
CEDAR HILLS REGIONAL LANDFILL QUARTERLY ENVIRONMENTAL MONITORING REPORT

Fourth Quarter 2015



Department of Natural Resources and Parks
Solid Waste Division

**KING COUNTY SOLID WASTE
CEDAR HILLS REGIONAL LANDFILL
QUARTERLY ENVIRONMENTAL MONITORING REPORT**

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Cedar Hills Regional Landfill Summary of Quarterly Environmental Monitoring Fourth Quarter of 2015

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 fourth quarter are listed in Table 2.

1.1.1 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.

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 or vertical to facilities MW-64, MW-68 and MW-100; and downgradient wells MW-69, MW-80, MW-86, MW-87, MW-89 and MW-91. 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.

Trichloroethene exceeded the groundwater criterion in upgradient wells MW-76 and MW-82; 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.

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 (2014). Comparison to calculated prediction limits (Table 5) provides an indication of whether a change in concentration represents normal variability or a change in water quality. This quarter the following prediction limits were exceeded: nitrate in upgradient wells MW-83 and MW-94, *cis* 1,2-dichloroethene exceeded the limit in upgradient well MW-59, copper in upgradient well MW-57, and arsenic and vanadium in down gradient well MW-87. These results will be evaluated per the protocol described in the *Environmental Monitoring Sampling and Analysis Plan for Cedar Hills Regional Landfill*.

Volatile Organic Compound (VOC) detections in regional aquifer wells 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-82, MW-83, and MW-94; *cis*-1,2-dichloroethene detected in 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.

Chloromethane was detected in downgradient MW-87; however, this is attributed to blank contamination as it was detected in trip and method blanks as well (See Table 13 for a compilation of field, trip and method blank detections).

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 six perched zone wells, three in the north and west areas of the landfill (MW-27A, MW-29, and MW-55), two in the east perched zone (MW-30A and MW-47); and MW-101 near the former South Solid Waste Area. Wells MW-28, MW-62 and MW-EB6 were not sampled due to seasonally low water levels. Groundwater quality data for the regularly sampled Perched Zone wells collected during

the fourth quarter of 2015 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 wells.

As with the regional data, perched zone prediction limits are derived from cumulative data through the end of 2014 and any exceedances of these limits by current results are tabulated (Table 9). There were no prediction limits exceedances in the perched zones.

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. All surface water stations had adequate flow during the fourth quarter to collect samples. 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 designated compliance stations SW-GS1 and SW-SL3 this quarter. No effluent limits were exceeded (Table 12). The ISWG Permit Discharge Monitoring Report (DMR) is included in Appendix B.

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. No compliance probes detected methane this quarter.

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 resulted in installation of 13 borings targeting the potential zone of LFG

migration in the native sediments. Eight borings serve as LFG extraction wells and five as monitoring probes. The extraction wells and interior probes are currently monitored bimonthly. LFG sample results are contained in Appendix B. In October and November, methane in excess of 5% volume was twice detected in MGPW 1708; however, no detections of methane occurred in any of the west perimeter compliance probes.

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

Compliance Probes, 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

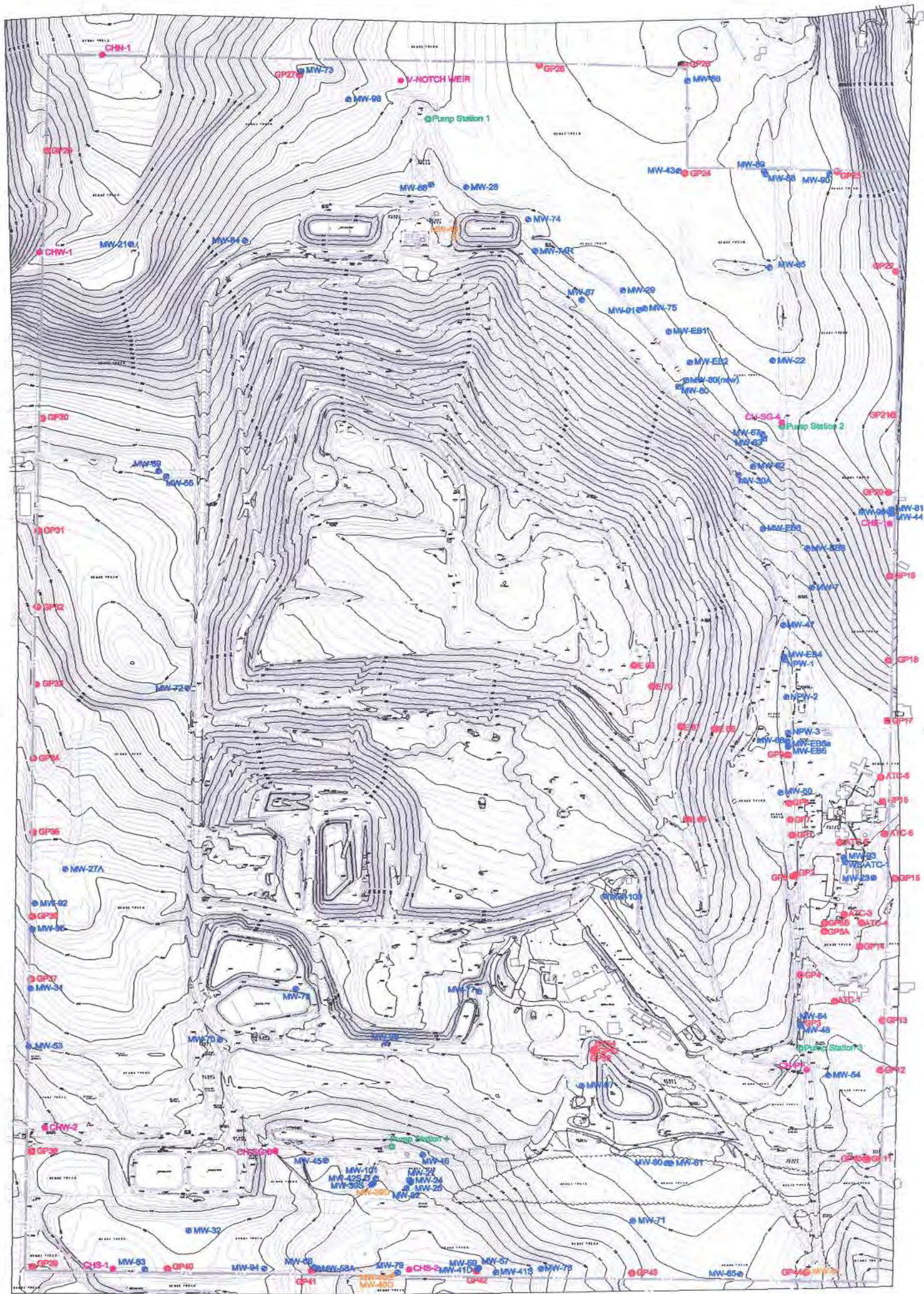
The Prediction Limit is an intra-well statistical test that compares an analytical result to a computed limit value. The limit value is derived from past analytical results from the same well, considered representative historical well data. A value outside of this limiting value is considered evidence 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



 King County Solid Waste Division	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	Decommissioned	Aquifer	Zone ¹	Purpose ²	Ground Surface Elevation	Top of Well Casing Elevation	Total Well Depth	Screened Interval Depth	Screened Interval Elevation	Coordinates Northing	Easting
MW-24	6/1/1983	--	Regional	US	WL/WQ	473.8	475.99	193.0	187	192	167767.76	1702441.65
MW-54	9/26/1986	--	Regional	US	WL	579.3	580.43	360.0	329	351	168435.53	1702154.28
MW-56	10/12/1988	--	Regional	US	WL/WQ	479.2	480.33	170.5	156	166	167214.82	1698980.77
MW-57	8/22/1988	--	Regional	US	WL/WQ	455.7	456.64	145.5	129	144	167201.99	1699993.32
MW-58A	9/26/1988	--	Regional	US	WL/WQ	478.6	479.27	220.5	208.5	218.5	167207.16	1699006.59
MW-59	8/16/1988	--	Regional	US	WL/WQ	455.6	457.13	185.5	170.5	180.5	167193.44	1699983.91
MW-60	9/13/1991	--	Regional	US	WL/WQ	564.8	567.15	266.4	230	239	167873.2	1701154.47
MW-65	3/29/1993	--	Regional	US	WL/WQ	543.2	545.83	236.9	225.5	234.3	167146.55	1701602.10
MW-76	10/25/1999	--	Regional	US	WL/WQ	489.8	491.71	155.9	138.7	148.2	167193.13	1700376.23
MW-82	11/2/2000	--	Regional	US	WL/WQ	472.8	474.85	139.5	123.9	133.4	167725.31	1699553.72
MW-83	10/27/2000	--	Regional	US	WL/WQ	494.5	496.81	160.0	144.3	153.8	167212.27	1697939.89
MW-94	7/2/2002	--	Regional	US	WL/WQ	493.2	495.51	168.0	136	144.7	167210.22	1698674.21
MW-21	5/17/1983	--	Regional	UNW	WL/WQ	418.2	420.66	180.0	155	163	173876.38	1697901.86
MW-73	7/3/1999	--	Regional	UNW	WL/WQ	484.3	485.70	218.0	196.2	205.5	174995.59	1698954.95
MW-84	10/20/2000	--	Regional	UNW	WL/WQ	528.7	530.80	250.5	236.2	245.7	173894.54	1698602.89
MW-81	10/3/2002	--	Regional	UNE	WL/WQ	492.2	493.66	199.0	183	192	172113.99	1702568.87
MW-99	8/30/2002	--	Regional	UNE	WL/WQ	491.8	493.64	287.0	270	279	172098.73	1702556.06
MW-93	6/24/2002	--	Regional	CG	WL/WQ	630.2	632.15	350.0	310.3	320.1	169851.24	1702259.35
MW-95	7/22/2002	--	Regional	CG	WL/WQ	568.6	571.54	311.0	254	262.7	169426.92	1697265.32
MW-106	2/19/2009	--	Regional	CG	WL	473.0	475.47	270.0	193	203	173461.69	1702536.99
MW-70	5/11/1993	4/1/2015	Regional	I	AB	527.9	530.57	221.5	205.1	218.8	168699.89	1698412.97
MW-77	10/12/1999	4/1/2015	Regional	I	AB	550.5	552.67	251.5	230	239.5	168999.71	1700007.63
MW-78	10/8/1999	4/1/2015	Regional	I	AB	535.3	537.35	229.5	213	225.5	169027.58	1698881.94
MW-100	8/26/2002	--	Regional	I	WL/WQ	618.4	620.32	124.7	299.3	309.3	169610.46	1700791.72
MW-22	5/25/1983	--	Regional	V	WL	515.0	517.09	284.0	279	283.8	173088.17	1701844.34
MW-64	3/22/1993	--	Regional	V	WL/WQ	594.3	596.55	276.3	260.3	274.1	168772.19	1701980.27
MW-66	4/5/1993	--	Regional	V	WL/WQ	528.6	531.28	250.7	234.2	248	174250.32	1699750.19
MW-67	4/28/1993	--	Regional	V	WL/WQ	514.1	516.43	232.4	216.3	230.1	172610.65	1701776.69
MW-68	4/15/1993	--	Regional	V	WL/WQ	644.8	647.07	354.6	333.5	352.5	170609.35	1701917.32
MW-69	4/23/1993	--	Regional	DW	WL/WQ	651.0	653.69	368.8	357.4	371	172400.20	1698061.86
MW-72	8/7/1998	--	Regional	DW	WL/WQ	669.8	671.87	389.0	366.2	375.8	170987.71	1698229.92
MW-74	11/1/2000	--	Regional	DG	WL/WQ	529.2	531.26	270.0	239.3	248.8	173813.79	1700386.85
MW-75	9/24/1999	--	Regional	DG	WL/WQ	529.8	532.40	287.0	258.7	268.8	173432.42	1701059.70
MW-80	2/27/2001	--	Regional	DG	WL/WQ	528.5	530.41	270.0	249.3	258.8	172964.99	1701309.78
MW-85	12/1/2000	--	Regional	DG	WL/WQ	529.8	531.76	270.0	247.2	256.7	173694.52	1701828.95
MW-87	11/21/2000	--	Regional	DG	WL/WQ	535.2	537.31	272.5	251.5	260.8	173493.76	1700670.27
MW-91	10/26/2001	--	Regional	DG	WL/WQ	529.7	532.02	331.0	268.9	289	173423.94	1701023.09
MW-86	12/12/2000	--	Regional	DNF	WL/WQ	533.9	536.04	282.0	250.5	259.3	174917.90	1701331.25
MW-88	9/13/2001	--	Regional	DNF	WL/WQ	511.2	513.68	248.5	229.7	239	174303.06	1701807.87
MW-89	11/12/2001	--	Regional	DNF	WL/WQ	510.7	512.82	328.0	281.5	290.8	174319.44	1701799.57
MW-90	8/14/2002	--	Regional	DNF	WL/WQ	500.2	502.22	300.0	265	274	174300.67	1702203.13
MW-43	4/30/1985	--	Regional	DNF	WL/WQ	544.6	547.06	325.0	299	309	174327.14	1701274.23
WS-ATC-1	2/7/1972	--	Regional	--	AB	624.9	625.51	535.0	325	340	169823.34	1702268.95
WS-NPW-1	8/22/1990	--	Regional	--	WL	644.6	646.33	382.0	365.7	375.7	171138.99	1701906.96
WS-NPW-3	6/5/1990	--	Regional	--	WL	644.3	645.81	376.0	359.4	367.4	170663.28	1701922.88

TABLE 1
SUMMARY OF CEDAR HILLS REGIONAL LANDFILL GROUNDWATER WELLS

Well Number	Date Constructed	Decommissioned	Aquifer	Zone ¹	Purpose ²	Ground Surface Elevation	Top of Well Casing Elevation	Total Well Depth	Screened Interval Depth	Screened Interval Elevation	Coordinates 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	4/1/2015	Perched	SSWA	AB	545.4	547.74	102.9	88.8	97.5	456.6	447.9	168667.73	1699434.47
MW-97	9/5/2001	4/1/2015	Perched	SSWA	AB	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	¹ Position of the well screen in the regional aquifer flow path analysis relative to waste placement and site utilities.													
	² WL = Water Level WQ = Water Quality													
	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													
	² WL = Water Level WQ = Water Quality													

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-21	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-22	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-24	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-25	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-27A	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-28	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-29	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-30A	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-41D	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-41S	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-43	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-45	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-47	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-48	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-50	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-54	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-55	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-56	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-57	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-58A	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-59	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-60	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-62	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-63	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-64	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-65	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-66	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-67	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-68	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-69	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-70	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-72	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-73	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-74	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-75	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-76	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-77	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-78	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-79	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-80	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-81	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-82	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-83	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-84	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-85	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-86	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-87	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-88	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-89	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-90	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-91	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-93	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-94	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-95	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-96	Perched	10/1/15	Groundwater Elevation Measurement	NA	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-97	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-98	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-99	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-100	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-101	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-102	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-103	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-104	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-105	Perched	10/1/15	Groundwater Elevation Measurement	NA	
MW-106	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-EB6	Perched	10/1/15	Groundwater Elevation Measurement	NA	
WS-NPW-1	Regional	10/1/15	Groundwater Elevation Measurement	NA	
WS-NPW-3	Regional	10/1/15	Groundwater Elevation Measurement	NA	
MW-21	Regional	10/13/15	Groundwater Sampling	W21-151013-	
MW-24	Regional	10/5/15	Groundwater Sampling	W24-151005-	
MW-27A	Perched	10/19/15	Groundwater Sampling	W27A151019-	
MW-28	Perched	10/13/15	Groundwater Sampling	NA	No Flow, No Sample
MW-29	Perched	10/19/15	Groundwater Sampling	W29-151019-	
MW-30A	Perched	10/6/15	Groundwater Sampling	W30A151006-	
MW-43	Regional	10/23/15	Groundwater Sampling	W43-151023-	
MW-47	Perched	10/19/15	Groundwater Sampling	W47-151019-	
MW-55	Perched	10/20/15	Groundwater Sampling	W55-151020-	
MW-56	Regional	10/15/15	Groundwater Sampling	W56-151015-	
MW-57	Regional	10/2/15	Groundwater Sampling	W57-151002-	
MW-59	Regional	10/7/15	Groundwater Sampling	W59-151007-	
MW-60	Regional	10/2/15	Groundwater Sampling	W60-151002-	
MW-62	Perched	10/20/15	Groundwater Sampling	NA	No Flow, No Sample
MW-64	Regional	10/8/15	Groundwater Sampling	W64-151008-	
MW-65	Regional	10/9/15	Groundwater Sampling	W65-151009-	
MW-66	Regional	10/7/15	Groundwater Sampling	W66-151007-	
MW-67	Regional	10/7/15	Groundwater Sampling	W67-151007-	
MW-68	Regional	10/5/15	Groundwater Sampling	W68-151005-	
MW-69	Regional	10/6/15	Groundwater Sampling	W69-151006-	
MW-72	Regional	10/8/15	Groundwater Sampling	W72-151008-	
MW-73	Regional	10/8/15	Groundwater Sampling	W73-151008-	
MW-74	Regional	10/16/15	Groundwater Sampling	W74R151016-	
MW-74	Regional	11/24/15	Groundwater Sampling	W74R151124-	
MW-74	Regional	12/18/15	Groundwater Sampling	W74R151218-	
MW-75	Regional	10/16/15	Groundwater Sampling	W75-151016-	
MW-75	Regional	11/24/15	Groundwater Sampling	W75-151124-	
MW-75	Regional	12/18/15	Groundwater Sampling	W75-151218-	
MW-76	Regional	10/2/15	Groundwater Sampling	W76-151002-	
MW-80	Regional	10/19/15	Groundwater Sampling	W80-151019-	
MW-81	Regional	10/15/15	Groundwater Sampling	W81-151015-	
MW-82	Regional	10/2/15	Groundwater Sampling	W82-151002-	
MW-83	Regional	10/20/15	Groundwater Sampling	W83-151020-	
MW-84	Regional	10/7/15	Groundwater Sampling	W84-151007-	
MW-85	Regional	10/9/15	Groundwater Sampling	W85-151009-	
MW-86	Regional	10/20/15	Groundwater Sampling	W86-151020-	
MW-87	Regional	10/16/15	Groundwater Sampling	W87-151016-	
MW-87	Regional	11/24/15	Groundwater Sampling	W87-151124-	
MW-87	Regional	12/18/15	Groundwater Sampling	W87-151218-	
MW-88	Regional	11/2/15	Groundwater Sampling	W88-151102-	

TABLE 2
GROUNDWATER MONITORING ACTIVITIES 4th QUARTER 2015

Well ID	Zone	Date	Planned Activity	Sample ID	Comment
MW-89	Regional	10/9/15	Groundwater Sampling	W89-151009-	
MW-90	Regional	10/22/15	Groundwater Sampling	W90-151022-	
MW-91	Regional	10/9/15	Groundwater Sampling	W91-151009-	
MW-93	Regional	10/12/15	Groundwater Sampling	W93-101215-	
MW-94	Regional	10/8/15	Groundwater Sampling	W94-151008-	
MW-95	Regional	10/22/15	Groundwater Sampling	W95-151022-	
MW-99	Regional	10/16/15	Groundwater Sampling	W99-151016-	
MW-99	Regional	11/24/15	Groundwater Sampling	W99-151124-	
MW-99	Regional	12/18/15	Groundwater Sampling	W99-151218-	
MW-100	Regional	10/13/15	Groundwater Sampling	W100151013-	
MW-101	Perched	10/29/15	Groundwater Sampling	W101151029-	
MW-EB6	Perched	10/29/15	Groundwater Sampling	NA	No Flow, No Sample
MW-69	Regional	10/6/15	QA/QC Sample	W69-151006D	Field Duplicate
MW-100	Regional	10/13/15	QA/QC Sample	W100151013D	Field Duplicate
Equipment Blank	NA	10/8/15	QA/QC Sample	WU1S151008E	
Equipment Blank	NA	10/8/15	QA/QC Sample	WU1H151008E	
Equipment Blank	NA	10/8/15	QA/QC Sample	WU1M151008E	
Field Blank	NA	10/7/15	QA/QC Sample	W84-151007F	
Field Blank	NA	10/16/15	QA/QC Sample	W75-151016F	
WS-NPW	Regional	12/15/15	Water Supply Characterization	WNPW151215-	
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, 2015 to December 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
South, Northeast, and Northwest Upgradient and Crossgradient Wells					
Arsenic (Total)	(mg/L)	MW-21	10/13/2015	W21-151013-	0.00106
		MW-93	10/12/2015	W93-151012-	0.00129
		MW-99	10/16/2015	W99-151016-	0.00172
Iron (Dissolved)	(mg/L)	MW-21	10/13/2015	W21-151013-	1.77
		MW-24	10/5/2015	W24-151005-	3.06
		MW-57	10/2/2015	W57-151002-	8.15
		MW-59	10/7/2015	W59-151007-	4.44
		MW-65	10/9/2015	W65-151009-	4.1
Manganese (Dissolved)	(mg/L)	MW-21	10/13/2015	W21-151013-	0.0683
		MW-24	10/5/2015	W24-151005-	0.104
		MW-56	10/15/2015	W56-151015-	0.218
		MW-57	10/2/2015	W57-151002-	0.235
		MW-59	10/7/2015	W59-151007-	0.113
		MW-65	10/9/2015	W65-151009-	0.19
		MW-93	10/12/2015	W93-151012-	0.206
		MW-95	10/22/2015	W95-151022-	0.147
		MW-99	10/16/2015	W99-151016-	0.116
Trichloroethene	(ug/L)	MW-76	10/2/2015	W76-151002-	9.58
		MW-82	10/2/2015	W82-151002-	5.57
Vinyl Chloride	(ug/L)	MW-65	10/9/2015	W65-151009-	0.0643
Interior and Vertical to Facilities Wells					
Arsenic (Total)	(mg/L)	MW-100	10/13/2015	W100151013-	0.00336
		MW-64	10/8/2015	W64-151008-	0.00123
		MW-68	10/5/2015	W68-151005-	0.0904
Iron (Dissolved)	(mg/L)	MW-100	10/13/2015	W100151013-	0.741
		MW-68	10/5/2015	W68-151005-	0.79
Manganese (Dissolved)	(mg/L)	MW-100	10/13/2015	W100151013-	0.145
		MW-64	10/8/2015	W64-151008-	0.0691
		MW-67	10/7/2015	W67-151007-	0.133
		MW-68	10/5/2015	W68-151005-	0.297

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, 2015 to December 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
Wells Downgradient to Waste Cells and North End Facilities					
Arsenic (Total)	(mg/L)	MW-80	10/19/2015	W80-151019-	0.00549
		MW-87	10/16/2015	W87-151016-	0.0256
		MW-91	10/9/2015	W91-151009-	0.126
		MW-86	10/20/2015	W86-151020-	0.0012
		MW-89	10/9/2015	W89-151009-	0.00201
		MW-69	10/6/2015	W69-151006-	0.00306
Iron (Dissolved)	(mg/L)	MW-75	10/16/2015	W75-151016-	1.95
		MW-80	10/19/2015	W80-151019-	1.81
		MW-87	10/16/2015	W87-151016-	4.13
		MW-91	10/9/2015	W91-151009-	3
		MW-43	10/23/2015	W43-151023-	1
		MW-86	10/20/2015	W86-151020-	0.307
		MW-89	10/9/2015	W89-151009-	0.791
		MW-90	10/22/2015	W90-151022-	1.24
		MW-69	10/6/2015	W69-151006-	1.07
		MW-72	10/8/2015	W72-151008-	2.23
Manganese (Dissolved)	(mg/L)	MW-75	10/16/2015	W75-151016-	0.157
		MW-80	10/19/2015	W80-151019-	0.282
		MW-87	10/16/2015	W87-151016-	0.442
		MW-91	10/9/2015	W91-151009-	0.453
		MW-43	10/23/2015	W43-151023-	0.219
		MW-89	10/9/2015	W89-151009-	0.202
		MW-90	10/22/2015	W90-151022-	0.26
		MW-69	10/6/2015	W69-151006-	0.227
		MW-72	10/8/2015	W72-151008-	0.325

See Data Qualifier List for Qualifier Information.

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

Data Collected from October 1, 2015 to December 31, 2015

Site ID		Upgradient South																		
		MW-24 10/5/15			MW-56 10/15/15			MW-57 10/2/15			MW-59 10/7/15			MW-60 10/2/15			MW-65 10/9/15			
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	13.5	0.673653	38.8	13.7	0.683633	43.0	14.9	0.743513	37.8	15.3	0.763473	39.6	16.0	0.798403	48.8	11.9	0.593812	37.1
Magnesium	24.3	2	8.4	0.688747	39.7	7.9	0.647603	40.7	7.8	0.638552	32.5	8.8	0.723308	37.5	7.1	0.580128	35.4	7.2	0.594939	37.2
Potassium	39.1	1	0.9	0.022738	1.3	1.1	0.028134	1.8	0.8	0.021535	1.1	1.1	0.027367	1.4	1.1	0.027367	1.7	1.0	0.024477	1.5
Sodium	23.0	1	5.4	0.234017	13.5	5.1	0.220098	13.8	6.0	0.260986	13.3	5.8	0.251416	13.0	5.3	0.229232	14.0	5.3	0.232277	14.5
Iron	55.8	2	3.06	0.109585	6.3	0.05	0.001683	0.1	8.15	0.291869	14.8	4.44	0.159006	8.2	0.03	0.000895	0.1	4.10	0.14683	9.2
Manganese	54.9	2	0.10	0.003786	0.2	0.22	0.007936	0.5	0.24	0.008555	0.4	0.11	0.004114	0.2	0.00	4.62E-05	0.0	0.19	0.006917	0.4
Ammonia-N	14.0	1	0.04	0.002877	0.2	0.01	0.000714	0.0	0.02	0.001321	0.1	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0
Total Cations (meq/L)			1.7			1.6			2.0			1.9			1.6			1.6		
Anions																				
Alkalinity, Total	64					58			65			64			70			56		
Carbonate	60.0	2	0.05971	0.00199	0.1	0.03727	0.001242	0.1	0.0333	0.00111	0.1	0.04952	0.001651	0.1	0.04098	0.001366	0.1	0.10086	0.003362	0.2
Bicarbonate	61.0	1	78.20	1.281816	74.2	70.56	1.156583	70.1	79.35	1.300694	67.1	77.98	1.278156	70.8	85.07	1.394424	82.6	67.75	1.11047	72.8
Chloride	35.5	1	3.8	0.107466	6.2	4.8	0.135108	8.2	5.6	0.156827	8.1	4.3	0.120723	6.7	2.5	0.070516	4.2	3.6	0.102389	6.7
Nitrate-N	14.0	1	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0	1.22	0.087099	5.2	0.01	0.000714	0.0
Sulfate	96.1	2	16.1	0.335216	19.4	17.1	0.356036	21.6	23.0	0.478879	24.7	19.4	0.403924	22.4	6.5	0.135127	8.0	14.8	0.308148	20.2
Total Anions (meq/L)			1.7			1.6			1.9			1.8			1.7			1.5		
Total Ions (meq/L)			3.5			3.2			3.9			3.7			3.3			3.1		
Cation/Anion Ratio			1.00			0.96			1.01			1.07			0.97			1.05		
Percent Difference			0.2			-1.8			0.7			3.3			-1.6			2.4		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			1.62			1.58			1.66			1.77			1.64			1.45		
Calcium																				
Magnesium						41.61			43.28			44.67			43.24			48.83		
Sodium + Potassium						42.54			41.00			38.36			40.97			35.48		
						15.86			15.72			16.97			15.79			15.69		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.73			1.65			1.94			1.80			1.60			1.52		
Sulfate						19.416			21.591			24.716			22.385			8.438		
Chloride						6.225			8.194			8.094			6.690			4.403		
Bicarbonate + Carbonate						74.359			70.215			67.190			70.925			87.159		

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

Data Collected from October 1, 2015 to December 31, 2015

Site ID			Upgradient South												Upgradient Northwest											
			MW-76 10/2/15			MW-82 10/2/15			MW-83 10/20/15			MW-94 10/8/15			MW-21 10/13/15			MW-73 10/8/15			MW-84 10/7/15					
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)	mg/L	meq/L	%(meq)			
Calcium	40.1	2	22.1	1.102794	47.8	26.9	1.342315	45.5	49.0	2.44511	54.6	27.1	1.352295	49.5	8.6	0.426647	38.2	12.1	0.603792	44.7	11.8	0.588822	37.2			
Magnesium	24.3	2	9.5	0.784201	34.0	15.0	1.234314	41.8	19.1	1.571693	35.1	12.3	1.012137	37.1	4.9	0.400741	35.9	5.9	0.48632	36.0	8.6	0.704382	44.5			
Potassium	39.1	1	1.4	0.03504	1.5	1.8	0.046294	1.6	3.0	0.07673	1.7	2.1	0.054222	2.0	0.8	0.020922	1.9	0.8	0.020001	1.5	1.0	0.025832	1.6			
Sodium	23.0	1	8.8	0.382344	16.6	7.5	0.325797	11.0	8.8	0.382344	8.5	7.1	0.310573	11.4	4.6	0.200959	18.0	5.5	0.240977	17.8	6.1	0.264465	16.7			
Iron	55.8	2	0.01	0.000358	0.0	0.01	0.000358	0.0	0.01	0.000358	0.0	0.01	0.000358	0.0	1.77	0.063387	5.7	0.01	0.000358	0.0	0.01	0.000358	0.0			
Manganese	54.9	2	0.00	3.64E-05	0.0	0.00	3.64E-05	0.0	0.00	3.64E-05	0.0	0.00	3.64E-05	0.0	0.07	0.002486	0.2	0.00	3.64E-05	0.0	0.00	3.64E-05	0.0			
Ammonia-N	14.0	1	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.00075	0.1	0.01	0.000714	0.1	0.01	0.000714	0.0			
Total Cations (meq/L)			2.3			2.9			4.5			2.7			1.1			1.4			1.6					
Anions																										
Alkalinity, Total		68				118				160				53				53				61				
Carbonate	60.0	2	0.01554	0.000518	0.0	0.05764	0.001921	0.1	0.0593	0.001977	0.0	0.07267	0.002422	0.1	0.01369	0.000456	0.0	0.02458	0.000819	0.1	0.03029	0.00101	0.1			
Bicarbonate	61.0	1	82.93	1.359277	57.4	143.84	2.357723	78.4	195.08	3.197541	65.4	117.09	1.919288	68.2	65.12	1.067383	83.4	64.24	1.053022	75.5	73.87	1.210808	75.0			
Chloride	35.5	1	14.9	0.420275	17.7	8.0	0.226779	7.5	46.7	1.317237	27.0	22.2	0.626181	22.2	2.8	0.078132	6.1	2.5	0.070798	5.1	3.6	0.101543	6.3			
Nitrate-N	14.0	1	1.76	0.125651	5.3	0.50	0.035339	1.2	2.56	0.182766	3.7	1.59	0.113515	4.0	0.01	0.000714	0.1	1.06	0.075676	5.4	0.34	0.024059	1.5			
Sulfate	96.1	2	22.2	0.462223	19.5	18.5	0.385186	12.8	9.0	0.188012	3.8	7.4	0.153033	5.4	6.4	0.132421	10.4	9.4	0.195299	14.0	13.3	0.276917	17.2			
Total Anions (meq/L)			2.4			3.0			4.9			2.8			1.3			1.4			1.6					
Total Ions (meq/L)			4.7			6.0			9.4			5.5			2.4			2.7			3.2					
Cation/Anion Ratio			0.97			0.98			0.92			0.97			0.87			0.97			0.98					
Percent Difference			-1.3			-1.0			-4.4			-1.5			-6.8			-1.6			-0.9					
Trilinear Diagram Data																										
sum (Ca, Mg, Na+K)			2.30			2.95			4.48			2.73			1.05			1.35			1.58					
Calcium			47.86			45.52			54.63			49.55			40.66			44.69			37.18					
Magnesium			34.03			41.86			35.11			37.09			38.19			35.99			44.48					
Sodium + Potassium			18.11			12.62			10.26			13.37			21.15			19.32			18.33					
						100.0									100.0			100.0			100.0					
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.24			2.97			4.70			2.70			1.28			1.32			1.59					
Sulfate			20.614			12.962			3.996			5.666			10.358			14.796			17.413					
Chloride			18.743			7.632			27.998			23.184			6.112			5.364			6.385					
Bicarbonate + Carbonate			60.643			79.406			68.006			71.150			83.530			79.840			76.202					

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

Data Collected from October 1, 2015 to December 31, 2015

Site ID			Upgradient Northeast						Cross Gradient					
			MW-81 10/15/15			MW-99 10/16/15			MW-93 10/12/15			MW-95 10/22/15		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	11.0	0.548902	41.7	10.0	0.499002	35.5	33.9	1.691617	46.6	19.5	0.973054	46.7
Magnesium	24.3	2	6.1	0.49784	37.8	4.8	0.392512	27.9	17.9	1.472948	40.6	10.1	0.831105	39.9
Potassium	39.1	1	0.7	0.019106	1.5	0.9	0.022993	1.6	1.6	0.041178	1.1	1.2	0.029669	1.4
Sodium	23.0	1	5.7	0.249676	19.0	11.0	0.478474	34.0	9.5	0.411922	11.3	5.6	0.241412	11.6
Iron	55.8	2	0.01	0.000358	0.0	0.05	0.001912	0.1	0.01	0.000358	0.0	0.01	0.000358	0.0
Manganese	54.9	2	0.00	3.64E-05	0.0	0.12	0.004223	0.3	0.21	0.007499	0.2	0.15	0.005351	0.3
Ammonia-N	14.0	1	0.01	0.000714	0.1	0.10	0.007282	0.5	0.05	0.003777	0.1	0.02	0.001778	0.1
Total Cations (meq/L)			1.3			1.4			3.6			2.1		
Anions														
Alkalinity, Total		49				59				121				87
Carbonate	60.0	2	0.08232	0.002744	0.2	0.35637	0.011879	0.8	0.13218	0.004406	0.1	0.16101	0.005367	0.2
Bicarbonate	61.0	1	59.25	0.97111	70.5	70.65	1.157946	80.2	147.35	2.41523	64.6	105.69	1.732372	77.0
Chloride	35.5	1	4.7	0.132288	9.6	3.3	0.094209	6.5	3.0	0.085183	2.3	5.1	0.143006	6.4
Nitrate-N	14.0	1	1.53	0.109231	7.9	0.02	0.001285	0.1	0.02	0.001071	0.0	0.01	0.000714	0.0
Sulfate	96.1	2	7.8	0.162819	11.8	8.6	0.178851	12.4	59.2	1.232594	33.0	17.7	0.368529	16.4
Total Anions (meq/L)			1.4			1.4			3.7			2.2		
Total Ions (meq/L)			2.7			2.9			7.4			4.3		
Cation/Anion Ratio			0.96			0.97			0.97			0.93		
Percent Difference			-2.3			-1.3			-1.5			-3.9		
Trilinear Diagram Data														
sum (Ca, Mg, Na+K)			1.32			1.39			3.62			2.08		
Calcium						41.72			35.82			46.76		
Magnesium						37.84			28.18			40.72		
Sodium + Potassium						20.43			36.00			12.52		
									100.0					
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.27			1.44			3.74			2.25		
Sulfate						12.831			12.395			32.980		
Chloride						10.425			6.529			2.279		
Bicarbonate + Carbonate						76.744			81.075			64.741		

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

Data Collected from October 1, 2015 to December 31, 2015

Site ID			Interior and Vertical to Facilities															Downgradient Northwest					
			MW-100 10/13/15			MW-64 10/8/15			MW-66 10/7/15			MW-67 10/7/15			MW-68 10/5/15			MW-69 10/6/15			MW-72 10/8/15		
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)	mg/L	meq/L	%(meq)
Calcium	40.1	2	22.0	1.097804	43.3	18.3	0.913174	39.0	19.0	0.948104	38.2	32.8	1.636727	44.8	27.9	1.392216	46.2	29.4	1.467066	49.0	29.8	1.487026	43.1
Magnesium	24.3	2	12.7	1.045052	41.2	12.9	1.06151	45.4	14.3	1.176713	47.4	19.1	1.571693	43.0	14.4	1.184941	39.3	13.3	1.094425	36.6	18.1	1.489405	43.2
Potassium	39.1	1	1.4	0.03504	1.4	1.6	0.040922	1.7	1.2	0.029413	1.2	1.7	0.042969	1.2	1.6	0.041946	1.4	1.7	0.042969	1.4	1.9	0.047828	1.4
Sodium	23.0	1	7.5	0.325362	12.8	7.2	0.313183	13.4	7.6	0.329712	13.3	9.0	0.392783	10.7	8.1	0.352331	11.7	7.8	0.338846	11.3	7.7	0.334497	9.7
Iron	55.8	2	0.74	0.026537	1.0	0.13	0.004799	0.2	0.01	0.000358	0.0	0.17	0.006052	0.2	0.79	0.028292	0.9	1.07	0.038319	1.3	2.23	0.079861	2.3
Manganese	54.9	2	0.15	0.005279	0.2	0.07	0.002516	0.1	0.00	3.64E-05	0.0	0.13	0.004842	0.1	0.30	0.010812	0.4	0.23	0.008264	0.3	0.33	0.011832	0.3
Ammonia-N	14.0	1	0.01	0.000714	0.0	0.04	0.003091	0.1	0.01	0.000714	0.0	0.01	0.000714	0.0	0.02	0.001385	0.0	0.02	0.001107	0.0	0.02	0.001192	0.0
Total Cations (meq/L)			2.5			2.3			2.5			3.7			3.0			3.0			3.5		
Anions																							
Alkalinity, Total			130			101			101			138			130			126			119		
Carbonate	60.0	2	0.06498	0.002166	0.1	0.07294	0.002431	0.1	0.07294	0.002431	0.1	0.0974	0.003247	0.1	0.10059	0.003353	0.1	0.31459	0.010486	0.3	0.31105	0.010369	0.3
Bicarbonate	61.0	1	158.47	2.597442	85.0	123.07	2.017264	86.1	123.07	2.017264	79.5	168.16	2.756338	74.5	158.40	2.596255	85.9	153.08	2.509135	83.6	144.55	2.369274	68.1
Chloride	35.5	1	3.0	0.083209	2.7	3.1	0.086594	3.7	6.1	0.172623	6.8	4.6	0.129185	3.5	2.8	0.080106	2.7	3.9	0.108877	3.6	5.4	0.15175	4.4
Nitrate-N	14.0	1	0.01	0.000714	0.0	0.01	0.000714	0.0	0.64	0.045977	1.8	0.25	0.017848	0.5	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0
Sulfate	96.1	2	17.8	0.370611	12.1	11.3	0.235276	10.0	14.4	0.29982	11.8	38.1	0.793274	21.4	16.4	0.341462	11.3	17.8	0.370611	12.4	45.5	0.947348	27.2
Total Anions (meq/L)			3.1			2.3			2.5			3.7			3.0			3.0			3.5		
Total Ions (meq/L)			5.6			4.7			5.0			7.4			6.0			6.0			6.9		
Cation/Anion Ratio			0.83			1.00			0.98			0.99			1.00			1.00			0.99		
Percent Difference			-9.3			-0.1			-1.1			-0.6			-0.2			-0.1			-0.4		
Trilinear Diagram Data																							
sum (Ca, Mg, Na+K)			2.50			2.33			2.48			3.64			2.97			2.94			3.36		
Calcium						43.86						38.17			44.91			46.85			49.84		
Magnesium						41.75			45.58			47.37			43.13			39.88			37.18		
Sodium + Potassium						14.40			15.21			14.46			11.96			13.27			12.97		
									100.0												100.0		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			3.05			2.34			2.49			3.68			3.02			3.00			3.48		
Sulfate						12.138			10.048			12.031			21.544			11.302			12.357		
Chloride						2.725			3.698			6.927			3.509			2.651			3.630		
Bicarbonate + Carbonate						85.137			86.254			81.043			74.947			86.046			84.012		
																					68.405		

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

Data Collected from October 1, 2015 to December 31, 2015

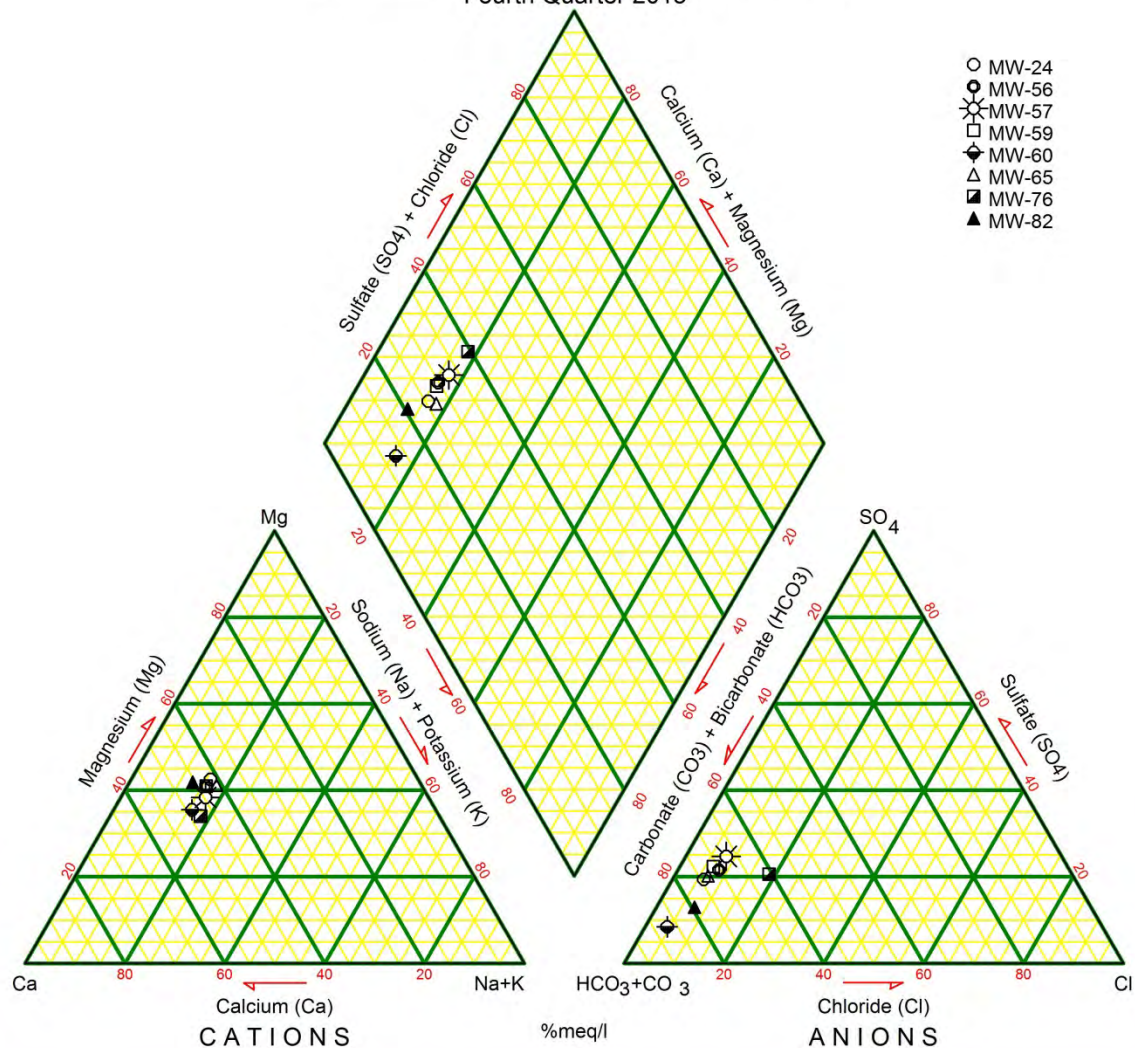
Site ID			Downgradient																	
			MW-74 10/16/15			MW-75 10/16/15			MW-80 10/19/15			MW-85 10/9/15			MW-87 10/16/15			MW-91 10/9/15		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	43.3	2.160679	39.9	24.6	1.227545	38.0	27.3	1.362275	46.8	28.1	1.402196	44.1	40.5	2.020958	41.0	24.7	1.232535	40.0
Magnesium	24.3	2	32.8	2.699033	49.8	18.6	1.530549	47.4	13.7	1.12734	38.8	16.6	1.365974	43.0	27.5	2.262909	45.9	16.2	1.333059	43.3
Potassium	39.1	1	2.0	0.05192	1.0	1.7	0.044503	1.4	1.6	0.040411	1.4	1.5	0.039132	1.2	2.3	0.058059	1.2	1.8	0.045271	1.5
Sodium	23.0	1	11.7	0.508922	9.4	8.1	0.350156	10.8	6.9	0.301873	10.4	8.5	0.3706	11.7	9.8	0.426712	8.6	7.9	0.342326	11.1
Iron	55.8	2	0.01	0.000358	0.0	1.95	0.069834	2.2	1.81	0.06482	2.2	0.01	0.000358	0.0	4.13	0.147904	3.0	3.00	0.107436	3.5
Manganese	54.9	2	0.00	3.64E-05	0.0	0.16	0.005716	0.2	0.28	0.010266	0.4	0.00	3.64E-05	0.0	0.44	0.016091	0.3	0.45	0.016491	0.5
Ammonia-N	14.0	1	0.01	0.000714	0.0	0.01	0.000721	0.0	0.01	0.001021	0.0	0.01	0.000714	0.0	0.02	0.001449	0.0	0.02	0.001278	0.0
Total Cations (meq/L)			5.4			3.2			2.9			3.2			4.9			3.1		
Anions																				
Alkalinity, Total			222			101			106			108			91			95		
Carbonate	60.0	2	0.16788	0.005596	0.1	0.07464	0.002488	0.1	0.15973	0.005325	0.2	0.08167	0.002722	0.1	0.04032	0.001344	0.0	0.04626	0.001542	0.0
Bicarbonate	61.0	1	270.50	4.433735	76.7	123.07	2.017208	60.4	129.00	2.114357	68.1	131.59	2.156952	65.7	110.33	1.808383	37.0	115.44	1.892173	60.7
Chloride	35.5	1	25.5	0.719262	12.4	9.8	0.275858	8.3	5.7	0.159648	5.1	9.7	0.272473	8.3	8.6	0.241446	4.9	10.0	0.282064	9.0
Nitrate-N	14.0	1	0.39	0.027486	0.5	0.01	0.000714	0.0	0.01	0.000714	0.0	0.13	0.009567	0.3	0.01	0.000714	0.0	0.02	0.001499	0.0
Sulfate	96.1	2	28.6	0.595476	10.3	50.2	1.045206	31.3	39.6	0.824505	26.6	40.4	0.841162	25.6	136.0	2.831634	58.0	45.2	0.941102	30.2
Total Anions (meq/L)			5.8			3.3			3.1			3.3			4.9			3.1		
Total Ions (meq/L)			11.2			6.6			6.0			6.5			9.8			6.2		
Cation/Anion Ratio			0.94			0.97			0.94			0.97			1.01			0.99		
Percent Difference			-3.2			-1.7			-3.3			-1.6			0.5			-0.6		
Trilinear Diagram Data																				
sum (Ca, Mg, Na+K)			5.42			3.15			2.83			3.18			4.77			2.95		
Calcium			39.86			38.94			48.10			44.12			42.38			41.74		
Magnesium			49.79			48.55			39.81			42.98			47.45			45.14		
Sodium + Potassium			10.35			12.52			12.09			12.89			10.17			13.12		
			100.0			100.0									100.0					
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			5.75			3.34			3.10			3.27			4.88			3.12		
Sulfate			10.349			31.286			26.564			25.698			57.992			30.194		
Chloride			12.500			8.257			5.144			8.324			4.945			9.050		
Bicarbonate + Carbonate			77.151			60.456			68.292			65.978			37.063			60.757		

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

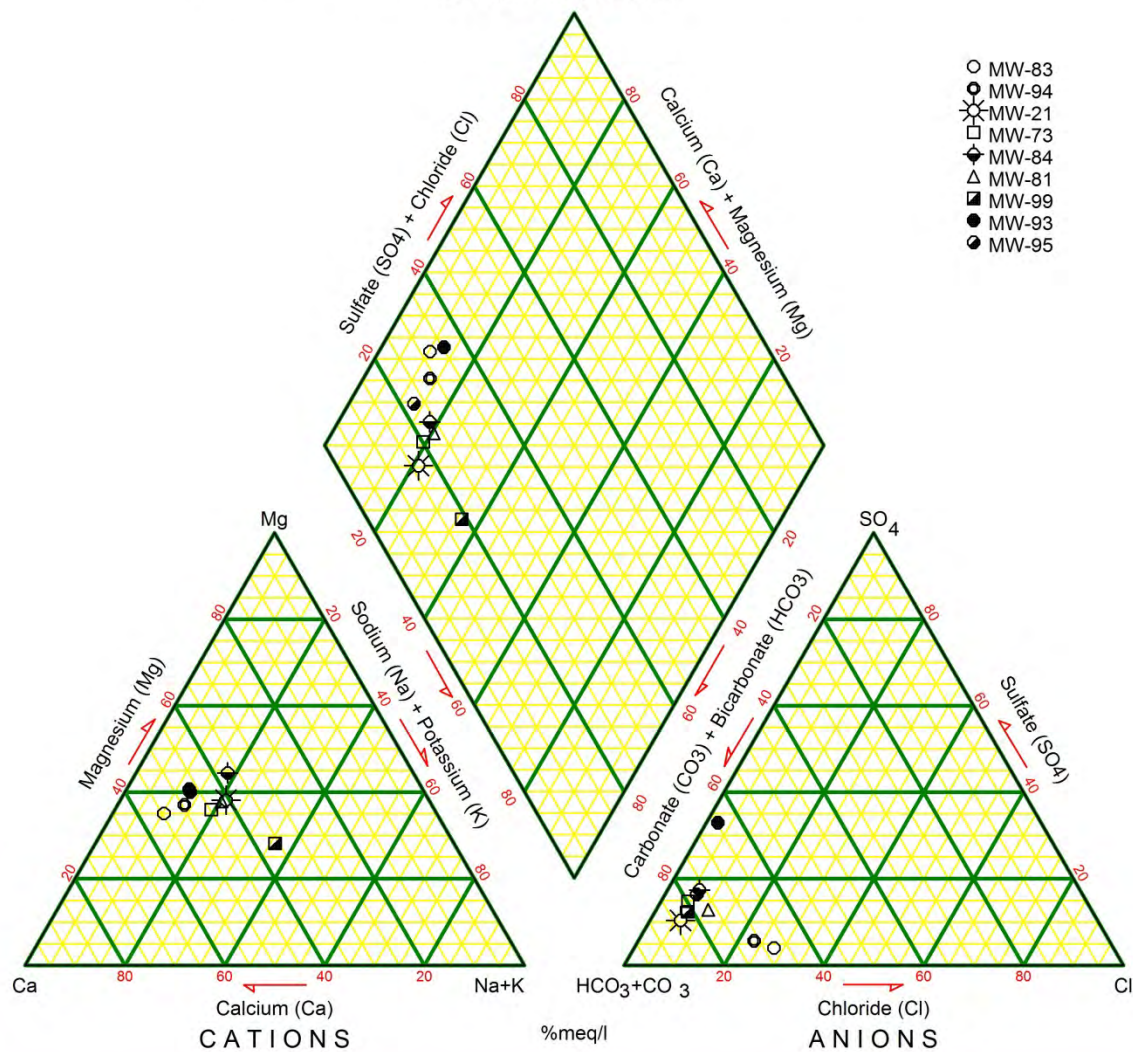
Data Collected from October 1, 2015 to December 31, 2015

