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Report

Hidden Valley Landfill
Annual Report for 2011

Presented to:

Pierce County Recycling, Composting & Disposal, LLC dba LRI
17925 Meridian Street East
Puyallup, Washington 98375

Presented by:

SCS ENGINEERS
2405 140th Ave NE, Ste 107
Bellevue, Washington 98005
(425) 746-4600

March 23, 2012
File No. 04211003.03

Offices Nationwide
www.scsengineers.com

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Emily Smart, LG
Staff Geologist

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Project Director

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1.0 INTRODUCTION

This document is the 2011 annual report for the Hidden Valley Landfill prepared on behalf of Pierce County Recycling, Composting and Disposal LLC, dba LRI (LRI). The facility is a closed municipal solid waste landfill that stopped accepting waste on December 31, 1998. Post-closure activities are performed consistent with Post-Closure Care Permit No. 27 016 issued by the Tacoma-Pierce County Health Department (TPCHD), and Consent Decree No. 032146876 between the Washington Department of Ecology (Ecology), Pierce County (County) and LRI. The Hidden Valley Landfill is located at 17925 Meridian Street East, Puyallup, Washington (Figure 1).

1.1 FACILITY CONTACT INFORMATION

Hidden Valley Landfill
17925 Meridian Street East
Puyallup, Washington 98375
Facility Contact: Greg Burrington (253) 377-2957

1.2 FACILITY DESCRIPTION

The landfill property is approximately 92 acres in size and is located in the north half of the northwest quarter of Section 34, Township 19N, Range 4E. The landfill includes approximately 56 acres of unlined closed fill and a closed 30-acre lined cell. Also present at the site are a leachate pre-treatment facility, a transfer station, and a recycling center.

Hidden Valley Landfill began operation in the mid-1960s and accepted waste until December 31, 1998. Waste disposed of at the landfill included municipal solid waste, demolition wastes, commercial waste, industrial wastes, and small quantities of bulk liquids and sludges.

1.3 PROJECT HISTORY

The U.S. Environmental Protection Agency (EPA) conducted an environmental assessment of the Hidden Valley Landfill between 1981 and 1985 and prepared a preliminary assessment (PA) and a hazard ranking scoring (HRS) of the site. As a result of the HRS, Hidden Valley Landfill was placed on the National Priority List (NPL) in April 1989.

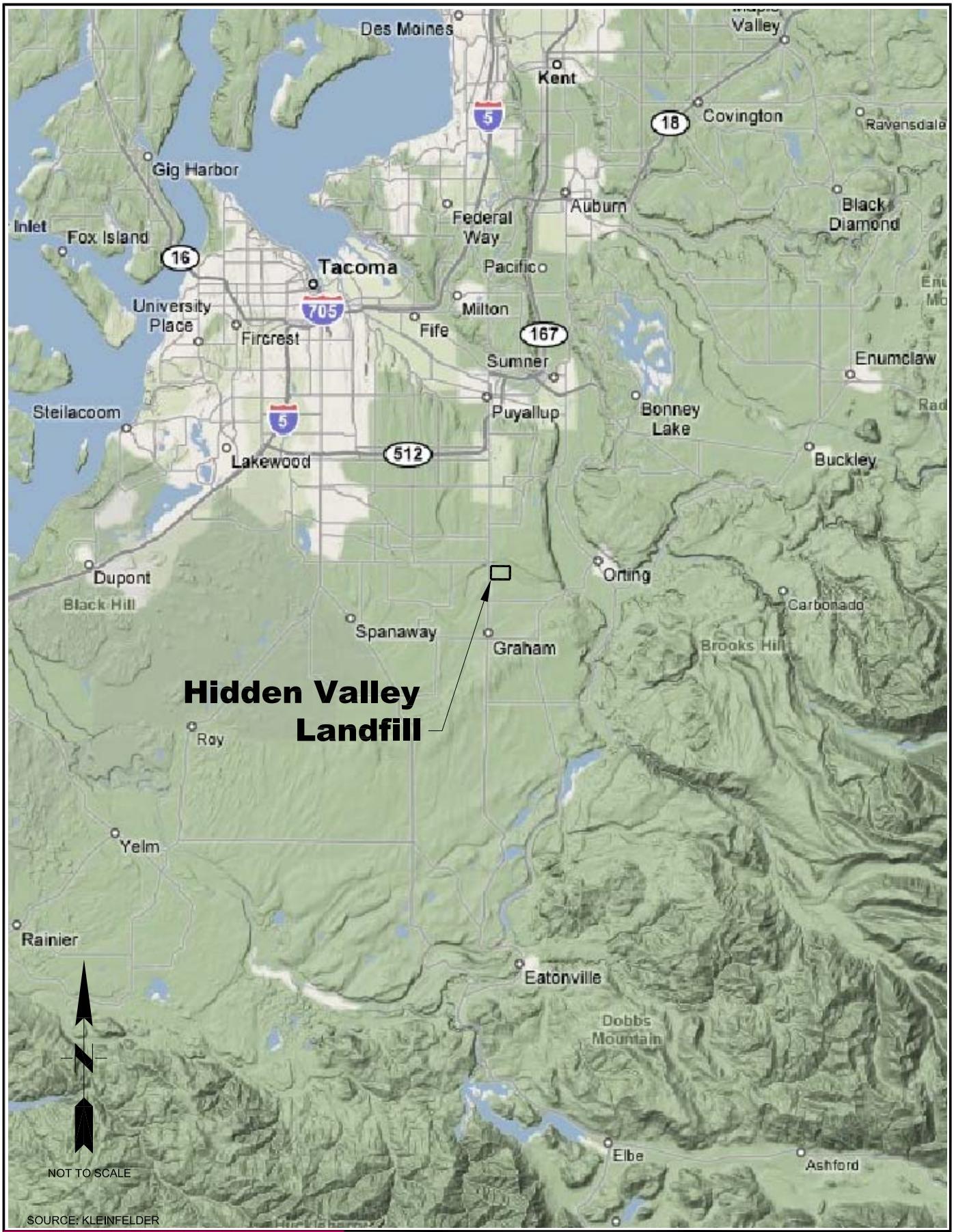
A Remedial Investigation (RI) was conducted under Ecology Consent Order DE 86 S173. The final RI report was submitted to Ecology in March 1992. The RI found groundwater impacts downgradient of the landfill. Groundwater contaminants have included dissolved iron and manganese, chloride, ammonia, nitrate, sulfate, specific conductance, total dissolved solids and low levels of volatile organic compounds (VOCs), including benzene, chlorobenzene, tetrachloroethene, 1,1-dichloroethane, and 1,4-dichlorobenzene.

In January 2004, Consent Decree No. 032146876 was finalized and signed. The consent decree and associated cleanup action plan address long-term maintenance and monitoring activities at the landfill and establish groundwater cleanup levels.

1.4 2011 MONITORING ACTIVITIES

Landfill gas monitoring was conducted on a monthly basis during 2011. Groundwater monitoring was performed quarterly in January, April, July, and October. Leachate monitoring was performed in January.

Monitoring results for the first three quarters of 2011 were previously submitted to the TPCHD and Ecology in quarterly reports. Fourth Quarter 2011 groundwater data were previously submitted to the TPCHD in a data transmittal. Fourth Quarter 2011 landfill gas monitoring data were previously submitted to the TPCHD via email. This report includes summary tables for all four quarters. The groundwater database was provided to the TPCHD as an Access file in electronic format (on compact disk) as a separate submittal.



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PROJECT NO. 04212004.03	DES BY LEL	SITE LOCATION MAP HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE MARCH 2012
SCALE NOT TO SCALE	CHK BY EMS		FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		

2.0 LANDFILL GAS MONITORING

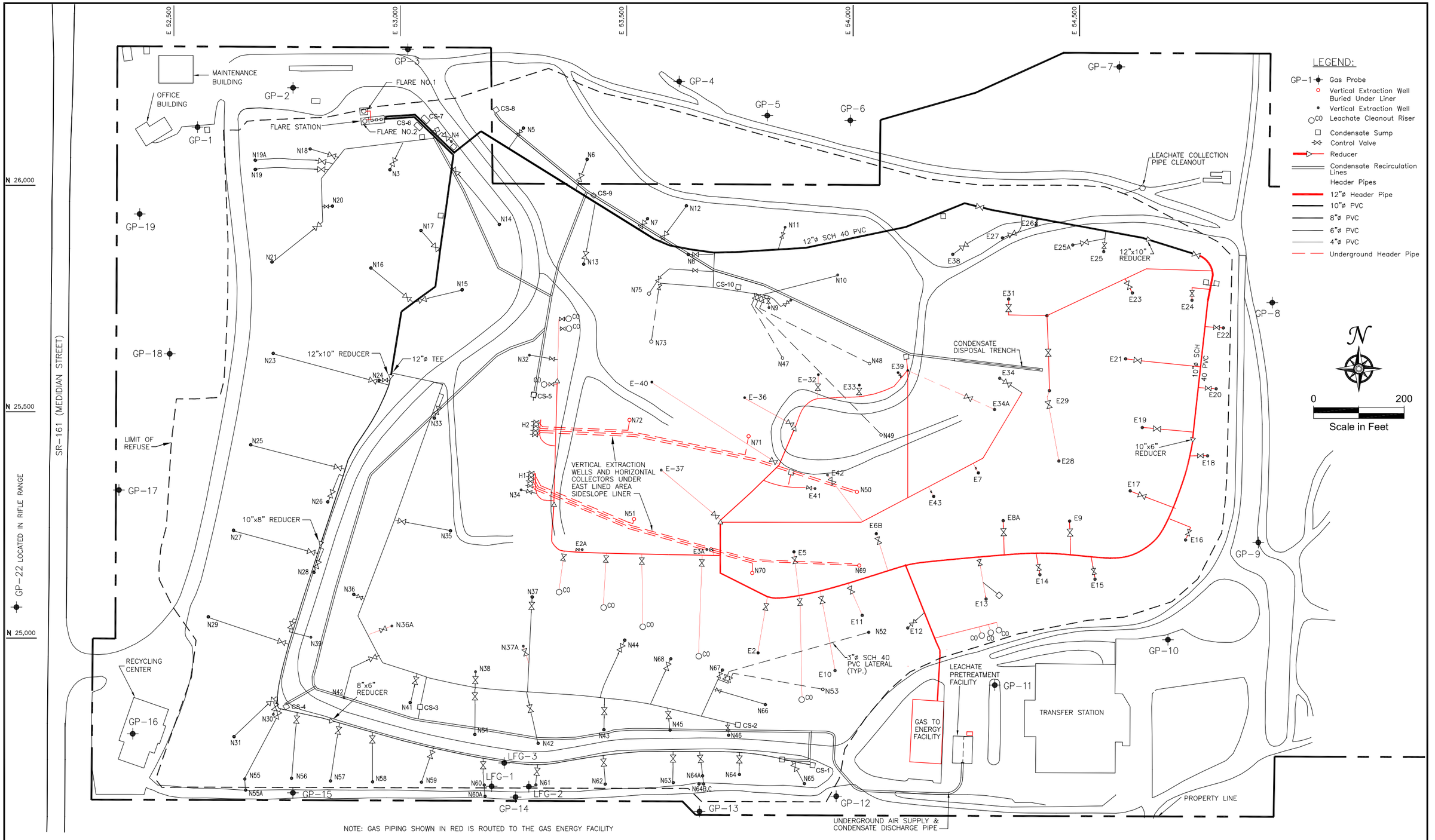
Landfill gas probes were monitored monthly during 2011. Gas probe locations are shown on Figure 2. Parameters measured at the gas probes included carbon dioxide, oxygen, and combustible gas (measured as methane). As described in Section 7, a portion of the gas extraction system on the south slope of the landfill was shut down in September 2009 in response to a suspected area of subsurface oxidation. This area of the gas extraction system remained off-line throughout 2010 and 2011 (gas wells N42, N43, N60, N61, N62, and N54).

Gas probe readings were less than 5 percent methane by volume except as noted in Table 1. After obtaining any reading greater that 5 percent methane by volume, the TPCHD was notified and the vacuum on the adjacent well field was adjusted by LRI staff to recapture the landfill gas. Additional monitoring was subsequently performed by LRI staff until methane concentrations decreased to less than 5 percent by volume. Monthly gas probe monitoring results are included in Appendix A.

Gas monitoring of building interiors was performed on January 25, April 25, July 22, and November 16. The main office, maintenance building, scale house/pay booth, leachate treatment building, recycling building, security building, cogeneration building, and transfer station were monitored. No detectable concentrations of combustible gas were found in any structure. Copies of the building survey reports are included in Appendix A.

Table 1. 2011 Landfill Gas Data

2011 Landfill Gas Data Probe Readings Greater than 5 Percent Methane by Volume Hidden Valley Landfill, Pierce County, Washington		
Month	**Gas Probe**	**Methane Reading (%)**
March	GP-15A	6.6
April	GP-13A	18.6
April	GP-15A	7.5
May	GP-13A	22.5
June	GP-3D	9.3
June	GP-11	5.1
June	GP-13A	16.4
July	GP-3D	7.4
July	GP-13A	23.0
August	GP-3D	9.3
August	GP-13A	14.8
August	GP-15A	8.5
September	GP-3D	8.6
September	GP-13A	6.5



NOTE: GAS PIPING SHOWN IN RED IS ROUTED TO THE GAS ENERGY FACILITY

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PROJECT NO. 04212004.03	DES BY KGL	GAS SYSTEM HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE MARCH 2012
SCALE AS SHOWN	CHK BY KGL		FIGURE 2
CAD FILE FIGURE 2	APP BY KGL		

3.0 LEAK DETECTION MONITORING

3.1 LEAK DETECTION SYSTEM

The East Lined Area at the Hidden Valley Landfill includes a leak detection system between the primary geosynthetic liner and the secondary composite liner in that portion of the cell that was constructed over refuse (side slope liner area). Pursuant to Section II C of the Stipulation and Agreed Order of Dismissal (Order), LRI was required to implement the March 1994 Leak Detection Response Action Plan (RAP) once refuse is placed onto the side slope liner. The RAP provides a mechanism for evaluating the performance of the side slope liner. Major components of the plan include routine monitoring of leachate quantities and fluid in the leak detection system, data analysis, record keeping, delineation of acceptable liner performance levels, response actions, and an outline of how groundwater impacts would be evaluated in the event that excessive leakage is observed in the leak detection system.

3.2 LINER PERFORMANCE STANDARD

The RAP defines an acceptable performance standard of 300 gallons/acre/day for the primary side slope liner in the Cell 2 East Lined Area. The side slope liner covers approximately 13.5 acres of refuse, and therefore, the corresponding liner performance standard is 4,050 gallons per day.

3.3 SUMMARY OF PERFORMANCE DATA

Table 2 summarizes 2011 performance monitoring data for the side slope liner area, including leachate flow from Cell 2, fluid pumped from the leak detection sump (leakage flow), and rainfall totals. Leachate volumes as well as leakage pumped from the leak detection sump are recorded on a daily basis using a programmable logic controller (PLC) and verified by on-site personnel. Leakage from the side slope liner in Cell 2 was well below the performance standard defined in the RAP. Rainfall totals are recorded by LRI personnel using an on-site rain gauge. Copies of the Hidden Valley Leachate Treatment System monthly PLC reports are included in Appendix B.

3.4 SUMMARY OF LEAK DETECTION MONITORING DATA

Fluids in the leak detection system for the side-slope liner were sampled on January 7. Collected samples were submitted to TestAmerica, Arvada, Colorado, and tested for the parameters listed in Appendix IV of WAC 173 351. Laboratory test results for leak detection monitoring are shown on Table 9 with the leachate test results. The chemistry of these samples is similar to that of collected leachate.

Table 2. 2011 Side Slope Liner Performance Data

2011 Side Slope Liner Performance Data Hidden Valley Landfill, Pierce County, Washington				
Month	Cell 1 Monthly Leachate Volume (gallons)	Cell 2 Monthly Leachate Volume (gallons)	Cell 2 Monthly Leakage Flow[a] (gallons/month)	Monthly Rainfall (inches)
January	22,438	12,017	320	9.90
February	44,148	7,305	0	4.40
March	37,193	3,309	1,083	12.40
April	41,457	6,789	421	8.50
May	13,670	3,399	0	5.80
June	25,381	6,819	794	3.10
July	5,351	6,650	0	1.25
August	26,908	0	0	0.30
September	1,996	9,604	605	0.95
October	32,655	0	0	8.00
November	30,330	7,899	1,022	6.40
December	10,442	8,556	0	2.80
Totals	**291,969**	**72,347**	**4,245**	**63.8**

[a] Leakage is based on the volume of fluid pumped from the leak detection sump as recorded using a programmable logic controller (PLC) and confirmed by LRI staff.

3.5 HYDRAULIC GRADIENT CONTROL SYSTEM MONITORING

In addition to the leak detection system, a hydraulic gradient control system is present beneath the main leachate collection sump for the East Lined Area. This system is routinely checked for the presence of liquid. Each quarter in which liquid is removed, the volume removed is recorded and a representative sample is collected and tested for leachate constituents (see TPCHD correspondence letter dated April 21, 2003). In 2011, the hydraulic gradient control system beneath the main leachate collection sump did not accumulate fluids and require pumping, therefore, fluids from this system were not sampled.

4.0 GROUNDWATER LEVELS AND FLOW DIRECTIONS

4.1 LOCAL HYDROGEOLOGY

Hidden Valley Landfill is located within a Vashon age glacial melt-water channel that trends in an east-west direction and is approximately 50 to 100 feet deep and several hundred feet wide. The northern boundary of the channel lies just north of the landfill. The landfill is underlain by glacial outwash deposits consisting of coarse sand and gravel to a depth of about 55 feet below grade. North of the landfill (and the outwash channel), the outwash deposits are overlain by Vashon till (upper till unit). The outwash deposits are underlain by successive layers of Vashon till (lower till unit), Vashon advance outwash, Salmon Springs till and interglacial deposits, and Salmon Springs advance outwash.

Three aquifers underlie the Hidden Valley Landfill. The aquifers are referred to as the shallow perched aquifer, the upper regional aquifer, and the lower regional aquifer. An intermittent aquitard, referred to as the Vashon till aquitard, is present between the shallow perched aquifer and the upper regional aquifer. A thick section of low permeability deposits referred to as the Salmon Springs aquitard separates the upper regional aquifer and the lower regional aquifer.

The shallow perched aquifer is an unconfined (water table) aquifer that occurs within the Vashon recessional outwash deposit. The shallow perched aquifer is the uppermost-saturated unit at the site. Depth to groundwater at the landfill ranges from about 11 to 15 feet below ground surface (bgs) in winter and spring months to about 25 feet bgs in late fall. Groundwater flow in the shallow perched aquifer at the site is to the northwest with local components to the north and west. The down gradient extent of the shallow perched aquifer appears to be limited. Northwest of the landfill, the recessional outwash is either not saturated, or saturated to only a few feet. In areas where the recessional outwash is unsaturated, the uppermost zone of groundwater saturation occurs within the lower Vashon till unit.

The upper regional aquifer is present within Vashon advance outwash deposits. This aquifer is confined beneath the Vashon till aquitard and appears to be of regional extent. Groundwater flow, water level gradients, and seasonal water level fluctuations in the upper regional aquifer are similar to the shallow perched aquifer.

The lower regional aquifer is present within the Salmon Springs advance outwash deposits. The aquifer is confined and is interpreted to be of regional extent. Monitoring wells BC-4D, MW-14R, and MW-20R are completed at similar depth elevations and display similar water levels. Monitoring well MW-26R is completed approximately 80 feet higher in elevation and may be installed within a water-bearing zone in the Salmon Springs aquitard.

Detailed descriptions of the hydrogeologic units, as well as geologic cross-sections and boring logs/monitoring well details are included in the Hidden Valley Landfill Remedial Investigation Report (EMCON, 1991) and Hidden Valley Landfill Hydrogeologic Report Addendum (EMCON, 1998).

4.2 WATER LEVEL MEASUREMENTS

Static water levels were measured on January 6, April 21, July 7, and October 27, 2011. The water level database and water level contour maps are presented in Appendix C.

Groundwater flow in both the shallow perched aquifer and the upper regional aquifer was generally to the northwest during all monitoring events. Horizontal hydraulic gradients for both the shallow perched aquifer and the upper regional aquifer were less than 0.005 ft/ft in the central part of the site and approximately 0.025 ft/ft northwest of the landfill. This flow pattern remains consistent with previous data reported for the site. Water level gradients were similar to previous measurements, indicating that the previously reported flow rates of 3.2 ft/day to 6.5 ft/day for the shallow perched aquifer and 0.5 to 13 ft/day for the upper regional aquifer have not changed significantly. Water level data for wells MW-14R, MW-20R, and BC-4D indicate that the groundwater flow direction in the lower regional aquifer is to the northeast.

5.0 GROUNDWATER QUALITY

Groundwater monitoring has been conducted at the Hidden Valley Landfill on at least a quarterly basis since mid-1985. In 2011, groundwater samples were collected from 23 wells in January (annual monitoring), 12 wells in April (quarterly monitoring), 20 wells in July (semi-annual monitoring), and 11 wells in October (quarterly monitoring). Monitoring well MW-28S was not sampled during the October monitoring event due to insufficient water. Groundwater samples from water supply wells located at Corliss Sand and Gravel and Paul Bunyan Rifle Range were collected in January, April, July, and October 2011. Groundwater sampling locations are shown on Figure 3.

Copies of data summary tables for each quarter are provided in Appendix D. Data provided in the tables include field parameters, laboratory parameters, and quality control samples. Time series plots for selected water quality parameters, are included in Appendix E. Statistical calculations performed on groundwater data are presented in Appendix F. The groundwater database was provided to the TPCHD as an Access file in electronic format (on compact disk).

5.1 WATER SUPPLY WELL DATA

Water quality samples were collected from two water supply wells, designated as Corliss and Paul Bunyan (see Figure 4) in January, April, July and October 2011. Water quality results for the two water supply wells in 2011 were typical of previous results. Low concentrations of total metals and inorganic parameters typical of previous water quality results were reported.VOC concentrations were below the laboratory method reporting limit (MRL) in samples from the water supply wells. The 2011 water quality test results for the Corliss and Paul Bunyan water supply wells do not indicate impacts from the Hidden Valley Landfill. A summary of the laboratory test results for the water supply wells is provided in Table 3.

5.2 BACKGROUND WATER QUALITY

Background water quality at the Hidden Valley Landfill is monitored using wells MW-l0S (shallow perched aquifer) and MW-10D (upper regional aquifer). These wells have been monitored on a quarterly basis since 1985.

In 2011, concentrations of inorganic parameters in samples from the background wells were low and consistent with previous results. Dissolved iron, manganese, and arsenic concentrations were below the laboratory MRL in 2011. No VOCs were reported present in samples collected from the background wells in 2011.

5.3 DOWNGRADIENT WATER QUALITY

Phased closure of the unlined portion of the landfill, which began in 1989 and was completed in 1993, included capping the waste with a low permeability composite cover and installing a landfill gas extraction/destruction system. Closure actions were designed to minimize the infiltration of precipitation through the refuse and remove landfill gas. These actions have

resulted in improvement of groundwater quality in the shallow perched aquifer and the upper regional aquifer.

In general, water quality testing results from monitoring wells located downgradient of the landfill continue to display consistent trends of decreasing concentrations of parameters such as conductivity, ammonia, manganese, and iron. Time series plots for specific conductance, dissolved iron, dissolved manganese, ammonia and nitrate were prepared for wells located close to and downgradient of the landfill (MW 11S&D(2), MW 13S&D, MW 14S&D, and MW 17S, see Appendix E). Simple linear regressions through these data provide evidence of decreasing concentrations of these constituents.

The Hidden Valley Landfill Consent Decree established site groundwater cleanup levels and the groundwater point of compliance. Table 4 provides a summary of the site groundwater cleanup levels and indicates the wells where 2011 water quality results were greater than cleanup levels. Shallow perched aquifer water quality results that exceeded cleanup levels on one or more occasions in 2011 include nitrate (MW-11S, MW-12S, MW-17S, and FM-2), dissolved manganese (MW-12S, MW-13S, MW-14S, MW-15S, MW-17S, MW-23S and FM-2) and dissolved iron (FM-2). Upper regional aquifer water quality results that exceeded cleanup levels on one or more occasions in 2011 include dissolved iron (MW-14D) and dissolved manganese (MW-13D, MW-14D, and MW-15D). Lower regional aquifer water quality results that exceeded cleanup levels in 2011 are dissolved iron (MW-26R) and dissolved manganese (MW-14R and MW-26R); however, these results are interpreted to result from background water quality. As discussed previously, the presence of dissolved iron and manganese in the lower regional aquifer does not appear to be related to the Hidden Valley Landfill. This interpretation is based on an overall assessment of the groundwater quality data, which include low concentrations of inorganic parameters and an absence of VOC's (see letter to TPCHD dated August 12, 2002).

5.4 STATISTICAL ANALYSES

Groundwater quality data for the five-year period of January 2007 through October 2011 were evaluated for all monitoring wells in the groundwater-monitoring network. The data distributions for inorganic compounds and dissolved metals at each well were evaluated to determine if the data show a normal, lognormal, or non-parametric distribution. Data distributions for VOCs were evaluated only at wells that have detections of 1,4-dichlorobenzene (the only VOC with an established cleanup standard for the Hidden Valley Landfill). If the distribution was either normal or lognormal, the upper confidence limits on the mean (UCL 95) were calculated for each data set using MTCAStat, version 3.0 obtained from Ecology. The MTCAStat program was used to evaluate data distributions (i.e., normal, lognormal, or neither) for constituents that were detected in at least 50 percent of the sampling events.

One-half the MRL values were used when a parameter was not detected. If the distribution was neither normal nor lognormal, the UCL 95 was determined using the method of Van der Parren (1970) as described in the Statistical Guidance for Ecology Site Managers (Ecology 1992). For the data evaluated, this procedure defaults to the highest reported value. In addition, the highest reported value was used if either lognormal or normal distributions had the UCL 95 value outside of the data sample range. The UCL 95 was not calculated (NC) when any of the

evaluated parameters were either not detected for 50 percent of the sampling events, or had less than five data entries.

Table 5 provides a summary of UCL 95 values. Shallow perched aquifer UCL 95 values that exceed cleanup levels include nitrate (MW-11S, MW-12S, MW-13S, MW-15S, MW 17S, MW-18S, MW-25S, FM-1and FM-2), specific conductance (MW-17S and FM-2), dissolved iron (MW-23S) and dissolved manganese (MW-12S, MW-13S, MW-14S, MW-15S, MW-17S, MW-23S, and FM-2). Upper regional aquifer UCL 95 values that exceed cleanup levels include dissolved iron (MW-14D) and dissolved manganese (MW-14D, MW-15D). Lower regional aquifer UCL 95 values that exceed cleanup levels include dissolved iron (MW-26R) and dissolved manganese (MW-14R and MW-26R). Statistical calculations are provided in Appendix F.

Table 3. Water Supply Well Data Summary

	MRL	Corliss				Paul Bunyan			
		January-11	April-11	July-11	October-11	January-11	April-11	July-11	October-11
Volatile Organics (µg/L)									
No Detections	0.50	*	*	*	*	*	*	*	*
Total Metals (mg/L)									
Arsenic	0.005	–	–	*	*	–	–	*	*
Iron	0.100	*	*	*	*	*	*	*	*
Manganese	0.005	0.006	0.003	0.005	0.019	*	*	*	*
Zinc	0.020	0.049	0.029	0.016	0.067	0.017	0.011	0.011	0.013
Inorganic Parameters (mg/L)									
Chloride	3.0	6.6	6.1	4.9	5.5	4.7	4.4	4.4	4.5
Ammonia as Nitrogen	0.10	0.25 H	*	0.2	*	*	*	0.3	*
Nitrate as Nitrogen	0.2-2.5	1.5	1.4	1.4	1.2	1.8	1.6	1.8	1.7
Nitirite as Nitrogen	0.50	*	*	*	*	*	*	*	*
Sulfate	5.0	9.9	8.7	8.7	10.1	9.8	9.7	9.9	9.6
Chemical Oxygen Demand	20.0	*	*	*	*	20.0	*	*	*
Total Organic Carbon	1.0	*	*	*	*	*	*	*	*
Color	5.0	*	*	*	*	*	*	*	*
Field Parameters									
pH		7.16	6.81	6.29	5.73	6.98	6.57	7.01	6.43
Conductance (µS)		204	215	206	198	276	274	250	246
Temperature (^{0}C)		10.8	32.7	20.2	13.6	5.4	10.4	17.3	11.8

Notes:

Analyses performed by TestAmerica, Arvada, Colorado

VOCs not listed if concentrations in all samples were less than the method reporting limit

µg/L = micrograms per liter

mg/L = milligrams per liter

(*) = not reported at or above the MRL

(-) = analysis not performed

Table 4. Summary of 2011 Groundwater Quality Data versus Cleanup Levels

Shallow Perched Aquifer

	Cleanup Level	MW-10S Background	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S	MW-17S	MW-18S	MW-23S	MW-25S	MW-28S	FM-1	FM-2
Inorganics (mg/L)														
Chloride	250	—	—	—	—	—	—	—	—	—	—	—	—	—
Sulfate	250	—	—	—	—	—	—	—	—	—	—	—	—	—
Nitrate	10	—	**Q1,2**	**Q1**	—	—	—	**Q1**	—	—	—	—		**Q1**
Specific Conductance	700	—	—	—	—	—	—	—	—	—	—	—	—	—
TDS	500	—	—	—	—	—	—	—	—	—	—	—	—	—
Metals (mg/L)														
Iron	0.30	—	—	—	—	—	—	—	—	—	—	—	—	**Q1**
Manganese	0.05	—	—	**Q1,3**	**Q4**	**Q2,3,4**	**Q1,3**	**Q1,2,3,4**	—	**Q3**	—	—		**Q1,2,3,4**
VOC's (ug/L)														
1,4-Dichlorobenzene	1.8	—	—	—	—	—	—	—	—	—	—	—	—	—
Tetrachloroethene	5.0	—	—	—	—	—	—	—	—	—	—	—	—	—

Upper Regional Aquifer **Lower Regional Aquifer**

	Cleanup Level	MW-10D Background	MW-11D(2)	MW-12D	MW-13D	MW-14D	MW-15D	MW-18D	MW-14R	MW-20R	MW-26R
Inorganics (mg/L)											
Chloride	250	—	—	—	—	—	—	—	—	—	—
Sulfate	250	—	—	—	—	—	—	—	—	—	—
Nitrate	10	—	—	—	—	—	—	—	—	—	—
Specific Conductance	700	—	—	—	—	—	—	—	—	—	—
TDS	500	—	—	—	—	—	—	—	—	—	—
Metals (mg/L)											
Iron	0.30	—	—	—	—	**Q1,4**	—	—	—	—	**Q1**
Manganese	0.05	—	—	—	**Q4**	**Q1,2,3,4**	**Q1,3**	—	**Q1**	—	**Q1**
VOC's (ug/L)											
1,4-Dichlorobenzene	1.8	—	—	—	—	—	—	—	—	—	—
Tetrachloroethene	5.0	—	—	—	—	—	—	—	—	—	—

Notes:

Evaluated data are from 2011
(—) indicates results were less than cleanup level
(Q) indicates results were greater than cleanup level
(1, 2, 3, 4) indicates quarter in which results were greater than cleanup levels

Table 5. Summary of Groundwater Statistics

Shallow Perched Aquifer

	Cleanup Level	MCL / SMCL	MW-10S	MW-11S	MW-12S	MW-13S	MW-14S	MW-15S	MW-17S	MW-18S	MW-23S	MW-25S	MW-28S	FM-1	FM-2
Inorganics (mg/L)															
Chloride	250	250	21.1 (M)	17.2	32.0 (M)	22.5	21.5 (M)	17.2	21.9	22.5 (M)	14.6	12.4	15.4	20.9	19.0
Sulfate	250	250	9.8	18.0	12.5	27.3 (M)	9.2	18.7 (M)	8.9	13.2	17.0	22.5 (M)	17.5	20.3 (M)	13.9
Nitrate	10	10	1.3	**19.1**	**34.8 (M)**	**11.5**	4.7	**22.2 (M)**	**56.7 (M)**	**24.6 (M)**	3.1	**19.2 (M)**	7.6	**20.0 (M)**	**22.9**
Specific Conductance	700	700	152	656.2 (M)	355	357	174	337	**1329 (M)**	397	209	276	209	554 (M)	**951 (M)**
TDS	500	500	100	191	315 (M)	246	116	194	337	351 (M)	151	178	155	340 (M)	287
Alkalinity	–	–	56	66	271	140	55	100 (M)	224 (M)	148	76	135 (M)	142 (M)	447 (M)	154
Ammonia	–	–	NC	NC	44.73	0.18	1.13	3.68 (M)	5.3	NC	NC	NC	NC	NC	0.3
TOC	–	–	1.2	1.5	4.8	2.0	2.0	2.5	3.7	2.5	1.0 (M)	6.9 (M)	1.3	1.8 (M)	2.6
Metals (mg/L)															
Iron	0.30	0.30	NC	NC	NC	NC	NC	NC	NC	NC	**0.32**	NC	NC	NC	NC
Manganese	0.05	0.05	NC	NC	**0.43**	**0.63 (M)**	**1.18 (M)**	**0.76**	**1.1**	NC	**0.21**	NC	NC	NC	**0.986 (M)**
VOC's (ug/L)															
1,4-Dichlorobenzene	1.8	75	NC	NC	0.9096	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Chlorobenzene	–	–	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Tetrachloroethene (PCE)	5.0	5.0	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Upper Regional Aquifer **Lower Regional Aquifer**

	Cleanup Level	MCL / SMCL	MW-10D	MW-11D(2)	MW-12D	MW-13D	MW-14D	MW-15D	MW-18D	MW-14R	MW-20R	MW-26R
Inorganics (mg/L)												
Chloride	250	250	6.8 (M)	10.1 (M)	16.1	18.9	14.7 (M)	16.9	17.0 (M)	1.7	1.8 (M)	3.62 (M)
Sulfate	250	250	8.3	5.8 (M)	5.4 (M)	18.4	10.8	10.4 (M)	8.3 (M)	3.8 (M)	3.2	7.8
Nitrate	10	10	1.1	1.7	1.2	2.5	NC	0.57 (M)	1.6	NC	NC	NC
Specific Conductance	700	700	193	447.9 (M)	392 (M)	340	206	653 (M)	311	124	129	163
TDS	500	500	134	159	248 (M)	236	190 (M)	225	210	113	95 (M)	112
Alkalinity	–	–	96	103	176	149	81	187 (M)	145	49 (M)	52	62 (M)
Ammonia	–	–	0.11(M)	NC	NC	NC	4.2	NC	NC	NC	NC	NC
TOC	–	–	1.3	NC	1.6 (M)	1.5	2.3	3.8 (M)	0.9 (M)	NC	NC	NC
Metals (mg/L)												
Iron	0.30	0.30	NC	NC	NC	NC	**3.98 (M)**	NC	NC	NC	NC	**0.59**
Manganese	0.05	0.05	NC	NC	NC	0.70 (M)	**0.9**	**0.44**	NC	**0.199 (M)**	NC	**0.29**
VOC's (ug/L)												
1,4-Dichlorobenzene	1.8	75	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Chlorobenzene	–	–	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Tetrachloroethene (PCE)	5.0	5.0	NC	1.8074	NC	NC	NC	NC	NC	NC	NC	NC

Notes:
Evaluated data are from January 2007 through October 2011.
Values shown are the upper confidence limit on the mean (UCL 95)
Bold indicates greater than Cleanup Levels
(NC) indicates not calculated (see Section 5.4) due to less than 50 percent detection frequency or historically no detections.
(M) indicates default to maximum value for UCL 95
MCL = Maximum contaminant level
SMCL = secondary MCL

LEGEND:

MW-11(S) Monitoring Well Location

MW-25(S)
MW-25(D)

BC-4(R)
BC-4(S)

FMMW-2

MW-27(S)
MW-27(D)

N 27,000

N 26,500

FMMW-1

MW-18(S)
MW-18(D)

MW-11(D2)

MW-11(S)
MW-11(D)

176TH STREET

176TH STREET

MAINTENANCE BUILDING

OFFICE BUILDING

MW-17(S)

MW-15(S)
MW-15(D)

MW-14(S)
MW-14(D)
MW-14(R)

STORMWATER BASIN AREA

MW-26(R)

N 26,000

MW-12(S)
MW-12(D)

MERIDIAN AVENUE

MW-28(S)

N 25,500

LIMIT OF REFUSE

MW-13(S)
MW-13(D)

LANDFILL

MW-10(S)
MW-10(D)

MW-23(S)
MW-23(D)

N 25,000

0 300 600

SCALE: 1" = 300'

CONTOUR INTERVAL = 5 FEET

RECYCLE CENTER

MW-19(S)
MW-19(D)

MW-20(R)

PROPERTY BOUNDARY

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04212004.03	DES BY KGL	GROUNDWATER MONITORING WELL LOCATIONS HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE MARCH 2012
SCALE AS SHOWN	CHK BY KGL		FIGURE 3
CAD FILE FIGURE 3	APP BY KGL		

0 400 800

APPROX SCALE IN FEET

LEGEND

WATER SUPPLY WELL LOCATION

SOURCE: KLEINFELDER

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO.	DES BY
04212004.03	LEL
SCALE	CHK BY
NOT TO SCALE	KGL
CAD FILE	APP BY
FIGURE 4	KGL

WATER SUPPLY WELL LOCATION

HIDDEN VALLEY LANDFILL
PIERCE COUNTY, WASHINGTON

DATE
MARCH 2012

FIGURE
4

6.0 LEACHATE QUALITY

Leachate quality is currently monitored on an annual basis. A sample of untreated leachate was obtained from the East Lined Area leachate collection system on January 7, 2011. The sample was analyzed for the parameters specified in WAC 173 351, Appendix IV. A summary of the analytical data for the leachate samples are provided in Table 6.

Table 4. Leachate, and Side Slope Leak Detection Data Summary

	Leachate- Main Sump	Leak Detection-Side Slope
Volatile Organics (µg/L)		
Acetone	*	18
Benzene	2.0	1.4
2-Hexanone	*	36
4-Methyl-2-pentanone (MIBK)	*	5.0
Carbon disulfide	4.6	*
Cis-1,2-Dichloroethene	*	1.3
1,4-Dichlorobenzene	2.3	*
m,p-Xylenes	4.7	0.87
o-Xylenes	2.4	*
Toluene	*	3.1
Total Metals (mg/L)		
Antimony	*	0.097
Arsenic	0.018	0.160
Barium	0.450	0.390
Calcium	130	12
Chromium	0.100	0.052
Cobalt	0.016	0.015
Copper	*	0.024
Iron	5.2	3.7
Lead	*	0.0055
Magnesium	50	19
Manganese	2	0.190
Nickel	0.270	0.350
Potassium	270	380
Sodium	2500	4600
Thallium	*	*
Vanadium	0.090	0.120
Zinc	0.028	0.039
Inorganic Parameters (mg/L)		
Alkalinity	4600	6900
Bicarbonate Alkalinity	4600	6900
Chloride	1680	3000
Ammonia as Nitrogen	400	570
Nitrate as Nitrogen	*	*
Nitrite as Nitrogen	*	*
Sulfate	414	1.8
Chemical Oxygen Demand	2100	2600
Total Dissolved Solids	6700	8600
Total Organic Carbon	560	820
Biochemical Oxygen Demand	100	75
Cyanide, total	*	0.031
Field Parameters		
pH	7.67	7.65
Conductance (µS)	12056	19942
Temperature (°C)	14.9	35.8

Notes:
Analyses performed by TestAmerica, Arvada, CO.
Volatile organic compounds not listed were not present at concentrations exceeding the MR.L
MRL varies due to required dillutions; see laboratory reports.
(µg/L) = micrograms per liter
(mg/L) = milligrams per liter

(µS) = microsiemens
(°C) = degrees centigrade
(*) = not reported at or above the MRL (Method Reporting Limit)
(–) = not applicable or not analyzed
(>) = greater than

7.0 POST-CLOSURE MAINTENANCE

7.1 COVER SYSTEM MAINTENANCE

Maintenance inspections of the landfill cover system and the landfill gas condensate recirculation system were performed on a quarterly basis in 2011. Maintenance inspections are also performed on an ongoing basis by LRI staff, as well as during monthly and quarterly monitoring events. With the exception of the sinkhole area on the south slope of the landfill (described below), the inspections found minor areas for maintenance on the cover system, and no significant issues with the condensate recirculation system. Copies of the inspection reports, including site photographs, are included in Appendix G.

A sinkhole, indicative of subsurface combustion due to the presence of oxygen, began forming on the south slope of the landfill during the summer of 2008. The sinkhole was located near the south perimeter of the landfill in an area that does not include a bottom liner. This area has been repaired to correct differential settlement on two previous occasions; the last time in September 2006. The appearance of the sinkhole in 2008 coincided with off-site excavation which exposed the slope just south of the property boundary at the Corliss Resources Puyallup Plant. The oxidation may have been ongoing for a number of years; however, excavation activity south of the property boundary in 2008 appears to have allowed additional oxygen intrusion which accelerated the subsurface activity.

In September 2009, several gas extraction wells near the sinkhole were shut down as a precaution to limit the vacuum which may draw oxygen in from the south slope. These wells include N-42, N-43, N-54, N-60, N-61, and N-62. Also in September 2009, three temporary monitoring probes (LFG-1, LFG-2, and LFG-3) were installed to investigate subsurface conditions and to serve as additional monitoring locations. Summary plots, and a summary table of the gas quality data obtained from the temporary probes are included in Appendix G.

In 2009 and during the first quarter of 2010, the sinkhole was observed to slowly increase in size. On March 30, 2010 a second sinkhole rapidly formed on the south slope of the landfill. Both sinkholes were filled with soil and covered with plastic sheeting. The temporary repairs were conducted between March 31 and April 3, 2010. A summary memorandum describing the repair activities was provided to the TPCHD on April 7, 2010.

During the first week of July 2010, the exposed soil slope south of the landfill was repaired by Corliss Resources, Inc. The repair activity consisted of removing approximately 2 feet of soil from the bank and replacing it with approximately 2 feet of silty clay soil. The soil was placed in lifts using an excavator and a bulldozer. The finished grade was track-walked parallel to the slope with a bulldozer. The landfill perimeter fence was temporarily removed to allow soil placement at the top of the slope. The slope was hydroseeded with a mulch/grass seed mixture in September 2010. During 2011, the area of repair was visually inspected at the time of monitoring the temporary probes and during quarterly inspections. No excessive additional settlement was observed by either SCS or LRI staff.

The goals for controlling and repairing the sinkhole are to 1) extinguish any remaining subsurface oxidation, 2) provide a long-term solution, and 3) repair the cover. Once the area of combustion is extinguished, methane levels are expected to increase at the temporary probe locations.

In July 2011, additional monitoring was performed to assess subsurface conditions in the area of the sinkholes. Temporary probes LFG-1, LFG-2, and LFG-3, as well as GP-14D, GP-14S, and the adjacent extraction wells were tested for carbon monoxide (CO), hydrogen sulfide (H_2S), and gas temperature. Readings of CO and H_2S were performed using Drager Tubes, temperature was monitored using an Oakton JKT temperature meter. Not all measurements were collected at all locations due to access or equipment restrictions. A summary of findings in included on Table 5.

Table 5. Subsurface Investigation Summary

	CH4 (% by vol.)	CH4 Spike (% by vol.)	CO2 (% by vol.)	O2 (% by vol.)	CO (ppm)	H2S (ppm)	Temperature (deg F)
Temporary Probes							
LFG-1	0.3	0.4	13.6	2	5	0	81
LFG-2	33.3	54.3	26.8	0	10—12	200—250	83
LFG-3	1.4	—	15.8	0	0	0	83
Extraction Wells							
N-42	76.2	76.8	19.4	0	20	0	—
N-43	26.9	27.2	15.5	0	35	100	76.4
N-54	70.2	72.0	20.4	0	10	0	—
N-60	-	—	—	—	—	—	89.8
N-62	-	—	—	—	—	—	68.6
Monitoring Probes							
GP-14S	0.0	—	17.1	0.1	0—2	0	—
GP-14D	0.0	—	20.1	3.2	0—2	0	—

Notes:
All instruments calibrated prior to use.
Measurement for spike concentrations of CH4 are recorded if observed during sampling.
No sample port was available on N-60 or N-62 at time of monitoring.
Range of readings provided where Drager Tube reading was indiscriminant.
Ambient temperature at time of monitoring was 75 deg F.
(–) = not analyzed
(ppm) = parts per million
(deg F) = degrees farenheit

Low levels carbon monoxide and low temperature results indicate subsurface oxidation may be extinguished. As shown in Appendix A, time-trend plots for methane, oxygen and carbon dioxide levels at temporary probe locations LFG-1 and LFG-3 are generally stable, but do not indicate an increase in methane concentration through the end of 2011. Time-trend plots for probe LFG-2 displayed fluctuation in methane concentrations between 0.7percent by volume in January to 47.4 percent by volume in August. These fluctuations may be due to adjustments to the landfill gas extraction system.

7.2 WELL MAINTENANCE

No significant well maintenance activities were performed in 2011.

Appendix A
Landfill Gas Monitoring Data

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04209037.02

PCRCD dba LRI

January-11

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	25-Jan	9:51	-0.06	0.0	5.1	1.3			
GP-1B	25-Jan	9:58	0.00	0.0	4.7	17.1			
GP-1C	25-Jan	10:04	0.04	0.0	2.0	19.6			
GP-2A	25-Jan	10:15	-0.05	0.0	13.0	6.4			
GP-2B	25-Jan	10:20	0.00	0.0	0.4	21.1			
GP-3S	25-Jan	10:28	-0.05	0.0	4.1	8.7			
GP-3M	25-Jan	10:32	-0.05	0.0	2.6	12.1			
GP-3D	25-Jan	10:35	-0.03	0.0	9.5	10.1			
GP-4A	25-Jan	10:42	-0.01	0.0	0.3	21.0			
GP-4B	25-Jan	10:46	0.09	0.0	0.2	21.1			
GP-5A	25-Jan	10:52	-0.02	0.0	0.1	21.0			
GP-5B	25-Jan	10:56	0.00	0.0	0.1	20.9			
GP-6	25-Jan	11:02	-0.01	0.0	0.1	20.9			
GP-7S	25-Jan	11:08	0.00	0.0	0.2	20.7			
GP-7D	25-Jan	11:11	0.00	0.0	0.3	20.7			
GP-8A	25-Jan	11:20	0.00	0.0	0.2	20.9			
GP-8B	25-Jan	11:23	0.00	0.0	0.1	21.1			
GP-9	25-Jan	11:31	0.00	0.0	1.4	20.1			
GP-10	25-Jan	11:39	0.00	0.0	0.2	21.1			
GP-11	25-Jan	11:46	0.00	0.0	1.3	19.7			
GP-12	25-Jan	12:02	0.02	0.0	1.6	17.8			
GP-13A	25-Jan	12:09	0.00	0.0	10.2	0.0			
GP-13B	25-Jan	12:12	0.07	0.0	0.6	21.0			
GP-14S	25-Jan	12:23	0.01	0.0	6.3	16.5			
GP-14D	25-Jan	12:29	0.00	0.0	16.8	2.7			
GP-15A	25-Jan	12:55	0.01	0.0	4.5	16.8			
GP-15B	25-Jan	12:59	0.02	0.0	6.9	3.7			
GP-16A	25-Jan	13:10	0.01	0.0	1.1	20.0			
GP-16B	25-Jan	13:13	0.33	0.0	1.2	19.8			
GP-17	25-Jan	13:22	0.01	0.0	2.9	18.7			
GP-18	25-Jan	13:28	0.01	0.0	0.7	20.5			
GP-19	25-Jan	13:36	0.02	0.0	1.9	19.6			
LFG-1	25-Jan	12:35	0.02	0.4	16.3	0.8			
LFG-2	25-Jan	12:41	0.03	0.7	17.5	0.0			
LFG-3	25-Jan	12:47	0.04	2.8	19.1	0.0			

General Data

Date:	25-Jan-11	Weather Conditions	
Monitored by:	KLK	Sky Cover:	Partly Cloudy
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	25-Jan-11	Temperature (^{o}F):	47

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured	CO_2 = Carbon Dioxide	M = medium	B = medium
	O_2 = Oxygen	D = deep	C = deep

Hidden Valley Landfill
Landfill Gas Monitoring of On-site Buildings

Project Number: 04209037.02

Date: 1/25/2011
Weather Conditions:
Instrument:
Measured By: Kelly Kieft

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- [x] Main Office - individual office spaces, storage areas and within open crawl-space area.
- [x] Repair Shop – survey atmosphere conditions throughout (lower height levels).
- [x] Pay/Scale Booth – interior of building.
- [x] Recycle Building – throughout facility and water drainage areas.
- [x] Leachate Treatment Building – all lower level office spaces, restrooms, water drainage system and storage/equipment areas.
- [x] Gas to Energy Building – central monitoring/control room, engine room and storage cabinets.
- [x] Transfer Station Building – throughout entire building and lower levels.

Kelly Kieft
Signature

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04209037.02

PCRCD dba LRI

February-11

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	24-Feb	8:29	0.00	0.0	4.9	1.4			
GP-1B	24-Feb	8:33	0.00	0.0	4.3	17.7			
GP-1C	24-Feb	8:37	-0.02	0.0	6.2	16.8			
GP-2A	24-Feb	8:52	-0.02	0.0	11.3	11.1			
GP-2B	24-Feb	8:55	0.00	0.0	1.3	21.5			
GP-3S	24-Feb	9:01	-0.01	0.0	4.9	11.3			
GP-3M	24-Feb	9:05	-0.01	0.0	2.9	12.5			
GP-3D	24-Feb	9:09	1.93	0.0	8.4	11.3			
GP-4A	24-Feb	9:19	0.00	0.0	0.5	21.8			
GP-4B	24-Feb	9:22	0.15	0.0	0.3	21.7			
GP-5A	24-Feb	9:28	-0.01	0.0	0.2	21.8			
GP-5B	24-Feb	9:31	-0.01	0.0	0.1	21.8			
GP-6	24-Feb	9:36	0.00	0.0	0.1	21.8			
GP-7S	24-Feb	9:44	0.00	0.0	0.2	21.6			
GP-7D	24-Feb	9:53	0.00	0.0	0.3	21.3			
GP-8A	24-Feb	10:01	0.00	0.0	0.3	21.4			
GP-8B	24-Feb	10:05	0.00	0.0	0.1	21.5			
GP-9	24-Feb	10:18	0.00	0.0	1.4	20.0			
GP-10	24-Feb	10:25	0.00	0.0	0.3	21.3			
GP-11	24-Feb	10:32	0.00	0.0	1.2	20.2			
GP-12	24-Feb	10:39	0.00	0.0	0.4	21.1			
GP-13A	24-Feb	10:47	-0.03	1.7	11.0	0.0			
GP-13B	24-Feb	10:53	0.05	0.0	0.5	21.2			
GP-14S	24-Feb	11:18	0.01	0.0	10.6	13.3			
GP-14D	24-Feb	11:21	0.00	0.0	19.0	0.0			
GP-15A	24-Feb	11:27	0.00	0.0	5.6	13.9			
GP-15B	24-Feb	11:30	0.01	0.0	8.2	7.6			
GP-16A	24-Feb	11:37	0.00	0.0	1.1	20.6			
GP-16B	24-Feb	11:40	0.22	0.0	0.9	20.7			
GP-17	24-Feb	11:51	0.00	0.0	3.4	19.3			
GP-18	24-Feb	11:56	0.00	0.0	1.0	20.7			
GP-19	24-Feb	12:03	-0.04	0.0	0.3	21.4			
LFG-1	24-Feb	11:02	0.01	0.4	15.8	1.4			
LFG-2	24-Feb	11:07	0.05	2.8	19.3	0.0			
LFG-3	NM	NM	NM	NM	NM	NM			

General Data

Date:	24-Feb-11	Weather Conditions	
Monitored by:	KLK	Sky Cover:	Partly Cloudy
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	24-Feb-11	Temperature (^{o}F):	47

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured	CO_2 = Carbon Dioxide	M = medium	B = medium
	O_2 = Oxygen	D = deep	C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

March-11

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	18-Mar	7:58	0.14	0.0	4.8	0.8			
GP-1B	18-Mar	8:02	0.07	0.0	4.1	17.7			
GP-1C	18-Mar	8:06	0.00	0.0	2.7	19.6			
GP-2A	18-Mar	8:15	0.04	0.0	11.3	10.2			
GP-2B	18-Mar	8:18	0.01	0.0	1.0	21.0			
GP-3S	18-Mar	8:26	0.00	0.0	2.3	17.0			
GP-3M	18-Mar	8:29	0.00	0.0	2.6	12.0			
GP-3D	18-Mar	8:32	-0.01	0.0	8.2	8.1			
GP-4A	18-Mar	8:41	-0.01	0.0	0.5	21.2			
GP-4B	18-Mar	8:43	0.04	0.0	0.4	21.2			
GP-5A	18-Mar	8:48	-0.02	0.0	0.2	21.3			
GP-5B	18-Mar	8:51	-0.01	0.0	0.1	21.5			
GP-6	18-Mar	8:58	0.00	0.0	0.2	21.2			
GP-7S	18-Mar	9:05	0.00	0.0	0.3	21.4			
GP-7D	18-Mar	9:09	0.00	0.0	0.4	21.0			
GP-8A	18-Mar	9:25	0.00	0.0	0.3	21.1			
GP-8B	18-Mar	9:30	0.00	0.0	0.2	21.0			
GP-9	18-Mar	9:36	-0.01	0.0	1.4	19.0			
GP-10	18-Mar	9:44	0.00	0.0	0.4	21.2			
GP-11	18-Mar	9:59	0.00	1.1	5.8	1.1	1.6		
GP-12	18-Mar	10:08	0.00	0.0	1.7	17.7			
GP-13A	18-Mar	10:24	0.00	3.7	11.7	NM	3.7		
GP-13B	18-Mar	10:30	0.06	0.0	0.5	20.9			
GP-14S	18-Mar	10:40	0.05	0.0	6.6	16.1			
GP-14D	18-Mar	10:43	-0.02	0.0	18.8	NM			
GP-15A	18-Mar	11:02	0.00	6.6	11.6	NM	6.8		
GP-15B	18-Mar	11:05	-6.55	0.0	8.7	4.3			
GP-16A	18-Mar	11:38	-0.01	0.0	0.9	20.1			
GP-16B	18-Mar	11:40	0.03	0.0	0.8	20.1			
GP-17	18-Mar	11:48	0.29	0.0	2.4	19.3			
GP-18	18-Mar	11:52	-0.01	0.0	1.3	19.8			
GP-19	18-Mar	11:58	-0.01	0.0	0.3	21.2			
LFG-1	18-Mar	11:13	-0.01	0.4	15.6	NM			
LFG-2	18-Mar	11:20	0.03	10.5	20.4	NM	26.1		
LFG-3	18-Mar	11:26	0.00	1.8	16.5	NM			

General Data

Date:	18-Mar-11	Weather Conditions	
Monitored by:	SEA	Sky Cover:	Partly Cloudy
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	18-Mar-11	Temperature (^{o}F):	42

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

April 25, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	25-Apr	7:51	5.60	0.0	4.6	0.9			
GP-1B	25-Apr	7:55	0.07	0.0	3.8	18.0			
GP-1C	25-Apr	8:00	0.00	0.0	1.2	20.7			
GP-2A	25-Apr	8:10	0.06	0.0	12.4	4.2			
GP-2B	25-Apr	8:15	0.23	0.0	0.3	21.5			
GP-3S	25-Apr	8:27	0.02	0.0	5.4	13.1			
GP-3M	25-Apr	8:31	0.17	0.0	2.9	9.6			
GP-3D	25-Apr	8:47	0.23	3.7	11.7	0.4	3.2		
GP-4A	25-Apr	8:55	0.06	0.0	0.5	21.5			
GP-4B	25-Apr	8:58	0.14	0.0	0.3	21.6			
GP-5A	25-Apr	9:02	0.05	0.0	0.4	21.4			
GP-5B	25-Apr	9:05	0.05	0.0	0.3	20.9			
GP-6	25-Apr	9:09	0.04	0.0	0.3	21.4			
GP-7S	25-Apr	9:16	0.00	0.0	0.4	21.3			
GP-7D	25-Apr	9:19	0.00	0.0	0.4	21.2			
GP-8A	25-Apr	9:27	0.13	0.0	1.3	20.6			
GP-8B	25-Apr	9:29	0.09	0.0	0.9	18.8			
GP-9	25-Apr	9:34	0.21	0.0	1.6	18.1			
GP-10	25-Apr	9:40	-10.08	0.0	0.4	21.2			
GP-11	25-Apr	9:46	0.10	0.2	2.2	15.6			
GP-12	25-Apr	9:55	0.00	0.0	5.2	2.9			
GP-13A	25-Apr	10:23	-0.59	18.6	11.3	0.0	20.7		
GP-13B	25-Apr	10:27	-3.78	0.0	0.6	21.4			
GP-14S	25-Apr	10:33	-0.01	0.0	14.1	8.1	0.3		
GP-14D	25-Apr	10:36	-0.03	0.0	18.5	0.0			
GP-15A	25-Apr	11:13	-0.07	7.5	12.4	0.6	8.3		
GP-15B	25-Apr	11:16	-0.04	0.0	9.4	0.7			
GP-16A	25-Apr	11:25	-0.07	0.0	1.1	19.4	0.4		
GP-16B	25-Apr	11:28	0.00	0.0	1.0	19.7			
GP-17	25-Apr	11:35	0.34	0.0	0.2	21.4			
GP-18	25-Apr	11:40	0.23	0.1	2.6	19.6			
GP-19	25-Apr	11:51	-0.09	0.0	0.2	21.4			
LFG-1	25-Apr	10:43	-0.03	1.0	15.9	0.0	1.2		
LFG-2	25-Apr	10:53	0.00	15.6	21.7	0.0	33.4		
LFG-3	25-Apr	10:59	-0.03	2.9	17.4	0.0	2.9		

General Data

Monitored by: SEA

Instruments: GEM 2000

Calibration Date:

Weather Conditions

Sky Cover: Partly Cloudy

Wind / Rain / Snow:

Temperature (^{o}F): 42

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe

NM = Not measured - equipment malfunction

CH_4 = Methane

CO_2 = Carbon Dioxide

O_2 = Oxygen

S = shallow

M = medium

D = deep

A= shallow

B = medium

C = deep

Hidden Valley Landfill
Landfill Gas Monitoring of On-site Buildings

Project Number: 04211003.02

Date: 4/25/2011
Weather Conditions:
Instrument:
Measured By: Sam Adlington

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- [x] Main Office - individual office spaces, storage areas and within open crawl-space area.
- [x] Repair Shop – survey atmosphere conditions throughout (lower height levels).
- [x] Pay/Scale Booth – interior of building.
- [x] Recycle Building – throughout facility and water drainage areas.
- [x] Leachate Treatment Building – all lower level office spaces, restrooms, water drainage system and storage/equipment areas.
- [x] Gas to Energy Building – central monitoring/control room, engine room and storage cabinets.
- [x] Transfer Station Building – throughout entire building and lower levels.

Sam Adlington
Signature

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

May 31, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	31-May	11:09	0.01	0.0	4.4	1.9			
GP-1B	31-May	11:14	0.01	0.0	4.0	17.1			
GP-1C	31-May	11:18	-0.01	0.0	1.2	20.4			
GP-2A	31-May	16:31	-0.03	0.0	2.6	17.6			
GP-2B	31-May	16:34	0.01	0.0	0.4	21.4			
GP-3S	31-May	12:14	0.00	0.0	11.2	4.4			
GP-3M	31-May	12:17	0.01	0.0	2.9	10.8			
GP-3D	31-May	12:39	0.00	9.0	14.2	1.1	9.2		
GP-4A	31-May	10:15	0.01	0.0	0.4	20.8			
GP-4B	31-May	10:19	0.04	0.0	0.2	20.8			
GP-5A	31-May	12:52	0.00	0.0	0.6	20.5			
GP-5B	31-May	12:55	0.00	0.0	0.5	19.9			
GP-6	31-May	10:27	0.02	0.0	0.6	20.4			
GP-7S	31-May	10:36	0.02	0.0	1.0	20.3			
GP-7D	31-May	10:41	0.00	0.0	1.0	18.9			
GP-8A	31-May	13:05	0.01	0.0	4.8	14.4			
GP-8B	31-May	13:08	0.47	0.0	1.3	19.4			
GP-9	31-May	13:17	0.01	0.0	1.5	18.6			
GP-10	31-May	13:27	0.01	0.0	0.6	20.5			
GP-11	31-May	13:34	0.02	0.0	0.2	21.2			
GP-12	31-May	13:49	0.02	0.0	9.8	1.2			
GP-13A	31-May	14:37	0.02	22.5	12.3	0.2	24.7		
GP-13B	31-May	14:42	0.15	0.0	0.3	21.1	0.6		
GP-14S	31-May	14:53	0.03	0.0	10.9	12.0			
GP-14D	31-May	14:57	0.03	0.0	15.9	1.5			
GP-15A	31-May	15:07	0.04	2.4	12.4	2.7	2.5		
GP-15B	31-May	15:11	0.04	0.0	8.3	6.4			
GP-16A	31-May	15:51	0.01	0.0	0.6	20.9			
GP-16B	31-May	15:54	0.10	0.0	0.5	20.9			
GP-17	31-May	16:05	-0.08	0.0	5.3	15.8			
GP-18	31-May	16:20	0.00	0.0	4.3	17.3			
GP-19	31-May	16:12	0.00	0.0	0.3	21.3			
LFG-1	31-May	15:22	0.05	0.4	13.9	0.9	0.5		
LFG-2	31-May	15:29	0.03	19.0	21.7	0.0	20.1		
LFG-3	31-May	15:38	0.05	0.9	15.3	0.6	1.0		

General Data

Monitored by: WC

Instruments: GEM 2000

Calibration Date:

Weather Conditions

Sky Cover: Partly Cloudy

Wind / Rain / Snow:

Temperature (^{o}F): 53

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe

NM = Not measured - equipment malfunction

CH_4 = Methane

CO_2 = Carbon Dioxide

O_2 = Oxygen

S = shallow

M = medium

D = deep

A= shallow

B = medium

C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

June 17, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	17-Jun	8:33	0.06	0.0	4.5	1.6			
GP-1B	17-Jun	8:39	0.06	0.0	5.7	14.2			
GP-1C	17-Jun	8:45	-0.05	0.0	1.1	20.1			
GP-2A	17-Jun	14:04	-0.01	0.0	1.2	19.0			
GP-2B	17-Jun	14:06	0.03	0.0	0.4	20.6			
GP-3S	17-Jun	9:05	0.02	0.0	12.6	1.2			
GP-3M	17-Jun	9:09	0.01	0.0	2.9	11.4			
GP-3D	17-Jun	9:27	0.04	9.3	14.7	0.9	9.5		
GP-4A	17-Jun	9:48	0.03	0.0	0.5	20.1			
GP-4B	17-Jun	9:50	0.03	0.0	0.2	20.2			
GP-5A	17-Jun	9:57	0.01	0.0	0.5	19.9			
GP-5B	17-Jun	10:04	0.02	0.0	3.4	13.2			
GP-6	17-Jun	10:09	0.04	0.0	0.7	20.0			
GP-7S	17-Jun	10:17	0.00	0.0	0.7	20.0			
GP-7D	17-Jun	10:20	0.01	0.0	0.8	19.4			
GP-8A	17-Jun	10:50	0.02	0.0	3.4	18.2			
GP-8B	17-Jun	10:53	0.02	0.0	1.5	20.2			
GP-9	17-Jun	11:00	0.00	0.0	1.9	17.9			
GP-10	17-Jun	11:07	0.00	0.0	0.6	20.7			
GP-11	17-Jun	11:20	0.01	5.1	7.0	0.0			
GP-12	17-Jun	11:30	0.00	0.4	11.1	0.0			
GP-13A	17-Jun	12:25	0.05	16.4	8.2	6.7	22		
GP-13B	17-Jun	11:51	0.02	0.0	0.1	20.6	0.0		
GP-14S	17-Jun	12:37	-12.36	0.0	17.4	5.1			
GP-14D	17-Jun	12:39	-0.01	0.0	16.6	0.3			
GP-15A	17-Jun	12:47	0.00	2.6	12.9	0.8	2.8		
GP-15B	17-Jun	12:53	0.01	0.0	7.7	6.0			
GP-16A	17-Jun	13:22	0.01	0.0	0.8	20.1			
GP-16B	17-Jun	13:27	0.01	0.0	1.0	18.6			
GP-17	17-Jun	13:38	-0.01	0.0	5.5	15.0			
GP-18	17-Jun	13:43	0.00	0.0	4.0	17.1			
GP-19	17-Jun	13:48	0.00	0.0	2.6	18.8			
LFG-1	17-Jun	13:01	0.03	0.3	13.1	1.6	0.5		
LFG-2	17-Jun	13:05	0.07	15.9	20.5	0.0	26		
LFG-3	17-Jun	13:11	0.03	1.0	15.2	0.1	1.2		

General Data

		Weather Conditions	
Monitored by:	WC	Sky Cover:	Clear
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	17-Jun-11	Temperature (^{o}F):	68

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

July 22, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	22-Jul	8:45	-0.01	0.0	4.5	1.6			
GP-1B	22-Jul	8:50	-0.02	0.0	7.1	11.8			
GP-1C	22-Jul	8:55	0.00	0.0	3.0	18.9			
GP-2A	22-Jul	13:56	0.01	0.0	13.0	4.2			
GP-2B	22-Jul	13:59	0.00	0.0	0.2	20.0			
GP-3S	22-Jul	9:06	-0.03	0.0	0.8	19.3			
GP-3M	22-Jul	9:11	0.00	0.0	2.7	13.6			
GP-3D	22-Jul	9:21	0.00	7.4	13.5	2.7			
GP-4A	22-Jul	9:35	0.00	0.0	0.9	20.1			
GP-4B	22-Jul	9:41	0.07	0.0	0.3	21.0			
GP-5A	22-Jul	9:50	0.01	0.0	0.8	20.2			
GP-5B	22-Jul	9:55	0.00	0.0	2.1	16.5			
GP-6	22-Jul	10:03	0.01	0.0	0.7	20.5			
GP-7S	22-Jul	10:12	0.02	0.0	1.0	18.8			
GP-7D	22-Jul	10:21	0.00	0.0	0.9	19.9			
GP-8A	22-Jul	10:36	0.00	0.0	3.6	17.4			
GP-8B	22-Jul	10:45	0.02	0.0	1.0	20.3			
GP-9	22-Jul	10:50	0.01	0.0	1.4	16.8			
GP-10	22-Jul	10:55	0.02	0.0	0.7	20.0			
GP-11	22-Jul	11:13	-0.01	0.0	8.6	9.3			
GP-12	22-Jul	11:22	0.00	0.2	13.2	0.5			
GP-13A	22-Jul	11:46	0.00	23.0	14.1	0.6			
GP-13B	22-Jul	11:54	0.06	0.0	0.3	20.9			
GP-14S	22-Jul	12:02	0.06	0.0	11.7	11.7			
GP-14D	22-Jul	12:05	0.06	0.0	14.5	2.8			
GP-15A	22-Jul	12:15	0.07	1.9	13.7	0.3			
GP-15B	22-Jul	12:20	0.00	0.0	6.3	10.0			
GP-16A	22-Jul	12:58	0.00	0.0	6.3	14.5			
GP-16B	22-Jul	13:04	-0.01	0.0	5.0	17.0			
GP-17	22-Jul	13:16	-0.03	0.0	2.8	19.4			
GP-18	22-Jul	13:35	-0.01	0.0	0.4	21.8			
GP-19	22-Jul	13:38	0.09	0.0	0.3	20.2			
LFG-1	22-Jul	12:29	0.11	0.1	13.1	2.4			
LFG-2	22-Jul	12:36	0.15	7.2	18.3	0.2			
LFG-3	22-Jul	12:41	0.11	0.7	14.3	0.9			

General Data

		Weather Conditions	
Monitored by:	WC	Sky Cover:	Clear
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	22-Jul-11	Temperature (^{o}F):	58

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep

Hidden Valley Landfill
Landfill Gas Monitoring of On-site Buildings

Project Number: 04211003.02

Date: 7/22/2011
Weather Conditions:
Instrument:
Measured By: Wayne Chang

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- [x] Main Office - individual office spaces, storage areas and within open crawl-space area.
- [x] Repair Shop – survey atmosphere conditions throughout (lower height levels).
- [x] Pay/Scale Booth – interior of building.
- [x] Recycle Building – throughout facility and water drainage areas.
- [x] Leachate Treatment Building – all lower level office spaces, restrooms, water drainage system and storage/equipment areas.
- [x] Gas to Energy Building – central monitoring/control room, engine room and storage cabinets.
- [x] Transfer Station Building – throughout entire building and lower levels.

