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FINAL
TREATABILITY STUDY REPORT ON ENHANCED BIOREMEDIATION SOURCE AREA TREATMENT AT PLUME 4-1

Operable Unit 2B, Installation Restoration Site 4
DNAPL Treatability Study
Alameda Point
Alameda, California

Environmental Remedial Action
Contract Number: N62473-10-D-0807
Contract Task Order: 0007

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Acronyms and Abbreviations

bgs	below ground surface
BSU	bay sediment unit
DCE	dichloroethene
DHC	*Dehalococcoides* sp.
DNAPL	dense nonaqueous phase liquid
gpm	gallon per minute
IR	Installation Restoration
kg	kilogram
mg/L	milligram per liter
MLS	multi-level sampling
OU	operable unit
Shaw	Shaw Environmental, Inc., a CB&I company
TCE	trichloroethene
TS	treatability study
VOC	volatile organic compound

Executive Summary

A treatability study was conducted between July 2011 and June 2013 to address the chlorinated volatile organic compounds in the soil and groundwater within Operable Unit-2B Plume 4-1, at Alameda Point, Alameda, California. The treatability study was implemented by Shaw Environmental, Inc., a CB&I company, with the U.S. Department of Navy, Base Realignment and Closure Program Management Office. This study also was performed in conjunction with SERDP (Strategic Environmental Research and Development Program) Project ER-1613. The main objectives of the treatability study were to evaluate the effectiveness of enhanced bioremediation to reduce dense nonaqueous phase liquid in the groundwater within the target treatment zone and to provide a sound technical basis for expanding bioremediation to the extended plume.

The full-scale application of enhanced bioremediation at Plume 4-1 utilized a groundwater recirculation system including four extraction wells and three injection wells. Each extraction well and injection well operated at a constant rate to distribute sodium lactate substrate across the treatment area. The injected groundwater was bioaugmented with SDC-9™ bacteria after reducing conditions were created.

Multi-level sampling wells and the extraction wells were used to monitor the performance of the enhanced bioremediation. Baseline sampling was performed on July 9, 2012, prior to system operations to assess the existing groundwater concentrations. Treatment progress sampling occurred regularly over the lactate recirculation and fermentation periods and quarterly thereafter. Post-treatment sampling also was performed to assess contaminated treatment effectiveness and rebound. The final sampling event occurred June 12, 2013.

The results of this study show that bioremediation at the site was effective. During active treatment and groundwater recirculation, groundwater concentrations were reduced up to 99 percent in one location and on average by greater than 70 percent across all extraction and monitoring wells. Complete dechlorination of trichloroethene, as evidenced by generation of ethene, was observed in all four extraction wells. The measured increases in ethene concentrations are in reasonable agreement to the observed decreases in trichloroethene and dichloroethene concentrations at the extraction wells. Post-treatment monitoring showed very little rebound of chlorinated ethene concentrations in groundwater, confirming that more than just the readily available chlorinated ethene concentrations in groundwater had been degraded. However, microbially-enhanced reductive dechlorination and reducing conditions have continued after cessation of active treatment (i.e., after lactate addition and groundwater recirculation have ceased), which may be masking potential contaminant rebound. While substantial decreases in the chlorinated ethene concentrations were observed, evaluation of the

mass balance indicates that only a small fraction (less than 1 percent) of the estimated initial dense nonaqueous phase liquid (DNAPL) mass present (11 to 55 kilograms) has been removed. The range of the initial DNAPL mass present, as well as the uncertainty in correlating DNAPL mass removal to changes in groundwater quality, highlight the challenges in evaluating and treating DNAPL source areas.

1.0 Introduction

This treatability study (TS) report summarizes the TS conducted by Shaw Environmental, Inc., a CB&I company (Shaw), at Operable Unit (OU)-2B Plume 4-1. OU-2B is located within the former Naval Air Station Alameda (currently known as Alameda Point) in Alameda, California. This study was executed for the U.S. Department of the Navy, Base Realignment and Closure, under the Environmental Contract No. N62473-10-D-0807, Contract Task Order 0007. Figure 1 shows the location of OU-2B Plume 4-1.

This report addresses the following main topics:

- Site description and project background
- TS objectives and approach
- Dechlorination of chlorinated ethenes process
- Evaluation of potential effectiveness
- Enhanced bioremediation treatment system
- TS activities
- Treatability effectiveness assessment
- Conclusion

1.1 Site Description

Alameda Point is located on the northwestern tip of Alameda Island, which is along the eastern margin of the San Francisco Bay and south of the City of Oakland (Figure 1). The northern portion of Alameda Island was formerly tidelands, marshlands, and sloughs adjacent to the historical San Antonio Channel, now known as the Oakland Inner Harbor. Alameda Point was created by filling sub-tidal areas, natural tidelands, marshlands, and sloughs with dredge spoils from the surrounding San Francisco Bay, Seaplane Lagoon, and Oakland Inner Harbor. Alameda Point is a roughly rectangular area approximately 2 miles wide from east to west and 1 mile from north to south, occupying approximately 1,734 acres of land.

Installation Restoration (IR) Sites 3, 4, 11, and 21 are designated as OU-2B under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and have been the subject of environmental investigations due to historical documentation of fuel, oil, and solvent usage related to bulk fuel service and ship and aircraft maintenance and repair.

IR Site 4 comprises approximately 14 acres, is approximately 65 percent open space, and has infrastructure that includes paved parking lots, storage areas, and a sports field. The site includes Building 360, a former Aircraft Engine Facility that contained process shops for blast testing, cleaning, painting, welding, and plating; various aircraft component repair rooms; and nondestructive testing facilities.

Prior to 1975, wastes generated by plating operations in Building 360 were discharged directly to the Seaplane Lagoon via the industrial waste sewer system. Between 1975 to April 1997, plating wastes were treated at an industrial waste treatment facility located north of Building 360. Chemical contaminants from the various industrial processes inside Building 360 are believed to have been released to the subsurface at IR Site 4 by leaks in the sanitary, industrial waste, and storm sewer lines from the building.

1.2 Geology and Hydrogeology

Alameda Point is located along the eastern portion of San Francisco Bay, which occupies a depression between two uplifted areas: the Berkeley Hills to the east and Montrara Mountains to the west. The depression and uplifted areas were generated by two sub-parallel, active faults, namely the San Andreas Fault to the west of the San Francisco Bay and the Hayward Fault to the east. The subsurface geology of Alameda Point reflects the tectonic and depositional processes that formed the San Francisco Bay, as well as human intervention through the filling of former tide flats and portions of the San Francisco Bay

The near surface stratigraphic sequence across OU-2B includes all the basic elements found at Alameda Point: the fill, the bay sediment unit (BSU), and the Merritt Sands with its lithological sub-units (upper fine-grained, upper sandy and middle/lower sand zones) as illustrated on Figure 11. The cross-section shown on Figure 11 runs through Site 4 and is located on Figure 10. The fill material across OU-2B reflects the complexity of the bay margin zone within which it was deposited. The fill thins to the east onto the historical (pre-fill) shoreline of Alameda, with irregular thickness that mirrors the predevelopment marsh environment. The fill's internal lithological character, although limited with respect to grain-size distribution, contains complex internal structure resulting from the dredge and fill process. The fill's thickness is generally greater in western part of OU-2B, although its shallow position for the most part removes it from concern with respect to dense nonaqueous phase liquid (DNAPL) remediation.

The stratigraphy beneath Plume 4-1 consists of two geologic units: the Merritt Sand Formation and artificial fill (Tetra Tech Environmental Management, Inc., 1999). The Merritt Sand Formation extends from roughly 10 to 70 feet below ground surface (bgs). It is composed of an orange-brown, fine-grained, silty sand and a fine-grained clayey sand. The top of the Merritt Sand is composed of a dense, well-consolidated, clayey sand, between 1 and 5 feet thick and has a low hydraulic conductivity. Additionally, a contact zone divides the Merritt Sand into an upper

eolian and a lower alluvial section. The eolian section of the Merritt Sand represents sediment deposition by airborne processes, and the alluvial section of the Merritt Sand represents sediment deposition by fluvial or water processes. The contact zone between the eolian sand and alluvial sand sections ranges from 5 to 15 feet thick, consisting of a dense to well-consolidated clayey sand. This clayey sand has a low hydraulic conductivity.

Overlying the Merritt Sand Formation is the artificial fill that extends from the surface down to 10 feet bgs. The artificial fill consists of a light to dark brown, fine-grained, silty sand with trace amounts of gravel and brick fragments. The fill is composed of dredge spoils from the San Francisco Bay and the Oakland Inner Harbor.

The BSU was not present within the study area but is present over some of OU-2B. The BSU has the potential to both control movement and retain DNAPL. The Merritt Sands are present within the study area and were the primary lithology within which the system was installed. The macroscopic character of the lithology addressed in this study is illustrated on the attached cross sections (Figures 13 and 14). Figure 2 shows the location of the cross sections at Site 4. The presence of clayey and silt-clay zones within the Merritt, at the scale observed within the study area, is expected across the remainder of OU-2B. The clay or silty-clay zones potentially act as adsorptive lithology for DNAPL and are believed to be responsible for the retention of the DNAPL that was targeted in the current study. The identification and characterization of these lithologies would be critical to the successful implementation of the method to other areas within OU-2B.

Groundwater at Plume 4-1 is encountered between 2 and 8 feet bgs within the artificial fill. Unlike areas to the west, there is no intervening layer of Bay Sediment between the artificial fill and Merritt Sand beneath Plume 4-1; therefore, the first water-bearing zone behaves as a single hydro geologic unit.

The groundwater flow directions are affected by local recharge from precipitation, seasonal variation in groundwater elevations, and tidal influences. For Alameda Point, the groundwater has been found to generally flow from southeast to northwest (Figure 2).

1.3 Report Organization

The remainder of the report is organized into the following sections and appendices:

- Section 1.0, “Introduction”
- Section 2.0, “Treatability Study Description”
- Section 3.0, “Enhanced Bioremediation Treatment System”
- Section 4.0, “Treatment Study Activities”

- Section 5.0, “Treatability Study Effectiveness Assessment”
- Section 6.0, “Conclusion and Recommendations”
- Section 7.0, “References”
- Appendix A, "Boring Logs"
- Appendix B, "Multi-level Sampling Installation Photographs"
- Appendix C, "Non Hazardous Investigation-Derived Waste"
- Appendix D, "Well Survey Report"
- Appendix E, "Data Collection Logs"
- Appendix F, "Groundwater Sampling Logs"
- Appendix G, "Groundwater Analytical Reports"
- Appendix H, "Data Quality Assessment"

2.0 Treatability Study Description

This section describes the nature and extent of the plume and the TS objectives. In addition, this section provides an overview of the treatment approach taken to address the contamination in the groundwater.

2.1 Initial Characterization of Treatability Study Area

The source area for Plume 4-1 was assumed to exist at the upgradient edge of the plume, as shown in Figure 9. Based on measured trichloroethene (TCE) concentrations well in excess of 1 percent of the aqueous solubility, there was a strong potential for the presence of TCE DNAPL within the source area.

Initial characterization activities were performed to determine the approximate location and extent of a DNAPL source area. A combination of investigation tools were applied, including membrane interface probes, soil boring with soil sampling for volatile organic compounds (VOCs), and a hydraulic profiling tool to obtain a high-resolution vertical profile of the permeability field.

In addition, a network of multi-level sampling (MLS) wells was installed within the presumed DNAPL source area. Figure 3 shows the well construction diagram of the plume MLS wells that were screened in the suspected source area, where both a low permeability silty sand and a sandy zone were monitored. Figure 4 shows the well construction diagram of the Source MLS wells that were screened in the suspected source area. Photographs in Appendix B show images of the MLS wells prior to installation.

Injection and extraction wells were installed to the east and west of the DNAPL source area. Figures 5 and 6 show the well construction diagrams. Soil and groundwater generated from the well installations were removed from the site in March 2011. The manifests are included in Appendix C. Well locations were surveyed by Bellecci & Associates on December 6, 2010. The locations are presented in Table 2 and the raw data is provided in Appendix D.

Injection and extraction wells were used to re-circulate groundwater through the suspected source area, while a tracer test was performed from April to May of 2011 to further assess the nature of the DNAPL source area. Tracers consisted of bromide along with a suite of alcohol tracers that were used to implement a partitioning tracer test, similar to testing performed by others (Brooks et al., 2002; Hartog et al., 2010). Partitioning tracer tests involve the use of both hydrophilic and hydrophobic tracers to estimate groundwater flow field and DNAPL mass. The hydrophilic tracers are used to estimate groundwater flow, while the hydrophobic tracers partition into DNAPL encountered along the groundwater flow path and are used to estimate the

effective DNAPL mass. The details of the partitioning tracer test performed in the DNAPL source area is described in the work plan (Shaw Environmental, Inc., 2010).

Tracer elution was measured in both the MLS wells and in the extraction wells. A layout of this test area, with the presumed DNAPL source area (based on the membrane interface probe and soil investigation) is shown in Figure 2. Extracted groundwater was passed through carbon filters to remove TCE prior to re-injection. Thus, this testing served as a means to measure the rate of TCE DNAPL dissolution from the source area.

Results of this DNAPL characterization confirmed that DNAPL was present in the source area, as indicated by partitioning tracer test (i.e., retardation/sorption of the alcohol tracers into the DNAPL). Using the MLS wells, the location of the DNAPL sources was shown to be in the low permeability silty sand. The cross-section shown in Figure 12 (see Figure 2 for cross-section location) provides a conceptual model of the DNAPL source area. NOTE: The geology shown in Figure 12 is based upon the boring logs provided in Appendix A.

To estimate the mass of DNAPL present in the source area, the method of moments was used based on the extraction well data and the partitioning tracer data (Hartog et al., 2010; Wang et al., 2013). Tracer elution data was plotted, scaling the concentration to the injected concentration. The breakthrough curves for each tracer were used to calculate the mass recovery through the zeroth moment and the mean arrival time using first moments. The travel time distribution was determined from the tracer breakthrough curve and characteristics such as dispersion coefficient were estimated using the second moment of the breakthrough curves. The DNAPL saturation in the pore space, and ultimately the DNAPL mass, was estimated using the mean arrival time of the non-reactive tracer and the partitioning tracers (Annable et al., 1998).

Using these methods, approximately 16 kilograms (kg) of TCE DNAPL initially was present in the source area. During the dissolution testing that was performed during the tracer test, and prior to the bioaugmentation TS described in the following sections of this report, approximately 5 kg of TCE DNAPL mass was removed (using carbon adsorption to treat the recirculated groundwater). Thus, 11 kg of TCE DNAPL mass was present in the source area following this phase of testing and prior to the beginning of the bioremediation TS.

If data from the MLS wells screened in the low permeability material are used to estimate the DNAPL mass (instead of the extraction wells, which represent flow in the higher permeability sands), nearly five times the DNAPL mass or 55 kg of DNAPL is estimated. This discrepancy likely is due, at least in part, to non-equilibrium mass transfer between the high and low permeability zones, coupled with the fact that most of the DNAPL is present in the low permeability material. Thus, reliance on tracer testing based on wells screened in the high permeability materials (as described in the previous paragraphs) likely underestimates the

DNAPL mass; this further suggest that DNAPL sources present in the low permeability materials are not in equilibrium with the more conductive groundwater zone, resulting in groundwater contaminant concentrations in the conductive zone that are less than what would be expected if mass transfer limitations were not present. However, DNAPL mass based on MLS (low permeability zone) data may have been overestimated if nonaqueous phases other than TCE (e.g., hydrocarbons) were responsible for the observed tracer partitioning. Historic data and field observations did suggest the presence of hydrocarbon contaminants, so this is plausible.

2.2 Treatability Study Objective

The objective of the TS was to show the feasibility and to evaluate the effectiveness of TCE DNAPL removal using enhanced bioremediation and to provide a sound technical basis for expanding bioremediation to the down gradient plume emanating from the source area. The groundwater recirculation system was employed as a means of distributing sodium lactate, yeast extract, diammonium phosphate, and SDC-9™. The following objectives were established to prove bioremediation to be an effective treatment option for the extended plume:

- Obtain laboratory data to assess the viability and effectiveness of bioaugmentation for degrading TCE contamination in groundwater
- Facilitate the complete reductive dechlorination of TCE using enhanced bioremediation
- Demonstrate that substantial improvements to groundwater quality can be achieved and/or that substantial DNAPL mass can be removed

2.3 Treatment Approach

Groundwater recirculation was performed using the injection and extraction wells shown in Figure 2. For the bioaugmentation study, the carbon vessels used to remove VOCs during the 2011 partitioning tracer and dissolution test were removed. Instead, groundwater extracted from the extraction wells was passed through 100 micron filters to remove particulates and minimize fouling of the injection wells. Under all conditions, recirculated groundwater was not exposed to the atmosphere to both reduce contact with oxygen, and to minimize volatilization of chlorinated ethenes and ethene.

The recirculation system was initially used to distribute lactate throughout the source area in an effort to establish anaerobic conditions and reduce sulfate concentrations prior to the bioremediation process. This strategy was employed to limit iron sulfide fouling of the system. Distribution and sulfate reduction occurred from July 18, 2012, until September 14, 2012. Sulfate in the groundwater had generally decreased from approximately 330 milligrams per liter (mg/L) to 130 mg/L.

After substantial sulfate reduction was observed throughout the treatment area, 6 liters of bioaugmentation culture (SDC-9™, which contained *Dehalococcoides* sp. [DHC] at an approximate concentration of 5×10^{11} cells/L for a total of 3×10^{12} cells of DHC) were injected directly into the injection wells. This bioaugmentation dosage was estimated based on our prior experience treating chlorinated ethene source areas (Schaefer et al., 2010; Schaefer et al., 2010a) Groundwater recirculation (2.2 gallons per minute [gpm] total flow) was initiated on September 18, 2012, immediately following bioaugmentation. Recirculated groundwater was amended with lactate, yeast extract, and diammonium phosphate at 1260, 56, and 56 mg/L, respectively. System operations occurred on a semi-continuous rate (i.e., five days of active recirculation followed by two days of passive fermentation [no recirculation]). Lactate, yeast extract, and diammonium phosphate were injected four out of the five days of active recirculation. This cycle occurred for a period of nine weeks.

Overall system performance was based upon monitoring performed at the extraction wells and at MLS wells that were screened in the low permeability silty sand materials. The MLS wells selected for monitoring were located where elevated TCE concentrations suggested that TCE DNAPL may be present.

On October 2, 2012, the recirculation system flow rate was lowered from 2.2 gpm to 1.2 gpm. This reduction was due to the fact that the well SMLS-6 had surfaced water. SMLS-6 is located due west approximately 3 feet from injection well SIW-03. The flow rate was adjusted by decreasing the pumps discharge cycle on a programmable process controller.

3.0 Enhanced Bioremediation Treatment System

The components of the enhanced bioremediation treatment system include the recirculation system with the substrate injection subsystem. In April 2012, Shaw began construction of the groundwater recirculation system and substrate injection system. The recirculation system was installed to transport substrate to the treatment area on a 24-hour basis. The maximum system flow was determined based on what the injection wells could receive. The purpose of the substrate injection system was to add substrate and amendments to maintain reducing conditions in the treatment area. Figures 7 and 8 show process flow and system piping and instrumentation diagram, respectively. The specifications of these components are described in detail in the following subsections.

3.1 Recirculation System

The recirculation system was installed west of the plume on metal unistrut frames within a secondary containment pad. The components of the system included programmable process controllers, piping, instrumentation, substrate injection system, mixers, and manual control valves.

The recirculation system transported groundwater from the extraction wells to the injection wells while amending the groundwater with the appropriate substrates. Four submersible pneumatic well pumps were installed in the extraction wells and pumped groundwater to a manifold. Groundwater then flowed through bag filters to remove any particulates in the stream. Following the bag filters, substrate was injected to this groundwater stream. Inline mixers installed downstream from the substrate injection location were utilized to ensure the groundwater and substrate became homogenous fluid. Once mixed, the fluid was dispersed between the three injection wells. Stinger pipes were installed in the injection wells below the groundwater level to prevent the substrate from becoming aerobic.

Manifold assemblies, made of schedule 80-polyvinyl chloride pipe, were constructed for each of the extraction and injection wells. They included wellhead connections, flow meters, diaphragm valves, pressure gauges, and check valves.

3.2 Substrate Injection System

The substrate injection system was installed as a subsystem to the recirculation system in the secondary containment pad. The injection system introduced substrates into the recirculation system prior to the inline mixers. The injection system was designed to run manually. The components of the injection system consisted of a small tank, control valves, and a positive displacement, variable speed drive metering pump.

The substrates used for the TS were sodium lactate, yeast extract, and diammonium phosphate. The sodium lactate was procured as 60 percent by weight solution in a 256-gallon storage tote. The yeast extract and diammonium phosphate were in powder form and were mixed with water before injection. Ten gallons of water were mixed with 680 grams of yeast extract and 680 grams of diammonium phosphate before being mixed with 24.5 liters sodium lactate. Once the mixture was homogenized and solids were dissolved, it was added to the small tank where the metering pump injected the mixture.

The metering pump delivered the solution to an injection port installed in the groundwater recirculation system. The metering pump was controlled manually.

4.0 Treatment Study Activities

4.1 Baseline Sampling

Baseline samples were collected from 21 wells on July 9, 2012. The wells included the extraction wells, injection wells, source area monitoring wells, and down gradient plume area monitoring wells. The results are located in Table 3. Samples sent for laboratory analysis to Calscience Environmental Laboratories, Inc. Analytical data can be found in Appendix G.

4.2 Initial Substrate Injection and Distribution to Promote Sulfate Reducing Conditions

On July 18, 2012, 6.3 liters of sodium lactate were injected into the system evenly between the three injection wells. Following the injection, the groundwater recirculation system was turned on for 48 hours to distribute the sodium lactate to initiate fermentation and sulfate reduction. The recirculation system was operated at a flow rate at 2.0 gpm during this period. Groundwater was pulled from each of the four extraction wells at a rate of 0.5 gpm. The groundwater was mixed with sodium lactate before being distributed to the injection wells, each of which injected at a rate of 0.6 gpm.

This process was repeated until September 17, 2012, with increased sodium lactate dosages in order to promote amendment distribution and sulfate reduction within the targeted treatment zone. A total of 453 liters of sodium lactate were injected into the groundwater during this initial substrate injection and distribution.

4.3 Microbial Injection

Three liters of SDC-9™ were delivered to the site from the Shaw Biotechnology Laboratory on August 14, 2012. However, it could not be injected into the three injection wells (1 liter per injection well) until September 11, 2012. Because Shaw protocol for application of SDC-9™ specifies injecting the culture within two weeks of receipt at the job site, a second injection of three liters of SDC-9™ from a new batch was done on September 18, 2012.

The SDC-9™ culture was shipped in liquid form to the project site in nitrogen-pressurized 18.5-liter soda kegs. The SDC-9™ was injected through a polyethylene tubing into the injection wells. The tubing was inserted in the groundwater to keep the SDC-9™ from being exposed to air.

4.4 Groundwater Recirculation and Bioaugmentation

On September 19, 2012, the enhanced bioremediation treatment system operation was initiated for operation on a semi-continuous basis to facilitate the distribution of bacteria, electron donor,

and nutrients. The system was operated five days a week with substrate injections. The system ran for nine weeks and was turned off on November 20, 2012. Substrate was injected once a day at a rate of 144 milliliters per minute, which was dispersed after injection with the inline mixers. Data was collected on the system to optimize system performance and is provided on Appendix E.

Weekly extraction well and selected MLS well sampling occurred from September 19, 2012, until November 20, 2012. Individual samples were collected at a selected time (grab method) to ensure groundwater would not be pulled across other MLS screen intervals, and to provide a minimal perturbation to the aquifer. The samples were analyzed for VOCs, dissolved gases, fatty acids, anions, sulfide, and DHC via quantitative polymerase chain reaction.

Prior to sampling groundwater parameters were measured. These parameters included: temperature, conductivity, pH, oxidation-reduction potential, dissolved oxygen, and turbidity. Alkalinity and sulfate tests were conducted in the field. Alkalinity tests were completed using HACH test kit, Model AL-DT with titration cartridges. Sulfate tests were completed by a HACH DR/800 Multiparameter Colorimeter Configurator using HACH SulfaVer® 4 turbidimetric method.

4.5 Quarterly Monitoring

Groundwater was monitored through four consecutive quarterly monitoring events. The events occurred on November, 19 2012; January 7, 2013; March 13, 2013; and June 12, 2013. The wells included: SMLS1-1, SMLS1-2, SMLS1-3, SMLS1-4, SMLS4-2, SMLS4-3, SMLS7-1, SMLS7-2, and SMLS7-3. Extraction well sampling for VOCs and reduced gases was performed on May 1, 2013. These events were used to monitor VOC reduction, substrate distribution, and microbial growth. Samples were collected for VOCs by U.S. Environmental Protection Method EPA 8260B, Anions by U.S. Environmental Protection Method Method 300, Sulfide by SM4500-S2, volatile fatty acids by HPLC, and dissolved gases and human capital deoxyribonucleic acid by quantitative polymerase chain reaction. Sampling logs can be found in Appendix F, laboratory results can be found in Appendix G, and the data quality assessment can be found in Appendix H.

Quarterly sampling was collected through a grab method. No water was purged from the wells due to the proximity of the MLS wells screened intervals being one foot apart. Well purging was avoided to prevent mixing in the water column and to ensure groundwater samples were collected from the target depths. This method proved to be successful. Well SMLS1-1 to SMLS1-4 on Table 3 shows the variance of VOCs between the intervals. The VOCs ranged from 3,322 µg/L at SMLS1-4 to 187,530 µg/L at SMLS1-3.

