Characterization Sample	SGS1131114M	
SW-GS1	12/17/13	Monthly Characterization Sample	SGS1131217M	NA ¹
SW-LP1	10/14/13	South Lagoon Inlet Characterization	SLP1131014P	
SW-LP1	11/20/13	South Lagoon Inlet Characterization	SLP1131120P	
SW-LP1	12/12/13	South Lagoon Inlet Characterization	SLP1131212P	
SW-LP2	10/14/13	South Lagoon Inlet Characterization	SLP2131014P	
SW-LP2	11/20/13	South Lagoon Inlet Characterization	SLP2131120P	
SW-LP2	12/12/13	South Lagoon Inlet Characterization	SLP2131212P	
SW-LP3	10/14/13	South Lagoon Inlet Characterization	NA	No Flow, No Sample
SW-LP3	11/20/13	South Lagoon Inlet Characterization	NA	No Flow, No Sample
SW-LP3	12/12/13	South Lagoon Inlet Characterization	NA	No Flow, No Sample
SW-MC	10/23/13	Quarterly Characterization Sample	SMC-131023Q	
SW-MC	11/13/13	Monthly Characterization Sample	SMC-131113M	
SW-MC	12/23/13	Monthly Characterization Sample	SMC-131223M	
SW-N1	10/23/13	Quarterly Characterization Sample	SN1-131023Q	
SW-N1	11/12/13	Monthly Characterization Sample	SN1-131112M	
SW-N1	12/18/13	Monthly Characterization Sample	SN1-131218M	
SW-N4	10/23/13	Quarterly Characterization Sample	SN4-131023Q	
SW-N4	11/12/13	Monthly Characterization Sample	SN4-131112M	
SW-N4	12/18/13	Monthly Characterization Sample	SN4-131218M	
SW-S1	10/23/13	Quarterly Characterization Sample	SS1-131023Q	
SW-S1	11/14/13	Monthly Characterization Sample	SS1-131114M	
SW-S1	12/17/13	Monthly Characterization Sample	SS1-131217M	
SW-S2	10/23/13	Quarterly Characterization Sample	SS2-131023Q	
SW-S2	11/14/13	Monthly Characterization Sample	SS2-131114M	
SW-S2	12/17/13	Monthly Characterization Sample	SS2-131217M	
SW-S3	11/14/13	Quarterly Characterization Sample	SS3-131114Q	
SW-SL3	10/14/13	NPDES Permit Sample	SSL3131014P	
SW-SL3	10/23/13	QA/QC Sample	SSL3131023D	Field Duplicate
SW-SL3	10/23/13	Quarterly Characterization Sample	SSL3131023Q	
SW-SL3	11/14/13	Monthly Characterization Sample	SSL3131114M	
SW-SL3	11/20/13	NPDES Permit Sample	SSL3131120P	
SW-SL3	12/12/13	NPDES Permit Sample	SSL3131212P	
SW-SL3	12/17/13	Monthly Characterization Sample	SSL3131217M	
SW-TD1	12/4/13	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD4	12/4/13	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-TD6	12/4/13	Area 5 Top Deck Monitoring	NA	No Flow, No Sample
SW-V	10/25/13	Quarterly Characterization Sample	NA	No Flow, No Sample
SW-V	11/12/13	Monthly Characterization Sample	NA	No Flow, No Sample
SW-W1	10/23/13	Quarterly Characterization Sample	SW1-131023Q	
SW-W1	11/12/13	Monthly Characterization Sample	SW1-131112M	
SW-W1	12/18/13	Monthly Characterization Sample	SW1-131218M	
SW-W	10/23/13	Quarterly Characterization Sample	SW--131023Q	
SW-W	11/13/13	Monthly Characterization Sample	SW--131113M	
SW-W	11/13/13	QA/QC Sample	SW--131113D	
SW-W	12/23/13	Monthly Characterization Sample	SW--131223M	
SW-W2	10/23/13	Quarterly Characterization Sample	SW2-131023Q	
SW-W2	11/14/13	Monthly Characterization Sample	SW2-131114M	
SW-W2	12/17/13	Monthly Characterization Sample	SW2-131217M	

Table 11
Surface Water Monitoring Activities 4th Quarter 2013

Station ID	Date	Planned Activity	Sample ID	Comment
Field Blank	11/12/13	QA/QC Sample	SW1-131112F	
Field Blank	12/18/13	QA/QC Sample	SE1-131218F	
Field Blank	12/17/13	QA/QC Sample	SW2-131217M	
Staff Gages	10/22/13	Monthly Stream Gage Levels	NA	
Staff Gages	10/23/13	Monthly Stream Gage Levels	NA	
Staff Gages	11/12/13	Monthly Stream Gage Levels	NA	
Staff Gages	11/14/13	Monthly Stream Gage Levels	NA	
Staff Gages	12/17/13	Monthly Stream Gage Levels	NA	
Staff Gages	12/18/13	Monthly Stream Gage Levels	NA	

¹ No sample ID assigned, No sample collected.

TABLE 12
CEDAR HILLS LANDFILL
SUMMARY OF STORMWATER PERMIT EXCEEDANCES
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter		Sampling Location	Date	Value	Regulatory Limit	Regulation
Turbidity	NTU	SW-GS1	11/14/13	62.5	25	ISGP
TSS	mg/L	SW-GS1	11/14/13	30.8	27 (monthly average)	ISGP

ISGP - Industrial General Stormwater Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from October 1, 2013 to December 31, 2013)

Analyte	Site ID	Date	Sample ID	ug/L
Acetone	VOA Trip Blank	10/1/2013	VTRP131002B	4 T
	VOA Trip Blank	10/16/2013	VTRP131017B	5.77 B
	VOA Trip Blank	11/12/2013	VTRP131113C	4.04 B
	VOA Trip Blank	11/20/2013	VTRP131121C	6.29
	VOA Trip Blank	12/30/2013	VTRP140103C	6.75
	Method Blank	10/23/2013	WG129482-1	2.4
	Method Blank	10/29/2013	WG129583-1	2.5
	Method Blank	12/23/2013	WG130430-1	2.1
Methylene Chloride	VOA Trip Blank	10/2/2013	VTRP131003B	0.21 T
	VOA Trip Blank	10/7/2013	VTRP131008B	0.33 T
	VOA Trip Blank	10/16/2013	VTRP131017B	0.32 T
	VOA Trip Blank	11/20/2013	VTRP131121C	0.26 T
	Method Blank	10/29/2013	WG129583-1	0.31

See Data Qualifier List for Qualifier Information.

Table 14
Groundwater Quality Criteria

			Ground Water Quality Criteria	
	Analyte	CAS No.	Criterion*	
I.	PRIMARY AND SECONDARY CONTAMINANTS AND RADIONUCLIDES			
	A. Primary Contaminants			
	Barium	7440-39-3	1.0	mg/L
	Cadmium	7440-43-9	0.005	mg/L
	Chromium	7440-47-3	0.05	mg/L
	Lead	7439-92-1	0.015	mg/L
	Mercury	7439-97-6	0.002	mg/L
	Selenium	7782-49-2	0.01	mg/L
	Silver	7440-22-4	0.05	mg/L
	Fluoride	16984-48-8	4.0	mg/L
	Nitrate	14797-55-8	10.0	mg/L
	Endrin	72-20-8	0.2	ug/L
	Methoxychlor	72-43-5	40	ug/L
	1,1,1-Trichloroethane	71-55-6	200	ug/L
	2,4-D	94-75-7	70	ug/L
	2,4,5-TP	93-72-1	100	ug/L
	Total Coliforms		1/100	mL
	B. Secondary Standards			
	Copper	7440-50-8	1.0	mg/L
	Iron	7439-89-6	0.3	mg/L
	Manganese	7439-96-5	0.05	mg/L
	Zinc	7440-66-6	5.0	mg/L
	Chloride	16887-00-6	250	mg/L
	Sulfate	14808-79-8	250	mg/L
	Total Dissolved Solids		500	mg/L
	Foaming Agents		0.5	mg/L
	pH	12408-02-5	6.5-8.5	units
	Corrosivity		non-corrosive	
	Color		15	units
	Odor-Threshold		3	units
	C. Radionuclides and Radioactivity			
	Gross Alpha particle activity		15	pCi/L
	Gross Beta particle activity		50	pCi/L
	Tritium	10028-17-8	20,000	pCi/L
	Strontium	7440-24-6	8	pCi/L
	Radium 226 & Radium 228		5	pCi/L
	Radium 226	13982-63-3	3	pCi/L
II.	CARCINOGENS			
	1,1-Dichloroethane	75-34-3	1	ug/L
	1,2-Dichloroethane	107-06-2	0.5	ug/L
	1,2-Dichloropropane	78-87-5	0.6	ug/L
	1,2-Dimethylhydrazine	540-73-8	60	ug/L
	1,2-Diphenylhydrazine	122-66-7	0.09	ug/L
	1,3-Dichloropropene tot.	542-75-6	0.2	ug/L
	1,4-Dichlorobenzene	106-46-7	4	ug/L
	1,4-Dioxane	123-91-1	7	ug/L
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.000006	ug/L
	2,4,6-Trichlorophenol	88-06-2	4.0	ug/L
	2,4-Dinitrotoluene	121-14-2	0.1	ug/L
	2,4-Toluenediamine	95-80-7	0.002	ug/L
	2,6-Dinitrotoluene	606-20-2	0.1	ug/L
	2-Methoxy-5-nitroaniline	99-59-2	2.0	ug/L
	2-Methylaniline	95-53-4	0.2	ug/L
	2-Methylaniline hydrochloride	636-21-5	0.5	ug/L
	3,3'-Dichlorobenzidine	91-94-1	0.2	ug/L
	3,3'-Dimethoxybenzidine	119-90-4	6.0	ug/L
	3,3'-Dimethylbenzidine	119-93-7	0.007	ug/L
	4,4'-Methylene bis(N,N'-dimethyl) aniline	101-61-1	2.0	ug/L
	4-Chloro-2-methyl aniline	95-69-2	0.1	ug/L
	4-Chloro-2-methyl aniline hydrochloride	3165-93-3	0.2	ug/L
	Acrylamide	79-06-1	0.02	ug/L
	Acrylonitrile	107-13-1	0.07	ug/L
	Aldrin	309-00-2	0.005	ug/L
	Aniline	62-53-3	14	ug/L
	Aramite	140-57-8	3	ug/L
	Arsenic	7440-38-2	0.00005	mg/L
	Azobenzene	103-33-3	0.7	ug/L
	Benzene	71-43-2	1	ug/L

Table 14
Groundwater Quality Criteria

Analyte	CAS No.	Ground Water Quality Criteria Criterion*	
Benzidine	92-87-5	0.0004	ug/L
Benzo(a)pyrene	50-32-8	0.008	ug/L
Benzotrachloride	98-07-7	0.007	ug/L
Benzyl chloride	100-44-7	0.5	ug/L
Bis(2-ethylhexyl)phthalate	117-81-7	6	ug/L
Bis(chloroethyl)ether	111-44-4	0.07	ug/L
Bis(chloromethyl)ether	542-88-1	0.0004	ug/L
Bromodichloromethane	75-27-4	0.3	ug/L
Bromoform	75-25-2	5	ug/L
Carbazole	86-74-8	5	ug/L
Carbon Tetrachloride	56-23-5	0.3	ug/L
Chlordane	5103-71-9	0.06	ug/L
Chlorodibromomethane	124-48-1	0.5	ug/L
Chloroform	67-66-3	7	ug/L
Chlorthalonil	1897-45-6	30	ug/L
DDT (includes DDE and DDD)	50-29-3, 72-55-9, 72-54-8	0.3	ug/L
Diallate	2303-16-4	1	ug/L
Dichlorovos	62-73-7	0.3	ug/L
Dieldrin	60-57-1	0.005	ug/L
Direct Black 38	1937-37-7	0.009	ug/L
Direct Blue 6	2602-46-2	0.009	ug/L
Direct Brown 95	16071-86-6	0.009	ug/L
Epichlorohydrin	106-89-8	8	ug/L
Ethyl acrylate	140-88-5	2	ug/L
Ethylene dibromide	106-93-4	0.001	ug/L
Ethylene thiourea	96-45-7	2	ug/L
Folpet	133-07-3	20	ug/L
Furazolidone	67-45-8	0.02	ug/L
Furium	531-82-8	0.002	ug/L
Furmecyclox	60568-05-0	3	ug/L
Heptachlor	76-44-8	0.02	ug/L
Heptachlor epoxide	1024-57-3	0.009	ug/L
Hexachlorobenzene	118-74-1	0.05	ug/L
Hexachlorocyclohexane (alpha)	319-84-6	0.001	ug/L
Hexachlorocyclohexane (technical)	608-73-1	0.05	ug/L
Hexachlorodibenzo-p-dioxin, mix	34465-46-8	0.00001	ug/L
Hydrazine/hydrazine sulfate	302-01-2/10034-93-2	0.03	ug/L
Lindane	58-89-9	0.06	ug/L
Methylene Chloride	75-09-2	5	ug/L
Mirex	2385-85-5	0.05	ug/L
Nitrofurazone	59-87-0	0.06	ug/L
N-Nitrosodiethanolamine	1116-54-7	0.03	ug/L
N-Nitrosodiethylamine	55-18-5	0.0005	ug/L
N-Nitrosodimethylamine	62-75-9	0.002	ug/L
N-Nitroso-di-n-butylamine	924-16-3	0.02	ug/L
N-Nitroso-di-n-propylamine	621-64-7	0.01	ug/L
N-Nitrosodiphenylamine	86-30-6	17.0	ug/L
N-Nitroso-N-methylethylamine	10595-95-6	0.004	ug/L
N-Nitrosopyrrolidine	930-55-2	0.04	ug/L
o-Chloronitrobenzene	88-73-3	3	ug/L
o-Phenylenediamine	95-54-5	0.005	ug/L
o-Toluidine	95-53-4	0.2	ug/L
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.004	ug/L
PAHs [Benzo(a)pyrene]		0.01	ug/L
PBBs	59536-65-1	0.01	ug/L
PCBs c	27323-18-8	0.01	ug/L
p-Chloronitrobenzene	100-00-5	5	ug/L
Propylene oxide	75-56-9]	0.01	ug/L
Tetrachloroethylene	127-18-4	0.8	ug/L
Toxaphene c	8001-35-2	0.08	ug/L
Trichloroethylene (TCE)	79-01-6	3	ug/L
Trimethyl phosphate	512-56-1	2.0	ug/L
Vinyl chloride	75-01-4	0.02	ug/L
NOTES: pCi/L=picocuries per liter mg/L=milligrams per liter ug/L=micrograms per liter *Ground Water Quality Criteria=173-200 WAC Water Quality Standards for Ground Waters of the State of Washington			

TABLE 15
CEDAR HILLS LANDFILL
INDUSTRIAL STORMWATER GENERAL PERMIT
BENCHMARKS and EFFLUENT LIMITS

Parameter	Units	Minimum Sampling Frequency	Benchmark	Effluent Limit	
				Monthly Average	Daily Maximum
pH	Std. Units	Quarterly	5.0 to 9.0	6.0 to 9.0	
Turbidity	NTU	Quarterly	25	--	--
Oil Sheen	Yes/No	Quarterly	None Visible	--	--
Copper, Total	ug/L	Quarterly	14	--	--
Zinc, Total	ug/L	Quarterly	117	110	200
BOD	mg/L	Quarterly	--	37	140
TSS	mg/L	Quarterly	--	27	88
Ammonia-N	mg/L	Quarterly	--	4.9	10
Alpha Terpineol	ug/L	Quarterly	--	16	33
Benzoic Acid	ug/L	Quarterly	--	71	120
4-Methylphenol*	ug/L	Quarterly	--	14	25
Phenol	ug/L	Quarterly	--	15	26

* Analytical result reported as the total of 3-Methylphenol (CAS RN 108-39-4) and 4-Methylphenol (CAS RN 106-44-5)

TABLE 16
CEDAR HILLS REGIONAL LANDFILL
LABORATORY DATA REVIEW - SUSPECT DATA ALL MATRICES
(Data Collected from October 1, 2013 to December 31, 2013)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
Acetone	ug/L	MW-21	10/22/2013	W21-131022-	9.22 B	Blank Contamination
		MW-74	12/20/2013	W74R131220-	4.06 B	Blank Contamination
		MW-85	10/29/2013	W85-131029-	4.54 B	Blank Contamination

APPENDIX A

Potentiometric Surface Maps and Aquifer Flow Calculations



King County

Water and Land Resources Division
Department of Natural Resources and Parks
King Street Center
201 South Jackson Street, Suite 600
Seattle, WA 98104-3855
206.296.6519 Fax 206.296.0192

Memorandum

To: Tom Theno
King County Solid Waste Division

From: Sevin Bilir
King County Water & Land Resources Division

Re: **Potentiometric Groundwater Surface Mapping & Groundwater Velocity Calculations**
Fourth Quarter 2013 Results
Cedar Hills Landfill, King County, Washington
Project No. 1033379 – Task 02.14.137.20

Date: February 12, 2014

King County Water & Land Resources Division (KCWLRD) submits this letter report on groundwater conditions during the fourth quarter of 2013 for the Cedar Hills Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (KCWLRD, 2013). King County Solid Waste Division (KCSWD) personnel measured groundwater elevations at the landfill on October 1, 2 and 17, 2013. These measurements were received by KCWLRD on January 17, 2014 and were used to:

1. Evaluate the potentiometric groundwater surface elevation for the regional aquifer;
2. Determine the groundwater flow direction and horizontal gradient for the regional aquifer; and
3. Calculate the groundwater velocity of the regional aquifer.

There have been no significant changes in the interpreted groundwater conditions since the report submitted for the third quarter of the 2013 monitoring event.

Groundwater Elevation Data

KCSWD attempted groundwater level measurements at 44 monitoring wells during the fourth quarter of 2013. These wells were completed in the regional aquifer as referred to in *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill* (Aspect, 2010).

Table 1 lists the well identifications, locations, well details, measured groundwater levels and calculated groundwater elevations for the regional aquifer. Wells with screened intervals within ten feet of the water table were used for potentiometric surface mapping purposes. A total of 26 wells with water levels within ten feet of the top of screen were selected.

Figure 1 shows well locations, groundwater elevations at the 26 selected wells, groundwater potentiometric surface contours, and interpreted groundwater flow direction in the regional aquifer for the October 1, 2 and 17, 2013 measurement event.

Direction of Groundwater Flow

Figure 1 shows interpreted groundwater potentiometric surface contours and groundwater flow directions in the regional aquifer, based on the October 1, 2 and 17, 2013 measurements. Groundwater elevations indicate that groundwater in the regional aquifer generally flowed north beneath the southern and central portions of the landfill with minor components of flow to the northwest and northeast. At the northern end of the landfill, groundwater generally flowed to the north and northeast.

Groundwater Parameters

Horizontal groundwater velocity was calculated using the following formula:

$$\text{where: } v = \frac{1}{n_{eff}} K \frac{\Delta H}{\Delta L}$$

$$\begin{aligned} v &= \text{Groundwater velocity [L/t]} \\ n_{eff} &= \text{Effective porosity [dimensionless]} \\ K &= \text{Hydraulic conductivity [L/t]} \\ \frac{\Delta H}{\Delta L} &= \text{Hydraulic gradient [L/L]} \end{aligned}$$

Horizontal groundwater velocity was calculated for the regional aquifer below the landfill. Horizontal groundwater velocity was calculated for the southern, central, and northern portions of the regional aquifer, based on spatial differences in aquifer parameters and hydraulic gradients. The hydraulic conductivity and effective porosity values were based on the range referred to in the *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill* (Aspect, 2010).

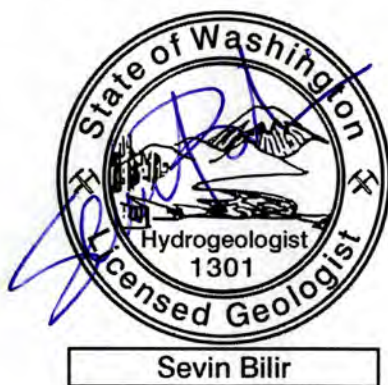
Table 2 presents a summary of the groundwater parameters used to calculate a groundwater velocity from the fourth quarter 2013 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On October 1, 2 and 17, 2013, average horizontal groundwater velocity within the regional aquifer ranged from 0.011 feet per day (ft/d) under the southern portion of the landfill to 4.1 ft/d under the central portion of the landfill.

References

- Aspect Consulting (Aspect). 2010. *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill*. Unpublished work. April 30.
- King County Water & Land Resources Division (KCWL RD). 2013. *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*. Unpublished.

Thank you for the opportunity to provide hydrogeologic services to the KCSWD. Please contact me if you have any questions.

Sincerely,



Sevin Bilir, WA LHG
Environmental Scientist III
King County Water & Land Resources Division

Attachments

-
- | | |
|-----------|---|
| Table 1: | Groundwater Elevations - Fourth Quarter 2013 |
| Table 2: | Groundwater Parameters - Fourth Quarter 2013 |
| Figure 1: | Groundwater Potentiometric Surface Map - Fourth Quarter 2013 – Regional Aquifer |

Table 1: Groundwater Elevations – Fourth Quarter 2013

Cedar Hills Landfill
King County, Washington

							October 1,2 and 17, 2013	
Regional Aquifer Unit	Well Identification	X (ft)	Y (ft)	Top of Casing Elevation (ft MSL)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Measured Depth to Water (ft)	Groundwater Elevations (ft MSL)
Wells with water levels within 10 feet of the top of screen	MW-60	1701154.47	167873.20	567.15	334.81	325.81	227.76	339.39
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	265.9	330.65
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	238.85	292.43
	MW-67	1701776.69	172610.65	516.43	297.80	284.00	221.2	295.23
	MW-68	1701917.32	170609.35	647.07	311.29	292.29	332.98	314.09
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	356.92	296.77
	MW-70	1698412.97	168699.89	530.57	322.75	309.05	205.57	325
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	362.64	309.23
	MW-73	1698954.95	174995.59	485.70	288.11	278.81	191.45	294.25
	MW-74R	1700386.85	173813.79	531.26	289.90	280.40	240.4	290.86
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	140.47	351.24
	MW-77	1700007.63	168999.71	552.67	320.47	310.97	227.24	325.43
	MW-78	1698881.94	169027.58	537.35	322.34	309.84	212.98	324.37
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	184.68	308.98
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	124.48	350.37
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	144.73	352.08
	MW-84	1698602.89	173894.54	530.80	292.46	282.96	236.64	294.16
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	246.64	285.12
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	249.53	286.51
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	248.66	288.65
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	227.36	286.32
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	309.13	323.02
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	143.12	352.39
	MW-95	1697265.32	169426.92	571.54	314.60	305.90	251.66	319.88
	MW-100	1700791.72	169610.46	620.32	319.06	309.06	298.32	322
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	191.27	284.2
Wells with water levels greater than 10 feet above the top of screen	MW-21	1697901.86	173876.38	420.66	263.22	255.22	125.53	295.13
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.85	284.24
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	146.05	329.94
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	263.84	283.22
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	278.79	301.64
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	128.22	352.11
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	105.18	351.46
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	149.88	329.39
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	124.87	332.26
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	210.08	335.75
	MW-75	1701059.70	173432.42	532.40	271.10	261.00	246.11	286.29
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	239.64	290.77
	MW-89	1701799.57	174319.44	512.82	229.20	219.90	232.31	280.51
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	222.11	280.11
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	247.41	284.61
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	200.98	292.66
	NPW-1	1701906.96	171138.99	646.33	299.87	284.87	333.95	312.38
	NPW-3	1701922.88	170663.28	645.81	284.87	276.87	332.12	313.69

Notes

1. Water level measurements made by KCSWD personnel.
2. Reference datum for XY coordinates is the North American Datum of 1927 (NAD27)
3. Elevations reported in feet above Mean Sea Level based on the National Geodetic Vertical Datum, 1929.

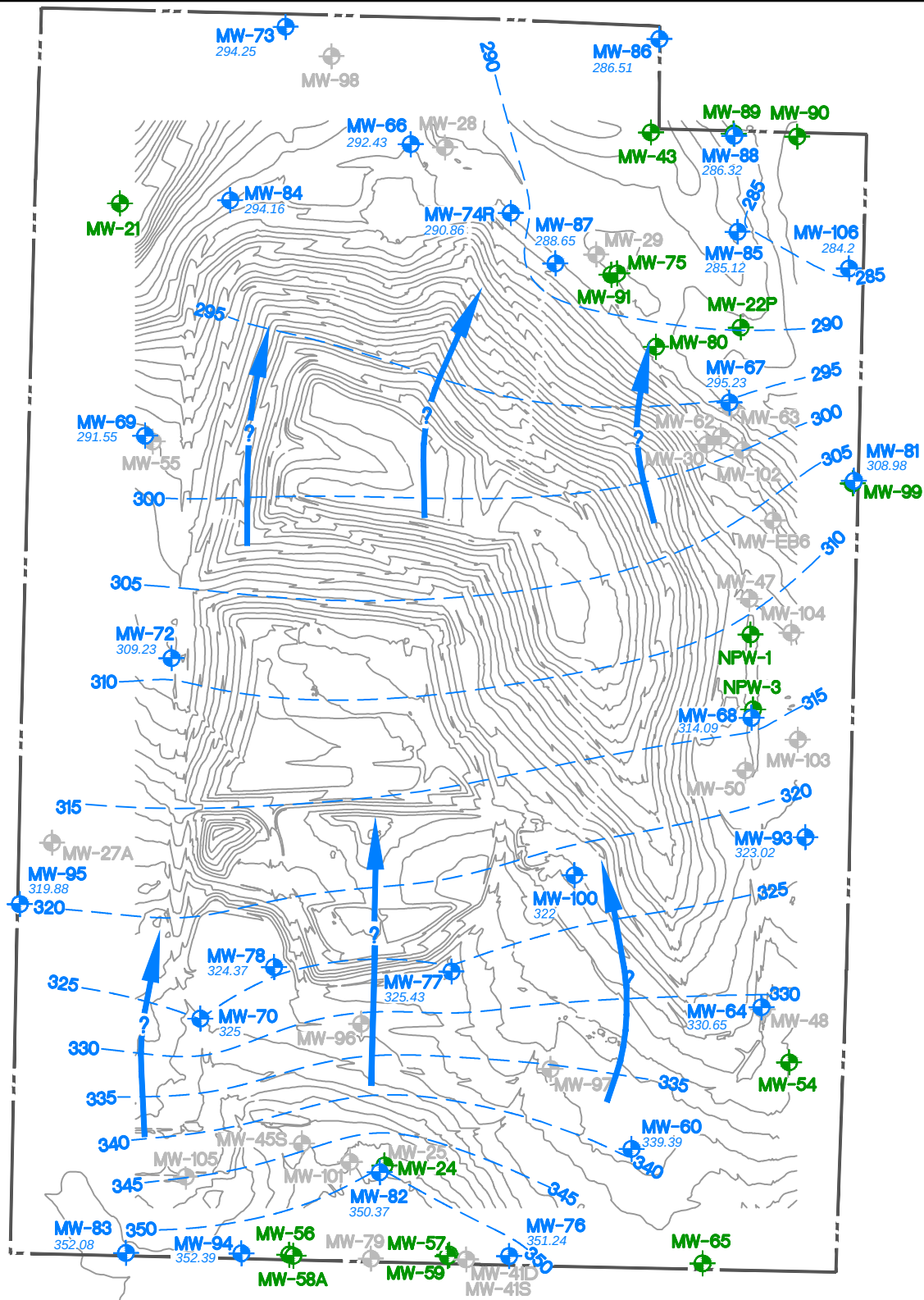
Table 2: Groundwater Parameters – Fourth Quarter 2013

Cedar Hills Landfill
King County, Washington

Regional Aquifer Zone Beneath the Landfill	Horizontal Hydraulic Conductivity (K)			Horizontal Hydraulic Gradient	Effective Porosity (n _{eff})	Horizontal Groundwater Velocity (v)	General Groundwater Flow Direction
	Range	(cm/s)	(ft/d)	(ft/ft)		(ft/d)	
Northern	Minimum	2.10E-03	6	0.007	24%	0.170	N, NW, NE
	Maximum	4.20E-02	120	0.007	24%	3.40	
	Mean	2.10E-02	60	0.007	24%	1.70	
Central	Minimum	2.10E-03	6	0.008	24%	0.20	N, NNW
	Maximum	4.20E-02	120	0.008	24%	4.1	
	Mean	2.10E-02	60	0.008	24%	2.0	
Southern	Minimum	6.40E-06	0.018	0.016	26%	0.0011	N, NNE, NNW
	Maximum	6.40E-04	1.8	0.016	26%	0.11	
	Mean	6.40E-05	0.18	0.016	26%	0.011	

Notes

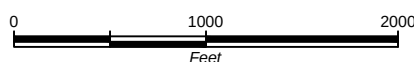
1. Horizontal hydraulic conductivity values and effective porosity values from *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010)*.
2. Hydraulic gradients measured from the potentiometric surface map shown on Figure 1.
3. Mean hydraulic conductivity values are the geometric mean of the high and low values.
4. NNE, north-northeast; NNW, north-northwest; NE, northeast; N, north



Legend

- MW-X
XXX.XX
- MW-X
- MW-X
- Well completed in Regional Aquifer within 10 feet of the water table
- Wells completed in Regional Aquifer more than 10 ft below water table
- Wells screened in discontinuous Perched Zones

- 300 — — — Regional Aquifer Groundwater Elevation Contour (feet MSL).
- ← ? — — — Inferred Horizontal Groundwater Flow Path



Notes:

- Groundwater measurements made on October 1, 2, and 17, 2013.
- Only wells completed in the Regional Aquifer within 10 feet of the water table were used for contouring.



Groundwater Potentiometric Surface Map Fourth Quarter 2013 - Regional Aquifer Cedar Hills Landfill King County, Washington

DATE:
February 2014

DESIGNED BY:
SB

DRAWN BY:
LT

REVISED BY:
SB

PROJECT NO.
1033379

FIGURE NO.
1

APPENDIX B

Field and Analytical Test Results

Groundwater Analytical Data

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: ~~Sandy Jimenez (206) 296-4411~~

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-21	10/1/2013	420.66	125.53	295.13	
MW-21	10/22/2013	420.66	125.21	295.45	
MW-22	10/1/2013	517.09	232.85	284.24	
MW-24	10/1/2013	475.99	146.05	329.94	
MW-24	10/17/2013	475.99	145.86	330.13	
MW-24	10/17/2013	475.99	145.86	330.13	
MW-25	10/1/2013	474.41	9.72	464.69	
MW-27A	10/2/2013	584.23	54.19	530.04	
MW-27A	10/8/2013	584.23	54.6	529.63	
MW-28	10/1/2013	527.75	30.06	497.69	
MW-28	10/18/2013	527.75	26.27	501.48	
MW-29	10/1/2013	532.92	13.85	519.07	
MW-30A	10/1/2013	568.43	30.51	537.92	
MW-30A	10/23/2013	568.43	30.32	538.11	
MW-41D	10/2/2013	462.32	28.14	434.18	
MW-41S	10/2/2013	462.44	10.14	452.30	
MW-43	10/17/2013	544.67	263.84	280.83	
MW-45	10/2/2013	488.4	13.84	474.56	
MW-47	10/1/2013	634.6	18.58	616.02	
MW-48	10/1/2013	594.49	46.2	548.29	
MW-50	10/2/2013	637.02	31.81	605.21	
MW-54	10/2/2013	580.43	278.79	301.64	
MW-55	10/1/2013	652.29	31.95	620.34	
MW-55	10/8/2013	652.29	31.53	620.76	
MW-56	10/1/2013	480.33	128.22	352.11	
MW-56	10/3/2013	480.33	128.25	352.08	
MW-57	10/1/2013	456.64	105.18	351.46	
MW-57	10/9/2013	456.64	104.97	351.67	
MW-58A	10/1/2013	479.27	149.88	329.39	
MW-59	10/1/2013	457.13	124.87	332.26	
MW-59	10/9/2013	457.13	124.47	332.66	
MW-60	10/1/2013	567.15	227.76	339.39	
MW-60	10/15/2013	567.15	227.78	339.37	
MW-62	10/1/2013	556.21	53.8	502.41	
MW-63	10/1/2013	515.88	16.35	499.53	
MW-64	10/1/2013	596.55	285.9	310.65	
MW-64	10/2/2013	596.55	285.92	310.63	
MW-64	10/7/2013	596.55	265.35	331.20	
MW-65	10/1/2013	545.83	210.08	335.75	
MW-65	10/15/2013	545.83	209.67	336.16	
MW-66	10/1/2013	531.28	238.85	292.43	
MW-66	10/16/2013	531.28	238.61	292.67	
MW-67	10/1/2013	516.43	221.2	295.23	
MW-67	10/15/2013	516.43	221.36	295.07	
MW-68	10/2/2013	647.07	332.98	314.09	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: ~~Sandy Jimenez (206) 296-4411~~

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)	Comment
MW-68	10/18/2013	647.07	332.84	314.23	
MW-69	10/1/2013	653.69	362.14	291.55	
MW-69	10/17/2013	653.69	356.92	296.77	
MW-70	10/1/2013	530.57	205.57	325.00	
MW-72	10/1/2013	671.87	362.64	309.23	
MW-72	10/10/2013	671.87	362.12	309.75	
MW-73	10/1/2013	485.7	191.45	294.25	
MW-73	10/16/2013	485.7	191.13	294.57	
MW-74	10/1/2013	531.26	240.4	290.86	
MW-74	10/24/2013	531.26	240.15	291.11	
MW-75	10/1/2013	532.4	246.11	286.29	
MW-75	10/24/2013	532.4	246.29	286.11	
MW-76	10/1/2013	491.71	140.47	351.24	
MW-77	10/1/2013	552.67	227.24	325.43	
MW-78	10/1/2013	537.35	212.98	324.37	
MW-79	10/1/2013	459.17	37.48	421.69	
MW-80	10/1/2013	530.41	239.64	290.77	
MW-81	10/1/2013	493.66	184.68	308.98	
MW-82	10/2/2013	474.85	124.48	350.37	
MW-83	10/1/2013	496.81	144.73	352.08	
MW-83	10/3/2013	496.81	144.74	352.07	
MW-84	10/1/2013	530.8	236.64	294.16	
MW-84	10/10/2013	530.8	236.18	294.62	
MW-85	10/1/2013	531.76	246.64	285.12	
MW-86	10/1/2013	536.04	249.53	286.51	
MW-87	10/1/2013	537.31	248.66	288.65	
MW-87	10/22/2013	537.31	248.7	288.61	
MW-88	10/1/2013	513.68	227.36	286.32	
MW-89	10/1/2013	512.82	232.31	280.51	
MW-90	10/1/2013	502.22	222.11	280.11	
MW-90	10/18/2013	502.22	221.95	280.27	
MW-91	10/1/2013	532.02	247.41	284.61	
MW-93	10/2/2013	632.15	309.13	323.02	
MW-94	10/1/2013	495.51	143.12	352.39	
MW-95	10/1/2013	571.54	251.66	319.88	
MW-95	10/24/2013	571.54	251.45	320.09	
MW-96	10/1/2013	547.74	99.31	448.43	
MW-97	10/1/2013	564.54	112.94	451.60	
MW-98	10/1/2013	503.73	15.31	488.42	
MW-99	10/1/2013	493.64	200.98	292.66	
MW-99	10/22/2013	493.64	201.06	292.58	
MW-100	10/2/2013	620.32	298.32	322.00	
MW-100	10/17/2013	620.32	298.24	322.08	
MW-101	10/1/2013	474.72	34.74	439.98	
MW-101	10/31/2013	474.72	33.39	441.33	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: ~~Sandy Jimenez (206) 296-4411~~

Site	Date	Reference Elevation	Depth to Water	Ground- Water Elevation	Comment
		(msl)	(feet)	(msl)	
MW-102	10/1/2013	552.48	47.19	505.29	
MW-103	10/2/2013	639.08	13.81	625.27	
MW-104	10/1/2013	629.68	28.12	601.56	
MW-105	10/1/2013	521.23	23.6	497.63	
MW-106	10/1/2013	475.47	191.27	284.20	
MW-EB6	10/1/2013	589.61	30	559.61	
WS-NPW-1	10/1/2013	646.33	333.95	312.38	
WS-NPW-3	10/1/2013	645.81	332.12	313.69	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umho/cm)	(°C)	(gal)
MW-21	10/22/2013	W21-131022-	7.57	110	9	7
MW-24	10/17/2013	W24-131017-	7.14	165	9.3	14
MW-27A	10/8/2013	W27A131008-	7.75	160	9.8	8.8
MW-28	10/18/2013	W28-131018-	5.98	98	10.2	12
MW-30A	10/14/2013	W30A131014-	6.29	330	11.9	5
MW-43	10/17/2013	W43-131017-	7.45	165	9.4	13
MW-47	10/28/2013	W47-131028-	6.75	650	10.9	24
MW-55	10/8/2013	W55-131008-	7.69	130	9.8	11
MW-56	10/3/2013	W56-131003-	7.02	140	9.2	25
MW-59	10/9/2013	W59-131009-	6.97	160	9.5	27.5
MW-60	10/15/2013	W60-131015-	6.96	165	9.1	12
MW-62	10/28/2013	W62-131028-	6.79	140	9.8	1.2
MW-64	10/7/2013	W64-131007-	7.03	200	11.4	8.5
MW-65	10/15/2013	W65-131015-	6.9	140	9	21
MW-66	10/16/2013	W66-131016-	7.39	210	9.7	11
MW-67	10/15/2013	W67-131015-	7.3	295	9.3	9.5
MW-68	10/18/2013	W68-131018-	7.18	265	10.4	17.3
MW-69	10/17/2013	W69-131017-	7.53	210	9.4	12
MW-70	10/21/2013	W70-131021-	7.53	185	10	16.5
MW-72	10/10/2013	W72-131010-	7.09	250	10	12.5
MW-73	10/16/2013	W73-131016-	6.12	98	9.3	10.5
MW-74	10/24/2013	W74R131024-	6.95	370	9.8	6
MW-74	12/20/2013	W74R131220-	7.16	360	9.3	6
MW-75	10/24/2013	W75-131024-	6.87	240	9.3	11.5
MW-75	12/20/2013	W75-131220-	6.97	240	8.9	14
MW-76	10/31/2013	W76-131031-	6.27	160	9.5	6
MW-77	10/25/2013	W77-131025-	6.74	170	10.2	10
MW-78	10/25/2013	W78-131025-	6.36	100	10.3	12
MW-80	10/31/2013	W80-131031-	7.15	270	10.1	7.6
MW-81	10/25/2013	W81-131025-	7.47	130	9.9	7
MW-83	10/3/2013	W83-131003-	6.87	300	10.3	3.6
MW-84	10/10/2013	W84-131010-	6.87	140	9.5	7
MW-85	10/29/2013	W85-131029-	6.89	220	9	7.5
MW-86	10/29/2013	W86-131029-	6.68	140	8.9	7.5
MW-87	10/22/2013	W87-131022-	6.95	400	10.1	7
MW-87	11/21/2013	W87-131121-	6.89	400	9.8	8
MW-87	12/20/2013	W87-131220-	6.84	390	9.7	9.2
MW-88	10/28/2013	W88-131028-	7.42	120	9.4	9
MW-89	11/28/2013	W89-131028-	7.4	180	9.3	8.3
MW-90	10/18/2013	W90-131018-	7.35	160	9.2	10
MW-91	10/28/2013	W91-131028-	6.8	210	9.7	8
MW-93	10/29/2013	W93-131029-	7.22	340	11.1	16.3
MW-94	10/25/2013	W94-131025-	7.05	260	9.4	6.3
MW-95	10/24/2013	W95-131024-	7.51	200	9.3	9.5
MW-99	10/22/2013	W99-131022-	8.03	130	9.6	10.5

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umho/cm)	(°C)	(gal)
MW-99	11/21/2013	W99-131121-	7.94	120	9.8	12.7
MW-99	12/20/2013	W99-131220-	7.76	120	9.6	14
MW-100	10/17/2013	W100131017-	6.89	230	10.5	8.5
MW-101	10/21/2013	W101131022-	6.82	420	10.3	6.2
MW-EB6	11/20/2013	WB6-131120-	5.41	170	9.1	2.4
EQUIPMENT BLANK	10/22/2013	WU1S131022E	7.01	4.35	12.2	
EQUIPMENT BLANK	10/22/2013	WU1H131022E	6.51	4.1	12.6	
FIELD BLANK	10/8/2013	W27A131008F	6.29	42	17.8	
FIELD BLANK	10/24/2013	W95-131024F	6.92	3.7	10.8	
FIELD BLANK	10/31/2013	W76-131031F	5.98	4.2	12.7	
FIELD BLANK	11/20/2013	WB6-131120F	6.59	3.5	10.2	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: ~~Sandy Jimenez (206) 296-4411~~

Site	Date	Sample ID	Alkalinity, Total (CaCO ₃)	Ammonia, (NH ₃)	Chloride	Nitrate- Nitrogen, (NO ₃ as N)	Specific Conductanc	Sulfate (SO ₄)	Total Dissolved Solids	Total Organic Carbon	Total Solids	Suspended Solids
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	10/22/2013	W21-131022-	49.2	0.0109	2.78	< 0.01 U	124	4.54	74.4	< 1 U	81.4	3.9
MW-24	10/17/2013	W24-131017-	59.3	0.0385	3.69	< 0.01 U	175	15.9	112	< 1 U	119	1.4
MW-27A	10/8/2013	W27A131008-	78.1	0.196	4.23	0.021 T	200	9.22	138	< 1 U	142	< 1 U
MW-28	10/18/2013	W28-131018-	25.9	< 0.01 U	4.41	0.263	111	14.5	78.6	< 1 U	84.9	< 1 U
MW-28	10/18/2013	W28-131018D	24.8	< 0.01 U	4.11	0.295	112	14.3	82	1.08	83.6	< 1 U
MW-30A	10/14/2013	W30A131014-	169	< 0.01 U	1.66	1.58	388	13.9	245	1.2	257	1 T
MW-43	10/17/2013	W43-131017-	64	0.0216	3.82	< 0.01 U	181	13.1	117	< 1 U	121	2.4
MW-47	10/28/2013	W47-131028-	676	0.0882	6.33	< 0.01 U	1160	5.33	678	4.08	717	6.2
MW-55	10/8/2013	W55-131008-	57.7	0.0565	2.04	0.022 T	159	10.8	118	< 1 U	130	7
MW-56	10/3/2013	W56-131003-	52.4	< 0.01 U	3.86	0.023 T	173	19.1	107	< 1 U	111	1.4
MW-57	10/9/2013	W57-131009-	63.7	0.028 T	5.89	0.016 T	202	17.7	149	< 1 U	165	2.7
MW-59	10/9/2013	W59-131009-	57.4	0.012 T	4.55	< 0.01 U	180	17.5	115	< 1 U	121	2.2
MW-60	10/15/2013	W60-131015-	71.5	< 0.01 U	2.36	1.33	188	6.79	119	< 1 U	125	< 1 U
MW-62	10/28/2013	W62-131028-	49.2	< 0.01 U	5.02	3.53	203	20.3	132	1.21	139	1.7
MW-64	10/7/2013	W64-131007-	80.5	0.0298	3.73	0.0857	254	22.4	151	< 1 U	163	11
MW-65	10/15/2013	W65-131015-	50.1	0.014	4.15	0.012 T	161	16.5	106	< 1 U	111	6.6
MW-66	10/15/2013	W66-131016-	107	< 0.01 U	7.48	0.759	281	14.5	158	< 1 U	169	< 1 U
MW-67	10/15/2013	W67-131015-	121	< 0.01 U	4.66	0.429	341	36.8	206	< 1 U	211	< 1 U
MW-68	10/18/2013	W68-131018-	128	0.0153	2.74	< 0.01 U	294	16.1	173	< 1 U	202	16.5
MW-69	10/17/2013	W69-131017-	121	0.01 T	4.15	< 0.01 U	296	13	175	< 1 U	184	4.8
MW-70	10/21/2013	W70-131021-	73.6	< 0.01 U	5.03	0.0487	212	13.8	132	< 1 U	140	< 1 U
MW-72	10/10/2013	W72-131010-	107	0.0142	4.68	< 0.01 U	317	37.2	200	< 1 U	206	4.7
MW-73	10/16/2013	W73-131016-	32.8	0.012	2.48	1.31	112	9.01	82.9	1.23	81.2	< 1 U
MW-74	10/24/2013	W74R131024-	198	< 0.01 U	22.9	0.445	518	22.9	291	< 1 U	309	< 1 U
MW-75	10/24/2013	W75-131024-	89.3	< 0.01 U	8.09	< 0.01 U	317	44.5	192	< 1 U	201	3.6
MW-76	10/31/2013	W76-131031-	56.4	< 0.01 U	10.6	0.495	196	12.3	118	1.39	118	< 1 U
MW-77	10/25/2013	W77-131025-	91.8	< 0.01 U	4.39	0.828	237	7.79	140	< 1 U	148	2.1
MW-78	10/25/2013	W78-131025-	64.2	< 0.01 U	7.11	1.12	192	7.16	130	< 1 U	125	< 1 U
MW-80	10/31/2013	W80-131031-	83	< 0.01 U	5.54	0.017 T	290	43.8	180	< 1 U	190	4.1
MW-81	10/25/2013	W81-131025-	43.2	< 0.01 U	3.52	1.62	140	7.08	92.4	< 1 U	94.4	< 1 U
MW-83	10/3/2013	W83-131003-	123	< 0.01 U	30.6	0.776	387	8.51	236	2.47	251	1.2 T
MW-84	10/10/2013	W84-131010-	53.9	< 0.01 U	3.71	0.576	166	12.4	106	< 1 U	109	< 1 U
MW-85	10/29/2013	W85-131029-	84	0.015	7.54	0.199	291	33.5	171	< 1 U	181	< 1 U
MW-86	10/29/2013	W86-131029-	58.5	< 0.01 U	4.83	0.322	181	16.4	104	< 1 U	113	1.7
MW-87	10/22/2013	W87-131022-	81.2	0.0146	5.86	< 0.01 U	468	132	321	< 1 U	344	10
MW-88	10/28/2013	W88-131028-	46.8	< 0.01 U	2.22	0.611	131	6.45	86.9	< 1 U	85.5	< 1 U
MW-89	10/28/2013	W89-131028-	68.3	0.0184	4.04	0.011 T	196	15.5	125	< 1 U	129	3.44
MW-90	10/18/2013	W90-131018-	64.5	0.0125	4	0.012 T	208	25.5	133	< 1 U	147	5
MW-91	10/28/2013	W91-131028-	80.9	0.0369	7.98	0.03 T	293	40.4	180	< 1 U	247	49.7
MW-93	10/29/2013	W93-131029-	102	0.0537	2.66	0.017 T	393	76.5	251	< 1 U	261	< 1 U
MW-94	10/25/2013	W94-131025-	96.8	< 0.01 U	17.4	0.902	294	5.92	179	2.4	185	< 1 U
MW-95	10/24/2013	W95-131024-	77.3	0.0218	5	< 0.01 U	220	16	128	< 1 U	134	< 1 U
MW-99	10/22/2013	W99-131022-	48.6	0.0791	3.01	0.124	136	7.43	90.6	< 1 U	93.8	< 1 U
MW-100	10/17/2013	W100131017-	121	< 0.01 U	3.07	0.011 T	309	19.7	179	< 1 U	190	7
MW-101	10/22/2013	W101131022-	286	< 0.01 U	3.94	< 0.01 U	569	4.77	341	4.95	358	3.2