Wayne Chang
Signature

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

August 16, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	16-Aug	8:52	0.02	0.2	4.6	1.0			
GP-1B	16-Aug	8:57	0.00	0.2	9.3	8.4			
GP-1C	16-Aug	9:06	0.00	0.1	5.4	15.8			
GP-2A	16-Aug	9:12	0.03	0.1	2.3	17.3			
GP-2B	16-Aug	9:16	0.06	0.0	0.0	20.2			
GP-3S	16-Aug	9:25	0.04	0.0	1.3	17.3			
GP-3M	16-Aug	9:29	-0.02	0.0	2.5	15.4			
GP-3D	16-Aug	9:49	-0.01	9.3	14.4	1.3			
GP-4A	16-Aug	9:59	0.00	0.0	1.2	19.4			
GP-4B	16-Aug	10:02	0.06	0.0	0.6	20.0			
GP-5A	16-Aug	10:08	0.00	0.0	1.0	18.9			
GP-5B	16-Aug	10:13	0.02	0.0	2.2	15.1			
GP-6	16-Aug	10:21	0.02	0.0	1.1	19.9			
GP-7S	16-Aug	10:29	0.00	0.0	1.0	19.3			
GP-7D	16-Aug	10:34	0.00	0.0	1.0	19.1			
GP-8A	16-Aug	10:46	0.00	0.0	5.8	14.0			
GP-8B	16-Aug	10:50	0.00	0.0	2.9	17.6			
GP-9	16-Aug	10:57	0.00	0.0	1.6	16.0			
GP-10	16-Aug	11:03	0.00	0.0	1.3	18.1			
GP-11	16-Aug	11:10	0.01	0.0	4.2	17.5			
GP-12	16-Aug	11:22	0.02	1.3	15.9	0.1			
GP-13A	16-Aug	12:13	0.04	14.8	15.3	0.1			
GP-13B	16-Aug	12:16	0.17	0.0	0.4	20.3			
GP-14S	16-Aug	12:30	0.11	0.0	9.5	13.4			
GP-14D	16-Aug	12:34	0.09	0.0	15.0	1.9			
GP-15A	16-Aug	12:42	0.12	8.5	14.8	0.1			
GP-15B	16-Aug	12:45	0.09	0.0	6.7	8.5			
GP-16A	16-Aug	13:23	0.12	0.0	0.4	20.8			
GP-16B	16-Aug	13:26	0.11	0.0	0.4	20.9			
GP-17	16-Aug	13:35	0.00	0.0	6.3	14.2			
GP-18	16-Aug	13:41	-0.01	0.0	6.9	12.4			
GP-19	16-Aug	13:49	-0.01	0.0	2.6	19.1			
LFG-1	16-Aug	12:55	0.14	0.1	14.4	1.6			
LFG-2	16-Aug	13:02	0.19	47.4	29.1	0.0			
LFG-3	16-Aug	13:08	0.14	1.3	15.3	0.3			

General Data

Monitored by: WC

Instruments: GEM 2000

Calibration Date: 16-Aug-11

Weather Conditions

Sky Cover: Clear

Wind / Rain / Snow:

Temperature (^{o}F): 68

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe

NM = Not measured - equipment malfunction

CH_4 = Methane

CO_2 = Carbon Dioxide

O_2 = Oxygen

S = shallow

M = medium

D = deep

A= shallow

B = medium

C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

September 21, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	21-Sep	7:42	-0.01	0.0	4.8	0.4			
GP-1B	21-Sep	7:45	-0.02	0.0	10.0	6.9			
GP-1C	21-Sep	7:49	-0.01	0.0	2.5	17.9			
GP-2A	21-Sep	7:54	0.33	0.0	1.0	19.5			
GP-2B	21-Sep	7:56	0.16	0.0	0.2	21.0			
GP-3S	21-Sep	8:01	0.00	0.0	0.7	18.4			
GP-3M	21-Sep	8:04	-0.02	0.0	2.4	18.1			
GP-3D	21-Sep	8:12	-0.01	8.6	15.1	1.0	8.8		
GP-4A	21-Sep	8:24	0.00	0.0	1.0	20.1			
GP-4B	21-Sep	8:27	0.13	0.0	0.4	21.0			
GP-5A	21-Sep	8:33	0.00	0.0	1.3	20.6			
GP-5B	21-Sep	8:36	0.00	0.0	0.6	20.0			
GP-6	21-Sep	8:41	0.00	0.0	0.6	20.8			
GP-7S	21-Sep	8:48	-0.10	0.0	1.4	20.1			
GP-7D	21-Sep	8:51	-0.09	0.0	0.9	20.0			
GP-8A	21-Sep	9:01	0.17	0.0	5.2	17.1			
GP-8B	21-Sep	9:05	0.16	0.0	1.5	19.9			
GP-9	21-Sep	9:11	0.00	0.0	2.5	17.2			
GP-10	21-Sep	9:16	0.00	0.0	1.5	19.8			
GP-11	21-Sep	9:21	0.02	0.0	3.0	17.5			
GP-12	21-Sep	9:31	0.00	0.0	13.9	1.6			
GP-13A	21-Sep	9:44	0.19	6.5	16.8	0.0			
GP-13B	21-Sep	9:47	0.09	0.0	0.3	21.1			
GP-14S	21-Sep	10:11	0.00	0.0	21.3	1.9			
GP-14D	21-Sep	10:14	-0.01	0.0	17.0	0.0			
GP-15A	21-Sep	10:19	0.00	0.0	4.6	16.7			
GP-15B	21-Sep	10:22	0.00	0.0	6.5	16.0			
GP-16A	21-Sep	10:28	0.00	0.0	0.6	20.4			
GP-16B	21-Sep	10:30	0.07	0.0	0.5	20.5			
GP-17	21-Sep	10:37	0.26	0.0	6.8	12.8			
GP-18	21-Sep	10:43	0.01	0.0	3.0	19.1			
GP-19	21-Sep	10:47	0.02	0.0	2.2	19.4			
LFG-1	21-Sep	9:57	0.02	0.2	17.4	1.3			
LFG-2	21-Sep	10:02	0.05	4.6	19.5	0.0	5.3		
LFG-3	21-Sep	10:07	0.02	0.3	16.3	0.0			

General Data

		Weather Conditions	
Monitored by:	SEA	Sky Cover:	Clear
Instruments:	GEM 2000	Wind / Rain / Snow:	
Calibration Date:	21-Sep-11	Temperature (^{o}F):	68

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

October 12, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	12-Oct	7:27	0.08	0.0	4.9	0.4			
GP-1B	12-Oct	7:32	-0.04	0.0	11.0	5.9			
GP-1C	12-Oct	7:36	-0.01	0.0	5.6	13.2			
GP-2A	12-Oct	7:46	-0.02	0.0	12.7	5.0			
GP-2B	12-Oct	7:49	-0.01	0.0	0.2	21.3			
GP-3S	12-Oct	7:55	-0.03	0.0	1.1	19.4			
GP-3M	12-Oct	7:58	-0.04	0.0	2.3	18.2			
GP-3D	12-Oct	8:02	-0.03	0.0	9.2	13.3			
GP-4A	12-Oct	8:11	-0.01	0.0	0.1	21.5			
GP-4B	12-Oct	8:14	0.20	0.0	0.5	20.9			
GP-5A	12-Oct	8:20	-0.02	0.0	0.6	21.1			
GP-5B	12-Oct	8:24	-0.03	0.0	0.8	20.0			
GP-6	12-Oct	8:31	-0.02	0.0	0.2	21.2			
GP-7S	12-Oct	8:36	0.17	0.0	0.9	20.8			
GP-7D	12-Oct	8:39	0.00	0.0	1.3	20.1			
GP-8A	12-Oct	8:49	0.01	0.0	4.2	17.3			
GP-8B	12-Oct	8:52	0.00	0.0	0.4	21.1			
GP-9	12-Oct	8:57	0.14	0.0	2.0	16.6			
GP-10	12-Oct	9:02	-0.77	0.0	0.9	19.9			
GP-11	12-Oct	9:07	-0.01	0.0	2.4	19.1			
GP-12	12-Oct	9:12	0.01	0.0	8.9	12.1			
GP-13A	12-Oct	9:18	0.05	3.7	16.2	0.5			
GP-13B	12-Oct	9:23	0.03	0.0	0.3	20.9			
GP-14S	12-Oct	9:46	0.02	0.0	8.7	14.0			
GP-14D	12-Oct	9:48	0.05	0.0	16.8	1.1			
GP-15A	12-Oct	9:53	0.00	0.0	3.3	17.2			
GP-15B	12-Oct	9:56	0.00	0.0	5.7	16.1			
GP-16A	12-Oct	10:03	0.00	0.0	0.8	20.1			
GP-16B	12-Oct	10:06	0.41	0.0	0.6	20.3			
GP-17	12-Oct	10:12	0.15	0.0	6.7	13.3			
GP-18	12-Oct	10:16	0.00	0.0	1.0	20.6			
GP-19	12-Oct	10:21	-0.04	0.0	0.0	21.3			
LFG-1	12-Oct	9:29	0.01	0.5	16.4	1.5			
LFG-2	12-Oct	9:35	0.02	2.7	18.8	0.0	18		
LFG-3	12-Oct	9:39	0.02	0.4	16.0	1.6			

General Data

Monitored by: SEA

Instruments: GEM 2000

Calibration Date: 12-Oct-11

Weather Conditions

Sky Cover: Clear

Wind / Rain / Snow:

Temperature (^{o}F): 68

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe

NM = Not measured - equipment malfunction

CH_4 = Methane

CO_2 = Carbon Dioxide

O_2 = Oxygen

S = shallow

M = medium

D = deep

A= shallow

B = medium

C = deep

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

November 16, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	16-Nov	7:28	0.12	0.0	4.8	0.3			
GP-1B	16-Nov	7:31	0.11	0.0	10.4	7.9			
GP-1C	16-Nov	7:34	0.13	0.0	6.3	11.3			
GP-2A	16-Nov	7:40	0.12	0.0	4.7	13.5			
GP-2B	16-Nov	7:43	0.00	0.0	0.7	21.3			
GP-3S	16-Nov	7:47	0.08	0.0	1.1	19.4			
GP-3M	16-Nov	7:50	0.06	0.0	2.2	15.7			
GP-3D	16-Nov	7:53	0.07	0.0	7.7	11.5			
GP-4A	16-Nov	8:00	0.00	0.0	0.8	20.9			
GP-4B	16-Nov	8:03	0.19	0.0	0.5	21.4			
GP-5A	16-Nov	8:08	0.00	0.0	0.3	21.7			
GP-5B	16-Nov	8:12	0.00	0.0	0.3	21.0			
GP-6	16-Nov	8:18	0.00	0.0	0.3	21.6			
GP-7S	16-Nov	8:24	0.00	0.0	0.3	21.6			
GP-7D	16-Nov	8:27	0.00	0.0	0.5	21.4			
GP-8A	16-Nov	8:37	0.06	0.0	1.1	20.8			
GP-8B	16-Nov	8:40	0.07	0.0	0.5	21.5			
GP-9	16-Nov	8:46	0.01	0.0	1.7	14.7			
GP-10	16-Nov	8:51	0.00	0.0	0.3	21.6			
GP-11	16-Nov	8:57	0.00	0.0	2.4	18.2			
GP-12	16-Nov	9:03	0.00	0.0	3.4	15.4			
GP-13A	16-Nov	9:10	0.30	1.6	15.0	0.1			
GP-13B	16-Nov	9:15	0.11	0.0	0.7	21.4			
GP-14S	16-Nov	9:24	-0.01	0.0	9.7	14.1			
GP-14D	16-Nov	9:28	-0.01	0.0	16.0	2.8			
GP-15A	16-Nov	9:58	0.00	0.0	1.5	20.2			
GP-15B	16-Nov	10:01	0.00	0.0	8.4	9.1			
GP-16A	16-Nov	10:10	0.00	0.0	4.2	17.5			
GP-16B	16-Nov	10:13	0.51	0.0	4.4	17.2			
GP-17	16-Nov	10:20	0.03	0.0	4.8	15.4			
GP-18	16-Nov	10:25	0.01	0.0	1.0	20.8			
GP-19	16-Nov	10:30	0.09	0.0	2.2	19.2			
LFG-1	16-Nov	9:36	-0.01	0.6	17.4	3.3			
LFG-2	16-Nov	9:44	0.10	30.0	27.7	0.0	35.6		
LFG-3	16-Nov	9:51	0.03	0.7	17.5	0.0			

General Data

		Weather Conditions	
Monitored by:	SEA	Sky Cover:	Overcast
Instruments:	GEM 2000	Wind / Rain / Snow:	Rain
Calibration Date:	16-Nov-11	Temperature (^{o}F):	68

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep

Hidden Valley Landfill
Landfill Gas Monitoring of On-site Buildings

Project Number: 04211003.02

Date: 11/16/2011
Weather Conditions:
Instrument:
Measured By: Sam Adlington

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- [x] Main Office - individual office spaces, storage areas and within open crawl-space area.
- [x] Repair Shop – survey atmosphere conditions throughout (lower height levels).
- [x] Pay/Scale Booth – interior of building.
- [x] Recycle Building – throughout facility and water drainage areas.
- [x] Leachate Treatment Building – all lower level office spaces, restrooms, water drainage system and storage/equipment areas.
- [x] Gas to Energy Building – central monitoring/control room, engine room and storage cabinets.
- [x] Transfer Station Building – throughout entire building and lower levels.

Sam Adlington
Signature

Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

04211003.02

PCRCD dba LRI

December 2, 2011

Location Reference Designation	Date	Time	Pressure (in. H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: Spike CH4 *Note 1* (% vol.)	Comments: Spike CO2 *Note 1* (% vol.)	Comments: Other
Gas Probes									
GP-1A	2-Dec	8:28	0.00	0.0	4.8	0.9			
GP-1B	2-Dec	8:30	-0.01	0.0	10.2	9.0			
GP-1C	2-Dec	8:35	-0.08	0.0	9.2	9.4			
GP-2A	2-Dec	8:45	-0.06	0.0	13.8	2.3			
GP-2B	2-Dec	8:48	0.00	0.0	0.3	21.4			
GP-3S	2-Dec	8:54	-0.02	0.0	2.2	18.6			
GP-3M	2-Dec	8:56	-0.06	0.0	2.3	15.3			
GP-3D	2-Dec	8:59	-0.06	0.0	6.8	14.3			
GP-4A	2-Dec	9:10	-0.02	0.0	0.3	21.6			
GP-4B	2-Dec	9:12	0.17	0.0	0.2	21.4			
GP-5A	2-Dec	9:17	-0.03	0.0	0.1	21.5			
GP-5B	2-Dec	9:20	-0.03	0.0	0.3	21.2			
GP-6	2-Dec	9:25	0.00	0.0	0.1	21.5			
GP-7S	2-Dec	9:30	0.00	0.0	0.3	21.3			
GP-7D	2-Dec	9:33	0.00	0.0	0.5	21.2			
GP-8A	2-Dec	9:43	0.00	0.0	0.6	20.6			
GP-8B	2-Dec	9:45	-0.01	0.0	0.2	21.5			
GP-9	2-Dec	9:51	-0.01	0.0	1.7	14.9			
GP-10	2-Dec	9:56	0.07	0.0	0.3	21.4			
GP-11	2-Dec	10:05	0.09	0.0	1.7	19.6			
GP-12	2-Dec	10:13	0.00	0.0	1.3	20.6			
GP-13A	2-Dec	10:19	0.33	3.1	14.5	0.0			
GP-13B	2-Dec	10:23	0.12	0.0	0.8	21.2			
GP-14S	2-Dec	10:29	-0.02	0.0	16.1	6.1			
GP-14D	2-Dec	10:33	0.00	0.0	16.9	1.0			
GP-15A	2-Dec	10:54	0.00	0.0	2.2	18.0			
GP-15B	2-Dec	10:58	0.01	0.0	9.2	5.0			
GP-16A	2-Dec	11:06	0.01	0.0	1.0	20.7			
GP-16B	2-Dec	11:09	0.21	0.0	0.9	20.7			
GP-17	2-Dec	11:15	0.18	0.0	5.1	16.0			
GP-18	2-Dec	11:19	0.00	0.0	0.6	20.9			
GP-19	2-Dec	11:24	0.00	0.0	0.2	21.3			
LFG-1	2-Dec	10:38	0.00	0.2	16.4	2.7			
LFG-2	2-Dec	10:44	0.01	4.4	20.0	0.0	35.6		
LFG-3	2-Dec	10:49	0.00	0.6	17.5	0.0			

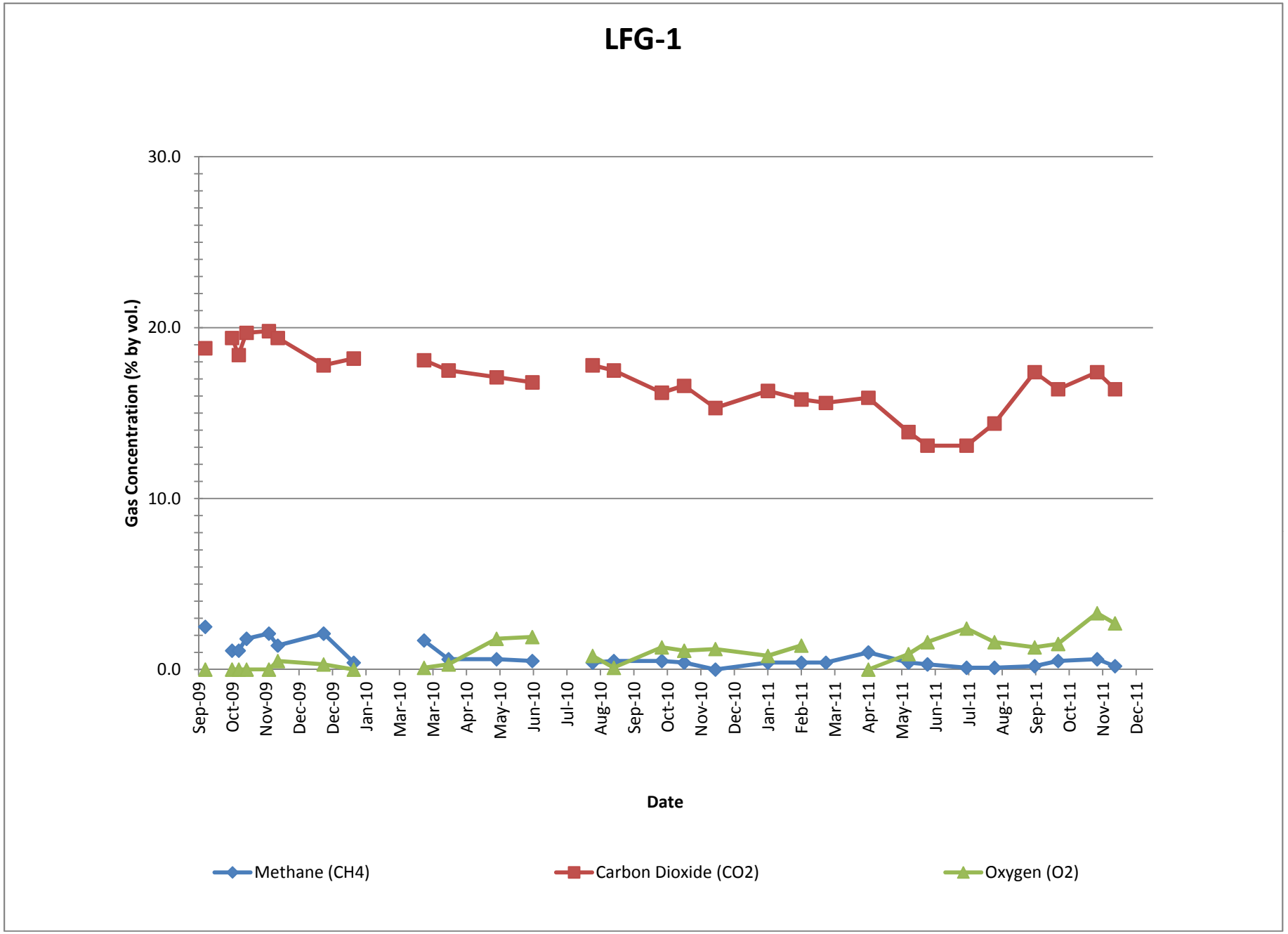
General Data

		Weather Conditions	
Monitored by:	SEA	Sky Cover:	Overcast
Instruments:	GEM 2000	Wind / Rain / Snow:	Rain
Calibration Date:	2-Dec-11	Temperature (^{o}F):	38

Notes

1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling

GP = Gas Probe	CH_4 = Methane	S = shallow	A= shallow
NM = Not measured -	CO_2 = Carbon Dioxide	M = medium	B = medium
equipment malfunction	O_2 = Oxygen	D = deep	C = deep


LFG-1
30.0
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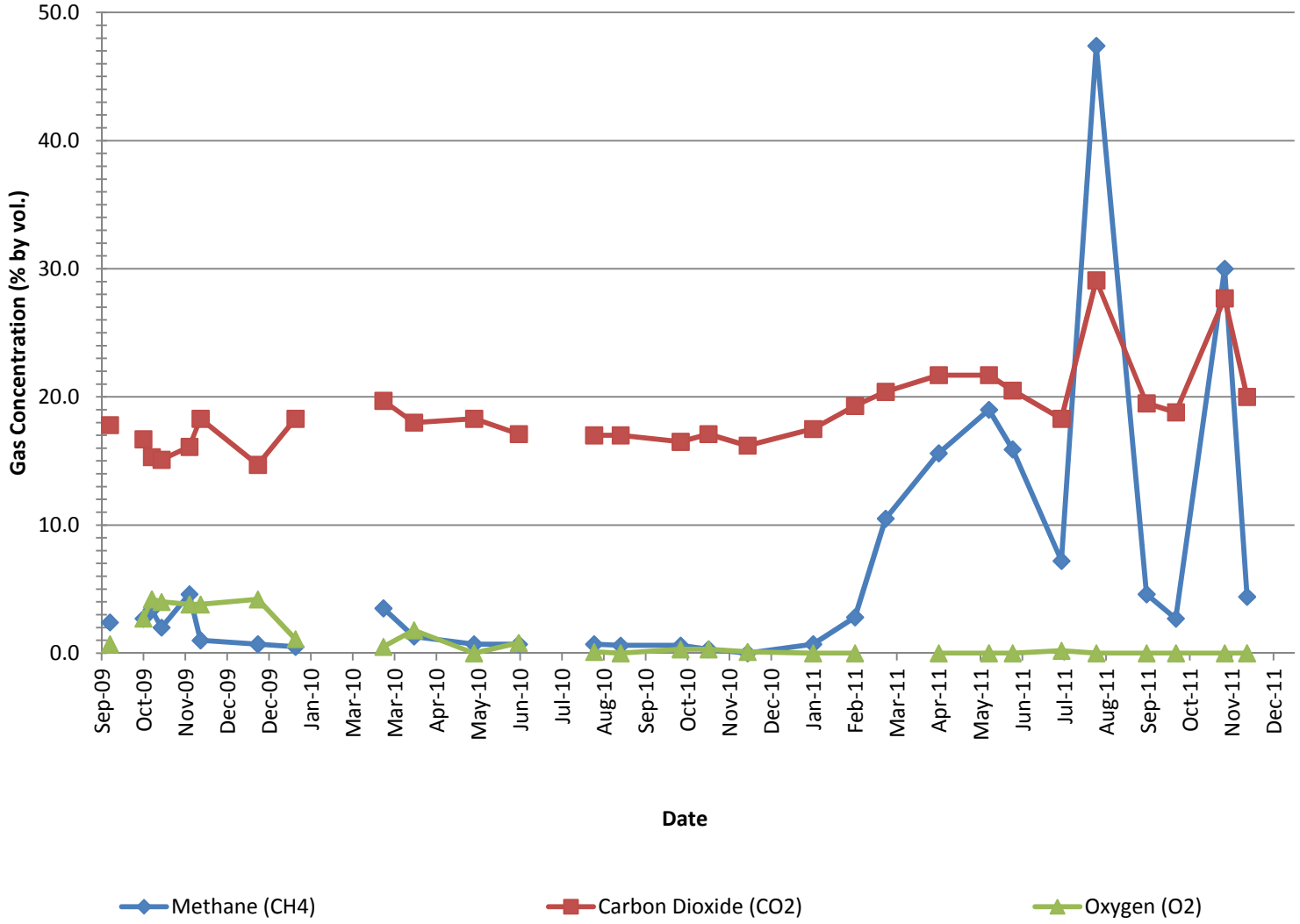
0.0
Gas Concentration (% by vol.)
Sep-09
Oct-09
Nov-09
Dec-09
Dec-09
Jan-10
Mar-10
Mar-10
Apr-10
May-10
Jun-10
Jul-10
Aug-10
Sep-10
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Date
Methane (CH4)
Carbon Dioxide (CO2)
Oxygen (O2)

LFG-2


50.0
40.0
30.0
20.0
10.0
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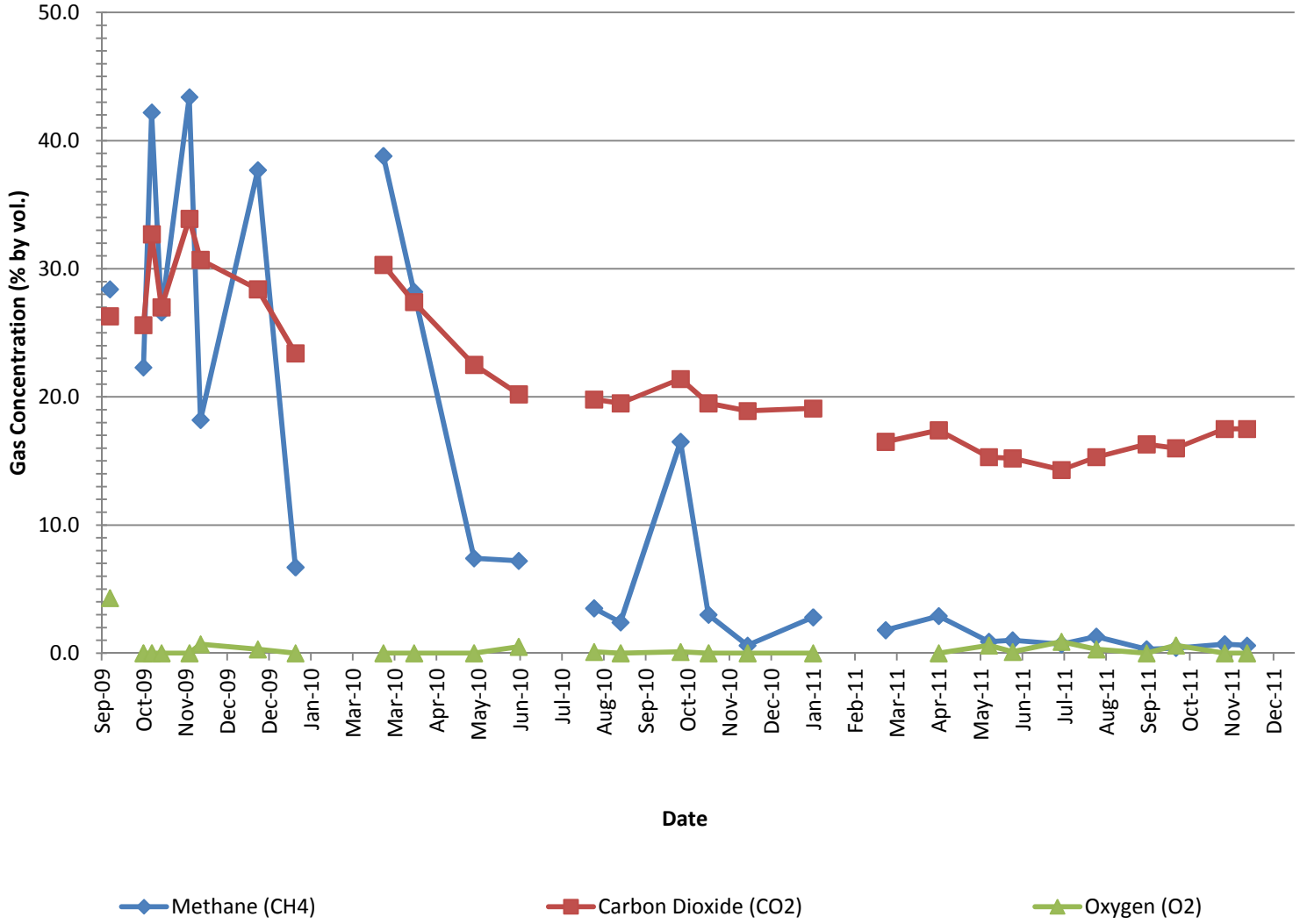
Gas Concentration (% by vol.)
Sep-09
Oct-09
Nov-09
Dec-09
Dec-09
Jan-10
Mar-10
Mar-10
Apr-10
May-10
Jun-10
Jul-10
Aug-10
Sep-10
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Date
Methane (CH4)
Carbon Dioxide (CO2)
Oxygen (O2)

LFG-3


50.0
40.0
30.0
20.0
10.0
0.0
Gas Concentration (% by vol.)
Sep-09
Oct-09
Nov-09
Dec-09
Dec-09
Jan-10
Mar-10
Mar-10
Apr-10
May-10
Jun-10
Jul-10
Aug-10
Sep-10
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Date
Methane (CH4)
Carbon Dioxide (CO2)
Oxygen (O2)

LFG-1, LFG-2, and LFG-3 Monitoring Results

	CH4 Concentration (% by vol.)			CO2 Concentration (% by vol.)			O2 Concentration (% by vol.)		
Date	**LFG-1**	**LFG-2**	**LFG-3**	**LFG-1**	**LFG-2**	**LFG-3**	**LFG-1**	**LFG-2**	**LFG-3**
8-Sep-09	2.5	2.4	28.4	18.8	17.8	26.3	0.0	0.7	4.3
22-Sep-09									
2-Oct-09	1.1	2.7	22.3	19.4	16.7	25.6	0.0	2.7	0.0
8-Oct-09	1.1	3.4	42.2	18.4	15.3	32.7	0.0	4.2	0.0
15-Oct-09	1.8	2.0	26.6	19.7	15.1	27.0	0.0	4.0	0.0
4-Nov-09	2.1	4.6	43.4	19.8	16.1	33.9	0.0	3.8	0.0
12-Nov-09	1.4	1.0	18.2	19.4	18.3	30.7	0.5	3.8	0.7
23-Dec-09	2.1	0.7	37.7	17.8	14.7	28.4	0.3	4.2	0.3
19-Jan-10	0.4	0.5	6.7	18.2	18.3	23.4	0.0	1.1	0.0
18-Feb-10									
23-Mar-10	1.7	3.5	38.8	18.1	19.7	30.3	0.1	0.5	0.0
14-Apr-10	0.6	1.3	28.2	17.5	18.0	27.4	0.3	1.8	0.0
27-May-10	0.6	0.7	7.4	17.1	18.3	22.5	1.8	0.0	0.0
28-Jun-10	0.5	0.7	7.2	16.8	17.1	20.2	1.9	0.8	0.5
27-Jul-10									
21-Aug-10	0.4	0.7	3.5	17.8	17.0	19.8	0.8	0.1	0.1
9-Sep-10	0.5	0.6	2.4	17.5	17.0	19.5	0.1	0.0	0.0
22-Oct-10	0.5	0.6	16.5	16.2	16.5	21.4	1.3	0.3	0.1
11-Nov-10	0.4	0.3	3.0	16.6	17.1	19.5	1.1	0.3	0.0
9-Dec-10	0.0	0.0	0.6	15.3	16.2	18.9	1.2	0.1	0.0
25-Jan-11	0.4	0.7	2.8	16.3	17.5	19.1	0.8	0.0	0.0
24-Feb-11	0.4	2.8		15.8	19.3		1.4	0.0	
18-Mar-11	0.4	10.5	1.8	15.6	20.4	16.5			
25-Apr-11	1.0	15.6	2.9	15.9	21.7	17.4	0.0	0.0	0.0
31-May-11	0.4	19.0	0.9	13.9	21.7	15.3	0.9	0.0	0.6
17-Jun-11	0.3	15.9	1.0	13.1	20.5	15.2	1.6	0.0	0.1
22-Jul-11	0.1	7.2	0.7	13.1	18.3	14.3	2.4	0.2	0.9
16-Aug-11	0.1	47.4	1.3	14.4	29.1	15.3	1.6	0.0	0.3
21-Sep-11	0.2	4.6	0.3	17.4	19.5	16.3	1.3	0.0	0.0
12-Oct-11	0.5	2.7	0.4	16.4	18.8	16.0	1.5	0.0	0.6
16-Nov-11	0.6	30.0	0.7	17.4	27.7	17.5	3.3	0.0	0.0
2-Dec-11	0.2	4.4	0.6	16.4	20.0	17.5	2.7	0.0	0.0

Appendix B
Side Slope Liner System Monitoring Data

Hidden Valley Landfill

Month of Jan-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	19.98	20.46	0	0	3,136	1	5,310	34.17	22,792
1	20.29	21.85	0	0	0	0	3,826	34.30	16,497
2	20.46	22.24	0	0	6,779	0	5,716	34.15	24,724
3	20.81	23.33	0	0	0	0	5,270	33.91	22,683
4	23.33	8.34	0	590	0	1	5,480	33.56	23,461
5	22.50	8.99	0	0	0	0	5,313	33.15	22,777
6	21.81	9.69	0	0	0	0	6,343	32.51	27,404
7	21.50	0.00	48	0	1,099	1,629	6,533	31.98	28,335
8	21.72	0.00	0	0	0	0	6,720	31.59	29,157
9	17.20	0.00	44	0	2,695	6,536	5,388	30.86	23,234
10	15.77	0.00	0	0	0	0	6,054	29.72	25,259
11	16.59	0.00	0	0	0	0	5,209	28.68	21,825
12	17.81	0.00	0	0	1,192	0	5,835	28.80	24,569
13	16.55	0.00	0	0	0	0	6,101	28.68	25,988
14	18.46	0.22	0	0	4,669	0	6,575	28.22	28,446
15	18.03	0.78	0	0	2,574	0	6,828	27.49	29,932
16	14.12	0.78	44	0	3,430	3,851	6,744	27.21	29,497
17	18.37	1.48	0	0	0	0	5,781	26.96	25,077
18	8.95	2.17	0	0	0	0	5,140	26.75	22,092
19	0.00	3.04	0	0	0	0	5,433	26.88	23,575
20	0.00	3.65	0	0	0	0	5,792	27.78	25,062
21	0.00	3.65	0	0	0	0	7,044	27.69	30,571
22	0.00	4.60	0	0	0	0	6,598	27.42	28,793
23	0.00	5.00	0	0	0	0	6,576	26.54	28,827
24	0.00	5.13	0	0	0	0	5,413	26.22	23,520
25	0.00	5.73	0	0	0	0	4,709	25.98	20,449
26	2.00	6.12	0	0	0	0	6,807	25.78	23,746
27	18.50	6.82	0	0	0	0	5,520	24.75	24,304
28	5.00	6.78	0	0	0	0	5,868	24.09	25,726
29	17.03	7.08	0	0	0	0	4,624	23.75	20,446
30	1.61	7.30	0	0	0	0	4,007	23.61	17,711
31	0.00	7.56	0	0	0	0	8,604	24.48	19,141
			Total Gallons:	**590**	**22,438**	**12,017**	**178,027**		**746,331**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Jan-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
31	34683	58	2913	50	0	11.12	5930916	3,924,149	95592	87,364,546	74,845,021
1	34,691	59	2913	50	0.00	8.02	5930916	3,924,149	95592	87,368,372	74,861,518
2	34,704	3	2913	51	0.02	12.07	5937695	3,924,150	95592	87,374,088	74,886,242
3	34,715	12	2913	51	0.00	11.15	5937695	3,924,150	95592	87,379,358	74,908,925
4	34,726	51	2914	3	0.20	11.65	5937695	3,924,150	96182	87,384,838	74,932,386
5	34,738	18	2914	3	0.00	11.45	5937695	3,924,150	96182	87,390,151	74,955,163
6	34,752	21	2914	3	0.00	14.05	5937695	3,924,150	96182	87,396,494	74,982,567
7	34,767	7	2914	37	0.57	14.77	5938794	3,925,779	96182	87,403,027	75,010,901
8	34,782	30	2914	37	0.00	15.38	5938794	3,925,779	96182	87,409,747	75,040,058
9	34,795	3	2917	6	2.48	12.55	5941489	3,932,315	96182	87,415,135	75,063,292
10	34,809	13	2917	6	0.00	14.17	5941489	3,932,315	96182	87,421,189	75,088,551
11	34,821	54	2917	6	0.00	12.68	5941489	3,932,315	96182	87,426,398	75,110,376
12	34,836	7	2917	6	0.00	14.22	5942681	3,932,315	96182	87,432,234	75,134,945
13	34,851	13	2917	6	0.00	15.10	5942681	3,932,315	96182	87,438,335	75,160,933
14	34,868	1	2917	6	0.00	16.80	5947350	3,932,315	96182	87,444,910	75,189,379
15	34,886	10	2917	6	0.00	18.15	5949925	3,932,315	96182	87,451,738	75,219,311
16	34,904	14	2918	34	1.47	18.07	5953354	3,936,166	96182	87,458,483	75,248,808
17	34,919	44	2918	34	0.00	15.50	5953354	3,936,166	96182	87,464,264	75,273,885
18	34,933	30	2918	34	0.00	13.77	5953354	3,936,166	96182	87,469,404	75,295,977
19	34,948	7	2918	34	0.00	14.62	5953354	3,936,166	96182	87,474,837	75,319,552
20	34,963	9	2918	34	0.00	15.03	5953354	3,936,166	96182	87,480,629	75,344,613
21	34,981	33	2918	34	0.00	18.40	5953354	3,936,166	96182	87,487,673	75,375,184
22	34,999	3	2918	34	0.00	17.50	5953354	3,936,166	96182	87,494,271	75,403,978
23	35,017	9	2918	34	0.00	18.10	5953354	3,936,166	96182	87,500,847	75,432,805
24	35,032	6	2918	34	0.00	14.95	5953354	3,936,166	96182	87,506,260	75,456,326
25	35,045	13	2918	34	0.00	13.12	5953354	3,936,166	96182	87,510,969	75,476,774
26	35,060	34	2918	34	0.00	15.35	5953354	3,936,166	96182	87,517,776	75,500,520
27	35,076	56	2918	34	0.00	16.37	5953354	3,936,166	96182	87,523,296	75,524,824
28	35,094	44	2918	34	0.00	17.80	5953354	3,936,166	96182	87,529,164	75,550,550
29	35,109	5	2918	34	0.00	14.35	5953354	3,936,166	96182	87,533,788	75,570,996
30	35,121	35	2918	34	0.00	12.50	5953354	3,936,166	96182	87,537,795	75,588,707
31	35,134	37	2918	34	0.00	13.03	5953354	3,936,166	96182	87,546,399	75,607,849
					Total	**Gallons**	**22,438**	**12,017**	**590**	**178,027**	**746,331**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill

Month of **Feb-11**

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	0.00	7.56	0	0	0	0	8,604	24.48	19,141
1	30.80	7.91	0	0	0	0	3,630	26.89	15,809
2	18.81	8.04	0	0	0	0	4,825	36.93	20,642
3	0.00	8.43	0	0	968	0	15,734	38.68	22,320
4	13.29	8.47	0	0	0	0	9,044	37.50	22,837
5	0.00	8.90	0	0	4,226	0	5,490	36.73	23,579
6	18.16	9.30	0	0	0	0	5,422	36.75	23,409
7	22.11	9.38	0	0	0	0	5,865	36.42	19,118
8	33.06	9.64	0	0	0	0	11,130	37.23	22,151
9	38.31	10.21	0	0	0	0	7,352	36.68	16,467
10	2.52	10.56	0	0	0	0	7,967	37.18	20,190
11	45.91	11.03	44	0	5,096	349	16,304	37.35	34,395
12	27.10	10.69	0	0	7,821	0	13,659	36.19	28,987
13	20.72	12.16	0	0	6,809	0	16,804	36.89	28,962
14	0.00	11.90	0	0	0	0	10,130	36.26	20,523
15	14.16	12.60	0	0	0	0	19,274	37.59	31,503
16	16.68	13.12	44	0	4,722	4,197	29,078	38.98	33,055
17	24.72	13.86	59	0	2,942	59	24,467	38.10	28,994
18	35.14	14.42	0	0	0	0	5,408	34.58	23,308
19	42.61	14.99	0	0	4,361	0	20,944	37.99	31,760
20	53.08	15.68	0	0	0	0	25,855	40.26	25,202
21	43.35	16.38	0	0	0	0	19,820	38.52	25,075
22	39.27	16.85	43	0	1,671	1,985	23,699	38.80	28,282
23	37.53	17.72	43	0	5,533	645	10,230	36.41	21,664
24	38.01	18.37	0	0	0	0	6,080	34.65	25,397
25	17.16	20.20	0	0	0	0	5,708	34.53	24,172
26	18.68	20.68	0	0	0	0	5,527	34.31	23,707
27	20.37	22.24	0	0	0	0	4,862	33.90	20,885
28	12.90	21.85	35	0	0	70	6,060	33.75	25,889
Total Gallons:				**0**	**44,148**	**7,305**	**340,367**		**688,282**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Feb-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
31	35,134	37	2918	34	0.00	13.03	5953354	3,936,166	96182	87,546,399	75,607,849
1	35,144	25	2918	34	0.00	9.80	5953354	3,936,166	96182	87,550,029	75,623,658
2	35,153	44	2918	34	0.00	9.32	5953354	3,936,166	96182	87,554,854	75,644,300
3	35,163	21	2918	34	0.00	9.62	5954322	3,936,166	96182	87,570,588	75,666,620
4	35,173	30	2918	34	0.00	10.15	5954322	3,936,166	96182	87,579,632	75,689,457
5	35,184	12	2918	34	0.00	10.70	5958549	3,936,166	96182	87,585,122	75,713,037
6	35,194	49	2918	34	0.00	10.62	5958549	3,936,166	96182	87,590,544	75,736,446
7	35,203	34	2918	34	0.00	8.75	5958549	3,936,166	96182	87,596,409	75,755,564
8	35,213	29	2918	34	0.00	9.92	5958549	3,936,166	96182	87,607,539	75,777,715
9	35,220	58	2918	34	0.00	7.48	5958549	3,936,166	96182	87,614,891	75,794,183
10	35,230	1	2918	34	0.00	9.05	5958549	3,936,166	96182	87,622,857	75,814,373
11	35,245	22	2918	42	0.13	15.35	5963644	3,936,515	96182	87,639,161	75,848,768
12	35,258	43	2918	42	0.00	13.35	5971465	3,936,515	96182	87,652,820	75,877,755
13	35,271	48	2918	42	0.00	13.08	5978275	3,936,515	96182	87,669,624	75,906,716
14	35,281	14	2918	42	0.00	9.43	5978275	3,936,515	96182	87,679,754	75,927,239
15	35,295	12	2918	42	0.00	13.97	5978275	3,936,515	96182	87,699,029	75,958,742
16	35,309	20	2920	18	1.60	14.13	5982996	3,940,712	96182	87,728,107	75,991,796
17	35,322	1	2920	19	0.02	12.68	5985938	3,940,771	96182	87,752,574	76,020,791
18	35,333	15	2920	19	0.00	11.23	5985938	3,940,771	96182	87,757,982	76,044,098
19	35,347	11	2920	19	0.00	13.93	5990299	3,940,771	96182	87,778,926	76,075,858
20	35,357	37	2920	19	0.00	10.43	5990299	3,940,771	96182	87,804,781	76,101,060
21	35,368	28	2920	19	0.00	10.85	5990299	3,940,771	96182	87,824,601	76,126,135
22	35,380	37	2921	5	0.77	12.15	5991970	3,942,756	96182	87,848,300	76,154,417
23	35,390	32	2921	20	0.25	9.92	5997503	3,943,401	96182	87,858,530	76,176,081
24	35,402	45	2921	20	0.00	12.22	5997503	3,943,401	96182	87,864,610	76,201,478
25	35,414	25	2921	20	0.00	11.67	5997503	3,943,401	96182	87,870,317	76,225,650
26	35,425	56	2921	20	0.00	11.52	5997503	3,943,401	96182	87,875,844	76,249,356
27	35,436	12	2921	20	0.00	10.27	5997503	3,943,401	96182	87,880,706	76,270,242
28	35,448	59	2921	22	0.03	12.78	5997503	3,943,471	96182	87,886,766	76,296,131
					Total	**Gallons**	**44,148**	**7,305**	**0**	**340,367**	**688,282**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill

Month of Mar-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
28	12.90	21.85	35	0	0	70	6,060	33.75	25,889
1	13.94	6.21	0	973	4,803	0	6,324	33.71	27,037
2	13.51	5.30	0	0	5,592	0	6,831	33.61	29,513
3	13.60	5.26	0	0	3,004	0	14,462	34.56	30,068
4	13.99	6.21	0	0	3,991	0	7,853	33.22	33,823
5	14.38	6.56	0	0	4,720	0	23,275	35.60	34,139
6	14.64	7.21	0	0	4,794	0	19,556	34.98	29,905
7	14.86	7.21	0	0	0	0	18,699	33.98	30,816
8	15.12	7.56	0	0	0	0	20,873	34.45	32,384
9	15.90	8.69	0	0	4,139	0	28,246	35.79	31,423
10	15.25	7.69	0	0	0	0	9,381	34.34	14,116
11	16.03	8.77	0	0	0	0	20,662	34.81	29,591
12	16.16	9.08	0	0	0	0	18,066	33.75	21,901
13	16.25	9.25	0	0	0	0	23,389	34.21	25,691
14	17.11	10.38	0	0	0	0	23,093	33.06	24,100
15	16.72	10.38	0	0	0	0	29,418	32.68	32,648
16	16.81	10.43	0	0	3,846	0	31,418	32.45	32,677
17	17.29	11.21	0	0	0	0	29,293	32.39	28,181
18	17.51	11.77	0	0	0	0	30,716	30.97	31,340
19	17.77	12.86	0	0	0	0	27,936	31.21	27,431
20	17.98	13.20	0	0	0	0	28,091	30.16	28,262
21	17.98	13.73	0	0	0	0	26,818	29.31	24,677
22	18.29	14.33	0	0	0	0	26,620	29.96	27,229
23	18.94	15.81	0	0	0	0	26,846	30.04	26,618
24	18.72	16.07	0	0	0	0	25,304	29.40	27,575
25	19.11	16.98	0	0	0	0	31,821	28.91	34,978
26	19.03	17.38	0	0	0	0	29,147	29.23	27,093
27	18.98	2.69	0	1030	0	0	20,399	27.00	26,834
28	19.63	3.56	0	0	0	0	26,845	27.32	29,257
29	15.85	3.61	44	0	988	3,309	15,956	25.55	29,587
30	16.33	4.08	0	0	1,315	0	27,323	27.53	32,737
31	16.51	4.17	0	0	0	0	31,451	28.84	29,964
			Total Gallons:	**2,003**	**37,193**	**3,309**	**706,113**		**891,593**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Mar-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
28	35,448	59	2921	22	0.03	12.78	5997503	3,943,471	96182	87,886,766	76,296,131
1	35,462	21	2921	41	0.32	13.37	6002306	3,943,471	97155	87,893,090	76,323,168
2	35,476	59	2921	41	0.00	14.63	6007898	3,943,471	97155	87,899,921	76,352,680
3	35,491	29	2921	41	0.00	14.50	6010902	3,943,471	97155	87,914,383	76,382,748
4	35,508	27	2921	41	0.00	16.97	6014894	3,943,471	97155	87,922,236	76,416,570
5	35,524	26	2921	41	0.00	15.98	6019614	3,943,471	97155	87,945,512	76,450,709
6	35,538	41	2921	41	0.00	14.25	6024407	3,943,471	97155	87,965,067	76,480,614
7	35,553	48	2921	41	0.00	15.12	6024407	3,943,471	97155	87,983,767	76,511,430
8	35,569	28	2921	41	0.00	15.67	6024407	3,943,471	97155	88,004,639	76,543,814
9	35,584	6	2921	41	0.00	14.63	6028546	3,943,471	97155	88,032,885	76,575,237
10	35,590	57	2921	41	0.00	6.85	6028546	3,943,471	97155	88,042,266	76,589,353
11	35,605	7	2921	41	0.00	14.17	6028546	3,943,471	97155	88,062,928	76,618,944
12	35,615	56	2921	41	0.00	10.82	6028546	3,943,471	97155	88,080,994	76,640,845
13	35,628	27	2921	41	0.00	12.52	6028546	3,943,471	97155	88,104,383	76,666,536
14	35,640	36	2921	41	0.00	12.15	6028546	3,943,471	97155	88,127,476	76,690,636
15	35,657	15	2921	41	0.00	16.65	6028546	3,943,471	97155	88,156,894	76,723,284
16	35,674	2	2921	41	0.00	16.78	6032392	3,943,471	97155	88,188,313	76,755,961
17	35,688	32	2921	41	0.00	14.50	6032392	3,943,471	97155	88,217,605	76,784,142
18	35,705	24	2921	41	0.00	16.87	6032392	3,943,471	97155	88,248,322	76,815,483
19	35,720	3	2921	41	0.00	14.65	6032392	3,943,471	97155	88,276,258	76,842,914
20	35,735	40	2921	41	0.00	15.62	6032392	3,943,471	97155	88,304,349	76,871,176
21	35,749	42	2921	41	0.00	14.03	6032392	3,943,471	97155	88,331,167	76,895,853
22	35,764	51	2921	41	0.00	15.15	6032392	3,943,471	97155	88,357,787	76,923,082
23	35,779	37	2921	41	0.00	14.77	6032392	3,943,471	97155	88,384,633	76,949,700
24	35,795	15	2921	41	0.00	15.63	6032392	3,943,471	97155	88,409,938	76,977,275
25	35,815	25	2921	41	0.00	20.17	6032392	3,943,471	97155	88,441,758	77,012,253
26	35,830	52	2921	41	0.00	15.45	6032392	3,943,471	97155	88,470,905	77,039,346
27	35,847	26	2922	1	0.33	16.57	6032392	3,943,471	98185	88,491,304	77,066,180
28	35,865	17	2922	1	0.00	17.85	6032392	3,943,471	98185	88,518,149	77,095,437
29	35,884	35	2923	16	1.25	19.30	6033381	3,946,780	98185	88,534,105	77,125,023
30	35,904	24	2923	16	0.00	19.82	6034696	3,946,780	98185	88,561,428	77,157,760
31	35,921	43	2923	16	0.00	17.32	6034696	3,946,780	98185	88,592,879	77,187,724
					Total	**Gallons**	**37,193**	**3,309**	**2,003**	**706,113**	**891,593**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of Apr-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	16.51	4.17	0	0	0	0	31,451	28.84	29,964
1	16.59	4.26	0	0	0	0	32,636	28.47	30,402
2	16.77	4.52	0	0	0	0	30,413	27.73	28,121
3	17.24	5.26	0	0	4,141	0	26,245	26.84	28,316
4	17.51	5.73	0	0	0	0	22,658	26.52	25,642
5	17.90	6.30	0	0	1,155	0	23,616	27.41	26,558
6	18.03	6.52	0	0	16	0	31,222	29.22	29,306
7	18.11	6.78	0	0	0	0	25,920	28.38	27,588
8	18.50	7.25	0	0	2,386	0	31,959	28.93	32,888
9	18.59	7.47	0	0	2,892	0	32,401	29.04	30,637
10	18.85	7.86	0	0	1,513	0	26,695	28.26	25,380
11	19.03	8.08	0	0	0	0	16,255	29.24	22,102
12	15.12	8.64	44	0	688	3,659	23,278	37.29	28,375
13	15.20	8.64	0	0	4,495	0	30,926	38.64	33,308
14	15.42	8.86	0	0	4,190	0	28,143	37.52	30,764
15	15.77	9.30	0	0	0	0	33,391	37.07	33,507
16	15.99	9.43	0	0	0	0	26,619	35.76	27,288
17	16.20	9.73	0	0	2,863	0	26,425	34.47	31,955
18	16.38	9.95	0	0	0	0	28,492	35.00	27,652
19	16.72	10.47	0	0	0	0	30,165	36.67	29,886
20	12.81	10.56	44	0	4,936	3,131	20,097	35.60	27,589
21	13.07	10.77	0	0	0	0	29,790	36.95	30,890
22	13.55	11.42	0	0	0	0	22,328	35.23	30,965
23	13.73	11.64	0	0	2,893	0	32,386	36.66	35,744
24	14.16	12.25	0	0	9	0	29,653	36.61	28,815
25	14.12	12.42	0	0	1,281	0	23,418	36.08	25,798
26	14.51	13.03	0	0	297	0	20,601	35.30	27,607
27	14.77	13.60	0	0	0	0	32,810	36.51	34,978
28	14.86	4.04	0	777	1,974	0	26,950	36.07	30,080
29	15.12	4.21	0	0	2,869	0	34,498	36.25	37,732
30	15.51	4.65	0	0	2,859	0	27,381	35.21	30,456
			Total Gallons:	**777**	**41,457**	**6,789**	**827,371**		**890,329**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Apr-11

Day	Discharge Pump 12 (hr)	Discharge Pump 12 (min)	Cell 2 Influent Pump (hr)	Cell 2 Influent Pump (min)	Cell 2 Daily Hours	Pump 12 Daily Hours	Cell 1 Leachate Total Gals.	Cell 2 Leachate Total Gals.	Cell 2 Leak Total Gals.	304th Influent Total Gals.	Treatment Discharge Total Gals.
31	35,921	43	2923	16	0.00	17.32	6034696	3,946,780	98185	88,592,879	77,187,724
1	35,939	31	2923	16	0.00	17.80	6034696	3,946,780	98185	88,625,515	77,218,126
2	35,956	25	2923	16	0.00	16.90	6034696	3,946,780	98185	88,655,928	77,246,247
3	35,973	60	2923	16	0.00	17.58	6038837	3,946,780	98185	88,682,173	77,274,563
4	35,990	7	2923	16	0.00	16.12	6038837	3,946,780	98185	88,704,831	77,300,204
5	36,006	16	2923	16	0.00	16.15	6039992	3,946,780	98185	88,728,447	77,326,762
6	36,022	59	2923	16	0.00	16.72	6040008	3,946,780	98185	88,759,669	77,356,068
7	36,039	11	2923	16	0.00	16.20	6040008	3,946,780	98185	88,785,589	77,383,656
8	36,058	8	2923	16	0.00	18.95	6042394	3,946,780	98185	88,817,548	77,416,544
9	36,075	43	2923	16	0.00	17.58	6045285	3,946,780	98185	88,849,949	77,447,181
10	36,090	41	2923	16	0.00	14.97	6046799	3,946,780	98185	88,876,644	77,472,561
11	36,103	17	2923	16	0.00	12.60	6046799	3,946,780	98185	88,892,899	77,494,663
12	36,115	58	2924	39	1.38	12.68	6047487	3,950,439	98185	88,916,177	77,523,038
13	36,130	20	2924	39	0.00	14.37	6051982	3,950,439	98185	88,947,103	77,556,347
14	36,143	60	2924	39	0.00	13.67	6056172	3,950,439	98185	88,975,246	77,587,110
15	36,159	4	2924	39	0.00	15.07	6056172	3,950,439	98185	89,008,637	77,620,618
16	36,171	47	2924	39	0.00	12.72	6056172	3,950,439	98185	89,035,257	77,647,906
17	36,187	14	2924	39	0.00	15.45	6059035	3,950,439	98185	89,061,682	77,679,861
18	36,200	24	2924	39	0.00	13.17	6059035	3,950,439	98185	89,090,173	77,707,512
19	36,213	59	2924	39	0.00	13.58	6059035	3,950,439	98185	89,120,338	77,737,399
20	36,226	54	2925	50	1.18	12.92	6063972	3,953,569	98185	89,140,435	77,764,987
21	36,240	50	2925	50	0.00	13.93	6063972	3,953,569	98185	89,170,225	77,795,878
22	36,255	29	2925	50	0.00	14.65	6063972	3,953,569	98185	89,192,553	77,826,843
23	36,271	44	2925	50	0.00	16.25	6066865	3,953,569	98185	89,224,940	77,862,587
24	36,284	51	2925	50	0.00	13.12	6066874	3,953,569	98185	89,254,593	77,891,402
25	36,296	46	2925	50	0.00	11.92	6068154	3,953,569	98185	89,278,010	77,917,200
26	36,309	48	2925	50	0.00	13.03	6068451	3,953,569	98185	89,298,611	77,944,807
27	36,325	46	2925	50	0.00	15.97	6068451	3,953,569	98185	89,331,421	77,979,785
28	36,339	40	2926	6	0.27	13.90	6070426	3,953,569	98962	89,358,371	78,009,865
29	36,357	1	2926	6	0.00	17.35	6073295	3,953,569	98962	89,392,869	78,047,597
30	36,371	26	2926	6	0.00	14.42	6076153	3,953,569	98962	89,420,250	78,078,053
					Total	**Gallons**	**41,457**	**6,789**	**777**	**827,371**	**890,329**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of May-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
30	15.51	4.65	0	0	2,859	0	27,381	35.21	30,456
1	15.94	5.17	0	0	726	0	25,689	34.22	27,514
2	15.81	4.95	0	0	1,002	0	23,434	33.80	27,106
3	11.64	5.30	44	0	1,069	3,399	26,104	34.08	32,443
4	12.16	5.82	0	0	0	0	16,557	32.39	24,778
5	12.21	5.82	0	0	0	0	20,875	32.64	29,082
6	12.68	6.30	0	0	2,062	0	21,015	32.39	26,304
7	12.77	6.30	0	0	0	0	16,259	31.21	23,094
8	12.94	6.30	0	0	834	0	19,404	31.37	28,072
9	13.25	6.56	0	0	1,836	0	20,708	30.76	29,806
10	13.68	6.95	0	0	0	0	14,793	30.40	22,769
11	13.55	6.82	0	0	0	0	21,442	30.90	26,238
12	14.16	7.34	0	0	0	0	17,432	33.33	23,432
13	14.33	7.51	0	0	0	0	19,602	39.11	39,304
14	14.73	7.91	0	0	0	0	21,454	39.48	32,175
15	14.68	7.82	0	0	0	0	15,531	38.30	27,691
16	15.12	8.21	0	0	0	0	16,309	38.03	38,715
17	15.16	8.12	0	0	0	0	16,782	37.19	38,416
18	15.38	8.47	0	0	0	0	21,113	36.76	41,718
19	15.64	8.60	0	0	0	0	19,920	37.32	35,562
20	15.81	8.82	0	0	0	0	19,158	36.33	34,439
21	16.16	9.25	0	0	0	0	18,011	35.26	28,667
22	16.33	9.51	0	0	1,489	0	17,852	34.63	33,215
23	16.46	9.73	0	0	0	0	16,572	40.56	25,672
24	16.85	10.16	0	0	0	0	18,550	45.71	34,878
25	16.72	10.12	0	0	0	0	20,018	45.88	35,830
26	17.24	10.77	0	0	0	0	19,051	44.68	32,306
27	17.29	10.90	0	0	0	0	15,591	43.34	24,876
28	17.51	11.16	0	0	0	0	13,931	42.72	25,544
29	17.81	11.64	0	0	0	0	19,254	42.67	34,133
30	17.90	11.90	0	0	0	0	17,940	42.51	31,541
31	18.07	12.29	0	0	4,652	0	18,357	42.12	34,711
			Total Gallons:	**0**	**13,670**	**3,399**	**588,708**		**950,028**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

