



February 17, 2016  
HWA Project No. 98165-670

City of Everett Public Works Department  
3200 Cedar Street  
Everett, WA 98201

Attention: Mark Sadler

**Subject: Gas Sampling Annual Report, 2015  
Everett Landfill/Tire Fire Site  
Everett, Washington**

Dear Mark,

This letter presents the annual report for gas monitoring at the Everett Landfill (herein referred to as the Landfill) for calendar year 2015, per the Compliance Monitoring and Contingency Plan.

### **Gas Probe Monitoring**

Four quarterly sampling events conducted on the following dates are discussed in this annual report:

- 1/21/15
- 4/14/15
- 7/29/15
- 11/20/15

Results of the January 2016 gas monitoring round, which were available at the time of report preparation, are also included in the tables.

Figures 1 and 2 show the gas monitoring probe and building locations. Gas monitoring data at selected Landfill gas probes is summarized in Table 1. A Landfill gas extraction trench (also known as a gas interception or collection trench) was constructed along the northern portion of the west Landfill boundary and commenced operation in April 2004. This trench was designed to prevent offsite migration by intercepting the Landfill gas at the site boundary. A northern extension of the perimeter gas interception trench was added in November 2005. The 41<sup>st</sup> Street overcrossing gas extraction system was started in July 2006.

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Monitoring highlights for the year include:

Landfill interior – Methane exceeding 5% by volume (which equals 100% of the lower explosive limit, or LEL) had been historically detected in most of the Landfill interior gas probes (which were completed in or near waste), as expected. By 2008, all but gas probes LG-14, LG-15, and LG-16 within the Landfill footprint were decommissioned in accordance with Chapter 173-160 WAC in preparation for site development activities. Of these three remaining probes, LG-15 generally had the highest methane concentrations in 2015, with concentrations up to 72%. Probe LG-14 has not had any methane exceeding 5% since January 2014, and LG-16 has not had any exceedances over 5% since October 2011. Interior probes have not exhibited any apparent trends over time since January 2008 (Figure 3). The wellheads of the three probes were adjusted during trail construction along the east side of the Landfill in 2013.

Three new probes, LG-82, LG-83, and LG-84 were installed at the south end of the Landfill per the request of the Washington State Department of Ecology (Ecology). Results indicate methane concentrations of 44, 79, and 70 percent by methane by volume. These probes are in landfill waste, and have similar methane concentrations to other landfill interior probes sampled in the past. Evaluation of off site migration of landfill gas at the south end of the landfill would require additional gas probes off the landfill.

West end of Landfill – The number of probes with detected methane and the magnitude of methane concentrations along the western end of the Landfill decreased since startup of the Landfill gas extraction system in April 2004. Starting in October 2008, two probes along the western boundary, LG-27 and LG-28, started displaying elevated methane concentrations with a maximum concentration of 49% observed in LG-28 in January 2009, and a maximum of 74% observed in LG-27 in August 2012 (Figure 4). Methane has not been detected in either probe since January 2013. The elevated methane concentrations at LG-27 likely was due to preloading of adjacent areas within the Landfill for future site development.

West end of Landfill, off-site – In 2002, LG-56, LG-57, and LG-58 were installed west of, uphill, and off-site of the Landfill to monitor if methane was migrating from the landfill property onto adjoining properties on the west side of the Landfill. These probes generally have not contained methane since installation, with a few isolated readings of up to 1.7% (Table 1). LG-76, LG-77, and LG-78 were installed in 2008, also west of, uphill, and off-site of the Landfill. LG-76 and LG-78 have not contained appreciable (above 0.1%) methane since installation. LG-77 began showing consistent methane concentrations exceeding the action level of 5% in January 2011. More frequent readings were collected at LG-77 from February through April 2011. Readings in 2015 showed generally consistent methane concentrations between 1 and 10%, which is consistent with

readings collected from these probes since 2009. Figure 5 shows the LG-77 methane concentrations over time.

HWA conducted a shallow soil gas (“bar hole”) survey of the area surrounding LG-77 in March 2011. No methane was detected in 11 of 12 holes at depths of 2 to 3.5 feet below ground surface (bgs), and very low methane (0.05%) was measured in one hole. Surficial soils were saturated at shallow depths (2 to 4 feet bgs), and all readings were taken above shallow ground water level. LG-77 is screened at a depth of 15 to 35 feet bgs, corresponding to the elevation of the Landfill, and encountered fill with wood below 10 feet, suggesting the methane detected in LG-77 may be coming from fill beneath the property. Results of the study are summarized in HWA’s report *Landfill Soil Gas Survey, Buse Property, Everett, Washington* dated March 28, 2011.

Between the July and November 2015 rounds, LG-56 was damaged (monument and bollards knocked over, presumably by log hauling operations in the area) and is no longer useable.

North end of Landfill – Methane exceeding 5% by volume was consistently detected in one or more of the LG-44, LG-45, LG-46, and LG-47 probes installed at the Landfill northern perimeter. Most other northern perimeter probes have not contained appreciable methane concentrations (Table 1, Figure 6).

LG-44, LG-45, and LG-46, located on former Port of Everett Property (former Diversified recycling facility), are the furthest from the Landfill and the gas extraction system. These probes have displayed relatively constant range of methane readings before and after construction of the north segment of gas extraction system in November 2005. The methane concentrations in LG-44 and LG-45 suggest an off-site source of methane, as Landfill gas from the landfill would likely have dissipated in the years following installation of the extraction trench. The recycling facility was closed in April 2014 and the south building demolished. The north building was demolished in early 2016. Probes LG-44, LG-45, and LG-47 have been covered by demolition debris and soil and have not been located or monitored since mid 2014.

Other than LG-44, LG-45, LG-46, and LG-47, none of the other north Landfill boundary gas probes have had methane over 5% in the past year, with most probes containing no detectable methane.

Utilities – Gas probes installed in utility trenches (sewer, sewer force main, water, and natural gas) include:

- I-5 / West End – In October 2008, gas probes (LG-79, LG-80, and LG-81) were installed in utility trenches to replace gas probes damaged or decommissioned

during BNSF railroad track construction (LG-63, LG-64, LG-65, and LG-66). Except for a reading of 0.1 % in November 2010 and April 2013, methane has not been detected in these probes since their installation in October 2008 (Table 1). All three of these replacement probes were damaged and not useable as of October 2013. This area is used for log storage for Buse Timber, and the gas probes (LG-79, LG-80, and LG-81) were damaged by logs and heavy equipment operations after closure of 36<sup>th</sup> Street. None of the damaged probes (original or replacement probes) had methane above the action level from June 2004 to July 2013, when the last active probe was damaged. Three additional replacement probes (LG-85, LG-86, and LG-87) were installed in June 2015 at the north end of the Landfill in utility trenches within 36<sup>th</sup> Street (away from Buse activity) to replace damaged probes LG-79, LG-80, and LG-81.

- Eclipse Mill Road / East end – Three gas probes installed in utility trenches in Eclipse Mill Road (LG-71, LG-72, and LG-73) were repaired in October 2008 by routing the sampling ports laterally to a central location at the side of Eclipse Mill Road, where they would not be subject to truck and heavy equipment damage. Methane has not been detected in these probes above 0.4% since their repair in October 2008 (Table 1). The probes were covered by fill for two rounds in 2012. The probes were located in January 2013, after which the labeling was removed or obscured by contractors, such that the specific utility (e.g., sewer or water line) each probe monitors is no longer known. None of the three probes have had methane over 0.1% during 2015, consistent with past readings.