Groundwater elevations were taken to determine the groundwater flow through the source area as well as to determine the location of conductive zones relative to DNAPL sources (Table 1). Elevations measurements were taken on October 5, 2010, at 62 wells. The results concluded the groundwater flow direction to be from southeast to northwest (Figure 2). Wells in the southeast showed elevations ranging from 6.52 feet (SPW-3-1) to 6.73 feet (SPW-3-2). Wells in the northwest showed elevations ranging from 6.30 feet (P-4-1-MW5) to 6.42 feet (P-4-1-MWS2) (Figure 15).

5.0 Treatability Study Effectiveness Assessment

5.1 Amendment Distribution and Mixing

As expected, electron donor (sodium lactate or other fermentable volatile fatty acids generated via lactate fermentation) was rapidly distributed from the injection wells, with elevated levels of volatile fatty acids reaching the extraction wells within the first week of recirculation. Volatile fatty acids also were distributed to the MLS wells, albeit at a slower rate, indicating that electron donor was effectively delivered to the lower permeability silty sand zone. Volatile fatty acid concentrations at the monitoring locations are summarized in Table 5.

Table 5 shows chlorinated ethene concentrations initially increased at the extraction wells and some of the MLS wells after recirculation was initiated. This increase was likely due to mixing and to enhancement of DNAPL dissolution resulting from the increased groundwater flow velocities.

5.2 TCE Dechlorination, Mass Removal, and Impacts on Groundwater Quality

During the nine weeks of recirculation, periodic groundwater sampling results show total chlorinated ethene concentrations (molar basis) decreased over time (Table 6). Comparison of the April and May 2013 data (approximately five-months after system shutdown) to the baseline data indicates that chlorinated ethene levels in groundwater decreased in all locations, ranging between a 19 and 98 percent decrease; the average decrease observed (extraction and MLS wells) was 73 percent. Thus, the nine weeks of bioremediation resulted in a significant improvement in groundwater quality and a significant reduction in chlorinated ethene migration (or, flux) from the source area. Decreases in chlorinated ethene concentrations at the extraction wells are apparent during active treatment (Figures 16, 17, 18, 19).

Increases in ethene concentrations during the TS at all the extraction wells demonstrate that the complete reductive dechlorination was occurring at an enhanced rate. In addition, the extraction wells generally showed an increasing trend in the ratio of dichloroethene (DCE) to TCE. These observations suggest that the microbially-enhanced reductive dechlorination was facilitated by delivery of the bioremediation amendments.

The measured increases in ethene are in reasonable stoichiometric agreement to the observed decreases in TCE and DCE measured at the extraction wells during the study. The ethene generated at the extraction wells account for 37 to 80 percent of the observed decreases in chlorinated ethenes, as measured from Extraction Well 4 and Extraction Well 3, respectively. Unfortunately, the background chloride concentrations were elevated (approximately 1,600 mg/L), so evaluation of any increases in chloride concentrations due to reductive dechlorination did not provide any insight with respect to TCE molar balance.

Although the molar recovery of ethene was reasonable during the demonstration, the measured recovery was less than complete. One explanation, based on recent studies performed by Schaefer et al. (2010) and Torlapati et al. (2012), is that back-partitioning of ethene into nonaqueous phases substantially decreased the measured ethene levels in groundwater. Such back-partitioning could account for, at least in part, the observed molar balance discrepancies.

Additional insight into the overall effectiveness and performance of the bioaugmentation TS can be attained by examination of the groundwater monitoring results at the MLS wells. Results for the MLS wells, with respect to decreases in chlorinated ethene levels during treatment, fraction of DNAPL mass transformed to ethene, and evidence of reductive dechlorination, are similar to those observed at the extraction wells. Figures 20, 21, and 22 show results for the screen intervals of MLS 7 that are screened within the low permeability material, which are representative of MLS screen intervals within the low permeability material. However, the measured increases in ethene in the MLS wells screened in the low permeability materials generally account for less than 15 percent of the observed decreases in chlorinated ethenes, which is much less than the molar balance observed for the extraction wells (which are screened in the high permeability materials). Some of this discrepancy in molar balance is likely due to dilution from the much less chlorinated ethene impacted groundwater associated with the more permeable underlying sandy zone (Figure 12). Re-injected groundwater, containing much lower dissolved TCE concentrations, migrating through the low permeability likely was the cause for some of the observed decrease in TCE in the low permeability materials, and correspondingly the apparent discrepancy in ethene mass balance.

The measured increases in ethene at the extraction wells suggest that less than 0.1 kg of DNAPL was removed. This is a very small fraction of the pre-bioaugmentation DNAPL mass (approximately 11 kg of DNAPL present at the beginning of the bioaugmentation TS based on the extraction well partitioning tracer data, or 55 kg of DNAPL if using data from the low permeability MLS locations, as discussed in Section 2.1), suggesting that DNAPL sources may still be present, particularly in the low permeability materials. However, based on the 1 percent solubility rule-of-thumb for indicating the potential presence of DNAPL, no DNAPL sources appear to be present (except for at MLS 7-3, where the DCE concentration is at nearly 2 percent solubility). This apparent discrepancy highlights both the difficulty in estimating DNAPL mass in heterogeneous media, as well as the difficulty in understanding the impacts of DNAPL sources on groundwater quality where mass transfer controlled dissolution likely is occurring.

While some discrepancies in the molar ethene recovery are expected, it is unlikely that less than 1 percent molar recovery of ethene would have been observed due to back-partitioning of ethene into nonaqueous phases (Schaefer et al., 2010; Torlapati et al. 2012). Thus, it is reasonable to assume that either the initial DNAPL mass was overestimated, or that the remaining DNAPL mass (if present) is not causing elevated (greater than 1 percent solubility of TCE) impacts on

groundwater. As discussed in Section 2.1, measured DNAPL mass may have been overestimated if nonaqueous phases other than TCE (e.g., hydrocarbons) were responsible for the observed tracer partitioning. Historic data and field observations did suggest the presence of hydrocarbon contaminants, so this is plausible. Mass transfer limitations between DNAPL sources that may still reside in the lower permeability material and the conductive zones also provide an explanation that is consistent with observed results, as measured groundwater VOC levels may not yet be in equilibrium with DNAPL sources present in low permeability zones. Continued monitoring and/or operation of the treatment system are needed to provide improved assessments of the limits (in terms of groundwater quality) of bioaugmentation for the source area, and to assess the extent of any TCE rebound that may occur. Such monitoring would be useful for further assessing the apparent discrepancy between ethene generation and improvement in groundwater quality that has been observed.

Increases in measured DHC concentrations (Table 6) were observed throughout the demonstration area. These increases were observed in both the high permeability zone (i.e., the extraction wells), as well in several of the MLS wells, indicating that microbially-enhanced dechlorination was occurring in both the high and low permeability zones. Because DHC were naturally present in the aquifer, it is unclear whether the increases in DHC levels were due to growth of indigenous bacteria, or due to growth of the bioaugmented culture.

Although the downgradient transect has been monitored (Table 4), there has not been any decreasing trend in TCE observed. This is not unexpected, considering the relatively low groundwater velocity (measured using passive flux meters during the site characterization) of less than 2 centimeters per day. Continued monitoring of the downgradient transect is recommended to assess the impacts of source area treatment on the dissolved plume.

Finally, post-treatment (i.e., after cessation of groundwater recirculation and amendment addition) monitoring results show that rebound has been minimal. The lack of rebound suggests that sources have been removed, or have been greatly diminished, and biodegradation is continuing. The biogeochemical conditions in the aquifer are still conducive to reductive dechlorination: sulfate reducing conditions still exist, methane continues to be generated, DHC levels continue (at some locations) to increase, and ethene concentrations (at some locations) continue to increase. Persistence of these conditions may be controlling rebound of groundwater concentrations dissolving from remaining mass in the low permeability zone.

6.0 Conclusion and Recommendations

Overall results and conclusions of the bioremediation TS show that bioaugmentation resulted in the complete dechlorination of the chlorinated ethenes and a substantial decrease in chlorinated ethene concentrations in groundwater. This was observed both in the high and low permeability materials. Post-treatment rebound monitoring suggests that contaminant rebound due to the presence of any remaining residual DNAPL sources located in low permeability zones will likely be limited, but continued monitoring is needed to confirm this observation. Apparent discrepancies in the ethene molar balance and improvement in groundwater quality may be due to an over-estimation of DNAPL mass and/or mass transfer limitations (if DNAPL resides in low permeability materials).

Recommendations for future efforts include the following:

- Continued monitoring at selected MLS wells and extraction wells to assess the extent of rebound and any continued dechlorination.
- Down gradient monitoring over the course of the next 24 months to assess treatment impacts on the down gradient plume.
- Continued source area treatment to facilitate continued removal of chlorinated VOCs. Future bioremediation treatment may not require continuous recirculation (as performed during this TS), but rather passive treatment or intermittent operation of the recirculation system for delivery of electron donor may be sufficient for future bioremediation treatment.
- Implementation of full-scale bioremediation as part of the overall remedy for the entire plume referred to as Plume 4-1.

7.0 References

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Figures

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY	DRAWING NUMBER
---	---	CONC	SJZ	7/25/13	NK	7/25/13		139941-A32

REFERENCE:
BACKGROUND AERIAL PHOTO ONLY, GOOGLE

SCALE

0 300 600 FEET

SCALE

0 5 10 MILES

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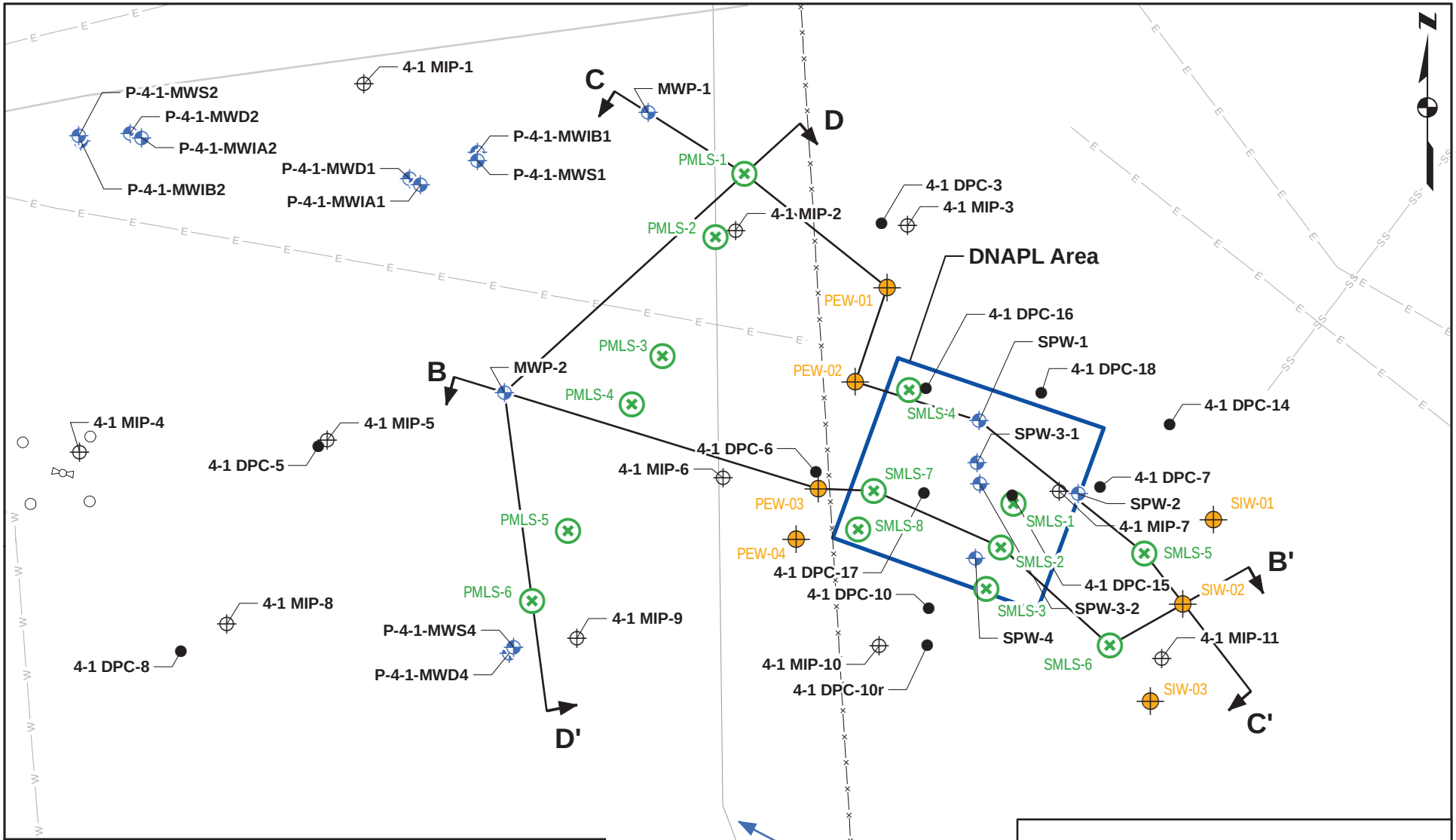
SAN DIEGO, CALIFORNIA

FIGURE 1

SITE LOCATION/SITE MAP
PLUME 4-1

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

S:\GIS\Alameda\GIS_Documents\Project_Maps\ALA_024_site_layout.mxd Karen.Black 07/24/13



Legend

- Injection or Extraction Well
- Existing Well Location
- Multi-Level Sampler
- Direct Push Core Location
- MIP
- Cross-section Location
- Fence
- Electrical Line
- Water Line
- Storm Sewer Line
- DNAPL Area

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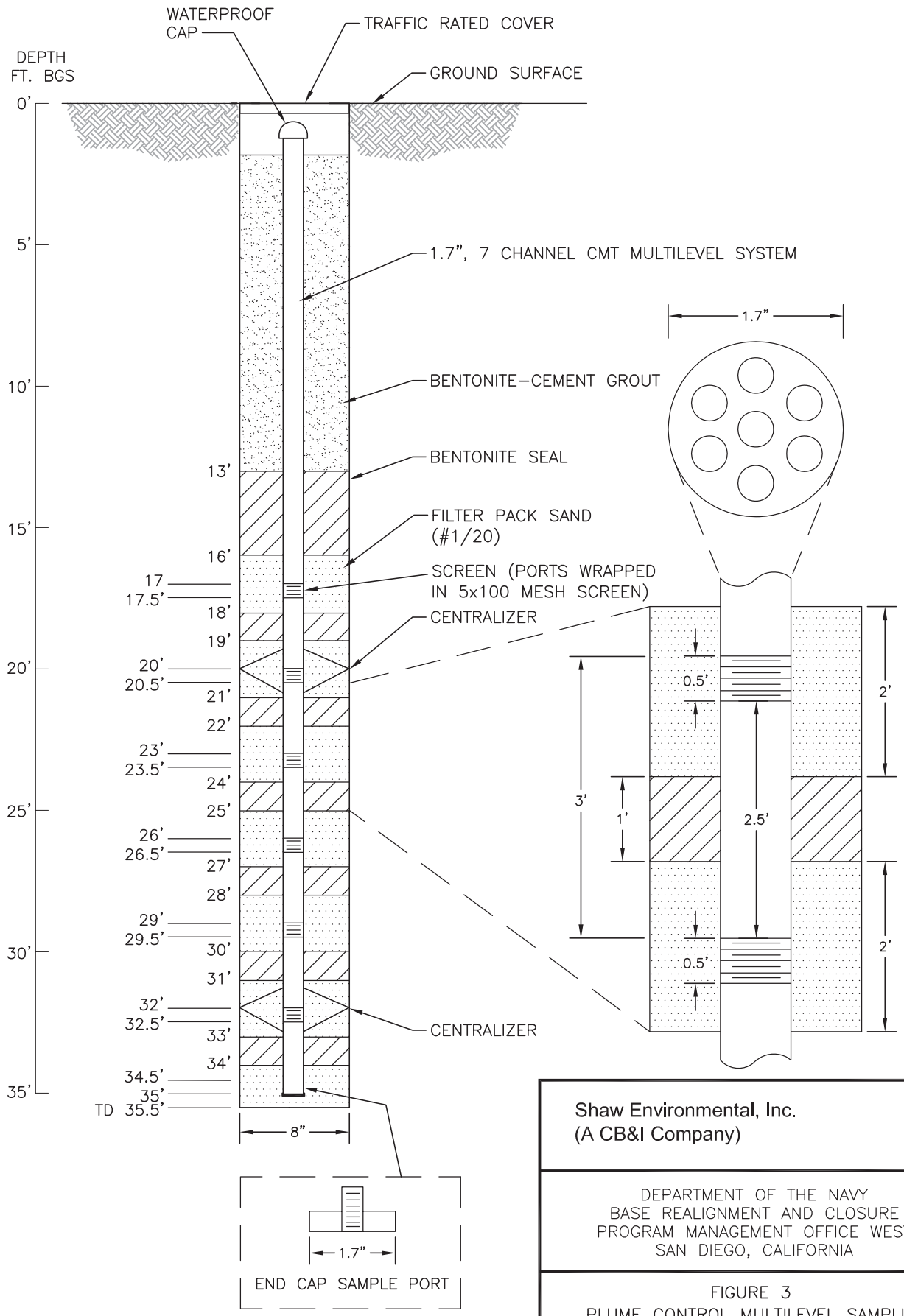
FIGURE 2
SITE LAYOUT
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA



NOT TO SCALE

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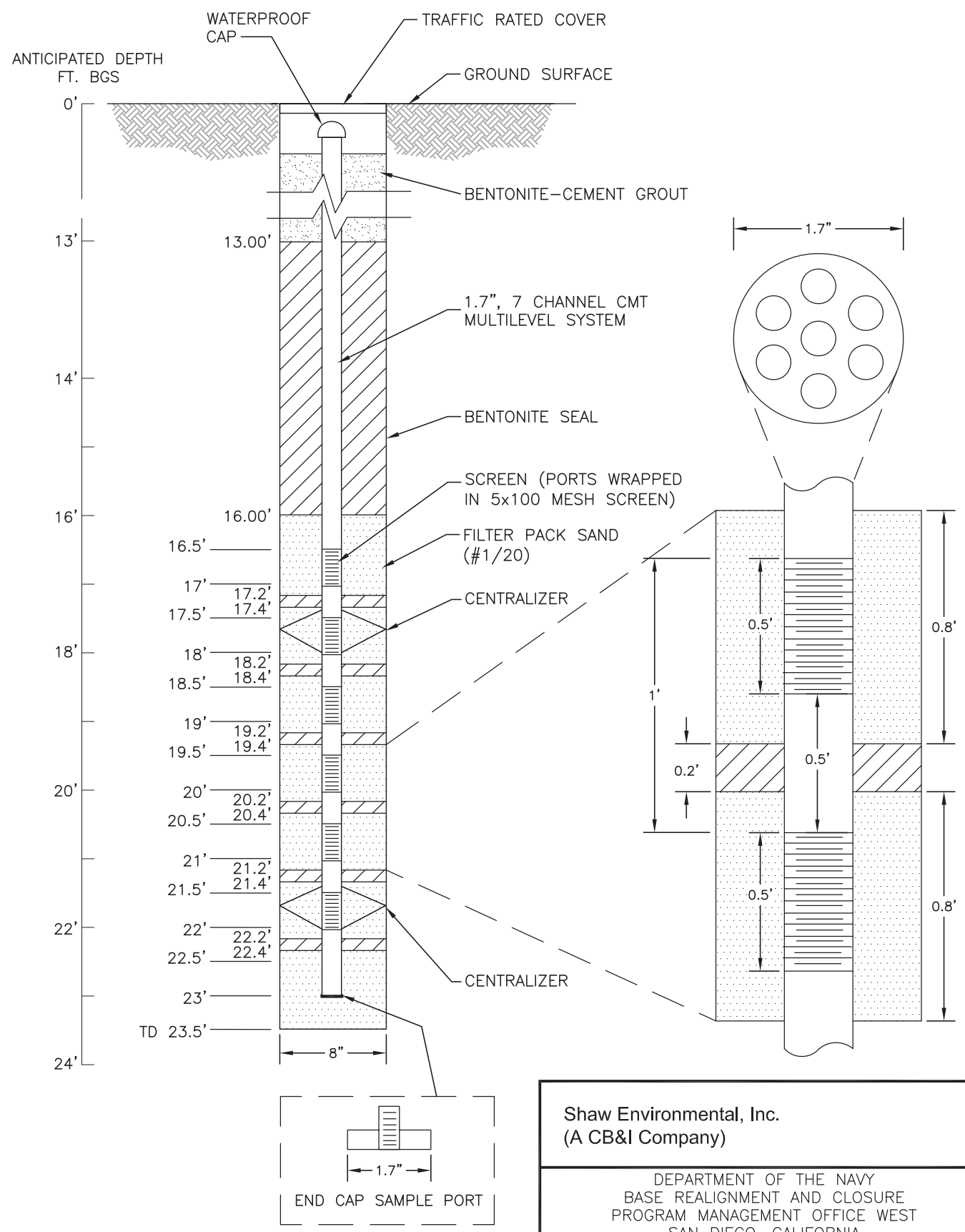
SAN DIEGO, CALIFORNIA

FIGURE 3
PLUME CONTROL MULTILEVEL SAMPLING WELL CONSTRUCTION DIAGRAM

ALAMEDA CTO 0007
CONTRACT N62473–10–D–0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN BY		OFFICE	X–REF	IMAGE
139941–A30	JM	7/25/13	NK	7/25/13	BJ	7/25/13	Concord	---	---



NOTE:
ACTUAL WELL DESIGN WILL BE BASED ON FINDINGS FROM PRECEDING ACTIVITIES.