May-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
30	36,371	26	2926	6	0.00	14.42	6076153	3,953,569	98962	89,420,250	78,078,053
1	36,384	50	2926	6	0.00	13.40	6076879	3,953,569	98962	89,445,940	78,105,567
2	36,398	12	2926	6	0.00	13.37	6077881	3,953,569	98962	89,469,374	78,132,673
3	36,414	4	2927	24	1.30	15.87	6078950	3,956,968	98962	89,495,478	78,165,116
4	36,426	49	2927	24	0.00	12.75	6078950	3,956,968	98962	89,512,035	78,189,894
5	36,441	40	2927	24	0.00	14.85	6078950	3,956,968	98962	89,532,910	78,218,976
6	36,455	12	2927	24	0.00	13.53	6081012	3,956,968	98962	89,553,925	78,245,280
7	36,467	32	2927	24	0.00	12.33	6081012	3,956,968	98962	89,570,184	78,268,374
8	36,482	27	2927	24	0.00	14.92	6081846	3,956,968	98962	89,589,588	78,296,446
9	36,498	36	2927	24	0.00	16.15	6083682	3,956,968	98962	89,610,296	78,326,252
10	36,511	5	2927	24	0.00	12.48	6083682	3,956,968	98962	89,625,089	78,349,022
11	36,525	14	2927	24	0.00	14.15	6083682	3,956,968	98962	89,646,531	78,375,259
12	36,536	57	2927	24	0.00	11.72	6083682	3,956,968	98962	89,663,963	78,398,691
13	36,553	42	2927	24	0.00	16.75	6083682	3,956,968	98962	89,683,564	78,437,995
14	36,567	17	2927	24	0.00	13.58	6083682	3,956,968	98962	89,705,019	78,470,170
15	36,579	20	2927	24	0.00	12.05	6083682	3,956,968	98962	89,720,550	78,497,861
16	36,596	18	2927	24	0.00	16.97	6083682	3,956,968	98962	89,736,859	78,536,575
17	36,613	31	2927	24	#N/A	17.22	6083682	3,956,968	98962	89,753,641	78,574,991
18	36,632	26	2927	24	#N/A	18.92	6083682	3,956,968	98962	89,774,753	78,616,709
19	36,648	19	2927	24	#N/A	15.88	6083682	3,956,968	98962	89,794,673	78,652,271
20	36,664	7	2927	24	#N/A	15.80	6083682	3,956,968	98962	89,813,832	78,686,709
21	36,677	40	2927	24	#N/A	13.55	6083682	3,956,968	98962	89,831,842	78,715,376
22	36,693	39	2927	24	#N/A	15.98	6085171	3,956,968	98962	89,849,694	78,748,591
23	36,704	12	2927	24	#N/A	10.55	6085171	3,956,968	98962	89,866,267	78,774,262
24	36,716	55	2927	24	#N/A	12.72	6085171	3,956,968	98962	89,884,817	78,809,141
25	36,729	56	2927	24	0.00	13.02	6085171	3,956,968	98962	89,904,835	78,844,971
26	36,741	59	2927	24	0.00	12.05	6085171	3,956,968	98962	89,923,885	78,877,276
27	36,751	33	2927	24	0.00	9.57	6085171	3,956,968	98962	89,939,477	78,902,152
28	36,761	31	2927	24	0.00	9.97	6085171	3,956,968	98962	89,953,408	78,927,696
29	36,774	51	2927	24	0.00	13.33	6085171	3,956,968	98962	89,972,662	78,961,829
30	36,787	13	2927	24	0.00	12.37	6085171	3,956,968	98962	89,990,602	78,993,370
31	36,800	57	2927	24	0.00	13.73	6089823	3,956,968	98962	90,008,958	79,028,081
					Total	**Gallons**	**13,670**	**3,399**	**0**	**588,708**	**950,028**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of Jun-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	18.07	12.29	0	0	4,652	0	18,357	42.12	34,711
1	18.29	12.86	0	0	4,945	0	17,752	42.32	34,406
2	18.42	13.29	0	0	0	0	10,760	41.20	28,758
3	18.55	13.64	0	0	4,920	0	13,983	41.26	28,884
4	18.85	14.33	0	0	3,443	0	10,424	41.94	21,639
5	19.03	14.90	0	0	1,709	0	5,282	40.53	21,276
6	19.11	15.59	0	0	0	0	6,092	39.54	25,302
7	10.86	16.12	44	0	6,885	6,819	8,489	38.51	35,542
8	11.25	16.77	0	0	0	0	6,555	37.43	27,290
9	11.55	17.07	0	0	0	0	7,167	37.04	28,634
10	11.86	17.90	0	0	0	0	6,838	36.36	28,978
11	12.16	18.55	0	0	0	0	4,590	36.32	19,542
12	12.34	19.29	0	0	0	0	5,737	36.00	24,374
13	12.47	19.94	0	0	0	0	12,763	37.09	25,999
14	12.86	20.15	0	0	0	0	25,593	38.24	34,800
15	13.03	20.72	0	0	0	0	29,019	37.12	36,972
16	13.34	21.50	0	0	0	0	28,702	36.46	30,258
17	13.60	0.04	0	1471	1,912	0	28,322	36.49	28,717
18	13.68	0.13	0	0	0	0	18,361	35.30	20,862
19	14.12	0.13	0	0	0	0	16,855	34.56	22,256
20	14.20	0.17	0	0	0	0	16,154	34.16	20,394
21	14.42	0.65	0	0	0	0	26,488	33.71	33,646
22	14.55	0.65	0	0	0	0	29,738	33.46	34,902
23	15.03	1.65	0	0	924	0	26,946	31.52	31,200
24	15.20	1.26	0	0	643	0	37,533	35.02	34,708
25	15.42	1.65	0	0	0	0	21,631	36.50	23,032
26	15.77	1.82	0	0	0	0	25,141	36.13	22,944
27	15.85	2.30	0	0	0	0	22,638	34.09	32,349
28	15.85	2.61	0	0	0	0	25,664	33.51	37,897
29	16.07	3.39	0	0	0	0	19,610	32.50	34,290
30	16.46	3.48	0	0	0	0	33,072	34.75	38,955
			Total Gallons:	**1,471**	**25,381**	**6,819**	**547,898**		**868,807**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Jun-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
31	36,800	57	2927	24	0.00	13.73	6089823	3,956,968	98962	90,008,958	79,028,081
1	36,814	30	2927	24	0.00	13.55	6094767	3,956,968	98962	90,026,710	79,062,487
2	36,826	8	2927	24	0.00	11.63	6094767	3,956,968	98962	90,037,470	79,091,245
3	36,837	48	2927	24	0.00	11.67	6099687	3,956,968	98962	90,051,454	79,120,129
4	36,846	24	2927	24	0.00	8.60	6103130	3,956,968	98962	90,061,878	79,141,768
5	36,855	9	2927	24	0.00	8.75	6104840	3,956,968	98962	90,067,159	79,163,044
6	36,865	49	2927	24	0.00	10.67	6104840	3,956,968	98962	90,073,252	79,188,347
7	36,881	12	2929	59	2.58	15.38	6111724	3,963,787	98962	90,081,741	79,223,889
8	36,893	21	2929	59	0.00	12.15	6111724	3,963,787	98962	90,088,295	79,251,179
9	36,906	14	2929	59	0.00	12.88	6111725	3,963,787	98962	90,095,463	79,279,813
10	36,919	31	2929	59	0.00	13.28	6111725	3,963,787	98962	90,102,301	79,308,791
11	36,928	29	2929	59	0.00	8.97	6111725	3,963,787	98962	90,106,891	79,328,333
12	36,939	46	2929	59	0.00	11.28	6111725	3,963,787	98962	90,112,628	79,352,706
13	36,951	27	2929	59	0.00	11.68	6111725	3,963,787	98962	90,125,391	79,378,705
14	36,966	37	2929	59	0.00	15.17	6111725	3,963,787	98962	90,150,984	79,413,505
15	36,983	13	2929	59	0.00	16.60	6111725	3,963,787	98962	90,180,003	79,450,477
16	36,997	3	2929	59	0.00	13.83	6111725	3,963,787	98962	90,208,705	79,480,735
17	37,010	10	2930	29	0.50	13.12	6113637	3,963,787	100433	90,237,027	79,509,452
18	37,020	1	2930	29	0.00	9.85	6113637	3,963,787	100433	90,255,388	79,530,314
19	37,030	45	2930	29	0.00	10.73	6113637	3,963,787	100433	90,272,243	79,552,570
20	37,040	42	2930	29	0.00	9.95	6113637	3,963,787	100433	90,288,397	79,572,964
21	37,057	20	2930	29	0.00	16.63	6113637	3,963,787	100433	90,314,885	79,606,610
22	37,074	43	2930	29	0.00	17.38	6113637	3,963,787	100433	90,344,623	79,641,512
23	37,091	13	2930	29	0.00	16.50	6114561	3,963,787	100433	90,371,569	79,672,712
24	37,107	44	2930	29	0.00	16.52	6115204	3,963,787	100433	90,409,102	79,707,420
25	37,118	15	2930	29	0.00	10.52	6115204	3,963,787	100433	90,430,732	79,730,452
26	37,128	50	2930	29	0.00	10.58	6115204	3,963,787	100433	90,455,873	79,753,396
27	37,144	39	2930	29	0.00	15.82	6115204	3,963,787	100433	90,478,511	79,785,745
28	37,163	30	2930	29	0.00	18.85	6115204	3,963,787	100433	90,504,175	79,823,642
29	37,181	5	2930	29	0.00	17.58	6115204	3,963,787	100433	90,523,784	79,857,932
30	37,199	46	2930	29	0.00	18.68	6115204	3,963,787	100433	90,556,857	79,896,888
					Total	**Gallons**	**25,381**	**6,819**	**1,471**	**547,898**	**868,807**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill

Month of Jul-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
30	16.46	3.48	0	0	0	0	33,072	34.75	38,955
1	16.85	3.04	0	0	0	0	38,835	35.44	41,464
2	16.85	3.13	0	0	0	0	20,714	35.15	22,428
3	17.07	3.74	0	0	0	0	15,451	32.91	22,742
4	17.20	3.56	0	0	0	0	14,760	31.65	22,757
5	17.51	3.30	0	0	0	0	18,628	31.30	31,365
6	17.77	3.78	0	0	0	0	16,818	30.51	36,279
7	17.77	4.00	0	0	359	0	13,517	30.69	29,185
8	18.16	4.39	0	0	4,992	0	32,488	34.63	35,976
9	18.29	4.69	0	0	0	0	21,189	34.70	24,500
10	18.42	4.87	0	0	0	0	12,608	32.02	22,507
11	18.59	4.78	0	0	0	0	13,522	30.53	28,907
12	18.85	5.04	0	0	0	0	26,747	32.80	33,357
13	15.42	4.95	44	0	0	3,061	23,027	31.64	33,923
14	15.77	5.47	0	0	0	0	23,466	30.96	38,541
15	11.08	5.65	42	0	0	3,589	25,105	31.42	33,835
16	11.29	6.43	0	0	0	0	5,810	27.80	20,597
17	11.55	6.47	0	0	0	0	4,066	27.15	17,973
18	11.90	6.34	0	0	0	0	19,233	30.32	25,199
19	11.99	7.82	0	0	0	0	27,759	29.69	39,638
20	12.47	6.73	0	0	0	0	23,512	37.26	26,155
21	12.47	6.65	0	0	0	0	27,436	49.20	35,030
22	12.81	6.86	0	0	0	0	24,628	50.63	22,832
23	13.12	6.95	0	0	0	0	22,652	49.91	28,199
24	13.25	7.47	0	0	0	0	18,021	48.67	21,023
25	13.47	7.82	0	0	0	0	25,841	50.13	27,569
26	13.81	7.25	0	0	0	0	31,794	48.33	34,553
27	13.99	8.43	0	0	0	0	38,180	48.81	40,607
28	14.29	7.95	0	0	0	0	26,623	47.87	34,660
29	14.55	8.21	0	0	0	0	23,231	48.57	24,433
30	14.68	8.38	0	0	0	0	21,151	49.81	23,163
31	14.90	8.25	0	0	0	0	21,738	48.99	26,502
			Total Gallons:	**0**	**5,351**	**6,650**	**678,550**		**905,898**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Jul-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
30	37,199	46	2930	29	0.00	18.68	6115204	3,963,787	100433	90,556,857	79,896,888
1	37,219	16	2930	29	0.00	19.50	6115204	3,963,787	100433	90,595,692	79,938,351
2	37,229	54	2930	29	0.00	10.63	6115204	3,963,787	100433	90,616,406	79,960,779
3	37,241	25	2930	29	0.00	11.52	6115204	3,963,787	100433	90,631,857	79,983,521
4	37,253	24	2930	29	0.00	11.98	6115204	3,963,787	100433	90,646,617	80,006,278
5	37,270	6	2930	29	0.00	16.70	6115204	3,963,787	100433	90,665,245	80,037,643
6	37,289	55	2930	29	0.00	19.82	6115204	3,963,787	100433	90,682,063	80,073,922
7	37,305	46	2930	29	0.00	15.85	6115563	3,963,787	100433	90,695,580	80,103,106
8	37,323	5	2930	29	0.00	17.32	6120555	3,963,787	100433	90,728,068	80,139,082
9	37,334	51	2930	29	0.00	11.77	6120555	3,963,787	100433	90,749,257	80,163,582
10	37,346	34	2930	29	0.00	11.72	6120555	3,963,787	100433	90,761,865	80,186,089
11	37,362	21	2930	29	0.00	15.78	6120555	3,963,787	100433	90,775,388	80,214,996
12	37,379	18	2930	29	0.00	16.95	6120555	3,963,787	100433	90,802,135	80,248,353
13	37,397	10	2931	39	1.17	17.87	6120555	3,966,848	100433	90,825,162	80,282,276
14	37,417	55	2931	39	0.00	20.75	6120555	3,966,848	100433	90,848,628	80,320,816
15	37,435	52	2933	4	1.42	17.95	6120555	3,970,437	100433	90,873,733	80,354,652
16	37,448	13	2933	4	0.00	12.35	6120555	3,970,437	100433	90,879,543	80,375,248
17	37,459	15	2933	4	0.00	11.03	6120555	3,970,437	100433	90,883,609	80,393,221
18	37,473	6	2933	4	0.00	13.85	6120555	3,970,437	100433	90,902,842	80,418,420
19	37,495	21	2933	4	0.00	22.25	6120555	3,970,437	100433	90,930,601	80,458,058
20	37,507	3	2933	4	0.00	11.70	6120555	3,970,437	100433	90,954,114	80,484,213
21	37,518	55	2933	4	0.00	11.87	6120555	3,970,437	100433	90,981,550	80,519,243
22	37,526	26	2933	4	0.00	7.52	6120555	3,970,437	100433	91,006,178	80,542,075
23	37,535	51	2933	4	0.00	9.42	6120555	3,970,437	100433	91,028,830	80,570,274
24	37,543	3	2933	4	0.00	7.20	6120555	3,970,437	100433	91,046,850	80,591,298
25	37,552	13	2933	4	0.00	9.17	6120555	3,970,437	100433	91,072,691	80,618,867
26	37,564	8	2933	4	0.00	11.92	6120555	3,970,437	100433	91,104,485	80,653,419
27	37,577	60	2933	4	0.00	13.87	6120555	3,970,437	100433	91,142,665	80,694,027
28	37,590	4	2933	4	0.00	12.07	6120555	3,970,437	100433	91,169,287	80,728,687
29	37,598	27	2933	4	0.00	8.38	6120555	3,970,437	100433	91,192,518	80,753,120
30	37,606	12	2933	4	0.00	7.75	6120555	3,970,437	100433	91,213,669	80,776,283
31	37,615	13	2933	4	0.00	9.02	6120555	3,970,437	100433	91,235,407	80,802,785
					Total	**Gallons**	**5,351**	**6,650**	**0**	**678,550**	**905,898**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill

Month of Aug-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	14.90	8.25	0	0	0	0	21,738	48.99	26,502
1	15.20	8.56	0	0	0	0	18,857	46.72	28,222
2	15.33	8.73	0	0	0	0	34,431	47.33	37,247
3	15.55	9.25	0	0	0	0	28,079	46.70	31,007
4	15.68	9.38	0	0	0	0	30,348	46.01	40,260
5	15.94	9.30	0	0	0	0	34,985	43.73	44,997
6	16.20	9.12	0	0	0	0	18,475	43.50	22,444
7	16.33	9.60	0	0	0	0	21,013	44.07	26,092
8	16.51	9.73	0	0	57	0	22,738	43.42	30,612
9	16.72	10.25	0	0	736	0	32,338	41.23	43,127
10	16.90	10.38	0	0	6,598	0	26,785	41.02	39,093
11	17.16	10.51	0	0	2,333	0	27,054	38.75	42,354
12	17.24	10.73	0	0	6,465	0	22,368	35.34	36,540
13	17.55	10.77	0	0	3,755	0	23,583	34.50	32,124
14	17.68	10.90	0	0	2,480	0	28,798	37.64	30,524
15	17.90	11.55	0	0	0	0	26,023	36.43	32,746
16	17.98	11.51	0	0	0	0	43,707	35.77	43,705
17	18.16	11.68	0	0	0	0	39,525	37.44	45,266
18	18.46	11.95	0	0	0	0	35,333	34.39	45,014
19	18.59	12.34	0	0	0	0	38,593	34.47	39,715
20	18.81	12.81	0	0	4,479	0	26,209	37.93	25,718
21	18.90	13.29	0	0	0	0	25,510	36.88	21,499
22	19.16	13.29	0	0	0	0	32,644	36.44	29,148
23	19.29	13.86	0	0	0	0	25,705	33.16	34,680
24	19.55	14.59	0	0	0	0	34,988	33.91	35,161
25	19.63	14.90	0	0	0	0	30,615	34.14	30,969
26	19.81	15.20	0	0	0	0	25,949	34.14	31,789
27	19.98	15.68	0	0	0	0	18,133	33.96	26,081
28	20.15	16.38	0	0	0	0	15,247	32.27	24,042
29	20.33	16.59	0	0	0	0	5,452	30.36	23,374
30	20.46	17.46	0	0	0	0	6,685	30.75	27,887
31	20.50	17.16	0	32	5	0	13,771	31.92	30,898
			Total Gallons:	**32**	**26,908**	**0**	**813,941**		**1,032,336**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Aug-11

Day	Discharge Pump 12 (hr)	(min)	Cell 2 Influent Pump (hr)	(min)	Cell 2 Daily Hours	Pump 12 Daily Hours	Cell 1 Leachate Total Gals.	Cell 2 Leachate Total Gals.	Cell 2 Leak Total Gals.	304th Influent Total Gals.	Treatment Discharge Total Gals.
31	37,615	13	2933	4	0.00	9.02	6120555	3,970,437	100433	91,235,407	80,802,785
1	37,625	17	2933	4	0.00	10.07	6120555	3,970,437	100433	91,254,264	80,831,007
2	37,638	24	2933	4	0.00	13.12	6120555	3,970,437	100433	91,288,695	80,868,254
3	37,649	28	2933	4	0.00	11.07	6120555	3,970,437	100433	91,316,774	80,899,262
4	37,664	3	2933	4	0.00	14.58	6120555	3,970,437	100433	91,347,122	80,939,521
5	37,681	12	2933	4	0.00	17.15	6120555	3,970,437	100433	91,382,107	80,984,518
6	37,689	48	2933	4	0.00	8.60	6120555	3,970,437	100433	91,400,582	81,006,962
7	37,699	40	2933	4	0.00	9.87	6120555	3,970,437	100433	91,421,596	81,033,054
8	37,711	25	2933	4	0.00	11.75	6120612	3,970,437	100433	91,444,334	81,063,666
9	37,728	51	2933	4	0.00	17.43	6121348	3,970,437	100433	91,476,672	81,106,793
10	37,744	44	2933	4	0.00	15.88	6127946	3,970,437	100433	91,503,457	81,145,886
11	37,762	57	2933	4	0.00	18.22	6130279	3,970,437	100433	91,530,511	81,188,240
12	37,780	11	2933	4	0.00	17.23	6136744	3,970,437	100433	91,552,879	81,224,780
13	37,795	42	2933	4	0.00	15.52	6140498	3,970,437	100433	91,576,461	81,256,904
14	37,809	13	2933	4	0.00	13.52	6142979	3,970,437	100433	91,605,259	81,287,429
15	37,824	12	2933	4	0.00	14.98	6142979	3,970,437	100433	91,631,282	81,320,175
16	37,844	34	2933	4	0.00	20.37	6142979	3,970,437	100433	91,674,989	81,363,880
17	37,864	43	2933	4	0.00	20.15	6142979	3,970,437	100433	91,714,514	81,409,146
18	37,886	32	2933	4	0.00	21.82	6142979	3,970,437	100433	91,749,848	81,454,160
19	37,905	44	2933	4	0.00	19.20	6142979	3,970,437	100433	91,788,441	81,493,875
20	37,917	2	2933	4	0.00	11.30	6147457	3,970,437	100433	91,814,649	81,519,593
21	37,926	45	2933	4	0.00	9.72	6147457	3,970,437	100433	91,840,159	81,541,092
22	37,940	5	2933	4	0.00	13.33	6147457	3,970,437	100433	91,872,803	81,570,240
23	37,957	31	2933	4	0.00	17.43	6147457	3,970,437	100433	91,898,508	81,604,920
24	37,974	48	2933	4	0.00	17.28	6147457	3,970,437	100433	91,933,497	81,640,082
25	37,989	55	2933	4	0.00	15.12	6147457	3,970,437	100433	91,964,111	81,671,051
26	38,005	26	2933	4	0.00	15.52	6147457	3,970,437	100433	91,990,061	81,702,840
27	38,018	14	2933	4	0.00	12.80	6147457	3,970,437	100433	92,008,193	81,728,921
28	38,030	39	2933	4	0.00	12.42	6147457	3,970,437	100433	92,023,440	81,752,962
29	38,043	29	2933	4	0.00	12.83	6147457	3,970,437	100433	92,028,892	81,776,336
30	38,058	36	2933	4	0.00	15.12	6147458	3,970,437	100433	92,035,576	81,804,223
31	38,074	44	2933	5	0.02	16.13	6147463	3,970,437	100466	92,049,347	81,835,121
					Total	**Gallons**	**26,908**	**0**	**32**	**813,941**	**1,032,336**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of Sep-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	20.50	17.16	0	32	5	0	13,771	31.92	30,898
1	20.72	18.29	0	0	0	0	1,884	30.21	7,946
2	20.89	18.24	0	0	0	0	4,294	31.39	17,421
3	21.07	17.94	0	0	0	0	8,228	32.02	21,615
4	21.15	19.16	0	0	0	0	23,024	33.63	30,169
5	21.20	19.55	0	0	0	0	6,394	30.08	26,259
6	21.50	20.07	0	0	0	0	6,662	28.61	27,404
7	21.55	20.33	0	0	0	0	6,560	28.00	27,079
8	21.68	20.63	0	0	0	0	6,422	26.15	26,437
9	21.89	21.37	0	0	0	0	4,325	26.32	17,790
10	22.07	22.02	0	0	0	0	6,035	26.79	25,023
11	21.98	22.59	0	0	0	0	5,519	25.45	22,957
12	22.24	22.59	0	0	0	0	5,689	26.30	23,877
13	22.50	23.33	0	0	0	0	4,932	28.31	20,465
14	22.67	24.02	0	0	0	0	6,618	29.64	27,360
15	22.72	24.54	0	0	0	0	6,337	34.16	16,192
16	22.89	4.39	0	1121	0	0	6,186	38.65	24,965
17	12.12	4.82	44	0	0	9,604	6,978	38.54	28,406
18	12.34	5.13	0	0	0	0	6,151	38.55	24,709
19	12.68	5.43	0	0	0	0	7,081	39.03	28,336
20	12.99	5.69	0	0	0	0	6,992	39.45	28,051
21	13.12	5.86	0	0	0	0	7,300	39.07	28,250
22	13.42	6.08	0	0	0	0	12,632	40.06	26,558
23	13.60	6.21	0	0	0	0	7,010	38.65	27,790
24	13.81	6.47	0	0	0	0	6,890	38.34	27,755
25	14.12	6.39	0	0	0	0	6,445	38.86	25,999
26	14.12	6.69	0	0	1,996	0	7,012	44.01	27,858
27	14.33	6.78	0	0	0	0	6,829	34.94	27,326
28	14.86	7.17	0	0	0	0	6,575	47.29	27,287
29	14.90	7.34	0	0	0	0	6,966	47.38	28,714
30	15.16	7.64	0	0	0	0	10,129	48.20	27,327
			Total Gallons:	**1,121**	**1,996**	**9,604**	**214,099**		**747,328**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Sep-11

Day	Discharge Pump 12 (hr)	Discharge Pump 12 (min)	Cell 2 Influent Pump (hr)	Cell 2 Influent Pump (min)	Cell 2 Daily Hours	Pump 12 Daily Hours	Cell 1 Leachate Total Gals.	Cell 2 Leachate Total Gals.	Cell 2 Leak Total Gals.	304th Influent Total Gals.	Treatment Discharge Total Gals.
31	38,074	44	2933	5	0.02	16.13	6147463	3,970,437	100466	92,049,347	81,835,121
1	38,079	7	2933	5	0.00	4.38	6147463	3,970,437	100466	92,051,231	81,843,067
2	38,088	22	2933	5	0.00	9.25	6147463	3,970,437	100466	92,055,525	81,860,488
3	38,099	37	2933	5	0.00	11.25	6147463	3,970,437	100466	92,063,753	81,882,104
4	38,114	34	2933	5	0.00	14.95	6147463	3,970,437	100466	92,086,777	81,912,273
5	38,129	7	2933	5	0.00	14.55	6147463	3,970,437	100466	92,093,171	81,938,532
6	38,145	5	2933	5	0.00	15.97	6147463	3,970,437	100466	92,099,833	81,965,936
7	38,161	12	2933	5	0.00	16.12	6147463	3,970,437	100466	92,106,393	81,993,015
8	38,178	3	2933	5	0.00	16.85	6147463	3,970,437	100466	92,112,815	82,019,452
9	38,189	19	2933	5	0.00	11.27	6147463	3,970,437	100466	92,117,140	82,037,243
10	38,204	53	2933	5	0.00	15.57	6147463	3,970,437	100466	92,123,175	82,062,266
11	38,219	55	2933	5	0.00	15.03	6147463	3,970,437	100466	92,128,694	82,085,223
12	38,235	3	2933	5	0.00	15.13	6147463	3,970,437	100466	92,134,383	82,109,100
13	38,247	6	2933	5	0.00	12.05	6147463	3,970,437	100466	92,139,316	82,129,564
14	38,262	29	2933	5	0.00	15.38	6147463	3,970,437	100466	92,145,934	82,156,924
15	38,270	23	2933	5	0.00	7.90	6147463	3,970,437	100466	92,152,271	82,173,116
16	38,281	9	2933	27	0.37	10.77	6147463	3,970,437	101586	92,158,457	82,198,081
17	38,293	26	2937	6	3.65	12.28	6147463	3,980,041	101586	92,165,436	82,226,487
18	38,304	7	2937	6	0.00	10.68	6147463	3,980,041	101586	92,171,587	82,251,197
19	38,316	13	2937	6	0.00	12.10	6147463	3,980,041	101586	92,178,668	82,279,533
20	38,328	4	2937	6	0.00	11.85	6147463	3,980,041	101586	92,185,660	82,307,584
21	38,340	7	2937	6	0.00	12.05	6147463	3,980,041	101586	92,192,960	82,335,834
22	38,351	10	2937	6	0.00	11.05	6147463	3,980,041	101586	92,205,592	82,362,392
23	38,363	9	2937	6	0.00	11.98	6147463	3,980,041	101586	92,212,602	82,390,182
24	38,375	13	2937	6	0.00	12.07	6147463	3,980,041	101586	92,219,492	82,417,937
25	38,386	22	2937	6	0.00	11.15	6147463	3,980,041	101586	92,225,936	82,443,936
26	38,396	55	2937	6	0.00	10.55	6149459	3,980,041	101586	92,232,948	82,471,794
27	38,409	57	2937	6	0.00	13.03	6149459	3,980,041	101586	92,239,777	82,499,120
28	38,419	34	2937	6	0.00	9.62	6149459	3,980,041	101586	92,246,352	82,526,408
29	38,429	40	2937	6	0.00	10.10	6149459	3,980,041	101586	92,253,318	82,555,122
30	38,439	7	2937	6	0.00	9.45	6149459	3,980,041	101586	92,263,447	82,582,449
					Total	**Gallons**	**1,996**	**9,604**	**1,121**	**214,099**	**747,328**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of Oct-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
30	15.16	7.64	0	0	0	0	10,129	48.20	27,327
1	15.29	7.95	0	0	0	0	6,300	47.50	26,219
3	15.77	8.30	0	0	2,324	0	12,241	47.41	50,680
4	16.03	8.34	0	0	0	0	6,776	47.30	28,094
5	15.94	8.73	0	0	0	0	7,209	47.29	29,792
6	16.16	8.77	0	0	0	0	7,090	47.36	29,317
7	16.38	9.03	0	0	0	0	6,139	47.18	25,380
8	16.59	9.38	0	0	7,122	0	6,587	47.28	27,517
9	16.94	9.47	0	0	6,457	0	6,150	47.38	25,588
10	16.94	9.90	0	0	2,682	0	9,722	47.60	25,896
11	16.72	9.82	0	0	0	0	9,054	47.58	25,881
12	17.16	10.25	0	0	0	0	6,745	47.25	27,876
13	17.46	10.38	0	0	0	0	6,756	47.36	27,944
14	17.55	10.95	0	0	5,593	0	7,157	47.34	29,538
15	17.77	10.99	0	0	0	0	6,643	47.30	27,530
16	17.85	11.21	0	0	1,658	0	6,019	47.14	24,891
17	18.16	11.68	0	0	0	0	6,467	46.96	26,766
18	18.37	11.99	0	0	0	0	16,745	48.42	28,663
19	18.42	12.64	0	0	0	0	6,605	46.61	27,311
20	18.50	13.07	0	0	0	0	6,491	46.55	27,048
21	18.72	13.38	0	0	0	0	6,715	46.68	27,912
22	18.85	14.25	0	0	4,081	0	5,822	46.14	24,224
23	19.07	14.73	0	0	1,201	0	5,871	46.03	24,535
24	19.16	15.20	0	0	0	0	5,348	45.89	22,211
25	19.46	15.64	0	0	0	0	6,105	46.09	25,305
26	19.46	16.42	0	0	0	0	6,119	46.22	25,234
27	19.94	17.24	0	0	0	0	6,089	46.10	25,216
28	19.63	17.85	0	0	1,536	0	6,122	45.95	25,367
29	20.11	18.50	0	0	0	0	6,160	47.15	25,602
30	19.85	19.42	0	0	0	0	5,879	46.93	24,406
31	20.37	20.07	0	0	0	0	6,192	46.68	25,581
			Total Gallons:	**0**	**32,655**	**0**	**213,319**		**817,524**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Oct-11

Day	Discharge Pump 12 (hr)	(min)	Cell 2 Influent Pump (hr)	(min)	Cell 2 Daily Hours	Pump 12 Daily Hours	Cell 1 Leachate Total Gals.	Cell 2 Leachate Total Gals.	Cell 2 Leak Total Gals.	304th Influent Total Gals.	Treatment Discharge Total Gals.
30	38,439	7	2937	6	0.00	9.45	6149459	3,980,041	101586	92,263,447	82,582,449
1	38,448	19	2937	6	0.00	9.20	6149459	3,980,041	101586	92,269,746	82,608,668
3	38,466	8	2937	6	0.00	17.82	6151783	3,980,041	101586	92,281,987	82,659,347
4	38,476	2	2937	6	0.00	9.90	6151783	3,980,041	101586	92,288,763	82,687,441
5	38,486	32	2937	6	0.00	10.50	6151783	3,980,041	101586	92,295,973	82,717,233
6	38,496	51	2937	6	0.00	10.32	6151783	3,980,041	101586	92,303,063	82,746,550
7	38,505	49	2937	6	0.00	8.97	6151783	3,980,041	101586	92,309,202	82,771,930
8	38,515	31	2937	6	0.00	9.70	6158905	3,980,041	101586	92,315,789	82,799,447
9	38,524	31	2937	6	0.00	9.00	6165362	3,980,041	101586	92,321,939	82,825,034
10	38,533	35	2937	6	0.00	9.07	6168044	3,980,041	101586	92,331,661	82,850,931
11	38,542	39	2937	6	0.00	9.07	6168044	3,980,041	101586	92,340,716	82,876,812
12	38,552	29	2937	6	0.00	9.83	6168044	3,980,041	101586	92,347,461	82,904,688
13	38,562	19	2937	6	0.00	9.83	6168044	3,980,041	101586	92,354,217	82,932,632
14	38,572	43	2937	6	0.00	10.40	6173637	3,980,041	101586	92,361,373	82,962,170
15	38,582	25	2937	6	0.00	9.70	6173637	3,980,041	101586	92,368,016	82,989,700
16	38,591	13	2937	6	0.00	8.80	6175295	3,980,041	101586	92,374,035	83,014,592
17	38,600	43	2937	6	0.00	9.50	6175295	3,980,041	101586	92,380,502	83,041,358
18	38,610	35	2937	6	0.00	9.87	6175295	3,980,041	101586	92,397,247	83,070,020
19	38,620	21	2937	6	0.00	9.77	6175295	3,980,041	101586	92,403,853	83,097,332
20	38,630	2	2937	6	0.00	9.68	6175295	3,980,041	101586	92,410,344	83,124,380
21	38,639	60	2937	6	0.00	9.97	6175295	3,980,041	101586	92,417,059	83,152,292
22	38,648	45	2937	6	0.00	8.75	6179376	3,980,041	101586	92,422,882	83,176,516
23	38,657	38	2937	6	0.00	8.88	6180577	3,980,041	101586	92,428,752	83,201,051
24	38,665	42	2937	6	0.00	8.07	6180577	3,980,041	101586	92,434,101	83,223,261
25	38,674	51	2937	6	0.00	9.15	6180577	3,980,041	101586	92,440,206	83,248,566
26	38,683	57	2937	6	0.00	9.10	6180577	3,980,041	101586	92,446,325	83,273,800
27	38,693	4	2937	6	0.00	9.12	6180577	3,980,041	101586	92,452,414	83,299,017
28	38,702	16	2937	6	0.00	9.20	6182113	3,980,041	101586	92,458,536	83,324,384
29	38,711	19	2937	6	0.00	9.05	6182113	3,980,041	101586	92,464,696	83,349,986
30	38,719	59	2937	6	0.00	8.67	6182113	3,980,041	101586	92,470,574	83,374,391
31	38,729	7	2937	6	0.00	9.13	6182113	3,980,041	101586	92,476,766	83,399,973
					Total	**Gallons**	**32,655**	**0**	**0**	**213,319**	**817,524**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill
Month of Nov-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
31	20.37	20.07	0	0	0	0	6,192	46.68	25,581
1	20.59	0.13	0	1896	0	0	5,638	46.03	23,108
2	20.59	0.39	0	0	0	0	5,775	46.70	23,958
3	20.72	0.30	0	0	0	0	7,279	46.89	30,618
4	14.29	0.39	44	0	3,337	5,888	6,544	49.03	27,263
5	11.64	0.48	44	0	3,991	2,011	6,232	48.73	26,267
6	11.82	0.48	0	0	5,035	0	5,372	48.70	22,598
7	12.21	0.17	0	0	190	0	4,458	48.97	18,608
8	12.38	0.13	0	0	0	0	6,456	48.09	27,217
9	12.73	0.00	0	0	0	0	6,233	48.84	26,128
10	13.03	0.00	0	0	0	0	8,538	49.14	35,919
11	12.86	0.30	0	0	5,738	0	6,787	48.65	28,458
12	13.16	0.09	0	0	521	0	6,424	48.78	26,924
13	13.51	0.13	0	0	862	0	5,704	48.63	23,928
14	13.64	0.17	0	0	0	0	6,924	48.22	29,029
15	14.03	0.00	0	0	0	0	4,990	47.48	20,985
16	14.29	0.00	0	0	0	0	6,752	47.60	28,176
17	14.55	0.00	0	0	0	0	7,846	47.98	32,581
18	14.55	0.13	0	0	0	0	7,357	47.51	30,596
19	14.73	0.26	0	0	2,057	0	6,258	46.72	25,978
20	15.12	0.00	0	0	4,731	0	6,183	45.50	25,981
21	15.33	0.00	0	0	3,868	0	6,157	45.83	25,573
22	15.55	0.09	0	0	0	0	8,792	45.04	36,620
23	15.46	0.56	0	0	0	0	6,453	47.61	26,949
24	15.25	0.83	0	0	0	0	4,485	46.90	18,665
25	15.99	1.13	0	0	0	0	6,308	46.23	26,261
26	16.33	1.56	0	0	0	0	6,205	45.96	26,011
27	16.12	2.17	0	0	0	0	6,074	45.71	25,551
28	16.59	2.30	0	0	0	0	6,325	45.08	26,507
29	16.72	2.78	0	0	0	0	5,858	43.92	24,595
30	16.72	3.00	0	0	0	0	6,282	43.75	26,383
			Total Gallons:	**1,896**	**30,330**	**7,899**	**190,689**		**797,434**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Nov-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
31	38,729	7	2937	6	0.00	9.13	6182113	3,980,041	101586	92,476,766	83,399,973
1	38,737	29	2937	44	0.63	8.37	6182113	3,980,041	103482	92,482,404	83,423,081
2	38,746	2	2937	44	0.00	8.55	6182113	3,980,041	103482	92,488,179	83,447,039
3	38,756	55	2937	44	0.00	10.88	6182113	3,980,041	103482	92,495,458	83,477,658
4	38,766	11	2939	58	2.23	9.27	6185450	3,985,929	103482	92,502,002	83,504,920
5	38,775	10	2940	44	0.77	8.98	6189442	3,987,940	103482	92,508,234	83,531,188
6	38,782	54	2940	44	0.00	7.73	6194476	3,987,940	103482	92,513,607	83,553,786
7	38,789	14	2940	44	0.00	6.33	6194666	3,987,940	103482	92,518,065	83,572,393
8	38,798	40	2940	44	0.00	9.43	6194666	3,987,940	103482	92,524,520	83,599,610
9	38,807	35	2940	44	0.00	8.92	6194666	3,987,940	103482	92,530,753	83,625,738
10	38,819	46	2940	44	0.00	12.18	6194666	3,987,940	103482	92,539,291	83,661,656
11	38,829	31	2940	44	0.00	9.75	6200405	3,987,940	103482	92,546,078	83,690,114
12	38,838	43	2940	44	0.00	9.20	6200926	3,987,940	103482	92,552,502	83,717,038
13	38,846	55	2940	44	0.00	8.20	6201788	3,987,940	103482	92,558,206	83,740,966
14	38,856	57	2940	44	0.00	10.03	6201788	3,987,940	103482	92,565,130	83,769,995
15	38,864	19	2940	44	0.00	7.37	6201788	3,987,940	103482	92,570,120	83,790,980
16	38,874	11	2940	44	0.00	9.87	6201788	3,987,940	103482	92,576,871	83,819,156
17	38,885	30	2940	44	0.00	11.32	6201788	3,987,940	103482	92,584,717	83,851,737
18	38,896	14	2940	44	0.00	10.73	6201788	3,987,940	103482	92,592,074	83,882,333
19	38,905	30	2940	44	0.00	9.27	6203845	3,987,940	103482	92,598,333	83,908,311
20	38,915	1	2940	44	0.00	9.52	6208576	3,987,940	103482	92,604,516	83,934,292
21	38,924	19	2940	44	0.00	9.30	6212444	3,987,940	103482	92,610,673	83,959,865
22	38,937	52	2940	44	0.00	13.55	6212444	3,987,940	103482	92,619,465	83,996,486
23	38,947	18	2940	44	0.00	9.43	6212444	3,987,940	103482	92,625,918	84,023,435
24	38,953	56	2940	44	0.00	6.63	6212444	3,987,940	103482	92,630,403	84,042,100
25	38,963	24	2940	44	0.00	9.47	6212444	3,987,940	103482	92,636,711	84,068,361
26	38,972	50	2940	44	0.00	9.43	6212444	3,987,940	103482	92,642,916	84,094,372
27	38,982	9	2940	44	0.00	9.32	6212444	3,987,940	103482	92,648,990	84,119,923
28	38,991	57	2940	44	0.00	9.80	6212444	3,987,940	103482	92,655,316	84,146,430
29	39,001	17	2940	44	0.00	9.33	6212444	3,987,940	103482	92,661,173	84,171,025
30	39,011	20	2940	44	0.00	10.05	6212444	3,987,940	103482	92,667,455	84,197,407
					Total	**Gallons**	**30,330**	**7,899**	**1,896**	**190,689**	**797,434**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Hidden Valley Landfill

Month of Dec-11

Day	Leachate Level	Cell 2 Leak Level	Cell 2 Daily Avg. GPM	Cell 2 Leak GPD	Cell 1 Influent GPD	Cell 2 Influent GPD	304th Influent GPD	Treatment Discharge Avg GPM	Treatment Discharge GPD
30	16.72	3.00	0	0	0	0	6,282	43.75	26,383
1	17.16	3.21	0	0	0	0	5,605	43.70	23,377
2	17.33	3.52	0	0	0	0	5,717	43.69	23,900
3	17.46	4.08	0	0	0	0	6,171	43.49	25,875
4	17.64	4.13	0	0	0	0	6,280	42.66	26,409
5	17.85	4.43	0	0	0	0	5,757	42.13	24,017
6	15.68	4.60	43	0	0	1,820	4,319	42.29	18,141
7	15.94	4.82	0	0	0	0	4,590	43.12	19,144
8	16.29	5.26	0	0	0	0	5,682	42.99	23,728
9	16.51	5.60	0	0	0	0	5,583	42.24	23,274
10	16.72	6.04	0	0	0	0	6,265	41.55	26,178
11	16.68	5.99	0	0	0	0	6,037	40.79	25,374
12	17.07	6.39	0	0	3,198	0	4,772	41.08	19,885
13	17.07	6.56	0	0	0	0	5,086	41.46	21,188
14	17.24	6.86	0	0	0	0	6,312	41.40	26,333
15	17.64	7.43	0	0	2,327	0	5,956	41.24	24,827
16	17.77	7.38	0	0	0	0	5,895	41.47	24,590
17	17.81	7.56	0	0	0	0	5,705	41.79	23,906
18	17.94	7.78	0	0	0	0	5,831	41.68	24,427
19	18.24	8.21	0	0	2,567	0	6,241	41.50	26,188
20	18.24	8.60	0	0	0	0	5,577	41.35	23,444
21	18.63	8.90	0	0	0	0	5,323	41.15	22,388
22	18.77	8.95	0	0	0	0	4,751	40.69	19,936
23	18.81	9.30	0	0	0	0	6,416	41.04	26,966
24	19.24	9.51	0	0	0	0	4,361	41.09	18,369
25	13.25	10.03	44	0	1,328	4,885	4,308	40.37	18,208
26	11.03	10.03	44	0	1,022	1,851	6,677	40.19	28,090
27	11.12	10.38	0	0	0	0	6,079	39.97	25,620
28	11.08	10.60	0	0	0	0	5,480	40.05	23,151
29	11.82	10.82	0	0	0	0	5,530	39.83	23,342
30	11.25	11.03	0	0	0	0	6,294	39.36	26,489
31	11.95	11.47	0	0	0	0	5,599	38.64	23,496
			Total Gallons:	**0**	**10,442**	**8,556**	**174,199**		**730,261**
				Cell 2 Leak	Cell 1 Leachate	Cell 2 Leachate	304th Influent		Treatment Discharge

Hidden Valley Landfill Hour Meters Totalizers

Dec-11

	Discharge Pump 12		Cell 2 Influent Pump		Cell 2 Daily	Pump 12 Daily	Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge
Day	(hr)	(min)	(hr)	(min)	Hours	Hours	Total Gals.	Total Gals.	Total Gals.	Total Gals.	Total Gals.
30	39,011	20	2940	44	0.00	10.05	6212444	3,987,940	103482	92,667,455	84,197,407
1	39,020	15	2940	44	0.00	8.92	6212444	3,987,940	103482	92,673,060	84,220,784
2	39,029	22	2940	44	0.00	9.12	6212444	3,987,940	103482	92,678,777	84,244,684
3	39,039	17	2940	44	0.00	9.92	6212444	3,987,940	103482	92,684,948	84,270,558
4	39,049	36	2940	44	0.00	10.32	6212444	3,987,940	103482	92,691,228	84,296,968
5	39,059	6	2940	44	0.00	9.50	6212444	3,987,940	103482	92,696,985	84,320,984
6	39,066	15	2941	26	0.70	7.15	6212444	3,989,759	103482	92,701,305	84,339,126
7	39,073	39	2941	26	0.00	7.40	6212444	3,989,759	103482	92,705,894	84,358,270
8	39,082	51	2941	26	0.00	9.20	6212444	3,989,759	103482	92,711,576	84,381,998
9	39,092	2	2941	26	0.00	9.18	6212444	3,989,759	103482	92,717,159	84,405,271
10	39,102	32	2941	26	0.00	10.50	6212444	3,989,759	103482	92,723,424	84,431,450
11	39,112	54	2941	26	0.00	10.37	6212444	3,989,759	103482	92,729,461	84,456,824
12	39,120	58	2941	26	0.00	8.07	6215642	3,989,759	103482	92,734,234	84,476,709
13	39,129	29	2941	26	0.00	8.52	6215642	3,989,759	103482	92,739,320	84,497,897
14	39,140	5	2941	26	0.00	10.60	6215642	3,989,759	103482	92,745,632	84,524,230
15	39,150	7	2941	26	0.00	10.03	6217969	3,989,759	103482	92,751,587	84,549,057
16	39,159	60	2941	26	0.00	9.88	6217969	3,989,759	103482	92,757,482	84,573,647
17	39,169	32	2941	26	0.00	9.53	6217969	3,989,759	103482	92,763,187	84,597,553
18	39,179	18	2941	26	0.00	9.77	6217969	3,989,759	103482	92,769,018	84,621,980
19	39,189	49	2941	26	0.00	10.52	6220536	3,989,759	103482	92,775,259	84,648,168
20	39,199	16	2941	26	0.00	9.45	6220536	3,989,759	103482	92,780,835	84,671,612
21	39,208	20	2941	26	0.00	9.07	6220536	3,989,759	103482	92,786,159	84,694,000
22	39,216	30	2941	26	0.00	8.17	6220536	3,989,759	103482	92,790,910	84,713,936
23	39,227	27	2941	26	0.00	10.95	6220536	3,989,759	103482	92,797,326	84,740,902
24	39,234	54	2941	26	0.00	7.45	6220536	3,989,759	103482	92,801,687	84,759,271
25	39,242	25	2943	18	1.87	7.52	6221864	3,994,644	103482	92,805,996	84,777,480
26	39,254	4	2943	60	0.70	11.65	6222885	3,996,495	103482	92,812,672	84,805,570
27	39,264	45	2943	60	0.00	10.68	6222885	3,996,495	103482	92,818,751	84,831,189
28	39,274	23	2943	60	0.00	9.63	6222885	3,996,495	103482	92,824,231	84,854,341
29	39,284	9	2943	60	0.00	9.77	6222885	3,996,495	103482	92,829,761	84,877,682
30	39,295	22	2943	60	0.00	11.22	6222885	3,996,495	103482	92,836,055	84,904,172
31	39,305	30	2943	60	0.00	10.13	6222885	3,996,495	103482	92,841,654	84,927,668
					Total	**Gallons**	**10,442**	**8,556**	**0**	**174,199**	**730,261**
							Cell 1 Leachate	Cell 2 Leachate	Cell 2 Leak	304th Influent	Treatment Discharge

Appendix C
Water Level Data

Hidden Valley Landfill
Water Level Measurements

WELL	TOC ELEV	01/15/88	02/23/88	02/24/88	04/26/88	05/24/88	06/24/88	07/18/88	07/19/88	07/20/88	07/21/88	08/30/88	08/31/88	09/15/88	09/16/88	10/25/88	12/01/88
MW-10S	460.17	424.51	424.01		432.03	432.97	432.63		431.58			428.77		427.30		424.60	430.21
MW-10D	460.69		421.96		428.06	428.55	389.19		363.77			373.41		423.54		398.74	351.73
MW-11S	516.44			DRY	422.20	422.59	422.18				420.95					DRY	
MW-11D	516.56			417.65	422.07	422.43					420.79		418.18	417.20		416.27	
MW-11D(2)	515.53																
MW-12S	489.94		DRY		427.23	DRY				423.27						DRY	
MW-12D	489.97	415.92	416.57		420.16	421.39	421.65			419.80			417.59	416.82		415.66	
MW-13S	448.81			422.29	424.75	425.23	424.71			422.90			420.86		420.33	419.52	422.41
MW-13D	448.94	418.89		418.12	422.54	422.91				421.28						417.59	
MW-14S	477.95		DRY		427.06	427.33	426.95	425.55					423.05	422.39		DRY	425.35
MW-14D	477.98	418.33	419.33		424.34	423.65	423.90	422.78					420.45	419.83		418.30	421.39
MW-14R	476.84				363.04	363.31		362.42								360.31	
MW-15S	498.76				426.86			425.43								421.83	
MW-15D	498.52				423.32			421.73								417.40	
MW-16S	480.27				427.52				425.92							421.67	
MW-16D	480.73				425.67				423.45							419.52	
MW-17S	552.44				422.10					421.14						416.31	
MW-18S	538.40				405.27						404.36	402.61			402.03	401.68	
MW-18D	539.00				406.43						405.61					402.91	
MW-19S	485.71				430.35				429.41							427.19	
MW-19D	485.82				422.65				419.88							416.22	
MW-20R	469.43				361.05				371.54							368.72	
MW-22U	545.92																
MW-22L	546.07																
MW-23S	448.34																
MW-23D	448.25																
MW-25S	527.80																
MW-25D	527.52																
MW-26R	481.81																
MW-27S	531.81																
MW-27D	531.92																
MW-28S	466.87																
BC-4S	526.68			399.00	401.24								399.08			397.82	
BC-4D	526.94			366.39	369.12							367.19				366.16	
FM-1	542.59																
FM-2	536.40																

Before June 1996 well elevations were: MW-11s 501.48; MW-11d 501.45; MW-15s 490.53; MW-15d 490.61
Between June 1996 and March 2001 well elevations were: MW-11s 512.13; MW-11d 512.06
Before October 30, 1999 well elevations were: MW-27s 531.81; MW-27d 531.92
Before January 21, 2000 well elevations were: MW-10s 455.45; MW-10d 456.19
Before May 18, 2001 well elevations were: MW-23s 449.92; MW-23d 449.96
Before September 2000, well elevations were: BC-4S 524.35; BC-4D 524.46
Before November 19, 2004 well elevations were: MW-25S 526.54; MW-25D 526.66
Before August 2005 well elevations were: MW-18S 546.88; MW-18D 546.01, new elevations are field measurements, not survey results

Hidden Valley Landfill
Water Level Measurements

WELL	12/02/88	12/22/88	01/24/89	03/02/89	03/04/89	03/15/89	03/16/89	04/25/89	05/25/89	06/29/89	06/30/89	07/17/89	07/18/89	07/19/89	09/05/89	10/04/89	10/25/89
MW-10S		429.60	432.60	434.17			436.30	441.21	439.43	435.95		434.50			430.93	428.49	426.70
MW-10D		398.87	408.23	429.90			432.07	436.45	434.36	374.97		430.18			426.24	424.33	423.15
MW-11S	420.70		422.63		424.13	425.88		430.40	429.02	426.38			425.10		420.67	DRY	
MW-11D		420.40	422.47					429.35					424.90			418.55	
MW-11D(2)																	
MW-12S			425.65			428.93		432.23			423.02			427.23	DRY	DRY	
MW-12D	418.69	419.12	421.29	422.67		424.63		428.79	427.21					423.07	419.27	417.66	
MW-13S		421.86	423.34	424.15		426.35		430.41	428.80		426.41		425.48		422.40	421.35	
MW-13D			422.76					430.10					424.49				
MW-14S		425.17	427.42		429.20		431.77	437.32	435.15	424.33		429.96			424.96	423.11	DRY
MW-14D		421.96	424.47		425.58		428.09	432.40	430.60			426.31					419.47
MW-14R			362.86					368.74					361.22				361.30
MW-15S			427.43			431.53		436.43			430.68	425.18			424.68	422.97	
MW-15D			423.45					431.47				429.71					
MW-16S			427.90					439.37					431.22				422.35
MW-16D			425.63					433.43					427.26				420.66
MW-17S			423.04			426.88		430.72			426.88		424.79		420.99	419.02	
MW-18S	403.28	404.51	406.58	407.63		408.64		412.41	411.88		409.73			408.62	406.68	404.41	
MW-18D			406.66					412.61						408.48			
MW-19S			432.97					437.37					432.38				
MW-19D			421.87					428.59					423.90				
MW-20R			371.50					377.61						365.39			
MW-22U																	
MW-22L																	
MW-23S																	
MW-23D																	
MW-25S																	
MW-25D																	
MW-26R																	
MW-27S																	
MW-27D																	
MW-28S																	
BC-4S			401.83					406.95						403.42			
BC-4D			369.06					374.72						370.05			
FM-1																	
FM-2																	

Hidden Valley Landfill
Water Level Measurements

WELL	10/26/89	10/27/89	11/15/89	12/18/89	01/03/90	01/15/90	01/24/90	01/29/90	02/12/90	02/27/90	03/12/90	03/26/90	04/09/90	04/25/90	05/07/90	05/21/90	06/04/90
MW-10S			427.78	429.68	428.78	435.27		438.49	441.52	442.60	442.83	442.22	441.27	440.44	439.68	438.34	438.12
MW-10D								434.58				437.30		435.54		433.69	
MW-11S	DRY		DRY	420.88	420.15	426.26		427.82	430.91	431.60	431.25	430.89	430.10	429.34	428.78	427.82	427.27
MW-11D	417.12							427.58						429.20			
MW-11D(2)																	
MW-12S	DRY		DRY	DRY	DRY	428.56	429.00	430.59	433.16	433.09	433.02	432.74	431.96	431.22	430.90	429.95	429.69
MW-12D	416.67							426.75						428.24			
MW-13S	420.52		421.39	422.37	421.75	427.85	427.90	429.29	432.16	432.60	432.43	431.81	431.07	430.51	429.68	429.34	429.21
MW-13D		418.22						428.30						430.42			
MW-14S			423.25	425.29	424.95	432.01	434.11	434.81	438.30	439.52	439.50	438.70	437.47	436.42	435.51	434.01	433.00
MW-14D								430.95						431.68			
MW-14R								366.27						367.42			
MW-15S	421.85		422.85	425.50	424.90	431.31		433.53	436.97	438.07	437.73	437.27	436.25	435.32	432.65	433.38	432.76
MW-15D	418.47							429.11						430.56			
MW-16S								436.38						433.05			
MW-16D								431.37						432.43			
MW-17S	417.57		417.35	420.19	420.58	432.44	427.10	428.38	431.34	431.71	431.47	431.09	430.39	429.67	429.34	428.46	427.90
MW-18S		403.69	403.17	405.25	405.18	407.10	408.05	410.02	412.32		414.05	412.96	412.37	411.90	411.73	412.20	410.48
MW-18D		403.73	403.79	405.27	405.01	409.03		410.72	413.08	414.39	413.66	413.85	413.31	412.48	412.13	411.36	410.59
MW-19S		426.78						436.74						436.71			
MW-19D		417.94						428.38						428.57			
MW-20R	369.50							374.60						375.22			
MW-22U			DRY	DRY	DRY	DRY		DRY	409.70	410.55	410.23	410.39	410.04	409.47	408.97	408.75	408.72
MW-22L			400.83	402.38	412.21	405.19	406.07	407.12	409.53	410.84	410.65	410.60	409.98	409.25	408.75	408.01	407.21
MW-23S								432.63						432.47			
MW-23D								427.92						428.61			
MW-25S								404.32						407.69			
MW-25D								407.37						410.27			
MW-26R																	
MW-27S																	
MW-27D																	
MW-28S																	
BC-4S		399.12						404.52						406.70			
BC-4D		367.40						372.03						374.99			
FM-1																	
FM-2																	

Hidden Valley Landfill
Water Level Measurements

WELL	06/18/90	07/02/90	07/24/90	09/04/90	10/01/90	10/22/90	11/26/90	12/17/90	01/29/91	02/25/91	03/26/91	04/29/91	06/28/91	07/29/91	01/20/92	04/14/92	07/14/92
MW-10S	425.45	436.65	435.11	432.69	425.32	430.05		435.69	436.67	441.32	433.22	444.30	443.36	435.20	429.35	433.49	430.31
MW-10D	433.14		431.02	427.99	431.62				433.89			439.41	433.96	431.16	424.29	428.87	425.25
MW-11S	427.53	426.82	425.44	422.41	420.58	418.67	427.55	426.78	426.58	430.09	431.22	432.12	428.19	425.83	419.28	422.73	419.60
MW-11D			425.17		420.38				427.61			432.05		425.60	418.97	422.63	419.60
MW-11D(2)																	
MW-12S	429.79	428.89	426.32				426.09	429.24	429.03	430.76	432.81	430.35	430.08	428.04	DRY	424.73	DRY
MW-12D			423.97	421.01		418.31			427.02			431.85		424.23	417.46	421.17	418.17
MW-13S	429.07	428.27	426.86	424.68	423.66	423.45	429.03	428.13	430.33	432.43	423.59	434.54	430.83	428.63	419.23	422.47	419.20
MW-13D			425.44		421.13				426.64			433.29		426.07	418.79	422.40	419.15
MW-14S	433.54	432.42	430.71	427.07	425.03	424.47		432.45	420.35	447.30	438.95	440.39	434.42	431.01	424.05	428.57	424.27
MW-14D			427.17		422.14				433.28			435.84	430.25	427.33	420.45	424.73	420.89
MW-14R			355.95		359.66				367.49			370.24		358.20	361.18	361.44	355.42
MW-15S	433.05	432.04	430.29	426.96					433.07			438.36		430.88	423.88	427.90	424.26
MW-15D			425.99						429.29			434.82		426.37	419.11	423.59	419.70
MW-16S			427.06						434.89								
MW-16D			428.09				405.49		431.36								
MW-17S	428.15	427.42	426.04	422.86	420.92				428.25			431.88		426.56	419.34	423.07	410.72
MW-18S	DRY	409.86	408.55	406.71	405.51	404.46		409.38		411.88	403.76	413.42	411.32	409.46	DRY	DRY	DRY
MW-18D	410.70	410.21	408.81	406.71	405.41							415.38	411.78	409.59	404.61	406.61	
MW-19S			433.11									437.67		436.20	427.29	429.69	425.96
MW-19D			424.70									431.53		424.40	416.28	420.71	416.74
MW-20R			360.41		365.62				375.93			376.74		362.13	372.01	367.38	359.15
MW-22U	DRY	408.72	408.47	403.32								401.78		408.83	408.68	408.66	408.68
MW-22L		406.95	405.43	403.47					DRY			411.12		406.33	401.89	403.50	401.71
MW-23S			429.61		426.73				431.73			429.94		430.28	426.11	427.38	425.59
MW-23D			424.96						428.00			431.86		425.43	419.36	422.39	419.50
MW-25S			402.12		399.24				404.54			412.34		403.25	399.17	399.99	398.66
MW-25D			405.81						406.91			414.08		406.76	401.69	403.37	401.33
MW-26R															418.41	422.24	418.64
MW-27S															418.61	423.23	418.89
MW-27D															419.12	423.47	419.53
MW-28S																	
BC-4S			403.62									409.35			400.69	402.05	
BC-4D			368.69									366.55			367.82	369.21	
FM-1																	
FM-2																	

Hidden Valley Landfill
Water Level Measurements

WELL	10/19/92	03/22/93	06/02/93	09/07/93	12/07/93	03/14/94	06/07/94	09/19/94	12/05/94	03/18/95	06/19/95	09/19/95	12/13/95	03/19/96	06/12/96	09/03/96	12/10/96
MW-10S	DRY	427.37	433.05	429.61	424.88	427.86	427.72	DRY	425.98	438.16	434.82	428.32	433.15	444.11	440.80	433.97	
MW-10D	420.98	423.64	428.63	425.74	422.47	424.73	424.07	419.79	422.56	435.70	431.53	424.59	430.60	440.31	437.51	430.54	
MW-11S	DRY	420.13	417.27	413.06	410.27	414.64	412.38	407.22	414.56	421.87	418.51	413.36	419.71	421.50	429.48	414.41	417.75
MW-11D	414.86	420.10	417.13	413.00	410.19	414.50	412.28	407.18	414.34	421.77	418.43	413.26	419.50	421.45	429.42	414.32	416.59
MW-11D(2)																	
MW-12S	416.73	DRY	425.34							430.21					431.24	426.37	
MW-12D	414.37	417.47	420.84	418.33	415.55	418.14	416.80	413.23	416.49	428.03					429.82	422.98	
MW-13S	415.91	417.76	422.08	419.65		419.49	418.12	414.48	417.91	429.13	425.05	418.71	425.06	433.50	431.04	424.23	427.59
MW-13D	415.78	417.56	422.02	419.58	416.81	419.38	418.04	414.42	417.86	429.06	424.98	418.58	424.90	433.35	430.96	424.12	427.49
MW-14S	DRY	423.43	428.37	424.16	422.73	425.00	423.78	DRY	424.23	434.94	430.66	423.86	429.78	440.34	437.20	429.49	432.92
MW-14D	417.55	419.77	424.55	421.64	418.74	421.42	420.20	416.51	419.40	432.14	427.68	420.79	427.28	436.82	434.40	426.88	430.49
MW-14R	356.74	359.29	358.88	355.18	358.09	358.96	357.64	354.24	356.62	365.61				369.81			
MW-15S	420.15	423.16	427.81		421.51	424.97	423.51	419.66	423.86	433.81					427.78	429.11	
MW-15D	416.43	418.66	423.40	420.59	417.67	420.36	419.13	415.39	418.49	431.00					425.25	425.50	
MW-16S																	
MW-16D																	
MW-17S	414.86	418.76	423.44	420.18	416.45	421.45	419.24	413.79	420.11	428.54	425.98	420.54	426.26	431.64	429.74	425.04	427.53
MW-18S	402.62	404.70	407.14	404.83	403.39	406.60	405.20	403.10	405.74	411.72					DRY	408.31	
MW-18D	402.31	403.76	406.46	404.57	402.82	404.78	403.96	401.86	403.78	412.14	408.71	404.27	408.24	416.00	414.02	408.47	
MW-19S	423.42	426.81	429.59	426.05	423.79	427.18	425.62	422.10	427.13	434.65					435.56	430.05	
MW-19D	413.53	415.55	419.27	421.38	417.80	418.42	423.53	412.11	415.87	430.29					430.78	422.34	
MW-20R	363.22	365.37	365.90	361.92	364.98	365.22	364.22	359.17	363.85	373.56				377.05			
MW-22U	408.63	408.59	408.58	408.89	408.63	408.64	408.63	408.57	408.54	409.08					410.29	405.03	
MW-22L	399.72	401.02	403.34	401.49	400.09	401.97	401.20	399.45	401.09	408.62					409.88	408.78	
MW-23S	422.09	426.54	427.46	425.22	423.01	426.11	424.79	420.91	426.02	430.94	427.78	424.75	429.37	433.76	431.80	427.50	
MW-23D	416.24	419.16	422.21	419.55	417.14	419.74	418.50	414.73	418.86	427.76					429.71	423.78	
MW-25S	397.72	398.29	400.04	398.53	397.87	399.47	397.06	397.58	399.71	407.39			401.96		410.74	402.43	
MW-25D	399.65	400.76	403.36	401.38	399.88	401.89	400.91	399.23	401.32	409.70	405.91	401.29	405.30		412.72	404.96	
MW-26R	415.27	417.27	419.19	418.28	415.67	418.73	417.29	413.53	416.61	428.77				434.35			
MW-27S	416.24	417.80	423.19	418.84	416.44	419.39	417.93	415.62	417.69	430.84					433.34	426.05	
MW-27D	416.07	418.44	423.34	419.84	416.84	419.92	418.69	415.20	417.89	430.78					433.07	425.86	
MW-28S																	
BC-4S	397.85	399.65	401.91	399.98	398.21	400.45	399.62	397.63	399.46	406.34					407.84	402.93	
BC-4D	364.26	366.06	367.48	364.51	359.84	366.08	365.16	362.99	364.10	373.21					376.22	368.33	
FM-1																	
FM-2																	

Hidden Valley Landfill
Water Level Measurements

WELL	12/11/96	03/25/97	06/09/97	09/08/97	12/15/97	03/16/98	06/24/98	09/16/98	12/21/98	04/09/99	06/07/99	09/13/99	12/13/99	03/15/00	06/09/00	09/12/00	01/18/01
MW-10S	436.16	445.61	439.49	433.31	432.19	437.30	433.77	428.00	433.79	442.47	436.83	431.71	430.83		436.94	432.19	428.97
MW-10D	434.00	442.38	436.18	429.66	427.41	434.53	429.96	423.75	431.90	438.93	433.70	426.89	431.44	436.77	433.55	427.03	424.19
MW-11S		423.39	418.63	412.39	412.87	417.79	414.02	408.99	415.83	420.90	416.45	412.06	415.73	423.34	426.51	421.59	419.72
MW-11D		423.34	418.51	413.28	412.78	417.61	413.91	408.90	415.74	420.83	416.35	411.36	414.93	423.39	426.35	421.50	
MW-11D(2)															425.56	419.62	416.78
MW-12S		433.87					425.82			431.86	427.97		427.32	430.54	427.78	423.13	421.56
MW-12D		433.87					422.07			430.90	426.27	419.38	423.50	428.36	425.58	419.44	417.88
MW-13S		434.98	429.54	423.56	422.52	428.26	423.57	418.03	426.12	432.13	427.19	421.46	425.30	429.86	427.12	421.34	421.16
MW-13D		434.90	429.43	423.42	422.39	428.09	423.70	417.90	425.97	432.01	427.04	421.08	425.06	430.60	427.02	421.03	419.24
MW-14S		441.55	435.71	428.32	427.05	433.69	428.75	422.95	430.34	438.56	432.56	425.72	430.83	436.56	432.40	425.90	424.15
MW-14D		438.83	432.64	425.79	424.31	430.99	426.18	419.88	428.76	435.53	430.66	421.99	427.70	432.97	429.91	423.00	420.48
MW-14R		372.37	369.35			368.84	365.64		364.34	373.99	367.36	356.76	363.30	369.84	366.37	359.91	360.24
MW-15S		435.18					424.03			432.64		421.22		430.58	427.04	421.28	419.49
MW-15D		427.38					514.69			424.18		411.73		421.54			
MW-16S																	
MW-16D																	
MW-17S		432.24	428.74	424.01	439.79	427.79	424.56	419.45	425.71	430.27	426.52	421.82	425.80	427.62	426.16	421.84	419.87
MW-18S		414.02		Dry	Dry	410.57	407.51		408.63	412.72	Dry	Dry	408.54	411.43	408.98	405.65	404.28
MW-18D	410.41	417.25	412.99	407.54	416.88	411.08	407.44	403.67	408.40	415.00	410.69	405.37	407.87	412.18	409.91	399.71	403.71
MW-19S		438.73					429.57			436.29		427.23		435.42	432.31	427.38	426.66
MW-19D		434.56					420.63			430.58		418.87		428.76	426.35	418.67	
MW-20R		374.66				375.28	369.21			377.97				377.63	372.31	366.82	366.18
MW-22U		411.65					408.60		408.55	410.21	408.62	408.74	408.52	408.87	408.49	408.65	
MW-22L		413.61		404.22			404.12		404.66	411.54	407.15	402.27	404.35	408.62	406.42	402.24	
MW-23S	427.10	434.60	431.35	427.15	427.01	430.92	427.28	424.07	428.77	432.50	427.83	426.17	429.15	431.62	428.74	426.10	425.11
MW-23D		433.41		423.11	422.29	427.46	423.22		425.09		425.35			428.71	426.04	420.98	
MW-25S		415.13		401.39			401.46		403.13	412.72	406.26	399.65	402.07	408.62	405.62	399.66	399.04
MW-25D		416.69	411.61	404.92	403.70	408.83	404.80	401.02	405.80	414.14	408.78	402.74	405.09	410.31	408.06	402.82	
MW-26R		436.69				428.69			426.31	433.49				430.47	427.51	420.53	417.96
MW-27S		436.35					425.22			435.18				431.83	429.31	421.77	
MW-27D		437.98					425.02			434.74				431.95	428.99	422.76	
MW-28S															427.07	423.74	
BC-4S		410.54					401.92		402.72							400.12	
BC-4D		380.40					371.40		369.96							367.67	
FM-1														404.48	401.66	397.12	395.29
FM-2														405.20	402.76	398.67	396.75