New gas probes installed in 2015:

- Three new probes, LG-82, LG-83, and LG-84 were installed at the south end of the Landfill per the request of the Washington State Department of Ecology (Ecology)
- Three replacement probes (LG-85, LG-86, and LG-87) were installed at the north end of landfill in utility trenches, to replace damaged probes LG-79, LG-80, and LG-81.

Decommissioned/damaged gas probes in 2015:

The following gas probes have been damaged or buried in the last year during construction activities at and around the Landfill.

- LG-56 - Monument damaged, knocked over

## Buildings

Gas monitoring, which was performed utilizing a flame ionization detector, at selected buildings located to the north and west of the Landfill is summarized in Table 2. The Snohomish County Transfer Station formerly on the landfill was closed in January 2004, after which no further monitoring was conducted. The Everett Animal Shelter, formerly on the landfill, was vacated in April 2009 and demolished in June 2009. GTS Drywall Supply Co., north of the landfill, was not monitored after November 2002, when the building was vacated. The GTS building was demolished in 2007. The Diversified Recycling facility north of the landfill was closed in April 2014 and the south building subsequently demolished. The north building was demolished in early 2016.

Off-site structures monitored in 2015 included:

- Everett Gospel Mission, 3711 Smith Avenue
- Cascade Wholesale, 2410 38<sup>th</sup> Street
- H & R Mechanical Systems Inc., 2407 38<sup>th</sup> Street
- Ron May Towing, 2406 39<sup>th</sup> Street
- Diversified Recycling - north building, 2931 36<sup>th</sup> Street
- Sno Valley Process Solutions, 2420 38<sup>th</sup> Street

The highest methane concentration detected in any of the off-site structures monitored during the last year was 5.7 parts per million (ppm, 0.00057%) at the Sno Valley Process Solutions property. This concentration is well below the 100 ppm (0.01%) action level and considerably less than the lower explosive limit of 50,000 ppm (5%), and most likely unrelated to the landfill.



We appreciate the opportunity to provide our services. Please feel free to call me if you have any questions or need more information.

Sincerely,  
HWA GEOSCIENCES INC.

  
Arnie Sugar, LG, LHG  
Principal Hydrogeologist

### Attachments:

- Table 1    Everett Landfill – Gas Probe Monitoring
- Table 2    Everett Landfill – Gas Monitoring at Structures

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- Figure 1 Landfill Gas Probe Location Map
- Figure 2 Landfill Gas Probe Location Map, Detail
- Figure 3 Methane Concentration in Landfill Interior Probes
- Figure 4 Methane Concentration in West Boundary Probes
- Figure 5 Methane Concentration in LG-77
- Figure 6 Methane Concentration in North Boundary Probes

**Table 1A**  
**Alt Landfill - Historic Gas Probe Monitoring**

**NOTES:**  
**Bold** Methane detected  
**Shaded** Exceeds 5% methane  
  Depth to bottom/no water present  
  --- Unable to remove labcock for reading  
W - ground water above top of screen, or water flowing in sampling tubing  
\*\* problems with instruments - no valid pressure readings this quarter  
\*\*#s indicate the level measured

**NOTES:**  
**Bold** Methane detected  
**Shaded** Exceeds 5% methane  
\* Depth to Bottom/no water present  
--- Unable to remove labcock for reading  
W - ground water above top of screen, or water flowing in sample  
\*\* problems with instrument - no valid pressure readings this quarter  
\*\*\* No groundwater level recorded.

Table 1A  
Everett Landfill - Historic Gas Probe Monitoring

	Screen Interval	CH4 %	Date 1/12/04 - 1/15/04	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 3/26/04 - 3/29/04	O2 %	Pressure H2O	Temp deg C	Water Depth (ft)	CH4 %	Date 4/29/04 - 5/3/04	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 6/29/04 - 7/8/04	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 10/11/04 - 10/13/04	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 3/29/05 - 4/5/05	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 7/6/05 - 7/8/05	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 10/3/05 - 10/5/05 + 10/12/05	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 1/16/06 - 1/20/06	O2 %	Pressure H2O	Water Depth (ft)		
Landfill Interior																																																	
LG-2a	4.0-9.0	0.0	9.7	6.3	0	***	0.0	11.6	3.1	0	9.2	8.65	0.0	13.7	1.4	0	***	0.0	17.1	1	-0.01	9.36	0.0	18.8	4.5	0	***	0.0	17.8	1.2	0	***	0.0	2	13	0	***	0.0	10.1	3	0	***							
LG-2b	12.0-17.0	0.0	2.6	17.5	0.02	***	0.0	0.6	19.2	-0.04	9.1	16.63	0.0	3.8	15	-0.02	***	0.0	3	15.4	0.04	17.31	0.0	16.7	0.2	0.01	***	0.0	12.4	7.5	0.02	***	0.0	12.6	5.5	0	***	NORTH	0.0	0.5	19.8	0.03	***						
LG-2c	20.0-25.0	0.0	5.2	17.8	0.3	***	0.0	4.8	18.2	0.07	9.1	20.44	LG	0.0	1.6	19.6	0	***	0.0	3.2	18.2	0.02	21.12	0.0	8.7	14.6	0	***	0.0	1	0	-1.81	***	0.0	8	16.9	-0.18	***	0.0	7.4	16.3	0.01	***						
LG-3a	7.0-12.0	48.9	1.6	0.2	**	***	49.5	1.1	0	0	9.5	11.08	EXTRAC-	48.7	1.1	0.3	0.02	***	53.3	1.3	0.2	-1.14	***	65.0	1.7	0	-0.6	***	54.9	0.7	0	-0.15	***	68.6	1.6	0	-0.65	***	47.0	1.8	0	-1.42	***	LEG OF	54.8	1.2	0	0	***
LG-3b	15.0-20.0	45.9	0.8	0.2	**	***	46.3	0.4	0	0	10.3	*	EXTRAC-	43.3	0.4	0.2	-0.06	***	43.3	0.4	0.1	-0.96	***	50.1	0.6	0	-0.4	***	61.0	36.7	0	0.3	***	49.8	0.9	0	-0.3	***	35.0	1	0	-1.45	***	50.1	1.2	0	0	***	
LG-5	3.5-6.5																																																
Decommissioned 2/18/03																																																	
LG-6	5.0-10.0	64.6	35.1	0.4	0.07	***	61.8	37.1	0	-0.06	9	10.4	TION	57.9	35.7	0.5	-0.86	***	45.6	29.4	0	0.1	***	72.2	19.9	0	0.24	***	63.4	36	0	0.1	***	59.5	37.1	0	0.07	***	LG	61.2	37.7	0	0.59	***					
LG-8	5.0-8.0	75.0	16.9	0.3	0.36	***	74.1	20.3	0	0.06	7.9	*	SYSTEM	69.4	21.9	4.8	0.03	***	76.5	23.4	0	0.08	***	0.0	0	20.5	-0.92	***	62.5	33.7	0	0.01	***	64.2	31.7	0	0	***	EXTRAC-	66.6	31.6	0	-1.22	***					
LG-9	4.0-9.0	0.3	0.1	20.4	0	***	0.0	0.1	20.5	0	7.3	3.35	STARTED	80.5	2.5	0	0.04	***	70.0	1.4	0	0.11	***	92.2	0.8	0	0.23	***	0.0	0	20.5	0.02	***	27.6	7.4	0.01	0.03	***											
LG-10	12.0-17.0	64.7	2.0	0.1	0.08	***	63.8	35	0	0.09	8.1	*	4/04	80.4	1.7	0	0.04	***	80.5	1.0	0	-0.02	***	82.7	12.1	0	0.04	***	83.8	6.2	0.1	0.06	***	84.5	5.9	0	0.29	***											
LG-11	20.0-25.0	7.6	0.1	0.08	***	83.3	0.1	0	0.09	8.1	*	76.4	7.9	0	0.1	***	89.9	0.1	0	-0.08	***	85.7	2	0	0.2	***	78.3	11.4	0	0.04	***	62.3	8.1	0	0.07	***													
LG-12	4.0-9.0	90.1	2.6	0.1	-0.04	***	81.5	2.7	0	0.05	10.5	*	76.4	3.3	0	0	***	75.5	2.5	0.5	0	***	73.3	1.1	0	-0.15	***	81.7	2.7	0.2	-0.58	***	85.3	3.3	0.6	-0.14	***												
LG-13	11.0-16.0	65.1	2.3	0.1	-0.08	***	61.8	2	0	0.05	10.7	*	77.7	1.7	0	0.08	***	70.6	0.7	0	-0.23	***	70.9	1	0.1	-0.22	***	64.4	1.4	0	0	***																	
LG-14	18.0-23.0	60.9	1.1	0.1	0	***	60.6	1	0	0	10.4	*	48.9	0.7	2.8	0	***	72.9	0.9	0	0	***	59.2	0.8	0	-0.08	***	65.8	0.6	0.1	-1.61	***	57.4	0.7	0	0.4	***												
LG-15	4.0-10.0	0.4	0.2	20.6	0	***	0.0	0.2	20.9	0	7.5	*	0.2	1	18.9	0	***	0.0	0	20.8	0	***	23.8	11.4	2.4	0.01	***	0.0	0	20.4	0.06	***	W	W	W	W	***												
LG-16	4.0-10.0	0.4	1.2	18.6	0	***	40.8	21.1	0	0	7.5	8.63	34.4	23.9	0.5	0.01	***	59.4	34.5	0	0.01	***	50.9	32	0	0	***	5.0	19.5	0.1	0	***	0.0	0.1	20.5	0.08	***												
LG-17	4.0-9.0	0.3	0.1	20.7	-0.01	***	0.0	0.3	20.7	0	7.5	6.66	0.0	0	21.3	0	***	0.0	0	20.8	0.3	***	0.0	0	20.6	0.01	***	0.0	0	20.3	0	***																	
LG-18	4.0-9.0	0.3	0.3	20.3	0.02	***	0.0	0.4	20.6	0.02	7.4	7.67	0.0	0	21.1	0	***	0.0	6.9	13.8	0.09	***	0.0	0	20.5	0.06	***	0.0	0	20.5	0.06	***																	
LG-19	5.0-12.5																																																
Decommissioned 11/03																																																	
LG-20	4.0-9.0																																																
West Boundary			</td																																														