NOT TO SCALE

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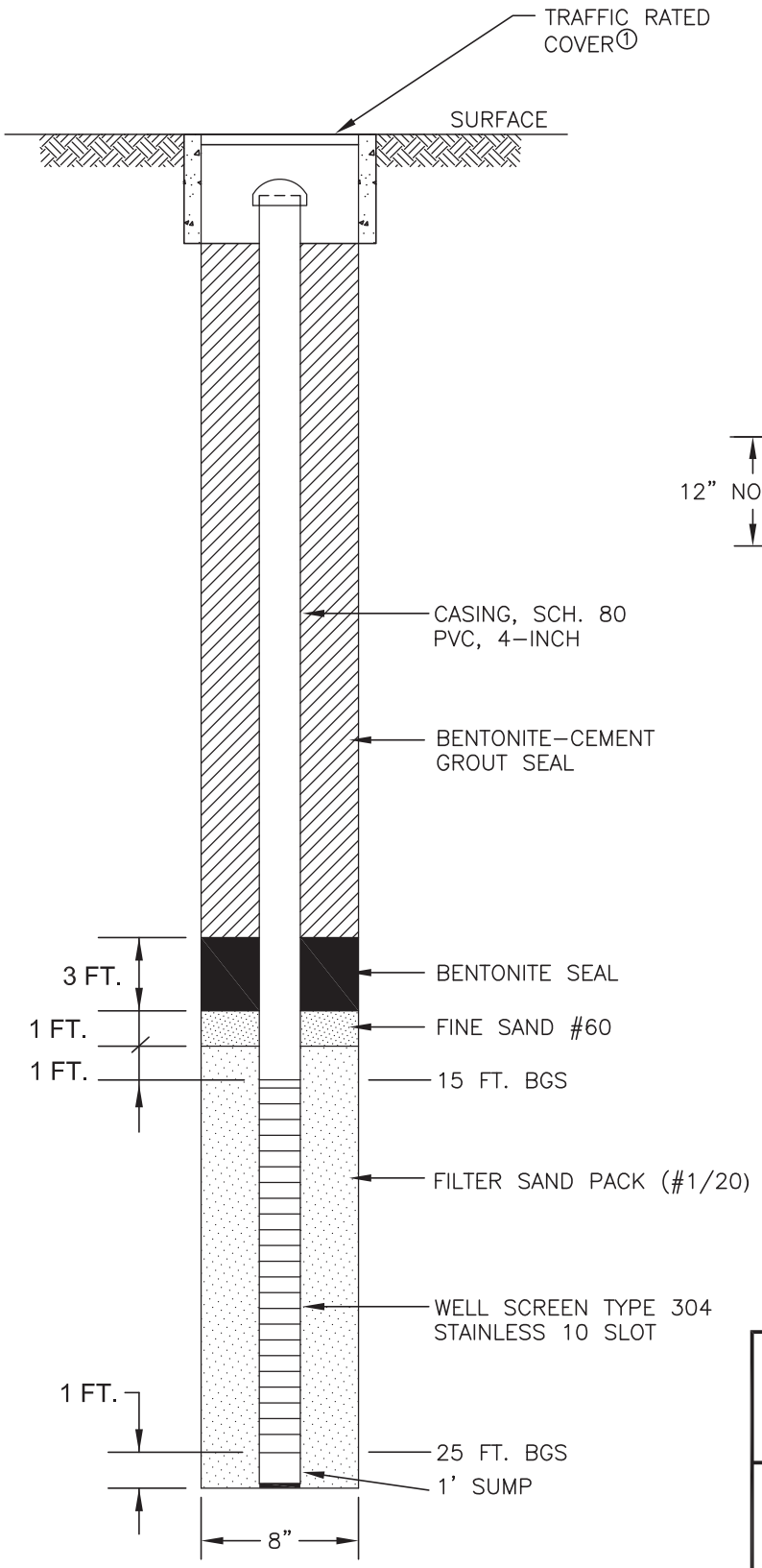
FIGURE 4
SOURCE AREA MULTI–LEVEL SAMPLING WELL CONSTRUCTION DIAGRAM
ALAMEDA CTO 0007
CONTRACT N62473–10–D–0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X–REF	IMAGE
139941–A39	JM 12/11/13	JM 12/11/13	SCHAEFFER 12/11/13	Concord	---	---



① INJECTION WELL BELOW-GROUND INSTALLATION BOX DETAIL

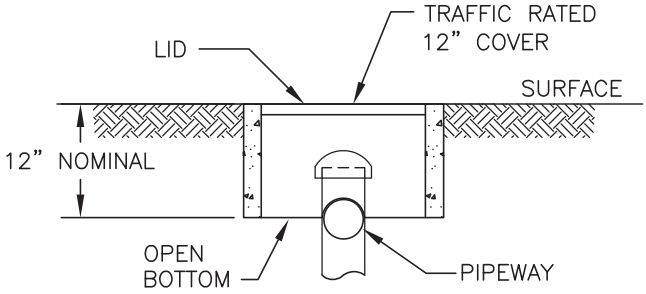


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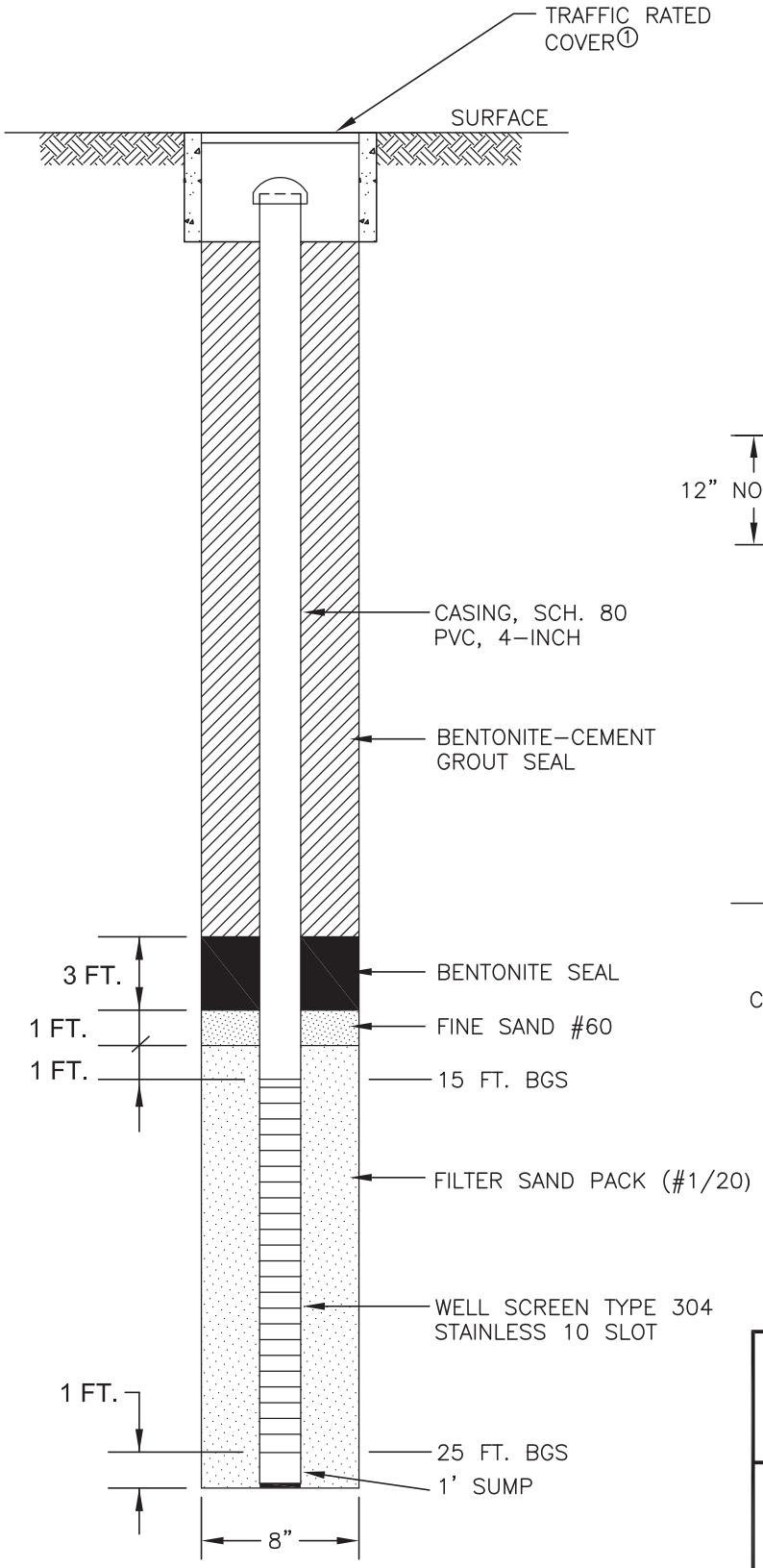
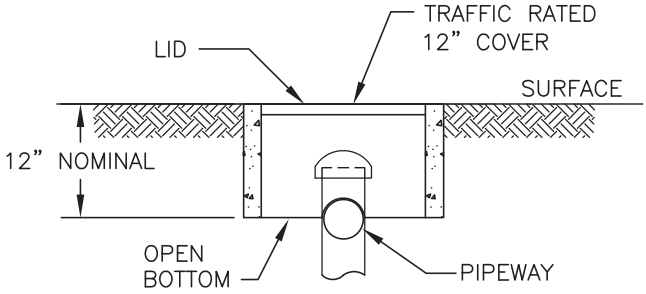
FIGURE 5
SHALLOW INJECTION WELL
CONSTRUCTION DIAGRAM

ALAMEDA CTO 0007
CONTRACT N62473–10–D–0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN BY		OFFICE	X–REF	IMAGE
139941–A29	JM	12–10–13	NK	12–10–13	SJZ	12–10–13	Concord	---	---

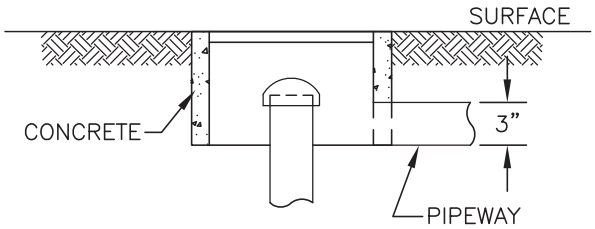


① EXTRACTION WELL BELOW-GROUND INSTALLATION BOX DETAIL



NOTE:
3 INCH NOTCH REQUIRED IN SURFACE CASING SKIRT

SIDE VIEW



NOT TO SCALE

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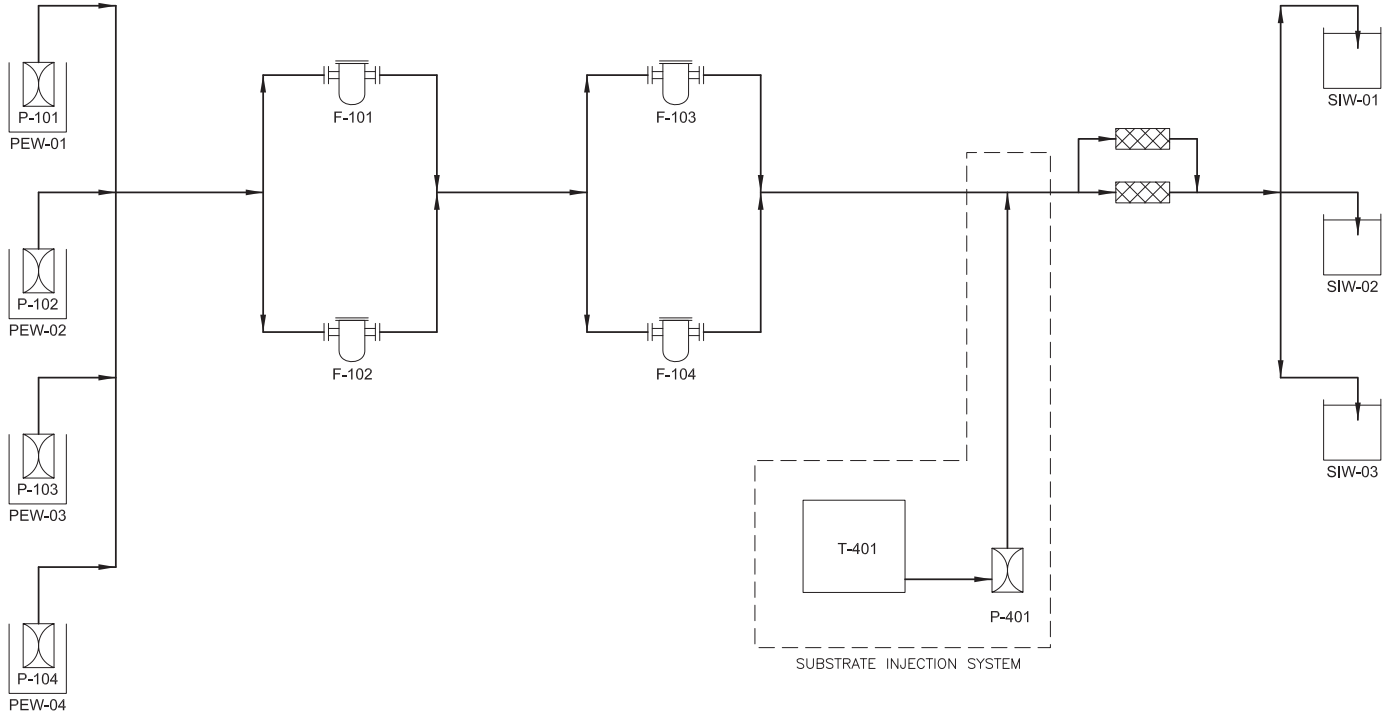
FIGURE 6
SHALLOW EXTRACTION WELL CONSTRUCTION DIAGRAM

ALAMEDA CTO 0007
CONTRACT N62473–10–D–0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY		CHECKED BY		DRAWN BY		OFFICE	X–REF	IMAGE
139941–A31	JM	12–10–13	NK	12–10–13	SJZ	12–10–13	Concord	---	---



F-101 to F-104
BAG FILTER

P-401
CHEMICAL INJECTION PUMP

PEW-01 to PEW-04
EXTRACTION WELL

SIW-01 to SIW-03
INJECTION WELL

T-401
CHEMICAL INJECTION

LEGEND

BAG FILTER
DIAPHRAM PUMP
IN LINE MIXER
TANK
WELL

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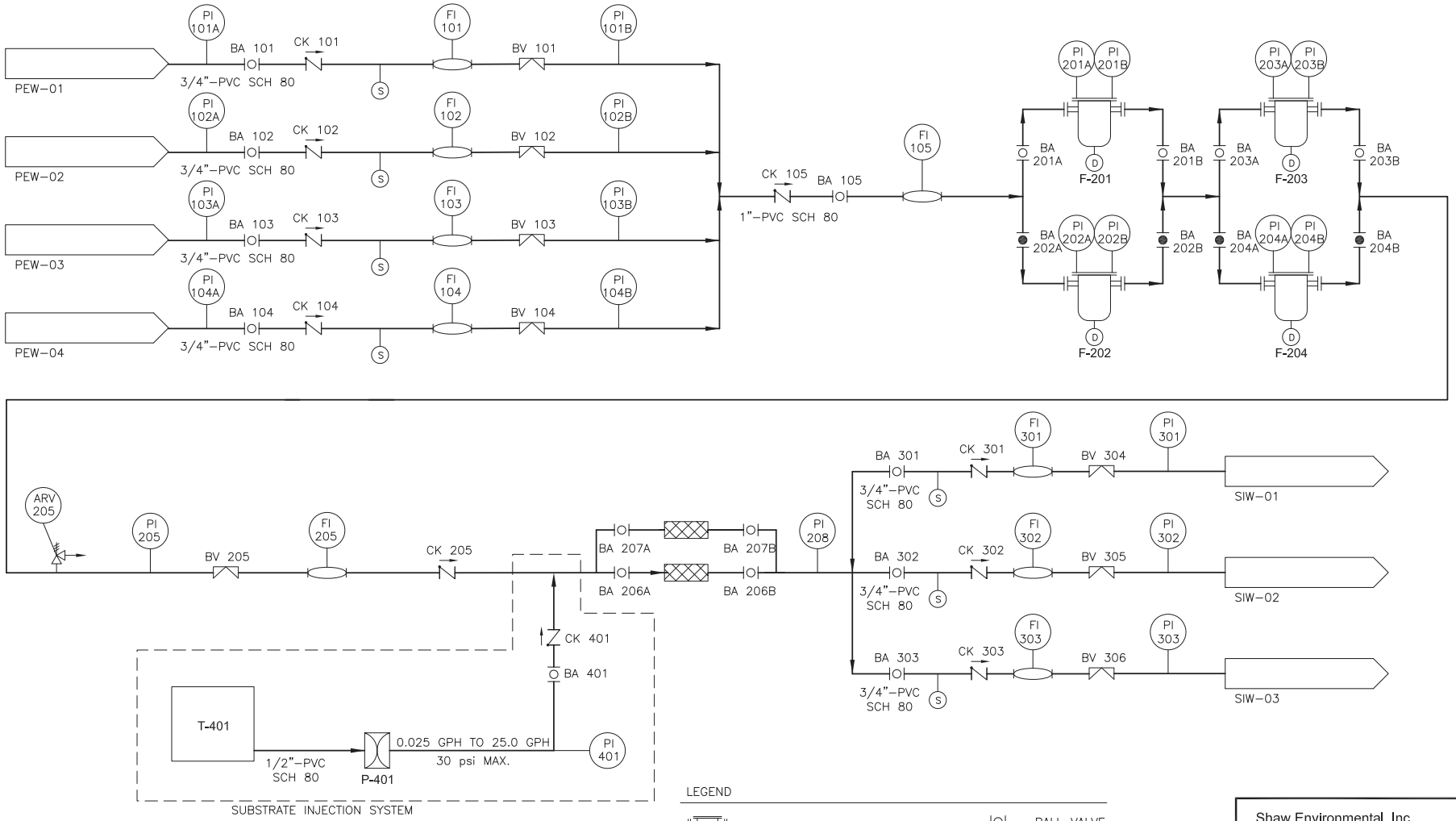
FIGURE 7

FLOW DIAGRAM

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	---	CONCORD	BJ	12-10-13	NK	12-10-13	DC	12-10-13	139941-B44



LEGEND

- BAG FILTER
- CHECK VALVE
- DIAPHRAGM VALVE
- FI XXX — FLOW INDICATING TOTALIZER
- MIXING PUMP
- (S) SAMPLE PORT
- BALL VALVE
- DIAPHRAGM VALVE
- (D) DRAIN
- IN LINE MIXER
- PI XXX — PRESSURE INDICATOR
- TANK

F-101 TO F-102
BAG FILTERS

PEW-01 TO PEW-04
EXTRACTION WELL

T-401
LACTATE TANK

P-401
LACTATE PUMP

SIW-01 TO SIW-03
INJECTION WELLS

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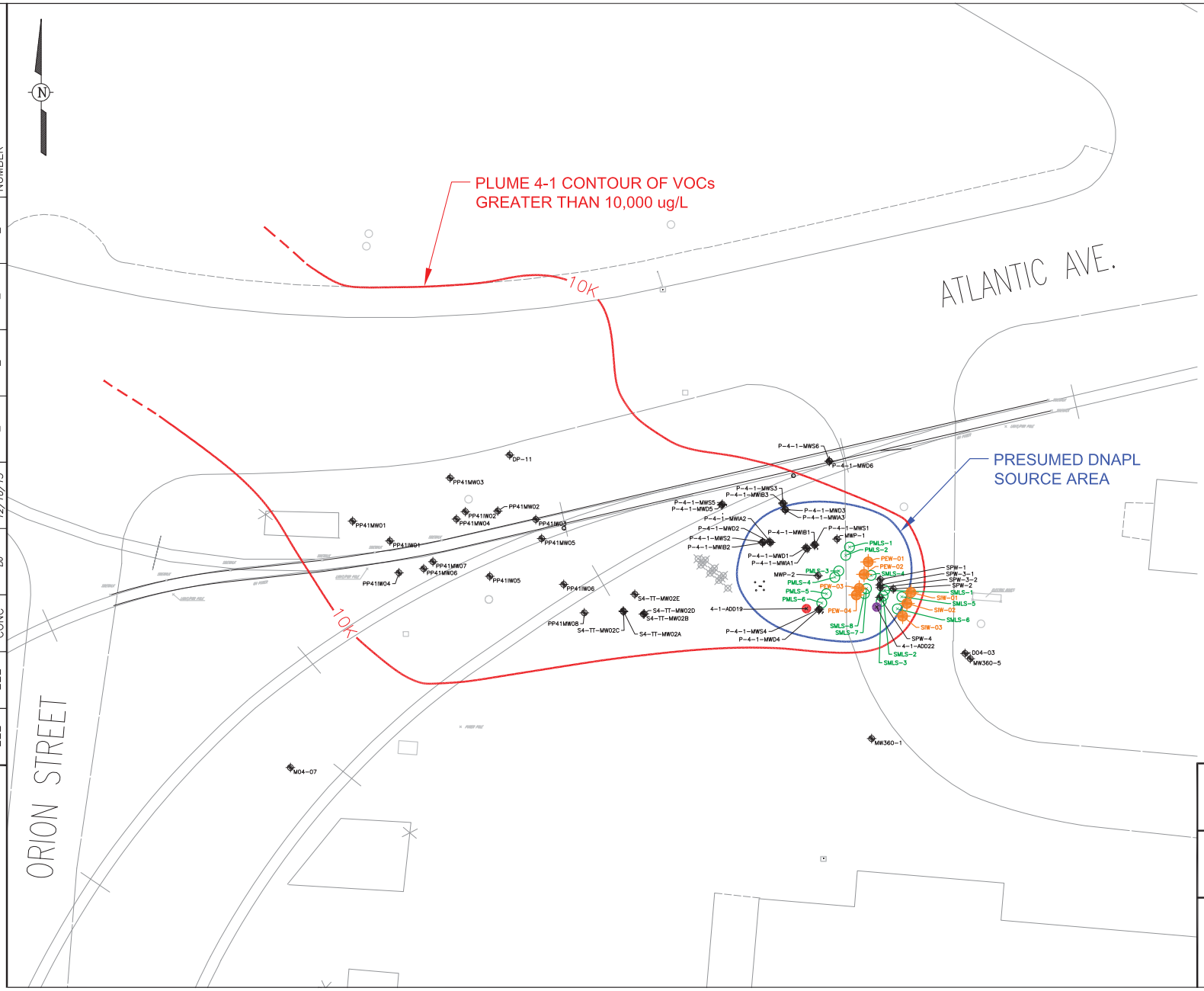
FIGURE 8

SYSTEM P&ID

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONCORD	BJ 12-10-13	NK 12-10-13	DC 12-10-13	139941-B43



LEGEND

- 10K — 10,000 µg/L TOTAL VOC CONTOUR (COMPOSITE OF ALL ELEVATIONS, DASHED WHERE INFERRED))
- INJECTION OR EXTRACTION WELL
- EXISTING WELL LOCATION
- MULTI-LEVEL SAMPLER

HIGHEST VOC CONCENTRATYIONS:

- 100,000 ug/L TCE AT 4-1-ADD19, 11-14 BGS
- 200,000 ug/L TCE AT 4-1-ADD22, 16-19 BGS

SCALE

0 40 80 FEET

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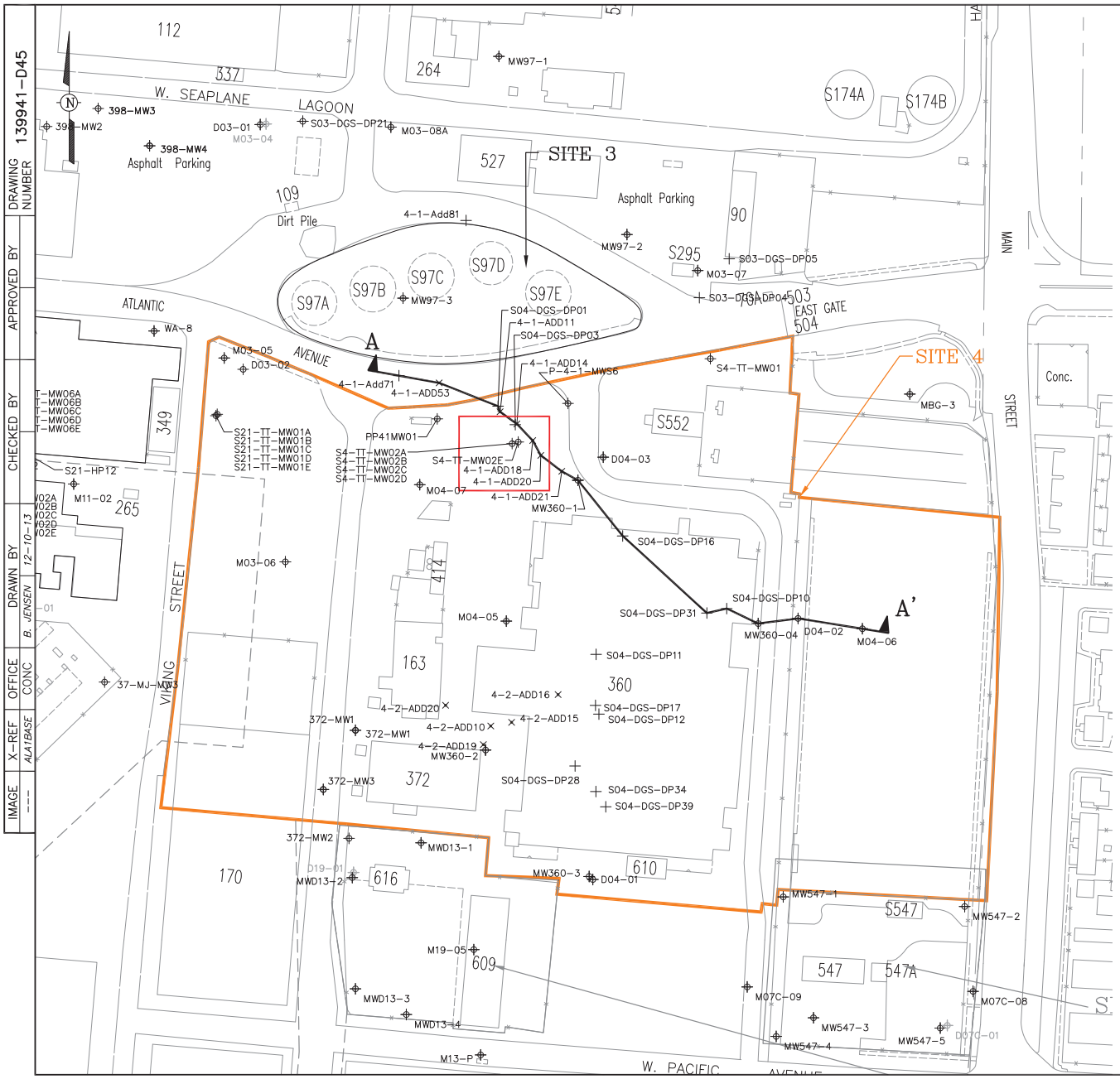
FIGURE 9

GROUNDWATER VOLATILE ORGANIC COMPOUNDS CONCENTRATION

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONC	BJ 12/10/13	- -	- -	139941-B45



LEGEND

S04-DGS-DP39	TETRA TECH CPT AND/OR DIRECT-PUSH GROUNDWATER SAMPLING LOCATION
4-1-ADD71	IT CPT AND/OR DIRECT-PUSH GROUNDWATER SAMPLING LOCATION
MW547-3 S21-TT-MW03A	MONITORING WELL LOCATION
	CROSS SECTION LOCATION
	INSTALLATION RESTORATION SITE 4
	STUDY AREA

SCALE
0 80 160 FEET

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FIGURE 10
SITE 4
CROSS SECTION LAYOUT

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE	X-REF	IMAGE
139941-D45			B. JENSEN 12-10-13	CONC	ALA1BASE	---