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: ~~Sandy Jimenez (206) 296-4411~~

Site	Date	Sample ID	Alkalinity, Total (CaCO ₃)	Ammonia, (NH ₃)	Chloride	Nitrate- Nitrogen, (NO ₃ as N)	Specific Conductanc	Sulfate (SO ₄)	Total Dissolved Solids	Total Organic Carbon	Total Solids	Suspended Solids
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(umho/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-EB6	11/20/2013	WB6-131120-	160	2.35	0.794	10.6	495	32.7	430	4.66	453	16.4
SW-E1	12/18/2013	SE1-131218F	1.4 T	< 0.01 U	< 0.1 U	0.099 T	3.5 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
EQUIPMENT BLANK	10/22/2013	WU1S131022E		< 0.01 U								
EQUIPMENT BLANK	10/22/2013	WU1H131022E		< 0.01 U								
FIELD BLANK	10/8/2013	W27A131008F	1.2 T	< 0.01 U	< 0.1 U	0.039 T	5.3	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
FIELD BLANK	10/24/2013	W95-131024F	1.4 T	< 0.01 U	< 0.1 U	0.039 T	3.8 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
FIELD BLANK	10/31/2013	W76-131031F	1.2 T	< 0.01 U	< 0.1 U	0.0795	4 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
FIELD BLANK	11/20/2013	WB6-131120F	1.7 T	< 0.01 U	< 0.1 U	0.038 T	3.8 T	< 0.1 U	< 5 U	< 1 U	< 5 U	6.9

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill ---Groundwater Metals Analytical Data
 Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Antimony, dissolved (mg/L)	Antimony, total (mg/L)	Arsenic, dissolved (mg/L)	Arsenic, total (mg/L)	Barium, dissolved (mg/L)	Barium, total (mg/L)	Beryllium, dissolved (mg/L)	Beryllium, total (mg/L)	Cadmium, dissolved (mg/L)	Cadmium, total (mg/L)	Calcium, dissolved (mg/L)	Calcium, total (mg/L)
MW-21	10/22/2013	W21-131022-	< 0.001 DU	< 0.001 U	< 0.001 U	0.00108	0.00319	0.00298	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	10.5	10.1
MW-24	10/17/2013	W24-131017-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00167	0.00197	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	12.2	14
MW-27A	10/8/2013	W27A131008-	< 0.001 U	< 0.001 U	0.0151	0.0156	0.00475	0.00482	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	18.3	19.6
MW-28	10/18/2013	W28-131018-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00544	0.00637	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	8.62	9.79
MW-28	10/18/2013	W28-131018D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00547	0.00626	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	8.67	9.88
MW-30A	10/14/2013	W30A131014-	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	0.00735	0.00774 D	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 DU	37.2	34 D
MW-43	10/17/2013	W43-131017-	< 0.001 HU	< 0.001 U	< 0.001 HU	< 0.001 U	0.00568 H	0.00688 D	< 0.001 HU	< 0.001 U	< 0.002 HU	< 0.002 DU	11.9 H	13.5
MW-47	10/28/2013	W47-131028-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0376	0.039	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	126 D	134
MW-55	10/8/2013	W55-131008-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00442	0.00622	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	11.6	12.7
MW-56	10/3/2013	W56-131003-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00354	0.0043	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	14.8	15.8
MW-57	10/9/2013	W57-131009-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00146	0.00157	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	14.8	15.8
MW-59	10/9/2013	W59-131009-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00298	0.00319	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.1	14.2
MW-60	10/15/2013	W60-131015-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00263	0.00302 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU	15.6	17.5
MW-62	10/28/2013	W62-131028-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00189	0.00249	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	15.1	17.6
MW-64	10/7/2013	W64-131007-	< 0.001 U	< 0.001 U	< 0.001 U	0.00389	0.00842	0.0115	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	18.2	20.8
MW-65	10/15/2013	W65-131015-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0065	0.00759 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU	11.3	12.9
MW-66	10/15/2013	W66-131016-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00535	0.00647	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	18.7	21.7
MW-67	10/15/2013	W67-131015-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00845	0.00953 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU	27.2	30.9 D
MW-68	10/18/2013	W68-131018-	< 0.001 U	< 0.001 U	0.0035	0.0328	0.0103	0.0152	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	24.1	27
MW-69	10/17/2013	W69-131017-	< 0.001 U	< 0.001 U	0.00223	0.00277	0.0104	0.0127 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU	26.4	30.9 D
MW-70	10/21/2013	W70-131021-	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	0.00214	0.00208	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	19	18.4
MW-72	10/10/2013	W72-131010-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00924	0.0103	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	25.1	26.8
MW-73	10/16/2013	W73-131016-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0025	0.00291	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	10.4	11.8
MW-74	10/24/2013	W74R131024-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0111	0.0109	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	41.4	42.1
MW-75	10/24/2013	W75-131024-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0097	0.0102	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	23.9	25.3
MW-76	10/31/2013	W76-131031-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00292	0.0031	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	18	18.4
MW-77	10/25/2013	W77-131025-	< 0.001 U	< 0.001 U	< 0.001 U	0.00127	0.00286	0.00472	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	21	22.4
MW-78	10/25/2013	W78-131025-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00187	0.00177	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	16.2	17
MW-80	10/31/2013	W80-131031-	< 0.001 U	< 0.001 U	0.00381	0.00581	0.0122	0.0135	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	28.4	28.4
MW-81	10/25/2013	W81-131025-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00271	0.00269	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	11.2	11.6
MW-83	10/3/2013	W83-131003-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00595	0.0066	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	37.3	41.3
MW-84	10/10/2013	W84-131010-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0031	0.00336	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	10.3	11
MW-85	10/29/2013	W85-131029-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00528	0.0052	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	24.4	26.2
MW-86	10/29/2013	W86-131029-	< 0.001 U	< 0.001 U	< 0.001 U	0.00114	0.00452	0.00459	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.5	14.3
MW-87	10/22/2013	W87-131022-	< 0.001 DU	< 0.001 U	< 0.001 U	0.00182	0.0216	0.0217	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	38.8	38.1
MW-88	10/28/2013	W88-131028-	< 0.001 U	< 0.001 U	0.0011	0.00102	0.0027	0.00237	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	8.93	9.46
MW-89	10/28/2013	W89-131028-	< 0.001 U	< 0.001 U	0.00109	0.00368	0.00616	0.00699	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.7	14.1
MW-90	10/18/2013	W90-131018-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00505	0.00646	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	15.5	17.4
MW-91	10/28/2013	W91-131028-	< 0.001 U	< 0.001 U	0.002	0.0408	0.0103	0.0192	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	22.9	24.2
MW-93	10/29/2013	W93-131029-	< 0.001 U	< 0.001 U	0.00147	0.00135	0.00878	0.00874	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	37.5	39.3
MW-94	10/25/2013	W94-131025-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00226	0.00219	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	27.4	29.1
MW-95	10/24/2013	W95-131024-	< 0.001 U	< 0.001 U	0.00102	< 0.001 U	0.00365	0.00365	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	20.1	20.5
MW-99	10/22/2013	W99-131022-	< 0.001 DU	< 0.001 U	0.00214	0.00215	0.00287	0.00298	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	9.24	9.55
MW-100	10/17/2013	W100131017-	< 0.001 U	< 0.001 U	< 0.001 U	0.00202	0.00668	0.00823 D	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 DU	25.1	29.1 D
MW-101	10/22/2013	W101131022-	< 0.001 DU	< 0.001 U	0.00269	0.00285	0.0229	0.0239	< 0.001 DU	< 0.001 U	< 0.002 U	< 0.002 U	56.8 D	57.8 D

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total	Calcium, dissolved	Calcium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-EB6	11/20/2013	WB6-131120-	< 0.001 U	< 0.001 U	< 0.001 U	0.00117	0.0142	0.0202	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	8.74	9.53
EQUIPMENT BLANK	10/22/2013	WU1S131022E	< 0.001 U		< 0.001 U		< 0.001 U		< 0.001 U		< 0.002 U		< 0.01 U	
EQUIPMENT BLANK	10/22/2013	WU1H131022E	< 0.001 U		< 0.001 U		< 0.001 U		< 0.001 U		< 0.002 U		< 0.01 U	
FIELD BLANK	10/8/2013	W27A131008F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill ---Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)
MW-21	10/22/2013	W21-131022-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.74	2.73	< 0.001 U	< 0.001 U	4.85	5.46
MW-24	10/17/2013	W24-131017-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.79	3.35	< 0.001 U	< 0.001 U	8.03	8.89
MW-27A	10/8/2013	W27A131008-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	5.06	5.4
MW-28	10/18/2013	W28-131018-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.01 T	< 0.001 U	< 0.001 U	2.14	2.39
MW-28	10/18/2013	W28-131018D	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	2.14	2.41
MW-30A	10/14/2013	W30A131014-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 U	< 0.01 U	0.181	< 0.001 U	< 0.001 U	17.2	19.1
MW-43	10/17/2013	W43-131017-	< 0.005 HU	< 0.005 U	< 0.003 HU	< 0.003 DU	< 0.002 HU	< 0.002 U	0.411 H	1.6	< 0.001 HU	< 0.001 U	8.23 H	9.05
MW-47	10/28/2013	W47-131028-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.336	0.761	< 0.001 U	< 0.001 U	59.2 D	70.8
MW-55	10/8/2013	W55-131008-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.304	0.626	< 0.001 U	< 0.001 U	6.13	6.56
MW-56	10/3/2013	W56-131003-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.032 T	0.246	< 0.001 U	< 0.001 U	7.25	7.88
MW-57	10/9/2013	W57-131009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	7.7	8.37	< 0.001 U	< 0.001 U	8.16	8.55
MW-59	10/9/2013	W59-131009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	3.78	4.19	< 0.001 U	< 0.001 U	7.96	8.47
MW-60	10/15/2013	W60-131015-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 U	0.039 T	0.0823	< 0.001 U	< 0.001 U	7.42	8.06
MW-62	10/28/2013	W62-131028-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.0957	< 0.001 U	< 0.001 U	5.04	6.01
MW-64	10/7/2013	W64-131007-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0954	1.36	< 0.001 U	< 0.001 U	13.1	14.7
MW-65	10/15/2013	W65-131015-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 U	3.97	4.8	< 0.001 U	< 0.001 U	6.66	7.45
MW-66	10/15/2013	W66-131016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.033 T	< 0.001 U	< 0.001 U	14.6	16.5
MW-67	10/15/2013	W67-131015-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 U	0.142	0.195	< 0.001 U	< 0.001 U	16.3	17.5
MW-68	10/18/2013	W68-131018-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.73	4.97	< 0.001 U	< 0.001 U	13.3	14.1
MW-69	10/17/2013	W69-131017-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 U	0.949	1.36	< 0.001 U	< 0.001 U	12.5	13.9
MW-70	10/21/2013	W70-131021-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.027 T	< 0.001 U	< 0.001 U	8.39	9.54
MW-72	10/10/2013	W72-131010-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.59	2.29	< 0.001 U	< 0.001 U	15.1	15.9
MW-73	10/16/2013	W73-131016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00297	0.00363	< 0.01 U	0.012 T	< 0.001 U	< 0.001 U	2.97	3.36
MW-74	10/24/2013	W74R131024-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.042 T	< 0.001 U	< 0.001 U	31.5	33.3
MW-75	10/24/2013	W75-131024-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.74	1.93	< 0.001 U	< 0.001 U	17.7	18.8
MW-76	10/31/2013	W76-131031-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	8.27	8.58
MW-77	10/25/2013	W77-131025-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.378	< 0.001 U	< 0.001 U	11.4	11.9
MW-78	10/25/2013	W78-131025-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	7.7	8.18
MW-80	10/31/2013	W80-131031-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.44	2.44	< 0.001 U	< 0.001 U	14.4	14.7
MW-81	10/25/2013	W81-131025-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.037 T	< 0.001 U	< 0.001 U	5.97	6.24
MW-83	10/3/2013	W83-131003-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.028 T	< 0.001 U	< 0.001 U	14.9	16.5
MW-84	10/10/2013	W84-131010-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	7.94	8.33
MW-85	10/29/2013	W85-131029-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.01 T	< 0.001 U	< 0.001 U	15	15.9
MW-86	10/29/2013	W86-131029-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.345	0.831	< 0.001 U	< 0.001 U	9.03	9.75
MW-87	10/22/2013	W87-131022-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	3.88	4.97	< 0.001 U	< 0.001 U	19.7	24.2
MW-88	10/28/2013	W88-131028-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	6.72	7.09
MW-89	10/28/2013	W89-131028-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.785	2.55	< 0.001 U	< 0.001 U	9.8	10.2
MW-90	10/18/2013	W90-131018-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.947	2.13	< 0.001 U	< 0.001 U	9.04	9.7
MW-91	10/28/2013	W91-131028-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.36	30.1	< 0.001 U	< 0.001 U	14.5	15.8
MW-93	10/29/2013	W93-131029-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.013 T	< 0.001 U	< 0.001 U	19.2	20.4
MW-94	10/25/2013	W94-131025-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	12.1	13
MW-95	10/24/2013	W95-131024-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	10.7	11.1
MW-99	10/22/2013	W99-131022-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.026 T	0.131	< 0.001 U	< 0.001 U	3.72	4.26
MW-100	10/17/2013	W100131017-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	0.00226	1.71	4.25	< 0.001 U	< 0.001 U	14.7	16.4
MW-101	10/22/2013	W101131022-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.673	0.86	< 0.001 U	< 0.001 U	24	28

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Chromium, dissolved (mg/L)	Chromium, total (mg/L)	Cobalt, dissolved (mg/L)	Cobalt, total (mg/L)	Copper, dissolved (mg/L)	Copper, total (mg/L)	Iron, dissolved (mg/L)	Iron, total (mg/L)	Lead, dissolved (mg/L)	Lead, total (mg/L)	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)
MW-EB6	11/20/2013	WB6-131120-	< 0.005 U	< 0.005 U	0.00805	0.0114	0.00226	0.00532	0.923	2.23	< 0.001 U	< 0.001 U	4.6	5.03
EQUIPMENT BLANK	10/22/2013	WU1S131022E	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
EQUIPMENT BLANK	10/22/2013	WU1H131022E	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
FIELD BLANK	10/8/2013	W27A131008F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill ---Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Manganese, dissolved (mg/L)	Manganese, total (mg/L)	Mercury, dissolved (mg/L)	Mercury, total (mg/L)	Nickel, dissolved (mg/L)	Nickel, total (mg/L)	Potassium, dissolved (mg/L)	Potassium, total (mg/L)	Selenium, dissolved (mg/L)	Selenium, total (mg/L)
MW-21	10/22/2013	W21-131022-	0.0758	0.0854	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.1	0.999	< 0.001 U	< 0.001 U
MW-24	10/17/2013	W24-131017-	0.0997	0.131	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.791	0.959	< 0.001 U	< 0.001 U
MW-27A	10/8/2013	W27A131008-	0.0523	0.052	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	3.34	3.6	< 0.001 U	< 0.001 U
MW-28	10/18/2013	W28-131018-	0.0016	0.00521	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.847	1.01	< 0.001 U	< 0.001 U
MW-28	10/18/2013	W28-131018D	0.00163	0.00549	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.851	1.03	< 0.001 U	< 0.001 U
MW-30A	10/14/2013	W30A131014-	< 0.001 U	0.00252 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.89	1.96	< 0.001 U	< 0.001 U
MW-43	10/17/2013	W43-131017-	0.199 H	0.236 D	< 0.0001 HU	< 0.0001 U	< 0.01 HU	< 0.01 U	1.19 H	1.44	< 0.001 HU	< 0.001 U
MW-47	10/28/2013	W47-131028-	1.96	2.02	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	5.9	5.32	< 0.001 DU	< 0.001 U
MW-55	10/8/2013	W55-131008-	0.144	0.18	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	1.49	1.68	< 0.001 U	< 0.001 U
MW-56	10/3/2013	W56-131003-	0.142	0.144 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.08	1.1	< 0.001 U	< 0.001 U
MW-57	10/9/2013	W57-131009-	0.229	0.245	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	0.801	0.897	< 0.001 U	< 0.001 U
MW-59	10/9/2013	W59-131009-	0.0952	0.103	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	0.934	1.07	< 0.001 U	< 0.001 U
MW-60	10/15/2013	W60-131015-	< 0.001 U	0.00136 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.977	1.18	< 0.001 U	< 0.001 U
MW-62	10/28/2013	W62-131028-	0.00132	0.00567	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.91	1.06	< 0.001 U	< 0.001 U
MW-64	10/7/2013	W64-131007-	0.042	0.213 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.44	1.49	< 0.001 U	< 0.001 U
MW-65	10/15/2013	W65-131015-	0.194	0.222 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.845	1.01	< 0.001 U	< 0.001 U
MW-66	10/15/2013	W66-131016-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.11	1.35	< 0.001 U	< 0.001 U
MW-67	10/15/2013	W67-131015-	0.0812	0.0964 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.41	1.66	< 0.001 U	< 0.001 U
MW-68	10/18/2013	W68-131018-	0.236	0.297	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.45	1.64	< 0.001 U	< 0.001 U
MW-69	10/17/2013	W69-131017-	0.202	0.243 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.48	1.81	< 0.001 U	< 0.001 U
MW-70	10/21/2013	W70-131021-	< 0.001 U	0.0103	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.55	1.45	< 0.001 U	< 0.001 U
MW-72	10/10/2013	W72-131010-	0.276	0.294	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	1.63	1.78	< 0.001 U	< 0.001 U
MW-73	10/16/2013	W73-131016-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.711	0.858	< 0.001 U	< 0.001 U
MW-74	10/24/2013	W74R131024-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.03	2.03	< 0.001 U	< 0.001 U
MW-75	10/24/2013	W75-131024-	0.159	0.174	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.76	1.81	< 0.001 U	< 0.001 U
MW-76	10/31/2013	W76-131031-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.18	1.3	< 0.001 U	< 0.001 U
MW-77	10/25/2013	W77-131025-	0.00407	0.159	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.34	1.39	0.00111	< 0.001 U
MW-78	10/25/2013	W78-131025-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.16	2.16	< 0.001 U	< 0.001 U
MW-80	10/31/2013	W80-131031-	0.268	0.258	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.59	1.58	< 0.001 U	< 0.001 U
MW-81	10/25/2013	W81-131025-	< 0.001 U	0.00205	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.762	0.771	< 0.001 U	< 0.001 U
MW-83	10/3/2013	W83-131003-	< 0.001 U	0.00657 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.74	2.84	< 0.001 U	< 0.001 U
MW-84	10/10/2013	W84-131010-	0.00212	0.00386	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	0.896	0.992	< 0.001 U	< 0.001 U
MW-85	10/29/2013	W85-131029-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.45	1.47	0.00134	0.0011
MW-86	10/29/2013	W86-131029-	0.00874	0.0123	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.17	1.19	0.00103	< 0.001 U
MW-87	10/22/2013	W87-131022-	0.336	0.374	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.13	2.16	< 0.001 U	< 0.001 U
MW-88	10/28/2013	W88-131028-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.843	0.848	< 0.001 U	< 0.001 U
MW-89	10/28/2013	W89-131028-	0.254	0.287	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.46	1.48	< 0.001 U	< 0.001 U
MW-90	10/18/2013	W90-131018-	0.239	0.313	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.21	1.44	< 0.001 U	< 0.001 U
MW-91	10/28/2013	W91-131028-	0.358	0.429	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.71	1.74	< 0.001 U	< 0.001 U
MW-93	10/29/2013	W93-131029-	0.288	0.301	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.63	1.65	< 0.001 U	< 0.001 U
MW-94	10/25/2013	W94-131025-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.15	2.15	< 0.001 U	< 0.001 U
MW-95	10/24/2013	W95-131024-	0.138	0.151	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.19	1.2	< 0.001 U	< 0.001 U
MW-99	10/22/2013	W99-131022-	0.0701	0.0858	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.859	0.86	< 0.001 U	< 0.001 U
MW-100	10/17/2013	W100131017-	0.233	0.283 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.72	2.08	< 0.001 U	< 0.001 U
MW-101	10/22/2013	W101131022-	0.902 D	1.04 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.4	2.63	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Manganese, dissolved	Manganese, total	Mercury, dissolved	Mercury, total	Nickel, dissolved	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-EB6	11/20/2013	WB6-131120-	0.479	0.491	< 0.0001 U	< 0.0001 U	0.0132	0.0195	2.71	2.1	< 0.001 U	< 0.001 U
EQUIPMENT BLANK	10/22/2013	WU1S131022E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	
EQUIPMENT BLANK	10/22/2013	WU1H131022E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	
FIELD BLANK	10/8/2013	W27A131008F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 DU	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill ---Groundwater Metals Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-21	10/22/2013	W21-131022-	< 0.003 DU	< 0.003 U	4.63	4.88	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-24	10/17/2013	W24-131017-	< 0.003 U	< 0.003 U	5.03	5.56	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-27A	10/8/2013	W27A131008-	< 0.003 U	< 0.003 U	6.2	6.47	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-28	10/18/2013	W28-131018-	< 0.003 U	< 0.003 U	5.89	6.35	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-28	10/18/2013	W28-131018D	< 0.003 U	< 0.003 U	5.86	6.38	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-30A	10/14/2013	W30A131014-	< 0.003 DU	< 0.003 DU	11.4	12.9	< 0.001 U	< 0.001 DU	< 0.002 U	0.00209	< 0.004 U	< 0.004 U
MW-43	10/17/2013	W43-131017-	< 0.003 HU	< 0.003 DU	5.63 H	6.17	< 0.001 HU	< 0.001 DU	< 0.002 HU	< 0.002 U	< 0.004 HU	< 0.004 U
MW-47	10/28/2013	W47-131028-	< 0.003 U	< 0.003 U	19.4 D	19.6	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-55	10/8/2013	W55-131008-	< 0.003 U	< 0.003 U	5.41	5.68	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-56	10/3/2013	W56-131003-	< 0.003 U	< 0.003 U	4.88	5.33	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-57	10/9/2013	W57-131009-	< 0.003 U	< 0.003 U	5.77	6.08	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-59	10/9/2013	W59-131009-	< 0.003 U	< 0.003 U	5.16	5.51	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-60	10/15/2013	W60-131015-	< 0.003 U	< 0.003 DU	5.08	5.55	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-62	10/28/2013	W62-131028-	< 0.003 U	< 0.003 U	13	14.3	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-64	10/7/2013	W64-131007-	< 0.003 U	< 0.003 U	6.41	7.49	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-65	10/15/2013	W65-131015-	< 0.003 U	< 0.003 DU	4.89	5.37	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-66	10/15/2013	W66-131016-	< 0.003 U	< 0.003 U	7.28	8.28	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-67	10/15/2013	W67-131015-	< 0.003 U	< 0.003 DU	8.11	8.69	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-68	10/18/2013	W68-131018-	< 0.003 U	< 0.003 U	7.53	7.86	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-69	10/17/2013	W69-131017-	< 0.003 U	< 0.003 DU	7.08	7.93	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-70	10/21/2013	W70-131021-	< 0.003 DU	< 0.003 U	5.16	5.7	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-72	10/10/2013	W72-131010-	< 0.003 U	< 0.003 U	6.78	7.14	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00539
MW-73	10/16/2013	W73-131016-	< 0.003 U	< 0.003 U	2.82	3.06	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-74	10/24/2013	W74R131024-	< 0.003 U	< 0.003 U	11.6	12.2	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-75	10/24/2013	W75-131024-	< 0.003 U	< 0.003 U	8.23	8.73	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-76	10/31/2013	W76-131031-	< 0.003 U	< 0.003 U	7.87	8.35	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-77	10/25/2013	W77-131025-	< 0.003 U	< 0.003 U	7.31	7.69	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-78	10/25/2013	W78-131025-	< 0.003 U	< 0.003 U	6.2	6.53	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-80	10/31/2013	W80-131031-	< 0.003 U	< 0.003 U	7.56	7.62	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-81	10/25/2013	W81-131025-	< 0.003 U	< 0.003 U	5.68	5.86	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00425
MW-83	10/3/2013	W83-131003-	< 0.003 U	< 0.003 U	7.51	8.5	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-84	10/10/2013	W84-131010-	< 0.003 U	< 0.003 U	5.42	5.67	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-85	10/29/2013	W85-131029-	< 0.003 U	< 0.003 U	7.99	8.45	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-86	10/29/2013	W86-131029-	< 0.003 U	< 0.003 U	6.15	6.63	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-87	10/22/2013	W87-131022-	< 0.003 DU	< 0.003 U	7.14	8.74	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-88	10/28/2013	W88-131028-	< 0.003 U	< 0.003 U	5.68	5.93	< 0.001 U	< 0.001 U	0.00271	0.00277	< 0.004 U	< 0.004 U
MW-89	10/28/2013	W89-131028-	< 0.003 U	< 0.003 U	7.98	8.62	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-90	10/18/2013	W90-131018-	< 0.003 U	< 0.003 U	5.74	6.12	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-91	10/28/2013	W91-131028-	< 0.003 U	< 0.003 U	7.37	7.94	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-93	10/29/2013	W93-131029-	< 0.003 U	< 0.003 U	9.5	10.2	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	0.00762	0.0108
MW-94	10/25/2013	W94-131025-	< 0.003 U	< 0.003 U	6.92	7.45	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-95	10/24/2013	W95-131024-	< 0.003 U	< 0.003 U	5.94	6.19	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-99	10/22/2013	W99-131022-	< 0.003 DU	< 0.003 U	8	9.1	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-100	10/17/2013	W100131017-	< 0.003 U	< 0.003 DU	8.68	9.64	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-101	10/22/2013	W101131022-	< 0.003 DU	< 0.003 U	13.8	15.7	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill ---Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
MW-EB6	11/20/2013	WB6-131120-	< 0.003 U	< 0.003 U	120	44.3	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	0.0167	0.0283
EQUIPMENT BLANK	10/22/2013	WU1S131022E	< 0.003 U		0.531		< 0.001 U		< 0.002 U		< 0.004 U	
EQUIPMENT BLANK	10/22/2013	WU1H131022E	< 0.003 U		0.502		< 0.001 U		< 0.002 U		< 0.004 U	
FIELD BLANK	10/8/2013	W27A131008F	< 0.003 U	< 0.003 U	0.532 D	0.505	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.003 U	< 0.003 U	0.504	0.531	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.003 U	< 0.003 U	0.491	0.543	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.003 U	< 0.003 U	0.538	0.488	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane 630-20-6 (ug/L)	1,1,1-Trichloro-ethane 71-55-6 (ug/L)	1,1,2,2-Tetrachloro-ethane 79-34-5 (ug/L)	1,1,2-Trichloro-ethane 79-00-5 (ug/L)	1,1-Dichloro-ethane 75-34-3 (ug/L)	1,1-Dichloro-ethene 75-35-4 (ug/L)	1,2,3-Trichloro-propane 96-18-4 (ug/L)	1,2-Dibromo-3-Chloropropane 96-12-8 (ug/L)	1,2-Dibromo-ethane 106-93-4 (ug/L)	1,2-Dichloro-benzene 95-50-1 (ug/L)	1,2-Dichloro-ethane 107-06-2 (ug/L)	1,2-Dichloro-propane 78-87-5 (ug/L)
MW-21	10/22/2013	W21-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-24	10/17/2013	W24-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	10/8/2013	W27A131008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-30A	10/14/2013	W30A131014-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.33	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	10/17/2013	W43-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-47	10/28/2013	W47-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.67	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-55	10/8/2013	W55-131008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-56	10/3/2013	W56-131003-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	10/9/2013	W57-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	10/9/2013	W59-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	10/15/2013	W60-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-62	10/28/2013	W62-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.764	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	10/7/2013	W64-131007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-65	10/15/2013	W65-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-66	10/15/2013	W66-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-67	10/15/2013	W67-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-68	10/18/2013	W68-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69	10/17/2013	W69-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-70	10/21/2013	W70-131021-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-72	10/10/2013	W72-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-73	10/16/2013	W73-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	10/24/2013	W74R131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	11/22/2013	W74R131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	12/20/2013	W74R131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	10/24/2013	W75-131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	11/22/2013	W75-131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	12/20/2013	W75-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-76	10/31/2013	W76-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	10/25/2013	W77-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-78	10/25/2013	W78-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-80	10/31/2013	W80-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-81	10/25/2013	W81-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-83	10/3/2013	W83-131003-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-84	10/10/2013	W84-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-85	10/29/2013	W85-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-86	10/29/2013	W86-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	10/22/2013	W87-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	11/21/2013	W87-131121-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Data Collected from October 1, 2013 to December 31, 2013
Cedar Hills Landfill --- Groundwater VOA Analytical Data
Contact Person: Sandy Jimenez (206) 296-4411

Cedar Hills Regional Landfill
Environmental Monitoring Report 4th Quarter 2013

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	1,1,1,2-Tetrachloro-ethane 630-20-6 (ug/L)	1,1,1-Trichloro-ethane 71-55-6 (ug/L)	1,1,2,2-Tetrachloro-ethane 79-34-5 (ug/L)	1,1,2-Trichloro-ethane 79-00-5 (ug/L)	1,1-Dichloro-ethane 75-34-3 (ug/L)	1,1-Dichloro-ethene 75-35-4 (ug/L)	1,2,3-Trichloro-propane 96-18-4 (ug/L)	1,2-Dibromo-3-Chloropropane 96-12-8 (ug/L)	1,2-Dibromo-ethane 106-93-4 (ug/L)	1,2-Dichloro-benzene 95-50-1 (ug/L)	1,2-Dichloro-ethane 107-06-2 (ug/L)	1,2-Dichloro-propane 78-87-5 (ug/L)
VOA TRIP BLANK	10/28/2013	VTRP131029C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/19/2013	VTRP131120C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/20/2013	VTRP131121C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/21/2013	VTRP131122B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/16/2013	VTRP131220C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/19/2013	VTRP131220B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)
MW-21	10/22/2013	W21-131022-	< 0.2 U	< 4 U	< 4 U	< 4 U	9.22 B	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-24	10/17/2013	W24-131017-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	10/8/2013	W27A131008-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018D	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-30A	10/14/2013	W30A131014-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	10/17/2013	W43-131017-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-47	10/28/2013	W47-131028-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-55	10/8/2013	W55-131008-	< 0.2 U	< 4 U	< 4 U	< 4 U	6.19	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-56	10/3/2013	W56-131003-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.77	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	10/9/2013	W57-131009-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	10/9/2013	W59-131009-	< 0.2 U	< 4 U	< 4 U	< 4 U	6.04	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	10/15/2013	W60-131015-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-62	10/28/2013	W62-131028-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	10/7/2013	W64-131007-	< 0.2 U	< 4 U	< 4 U	< 4 U	5.19	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-65	10/15/2013	W65-131015-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-66	10/15/2013	W66-131016-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-67	10/15/2013	W67-131015-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-68	10/18/2013	W68-131018-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69	10/17/2013	W69-131017-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-70	10/21/2013	W70-131021-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-72	10/10/2013	W72-131010-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-73	10/16/2013	W73-131016-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	10/24/2013	W74R131024-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.75	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	11/22/2013	W74R131122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	12/20/2013	W74R131220-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.06 B	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	10/24/2013	W75-131024-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	11/22/2013	W75-131122-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	12/20/2013	W75-131220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-76	10/31/2013	W76-131031-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.37	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	10/25/2013	W77-131025-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.09	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-78	10/25/2013	W78-131025-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-80	10/31/2013	W80-131031-	< 0.2 U	< 4 U	< 4 U	< 4 U	9.08	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-81	10/25/2013	W81-131025-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-83	10/3/2013	W83-131003-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-84	10/10/2013	W84-131010-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-85	10/29/2013	W85-131029-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.54 B	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-86	10/29/2013	W86-131029-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	10/22/2013	W87-131022-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	11/21/2013	W87-131121-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.67	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)
MW-87	12/20/2013	W87-131220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-88	10/28/2013	W88-131028-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-89	10/28/2013	W89-131028-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	10/18/2013	W90-131018-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-91	10/28/2013	W91-131028-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-93	10/29/2013	W93-131029-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-94	10/25/2013	W94-131025-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-95	10/24/2013	W95-131024-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	10/22/2013	W99-131022-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	11/21/2013	W99-131121-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	12/20/2013	W99-131220-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-100	10/17/2013	W100131017-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-101	10/22/2013	W101131022-	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-EB6	11/20/2013	WB6-131120-	< 0.2 U	< 4 U	< 4 U	< 4 U	4.08	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/8/2013	W27A131008F	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.2 U	< 4 U	< 4 U	< 4 U	5.75	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/2/2013	VTRP131003B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/3/2013	VTRP131007B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/7/2013	VTRP131008B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/8/2013	VTRP131009B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/10/2013	VTRP131014C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/14/2013	VTRP131015C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/14/2013	VTRP131015B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/15/2013	VTRP131016B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/15/2013	VTRP131017C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/16/2013	VTRP131017B	< 0.2 U	< 4 U	< 4 U	< 4 U	5.77 B	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/17/2013	VTRP131018B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/17/2013	VTRP131018C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/18/2013	VTRP131022B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/18/2013	VTRP131021C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/21/2013	VTRP131022C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/23/2013	VTRP131024B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/23/2013	VTRP131024C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/24/2013	VTRP131025B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/24/2013	VTRP131025C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/25/2013	VTRP131028B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/25/2013	VTRP131028C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/28/2013	VTRP131029B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform	Bromo- methane	Carbon Disulfide
			106-46-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)
VOA TRIP BLANK	10/28/2013	VTRP131029C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031B	< 0.2 U	< 4 U	< 4 U	< 4 U	6.46	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/19/2013	VTRP131120C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/20/2013	VTRP131121C	< 0.2 U	< 4 U	< 4 U	< 4 U	6.29	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/21/2013	VTRP131122B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/16/2013	VTRP131220C	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/19/2013	VTRP131220B	< 0.2 U	< 4 U	< 4 U	< 4 U	< 4 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Carbon Tetrachloride 56-23-5 (ug/L)	Chloro- benzene 108-90-7 (ug/L)	Chloro- dibromo- methane 124-48-1 (ug/L)	Chloro- ethane 75-00-3 (ug/L)	Chloroform 67-66-3 (ug/L)	Chloro- methane 74-87-3 (ug/L)	cis-1,2- Dichloro- ethene 156-59-2 (ug/L)	cis-1,3- Dichloro- propene 10061-01-5 (ug/L)	Dibromo- methane 74-95-3 (ug/L)	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)
MW-21	10/22/2013	W21-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-24	10/17/2013	W24-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	10/8/2013	W27A131008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-28	10/18/2013	W28-131018D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-30A	10/14/2013	W30A131014-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	6.54	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	10/17/2013	W43-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-47	10/28/2013	W47-131028-	< 0.2 U	< 0.2 U	< 0.2 U	0.28 T	< 0.2 U	< 0.2 U	1.76	< 0.2 U	< 0.2 U	4.29	< 0.2 U	< 0.2 U
MW-55	10/8/2013	W55-131008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-56	10/3/2013	W56-131003-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.06	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-57	10/9/2013	W57-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	10/9/2013	W59-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.836	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	10/15/2013	W60-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-62	10/28/2013	W62-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.85	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	10/7/2013	W64-131007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-65	10/15/2013	W65-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-66	10/15/2013	W66-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-67	10/15/2013	W67-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-68	10/18/2013	W68-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69	10/17/2013	W69-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-70	10/21/2013	W70-131021-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-72	10/10/2013	W72-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-73	10/16/2013	W73-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	10/24/2013	W74R131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	11/22/2013	W74R131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	12/20/2013	W74R131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	10/24/2013	W75-131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	11/22/2013	W75-131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	12/20/2013	W75-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-76	10/31/2013	W76-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.44	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-77	10/25/2013	W77-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-78	10/25/2013	W78-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-80	10/31/2013	W80-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-81	10/25/2013	W81-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-83	10/3/2013	W83-131003-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-84	10/10/2013	W84-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-85	10/29/2013	W85-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-86	10/29/2013	W86-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	10/22/2013	W87-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	11/21/2013	W87-131121-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Carbon Tetrachloride 56-23-5 (ug/L)	Chloro- benzene 108-90-7 (ug/L)	Chloro- dibromo- methane 124-48-1 (ug/L)	Chloro- ethane 75-00-3 (ug/L)	Chloroform 67-66-3 (ug/L)	Chloro- methane 74-87-3 (ug/L)	cis-1,2- Dichloro- ethene 156-59-2 (ug/L)	cis-1,3- Dichloro- propene 10061-01-5 (ug/L)	Dibromo- methane 74-95-3 (ug/L)	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)
MW-87	12/20/2013	W87-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-88	10/28/2013	W88-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-89	10/28/2013	W89-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	10/18/2013	W90-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-91	10/28/2013	W91-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-93	10/29/2013	W93-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-94	10/25/2013	W94-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-95	10/24/2013	W95-131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	10/22/2013	W99-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	11/21/2013	W99-131121-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-99	12/20/2013	W99-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-100	10/17/2013	W100131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-101	10/22/2013	W101131022-	< 0.2 U	< 0.2 U	< 0.2 U	0.25 T	< 0.2 U	< 0.2 U	0.21 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-EB6	11/20/2013	WB6-131120-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/8/2013	W27A131008F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/2/2013	VTRP131003B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/3/2013	VTRP131007B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/7/2013	VTRP131008B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/8/2013	VTRP131009B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/10/2013	VTRP131014C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/14/2013	VTRP131015C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/14/2013	VTRP131015B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/15/2013	VTRP131016B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/15/2013	VTRP131017C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/16/2013	VTRP131017B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/17/2013	VTRP131018B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/17/2013	VTRP131018C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/18/2013	VTRP131022B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/18/2013	VTRP131021C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/21/2013	VTRP131022C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/23/2013	VTRP131024B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/23/2013	VTRP131024C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/24/2013	VTRP131025B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/24/2013	VTRP131025C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/25/2013	VTRP131028B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/25/2013	VTRP131028C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/28/2013	VTRP131029B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Carbon Tetrachloride 56-23-5 (ug/L)	Chloro- benzene 108-90-7 (ug/L)	Chloro- dibromo- methane 124-48-1 (ug/L)	Chloro- ethane 75-00-3 (ug/L)	Chloroform 67-66-3 (ug/L)	Chloro- methane 74-87-3 (ug/L)	cis-1,2- Dichloro- ethene 156-59-2 (ug/L)	cis-1,3- Dichloro- propene 10061-01-5 (ug/L)	Dibromo- methane 74-95-3 (ug/L)	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)
VOA TRIP BLANK	10/28/2013	VTRP131029C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2013	VTRP131031C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/19/2013	VTRP131120C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/20/2013	VTRP131121C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/21/2013	VTRP131122B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/16/2013	VTRP131220C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/19/2013	VTRP131220B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methyl Iodide	Methylene Chloride	o-Xylene	Styrene	Tetrachloro- ethene	Toluene	trans-1,2- Dichloro- ethene	trans-1,3- Dichloro- propene	trans-1,4- Dichloro-2- butene	Trichloro- ethene	Trichloro- fluoro- methane	Vinyl Acetate	Vinyl Chloride
			74-88-4 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
MW-21	10/22/2013	W21-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-24	10/17/2013	W24-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-27A	10/8/2013	W27A131008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-28	10/18/2013	W28-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-28	10/18/2013	W28-131018D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-30A	10/14/2013	W30A131014-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	1.29	< 0.2 U	< 0.2 U	< 0.02 U
MW-43	10/17/2013	W43-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-47	10/28/2013	W47-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	5.11
MW-55	10/8/2013	W55-131008-	< 0.2 U	0.26 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-56	10/3/2013	W56-131003-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-57	10/9/2013	W57-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-59	10/9/2013	W59-131009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-60	10/15/2013	W60-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-62	10/28/2013	W62-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-64	10/7/2013	W64-131007-	< 0.2 U	0.38 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-65	10/15/2013	W65-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.0414
MW-66	10/15/2013	W66-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-67	10/15/2013	W67-131015-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-68	10/18/2013	W68-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-69	10/17/2013	W69-131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-70	10/21/2013	W70-131021-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-72	10/10/2013	W72-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-73	10/16/2013	W73-131016-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	10/24/2013	W74R131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	11/22/2013	W74R131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	12/20/2013	W74R131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	10/24/2013	W75-131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	11/22/2013	W75-131122-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	12/20/2013	W75-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-76	10/31/2013	W76-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.453	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	8.07	< 0.2 U	< 0.2 U	< 0.02 U
MW-77	10/25/2013	W77-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-78	10/25/2013	W78-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	0.584	< 0.2 U	< 0.2 U	< 0.02 U
MW-80	10/31/2013	W80-131031-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-81	10/25/2013	W81-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-83	10/3/2013	W83-131003-	< 0.2 U	0.3 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	1.53	< 0.2 U	< 0.2 U	< 0.02 U
MW-84	10/10/2013	W84-131010-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-85	10/29/2013	W85-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-86	10/29/2013	W86-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	10/22/2013	W87-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	11/21/2013	W87-131121-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Groundwater VOA Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methyl Iodide	Methylene Chloride	o-Xylene	Styrene	Tetrachloro- ethene	Toluene	trans-1,2- Dichloro- ethene	trans-1,3- Dichloro- propene	trans-1,4- Dichloro-2- butene	Trichloro- ethene	Trichloro- fluoro- methane	Vinyl Acetate	Vinyl Chloride
			74-88-4 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
MW-87	12/20/2013	W87-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-88	10/28/2013	W88-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-89	10/28/2013	W89-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-90	10/18/2013	W90-131018-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-91	10/28/2013	W91-131028-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-93	10/29/2013	W93-131029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-94	10/25/2013	W94-131025-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	3.26	< 0.2 U	< 0.2 U	< 0.02 U
MW-95	10/24/2013	W95-131024-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-99	10/22/2013	W99-131022-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-99	11/21/2013	W99-131121-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-99	12/20/2013	W99-131220-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-100	10/17/2013	W100131017-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-101	10/22/2013	W101131022-	< 0.2 U	0.21 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.381
MW-EB6	11/20/2013	WB6-131120-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	10/24/2013	W95-131024F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	11/20/2013	WB6-131120F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	10/8/2013	W27A131008F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	10/31/2013	W76-131031F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/2/2013	VTRP131003B	< 0.2 U	0.21 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/3/2013	VTRP131007B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/7/2013	VTRP131008B	< 0.2 U	0.33 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/8/2013	VTRP131009B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/10/2013	VTRP131014C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/14/2013	VTRP131015C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/14/2013	VTRP131015B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/15/2013	VTRP131016B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/15/2013	VTRP131017C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/16/2013	VTRP131017B	< 0.2 U	0.32 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/17/2013	VTRP131018B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/17/2013	VTRP131018C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/18/2013	VTRP131022B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/18/2013	VTRP131021C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/21/2013	VTRP131022C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/23/2013	VTRP131024B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/23/2013	VTRP131024C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/24/2013	VTRP131025B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/24/2013	VTRP131025C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/25/2013	VTRP131028B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/25/2013	VTRP131028C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/28/2013	VTRP131029B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Groundwater VOA Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Methyl Iodide	Methylene Chloride	o-Xylene	Styrene	Tetrachloro- ethene	Toluene	trans-1,2- Dichloro- ethene	trans-1,3- Dichloro- propene	trans-1,4- Dichloro-2- butene	Trichloro- ethene	Trichloro- fluoro- methane	Vinyl Acetate	Vinyl Chloride
			74-88-4 (ug/L)	75-09-2 (ug/L)	95-47-6 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
VOA TRIP BLANK	10/28/2013	VTRP131029C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/30/2013	VTRP131031B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/30/2013	VTRP131031C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/19/2013	VTRP131120C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/20/2013	VTRP131121C	< 0.2 U	0.26 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/21/2013	VTRP131122B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/16/2013	VTRP131220C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/19/2013	VTRP131220B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Surface Water Analytical Data

