

## T E C H N I C A L M E M O R A N D U M

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**TO:** Jerome Cruz—Washington State Department of Ecology

**cc:** Rob Howie—South Park Property Development, L.L.C.  
Robert de la Llata—South Park Property Development, L.L.C.  
Sheila Strehle—Seattle Public Utilities  
Jeff Neuner—Seattle Public Utilities  
Joe Hicker—King County

**FROM:** Kyle Korbines, E.I.T., Project Engineer  
Thaddeus J. Cline, P.E., L.G., L.H.G., Principal Civil Engineer/Hydrogeologist

**DATE:** April 17, 2018

**RE:** **LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
INTERIM ACTION PROGRESS REPORT—2017  
SPPD PROPERTY  
SOUTH PARK LANDFILL SITE  
SEATTLE, WASHINGTON  
FARALLON PN: 408-002**

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Farallon Consulting, L.L.C. (Farallon) prepared this technical memorandum to describe the operation of the interim action landfill gas collection and control system (LFGCCS) during 2017 on behalf of South Park Property Development, L.L.C. (SPPD). This technical memorandum is issued to satisfy the requirements for annual interim action progress reporting for the SPPD LFGCCS specified in the *Interim Action Work Plan, South Park Landfill Site, Seattle, Washington* dated February 22, 2013, prepared by Farallon for SPPD (Interim Action Work Plan); and the *Interim Action Compliance Monitoring Plan, Appendix C of the Interim Action Work Plan, South Park Landfill Site, Seattle, Washington* dated February 22, 2013, prepared by Farallon for SPPD (IACMP). The *SPPD Property Landfill Gas Collection and Control System Operation, Maintenance, and Monitoring Plan, South Park Landfill Site, Seattle, Washington* dated June 7, 2016, prepared by Farallon for SPPD (OMMP) provides details for LFGCCS operation, maintenance, and monitoring.



This technical memorandum summarizes LFGCCS operation activities over the course of 2017. LFGCCS operations prior to 2017 are summarized in the following documents:

- Technical memorandum regarding Landfill Gas Collection and Control System Interim Action Progress Report—2015, SPPD Property, South Park Landfill Site, Seattle, Washington dated May 10, 2016 from Mr. Thaddeus J. Cline of Farallon to Mr. Jerome Cruz of the Washington State Department of Ecology (Ecology) (2015 Annual Report); and
- Technical memorandum regarding Landfill Gas Collection and Control System Interim Action Summary Report—2016, SPPD Property, South Park Landfill Site, Seattle, Washington dated April 4, 2017, from Mr. Cline of Farallon to Mr. Cruz of Ecology (2016 Annual Report).

## BACKGROUND

An interim action, consisting of landfill gas control, surface water control, landfill capping, and institutional controls, is being conducted under terms of an amendment to Agreed Order No. 6706 and the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340), specifically WAC 173-340-430 (Interim Action). The amendment to Agreed Order No. 6706, with the Interim Action Work Plan attached as Exhibit E, was executed by Seattle Public Utilities, SPPD, and Ecology with an effective date of June 6, 2013. The Interim Action is being conducted at a 19.4-acre portion of the closed 39-acre South Park Landfill in Seattle, Washington (King County Tax Parcel No. 3224049005) (herein referred to as the SPPD Property) (Figures 1 and 2). The area at which the Interim Action is being conducted includes the SPPD Property and those areas contiguous with the SPPD Property where buried municipal solid waste (MSW) extends beneath City of Seattle rights-of-way along 5<sup>th</sup> Avenue South and South Sullivan Street to the east and south of the SPPD Property, respectively, as shown in relation to the properties comprising the South Park Landfill in Figure 2 (Interim Action Area).

The Interim Action is being conducted in advance of cleanup of the South Park Landfill, which is defined as the area where hazardous substances deposited, disposed of, or placed at the South Park Landfill have come to be located; and is referred to as the South Park Landfill Site in this document and prior SPPD documents. SPPD and the City of Seattle were identified by Ecology as potentially liable persons for the South Park Landfill Site.

As documented in the *Interim Action Construction Completion Report, South Park Landfill Site, Seattle, Washington* dated August 14, 2015, prepared by Farallon for SPPD, the LFGCCS was installed between June and December 2014 and operation commenced on December 17, 2014. The landfill cap and stormwater control elements of the Interim Action were constructed between April 2014 and April 2015. The LFGCCS was designed to capture landfill gas generated by MSW disposed of at the Interim Action Area.



## SUMMARY OF 2017 OPERATIONS

SEACON, LLC monitored the LFGCCS on behalf of SPPD quarterly in 2017 and system adjustments periodically were made to satisfy compliance monitoring criteria<sup>1</sup> based on methane concentrations in select landfill gas probes around the perimeter of the Interim Action Area (Perimeter Probes) and based on levels of residual nitrogen<sup>2</sup> in landfill gas collectors.

During 2017, the LFGCCS was operated continuously at a low extraction rate of approximately 10 standard cubic feet per minute (scfm) for the whole system. LFGCCS monitoring since system start-up indicates that residual nitrogen tends to rise in landfill gas collectors when the LFGCCS extraction rate is high, and methane concentrations tend to rise in Perimeter Probes when the LFGCCS extraction rate is low. Horizontal and vertical landfill gas collector extraction flow rates were adjusted periodically to control methane at the Perimeter Probes without over-extraction of landfill gas and to achieve compliance monitoring criteria.

No equipment has been installed to treat LFGCCS emissions. Farallon sampled LFGCCS emissions on December 9, 2015 and, in the technical memorandum regarding Landfill Gas Control System Emissions Sampling, SPPD Property, South Park Landfill Site, Seattle, Washington dated January 20, 2016, from Messrs. Cline, Andrew E. Vining, and Clyde N. Moore of Farallon to Mr. Claude Williams of the Puget Sound Clean Air Agency (included with the 2015 Annual Report), concluded that emissions treatment is not necessary and that a Notice of Construction Application is not required. A Puget Sound Clean Air Agency Exemption Letter was received on December 4, 2017 exempting the LFGCCS from emissions sampling (Attachment A).

Per the IACMP and the OMMP, compliance landfill gas monitoring includes sampling landfill gas in a subset of 20 landfill gas Perimeter Probes within and outside of the perimeter of the Interim Action Area along 5<sup>th</sup> Avenue South, South Sullivan Street, and Occidental Avenue South; and along the northern boundary of the Interim Action Area. The locations of the Perimeter Probes were selected based on their spatial distribution around the Interim Action Area and presence within, or within approximately 200 feet of, the Interim Action Area. Per the OMMP, 11 of the 20 Perimeter Probes were identified as Compliance Probes. Nine of the 20 Perimeter Probes were completed in MSW, and landfill gas monitoring at these Perimeter Probes is useful for measuring conditions within the areas of MSW and for evaluating adjustments of the LFGCCS; however, these Perimeter Probes are not considered to be Compliance Probes. Locations of Perimeter

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<sup>1</sup> IACMP and OMMP compliance monitoring criteria used as triggers for LFGCCS mitigation measures (e.g., LFGCCS adjustments) are: 1) residual nitrogen in landfill gas collectors exceeds 20 percent; and 2) methane exceeds 1.25 percent (25 percent of the LEL) in perimeter landfill gas monitoring probes at the edge of the Interim Action Area.

<sup>2</sup> Residual nitrogen level is calculated from measured concentrations of methane, oxygen, and carbon dioxide in landfill gas collectors as follows: Sum concentrations of methane, oxygen, and carbon dioxide. Subtract this sum from 100 to obtain an estimate of total percent nitrogen concentration. Multiply the measured oxygen concentration by 3.76 to estimate the amount of nitrogen associated with oxygen, and subtract the product from the estimated total percent nitrogen concentration.



Probes, LFGCCS collectors, and the boundary of the South Park Landfill are shown on Figure 2. Landfill gas probe sampling methodology is described in the IACMP and OMMP. Perimeter Probe methane monitoring data collected to date are presented on Figure 3 and in Table 1.

The LFGCCS currently is being operated to focus on methane control in areas where landfill gas is most likely to migrate beyond the Interim Action Area and to areas outside of the South Park Landfill. Methane concentrations in Compliance Probes along Occidental Avenue South and South Sullivan Street, outside the Interim Action Area and the South Park Landfill Site, are low or non-detect and do not exceed the compliance monitoring criterion of 1.5 percent. Some Compliance Probes along Occidental Avenue South and South Sullivan Street were unable to be monitored because well screens were flooded by high groundwater levels preventing extraction of soil gas from the Compliance Probes.

Methane concentrations in Compliance Probe GP-29 on the eastern side of 5<sup>th</sup> Avenue South were between 0 and 0.9 percent by volume in 2017. Methane concentrations in Perimeter Probe GP-33 on the northwestern corner of the Interim Action Area were between 0 and 3.5 percent by volume. Since the LFGCCS system retrofits in December 2016, methane concentrations in Compliance Probe GP-29 and Perimeter Probe GP-33 have been maintained at less than the LEL.

In September 2017, Compliance Probe GP-15 had a methane concentration of 5.4 percent by volume. The probe was checked in early October 2017 and prior to the well screen being flooded, and readings indicated methane concentrations at 0.0 percent by volume. The September results are believed to be instrument error, considering historically low readings at the location and follow-up analysis.

Methane concentrations in Compliance Probes indicate that the LFGCCS is achieving methane control at less than the LEL at the edge of the MSW. The LFGCCS is achieving the compliance monitoring criterion for methane by maintaining methane concentrations less than 1.25 percent in Compliance Probes, with the exception of Compliance Probe GP-15, as discussed above, caused by a suspected instrument error. When detected, methane concentrations in other Compliance Probes, including those along 5<sup>th</sup> Avenue South, were less than the 1.25 percent compliance monitoring criterion.

Methane concentrations in Perimeter Probe GP-17 installed on the western side of 5<sup>th</sup> Avenue South, completed within MSW, exceeded the LEL during all monitoring events in 2017; however, LFGCCS operational data indicate that methane is being captured in this area. Because Perimeter Probes are completed in MSW within the South Park Landfill, the existing conditions are considered acceptable at this time. Perimeter Probes will continue to be monitored and results shared with other potentially liable persons and will be included in future annual LFGCCS progress reporting.



## PLANNED 2018 OPERATIONS

During 2018, the LFGCCS will be monitored quarterly and operated to maintain compliance with compliance monitoring criteria, with a continued focus on maximizing methane control along 5<sup>th</sup> Avenue South (Compliance Probe GP-29) and on the northwestern portion of the Interim Action Area (Perimeter Probe GP-33), and on lowering levels of residual nitrogen in the Interim Action Area. If residual nitrogen levels can be managed effectively within the Interim Action Area, the LFGCCS will be adjusted in 2018 to reduce methane concentrations in Perimeter Probes constructed within MSW along the northern boundary of the Interim Action Area. Methane concentrations along the northern portion of the Interim Action Area and within the interior of the South Park Landfill may be further reduced in the future when landfill gas control systems are installed on adjacent properties to collect and control methane generated outside of the Interim Action Area.

LFGCCS operation, monitoring, and repairs and compliance probe monitoring will be documented in the 2018 summary report to be completed in the first quarter of 2019.

Attachments: Figure 1, *Vicinity Map*  
Figure 2, *Property Map*  
Figure 3, *Perimeter Probe Compliance Monitoring Data*  
Table 1, *Perimeter Probe Compliance Monitoring Data*  
Attachment A, Puget Sound Clean Air Agency Exemption Letter  
Attachment B, Perimeter Probe Methane Monitoring Data

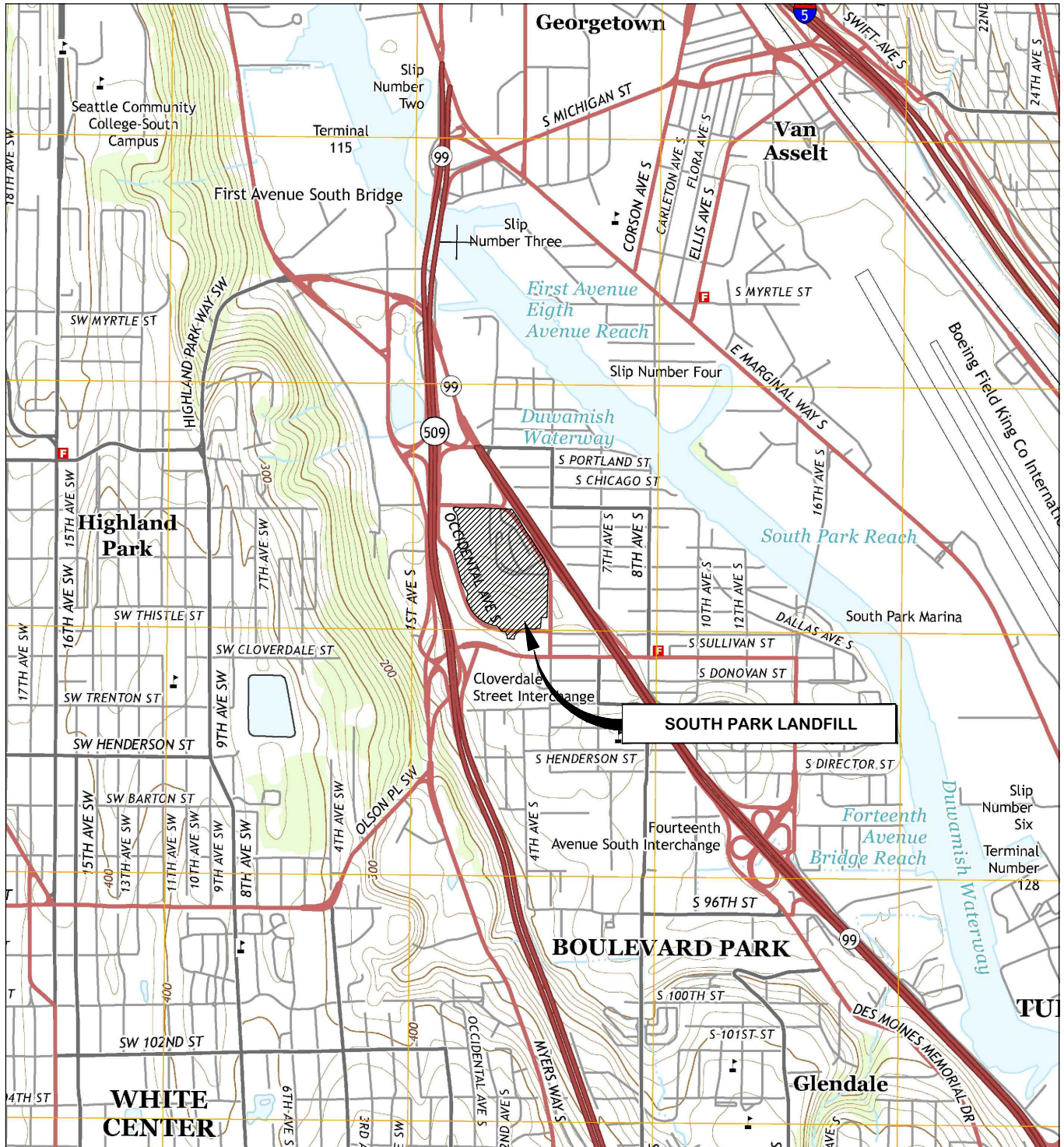
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## **FIGURES**

### **LANDFILL GAS COLLECTION AND CONTROL SYSTEM INTERIM ACTION SUMMARY REPORT—2017**

**SPPD Property  
South Park Landfill Site  
Seattle, Washington**

**Farallon PN: 408-002**



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE SOUTH, WASHINGTON. DATED 2014



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Bend | Baker City

California  
Oakland | Sacramento | Irvine

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**FIGURE 1**  
VICINITY MAP  
SPPD PROPERTY, SOUTH PARK LANDFILL SITE  
SEATTLE, WASHINGTON