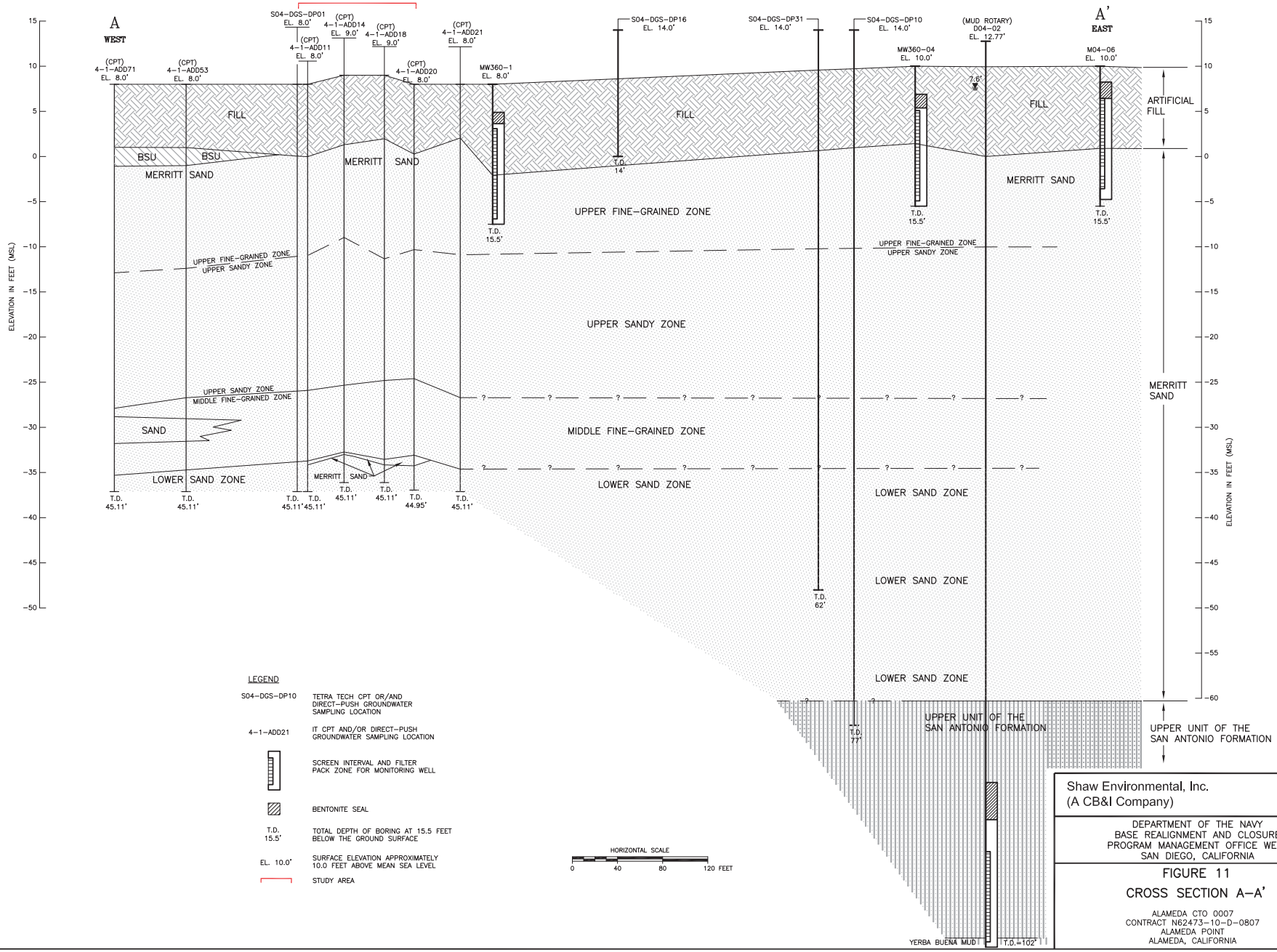

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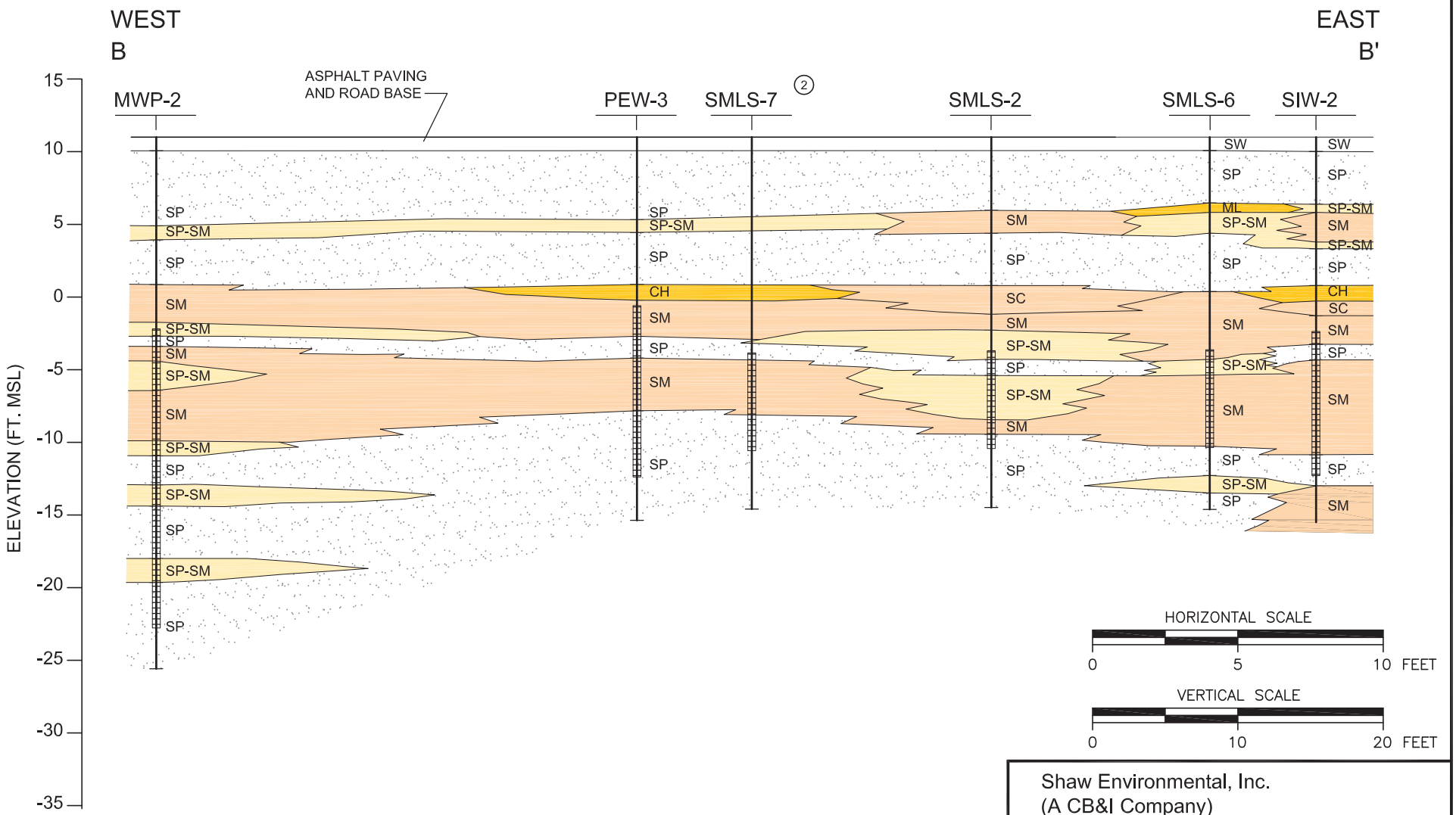
FIGURE 11

CROSS SECTION A–A'

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	ALA1BASE	CONC	B. JENSEN 12-10-13			139941-D46

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A33
---	---	CONC	SJZ	12-10-13						



UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) SOIL TYPES:

- CH, CL CLAY
- MH, ML SILT
- SC CLAYEY SAND
- SM SILTY SAND
- SP-SC SAND TO CLAYEY SAND
- SP-SM SAND TO SILTY SAND
- SP SAND

WELL SCREENED INTERVAL

NOTE:

1. WELL SCREENED INTERVALS FOR 'SMLS' AND 'PMLS' WELLS INCLUDE MULTIPLE DEPTH-DISCRETE SAMPLING INTERVALS. SEE WELL CONSTRUCTION DIAGRAM FOR AN ACCURATE PORTRAYAL OF SMLS AND PMLS WELLS.
2. BOREHOLE LITHOLOGY NOT RECORDED.

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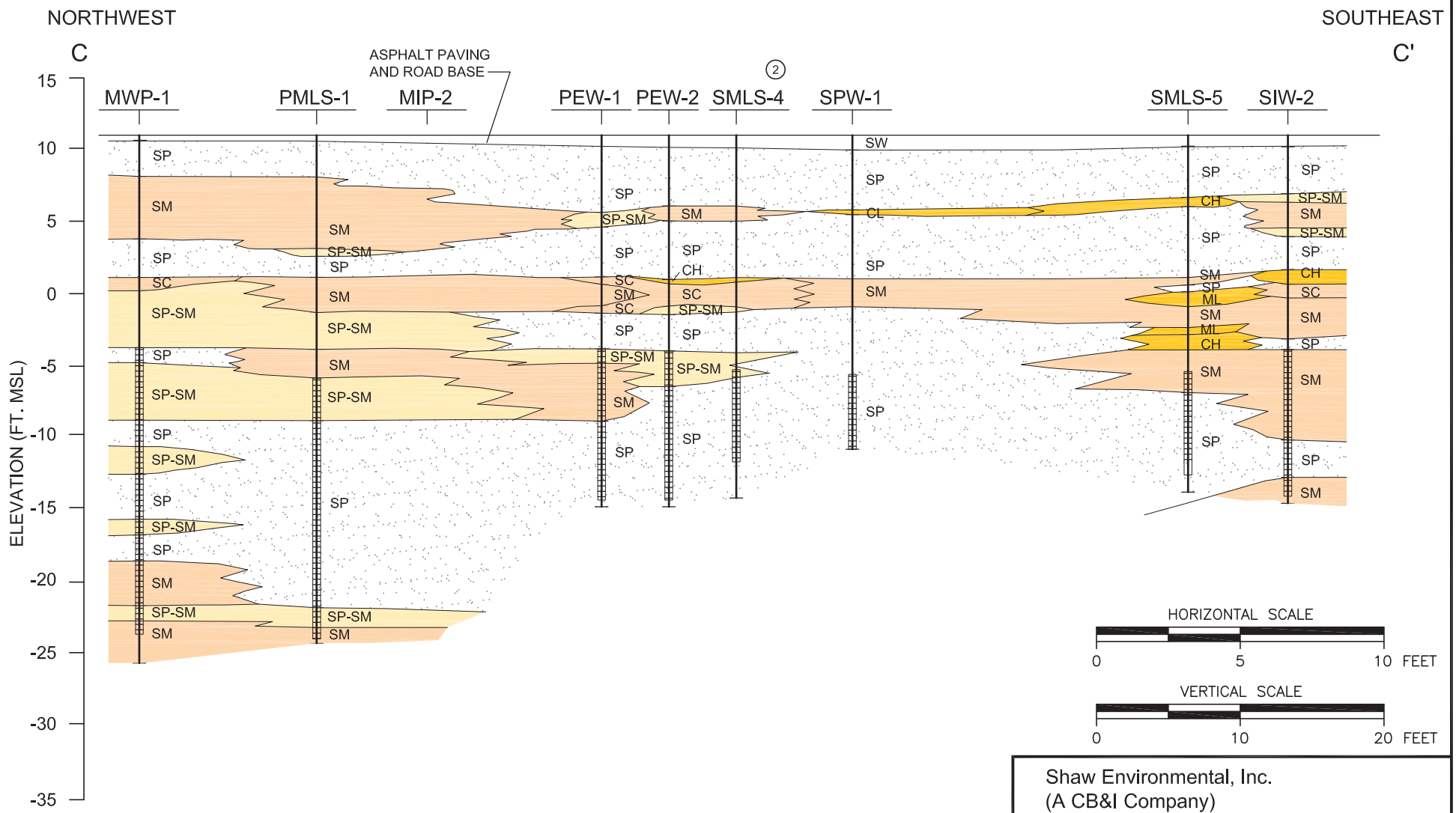
FIGURE 12
CROSS SECTION B-B'

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A35
---	---	CONC	SJZ	12-10-13						



UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) SOIL TYPES:

- CH, CL CLAY
- MH, ML SILT
- SC CLAYEY SAND
- SM SILTY SAND
- SP-SC SAND TO CLAYEY SAND
- SP-SM SAND TO SILTY SAND
- SP SAND

WELL SCREENED INTERVAL

NOTE:

1. WELL SCREENED INTERVALS FOR 'SMLS' AND 'PMLS' WELLS INCLUDE MULTIPLE DEPTH-DISCRETE SAMPLING INTERVALS. SEE WELL CONSTRUCTION DIAGRAM FOR AN ACCURATE PORTRAYAL OF SMLS AND PMLS WELLS.
2. BOREHOLE LITHOLOGY NOT RECORDED.

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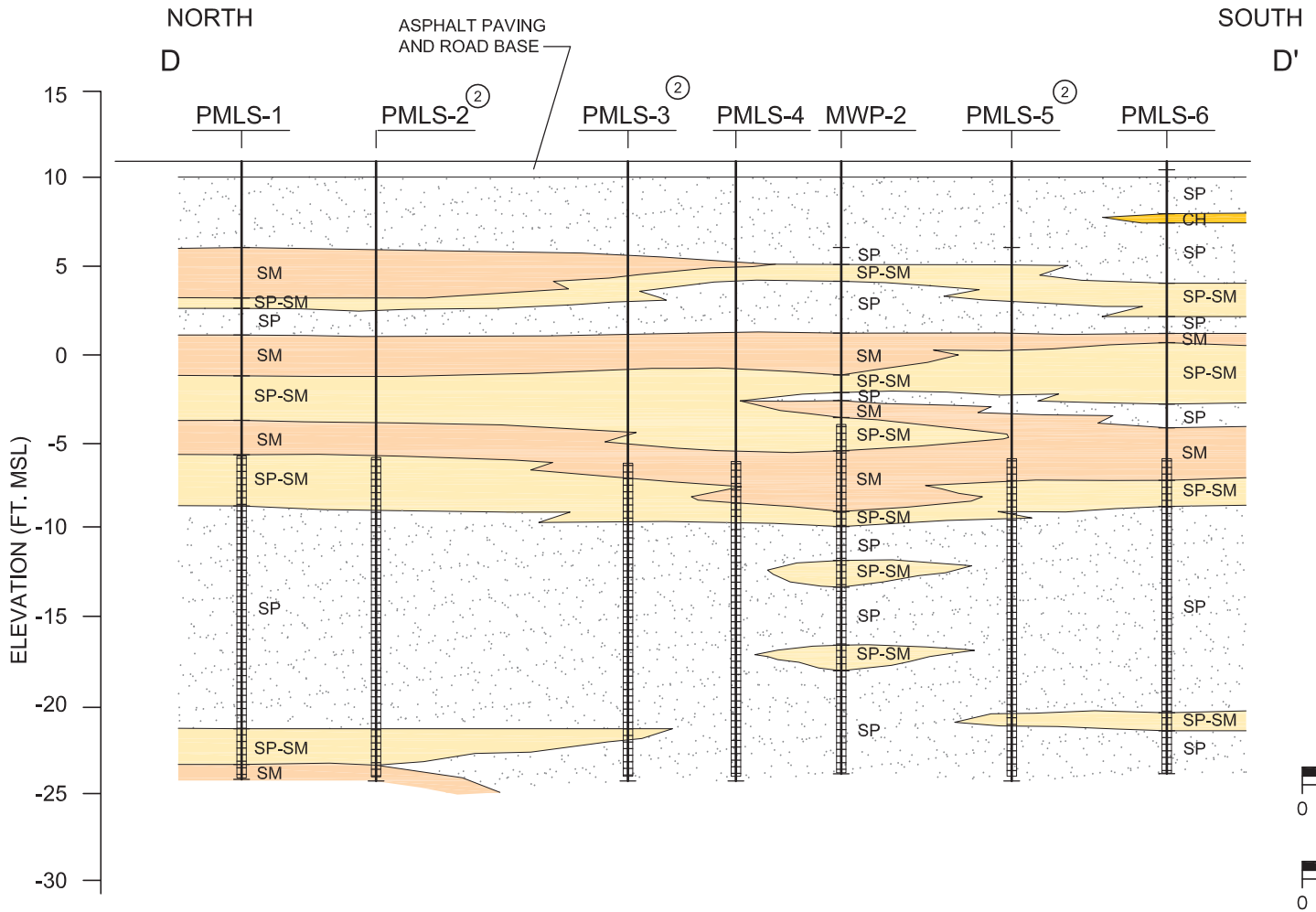
FIGURE 13
CROSS SECTION C-C'

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A34
---	---	CONC	SJZ	12-10-13	--	--	--	--		



HORIZONTAL SCALE

0 5 10 FEET

VERTICAL SCALE

0 10 20 FEET

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) SOIL TYPES:

- CH, CL CLAY
- MH, ML SILT
- SC CLAYEY SAND
- SM SILTY SAND
- SP-SC SAND TO CLAYEY SAND
- SP-SM SAND TO SILTY SAND
- SP SAND

WELL SCREENED INTERVAL

NOTE:

(1) WELL SCREENED INTERVALS FOR 'SMLS' AND 'PMLS' WELLS INCLUDE MULTIPLE DEPTH-DISCRETE SAMPLING INTERVALS. SEE WELL CONSTRUCTION DIAGRAM FOR AN ACCURATE PORTRAYAL OF SMLS AND PMLS WELLS.

(2) BOREHOLE LITHOLOGY NOT RECORDED.

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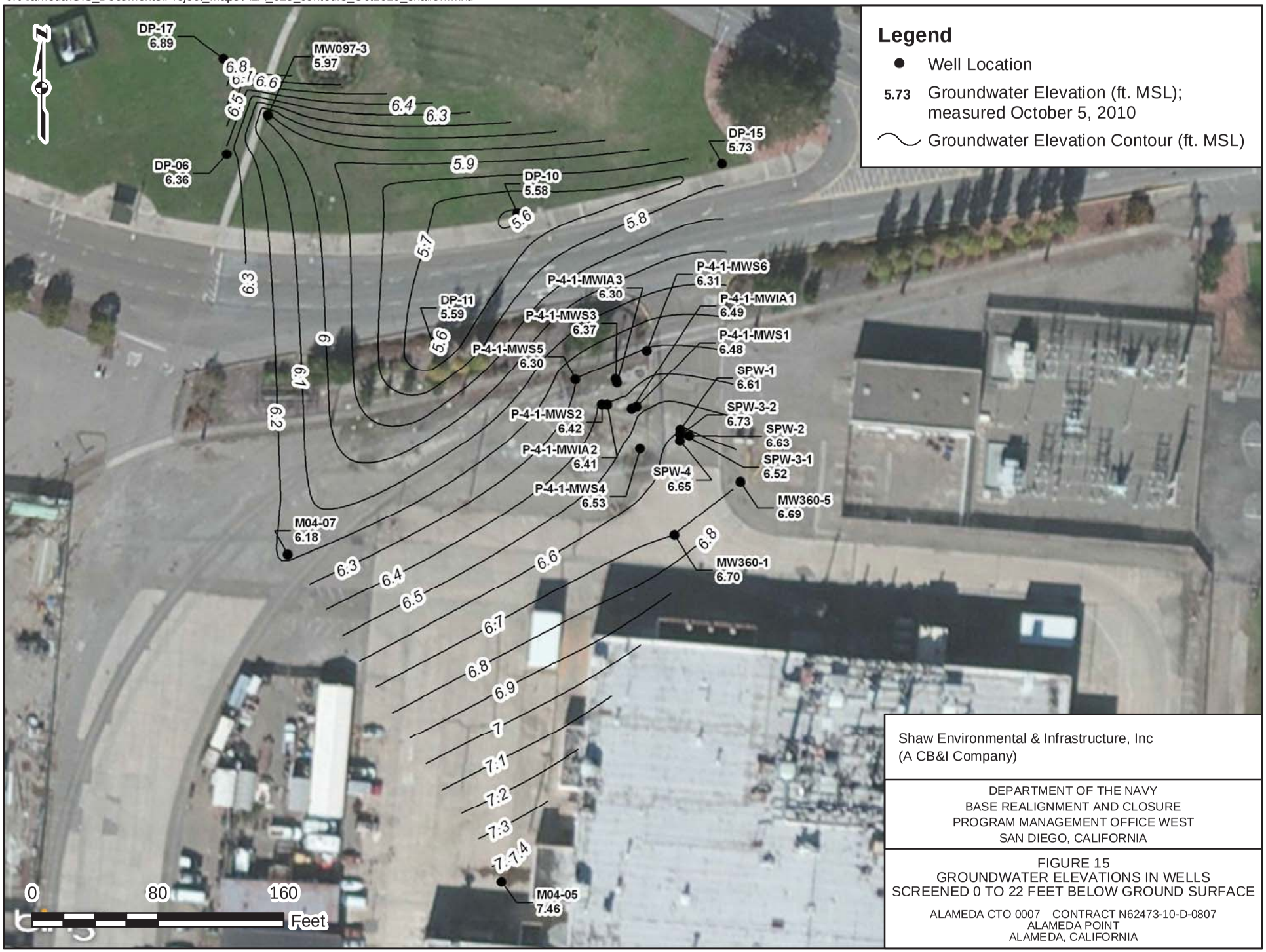
FIGURE 14
CROSS SECTION D-D'

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

J:\Alameda\GIS_Documents\Project_Maps\ALA_025_contours_Oct2010_shallow.mxd Karen.Black 12/10/2013



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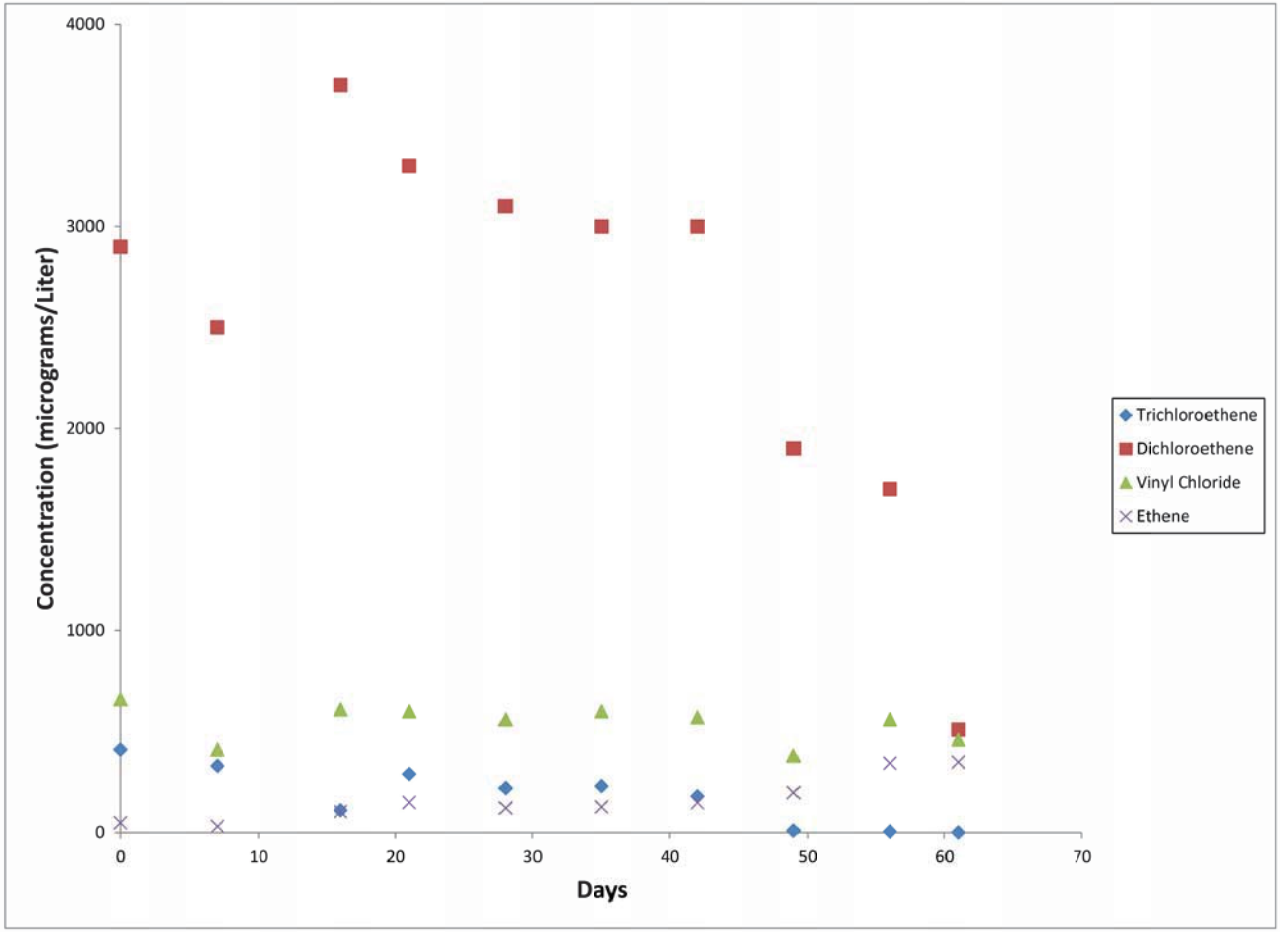
SAN DIEGO, CALIFORNIA

FIGURE 15
GROUNDWATER ELEVATIONS IN WELLS
SCREENED 0 TO 22 FEET BELOW GROUND SURFACE

ALAMEDA CTO 0007 CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A22
---	---	CONC	SJZ	12/10/13	NK	6/10/13	DC	6/10/13		



