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

TO: Jerome Cruz—Washington State Department of Ecology

cc: Rob Howie—South Park Property Development, L.L.C.
Sheila Strehle—Seattle Public Utilities
Jeff Neuner—Seattle Public Utilities
Joe Hicker—King County
Clifford T. Schmitt—Farallon Consulting, L.L.C.

FROM: Thaddeus J. Cline, P.E., L.G., L.H.G., Principal Civil Engineer/Hydrogeologist

DATE: May 10, 2016

RE: **LANDFILL GAS COLLECTION AND CONTROL SYSTEM
INTERIM ACTION PROGRESS REPORT—2015
SPPD PROPERTY
SOUTH PARK LANDFILL SITE
SEATTLE, WASHINGTON
FARALLON PN: 408-002**

Farallon Consulting, L.L.C. (Farallon) has prepared this interim action landfill gas collection and control system (LFGCCS) progress report for calendar year 2015 on behalf of South Park Property Development, L.L.C. (SPPD) to satisfy the requirements for annual interim action progress reporting for the SPPD LFGCCS specified in *Interim Action Work Plan, South Park Landfill Site, Seattle, Washington* dated February 22, 2013, prepared by Farallon for SPPD (IAWP) and one of its Appendices: *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). Annual interim action progress reporting that documents periodic inspections and repairs of the landfill capping and stormwater control elements of the interim action in calendar year 2015 will be provided separately.



BACKGROUND

An interim action, consisting of landfill gas control, surface water control, landfill capping, and institutional controls, was conducted under terms of an amendment to Agreed Order No. 6706 and the Washington State Model Toxics Control Act (MTCA) Cleanup Regulation 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 IAWP attached as Exhibit E, was executed by Seattle Public Utilities, SPPD, and the Washington State Department of Ecology (Ecology), with an effective date of June 6, 2013. The Interim Action was conducted to reduce the threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to hazardous substances at a 19.4-acre portion of the closed 39-acre South Park Landfill (King County 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 mixed municipal solid waste (MMSW) extends beneath parts of City of Seattle street rights-of-way along 5th 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 was conducted in advance of cleanup of the South Park Landfill MTCA site, 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, or as the South Park Landfill Property in other documents prepared, or being prepared, by others. SPPD and the City of Seattle were identified by Ecology as potentially liable persons (PLPs) for the South Park Landfill Site. On November 30, 2015, the PLPs submitted to Ecology the draft *South Park Landfill Cleanup Action Plan* dated November 2015, prepared by Aspect Consulting, Herrera, and Floyd|Snider for the City of Seattle and SPPD, which applies to the South Park Landfill Site as a whole.

SUMMARY OF CONSTRUCTION AND 2015 OPERATIONS

This report summarizes LFGCCS operation, compliance monitoring, and mitigation activities over the course of calendar year 2015 and since issuing *Interim Action Construction Completion Report, South Park Landfill Site, Seattle, Washington* dated August 14, 2015, prepared by Farallon for SPPD. The interim action construction completion report includes compliance monitoring data for landfill gas probes collected through August 2014 as well as as-built information for construction elements of the Interim Action.

As documented in the interim action construction completion report, 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 MMSW disposed of at the Interim Action Area.



The LFGCCS extracts landfill gas from a system of 77 horizontal and vertical landfill gas collectors with a 10-horsepower blower and was run at start-up with an extraction rate for the system of 220 standard cubic feet per minute (scfm) under a vacuum of 3.5 inches of water. As described in *Engineering Design Report Landfill Gas Collection and Control System, South Park Landfill Site, Seattle, Washington* dated June 19, 2015, prepared by Farallon for SPPD, the design extraction rate was up to about 5 scfm per collector. Based on computer modeling, the methane generation rate for the MMSW disposed at the Interim Action Area was estimated to be about 15 scfm in 2014, diminishing to about 6 scfm by 2034.

No equipment has been installed to treat LFGCCS emissions. Farallon sampled LFGCCS emissions on December 9, 2015, and discussions are ongoing with the Puget Sound Clean Air Agency regarding the need for treatment of LFGCCS emissions. A technical memorandum regarding *Landfill Gas Control System Emissions Sampling, SPPD Property, South Park Landfill Site, Seattle, Washington* dated January 20, 2016, prepared by Farallon for Claude Williams of Puget Sound Clean Air Agency concludes that emissions treatment is not necessary and that a Notice of Construction Application is not required (Attachment A).

Since December 2014, the LFGCCS has been in a start-up phase that included iterative field events to adjust landfill gas collector extraction rates for balanced long-term operations and to monitor LFGCCS responses. Adjustments since December 2014 considered progress of installation of the landfill cap occurring in 2014 in southern parts of the Interim Action Area and in early 2015 in the northern part.

Monitoring per the IACMP since start-up indicates that the LFGCCS can control methane to meet the LFGCCS Minimum Functional Standards (MFS)¹ operational goal². The LFGCCS is being periodically adjusted to satisfy IACMP compliance monitoring criteria³ established for Perimeter

¹ As established in Chapter 173-304 of the Washington Administrative Code (WAC 173-304), Minimum Functional Standards for Solid Waste Handling and as defined in WAC 173-304-460 and King County Board of Health Title 10 regulations.

² The primary operational goal of the LFGCCS is to protect human health and the environment by achieving MFS. The principal migration criteria per the MFS and relevant to the whole of the South Park Landfill Site include the following: 1) methane concentrations in soil at the boundary of the MMSW must not exceed 5 percent by volume, the lower explosive limit (LEL) for methane; 2) methane concentrations inside buildings and structures on the landfill must not exceed 1.25 percent by volume, or 25 percent of the LEL; and 3) methane concentrations inside buildings and structures off the landfill must not exceed 100 parts per million volume (0.01 percent by volume and 0.2 percent of the LEL).

³ IACMP compliance monitoring criteria to be 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.



Probes⁴ identified in the IACMP based on levels of residual nitrogen⁵ in LFGCCS collectors, which tend to rise above normally accepted levels when the LFGCCS extraction rate is too high, and based on methane concentrations in Perimeter Probes, which tend to rise when the LFGCCS extraction rate is too low.

Between March and December 2015, LFGCCS adjustments generally have been to reduce extraction rates at landfill gas collectors to mitigate elevated residual nitrogen levels in the Interim Action Area. The LFGCCS extraction rate was throttled downward in all landfill gas collectors to considerably below design rates in order to reduce residual nitrogen levels in the Interim Action Area. One of the two system blowers was retrofitted with a slower pulley set in October 2015 and with a timer in November 2015, allowing intermittent operation to further reduce the volume extracted over the course of a 24-hour period. Intermittent operation occurred between November 2015 and March 2016, which entailed a 1.1-hour blower-on cycle at 14 scfm and a 1.9-hour blower-off cycle that occurred eight times per day, resulting in an LFGCCS extraction rate for the whole system over a 24-hour period equivalent to the estimated approximate daily methane generation rate for the MMSW within the Interim Action Area over a 24-hour period. Since December 2015, valving in landfill gas collectors along the west side of 5th Avenue South has been re-opened to reestablish methane control on the east side of 5th Avenue South. Also since December 2015, valving in a landfill gas collector in the northwestern part of the Interim Action Area has been opened further to further control methane in this area. Since March 1, 2016, the LFGCCS has been operating continuously at a low extraction rate of about 10 scfm for the whole system. The LFGCCS continues to require frequent monitoring and adjustment; however, start-up is considered to be complete.

Per the IACMP, compliance landfill gas monitoring includes sampling landfill gas in a system of 20 landfill gas Perimeter Probes within and outside of the perimeter of the Interim Action Area along 5th 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 on their being within, or within about 200 feet of, the Interim Action Area. Sampling methodology was described in the

⁴ The IACMP lists 20 Perimeter Probes selected for landfill gas monitoring, which are shown in Figure 2 and Attachment B. Some of the Perimeter Probes are completed within the MMSW, and some are outside the MMSW and better suited for evaluating landfill gas migration from the Interim Action Area. As described in the text of this report, since issuing the IACMP, 11 of the 20 Perimeter Probes were selected as best suited for evaluating methane concentrations relative to compliance monitoring criteria (Compliance Probes).

⁵ 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. The resulting percent concentration is considered residual nitrogen. Increasing extraction rate in a landfill gas collector will result in a reduction of methane levels, but residual nitrogen may increase. Experience has shown that 20 percent residual nitrogen is a safe, stable landfill gas control system operational parameter that will not induce aerobic decomposition, increasing the risk for accelerated differential settlement of the land surface and/or combustion in buried solid waste. If necessary to control migrating methane, residual nitrogen up to 30 percent can be managed with monitoring.



IACMP. Perimeter Probe methane monitoring data collected to date are presented in Attachment B, which also includes a map showing the locations of the Perimeter Probes in relation to landfill gas collectors, the Interim Action Area, and the boundary of the South Park Landfill.

Some of the Perimeter Probes are completed in MMSW and some are outside the MMSW. Perimeter Probes completed outside the MMSW are better suited for evaluating landfill gas migration from the Interim Action Area, as they are not constructed in material generating landfill gas. Since issuing the IACMP, 11 of the 20 Perimeter Probes were selected as Compliance Probes. Listed in counter-clockwise order starting at the northwestern corner of the SPPD Property, the Compliance Probes are GP-11, GP-13, GP-03, GP-32, GP-15, GP-31, GP-30, GP-16, GP-29, GP-28, and GP-27. Four Compliance Probes are completed within, but near the edge of, MMSW. These four Compliance Probes, listed in counter-clockwise order starting along South Sullivan Street south of the SPPD Property, are GP-32, GP-29, GP-28, and GP-27. The presence of some MMSW at these Compliance Probes is considered when evaluating methane data. Compliance Probes also are used by PLPs for landfill gas compliance monitoring purposes for the South Park Landfill Site. Methane concentrations in Compliance Probes are compared to compliance monitoring criteria described above, which can trigger making adjustments to the LFGCCS.

The remaining nine Perimeter Probes identified in the IACMP are completed in the interior of the South Park Landfill, within MMSW, and are monitored to collect data from the perimeter of the Interim Action Area and to inform operation of the LFGCCS. Listed in counter-clockwise order starting at the southeastern corner of the SPPD Property, these nine Perimeter Probes are GP-17, GP-19, GP-36, GP-20, GP-35, GP-34, GP-21, GP-22, and GP-33.