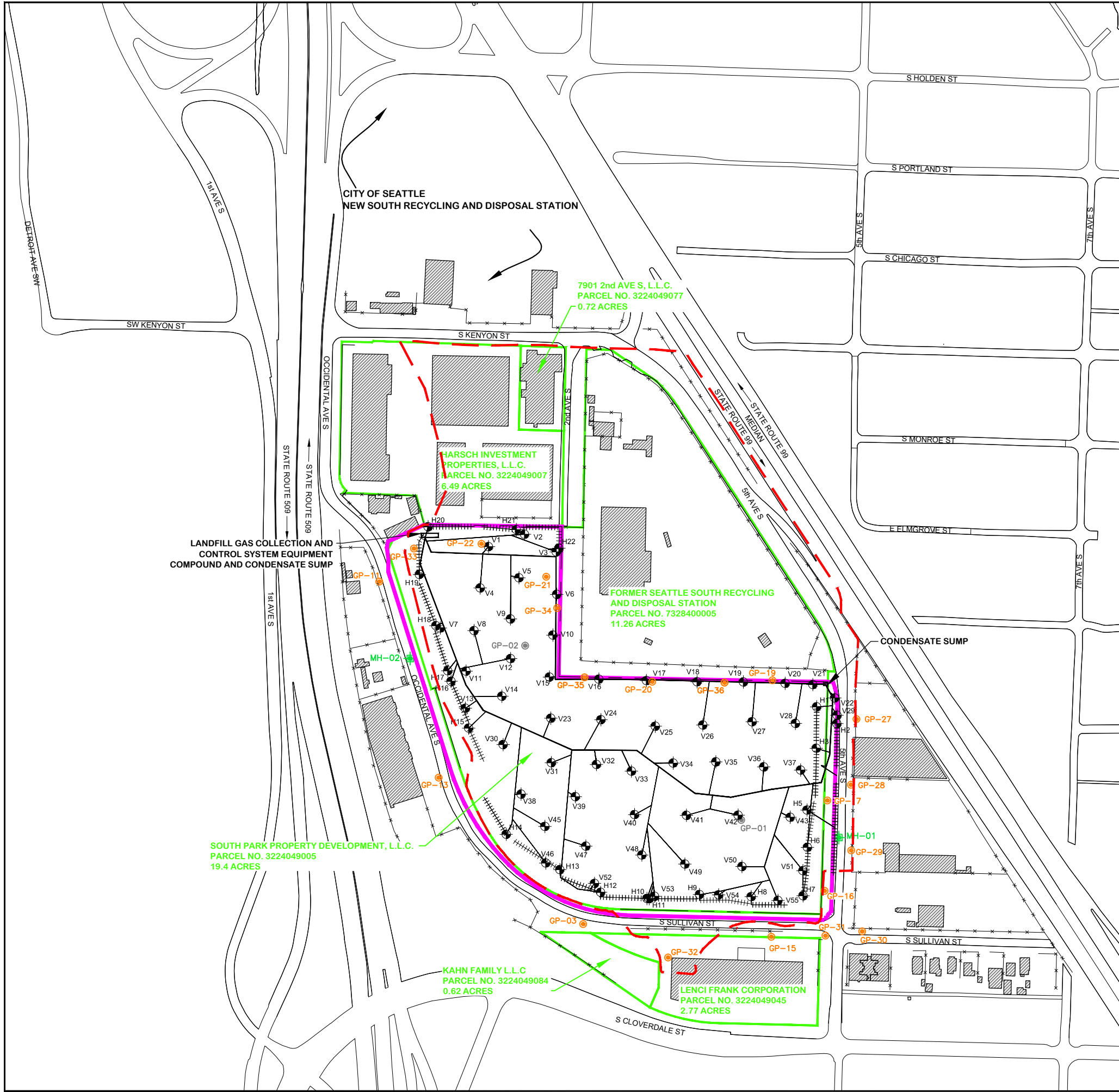
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Checked By: TC

Date: 03/17/2016

Disk Reference: BASEMAP□

FARALLON PN: 408-002



**LEGEND**

- - - SOUTH PARK LANDFILL BOUNDARY
- KING COUNTY TAX PARCEL BOUNDARY
- INTERIM ACTION AREA
- x — x — FENCE
- EXISTING BUILDING
- LANDFILL GAS PROBE MONITORING LOCATIONS
- FORMER LANDFILL GAS PROBE MONITORING LOCATIONS
- GAS PROBE LOCATIONS NOT INCLUDED IN THE INTERIM ACTION COMPLIANCE MONITORING PROGRAM
- SEWER MANHOLE MONITORING LOCATIONS
- LANDFILL GAS COLLECTION VERTICAL WELL
- LANDFILL GAS COLLECTION HORIZONTAL TRENCH

**NOTES:**

- FIGURE INCLUDES INFORMATION PRESENTED IN COLOR. PHOTOCOPIES MAY NOT DEPICT ALL INTENDED INFORMATION ON THE ORIGINAL DRAWING.
- ALL LOCATIONS ARE APPROXIMATE



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Oregon  
Portland | Bend | Baker City

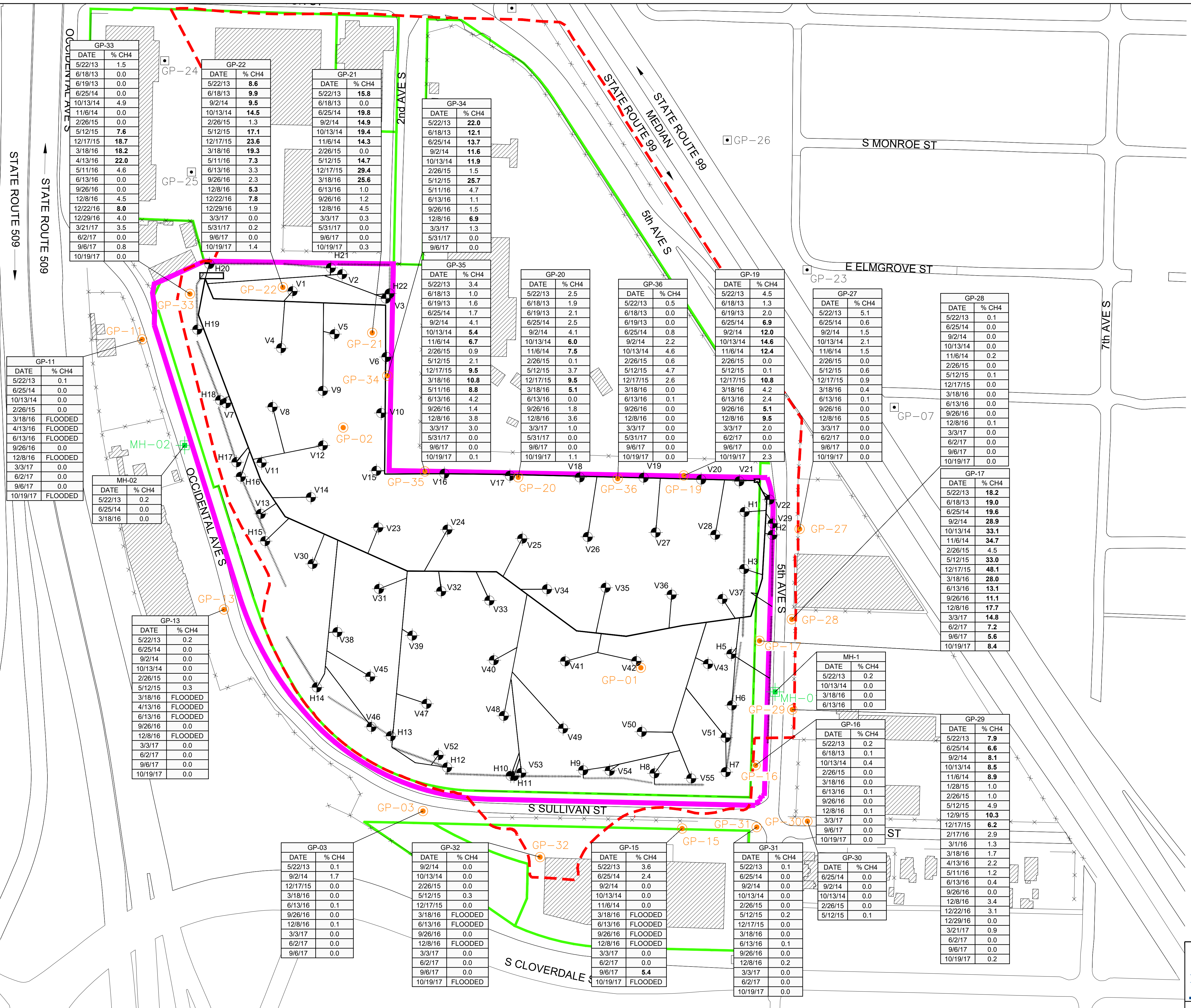
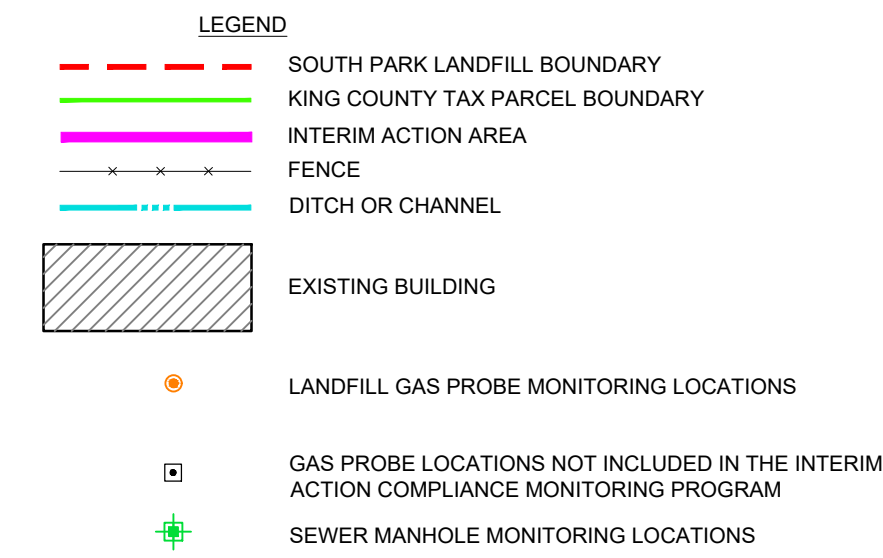
California  
Oakland | Sacramento | Irvine

**FIGURE 2**

PROPERTY MAP  
SPPD PROPERTY, SOUTH PARK LANDFILL SITE  
SEATTLE, WASHINGTON

FARALLON PN: 408-002





GP-33

DATE	% CH <sub>4</sub>
5/22/13	1.5
6/18/13	0.0
6/19/13	0.0
6/25/14	0.0
10/13/14	4.9
11/6/14	0.0
2/26/15	0.0
5/12/15	7.6
12/17/15	18.7
3/18/16	18.2
4/13/16	22.0
5/11/16	4.6
6/13/16	0.0
9/26/16	0.0
12/8/16	4.5
12/22/16	8.0
12/29/16	4.0
3/21/17	3.5
6/2/17	0.0
9/6/17	0.8
10/19/17	0.0

GP-22

DATE	% CH <sub>4</sub>
5/22/13	8.6
6/18/13	9.9
9/2/14	9.5
10/13/14	14.5
2/26/15	1.3
5/12/15	17.1
12/17/15	23.6
3/18/16	19.3
5/11/16	7.3
6/13/16	3.3
9/26/16	2.3
12/8/16	5.3
12/22/16	7.8
12/29/16	1.9
3/3/17	0.0
5/31/17	0.2
9/6/17	0.0
10/19/17	1.4

GP-21

DATE	% CH <sub>4</sub>
5/22/13	0.0
6/18/13	0.0
6/25/14	19.8
9/2/14	14.9
10/13/14	19.4
11/6/14	14.3
2/26/15	0.0
5/12/15	14.7
12/17/15	29.4
3/18/16	25.6
6/13/16	1.0
9/26/16	1.2
12/8/16	4.5
12/29/16	4.5
3/3/17	0.3
5/31/17	0.0
9/6/17	0.0
10/19/17	0.3

GP-34

DATE	% CH <sub>4</sub>
5/22/13	22.0
6/18/13	12.1
6/25/14	13.7
9/2/14	11.6
10/13/14	11.9
2/26/15	1.5
5/12/15	25.7
5/11/16	4.7
6/13/16	1.1
9/26/16	1.5
12/8/16	6.9
3/3/17	1.3
5/31/17	0.0
9/6/17	0.0
10/19/17	0.0

GP-11

DATE	% CH <sub>4</sub>
5/22/13	0.1
6/25/14	0.0
10/13/14	0.0
2/26/15	0.0
3/18/16	FLOODED
4/13/16	FLOODED
6/13/16	FLOODED
9/26/16	0.0
12/8/16	FLOODED
3/3/17	0.0
6/2/17	0.0
9/6/17	0.0
10/19/17	FLOODED

MH-02

DATE	% CH <sub>4</sub>
5/22/13	0.2
6/25/14	0.0
3/18/16	0.0

GP-13

DATE	% CH <sub>4</sub>
5/22/13	0.2
6/25/14	0.0
9/2/14	0.0
10/13/14	0.0
2/26/15	0.0
5/12/15	0.3
3/18/16	FLOODED
4/13/16	FLOODED
6/13/16	FLOODED
9/26/16	0.0
12/8/16	FLOODED
3/3/17	0.0
6/2/17	0.0
9/6/17	0.0
10/19/17	0.0

GP-03

DATE	% CH <sub>4</sub>
5/22/13	0.1
9/2/14	1.7
12/17/15	0.0
3/18/16	0.0
6/13/16	0.1
9/26/16	0.0
12/8/16	0.1
3/3/17	0.0
6/2/17	0.0
9/6/17	0.0
10/19/17	0.0

GP-32

DATE	% CH <sub>4</sub>
5/22/13	0.0
10/13/14	0.0
2/26/15	0.0
5/12/15	0.3
12/17/15	0.0
3/18/16	FLOODED
6/13/16	FLOODED
9/26/16	0.0
12/8/16	FLOODED
3/3/17	0.0
6/2/17	0.0
9/6/17	0.0
10/19/17	FLOODED

GP-15

DATE	% CH <sub>4</sub>
5/22/13	3.6
6/25/14	2.4
9/2/14	0.0
10/13/14	0.0
11/6/14	0.0
3/18/16	FLOODED
6/13/16	FLOODED
9/26/16	FLOODED
12/8/16	FLOODED
3/3/17	0.0
6/2/17	0.0
9/6/17	5.4
10/19/17	FLOODED

GP-31

DATE	% CH <sub>4</sub>
5/22/13	0.1
6/25/14	0.0
9/2/14	0.0
10/13/14	0.0
2/26/15	0.0
5/12/15	0.2
12/17/15	0.0
3/18/16	0.0
6/13/16	0.1
9/26/16	0.0
12/8/16	0.2
3/3/17	0.0
6/2/17	0.0
10/19/17	0.0

GP-27

DATE	% CH <sub>4</sub>
5/22/13	5.1
6/25/14	0.6
9/2/14	1.5
10/13/14	2.1
11/6/14	1.5
2/26/15	0.0
5/12/15	0.6
12/17/15	0.9
3/18/16	0.4
6/13/16	0.1
9/26/16	0.0
12/8/16	0.5
3/3/17	0.0
6/2/17	0.0
9/6/17	0.0
10/19/17	0.0

GP-17

DATE	% CH <sub>4</sub>
5/22/13	18.2
6/18/13	19.0
6/25/14	19.6
9/2/14	28.9
10/13/14	33.1
11/6/14	34.7
2/26/15	4.5
5/12/15	33.0
12/17/15	48.1
3/18/16	28.0
6/13/16	13.1
9/26/16	11.1
12/8/16	17.7
3/3/17	14.8
6/2/17	7.2
9/6/17	5.6
10/19/17	8.4