**Table 1A**  
**Landfill - Historic Gas Probe Monitoring**

ethane detected  
exceeds 5% methane  
or no water present  
remove labcock for reading  
or above top of screen, or water flowing in sampling tubing  
instrument - valid pressure readings this quarter  
water level recorded

**Table 1A**  
**Att I Landfill - Historic Gas Probe Monitoring**

\*Turkey Trail MW's sampled 11/25/08 due to construction

W - ground water above top of screen, or water flowing in sampling tubing

* LG-32 readings				
CH4 %	CO2 %	O2 %	Baro	Date
6.1	26.3	1.7		1/21/10 <b>16.2</b>
1.6	27.0	1.2	29.78*	3/26/10 0.0
1.4	26.7	2.2	30.05*	- - 30.12
				<b>Average</b> <b>8.1</b> <b>14.2</b> <b>0.0</b>
2.1	28.4	0.8	29.96	
2.5	28.6	1.1	29.94	
2.74	<b>27.4</b>	<b>1.4</b>		

LG-47 readings				
Date	CH4 %	CO2 %	O2 %	Baro
7/9/10	7.2	11.5	0.0	29.97
8/2/10	4.5	-	-	30.09
Average	5.9	11.5	0.0	

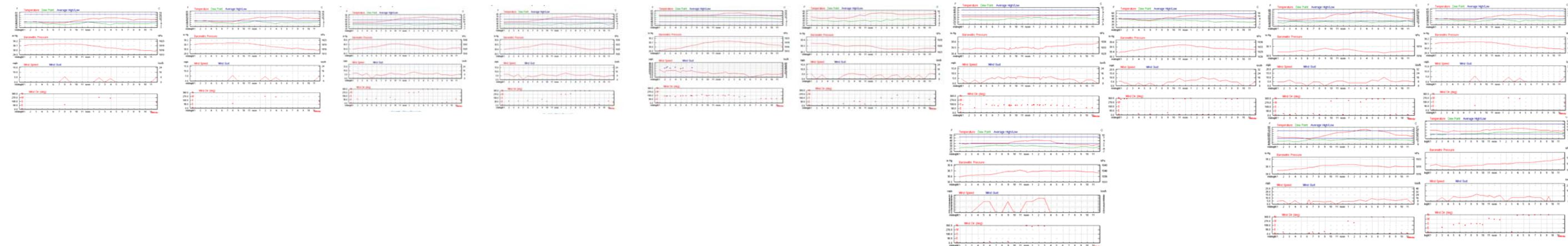
Table 1A  
Everett Landfill - Historic Gas Probe Monitoring

	Screen Interval	CH4 %	Date 11/2/10 - 11/8/10	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 1/31/11 - 2/1/11	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 4/6/11 - 4/8/11	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 7/12/11 - 7/14/11	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 10/11/11 - 10/14/11	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 12/27/11 - 12/29/11	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 4/10/12 - 4/11/12	O2 %	Pressure H2O	Water Depth (ft)	CH4 %	Date 8/16-17/12	O2 %	Pressure H2O	Water Depth (ft)
<b>Landfill Interior</b>																																									
LG-2a	4.0-0.0		Damaged					Damaged					Damaged					Damaged						Damaged					Damaged				Damaged								
LG-2b	12.0-17.0		Damaged					Damaged					Damaged					Damaged						Damaged					Damaged				Damaged								
LG-2c	20.0-25.0		Damaged					Damaged					Damaged					Damaged						Damaged					Damaged				Damaged								
LG-3a	7.0-12.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-3b	15.0-20.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-5	3.5-6.5		Decommissioned 2/18/03					Decommissioned 2/18/03					Decommissioned 2/18/03					Decommissioned 2/18/03						Decommissioned 2/18/03					Decommissioned 2/18/03				Decommissioned 2/18/03								
LG-6	5.0-10.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-8a	4.0-8.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-8b	4.0-17.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-8c	20.0-25.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-10a	4.0-9.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-10b	11.0-16.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-10c	18.0-23.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-13	4.0-10.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-14	4.0-8.0	47.9	15.8 0.1 0.8 ***	0.0 0.3 20.4 0 ***	53.6	16.1 0.4 -0.55 ***	64	14.1 0 0 ***	63.1	25.9 0 2.4 ***	0	0 0.7 20.7 0 ***	63.7	18.3 0.8 -0.7	58	15.8 2.7 0.2																									
LG-15	4.0-10.0	5.3	5 16.1 0.4 ***	37.7	6.6 2.4 0 ***	9.7	5.5 11 1.96 ***	55	18.5 0 0.01 ***	0	0 17.5 0 0 ***	12.2	8.9 1.9 -10.3	5.7	19.7 0 1.1																										
LG-16	4.0-10.0	0.5	0.3 20.6 0 ***	0.4	0.3 20.3 -0.1 ***	2.3	0.6 20.3 0 ***	0.0	0.3 20.0 ***	40.8	25.5 0 0 ***	0	0 0.7 20.8 0.02 ***	0	0 1 20.8 0 ***	0	0 4 20 1.1																								
LG-17	4.0-9.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-18	4.0-9.0		Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08					Decommissioned 2/21/08						Decommissioned 2/21/08					Decommissioned 2/21/08				Decommissioned 2/21/08								
LG-19	5.0-12.5		Decommissioned 11/1/03					Decommissioned 11/1/03					Decommissioned 11/1/03					Decommissioned 11/1/03						Decommissioned 11/1/03					Decommissioned 11/1/03				Decommissioned 11/1/03								
LG-20	4.0-9.0		Decommissioned 11/1/03					Decommissioned 11/1/03					Decommissioned 11/1/03					Decommissioned 11/1/03						Decommissioned 11/1/03					Decommissioned 11/1/03				Decommissioned 11/1/03								
<b>West Boundary</b>																																									
LG-21	3.0-5.0	0.0	0.1 20.9 0.2 ***	0.0 0 20.3 -0.3 ***	0.0	0.2 20.9 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0.7 20.7 0.1 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***	0.0	0 0 20.8 0 ***									
LG-22	3.0-5.0		Damaged					Damaged					Damaged					Damaged						Damaged					Damaged				Damaged								
LG-23	3.0-5.0	0.0	0.1 20.9 0.1 ***	0.0 0 20.7 0 ***	0.0	0.1 20.7 0.1 ***	0.0	0 0 20.8 0 ***	0.0	0 0.7 20.7 0.1 ***	0.0	0 0 20.8 0 ***	0.0	0 0.7 20.8 0.																											