Methane concentrations in Compliance Probes along Occidental Avenue South and South Sullivan Street, outside the Interim Action Area and outside the South Park Landfill Property, are low or non-detect and do not exceed the compliance monitoring criterion regarding methane in landfill gas probes. 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 toward areas where there are buildings (i.e., along 5th Avenue South). Methane concentrations in Compliance Probes along 5th Avenue South along the edge of the South Park Landfill and outside the Interim Action Area are controlled by the LFGCCS, and most recent data indicate that concentrations are less than the 5 percent by volume LEL for methane.

Methane historically has been detected at concentrations exceeding the LEL in Compliance Probe GP-29 on the eastern side of 5th Avenue South. Compliance Probe GP-29 was installed within MMSW at the boundary of the South Park Landfill. Methane concentrations in Compliance Probe GP-29 decreased to 1.0 percent when the LFGCCS was aggressively operated on the west side of 5th Avenue South in early 2015. When landfill gas collectors on the western side of 5th Avenue South were throttled downward to control residual nitrogen levels in the Interim Action Area later in 2015, the methane concentration in Compliance Probe GP-29 increased and was measured just less than the LEL in May 2015 and as high as 10.3 percent in December 2015. The methane concentration in Compliance Probe GP-29 was measured at 1.3 percent on March 1, 2016, after valving of landfill gas collectors along the west side of 5th Avenue South was further opened in



December 2015, and at 1.7 percent on March 18, 2016, slightly exceeding the 1.5 percent compliance monitoring criterion.

Methane concentrations in Perimeter Probe GP-33 were less than the LEL and frequently non-detect during landfill gas monitoring events prior to re-development of the SPPD Property. Methane has been detected above the LEL in Perimeter Probe GP-33 since May 2015 and after the landfill cap was completed in the northwestern part of the SPPD Property in April 2015. Perimeter Probe GP-33 is not considered a Compliance Probe as it is installed within the boundary of the South Park Landfill in MMSW. However, Perimeter Probe GP-33 is located near the boundary of the Interim Action Area proximate to an adjacent land parcel where no MMSW is known to occur. Until March 2016, landfill gas collectors in the northwestern part of the Interim Action Area were operated at very low extraction rates as part of the effort to minimize residual nitrogen levels within the Interim Action Area. In March 2016, landfill gas collector valving in the northwestern part of the Interim Action Area was opened for increased methane control in the area around Perimeter Probe GP-33. Results of future landfill gas monitoring will enable evaluation of the effectiveness of methane control in the northwest part of the Interim Action Area.

Methane has been frequently detected above the LEL in Perimeter Probes completed within MMSW and along the northern boundary of the Interim Action Area and along the shared property line with adjacent properties north of the Interim Action Area that are also situated within the South Park Landfill. A general increasing trend was noted in methane concentrations in some Perimeter Probes along the northern boundary of the Interim Action Area following construction of the Interim Action landfill cap. Landfill gas collector valving in this area is currently throttled downward to reduce residual nitrogen levels in the Interim Action Area and therefore methane concentrations are relatively high in Perimeter Probes along the northern boundary of the Interim Action Area. Since these Perimeter Probes are interior to the South Park Landfill and are completed in MMSW, the existing conditions are considered acceptable at this time. These Perimeter Probes will continue to be monitored and results shared with other PLPs and included in future annual LFGCCS progress reporting. It is anticipated that methane control in the northern part of the Interim Action Area and in the interior of the South Park Landfill will be improved when landfill gas control systems are installed on adjacent parcels within the South Park Landfill Site. As possible, the LFGCCS will be adjusted in the future to more effectively control methane in this area, once residual nitrogen levels stabilize below the compliance monitoring criterion within the Interim Action Area. Landfill gas probes to be used for landfill gas compliance monitoring for the cleanup action for the South Park Landfill Site as a whole will be identified in the final Cleanup Action Plan for the South Park Landfill Site.

PLANNED 2016 OPERATIONS

The LFGCCS will be operated in 2016 so as to maintain compliance with the operational goal and compliance monitoring criteria focusing on lowering levels of residual nitrogen in the Interim Action Area and on maximizing methane control along 5th Avenue South (Compliance Probe GP-29) and in the northwestern part of the Interim Action Areas (Perimeter Probe GP-33). Valving



on landfill gas collectors in these areas currently is fully opened with a LFGCCS extraction rate for the system of about 10 scfm. To enable higher extraction rates in particular landfill gas collectors without increasing the LFGCCS extraction rate for the whole system, retrofits of pipe assemblies in the control boxes of landfill gas collectors closest to Compliance Probe GP-29 and Perimeter Probe GP-33 were conducted during the first week of May 2016. The retrofits entailed replacing one-inch diameter piping with three-inch diameter piping which will substantially increase extraction rates in these collectors. Control valves were fully opened for the retrofitted collectors and LFGCCS vacuum was increased slightly as well. If residual nitrogen levels can be effectively managed within the Interim Action Area, the LFGCCS will be adjusted in 2016 to reduce methane concentrations in Perimeter Probes constructed within MMSW along the northern boundary of the Interim Action Area, and it will be evaluated whether methane concentrations can be maintained in this area at less than the LEL without causing elevated residual nitrogen concentrations in the Interim Action Area. Methane concentrations along the northern part 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.

Attachments: *Figure 1, Vicinity Map*

Figure 2, Property Map

Attachment A, Puget Sound Clean Air Agency Technical Memorandum

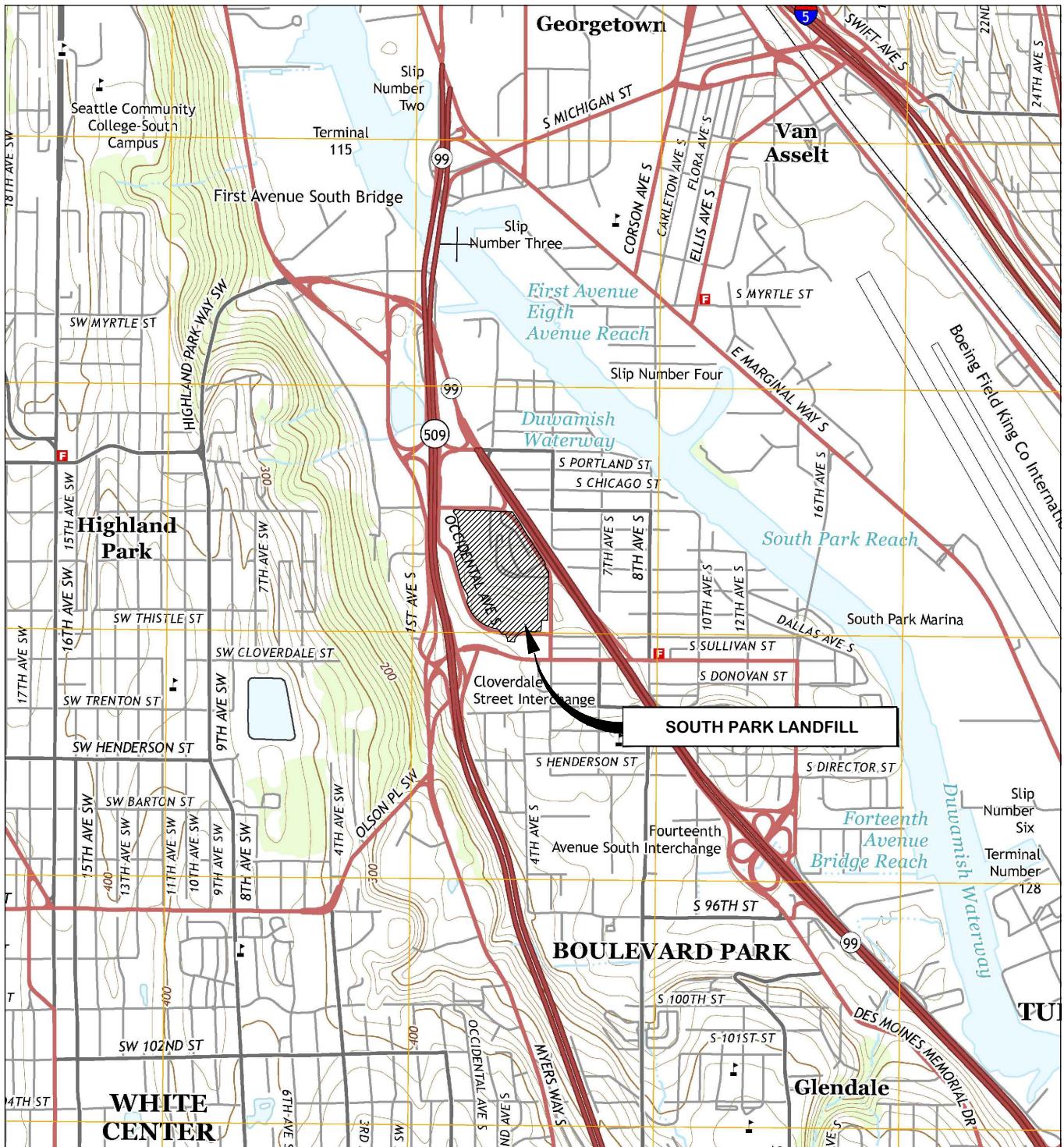
Attachment B, Perimeter Probe Methane Monitoring Data

TJC:tlc

FIGURES

LANDFILL GAS COLLECTION AND CONTROL SYSTEM
SPPD Property
South Park Landfill Site
Seattle, Washington