MH-1

DATE	% CH <sub>4</sub>
5/22/13	0.2
10/13/14	0.0
3/18/16	0.0
6/13/16	0.0

GP-16

DATE	% CH <sub>4</sub>
5/22/13	0.2
6/18/13	0.1
10/13/14	0.4
2/26/15	0.0
3/18/16	0.0
6/13/16	0.1
9/26/16	0.0
12/8/16	0.1
3/3/17	0.0
9/6/17	0.0
10/19/17	0.0

GP-29

DATE	% CH <sub>4</sub>
5/22/13	7.9
6/25/14	6.6
9/2/14	8.1
10/13/14	8.5
11/6/14	8.9
1/28/15	1.0
2/26/15	1.0
5/12/15	4.9
12/9/15	10.3
12/17/15	6.2
2/17/16	2.9
3/1/16	1.3
3/18/16	1.7
4/13/16	2.2
5/11/16	1.2
6/13/16	0.4
9/26/16	0.0
12/8/16	3.4
12/22/16	3.1
12/29/16	0.0
3/21/17	0.9
6/2/17	0.0
9/6/17	0.0
10/19/17	0.2

**TABLE**

**LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
INTERIM ACTION SUMMARY REPORT—2017**

**SPPD Property  
South Park Landfill Site  
Seattle, Washington**

**Farallon PN: 408-002**

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-03*	12/16/98 to 9/10/04	-	-	0.0	0.0	0.0	-	-	-
	12/16/98 to 9/10/04	-	-	5.0	16.0	22.0	-	-	-
	12/16/98 16:22	-	-	0.0	5.1	11.4	-	-	-
	12/29/98 14:00	-	-	0.0	0.0	10.6	-	-	0.0
	1/7/99 8:54	30.08	-	0.0	4.5	12.1	-	-	0.0
	2/12/99 17:15	-	-	0.0	0.8	18.2	-	-	0.0
	2/18/99 11:45	30.00	-	1.0	-	6.0	-	-	-
	3/5/99 11:13	29.95	-	0.0	-	8.0	-	-	-
	4/9/99 12:15	30.85	-	5.0	-	6.0	-	-	-
5/7/99 11:03	30.85	-	0.0	-	3.0	-	-	-	
GP-03*	6/23/99 10:37	30.65	-	2.0	-	0.0	-	-	-
	7/20/99 9:23	30.50	-	2.0	-	0.0	-	-	-
	8/20/99 10:39	30.65	-	0.0	-	0.0	-	-	-
	9/29/99 10:35	30.80	-	0.0	-	5.0	-	-	-
	10/15/99 12:10	30.50	-	0.1	12.4	8.1	-	-	2.0
	10/26/99 13:30	30.01	-	0.0	0.1	21.8	-	-	0.0
	10/19/99 8:01	30.79	-	0.0	-	9.0	-	-	-
	11/15/99 8:10	30.35	-	0.0	-	7.0	-	-	-
	12/6/99 12:27	30.40	-	0.0	-	4.0	-	-	-
	1/11/00 11:43	30.02	-	0.0	-	7.0	-	-	-
	2/3/00 9:05	29.71	-	0.0	8.0	9.3	-	-	0.0
	2/7/00 8:46	30.42	-	0.0	-	10.0	-	-	-
	3/9/00 11:32	30.49	-	0.0	-	12.0	-	-	-
	4/7/00 8:43	30.94	-	0.0	-	10.0	-	-	-
	5/11/00 10:23	30.46	-	0.0	-	8.0	-	-	-
	6/5/00 10:20	30.38	-	0.0	-	7.0	-	-	-
	7/17/00 9:19	30.50	-	0.0	-	7.0	-	-	-
	8/2/00 8:15	29.71	-	0.0	13.2	8.1	-	-	0.0
	9/5/00 9:15	29.79	-	0.0	12.1	9.7	-	-	-
	10/10/00 9:50	29.49	-	0.0	8.1	13.4	-	-	-
	11/3/00 11:00	29.86	-	0.0	12.0	4.3	-	-	-
	12/6/00 12:38	29.35	-	2.2	10.6	2.9	-	-	-
	1/5/01 11:22	29.79	-	0.1	9.6	3.5	-	-	-
	2/2/01 9:07	29.49	-	0.0	9.2	5.7	-	-	-
	3/2/01 12:40	29.57	-	0.0	7.8	7.1	-	-	-
	4/6/01 11:10	29.42	-	0.0	8.8	5.5	-	-	-
	5/10/01 10:05	-	-	0.1	11.6	1.4	-	-	-
	6/4/01 10:57	29.98	-	0.2	10.6	3.9	-	-	-
	7/6/01 11:00	30.10	-	0.4	12.1	3.2	-	-	-
	8/3/01 10:48	29.94	-	0.0	11.8	11.8	-	-	-
	9/7/01 10:37	-	-	-	-	-	-	-	-
	10/8/01 9:15	-	-	-	-	-	-	-	-
	12/7/01 10:28	30.40	-	0.0	8.5	6.7	-	-	-
	2/8/02 14:40	-	-	0.0	5.8	7.2	-	-	-
	3/8/02 10:37	-	-	0.0	5.8	8.5	-	-	-
	4/4/02 10:25	-	-	0.0	0.4	17.7	-	-	-
	5/6/02 15:05	30.20	-	0.0	7.5	5.1	-	-	-
	6/4/02 9:35	-	-	0.3	8.4	5.1	-	-	-
	7/3/02 14:35	-	-	0.2	10.8	3.7	-	-	-
	8/2/02 14:20	-	-	0.0	12.6	3.2	-	-	-
	9/5/02 10:02	-	-	0.1	13.0	5.7	-	-	-
	10/2/02 14:40	-	-	0.1	10.6	8.3	-	-	-
11/6/02 14:35	-	-	0.0	11.7	6.3	-	-	-	
12/9/02 15:05	-	-	0.4	12.0	4.2	-	-	-	
1/7/03 13:22	-	-	0.0	7.9	7.2	-	-	-	
2/5/03 14:20	30.30	-	0.0	6.7	7.4	-	-	-	
3/7/03 13:30	29.74	-	0.1	6.9	6.3	-	-	-	
4/1/03 12:40	29.65	-	0.0	6.4	7.6	-	-	-	
5/5/03 13:50	30.09	-	0.1	7.7	6.3	-	-	-	
6/3/03 13:07	30.21	-	0.3	9.9	6.7	-	-	-	
7/2/03 13:20	30.15	-	0.2	11.3	5.6	-	-	-	
8/5/03 13:00	30.00	-	0.1	13.1	6.8	-	-	-	
9/3/03 13:00	30.00	-	0.1	13.2	5.5	-	-	-	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-03*	10/2/03 13:40	30.04	-	0.3	13.8	6.8	-	-	-
	11/5/03 15:17	30.17	-	0.4	11.2	4.7	-	-	-
	12/4/03 13:32	29.67	-	0.0	8.7	5.9	-	-	-
	1/14/04 11:11	30.01	-	0.0	6.6	6.8	-	-	-
	2/3/04 12:05	29.80	-	0.0	6.1	8.6	-	-	-
	3/2/04 10:40	30.23	-	0.0	6.1	8.3	-	-	-
	4/5/04 14:30	30.10	-	0.0	7.1	8.0	-	-	-
	5/3/04 11:55	30.14	-	0.2	8.7	7.2	-	-	-
	6/1/04 12:17	30.11	-	0.2	10.2	4.7	-	-	-
	7/6/04 13:35	29.00	-	0.0	11.7	5.6	-	-	-
	8/6/04 11:48	29.88	-	0.1	13.5	5.7	-	-	-
	9/10/04 10:13	29.96	-	1.2	15.5	1.9	-	-	-
	12/28/11 0:00	29.66	-0.2	0.0	1.0	2.2	-	-	-
	2/9/11 13:30	30.41	-	0.2	5.8	9.5	-	-	-
	5/25/11 0:00	29.69	-0.01	0.1	3.5	14.9	-	-	-
	9/23/11 0:00	29.86	0.14	0.0	11.0	6.4	83.0	0.0	2.0
	5/22/13 18:04	29.8	0	0.1	6.7	10.3	82.0	-	29.0
	9/2/14 16:30	29.63	-	1.7	10.7	4.6	-	-	-
	12/17/15 11:55	29.7	0	0.0	7.0	4.0	88.9	0.0	0.0
	3/18/16 10:40	29.91	0.000	0.0	3.4	14.2	82.4	0.0	-
6/13/16 16:25	29.91	0	0.1	7.0	14.4	77.1	0.0	2.0	
9/26/16 15:40	29.83	0.005	0.0	5.8	12.6	81.4	0.0	0.0	
12/8/16 15:00	29.94	0	0.1	8.5	9.4	81.5	0.0	2.0	
3/21/17 10:43	29.51	0.000	0.0	3.7	15.2	80.9	-	-	
6/2/17 8:26	30.02	0.411	0.0	7.0	11.7	81.2	0.0	0.0	
9/6/17 12:25	29.77	-0.033	0.0	0.4	17.5	76.4	-	-	
10/19/17 16:09	-	-	-	-	-	-	-	-	
<b>Flooded Well Screen</b>									
GP-11*	10/15/99 to 9/10/04	-	-	0.0	0.1	4.4	-	-	-
	10/15/99 to 9/10/04	-	-	0.4	8.0	21.0	-	-	-
	10/15/99 12:23	30.40	-	0.1	1.3	17.5	-	-	2.0
	10/26/99 11:20	30.01	-	0.2	0.1	20.7	-	-	4.0
	11/15/99 7:55	30.35	-	0.0	-	12.0	-	-	-
	12/6/99 12:15	30.40	-	0.0	-	10.0	-	-	-
	1/11/00 11:35	30.02	-	0.0	-	6.0	-	-	-
	2/3/00 9:16	29.71	-	0.0	3.7	6.7	-	-	0.0
	2/7/00 8:36	30.42	-	0.0	-	6.0	-	-	-
	3/9/00 11:25	30.49	-	0.0	-	6.0	-	-	-
	4/7/00 8:35	30.94	-	0.0	-	7.0	-	-	-
	5/11/00 10:15	30.46	-	0.0	-	7.0	-	-	-
	6/5/00 10:09	30.38	-	0.0	-	9.0	-	-	-
	7/17/00 9:24	30.50	-	0.0	-	7.0	-	-	-
	8/3/00 8:35	29.35	-	0.0	6.6	6.9	-	-	-
	9/5/00 9:35	29.64	-	0.0	7.7	4.4	-	-	-
	10/10/00 10:03	29.20	-	0.0	7.8	4.8	-	-	-
	11/3/00 11:16	29.79	-	0.0	7.4	5.6	-	-	-
	12/6/00 12:55	29.79	-	0.0	6.7	6.6	-	-	-
	1/5/01 11:47	29.49	-	0.0	6.4	7.1	-	-	-
	2/2/01 9:21	29.64	-	0.0	6.1	8.7	-	-	-
	3/2/01 12:55	29.35	-	0.0	5.6	9.8	-	-	-
	4/6/01 11:35	29.20	-	0.0	5.5	10.4	-	-	-
	5/10/01 10:25	-	-	0.0	6.0	8.0	-	-	-
	6/4/01 11:15	29.98	-	0.0	5.4	9.5	-	-	-
	7/6/01 11:20	30.10	-	0.0	6.6	8.1	-	-	-
	8/3/01 11:17	29.94	-	0.0	7.1	7.0	-	-	-
	9/7/01 10:52	30.25	-	0.0	7.1	4.7	-	-	-
	10/8/01 9:40	-	-	0.0	7.9	5.6	-	-	-
	11/5/01 9:50	-	-	0.0	8.3	5.6	-	-	-
12/7/01 10:50	30.40	-	0.0	7.0	5.6	-	-	-	
1/11/02 15:05	-	-	0.0	3.7	6.6	-	-	-	
3/8/02 10:05	-	-	0.0	3.5	10.4	-	-	-	
5/6/02 15:20	30.20	-	0.0	3.2	10.0	-	-	-	
6/4/02 9:55	-	-	0.0	3.5	10.4	-	-	-	

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**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-11*	7/3/02 14:55	-	-	0.0	4.4	9.1	-	-	-
	8/2/02 14:30	-	-	0.0	4.8	6.8	-	-	-
	9/5/02 10:20	-	-	0.1	5.8	5.9	-	-	-
	10/2/02 14:55	-	-	0.1	6.3	6.1	-	-	-
	11/6/02 14:50	-	-	0.0	6.9	7.4	-	-	-
	12/9/02 15:22	-	-	0.1	6.4	7.4	-	-	-
	1/7/03 13:35	-	-	0.0	5.4	8.1	-	-	-
	2/5/03 14:40	-	-	0.0	4.9	8.6	-	-	-
	3/7/03 13:45	29.72	-	0.1	4.7	10.1	-	-	-
	4/1/03 12:55	-	-	0.0	3.7	14.4	-	-	-
	5/5/03 14:10	30.08	-	0.1	3.6	14.4	-	-	-
	6/3/03 13:27	30.21	-	0.1	4.0	12.6	-	-	-
	7/2/03 13:40	30.15	-	0.1	4.6	11.1	-	-	-
	8/5/03 13:17	30.01	-	0.1	5.8	8.0	-	-	-
	9/3/03 13:20	30.02	-	0.1	6.3	6.5	-	-	-
	10/2/03 14:00	30.05	-	0.3	7.3	6.3	-	-	-
	11/5/03 15:35	30.17	-	0.4	6.8	6.2	-	-	-
	12/4/03 13:50	29.67	-	0.0	5.9	8.9	-	-	-
	1/14/04 13:35	29.90	-	0.0	5.2	8.8	-	-	-
	2/3/04 12:20	29.77	-	0.0	3.3	12.9	-	-	-
	3/2/04 10:55	30.22	-	0.0	4.3	10.4	-	-	-
	4/5/04 14:51	30.10	-	0.0	4.1	11.5	-	-	-
	5/3/04 12:11	30.15	-	0.2	4.2	12.0	-	-	-
	6/1/04 12:35	30.15	-	0.2	4.5	12.1	-	-	-
	7/6/04 14:00	30.09	-	0.1	5.2	10.9	-	-	-
	8/6/04 12:10	29.85	-	0.0	6.2	8.7	-	-	-
	9/10/04 10:31	29.96	-	0.1	6.5	7.4	-	-	-
	2/9/11 14:22	30.34	-	0.0	3.8	10.5	-	-	-
	5/25/11 0:00	29.68	-0.08	0.1	0.1	20.0	-	-	-
	9/23/11 0:00	29.88	0.17	0.0	4.9	9.3	-	-	-
	12/28/11 0:00	29.70	-0.18	0.0	4.7	4.9	-	-	-
	5/22/13 17:33	29.8	0	0.1	3.3	14.0	82.5	33.0	2.0
	6/25/14 16:00	29.75	0	0.0	0.9	19.2	79.9	33.0	0.0
	10/13/14 17:25	29.54	2.6	0.0	4.0	13.1	80.3	-	0.0
2/26/15 10:10	30.1	-0.025	0.0	0.5	20.9	-	-	-	
5/12/15 13:45	29.63								
12/17/15 0:00	29.69								
3/18/16 10:29	29.89								
4/13/16 12:50	30.01								
6/13/16 16:35	29.91								
9/26/16 15:59	29.83	0	0	0	21.2	78.8	0.0	0.0	
12/8/16 14:55	29.94	-0.012	0.2	1	21.5	77.3	1.0	3.0	
3/21/17 11:15	29.51	0.022	0	0.3	21.6	78.0	-	-	
6/2/17 7:10	30.02	-0.808	0	0.3	21.9	77.8	0.0	0.0	
9/6/17 12:02	29.77	-1.168	0	0.5	20.2	79.2	-	-	
10/19/17 15:45	29.77	-1.168							
Flooded Well Screen									
GP-13*	10/15/99 to 9/10/04	-	-	0.0	0.1	0.1	-	-	-
	10/15/99 to 9/10/04	-	-	0.3	14.0	22.0	-	-	-
	10/15/99 12:16	30.40	-	0.2	4.7	16.0	-	-	4.0
	10/26/99 13:00	30.01	-	0.0	0.1	22.0	-	-	0.0
	11/15/99 8:03	30.35	-	0.0	-	18.0	-	-	-
	12/6/99 12:19	30.40	-	0.0	-	18.0	-	-	-
	1/11/00 11:39	30.02	-	0.0	-	17.0	-	-	-
	2/7/00 8:40	30.42	-	0.0	-	18.0	-	-	-
	3/9/00 11:29	30.49	-	0.0	-	16.0	-	-	-
	4/7/00 8:39	30.94	-	0.0	-	11.0	-	-	-
	5/11/00 10:19	30.46	-	0.0	-	7.0	-	-	-
	6/5/00 10:13	30.38	-	0.0	-	7.0	-	-	-
	7/17/00 9:21	30.50	-	0.0	-	11.0	-	-	-
	8/3/00 7:44	29.42	-	0.0	9.4	12.3	-	-	0.0
	9/5/00 9:25	29.71	-	0.0	10.4	10.1	-	-	-
	10/10/00 9:58	29.20	-	0.0	8.1	14.6	-	-	-
	11/3/00 11:07	29.49	-	0.0	8.4	9.3	-	-	-
12/6/00 12:43	29.86	-	0.0	8.6	6.7	-	-	-	
1/5/01 11:30	29.86	-	0.0	7.8	7.0	-	-	-	