Site ID			Downgradient of North End Facilities														
			MW-86 10/20/15			MW-88 11/2/15			MW-89 10/9/15			MW-90 10/22/15			MW-43 10/23/15		
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	13.2	0.658683	39.1	8.3	0.416168	35.7	13.4	0.668663	35.4	17.1	0.853293	42.5	13.0	0.648703	37.9
Magnesium	24.3	2	8.8	0.726599	43.1	6.2	0.507714	43.6	9.8	0.802304	42.4	9.8	0.805596	40.2	8.8	0.724954	42.4
Potassium	39.1	1	1.1	0.027623	1.6	0.8	0.020257	1.7	1.5	0.037342	2.0	1.3	0.033761	1.7	1.3	0.033505	2.0
Sodium	23.0	1	6.0	0.261856	15.5	5.0	0.219228	18.8	8.0	0.345806	18.3	5.9	0.257941	12.9	5.9	0.258376	15.1
Iron	55.8	2	0.31	0.010994	0.7	0.01	0.000358	0.0	0.79	0.028327	1.5	1.24	0.044407	2.2	1.00	0.035812	2.1
Manganese	54.9	2	0.01	0.000218	0.0	0.00	3.64E-05	0.0	0.20	0.007354	0.4	0.26	0.009465	0.5	0.22	0.007973	0.5
Ammonia-N	14.0	1	0.01	0.000714	0.0	0.01	0.000714	0.1	0.02	0.001406	0.1	0.01	0.001064	0.1	0.03	0.002156	0.1
Total Cations (meq/L)			1.7			1.2			1.9			2.0			1.7		
Anions																	
Alkalinity, Total			66			52			72			70			70		
Carbonate	60.0	2	0.045316	0.001511	0.1	0.126398	0.004213	0.3	0.084386	0.002813	0.1	0.087524	0.002918	0.1	0.060331	0.002011	0.1
Bicarbonate	61.0	1	80.06	1.312292	72.1	62.94	1.031631	81.6	87.79	1.43897	73.6	84.98	1.392872	64.8	84.67	1.38778	76.0
Chloride	35.5	1	4.6	0.130595	7.2	1.9	0.05472	4.3	5.5	0.154853	7.9	4.4	0.122698	5.7	4.9	0.138775	7.6
Nitrate-N	14.0	1	0.33	0.023774	1.3	0.57	0.040551	3.2	0.01	0.000714	0.0	0.01	0.000714	0.0	0.01	0.000714	0.0
Sulfate	96.1	2	16.9	0.351872	19.3	6.4	0.133878	10.6	17.2	0.358118	18.3	30.2	0.628789	29.3	14.2	0.295656	16.2
Total Anions (meq/L)			1.8			1.3			2.0			2.1			1.8		
Total Ions (meq/L)			3.5			2.4			3.8			4.2			3.5		
Cation/Anion Ratio			0.93			0.92			0.97			0.93			0.94		
Percent Difference			-3.8			-4.1			-1.7			-3.4			-3.2		
Trilinear Diagram Data																	
sum (Ca, Mg, Na+K)			1.67			1.16			1.85			1.95			1.67		
Calcium						39.33						43.75			38.95		
Magnesium						43.39						41.30			43.53		
Sodium + Potassium						17.28						14.95			17.52		
															100.0		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.80			1.22			1.95			2.15			1.82		
Sulfate						19.589						29.283			16.207		
Chloride						7.270						5.714			7.607		
Bicarbonate + Carbonate						73.141						65.003			76.185		

Cedar Hills Regional Landfill
Figure 2. Regional Aquifer South Upgradient Wells
Fourth Quarter 2015

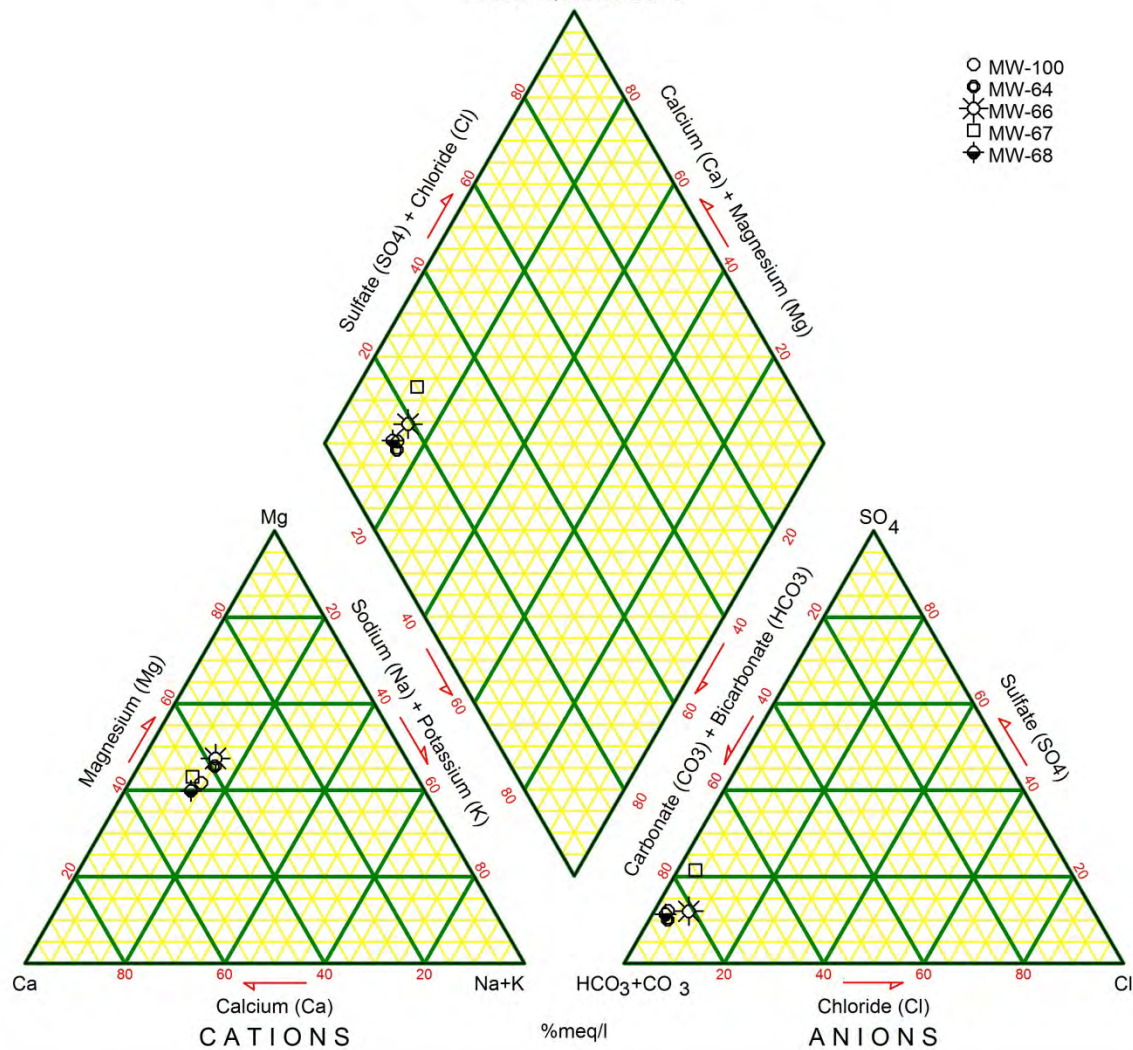


Cedar Hills Regional Landfill
Figure 3. Regional Aquifer South Upgradient and Crossgradient Wells
Fourth Quarter 2015

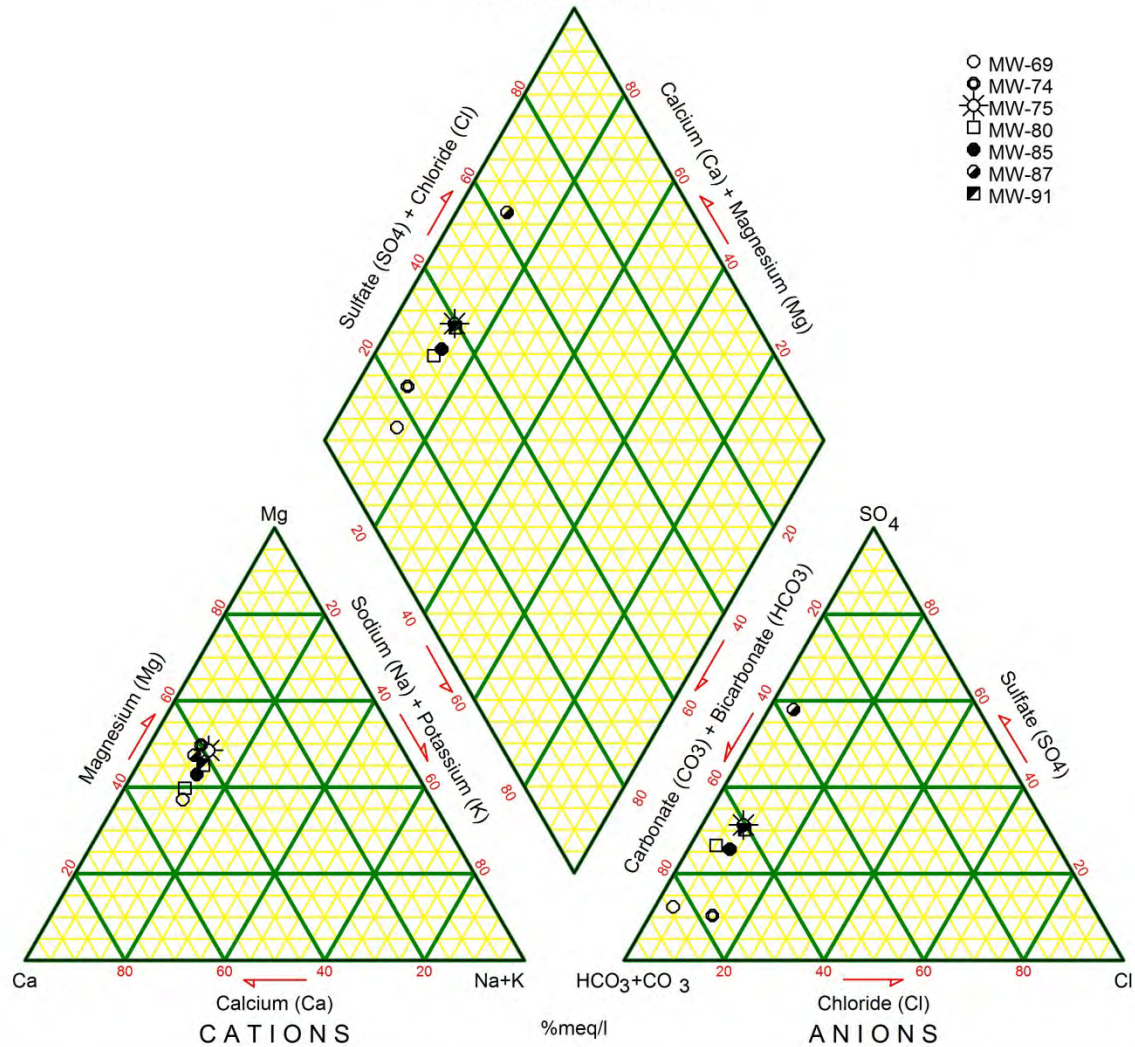


Cedar Hills Regional Landfill

Figure 4. Regional Wells Interior and Vertical to Facilities
Fourth Quarter 2015



Cedar Hills Regional Landfill
 Figure 5. Regional Aquifer Downgradient Wells
 Fourth Quarter 2015



Cedar Hills Regional Landfill

Figure 6. Regional Aquifer Wells Downgradient of Northend Facilities
Fourth Quarter 2015

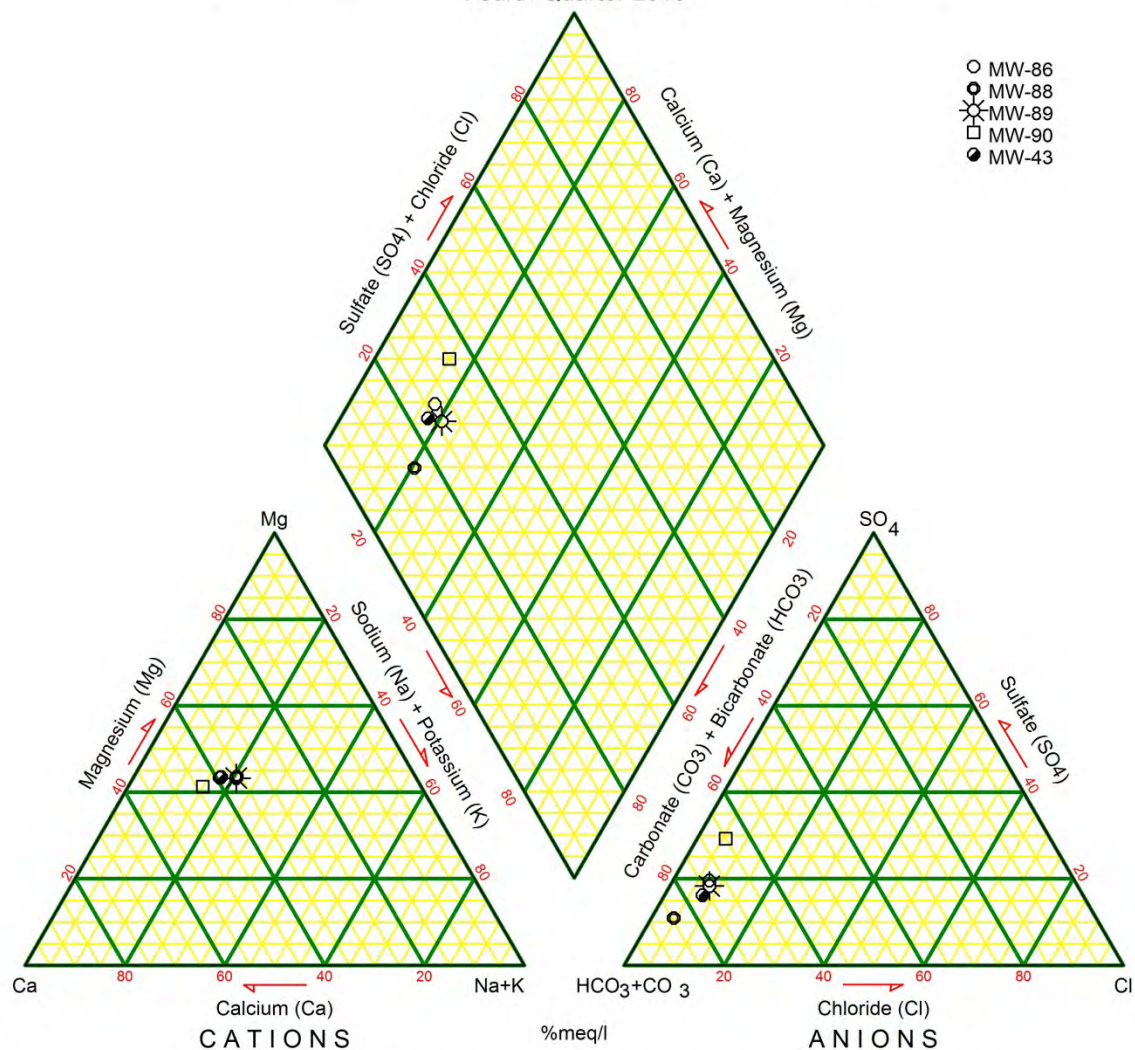


TABLE 6
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN REGIONAL AQUIFER WELLS
(Data Collected from October 1, 2015 to December 31, 2015)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
South, Northeast and Northwest Upgradient and Crossgradient Wells				
<i>cis</i> -1,2-Dichloroethene	MW-59	10/7/2015	W59-151007-	0.965
	MW-76	10/2/2015	W76-15O1002-	0.37 T
Tetrachloroethene	MW-76	10/2/2015	W76-15O1002-	0.478
Trichloroethene	MW-76	10/2/2015	W76-15O1002-	9.58
	MW-82	10/2/2015	W82-151002-	5.57
	MW-83	10/20/2015	W83-151020-	1.8
	MW-94	10/8/2015	W94-151008-	2.86
Vinyl Chloride	MW-65	10/9/2015	W65-151009-	0.0643
Interior and Vertical to Facilities Wells				
No Detections this Quarter				
Downgradient Wells				
Chloromethane	MW-87	11/24/2015	W87-151016-	0.31 T

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, 2015 to December 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value
North and West Perched Wells					
Arsenic (Total)	(mg/L)	MW-27A	10/19/2015	W27A151019-	0.0152
		MW-29	10/19/2015	W29-151019-	0.00157
Manganese (Dissolved)	(mg/L)	MW-27A	10/19/2015	W27A151019-	0.0714
		MW-55	10/20/2015	W55-151020-	0.158
East Perched Zone Wells					
pH (Field)	(pH Units)	MW-30A	10/6/2015	W30A151006-	6.3
		MW-29	10/19/2015	W29-151019-	6.38
Manganese (Dissolved)	(mg/L)	MW-47	10/19/2015	W47-151019-	1.62
Total Dissolved Solids	(mg/L)	MW-47	10/19/2015	W47-151019-	725
1,1-Dichloroethane	(ug/L)	MW-30A	10/6/2015	W30A151006-	2.19
Vinyl Chloride	(ug/L)	MW-47	10/19/2015	W47-151019-	3.88
South Solid Waste Area Perched Wells					
Arsenic (Total)	(mg/L)	MW-101	10/29/2015	W101151029-	0.00467
Iron (Dissolved)	(mg/L)	MW-101	10/29/2015	W101151029-	0.364
Manganese (Dissolved)	(mg/L)	MW-101	10/29/2015	W101151029-	0.319
Vinyl Chloride	(ug/L)	MW-101	10/29/2015	W101151029-	0.126 G

See Data Qualifier List for Qualifier Information.

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

Data Collected from July 1, 2015 to September 30, 2015

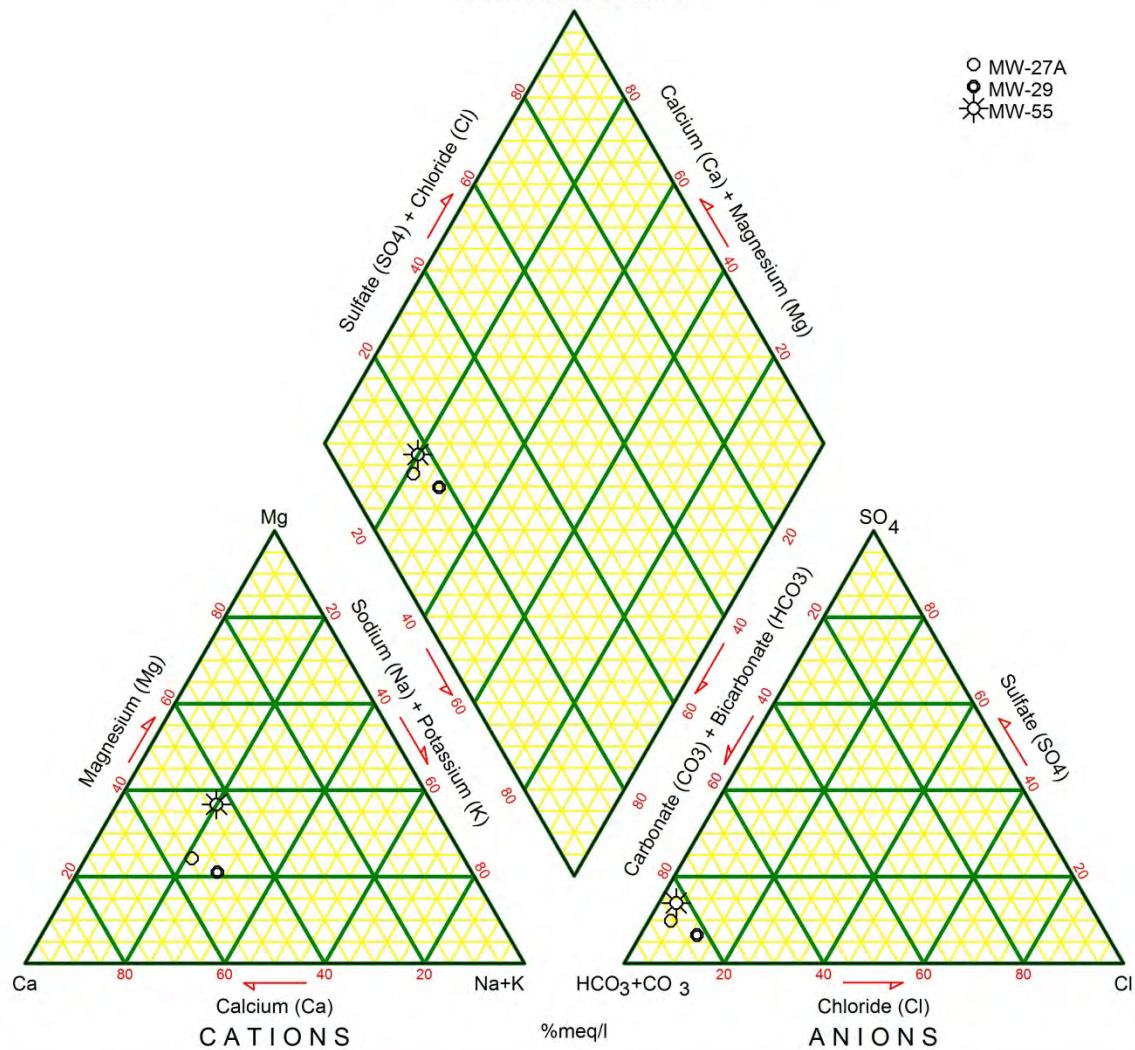
Site ID Date			North and West Perched Wells											
			MW-27A			MW-28			MW-29			MW-55		
			W27A151019-			No Sample			W29-151019-			W55-151020-		
Cations	MW	n	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)	mg/L	meq/L	%(meq)
Calcium	40.1	2	19.2	0.95808	53.9				7.9	0.39421	50.9	12.4	0.61876	42.7
Magnesium	24.3	2	5.2	0.42707	24.0				2.0	0.16293	21.0	6.4	0.52499	36.2
Potassium	39.1	1	3.6	0.09131	5.1				0.6	0.01537	2.0	1.6	0.04195	2.9
Sodium	23.0	1	6.5	0.28273	15.9				4.6	0.20096	25.9	5.6	0.24315	16.8
Iron	55.8	2	0.0	0.00036	0.0				0.0	0.00036	0.0	0.3	0.01103	0.8
Manganese	54.9	2	0.1	0.0026	0.1				0.0	3.6E-05	0.0	0.2	0.00575	0.4
Ammonia-N	14.0	1	0.2	0.01378	0.8				0.0	0.00071	0.1	0.1	0.00498	0.3
Total Cations (meq/L)			1.8						0.8			1.5		
Anions														
Alkalinity, Total			83						28.5			67.2		
Carbonate	60.0	2	0.1977	0.00659	0.3				0.00411	0.00014	0.0	0.27768	0.00926	0.6
Bicarbonate	61.0	1	100.74	1.65116	85.3				34.76	0.56978	68.8	81.42	1.33454	82.0
Chloride	35.5	1	3.0	0.08547	4.4				2.8	0.07841	9.5	2.0	0.05641	3.5
Nitrate-N	14.0	1	0.0	0.00121	0.1				1.9	0.13493	16.3	0.0	0.00071	0.0
Sulfate	96.1	2	9.2	0.19051	9.8				2.2	0.04539	5.5	10.9	0.22695	13.9
Total Anions (meq/L)			1.9						0.8			1.6		
Total Ions (meq/L)			3.7						1.6			3.1		
Cation/Anion Ratio			0.92						0.93			0.89		
Percent Difference			-4.3						-3.4			-5.8		
TRILINEAR DIAGRAM DATA														
sum (Ca, Mg, Na+K)			1.76						0.77			1.43		
Calcium					54.5						51.0			43.3
Magnesium					24.3						21.1			36.7
Sodium + Potassium					21.3						28.0			20.0
											100.0			
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			1.93						0.69			1.63		
Sulfate					9.9						6.5			13.9
Chloride					4.4						11.3			3.5
Bicarbonate + Carbonate					85.7						82.2			82.6

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

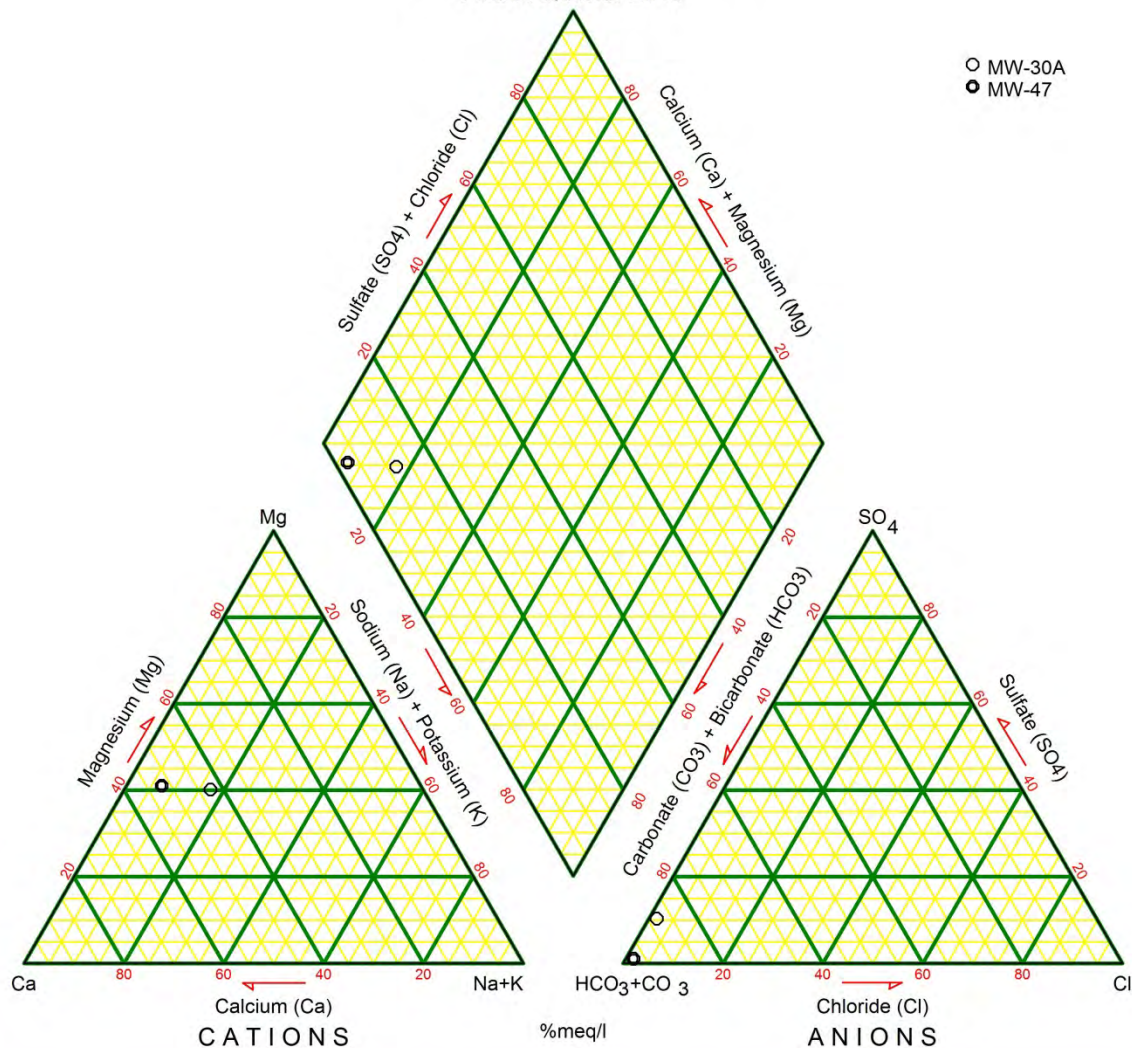
Data Collected from July 1, 2015 to September 30, 2015

Site ID Date	MW	n	East Perched Zone									SSWA					
			MW-30A W30A151006-			MW-47 W47-151019-			MW-62 No Sample			MW-EB6 No Sample			MW-101 W101151029-		
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	26.4	1.31737	42.6	126.0	6.28743	51.6							43.2	2.15569	44.2
Magnesium	24.3	2	15.1	1.24254	40.2	60.5	4.9784	40.9							24.2	1.99136	40.8
Potassium	39.1	1	1.6	0.04169	1.3	5.3	0.13581	1.1							2.3	0.05985	1.2
Sodium	23.0	1	11.3	0.49152	15.9	16.4	0.71336	5.9							14.8	0.64376	13.2
Iron	55.8	2	0.0	0.00036	0.0	0.0	0.00172	0.0							0.4	0.01304	0.3
Manganese	54.9	2	0.0	3.6E-05	0.0	1.6	0.05898	0.5							0.3	0.01161	0.2
Ammonia-N	14.0	1	0.0	0.00071	0.0	0.1	0.0058	0.0							0.0	0.00129	0.0
Total Cations (meq/L)			3.1			12.2									4.9		
Anions																	
Alkalinity, Total			127			682									269		
Carbonate	60.0	2	0.01524	0.00051	0.0	0.61988	0.02066	0.1							0.06898 0.0023 0.0		
Bicarbonate	61.0	1	154.91	2.53911	78.3	830.78	13.6173	97.2							328.04 5.37689 97.1		
Chloride	35.5	1	1.6	0.04513	1.4	7.7	0.21634	1.5							2.9 0.08293 1.5		
Nitrate-N	14.0	1	5.0	0.35982	11.1	0.0	0.00071	0.0							0.0 0.00136 0.0		
Sulfate	96.1	2	14.3	0.29774	9.2	7.1	0.14866	1.1							3.6 0.07558 1.4		
Total Anions (meq/L)			3.2			14.0									5.5		
Total Ions (meq/L)			6.3			26.2									10.4		
Cation/Anion Ratio			0.95			0.87									0.88		
Percent Difference			-2.3			-7.0									-6		
TRILINEAR DIAGRAM DATA																	
sum (Ca, Mg, Na+K)			3.09			12.11									4.85		
Calcium						42.6									44.44		
Magnesium						40.2									41.05		
Sodium + Potassium						17.2									14.51		
sum (SO ₄ , Cl, HCO ₃ +CO ₃)			2.88			14.00									5.54		
Sulfate						10.3									1.4		
Chloride						1.6									1.5		
Bicarbonate + Carbonate						88.1									97.1		

Cedar Hills Regional Landfill
 Figure 7. Perched Zones Wells North and West
 Fourth Quarter 2015



Cedar Hills Regional Landfill
 Figure 8. East Perched Zone Wells
 Fourth Quarter 2015



Cedar Hills Regional Landfill
Figure 9. SSWA Perched Zone Wells
Fourth Quarter 2015

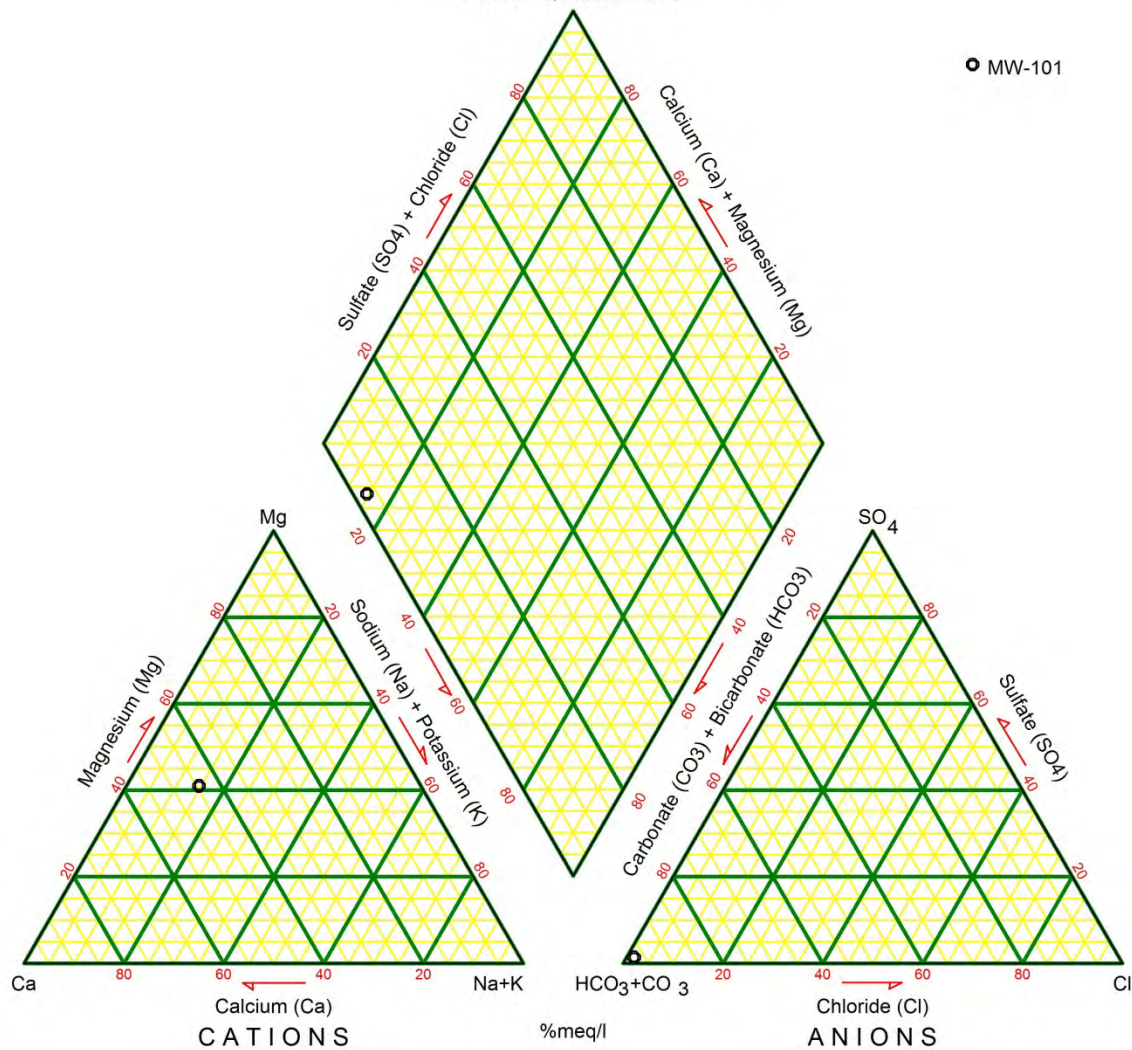


TABLE 9
CEDAR HILLS REGIONAL LANDFILL PERCHED ZONES
SUMMARY OF WAC 173-351 APPENDIX I INTRAWELL PREDICTION LIMIT EXCEEDANCES
(Data Collected from October 1, 2015 to December 31, 2015)

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, 2015 to December 31, 2015)

Analyte	Site ID	Date	Sample ID	Sample Value (ug/L)
North and West Perched Wells				
No Detections this Quarter				
East Perched Zone Wells				
1,1-Dichloroethane	MW-30A	10/6/2015	W30A151006-	2.19
	MW-47	10/19/2015	W47-151019-	0.543
Chloroethane	MW-47	10/19/2015	W47-151019-	0.23 T
cis -1,2-Dichloroethene	MW-30A	10/6/2015	W30A151006-	6
	MW-47	10/19/2015	W47-151019-	1.31
Dichlorodifluoromethane	MW-47	10/19/2015	W47-151019-	0.609
Trichloroethene	MW-30A	10/6/2015	W30A151006-	1.1
Vinyl Chloride	MW-47	10/19/2015	W47-151019-	3.88
South Solid Waste Area Perched Wells				
Vinyl Chloride	MW-101	10/29/2015	W101151029-	0.126 G

See Data Qualifier List for Qualifier Information.

Table 11
Surface Water Monitoring Activities 4th Quarter 2015

Station ID	Date	Planned Activity	Sample ID	Comment
SW-E1	10/21/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-E1	11/18/15	Quarterly Characterization Sample	SE1-151118Q	
SW-E1	12/14/15	Monthly Characterization Sample	SE1-151214M	
SW-GS1	10/7/15	NPDES Permit Sample	SGS1151007P	
SW-GS1	10/21/15	Quarterly Characterization Sample	SGS1151021Q	
SW-GS1	11/25/15	Monthly Characterization Sample	NA ¹	No Flow, No Sample
SW-GS1	11/30/15	Monthly Characterization Sample	SGS1151130M	
SW-GS1	12/15/15	Monthly Characterization Sample	SGS1151215M	
SW-LP1	10/14/15	South Lagoon Inlet Characterization	SLP1151014P	
SW-LP1	11/30/15	South Lagoon Inlet Characterization	SLP1151130P	
SW-LP1	12/7/15	South Lagoon Inlet Characterization	SLP1151207P	
SW-LP2	10/14/15	South Lagoon Inlet Characterization	SLP2151014P	
SW-LP2	11/30/15	South Lagoon Inlet Characterization	SLP2151130P	
SW-LP2	12/7/15	South Lagoon Inlet Characterization	SLP2151207P	
SW-LP3	10/14/15	South Lagoon Inlet Characterization	NA ¹	No Flow, No Sample
SW-LP3	11/30/15	South Lagoon Inlet Characterization	NA ¹	No Flow, No Sample
SW-LP3	12/7/15	South Lagoon Inlet Characterization	SLP3151207P	
SW-MC	10/22/15	Quarterly Characterization Sample	SMC-151022Q	
SW-MC	11/18/15	Monthly Characterization Sample	SMC-151118M	
SW-MC	12/15/15	Monthly Characterization Sample	SMC-151215M	
SW-N1	10/21/15	Quarterly Characterization Sample	SN1-151021Q	
SW-N1	10/21/15	QA/QC Sample	SN1-151021F	
SW-N1	11/16/15	Monthly Characterization Sample	SN1-151116M	
SW-N1	12/14/15	Monthly Characterization Sample	SN1-151214M	
SW-N4	10/7/15	NPDES Permit Sample	NA ¹	No Flow, No Sample
SW-N4	10/8/15	NPDES Permit Sample	NA ¹	No Flow, No Sample
SW-N4	10/13/15	NPDES Permit Sample	SN4-151013P	
SW-N4	10/21/15	Quarterly Characterization Sample	SN4-151021Q	
SW-N4	11/16/15	Monthly Characterization Sample	SN4-151116M	
SW-N4	12/14/15	Monthly Characterization Sample	SN4-151214M	
SW-S1	10/21/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-S1	11/18/15	Quarterly Characterization Sample	SS1-151118Q	
SW-S1	12/14/15	Monthly Characterization Sample	SS1-151214M	
SW-S2	10/21/15	Quarterly Characterization Sample	SS2-151021Q	
SW-S2	11/18/15	Monthly Characterization Sample	SS2-151118M	
SW-S2	12/14/15	Monthly Characterization Sample	SS2-151214M	
SW-S3	10/21/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-S3	11/30/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-S3	12/15/15	Quarterly Characterization Sample	SS3-151215Q	
SW-SL3	10/7/15	NPDES Permit Sample	NA ¹	No Flow, No Sample
SW-SL3	10/8/15	NPDES Permit Sample	NA ¹	No Flow, No Sample
SW-SL3	10/12/15	NPDES Permit Sample	SSL3151012P	
SW-SL3	10/14/15	NPDES Permit Sample	SSL3151014P	
SW-SL3	10/21/15	Quarterly Characterization Sample	SSL3151021Q	
SW-SL3	11/30/15	Monthly Characterization Sample	SSL3151130M	
SW-SL3	11/30/15	NPDES Permit Sample	SSL3151130P	
SW-SL3	12/7/15	NPDES Permit Sample	SSL3151207P	
SW-SL3	12/15/15	Monthly Characterization Sample	SSL3151215M	
SW-TD1	10/26/15	Area 5 Top Deck Monitoring	STD1151026-	
SW-TD2	10/26/15	Area 5 Top Deck Monitoring	STD2151026-	

Table 11
Surface Water Monitoring Activities 4th Quarter 2015

Station ID	Date	Planned Activity	Sample ID	Comment
SW-TD4	10/26/15	Area 5 Top Deck Monitoring	STD4151026-	
SW-TD6	10/26/15	Area 5 Top Deck Monitoring	STD6151026-	
SW-V	10/8/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-V	11/16/15	Quarterly Characterization Sample	SV--151116Q	
SW-V	12/14/15	Monthly Characterization Sample	SV--151214M	
SW-W	10/22/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-W	11/18/15	Quarterly Characterization Sample	SW--151118Q	
SW-W	12/15/15	Monthly Characterization Sample	SW--151215M	
SW-W1	10/21/15	Quarterly Characterization Sample	SW1-151021Q	
SW-W1	11/16/15	Monthly Characterization Sample	SW1-151116M	
SW-W1	12/14/15	Monthly Characterization Sample	SW1-151214M	
SW-W2	10/21/15	Quarterly Characterization Sample	NA ¹	No Flow, No Sample
SW-W2	11/18/15	Quarterly Characterization Sample	SW2-151118Q	
SW-W2	12/14/15	Monthly Characterization Sample	SW2-151214M	
SW-W2	12/14/15	QA/QC Sample	SW2-151214F	
Staff Gages	10/21/15	Monthly Stream Gage Levels	NA ¹	
Staff Gages	11/18/15	Monthly Stream Gage Levels	NA ¹	
Staff Gages	11/25/15	Monthly Stream Gage Levels	NA ¹	
SW-EMER	11/2/16	Emergency Sample	SSWA151102E	
SW-EMER	11/4/16	Emergency Sample	SSWA151104E	

¹ No sample ID assigned, No sample collected.

TABLE 12
CEDAR HILLS LANDFILL
SUMMARY OF ISWGP* STORMWATER PERMIT EXCEEDANCES
(Data Collected from October 1, 2015 to December 31, 2015)

Parameter	Units	Sampling Location	Date	Value	Regulatory Limit	Type
No Exceedances this Quarter, See Discharge Monitoring Report in Appendix B						

*ISWGP - Industrial General Stormwater Permit

TABLE 13
CEDAR HILLS REGIONAL LANDFILL
VOLATILE ORGANIC COMPOUND DETECTIONS IN BLANKS
(Data Collected from October 1, 2015 to December 31, 2015)

Analyte	BLANK TYPE	Date	Sample ID	Result Value (ug/L)
Chloromethane	VOA TRIP BLANK	VTRP151008B	10/7/2015	0.21 BT
	VOA TRIP BLANK	VTRP151009B	10/8/2015	0.32 T
	VOA TRIP BLANK	VTRP151016C	10/14/2015	0.26 T
	VOA TRIP BLANK	VTRP151022B	10/21/2015	0.23 T
	METHOD BLANK	WG142215	10/8/2015	0.22 B
Methylene Chloride	VOA TRIP BLANK	VTRP151008B	10/7/2015	1.42 G
	VOA TRIP BLANK	VTRP151008C	10/7/2015	0.22 GT
	VOA TRIP BLANK	VTRP151009B	10/8/2015	0.877 G
	VOA TRIP BLANK	VTRP151009C	10/8/2015	1.39 G
	VOA TRIP BLANK	VTRP151012B	10/9/2015	0.42 G
	VOA TRIP BLANK	VTRP151015C	10/12/2015	0.908
	VOA TRIP BLANK	VTRP151016B	10/12/2015	1.02
	FIELD BLANK	W84-151007F	10/7/2015	0.583 G
		W75-151016F	10/16/2015	0.681
	METHOD BLANK	WG143075	11/20/2015	0.23 B
	METHOD BLANK	WG142745-1	11/3/2015	0.36 BT
Toluene	FIELD BLANK	W75-151016F	10/16/2015	0.22 T

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	0.0000006	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, 2015 to December 31, 2015)

Parameter	Units	Well ID	Sample Date	Sample ID	Sample Value	Cause of Unuseability
No Suspect Data This Quarter						

See Data Qualifier List for Qualifier Information.

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

206-477-4800 Fax 206-296-0192

TTY Relay: 711

Memorandum

January 29, 2016

TO: Tom Theno, Engineer II, Engineering Services Section, Solid Waste Division,
Department of Natural Resources and Parks (DNRP)

FM: Sevin Bilir, Environmental Scientist IV, Science and Technical Support Section,
Water and Land Resources Division, DNRP

RE: Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations
Fourth Quarter 2015 Results
Cedar Hills Landfill, King County, Washington
Project No. 1033379 – Task 02.14.137.20

The King County Water and Land Resources Division (KCWLR Division) submits this memorandum report on groundwater conditions during the fourth quarter of 2015 for the Cedar Hills Landfill (landfill), in accordance with the *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations* (KCWLR Division, 2015). King County Solid Waste Division (KCSWD) personnel measured groundwater elevations at the landfill on October 1, 2015. These measurements were received by KCWLR Division on January 12, 2016 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 2015 monitoring event.

Groundwater Elevation Data

KCSWD attempted groundwater level measurements at 42 monitoring wells during the fourth quarter of 2015. 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 23 wells with water levels within ten feet of the top of screen were selected.

Figure 1 shows well locations, groundwater elevations at the 23 selected wells, groundwater potentiometric surface contours, and interpreted groundwater flow direction in the regional aquifer for the October 1, 2015 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, 2015 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 north-northwest and north-northeast. At the northern end of the landfill, groundwater generally flowed to the north and north-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 2015 data. The hydraulic gradient was greatest under the southern portion of the landfill and smallest under the northern portion. On October 1, 2015, average horizontal groundwater velocity within the regional aquifer ranged from 0.009 feet per

day (ft/d) under the southern portion of the landfill to 2.3 ft/d under the central portion of the landfill.

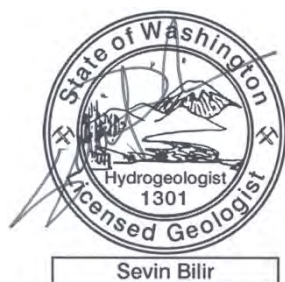
References

Aspect Consulting (Aspect). 2010. *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill*. Unpublished work. April 30.

King County Water and Land Resources Division (KCWLR Division). 2015. *Proposal for Potentiometric Groundwater Surface Maps & Groundwater Velocity Calculations*. Unpublished.

Thank you for the opportunity to provide hydrogeologic services to the KCSWD. If you have any questions, please feel free to contact me at 206-477-4646 or sevin.bilir@kingcounty.gov.