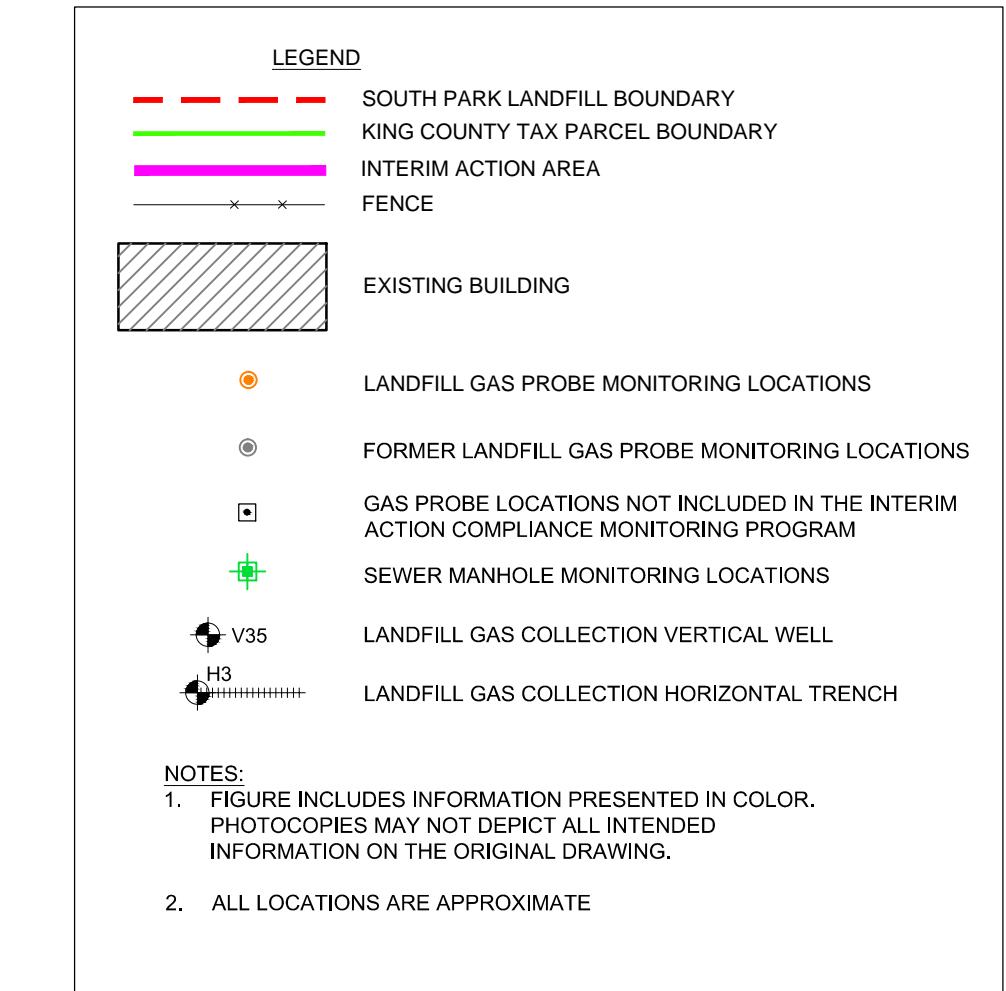
Farallon PN: 408-002



WASHINGTON

SEATTLE

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Washington
Issaquah | Bellingham | Seattle
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

Drawn By: DEW Checked By: CS

Date: 03/23/2016 Disk Reference: BASEMAPb

ATTACHMENT A
PUGET SOUND CLEAN AIR AGENCY TECHNICAL MEMORANDUM

LANDFILL GAS COLLECTION AND CONTROL SYSTEM
SPPD Property
South Park Landfill Site
Seattle, Washington

Farallon PN: 408-002

TECHNICAL MEMORANDUM

TO: Claude Williams, P.E. – Puget Sound Clean Air Agency

cc: Rob Howie – South Park Property Development, L.L.C.

FROM: Thaddeus J. Cline, P.E., L.G., L.H.G., Principal Civil Engineer/Hydrogeologist
Andrew E. Vining, P.E., Project Engineer
Clyde N. Moore, P.E., Senior Project Engineer

DATE: January 20, 2016

RE: **LANDFILL GAS CONTROL SYSTEM EMISSIONS SAMPLING**
SPPD PROPERTY
SOUTH PARK LANDFILL SITE
SEATTLE, WASHINGTON
FARALLON PN: 408-002

Farallon Consulting, L.L.C. (Farallon) has prepared this Technical Memorandum to document the results of emissions sampling from an actively operated landfill gas (LFG) control system installed by South Park Property Development, L.L.C. (SPPD) as part of development of 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).

A cleanup interim action was conducted under terms of an amendment to Agreed Order No. 6706 (Agreed Order) 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 Section 430 of WAC 173-340 (Interim Action). The Agreed Order amendment was executed by Seattle Public Utilities, SPPD, and the Washington State Department of Ecology (Ecology) with an effective date of June 6, 2013. The Interim Action was conducted to reduce threats to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to hazardous substances in the subsurface of the SPPD Property. The Interim Action consisted of construction and maintenance of a landfill cap; installation, operation, and monitoring of the LFG control system; and implementation of surface water and institutional controls.

The Interim Action was conducted in advance of cleanup of the South Park Landfill Site, which is defined as the area where hazardous substances deposited, disposed of, or placed at the South



Park Landfill have come to be located. SPPD and the City of Seattle were identified by Ecology as potentially liable persons (PLPs) for the South Park Landfill Site. The PLPs submitted a draft Cleanup Action Plan for the South Park Landfill Site to Ecology on November 20, 2015, which identified cleanup standards for soil, groundwater, and air; and specified LFG control requirements.

The SPPD Property LFG control system was installed between June and December 2014 and operation commenced on December 17, 2014. The LFG control system was designed to capture LFG generated by mixed municipal solid waste disposed of at the SPPD Property from approximately 1938 through the 1950s. The LFG control system extracts LFG from a system of 77 horizontal and vertical LFG collectors with a 10-horsepower blower. No equipment currently is installed to treat system emissions. The design flow rate of the LFG control system was up to about 5 standard cubic feet per minute (scfm) per collector to capture and control the estimated methane generation rate at the SPPD Property. Based on computer modeling, the methane generation rate was estimated to be 15 scfm in 2014, diminishing to about 6 scfm in 2034. Attachment A provides an as-built plan of the current LFG control system.

The LFG control system has been in a start-up phase for an extended period. System start-up included iterative field events to adjust flows for balanced long-term operations and to monitor system responses. System adjustments since initiating operations in December 2014 have been to generally reduce extraction rates at each of the LFG collectors to considerably below design flow rates to achieve safe steady-state operations. The system recently was retrofitted for intermittent operation to further reduce extraction rates. The system currently is operating intermittently with a 1.1-hour blower-on cycle at 14 scfm and a 1.9-hour blower-off cycle that occurs eight times per day and equates to approximately 5 scfm over 24 hours. The system continues to require frequent monitoring and adjustment; however, start-up is considered to be complete.

The operational status of the LFG control system was discussed with the Puget Sound Clean Air Agency (PSCAA) in a telephone conversation on November 12, 2015. Based on this conversation, SPPD and Farallon sampled system emissions on December 9, 2015 to evaluate the need for emissions treatment. Emissions samples were collected from a sampling port upstream of the blower, the system air dilution valve, and the discharge stack, and are representative of undiluted LFG direct from the well field. LFG control system emissions are diluted prior to discharge using an air dilution valve to reduce methane concentrations emitted at the discharge stack. The emissions samples were collected during the early part of the 1.1-hour extraction cycle when the system was operating under a well field flow rate of 14 scfm. Following dilution, the emissions stack discharge flow rate was approximately 100 scfm. The emissions samples were collected in a 2.5-liter Summa canister and Tedlar bag for analysis for constituents of potential concern to PSCAA for the LFG control system as discussed during the November 12, 2015 telephone conversation: volatile organic constituents by U.S. Environmental Protection Agency Method TO-15 and sulfur compounds by ASTM Method DD504.



Analytical results are provided in Table 1. Laboratory analytical results are provided in Attachment B. The following constituents were detected in the emissions samples:

- 2,2,4-Trimethylpentane;
- Benzene;
- Cyclohexane;
- Dichlorodifluoromethane;
- Freon 114;
- Hexane extractable material (fats, oils, greases);
- n-Heptane;
- Trichlorofluoromethane;
- Vinyl chloride; and
- Dimethyl sulfide.

Other constituents tested for were not detected at concentrations exceeding laboratory reporting limits (Table 1).

Concentrations of detected constituents were compared to criteria in WAC 173-460-150 (Controls for New Sources of Toxic Air Pollutants, Table of ASIL [Acceptable Source Impact Level], SQER [Small Quantity Emission Rate], and De Minimis Emission Values). Concentrations of detected constituents were also compared to criteria in PSCAA Regulation I, Section 6.03 (Notice of Construction) (c) (Exemptions) (94) (Soil and Groundwater Remediation Projects) for exemptions to Notice of Construction Applications and Orders of Approval for new sources for soil and remediation projects.

Of the detected constituents listed above, only benzene, cyclohexane, hexane, and vinyl chloride are listed in WAC 173-460-150. For comparison to criteria in WAC 173-460-150, concentrations of benzene, cyclohexane, hexane, and vinyl chloride detected in the emissions samples were converted to mass loading rates and compared to Small Quantity Emission Rates for the averaging period in WAC 173-460-150. Mass loading rates were calculated based on a well field flow rate of 14 scfm at the time of emissions sampling and active during eight timer-controlled 1.1-hour cycles in 24 hours. Calculated mass loading rates for benzene, cyclohexane, hexane, and vinyl chloride detected in the air sample collected from the emissions stack were considerably less than Small Quantity Emission Rate thresholds (Table 1).

Calculated mass loading rates were also below criteria in PSCAA Regulation I for air emissions from soil and groundwater remediation projects, allowing for exemption from Notice of Construction Application and Order of Approvals for emissions from this LFG control system.



Puget Sound Clean Air Agency

January 20, 2016

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Based on the results of sampling of emissions from the LFG control system, Farallon concludes that emissions treatment is not necessary and that a Notice of Construction Application is not required. Please notify Farallon of PSCAA's concurrence with these conclusions or contact us to discuss.