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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-13*	2/2/01 9:14	29.57	-	0.0	7.0	9.4	-	-	-
	3/2/01 12:45	29.49	-	0.0	5.6	10.6	-	-	-
	4/6/01 11:20	29.42	-	0.0	7.5	6.2	-	-	-
	5/10/01 10:10	-	-	0.0	9.9	2.1	-	-	-
	6/4/01 11:04	29.98	-	0.0	9.7	7.2	-	-	-
	7/6/01 11:12	30.10	-	0.0	10.8	10.7	-	-	-
	8/3/01 10:58	29.94	-	0.0	10.6	7.6	-	-	-
	9/7/01 10:43	30.25	-	0.0	11.3	9.1	-	-	-
	10/8/01 9:30	-	-	0.0	9.7	12.3	-	-	-
	11/5/01 9:40	-	-	0.0	9.2	9.5	-	-	-
	12/7/01 10:38	30.40	-	0.0	7.0	3.5	-	-	-
	6/4/02 9:45	-	-	0.0	8.5	4.4	-	-	-
	7/3/02 14:42	-	-	0.0	10.6	6.2	-	-	-
	8/2/02 14:25	-	-	0.0	11.4	6.5	-	-	-
	9/5/02 10:10	-	-	0.0	11.1	10.3	-	-	-
	10/2/02 14:45	-	-	0.1	9.1	12.5	-	-	-
	11/6/02 14:40	-	-	0.0	6.7	14.8	-	-	-
	12/9/02 15:12	-	-	0.1	8.2	10.3	-	-	-
	5/5/03 13:59	30.09	-	0.1	6.3	3.8	-	-	-
	6/3/03 13:16	30.18	-	0.1	9.1	6.9	-	-	-
	7/2/03 13:30	30.15	-	0.1	11.8	7.0	-	-	-
	8/5/03 13:10	30.00	-	0.1	13.6	7.9	-	-	-
	9/3/03 13:10	30.00	-	0.1	11.6	9.3	-	-	-
	10/2/03 13:45	30.05	-	0.3	10.1	11.5	-	-	-
	11/5/03 15:25	30.17	-	0.3	9.1	0.9	-	-	-
	12/4/03 13:39	29.67	-	0.0	6.6	0.1	-	-	-
	4/5/04 14:40	30.10	-	0.1	4.9	0.2	-	-	-
	5/3/04 12:05	30.14	-	0.2	6.9	0.5	-	-	-
	6/1/04 12:25	30.09	-	0.2	8.6	0.8	-	-	-
	7/6/04 13:45	30.09	-	0.1	11.4	6.1	-	-	-
	8/6/04 11:58	29.98	-	0.0	12.2	8.4	-	-	-
	9/10/04 10:23	29.96	-	0.1	13.7	6.9	-	-	-
	9/23/11 0:00	-	-	0.0	8.0	-	-	-	-
	5/22/13 17:45	29.8	0.18	0.2	4.7	11.0	84.6	4.0	3.0
	6/25/14 15:20	29.75	0	0.3	0.3	20.2	79.5	4.0	0.0
	9/2/14 16:50	29.63	1.8	0.0	1.7	17.8	80.3	-	0.0
	10/13/14 17:35	29.53	3.6	0.0	6.3	6.8	86.2	-	0.0
	2/26/15 10:20	30.1	0.08	0.0	2.9	12.0	-	-	-
	5/12/15 0:00	29.63	-3.178	0.3	5.0	12.9	81.8	-	5.0
	5/12/15 0:00	29.63	-3.178	0.3	5.0	12.9	81.8	-	5.0
12/17/15 0:00	29.7	-	-	-	-	-	-	-	
3/18/16 10:37	29.91	-	-	-	-	-	-	-	
4/13/16 12:35	30.01	-	-	-	-	-	-	-	
6/13/16 16:32	29.91	-	-	-	-	-	-	-	
9/26/16 14:48	29.85	0.005	0	0	21.6	78.5	-	-	
12/8/16 14:40	29.94	-	-	-	-	-	-	-	
3/21/17 11:01	29.51	0.000	0.0	0.4	21.5	78.0	-	-	
6/2/17 7:22	30.02	-3.657	0.0	0.3	21.9	77.8	0.0	0.0	
9/6/17 12:13	29.77	-0.059	0.0	0.5	20.0	79.4	-	-	
10/19/17 16:13	29.40	-0.003	0.0	1.0	20.7	78.3	0.0	0.0	
GP-15*	5/14/97 to 9/10/04	-	-	0	0	5.5	-	-	-
	5/14/97 to 9/10/04	-	-	0.2	18	22	-	-	-
	10/15/99 12:00	30.50	-	0.0	3.3	18.4	-	-	-
	10/28/99 14:10	29.50	-	0.1	0.0	20.8	-	-	-
	11/15/99 8:14	30.35	-	0.0	-	19.0	-	-	-
	12/6/99 12:33	30.40	-	0.0	-	20.0	-	-	-
	1/11/00 11:48	30.02	-	0.0	-	20.0	-	-	-
	2/7/00 8:48	30.42	-	0.0	-	21.0	-	-	-
	3/9/00 11:35	30.49	-	0.0	-	21.0	-	-	-
	4/7/00 8:50	30.94	-	0.0	-	21.0	-	-	-
	5/11/00 10:30	30.46	-	0.0	-	21.0	-	-	-
	6/5/00 10:27	30.38	-	0.0	-	21.0	-	-	-
	7/17/00 9:14	30.50	-	-	-	18.0	-	-	-
	8/4/00 8:45	29.64	-	0.0	0.9	21.0	-	-	-
9/5/00 8:54	29.86	-	0.0	4.5	18.0	-	-	-	
10/10/00 9:38	29.42	-	0.0	6.8	16.0	-	-	-	

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**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-15*	11/3/00 10:50	29.93	-	0.0	1.3	20.2	-	-	-
	12/6/00 12:28	29.49	-	0.0	0.0	22.0	-	-	-
	7/6/01 10:50	30.10	-	0.0	1.3	19.5	-	-	-
	8/3/01 9:58	29.94	-	0.0	5.7	16.7	-	-	-
	9/7/01 10:25	30.10	-	0.0	7.6	14.5	-	-	-
	10/8/01 9:05	29.94	-	0.0	8.6	14.0	-	-	-
	11/5/01 9:10	30.25	-	0.0	6.9	15.4	-	-	-
	8/2/02 14:08	-	-	0.0	4.8	15.7	-	-	-
	9/5/02 9:50	-	-	0.1	10.5	11.4	-	-	-
	10/2/02 14:25	-	-	0.1	11.5	10.5	-	-	-
	11/6/02 14:20	-	-	0.0	9.7	12.0	-	-	-
	12/9/02 14:59	-	-	0.1	0.1	20.5	-	-	-
	6/3/03 12:55	30.21	-	0.1	0.0	20.6	-	-	-
	7/2/03 13:10	30.15	-	0.1	7.5	11.4	-	-	-
	8/5/03 12:55	29.99	-	0.0	14.1	8.1	-	-	-
	9/3/03 12:50	30.01	-	0.0	14.5	7.4	-	-	-
	10/2/03 13:30	30.06	-	0.2	17.5	5.5	-	-	-
	7/6/04 13:19	29.06	-	0.0	4.9	15.0	-	-	-
	8/6/04 11:32	29.88	-	0.1	9.9	10.8	-	-	-
	9/23/2011	29.99	0.28	0.0	11.8	7.7	-	-	-
	11/17/2011	29.61	3.35	0.0	0.2	19.4	-	-	-
	5/22/13 11:15	29.84	2.25	3.6	5.5	12.2	79.7	0.0	66.0
	6/25/14 14:45	29.7	0.00	2.4	3.1	8.5	85.8	0.0	47.0
	9/2/14 14:50	29.65	0.01	0.0	15.9	6.7	77.5	-	0.0
	10/13/2014	29.65	0.077	0.0	13.8	8	78.2	-	0
	11/6/2014	29.93							Flooded Well Screen
	2/26/2015	29.21							Flooded Well Screen
	5/12/2015	29.63							Flooded Well Screen
	12/17/15 0:00	29.7							Flooded Well Screen
	3/18/16 11:05	29.91							Flooded Well Screen
6/13/16 14:10	29.92							Flooded Well Screen	
9/26/16 14:22	29.85							Flooded Well Screen	
12/8/16 13:30	29.97							Flooded Well Screen	
3/21/17 2:23	29.76	0.004	0.0	0.0	21.2	78.4	-	-	
6/2/17 13:00	29.97	0.201	0.0	2.6	17.8	79.5	0.0	0.0	
9/6/17 12:58	29.72	-0.155	5.4	22.1	16.2	75.1	-	-	
10/19/17 15:42	29.72	-0.155						Flooded Well Screen	
GP-16*	10/15/99 to 9/10/04	-	-	0.0	0.1	0.6	-	-	-
	10/15/99 to 9/10/04	-	-	2.0	23.0	21.0	-	-	-
	10/15/99 11:45	30.50	-	0.0	16.5	6.5	-	-	0.0
	10/28/99 16:10	29.42	-	0.1	0.1	20.6	-	-	2.0
	11/15/99 8:30	30.35	-	0.0	-	20.0	-	-	-
	12/6/99 12:44	30.40	-	0.0	-	3.0	-	-	-
	1/11/00 12:00	30.02	-	0.0	-	20.0	-	-	-
	2/3/00 8:25	29.86	-	0.0	15.2	4.3	-	-	0.0
	2/7/00 9:37	30.42	-	0.0	-	21.0	-	-	-
	3/9/00 11:51	30.49	-	0.0	-	20.0	-	-	-
	4/7/00 9:01	30.94	-	1.0	-	18.0	-	-	-
	5/11/00 10:40	30.46	-	2.0	-	12.0	-	-	-
	6/5/00 9:47	30.38	-	2.0	-	18.0	-	-	-
	7/17/00 9:11	30.50	-	0.0	-	20.0	-	-	-
	8/4/00 8:30	29.71	-	0.0	17.8	2.9	-	-	-
	9/5/00 8:45	30.01	-	0.0	16.7	5.7	-	-	-
	10/10/00 9:27	29.42	-	0.0	19.2	3.1	-	-	-
	11/3/00 11:52	29.93	-	0.0	16.3	5.5	-	-	-
	12/6/00 12:28	29.86	-	0.0	14.6	6.4	-	-	-
	1/5/01 11:01	29.71	-	0.0	16.7	2.3	-	-	-
2/2/01 8:11	29.64	-	0.0	15.0	4.1	-	-	-	
3/2/01 12:22	29.49	-	0.0	14.1	5.8	-	-	-	
4/6/01 9:50	29.27	-	0.0	16.5	2.8	-	-	-	
5/10/01 9:40	-	-	0.0	22.6	2.6	-	-	-	
6/4/01 10:38	29.98	-	1.2	17.9	3.5	-	-	-	
7/6/01 10:09	30.10	-	0.1	20.4	2.0	-	-	-	
8/3/01 9:20	29.94	-	0.0	15.7	7.0	-	-	-	
9/7/01 9:41	30.25	-	0.0	17.7	4.5	-	-	-	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-16*	10/8/01 8:15	-	-	0.0	16.5	6.1			
	11/5/01 8:06	-	-	0.0	17.0	5.1			
	12/7/01 9:21	30.40	-	0.0	16.1	3.7	-	-	-
	1/11/02 13:55	-	-	0.0	14.1	3.9	-	-	-
	2/8/02 13:50	-	-	0.0	16.3	3.8	-	-	-
	3/8/02 9:52	-	-	0.0	15.2	4.7	-	-	-
	4/4/02 9:25	-	-	0.0	15.3	4.7	-	-	-
	5/6/02 14:10	30.20	-	1.0	16.4	2.6	-	-	-
	6/4/02 8:40	-	-	0.0	15.7	4.5	-	-	-
	7/3/02 13:47	-	-	0.0	21.0	1.0	-	-	-
	8/2/02 13:30	-	-	0.0	19.3	1.8	-	-	-
	9/5/02 9:08	-	-	0.0	16.6	5.5	-	-	-
	10/2/02 12:35	-	-	0.0	17.5	5.7	-	-	-
	11/6/02 13:30	-	-	0.0	16.9	6.1	-	-	-
	12/9/02 14:15	-	-	0.1	17.0	5.9	-	-	-
	1/3/03 13:08	30.07	-	0.0	17.4	3.7	-	-	-
	2/5/03 13:43	30.30	-	0.0	16.6	4.6	-	-	-
	3/7/03 12:45	29.77	-	0.1	16.7	2.9	-	-	-
	4/1/03 12:03	29.63	-	0.1	18.9	2.2	-	-	-
	5/5/03 12:29	30.06	-	0.1	19.5	1.7	-	-	-
	6/3/03 11:51	30.18	-	0.2	20.8	2.0	-	-	-
	7/2/03 11:52	30.15	-	0.1	21.1	1.9	-	-	-
	8/5/03 11:26	29.32	-	0.1	21.1	2.8	-	-	-
	9/3/03 11:20	30.02	-	0.1	20.3	2.5	-	-	-
	10/2/03 12:25	30.08	-	0.2	19.0	4.7	-	-	-
	11/5/03 14:27	30.20	-	0.0	18.0	4.9	-	-	-
	12/4/03 12:45	29.74	-	0.0	15.3	6.2	-	-	-
	1/14/04 10:20	30.03	-	0.0	16.1	4.5	-	-	-
	2/2/04 12:05	29.64	-	0.0	17.0	1.9	-	-	-
	3/2/04 9:47	30.23	-	0.0	15.3	5.6	-	-	-
	4/5/04 13:04	30.10	-	0.1	18.6	3.2	-	-	-
	5/3/04 11:02	30.15	-	0.1	18.9	3.0	-	-	-
	6/1/04 11:05	30.11	-	1.4	23.0	0.6	-	-	-
	7/6/04 12:30	30.10	-	0.0	20.6	3.1	-	-	-
	8/6/04 10:30	29.88	-	0.1	19.6	3.7	-	-	-
	2/8/11 9:30	30.29	0.00	0.0	19.0	19.0	-	-	-
	5/25/11 0:00	29.69	-0.06	0.0	0.1	20.2			
	6/27/11 0:00	29.68	0.12	0.0	20.1	0.8			
	9/23/11 0:00	29.91	0.25	0.0	17.6	2.9			
	11/17/11 0:00	29.61	-0.29	0.0	21.4	0.0			
12/28/11 0:00	29.96	-0.18	0.0	19.9	0.0				
5/22/13 15:19	29.82	-0.005	0.2	19.6	0.0	80.1	85.0	5.0	
6/18/13 17:17	29.78	-0.005	0.1	18.1	3.3	78.5	0.0	1.0	
10/13/14 11:40	29.71	0	0.4	0.7	19.8	79.0	-	0.1	
2/26/15 11:27	30.1	0	0.0	0.2	21.1		-	-	
12/17/15 0:00	29.69					Flooded Well Screen			
3/18/16 11:29	29.91	-	0.0	0.1	21.2	78.6	0.0	-	
6/13/16 13:50	29.93	0	0.1	1.1	21.7	77.1	-	2.0	
9/26/16 13:08	29.88	0.006	0.0	0.1	21.1	78.6	0.0	-	
12/8/16 11:32	30.05	0	0.1	2.4	20.0	77.5	0.0	-	
3/21/17 10:13	29.51	0.000	0.0	0.4	20.8	78.8	-	-	
9/6/17 1:15	29.72	-0.042	0.0	14.5	5.1	80.1	-	-	
10/19/17 15:12	29.72	-0.042	0.0	13.2	5.8	80.9	0.0	0.0	
GP-17	10/15/99 to 9/10/04	-	-	0.0	0.1	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	<b>43.0</b>	20.0	21.0	-	-	-
	10/15/99 11:28	30.50	-	0.6	17.5	4.5	-	-	12.0
	10/28/99 10:45	29.35	-	0.0	0.1	21.4	-	-	0.0
	11/15/99 8:56	30.35	-	0.0	-	20.0	-	-	-
	12/6/99 12:50	30.40	-	<b>9.0</b>	-	0.0	-	-	-
	1/11/00 12:05	30.02	-	<b>15.0</b>	-	3.0	-	-	-
	2/3/00 8:09	29.71	-	<b>9.5</b>	15.0	3.0	-	-	190.0
2/7/00 9:32	30.42	-	<b>43.0</b>	-	10.0	-	-	-	