**Table 1A**  
**Everett Landfill - Historic Gas Probe Monitoring**

Screen Interval	CH4 %	10/25-26/12				1/14-15/13				4/22/13				7/24-25/2013				10/9-10/2013				
		CO2 %	O2 %	Pressure H2O	Water Depth (ft)	CO2 %	O2 %	Pressure H2O	Water Depth (ft)	CO2 %	O2 %	Pressure H2O	Water Depth (ft)	CO2 %	O2 %	Pressure H2O	Water Depth (ft)	CO2 %	O2 %	Pressure H2O	Water Depth (ft)	
<b>Landfill Interior</b>																						
LG-2a	4.0-9.0		Damaged				Damaged			Damaged				Damaged			Damaged			Damaged		
LG-2b	12.0-17.0		Damaged				Damaged			Damaged				Damaged			Damaged			Damaged		
LG-2c	20.0-25.0		Damaged				Damaged			Damaged				Damaged			Damaged			Damaged		
LG-3a	7.0-12.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-3b	15.0-20.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-5	3.5-6.5		Decommissioned 2/18/03				Decommissioned 2/18/03			Decommissioned 2/18/03				Decommissioned 2/18/03			Decommissioned 2/18/03			Decommissioned 2/18/03		
LG-6	5.0-10.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-8	5.0-8.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-9a	4.0-9.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-9c	12.0-17.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-10a	4.0-9.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-10b	11.0-16.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-10c	18.0-23.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-13	4.0-10.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-14	4.0-8.0		water in probe				0.2	0.4	21.1	-0.65	0	0.3	20.6	-6.2	0	0	20.4	-0.27	47.8	18.8	0.1	-
LG-15	4.0-10.0	0	2	18.5	-0.4		0.1	1.9	20.2	-0.65	0.9	3.9	11.4	-15.7	7.6	23.9	0.3	-3.89	53.2	21.1	0.1	-
LG-16	4.0-10.0	0	0.5	19.9	-0.4		0.1	0.2	21.1	-0.65	0.2	0.1	20.8	-15.7	0	0.3	18	-3.89	0.0	0	21.0	-
LG-17	4.0-9.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-18	4.0-9.0		Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08				Decommissioned 2/21/08			Decommissioned 2/21/08			Decommissioned 2/21/08		
LG-19	5.0-12.5		Decommissioned 11/1/03				Decommissioned 11/1/03			Decommissioned 11/1/03				Decommissioned 11/1/03			Decommissioned 11/1/03			Decommissioned 11/1/03		
LG-20	4.0-9.0		Decommissioned 11/1/03				Decommissioned 11/1/03			Decommissioned 11/1/03				Decommissioned 11/1/03			Decommissioned 11/1/03			Decommissioned 11/1/03		
<b>West Boundary</b>																						
LG-21	3.0-5.0		water in probe				water in probe			water in probe				water in probe			water in probe			water in probe		
LG-22	3.0-5.0		Damaged				Damaged			Damaged				Damaged			Damaged			Damaged		
LG-23	3.0-5.0	0	0.1	20.8	0.3		0	0	21.3	0.26	0	0	20.8	--	0	0	20.5	0.09	0	0	20.8	0.05
LG-24	3.0-8.0		water in probe				water in probe			water in probe				water in probe			water in probe			water in probe		
LG-25	3.0-8.0	0	0	21	0.35		0	0.1	21.1	0.26	0	0.2	20.6	--	0	0	20.4	0.09	0	0.2	20.6	0.05
LG-26	3.0-8.0	65	15.5	0.5	0.3		0	0.3	21.9	0.26	0	0.1	20.6	--	0	0.1	20.3	0.09	0	2	20.8	0.05
LG-27	3.0-8.0	28	16.5	0.2	0.5		0	0.5	19.9	0.26	0	0.2	16.5	--	0	0.3	16.9	0.09	0	1.1	17.3	0.05
LG-29	3.0-8.0		Damaged				Damaged			Damaged				Damaged			Damaged			Damaged		
LG-30	5.0-10.0	0	5.5	16	0.2		0	3.1	17.2	0.26	0	0.4	16.9	-0.05	0	0.4	16.9	0.09	0	0.1	16.9	0.16
LG-31	7.0-12.0	0	6.1	15.5	0.2		0	0.3	21	0.26	0	0.1	20.8	-0.05	0	0.5	19.3	0.09	0	0.1	21	0.16
LG-32	3.0-8.0	0	8.9	5.5	0.3		0	3	17.5	0.26	0	0.4	14.9	-0.05	0	0.6	16.8	0.19	0	0.1	14.5	0.16
LG-33	7.0-12.0	0	1	20	0.3		0	0	21.3	0.6	0	0.2	20.7	-0.05	0	0.5	19.8	0.56	0	0.5	20.5	0.16
LG-34	3.0-8.0	0	4.4	16.1	0.25		0	1.3	18.4	0.6	0	0.2	13.6	-0.05	0	0.7	8.3	0.56	0	1.5	19.5	0.16
LG-35	4.0-9.0	0	7.8	6.2	0.31		0	3.2	5.5	0.6	0	0.1	19	-0.05	0	0	14.5	0.58	0	0.8	5.8	0.16
LG-36	9.0-14.0		Decommissioned 08/1/07				Decommissioned 08/1/07			Decommissioned 08/1/07				Decommissioned 08/1/07			Decommissioned 08/1/07			Decommissioned 08/1/07		
LG-37	7.0-12.0		Decommissioned 08/1/07				Decommissioned 08/1/07			Decommissioned												