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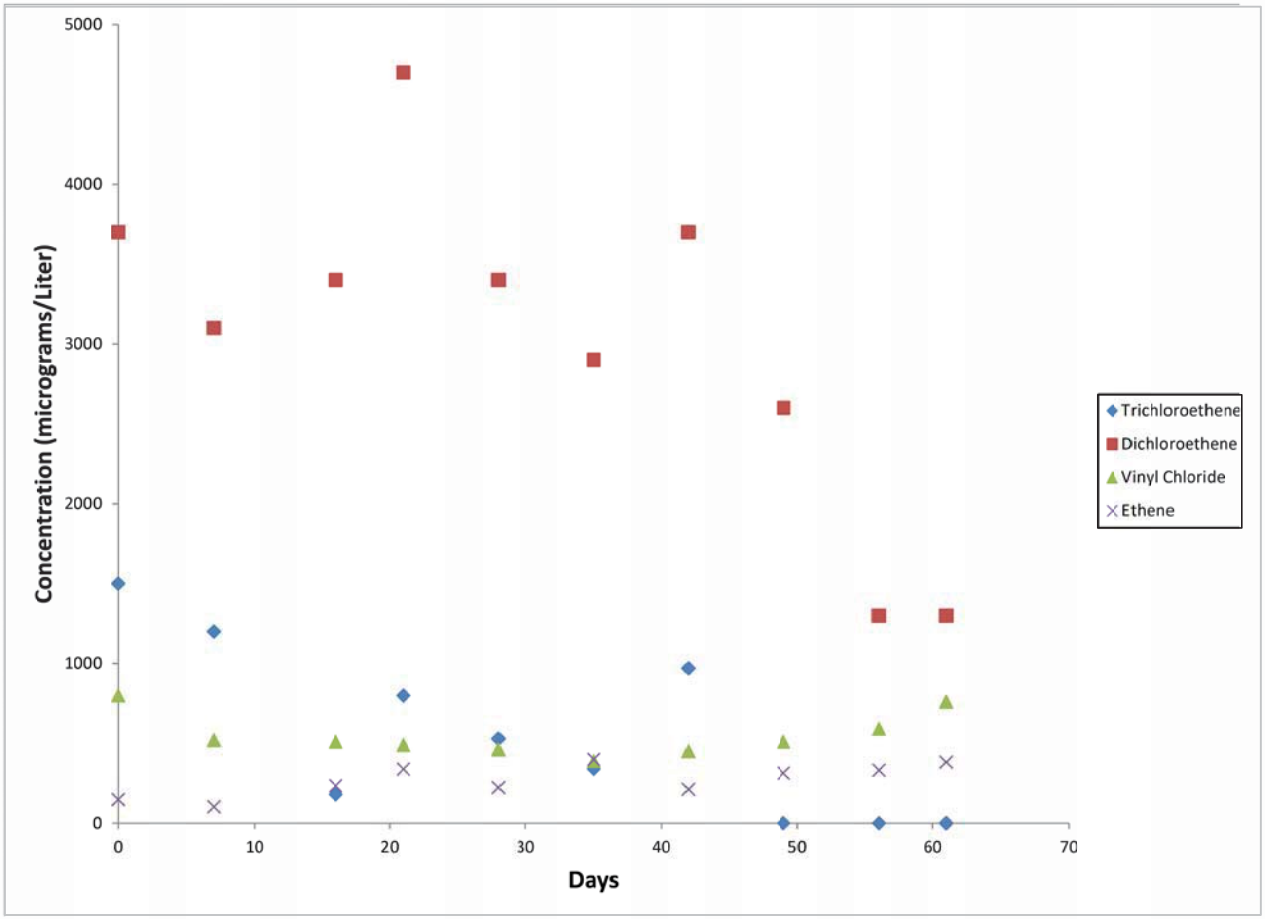
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 16
EXTRACTION WELL 1
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A23
---	---	CONC	SJZ	12/10/13	NK	6/10/13	DC	6/10/13		



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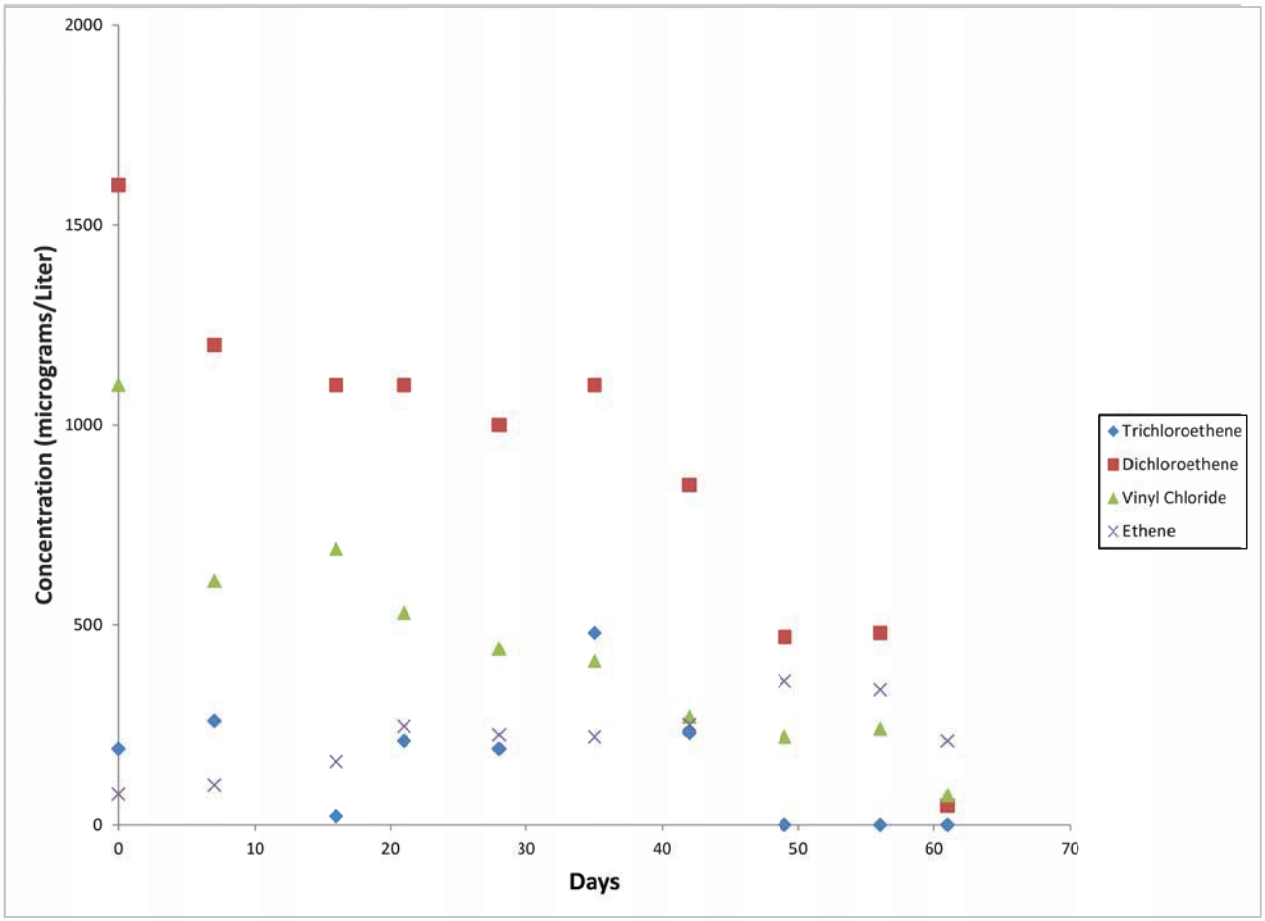
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 17
EXTRACTION WELL 2
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A25
---	---	CONC	SJZ	12/11/13	NK	12/11/13	DC	12/11/13		



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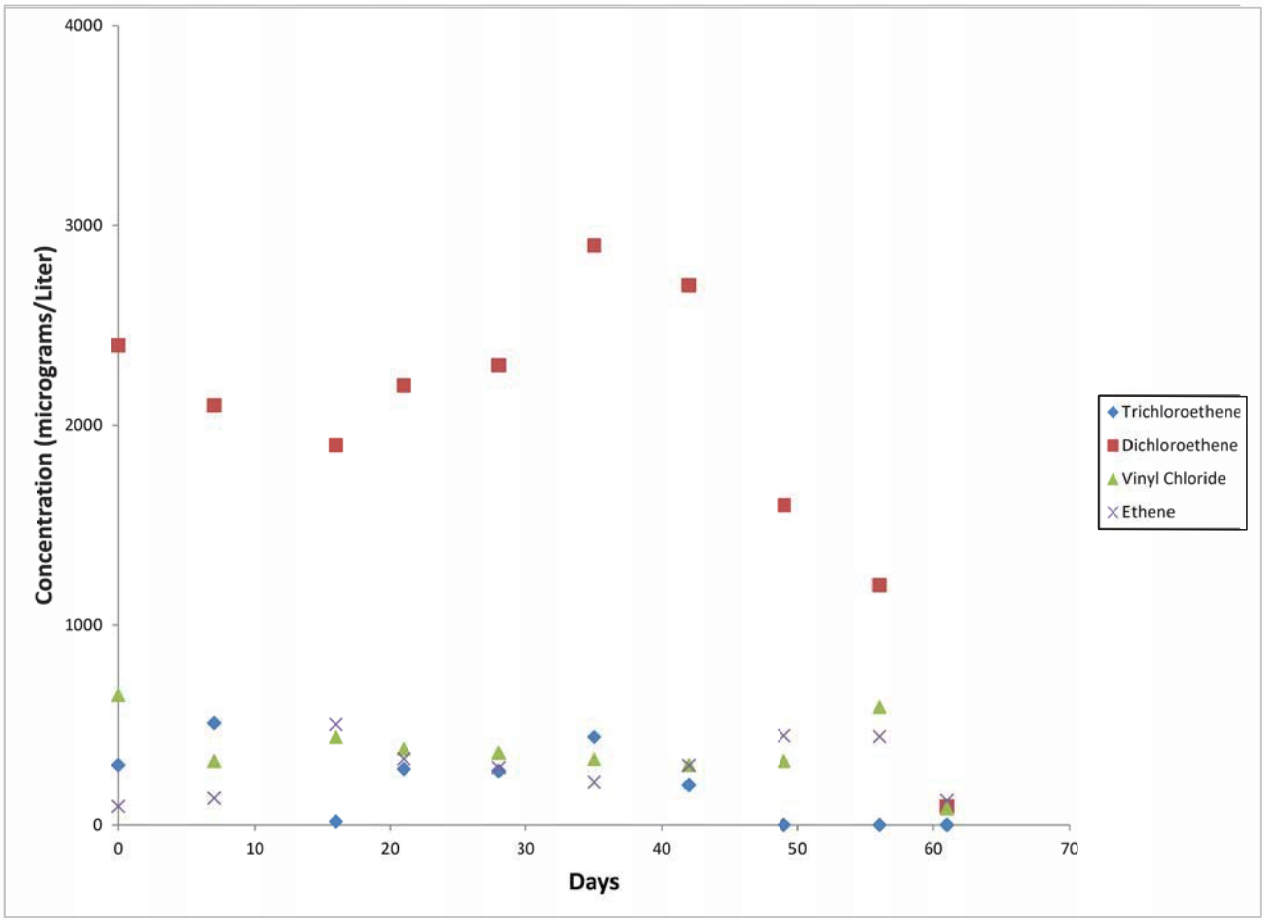
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 18
EXTRACTION WELL 3
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A24
---	---	CONC	SJZ	12/10/13	NK	12/10/13	DC	12/10/13		



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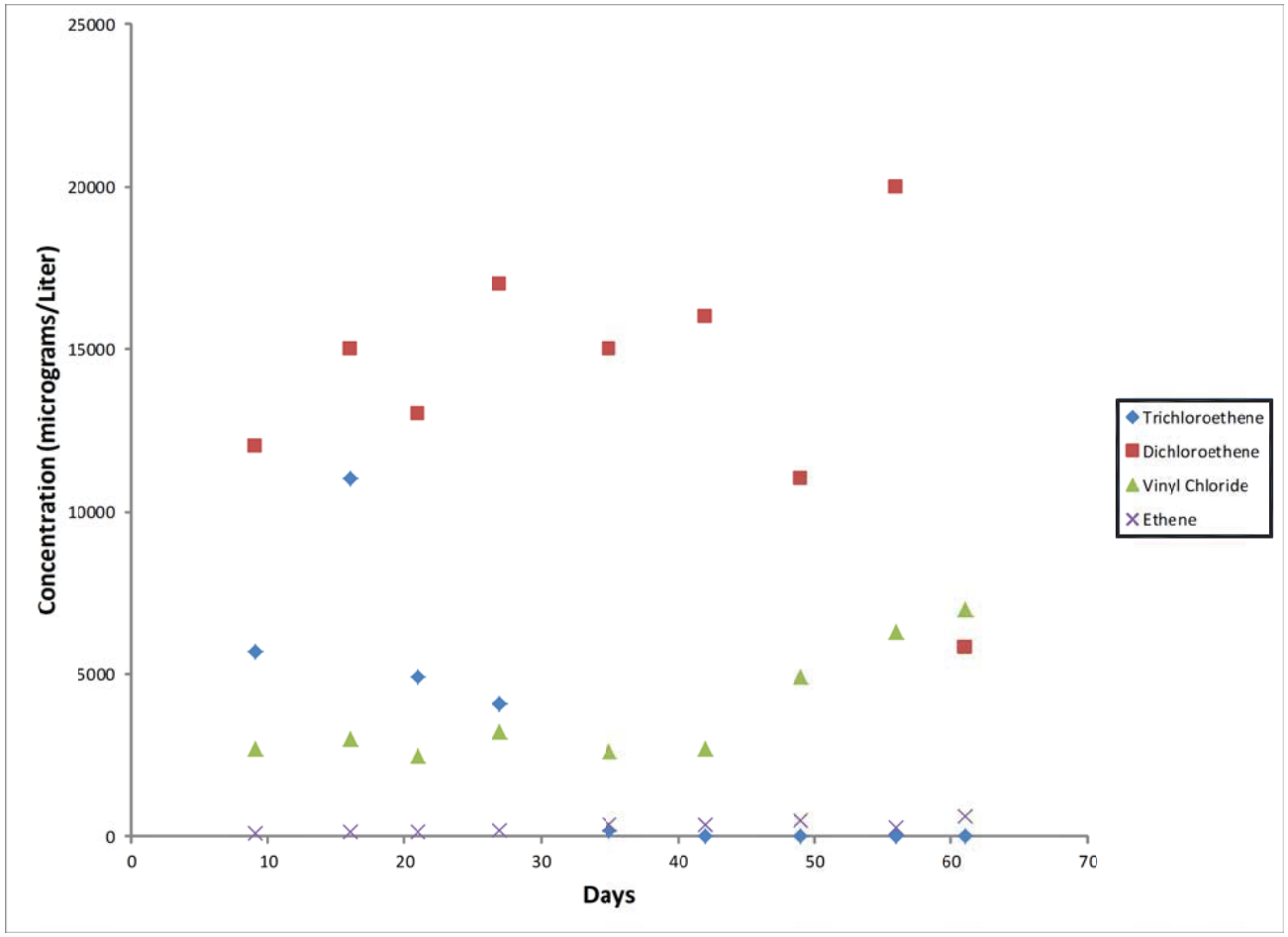
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 19
EXTRACTION WELL 4
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A26
---	---	CONC	BJ	12/10/13	NK	12/10/13	DC	12/10/13		



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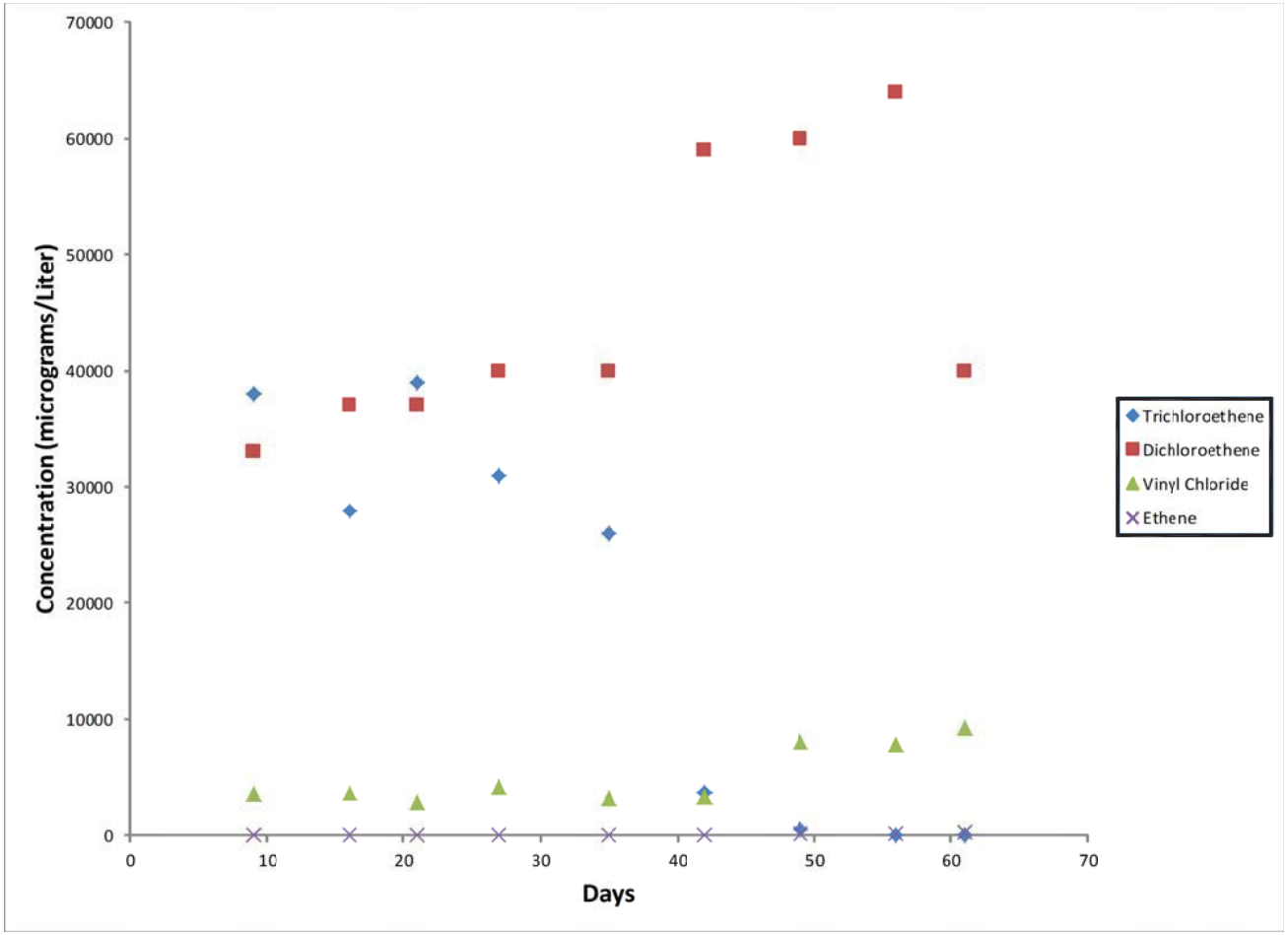
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 20

SOURCE MULTI-LEVEL SAMPLING 7-1
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A27
---	---	CONC	BJ	12/10/13	NK	12/10/13	DC	12/10/13		



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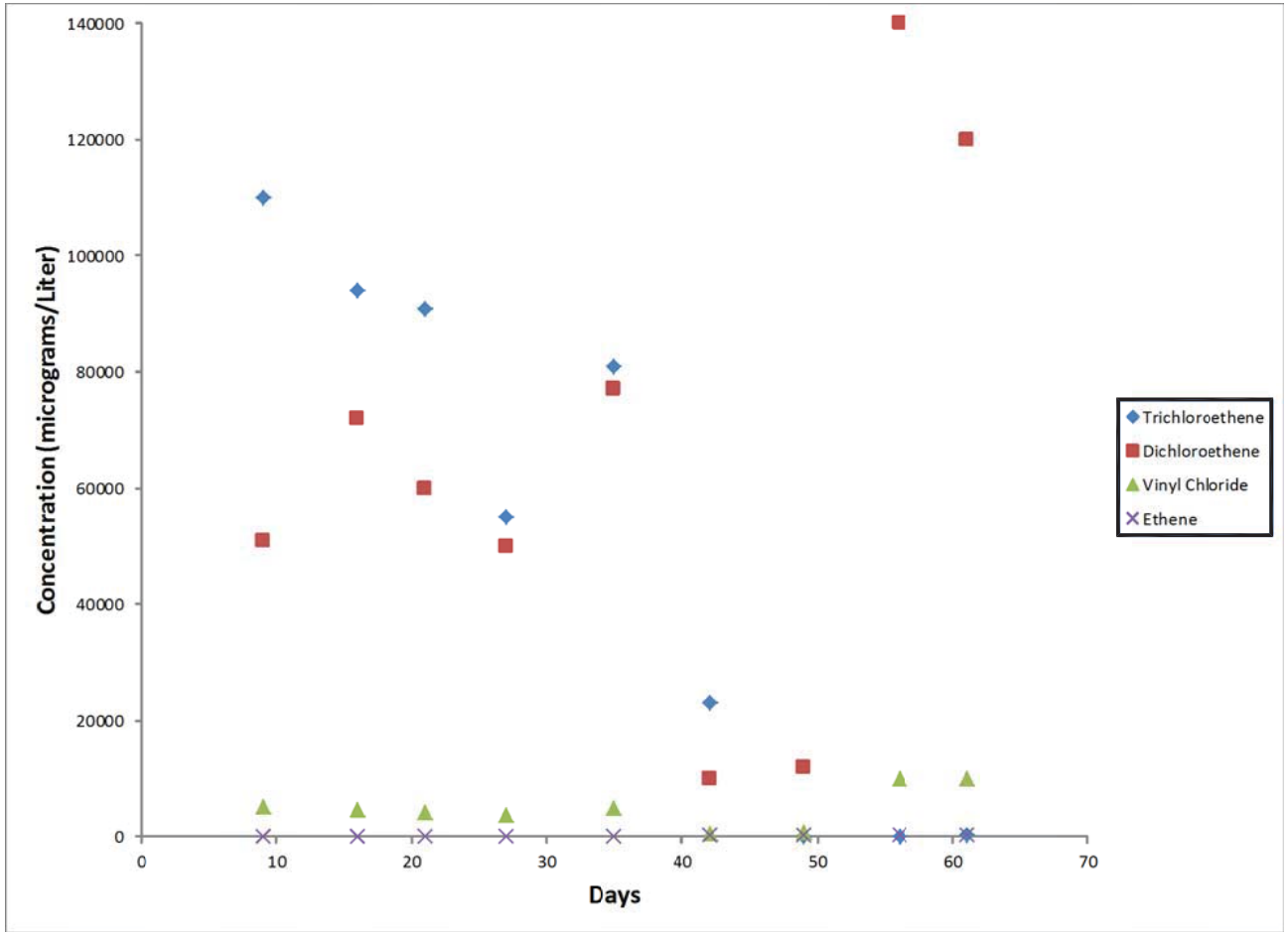
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 21

SOURCE MULTI-LEVEL SAMPLING 7-2
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	139941-A28
---	---	CONC	BJ	12/10/13	NK	12/10/13	DC	12/10/13		



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DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 22