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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-17	3/9/00 11:55	30.49	-	0.0	-	21.0	-	-	-
	4/7/00 9:06	30.94	-	7.0	-	2.0	-	-	-
	5/11/00 10:46	30.46	-	10.0	-	5.0	-	-	-
	6/5/00 9:53	30.38	-	5.0	-	13.0	-	-	-
	7/17/00 8:57	30.50	-	0.0	-	20.0	-	-	-
	8/3/00 8:05	29.20	-	3.6	14.5	7.0	-	-	-
	9/5/00 9:52	29.64	-	2.5	18.3	4.1	-	-	-
	10/10/00 8:56	29.42	-	0.0	16.6	2.4	-	-	-
	11/3/00 11:40	29.93	-	0.3	15.0	5.3	-	-	-
	12/6/00 13:10	29.71	-	2.6	15.8	3.8	-	-	-
	1/5/01 10:50	29.71	-	9.3	20.2	0.0	-	-	-
	2/2/01 8:01	29.86	-	8.7	16.1	2.6	-	-	-
	3/2/01 12:10	29.57	-	5.7	14.8	2.8	-	-	-
	4/6/01 9:30	29.42	-	9.6	14.7	2.6	-	-	-
	5/10/01 8:45	-	-	11.8	17.1	2.1	-	-	-
	6/4/01 10:27	29.98	-	11.5	17.0	1.0	-	-	-
	7/6/01 9:57	30.10	-	2.7	16.7	2.5	-	-	-
	8/3/01 9:00	29.94	-	8.8	16.7	5.4	-	-	-
	9/7/01 9:30	30.25	-	0.6	14.4	5.9	-	-	-
	10/8/01 8:00	-	-	1.2	15.8	4.4	-	-	-
	11/5/01 7:55	-	-	1.4	17.0	4.1	-	-	-
	12/7/01 9:11	30.40	-	8.3	16.0	3.8	-	-	-
	1/11/02 13:20	-	-	8.0	14.0	3.1	-	-	-
	2/8/02 13:25	-	-	8.6	14.3	4.4	-	-	-
	3/8/02 9:15	-	-	1.6	13.6	4.7	-	-	-
	4/4/02 8:49	-	-	6.4	13.8	4.9	-	-	-
	5/6/02 13:55	30.20	-	10.6	13.1	4.4	-	-	-
	6/4/02 8:01	-	-	8.8	13.0	4.8	-	-	-
	7/3/02 13:25	-	-	7.8	16.7	2.5	-	-	-
	8/2/02 13:06	-	-	2.7	14.9	4.9	-	-	-
	9/5/02 8:35	-	-	2.0	13.6	6.7	-	-	-
	10/2/02 11:56	-	-	0.1	10.8	8.5	-	-	-
	11/6/02 12:55	-	-	0.0	12.0	6.1	-	-	-
	12/9/02 13:45	-	-	0.2	14.1	6.7	-	-	-
	1/3/03 12:35	30.12	-	6.7	14.8	6.1	-	-	-
	2/5/03 16:48	30.34	-	6.7	15.1	2.6	-	-	-
	3/7/03 12:15	29.77	-	6.8	13.1	6.1	-	-	-
	4/1/03 11:33	29.67	-	9.7	13.6	4.0	-	-	-
	5/5/03 11:50	30.08	-	10.6	16.5	2.1	-	-	-
	6/3/03 11:06	30.17	-	7.5	15.7	3.6	-	-	-
7/2/03 11:00	30.12	-	4.0	15.6	4.9	-	-	-	
8/5/03 10:40	29.24	-	3.6	16.8	4.9	-	-	-	
9/3/03 10:35	30.00	-	0.1	15.2	4.2	-	-	-	
10/2/03 11:45	30.08	-	0.3	13.6	6.9	-	-	-	
11/5/03 13:15	30.25	-	0.3	14.1	6.1	-	-	-	
12/4/03 12:15	29.81	-	3.9	12.9	6.3	-	-	-	
1/14/04 9:37	30.03	-	2.7	11.1	6.9	-	-	-	
2/2/04 11:30	29.67	-	6.6	12.0	5.9	-	-	-	
3/2/04 9:11	30.26	-	3.5	10.1	7.8	-	-	-	
4/8/04 14:24	30.14	-	3.6	8.8	9.1	-	-	-	
5/3/04 10:25	30.15	-	5.0	12.3	6.2	-	-	-	
6/1/04 9:20	30.08	-	9.7	15.2	4.4	-	-	-	
7/6/04 12:00	30.12	-	0.6	11.3	8.3	-	-	-	
8/6/04 9:40	29.87	-	4.7	14.9	7.2	-	-	-	

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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-17	9/10/04 8:19	30.03	-	1.7	12.8	8.2	-	-	-
	2/8/11 9:10	30.29	0.00	10.1	19.1	0.0	-	-	-
	5/25/11 0:00	29.70	-0.06	5.8	18.9	0.0	-	-	-
	6/27/00 0:00	29.67	0.11	8.3	17.9	0.0	-	-	-
	9/23/11 0:00	29.97	0.31	1.0	18.5	0.0	-	-	-
	11/17/11 0:00	29.56	-0.3	2.1	22.9	0.0	-	-	-
	12/28/11 0:00	29.96	-0.18	7.4	21.4	0.0	-	-	-
	5/22/13 15:50	29.81	-0.022	18.2	17.7	0.0	-	124.0	-
	6/18/13 17:00	29.75	0	19.0	21.3	0.0	59.6	0.0	-
	6/25/14 14:55	29.75	0.02	19.6	20.8	0.0	59.6	0.0	-
	9/2/14 12:15	29.71	0.008	28.9	25.3	0.0	46.1	-	100.0
	10/13/14 11:55	29.71	0.035	33.1	25.4	0.0	41.7	-	100.0
	11/6/14 16:03	29.93	0	34.7	26.8	0.0	-	-	-
	2/26/15 11:35	30.1	0.019	4.5	16.7	0.0	-	-	-
	5/12/15 12:35	29.63	0	33.0	23.3	0.0	43.6	-	100.0
	12/17/15 13:49	29.7	-0.003	48.1	30.3	0.0	21.6	0.0	100.0
	3/18/16 11:40	29.91	-	28.0	26.0	0.0	46.0	0.0	-
	6/13/16 13:26	29.93	-0.003	13.1	25.7	0.0	60.4	0.0	100.0
	9/26/16 12:05	29.9	0.01	11.1	22.4	0.0	66.4	0.0	-
	12/8/16 11:20	30.05	0.036	17.7	25.3	0.0	56.9	0.0	-
3/21/17 14:11	29.76	0.092	14.8	22.7	0.0	62.4	-	-	
6/2/17 12:15	29.97	-0.539	7.2	20.8	0.0	72.5	0.0	100.0	
9/6/17 10:54	29.78	-0.551	5.6	21.5	0.0	72.8	-	-	
10/19/17 14:08	29.78	-0.551	8.4	22.7	0.0	69.9	-	100.0	
GP-19	10/15/99 to 9/10/04	-	-	0.2	0.7	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	10.0	23.0	20.0	-	-	-
	10/15/99 15:01	30.40	-	2.7	22.1	0.0	-	-	57.0
	10/28/99 16:16	29.57	-	0.2	0.7	20.3	-	-	4.0
	11/15/99 10:34	30.35	-	6.0	-	1.0	-	-	-
	12/6/99 12:10	30.40	-	7.0	-	0.0	-	-	-
	1/11/00 12:40	30.02	-	7.0	-	0.0	-	-	-
	2/3/00 10:35	29.79	-	8.3	18.2	0.0	-	-	166.0
	2/7/00 10:13	30.42	-	5.0	-	0.0	-	-	-
	3/9/00 12:41	30.49	-	10.0	-	0.0	-	-	-
	4/7/00 9:46	30.94	-	4.0	-	1.0	-	-	-
	5/11/00 11:26	30.46	-	4.0	-	0.0	-	-	-
	6/5/00 11:25	30.38	-	2.0	-	0.0	-	-	-
	7/17/00 8:45	30.50	-	2.0	-	0.0	-	-	-
	8/3/00 10:15	29.86	-	1.5	17.7	0.2	-	-	-
	9/6/00 8:30	29.86	-	2.2	19.8	0.0	-	-	-
	10/10/00 8:45	29.35	-	3.8	20.5	0.0	-	-	-
	11/3/00 12:55	29.42	-	4.8	20.3	0.1	-	-	-
	12/6/00 14:00	29.79	-	6.5	19.7	0.0	-	-	-
	1/5/01 13:05	29.79	-	6.6	19.0	0.0	-	-	-
	2/2/01 9:42	28.98	-	6.1	18.1	0.0	-	-	-
	3/2/01 13:15	29.57	-	5.5	17.3	0.1	-	-	-
	4/6/01 12:05	29.05	-	4.6	16.7	0.2	-	-	-
	5/10/01 10:50	-	-	4.6	22.7	0.0	-	-	-
	6/4/01 11:40	29.98	-	1.9	17.3	0.0	-	-	-
	7/6/01 11:38	30.10	-	0.8	18.8	0.0	-	-	-
	8/3/01 12:12	29.94	-	1.0	19.3	0.0	-	-	-
	9/7/01 10:15	30.25	-	2.5	19.2	0.0	-	-	-
	10/8/01 10:00	-	-	3.8	20.7	0.0	-	-	-
	11/5/01 10:05	-	-	5.1	20.5	0.0	-	-	-
	12/7/01 11:11	30.40	-	7.4	19.8	0.0	-	-	-
	1/11/02 15:25	-	-	7.4	17.5	0.0	-	-	-
	2/8/02 15:35	-	-	7.4	17.5	0.0	-	-	-
	3/8/02 11:25	-	-	3.6	17.0	0.0	-	-	-
	4/4/02 11:15	-	-	3.2	17.1	0.1	-	-	-
5/6/02 15:40	30.20	-	3.7	16.1	0.0	-	-	-	
6/4/02 10:20	-	-	1.8	17.1	0.0	-	-	-	
7/3/02 15:15	-	-	1.2	17.6	0.0	-	-	-	
8/2/02 10:20	-	-	1.3	17.9	0.0	-	-	-	
9/5/02 10:35	-	-	2.5	19.3	0.2	-	-	-	
10/2/02 15:15	-	-	3.8	19.9	0.4	-	-	-	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-19	11/6/02 15:15	-	-	6.9	20.5	0.0	-	-	-
	12/9/02 15:45	-	-	7.6	21.0	0.0	-	-	-
	1/7/03 13:55	30.18	-	7.2	19.1	0.0	-	-	-
	2/5/03 15:05	30.30	-	5.2	17.7	0.0	-	-	-
	3/7/03 14:10	29.71	-	5.7	17.7	0.0	-	-	-
	4/1/03 13:25	29.63	-	5.0	16.9	0.0	-	-	-
	5/5/03 14:30	30.09	-	3.5	17.4	0.0	-	-	-
	6/3/03 13:55	30.22	-	1.9	17.5	0.2	-	-	-
	7/2/03 14:00	30.16	-	1.2	18.2	0.2	-	-	-
	8/5/03 13:45	29.99	-	1.5	19.4	0.0	-	-	-
	9/3/03 13:45	30.00	-	2.1	20.3	0.0	-	-	-
	10/2/03 14:20	30.03	-	3.6	21.5	0.0	-	-	-
	11/5/03 15:57	30.16	-	7.4	21.4	0.0	-	-	-
	12/4/03 14:03	29.66	-	7.9	20.3	0.0	-	-	-
	1/14/04 14:55	29.95	-	6.3	19.1	0.0	-	-	-
	2/6/04 13:50	29.98	-	5.4	17.8	0.0	-	-	-
	3/2/04 11:20	30.23	-	4.2	17.1	0.1	-	-	-
	4/5/04 15:04	30.10	-	3.5	17.3	0.2	-	-	-
	5/3/04 12:35	30.14	-	1.9	17.3	0.3	-	-	-
	6/1/04 13:00	30.12	-	1.8	18.2	0.3	-	-	-
	7/6/04 14:25	30.08	-	1.0	18.9	0.1	-	-	-
	8/6/04 12:36	29.85	-	1.4	20.2	0.0	-	-	-
	9/10/04 10:53	29.95	-	3.1	20.7	0.2	-	-	-
	2/8/11 16:25	30.37	-0.02	1.9	14.3	0.0	-	-	-
	5/22/13 16:23	29.8	0.00	4.5	15.1	0.0	-	93.0	88.0
	6/18/13 10:47	29.81	0.00	1.3	15.8	0.0	82.9	0.0	25.0
	6/19/13 14:39	29.78	-0.006	2.0	17.4	0.0	80.5	0.0	40.0
	6/25/14 12:00	29.77	0.02	6.9	15.4	0.0	77.7	0.0	100.0
	9/2/14 11:50	29.72	0.009	12.0	19.6	0.0	68.4	-	100.0
	10/13/14 14:56	29.6	0.005	14.6	18.8	0.0	66.5	-	100.0
	11/6/14 14:35	29.85	0.031	12.4	18.1	0.0	-	-	-
	2/26/15 11:50	30.1	0	0.0	9.5	5.5	-	-	-
5/12/15 0:00	29.69	-0.01	0.1	16.6	0.3	82.8	-	3.0	
12/17/15 14:55	29.63	-0.001	10.8	16.0	0.8	72.0	0.0	100.0	
3/18/16 12:39	29.86	-	4.2	14.3	0.0	81.5	0.0	0.0	
6/13/16 16:00	29.92	0	2.4	14.2	0.0	78.3	5.0	48.0	
9/26/16 11:00	29.93	0.01	5.1	19.2	0.0	75.6	0.0	0.0	
12/8/16 10:38	30.05	0.005	9.5	19.4	0.0	71.0	0.0	-	
3/21/17 13:42	-	0.039	2.0	16.5	0.0	81.4	-	-	
6/2/17 12:15	29.99	-0.406	0.0	11.0	10.1	78.9	0.0	0.0	
9/6/17 9:50	29.82	-5.554	0.0	18.7	0.0	81.3	-	-	
10/19/17 13:27	29.82	-5.554	2.3	20.4	0.0	77.2	0.0	15.0	
GP-20	10/15/99 to 9/10/04	-	-	0.3	1.6	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	10.0	15.0	19.0	-	-	-
	5/14/97 0:00	-	-	-	0.9	13.3	-	-	107.2
	5/23/97 11:15	30.54	-	7.0	-	0.0	-	-	-
	6/20/97 10:25	30.65	-	-	-	20.8	-	-	0.0
	7/21/97 0:00	29.65	-	0.0	-	21.0	-	-	-
	8/18/97 11:02	30.67	-	0.0	-	21.0	-	-	-
	9/8/97 10:15	30.70	-	-	-	-	-	-	61.0
	10/24/97 6:00	31.08	-	14.0	-	0.0	-	-	-
	11/19/97 7:50	30.15	-	18.0	-	0.0	-	-	-
	12/2/97 12:02	30.50	-	25.0	-	0.0	-	-	-
	1/16/98 8:20	30.15	-	16.0	-	-	-	-	-
	2/19/98 7:52	30.40	-	15.0	-	0.0	-	-	-
	3/17/98 7:59	30.88	-	12.0	-	1.0	-	-	-
	4/14/98 8:30	29.63	-	11.0	-	1.0	-	-	-
	5/19/98 11:20	30.64	-	15.0	-	0.0	-	-	-
	6/4/98 8:44	30.52	-	6.0	-	1.0	-	-	-
	7/27/98 12:22	30.57	-	2.4	-	2.5	-	-	-
	8/4/98 12:39	30.58	-	2.5	-	2.5	-	-	-
	9/17/98 12:18	30.03	-	1.4	-	3.0	-	-	-
10/5/98 12:25	30.08	-	1.6	-	2.5	-	-	-	
11/6/98 1:00	30.39	-	-	-	2.0	-	-	4.0	
12/2/98 1:00	30.19	-	-	-	0.0	-	-	4.0	