Sincerely,



Sevin Bilir, WA LHG
Environmental Scientist IV
King County Water and Land Resources Division

Enclosures:

- Table 1: Groundwater Elevations - Fourth Quarter 2015
- Table 2: Groundwater Parameters - Fourth Quarter 2015
- Figure 1: Groundwater Potentiometric Surface Map – Fourth Quarter 2015 – Regional Aquifer

Table 1: Groundwater Elevations – Fourth Quarter 2015

Cedar Hills Regional Landfill
King County, Washington

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)	October 1, 2015	
							Measured Depth to Water (ft)	Groundwater Elevations (ft MSL)
Wells with water levels within 10 feet of the top of screen	MW-100	1700791.72	169610.46	620.32	319.06	309.06	297.99	322.33
	MW-106	1702536.99	173461.69	475.47	280.04	270.04	191	284.47
	MW-60	1701154.47	167873.20	567.15	334.81	325.81	228.17	338.98
	MW-64	1701980.27	168772.19	596.55	334.03	320.23	265.77	330.78
	MW-66	1699750.19	174250.32	531.28	294.39	280.59	238.84	292.44
	MW-67	1701776.69	172610.65	516.43	297.80	284.00	220.73	295.7
	MW-68	1701917.32	170609.35	647.07	311.29	292.29	332.46	314.61
	MW-69	1698061.86	172400.20	653.69	293.57	279.97	356.12	297.57
	MW-72	1698229.92	170987.71	671.87	303.63	294.03	361.21	310.66
	MW-73	1698954.95	174995.59	485.70	288.11	278.81	191.78	293.92
	MW-74R	1700386.85	173813.79	531.26	289.90	280.40	240.11	291.15
	MW-76	1700376.23	167193.13	491.71	351.06	341.56	141.16	350.55
	MW-81	1702568.87	172113.99	493.66	309.19	300.19	184.23	309.43
	MW-82	1699553.72	167725.31	474.85	348.88	339.38	125.02	349.83
	MW-83	1697939.89	167212.27	496.81	350.19	340.69	144.92	351.89
	MW-84	1698602.89	173894.54	530.80	292.46	282.96	236.13	294.67
	MW-85	1701828.95	173694.52	531.76	282.56	273.06	246.47	285.29
	MW-86	1701331.25	174917.90	536.04	283.43	274.63	249.85	286.19
	MW-87	1700670.27	173493.76	537.31	283.68	274.38	248.52	288.79
	MW-88	1701807.87	174303.06	513.68	281.52	272.22	227.37	286.31
	MW-93	1702259.35	169851.24	632.15	319.87	310.07	308.67	323.48
	MW-94	1698674.21	167210.22	495.51	357.22	348.52	143.41	352.1
	MW-95	1697265.32	169426.92	571.54	314.60	305.90	251.09	320.45
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	125.04	295.62
	MW-22P	1701844.34	173088.17	517.09	236.02	231.22	232.82	284.27
	MW-24	1699582.39	167767.76	475.99	286.76	281.76	146.09	329.9
	MW-43	1701274.23	174327.14	547.06	245.63	235.63	263.85	283.21
	MW-54	1702154.28	168435.53	580.43	250.25	228.25	289.89	290.54
	MW-56	1698980.77	167214.82	480.33	323.15	313.15	128.56	351.77
	MW-57	1699993.32	167201.99	456.64	326.65	311.65	105.72	350.92
	MW-58A	1699006.59	167207.16	479.27	270.05	260.05	149.92	329.35
	MW-59	1699983.91	167193.44	457.13	285.08	275.08	125.04	332.09
	MW-65	1701602.10	167146.55	545.83	317.71	308.91	210.25	335.58
	MW-75	1701059.70	173432.42	532.40	271.10	261.00	245.94	286.46
	MW-80	1701309.78	172964.99	530.41	279.17	269.67	239.21	291.2
	MW-89	1701799.57	174319.44	512.82	229.20	219.90	232.47	280.35
	MW-90	1702203.13	174300.67	502.22	235.16	226.16	222.22	280
	MW-91	1701023.09	173423.94	532.02	260.81	240.71	247.14	284.88
	MW-99	1702556.06	172098.73	493.64	221.77	212.77	200.87	292.77
	NPW-1	1701906.96	171138.99	646.33	299.87	284.87	333.17	313.16
	NPW-3	1701922.88	170663.28	645.81	284.87	276.87	331.45	314.36

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.

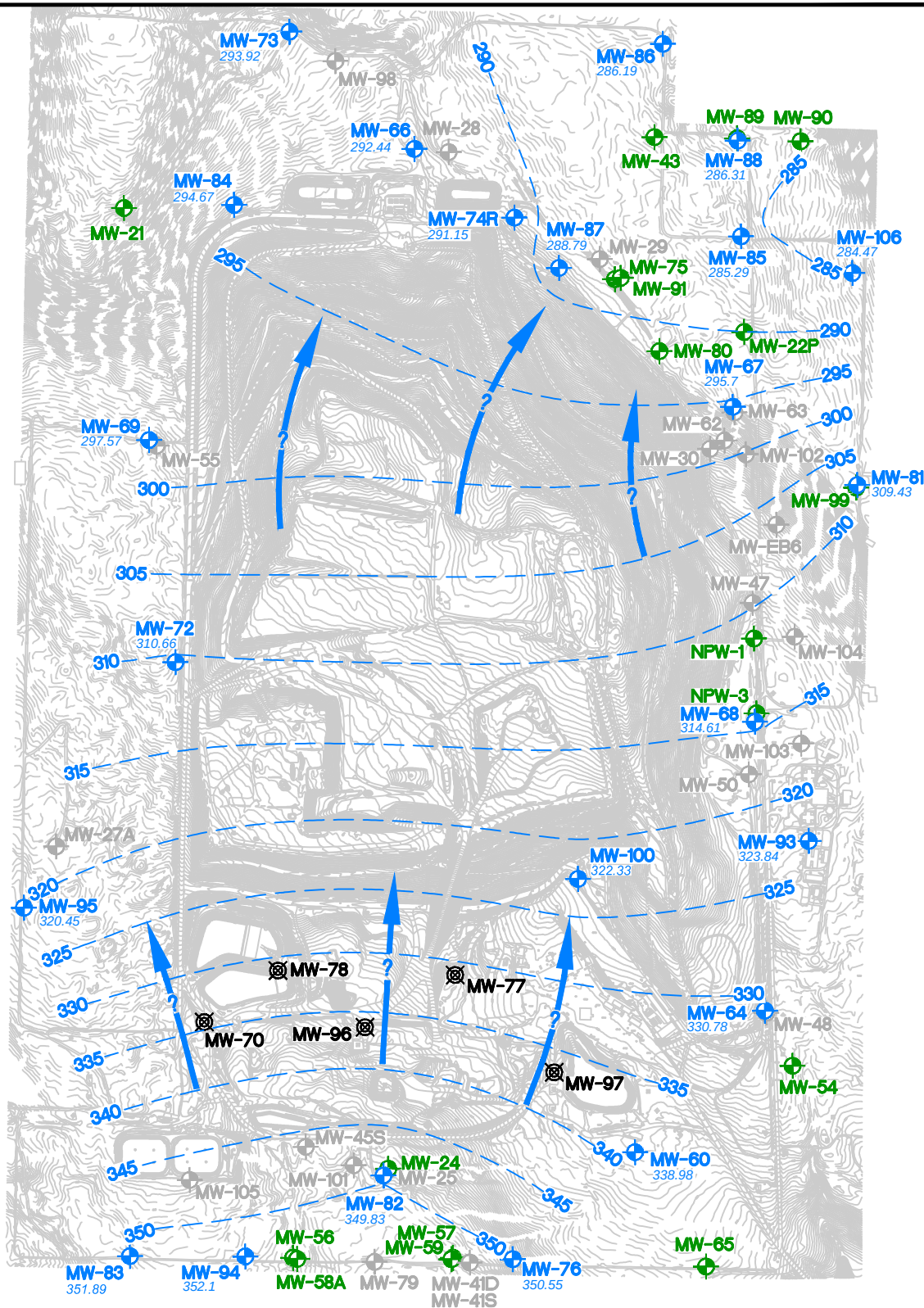
Table 2: Groundwater Parameters – Fourth Quarter 2015

Cedar Hills Regional Landfill
King County, Washington

Regional Aquifer Zone Beneath the Landfill	Horizontal Hydraulic Conductivity (K)			Horizontal Hydraulic Gradient (DH/DL)	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	0.006	24%	0.149	NNE, NE
	Maximum	4.20E-02	120	0.006	24%	2.97	
	Mean	2.10E-02	60	0.006	24%	1.49	
Central	Minimum	2.10E-03	6	0.009	24%	0.23	N, NNW
	Maximum	4.20E-02	120	0.009	24%	4.6	
	Mean	2.10E-02	60	0.009	24%	2.3	
Southern	Minimum	6.40E-06	0.018	0.013	26%	0.0009	N, NNE, NNW
	Maximum	6.40E-04	1.8	0.013	26%	0.09	
	Mean	6.40E-05	0.18	0.013	26%	0.009	

Notes

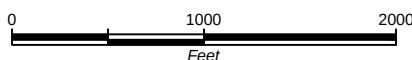
1. Horizontal hydraulic conductivity values and effective porosity values from *Potentiometric Groundwater Surface Mapping and Groundwater Velocity Calculation – Cedar Hills Landfill (Aspect, 2010)*.
2. Hydraulic gradients measured from the potentiometric surface map shown on Figure 1.
3. Mean hydraulic 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 Well completed in Regional Aquifer within 10 feet of the water table
- MW-X Well completed in Regional Aquifer more than 10 ft below water table
- MW-X Wells screened in discontinuous Perched Zones
- MW-X Decommissioned Wells

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



Notes:

- Groundwater measurements made on October 1, 2015.
- Only wells completed in the Regional Aquifer within 10 feet of the water table were used for contouring.



Groundwater Potentiometric Surface Map Fourth Quarter 2015 - Regional Aquifer Cedar Hills Landfill King County, Washington

DATE: January 2016
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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)
MW-21	10/1/2015	420.66	125.04	295.62
MW-21	10/13/2015	420.66	125.26	295.40
MW-22	10/1/2015	517.09	232.82	284.27
MW-24	10/1/2015	475.99	146.09	329.90
MW-24	10/5/2015	475.99	146.02	329.97
MW-25	10/1/2015	474.41	17.02	457.39
MW-27A	10/1/2015	584.23	55.6	528.63
MW-27A	10/19/2015	584.23	54.83	529.40
MW-28	10/1/2015	527.75		
MW-29	10/1/2015	532.92	17.4	515.52
MW-29	10/19/2015	532.92	16.28	516.64
MW-30A	10/1/2015	568.43	31.42	537.01
MW-30A	10/6/2015	568.43	31.39	537.04
MW-41D	10/1/2015	462.32	31.96	430.36
MW-41S	10/1/2015	462.44	15.28	447.16
MW-43	10/1/2015	547.06	263.85	283.21
MW-43	10/23/2015	547.06	264.06	283.06
MW-45	10/1/2015	488.4	15.3	473.10
MW-47	10/1/2015	634.6	22.18	612.42
MW-47	10/19/2015	634.6	21.86	612.74
MW-48	10/1/2015	594.49		
MW-50	10/1/2015	637.02	36.08	600.94
MW-54	10/1/2015	580.43	289.89	290.54
MW-55	10/1/2015	652.29	32.61	619.68
MW-55	10/20/2015	652.29	32.98	619.31
MW-56	10/1/2015	480.33	128.56	351.77
MW-56	10/15/2015	480.33	128.78	351.55
MW-57	10/1/2015	456.64	105.72	350.92
MW-57	10/16/2015	456.64	105.81	350.83
MW-58A	10/1/2015	479.27	149.92	329.35
MW-59	10/1/2015	457.13	125.04	332.09
MW-59	10/7/2015	457.13	125.2	331.93
MW-60	10/1/2015	567.15	228.17	338.98
MW-60	10/2/2015	567.15	228.35	338.8
MW-62	10/1/2015	556.21	54.04	502.17
MW-63	10/1/2015	515.88	18.56	497.32
MW-64	10/1/2015	596.55	265.77	330.78
MW-64	10/8/2015	596.55	265.97	330.58
MW-65	10/1/2015	545.83	210.25	335.58
MW-65	10/9/2015	545.83	210.21	335.62
MW-66	10/1/2015	531.28	238.84	292.44
MW-66	10/7/2015	531.28	238.84	292.44
MW-67	10/1/2015	516.43	220.73	295.70
MW-67	10/7/2015	516.43	220.87	295.56
MW-68	10/1/2015	647.07	332.46	314.61

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)
MW-68	10/5/2015	647.07	332.1	314.97
MW-69	10/1/2015	653.69	356.12	297.57
MW-69	10/6/2015	653.69	356.07	297.62
MW-72	10/1/2015	671.87	361.21	310.66
MW-72	10/8/2015	671.87	361.33	310.54
MW-73	10/1/2015	485.7	191.78	293.92
MW-73	10/8/2015	485.7	191.8	293.90
MW-74	10/1/2015	531.26	240.11	291.15
MW-74	10/16/2015	531.26	240.05	291.21
MW-74	11/24/2015	531.26	240.12	291.14
MW-74	12/18/2015	531.26	240.15	291.11
MW-75	10/1/2015	532.4	245.94	286.46
MW-75	10/16/2015	532.4	245.93	286.47
MW-75	11/24/2015	532.4	245.7	286.70
MW-75	12/18/2015	532.4	245.55	286.85
MW-76	10/1/2015	491.71	141.16	350.55
MW-76	10/2/2015	491.71	141.23	350.48
MW-79	10/1/2015			
MW-80	10/1/2015	530.41	239.21	291.20
MW-80	10/19/2015	530.41	239.2	291.21
MW-81	10/1/2015	493.66	184.23	309.43
MW-81	10/15/2015	493.66	184.2	309.46
MW-82	10/1/2015	474.85	125.02	349.83
MW-82	10/2/2015	474.85	125.15	349.70
MW-83	10/1/2015	496.81	144.92	351.89
MW-83	10/20/2015	496.81	145.31	351.50
MW-84	10/1/2015	530.8	236.13	294.67
MW-84	10/7/2015	530.8	236.25	294.55
MW-85	10/1/2015	531.76	246.47	285.29
MW-85	10/9/2015	531.76	246.49	285.27
MW-86	10/1/2015	536.04	249.85	286.19
MW-86	10/20/2015	536.04	250.15	285.89
MW-87	10/1/2015	537.31	248.52	288.79
MW-87	10/16/2015	537.31	248.39	288.32
MW-87	11/24/2015	537.31	248.42	288.89
MW-87	12/18/2015	537.31	248.41	288.90
MW-88	10/1/2015	513.68	227.37	286.31
MW-88	10/12/2015	513.68	227.32	286.36
MW-88	11/2/2015	513.68	227.65	286.03
MW-89	10/1/2015	512.82	232.47	280.35
MW-89	10/9/2015	512.82	232.45	280.37
MW-90	10/1/2015	502.22	222.22	280.00
MW-90	10/22/2015	502.22	222.39	279.83
MW-91	10/1/2015	532.02	247.14	284.88
MW-91	10/9/2015	532.02	247.18	284.84

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Elevation Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Reference Elevation (msl)	Depth to Water (feet)	Ground- Water Elevation (msl)
MW-93	10/1/2015	632.15	308.67	323.48
MW-93	10/12/2015	632.15	308.71	323.44
MW-94	10/1/2015	495.51	143.41	352.10
MW-94	10/8/2015	495.61	143.53	352.08
MW-95	10/1/2015	571.54	251.09	320.45
MW-95	10/22/2015	571.54	251.24	320.30
MW-98	10/1/2015	503.73	22.48	481.25
MW-99	10/1/2015	493.64	200.87	292.77
MW-99	10/16/2015	493.64	200.17	293.47
MW-99	11/24/2015	493.64	200.47	293.17
MW-99	12/18/2015	493.64	200.24	293.40
MW-100	10/1/2015	620.32	297.99	322.33
MW-100	10/13/2015	620.32	298.1	322.22
MW-101	10/1/2015	474.72	35.06	439.66
MW-101	10/29/2015	474.72	34.17	440.55
MW-102	10/1/2015	552.48	51.9	500.58
MW-103	10/1/2015	639.08	22.04	617.04
MW-104	10/1/2015	629.68	29.75	599.93
MW-105	10/1/2015	521.23	25.16	496.07
MW-106	10/1/2015	475.47	191	284.47
MW-EB6	10/1/2015	589.61	31.26	558.35
MW-EB6	10/29/2015	589.61	31.38	558.23
WS-NPW-1	10/1/2015	646.33	333.17	313.16
WS-NPW-3	10/1/2015	645.81	331.45	314.36

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umhos/cm)	(° C)	(gal)
MW-21	10/13/2015	W21-151013-	6.63	120	9.9	7
MW-24	10/5/2015	W24-151005-	7.19	165	9.3	8.4
MW-27A	10/19/2015	W27A151019-	7.6	150	10.2	6.8
MW-29	10/19/2015	W29-151019-	6.38	82	12.1	12
MW-30A	10/6/2015	W30A151006-	6.3	245	11.7	2
MW-43	10/26/2015	W43-151023-	7.16	130	9.6	13
MW-47	10/19/2015	W47-151019-	7.18	855	11.6	21
MW-55	10/20/2015	W55-151020-	7.84	135	10.8	7.5
MW-56	10/15/2015	W56-151015-	7.03	145	10.1	18.5
MW-57	10/2/2015	W57-151002-	6.93	185	10.3	4
MW-59	10/7/2015	W59-151007-	7.11	175	10.6	27
MW-60	10/2/2015	W60-151002-	6.99	140	10.1	11.6
MW-64	10/8/2015	W64-151008-	7.08	185	12	8
MW-65	10/9/2015	W65-151009-	7.48	145	10.2	20.4
MW-66	10/7/2015	W66-151007-	7.08	205	10	15
MW-67	10/7/2015	W67-151007-	7.07	270	10.1	9
MW-68	10/5/2015	W68-151005-	7.11	205	10.2	17
MW-69	10/6/2015	W69-151006-	7.62	255	10.2	9.9
MW-69 Duplicate	10/6/2015	W69-151006D	7.62	255	10.2	9.9
MW-72	10/8/2015	W72-151008-	7.64	295	9.9	12.9
MW-73	10/8/2015	W73-151008-	6.89	125	9.9	10.5
MW-74	10/16/2015	W74R151016-	7.1	430	10.3	5.6
MW-74	11/24/2015	W74R151124-	7.04	520	10.3	5.8
MW-74	12/18/2015	W74R151218-	6.99	525	9.9	5.8
MW-75	10/16/2015	W75-151016-	7.09	245	10	14
MW-75	11/24/2015	W75-151124-	7.03	345	9.7	11.5
MW-75	12/18/2015	W75-151218-	7.02	340	9.7	11.5
MW-76	10/2/2015	W76-151002-	6.58	210	9.9	6
MW-80	10/19/2015	W80-151019-	7.4	250	10.2	7.2
MW-81	10/15/2015	W81-151015-	7.45	120	9.8	4.5
MW-82	10/2/2015	W82-151002-	6.91	220	10.1	4.4
MW-83	10/20/2015	W83-151020-	6.79	355	10.7	6.5
MW-84	10/7/2015	W84-151007-	6.92	150	10.2	5.6
MW-85	10/9/2015	W85-151009-	7.1	255	10.1	7.5
MW-86	10/20/2015	W86-151020-	7.06	150	9.8	9.2
MW-87	10/16/2015	W87-151016-	6.87	360	10.9	8
MW-87	11/24/2015	W87-151124-	7.07	385	10.3	6
MW-87	12/18/2015	W87-151218-	6.84	375	10.3	6
MW-88	11/3/2015	W88-151102-	7.61	110	9.4	7
MW-89	10/9/2015	W89-151009-	7.29	170	10	8
MW-90	10/22/2015	W90-151022-	7.32	185	9.4	7.6
MW-91	10/9/2015	W91-151009-	6.91	245	10.2	12.2
MW-93	10/12/2015	W93-151012-	7.26	290	12	8.8
MW-94	10/8/2015	W94-151008-	7.1	245	9.9	4.8
MW-95	10/22/2015	W95-151022-	7.49	195	9.6	7.2

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Field Parameters

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature	Purge Volume
			(std. Units)	(umhos/cm)	(° C)	(gal)
MW-99	10/16/2015	W99-151016-	8.01	130	10.2	9.2
MW-99	11/24/2015	W99-151124-	8.05	125	10.1	9.2
MW-99	12/18/2015	W99-151218-	7.89	130	10.5	11.5
MW-100	10/13/2015	W100151013-	6.92	235	11.3	8.5
MW-100 Duplicate	10/13/2015	W100151013D	6.92	235	11.3	8.5
MW-101	10/29/2015	W101151029-	6.63	385	11.9	0.6
WS-NPW	12/15/2015	WNPW151215-	7.52	245	7.4	
FIELD BLANK	10/16/2015	W75-151016F	7.95	2.6	14.6	
FIELD BLANK	10/7/2015	W84-151007F	6.84	1.1	15.1	
WS-OS-1	10/6/2015	WOS1151006-	7.01	135	10.1	79
WS-OS-2	10/6/2015	WOS2151006-	7.19	130	11.5	
WS-OS-3	10/5/2015	WOS3151005-	8.26	175	13.8	160
EQUIPMENT BLANK	10/8/2015	WU1H151008E	8.11	1.2	15.3	
EQUIPMENT BLANK	10/8/2015	WU1M151008E	8.08		15.5	
EQUIPMENT BLANK	10/8/2015	WU1S151008E	8.18	1.2	15.2	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (as CaCO ₃)	Ammonia, (NH ₃)	Chloride	Nitrate- Nitrogen (NO ₃ as N)	Specific Conductance	Sulfate, (SO ₄)	Total Dissolved Solids	Total Organic Carbon	Total Solids	Total Suspended Solids
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(umhos/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-21	10/13/2015	W21-151013-	53.4	0.0105	2.77	< 0.01 U	126	6.36	90.4	< 1 U	95.8	1.4
MW-24	10/5/2015	W24-151005-	64.2	0.0403	3.81	< 0.01 U	175	16.1	113	< 1 U	126	< 1 U
MW-27A	10/19/2015	W27A151019-	82.9	0.193 B	3.03	0.017 T	191	9.15	136	< 1 U	134	< 1 U
MW-29	10/19/2015	W29-151019-	28.5	< 0.01 U	2.78	1.89	90.3	2.18	89	1.06	308	183
MW-30A	10/6/2015	W30A151006-	127	< 0.01 U	1.6	5.04	322	14.3	220	1.84	223	1.1
MW-43	10/23/2015	W43-151023-	69.5	0.0302	4.92	< 0.01 U	177	14.2	126	< 1 U	123	1.6 T
MW-47	10/19/2015	W47-151019-	682	0.0812	7.67	< 0.01 U	1180	7.14	725	6.19	735	2.8
MW-55	10/20/2015	W55-151020-	67.2	0.0697	2	0.01 T	161	10.9	122	< 1 U	123	< 1 U
MW-56	10/15/2015	W56-151015-	57.9	< 0.01 U	4.79	< 0.01 U	168	17.1	108	< 1 U	109	< 1 U
MW-57	10/2/2015	W57-151002-	65.1	0.0185	5.56	< 0.01 U	196	23	138	< 1 U	151	2.6
MW-59	10/7/2015	W59-151007-	64	< 0.01 U	4.28	< 0.01 U	179	19.4	123	< 1 U	137	2.3
MW-60	10/2/2015	W60-151002-	69.8	< 0.01 U	2.5	1.22	170	6.49	125	1.03	117	< 1 U
MW-64	10/8/2015	W64-151008-	101	0.0433	3.07	< 0.01 U	223	11.3	140	< 1 U	147	< 1 U
MW-65	10/9/2015	W65-151009-	55.7	< 0.01 U	3.63	< 0.01 U	151	14.8	109	< 1 U	112	< 1 U
MW-66	10/7/2015	W66-151007-	101	< 0.01 U	6.12	0.644	247	14.4	157	< 1 U	169	< 1 U
MW-67	10/7/2015	W67-151007-	138	< 0.01 U	4.58	0.25	354	38.1	223	< 1 U	245	< 1 U
MW-68	10/5/2015	W68-151005-	130	0.0194	2.84	< 0.01 U	293	16.4	171	< 1 U	201	18.8
MW-69	10/6/2015	W69-151006-	126	0.0155	3.86	< 0.01 U	292	17.8	184	< 1 U	191	8.8
MW-69 Duplicate	10/6/2015	W69-151006D	126	0.0154	3.86	< 0.01 U	292	17.8	177	< 1 U	193	8.6
MW-72	10/8/2015	W72-151008-	119	0.0167	5.38	< 0.01 U	328	45.5	223	< 1 U	231	2.3
MW-73	10/8/2015	W73-151008-	52.7	< 0.01 U	2.51	1.06	141	9.38	107	< 1 U	105	1.5
MW-74	10/16/2015	W74R151016-	222	< 0.01 U	25.5	0.385	533	28.6	333	1.49	332	< 1 U
MW-75	10/16/2015	W75-151016-	101	0.0101	9.78	< 0.01 U	327	50.2	223	< 1 U	231	3.7
MW-76	10/2/2015	W76-151002-	68	< 0.01 U	14.9	1.76	246	22.2	163	1.32	179	2.4
MW-80	10/19/2015	W80-151019-	106	0.0143 B	5.66	< 0.01 U	300	39.6	196	< 1 U	213	< 1 U
MW-81	10/15/2015	W81-151015-	48.7	< 0.01 U	4.69	1.53	143	7.82	100	< 1 U	105	< 1 U
MW-82	10/2/2015	W82-151002-	118	< 0.01 U	8.04	0.495	296	18.5	188	< 1 U	199	1.89
MW-83	10/20/2015	W83-151020-	160	< 0.01 U	46.7	2.56	494	9.03	320	4.23	373	< 1 U
MW-84	10/7/2015	W84-151007-	60.6	< 0.01 U	3.6	0.337	160	13.3	111	< 1 U	116	< 1 U
MW-85	10/9/2015	W85-151009-	108	< 0.01 U	9.66	0.134	314	40.4	210	< 1 U	213	< 1 U
MW-86	10/20/2015	W86-151020-	65.7	< 0.01 U	4.63	0.333	183	16.9	118	< 1 U	151	1.12
MW-87	10/16/2015	W87-151016-	90.5	0.0203	8.56	< 0.01 U	487	136	363	1.68	427	86.8
MW-88	11/2/2015	W88-151102-	51.8	< 0.01 U	1.94	0.568	123	6.43	87.1	< 1 U	94.5	< 1 U
MW-89	10/9/2015	W89-151009-	72.1	0.0197	5.49	< 0.01 U	189	17.2	129	< 1 U	136	2.8
MW-90	10/22/2015	W90-151022-	69.8	0.0149	4.35	< 0.01 U	210	30.2	157	< 1 U	186	1.1
MW-91	10/9/2015	W91-151009-	94.7	0.0179	10	0.021 T	297	45.2	215	1.09	342	130
MW-93	10/12/2015	W93-151012-	121	0.0529	3.02	0.015 T	352	59.2	239	< 1 U	251	< 1 U
MW-94	10/8/2015	W94-151008-	96.1	< 0.01 U	22.2	1.59	281	7.35	196	2.64	215	< 1 U
MW-95	10/22/2015	W95-151022-	86.9	0.0249	5.07	< 0.01 U	216	17.7	145	< 1 U	137	< 1 U
MW-99	10/16/2015	W99-151016-	58.5	0.102	3.34	0.018 T	145	8.59	101	< 1 U	106	< 1 U
MW-100	10/13/2015	W100151013-	130	< 0.01 U	2.95	< 0.01 U	291	17.8	179	< 1 U	184	10.3
MW-100 Duplicate	10/13/2015	W100151013D	131	< 0.01 U	2.95	< 0.01 U	290	17.7	174	< 1 U	185	11.5
MW-101	10/29/2015	W101151029-	269	0.018 B	2.94	0.019 T	480	3.63	319	7.36	317	4.2
WS-NPW	12/15/2015	WNPW151215-	137	< 0.01 U	3.42	0.023 T	314	16.9	175	< 1 U	175	< 1 U
FIELD BLANK	10/7/2015	W84-151007F	< 1 U	< 0.01 U	< 0.1 U	< 0.01 U	1.4 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U
FIELD BLANK	10/16/2015	W75-151016F	< 1 U	< 0.01 U	< 0.1 U	< 0.01 U	1.6 T	< 0.1 U	< 5 U	< 1 U	< 5 U	< 1 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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-21	10/13/2015	W21-151013-	< 0.001 U	< 0.001 U	0.00106	0.00106	0.00342	0.00408	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	8.55	9.66
MW-24	10/5/2015	W24-151005-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00202	0.00198	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.5	14.2
MW-27A	10/19/2015	W27A151019-	< 0.001 U	< 0.001 U	0.0169	0.0152	0.005	0.0055	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	19.2	19.2
MW-29	10/19/2015	W29-151019-	< 0.001 U	< 0.001 U	< 0.001 U	0.00157	0.00141	0.0362	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	7.9	8.68
MW-30A	10/6/2015	W30A151006-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00527	0.00525	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	26.4	26.1
MW-43	10/23/2015	W43-151023-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00625	0.00674	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13	13
MW-47	10/19/2015	W47-151019-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0357	0.0373	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	126	140 D
MW-55	10/20/2015	W55-151020-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00453	0.00476	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	12.4	12.4
MW-56	10/15/2015	W56-151015-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00303	0.00329	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.7	13.3
MW-57	10/2/2015	W57-151002-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00146	0.00159	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	14.9	14.9
MW-59	10/7/2015	W59-151007-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00366	0.00358	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	15.3	15.4
MW-60	10/2/2015	W60-151002-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00263	0.00276	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	16	15.9
MW-64	10/8/2015	W64-151008-	< 0.001 U	< 0.001 U	0.00102	0.00123	0.00849	0.00917	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	18.3	17.8
MW-65	10/9/2015	W65-151009-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00676	0.00673	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	11.9	11.2
MW-66	10/7/2015	W66-151007-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00501	0.00513	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	19	19.1
MW-67	10/7/2015	W67-151007-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0108	0.0109	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	32.8	32.9
MW-68	10/5/2015	W68-151005-	< 0.001 U	< 0.001 U	0.0152	0.0904	0.0116	0.0146	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	27.9	26.8
MW-69	10/6/2015	W69-151006-	< 0.001 U	< 0.001 U	0.00237	0.00306	0.0113	0.0134	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	29.4	31.3
MW-69 Duplicate	10/6/2015	W69-151006D	< 0.001 U	< 0.001 U	0.00234	0.003	0.0112	0.0129	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	29.4	30.1
MW-72	10/8/2015	W72-151008-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.011	0.0124	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	29.8	30.1
MW-73	10/8/2015	W73-151008-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00252	0.00278	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	12.1	11.6
MW-74	10/16/2015	W74R151016-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0111	0.0117	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	43.3	44.2
MW-75	10/16/2015	W75-151016-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0106	0.0117	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	24.6	24.3
MW-76	10/2/2015	W76-151002-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00401	0.00406	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	22.1	21.7
MW-80	10/19/2015	W80-151019-	< 0.001 U	< 0.001 U	0.00446	0.00549	0.0128	0.0138	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	27.3	27.5 D
MW-81	10/15/2015	W81-151015-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00254	0.00288	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	11	10.7
MW-82	10/2/2015	W82-151002-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00113	0.00158	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	26.9	26
MW-83	10/20/2015	W83-151020-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00764	0.00786	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	49	49.5 D
MW-84	10/7/2015	W84-151007-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00375	0.00363	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	11.8	11.5
MW-85	10/9/2015	W85-151009-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00596	0.00634	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	28.1	27.5
MW-86	10/20/2015	W86-151020-	< 0.001 U	< 0.001 U	< 0.001 U	0.0012	0.00375	0.00406	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.2	13.4
MW-87	10/16/2015	W87-151016-	< 0.001 U	< 0.001 U	< 0.001 U	0.0256	0.0225	0.0369	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	40.5	40.5
MW-88	11/2/2015	W88-151102-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00202	0.00237	< 0.001 U	< 0.001 DU	< 0.002 U	< 0.002 U	8.34	8.62
MW-89	10/9/2015	W89-151009-	< 0.001 U	< 0.001 U	0.001	0.00201	0.00608	0.00702	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	13.4	13.5
MW-90	10/22/2015	W90-151022-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00573	0.00613	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	17.1	17.5
MW-91	10/9/2015	W91-151009-	< 0.001 U	< 0.001 U	0.00607	0.126	0.0106	0.0373	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	24.7	23.8
MW-93	10/12/2015	W93-151012-	< 0.001 U	< 0.001 U	0.00137	0.00129	0.00802	0.00808	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	33.9	32.9
MW-94	10/8/2015	W94-151008-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.002	0.00219	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	27.1	26.6
MW-95	10/22/2015	W95-151022-	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00372	0.00384	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	19.5	19.1
MW-99	10/16/2015	W99-151016-	< 0.001 U	< 0.001 U	0.00176	0.00172	0.00344	0.00345	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	10	9.55
MW-100	10/13/2015	W100151013-	< 0.001 U	< 0.001 U	< 0.001 U	0.00336	0.00502	0.00716	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	22	25.7
MW-100Duplicate	10/13/2015	W100151013D	< 0.001 U	< 0.001 U	< 0.001 U	0.00256	0.0051	0.00664	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	22	25.5
MW-101	10/29/2015	W101151029-	< 0.001 U	< 0.001 U	0.00295	0.00467	0.016	0.0186	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	43.2	47.5
WS-NPW	12/15/2015	WNPW151215-	< 0.001 U	< 0.001 U		< 0.001 U		0.00871		< 0.001 U	< 0.002 U	< 0.002 U		30
EQUIPMENT BLANK	10/8/2015	WU1S151008E	< 0.001 U		< 0.001 U		< 0.001 U		< 0.001 U		< 0.002 U		< 0.01 U	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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)
EQUIPMENT BLANK	10/8/2015	WU1H151008E	< 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	10/7/2015	W84-151007F	< 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	10/16/2015	W75-151016F	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total	Iron, Dissolved	Iron, Total	Lead, Dissolved	Lead, Total	Magnesium, Dissolved	Magnesium, 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-21	10/13/2015	W21-151013-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.77	2.31	< 0.001 U	< 0.001 U	4.87	5.65
MW-24	10/5/2015	W24-151005-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	3.06	3.4	< 0.001 U	< 0.001 U	8.37	9.61
MW-27A	10/19/2015	W27A151019-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.018 T	< 0.001 U	< 0.001 U	5.19	5.08
MW-29	10/19/2015	W29-151019-	< 0.005 U	0.0126	< 0.003 U	< 0.003 U	< 0.002 U	0.0104	< 0.01 U	5.37	< 0.001 U	0.00195	1.98	3.2
MW-30A	10/6/2015	W30A151006-	< 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	15.1	17.4
MW-43	10/23/2015	W43-151023-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1	1.85	< 0.001 U	< 0.001 U	8.81	8.81
MW-47	10/19/2015	W47-151019-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.048 T	0.0941	< 0.001 U	< 0.001 U	60.5	60.6
MW-55	10/20/2015	W55-151020-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.308	0.306	< 0.001 U	< 0.001 U	6.38	6.19
MW-56	10/15/2015	W56-151015-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.047 T	0.119	< 0.001 U	< 0.001 U	7.87	7.76
MW-57	10/2/2015	W57-151002-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.00481	8.15	7.73	< 0.001 U	< 0.001 U	7.76	7.84
MW-59	10/7/2015	W59-151007-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	4.44	4.72	< 0.001 U	< 0.001 U	8.79	9.61
MW-60	10/2/2015	W60-151002-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.025 T	0.038 T	< 0.001 U	< 0.001 U	7.05	7.22
MW-64	10/8/2015	W64-151008-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.134	0.264	< 0.001 U	< 0.001 U	12.9	12.6
MW-65	10/9/2015	W65-151009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	4.1	4.03	< 0.001 U	< 0.001 U	7.23	7.14
MW-66	10/7/2015	W66-151007-	< 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	14.3	15.7
MW-67	10/7/2015	W67-151007-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.169	0.219	< 0.001 U	< 0.001 U	19.1	20.8
MW-68	10/5/2015	W68-151005-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.0034	0.79	4.54	< 0.001 U	< 0.001 U	14.4	15.8
MW-69	10/6/2015	W69-151006-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.07	1.59	< 0.001 U	< 0.001 U	13.3	15.1
MW-69 Duplicate	10/6/2015	W69-151006D	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.08	1.59	< 0.001 U	< 0.001 U	13.3	14.8
MW-72	10/8/2015	W72-151008-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	2.23	2.73	< 0.001 U	< 0.001 U	18.1	17.7
MW-73	10/8/2015	W73-151008-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.024 T	< 0.001 U	< 0.001 U	5.91	5.7
MW-74	10/16/2015	W74R151016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.0784	< 0.001 U	< 0.001 U	32.8	31.8
MW-75	10/16/2015	W75-151016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.95	2.15	< 0.001 U	< 0.001 U	18.6	18.5
MW-76	10/2/2015	W76-151002-	< 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	9.53	9.34
MW-80	10/19/2015	W80-151019-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.81	2.19	< 0.001 U	< 0.001 U	13.7	13.4
MW-81	10/15/2015	W81-151015-	< 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	6.05	6.02
MW-82	10/2/2015	W82-151002-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.045 T	< 0.001 U	< 0.001 U	15	14.7
MW-83	10/20/2015	W83-151020-	< 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	19.1	18.6
MW-84	10/7/2015	W84-151007-	< 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	8.56	9.07
MW-85	10/9/2015	W85-151009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.03 T	< 0.001 U	< 0.001 U	16.6	16.5
MW-86	10/20/2015	W86-151020-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.307	0.728	< 0.001 U	< 0.001 U	8.83	8.76
MW-87	10/16/2015	W87-151016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	4.13	24.7	< 0.001 U	< 0.001 U	27.5	26.5
MW-88	11/2/2015	W88-151102-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	< 0.01 U	0.014 T	< 0.001 U	< 0.001 U	6.17	7.47
MW-89	10/9/2015	W89-151009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.791	1.49	< 0.001 U	< 0.001 U	9.75	9.42
MW-90	10/22/2015	W90-151022-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	1.24	1.31	< 0.001 U	< 0.001 U	9.79	9.92
MW-91	10/9/2015	W91-151009-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	3	50.4	< 0.001 U	< 0.001 U	16.2	14.8
MW-93	10/12/2015	W93-151012-	< 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	17.9	17.7
MW-94	10/8/2015	W94-151008-	< 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	12.3	11.6
MW-95	10/22/2015	W95-151022-	< 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	10.1	10.1
MW-99	10/16/2015	W99-151016-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.0534	0.0809	< 0.001 U	< 0.001 U	4.77	4.63
MW-100	10/13/2015	W100151013-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.741	4.05	< 0.001 U	< 0.001 U	12.7	14.7
MW-100Duplicate	10/13/2015	W100151013D	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.76	3.19	< 0.001 U	< 0.001 U	12.7	15.1
MW-101	10/29/2015	W101151029-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U	0.364	1.02	< 0.001 U	< 0.001 U	24.2	26.3
WS-NPW	12/15/2015	WNPW151215-	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U		0.322 D	< 0.001 U	< 0.001 U		16.1
EQUIPMENT BLANK	10/8/2015	WU1S151008E	< 0.005 U		< 0.003 U		< 0.002 U		< 0.01 U		< 0.001 U		< 0.015 U	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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)
EQUIPMENT BLANK	10/8/2015	WU1H151008E	< 0.005 U		< 0.003 U		< 0.002 U		< 0.01 U		< 0.001 U		< 0.015 U	
FIELD BLANK	10/7/2015	W84-151007F	< 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	10/16/2015	W75-151016F	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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-21	10/13/2015	W21-151013-	0.0683	0.0811	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.818	1.04	< 0.001 U	< 0.001 U
MW-24	10/5/2015	W24-151005-	0.104	0.11	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.889	0.982	< 0.001 U	< 0.001 U
MW-27A	10/19/2015	W27A151019-	0.0714	0.0711	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	3.57	3.4	< 0.001 U	< 0.001 U
MW-29	10/19/2015	W29-151019-	< 0.001 U	0.0732	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.601	0.986	< 0.001 U	< 0.001 U
MW-30A	10/6/2015	W30A151006-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.63	1.69	< 0.001 U	< 0.001 U
MW-43	10/23/2015	W43-151023-	0.219	0.216	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.31	1.24	< 0.001 U	< 0.001 U
MW-47	10/19/2015	W47-151019-	1.62	1.61	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	5.31	5.28	< 0.001 U	< 0.001 U
MW-55	10/20/2015	W55-151020-	0.158	0.157	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.64	1.57	< 0.001 U	< 0.001 U
MW-56	10/15/2015	W56-151015-	0.218	0.219	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.1	1.12	< 0.001 U	< 0.001 U
MW-57	10/2/2015	W57-151002-	0.235	0.233	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.842	0.796	< 0.001 U	< 0.001 U
MW-59	10/7/2015	W59-151007-	0.113	0.115	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.07	1.15	< 0.001 U	< 0.001 U
MW-60	10/2/2015	W60-151002-	0.00127	0.0016	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.07	0.997	< 0.001 U	< 0.001 U
MW-64	10/8/2015	W64-151008-	0.0691	0.0993	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.6	1.62	< 0.001 U	< 0.001 U
MW-65	10/9/2015	W65-151009-	0.19	0.186	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.957	0.956	< 0.001 U	< 0.001 U
MW-66	10/7/2015	W66-151007-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.15	1.28	0.0011	< 0.001 U
MW-67	10/7/2015	W67-151007-	0.133	0.133	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.68	1.72	< 0.001 U	< 0.001 U
MW-68	10/5/2015	W68-151005-	0.297	0.31	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.64	1.74	< 0.001 U	< 0.001 U
MW-69	10/6/2015	W69-151006-	0.227	0.241	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.68	1.81	< 0.001 U	< 0.001 U
MW-69 Duplicate	10/6/2015	W69-151006D	0.228	0.238	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.66	1.8	< 0.001 U	< 0.001 U
MW-72	10/8/2015	W72-151008-	0.325	0.366	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.87	1.93	< 0.001 U	< 0.001 U
MW-73	10/8/2015	W73-151008-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.782	0.785	< 0.001 U	< 0.001 U
MW-74	10/16/2015	W74R151016-	< 0.001 U	0.00212	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.03	2.05	< 0.001 U	< 0.001 U
MW-75	10/16/2015	W75-151016-	0.157	0.161	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.74	1.78	< 0.001 U	< 0.001 U
MW-76	10/2/2015	W76-151002-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.37	1.29	< 0.001 U	< 0.001 U
MW-80	10/19/2015	W80-151019-	0.282	0.278	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.58	1.49	< 0.001 U	< 0.001 U
MW-81	10/15/2015	W81-151015-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.747	0.768	< 0.001 U	< 0.001 U
MW-82	10/2/2015	W82-151002-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.81	1.78	< 0.001 U	< 0.001 U
MW-83	10/20/2015	W83-151020-	< 0.001 U	0.00168	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	3	2.81	< 0.001 U	< 0.001 U
MW-84	10/7/2015	W84-151007-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.01	1.06	< 0.001 U	< 0.001 U
MW-85	10/9/2015	W85-151009-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.53	1.58	0.00117	< 0.001 U
MW-86	10/20/2015	W86-151020-	0.00599	0.00632	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.08	1.04	0.00132	0.00119
MW-87	10/16/2015	W87-151016-	0.442	0.45	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.27	2.22	< 0.001 U	< 0.001 U
MW-88	11/2/2015	W88-151102-	< 0.001 U	0.00124 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.792	0.762	< 0.001 U	< 0.001 U
MW-89	10/9/2015	W89-151009-	0.202	0.222	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.46	1.47	< 0.001 U	< 0.001 U
MW-90	10/22/2015	W90-151022-	0.26	0.259	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.32	1.28	< 0.001 U	< 0.001 U
MW-91	10/9/2015	W91-151009-	0.453	1.11 D	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.77	1.73	< 0.001 U	0.00136
MW-93	10/12/2015	W93-151012-	0.206	0.208	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.61	1.6	< 0.001 U	< 0.001 U
MW-94	10/8/2015	W94-151008-	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.12	2.18	< 0.001 U	< 0.001 U
MW-95	10/22/2015	W95-151022-	0.147	0.145	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.16	1.07	< 0.001 U	< 0.001 U
MW-99	10/16/2015	W99-151016-	0.116	0.112	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	0.899	0.91	< 0.001 U	< 0.001 U
MW-100	10/13/2015	W100151013-	0.145	0.174	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.37	1.77	< 0.001 U	< 0.001 U
MW-100Duplicate	10/13/2015	W100151013D	0.146	0.17	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	1.42	1.75	< 0.001 U	< 0.001 U
MW-101	10/29/2015	W101151029-	0.319	0.516	< 0.0001 U	< 0.0001 U	< 0.01 U	< 0.01 U	2.34	2.52	< 0.001 U	< 0.001 U
WS-NPW	12/15/2015	WNPW151215-		0.0144		< 0.0001 U		< 0.01 U		1.66		< 0.001 U
EQUIPMENT BLANK	10/8/2015	WU1S151008E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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)
EQUIPMENT BLANK	10/8/2015	WU1H151008E	< 0.001 U		< 0.0001 U		< 0.01 U		< 0.3 U		< 0.001 U	
FIELD BLANK	10/7/2015	W84-151007F	< 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	10/16/2015	W75-151016F	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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	10/13/2015	W21-151013-	< 0.003 U	< 0.003 U	4.62	5.29	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-24	10/5/2015	W24-151005-	< 0.003 U	< 0.003 U	5.38	5.42	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-27A	10/19/2015	W27A151019-	< 0.003 U	< 0.003 U	6.5	6.38	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-29	10/19/2015	W29-151019-	< 0.003 U	< 0.003 U	4.62	4.94	< 0.001 U	< 0.001 U	< 0.002 U	0.012	< 0.004 U	0.0119
MW-30A	10/6/2015	W30A151006-	< 0.003 U	< 0.003 U	11.3	10.8	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-43	10/23/2015	W43-151023-	< 0.003 U	< 0.003 U	5.94	5.95	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-47	10/19/2015	W47-151019-	< 0.003 U	< 0.003 U	16.4	16.6	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-55	10/20/2015	W55-151020-	< 0.003 U	< 0.003 U	5.59	5.44	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-56	10/15/2015	W56-151015-	< 0.003 U	< 0.003 U	5.06	4.96	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-57	10/2/2015	W57-151002-	< 0.003 U	< 0.003 U	6	5.91	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-59	10/7/2015	W59-151007-	< 0.003 U	< 0.003 U	5.78	5.5	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-60	10/2/2015	W60-151002-	< 0.003 U	< 0.003 U	5.27	5.26	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-64	10/8/2015	W64-151008-	< 0.003 U	< 0.003 U	7.2	6.91	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-65	10/9/2015	W65-151009-	< 0.003 U	< 0.003 U	5.34	5.28	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-66	10/7/2015	W66-151007-	< 0.003 U	< 0.003 U	7.58	7.37	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-67	10/7/2015	W67-151007-	< 0.003 U	< 0.003 U	9.03	8.79	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-68	10/5/2015	W68-151005-	< 0.003 U	< 0.003 U	8.1	7.82	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-69	10/6/2015	W69-151006-	< 0.003 U	< 0.003 U	7.79	8.4	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-69 Duplicate	10/6/2015	W69-151006D	< 0.003 U	< 0.003 U	7.78	7.88	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-72	10/8/2015	W72-151008-	< 0.003 U	< 0.003 U	7.69	7.49	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-73	10/8/2015	W73-151008-	< 0.003 U	< 0.003 U	5.54	5.22	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-74	10/16/2015	W74R151016-	< 0.003 U	< 0.003 U	11.7	11.2	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-75	10/16/2015	W75-151016-	< 0.003 U	< 0.003 U	8.05	8.11	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-76	10/2/2015	W76-151002-	< 0.003 U	< 0.003 U	8.79	8.41	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-80	10/19/2015	W80-151019-	< 0.003 U	< 0.003 U	6.94	6.83	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-81	10/15/2015	W81-151015-	< 0.003 U	< 0.003 U	5.74	5.69	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-82	10/2/2015	W82-151002-	< 0.003 U	< 0.003 U	7.49	7.15	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-83	10/20/2015	W83-151020-	< 0.003 U	< 0.003 U	8.79	8.59	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-84	10/7/2015	W84-151007-	< 0.003 U	< 0.003 U	6.08	5.77	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-85	10/9/2015	W85-151009-	< 0.003 U	< 0.003 U	8.52	8.29	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-86	10/20/2015	W86-151020-	< 0.003 U	< 0.003 U	6.02	5.98	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-87	10/16/2015	W87-151016-	< 0.003 U	< 0.003 U	9.81	9.37	< 0.001 U	< 0.001 U	< 0.002 U	0.00468	< 0.004 U	< 0.004 U
MW-88	11/2/2015	W88-151102-	< 0.003 U	< 0.003 U	5.04	6.23 D	< 0.001 U	< 0.001 DU	0.00245	0.00256	< 0.004 U	< 0.004 U
MW-89	10/9/2015	W89-151009-	< 0.003 U	< 0.003 U	7.95	7.83	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-90	10/22/2015	W90-151022-	< 0.003 U	< 0.003 U	5.93	6.04	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-91	10/9/2015	W91-151009-	< 0.003 U	< 0.003 U	7.87	7.16	< 0.001 U	< 0.001 U	< 0.002 U	0.00259	< 0.004 U	< 0.004 U
MW-93	10/12/2015	W93-151012-	< 0.003 U	< 0.003 U	9.47	9.4	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	0.00536	0.00672
MW-94	10/8/2015	W94-151008-	< 0.003 U	< 0.003 U	7.14	6.71	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-95	10/22/2015	W95-151022-	< 0.003 U	< 0.003 U	5.55	5.54	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-99	10/16/2015	W99-151016-	< 0.003 U	< 0.003 U	11	10.9	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-100	10/13/2015	W100151013-	< 0.003 U	< 0.003 U	7.48	8.5	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-100Duplicate	10/13/2015	W100151013D	< 0.003 U	< 0.003 U	7.44	8.71	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
MW-101	10/29/2015	W101151029-	< 0.003 U	< 0.003 U	14.8	16.5	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
WS-NPW	12/15/2015	WNPW151215-		< 0.003 U		8.25		< 0.001 U		< 0.002 U		0.00449
EQUIPMENT BLANK	10/8/2015	WU1S151008E	< 0.003 U		< 0.05 U		< 0.001 U		< 0.002 U		< 0.004 U	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater Metals Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Silver, Dissolved	Silver, Total	Sodium, Dissolved	Sodium, Total	Thallium, Dissolved	Thallium, 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)
EQUIPMENT BLANK	10/8/2015	WU1H151008E	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/7/2015	W84-151007F	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/16/2015	W75-151016F	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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)
MW-21	10/13/2015	W21-151013-	< 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
MW-24	10/5/2015	W24-151005-	< 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
MW-27A	10/19/2015	W27A151019-	< 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
MW-29	10/19/2015	W29-151019-	< 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
MW-30A	10/6/2015	W30A151006-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2.19	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	10/23/2015	W43-151023-	< 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
MW-47	10/19/2015	W47-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.543	< 0.2 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-55	10/20/2015	W55-151020-	< 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
MW-56	10/15/2015	W56-151015-	< 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
MW-57	10/2/2015	W57-151002-	< 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
MW-59	10/7/2015	W59-151007-	< 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
MW-60	10/2/2015	W60-151002-	< 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
MW-64	10/8/2015	W64-151008-	< 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
MW-65	10/9/2015	W65-151009-	< 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
MW-66	10/7/2015	W66-151007-	< 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
MW-67	10/7/2015	W67-151007-	< 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
MW-68	10/5/2015	W68-151005-	< 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
MW-69	10/6/2015	W69-151006-	< 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
MW-69 Duplicate	10/6/2015	W69-151006D	< 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
MW-72	10/8/2015	W72-151008-	< 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
MW-73	10/8/2015	W73-151008-	< 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
MW-74	10/16/2015	W74R151016-	< 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
MW-74	11/24/2015	W74R151124-	< 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
MW-74	12/18/2016	W74R151218-	< 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
MW-75	10/16/2015	W75-151016-	< 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
MW-75	11/24/2015	W75-151124-	< 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
MW-75	12/18/2016	W75-151218-	< 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
MW-76	10/2/2015	W76-151002-	< 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
MW-80	10/19/2015	W80-151019-	< 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
MW-81	10/15/2015	W81-151015-	< 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
MW-82	10/2/2015	W82-151002-	< 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
MW-83	10/20/2015	W83-151020-	< 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
MW-84	10/7/2015	W84-151007-	< 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
MW-85	10/9/2015	W85-151009-	< 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
MW-86	10/20/2015	W86-151020-	< 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
MW-87	10/16/2015	W87-151016-	< 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
MW-87	11/24/2015	W87-151124-	< 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
MW-87	12/18/2016	W87-151218-	< 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
MW-88	11/2/2015	W88-151102-	< 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
MW-89	10/9/2015	W89-151009-	< 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
MW-90	10/22/2015	W90-151022-	< 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
MW-91	10/9/2015	W91-151009-	< 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
MW-93	10/12/2015	W93-151012-	< 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
MW-94	10/8/2015	W94-151008-	< 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
MW-95	10/22/2015	W95-151022-	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