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill ---Surface Water Elevation Data-Staff Gage Measurements

Contact Person: Sandy Jimenez (206) 296-4411

Staff Gage	Location	Date	Reference Elevation Staff Gage 0' (msl)	Reference Elevation Top of Peizo (msl)	Depth to Water (Peizometer) (feet)	Staff Gage Reading (feet)	Surface Water Elevation (msl)	Comment
SW-G1	SW-W1	10/22/2013	415.38	418.84		0.73	418.84	
SW-G1	SW-W1	11/12/2013	415.38	418.84		0.7	418.84	
SW-G1	SW-W1	12/18/2013	415.38	418.84		0.72	416.10	
SW-G2	SW-N1	10/22/2013	355.68	358.21		0.45	358.21	
SW-G2	SW-N1	11/12/2013	355.68	358.21		0.68	--	
SW-G2	SW-N1	12/18/2013	355.68	358.21		0.51	356.19	
SW-G3	SW -V	10/22/2013	466.46	469.88	5.43		--	
SW-G3	SW -V	11/12/2013	466.46	469.88	5.45		--	
SW-G3	SW -V	12/18/2013	466.46	469.88	5.46		464.42	
SW-G4	Upstream of SW-E1	10/22/2013	502.41	505.85	4.66		--	
SW-G4	Upstream of SW-E1	11/12/2013	502.41	505.85	6.11		--	
SW-G4	Upstream of SW-E1	12/18/2013	502.41	505.85	3.12		502.73	
SW-G5	SW-E1	10/22/2013	486.92	490.34		0.45	--	
SW-G5	SW-E1	11/12/2013	486.92	490.34		0.63	--	
SW-G5	SW-E1	12/18/2013	486.92	490.34		0.63	490.34	
SW-G6	Upstream of SW-GS1	10/23/2013	490.72	494.12		0.43	494.12	
SW-G6	Upstream of SW-GS1	11/14/2013	490.72	494.12		0.65	494.12	
SW-G6	Upstream of SW-GS1	12/17/2013	490.72	494.12		0.52	491.24	
SW-G7	SW-S2	10/23/2013	453.03	456.41		0.39	456.41	
SW-G7	SW-S2	11/14/2013	453.03	456.41		0.71	456.41	
SW-G7	SW-S2	12/17/2013	453.03	456.41		0.55	453.58	
SW-G8	Upstream of SW-S1	10/23/2013	510.61	515.56		0.50	515.56	
SW-G8	Upstream of SW-S1	11/14/2013	510.61	515.56		0.55	515.56	
SW-G8	Upstream of SW-S1	12/17/2013	510.61	515.56		0.55	515.56	
SW-G9	SW-S1	10/23/2013	490.93	494.35		0.57	494.35	
SW-G9	SW-S1	11/14/2013	490.93	494.35		0.69	494.35	
SW-G9	SW-S1	12/17/2013	490.93	494.35		0.75	494.35	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Field Parameters

Contact Person: Sindy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Turbidity	Oxvgen, Dissolved
			(std. Units)	(umho/cm)	(°C)	(NTU)	(mg/L)
SW-E1	11/12/2013	SE1-131112Q	6.01	47	9.6	2.1	6.33
SW-E1	12/18/2013	SE1-131218M	5.92	58	6.3	2.71	9.36
SW-GS1	10/24/2013	SGS1131024Q	6.8	150	9.5	3.06	14.98
SW-GS1	11/14/2013	SGS1131114M	7.42	105	10.6	62.5	8.23
SW-GS1	12/17/2013	SGS1131217M	6.77	98	4.9	24.7	16.73
SW-MC	10/23/2013	SMC-131023Q	7.5	110	10.9	1.48	11.07
SW-MC	11/13/2013	SMC-131113M	6.83	100	7.8	1.83	11.39
SW-MC	12/23/2013	SMC-131223M	6.59	135	8.8	3.26	11.37
SW-N1	10/23/2013	SN1-131023Q	7.29	100	10.6	1.5	10.04
SW-N1	11/12/2013	SN1-131112M	6.67	105	6.3	2.11	10.86
SW-N1	12/18/2013	SN1-131218M	6.51	100	11.9	3.14	12.2
SW-N4	10/23/2013	SN4-131023Q	7.18	110	10.7	1.15	10.94
SW-N4	11/12/2013	SN4-131112M	6.9	104	6.3	2.58	11.75
SW-N4	12/18/2013	SN4-131218M	6.57	110	8.5	3.61	12.7
SW-S1	10/23/2013	SS1-131023Q	6.76	53	9.3	0.39	5.43
SW-S1	11/14/2013	SS1-131114M	7.42	53	3.5	0.27	6.3
SW-S1	12/17/2013	SS1-131217M	5.68	51	9.4	0.21	16.88
SW-S2	10/23/2013	SS2-131023Q	7.07	120	10.1	2.5	8.31
SW-S2	11/14/2013	SS2-131114M	7.62	110	4.6	33.4	7.6
SW-S2	12/17/2013	SS2-131217M	6.18	103	9.3	7.04	17.58
SW-SL3	10/14/2013	SSL3131014P	6.89	110	8.9	4.23	8.93
SW-SL3	10/23/2013	SSL3131023Q	6.8	135	10.1	0.57	10.2
SW-SL3	11/14/2013	SSL3131114M	6.96	130	6.8	0.96	7.5
SW-SL3	11/20/2013	SSL3131120P	6.98	130	3.6	4.36	11.09
SW-SL3	12/12/2013	SSL3131212P	7.33	130	4.7	4.53	11.66
SW-SL3	12/17/2013	SSL3131217M	6.39	140	10.3	1.49	15.84
SW-SLP1	10/14/2013	SLP1131014P	7.12	150	9.2	29.3	9.81
SW-SLP1	11/20/2013	SLP1131120P	7.01	230	4.5	5.15	11.01
SW-SLP1	12/12/2013	SLP1131212P	7.35	240	9.5	2.3	12.18
SW-SLP2	10/14/2013	SLP2131014P	7.07	140	6.3	4.72	11.14
SW-SLP2	11/20/2013	SLP2131120P	6.75	120	6.7	4.66	12.55
SW-SLP2	12/12/2013	SLP2131212P	7.32	260	10.1	2.54	12.05
SW-W	10/23/2013	SW--131023Q	6.41	90	10.6	2.53	6.01
SW-W	11/13/2013	SW--131113M	6.3	110	7.4	2.1	8.04
SW-W	12/23/2013	SW--131223M	6.23	200	8.4	7.24	9.73
SW-W1	10/23/2013	SW1-131023Q	7.82	120	9.9	1.21	11.76
SW-W1	11/12/2013	SW1-131112M	6.98	110	18.8	1.37	11.7
SW-W1	12/18/2013	SW1-131218M	6.68	180	8	2.62	12.59
SW-W2	10/23/2013	SW2-131023Q	6.63	56	9	1.63	3.31
SW-W2	11/14/2013	SW2-131114M	6.9	58	3.7	0.32	6.64
SW-W2	12/17/2013	SW2-131217M	6.55	54	3.9	0.31	16.1
FIELD BLANK	12/18/2013	SE1-131218F	5.76	8.3	9.3	2.05	11.6
FIELD BLANK	11/12/2013	SW1-131112F	6	6	6.4	0.58	9.61
FIELD BLANK	12/17/2013	SW2-131217F	5.73	53	3.9	0.19	

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity, Total (CaCO3) (mg/L)	Ammonia, (NH3) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100mL)	Coliforms, Total (CFU/100mL)	Cyanide (mg/L)	Fluoride (mg/L)	Hardness (mg/L)	Nitrate- Nitrogen, (NO3 as N) (mg/L)
SW-E1	11/12/2013	SE1-131112Q	14.6	< 0.01 U	< 2 U	17 T	1.77	3	70	< 0.02 U	< 0.1 U	18.6	0.221
SW-E1	12/18/2013	SE1-131218M	15.1	< 0.01 U		9.5 T	1.97	5	50			15.1	0.256
SW-GS1	10/24/2013	SGS1131024Q	52.1	0.018 T	< 2 U	9.2 T	1.65	9	67	< 0.02 U	< 0.1 U	65.8	0.088 T
SW-GS1	11/14/2013	SGS1131114M	39.7	0.019 T		16 T	1.36	42	230			51.6	0.16 T
SW-GS1	12/17/2013	SGS1131217M	39.8	0.013 T		8.9 T	2.13	29	47			43.7	0.583
SW-MC	10/23/2013	SMC-131023Q	40.2	< 0.01 U	< 2 U	9.6 T	3.19	8	49	< 0.02 U	< 0.1 U	49	0.526
SW-MC	11/13/2013	SMC-131113M	37.7	< 0.01 U		11 T	3.19	14	17			48.8	0.867
SW-MC	12/23/2013	SMC-131223M	28.8	< 0.01 U		14 T	2.45	41	180			36.3	1.25
SW-N1	10/23/2013	SN1-131023Q	38.4	< 0.01 U	< 2 U	13 T	3.23	42	95	< 0.02 U	< 0.1 U	48.8	0.525
SW-N1	11/12/2013	SN1-131112M	37.5	0.013 T		16 T	3.14	14	38			49.2	0.855
SW-N1	12/18/2013	SN1-131218M	36.6	0.017 T		14 T	3.96	21	60			41.4	1.05
SW-N4	10/23/2013	SN4-131023Q	34.8	< 0.01 U	< 2 U	17 T	1.9	< 1 U	15	< 0.02 U	< 0.1 U	50.4	0.507
SW-N4	11/12/2013	SN4-131112M	34.3	0.0543		19 T	2.12	17	37			51	0.582
SW-N4	12/18/2013	SN4-131218M	37.3	0.143		15 T	3.5	2	100			45.9	0.972
SW-S1	10/23/2013	SS1-131023Q	13.5	< 0.01 U	< 2 U	8.6 T	3.49	14	39	< 0.02 U	< 0.1 U	19	0.106
SW-S1	11/14/2013	SS1-131114M	14.4	< 0.01 U		11 T	3.19	3	18			15.8	0.339
SW-S1	12/17/2013	SS1-131217M	13.9	< 0.01 U		11 T	2.98	16	56			16.1	0.833
SW-S2	10/23/2013	SS2-131023Q	48.2	0.0148	< 2 U	15 T	2.54	6	100	< 0.02 U	< 0.1 U	62.5	0.0502
SW-S2	11/14/2013	SS2-131114M	41	0.012 T		13 T	1.77	40	150			50.7	0.17 T
SW-S2	12/17/2013	SS2-131217M	39.5	< 0.01 U		7.8 T	2.52	36	90			46.3	0.436
SW-SL3	10/14/2013	SSL3131014P		< 0.01 U	2.26			18	400				
SW-SL3 Duplicate	10/23/2013	SSL3131023D	50	< 0.01 U	< 2 U	14 T	3.41	2	40	< 0.02 U	< 0.1 U	62.8	0.0948
SW-SL3	10/23/2013	SSL3131023Q	49	< 0.01 U	< 2 U	13 T	3.36	5	49	< 0.02 U	< 0.1 U	59.5	0.0927
SW-SL3	11/14/2013	SSL3131114M	45.9	< 0.01 U		9.3 T	2.33	10	70			51.2	0.0966
SW-SL3	11/20/2013	SSL3131120P		< 0.01 U	< 2 U			53	350				
SW-SL3	12/12/2013	SSL3131212P		< 0.01 U	< 2 U			2	160				
SW-SL3	12/17/2013	SSL3131217M	41.3	< 0.01 U		15 T	14.8	41	140			51.6	0.18 T
SW-SLP1	10/14/2013	SLP1131014P		0.0724	< 2 U			140	3900				
SW-SLP1	11/20/2013	SLP1131120P		0.032 T	< 2 U			50	290				
SW-SLP1	12/12/2013	SLP1131212P		0.028 T	< 2 U			1	9				
SW-SLP2	10/14/2013	SLP2131014P		< 0.01 U	< 2 U			4	140				
SW-SLP2	11/20/2013	SLP2131120P		< 0.01 U	< 2 U			4	40				
SW-SLP2	12/12/2013	SLP2131212P		0.011 T	< 2 U			26	59				
SW-W	10/23/2013	SW--131023Q	29.8	0.0171	< 2 U	17 T	4.18	14	73	< 0.02 U	< 0.1 U	38.5	0.962
SW-W Duplicate	11/13/2013	SW--131113D	31.7	0.021 T		17 T	4.05	12	40			31.8	0.688
SW-W	11/13/2013	SW--131113M	28.9	0.021 T		14 T	3.96	9	30			37	0.709
SW-W	12/23/2013	SW--131223M	19.4	0.01 T		17 T	4.49	45	310			24.8	1.34
SW-W1	10/23/2013	SW1-131023Q	45.8	< 0.01 U	< 2 U	10 T	4.96	2	40	< 0.02 U	< 0.1 U	52.4	0.985
SW-W1	11/12/2013	SW1-131112M	40.6	< 0.01 U		9.7 T	4.57	4	50			48	1.26
SW-W1	12/18/2013	SW1-131218M	42.6	< 0.01 U		8.3 T	4.73	35	120			44.6	1.25

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity, Total (CaCO3) (mg/L)	Ammonia, (NH3) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100mL)	Coliforms, Total (CFU/100mL)	Cyanide (mg/L)	Fluoride (mg/L)	Hardness (mg/L)	Nitrate- Nitrogen, (NO3 as N) (mg/L)
SW-W2	10/23/2013	SW2-131023O	15.5	< 0.01 U	< 2 U	13 T	3.77	9	39	< 0.02 U	< 0.1 U	18.7	0.035 T
SW-W2	11/14/2013	SW2-131114M	16.8	< 0.01 U		43.4	3.35	4	7			17.5	0.284
SW-W2	12/17/2013	SW2-131217M	15.3	< 0.01 U		14 T	3.03	15	26			18	0.738
FIELD BLANK	11/12/2013	SW1-131112F	1.2 T	< 0.01 U		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	0.0787
FIELD BLANK	12/17/2013	SW2-131217F	1 T	< 0.01 U		5.8 T	< 0.1 U	< 1 U	< 1 U			< 1 U	0.1
FIELD BLANK	12/18/2013	SE1-131218F	1.4 T	< 0.01 U		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	0.099 T
EQUIPMENT BLANK	10/22/2013	WU1S131022E		< 0.01 U									
EQUIPMENT BLANK	10/22/2013	WU1H131022E		< 0.01 U									

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sindy Jimenez (206) 296-4411

Site	Date	Sample ID	Nitrate+Nitrite (NO3+NO2 as N) (mg/L)	Soluble Reactive Phosphorus (mg/L)	Phosphorus, Total (as P) (mg/L)	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)	Turbidity (NTU)
SW-E1	11/12/2013	SE1-131112Q	0.221	< 0.01 U		51.5	2.13	57.9	0.369	4.98	95.6	4.4	3.81
SW-E1	12/18/2013	SE1-131218M	0.256	< 0.01 U		47	1.99	55.2	< 0.1 U	2.88	57.9	3.4	2.39
SW-GS1	10/24/2013	SGS1131024Q	0.088 T	< 0.01 U		149	11.5	104	0.217	4.65	104	1.4	2.95
SW-GS1	11/14/2013	SGS1131114M	0.16 T	< 0.01 U		115	9.46	122	0.32	6.14	143	30.8	87.1
SW-GS1	12/17/2013	SGS1131217M	0.583	< 0.01 U		106	6.73	81.4	< 0.1 U	2.62	89.9	7.1	7.84
SW-MC	10/23/2013	SMC-131023Q	0.526	0.014 T		122	7.83	88.2	0.219	4.33	92.9	< 1 U	1.19
SW-MC	11/13/2013	SMC-131113M	0.867	0.0102		122	8.62	94.7 J	0.324	5.9	102 J	32.8 J	1.38
SW-MC	12/23/2013	SMC-131223M	1.25	0.0116		97.8	7.27	86.4	0.369	4.46	85.3	1.3	2.56
SW-N1	10/23/2013	SN1-131023Q	0.525	0.013 T		123	7.82	90.7	0.224	4.58	96.8	< 1 U	1.27
SW-N1	11/12/2013	SN1-131112M	0.855	0.0128		120	10.4	96.7	0.357	6.72	105	2.6	2.28
SW-N1	12/18/2013	SN1-131218M	1.05	< 0.01 U		115	8.14	89.6	0.315	3.73	96.9	1.7	1.8
SW-N4	10/23/2013	SN4-131023Q	0.507	0.012 T		126	13.7	96.7	0.428	6.57	97.8	1.2 T	0.8
SW-N4	11/12/2013	SN4-131112M	0.582	< 0.01 U		122	12.3	104	0.551	7.78	109	1.4	2.13
SW-N4	12/18/2013	SN4-131218M	0.972	< 0.01 U		126	12.6	101	0.622	5.8	107	1.4	1.64
SW-S1	10/23/2013	SS1-131023Q	0.106	< 0.01 U		57.4	2.98	49.3	1.22	5.1	55.6	< 1 U	4.51
SW-S1	11/14/2013	SS1-131114M	0.339	< 0.01 U		56.1	2.48	55.7	0.13 T	4.28	58.5	< 1 U	0.29 T
SW-S1	12/17/2013	SS1-131217M	0.833	< 0.01 U		54.3	2.41	61	< 0.1 U	2.47	54.9	< 1 U	0.26 T
SW-S2	10/23/2013	SS2-131023Q	0.0502	0.017 T		143	11.6	94.2	0.245	5.54	104	< 1 U	2.7
SW-S2	11/14/2013	SS2-131114M	0.17 T	< 0.01 U		118	9.37	110	0.519	5.93	119	3	36.6
SW-S2	12/17/2013	SS2-131217M	0.436	< 0.01 U		110	8.38	85.1	< 0.1 U	3.11	87.5	3.6	5.55
SW-SL3	10/14/2013	SSL3131014P										33.8	2.62
SW-SL3 Duplicate	10/23/2013	SSL3131023D	0.0948	0.014 T		148	9.8	97.8	0.25	5.33	101	< 1 U	0.45 T
SW-SL3	10/23/2013	SSL3131023Q	0.0927	0.011 T		148	10	98.1	0.389	5.67	106	< 1 U	0.641
SW-SL3	11/14/2013	SSL3131114M	0.0966	< 0.01 U		135	10.3	95.5	0.266	5.99	105	< 1 U	1.17
SW-SL3	11/20/2013	SSL3131120P										1.8	3.88
SW-SL3	12/12/2013	SSL3131212P										8.2	12.3
SW-SL3	12/17/2013	SSL3131217M	0.18 T	< 0.01 U		158	10.5	103	0.1 T	3.06	109	< 1 U	3.05
SW-SLP1	10/14/2013	SLP1131014P										7.7	26.9
SW-SLP1	11/20/2013	SLP1131120P										< 1 U	4.02
SW-SLP1	12/12/2013	SLP1131212P										1.8	2.16
SW-SLP2	10/14/2013	SLP2131014P										1.8	3.51
SW-SLP2	11/20/2013	SLP2131120P										1.2 T	4.44
SW-SLP2	12/12/2013	SLP2131212P										2	2.4
SW-W	10/23/2013	SW--131023Q	0.962	0.015 T		110	6.42	94.7	0.449	6.95	103	1.8	2.2
SW-W Duplicate	11/13/2013	SW--131113D	0.688	0.0105		105	4.71	88.3	0.412	7.5	95.1	< 1 U	1.57
SW-W	11/13/2013	SW--131113M	0.709	0.0103		100	4.92	92.1	0.39	5.56	93.7	3.9	2.18
SW-W	12/23/2013	SW--131223M	1.34	0.0108		80.5	4.01	78.6	0.408	5.33	81.1	2	6.41
SW-W1	10/23/2013	SW1-131023Q	0.985	0.015 T		141	6.32	100	0.15 T	2.74	104	1	1.19
SW-W1	11/12/2013	SW1-131112M	1.26	< 0.01 U		130	5.68	99.8	0.219	4.51	103	1.5	0.989
SW-W1	12/18/2013	SW1-131218M	1.25	< 0.01 U		124	5.61	91.5	0.18 T	2.21	99.5	2.2	2.44

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Nitrate+Nitrite (NO3+NO2 as N) (mg/L)	Soluble Reactive Phosphorus (mg/L)	Phosphorus, Total (as P) (mg/L)	Specific Conductance (umho/cm)	Sulfate (SO4) (mg/L)	Total Dissolved Solids (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)	Suspended Solids (mg/L)	Turbidity (NTU)
SW-W2	10/23/2013	SW2-131023O	0.035 T	< 0.01 U		59.4	3.08	52.7	0.12 T	4.68	61.2	< 1 U	1.17
SW-W2	11/14/2013	SW2-131114M	0.284	< 0.01 U		61.5	2.7	61.7	0.379	4.92	64.7	< 1 U	0.552
SW-W2	12/17/2013	SW2-131217M	0.738	< 0.01 U		57.3	2.7	61	< 0.1 U	2.53	60.6	< 1 U	0.517
FIELD BLANK	11/12/2013	SW1-131112F	0.0787	< 0.01 U		4 T	< 0.1 U	< 5 U	< 0.1 U	< 1 U	< 5 U	< 1 U	< 0.2 U
FIELD BLANK	12/17/2013	SW2-131217F	0.1	< 0.01 U		3.9 T	< 0.1 U	< 5 U	< 0.1 U	< 1 U	< 5 U	< 1 U	< 0.2 U
FIELD BLANK	12/18/2013	SE1-131218F	0.099 T	< 0.01 U		3.5 T	< 0.1 U	< 5 U	< 0.1 U	< 1 U	< 5 U	< 1 U	< 0.2 U
EQUIPMENT BLANK	10/22/2013	WU1S131022E	0.038 T	< 0.01 U									
EQUIPMENT BLANK	10/22/2013	WU1H131022E	0.038 T	< 0.01 U									

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Aluminum, dissolved	Aluminum, total	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/12/2013	SE1-131112Q	0.0709	0.314	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00337	0.00552	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-E1	12/18/2013	SE1-131218M	0.0621	0.168	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00291	0.00385 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-GS1	10/24/2013	SGS1131024Q	< 0.02 U	0.16	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00568	0.00704	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-GS1	11/14/2013	SGS1131114M	0.0373	3.91	< 0.001 U	< 0.001 U	< 0.001 U	0.00176	0.00412	0.0262	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-GS1	12/17/2013	SGS1131217M	< 0.02 U	0.421	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00371	0.00624 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-MC	10/23/2013	SMC-131023Q	< 0.02 U	0.0621	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00438	0.00491	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-MC	11/13/2013	SMC-131113M	< 0.02 U	0.098	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00486	0.0051	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-MC	12/23/2013	SMC-131223M	0.0363	0.17	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00419	0.00485 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-N1	10/23/2013	SN1-131023Q	< 0.02 U	0.0717	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00482	0.00514	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N1	11/12/2013	SN1-131112M	0.0275	0.147	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00454	0.00549	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-N1	12/18/2013	SN1-131218M	< 0.02 U	0.0825	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00432	0.00456 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-N4	10/23/2013	SN4-131023Q	< 0.02 U	0.0272	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00426	0.00451	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-N4	11/12/2013	SN4-131112M	0.043	0.126	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00454	0.00511	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-N4	12/18/2013	SN4-131218M	0.0207	0.0435	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00438	0.00462 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-S1	10/23/2013	SS1-131023Q	0.0629	0.494	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0071	0.00993	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-S1	11/14/2013	SS1-131114M	0.0532	0.0585	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00668	0.0066	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S1	12/17/2013	SS1-131217M	0.0363	0.0414	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00569	0.00563 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-S2	10/23/2013	SS2-131023Q	0.0255	0.153	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00936	0.0101	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-S2	11/14/2013	SS2-131114M	0.0249	1.75	< 0.001 U	< 0.001 U	< 0.001 U	0.001	0.00658	0.0184	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-S2	12/17/2013	SS2-131217M	0.0249	1.24	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00588	0.0138 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-SL3	10/14/2013	SSL3131014P												
SW-SL3	10/23/2013	SSL3131023Q	< 0.02 U	0.114	0.00232	0.00234	0.00301	0.00293	0.0101	0.0108	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-SL3 Duplicate	10/23/2013	SSL3131023D	< 0.02 U	0.0407	0.00227	0.00245	0.003	0.00303	0.00996	0.0109	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-SL3	11/14/2013	SSL3131114M	< 0.02 U	0.0529	0.00143	0.00142	0.00198	0.00195	0.0091	0.00918	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-SL3	11/20/2013	SSL3131120P												
SW-SL3	12/12/2013	SSL3131212P												
SW-SL3	12/17/2013	SSL3131217M	< 0.02 U	1.03	< 0.001 U	< 0.001 DU	< 0.001 U	0.00128	0.00892	0.0189 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-SLP1	10/14/2013	SLP1131014P												
SW-SLP1	11/20/2013	SLP1131120P												
SW-SLP1	12/12/2013	SLP1131212P												
SW-SLP2	10/14/2013	SLP2131014P												
SW-SLP2	11/20/2013	SLP2131120P												
SW-SLP2	12/12/2013	SLP2131212P												
SW-W	10/23/2013	SW--131023Q	0.0944	0.276	< 0.001 U	< 0.001 U	< 0.001 U	0.00172	0.00545	0.00687	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W	11/13/2013	SW--131113M	0.0856	0.18	< 0.001 U	< 0.001 U	< 0.001 U	0.00232	0.00582	0.00595	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W Duplicate	11/13/2013	SW--131113D	0.0817	0.187	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00628	0.0067	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W	12/23/2013	SW--131223M	0.12	0.522	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00469	0.00662 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-W1	10/23/2013	SW1-131023Q	< 0.02 U	0.212	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00561	0.00723	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U
SW-W1	11/12/2013	SW1-131112M	< 0.02 U	0.0567	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00598	0.00669	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W1	12/18/2013	SW1-131218M	< 0.02 U	0.437	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00519	0.00881 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
SW-W2	10/23/2013	SW2-131023Q	0.0613	0.0887	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00656	0.00723	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
SW-W2	11/14/2013	SW2-131114M	0.0534	0.0808	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00675	0.00717	< 0.001 U	< 0.001 U	< 0.002 DU	< 0.002 U
SW-W2	12/17/2013	SW2-131217M	0.0367	0.0565	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	0.00618	0.00613 D	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Aluminum, dissolved	Aluminum, total	Antimony, dissolved	Antimony, total	Arsenic, dissolved	Arsenic, total	Barium, dissolved	Barium, total	Beryllium, dissolved	Beryllium, total	Cadmium, dissolved	Cadmium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Field Blank	11/12/2013	SW1-131112F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U
Field Blank	12/17/2013	SW2-131217F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU
Field Blank	12/18/2013	SE1-131218F	< 0.02 U	< 0.02 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 DU	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Calcium, dissolved	Calcium, total	Chromium, dissolved	Chromium, total	Cobalt, dissolved	Cobalt, total	Copper, dissolved	Copper, total	Iron, dissolved	Iron, total	Lead, dissolved	Lead, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/12/2013	SE1-131112Q	5.02	5.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0526	0.222	< 0.001 U	< 0.001 U
SW-E1	12/18/2013	SE1-131218M	4.47	4.62	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	0.044 T	0.143	< 0.001 U	< 0.001 U
SW-GS1	10/24/2013	SGS1131024Q	16	16.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00242	0.00278	0.041 T	0.205	< 0.001 U	< 0.001 U
SW-GS1	11/14/2013	SGS1131114M	11.9	12.2	< 0.005 U	0.00626	< 0.003 U	< 0.003 U	0.00339	0.0119	0.043 T	4.9	< 0.001 U	0.00236
SW-GS1	12/17/2013	SGS1131217M	11.3	11.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	0.00245 D	0.024 T	0.54	< 0.001 U	< 0.001 U
SW-MC	10/23/2013	SMC-131023Q	12.5	12.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00305	0.00274	0.037 T	0.0879	< 0.001 U	< 0.001 U
SW-MC	11/13/2013	SMC-131113M	11.4	12.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00489	0.00485	0.049 T	0.114	< 0.001 U	< 0.001 U
SW-MC	12/23/2013	SMC-131223M	9.45	9.55	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.00552	0.00553 D	0.0644	0.192	< 0.001 U	< 0.001 U
SW-N1	10/23/2013	SN1-131023Q	11.9	12.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00273	0.00419	0.0513	0.118	< 0.001 U	< 0.001 U
SW-N1	11/12/2013	SN1-131112M	11.6	12.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00562	0.00582	0.0702	0.181	< 0.001 U	< 0.001 U
SW-N1	12/18/2013	SN1-131218M	10.8	10.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.00347	0.00346 D	0.0509	0.129	< 0.001 U	< 0.001 U
SW-N4	10/23/2013	SN4-131023Q	12.8	12.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00747	0.00744	0.033 T	0.0648	< 0.001 U	< 0.001 U
SW-N4	11/12/2013	SN4-131112M	11.9	13.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0103	0.0109	0.0641	0.148	< 0.001 U	< 0.001 U
SW-N4	12/18/2013	SN4-131218M	12	12.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.00809	0.00815 D	0.0526	0.131	< 0.001 U	< 0.001 U
SW-S1	10/23/2013	SS1-131023Q	5.18	5.35	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.023 T	0.339	< 0.001 U	< 0.001 U
SW-S1	11/14/2013	SS1-131114M	4.52	4.55	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.022 T	0.026 T	< 0.001 U	< 0.001 U
SW-S1	12/17/2013	SS1-131217M	4.46	4.56	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	0.013 T	0.016 T	< 0.001 U	< 0.001 U
SW-S2	10/23/2013	SS2-131023Q	16.2	16	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00263	0.00307	0.0687	0.181	< 0.001 U	< 0.001 U
SW-S2	11/14/2013	SS2-131114M	12.3	12.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00233	0.00599	0.041 T	2.04	< 0.001 U	0.00104
SW-S2	12/17/2013	SS2-131217M	11.4	11.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	0.00434 D	0.042 T	1.6	< 0.001 U	0.00116
SW-SL3	10/14/2013	SSL3131014P								0.00492				
SW-SL3	10/23/2013	SSL3131023Q	15.5	15.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00326	0.00446	0.018 T	0.109	< 0.001 U	< 0.001 U
SW-SL3 Duplicate	10/23/2013	SSL3131023D	15.5	15.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00301	0.0174	0.017 T	0.0531	< 0.001 U	< 0.001 U
SW-SL3	11/14/2013	SSL3131114M	13.4	13.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00317	0.00333	0.11	0.18	< 0.001 U	< 0.001 U
SW-SL3	11/20/2013	SSL3131120P								0.00657				
SW-SL3	12/12/2013	SSL3131212P								0.00288				
SW-SL3	12/17/2013	SSL3131217M	12.5	13.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	0.00546 D	0.045 T	1.44	< 0.001 U	0.00381
SW-SLP1	10/14/2013	SLP1131014P								0.00554				
SW-SLP1	11/20/2013	SLP1131120P								0.00406				
SW-SLP1	12/12/2013	SLP1131212P								< 0.002 U				
SW-SLP2	10/14/2013	SLP2131014P								0.00802				
SW-SLP2	11/20/2013	SLP2131120P								0.0124				
SW-SLP2	12/12/2013	SLP2131212P								< 0.002 U				
SW-W	10/23/2013	SW--131023Q	10.7	10.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00324	0.0444	0.275	0.606	< 0.001 U	< 0.001 U
SW-W	11/13/2013	SW--131113M	8.85	10	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.0214	0.195	0.371	< 0.001 U	< 0.001 U
SW-W Duplicate	11/13/2013	SW--131113D	8.67	8.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.209	0.291	< 0.001 U	< 0.001 U
SW-W	12/23/2013	SW--131223M	6.88	6.63	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	0.0025	0.0022 D	0.112	0.369	< 0.001 U	< 0.001 U
SW-W1	10/23/2013	SW1-131023Q	14.1	13.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00274	< 0.002 U	0.045 T	0.24	< 0.001 U	< 0.001 U
SW-W1	11/12/2013	SW1-131112M	11.9	12.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0736	0.132	< 0.001 U	< 0.001 U
SW-W1	12/18/2013	SW1-131218M	11.5	11.9	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	0.042 T	0.594	< 0.001 U	< 0.001 U
SW-W2	10/23/2013	SW2-131023Q	5.17	5.37	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.02 T	0.036 T	< 0.001 U	< 0.001 U
SW-W2	11/14/2013	SW2-131114M	4.93	5.07	< 0.005 U	< 0.005 U	< 0.003 DU	< 0.003 U	< 0.002 U	< 0.002 U	0.017 T	0.038 T	< 0.001 U	< 0.001 U
SW-W2	12/17/2013	SW2-131217M	4.9	5.13	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	0.011 T	0.028 T	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Calcium, dissolved	Calcium, total	Chromium, dissolved	Chromium, total	Cobalt, dissolved	Cobalt, total	Copper, dissolved	Copper, total	Iron, dissolved	Iron, total	Lead, dissolved	Lead, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Field Blank	11/12/2013	SW1-131112F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U
Field Blank	12/17/2013	SW2-131217F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U
Field Blank	12/18/2013	SE1-131218F	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 DU	< 0.002 U	< 0.002 DU	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Magnesium, dissolved	Magnesium, total	Manganese, dissolved	Manganese, total	Mercury, total	Nickel, dissolved	Nickel, total	Potassium, dissolved	Potassium, total	Selenium, dissolved	Selenium, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/12/2013	SE1-131112Q	1.1	1.18	0.0285	0.366 D	< 0.0001 U	< 0.01 U	< 0.01 U	0.661	0.707	< 0.001 U	< 0.001 U
SW-E1	12/18/2013	SE1-131218M	1.12	0.857	0.012	0.139	< 0.0001 U	< 0.01 U	< 0.01 U	0.48 T	0.43 T	< 0.001 U	< 0.001 DU
SW-GS1	10/24/2013	SGS1131024Q	5.49	5.96	0.0425	0.0512	< 0.0001 U	< 0.01 U	< 0.01 U	1.31	1.43	< 0.001 U	< 0.001 U
SW-GS1	11/14/2013	SGS1131114M	4.09	5.14	0.00901	0.102	< 0.0001 U	< 0.01 U	< 0.01 U	1.35	1.58	< 0.001 U	< 0.001 U
SW-GS1	12/17/2013	SGS1131217M	3.88	3.59	0.00918	0.0471	< 0.0001 U	< 0.01 U	< 0.01 U	0.856	0.817	< 0.001 U	< 0.001 DU
SW-MC	10/23/2013	SMC-131023Q	4.11	4.31	0.00289	0.00532	< 0.0001 U	< 0.01 U	< 0.01 U	1.35	1.35	< 0.001 U	< 0.001 U
SW-MC	11/13/2013	SMC-131113M	3.95	4.18	0.00296	0.0069 D	< 0.0001 U	< 0.01 U	< 0.01 U	1.6	1.67	< 0.001 U	< 0.001 U
SW-MC	12/23/2013	SMC-131223M	3.37	3.04	0.00125	0.0055	< 0.0001 U	< 0.01 U	< 0.01 U	1.5	1.38	< 0.001 U	< 0.001 DU
SW-N1	10/23/2013	SN1-131023Q	4.04	4.27	0.0155	0.0213	< 0.0001 U	< 0.01 U	< 0.01 U	1.31	1.31	< 0.001 U	< 0.001 U
SW-N1	11/12/2013	SN1-131112M	3.87	4.18	0.0116	0.0239 D	< 0.0001 U	< 0.01 U	< 0.01 U	1.78	1.87	< 0.001 U	< 0.001 U
SW-N1	12/18/2013	SN1-131218M	4	3.49	0.0068	0.012	< 0.0001 U	< 0.01 U	< 0.01 U	1.49	1.41	< 0.001 U	< 0.001 DU
SW-N4	10/23/2013	SN4-131023Q	4.28	4.47	0.00303	0.0147	< 0.0001 U	< 0.01 U	< 0.01 U	2.09	2.11	< 0.001 U	< 0.001 U
SW-N4	11/12/2013	SN4-131112M	3.94	4.36	0.0157	0.02 D	< 0.0001 U	< 0.01 U	< 0.01 U	1.98	2.11	< 0.001 U	< 0.001 U
SW-N4	12/18/2013	SN4-131218M	4.39	3.84	0.0199	0.0291	< 0.0001 U	< 0.01 U	< 0.01 U	1.99	1.87	< 0.001 U	< 0.001 DU
SW-S1	10/23/2013	SS1-131023Q	1.19	1.36	0.00349	0.0472	< 0.0001 U	< 0.01 U	< 0.01 U	0.548	0.603	< 0.001 U	< 0.001 U
SW-S1	11/14/2013	SS1-131114M	1.13	1.07	0.00188	0.00262	< 0.0001 U	< 0.01 U	< 0.01 U	0.8	0.713	< 0.001 U	< 0.001 U
SW-S1	12/17/2013	SS1-131217M	1.24	1.15	< 0.001 U	0.00115	< 0.0001 U	< 0.01 U	< 0.01 U	0.649	0.543	< 0.001 U	< 0.001 DU
SW-S2	10/23/2013	SS2-131023Q	5.23	5.45	0.0606	0.0597	< 0.0001 U	< 0.01 DU	< 0.01 U	1.42	1.47	< 0.001 U	< 0.001 U
SW-S2	11/14/2013	SS2-131114M	4.11	4.58	0.0147	0.0582	< 0.0001 U	< 0.01 U	< 0.01 U	1.33	1.5	< 0.001 U	< 0.001 U
SW-S2	12/17/2013	SS2-131217M	4.14	4.05	0.0124	0.198	< 0.0001 U	< 0.01 U	< 0.01 U	1.17	1.17	< 0.001 U	< 0.001 DU
SW-SL3	10/14/2013	SSL3131014P											
SW-SL3	10/23/2013	SSL3131023Q	5.2	5.31	0.00483	0.0242	< 0.0001 U	< 0.01 U	< 0.01 U	2.29	2.27	< 0.001 U	< 0.001 U
SW-SL3 Duplicate	10/23/2013	SSL3131023D	5.15	5.64	0.00599	0.0114	< 0.0001 U	< 0.01 U	< 0.01 U	2.29	2.34	< 0.001 U	< 0.001 U
SW-SL3	11/14/2013	SSL3131114M	4.76	4.26	0.00375	0.0082	< 0.0001 U	< 0.01 U	< 0.01 U	2.18	2.1	< 0.001 U	< 0.001 U
SW-SL3	11/20/2013	SSL3131120P											
SW-SL3	12/12/2013	SSL3131212P											
SW-SL3	12/17/2013	SSL3131217M	4.68	4.52	0.00361	0.26	< 0.0001 U	< 0.01 U	< 0.01 U	2.7	2.47	< 0.001 U	< 0.001 DU
SW-SLP1	10/14/2013	SLP1131014P											
SW-SLP1	11/20/2013	SLP1131120P											
SW-SLP1	12/12/2013	SLP1131212P											
SW-SLP2	10/14/2013	SLP2131014P											
SW-SLP2	11/20/2013	SLP2131120P											
SW-SLP2	12/12/2013	SLP2131212P											
SW-W	10/23/2013	SW--131023Q	2.94	3.01	0.0176	0.0288	< 0.0001 U	< 0.01 U	< 0.01 U	1.15	1.24	< 0.001 U	< 0.001 U
SW-W	11/13/2013	SW--131113M	2.77	2.92	0.00581	0.0081 D	< 0.0001 U	< 0.01 U	< 0.01 U	1.34	1.45	< 0.001 U	< 0.001 U
SW-W Duplicate	11/13/2013	SW--131113D	2.91	2.57	0.00644	0.0074	< 0.0001 U	< 0.01 U	< 0.01 U	1.29	1.28	< 0.001 U	< 0.001 U
SW-W	12/23/2013	SW--131223M	2.32	2	0.00322	0.00767	< 0.0001 U	< 0.01 U	< 0.01 U	1.33	1.23	< 0.001 U	< 0.001 DU
SW-W1	10/23/2013	SW1-131023Q	4.4	4.45	< 0.001 U	0.0211	< 0.0001 U	< 0.01 U	< 0.01 U	1.15	1.18	< 0.001 U	< 0.001 U
SW-W1	11/12/2013	SW1-131112M	3.67	3.85	0.0013	0.00843 D	< 0.0001 U	< 0.01 U	< 0.01 U	1.44	1.51	< 0.001 U	< 0.001 U
SW-W1	12/18/2013	SW1-131218M	4.03	3.6	0.00114	0.0833	< 0.0001 U	< 0.01 U	< 0.01 U	1.1	1.03	< 0.001 U	< 0.001 DU
SW-W2	10/23/2013	SW2-131023Q	1.18	1.29	0.00249	0.00316	< 0.0001 U	< 0.01 U	< 0.01 U	0.49 T	0.538	< 0.001 U	< 0.001 U
SW-W2	11/14/2013	SW2-131114M	1.22	1.17	0.00178 D	0.00234	< 0.0001 U	< 0.01 U	< 0.01 U	0.723	0.752	< 0.001 U	< 0.001 U
SW-W2	12/17/2013	SW2-131217M	1.31	1.25 D	< 0.001 U	0.0018	< 0.0001 U	< 0.01 U	< 0.01 U	0.596	0.52	< 0.001 U	< 0.001 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Magnesium, dissolved (mg/L)	Magnesium, total (mg/L)	Manganese, dissolved (mg/L)	Manganese, total (mg/L)	Mercury, total (mg/L)	Nickel, dissolved (mg/L)	Nickel, total (mg/L)	Potassium, dissolved (mg/L)	Potassium, total (mg/L)	Selenium, dissolved (mg/L)	Selenium, total (mg/L)
Field Blank	11/12/2013	SW1-131112F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 DU	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U
Field Blank	12/17/2013	SW2-131217F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 DU
Field Blank	12/18/2013	SE1-131218F	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.01 U	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, dissolved	Silver, total	Sodium, dissolved	Sodium, total	Thallium, dissolved	Thallium, total	Tin, dissolved	Tin, total	Vanadium, dissolved	Vanadium, total	Zinc, dissolved	Zinc, total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/12/2013	SE1-131112Q	< 0.003 U	< 0.003 DU	2.66	2.86	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-E1	12/18/2013	SE1-131218M	< 0.003 U	< 0.003 DU	2.52	2.36	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU
SW-GS1	10/24/2013	SGS1131024Q	< 0.003 U	< 0.003 U	3.98	4.23	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-GS1	11/14/2013	SGS1131114M	< 0.003 U	< 0.003 U	3.15	3.22	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.0095	< 0.004 U	0.013
SW-GS1	12/17/2013	SGS1131217M	< 0.003 U	< 0.003 DU	3.19	2.98	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU
SW-MC	10/23/2013	SMC-131023Q	< 0.003 U	< 0.003 U	5.01	5.16	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00624	0.0067
SW-MC	11/13/2013	SMC-131113M	< 0.003 U	< 0.003 U	4.72	4.89	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00772	0.00855
SW-MC	12/23/2013	SMC-131223M	< 0.003 U	< 0.003 DU	3.43	3.23	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	0.00736	0.00823 D
SW-N1	10/23/2013	SN1-131023Q	< 0.003 U	< 0.003 U	4.83	5.05	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00813	0.00901
SW-N1	11/12/2013	SN1-131112M	< 0.003 U	< 0.003 U	4.21	4.63	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0127	0.0129
SW-N1	12/18/2013	SN1-131218M	< 0.003 U	< 0.003 DU	4.83	4.45	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	0.00762	0.00793 D
SW-N4	10/23/2013	SN4-131023Q	< 0.003 U	< 0.003 U	3.34	3.43	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0165	0.0187
SW-N4	11/12/2013	SN4-131112M	< 0.003 U	< 0.003 DU	3.19	3.46	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0299	0.0319
SW-N4	12/18/2013	SN4-131218M	< 0.003 U	< 0.003 DU	3.99	3.66	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	0.0224	0.027 D
SW-S1	10/23/2013	SS1-131023Q	< 0.003 U	< 0.003 U	3.72	3.88	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00487
SW-S1	11/14/2013	SS1-131114M	< 0.003 U	< 0.003 U	3.77	3.46	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-S1	12/17/2013	SS1-131217M	< 0.003 U	< 0.003 DU	3.53	3.28	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU
SW-S2	10/23/2013	SS2-131023Q	< 0.003 U	< 0.003 U	4.18	4.27	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00456	0.00925
SW-S2	11/14/2013	SS2-131114M	< 0.003 U	< 0.003 U	3.37	3.39	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	0.00417	< 0.004 U	0.00912
SW-S2	12/17/2013	SS2-131217M	< 0.003 U	< 0.003 DU	3.31	3.13	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	0.00334	< 0.004 U	0.00917 D
SW-SL3	10/14/2013	SSL3131014P												0.0129
SW-SL3	10/23/2013	SSL3131023Q	< 0.003 U	< 0.003 U	5.4	5.35	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00592	0.00736
SW-SL3 Duplicate	10/23/2013	SSL3131023D	< 0.003 U	< 0.003 U	5.37	5.66	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0057	0.0167
SW-SL3	11/14/2013	SSL3131114M	< 0.003 U	< 0.003 U	4.18	3.67	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00438
SW-SL3	11/20/2013	SSL3131120P												0.00702
SW-SL3	12/12/2013	SSL3131212P												0.0106
SW-SL3	12/17/2013	SSL3131217M	< 0.003 U	< 0.003 DU	9.57	8.91	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	0.00285	< 0.004 U	0.0235 D
SW-SLP1	10/14/2013	SLP1131014P												0.0221
SW-SLP1	11/20/2013	SLP1131120P												0.015
SW-SLP1	12/12/2013	SLP1131212P												0.00732
SW-SLP2	10/14/2013	SLP2131014P												0.0272
SW-SLP2	11/20/2013	SLP2131120P												0.0246
SW-SLP2	12/12/2013	SLP2131212P												0.0476
SW-W	10/23/2013	SW--131023Q	< 0.003 U	< 0.003 U	6.02	5.92	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00426	0.0162
SW-W	11/13/2013	SW--131113M	< 0.003 U	< 0.003 U	5.34	5.9	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.0175
SW-W Duplicate	11/13/2013	SW--131113D	< 0.003 U	< 0.003 U	5.37	4.69	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W	12/23/2013	SW--131223M	< 0.003 U	< 0.003 DU	4.68	4.37	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU
SW-W1	10/23/2013	SW1-131023Q	< 0.003 U	< 0.003 U	6.98	6.94	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	11/12/2013	SW1-131112M	< 0.003 U	< 0.003 U	6.59	7.1	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	12/18/2013	SW1-131218M	< 0.003 U	< 0.003 DU	6.44	5.89	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	0.00437 D
SW-W2	10/23/2013	SW2-131023Q	< 0.003 U	< 0.003 U	4.28	4.53	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	11/14/2013	SW2-131114M	< 0.003 DU	< 0.003 U	4.11	3.9	< 0.001 DU	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	12/17/2013	SW2-131217M	< 0.003 U	< 0.003 DU	3.81	3.63	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Metal Analytical Data
 Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Silver, dissolved (mg/L)	Silver, total (mg/L)	Sodium, dissolved (mg/L)	Sodium, total (mg/L)	Thallium, dissolved (mg/L)	Thallium, total (mg/L)	Tin, dissolved (mg/L)	Tin, total (mg/L)	Vanadium, dissolved (mg/L)	Vanadium, total (mg/L)	Zinc, dissolved (mg/L)	Zinc, total (mg/L)
Field Blank	11/12/2013	SW1-131112F	< 0.003 U	< 0.003 U	0.525	0.532	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
Field Blank	12/17/2013	SW2-131217F	< 0.003 U	< 0.003 DU	0.617	0.473	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU
Field Blank	12/18/2013	SE1-131218F	< 0.003 U	< 0.003 DU	0.573	0.468	< 0.001 U	< 0.001 U	< 0.01 U	< 0.01 DU	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 DU