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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-20	1/6/99 10:16	29.70	-	18.0	-	0.0	-	-	-
	3/5/99 11:06	29.95	-	15.0	-	0.0	-	-	-
	4/9/99 11:59	30.80	-	12.0	-	0.0	-	-	-
	5/7/99 10:51	30.85	-	-	-	-	-	-	-
	6/23/99 10:18	30.65	-	5.0	-	0.0	-	-	-
	7/20/99 9:02	30.50	-	4.0	-	0.0	-	-	-
	8/20/99 10:20	30.65	-	3.0	-	0.0	-	-	-
	9/29/99 10:28	30.80	-	3.0	-	0.0	-	-	-
	10/15/99 14:52	30.40	-	1.3	10.9	0.0	-	-	96.0
	10/28/99 16:35	29.28	-	0.3	1.6	19.1	-	-	4.0
	11/15/99 9:10	30.35	-	1.0	-	1.0	-	-	-
	12/6/99 11:41	30.40	-	3.0	-	1.0	-	-	-
	1/11/00 12:20	30.02	-	6.0	-	0.0	-	-	-
	2/3/00 10:17	29.79	-	7.4	8.2	0.0	-	-	304.0
	2/7/00 10:07	30.42	-	10.0	-	0.0	-	-	-
	3/9/00 12:09	30.49	-	6.0	-	0.0	-	-	-
	4/7/00 9:41	30.94	-	5.0	-	0.0	-	-	-
	5/11/00 11:04	30.46	-	9.0	-	0.0	-	-	-
	6/5/00 11:30	30.38	-	4.0	-	0.0	-	-	-
	7/17/00 8:40	30.50	-	3.0	-	0.0	-	-	-
	8/3/00 9:55	29.27	-	2.7	12.9	0.3	-	-	-
	9/6/00 8:10	30.01	-	1.9	13.7	1.0	-	-	-
	10/10/00 8:35	29.42	-	1.2	12.9	3.3	-	-	-
	11/3/00 13:07	29.79	-	1.6	11.5	0.1	-	-	-
	12/6/00 14:10	29.86	-	2.6	10.6	0.0	-	-	-
	1/5/01 13:17	29.71	-	3.5	10.3	0.0	-	-	-
	2/2/01 9:55	29.86	-	4.2	10.3	0.0	-	-	-
	3/2/01 13:27	29.49	-	3.8	9.8	0.0	-	-	-
	4/6/01 12:20	28.98	-	3.0	9.1	0.2	-	-	-
	5/10/01 11:05	-	-	4.7	10.6	0.0	-	-	-
	6/4/01 11:58	29.98	-	3.5	9.4	0.0	-	-	-
	7/6/01 11:48	30.10	-	3.3	12.6	0.0	-	-	-
	8/3/01 11:55	29.94	-	2.4	12.9	0.0	-	-	-
	12/7/01 11:25	30.40	-	3.6	11.6	0.0	-	-	-
	1/11/02 15:35	-	-	4.3	9.2	0.0	-	-	-
	2/8/02 15:45	-	-	6.1	9.9	0.0	-	-	-
	3/8/02 11:40	-	-	3.9	9.8	0.0	-	-	-
	4/4/02 11:27	-	-	2.8	9.1	0.2	-	-	-
	5/6/02 15:50	30.20	-	3.7	8.9	0.0	-	-	-
	6/4/02 10:35	-	-	3.4	9.6	0.0	-	-	-
7/3/02 15:30	-	-	2.1	9.6	0.0	-	-	-	
8/2/02 12:00	-	-	1.7	10.7	0.0	-	-	-	
9/5/02 10:50	-	-	1.6	12.7	0.3	-	-	-	
10/2/02 15:50	-	-	1.5	13.2	0.4	-	-	-	
11/6/02 15:25	-	-	10.1	13.1	0.2	-	-	-	
12/9/02 13:54	-	-	2.2	12.2	0.0	-	-	-	
1/7/03 14:05	30.17	-	3.1	11.1	0.0	-	-	-	
2/5/03 15:15	30.30	-	4.0	10.6	0.0	-	-	-	
3/7/03 14:20	29.71	-	5.0	10.9	0.0	-	-	-	
4/1/03 13:35	-	-	4.4	10.3	0.0	-	-	-	
5/5/03 14:45	30.09	-	4.0	10.2	0.0	-	-	-	
6/3/03 14:10	30.21	-	2.9	10.4	0.2	-	-	-	
7/2/03 14:10	30.16	-	1.9	10.9	0.2	-	-	-	
8/5/03 13:55	30.01	-	1.8	13.7	1.1	-	-	-	

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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-20	9/3/03 13:55	30.01	-	1.2	14.4	0.6	-	-	-
	10/2/03 14:35	30.03	-	1.3	14.7	0.0	-	-	-
	11/5/03 16:03	30.15	-	4.5	14.9	0.0	-	-	-
	12/4/03 14:20	29.65	-	3.8	12.7	0.2	-	-	-
	1/14/04 14:10	29.94	-	<b>5.1</b>	12.0	0.0	-	-	-
	2/6/04 14:05	29.98	-	<b>5.3</b>	11.2	0.0	-	-	-
	3/2/04 11:30	30.22	-	<b>5.6</b>	10.5	0.0	-	-	-
	4/5/04 15:15	30.10	-	4.1	10.3	0.1	-	-	-
	5/3/04 12:45	30.13	-	4.2	10.4	0.3	-	-	-
	6/1/04 13:05	30.11	-	3.4	10.8	0.4	-	-	-
	7/6/04 14:57	30.08	-	2.2	12.5	0.1	-	-	-
	8/6/04 12:53	29.84	-	0.5	13.6	1.8	-	-	-
	9/10/04 11:03	29.95	-	0.9	15.0	1.4	-	-	-
	2/9/11 9:30	30.45	-0.06	3.3	8.9	0.0	-	-	-
	5/22/13 15:00	29.82	0.00	2.5	7.1	0.0	-	121.0	50.0
	6/18/13 9:50	29.82	0.006	1.9	7.3	0.0	90.7	0.0	39.0
	6/19/13 13:53	29.77	0	2.1	7.2	0.0	90.8	0.0	40.0
	6/25/14 11:28	29.82	0.027	2.5	7.5	0.0	87.9	0.0	50.0
	9/2/14 11:25	29.72	0.012	4.1	10.3	0.0	85.5	-	81.0
	10/13/14 0:00	29.6	0.019	<b>6.0</b>	11.4	0.0	82.6	-	100.0
11/6/14 14:47	29.85	0.046	<b>7.4</b>	11.4	6.5	-	-	-	
2/26/15 12:20	30.1	-0.003	0.1	14.0	0.0	-	-	-	
5/12/15 10:05	29.69	0	3.7	12.3	0.0	33.9	-	74.0	
12/17/15 13:00	29.63	-0.006	<b>9.5</b>	5.2	0.0	85.7	0.0	100.0	
3/18/16 12:08	29.91	0.22	<b>5.1</b>	9.9	0.0	84.9	0.0	8.0	
6/13/16 12:54	29.93	0	0.0	8.8	5.3	85.8	0.0	0.0	
9/26/16 10:38	29.9	-0.009	1.8	15.2	0.0	82.9	0.0	35.0	
12/8/16 10:10	30.05	0.015	3.6	18.0	0.0	78.4	0.0	-	
3/21/17 13:04	-	0.024	1.0	10.1	0.0	82.9	-	-	
5/31/17 10:09	29.76	-0.693	0.0	13.2	2.0	84.8	0.0	0.0	
9/6/17 9:05	29.82	-0.711	0.0	17.2	0.0	82.8	-	-	
10/19/17 13:06	29.82	-0.711	1.1	19.0	0.0	79.9	0.0	22.0	
GP-21	10/15/99 to 9/10/04	-	-	0.0	0.0	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	<b>23.0</b>	27.0	21.0	-	-	-
	10/15/99 14:33	30.40	-	<b>19.8</b>	25.5	0.1	-	-	396.0
	10/28/99 17:35	29.28	-	0.2	0.1	21.4	-	-	4.0
	11/15/99 9:17	30.35	-	<b>19.0</b>	-	-	-	-	-
	12/6/99 11:53	30.40	-	<b>19.0</b>	-	0.0	-	-	-
	1/11/00 12:25	30.02	-	<b>14.0</b>	-	0.0	-	-	-
	2/3/00 9:35	29.79	-	<b>17.4</b>	20.3	0.0	-	-	348.0
	2/7/00 9:46	30.42	-	<b>15.0</b>	-	0.0	-	-	-
	3/9/00 12:13	30.49	-	<b>15.0</b>	-	0.0	-	-	-
	4/7/00 9:27	30.94	-	<b>5.0</b>	-	13.0	-	-	-
	5/11/00 11:08	30.46	-	<b>14.0</b>	-	0.0	-	-	-
	6/5/00 10:58	30.38	-	<b>15.0</b>	-	0.0	-	-	-
	7/17/00 8:31	30.50	-	<b>17.0</b>	-	0.0	-	-	-
	8/2/00 11:20	29.71	-	<b>14.9</b>	20.3	0.3	-	-	298.0
	9/5/00 10:20	29.86	-	<b>17.9</b>	22.4	0.0	-	-	-
	10/10/00 8:05	29.20	-	<b>18.5</b>	23.3	0.0	-	-	-
	11/3/00 13:47	29.86	-	<b>19.7</b>	23.5	0.1	-	-	-
	12/6/00 14:44	29.64	-	<b>22.5</b>	24.4	0.0	-	-	-
	1/5/01 13:55	29.79	-	<b>22.1</b>	22.6	0.0	-	-	-
	2/2/01 10:35	29.79	-	<b>21.8</b>	22.3	0.0	-	-	-
	3/2/01 14:00	29.42	-	<b>19.7</b>	21.4	0.0	-	-	-
	4/6/01 13:18	29.13	-	<b>16.2</b>	19.8	0.2	-	-	-
	5/10/01 11:50	-	-	<b>22.8</b>	26.5	0.0	-	-	-
	6/4/01 12:35	29.98	-	<b>18.1</b>	20.4	0.0	-	-	-
	7/6/01 12:30	30.10	-	<b>18.7</b>	22.0	0.0	-	-	-
8/3/01 13:09	29.94	-	<b>17.9</b>	22.3	0.0	-	-	-	
9/7/01 12:02	30.25	-	<b>20.1</b>	23.0	0.0	-	-	-	
10/8/01 10:50	-	-	<b>22.6</b>	24.5	0.0	-	-	-	
11/5/01 11:05	-	-	<b>19.4</b>	23.8	0.0	-	-	-	
12/7/01 12:04	30.40	-	<b>18.6</b>	22.8	0.0	-	-	-	
1/11/02 16:20	-	-	<b>17.3</b>	19.5	0.0	-	-	-	
2/8/02 16:30	-	-	<b>12.0</b>	16.7	1.8	-	-	-	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-21	3/8/02 12:30	-	-	15.3	18.5	0.0	-	-	-
	4/4/02 12:10	-	-	0.0	0.0	20.4	-	-	-
	5/6/02 16:30	30.20	-	14.7	17.4	0.0	-	-	-
	6/4/02 11:20	-	-	18.8	18.4	0.0	-	-	-
	7/3/02 16:16	-	-	16.8	20.5	0.0	-	-	-
	8/2/02 10:40	-	-	17.6	20.3	0.0	-	-	-
	9/5/02 11:27	-	-	17.0	20.9	0.4	-	-	-
	10/2/02 16:10	-	-	17.6	22.1	0.3	-	-	-
	11/6/02 16:10	-	-	17.5	23.0	0.0	-	-	-
	12/9/02 16:49	-	-	20.1	23.6	0.0	-	-	-
	1/7/03 14:45	-	-	15.0	21.7	0.0	-	-	-
	2/5/03 15:48	30.29	-	13.6	19.9	0.0	-	-	-
	3/7/03 15:00	29.71	-	15.6	19.0	0.0	-	-	-
	4/1/03 14:10	29.59	-	12.8	18.3	0.0	-	-	-
	5/5/03 15:20	30.07	-	15.3	17.0	0.0	-	-	-
	6/3/03 14:55	30.20	-	16.0	18.9	0.1	-	-	-
	7/2/03 15:00	30.16	-	15.2	19.7	0.1	-	-	-
	8/5/03 15:00	30.00	-	13.4	20.2	0.0	-	-	-
	9/3/03 14:35	30.01	-	14.4	21.4	0.1	-	-	-
	10/2/03 15:15	30.03	-	17.3	22.8	0.0	-	-	-
	11/5/03 16:45	30.15	-	20.7	23.8	0.0	-	-	-
	12/4/03 15:10	29.63	-	15.7	22.8	0.0	-	-	-
	1/14/04 15:00	30.03	-	14.9	20.3	0.0	-	-	-
	2/6/04 14:45	29.98	-	10.2	18.3	0.0	-	-	-
	3/2/04 12:05	30.23	-	12.8	17.2	0.0	-	-	-
	4/5/04 15:58	-	-	13.8	17.8	0.1	-	-	-
	5/3/04 13:25	30.14	-	16.1	17.9	0.4	-	-	-
	6/1/04 14:05	30.13	-	14.8	19.4	0.3	-	-	-
	7/6/04 15:30	30.05	-	15.4	20.3	0.1	-	-	-
	8/6/04 14:15	29.87	-	13.1	20.1	0.0	-	-	-
	9/10/04 11:37	29.95	-	16.6	21.8	0.2	-	-	-
	2/9/11 10:35	30.44	-0.07	20.0	17.6	0.0	-	-	-
	5/22/13 13:35	29.81	0.01	15.8	14.3	0.0	-	25.0	-
6/18/13 13:14	29.80	0.02	0.0	17.0	20.2	75.6	0.0	-	
6/25/14 10:10	29.85	0.04	19.8	17.6	0.0	62.7	0.0	-	
9/2/14 16:00	29.63	0.02	14.9	18.9	0.0	66.1	-	100.0	
10/13/14 0:00	29.55	-	19.4	19.0	0.0	61.4	-	100.0	
11/6/14 16:48	29.93	-	14.3	11.3	-	-	-	-	
2/26/15 13:05	30.00	0.00	0.0	0.4	17.7	-	-	-	
5/12/15 0:00	29.69	-0.01	14.7	16.0	0.0	69.2	-	100.0	
12/17/15 0:00	29.69	0.00	29.4	17.8	0.0	52.7	0.0	100.0	
1/0/00 0:00	29.84	-	25.6	15.7	0.0	58.6	0.0	-	
6/13/16 0:00	29.92	-0.01	1.0	17.5	0.0	81.4	0.0	19.0	
9/26/16 9:45	29.93	0.00	1.2	17.6	0.0	81.2	0.0	23.0	
12/8/16 9:13	30.08	0.06	4.5	18.5	0.0	76.9	0.0	90.0	
3/21/17 11:45	-	0.040	0.3	13.5	0.6	85.5	-	-	
5/31/17 9:00	29.77	-0.32	0.0	0.3	21.3	78.3	0.0	0.0	
9/6/17 7:46	29.87	-0.24	0.0	11.9	6.1	81.9	-	-	
10/19/17 12:30	29.87	-0.24	0.3	18.2	0.0	81.4	0.0	6.0	
GP-22	10/15/99 to 9/10/04	-	-	0.2	0.0	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	15.0	31.0	21.0	-	-	-
	10/15/99 14:25	30.40	-	9.2	21.0	0.0	-	-	184.0
	10/28/99 17:05	29.57	-	0.2	0.0	21.4	-	-	4.0
	11/15/99 9:30	30.35	-	9.0	-	0.0	-	-	-
	12/6/99 11:49	30.40	-	7.0	-	0.0	-	-	-
	1/11/00 12:28	30.02	-	4.0	-	0.0	-	-	-
	2/3/00 10:00	29.79	-	7.0	11.2	0.0	-	-	140.0
	2/7/00 9:51	30.42	-	5.0	-	0.0	-	-	-
	3/9/00 12:17	30.49	-	6.0	-	0.0	-	-	-
	4/7/00 9:22	30.94	-	3.0	-	13.0	-	-	-
	5/11/00 11:13	30.46	-	7.0	-	0.0	-	-	-
	6/5/00 11:03	30.38	-	8.0	-	0.0	-	-	-
	7/17/00 8:35	30.50	-	9.0	-	0.0	-	-	-
8/3/00 9:30	29.71	-	10.0	20.4	0.2	-	-	-	
9/5/00 10:15	29.64	-	8.8	21.0	0.0	-	-	-	