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)
MW-99	10/16/2015	W99-151016-	< 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
MW-99	11/24/2015	W99-151124-	< 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
MW-99	12/18/2016	W99-151218-	< 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
MW-100	10/13/2015	W100151013-	< 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
MW-100 Duplicate	10/13/2015	W100151013D	< 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
MW-101	10/29/2015	W101151029-	< 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
WS-NPW	12/15/2015	WNPW151215-	< 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
FIELD BLANK	10/7/2015	W84-151007F	< 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
FIELD BLANK	10/16/2015	W75-151016F	< 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	10/1/2015	VTRP151002B	< 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	10/1/2015	VTRP151002C	< 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	10/2/2015	VTRP151005B	< 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	10/2/2015	VTRP151005C	< 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	10/5/2015	VTRP151006C	< 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	10/5/2015	VTRP151006B	< 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	10/6/2015	VTRP151007B	< 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	10/6/2015	VTRP151007C	< 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	10/7/2015	VTRP151008B	< 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	10/7/2015	VTRP151008C	< 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	10/8/2015	VTRP151009B	< 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	10/8/2015	VTRP151009C	< 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	10/9/2015	VTRP151012B	< 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	10/12/2015	VTRP151015C	< 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	10/12/2015	VTRP151016B	< 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	10/13/2015	VTRP151013C	< 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	10/14/2015	VTRP151016C	< 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	10/16/2015	VTRP151019B	< 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	10/16/2015	VTRP151019C	< 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	10/19/2015	VTRP151020B	< 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	10/19/2015	VTRP151020C	< 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	10/21/2015	VTRP151022B	< 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	10/22/2015	VTRP151023C	< 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	10/28/2015	VTRP151029C	< 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	10/30/2015	VTRP151102C	< 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	11/23/2015	VTRP151124C	< 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	11/23/2015	VTRP151124D	< 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	12/14/2015	VTRP151215C	< 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	12/17/2016	VTRP151218C	< 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	12/17/2016	VTRP151218D	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloro- propane	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichlo ro-methane	Bromoform
			78-87-5 (ug/L)	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)
MW-21	10/13/2015	W21-151013-	< 0.2 U	< 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
MW-24	10/5/2015	W24-151005-	< 0.2 U	< 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
MW-27A	10/19/2015	W27A151019-	< 0.2 U	< 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
MW-29	10/19/2015	W29-151019-	< 0.2 U	< 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
MW-30A	10/6/2015	W30A151006-	< 0.2 U	< 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
MW-43	10/23/2015	W43-151023-	< 0.2 U	< 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
MW-47	10/19/2015	W47-151019-	< 0.2 U	< 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
MW-55	10/20/2015	W55-151020-	< 0.2 U	< 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
MW-56	10/15/2015	W56-151015-	< 0.2 U	< 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
MW-57	10/2/2015	W57-151002-	< 0.2 U	< 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
MW-59	10/7/2015	W59-151007-	< 0.2 U	< 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
MW-60	10/2/2015	W60-151002-	< 0.2 U	< 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
MW-64	10/8/2015	W64-151008-	< 0.2 U	< 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
MW-65	10/9/2015	W65-151009-	< 0.2 U	< 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
MW-66	10/7/2015	W66-151007-	< 0.2 U	< 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
MW-67	10/7/2015	W67-151007-	< 0.2 U	< 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
MW-68	10/5/2015	W68-151005-	< 0.2 U	< 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
MW-69	10/6/2015	W69-151006-	< 0.2 U	< 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
MW-69 Duplicate	10/6/2015	W69-151006D	< 0.2 U	< 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
MW-72	10/8/2015	W72-151008-	< 0.2 U	< 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
MW-73	10/8/2015	W73-151008-	< 0.2 U	< 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
MW-74	10/16/2015	W74R151016-	< 0.2 U	< 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
MW-74	11/24/2015	W74R151124-	< 0.2 U	< 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
MW-74	12/18/2016	W74R151218-	< 0.2 U	< 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
MW-75	10/16/2015	W75-151016-	< 0.2 U	< 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
MW-75	11/24/2015	W75-151124-	< 0.2 U	< 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
MW-75	12/18/2016	W75-151218-	< 0.2 U	< 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
MW-76	10/2/2015	W76-151002-	< 0.2 U	< 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
MW-80	10/19/2015	W80-151019-	< 0.2 U	< 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
MW-81	10/15/2015	W81-151015-	< 0.2 U	< 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
MW-82	10/2/2015	W82-151002-	< 0.2 U	< 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
MW-83	10/20/2015	W83-151020-	< 0.2 U	< 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
MW-84	10/7/2015	W84-151007-	< 0.2 U	< 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
MW-85	10/9/2015	W85-151009-	< 0.2 U	< 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
MW-86	10/20/2015	W86-151020-	< 0.2 U	< 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
MW-87	10/16/2015	W87-151016-	< 0.2 U	< 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
MW-87	11/24/2015	W87-151124-	< 0.2 U	< 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
MW-87	12/18/2016	W87-151218-	< 0.2 U	< 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
MW-88	11/2/2015	W88-151102-	< 0.2 U	< 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
MW-89	10/9/2015	W89-151009-	< 0.2 U	< 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
MW-90	10/22/2015	W90-151022-	< 0.2 U	< 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
MW-91	10/9/2015	W91-151009-	< 0.2 U	< 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
MW-93	10/12/2015	W93-151012-	< 0.2 U	< 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
MW-94	10/8/2015	W94-151008-	< 0.2 U	< 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
MW-95	10/22/2015	W95-151022-	< 0.2 U	< 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

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandv Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloro- propane	1,4-Dichloro- benzene	2-Butanone	2-Hexanone	4-Methyl-2- Pentanone	Acetone	Arylonitrile	Benzene	Bromochloro- methane	Bromodichlo ro-methane	Bromoform
			78-87-5 (ug/L)	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)
MW-99	10/16/2015	W99-151016-	< 0.2 U	< 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
MW-99	11/24/2015	W99-151124-	< 0.2 U	< 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
MW-99	12/18/2016	W99-151218-	< 0.2 U	< 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
MW-100	10/13/2015	W100151013-	< 0.2 U	< 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
MW-100 Duplicate	10/13/2015	W100151013D	< 0.2 U	< 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
MW-101	10/29/2015	W101151029-	< 0.2 U	< 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
WS-NPW	12/15/2015	WNPW151215-	< 0.2 U	< 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
FIELD BLANK	10/7/2015	W84-151007F	< 0.2 U	< 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
FIELD BLANK	10/16/2015	W75-151016F	< 0.2 U	< 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
VOA TRIP BLANK	10/1/2015	VTRP151002B	< 0.2 U	< 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
VOA TRIP BLANK	10/1/2015	VTRP151002C	< 0.2 U	< 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
VOA TRIP BLANK	10/2/2015	VTRP151005B	< 0.2 U	< 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
VOA TRIP BLANK	10/2/2015	VTRP151005C	< 0.2 U	< 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
VOA TRIP BLANK	10/5/2015	VTRP151006C	< 0.2 U	< 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
VOA TRIP BLANK	10/5/2015	VTRP151006B	< 0.2 U	< 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
VOA TRIP BLANK	10/6/2015	VTRP151007B	< 0.2 U	< 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
VOA TRIP BLANK	10/6/2015	VTRP151007C	< 0.2 U	< 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
VOA TRIP BLANK	10/7/2015	VTRP151008B	< 0.2 U	< 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
VOA TRIP BLANK	10/7/2015	VTRP151008C	< 0.2 U	< 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
VOA TRIP BLANK	10/8/2015	VTRP151009B	< 0.2 U	< 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
VOA TRIP BLANK	10/8/2015	VTRP151009C	< 0.2 U	< 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
VOA TRIP BLANK	10/9/2015	VTRP151012B	< 0.2 U	< 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
VOA TRIP BLANK	10/12/2015	VTRP151015C	< 0.2 U	< 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
VOA TRIP BLANK	10/12/2015	VTRP151016B	< 0.2 U	< 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
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 0.2 U	< 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
VOA TRIP BLANK	10/14/2015	VTRP151016C	< 0.2 U	< 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
VOA TRIP BLANK	10/16/2015	VTRP151019B	< 0.2 U	< 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
VOA TRIP BLANK	10/16/2015	VTRP151019C	< 0.2 U	< 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
VOA TRIP BLANK	10/19/2015	VTRP151020B	< 0.2 U	< 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
VOA TRIP BLANK	10/19/2015	VTRP151020C	< 0.2 U	< 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
VOA TRIP BLANK	10/21/2015	VTRP151022B	< 0.2 U	< 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
VOA TRIP BLANK	10/22/2015	VTRP151023C	< 0.2 U	< 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
VOA TRIP BLANK	10/28/2015	VTRP151029C	< 0.2 U	< 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
VOA TRIP BLANK	10/30/2015	VTRP151102C	< 0.2 U	< 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
VOA TRIP BLANK	11/23/2015	VTRP151124C	< 0.2 U	< 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
VOA TRIP BLANK	11/23/2015	VTRP151124D	< 0.2 U	< 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
VOA TRIP BLANK	12/14/2015	VTRP151215C	< 0.2 U	< 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
VOA TRIP BLANK	12/17/2016	VTRP151218C	< 0.2 U	< 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
VOA TRIP BLANK	12/17/2016	VTRP151218D	< 0.2 U	< 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

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Bromo- methane	Carbon Disulfide	Carbon Tetrachloride	Chloro- benzene	Chloro- dibromo- methane	Chloro- ethane	Chloroform	Chloro- methane	cis-1,2- Dichloro- ethene	cis-1,3- Dichloro- propene	Dibromo- methane
			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)	67-66-3 (ug/L)	74-87-3 (ug/L)	156-59-2 (ug/L)	10061-01-5 (ug/L)	74-95-3 (ug/L)
MW-21	10/13/2015	W21-151013-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/5/2015	W24-151005-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	W27A151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-29	10/19/2015	W29-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/6/2015	W30A151006-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	6	< 0.2 U	< 0.2 U
MW-43	10/23/2015	W43-151023-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	W47-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.23 T	< 0.2 U	< 0.2 U	1.31	< 0.2 U	< 0.2 U
MW-55	10/20/2015	W55-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/15/2015	W56-151015-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-57	10/2/2015	W57-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	W59-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.965	< 0.2 U	< 0.2 U
MW-60	10/2/2015	W60-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-64	10/8/2015	W64-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/9/2015	W65-151009-	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/7/2015	W66-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	W67-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/5/2015	W68-151005-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/6/2015	W69-151006-	< 0.2 U	< 0.2 U	< 0.2 U	< 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 Duplicate	10/6/2015	W69-151006D	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/8/2015	W72-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/8/2015	W73-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W74R151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W74R151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	12/18/2016	W74R151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W75-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W75-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
MW-75	12/18/2016	W75-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/2/2015	W76-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.37 T	< 0.2 U	< 0.2 U
MW-80	10/19/2015	W80-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/15/2015	W81-151015-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-82	10/2/2015	W82-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/20/2015	W83-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	W84-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/9/2015	W85-151009-	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/20/2015	W86-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W87-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W87-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.31 T	< 0.2 U	< 0.2 U	< 0.2 U
MW-87	12/18/2016	W87-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/2/2015	W88-151102-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
MW-89	10/9/2015	W89-151009-	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/22/2015	W90-151022-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/9/2015	W91-151009-	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/12/2015	W93-151012-	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/8/2015	W94-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/22/2015	W95-151022-	< 0.2 U	< 0.2 U	< 0.2 U	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Bromo- methane	Carbon Disulfide	Carbon Tetrachloride	Chloro- benzene	Chloro- dibromo- methane	Chloro- ethane	Chloroform	Chloro- methane	cis-1,2- Dichloro- ethene	cis-1,3- Dichloro- propene	Dibromo- methane
			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)	67-66-3 (ug/L)	74-87-3 (ug/L)	156-59-2 (ug/L)	10061-01-5 (ug/L)	74-95-3 (ug/L)
MW-99	10/16/2015	W99-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W99-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/18/2016	W99-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/13/2015	W100151013-	< 0.2 U	< 0.2 U	< 0.2 U	< 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 Duplicate	10/13/2015	W100151013D	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/29/2015	W101151029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
WS-NPW	12/15/2015	WNPW151215-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/7/2015	W84-151007F	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W75-151016F	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/1/2015	VTRP151002B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/1/2015	VTRP151002C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/2/2015	VTRP151005B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/2/2015	VTRP151005C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/5/2015	VTRP151006C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/5/2015	VTRP151006B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/6/2015	VTRP151007B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/6/2015	VTRP151007C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	VTRP151008B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.21 BT	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/7/2015	VTRP151008C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/8/2015	VTRP151009B	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.32 T	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/8/2015	VTRP151009C	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/9/2015	VTRP151012B	< 0.2 U	< 0.2 GU	< 0.2 U	< 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	10/12/2015	VTRP151015C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/12/2015	VTRP151016B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/13/2015	VTRP151013C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/14/2015	VTRP151016C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.26 T	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/16/2015	VTRP151019B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	VTRP151019C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	VTRP151020B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	VTRP151020C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/21/2015	VTRP151022B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.23 T	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/22/2015	VTRP151023C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/28/2015	VTRP151029C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/30/2015	VTRP151102C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/23/2015	VTRP151124C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/23/2015	VTRP151124D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/14/2015	VTRP151215C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/17/2016	VTRP151218C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/17/2016	VTRP151218D	< 0.2 U	< 0.2 U	< 0.2 U	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)	Methyl Iodide 74-88-4 (ug/L)	Methylene Chloride 75-09-2 (ug/L)	o-Xylene 95-47-6 (ug/L)	Styrene 100-42-5 (ug/L)	Tetrachloro- ethene 127-18-4 (ug/L)	Toluene 108-88-3 (ug/L)	trans-1,2- Dichloro- ethene 156-60-5 (ug/L)	trans-1,3- Dichloro- propene 10061-02-6 (ug/L)
MW-21	10/13/2015	W21-151013-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/5/2015	W24-151005-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-27A	10/19/2015	W27A151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-29	10/19/2015	W29-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/6/2015	W30A151006-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-43	10/23/2015	W43-151023-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	W47-151019-	0.609	< 0.2 U	< 0.2 U	< 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-55	10/20/2015	W55-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/15/2015	W56-151015-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-57	10/2/2015	W57-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-59	10/7/2015	W59-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-60	10/2/2015	W60-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-64	10/8/2015	W64-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-65	10/9/2015	W65-151009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-66	10/7/2015	W66-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-67	10/7/2015	W67-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-68	10/5/2015	W68-151005-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69	10/6/2015	W69-151006-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-69 Duplicate	10/6/2015	W69-151006D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-72	10/8/2015	W72-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-73	10/8/2015	W73-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-74	10/16/2015	W74R151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W74R151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/18/2016	W74R151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W75-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W75-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/18/2016	W75-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/2/2015	W76-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	0.478	< 0.2 U	< 0.2 U	< 0.2 U
MW-80	10/19/2015	W80-151019-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/15/2015	W81-151015-	< 0.2 U	< 0.2 U	< 0.2 U	< 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-82	10/2/2015	W82-151002-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-83	10/20/2015	W83-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	W84-151007-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-85	10/9/2015	W85-151009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-86	10/20/2015	W86-151020-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	W87-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W87-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/18/2016	W87-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/2/2015	W88-151102-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/9/2015	W89-151009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-90	10/22/2015	W90-151022-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/9/2015	W91-151009-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-93	10/12/2015	W93-151012-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-94	10/8/2015	W94-151008-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
MW-95	10/22/2015	W95-151022-	< 0.2 U	< 0.2 U	< 0.2 U	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandv Jimenez (206) 477-5224

Site	Date	Sample ID	Dichloro- difluoro- methane 75-71-8 (ug/L)	Ethyl - benzene 100-41-4 (ug/L)	m, p-Xylene (ug/L)	Methyl Iodide 74-88-4 (ug/L)	Methylene Chloride 75-09-2 (ug/L)	o-Xylene 95-47-6 (ug/L)	Styrene 100-42-5 (ug/L)	Tetrachloro- ethene 127-18-4 (ug/L)	Toluene 108-88-3 (ug/L)	trans-1,2- Dichloro- ethene 156-60-5 (ug/L)	trans-1,3- Dichloro- propene 10061-02-6 (ug/L)
MW-99	10/16/2015	W99-151016-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/24/2015	W99-151124-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/18/2016	W99-151218-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/13/2015	W100151013-	< 0.2 U	< 0.2 U	< 0.2 U	< 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 Duplicate	10/13/2015	W100151013D	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/29/2015	W101151029-	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
WS-NPW	12/15/2015	WNPW151215-	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/7/2015	W84-151007F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.583 G	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
FIELD BLANK	10/16/2015	W75-151016F	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.681	< 0.2 U	< 0.2 U	< 0.2 U	0.22 T	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/1/2015	VTRP151002B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/1/2015	VTRP151002C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/2/2015	VTRP151005B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/2/2015	VTRP151005C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/5/2015	VTRP151006C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/5/2015	VTRP151006B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/6/2015	VTRP151007B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/6/2015	VTRP151007C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/7/2015	VTRP151008B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.42 G	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/7/2015	VTRP151008C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.22 GT	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/8/2015	VTRP151009B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.877 G	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/8/2015	VTRP151009C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.39 G	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/9/2015	VTRP151012B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.42 G	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/12/2015	VTRP151015C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.908	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/12/2015	VTRP151016B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1.02	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.36 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/14/2015	VTRP151016C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	VTRP151019B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/16/2015	VTRP151019C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	VTRP151020B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/19/2015	VTRP151020C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/21/2015	VTRP151022B	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/22/2015	VTRP151023C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/28/2015	VTRP151029C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	10/30/2015	VTRP151102C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/23/2015	VTRP151124C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	11/23/2015	VTRP151124D	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/14/2015	VTRP151215C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/17/2016	VTRP151218C	< 0.2 U	< 0.2 U	< 0.2 U	< 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	12/17/2016	VTRP151218D	< 0.2 U	< 0.2 U	< 0.2 U	< 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, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	trans-1,4-Dichloro-2-butene 110-57-6 (ug/L)	Trichloro-ethene 79-01-6 (ug/L)	Trichloro-fluoro-methane 75-69-4 (ug/L)	Vinyl Acetate 108-05-4 (ug/L)	Vinyl Chloride 75-01-4 (ug/L)
MW-21	10/13/2015	W21-151013-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-24	10/5/2015	W24-151005-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-27A	10/19/2015	W27A151019-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-29	10/19/2015	W29-151019-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-30A	10/6/2015	W30A151006-	< 100 U	1.1	< 0.2 U	< 0.2 U	< 0.02 U
MW-43	10/23/2015	W43-151023-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-47	10/19/2015	W47-151019-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	3.88
MW-55	10/20/2015	W55-151020-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-56	10/15/2015	W56-151015-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-57	10/2/2015	W57-151002-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-59	10/7/2015	W59-151007-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-60	10/2/2015	W60-151002-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-64	10/8/2015	W64-151008-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-65	10/9/2015	W65-151009-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.0643
MW-66	10/7/2015	W66-151007-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-67	10/7/2015	W67-151007-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-68	10/5/2015	W68-151005-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-69	10/6/2015	W69-151006-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-69 Duplicate	10/6/2015	W69-151006D	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-72	10/8/2015	W72-151008-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-73	10/8/2015	W73-151008-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	10/16/2015	W74R151016-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-74	11/24/2015	W74R151124-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
MW-74	12/18/2016	W74R151218-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	10/16/2015	W75-151016-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-75	11/24/2015	W75-151124-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
MW-75	12/18/2016	W75-151218-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-76	10/2/2015	W76-151002-	< 100 U	9.58	< 0.2 U	< 0.2 U	< 0.02 U
MW-80	10/19/2015	W80-151019-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-81	10/15/2015	W81-151015-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-82	10/2/2015	W82-151002-	< 100 U	5.57	< 0.2 U	< 0.2 U	< 0.02 U
MW-83	10/20/2015	W83-151020-	< 100 U	1.8	< 0.2 U	< 0.2 U	< 0.02 U
MW-84	10/7/2015	W84-151007-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-85	10/9/2015	W85-151009-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-86	10/20/2015	W86-151020-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	10/16/2015	W87-151016-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	11/24/2015	W87-151124-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-87	12/18/2016	W87-151218-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-88	11/2/2015	W88-151102-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
MW-89	10/9/2015	W89-151009-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-90	10/22/2015	W90-151022-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-91	10/9/2015	W91-151009-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-93	10/12/2015	W93-151012-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-94	10/8/2015	W94-151008-	< 100 U	2.86	< 0.2 U	< 0.2 U	< 0.02 U
MW-95	10/22/2015	W95-151022-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Groundwater VOAs Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	trans-1,4-Dichloro-2-butene 110-57-6 (ug/L)	Trichloro-ethene 79-01-6 (ug/L)	Trichloro-fluoro-methane 75-69-4 (ug/L)	Vinyl Acetate 108-05-4 (ug/L)	Vinyl Chloride 75-01-4 (ug/L)
MW-99	10/16/2015	W99-151016-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-99	11/24/2015	W99-151124-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-99	12/18/2016	W99-151218-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-100	10/13/2015	W100151013-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-100 Duplicate	10/13/2015	W100151013D	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
MW-101	10/29/2015	W101151029-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.126 G
WS-NPW	12/15/2015	WNPW151215-	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	10/7/2015	W84-151007F	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
FIELD BLANK	10/16/2015	W75-151016F	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/1/2015	VTRP151002B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/1/2015	VTRP151002C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/2/2015	VTRP151005B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/2/2015	VTRP151005C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/5/2015	VTRP151006C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/5/2015	VTRP151006B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/6/2015	VTRP151007B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/6/2015	VTRP151007C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/7/2015	VTRP151008B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/7/2015	VTRP151008C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/8/2015	VTRP151009B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/8/2015	VTRP151009C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/9/2015	VTRP151012B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/12/2015	VTRP151015C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/12/2015	VTRP151016B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/14/2015	VTRP151016C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/16/2015	VTRP151019B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/16/2015	VTRP151019C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/19/2015	VTRP151020B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/19/2015	VTRP151020C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/21/2015	VTRP151022B	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/22/2015	VTRP151023C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	10/28/2015	VTRP151029C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
VOA TRIP BLANK	10/30/2015	VTRP151102C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
VOA TRIP BLANK	11/23/2015	VTRP151124C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	11/23/2015	VTRP151124D	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 GU
VOA TRIP BLANK	12/14/2015	VTRP151215C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/17/2016	VTRP151218C	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U
VOA TRIP BLANK	12/17/2016	VTRP151218D	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U

Surface Water Analytical Data



Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2015 - 12/31/2015

Outfall: GS1 - Discharge to unnamed stream (wetland)

Version: 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol, alpha, alpha, trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1	GS1
	Limit Set	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-W	10/7/15	39.7	7.27	N	5.68	9.3	5.93	29.6	0.387	<5	<50	<10
4-T	10/20/15	12										
4-W	10/21/15	46.7	6.86	N	8.66	11.5	11.6	12.6	0.46			
4-F	10/23/15	36.4										
8-Su	11/15/15	36										
9-W	11/25/15	15.4										
10-M	11/30/15	12.8	7		5.04	5.14		6.8	0.516			
12-T	12/15/15	19.2	7.06		3.41	5.52		9	0.0669			
13-W	12/23/15	18.6										
13-Th	12/24/15	20.3										
14-W	12/30/15	17.2										
14-Th	12/31/15	14.4										
Minimum			6.86 BM: >= 5.0 (RO)									
Average		24.0583 BM: <= 25			5.70 BM: <= 14	7.87 BM: <= 117						
Maximum			7.27 BM: <= 9.0 (RO)									
Month 1 Average							8.77 <= 37	21.1 <= 27	.42 <= 4.9	<5 <= 16	<10 <= 71	<4 <= 14
Month 2 Average							M <= 37	6.8 <= 27	.516 <= 4.9	M <= 16	M <= 71	M <= 14
Month 3 Average							M <= 37	9 <= 27	0.0669 <= 4.9	M <= 16	M <= 71	M <= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP



Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		GS1	GS1	GS1
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
2-W	10/7/15	<4	9.3	7.27
4-T	10/20/15			
4-W	10/21/15		11.5	6.86
4-F	10/23/15			
8-Su	11/15/15			
9-W	11/25/15			
10-M	11/30/15			
12-T	12/15/15			
13-W	12/23/15			
13-Th	12/24/15			
14-W	12/30/15			
14-Th	12/31/15			
Minimum				6.86
				>= 6.0 (RO)
Average				
Maximum				7.27
				<= 9.0 (RO)
Month 1 Average		10.4	7.07	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	M	
		<= 15	<= 110	



Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2015 - 12/31/2015

Outfall: N4 - Discharge to unnamed stream (McDonald Cr)

Version: 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol,,alpha.,alpha.,trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		N4	N4	N4	N4	N4	N4	N4	N4	N4	N4	N4
Limit Set		ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
3-T	10/13/15	5.08	6.99	N	10.7	59.7	<2	2.9	0.077	<5	<50	<10
4-W	10/21/15	1.74	7.06	N	5.48	40.4	<2	1.9	0.0608	M	M	M
12-M	12/14/15	4.35	7.08	N	14	33.9	M	1.6	0.0189	M	M	M
Minimum			6.99 BM: >= 5.0 (RO)									
Average		3.72333 BM: <= 25			10.06 BM: <= 14	44.6667 BM: <= 117						
Maximum			7.08 BM: <= 9.0 (RO)									
Month 1 Average							<2 <= 37	2.4 <= 27	0.0689 <= 4.9	<5 <= 16	<50 <= 71	<10 <= 14
Month 2 Average							M <= 37	M <= 27	M <= 4.9	M <= 16	M <= 71	M <= 14
Month 3 Average							M <= 37	1.6 <= 27	0.0189 <= 4.9	M <= 16	M <= 71	M <= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP



		Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
Week	Monitoring Point	N4	N4	N4
Limit Set		ISGP Non- Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non- Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non- Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
3-T	10/13/15	<4	59.7	6.99
4-W	10/21/15	M	40.4	7.06
12-M	12/14/15	M	33.9	7.08
Minimum				6.99
				>= 6.0 (RO)
Average				
Maximum				7.08
				<= 9.0 (RO)
Month 1 Average		<4	50.05	
		<= 15	<= 110	
Month 2 Average		M	M	
		<= 15	<= 110	
Month 3 Average		M	33.9	
		<= 15	<= 110	



Permit Number: WAR000756

Permittee: CEDAR HILLS LANDFILL

Facility County: King

Receiving Waterbody: Unnamed stream

Monitoring Period: 10/01/2015 - 12/31/2015

Outfall: SL3 - Discharge to unnamed stream (ditch)

Version: 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol, alpha, alpha, trimethyl)- Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3	SL3
	Limit Set	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Western WA - 2015 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
3-M	10/12/15	15.6	7.32	N	6.69	11.6	<2	3.8	<0.01	<5	<50	<10
3-W	10/14/15	2.19	6.96	N	4.2	6.87	<2	1	<0.01	<5	<50	<10
4-W	10/21/15	4.22	6.91	N	3.64	7.52	<2	<1	<0.01	M	M	M
10-M	11/30/15	1.62	7.445	N	3.145	7.18	<2	1.6	0.0188	<5	<50	<10
11-M	12/7/15	12.5	7.63	N	5.43	9.57	<2	1.9	<0.01	<5	<50	<10
12-T	12/15/15	14.9	7.54	N	7.45	15.8	M	2.3	0.0107	M	M	M
Minimum			6.91									
			BM: >= 5.0 (RO)									
Average		8.505			5.0925	9.75667						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			7.63									
			BM: <= 9.0 (RO)									
Month 1 Average							<2	2.4	<0.01	<5	<50	<10
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							<2	1.6	0.0188	<5	<50	<10
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							<2	2.1	0.0107	<5	<50	<10
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, M - Monitoring Is Conditional/Not Req This MP

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Pamela Badger

2/5/2016 4:00:22 PM

Signature

Date



		Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
Week	Monitoring Point	SL3	SL3	SL3
		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2015 permit
Limit Set				
3-M	10/12/15	<4	11.6	7.32
3-W	10/14/15	<4	6.87	6.96
4-W	10/21/15	M	7.52	6.91
10-M	11/30/15	<4	7.225	7.445
11-M	12/7/15	<4	9.57	7.63
12-T	12/15/15	M	15.8	7.54
Minimum				6.91
				>= 6.0 (RO)
Average				
Maximum				7.63
				<= 9.0 (RO)
Month 1 Average		<4	12.53	
		<= 15	<= 110	
Month 2 Average		<4	7.225	
		<= 15	<= 110	
Month 3 Average		<4	12.685	
		<= 15	<= 110	

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

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

Contact Person: Sandy Jimenez (206) 477-5224

Staff Gage	Location	Date	Reference Elevation Staff Gage (0') (msl in feet)	Staff Gage Reading (feet)	Staff Gage Surface Water Elevation (msl in feet)	Reference Elevation Top of Piezo (msl in feet)	Depth to Water (Piezometer) (feet)	Piezo Surface Water Elevation (msl in feet)	Comment
SW-G1	SW-W1	10/21/2015	415.38	0.75	416.13	418.84		--	
SW-G1	SW-W1	11/16/2015	415.38	0.95	416.33	418.84		--	Heavy flow.
SW-G1	SW-W1	12/8/2015	415.38	2.14	417.52	418.84		--	
SW-G2	SW-N1	10/21/2015	355.68	0.48	356.16	358.21		--	Flowing
SW-G2	SW-N1	11/16/2015	355.68	1.00	356.68	358.21		--	
SW-G2	SW-N1	12/8/2015	355.68	2.74	358.42	358.21		--	
SW-G3	SW-V	11/16/2015	466.46	0.10	466.56	469.88		--	At notch. 0.22 ft of water over notch.
SW-G3	SW-V	12/8/2015	466.46	1.19	467.65	469.88		--	
SW-G4	Upstream of SW-E1	11/16/2015	502.41	0.51	502.92	505.85		--	
SW-G4	Upstream of SW-E1	12/8/2015	502.41	0.89	503.30	505.85		--	
SW-G5	SW-E1	11/16/2015	486.92	0.71	487.63	490.34		--	
SW-G5	SW-E1	12/8/2015	486.92	2.20	489.12	490.34		--	
SW-G6	Upstream of SW-GS1	10/21/2015	490.72		--	494.12	2.87	491.25	
SW-G6	Upstream of SW-GS1	11/16/2015	490.72	0.80	491.52	494.12		--	
SW-G6	Upstream of SW-GS1	12/8/2015	490.72	2.38	493.10	494.12		--	
SW-G7	SW-S2	10/21/2015	453.03		--	456.41	3.81	452.60	
SW-G7	SW-S2	11/18/2015	453.03		NR	456.41		NR	Could not find this gauge.
SW-G7	SW-S2	12/8/2015	453.03	1.55	454.58	456.41		--	
SW-G8	Upstream of SW-S1	11/18/2015	510.61	0.83	511.44	515.56		--	
SW-G8	Upstream of SW-S1	12/8/2015	510.61	3.11	513.72	515.56		--	
SW-G9	SW-S1	11/18/2015	490.93	1.10	492.03	494.35		--	
SW-G9	SW-S1	12/8/2015	490.93	2.73	493.66	494.35		--	

NR = No Reading Taken

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Field Parameters

Contact Person: ~~Sandy Jimenez (206) 477-5224~~

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Dissolved Oxygen	Temperature	Turbidity
			(std. Units)	(umhos/cm)	(mg/L)	(° C)	(NTU)
SW-E1	11/18/2015	SE1-151118Q	6.19	47	8.23	8.8	1.99
SW-E1	12/14/2015	SE1-151214M	6.43	50	9.99	7.5	1.1
SW-EMER	11/2/2015	SSSWA151102E	7.65	460		11.6	
SW-EMER	11/4/2015	SSSWA151104E	7.18	640		10.6	
SW-GS1	10/7/2015	SGS1151007P	7.27	140	7.95	11.2	39.7
SW-GS1	10/21/2015	SGS1151021Q	6.86	180	7.72	11.6	46.7
SW-GS1	11/30/2015	SGS1151130M	7	215	5.67	4.8	12.8
SW-GS1	12/15/2015	SGS1151215M	7.06	98	11.71	6.8	19.2
SW-MC	10/22/2015	SMC-151022Q	8.15	125	7.44	11.4	1.46
SW-MC	11/18/2015	SMC-151118M	6.87	84	10.54	9.8	3.55
SW-MC	12/15/2015	SMC-151215M	6.71	92	11.5	7.4	3.19
SW-N1	10/21/2015	SN1-151021Q	6.52	130	7.78	13.6	1.53
SW-N1	11/16/2015	SN1-151116M	7.38	88	10.87	8.8	3.11
SW-N1	12/14/2015	SN1-151214M	7.3	85	11.15	8.2	2.98
SW-N4	10/13/2015	SN4-151013P	6.99	125	9.08	14.6	5.08
SW-N4	10/21/2015	SN4-151021Q	7.06	145	9.13	13.6	1.74
SW-N4	11/16/2015	SN4-151116M	7.17	85	10.94	9.5	4.34
SW-N4	12/14/2015	SN4-151214M	7.08	82	12.25	8.4	4.35
SW-S1	11/18/2015	SS1-151118Q	6.44	65	9.41	8.1	0.42
SW-S1	12/14/2015	SS1-151214M	6.47	53	10.21	7	0.58
SW-S2	10/21/2015	SS2-151021Q	6.65	125	6.88	11.5	2.4
SW-S2	11/18/2015	SS2-151118M	6.76	110	8.59	8.1	11.4
SW-S2	12/14/2015	SS2-151214M	6.64	90	9.64	7.4	12.7
SW-S3	12/15/2015	SS3-151215Q	7.33	78	11.22	7.7	10.1
SW-SL3	10/12/2015	SSL3151012P	7.32	125	7.37	13.2	15.6
SW-SL3	10/14/2015	SSL3151014P	6.96	105	6.51	13	2.19
SW-SL3	10/21/2015	SSL3151021Q	6.91	120	3.72	11.4	4.22
SW-SL3	11/30/2015	SSL3151130M	7.45	100	9.8	2.7	1.84
SW-SL3	11/30/2015	SSL3151130P	7.44	100	10.19	3.4	1.4
SW-SL3	12/7/2015	SSL3151207P	7.63	75	10.29	8	12.5

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (as CaCO ₃) (mg/L)	Ammonia, (NH ₃ as N) (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 (NO ₃ as N) (mg/L)
SW-E1	11/18/2015	SE1-151118Q	8.15	< 0.01 U	< 2 U	16 T	1.93	28	260	< 0.02 U	< 0.1 U	15.6	1.77
SW-E1	12/14/2015	SE1-151214M	8.66	< 0.01 U		< 5 U	2.12	22	40			16.3	1.58
SW-EMER	11/2/2015	SSSWA151102E	185	2.01	45.7	296	60.3	180	100000 C	< 0.02 U	0.22 T	172	
SW-GS1	10/7/2015	SGS1151007P		0.387	5.93								
SW-GS1	10/21/2015	SGS1151021O	44.4	0.46 T	11.6	33	17.1	7000	80000 G	< 0.02 U	< 0.1 U	69.7	0.0864
SW-GS1	11/30/2015	SGS1151130M	105	0.516		57.2	15.1	280	2800			110	0.256
SW-GS1	12/15/2015	SGS1151215M	26.6	0.0669		6.3 T	3.38	50	3500			39.3	1.3
SW-MC	10/22/2015	SMC-151022Q	24.2	< 0.01 U	< 2 U	16 T	6	70	420	< 0.02 U	< 0.1 U	52.3	1.5
SW-MC	11/18/2015	SMC-151118M	21	< 0.01 U		16 T	2.37	52	420			32.7	1.88
SW-MC	12/15/2015	SMC-151215M	19.7	< 0.01 U		7.1 T	2.67	11	140			32.4	1.64
SW-N1	10/21/2015	SN1-151021O	24.4	< 0.01 U	< 2 U	12 T	5.97	28	460	< 0.02 U	< 0.1 U	53.7	1.97
SW-N1	11/16/2015	SN1-151116M	21.4	< 0.01 U		16 T	2.24	23	220			37.4	2.04
SW-N1	12/14/2015	SN1-151214M	19.9	< 0.01 U		9.5 T	2.44	22	59			31.2	1.49
SW-N4	10/13/2015	SN4-151013P		0.077	< 2 U								
SW-N4	10/21/2015	SN4-151021Q	24.8	0.0608	< 2 U	15 T	6.79	4	160	< 0.02 U	< 0.1 U	62.9	3
SW-N4	11/16/2015	SN4-151116M	21.6	0.0179		20 T	0.929	23	1000			37.2	1.52
SW-N4	12/14/2015	SN4-151214M	20.4	0.0189		13 T	1.59	60	66			32.3	0.854
SW-S1	11/18/2015	SS1-151118O	8.11	< 0.01 U	< 2 U	9.2 T	2.69	31	200	< 0.02 U	< 0.1 U	20.7	3.73
SW-S1	12/14/2015	SS1-151214M	7.44	< 0.01 U		8.6 T	2.6	14	59			19.1	2.59
SW-S2	10/21/2015	SS2-151021O	24.4	< 0.01 U	< 2 U	16 T	9.69	68	510	< 0.02 U	< 0.1 U	52	0.0653
SW-S2	11/18/2015	SS2-151118M	32.6	0.0127		15 T	3.72	47	900			39.7	1.39
SW-S2	12/14/2015	SS2-151214M	27.1	< 0.01 U		9 T	3.48	9 C	330			37.8	1.46
SW-S3	12/15/2015	SS3-151215Q	28.4	< 0.01 U	< 2 U	14 T	1.95	13	230	< 0.02 U	< 0.1 U	34.8	0.689
SW-SL3	10/12/2015	SSL3151012P		< 0.01 U	< 2 U								
SW-SL3	10/14/2015	SSL3151014P		< 0.01 U	< 2 U			52	1800				
SW-SL3	10/21/2015	SSL3151021O	38.4	< 0.01 U	< 2 U	9.8 T	5.72	5	480	< 0.02 U	< 0.1 U	50.2	0.01 T
SW-SL3	11/30/2015	SSL3151130M	41.4	0.0188		10 T	2.64	6	200			52.6	0.655
SW-SL3	11/30/2015	SSL3151130P		< 0.01 U	< 2 U			4	170				
SW-SL3	12/7/2015	SSL3151207P		< 0.01 U	< 2 U			60	800				
SW-SL3	12/15/2015	SSL3151215M	24.2	0.0107		11 T	1.94	12	130			36.9	0.625
SW-SLP1	10/14/2015	SLP1151014P		0.0451	< 2 U			74	1900				
SW-SLP1	11/30/2015	SLP1151130P		0.0549	< 2 U			6	180				
SW-SLP1	12/7/2015	SLP1151207P		< 0.01 U	3.06			1400	9000				
SW-SLP2	10/14/2015	SLP2151014P		< 0.01 U	< 2 U			130	3800				
SW-SLP2	11/30/2015	SLP2151130P		< 0.01 U	< 2 U			9	140				
SW-SLP2	12/7/2015	SLP2151207P		0.0183	< 2 U			460	23000				
SW-SLP3	12/7/2015	SLP3151207P		< 0.01 U	3.74			1500	22000				
SW-TD1	10/26/2015	STD1151026-	89.5			72.7	1.85						
SW-TD2	10/26/2015	STD2151026-	7.61			42.5	0.391						
SW-TD4	10/26/2015	STD4151026-	12			53.3	3.07						
SW-TD6	10/26/2015	STD6151026-	24.2			57.7	10.3						
SW-V	11/16/2015	SV--151116Q	29.5	< 0.01 U	< 2 U	< 5 U	3.21	1	33	< 0.02 U	< 0.1 U	39.3	0.818
SW-V	12/14/2015	SV--151214M	19	< 0.01 U		< 5 U	2.67	< 1 U	18			27.8	1.91
SW-W	11/18/2015	SW--151118Q	16.6	< 0.01 U	< 2 U	24.5	3.99	260	700	< 0.02 U	< 0.1 U	27.9	1.99

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (as CaCO ₃) (mg/L)	Ammonia, (NH ₃ as N) (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 (NO ₃ as N) (mg/L)
SW-W	12/15/2015	SW--151215M	19	0.0171		15 T	3.84	33	340			30	1.72
SW-W1	10/21/2015	SW1-151021Q	63.8	< 0.01 U	< 2 U	8.4 T	4.33	5	110	< 0.02 U	< 0.1 U	64.3	0.792
SW-W1	11/16/2015	SW1-151116M	21.2	< 0.01 U		20.1	4.75	67	270			36.1	3.37
SW-W1	12/14/2015	SW1-151214M	22.6	< 0.01 U		< 5 U	4.04	61	310			50.4	2.08
SW-W2	11/18/2015	SW2-151118O	8.52	< 0.01 U	< 2 U	9.1 T	2.75	18	180	< 0.02 U	< 0.1 U	20.8	3.6
SW-W2	12/14/2015	SW2-151214M	8.16	< 0.01 U		6.1 T	2.68	10	26			19	2.36
EQUIPMENT BLANK	10/8/2015	WU1M151008E		< 0.01 U									
FIELD BLANK	10/21/2015	SN1-151021F	< 1 U	< 0.01 U	< 2 U	7.1 T	< 0.1 U	< 1 U	< 1 U	< 0.02 U	< 0.1 U	< 1 U	< 0.01 U
FIELD BLANK	10/14/2015	SSL3151014F		< 0.01 U	< 2 U			< 1 U	< 1 U				
FIELD BLANK	12/14/2015	SW2-151214F	< 1 U	0.0267		< 5 U	< 0.1 U	< 1 U	< 1 U			< 1 U	< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Nitrate + Nitrite (NO ₃ + NO ₂ as N) (mg/L)	Phosphorous, Soluble Reactive (mg/L)	Specific Conductance (umhos/cm)	Sulfate, (SO ₄) (mg/L)	Total Sulfide (mg/L)	Total Dissolved Solids (mg/L)	Total Fats, Oils, & Grease (mg/L)	Total Kjeldahl Nitrogen (TKN as N) (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)
SW-E1	11/18/2015	SE1-151118Q	1.77	< 0.01 U	52.1	2.46		40.7		0.325	4.82	50.7
SW-E1	12/14/2015	SE1-151214M	1.58	< 0.01 U	48.5	1.88		39.3		0.234	3.61	38
SW-EMER	11/2/2015	SSSWA151102E	0.683	0.013 T	583	17.6	< 0.01 U		< 2 U	10.9	107	
SW-GS1	10/7/2015	SGS1151007P										
SW-GS1	10/21/2015	SGS1151021O	0.102	< 0.01 U	201	20.6		179		2.26	19.2	190
SW-GS1	11/30/2015	SGS1151130M	0.273	0.011	288	8.35		211		2.25	16.8	219
SW-GS1	12/15/2015	SGS1151215M	1.3	< 0.01 U	103	5.94		78		0.469	5.85	84.7
SW-MC	10/22/2015	SMC-151022Q	1.5	< 0.01 U	144	24.7		118		1.03	10.5	132
SW-MC	11/18/2015	SMC-151118M	1.88	0.0358	93.1	7.81		64		0.706	6.63	74
SW-MC	12/15/2015	SMC-151215M	1.64	0.0174	86.6	6.07		61.3		0.397	4.6	57.3
SW-N1	10/21/2015	SN1-151021O	1.97	0.116	154	25.6		131		0.509	9	152
SW-N1	11/16/2015	SN1-151116M	2.04	0.0513	100	8.98		80.7		0.473	7.46	84.7
SW-N1	12/14/2015	SN1-151214M	1.49	0.0214	83.6	6.11		61.3		0.253	4.88	66.7
SW-N4	10/13/2015	SN4-151013P										
SW-N4	10/21/2015	SN4-151021Q	3.04	< 0.01 U	174	30.8		146		1.09	9.99	170
SW-N4	11/16/2015	SN4-151116M	1.52	0.0839	97.1	11.5		80		0.45	9.5	89.3
SW-N4	12/14/2015	SN4-151214M	0.854	0.04	79.4	7.09		62.7		0.504	5.82	66
SW-S1	11/18/2015	SS1-151118O	3.73	< 0.01 U	71.5	3.32		53.3		0.466	4.47	60.7
SW-S1	12/14/2015	SS1-151214M	2.59	< 0.01 U	57.8	2.43		46		0.14 T	3.74	44
SW-S2	10/21/2015	SS2-151021O	0.0653	< 0.01 U	138	20.5		115		0.771	11	115
SW-S2	11/18/2015	SS2-151118M	1.4	0.0155	115	7.49		76.7		0.595	6.25	85.3
SW-S2	12/14/2015	SS2-151214M	1.46	< 0.01 U	101	5.36		69.3		0.366	5.19	70
SW-S3	12/15/2015	SS3-151215Q	0.689	0.0183	86.3	5.14		62		0.31	4.41	65.3
SW-SL3	10/12/2015	SSL3151012P										
SW-SL3	10/14/2015	SSL3151014P										
SW-SL3	10/21/2015	SSL3151021O	0.01 T	< 0.01 U	134	15.3		89.4		0.316	7.96	95.2
SW-SL3	11/30/2015	SSL3151130M	0.655	< 0.01 U	122	9.33		82.7		0.238	3.63	142
SW-SL3	11/30/2015	SSL3151130P										
SW-SL3	12/7/2015	SSL3151207P										
SW-SL3	12/15/2015	SSL3151215M	0.625	0.0275	85.9	5.24		63.3		0.313	5.33	68
SW-SLP1	10/14/2015	SLP1151014P										
SW-SLP1	11/30/2015	SLP1151130P										
SW-SLP1	12/7/2015	SLP1151207P										
SW-SLP2	10/14/2015	SLP2151014P										
SW-SLP2	11/30/2015	SLP2151130P										
SW-SLP2	12/7/2015	SLP2151207P										
SW-SLP3	12/7/2015	SLP3151207P										
SW-TD1	10/26/2015	STD1151026-				39.1					38	
SW-TD2	10/26/2015	STD2151026-				4.13					18	
SW-TD4	10/26/2015	STD4151026-				6.37					26.3	
SW-TD6	10/26/2015	STD6151026-				20.5					31.3	
SW-V	11/16/2015	SV--151116Q	0.818	< 0.01 U	113	11		78.7		0.19 T	2.21	79.3
SW-V	12/14/2015	SV--151214M	1.91	< 0.01 U	86.3	6.48		59.3		0.19 T	1.52	60
SW-W	11/18/2015	SW--151118Q	1.99	0.0149	87	5.86		76		0.522	9.27	81.3