Attachments: Table 1, *Landfill Gas Control System Emissions – Analytical Results Summary*

Attachment A, LFG Control System As-Built Plan

Attachment B, Laboratory Analytical Reports

TJC/AEV/CNM:bw

TABLE

LANDFILL GAS CONTROL SYSTEM EMISSIONS SAMPLING

SPPD Property

South Park Landfill Site

Seattle, Washington

Farallon PN: 408-002

Table 1
Landfill Gas Control System Emissions – Analytical Results Summary
SPPD Property
South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Sample Identification Sample Location Sample Date	LFG-120915 Undiluted Well Field Inflow 12/9/2015	Calculated Annual Mass Loading for Detected Analyte (pounds per year)	WAC 173-460-150 Small Quantity Emission Rate Criterion for Detected Analyte (pounds per year)
Analyte	Analytical Results (micrograms per cubic meter)		
Method: EPA TO-15¹			
1,1,1-Trichloroethane	< 4.2	-	-
1,1,2,2-Tetrachloroethane	< 5.3	-	-
1,1,2-Trichloroethane	< 4.2	-	-
1,1-Dichloroethane	< 3.1	-	-
1,1-Dichloroethene	< 3.1	-	-
1,2,4-Trichlorobenzene	< 23	-	-
1,2,4-Trimethylbenzene	< 3.8	-	-
1,2-Dibromoethane	< 6.0	-	-
1,2-Dichlorobenzene	< 4.6	-	-
1,2-Dichloroethane	< 3.1	-	-
1,2-Dichloropropane	< 3.6	-	-
1,3,5-Trimethylbenzene	< 3.8	-	-
1,3-Butadiene	< 1.7	-	-
1,3-Dichlorobenzene	< 4.6	-	-
1,4-Dichlorobenzene	< 4.6	-	-
1,4-Dioxane	< 11	-	-
2,2,4-Trimethylpentane	22	0.0037	N/A
2-Butanone (Methyl ethyl ketone)	< 9.1	-	-
2-Hexanone	< 13	-	-
2-Propanol	< 7.6	-	-
3-Chloropropene	< 9.7	-	-
4-ethyltoluene	< 3.8	-	-
4-Methyl-2-Pentanone (MIBK)	< 3.2	-	-
Acetone	< 18	-	-
Benzene	2.9	0.00049	6.62
Benzyl Chloride	< 4.0	-	-
Bromodichloromethane	< 5.2	-	-
Bromoform	< 8.0	-	-
Bromomethane	< 30	-	-
Carbon Disulfide	< 9.6	-	-
Carbon Tetrachloride	< 4.9	-	-
Chlorobenzene	< 3.6	-	-
Chloroethane	< 8.2	-	-
Chloroform	< 3.8	-	-
Chloromethane	< 16	-	-
cis-1,2-Dichloroethene	< 3.1	-	-
cis-1,3-Dichloropropene	< 3.5	-	-
Cyclohexane	10	0.0017	288,182 ³
Dibromochloromethane	< 6.6	-	-
Dichlorodifluoromethane	5.6	0.00094	N/A
Ethanol	< 5.8	-	-
Ethylbenzene	< 3.4	-	-
Freon 113	< 5.9	-	-

Table 1
Landfill Gas Control System Emissions – Analytical Results Summary
SPPD Property
South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Sample Identification Sample Location Sample Date	LFG-120915 Undiluted Well Field Inflow 12/9/2015	Calculated Annual Mass Loading for Detected Analyte (pounds per year)	WAC 173-460-150 Small Quantity Emission Rate Criterion for Detected Analyte (pounds per year)
Analyte	Analytical Results (micrograms per cubic meter)		
Method: EPA TO-15¹ (continued)			
Freon 114	12	0.0020	N/A
Hexachlorobutadiene	< 33	-	-
Hexane Extractable Material (Fats, Oils, Greases)	36	0.0061	33,603 ⁴
Isopropylbenzene	< 3.8	-	-
m,p-Xylene	< 3.4	-	-
Methyl tertiary butyl ether	< 2.8	-	-
Methylene Chloride	< 27	-	-
n-Heptane	5.8	0.00098	N/A
n-Propylbenzene	< 3.8	-	-
o-Xylene	< 3.4	-	-
Styrene	< 3.3	-	-
Tetrachloroethene	< 5.2	-	-
Tetrahydrofuran	< 2.3	-	-
Toluene	< 2.9	-	-
trans-1,2-Dichloroethene	< 3.1	-	-
trans-1,3-Dichloropropene	< 3.5	-	-
Trichloroethene	< 4.2	-	-
Trichlorofluoromethane	5.0	0.00084	N/A
Vinyl Chloride	3.7	0.00062	2.46
Method: ASTM D-5504²			
2,5-Dimethylthiophene	< 18.35	-	-
2-Ethylthiophene	< 18.35	-	-
3-Methylthiophene	< 16.06	-	-
Carbon Disulfide	< 62.28	-	-
Carbonyl Sulfide	< 9.83	-	-
Diethyl Disulfide	< 20.01	-	-
Diethyl Sulfide	< 14.76	-	-
Dimethyl Disulfide	< 15.41	-	-
Dimethyl Sulfide	27.95	0.0047	N/A
Ethyl Mercaptan	< 10.16	-	-
Ethyl Methyl Sulfide	< 12.46	-	-
Hydrogen Sulfide	< 5.58	-	-
Isobutyl Mercaptan	< 14.76	-	-
Isopropyl Mercaptan	< 12.46	-	-
Methyl Mercaptan	< 7.87	-	-
n-Butyl Mercaptan	< 14.76	-	-
n-Propyl Mercaptan	< 12.46	-	-
tert-Butyl Mercaptan	< 14.76	-	-
Tetrahydrothiophene	< 14.42	-	-
Thiophene	< 13.77	-	-

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

EPA = U.S. Environmental Protection Agency

"-" = data not presented for non-detect analytes.

LFG = landfill gas

¹Analyzed by U.S. Environmental Protection Agency Method TO-15.

N/A = not available

²Analyzed by ASTM Method D-5504.

WAC = Washington Administrative Code

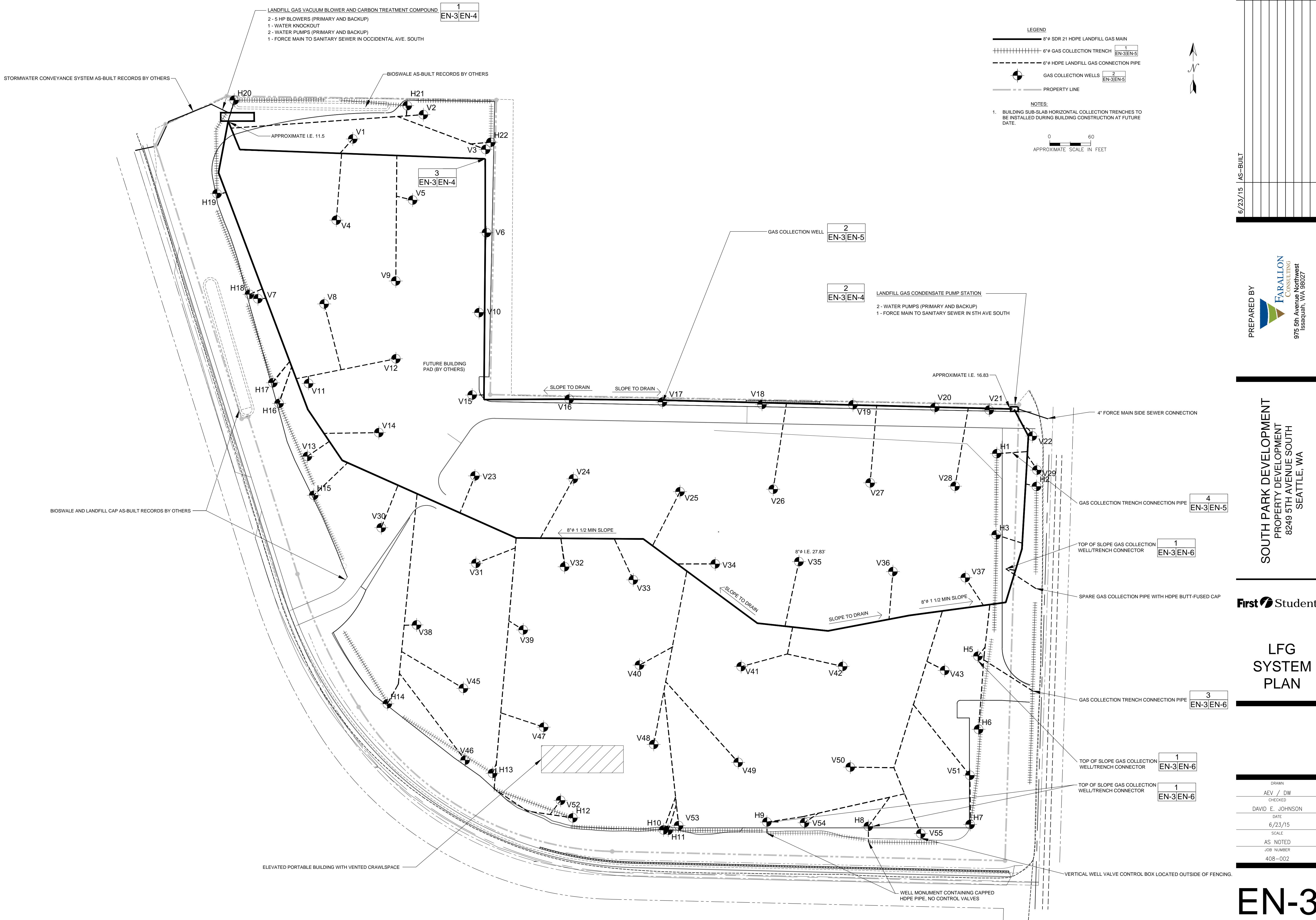
³789 pounds in a 24-hour period criterion multiplied by 365.25 days per year.

⁴92 pounds in a 24-hour period criterion multiplied by 365.25 days per year.