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**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-22	10/10/00 7:55	29.35	-	8.4	20.5	0.0	-	-	-
	11/3/00 13:35	29.35	-	10.4	19.2	0.1	-	-	-
	12/6/00 14:30	29.71	-	11.3	16.8	0.0	-	-	-
	1/5/01 13:44	29.86	-	11.6	15.7	0.0	-	-	-
	2/2/01 10:15	29.64	-	13.1	16.6	0.0	-	-	-
	3/2/01 13:50	29.42	-	11.0	15.6	0.0	-	-	-
	4/6/01 12:50	29.20	-	10.8	15.2	0.7	-	-	-
	5/10/01 11:35	-	-	15.0	21.2	0.0	-	-	-
	6/4/01 12:25	29.98	-	11.9	17.9	0.0	-	-	-
	7/6/01 12:20	30.10	-	11.3	20.1	0.0	-	-	-
	8/3/01 12:43	29.94	-	10.4	30.7	0.0	-	-	-
	9/7/01 11:54	30.25	-	12.2	20.4	0.0	-	-	-
	10/8/01 10:32	-	-	11.6	21.1	0.0	-	-	-
	11/5/01 10:45	-	-	8.6	14.6	4.2	-	-	-
	12/7/01 11:55	30.40	-	8.2	13.2	0.0	-	-	-
	1/11/02 16:00	-	-	7.1	9.8	1.7	-	-	-
	2/8/02 16:15	-	-	3.5	8.7	4.1	-	-	-
	3/8/02 12:07	-	-	5.0	10.3	3.1	-	-	-
	4/4/02 11:55	-	-	6.3	12.2	0.2	-	-	-
	5/6/02 14:20	30.20	-	6.4	12.3	0.0	-	-	-
	6/4/02 11:00	-	-	2.8	5.7	12.4	-	-	-
	7/3/02 15:55	-	-	7.0	14.2	3.3	-	-	-
	8/2/02 11:20	-	-	8.8	19.1	0.0	-	-	-
	9/5/02 11:17	-	-	8.5	20.2	0.3	-	-	-
	10/2/02 16:00	-	-	7.1	19.4	0.4	-	-	-
	11/6/02 15:50	-	-	4.0	14.1	5.1	-	-	-
	12/9/02 16:34	-	-	10.3	18.0	0.0	-	-	-
	1/7/03 14:35	30.17	-	7.2	12.5	0.0	-	-	-
	2/5/03 15:40	30.28	-	6.6	11.3	0.0	-	-	-
	3/7/03 14:40	29.70	-	8.3	12.9	0.0	-	-	-
	4/1/03 13:58	29.61	-	7.1	11.6	0.0	-	-	-
	5/5/03 15:10	30.06	-	7.3	12.7	0.0	-	-	-
	6/3/03 14:45	30.20	-	8.8	15.7	0.1	-	-	-
	7/2/03 14:50	30.16	-	8.7	19.7	0.2	-	-	-
	8/5/03 14:25	30.00	-	9.1	22.5	9.0	-	-	-
	9/3/03 14:25	30.01	-	7.5	22.1	0.1	-	-	-
	10/2/03 15:00	30.03	-	7.2	21.1	0.0	-	-	-
	11/5/03 16:32	30.15	-	7.1	18.2	0.0	-	-	-
	12/4/03 14:49	29.65	-	7.1	13.5	0.6	-	-	-
	1/14/04 14:40	29.93	-	6.5	11.1	0.3	-	-	-
2/6/04 14:30	29.98	-	6.0	11.2	0.0	-	-	-	
3/2/04 11:55	30.20	-	7.6	12.1	0.1	-	-	-	
4/5/04 15:45	30.10	-	9.0	14.0	0.1	-	-	-	
5/3/04 13:15	30.14	-	10.4	15.6	0.7	-	-	-	
6/1/04 13:40	30.11	-	8.2	15.9	3.1	-	-	-	
7/6/04 15:20	30.10	-	9.9	21.6	0.1	-	-	-	
8/6/04 13:40	29.87	-	8.1	21.0	0.5	-	-	-	
9/10/04 11:27	29.95	-	10.5	21.9	0.2	-	-	-	
2/9/11 10:55	30.44	0.01	7.1	11.3	0.0	-	-	-	
5/22/13 13:00	29.82	-0.004	8.6	13.5	0.0	-	62.0	-	
6/18/13 12:23	29.81	0.00	9.9	14.9	0.0	75.8	0.0	-	
9/2/14 16:10	29.63	-	9.5	16.5	0.0	73.9	-	100.0	
10/13/14 17:00	29.53	0.04	14.5	15.9	0.0	69.5	-	100.0	
2/26/15 14:00	29.99	-0.01	1.3	5.9	2.0	-	-	-	
5/12/15 13:00	29.64	-	17.1	10.3	0.0	72.7	-	100.0	
12/17/15 12:33	29.69	0.00	23.6	16.2	0.0	60.2	0.0	100.0	
3/18/16 14:21	29.84	-	19.3	10.6	0.0	70.0	-	-	
5/11/16 11:03	30.01	-0.06	7.3	11.1	0.0	81.6	0.0	-	
6/13/16 15:10	29.92	-0.01	3.3	10.2	0.0	86.5	0.0	65.0	
9/26/16 9:20	29.95	0.00	2.3	11.5	0.0	86.6	0.0	45.0	
12/8/16 8:54	30.08	-0.20	5.3	9.5	0.0	85.1	0.0	-	
3/21/17 11:13	29.85	-1.668	0.0	0.3	21.1	78.6	-	-	
5/31/17 8:47	29.77	-0.36	0.2	6.4	0.0	93.4	0.0	4.0	
9/6/17 7:19	29.87	-0.08	0.0	8.7	7.5	83.8	-	-	
10/19/17 11:30	29.87	-0.08	1.4	10.3	0.0	88.1	0.0	29.0	

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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-27*	2/7/11 11:40	30.09	-0.01	6.1	7.8	0.9	-	-	-
	2/17/11 12:35	29.73	0.13	2.9	4.7	9.1	-	-	-
	2/21/11 12:30	29.90	0.10	3.1	4.8	9.1	-	-	-
	5/11/11 12:12	29.73	0.05	6.5	8.3	0.1	-	-	-
	5/25/11 0:00	29.68	-0.08	2.6	4.0	11.1	-	-	-
	6/27/11 0:00	29.69	0.12	6.3	8.9	0.0	-	-	-
	9/23/11 0:00	29.98	0.10	4.3	11.4	0.0	-	-	-
	11/17/11 0:00	29.76	-0.17	3.3	8.4	5.2	-	-	-
	12/28/11 0:00	29.92	0.0	6.0	11.9	0.0	-	-	-
	5/22/13 17:13	29.8	-	5.1	7.4	1.0	86.5	30.0	-
	6/25/14 12:45	29.79	-	0.6	6.9	6.4	86.2	30.0	7.0
	9/2/14 13:30	29.69	-	1.5	12.7	0.0	85.8	-	29.0
	10/13/14 10:05	29.73	-0.025	2.1	13.4	0.0	-	-	29.0
	11/6/14 14:18	29.85	0.027	1.5	12.8	0.0	-	-	-
	2/26/15 9:00	30.16	0.000	0.0	5.0	10.8	-	-	-
	5/12/15 9:25	29.69	0.000	0.6	10.4	0.0	88.9	-	-
	12/17/15 9:20	29.79	-0.050	0.9	12.5	0.0	86.5	-	18.0
	3/18/16 10:24	30.01	-	0.4	9.8	0.0	89.7	20.0	1.0
	6/13/16 12:09	29.95	-	0.1	11.8	0.0	88.1	0.0	0.0
	9/26/16 11:22	29.93	0.005	0.0	14.0	0.0	86.0	0.0	0.0
12/8/16 10:49	30.05	0.009	0.5	15.5	0.0	84.0	0.0	-	
3/21/17 10:00	29.51	0.191	0.0	10.1	0.0	89.9	-	-	
6/2/17 11:39	29.99	0.428	0.0	9.5	0.0	90.5	0.0	0.0	
9/6/17 10:12	29.82	0.116	0.0	14.3	0.0	85.5	-	-	
10/19/17 13:45	29.82	0.116	0.0	15.6	0.0	84.4	0.0	0.0	
GP-28*	2/7/11 13:30	30.11	0.01	0.0	3.1	8.1	-	-	-
	2/21/11 12:45	29.89	0.10	0.0	2.0	15.3	-	-	-
	5/11/11 10:50	29.73	0.05	0.5	5.4	0.4	-	-	-
	5/25/11 0:00	29.70	-0.05	0.6	3.1	11.7	-	-	-
	6/27/11 0:00	29.70	0.06	2.8	7.7	0.0	-	-	-
	9/23/11 0:00	29.99	0.06	0.2	8.9	2.8	-	-	-
	11/17/11 0:00	29.73	-0.19	0.1	8.9	4.2	-	-	-
	12/28/11 0:00	29.94	-0.01	0.0	6.2	4.9	-	-	-
	5/22/13 17:01	29.8	0	0.1	5.6	0.2	94.1	5.0	2.0
	6/25/14 12:55	29.79	-	0.0	6.8	0.4	92.5	6.0	0.0
	9/2/14 13:45	29.67	-	0.0	11.1	0.9	88.0	-	0.0
	10/13/14 0:00	29.71	0.004	0.0	11.0	0.0	88.9	-	0.0
	11/6/14 14:01	29.85	0.026	0.2	6.4	0.4	-	-	-
	2/26/15 8:51	30.16	0	0.0	1.7	11.8	-	-	-
	5/12/15 9:15	29.69	0	0.1	3.2	7.4	89.0	-	0.0
	12/17/15 9:39	29.79	0.003	0.0	1.5	12.0	86.5	0.0	0.0
	3/18/16 10:38	30.01	-	0.0	2.0	12.7	85.2	21.0	0.0
	6/13/16 11:58	29.95	-	0.0	5.0	9.3	85.6	0.0	0.0
	9/26/16 11:47	29	0	0.0	7.2	6.5	86.2	0.0	0.0
	12/8/16 11:05	30.05	0	0.1	3.9	6.9	89.0	0.0	1.0
3/21/17 14:01	29.76	0.039	0.0	1.0	14.3	84.6	-	-	
6/2/17 11:59	29.99	-0.06	0.0	2.6	9.4	87.8	0.0	0.0	
9/6/17 10:27	29.79	0	0.0	7.4	6.9	85.5	-	-	
10/19/17 13:57	29.79	0	0.0	7.8	6.6	85.5	0.0	0.0	