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Nitrate + Nitrite (NO ₃ + NO ₂ as N) (mg/L)	Phosphorous, Soluble Reactive (mg/L)	Specific Conductance (umhos/cm)	Sulfate, (SO ₄) (mg/L)	Total Sulfide (mg/L)	Total Dissolved Solids (mg/L)	Total Fats, Oils, & Grease (mg/L)	Total Kjeldahl Nitrogen (TKN as N) (mg/L)	Total Organic Carbon (mg/L)	Total Solids (mg/L)
SW-W	12/15/2015	SW--151215M	1.72	< 0.01 U	86.6	5.21		70.7		0.457	6.61	72.7
SW-W1	10/21/2015	SW1-151021Q	0.792	0.0116	161	5.76		112		0.595	5.42	117
SW-W1	11/16/2015	SW1-151116M	3.37	< 0.01 U	112	6.43		74.7		0.51	4.65	86
SW-W1	12/14/2015	SW1-151214M	2.08	< 0.01 U	97.9	5.48		63.3		0.317	3.86	56.7
SW-W2	11/18/2015	SW2-151118O	3.6	< 0.01 U	71.1	3.26		54.7		0.44	4.67	58.7
SW-W2	12/14/2015	SW2-151214M	2.36	< 0.01 U	58.6	2.63		43.3		0.264	3.96	47.3
EQUIPMENT BLANK	10/8/2015	WU1M151008E	< 0.01 U	< 0.01 U								
FIELD BLANK	10/21/2015	SN1-151021F	< 0.01 U	< 0.01 U	1.5 T	< 0.1 U		< 5 U		< 0.1 U	< 1 U	< 5 U
FIELD BLANK	10/14/2015	SSL3151014F										
FIELD BLANK	12/14/2015	SW2-151214F	< 0.01 U	< 0.01 U	1.6 T	< 0.1 U		< 5 U		< 0.1 U	< 1 U	< 5 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Total Suspended Solids (mg/L)	Total Volatile Solids (mg/L)	Volatile Suspended Solids (mg/L)
SW-E1	11/18/2015	SE1-151118Q	< 1 U		
SW-E1	12/14/2015	SE1-151214M	< 1 U		
SW-EMER	11/2/2015	SSSWA151102E	145	371	40
SW-GS1	10/7/2015	SGS1151007P	29.6		
SW-GS1	10/21/2015	SGS1151021O	12.6		
SW-GS1	11/30/2015	SGS1151130M	6.8		
SW-GS1	12/15/2015	SGS1151215M	9		
SW-MC	10/22/2015	SMC-151022Q	2.6		
SW-MC	11/18/2015	SMC-151118M	1.4 T		
SW-MC	12/15/2015	SMC-151215M	2.4		
SW-N1	10/21/2015	SN1-151021O	< 1 U		
SW-N1	11/16/2015	SN1-151116M	1.3		
SW-N1	12/14/2015	SN1-151214M	1.9		
SW-N4	10/13/2015	SN4-151013P	2.9		
SW-N4	10/21/2015	SN4-151021Q	1.9		
SW-N4	11/16/2015	SN4-151116M	1 T		
SW-N4	12/14/2015	SN4-151214M	1.6		
SW-S1	11/18/2015	SS1-151118Q	< 1 U		
SW-S1	12/14/2015	SS1-151214M	< 1 U		
SW-S2	10/21/2015	SS2-151021O	1.1		
SW-S2	11/18/2015	SS2-151118M	1.8		
SW-S2	12/14/2015	SS2-151214M	2.2		
SW-S3	12/15/2015	SS3-151215Q	1.7		
SW-SL3	10/12/2015	SSL3151012P	3.8		
SW-SL3	10/14/2015	SSL3151014P	1		
SW-SL3	10/21/2015	SSL3151021O	< 1 U		
SW-SL3	11/30/2015	SSL3151130M	1.6		
SW-SL3	11/30/2015	SSL3151130P	< 1 U		
SW-SL3	12/7/2015	SSL3151207P	1.9		
SW-SL3	12/15/2015	SSL3151215M	2.3		
SW-SLP1	10/14/2015	SLP1151014P	1.4		
SW-SLP1	11/30/2015	SLP1151130P	3.2		
SW-SLP1	12/7/2015	SLP1151207P	189		
SW-SLP2	10/14/2015	SLP2151014P	< 1 U		
SW-SLP2	11/30/2015	SLP2151130P	< 1 U		
SW-SLP2	12/7/2015	SLP2151207P	83.2		
SW-SLP3	12/7/2015	SLP3151207P	283		
SW-TD1	10/26/2015	STD1151026-			
SW-TD2	10/26/2015	STD2151026-			
SW-TD4	10/26/2015	STD4151026-			
SW-TD6	10/26/2015	STD6151026-			
SW-V	11/16/2015	SV--151116Q	< 1 U		
SW-V	12/14/2015	SV--151214M	< 1 U		
SW-W	11/18/2015	SW--151118Q	1		

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Conventional Analytical Data

Contact Person: Sandy Jimenez (206) 477-5224

Site	Date	Sample ID	Total Suspended Solids (mg/L)	Total Volatile Solids (mg/L)	Volatile Suspended Solids (mg/L)
SW-W	12/15/2015	SW--151215M	2.2		
SW-W1	10/21/2015	SW1-151021Q	13.6		
SW-W1	11/16/2015	SW1-151116M	1.4		
SW-W1	12/14/2015	SW1-151214M	2.1		
SW-W2	11/18/2015	SW2-151118O	< 1 U		
SW-W2	12/14/2015	SW2-151214M	< 1 U		
EQUIPMENT BLANK	10/8/2015	WU1M151008E			
FIELD BLANK	10/21/2015	SN1-151021F	< 1 U		
FIELD BLANK	10/14/2015	SSL3151014F	< 1 U		
FIELD BLANK	12/14/2015	SW2-151214F	< 1 U		

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, Dissolved	Aluminum, Total	Antimony, Dissolved	Antimony, Total	Arsenic, Dissolved	Arsenic, Total	Barium, Dissolved	Barium, Total	Beryllium, Dissolved	Beryllium, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/18/2015	SE1-151118O	0.0709	0.141	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00327	0.00346	< 0.001 U	< 0.001 U
SW-E1	12/14/2015	SE1-151214M	0.0547	0.0922 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00324	0.00362	< 0.001 U	< 0.001 U
SW-GS1	10/7/2015	SGS1151007P										
SW-GS1	10/21/2015	SGS1151021Q	0.106	2.08	< 0.001 U	< 0.001 U	0.0019	0.00264	0.0178	0.0292	< 0.001 U	< 0.001 U
SW-GS1	11/30/2015	SGS1151130M	0.0443	0.489	< 0.001 U	< 0.001 U	0.00255	0.00318	0.0143	0.0198	< 0.001 U	< 0.001 U
SW-GS1	12/15/2015	SGS1151215M	0.0338	0.855 D	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	0.00706	0.0126	< 0.001 U	< 0.001 U
SW-SLP1	10/14/2015	SLP1151014P										
SW-SLP1	11/30/2015	SLP1151130P										
SW-SLP1	12/7/2015	SLP1151207P										
SW-SLP2	10/14/2015	SLP2151014P										
SW-SLP2	11/30/2015	SLP2151130P										
SW-SLP2	12/7/2015	SLP2151207P										
SW-SLP3	12/7/2015	SLP3151207P										
SW-MC	10/22/2015	SMC-151022O	0.0224	0.172	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00815	0.00955	< 0.001 U	< 0.001 U
SW-MC	11/18/2015	SMC-151118M	0.0464	0.24	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00483	0.0057	< 0.001 U	< 0.001 U
SW-MC	12/15/2015	SMC-151215M	0.0463	0.234 D	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	0.00432	0.00612	< 0.001 U	< 0.001 U
SW-N1	10/21/2015	SN1-151021Q	0.0202	0.0721	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00818	0.00857	< 0.001 U	< 0.001 U
SW-N1	11/16/2015	SN1-151116M	0.0521 D	0.17	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00522	0.00631	< 0.001 DU	< 0.001 DU
SW-N1	12/14/2015	SN1-151214M	0.0401	0.216 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00457	0.00568	< 0.001 U	< 0.001 U
SW-N4	10/13/2015	SN4-151013P										
SW-N4	10/21/2015	SN4-151021O	< 0.02 U	0.0421	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00972	0.0113	< 0.001 U	< 0.001 U
SW-N4	11/16/2015	SN4-151116M	0.0812 D	0.23	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00568	0.00646	< 0.001 DU	< 0.001 U
SW-N4	12/14/2015	SN4-151214M	0.0573	0.279 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00432	0.00591	< 0.001 U	< 0.001 U
SW-S1	11/18/2015	SS1-151118Q	0.0663	0.0735	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00802	0.00786	< 0.001 U	< 0.001 U
SW-S1	12/14/2015	SS1-151214M	0.0613	0.0684 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00816	0.00824	< 0.001 U	< 0.001 U
SW-S2	10/21/2015	SS2-151021Q	0.038	0.2	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0116	0.0124	< 0.001 U	< 0.001 U
SW-S2	11/18/2015	SS2-151118M	0.345	0.42	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0117	0.013	< 0.001 U	< 0.001 DU
SW-S2	12/14/2015	SS2-151214M	0.0411	0.599 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00996	0.0134	< 0.001 U	< 0.001 U
SW-S3	12/15/2015	SS3-151215Q	0.0321	0.514 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00559	0.00891	< 0.001 U	< 0.001 U
SW-SL3	10/12/2015	SSL3151012P										
SW-SL3	10/14/2015	SSL3151014P										
SW-SL3	10/21/2015	SSL3151021Q	< 0.02 U	0.029	0.00172	0.0018	< 0.001 U	< 0.001 U	0.0111	0.0115	< 0.001 U	< 0.001 U
SW-SL3	11/30/2015	SSL3151130M	< 0.02 U	0.171	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00759	0.0101	< 0.001 U	< 0.001 U
SW-SL3	11/30/2015	SSL3151130P										
SW-SL3	12/7/2015	SSL3151207P										
SW-SL3	12/15/2015	SSL3151215M	0.0329	0.696 D	< 0.001 DU	< 0.001 U	< 0.001 U	< 0.001 U	0.0062	0.0111	< 0.001 U	< 0.001 U
SW-EMER	11/2/2015	SSSWA151102E		5.1		< 0.001 U		0.00828		0.0776		< 0.001 U
SW-EMER	11/4/2015	SSSWA151104E	0.125		< 0.001 U		0.0102		0.0682		< 0.001 U	
SW-TD1	10/26/2015	STD1151026-										
SW-TD2	10/26/2015	STD2151026-										
SW-TD4	10/26/2015	STD4151026-										
SW-TD6	10/26/2015	STD6151026-										
SW-V	11/16/2015	SV--151116Q	< 0.02 DU	< 0.02 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00381	0.00369	< 0.001 DU	< 0.001 U
SW-V	12/14/2015	SV--151214M	< 0.02 U	0.022 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00324	0.00333	< 0.001 U	< 0.001 U
SW-W1	10/21/2015	SW1-151021Q	< 0.02 U	0.0729	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00574	0.00651	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, Dissolved	Aluminum, Total	Antimony, Dissolved	Antimony, Total	Arsenic, Dissolved	Arsenic, Total	Barium, Dissolved	Barium, Total	Beryllium, Dissolved	Beryllium, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-W1	11/16/2015	SW1-151116M	0.0413	0.122	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00707	0.00844	< 0.001 U	< 0.001 DU
SW-W1	12/14/2015	SW1-151214M	0.0403	10.3 D	< 0.001 U	< 0.001 U	< 0.001 U	0.00175	0.00731	0.0906	< 0.001 U	< 0.001 U
SW-W	11/18/2015	SW--151118Q	0.136	0.326	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00762	0.00835	< 0.001 U	< 0.001 U
SW-W	12/15/2015	SW--151215M	0.0782	0.306 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00571	0.00779	< 0.001 U	< 0.001 U
SW-W2	11/18/2015	SW2-151118Q	0.0707	0.114	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00833	0.00826	< 0.001 U	< 0.001 U
SW-W2	12/14/2015	SW2-151214M	0.0641	0.0893 D	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00783	0.00832	< 0.001 U	< 0.001 U
FIELD BLANK	10/21/2015	SN1-151021F	< 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 U
FIELD BLANK	10/14/2015	SSL3151014F										
FIELD BLANK	12/14/2015	SW2-151214F	< 0.02 U	< 0.02 DU	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Cadmium, Dissolved	Cadmium, Total	Calcium, Dissolved	Calcium, Total	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/18/2015	SE1-151118O	< 0.002 U	< 0.002 U	4.42	4.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-E1	12/14/2015	SE1-151214M	< 0.002 U	< 0.002 U	4.58	4.79	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-GS1	10/7/2015	SGS1151007P										0.00568
SW-GS1	10/21/2015	SGS1151021Q	< 0.002 U	< 0.002 U	16.7	18.3	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00403	0.00866
SW-GS1	11/30/2015	SGS1151130M	< 0.002 U	< 0.002 U	25.4	28.6	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00208	0.00504
SW-GS1	12/15/2015	SGS1151215M	< 0.002 U	< 0.002 U	9.43	10.4	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.00341
SW-SLP1	10/14/2015	SLP1151014P										0.00357
SW-SLP1	11/30/2015	SLP1151130P										0.00253
SW-SLP1	12/7/2015	SLP1151207P										0.0161
SW-SLP2	10/14/2015	SLP2151014P										0.00797
SW-SLP2	11/30/2015	SLP2151130P										0.00519
SW-SLP2	12/7/2015	SLP2151207P										0.0113
SW-SLP3	12/7/2015	SLP3151207P										0.0221
SW-MC	10/22/2015	SMC-151022O	< 0.002 U	< 0.002 U	12.5	13.7	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00307	0.004
SW-MC	11/18/2015	SMC-151118M	< 0.002 U	< 0.002 U	8.49	8.47	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00865	0.00916
SW-MC	12/15/2015	SMC-151215M	< 0.002 U	< 0.002 U	7.46	8.69	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00468	0.00572
SW-N1	10/21/2015	SN1-151021Q	< 0.002 U	< 0.002 U	13.4	14.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00375	0.00425
SW-N1	11/16/2015	SN1-151116M	< 0.002 U	< 0.002 U	9.55	9.59	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0129	0.0141
SW-N1	12/14/2015	SN1-151214M	< 0.002 U	< 0.002 U	8.14	8.34	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00672	0.00761
SW-N4	10/13/2015	SN4-151013P										0.0107
SW-N4	10/21/2015	SN4-151021O	< 0.002 U	< 0.002 U	14.4	16.5	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00454	0.00548
SW-N4	11/16/2015	SN4-151116M	< 0.002 U	< 0.002 U	10	9.64	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0227	0.022
SW-N4	12/14/2015	SN4-151214M	< 0.002 U	< 0.002 U	8.3	8.64	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.0132	0.014
SW-S1	11/18/2015	SS1-151118Q	< 0.002 U	< 0.002 U	5.61	5.85	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-S1	12/14/2015	SS1-151214M	< 0.002 U	< 0.002 U	5.37	5.49	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-S2	10/21/2015	SS2-151021Q	< 0.002 U	< 0.002 U	13.2	13.8	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00379	0.00462
SW-S2	11/18/2015	SS2-151118M	< 0.002 U	< 0.002 U	9.46	10.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00307	0.00371
SW-S2	12/14/2015	SS2-151214M	< 0.002 U	< 0.002 U	9.53	9.97	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00223	0.00328
SW-S3	12/15/2015	SS3-151215Q	< 0.002 U	< 0.002 U	8.96	9.53 D	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00413	0.00576
SW-SL3	10/12/2015	SSL3151012P										0.00669
SW-SL3	10/14/2015	SSL3151014P										0.0042
SW-SL3	10/21/2015	SSL3151021Q	< 0.002 U	< 0.002 U	12.3	13.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00332	0.00364
SW-SL3	11/30/2015	SSL3151130M	< 0.002 U	< 0.002 U	12.3	13.7	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00243	0.00339
SW-SL3	11/30/2015	SSL3151130P										0.0029
SW-SL3	12/7/2015	SSL3151207P										0.00543
SW-SL3	12/15/2015	SSL3151215M	< 0.002 U	< 0.002 U	8.65	9.95	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	0.00529	0.00745
SW-EMER	11/2/2015	SSSWA151102E	< 0.002 U	< 0.002 U		40.9		0.00947		0.00703		0.016
SW-EMER	11/4/2015	SSSWA151104E	< 0.002 U		69.6 D		< 0.005 U		0.00798		0.00404	
SW-TD1	10/26/2015	STD1151026-										
SW-TD2	10/26/2015	STD2151026-										
SW-TD4	10/26/2015	STD4151026-										
SW-TD6	10/26/2015	STD6151026-										
SW-V	11/16/2015	SV--151116Q	< 0.002 U	< 0.002 U	11.8	11.1	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-V	12/14/2015	SV--151214M	< 0.002 U	< 0.002 U	8.07	8.15	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-W1	10/21/2015	SW1-151021Q	< 0.002 U	< 0.002 U	14.9	16.2	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U

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Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Cadmium, Dissolved	Cadmium, Total	Calcium, Dissolved	Calcium, Total	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-W1	11/16/2015	SW1-151116M	< 0.002 U	< 0.002 U	8.91	9.63	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-W1	12/14/2015	SW1-151214M	< 0.002 U	< 0.002 U	8.79	11.6	< 0.005 U	0.014	< 0.003 U	0.00645	< 0.002 U	0.0188
SW-W	11/18/2015	SW--151118Q	< 0.002 U	< 0.002 U	7.22	7.24	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	0.00206
SW-W	12/15/2015	SW--151215M	< 0.002 U	< 0.002 U	7.49	8.14	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-W2	11/18/2015	SW2-151118Q	< 0.002 U	< 0.002 U	5.73	5.88	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
SW-W2	12/14/2015	SW2-151214M	< 0.002 U	< 0.002 U	5.08	5.46	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
FIELD BLANK	10/21/2015	SN1-151021F	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U
FIELD BLANK	10/14/2015	SSL3151014F										0.00727
FIELD BLANK	12/14/2015	SW2-151214F	< 0.002 U	< 0.002 U	< 0.01 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.003 U	< 0.003 U	< 0.002 U	< 0.002 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Iron, Dissolved	Iron, Total	Lead, Dissolved	Lead, Total	Magnesium, Dissolved	Magnesium, Total	Manganese, Dissolved	Manganese, Total	Mercury, Total	Nickel, Dissolved	Nickel, 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	11/18/2015	SE1-151118O	0.021 T	0.0627	< 0.001 U	< 0.001 U	0.956	1.05	0.00293	0.00903	< 0.0001 U	< 0.01 U	< 0.01 U
SW-E1	12/14/2015	SE1-151214M	0.016 T	0.038 T	< 0.001 U	< 0.001 U	1.07	1.04	0.00205	0.00321 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-GS1	10/7/2015	SGS1151007P											
SW-GS1	10/21/2015	SGS1151021Q	0.119	1.85	0.0059	0.0019	5.23	5.86	0.0823	0.118	< 0.0001 U	< 0.01 U	< 0.01 U
SW-GS1	11/30/2015	SGS1151130M	1.06	2.13	< 0.001 U	< 0.001 U	7.77	9.46	0.943	1.14	< 0.0001 U	< 0.01 U	< 0.01 U
SW-GS1	12/15/2015	SGS1151215M	0.111	0.941	< 0.001 U	< 0.001 U	2.9	3.22	0.12	0.127 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-SLP1	10/14/2015	SLP1151014P											
SW-SLP1	11/30/2015	SLP1151130P											
SW-SLP1	12/7/2015	SLP1151207P											
SW-SLP2	10/14/2015	SLP2151014P											
SW-SLP2	11/30/2015	SLP2151130P											
SW-SLP2	12/7/2015	SLP2151207P											
SW-SLP3	12/7/2015	SLP3151207P											
SW-MC	10/22/2015	SMC-151022O	0.03 T	0.176	< 0.001 U	< 0.001 U	4.08	4.41	< 0.001 U	0.0143	< 0.0001 U	< 0.01 U	< 0.01 U
SW-MC	11/18/2015	SMC-151118M	0.041 T	0.201	< 0.001 U	< 0.001 U	2.59	2.81	0.00101	0.00641	< 0.0001 U	< 0.01 U	< 0.01 U
SW-MC	12/15/2015	SMC-151215M	0.049 T	0.236	< 0.001 U	< 0.001 U	2.33	2.6	0.00315	0.00842 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N1	10/21/2015	SN1-151021Q	0.04 T	0.0887	0.0108	< 0.001 U	4.35	4.49	0.00506	0.00724	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N1	11/16/2015	SN1-151116M	0.0533	0.174	< 0.001 U	< 0.001 U	3.16 D	3.26	0.00192 D	0.00693 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N1	12/14/2015	SN1-151214M	0.044 T	0.204	< 0.001 U	< 0.001 U	2.46	2.52	0.00173	0.00785 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N4	10/13/2015	SN4-151013P											
SW-N4	10/21/2015	SN4-151021O	0.04 T	0.117	< 0.001 U	< 0.001 U	4.74	5.27	0.0274	0.0765	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N4	11/16/2015	SN4-151116M	0.0728	0.208	< 0.001 U	< 0.001 U	3.38 D	3.19	0.00518 D	0.00762	< 0.0001 U	< 0.01 U	< 0.01 U
SW-N4	12/14/2015	SN4-151214M	0.0599	0.282	< 0.001 U	< 0.001 U	2.58	2.61	0.00628	0.0108 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S1	11/18/2015	SS1-151118Q	0.014 T	0.018 T	< 0.001 U	< 0.001 U	1.31	1.49	< 0.001 U	0.00131	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S1	12/14/2015	SS1-151214M	0.012 T	0.017 T	< 0.001 U	< 0.001 U	1.34	1.3	< 0.001 U	< 0.001 DU	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S2	10/21/2015	SS2-151021Q	0.024 T	0.157	< 0.001 U	< 0.001 U	4.09	4.27	0.002	0.00659	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S2	11/18/2015	SS2-151118M	0.266	0.411	< 0.001 U	< 0.001 U	2.94	3.55	0.00601	0.0087 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S2	12/14/2015	SS2-151214M	0.0578	0.563	< 0.001 U	< 0.001 U	2.99	3.14	0.00171	0.0117 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-S3	12/15/2015	SS3-151215Q	0.037 T	0.463	< 0.001 U	< 0.001 U	2.49	2.66 D	0.00149	0.0103	< 0.0001 U	< 0.01 U	< 0.01 U
SW-SL3	10/12/2015	SSL3151012P											
SW-SL3	10/14/2015	SSL3151014P											
SW-SL3	10/21/2015	SSL3151021Q	0.011 T	0.017 T	< 0.001 U	< 0.001 U	4.01	4.21	< 0.001 U	0.00111	< 0.0001 U	< 0.01 U	< 0.01 U
SW-SL3	11/30/2015	SSL3151130M	0.015 T	0.171	< 0.001 U	< 0.001 U	3.6	4.46	< 0.001 U	0.0158	< 0.0001 U	< 0.01 U	< 0.01 U
SW-SL3	11/30/2015	SSL3151130P											
SW-SL3	12/7/2015	SSL3151207P											
SW-SL3	12/15/2015	SSL3151215M	0.046 T	0.679	< 0.001 U	< 0.001 U	2.65	2.93	0.00208	0.0145 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-EMER	11/2/2015	SSSWA151102E		6.52		0.00711		17		1.67	< 0.0001 U		0.0165
SW-EMER	11/4/2015	SSSWA151104E	2.55		< 0.001 U		24.5		3.39 D			0.015	
SW-TD1	10/26/2015	STD1151026-	0.0926	0.286									
SW-TD2	10/26/2015	STD2151026-	0.7	2.34									
SW-TD4	10/26/2015	STD4151026-	0.148	0.21									
SW-TD6	10/26/2015	STD6151026-	0.0797	0.181									
SW-V	11/16/2015	SV--151116Q	< 0.01 U	0.012 T	< 0.001 U	< 0.001 U	3 D	2.82	< 0.001 DU	0.00119	< 0.0001 U	< 0.01 U	< 0.01 U
SW-V	12/14/2015	SV--151214M	< 0.01 U	0.015 T	< 0.001 U	< 0.001 U	1.89	1.81	< 0.001 U	0.00154 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-W1	10/21/2015	SW1-151021Q	< 0.01 U	0.0867	< 0.001 U	< 0.001 U	5.44	5.8	< 0.001 U	0.0106	< 0.0001 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Iron, Dissolved	Iron, Total	Lead, Dissolved	Lead, Total	Magnesium, Dissolved	Magnesium, Total	Manganese, Dissolved	Manganese, Total	Mercury, Total	Nickel, Dissolved	Nickel, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-W1	11/16/2015	SW1-151116M	0.037 T	0.146	< 0.001 U	< 0.001 U	2.41	2.93	0.00244	0.0122 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-W1	12/14/2015	SW1-151214M	0.043 T	12.3	< 0.001 U	0.00621	2.28	5.19	0.00416	0.398 D	< 0.0001 U	< 0.01 U	0.0176
SW-W	11/18/2015	SW--151118Q	0.102	0.2	0.035	< 0.001 U	2.14	2.39	0.0039	0.00543	< 0.0001 U	< 0.01 U	< 0.01 U
SW-W	12/15/2015	SW--151215M	0.111	0.268	< 0.001 U	< 0.001 U	2.22	2.33	0.00595	0.0106 D	< 0.0001 U	< 0.01 U	< 0.01 U
SW-W2	11/18/2015	SW2-151118Q	0.015 T	0.045 T	< 0.001 U	< 0.001 U	1.32	1.49	< 0.001 U	0.00173	< 0.0001 U	< 0.01 U	< 0.01 U
SW-W2	12/14/2015	SW2-151214M	0.02 T	0.035 T	< 0.001 U	< 0.001 U	1.25	1.29	< 0.001 U	0.0013 D	< 0.0001 U	< 0.01 U	< 0.01 U
FIELD BLANK	10/21/2015	SN1-151021F	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 U	< 0.0001 U	< 0.01 U	< 0.01 U
FIELD BLANK	10/14/2015	SSL3151014F											
FIELD BLANK	12/14/2015	SW2-151214F	< 0.01 U	< 0.01 U	< 0.001 U	< 0.001 U	< 0.015 U	< 0.015 U	< 0.001 U	< 0.001 DU	< 0.0001 U	< 0.01 U	< 0.01 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Potassium, Dissolved	Potassium, Total	Selenium, Dissolved	Selenium, Total	Silver, Dissolved	Silver, Total	Sodium, Dissolved	Sodium, Total	Thallium, Dissolved	Thallium, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-E1	11/18/2015	SE1-151118O	0.515	0.544	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	2.19	2.27	< 0.001 U	< 0.001 U
SW-E1	12/14/2015	SE1-151214M	0.722	0.56	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	2.61	2.47	< 0.001 U	< 0.001 U
SW-GS1	10/7/2015	SGS1151007P										
SW-GS1	10/21/2015	SGS1151021Q	5.87	6.43	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	6.57	7.06	< 0.001 U	< 0.001 U
SW-GS1	11/30/2015	SGS1151130M	10.4	12.5	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	8.57	9.87	< 0.001 U	< 0.001 U
SW-GS1	12/15/2015	SGS1151215M	3.26	3.15	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.2	3.37	< 0.001 U	< 0.001 U
SW-SLP1	10/14/2015	SLP1151014P										
SW-SLP1	11/30/2015	SLP1151130P										
SW-SLP1	12/7/2015	SLP1151207P										
SW-SLP2	10/14/2015	SLP2151014P										
SW-SLP2	11/30/2015	SLP2151130P										
SW-SLP2	12/7/2015	SLP2151207P										
SW-SLP3	12/7/2015	SLP3151207P										
SW-MC	10/22/2015	SMC-151022O	1.87	2.04	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	4.56	5.04	< 0.001 U	< 0.001 U
SW-MC	11/18/2015	SMC-151118M	1.28	1.4	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.06	3.12	< 0.001 U	< 0.001 U
SW-MC	12/15/2015	SMC-151215M	1.26	1.22	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.17	3.39	< 0.001 U	< 0.001 U
SW-N1	10/21/2015	SN1-151021Q	2.3	2.18	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	4.89	5.11	< 0.001 U	< 0.001 U
SW-N1	11/16/2015	SN1-151116M	1.51	1.6	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.31 D	3.46 D	< 0.001 U	< 0.001 DU
SW-N1	12/14/2015	SN1-151214M	1.4	1.3	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.1	2.97	< 0.001 U	< 0.001 U
SW-N4	10/13/2015	SN4-151013P										
SW-N4	10/21/2015	SN4-151021O	2.68	3.01	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	4.64	5.33	< 0.001 U	< 0.001 U
SW-N4	11/16/2015	SN4-151116M	1.76	1.71	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	2.03 D	1.82	< 0.001 U	< 0.001 U
SW-N4	12/14/2015	SN4-151214M	1.5	1.5	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	1.94	1.92	< 0.001 U	< 0.001 U
SW-S1	11/18/2015	SS1-151118Q	0.814	0.899	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.1	3.34	< 0.001 U	< 0.001 U
SW-S1	12/14/2015	SS1-151214M	0.921	0.876	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.16	3.06	< 0.001 U	< 0.001 U
SW-S2	10/21/2015	SS2-151021Q	1.13	1.2	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.71	3.93	< 0.001 U	< 0.001 U
SW-S2	11/18/2015	SS2-151118M	4.32	4.85	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.52	4.14 D	< 0.001 U	< 0.001 DU
SW-S2	12/14/2015	SS2-151214M	4.09	4.16	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.52	3.53	< 0.001 U	< 0.001 U
SW-S3	12/15/2015	SS3-151215Q	1.29	1.42	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	2.59	2.99	< 0.001 U	< 0.001 U
SW-SL3	10/12/2015	SSL3151012P										
SW-SL3	10/14/2015	SSL3151014P										
SW-SL3	10/21/2015	SSL3151021Q	2.31	2.43	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.99	4.31	< 0.001 U	< 0.001 U
SW-SL3	11/30/2015	SSL3151130M	1.49	1.85	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.21	3.78	< 0.001 U	< 0.001 U
SW-SL3	11/30/2015	SSL3151130P										
SW-SL3	12/7/2015	SSL3151207P										
SW-SL3	12/15/2015	SSL3151215M	1.59	1.75	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	2.23	2.35	< 0.001 U	< 0.001 U
SW-EMER	11/2/2015	SSSWA151102E		52.1		< 0.001 U	< 0.003 U	< 0.003 U		27.6		< 0.001 U
SW-EMER	11/4/2015	SSSWA151104E	70.4 D		< 0.001 U		< 0.003 U		35.8		< 0.001 U	
SW-TD1	10/26/2015	STD1151026-										
SW-TD2	10/26/2015	STD2151026-										
SW-TD4	10/26/2015	STD4151026-										
SW-TD6	10/26/2015	STD6151026-										
SW-V	11/16/2015	SV--151116Q	1.08	0.987	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	4.95 D	4.4	< 0.001 U	< 0.001 U
SW-V	12/14/2015	SV--151214M	1.06	0.952	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	4.63	4.4	< 0.001 U	< 0.001 U
SW-W1	10/21/2015	SW1-151021Q	1.2	1.23	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	5.67	6.13	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Potassium, Dissolved	Potassium, Total	Selenium, Dissolved	Selenium, Total	Silver, Dissolved	Silver, Total	Sodium, Dissolved	Sodium, Total	Thallium, Dissolved	Thallium, Total
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SW-W1	11/16/2015	SW1-151116M	1.25	1.46	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	5.38	6.3 D	< 0.001 U	< 0.001 DU
SW-W1	12/14/2015	SW1-151214M	1.78	1.57	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	5.27	4.63	< 0.001 U	< 0.001 U
SW-W	11/18/2015	SW--151118Q	1.54	1.63	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	4.01	4.22	< 0.001 U	< 0.001 U
SW-W	12/15/2015	SW--151215M	1.21	1.19	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	4.59	4.66	< 0.001 U	< 0.001 U
SW-W2	11/18/2015	SW2-151118Q	0.811	0.883	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	3.19	3.46	< 0.001 U	< 0.001 U
SW-W2	12/14/2015	SW2-151214M	0.878	0.877	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	3.17	3.27	< 0.001 U	< 0.001 U
FIELD BLANK	10/21/2015	SN1-151021F	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U
FIELD BLANK	10/14/2015	SSL3151014F										
FIELD BLANK	12/14/2015	SW2-151214F	< 0.3 U	< 0.3 U	< 0.001 U	< 0.001 U	< 0.003 U	< 0.003 DU	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Tin, Dissolved (mg/L)	Tin, Total (mg/L)	Vanadium, Dissolved (mg/L)	Vanadium, Total (mg/L)	Zinc, Dissolved (mg/L)	Zinc, Total (mg/L)
SW-E1	11/18/2015	SE1-151118O	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-E1	12/14/2015	SE1-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-GS1	10/7/2015	SGS1151007P						0.0093
SW-GS1	10/21/2015	SGS1151021Q	< 0.01 U	< 0.01 U	< 0.002 U	0.00416	0.00513	0.0115
SW-GS1	11/30/2015	SGS1151130M	< 0.01 U	< 0.01 U	< 0.002 U	0.00247	< 0.004 U	0.00514
SW-GS1	12/15/2015	SGS1151215M	< 0.01 U	< 0.01 U	< 0.002 U	0.0021	< 0.004 U	0.00552
SW-SLP1	10/14/2015	SLP1151014P						0.0266
SW-SLP1	11/30/2015	SLP1151130P						0.00945
SW-SLP1	12/7/2015	SLP1151207P						0.0887
SW-SLP2	10/14/2015	SLP2151014P						0.0289
SW-SLP2	11/30/2015	SLP2151130P						0.0649
SW-SLP2	12/7/2015	SLP2151207P						0.0465
SW-SLP3	12/7/2015	SLP3151207P						0.111
SW-MC	10/22/2015	SMC-151022O	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00845	0.0117
SW-MC	11/18/2015	SMC-151118M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0171	0.0176
SW-MC	12/15/2015	SMC-151215M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0114	0.0138
SW-N1	10/21/2015	SN1-151021Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0236	0.0242
SW-N1	11/16/2015	SN1-151116M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0342	0.0329
SW-N1	12/14/2015	SN1-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0181	0.0193
SW-N4	10/13/2015	SN4-151013P						0.0597
SW-N4	10/21/2015	SN4-151021O	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0306	0.0404
SW-N4	11/16/2015	SN4-151116M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.068	0.062
SW-N4	12/14/2015	SN4-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.0334	0.0339
SW-S1	11/18/2015	SS1-151118Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-S1	12/14/2015	SS1-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-S2	10/21/2015	SS2-151021Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00693	0.00808
SW-S2	11/18/2015	SS2-151118M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00409	0.00432
SW-S2	12/14/2015	SS2-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	0.00498
SW-S3	12/15/2015	SS3-151215Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00767	0.0109
SW-SL3	10/12/2015	SSL3151012P						0.0116
SW-SL3	10/14/2015	SSL3151014P						0.00687
SW-SL3	10/21/2015	SSL3151021Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00743	0.00752
SW-SL3	11/30/2015	SSL3151130M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00585	0.00821
SW-SL3	11/30/2015	SSL3151130P						0.00624
SW-SL3	12/7/2015	SSL3151207P						0.00957
SW-SL3	12/15/2015	SSL3151215M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.011	0.0158
SW-EMER	11/2/2015	SSSWA151102E		< 0.01 GU		0.0124		0.0375
SW-EMER	11/4/2015	SSSWA151104E	< 0.01 U		0.00294		0.012	
SW-TD1	10/26/2015	STD1151026-						
SW-TD2	10/26/2015	STD2151026-						
SW-TD4	10/26/2015	STD4151026-						
SW-TD6	10/26/2015	STD6151026-						
SW-V	11/16/2015	SV--151116Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-V	12/14/2015	SV--151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00553	< 0.004 U
SW-W1	10/21/2015	SW1-151021Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Surface Water Metal Analytical Data

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Tin, Dissolved (mg/L)	Tin, Total (mg/L)	Vanadium, Dissolved (mg/L)	Vanadium, Total (mg/L)	Zinc, Dissolved (mg/L)	Zinc, Total (mg/L)
SW-W1	11/16/2015	SW1-151116M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W1	12/14/2015	SW1-151214M	< 0.01 U	< 0.01 U	< 0.002 U	0.0251	< 0.004 U	0.0613
SW-W	11/18/2015	SW--151118Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W	12/15/2015	SW--151215M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	11/18/2015	SW2-151118Q	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
SW-W2	12/14/2015	SW2-151214M	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/21/2015	SN1-151021F	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U
FIELD BLANK	10/14/2015	SSL3151014F						< 0.004 U
FIELD BLANK	12/14/2015	SW2-151214F	< 0.01 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.004 U	< 0.004 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

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

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	2,4,5-T 93-76-5 (ug/L)	2,4,5-TP Silvex 93-72-1 (ug/L)	2,4-D 94-75-7 (ug/L)	4,4'DDD 72-54-8 (ug/L)	4,4'DDE 72-55-9 (ug/L)	4,4'DDT 50-29-3 (ug/L)	Aldrin 309-00-2 (ug/L)	Alpha BHC 319-84-6 (ug/L)	Alpha Chlordane 5103-71-9 (ug/L)	Aroclor 1016 12674-11-2 (ug/L)	Aroclor 1221 11104-28-2 (ug/L)
SW-E1	11/18/2015	SE1-151118O	< 2 U	< 1 U	< 5 U								
SW-E1	12/14/2015	SE1-151214M	< 2 U	< 1 U	< 5 U								
SW-GS1	10/21/2015	SGS1151021Q	< 2 GU	< 1 GU	< 5 GU								
SW-GS1	11/30/2015	SGS1151130M	< 2 U	< 1 U	< 5 U								
SW-GS1	12/15/2015	SGS1151215M	< 2 U	< 1 U	< 5 U								
SW-MC	10/22/2015	SMC-151022O	< 2 GU	< 1 GU	< 5 GU								
SW-MC	11/18/2015	SMC-151118M	< 2 U	< 1 U	< 5 U								
SW-MC	12/15/2015	SMC-151215M	< 2 U	< 1 U	< 5 U								
SW-N1	10/21/2015	SN1-151021O	< 2 GU	< 1 GU	< 5 GU								
SW-N1	11/16/2015	SN1-151116M	< 2 U	< 1 U	< 5 U								
SW-N1	12/14/2015	SN1-151214M	< 2 U	< 1 U	< 5 U								
SW-N4	10/21/2015	SN4-151021Q	< 2 GU	< 1 GU	< 5 GU								
SW-N4	11/16/2015	SN4-151116M	< 2 U	< 1 U	< 5 U								
SW-N4	12/14/2015	SN4-151214M	< 2 U	< 1 U	< 5 U								
SW-S1	11/18/2015	SS1-151118O	< 2 U	< 1 U	< 5 U								
SW-S1	12/14/2015	SS1-151214M	< 2 U	< 1 U	< 5 U								
SW-S2	10/21/2015	SS2-151021Q	< 2 GU	< 1 GU	< 5 GU								
SW-S2	11/18/2015	SS2-151118M	< 2 U	< 1 U	< 5 U								
SW-S2	12/14/2015	SS2-151214M	< 2 U	< 1 U	< 5 U								
SW-S3	12/15/2015	SS3-151215O	< 2 U	< 1 U	< 5 U								
SW-SL3	10/21/2015	SSL3151021O	< 2 GU	< 1 GU	< 5 GU								
SW-SL3	11/30/2015	SSL3151130M	< 2 U	< 1 U	< 5 U								
SW-SL3	12/15/2015	SSL3151215M	< 2 U	< 1 U	< 5 U								
SW-EMER	11/2/2015	SSSWA151102E	< 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
SW-V	11/16/2015	SV--151116Q	< 2 U	< 1 U	< 5 U								
SW-V	12/14/2015	SV--151214M	< 2 U	< 1 U	< 5 U								
SW-W1	10/21/2015	SW1-151021O	< 2 GU	< 1 GU	< 5 GU								
SW-W1	11/16/2015	SW1-151116M	< 2 U	< 1 U	< 5 U								
SW-W1	12/14/2015	SW1-151214M	< 2 U	< 1 U	< 5 U								
SW-W	11/18/2015	SW--151118O	< 2 U	< 1 U	< 5 U								
SW-W	12/15/2015	SW--151215M	< 2 U	< 1 U	< 5 U								
SW-W2	11/18/2015	SW2-151118Q	< 2 U	< 1 U	< 5 U								
SW-W2	12/14/2015	SW2-151214M	< 2 U	< 1 U	< 5 U								
FIELD BLANK	10/21/2015	SN1-151021F	< 2 GU	< 1 GU	< 5 GU								
FIELD BLANK	12/14/2015	SW2-151214F	< 2 U	< 1 U	< 5 U								

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

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

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Beta BHC	Delta BHC	Dieldrin	Dinoseb	Endosulfan I	Endosulfan II
			11141-16-5 (ug/L)	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)
SW-E1	11/18/2015	SE1-151118O									< 1 U		
SW-E1	12/14/2015	SE1-151214M									< 1 U		
SW-GS1	10/21/2015	SGS1151021Q									< 1 U		
SW-GS1	11/30/2015	SGS1151130M									< 1 U		
SW-GS1	12/15/2015	SGS1151215M									< 1 U		
SW-MC	10/22/2015	SMC-151022O									< 1 U		
SW-MC	11/18/2015	SMC-151118M									< 1 U		
SW-MC	12/15/2015	SMC-151215M									< 1 U		
SW-N1	10/21/2015	SN1-151021O									< 1 U		
SW-N1	11/16/2015	SN1-151116M									< 1 U		
SW-N1	12/14/2015	SN1-151214M									< 1 U		
SW-N4	10/21/2015	SN4-151021Q									< 1 U		
SW-N4	11/16/2015	SN4-151116M									< 1 U		
SW-N4	12/14/2015	SN4-151214M									< 1 U		
SW-S1	11/18/2015	SS1-151118O									< 1 U		
SW-S1	12/14/2015	SS1-151214M									< 1 U		
SW-S2	10/21/2015	SS2-151021Q									< 1 U		
SW-S2	11/18/2015	SS2-151118M									< 1 U		
SW-S2	12/14/2015	SS2-151214M									< 1 U		
SW-S3	12/15/2015	SS3-151215O									< 1 U		
SW-SL3	10/21/2015	SSL3151021O									< 1 U		
SW-SL3	11/30/2015	SSL3151130M									< 1 U		
SW-SL3	12/15/2015	SSL3151215M									< 1 U		
SW-EMER	11/2/2015	SSSWA151102E	< 0.01 U	< 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
SW-V	11/16/2015	SV--151116Q									< 1 U		
SW-V	12/14/2015	SV--151214M									< 1 U		
SW-W1	10/21/2015	SW1-151021O									< 1 U		
SW-W1	11/16/2015	SW1-151116M									< 1 U		
SW-W1	12/14/2015	SW1-151214M									< 1 U		
SW-W	11/18/2015	SW--151118O									< 1 U		
SW-W	12/15/2015	SW--151215M									< 1 U		
SW-W2	11/18/2015	SW2-151118Q									< 1 U		
SW-W2	12/14/2015	SW2-151214M									< 1 U		
FIELD BLANK	10/21/2015	SN1-151021F									< 1 U		
FIELD BLANK	12/14/2015	SW2-151214F									< 1 U		

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

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

Contact Person: Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Endosulfan Sulfate 1031-07-8 (ug/L)	Endrin 72-20-8 (ug/L)	Endrin Aldehyde 7421-93-4 (ug/L)	Heptachlor 76-44-8 (ug/L)	Heptachlor Epoxide 1024-57-3 (ug/L)	Isodrin 465-73-6 (ug/L)	Lindane (Gamma BHC) 58-89-9 (ug/L)	Methoxychlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)
SW-E1	11/18/2015	SE1-151118O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-E1	12/14/2015	SE1-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-GS1	10/21/2015	SGS1151021Q		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-GS1	11/30/2015	SGS1151130M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-GS1	12/15/2015	SGS1151215M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-MC	10/22/2015	SMC-151022O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-MC	11/18/2015	SMC-151118M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-MC	12/15/2015	SMC-151215M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N1	10/21/2015	SN1-151021O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N1	11/16/2015	SN1-151116M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N1	12/14/2015	SN1-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N4	10/21/2015	SN4-151021Q		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N4	11/16/2015	SN4-151116M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-N4	12/14/2015	SN4-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S1	11/18/2015	SS1-151118O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S1	12/14/2015	SS1-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S2	10/21/2015	SS2-151021Q		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S2	11/18/2015	SS2-151118M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S2	12/14/2015	SS2-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-S3	12/15/2015	SS3-151215O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-SL3	10/21/2015	SSL3151021O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-SL3	11/30/2015	SSL3151130M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-SL3	12/15/2015	SSL3151215M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-EMER	11/2/2015	SSSWA151102E	< 0.5 U	< 0.1 U	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
SW-V	11/16/2015	SV--151116Q		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-V	12/14/2015	SV--151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W1	10/21/2015	SW1-151021O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W1	11/16/2015	SW1-151116M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W1	12/14/2015	SW1-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W	11/18/2015	SW--151118O		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W	12/15/2015	SW--151215M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W2	11/18/2015	SW2-151118Q		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
SW-W2	12/14/2015	SW2-151214M		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
FIELD BLANK	10/21/2015	SN1-151021F		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U
FIELD BLANK	12/14/2015	SW2-151214F		< 0.1 U					< 0.025 U	< 2 U	< 2.5 U

Leachate Analytical Data

Leachate Monitoring Activities 4th Quarter 2015

Station ID	Date	Activity	Sample ID	Comment
API	10/14/15	Monthly Characterization Sample	LAPI151014M	
API	11/19/15	Monthly Characterization Sample	LAPI151119M	
API	12/10/15	Monthly Characterization Sample	LAI151210M	
LEPS	10/13/15	Permit Sample	LEPS151013P	
LEPS	10/13/15	Monthly Characterization Sample	LEPS151013M	
LEPS	11/19/15	Permit Sample	LEPS151118P	
LEPS	11/19/15	Monthly Characterization Sample	LEPS151118M	
LEPS	12/8/15	Permit Sample	LEPS151209P	
LEPS	12/8/15	Monthly Characterization Sample	LEPS151209M	
MH46N	10/14/15	Monthly Characterization Sample	L46N151014M	
MH46N	11/19/15	Monthly Characterization Sample	L46N151119M	
MH46N	12/9/15	Monthly Characterization Sample	L46N151209M	
PS2A	10/14/15	Monthly Characterization Sample	LP2A151014M	
PS2A	11/19/15	Monthly Characterization Sample	LP2A151119M	
PS2A	12/9/2015	Monthly Characterization Sample	LP2A151209M	

NA = No sample ID assigned, No sample collected.