ATTACHMENT A
LFG CONTROL SYSTEM AS-BUILT PLAN

LANDFILL GAS CONTROL SYSTEM EMISSIONS SAMPLING
SPPD Property
South Park Landfill Site
Seattle, Washington

Farallon PN: 408-002



**ATTACHMENT B
LABORATORY ANALYTICAL REPORTS**

**LANDFILL GAS CONTROL SYSTEM EMISSIONS SAMPLING
SPPD Property
South Park Landfill Site
Seattle, Washington**

Farallon PN: 408-002

12/22/2015

Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW

Issaquah WA 98027-3333

Project Name: SPPD
Project #: 408-002
Workorder #: 1512183A

Dear Mr. Andrew Vining

The following report includes the data for the above referenced project for sample(s) received on 12/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

A Eurofins Lancaster Laboratories Company

WORK ORDER #: 1512183A

Work Order Summary

CLIENT: Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW
Issaquah, WA 98027-3333

BILL TO: Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW
Issaquah, WA 98027-3333

PHONE: 425-427-0061 **P.O. #**

FAX: 425-427-0067 **PROJECT #** 408-002 SPPD

DATE RECEIVED: 12/10/2015

CONTACT: Kelly Buettner

DATE COMPLETED: 12/22/2015

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	LFG_120915	TO-15	4.3 "Hg	4.8 psi
02A	Lab Blank	TO-15	NA	NA
03A	CCV	TO-15	NA	NA
04A	LCS	TO-15	NA	NA
04AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



DATE: 12/22/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,

TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Farallon Consulting, LLC
Workorder# 1512183A**

One 6 Liter Summa Canister (SIM Certified Calscience) sample was received on December 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: LFG_120915

Lab ID#: 1512183A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	1.1	3.8	5.6
Freon 114	0.78	1.7	5.4	12
Vinyl Chloride	0.78	1.4	2.0	3.7
Freon 11	0.78	0.90	4.4	5.0
Hexane	0.78	10	2.7	36
Cyclohexane	0.78	3.0	2.7	10
2,2,4-Trimethylpentane	0.78	4.7	3.6	22
Benzene	0.78	0.90	2.5	2.9
Heptane	0.78	1.4	3.2	5.8



Air Toxics

Client Sample ID: LFG_120915

Lab ID#: 1512183A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122014	Date of Collection:	12/9/15	
Dil. Factor:	1.55	Date of Analysis:	12/20/15 04:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	1.1	3.8	5.6
Freon 114	0.78	1.7	5.4	12
Chloromethane	7.8	Not Detected	16	Not Detected
Vinyl Chloride	0.78	1.4	2.0	3.7
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
Freon 11	0.78	0.90	4.4	5.0
Ethanol	3.1	Not Detected	5.8	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Acetone	7.8	Not Detected	18	Not Detected
2-Propanol	3.1	Not Detected	7.6	Not Detected
Carbon Disulfide	3.1	Not Detected	9.6	Not Detected
3-Chloropropene	3.1	Not Detected	9.7	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Hexane	0.78	10	2.7	36
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.1	Not Detected	9.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.78	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Cyclohexane	0.78	3.0	2.7	10
Carbon Tetrachloride	0.78	Not Detected	4.9	Not Detected
2,2,4-Trimethylpentane	0.78	4.7	3.6	22
Benzene	0.78	0.90	2.5	2.9
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Heptane	0.78	1.4	3.2	5.8
Trichloroethene	0.78	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.78	Not Detected	3.6	Not Detected
1,4-Dioxane	3.1	Not Detected	11	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
cis-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
1,1,2-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
2-Hexanone	3.1	Not Detected	13	Not Detected



Air Toxics

Client Sample ID: LFG_120915

Lab ID#: 1512183A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122014	Date of Collection:	12/9/15	
Dil. Factor:	1.55	Date of Analysis:	12/20/15 04:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Chlorobenzene	0.78	Not Detected	3.6	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
Styrene	0.78	Not Detected	3.3	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
Cumene	0.78	Not Detected	3.8	Not Detected
1,1,2,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
1,3,5-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,2,4-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,2,4-Trichlorobenzene	3.1	Not Detected	23	Not Detected
Hexachlorobutadiene	3.1	Not Detected	33	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified Calscience)

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1512183A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122006	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 12/20/15 10:51 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1512183A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122006	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 12/20/15 10:51 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1512183A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/20/15 08:46 AM

Compound	%Recovery
Freon 12	85
Freon 114	93
Chloromethane	78
Vinyl Chloride	78
1,3-Butadiene	76
Bromomethane	83
Chloroethane	82
Freon 11	84
Ethanol	76
Freon 113	91
1,1-Dichloroethene	83
Acetone	78
2-Propanol	76
Carbon Disulfide	85
3-Chloropropene	84
Methylene Chloride	80
Methyl tert-butyl ether	84
trans-1,2-Dichloroethene	93
Hexane	86
1,1-Dichloroethane	81
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	90
Tetrahydrofuran	81
Chloroform	82
1,1,1-Trichloroethane	84
Cyclohexane	94
Carbon Tetrachloride	85
2,2,4-Trimethylpentane	89
Benzene	88
1,2-Dichloroethane	79
Heptane	99
Trichloroethene	101
1,2-Dichloropropane	84
1,4-Dioxane	92
Bromodichloromethane	83
cis-1,3-Dichloropropene	89
4-Methyl-2-pentanone	95
Toluene	96
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	92
Tetrachloroethene	98
2-Hexanone	96



Air Toxics

Client Sample ID: CCV

Lab ID#: 1512183A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/20/15 08:46 AM

Compound	%Recovery
Dibromochloromethane	92
1,2-Dibromoethane (EDB)	95
Chlorobenzene	96
Ethyl Benzene	105
m,p-Xylene	112
o-Xylene	109
Styrene	116
Bromoform	100
Cumene	113
1,1,2,2-Tetrachloroethane	80
Propylbenzene	103
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1512183A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/20/15 09:12 AM
Compound	%Recovery	Method	Limits
Freon 12	89	70-130	
Freon 114	103	70-130	
Chloromethane	87	70-130	
Vinyl Chloride	87	70-130	
1,3-Butadiene	83	70-130	
Bromomethane	87	70-130	
Chloroethane	89	70-130	
Freon 11	92	70-130	
Ethanol	82	70-130	
Freon 113	96	70-130	
1,1-Dichloroethene	90	70-130	
Acetone	82	70-130	
2-Propanol	83	70-130	
Carbon Disulfide	78	70-130	
3-Chloropropene	84	70-130	
Methylene Chloride	84	70-130	
Methyl tert-butyl ether	85	70-130	
trans-1,2-Dichloroethene	98	70-130	
Hexane	92	70-130	
1,1-Dichloroethane	84	70-130	
2-Butanone (Methyl Ethyl Ketone)	92	70-130	
cis-1,2-Dichloroethene	92	70-130	
Tetrahydrofuran	84	70-130	
Chloroform	85	70-130	
1,1,1-Trichloroethane	88	70-130	
Cyclohexane	100	70-130	
Carbon Tetrachloride	88	70-130	
2,2,4-Trimethylpentane	99	70-130	
Benzene	90	70-130	
1,2-Dichloroethane	78	70-130	
Heptane	97	70-130	
Trichloroethene	106	70-130	
1,2-Dichloropropane	87	70-130	
1,4-Dioxane	97	70-130	
Bromodichloromethane	85	70-130	
cis-1,3-Dichloropropene	86	70-130	
4-Methyl-2-pentanone	98	70-130	
Toluene	97	70-130	
trans-1,3-Dichloropropene	93	70-130	
1,1,2-Trichloroethane	93	70-130	
Tetrachloroethene	98	70-130	
2-Hexanone	104	70-130	



Air Toxics

Client Sample ID: LCS

Lab ID#: 1512183A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/20/15 09:12 AM
Compound	%Recovery	Method	Limits
Dibromochloromethane	94	70-130	
1,2-Dibromoethane (EDB)	98	70-130	
Chlorobenzene	97	70-130	
Ethyl Benzene	108	70-130	
m,p-Xylene	115	70-130	
o-Xylene	111	70-130	
Styrene	114	70-130	
Bromoform	104	70-130	
Cumene	115	70-130	
1,1,2,2-Tetrachloroethane	77	70-130	
Propylbenzene	108	70-130	
4-Ethyltoluene	112	70-130	
1,3,5-Trimethylbenzene	120	70-130	
1,2,4-Trimethylbenzene	112	70-130	
1,3-Dichlorobenzene	106	70-130	
1,4-Dichlorobenzene	109	70-130	
alpha-Chlorotoluene	108	70-130	
1,2-Dichlorobenzene	106	70-130	
1,2,4-Trichlorobenzene	99	70-130	
Hexachlorobutadiene	105	70-130	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	103	70-130	
1,2-Dichloroethane-d4	81	70-130	
4-Bromofluorobenzene	104	70-130	



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1512183A-04AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/20/15 09:37 AM
Compound	%Recovery	Method	Limits
Freon 12	88	70-130	
Freon 114	101	70-130	
Chloromethane	86	70-130	
Vinyl Chloride	87	70-130	
1,3-Butadiene	80	70-130	
Bromomethane	86	70-130	
Chloroethane	88	70-130	
Freon 11	89	70-130	
Ethanol	80	70-130	
Freon 113	96	70-130	
1,1-Dichloroethene	88	70-130	
Acetone	81	70-130	
2-Propanol	79	70-130	
Carbon Disulfide	78	70-130	
3-Chloropropene	84	70-130	
Methylene Chloride	80	70-130	
Methyl tert-butyl ether	85	70-130	
trans-1,2-Dichloroethene	97	70-130	
Hexane	91	70-130	
1,1-Dichloroethane	82	70-130	
2-Butanone (Methyl Ethyl Ketone)	90	70-130	
cis-1,2-Dichloroethene	91	70-130	
Tetrahydrofuran	83	70-130	
Chloroform	84	70-130	
1,1,1-Trichloroethane	86	70-130	
Cyclohexane	99	70-130	
Carbon Tetrachloride	85	70-130	
2,2,4-Trimethylpentane	99	70-130	
Benzene	88	70-130	
1,2-Dichloroethane	75	70-130	
Heptane	96	70-130	
Trichloroethene	105	70-130	
1,2-Dichloropropane	84	70-130	
1,4-Dioxane	97	70-130	
Bromodichloromethane	85	70-130	
cis-1,3-Dichloropropene	85	70-130	
4-Methyl-2-pentanone	98	70-130	
Toluene	95	70-130	
trans-1,3-Dichloropropene	92	70-130	
1,1,2-Trichloroethane	91	70-130	
Tetrachloroethene	96	70-130	
2-Hexanone	101	70-130	