**Table 1B**  
**Att Landfill - Recent Gas Probe Monitoring**



**Table 2**  
**Everett Landfill - Gas Monitoring at Structures**

## ON-SITE STRUCTURES

**Table 2**  
**Everett Landfill - Gas Monitoring at Structures**

## ON-SITE STRUCTURES

All sampling after & including 11/12/02 measured with Foxboro FID, Model OVA 128

Structure/Address sample location	5/24/2002	7/17/2002	11/1/2002	11/12/2002	11/14/2002	1/27/2003	5/8/2003	7/16/2003	10/9/2003	1/16/2004	4/7/2004	7/8/2004	10/13/2004	3/24/2005	7/13/2005	10/12/2005	1/24/2006	6/2/2006	8/18/2006	10/19/2006	1/16/2007	5/4/2007		
	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm	Methane ppm													
<b>Everett Animal Shelter</b> <b>2732 36th Street</b>																								
lawn sprinkler vault (N side of bldg.)	80	40	20						0	0	0	0	1.2	0	0	0	0	0	0	0	0	0		
roof drains	0	0	0						0	0	0	0	35.6	0.4	2	0	0	0	0	1.2	0	0		
Women's public restroom (floor drain)**	40	20	20	12	0	0	0	0	0	0	0	84.2	0.8	1.2	0	0	0	0	0.8	0	0	0		
Men's public restroom (floor drain)**	20	20	20	15	0	0	0	0	0	0	0	5.9	0.9	1.6	0	0	0	0	0.5	0	0	0		
employee restroom (floor drains)	0	0	40	0					0	0	0	0	1.1	0.5	0	0	0	0	1.5	0	0	9.1		
floor crack in storage room adj. to cat room	480	0	40	0	0	0	0	0	0	0	0	0.8	1.1	0	0	0	0	0	0.7	0	0	0		
breathing zone in storage room adj. to cat room	200	0	60	6	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	1.5	0	0	0		
telephone storage room	40	80	20	0	0	0	0	0	10.3	0	0	1.2	1.9	0	0	0	0	0	3	0	0	0		
<b>Snohomish County Transfer Station</b>																								
lunch room	200	0	120	40	60	60	0	0	94.4	23.2														
restrooms	140	0	140	80	60	80	84	84	112.2	37.4	transfer station closed													
changing bldg	0	0	20	0	0	0	0	0	5.4	0														
valve control vault	9000	140	440	0	0	500	>3637	0	0															
Scale vault (south side)	1240	3020	920	0	10	10	110	1900	0	0														
Scale Vault (north side)	7400	780	2200	200	200	450	520	720	368.2	65.7														
<b>OFF-SITE STRUCTURES</b>																								
<b>GTS Drywall Supply Co.</b> <b>2931 36th Street</b>			vac	vac	vac	vac	vac	vac	vac	vac	vac	vac	vac											
roof drains (W, N, E sides of bldg)	0																							
roof drain (SW corner of bldg)**	0																							
toilets		vac																						
floor cracks	0																							
foundation cracks	0																							
boiler pipe penetrations		vac																						
<b>Everett Gospel Mission</b> <b>3711 Smith Avenue</b>																								
lawn sprinkler vault (N side of bldg)	40	60	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0		
floor cracks	0	0	20						0	0	0	0.2	0	0	0	0	0	0	0	0	0	0		
foundation cracks	0	0	20						0	0	0	0	0	0	0	0	0	0	0	0	0	0		
boiler pipe penetrations	0	0	0						2.4	0	63.6	1	2.5	0.5	0	0	0	0	1.5	0	0	63.4		
food storage room	20	0	20						0	0	0	0	0	1	0	0	0	0	0	0	0	0		
<b>Cascade Wholesale</b> <b>2410 38th Street</b>																								
lawn sprinkler vault (E side of bldg)	60	20	20	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0		
roof drains	80	0	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0		
sewer	60	0	40						0	0	0	0	0.4	0	0	0	0	0	0	0	0	0		
restrooms	0	0	140	0	0	0	0	0	7.6	0	0	0	23.6	0	0	0	0	0	8.5	0	0	0		
floor cracks inside bldg	0	0	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>H &amp; R Mechanical Systems Inc.</b> <b>2407 38th Street</b>			vac	vac	vac	vac	vac																	
roof drains	0	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0		
cracks in pavement	0	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0		
floor cracks	0	0							0	0	0	0	0	0	6.6	0	0	0	5	0	0	37.2		
<b>Sno Valley Process Solutions</b> <b>2420 38th Street</b>									vac	vac	vac													
roof drains	0	20	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0		
cracks in pavement	0	0	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0		
floor cracks	0	0	20						0	0	0	0	18.9	5.9	6.6	0	0	0	0	3	0	3.7	10.7	
<b>Ron May Towing</b> <b>2406 39th Street</b>																								
bathrooms	0	0	140	0	0	0	0	0	0	0	0	0	4.4	0	0	0	0	0	0	0	0	0		
exterior drains	0	20	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>Diversified Recycling/Car Wash Chemical Co.</b> <b>2931 36th Street</b>																								
boiler room	40	0	0						0	0	9	0	0	1.3	0	0	0	0	3.2	0	0	0		
bathrooms	0	0	20						0	0	9.4	0	0	0.6	0.1	7.6	0	0	2.8	0	0	0		
closet	0	0	20						0	0	8.1	0	9	0.2	0	3.5	0	0	4.1	0	0	0		
beam/floor cracks	0	0	0						0	0	2.1	0	0	0	0	0	0	0	0.5	0	0	0		
drainage pipe	0	40	0						0	0	0	0	0	0	0	0	0	0	1.2	0	0	0		
roof drains outside building													804	0	0	0	0	0	0	0	0	0	0	
warehouse breathing space													14.6	29.2	4.2	7	0.8	0	0	0	0	0	0	
south sensor													7.2	5.5	0	1.1	0.8	0	0	0	0	0	0	
north sensor													7.5	0	0	0	0.3	1.1	0	0	0	0	0	0