Hidden Valley Landfill
Water Level Measurements

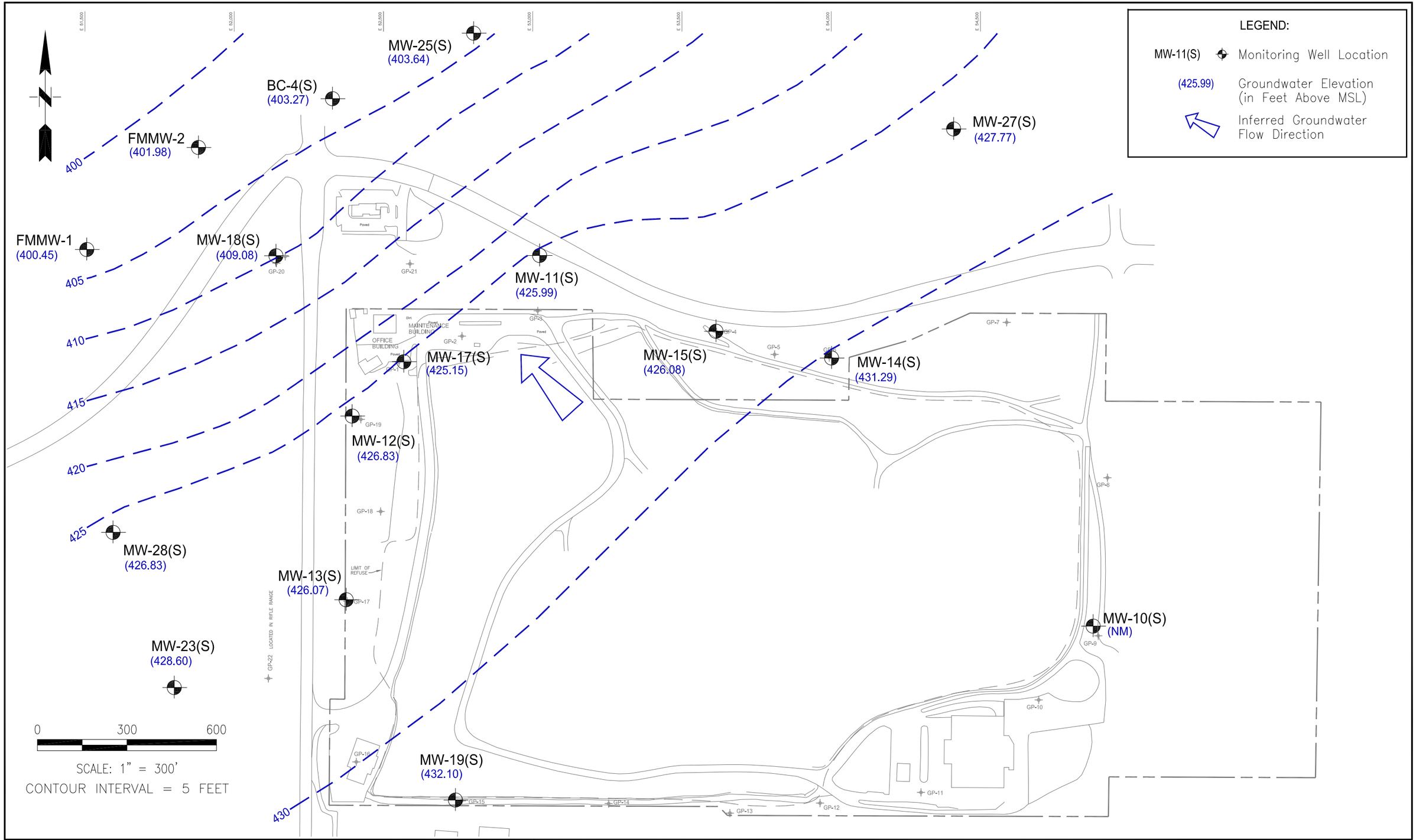
WELL	03/22/01	04/19/01	07/12/01	10/23/01	01/18/02	04/25/02	07/25/02	10/24/02	01/30/03	04/24/03	07/24/03	10/30/03	01/22/04	04/15/04	06/29/04	10/21/04	01/27/05
MW-10S	427.53	421.97	428.15	420.04	435.69	438.75	432.88	425.14	430.66	433.54	428.64	426.52	432.67	432.97	423.80	426.31	431.62
MW-10D	424.34	425.08	423.72	419.61	433.32	435.80	428.84	422.88	427.50	430.82	424.40	423.28	429.32	430.20	421.95	423.54	427.69
MW-11S	418.59	420.17	418.34	413.80	426.51	428.58	423.19	416.94	425.25	424.44	418.96	418.20	423.74	423.49	417.12	417.45	421.87
MW-11D	418.50	420.07	418.27	413.73	426.55	428.29	423.10	416.88	424.98	424.33	418.88	418.11	423.67	423.42			421.76
MW-11D(2)	416.74	417.20	415.95	412.88	425.34	427.79	421.18	414.99	420.21	422.49	416.52	415.89	421.73	422.53	414.92	415.64	419.73
MW-12S	419.49	421.98	419.94	416.82	428.12	429.76	424.84	418.13	423.57	425.56	420.23	418.73	425.10	427.12	418.39	418.79	
MW-12D	417.07	417.34	416.12	412.92	425.48	427.70	421.22	415.87	420.27	422.59	416.69	416.13	421.69	422.66	415.12	415.71	420.12
MW-13S	419.02	419.17	417.86	414.65	427.30	429.86	423.87	418.02	422.46	424.50	418.68	418.22	423.64	424.45	416.60	417.58	421.86
MW-13D	418.65	418.89	417.62	414.36	426.99	429.28	423.06	417.18	423.58	425.19	418.12	417.81	423.27	424.20	416.29	417.31	421.64
MW-14S	423.07	424.36	422.73	418.24	431.60	434.77	427.58	421.26	426.91	429.14	422.85	422.70	427.86	428.02	421.45	422.76	425.78
MW-14D	420.38	420.88	419.58	416.36	429.53	432.06	424.95	418.65	423.28	426.58	420.23	419.66	425.59	423.17	418.46	419.77	423.61
MW-14R	351.60	351.25	344.49	345.94	352.63	357.03	348.54	350.49	352.16	356.12	347.33	351.66	355.57	358.31	348.28	352.96	355.64
MW-15S	418.65	419.71	418.49	414.65	426.65	429.36	423.02	416.69	421.63	423.99	418.43	418.04	423.14	423.40	416.59	417.34	421.18
MW-15D												411.39	417.25	425.34	417.27	418.73	415.41
MW-16S																	
MW-16D																	
MW-17S	418.51	419.89	418.49	413.12	426.54	428.14	423.46	417.19	422.29	424.13	419.13	417.88	423.59	423.63	417.01	416.56	421.87
MW-18S	403.78	404.29	403.73	402.93	409.63	412.72	406.88	403.06	405.43	407.56	403.93	403.45	407.29	407.34	403.52	403.27	
MW-18D	403.36	403.75	403.09	401.44	409.31	410.30	406.80	402.61	405.07	407.43	403.58	402.96	406.68	407.33	402.80	402.86	
MW-19S	425.04	426.53	425.59	422.06	432.98	434.46	428.75	423.15	428.49	430.11	424.68	425.14	429.91	429.94	422.85	423.99	
MW-19D	419.13	416.48	418.04	412.43	427.77	427.43	420.61	417.61	423.12	422.82	416.52	415.85	421.87	425.71	417.37	416.98	423.55
MW-20R	359.06	357.77	348.98	353.10	360.85	363.44	352.90	356.14	357.16	361.74	351.00	356.61	361.66	364.08	351.66	359.30	361.23
MW-22U	415.11		408.52	408.51	408.58	408.71	408.63	408.60	408.58	408.58	408.58	408.54	408.55	408.55	408.51	408.53	
MW-22L	400.35	402.85	400.12	398.94	405.67	408.34	403.40	399.76	401.60	403.97	400.42	400.03	403.19	398.80	399.89	399.84	
MW-23S	424.28	424.38	424.02	420.01	429.36	430.66	426.72	421.88	426.86	427.36	423.52	423.38	427.33	426.98	421.90	423.12	426.42
MW-23D	418.31	418.24	417.24	414.80	425.84	428.05	422.13	417.02	421.05	423.50	418.02	417.75	422.92	423.21	416.77	417.47	420.82
MW-25S	398.49	399.12	398.45	397.69	403.93	408.25	401.21	397.96	400.43	401.87	398.56	398.62	401.25	401.40			400.23
MW-25D	399.04	401.61	400.66	399.30	406.84	410.29	404.55	400.28	402.89	405.11	401.15	400.71	404.54	404.80			401.62
MW-26R	418.40	419.10	417.36	414.16	426.39	429.08	421.86	415.99	420.47	423.51	417.02	416.39	422.04	422.59	414.50	415.49	419.60
MW-27S	417.86	418.95	417.81	415.59	427.92	431.41	424.01	416.90	421.45	425.44	418.43	417.81	424.31	424.72	416.86	417.50	421.54
MW-27D	418.61	419.53	418.49	415.18	428.07	431.16	424.05	417.41	421.92	425.55	419.02	418.27	424.47	425.08	417.15	418.02	422.11
MW-28S					427.42	428.56	424.95	422.18		425.82	422.21		424.25	425.50			421.63
BC-4S	397.88	398.36	397.90	396.63	403.56	405.74	401.04	397.08	399.11	401.71	397.90	397.53	400.87	400.42	397.20	397.06	399.05
BC-4D	364.58	364.70	361.47	360.01	366.94	371.19	365.29	363.26	364.35	367.83	362.29	362.80	366.45	368.67	361.83	362.51	365.58
FM-1	395.11	395.14	395.03	394.20	400.29	404.03	398.34	394.69	395.29	398.80	395.20	394.49	397.28	398.92	394.84	395.27	398.88
FM-2	396.35	396.50	397.80	395.30	400.88	404.80	399.46	395.89	396.75	400.20	396.65	395.70	398.82	400.29	396.07	395.61	396.69

Hidden Valley Landfill
Water Level Measurements

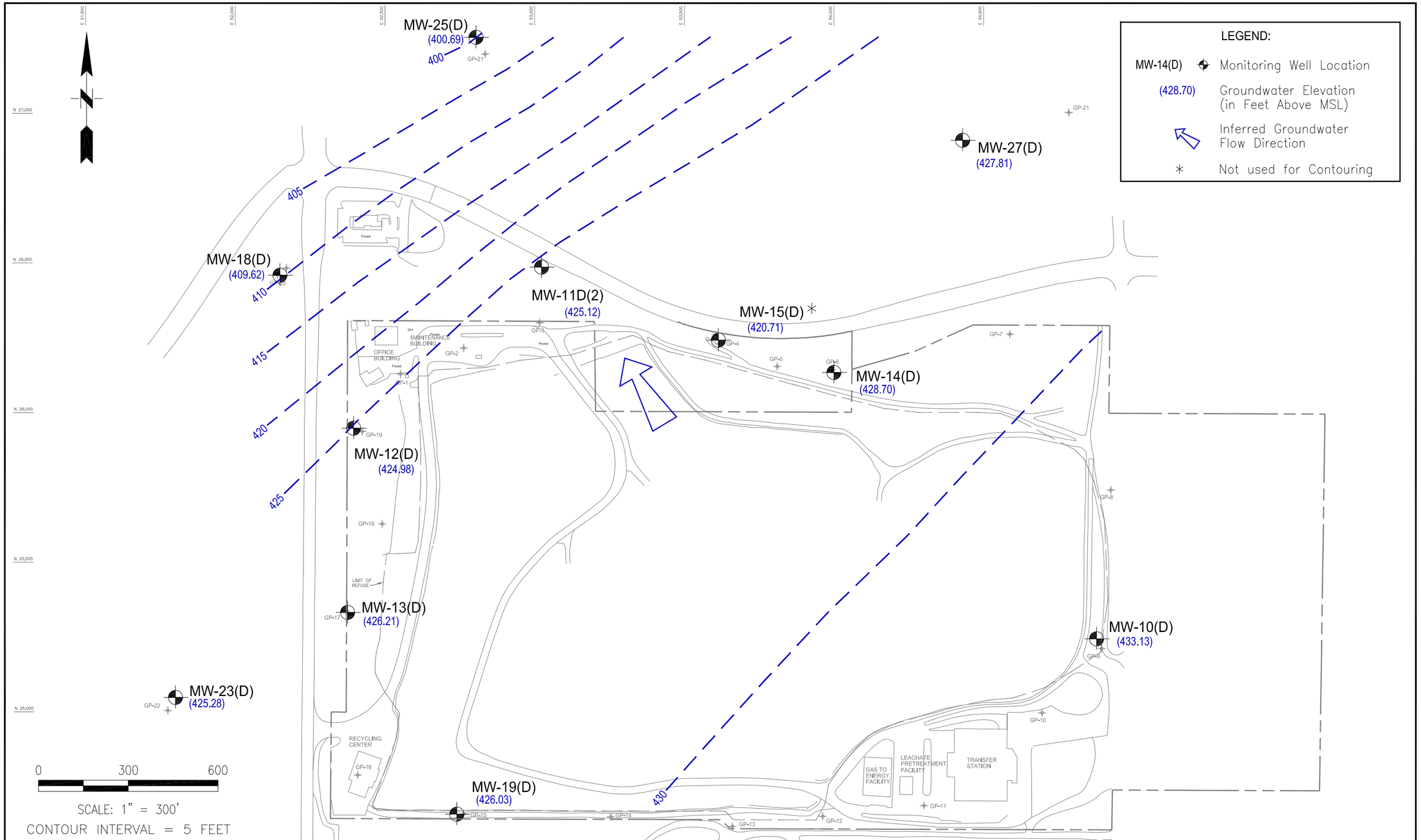
WELL	02/23/05	04/21/05	07/22/05	10/17/05	01/18/06	04/14/06	08/08/06	10/26/06	01/18/07	04/26/07	07/19/07	10/11/07	01/24/08	04/17/08	07/10/08	10/23/08	01/12/09
MW-10S		432.98	430.84	425.93	440.79	438.37	431.52	427.17	442.36	438.36	432.94	430.61	435.04	435.58	431.82	423.99	435.75
MW-10D		429.57	426.49	422.63	437.31	435.68	426.74	423.53	439.31	436.82	428.95	425.67	431.93	432.69	427.35	421.94	432.42
MW-11S		422.93	421.08	416.47	430.09	433.19	420.89	416.76	430.96	428.60	422.56	419.23	425.37	425.56	421.17	416.01	427.07
MW-11D		422.85	420.98	416.40	429.95	428.09	420.77	416.72	431.28	428.63	422.47	419.15	425.58	425.45	421.10	415.93	426.96
MW-11D(2)		421.50	419.03	414.94	428.78	427.98	419.00	415.75	431.30	429.01	421.14	417.51	424.15	424.91	419.73	414.67	424.94
MW-12S			422.63			429.50	422.32	417.51	432.11	429.76	424.03		426.45	426.78	421.84		428.32
MW-12D		421.66	419.09	415.19	428.69	427.81	418.97	415.93	430.87	428.67	421.10	417.45	423.68	424.52	419.37	414.83	424.81
MW-13S		423.36	420.64	416.81	430.15	429.04	420.11	417.49	432.11	429.85	422.44	419.00	424.94	425.80	420.50	416.34	426.40
MW-13D		423.20	420.49	416.65	430.04	428.97	419.92	417.35	432.02	429.77	422.27	418.93	424.96	425.58	420.39	416.19	426.24
MW-14S		427.26	425.00	421.19	436.81	435.05	424.99	421.40	438.52	435.52	426.92	424.48	430.14	430.98	425.26		431.42
MW-14D		425.37	422.64	418.65	432.93	432.11	422.65	419.35	435.41	433.26	424.94	421.12	427.89	428.77	423.10	418.21	428.23
MW-14R		359.64	354.42	354.06	360.01	365.51	350.93	354.43	365.69	364.03	352.31	355.75	359.78	362.63	356.22	353.58	358.61
MW-15S		422.66	420.53	416.50	430.91	429.01	420.43	416.74	432.43	429.92	422.23	418.84	425.20	425.92	420.69	415.96	426.49
MW-15D		417.13	414.42	417.49	424.63	423.80	414.42	411.10	427.02	424.90	416.71	412.77	419.63	420.02	414.79	409.93	420.11
MW-16S																	
MW-16D																	
MW-17S		422.78	421.20	416.32	429.49	427.73	420.97	414.66	430.35	428.03	422.45	417.86	424.52	425.14	421.19		426.49
MW-18S	405.68	406.27	405.74		403.62	410.66	405.63	403.63	404.80	402.66	398.23	395.80	408.59	408.98	405.77	403.16	409.61
MW-18D	404.87	406.10	404.95		405.80	412.59	405.57	403.23	408.12	406.42	400.03	397.25	408.89	409.69	405.62	402.77	409.36
MW-19S		429.68	427.13	423.14	436.89	433.99	426.70	423.21	437.47	434.32	427.92	425.69	431.40	431.34	426.83	422.49	434.55
MW-19D		424.87	419.51	416.31	431.44	429.22	418.33	416.38	431.65	430.83	420.54	418.63	425.59	422.96	419.45	416.83	426.70
MW-20R		367.10	365.10	359.88	364.98	371.55	353.35	360.35	372.19	369.70	354.75	359.85	363.34	366.95	360.29	357.26	363.90
MW-22U		408.48	408.45	408.42	409.31	408.68	408.66	408.67	410.75	409.12	403.21	408.66	408.63	408.68	408.64	408.65	408.63
MW-22L		402.44	401.68	399.67	408.36	408.67	401.95	399.93	411.13	409.53	408.84	400.70	404.84	405.84	402.06	399.66	405.39
MW-23S		427.22	426.81		434.54	431.58	426.99	423.52	434.74	432.07	428.03	426.22	428.13	427.94	425.67	421.36	432.59
MW-23D		422.38	421.50		431.53	429.77	421.75	418.56	432.41	430.17	423.10	420.33	424.12	425.12	419.94	415.95	427.22
MW-25S		400.86	398.32	396.69	407.84	407.33	398.24	396.69	410.92	408.72	399.75	397.52	402.59	404.10	399.63	397.85	403.98
MW-25D		402.57	400.62	398.08	408.45	408.77	400.76	398.27	411.43	409.96	402.42	399.38	404.63	406.01	401.67	398.85	405.31
MW-26R		420.93	418.16	414.26	427.64	427.15	417.51	416.03	431.96	429.28	420.27	420.27	422.65	423.93	417.77	412.87	421.81
MW-27S		423.09	421.01	416.89	431.74	431.41	421.17	417.03	434.62	432.82	423.82	419.02	426.60	428.13	421.57	416.64	426.62
MW-27D		423.70	421.51	417.15	431.58	431.22	421.57	417.67	434.38	432.58	424.02	419.79	426.33	427.98	422.01	416.76	426.75
MW-28S		423.30			430.34	428.30	423.12		430.59	428.57	423.37	422.21	426.60	426.59	422.20		428.75
BC-4S		399.65	399.63	397.03	405.98	406.21	399.62	397.42	408.86	405.70	401.11	398.20	402.59	403.49	399.51	396.97	402.94
BC-4D		367.62	366.14	363.33	370.34	374.62	364.84	364.03	375.24	375.48	366.10	365.42	369.13	370.84	366.13	362.86	367.21
FM-1		395.77	396.29	394.54	402.96	404.72	396.37	394.77	407.49	407.03	398.64	395.16	399.50	401.03	396.45	394.63	397.95
FM-2		397.47	398.29	395.79	404.02	405.29	398.29	395.96	408.00	406.24	399.82	396.59	401.02	402.38	398.39	395.85	399.52

Hidden Valley Landfill
Water Level Measurements

WELL	04/16/09	07/09/09	10/29/09	01/28/10	04/08/10	07/15/10	10/14/10	01/06/11	04/21/11	07/07/11	10/27/11				
MW-10S	435.81	432.63	428.51	436.03	436.53	434.81									
MW-10D	433.37	428.97	424.31	433.40	435.08	431.80	431.80	433.13	438.59	434.89	427.08				
MW-11S	425.90	422.45	418.70	421.84	426.40	424.64	420.33	425.99	439.94	426.99	420.44				
MW-11D	425.83	422.37	418.63	425.89	426.29	424.98	420.24	425.57		426.87	420.36				
MW-11D(2)	425.62	421.34	416.91	425.12	425.91	423.95	418.26	425.12	430.73	427.83	419.03				
MW-12S	427.09			426.12	427.57	447.94		426.83	430.74	428.05					
MW-12D	425.39	421.36	416.99	425.05	426.23	423.77	418.34	424.98	430.97	426.80	419.51				
MW-13S	426.75	422.59	418.68	426.92	427.13	425.06	420.00	426.07	431.11	427.91	421.27				
MW-13D	426.58	422.47	418.50	426.73	426.92	424.88	419.73	426.21	430.92	427.65	421.07				
MW-14S	431.29	426.75	423.62	431.34	432.26	429.93	424.64	431.29	437.49	433.33	424.75				
MW-14D	429.45	424.96	420.31	429.20	429.85	427.91	422.51	428.70	435.03	431.36	422.72				
MW-14R	364.57	355.98	354.34	359.90	362.73	356.73	358.48	359.76	362.68	362.71	356.39				
MW-15S	426.16	422.11	418.51	426.24	426.91	424.79	420.05	426.08	431.56	427.99	420.24				
MW-15D	421.20	416.80	412.07	420.91	421.50	419.47	414.28	420.71	426.63	423.43					
MW-16S															
MW-16D															
MW-17S	425.30	422.33	418.25	425.41	425.64	424.14	420.28	425.15	428.94	426.19	420.39				
MW-18S	409.13	406.63	403.75	409.42	409.53	408.14	405.00	409.08	412.37	409.96	405.09				
MW-18D	409.93	406.99	403.83	409.87	410.50	409.13	404.88	409.62	414.67	412.11	405.15				
MW-19S	432.12	428.13	425.61	432.46	432.53	430.20	426.67	432.10	435.63	432.64	426.96				
MW-19D	427.71	424.29	419.98	430.51	431.67	425.29	414.40	426.03	434.34	423.97	424.97				
MW-20R	372.20	360.80	358.55	364.03	367.05	359.84	365.51	365.03	364.26	366.50	360.18				
MW-22U	408.61	408.63	408.62	408.49	408.46	408.55	408.47	408.52		408.59	408.58				
MW-22L	405.97	403.27	400.42	405.88	406.56	405.19	401.33	405.71		408.30	401.69				
MW-23S	430.26	427.99	424.66	430.57	427.64	429.01	426.85	428.60	433.36	430.65	427.04				
MW-23D	427.34	423.39	418.20	427.19	430.65	425.72	421.05	425.28	431.53	431.51	421.34				
MW-25S	402.73	399.34	398.60	402.62	403.99	402.02	398.86	403.64	410.32	406.94	397.98				
MW-25D	405.16	402.10	399.77	404.93	406.04	404.43	399.05	400.66	411.06	408.46	400.34				
MW-26R	423.97	418.88	413.99	422.47	423.20		416.44	421.15		423.31	414.36				
MW-27S	427.87	423.46	418.19	427.68	428.89	426.90	420.24	427.77	434.21	430.81	420.43				
MW-27D	428.09	423.75	418.77	427.73	428.97	426.83	420.75	427.81	433.82	430.84	421.07				
MW-28S	426.91	423.73		427.12	427.21	426.05	422.12	426.83	429.44	427.4	422.19				
BC-4S	402.94	400.94	397.50	403.68	404.21	402.97	399.19	403.27	408.19	405.68	399.08				
BC-4D	371.11	366.80	363.75			368.16									
FM-1	400.76	398.56	395.01	408.44	401.49	400.27	395.53	400.45	407.24	404.19	395.63				
FM-2	402.25	399.71	396.36	394.49	402.89	401.76	397.37	401.98	408.19	404.75	397.45				



SCS ENGINEERS Environmental Consultants and Contractors 2405 140th Avenue NE, Suite 107 Bellevue, Washington 98005 (425) 746-4600 FAX: (425) 746-6747			PROJECT NO. 042110003.03	DES BY ES	SHALLOW PERCHED AQUIFER WATER LEVEL MAP JANUARY 6, 2011 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE APRIL 2011
			SCALE AS SHOWN	CHK BY KGL		FIGURE 1
			CAD FILE FIGURE 1	APP BY KGL		



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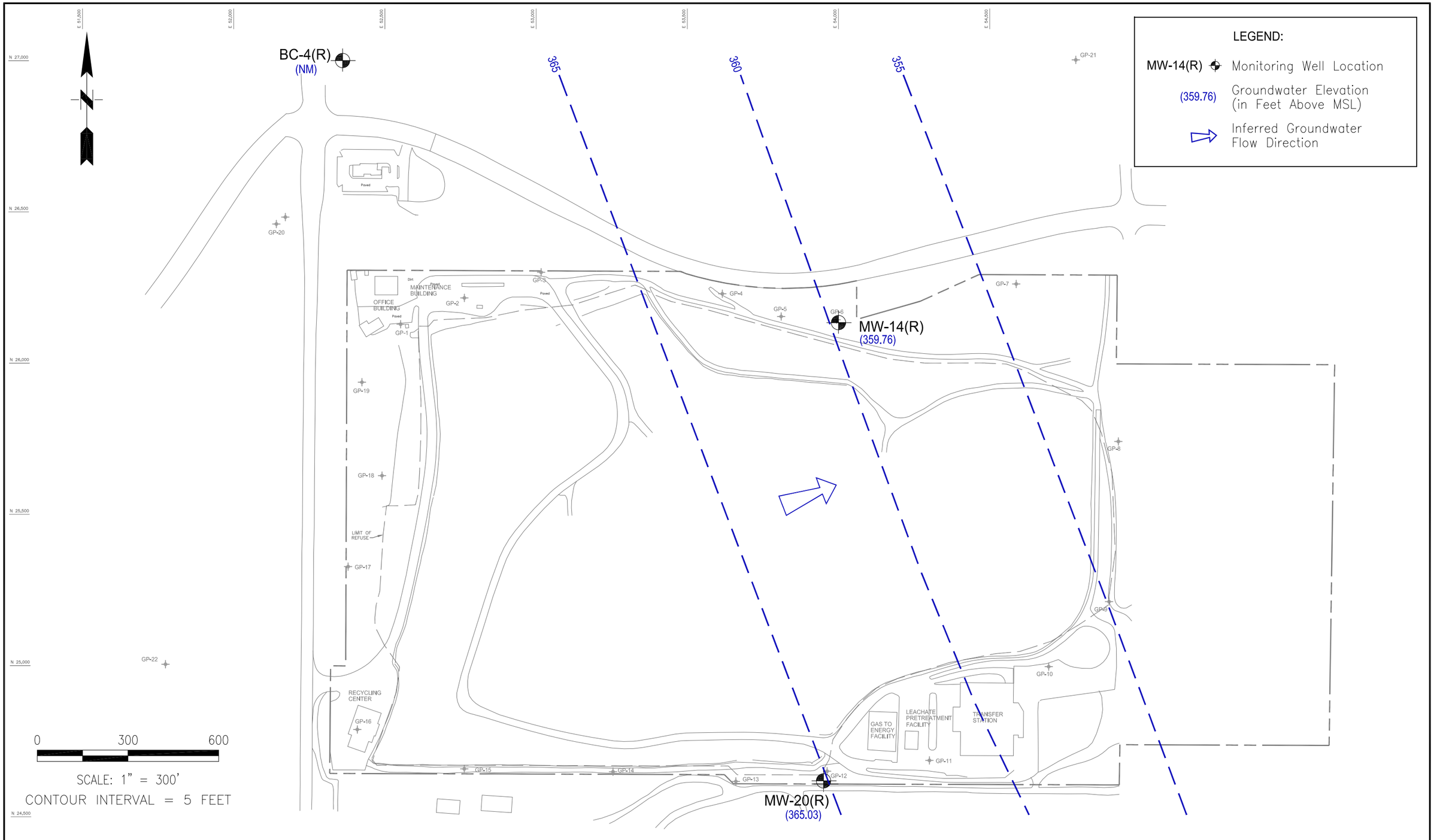
SCALE AS SHOWN	CHK BY KGL	HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	FIGURE 2
CAD FILE FIGURE 2	APP BY KGL		



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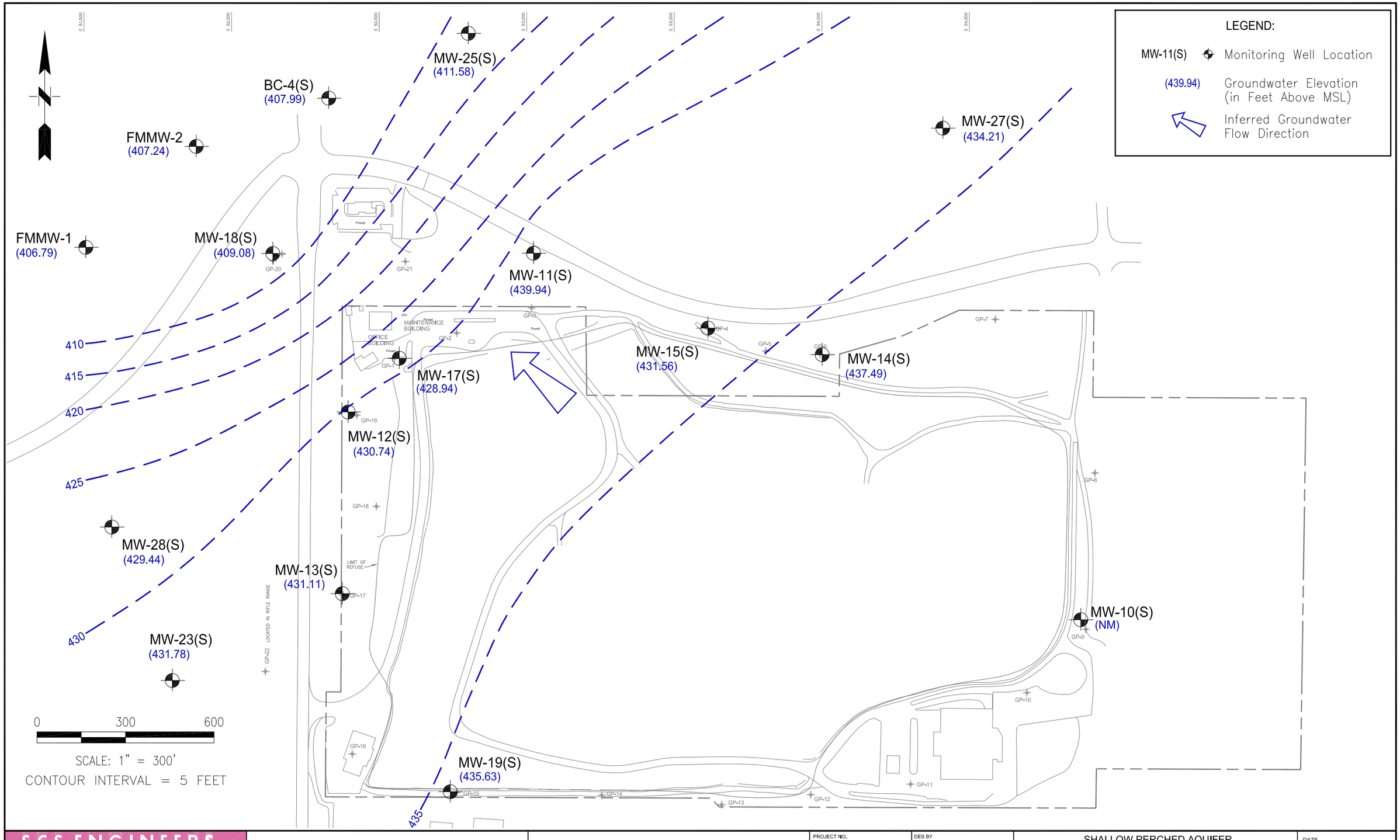
SCALE AS SHOWN	CHK BY KGL	HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	FIGURE 3
CAD FILE FIGURE 3	APP BY KGL		



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PROJECT NO. 042110003.03	DES BY SA	SHALLOW PERCHED AQUIFER WATER LEVEL MAP APRIL 11, 2011	DATE JULY 2011
SCALE AS SHOWN	CHK BY ES	HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		

LEGEND:

MW-14(D) — Monitoring Well Location

(435.03) — Groundwater Elevation (in Feet Above MSL)

Inferred Groundwater Flow Direction

∗ Not used for Contouring

MW-25(D) (411.92)

MW-27(D) (433.82)

MW-18(D) (414.67)

MW-11D(2) (430.73)

MW-15(D) ∗ (426.63)

MW-14(D) (435.03)

MW-12(D) (430.97)

MW-13(D) (430.92)

MW-10(D) (438.59)

MW-23(D) (429.82)

MW-19(D) (426.03)

415 420 425 430 435

MAINTENANCE BUILDING

OFFICE BUILDING

LIMIT OF REFUSE

RECYCLING CENTER

GAS TO ENERGY FACILITY

LEACHATE PRETREATMENT FACILITY

TRANSFER STATION

GP-1 GP-2 GP-3 GP-4 GP-5 GP-6 GP-7 GP-8 GP-9 GP-10 GP-11 GP-12 GP-13 GP-14 GP-15 GP-16 GP-17 GP-18 GP-19 GP-21 GP-22

N 27,000 N 26,500 N 26,000 N 25,500 N 25,000

E 51,500 E 52,000 E 52,500 E 53,000 E 53,500 E 54,000 E 54,500

0 300 600

SCALE: 1" = 300'

CONTOUR INTERVAL = 5 FEET

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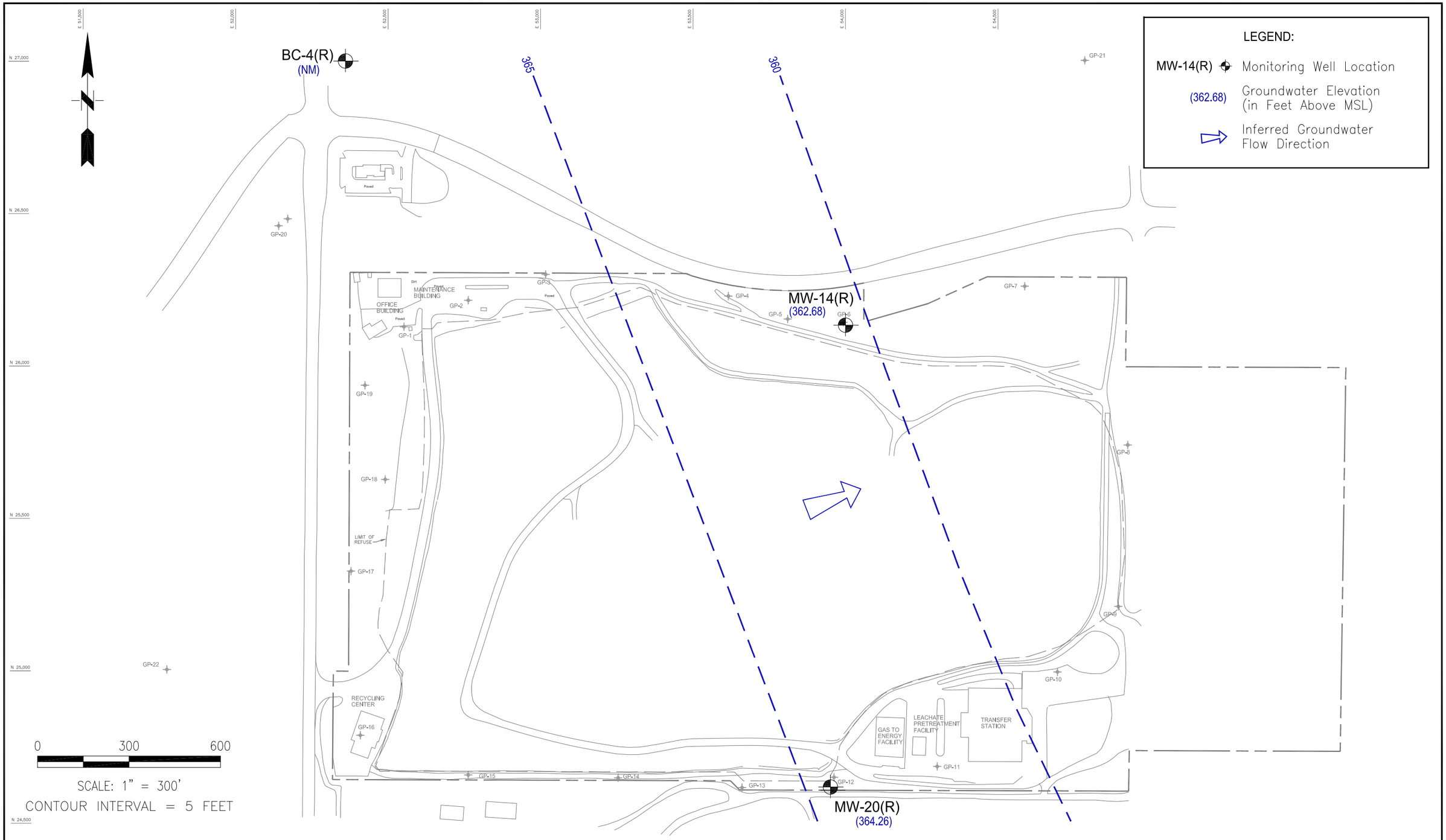
PROJECT NO. 042110003.03	DES BY SA	UPPER REGIONAL AQUIFER WATER LEVEL MAP APRIL 11, 2011 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE JULY 2011
SCALE AS SHOWN	CHK BY ES		FIGURE 2
CAD FILE FIGURE 2	APP BY KGL		



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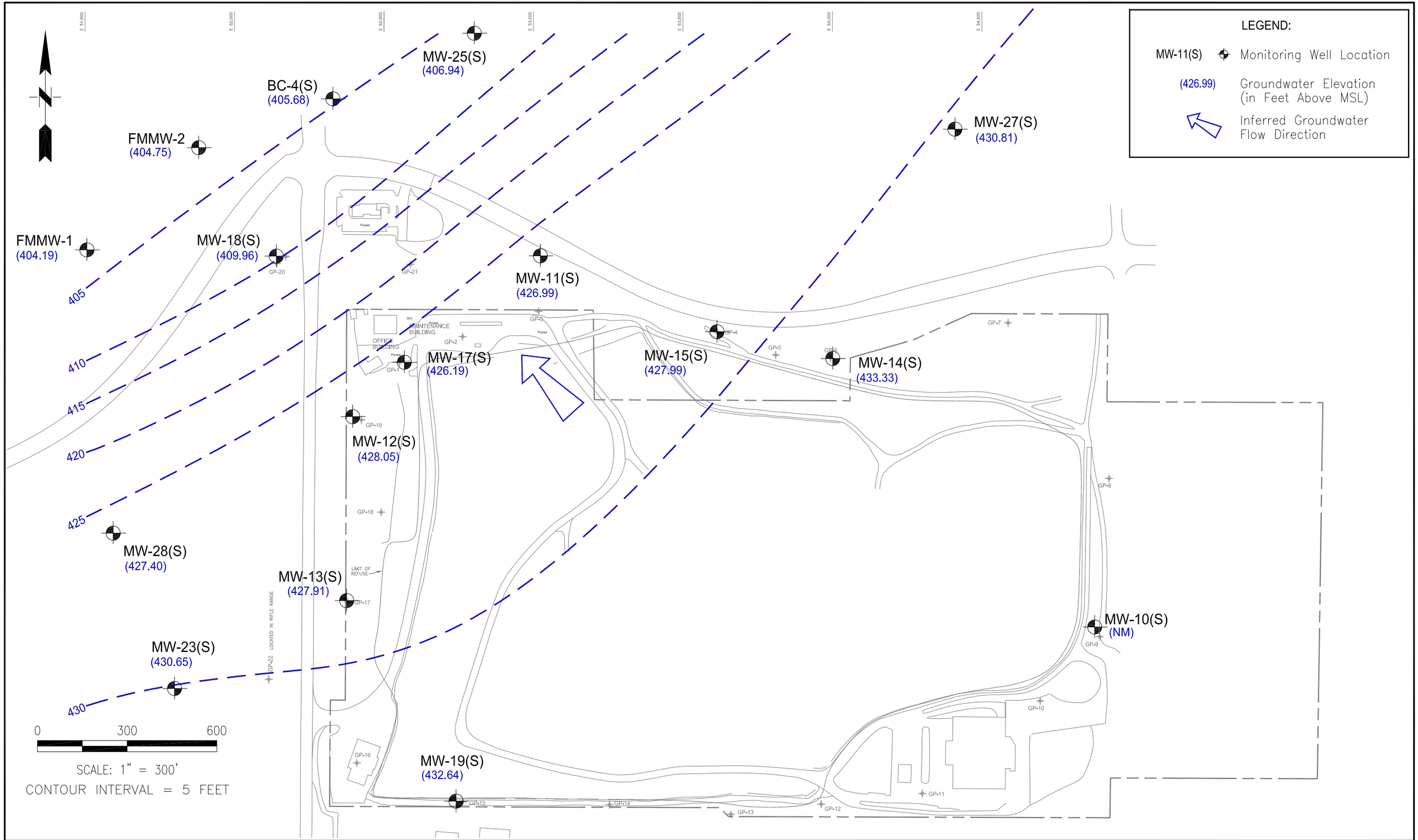
SCALE AS SHOWN	CHK BY KGL		FIGURE 3
CAD FILE FIGURE 3	APP BY KGL		



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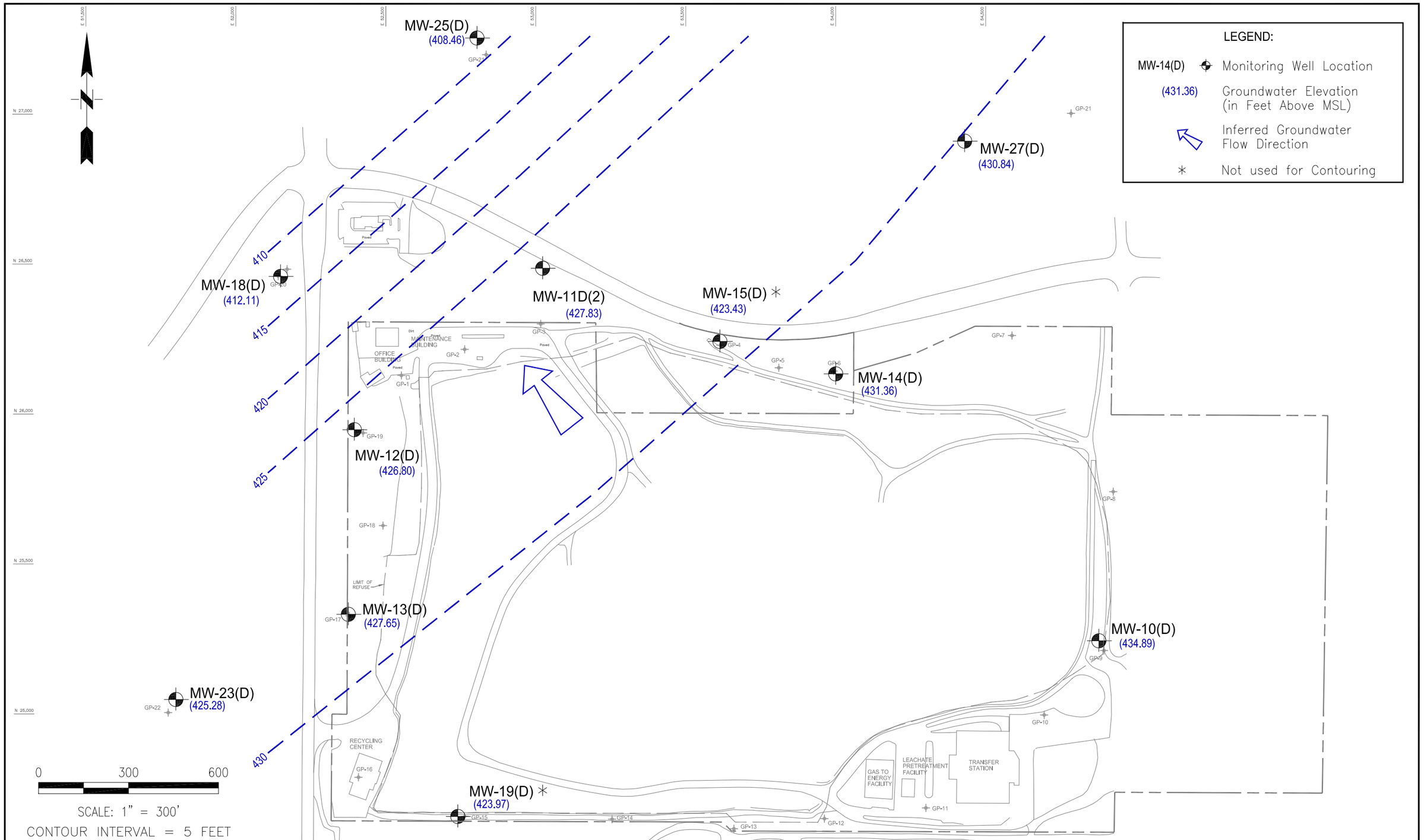
PROJECT NO. 042110003.03	DES BY SA	SHALLOW PERCHED AQUIFER WATER LEVEL MAP JULY 7, 2011 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE JULY 2011
SCALE AS SHOWN	CHK BY ES		FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		



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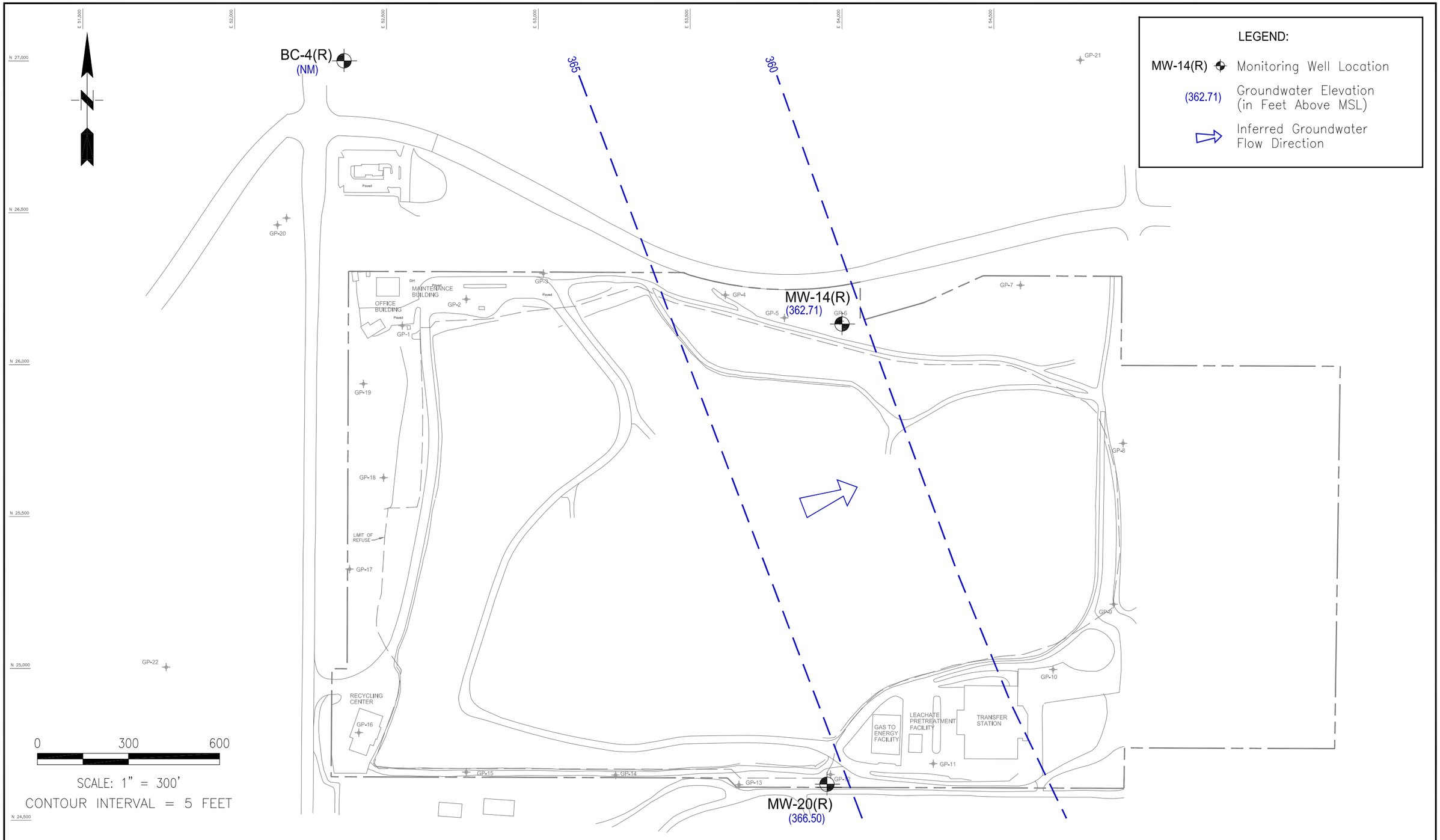
SCALE AS SHOWN	CHK BY ES		FIGURE 2
CAD FILE FIGURE 2	APP BY KGL		



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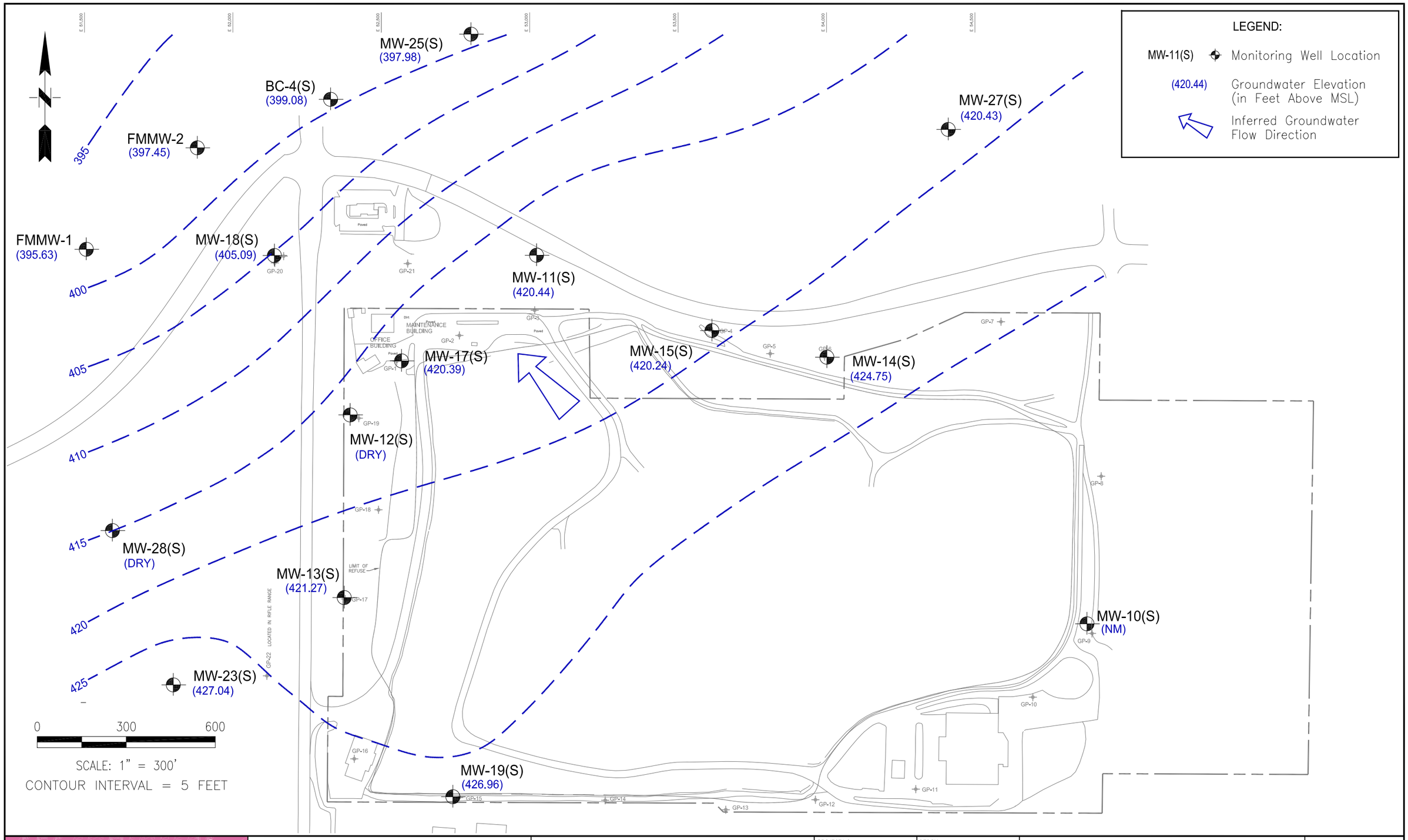
SCALE AS SHOWN	CHK BY KGL		FIGURE 3
CAD FILE FIGURE 3	APP BY KGL		



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PROJECT NO. 04212004.03	DES BY SA	SHALLOW PERCHED AQUIFER WATER LEVEL MAP OCTOBER 27, 2011 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE MARCH 2012
SCALE AS SHOWN	CHK BY ES		FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		

LEGEND:

MW-14(D) — Monitoring Well Location

(422.72) — Groundwater Elevation (in Feet Above MSL)

Inferred Groundwater Flow Direction

∗ Not used for Contouring

MW-25(D) (400.34)

MW-27(D) (421.07)

MW-11D(2) (419.03)

MW-18(D) (405.15)

MW-15(D) ∗ (DRY)

MW-14(D) (422.72)

MW-12(D) (419.51)

MW-13(D) (421.07)

MW-23(D) (419.63)

MW-19(D) ∗ (424.97)

MW-10(D) (427.08)

405 410 415 420 425

MAINTENANCE BUILDING

OFFICE BUILDING

RECYCLING CENTER

LIMIT OF REFUSE

GAS TO ENERGY FACILITY

LEACHATE PRETREATMENT FACILITY

TRANSFER STATION

GP-1 GP-2 GP-3 GP-4 GP-5 GP-6 GP-7 GP-8 GP-9 GP-10 GP-11 GP-12 GP-13 GP-14 GP-15 GP-16 GP-17 GP-18 GP-19 GP-20 GP-21 GP-22

E 51,500 E 52,000 E 52,500 E 53,000 E 53,500 E 54,000 E 54,500

N 27,000 N 26,500 N 26,000 N 25,500 N 25,000

0 300 600

SCALE: 1" = 300'

CONTOUR INTERVAL = 5 FEET

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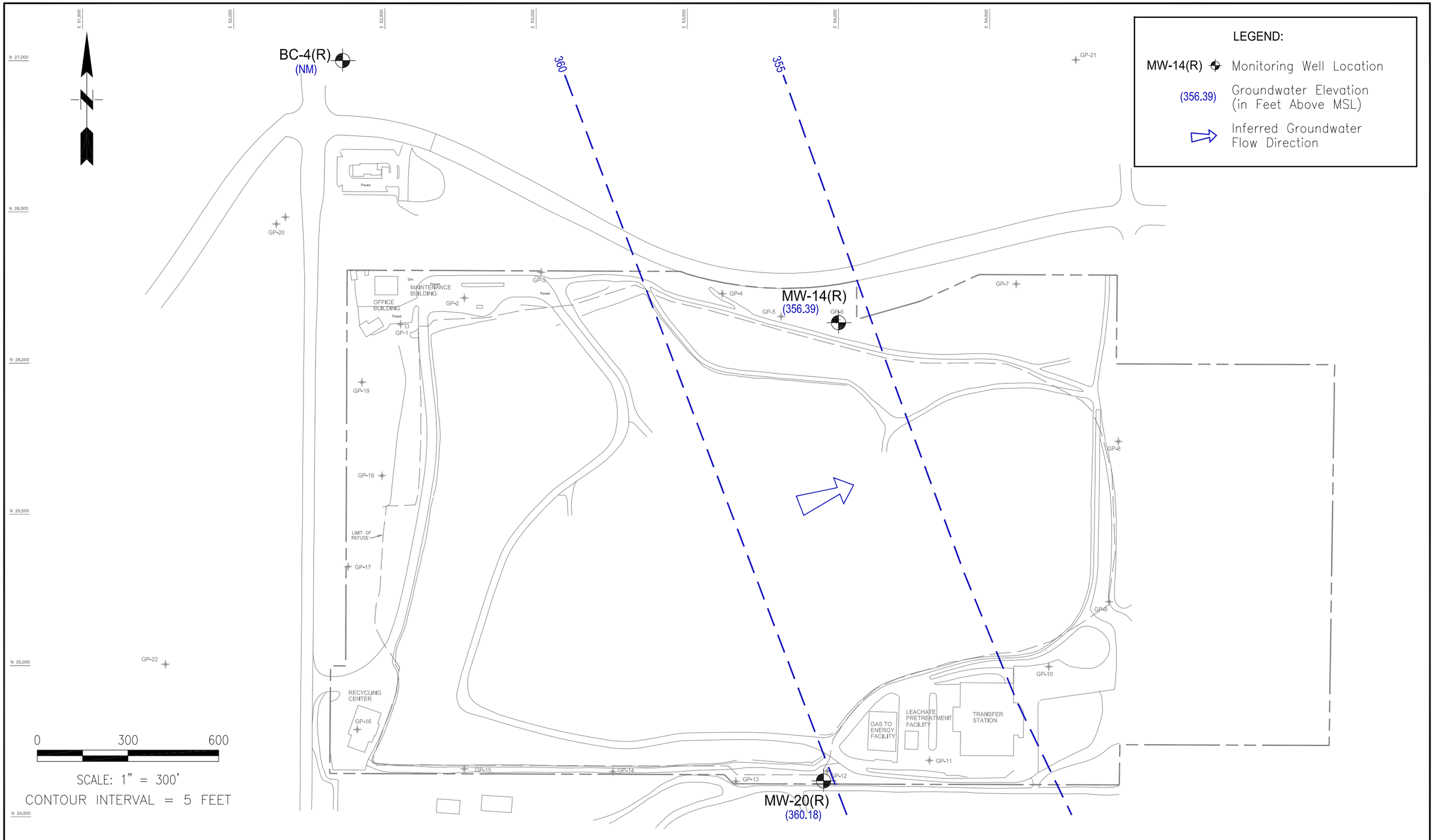
PROJECT NO. 04212004.03	DES BY SA	UPPER REGIONAL AQUIFER WATER LEVEL MAP OCTOBER 27, 2011	DATE MARCH 2012
SCALE AS SHOWN	CHK BY ES	HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	FIGURE 2
CAD FILE FIGURE 2	APP BY KGL		



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PROJECT NO. 04212004.00	DES BY KGL	LOWER REGIONAL AQUIFER WATER LEVEL MAP OCTOBER 27, 2011 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON	DATE MARCH 2012
SCALE AS SHOWN	CHK BY KGL		FIGURE 3
CAD FILE FIGURE 3	APP BY KGL		

Appendix D
Groundwater Monitoring Data for 2011

First Quarter 2011

Table 2
Water Level Elevations
January 6, 2011
Hidden Valley Landfill, Pierce County, Washington

Well Number	Well Casing Elevation	Depth to Water	Water Level Elevation
MW-10S	460.17	NM	NM
MW-10D	460.69	27.56	433.13
MW-11S	516.44	90.45	425.99
MW-11D	516.56	90.99	425.57
MW-11D(2)	515.53	90.41	425.12
MW-12S	489.94	63.11	426.83
MW-12D	489.97	64.99	424.98
MW-13S	448.81	22.74	426.07
MW-13D	448.94	22.73	426.21
MW-14S	477.95	46.66	431.29
MW-14D	477.98	49.28	428.70
MW-14R	476.84	117.08	359.76
MW-15S	498.76	72.68	426.08
MW-15D	498.52	77.81	420.71
MW-17S	552.44	127.29	425.15
MW-18S	538.40	129.32	409.08
MW-18D	539.00	129.38	409.62
MW-19S	485.71	53.61	432.10
MW-19D	485.82	59.79	426.03
MW-20R	469.43	104.40	365.03
MW-22U	545.92	137.40	408.52
MW-22L	546.07	140.36	405.71
MW-23S	448.34	19.74	428.60
MW-23D	448.25	22.97	425.28
MW-25S	527.80	124.16	403.64
MW-25D	527.52	126.83	400.69
MW-26R	481.81	60.66	421.15
MW-27S	531.81	104.04	427.77
MW-27D	531.92	104.11	427.81
MW-28S	466.87	40.04	426.83
FMW-01	542.59	142.14	400.45
FMW-02	536.40	134.42	401.98
BC-4S	526.68	123.41	403.27
BC-4D	526.94	NM	NM

Notes:
(NM) = not measured

Table 3
Field Parameters
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

Sample ID	Sample Number	Sample Date	Method	pH	Conductance (uS)	Temperature (° C)
MW-10S	HVL-010411-04	01/04/11	DP	6.47	164	12.6
MW-10D	HVL-010411-03	01/04/11	DP	6.64	241	11.7
MW-11S	HVL-010511-11	01/05/11	SP	5.85	656	15.1
MW-11D(2)	HVL-010511-12	01/05/11	SP	6.67	448	14.1
MW-12S	HVL-010411-06	01/04/11	DP	5.80	337	19.4
MW-12D	HVL-010411-05	01/04/11	DP	6.60	353	17.9
MW-13S	HVL-010511-13	01/05/11	SP	6.21	489	16.2
MW-13D	HVL-010411-07	01/04/11	DP	6.58	313	15.7
MW-14S	HVL-010411-02	01/04/11	DP	6.11	108	12.2
MW-14D	HVL-010411-01	01/04/11	SP	6.49	188	11.8
MW-14R	HVL-010511-18	01/05/11	SP	6.84	108	10.7
MW-15S	HVL-010511-15	01/05/11	SP	5.94	527	15.2
MW-15D	HVL-010511-14	01/05/11	SP	6.65	653	13.5
MW-17S	HVL-010511-17	01/05/11	SP	6.00	1,329	17.8
MW-18S	HVL-010711-27	01/07/11	SP	6.28	409	14.9
MW-18D	HVL-010711-28	01/07/11	SP	6.61	308	15.2
MW-20R	HVL-010711-30	01/07/11	SP	7.12	99	9.8
MW-23S	HVL-010611-24	01/06/11	SP	6.11	209	11.0
MW-25S	HVL-010611-22	01/06/11	SP	6.54	301	11.9
MW-26R	HVL-010711-26	01/07/11	SP	7.03	135	10.2
MW-28S	HVL-010611-25	01/06/11	SP	6.31	194	11.4
FMW-01	HVL-010511-09	01/05/11	SP	6.36	554	9.2
FMW-02	HVL-010511-10	01/05/11	SP	6.13	951	14.6
Water Supply Well, P. Bunyan	HVL-010611-23	01/06/11	Grab	6.98	277	5.4
Water Supply Well, Corliss	HVL-010711-29	01/07/11	Grab	7.16	204	10.8
Leak Detection, Side Slope	HVL-010711-20	01/07/11	Grab	7.60	23,560	17.9
Leachate, East Area	HVL-010511-19	01/05/11	Grab	7.67	12,056	14.9

Notes:
The groundwater cleanup level for specific conductance is 700 uS/cm.
Parameter concentrations that are greater than cleanup levels are shown in bold.
The secondary drinking water standard for pH is 6.5 ─ 8.5
(µS) = microsiemens
(°C) = degrees Centigrade
(Grab) = collected from sampling point
(SP) = submersible bladder-pump
(DP) = dedicated bladder-pump

Table 4
Inorganic Parameters (mg/L)
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14R	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-20R	MW-23S	MW-25S	MW-26R	MW-28S	FMW-01	FMW-02
			Background																						
Alkalinity	5	—	140	49	100	54	160	57	130	86	71	48	36	150	83	110	130	140	47	74	120	61	74	110	130
Bicarbonate Alkalinity	5	—	140	49	100	54	160	57	130	86	71	48	36	150	83	110	130	140	47	74	120	61	74	110	130
Chloride	0.2-4.0	250[(b)]	5.1	6.4	10.1	14.4	11.7	18.5	13.1	11.1	6.0	1.8	4.0	15.7	18.3	20.8	11.1	13.4	1.8	8.8	9.8	3.8	6.3	13.9	15.0
Ammonia as Nitrogen	0.10	—	*	*	*	*	*	0.44	*	*	2.90	*	*	*	2.90	2.60	*	*	*	*	*	*	*	*	0.23
Nitrate as Nitrogen	0.50	10[(a)]	1.7	1.9	2.1	**17.0**	1.3	**18.0**	1.7	3.3	*	*	1.4	*	3.6	**47.0**	1.6	9.5	*	*	1.7	*	0.6	1.7	**24.0**
Sulfate	0.5-10.0	250[(b)]	7.8	14.8	5.1	24.4	5.3	9.5	14.1	17.5	10.1	3.8	6.5	10.4	10.8	9.8	5.1	10.1	3.2	14.6	7.4	7.3	8.4	15.8	16.5
Total Dissolved Solids	10	500[(b)]	160	110	150	220	220	250	200	160	120	110	86	200	160	440	190	240	90	130	170	110	120	180	320
Total Organic Carbon	1.0	—	*	*	*	*	*	1.7	*	*	1.9	*	1.6	1.3	2.0	1.7	*	1.5	*	*	*	*	*	1.2	1.4