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1512183A-04AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17122004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/20/15 09:37 AM
Compound	%Recovery	Method	Limits
Dibromochloromethane	91	70-130	
1,2-Dibromoethane (EDB)	96	70-130	
Chlorobenzene	96	70-130	
Ethyl Benzene	107	70-130	
m,p-Xylene	113	70-130	
o-Xylene	111	70-130	
Styrene	113	70-130	
Bromoform	102	70-130	
Cumene	115	70-130	
1,1,2,2-Tetrachloroethane	76	70-130	
Propylbenzene	108	70-130	
4-Ethyltoluene	113	70-130	
1,3,5-Trimethylbenzene	116	70-130	
1,2,4-Trimethylbenzene	113	70-130	
1,3-Dichlorobenzene	105	70-130	
1,4-Dichlorobenzene	107	70-130	
alpha-Chlorotoluene	107	70-130	
1,2-Dichlorobenzene	105	70-130	
1,2,4-Trichlorobenzene	105	70-130	
Hexachlorobutadiene	109	70-130	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	101	70-130	
1,2-Dichloroethane-d4	92	70-130	
4-Bromofluorobenzene	108	70-130	

12/17/2015

Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW

Issaquah WA 98027-3333

Project Name: SPPD
Project #: 408-002
Workorder #: 1512183B

Dear Mr. Andrew Vining

The following report includes the data for the above referenced project for sample(s) received on 12/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by ASTM D-5504 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

A Eurofins Lancaster Laboratories Company

WORK ORDER #: 1512183B

Work Order Summary

CLIENT: Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW
Issaquah, WA 98027-3333

BILL TO: Mr. Andrew Vining
Farallon Consulting, LLC
975 Fifth Avenue NW
Issaquah, WA 98027-3333

PHONE: 425-427-0061 **P.O. #**

FAX: 425-427-0067 **PROJECT #** 408-002 SPPD

DATE RECEIVED: 12/10/2015

CONTACT: Kelly Buettner

DATE COMPLETED: 12/17/2015

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT</u>	<u>FINAL</u>
			<u>VAC./PRES.</u>	<u>PRESSURE</u>
02A	LFG_120915	ASTM D-5504	Tedlar Bag	Tedlar Bag
03A	Lab Blank	ASTM D-5504	NA	NA
04A	LCS	ASTM D-5504	NA	NA
04AA	LCSD	ASTM D-5504	NA	NA

CERTIFIED BY:



DATE: 12/17/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,

TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
ASTM D-5504
Farallon Consulting, LLC
Workorder# 1512183B

One 1 Liter Tedlar Bag sample was received on December 10, 2015. The laboratory performed the analysis of sulfur compounds via ASTM D-5504 using GC/SCD. The method involves direct injection of the air sample into the GC via a fixed 2.0 mL sampling loop. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>ASTM D5504-12</i>	<i>ATL Modifications</i>
Sulfur Standards	Use compressed gases and permeation devices to generate calibration standards.	Compressed gases are used for H ₂ S, COS, and Methyl Mercaptan. Other sulfur compounds are blended in vapor using methanolic stock standards.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

**Summary of Detected Compounds
SULFUR GASES BY ASTM D-5504 GC/SCD**

Client Sample ID: LFG_120915

Lab ID#: 1512183B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Dimethyl Sulfide	4.0	11



Air Toxics

Client Sample ID: LFG_120915

Lab ID#: 1512183B-02A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	k121006	Date of Collection:	12/9/15 3:20:00 PM
Dil. Factor:	1.00	Date of Analysis:	12/10/15 12:39 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	
Hydrogen Sulfide	4.0	Not Detected	
Carbonyl Sulfide	4.0	Not Detected	
Methyl Mercaptan	4.0	Not Detected	
Ethyl Mercaptan	4.0	Not Detected	
Dimethyl Sulfide	4.0	11	
Carbon Disulfide	20	Not Detected	
Isopropyl Mercaptan	4.0	Not Detected	
tert-Butyl Mercaptan	4.0	Not Detected	
n-Propyl Mercaptan	4.0	Not Detected	
Ethyl Methyl Sulfide	4.0	Not Detected	
Thiophene	4.0	Not Detected	
Isobutyl Mercaptan	4.0	Not Detected	
Diethyl Sulfide	4.0	Not Detected	
n-Butyl Mercaptan	4.0	Not Detected	
Dimethyl Disulfide	4.0	Not Detected	
3-Methylthiophene	4.0	Not Detected	
Tetrahydrothiophene	4.0	Not Detected	
2-Ethylthiophene	4.0	Not Detected	
2,5-Dimethylthiophene	4.0	Not Detected	
Diethyl Disulfide	4.0	Not Detected	

Container Type: 1 Liter Tedlar Bag



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1512183B-03A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	k121004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/10/15 09:54 AM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	
Hydrogen Sulfide	4.0	Not Detected	
Carbonyl Sulfide	4.0	Not Detected	
Methyl Mercaptan	4.0	Not Detected	
Ethyl Mercaptan	4.0	Not Detected	
Dimethyl Sulfide	4.0	Not Detected	
Carbon Disulfide	20	Not Detected	
Isopropyl Mercaptan	4.0	Not Detected	
tert-Butyl Mercaptan	4.0	Not Detected	
n-Propyl Mercaptan	4.0	Not Detected	
Ethyl Methyl Sulfide	4.0	Not Detected	
Thiophene	4.0	Not Detected	
Isobutyl Mercaptan	4.0	Not Detected	
Diethyl Sulfide	4.0	Not Detected	
n-Butyl Mercaptan	4.0	Not Detected	
Dimethyl Disulfide	4.0	Not Detected	
3-Methylthiophene	4.0	Not Detected	
Tetrahydrothiophene	4.0	Not Detected	
2-Ethylthiophene	4.0	Not Detected	
2,5-Dimethylthiophene	4.0	Not Detected	
Diethyl Disulfide	4.0	Not Detected	

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1512183B-04A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	k121002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/10/15 09:07 AM
Compound	%Recovery	Method	Limits
Hydrogen Sulfide	90	70-130	
Carbonyl Sulfide	87	70-130	
Methyl Mercaptan	91	70-130	
Ethyl Mercaptan	99	70-130	
Dimethyl Sulfide	104	70-130	
Carbon Disulfide	104	70-130	
Isopropyl Mercaptan	100	70-130	
tert-Butyl Mercaptan	102	70-130	
n-Propyl Mercaptan	102	70-130	
Ethyl Methyl Sulfide	95	70-130	
Thiophene	99	70-130	
Isobutyl Mercaptan	99	70-130	
Diethyl Sulfide	102	70-130	
n-Butyl Mercaptan	101	70-130	
Dimethyl Disulfide	97	70-130	
3-Methylthiophene	93	70-130	
Tetrahydrothiophene	103	70-130	
2-Ethylthiophene	102	70-130	
2,5-Dimethylthiophene	88	70-130	
Diethyl Disulfide	98	70-130	

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1512183B-04AA

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	k121003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/10/15 09:31 AM
Compound	%Recovery	Method	Limits
Hydrogen Sulfide	94	70-130	
Carbonyl Sulfide	88	70-130	
Methyl Mercaptan	92	70-130	
Ethyl Mercaptan	106	70-130	
Dimethyl Sulfide	106	70-130	
Carbon Disulfide	105	70-130	
Isopropyl Mercaptan	103	70-130	
tert-Butyl Mercaptan	106	70-130	
n-Propyl Mercaptan	108	70-130	
Ethyl Methyl Sulfide	104	70-130	
Thiophene	101	70-130	
Isobutyl Mercaptan	103	70-130	
Diethyl Sulfide	103	70-130	
n-Butyl Mercaptan	106	70-130	
Dimethyl Disulfide	94	70-130	
3-Methylthiophene	92	70-130	
Tetrahydrothiophene	101	70-130	
2-Ethylthiophene	102	70-130	
2,5-Dimethylthiophene	86	70-130	
Diethyl Disulfide	93	70-130	

Container Type: NA - Not Applicable

ATTACHMENT B
PERIMETER PROBE METHANE MONITORING DATA

LANDFILL GAS COLLECTION AND CONTROL SYSTEM
SPPD Property
South Park Landfill Site
Seattle, Washington