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Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-29*	2/7/11 14:35	30.10	0.06	7.1	12.5	0.0	-	-	-
	2/21/11 13:00	29.89	0.09	3.6	6.9	9.0	-	-	-
	5/11/11 0:00	29.73	-0.03	6.9	12.2	0.3	-	-	-
	5/25/11 0:00	29.7	-0.06	2.4	4.1	12.6	-	-	-
	6/27/11 0:00	29.68	0.11	8.5	13.1	0.0	-	-	-
	9/23/11 0:00	29.99	0.03	7.2	14.2	0.0	-	-	-
	11/17/11 0:00	29.73	-0.22	7.1	12.2	3.7	-	-	-
	12/28/11 0:00	29.95	-0.11	8.1	15.1	0.0	-	-	-
	5/22/13 16:48	29.8	-	7.9	12.5	0.0	-	41.0	-
	6/25/14 13:20	29.79	-	6.6	12.8	0.0	80.4	-	-
	9/2/14 14:10	29.67	-	8.1	16.6	0.5	74.9	-	100.0
	10/13/14 10:55	29.71	0.003	8.5	16.9	0.0	-	-	100.0
	11/6/14 13:39	29.85	-0.047	8.9	14.9	0.0	-	-	-
	1/28/15 14:00	30.03	-	1.0	14.9	0.0	-	-	-
	2/26/15 8:04	30.16	0	1.4	13.3	0.0	-	-	-
	2/26/15 13:41	29.99	0	1.0	9.9	28.0	-	-	-
	5/12/15 9:01	29.69	0	4.9	14.3	0.0	80.8	-	99.0
	11/17/15 0:00	29.58	0	10.6	16.5	0.0	72.8	-	100.0
	12/17/15 10:44	29.73	0	6.2	12.4	0.4	80.8	0.0	100.0
	2/17/16 9:34	29.36	0.000	2.9	12.2	0.0	84.8	0.0	-
	3/1/16 10:20	29.63	0.000	1.3	10.6	0.0	87.9	0.0	-
	3/18/16 10:51	30.02	-	1.7	11.2	0.0	87.0	13.0	13.0
	4/13/16 12:20	30.01	0.000	2.2	9.2	0.0	88.5	0.0	0.0
	5/11/16 12:00	30.01	0.000	1.2	12.2	0.0	86.6	0.0	-
	6/13/16 11:42	29.95	-	0.4	16.1	0.0	83.4	0.0	8.0
	9/26/16 12:26	29.93	-0.009	0.0	15.5	0.0	84.4	0.0	0.0
12/8/16 13:00	29.97	0.000	3.4	17.3	0.0	79.3	1.0	67.0	
3/21/17 9:45	29.67	-0.047	0.9	15.1	0.1	83.8	-	-	
6/2/17 12:30	29.97	-0.038	0.0	147.0	0.1	85.9	0.0	0.0	
9/6/17 10:40	29.78	-0.031	0.0	0.4	20.0	79.6	-	-	
10/19/17 14:18	29.78	-0.031	0.2	18.6	0.0	81.1	-	6.0	
GP-30*	5/11/11 10:01	29.74	0.02	0.0	0.1	20.2	84.4	293.0	0.0
	6/25/14 13:30	29.79	0.00	0.0	2.6	13.0	-	-	-
	9/2/14 14:00	29.67	-	0.0	0.3	21.4	78.6	-	0.0
	10/13/14 11:25	29.71	0	0.0	0.1	20.4	79.4	-	0.0
	2/26/15 11:17	30.1	0.07	0.0	0.2	21.3	-	-	-
	5/12/15 9:20	29.69	0	0.1	0.2	21.0	78.6	-	2.0
	12/17/15 0:00	29.69	-	-	-	-	-	-	-
9/6/17 1:31	-	-	-	0.0	18.2	20.1	82.0	-	-
GP-31*	5/11/11 9:22	29.75	0.02	0.0	0.1	19.9	-	-	-
	5/25/11 0:00	29.72	-0.05	0.0	0.1	20.30	-	-	-
	6/27/11 0:00	29.72	0.08	0.0	9.6	6.60	-	-	-
	9/23/11 0:00	29.97	0.05	0.0	14.7	4.40	-	-	-
	11/17/11 0:00	29.61	-0.42	0.0	10.4	7.50	-	-	-
	12/28/11 0:00	29.56	-0.22	0.0	8.0	3.70	-	-	-
	5/22/13 18:18	29.8	-	0.1	0.2	21.5	78.0	12.0	2.0
	6/25/14 13:45	29.79	-	0.0	1.0	17.8	80.5	-	-
	9/2/14 14:40	29.67	-	0.0	11.6	7.2	81.9	-	0.0
	10/13/14 11:55	29.71	0.01	0.0	13.5	4.9	81.4	-	0.0
	2/26/15 11:00	30.1	0.005	0.0	0.5	20.8	-	-	-
	5/12/15 13:10	29.63	0	0.2	9.8	9.0	80.9	-	4.0
	12/17/15 11:40	29.7	-	0.8	0.0	19.9	80.9	0.0	4.0
	3/18/16 11:10	30.02	-	0.0	0.5	20.9	78.6	9.0	0.0
	6/13/16 14:20	29.93	0	0.1	16.2	4.1	79.5	0.0	2.0
	9/26/16 13:25	29.88	0.003	0.0	12.8	5.4	81.6	0.0	0.0
	12/8/16 13:20	29.97	-0.039	0.2	1.1	21.9	76.8	0.0	-
3/21/17 10:25	29.51	0.043	0.0	0.3	21.2	78.4	-	-	
6/2/17 12:45	29.98	0.151	0.0	0.8	10.9	81.1	0.0	0.0	
10/19/17 14:32	29.47	0.004	0.0	14.6	5.1	80.3	0.0	0.0	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-32*	9/2/14 16:20	29.63	-	0.0	0.1	20.8	79.0	-	0.0
	10/13/14 13:40	29.63	-	0.0	0.0	20.6	79.4	-	0.0
	2/26/15 10:40	30.1	0	0.0	0.2	20.9	-	-	-
	5/12/15 13:25	29.63	0	0.3	0.1	21.5	77.9	-	6.0
	12/17/15 11:36	29.7	-	0.0	0.2	22.5	77.3	-	6.0
	3/18/16 11:00	-	-	-	-	-	-	-	-
	6/13/16 16:25	29.91	-	-	-	-	-	-	-
	9/26/16 13:58	29.86	-0.815	0	0	21.4	78.5	-	0
	12/8/16 13:55	-	-	-	-	-	-	-	-
	3/21/17 10:50	29.51	0.547	0.0	0.5	20.8	78.5	-	-
	6/2/17 8:00	30.01	-0.057	0.0	0.3	21.6	78.0	0.0	0.0
	9/6/17 12:39	29.76	-0.047	0.0	0.5	20.1	79.3	-	-
	10/19/17 16:00	29.76	-0.047	-	-	-	-	-	-
GP-33	5/22/13 12:24	29.84	-0.15	1.5	11.7	3.3	83.5	293.0	29.0
	6/18/13 11:49	29.82	0	0.0	12.8	5.0	82.1	0.0	0.0
	6/19/13 11:43	29.01	-0.004	0.0	13.7	4.3	81.9	0.0	0.0
	6/25/14 16:10	29.72	0.018	0.0	13.7	1.2	85.0	0.0	0.0
	10/13/14 17:00	29.55	-0.013	4.9	16.5	0.0	78.7	-	97.0
	11/6/14 16:24	29.93	0.033	0.0	1.2	18.9	-	-	-
	2/26/15 13:25	30	0.014	0.0	7.2	3.5	-	-	-
	5/12/15 12:10	29.63	0	7.6	6.5	10.3	75.3	-	100.0
	12/17/15 12:20	29.69	-0.07	18.7	3.8	0.1	77.4	0.0	100.0
	3/18/16 9:15	30.03	-	19.8	7.0	0.0	73.1	4.0	-
	3/18/16 14:00	-	-	18.2	5.5	0.0	76.2	-	-
	4/13/16 11:55	30.01	0.059	22.0	11.3	0.0	66.6	-	-
	5/11/16 10:46	30.06	-0.05	4.6	9.7	0.0	85.6	10.0	-
	6/13/16 15:25	29.92	-0.03	0.0	1.4	20.4	78.1	9.0	0.0
	6/28/16 11:18	30.09	-0.033	0.1	10.6	0.8	88.4	-	-
	9/26/16 9:05	29.95	-0.019	0.0	10.6	0.1	89.3	0.0	0.0
	12/8/16 8:40	30.08	0.023	4.5	4.6	0.0	90.9	0.0	90.0
	3/21/17 10:12	29.67	0.023	3.5	3.0	2.6	90.7	-	-
5/31/17 0:00	-	-	0.0	2.6	8.6	88.7	-	0.0	
9/6/17 7:56	29.87	-0.265	0.8	10.3	0.0	88.7	-	-	
10/19/17 11:30	29.87	-0.265	0.0	10.0	1.6	88.4	0.0	0.0	
GP-34	5/22/13 13:54	29.81	0.005	22.0	9.2	0.0	-	395.0	-
	6/18/13 8:21	29.77	0.004	12.1	10.1	0.0	77.7	0.0	-
	6/25/14 10:40	29.83	0.025	13.7	8.7	0.0	77.8	0.0	-
	9/2/14 15:40	29.63	0.005	11.6	11.1	0.0	77.3	-	100.0
	10/13/14 0:00	29.55	0.045	11.9	11.2	0.0	76.9	-	100.0
	2/26/15 12:40	29.99	0.033	1.5	12.8	0.0	-	-	-
	5/12/15 10:45	29.69	-0.011	25.7	11.5	0.0	63.0	-	100.0
	12/17/15 0:00	29.69	-	-	-	-	-	-	-
	5/11/16 11:12	30.06	-0.877	4.7	15.2	0.0	NM	7.0	-
	6/13/16 14:35	29.92	-0.502	1.1	18.8	0.0	80.1	17.0	0.0
	9/26/16 9:58	29.93	-0.003	1.5	19.0	0.0	79.5	66.0	29.0
	12/8/16 9:30	30.05	0.05	6.9	20.0	0.0	73.1	0.0	-
	3/21/17 12:06	29.78	0.036	1.3	14.3	0.0	84.4	-	-
5/31/17 9:35	29.76	-0.076	0.0	16.2	0.0	83.7	0.0	0.0	
9/6/17 8:16	29.87	0.035	0.0	21.3	0.0	78.6	-	-	
GP-35	5/22/13 14:31	29.81	0	3.4	4.7	0.0	-	600.0	70.0
	6/18/13 14:04	29.79	0.006	1.0	4.6	0.0	94.3	0.0	20.0
	6/19/13 8:32	29.81	-0.006	1.6	5.4	0.6	92.4	0.0	30.0
	6/25/14 11:05	29.82	0.022	1.7	4.0	0.0	94.0	0.0	34.0
	9/2/14 10:45	29.71	0.008	4.1	4.9	0.0	90.9	-	81.0
	10/13/14 14:20	29.6	0.02	5.4	5.1	0.0	89.4	-	100.0
	11/6/14 17:02	29.93	-0.041	6.7	5.2	0.0	-	-	-
	2/26/15 12:28	30.1	0	0.9	5.0	0.0	-	-	-
	5/12/15 10:15	29.69	0	2.1	4.9	0.0	93.0	-	41.0
	12/17/15 14:10	29.63	-0.003	9.5	5.3	0.0	85.1	0.0	100.0
	3/18/16 0:00	29.91	-	10.8	4.1	0.0	85.0	-	-
	5/11/16 11:37	30.01	-0.02	8.8	10.1	0.0	81.1	0.0	-
	6/13/16 12:34	29.92	-0.003	4.2	13.4	0.0	8.3	0.0	83.0
	9/26/16 10:15	29.93	-0.005	1.4	12.4	0.0	86.2	0.0	2.0
	12/8/16 9:52	30.05	0.016	3.8	12.4	0.0	83.7	1.0	76.0
	3/21/17 12:52	29.76	0.034	3.0	11.5	0.0	88.4	-	-
5/31/17 10:00	29.77	-0.067	0.0	11.8	0.0	88.2	0.0	0.0	
9/6/17 8:47	29.84	0.051	0.0	13.9	0.8	85.0	-	-	
10/19/17 12:50	29.84	0.051	0.1	16.0	0.0	83.7	0.0	4.0	

**Table 1**  
**Perimeter Probe Compliance Monitoring Data**  
**South Park Landfill Site**  
**Seattle, Washington**  
**Farallon PN: 408-002**

Monitoring Location	Start Date and Time	Barometric (in. Hg)	Well Head Pressure (in. H <sub>2</sub> O)	LFG Monitoring Parameters			Balance Gas (% Volume)	CO (ppm)	LEL (% CH <sub>4</sub> )
				CH <sub>4</sub> (% Volume)	CO <sub>2</sub> (% Volume)	O <sub>2</sub> (% Volume)			
GP-36	5/22/13 16:05	29.81	0	0.5	13.4	0.0	-	173.0	12.0
	6/18/13 16:01	29.76	-0.004	0.0	15.0	0.4	84.5	0.0	0.0
	6/19/13 13:10	29.77	-0.006	0.0	15.8	0.6	83.5	0.0	0.0
	6/25/14 11:45	29.82	0.019	0.8	13.8	0.0	85.4	0.0	15.0
	9/2/14 11:35	29.72	0.8	2.2	17.1	0.0	80.7	-	44.0
	10/13/14 14:40	29.6	0.026	4.6	18.9	0.0	76.5	-	91.0
	2/26/15 12:05	30.1	-0.005	0.6	14.8	0.0	-	-	-
	5/12/15 9:50	29.69	0	4.7	14.5	0.0	80.7	-	-
	12/17/15 14:40	29.63	0	2.6	3.9	0.0	80.0	0.0	52.0
	3/18/16 12:29	29.86	0.015	0.0	0.0	19.9	79.9	-	-
	6/13/16 0:00	29.93	0	0.1	0.5	20.6	78.8	0.0	0.0
	9/26/16 10:46	29.93	0.018	0.0	0.0	20.2	79.8	0.0	0.0
	12/8/16 10:23	30.05	0	0.0	0.6	20.7	78.5	0.0	-
	3/21/17 13:17	29.76	0.034	0.0	0.5	19.5	80.4	-	-
	5/31/17 11:00	29.76	-5.134	0.0	0.4	19.8	79.7	0.0	0.0
9/6/17 9:24	29.82	-8.687	0.0	0.3	19.0	80.6	-	-	
10/19/17 13:18	29.82	-8.687	0.0	0.4	19.0	80.3	0.0	0.0	
MH-1 (2 ft below rim)	5/22/13 18:28	29.8	-	0.2	0.1	21.3	78.2	36.0	3.0
MH-1 (4 ft below rim)	5/22/13 18:28	29.8	-	0.2	0.0	21.8	77.9	0.0	2.0
MH-1 (6 ft below rim)	5/22/13 18:28	29.8	-	0.1	0.0	21.7	77.9	0.0	2.0
MH-1 (3ft Below rim)	10/13/14 0:00	29.6	-	0.0	0.4	20.3	79.2	-	2.0
MH-1 (4 ft below rim)	3/18/16 15:35	-	-	0.0	0.6	21.0	-	-	-
MH-1 (3ft Below rim)	6/13/16 16:50	-	-	0.0	0.0	20.6	-	-	-
MH-2 (2ft)	5/22/13 18:01	29.8	-	0.2	0.1	20.6	78.4	4.0	3.0
	6/25/14 15:40	29.72	-	0.0	0.0	20.3	79.6	0.0	0.0
	3/18/16 15:30	29.82	-	0.0	0.1	21.3	78.6	-	-
<b>Screening Level</b>				<b>5.0</b>	NA	NA	NA	NA	100

**NOTES:**  
Results in **bold** denote that monitoring results are equal to or exceed the Lower Explosive Limit.  
- denotes no data available.  
\* denotes Compliance Probes as listed in the SPPD Property Landfill Gas Collection and Control System Operation, Maintenance, and Monitoring Plan, South Park Landfill Site, Seattle, Washington dated June 7, 2016, prepared by Farallon Consulting, L.L.C.

% = percent  
CH<sub>4</sub> = methane  
CO = carbon monoxide  
CO<sub>2</sub> = carbon dioxide  
H<sub>2</sub>O = water  
Hg = mercury  
in. = inches  
LEL = lower explosive limit  
LFG = landfill gas  
O<sub>2</sub> = oxygen  
ppm = parts per million

**ATTACHMENT A**  
**PUGET SOUND CLEAN AIR AGENCY EXEMPTION LETTER**

LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
INTERIM ACTION SUMMARY REPORT—2017

SPPD Property  
South Park Landfill Site  
Seattle, Washington

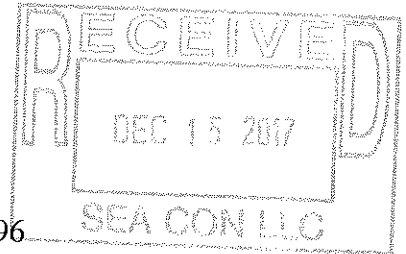
Farallon PN: 408-002

December 4, 2017

Clean healthy air for  
everyone, everywhere,  
all the time.

Robert Howie  
South Park Property Development  
7958 Occidental Ave. S.  
Seattle, WA 98108

Dear Mr. Howie:



Facility Registration No. 30096  
Notice of Construction No. 11463  
Exemption from NOC Requirements

**Board of Directors**

**Bremerton**  
Patty Lent, Mayor

**Everett**  
Ray Stephanson, Mayor  
Paul Roberts, Board Chair

**King County**  
Dow Constantine, Executive

**Kitsap County**  
Edward Wolfe, Commissioner

**Pierce County**  
Pat McCarthy, Executive

**Public-at-Large**  
Stella Chao

**Seattle**  
Ed Murray, Mayor

**Snohomish County**  
Dave Somers, Councilmember

**Tacoma**  
Ryan Mello, Councilmember

**Executive Director**  
Craig T. Kenworthy

**Phone**  
206.343.8800  
800.552.3565

**Fax**  
206.343.7522

**Mail**  
1904 Third Avenue, Suite 105  
Seattle, WA 98101-3317

We have reviewed your 8/18/17 request for a landfill gas collection and control system.

The Puget Sound Clean Air Agency (Agency) concludes that this project does not require a Notice of Construction permit. This determination is made under the authority of Agency Regulation I Section 6.03(b)(10). This section exempts "Any source not otherwise exempt under Section 6.03(c) of this regulation that has been determined through review of a Notice of Construction application by the Control Officer not to warrant an Order of Approval because it has a de minimis impact on air quality and does not pose a threat to human health or the environment."

If you have any questions about this determination, please contact me at 206-689-4061.

Sincerely,



Carole Cenci, P.E.  
Compliance Manager

CJC:ns

cc: Ralph Munoz