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate Field Parameters

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	pH (Field)	Conductance (Field)	Temperature
			(std. Units)	(umhos/cm)	(° C)
LS-API	10/14/2015	LAPI151014M	8.11	9700	15.4
LS-API	11/19/2015	LAPI151119M	7.92	4800	11.2
LS-API	12/10/2015	LAPI151210M	7.67	2300	10.3
LS-LEPS	10/14/2015	LEPS151013M	8.4	4500	16.5
LS-LEPS	10/14/2015	LEPS151013P	8.4	4500	16.5
LS-LEPS	11/18/2015	LEPS151118M	6.1	1800	10.9
LS-LEPS	11/18/2015	LEPS151118P	8.1	1800	10.9
LS-LEPS	12/9/2015	LEPS151208P	7.94	2700	11.7
LS-LEPS	12/9/2015	LEPS151209M	7.91	2700	11.9
LS-MH46N	10/14/2015	L46N151014M	7.38	8050	20.7
LS-MH46N	11/19/2015	L46N151119M	7.31	10300	19
LS-MH46N	12/9/2015	L46N151209M	7.36	10100	19.8
LS-PS2A	10/14/2015	LP2A151014M	6.43	195	14.9
LS-PS2A	11/19/2015	LP2A151119M	6.3	120	10.9
LS-PS2A	12/9/2015	LP2A151209M	6.48	100	9.9

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Alkalinity, Total (as CaCO ₃) (mg/L)	Ammonia, (NH ₃ as N) (mg/L)	Biological Oxygen Demand (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Coliforms, Fecal (CFU/100 mL)	Coliforms, Total (CFU/100 mL)	Cyanide (mg/L)	Fluoride (mg/L)	Nitrate + Nitrite (NO ₃ + NO ₂ as N) (mg/L)	Phosphorus, Total (as P) (mg/L)
LS-API	10/14/2015	LAPI151014M	4710	1050	1270	3270	1370	240000	1400000	< 0.02 SU	< 0.1 U	0.436	5.12
LS-API	11/19/2015	LAPI151119M	1970	311	537	1310	458	240000	900000	< 0.02 SU	< 0.1 U	0.331	1.68
LS-API	12/10/2015	LAPI151210M	1200	205	617	1210	270	130000	440000	< 0.02 U	< 0.1 U	1.17	0.96
LS-LEPS	12/8/2015	LEPS151208M	1270	239	188.52 G	872	320	48000 C	380000	< 0.02 SU	< 0.1 U	0.036 T	0.0731
LS-LEPS	10/13/2015	LEPS151013M	3240	566	195	1330	1310	25000 H	74000 H	0.027 ST	< 0.1 U	19.1	2.35
LS-LEPS	11/18/2015	LEPS151118M	937	126	124	531	232	42000	1000000	< 0.02 SU	< 0.1 U	17.2	0.0243
LS-MH46N	10/14/2015	L46N151014M	3380	755	112	1950	2230	< 1 U	< 1 U	< 0.02 SU	< 0.1 U	0.259	4
LS-MH46N	11/19/2015	L46N151119M	3580	611	100	2000	2010	< 1 U	40	< 0.02 SU	< 0.1 U	0.148	3.17
LS-MH46N	12/9/2015	L46N151209M	3470	714	149	1990	1900	< 1 U	< 1 U	< 0.02 SU	< 0.1 U	0.28 T	2.99
LS-PS2A	10/14/2015	LP2A151014M	28	3.88	2.58	26.9	9.01	5	1000	< 0.02 U	< 0.1 U	8.22	0.0216
LS-PS2A	11/19/2015	LP2A151119M	27.5	1.34	3.23	32	4.18	2	480	< 0.02 U	< 0.1 U	3.01	< 0.01 U
LS-PS2A	12/9/2015	LP2A151209M	18	1.09	3.51	29.1	1.98	3	790	< 0.02 U	< 0.1 U	2.58	0.0209

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015
 Cedar Hills Landfill --- Leachate Conventional Analytical Data
 Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Specific Conductance (umhos/cm)	Sulfate, (SO ₄) (mg/L)	Sulfide, Total (mg/L)	Total Fats, Oils and Grease (FOG) (mg/L)	Total Kjeldahl Nitrogen (TKN as N) (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Total Volatile Solids (mg/L)	Volatile Suspended Solids (mg/L)
LS-API	10/14/2015	LAPI151014M	12500	44.9	1.8 T	7.3 B	1170	1030 S	44.7	2350	22.7
LS-API	11/19/2015	LAPI151119M	5480	35.8	0.74 T	3 BT	394	392	40.9	1020	22.7
LS-API	12/10/2015	LAPI151210M	3320	59.9	0.76 T	3.2 T	201	263	50.3	924	21.1
LS-LEPS	12/8/2015	LEPS151208M	3690	56.5	0.44 T	< 2 U	258	144	195	1190	143
LS-LEPS	10/13/2015	LEPS151013M	9750	75.3	2.5 T	2.2 BT	638	571	203	1850	158
LS-LEPS	11/18/2015	LEPS151118M	2670	43.8	< 0.01 U	3.5 BT	166	111	110	816	64
LS-MH46N	10/14/2015	L46N151014M	12800	3.1 T	0.364	6.1 B	782	855	1.12	1790	1.02
LS-MH46N	11/19/2015	L46N151119M	12900	< 0.1 U	0.65 T	6 B	787	578 S	1.6	1840	1.5
LS-MH46N	12/9/2015	L46N151209M	11900	11.5	1.5 T	3.2 T	762	503 S	9.1	1630	2.4
LS-PS2A	10/14/2015	LP2A151014M	221	25.6	< 0.01 U	< 2 U	5.09	14.3	1.3	135	< 1 U
LS-PS2A	11/19/2015	LP2A151119M	141	13.2	< 0.01 U	3.1 BT	2.92	12.8	2.6	83	1.8
LS-PS2A	12/9/2015	LP2A151209M	108	12.3	0.012 T	< 2 U	1.63	10.7	1.7	70	1.2

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate Metals Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	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)
LS-API	10/14/2015	LAPI151014M	1.9	0.02 T	0.151	0.221	< 0.001 U	< 0.002 U	74.5	0.163	0.0354	0.015 T	7.09	< 0.001 U
LS-API	12/10/2015	LAPI151210M	2.61	0.016 T	0.028 T	0.0882	< 0.001 U	< 0.002 U	88.4	0.0404	0.01 T	0.013 T	6.96	< 0.001 U
LS-API	11/19/2015	LAPI151119M	1.43	0.019 T	0.061 T	0.105	< .001 U	< 0.002 U	74.6	0.0604	0.013 T	0.012 T	5.39	< 0.02 U
LS-LEPS	12/8/2015	LEPS151208M	3.63	< 0.001 U	0.043 T	0.0975	< 0.001 U	< 0.002 U	75.1	0.0473	0.011 T	0.015 T	7.41	< 0.001 U
LS-LEPS	10/13/2015	LEPS151013M	1.38	0.031 T	0.186	0.194	< 0.001 U	< 0.002 U	69.7 D	0.155	0.0353	0.012 T	7.46 D	< 0.001 U
LS-LEPS	10/13/2015	LEPS151013P			0.186			< 0.002 U		0.165		0.014 T		< 0.001 U
LS-LEPS	11/18/2015	LEPS151118P						< 0.002 U		0.0319		0.016 T		< 0.001 U
LS-LEPS	12/8/2015	LEPS151208P						< 0.002 U		0.0474		0.017 T		< 0.001 U
LS-LEPS	11/18/2015	LEPS151118M	2.16	0.016 T	0.029 T	0.0761	< .001 U	< 0.002 U	60.4	0.029	0.0073 T	0.014 T	4.8	< 0.02 U
LS-MH46N	10/14/2015	L46N151014M	< 0.02 U	< 0.001 U	0.093 T	0.525	< 0.001 U	< 0.002 U	92 D	0.125	0.042	< 0.002 U	2.24 D	< 0.001 U
LS-MH46N	12/9/2015	L46N151209M	< 0.02 U	< 0.001 U	0.084 T	0.475	< 0.001 U	< 0.002 U	82.3	0.117	0.0372	< 0.002 U	2.3	< 0.001 U
LS-MH46N	11/19/2015	L46N151119M	< .1 U	< 0.015 U	0.09 T	0.505	< 0.001 U	< 0.002 U	89	0.122	0.0394	< 0.004 U	2.24	< 0.02 U
LS-PS2A	10/14/2015	LP2A151014M	< 0.02 U	< 0.001 U	< 0.001 U	0.0106	< 0.001 U	< 0.002 U	18.1	< 0.005 U	< 0.003 U	0.0222	0.477	< 0.001 U
LS-PS2A	12/9/2015	LP2A151209M	0.26 T	< 0.001 U	< 0.001 U	0.00714	< 0.001 U	< 0.002 U	10.2	< 0.005 U	< 0.003 U	0.0325	0.489	< 0.001 U
LS-PS2A	11/19/2015	LP2A151119M	0.12 T	0.017 T	< 0.025 U	0.00689	< 0.001 U	< 0.002 U	12.3	< 0.005 U	< 0.003 U	0.0339	0.43	< 0.02 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate Metals Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Magnesium, Total	Manganese, Total	Mercury, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Thallium, Total	Tin, Total	Vanadium, Total	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)
LS-API	10/14/2015	LAPI151014M	78.4	0.758	< 0.0001 U	0.188	454 D	< 0.001 U	< 0.003 U	1260	< 0.001 U	< 0.01 DU	0.0547	0.287
LS-API	12/10/2015	LAPI151210M	26.9	1.08	< 0.0001 U	0.0498	105	< 0.001 U	< 0.003 U	269	< 0.001 U	< 0.01 U	0.016 T	0.314
LS-API	11/19/2015	LAPI151119M	34.7	0.941	< 0.0001 U	0.0703	176	< 0.025 U	< 0.004 U	470	< 0.04 U	< 0.02 U	0.022 T	0.198
LS-LEPS	12/8/2015	LEPS151208M	29	0.996	< 0.0001 U	0.0555	123	< 0.001 U	< 0.003 U	324	< 0.001 U	< 0.01 U	0.021 T	0.206
LS-LEPS	10/13/2015	LEPS151013M	70 D	0.676	< 0.0001 U	0.172	434 D	< 0.001 U	< 0.003 U	1230	< 0.001 U	0.027 T	0.0571	0.246
LS-LEPS	10/13/2015	LEPS151013P				0.173								0.242
LS-LEPS	11/18/2015	LEPS151118P				0.0382								0.139
LS-LEPS	12/8/2015	LEPS151208P				0.0571								0.211
LS-LEPS	11/18/2015	LEPS151118M	21.9	0.816	< 0.0001 U	0.039	86	< 0.025 U	< 0.004 U	223	< 0.04 U	< 0.02 U	0.012 T	0.139
LS-MH46N	10/14/2015	L46N151014M	61.7 D	0.449	< 0.0001 U	0.177	445 D	< 0.001 U	< 0.003 U	1490	< 0.001 U	< 0.01 DU	0.164	0.0058 T
LS-MH46N	12/9/2015	L46N151209M	55	0.432	< 0.0001 U	0.16	432 D	< 0.001 U	< 0.003 U	1370	< 0.001 U	< 0.01 U	0.148	0.0064 T
LS-MH46N	11/19/2015	L46N151119M	61.1	0.436	< 0.0001 U	0.172	444 D	< 0.025 U	< 0.004 U	1460	< 0.04 U	< 0.02 U	0.157	0.0082 T
LS-PS2A	10/14/2015	LP2A151014M	6.14	0.0722	< 0.0001 U	0.011 T	3.2	< 0.001 U	< 0.003 U	6.16	< 0.001 U	< 0.01 U	< 0.002 U	0.016 T
LS-PS2A	12/9/2015	LP2A151209M	3.54	0.0424	< 0.0001 U	< 0.01 U	1.74	< 0.001 U	< 0.003 U	2.57	< 0.001 U	< 0.01 U	< 0.002 U	0.014 T
LS-PS2A	11/19/2015	LP2A151119M	4.35	0.0713	< 0.0001 U	0.011 T	2.29	< 0.025 U	< 0.004 U	4.39	< 0.04 U	< 0.02 U	< 0.01 U	0.017 T

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

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-Chloropropane 96-12-8 (ug/L)	1,2-Dibromo-ethane 106-93-4 (ug/L)
LS-API	10/14/2015	LAPI151014M	< 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
LS-API	11/19/2015	LAPI151119M	< 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
LS-API	12/10/2015	LAPI151210M	< 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
LS-LEPS	10/13/2015	LEPS151013M	< 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
LS-LEPS	11/18/2015	LEPS151118M	< 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
LS-LEPS	12/8/2015	LEPS151208M	< 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
LS-MH46N	11/19/2015	L46N151119M	< 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
LS-MH46N	10/14/2015	L46N151014M	< 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
LS-MH46N	12/9/2015	L46N151209M	< 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
LS-PS2A	10/14/2015	LP2A151014M	< 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
LS-PS2A	11/19/2015	LP2A151119M	< 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
LS-PS2A	12/9/2015	LP2A151209M	< 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
VOA TRIP BLANK	10/13/2015	VTRP151014B	< 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
VOA TRIP BLANK	11/17/2015	VTRP151119B	< 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
VOA TRIP BLANK	12/8/2015	VTRP151210C	< 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
VOA TRIP BLANK	11/17/2015	VTRP151118C	< 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
VOA TRIP BLANK	12/8/2015	VTRP151209D	< 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
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 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

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	1,2-Dichloro- benzene	1,2-Dichloro- ethane	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
			95-50-1 (ug/L)	107-06-2 (ug/L)	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)
LS-API	10/14/2015	LAPI151014M	< 0.2 U	3.2 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	2800 D	< 4 U	< 100 U
LS-API	11/19/2015	LAPI151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	1480 D	< 4 U	< 100 U
LS-API	12/10/2015	LAPI151210M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	815	< 4 U	< 100 U
LS-LEPS	10/13/2015	LEPS151013M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
LS-LEPS	11/18/2015	LEPS151118M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	419	< 4 U	< 100 U
LS-LEPS	12/8/2015	LEPS151208M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	514	< 4 U	< 100 U
LS-MH46N	11/19/2015	L46N151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	7.16	< 0.2 U	< 4 U	< 4 U	< 100 U
LS-MH46N	10/14/2015	L46N151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	7.32	< 0.2 U	< 4 U	< 4 U	< 100 U
LS-MH46N	12/9/2015	L46N151209M	2.1 T	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	8.94	< 0.2 U	< 4 U	< 4 U	< 100 U
LS-PS2A	10/14/2015	LP2A151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
LS-PS2A	11/19/2015	LP2A151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	64.5	< 4 U	< 100 U
LS-PS2A	12/9/2015	LP2A151209M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	40.1	< 4 U	< 100 U
VOA TRIP BLANK	10/13/2015	VTRP151014B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	11/17/2015	VTRP151119B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	12/8/2015	VTRP151210C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	11/17/2015	VTRP151118C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	12/8/2015	VTRP151209D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 4 U	< 4 U	< 100 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	3-Chloro- propene	4-Methyl-2- Pentanone	Acetone	Acetonitrile	Acrolein	Acrylonitrile	Benzene	Bromochloro- methane	Bromodichloro- methane	Bromoform
			107-05-1 (ug/L)	108-10-1 (ug/L)	67-64-1 (ug/L)	75-05-8 (ug/L)	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)
LS-API	10/14/2015	LAPI151014M	< 10 U	29 T	2740 D	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	11/19/2015	LAPI151119M	< 10 U	< 4 U	1160 D	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-API	12/10/2015	LAPI151210M	< 10 U	< 4 U	580	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	10/13/2015	LEPS151013M	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	11/18/2015	LEPS151118M	< 10 U	< 4 U	346	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-LEPS	12/8/2015	LEPS151208M	< 10 U	< 4 U	626	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	11/19/2015	L46N151119M	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	3 T	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	10/14/2015	L46N151014M	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	3.1 T	< 0.2 U	< 0.2 U	< 0.2 U
LS-MH46N	12/9/2015	L46N151209M	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	3 T	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	10/14/2015	LP2A151014M	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	11/19/2015	LP2A151119M	< 10 U	< 4 U	74 T	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
LS-PS2A	12/9/2015	LP2A151209M	< 10 U	< 4 U	61 T	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151014B	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151119B	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151210C	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151118C	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151209D	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 10 U	< 4 U	< 4 U	< 100 U	< 10 U	< 0.07 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

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Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Bromo-methane	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloro-dibromo-methane	Chloroethane	Chloroform	Chloro-methane	Chloroprene	cis-1,2-Dichloro-ethene
			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)	67-66-3 (ug/L)	74-87-3 (ug/L)	126-99-8 (ug/L)	156-59-2 (ug/L)
LS-API	10/14/2015	LAPI151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-API	11/19/2015	LAPI151119M	28 DT	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	25 DT	< 0.2 U	22 DT	< 20 U	< 0.2 U
LS-API	12/10/2015	LAPI151210M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-LEPS	10/13/2015	LEPS151013M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-LEPS	11/18/2015	LEPS151118M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-LEPS	12/8/2015	LEPS151208M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-MH46N	11/19/2015	L46N151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-MH46N	10/14/2015	L46N151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-MH46N	12/9/2015	L46N151209M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
LS-PS2A	10/14/2015	LP2A151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 20 U	< 0.2 U
LS-PS2A	11/19/2015	LP2A151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 GU	< 20 U	< 0.2 U
LS-PS2A	12/9/2015	LP2A151209M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151014B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151119B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151210C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151118C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151209D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 20 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	cis-1,3-Dichloro- propene	Dibromo- methane	Dichloro- difluoro- methane	Ethylbenzene	m & p Xylenes	Methyl Iodide	Methyl Methacrylate	Methylacrylo- nitrile	Methylene Chloride	o-Xylene
			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)	75-09-2 (ug/L)	95-47-6 (ug/L)
LS-API	10/14/2015	LAPI151014M	< 0.2 U	< 0.2 U	< 0.2 U	3 T	8.53	< 0.2 U	< 2 U	< 5 U	4 T	4.22
LS-API	11/19/2015	LAPI151119M	< 0.2 U	< 0.2 U	< 0.2 U	3.2 T	7.94	< 0.2 U	< 2 U	< 5 U	4.35	3.7 T
LS-API	12/10/2015	LAPI151210M	< 0.2 U	< 0.2 U	< 0.2 U	4.22	9.51	< 0.2 U	< 2 U	< 5 U	2.3 T	4 T
LS-LEPS	10/13/2015	LEPS151013M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	3.2 T	< 0.2 U
LS-LEPS	11/18/2015	LEPS151118M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	2.8 T	< 0.2 U
LS-LEPS	12/8/2015	LEPS151208M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
LS-MH46N	11/19/2015	L46N151119M	< 0.2 U	< 0.2 U	< 0.2 U	33.3	35.7	< 0.2 U	< 2 U	< 5 U	4.29	4.87
LS-MH46N	10/14/2015	L46N151014M	< 0.2 U	< 0.2 U	< 0.2 U	34.6	34.3	< 0.2 U	< 2 U	< 5 U	3.6 T	4.61
LS-MH46N	12/9/2015	L46N151209M	< 0.2 U	< 0.2 U	< 0.2 U	38.7	45.7	< 0.2 U	< 2 U	< 5 U	< 0.2 U	5.11
LS-PS2A	10/14/2015	LP2A151014M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	5.84	< 0.2 U
LS-PS2A	11/19/2015	LP2A151119M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	3.1 T	< 0.2 U
LS-PS2A	12/9/2015	LP2A151209M	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151014B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151119B	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151210C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	11/17/2015	VTRP151118C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	12/8/2015	VTRP151209D	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U
VOA TRIP BLANK	10/13/2015	VTRP151013C	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 2 U	< 5 U	< 0.2 U	< 0.2 U

Environmental Monitoring Data

Data Collected from October 1, 2015 to December 31, 2015

Cedar Hills Landfill --- Leachate VOAs Analytical Data

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	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
			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	10/14/2015	LAPI151014M	< 60 U	< 0.2 U	< 0.2 U	16	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	7.27 D
LS-API	11/19/2015	LAPI151119M	< 60 U	< 0.2 U	< 0.2 U	14.5	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	15.2 D
LS-API	12/10/2015	LAPI151210M	< 60 U	< 0.2 U	< 0.2 U	17.9	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	0.269
LS-LEPS	10/13/2015	LEPS151013M	< 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	11/18/2015	LEPS151118M	< 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	12/8/2015	LEPS151208M	< 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	11/19/2015	L46N151119M	< 60 U	< 0.2 U	< 0.2 U	4.58	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	3.07
LS-MH46N	10/14/2015	L46N151014M	< 60 U	< 0.2 U	< 0.2 U	4.92	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	2.9
LS-MH46N	12/9/2015	L46N151209M	< 60 U	< 0.2 U	< 0.2 U	4.93	< 0.2 U	< 0.2 U	< 100 U	< 0.2 U	< 0.2 U	< 0.2 U	3.73
LS-PS2A	10/14/2015	LP2A151014M	< 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	11/19/2015	LP2A151119M	< 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	12/9/2015	LP2A151209M	< 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	10/13/2015	VTRP151014B	< 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	11/17/2015	VTRP151119B	< 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	12/8/2015	VTRP151210C	< 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	11/17/2015	VTRP151118C	< 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	12/8/2015	VTRP151209D	< 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	10/13/2015	VTRP151013C	< 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, 2015 to December 31, 2015

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

Contact Person --- Sendy Jimenez (206) 477-5224

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	10/14/2015	LAPI151014M	< 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	11/19/2015	LAPI151119M	< 2 U	< 1 U	< 5 JU	< 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	12/10/2015	LAPI151210M	< 2 U	< 1 U	< 5 JU	< 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	10/13/2015	LEPS151013M	< 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	11/18/2015	LEPS151118M	< 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	12/8/2015	LEPS151208M	< 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	10/14/2015	L46N151014M	< 2 U	1.21	< 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	11/19/2015	L46N151119M	< 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	12/9/2015	L46N151209M	< 2 U	1.4	< 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	10/14/2015	LP2A151014M	< 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	11/19/2015	LP2A151119M	< 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	12/9/2015	LP2A151209M	< 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, 2015 to December 31, 2015

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

Contact Person --- Sendy Jimenez (206) 477-5224

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	10/14/2015	LAPI151014M	0.44 T	< 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	11/19/2015	LAPI151119M	< 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	12/10/2015	LAPI151210M	< 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	10/13/2015	LEPS151013M	< 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	11/18/2015	LEPS151118M	< 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	12/8/2015	LEPS151208M	< 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	10/14/2015	L46N151014M	0.181	< 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	11/19/2015	L46N151119M	< 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	12/9/2015	L46N151209M	0.175 J	< 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	10/14/2015	LP2A151014M	< 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	11/19/2015	LP2A151119M	< 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	12/9/2015	LP2A151209M	< 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

Environmental Monitoring Data

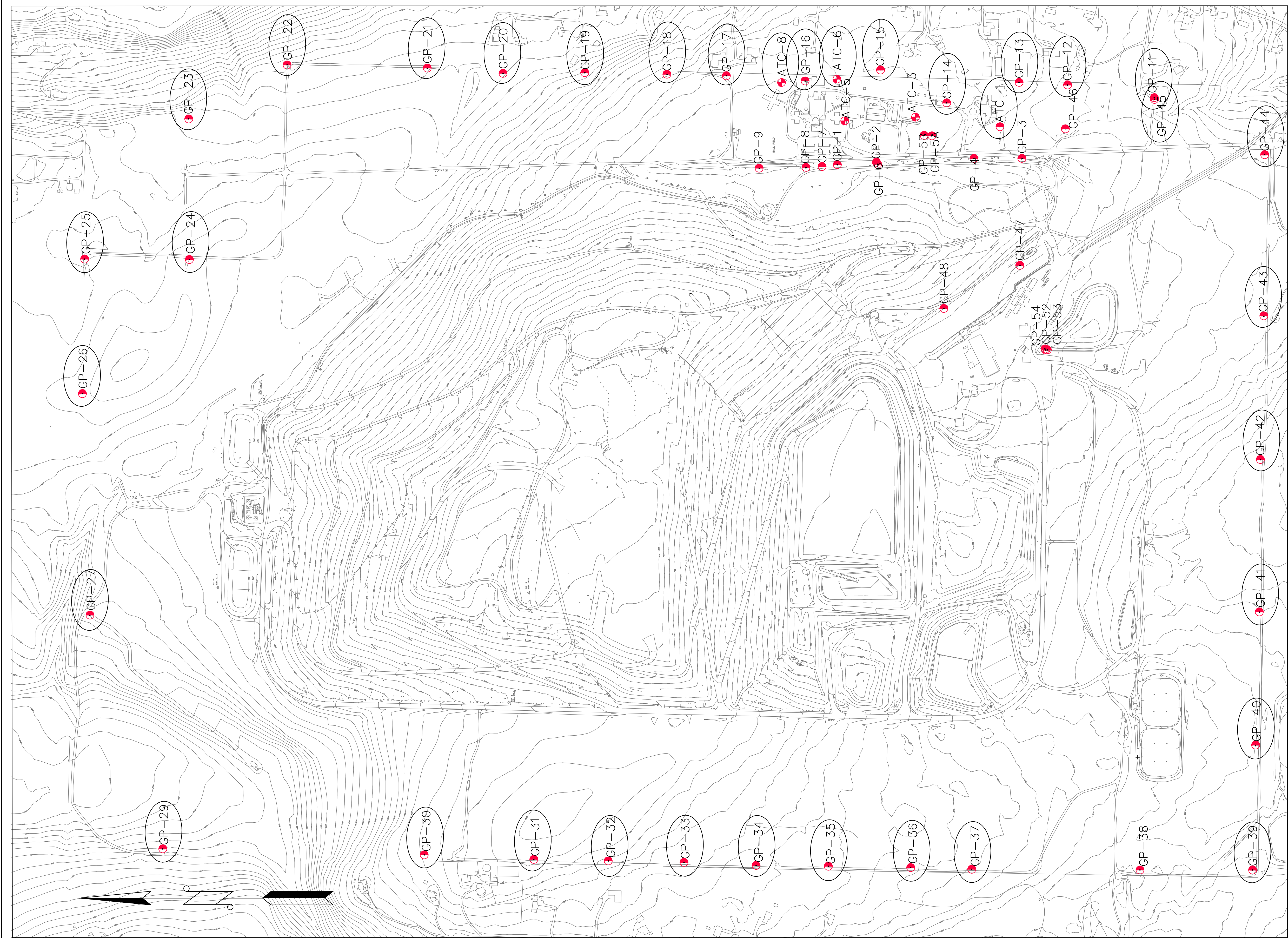
Data Collected from October 1, 2015 to December 31, 2015

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

Contact Person --- Sendy Jimenez (206) 477-5224

Site	Date	Sample ID	Endrin Aldehyde 7421-93-4 (ug/L)	Heptachlor 76-44-8 (ug/L)	Heptachlor Epoxide 1024-57-3 (ug/L)	Isodrin 465-73-6 (ug/L)	Lindane (Gamma BHC) 58-89-9 (ug/L)	Methoxy- chlor 72-43-5 (ug/L)	Toxaphene 8001-35-2 (ug/L)
LS-API	10/14/2015	LAPI151014M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	11/19/2015	LAPI151119M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-API	12/10/2015	LAPI151210M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	10/13/2015	LEPS151013M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	11/18/2015	LEPS151118M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-LEPS	12/8/2015	LEPS151208M	< 0.2 GU	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	10/14/2015	L46N151014M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	11/19/2015	L46N151119M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-MH46N	12/9/2015	L46N151209M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	10/14/2015	LP2A151014M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	11/19/2015	LP2A151119M	< 0.2 U	< 0.025 U	< 0.025 U	< 10 U	< 0.025 U	< 2 U	< 2.5 U
LS-PS2A	12/9/2015	LP2A151209M	< 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 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	10/21/2015 13:29	0.0	0.2	20.5	0	-0.06	
ATC-01S	10/21/2015 13:27	0.0	0.8	20.5	0	-0.03	
ATC-06D	10/21/2015 14:11	0.0	0.3	20.1	0	0.04	
ATC-06S	10/21/2015 14:10	0.0	0.7	20.0	0	0.27	
ATC-08D	10/21/2015 14:00	0.0	0.4	14.3	0	0.32	
ATC-08S	10/21/2015 13:59	0.0	1.3	19.6	0	0.01	
GP-11A	10/21/2015 12:52	0.0	1.2	19.6	0	0.06	
GP-11B	10/21/2015 12:53	0.0	0.1	20.6	0	0.24	
GP-11C	10/21/2015 12:55	0.0	0.1	20.6	0	-0.1	
GP-11D	10/21/2015 12:56	0.0	0.1	20.2	0	0.1	
GP-12A	10/21/2015 13:04	0.0	0.7	20.1	0	0	
GP-12B	10/21/2015 13:06	0.0	0.1	20.7	0	-0.02	
GP-12C	10/21/2015 13:07	0.0	0.1	19.8	0	0.07	
GP-12D	10/21/2015 13:08	0.0	0.1	20.8	0	-0.14	
GP-13A	10/21/2015 13:11	0.0	1.1	19.9	0	0	
GP-13B	10/21/2015 13:13	0.0	0.2	19.6	0	-0.1	
GP-13C	10/21/2015 13:15	0.0	0.1	21.0	0	-0.13	
GP-13D	10/21/2015 13:17	0.0	0.1	21.0	0	-1	
GP-14A	10/21/2015 13:22	0.0	0.1	20.9	0	-0.43	
GP-14B	10/21/2015 13:23	0.0	0.1	21.0	0	-0.43	
GP-15A	10/21/2015 13:48	0.0	0.2	20.9	0	0.12	
GP-15C	10/21/2015 13:45	0.0	0.5	18.1	0	-0.03	
GP-15D	10/21/2015 13:46	0.0	0.1	20.9	0	-2.88	
GP-16A	10/21/2015 14:03	0.0	2.0	18.9	0	0	
GP-16B	10/21/2015 14:05	0.0	0.1	20.6	0	-0.49	
GP-16C	10/21/2015 14:07	0.0	0.1	20.6	0	-0.75	
GP-17A	10/21/2015 14:48	0.0	0.0	0.0	0	0.1	No Reading Water
GP-17B	10/21/2015 14:45	0.0	0.7	16.2	0	0.01	
GP-17C	10/21/2015 14:46	0.0	0.0	20.6	0	-0.82	
GP-18A	10/21/2015 14:52	0.0	2.2	18.0	0	0.01	
GP-18B	10/21/2015 14:54	0.0	0.3	15.2	0	0.02	
GP-18C	10/21/2015 14:55	0.0	0.2	18.6	0	-0.55	
GP-19A	10/21/2015 14:59	0.0	1.1	18.2	0	0.06	
GP-19B	10/21/2015 15:00	0.0	0.5	16.6	0	0.06	
GP-19C	10/21/2015 15:01	0.0	0.1	20.7	0	0.08	
GP-20A	10/21/2015 15:06	0.0	1.2	19.6	0	0.01	
GP-20B	10/21/2015 15:08	0.0	0.1	20.8	0	0	
GP-20C	10/21/2015 15:09	0.0	0.2	7.1	0	0.2	
GP-21A	10/21/2015 15:13	0.0	1.2	18.8	0	0.01	
GP-21B	10/21/2015 15:15	0.0	0.1	11.7	0	-0.01	
GP-21C	10/21/2015 15:16	0.0	0.1	12.0	0	-0.34	
GP-22A	10/21/2015 15:21	0.0	2.4	17.2	0	-0.71	
GP-22C	10/21/2015 15:22	0.0	2.0	4.0	0	-0.57	
GP-23A	10/21/2015 15:29	0.0	0.1	20.8	0	0	
GP-23B	10/21/2015 15:30	0.0	0.0	20.9	0	0.03	
GP-23C	10/21/2015 15:32	0.0	0.0	21.0	0	0	
GP-24A	10/21/2015 15:36	0.0	4.4	15.8	0	0.02	
GP-24B	10/21/2015 15:37	0.0	0.4	20.4	0	-0.07	
GP-25	10/21/2015 15:40	0.0	4.0	16.2	0	0.01	
GP-26	10/21/2015 15:46	0.0	0.5	20.1	0	0.3	
GP-27	10/21/2015 15:49	0.0	9.6	10.0	0	0	
GP-29A	10/21/2015 15:55	0.0	1.1	20.0	0	0	
GP-29B	10/21/2015 15:56	0.0	0.2	20.9	0	0.01	
GP-30A	10/21/2015 8:22	0.0	2.1	19.4	0	0.01	
GP-30B	10/21/2015 8:23	0.0	0.7	20.4	0	-0.09	
GP-31A	10/21/2015 8:27	0.0	5.7	15.9	0	0.04	
GP-31B	10/21/2015 8:28	0.0	0.3	17.1	0	0.08	
GP-31C	10/21/2015 8:30	0.0	1.6	16.6	0	0.08	
GP-32A	10/21/2015 8:34	0.0	0.3	20.5	0	0.05	
GP-32B	10/21/2015 8:36	0.0	0.3	20.5	0	-0.01	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

October 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-32C	10/21/2015 8:38	0.0	0.4	20.5	0	0	
GP-33A	10/21/2015 8:41	0.0	2.5	18.0	0	0.02	
GP-33B	10/21/2015 8:43	0.0	0.3	20.6	0	0.01	
GP-33C	10/21/2015 8:45	0.0	0.1	20.8	0	-0.14	
GP-34A	10/21/2015 8:53	0.0	9.3	11.7	0	-0.01	
GP-34B	10/21/2015 8:55	0.0	0.2	20.7	0	0	
GP-34C	10/21/2015 8:57	0.0	0.1	20.2	0	-0.83	
GP-35A	10/21/2015 9:01	0.0	5.8	15.4	0	0.02	
GP-35B	10/21/2015 9:03	0.0	0.2	20.8	0	0.06	
GP-35C	10/21/2015 9:04	0.0	0.1	20.8	0	0.02	
GP-36A	10/21/2015 9:09	0.0	0.8	20.2	0	-1.53	
GP-36B	10/21/2015 9:10	0.0	2.6	18.0	0	0.02	
GP-36C	10/21/2015 9:12	0.0	0.4	10.6	0	-1	
GP-37A	10/21/2015 9:19	0.0	2.1	17.4	0	0.28	
GP-37B	10/21/2015 9:20	0.0	0.4	19.5	0	0	
GP-37C	10/21/2015 9:22	0.0	0.6	3.5	0	-0.98	
GP-39	10/21/2015 9:29	0.0	1.2	18.9	0	0	
GP-40	10/21/2015 9:33	0.0	0.1	20.7	0	0.01	
GP-41A	10/21/2015 9:38	0.0	3.5	18.0	0	0.02	
GP-41B	10/21/2015 9:39	0.0	0.8	7.8	0	0.2	
GP-41C	10/21/2015 9:41	0.0	0.1	20.6	0	0.02	
GP-42A	10/21/2015 9:45	0.0	4.8	12.0	0	0	
GP-42B	10/21/2015 9:47	0.0	0.7	19.7	0	-0.06	
GP-43A	10/21/2015 9:53	0.0	0.3	20.4	0	0	
GP-43B	10/21/2015 9:55	0.0	0.1	20.9	0	0.02	
GP-43C	10/21/2015 9:58	0.0	0.1	20.9	0	0.02	
GP-44A	10/21/2015 10:03	0.0	1.0	19.3	0	-0.01	
GP-44B	10/21/2015 10:04	0.0	0.7	14.2	0	0.53	
GP-44C	10/21/2015 10:06	0.0	0.1	20.8	0	0.03	
GP-45D	10/21/2015 12:50	0.0	0.1	20.7	0	-0.11	
GP-45I	10/21/2015 12:49	0.0	0.1	20.7	0	-0.01	
GP-45S	10/21/2015 12:47	0.0	0.1	20.5	0	0.06	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

November 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	11/19/2015 12:52	0.0	0.3	13.6	0	3.08	
ATC-01S	11/19/2015 12:50	0.0	0.1	19.4	0	0	
ATC-06D	11/19/2015 11:10	0.0	0.9	13.4	0	2.18	
ATC-06S	11/19/2015 11:07	0.0	0.0	0.0	0	0	No Reading Water
ATC-08D	11/19/2015 11:23	0.0	0.4	12.3	0	1.09	
ATC-08S	11/19/2015 11:21	0.0	0.2	20.1	0	-4.31	
GP-11A	11/19/2015 10:43	0.0	0.8	12.0	0	-0.6	
GP-11B	11/19/2015 10:45	0.0	1.1	18.3	0	0.06	
GP-11C	11/19/2015 10:46	0.0	0.1	19.8	0	-0.38	
GP-11D	11/19/2015 10:48	0.0	0.3	15.4	0	0.08	
GP-12A	11/19/2015 13:06	0.0	0.1	19.9	0	0.01	
GP-12B	11/19/2015 13:08	0.0	0.1	20.0	0	0.02	
GP-12C	11/19/2015 13:09	0.0	0.1	13.2	0	0.03	
GP-12D	11/19/2015 13:11	0.0	0.3	17.2	0	-2.94	
GP-13A	11/19/2015 12:57	0.0	0.2	19.4	0	0.01	
GP-13B	11/19/2015 12:58	0.0	0.5	16.5	0	0.06	
GP-13C	11/19/2015 13:00	0.0	0.1	19.5	0	-2.66	
GP-13D	11/19/2015 13:02	0.0	0.1	19.7	0	-1.94	
GP-14A	11/19/2015 13:17	0.0	0.1	20.2	0	-0.87	
GP-14B	11/19/2015 13:19	0.0	0.1	20.3	0	-0.91	
GP-15A	11/19/2015 11:39	0.0	0.0	0.0	0	0	No Reading Water
GP-15C	11/19/2015 11:40	0.0	1.5	12.7	0	0	
GP-15D	11/19/2015 11:42	0.0	0.2	20.0	0	-1.49	
GP-16A	11/19/2015 11:13	0.0	0.2	19.8	0	-0.01	No Reading Water
GP-16B	11/19/2015 11:15	0.0	0.1	20.1	0	-0.82	
GP-16C	11/19/2015 11:16	0.0	0.1	20.2	0	-2.02	
GP-17A	11/19/2015 13:40	0.0	0.0	0.0	0	0	No Reading Water
GP-17B	11/19/2015 13:42	0.0	1.0	14.5	0	0	
GP-17C	11/19/2015 13:44	0.0	0.1	20.0	0	-2.14	
GP-18A	11/19/2015 13:47	0.0	0.0	0.0	0	0	No Reading Water
GP-18B	11/19/2015 13:48	0.0	0.4	13.4	0	0.05	
GP-18C	11/19/2015 13:50	0.0	0.2	19.6	0	-2.39	
GP-19A	11/19/2015 13:54	0.0	0.1	20.1	0	0	
GP-19B	11/19/2015 13:56	0.0	0.7	15.4	0	-0.05	
GP-19C	11/19/2015 13:57	0.0	0.1	20.1	0	-0.19	
GP-20A	11/19/2015 14:01	0.0	0.1	20.2	0	-0.02	
GP-20B	11/19/2015 14:03	0.0	0.2	18.6	0	0.01	
GP-20C	11/19/2015 14:05	0.0	0.1	20.1	0	-0.01	
GP-21A	11/19/2015 14:07	0.0	0.3	19.4	0	-1.06	
GP-21B	11/19/2015 14:09	0.0	0.2	10.8	0	0.05	
GP-21C	11/19/2015 14:10	0.0	0.0	0.0	0	0	No Reading Water
GP-22A	11/19/2015 14:15	0.0	0.0	0.0	0	0	No Reading Water
GP-22C	11/19/2015 14:30	0.0	2.0	4.2	0	-2.14	
GP-23A	11/19/2015 14:34	0.0	0.1	19.7	0	0	
GP-23B	11/19/2015 14:36	0.0	0.1	19.9	0	-0.03	
GP-23C	11/19/2015 14:38	0.0	0.1	19.9	0	0	
GP-24A	11/19/2015 14:42	0.0	3.7	15.6	0	0.01	
GP-24B	11/19/2015 14:43	0.0	2.7	16.6	0	0.02	
GP-25	11/19/2015 14:46	0.0	2.8	14.1	0	-0.1	
GP-26	11/19/2015 14:49	0.0	0.6	18.5	0	-0.07	
GP-27	11/19/2015 14:53	0.0	9.3	9.0	0	-0.01	
GP-29A	11/19/2015 14:57	0.0	0.7	19.3	0	-0.02	
GP-29B	11/19/2015 14:58	0.0	0.6	19.2	0	0	
GP-30A	11/19/2015 15:07	0.0	2.2	18.1	0	0.52	
GP-30B	11/19/2015 15:08	0.0	1.2	18.8	0	-1	
GP-31A	11/19/2015 15:12	0.0	5.1	15.3	0	0.45	
GP-31B	11/19/2015 15:14	0.0	0.3	14.2	0	-0.4	
GP-31C	11/19/2015 15:15	0.0	1.6	15.4	0	-0.03	
GP-32A	11/19/2015 15:18	0.0	1.1	18.5	0	-0.02	
GP-32B	11/19/2015 15:20	0.0	0.7	18.9	0	0.01	
GP-32C	11/19/2015 15:21	0.0	0.7	19.0	0	-0.02	
GP-33A	11/19/2015 15:24	0.0	0.3	19.8	0	0.04	
GP-33B	11/19/2015 15:26	0.0	0.7	17.8	0	0.13	
GP-33C	11/19/2015 15:27	0.0	0.1	20.0	0	-1.69	

CEDAR HILLS REGIONAL LANDFILL

Landfill Gas Compliance Probes

November 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-34A	11/19/2015 15:30	0.0	0.0	0.0	0	0	No Reading Water
GP-34B	11/19/2015 15:31	0.0	0.1	20.1	0	-0.09	
GP-34C	11/19/2015 15:33	0.0	0.1	19.1	0	-2.63	
GP-35A	11/19/2015 15:36	0.0	0.1	20.1	0	0	
GP-35B	11/19/2015 15:38	0.0	0.1	19.9	0	-0.01	
GP-35C	11/19/2015 15:40	0.0	0.1	20.2	0	-0.12	
GP-36A	11/19/2015 15:42	0.0	0.6	10.9	0	0.77	
GP-36B	11/19/2015 15:44	0.0	0.1	20.1	0	0.07	
GP-36C	11/19/2015 15:45	0.0	0.3	16.3	0	-1.71	
GP-37A	11/19/2015 15:48	0.0	0.0	0.0	0	0	No Reading Water
GP-37B	11/19/2015 15:49	0.0	0.1	20.1	0	0.33	
GP-37C	11/19/2015 15:51	0.0	0.6	6.4	0	-2.53	
GP-39	11/19/2015 16:23	0.0	1.1	16.9	0	-0.47	
GP-40	11/19/2015 16:26	0.0	0.1	19.1	0	-0.2	
GP-41A	11/19/2015 16:29	0.0	0.1	19.3	0	-0.05	
GP-41B	11/19/2015 16:31	0.0	0.1	19.3	0	0	
GP-41C	11/19/2015 16:32	0.0	0.1	19.5	0	-0.02	
GP-42A	11/19/2015 16:35	0.0	0.0	0.0	0	0	
GP-42B	11/19/2015 16:37	0.0	0.2	19.6	0	-1.46	No Reading Water
GP-43A	11/19/2015 16:44	0.0	0.1	19.8	0	-0.08	
GP-43B	11/19/2015 16:45	0.0	0.1	19.9	0	-0.05	
GP-43C	11/19/2015 16:47	0.0	0.1	20.0	0	-0.06	
GP-44A	11/19/2015 16:50	0.0	0.1	20.0	0	0.1	
GP-44B	11/19/2015 16:52	0.0	1.3	9.6	0	3.59	
GP-44C	11/19/2015 16:54	0.0	0.1	20.0	0	-0.02	
GP-45D	11/19/2015 10:53	0.0	0.1	20.0	0	-0.53	
GP-45I	11/19/2015 10:52	0.0	0.1	19.9	0	-0.07	
GP-45S	11/19/2015 10:50	0.0	0.1	19.1	0	0	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
ATC-01D	12/10/2015 8:35	0.0	0.2	20.8	0	6.69	
ATC-01S	12/10/2015 8:33	0.0	0.2	19.9	0	0.01	No Reading Water
ATC-06D	12/10/2015 9:45	0.0	1.0	8.3	0	-0.02	
ATC-06S	12/10/2015 9:43	0.0	0.3	15.1	0	-3.28	No Reading Water
ATC-08D	12/10/2015 9:34	0.0	0.5	13.5	0	7.21	
ATC-08S	12/10/2015 9:33	0.0	0.1	21.0	0	0.68	
GP-11A	12/10/2015 8:17	0.0	0.9	19.4	0	0.01	
GP-11B	12/10/2015 8:18	0.0	0.9	8.9	0	6.07	
GP-11C	12/10/2015 8:20	0.0	0.2	13.2	0	3.6	
GP-11D	12/10/2015 8:22	0.0	0.2	19.3	0	0	
GP-12A	12/10/2015 8:47	0.0	0.1	21.0	0	-0.74	
GP-12B	12/10/2015 8:49	0.0	0.1	21.0	0	0.98	
GP-12C	12/10/2015 8:50	0.0	0.1	16.8	0	5.89	
GP-12D	12/10/2015 8:51	0.0	0.7	11.9	0	6.23	
GP-13A	12/10/2015 8:39	0.0	0.3	20.8	0	-1.94	
GP-13B	12/10/2015 8:41	0.0	0.2	20.9	0	0	
GP-13C	12/10/2015 8:42	0.0	0.2	19.2	0	0.01	
GP-13D	12/10/2015 8:44	0.0	0.4	18.5	0	6.93	
GP-14A	12/10/2015 8:57	0.0	0.3	14.1	0	3.04	
GP-14B	12/10/2015 8:59	0.0	0.9	15.9	0	2.92	
GP-15A	12/10/2015 9:16	0.0	0.8	14.2	0	-8.56	No Reading Water
GP-15C	12/10/2015 9:18	0.0	1.4	15.1	0	0.01	
GP-15D	12/10/2015 9:19	0.0	0.2	21.0	0	2.33	
GP-16A	12/10/2015 9:37	0.0	0.4	18.7	0	-2.44	No Reading Water
GP-16B	12/10/2015 9:39	0.0	0.3	21.0	0	6.45	
GP-16C	12/10/2015 9:40	0.0	1.3	15.4	0	7.87	
GP-17A	12/10/2015 11:10	0.0	4.5	10.1	0	-11.62	No Reading Water
GP-17B	12/10/2015 11:13	0.0	1.1	16.2	0	0.01	
GP-17C	12/10/2015 11:15	0.0	0.2	19.8	0	6.44	
GP-18A	12/10/2015 11:17	0.0	0.4	19.9	0	-0.1	No Reading Water
GP-18B	12/10/2015 11:19	0.0	0.5	14.9	0	-0.02	
GP-18C	12/10/2015 11:21	0.0	0.5	14.9	0	7.13	
GP-19A	12/10/2015 11:23	0.0	0.1	20.4	0	-0.04	
GP-19B	12/10/2015 11:25	0.0	0.8	17.2	0	-0.03	
GP-19C	12/10/2015 11:26	0.0	0.1	20.6	0	0.85	
GP-20A	12/10/2015 11:29	0.0	0.1	21.0	0	-2.08	
GP-20B	12/10/2015 11:31	0.0	0.3	12.5	0	0.49	
GP-20C	12/10/2015 11:32	0.0	0.3	6.6	0	0.11	
GP-21A	12/10/2015 11:36	0.0	0.2	20.4	0	0.02	
GP-21B	12/10/2015 11:37	0.0	0.2	11.5	0	-0.68	
GP-21C	12/10/2015 11:38	0.0	0.2	10.9	0	0.29	No Reading Water
GP-22A	12/10/2015 11:42	0.0	0.7	20.7	0	7.83	
GP-22C	12/10/2015 11:44	0.0	1.9	5.3	0	9.56	
GP-23A	12/10/2015 11:48	0.0	0.1	20.8	0	-0.04	
GP-23B	12/10/2015 11:49	0.0	0.1	21.0	0	-1.17	
GP-23C	12/10/2015 11:51	0.0	0.1	21.0	0	-0.02	
GP-24A	12/10/2015 11:54	0.0	3.7	14.5	0	-0.01	
GP-24B	12/10/2015 11:55	0.0	0.2	20.1	0	-0.04	
GP-25	12/10/2015 11:58	0.0	2.8	15.1	0	9.64	
GP-26	12/10/2015 12:01	0.0	1.2	18.3	0	0.03	
GP-27	12/10/2015 12:04	0.0	7.2	12.6	0	-0.06	
GP-29A	12/10/2015 12:07	0.0	0.8	19.7	0	-0.02	
GP-29B	12/10/2015 12:09	0.0	0.8	20.5	0	0.02	
GP-30A	12/10/2015 12:54	0.0	2.3	18.4	0	3.54	
GP-30B	12/10/2015 12:55	0.0	1.5	18.6	0	0.5	
GP-31A	12/10/2015 12:58	0.0	4.9	15.0	0	16.78	
GP-31B	12/10/2015 12:59	0.0	0.4	14.3	0	7.08	
GP-31C	12/10/2015 13:01	0.0	2.6	12.7	0	3.38	
GP-32A	12/10/2015 13:03	0.0	2.7	16.8	0	0.95	
GP-32B	12/10/2015 13:04	0.0	1.1	18.7	0	0.01	
GP-32C	12/10/2015 13:06	0.0	1.2	19.1	0	-0.01	

CEDAR HILLS REGIONAL LANDFILL
Landfill Gas Compliance Probes
December 2015 Monitoring

Probe ID	Date/Time	CH4 %vol	CO2 %vol	O2 %vol	Lower Explosive Limit %LEL	Static Pressure in INWC	Comments
GP-33A	12/10/2015 13:08	0.0	0.4	20.2	0	-6.4	
GP-33B	12/10/2015 13:10	0.0	0.1	20.8	0	0.67	
GP-33C	12/10/2015 13:11	0.0	1.4	17.6	0	0.6	
GP-34A	12/10/2015 13:13	0.0	1.3	17.4	0	7.37	No Reading Water
GP-34B	12/10/2015 13:15	0.0	0.4	14.6	0	0.06	
GP-34C	12/10/2015 13:17	0.0	0.2	7.9	0	4.33	
GP-35A	12/10/2015 13:21	0.0	0.1	19.8	0	-0.01	
GP-35B	12/10/2015 13:23	0.0	0.1	20.9	0	-0.01	
GP-35C	12/10/2015 13:24	0.0	0.2	19.3	0	0.09	
GP-36A	12/10/2015 13:27	0.0	0.5	5.3	0	7.31	
GP-36B	12/10/2015 13:29	0.0	0.1	18.7	0	-0.01	
GP-36C	12/10/2015 13:30	0.0	0.4	12.2	0	4.03	
GP-37A	12/10/2015 13:33	0.0	0.3	11.3	0	1.68	No Reading Water
GP-37B	12/10/2015 13:35	0.0	0.1	18.9	0	0.32	
GP-37C	12/10/2015 13:36	0.0	0.9	2.3	0	5.55	
GP-39	12/10/2015 13:41	0.0	0.9	17.8	0	1.49	
GP-40	12/10/2015 13:44	0.0	0.1	20.7	0	-0.01	
GP-41A	12/10/2015 13:47	0.0	0.1	21.0	0	-0.01	
GP-41B	12/10/2015 13:49	0.0	0.1	21.0	0	-0.02	
GP-41C	12/10/2015 13:50	0.0	0.1	21.0	0	-0.02	
GP-42A	12/10/2015 13:53	0.0	0.1	21.0	0	0.14	No Reading Water
GP-42B	12/10/2015 13:55	0.0	0.4	15.7	0	2.12	
GP-43A	12/10/2015 13:59	0.0	0.3	15.8	0	0.17	
GP-43B	12/10/2015 14:01	0.0	0.1	20.8	0	0	
GP-43C	12/10/2015 14:02	0.0	0.4	9.5	0	0.34	
GP-44A	12/10/2015 14:07	0.0	0.1	19.6	0	0.02	
GP-44B	12/10/2015 14:08	0.0	1.2	9.2	0	9.64	
GP-44C	12/10/2015 14:10	0.0	0.1	20.7	0	0.01	
GP-45D	12/10/2015 8:26	0.0	0.2	18.5	0	3.7	
GP-45I	12/10/2015 8:25	0.0	0.2	9.5	0	0.35	
GP-45S	12/10/2015 8:23	0.0	0.2	20.4	0	0.01	

FOURTH QUARTER BUILDING MONITORING

 King County	INSTRUMENT: Place check by instrument used :			WEATHER:		DATE: 10/13/15
	HEATH DetectoPak III (sn:8746-4)					TECH: Bogart
	Foxboro TVA 1000 FID/PID (sn: 7785301)			X		
ENVIS ID	BLDG #	DESCRIPTION	CH ₄ (ppm)	BAR PRESS (in. Hg)	TIME	REMARKS
GOC- 10/13/15	1	FRONT OFFICE	0	30.16	9:21am	
GCR- 10/13/15	2	CONF ROOM	0	30.16	9:20am	
GAO- 10/13/15	3	PAYROLL OFFICE	0	30.16	9:18am	
GEO- 10/13/15	4	ENGR. OFFICE	0	30.16	9:16am	
GLRC- 10/13/15	5	LUNCHROOM	0	30.16	9:25am	
GSPC 10/13/15		SPOC	0	30.16	9:38am	
GELO- 10/13/15 A	6A	DRY STORAGE	0	30.16	9:36am	
GELO- 10/13/15 B	6B	ELECTRICIAN OFFICE	0	30.16	9:34am	
GAP- 10/13/15		ACCOUNT PAYABLE	0	30.16	9:33am	
GSO- 10/13/15 A	7A	SHOP OFFICE	0	30.16	9:43am	
GPR- 10/13/15 B	7B	PARTS ROOM	0	30.16	9:40am	
GMS- 10/13/15 C	7C	SHOP PIT AREA/BAY	0	30.16	9:41am	
GTB- 10/13/15 D	7D	SHOP TIRE BAY	0	30.16	9:45am	
GEW- 10/13/15 E	7E	EAST WELD SHOP	0	30.16	9:47am	
GWV- 10/13/15 F	7F	WEST WELD SHOP	0	30.16	9:48am	
GCS- 10/13/15	8	CARPENTER'S	0	30.16	9:50am	
GSS- 10/13/15	9	WASTEWATER	0	30.16	9:52am	
GSS- 10/13/15 B	9B	CARPENTER/STORAGE	0	30.16	9:54am	
GSH- 10/13/15	10	SCALEHOUSE	0	30.16	9:23am	
GB13- 10/13/15	13	WW COMPRESSOR	0	30.16	10:07am	
GB16- 10/13/15	16	GENERATOR	0	30.16	9:59am	
GB19- 10/13/15	19	LEPS (P.S.# 5)	0	30.16	10:04am	
GB19- 10/13/15 B	19B	LEPS/H ₂ O ₂ ROOM	0	30.16	10:02am	
GB20- 10/13/15	20	LEPS ELEC PANALS	0	30.16	10:03am	
GB21- 10/13/15	21	STORAGE(OLD PS 1)	0	30.16	10:16am	
GB22- 10/13/15	22	STORAGE/N FLARE	0	30.16	10:23am	
GB23- 10/13/15	23	LFGAS	0	30.16	10:25am	
GB24- 10/13/15	24	NE GENERATOR BLDG	0	30.16	10:20am	
GBWW- 10/13/15	30	WOMEN BRK RM	0	30.16	9:37am	
GPWT- 10/13/15	PW	PRESSURE WASH RM	0	30.16	9:31am	
GBRR- 10/13/15	RR	TRUCKWASH RR W	0	30.16	9:30am	
GBSS- 10/13/15	SS	TRUCKWASH RR E	0	30.16	9:29am	
GBZZ- 10/13/15	29	MANAGERS TRAILER	0	30.16	9:14am	
GBPT- 10/13/15		CCG FASTER	0	30.16	9:12am	
GCLS- 10/13/15		CHLORINE SHED	0	30.16	9:27am	

CEDAR HILLS REGIONAL LANDFILL
West Perimeter Landfill Gas Migration Control Probes
Fourth Quarter 2015 Monitoring

Probe ID	Date	Time	Barometric				Static Pressure in INWC
			Pressure in Hg	CH4 %vol	CO2 %vol	O2 %vol	
MGPW 1700	10/13/2015	7:56am	30.15	0.0	0.2	20.9	-0.12
MGPW 1700	10/27/2015	3:55pm	29.97	0.0	0.2	20.2	0.04
MGPW 1700	11/9/2015	11:52am	29.94	0.0	0.1	20.8	-0.1
MGPW 1700	11/19/2015	11:27am	30.06	0.0	0.1	20.7	0
MGPW 1700	12/15/2015	2:18am	30.27	0.0	0.3	21.0	-0.47
MGPW 1700	12/23/2015	11:15am	29.61	0.0	0.4	16.6	0
MGPW 1708	10/13/2015	8:01am	30.15	0.0	0.2	21.0	-1.83
MGPW 1708	10/27/2015	4:00pm	29.97	10.7	6.6	4.1	-0.09
MGPW 1708	11/9/2015	11:47am	29.94	8.3	4.8	10.1	-1.9
MGPW 1708	11/19/2015	11:24am	30.06	0.0	0.1	20.7	-1.3
MGPW 1708	12/15/2015	2:22pm	30.27	0.0	0.2	21.0	-2.26
MGPW 1708	12/23/2015	11:19am	29.61	0.0	0.2	21.0	-1.69
MGPW 1710S	10/13/2015	8:04am	30.15	0.0	0.1	21.0	-1.68
MGPW 1710S	10/27/2015	4:03pm	29.97	0.0	0.1	20.2	-0.29
MGPW 1710S	11/9/2015	11:40am	29.94	0.1	0.2	21.0	-1.30
MGPW 1710S	11/19/2015	11:18am	30.06	0.0	0.2	20.5	-1.00
MGPW 1710S	12/15/2015	2:04pm	30.27	0.0	0.2	20.7	-1.63
MGPW 1710S	12/23/2015	11:22am	29.61	0.0	0.2	21.0	-1.16
MGPW 1710D	10/13/2015	8:07am	30.15	0.0	0.1	21.0	-1.88
MGPW 1710D	10/27/2015	4:06pm	29.97	0.0	0.1	20.5	-0.23
MGPW 1710D	11/9/2015	11:42am	29.94	0.1	0.1	21.0	-1.7
MGPW 1710D	11/19/2015	11:20am	30.06	0.0	0.1	20.6	-1
MGPW 1710D	12/15/2015	2:06pm	30.27	0.0	0.1	21.0	-2.01
MGPW 1710D	12/23/2015	0.475	29.61	0.0	0.2	21.0	-1.50
MGPW 1714	10/13/2015	8:10am	30.15	0.0	0.1	21.0	-1.78
MGPW 1714	10/27/2015	4:09pm	29.97	0.0	0.1	20.5	-0.15
MGPW 1714	11/9/2015	11:37am	29.94	0.3	0.4	20.6	-1.6
MGPW 1714	11/19/2015	11:15am	30.06	0.2	0.3	20.2	-0.9
MGPW 1714	12/15/2015	2:00pm	30.27	0.0	0.2	20.6	-1.84
MGPW 1714	12/23/2015	11:27am	29.61	0.0	0.1	21.0	-1.4

KING COUNTY SOLID WASTE DIVISION
QUALIFIER INFORMATION
(Effective 8/27/2015)

QUAL	QUALIFIER DESCRIPTION
U	Undetected; Analyte Concentration Less than Method Detection Limit (< MDL)
T	Estimated; Less than Reporting Detection Limit (<RDL) but Greater than Method Detection Limit (> MDL)
J	Reported Value is an Estimate
B	Matrix Target Analyte Present in Blank, AND, Sample Result Less than or Equal to 10x Blank Detection
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	Re-analysis Due to Dilution
P	PASS – Qualitative Result Acceptable
F	FAIL – Qualitative Result is not Acceptable
G	Estimated with Low Bias (Coliform; BOD; All Other Chemistry Parameters)
L	Estimated with High Bias (BOD; All Other Chemistry Parameters)

APPENDIX C

Meteorological Data

NO METEOROLOGICAL DATA AVAILABLE

4th QUARTER OF 2015

(WILL SUBMIT SEPARATELY IF DATA BECOMES AVAILABLE IN THE FUTURE)

APPENDIX D

Area 5 Top Deck Report

CEDAR HILLS REGIONAL LANDFILL AREA 5 TOP DECK MONITORING REPORT

Fourth Quarter 2015



Department of Natural Resources and Parks
Solid Waste Division

February 2016
Printed on recycled paper

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AREA 5 TOP DECK MONITORING QUARTERLY REPORT

FOURTH QUARTER 2015

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 currently experiencing technical issues with the leachate volume monitoring system for Area 5. Work is underway to resolve these issues and the logged data will be reported as it becomes available in subsequent Top Deck Monitoring Reports.