Farallon PN: 408-002

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-01	5/14/1997	-	-	-	8.9	20.0 - 21.3	-	-	-
	5/23/97 11:00	30.54	-	0.0	-	20.9	-	-	-
	6/20/97 10:12	30.65	-	-	-	20.8	-	-	-
	7/21/97 12:20	29.65	-	0.0	-	21.0	-	-	-
	8/18/97 10:45	30.67	-	0.0	-	21.0	-	-	-
	9/8/97 10:05	30.70	-	-	-	-	-	-	-
	10/24/97 6:00	31.08	-	6.0	-	0.0	-	-	-
	11/19/97 8:00	30.15	-	7.0	-	0.0	-	-	-
	12/2/97 12:15	30.50	-	13.0	-	0.0	-	-	-
	1/16/98 8:08	30.15	-	7.0	-	-	-	-	-
	2/19/98 7:40	30.39	-	7.0	-	0.0	-	-	-
	3/17/98 7:43	30.82	-	5.0	-	2.0	-	-	-
	4/14/98 8:30	29.63	-	4.0	-	1.0	-	-	-
	5/19/98 11:43	30.69	-	0.0	-	0.0	-	-	-
	6/4/98 8:18	30.54	-	3.0	-	0.0	-	-	-
	7/27/98 12:47	30.58	-	2.0	-	2.0	-	-	-
	8/4/98 12:14	30.55	-	2.0	-	2.5	-	-	-
	9/17/98 12:45	30.02	-	1.0	-	8.0	-	-	-
	10/5/98 12:50	30.08	-	1.0	-	9.0	-	-	-
	11/6/98 12:40	30.39	-	-	-	5.0	-	-	-
	12/2/98 12:52	30.19	-	3.0	-	0.0	-	-	-
	1/6/99 9:59	29.70	-	6.0	-	0.0	-	-	-
	2/12/99 17:05	-	-	8.9	19.0	14.4	-	-	-
	2/18/99 11:39	30.00	-	6.0	-	0.0	-	-	-
	3/5/99 10:55	31.00	-	9.0	-	0.0	-	-	-
	4/9/99 12:09	30.80	-	4.0	-	0.0	-	-	-
	5/7/99 10:58	30.85	-	6.0	-	0.0	-	-	-
	6/23/99 10:31	30.65	-	-	-	6.0	-	-	-
	7/20/99 9:16	30.50	-	0.0	-	21.0	-	-	-
	8/20/99 10:28	30.65	-	-	-	20.0	-	-	-
	9/29/99 10:18	30.80	-	0.0	-	20.0	-	-	-
	10/15/99 15:10	30.40	-	0.5	18.6	2.1	-	-	-
	10/26/99 16:25	30.01	-	0.0	0.1	21.4	-	-	-
	10/19/99 7:44	30.79	-	0.0	-	21.0	-	-	-
	11/15/99 8:50	30.35	-	0.0	-	21.0	-	-	-
	12/6/99 13:00	30.40	-	0.0	-	21.0	-	-	-
	1/11/00 12:50	30.02	-	-	-	20.0	-	-	-
	2/3/00 8:18	29.93	-	3.9	15.2	3.7	-	-	-
	2/7/00 10:26	30.42	-	2.0	-	21.0	-	-	-
	3/9/00 12:53	30.49	-	-	-	21.0	-	-	-
	4/7/00 9:53	30.94	-	-	-	20.0	-	-	-
	5/11/00 11:36	30.46	-	0.0	-	21.0	-	-	-
	6/5/00 11:46	30.38	-	0.0	-	21.0	-	-	-
	7/17/00 9:04	30.50	-	0.0	-	21.0	-	-	-
	8/2/00 10:30	30.08	-	0.4	12.6	8.0	-	-	-
	9/5/00 8:25	29.79	-	0.0	13.7	7.1	-	-	-
	10/10/00 9:10	29.35	-	0.2	17.2	2.5	-	-	-
	11/3/00 9:55	29.86	-	0.0	14.7	4.6	-	-	-
	12/6/00 11:27	29.57	-	0.8	16.6	2.1	-	-	-
	1/5/01 9:58	29.13	-	0.9	13.6	5.3	-	-	-
	2/2/01 7:44	29.57	-	2.9	16.7	2.4	-	-	-
	3/2/01 11:15	29.57	-	0.6	12.4	7.0	-	-	-
	4/6/01 9:10	29.13	-	3.0	15.3	4.4	-	-	-
	5/10/01 8:00	-	-	3.0	19.8	2.6	-	-	-
	6/4/01 9:26	29.98	-	1.1	13.9	6.0	-	-	-
	7/6/01 9:45	30.10	-	0.3	13.6	6.3	-	-	-
	8/3/01 9:35	29.94	-	0.3	12.1	8.7	-	-	-
	9/7/01 9:10	30.25	-	0.0	13.7	6.1	-	-	-
	10/8/01 7:30	-	-	0.1	16.8	4.2	-	-	-
	11/5/01 7:37	-	-	0.0	17.8	2.1	-	-	-
	12/7/01 8:45	30.40	-	2.8	18.7	0.9	-	-	-
	1/11/02 13:40	-	-	2.3	14.0	3.8	-	-	-
	2/8/02 13:35	-	-	1.7	13.0	7.8	-	-	-
	3/8/02 9:35	-	-	0.7	15.9	4.7	-	-	-
	4/4/02 9:10	-	-	1.8	15.9	4.1	-	-	-
	5/6/02 13:30	30.20	-	2.1	14.0	3.9	-	-	-
	6/4/02 8:20	-	-	1.4	13.8	5.6	-	-	-
	7/3/02 13:33	-	-	0.6	14.3	5.2	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-01	8/2/02 13:20	-	-	0.2	12.9	6.2	-	-	-
	9/5/02 8:49	-	-	0.0	13.2	6.0	-	-	-
	10/2/02 12:12	-	-	0.1	13.0	6.8	-	-	-
	11/6/02 13:15	-	-	0.0	14.8	5.5	-	-	-
	12/9/02 14:02	-	-	0.1	16.2	4.7	-	-	-
	1/3/03 12:50	30.07	-	0.8	15.7	3.8	-	-	-
	2/5/03 13:30	-	-	3.3	17.2	1.7	-	-	-
	3/7/03 12:30	29.77	-	2.6	15.3	4.6	-	-	-
	4/1/03 11:51	29.63	-	1.3	11.9	5.8	-	-	-
	5/5/03 12:10	30.05	-	1.0	12.0	7.2	-	-	-
	6/3/03 11:25	30.17	-	0.7	13.3	6.0	-	-	-
	7/2/03 11:32	30.14	-	0.3	14.4	6.3	-	-	-
	8/5/03 11:03	29.24	-	0.1	13.6	5.8	-	-	-
	9/3/03 11:01	29.98	-	0.2	13.4	7.2	-	-	-
	10/2/03 12:10	30.08	-	0.3	14.2	6.3	-	-	-
	11/5/03 13:45	30.20	-	0.0	19.3	1.8	-	-	-
	12/4/03 12:30	29.76	-	1.8	18.6	2.0	-	-	-
	1/14/04 9:55	30.03	-	1.7	16.3	3.0	-	-	-
	2/2/04 11:46	29.96	-	6.7	19.1	1.6	-	-	-
	3/2/04 9:30	30.23	-	0.6	11.4	8.0	-	-	-
	4/5/04 12:40	30.10	-	0.9	8.9	11.8	-	-	-
	5/3/04 10:45	30.13	-	0.4	11.8	8.4	-	-	-
	6/2/04 10:50	30.09	-	0.2	10.8	9.3	-	-	-
	7/6/04 12:15	30.10	-	0.0	10.7	9.1	-	-	-
	8/6/04 10:05	29.87	-	0.1	11.4	8.6	-	-	-
	9/10/04 8:44	30.00	-	0.2	13.8	6.9	-	-	-
	2/9/11 8:57	30.46	-	10.9	22.3	0.0	-	-	-
GP-02	5/14/97 to 9/10/04	-	-	0.0	0.7	0.0	-	-	-
	5/14/97 to 9/10/04	-	-	25.0	16.0	21.0	-	-	-
	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
	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 14:45	30.40	-	2.2	13.1	2.5	-	-	96.0
	10/28/99 16:48	29.13	-	0.2	0.7	20.3	-	-	4.0
	10/19/99 7:22	30.79	-	3.0	-	0.0	-	-	-
	11/15/99 9:37	30.35	-	3.0	-	0.0	-	-	-
	12/6/99 12:00	30.40	-	7.0	-	0.0	-	-	-
	1/11/00 12:34	30.02	-	9.0	-	0.0	-	-	-
	2/3/00 9:22	29.79	-	15.2	12.6	0.0	-	-	304.0
	2/7/00 9:59	30.42	-	10.0	-	0.0	-	-	-
	3/9/00 12:36	30.49	-	10.0	-	0.0	-	-	-
	4/7/00 9:32	30.94	-	10.0	-	0.0	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-02	5/11/00 11:31	30.46	-	7.0	-	0.0	-	-	-
	6/5/00 11:15	30.38	-	3.0	-	0.0	-	-	-
	7/17/00 8:20	30.50	-	1.0	-	4.0	-	-	-
	8/2/00 11:04	29.71	-	2.2	12.8	1.3	-	-	-
	9/5/00 10:05	29.93	-	3.0	14.4	0.4	-	-	-
	10/10/00 8:20	29.49	-	3.0	14.1	0.9	-	-	-
	11/3/00 13:22	29.71	-	5.3	14.0	0.1	-	-	-
	12/6/00 14:25	29.71	-	10.9	15.2	0.0	-	-	-
	1/5/01 13:30	29.79	-	12.0	14.2	0.0	-	-	-
	2/2/01 10:05	29.49	-	13.7	14.5	0.0	-	-	-
	3/2/01 13:40	29.42	-	12.8	13.5	0.0	-	-	-
	4/6/01 12:35	29.49	-	11.0	12.5	0.2	-	-	-
	5/10/01 11:20	-	-	13.0	14.5	0.0	-	-	-
	6/4/01 12:15	29.98	-	6.7	10.6	0.0	-	-	-
	7/6/01 12:10	30.10	-	4.0	12.7	0.0	-	-	-
	8/3/01 11:30	29.94	-	2.1	12.8	1.6	-	-	-
	9/7/01 11:40	30.25	-	2.3	11.1	3.3	-	-	-
	10/8/01 10:30	-	-	3.8	13.7	0.2	-	-	-
	12/7/01 11:40	30.40	-	15.3	15.4	0.0	-	-	-
	1/11/02 15:45	-	-	15.7	13.1	0.0	-	-	-
	2/8/02 16:00	-	-	15.8	15.0	0.0	-	-	-
	3/8/02 11:54	-	-	13.4	14.9	0.1	-	-	-
	4/4/02 11:41	-	-	11.5	13.3	0.1	-	-	-
	5/6/02 16:05	30.20	-	12.6	12.8	0.0	-	-	-
	6/4/02 10:48	-	-	5.7	11.9	0.0	-	-	-
	7/3/02 15:45	-	-	2.2	11.8	9.0	-	-	-
	8/2/02 11:45	-	-	3.0	13.1	0.0	-	-	-
	9/5/02 11:03	-	-	1.9	12.3	3.2	-	-	-
	10/2/02 15:40	-	-	2.2	13.1	2.5	-	-	-
	11/6/02 13:40	-	-	3.0	14.1	0.7	-	-	-
	12/9/02 16:20	-	-	8.4	14.7	0.0	-	-	-
	1/7/03 14:25	30.17	-	12.0	14.4	0.0	-	-	-
	2/5/03 15:30	30.30	-	9.5	11.1	5.8	-	-	-
	3/7/03 14:35	29.70	-	12.5	14.8	0.0	-	-	-
	4/1/03 13:47	-	-	12.5	13.2	0.0	-	-	-
	5/5/03 14:55	30.07	-	10.6	13.1	0.0	-	-	-
	6/3/03 14:25	30.22	-	3.1	10.0	4.0	-	-	-
	7/2/03 14:25	30.16	-	1.4	10.2	5.9	-	-	-
	8/5/03 14:10	30.00	-	2.4	13.5	1.2	-	-	-
	9/3/03 14:10	30.01	-	1.0	11.1	6.2	-	-	-
	10/2/03 14:45	30.03	-	3.6	14.8	1.0	-	-	-
	11/5/03 16:21	30.15	-	9.8	15.9	0.0	-	-	-
	12/4/03 14:36	29.65	-	13.3	16.3	0.0	-	-	-
	1/14/04 14:25	29.94	-	13.8	16.2	0.0	-	-	-
	2/6/04 14:15	29.98	-	13.8	15.6	0.0	-	-	-
	3/2/04 11:45	30.22	-	12.1	14.7	0.0	-	-	-
	4/5/04 15:25	30.10	-	10.0	13.5	0.1	-	-	-
	5/3/04 2:55	30.14	-	4.9	12.1	0.8	-	-	-
	6/1/04 13:25	30.12	-	3.3	12.3	0.8	-	-	-
	7/6/04 15:08	30.07	-	1.9	13.5	1.6	-	-	-
	8/6/04 13:15	29.84	-	2.3	14.4	0.9	-	-	-
	9/10/04 11:14	29.95	-	3.7	15.6	0.7	-	-	-
	2/9/11 10:15	30.44	-0.04	20.7	15.5	0.0	-	-	-
	5/22/13 14:12	29.81	-0.005	16.5	13.8	0.0	-	98.0	-
	6/19/13 10:15	29.79	0	14.8	15.2	0.0	69.9	0.0	-
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	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-03	5/7/99 11:03	30.85	-	0.0	-	3.0	-	-	-
	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	-	-	-
	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	-	-	-