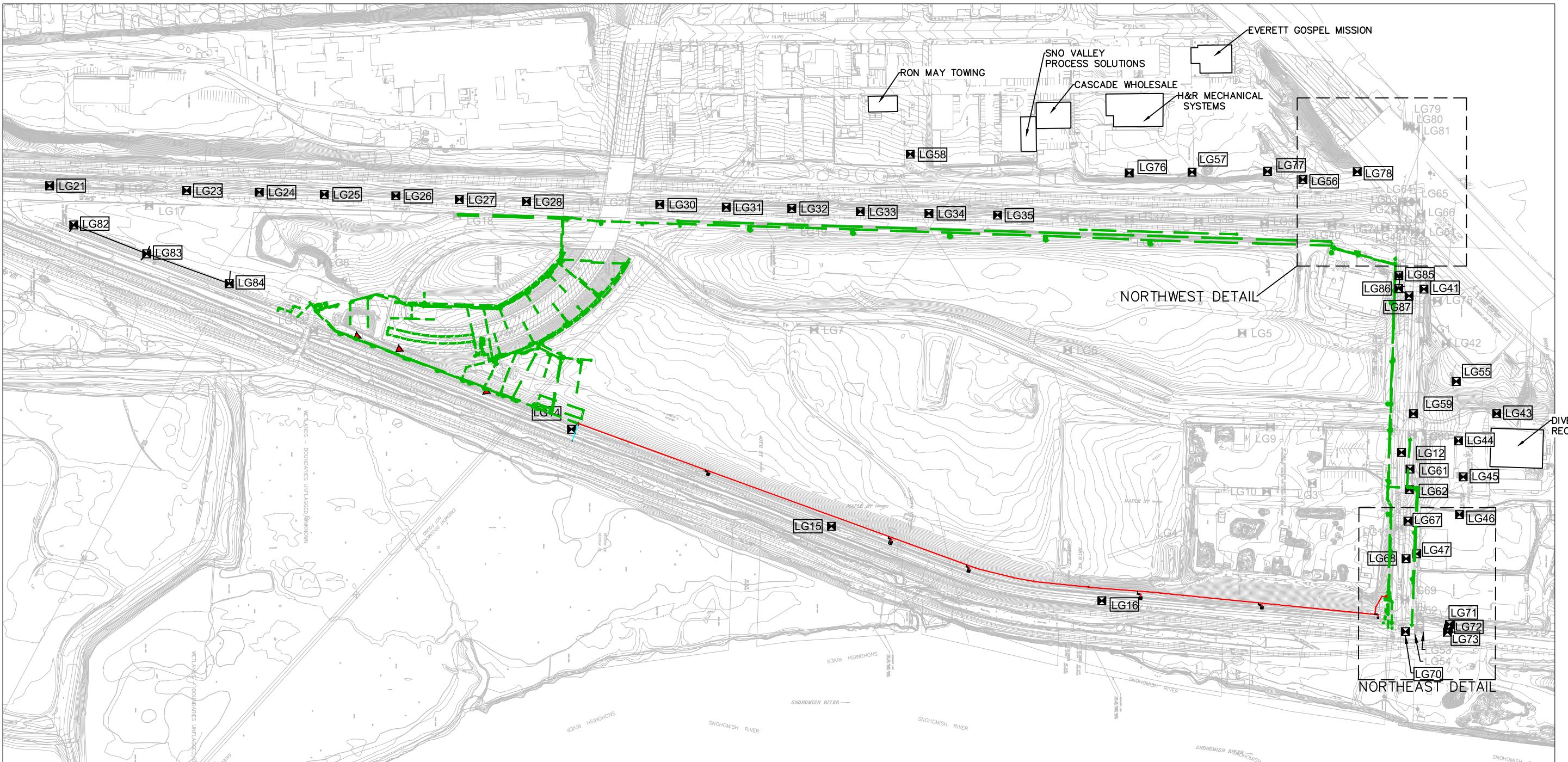
**Table 2**  
**Everett Landfill - Gas Monitoring at Structures**

**ON-SITE STRUCTURES**

Structure/Address	7/9/2007	10/24/2007	2/1/2008	4/28/2008	6/13/2008	10/23/2008	1/16/2009	4/30/2009	7/10/2009	10/29/2009	1/20/2010	4/7/2010	7/8/2010	11/2/2010	1/26/2011	4/6/2011	7/12/2011	10/1/2011	12/27/2011	6/5/2012**	9/10/2012
sample location	Methane ppm																				
<b>Everett Animal Shelter</b> <b>2732 36th Street</b>																					
lawn sprinkler vault (N side of bldg.)	0	0	0	0	0	0	0	animal shelter closed													
roof drains	0	0	0	0	0	0	0.1														
Women's public restroom (floor drain)**	0	0	0	0	0	0	0														
Men's public restroom (floor drain)**	0	0	0.4	0	0	0	0														
employee restroom (floor drains)	0	0	0	0	0	0	1.1														
floor crack in storage room adj. to cat room	0	0	0	0	0	0	0														
breathing zone in storage room adj. to cat room	0	0	0	0	0	0	0														
telephone storage room	0	1.1*	0	0	0	1.3*	1.4														
<b>Snohomish County Transfer Station</b>																					
lunch room	transfer station closed																				
restrooms																					
changing bldg																					
valve control vault																					
Scale vault (south side)																					
Scale Vault (north side)																					
<b>OFF-SITE STRUCTURES</b>																					
<b>GTS Drywall Supply Co.</b> <b>2931 36th Street</b>	vac	bldg demo'd																			
roof drains (W, N, E sides of bldg)																					
roof drain (SW corner of bldg)**																					
toilets																					
floor cracks																					
foundation cracks																					
boiler pipe penetrations																					
<b>Everett Gospel Mission</b> <b>3711 Smith Avenue</b>																					
lawn sprinkler vault (N side of bldg)	0	0	0	0	0	0	0.4	0	0	0	1.8	0	1.2	0	0	0	13.3	0	0	20	0
floor cracks	0	0	0	0	0	0	0.9	0	0	0.1	0.3	0	1.8	0.6	0.5	1.9	0	0	0	0	1
foundation cracks	0	0	0	0	0	0	0.2	0	1.1	0	0.6	0	1.7	0	7.8	0	0	0	0	20	2
boiler pipe penetrations	25.2	0	22.1	20.4	18.1	4.8	0.4	2.4	1.3	0.6	1.1	14.2	7.5	2.2	0.7	2.2	0	2.6	5.8	0	1.4
food storage room	0	0	0	0	0	0	0.9	0	0	35.9	1.3	0	2.9	0.7	0.5	2.1	0	0	1	0	0
<b>Cascade Wholesale</b> <b>2410 38th Street</b>																					
lawn sprinkler vault (E side of bldg)	0	0	0	0	0	1.3	0	0	0	6.1	0	1.2	0	0	0	0	0	0	0	60	1
roof drains	0	0	0	0	0	0.3	0	0	0	0	0	1.2	0	0	0	0	0	0.4	0	0	1.6
sewer	0	0	0.4	0	0	0.3	0	0	0	3.4	0	0.9	0	0	1.1	0	0	0.2	0	0	1.7
restrooms	0	0	1.2	0	0	0	0	0	0	1.8	0	2.5	0	0.5	0.4	8.3	0	1.4	20	1.9	
floor cracks inside bldg	0	0	1.2	0	0	0	0.4	0	0	0.8	0	2.4	0.2	1	0	2.9	0	1.2	20	1.8	
<b>H &amp; R Mechanical Systems Inc.</b> <b>2407 38th Street</b>																					
roof drains	0	0	1.7	0	0	0	0	0	0	4.7	0	1.9	0	0	0	0	0	0.4	20	0	
cracks in pavement	0	0	9.7	0	0	0	0	0	0	5.6	0	1.7	0.2	0	0	0	0	0.3	10	1	
floor cracks	0	0	2.6	0	0	0	7.5	0	0	0	0.5	0	4.4	0.2	0.5	0.4	0	0	0.6	10	1
<b>Sno Valley Process Solutions</b> <b>2420 38th Street</b>																					
roof drains	0	0	0	0	0	0	0	0	0	0	0	0.4	0.2	0	0	0	0	0	0	0	1.5
cracks in pavement	0	0	1.7	0	0	0	0	0	1.2	0	0	0.8	0	0	0	0	0	0	0	0	1.3
floor cracks	0	0	1.2	0	0	0	1.2	0	2.2	0	2.2	0	3	0.7	0	0.3	0	0	1.1	0	1.5
<b>Ron May Towing</b> <b>2406 39th Street</b>																					
bathrooms	0	9.8	7.8	6.5	5.1	1.3	0.2	2.4	0.9	7.3	0.3	0	2.3	0.9	0.5	0.5	18.6	0	0.5	20	0.4
exterior drains	0	0	0.2	0.8	0.2	0	0	0	0	0	0	0	1.2	0.2	16.3	1.4	0	0	0.1	20	0
<b>Diversified Recycling/Car Wash Chemical Co.</b> <b>2931 36th Street</b>																					
boiler room	0	0	1	0	0	0	0	0	0	4.3	0	0	0.4	0.7	1.2	0.3	2.1	0	0.9	0	0
bathrooms	0	0	0.5																		