Notes:
Parameter concentrations that are greater than cleanup levels are shown in bold
Analyses performed by TestAmerica, Arvada, Colorado
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(a) indicates Primary Drinking Water Standard
(b) indicates Secondary Drinking Water Standard

Table 5
Dissolved Metals (mg/L)
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D (Background)	MW-10S (Background)	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14R	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-20R	MW-23S	MW-25S	MW-26R	MW-28S	FMW-01	FMW-02
Iron	0.200	0.30[(b)]	*	*	*	*	*	*	*	*	**2.1**	*	*	*	*	*	*	*	*	*	*	**0.630**	*	*	**0.430**
Manganese	0.001	0.05[(b)]	*	*	*	*	*	**0.200**	*	0.003	**0.760**	**0.130**	0.012	**0.340**	**0.840**	**1.200**	*	*	*	0.010	*	**0.280**	0.010	*	**0.120**

Notes:

Parameter concentrations that are greater than cleanup levels are shown in **bold**

Analyses performed by TestAmerica, Arvada, Colorado

(mg/L) = milligrams per liter

(*) indicates not reported at or above the MRL (Method Reporting Limit)

(b) indicates Secondary Drinking Water Standard

Table 6
Volatile Organic Compounds (µg/L)
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14R	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-20R	MW-23S	MW-25S	MW-26R	MW-28S	FMW-01	FMW-02
			Background																						
Tetrachloroethene	0.5	5.0[(a)]	*	*	0.91	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:

Analyses performed by TestAmerica, Arvada, Colorado

Volatile organic compounds not listed were not present at concentrations exeeding the MRL

(µg/L) = micrograms per liter

(*) indicates not reported at or above the MRL (Method Reporting Limit)

(a) indicates Primary Drinking Water standard

Table 7
Duplicate Samples
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	MW-13D	DUP (MW-13D)	RPD (%)
Volatile Organics (µg/L)				
No Detections	—	*	*	*
Dissolved Metals (mg/L)				
No Detections	—	*	*	*
Inorganic Parameters (mg/L)				
Alkalinity	5	130	130	**
Bicarbonate Alkalinity	5	130	130	**
Ammonia as Nitrogen	0.10	*	*	*
Total Organic Carbon	1.0	*	*	*
Chloride	4.0	13.1	12.2	7.1
Nitrate as Nitrogen	0.2	1.7	1.7	**
Total Dissolved Solids	10	200	200	**
Sulfate	0.5	14.1	14.0	<1.0

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Analytes not listed were not present at concentrations exceeding the MRL
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
(*) = not reported at or above the MRL (Method Reporting Limit)
(**) = indicates less than 5X the MRL
(—) = not applicable

Table 8
Water Supply Wells
January 2011 (First Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Corliss	Paul Bunyan
Volatile Organics (µg/L)			
No Detections	0.5	*	*
Total Metals (mg/L)			
Iron	0.200	*	*
Manganese	0.001	0.006	*
Zinc	0.010	0.049	0.017
Inorganic Parameters (mg/L)			
Chloride	0.2-4.0	6.6	4.7
Ammonia as Nitrogen	0.10	0.25 H	*
Nitrate as Nitrogen	0.5	1.5	1.8
Nitrite as Nitrogen	0.5	*	*
Sulfate	0.5	9.9	9.8
Chemical Oxygen Demand (COD)	20	*	20.0
Total Organic Carbon (TOC)	1.0	*	*
Color	5.0	*	*

Notes:

Analyses performed by TestAmerica, Arvada, Colorado

Volatile organic compounds not listed were not present at concentrations exceeding the MRL

Color reported in color units

µg/L = micrograms per liter

mg/L = milligrams per liter

(—) = not applicable or not analyzed

(*) = not reported at or above the MRL (Method Reporting Limit)

Table 9
Leachate and Side Slope Liner Monitoring
January 2011 (First Quarter)
Hidden Valley Landfill, Pierce County, Washington

	MRL	Leak Detection-Side Slope	Leachate-East Area
Volatile Organics (µg/L)			
Acetone	10-40	18.0	*
Benzene	0.5-2	1.4	2.0
2-Hexanone	5-20	36.0	*
Carbon Disulfide	0.5-2	*	4.6
1,4-Dichlorobenzene	0.5-2	*	2.3
cis-1,2-dichloroethene	0.5-2	1.3	*
m,p-Xylenes	0.5-2	0.9	4.7
Methylene Chloride	2-8	*	*
o-Xylenes	0.5-2	*	2.4
Total Metals (mg/L)			
Antimony	0.004	0.10	*
Arsenic	0.010	0.16	0.02
Barium	0.002	0.39	0.45
Calcium	0.200	12.00	130.00
Chromium	0.004	0.05	0.10
Cobalt	0.010	0.02	0.02
Copper	0.004	0.02	*
Iron	0.200	3.70	5.20
Lead	0.002	0.01	*
Magnesium	0.200	19.00	50.00
Manganese	0.002	0.19	2.00
Nickel	0.004	0.35	0.27
Potassium	3.000	380.00	270.00
Sodium	1.000	4600.00	2500.00
Vanadium	0.010	0.12	0.09
Zinc	0.020	0.04	0.03
Inorganic Parameters (mg/L)			
Alkalinity	5-10	6900	4600
Bicarbonate Alkalinity	5-10	6900	4600
Chloride		3000	1680
Ammonia as Nitrogen	10.0	—	400
Sulfate		1.8	414
Chemical Oxygen Demand	400	2600	2100
Total Dissolved Solids	100-200	8600	6700
Total Organic Carbon	20	820	560
Biochemical Oxygen Demand	50-100	75	100
Cyanide, total	0.01	0.031	*
Coliform, total	2	*	800
Field Parameters			
pH	—	7.65	7.67
Conductance (µS)	—	19,942	12,056
Temperature (°C)	—	35.8	14.9

Notes:
Analyses performed by Test America, Arvada, Colorado
Volatile organic compounds not listed were not present at concentrations exceeding the MRL
Total coliform reported in MPN/100 milliliter
(TNC) = To numerous to count
(µg/L) = micrograms per liter
(mg/L) = milligrams per liter
(µS) = microsiemens
(°C) = degrees centigrade
(J) = estimated concentration
(>) = greater than
(*) = not reported at or above the MRL (Method Reporting Limit)
(—) = not applicable or not analyzed

Second Quarter 2011

Table 2
Water Level Elevations
April 21, 2011
Hidden Valley Landfill, Pierce County, Washington

Well Number	Well Casing Elevation	Depth to Water	Water Level Elevation
MW-10S	460.17	NM	NM
MW-10D	460.69	22.10	438.59
MW-11S	516.44	76.50	439.94
MW-11D	516.56	NM	NM
MW-11D(2)	515.53	84.80	430.73
MW-12S	489.94	59.20	430.74
MW-12D	489.97	59.00	430.97
MW-13S	448.81	17.70	431.11
MW-13D	448.94	18.02	430.92
MW-14S	477.95	40.46	437.49
MW-14D	477.98	42.95	435.03
MW-14R	476.84	114.16	362.68
MW-15S	498.76	67.20	431.56
MW-15D	498.52	71.89	426.63
MW-17S	552.44	123.50	428.94
MW-18S	538.40	126.03	412.37
MW-18D	539.00	124.33	414.67
MW-19S	485.71	50.08	435.63
MW-19D	485.82	51.48	434.34
MW-20R	469.43	105.17	364.26
MW-22U	545.92	NM	NM
MW-22L	546.07	NM	NM
MW-23S	448.34	16.56	431.78
MW-23D	448.25	18.43	429.82
MW-25S	527.80	116.22	411.58
MW-25D	527.52	115.60	411.92
MW-26R	481.81	NM	NM
MW-27S	531.81	97.60	434.21
MW-27D	531.92	98.10	433.82
MW-28S	466.87	37.43	429.44
FMW-01	542.59	135.80	406.79
FMW-02	536.40	129.16	407.24
BC-4S	526.68	118.69	407.99
BC-4D	526.94	NM	NM

Notes:
(NM) = not measured

Table 3
Field Parameters
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

Sample ID	Sample Number	Sample Date	Method	pH	Conductance (µS)	Temperature (° C)
MW-10S	HVL-042011-10	04/20/11	DP	6.43	134	9.5
MW-10D	HVL-042011-11	04/20/11	DP	6.46	151	9.9
MW-11S	HVL-041911-02	04/19/11	SP	5.80	252	14.9
MW-11D(2)	HVL-041911-03	04/19/11	SP	6.56	214	14.3
MW-13S	HVL-041911-05	04/19/11	SP	6.09	401	18.0
MW-13D	HVL-041911-07	04/19/11	DP	6.50	342	17.2
MW-14S	HVL-042111-13	04/21/11	DP	5.92	122	12.0
MW-14D	HVL-042111-12	04/21/11	DP	6.17	153	12.2
MW-17S	HVL-042011-09	04/20/11	SP	6.02	473	20.3
MW-28S	HVL-042111-14	04/21/11	SP	6.25	161	11.7
FMW-01	HVL-041911-01	04/19/11	SP	6.25	282	12.3
FMW-02	HVL-042011-08	04/20/11	SP	6.11	478	16.7
Water Supply Well, P. Bunyan	HVL-042111-15	04/21/11	Grab	6.57	274	10.4
Water Supply Well, Corliss	HVL-042111-16	04/21/11	Grab	6.81	215	32.7

Notes:
The groundwater cleanup level for specific conductance is 700 (µS).
(µS) = microsiemens
(°C) = degrees Centigrade
(Grab) = collected from sampling point
(SP) = submersible bladder-pump (non-dedicated)
(DP) = dedicated bladder-pump

Table 4
Inorganic Parameters (mg/L)
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	MW-28S	FMW-01	FMW-02
			Background											
Alkalinity	5	—	54	47	110	45	150	120	56	37	180	65	100	160
Bicarbonate Alkalinity	5	—	54	47	110	45	150	120	56	37	180	65	100	160
Chloride	0.2-4.0	250(b)	6.0	5.6	5.9	13.2	17.4	31.4	6.4	6.6	25.1	7.6	19.1	23.1
Ammonia as Nitrogen	0.10	—	*	*	0.12 B	0.17 B	*	0.24 B	1.60	0.18	1.9 B	0.1 B	0.13 B	0.11 B
Nitrate as Nitrogen	0.50	10(a)	1.1	0.96	2.0	**10.0**	1.7	6.0	*	1.70	4.4	1.0	3.4	9.2
Sulfate	0.5-10.0	250(b)	9.9	8.6	5.4	23.3	15.4	25.7	9.4	8.4	9.0	3.8	17.9	19.1
Total Dissolved Solids	10	500(b)	99	88	140	180	210	270	99	85	280	110	180	300
Total Organic Carbon	1.0	—	*	*	*	1.2	1.0	1.6	1.4	1.2	2.8	*	1.2	1.7

Notes:
Parameter concentrations that are greater than cleanup levels are shown in bold
Analyses performed by TestAmerica, Arvada, Colorado
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(a) indicates Primary Drinking Water Standard
(b) indicates Secondary Drinking Water Standard
(B) indicates blank contamination

Table 5
Dissolved Metals (mg/L)
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	MW-28S	FMW-01	FMW-02
			Background											
Manganese	0.001	0.05[(b)]	*	*	*	0.007	*	0.003	**0.510**	**0.056**	**1.300**	*	*	**0.084**

Notes:

Parameter concentrations that are greater than cleanup levels are shown in **bold**

Analyses performed by TestAmerica, Arvada, Colorado

Metals not listed were not present at concentrations exeeding the MRL

(mg/L) = milligrams per liter

(*) indicates not reported at or above the MRL (Method Reporting Limit)

(b) indicates Secondary Drinking Water Standard

Table 6
Volatile Organic Compounds (μg/L)
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	MW-28S	FMW-01	FMW-02
			Background											
Tetrachloroethene	0.5	5.0[(a)]	*	*	0.53	*	*	*	*	*	*	*	*	*

Notes:

Analyses performed by TestAmerica, Arvada, Colorado

Volatile organic compounds not listed were not present at concentrations exeeding the MRL

Freon 12 = Dichlorodifluoromethane

(μg/L) = micrograms per liter

(*) indicates not reported at or above the MRL (Method Reporting Limit)

(a) indicates Primary Drinking Water standard

Table 7
Duplicate Samples
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	MW-13S	DUP (MW-13S)	RPD (%)
Volatile Organics (µg/L)				
No Detections	—	*	*	—
Dissolved Metals (mg/L)				
Arsenic	0.005	*	*	—
Iron	0.20	*	*	—
Manganese	0.001	3.30	3.00	10
Inorganic Parameters (mg/L)				
Alkalinity	5	120	120	0
Bicarbonate Alkalinity	5	120	120	0
Ammonia as Nitrogen	0.10	*	*	—
Total Organic Carbon	1.0	*	*	—
Chloride	4.0	31.4	31.7	1
Nitrate as Nitrogen	0.2	6.0	6.1	2
Total Dissolved Solids	10	270	260	4
Sulfate	0.5	25.7	26.3	2

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Analytes not listed were not present at concentrations exceeding the MRL
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
(*) = not reported at or above the MRL (Method Reporting Limit)
(**) = indicates less than 5X the MRL
(—) = not applicable

Table 8
Water Supply Wells
April 2011 (Second Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Paul Bunyan	Corliss
Volatile Organics (µg/L)			
No Detections	—	*	*
Total Metals (mg/L)			
Iron	0.200	*	*
Manganese	0.001	*	0.003
Zinc	0.010	0.011	0.029
Inorganic Parameters (mg/L)			
Chloride	0.2-4.0	4.4	6.1
Ammonia as Nitrogen	0.10	*	*
Nitrate as Nitrogen	0.5	1.6	1.4
Nitrite as Nitrogen	0.5	*	*
Sulfate	0.5	9.7	8.7
Chemical Oxygen Demand (COD)	20	*	*
Total Organic Carbon (TOC)	1.0	*	*
Color	5.0	*	*

Notes:

Analyses performed by TestAmerica, Arvada, Colorado

Volatile organic compounds not listed were not present at concentrations exceeding the MRL

Color reported in color units

µg/L = micrograms per liter

mg/L = milligrams per liter

(—) = not applicable or not analyzed

(*) = not reported at or above the MRL (Method Reporting Limit)

Third Quarter 2011

Table 1
2011 Performance Monitoring Data
Main Sump and Side Slope Liner Areas
Hidden Valley Landfill, Pierce County, Washington

Month	Cell 1 Monthly Leachate Volume (gallons)	Cell 2 Monthly Leachate Volume (gallons)	Cell 2 Monthly Leakage Flow(a) (gallons/month)	Monthly Rainfall (inches)
January	22438	12017	320	9.90
February	44148	7305	0	4.40
March	37193	3309	1083	12.40
April	41457	6789	421	8.50
May	13670	3399	0	5.80
June	25381	6819	794	3.10
July	5351	6650	0	1.25
August	26908	0	0	0.30
September	1996	9604	605	0.95

Notes:
(a) Leakage is based on the volume of fluid pumped from the leak detection sump as recorded by LRI staff.

Table 2
Water Level Elevations
July 7, 2011
Hidden Valley Landfill, Pierce County, Washington

Well Number	Well Casing Elevation	Depth to Water	Water Level Elevation
MW-10S	460.17	NM	NM
MW-10D	460.69	25.80	434.89
MW-11S	516.44	89.45	426.99
MW-11D	516.56	89.69	426.87
MW-11D(2)	515.53	87.70	427.83
MW-12S	489.94	61.89	428.05
MW-12D	489.97	63.17	426.80
MW-13S	448.81	20.90	427.91
MW-13D	448.94	21.29	427.65
MW-14S	477.95	44.62	433.33
MW-14D	477.98	46.62	431.36
MW-14R	476.84	114.13	362.71
MW-15S	498.76	70.77	427.99
MW-15D	498.52	75.09	423.43
MW-17S	552.44	126.25	426.19
MW-18S	538.40	128.44	409.96
MW-18D	539.00	126.89	412.11
MW-19S	485.71	53.07	432.64
MW-19D	485.82	61.85	423.97
MW-20R	469.43	102.93	366.50
MW-22U	545.92	137.33	408.59
MW-22L	546.07	137.77	408.30
MW-23S	448.34	19.27	429.07
MW-23D	448.25	18.45	429.80
MW-25S	527.80	119.60	408.20
MW-25D	527.52	118.20	409.32
MW-26R	481.81	58.50	423.31
MW-27S	531.81	101.00	430.81
MW-27D	531.92	101.08	430.84
MW-28S	466.87	39.47	427.40
FMW-01	542.59	138.40	404.19
FMW-02	536.40	131.65	404.75
BC-4S	526.68	121.20	405.48
BC-4D	526.94	NM	NM

Notes:
(NM) = not measured

Table 3
Field Parameters
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

Sample ID	Sample Number	Sample Date	Method	pH	Conductance (µS)	Temperature (° C)
MW-10S	HVL-070611-15	07/06/11	DP	6.76	127	12.4
MW-10D	HVL-070611-14	07/06/11	DP	6.87	201	11.2
MW-11S	HVL-070511-08	07/05/11	SP	6.15	184	17.6
MW-11D(2)	HVL-070511-07	07/05/11	SP	6.97	211	17.1
MW-12S	HVL-070811-23	07/08/11	DP	6.40	326	19.2
MW-12D	HVL-070811-22	07/08/11	DP	6.76	270	18.3
MW-13S	HVL-070511-06	07/05/11	SP	6.30	383	20.9
MW-13D	HVL-070611-16	07/06/11	SP	6.50	380	19.4
MW-14S	HVL-070811-21	07/08/11	DP	6.20	107	12.7
MW-14D	HVL-070811-20	07/08/11	DP	6.40	154	12.7
MW-15S	HVL-070611-12	07/06/11	SP	6.24	154	17.2
MW-15D	HVL-070611-13	07/06/11	SP	6.65	280	25.0
MW-17S	HVL-070511-04	07/05/11	SP	6.78	356	21.8
MW-18S	HVL-070611-10	07/06/11	SP	6.28	312	18.0
MW-18D	HVL-070611-11	07/06/11	SP	6.73	275	18.8
MW-23S	HVL-070711-19	07/07/11	SP	6.43	204	12.2
MW-25S	HVL-070611-09	07/06/11	SP	6.53	196	12.9
MW-28S	HVL-070711-18	07/07/11	SP	6.45	212	12.5
FMW-01	HVL-070511-01	07/05/11	SP	6.35	302	15.7
FMW-02	HVL-070511-02	07/05/11	SP	6.43	286	19.5
Water Supply Well, P. Bunyan	HVL-070711-17	07/07/11	GRAB	7.01	250	17.3
Water Supply Well, Corliss	HVL-070711-16	07/07/11	GRAB	6.29	206	20.2

Notes:
The groundwater cleanup level for specific conductance is 700 (µS).
(µS) = microsiemens
(°C) = degrees Celcius
(GRAB) = collected from sampling point
(SP) = submersible bladder-pump (non-dedicated)
(DP) = dedicated bladder-pump

Table 4
Inorganic Parameters (mg/L)
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-23S	MW-25S	MW-28S	FMW-01	FMW-02
			Background																			
Alkalinity	5	—	81	53	100	51	130	160	170	160	64	38	140	60	170	130	150	82	88	64	120	120
Bicarbonate Alkalinity	5	—	81	53	100	51	130	160	170	160	64	38	140	60	170	130	150	82	88	64	120	120
Chloride	0.2-4.0	250[(b)]	6.2	5.4	5.5	10.0	9.5	19.4	21.1	26.3	5.5	4.9	10.4	6.8	18.9	10.5	20.0	12.1	7.4	16.6	20.2	17.6
Ammonia as Nitrogen	0.10	—	*	*	*	0.22	*	1.80	*	0.11	3.00	0.39	1.90	1.40	3.50	*	*	*	*	*	*	0.11
Nitrate as Nitrogen	0.50	10[(a)]	1.40	*	1.80	3.30	1.60	*	*	*	*	0.51	0.57	*	*	1.60	*	*	1.50	4.00	2.10	1.00
Sulfate	0.5-10.0	250[(b)]	16.5	8.3	5.0	19.0	5.1	1.2	17.5	17.7	11.1	9.9	8.6	11.6	6.8	4.6	5.1	13.5	6.1	9.2	12.8	14.6
Total Dissolved Solids	10	500[(b)]	150	84	160	160	190	230	260	270	110	81	200	110	260	220	240	150	160	160	210	230
Total Organic Carbon	1.0	—	*	1.0	*	1.1	*	3.9	1.8	2.1	1.7	1.1	1.6	1.5	2.6	*	2.4	*	*	*	1.4	1.7

Notes:
Parameter concentrations that are greater than cleanup levels are shown in **bold**
Analyses performed by TestAmerica, Arvada, Colorado
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(a) indicates Primary Drinking Water Standard
(b) indicates Secondary Drinking Water Standard

Table 5
Dissolved Metals (mg/L)
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D (Background)	MW-10S (Background)	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-23S	MW-25S	MW-28S	FMW-01	FMW-02
Iron	0.200	0.30[(b)]	*	*	*	*	*	*	*	*	0.280	*	*	*	*	*	*	*	*	*	*	*
Manganese	0.001	0.05[(b)]	*	*	*	0.038	*	**0.490**	*	0.047	**0.560**	**0.220**	**0.430**	**0.380**	**0.940**	0.001	*	**0.068**	0.002	*	0.003	**0.091**

Notes:
Parameter concentrations that are greater than cleanup levels are shown in **bold**
Analyses performed by TestAmerica, Arvada, Colorado
Metals not listed were not present at concentrations exeeding the MRL
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(b) indicates Secondary Drinking Water Standard

Table 6
Volatile Organic Compounds (µg/L)
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-12D	MW-12S	MW-13D	MW-13S	MW-14D	MW-14S	MW-15D	MW-15S	MW-17S	MW-18D	MW-18S	MW-23S	MW-25S	MW-28S	FMW-01	FMW-02
			Background																			
1,4-Dichlorobenzene	0.5	1.82	*	*	*	*	*	1.20	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Tetrachloroethene	0.5	5.0[(a)]	*	*	0.9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Volatile organic compounds not listed were not present at concentrations exeeding the MRL
(µg/L) = micrograms per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(a) indicates Primary Drinking Water standard

Table 7
Duplicate Samples
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	MW-17S	DUP (MW-17S)	RPD (%)
Volatile Organics (µg/L)				
No Detections	—	*	*	—
Dissolved Metals (mg/L)				
Arsenic	0.005	*	*	—
Iron	0.20	*	*	—
Manganese	0.001	0.940	0.940	0
Inorganic Parameters (mg/L)				
Alkalinity	5	170	170	0
Bicarbonate Alkalinity	5	170	170	0
Ammonia as Nitrogen	0.10	3.5	2.7	**26**
Total Organic Carbon	1.0	2.6	2.8	7
Chloride	4.0	18.9	19.1	1
Nitrate as Nitrogen	0.2	*	*	—
Total Dissolved Solids	10	260	260	0
Sulfate	0.5	6.8	6.7	1

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Analytes not listed were not present at concentrations exceeding the MRL
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
(*) = not reported at or above the MRL (Method Reporting Limit)
(**) = indicates less than 5X the MRL
(—) = not applicable

Table 8
Water Supply Wells
July 2011 (Third Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Paul Bunyan	Corliss
Volatile Organics (µg/L)			
No Detections	—	*	*
Total Metals (mg/L)			
Arsenic	0.005	*	*
Iron	0.200	*	*
Manganese	0.001	*	0.005
Zinc	0.010	0.011	0.016
Inorganic Parameters (mg/L)			
Chloride	0.2 - 1.0	4.4	4.9
Ammonia as Nitrogen	0.1	0.3	0.2
Nitrate as Nitrogen	0.5	1.8	1.4
Nitrite as Nitrogen	0.5	*	*
Sulfate	0.5	9.9	8.7
Chemical Oxygen Demand (COD)	20.0	*	*
Total Organic Carbon (TOC)	1.0	*	*
Color	5.0	*	*

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Volatile organic compounds not listed were not present at concentrations exceeding the MRL
Color reported in color units
µg/L = micrograms per liter
mg/L = milligrams per liter
(—) = not applicable or not analyzed
(*) = not reported at or above the MRL (Method Reporting Limit)

Fourth Quarter 2011

Data Validation Report
Fourth Quarter 2011 Groundwater Monitoring
Hidden Valley Landfill

Groundwater samples were collected on October 25 through 27, 2011. Field quality control samples consisted of one duplicate sample, one field blank, and one trip blank.

Holding Times. All analyses were performed within quality control (QC) holding times, in compliance with U.S. Environmental Protection Agency (EPA) standards.

Surrogate Recovery. Surrogate recoveries were within EPA guidelines.

Matrix Spike. All matrix spike recoveries were within EPA guidelines.

Blanks. One field blank, one trip blank and three laboratory blanks were included this quarter. No VOCs, dissolved metals, or inorganic compounds were reported in the laboratory method blanks. Toluene was reported in the field blank at a concentration of 0.92 ug/L. The field blank was prepared from lab-grade distilled water purchased from Integra Chemical, catalogue #W210.10.44. No other detections of chloroform were reported.

Duplicate Samples. A field duplicate sample was collected from well MW-14D. All test results greater than five times the MRL were within 20 percent RPD. Laboratory duplicate analyses were performed on all analytes. All sample RPD results were within EPA guidelines.

Quantitation Limits. The reporting limits were typical, with some ranging values. SCS continues to work with TestAmerica to assure that Method Detection limits are meeting the levels set forth in the Groundwater Compliance Monitoring Plan.

Completeness. Samples were analyzed as requested.

Data Assessment. The data are considered acceptable for entry into the database without qualifiers.

Table 2
Water Level Elevations
October 27, 2011
Hidden Valley Landfill, Pierce County, Washington

Well Number	Well Casing Elevation	Depth to Water	Water Level Elevation
MW-10S	460.17	NM	NM
MW-10D	460.69	33.61	427.08
MW-11S	516.44	96.00	420.44
MW-11D	516.56	96.20	420.36
MW-11D(2)	515.53	96.50	419.03
MW-12S	489.94	NM	NM
MW-12D	489.97	70.46	419.51
MW-13S	448.81	27.54	421.27
MW-13D	448.94	27.87	421.07
MW-14S	477.95	53.20	424.75
MW-14D	477.98	55.26	422.72
MW-14R	476.84	120.45	356.39
MW-15S	498.76	78.52	420.24
MW-15D	498.52	NM	NM
MW-17S	552.44	132.05	420.39
MW-18S	538.40	133.31	405.09
MW-18D	539.00	133.85	405.15
MW-19S	485.71	58.75	426.96
MW-19D	485.82	60.85	424.97
MW-20R	469.43	109.25	360.18
MW-22U	545.92	137.34	408.58
MW-22L	546.07	144.38	401.69
MW-23S	448.34	22.88	425.46
MW-23D	448.25	28.62	419.63
MW-25S	527.80	128.56	399.24
MW-25D	527.52	126.32	401.20
MW-26R	481.81	67.45	414.36
MW-27S	531.81	111.38	420.43
MW-27D	531.92	110.85	421.07
MW-28S	466.87	NM	NM
FMW-01	542.59	146.96	395.63
FMW-02	536.40	138.95	397.45
BC-4S	526.68	127.80	398.88
BC-4D	526.94	NM	NM

Notes:
(NM) = not measured

Table 3
Field Parameters
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

Sample ID	Sample Number	Sample Date	Method	pH	Conductance (µS)	Temperature (° C)
MW-10S	HVL-102511-08	10/25/11	DP	6.47	139	12.5
MW-10D	HVL-102511-07	10/25/11	DP	6.46	131	12.3
MW-11S	HVL-102511-06	10/25/11	SP	5.97	209	16.0
MW-11D(2)	HVL-102611-13	10/26/11	SP	6.62	213	14.3
MW-13S	HVL-102511-04	10/25/11	SP	6.25	351	19.5
MW-13D	HVL-102511-05	10/25/11	DP	6.42	331	18.9
MW-14S	HVL-102611-11	10/26/11	DP	5.60	292	12.6
MW-14D	HVL-102611-09	10/26/11	DP	6.19	187	12.1
MW-17S	HVL-102511-03	10/25/11	SP	6.25	360	20.2
FMW-01	HVL-102511-01	10/25/11	SP	6.18	305	11.2
FMW-02	HVL-102511-02	10/25/11	SP	6.07	330	15.2
Water Supply Well, P. Bunyan	HVL-102711-15	10/27/11	Grab	6.43	246	11.8
Water Supply Well, Corliss	HVL-102711-14	10/27/11	Grab	5.73	198	13.6

Notes:
The groundwater cleanup level for specific conductance is 700 (µS).
(µS) = microsiemens
(°C) = degrees Celcius
(GRAB) = collected from sampling point
(SP) = submersible bladder-pump (non-dedicated)
(DP) = dedicated bladder-pump

Table 4
Inorganic Parameters (mg/L)
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	FMW-01	FMW-02
			Background										
Alkalinity	5	—	57	58	110	59	150	150	71	69	180	120	140
Bicarbonate Alkalinity	5	—	57	58	110	59	150	150	71	69	180	120	140
Chloride	0.2-4.0	250(b)	4.9	5.3	5.5	18.7	15.9	20.0	9.5	21.5	16.2	21.2	18.3
Ammonia as Nitrogen	0.10	—	*	*	*	0.16	0.12	0.15	2.30	0.44	3.10	*	0.23
Nitrate as Nitrogen	0.50	10(a)	*	0.67	1.80	3.30	*	*	*	*	*	1.50	3.10
Sulfate	0.5-10.0	250(b)	7.9	9.6	5.8	11.8	19.4	21.8	12.6	10.0	4.9	16.3	7.3
Total Dissolved Solids	10	500(b)	91	99	150	150	220	240	120	140	220	190	220
Total Organic Carbon	1.0	—	*	*	*	1.1	1.4	1.9	1.4	1.6	2.6	1.2	2.1

Notes:
Parameter concentrations that are greater than cleanup levels are shown in **bold**
Analyses performed by TestAmerica, Arvada, Colorado
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(a) indicates Primary Drinking Water Standard
(b) indicates Secondary Drinking Water Standard

Table 5
Dissolved Metals (mg/L)
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	FMW-01	FMW-02
			Background										
Iron	0.200	0.30[(b)]	*	*	*	*	*	*	**1.5**	*	*	*	*
Manganese	0.001	0.05[(b)]	*	*	*	0.038	**0.240**	**0.330**	**0.840**	**0.390**	**0.740**	*	**0.090**

Notes:
Parameter concentrations that are greater than cleanup levels are shown in **bold**
Analyses performed by TestAmerica, Arvada, Colorado
Metals not listed were not present at concentrations exeeding the MRL
(mg/L) = milligrams per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(b) indicates Secondary Drinking Water Standard

Table 6
Volatile Organic Compounds (μg/L)
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Cleanup Levels	MW-10D	MW-10S	MW-11D(2)	MW-11S	MW-13D	MW-13S	MW-14D	MW-14S	MW-17S	FMW-01	FMW-02
			Background										
Acetone		—	*	*	*	*	*	10.00	*	*	39.00	*	*
Tetrachloroethene	0.5	5.0[(a)]	*	*	0.8	*	*	*	*	*	*	*	*

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Volatile organic compounds not listed were not present at concentrations exeeding the MRL
Freon 12 = Dichlorodifluoromethane
(μg/L) = micrograms per liter
(*) indicates not reported at or above the MRL (Method Reporting Limit)
(—) indicates not analyzed or not applicable
(a) indicates Primary Drinking Water standard

Table 7
Duplicate Samples
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	MW-14D	DUP (MW-14D)	RPD (%)
Volatile Organics (µg/L)				
No Detections	—	*	*	—
Dissolved Metals (mg/L)				
Arsenic	0.005	*	*	—
Iron	0.20	1.500	1.400	7
Manganese	0.001	0.840	0.850	1
Inorganic Parameters (mg/L)				
Alkalinity	5	71	72	1
Bicarbonate Alkalinity	5	71	72	1
Ammonia as Nitrogen	0.10	2.3	2.4	4
Total Organic Carbon	1.0	1.4	1.4	0
Chloride	4.0	9.5	9.6	1
Nitrate as Nitrogen	0.2	*	*	—
Total Dissolved Solids	10	120	130	8
Sulfate	0.5	12.6	12.6	0

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Analytes not listed were not present at concentrations exceeding the MRL
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
(*) = not reported at or above the MRL (Method Reporting Limit)
(—) = not applicable

Table 8
Water Supply Wells
October 2011 (Fourth Quarter) Groundwater Monitoring
Hidden Valley Landfill, Pierce County, Washington

	MRL	Paul Bunyan	Corliss
Volatile Organics (µg/L)			
No Detections	—	*	*
Total Metals (mg/L)			
Arsenic	0.005	*	*
Iron	0.200	*	*
Manganese	0.001	*	0.019
Zinc	0.010	0.013	0.067
Inorganic Parameters (mg/L)			
Chloride	0.2 - 1.0	4.5	5.5
Ammonia as Nitrogen	0.1	*	*
Nitrate as Nitrogen	0.5	1.7	1.2
Nitrite as Nitrogen	0.5	*	*
Sulfate	0.5	9.6	10.1
Chemical Oxygen Demand (COD)	20.0	*	*
Total Organic Carbon (TOC)	1.0	*	*
Color	5.0	*	*

Notes:
Analyses performed by TestAmerica, Arvada, Colorado
Volatile organic compounds not listed were not present at concentrations exceeding the MRL
Color reported in color units
µg/L = micrograms per liter
mg/L = milligrams per liter
(—) = not applicable or not analyzed
(*) = not reported at or above the MRL (Method Reporting Limit)

WELL Sample Number	Date	Note	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead
FMW-01													
HVL-010511-09	1/5/2011				0.015 L							0.200 L	
HVL-041911-01	4/19/2011				0.015 L							0.200 L	
HVL-070511-01	7/5/2011				0.015 L							0.200 L	
HVL-102511-01	10/25/2011				0.015 L							0.200 L	
FMW-02													
HVL-010511-10	1/5/2011				0.015 L							0.430	
HVL-042011-08	4/20/2011				0.015 L							0.200 L	
HVL-070511-02	7/5/2011				0.015 L							0.200 L	
HVL-102511-02	10/25/2011				0.015 L							0.200 L	
MW-10D													
HVL-010411-03	1/4/2011				0.015 L							0.200 L	
HVL-042011-11	4/20/2011				0.015 L							0.200 L	
HVL-070611-14	7/6/2011				0.015 L							0.200 L	
HVL-102511-07	10/25/2011				0.015 L							0.200 L	
MW-10S													
HVL-010411-04	1/4/2011				0.015 L							0.200 L	
HVL-042011-10	4/20/2011				0.015 L							0.200 L	
HVL-070611-15	7/6/2011				0.015 L							0.200 L	
HVL-102511-08	10/25/2011				0.015 L							0.200 L	
MW-11D(2)													
HVL-010511-12	1/5/2011				0.015 L							0.200 L	
HVL-041911-03	4/19/2011				0.015 L							0.200 L	
HVL-070511-07	7/5/2011				0.015 L							0.200 L	
HVL-102611-13	10/26/2011				0.015 L							0.200 L	
MW-11S													
HVL-010511-11	1/5/2011				0.015 L							0.200 L	
HVL-041911-02	4/19/2011				0.015 L							0.200 L	
HVL-070511-08	7/5/2011				0.015 L							0.200 L	
HVL-102511-06	10/25/2011				0.015 L							0.200 L	
MW-12D													
HVL-010411-05	1/4/2011				0.015 L							0.200 L	
HVL-070811-22	7/8/2011				0.015 L							0.200 L	
MW-12S													
HVL-010411-06	1/4/2011				0.015 L							0.200 L	

WELL Sample Number	Date	Note	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead
MW-12S													
HVL-070811-23	7/8/2011				0.015 L							0.200 L	
MW-13D													
HVL-010411-07	1/4/2011				0.015 L							0.200 L	
HVL-041911-07	4/19/2011				0.015 L							0.200 L	
HVL-070611-16	7/6/2011				0.015 L							0.200 L	
HVL-102511-05	10/25/2011				0.015 L							0.200 L	
MW-13S													
HVL-010511-13	1/5/2011				0.015 L							0.200 L	
HVL-041911-05	4/19/2011				0.015 L							0.200 L	
HVL-070511-06	7/5/2011				0.015 L							0.200 L	
HVL-102511-04	10/25/2011				0.015 L							0.200 L	
MW-14D													
HVL-010411-01	1/4/2011				0.015 L							2.100	
HVL-042111-12	4/21/2011				0.015 L							0.200 L	
HVL-070811-20	7/8/2011				0.015 L							0.280	
HVL-102611-09	10/26/2011				0.015 L							1.500	
MW-14R													
HVL-010511-18	1/5/2011				0.015 L							0.200 L	
MW-14S													
HVL-010411-02	1/4/2011				0.015 L							0.200 L	
HVL-042111-13	4/21/2011				0.015 L							0.200 L	
HVL-070811-21	7/8/2011				0.015 L							0.200 L	
HVL-102611-11	10/26/2011				0.015 L							0.200 L	
MW-15D													
HVL-010511-14	1/5/2011				0.015 L							0.200 L	
HVL-070611-13	7/6/2011				0.015 L							0.200 L	
MW-15S													
HVL-010511-15	1/5/2011				0.015 L							0.200 L	
HVL-070611-12	7/6/2011				0.015 L							0.200 L	
MW-17S													
HVL-010511-17	1/5/2011				0.015 L							0.200 L	
HVL-042011-09	4/20/2011				0.015 L							0.200 L	
HVL-070511-04	7/5/2011				0.015 L							0.200 L	

WELL Sample Number	Date	Note	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead
MW-17S													
HVL-102511-03	10/25/2011				0.015 L							0.200 L	
MW-18D													
HVL-010711-28	1/7/2011				0.015 L							0.200 L	
HVL-070611-11	7/6/2011				0.015 L							0.200 L	
MW-18S													
HVL-010711-27	1/7/2011				0.015 L							0.200 L	
HVL-070611-10	7/6/2011				0.015 L							0.200 L	
MW-20R													
HVL-010711-30	1/7/2011				0.015 L							0.200 L	
MW-23S													
HVL-010611-24	1/6/2011				0.015 L							0.200 L	
HVL-070711-19	7/7/2011				0.015 L							0.200 L	
MW-25S													
HVL-010611-22	1/6/2011				0.015 L							0.200 L	
HVL-070611-09	7/6/2011				0.015 L							0.200 L	
MW-26R													
HVL-010711-26	1/7/2011				0.015 L							0.630	
MW-28S													
HVL-010611-25	1/6/2011				0.015 L							0.200 L	
HVL-042111-14	4/21/2011				0.015 L							0.200 L	
HVL-070711-18	7/7/2011				0.015 L							0.200 L	
QC, F-BLANK													
HVL-010511-16	1/5/2011				0.015 L							0.020 L	
HVL-041911-04	4/19/2011				0.015 L							0.200 L	
HVL-070511-03	7/5/2011				0.015 L							0.200 L	
HVL-102611-12	10/26/2011				0.015 L							0.200 L	

Hidden Valley Landfill
Groundwater Chemistry
Dissolved Metals

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WELL Sample Number	Date	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cobalt
FMW-01													
HVL-010511-09	1/5/2011		0.001 L										
HVL-041911-01	4/19/2011		0.001 L										
HVL-070511-01	7/5/2011		0.003										
HVL-102511-01	10/25/2011		0.001 L										
FMW-02													
HVL-010511-10	1/5/2011		0.120										
HVL-042011-08	4/20/2011		0.084										
HVL-070511-02	7/5/2011		0.091										
HVL-102511-02	10/25/2011		0.090										
MW-10D													
HVL-010411-03	1/4/2011		0.001 L										
HVL-042011-11	4/20/2011		0.001 L										
HVL-070611-14	7/6/2011		0.001 L										
HVL-102511-07	10/25/2011		0.001 L										
MW-10S													
HVL-010411-04	1/4/2011		0.001 L										
HVL-042011-10	4/20/2011		0.001 L										
HVL-070611-15	7/6/2011		0.001 L										
HVL-102511-08	10/25/2011		0.001 L										
MW-11D(2)													
HVL-010511-12	1/5/2011		0.001 L										
HVL-041911-03	4/19/2011		0.001 L										
HVL-070511-07	7/5/2011		0.001 L										
HVL-102611-13	10/26/2011		0.001 L										
MW-11S													
HVL-010511-11	1/5/2011		0.001 L										
HVL-041911-02	4/19/2011		0.007										
HVL-070511-08	7/5/2011		0.038										
HVL-102511-06	10/25/2011		0.038										
MW-12D													
HVL-010411-05	1/4/2011		0.001 L										
HVL-070811-22	7/8/2011		0.001 L										
MW-12S													
HVL-010411-06	1/4/2011		0.200										

WELL Sample Number	Date	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cobalt
MW-12S													
HVL-070811-23	7/8/2011		0.490										
MW-13D													
HVL-010411-07	1/4/2011		0.001 L										
HVL-041911-07	4/19/2011		0.001 L										
HVL-070611-16	7/6/2011		0.001 L										
HVL-102511-05	10/25/2011		0.240										
MW-13S													
HVL-010511-13	1/5/2011		0.003										
HVL-041911-05	4/19/2011		0.003										
HVL-070511-06	7/5/2011		0.047										
HVL-102511-04	10/25/2011		0.330										
MW-14D													
HVL-010411-01	1/4/2011		0.760										
HVL-042111-12	4/21/2011		0.510										
HVL-070811-20	7/8/2011		0.560										
HVL-102611-09	10/26/2011		0.840										
MW-14R													
HVL-010511-18	1/5/2011		0.130										
MW-14S													
HVL-010411-02	1/4/2011		0.012										
HVL-042111-13	4/21/2011		0.056										
HVL-070811-21	7/8/2011		0.220										
HVL-102611-11	10/26/2011		0.390										
MW-15D													
HVL-010511-14	1/5/2011		0.340										
HVL-070611-13	7/6/2011		0.430										
MW-15S													
HVL-010511-15	1/5/2011		0.840										
HVL-070611-12	7/6/2011		0.380										
MW-17S													
HVL-010511-17	1/5/2011		1.200										
HVL-042011-09	4/20/2011		1.300										
HVL-070511-04	7/5/2011		0.940										

Hidden Valley Landfill
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WELL Sample Number	Date	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cobalt
MW-17S													
HVL-102511-03	10/25/2011		0.740										
MW-18D													
HVL-010711-28	1/7/2011		0.001 L										
HVL-070611-11	7/6/2011		0.001										
MW-18S													
HVL-010711-27	1/7/2011		0.001 L										
HVL-070611-10	7/6/2011		0.001 L										
MW-20R													
HVL-010711-30	1/7/2011		0.001 L										
MW-23S													
HVL-010611-24	1/6/2011		0.010										
HVL-070711-19	7/7/2011		0.068										
MW-25S													
HVL-010611-22	1/6/2011		0.001 L										
HVL-070611-09	7/6/2011		0.002										
MW-26R													
HVL-010711-26	1/7/2011		0.280										
MW-28S													
HVL-010611-25	1/6/2011		0.010										
HVL-042111-14	4/21/2011		0.001 L										
HVL-070711-18	7/7/2011		0.001 L										
QC, F-BLANK													
HVL-010511-16	1/5/2011		0.001 L										
HVL-041911-04	4/19/2011		0.001 L										
HVL-070511-03	7/5/2011		0.001 L										
HVL-102611-12	10/26/2011		0.001 L										

Hidden Valley Landfill
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WELL Sample Number	Date	Note	Lab pH	Lab Cond. (umho/cm)	Total Alkalinity (mg/L as CaCO3)	Bicarbonate Alkalinity (mg/L as CaCO3)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia as N (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	TKN as N (mg/L)
FMW-01												
HVL-010511-09	1/5/2011				110.0	110.0	13.9	15.8	0.10 L	1.70		
HVL-041911-01	4/19/2011				100.0	100.0	19.1	17.9	0.13	3.40		
HVL-070511-01	7/5/2011				120.0	120.0	20.2	12.8	0.10 L	2.10		
HVL-102511-01	10/25/2011				120.0	120.0	21.2	16.3	0.10 L	1.50		
FMW-02												
HVL-010511-10	1/5/2011				130.0	130.0	15.0	16.5	0.23	24.00		
HVL-042011-08	4/20/2011				160.0	160.0	23.1	19.1	0.11	9.20		
HVL-070511-02	7/5/2011				120.0	120.0	17.6	14.6	0.11	1.00		
HVL-102511-02	10/25/2011				140.0	140.0	18.3	7.3	0.23	3.10		
Leachate, East Area												
HVL-010511-19	1/5/2011				4600.0	4600.0	1680.0	414.0	400.00	2.50 L	2.50 L	
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011				6900.0	6900.0	3000.0	1.8	570.00	2.50 L	2.50 L	
MW-10D												
HVL-010411-03	1/4/2011				140.0	140.0	5.1	7.8	0.10 L	1.70		
HVL-042011-11	4/20/2011				54.0	54.0	6.0	9.9	0.10 L	1.10		
HVL-070611-14	7/6/2011				81.0	81.0	6.2	16.5	0.10 L	1.40		
HVL-102511-07	10/25/2011				57.0	57.0	4.9	7.9	0.10 L	0.50 L		
MW-10S												
HVL-010411-04	1/4/2011				49.0	49.0	6.4	14.8	0.10 L	1.90		
HVL-042011-10	4/20/2011				47.0	47.0	5.6	8.6	0.10 L	0.96		
HVL-070611-15	7/6/2011				53.0	53.0	5.4	8.3	0.10 L	0.50 L		
HVL-102511-08	10/25/2011				58.0	58.0	5.3	9.6	0.10 L	0.67		
MW-11D(2)												
HVL-010511-12	1/5/2011				100.0	100.0	10.1	5.1	0.10 L	2.10		
HVL-041911-03	4/19/2011				110.0	110.0	5.9	5.4	0.12	2.00		
HVL-070511-07	7/5/2011				100.0	100.0	5.5	5.0	0.10 L	1.80		
HVL-102611-13	10/26/2011				110.0	110.0	5.5	5.8	0.10 L	1.80		
MW-11S												
HVL-010511-11	1/5/2011				54.0	54.0	14.4	24.4	0.10 L	17.00		
HVL-041911-02	4/19/2011				45.0	45.0	13.2	23.3	0.17	10.00		
HVL-070511-08	7/5/2011				51.0	51.0	10.0	19.0	0.22	3.30		
HVL-102511-06	10/25/2011				59.0	59.0	18.7	11.8	0.16	3.30		

WELL Sample Number	Date	Note	Lab pH	Lab Cond. (umho/cm)	Total Alkalinity (mg/L as CaCO3)	Bicarbonate Alkalinity (mg/L as CaCO3)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia as N (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	TKN as N (mg/L)
MW-12D												
HVL-010411-05	1/4/2011				160.0	160.0	11.7	5.3	0.10 L	1.30		
HVL-070811-22	7/8/2011				130.0	130.0	9.5	5.1	0.10 L	1.60		
MW-12S												
HVL-010411-06	1/4/2011				57.0	57.0	18.5	9.5	0.44	18.00		
HVL-070811-23	7/8/2011				160.0	160.0	19.4	1.2	1.80	0.50 L		
MW-13D												
HVL-010411-07	1/4/2011				130.0	130.0	13.1	14.1	0.10 L	1.70		
HVL-041911-07	4/19/2011				150.0	150.0	17.4	15.4	0.10 L	1.70		
HVL-070611-16	7/6/2011				170.0	170.0	21.1	17.5	0.10 L	0.50 L		
HVL-102511-05	10/25/2011				150.0	150.0	15.9	19.4	0.12	0.50 L		
MW-13S												
HVL-010511-13	1/5/2011				86.0	86.0	11.1	17.5	0.10 L	3.30		
HVL-041911-05	4/19/2011				120.0	120.0	31.4	25.7	0.24	6.00		
HVL-070511-06	7/5/2011				160.0	160.0	26.3	17.7	0.11	0.50 L		
HVL-102511-04	10/25/2011				150.0	150.0	20.0	21.8	0.15	0.50 L		
MW-14D												
HVL-010411-01	1/4/2011				71.0	71.0	6.0	10.1	2.90	0.50 L		
HVL-042111-12	4/21/2011				56.0	56.0	6.4	9.4	1.60	0.50 L		
HVL-070811-20	7/8/2011				64.0	64.0	5.5	11.1	3.00	0.50 L		
HVL-102611-09	10/26/2011				71.0	71.0	9.5	12.6	2.30	0.50 L		
MW-14R												
HVL-010511-18	1/5/2011				48.0	48.0	1.8	3.8	0.10 L	0.50 L		
MW-14S												
HVL-010411-02	1/4/2011				36.0	36.0	4.0	6.5	0.10 L	1.40		
HVL-042111-13	4/21/2011				37.0	37.0	6.6	8.4	0.18	1.70		
HVL-070811-21	7/8/2011				38.0	38.0	4.9	9.9	0.39	0.51		
HVL-102611-11	10/26/2011				69.0	69.0	21.5	10.0	0.44	0.50 L		
MW-15D												
HVL-010511-14	1/5/2011				150.0	150.0	15.7	10.4	0.10 L	0.50 L		
HVL-070611-13	7/6/2011				140.0	140.0	10.4	8.6	1.90	0.57		
MW-15S												
HVL-010511-15	1/5/2011				83.0	83.0	18.3	10.8	2.90	3.60		
HVL-070611-12	7/6/2011				60.0	60.0	6.8	11.6	1.40	0.50 L		

WELL Sample Number	Date	Note	Lab pH	Lab Cond. (umho/cm)	Total Alkalinity (mg/L as CaCO3)	Bicarbonate Alkalinity (mg/L as CaCO3)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia as N (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	TKN as N (mg/L)
MW-17S												
HVL-010511-17	1/5/2011				110.0	110.0	20.8	9.8	2.60	47.00		
HVL-042011-09	4/20/2011				180.0	180.0	25.1	9.0	1.90	4.40		
HVL-070511-04	7/5/2011				170.0	170.0	18.9	6.8	3.50	0.50 L		
HVL-102511-03	10/25/2011				180.0	180.0	16.2	4.9	3.10	0.50 L		
MW-18D												
HVL-010711-28	1/7/2011				130.0	130.0	11.1	5.1	0.10 L	1.60		
HVL-070611-11	7/6/2011				130.0	130.0	10.5	4.6	0.10 L	1.60		
MW-18S												
HVL-010711-27	1/7/2011				140.0	140.0	13.4	10.1	0.10 L	9.50		
HVL-070611-10	7/6/2011				150.0	150.0	20.0	5.1	0.10 L	0.50 L		
MW-20R												
HVL-010711-30	1/7/2011				47.0	47.0	1.8	3.2	0.10 L	0.50 L		
MW-23S												
HVL-010611-24	1/6/2011				74.0	74.0	8.8	14.6	0.10 L	0.50 L		
HVL-070711-19	7/7/2011				82.0	82.0	12.1	13.5	0.10 L	0.50 L		
MW-25S												
HVL-010611-22	1/6/2011				120.0	120.0	9.8	7.4	0.10 L	1.70		
HVL-070611-09	7/6/2011				88.0	88.0	7.4	6.1	0.10 L	1.50		
MW-26R												
HVL-010711-26	1/7/2011				61.0	61.0	3.8	7.3	0.10 L	0.50 L		
MW-28S												
HVL-010611-25	1/6/2011				74.0	74.0	6.3	8.4	0.10 L	0.62		
HVL-042111-14	4/21/2011				65.0	65.0	7.6	3.8	0.10	0.99		
HVL-070711-18	7/7/2011				64.0	64.0	16.6	9.2	0.10 L	4.00		
QC, F-BLANK												
HVL-010511-16	1/5/2011				5.0 L	5.0 L	0.9	0.5 L	0.10 L	0.50 L		
HVL-041911-04	4/19/2011				5.0 L	5.0 L	0.2 L	0.5 L	0.18	0.50 L		
HVL-070511-03	7/5/2011				5.0 L	5.0 L	0.2 L	0.5 L	0.10 L	0.50 L		
HVL-102611-12	10/26/2011				5.0 L	5.0 L	0.2 L	0.5 L	0.10 L	0.50 L		
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011				78.0	78.0	6.6	9.9	0.25	1.50	0.50 L	
HVL-042111-16	4/21/2011						6.1	8.7	0.10 L	1.40	0.50 L	

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WELL Sample Number	Date	Note	Lab pH	Lab Cond. (umho/cm)	Total Alkalinity (mg/L as CaCO3)	Bicarbonate Alkalinity (mg/L as CaCO3)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia as N (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	TKN as N (mg/L)
Water Supply Well, Corliss												
HVL-070711-16	7/7/2011						4.9	8.7	0.23	1.40	0.50 L	
HVL-102711-14	10/27/2011						5.5	10.1	0.10 L	1.20	0.50 L	
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011						4.7	9.8	0.10 L	1.80	0.50 L	
HVL-042111-15	4/21/2011						4.4	9.7	0.10 L	1.60	0.50 L	
HVL-070711-17	7/7/2011						4.4	9.9	0.34	1.80	0.50 L	
HVL-102711-15	10/27/2011						4.5	9.6	0.10 L	1.70	0.50 L	

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WELL Sample Number	Date	Fluoride (mg/L)	COD (mg/L)	Cyanide (mg/L)	TDS (mg/L)	TOC (mg/L)	TOX (mg/L)	Total Phenols (mg/L)	MBAS (mg/L)
FMW-01									
HVL-010511-09	1/5/2011				180	1.2			
HVL-041911-01	4/19/2011				180	1.2			
HVL-070511-01	7/5/2011				210	1.4			
HVL-102511-01	10/25/2011				190	1.2			
FMW-02									
HVL-010511-10	1/5/2011				320	1.4			
HVL-042011-08	4/20/2011				300	1.7			
HVL-070511-02	7/5/2011				230	1.7			
HVL-102511-02	10/25/2011				220	2.1			
Leachate, East Area									
HVL-010511-19	1/5/2011		2100	0.01 L	6700	560.0			
Leak Detection, Side Slope									
HVL-010711-20	1/7/2011		2600	0.03	8600	820.0			
MW-10D									
HVL-010411-03	1/4/2011				160	1.0 L			
HVL-042011-11	4/20/2011				99	1.0 L			
HVL-070611-14	7/6/2011				150	1.0 L			
HVL-102511-07	10/25/2011				91	1.0 L			
MW-10S									
HVL-010411-04	1/4/2011				110	1.0 L			
HVL-042011-10	4/20/2011				88	1.0 L			
HVL-070611-15	7/6/2011				84	1.0			
HVL-102511-08	10/25/2011				99	1.0 L			
MW-11D(2)									
HVL-010511-12	1/5/2011				150	1.0 L			
HVL-041911-03	4/19/2011				140	1.0 L			
HVL-070511-07	7/5/2011				160	1.0 L			
HVL-102611-13	10/26/2011				150	1.0 L			
MW-11S									
HVL-010511-11	1/5/2011				220	1.0 L			
HVL-041911-02	4/19/2011				180	1.2			
HVL-070511-08	7/5/2011				160	1.1			
HVL-102511-06	10/25/2011				150	1.1			

WELL Sample Number	Date	Fluoride (mg/L)	COD (mg/L)	Cyanide (mg/L)	TDS (mg/L)	TOC (mg/L)	TOX (mg/L)	Total Phenols (mg/L)	MBAS (mg/L)
MW-12D									
HVL-010411-05	1/4/2011				220	1.0 L			
HVL-070811-22	7/8/2011				190	1.0 L			
MW-12S									
HVL-010411-06	1/4/2011				250	1.7			
HVL-070811-23	7/8/2011				230	3.9			
MW-13D									
HVL-010411-07	1/4/2011				200	1.0 L			
HVL-041911-07	4/19/2011				210	1.0			
HVL-070611-16	7/6/2011				260	1.8			
HVL-102511-05	10/25/2011				220	1.4			
MW-13S									
HVL-010511-13	1/5/2011				160	1.0 L			
HVL-041911-05	4/19/2011				270	1.6			
HVL-070511-06	7/5/2011				270	2.1			
HVL-102511-04	10/25/2011				240	1.9			
MW-14D									
HVL-010411-01	1/4/2011				120	1.9			
HVL-042111-12	4/21/2011				99	1.4			
HVL-070811-20	7/8/2011				110	1.7			
HVL-102611-09	10/26/2011				120	1.4			
MW-14R									
HVL-010511-18	1/5/2011				110	1.0 L			
MW-14S									
HVL-010411-02	1/4/2011				86	1.6			
HVL-042111-13	4/21/2011				85	1.2			
HVL-070811-21	7/8/2011				81	1.1			
HVL-102611-11	10/26/2011				140	1.6			
MW-15D									
HVL-010511-14	1/5/2011				200	1.3			
HVL-070611-13	7/6/2011				200	1.6			
MW-15S									
HVL-010511-15	1/5/2011				160	2.0			
HVL-070611-12	7/6/2011				110	1.5			

WELL Sample Number	Date	Fluoride (mg/L)	COD (mg/L)	Cyanide (mg/L)	TDS (mg/L)	TOC (mg/L)	TOX (mg/L)	Total Phenols (mg/L)	MBAS (mg/L)
MW-17S									
HVL-010511-17	1/5/2011				440	1.7			
HVL-042011-09	4/20/2011				280	2.8			
HVL-070511-04	7/5/2011				260	2.6			
HVL-102511-03	10/25/2011				220	2.6			
MW-18D									
HVL-010711-28	1/7/2011				190	1.0 L			
HVL-070611-11	7/6/2011				220	1.0 L			
MW-18S									
HVL-010711-27	1/7/2011				240	1.5			
HVL-070611-10	7/6/2011				240	2.4			
MW-20R									
HVL-010711-30	1/7/2011				90	1.0 L			
MW-23S									
HVL-010611-24	1/6/2011				130	1.0 L			
HVL-070711-19	7/7/2011				150	1.0 L			
MW-25S									
HVL-010611-22	1/6/2011				170	1.0 L			
HVL-070611-09	7/6/2011				160	1.0 L			
MW-26R									
HVL-010711-26	1/7/2011				110	1.0 L			
MW-28S									
HVL-010611-25	1/6/2011				120	1.0 L			
HVL-042111-14	4/21/2011				110	1.0 L			
HVL-070711-18	7/7/2011				160	1.0 L			
QC, F-BLANK									
HVL-010511-16	1/5/2011				10 L	1.0 L			
HVL-041911-04	4/19/2011				10 L	1.0 L			
HVL-070511-03	7/5/2011				10 L	1.0 L			
HVL-102611-12	10/26/2011				10 L	1.0 L			
Water Supply Well, Corliss									
HVL-010711-29	1/7/2011		20 L			1.0 L			
HVL-042111-16	4/21/2011		20 L			1.0 L			

WELL Sample Number	Date	Fluoride (mg/L)	COD (mg/L)	Cyanide (mg/L)	TDS (mg/L)	TOC (mg/L)	TOX (mg/L)	Total Phenols (mg/L)	MBAS (mg/L)
Water Supply Well, Corliss									
HVL-070711-16	7/7/2011		20 L			1.0 L			
HVL-102711-14	10/27/2011		20 L			1.0 L			
Water Supply Well, P. Bunyan									
HVL-010611-23	1/6/2011		20 L			1.0 L			
HVL-042111-15	4/21/2011		20 L			1.0 L			
HVL-070711-17	7/7/2011		20 L			1.0 L			
HVL-102711-15	10/27/2011		20 L			1.0 L			

Hidden Valley Landfill
Groundwater Chemistry
Total Metals

WELL Sample Number	Date	Note	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead
Leachate, East Area												
HVL-010511-19	1/5/2011		0.0040 L	0.018	0.450	0.001 L	0.005 L	130.0	0.100	0.004 L	5.200	0.002 L
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011		0.0970	0.160	0.390	0.001 L	0.005 L	12.0	0.052	0.024	3.700	0.005
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011			0.005 L							0.200 L	
HVL-042111-16	4/21/2011		0.0020 L	0.005 L	0.003	0.001 L	0.005 L	20.0	0.002 L	0.009	0.200 L	0.003
HVL-070711-16	7/7/2011		0.0020 L	0.005 L	0.003	0.001 L	0.005 L	20.0	0.002 L	0.003	0.200 L	0.001 L
HVL-102711-14	10/27/2011		0.0020 L	0.005 L	0.004	0.001 L	0.005 L	23.0	0.002 L	0.006	0.020 L	0.001 L
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011			0.005 L							0.200 L	
HVL-042111-15	4/21/2011		0.0020 L	0.005 L	0.004	0.001 L	0.005 L	27.0	0.002 L	0.010	0.200 L	0.001 L
HVL-070711-17	7/7/2011		0.0020 L	0.005 L	0.004	0.005 L	0.005 L	26.0	0.005 L	0.015	0.020 L	0.040 L
HVL-102711-15	10/27/2011		0.0020 L	0.005 L	0.004	0.001 L	0.005 L	28.0	0.002 L	0.014	0.020 L	0.001 L

Hidden Valley Landfill
Groundwater Chemistry
Total Metals

WELL Sample Number	Date	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cobalt
Leachate, East Area												
HVL-010511-19	1/5/2011	50.00	2.000	0.27	270.0	0.010 L	0.01 L	2500.0	0.020 L	0.090	0.028	0.016
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011	19.00	0.190	0.35	380.0	0.010 L	0.01 L	4600.0	0.002 L	0.120	0.039	0.015
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011		0.006								0.049	
HVL-042111-16	4/21/2011	7.70	0.003	0.02 L	3.0 L	0.005 L	0.01 L	6.8	0.001 L	0.010 L	0.029	0.010 L
HVL-070711-16	7/7/2011	7.30	0.004	0.00 L	3.0 L	0.005 L	0.01 L	7.5	0.005 L	0.010 L	0.016	0.010 L
HVL-102711-14	10/27/2011	8.30	0.019	0.00	3.0 L	0.005 L	0.01 L	7.9	0.001 L	0.010 L	0.067	0.010 L
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011		0.001 L								0.017	
HVL-042111-15	4/21/2011	13.00	0.001 L	0.00 L	3.0 L	0.005 L	0.01 L	8.4	0.001 L	0.010 L	0.010 L	0.010 L
HVL-070711-17	7/7/2011	12.00	0.005 L	0.02 L	3.1	0.010 L	0.01 L	8.5	0.005 L	0.010 L	0.011	0.010 L
HVL-102711-15	10/27/2011	12.00	0.001 L	0.00 L	3.0	0.005 L	0.01 L	8.4	0.001 L	0.010 L	0.013	0.010 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Note	Dichloro-difluoro-methane (Freon 12)	Chloro-methane	Vinyl Chloride	Bromo-methane	Chloro-ethane	Trichloro-fluoro-methane (Freon 11)	Freon 113	Acetone	1,1-Di-chloro-ethene	Carbon Disulfide	Methylene Chloride
FMW-01													
HVL-010511-09	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-01	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-01	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-01	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
FMW-02													
HVL-010511-10	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042011-08	4/20/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-02	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-02	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
Leachate, East Area													
HVL-010511-19	1/5/2011		8.0 L	2.0 L	2.0 L	2.0 L	2.0 L	2.0 L		40.0 L	2.0 L	4.6	8.0 L
Leak Detection, Side Slope													
HVL-010711-20	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		18.0	0.5 L	0.5 L	2.0 L
MW-10D													
HVL-010411-03	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042011-11	4/20/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-14	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-07	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-10S													
HVL-010411-04	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042011-10	4/20/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-15	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-08	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-11D(2)													
HVL-010511-12	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-03	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-07	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102611-13	10/26/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-11S													
HVL-010511-11	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-02	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-08	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-06	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L

WELL Sample Number	Date	Note	Dichloro-difluoro-methane (Freon 12)	Chloro-methane	Vinyl Chloride	Bromo-methane	Chloro-ethane	Trichloro-fluoro-methane (Freon 11)	Freon 113	Acetone	1,1-Di-chloro-ethene	Carbon Disulfide	Methylene Chloride
MW-12D													
HVL-010411-05	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070811-22	7/8/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-12S													
HVL-010411-06	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070811-23	7/8/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-13D													
HVL-010411-07	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-07	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-16	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-05	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-13S													
HVL-010511-13	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-05	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-06	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-04	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0	0.5 L	0.5 L	2.0 L
MW-14D													
HVL-010411-01	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042111-12	4/21/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070811-20	7/8/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102611-09	10/26/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-14R													
HVL-010511-18	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-14S													
HVL-010411-02	1/4/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042111-13	4/21/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070811-21	7/8/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102611-11	10/26/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-15D													
HVL-010511-14	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-13	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-15S													
HVL-010511-15	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-12	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L