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Surface Water Pesticide/Herbicide Analytical Data
 Contact Person: Sindy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	Dinoseb	Endrin	Lindane	Methoxy- chlor	Toxaphene	4-Methyl- phenol	alpha Terpineol	Benzoic Acid	Phenol
			93-76-5 (ug/L)	93-72-1 (ug/L)	94-75-7 (ug/L)	88-85-7 (ug/L)	72-20-8 (ug/L)	58-89-9 (ug/L)	72-43-5 (ug/L)	8001-35-2 (ug/L)	106-44-5 (ug/L)	98-55-5 (ug/L)	65-85-0 (ug/L)	108-95-2 (ug/L)
SW-E1	11/12/2013	SE1-131112Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-E1	12/18/2013	SE1-131218M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	10/24/2013	SGS1131024Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	11/14/2013	SGS1131114M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-GS1	12/17/2013	SGS1131217M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	10/23/2013	SMC-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	11/13/2013	SMC-131113M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-MC	12/23/2013	SMC-131223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	10/23/2013	SN1-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	11/12/2013	SN1-131112M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N1	12/18/2013	SN1-131218M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	10/23/2013	SN4-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	11/12/2013	SN4-131112M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-N4	12/18/2013	SN4-131218M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	10/23/2013	SS1-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	11/14/2013	SS1-131114M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S1	12/17/2013	SS1-131217M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	10/23/2013	SS2-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	11/14/2013	SS2-131114M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-S2	12/17/2013	SS2-131217M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	10/14/2013	SSL3131014P										< 5 U	< 50 GU	< 4 U
SW-SL3 Duplicate	10/23/2013	SSL3131023D	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	10/23/2013	SSL3131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	11/14/2013	SSL3131114M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SL3	11/20/2013	SSL3131120P										< 5 U	< 50 U	< 4 U
SW-SL3	12/12/2013	SSL3131212P										< 5 U	< 50 U	< 4 U
SW-SL3	12/17/2013	SSL3131217M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-SLP1	10/14/2013	SLP1131014P										< 5 U	< 50 GU	< 4 U
SW-SLP1	11/20/2013	SLP1131120P										< 5 U	< 50 U	< 4 U
SW-SLP1	12/12/2013	SLP1131212P										< 5 U	< 50 U	< 4 U
SW-SLP2	10/14/2013	SLP2131014P										< 5 U	< 50 GU	< 4 U
SW-SLP2	11/20/2013	SLP2131120P										< 5 U	< 50 U	< 4 U
SW-SLP2	12/12/2013	SLP2131212P										< 5 U	< 50 U	< 4 U
SW-W	10/23/2013	SW--131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W Duplicate	11/13/2013	SW--131113D	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	11/13/2013	SW--131113M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W	12/23/2013	SW--131223M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	10/23/2013	SW1-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	11/12/2013	SW1-131112M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W1	12/18/2013	SW1-131218M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	10/23/2013	SW2-131023Q	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	11/14/2013	SW2-131114M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
SW-W2	12/17/2013	SW2-131217M	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Surface Water Pesticide/Herbicide Analytical Data

Contact Person: Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T 93-76-5 (ug/L)	2,4,5-TP 93-72-1 (ug/L)	2,4-D 94-75-7 (ug/L)	Dinoseb 88-85-7 (ug/L)	Endrin 72-20-8 (ug/L)	Lindane 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)	4-Methyl- phenol 106-44-5 (ug/L)	alpha Terpineol 98-55-5 (ug/L)	Benzoic Acid 65-85-0 (ug/L)	Phenol 108-95-2 (ug/L)
Field Blank	11/12/2013	SW1-131112F	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
Field Blank	12/17/2013	SW2-131217F	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				
Field Blank	12/18/2013	SE1-131218F	< 2 U	< 1 U	< 5 U	< 1 U	< 0.1 U	< 0.025 U	< 2 U	< 2.5 U				

Leachate Analytical Data

Leachate Monitoring Activities 4th Quarter 2013

Station ID	Date	Activity	Sample ID	Comment
API	10/2/13	Monthly Characterization Sample	LAPI131002M	
API	11/13/13	Monthly Characterization Sample	LAPI131113M	
API	12/11/13	Monthly Characterization Sample	LAPI131211M	
LEPS	10/2/13	Permit Sample	LEPS131002P	
LEPS	10/2/13	Monthly Characterization Sample	LEPS131002M	
LEPS	10/16/13	Permit Sample	LEPS131016P	
LEPS	10/30/13	Permit Sample	LEPS131030P	
LEPS	11/13/13	Monthly Characterization Sample	LEPS131113M	
LEPS	11/13/13	Permit Sample	LEPS131113P	
LEPS	12/11/13	Monthly Characterization Sample	LEPS131211M	
LEPS	12/11/13	Permit Sample	LEPS131211P	
46N	10/2/13	Monthly Characterization Sample	L46N131002M	
46N	11/13/13	Monthly Characterization Sample	L46N131113M	
46N	12/11/13	Monthly Characterization Sample	L46N131211M	
PS2A	10/2/13	Monthly Characterization Sample	LP2A131002M	
PS2A	11/13/13	Monthly Characterization Sample	LP2A131113M	
PS2A	12/11/13	Monthly Characterization Sample	LP2A131211M	
Field Blank	10/30/13	QA/QC Sample	LEPS131030F	

Environmental Monitoring Data

Data Collected from (Data Collected from October 1, 2013 to December 31, 2013)

Cedar Hills Landfill --- Leachate Field Parameters

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umho/cm)	(o C)
LS-API	10/2/2013	LAPI131002M	7.37	1000	13.5
LS-API	11/13/2013	LAPI131113M	7.84	5200	8.6
LS-API	12/11/2013	LAPI131211M	8.55	8500	5.8
LS-LEPS	10/2/2013	LEPS131002M	8.13	2100	11.7
LS-LEPS	10/2/2013	LEPS131002P	8.13	2100	11.7
LS-LEPS	10/16/2013	LEPS131016P	8.4	3300	7.4
LS-LEPS	10/30/2013	LEPS131030P	8.68	4500	5.5
LS-LEPS	11/13/2013	LEPS131113M	8.34	4100	9.5
LS-LEPS	11/13/2013	LEPS131113P	8.32	4150	12.6
LS-LEPS	12/11/2013	LEPS131211M	8.62	5000	2.2
LS-LEPS	12/11/2013	LEPS131211P	8.62	5000	2.2
LS-MH46N	10/2/2013	L46N131002M	7.32	8200	23.3
LS-MH46N	11/13/2013	L46N131113M	7.23	7500	24.8
LS-MH46N	12/11/2013	L46N131211M	7.24	7600	22.7
LS-PS2A	10/2/2013	LP2A131002M	6.27	140	14.5
LS-PS2A	11/13/2013	LP2A131113M	6.26	250	12.6
LS-PS2A	12/11/2013	LP2A131211M	6.28	340	9.7
FIELD BLANK	10/30/2013	LEPS131030F	7.77	5.5	15.9

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sindy Jimenez (206) 296-4411

Site	Date	Sample ID	Alkalinity, Total (CaCO3)	Ammonia, (NH3 as N)	Biological Oxygen Demand	Chemical Oxygen Demand	Chloride	Coliforms, Fecal	Coliforms, Total	Cyanide	Fluoride	Nitrate+Nitrite (NO3+NO2 as N)	Phosphorus, Total (as P)	Specific Conductance
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(CFU/100mL)	(CFU/100mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(umho/cm)
LS-API	10/2/2013	LAPI131002M	324	58.2	176	413	77.7	20000	480000	< 0.02 U	< 0.1 U	0.702	0.56	1240
LS-API	11/13/2013	LAPI131113M	3100	575	1080	2700	749	10000	450000	< 0.02 SU	< 0.1 U	0.404	3.73	8320
LS-API	12/11/2013	LAPI131211M	3160	1150	1880	4970	1470	29000	540000	< 0.02 SU	98.6	0.38 T	7.12	13400
LS-LEPS	10/2/2013	LEPS131002M	766	115	148	472	220	20000	220000	< 0.02 U	< 0.1 U	0.293	0.0856	2300
LS-LEPS	11/13/2013	LEPS131113M	1830	282	120	828	473	4400	30000	< 0.02 SU	0.868	0.496	0.0614	4820
LS-LEPS	12/11/2013	LEPS131211M	1180	375	157	1090	584	9900	220000	< 0.02 SU	0.62 T	0.61 T	0.0564	5610
LS-MH46N	10/2/2013	L46N131002M	3510	688	240	1880	1780	< 1 U	900	< 0.02 SU	< 0.1 U	1.02	2.39	10500
LS-MH46N	11/13/2013	L46N131113M	3000	568	120	1640	1610	< 1 U	< 1 U	< 0.02 SU	3.05	0.869	3.01	10500
LS-MH46N	12/11/2013	L46N131211M	1400	507	88.1	1510	1480	< 1 U	< 1 U	< 0.02 SU	3.87	0.17 T	2.76	8730
LS-PS2A	10/2/2013	LP2A131002M	27	3.54	4.42	52.6	5.41	4	28000	< 0.02 U	0.13 T	2.89	0.0245	161
LS-PS2A	11/13/2013	LP2A131113M	62.6	9.5 T	3.3	40	13.6	< 1 U	2600	< 0.02 U	< 0.1 U	1.79	0.0102	273
LS-PS2A	12/11/2013	LP2A131211M	125	15.9	4.35	45.8	20.4	< 1 U	140	< 0.02 U	0.17 T	1.75	0.014 T	402

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sandy Jimenez (206) 296-4411

Site	Date	Sample ID	Sulfate (SO ₄)	Sulfide Total	Total Fats, Oils and Grease	Total Kjeldahl Nitrogen (TKN as N)	Total Organic Carbon	Total Suspended Solids	Total Volatile Solids	Volatile Suspended Solids
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LS-API	10/2/2013	LAPI131002M	28.4	0.06 T	< 2 U	67.4	127	55.4	307	37.7
LS-API	11/13/2013	LAPI131113M	27.2	0.34 T	3 BT	575	713	25	1390	25
LS-API	12/11/2013	LAPI131211M	18	0.598	4 BT	1140	1300 S	312	2820	260
LS-LEPS	10/2/2013	LEPS131002M	41	0.19 T	2.9 T	126	98.2	284	489	200
LS-LEPS	11/13/2013	LEPS131113M	37.1	0.11 T	4.2 BT	290	155	360	639	208
LS-LEPS	12/11/2013	LEPS131211M	32.1	0.23 T	3.5 BT	420	203	268	827	220
LS-MH46N	10/2/2013	L46N131002M	3.46	0.388	4.4 T	730	563	24.5	1390	17.5
LS-MH46N	11/13/2013	L46N131113M	4.14	0.443	6.2 B	534	463	15.6	996	6.4
LS-MH46N	12/11/2013	L46N131211M	3.19	0.452	3.9 BT	561	405	1.9	976	1.9
LS-PS2A	10/2/2013	LP2A131002M	14.7	0.015 T	< 2 U	4.64	17.4	5	75.2	3.4
LS-PS2A	11/13/2013	LP2A131113M	21.8	0.025 T	2.1 BGT	9.99	17.1	2.1	59.6	1.1
LS-PS2A	12/11/2013	LP2A131211M	19.5	0.026 T	< 2 U	16	16.6	1.8 T	62.6	1 T

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate Metal Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Aluminum, total (mg/L)	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Calcium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Copper, total (mg/L)	Iron, total (mg/L)	Lead, total (mg/L)
LS-API	10/2/2013	LAPI131002M	1.78	< 0.001 U	< 0.001 U	0.0574	< 0.001 U	< 0.002 U	47.2	0.013 T	0.0042 T	0.013 T	3.83	< 0.001 U
LS-API	11/13/2013	LAPI131113M	0.735	< 0.001 U	0.099 T	0.13	< 0.001 U	< 0.002 U	111	0.0897	0.0214	0.0076 T	6.44	< 0.001 U
LS-API	12/11/2013	LAPI131211M	0.633	0.018 T	0.162	0.225	< 0.001 U	< 0.002 U	147	0.183	0.0435	0.0059 T	13.9	< 0.001 U
LS-LEPS	10/2/2013	LEPS131002P								0.0271		0.015 T		< 0.001 U
LS-LEPS	10/2/2013	LEPS131002M	2.37	< 0.001 U	0.038 T	0.0699	< 0.001 U	< 0.002 U	68.1	0.0264	0.0092 T	0.016 T	7.45	< 0.001 U
LS-LEPS	10/16/2013	LEPS131016P						< 0.002 U		0.0346		0.0058 T		< 0.001 U
LS-LEPS	10/30/2013	LEPS131030P						< 0.002 U		0.0737		0.017 T		< 0.001 U
LS-LEPS	11/13/2013	LEPS131113M	1.76	< 0.001 U	0.063 T	0.0929	< 0.001 U	< 0.002 U	71.8	0.0519	0.015 T	0.011 T	6.58	< 0.001 U
LS-LEPS	11/13/2013	LEPS131113P						< 0.002 U		0.0525		0.014 T		< 0.001 U
LS-LEPS	12/11/2013	LEPS131211M	3.35	0.018 T	0.089 T	0.11	< 0.001 U	< 0.002 U	79.2	0.0797	0.0191	0.013 T	9.32	< 0.001 U
LS-LEPS	12/11/2013	LEPS131211P						< 0.002 U		0.0851		0.013 T		< 0.001 U
LS-MH46N	10/2/2013	L46N131002M	0.47 T	< 0.001 U	0.12 T	0.456	< 0.001 U	< 0.002 U	97.3	0.105	0.0365	0.0718	3.8	< 0.001 U
LS-MH46N	11/13/2013	L46N131113M	0.16 T	< 0.001 U	0.071 T	0.369	< 0.001 U	< 0.002 U	95.9	0.0822	0.0292	0.006 T	2.35	< 0.001 U
LS-MH46N	12/11/2013	L46N131211M	< 0.02 U	< 0.001 U	0.075 T	0.319	< 0.001 U	< 0.002 U	85.8	0.0761	0.0289	< 0.002 U	1.98	< 0.001 U
LS-PS2A	10/2/2013	LP2A131002M	0.23 T	< 0.001 U	< 0.001 U	0.0113	< 0.001 U	< 0.002 U	13.5	< 0.005 U	< 0.003 U	0.0365	0.947	< 0.001 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.02 U	< 0.001 U	< 0.001 U	0.0118	< 0.001 U	< 0.002 U	14.4	< 0.005 U	< 0.003 U	0.0201	0.953	< 0.001 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.02 U	< 0.001 U	< 0.001 U	0.0184	< 0.001 U	< 0.002 U	22.5	< 0.005 U	< 0.003 U	0.012 T	0.958	< 0.001 U
FIELD BLANK	10/30/2013	LEPS131030F						< 0.002 U		< 0.005 U		< 0.002 U		< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate Metal Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Magnesium, total (mg/L)	Manganese, total (mg/L)	Mercury, total (mg/L)	Nickel, total (mg/L)	Potassium, total (mg/L)	Selenium, total (mg/L)	Silver, total (mg/L)	Sodium, total (mg/L)	Thallium, total (mg/L)	Tin, total (mg/L)	Vanadium, total (mg/L)	Zinc, total (mg/L)
LS-API	10/2/2013	LAPI131002M	14.9	0.582	< 0.0001 U	0.02 T	34	< 0.001 U	< 0.003 U	96.7	< 0.001 U	< 0.01 U	< 0.002 U	0.0597
LS-API	11/13/2013	LAPI131113M	55.9	1.25	< 0.0001 U	0.12	284	< 0.001 U	< 0.003 U	755	< 0.001 U	0.041 T	0.034 T	0.276
LS-API	12/11/2013	LAPI131211M	96.2	1.59	< 0.0001 U	0.241	574 D	< 0.001 U	< 0.003 U	1500	< 0.001 U	0.054 T	0.0642	0.551
LS-LEPS	10/2/2013	LEPS131002P				0.0499								0.16
LS-LEPS	10/2/2013	LEPS131002M	25.2	0.787	< 0.0001 U	0.0476	84.1	< 0.001 U	< 0.003 U	231	< 0.001 U	< 0.01 U	0.016 T	0.154
LS-LEPS	10/16/2013	LEPS131016P				0.0665								0.0848
LS-LEPS	10/30/2013	LEPS131030P				0.0924								0.229
LS-LEPS	11/13/2013	LEPS131113M	37.5	0.762	< 0.0001 U	0.0781	181	< 0.001 U	< 0.003 U	469	< 0.001 U	0.025 T	0.025 T	0.144
LS-LEPS	11/13/2013	LEPS131113P				0.0779								0.169
LS-LEPS	12/11/2013	LEPS131211M	42.2	0.859	< 0.0001 U	0.0949	207	< 0.001 U	< 0.003 U	561	< 0.001 U	0.026 T	0.028 T	0.207
LS-LEPS	12/11/2013	LEPS131211P				0.0938								0.2
LS-MH46N	10/2/2013	L46N131002M	64.9	0.51	< 0.0001 U	0.165	395	< 0.001 U	< 0.003 U	1320	< 0.001 U	< 0.01 U	0.143	0.0802
LS-MH46N	11/13/2013	L46N131113M	57	0.518	< 0.0001 U	0.134	352	< 0.001 U	< 0.003 U	1110	< 0.001 U	< 0.01 U	0.107	0.024 T
LS-MH46N	12/11/2013	L46N131211M	49.7	0.492	< 0.0001 U	0.123	312	< 0.001 U	< 0.003 U	1010	< 0.001 U	< 0.01 U	0.0924	0.0099 T
LS-PS2A	10/2/2013	LP2A131002M	4.59	0.0956	< 0.0001 U	0.015 T	3.07	< 0.001 U	< 0.003 U	7.53	< 0.001 U	< 0.01 U	< 0.002 U	0.018 T
LS-PS2A	11/13/2013	LP2A131113M	5.54	0.0822	< 0.0001 U	< 0.01 U	4.52	< 0.001 U	< 0.003 U	12.2	< 0.001 U	< 0.01 U	< 0.002 U	0.0259
LS-PS2A	12/11/2013	LP2A131211M	7.54	0.0727	< 0.0001 U	< 0.01 U	7.52	< 0.001 U	< 0.003 U	16.4	< 0.001 U	< 0.01 U	< 0.002 U	0.013 T
FIELD BLANK	10/30/2013	LEPS131030F				< 0.01 U								< 0.004 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,1,1,2- Tetrachloro- ethane 630-20-6 (ug/L)	1,1,1- Trichloro- ethane 71-55-6 (ug/L)	1,1,2,2- Tetrachloro- ethane 79-34-5 (ug/L)	1,1,2- Trichloro- ethane 79-00-5 (ug/L)	1,1-Dichloro- ethane 75-34-3 (ug/L)	1,1-Dichloro- ethene 75-35-4 (ug/L)	1,1-Dichloro- propene 563-58-6 (ug/L)	1,2,3- Trichloro- propane 96-18-4 (ug/L)	1,2-Dibromo- 3- Chloropropan 96-12-8 (ug/L)	1,2- Dibromo- ethane 106-93-4 (ug/L)	1,2-Dichloro- benzene 95-50-1 (ug/L)	1,2-Dichloro- ethane 107-06-2 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	11/13/2013	LAPI131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	3.1 T
LS-API	12/11/2013	LAPI131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	2.3 T
LS-LEPS	10/2/2013	LEPS131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	10/2/2013	L46N131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	11/13/2013	L46N131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	12/11/2013	L46N131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	2.5 T	< 0.2 U
LS-PS2A	10/2/2013	LP2A131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/1/2013	VTRP131002B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/12/2013	VTRP131113C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/12/2013	VTRP131113B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/10/2013	VTRP131211B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/10/2013	VTRP131211C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	1,2-Dichloro- propane	1,3 Dichloro- benzene	1,3-Dichloro- propane	1,4-Dichloro- benzene	2,2-Dichloro- propane	2-Butanone	2-Hexanone	2-Methyl-1- propanol	3-Chloro- propene	4-Methyl-2- Pentanone	Acetone	Acetonitrile
			78-87-5 (ug/L)	541-73-1 (ug/L)	142-28-9 (ug/L)	106-46-7 (ug/L)	594-20-7 (ug/L)	78-93-3 (ug/L)	591-78-6 (ug/L)	78-83-1 (ug/L)	107-05-1 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	75-05-8 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1060 G	< 4 U	172 J	< 10 U	< 4 U	1100	< 100 U
LS-API	11/13/2013	LAPI131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	7390 D	< 4 U	< 100 U	< 10 U	46.2	7870 D	< 100 U
LS-API	12/11/2013	LAPI131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	9860 D	22 T	< 100 U	< 10 U	38 T	9970 D	< 100 U
LS-LEPS	10/2/2013	LEPS131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 GU	< 4 U	< 100 U	< 10 U	< 4 U	240 T	< 100 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	36 T	< 100 U
LS-MH46N	10/2/2013	L46N131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 GU	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N	11/13/2013	L46N131113M	< 0.2 U	< 0.2 U	< 0.2 U	7.12	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
LS-MH46N	12/11/2013	L46N131211M	< 0.2 U	< 0.2 U	< 0.2 U	9.06	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 GU
LS-PS2A	10/2/2013	LP2A131002M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	28 GT	< 4 U	< 100 JU	< 10 U	< 4 U	82.1	< 100 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	28 T	< 4 U	< 100 U	< 10 U	< 4 U	69.5	< 100 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	76.1	< 4 U	< 100 U	< 10 U	< 4 U	119	< 100 U
VOA TRIP BLANK	10/1/2013	VTRP131002B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	4 T	< 100 U
VOA TRIP BLANK	11/12/2013	VTRP131113C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	4.04 B	< 100 U
VOA TRIP BLANK	11/12/2013	VTRP131113B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	12/10/2013	VTRP131211B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	12/10/2013	VTRP131211C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U	< 10 U	< 4 U	< 4 U	< 100 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Acrolein	Acrylonitrile	Benzene	Bromochloro- methane	Bromodichlor o-methane	Bromoform	Bromo- methane	Carbon Disulfide	Carbon Tetrachloride	Chloro- benzene	Chloro- dibromo- methane	Chloroethane
			107-02-8 (ug/L)	107-13-1 (ug/L)	71-43-2 (ug/L)	74-97-5 (ug/L)	75-27-4 (ug/L)	75-25-2 (ug/L)	74-83-9 (ug/L)	75-15-0 (ug/L)	56-23-5 (ug/L)	108-90-7 (ug/L)	124-48-1 (ug/L)	75-00-3 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	11/13/2013	LAPI131113M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	12/11/2013	LAPI131211M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	10/2/2013	LEPS131002M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	11/13/2013	LEPS131113M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	12/11/2013	LEPS131211M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	10/2/2013	L46N131002M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	11/13/2013	L46N131113M	< 10 U	< 0.07 U	2.3 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	12/11/2013	L46N131211M	< 10 U	< 0.07 U	3.5 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.2 T	< 0.2 U	< 0.2 U
LS-PS2A	10/2/2013	LP2A131002M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	11/13/2013	LP2A131113M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	12/11/2013	LP2A131211M	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/1/2013	VTRP131002B	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/12/2013	VTRP131113C	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/12/2013	VTRP131113B	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/10/2013	VTRP131211B	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/10/2013	VTRP131211C	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Chloroform	Chloro- methane	Chloroprene	cis-1,2- Dichloro- ethene	cis-1,3- Dichloro- propene	Dibromo- methane	Dichloro- difluoro- methane	Ethylbenzene	m & p Xylenes	Methyl Iodide	Methyl Methacrylate	Methylacrylo- nitrile
			67-66-3 (ug/L)	74-87-3 (ug/L)	126-99-8 (ug/L)	156-59-2 (ug/L)	10061-01-5 (ug/L)	74-95-3 (ug/L)	75-71-8 (ug/L)	100-41-4 (ug/L)	mpx (ug/L)	74-88-4 (ug/L)	80-62-6 (ug/L)	126-98-7 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3.6 T	7.89	< 0.2 U	< 2 U	< 5 U
LS-API	11/13/2013	LAPI131113M	< 0.2 U	3.1 T	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	3.5 T	9.08	< 0.2 U	< 2 U	< 5 U
LS-API	12/11/2013	LAPI131211M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.3 T	5.65	< 0.2 U	< 2 U	< 5 U
LS-LEPS	10/2/2013	LEPS131002M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
LS-MH46N	10/2/2013	L46N131002M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	35 T	38 T	< 0.2 U	< 2 U	< 5 U
LS-MH46N	11/13/2013	L46N131113M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	32.9	39.7	< 0.2 U	< 2 U	< 5 U
LS-MH46N	12/11/2013	L46N131211M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	46.8	55	< 0.2 U	< 2 U	< 5 U
LS-PS2A	10/2/2013	LP2A131002M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.4 T	< 0.2 U	< 2 U	< 5 U
VOA TRIP BLANK	10/1/2013	VTRP131002B	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
VOA TRIP BLANK	11/12/2013	VTRP131113C	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
VOA TRIP BLANK	11/12/2013	VTRP131113B	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
VOA TRIP BLANK	12/10/2013	VTRP131211B	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U
VOA TRIP BLANK	12/10/2013	VTRP131211C	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate VOA Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Methylene Chloride	o-Xylene	Propionitrile	Styrene	Tetrachloro- ethene	Toluene	trans-1,2- Dichloro- ethene	trans-1,3- Dichloro- propene	trans-1,4- Dichloro-2- butene	Trichloro- ethene	Trichloro- fluoro- methane	Vinyl Acetate	Vinyl Chloride
			75-09-2 (ug/L)	95-47-6 (ug/L)	107-12-0 (ug/L)	100-42-5 (ug/L)	127-18-4 (ug/L)	108-88-3 (ug/L)	156-60-5 (ug/L)	10061-02-6 (ug/L)	110-57-6 (ug/L)	79-01-6 (ug/L)	75-69-4 (ug/L)	108-05-4 (ug/L)	75-01-4 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.2 U	3.7 T	< 60 U	< 0.2 U	< 0.2 U	10.1	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.11 T
LS-API	11/13/2013	LAPI131113M	2.2 T	4.51	< 60 U	< 0.2 U	< 0.2 U	11.2	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.15 T
LS-API	12/11/2013	LAPI131211M	2.5 T	2.7 T	< 60 U	< 0.2 U	< 0.2 U	8.04	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.16 T
LS-LEPS	10/2/2013	LEPS131002M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-MH46N	10/2/2013	L46N131002M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-MH46N	11/13/2013	L46N131113M	< 0.2 U	4.22	< 60 U	< 0.2 U	< 0.2 U	3.2 T	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	2.42
LS-MH46N	12/11/2013	L46N131211M	< 0.2 U	4.82	< 60 U	< 0.2 U	< 0.2 U	4.27	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	5.94
LS-PS2A	10/2/2013	LP2A131002M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/1/2013	VTRP131002B	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/12/2013	VTRP131113C	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/12/2013	VTRP131113B	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/10/2013	VTRP131211B	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/10/2013	VTRP131211C	< 0.2 U	< 0.2 U	< 60 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013
 Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data
 Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	2,4,5-T	2,4,5-TP	2,4-D	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha BHC	Alpha Chlordane	Aroclor 1016	Aroclor 1221	Aroclor 1232
			93-76-5 (ug/L)	93-72-1 (ug/L)	94-75-7 (ug/L)	72-54-8 (ug/L)	72-55-9 (ug/L)	50-29-3 (ug/L)	309-00-2 (ug/L)	319-84-6 (ug/L)	57-74-9 (ug/L)	12674-11-2 (ug/L)	11104-28-2 (ug/L)	11141-16-5 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-API	11/13/2013	LAPI131113M	< 2 U	< 1 U	< 5 U	< 0.1 GU	< 0.1 GU	< 0.1 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.01 U	< 0.01 U	< 0.01 U
LS-API	12/11/2013	LAPI131211M	< 2 U	< 1 U	< 5 U	< 0.1 GU	< 0.1 GU	< 0.1 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	10/2/2013	LEPS131002M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	11/13/2013	LEPS131113M	< 2 U	< 1 U	< 5 U	< 0.1 GU	< 0.1 GU	< 0.1 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.01 U	< 0.01 U	< 0.01 U
LS-LEPS	12/11/2013	LEPS131211M	< 2 U	< 1 U	< 5 U	< 0.1 GU	< 0.1 GU	< 0.1 GU	< 0.025 GU	< 0.025 U	< 0.025 GU	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	10/2/2013	L46N131002M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	11/13/2013	L46N131113M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-MH46N	12/11/2013	L46N131211M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	10/2/2013	LP2A131002M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	11/13/2013	LP2A131113M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U
LS-PS2A	12/11/2013	LP2A131211M	< 2 U	< 1 U	< 5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.01 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Beta BHC	Delta BHC	Dieldrin	Dinoseb	Endo- sulfan I	Endo- sulfan II	Endo- sulfan Sulfate	Endrin
			53469-21-9 (ug/L)	12672-29-6 (ug/L)	11097-69-1 (ug/L)	11096-82-5 (ug/L)	319-85-7 (ug/L)	319-86-8 (ug/L)	60-57-1 (ug/L)	88-85-7 (ug/L)	959-98-8 (ug/L)	33213-65-9 (ug/L)	1031-07-8 (ug/L)	72-20-8 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-API	11/13/2013	LAPI131113M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 GU	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-API	12/11/2013	LAPI131211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 GU	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	10/2/2013	LEPS131002M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 GU	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	10/2/2013	L46N131002M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	11/13/2013	L46N131113M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 GU	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-MH46N	12/11/2013	L46N131211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	10/2/2013	LP2A131002M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.025 U	< 0.1 U	< 0.1 U	< 1 DHU	< 0.1 U	< 0.1 U	< 0.5 U	< 0.1 U

Environmental Monitoring Data

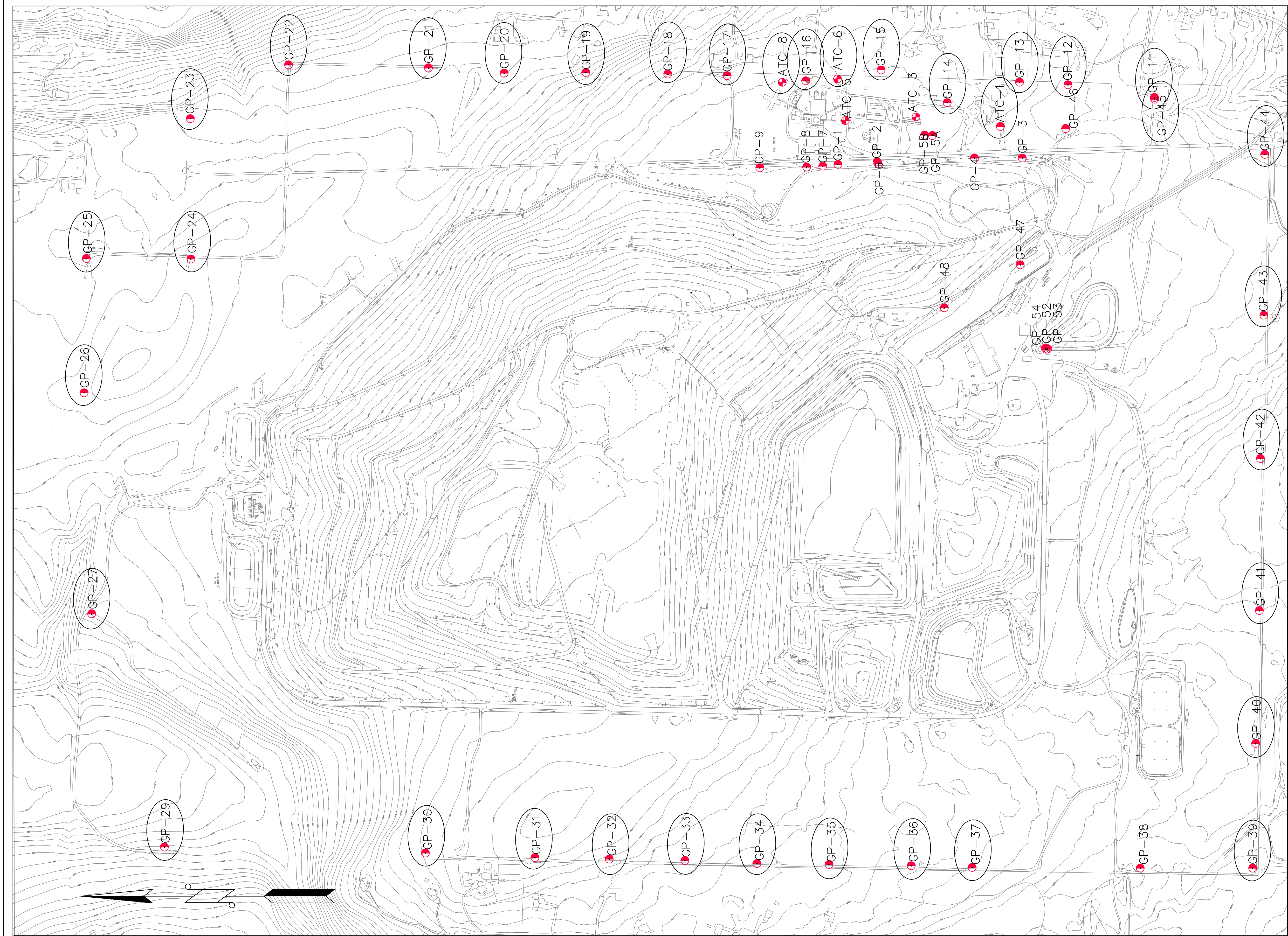
Data Collected from October 1, 2013 to December 31, 2013

Cedar Hills Landfill --- Leachate Pesticide/Herbicide Analytical Data

Contact Person --- Sendy Jimenez (206) 296-4411

Site	Date	Sample ID	Endrin Aldehyde	Heptachlor	Heptachlor Epoxide	Isodrin	Lindane	Methoxy- chlor	Toxaphene
			7421-93-4 (ug/L)	76-44-8 (ug/L)	1024-57-3 (ug/L)	465-73-6 (ug/L)	58-89-9 (ug/L)	72-43-5 (ug/L)	8001-35-2 (ug/L)
LS-API	10/2/2013	LAPI131002M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	11/13/2013	LAPI131113M	< 0.2 GU	< 0.025 GU	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	12/11/2013	LAPI131211M	< 0.2 GU	< 0.025 GU	< 0.025 U	< 10 U	< 0.025 U	< 2 GU	< 2.5 U
LS-LEPS	10/2/2013	LEPS131002M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	11/13/2013	LEPS131113M	< 0.2 GU	< 0.025 GU	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	12/11/2013	LEPS131211M	< 0.2 GU	< 0.025 GU	< 0.025 U	< 10 U	< 0.025 U	< 2 GU	< 2.5 U
LS-MH46N	10/2/2013	L46N131002M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	11/13/2013	L46N131113M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	12/11/2013	L46N131211M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	10/2/2013	LP2A131002M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	11/13/2013	LP2A131113M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	12/11/2013	LP2A131211M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U

Landfill Gas Monitoring Data



Northing	Easting	Elev	Description	Inst. Date
170,000.33	1,701,942.93	640.02	GP-1 CASE EL	1985/86
169,740.00	1,701,960.00	622.00	GP-2 CASE EL	1985/86
168,758.11	1,701,985.28	594.21	GP-3 CASE EL	1985/86
169,058.18	1,701,972.94	606.19	GP-4 CASE EL	1985/86
169,370.19	1,702,134.95	616.23	GP-5A GRND EL	1988
169,422.02	1,702,138.87	619.63	GP-5B CASE EL	1988
169,731.73	1,701,946.48	635.59	GP-6 CASE EL	1988
170,101.22	1,701,930.58	640.66	GP-7 CASE EL	1988
170,208.37	1,701,925.10	642.67	GP8 CASE EL	1988
170,519.95	1,701,919.34	645.27	GP-9 CASE EL	1988
			GP-10 NOT INSTALLED	1988
167,890.09	1,702,389.27	567.15	GP-11 CASE EL	1988
168,466.64	1,702,473.27	568.08	GP-12 CASE EL	1988
168,790.03	1,702,490.84	588.15	GP-13 CASE EL	1988
169,271.56	1,702,354.75	613.32	GP-14 CASE EL	1988
169,724.93	1,702,446.19	618.75	GP-15 CASE EL	1988
170,214.28	1,702,500.56	630.19	GP-16 CASE EL	1988
170,738.83	1,702,535.09	625.18	GP-17 CASE EL	1988
171,132.85	1,702,543.29	600.83	GP-18 CASE EL	1988
171,634.52	1,702,554.91	544.15	GP-19 CASE EL	1988
172,224.83	1,702,550.70	496.61	GP-20 CASE EL	1988
172,729.15	1,702,584.65	489.79	GP-21 CASE EL	1988
173,662.40	1,702,607.81	374.84	GP-22 CASE EL	1988
174,317.16	1,702,248.74	501.77	GP-23 CASE EL	1988
174,313.44	1,701,311.74	544.72	GP-24 CASE EL	1988
175,011.63	1,701,324.89	533.86	GP-25 CASE EL	1988
175,043.82	1,700,364.55	541.69	GP-26 CASE EL	1988
174,983.78	1,698,935.68	484.75	GP-27 CASE EL	1988
			GP-28 NOT INSTALLED	1988
174,455.39	1,697,385.67	431.05	GP-29 CASE EL	1988
172,787.40	1,697,339.61	644.62	GP-30 CASE EL	1988
172,013.96	1,697,321.72	673.37	GP-31 CASE EL	1988
171,524.28	1,697,308.08	647.57	GP-32 CASE EL	1988
171,017.18	1,697,293.36	625.03	GP-33 CASE EL	1988
170,537.12	1,697,287.04	604.93	GP-34 CASE EL	1988
170,083.32	1,697,286.32	596.28	GP-35 CASE EL	1988
169,510.89	1,697,265.94	574.92	GP-36 CASE EL	1988
169,049.03	1,697,252.08	557.38	GP-37 CASE EL	1988
167,909.72	1,697,243.54	523.57	GP-38 CASE EL	1988
167,239.45	1,697,232.41	541.03	GP-39 CASE EL	1988
167,205.68	1,698,100.32	502.77	GP-40 CASE EL	1988
167,191.96	1,698,965.50	482.97	GP-41 CASE EL	1988
167,183.37	1,699,979.90	457.95	GP-42 CASE EL	1988
167,160.00	1,700,961.11	536.86	GP-43 CASE EL	1988
167,135.28	1,702,007.20	529.11	GP-44 CASE EL	1994
167,888.74	1,702,378.77	567.47	GP-45 CASE EL	1994
168,482.15	1,702,182.52	589.79	GP-46 CASE EL	1994
168,783.75	1,701,272.71	600.07	GP-47 CASE EL	1994
169,289.65	1,700,985.98	616.56	GP-48 CASE EL	1994
168,612.91	1,700,710.62	561.13	GP-52 GRND EL	2001
168,601.99	1,700,711.34	561.02	GP-53 GRND EL	2001
168,617.89	1,700,717.53	561.20	GP-54 GRND EL	2001
168,916.92	1,702,195.87	591.29	GP-ATC-1 GRND EL	1985/86
169,479.79	1,702,259.97	616.25	GP-ATC-3 GRND EL	1985/86
			GP-ATC-4 ABANDONED/REMOVED	
169,950.42	1,702,235.30	625.65	GP-ATC-5 GRND EL	1985/86
170,002.70	1,702,512.99	620.16	GP-ATC-6 GRND EL	1985/86
170,371.26	1,702,490.56	629.94	GP-ATC-8 GRND EL	1985/86



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
LANDFILL GAS MIGRATION MONITORING PLAN