SOURCE MULTI-LEVEL SAMPLING 7-3
CHLORINATED ETHENE CONCENTRATIONS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

Tables

Table 1
Groundwater Elevations

Well ID	Water Bearing Zone	Screen Top	Screen Bottom	Easting	Northing	TOC	Date	Time	Depth to Water
M04-07	FWBZ	3.00	13.00	1481717.66	470704.51	11.750	10/5/2010	08:10	5.57
M04-05	FWBZ	3.50	13.50	1481853.30	470496.10	12.740	10/5/2010	08:03	5.28
DP-06	FWBZ	4.00	10.00	1481678.81	470958.81	11.649	10/5/2010	08:49	5.29
DP-10	FWBZ	4.00	10.00	1481863.50	470921.51	11.090	10/5/2010	08:45	5.51
DP-11	FWBZ	4.00	10.00	1481810.30	470836.52	11.045	10/5/2010	08:58	5.46
DP-15	FWBZ	4.00	10.00	1481993.33	470952.73	11.024	10/5/2010	09:05	5.29
DP-17	FWBZ	4.00	10.00	1481676.84	471019.92	13.288	10/5/2010	09:11	6.40
MW097-3	FWBZ	5.00	15.00	1481705.10	470983.76	11.990	10/5/2010	08:52	6.02
MW360-1	FWBZ	5.00	15.00	1481963.24	470716.73	11.210	10/5/2010	08:26	4.51
MW360-5	FWBZ	NA	NA	1482004.90	470750.47	11.504	10/5/2010	08:32	4.81
P-4-1-MWS1	FWBZ	10.00	13.00	1481939.14	470798.37	11.860	10/5/2010	09:58	5.38
P-4-1-MWS2	FWBZ	11.00	14.00	1481917.11	470799.72	12.337	10/5/2010	10:11	5.92
P-4-1-MWS3	FWBZ	11.00	14.00	1481925.76	470815.90	12.038	10/5/2010	10:24	5.67
P-4-1-MWS4	FWBZ	11.00	14.00	1481941.15	470771.44	11.272	10/5/2010	09:54	4.74
P-4-1-MWS5	FWBZ	11.00	15.00	1481900.16	470815.73	14.072	10/5/2010	10:16	7.77
P-4-1-MWS6	FWBZ	11.00	14.00	1481945.42	470833.96	11.812	10/5/2010	10:27	5.50
P-4-1-MWIA3	FWBZ	16.00	19.00	1481926.60	470813.36	13.152	10/5/2010	10:18	6.85
P-4-1-MWIA1	FWBZ	17.00	20.00	1481936.00	470797.01	13.802	10/5/2010	10:01	7.31
P-4-1-MWIA2	FWBZ	17.00	21.00	1481920.58	470799.61	12.699	10/5/2010	10:06	6.29
SPW-1	FWBZ	17.00	22.00	1481966.88	470783.96	10.644	10/5/2010	09:31	4.03
SPW-1	FWBZ	17.00	22.00	1481966.88	470783.96	10.644	10/5/2010	13:05	4.02
SPW-2	FWBZ	17.00	22.00	1481972.38	470779.92	10.767	10/5/2010	09:41	4.14
SPW-2	FWBZ	17.00	22.00	1481972.38	470779.92	10.767	10/5/2010	13:13	4.12
SPW-3-1	FWBZ	17.00	19.50	1481966.77	470781.64	10.482	10/5/2010	09:36	3.96
SPW-3-1	FWBZ	17.00	19.50	1481966.77	470781.64	10.482	10/5/2010	13:09	3.91
SPW-4	FWBZ	17.00	22.00	1481966.69	470776.36	10.587	10/5/2010	09:45	3.94
SPW-4	FWBZ	17.00	22.00	1481966.69	470776.36	10.587	10/5/2010	13:16	3.92
SPW-3-2	FWBZ	19.50	20.00	1481966.92	470780.47	10.630	10/5/2010	09:39	3.90
SPW-3-2	FWBZ	19.50	20.00	1481966.92	470780.47	10.630	10/5/2010	13:11	3.92
S4-TT-MW02A	SWBZ	22.00	32.00	1481866.77	470769.30	11.349	10/5/2010	11:59	4.89
P-4-1-MWIB1	SWBZ	23.00	26.00	1481939.14	470798.80	11.958	10/5/2010	10:00	5.48
P-4-1-MWIB2	SWBZ	23.00	26.00	1481917.21	470799.43	12.306	10/5/2010	10:09	5.87
P-4-1-MWIB3	SWBZ	23.00	26.00	1481925.77	470816.26	12.002	10/5/2010	10:22	5.71
PP41IW05	FWBZ	24.00	34.00	1481801.90	470785.27	10.959	10/5/2010	12:33	4.87
PP41IW06	FWBZ	24.00	34.00	1481833.14	470781.86	11.575	10/5/2010	12:09	5.28
RABITT-MW1	FWBZ	24.75	26.25	1481898.70	470783.50	11.250	10/5/2010	10:40	4.79
RABITT-MW2	FWBZ	24.75	26.25	1481899.60	470784.70	11.240	10/5/2010	10:43	4.80
RABITT-MW3	FWBZ	24.75	26.25	1481900.60	470785.70	11.140	10/5/2010	10:46	4.66
RABITT-MW6	FWBZ	24.75	26.25	1481896.80	470788.80	11.380	10/5/2010	10:55	4.96
PP41IW01	FWBZ	25.00	35.00	1481759.69	470800.21	11.076	10/5/2010	12:45	5.29
PP41IW02	FWBZ	25.00	35.00	1481791.59	470812.57	10.857	10/5/2010	12:26	4.83
PP41IW04	FWBZ	25.00	35.00	1481763.53	470786.77	10.522	10/5/2010	12:41	4.64
PP41MW04	FWBZ	29.80	34.90	1481787.80	470809.44	10.862	10/5/2010	12:29	5.02
PP41MW02	FWBZ	29.90	34.90	1481805.27	470812.84	11.187	10/5/2010	12:24	5.13
P-4-1-MWD5	SWBZ	30.00	34.00	1481899.87	470815.36	13.124	10/5/2010	10:14	6.92
PP41MW03	FWBZ	30.00	35.00	1481785.14	470826.81	11.018	10/5/2010	12:20	5.21
S4-TT-MW02B	SWBZ	30.00	40.00	1481867.18	470769.44	11.198	10/5/2010	11:55	5.01
PP41MW05	FWBZ	30.10	35.10	1481823.81	470801.22	11.141	10/5/2010	12:12	4.98
PP41MW08	FWBZ	30.20	35.20	1481841.85	470769.85	11.425	10/5/2010	12:07	5.06
P-4-1-MWD2	SWBZ	30.50	34.50	1481919.95	470799.88	12.060	10/5/2010	10:07	5.67
P-4-1-MWD3	SWBZ	31.00	34.00	1481926.88	470813.44	13.468	10/5/2010	10:19	7.24
PP41MW01	FWBZ	31.30	36.30	1481743.93	470808.57	10.747	10/5/2010	12:49	5.03

Table 1 continued
Groundwater Elevations

Well ID	Water Bearing Zone	Screen Top	Screen Bottom	Easting	Northing	TOC	Date	Time	Depth to Water
PP41MW07	FWBZ	31.30	36.30	1481777.87	470791.45	10.575	10/5/2010	12:35	4.63
PP41MW06	FWBZ	31.40	36.40	1481773.98	470788.50	10.947	10/5/2010	12:38	4.94
P-4-1-MWD1	SWBZ	32.00	35.00	1481935.40	470797.35	12.868	10/5/2010	10:03	6.45
P-4-1-MWD4	SWBZ	32.00	35.00	1481940.91	470771.11	11.272	10/5/2010	09:56	4.79
P-4-1-MWD6	SWBZ	32.00	35.00	1481945.32	470833.80	11.759	10/5/2010	10:25	5.57
S4-TT-MW02C	SWBZ	40.00	50.00	1481863.18	470777.70	11.319	10/5/2010	12:02	4.97
D03-03	SWBZ	48.00	58.00	1482120.50	470672.58	12.460	10/5/2010	08:22	5.72
S4-TT-MW02D	SWBZ	50.00	60.00	1481858.29	470770.67	11.238	10/5/2010	11:57	4.82
S4-TT-MW02E	SWBZ	60.00	70.00	1481858.40	470770.31	11.287	10/5/2010	12:04	5.51
D04-03	SWBZ	84.00	94.00	1482002.70	470752.68	11.608	10/5/2010	09:49	3.90

Note:

Northing and Easting coordinates are in NAD27

Top of Casing coordinates are in NAVD88

NA denotes information was not available during time of reading

Table 2
Well Survey Data

Wells	Total Depth (foot)	Screen Interval (foot)	Northing	Easting	Top of Casing (foot)
PEW-1	25.5	15-25	470791.33	1481961.80	10.275
PEW-2	26	15-25	470786.09	1481960.03	10.514
PEW-3	26	15-25	470780.20	1481958.00	10.287
PEW-4	26	15-25	470777.40	1481956.77	10.183
PMLS-1	35.5	various	470797.62	1481953.90	10.655
PMLS-2	35.5	various	470794.13	1481952.31	10.694
PMLS-3	35.5	various	470787.54	1481949.36	10.611
PMLS-4	35.5	various	470784.88	1481947.69	10.609
PMLS-5	35.5	various	470777.89	1481944.15	10.459
PMLS-6	35.5	various	470774.01	1481942.18	10.285
SIW-1	26	15-25	470778.46	1481979.84	10.881
SIW-2	26	15-25	470773.80	1481978.15	10.716
SIW-3	26	15-25	470768.44	1481976.35	10.781
SMLS-1	25	various	470779.37	1481968.78	10.564
SMLS-2	25	various	470776.96	1481968.08	10.580
SMLS-3	25	various	470774.67	1481967.28	10.650
SMLS-4	25	various	470785.64	1481963.01	10.595
SMLS-5	25	various	470776.62	1481976.01	10.648
SMLS-6	25	various	470771.52	1481974.12	10.503
SMLS-7	25	various	470780.08	1481961.07	10.565
SMLS-8	25	various	470777.96	1481960.20	10.401

Note:

Coordinates were taken in NAD 83, NAVD88

Top of Casing is the elevation above mean sea level

Table 3
Baseline Sampling

Well ID	Date	Total Volatile Organic Compounds (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Tetrachloroethene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Vinyl Chloride (µg/L)
PEW-01	7/9/2012	323	<2.5	<2.5	<2.5	88	17	<2.5	<2.5	<2.5	7.8	210
PEW-02	7/9/2012	1,928	<2.5	<2.5	2.2	1300	51	<2.5	<2.5	<2.5	4.6	570
PEW-03	7/9/2012	161	<0.50	<0.50	0.55	75	3.3	<0.50	<0.50	<0.50	65	17
PEW-04	7/9/2012	116	<0.50	<0.50	0.78	67	11	<0.50	<0.50	<0.50	18	19
SMLS1-1	7/9/2012	32,530	<25	<25	<25	12000	130	<25	<25	<25	1400	19000
SMLS1-2	7/9/2012	73,284	<0.50	1.1	80	43000	200	1.7	<0.5	0.74	14000	16000
SMLS1-3	7/9/2012	187,530	<25	<25	140	90000	390	<25	<25	<25	81000	16000
SMLS1-4	7/9/2012	3,322	<5.0	<5.0	<5.0	1300	72	<5.0	<5.0	<5.0	1600	350
SMLS4-2	7/9/2012	17,057	<0.50	8.3	18	5000	230	<0.5	<0.5	1.1	2800	9000
SMLS4-3	7/9/2012	7,690	<12	<12	<12	2200	90	<12	<12	<12	3500	1900
SMLS7-1	7/9/2012	68,311	<25	<25	51	30000	260	<25	<25	<25	14000	24000
SMLS7-2	7/9/2012	53,351	<25	<25	31	24000	320	<25	<25	<25	6000	23000
SMLS7-3	7/9/2012	86,379	<25	<25	69	40000	310	<25	<25	<25	16000	30000
PMLS3-1	7/10/2012	72,500	<250	<250	<250	38000	4600	<250	<250	<250	22000	7900
PMLS3-2	7/10/2012	5,230	<25	<25	<25	940	380	<25	<25	<25	110	3800
PMLS3-5	7/10/2012	884	<50	0.61	1.7	450	38	<50	<50	<50	94	300
PMLS3-6	7/10/2012	5,410	<10	<10	<10	1600	120	<10	<10	<10	3200	490
PMLS4-1	7/10/2012	66,500	<120	<120	<120	21000	1300	<120	<120	<120	41000	3200
PMLS4-2	7/10/2012	7,288	<12	8.8	19	4500	510	<12	<12	<12	250	2000
PMLS4-5	7/10/2012	1,558	<2.5	<2.5	2.4	340	43	2.1	<2.5	<2.5	900	270
PMLS4-6	7/10/2012	2,300	<5.0	<5.0	<5.0	1400	180	<5.0	<5.0	<5.0	270	450

Notes:

µ g/L - microgram per liter

Table 4
Final Quarterly Sampling

Well ID	Date	Total Volatile Organic Compounds (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Tetrachloroethene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Vinyl Chloride (µg/L)
SMLS1-1	6/11/2013	371	<5.0	<5.0	<5.0	210	4.6	<5.0	<5.0	<5.0	6.8	150
SMLS1-2	6/11/2013	31,045	<50	<50	<50	17000	45	<50	<50	<50	<50	14000
SMLS1-3	6/11/2013	66,227	<120	<120	<120	37000	130	<120	<120	<120	97	29000
SMLS1-4	6/11/2013	221	<1.0	<1.0	<1.0	94	2.3	<1.0	<1.0	<1.0	5.1	120
SMLS4-2	6/11/2013	7,877	<12	<12	<12	4200	77	<12	<12	<12	1500	2100
SMLS4-3	6/11/2013	2,080	<5.0	<5.0	<5.0	1200	160	<5.0	<5.0	<5.0	620	100
SMLS7-1	6/11/2013	4,739	<10	<10	<10	2400	24	<10	<10	<10	15	2300
SMLS7-2	6/11/2013	20,375	<50	<50	<50	15000	85	<50	<50	<50	390	4900
SMLS7-3	6/11/2013	66,890	<120	<120	<120	49000	160	<120	<120	<120	730	17000
PMLS3-1	6/12/2013	37,484	<50	29	55	16000	1600	<50	<50	<50	14000	5800
PMLS3-2	6/12/2013	3,748	<1.0	2.5	5	2000	230	<1.0	<1.0	<1.0	310	1200
PMLS3-5	6/12/2013	1,568	<2.5	<2.5	2.7	820	75	<2.5	<2.5	<2.5	340	330
PMLS3-6	6/12/2013	3,416	<5.0	<5.0	5.8	1800	190	<5.0	<5.0	<5.0	780	640
PMLS4-1	6/12/2013	36,094	<50	<50	64	13000	830	<50	<50	<50	19000	3200
PMLS4-2	6/12/2013	639	<1.0	<1.0	1.3	330	65	<1.0	<1.0	<1.0	53	190
PMLS4-5	6/12/2013	5,070	<12	<12	<12	3400	210	<12	<12	<12	260	1200
PMLS4-6	6/12/2013	9,934	<25	<25	<25	8100	370	<25	<25	<25	64	1400

Notes:

µ g/L - microgram per liter

Table 5
Well Data Summary

Wells	Date	Day	Trichloroethene (µg/L)	Dichloroethene (µg/L)	Vinyl Chloride (µg/L)	Ethene (µg/L)	Total Moles Chlorinated	Total Volatile Fatty Acids (mg/L)
SMLS1-1	7/9/2012	-79	1400	1400	19000	155	3.346E-04	0.00
	9/28/2012	9	330	330	490	393	2.777E-05	590.00
	10/5/2012	16	280	280	390	670	3.515E-05	700.00
	10/10/2012	21	100	100	170	139	9.468E-06	797.20
	10/16/2012	27	57	57	180	588	2.486E-05	1052.00
	10/24/2012	35	78	78	170	537	2.326E-05	1195.00
	10/31/2012	42	42	42	95	625	2.455E-05	1472.00
	11/7/2012	49	33	33	230	745	3.083E-05	1730.00
	11/14/2012	56	32	32	140	568	2.306E-05	1187.00
	11/19/2012	61	17	17	55	614	2.307E-05	1094.00
	1/7/2013	110	200	200	940	456	3.488E-05	821.18
SMLS1-2	7/9/2012	-79	14000	43000	16000	79	8.089E-04	0.00
	9/28/2012	9	430	920	1400	309	4.618E-05	270.00
	10/5/2012	16	400	1300	1100	677	5.819E-05	360.00
	10/10/2012	21	130	810	340	535	3.386E-05	562.90
	10/16/2012	27	69	940	560	529	3.804E-05	699.00
	10/24/2012	35	80	890	110	726	3.743E-05	1123.00
	10/31/2012	42	64	810	74	582	3.077E-05	1310.00
	11/7/2012	49	43	430	56	799	3.414E-05	1260.00
	11/14/2012	56	56	740	180	777	3.864E-05	1168.00
	11/19/2012	61	28	530	110	730	3.346E-05	1074.17
	1/7/2013	110	200	6900	2000	1040	1.418E-04	963.19
SMLS1-3	7/9/2012	-79	81000	90000	16000	129	1.805E-03	0.00
	9/28/2012	9	22000	27000	4000	263	5.193E-04	81.00
	10/5/2012	16	11000	29000	4200	417	4.649E-04	51.00
	10/10/2012	21	8000	17000	2900	415	2.974E-04	106.00
	10/16/2012	27	8400	22000	3200	456	3.583E-04	293.90
	10/24/2012	35	4400	17000	2000	429	2.561E-04	517.80
	10/31/2012	42	2200	10000	1300	562	1.607E-04	700.00
	11/7/2012	49	2600	22000	3000	733	3.208E-04	917.00
	11/14/2012	56	3900	27000	7900	759	4.616E-04	883.00
	11/19/2012	61	1900	25000	8100	6.45	4.022E-04	850.00
	1/7/2013	110	<250	9200	51000	3620	1.040E-03	630.00
SMLS1-4	7/9/2012	-79	1600	1300	350	8.59	3.149E-05	0.00
	9/28/2012	9	350	1600	370	529	4.395E-05	750.00
	10/5/2012	16	140	5700	1300	671	8.586E-05	962.00
	10/10/2012	21	69	4400	890	574	8.061E-05	1255.00
	10/16/2012	27	52	27000	770	546	3.107E-04	1021.00
	10/24/2012	35	50	3000	710	495	6.033E-05	1615.00
	10/31/2012	42	140	3100	1000	525	6.776E-05	1241.00
	11/7/2012	49	32	2100	1400	657	6.773E-05	1087.00
	11/14/2012	56	83	4600	7400	447	1.824E-04	912.00
	11/19/2012	61	<25	440	1900	474	5.184E-05	799.99
	1/7/2013	110	<2.5	6	24	54.2	2.378E-06	129.83
SMLS4-2	7/9/2012	-79	2800	5000	9000	960	2.511E-04	0.00
	9/28/2012	9	3000	6300	1700	23.1	1.158E-04	0.00
	10/5/2012	16	6100	8000	2200	72	1.667E-04	0.00
	10/10/2012	21	2600	7000	2100	49.5	1.274E-04	0.00
	10/16/2012	27	2200	5800	2200	77.4	1.145E-04	0.00
	10/24/2012	35	1100	4900	1800	61.7	8.991E-05	0.00
	10/31/2012	42	590	4700	2000	110	8.889E-05	0.00
	11/7/2012	49	380	3500	2200	112	7.819E-05	0.00
	11/14/2012	56	150	2700	4200	196	1.032E-04	0.00
	11/19/2012	61	470	5500	5400	240	1.553E-04	0.00
	1/7/2013	110	25	2700	3800	257	9.800E-05	0.00

Table 5 continued
Well Data Summary

Wells	Date	Day	Trichloroethene (µg/L)	Dichloroethene (µg/L)	Vinyl Chloride (µg/L)	Ethene (µg/L)	Total Moles Chlorinated	Total Volatile Fatty Acids (mg/L)
SMLS4-3	7/9/2012	-79	3500	2200	1900	93	8.305E-05	0.00
	9/28/2012	9	1200	4800	1400	36.6	8.235E-05	14.30
	10/5/2012	16	780	4000	1400	121	7.391E-05	23.00
	10/10/2012	21	170	3100	890	26.7	4.846E-05	4.00
	10/16/2012	27	380	2900	1200	60.1	5.415E-05	4.90
	10/24/2012	35	190	2600	870	54.3	4.412E-05	1.60
	10/31/2012	42	180	33300	1400	93.9	3.706E-04	5.50
	11/7/2012	49	64	1700	940	104	3.677E-05	9.70
	11/14/2012	56	28	1400	1500	152	4.407E-05	3.20
	11/19/2012	61	100	2500	1800	225	6.337E-05	18.30
	1/7/2013	110	82	3300	2000	96.8	7.011E-05	0.00
SMLS7-1	7/9/2012	-79	14000	30000	24000	44.2	8.016E-04	0.00
	9/28/2012	9	5700	12000	2700	87.3	2.135E-04	4.70
	10/5/2012	16	11000	15000	3000	147	2.917E-04	0.00
	10/10/2012	21	4900	13000	2500	133	2.161E-04	0.00
	10/16/2012	27	4100	17000	3200	186	2.644E-04	6.60
	10/24/2012	35	170	15000	2600	339	2.097E-04	32.00
	10/31/2012	42	<50	16000	2700	342	2.204E-04	62.50
	11/7/2012	49	<50	11000	4900	492	2.094E-04	426.60
	11/14/2012	56	<50.0	20000	6300	281	3.171E-04	56.60
	11/19/2012	61	<50	5800	7000	637	1.945E-04	425.77
	1/7/2013	110	<12	1500	1500	1360	8.796E-05	384.50
SMLS7-2	7/9/2012	-79	6000	24000	23000	33.4	6.624E-04	0.00
	9/28/2012	9	38000	33000	3600	12.6	6.876E-04	0.00
	10/5/2012	16	28000	37000	3700	19.3	6.546E-04	0.00
	10/10/2012	21	39000	37000	2800	14.2	7.238E-04	0.00
	10/16/2012	27	31000	40000	4200	46.8	7.174E-04	0.00
	10/24/2012	35	26000	40000	3200	73	6.643E-04	6.50
	10/31/2012	42	3700	59000	3300	47.8	6.912E-04	11.70
	11/7/2012	49	570	60000	8000	210	7.587E-04	38.40
	11/14/2012	56	<250	64000	7800	124	7.894E-04	21.50
	11/19/2012	61	<250	40000	9200	236	5.682E-04	114.90
	1/7/2013	110	<120	5000	15000	940	3.251E-04	68.00
SMLS7-3	7/9/2012	-79	16000	40000	30000	68.4	1.017E-03	0.00
	9/28/2012	9	110000	51000	5100	41.5	1.446E-03	5.60
	10/5/2012	16	94000	72000	4700	59.6	1.535E-03	0.00
	10/10/2012	21	91000	60000	4300	36.9	1.382E-03	2.70
	10/16/2012	27	55000	50000	3600	91.9	9.952E-04	9.20
	10/24/2012	35	81000	77000	5000	191	1.498E-03	12.50
	10/31/2012	42	23000	10000	610	212	2.955E-04	15.00
	11/7/2012	49	59	12000	870	314	1.493E-04	27.90
	11/14/2012	56	<500	140000	10000	252	1.613E-03	20.90
	11/19/2012	61	410	120000	10000	338	1.413E-03	27.60
	1/7/2013	110	580	46000	14000	495	7.205E-04	0.00
PEW-01	7/9/2012	-79	7.8	88	210	83	7.286E-06	0.11
	9/19/2012	4	410	2900	660	47.9	4.530E-05	143.00
	9/26/2012	11	330	2500	410	30.8	3.596E-05	380.00
	10/5/2012	16	110	3700	610	104	5.247E-05	217.00
	10/10/2012	21	290	3300	600	149	5.116E-05	204.20
	10/17/2012	26	220	3100	560	121	4.692E-05	363.30
	10/24/2012	35	230	3000	600	127	4.682E-05	424.40
	10/31/2012	42	180	3000	570	148	4.671E-05	434.50
	11/7/2012	49	9.3	1900	380	198	3.281E-05	473.80
	11/14/2012	56	5.3	1700	560	343	3.876E-05	737.00
	11/19/2012	61	<5.0	510	460	348	2.503E-05	362.03

Table 5 continued
Well Data Summary

Wells	Date	Day	Trichloroethene (µg/L)	Dichloroethene (µg/L)	Vinyl Chloride (µg/L)	Ethene (µg/L)	Total Moles Chlorinated	Total Volatile Fatty Acids (mg/L)
PEW-02	7/9/2012	-79	4.6	1300	570	10.9	2.295E-05	0.15
	9/19/2012	4	1500	3700	800	149	2.295E-05	167.50
	9/26/2012	11	1200	3100	520	103	4.591E-05	250.00
	10/5/2012	16	180	3400	510	235	5.298E-05	450.00
	10/10/2012	21	800	4700	490	338	7.446E-05	423.90
	10/17/2012	26	530	3400	460	223	5.441E-05	877.00
	10/24/2012	35	340	2900	390	400	5.300E-05	840.00
	10/31/2012	42	970	3700	450	213	6.034E-05	882.00
	11/7/2012	49	<10	2600	510	314	4.617E-05	798.50
	11/14/2012	56	<5.0	1300	590	331	3.465E-05	757.30
	11/19/2012	61	<0.50	1300	760	383	3.922E-05	746.48
PEW-03	7/9/2012	-79	65	75	17	10.1	1.900E-06	0.00
	9/19/2012	4	300	2400	650	93.2	4.076E-05	185.00
	9/26/2012	11	510	2100	320	135	3.548E-05	380.00
	10/5/2012	16	17	1900	440	503	4.470E-05	560.00
	10/10/2012	21	280	2200	380	331	4.270E-05	646.80
	10/17/2012	26	270	2300	360	286	4.173E-05	596.3
	10/24/2012	35	440	2900	330	214	4.617E-05	666.9
	10/31/2012	42	200	2700	300	297	4.476E-05	881
	11/7/2012	49	<10	1600	320	447	3.756E-05	867.4
	11/14/2012	56	<5.0	1200	590	442	3.758E-05	888.5
	11/19/2012	61	<0.50	93	83	123	6.672E-06	121.3
PEW-04	7/9/2012	-79	18	67	19	3.16	1.245E-06	0.00
	9/19/2012	4	190	1600	1100	77.1	3.830E-05	259.00
	9/26/2012	11	260	1200	610	99.5	2.766E-05	310.00
	10/5/2012	16	22	1100	690	158	2.819E-05	590.00
	10/10/2012	21	210	1100	530	247	3.023E-05	524.50
	10/17/2012	26	190	1000	440	225	2.682E-05	606.20
	10/24/2012	35	480	1100	410	220	2.940E-05	608.20
	10/31/2012	42	230	850	270	251	2.379E-05	739.50
	11/7/2012	49	<2.5	470	220	360	2.120E-05	826.30
	11/14/2012	56	<2.5	480	240	338	2.084E-05	966.40
	11/19/2012	61	0.38	48	74	210	9.169E-06	153.20