WELL Sample Number	Date	Note	Dichloro-difluoro-methane (Freon 12)	Chloro-methane	Vinyl Chloride	Bromo-methane	Chloro-ethane	Trichloro-fluoro-methane (Freon 11)	Freon 113	Acetone	1,1-Di-chloro-ethene	Carbon Disulfide	Methylene Chloride
MW-17S													
HVL-010511-17	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042011-09	4/20/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-04	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102511-03	10/25/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		39.0	0.5 L	0.5 L	2.0 L
MW-18D													
HVL-010711-28	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-11	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-18S													
HVL-010711-27	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-10	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-20R													
HVL-010711-30	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-23S													
HVL-010611-24	1/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070711-19	7/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-25S													
HVL-010611-22	1/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070611-09	7/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-26R													
HVL-010711-26	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
MW-28S													
HVL-010611-25	1/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042111-14	4/21/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070711-18	7/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
QC, F-BLANK													
HVL-010511-16	1/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-041911-04	4/19/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070511-03	7/5/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102611-12	10/26/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
Water Supply Well, Corliss													
HVL-010711-29	1/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042111-16	4/21/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Note	Dichloro-difluoro-methane (Freon 12)	Chloro-methane	Vinyl Chloride	Bromo-methane	Chloro-ethane	Trichloro-fluoro-methane (Freon 11)	Freon 113	Acetone	1,1-Di-chloro-ethene	Carbon Disulfide	Methylene Chloride
Water Supply Well, Corliss													
HVL-070711-16	7/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102711-14	10/27/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
Water Supply Well, P. Bunyan													
HVL-010611-23	1/6/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-042111-15	4/21/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-070711-17	7/7/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L
HVL-102711-15	10/27/2011		2.0 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L		10.0 L	0.5 L	0.5 L	2.0 L

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WELL Sample Number	Date	1,1-Di-chloro-ethane	trans 1,2-Dichloro-ethene	2-Butanone (MEK)	2,2-Di chloro-propane	cis 1,2-Dichloro ethene	Chloro-form	Bromo-chloro-methane	1,1,1 Tri-chloro-ethane (TCA)	1,1-Di-chloro-propene	Carbon Tetra-chloride	1,2-Di-chloro-ethane
FMW-01												
HVL-010511-09	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-01	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-01	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-01	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
FMW-02												
HVL-010511-10	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042011-08	4/20/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-02	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-02	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
Leachate, East Area												
HVL-010511-19	1/5/2011	2.0 L	2.0 L	24.0 L		2.0 L	2.0 L	2.0 L	2.0 L		2.0 L	2.0 L
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011	0.5 L	0.5 L	6.0 L		1.3	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-10D												
HVL-010411-03	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042011-11	4/20/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-14	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-07	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-10S												
HVL-010411-04	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042011-10	4/20/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-15	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-08	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-11D(2)												
HVL-010511-12	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-03	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-07	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102611-13	10/26/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-11S												
HVL-010511-11	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-02	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-08	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-06	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L

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WELL Sample Number	Date	1,1-Di-chloro-ethane	trans 1,2-Dichloro-ethene	2-Butanone (MEK)	2,2-Di chloro-propane	cis 1,2-Dichloro ethene	Chloro-form	Bromo-chloro-methane	1,1,1 Tri-chloro-ethane (TCA)	1,1-Di-chloro-propene	Carbon Tetra-chloride	1,2-Di-chloro-ethane
MW-12D												
HVL-010411-05	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070811-22	7/8/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-12S												
HVL-010411-06	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070811-23	7/8/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-13D												
HVL-010411-07	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-07	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-16	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-05	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-13S												
HVL-010511-13	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-05	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-06	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-04	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-14D												
HVL-010411-01	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042111-12	4/21/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070811-20	7/8/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102611-09	10/26/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-14R												
HVL-010511-18	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-14S												
HVL-010411-02	1/4/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042111-13	4/21/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070811-21	7/8/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102611-11	10/26/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-15D												
HVL-010511-14	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-13	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-15S												
HVL-010511-15	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-12	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L

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(ug/L)

WELL Sample Number	Date	1,1-Di-chloro-ethane	trans 1,2-Dichloro-ethene	2-Butanone (MEK)	2,2-Di chloro-propane	cis 1,2-Dichloro ethene	Chloro-form	Bromo-chloro-methane	1,1,1 Tri-chloro-ethane (TCA)	1,1-Di-chloro-propene	Carbon Tetra-chloride	1,2-Di-chloro-ethane
MW-17S												
HVL-010511-17	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042011-09	4/20/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-04	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102511-03	10/25/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-18D												
HVL-010711-28	1/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-11	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-18S												
HVL-010711-27	1/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-10	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-20R												
HVL-010711-30	1/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-23S												
HVL-010611-24	1/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070711-19	7/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-25S												
HVL-010611-22	1/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070611-09	7/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-26R												
HVL-010711-26	1/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
MW-28S												
HVL-010611-25	1/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042111-14	4/21/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070711-18	7/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
QC, F-BLANK												
HVL-010511-16	1/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-041911-04	4/19/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070511-03	7/5/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102611-12	10/26/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042111-16	4/21/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L

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Volatile Organics
(ug/L)

WELL Sample Number	Date	1,1-Di-chloro-ethane	trans 1,2-Dichloro-ethene	2-Butanone (MEK)	2,2-Di chloro-propane	cis 1,2-Dichloro ethene	Chloro-form	Bromo-chloro-methane	1,1,1 Tri-chloro-ethane (TCA)	1,1-Di-chloro-propene	Carbon Tetra-chloride	1,2-Di-chloro-ethane
Water Supply Well, Corliss												
HVL-070711-16	7/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102711-14	10/27/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-042111-15	4/21/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-070711-17	7/7/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L
HVL-102711-15	10/27/2011	0.5 L	0.5 L	6.0 L		0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	0.5 L

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Volatile Organics
(ug/L)

WELL Sample Number	Date	Vinyl Acetate	Benzene	Trichloro-ethene (TCE)	1,2-Di-chloro-propane	Bromo-dichloro-methane	2-Chloro-ethyl Vinyl Ether	Dibromo-methane	2-Hexanone	cis-1,3-Dichloro propene	Toluene	trans 1,3-Dichloro-propene
FMW-01												
HVL-010511-09	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-01	4/19/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-01	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-01	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
FMW-02												
HVL-010511-10	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042011-08	4/20/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-02	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-02	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
Leachate, East Area												
HVL-010511-19	1/5/2011	12.0 L	2.0	2.0 L	2.0 L	2.0 L		2.0 L	20.0 L	2.0 L	2.0 L	2.0 L
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011	3.0 L	1.4	0.5 L	0.5 L	0.5 L		0.5 L	36.0	0.5 L	3.1	0.5 L
MW-10D												
HVL-010411-03	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042011-11	4/20/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-14	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-07	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-10S												
HVL-010411-04	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042011-10	4/20/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-15	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-08	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-11D(2)												
HVL-010511-12	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-03	4/19/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-07	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102611-13	10/26/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-11S												
HVL-010511-11	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-02	4/19/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-08	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-06	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Vinyl Acetate	Benzene	Trichloro-ethene (TCE)	1,2-Di-chloro-propane	Bromo-dichloro-methane	2-Chloro-ethyl Vinyl Ether	Dibromo-methane	2-Hexanone	cis-1,3-Dichloro propene	Toluene	trans 1,3-Dichloro-propene
MW-12D												
HVL-010411-05	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070811-22	7/8/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-12S												
HVL-010411-06	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070811-23	7/8/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-13D												
HVL-010411-07	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-07	4/19/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-16	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-05	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-13S												
HVL-010511-13	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-05	4/19/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-06	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-04	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-14D												
HVL-010411-01	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042111-12	4/21/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070811-20	7/8/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102611-09	10/26/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-14R												
HVL-010511-18	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-14S												
HVL-010411-02	1/4/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042111-13	4/21/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070811-21	7/8/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102611-11	10/26/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-15D												
HVL-010511-14	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-13	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-15S												
HVL-010511-15	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-12	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L

Hidden Valley Landfill
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(ug/L)

WELL Sample Number	Date	Vinyl Acetate	Benzene	Trichloro-ethene (TCE)	1,2-Di-chloro-propane	Bromo-dichloro-methane	2-Chloro-ethyl Vinyl Ether	Dibromo-methane	2-Hexanone	cis-1,3-Dichloro propene	Toluene	trans 1,3-Dichloro-propene
MW-17S												
HVL-010511-17	1/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042011-09	4/20/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-04	7/5/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102511-03	10/25/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-18D												
HVL-010711-28	1/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-11	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-18S												
HVL-010711-27	1/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-10	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-20R												
HVL-010711-30	1/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-23S												
HVL-010611-24	1/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070711-19	7/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-25S												
HVL-010611-22	1/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070611-09	7/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-26R												
HVL-010711-26	1/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
MW-28S												
HVL-010611-25	1/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042111-14	4/21/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070711-18	7/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
QC, F-BLANK												
HVL-010511-16	1/5/2011	3.0 L	0.5 L	0.9	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-041911-04	4/19/2011	3.0 L	0.5 L	0.7	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070511-03	7/5/2011	3.0 L	0.5 L	0.5	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102611-12	10/26/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.9	0.5 L
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042111-16	4/21/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L

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(ug/L)

WELL Sample Number	Date	Vinyl Acetate	Benzene	Trichloro-ethene (TCE)	1,2-Di-chloro-propane	Bromo-dichloro-methane	2-Chloro-ethyl Vinyl Ether	Dibromo-methane	2-Hexanone	cis-1,3-Dichloro propene	Toluene	trans 1,3-Dichloro-propene
Water Supply Well, Corliss												
HVL-070711-16	7/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102711-14	10/27/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-042111-15	4/21/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-070711-17	7/7/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L
HVL-102711-15	10/27/2011	3.0 L	0.5 L	0.5 L	0.5 L	0.5 L		0.5 L	5.0 L	0.5 L	0.5 L	0.5 L

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Volatile Organics
(ug/L)

WELL Sample Number	Date	1,3-Dichloropropane	1,1,2-Trichloroethane	4-Methyl-2-pentanone (MIBK)	Tetrachloroethene (PCE)	Dibromochloromethane	1,2-Dibromoethane (EDB)	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	Xylenes, total	Styrene	Bromoform
FMW-01													
HVL-010511-09	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-01	4/19/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-01	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-01	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
FMW-02													
HVL-010511-10	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042011-08	4/20/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-02	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-02	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
Leachate, East Area													
HVL-010511-19	1/5/2011		2.0 L	20.0 L	2.0 L	2.0 L	4.0 L	2.0 L	2.0 L	4.0 L		2.0 L	2.0 L
Leak Detection, Side Slope													
HVL-010711-20	1/7/2011		0.5 L	5.0	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-10D													
HVL-010411-03	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042011-11	4/20/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-14	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-07	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-10S													
HVL-010411-04	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042011-10	4/20/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-15	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-08	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-11D(2)													
HVL-010511-12	1/5/2011		0.5 L	5.0 L	0.9	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-03	4/19/2011		0.5 L	5.0 L	0.5	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-07	7/5/2011		0.5 L	5.0 L	0.9	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102611-13	10/26/2011		0.5 L	5.0 L	0.8	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-11S													
HVL-010511-11	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-02	4/19/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-08	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-06	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L

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(ug/L)

WELL Sample Number	Date	1,3-Dichloropropane	1,1,2-Trichloroethane	4-Methyl-2-pentanone (MIBK)	Tetrachloroethene (PCE)	Dibromochloromethane	1,2-Dibromoethane (EDB)	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	Xylenes, total	Styrene	Bromoform
MW-12D													
HVL-010411-05	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070811-22	7/8/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-12S													
HVL-010411-06	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070811-23	7/8/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-13D													
HVL-010411-07	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-07	4/19/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-16	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-05	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-13S													
HVL-010511-13	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-05	4/19/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-06	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-04	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-14D													
HVL-010411-01	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042111-12	4/21/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070811-20	7/8/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102611-09	10/26/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-14R													
HVL-010511-18	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-14S													
HVL-010411-02	1/4/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042111-13	4/21/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070811-21	7/8/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102611-11	10/26/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-15D													
HVL-010511-14	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-13	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-15S													
HVL-010511-15	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-12	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L

Hidden Valley Landfill
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Volatile Organics
(ug/L)

WELL Sample Number	Date	1,3-Dichloropropane	1,1,2-Trichloroethane	4-Methyl-2-pentanone (MIBK)	Tetrachloroethene (PCE)	Dibromochloromethane	1,2-Dibromoethane (EDB)	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	Xylenes, total	Styrene	Bromoform
MW-17S													
HVL-010511-17	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042011-09	4/20/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-04	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102511-03	10/25/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-18D													
HVL-010711-28	1/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-11	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-18S													
HVL-010711-27	1/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-10	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-20R													
HVL-010711-30	1/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-23S													
HVL-010611-24	1/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070711-19	7/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-25S													
HVL-010611-22	1/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070611-09	7/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-26R													
HVL-010711-26	1/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
MW-28S													
HVL-010611-25	1/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042111-14	4/21/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070711-18	7/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
QC, F-BLANK													
HVL-010511-16	1/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-041911-04	4/19/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070511-03	7/5/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102611-12	10/26/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
Water Supply Well, Corliss													
HVL-010711-29	1/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042111-16	4/21/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	1,3-Dichloropropane	1,1,2-Trichloroethane	4-Methyl-2-pentanone (MIBK)	Tetrachloroethene (PCE)	Dibromochloromethane	1,2-Dibromoethane (EDB)	Chlorobenzene	1,1,1,2-Tetrachloroethane	Ethylbenzene	Xylenes, total	Styrene	Bromoform
Water Supply Well, Corliss													
HVL-070711-16	7/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102711-14	10/27/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
Water Supply Well, P. Bunyan													
HVL-010611-23	1/6/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-042111-15	4/21/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-070711-17	7/7/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L
HVL-102711-15	10/27/2011		0.5 L	5.0 L	0.5 L	0.5 L	1.0 L	0.5 L	0.5 L	1.0 L		0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Iso-propyl-benzene	1,1,2,2-Tetra-chloro-ethane	1,2,3-Tri-chloro-propane	Bromo-benzene	n-Propyl benzene	2-Chloro toluene	4-Chloro toluene	1,3,5-Tri methyl benzene	tert-Butyl benzene	1,2,4-Tri methyl benzene	sec-Butyl benzene
FMW-01												
HVL-010511-09	1/5/2011		0.5 L	1.0 L								
HVL-041911-01	4/19/2011		0.5 L	1.0 L								
HVL-070511-01	7/5/2011		0.5 L	1.0 L								
HVL-102511-01	10/25/2011		0.5 L	1.0 L								
FMW-02												
HVL-010511-10	1/5/2011		0.5 L	1.0 L								
HVL-042011-08	4/20/2011		0.5 L	1.0 L								
HVL-070511-02	7/5/2011		0.5 L	1.0 L								
HVL-102511-02	10/25/2011		0.5 L	1.0 L								
Leachate, East Area												
HVL-010511-19	1/5/2011		2.0 L	4.0 L								
Leak Detection, Side Slope												
HVL-010711-20	1/7/2011		0.5 L	1.0 L								
MW-10D												
HVL-010411-03	1/4/2011		0.5 L	1.0 L								
HVL-042011-11	4/20/2011		0.5 L	1.0 L								
HVL-070611-14	7/6/2011		0.5 L	1.0 L								
HVL-102511-07	10/25/2011		0.5 L	1.0 L								
MW-10S												
HVL-010411-04	1/4/2011		0.5 L	1.0 L								
HVL-042011-10	4/20/2011		0.5 L	1.0 L								
HVL-070611-15	7/6/2011		0.5 L	1.0 L								
HVL-102511-08	10/25/2011		0.5 L	1.0 L								
MW-11D(2)												
HVL-010511-12	1/5/2011		0.5 L	1.0 L								
HVL-041911-03	4/19/2011		0.5 L	1.0 L								
HVL-070511-07	7/5/2011		0.5 L	1.0 L								
HVL-102611-13	10/26/2011		0.5 L	1.0 L								
MW-11S												
HVL-010511-11	1/5/2011		0.5 L	1.0 L								
HVL-041911-02	4/19/2011		0.5 L	1.0 L								
HVL-070511-08	7/5/2011		0.5 L	1.0 L								
HVL-102511-06	10/25/2011		0.5 L	1.0 L								

WELL Sample Number	Date	Iso-propyl-benzene	1,1,2,2-Tetra-chloro-ethane	1,2,3-Tri-chloro-propane	Bromo-benzene	n-Propyl benzene	2-Chloro toluene	4-Chloro toluene	1,3,5-Tri methyl benzene	tert-Butyl benzene	1,2,4-Tri methyl benzene	sec-Butyl benzene
MW-12D												
HVL-010411-05	1/4/2011		0.5 L	1.0 L								
HVL-070811-22	7/8/2011		0.5 L	1.0 L								
MW-12S												
HVL-010411-06	1/4/2011		0.5 L	1.0 L								
HVL-070811-23	7/8/2011		0.5 L	1.0 L								
MW-13D												
HVL-010411-07	1/4/2011		0.5 L	1.0 L								
HVL-041911-07	4/19/2011		0.5 L	1.0 L								
HVL-070611-16	7/6/2011		0.5 L	1.0 L								
HVL-102511-05	10/25/2011		0.5 L	1.0 L								
MW-13S												
HVL-010511-13	1/5/2011		0.5 L	1.0 L								
HVL-041911-05	4/19/2011		0.5 L	1.0 L								
HVL-070511-06	7/5/2011		0.5 L	1.0 L								
HVL-102511-04	10/25/2011		0.5 L	1.0 L								
MW-14D												
HVL-010411-01	1/4/2011		0.5 L	1.0 L								
HVL-042111-12	4/21/2011		0.5 L	1.0 L								
HVL-070811-20	7/8/2011		0.5 L	1.0 L								
HVL-102611-09	10/26/2011		0.5 L	1.0 L								
MW-14R												
HVL-010511-18	1/5/2011		0.5 L	1.0 L								
MW-14S												
HVL-010411-02	1/4/2011		0.5 L	1.0 L								
HVL-042111-13	4/21/2011		0.5 L	1.0 L								
HVL-070811-21	7/8/2011		0.5 L	1.0 L								
HVL-102611-11	10/26/2011		0.5 L	1.0 L								
MW-15D												
HVL-010511-14	1/5/2011		0.5 L	1.0 L								
HVL-070611-13	7/6/2011		0.5 L	1.0 L								
MW-15S												
HVL-010511-15	1/5/2011		0.5 L	1.0 L								
HVL-070611-12	7/6/2011		0.5 L	1.0 L								

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Iso-propyl-benzene	1,1,2,2-Tetra-chloro-ethane	1,2,3-Tri-chloro-propane	Bromo-benzene	n-Propyl benzene	2-Chloro toluene	4-Chloro toluene	1,3,5-Tri methyl benzene	tert-Butyl benzene	1,2,4-Tri methyl benzene	sec-Butyl benzene
MW-17S												
HVL-010511-17	1/5/2011		0.5 L	1.0 L								
HVL-042011-09	4/20/2011		0.5 L	1.0 L								
HVL-070511-04	7/5/2011		0.5 L	1.0 L								
HVL-102511-03	10/25/2011		0.5 L	1.0 L								
MW-18D												
HVL-010711-28	1/7/2011		0.5 L	1.0 L								
HVL-070611-11	7/6/2011		0.5 L	1.0 L								
MW-18S												
HVL-010711-27	1/7/2011		0.5 L	1.0 L								
HVL-070611-10	7/6/2011		0.5 L	1.0 L								
MW-20R												
HVL-010711-30	1/7/2011		0.5 L	1.0 L								
MW-23S												
HVL-010611-24	1/6/2011		0.5 L	1.0 L								
HVL-070711-19	7/7/2011		0.5 L	1.0 L								
MW-25S												
HVL-010611-22	1/6/2011		0.5 L	1.0 L								
HVL-070611-09	7/6/2011		0.5 L	1.0 L								
MW-26R												
HVL-010711-26	1/7/2011		0.5 L	1.0 L								
MW-28S												
HVL-010611-25	1/6/2011		0.5 L	1.0 L								
HVL-042111-14	4/21/2011		0.5 L	1.0 L								
HVL-070711-18	7/7/2011		0.5 L	1.0 L								
QC, F-BLANK												
HVL-010511-16	1/5/2011		0.5 L	1.0 L								
HVL-041911-04	4/19/2011		0.5 L	1.0 L								
HVL-070511-03	7/5/2011		0.5 L	1.0 L								
HVL-102611-12	10/26/2011		0.5 L	1.0 L								
Water Supply Well, Corliss												
HVL-010711-29	1/7/2011		0.5 L	1.0 L								
HVL-042111-16	4/21/2011		0.5 L	1.0 L								

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Iso-propyl-benzene	1,1,2,2-Tetra-chloro-ethane	1,2,3-Tri-chloro-propane	Bromo-benzene	n-Propyl benzene	2-Chloro toluene	4-Chloro toluene	1,3,5-Tri methyl benzene	tert-Butyl benzene	1,2,4-Tri methyl benzene	sec-Butyl benzene
Water Supply Well, Corliss												
HVL-070711-16	7/7/2011		0.5 L	1.0 L								
HVL-102711-14	10/27/2011		0.5 L	1.0 L								
Water Supply Well, P. Bunyan												
HVL-010611-23	1/6/2011		0.5 L	1.0 L								
HVL-042111-15	4/21/2011		0.5 L	1.0 L								
HVL-070711-17	7/7/2011		0.5 L	1.0 L								
HVL-102711-15	10/27/2011		0.5 L	1.0 L								

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	1,2-Di-chloro-benzene	n-Butyl benzene	4-Iso-propyl-toluene	1,3-Di-chloro-benzene	1,4-Di-chloro-benzene	Total-Di-chloro benzene	1,2-Dibromo-3-chloro propane (DBCP)	1,2,4-Tri chloro benzene	1,2,3-Tri chloro benzene	Naptha-lene
FMW-01											
HVL-010511-09	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-01	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-01	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-01	10/25/2011	0.5 L				0.5 L		2.0 L			
FMW-02											
HVL-010511-10	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-042011-08	4/20/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-02	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-02	10/25/2011	0.5 L				0.5 L		2.0 L			
Leachate, East Area											
HVL-010511-19	1/5/2011	2.0 L				2.3		8.0 L			
Leak Detection, Side Slope											
HVL-010711-20	1/7/2011	0.5 L				0.5 L		2.0 L			
MW-10D											
HVL-010411-03	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-042011-11	4/20/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-14	7/6/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-07	10/25/2011	0.5 L				0.5 L		2.0 L			
MW-10S											
HVL-010411-04	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-042011-10	4/20/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-15	7/6/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-08	10/25/2011	0.5 L				0.5 L		2.0 L			
MW-11D(2)											
HVL-010511-12	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-03	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-07	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102611-13	10/26/2011	0.5 L				0.5 L		2.0 L			
MW-11S											
HVL-010511-11	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-02	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-08	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-06	10/25/2011	0.5 L				0.5 L		2.0 L			

WELL Sample Number	Date	1,2-Di-chloro-benzene	n-Butyl benzene	4-Iso-propyl-toluene	1,3-Di-chloro-benzene	1,4-Di-chloro-benzene	Total-Di-chloro benzene	1,2-Dibromo-3-chloro propane (DBCP)	1,2,4-Tri chloro benzene	1,2,3-Tri chloro benzene	Naptha-lene
MW-12D											
HVL-010411-05	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-070811-22	7/8/2011	0.5 L				0.5 L		2.0 L			
MW-12S											
HVL-010411-06	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-070811-23	7/8/2011	0.5 L				1.2		2.0 L			
MW-13D											
HVL-010411-07	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-07	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-16	7/6/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-05	10/25/2011	0.5 L				0.5 L		2.0 L			
MW-13S											
HVL-010511-13	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-05	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-06	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-04	10/25/2011	0.5 L				0.5 L		2.0 L			
MW-14D											
HVL-010411-01	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-042111-12	4/21/2011	0.5 L				0.5 L		2.0 L			
HVL-070811-20	7/8/2011	0.5 L				0.5 L		2.0 L			
HVL-102611-09	10/26/2011	0.5 L				0.5 L		2.0 L			
MW-14R											
HVL-010511-18	1/5/2011	0.5 L				0.5 L		2.0 L			
MW-14S											
HVL-010411-02	1/4/2011	0.5 L				0.5 L		2.0 L			
HVL-042111-13	4/21/2011	0.5 L				0.5 L		2.0 L			
HVL-070811-21	7/8/2011	0.5 L				0.5 L		2.0 L			
HVL-102611-11	10/26/2011	0.5 L				0.5 L		2.0 L			
MW-15D											
HVL-010511-14	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-13	7/6/2011	0.5 L				0.5 L		2.0 L			
MW-15S											
HVL-010511-15	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-12	7/6/2011	0.5 L				0.5 L		2.0 L			

WELL Sample Number	Date	1,2-Di-chloro-benzene	n-Butyl benzene	4-Iso-propyl-toluene	1,3-Di-chloro-benzene	1,4-Di-chloro-benzene	Total-Di-chloro benzene	1,2-Dibromo-3-chloro propane (DBCP)	1,2,4-Tri chloro benzene	1,2,3-Tri chloro benzene	Naptha-lene
MW-17S											
HVL-010511-17	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-042011-09	4/20/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-04	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102511-03	10/25/2011	0.5 L				0.5 L		2.0 L			
MW-18D											
HVL-010711-28	1/7/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-11	7/6/2011	0.5 L				0.5 L		2.0 L			
MW-18S											
HVL-010711-27	1/7/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-10	7/6/2011	0.5 L				0.5 L		2.0 L			
MW-20R											
HVL-010711-30	1/7/2011	0.5 L				0.5 L		2.0 L			
MW-23S											
HVL-010611-24	1/6/2011	0.5 L				0.5 L		2.0 L			
HVL-070711-19	7/7/2011	0.5 L				0.5 L		2.0 L			
MW-25S											
HVL-010611-22	1/6/2011	0.5 L				0.5 L		2.0 L			
HVL-070611-09	7/6/2011	0.5 L				0.5 L		2.0 L			
MW-26R											
HVL-010711-26	1/7/2011	0.5 L				0.5 L		2.0 L			
MW-28S											
HVL-010611-25	1/6/2011	0.5 L				0.5 L		2.0 L			
HVL-042111-14	4/21/2011	0.5 L				0.5 L		2.0 L			
HVL-070711-18	7/7/2011	0.5 L				0.5 L		2.0 L			
QC, F-BLANK											
HVL-010511-16	1/5/2011	0.5 L				0.5 L		2.0 L			
HVL-041911-04	4/19/2011	0.5 L				0.5 L		2.0 L			
HVL-070511-03	7/5/2011	0.5 L				0.5 L		2.0 L			
HVL-102611-12	10/26/2011	0.5 L				0.5 L		2.0 L			
Water Supply Well, Corliss											
HVL-010711-29	1/7/2011	0.5 L				0.5 L		2.0 L			
HVL-042111-16	4/21/2011	0.5 L				0.5 L		2.0 L			

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	1,2-Di-chloro-benzene	n-Butyl benzene	4-Iso-propyl-toluene	1,3-Di-chloro-benzene	1,4-Di-chloro-benzene	Total-Di-chloro benzene	1,2-Dibromo-3-chloro propane (DBCP)	1,2,4-Tri chloro benzene	1,2,3-Tri chloro benzene	Naptha-lene
Water Supply Well, Corliss											
HVL-070711-16	7/7/2011	0.5 L				0.5 L		2.0 L			
HVL-102711-14	10/27/2011	0.5 L				0.5 L		2.0 L			
Water Supply Well, P. Bunyan											
HVL-010611-23	1/6/2011	0.5 L				0.5 L		2.0 L			
HVL-042111-15	4/21/2011	0.5 L				0.5 L		2.0 L			
HVL-070711-17	7/7/2011	0.5 L				0.5 L		2.0 L			
HVL-102711-15	10/27/2011	0.5 L				0.5 L		2.0 L			

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Hexachlor-butadiene	Acrylo-nitrile	trans + cis-1,4-Dichloro-2-butene	Iodo-methane	O-Xylene	m,p-Xylene
FMW-01							
HVL-010511-09	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-01	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-01	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-01	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
FMW-02							
HVL-010511-10	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042011-08	4/20/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-02	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-02	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
Leachate, Ea							
HVL-010511-19	1/5/2011		20.0 L	12.0 L	4.0 L	2.4	4.7
Leak Detecti							
HVL-010711-20	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.9
MW-10D							
HVL-010411-03	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042011-11	4/20/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-14	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-07	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-10S							
HVL-010411-04	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042011-10	4/20/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-15	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-08	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-11D(2)							
HVL-010511-12	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-03	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-07	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102611-13	10/26/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-11S							
HVL-010511-11	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-02	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-08	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-06	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Hexachlor-butadiene	Acrylo-nitrile	trans + cis-1,4-Dichloro-2-butene	Iodo-methane	O-Xylene	m,p-Xylene
MW-12D							
HVL-010411-05	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070811-22	7/8/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-12S							
HVL-010411-06	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070811-23	7/8/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-13D							
HVL-010411-07	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-07	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-16	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-05	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-13S							
HVL-010511-13	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-05	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-06	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-04	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-14D							
HVL-010411-01	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042111-12	4/21/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070811-20	7/8/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102611-09	10/26/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-14R							
HVL-010511-18	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-14S							
HVL-010411-02	1/4/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042111-13	4/21/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070811-21	7/8/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102611-11	10/26/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-15D							
HVL-010511-14	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-13	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-15S							
HVL-010511-15	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-12	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Hexachlor-butadiene	Acrylo-nitrile	trans + cis-1,4-Dichloro-2-butene	Iodo-methane	O-Xylene	m,p-Xylene
MW-17S							
HVL-010511-17	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042011-09	4/20/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-04	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102511-03	10/25/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-18D							
HVL-010711-28	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-11	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-18S							
HVL-010711-27	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-10	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-20R							
HVL-010711-30	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-23S							
HVL-010611-24	1/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070711-19	7/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-25S							
HVL-010611-22	1/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070611-09	7/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-26R							
HVL-010711-26	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
MW-28S							
HVL-010611-25	1/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042111-14	4/21/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070711-18	7/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
QC, F-BLANK							
HVL-010511-16	1/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-041911-04	4/19/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070511-03	7/5/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102611-12	10/26/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
Water Supply							
HVL-010711-29	1/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042111-16	4/21/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Volatile Organics
(ug/L)

WELL Sample Number	Date	Hexachlor-butadiene	Acrylo-nitrile	trans + cis-1,4-Dichloro-2-butene	Iodo-methane	O-Xylene	m,p-Xylene
Water Supply							
HVL-070711-16	7/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102711-14	10/27/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
Water Supply							
HVL-010611-23	1/6/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-042111-15	4/21/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-070711-17	7/7/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L
HVL-102711-15	10/27/2011		5.0 L	3.0 L	1.0 L	0.5 L	0.5 L

Hidden Valley Landfill
Groundwater Chemistry
Field Parameters

WELL Sample Number	Date	Notes	Well Casing Elevation	Depth to Water	Water Level Elevation	Field pH	Field Conductiviy (umho/cm)	Temp. (deg-C)	Dissolved Oxygen (mg/l)	Pore Volume	Volume Removed (gal)
FMW-01											
HVL-010511-09	1/5/2011		542.59	142.17	400.42	6.36	554	9.2	0.08	3	
HVL-041911-01	4/19/2011		542.59	135.81	406.78	6.25	282	12.3	5.72	3	
HVL-070511-01	7/5/2011		542.59	138.26	404.33	6.35	302	15.7	3.13	3	
HVL-102511-01	10/25/2011		542.59	146.96	395.63	6.18	305	11.2	1.08	3	
FMW-02											
HVL-010511-10	1/5/2011		536.4	134.41	401.99	6.13	951	14.6	0.00	3	
HVL-042011-08	4/20/2011		536.4	129.10	407.30	6.11	478	16.7	0.42	3	
HVL-070511-02	7/5/2011		536.4	131.51	404.89	6.43	286	19.5	0.16	3	
HVL-102511-02	10/25/2011		536.4	138.91	397.49	6.07	330	15.2	0.21	3	
Leachate, East Area											
HVL-010511-19	1/5/2011					7.67	12056	14.9	0.00	3	
Leak Detection, Side Slope											
HVL-010711-20	1/7/2011	Insufficient Water				7.60	23560	17.9		3	
MW-10D											
HVL-010411-03	1/4/2011		460.69	27.76	432.93	6.64	241	11.7	1.34	3	
HVL-042011-11	4/20/2011		460.69	22.78	437.91	6.46	151	9.9	7.52	3	
HVL-070611-14	7/6/2011		460.69	25.64	435.05	6.87	201	11.2	4.24	3	
HVL-102511-07	10/25/2011		460.69	33.90	426.79	6.46	131	12.3	2.50	3	
MW-10S											
HVL-010411-04	1/4/2011		460.17			6.47	164	12.6	2.43	3	
HVL-042011-10	4/20/2011		460.17			6.43	134	9.5	7.68	3	
HVL-070611-15	7/6/2011		460.17			6.76	127	12.4	4.72	3	
HVL-102511-08	10/25/2011		460.17			6.47	139	12.5	2.41	3	
MW-11D(2)											
HVL-010511-12	1/5/2011		515.53	90.42	425.11	6.67	448	14.1	0.10	3	
HVL-041911-03	4/19/2011		515.53	84.68	430.85	6.56	214	14.3	5.48	3	
HVL-070511-07	7/5/2011		515.53	88.26	427.27	6.97	211	17.0	3.89	3	
HVL-102611-13	10/26/2011		515.53	96.31	419.22	6.62	213	14.3	3.10	3	
MW-11S											
HVL-010511-11	1/5/2011		516.44	90.73	425.71	5.85	656	15.1	0.00	3	
HVL-041911-02	4/19/2011		516.44	86.35	430.09	5.80	252	14.9	0.38	3	
HVL-070511-08	7/5/2011		516.44	89.30	427.14	6.15	184	17.6	0.18	3	
HVL-102511-06	10/25/2011		516.44	95.92	420.52	5.97	209	16.0	0.15	3	

Hidden Valley Landfill
Groundwater Chemistry
Field Parameters

WELL Sample Number	Date	Notes	Well Casing Elevation	Depth to Water	Water Level Elevation	Field pH	Field Conductiviy (umho/cm)	Temp. (deg-C)	Dissolved Oxygen (mg/l)	Pore Volume	Volume Removed (gal)
MW-12D											
HVL-010411-05	1/4/2011		489.97	65.03	424.94	6.60	353	17.9	0.26	3	
HVL-070811-22	7/8/2011		489.97	63.13	426.84	6.76	270	18.3	2.31	3	
MW-12S											
HVL-010411-06	1/4/2011		489.94	63.08	426.86	5.80	337	19.4	0.12	3	
HVL-070811-23	7/8/2011		489.94	61.98	427.96	6.40	326	19.2	1.23	3	
MW-13D											
HVL-010411-07	1/4/2011		448.94	22.72	426.22	6.58	313	15.7	0.21	3	
HVL-041911-07	4/19/2011		448.94	17.60	431.34	6.50	342	17.2	1.00	3	
HVL-070611-16	7/6/2011		448.94	22.93	426.01	6.50	380	19.4	0.70	3	
HVL-102511-05	10/25/2011		448.94	28.10	420.84	6.42	331	18.9	0.44	3	
MW-13S											
HVL-010511-13	1/5/2011		448.81	22.33	426.48	6.21	489	16.2	0.03	3	
HVL-041911-05	4/19/2011		448.81	17.05	431.76	6.09	401	18.0	0.24	3	
HVL-070511-06	7/5/2011		448.81	20.80	428.01	6.30	383	20.9	0.26	3	
HVL-102511-04	10/25/2011		448.81	27.80	421.01	6.25	351	19.5	0.09	3	
MW-14D											
HVL-010411-01	1/4/2011		477.98	49.19	428.79	6.49	188	11.8	0.71	3	
HVL-042111-12	4/21/2011		477.98	42.95	435.03	6.17	153	12.2	0.29	3	
HVL-070811-20	7/8/2011		477.98	46.22	431.76	6.40	154	12.7	0.64	3	
HVL-102611-09	10/26/2011		477.98	55.08	422.90	6.19	187	12.1	0.26	3	
MW-14R											
HVL-010511-18	1/5/2011		476.84	117.08	359.76	6.84	108	10.7	0.00	3	
MW-14S											
HVL-010411-02	1/4/2011		477.95			6.11	108	12.2	0.89	3	
HVL-042111-13	4/21/2011		477.95	40.46	437.49	5.92	122	12.0	1.96	3	
HVL-070811-21	7/8/2011		477.95	44.75	433.20	6.20	107	12.7	0.68	3	
HVL-102611-11	10/26/2011		477.95	53.10	424.85	5.60	292	12.6	0.16	3	
MW-15D											
HVL-010511-14	1/5/2011		498.52	77.77	420.75	6.65	653	13.5	0.00	3	
HVL-070611-13	7/6/2011		498.52	75.37	423.15	6.65	280	25.0	0.85	3	
MW-15S											
HVL-010511-15	1/5/2011		498.52	72.65	425.87	5.94	527	15.2	0.00	3	
HVL-070611-12	7/6/2011		498.52	70.71	427.81	6.24	154	17.2	0.28	3	

Hidden Valley Landfill
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Field Parameters

WELL Sample Number	Date	Notes	Well Casing Elevation	Depth to Water	Water Level Elevation	Field pH	Field Conductiviy (umho/cm)	Temp. (deg-C)	Dissolved Oxygen (mg/l)	Pore Volume	Volume Removed (gal)
MW-17S											
HVL-010511-17	1/5/2011		552.44	127.28	425.16	6.00	1329	17.8	0.00	3	
HVL-042011-09	4/20/2011		552.44	123.41	429.03	6.02	473	20.3	0.31	3	
HVL-070511-04	7/5/2011		552.44	126.14	426.30	6.78	356	21.8	0.10	3	
HVL-102511-03	10/25/2011		552.44	132.02	420.42	6.25	360	20.2	0.14	3	
MW-18D											
HVL-010711-28	1/7/2011		546.01	129.42	416.59	6.61	308	15.2	0.38	3	
HVL-070611-11	7/6/2011		546.01	120.87	425.14	6.73	275	18.8	2.19	3	
MW-18S											
HVL-010711-27	1/7/2011		546.98	129.37	417.61	6.28	409	14.9	0.12	3	
HVL-070611-10	7/6/2011		546.98	128.39	418.59	6.28	312	18.0	0.45	3	
MW-20R											
HVL-010711-30	1/7/2011		465.68	104.92	360.76	7.12	99	9.8	2.51	3	
MW-23S											
HVL-010611-24	1/6/2011		448.34	19.74	428.60	6.11	209	11.0	0.18	3	
HVL-070711-19	7/7/2011		448.34	19.27	429.07	6.43	204	12.2	0.32	3	
MW-25S											
HVL-010611-22	1/6/2011		526.54	124.16	402.38	6.54	301	11.9	0.54	3	
HVL-070611-09	7/6/2011		526.54	119.51	407.03	6.53	196	12.9	3.14	3	
MW-26R											
HVL-010711-26	1/7/2011		481.81	60.54	421.27	7.03	135	10.2	1.83	3	
MW-28S											
HVL-010611-25	1/6/2011		466.87	40.04	426.83	6.31	194	11.4	3.92	3	
HVL-042111-14	4/21/2011		466.87	37.43	429.44	6.25	161	11.6	7.74	3	
HVL-070711-18	7/7/2011		466.87	39.47	427.40	6.45	212	12.5	6.44	3	
QC, F-BLANK											
HVL-010511-16	1/5/2011									3	
HVL-041911-04	4/19/2011					7.94	5	10.1	9.83	3	
HVL-070511-03	7/5/2011					8.50	3	19.8	8.29	3	
HVL-102611-12	10/26/2011					6.95	5	6.9	6.52	3	
Water Supply Well, Corliss											
HVL-010711-29	1/7/2011					7.16	204	10.8	3.90	3	
HVL-042111-16	4/21/2011					6.81	215	32.7	3.32	3	

Hidden Valley Landfill
Groundwater Chemistry
Field Parameters

WELL Sample Number	Date	Notes	Well Casing Elevation	Depth to Water	Water Level Elevation	Field pH	Field Conductiviy (umho/cm)	Temp. (deg-C)	Dissolved Oxygen (mg/l)	Pore Volume	Volume Removed (gal)
Water Supply Well, Corliss											
HVL-070711-16	7/7/2011					6.29	206	20.2	4.91	3	
HVL-102711-14	10/27/2011					5.73	198	13.6	3.60	3	
Water Supply Well, P. Bunyan											
HVL-010611-23	1/6/2011					6.98	277	5.4	1.36	3	
HVL-042111-15	4/21/2011					6.57	274	10.4	6.14	3	
HVL-070711-17	7/7/2011					7.01	250	17.3	3.05	3	
HVL-102711-15	10/27/2011					6.43	246	11.8	3.40	3	

Appendix E
Time Series Plots

Figure E-1

Specific Conductance

Shallow Perched Aquifer, Hidden Valley Landfill
Wells MW-11S, MW-13S, MW-14S, and MW-17S

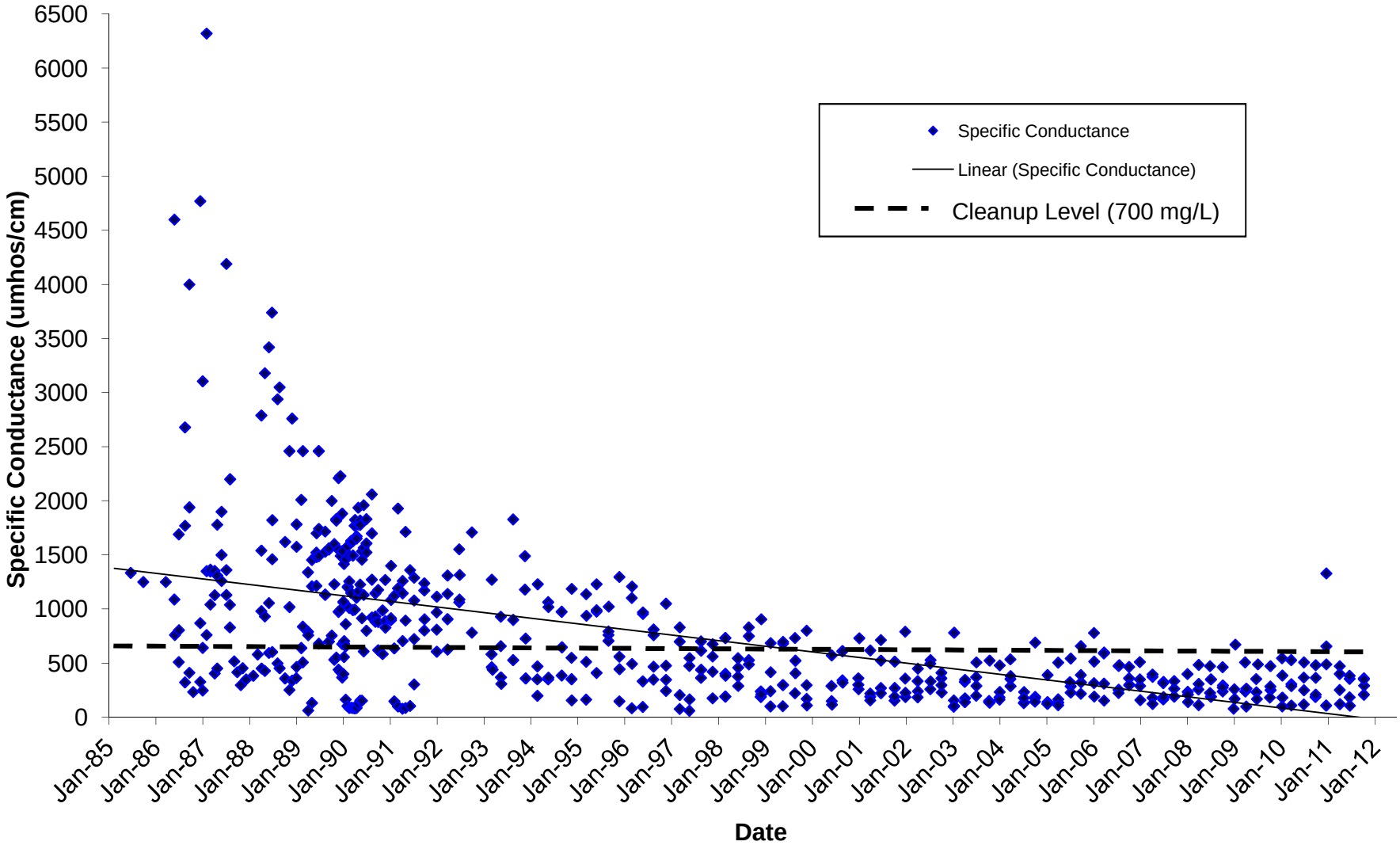


Figure E-2

Ammonia

Shallow Perched Aquifer, Hidden Valey Landfill
Wells MW-11S, MW-13S, MW-14S, and MW-17S

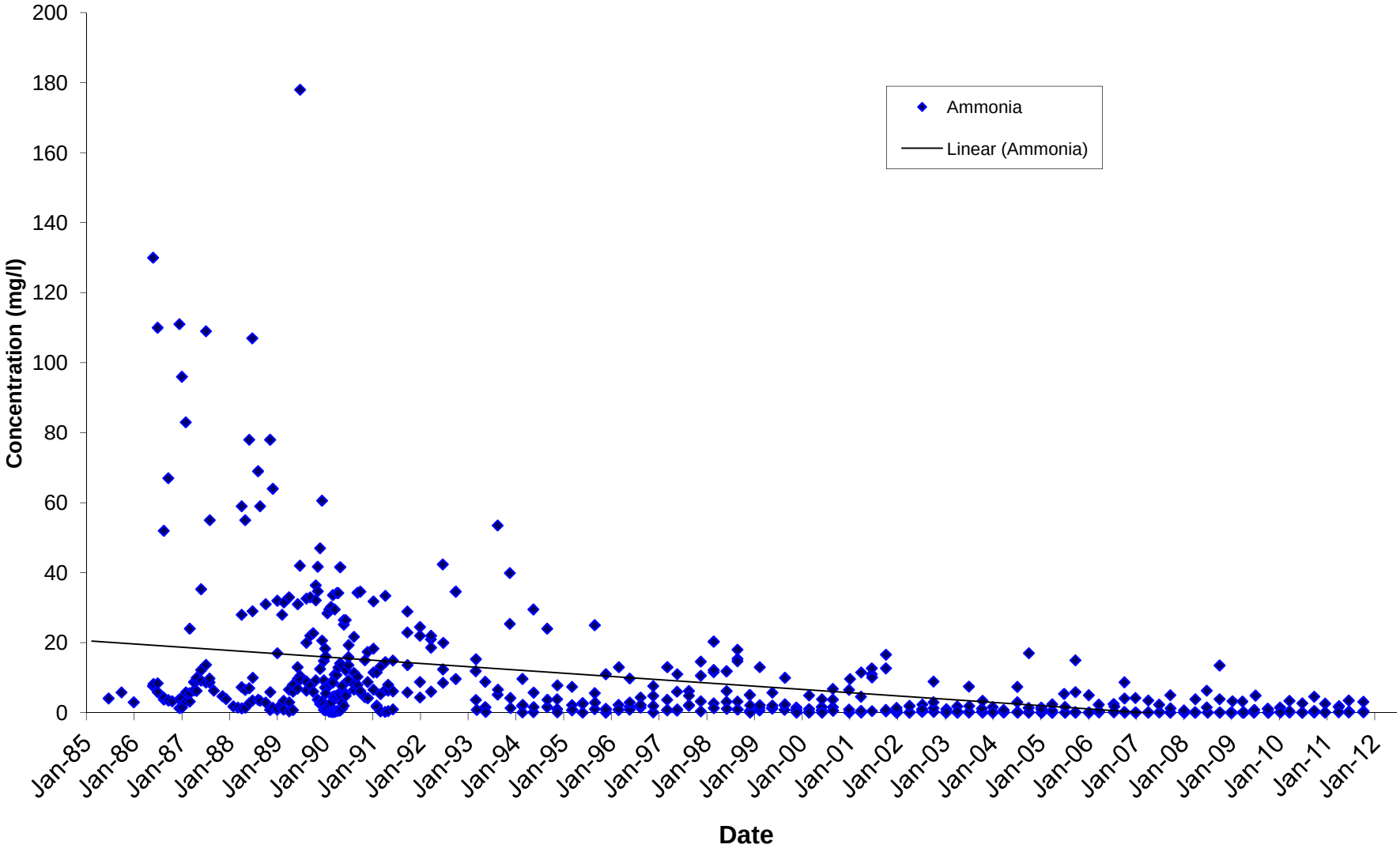


Figure E-3

Nitrate

Shallow Perched Aquifer, Hidden Valley Landfill
Wells MW-11S, MW-13S, MW-14S, and MW-17S