**Table 2**  
**Everett Landfill - Gas Monitoring at Structures**

ON-SITE STRUCTURES													
Structure/Address sample location	10/23/2012***	1/16/2013	4/26/2013***	7/26/2013	10/24/2013	1/30/2014	5/7/2014	7/22/2014	11/6/2014	1/22/2015	4/23/2015	7/27/2015	11/20/2015
	Methane ppm												
<b>Everett Animal Shelter</b> <b>2732 36th Street</b>													
lawn sprinkler vault (N side of bldg.)	animal shelter closed												
roof drains													
Women's public restroom (floor drain)**													
Men's public restroom (floor drain)**													
employee restroom (floor drains)													
floor crack in storage room adj. to cat room													
breathing zone in storage room adj. to cat room													
telephone storage room													
<b>Snohomish County Transfer Station</b>													
lunch room	transfer station closed												
restrooms													
changing bldg													
valve control vault													
Scale vault (south side)													
Scale Vault (north side)													
<b>OFF-SITE STRUCTURES</b>													
<b>GTS Drywall Supply Co.</b> <b>2931 36th Street</b>	bldg demo'd												
roof drains (W, N, E sides of bldg)													
roof drain (SW corner of bldg)**													
toilets													
floor cracks													
foundation cracks													
boiler pipe penetrations													
<b>Everett Gospel Mission</b> <b>3711 Smith Avenue</b>													
lawn sprinkler vault (N side of bldg)	0	0	0	0	0	0	0	0	0.3	0	0	0	0
floor cracks	0	0	0	0	0	0	0	0	0	0	0	0	0
foundation cracks	0	0	0	1	0	0	0	0	0.1	0	0	0	0
boiler pipe penetrations	10	0	0	2	0	0	0	0	0.1	0	0	0	0
food storage room	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cascade Wholesale</b> <b>2410 38th Street</b>													
lawn sprinkler vault (E side of bldg)	0	0	0	0	0	0	0	1.4	0	0	0	0	0
roof drains	0	0	0	2	0	0	0	0	0	0	0	0	0
sewer	20	1.5	10	12	0	0	0.1	20.5	1.5	0.2	0.2	0.1	0.1
restrooms	0	1.1	0	1.2	0	0	0	0	0	0	0	0	0
floor cracks inside bldg	0	0	0	1	0	0	0	0	0.1	0	0	0	0
<b>H &amp; R Mechanical Systems Inc.</b> <b>2407 38th Street</b>													
roof drains	0	0	0	0	0	0	0	0	0	0	0	0	0
cracks in pavement	0	0	0	0	0	0	0	0.2	3	0	0	0	0
floor cracks	0	NA	0	0	0	0	0	0	0	0	0	0	0
<b>Sno Valley Process Solutions</b> <b>2420 38th Street</b>													
roof drains	0	0	0	0	0	0	0	0.3	0	0	0	0	0
cracks in pavement	0	0	0	0	0	0	0	0	0	5.7	0	0	0
floor cracks	0	0	0	0	0	0	0	0.4	0	0	0	0	0
<b>Ron May Towing</b> <b>2406 39th Street</b>													
bathrooms	0	0	0	0.2	0	0	0	0	0.5	0	0	0.1	0.1
exterior drains	0	0	0	0	0	0	0	1.1	1.3	0	0	0	0
<b>Diversified Recycling/Car Wash Chemical Co.</b> <b>2931 36th Street</b>													
boiler room	0	0	0	0	0	0	recycling center closed	0	0	0	0	0	0
bathrooms	0	0	0	0.4	0	0	0	0	0	0	0	0	0
closet	0	0	0	0	0	0	0	0	0	0	0	0	0
beam/floor cracks	0	0	0	0	0	0	0	0	0	0	0	0	0
drainage pipe	0	0	0	0.4	0	0	0	0	0	0	0	0	0
roof drains outside building	0	0	10	2.4	0	0	0	0	0	0	0	0	0
warehouse breathing space	0	0	0	0	0	0	0	0	0	0	0	0	0
south sensor	0	0	0	0	0	0	0	0	0	0	0	0	0
north sensor	0	0	0	0	0	0	0	0	0	0	0	0	0



#### LEGEND

- LANDFILL GAS HEADER
- LANDFILL GAS COLLECTION TRENCH
- EXISTING LFG GAS PROBS
- DECOMMISSIONED, ABANDONED OR DAMAGED LFG PROBS
- DETAIL SECTIONS SEE FIGURE 2

BASE MAP PROVIDED BY:

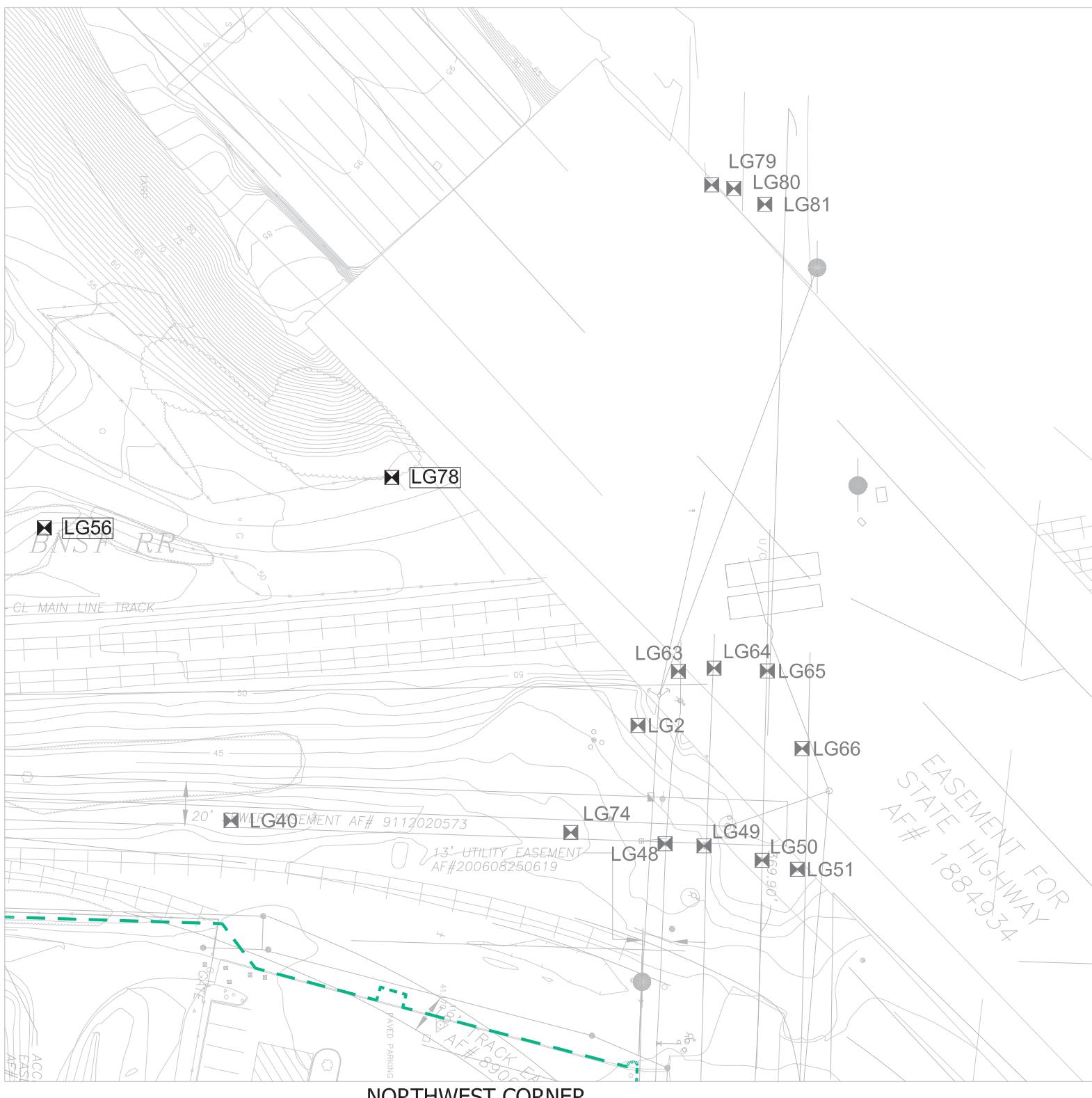


HWA GEOSCIENCES INC.