APPROVED VICTOR O. OKEREKE DATE 03-19-07
RECOMMENDED TOM THENO DATE 09-28-07
DESIGNED N/A DRAWN PHAM / McEWEN
PROJECT NO. SURVEY NO. SHEET 1 OF 1
\\c:\data\cewpm\lgas-prob-loc\alt-llg-loc\006-geom\probonly.dwg

LEGEND

 INTERIOR LFG MONITORING PROBES

 LFG MIGRATION MONITORING PROBES

DATE	REVISION	BY

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

October 2013 Monitoring

Beginning Barometer: 30.29

Ending Barometer: 30.21

Ambient Temp: 57F

Tech: Dye

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	10/15/2013 13:24	0.0	0.1	20.7	0	0	
ATC-01S	10/15/2013 13:22	0.0	0.0	0.0	0	-3.61	No Reading -Water
ATC-06D	10/15/2013 14:37	0.0	0.4	19.3	0	0.12	
ATC-06S	10/15/2013 14:35	0.0	0.0	20.6	0	0	
ATC-08D	10/15/2013 14:26	0.0	0.3	13.6	0	0.15	
ATC-08S	10/15/2013 14:25	0.0	3.4	13.7	0	0	
GP-11A	10/15/2013 12:37	0.0	0.8	19.9	0	0.09	
GP-11B	10/15/2013 12:38	0.0	0.1	20.4	0	0.19	
GP-11C	10/15/2013 12:40	0.0	0.1	20.4	0	0.19	
GP-11D	10/15/2013 12:42	0.0	0.2	20.3	0	0.17	
GP-12A	10/15/2013 13:03	0.0	0.0	20.5	0	0	
GP-12B	10/15/2013 13:04	0.0	0.0	20.5	0	0	
GP-12C	10/15/2013 13:06	0.0	0.1	18.3	0	5.37	
GP-12D	10/15/2013 13:08	0.0	0.6	5.7	0	-2.82	
GP-13A	10/15/2013 13:12	0.0	1.8	18.1	0	0	
GP-13B	10/15/2013 13:14	0.0	0.2	19.1	0	0	
GP-13C	10/15/2013 13:15	0.0	0.1	20.1	0	0	
GP-13D	10/15/2013 13:17	0.0	0.0	20.7	0	-1.32	
GP-14A	10/15/2013 12:55	0.0	0.0	20.4	0	-1.6	
GP-14B	10/15/2013 12:57	0.0	0.0	20.5	0	-1.67	
GP-15A	10/15/2013 14:17	0.0	0.0	0.0	0	-3.52	No Reading -Water
GP-15C	10/15/2013 14:15	0.0	0.5	17.7	0	0.91	
GP-15D	10/15/2013 14:16	0.0	0.1	20.3	0	-3.64	
GP-16A	10/15/2013 14:32	0.0	0.3	20.4	0	-0.02	
GP-16B	10/15/2013 14:29	0.0	0.1	20.5	0	-2.66	
GP-16C	10/15/2013 14:30	0.0	0.0	20.6	0	-1.07	
GP-17A	10/15/2013 15:00	0.0	0.0	0.0	0	0.16	No Reading -Water
GP-17B	10/15/2013 15:02	0.0	0.8	16.6	0	0	
GP-17C	10/15/2013 15:04	0.0	0.0	20.7	0	-0.93	
GP-18A	10/15/2013 15:07	0.0	0.1	20.7	0	0	
GP-18B	10/15/2013 15:08	0.0	0.3	14.6	0	0	
GP-18C	10/15/2013 15:10	0.0	0.1	20.7	0	-0.9	
GP-19A	10/15/2013 15:13	0.0	0.0	20.8	0	0	
GP-19B	10/15/2013 15:14	0.0	0.6	16.1	0	0	
GP-19C	10/15/2013 15:16	0.0	0.0	20.8	0	-0.06	
GP-20A	10/15/2013 15:19	0.0	0.0	20.9	0	0	
GP-20B	10/15/2013 15:21	0.0	0.2	20.3	0	0	
GP-20C	10/15/2013 15:22	0.0	0.2	8.0	0	0	
GP-21A	10/15/2013 15:25	0.0	0.1	20.7	0	0	
GP-21B	10/15/2013 15:26	0.0	0.1	9.2	0	-0.28	
GP-21C	10/15/2013 15:28	0.0	0.1	20.6	0	-0.07	
GP-22A	10/15/2013 15:31	0.0	0.8	19.7	0	-6.37	
GP-22C	10/15/2013 15:33	0.0	3.4	11.4	0	-0.38	
GP-23A	10/15/2013 15:37	0.0	0.1	20.9	0	0	
GP-23B	10/15/2013 15:39	0.0	0.0	20.9	0	0.06	
GP-23C	10/15/2013 15:40	0.0	0.0	20.9	0	0	
GP-24A	10/15/2013 15:44	0.0	6.2	12.0	0	0	
GP-24B	10/15/2013 15:45	0.0	0.6	19.9	0	0.11	
GP-25	10/15/2013 15:48	0.0	4.2	11.2	0	0	
GP-26	10/15/2013 15:51	0.0	0.6	20.4	0	0	
GP-27	10/15/2013 15:55	0.0	10.3	7.0	0	-0.08	
GP-29A	10/15/2013 16:00	0.0	1.5	19.5	0	0	
GP-29B	10/15/2013 16:01	0.0	0.3	20.8	0	0	
GP-30A	10/15/2013 7:24	0.0	2.4	18.0	0	0.03	
GP-30B	10/15/2013 7:25	0.0	1.1	19.9	0	-0.2	
GP-31A	10/15/2013 7:29	0.0	6.7	13.6	0	0	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

October 2013 Monitoring

Beginning Barometer: 30.29

Ending Barometer: 30.21

Ambient Temp: 57F

Tech: Dye

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-31B	10/15/2013 7:31	0.0	0.3	15.1	0	-0.38	
GP-31C	10/15/2013 7:32	0.0	1.5	15.5	0	0	
GP-32A	10/15/2013 7:45	0.0	0.7	19.3	0	0	
GP-32B	10/15/2013 7:47	0.0	0.3	20.6	0	0	
GP-32C	10/15/2013 7:49	0.0	0.3	20.6	0	0	
GP-33A	10/15/2013 7:52	0.0	2.6	16.6	0	0	
GP-33B	10/15/2013 7:53	0.0	0.1	20.9	0	0.29	
GP-33C	10/15/2013 7:55	0.0	0.1	21.0	0	-1.05	
GP-34A	10/15/2013 7:58	0.0	0.0	0.0	0	-0.04	No Reading -Water
GP-34B	10/15/2013 8:00	0.0	0.1	21.0	0	-0.11	
GP-34C	10/15/2013 8:02	0.0	0.1	20.8	0	-1.56	
GP-35A	10/15/2013 8:05	0.0	0.1	21.0	0	0	
GP-35B	10/15/2013 8:06	0.0	0.1	21.0	0	0	
GP-35C	10/15/2013 8:08	0.0	0.1	21.0	0	-0.09	
GP-36A	10/15/2013 8:12	0.0	0.5	18.8	0	0.42	
GP-36B	10/15/2013 8:14	0.0	0.1	21.0	0	-0.05	
GP-36C	10/15/2013 8:15	0.0	0.3	10.0	0	-2.14	
GP-37A	10/15/2013 8:19	0.0	0.0	0.0	0	-0.48	No Reading -Water
GP-37B	10/15/2013 8:21	0.0	0.8	19.7	0	-0.19	
GP-37C	10/15/2013 8:22	0.0	0.5	4.8	0	-1.52	
GP-39	10/15/2013 8:29	0.0	1.6	18.2	0	-0.06	
GP-40	10/15/2013 8:34	0.0	0.1	20.8	0	-0.05	
GP-41A	10/15/2013 8:40	0.0	0.1	20.8	0	0	
GP-41B	10/15/2013 8:42	0.0	0.1	20.7	0	0	
GP-41C	10/15/2013 8:44	0.0	0.1	20.8	0	0	
GP-42A	10/15/2013 8:50	0.0	0.1	20.7	0	-0.04	
GP-42B	10/15/2013 8:48	0.0	0.3	20.5	0	-0.4	
GP-43A	10/15/2013 8:56	0.0	0.1	20.7	0	-0.14	
GP-43B	10/15/2013 8:58	0.0	0.1	20.7	0	-0.03	
GP-43C	10/15/2013 9:00	0.0	0.1	20.8	0	-0.05	
GP-44A	10/15/2013 9:04	0.0	0.1	20.8	0	0	
GP-44B	10/15/2013 9:05	0.0	0.8	9.4	0	0.52	
GP-44C	10/15/2013 9:07	0.0	0.1	20.9	0	0	
GP-45D	10/15/2013 12:48	0.0	0.0	20.5	0	0.2	
GP-45I	10/15/2013 12:46	0.0	0.0	20.5	0	0	
GP-45S	10/15/2013 12:44	0.0	0.0	20.4	0	0	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

November 2013 Monitoring

Beginning Barometer: 30.18

Ending Barometer: 30.10

Ambient Temp: 47F

Tech: DB

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	11/14/2013 8:19	0.0	0.0	21.0	0	0	
ATC-01S	11/14/2013 8:18	0.0	0.0	0.0	0	-1	No Reading -Water
ATC-06D	11/14/2013 9:30	0.0	0.9	10.7	0	0.26	
ATC-06S	11/14/2013 9:29	0.0	0.0	21.0	0	3.98	
ATC-08D	11/14/2013 9:35	0.0	0.3	16.8	0	0.08	
ATC-08S	11/14/2013 9:34	0.0	3.3	13.6	0	0.1	
GP-11A	11/14/2013 7:46	0.0	0.2	20.8	0	0.23	
GP-11B	11/14/2013 7:47	0.0	0.0	21.0	0	0.85	
GP-11C	11/14/2013 7:50	0.0	0.0	21.0	0	0.7	
GP-11D	11/14/2013 7:51	0.0	0.1	20.9	0	0.33	
GP-12A	11/14/2013 8:27	0.0	0.0	21.0	0	0.56	
GP-12B	11/14/2013 8:28	0.0	0.0	21.0	0	0.74	
GP-12C	11/14/2013 8:30	0.0	0.1	18.5	0	-2.7	
GP-12D	11/14/2013 8:31	0.0	0.7	5.4	0	-1.17	
GP-13A	11/14/2013 8:37	0.0	0.0	21.0	0	0	
GP-13B	11/14/2013 8:38	0.0	0.0	21.0	0	0.02	
GP-13C	11/14/2013 8:40	0.0	0.1	20.1	0	0.35	
GP-13D	11/14/2013 8:42	0.0	0.0	21.0	0	-0.37	
GP-14A	11/14/2013 8:47	0.0	0.0	21.0	0	-0.33	
GP-14B	11/14/2013 8:48	0.0	0.0	21.0	0	-0.49	
GP-15A	11/14/2013 9:10	0.0	0.0	0.0	0	-2.52	No Reading -Water
GP-15C	11/14/2013 9:12	0.0	0.9	16.8	0	0.77	
GP-15D	11/14/2013 9:13	0.0	0.2	21.0	0	-5.08	
GP-16A	11/14/2013 9:22	0.0	0.2	21.0	0	0.2	
GP-16B	11/14/2013 9:24	0.0	0.1	21.0	0	-0.36	
GP-16C	11/14/2013 9:26	0.0	0.1	21.0	0	-0.25	
GP-17A	11/14/2013 12:38	0.0	0.0	0.0	0	0.66	No Reading -Water
GP-17B	11/14/2013 12:39	0.0	1.0	16.0	0	0.01	
GP-17C	11/14/2013 12:41	0.0	0.1	20.7	0	0.33	
GP-18A	11/14/2013 12:44	0.0	0.0	0.0	0	-0.09	No Reading -Water
GP-18B	11/14/2013 12:46	0.0	0.4	13.0	0	0	
GP-18C	11/14/2013 12:48	0.0	0.3	20.6	0	0.05	
GP-19A	11/14/2013 12:51	0.0	0.0	21.0	0	0	
GP-19B	11/14/2013 12:53	0.0	0.7	15.8	0	0	
GP-19C	11/14/2013 12:54	0.0	0.0	21.0	0	-0.71	
GP-20A	11/14/2013 12:58	0.0	0.0	21.0	0	0	
GP-20B	11/14/2013 12:59	0.0	0.2	19.1	0	0.11	
GP-20C	11/14/2013 13:01	0.0	0.2	4.6	0	0.13	
GP-21A	11/14/2013 13:04	0.0	0.4	20.3	0	-2.26	
GP-21B	11/14/2013 13:06	0.0	0.1	8.5	0	0.08	
GP-21C	11/14/2013 13:08	0.0	0.1	8.8	0	0.16	
GP-22A	11/14/2013 13:15	0.0	1.1	19.5	0	-5.49	
GP-22C	11/14/2013 13:17	0.0	3.2	11.4	0	0.79	
GP-23A	11/14/2013 13:38	0.0	0.0	20.9	0	0.09	
GP-23B	11/14/2013 13:40	0.0	0.0	20.9	0	0	
GP-23C	11/14/2013 13:41	0.0	0.0	20.9	0	0	
GP-24A	11/14/2013 13:46	0.0	6.9	5.3	0	0	
GP-24B	11/14/2013 13:48	0.0	3.2	15.4	0	0.03	
GP-25	11/14/2013 13:51	0.0	4.8	11.0	0	0.1	
GP-26	11/14/2013 13:54	0.0	1.1	19.4	0	0.2	
GP-27	11/14/2013 13:58	0.0	10.0	6.8	0	-0.49	
GP-29A	11/14/2013 14:02	0.0	0.8	20.4	0	0.01	
GP-29B	11/14/2013 14:04	0.0	0.3	21.0	0	0.16	
GP-30A	11/14/2013 14:16	0.0	2.5	18.2	0	0.22	
GP-30B	11/14/2013 14:18	0.0	1.1	19.6	0	0.52	
GP-31A	11/14/2013 14:21	0.0	6.3	14.0	0	0.11	
GP-31B	11/14/2013 14:22	0.0	0.3	14.9	0	0.52	
GP-31C	11/14/2013 14:24	0.0	2.5	10.6	0	2.03	
GP-32A	11/14/2013 14:27	0.0	0.9	19.5	0	0.14	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

November 2013 Monitoring

Beginning Barometer: 30.18

Ending Barometer: 30.10

Ambient Temp: 47F

Tech: DB

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-32B	11/14/2013 14:29	0.0	0.3	20.9	0	0.27	
GP-32C	11/14/2013 14:30	0.0	0.4	20.8	0	0.04	
GP-33A	11/14/2013 14:34	0.0	0.1	21.0	0	0.01	
GP-33B	11/14/2013 14:35	0.0	0.0	21.0	0	0.67	
GP-33C	11/14/2013 14:37	0.0	0.1	21.0	0	0	
GP-34A	11/14/2013 14:41	0.0	0.0	0.0	0	13.56	No Reading -Water
GP-34B	11/14/2013 14:43	0.0	0.2	21.0	0	0.15	
GP-34C	11/14/2013 14:44	0.0	0.1	21.0	0	0.59	
GP-35A	11/14/2013 14:48	0.0	0.0	21.0	0	0.11	
GP-35B	11/14/2013 14:49	0.0	0.0	21.0	0	0.01	
GP-35C	11/14/2013 14:51	0.0	0.0	21.0	0	0.12	
GP-36A	11/14/2013 14:57	0.0	0.3	8.0	0	1.62	
GP-36B	11/14/2013 14:58	0.0	0.0	0.0	0	-0.02	No Reading -Water
GP-36C	11/14/2013 15:00	0.0	0.3	8.3	0	0.79	
GP-37A	11/14/2013 15:02	0.0	0.0	0.0	0	0.43	No Reading -Water
GP-37B	11/14/2013 15:03	0.0	3.4	15.2	0	-0.07	
GP-37C	11/14/2013 15:05	0.0	0.6	0.9	0	1.39	
GP-39	11/14/2013 15:10	0.0	0.5	18.0	0	0.14	
GP-40	11/14/2013 15:14	0.0	0.0	20.3	0	0.11	
GP-41A	11/14/2013 15:18	0.0	0.0	21.0	0	0.13	
GP-41B	11/14/2013 15:19	0.0	0.0	21.0	0	-0.01	
GP-41C	11/14/2013 15:21	0.0	0.0	21.0	0	0	
GP-42A	11/14/2013 15:25	0.0	0.0	0.0	0	0.06	No Reading -Water
GP-42B	11/14/2013 15:26	0.0	0.3	20.9	0	0.71	
GP-43A	11/14/2013 15:30	0.0	0.1	21.0	0	0.16	
GP-43B	11/14/2013 15:32	0.0	0.0	21.0	0	-0.03	
GP-43C	11/14/2013 15:33	0.0	0.0	21.0	0	0.02	
GP-44A	11/14/2013 15:37	0.0	0.0	21.0	0	0.01	
GP-44B	11/14/2013 15:38	0.0	0.4	16.6	0	1.12	
GP-44C	11/14/2013 15:40	0.0	0.0	21.0	0	0.09	
GP-45D	11/14/2013 7:57	0.0	0.0	21.0	0	0.42	
GP-45I	11/14/2013 7:55	0.0	0.0	21.0	0	0.22	
GP-45S	11/14/2013 7:53	0.0	0.0	21.0	0	0.19	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2013 Monitoring

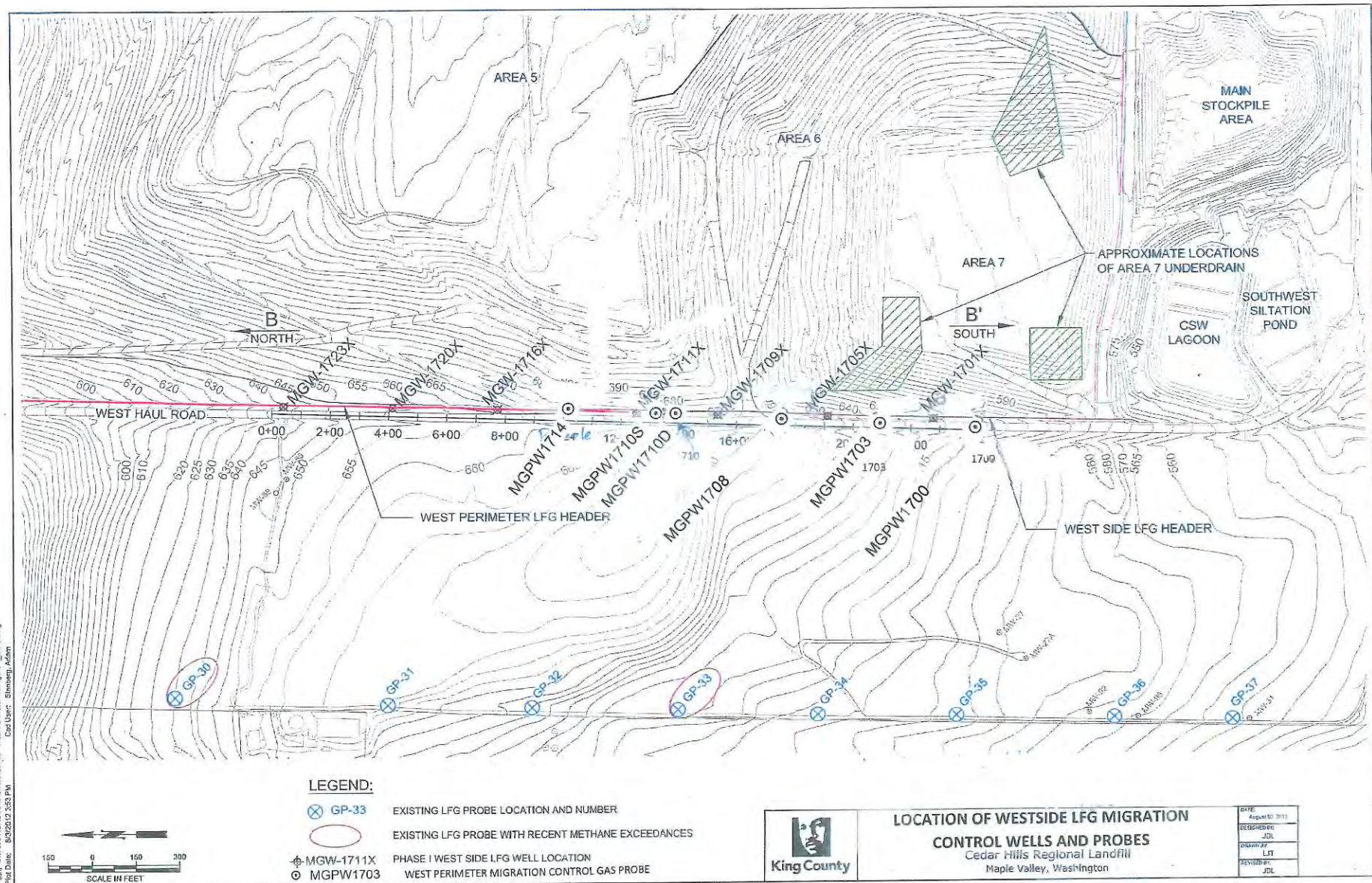
Beginning Barometer: 30.39
Ending Barometer: 30.38
Ambient Temp: 40 F.
Tech: JP

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	12/10/2013 11:36	0.0	0.1	20.7	0	-10.42	
ATC-01S	12/10/2013 11:35	0.0	0.0	0.0	0	0	No Reading -Water
ATC-06D	12/10/2013 12:28	0.0	0.7	11.8	0	0.06	
ATC-06S	12/10/2013 12:27	0.0	0.1	20.8	0	-6.29	
ATC-08D	12/10/2013 12:38	0.0	0.2	19.6	0	0.04	
ATC-08S	12/10/2013 12:37	0.0	2.8	17.2	0	0	
GP-11A	12/10/2013 11:25	0.0	0.1	20.4	0	0.14	
GP-11B	12/10/2013 11:27	0.0	0.0	20.5	0	-0.11	
GP-11C	12/10/2013 11:28	0.0	0.0	20.5	0	-0.08	
GP-11D	12/10/2013 11:30	0.0	0.1	20.5	0	0.1	
GP-12A	12/10/2013 11:51	0.0	0.1	21.0	0	-3.24	
GP-12B	12/10/2013 11:53	0.0	0.0	20.9	0	-0.75	
GP-12C	12/10/2013 11:54	0.0	0.2	18.3	0	-16.72	
GP-12D	12/10/2013 11:56	0.0	0.7	4.2	0	-2.88	
GP-13A	12/10/2013 11:42	0.0	0.1	20.9	0	0.02	
GP-13B	12/10/2013 11:44	0.0	0.1	20.9	0	0.02	
GP-13C	12/10/2013 11:46	0.0	0.0	20.9	0	0.01	
GP-13D	12/10/2013 11:47	0.0	0.0	21.0	0	-1.7	
GP-14A	12/10/2013 12:02	0.0	0.1	20.8	0	-1.85	
GP-14B	12/10/2013 12:04	0.0	0.1	21.0	0	-1.89	
GP-15A	12/10/2013 12:17	0.0	1.1	20.2	0	-5.75	Water at 30 seconds.
GP-15C	12/10/2013 12:19	0.0	0.6	18.2	0	0.41	
GP-15D	12/10/2013 12:20	0.0	0.2	20.8	0	-4.04	
GP-16A	12/10/2013 12:31	0.0	0.2	20.5	0	0	
GP-16B	12/10/2013 12:33	0.0	0.1	20.7	0	-3.53	
GP-16C	12/10/2013 12:34	0.0	0.1	20.8	0	-1.67	
GP-17A	12/10/2013 15:53	0.0	0.0	0.0	0	0	No Reading -Water
GP-17B	12/10/2013 15:54	0.0	1.0	16.0	0	-0.18	
GP-17C	12/10/2013 15:56	0.0	0.1	20.1	0	-1.38	
GP-18A	12/10/2013 15:59	0.0	0.0	0.0	0	0	No Reading -Water
GP-18B	12/10/2013 16:00	0.0	0.4	12.3	0	0	
GP-18C	12/10/2013 16:02	0.0	0.1	19.6	0	-0.21	
GP-19A	12/10/2013 16:05	0.0	0.0	20.4	0	0	
GP-19B	12/10/2013 16:07	0.0	0.8	15.3	0	0.01	
GP-19C	12/10/2013 16:08	0.0	0.1	20.4	0	-0.08	
GP-20A	12/10/2013 16:11	0.0	0.0	20.6	0	0	
GP-20B	12/10/2013 16:13	0.0	0.2	19.8	0	0	
GP-20C	12/10/2013 16:14	0.0	0.2	3.7	0	0	
GP-21A	12/10/2013 16:18	0.0	0.2	19.9	0	-3	
GP-21B	12/10/2013 16:19	0.0	0.1	8.2	0	0	
GP-21C	12/10/2013 16:20	0.0	0.0	0.0	0	0	No Reading -Water
GP-22A	12/10/2013 16:24	0.0	0.6	19.8	0	-9.4	
GP-22C	12/10/2013 16:26	0.0	2.9	11.0	0	-1.08	
GP-23A	12/10/2013 16:30	0.0	0.1	20.5	0	0.01	
GP-23B	12/10/2013 16:31	0.0	0.1	20.7	0	0	
GP-23C	12/10/2013 16:32	0.0	0.1	20.8	0	0.01	
GP-24A	12/10/2013 16:37	0.0	5.0	9.9	0	0	
GP-24B	12/10/2013 16:38	0.0	0.4	19.7	0	0	
GP-025	12/10/2013 16:41	0.0	3.6	12.3	0	0	
GP-026	12/10/2013 16:44	0.0	1.1	19.5	0	0.05	
GP-027	12/10/2013 16:47	0.0	9.6	7.4	0	-1.23	
GP-29A	12/10/2013 16:52	0.0	1.6	19.2	0	0	
GP-29B	12/10/2013 16:53	0.0	0.5	20.5	0	0	
GP-30A	12/10/2013 13:43	0.0	2.7	17.8	0	0.08	
GP-30B	12/10/2013 13:44	0.0	1.1	19.2	0	-0.13	
GP-31A	12/10/2013 13:47	0.0	6.4	12.3	0	0	
GP-31B	12/10/2013 13:49	0.0	0.4	14.0	0	-0.71	
GP-31C	12/10/2013 13:51	0.0	2.7	8.3	0	3.84	
GP-32A	12/10/2013 13:53	0.0	1.0	19.4	0	0	
GP-32B	12/10/2013 13:55	0.0	0.5	19.8	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2013 Monitoring

Beginning Barometer: 30.39
Ending Barometer: 30.38
Ambient Temp: 40 F.
Tech: JP

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-32C	12/10/2013 13:56	0.0	0.5	19.8	0	0	
GP-33A	12/10/2013 14:22	0.0	2.0	18.0	0	0	
GP-33B	12/10/2013 14:24	0.0	0.1	20.3	0	-0.52	
GP-33C	12/10/2013 14:25	0.0	0.1	20.3	0	-0.71	
GP-34A	12/10/2013 14:27	0.0	0.1	20.4	0	5.74	
GP-34B	12/10/2013 14:29	0.0	0.1	20.3	0	0	
GP-34C	12/10/2013 14:31	0.0	0.1	20.4	0	-0.96	
GP-35A	12/10/2013 14:33	0.0	0.1	20.5	0	-9.04	
GP-35B	12/10/2013 14:35	0.0	0.1	20.6	0	0	
GP-35C	12/10/2013 14:36	0.0	0.1	20.6	0	-0.07	
GP-36A	12/10/2013 14:39	0.0	0.3	5.9	0	0.15	
GP-36B	12/10/2013 14:40	0.0	0.0	0.0	0	0	No Reading -Water
GP-36C	12/10/2013 14:49	0.0	0.4	9.2	0	-1.17	
GP-37A	12/10/2013 14:49	0.0	0.0	0.0	0	0	No Reading -Water
GP-37B	12/10/2013 14:49	0.0	0.4	17.0	0	0.44	
GP-37C	12/10/2013 14:50	0.0	0.6	2.3	0	0	
GP-039	12/10/2013 14:54	0.0	1.5	17.4	0	-0.02	
GP-040	12/10/2013 14:57	0.0	0.1	19.5	0	0	
GP-41A	12/10/2013 15:00	0.0	0.1	20.6	0	0	
GP-41B	12/10/2013 15:02	0.0	0.1	20.5	0	0	
GP-41C	12/10/2013 15:03	0.0	0.1	20.6	0	0	
GP-42A	12/10/2013 15:06	0.0	0.0	0.0	0	0	No Reading -Water
GP-42B	12/10/2013 15:07	0.0	0.1	20.5	0	-0.05	
GP-43A	12/10/2013 15:11	0.0	0.1	20.5	0	-0.11	
GP-43B	12/10/2013 15:12	0.0	0.1	20.6	0	-0.02	
GP-43C	12/10/2013 15:14	0.0	0.1	20.6	0	-0.02	
GP-44A	12/10/2013 15:17	0.0	0.1	20.6	0	0	
GP-44B	12/10/2013 15:19	0.0	0.9	9.9	0	-1.7	
GP-44C	12/10/2013 15:20	0.0	0.1	20.5	0	0	
GP-45D	12/10/2013 11:23	0.0	0.0	20.4	0	-0.16	
GP-45I	12/10/2013 11:22	0.0	0.0	20.4	0	0	
GP-45S	12/10/2013 11:20	0.0	0.0	20.5	0	0	



CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
Fourth Quarter 2013 Monitoring

Probe ID	Date	Time	Barometric				Static Pressure in INWC
			Pressure in Hg	CH4 %vol	CO2 %vol	O2 %vol	
MGPW 1700	10/1/2013	9:37am	29.96	0	0.1	21	-0.75
MGPW 1700	10/8/2013	9:31am	30	0	0.1	21	0
MGPW 1700	10/15/2013	9:28am	30.28	0	0.2	20.8	-0.64
MGPW 1700	10/22/2013	9:35am	30.09	0	0.2	20.8	0.02
MGPW 1700	10/29/2013	9:48am	30.01	0	0.1	19.6	0
MGPW 1700	11/4/2013	11:17am	30.12	0	0.1	20.7	-0.1
MGPW 1700	11/18/2013	11:09am	29.86	0	0.4	19.4	0.3
MGPW 1700	12/2/2013	9:43am	29.9	0	0.2	19.7	1.01
MGPW 1700	12/17/2013	11:09am	30.18	0	0.2	20.3	0.31
MGPW 1703	10/1/2013	9:39am	29.96	0	0.1	21	-3.48
MGPW 1703	10/8/2013	9:29am	30	10.3	4.6	2.6	0.50
MGPW 1703	10/9/2013	10:30am	30.1	2.4	1.4	14.6	-1.21
MGPW 1708	10/1/2013	9:41am	29.96	0	0.1	21	-3.86
MGPW 1708	10/8/2013	9:27am	30	0	0.1	21	-1.2
MGPW 1708	10/15/2013	9:34am	30.28	0	0.1	20.7	-1.82
MGPW 1708	10/22/2013	9:38am	30.09	0	0	20.9	-1.6
MGPW 1708	10/29/2013	9:45am	30.01	0	0	21	-2.31
MGPW 1708	11/4/2013	11:20am	30.12	0	0.1	20.9	-2.6
MGPW 1708	11/18/2013	11:12am	29.86	0	0.2	21	-1.1
MGPW 1708	12/2/2013	9:45am	29.9	0	0.1	20.8	-1.87
MGPW 1708	12/17/2013	11:13m	30.18	0	0.1	20.8	-0.99
MGPW 1710S	10/1/2013	9:44am	29.96	0	0.1	21	-2.97
MGPW 1710S	10/8/2013	9:23am	30	0	0.1	21	-0.8
MGPW 1710S	10/15/2013	9:36am	30.28	0	0	20.8	-1.58
MGPW 1710S	10/22/2013	9:42am	30.09	0	0	20.9	-1.32
MGPW 1710S	10/29/2013	9:42am	30.01	0	0	21	-2.15
MGPW 1710S	11/4/2013	11:22am	30.12	0.0	0.1	20.8	-2.00
MGPW 1710S	11/18/2013	11:15am	29.86	0.0	0.1	21.0	-0.60
MGPW 1710S	12/2/2013	9:47am	29.90	0.0	0.1	20.9	-1.54
MGPW 1710S	12/17/2013	11:15am	30.18	0.0	0.1	20.9	-0.90

CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
Fourth Quarter 2013 Monitoring

Probe ID	Date	Time	Barometric	CH4	CO2	O2	Static
			Pressure in Hg	%vol	%vol	%vol	Pressure in INWC
MGPW 1710D	10/1/2013	9:46am	29.96	0.0	0.1	21.0	-3.58
MGPW 1710D	10/8/2013	9:25am	30.00	0.0	0.1	21.0	-1.10
MGPW 1710D	10/15/2013	9:38am	30.28	0.0	0.0	20.8	-1.63
MGPW 1710D	10/22/2013	9:45am	30.09	0.0	0.0	20.9	-1.47
MGPW 1710D	10/29/2013	9:40am	30.01	0.0	0.0	20.9	-1.79
MGPW 1710D	11/4/2013	11:24am	30.12	0.0	0.1	20.9	-2.3
MGPW 1710D	11/18/2013	11:17am	29.86	0.0	0.1	21.0	-0.9
MGPW 1710D	12/2/2013	9:49am	29.90	0.0	0.1	20.9	-1.83
MGPW 1710D	12/17/2013	11:17am	30.18	0.0	0.1	20.9	-0.92
MGPW 1714	10/1/2013	9:49am	29.96	0.0	0.1	21.0	-3.26
MGPW 1714	10/8/2013	9:20am	30.00	0.0	0.1	21.0	-0.9
MGPW 1714	10/15/2013	9:41am	30.28	0.0	0.0	20.7	-1.41
MGPW 1714	10/22/2013	9:49am	30.09	0.0	0.0	20.9	-1.26
MGPW 1714	10/29/2013	9:37am	30.01	0.0	0.1	21.0	-1.95
MGPW 1714	11/4/2013	11:27am	30.12	0.0	0.1	20.9	-2.1
MGPW 1714	11/18/2013	11:19am	29.86	0.0	0.1	21.0	-0.7
MGPW 1714	12/2/2013	9:52am	29.90	0.0	0.1	20.9	-1.64
MGPW 1714	12/17/2013	11:20am	30.18	0.0	0.1	20.9	-0.77

CEDAR HILLS REGIONAL LANDFILL**Supplemental Gas Migration Monitoring****Compliance Probes GP-30B and GP-33C****Fourth Quarter 2013**

Probe ID	Date	Time	Barometric	CH ₄	CO ₂	O ₂	Static
			Pressure in. Hg				Pressure in. WC
GP-30B	10/1/13	9:25am	29.96	0	1.1	20.1	-1.29
GP-30B	10/8/13	8:47am	30.00	0	0.7	20.6	0.00
GP-30B	10/15/13	9:44am	30.28	0	1.1	19.5	-0.25
GP-30B	10/22/13	9:55am	30.09	0	0.4	20.8	-0.34
GP-30B	10/29/13	9:07am	30.01	0	1.1	19.7	-0.81
GP-33C	10/1/13	9:30am	29.96	0	0.1	21	-2.55
GP-33C	10/8/13	8:52am	30.00	0	0.1	21	-0.60
GP-33C	10/15/13	9:49am	30.28	0	0	20.8	-0.92
GP-33C	10/22/13	10:00am	30.09	0	0	20.9	-0.84
GP-33C	10/29/13	9:13am	30.01	0	0.1	21	-1.51

KING COUNTY SOLID WASTE DIVISION
QUALIFIER INFORMATION
(Effective 4/1/2009)

QUAL	QUALIFIER DESCRIPTION
U	Undetected Analyte concentration <MDL – Less than Method detection limit
T	Estimated, Less than Reporting Detection Limit but greater than Method detection limit
J	Reported value is an estimate
B	Contamination present in Blank
C	Confluent Growth
E	Estimated, outside expected accuracy
H	Exceeds holding time
R	Data Rejected
S	Sample handling errors
X	Too numerous to count
D	Dilution
P	PASS – Qualitative result acceptable
F	FAIL – Qualitative result is not acceptable
G	Greater than
L	Less than

APPENDIX C

Meteorological Data

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

WIND SPEED

FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2013

IN MILES PER HOUR

DAY	HOUR ENDING																								AVG.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	6.2	6.6	8.1	7.8	8.5	7.5	8.5	9.6	8.0	5.8	6.9	9.6	10.9	9.6	7.7	7.3	8.0	6.7	6.7	7.0	4.8	6.1	6.5	4.7	7.5
2	4.9	8.2	5.2	4.8	3.4	2.7	4.3	1.3	2.5	4.1	4.2	6.3	6.3	2.0	4.0	3.0	4.0	4.2	5.5	3.1	4.1	3.9	3.2	1.9	4.0
3	2.8	3.5	2.0	3.0	3.2	1.6	1.3	2.5	1.9	0.5	1.4	2.6	2.4	3.0	3.3	1.2	0.8	0.6	1.5	1.2	1.8	1.5	1.2	0.7	1.9
4	0.5	2.5	0.3	1.6	0.3	1.5	1.9	3.2	3.6	2.1	2.2	2.0	4.4	5.0	3.1	4.3	1.7	1.9	2.4	1.0	0.5	1.9	2.7	4.8	2.3
5	1.7	0.8	0.3	0.1	1.0	4.0	3.3	2.1	1.6	2.8	4.8	4.4	6.4	7.2	5.7	6.6	2.4	3.3	4.8	6.0	5.0	2.7	1.3	1.5	3.3
6	3.8	5.4	4.0	2.0	1.2	2.3	3.3	4.5	4.4	5.0	4.1	4.8	6.6	8.7	7.8	6.3	6.3	8.3	6.1	3.6	3.1	3.7	3.0	5.5	4.7
7	5.0	6.8	7.1	6.8	8.0	8.0	7.9	7.3	10.8	12.2	11.5	12.5	14.8	16.5	15.8	13.7	15.4	12.6	11.8	12.0	10.7	8.8	9.5	10.9	10.7
8	11.6	12.1	13.0	12.0	9.4	9.0	9.4	9.1	6.7	5.2	7.2	5.9	3.0	3.6	5.9	4.0	3.3	2.5	2.3	1.4	0.5	1.2	0.4	0.4	5.8
9	0.8	2.1	1.9	0.9	1.1	2.6	1.8	2.9	2.7	2.7	2.5	2.2	3.5	2.5	2.3	2.6	3.7	2.5	0.9	1.4	2.6	0.5	1.4	1.7	2.1
10	2.0	2.6	3.5	2.2	3.8	3.2	3.7	3.4	3.7	4.0	3.7	3.7	1.2	5.1	6.1	6.0	0.9	1.1	2.8	1.5	0.5	0.8	1.2*****	2.9	
11	*****	1.4*****	*****	*****	*****	*****	*****	*****	4.1	4.0	3.8	3.2	4.5	4.5	1.4	1.4	0.6	1.5	1.6	0.6	1.2	1.6	0.6*****	2.3	
12	1.9	3.2	2.3*****	*****	*****	*****	*****	0.5	1.1	2.8	4.3	6.1	5.2	6.8	6.5	5.5	4.8	3.1	4.7	4.9	5.8	5.4	4.2	5.0	4.2
13	6.3	3.9	3.1	1.7	1.0	1.8	2.2	0.3	1.2	1.0	0.6	1.5	1.9	3.4	3.4	1.8	1.9	1.8	1.4	1.9	1.6	1.2	0.9	1.9	2.0
14	1.4	0.3	0.1	0.6	0.6	0.2	0.5	1.0	1.4	2.6	2.5	2.6	3.4	4.0	4.4	4.2	4.5	3.0	4.6	4.3	4.6	4.9	4.2	2.6	2.6
15	0.9	0.7	1.7	0.7	1.1	0.8	2.0	1.4	2.2	1.8	1.7	2.3	4.0	5.3	2.8	2.8	2.3	2.9	2.7	3.7	2.2	2.9	4.3	3.5	2.4
16	2.8	1.9	2.2	4.0	3.8	1.5	3.3	4.8	5.0	3.6	5.4	9.2	7.6	7.1	4.1	3.1	2.4	1.4	2.6	3.4	4.4	4.4	3.9	2.8	4.0
17	0.9	0.6	1.7	1.1	1.5	1.3	2.9	1.8	1.7	1.7	2.1	1.3	2.4	3.8	3.6	2.9	3.0	2.9	3.9	5.5	2.4	1.1	1.8	3.6	2.3
18	5.5	5.1	4.6	4.0	2.6	4.3	2.8	2.3	2.2	2.6	2.7	2.1	3.3	3.0	3.8	3.3	4.5	4.0	2.4	2.1	2.0	1.9	0.9	0.5	3.0
19	2.6	1.9	0.5	2.5	4.0	1.8	2.9	1.7	2.7	1.1	1.6	1.7	1.4	1.8	2.7	2.6	2.7	1.6	1.9	1.4	1.0	1.2	1.0	2.4	1.9
20	1.2	1.8	2.1	2.4	2.3	3.0	2.7	1.9	2.2	2.1	2.0	2.2	3.0	3.3	2.6	3.7	3.2	2.9	3.7	2.8	1.7	3.2	3.2	1.8	2.5
21	2.6	3.4	1.7	2.4	0.8	2.9	2.5	1.7	1.9	1.6	1.3	1.2	1.5	1.6	2.6	4.0	3.7	3.6	3.7	2.3	1.9	2.0	1.4	2.5	2.3
22	1.5	1.7	2.3	1.2	0.9	1.2	1.0	1.8	0.5	1.0	1.4	1.4	1.6	2.0	2.5	2.9	2.6	2.5	3.4	2.0	2.0	1.9	1.0	1.5	1.7
23	2.0	1.0	1.8	3.2	2.5	1.3	1.5	1.4	1.5	1.1	1.3	1.8	2.3	1.5	2.4	2.0	2.4	1.8	2.5	3.2	3.1	0.5	1.3	2.8	1.9
24	3.4	1.9	1.8	2.1	1.5	0.7	2.3	1.3	0.6	1.3	1.6	1.8	1.8	2.1	2.0	1.2	1.0	1.9	2.0	0.5	1.3	1.7	2.4	3.2	1.7
25	3.7	2.1	1.8	1.2	1.2	2.8	3.6	5.8	5.7	3.7	2.9	2.9	2.4	2.0	2.2	2.6	2.7	2.8	3.0	3.5	2.4	2.5	3.2	3.1	2.9
26	2.2	3.0	6.6	5.9	5.0	4.1	6.7	4.9	4.9	2.9	6.3	11.7	11.4	7.7	9.2	6.5	2.1	3.5	4.0	2.3	3.3	3.6	1.8	1.3	5.0
27	5.0	3.2	1.4	3.6	4.0	4.4	4.2	1.8	1.9	2.8	3.4	7.8	6.5	8.5	7.0	3.1	3.3	2.3	2.9	2.2	2.3	4.3	5.3	6.2	4.1
28	4.4	3.8	3.6	5.0	4.5	6.1	6.7	7.8	5.1	3.9	5.6	10.5	10.0	6.7	11.4	9.8	9.9	5.1	1.6	3.5	7.3	7.0	3.6	3.3	6.1
29	3.4	1.5	1.9	4.9	2.9	3.6	3.0	0.6	2.7	3.7	3.6	3.7	4.7	6.5	5.7	5.9	4.5	1.6	2.2	1.9	2.5	4.1	4.7	4.3	3.5
30	3.7	5.2	4.6	4.2	3.9	3.9	4.0	3.5	3.0	3.0	5.1	6.7	7.1	8.1	7.5	8.6	7.0	9.1	5.9	6.8	9.0	5.4	6.1	6.5	5.7
31	3.7	3.0	3.5	3.9	4.2	3.2	2.2	2.0	1.2	1.7	2.3	3.1	3.1	3.2	3.2	2.8	2.6	1.6	0.8	0.3	0.8	1.6	2.1	3.5	2.5

MONTHLY AVERAGE = 3.56

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME. WIND DIRECTION FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF OCTOBER , 2013

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
 HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	151.	142.	151.	141.	131.	127.	142.	136.	123.	140.	149.	181.	151.	161.	194.	147.	133.	139.	150.	153.	149.	165.	174.	149.	149.
2	157.	162.	133.	137.	113.	175.	244.	98.	135.	198.	223.	220.	260.	209.	218.	174.	131.	74.	124.	144.	132.	196.	199.	136.	166.
3	125.	134.	127.	121.	159.	170.	132.	124.	164.	90.	38.	314.	298.	301.	298.	312.	63.	65.	98.	15.	24.	66.	75.	44.	140.
4	78.	160.	100.	60.	148.	157.	120.	39.	360.	359.	9.	310.	316.	291.	302.	282.	352.	341.	63.	22.	99.	135.	126.	145.	182.
5	122.	75.	5.	160.	104.	327.	42.	177.	214.	10.	29.	35.	27.	28.	13.	14.	347.	340.	49.	43.	41.	28.	85.	147.	103.
6	173.	190.	186.	175.	341.	154.	139.	186.	196.	223.	198.	159.	203.	225.	263.	235.	232.	204.	271.	190.	198.	139.	137.	188.	200.
7	152.	160.	154.	147.	151.	153.	158.	148.	180.	188.	197.	176.	204.	204.	218.	217.	214.	193.	180.	181.	178.	190.	185.	192.	180.
8	191.	189.	200.	198.	192.	198.	209.	213.	215.	218.	298.	97.	97.	14.	0.	58.	44.	143.	100.	25.	191.	186.	267.	199.	156.
9	205.	174.	158.	193.	50.	153.	124.	180.	181.	167.	249.	213.	224.	241.	289.	226.	205.	271.	118.	96.	126.	134.	152.	152.	178.
10	193.	161.	161.	174.	161.	155.	143.	140.	124.	149.	200.	174.	212.	225.	267.	257.	322.	206.	211.	175.	137.	333.	298.	*****	199.
11	*****	148.	*****	*****	*****	*****	*****	*****	186.	209.	246.	290.	276.	291.	267.	82.	100.	48.	22.	40.	143.	164.	109.	*****	164.
12	128.	144.	213.	*****	*****	*****	*****	19.	11.	343.	19.	17.	3.	344.	4.	352.	359.	349.	23.	15.	18.	25.	22.	25.	122.
13	26.	3.	21.	85.	49.	34.	6.	241.	32.	76.	148.	242.	6.	38.	47.	42.	39.	47.	55.	81.	94.	106.	76.	93.	70.
14	143.	178.	64.	69.	198.	7.	333.	158.	270.	332.	6.	19.	34.	38.	33.	30.	30.	16.	42.	32.	25.	45.	41.	48.	91.
15	34.	327.	333.	7.	9.	319.	295.	254.	293.	272.	310.	259.	299.	297.	329.	216.	210.	314.	17.	34.	65.	54.	29.	53.	193.
16	264.	342.	24.	15.	41.	57.	23.	4.	23.	0.	16.	26.	31.	32.	34.	53.	25.	15.	25.	25.	24.	26.	35.	46.	50.
17	50.	234.	30.	58.	57.	340.	220.	149.	54.	164.	6.	355.	303.	13.	50.	34.	26.	17.	26.	56.	133.	246.	47.	34.	113.
18	40.	47.	347.	30.	348.	26.	51.	202.	298.	337.	332.	17.	311.	306.	300.	267.	259.	281.	321.	306.	46.	79.	36.	333.	205.
19	46.	34.	188.	254.	318.	304.	317.	268.	332.	259.	19.	28.	52.	9.	314.	49.	48.	29.	28.	42.	41.	28.	77.	55.	131.
20	358.	17.	35.	52.	57.	44.	36.	6.	347.	16.	38.	51.	54.	43.	33.	43.	43.	38.	38.	32.	40.	45.	18.	46.	64.
21	47.	32.	53.	22.	69.	44.	311.	53.	59.	353.	71.	31.	49.	352.	325.	36.	25.	28.	31.	33.	26.	23.	58.	31.	90.
22	350.	183.	28.	25.	326.	60.	70.	60.	360.	17.	194.	123.	18.	355.	358.	323.	299.	249.	42.	73.	324.	353.	270.	6.	186.
23	1.	95.	308.	335.	16.	338.	252.	310.	269.	251.	1.	246.	264.	25.	340.	307.	312.	323.	312.	302.	274.	260.	337.	199.	237.
24	190.	133.	56.	305.	229.	344.	49.	18.	279.	281.	298.	292.	246.	276.	279.	259.	306.	140.	274.	111.	218.	240.	148.	181.	215.
25	200.	230.	227.	174.	196.	110.	107.	122.	102.	114.	84.	151.	162.	50.	33.	10.	19.	20.	24.	34.	58.	21.	17.	23.	95.
26	54.	16.	20.	24.	43.	25.	14.	10.	32.	34.	26.	14.	18.	12.	19.	21.	37.	49.	138.	358.	109.	164.	156.	125.	63.
27	157.	163.	176.	135.	95.	98.	115.	62.	31.	339.	39.	5.	10.	20.	18.	318.	207.	114.	163.	91.	55.	36.	38.	36.	105.
28	22.	1.	29.	23.	12.	21.	26.	23.	22.	32.	16.	9.	20.	359.	308.	317.	316.	10.	10.	355.	28.	43.	85.	80.	90.
29	138.	92.	253.	203.	153.	138.	136.	146.	149.	180.	213.	193.	177.	226.	264.	252.	234.	93.	79.	112.	137.	146.	154.	160.	168.
30	170.	135.	169.	184.	143.	148.	137.	147.	154.	184.	171.	184.	192.	189.	192.	202.	172.	182.	143.	164.	216.	184.	186.	189.	173.
31	149.	154.	182.	150.	125.	127.	124.	207.	121.	94.	116.	156.	127.	112.	117.	96.	91.	113.	115.	79.	71.	138.	145.	185.	129.