Notes:
µ g/L - microgram per liter
mg/L - milligram per liter

Table 6
DHC Data

Well ID	Event	Date	Sample Time	Reading Time	Temp (°C)	Conductivity (ms/cm)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Dehalococcoides (copies/L)
SMLS1-1	Baseline	7/9/2012	10:10	9:50	19.21	6.160	6.97	-48.7	60.40	2.8	1.64E+05
	Recirc. / Pass. Ferm.	9/28/2012	08:35	08:30	19.35	8.732	6.76	-108.3	2.68	44.9	2.20E+03
	Recirc. / Pass. Ferm.	10/16/2012	08:15	08:10	21.12	9.907	6.91	-100.3	3.37	67.7	4.60E+09
	Recirc. / Pass. Ferm.	10/31/2012	09:20	09:15	20.49	10.350	6.62	-108.1	2.54	66.4	1.00E+11
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	08:00	08:05	20.39	7.515	6.87	-93.0	2.08	2.6	8.20E+10
	2D Q Monitoring	1/7/2013	08:40	08:45	16.88	7.574	6.92	-121.0	2.54	7.1	1.50E+09
	3D Q Monitoring	3/19/2013	09:40	09:35	18.50	7.642	7.13	-5.0	1.48	21.6	3.60E+10
	4D Q Monitoring	6/11/2013	10:10	10:05	20.74	4.014	7.00	-104.7	6.71	75.6	3.36E+04
SMLS1-2	Baseline	7/9/2012	10:40	10:25	19.75	6.081	6.83	-55.2	33.10	0.0	3.20E+04
	Recirc. / Pass. Ferm.	9/28/2012	08:50	08:45	19.34	8.302	6.80	-93.6	2.66	44.5	1.70E+03
	Recirc. / Pass. Ferm.	10/16/2012	08:35	08:30	21.22	9.649	6.81	-100.5	3.39	64.7	4.10E+07
	Recirc. / Pass. Ferm.	10/31/2012	09:40	09:35	20.68	10.260	6.76	-103.8	2.70	67.9	4.90E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	08:20	08:25	20.49	7.607	6.86	-102.0	1.52	2.6	6.80E+10
	2D Q Monitoring	1/7/2013	09:05	09:10	17.13	8.387	6.96	-117.0	1.64	3.2	1.00E+11
	3D Q Monitoring	3/19/2013	10:10	10:05	18.84	8.037	6.96	-48.0	1.12	15.2	1.30E+09
	4D Q Monitoring	6/11/2013	10:35	10:30	20.56	7.916	6.86	-124.0	6.23	55.6	1.44E+05
SMLS1-3	Baseline	7/9/2012	11:10	10:55	19.67	5.981	6.84	-45.6	30.50	-0.7	2.24E+05
	Recirc. / Pass. Ferm.	9/28/2012	09:05	09:00	19.53	7.908	6.77	-107.7	2.12	43.9	<1
	Recirc. / Pass. Ferm.	10/16/2012	08:55	08:50	21.59	9.012	6.75	-103.9	3.72	64.8	2.50E+08
	Recirc. / Pass. Ferm.	10/31/2012	10:00	09:55	20.84	9.605	6.63	-96.1	2.18	66.1	5.50E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	08:40	08:45	20.71	7.504	6.79	-95.0	1.91	2.0	8.20E+10
	2D Q Monitoring	1/7/2013	09:25	09:30	18.07	8.486	6.76	-102.0	1.86	3.2	4.40E+09
	3D Q Monitoring	3/19/2013	10:30	10:25	19.29	7.544	6.86	-43.0	1.43	2.3	6.80E+08
	4D Q Monitoring	6/11/2013	10:50	10:45	20.53	7.768	6.77	-118.9	67.10	69.1	1.70E+05
SMLS1-4	Baseline	7/9/2012	11:35	11:20	20.54	5.358	7.25	-90.9	45.00	-1.9	1.32E+05
	Recirc. / Pass. Ferm.	9/28/2012	09:15	09:20	19.49	8.720	6.90	-100.7	2.33	42.1	3.10E+04
	Recirc. / Pass. Ferm.	10/16/2012	09:15	09:10	21.97	9.806	6.84	-2100.3	4.21	67.0	4.10E+08
	Recirc. / Pass. Ferm.	10/31/2012	10:20	10:15	20.77	10.300	6.70	-126.3	2.23	65.6	2.00E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	09:00	08:55	20.47	7.388	6.82	-125.0	0.81	2.9	2.10E+10
	2D Q Monitoring	1/7/2013	09:35	09:40	17.55	8.371	7.05	-137.0	1.95	13.0	8.80E+10
	3D Q Monitoring	3/19/2013	10:45	10:40	19.27	7.647	7.05	-43.0	0.77	7.6	9.80E+08
	4D Q Monitoring	6/11/2013	11:05	11:00	20.77	7.546	6.40	-120.2	5.90	52.3	3.87E+04
SMLS4-2	Baseline	7/9/2012	10:05	9:50	20.25	5.771	6.89	-74.5	2.73	3.7	4.49E+05
	Recirc. / Pass. Ferm.	9/28/2012	10:05	10:00	19.89	7.131	7.05	-57.5	2.97	44.1	4.60E+04
	Recirc. / Pass. Ferm.	10/16/2012	09:40	09:35	24.35	7.674	7.02	-58.3	3.40	65.3	4.70E+06
	Recirc. / Pass. Ferm.	10/31/2012	10:40	10:35	21.11	7.982	6.74	-53.2	4.18	65.4	3.00E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	09:20	09:25	20.73	5.899	6.92	-80.0	1.63	0.5	2.60E+10
	2D Q Monitoring	1/7/2013	10:05	10:10	18.62	6.450	6.92	-78.0	0.98	2.3	1.40E+07
	3D Q Monitoring	3/19/2013	11:10	11:15	19.32	5.899	6.91	-112.0	1.70	0.0	<1.0E+03
	4D Q Monitoring	6/11/2013	11:25	11:20	21.28	6.021	6.71	-85.7	7.15	51.6	7.48E+04
SMLS4-3	Baseline	7/9/2012	10:45	10:30	20.25	5.873	7.28	-100.7	5.91	1.2	2.51E+05
	Recirc. / Pass. Ferm.	9/28/2012	10:20	10:15	20.11	7.513	6.98	-78.7	4.68	43.4	1.50E+04
	Recirc. / Pass. Ferm.	10/16/2012	10:00	09:55	26.61	8.201	7.27	-61.9	7.39	83.2	<1.0E+04
	Recirc. / Pass. Ferm.	10/31/2012	11:00	10:55	21.12	8.106	7.05	-84.4	18.60	65.7	1.90E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	09:40	09:45	20.75	6.109	7.14	-108.0	5.58	6.1	1.40E+10
	2D Q Monitoring	1/7/2013	10:25	10:30	18.70	3.213	7.11	-93.0	5.53	5.6	2.90E+07
	3D Q Monitoring	3/19/2013	11:30	11:35	19.35	5.895	7.22	-93.0	7.43	0.0	2.60E+07
	4D Q Monitoring	6/11/2013	11:35	11:40	21.44	6.048	7.24	-92.4	12.61	51.6	3.87E+04
SMLS7-1	Baseline	7/9/2012	12:25	12:10	21.40	5.750	6.99	-74.0	38.50	2.5	7.66E+04
	Recirc. / Pass. Ferm.	9/28/2012	10:50	10:45	18.28	7.468	6.84	-32.3	3.29	44.1	1.40E+04
	Recirc. / Pass. Ferm.	10/16/2012	10:25	10:20	23.76	8.301	6.76	-72.8	3.87	65.8	9.80E+09
	Recirc. / Pass. Ferm.	10/31/2012	11:25	11:20	21.12	8.871	6.59	-100.7	32.90	67.5	<3.7E+04
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	10:05	10:10	20.52	6.692	6.72	-92.0	1.75	2.3	1.50E+11
	2D Q Monitoring	1/7/2013	10:40	10:45	18.80	7.191	6.92	-121.0	0.79	2.1	1.00E+09
	3D Q Monitoring	3/19/2013	11:50	11:55	19.66	6.820	6.98	-71.0	1.77	1.3	5.60E+09
	4D Q Monitoring	6/11/2013	11:55	12:00	21.44	7.085	6.80	-126.5	2.73	55.0	7.48E+04
SMLS7-2	Baseline	7/9/2012	13:05	12:40	22.22	5.986	6.97	-82.1	50.90	-1.3	1.10E+05
	Recirc. / Pass. Ferm.	9/28/2012	11:20	11:15	20.76	7.084	6.96	-63.3	2.79	43.8	2.20E+04
	Recirc. / Pass. Ferm.	10/16/2012	10:45	10:40	22.93	7.792	6.82	-54.0	4.52	65.2	1.60E+09
	Recirc. / Pass. Ferm.	10/31/2012	11:40	11:35	20.80	8.305	6.86	-75.0	51.20	64.3	6.40E+10
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	10:25	10:30	20.69	6.430	6.81	-121.0	3.73	1.4	2.00E+11
	2D Q Monitoring	1/7/2013	14:00	14:05	19.13	6.952	6.90	-102.0	2.34	2.5	2.40E+09

Table 6 continued
DHC Data

Well ID	Event	Date	Sample Time	Reading Time	Temp (°C)	Conductivity (ms/cm)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Dehalococcoides (copies/L)
	3D Q Monitoring	3/19/2013	12:00	12:05	19.45	6.010	7.02	-108.0	2.48	6.5	6.30E+08
	4D Q Monitoring	6/11/2013	12:15	12:10	20.89	6.147	7.04	-108.1	11.29	62.7	3.87E+04
SMLS7-3	Baseline	7/9/2012	13:30	13:15	22.13	5.921	6.93	-75.6	40.90	54.2	8.60E+04
	Recirc. / Pass. Ferm.	9/28/2012	11:45	11:40	19.96	7.181	6.89	-44.4	2.55	43.4	1.40E+04
	Recirc. / Pass. Ferm.	10/16/2012	11:05	11:00	22.93	7.895	6.72	-44.7	3.52	65.0	1.50E+08
	Recirc. / Pass. Ferm.	10/31/2012	12:00	11:55	20.58	9.391	6.56	-37.9	53.30	64.2	7.20E+09
	Recirc. / Pass. Ferm. (1D Q Monitoring)	11/14/2012	10:40	10:45	21.03	6.512	6.61	-76.0	1.56	0.2	1.10E+11
	2D Q Monitoring	1/7/2013	11:15	11:20	18.94	3.312	6.82	-64.0	1.44	2.2	2.20E+08
	3D Q Monitoring	3/19/2013	11:20	11:15	18.94	3.312	6.82	-64.0	1.44		3.00E+08
	4D Q Monitoring	6/11/2013	12:35	12:30	20.61	5.742	6.70	-71.6	8.77	51.1	1.04E+04
PEW-01	Recirc. / Pass. Ferm.	9/26/2012	13:05	13:00	----	----	----	----	----	----	<1
	Recirc. / Pass. Ferm.	10/17/2012	10:05	10:00	23.82	8.780	6.94	-294.1	1.89	77.1	9.70E+06
	Recirc. / Pass. Ferm.	11/7/2012	12:25	12:20	18.81	6.240	6.97	-294.0	2.65	11.5	7.20E+09
	Recirc. / Pass. Ferm.	11/19/2012	15:05	15:10	20.36	4.305	6.86	-164.0	0.83	17.2	1.50E+10
PEW-02	Recirc. / Pass. Ferm.	9/26/2012	13:15	13:05	----	----	----	----	----	----	6.50E+03
	Recirc. / Pass. Ferm.	10/17/2012	09:45	09:40	22.46	9.739	6.81	-273.9	1.90	76.1	4.00E+06
	Recirc. / Pass. Ferm.	11/7/2012	12:10	12:05	19.13	6.793	6.87	-278.0	1.60	38.9	7.30E+09
	Recirc. / Pass. Ferm.	11/19/2012	14:50	14:55	21.62	6.778	6.77	-145.0	2.97	10.7	2.30E+10
PEW-03	Recirc. / Pass. Ferm.	9/26/2012	13:25	13:20	----	----	----	----	----	----	3.60E+04
	Recirc. / Pass. Ferm.	10/17/2012	09:25	09:20	21.53	8.854	6.90	-169.2	3.92	73.1	2.70E+06
	Recirc. / Pass. Ferm.	11/7/2012	11:55	11:50	18.93	6.540	6.85	-193.0	2.42	12.2	3.10E+09
	Recirc. / Pass. Ferm.	11/19/2012	14:30	14:35	24.13	1.608	7.17	-147.0	2.81	32.2	2.50E+10
PEW-04	Recirc. / Pass. Ferm.	9/26/2012	13:35	13:30	----	----	----	----	----	----	3.30E+03
	Recirc. / Pass. Ferm.	10/17/2012	09:05	09:00	21.26	9.028	6.84	-187.6	2.93	65.9	1.70E+07
	Recirc. / Pass. Ferm.	11/7/2012	11:40	11:35	18.80	6.676	6.87	-174.0	2.27	5.1	9.60E+09
	Recirc. / Pass. Ferm.	11/19/2012	14:10	14:15	25.02	5.070	6.97	-141.0	4.00	8.5	2.50E+10

Notes:
°C - degree Celsius
copies/L - copies of dehalococcoides per liter
mg/L - milligram per liter
ms/cm - millisiemens per centimeter
mV - millivolt
NTU - Nephelometric Turbidity Units

Appendix A
Boring Logs

Report
Hydraulic Profiling Services
Shaw Environmental & Infrastructure Inc.
Alameda, CA
Alameda Plume 4-1 Treatability Study

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Prepared For:

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Timothy Ripp
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Concord, CA 94520

"Expect Performance"

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HPT Pre-Test	7
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1. **Project Background**
    a. Plume 4- 1 is a zone of solvent-contaminated groundwater near Alameda Point' s East Entrance south of Atlantic A venue and north of Building 360. The contamination locally extends to 70 feet below ground surface and is believed to be the result of undocumented spillage from railroad spur.
    b. Objectives – To Gather Hydraulic Profile Data.
    c. HPT Scope – 3 borings, sampling as shallow as 5’ to as deep as 63’ BGS.
    d. Notes:

HPT Boring	Date	Notes
4-1-HPT-1	03/12/2010	Hand auger to 5' bgs. Encountered refusal at 42.85' bgs. Conductivity data imported from EC raw data file MIP-1.
4-1-HPT-2	03/12/2010	Hand auger to 5' bgs. Encountered refusal at 63.25' bgs. Conductivity data imported from EC raw data file MIP-3.
4-1-HPT-3	03/12/2010	Hand auger to 5' bgs. Encountered refusal at 43.40' bgs. Conductivity data imported from EC raw data file MIP-8.

2. HPT System Overview:

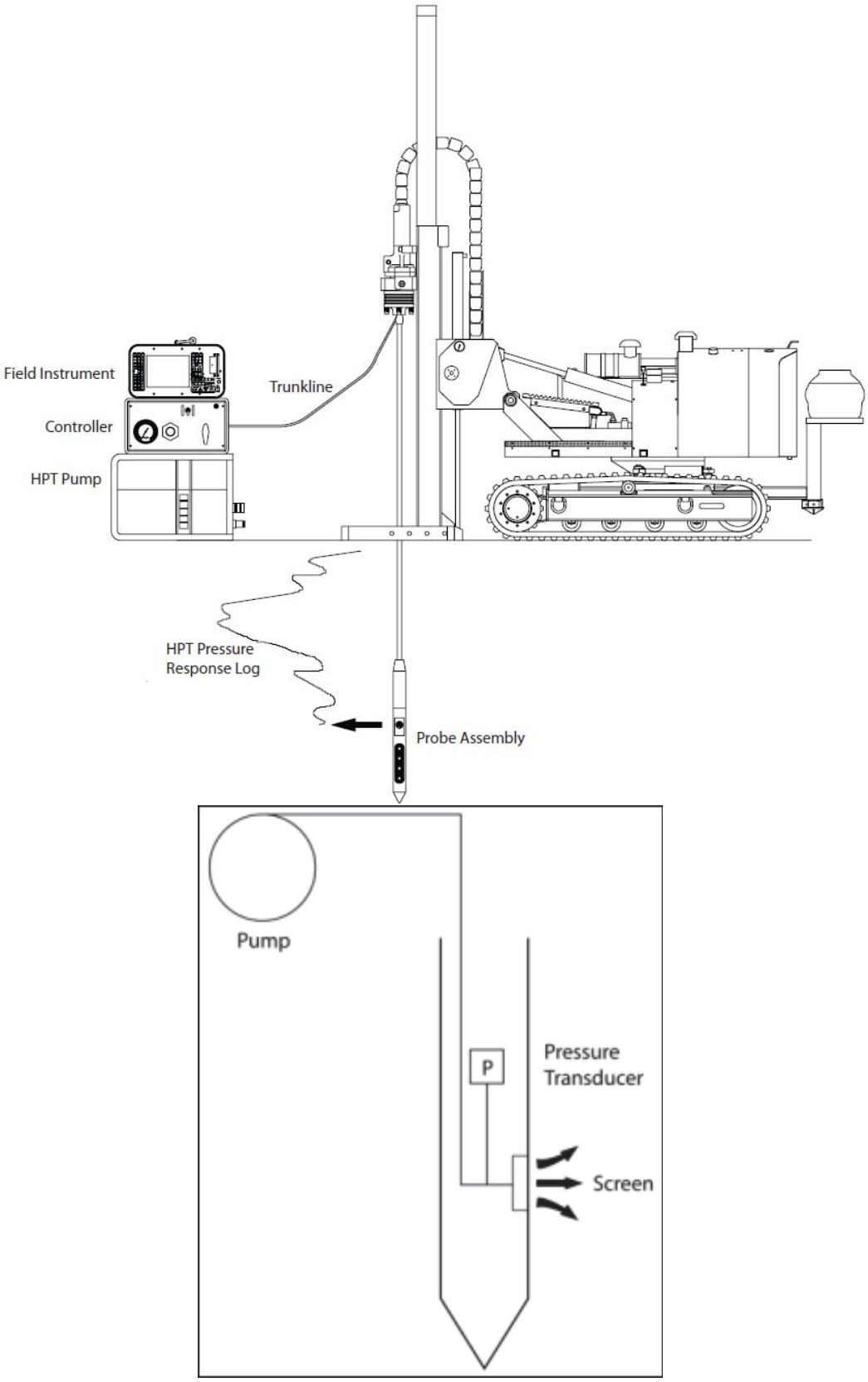
The HPT system is designed to evaluate the hydraulic behavior of unconsolidated materials. As the probe is pushed or hammered at 2cm/s, clean water is pumped through a screen on the side of the HPT probe at a low flow rate, usually less than 300 mL/min. Injection pressure, which is monitored and plotted with depth, is an indication of the hydraulic properties of the soil. That is, a relatively low pressure response would indicate a relatively large grain size, and the ability to easily transmit water. A relatively high pressure response, however, would indicate a relatively small grain size and the lack of ability to transmit water.

A Wenner array is integrated into the HPT probe. This allows a user to collect soil electrical conductivity (EC) data for lithologic interpretation. In general, the higher the electrical conductivity value, the smaller the grain size, and vice versa. However, other factors can affect EC, such as mineralogy and pore water chemistry (brines, extreme pH, contaminants). Conversely, the HPT pressure response is independent of these chemical and mineralogical factors.

There are five primary components of the HPT system: the probe assembly, controller, pump, trunkline, and field instrument. The probe assembly consists of the section that houses the 100 psi pressure transducer, water and electrical connections, and the probe body with the injection screen and electrical conductivity Wenner array.

Injecting water at a constant rate is integral to system operation. A controller box houses components that monitor and regulate the water injection rate and pressure, as well as pressure transducer signal conditioning electronics. The flow rate, up to 1000 mL/min, is set manually on the front of the controller, and a valve is used to turn on or shut off flow.

A vane pump provides system pressure ensuring adequate flow to the screen. The pump is secured to a frame with an integrated visual flow meter, and connects to the controller using a hose with quick connect fittings on each end. Water and power are transmitted from the controller to the probe assembly via the trunkline. The probe rods must be pre-strung with the trunkline before advancing the probe.



1 - HPT Components

2.a Equipment Used:

- Geoprobe 6600
- HPT Controller (Flow Meter)
- Geoprobe FC 5000 Computer
- 150' HPT Geoprobe Trunkline
- 1.75" O.D. HPT Probe
- 1.5" O.D. Drive Rods

2.b MIP Data Collected

- Depth - Data is collected from twenty data points per foot. 0.05', 0.10', 0.15', etc…

- Electrical Conductivity - Electrical Conductivity data is measured/collected in milli-siemens per Meter (ms/M). The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, will have a higher EC signal. While coarser grained sediments, sands and gravel, will have a lower EC signal. The coarser grained sediments will allow the migration of contaminants and the finer grained sediments will trap the contaminant.

- Speed / Advancement Rate - Speed data is measured/collected in feet per minute (ft/min). Speed is an indication of the physical advancement rate of the MIP probe. Speed of the MIP probe can vary due to operator advancement and dense soil types. Speed log can provide soil type information which can be correlated with electrical conductivity. Lower advancement speed, correlated with lower conductivity or larger grained soils would more than likely be associated with dense or compacted sands.

- Pressure - Pressure data is measured/collected in PSI. Pressure is an indication of pressure of the direct subsurface pressure behind the membrane. Minimum and Maximum pressure is collected at each vertical interval.

- Flow - Flow data is measured/collected in mL/min. Flow is an indication of flow rate of the water being pumped out of the membrane at the probe tip. Minimum and Maximum flow is collected at each vertical interval.

3. HPT Response Test

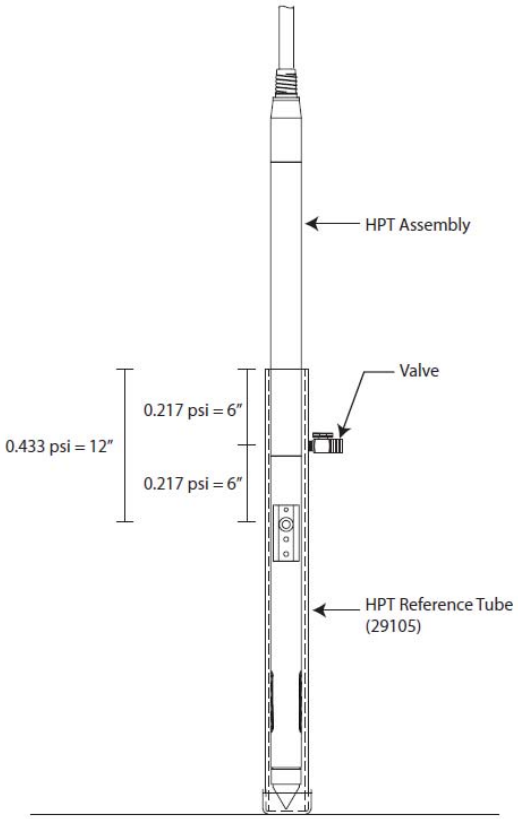
Response testing is used to evaluate any changes that occur in the HPT screen after it is advanced in the subsurface, and aids in accurately determining static water levels. Field testing is required before and after the first log, and after each additional log to verify the screen is not damaged or clogged. If clogged or damaged, remove the screen for cleaning or replacement, as appropriate.

- Response Test Procedure

  HPT flow is set to approximately 250 mL/m and is purged of any air. Relief valve is closed. Once pressure stabilizes the HPT probe is lowered into the HPT Reference Tube. The HPT Reference Tube is allowed overflow with water and pressure equilibrate. Once pressure has equilibrated, the pressure is measured and recorded.

  The relief valve (approximately 6' below top of the Reference Tube) is opened allowing the water to overflow through the relief valve. Once pressure stabilizes the pressure is measured.

  Ideally, the pressure difference observed between the upper and lower water level, both with and without flow, is 0.217 psi. If the pressures observed vary significantly from this value, corrective measures may be required. Additional purging of the trunkline or replacement of the HPT screen may be necessary.