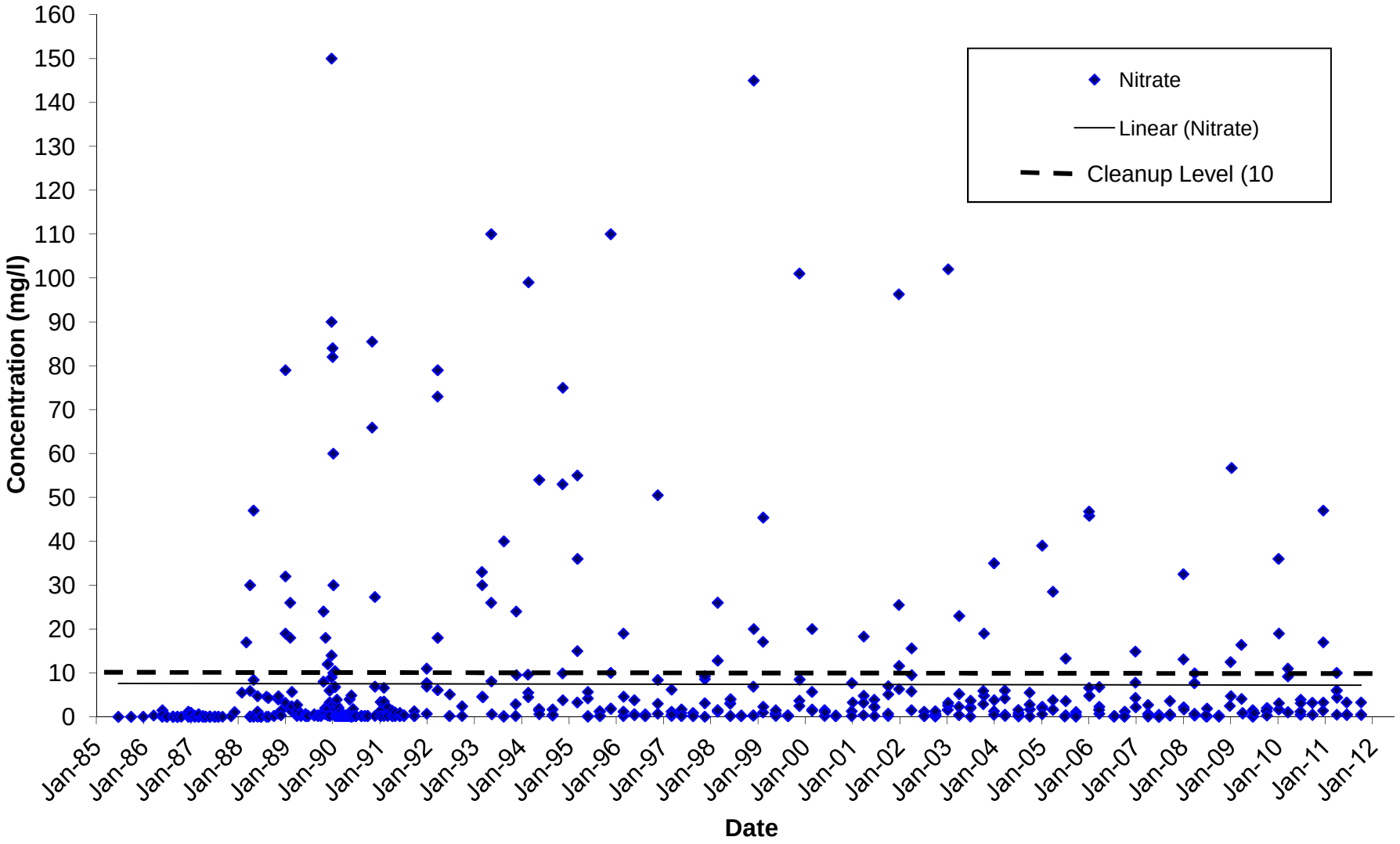


Figure E-4

Dissolved Iron

Shallow Perched Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D, MW-14D

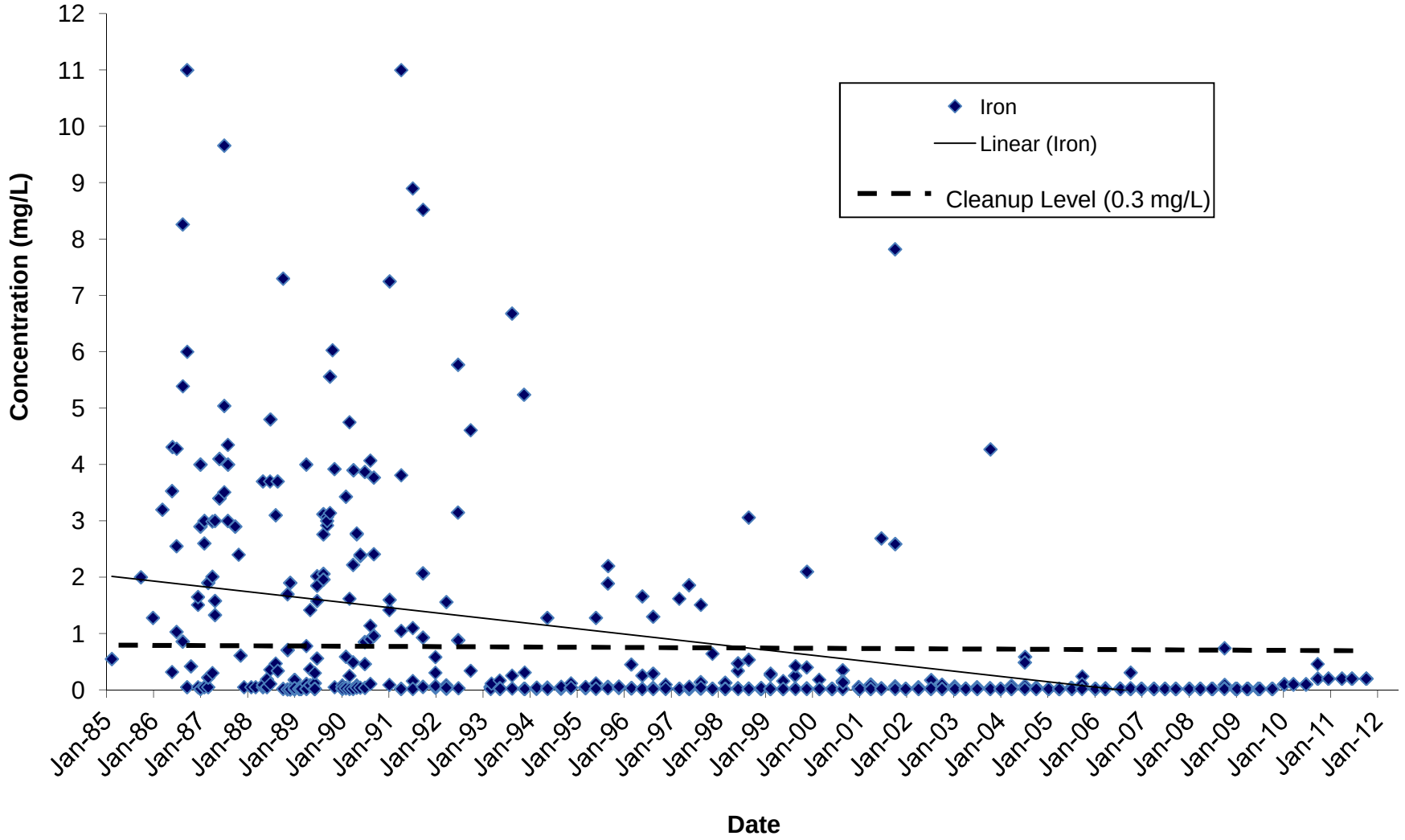


Figure E-5

Dissolved Manganese

Shallow Perched Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D, MW-14D

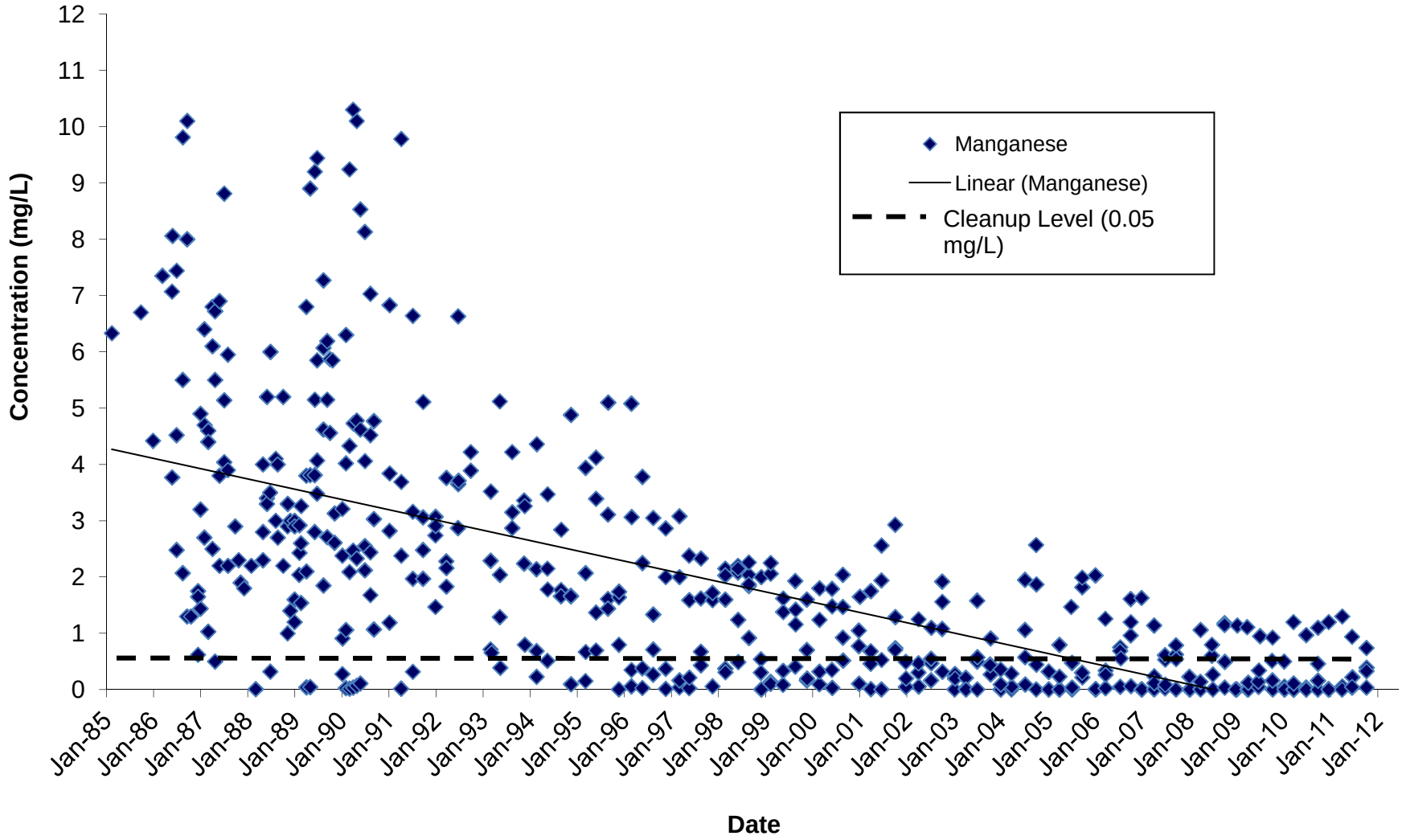


Figure E-6

Specific Conductance

Upper Regional Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D and MW-14D

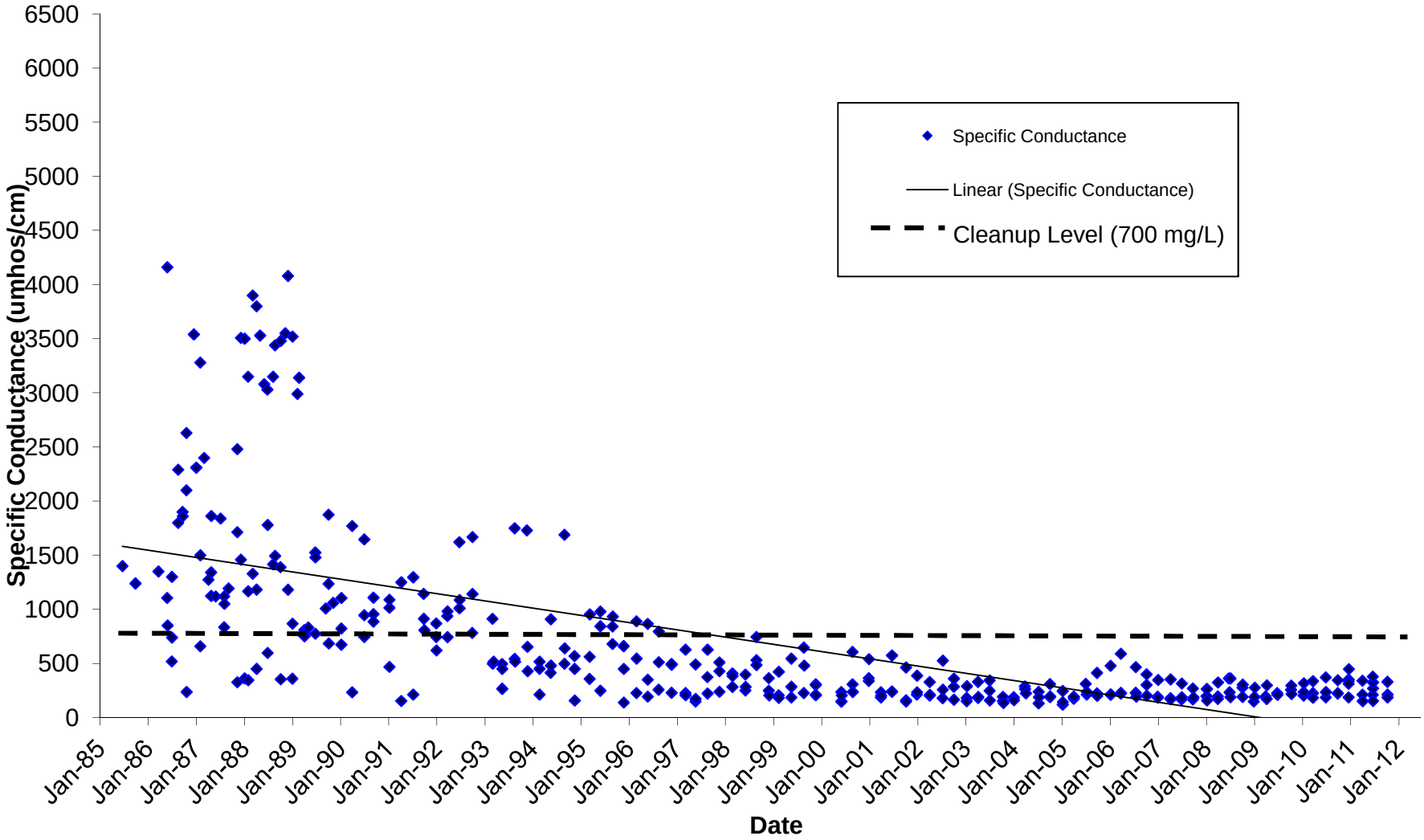


Figure E-7

Ammonia

Upper Regional Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D and MW-14D

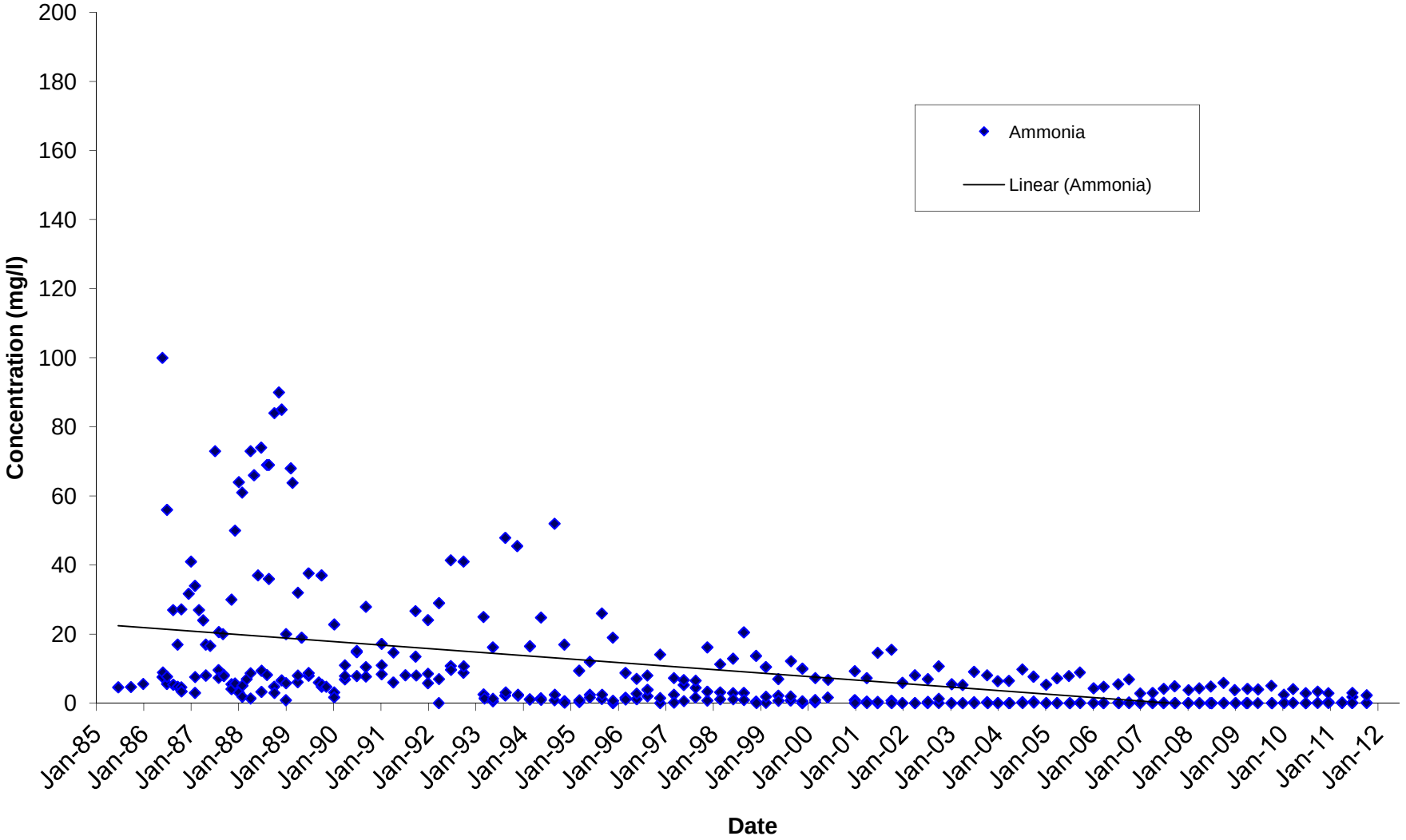


Figure E-8

Nitrate

Upper Regional Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D and MW-14D

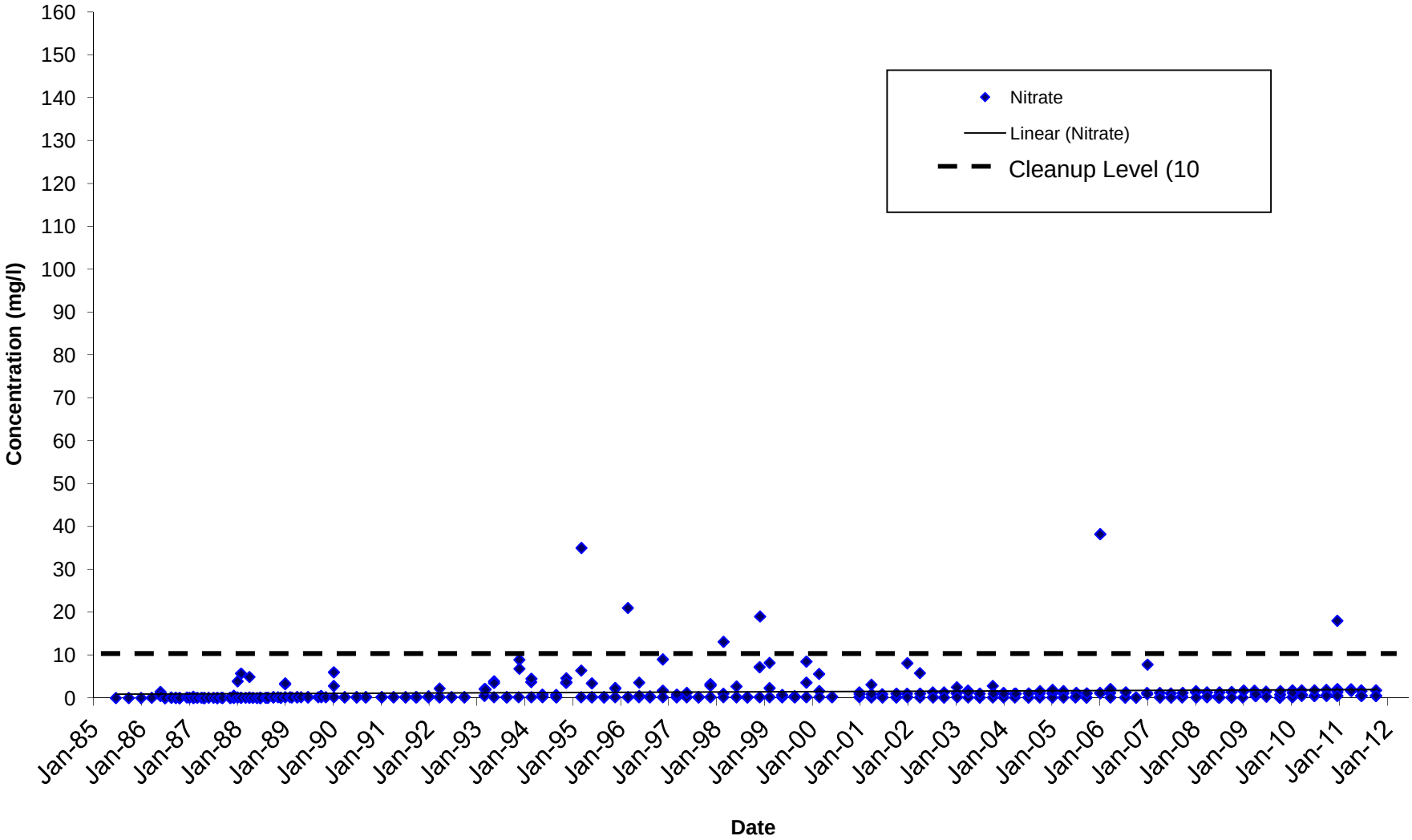


Figure E-9

Dissolved Iron

Upper Regional Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D, MW-14D

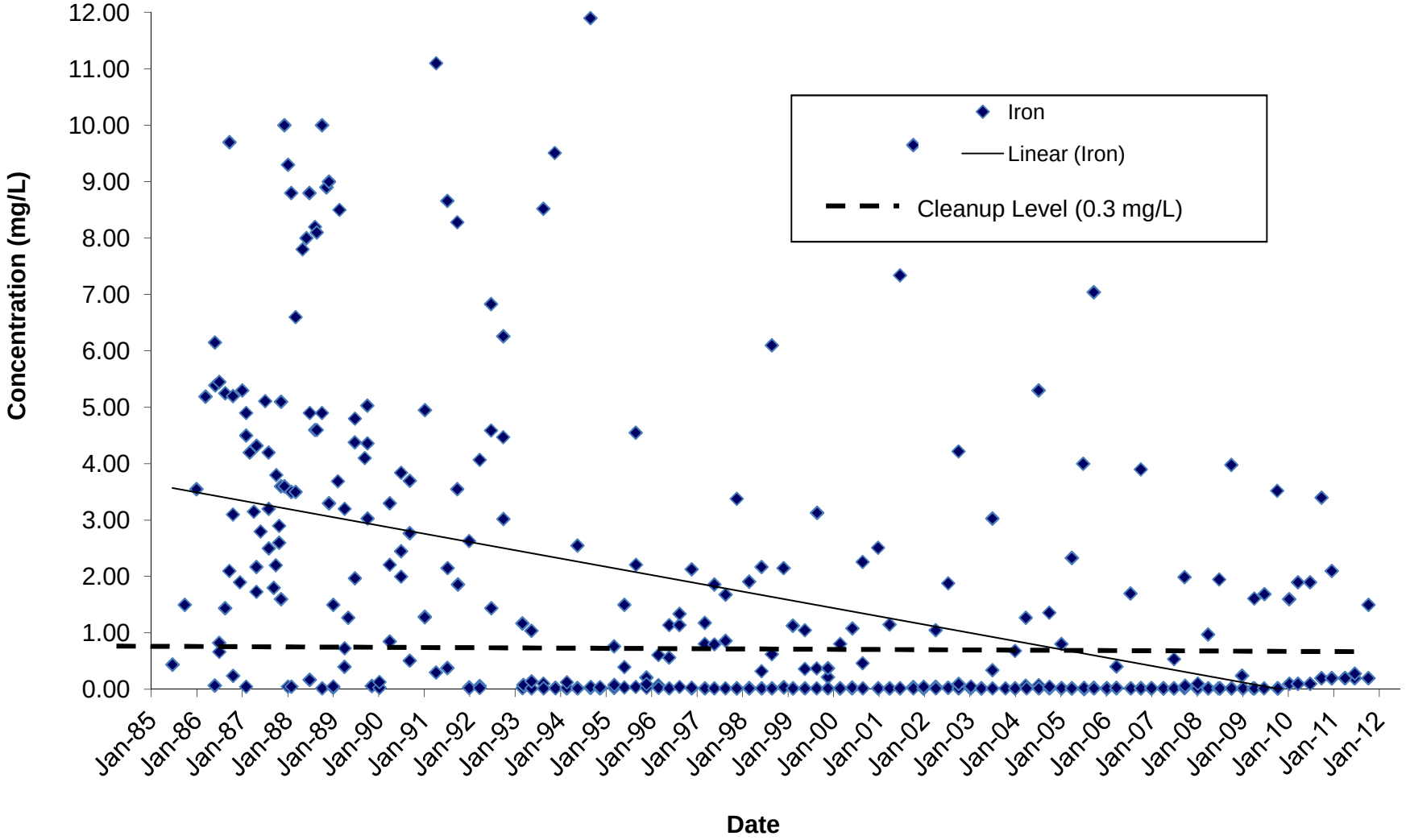
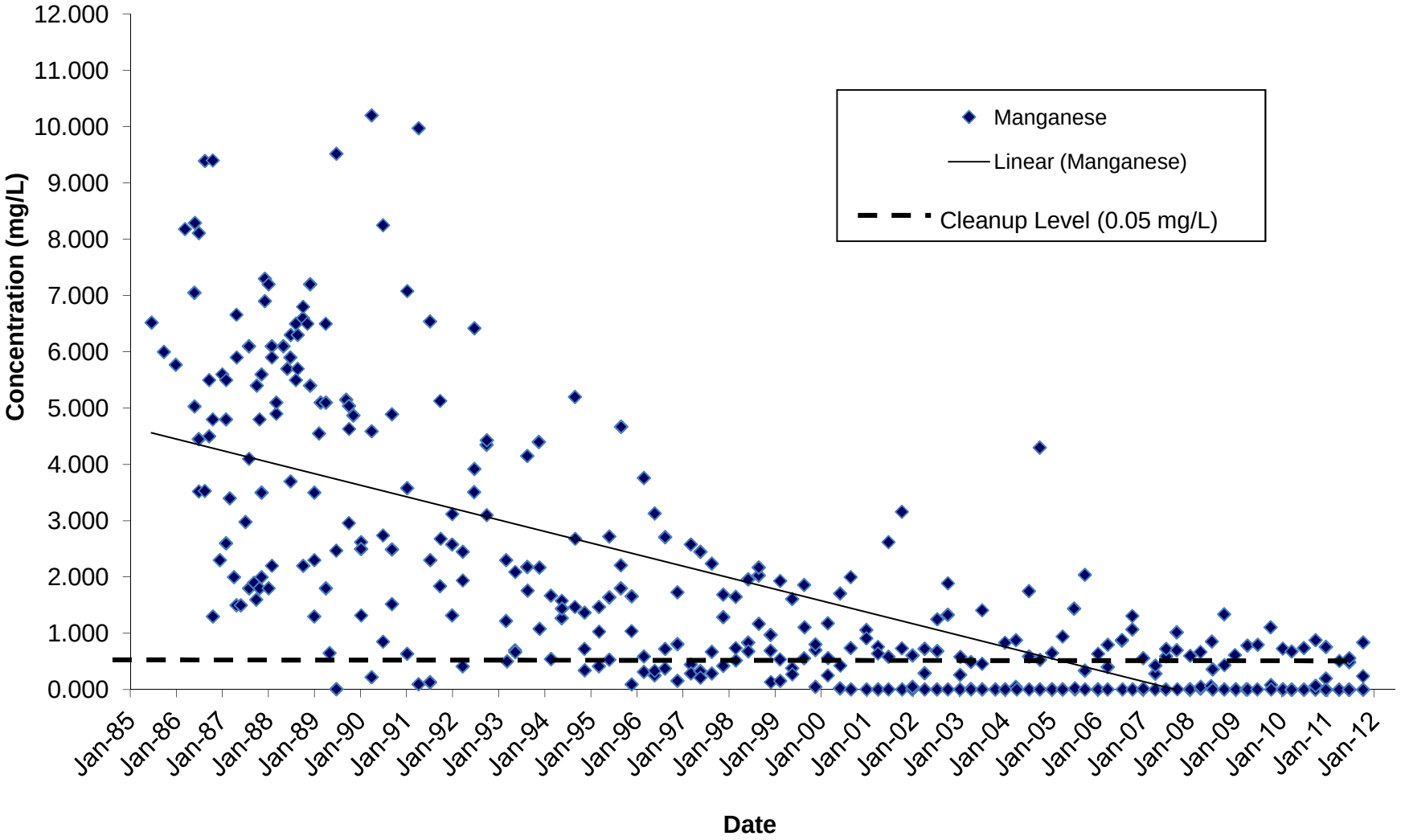


Figure E-10

Dissolved Manganese

Upper Regional Aquifer, Hidden Valley Landfill
Wells MW-11D(2), MW-13D, MW-14D



Appendix F
Statistical Calculations

Inorganics
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-10D																	
MW-10D	01/19/07	175	175	96	96	2.9	2.9	0.05 L	0.03	0.90	0.9	5.1	5.1	138	138	0.5 L	0.3
MW-10D	04/24/07	181	181	100	100	3.2	3.2	0.05 L	0.03	0.80	0.8	4.5	4.5	104	104	0.5 L	0.3
MW-10D	07/18/07	133	133	56	56	4.8	4.8	0.05 L	0.03	0.40	0.4	6.5	6.5	96	96	1.0	1.0
MW-10D	10/10/07	157	157	55	55	0.6	0.6	0.05 L	0.03	0.60	0.6	7.8	7.8	146	146	0.6	0.6
MW-10D	01/23/08	167	167	75	75	4.3	4.3	0.05	0.05	1.2	1.2	8.8	8.8	125	125	0.9	0.9
MW-10D	04/14/08	223	223	115	115	3.8	3.8	0.05 L	0.03	1.0	1.0	4.6	4.6	117	117	0.5	0.5
MW-10D	07/16/08	153	153	28	28	4.0	4.0	0.05 L	0.03	0.60	0.6	6.0	6.0	91	91	0.9	0.9
MW-10D	10/22/08	147	147	75	75	4.5	4.5	0.05 L	0.03	0.90	0.9	5.6	5.6	103	103	0.5	0.5
MW-10D	01/20/09	233	233	110	110	3.8	3.8	0.05 L	0.03	1.3	1.3	3.8	3.8	160	160	0.5 L	0.3
MW-10D	04/21/09	231	231	114	114	4.0	4.0	0.05 L	0.03	1.6	1.6	3.9	3.9	160	160	0.5 L	0.3
MW-10D	07/24/09	120	120	44	44	4.9	4.9	0.05 L	0.03	0.50	0.5	8.7	8.7	84	84	0.7	0.7
MW-10D	10/30/09	135	135	51	51	4.1	4.1	0.05 L	0.03	0.88	0.9	8.2	8.2	94	94	1.1	1.1
MW-10D	01/27/10	223	223	96	96	4.5	4.5	0.11	0.11	1.70	1.7	5.0	5.0	150	150	1.0 L	0.5
MW-10D	04/07/10	230	230	110	110	4.5	4.5	0.10 L	0.05	1.70	1.7	5.0 L	2.5	140	140	1.2	1.2
MW-10D	07/14/10	187	187	79	79	4.4	4.4	0.05 L	0.03	1.20	1.2	5.8	5.8	130	130	1.0 L	0.5
MW-10D	10/14/10	151	151	53	53	6.8	6.8	0.10 L	0.05	0.50 L	0.3	10.4	10.4	100	100	1.1	1.1
MW-10D	01/04/11	241	241	140	140	5.1	5.1	0.10 L	0.05	1.70	1.7	7.8	7.8	160	160	1.0 L	0.5
MW-10D	04/20/11	151	151	54	54	6.0	6.0	0.10 L	0.05	1.10	1.1	9.9	9.9	99	99	1.0 L	0.5
MW-10D	07/06/11	201	201	81	81	6.2	6.2	0.10 L	0.05	1.40	1.4	16.5	16.5	150	150	1.0 L	0.5
MW-10D	10/25/11	131	131	57	57	4.9	4.9	0.10 L	0.05	0.50 L	0.3	7.9	7.9	91	91	1.0 L	0.5
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20.0		2.000		18.0		19.0		20		10.0	
Minimum conc.			120		28		0.6		0.03		0.3		2.5		84		0.3
Maximum conc.			241		140		6.8		0.11		1.7		16.5		160		1.2
Average conc.			179		79		4.4		0.04		1.0		7.0		122		0.6
Distribution			Lognormal		Lognormal		Neither		NC		Normal		Lognormal		Lognormal		Lognormal
UCL 95			193		96		6.8 (M)		0.11 (M)		1.1		8.3		134		1.3
MW-10S																	
MW-10S	01/19/07	171	171	57	57	3.6	3.6	0.05 L	0.03	1.10	1.1	8.5	8.5	99	99	0.5 L	0.3
MW-10S	04/24/07	142	142	50	50	4.1	4.1	0.05 L	0.03	0.50	0.5	5.5	5.5	63	63	0.5 L	0.3
MW-10S	07/18/07	134	134	55	55	4.8	4.8	0.05 L	0.03	0.40	0.4	6.1	6.1	97	97	1.0	1.0
MW-10S	10/10/07	168	168	59	59	4.7	4.7	0.05 L	0.03	0.70	0.7	7.1	7.1	97	97	0.6	0.6
MW-10S	01/23/08	199	199	63	63	4.6	4.6	0.05	0.05	1.40	1.4	10.5	10.5	120	120	0.9	0.9
MW-10S	04/14/08	128	128	56	56	3.9	3.9	0.05 L	0.03	0.80	0.8	7.0	7.0	69	69	1.0	1.0
MW-10S	07/16/08	149	149	50	50	4.0	4.0	0.05 L	0.03	0.60	0.6	5.8	5.8	78	78	0.9	0.9
MW-10S	10/22/08	124	124	60	60	4.5	4.5	0.05 L	0.03	1.00	1.0	6.2	6.2	85	85	0.9	0.9
MW-10S	01/20/09	150	150	65	65	4.5	4.5	0.05 L	0.03	2.90	2.9	7.5	7.5	116	116	0.8	0.8
MW-10S	04/22/09	101	101	39	39	5.0	5.0	0.05 L	0.03	0.90	0.9	8.6	8.6	83	83	0.9	0.9
MW-10S	07/24/09	119	119	44	44	4.5	4.5	0.05 L	0.03	0.50	0.5	8.5	8.5	73	73	0.6	0.6
MW-10S	10/30/09	135	135	50	50	3.6	3.6	0.05 L	0.03	1.22	1.2	7.0	7.0	111	111	1.0	1.0
MW-10S	01/27/10	165	165	53	53	4.6	4.6	0.10 L	0.05	2.10	2.1	9.3	9.3	100	100	1.0 L	0.5
MW-10S	04/07/10	129	129	50	50	3.9	3.9	0.10 L	0.05	0.93	0.9	7.4	7.4	90	90	1.7	1.7
MW-10S	07/14/10	135	135	53	53	4.3	4.3	0.05 L	0.03	0.54	0.5	7.1	7.1	98	98	1.0 L	0.5
MW-10S	10/14/10	152	152	50	50	7.1	7.1	0.10 L	0.05	0.50 L	0.3	11.0	11.0	100	100	1.2	1.2
MW-10S	01/04/11	164.3	164.3	49	49	6.4	6.4	0.10 L	0.05	1.90	1.9	14.8	14.8	110	110	1.0 L	0.5
MW-10S	04/20/11	134	134	47	47	5.6	5.6	0.10 L	0.05	0.96	1.0	8.6	8.6	88	88	1.0 L	0.5
MW-10S	07/06/11	127	127	53	53	21.1	21.1	0.10 L	0.05	0.50 L	0.3	17.5	17.5	84	84	1.0	1.0
MW-10S	10/25/11	139	139	58	58	5.3	5.3	0.10 L	0.05	0.67	0.7	9.6	9.6	99	99	1.0 L	0.5
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20.0		1.000		18.00		20.0		20		13.0	
Minimum conc.			101		39		3.6		0.03		0.3		5.5		63		0.3
Maximum conc.			198.7		65		21.1		0.05		2.9		17.5		120		1.7
Average conc.			143		53.1		5.5		0.04		1.0		8.7		93		0.8
Distribution			Lognormal		Lognormal		Neither		NC		Lognormal		Lognormal		Lognormal		Lognormal
UCL 95			152		56		21.1 (M)		NC		1.3		9.8		100		1.2

Inorganics
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-11D(2)																	
MW-11D(2)	01/16/07	195	195	92	92	6.2	6.2	0.05 L	0.03	1.2	1.2	5.1	5.1	152	152	0.6	0.6
MW-11D(2)	04/23/07	180	180	93	93	6.4	6.4	0.05 L	0.03	1.2	1.2	4.8	4.8	134	134	0.5 L	0.3
MW-11D(2)	07/16/07	168	168	97	97	6.3	6.3	0.05 L	0.03	1.1	1.1	4.9	4.9	152	152	0.5 L	0.3
MW-11D(2)	10/15/07	188	188	96	96	6.2	6.2	0.05 L	0.03	1.2	1.2	5.1	5.1	163	163	0.6 L	0.3
MW-11D(2)	01/22/08	198	198	99	99	5.9	5.9	0.05 L	0.03	1.3	1.3	4.7	4.7	167	167	0.5	0.5
MW-11D(2)	04/16/08	198	198	101	101	6.0	6.0	0.06	0.06	1.3	1.3	5.6	5.6	135	135	1.3	1.3
MW-11D(2)	07/21/08	190	190	107	107	5.2	5.2	0.05 L	0.03	1.3	1.3	4.7	4.7	180	180	0.5	0.5
MW-11D(2)	10/21/08	192	192	106	106	6.4	6.4	0.05 L	0.03	1.4	1.4	5.0	5.0	168	168	0.5 L	0.3
MW-11D(2)	01/19/09	191	191	104	104	6.2	6.2	0.05 L	0.03	1.6	1.6	4.7	4.7	164	164	0.5 L	0.3
MW-11D(2)	04/14/09	196	196	102	102	6.0	6.0	0.05 L	0.03	1.7	1.7	4.9	4.9	161	161	0.5 L	0.3
MW-11D(2)	07/10/09	228	228	102	102	5.9	5.9	0.05 L	0.03	1.5	1.5	5.0	5.0	146	146	0.6	0.6
MW-11D(2)	10/28/09	218	218	99	99	6.2	6.2	0.05 L	0.03	1.6	1.6	4.8	4.8	158	158	0.6	0.6
MW-11D(2)	01/28/10	237	237	100	100	6.0	6.0	0.11	0.11	1.8	1.8	5.0 L	2.5	140	140	1.0 L	0.5
MW-11D(2)	04/08/10	227	227	98	98	5.8	5.8	0.10 L	0.05	1.8	1.8	5.0 L	2.5	150	150	1.0 L	0.5
MW-11D(2)	07/15/10	236	236	100	100	5.8	5.8	0.05 L	0.03	1.8	1.8	5.0 L	2.5	150	150	1.0 L	0.5
MW-11D(2)	10/13/10	223	223	100	100	6.7	6.7	0.10 L	0.05	1.9	1.9	5.2	5.2	160	160	1.0 L	0.5
MW-11D(2)	01/05/11	447.9	447.9	100	100	10.1	10.1	0.10 L	0.05	2.1	2.1	5.1	5.1	150	150	1.0 L	0.5
MW-11D(2)	04/19/11	214	214	110	110	5.9	5.9	0.12	0.12	2.0	2.0	5.4	5.4	140	140	1.0 L	0.5
MW-11D(2)	07/05/11	211	211	100	100	5.5	5.5	0.10 L	0.05	1.8	1.8	5.0	5.0	160	160	1.0 L	0.5
MW-11D(2)	10/26/11	213	213	110	110	5.5	5.5	0.10 L	0.05	1.8	1.8	5.8	5.8	150	150	1.0 L	0.5
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20		3		20		17		20		6	
Minimum conc.			168		92		5.2		0.03		1.1		2.5		134		0.3
Maximum conc.			447.9		110		10.1		0.12		2.1		5.8		180		1.3
Average conc.			218		101		6.2		0.04		1.6		4.7		154		0.5
Distribution			Neither		Lognormal		Neither		NC		Lognormal		Neither		Lognormal		NC
UCL 95			447.9 (M)		103		10.1 (M)		NC		1.7		5.8 (M)		159		NC
MW-11S																	
MW-11S	01/16/07	290	290	42	42	3.3	3.3	0.05 L	0.03	4.3	4.3	7.8	7.8	217	217	1.6	1.6
MW-11S	04/23/07	180	180	44	44	6.9	6.9	0.05	0.05	2.7	2.7	13.7	13.7	87	87	1.4	1.4
MW-11S	07/16/07	165	165	74	74	14.1	14.1	0.08	0.08	0.5	0.5	11.0	11.0	137	137	1.6	1.6
MW-11S	10/09/07	192	192	56	56	7.9	7.9	0.05 L	0.03	3.6	3.6	9.4	9.4	149	149	1.5	1.5
MW-11S	01/22/08	235	235	50	50	10.1	10.1	0.05	0.05	13.1	13.1	15.4	15.4	181	181	1.3	1.3
MW-11S	04/16/08	257	257	46	46	3.4	3.4	0.20	0.20	0.7	0.7	8.4	8.4	111	111	1.8	1.8
MW-11S	07/21/08	190	190	77	77	9.7	9.7	0.05 L	0.03	1.9	1.9	13.1	13.1	196	196	1.5	1.5
MW-11S	10/21/08	238	238	100	100	14.7	14.7	0.05 L	0.03	0.2	0.2	11.4	11.4	174	174	2.0	2.0
MW-11S	01/19/09	260	260	42	42	12.2	12.2	0.05 L	0.03	12.5	12.5	19.8	19.8	194	194	0.9	0.9
MW-11S	04/15/09	238	238	54	54	25.4	25.4	0.05 L	0.03	4.1	4.1	12.9	12.9	166	166	3.0	3.0
MW-11S	07/10/09	232	232	84	84	13.2	13.2	0.05 L	0.03	1.5	1.5	13.6	13.6	172	172	1.6	1.6
MW-11S	10/28/09	251	251	59	59	33.4	33.4	0.05 L	0.03	2.0	2.0	9.2	9.2	183	183	1.4	1.4
MW-11S	01/28/10	386	386	53	53	15.0	15.0	0.12	0.12	19.0	19.0	27.0	27.0	250	250	1.0	1.0
MW-11S	04/08/10	306	306	66	66	14.0	14.0	0.10 L	0.05	9.2	9.2	24.0	24.0	220	220	1.9	1.9
MW-11S	07/15/10	250	250	72	72	9.5	9.5	0.50 L	0.25	3.9	3.9	18.0	18.0	160	160	1.0 L	0.5
MW-11S	10/13/10	188	188	61	61	9.9	9.9	0.10 L	0.05	3.2	3.2	11.4	11.4	140	140	1.1	1.1
MW-11S	01/05/11	656.2	656.2	54	54	14.4	14.4	0.10 L	0.05	17.0	17.0	24.4	24.4	220	220	1.0 L	0.5
MW-11S	04/19/11	252	252	45	45	13.2	13.2	0.17	0.17	10.0	10.0	23.3	23.3	180	180	1.2	1.2
MW-11S	07/05/11	184	184	51	51	10.0	10.0	0.22	0.22	3.3	3.3	19.0	19.0	160	160	1.1	1.1
MW-11S	10/25/11	209	209	59	59	18.7	18.7	0.16	0.16	0.5 L	0.3	11.8	11.8	150	150	1.1	1.1
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20.0		8.00		19.0		20.0		20		18.0	
Minimum conc.			165		42		3.3		0.03		0.2		7.8		87		0.5
Maximum conc.			656.2		100		33.4		0.25		19.0		27.0		250		3.0
Average conc.			258		59		13.0		0.08		5.6		15.2		172		1.4
Distribution			Neither		Lognormal		Lognormal		NC		Lognormal		Lognormal		Lognormal		Normal
UCL 95			656.2 (M)		66		17.2		NC		19.1		18.0		191		1.5

Inorganics
Statistical Summary of Groundwater Data
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Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-12S																	
MW-12S	01/23/07	348	348	90	90	32.0	32.0	0.54	0.54	7.4	7.4	6.3	6.3	225	225	5.8	5.8
MW-12S	07/19/07	292	292			16.2	16.2	4.46	4.46	0.1 L	0.1	1.1	1.1	224	224	5.3	5.3
MW-12S	01/30/08	288	288	27	27	15.7	15.7	0.43	0.43	24.3	24.3	8.4	8.4	284	284	3.2	3.2
MW-12S	07/22/08	370	370	160	160	10.4	10.4	1.91	1.91	0.4	0.4	2.1	2.1	218	218	3.3	3.3
MW-12S	01/21/09	360	360	17	17	14.2	14.2	0.05 L	0.03	34.8	34.8	6.6	6.6	315	315	1.9	1.9
MW-12S	1/29/2010	334	334	48	48	18.0	18.0	0.10 L	0.05	17.0	17.0	11.0	11.0	240	240	1.6	1.6
MW-12S	7/14/2010	362	362	160	160	15.0	15.0	1.30	1.30	0.5 L	0.3	5.0 L	2.5	240	240	2.7	2.7
MW-12S	1/4/2011	337.3	337.3	57	57	18.5	18.5	0.44	0.44	18.0	18.0	9.5	9.5	250	250	1.7	1.7
MW-12S	7/8/2011	326	326	160	160	19.4	19.4	1.80	1.80	0.5 L	0.3	1.2	1.2	230	230	3.9	3.9
No. Analyzed		9		8		9		9		9		9		9		9	
No. Detect		9		8		9.0		7.00		6.0		8.0		9		9.0	
Minimum conc.			288		17		10.4		0.03		0.1		1.1		218		1.6
Maximum conc.			370		160		32.0		4.46		34.8		11.0		315		5.8
Average conc.			335		90		17.7		1.22		11.4		5.4		247		3.3
Distribution			Lognormal		Lognormal		Neither		Lognormal		Neither		Lognormal		Neither		Lognormal
UCL 95			355		271		32.0 (M)		44.73		34.8 (M)		12.5		315 (M)		4.8
MW-12D																	
MW-12D	01/23/07	343	343	169	169	17.2	17.2	0.05 L	0.03	0.8	0.8	4.7	4.7	222	222	1.3	1.3
MW-12D	01/23/07	263	263			15.6	15.6	0.05 L	0.03	0.8	0.8	4.6	4.6	219	219	1.2	1.2
MW-12D	01/30/08	335	335	174	174	17.9	17.9	0.05 L	0.03	0.7	0.7	4.7	4.7	224	224	1.6	1.6
MW-12D	07/22/08	385	385	177	177	13.6	13.6	0.05 L	0.03	0.8	0.8	4.7	4.7	234	234	1.2	1.2
MW-12D	01/21/09	392	392	192	192	16.9	16.9	0.05 L	0.03	0.7	0.7	4.8	4.8	248	248	1.2	1.2
MW-12D	07/14/09	337	337	158	158	13.4	13.4	0.05 L	0.03	1.0	1.0	5.0	5.0	209	209	1.0	1.0
MW-12D	01/29/10	380	380	170	170	14	14.0	0.1 L	0.05	1.1	1.1	5.0 L	2.5	220	220	1.0 L	0.5
MW-12D	07/14/10	334	334	160	160	12	12.0	0.05 L	0.03	1.3	1.3	5.4	5.4	220	220	1.0 L	0.5
MW-12D	01/04/11	352.5	352.5	160	160	11.7	11.7	0.1 L	0.05	1.3	1.3	5.3	5.3	220	220	1.0 L	0.5
MW-12D	07/08/11	270	270	130	130	9.5	9.5	0.1 L	0.05	1.6	1.6	5.1	5.1	190	190	1.0 L	0.5
No. Analyzed		10		9		10		10		10		10		10		10	
No. Detect		10		9		10		0		10		9		10		6	
Minimum conc.			263		130		9.5		0.03		0.7		2.5		190		0.5
Maximum conc.			392		192		17.9		0.05		1.6		5.4		248		1.6
Average conc.			339		166		14.2		0.03		1.0		4.7		221		1.0
Distribution			Neither		Normal		Lognormal		NC		Lognormal		Neither		Neither		Neither
UCL 95			392 (M)		176		16.1		NC		1.2		5.4 (M)		248 (M)		1.6 (M)

Inorganics
Statistical Summary of Groundwater Data
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Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-13D																	
MW-13D	01/19/07	348	348.00	103	103.00	26.7	26.7	0.05 L	0.03	7.8	7.8	27.3	27.3	257	257.00	1.8	1.8
MW-13D	04/24/07	354	354.00	165	165.00	29.3	29.3	0.10	0.10	0.2	0.2	18.7	18.7	256	256.00	2.5	2.5
MW-13D	07/18/07	315	315.00	176	176.00	26.0	26.0	0.15	0.15	0.1 L	0.1	17.2	17.2	267	267.00	2.9	2.9
MW-13D	10/10/07	271	271.00	138	138.00	17.9	17.9	0.07	0.07	0.4	0.4	21.8	21.8	244	244.00	1.8	1.8
MW-13D	01/24/08	265	265.00	110	110.00	13.0	13.0	0.05 L	0.03	1.6	1.6	16.9	16.9	188	188.00	1.4	1.4
MW-13D	04/18/08	326	326.00	146	146.00	17.8	17.8	0.05 L	0.03	0.4	0.4	18.8	18.8	217	217.00	1.6	1.6
MW-13D	07/21/08	362	362.00	146	146.00	14.4	14.4	0.07	0.07	0.1	0.1	18.9	18.9	276	276.00	1.8	1.8
MW-13D	10/22/08	305	305.00	130	130.00	15.4	15.4	0.08	0.08	0.1	0.1	20.2	20.2	203	203.00	1.5	1.5
MW-13D	01/22/09	277	277.00	118	118.00	11.0	11.0	0.05 L	0.03	1.7	1.7	11.4	11.4	164	164.00	1.0	1.0
MW-13D	04/23/09	299	299.00	136	136.00	13.2	13.2	0.05 L	0.03	0.9	0.9	11.9	11.9	224	224.00	0.9	0.9
MW-13D	07/08/09	363	363.00	152	152.00	16.4	16.4	0.05 L	0.03	0.3	0.3	16.0	16.0	234	234.00	1.5	1.5
MW-13D	10/26/09	296	296.00	125	125.00	14.4	14.4	0.05 L	0.03	0.8	0.8	15.3	15.3	195	195.00	1.5	1.5
MW-13D	01/29/10	319	319.00	130	130.00	12.0	12.0	0.10 L	0.05	1.2	1.2	11.0	11.0	190	190.00	1.0 L	0.5
MW-13D	04/08/10	338	338.00	140	140.00	14.0	14.0	0.10 L	0.05	0.8	0.8	12.0	12.0	220	220.00	1.5	1.5
MW-13D	07/14/10	372	372.00	160	160.00	15.0	15.0	0.05 L	0.03	0.5 L	0.3	15.0	15.0	230	230.00	1.0 L	0.5
MW-13D	10/14/10	346	346.00	140	140.00	13.7	13.7	0.10 L	0.05	0.7	0.7	15.1	15.1	210	210.00	1.2	1.2
MW-13D	01/04/11	313.2	313.20	130	130.00	13.1	13.1	0.10 L	0.05	1.7	1.7	14.1	14.1	200	200.00	1.0 L	0.5
MW-13D	04/19/11	342	342.00	150	150.00	17.4	17.4	0.10 L	0.05	1.7	1.7	15.4	15.4	210	210.00	1.0	1.0
MW-13D	07/06/11	380	380.00	170	170.00	21.1	21.1	0.10 L	0.05	0.5 L	0.3	17.5	17.5	260	260.00	1.8	1.8
MW-13D	10/25/11	331	331	150	150	15.9	15.9	0.12	0.12	0.5 L	0.3	19.4	19.4	220	220	1.4	1.4
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20.0		6.00		16.00		20.00		20.00		17.00	
Minimum conc.			265.00		103.00		11.0		0.03		0.1		11.0		164.000		0.5
Maximum conc.			380.00		176.00		29.3		0.15		7.8		27.3		276.000		2.9
Average conc.			326		141		16.9		0.07		2.6		17.3		237		1.7
Distribution			Lognormal		Lognormal		Lognormal		NC		Lognormal		Lognormal		Lognormal		Normal
UCL 95			340		149		18.9		NC		2.5		18.4		236		1.5
MW-13S																	
MW-13S	01/15/07	350	350	85	85	24.5	24.5	0.05 L	0.03	10.8	10.8	27.3	27.3	284	284	1.50	1.5
MW-13S	04/24/07	374	374	168	168	34.9	34.9	0.08	0.08	0.2	0.2	18.7	18.7	272	272	3.10	3.1
MW-13S	07/18/07	327	327	177	177	28.3	28.3	0.13	0.13	0.1 L	0.1	17.2	17.2	255	255	3.20	3.2
MW-13S	10/09/07	264	264	137	137	18.0	18.0	0.12	0.12	0.1	0.1	21.8	21.8	340	340	2.20	2.2
MW-13S	01/24/08	210	210	90	90	11.1	11.1	0.05 L	0.03	2.2	2.2	18.8	18.8	174	174	1.70	1.7
MW-13S	04/17/08	309	309	138	138	16.8	16.8	0.05 L	0.03	0.3	0.3	20.0	20.0	208	208	2.20	2.2
MW-13S	07/21/08	350	350	142	142	13.6	13.6	0.07	0.07	0.1 L	0.1	19.9	19.9	239	239	2.30	2.3
MW-13S	10/22/08	294	294	119	119	15.3	15.3	0.13	0.13	0.1 L	0.1	23.0	23.0	175	175	1.80	1.8
MW-13S	01/22/09	171	171	62	62	6.4	6.4	0.05 L	0.03	4.7	4.7	10.3	10.3	136	136	1.20	1.2
MW-13S	04/23/09	265	265	110	110	12.7	12.7	0.05 L	0.03	0.8	0.8	19.2	19.2	212	212	1.30	1.3
MW-13S	07/08/09	354	354	151	151	15.4	15.4	0.06	0.06	0.1 L	0.1	18.6	18.6	214	214	1.90	1.9
MW-13S	10/26/09	284	284	104	104	17.8	17.8	0.05 L	0.03	1.3	1.3	18.8	18.8	202	202	1.00	1.0
MW-13S	01/28/10	182	182	61	61	5.0	5.0	0.11	0.11	3.1	3.1	10.0	10.0	130	130	1.00 L	0.5
MW-13S	04/08/10	287	287	110	110	13.0	13.0	0.10 L	0.05	1.1	1.1	19.0	19.0	210	210	1.80	1.8
MW-13S	07/14/41	367	367	150	150	15.0	15.0	0.12	0.12	0.5 L	0.3	18.0	18.0	230	230	1.10	1.1
MW-13S	10/14/10	365	365	130	130	17.4	17.4	0.10 L	0.05	0.5 L	0.3	21.7	21.7	210	210	1.60	1.6
MW-13S	01/05/11	488.7	488.7	86	86	11.1	11.1	0.10 L	0.05	3.3	3.3	17.5	17.5	160	160	1.00 L	0.5
MW-13S	04/19/11	401	401	120	120	31.4	31.4	0.24	0.24	6.0	6.0	25.7	25.7	270	270	1.60	1.6
MW-13S	07/05/11	383	383	160	160	26.3	26.3	0.11	0.11	0.5 L	0.3	17.7	17.7	270	270	2.10	2.1
MW-13S	10/25/11	351	351	150	150	20.0	20.0	0.15	0.15	0.5 L	0.3	21.8	21.8	240	240	1.90	1.9
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20		11		12		20		20		18	
Minimum conc.			171		61		5.0		0.03		0.1		10.0		130		0.5
Maximum conc.			488.7		177		34.9		0.24		10.8		27.3		340		3.2
Average conc.			319		123		17.7		0.08		1.8		19.3		222		1.7
Distribution			Lognormal		Normal		Lognormal		Lognormal		Lognormal		Neither		Lognormal		Normal
UCL 95			357		140		22.5		0.18		11.5		27.3 (M)		246		2.0

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Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-14D																	
MW-14D	01/18/07	184	184	63	63	5.1	5.1	2.87	2.87	0.9	0.9	8.4	8.4	87	87	1.9	1.9
MW-14D	04/24/07	172	172	60	60	4.6	4.6	2.98	2.98	0.1 L	0.1	8.1	8.1	24	24	1.6	1.6
MW-14D	07/18/07	190	190	80	80	6.3	6.3	4.21	4.21	0.1 L	0.1	10.8	10.8	127	127	2.1	2.1
MW-14D	10/10/07	168	168	86	86	14.7	14.7	4.90	4.90	0.1 L	0.1	9.0	9.0	148	148	2.0	2.0
MW-14D	01/25/08	159	159	67	67	7.2	7.2	3.83	3.83	0.1 L	0.1	9.2	9.2	125	125	3.8	3.8
MW-14D	04/16/08	174	174	78	78	5.7	5.7	4.32	4.32	0.2	0.2	9.0	9.0	95	95	2.0	2.0
MW-14D	07/14/08	234	234	95	95	6.3	6.3	4.86	4.86	0.1 L	0.1	10.6	10.6	141	141	2.0	2.0
MW-14D	10/20/08	278	278	115	115	14.6	14.6	5.91	5.91	0.1 L	0.1	8.8	8.8	190	190	2.3	2.3
MW-14D	01/14/09	150	150	68	68	6.8	6.8	3.82	3.82	0.1 L	0.1	8.1	8.1	115	115	2.4	2.4
MW-14D	04/22/09	174	174	75	75	5.8	5.8	4.19	4.19	0.4	0.4	10.3	10.3	126	126	2.0	2.0
MW-14D	07/13/09	211	211	82	82	5.8	5.8	4.04	4.04	0.3	0.3	12.6	12.6	135	135	1.5	1.5
MW-14D	10/23/09	257	257	93	93	14.3	14.3	5.07	5.07	0.1 L	0.1	11.7	11.7	173	173	2.4	2.4
MW-14D	01/27/10	205	205	71	71	7.8	7.8	2.50	2.50	0.2 L	0.1	11.0	11.0	110	110	2.3	2.3
MW-14D	04/08/10	184	184	68	68	6.0	6.0	4.10	4.10	0.5 L	0.3	11.0	11.0	120	120	2.8	2.8
MW-14D	07/14/10	188	188	68	68	5.2	5.2	2.90	2.90	0.5 L	0.3	11.0	11.0	120	120	1.1	1.1
MW-14D	10/14/10	228	228	82	82	10.1	10.1	3.40	3.40	0.5 L	0.3	11.5	11.5	130	130	1.9	1.9
MW-14D	01/04/11	188.2	188.2	71	71	6.0	6.0	2.90	2.90	0.5 L	0.3	10.1	10.1	120	120	1.9	1.9
MW-14D	04/21/11	153	153	56	56	6.4	6.4	1.60	1.60	0.5 L	0.3	9.4	9.4	99	99	1.4	1.4
MW-14D	07/08/11	154	154	64	64	5.5	5.5	3.00	3.00	0.5 L	0.3	11.1	11.1	110	110	1.7	1.7
MW-14D	10/26/11	187	187	71	71	9.5	9.5	2.30	2.30	0.5 L	0.3	12.6	12.6	120	120	1.4	1.4
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20		20		4		20		20		20	
Minimum conc.			150		56		4.6		1.60		0.1		8.1		24		1.1
Maximum conc.			278		115		14.7		5.91		0.9		12.6		190		3.8
Average conc.			192		76		7.7		3.69		0.2		10.2		121		2.0
Distribution			Lognormal		Lognormal		Neither		Lognormal		NC		Lognormal		Neither		Lognormal
UCL 95			206		81		14.7 (M)		4.23		NC		10.8		190 (M)		2.3
MW-14R																	
MW-14R	01/18/07	117	117	49	49	1.3	1.3	0.08	0.08	0.1 L	0.1	3.4	3.4	108	108	0.5 L	0.3
MW-14R	01/30/08	124	124	44	44	1.5	1.5	0.05 L	0.03	0.1	0.1	3.6	3.6	113	113	2.5	2.5
MW-14R	01/15/09	87	87	48	48	1.6	1.6	0.05 L	0.03	0.3	0.3	3.3	3.3	102	102	0.6	0.6
MW-14R	01/26/10	96	96	48	48	3.0 L	1.5	0.15	0.15	0.2 L	0.1	5.0 L	2.5	92	92	1.0 L	0.5
MW-14R	01/06/11	107.9	107.9	48	48	1.8	1.8	0.10 L	0.05	0.5 L	0.3	3.8	3.8	110	110	1.0 L	0.5
No. Analyzed		5		5		5		5		5		5		5		5	
No. Detect		5		5		4		2		2		4		5		2	
Minimum conc.			87		44		1.3		0.03		0.1		2.5		92		0.3
Maximum conc.			124		49		1.8		0.15		0.3		3.8		113		2.5
Average conc.			106		47		1.5		0.07		0.2		3.3		105		0.9
Distribution			Lognormal		Neither		Lognormal		NC		NC		Neither		Normal		NC
UCL 95			124		49 (M)		1.7		NC		NC		3.8 (M)		113		NC

Inorganics
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Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-14S																	
MW-14S	01/18/07	159	159	44	44	3.5	3.5	0.05 L	0.03	2.2	2.2	7.9	7.9	101	101	1.7	1.7
MW-14S	04/24/07	124	124	38	38	3.9	3.9	0.18	0.18	0.7	0.7	6.5	6.5	68	68	1.2	1.2
MW-14S	07/18/07	186	186	67	67	21.5	21.5	0.20	0.20	0.1 L	0.1	7.2	7.2	145	145	2.5	2.5
MW-14S	10/10/07	191	191	57	57	14.0	14.0	1.26	1.26	0.3	0.3	7.4	7.4	119	119	2.2	2.2
MW-14S	01/25/08	141	141	39	39	3.5	3.5	0.05 L	0.03	1.7	1.7	8.1	8.1	111	111	2.1	2.1
MW-14S	04/16/08	113	113	46	46	3.4	3.4	0.20	0.20	0.7	0.7	8.4	8.4	111	111	1.8	1.8
MW-14S	07/14/08	225	225	78	78	14.5	14.5	1.53	1.53	0.1 L	0.1	9.7	9.7	150	150	2.1	2.1
MW-14S	01/14/09	79	79	23	23	2.4	2.4	0.05 L	0.03	2.5	2.5	5.1	5.1	77	77	2.3	2.3
MW-14S	04/22/09	99	99	40	40	4.3	4.3	0.16	0.16	0.9	0.9	9.1	9.1	86	86	1.8	1.8
MW-14S	07/13/09	168	168	58	58	11.5	11.5	0.81	0.81	0.1 L	0.1	12.6	12.6	132	132	1.8	1.8
MW-14S	10/23/09	182	182	60	60	12.7	12.7	1.20	1.20	1.4	1.4	9.8	9.8	108	108	2.3	2.3
MW-14S	01/27/10	101	101	29	29	3.5	3.5	0.22	0.22	1.7	1.7	6.6	6.6	72	72	1.9	1.9
MW-14S	04/08/10	110	110	37	37	3.3	3.3	0.44	0.44	1.0	1.0	8.2	8.2	86	86	2.6	2.6
MW-14S	07/14/10	119	119	38	38	4.3	4.3	0.05 L	0.03	1.2	1.2	8.6	8.6	92	92	1.0 L	0.5
MW-14S	10/14/10	209	209	69	69	16.3	16.3	0.56	0.56	0.5 L	0.3	9.4	9.4	130	130	1.9	1.9
MW-14S	01/04/11	108.4	108.4	36	36	4.0	4.0	0.10 L	0.05	1.4	1.4	6.5	6.5	86	86	1.6	1.6
MW-14S	04/21/11	122	122	37	37	6.6	6.6	0.18	0.18	1.7	1.7	8.4	8.4	85	85	1.2	1.2
MW-14S	07/08/11	107	107	38	38	4.9	4.9	0.39	0.39	0.5	0.5	9.9	9.9	81	81	1.1	1.1
MW-14S	10/26/11	292	292	69	69	21.5	21.5	0.44	0.44	0.5 L	0.3	10.0	10.0	140	140	1.6	1.6
No. Analyzed		19		19		19		19		19		19		19		19	
No. Detect		19		19		19		14		14		19		19		18	
Minimum conc.			79		23		2.4		0.03		0.1		5.1		68		0.5
Maximum conc.			292		78		21.5		1.53		2.5		12.6		150		2.6
Average conc.			171		61		10.3		1.29		1.2		8.9		121		2.4
Distribution			Lognormal		Lognormal		Neither		Lognormal		Lognormal		Lognormal		Lognormal		Normal
UCL 95			174		55		21.5 (M)		1.13		4.7		9.2		116		2.0
MW-15D																	
MW-15D	01/15/07	316	316	156	156	17.4	17.4	0.05 L	0.03	0.30	0.3	8.8	8.8	245	245	1.8	1.8
MW-15D	07/16/07	342	342	147	147	15.7	15.7	0.05 L	0.03	0.40	0.4	8.5	8.5	205	205	1.6	1.6
MW-15D	01/21/08	302	302	151	151	17.0	17.0	0.05 L	0.03	0.30	0.3	8.3	8.3	226	226	2.0	2.0
MW-15D	07/16/08	341	341	146	146	14.5	14.5	0.05 L	0.03	0.30	0.3	8.4	8.4	226	226	3.8	3.8
MW-15D	01/13/09	369	369	187	187	18.5	18.5	0.05 L	0.03	0.30	0.3	8.0	8.0	227	227	1.8	1.8
MW-15D	07/22/09	335	335	155	155	14.4	14.4	0.05 L	0.03	0.30	0.3	8.7	8.7	218	218	1.8	1.8
MW-15D	01/26/10	338	338	170	170	16.0	16.0	0.12	0.12	0.35	0.4	8.5	8.5	210	210	1.3	1.3
MW-15D	07/15/10	334	334	140	140	12.0	12.0	0.05 L	0.03	0.51	0.5	8.6	8.6	190	190	1.0 L	0.5
MW-15D	01/05/11	653	653	150	150	15.7	15.7	0.10 L	0.05	0.50 L	0.3	10.4	10.4	200	200	1.3	1.3
MW-15D	07/06/11	280	280	140	140	10.4	10.4	1.90	1.90	0.57	0.6	8.6	8.6	200	200	1.6	1.6
No. Analyzed		10		10		10		10		10		10		10		10	
No. Detect		10		10		10		2		9		10		10		9	
Minimum conc.			280		140		10.4		0.03		0.3		8.0		190		0.5
Maximum conc.			653		187		18.5		1.90		0.6		10.4		245		3.8
Average conc.			361		154		15.2		0.22		0.4		8.7		215		1.8
Distribution			Neither		Neither		Lognormal		NC		Neither		Neither		Lognormal		Neither
UCL 95			653 (M)		187 (M)		16.9		NC		0.57 (M)		10.4 (M)		225		3.8 (M)

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Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-15S																	
MW-15S	01/15/07	228	228	29	29	9.6	9.6	0.05 L	0.03	8.7	8.7	18.7	18.7	147	147	2.2	2.2
MW-15S	07/16/07	195	195	72	72	11.5	11.5	1.42	1.42	0.1 L	0.1	10.4	10.4	106	106	2.3	2.3
MW-15S	01/21/08	297	297	77	77	20.8	20.8	2.95	2.95	10	10.0	11.8	11.8	237	237	2.9	2.9
MW-15S	07/14/08	241	241	100	100	9.9	9.9	3.68	3.68	0.1 L	0.1	11.1	11.1	155	155	3.2	3.2
MW-15S	01/13/09	294	294	26	26	11.5	11.5	2.13	2.13	22.2	22.2	11.4	11.4	226	226	2.0	2.0
MW-15S	07/24/09	212	212	83	83	9.8	9.8	3.35	3.35	0.1 L	0.1	13.0	13.0	149	149	1.9	1.9
MW-15S	01/26/10	288	288	79	79	21	21.0	2	2.00	6.6	6.6	11.0	11.0	190	190	2.2	2.2
MW-15S	07/15/10	271	271	100	100	13	13.0	3	3.00	0.5 L	0.3	10.0	10.0	150	150	1.9	1.9
MW-15S	01/05/11	526.7	526.7	83	83	18.3	18.3	2.9	2.90	3.6	3.6	10.8	10.8	160	160	2.0	2.0
MW-15S	07/06/11	154	154	60	60	6.8	6.8	1.4	1.40	0.5 L	0.3	11.6	11.6	110	110	1.5	1.5
No. Analyzed		10		10		10		10		10		10		10		10	
No. Detect		10		10		10		9		5		10		10		10	
Minimum conc.			154		26		6.8		0.03		0.1		10.0		106		1.5
Maximum conc.			527		100		21.0		3.68		22.2		18.7		237		3.2
Average conc.			271		71		13.2		2.29		5.2		12.0		163		2.2
Distribution			Lognormal		Neither		Lognormal		Neither		Neither		Neither		Lognormal		Lognormal
UCL 95			337		100 (M)		17.2		3.68 (M)		22.2 (M)		18.7 (M)		194		2.5
MW-17S																	
MW-17S	01/15/07	511	511	208	208	31.1	31.1	4.22	4.22	14.9	14.9	10.7	10.7	386	386	4.6	4.6
MW-17S	04/23/07	396	396	204	204	24.3	24.3	3.48	3.48	0.1 L	0.1	5.9	5.9	277	277	4.5	4.5
MW-17S	07/19/07	316	316	190	190	20.2	20.2	2.30	2.30	0.1 L	0.1	5.8	5.8	253	253	3.5	3.5
MW-17S	10/09/07	334	334	208	208	19.3	19.3	5.00	5.00	0.6	0.6	2.9	2.9	285	285	4.1	4.1
MW-17S	01/21/08	399	399	67	67	15.1	15.1	0.69	0.69	32.5	32.5	5.7	5.7	333	333	2.5	2.5
MW-17S	04/17/08	488	488	192	192	20.0	20.0	3.86	3.86	9.9	9.9	6.9	6.9	281	281	3.5	3.5
MW-17S	07/14/08	473	473	226	226	14.7	14.7	6.31	6.31	0.4	0.4	3.7	3.7	287	287	5.6	5.6
MW-17S	10/20/08	463	463	242	242	14.5	14.5	13.50	13.50	0.1 L	0.1	2.0	2.0	278	278	4.1	4.1
MW-17S	01/27/09	671	671	93	93	20.5	20.5	3.34	3.34	56.7	56.7	8.1	8.1	482	482	2.5	2.5
MW-17S	04/13/09	508	508	165	165	25.3	25.3	3.20	3.20	16.4	16.4	10.5	10.5	356	356	2.8	2.8
MW-17S	07/22/09	212	212	230	230	19.0	19.0	4.93	4.93	0.9	0.9	13.0	13.0	297	297	3.1	3.1
MW-17S	10/27/09	472	472	238	238	15.9	15.9	0.96	0.96	0.3	0.3	2.4	2.4	266	266	3.8	3.8
MW-17S	01/25/10	546	546	84	84	18.0	18.0	1.50	1.50	36.0	36.0	8.3	8.3	370	370	1.6	1.6
MW-17S	04/07/10	528	528	200	200	26.0	26.0	3.40	3.40	11.0	11.0	9.4	9.4	330	330	3.2	3.2
MW-17S	07/15/10	508	508	210	210	20.0	20.0	2.70	2.70	3.1	3.1	6.7	6.7	290	290	2	2.0
MW-17S	10/14/10	481	481	220	220	15.4	15.4	4.60	4.60	0.5 L	0.3	3.7	3.7	260	260	2.7	2.7
MW-17S	01/05/11	1329	1329	110	110	20.8	20.8	2.60	2.60	47.0	47.0	9.8	9.8	440	440	1.7	1.7
MW-17S	04/20/11	473	473	180	180	25.1	25.1	1.90	1.90	4.4	4.4	9.0	9.0	280	280	2.8	2.8
MW-17S	07/05/11	356	356	170	170	18.9	18.9	3.50	3.50	0.5 L	0.3	6.8	6.8	260	260	2.6	2.6
MW-17S	10/25/11	360	360	180	180	16.2	16.2	3.10	3.10	0.5 L	0.3	4.9	4.9	220	220	2.6	2.6
No. Analyzed		20		20		20		20		20		20		20		20	
No. Detect		20		20		20		20		14		20		20		20	
Minimum conc.			212		67		14.5		0.69		0.1		2.0		220		1.6
Maximum conc.			1329		242		31.1		13.50		56.7		13.0		482		5.6
Average conc.			491		181		20.0		3.75		11.8		6.8		312		3.2
Distribution			Neither		Neither		Lognormal		Lognormal		Neither		Lognormal		Lognormal		Lognormal
UCL 95			1329 (M)		224 (M)		21.9		5.27		56.7 (M)		8.9		337		3.7

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Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-18D																	
MW-18D	01/22/07	295	295	148	148	17.0	17.0	0.05 L	0.03	1.00	1.0	4.2	4.2	203	203	0.8	0.8
MW-18D	07/20/07	254	254	153	153	15.9	15.9	0.05 L	0.03	1.00	1.0	4.0	4.0			0.8	0.8
MW-18D	01/22/08	289	289	147	147	14.9	14.9	0.05 L	0.03	1.10	1.1	4.3	4.3	187	187	0.9	0.9
MW-18D	07/22/08	340	340	142	142	11.8	11.8	0.05 L	0.03	1.20	1.2	4.2	4.2	216	216	0.8	0.8
MW-18D	01/20/09	304	304	140	140	12.4	12.4	0.05 L	0.03	1.30	1.3	4.9	4.9	206	206	0.8	0.8
MW-18D	07/17/09	306	306	142	142	11.7	11.7	0.05 L	0.03	1.40	1.4	4.6	4.6	198	198	0.7	0.7
MW-18D	01/29/10	313	313	130	130	11.0	11.0	0.10 L	0.05	1.80	1.8	5.0 L	2.5	190	190	1.0 L	0.5
MW-18D	07/13/10	273	273	140	140	11.0	11.0	0.50 L	0.25	1.70	1.7	5.0	5.0	210	210	1.0 L	0.5
MW-18D	01/07/11	307.7	307.7	130	130	11.1	11.1	0.10 L	0.05	1.60	1.6	5.1	5.1	190	190	1.0 L	0.5
MW-18D	07/06/11	275	275	130	130	5.4	5.4	0.10 L	0.05	1.60	1.6	8.3	8.3	220	220	1.0 L	0.5
No. Analyzed		10		10		10		10		10		10		9		10	
No. Detect		10		10		10		0		10		9		9		6	
Minimum conc.			254		130		5.4		0.03		1.0		2.5		187		0.5
Maximum conc.			340		153		17.0		0.25		1.8		8.3		220		0.9
Average conc.			296		140		12.2		0.06		1.4		4.7		202		0.7
Distribution			Lognormal		Lognormal		Neither		NC		Lognormal		Neither		Lognormal		Neither
UCL 95			311		145		17.0 (M)		NC		1.6		8.3 (M)		210		0.9 (M)
MW-18S																	
MW-18S	01/22/07	468	468	127	127	22.5	22.5	0.05 L	0.03	24.60	24.6	14.1	14.1	351	351	2.4	2.4
MW-18S	07/20/07	200	200	164	164	19.4	19.4	0.05 L	0.03	0.10 L	0.1	4.7	4.7			3.4	3.4
MW-18S	01/22/08	401	401	125	125	14.8	14.8	0.05 L	0.03	20.70	20.7	10.8	10.8	276	276	2.3	2.3
MW-18S	07/21/08	351	351	143	143	13.3	13.3	0.05 L	0.03	1.10	1.1	6.0	6.0	232	232	2.1	2.1
MW-18S	01/22/09	364	364	134	134	13.0	13.0	0.05 L	0.03	8.70	8.7	15.5	15.5	248	248	2.3	2.3
MW-18S	07/17/09	326	326	138	138	15.6	15.6	0.05 L	0.03	1.10	1.1	9.1	9.1	219	219	1.8	1.8
MW-18S	01/29/10	404	404	150	150	14.0	14.0	0.10 L	0.05	8.10	8.1	13.0	13.0	240	240	1.4	1.4
MW-18S	07/13/10	310	310	140	140	15.0	15.0	0.05 L	0.03	1.70	1.7	8.6	8.6	230	230	1.5	1.5
MW-18S	01/07/11	408.8	408.8	140	140	13.4	13.4	0.10 L	0.05	9.50	9.5	10.1	10.1	240	240	1.5	1.5
MW-18S	07/06/11	312	312	150	150	20.0	20.0	0.10 L	0.05	0.50 L	0.3	5.1	5.1	240	240	2.4	2.4
No. Analyzed		10		10		10		10		10		10		9		10	
No. Detect		10		10		10		0		8		10		9		10	
Minimum conc.			200		125		13.0		0.03		0.1		4.7		219		1.4
Maximum conc.			468		164		22.5		0.05		24.6		15.5		351		3.4
Average conc.			354		141		16.1		0.03		7.6		9.7		253		2.1
Distribution			Normal		Lognormal		Neither		NC		Neither		Lognormal		Neither		Lognormal
UCL 95			397		148		22.5 (M)		NC		24.6 (M)		13.2		351 (M)		2.5
MW-20R																	
MW-20R	01/19/07	112	112	40	40	1.3	1.3	0.05 L	0.03	0.1 L	0.1	3.0	3.0	73	73	0.5 L	0.3
MW-20R	01/30/08	134	134	39	39	1.3	1.3	0.05 L	0.03	0.1 L	0.1	2.9	2.9	91	91	0.5	0.5
MW-20R	01/22/09	83	83	54	54	1.2	1.2	0.07	0.07	0.1 L	0.1	2.8	2.8	92	92	0.5 L	0.3
MW-20R	01/27/10	104	104	45	45	3.0 L	1.5	0.11	0.11	0.2 L	0.1	5.0 L	2.5	95	95	1.0 L	0.5
MW-20R	01/07/11	99.42	99.42	47	47	1.8	1.8	0.1 L	0.05	0.5 L	0.3	3.2	3.2	90	90	1.0 L	0.5
No. Analyzed		5		5		5		5		5		5		5		5	
No. Detect		5		5		4		2		0		4		5		1	
Minimum conc.			83		39		1.2		0.03		0.1		2.5		73		0.3
Maximum conc.			134		54		1.8		0.11		0.3		3.2		95		0.5
Average conc.			106		45		1.4		0.06		0.1		2.9		88		0.4
Distribution			Lognormal		Lognormal		Neither		NC		NC		Lognormal		Neither		NC
UCL 95			129		52		1.8 (M)		NC		NC		3.2		95 (M)		NC