MONTHLY AVERAGE = 141.95

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2013

IN DEGREES C

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	7.5	7.3	7.4	7.4	7.2	7.3	7.4	7.3	7.9	8.4	9.1	9.6	10.1	11.3	10.4	9.9	9.4	9.1	9.1	9.2	9.1	9.3	9.4	9.4	8.7
2	9.4	9.6	9.2	8.9	8.5	8.9	8.6	8.5	9.1	9.3	9.3	9.6	9.4	9.7	10.3	10.6	10.1	8.8	8.3	8.2	8.0	8.0	7.8	7.6	9.0
3	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.8	8.3	8.9	9.5	10.1	10.6	11.5	11.2	11.3	11.0	10.7	9.9	9.2	8.4	8.0	7.7	7.6	8.9
4	7.1	6.6	6.6	5.9	5.9	5.8	5.8	6.2	7.5	10.0	12.1	14.2	15.3	16.2	16.5	16.2	15.8	14.6	12.7	12.2	11.0	11.5	10.9	11.4	10.7
5	11.0	10.4	10.4	9.9	9.4	8.5	8.0	9.5	11.8	13.4	14.5	16.0	17.7	19.4	19.8	19.1	19.1	17.2	14.9	13.6	12.6	12.8	13.1	12.8	13.5
6	12.5	12.4	12.3	12.5	11.3	12.4	12.3	12.2	14.3	15.4	16.8	21.4	23.5	23.6	22.1	21.6	21.0	19.4	15.5	14.0	13.1	12.7	12.8	11.6	15.7
7	10.6	10.3	10.5	10.6	10.7	10.4	10.5	10.7	11.0	11.1	11.0	11.8	12.6	13.5	13.7	13.1	12.4	11.7	11.1	10.5	9.9	10.0	10.2	10.1	11.2
8	10.0	9.9	10.0	9.8	9.8	9.7	9.7	9.7	10.0	10.0	8.6	7.5	8.9	10.6	10.8	10.3	10.2	9.4	8.5	8.2	7.9	7.2	6.5	6.0	9.1
9	5.5	5.0	5.1	4.6	4.7	4.7	4.6	5.1	6.9	9.1	10.3	11.6	12.1	12.5	13.1	13.5	12.8	11.5	10.1	9.4	9.2	9.3	9.1	8.8	8.7
10	8.3	8.1	7.9	7.8	7.3	7.7	7.8	8.4	9.3	10.7	11.4	12.5	13.3*****	12.4	11.2	10.2	10.0	9.8	9.4	9.6	9.6	9.8*****	*****	*****	*****
11	*****	9.5*****	*****	*****	*****	*****	*****	*****	9.4	9.7	10.4	11.3	11.5	11.5	11.9	11.6	11.4	10.8	9.6	9.3	9.5	9.4	9.0*****	*****	10.4
12	9.0	8.8	8.6*****	*****	*****	*****	*****	8.2	9.0	9.7	10.4	10.7	10.9	12.2	11.9	11.8	11.2	10.6	10.0	9.4	9.0	9.0	8.3	7.8	9.8
13	7.3	6.7	6.5	6.5	7.6	5.8	5.3	6.4	6.9	7.4	8.1	8.8	9.2	9.4	10.0	10.8	10.4	9.5	8.8	7.8	7.5	7.2	7.0	6.8	7.8
14	6.7	6.2	5.6	5.5	5.1	5.4	5.1	5.7	7.1	7.7	9.4	10.4	11.7	12.6	13.0	13.3	12.6	11.8	9.9	8.9	8.2	8.3	7.5	7.8	8.6
15	7.8	7.5	7.6	6.7	6.8	7.1	7.5	7.5	8.7	9.6	11.8	13.7	13.6	13.3	13.3	13.5	13.6	12.5	11.4	10.7	9.6	9.3	9.1	8.6	10.0
16	8.7	9.1	8.5	7.6	7.2	7.5	6.8	6.8	7.5	8.3	9.0	9.5	10.1	9.9	10.2	10.3	10.1	9.4	8.9	8.1	7.2	7.2	7.0	7.0	8.4
17	7.4	7.6	7.4	7.2	6.9	6.9	6.8	6.8	7.2	7.6	8.1	9.1	9.7	10.0	10.8	11.1	10.5	9.9	9.1	8.4	8.5	8.6	8.1	7.5	8.4
18	7.1	7.5	8.0	6.7	6.0	4.4	4.3	5.3	6.0	7.1	8.1	9.4	10.8	12.3	13.0	13.8	12.6	10.9	10.5	9.9	9.0	8.7	8.8	7.9	8.7
19	7.9	5.5	5.5	4.5	4.4	4.3	4.0	4.4	5.0	6.2	7.0	7.8	8.3	8.4	8.3	7.9	7.6	7.4	7.2	7.0	6.8	6.7	6.7	6.6	6.5
20	6.3	6.3	6.1	6.0	5.8	5.6	5.4	5.3	5.6	5.9	6.2	6.6	6.9	7.2	7.5	7.4	7.3	7.0	6.8	6.5	6.5	6.1	5.9	5.8	6.4
21	5.6	5.4	5.3	5.1	5.0	4.8	4.7	4.7	4.9	5.6	6.3	7.0	7.8	8.3	9.9	9.7	8.6	7.8	7.8	7.5	7.2	7.1	6.8	6.4	6.6
22	6.0	6.0	5.9	5.6	5.4	5.1	4.9	4.8	5.5	6.5	7.2	8.2	8.8	10.2	12.2	12.4	11.6	10.5	9.1	9.3	9.4	8.9	7.1	5.6	7.7
23	5.1	4.7	4.1	3.6	3.5	3.6	3.0	4.1	4.9	6.4	7.8	9.4	11.4	14.0	14.4	14.3	13.5	12.3	11.5	10.6	10.1	9.4	9.3	8.0	8.3
24	6.8	7.4	8.1	7.3	5.3	4.9	4.7	5.1	5.7	6.7	7.6	8.4	8.9	9.2	9.2	9.1	8.8	8.5	8.1	7.9	7.9	7.7	7.7	7.5	7.4
25	7.2	6.9	6.8	6.7	6.7	6.5	6.2	6.1	6.4	7.6	8.4	9.1	9.5	9.7	9.5	9.5	9.2	8.8	8.8	8.7	8.3	7.5	6.9	7.0	7.8
26	6.7	6.1	6.9	7.2	7.3	7.3	7.1	7.1	7.4	7.7	7.8	7.9	8.0	8.2	8.0	8.3	8.5	8.2	7.9	7.8	7.7	7.4	7.3	7.3	7.6
27	7.2	7.1	7.0	6.6	6.3	6.4	6.3	6.5	6.7	7.5	7.4	7.8	8.4	8.8	9.4	10.0	9.3	8.7	8.4	8.1	8.0	7.1	6.7	6.2	7.6
28	6.0	6.2	5.9	6.3	7.0	7.2	7.3	7.4	8.3	9.2	10.3	11.1	12.2	12.8	12.4	11.5	10.4	9.3	9.0	8.3	7.7	7.7	6.5	5.3	8.6
29	5.8	6.2	5.7	3.7	4.0	4.3	4.2	5.0	6.6	8.5	9.6	11.0	12.0	12.3	12.2	11.8	11.1	10.0	8.6	8.0	7.0	6.6	6.4	6.0	7.8
30	5.3	6.3	5.3	4.5	5.4	6.5	6.6	7.0	7.7	9.6	10.3	11.0	11.6	12.0	12.2	12.2	11.6	10.9	10.0	10.0	9.6	9.4	9.4	9.0	8.9
31	8.6	8.8	8.2	7.9	7.9	8.4	8.8	8.8	8.8	9.0	9.3	9.7	9.9	10.1	10.4	10.5	10.6	10.6	10.8	10.6	10.5	10.6	10.7	10.6	9.6

MONTHLY AVERAGE = -0.64

PRECIPITATION FOR CEDAR HILLS LANDFILL
 METEOROLOGICAL MONITORING SYSTEM FOR
 THE MONTH OF OCTOBER , 2013

IN INCHES

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	1	2	3	4	5	6	7	8	9	HOUR ENDING		12	13	14	15	16	17	18	19	20	21	22	23	24	TOT
1	0.06	0.02	0.07	0.01	0.01	0.00	0.01	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.07	0.00	0.01	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.35
2	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.09	0.10	0.17	0.12	0.04	0.00	0.01	0.01	0.57
3	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
7	0.10	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.19
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
9	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.27	0.01	0.02	0.03	0.00	0.01	0.00	0.00	0.00*****	0.89
11	*****	0.00	*****	*****	*****	*****	*****	*****	*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00*****	0.00
12	0.00	0.01	0.07	*****	*****	*****	*****	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
23	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
24	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02
25	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
26	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
28	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
31	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09

MONTHLY TOTAL = 2.57

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2013

IN MPH/DIR

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	6SE	7SE	8SE	8SE	8SE	7SE	9SE	10SE	8SE	6SE	7SE	10S	11SE	10S	8S	7SE	8SE	7SE	7SE	7SE	5SE	6S	6S	5SE
2	5SE	8S	5SE	5SE	3SE	3S	4SW	1E	2SE	4S	4SW	6SW	6W	2SW	4SW	3S	4SE	4E	5SE	3SE	4SE	4S	3S	2SE
3	3SE	3SE	2SE	3SE	3S	2S	1SE	3SE	2S	0E	1NE	3NW	2NW	3NW	3NW	1NW	1NE	1NE	2E	1N	2NE	2NE	1E	1NE
4	0E	2S	0E	2NE	0SE	1SE	2SE	3NE	4N	2N	2N	2NW	4NW	5W	3NW	4W	2N	2N	2NE	1N	1E	2SE	3SE	5SE
5	2SE	1E	0N	0S	1E	4NW	3NE	2S	2SW	3N	5NE	4NE	6NE	7NE	6N	7N	2N	3N	5NE	6NE	5NE	3NE	1E	2SE
6	4S	5S	4S	2S	1N	2SE	3SE	5S	4S	5SW	4S	5S	7SW	9SW	8W	6SW	6SW	8SW	6W	4S	3S	4SE	3SE	5S
7	5SE	7S	7SE	7SE	8SE	8SE	8S	7SE	11S	12S	11S	13S	15SW	17SW	16SW	14SW	15SW	13S	12S	12S	11S	9S	10S	11S
8	12S	12S	13S	12S	9S	9S	9SW	9SW	7SW	5SW	7NW	6E	3E	4N	6N	4NE	3NE	3SE	2E	1NE	1S	1S	0W	0S
9	1SW	2S	2S	1S	1NE	3SE	2SE	3S	3S	3S	3W	2SW	4SW	2SW	2W	3SW	4SW	2W	1SE	1E	3SE	1SE	1SE	2SE
10	2S	3S	3S	2S	4S	3SE	4SE	3SE	4SE	4SE	4S	4S	1SW	5SW	6W	6W	1NW	1SW	3SW	2S	1SE	1NW	1NW	*****
11	*****	1SE	*****	*****	*****	*****	*****	*****	*****	4S	4SW	4SW	3W	5W	1W	1E	1NE	2N	1NE	1SE	2S	1E	1E	*****
12	2SE	3SE	2SW	*****	*****	*****	*****	1N	1N	3N	4N	6N	5N	7N	6N	6N	5N	3N	5NE	5N	6N	5NE	4N	5NE
13	6NE	4N	3N	2E	1NE	2NE	2N	0SW	1NE	1E	1SE	1SW	2N	3NE	3NE	2NE	2NE	2NE	1NE	2E	2E	1E	1E	2E
14	1SE	0S	0NE	1E	1S	0N	1NW	1S	1W	3NW	2N	3N	3NE	4NE	4NE	4NE	5NE	3N	5NE	4NE	5NE	5NE	4NE	3NE
15	1NE	1NW	2NW	1N	1N	1NW	2NW	1W	2NW	2W	2NW	2W	4NW	5NW	3NW	3SW	2SW	3NW	3N	4NE	2NE	3NE	4NE	4NE
16	3W	2N	2NE	4N	4NE	1NE	3NE	5N	5NE	4N	5N	9NE	8NE	7NE	4NE	3NE	2NE	1N	3NE	3NE	4NE	4NE	4NE	3NE
17	1NE	1SW	2NE	1NE	1NE	1N	3SW	2SE	2NE	2S	2N	1N	2NW	4N	4NE	3NE	3NE	3N	4NE	5NE	2SE	1SW	2NE	4NE
18	5NE	5NE	5N	4NE	3N	4NE	3NE	2S	2NW	3NW	3NW	2N	3NW	3NW	4NW	3W	4W	4W	2NW	2NW	2NE	2E	1NE	1NW
19	3NE	2NE	0S	2W	4NW	2NW	3NW	2W	3NW	1W	2N	2NE	1NE	2N	3NW	3NE	3NE	2NE	2NE	1NE	1NE	1NE	1E	2NE
20	1N	2N	2NE	2NE	2NE	3NE	3NE	2N	2N	2N	2NE	2NE	3NE	3NE	3NE	4NE	3NE	3NE	4NE	3NE	2NE	3NE	3N	2NE
21	3NE	3NE	2NE	2N	1E	3NE	2NW	2NE	2NE	2N	1E	1NE	2NE	2N	3NW	4NE	4NE	4NE	4NE	2NE	2NE	2NE	1NE	2NE
22	2N	2S	2NE	1NE	1NW	1NE	1E	2NE	1N	1N	1S	1SE	2N	2N	2N	3NW	3NW	2W	3NE	2E	2NW	2N	1W	1N
23	2N	1E	2NW	3NW	2N	1N	1W	1NW	1W	1W	1N	2SW	2W	1NE	2N	2NW	2NW	2NW	3NW	3NW	3W	1W	1NW	3S
24	3S	2SE	2NE	2NW	1SW	1N	2NE	1N	1W	1W	2NW	2W	2SW	2W	2W	1W	1NW	2SE	2W	0E	1SW	2SW	2SE	3S
25	4S	2SW	2SW	1S	1S	3E	4E	6SE	6E	4SE	3E	3SE	2S	2NE	2NE	3N	3N	3N	3NE	4NE	2NE	3N	3N	3NE
26	2NE	3N	7N	6NE	5NE	4NE	7N	5N	5NE	3NE	6NE	12N	11N	8N	9N	7N	2NE	3NE	4SE	2N	3E	4S	2SE	1SE
27	5SE	3S	1S	4SE	4E	4E	4SE	2NE	2NE	3N	3NE	8N	7N	8N	7N	3NW	3SW	2SE	3S	2E	2NE	4NE	5NE	6NE
28	4N	4N	4NE	5NE	4N	6N	7NE	8NE	5N	4NE	6N	11N	10N	7N	11NW	10NW	10NW	5N	2N	4N	7NE	7NE	4E	3E
29	3SE	1E	2W	5SW	3SE	4SE	3SE	1SE	3SE	4S	4SW	4S	5S	6SW	6W	6W	5SW	2E	2E	2E	2SE	4SE	5SE	4S
30	4S	5SE	5S	4S	4SE	4SE	4SE	3SE	3SE	3S	5S	7S	7S	8S	7S	9S	7S	9S	6SE	7S	9SW	5S	6S	7S
31	4SE	3SE	3S	4SE	4SE	3SE	2SE	2SW	1SE	2E	2SE	3SE	3SE	3SE	3SE	3E	3E	2SE	1SE	0E	1E	2SE	2SE	4S

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF NOVEMBER , 2013

IN MILES PER HOUR

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	4.5	4.9	5.0	4.3	5.0	3.9	1.7	2.0	1.4	3.8	5.1	4.0	1.1	1.5	1.8	1.6	2.8	3.2	2.3	7.2	7.4	6.3	5.3	6.0	3.8
2	6.0	4.8	6.6	6.3	12.2	13.3	16.9	25.6	25.9	28.5	29.2	29.6	29.5	28.5	24.4	24.2	23.8	14.6	14.6	11.3	11.1	9.3	6.4	5.0	17.0
3	7.6	3.2	5.3	3.0	4.5	4.4	3.3	4.6	3.5	4.3	7.2	4.8	7.4	9.2	10.1	6.0	8.5	7.0	3.8	2.9	4.4	3.8	3.6	3.7	5.3
4	4.1	2.9	2.7	3.1	2.0	3.2	2.9	2.5	1.5	1.9	2.8	2.5	3.7	2.7	2.0	3.0	2.9	2.7	6.1	4.3	2.7	3.4	6.9	9.5	3.4
5	11.7	12.0	9.3	6.3	4.4	5.3	3.8	4.7	5.4	5.7	11.1	12.9	14.3	11.9	9.5	7.5	8.5	8.1	6.8	5.0	3.1	3.3	1.9	1.3	7.2
6	2.3	0.7	1.4	0.6	0.5	1.5	0.7	3.2	2.8	1.7	1.3	2.4	0.8	3.0	2.5	3.5	3.1	2.3	2.6	3.8	4.3	13.1	15.8	18.3	3.8
7	18.4	17.6	20.2	19.6	16.0	14.7	14.0	15.1	15.2	12.7	17.3	13.8	13.7	14.3	16.6	14.8	15.6	16.7	18.2	21.4	14.9	12.0	12.3	12.3	15.7
8	12.8	11.8	12.2	10.7	11.1	10.4	9.3	8.7	7.6	6.9	7.1	6.9	5.5	7.3	4.9	4.2	3.4	3.4	3.6	3.7	3.3	3.4	4.4	2.6	6.9
9	2.1	1.8	2.8	2.2	2.4	2.2	2.5	2.6	2.7	2.0	3.1	0.7	1.4	2.2	3.9	2.6	3.0	3.3	4.3	5.5	5.8	4.7	6.2	7.1	3.2
10	3.5	4.1	3.7	3.5	3.2	7.3	7.2	7.0	4.6	6.7	6.7	7.6	8.5	6.7	8.9	9.5	9.8	6.8	5.6	7.0	4.5	5.9	4.6	6.3	6.2
11	5.4	4.6	5.4	4.9	4.1	3.1	2.9	4.7	5.5	3.6	2.7	4.0	3.8	8.2	7.3	13.1	10.7	9.0	14.4	10.4	12.0	12.2	11.2	11.9	7.3
12	12.6	12.4	13.8	11.9	10.1	3.1	4.8	6.3	7.1	5.4	2.6	0.8	3.4	3.3	4.1	3.5	4.6	4.1	4.4	6.0	7.2	5.6	6.7	6.0	6.2
13	5.2	5.6	5.3	5.5	7.0	8.3	4.5	6.9	5.9	5.8	4.0	7.4	10.9	9.0	8.4	5.4	4.4	2.5	1.7	2.8	2.2	3.5	4.3	1.9	5.4
14	2.2	2.0	3.2	3.7	2.4	2.5	2.3	4.1	4.5	4.0	4.8	4.4	5.8	3.7	5.2	4.5	2.6	0.5	1.1	0.7	2.9	2.4	1.0	3.3	3.1
15	4.5	3.6	4.5	7.3	6.8	6.0	5.9	4.7	6.1	8.2	8.1	10.3	14.3	14.3	15.4	15.3	17.4	16.2	17.7	17.1	16.7	16.7	18.4	15.5	11.3
16	10.4	5.2	2.0	4.2	3.4	3.6	6.2	7.0	8.2	10.4	11.1	12.3	10.4	12.4	12.7	14.6	12.0	9.3	11.9	13.6	12.9	7.9	7.7	6.6	9.0
17	8.0	4.9	5.8	5.0	4.7	5.5	8.1	8.4	9.1	7.7	9.8	2.4	9.4	13.8	14.3	11.3	7.6	7.5	7.8	10.9	8.1	7.6	5.6	3.4	7.8
18	3.3	3.3	3.6	5.2	2.7	3.8	2.5	3.3	4.6	5.1	3.9	4.2	6.6	9.6	8.9	9.2	10.6	10.3	10.6	12.1	12.9	8.2	10.6	11.8	7.0
19	14.7	13.2	14.8	14.2	9.9	9.1	10.7	6.8	9.6	8.9	11.0	8.7	5.6	4.3	3.3	4.2	3.0	1.6	3.9	6.5	6.0	6.3	7.0	8.1	8.0
20	7.2	10.0	3.4	2.2	2.7	1.7	1.4	2.2	4.4	7.7	7.3	12.0	11.5	7.3	5.3	7.3	3.8	3.2	10.1	7.9	7.4	5.4	4.9	5.1	5.9
21	3.6	4.6	5.3	4.4	4.8	7.0	4.7	3.9	2.5	1.5	2.7	3.5	3.5	5.5	6.0	8.1	8.8	8.2	9.4	10.3	6.9	4.6	5.5	5.7	5.5
22	5.5	7.3	5.6	5.2	5.5	7.9	8.4	5.7	4.1	3.0	2.8	2.6	4.5	4.0	4.7	5.3	6.6	9.1	7.2	5.9	5.3	5.2	4.0	5.0	5.4
23	3.3	4.1	4.1	4.4	3.7	3.4	2.6	5.9	5.2	3.6	3.9	2.6	2.1	2.2	4.2	2.6	3.1	1.5	2.3	3.8	3.6	4.2	4.5	4.8	3.6
24	1.7	4.8	4.4	4.5	5.5	4.1	5.8	5.0	3.5	1.5	1.8	1.6	1.3	1.7	1.8	3.4	2.2	3.7	1.4	0.3	3.6	3.9	3.4	2.2	3.0
25	1.6	3.1	4.4	3.5	1.7	2.8	3.6	2.4	2.4	1.7	3.0	1.1	1.0	0.6	1.4	3.3	3.4	2.5	3.2	3.0	2.5	2.7	4.3	5.1	2.7
26	3.6	1.5	1.4	2.0	5.8	4.1	2.2	3.6	4.5	4.8	5.4	4.5	2.2	1.4	1.2	1.4	4.0	4.0	3.3	4.9	2.6	2.4	2.5	2.5	3.2
27	3.2	1.6	4.5	4.2	3.3	4.2	4.0	1.9	1.7	1.7	3.3	3.6	2.7	2.7	3.6	2.1	3.2	2.5	3.9	2.2	2.2	4.5	1.9	1.9	2.9
28	3.6	3.0	3.0	1.9	1.7	2.1	2.7	2.0	4.1	2.5	4.1	3.1	2.6	1.9	2.5	2.0	1.7	2.6	0.9	2.3	2.9	5.2	4.0	3.6	2.7
29	4.7	4.0	5.2	4.6	3.6	4.3	6.7	3.4	6.4	8.0	6.7	4.2*****		4.7	2.5	2.1	3.2	4.4	4.7	5.1	4.5	4.7	5.6	4.5	4.7
30	4.0	5.0	5.1	5.3	3.3	5.1	4.7	6.2	5.4	3.3	4.0	5.6	5.6	7.1	5.3	6.2	7.6	7.2	6.7	5.5	4.5	4.5	6.0	8.0	5.5

MONTHLY AVERAGE = 6.09

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF NOVEMBER , 2013

IN DEGREES

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

(MEASURED CLOCKWISE FROM NORTH)																										
HOUR ENDING																										
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.	
1	196.	210.	201.	181.	145.	132.	165.	184.	153.	155.	183.	161.	171.	16.	79.	260.	354.	124.	120.	157.	154.	178.	269.	265.	176.	
2	133.	236.	158.	155.	126.	152.	173.	200.	200.	200.	198.	200.	212.	217.	216.	223.	227.	212.	207.	197.	189.	198.	173.	159.	190.	
3	181.	148.	190.	135.	191.	204.	177.	194.	188.	173.	207.	220.	227.	230.	256.	281.	24.	38.	94.	152.	112.	121.	134.	125.	167.	
4	141.	126.	107.	131.	131.	149.	127.	100.	116.	82.	49.	341.	44.	43.	43.	297.	20.	71.	131.	118.	120.	138.	125.	123.	120.	
5	124.	135.	133.	126.	141.	146.	151.	152.	137.	163.	190.	194.	213.	203.	194.	187.	180.	210.	228.	237.	175.	93.	24.	14.	156.	
6	18.	89.	90.	22.	109.	133.	54.	39.	32.	15.	113.	58.	68.	31.	19.	37.	27.	45.	111.	95.	111.	137.	137.	131.	72.	
7	128.	126.	128.	130.	136.	129.	136.	130.	175.	179.	175.	156.	163.	168.	182.	167.	161.	188.	201.	221.	226.	216.	199.	193.	167.	
8	196.	194.	184.	188.	188.	186.	189.	182.	192.	197.	212.	201.	198.	215.	187.	137.	150.	159.	134.	142.	163.	147.	135.	162.	177.	
9	114.	45.	70.	134.	46.	51.	52.	25.	47.	220.	353.	61.	270.	340.	284.	319.	42.	47.	45.	30.	40.	44.	32.	45.	115.	
10	19.	50.	21.	42.	36.	28.	24.	28.	25.	28.	33.	29.	28.	27.	22.	21.	25.	32.	23.	26.	26.	30.	28.	27.	28.	
11	25.	27.	26.	27.	22.	67.	47.	51.	132.	1.	1.	13.	36.	97.	132.	126.	131.	130.	137.	121.	135.	131.	126.	143.	79.	
12	143.	141.	134.	160.	216.	161.	148.	141.	160.	145.	224.	32.	164.	153.	209.	187.	163.	164.	162.	184.	187.	209.	189.	188.	165.	
13	177.	171.	155.	179.	174.	183.	139.	157.	166.	174.	171.	203.	220.	255.	235.	225.	198.	160.	136.	130.	132.	141.	172.	156.	175.	
14	176.	177.	168.	233.	254.	228.	204.	238.	210.	196.	194.	213.	251.	271.	272.	297.	325.	238.	118.	169.	160.	215.	35.	112.	206.	
15	136.	183.	174.	181.	168.	156.	147.	149.	162.	183.	179.	188.	185.	175.	171.	180.	181.	184.	185.	182.	175.	192.	212.	229.	177.	
16	219.	227.	199.	165.	155.	132.	128.	129.	151.	172.	182.	185.	186.	194.	189.	195.	194.	182.	198.	207.	205.	169.	156.	160.	178.	
17	189.	171.	186.	155.	155.	144.	159.	158.	167.	167.	179.	135.	187.	188.	189.	189.	212.	235.	228.	225.	202.	201.	181.	186.	183.	
18	229.	226.	188.	191.	138.	193.	137.	134.	131.	169.	126.	134.	150.	172.	154.	133.	143.	142.	154.	161.	144.	150.	176.	168.	160.	
19	185.	192.	209.	218.	257.	14.	36.	24.	43.	56.	33.	44.	352.	349.	16.	40.	31.	54.	3.	343.	328.	358.	358.	4.	148.	
20	22.	31.	25.	56.	276.	50.	78.	64.	28.	24.	8.	1.	358.	28.	20.	5.	7.	58.	12.	11.	5.	4.	15.	23.	50.	
21	20.	41.	28.	30.	28.	32.	33.	27.	37.	11.	354.	13.	40.	36.	27.	16.	26.	34.	31.	35.	34.	26.	29.	29.	43.	
22	23.	37.	24.	23.	28.	28.	31.	31.	353.	30.	355.	3.	19.	32.	36.	28.	28.	31.	31.	27.	25.	27.	32.	18.	54.	
23	43.	46.	356.	30.	21.	16.	350.	322.	27.	13.	321.	343.	312.	337.	339.	53.	315.	355.	22.	33.	19.	31.	341.	26.	170.	
24	334.	14.	16.	26.	29.	21.	28.	20.	25.	112.	257.	56.	240.	356.	264.	303.	303.	314.	245.	47.	161.	127.	151.	40.	145.	
25	345.	100.	146.	135.	5.	330.	145.	126.	257.	138.	147.	40.	50.	137.	250.	192.	198.	238.	3.	48.	127.	151.	170.	144.	151.	
26	135.	168.	151.	101.	169.	241.	143.	159.	171.	184.	126.	162.	327.	67.	71.	41.	286.	348.	160.	142.	181.	106.	118.	44.	158.	
27	56.	114.	37.	24.	311.	25.	28.	64.	26.	312.	336.	25.	17.	34.	329.	344.	336.	345.	25.	274.	32.	150.	171.	132.	148.	
28	129.	162.	143.	80.	107.	245.	198.	70.	172.	154.	204.	331.	31.	209.	328.	337.	174.	324.	77.	146.	158.	190.	192.	120.	178.	
29	140.	164.	130.	138.	119.	126.	217.	117.	139.	148.	139.	145.	*****	158.	194.	210.	164.	176.	172.	157.	137.	139.	143.	143.	153.	
30	147.	154.	150.	145.	144.	187.	125.	137.	157.	140.	155.	159.	176.	137.	132.	143.	164.	162.	155.	166.	165.	149.	162.	156.	153.	

MONTHLY AVERAGE = 141.38

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF NOVEMBER , 2013

IN DEGREES C

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	HOUR ENDING																								AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	10.4	10.4	10.2	10.1	10.0	10.0	10.1	10.2	10.5	11.5	12.5	13.7	14.9	15.1	15.3	15.6	14.2	13.4	12.7	13.0	13.2	12.8	11.9	11.8	12.2
2	10.6	10.1	9.7	9.3	9.8	11.2	11.8	10.6	9.2	8.9	8.5	8.4	8.7	9.3	9.6	9.0	8.6	8.0	7.6	7.1	6.8	6.4	5.8	5.6	8.8
3	5.9	5.9	5.9	5.8	5.9	5.6	5.4	5.5	5.7	6.4	6.9	7.1	8.0	8.6	9.2	8.9	6.4	5.4	5.3	5.0	4.2	4.3	4.5	4.3	6.1
4	4.6	4.0	3.8	4.1	3.5	3.1	2.7	2.7	4.6	5.7	6.6	7.4	7.9	8.2	8.6	8.2	7.3	6.8	6.7	6.7	6.7	6.0	6.1	6.5	5.8
5	6.8	6.4	5.8	6.2	6.7	7.1	6.9	7.2	7.8	8.1	8.9	10.2	9.9	10.1	10.1	10.0	9.6	9.6	9.4	9.3	8.9	8.1	7.2	7.5	8.2
6	7.2	7.4	7.2	7.1	7.1	6.9	6.8	5.8	5.9	7.1	7.8	8.3	9.2	9.9	9.9	9.4	8.9	8.7	8.9	8.3	8.3	8.7	8.9	9.1	8.0
7	8.9	8.9	9.4	9.9	9.5	8.1	8.1	8.6	8.7	8.3	7.8	8.0	8.6	8.5	8.0	7.8	7.7	8.0	8.4	8.6	8.3	8.1	8.1	8.1	8.4
8	8.1	7.9	7.8	7.8	7.9	7.9	7.8	7.8	7.9	8.2	8.5	9.0	9.3	9.7	9.9	9.7	8.8	8.6	8.4	8.4	8.2	7.7	7.7	7.5	8.4
9	7.3	7.0	6.1	5.5	5.4	5.0	4.5	5.0	5.5	7.0	7.1	7.9	9.2	9.3	8.9	8.4	7.6	7.3	6.9	6.7	6.6	6.6	6.5	6.4	6.8
10	6.3	6.3	6.2	6.1	6.0	6.0	6.1	6.1	6.2	6.6	7.4	7.9	7.9	8.4	8.5	8.7	8.2	7.8	7.5	7.5	7.3	7.1	6.8	6.8	7.1
11	6.6	6.5	6.3	6.1	5.7	6.7	6.6	6.5	9.9	9.0	9.0	9.9	12.6	14.4	15.4	14.9	14.1	13.5	13.7	14.0	14.0	13.7	14.0	13.9	10.7
12	13.9	13.8	13.8	13.8	12.0	10.2	10.1	10.3	10.4	11.3	11.4	10.8	12.0	12.9	13.0	13.1	12.6	12.4	12.1	12.2	11.9	11.4	10.9	10.4	11.9
13	10.4	10.1	10.4	10.1	9.9	9.6	9.3	9.4	9.3	9.8	10.8	11.9	12.3	12.1	12.2	11.6	10.9	10.6	10.3	9.9	9.7	9.5	9.4	9.3	10.4
14	8.8	8.6	8.0	7.7	7.5	7.3	7.2	7.0	7.0	7.1	7.3	7.5	7.5	8.1	8.1	7.2	6.9	6.6	6.5	6.1	5.6	5.4	5.6	5.5	7.1
15	5.5	5.1	5.1	5.2	5.1	5.0	4.9	5.1	5.4	5.8	5.8	5.7	5.7	5.5	5.1	5.4	5.8	5.8	5.9	5.8	5.8	6.5	7.5	7.2	5.7
16	6.6	6.0	5.3	5.1	4.6	4.2	4.1	4.4	4.7	5.4	5.9	6.3	6.3	6.3	6.3	6.2	6.1	6.0	5.9	5.8	5.6	5.3	5.3	5.3	5.5
17	5.3	5.4	5.6	5.5	5.5	5.7	5.9	6.3	7.2	7.1	7.2	7.2	7.9	8.1	8.3	8.2	8.0	7.8	7.8	7.6	7.5	7.6	7.4	7.4	7.0
18	7.4	7.3	7.4	7.7	7.8	8.0	8.0	8.1	8.3	8.8	9.0	9.5	9.8	9.9	9.8	9.6	9.8	9.5	9.7	9.6	9.5	9.5	10.5	11.2	9.0
19	11.3	11.1	11.0	10.6	10.1	6.6	5.6	5.6	5.0	4.7	4.7	4.5	4.4	4.5	5.0	4.4	4.4	4.2	4.0	3.7	3.1	2.7	2.3	2.0	5.7
20	1.5	0.8	0.3	0.0	0.5	-0.1	-0.2	-0.4	-0.6	0.4	2.4	2.9	3.3	3.5	3.7	3.3	2.4	1.3	1.5	0.8	-0.2	-0.3	-0.9	-1.4	1.0
21	-2.0	-2.5	-2.5	-2.7	-3.2	-3.3	-3.3	-3.5	-2.5	-0.6	1.4	2.1	3.0	3.1	3.6	3.6	2.5	1.2	0.5	0.7	0.0	-0.5	-1.3	-1.7	-0.3
22	-1.7	-1.9	-2.1	-1.9	-2.4	-2.5	-2.3	-2.0	-1.1	-0.4	3.0	4.8	5.2	5.9	4.9	4.6	4.0	3.5	2.9	2.1	1.9	1.5	1.6	1.2	1.2
23	2.1	2.1	3.4	2.2	2.7	3.8	4.1	3.0	1.6	4.8	6.5	8.2	9.6	9.8	9.1	8.6	8.0	7.1	6.2	5.1	5.1	3.9	5.4	2.6	5.2
24	5.1	2.8	3.0	2.2	1.2	1.9	0.7	0.4	1.9	4.9	5.8	6.6	8.9	9.3	9.8	8.7	7.6	6.9	6.0	6.0	5.8	5.8	7.8	6.2	5.2
25	5.7	6.4	6.7	7.1	6.4	5.6	6.3	6.1	6.2	7.9	10.8	12.8	14.5	15.7	15.2	13.8	11.9	10.4	9.0	8.5	9.1	8.3	7.1	7.1	9.1
26	7.3	6.4	5.5	5.3	4.9	4.6	5.2	5.4	4.7	5.4	8.1	11.1	11.9	13.1	13.6	12.6	10.3	8.7	8.7	8.5	8.3	8.7	8.4	8.5	8.1
27	7.8	8.6	7.8	7.6	8.0	6.4	6.9	8.6	9.3	10.2	9.5	9.6	10.4	11.2	12.2	11.6	10.1	9.6	8.9	9.3	8.3	8.7	8.4	7.7	9.0
28	8.0	7.9	7.6	6.6	7.1	6.6	6.3	5.8	7.0	7.7	9.2	9.9	9.0	11.6	11.5	10.7	10.0	8.7	8.2	8.0	7.3	5.5	5.6	6.0	8.0
29	7.1	7.0	7.3	7.9	8.0	9.0	7.3	6.9	7.0	6.1	6.5	6.8*****		6.9	7.1	7.1	7.0	7.0	7.0	6.9	6.9	6.8	6.8	6.8	7.1
30	6.9	6.6	6.5	6.6	7.0	6.3	6.1	6.9	7.2	8.2	8.5	8.3	8.4	8.1	8.2	8.7	9.1	9.4	9.4	9.4	9.2	8.6	8.5	8.6	8.0

MONTHLY AVERAGE = 7.15

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF NOVEMBER , 2013

IN INCHES

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	HOUR ENDING																								TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
2	0.15	0.04	0.09	0.11	0.05	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
5	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.02	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.00	0.01	0.01	0.04	0.11
7	0.05	0.04	0.00	0.00	0.11	0.27	0.16	0.03	0.11	0.12	0.10	0.00	0.00	0.04	0.08	0.04	0.06	0.10	0.01	0.00	0.05	0.08	0.00	0.00	1.45
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.01	0.01	0.00	0.02	0.00	0.10
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.03	0.01	0.00	0.02	0.10	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.07	0.12	0.05	0.00	0.01	0.01	0.04	0.02	0.01	0.00	0.00	0.00	0.42
16	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.02	0.03	0.01	0.01	0.00	0.05	0.09	0.04	0.02	0.02	0.03	0.01	0.01
18	0.04	0.02	0.02	0.04	0.04	0.04	0.02	0.03	0.05	0.07	0.04	0.01	0.08	0.08	0.06	0.06	0.04	0.04	0.04	0.08	0.07	0.08	0.00	0.00	1.05
19	0.00	0.01	0.01	0.00	0.02	0.02	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01*****	0.01	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
30	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.01	0.20