KCSWD staff continues to evaluate leachate volumes collected throughout the landfill that are pumped to the wastewater treatment plant. Comparisons of the historical volumes generated through typical landfill construction and closure with the phased closure and interim top deck cover utilized in Area 5 have been made. These comparisons provide an initial assessment of 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

CEDAR HILLS REGIONAL LANDFILL LEACHATE PRODUCTION for 4th QUARTER of 2015									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310
311	312	313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328	329	330
331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350
351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370
371	372	373	374	375	376	377	378	379	380
381	382	383	384	385	386	387	388	389	390
391	392	393	394	395	396	397	398	399	400
401	402	403	404	405	406	407	408	409	410
411	412	413	414	415	416	417	418	419	420
421	422	423	424	425	426	427	42		

Year	Leachate	Surface Area of Refuse Areas	Refuse In Place	Precipitation	Flow			
	(MG/yr)	(Acres)	(lbs)	(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
2014	189.14	353.12*	57,638,062,970	64.07	535,631	8,360	0.0033	0.00005
2015	176.26	353.12*	59,401,111,988	51.39	499,159	9,713	0.0030	0.00006

2015: Precipitation, leachate and refuse in place through 4th Quarter of 2015

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

II. SURFACE MONITORING

KCSWD's plan for monitoring the surface of the Area 5 Top Deck is comprised of three components:

1. Landfill gas inspections, including a serpentine walk;
2. Leachate seep inspections; and,
3. 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

Monthly inspections of the gas system, stormwater system, and cover system of Area 5 are performed by the Solid Waste Operations (SWO) staff. All internal inspection reports showed satisfactory conditions this quarter. These inspection reports are included in Appendix A: *Inspection Reports*.

Also throughout the 4th Quarter, Facility Engineering and Science (FESU) staff performed monthly Landfill Facility Site Inspections. These inspections are also included in Appendix A: *Inspection Reports*.

In addition to KCSWD inspections, one inspection was performed by Public Health – Seattle & King County (PHSKC) during the 4th Quarter. The date of the inspection was December 21st, 2015. All inspections resulted in a satisfactory review of the landfill.

Serpentine Walks

Each quarter, serpentine walks are conducted across the Area 5 Top Deck and its side slopes to verify that methane is not detected above standards. The results from the 4th Quarter Serpentine Surface Monitoring Data walk that was conducted from December 14th to the 23rd, 2015 can be found in Appendix B: *Gas Monitoring Reports*, along with a plot of GPS generated track lines.

For the 4th Quarter of 2015, no exceedances were detected during the serpentine walk.

Leachate Seep Inspections

Visual inspections for leachate seeps are conducted each quarter by KCSWD personnel in conjunction with the surface emissions monitoring and monthly inspections. No indications of leachate seeps were recorded during the 4th Quarter of 2015 by KCSWD staff, or by PHSKC 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 for Area 5 were measured on October 27th, 2015. The survey data is presented in in Table 2, and the settlement monitoring results are presented in Table 3.

No erosion was observed in Area 5 during the 4th Quarter of 2015.

Future plans for Area 5 include filling to the final top deck elevation followed by application of the final cover.

TABLE 2

CEDAR HILLS REGIONAL LANDFILL AREA 5 SURFACE SURVEY DATA for 4th QUARTER of 2015

A5SM-1 ^a		A5SM-2		A5SM-3 ^b		PMX20074 ^c	
Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
10/4/2005	699.18	10/4/2005	785.17	2/14/2007	786.4	8/16/2007	781.56
2/1/2006	697.7	2/1/2006	782.52	4/20/2007	786.25	2/29/2008	780.1
6/27/2006	696.51	6/27/2006	780.48	7/24/2007	785.68	7/29/2008	779.13
2/14/2007	694.53	4/20/2007	776.95	2/29/2008	784.87	11/24/2008	778.21
7/24/2007	693.34	7/24/2007	775.63	7/29/2008	784.31	4/6/2009	777.41
2/29/2008	691.77	2/29/2008	773.44	11/24/2008	783.76	7/9/2009	776.99
7/29/2008	691.26	7/29/2008	772.2	4/6/2009	783.35	12/22/2009	776.1
11/24/2008	690.61	11/24/2008	771.29	7/9/2009	783.05	3/1/2010	775.81
4/6/2009	690.16	4/6/2009	770.35	12/22/2009	782.44	8/2/2010	775.29
7/9/2009	689.77	7/9/2009	769.79	3/1/2010	782.08	12/21/2010	774.79
12/22/2009	689.13	12/22/2009	768.6	8/2/2010	781.78	4/6/2011	774.42
3/1/2010	688.77	3/1/2010	768.05	12/21/2010	781.25	8/8/2011	774.19
8/2/2010	688.6	8/2/2010	767.28	4/6/2011	780.94	1/23/2012	773.79
12/21/2010	688.1	12/21/2010	766.53	8/8/2011	780.66	5/18/2012	773.41
4/6/2011	687.83	4/6/2011	765.86	1/23/2012	780.26	7/12/2012	773.26
8/8/2011	687.46	8/8/2011	765.34	5/18/2012	779.9	--	--
1/23/2012	687.19	1/23/2012	764.53	7/12/2012	779.69	--	--
5/18/2012	686.78	5/18/2012	763.99	11/2/2012	779.56	--	--
7/12/2012	686.69	7/12/2012	763.83	5/22/2013	779.09	--	--
11/2/2012	686.55	11/6/2012	763.35	9/5/2013	779.66	--	--
5/22/2013	686.09	5/22/2013	762.77	2/19/2014	777.68	--	--
--	--	8/8/2013	762.53	2/9/2015	777.63	--	--
--	--	2/19/2014	762.06	4/6/2015	777.51	--	--
--	--	2/9/2015	761.09	7/2/2015	777.38	--	--
--	--	4/6/2015	761.11	10/27/2015	777.12	--	--
--	--	7/2/2015	760.96			--	--
--	--	10/27/2015	760.62			--	--

^a A5SM-1 was destroyed by filling Area 7 during Lift 4.

^b A5SM-3 is NEW as of 2/14/2007.

^c PMX20074 was destroyed during Phase 3 of Area 6.

TABLE 3**CEDAR HILLS REGIONAL LANDFILL AREA 5 SETTLEMENT for 4th QUARTER of 2015**

Settlement Monitoring Locations	Units	SETTLEMENT DATE RANGE (MM /YY)										
		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	5/13-2/14	2/14-2/15	2/15-7/15	7/15-10/15
A5SM-1	Feet	3.17	2.08	1.49	1.17	1.14	0.77	0.60	N/A	N/A	N/A	N/A
A5SM-2	Feet	4.85	3.43	2.41	2.51	1.94	1.51	1.06	0.71	0.97	0.13	0.34
A5SM-3	Feet	N/A	1.37	1.26	1.27	1.12	0.97	0.60	1.41	0.05	0.25	0.26
PMX2007-4	Feet	N/A	2.43	2.14	1.7	1.1	0.93	N/A	N/A	N/A	N/A	N/A
Average Settlement for Area 5	Feet/Date Range	4.01	2.33	1.83	1.66	1.33	1.05	0.75	1.06	0.51	0.19	0.30
	Feet/Month	0.31	0.19	0.15	0.13	0.11	0.1	0.19	0.11	0.04	0.03	0.10

III. STORMWATER & LEACHATE SAMPLING

Collection of Samples

Area 5 top deck stormwater samples were collected during the 4th Quarter of 2015 at all four designated sites, including SW-TD1, TD2, TD4, and TD6. Comparison stormwater samples were taken at sample location SW-S1 on November 18th, and December 14th. Comparison leachate samples were taken at location LS-API on October 14th, November 19th, and December 10th. All samples were collected and analyzed in accordance with the Area 5 Top Deck Stormwater Runoff Monitoring Plan. Figure 2 shows the locations of the Area 5 sampling stations.

Stormwater Sample Evaluation

Stormwater runoff monitoring locations, field measurements, and laboratory analyses evaluated in this report are intended to assess whether the stormwater runoff from the top deck has been contaminated by the underlying waste. Stormwater was collected either during or following significant storm events from four locations on or near the top deck of Area 5. These data will be compared to stormwater sample data collected from a location known to be unaffected by the landfill waste--sampling point SW-S1--and will also be compared to the leachate sample data collected from the inflow into the aeration ponds, LAPI. Elevated concentrations of selected parameters in the top deck stormwater samples will serve as indicators that the underlying waste may be impacting the runoff.

The analytes for the top deck stormwater runoff samples were selected based on parameters that would typically have elevated concentrations in leachate in comparison to stormwater (i.e., iron, sulfate, chemical oxygen demand, total organic carbon, alkalinity, and chloride); and are less likely to be impacted by surface factors, such as wildlife contact or contact with constituents of fertilizers used during hydro-seeding. The stormwater quality results are also screened against existing surface water quality criteria (WAC 173-201A) and Benchmarks for the Washington State Industrial Stormwater General Permit. Applicable criteria/benchmarks are listed in Table 4.

TABLE 4		
Water Quality Criteria/Benchmarks For Applicable Parameters		
Parameter	Numerical Criterion	Source
pH	6.5 to 8.5	WAC 173-201A-200
	5 to 9	Industrial Stormwater General Permit
Turbidity	Less than 10 NTU above background if background turbidity is 50 NTU or less, or a 10% increase in turbidity when the background is > 50 NTU.	WAC 173-201A-200
	25 NTU	Industrial Stormwater General Permit
Temperature	20°C	WAC 173-201A-200
Iron	1.0 mg/L	EPA 440/5-86-001 Quality Criteria for Water 1986

A. RESULTS

Field measurements and analytical results from the stormwater sampling and analyses performed as part of this monitoring plan are summarized in Tables 5 and 6. Leachate results for similar parameters are given in Table 7.

The following is a parameter by parameter discussion of the top deck monitoring results. For each parameter, its importance in evaluating surface water, comparison to other onsite surface water, and comparison to representative leachate is discussed.

pH - pH levels in surface water can be affected by many factors, especially photosynthetic activity and the respiration of waterborne flora. This process can potentially decrease the night-time pH level to 4.5 and during peak daytime activity can drive the pH levels above 10.

The benchmark range for pH is 6.5 to 8.5 standard pH Units.

- pH results for all locations were within the acceptable range per the applicable water quality criteria.

Specific Conductance - Specific Conductance is the ability of water to conduct electrical current. This property is related to dissolved ion concentration, charge, ion mobility, and

water temperature. Specific conductance measurements can provide indications of water contamination by a non-specific measure of increased ionic solute load.

There are no benchmarks or criteria for specific conductance.

Temperature - Water temperature criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated.

Temperature criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated, per WAC 173-201A-200.

- Temperature results for all locations were below the designated limit per the applicable water quality criteria.

Turbidity - Turbidity is one of the indicators used to assess the environmental health of water bodies. Turbidity is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms.

Turbidity criteria are established for the protection of aquatic life, and vary between bodies of water based on use categories designated, per WAC 173-201A-200.

The Industrial Stormwater General Permit (ISWGP) benchmark for turbidity is 25 NTU.

- One monitoring location, SW-TD2, exceeded the ISWGP benchmark. All other location results were below the designated limit for turbidity per the applicable water quality criteria.

Chemical Oxygen Demand - Chemical Oxygen Demand (COD) is used to indirectly measure the amount of organic compounds in water.

There are no benchmarks or criteria for COD.

Total Organic Carbon - Total organic carbon (TOC) is the amount of carbon bound in an organic compound and is often used as a non-specific indicator of water quality. While COD is the measurement of all substances in the water that can be oxidized, TOC is the measurement of organically bound carbon.

There are no benchmarks or criteria for TOC.

Alkalinity - Alkalinity is the measure of the capacity of water to neutralize acids, or its buffer capacity. The alkalinity of natural waters is controlled primarily by the equilibria of the carbonate system. It is produced by dissolved CO₂ acting upon alkaline materials in the soil to produce bicarbonate (HCO₃⁻) and carbonate (CO₃²⁻). Source CO₂ can be atmospheric, from respiration of water borne organisms or decay of organic matter, including a potential contribution from landfill gas (LFG).

There are no benchmarks or criteria for alkalinity.

Chloride - Chloride is a conservative anion; that is, processes of adsorption, ion exchange, or biological uptake do generally not retard transport of chloride. Chloride is the best indicator for determining impacts from leachate. Chloride is one of the major anions to be found in water and sewage. Potable water should not exceed 250 mg/L of chloride.

There are no benchmarks or criteria for chloride.

Sulfate - Sulfate (SO_4^{2-}) can be found in almost all natural water and is one of the major dissolved components of rain. It is formed by the oxidation of sulfite ores and is a component in industrial and domestic waste waters. There are few elements that will form insoluble salts with sulfate, thus; once in solution, it remains so unless it is anaerobically reduced to sulfide.

There are no benchmarks or criteria for sulfate.

Iron - Iron is the fourth most abundant element in the earth's crust and the most abundant heavy metal. It is present in the environment mainly as Fe(II) or Fe(III). Iron is more soluble in the reduced state than it is in the oxidized state, where it often occurs as an iron oxide mineral (Fe_2O_3). At a pH above 7, iron exists mostly as insoluble salts which settle out or are adsorbed onto surfaces. The concentration of iron in well-aerated waters is seldom high. Under reducing conditions, which are most commonly caused by oxidation reactions involving organic matter, water will have higher concentrations of dissolved iron.

- All location results were below the designated limit for iron (total and dissolved) per the applicable water quality criteria.

B. RESULTS COMPARISON

Comparing the results of the Top Deck stormwater samples with the results from the surface water samples taken at SW-S1, and the leachate samples taken at LS-API, during the 4th Quarter of 2015, it is clear that the Top Deck stormwater runoff has more similarity in water quality composition with the surface water location, versus the leachate. This includes [a](#) exhibiting [a](#) much lower conductivity than the leachate samples, as well as alkalinity, COD, chloride and iron concentrations, and TOC.

The Top Deck stormwater runoff does however exhibit slight to moderately higher values than the surface water samples for conductivity, turbidity, alkalinity, COD, sulfate concentrations, and TOC.

TABLE 5

Area 5 Top Deck - 4Q2015 Stormwater Monitoring Results

Location	Date	Sample ID	Specific Conductance	pH units	Temp	Turbidity	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW-TD1	10/26/2015	STD1151026-	240	7.53	10.9	7.84	89.5	72.7	1.85	0.0926	0.286	39.1	38
SW-TD2	10/26/2015	STD2151026-	33	7.36	11	61.7	7.61	42.5	0.391	0.7	2.34	4.13	18
SW-TD4	10/26/2015	STD4151026-	55	6.77	11.5	6.75	12	53.3	3.07	0.148	0.21	6.37	26.3
SW-TD6	10/26/2015	STD6151026-	145	7.29	11.4	5.21	24.2	57.7	10.3	0.0797	0.181	20.5	31.3
Average Value =			118	7.24	11.2	20.38	33.3	56.6	3.9	0.26	0.75	17.5	28.4
U = UNDETECTED, ANALYTE CONCENTRATION <MDL													

TABLE 6

SW-S1 - 4Q2015 Stormwater Comparison Monitoring Results

Location	Date	Sample ID	Specific Conductance (Field)	pH units (Field)	Temp (Field)	Turbidity (Field)	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SW-SI	11/18/2015	SSI-151118Q	65	6.44	8.1	0.42	8.11	9.2 T	2.69	0.014 T	0.018 T	3.32	4.47
SW-SI	12/14/2015	SSI-151214M	53	6.47	7	0.58	7.44	8.6 T	2.6	0.012 T	0.017 T	2.43	3.74
Average Value =			59	6.46	7.6	0.50	7.8	8.9	2.6	0.013	0.0175	2.88	4.11
U = UNDETECTED, ANALYTE CONCENTRATION <MDL													

TABLE 7

Leachate Pond Inflow - 4Q2015 Monitoring Results

Location	Date	Sample ID	Specific Conductance (Field)	pH units (Field)	Temp (Field)	Turbidity (Field)	Alkalinity	Chemical Oxygen Demand	Chloride	Dissolved Iron	Total Iron	Sulfate	Total Organic Carbon
			µmhos/cm	pH units	deg °C	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LS-API	10/14/2015	LAPI151014M	9700	8.11	15.4	--	4710	3270	1370	--	7.09	44.9	1030 S
LS-API	11/19/2015	LAPI151119M	4800	7.92	11.2	--	1970	1310	458	--	5.39	35.8	392
LS-API	12/10/2015	LAPI151210M	2300	7.67	10.3	--	1200	1210	270	--	6.96	59.9	263
Average Value =			5600	7.90	12.3	NA	2627	1930	699	NA	6.48	46.9	562
S = INDICATES A SAMPLE HANDLING OR HOLD TIME ERROR													
NOTE: LEACHATE IS NOT ANALYZED (NA) FOR TURBIDITY OR DISSOLVED IRON													

IV. CONCLUSION

Stormwater samples for the Area 5 Top Deck were collected at monitoring locations SW-TD1, TD2, TD4 and TD6 during the 4th Quarter of 2015. With the exception of one Area 5 4th Quarter stormwater runoff turbidity result, there were no other water quality exceedances with respect to applicable water quality criteria or benchmarks. When results were compared to surface water (SW-S1), and leachate effluent (LS-API) samples, the Top Deck sample results exhibited a stronger resemblance to the surface water results, versus the leachate results.

Also to note, inspection reports showed no issues with the interim cover system for Area 5. The Area 5 settlement rate did increase over the previous range considered, which could be due to the drought conditions coupled with an early fall rains. However, there was no indication of major differential settling, nor signs of surficial erosion.

The recent compliant historical performance trend for Area 5, coupled with ongoing inspection results verifying the integrity of the cover and stormwater sample results demonstrating closer resemblance to surface water than leachate discharge, all provides evidence that the Area 5 Top Deck Interim Cover System continues to function to prevent interaction between refuse and surface water runoff.

Appendix B:

Gas Monitoring Reports



LEGEND:

○ ACTIVE MONITORING STATION

AERIAL FLOWN SEPTEMBER 2014

DATE	REVISION	BY



KING COUNTY DEPARTMENT OF
NATURAL RESOURCES AND PARKS
SOLID WASTE DIVISION

CEDAR HILLS REGIONAL LANDFILL
SETTLEMENT MONITORING LOCATIONS

APPROVED VOO DATE Feb 2014
 RECOMMENDED _____ DATE _____
 DESIGNED _____ DRAWN _____
 PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1
S:\CAD\CEDARHILL\annual report monitoring\settl\CH annual settlements 2014.dwg

P:\ACAD\PROJECT\King County Expansion Proposal\CARLA WORK\Figure 1.dwg Aug 01, 2007 - 3:18pm

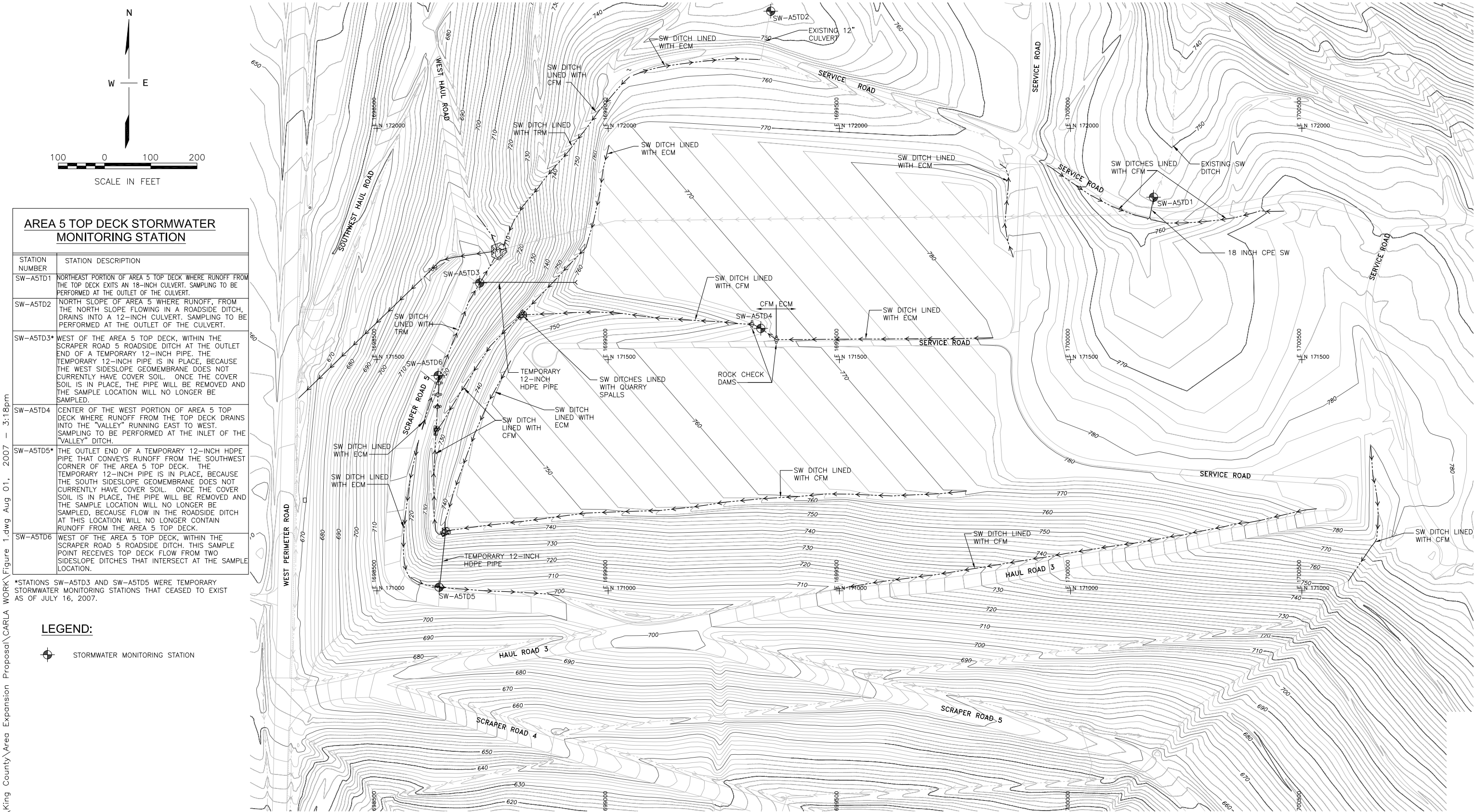


Figure 2
Area 5 Top Deck
Stormwater Monitoring Stations

Appendix A:

Inspection Reports

SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Date: 10-29-2015

Location: Cedar Hills Ambient Temperature (°F) 40 Weather Condition: Over cast/partly rainy

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	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				
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds			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	X	1. Road Sweeping		X	F. Vegetation	X	
7. Discharge Points	X		2. Access Roads		X	1. Refuse		X
8. General	X		3. Road Erosion	X		2. Cover Erosion		X
			4. Road Pavement		X	3. Silt Fences/Filter Fabric		X
			5. Lane Striping	X				
G. Operations								
1. Records Obtain / Review								

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	D2	G4			X		Truck wash pond, Surface water drain inlets needs mud removed and inlet protection.	
2	D3	F4			X		See photos: (mud pipe, truck wash).	
3	D4	G5			X		Well access vine removal needed. See photos: (Vines).	
4	B4	G4				X	Potential weep discovered along the north hill side of the South Solid Waste Area, sampling and review are being drawn and a corrective plan is being developed. See photos (SWWA).	

5	E(1,2&4)	F (3-5)				X	The stormwater ditch (along the liner toe of Area 5-6) needs rock, mud, construction debris, and litter removed. The road surface needs sweeping and vactor cleaning to remove mud and rock. See photos: (Old haul road).	
6	C12	F (3-5)				X	Large amount of blowing litter along the gas line on the east side of area 6. See photos: (Old haul road).	
7	F2	G4					Large stock piles of soil next to the Operators shed need covering. See photos: (Soil stock piles).	
8	F2	F (4&5)				X	The silt fencing on both sides of the new dirt hill haul road need correcting by keying in the toe of the silt fence, and filling in of the deep rills that have developed. In addition, the silt fencing is down in several locations and the drainage pipe penetration for the surface water controls are partly blocked with mud. There is a large amount of leftover construction debris on both sides of the new dirt hill road that need to be removed and the area left clean. See photos: (Dirt hill road).	
9	C3	G5			X		There is an electrical vault lid that has been ran over and is broken. See photo: (Broken).	
10	C-6	E4			X		There is some ponding issues observed on top of area 5. Drainage is needed. See photos: (Ponding).	
11	D5	F,G,H				X	The surface water ditches along the west have not had any improvement in surface water quality after the construction of the new ponds.	

AREA CODES (for Cedar Hills)

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

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
Area 7 = A7

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: This past summer construction project has concluded, and the recent rain storms have mobilized a great deal of sediment. There are several items that need correcting. Many of the erosion control items listed for correction should be address by Anchor, the Construction Contractor.

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:

SWPPP Modifications Necessary? (circle **Y** or **N**)
If **Y**, log changes in Appendix I of SWPPP.

Potential Pollutant Sources **Y / N**

Site Map **Y / N**

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

☐ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

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

Printed name: Stevn Larry, Engineer II

Signature: _____ Date: _____

DULY AUTHORIZED REPRESENTATIVE

Based on professional judgment, which of the following statements is true: (select one)

☐ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature: _____ Date: _____

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

A

B

C

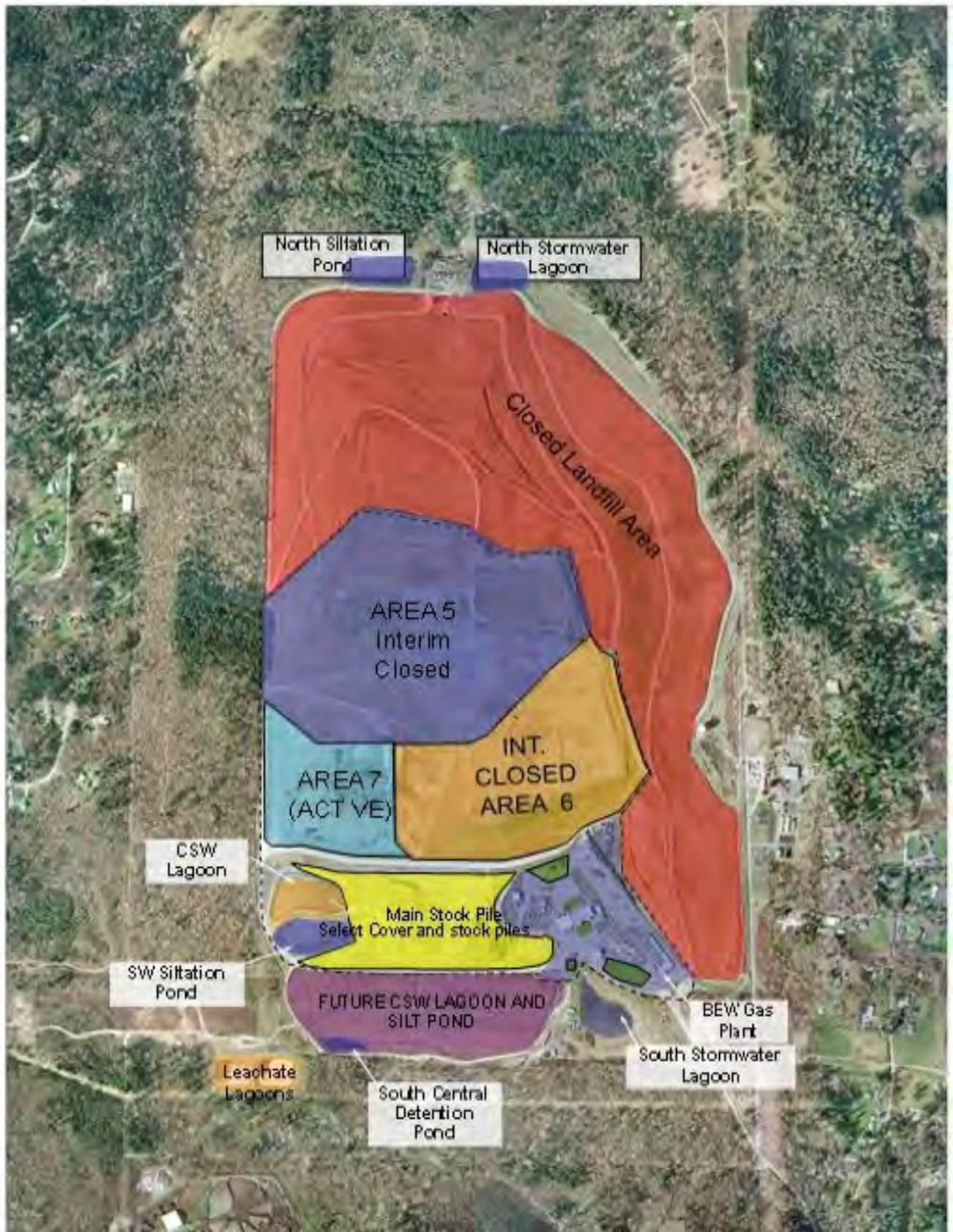
D

E

F

G

H



SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Date: 11-23-2015

Location: Cedar Hills

Ambient Temperature (°F) 40

Weather Condition: Clear

ACTION CODES

A. Gas System			B. Leachate System			C. Landfill Operations		
	OK	Not OK		OK	Not OK		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				
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds			7. Extraction Wells	X		12. Litter		X
2. CB / Control Structures	X		8. Valve / Cleanout	X		13. Dust control	X	
3. Pipes / Culverts	X	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. Discharge Points	X		2. Access Roads	X		1. Refuse		X
8. General	X		3. Road Erosion	X		2. Cover Erosion		X
			4. Road Pavement	X		3. Silt Fences/Filter Fabric		X
			5. Lane Striping	X				
G. Operations								
1. Records Obtain / Review								

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	C12	F(5&6)			X		There is a little accumulation of litter caught in the silt fencing on the Dirt Hill Road (east side). See photos: (Dirt Hill Road).	
2	D3	F(4&5)			X		Oily gloves and litter accumulation next to surface water ditch around the outdoor weld shop. See photos: (Oily glove).	
3	D3	F(4&5)			X		The stormwater ditch's foam dikes are over loaded, the dikes need digging out and re-staking. See photos: (Old haul road).	
4	D3	G(2-3)			X		The stormwater ditch along the new haul road by the aeration needs rocking. The flows are cutting into the ditch channel and are adding to silt loading.	

5	F2	F(5-6)			X		There is a gas control vault that is filled with mud and rock. See photo: (Dirt Hill Road valve box).	
7	F2	F (4&5)				X	The silt fencing on both sides of the new dirt hill haul road need correcting by keying in the toe of the silt fence, and filling in of the deep rills that have developed. In addition, the silt fencing is down in several locations and the drainage pipe penetration for the surface water controls are partly blocked with mud. There is a large amount of leftover construction debris on both sides of the new dirt hill road that need to be removed and the area left clean. See photos: (Dirt hill road).	
1	C-6	E4			X		There is some ponding issues observed on top of area 5. Drainage is needed. See photos:	

AREA CODES (for Cedar Hills)

East Main Hill = EMH

Southwest Main Hill = SWMH

Southeast Pit Area = SEPA

Central Pit = CP

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

Area 7 = A7

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: The site appears clean and maintained. The dirt hill road appears to be unstable. There are large cracks forming along the top edges on both road shoulders. Water intrusion into these cracks leads to hill side slope saturation and causes side slope slippage. The erosion control silt fences and hill erosion issues around the Dirt Haul Road have not been addressed by the contractor, Anchor Construction. Surface water ditches draining the area need silt removed and the foam erosion control dikes repositioned to remain effective. There is ponding at the toe shoulder of the dirt hill road that need draining. In another location (along the new haul road drainage ditch by the aeration pond), the surface water flows have eroded the surface water channel bottom an is adding additional loading of silt to surface flows. This channel needs additional road added to the jute cover.

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:

SWPPP Modifications Necessary? (circle Y or N)

Potential Pollutant Sources Y / N

Site Map Y / N

If Y, log changes in Appendix I of SWPPP.

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

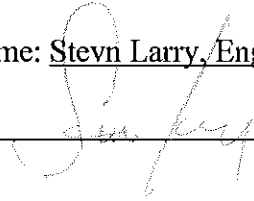
Based on professional judgment, which of the following statements is true: (select one)

- ☒ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*
☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

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

Printed name: Stevn Larry, Engineer II

Signature: 

Date: Nov 30, 2015

DULY AUTHORIZED REPRESENTATIVE

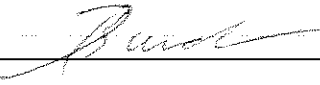
Based on professional judgment, which of the following statements is true: (select one)

- ☐ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*
☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S8, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name: Bill Berni, Operations Manager

Signature: 

Date: 11/30/15

Scott Barden

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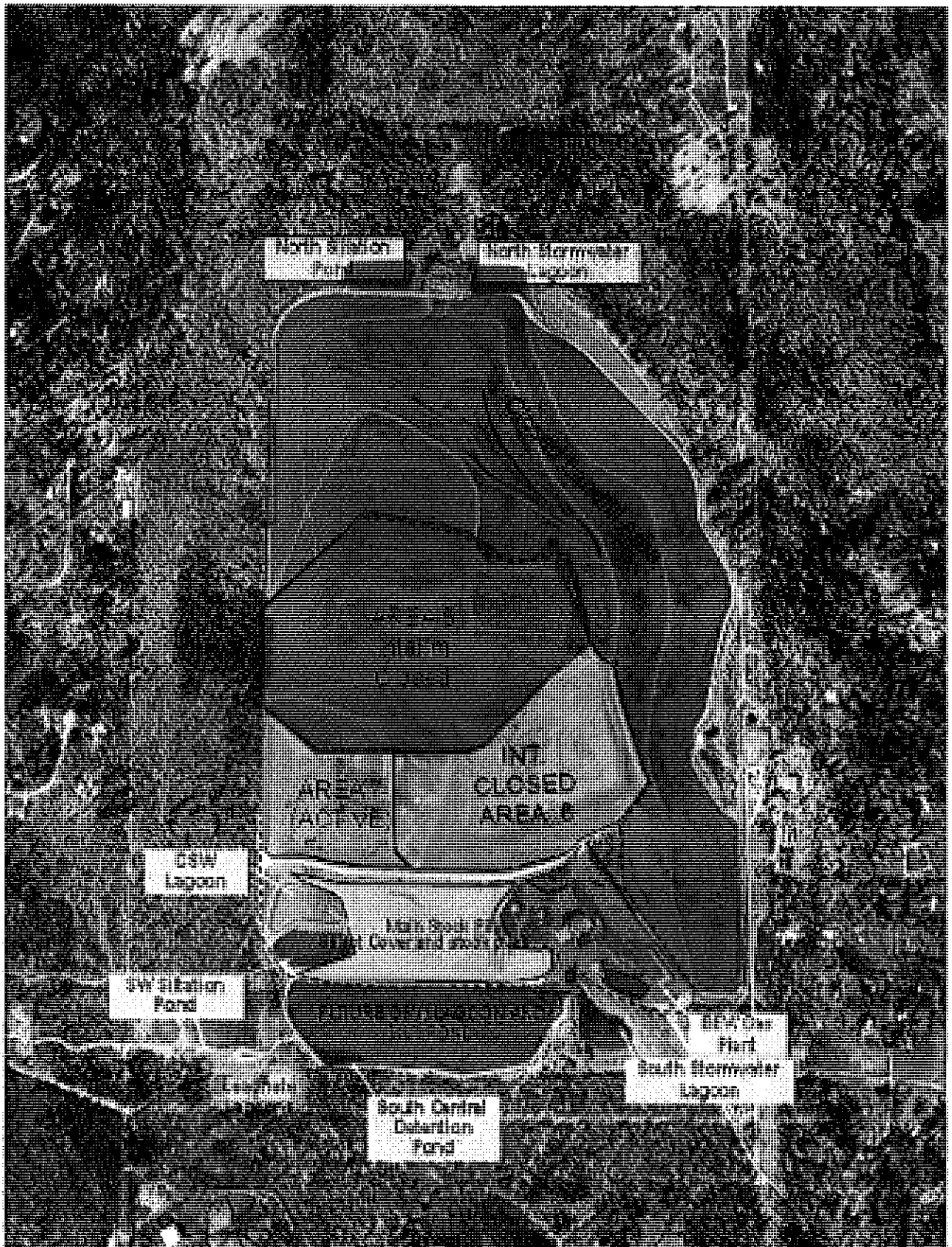
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SOLID WASTE DIVISION

Landfill Facility Site Inspections

Type – Permit Compliance

Inspected By: Stevn Larry

Date: 12-29-2015

Location: Cedar Hills Ambient Temperature (°F) 40 Weather Condition: Cloudy

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	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	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				
D. Stormwater System			6. Generators	X		11. Vectors	X	
1. Ponds			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	X	E. Roadway System			Cover System / ESC		
6. Runoff Control Berms	X		1. Road Sweeping	X		F. Vegetation	X	
7. Discharge Points	X		2. Access Roads	X		1. Refuse	X	
8. General	X		3. Road Erosion	X		2. Cover Erosion	X	X
			4. Road Pavement	X		3. Silt Fences/Filter Fabric		X
			5. Lane Striping	X				
G. Operations								
1. Records Obtain / Review								

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	C12	G(4&5)			X		There is a little accumulation of litter caught around the trailer dead line area. (See photo).	
2	D3	F(4&5)			X		The stormwater ditch's foam dikes are over loaded, the dikes need digging out and re-staking. See photos: (Old haul road).	
3	D3, D5	G(2-3)			X		The stormwater ditch along the new haul road by the aeration needs rocking. The flows are cutting into the ditch channel and are adding to silt loading.	
4	F2	F(5-6)			X		There is a gas control vault that is filled with mud and rock. See photo: (Dirt Hill Road valve box).	

AREA CODES (for Cedar Hills)

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

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

Area 7 = A7

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: The site appears clean and maintained. The road surfaces are clean and free of mud and rock, no blowing litter or accumulated litter in the conveyance ditches
 Many of the erosion control items associated with the dirt hill road listed during the last inspection have not been corrected.
 In another location (along the new haul road drainage ditch by the Pump Station), surface water flows have created small scarfs along the hills sides that will require correcting.
 There are eroded surface water channels by the aeration ponds that are adding additional loading of silt to surface flows. This channel needs additional road added to the jute cover.

<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:

SWPPP Modifications Necessary? (circle **Y** or **N**)
 If **Y**, log changes in Appendix I of SWPPP.

Potential Pollutant Sources **Y / N**

Site Map **Y / N**

INSPECTION REPORT SIGNATURE PAGE

INSPECTOR / QUALIFIED PERSONNEL

Based on professional judgment, which of the following statements is true: (select one)

☐ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

* Immediately notify Environmental Compliance Coordinator

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

Printed name: Stevn Larry, Engineer II

Signature: _____ Date: _____

DULY AUTHORIZED REPRESENTATIVE

Based on professional judgment, which of the following statements is true: (select one)

☐ *The site is in compliance with the terms and conditions of the SWPPP and the ISGP.*

☐ *The site is NOT in compliance with the terms and conditions of the SWPPP and the ISGP*.*

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Printed name: Bill Berni, Operations Manager

Signature: _____ Date: _____

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

A

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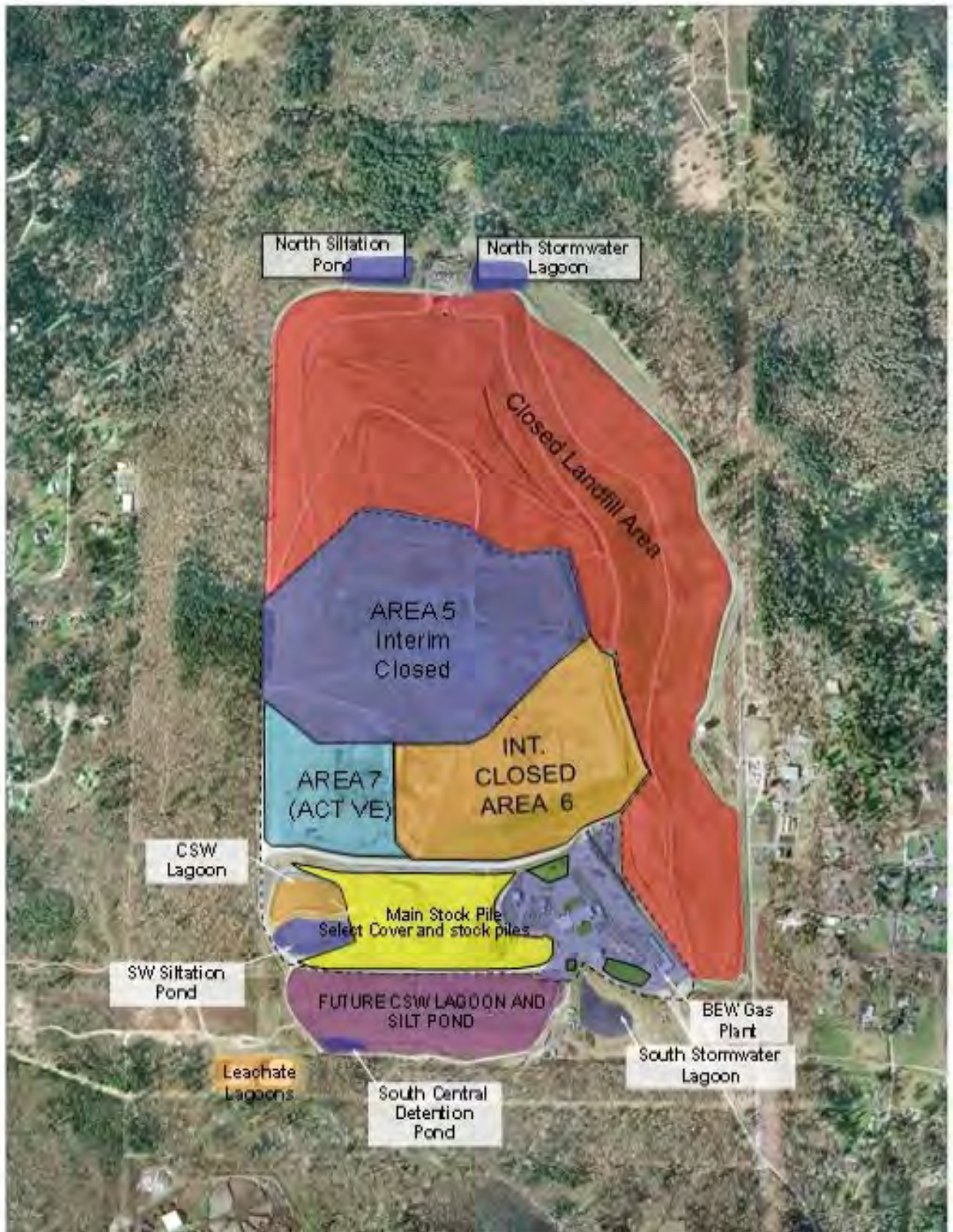
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SOLID WASTE INSPECTION REPORT

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 21, 2015 Time In: 11:50 am Time Out: 1:30 pm Inspector: Darshan Dhillon Result: SATISFACTORY

VIOLATIONS OBSERVED (if any)

OVERALL INSPECTION COMMENTS:

No bubbling gas was noticed in the water puddles.
Acceptable material of daily cover is placed on the refuse.
All weather roads to all areas of the landfill has been maintained.
Compactor operators have been trained to recognize prohibited waste.
No evidence of rodents was found on the landfill site and did not see any bird either. It has been raining heavily and wet snow was falling.
Landfill gas is being monitored at a regular basis. Wally's staff was measuring concentrations of landfill gas at the time of inspection.
Daily cover performance and monitoring is conducted on a daily basis.
Safety records are maintained and workers are trained on emerging safety issues such as stopping of refuse trucks at the stop signs.
No odor complaint was logged in the last 2 weeks.
Access to the facility has been controlled.
Pumps in one of the leachate ponds were working to replenish O2 in the leachate. to keep it aerobic.
In coming loads are weighed to measure daily, weekly and monthly refuse intakes.