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Perimeter Probe Compliance Monitoring Data
SPPD Property, South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-03	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	
GP-07	3/18/16 16:45	29.84	nm	0.0	0.3	20.4	79.2	nm	nm
GP-09	3/18/16 16:15	29.84	0	0.0	4.0	15.0	81.0	nm	nm
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	-	-	-
	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	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-11	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		Flooded Well Screen			-		6.0
	12/17/15 0:00	29.69		Flooded Well Screen			-		6.0
	3/18/16 10:29	29.89		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	-	-	-
	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	0.0	0.3	20.2	79.5	4.0	0.0

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-13	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	Flooded Well Screen			-	-	-	-
	3/18/16 10:37	29.91	Flooded Well Screen			-	-	-	-
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	-	-	-
	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			-	-	-	-
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	-	-	-

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Perimeter Probe Compliance Monitoring Data
SPPD Property, South Park Landfill Site
Seattle, Washington
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Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-16	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	-	-	-
	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	nm	0.0	0.1	21.2	78.6	0.0	
GP-17	10/15/99 to 9/10/04	-	-	0.0	0.1	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	43.0	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	-	9.0	-	0.0	-	-	-
	1/1/00 12:05	30.02	-	15.0	-	3.0	-	-	-
	2/3/00 8:09	29.71	-	9.5	15.0	3.0	-	-	190.0
	2/7/00 9:32	30.42	-	43.0	-	10.0	-	-	-
	3/9/00 11:55	30.49	-	0.0	-	21.0	-	-	-
	4/7/00 9:06	30.94	-	7.0	-	2.0	-	-	-

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Perimeter Probe Compliance Monitoring Data
SPPD Property, South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-17	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	-	-	-
	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	-	124.0	-
	6/27/00 0:00	29.67	0.11	8.3	17.9	0.0	-	59.6	0.0
	9/23/11 0:00	29.97	0.31	1.0	18.5	0.0	-	59.6	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	nm	28.0	26.0	0.0	46.0	0.0	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
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	-	-	-
	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

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-19	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	nm	4.2	14.3	0.0	81.5	0.0	0.0
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
	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	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-20	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	-	-	-
	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	-	5.1	12.0	0.0	-	-	-
	2/6/04 14:05	29.98	-	5.3	11.2	0.0	-	-	-
	3/2/04 11:30	30.22	-	5.6	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	6.0	11.4	0.0	82.6	-	100.0
	11/6/14 14:47	29.85	0.046	7.4	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	9.5	5.2	0.0	85.7	0.0	100.0
	3/18/16 12:08	29.91	0.22	5.1	9.9	0.0	84.9	0.0	8.0
GP-21	10/15/99 to 9/10/04	-	-	0.0	0.0	0.0	-	-	-
	10/15/99 to 9/10/04	-	-	23.0	27.0	21.0	-	-	-
	10/15/99 14:33	30.40	-	19.8	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	-	19.0	-	0.0	-	-	-
	12/6/99 11:53	30.40	-	19.0	-	0.0	-	-	-
	1/11/00 12:25	30.02	-	14.0	-	0.0	-	-	-
	2/3/00 9:35	29.79	-	17.4	20.3	0.0	-	-	348.0
	2/7/00 9:46	30.42	-	15.0	-	0.0	-	-	-
	3/9/00 12:13	30.49	-	15.0	-	0.0	-	-	-
	4/7/00 9:27	30.94	-	5.0	-	13.0	-	-	-
	5/11/00 11:08	30.46	-	14.0	-	0.0	-	-	-
	6/5/00 10:58	30.38	-	15.0	-	0.0	-	-	-
	7/17/00 8:31	30.50	-	17.0	-	0.0	-	-	-
	8/2/00 11:20	29.71	-	14.9	20.3	0.3	-	-	298.0
	9/5/00 10:20	29.86	-	17.9	22.4	0.0	-	-	-
	10/10/00 8:05	29.20	-	18.5	23.3	0.0	-	-	-
	11/3/00 13:47	29.86	-	19.7	23.5	0.1	-	-	-
	12/6/00 14:44	29.64	-	22.5	24.4	0.0	-	-	-
	1/5/01 13:55	29.79	-	22.1	22.6	0.0	-	-	-
	2/2/01 10:35	29.79	-	21.8	22.3	0.0	-	-	-
	3/2/01 14:00	29.42	-	19.7	21.4	0.0	-	-	-
	4/6/01 13:18	29.13	-	16.2	19.8	0.2	-	-	-
	5/10/01 11:50	-	-	22.8	26.5	0.0	-	-	-
	6/4/01 12:35	29.98	-	18.1	20.4	0.0	-	-	-
	7/6/01 12:30	30.10	-	18.7	22.0	0.0	-	-	-
	8/3/01 13:09	29.94	-	17.9	22.3	0.0	-	-	-
	9/7/01 12:02	30.25	-	20.1	23.0	0.0	-	-	-
	10/8/01 10:50	-	-	22.6	24.5	0.0	-	-	-
	11/5/01 11:05	-	-	19.4	23.8	0.0	-	-	-
	12/7/01 12:04	30.40	-	18.6	22.8	0.0	-	-	-
	1/11/02 16:20	-	-	17.3	19.5	0.0	-	-	-
	2/8/02 16:30	-	-	12.0	16.7	1.8	-	-	-

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
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	nm	25.6	15.7	0.0	58.6	0.0	-
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	-	-	-
	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	-	-	-

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Perimeter Probe Compliance Monitoring Data
SPPD Property, South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
GP-22	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	nm	19.3	10.6	0.0	70.0	nm	-
GP-23	3/18/16 0:00						Flooded Well Screen		
GP-24	3/18/16 13:20	29.87	0.00	0.0	0.0	20.6	79.4		
GP-25	3/18/16 13:09	29.87	nm	43.3	0.0	5.4	50.9	0.0	
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	-	18.00
	3/18/16 10:24	30.01	nm	0.4	9.8	0.0	89.7	20.0	1.00

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Perimeter Probe Compliance Monitoring Data
SPPD Property, South Park Landfill Site
Seattle, Washington
Farallon PN: 408-002

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵							
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL		
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)		
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	nm	0.0	2.0	12.7	85.2	21.0	0.0		
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	NM	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			
GP-30	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	nm	1.7	11.2	0.0	87.0	13.0	13.0		
	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		Flooded Well Screen							
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					
GP-32	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	NM	0.8	0.0	19.9	80.9	0.0	4.0		
	3/18/16 11:10	30.02	nm	0.0	0.5	20.9	78.6	9.0	0.0		
	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					
GP-32	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	NM	0.0	0.2	22.5	77.3		6.0		
	3/18/16 11:00	nm				Flooded Well Screen					

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

Monitoring Location ¹	Start Date and Time ²	Barometric Pressure (in. Hg) ³	Well Head Pressure (in. H ₂ O) ⁴	LFG Monitoring Parameters ⁵					
				CH ₄	CO ₂	O ₂	Balance Gas	CO	LEL
				(% Volume)	(% Volume)	(% Volume)	(% Volume)	(ppm)	(% CH ₄)
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	nm	19.8	7.0	0.0	73.1	4.0	
	3/18/16 14:00			18.2	5.5	0.0	76.2		
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					Flooded Well Screen		
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	nm	10.8	4.1	0.0	85.0	nm	
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		
GP-37	3/18/16 9:55	30.03	nm	0.0	12.3	4.6	82.9	22.0	
Gp-38	3/18/16 9:49	30.03	nm	0.0	10.7	2.0	87.2	10.0	
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	nm	nm	0.0	0.6	21.0	-	-	-
MH-2 (2ft)	5/22/13 18:01	29.8	-	0.2	0.1	20.6	78.4	4.0	3.0
MH-2 (2ft)	6/25/14 15:40	29.72	-	0.0	0.0	20.3	79.6	0.0	0.0
Screening Level²				5.0	NA	NA			100

NOTES:

Results in bold denote that monitoring results are equal to or greater than the Lower Explosive Limit.

- denotes no data available.

¹ Monitoring Locations are those identified for compliance monitoring in Appendix C, Compliance Monitoring Plan, to the *Interim Action Work Plan, South Park Landfill Site, Seattle, Washington*, prepared by Farallon Consulting, L.L.C. and issued February 22, 2013.

² Monitoring data following May 22, 2013, were collected by Farallon Consulting, LLC. All prior data were collected by Floyd Snider; Aspect Consulting LLC; Associated Earth Sciences, Inc.; Herrera Environmental Consultants, Inc.; and King County Solid Waste Division.

³ Barometric pressure data following May 22, 2013, were collected by Farallon Consulting, LLC using the GEM 2000.

⁴ Well head pressure was measured using the Dwyer 475-2-FM Series 475 MK III Handheld Digital Manometer.

⁵ All data following May 22, 2013, were collected by Farallon Consulting, LLC using the GEM 2000, calibrated prior to monitoring.

% = percent

CH₄ = methane

CO = carbon monoxide

CO₂ = carbon dioxide

H₂O = water

Hg = mercury

in. = inches

LEL = lower explosive limit

LFG = landfill gas

NM = not monitored

O₂ = oxygen

ppm = parts per million