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Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-23S																	
MW-23S	01/18/07	199	199	78	78	10.7	10.7	0.05 L	0.03	1.1	1.1	17.8	17.8	147	147	0.9	0.9
MW-23S	07/19/07	190	190			15.2	15.2	0.05 L	0.03	0.2	0.2	18.9	18.9	173	173	1.0	1.0
MW-23S	01/24/08	180	180	62	62	14.9	14.9	0.05 L	0.03	0.4	0.4	18.4	18.4	149	149	0.9	0.9
MW-23S	07/17/08	181	181	43	43	12.6	12.6	0.05 L	0.03	1.4	1.4	17.9	17.9	118	118	0.8	0.8
MW-23S	01/15/09	132	132	50	50	11.3	11.3	0.05 L	0.03	1.3	1.3	8.8	8.8	110	110	0.5 L	0.3
MW-23S	07/09/09	229	229	62	62	18.4	18.4	0.05 L	0.03	0.1	0.1	14.8	14.8			0.9	0.9
MW-23S	01/28/10	185	185	58	58	13.0	13.0	0.11	0.11	0.39	0.4	13.0	13.0	120	120	1.0 L	0.5
MW-23S	07/15/10	220	220	78	78	11.0	11.0	0.50 L	0.25	0.05 L	0.0	14.0	14.0	140	140	1.0 L	0.5
MW-23S	01/06/11	209	209	74	74	8.8	8.8	0.10 L	0.05	0.5 L	0.3	14.6	14.6	130	130	1.0 L	0.5
MW-23S	07/07/11	204	204	82	82	12.1	12.1	0.10 L	0.05	0.5 L	0.3	13.5	13.5	150	150	1.0 L	0.5
No. Analyzed		10		9		10		10		10		10		9		10	
No. Detect		10		9		10		1		7		10		9		5	
Minimum conc.			132		43		8.8		0.03		0.0		8.8		110		0.3
Maximum conc.			229		82		18.4		0.25		1.4		18.9		173		1.0
Average conc.			192		64		11.8		0.06		0.8		14.9		136		0.7
Distribution			Normal		Lognormal		Lognormal		NC		Lognormal		Normal		Lognormal		Neither
UCL 95			209		76		14.6		NC		3.1		17.0		151		1.0 (M)
MW-25S																	
MW-25S	01/16/07	178	178	62	62	14.7	14.7	0.05 L	0.03	19.2	19.2	22.5	22.5	149	149	0.7	0.7
MW-25S	07/18/07	222	222	125	125	13.2	13.2	0.05 L	0.03	1.2	1.2	5.9	5.9	185	185	0.9	0.9
MW-25S	01/22/08	256	256	124	124	12.2	12.2	0.05 L	0.03	1.3	1.3	5.6	5.6	176	176	1.0	1.0
MW-25S	07/21/08	295	295	135	135	10.0	10.0	0.05 L	0.03	1.2	1.2	6.0	6.0	188	188	1.0	1.0
MW-25S	01/21/09	193	193	87	87	6.9	6.9	0.05 L	0.03	3.1	3.1	7.1	7.1	159	159	6.9	6.9
MW-25S	07/17/09	278	278	126	126	11.0	11.0	0.05 L	0.03	1.2	1.2	6.1	6.1	163	163	0.6	0.6
MW-25S	01/26/10	269	269	120	120	11.0	11.0	0.10 L	0.05	1.5	1.5	6.1	6.1	170	170	1.0 L	0.5
MW-25S	07/15/10	296	296	120	120	10.0	10.0	0.05 L	0.03	1.5	1.5	5.9	5.9	180	180	1.0 L	0.5
MW-25S	01/06/11	300.5	300.5	120	120	9.8	9.8	0.10 L	0.05	1.7	1.7	7.4	7.4	170	170	1.0 L	0.5
MW-25S	07/06/11	196	196	88	88	7.4	7.4	0.10 L	0.05	1.5	1.5	6.1	6.1	160	160	1.0 L	0.5
No. Analyzed		10		10		10		10		10		10		10		10	
No. Detect		10		10		10		0		10		10		10		6	
Minimum conc.			178		62		6.9		0.03		1.2		5.6		149		0.5
Maximum conc.			301		135		14.7		0.05		19.2		22.5		188		6.9
Average conc.			248		111		10.6		0.03		3.3		7.9		170		1.3
Distribution			Normal		Neither		Lognormal		NC		Neither		Neither		Lognormal		Neither
UCL 95			276		135 (M)		12.4		NC		19.2 (M)		22.5 (M)		178		6.9 (M)
MW-26R																	
MW-26R	01/18/07	151	151	56	56	2.6	2.6	0.05 L	0.03	0.1 L	0.1	6.5	6.5	99	99	0.5 L	0.3
MW-26R	01/30/08	168	168	60	60	2.8	2.8	0.05 L	0.03	0.1 L	0.1	7.2	7.2	112	112	0.5	0.5
MW-26R	01/23/09	123	123	62	62	2.9	2.9	0.05 L	0.03	0.1 L	0.1	8.0	8.0	107	107	0.5 L	0.3
MW-26R	01/27/10	146	146	61	61	3.3	3.3	0.14	0.14	0.2 L	0.1	7.0	7.0	100	100	1.0 L	0.5
MW-26R	01/07/11	134.6	134.6	61	61	3.8	3.8	0.1 L	0.05	0.5 L	0.3	7.3	7.3	110	110	1.0 L	0.5
No. Analyzed		5		5		5		5		5		5		5		5	
No. Detect		5		5		5		1		0		5		5		1	
Minimum conc.			123		56		2.6		0.03		0.1		6.5		99		0.3
Maximum conc.			168		62		3.8		0.14		0.3		8.0		112		0.5
Average conc.			145		60		3.1		0.05		0.1		7.2		106		0.4
Distribution			Lognormal		Neither		Lognormal		NC		NC		Lognormal		Lognormal		NC
UCL 95			163		62 (M)		3.6169 (M)		NC		NC		7.8		112		NC

Inorganics
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-28S																	
MW-28S	01/18/07	193	193	70	70	12.7	12.7	0.05 L	0.03	2.3	2.3	16.7	16.7	151	151.0	1.4	1.4
MW-28S	04/26/07	123	123	68	68	19.1	19.1	0.05 L	0.03	3.8	3.8	18.8	18.8	163	163.0	1.9	1.9
MW-28S	07/19/07	214	214			17.0	17.0	0.05 L	0.03	6.1	6.1	14.0	14.0	189	189.0	1.0	1.0
MW-28S	01/24/08	258	258	70	70	20.5	20.5	0.05	0.05	4.2	4.2	28.2	28.2	188	188.0	1.2	1.2
MW-28S	04/17/08	152	152	68	68	5.4	5.4	0.05 L	0.03	1.0	1.0	10.9	10.9	127	127.0	0.9	0.9
MW-28S	01/15/09	155	155	72	72	9.4	9.4	0.05 L	0.03	0.8	0.8	9.4	9.4	134	134.0	0.8	0.8
MW-28S	04/16/09	140	140	142	142	4.0	4.0	0.05 L	0.03	1.2	1.2	7.0	7.0	123	123.0	0.9	0.9
MW-28S	07/09/09	278	278	82	82	10.5	10.5	0.05 L	0.03	3.5	3.5	9.8	9.8			0.9	0.9
MW-28S	01/28/10	205	205	69	69	9.1	9.1	0.11	0.11	1.3	1.3	15.0	15.0	130	130.0	1.0 L	0.5
MW-28S	04/08/10	156	156	68	68	3.6	3.6	0.10 L	0.05	0.1 L	0.1	6.2	6.2	110	110.0	1.0 L	0.5
MW-28S	07/15/10	150	150	80	80	4.2	4.2	0.05 L	0.03	0.5 L	0.3	5.0 L	2.5	110	110.0	1.0 L	0.5
MW-28S	01/06/11	194.1	194	74	74	6.3	6.3	0.10 L	0.05	0.6	0.6	8.4	8.4	120	120.0	1.0 L	0.5
MW-28S	04/21/11	161	161	65	65	7.6	7.6	0.10	0.10	1.0	1.0	3.8	3.8	110	110.0	1.0 L	0.5
MW-28S	07/07/11	212	212	64	64	16.6	16.6	0.10 L	0.05	4.0	4.0	9.2	9.2	160	160.0	1.0 L	0.5
No. Analyzed		14		13		14		14		14		14		13		14	
No. Detect		14		13		14		3		12		13		13		8	
Minimum conc.			123		64		3.6		0.03		0.1		2.5		110		0.5
Maximum conc.			278		142		20.5		0.11		6.1		28.2		189		1.9
Average conc.			185		76		10.4		0.04		2.2		11.4		140		0.9
Distribution			Lognormal		Neither		Lognormal		NC		Lognormal		Lognormal		Lognormal		Lognormal
UCL 95			209		142 (M)		15.4		NC		7.6		17.5		155		1.3
FMMW-1																	
FMMW-1	01/23/07	345	345	96	96	28.6	28.6	0.05 L	0.03	5.2	5.2	20.3	20.3	212	212	1.7	1.7
FMMW-1	04/25/07	308	308	121	121	28.2	28.2	0.05 L	0.03	3.0	3.0	16.8	16.8	250	250	1.6	1.6
FMMW-1	07/19/07	285	285			28.0	28.0	0.05 L	0.03	1.8	1.8	19.7	19.7	217	217	1.8	1.8
FMMW-1	10/11/07	275	275	122	122	26.9	26.9	0.05 L	0.03	1.4	1.4	19.1	19.1	208	208	1.5	1.5
FMMW-1	01/24/08	284	284	116	116	19.8	19.8	0.05	0.05	2.3	2.3	17.8	17.8	206	206	1.8	1.8
FMMW-1	04/15/08	288	288	106	106	15.7	15.7	0.05 L	0.03	2.5	2.5	18.7	18.7	184	184	1.8	1.8
FMMW-1	07/15/08	309	309	101	101	15.5	15.5	0.05 L	0.03	2.4	2.4	5.6	5.6	220	220	1.6	1.6
FMMW-1	10/21/08	299	299	115	115	19.3	19.3	0.05 L	0.03	0.9	0.9	17.9	17.9	204	204	1.5	1.5
FMMW-1	01/14/09	288	288	447	447	16.7	16.7	0.05 L	0.03	1.0	1.0	17.2	17.2	202	202	1.4	1.4
FMMW-1	04/14/09	256	256	95	95	14.2	14.2	0.08	0.08	2.1	2.1	17.2	17.2	192	192	1.2	1.2
FMMW-1	07/10/09	280	280	104	104	15.3	15.3	0.06	0.06	1.1	1.1	18.3	18.3	181	181	1.4	1.4
FMMW-1	10/27/09	286	286	109	109	17.0	17.0	0.05 L	0.03	0.8	0.8	17.7	17.7	188	188	1.6	1.6
FMMW-1	01/26/10	487	487	150	150	15.0	15.0	0.11	0.11	20.0	20.0	17.0	17.0	340	340	1.3	1.3
FMMW-1	04/07/10	242	242	94	94	12.0	12.0	0.10 L	0.05	2.0	2.0	17.0	17.0	160	160	1.7	1.7
FMMW-1	07/13/10	250	250	110	110	12.0	12.0	0.05 L	0.03	1.0	1.0	15.0	15.0	190	190	1.1	1.1
FMMW-1	10/13/10	275	275	110	110	13.6	13.6	0.21	0.21	0.8	0.8	15.7	15.7	180	180	1.0 L	0.5
FMW-01	01/05/11	553.9	553.9	110	110	13.9	13.9	0.10 L	0.05	1.7	1.7	15.8	15.8	180	180	1.2	1.2
FMW-01	04/19/11	282	282	100	100	19.1	19.1	0.13	0.13	3.4	3.4	17.9	17.9	180	180	1.2	1.2
FMW-01	07/05/11	302	302	120	120	20.2	20.2	0.10 L	0.05	2.1	2.1	12.8	12.8	210	210	1.4	1.4
FMW-01	10/25/11	305	305	120	120	21.2	21.2	0.10 L	0.05	1.5	1.5	16.3	16.3	190	190	1.2	1.2
No. Analyzed		20		19		20		20		20		20		20		20	
No. Detect		20		19		20		6		20		20		20		19	
Minimum conc.			242		94		12.0		0.03		0.8		5.6		160		0.5
Maximum conc.			554		447		28.6		0.21		20.0		20.3		340		1.8
Average conc.			310		129		18.6		0.05		2.8		16.7		205		1.4
Distribution			Neither		Neither		Lognormal		NC		Neither		Neither		Neither		Neither
UCL 95			554 (M)		447 (M)		20.9		NC		20.0 (M)		20.3 (M)		340 (M)		1.8 (M)

Inorganics
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Specific Conductance		Alkalinity		Chloride		Ammonia		Nitrate		Sulfate		TDS		TOC	
		Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
FMMW-2																	
FMMW-2	01/22/07	491	491	152	152	21.2	21.2	0.07	0.07	22.0	22.0	18.7	18.7	390	390	2.8	2.8
FMMW-2	04/25/07	337	337	148	148	22.4	22.4	0.12	0.12	0.6	0.6	9.6	9.6	239	239	3.0	3.0
FMMW-2	07/19/07	298	298			19.4	19.4	0.24	0.24	0.3	0.3	7.2	7.2	253	253	3.4	3.4
FMMW-2	10/11/07	324	324	166	166	19.0	19.0	0.51	0.51	5.9	5.9	5.8	5.8	292	292	2.9	2.9
FMMW-2	01/24/08	421	421	110	110	17.7	17.7	0.34	0.34	28.0	28.0	8.7	8.7	379	379	2.5	2.5
FMMW-2	04/15/08	370	370	135	135	17.9	17.9	0.14	0.14	7.6	7.6	8.9	8.9	257	257	2.7	2.7
FMMW-2	07/15/08	410	410	169	169	15.5	15.5	0.25	0.25	1.1	1.1	19.3	19.3	274	274	2.9	2.9
FMMW-2	10/21/08	374	374	156	156	17.5	17.5	0.37	0.37	5.0	5.0	6.5	6.5	237	237	2.2	2.2
FMMW-2	01/19/09	460	460	125	125	14.5	14.5	0.05 L	0.03	20.7	20.7	18.1	18.1	229	229	1.8	1.8
FMMW-2	04/15/09	360	360	138	138	16.7	16.7	0.07	0.07	8.3	8.3	11.3	11.3	245	245	2.2	2.2
FMMW-2	07/13/09	389	389	170	170	18.7	18.7	0.20	0.20	1.3	1.3	7.1	7.1	252	252	3.1	3.1
FMMW-2	10/27/09	379	379	154	154	18.7	18.7	0.17	0.17	4.3	4.3	7.3	7.3	260	260	2.5	2.5
FMMW-2	01/26/10	263	263	100	100	13.0	13.0	0.10 L	0.05	1.8	1.8	16.0	16.0	170	170	1.1	1.1
FMMW-2	04/07/10	377	377	140	140	19.0	19.0	0.10 L	0.05	6.7	6.7	12.0	12.0	250	250	1.6	1.6
FMMW-2	07/13/10	344	344	160	160	16.0	16.0	0.05 L	0.03	2.6	2.6	10.0	10.0	270	270	1.8	1.8
FMMW-2	10/13/10	395	395	170	170	16.7	16.7	0.25	0.25	5.6	5.6	6.5	6.5	260	260	2	2.0
FMW-02	01/05/11	951	951	130	130	15.0	15.0	0.23	0.23	24.0	24.0	16.5	16.5	320	320	1.4	1.4
FMW-02	04/20/11	478	478	160	160	23.1	23.1	0.11	0.11	9.2	9.2	19.1	19.1	300	300	1.7	1.7
FMW-02	07/05/11	286	286	120	120	17.6	17.6	0.11	0.11	1.0	1.0	14.6	14.6	230	230	1.7	1.7
FMW-02	10/25/11	330	330	140	140	18.3	18.3	0.23	0.23	3.1	3.1	7.3	7.3	220	220	2.1	2.1
No. Analyzed		20		19		20		20		20		20		20		20	
No. Detect		20		19		20		16		20		20		20		20	
Minimum conc.			263		100		13.0		0.03		0.3		5.8		170		1.1
Maximum conc.			951		170		23.1		0.51		28.0		19.3		390		3.4
Average conc.			402		144		17.9		0.18		8.0		11.5		266		2.3
Distribution			Neither		Lognormal		Lognormal		Lognormal		Lognormal		Lognormal		Lognormal		Lognormal
UCL 95			951 (M)		154		19.0		0.31		22.9		13.9		287		2.6

Notes:
(L) indicates below the given method reporting limit (MRL)
(ND) indicates not detected
(NC) indicates not calculated due to less than 50 percent detection frequency or historically no detections
Calculations use half the MRL for non-detected parameters

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-10D					
MW-10D	01/19/07	0.020 L	0.010	0.005 L	0.0025
MW-10D	04/24/07	0.020 L	0.010	0.005 L	0.0025
MW-10D	07/18/07	0.020 L	0.010	0.005 L	0.0025
MW-10D	10/10/07	0.020 L	0.010	0.005 L	0.0025
MW-10D	01/23/08	0.020 L	0.010	0.005 L	0.0025
MW-10D	04/14/08	0.020 L	0.010	0.005 L	0.0025
MW-10D	07/16/08	0.020 L	0.010	0.005 L	0.0025
MW-10D	10/22/08	0.020 L	0.010	0.005 L	0.0025
MW-10D	01/20/09	0.020 L	0.010	0.005 L	0.0025
MW-10D	04/21/09	0.020 L	0.010	0.005 L	0.0025
MW-10D	07/24/09	0.020 L	0.010	0.005 L	0.0025
MW-10D	10/30/09	0.020 L	0.010	0.005 L	0.0025
MW-10D	01/27/10	0.100 L	0.050	0.005 L	0.0025
MW-10D	04/07/10	0.100 L	0.050	0.001 L	0.0005
MW-10D	07/14/10	0.100 L	0.050	0.002 L	0.0010
MW-10D	10/14/10	0.200 L	0.100	0.001 L	0.0005
MW-10D	01/04/11	0.200 L	0.100	0.001 L	0.0005
MW-10D	04/20/11	0.200 L	0.100	0.001 L	0.0005
MW-10D	07/06/11	0.200 L	0.100	0.001 L	0.0005
MW-10D	10/25/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			NC		NC
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-10S					
MW-10S	01/19/07	0.020 L	0.010	0.005 L	0.0025
MW-10S	04/24/07	0.020 L	0.010	0.005 L	0.0025
MW-10S	07/18/07	0.020 L	0.010	0.005 L	0.0025
MW-10S	10/10/07	0.020 L	0.010	0.005 L	0.0025
MW-10S	01/23/08	0.020 L	0.010	0.005 L	0.0025
MW-10S	04/14/08	0.020 L	0.010	0.005 L	0.0025
MW-10S	07/16/08	0.020 L	0.010	0.005 L	0.0025
MW-10S	10/22/08	0.020 L	0.010	0.005 L	0.0025
MW-10S	01/20/09	0.020 L	0.010	0.005 L	0.0025
MW-10S	04/22/09	0.020 L	0.010	0.005 L	0.0025
MW-10S	07/24/09	0.020 L	0.010	0.005 L	0.0025
MW-10S	10/30/09	0.020 L	0.010	0.005 L	0.0025
MW-10S	01/27/10	0.100 L	0.050	0.005 L	0.0025
MW-10S	04/07/10	0.100 L	0.050	0.001 L	0.0005
MW-10S	07/14/10	0.100 L	0.050	0.002 L	0.0010
MW-10S	10/14/10	0.200 L	0.100	0.001 L	0.0005
MW-10S	01/04/11	0.200 L	0.100	0.001 L	0.0005
MW-10S	04/20/11	0.200 L	0.100	0.001 L	0.0005
MW-10S	07/06/11	0.200 L	0.100	0.001 L	0.0005
MW-10S	10/25/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			NC		NC
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-11D(2)					
MW-11D(2)	01/16/07	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	04/23/07	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	07/16/07	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	10/15/07	0.065	0.065	0.007	0.0070
MW-11D(2)	01/22/08	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	04/16/08	0.020 L	0.010	0.019	0.0187
MW-11D(2)	07/21/08	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	10/21/08	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	01/19/09	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	04/14/09	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	07/10/09	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	10/28/09	0.020 L	0.010	0.005 L	0.0025
MW-11D(2)	01/28/10	0.100 L	0.050	0.005 L	0.0025
MW-11D(2)	04/08/10	0.100 L	0.050	0.001 L	0.0005
MW-11D(2)	07/15/10	0.100 L	0.050	0.001 L	0.0005
MW-11D(2)	10/13/10	0.200 L	0.100	0.001 L	0.0005
MW-11D(2)	01/05/11	0.200 L	0.100	0.001 L	0.0005
MW-11D(2)	04/19/11	0.200 L	0.100	0.001 L	0.0005
MW-11D(2)	07/05/11	0.200 L	0.100	0.001 L	0.0005
MW-11D(2)	10/26/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		20		20	
No. Detect		1		2	
Minimum conc.			0.010		0.001
Maximum conc.			0.100		0.019
Average conc.			0.041		0.003
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-11S					
MW-11S	01/16/07	0.020 L	0.010	0.005 L	0.0025
MW-11S	04/23/07	0.020 L	0.010	0.006	0.0060
MW-11S	07/16/07	0.020 L	0.010	0.023	0.0230
MW-11S	10/15/07	0.020 L	0.010	0.005 L	0.0025
MW-11S	01/22/08	0.020 L	0.010	0.005 L	0.0025
MW-11S	04/16/08	0.020 L	0.010	0.012	0.0120
MW-11S	07/21/08	0.020 L	0.010	0.005 L	0.0025
MW-11S	10/21/08	0.741	0.741	0.037	0.0367
MW-11S	01/19/09	0.020 L	0.010	0.005 L	0.0025
MW-11S	04/15/09	0.020 L	0.010	0.005 L	0.0025
MW-11S	07/10/09	0.020 L	0.010	0.005 L	0.0025
MW-11S	10/28/09	0.020 L	0.010	0.005 L	0.0025
MW-11S	01/28/10	0.100 L	0.050	0.005 L	0.0025
MW-11S	04/08/10	0.100 L	0.050	0.001	0.0010
MW-11S	07/15/10	0.100 L	0.050	0.002	0.0020
MW-11S	10/13/10	0.460	0.460	0.001 L	0.0005
MW-11S	01/05/11	0.200 L	0.100	0.001 L	0.0005
MW-11S	04/19/11	0.200 L	0.100	0.007	0.0066
MW-11S	07/05/11	0.200 L	0.100	0.038	0.0380
MW-11S	10/25/11	0.200 L	0.100	0.038	0.0380
No. Analyzed		20		20	
No. Detect		2		9	
Minimum conc.			0.010		0.001
Maximum conc.			0.741		0.038
Average conc.			0.093		0.009
Distribution			NC		NC
UCL 95			NC		NC
MW-12D					
MW-12D	01/23/07	0.020 L	0.010	0.266	0.2660
MW-12D	07/19/07	0.020 L	0.010	0.005 L	0.0025
MW-12D	01/30/08	0.020 L	0.010	0.085	0.0850
MW-12D	07/22/08	0.020 L	0.010	0.005 L	0.0025
MW-12D	01/21/09	0.020 L	0.010	0.021	0.0208
MW-12D	07/14/09	0.020 L	0.010	0.005 L	0.0025
MW-12D	01/29/10	0.100 L	0.050	0.005 L	0.0025
MW-12D	07/14/10	0.100 L	0.050	0.002 L	0.0010
MW-12D	01/04/11	0.200 L	0.100	0.001 L	0.0005
MW-12D	07/08/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		8		8	
No. Detect		0		2	
Minimum conc.			ALL ND		0.0005
Maximum conc.			ALL ND		0.0850
Average conc.			NC		0.0144
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-12S					
MW-12S	01/23/07	0.020 L	0.010	0.373	0.3730
MW-12S	07/19/07	0.020 L	0.010	0.838 L	0.4190
MW-12S	01/30/08	0.020 L	0.010	0.395	0.3950
MW-12S	07/22/08	0.020 L	0.010	0.678	0.6780
MW-12S	01/21/09	0.020 L	0.010	0.023	0.0226
MW-12S	01/29/10	0.100 L	0.050	0.031	0.0310
MW-12S	07/14/10	0.100 L	0.050	0.032	0.0320
MW-12S	01/04/11	0.200 L	0.100	0.200	0.2000
MW-12S	07/08/11	0.200 L	0.100	0.490	0.4900
No. Analyzed		9		9	
No. Detect		0		8	
Minimum conc.			0.0100		0.0226
Maximum conc.			0.1000		0.6780
Average conc.			0.039		0.293
Distribution			NC		Normal
UCL 95			NC		0.43
MW-13D					
MW-13D	01/19/07	0.021	0.021	0.019	0.0190
MW-13D	04/24/07	0.020 L	0.010	0.285	0.2850
MW-13D	07/18/07	0.020 L	0.010	0.592	0.5920
MW-13D	10/10/07	0.023	0.023	0.703	0.7030
MW-13D	01/24/08	0.020 L	0.010	0.005 L	0.0025
MW-13D	04/18/08	0.020 L	0.010	0.050	0.0504
MW-13D	07/21/08	0.020 L	0.010	0.362	0.3620
MW-13D	10/22/08	0.020 L	0.010	0.436	0.4360
MW-13D	01/22/09	0.020 L	0.010	0.005 L	0.0025
MW-13D	04/23/09	0.020 L	0.010	0.005 L	0.0025
MW-13D	07/08/09	0.020 L	0.010	0.653	0.6530
MW-13D	10/26/09	0.020 L	0.010	0.083	0.0830
MW-13D	01/29/10	0.100 L	0.050	0.005 L	0.0025
MW-13D	04/08/10	0.100 L	0.050	0.001 L	0.0005
MW-13D	07/14/10	0.100 L	0.050	0.002 L	0.0010
MW-13D	10/14/10	0.200 L	0.100	0.072	0.0720
MW-13D	01/04/11	0.200 L	0.100	0.001 L	0.0005
MW-13D	04/19/11	0.200 L	0.100	0.001 L	0.0005
MW-13D	07/06/11	0.200 L	0.100	0.001 L	0.0005
MW-13D	10/25/11	0.200 L	0.100	0.240	0.2400
No. Analyzed		20		20	
No. Detect		2		11	
Minimum conc.			0.010		0.0005
Maximum conc.			0.100		0.7030
Average conc.			0.040		0.1754
Distribution			NC		Neither
UCL 95			NC		0.7030 (M)

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-13S					
MW-13S	01/15/07	0.022	0.022	0.005 L	0.0025
MW-13S	04/24/07	0.020 L	0.010	0.239	0.2390
MW-13S	07/18/07	0.020 L	0.010	0.534	0.5340
MW-13S	10/09/07	0.020 L	0.010	0.625	0.6250
MW-13S	01/24/08	0.020 L	0.010	0.005 L	0.0025
MW-13S	04/17/08	0.020 L	0.010	0.005 L	0.0025
MW-13S	07/21/08	0.020 L	0.010	0.269	0.2690
MW-13S	10/22/08	0.090	0.090	0.495	0.4950
MW-13S	01/22/09	0.020 L	0.010	0.005 L	0.0025
MW-13S	04/23/09	0.020 L	0.010	0.005 L	0.0025
MW-13S	07/08/09	0.020 L	0.010	0.142	0.1420
MW-13S	10/26/09	0.021	0.021	0.164	0.1640
MW-13S	01/28/10	0.100 L	0.050	0.005 L	0.0025
MW-13S	04/08/10	0.100 L	0.050	0.001 L	0.0005
MW-13S	07/14/10	0.100 L	0.050	0.036	0.0360
MW-13S	10/14/10	0.200 L	0.100	0.160	0.1600
MW-13S	01/05/11	0.200 L	0.100	0.003	0.0032
MW-13S	04/19/11	0.200 L	0.100	0.003	0.0033
MW-13S	07/05/11	0.200 L	0.100	0.047	0.0470
MW-13S	10/25/11	0.200 L	0.100	0.330	0.3300
No. Analyzed		20		20	
No. Detect		3		13	
Minimum conc.			0.010		0.001
Maximum conc.			0.100		0.625
Average conc.			0.044		0.153
Distribution			NC		Neither
UCL 95			NC		0.625 (M)

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-14D					
MW-14D	01/18/07	0.020 L	0.010	0.560	0.5600
MW-14D	04/24/07	0.020 L	0.010	0.429	0.4290
MW-14D	07/18/07	0.537	0.537	0.724	0.7240
MW-14D	10/10/07	1.990	1.990	1.020	1.0200
MW-14D	01/25/08	0.104	0.104	0.602	0.6020
MW-14D	04/16/08	0.974	0.974	0.670	0.6700
MW-14D	07/14/08	1.950	1.950	0.855	0.8550
MW-14D	10/20/08	3.980	3.980	1.340	1.3400
MW-14D	01/14/09	0.243	0.243	0.614	0.6140
MW-14D	04/22/09	1.610	1.610	0.785	0.7850
MW-14D	07/13/09	1.690	1.690	0.798	0.7980
MW-14D	10/23/09	3.520	3.520	1.110	1.1100
MW-14D	01/27/10	1.600	1.600	0.730	0.7300
MW-14D	04/08/10	1.900	1.900	0.680	0.6800
MW-14D	07/14/10	1.900	1.900	0.740	0.7400
MW-14D	10/14/10	3.400	3.400	0.880	0.8800
MW-14D	01/04/11	2.100	2.100	0.760	0.7600
MW-14D	04/21/11	0.200 L	0.100	0.510	0.5100
MW-14D	07/08/11	0.280	0.280	0.560	0.5600
MW-14D	10/26/11	1.500	1.500	0.840	0.8400
No. Analyzed		20		20	
No. Detect		17		20	
Minimum conc.			0.010		0.429
Maximum conc.			3.980		1.340
Average conc.			1.470		0.760
Distribution			Neither		Lognormal
UCL 95			3.980 (M)		0.9

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-14S					
MW-14S	01/18/07	0.020 L	0.010	0.005 L	0.0025
MW-14S	04/24/07	0.020 L	0.010	0.116	0.1160
MW-14S	07/18/07	0.020 L	0.010	0.087	0.0870
MW-14S	10/10/07	0.020 L	0.010	0.544	0.5440
MW-14S	01/25/08	0.020 L	0.010	0.005 L	0.0025
MW-14S	04/16/08	0.020 L	0.010	0.140	0.1400
MW-14S	07/14/08	0.020 L	0.010	0.605	0.6050
MW-14S	10/20/08	0.031	0.031	1.180	1.1800
MW-14S	01/14/09	0.020 L	0.010	0.005 L	0.0025
MW-14S	04/22/09	0.020 L	0.010	0.124	0.1240
MW-14S	07/13/09	0.020 L	0.010	0.340	0.3400
MW-14S	10/23/09	0.020 L	0.010	0.511	0.5110
MW-14S	01/27/10	0.100 L	0.050	0.056	0.0560
MW-14S	04/08/10	0.100 L	0.050	0.110	0.1100
MW-14S	07/14/10	0.100 L	0.050	0.008	0.0080
MW-14S	10/14/10	0.200 L	0.100	0.460	0.4600
MW-14S	01/04/11	0.200 L	0.100	0.012	0.0120
MW-14S	04/21/11	0.200 L	0.100	0.056	0.0560
MW-14S	07/08/11	0.200 L	0.100	0.220	0.2200
MW-14S	10/26/11	0.200 L	0.100	0.390	0.3900
No. Analyzed		20		20	
No. Detect		1		17	
Minimum conc.			0.010		0.003
Maximum conc.			0.100		1.180
Average conc.			0.040		0.248
Distribution			NC		Neither
UCL 95			NC		1.180 (M)
MW-14R					
MW-14R	01/18/07	0.064	0.064	0.199	0.1990
MW-14R	01/30/08	0.020 L	0.010	0.010	0.0101
MW-14R	01/15/09	0.028	0.028	0.030	0.0301
MW-14R	01/26/10	0.100 L	0.050	0.190	0.1900
MW-14R	01/05/11	0.200 L	0.100	0.130	0.1300
No. Analyzed		5		5	
No. Detect		2		5	
Minimum conc.			0.010		0.010
Maximum conc.			0.100		0.199
Average conc.			0.050		0.112
Distribution			NC		Neither
UCL 95			NC		0.199 (M)

Dissolved Metals
Statistical Summary of Groundwater Data
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Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-15D					
MW-15D	01/15/07	0.020 L	0.010	0.524	0.5240
MW-15D	01/21/08	0.020 L	0.010	0.428	0.4280
MW-15D	07/16/08	0.020 L	0.010	0.379	0.3790
MW-15D	01/13/09	0.150	0.150	0.298	0.2980
MW-15D	07/22/09	0.020 L	0.010	0.374	0.3740
MW-15D	01/26/10	0.100 L	0.050	0.360	0.3600
MW-15D	07/15/10	0.100 L	0.050	0.400	0.4000
MW-15D	01/05/11	0.200 L	0.100	0.340	0.3400
MW-15D	07/06/11	0.200 L	0.100	0.430	0.4300
No. Analyzed		9		9	
No. Detect		1		9	
Minimum conc.			0.010		0.298
Maximum conc.			0.150		0.524
Average conc.			0.046		0.393
Distribution			NC		Lognormal
UCL 95			NC		0.44
MW-15S					
MW-15S	01/15/07	0.020 L	0.010	0.416	0.4160
MW-15S	07/16/07	0.062	0.062	0.612	0.6120
MW-15S	01/21/08	0.020 L	0.010	0.743	0.7430
MW-15S	07/14/08	0.020 L	0.010	0.517	0.5170
MW-15S	01/13/09	0.020 L	0.010	0.717	0.7170
MW-15S	07/24/09	0.020 L	0.010	0.472	0.4720
MW-15S	01/26/10	0.100 L	0.050	0.830	0.8300
MW-15S	07/15/10	0.200	0.200	0.700	0.7000
MW-15S	01/05/11	0.200 L	0.100	0.840	0.8400
MW-15S	07/06/11	0.200 L	0.100	0.380	0.3800
No. Analyzed		10		10	
No. Detect		2		10	
Minimum conc.			0.010		0.380
Maximum conc.			0.200		0.840
Average conc.			0.056		0.623
Distribution			NC		Lognormal
UCL 95			NC		0.7558

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-17S					
MW-17S	01/15/07	0.020 L	0.010	1.630	1.6300
MW-17S	04/23/07	0.020 L	0.010	1.140	1.1400
MW-17S	07/16/07	0.020 L	0.010	0.613	0.6130
MW-17S	10/09/07	0.020 L	0.010	0.789	0.7890
MW-17S	01/21/08	0.020 L	0.010	0.230	0.2300
MW-17S	04/17/08	0.020 L	0.010	1.060	1.0600
MW-17S	07/14/08	0.021	0.021	0.797	0.7970
MW-17S	10/20/08	0.020 L	0.010	1.150	1.1500
MW-17S	01/27/09	0.020 L	0.010	1.140	1.1400
MW-17S	04/13/09	0.020 L	0.010	1.110	1.1100
MW-17S	07/22/09	0.020 L	0.010	0.950	0.9500
MW-17S	10/27/09	0.020 L	0.010	0.926	0.9260
MW-17S	01/25/10	0.100 L	0.050	0.500	0.5000
MW-17S	04/07/10	0.100 L	0.050	1.200	1.2000
MW-17S	07/15/10	0.100 L	0.050	0.970	0.9700
MW-17S	10/14/10	0.200 L	0.100	1.100	1.1000
MW-17S	01/05/11	0.200 L	0.100	1.200	1.2000
MW-17S	04/20/11	0.200 L	0.100	1.300	1.3000
MW-17S	07/05/11	0.200 L	0.100	0.940	0.9400
MW-17S	10/25/11	0.200 L	0.100	0.740	0.7400
No. Analyzed		20		20	
No. Detect		1		20	
Minimum conc.			0.010		0.230
Maximum conc.			0.100		1.630
Average conc.			0.039		0.974
Distribution			NC		Lognormal
UCL 95			NC		1.1

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-18D					
MW-18D	01/22/07	0.020 L	0.010	0.005 L	0.0025
MW-18D	07/20/07	0.020 L	0.010	0.005 L	0.0025
MW-18D	01/22/08	0.020 L	0.010	0.005 L	0.0025
MW-18D	07/22/08	0.028	0.028	0.005 L	0.0025
MW-18D	01/20/09	0.020 L	0.010	0.005 L	0.0025
MW-18D	07/17/09	0.020 L	0.010	0.005 L	0.0025
MW-18D	01/29/10	0.100 L	0.050	0.005 L	0.0025
MW-18D	07/13/10	0.100 L	0.050	0.002 L	0.0010
MW-18D	01/07/11	0.200 L	0.100	0.001 L	0.0005
MW-18D	07/06/11	0.200 L	0.100	0.001	0.0013
No. Analyzed		10		10	
No. Detect		1		1	
Minimum conc.			0.0100		0.0005
Maximum conc.			0.1000		0.0025
Average conc.			0.0378		0.0020
Distribution			NC		NC
UCL 95			NC		NC
MW-18S					
MW-18S	01/22/07	0.020 L	0.010	0.005 L	0.0025
MW-18S	07/20/07	0.020 L	0.010	0.006	0.0060
MW-18S	01/22/08	0.031	0.031	0.005 L	0.0025
MW-18S	07/21/08	0.020 L	0.010	0.005 L	0.0025
MW-18S	01/22/09	0.020 L	0.010	0.005 L	0.0025
MW-18S	07/17/09	0.020 L	0.010	0.005 L	0.0025
MW-18S	01/29/10	0.100 L	0.050	0.005 L	0.0025
MW-18S	07/13/10	0.100 L	0.050	0.002 L	0.0010
MW-18S	01/07/11	0.200 L	0.100	0.001 L	0.0005
MW-18S	07/06/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		10		10	
No. Detect		1		1	
Minimum conc.			0.0100		0.0005
Maximum conc.			0.1000		0.0060
Average conc.			0.0381		0.0023
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-20R					
MW-20R	01/19/07	0.020 L	0.010	0.005 L	0.0025
MW-20R	01/30/08	0.020 L	0.010	0.005 L	0.0025
MW-20R	01/22/09	0.042	0.042	0.096	0.0957
MW-20R	01/27/10	0.100 L	0.050	0.005 L	0.0025
MW-20R	01/07/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		5		5	
No. Detect		1		1	
Minimum conc.			0.010		0.001
Maximum conc.			0.100		0.096
Average conc.			0.042		0.021
Distribution			NC		NC
UCL 95			NC		NC
MW-23S					
MW-23S	01/18/07	0.028	0.028	0.007	0.0073
MW-23S	07/19/07	0.020 L	0.010	0.174	0.1740
MW-23S	01/24/08	0.282	0.282	0.049	0.0493
MW-23S	07/17/08	0.209	0.209	0.113	0.1130
MW-23S	01/15/09	0.052	0.052	0.011	0.0106
MW-23S	07/09/09	0.107	0.107	0.058	0.0580
MW-23S	01/28/10	0.103	0.103	0.043	0.0430
MW-23S	07/15/10	0.100 L	0.050	0.041	0.0410
MW-23S	01/06/11	0.200 L	0.100	0.010	0.0100
MW-23S	07/07/11	0.200 L	0.100	0.068	0.0680
No. Analyzed		10		10	
No. Detect		6		10	
Minimum conc.			0.010		0.007
Maximum conc.			0.282		0.174
Average conc.			0.104		0.057
Distribution			Lognormal		Lognormal
UCL 95			0.318		0.2089

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-25S					
MW-25S	01/16/07	0.020 L	0.010	0.005 L	0.0025
MW-25S	07/18/07	0.053	0.053	0.009	0.0090
MW-25S	01/22/08	0.020 L	0.010	0.005 L	0.0025
MW-25S	07/21/08	0.020 L	0.010	0.005 L	0.0025
MW-25S	01/21/09	0.039	0.039	0.005 L	0.0025
MW-25S	07/17/09	0.045	0.045	0.005	0.0051
MW-25S	01/26/10	0.100 L	0.050	0.005 L	0.0025
MW-25S	07/15/10	0.100 L	0.050	0.002 L	0.0010
MW-25S	01/06/11	0.200 L	0.100	0.001 L	0.0005
MW-25S	07/06/11	0.200 L	0.100	0.002	0.0020
No. Analyzed		10		10	
No. Detect		3		3	
Minimum conc.			0.010		0.001
Maximum conc.			0.100		0.009
Average conc.			0.047		0.003
Distribution			NC		NC
UCL 95			NC		NC
MW-26R					
MW-26R	01/18/07	0.413	0.413	0.261	0.2610
MW-26R	01/30/08	0.500	0.500	0.292	0.2920
MW-26R	01/23/09	0.441	0.441	0.272	0.2720
MW-26R	01/27/10	0.480	0.480	0.260	0.2600
MW-26R	01/07/11	0.630	0.630	0.280	0.2800
No. Analyzed		5		5	
No. Detect		5		5	
Minimum conc.			0.413		0.260
Maximum conc.			0.630		0.292
Average conc.			0.493		0.273
Distribution			Lognormal		Lognormal
UCL 95			0.587		0.29

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
MW-28S					
MW-28S	01/18/07	0.020 L	0.010	0.005 L	0.0025
MW-28S	04/26/07	0.020 L	0.010	0.005 L	0.0025
MW-28S	01/24/08	0.942	0.942	0.028	0.0275
MW-28S	04/17/08	0.592	0.592	0.020	0.0201
MW-28S	01/15/09	0.600	0.600	0.022	0.0215
MW-28S	04/16/09	4.290	4.290	0.115	0.1150
MW-28S	07/09/09	0.020 L	0.010	0.005 L	0.0025
MW-28S	01/28/10	0.100 L	0.050	0.005 L	0.0025
MW-28S	04/08/10	0.100 L	0.050	0.001 L	0.0005
MW-28S	07/15/10	0.100 L	0.050	0.001 L	0.0005
MW-28S	01/06/11	0.200 L	0.100	0.010	0.0096
MW-28S	04/21/11	0.200 L	0.100	0.001 L	0.0005
MW-28S	07/07/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		13		13	
No. Detect		4		5	
Minimum conc.			0.010		0.001
Maximum conc.			4.290		0.115
Average conc.			0.473		0.014
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
FMMW-1					
FMMW-1	01/23/07	0.020 L	0.010	0.005 L	0.0025
FMMW-1	04/25/07	0.020 L	0.010	0.005 L	0.0025
FMMW-1	07/19/07	0.360	0.360	0.015	0.0150
FMMW-1	10/11/07	0.020 L	0.010	0.005 L	0.0025
FMMW-1	01/24/08	3.180	3.180	0.143	0.1430
FMMW-1	04/15/08	0.020 L	0.010	0.005 L	0.0025
FMMW-1	07/15/08	0.021	0.021	0.005 L	0.0025
FMMW-1	10/21/08	0.174	0.174	0.010	0.0102
FMMW-1	01/14/09	0.068	0.068	0.005 L	0.0025
FMMW-1	04/14/09	0.022	0.022	0.005 L	0.0025
FMMW-1	07/10/09	0.620	0.620	0.030	0.0300
FMMW-1	10/27/09	0.620	0.620	0.005 L	0.0025
FMMW-1	01/26/10	0.100 L	0.050	0.081	0.0810
FMMW-1	04/07/10	0.100 L	0.050	0.001 L	0.0005
FMMW-1	07/13/10	0.100 L	0.050	0.002 L	0.0010
FMMW-1	10/13/10	0.200 L	0.100	0.001 L	0.0005
FMMW-1	01/05/11	0.200 L	0.100	0.001 L	0.0005
FMMW-1	04/19/11	0.200 L	0.100	0.001 L	0.0005
FMMW-1	07/05/11	0.200 L	0.100	0.003	0.0029
FMMW-1	10/25/11	0.200 L	0.100	0.001 L	0.0005
No. Analyzed		20		20	
No. Detect		8		6	
Minimum conc.			0.010		0.001
Maximum conc.			3.180		0.143
Average conc.			0.288		0.015
Distribution			NC		NC
UCL 95			NC		NC

Dissolved Metals
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	Iron		Manganese	
		Result	Conc.	Result	Conc.
FMMW-2					
FMMW-2	01/22/07	0.085	0.085	0.099	0.0990
FMMW-2	04/25/07	0.020 L	0.010	0.062	0.0620
FMMW-2	07/19/07	0.132	0.132	0.106	0.1060
FMMW-2	10/11/07	0.020 L	0.010	0.139	0.1390
FMMW-2	01/24/08	16.900	16.900	0.986	0.9860
FMMW-2	04/15/08	0.020 L	0.010	0.091	0.0914
FMMW-2	07/15/08	0.020 L	0.010	0.130	0.1300
FMMW-2	10/21/08	0.025	0.025	0.137	0.1370
FMMW-2	01/19/09	0.021	0.021	0.064	0.0635
FMMW-2	04/15/09	0.037	0.037	0.075	0.0754
FMMW-2	07/13/09	0.024	0.024	0.095	0.0948
FMMW-2	10/27/09	0.024	0.024	0.103	0.1030
FMMW-2	01/26/10	0.100 L	0.050	0.005 L	0.0025
FMMW-2	04/07/10	0.100 L	0.050	0.750	0.7500
FMMW-2	07/13/10	0.100 L	0.050	0.091	0.0910
FMMW-2	10/13/10	0.200 L	0.100	0.120	0.1200
FMMW-2	01/05/11	0.430	0.430	0.120	0.1200
FMMW-2	04/20/11	0.200 L	0.100	0.084	0.0840
FMMW-2	07/05/11	0.200 L	0.100	0.091	0.0910
FMMW-2	10/25/11	0.200 L	0.100	0.090	0.0900
No. Analyzed		20		20	
No. Detect		9		19	
Minimum conc.			0.010		0.003
Maximum conc.			16.900		0.986
Average conc.			0.913		0.172
Distribution			NC		Neither
UCL 95			NC		0.986 (M)

Notes:
(L) indicates below the given method reporting limit (MRL)
(ND) indicates not detected
(NC) indicates not calculated due to less than 50 percent detection frequency or historically no detections
Calculations use half the MRL for non-detected parameters

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-11S					
MW-11S	01/16/07	0.5 L	0.25	1.0 L	0.50
MW-11S	04/23/07	0.5 L	0.25	0.5 L	0.25
MW-11S	07/16/07	0.5 L	0.25	0.5 L	0.25
MW-11S	10/09/07	0.5 L	0.25	0.5 L	0.25
MW-11S	01/22/08	0.5 L	0.25	0.5 L	0.25
MW-11S	04/16/08	0.5 L	0.25	0.5 L	0.25
MW-11S	07/21/08	0.5 L	0.25	0.5 L	0.25
MW-11S	10/21/08	0.5 L	0.25	0.5 L	0.25
MW-11S	01/19/09	0.5 L	0.25	0.5 L	0.25
MW-11S	04/15/09	0.5 L	0.25	0.5 L	0.25
MW-11S	07/10/09	0.5 L	0.25	0.5 L	0.25
MW-11S	10/28/09	0.5 L	0.25	0.5 L	0.25
MW-11S	01/28/10	0.5 L	0.25	0.5 L	0.25
MW-11S	04/08/10	0.5 L	0.25	0.5 L	0.25
MW-11S	07/15/10	0.5 L	0.25	0.5 L	0.25
MW-11S	10/13/10	0.5 L	0.25	0.5 L	0.25
MW-11S	01/05/11	0.5 L	0.25	0.5 L	0.25
MW-11S	04/19/11	0.5 L	0.25	0.5 L	0.25
MW-11S	07/05/11	0.5 L	0.25	0.5 L	0.25
MW-11S	10/25/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-12S					
MW-12S	01/23/07	1.4	1.40	0.5 L	0.25
MW-12S	07/19/07	1.5	1.50	0.5 L	0.25
MW-12S	01/30/08	0.6	0.62	0.5 L	0.25
MW-12S	07/22/08	0.8	0.83	0.5 L	0.25
MW-12S	01/21/09	0.5 L	0.25	0.5 L	0.25
MW-12S	01/29/10	0.5 L	0.25	0.5 L	0.25
MW-12S	07/14/10	0.9	0.90	0.5 L	0.25
MW-12S	01/04/11	0.5 L	0.25	0.5 L	0.25
MW-12S	07/08/11	1.2	1.20	0.5 L	0.25
No. Analyzed		9		9	
No. Detect		6		0	
Minimum conc.			0.25		ALL ND
Maximum conc.			1.50		ALL ND
Average conc.			0.80		ALL ND
Distribution			Normal		NC
UCL 95			0.91		NC
MW-12D					
MW-12D	01/23/07	0.5 L	0.25	0.5 L	0.25
MW-12D	07/19/07	0.5 L	0.25	0.5 L	0.25
MW-12D	01/30/08	0.5 L	0.25	0.5 L	0.25
MW-12D	07/22/08	0.5 L	0.25	0.5 L	0.25
MW-12D	01/21/09	0.5 L	0.25	0.5 L	0.25
MW-12D	07/14/09	0.5 L	0.25	0.5 L	0.25
MW-12D	01/29/10	0.5 L	0.25	0.5 L	0.25
MW-12D	07/14/10	0.5 L	0.25	0.5 L	0.25
MW-12D	01/04/11	0.5 L	0.25	0.5 L	0.25
MW-12D	07/08/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		10		10	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-13D					
MW-13D	01/28/03	0.5 L	0.25	0.5 L	0.25
MW-13D	04/23/03	0.5 L	0.25	0.5 L	0.25
MW-13D	07/21/03	0.5 L	0.25	0.5 L	0.25
MW-13D	10/29/03	0.5 L	0.25	0.5 L	0.25
MW-13D	01/19/04	0.5 L	0.25	0.5 L	0.25
MW-13D	04/13/04	0.5 L	0.25	0.5 L	0.25
MW-13D	07/27/04	0.5 L	0.25	0.5 L	0.25
MW-13D	10/22/04	0.5 L	0.25	0.5 L	0.25
MW-13D	01/26/05	0.5 L	0.25	0.5 L	0.25
MW-13D	04/19/05	0.5 L	0.25	0.5 L	0.25
MW-13D	07/26/05	0.5 L	0.25	0.5 L	0.25
MW-13D	10/12/05	0.5 L	0.25	0.5 L	0.25
MW-13D	01/24/06	0.5 L	0.25	0.5 L	0.25
MW-13D	04/12/06	0.5 L	0.25	0.5 L	0.25
MW-13D	08/03/06	0.5 L	0.25	1.0 L	0.50
MW-13D	10/24/06	0.5 L	0.25	0.5 L	0.25
MW-13D	01/19/07	0.5 L	0.25	1.0 L	0.50
MW-13D	04/24/07	0.5 L	0.25	0.5 L	0.25
MW-13D	07/18/07	0.5 L	0.25	0.5 L	0.25
MW-13D	10/10/07	0.5 L	0.25	0.5 L	0.25
MW-13D	01/24/08	0.5 L	0.25	0.5 L	0.25
MW-13D	04/18/08	0.5 L	0.25	0.5 L	0.25
MW-13D	07/21/08	0.5 L	0.25	0.5 L	0.25
MW-13D	10/22/08	0.5 L	0.25	0.5 L	0.25
MW-13D	01/22/09	0.5 L	0.25	0.5 L	0.25
MW-13D	04/23/09	0.5 L	0.25	0.5 L	0.25
MW-13D	07/08/09	0.5 L	0.25	0.5 L	0.25
MW-13D	10/26/09	0.5 L	0.25	0.5 L	0.25
MW-13D	01/29/10	0.5 L	0.25	0.5 L	0.25
MW-13D	04/08/10	0.5 L	0.25	0.5 L	0.25
MW-13D	07/14/10	0.5 L	0.25	0.5 L	0.25
MW-13D	10/14/10	0.5 L	0.25	0.5 L	0.25
MW-13D	01/04/11	0.5 L	0.25	0.5 L	0.25
MW-13D	04/19/11	0.5 L	0.25	0.5 L	0.25
MW-13D	07/06/11	0.5 L	0.25	0.5 L	0.25
MW-13D	10/25/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-13S					
MW-13S	01/15/07	0.5 L	0.25	0.5 L	0.25
MW-13S	04/24/07	0.5 L	0.25	0.5 L	0.25
MW-13S	07/18/07	0.5 L	0.25	0.5 L	0.25
MW-13S	10/09/07	0.5 L	0.25	0.5 L	0.25
MW-13S	01/24/08	0.5 L	0.25	0.5 L	0.25
MW-13S	04/17/08	0.5 L	0.25	0.5 L	0.25
MW-13S	07/21/08	0.5 L	0.25	0.5 L	0.25
MW-13S	10/22/08	0.5 L	0.25	0.5 L	0.25
MW-13S	01/22/09	0.5 L	0.25	0.5 L	0.25
MW-13S	04/23/09	0.5 L	0.25	0.5 L	0.25
MW-13S	07/08/09	0.5 L	0.25	0.5 L	0.25
MW-13S	10/26/09	0.5 L	0.25	0.5 L	0.25
MW-13S	01/28/10	0.5 L	0.25	0.5 L	0.25
MW-13S	04/08/10	0.5 L	0.25	0.5 L	0.25
MW-13S	07/14/10	0.5 L	0.25	0.5 L	0.25
MW-13S	10/14/10	0.5 L	0.25	0.5 L	0.25
MW-13S	01/05/11	0.5 L	0.25	0.5 L	0.25
MW-13S	04/19/11	0.5 L	0.25	0.5 L	0.25
MW-13S	07/05/11	0.5 L	0.25	0.5 L	0.25
MW-13S	10/25/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-15S					
MW-15S	01/15/07	0.5 L	0.25	0.5 L	0.25
MW-15S	07/16/07	0.5 L	0.25	0.5 L	0.25
MW-15S	01/21/08	0.5 L	0.25	0.5 L	0.25
MW-15S	07/14/08	0.5 L	0.25	0.5 L	0.25
MW-15S	01/13/09	0.5 L	0.25	0.5 L	0.25
MW-15S	01/26/10	0.5 L	0.25	0.5 L	0.25
MW-15S	07/15/10	0.5 L	0.25	0.5 L	0.25
MW-15S	01/05/11	0.5 L	0.25	0.5 L	0.25
MW-15S	07/06/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		9		9	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-17S					
MW-17S	01/15/07	0.9	0.90	0.5 L	0.25
MW-17S	04/23/07	0.6	0.60	0.5 L	0.25
MW-17S	07/16/07	0.5 L	0.25	0.5 L	0.25
MW-17S	10/09/07	0.6	0.60	0.5 L	0.25
MW-17S	01/21/08	0.5 L	0.25	0.5 L	0.25
MW-17S	04/17/08	0.5 L	0.25	0.5 L	0.25
MW-17S	07/14/08	0.5 L	0.25	0.5 L	0.25
MW-17S	10/20/08	0.7	0.68	0.5 L	0.25
MW-17S	01/27/09	0.5 L	0.25	0.5 L	0.25
MW-17S	04/13/09	0.5 L	0.25	0.5 L	0.25
MW-17S	10/27/09	0.5 L	0.25	0.5 L	0.25
MW-17S	01/25/10	0.5 L	0.25	0.5 L	0.25
MW-17S	04/07/10	0.5 L	0.25	0.5 L	0.25
MW-17S	07/15/10	0.5 L	0.25	0.5 L	0.25
MW-17S	10/14/10	0.5 L	0.25	0.5 L	0.25
MW-17S	01/05/11	0.5 L	0.25	0.5 L	0.25
MW-17S	04/20/11	0.5 L	0.25	0.5 L	0.25
MW-17S	07/05/11	0.5 L	0.25	0.5 L	0.25
MW-17S	10/25/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		19		19	
No. Detect		4		0	
Minimum conc.			0.25		0.25
Maximum conc.			0.90		0.25
Average conc.			0.34		0.25
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
MW-18S					
MW-18S	01/22/07	0.5 L	0.25	0.5 L	0.25
MW-18S	07/20/07	0.5 L	0.25	0.5 L	0.25
MW-18S	01/22/08	0.5 L	0.25	0.5 L	0.25
MW-18S	07/21/08	0.5 L	0.25	0.5 L	0.25
MW-18S	01/22/09	0.5 L	0.25	0.5 L	0.25
MW-18S	07/17/09	0.5 L	0.25	0.5 L	0.25
MW-18S	01/29/10	0.5 L	0.25	0.5 L	0.25
MW-18S	07/13/10	0.5 L	0.25	0.5 L	0.25
MW-18S	01/07/11	0.5 L	0.25	0.5 L	0.25
MW-18S	07/06/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		10		10	
No. Detect		0		0	
Minimum conc.			ALL ND		ALL ND
Maximum conc.			ALL ND		ALL ND
Average conc.			ALL ND		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene	
		Result	Conc.	Result	Conc.
FMMW-2					
FMMW-2	01/23/07	0.5 L	0.25	0.5 L	0.25
FMMW-2	04/25/07	0.5 L	0.25	0.5 L	0.25
FMMW-2	07/19/07	0.5 L	0.25	0.5 L	0.25
FMMW-2	10/11/07	0.5 L	0.25	0.5 L	0.25
FMMW-2	01/24/08	0.5 L	0.25	0.5 L	0.25
FMMW-2	04/15/08	0.5 L	0.25	0.5 L	0.25
FMMW-2	07/15/08	0.5 L	0.25	0.5 L	0.25
FMMW-2	10/21/08	0.5 L	0.25	0.5 L	0.25
FMMW-2	01/19/09	0.5 L	0.25	0.5 L	0.25
FMMW-2	04/15/09	0.5 L	0.25	0.5 L	0.25
FMMW-2	07/13/09	0.5 L	0.25	0.5 L	0.25
FMMW-2	10/27/09	0.5 L	0.25	0.5 L	0.25
FMMW-2	01/26/10	0.5 L	0.25	0.5 L	0.25
FMMW-2	04/07/10	0.5 L	0.25	0.5 L	0.25
FMMW-2	07/13/10	0.5 L	0.25	0.5 L	0.25
FMMW-2	10/13/10	0.5 L	0.25	0.5 L	0.25
FMW-02	01/05/11	0.5 L	0.25	0.5 L	0.25
FMW-02	04/20/11	0.5 L	0.25	0.5 L	0.25
FMW-02	07/05/11	0.5 L	0.25	0.5 L	0.25
FMW-02	10/25/11	0.5 L	0.25	0.5 L	0.25
No. Analyzed		20		20	
No. Detect		0		0	
Minimum conc.			0.25		ALL ND
Maximum conc.			0.25		ALL ND
Average conc.			0.25		ALL ND
Distribution			NC		NC
UCL 95			NC		NC

Notes:
(L) indicates below the given method reporting limit (MRL)
(ND) indicates not detected
(NC) indicates not calculated due to less than 50 percent detection frequency or historically no detect
Calculations use half the MRL for non-detected parameters

Volatile Organic Compounds
Statistical Summary of Groundwater Data
Hidden Valley Landfill, Pierce County, Washington

Monitoring Well	Date	1,4-Dichlorobenzene		Chlorobenzene		Tetrachloroethene (PCE)	
		Result	Conc.	Result	Conc.	Result	Conc.
MW-11D(2)							
MW-11D(2)	01/16/07	0.5 L	0.25	1.0 L	0.50	1.6	1.60
MW-11D(2)	04/23/07	0.5 L	0.25	0.5 L	0.25	1.3	1.30
MW-11D(2)	07/16/07	0.5 L	0.25	0.5 L	0.25	1.4	1.40
MW-11D(2)	10/15/07	0.5 L	0.25	0.5 L	0.25	1.9	1.90
MW-11D(2)	01/22/08	0.5 L	0.25	0.5 L	0.25	1.9	1.90
MW-11D(2)	04/16/08	0.5 L	0.25	0.5 L	0.25	1.7	1.70
MW-11D(2)	07/21/08	0.5 L	0.25	0.5 L	0.25	1.8	1.80
MW-11D(2)	10/21/08	0.5 L	0.25	0.5 L	0.25	2.3	2.30
MW-11D(2)	01/19/09	0.5 L	0.25	0.5 L	0.25	2.0	2.00
MW-11D(2)	04/14/09	0.5 L	0.25	0.5 L	0.25	2.1	2.10
MW-11D(2)	07/10/09	0.5 L	0.25	0.5	0.50	1.8	1.80
MW-11D(2)	10/28/09	0.5 L	0.25	0.5 L	0.25	2.5	2.50
MW-11D(2)	01/28/10	0.5 L	0.25	0.5 L	0.25	1.0	1.00
MW-11D(2)	04/08/10	0.5 L	0.25	0.5 L	0.25	0.7	0.70
MW-11D(2)	07/15/10	0.5 L	0.25	0.5 L	0.25	0.9	0.90
MW-11D(2)	10/13/10	0.5 L	0.25	0.5 L	0.25	1.3	1.30
MW-11D(2)	01/05/11	0.5 L	0.25	0.5 L	0.25	0.9	0.91
MW-11D(2)	04/19/11	0.5 L	0.25	0.5 L	0.25	0.5	0.53
MW-11D(2)	07/05/11	0.5 L	0.25	0.5 L	0.25	0.9	0.91
MW-11D(2)	10/26/11	0.5 L	0.25	0.5 L	0.25	0.8	0.79
No. Analyzed		20		20		20	
No. Detect		0		1		20	
Minimum conc.			ALL ND		0.25		0.53
Maximum conc.			ALL ND		0.50		2.50
Average conc.			ALL ND		0.28		1.47
Distribution			NC		NC		Lognormal
UCL 95			NC		NC		1.81

Notes:
(L) indicates below the given method reporting limit (MRL)
(ND) indicates not detected
(NC) indicates not calculated due to less than 50 percent detection frequency or historically no detections
Calculations use half the MRL for non-detected parameters

Appendix G
Quarterly Inspection Reports

Condensate Recirculation Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ADLINGTON

Date: 1/25/11

Signature:

Weather: CLOUDY

Instructions: Inspect each sump for pump operation and condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

Sump	Operation per Design (Y or N)	Comments
Sump No. 1	Y	
Sump No. 2	Y	
Sump No. 3	Y	NO WATER IN SUMP
Sump No. 4	Y	
Sump No. 5	Y	
Sump No. 6	Y	
Sump No. 7	Y	
Sump No. 8	Y	
Sump No. 9	Y	
Sump No. 10	Y	

Other Remarks: none

Facility Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ADLINGTON Date: 1/25/11

Signature: [signature] Weather: CLOUDY

Items	Yes	No	Comments
Cover System			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water	X		NEAR CS-8 & IN DITCH
Vegetation			
Bare or Sparsely Vegetated Areas	X		BY SUMP 5, NORTH OF E-32 & E-33 (DOWNHILL), NORTH OF E-31
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)	X		SCATTERED BROOM IN PLACES & BLACKBERRY
Stormwater Conveyance System			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation	X		HIGH SILT & DEBRIS
Stormwater Basin Debris or Silt	X		SOME SILT & DEBRIS
Cover Erosion			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
Vector Control			
Evidence of Ground Burrows		X	
Leachate Collection & Leak Detection Systems			
Piping or Valve Issues	X		LEAK SE OF N8
Pump or Meter Issues		X	
Foaming at Pump	X		

Other Remarks:

Condensate Recirculation Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: Sam Adlington Date: 4/25/11

Signature: Sam Weather: RAIN

Instructions: Inspect each sump for pump operation and condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

Sump	Operation per Design (Y or N)	Comments
Sump No. 1	Y	
Sump No. 2	Y	FIRST IN PIC SERIES
Sump No. 3	Y	
Sump No. 4	Y	
Sump No. 5	Y	
Sump No. 6	Y	
Sump No. 7	Y	
Sump No. 8	Y	
Sump No. 9	Y	
Sump No. 10	N	pump removed by paul

Other Remarks: none Picture of Standing Water

Facility Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ARLINGTON

Signature: [signature]

Date: 4/25/2011

Weather: RAIN/HAIL

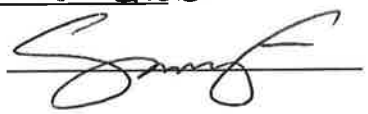
Items	Yes	No	Comments
Cover System			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water	X		WATER IN RIP/RAP CHANNELS NOT FLOWING
Vegetation			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)		X	
Stormwater Conveyance System			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation		X	
Stormwater Basin Debris or Silt	X		DEBRIS IN DRAIN NEAR TRANSFER CENTER
Cover Erosion			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
Vector Control			
Evidence of Ground Burrows		X	
Leachate Collection & Leak Detection Systems			
Piping or Valve Issues	X		CRACKS IN PIPING NEAR CS1
Pump or Meter Issues		X	
Foaming at Pump		X	

Other Remarks:

Condensate Recirculation Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ADLINGTON Date: 7/15/2011

Signature:  Weather: SUNNY W/ CLOUDS

Instructions: Inspect each sump for pump operation and condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

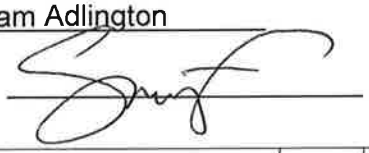
Sump	Operation per Design (Y or N)	Comments
Sump No. 1	Y	
Sump No. 2	Y	3 BOLTS
Sump No. 3	Y	CAN NOT SEE BOTTOM FAINT HISSING NOISE
Sump No. 4	Y	
Sump No. 5	Y	
Sump No. 6	Y	
Sump No. 7	Y	SLIGHT HISSING NOISE
Sump No. 8	Y	
Sump No. 9	Y	VACUUM PRESENT
Sump No. 10	N	FOUL ODOR WHEN OPENED, PUMP REMOVED

Other Remarks:

Facility Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: Sam Adlington

Signature: 

Date: 7/15/2011

Weather: SUNNY W/ CLOUDS

Items	Yes	No	Comments
Cover System			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
Vegetation			
Bare or Sparsely Vegetated Areas	X		DRY WEATHER CAUSING GRASS TO DIE IN VARIOUS PATCHES ON MOUND
Areas of Dying Vegetation	X		
Large Root Vegetation (ex. Bushes)		X	COVER WAS BEING MOWED WHILE INSPECTING MAY HAVE BEEN THERE NOT VISABLE
Stormwater Conveyance System			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation	X	X	NEED TO BE CLEANED NEAR TRANSFER STATION
Stormwater Basin Debris or Silt		X	
Cover Erosion			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
Vector Control			
Evidence of Ground Burrows		X	
Leachate Collection & Leak Detection Systems			
Piping or Valve Issues		X	
Pump or Meter Issues		X	
Foaming at Pump		X	

Other Remarks:

July 15, 2011 Photos - Hidden Valley Landfill

Condensate Sump #1

Condensate Sump #2

Condensate Sump #3

Condensate Sump #4

Condensate Sump #5

Condensate Sump #6

Condensate Sump #7

Condensate Sump #8

July 15, 2011 Photos - Hidden Valley Landfill

Condensate Sump #9

Condensate Sump #10

July 15, 2011 Photos - Hidden Valley Landfill

Area of Dry Grass

Sink Hole Repair Area – Facing west toward transfer station

Condensate Recirculation Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ARLINGTON

Signature: [signature]

Date: 10/12/2011

Weather: CLEAR / LT CLOUDS

Instructions: Inspect each sump for pump operation and condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

Sump	Operation per Design (Y or N)	Comments
Sump No. 1	Y	LID TO CONDENSATE SUMP NOT ATTACHED PROPERLY. BOLTS NOT EVEN FINGER TIGHT. MOST ON GROUND
Sump No. 2	Y	
Sump No. 3	Y	
Sump No. 4	Y	
Sump No. 5	Y	
Sump No. 6	Y	
Sump No. 7	Y	
Sump No. 8	Y	
Sump No. 9	Y	
Sump No. 10	N	PUMP REMOVED

Other Remarks: none

Facility Inspection Checklist

Hidden Valley Landfill, Pierce County, Washington

Name: SAM ADLINGTON Date: 10/12/11

Signature: Weather: OVERCAST

Items	Yes	No	Comments
Cover System			
Settlement Depressions		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
Vegetation			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)		X	
Stormwater Conveyance System			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation	X		SILT & DEBRIS BUILD UP IN CATCH BASINS OUTSIDE OF TRANSFER CENTER.
Stormwater Basin Debris or Silt		X	
Cover Erosion			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
Vector Control			
Evidence of Ground Burrows		X	
Leachate Collection & Leak Detection Systems			
Piping or Valve Issues	N/A	X	
Pump or Meter Issues		X	
Foaming at Pump		X	