Darshan Dhillon
H & E I III



Teresa Atkinson
Administrator 1

PIC Phone #: 206-639-0108

Email: scott.barden@kingcounty.gov

INSPECTION CHECKLIST

The following items are evaluated during inspections.
Violations cited as out of compliance during this inspection are highlighted below.

Out=out of compliance

OUT**Additional Operating Criteria WAC 173-351-220(1)**

- ☐ 0837-Road dust must be controlled
- ☐ 0838-Litter must be controlled
- ☐ 0839-Scavenging must be prohibited
- ☐ 0840-Staffing must be a minimum 2 personnel on site with one at the active portion when open
- ☐ 0841-Certification of operators of solid waste landfills must be current
- ☐ 0842-Reserve operational equipment must be available and adequate
- ☐ 0843-Active area boundaries must be clearly marked
- ☐ 0844-Must compact solid waste before succeeding layers are added per WAC
- ☐ 0845-Maintain monitoring systems for groundwater, explosive gas and other monitoring per permit
- ☐ 0846-Provide orderly and sanitary recycling methods to general public unless alternatives provided
- ☐ 0847-Prohibit disposal of dangerous waste unless DWR are met
- ☐ 0848-Must allow inspections by public health

Annual Report

- ☐ 0828-Annual report due April 1st

Closure and post-closure care WAC 173-351-500

- ☐ 0856-Final cover installed to minimize, infiltration and erosion per design
- ☐ 0857-Closure plan followed for areas of the MSWLF unit within 30 days of final receipt of wa-stes
- ☐ 0858-For closed areas, closure activities must be completed within 180 days
- ☐ 0859-For closed areas post closure care must be conducted per post- closure plan and WAC
- ☐ 0860-Final cover for closed areas must be maintained (vegetation, settlement, erosion,# run on/off)
- ☐ 0861-Leachate collection systems maintained and operated per post-closure plan and WAC 173-351-300
- ☐ 0862-Gas monitoring systems maintained and operated per post-closure plan and WAC 173-351-200

Design Criteria New MSWLF expansion 173-351-300

- ☐ 0849-New MSWLF units and expansions have approved liner & leachate collection system construction

Groundwater sampling and analysis requirements WAC 173-351-4

- ☐ 0853-Roundwater monitoring must be accordance with an approved sampling / analysis document

Liquids Restrictions

- ☐ 0825-Bulk or non-containerized liquid waste may not be placed in MSWLF unit unless exceptions allow
- ☐ 0826-Containers holding liquid waste may not be placed in a MSWLF unit unless meet 200 (9)(b)(i-iii)

MSLF Groundwater reporting WAC 173-351-415

- ☐ 0854-Annual groundwater report due by April 1st
- ☐ 0855-Quarterly groundwater monitoring reports submitted

MSLF Leachate Managementfor Surface Impoundments WAC 173-**OUT****Design Standards - Surface Impoundments**

- ☐ 0740-Embankments and slopes must be maintained and be in good condition
- ☐ 0741-Freeboard for the surface impoundment is > 18 inches or as specified per the permit

Ground Water monitoring requirements for surface impoundments and tanks

- ☐ 0766-Surface impoundments not equipped with a leak detection layer must meet WAC 173-350-500
- ☐ 0767-Surface impoundments w/a leak detection layer are subject to WAC 173-350-040 (5),173-350-330(b)

Operating standards - Surface Impoundments and tanks

- ☐ 0750-Must prevent overfilling and maintain required freeboard = 18 inches from wave action/precip
- ☐ 0751-Must control access to the site
- ☐ 0752-Must control nuisance odors for wastes or liquids
- ☐ 0753-Must control birds at impoundments storing wastes capable of attracting birds
- ☐ 0754-Records kept of weekly inspections and liner inspections at least every 5 years
- ☐ 0755-Daily records kept on-site of the quantity and type of wastes removed for at least 5 years

Operating Criteria WAC 173-351-200**Access Restriction**

- ☐ 0818-Access must be controlled (public /animal/vehicle). Barriers must be maintained.
- ☐ 0819-Lockable gate at each entry must be maintained and in good condition

Air Criteria

- ☐ 0816-MSWLF units must meet all applicable air standards
- ☐ 0817-Open burning of garbage is prohibited. Other types of burning only under appropriate permit

Cover Material Requirements

- ☐ 0806-Approved cover material must be applied at a depth of 6 in# at the end of the day or as needed
- ☐ 0807-Only approved alternative cover materials are in use and are applied at an approved depth

Disease Vectors Controlled

- ☐ 0808-Procedures must be in place to control disease vectors e g. (rodents, flies, mosquitoes, other)

Explosive Gases Control

- ☐ 0809-Methane gas must not exceed 25% of lower explosive limit for facility structures
- ☐ 0810-Methane gas concentration must not exceed lower explosive limit at the property boundary-beyond
- ☐ 0811-Methane gas concentration must not exceed 100ppm/volume of methane in offsite structures
- ☐ 0812-Explosive gases must be controlled and a routine methane monitoring program in place
- ☐ 0813-Monitoring for explosive gas occurs quarterly at a minimum
- ☐ 0814-Required measures must be taken if methane gas levels exceed limits (notify, monitor, evacuate)
- ☐ 0815-Must have procedures for methane gas level exceedance (gas levels, interim steps, remediation)

Incoming Waste Management

- ☐ 0800-Procedures must be in place for excluding the receipt of prohibited waste
- ☐ 0801-Random inspections must be conducted for incoming loads to prevent receipts of prohibited waste
- ☐ 0802-Record must be kept of random inspections of incoming loads to prevent prohibited waste
- ☐ 0803-Facility personnel must be trained to recognize prohibited wastes and training logs kept
- ☐ 0804-Immediate notification to Public Health and Ecology for any prohibited waste discovered

Performance Standards

- ☐ 0290-Must not pose a threat to human health or environment
- ☐ 0291-Protects from ground water contamination
- ☐ 0292-The facility must conform to the approved local comprehensive solid waste management plan
- ☐ 0293-Complies with RCW 70.94 Emission or ambient air quality standards
- ☐ 0294-Complies with all other local/state/federal laws and regulations

Performance Standards for groundwater monitoring System Design

- ☐ 0850-All groundwater monitoring system must be designed and maintained per WAC 173-351-405
- ☐ 0851-All wells must be clearly labeled, capped and locked
- ☐ 0852-Equipment used for groundwater monitoring is maintained

Permit Requirements

- ☐ 0863-Permit Required

Plan of Operation

- ☐ 0829-Plan of operation is current, complete and a hard copy present at the permit approved location
- ☐ 0830-Operators handle solid waste as described in plan of operations
- ☐ 0831-Operators conducting inspections per plan of operation
- ☐ 0832-Plan of operation procedures followed for fire or explosion
- ☐ 0833-Plan of operation procedures followed for actions to take for sudden releases of gas, leachate
- ☐ 0834-Maintain and operate leachate and gas collection equipment per plan of operation
- ☐ 0835-Safety equipment listed in plan of operation must be on-site and working (shower, eyewash)
- ☐ 0836-Any additional requirements by Public Health are followed as outlined on the plan of operation

Record Keeping

- ☐ 0827-Operating record is available at the approved location and is complete for all required records

Run-on/runoff Control Systems

- ☐ 0820-Prevent run-on to the active portion of the landfill during the peak discharge from 25yr storm
- ☐ 0821-Must provide runoff control for active portions to collect & control water vol. 24hr/25yr storm
- ☐ 0822-Runoff from active portion of the landfill must be handled in accordance w. WAC 173-351-200(8)

Surface Water Requirements

- ☐ 0823-MSWLF units must not discharge pollutants into waters of the state
- ☐ 0824-Must not cause the discharge of a nonpoint source pollution to waters of the state

Cedar Hills Area 5 Maintenance

for the period 10/01/2015 to 12/31/2015

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
Area 5						
	CHAREA5	0000015317	CLOSED	Monthly Gas System PM	10/20/2015	N
	CHAREA5	0000015317	CLOSED	Monthly Stormwater PM	10/20/2015	N
	CHAREA5	0000015317	CLOSED	Monthly Cover System PM	10/20/2015	N
	CHAREA5	0000015452	CLOSED	Monthly Gas System PM	11/17/2015	N
	CHAREA5	0000015452	CLOSED	Monthly Stormwater PM	11/17/2015	N
	CHAREA5	0000015452	CLOSED	Monthly Cover System PM	11/17/2015	N
	CHAREA5	0000015576	CLOSED	Monthly Gas System PM	12/07/2015	N
	CHAREA5	0000015576	CLOSED	Monthly Stormwater PM	12/07/2015	N
	CHAREA5	0000015576	CLOSED	Monthly Cover System PM	12/07/2015	N
	CHAREA5E	0000015251	CLOSED	Monthly Header PM	10/02/2015	N
	CHAREA5E	0000015386	CLOSED	Monthly Header PM	11/10/2015	N
	CHAREA5E	0000015519	CLOSED	Monthly Header PM	12/23/2015	N
	CHAREA5W	0000015250	CLOSED	Monthly Header PM	10/02/2015	N
	CHAREA5W	0000015385	CLOSED	Monthly Header PM	11/10/2015	N
	CHAREA5W	0000015518	CLOSED	Monthly Header PM	12/17/2015	N

Cedar Hills Landfill Storm Water Pollution Prevention Plan Maintenance

for the period 10/01/2015 to 12/31/2015

Click the blue 'Y' to see notes

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Catch Basins

Cedar Hills	0000029936	CLOSED	PMM	10/01/2015	Y
Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030305	CLOSED	PMM	11/03/2015	Y
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030567	CLOSED	PMM	12/03/2015	N
Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y

Control Structures

Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y

Trash Racks

Cedar Hills	0000030023	CLOSED	PMW	10/07/2015	N
Cedar Hills	0000030106	CLOSED	PMW	10/12/2015	Y
Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030167	CLOSED	PMW	10/21/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/10/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/11/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030333	CLOSED	PMW	11/03/2015	N
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030481	CLOSED	PMW	11/16/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
	Cedar Hills	0000030534	CLOSED	PMW	11/23/2015	Y
	Cedar Hills	0000030634	CLOSED	PMW	12/03/2015	Y
	Cedar Hills	0000030721	CLOSED	PMW	12/10/2015	Y
	Cedar Hills	0000030782	CLOSED	PMW	12/17/2015	Y
	Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y
	Cedar Hills	0000030846	CLOSED	PMW	12/21/2015	Y
	Cedar Hills	0000030879	CLOSED	PMW	12/29/2015	Y

Ditches

Cedar Hills	0000029936	CLOSED	PMM	10/01/2015	Y
Cedar Hills	0000029937	CLOSED	PMQ	10/01/2015	N
Cedar Hills	0000030023	CLOSED	PMW	10/07/2015	N
Cedar Hills	0000030106	CLOSED	PMW	10/12/2015	Y
Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030167	CLOSED	PMW	10/21/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/10/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/11/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030305	CLOSED	PMM	11/03/2015	Y
Cedar Hills	0000030333	CLOSED	PMW	11/03/2015	N
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030481	CLOSED	PMW	11/16/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030534	CLOSED	PMW	11/23/2015	Y
Cedar Hills	0000030567	CLOSED	PMM	12/03/2015	N
Cedar Hills	0000030634	CLOSED	PMW	12/03/2015	Y
Cedar Hills	0000030721	CLOSED	PMW	12/10/2015	Y
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Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y
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Cedar Hills	0000030879	CLOSED	PMW	12/29/2015	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Pipes/Culverts

Cedar Hills	0000029937	CLOSED	PMQ	10/01/2015	N
Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y

Ponds/Lagoons

Cedar Hills	0000029937	CLOSED	PMQ	10/01/2015	N
Cedar Hills	0000030023	CLOSED	PMW	10/07/2015	N
Cedar Hills	0000030106	CLOSED	PMW	10/12/2015	Y
Cedar Hills	0000030148	CLOSED	After Storm	10/12/2015	Y
Cedar Hills	0000030167	CLOSED	PMW	10/21/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/10/2015	Y
Cedar Hills	0000030243	CLOSED	PMW	11/11/2015	Y
Cedar Hills	0000030275	CLOSED	After Storm	10/26/2015	Y
Cedar Hills	0000030333	CLOSED	PMW	11/03/2015	N
Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
Cedar Hills	0000030481	CLOSED	PMW	11/16/2015	Y
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
Cedar Hills	0000030534	CLOSED	PMW	11/23/2015	Y
Cedar Hills	0000030634	CLOSED	PMW	12/03/2015	Y
Cedar Hills	0000030721	CLOSED	PMW	12/10/2015	Y
Cedar Hills	0000030782	CLOSED	PMW	12/17/2015	Y
Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y
Cedar Hills	0000030846	CLOSED	PMW	12/21/2015	Y
Cedar Hills	0000030879	CLOSED	PMW	12/29/2015	Y

General

Cedar Hills	0000029937	CLOSED	PMQ	10/01/2015	N
Cedar Hills	0000030023	CLOSED	PMW	10/07/2015	N
Cedar Hills	0000030106	CLOSED	PMW	10/12/2015	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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	Cedar Hills	0000030382	CLOSED	After Storm	11/02/2015	Y
	Cedar Hills	0000030481	CLOSED	PMW	11/16/2015	Y
	Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
	Cedar Hills	0000030493	CLOSED	After Storm	11/13/2015	N
	Cedar Hills	0000030534	CLOSED	PMW	11/23/2015	Y
	Cedar Hills	0000030634	CLOSED	PMW	12/03/2015	Y
	Cedar Hills	0000030721	CLOSED	PMW	12/10/2015	Y
	Cedar Hills	0000030782	CLOSED	PMW	12/17/2015	Y
	Cedar Hills	0000030789	CLOSED	After Storm	12/11/2015	Y
	Cedar Hills	0000030846	CLOSED	PMW	12/21/2015	Y
	Cedar Hills	0000030879	CLOSED	PMW	12/29/2015	Y

Leachate System

Cedar Hills	0000029937	CLOSED	PMQ	10/01/2015	N
CHPS1	0000029985	CLOSED	PMW	10/05/2015	N
CHPS1	0000030076	CLOSED	PMW	10/11/2015	N
CHPS1	0000030140	CLOSED	PMW	10/19/2015	N
CHPS1	0000030200	CLOSED	PMW	10/25/2015	N
CHPS1	0000030280	CLOSED	PMW	11/01/2015	N
CHPS1	0000030379	CLOSED	PMW	11/08/2015	N
CHPS1	0000030441	CLOSED	PMW	11/15/2015	N
CHPS1	0000030512	CLOSED	PMW	11/22/2015	N
CHPS1	0000030607	CLOSED	PMW	11/29/2015	N
CHPS1	0000030681	CLOSED	PMW	12/07/2015	N
CHPS1	0000030742	CLOSED	PMW	12/15/2015	Y
CHPS1	0000030836	CLOSED	PMW	12/21/2015	N
CHPS1	0000030874	CLOSED	PMW	12/28/2015	Y
CHPS2	0000029989	CLOSED	PMW	10/05/2015	N
CHPS2	0000030075	CLOSED	PMW	10/11/2015	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS2	0000030139	CLOSED	PMW	10/19/2015	N
	CHPS2	0000030199	CLOSED	PMW	10/25/2015	N
	CHPS2	0000030279	CLOSED	PMW	11/01/2015	Y
	CHPS2	0000030378	CLOSED	PMW	11/08/2015	N
	CHPS2	0000030442	CLOSED	PMW	11/15/2015	N
	CHPS2	0000030513	CLOSED	PMW	11/22/2015	N
	CHPS2	0000030606	CLOSED	PMW	11/29/2015	N
	CHPS2	0000030682	CLOSED	PMW	12/07/2015	N
	CHPS2	0000030741	CLOSED	PMW	12/15/2015	N
	CHPS2	0000030835	CLOSED	PMW	12/21/2015	N
	CHPS2	0000030873	CLOSED	PMW	12/28/2015	N
	CHPS3	0000029987	CLOSED	PMW	10/05/2015	N
	CHPS3	0000030074	CLOSED	PMW	10/11/2015	N
	CHPS3	0000030142	CLOSED	PMW	10/19/2015	N
	CHPS3	0000030198	CLOSED	PMW	10/25/2015	N
	CHPS3	0000030278	CLOSED	PMW	11/01/2015	N
	CHPS3	0000030377	CLOSED	PMW	11/08/2015	N
	CHPS3	0000030443	CLOSED	PMW	11/15/2015	N
	CHPS3	0000030514	CLOSED	PMW	11/22/2015	N
	CHPS3	0000030605	CLOSED	PMW	11/29/2015	N
	CHPS3	0000030684	CLOSED	PMW	12/07/2015	N
	CHPS3	0000030744	CLOSED	PMW	12/15/2015	N
	CHPS3	0000030834	CLOSED	PMW	12/21/2015	N
	CHPS3	0000030872	CLOSED	PMW	12/28/2015	Y
	CHPS4	0000029988	CLOSED	PMW	10/05/2015	N
	CHPS4	0000030073	CLOSED	PMW	10/11/2015	N
	CHPS4	0000030196	CLOSED	PMW	10/19/2015	N
	CHPS4	0000030197	CLOSED	PMW	10/25/2015	N
	CHPS4	0000030277	CLOSED	PMW	11/01/2015	Y
	CHPS4	0000030376	CLOSED	PMW	11/08/2015	N
	CHPS4	0000030444	CLOSED	PMW	11/15/2015	N
	CHPS4	0000030510	CLOSED	PMW	11/22/2015	Y
	CHPS4	0000030604	CLOSED	PMW	11/29/2015	N
	CHPS4	0000030685	CLOSED	PMW	12/07/2015	N
	CHPS4	0000030745	CLOSED	PMW	12/14/2015	Y

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHPS4	0000030838	CLOSED	PMW	12/21/2015	N
	CHPS4	0000030876	CLOSED	PMW	12/28/2015	Y
	LEPS	0000029932	CLOSED	PMM	10/01/2015	Y
	LEPS	0000029992	CLOSED	PMW	10/05/2015	N
	LEPS	0000030079	CLOSED	PMW	10/11/2015	N
	LEPS	0000030143	CLOSED	PMW	10/19/2015	Y
	LEPS	0000030205	CLOSED	PMW	10/25/2015	Y
	LEPS	0000030283	CLOSED	PMW	11/01/2015	Y
	LEPS	0000030284	CLOSED	PMW	11/01/2015	Y
	LEPS	0000030292	CLOSED	PMM	11/03/2015	Y
	LEPS	0000030292	CLOSED	PMM	11/03/2015	Y
	LEPS	0000030375	CLOSED	PMW	11/08/2015	N
	LEPS	0000030437	CLOSED	PMW	11/15/2015	N
	LEPS	0000030509	CLOSED	PMW	11/22/2015	N
	LEPS	0000030548	CLOSED	PMM	12/01/2015	Y
	LEPS	0000030548	CLOSED	PMM	12/01/2015	Y
	LEPS	0000030602	CLOSED	PMW	11/29/2015	N
	LEPS	0000030688	CLOSED	PMW	12/07/2015	N
	LEPS	0000030737	CLOSED	PMW	12/15/2015	Y
	LEPS	0000030833	CLOSED	PMW	12/21/2015	N
	LEPS	0000030871	CLOSED	PMW	12/28/2015	N

Landfill Cover

CHAPONDS	0000015315	CLOSED	PMV	10/20/2015	N
CHAPONDS	0000015450	CLOSED	PMV	11/17/2015	N
CHAPONDS	0000015574	CLOSED	PMV	12/07/2015	N
CHAREA4	0000015316	CLOSED	PMV	10/20/2015	N
CHAREA4	0000015451	CLOSED	PMV	11/17/2015	N
CHAREA4	0000015575	CLOSED	PMV	12/07/2015	N
CHAREA5	0000015317	CLOSED	PMV	10/20/2015	N
CHAREA5	0000015452	CLOSED	PMV	11/17/2015	N
CHAREA5	0000015576	CLOSED	PMV	12/07/2015	N
CHAREA6	0000015318	CLOSED	PMV	10/20/2015	N
CHAREA6	0000015453	CLOSED	PMV	11/20/2015	N
CHAREA6	0000015577	CLOSED	PMV	12/07/2015	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREAS23	0000015320	CLOSED	PMV	10/20/2015	N
	CHAREAS23	0000015455	CLOSED	PMV	11/17/2015	N
	CHAREAS23	0000015579	CLOSED	PMV	12/07/2015	N
	CHCENTRALPIT	0000015321	CLOSED	PMV	10/20/2015	N
	CHCENTRALPIT	0000015456	CLOSED	PMV	11/17/2015	N
	CHCENTRALPIT	0000015580	CLOSED	PMV	12/07/2015	N
	CHEMH	0000015322	CLOSED	PMV	10/20/2015	N
	CHEMH	0000015457	CLOSED	PMV	11/17/2015	N
	CHEMH	0000015581	CLOSED	PMV	12/07/2015	N
	CHNFLARESTN	0000015326	CLOSED	PMV	10/20/2015	N
	CHNFLARESTN	0000015461	CLOSED	PMV	11/17/2015	N
	CHNFLARESTN	0000015585	CLOSED	PMV	12/07/2015	N
	CHSEPA	0000015323	CLOSED	PMV	10/20/2015	N
	CHSEPA	0000015458	CLOSED	PMV	11/17/2015	N
	CHSEPA	0000015582	CLOSED	PMV	12/07/2015	N
	CHSSWA	0000015324	CLOSED	PMV	10/20/2015	N
	CHSSWA	0000015459	CLOSED	PMV	11/17/2015	N
	CHSSWA	0000015583	CLOSED	PMV	12/17/2015	N
	CHSTOCKPILE	0000015314	CLOSED	PMV	10/20/2015	N
	CHSTOCKPILE	0000015449	CLOSED	PMV	11/17/2015	N
	CHSTOCKPILE	0000015573	CLOSED	PMV	12/07/2015	N
	CHSWMH	0000015325	CLOSED	PMV	10/20/2015	N
	CHSWMH	0000015460	CLOSED	PMV	11/17/2015	N
	CHSWMH	0000015584	CLOSED	PMV	12/07/2015	N

Landfill Gas

	CHAREA5E	0000015245	CLOSED	PMW	10/02/2015	N
	CHAREA5E	0000015294	CLOSED	PMW	10/23/2015	N
	CHAREA5E	0000015380	CLOSED	PMW	11/09/2015	N
	CHAREA5E	0000015429	CLOSED	PMW	11/19/2015	N
	CHAREA5E	0000015513	CLOSED	PMW	12/14/2015	N
	CHAREA5E	0000015587	CLOSED	PMW	12/23/2015	N
	CHAREA5W	0000015246	CLOSED	PMW	10/02/2015	N
	CHAREA5W	0000015295	CLOSED	PMW	10/23/2015	N
	CHAREA5W	0000015381	CLOSED	PMW	11/09/2015	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
	CHAREA5W	0000015430	CLOSED	PMW	11/19/2015	N
	CHAREA5W	0000015514	CLOSED	PMW	12/14/2015	N
	CHAREA5W	0000015588	CLOSED	PMW	12/23/2015	N
	CHAREA6	0000015247	CLOSED	PMW	10/01/2015	N
	CHAREA6	0000015296	CLOSED	PMW	10/15/2015	N
	CHAREA6	0000015382	CLOSED	PMW	11/09/2015	N
	CHAREA6	0000015431	CLOSED	PMW	11/23/2015	N
	CHAREA6	0000015515	CLOSED	PMW	12/09/2015	N
	CHAREA6	0000015589	CLOSED	PMW	12/29/2015	N
	CHAREAS23	0000015195	CLOSED	PMW	10/01/2015	N
	CHAREAS23	0000015196	CLOSED	PMW	10/14/2015	N
	CHAREAS23	0000015335	CLOSED	PMW	11/12/2015	N
	CHAREAS23	0000015400	CLOSED	PMW	11/18/2015	N
	CHAREAS23	0000015467	CLOSED	PMW	12/08/2015	N
	CHAREAS23	0000015532	CLOSED	PMW	12/21/2015	N
	CHCMH	0000015217	CLOSED	PMW	10/13/2015	N
	CHCMH	0000015275	CLOSED	PMW	10/20/2015	N
	CHCMH	0000015353	CLOSED	PMW	11/09/2015	N
	CHCMH	0000015413	CLOSED	PMW	11/24/2015	N
	CHCMH	0000015490	CLOSED	PMW	12/01/2015	N
	CHCMH	0000015545	CLOSED	PMW	12/15/2015	N
	CHEMH	0000015204	CLOSED	PMW	10/05/2015	N
	CHEMH	0000015266	CLOSED	PMW	10/22/2015	N
	CHEMH	0000015346	CLOSED	PMW	11/12/2015	N
	CHEMH	0000015405	CLOSED	PMW	11/24/2015	N
	CHEMH	0000015478	CLOSED	PMW	12/01/2015	N
	CHEMH	0000015537	CLOSED	PMW	12/15/2015	N
	CHSEPA	0000015205	CLOSED	PMW	10/01/2015	N
	CHSEPA	0000015267	CLOSED	PMW	10/19/2015	N
	CHSEPA	0000015347	CLOSED	PMW	11/10/2015	N
	CHSEPA	0000015406	CLOSED	PMW	11/25/2015	N
	CHSEPA	0000015479	CLOSED	PMW	12/15/2015	N
	CHSEPA	0000015538	CLOSED	PMW	12/18/2015	N

Item	Location	Work Order Number	Work Order Status	PM/Repair Type	Completion Date	Work Order Has Notes
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Landfill Roads

CHACTIVEAREA	0000015305	CLOSED	PMR	10/20/2015	N
CHACTIVEAREA	0000015440	CLOSED	PMR	11/17/2015	N
CHACTIVEAREA	0000015564	CLOSED	PMR	12/07/2015	N
CHMAINGATE	0000015306	CLOSED	PMR	10/20/2015	N
CHMAINGATE	0000015441	CLOSED	PMR	11/17/2015	N
CHMAINGATE	0000015565	CLOSED	PMR	12/07/2015	N
CHPSR	0000015307	CLOSED	PMR	10/20/2015	N
CHPSR	0000015442	CLOSED	PMR	11/17/2015	N
CHPSR	0000015566	CLOSED	PMR	12/07/2015	N
CHSTOCKPILE	0000015314	CLOSED	PMR	10/20/2015	N
CHSTOCKPILE	0000015449	CLOSED	PMR	11/17/2015	N
CHSTOCKPILE	0000015573	CLOSED	PMR	12/07/2015	N

Landfill Roads

Sweeper	0	see Equipment Operator Spreadsheet	NA	0	N
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Equipment

Click the word 'Equipment' to see Work Order Numbers

Figures

[illegible]

NO EXCESSANCE DETECTED

[illegible]

No EXCLUSIVENESS DETECTION.

No Evidence Detected

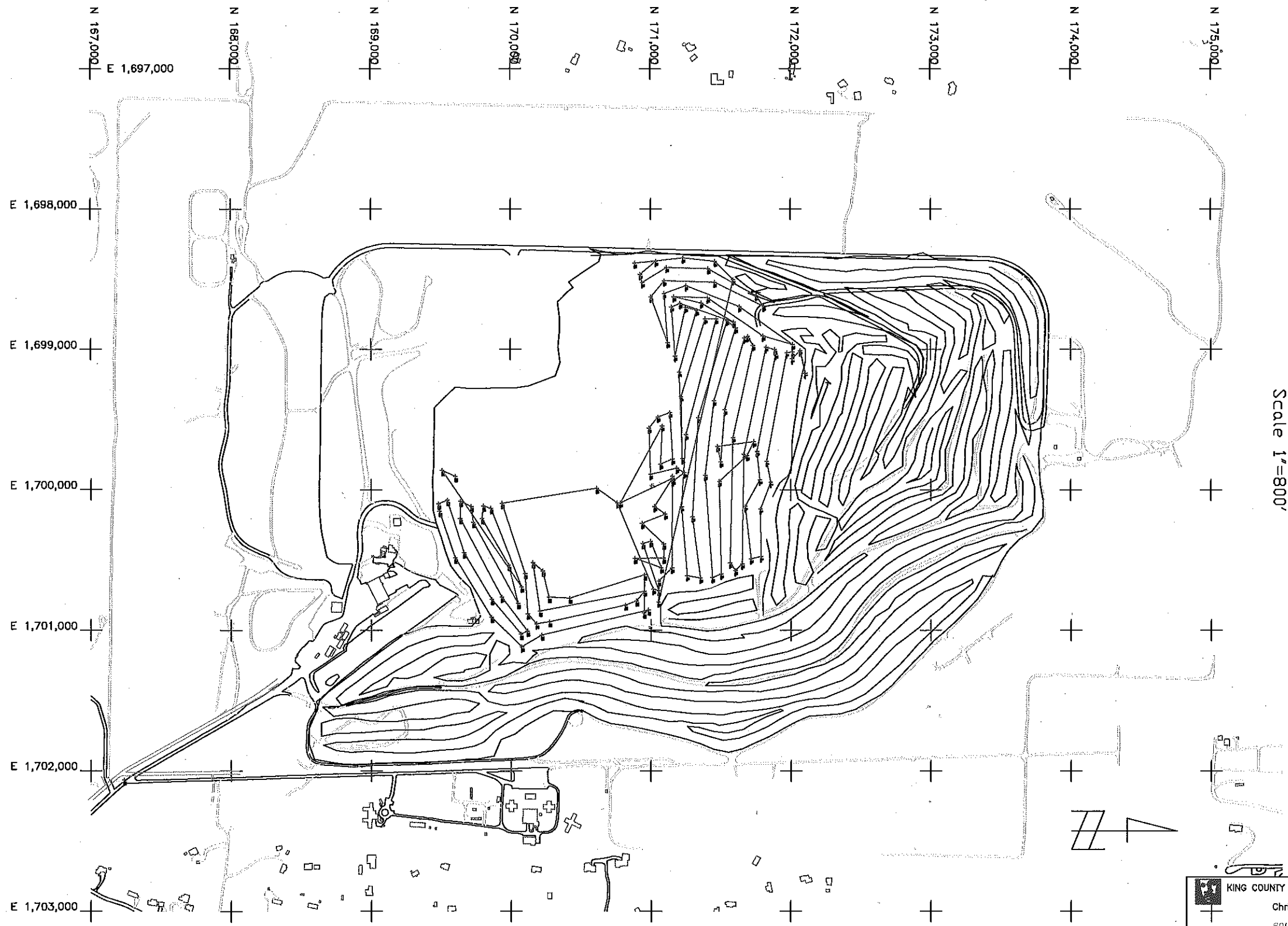
No Exceedances Detected

No Exceedances Detected

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Cedar Hills Regional Landfill Quarterly Surface Emission Monitoring Plot of GPS Generated Track Lines

DECEMBER 2015
 Scale 1"=800'



KING COUNTY SOLID WASTE
 501 S JACKSON ST. SUITE 701
 SEATTLE, WA 98104-8553

KING COUNTY SOLID WASTE
 501 S JACKSON ST. SUITE 701
 SEATTLE, WA 98104-8553

CEDAR HILLS REGIONAL LANDFILL
 10000 1st AVE. S.W.
 SEATTLE, WA 98148

DATE OF MONITORING 12-17-15

3 D. L. LUCAS
 AND ASSOCIATES
 10000 1st AVE. S.W.
 SEATTLE, WA 98148

KING COUNTY DEPARTMENT OF NATURAL RESOURCES
 AND PARKS
 Christle True, Director
 SOLID WASTE DIVISION
 CEDAR HILLS QUARTERLY
 GAS EMISSIONS MONITORING

APPROVED _____ DATE 12-23-15
 RECOMMENDED _____ DATE _____
 DESIGNED PJM DRAWN PJM
 PROJECT NO. _____ SURVEY NO. _____ SHEET 1 OF 1

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WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

TECHNICIAN COPY

**WO#: 0000015463**

Date In: 11/24/2015 13:14

Date Promised: 11/25/2015 13:14

Date Out: 00:00

WO Status: A Last WO#: 0000015439

WO Priority: Last WO Date: 11/02/2015

Track DownTime: Y Operator: WG

Equipment: CEDAR HILLS License: na
 Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZG5: Landfill Gas - not classified

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 Cedar Hills
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
I	A - SET AN ANNUAL DATE	07/07/2016	Annual Inspection
Q	0 - MONTHS	12/06/2015	Quarterly Inspection
S	0 - MONTHS	01/01/2016	Scheduled Inspection
X	0 - MONTHS	12/10/2015	Prohibited Activities

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	761		0.00000
PMQ BS	PM Service PMQ per list Billable Scheduled, Target	0	750		0.00000

NOTES

Work Order Task List

Repair Code: PMQ BS

Equipment: CEDAR HILLS

Work Order: 0000015463

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Ck liner integrity- Serpentine walk	✓				
	1	Gas- Ck liner integrity- Serpentine walk	✓				

12-14-15 to 12-17-15 36 HRS12-22-15 to 12-23-15 14.5 hrs

12-14 9 HRS

12-15 9 HRS

12-16 9 HRS

12-17 9 HRS

12-22 9 HRS

12-23 5.5 HRS

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WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA5 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015576

Date In: 11/25/2015 12:31

Date Promised: 11/26/2015 12:31

Date Out: 00:00

WD Status: A Last WO#: 0000015452

WO Priority: Last WO Date: 11/02/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 5
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2015	Gas System
T	0 - MONTHS	12/10/2015	Stormwater
V	0 - MONTHS	12/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est.	Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	761	0.00000	Gas	
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	761	0.00000	Gas	
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas	

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	☒	☒			
Gas Visually inspect disposal system	☒	☒			
Gas Verify daily odor log is current	☒				
Gas Note any deficiencies					

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	☒	☒			
Gas Visually inspect lagoons	☒	☒			
Gas Visually inspect catch basins	☒	☒			
Gas Visually inspect control structures	☒	☒			
Gas Visually inspect conveyance pipes	☒	☒			
Gas Note any deficiencies					

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	☒	☒			
Gas Visually inspect refuse	☒	☒			
Gas Visually inspect cover	☒	☒			
Gas Visually inspect erosion	☒	☒			
Gas Note any deficiencies					

DATE: 12-7-15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA5 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UP
 Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015452

Date In: 11/02/2015 14:51

Date Promised: 11/03/2015 14:51

Date Out: 00:00

WO Status: A Last WO#: 0000015317

WO Priority: Last WO Date: 09/21/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 5
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	11/10/2015	Gas System
T	0 - MONTHS	11/10/2015	Stormwater
V	0 - MONTHS	11/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	750 PB	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	750 PB	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750 PB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	/				
Gas Visually inspect disposal system	/				
Gas Verify daily odor log is current	/				
Gas Note any deficiencies	/				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	/				
Gas Visually inspect lagoons	/				
Gas Visually inspect catch basins	/				
Gas Visually inspect control structures	/				
Gas Visually inspect conveyance pipes	/				
Gas Note any deficiencies	/				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	/				
Gas Visually inspect refuse	/				
Gas Visually inspect cover	/				
Gas Visually inspect erosion	/				
Gas Note any deficiencies	/				

DATE:

11/17/15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

TECHNICIAN COPY

**WO#: 0000015317**

Date In: 09/21/2015 12:59

Date Promised: 09/22/2015 12:59

Date Out: 00:00

WO Status: A Last WO#: 0000015185

WO Priority: Last WO Date: 09/02/2015

Track DownTime: Y Operator: WG

Equipment: CHAREAS License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	7572:Waste Water, LF Gas
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	20:20- Cedar Hills
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	CH Area 5	
Fuel Cap2: 0.000		

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	09/10/2015	Gas System
T	0 - MONTHS	09/10/2015	Stormwater
V	0 - MONTHS	09/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	761	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	761	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	☒	☒	☐	☐	
Gas Visually inspect disposal system	☒	☒	☐	☐	
Gas Verify daily odor log is current	☒	☐	☐	☐	
Gas Note any deficiencies	☐	☐	☐	☐	

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	☒	☒	☐	☐	
Gas Visually inspect lagoons	☒	☒	☐	☐	
Gas Visually inspect catch basins	☒	☒	☐	☐	
Gas Visually inspect control structures	☒	☒	☐	☐	
Gas Visually inspect conveyance pipes	☒	☒	☐	☐	
Gas Note any deficiencies	☐	☐	☐	☐	

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	☒	☒	☐	☐	
Gas Visually inspect refuse	☒	☒	☐	☐	
Gas Visually inspect cover	☒	☒	☐	☐	
Gas Visually inspect erosion	☒	☒	☐	☐	
Gas Note any deficiencies	☐	☐	☐	☐	

DATE: 10-20-15

WO Company: Gas King County Landfill Gas
 WO Department: 7572 Waste Water, LF Gas
 WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20 Color:
 Year: 2006 Serial: na
 Make: UD Engine:
 Model: UD
 Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015577

Date In: 11/25/2015 12:33

Date Promised: 11/26/2015 12:33

Date Out: 00:00

WO Status: A Last WO#: 0000015517

WO Priority: Last WO Date: 11/25/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVW: D
 Tire Size 2: EAC: 24
 Transmission: Department: 7572:Waste Water, LF Gas
 Fuel Type1: Company: Gas King County Landfill Gas
 Fuel Type2: Site: 20:20- Cedar Hills
 Fuel Type3: Monitor Group:
 Oil Capacity: 0.000 Comments:
 Fuel Cap1: 0.000 CH Area 6
 Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	12/10/2015	Gas System
S	0 - MONTHS	12/28/2015	Scheduled Inspection
T	0 - MONTHS	12/10/2015	Stormwater
V	0 - MONTHS	12/10/2015	Cover System
W	W - WEEKS	11/22/2015	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	761	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	761	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	☒	☒			
Gas Visually inspect disposal system	☒	☒			
Gas Verify daily odor log is current	☒	☒			
Gas Note any deficiencies					

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	☒	☒			
Gas Visually inspect lagoons	☒	☒			
Gas Visually inspect catch basins	☒	☒			
Gas Visually inspect control structures	☒	☒			
Gas Visually inspect conveyance pipes	☒	☒			
Gas Note any deficiencies					

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	☒	☒			
Gas Visually inspect refuse	☒	☒			
Gas Visually inspect cover	☒	☒			
Gas Visually inspect erosion	☒	☒			
Gas Note any deficiencies					

DATE: 12-7-15

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015453

Date In: 11/02/2015 14:52

Date Promised: 11/03/2015 14:52

Date Out: 00:00

WO Status: A Last WO#: 0000015431

WO Priority: Last WO Date: 10/30/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	11/10/2015	Gas System
S	0 - MONTHS	11/28/2015	Scheduled Inspection
T	0 - MONTHS	11/10/2015	Stormwater
V	0 - MONTHS	11/10/2015	Cover System
W	W - WEEKS	11/08/2015	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	750 RB	0.00000	Gas
PHT BS	PM Service PM Stormwater Billable Scheduled, Target	0	750 RB	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	750 RB	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	✓				
Gas Visually inspect disposal system	✓				
Gas Verify daily odor log is current	✓				
Gas Note any deficiencies	✓				

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	✓				
Gas Visually inspect lagoons	✓				
Gas Visually inspect catch basins	✓				
Gas Visually inspect control structures	✓				
Gas Visually inspect conveyance pipes	✓				
Gas Note any deficiencies	✓				

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	✓				
Gas Visually inspect refuse	✓				
Gas Visually inspect cover	✓				
Gas Visually inspect erosion	✓				
Gas Note any deficiencies	✓				

DATE:

11/17/15

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6 License: na

Location: 20

Color:

Year: 2006

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG6S: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015318

Date In: 09/21/2015 13:00

Date Promised: 09/22/2015 13:00

Date Out: 00:00

WO Status: A Last WO#: 0000015296

WO Priority: Last WO Date: 09/21/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
G	0 - MONTHS	09/10/2015	Gas System
S	0 - MONTHS	09/28/2015	Scheduled Inspection
T	0 - MONTHS	09/10/2015	Stormwater
V	0 - MONTHS	09/10/2015	Cover System
W	W - WEEKS	09/27/2015	Weekly Inspection

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMG BS	PM Service PM Gas System Billable Scheduled, Target	0	761	0.00000	Gas
PMT BS	PM Service PM Stormwater Billable Scheduled, Target	0	761	0.00000	Gas
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas

NOTES

For CHAREA4, CHAREA5, CHAREA6, CHAREA7, CHAREAS23,
CHCENTRALPIT, CHEMH, CHSEPA, CHSSWA, CHSWMH (10)

PMG BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect collection system	☒	☒			
Gas Visually inspect disposal system	☒	☒			
Gas Verify daily odor log is current	☒				
Gas Note any deficiencies					

PMT BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect ponds	☒	☒			
Gas Visually inspect lagoons	☒	☒			
Gas Visually inspect catch basins	☒	☒			
Gas Visually inspect control structures	☒	☒			
Gas Visually inspect conveyance pipes	☒	☒			
Gas Note any deficiencies					

PMV BS

Task	OK	Adjust	Repair	Replace	Comments
Gas Visually inspect vegetation	☒	☒			
Gas Visually inspect refuse	☒	☒			
Gas Visually inspect cover	☒	☒			
Gas Visually inspect erosion					
Gas Note any deficiencies					

DATE: 10-20-15

SIDE SLOPE OF ROAD
SLIDING AWAY WASHING
DOWN IN AREA 6 SOUTH
ROAD DITCH

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG5: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015492

Date In: 11/25/2015 08:01

Date Promised: 11/26/2015 08:01

Date Out: 00:00

WO Status: A Last WO#: 0000015355

WO Priority: Last WO Date: 10/30/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area S

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	11/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	763	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREASTD

Work Order: 0000015492

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	*				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies					

35m

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA5TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000015355**

Date In: 10/30/2015 09:51

Date Promised: 10/31/2015 09:51

Date Out: 00:00

WO Status: A Last WO#: 0000015219

WO Priority: Last WO Date: 09/21/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 5

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	10/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA5TD

Work Order: 0000015355

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
11-23	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000	✓				
	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

1 hr

WO Company: Gas King County Landfill Gas
WO Department: 7572 Waste Water, LF Gas
WO Shop: Gas Landfill Gas

Equipment: CHAREASTD License: na

Location: 20. Color:
Year: 2010 Serial: na
Make: UD Engine:
Model: UD
Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY

**WO#: 0000015219**

Date In: 09/21/2015 10:53

Date Promised: 09/22/2015 10:53

Date Out: 00:00

WO Status: A Last WO#: 0000015091

WO Priority: Last WO Date: 09/02/2015

Track DownTime: Y Operator: WG

Tire Size 1: GVW: 0
Tire Size 2: EAC: 24
Transmission: Department: 7572:Waste Water, LF Gas
Fuel Type1: Company: Gas King County Landfill Gas
Fuel Type2: Site: 20:20- Cedar Hills
Fuel Type3: Monitor Group:
Oil Capacity: 0.000 Comments:
Fuel Cap1: 0.000 CH Area 5
Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	09/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	761	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA5TD

Work Order: 0000015219

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	☒	☒			
	2	Gas- Ck for damage @ flare station inlet	☒	☒			
	3	Gas- Ck collection field pipe integrity	☒	☒			
	4	Gas- Ck collection field pipe alignment	☒	☒			
	5	Gas- Ck for damage @ possible stress pts	☒	☒			
	6	Gas- Ck for damage at vertical pipes	☒	☒			
	7	Gas- Ck for damage at well heads	☒	☒			
	8	Gas- Ck for gas leaks with TVA 1000	☒	☒			
	9	Gas- Ck for settlement/ponding	☒	☒			
	10	Gas- Ck surface water conveyance system	☒	☒			
	11	Gas- Ck and open vault covers	☒	☒			
	12	Gas- Exercise field and header valves	☒	☒			
	13	Gas- Ck flex hoses and connections	☒	☒			
	14	Gas- Ck for erosion	☒	☒			
	15	Gas- Ck for vegetation	☒	☒			
	16	Gas- Ck cover system	☒	☒			
	17	Gas- Ck for refuse/litter	☒	☒			
	18	Gas- Note any deficiencies	☒	☒			

10-27-15

/HR

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREASTD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015520

Date In: 11/25/2015 08:57

Date Promised: 11/26/2015 08:57

Date Out: 00:00

WO Status: A Last WO#:0000015492

WO Priority: Last WO Date: 11/25/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 5

Fuel Cap2: 0.000

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD

PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	11/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description

REPAIRS

RTY	Description	Status	MID	Est. Labor	Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0	762 JD	0.00000	Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA5TD

Work Order: 0000015520

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	✓				
	2	Gas- Ck for damage @ flare station inlet	✓				
	3	Gas- Ck collection field pipe integrity	✓				
	4	Gas- Ck collection field pipe alignment	✓				
	5	Gas- Ck for damage @ possible stress pts	✓				
	6	Gas- Ck for damage at vertical pipes	✓				
	7	Gas- Ck for damage at well heads	✓				
	8	Gas- Ck for gas leaks with TVA 1000					
12-21	9	Gas- Ck for settlement/ponding	✓				
	10	Gas- Ck surface water conveyance system	✓				
	11	Gas- Ck and open vault covers	✓				
	12	Gas- Exercise field and header valves	✓				
	13	Gas- Ck flex hoses and connections	✓				
	14	Gas- Ck for erosion	✓				
	15	Gas- Ck for vegetation	✓				
	16	Gas- Ck cover system	✓				
	17	Gas- Ck for refuse/litter	✓				
	18	Gas- Note any deficiencies	✓				

1 hr

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZG6S: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015387

Date In: 10/30/2015 11:51

Date Promised: 10/31/2015 11:51

Date Out: 00:00

WO Status: A Last WO#: 0000015252

WO Priority: Last WO Date: 09/21/2015

Track DownTime: Y Operator: WG

Tire Size 1:	GVW:	0
Tire Size 2:	EAC:	24
Transmission:	Department:	7572:Waste Water, LF Gas
Fuel Type1:	Company:	Gas King County Landfill Gas
Fuel Type2:	Site:	20:20- Cedar Hills
Fuel Type3:	Monitor Group:	
Oil Capacity: 0.000	Comments:	
Fuel Cap1: 0.000	CH Area 6	
Fuel Cap2: 0.000		

METERS

WO Meter	Reading	Override?	Eq Meter	Actual	LTD
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PM SERVICE

Type	Cycle	Next Due	Description
V	0 - MONTHS	10/10/2015	Cover System

WARRANTY INFORMATION

Type	Cycle	Date Expires	Description
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REPAIRS

RTY	Description	Status: M10	Est. Labor: Shop
PMV BS	PM Service PM Cover System Billable Scheduled, Target	0 761 <i>mg</i>	0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA6TD

Work Order: 0000015387

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

11-17-15

30 min

WO Company: Gas King County Landfill Gas

WO Department: 7572 Waste Water, LF Gas

WO Shop: Gas Landfill Gas

Equipment: CHAREA6TD License: na

Location: 20

Color:

Year: 2010

Serial: na

Make: UD

Engine:

Model: UD

Class: ZZZZZZZGS: Landfill Gas - not classified

TECHNICIAN COPY



WO#: 0000015252

Date In: 09/21/2015 11:23

Date Promised: 09/22/2015 11:23

Date Out: 00:00

WO Status: A Last WO#: 0000015119

WO Priority: Last WO Date: 09/02/2015

Track DownTime: Y Operator: WG

Tire Size 1:

GVW: 0

Tire Size 2:

EAC: 24

Transmission:

Department: 7572:Waste Water, LF Gas

Fuel Type1:

Company: Gas King County Landfill Gas

Fuel Type2:

Site: 20:20- Cedar Hills

Fuel Type3:

Monitor Group:

Oil Capacity: 0.000

Comments:

Fuel Cap1: 0.000

CH Area 6

Fuel Cap2: 0.000

METERS

WO Meter

Reading

Override?

Eq Meter: Actual LTD

PM SERVICE

Type

Cycle

Next Due

Description

V

0 - MONTHS

09/10/2015

Cover System

WARRANTY INFORMATION

Type

Cycle

Date Expires

Description

REPAIRS

RTY

Description

Status: MIO

Est. Labor: Shop

PMV BS

PM Service | PM Cover System | Billable | Scheduled, Target

0 750 2.3

0.00000 Gas

NOTES

Work Order Task List

Repair Code: PMV BS

Equipment: CHAREA6TD

Work Order: 0000015252

Complete?	Step	Tasks	OK	Adjust	Repair	Replace	Comments
	1	Gas- Visually inspect Header	/				
	2	Gas- Ck for damage @ flare station inlet	/				
	3	Gas- Ck collection field pipe integrity	/				
	4	Gas- Ck collection field pipe alignment	/				
	5	Gas- Ck for damage @ possible stress pts	/				
	6	Gas- Ck for damage at vertical pipes	/				
	7	Gas- Ck for damage at well heads	/				
	8	Gas- Ck for gas leaks with TVA 1000	/				
	9	Gas- Ck for settlement/ponding	/				
	10	Gas- Ck surface water conveyance system	/				
	11	Gas- Ck and open vault covers	/				
	12	Gas- Exercise field and header valves	/				
	13	Gas- Ck flex hoses and connections	/				
	14	Gas- Ck for erosion	/				
	15	Gas- Ck for vegetation	/				
	16	Gas- Ck cover system	/				
	17	Gas- Ck for refuse/litter	/				
	18	Gas- Note any deficiencies	/				

45 min

10/13/15