MONTHLY TOTAL = 4.97

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF NOVEMBER , 2013

IN MPH/DIR

NOTE: TIMES GIVEN ARE IN PACIFIC STANDARD TIME.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4S	5SW	5S	4S	5SE	4SE	2S	2S	1SE	4SE	5S	4S	1S	1N	2E	2W	3N	3SE	2SE	7SE	7SE	6S	5W	6W
2	6SE	5SW	7S	6SE	12SE	13SE	17S	26S	26S	29S	29S	30S	29SW	28SW	24SW	24SW	24SW	15SW	15SW	11S	11S	9S	6S	5S
3	8S	3SE	5S	3SE	5S	4SW	3S	5S	4S	4S	7SW	5SW	7SW	9SW	10W	6W	9NE	7NE	4E	3SE	4E	4SE	4SE	4SE
4	4SE	3SE	3E	3SE	2SE	3SE	3SE	3E	1SE	2E	3NE	3N	4NE	3NE	2NE	3NW	3N	3E	6SE	4SE	3SE	3SE	7SE	9SE
5	12SE	12SE	9SE	6SE	4SE	5SE	4SE	5SE	5SE	6S	11S	13S	14SW	12SW	9S	7S	9S	8SW	7SW	5SW	3S	3E	2NE	1N
6	2N	1E	1E	1N	0E	2SE	1NE	3NE	3NE	2N	1SE	2NE	1E	3NE	2N	4NE	3NE	2NE	3E	4E	4E	13SE	16SE	18SE
7	18SE	18SE	20SE	20SE	16SE	15SE	14SE	15SE	15S	13S	17S	14SE	14S	14S	17S	15S	16S	17S	18S	21SW	15SW	12SW	12S	12S
8	13S	12S	12S	11S	11S	10S	9S	9S	8S	7S	7SW	7S	6S	7SW	5S	4SE	3SE	3S	4SE	4SE	3S	3SE	4SE	3S
9	2SE	2NE	3E	2SE	2NE	2NE	2NE	3NE	3NE	2SW	3N	1NE	1W	2N	4W	3NW	3NE	3NE	4NE	5NE	6NE	5NE	6NE	7NE
10	4N	4NE	4N	4NE	3NE	7NE	7NE	7NE	5NE	7NE	7NE	8NE	9NE	7NE	9N	10N	10NE	7NE	6NE	7NE	5NE	6NE	5NE	6NE
11	5NE	5NE	5NE	5NE	4N	3NE	3NE	5NE	6SE	4N	3N	4N	4NE	8E	7SE	13SE	11SE	9SE	14SE	10SE	12SE	12SE	11SE	12SE
12	13SE	12SE	14SE	12S	10SW	3S	5SE	6SE	7S	5SE	3SW	1NE	3S	3SE	4SW	4S	5S	4S	4S	6S	7S	6SW	7S	6S
13	5S	6S	5SE	6S	7S	8S	4SE	7SE	6S	6S	4S	7SW	11SW	9W	8SW	5SW	4S	3S	2SE	3SE	2SE	4SE	4S	2SE
14	2S	2S	3S	4SW	2W	3SW	2SW	4SW	5SW	4S	5S	4SW	6W	4W	5W	5NW	3NW	0SW	1SE	1S	3S	2SW	1NE	3E
15	5SE	4S	4S	7S	7S	6SE	6SE	5SE	6S	8S	8S	10S	14S	14S	15S	15S	17S	16S	18S	17S	17S	17S	18SW	16SW
16	10SW	5SW	2S	4S	3SE	4SE	6SE	7SE	8SE	10S	11S	12S	10S	12S	13S	15S	12S	9S	12S	14SW	13SW	8S	8SE	7S
17	8S	5S	6S	5SE	5SE	6SE	8S	8S	9S	8S	10S	2SE	9S	14S	14S	11S	8SW	7SW	8SW	11SW	8S	8S	6S	3S
18	3SW	3SW	4S	5S	3SE	4S	2SE	3SE	5SE	5S	4SE	4SE	7SE	10S	9SE	9SE	11SE	10SE	11SE	12S	13SE	8SE	11S	12S
19	15S	13S	15SW	14SW	10W	9N	11NE	7NE	10NE	9NE	11NE	9NE	6N	4N	3N	4NE	3NE	2NE	4N	7N	6NW	6N	7N	8N
20	7N	10NE	3NE	2NE	3W	2NE	1E	2NE	4NE	8NE	7N	12N	12N	7NE	5N	7N	4N	3NE	10N	8N	7N	5N	5N	5NE
21	4N	5NE	5NE	4NE	5NE	7NE	5NE	4NE	2NE	2N	3N	3N	3NE	6NE	6NE	8N	9NE	8NE	9NE	10NE	7NE	5NE	6NE	6NE
22	6NE	7NE	6NE	5NE	6NE	8NE	8NE	6NE	4N	3NE	3N	3N	4N	4NE	5NE	5NE	7NE	9NE	7NE	6NE	5NE	5NE	4NE	5N
23	3NE	4NE	4N	4NE	4N	3N	3N	6NW	5NE	4N	4NW	3N	2NW	2NW	4N	3NE	3NW	2N	2N	4NE	4N	4NE	5N	5NE
24	2NW	5N	4N	4NE	5NE	4N	6NE	5N	4NE	2E	2W	2NE	1SW	2N	2W	3NW	2NW	4NW	1SW	0NE	4S	4SE	3SE	2NE
25	2N	3E	4SE	3SE	2N	3NW	4SE	2SE	2W	2SE	3SE	1NE	1NE	1SE	1W	3S	3S	3SW	3N	3NE	3SE	3SE	4S	5SE
26	4SE	1S	1SE	2E	6S	4SW	2SE	4S	5S	5S	5SE	5S	2NW	1NE	1E	1NE	4W	4N	3S	5SE	3S	2E	3SE	3NE
27	3NE	2SE	4NE	4NE	3NW	4NE	4NE	2NE	2NE	2NW	3NW	4NE	3N	3NE	4NW	2N	3NW	2N	4NE	2W	2NE	5SE	2S	2SE
28	4SE	3S	3SE	2E	2E	2SW	3S	2E	4S	2SE	4SW	3NW	3NE	2SW	2NW	2NW	2S	3NW	1E	2SE	3S	5S	4S	4SE
29	5SE	4S	5SE	5SE	4SE	4SE	7SW	3SE	6SE	8SE	7SE	4SE	*****	5S	2S	2SW	3S	4S	5S	5SE	4SE	5SE	6SE	5SE
30	4SE	5SE	5SE	5SE	3SE	5S	5SE	6SE	5SE	3SE	4SE	6S	6S	7SE	5SE	6SE	8S	7S	7SE	6S	4S	5SE	6S	8SE

WIND SPEED FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF DECEMBER , 2013

IN MILES PER HOUR

DAY	HOUR ENDING																								AVG.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	8.3	7.5	8.8	12.4	18.5	19.6	16.9	22.9	21.9	20.5	20.9	22.0	18.2	14.7	14.2	13.1	14.4	17.3	17.5	19.8	24.2	24.9	20.5	22.9	17.6
2	19.0	13.6	10.6	8.5	9.3	10.2	9.3	7.0	6.0	5.5	6.8	6.1	8.7	9.2	5.9	5.6	4.7	4.0	3.7	2.4	2.5	3.4	2.7	1.3	6.9
3	2.7	8.0	5.3	4.3	7.5	4.6	8.5	8.5	9.5	9.3	7.0	7.8	8.4	7.8	8.0	7.5	6.8	6.5	5.8	6.6	5.6	5.5	4.0	3.2	6.6
4	4.1	2.1	2.1	2.7	3.1	2.2	3.0	2.5	1.7	1.6	2.0	3.2	4.3	4.7	5.5	4.4	4.2	2.9	2.0	2.9	2.0	1.9	2.8	3.8	3.0
5	4.2	2.8	2.4	4.0	5.2	5.7	5.2	4.5	5.8	5.3	2.5	2.3	1.8	2.0	1.8	3.0	4.6	4.6	6.7	9.2	9.4	9.5	11.2	11.4	5.2
6	10.9	8.3	7.1	7.8	7.3	6.9	3.7	6.5	10.9	11.3	10.8	12.7	10.6	10.3	7.4	6.8	5.9	5.8	4.0	4.8	4.7	4.6	3.7	3.9	7.4
7	3.7	3.6	3.5	5.1	4.6	5.1	4.1	3.4	4.7	4.3	2.3	2.3	6.3	7.2	5.5	6.8	4.9	3.1	3.7	2.2	3.3	2.5	2.3	2.5	4.0
8	3.8	3.3	2.9	2.9	3.2	3.1	2.6	3.0	1.6	0.8	1.7	2.4	4.4	4.4	5.8	4.7	4.5	4.6	3.5	2.4	2.2	2.6	4.4	3.8	3.3
9	4.2	1.5	1.9	1.7	1.9	2.3	4.0	3.0	1.8	1.5	1.8	1.7	1.0	2.2	1.2	3.0	1.0	0.1	0.9	3.0	2.9	1.4	0.8	1.9	1.9
10	3.4	2.4	2.7	0.9	1.9	1.8	1.6	3.0	2.8	3.2	3.1	1.5	1.1	0.7	1.1	2.2	3.5	3.0	3.5	3.6	4.2	5.2	2.8	1.1	2.5
11	1.3	1.1	3.6	2.0	1.5	1.3	1.8	1.7	3.1	2.2	2.2	1.8	2.8	2.6	1.7	1.8	2.9	1.3	1.1	1.4	2.4	0.8	2.0	0.5	1.9
12	4.2	2.6	4.4	2.0	3.5	3.6	4.5	5.3	2.9	4.9	2.6	2.4	3.8	4.5	3.4	8.2	4.3	3.5	3.5	4.9	5.9	5.0	3.0	2.4	4.0
13	3.1	4.4	5.0	4.7	5.1	4.1	3.3	3.3	2.8	2.5	5.5	6.4	7.9	7.3	4.7	4.3	3.6	3.6	2.7	4.8	6.7	5.3	6.0	5.5	4.7
14	3.2	2.5	3.3	3.7	6.8	5.8	4.4	5.2	5.8	4.8	2.7	4.7	4.2	4.8	4.0	7.3	5.9	6.1	7.5	8.1	6.6	6.9	6.3	6.5	5.3
15	7.6	6.7	4.3	6.3	6.4	7.7	6.1	6.7	6.4	9.1	8.5	9.4	9.6	9.8	9.4	9.1	6.9	6.2	6.3	4.0	5.7	3.1	4.8	6.5	6.9
16	4.5	2.2	2.1	2.1	2.4	2.4	2.7	1.2	1.4	1.2	1.1	2.6	1.9	3.2	2.0	3.1	4.9	3.3	2.2	2.6	0.9	1.8	2.3	1.5	2.3
17	0.7	2.3	6.2	1.8	2.1	1.4	3.2	2.2	2.9	2.5	4.1	3.3	3.4	3.8	7.0	8.9	7.3	5.8	5.3	4.1	3.5	4.7	4.0	6.3	4.0
18	6.3	5.7	4.3	4.4	3.6	2.7	1.6	2.2	2.3	1.0	5.6	7.3	3.4	3.8	3.0	2.0	2.7	2.8	1.7	5.9	5.6	3.3	2.5	1.9	3.6
19	5.0	4.4	2.0	1.5	2.8	1.4	2.2	2.5	2.5	2.8	3.7	4.8	4.3	1.9	2.4	2.7	1.2	1.6	2.0	4.0	2.9	3.4	3.5	3.3	2.9
20	5.1	4.0	3.4	3.4	4.1	5.0	5.7	6.8	7.2	7.2	5.1	5.7	7.6	9.5	6.6	4.2	3.8	5.9	6.1	5.3	5.0	4.1	2.9	1.1	5.2
21	0.7	0.6	2.7	3.7	4.1	5.6	3.7	0.8	1.3	0.6	1.8	4.1	4.3	3.7	3.4	5.0	7.4	7.2	9.0	9.1	8.1	9.5	8.6	8.1	4.7
22	8.4	8.2	6.3	5.8	5.0	5.0	3.9	5.5	7.3	7.5	8.4	8.7	9.3	7.7	8.2	6.5	6.5	7.6	6.8	6.1	5.4	6.2	5.7	10.0	6.9
23	9.2	8.6	8.9	11.2	12.7	11.8	12.1	11.1	10.4	14.3	18.6	17.2	17.8	18.7	15.0	9.9	10.6	7.9	6.6	6.4	6.0	6.3	7.1	7.9	11.1
24	4.6	0.1	1.1	4.3	3.0	2.2	2.9	3.7	2.9	1.8	1.9	3.0	2.2	2.3	5.6	4.2	4.4	4.6	5.5	5.6	4.1	2.3	0.2	0.9	3.1
25	2.9	2.5	1.6	2.4	1.0	1.5	3.1	3.9	3.3	2.3	1.7	2.1	2.0	1.8	1.2	0.7	0.6	2.0	1.5	1.9	1.3	1.6	1.5	2.6	2.0
26	3.2	1.6	2.5	1.4	1.8	0.7	1.4	1.5	2.0	3.2	1.2	1.4	2.1	1.4	1.0	0.5	2.7	3.0	3.7	3.4	2.7	2.1	1.1	2.1	2.0
27	3.1	2.0	3.0	3.6	1.0	4.3	4.0	2.1	4.5	7.0	6.2	6.9	7.0	3.0	1.8	2.4	2.1	4.1	1.5	2.3	2.8	2.2	1.9	2.7	3.4
28	2.1	3.1	3.5	1.3	0.7	0.8	1.3	1.1	3.4	1.3	0.8	3.0	4.2	5.6	4.3	4.0	2.1	3.5	3.6	2.6	3.7	2.5	3.9	4.0	2.8
29	2.5	3.8	1.6	2.0	3.9	4.0	3.3	1.6	2.0	1.8	3.2	2.0	1.3	1.5	1.4	1.8	0.9	1.5	1.1	2.9	1.5	1.4	3.0	4.3	2.3
30	2.2	3.3	3.0	2.5	2.9	3.1	3.7	2.7	4.0	4.2	11.2	6.6	4.2	6.3	4.7	3.9	3.4	6.0	5.6	5.6	4.6	6.1	4.2	4.4	4.5
31	4.4	3.0	4.2	1.5	4.4	5.6	5.3	4.0	2.6	3.5	3.1	3.8	3.0	2.4	3.0	1.7	2.5	2.3	2.7	4.5	3.5	3.1	1.8	2.0	3.2

MONTHLY AVERAGE = 4.68

WIND DIRECTION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF DECEMBER , 2013

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	154.	150.	159.	178.	196.	199.	210.	213.	218.	224.	222.	215.	217.	215.	207.	203.	207.	206.	203.	214.	218.	215.	218.	215.	203.
2	222.	210.	212.	190.	206.	210.	206.	217.	218.	190.	192.	188.	195.	208.	177.	168.	186.	182.	47.	344.	139.	147.	234.	182.	195.
3	201.	327.	357.	22.	10.	5.	12.	33.	18.	17.	13.	24.	3.	359.	8.	13.	8.	27.	38.	36.	30.	40.	41.	76.	72.
4	51.	53.	169.	178.	139.	122.	43.	63.	182.	154.	66.	29.	27.	26.	23.	13.	6.	43.	21.	49.	74.	108.	169.	146.	81.
5	154.	121.	160.	142.	134.	132.	148.	134.	144.	159.	204.	210.	190.	136.	142.	347.	32.	102.	127.	127.	121.	111.	113.	114.	146.
6	114.	115.	119.	122.	113.	124.	105.	98.	92.	89.	82.	73.	79.	83.	97.	98.	105.	110.	63.	34.	40.	53.	46.	56.	88.
7	38.	31.	20.	25.	21.	26.	37.	28.	26.	44.	19.	30.	30.	29.	10.	7.	358.	4.	116.	118.	156.	146.	116.	155.	66.
8	192.	153.	110.	126.	158.	172.	178.	186.	168.	119.	320.	348.	318.	328.	24.	15.	3.	39.	47.	40.	136.	147.	119.	142.	149.
9	133.	63.	140.	142.	132.	159.	188.	147.	38.	206.	232.	16.	58.	3.	24.	45.	15.	236.	148.	166.	238.	266.	103.	136.	126.
10	172.	159.	115.	158.	32.	30.	168.	127.	178.	125.	102.	60.	51.	169.	352.	22.	26.	24.	31.	18.	32.	38.	25.	14.	93.
11	103.	20.	37.	100.	252.	20.	87.	191.	248.	108.	112.	304.	11.	25.	280.	167.	257.	8.	86.	220.	332.	263.	282.	167.	153.
12	150.	161.	148.	194.	217.	214.	187.	205.	242.	294.	313.	154.	317.	19.	107.	135.	145.	126.	151.	152.	136.	159.	168.	148.	177.
13	113.	152.	138.	133.	146.	184.	184.	203.	200.	154.	170.	167.	181.	199.	183.	163.	139.	129.	122.	153.	160.	138.	127.	170.	159.
14	162.	143.	201.	170.	135.	310.	142.	185.	154.	220.	159.	175.	208.	149.	167.	182.	153.	163.	174.	151.	163.	164.	144.	145.	172.
15	175.	149.	148.	138.	134.	142.	164.	162.	179.	190.	184.	187.	195.	203.	198.	203.	212.	219.	208.	222.	268.	259.	10.	13.	173.
16	115.	95.	178.	116.	102.	70.	40.	198.	240.	142.	163.	1.	46.	49.	32.	29.	40.	86.	85.	56.	116.	216.	40.	47.	96.
17	295.	141.	218.	9.	35.	114.	138.	164.	8.	97.	154.	128.	156.	154.	158.	159.	143.	144.	147.	126.	141.	170.	234.	255.	145.
18	245.	253.	261.	280.	303.	248.	80.	146.	174.	127.	357.	11.	14.	170.	182.	342.	269.	324.	87.	19.	9.	344.	317.	313.	203.
19	315.	23.	23.	20.	269.	261.	106.	65.	45.	227.	177.	150.	154.	185.	164.	173.	114.	18.	71.	134.	115.	153.	140.	112.	134.
20	149.	140.	159.	166.	124.	122.	136.	144.	135.	135.	161.	188.	164.	167.	126.	114.	46.	122.	114.	121.	107.	141.	150.	124.	136.
21	176.	57.	47.	20.	39.	31.	44.	72.	44.	67.	130.	180.	179.	154.	142.	155.	184.	211.	199.	194.	197.	199.	192.	187.	129.
22	169.	161.	153.	146.	139.	140.	124.	140.	156.	167.	179.	178.	181.	162.	174.	157.	156.	160.	174.	176.	155.	133.	149.	196.	159.
23	177.	174.	169.	180.	186.	183.	167.	162.	181.	201.	203.	199.	219.	235.	241.	250.	214.	202.	193.	170.	187.	186.	180.	186.	194.
24	173.	15.	13.	134.	139.	188.	144.	124.	111.	108.	104.	206.	160.	261.	5.	360.	359.	13.	32.	47.	62.	158.	103.	75.	129.
25	67.	40.	328.	346.	70.	105.	113.	102.	4.	291.	159.	148.	9.	2.	65.	51.	40.	33.	12.	38.	348.	65.	29.	294.	115.
26	278.	126.	100.	271.	356.	93.	268.	339.	181.	337.	65.	238.	217.	232.	323.	333.	311.	15.	22.	297.	31.	68.	54.	137.	196.
27	175.	227.	206.	148.	333.	26.	317.	99.	213.	183.	183.	164.	146.	109.	100.	22.	356.	123.	104.	225.	171.	114.	170.	147.	169.
28	146.	231.	234.	59.	107.	97.	243.	225.	221.	214.	186.	320.	344.	11.	3.	18.	17.	15.	27.	39.	74.	54.	24.	58.	124.
29	66.	332.	61.	36.	194.	174.	258.	269.	105.	215.	154.	190.	241.	163.	193.	68.	46.	34.	92.	21.	66.	59.	32.	10.	128.
30	8.	57.	47.	4.	286.	258.	27.	100.	193.	330.	180.	298.	163.	196.	85.	174.	17.	133.	147.	176.	190.	222.	160.	164.	151.
31	151.	113.	132.	194.	156.	129.	143.	167.	117.	112.	139.	169.	178.	184.	195.	182.	45.	14.	11.	53.	24.	46.	99.	178.	122.

MONTHLY AVERAGE = 141.39

2 M TEMPERATURE FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF DECEMBER , 2013

IN DEGREES C

DAY	HOUR ENDING																								AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	9.0	9.3	9.4	9.5	10.0	10.3	10.5	10.8	10.8	10.6	10.5	10.2	9.9	9.6	9.5	9.5	9.6	9.5	9.1	8.7	8.6	7.8	7.1	6.3	9.4
2	5.4	4.4	3.8	3.4	3.2	2.8	2.6	2.5	2.5	2.4	2.5	3.1	4.0	4.4	4.0	3.7	3.4	3.1	1.7	1.2	0.6	0.8	0.9	0.7	2.8
3	0.6	0.6	-0.1	-0.2	0.1	-0.2	-0.6	-1.0	-0.8	-0.4	0.4	1.0	1.6	1.7	1.5	1.0	0.3	-0.3	-1.4	-1.7	-1.8	-2.2	-2.4	-2.5	-0.3
4	-2.9	-2.8	-2.5	-2.7	-3.1	-3.3	-4.2	-3.3	-2.8	-1.3	-0.8	-0.1	0.6	1.0	0.8	0.4	-0.4	-1.3	-2.1	-2.4	-2.3	-2.9	-2.8	-2.9	-1.8
5	-3.1	-3.3	-3.5	-3.9	-4.3	-4.2	-4.5	-4.5	-4.0	-3.2	-2.9	-2.5	-2.0	-1.3	-0.9	-1.4	-2.5	-2.6	-3.1	-3.4	-3.6	-3.5	-3.3	-3.3	-3.1
6	-3.5	-3.8	-4.2	-4.5	-4.6	-4.6	-4.6	-4.4	-4.1	-3.7	-3.2	-2.8	-2.8	-2.8	-3.1	-3.6	-4.2	-4.6	-5.2	-5.9	-6.4	-6.6	-6.8	-6.3	-4.4
7	-7.2	-7.7	-7.8	-8.7	-8.9	-9.2	-9.1	-9.1	-8.9	-7.9	-5.9	-4.6	-3.7	-3.6	-3.5	-4.2	-4.7	-5.5	-6.1	-6.4	-7.3	-7.7	-7.5	-8.2	-6.8
8	-8.7	-8.9	-7.9	-7.2	-7.4	-7.6	-7.8	-7.4	-6.8	-4.5	-3.6	-2.9	-2.1	-1.7	-2.1	-2.4	-2.9	-3.9	-3.8	-4.5	-4.9	-5.5	-5.3	-5.4	-5.2
9	-5.5	-5.1	-5.5	-5.6	-5.6	-5.8	-6.2	-5.3	-5.3	-4.8	-3.5	-2.6	-1.5	-1.2	-1.2	-1.6	-1.6	-1.5	-1.5	-1.6	-1.7	-2.4	-2.6	-2.6	-3.4
10	-2.1	-1.4	-0.3	0.1	-0.9	-1.2	-0.4	-0.4	-0.3	0.1	1.2	2.0	2.4	3.0	3.0	2.1	1.7	1.5	1.2	1.1	0.7	-0.2	0.1	0.3	0.5
11	0.0	0.1	-0.8	0.2	0.4	0.0	0.4	0.1	-0.2	0.6	2.1	3.4	3.9	3.2	4.3	3.7	3.4	2.7	2.7	3.2	1.9	2.7	2.0	1.3	1.7
12	1.7	2.8	3.9	2.9	2.0	1.3	0.3	0.8	1.9	2.5	3.5	4.4	4.9	4.2	3.5	4.9	4.5	4.7	4.4	5.1	5.8	6.0	6.0	5.7	3.7
13	5.7	5.8	6.2	6.3	6.7	6.7	6.7	6.5	6.2	6.4	6.3	6.7	7.1	7.4	7.6	7.6	7.4	7.2	7.1	7.1	7.0	7.0	7.2	7.2	6.8
14	6.8	6.1	5.7	5.5	6.2	5.8	5.8	5.4	5.5	5.9	5.9	6.4	7.6	7.3	8.0	7.9	7.7	7.9	7.7	7.8	7.9	7.8	7.7	8.1	6.9
15	8.2	8.1	7.7	7.3	7.3	7.5	7.8	8.2	8.4	8.7	9.1	9.6	10.0	10.3	10.3	10.2	9.9	9.4	8.7	8.4	8.1	7.9	7.3	6.9	8.6
16	6.8	6.5	6.4	6.1	6.0	5.7	5.5	5.4	5.3	5.6	6.7	6.2	6.2	5.9	5.7	5.5	4.9	4.6	4.2	3.6	2.8	2.1	1.7	1.8	5.0
17	1.6	1.6	1.7	1.1	1.3	1.4	1.2	1.0	1.2	1.8	1.8	2.4	3.1	3.9	4.7	5.6	6.0	6.3	6.6	6.4	6.3	6.2	6.2	6.0	3.6
18	5.7	5.6	5.5	5.2	5.0	4.9	4.8	4.8	4.9	4.9	4.3	2.6	3.3	3.3	3.0	2.9	3.0	2.7	2.0	1.9	1.5	0.8	0.8	1.4	3.5
19	0.8	1.0	0.6	-0.2	-0.7	-1.4	-1.9	-1.7	-1.2	-1.1	-0.6	-0.4	0.3	1.5	1.2	0.8	0.5	0.2	-0.3	-0.8	-1.3	-1.0	-1.4	-1.6	-0.4
20	-1.4	-1.3	-0.9	-1.1	-1.8	-1.6	-1.3	-1.2	-1.1	-0.1	0.7	0.4	0.6	1.0	1.9	3.4	3.9	4.4	4.9	5.3	5.6	5.9	6.1	6.3	1.6
21	6.4	6.2	5.1	4.4	4.1	3.8	3.7	3.7	3.8	4.0	4.5	4.9	5.2	5.4	5.7	6.0	6.4	6.4	6.3	6.2	6.1	6.0	6.0	6.0	5.3
22	6.0	5.9	6.1	6.3	6.5	6.8	7.0	7.3	7.6	7.8	7.9	8.1	8.3	8.4	8.5	8.4	8.5	8.5	8.5	8.4	8.4	8.3	8.3	8.3	7.7
23	8.3	8.2	8.2	8.2	8.4	8.4	8.4	8.5	8.6	8.6	8.8	9.3	10.0	9.8	9.0	8.8	7.8	7.3	6.7	6.3	6.1	6.0	5.8	5.8	8.0
24	5.7	5.5	5.4	4.6	4.6	4.9	4.4	4.4	4.1	4.0	5.3	6.1	6.7	7.5	6.4	5.7	4.7	3.8	3.5	3.1	2.8	2.2	1.7	1.5	4.5
25	0.9	0.0	0.8	-0.4	-0.7	-0.8	-1.0	-0.3	-0.7	-0.2	0.7	2.3	3.0	3.2	3.2	3.9	3.3	2.7	2.5	2.2	2.3	1.8	2.3	2.0	1.4
26	2.0	2.3	1.9	2.2	1.1	1.2	1.8	0.7	0.7	1.4	3.8	5.8	7.4	9.2	9.2	8.0	6.4	5.1	4.1	4.8	4.3	4.6	6.3	5.8	4.2
27	5.4	5.5	5.0	4.4	5.5	1.2	2.5	3.2	2.4	3.2	4.8	6.9	6.0	6.0	6.4	6.6	6.5	5.6	5.8	5.5	5.4	5.2	5.7	5.7	5.0
28	5.8	5.7	5.5	5.4	5.5	5.5	5.4	5.2	4.9	5.0	5.6	5.8	6.6	6.7	6.6	6.5	6.0	5.5	4.9	4.2	2.9	3.5	2.5	2.2	5.1
29	2.1	1.0	0.7	0.2	-0.4	-0.4	0.1	0.2	0.3	1.0	1.4	2.5	3.2	3.6	4.0	3.9	3.8	3.6	3.5	3.4	3.4	3.5	3.2	2.5	2.1
30	2.3	2.1	2.1	2.7	2.1	1.8	1.6	1.6	1.8	2.6	4.2	4.2	4.2	4.9	5.1	6.6	5.6	6.4	7.7	8.2	7.6	6.9	6.5	6.2	4.4
31	6.0	6.0	6.3	6.4	5.7	6.0	6.1	5.5	5.2	5.5	5.8	6.0	6.3	6.5	6.7	6.7	6.5	6.3	6.0	5.5	4.9	4.3	4.5	3.9	5.8

MONTHLY AVERAGE = 2.64

PRECIPITATION FOR CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF DECEMBER , 2013

IN INCHES

DAY	HOUR ENDING																								TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	0.01	0.03	0.04	0.03	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.17
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.04
3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.07	0.28
13	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.01	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.14
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.02	0.05	0.17
16	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.03
18	0.01	0.00	0.01	0.01	0.02	0.01	0.02	0.03	0.03	0.00	0.17	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07	0.08	0.05	0.10	0.09	0.09	0.05	0.06	0.07	0.71
21	0.05	0.06	0.03	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.06	0.04	0.03	0.04	0.05	0.02	0.03	0.07	0.57
22	0.05	0.05	0.06	0.04	0.01	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.04	0.04	0.04	0.02	0.00	0.01	0.01	0.68
23	0.05	0.04	0.02	0.01	0.01	0.02	0.04	0.07	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.13
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
31	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.07

MONTHLY TOTAL = 3.75

WIND SPEED/DIRECTION CEDAR HILLS LANDFILL
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF DECEMBER , 2013

IN MPH/DIR

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	8SE	7SE	9S	12S	18S	20S	17SW	23SW	22SW	21SW	21SW	22SW	18SW	15SW	14SW	13SW	14SW	17SW	17SW	20SW	24SW	25SW	20SW	23SW
2	19SW	14SW	11SW	9S	9SW	10SW	9SW	7SW	6SW	6S	7S	6S	9S	9SW	6S	6S	5S	4S	4NE	2N	2SE	3SE	3SW	1S
3	3S	8NW	5N	4N	8N	5N	8N	9NE	9N	9N	7N	8NE	8N	8N	8N	7N	7N	7NE	6NE	7NE	6NE	6NE	4NE	3E
4	4NE	2NE	2S	3S	3SE	2SE	3NE	3NE	2S	2SE	2NE	3NE	4NE	5NE	5NE	4N	4N	3NE	2N	3NE	2E	2E	3S	4SE
5	4SE	3SE	2S	4SE	5SE	6SE	5SE	5SE	6SE	5S	3SW	2SW	2S	2SE	2SE	3N	5NE	5E	7SE	9SE	9SE	9E	11SE	11SE
6	11SE	8SE	7SE	8SE	7SE	7SE	4E	7E	11E	11E	11E	13E	11E	10E	7E	7E	6E	6E	4NE	5NE	5NE	5NE	4NE	4NE
7	4NE	4NE	3N	5NE	5N	5NE	4NE	3NE	5NE	4NE	2N	2NE	6NE	7NE	6N	7N	5N	3N	4SE	2SE	3SE	3SE	2SE	2SE
8	4S	3SE	3E	3SE	3S	3S	3S	3S	2S	1SE	2NW	2N	4NW	4NW	6NE	5N	5N	5NE	3NE	2NE	2SE	3SE	4SE	4SE
9	4SE	2NE	2SE	2SE	2SE	2S	4S	3SE	2NE	2SW	2SW	2N	1NE	2N	1NE	3NE	1N	0SW	1SE	3S	3SW	1W	1E	2SE
10	3S	2S	3SE	1S	2NE	2NE	2S	3SE	3S	3SE	3E	1NE	1NE	1S	1N	2N	3NE	3NE	3NE	4N	4NE	5NE	3NE	1N
11	1E	1N	4NE	2E	2W	1N	2E	2S	3W	2E	2E	2NW	3N	3NE	2W	2S	3W	1N	1E	1SW	2NW	1W	2W	0S
12	4SE	3S	4SE	2S	4SW	4SW	4S	5SW	3SW	5NW	3NW	2SE	4NW	4N	3E	8SE	4SE	4SE	4SE	5SE	6SE	5S	3S	2SE
13	3SE	4SE	5SE	5SE	5SE	4S	3S	3SW	3S	3SE	6S	6S	8S	7S	5S	4S	4SE	4SE	3SE	5SE	7S	5SE	6SE	5S
14	3S	3SE	3S	4S	7SE	6NW	4SE	5S	6SE	5SW	3S	5S	4SW	5SE	4S	7S	6SE	6S	7S	8SE	7S	7S	6SE	6SE
15	8S	7SE	4SE	6SE	6SE	8SE	6S	7S	6S	9S	8S	9S	10S	10SW	9S	9SW	7SW	6SW	6SW	4SW	6W	3W	5N	6N
16	5SE	2E	2S	2SE	2E	2E	3NE	1S	1SW	1SE	1S	3N	2NE	3NE	2NE	3NE	5NE	3E	2E	3NE	1SE	2SW	2NE	2NE
17	1NW	2SE	6SW	2N	2NE	1SE	3SE	2S	3N	2E	4SE	3SE	3SE	4SE	7S	9S	7SE	6SE	5SE	4SE	3SE	5S	4SW	6W
18	6SW	6W	4W	4W	4NW	3W	2E	2SE	2S	1SE	6N	7N	3N	4S	3S	2N	3W	3NW	2E	6N	6N	3N	2NW	2NW
19	5NW	4NE	2NE	2N	3W	1W	2E	3NE	3NE	3SW	4S	5SE	4SE	2S	2S	3S	1SE	2N	2E	4SE	3SE	3SE	4SE	3E
20	5SE	4SE	3S	3S	4SE	5SE	6SE	7SE	7SE	7SE	5S	6S	8S	10S	7SE	4SE	4NE	6SE	6SE	5SE	5E	4SE	3SE	1SE
21	1S	1NE	3NE	4N	4NE	6NE	4NE	1E	1NE	1NE	2SE	4S	4S	4SE	3SE	5SE	7S	7SW	9S	9S	8S	9S	9S	8S
22	8S	8S	6SE	6SE	5SE	5SE	4SE	5SE	7SE	8S	8S	9S	9S	8S	8S	6SE	7SE	8S	7S	6S	5SE	6SE	6SE	10S
23	9S	9S	9S	11S	13S	12S	12S	11S	10S	14S	19SW	17S	18SW	19SW	15SW	10W	11SW	8S	7S	6S	6S	6S	7S	8S
24	5S	0N	1N	4SE	3SE	2S	3SE	4SE	3E	2E	2E	3SW	2S	2W	6N	4N	4N	5N	5NE	6NE	4NE	2S	0E	1E
25	3NE	3NE	2NW	2N	1E	1E	3SE	4E	3N	2W	2S	2SE	2N	2N	1NE	1NE	1NE	2NE	1N	2NE	1N	2NE	1NE	3NW
26	3W	2SE	3E	1W	2N	1E	1W	2N	2S	3NW	1NE	1SW	2SW	1SW	1NW	0NW	3NW	3N	4N	3NW	3NE	2E	1NE	2SE
27	3S	2SW	3SW	4SE	1NW	4NE	4NW	2E	4SW	7S	6S	7S	7SE	3E	2E	2N	2N	4SE	2E	2SW	3S	2SE	2S	3SE
28	2SE	3SW	4SW	1NE	1E	1E	1SW	1SW	3SW	1SW	1S	3NW	4N	6N	4N	4N	2N	3N	4NE	3NE	4E	3NE	4NE	4NE
29	2NE	4NW	2NE	2NE	4S	4S	3W	2W	2E	2SW	3SE	2S	1SW	2S	1S	2E	1NE	2NE	1E	3N	2NE	1NE	3NE	4N
30	2N	3NE	3NE	3N	3W	3W	4NE	3E	4S	4NW	11S	7NW	4S	6S	5E	4S	3N	6SE	6SE	6S	5S	6SW	4S	4S
31	4SE	3SE	4SE	1S	4SE	6SE	5SE	4S	3SE	4E	3SE	4S	3S	2S	3S	2S	2NE	2N	3N	4NE	3NE	3NE	2E	2S

APPENDIX D

Area 5 Top Deck Report

CEDAR HILLS REGIONAL LANDFILL AREA 5 TOP DECK MONITORING REPORT

Fourth Quarter 2013



Department of Natural Resources and Parks
Solid Waste Division

February 2014
Printed on recycled paper

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**AREA 5 TOP DECK MONITORING
QUARTERLY REPORT**

FOURTH QUARTER 2013

This report provides the quarterly performance analysis of the interim soil cover system over Area 5 in the Cedar Hills Regional Landfill. The intent of the report is to provide the necessary information to determine whether the top deck cover system is functioning as designed. Monitoring of leachate, stormwater and the top deck surface is conducted and reported to identify any problems so that they may be corrected in a timely manner and the environment protected from potential harmful impacts.

I. LEACHATE MONITORING

Overview of the Top Deck Monitoring Program

King County Solid Waste Division (KCSWD) is continuing to experience technical issues with its leachate volume calculation system for Area 5. We are working to resolve these issues and plan to report the logged data in the earliest Top Deck Monitoring Report.

KCSWD staff will continue to evaluate leachate volumes collected throughout the landfill that are pumped to the wastewater treatment plant. We will also continue to compare the historical volumes generated through typical landfill construction and closure with the phased closure and interim top deck cover utilized in Area 5. These comparisons provide an initial effort to assess the interim cover performance. The evaluation accounts for variations in rainfall by normalizing the leachate flows in terms of gallons discharged per inch of rainfall. The flow is also normalized relative to pounds of waste in-place. These normalized flows for the entire site are presented in Table 1.

TABLE 1
SITEWIDE LEACHATE PRODUCTION

Year	Leachate	Surface Area of Refuse Areas	Refuse In Place	Precipitation	Flow	Flow	Flow	Flow
	(MG/yr)	(acres)	(lb)	(in/yr)	(gal/Acre/yr)	(gal/Acre/in)	(gal/lb/yr)	(gal/lb/in)
1986	163.03	138.5	11,328,841,100	54.79	1,177,112	21,484	0.0144	0.00026
1987	139.53	138.5	12,927,926,300	39.6	1,007,422	25,440	0.0108	0.00027
1988	169.67	161.9	14,525,504,000	48.63	1,048,009	21,551	0.0117	0.00024
1989	176	161.9	16,203,204,000	44.12	1,087,110	24,640	0.0109	0.00025
1990	294.75	161.9	17,965,254,000	71.6	1,820,594	25,427	0.0164	0.00023
1991	224.27	221.4	19,778,412,000	45.85	1,012,967	22,093	0.0113	0.00025
1992	156.46	221.4	21,454,600,000	38.64	706,694	18,289	0.0073	0.00019
1993	150.83	221.4	23,051,348,000	35.01	681,264	19,459	0.0065	0.00019
1994	159.8	221.4	24,657,528,000	38.55	721,764	18,723	0.0065	0.00017
1995	201.11	221.4	26,294,654,000	48.4	908,376	18,768	0.0076	0.00016
1996	243.03	221.4	27,946,704,000	57.08	1,097,714	19,231	0.0087	0.00015
1997	239.23	221.4	29,665,380,000	57.24	1,080,511	18,877	0.0081	0.00014
1998	202.8	221.4	31,432,828,000	42.82	916,006	21,392	0.0065	0.00015
1999	219.15	283.42	33,273,828,000	45.9	773,229	16,848	0.0066	0.00014
2000	148.82	283.42	35,167,828,000	33.15	525,102	15,840	0.0042	0.00013
2001	174.08	283.42	37,041,828,000	47.28	614,194	12,991	0.0047	0.0001
2002	133.4	283.42	38,919,828,000	35.13	470,690	13,399	0.0034	0.0001
2003	181.6	283.42	40,877,828,000	46.39	640,761	13,812	0.0044	0.0001
2004	185.72	328.72	42,889,828,000	34.08	564,983	16,578	0.0043	0.00013
2005	175.31	328.72	44,867,538,000	40.75	533,313	13,087	0.0039	0.0001
2006	264.95	328.72	46,820,938,000	52.94	806,009	15,225	0.0057	0.00011
2007	161.48	328.72	47,129,756,000	38.68	491,239	16,143	0.0034	0.000112
2008	126.02	328.72	48,990,990,000	42.32	383,366	9,059	0.0026	0.00006
2009	172.16	328.72	49,414,219,997	42.42	523,741	12,347	0.0035	0.00008
2010	199.4	335.72	51,076,043,997	49.25	593,959	12,060	0.0039	0.00008
2011	180.2	353.12*	52,701,411,694	51.05	510,308	9,996	0.0034	0.00007
2012	202.3	353.12*	54,315,239,773	58.16	572,972	9,852	0.0037	0.00006
2013	156.4	353.12*	55,933,569,773	47.77	442,923	9,272	0.0028	0.00006
2013: Precipitation, leachate and refuse in place through 12/31/13								

* The 353.12 acre value was a plan view area calculated by ACAD, using the area inquiry feature of a closed polyline.

II. SURFACE MONITORING

King County Solid Waste Division provided a plan for surface monitoring for the top deck of Area 5. This monitoring plan is composed of three parts: landfill gas inspections, leachate seep inspections and settlement monitoring. The purpose of this monitoring is to detect any conditions affecting the cover system that may permit landfill gas emissions, leachate seeps, or excessive or differential settlement.

Landfill Gas Inspections

Serpentine walks are conducted across the Area 5 top deck and its side slopes on a quarterly basis (see Appendix B: *Gas Monitoring Reports*). This report contains the fourth quarter's Serpentine Surface Monitoring Data that was collected from December 17th to December 31st.

In addition to the serpentine walks, monthly inspections of the gas system, stormwater system, and cover system of Area 5 are performed by the Solid Waste Operations staff. All internal inspection reports showed satisfactory conditions this quarter. These inspection reports are included in Appendix A: *Inspection Reports*.

Also, throughout the fourth quarter the Engineering Services Section (ESS) staff performed monthly Landfill Facility Site Inspections. No issues were noted pertaining to Area 5. The ESS Inspections are included in Appendix A: *Inspection Reports*.

Twelve Health Department Inspections were performed during the fourth quarter, on October 3rd, 9th and 23rd; November 1st, 7th, 13th, 21st, and 26th; December 5th, 13th, 19th and 30th. No violations were recognized in Area 5, however a small ponded area was noted on November 7th. All Health Department Inspection Reports are provided in Appendix A: *Inspection Reports*.

Leachate Seep Inspections

Visual inspections for leachate seeps are conducted by KCSWD operations personnel in conjunction with the surface emissions monitoring. No indications of leachate seeps were recorded during the quarter by Health Department personnel.

Settlement Monitoring

Settlement of Area 5 is evaluated both through visual inspections and through topographic surveys at control points on the top deck. A site map showing the settlement monitoring points is included as Figure 1. Visual inspections are completed by both operations and engineering staff. The most recent settlement levels were measured on Area 5 on September 5, 2013. The survey data is given in Table 2, and the settlement at each point is given in Table 3, which demonstrates that the refuse settlement (feet/month) continues to slowly decrease with time or remain relatively constant, as expected. One station, A5SM-3 was measured 0.57 ft higher than the measurement recorded in May 2013. The measurement was reviewed and the location checked. No reason for the anomaly has been determined. The location will be visually checked in the monthly inspections of the site for any localized change until the next survey is conducted. No erosion has been observed.

Future plans for Area 5 are for continued filling to the approved 788 foot elevation. This filling will occur following the filling of Area 8, which was approved by King County Council on Dec. 6, 2010.

TABLE 2
AREA 5 SURFACE SURVEY DATA

Station	Date	Elevation	Station	Date	Elevation
A5SM-1	10/4/2005	699.18	A5SM2 (cont.)	7/12/2012	763.83
	2/1/2006	697.7		11/6/2012	763.35
	6/27/2006	696.51		5/22/2013	762.77
	2/14/2007	694.53		8/8/2013	762.53
	7/24/2007	693.34	A5SM3 NEW 2/14/2007	2/14/2007	786.4
	2/29/2008	691.77		4/20/2007	786.25
	7/29/2008	691.26		7/24/2007	785.68
	11/24/2008	690.61		2/29/2008	784.87
	4/6/2009	690.16		7/29/2008	784.31
	7/9/2009	689.77		11/24/2008	783.76
	12/22/2009	689.13		4/6/2009	783.35
	3/1/2010	688.77		7/9/2009	783.05
	8/2/2010	688.6		12/22/2009	782.44
	12/21/2010	688.1		3/1/2010	782.08
	4/6/2011	687.83		8/2/2010	781.78
	8/8/2011	687.46		12/21/2010	781.25
	1/23/2012	687.19		4/6/2011	780.94
	5/18/2012	686.78		8/8/2011	780.66
	7/12/2012	686.69		1/23/2012	780.26
	11/2/2012	686.55		5/18/2012	779.9
	5/22/2013	686.09		7/12/2012	779.69
A5SM-2	10/4/2005	785.17		11/2/2012	779.56
	2/1/2006	782.52		5/22/2013	779.09
	6/27/2006	780.48		9/5/2013	779.66
	4/20/2007	776.95	PMX20074 NEW 8/16/2007 (Destroyed during Phase 3 of Area 6)	8/16/2007	781.56
	7/24/2007	775.63		2/29/2008	780.1
	2/29/2008	773.44		7/29/2008	779.13
	7/29/2008	772.2		11/24/2008	778.21
	11/24/2008	771.29		4/6/2009	777.41
	4/6/2009	770.35		7/9/2009	776.99
	7/9/2009	769.79		12/22/2009	776.1
	12/22/2009	768.6		3/1/2010	775.81
	3/1/2010	768.05		8/2/2010	775.29
	8/2/2010	767.28		12/21/2010	774.79
	12/21/2010	766.53		4/6/2011	774.42
	4/6/2011	765.86		8/8/2011	774.19
	8/8/2011	765.34		1/23/2012	773.79
	1/23/2012	764.53		5/18/2012	773.41
	5/18/2012	763.99		7/12/2012	773.26

TABLE 3								
AREA 5 SETTLEMENT (FEET)								
Settlement Point	DATE							
	6/06 - 7/07	7/07 - 7/08	7/08 - 7/09	7/09 - 8/10	8/10 - 8/11	8/11 - 7/12	7/12-5/13	5/15-9/13
A5SM-1	3.17	2.08	1.49	1.17	1.14	0.77	0.60	N/A
A5SM-2	4.85	3.43	2.41	2.51	1.94	1.51	1.06	0.24
A5SM-3	N/A	1.37	1.26	1.27	1.12	0.97	0.60	-0.57
PMX2007-4	N/A	2.43	2.14	1.7	1.1	0.93	N/A	N/A
Average Settlement	4.01	2.33	1.83	1.66	1.33	1.05	0.75	-0.17
Average Settlement (Feet/Month)	0.31	0.19	0.15	0.13	0.11	0.1	0.19	-0.04

III. STORMWATER MONITORING

Collection of Stormwater Samples

Samples were collected at stormwater sample location SW-S1, and leachate sample location LAPI during the quarter. No samples from Area 5 top deck stormwater monitoring stations SW-A5TD1, SW-A5TD2, SW-A5TD4, SW-A5TD6 were collected as there was no flow on the days the stations were checked.