EVERETT LANDFILL  
EVERETT, WASHINGTON

LANDFILL GAS PROBE  
LOCATION MAP

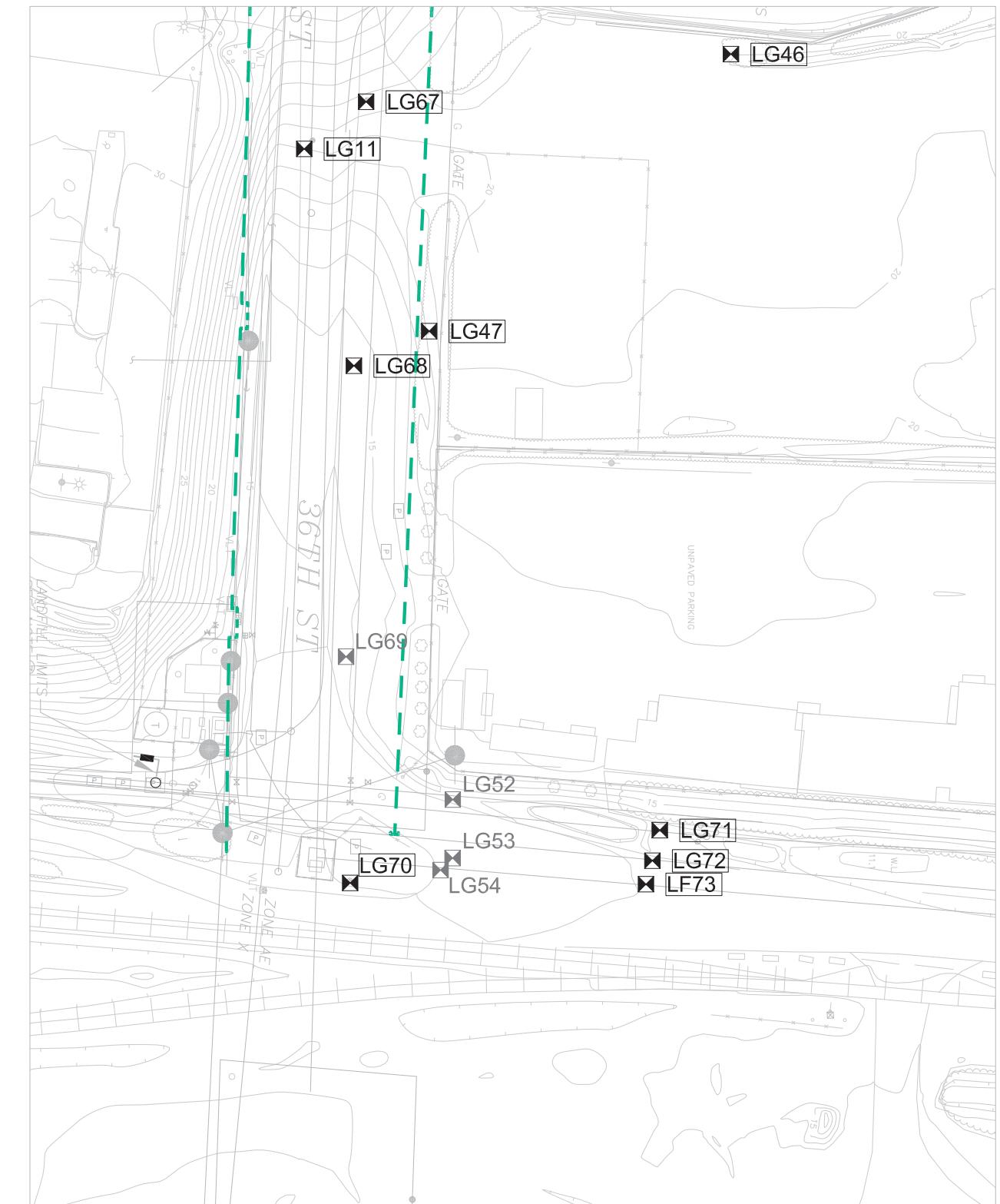
0' 100' 200' 300' 600'  
SCALE: 1"=300'



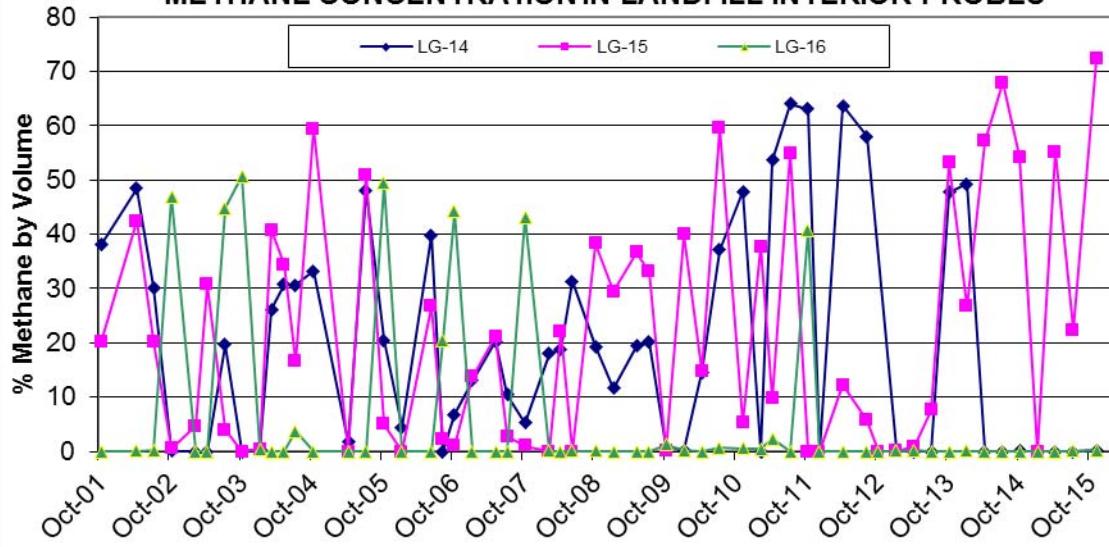
#### LEGEND

- LANDFILL GAS COLLECTION TRENCH
- EXISTING LFG GAS PROBS
- DECOMMISSIONED, ABANDONED OR DAMAGED LFG PROBS

0' 20' 40' 60' 120'  
SCALE: 1"=60'



**FIGURE 3**  
**METHANE CONCENTRATION IN LANDFILL INTERIOR PROBES**



**FIGURE 4**  
**METHANE CONCENTRATION IN WEST BOUNDARY PROBES**