IV. CONCLUSION

During the fourth quarter of 2013 none of the inspections performed by SWD staff or the Health Department in Area 5 indicated any gas exceedances, leachate seeps, or other unexpected issues. Additionally, Area 5 continues to settle at a declining rate, without any indication of major differential settling.

From these results, it can be concluded that the Area 5 top deck interim cover system is functioning as designed and there is no interaction of waste and surface water runoff from the Area 5 top deck.



LEGEND:
 ○ ACTIVE MONITORING STATION

Figure 1. Area 5 Settlement Monitoring Locations

DATE	REVISION	BY



**KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS**
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED: JDO DATE: JUN 2010

RECOMMENDED: JDO DATE: JUN 2010

PROJECT: SETTLEMENT MONITORING SHEET: 1 OF 1

LEGEND:
 STORMWATER MONITORING STATION

AREA 5 TOP DECK STORMWATER MONITORING STATION	
STATION	STATION DESCRIPTION
SM-AS101	STATION 101: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS102	STATION 102: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS103	STATION 103: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS104	STATION 104: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS105	STATION 105: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS106	STATION 106: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS107	STATION 107: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS108	STATION 108: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS109	STATION 109: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.
SM-AS110	STATION 110: Located at the top of the stormwater collection system, near the intersection of the main road and the access road. It is a concrete structure with a 12-inch diameter opening.

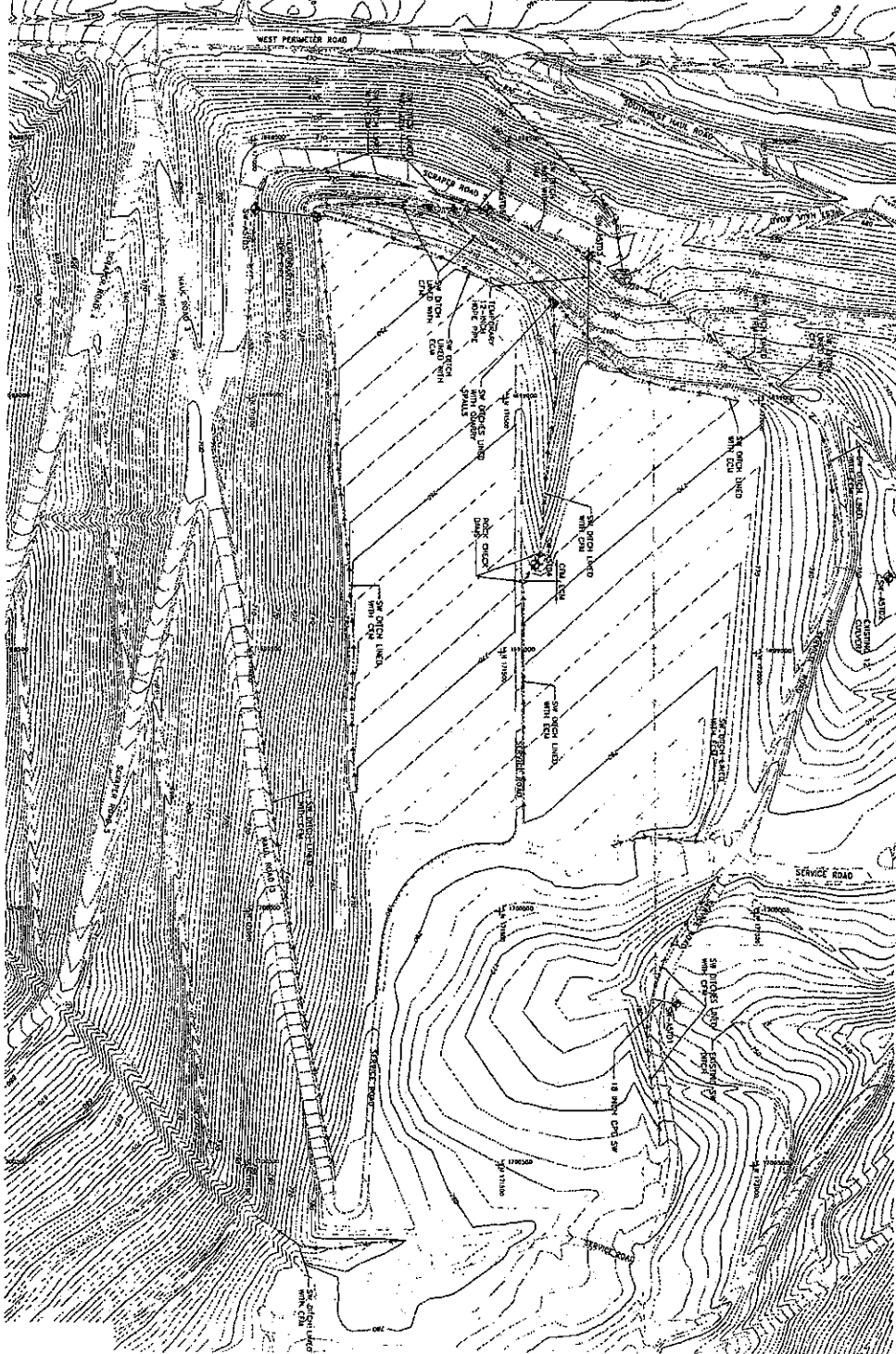
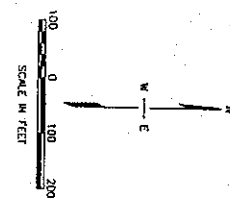


Figure 2. Top Deck Stormwater Monitoring Locations

FIGURE 2

Area 5 Top Deck
 Stormwater Monitoring Stations
 Cedar Hills Regional Landfill
 Area 5 Stage 4 Final Closure
 King County, Washington

APPENDIX A: INSPECTION REPORTS

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: MICHAEL McEWEN

Telephone: 206-296-0485

Location: CEDAR HILLS Ambient Temperature (°F) 50°

Weather Condition: DRY / FOGGY

I certify that this report is true, accurate and complete, to the best of my knowledge and beliefs.

Inspector's Signature: [Signature]

Date: 10/24/2013

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	✓		1. Pump Stations	✓		1. Fueling Stations	✓	
2. Collection Piping			2. Aeration Lagoons / Basins	✓		2. Vehicle Wash Stations	✓	
3. Gas Extraction Wells	✓		3. Aerators	✓		3. Equipment	✓	
4. Valve Stations	✓		4. Weeps (strip drains)	✓		4. Perimeter Fences	✓	
5. Odor	✓		5. Collection System	✓		5. Vegetation	✓	
6. Flare Stations	✓		a. Collection Pipes	✓		6. Landfill Cover	✓	
7. Air Compressors	✓		b. Forcemains	✓		7. Drain Rock	✓	
8. Noise Control	✓		c. Manholes	✓		9. Air Quality	✓	
			d. Cleanouts	✓		10. Stockpiles	✓	
D. Stormwater System			6. Generators	✓		11. Vectors	✓	
1. Ponds	✓		7. Extraction Wells	✓		12. Litter	✓	
2. CB / Control Structures	✓		8. Valve / Cleanout	✓		13. Dust control	✓	
3. Pipes / Culverts	✓		9. Groundwater Extraction Wells	✓		14. Other	✓	
4. Trash Racks		✓						
5. Ditches		✓	E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	✓		1. Road Sweeping	✓		F. Vegetation	✓	
7. General	✓		2. Access Roads	✓		1. Refuse	✓	
			3. Road Erosion	✓		2. Cover Erosion	✓	
G. Operations			4. Road Pavement	✓		3. Silt Fences, Filter Fabric, etc.	✓	
1. Records Obtain / Review			5. Lane Striping	✓				

Item No.	Action Code(s)	Area Code(s) (See below or over for map)		Status			State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area	Map	G	F	P		
1	D-5	5	D4		✓		STANDING WATER / DITCH NOT DRAINING	
2	D-4	4	D4		✓		TRASH RACK OUT OF PLACE / E SIDE D4	
3								
4								
5								
6								
7								
8								
9								
10								
11								

AREA CODES (for Cedar Hills)

G = Good

F = Fair

P = Poor

East Main Hill = EMH
Southwest Main Hill = SWMH
Southeast Pit Area = SEPA

Area 2/3 = A2/3
Area 4 = A4
Stockpile = SP

Aeration Ponds = AP
So. Solid Waste Area = SSWA
North Flare Station = NFS

Area 5 = A5
Area 6 = A6
Central Pit = CP

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* - potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* - Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
 - a. *Emergency* - stops the continuing operation of the facility
 - b. *Urgent* - While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
 - c. *Routine* - need to be completed & not necessarily. May be completed under existing operations preventative programs.
 - d. *Deferred* - desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: SITE IS IN GOOD SHAPE.
PAVEMENT HAS BEEN REPAIRED @ PIPE CROSSINGS UNDER
AREA 4 ACCESS ROADS.

Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:
Category number:	Action to be Completed. Suggested Remedy:

ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry & Mike McEwen Telephone: (206) 477-5226
 Location: Cedar Hills Ambient Temperature (°F) ~40 Weather Condition: O'cast & partly rainy

I certify that this report is true, accurate and complete, to the best of my knowledge and beliefs.

Inspector's Signature: Stevn Larry Date: November 7, 2013
 Turbidity Reading: 89.8 NTU's Date: November 7, 2013
 Conductance Reading 495 STD 2 12.5 ° C Date: November 7, 2013

Weather: Raining

Turbidity Reading: 134NTU's Date: November 18, 2013
 Conductance Reading: 111.4 @11.6 ° C Date: November 18, 2013

ACTION CODES

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations	X		1. Pump Stations	X		1. Fueling Stations	X	
2. Collection Piping	X		2. Aeration Lagoons / Basins	X		2. Vehicle Wash Stations	X	
3. Gas Extraction Wells	X		3. Aerators	X		3. Equipment	X	
4. Valve Stations	X		4. Weeps (strip drains)	X		4. Perimeter Fences	X	
5. Odor	X		5. Collection System	X		5. Vegetation	X	
6. Flare Stations	X		a. Collection Pipes	X		6. Landfill Cover	X	
7. Air Compressors	X		b. Forcemains	X		7. Drain Rock	X	
8. Noise Control	X		c. Manholes	X		9. Air Quality	X	
			d. Cleanouts	X		10. Stockpiles	X	
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds	X		7. Extraction Wells	X		12. Litter	X	
2. CB / Control Structures	X		8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts	X		9. Groundwater Extraction Wells	X		14. Other	X	
4. Trash Racks	X							
5. Ditches	x		E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	X		1. Road Sweeping	X		F. Vegetation	X	
7. General	X		2. Access Roads	X		1. Refuse	X	
			3. Road Erosion	X		2. Cover Erosion	X	
G. Operations			4. Road Pavement	X		3. Silt Fences, Filter Fabric, etc.	X	
1. Records Obtain / Review	X		5. Lane Striping	X				

Item No.	Action Code(s)	Area Code(s) (See below or over for map) Area Map	Status G F P	State Reason if "Fair or Poor"	Date Corrective Action Implemented
1					
2					
3					

Item No.	Action Code(s)	Area Code(s) (See below or over for map)		Status			State Reason if "Fair or Poor"	Date Corrective Action Implemented
		Area	Map	G	F	P		
4								
5								
6								
7								
8								
9								
10								
11								

AREA CODES (for Cedar Hills)

East Main Hill = EMH

Southwest Main Hill = SWMH

Southeast Pit Area = SEPA

G = Good

Area 2/3 = A2/3

Area 4 = A4

Stockpile = SP

F = Fair

Aeration Ponds = AP

So. Solid Waste Area = SSWA

North Flare Station = NFS

P = Poor

Area 5 = A5

Area 6 = A6

Central Pit = CP

State the needs of the repairs in the suggested remedy box.

1. *Regulatory Priority* - permit, regulations & code & compliance driven.
2. *Safety Priority* – potential to adversely affect the safety of workers or the related environment.
3. *Maintenance Priority* – Ensures continuation of existing level of facility operations to ensure proper efficiency without interruption. This priority has the following four potential levels
 - a. *Emergency* - stops the continuing operation of the facility
 - b. *Urgent* – While not completely prohibiting continuing use of the facility, may threaten use of entire facility or continuing use may results in significant & extensive repair of facility.
 - c. *Routine* – need to be completed & not necessarily. May be completed under existing operations preventative programs.
 - d. *Deferred* – desirable but not required to maintain status quo operations (e.g., planting or wild life enhancement projects etc.)

Overall site description day of site inspection: Today was the first inspections of new sedimentation and erosion control measures in an ongoing effort to reduce erosion and sediment transport site wide and at sample reporting location SGS1. The new efforts include installing channel improvements along the west side of the soils stockpile, installing new rock check dams and pools to reduce sediment erosion and transport into the SW corner siltation pond. Other improvements were to install rock checks dams in the asphalt lined channels along the west perimeter road, installing road side shoulder checks to direct road runoff into the asphalt lined channels. Installing silt fencing to capture silt from the road shoulder cults. Installing a rumble strip to shake mud from trucks after leaving the dump face. Monitoring turbidity levels using turbidly meters and conductivity meters. New curbing around the outdoor trailer weld shop and wash down zone. This new curbing will separate stormwater from waste water that will require treatment.

The new installations and sediment control measures appear to be working. The modified channel along the stock pile needs additional modification to the rock check dams system. The rock currently being used in this channel is too large and water is flowing around the large rock without first being slowed allowing sediment to drop out before flowing into the SW corner sedimentation pond. The goal is to reduce the number of events that

this pond is being over loaded. Further modifications are needed and will be installed over the next few weeks. The rock check dams installed in the asphalt lined channels are effective and is slowing the channel flow. Sediment transport in this channel has been reduced and sedimentation behind the checks can be clearly seen. Operations Waste water will remove the build up behind the checks during non-flow periods. The road side shoulder checks is redirecting runoff from the paved road surfaces into the asphalt line channels. The silt that was once mobilized by truck traffic is being captured by the new silt fences. See the attached photos taken of the new control measure for better descriptive and location clarity.

<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:
<i>Category number:</i>	Action to be Completed. Suggested Remedy:

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

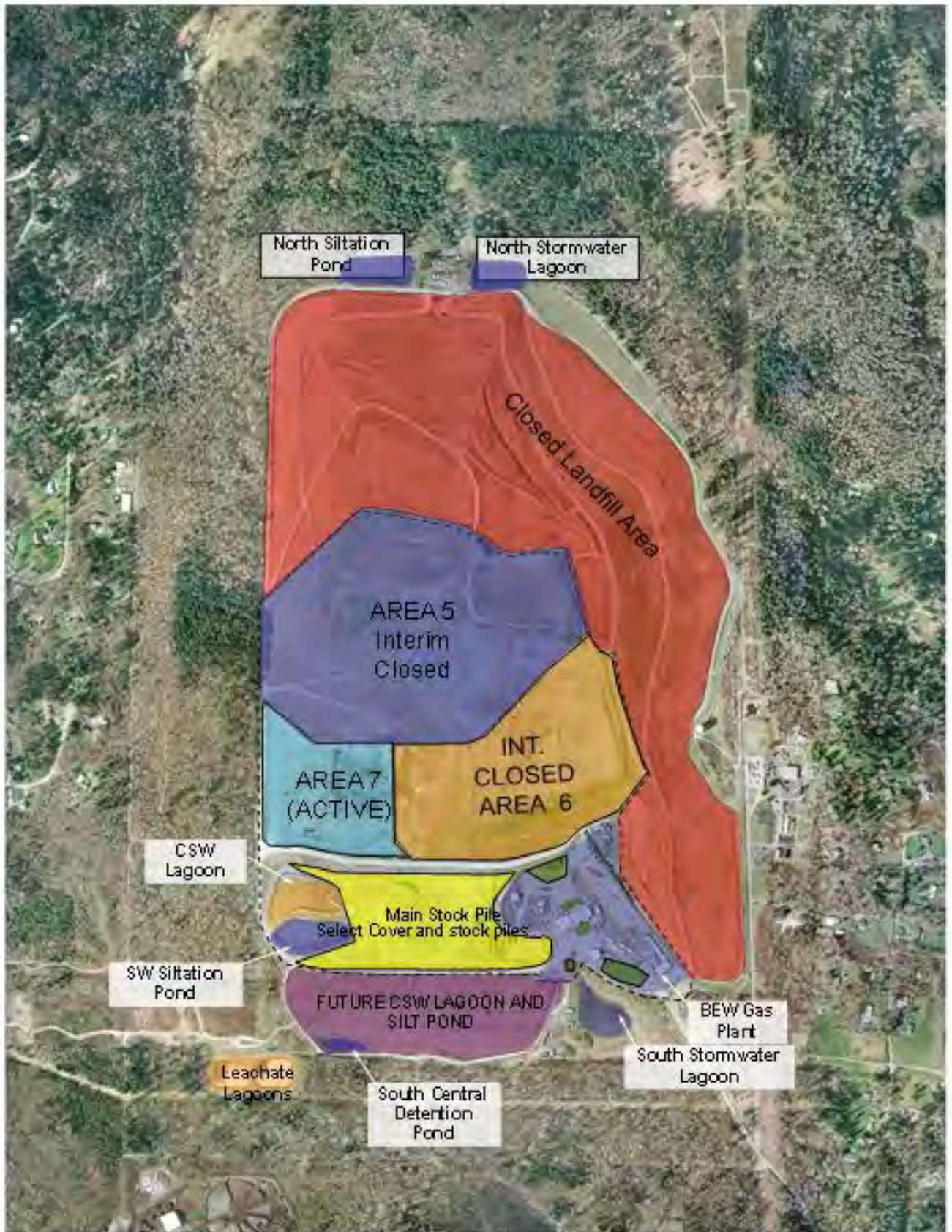
D

E

F

G

H



ENGINEERING SERVICES SECTION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: M.J. McEWEN

Telephone: 202-296-0483

Location: C.H.

Ambient Temperature (°F) 40

Weather Condition: CAST, SNOW 125

I certify that this report is true, accurate and complete, to the best of my knowledge and beliefs.

Inspector's Signature: [Signature]

Date: 12/18/13

SUBMITTED PRIOR TO COMPLETE GAS SYSTEM EVALUATION ACTION CODES

WJM

A. Gas System	OK	Not OK	B. Leachate System	OK	Not OK	C. Landfill Operations	OK	Not OK
1. Pipe Penetrations			1. Pump Stations	✓		1. Fueling Stations	✓	
2. Collection Piping			2. Aeration Lagoons / Basins	✓		2. Vehicle Wash Stations	✓	
3. Gas Extraction Wells			3. Aerators	✓		3. Equipment	✓	
4. Valve Stations			4. Weeps (strip drains)	✓		4. Perimeter Fences	✓	
5. Odor			5. Collection System	✓		5. Vegetation	✓	
6. Flare Stations			a. Collection Pipes	✓		6. Landfill Cover	✓	
7. Air Compressors			b. Forcemains	✓		7. Drain Rock	✓	
8. Noise Control			c. Manholes	✓		9. Air Quality	✓	
			d. Cleanouts	✓		10. Stockpiles		✓
D. Stormwater System			6. Generators	✓		11. Vectors	✓	
1. Ponds	✓		7. Extraction Wells	✓		12. Litter	✓	
2. CB / Control Structures		✓	8. Valve / Cleanout	✓		13. Dust control	✓	
3. Pipes / Culverts		✓	9. Groundwater Extraction Wells	✓		14. Other	✓	
4. Trash Racks		✓						
5. Ditches		✓	E. Roadway System			Cover System / ESC		
6. Runoff Control Berms		✓	1. Road Sweeping	✓		F. Vegetation	✓	
7. General	✓		2. Access Roads	✓		1. Refuse	✓	
			3. Road Erosion	✓		2. Cover Erosion	✓	
G. Operations			4. Road Pavement	✓		3. Silt Fences, Filter Fabric, etc.	✓	
1. Records Obtain / Review			5. Lane Striping	✓				

Item No.	Action Code(s)	Area Code(s) (See below or over for map)	Status	State Reason if "Fair or Poor"	Date Corrective Action Implemented
	<u>C-10</u>	Area Map	G F P		
1	<u>D-2,3,4,5</u>	<u>SP</u>	<u>G-4</u>	<u>E. STOCKPILE, STORMWATER CB</u>	
2	<u>6</u>			<u>@ MW-70? DRAINS FROM HEAVY</u>	
3				<u>EQUIP. REPAIR BASIN. DRAIN</u>	
4				<u>NEED CLEARING - SEE PHOTOS</u>	
5				<u>SHOULD BE A RUNOFF BERM</u>	
6				<u>AT THE TOP OF SLOPE</u>	
7					
8					
9					
10					
11					

AREA CODES (for Cedar Hills)

G = Good

F = Fair

P = Poor



PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4386 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Thursday, October 3, 2013 Time In: 3:42 pm Time Out: 4:31 pm Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)**OVERALL INSPECTION COMMENTS:**

During the inspection, the following areas were observed:

- Good Line Parking
- Leachate Lagoons
- Area 7 – Observed initial activities for afternoon placement of the Tarpomatics
- Vector Waste Drying Pad
- Area 5

Dust control: Adequate control measures appear to be in place and applied as needed.

No violations were detected or observed.

Ed Davis

HEI III

PIC Phone #: 206-296-4490

Email: emily.robbs@kingcounty.gov

Inspection Survey Report

Solid Waste Program



Public Health - Seattle & King County
Environmental Hazards Section 206-263-9566
401 Fifth Avenue, Suite 1100 • Seattle, WA 98104

Page 1 of 1

Business Name

Operator

Phone

Cedar Hills Regional Landfill K.C. S.W.D. (206) 296-4490

Address

City

ZIP

Time In

16645 - 228th Ave. SE Maple Valley 98038 9:45

EHS

Date

General Health Record ID

P/E

Activity Time

Travel Time

DAV 100913 PRSR 0015736 1006 78 m 90 m

Violation Number	Violation Description	Correction Date	Service
	<i>No Violation noted.</i>		126 ☐ Fld PI Rww
	<i>See Items below</i>		127 ☐ Pre-Operat
			128 ☒ Routine
			129 ☐ Return
			130 ☐ Complaint
			131 ☐ Comp Rtn
			☐
			Results
			01 ☒ Satisfactory
			02 ☐ Unsatisfactory
			07 ☐ In Compliance
			08 ☐ Not in Compliance
			22 ☐ Not Access
			☐
			Action
			00 ☒ Not Applicable
			04 ☐ Suspend
			07 ☐ Approved
			08 ☐ App w/ Cond
			26 ☐ Return Visit
			27 ☐ Phone Follow
			☐

Comments / Observations

Areas inspected include:
*Good Line Parking - *Identifications at rear of units*
TR # 529, #505, #476, #483, # 586 are worn and not
legible.
Signage very dirty for TR #483 and TR #529
TRs #529 and 597 appear to have leaky
Seals

Misc

☐ Photos Taken

Weather

☐ Sunny
☐ Cloudy
☒ Partially Cloudy
☐ Showers
☐ Rain
☐ Wind
☐ Snow

Service Road south of Area 7 - One worker present without not
wearing safety vest/jacket/shirt.
Area 7 - not substantial bird presence (op served)
" 6 - No evidence of a typical settlement
" 5 " " " " " "
" 5 - No wind blown debris present
Pump Station #3-panel door not closed and/or locked.

Person in Charge

Health Authority

Tally Ray Ed Davis

Based on an inspection this day, the above listed violations must be corrected by the next routine inspection or such period of time as may be specified in writing by the health officer. Failure to comply with this notice may result in immediate suspension of your permit and/or assessment of civil penalties. An opportunity for an appeal of the findings of an inspection report will be provided if a written request is filed with the health officer within ten (10) days of the date of the suspension or inspection. The complete list of inspection items is contained on the back of this form.

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE#1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Wednesday, October 16, 2013 Time In: 11:37 am Time Out: 1:12 pm Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)**OVERALL INSPECTION COMMENTS**

Areas inspected include

• Good Line Parking – Several TR identification (I.D.) placards (i.e. located at the rear of the TR units) do not appear to be completely legible: TR#529 (letters/numbers wearing);

Several numbers and/or letters are either worn off or are nearing such condition - TR #s 484, 518, 551, 516.

It appears the rear I.D. placards for TR 605 and 529 are in need of thorough washing.

Approximately 6 to 7 small pieces of wind blown litter are present.

Additional General Observations: Hard to read rear ID placards observed on other in service TRs (not parked in the Good Lind Parking Area) - [(i.e. TR 530, 493, and 539 (letters/numbers wearing))];

Several numbers and/or letters are either worn off or are nearing such condition - TR #s 518 and 525.

I.D. Placard for TR#477 needs a thorough washing;

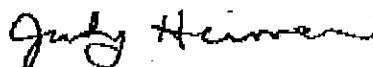
Area 7 - Bird presence observed, with very little opportunity for periods to scavenges due to ongoing operation of machinery at the active fill area.

Areas 5 & 6: -No evidence of wind-blown debris present.

No problems or violations were observed or detected at other areas inspected (i.e. Leachate Lagoons, Vactor Waste Drying Pad, East Main Hill)



Ed Davis
HEI III



Judy Heimer
Admin Spec

PIC Phone #: 206-296-4490

Email: emily.robins@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Wednesday, October 23, 2013 Time In: 9:50 am Time Out: 11:27 am Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

Areas inspected include:

The Good Line Parking Area: No debris or litter observed. It was noted that two pairs of work gloves were left on the parking pavement, not on the ecology blocks as has been customary in the past); Some TRs have placards that are not easily legible: TR470; 484,485,516 (TR602 - numbers/letters are wearing off)

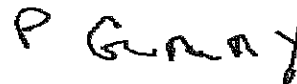
Leachate lagoons: some froth has blown to the adjacent grass areas.

Vactor Waste Drying Pad: No problems observed or detected

Area 7: uncovered garbage present northwest of the tipping area with considerable number of small birds feeding on material (Note: It appeared a dozer unit was in the process of beginning to prep this area for cover.



Ed Davis
HEI III



Patty Gray
Admin. Spec.

PIC Phone #: 206-296-4490

Email: emily.robins@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Friday, November 1, 2013 Time In: 3:48 pm Time Out: 4:28 pm Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any):

OVERALL INSPECTION COMMENTS:

Areas inspected included:

- Good Line Parking – some wind blown litter observed, Some TR placard not visible due to road dirt build up. - TR #610, TR #521; Observed placards that are not easily legible (TR-573; TR -501) Placards needing repainting soon appear to be TR#502, TR #520, TR#585, TR#510
- Leachate Lagoons – No odors or problems noted
- The Vector Waste Drying Pad – No excessive odors detected, no signs of vectors attracted to the waste
- Areas 7- There are no significant numbers of scavenging birds present.
- Observed road sweeper in operation to reduce the amount of road dust/dirt.

Ed Davis

Ed Davis
HEL III

PIC Phone #: 206-296-4490

Email: emily.robbsins@kingcounty.gov



King County

Public Health – Seattle & King County
Environmental Hazards Section 206-205-4394
 401 Fifth Avenue, Suite 1100 • Seattle, WA 98104

Page 1 of 1

Business Name

Operator

Phone

Address

City

ZIP

Time In

EHS

Date _____

General Health Record ID:

P/E

Activity Time

Travel Time

DAV

10713

PR/SR

0	0	1	5	7	3	6
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1026

60 m 70 m

Violation Number	Violation Description	Correction Date	Service
	No Violation observed or detected		126 ☐ Fld PI Rvw 127 ☐ Pre-Operat 128 ☒ Routine 129 ☐ Return 130 ☐ Complaint 131 ☐ Comp Rtn ☐
			Results 01 ☒ Satisfactory 02 ☐ Unsatisfactory 07 ☐ In Compliance 08 ☐ Not in Compliance 22 ☐ Not Access ☐
			Action 00 ☒ Not Applicable 04 ☐ Suspend 07 ☐ Approved 08 ☐ App w/ Cond 26 ☐ Return Visit 27 ☐ Phone Follow ☐
			Misc ☐ Photos Taken Weather ☐ Sunny ☐ Cloudy ☐ Partially Cloudy ☐ Showers ☒ Rain ☐ Wind ☐ Snow
	Comments / Observations		
	Good Lime Parking - Placards not easily readable ^{legible} - TR [#] 521, TR 486, TR 543		
	TRs with placards starting to wear - TR 478, TR TR 562, TR 585		
	Leachate Lagoons - no problems noted observed or detected		
	Vector Waste Drying Pad - solid material present Removal will be accomplish after repair of front loader		
	Area 7 - Active area - Bird population is minimal		
	Area 6 - Some wind blown litter is present East of active and upslope of the active fill area		
	Area 5 - small ponded area approximately 50' from ^{from} serv south of service road - No landfill gas release detected		
	Person in Charge	Health Authority	
	Andy Heimer	Ed Davis	

Based on an inspection this day, the above listed violations must be corrected by the next routine inspection or such period of time as may be specified in writing by the health officer. Failure to comply with this notice may result in immediate suspension of your permit and/or assessment of civil penalties. An opportunity for an appeal of the findings of an inspection report will be provided if a written request is filed with the health officer within ten (10) days of the date of the suspension or inspection. The complete list of inspection items is contained on the back of this form.



PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Wednesday, November 13, 2013 Time In: 8:56 am Time Out: 11:33 am Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS

Areas inspected include:

- Good Line Parking – Rear identification placards indicates the following
 - Heavily worn placard for TR#491; TR#510; and TR#529;
 - Placards in need of relabeling/re-decating for TR #575; TR#551; TR #524; and TR#585; No water leakage was observe from any of the TR's present.
 - Service road south of Area 7: One of the individuals/worker present without wearing a safety garment(e.g. safety vest, safety shirt or safety jacket)
 - Area 7:- No substantial bird presence observed
 - Areas 5 – the ponded area noted during the previous inspection is no longer present.
 - A section of fence south of the CHSW West 1 fence post (i.e.at the stream is in need of repair.
- PLEASE NOTIFY PUBLIC HEALTH WITHIN 14 WORK DAYS REGARDING A REPAIR SCHEDULE TO CORRECT THIS CONDITION.
- Diesel fuel fence enclosure (north of Pump station #2 (Panel Box 26) is not secured.
 - Public Health recommends keeping Pump station #2 locked on a routine basis, as its location is more remote (i.e. compared to the situation with Pump Station #3).

Ed Davis
HEI III

Patty Gray
Admin Spec II

PIC Phone #: 206-296-4490

Email: emily.robbs@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Thursday, November 21, 2013 Time In: 3:52 pm Time Out: 4:34 pm Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

All pump station control panels are secured.
The fence enclosure for the diesel tank (i.e. north of Pump Station #2) is not secured against unauthorized entry.

GOOD LINE PARKING OBSERVATIONS:

Observations of Placards at rear of TRs. - TR#502 - needs thorough cleaning; Placard for TR#529 is dirty and heavily worn; Placard for TR#886 is heavily worn.



Ed Davis
HEI III

PIC Phone #: 206-296-4490

Email: emily.robins@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Tuesday, November 26, 2013 Time In: 3:57 pm Time Out: 4:42 pm Inspector: Edward Davis Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

Areas inspected include:
Leachate Lagoons - no problems observed or detected
Vactor Waste Drying Pad - The amount of material drying at the time of the inspection appear minimal with no apparent odor problems or conditions associated with attraction of vectors.
Area 7 - Bird control at the fill area appears satisfactory.
Areas 5 and 6 - No apparent problems observed;
Note: Road dust control vehicles were observed in operation at the time of the inspection.
Good Line Parking - Dirty and Worn TR placards observed for: TR521; TR458; TR501; TR486; TR546; TR594; No leaks observed from TRs at the time of inspection.
All pump station control panels are adequately locked.
The fence enclosure for the diesel tank (in the vicinity of Pump Station #2) is not secured with a lock, to reduce the risk of unauthorized entry.



Ed Davis
HEI III

PIC Phone #: 206-296-4491

Email: emily.robbyns@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Thursday, December 5, 2013 Time In: 10:11 am Time Out: 11:27 am Inspector: Edward Davis Result: UNSATISFACTORY

VIOLATIONS OBSERVED (if any)

0120 - Cover meets quantity and time constraints

Area 7 - In the area not currently being filled with waste, uncovered exposed solid waste is present at the surface (i.e. on the sloped surface south of the area of active tipping/filling). [WAC 173-351-200(2)(a)]

0164 - Adequate cleaning/disinfection

Area 7 pre-tipping road (i.e. east of the West Perimeter Road and north of the tipping area) - Observed atypical fugitive dust resulting from activities associated with truck-trailor combinations, earthmovers, etc.

OVERALL INSPECTION COMMENTS:

The inspection included observing the completed portion of phase 1 of the Area 7 closure project. Present on site were Yolanda Pon (from PHSKC) assisting with the routine inspection and Madeline Wall from the Department of Ecology.

Note 1: Regarding the apparent inadequate daily cover present, photos were provided to the landfill manager at the Cedar Hills Compliance meeting (in the afternoon of the day of inspection). He indicated this matter would be addressed immediately.

Note 2: An odor (assumed to be landfill gas) was detected at on the fill floor and at the west bank of Area 6

Note 3: Public Health was informed that the fence enclosure surrounding diesel tank (i.e. in the vicinity of Pump panel #2) is unlocked due to multiple deliveries of diesel. Public Health suggest KCSWD explore the possibility of employing a combination lock and a non-protracted protocol for delivery drivers to access the tank.

Good Linw Parking - No leaking TR's observed; no significant amounts of wind-blown litter present.



Ed Davis

HEI III

PIC Phone #: 206-296-4490

Email: emily.robins@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Friday, December 13, 2013 Time In: 12:23 pm Time Out: 1:17 pm Inspector: Edward Davis Result: UNSATISFACTORY

VIOLATIONS OBSERVED (if any)

0120 - Cover meets quantity and time constraints

On the sloped area, south of the Area 7 active fill area (adjacent to the completed lift- reportedly lift #8) there remains several sections of uncovered waste. [WAC 173-351-200(2)(a)]

0162 - Nuisances/Vectors controlled

A Large atypical bird (i.e. gull) population is present at the site of the tipping area [WAC 173-351-220(3)]

OVERALL INSPECTION COMMENTS:

It appears corrections have been made regarding the fugitive dust violation conditions indicated in the previous routine inspection.

It appears daily cover has been placed on a portion of the slide slope adjacent to the lift indicated above.

Good Lind Parking: Observed trailers with hard to read placards: TR#512 and TR#494 - excessively dirty;

TR# 511, TR#533 and TR465 appear dirty and worn

TR#484 and TR#577 are worn-(replacement and/re-decating needed

TR#509 is progressing toward a worn condition.

Observed some of the liner repair activities taking place in Area 6

Ed Davis

Ed Davis

HEI III

PIC Phone #: 206-296-4490

Email: emily.robbs@kingcounty.gov; pam.badger@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Thursday, December 19, 2013 Time In: 12:39 pm Time Out: 1:22 pm Inspector: Edward Davis Result: UNSATISFACTORY

VIOLATIONS OBSERVED (if any)

0120 - Cover meets quantity and time constraints

It appears 2/5 of the area previously indicated with exposed waste debris is now covered. Additional application of daily cover is needed to satisfy requirements. [WAC 173-351-200(2)(a)]

OVERALL INSPECTION COMMENTS:

Areas inspected included:

Good Line Parking: Rear placards for TR#610 and TR#521 appear excessively dirty and therefore not easy to read; Other placard that appear in need of replacement and/or re-decating are TR#496 and TR#510

Leachate Lagoons - No problems observed or detected

Areas 5 and 6 - No indication of ponded water.



Ed Davis

HEI III

PIC Phone #: 206-296-4490

Email: emily.robbs@kingcounty.gov; pam.badger@kingcounty.gov

PUBLIC HEALTH - SEATTLE & KING COUNTY Downtown Office 401 - 5th Ave., Ste 1100 Seattle, WA 98104 206-263-9566	PURPOSE OF VISIT: Routine Inspection/Field Review of a Municipal Landfill establishment (PE=1006)
ESTABLISHMENT INFORMATION: CEDAR HILLS SANITARY LAND CEDAR HILLS SANITARY LAND 16645 228TH AV SE MAPLE VALLEY, WA 98038 206-296-4385 Program Record: PR0015736	INSPECTION INFORMATION: Date of Inspection: Monday, December 30, 2013 Time In: 1:16 pm Time Out: 2:15 pm Inspector: Edward Davis Result: UNSATISFACTORY

VIOLATIONS OBSERVED (if any)

0120 - Cover meets quantity and time constraints

*Solid Waste observed on the surface of the ground in non-active/non-tipping areas south and east of the active tipping locations. [WAC 173-351-200(2)(a)];
[WAC 173-351-200(2)(b)]*

0129 - Waste processed/handled in approved method

*Solid Waste observed on the surface of the ground in non-active/non-tipping areas south and east of the active tipping locations. [WAC 173-351-200(2)(a)];
[WAC 173-351-200(2)(b)]*

OVERALL INSPECTION COMMENTS:

Good Line Parking Area: Amount of litter on the ground (at the south portion of the parking area) appears to have increased. Conditions to be improved in 7 working days to avoid this being noted as a code violation. [(WAC 173-351-220(2))]

Rear ID Placard for TR#459 is nor readable due to excessive dirty surface; Rear ID Placard for TR#586 is in need of re-decating.

Other areas inspected included:

Leachate Lagoons; Vactor Waste Drying Pad; Area 5
Area 6;-Some wind blown litter observed in this area.



Ed Davis

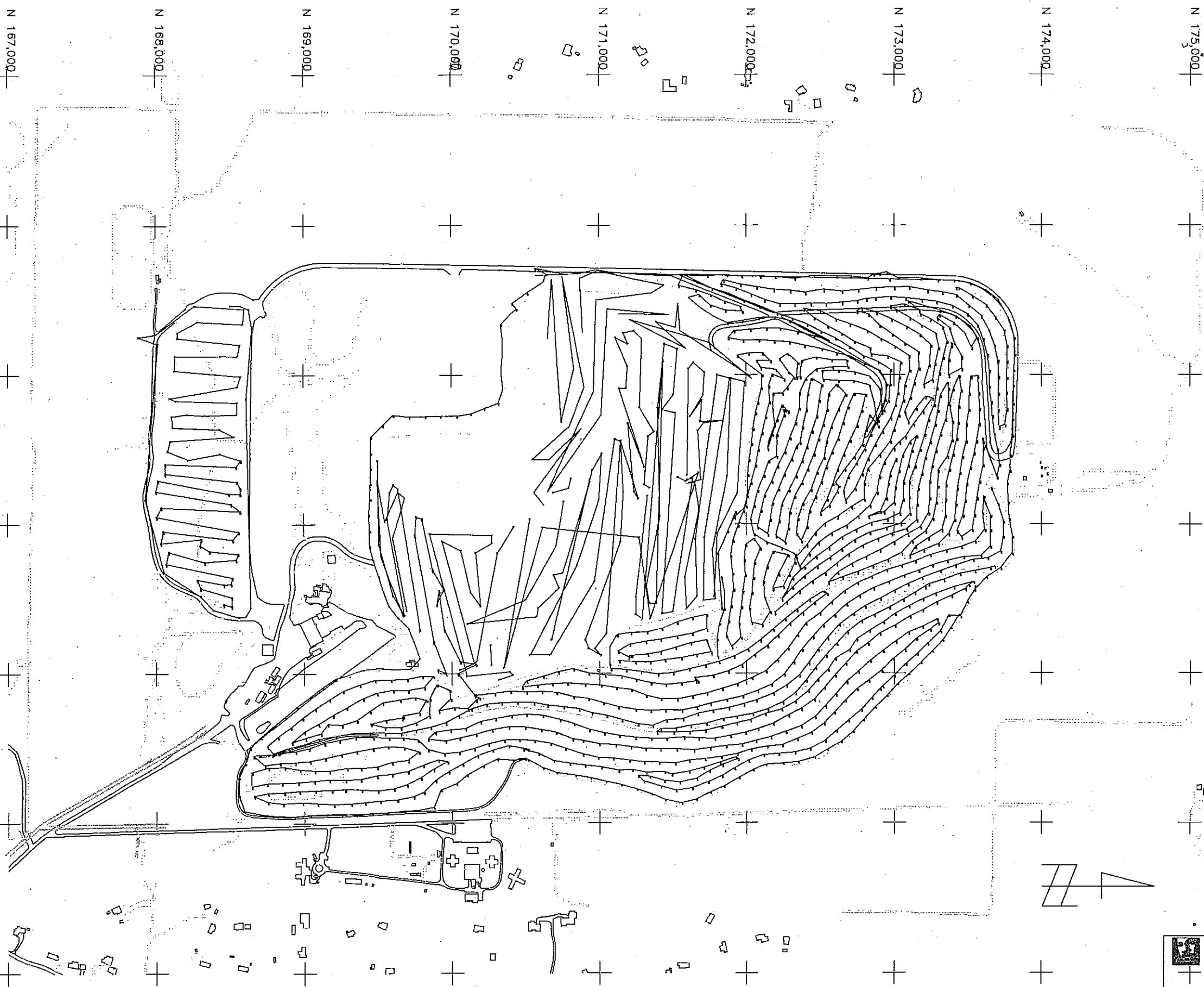
HEI III

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APPENDIX B: GAS MONITORING REPORTS

Cedar Hills Regional Landfill Quarterly Surface Emission Monitoring Plot of GPS Generated Track Lines DECEMBER 2013 Scale 1"=600'



KING COUNTY DEPARTMENT OF NATURAL RESOURCES
AND PARKS
Christie True, Director
SOLID WASTE DIVISION

CEDAR HILLS QUARTERLY
GAS EMISSIONS MONITORING

APPROVED _____ DATE XX-XX-XX
RECOMMENDED _____ DATE _____
DESIGNED MJM DRAWN MJM
PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

DATE	REVISION	BY

KING COUNTY SOLID WASTE
201 S JACKSON ST. SUITE 701
SEATTLE, WA 98104-3685

KING COUNTY SOLID WASTE
LANDFILL

CEDAR HILLS REGIONAL LANDFILL
SCALE 1" = 600'
CONTOUR INTERVAL 5 FT.
DATE OF MONITORING 12-11-13

LANDFILL
ROAD
RAILROAD
UTILITY
WATER
SEWER
DRAINAGE

PRODUCTION
DATE 12-11-13
DRAWN BY
CHECKED BY
DATE 12-11-13

[illegible]

[illegible]

NO EXCISENCE

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-19-13

Cal. Time: 700 AM

Calibration :

Technician: J. Parker

Test Instrument used: TVA1000

Surveyor: M. McEwen

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O₂ Ambient

Barometric Pressure		Time
Start	<u>30.21</u>	<u>700 AM</u>
Stop	<u>30.21</u>	<u>1300 PM</u>

90% response time in seconds:

1 4 seconds

2 3 seconds

3 3 seconds

avg. 3 seconds

Weather Conditions: Partly Cloudy

Wind Speed &

Direction (out of): Calm

Northing (UTM #)

Easting (10 T #)

Time

Comments

No Exceedence

DNRP / King County Solid Waste Serpentine Surface Monitoring Data

Landfill Site: Cedar Hills

Date: 12-19-13

Cal. Time: 1300pm

Calibration :

Technician: S. Parker

Test Instrument used: TVN 1006

Surveyor M. McEwen

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496ppm
O₂ Ambient

Barometric Pressure	Time
Start <u>30.21</u>	<u>1300pm</u>
Stop <u>30.22</u>	<u>1700pm</u>

90% response time in seconds:

1 3 seconds
2 3 seconds
3 3 seconds
avg. 3 seconds

Weather Conditions: Overcast

Wind Speed &

Direction (out of): 3 mph SE

Northing (UTM #) Easting (10 T #) Time Comments

NO EXTENDED

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

8

~~NO EXCLENCE~~

~~No EXCLUSION~~

Landfill Site: Cedar Hills
10 Days after Exceedance

Date: 12-31-13

Cal. Time: 2:00p ~

Calibration :

Technician: J. Parker

Test Instrument used: TVA1000

Surveyor M. McEwen

Cal. Gas Lot No: 20328

Cal Gas Used:

CH₄ 496 ppm

O2 Ambient

Barometric Pressure		Time
Start	30.24	2:00 pm
Stop	30.26	3:30 pm

90% response time in seconds:

1 4 seconds

2 4 seconds

3 4 seconds

avg. 4 seconds

Weather Conditions: Overcast, Drizzle

Wind Speed &

Direction (out of): 4mph S.

[illegible]