APPENDIX B

HPT BORINGS

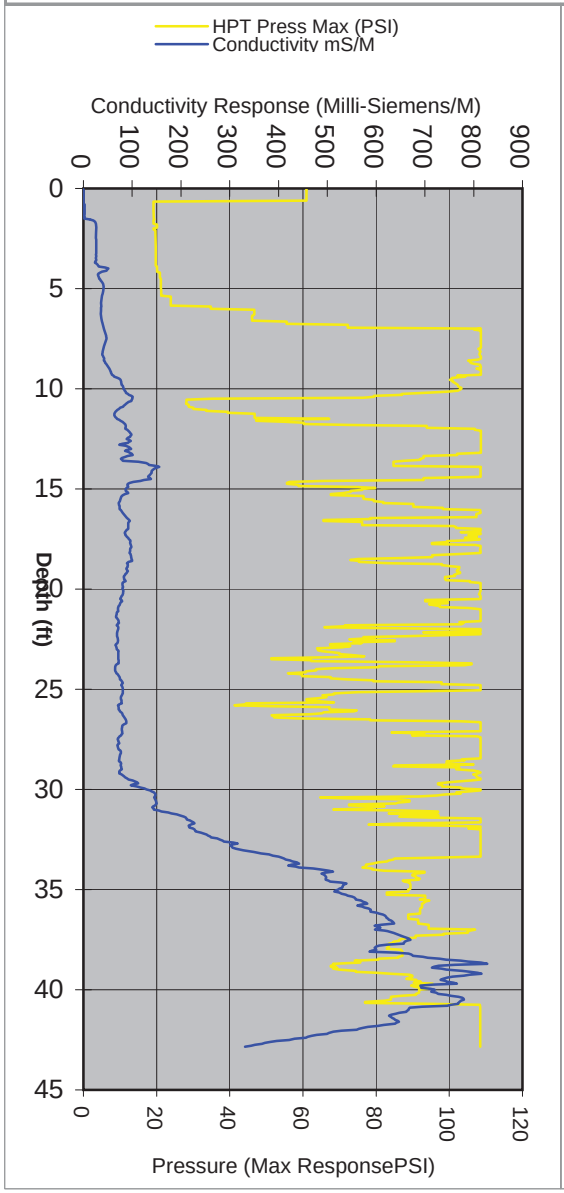
5292 Pacheco Boulevard
Pacheco, CA 94553
P:(925) 521-1490
F:(925) 521-1494
www.vironex.com

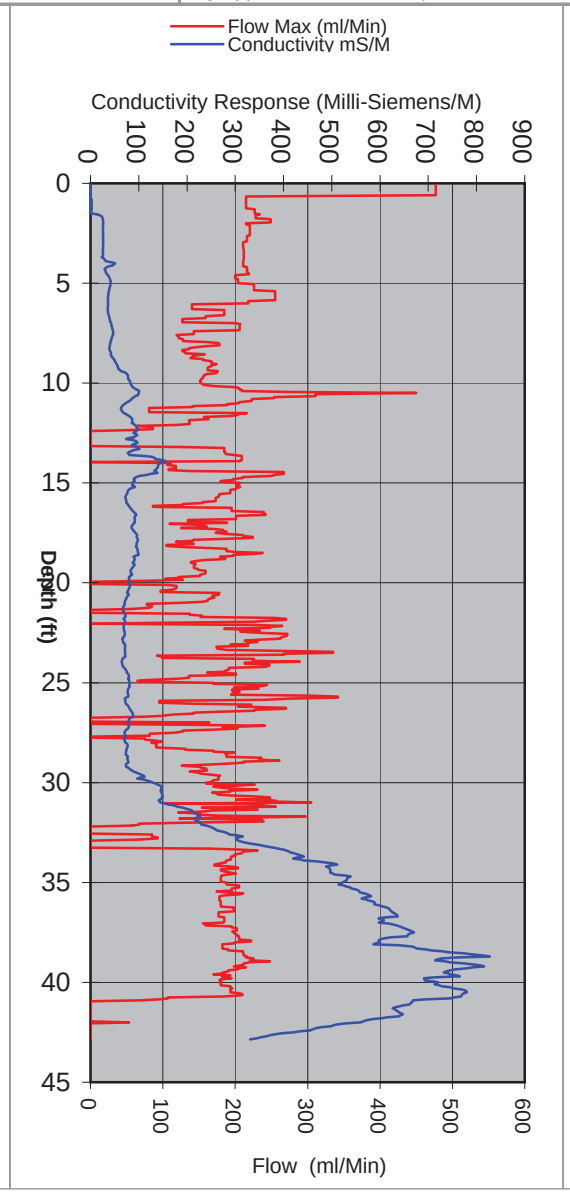
Boring Name: 4-1-HPT-1 Total Depth (ft): 42.85

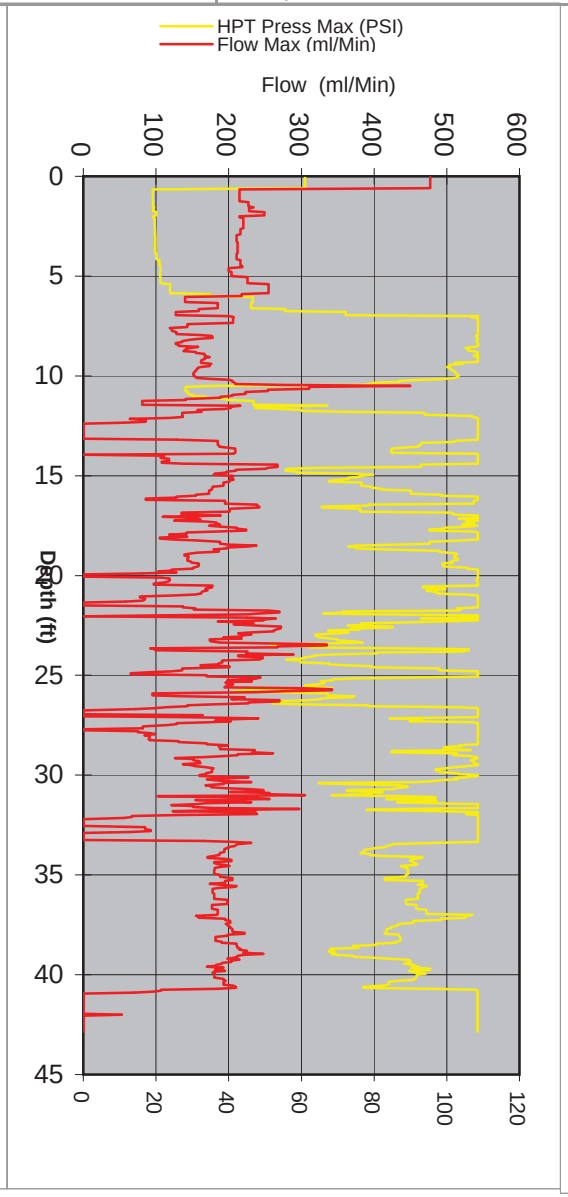
Notes:
Hand auger to 5' bgs. Conductivity data imported from EC raw data file MIP-1.

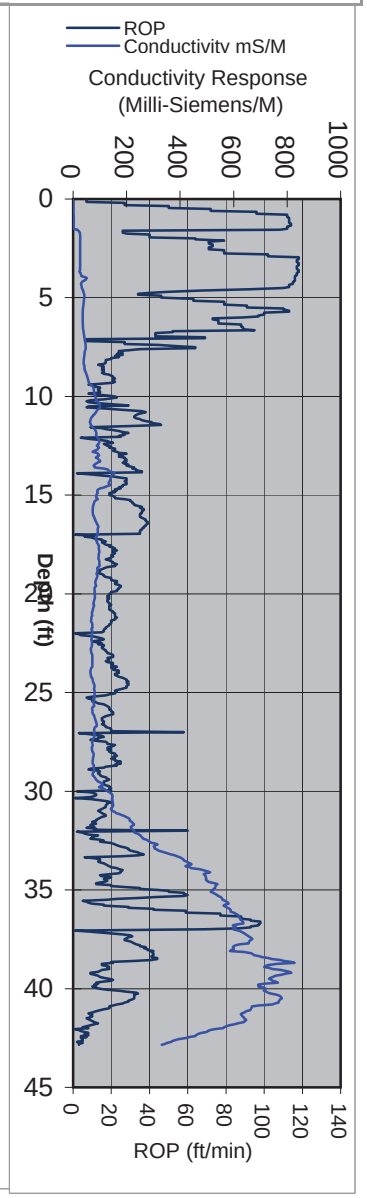
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Fri Mar 12 2010 09:40
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	Wenner - HPT	End Boring Time:	Fri Mar 12 2010 10:13
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	HPT Specialist:	Jeff Paul









5292 Pacheco Boulevard
Pacheco, CA 94553
P:(925) 521-1490
F:(925) 521-1494
www.vironex.com

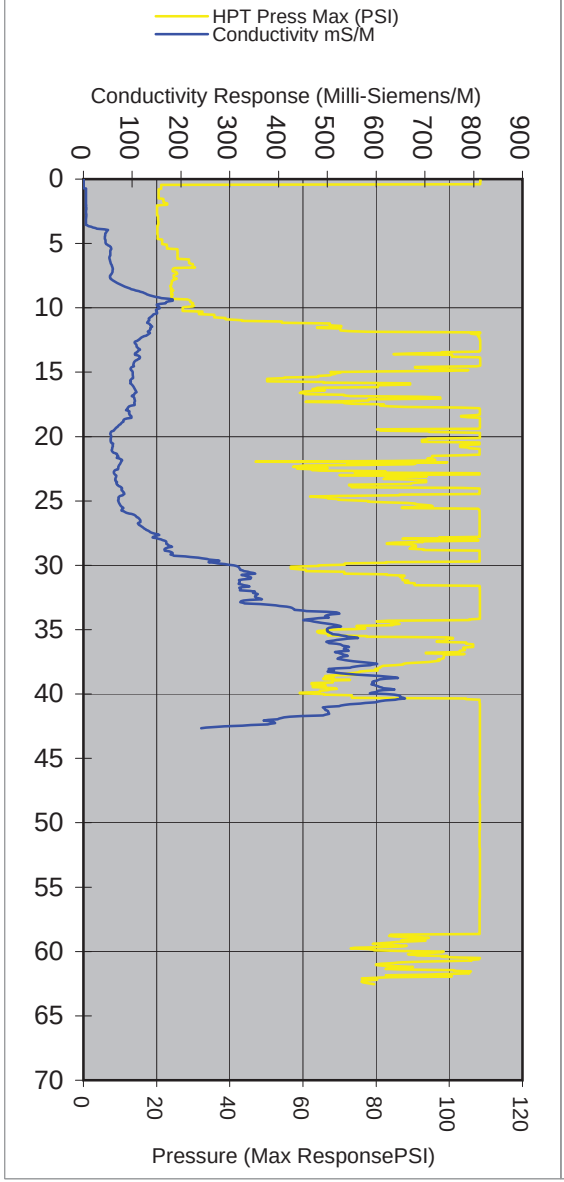
Boring Name: 4-1-HPT-2

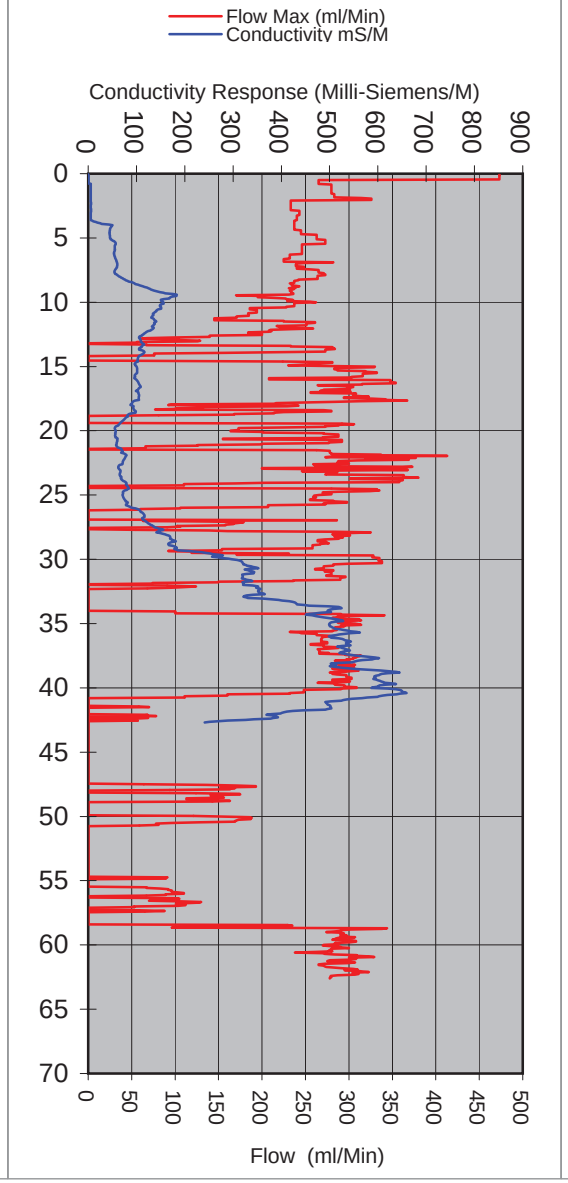
Total Depth (ft): 63.25

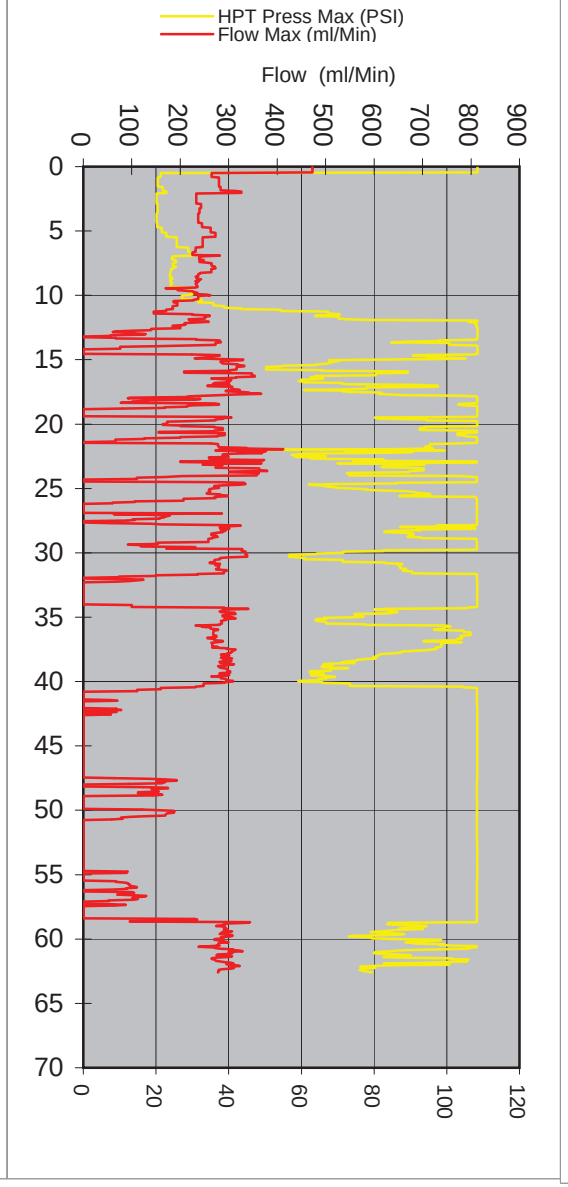
Notes:
Hand auger to 5' bgs. Encountered refusal at 63.25' bgs. Conductivity data imported from EC raw data file MIP-3.

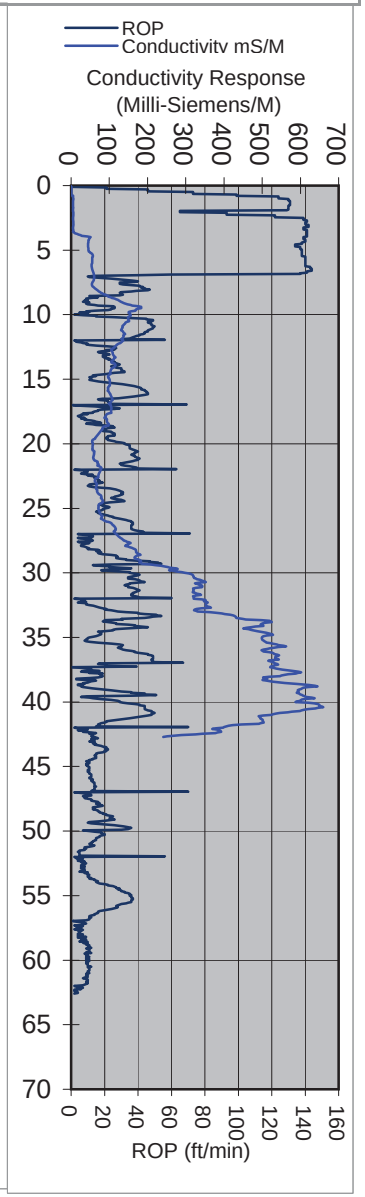
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Fri Mar 12 2010 11:09
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	Wenner - HPT	End Boring Time:	Fri Mar 12 2010 11:44
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	HPT Specialist:	Jeff Paul









5292 Pacheco Boulevard
Pacheco, CA 94553
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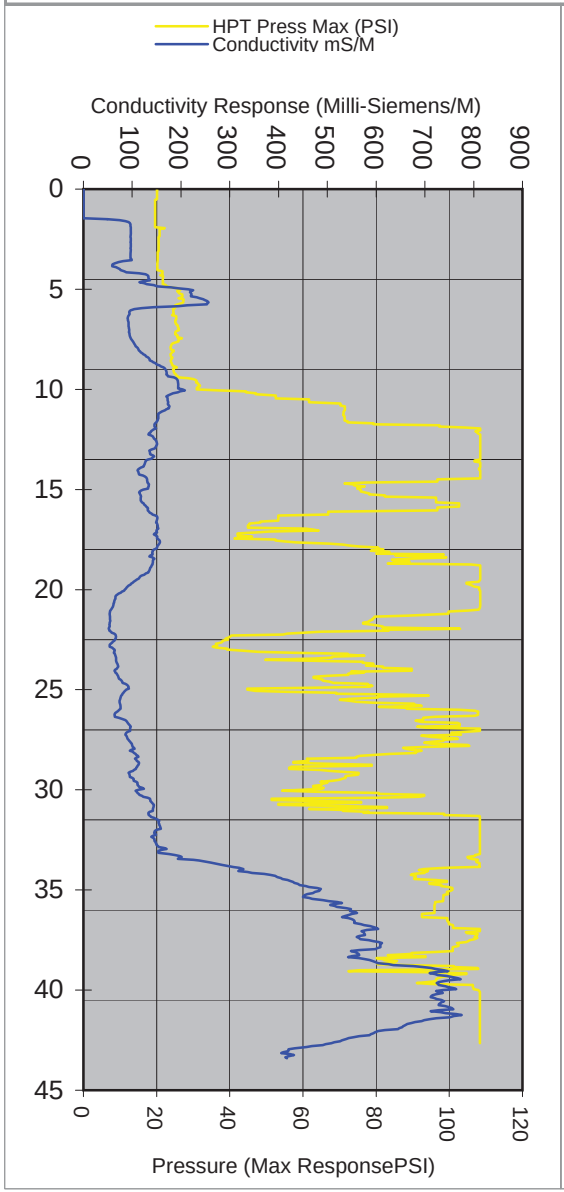
F:(925) 521-1494
www.vironex.com

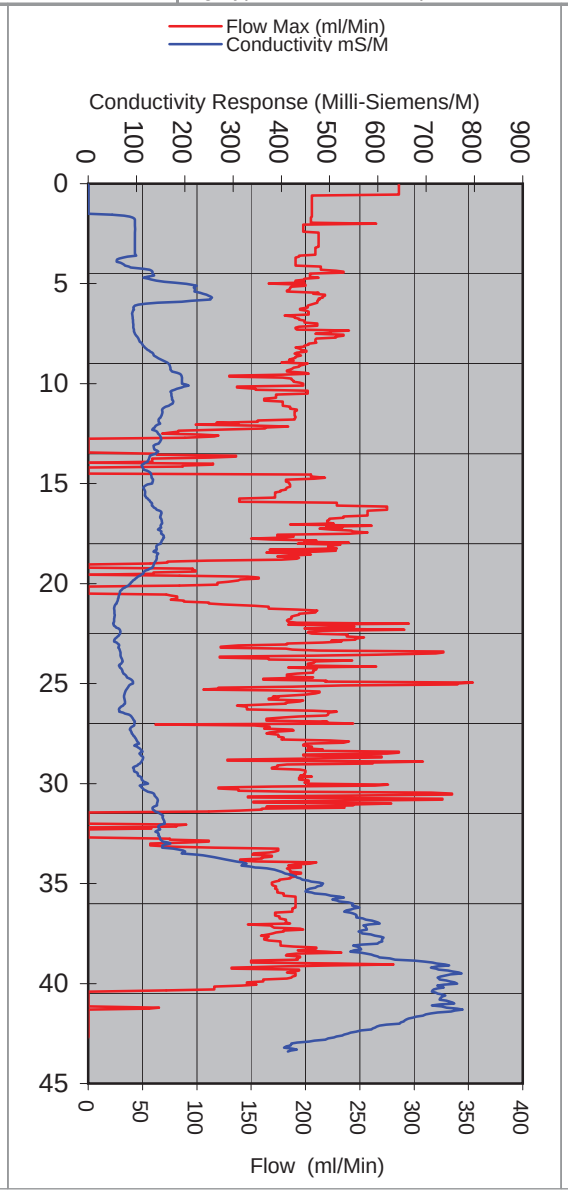
Boring Name: 4-1-HPT-3 Total Depth (ft): 43.4

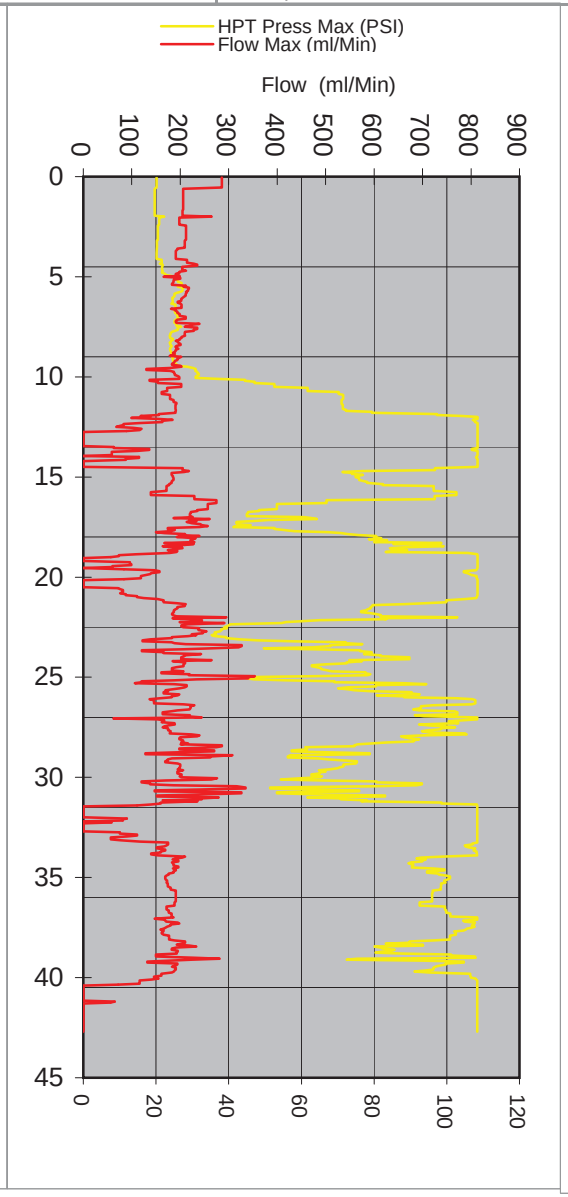
Notes:
Hand auger to 5' bgs. Encountered refusal at 43.40' bgs. Conductivity data imported from EC raw data file MIP-8.

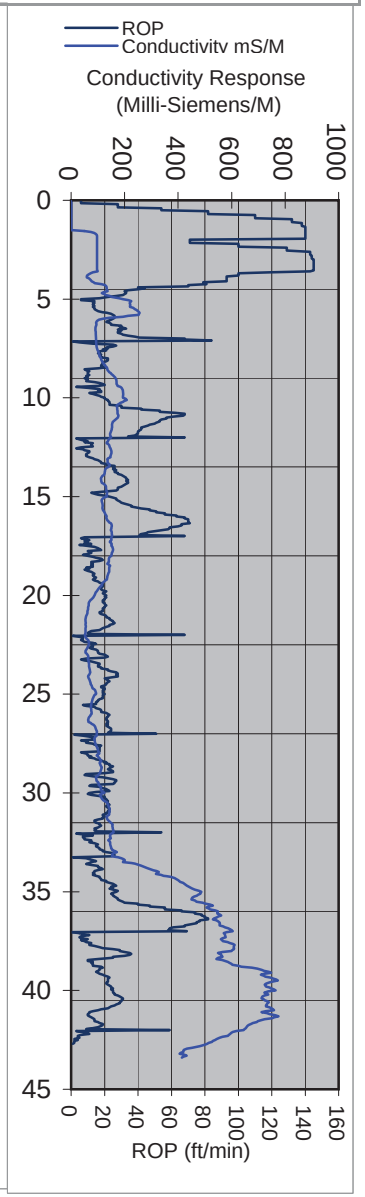
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Fri Mar 12 2010 12:26
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	Wenner - HPT	End Boring Time:	Fri Mar 12 2010 12:47
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	HPT Specialist:	Jeff Paul









Report
Membrane Interface Probe Services
Shaw Environmental & Infrastructure Inc.
Alameda, CA
Alameda Plume 4-1 Treatability Study

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"Expect Performance"

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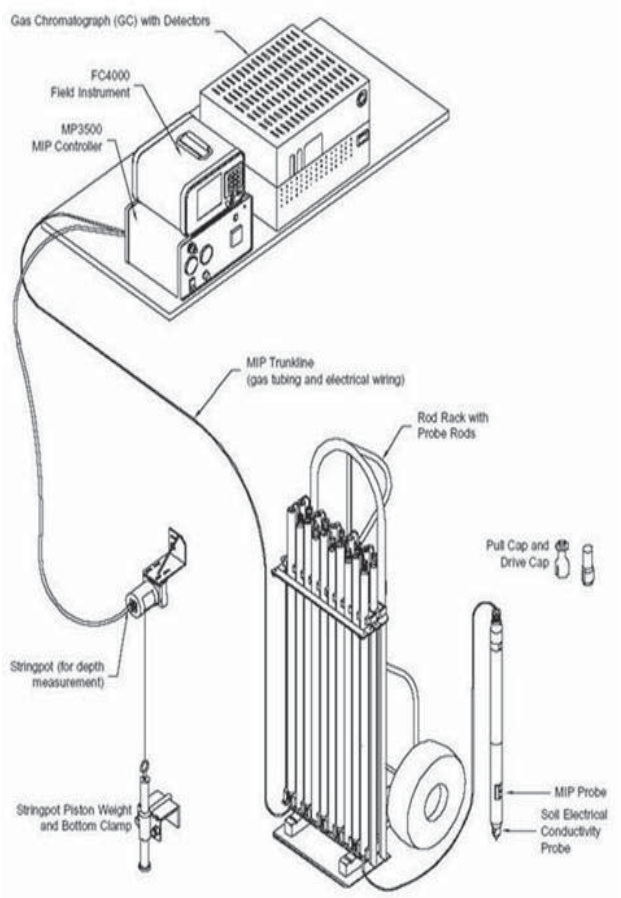
1. **Project Background**
   a. Site - Plume 4- 1 is a zone of solvent-contaminated groundwater near Alameda Point' s East Entrance south of Atlantic A venue and north of Building 360. The contamination locally extends to 70 feet below ground surface and is believed to be the result of undocumented spillage from railroad spur.
   b. Objectives – To delineate the extent of the VOC Plume.
   c. MIP Scope – Collect MIP data from 12 locations, sampling as shallow as 5' to as deep as 45' BGS.
   d. Notes

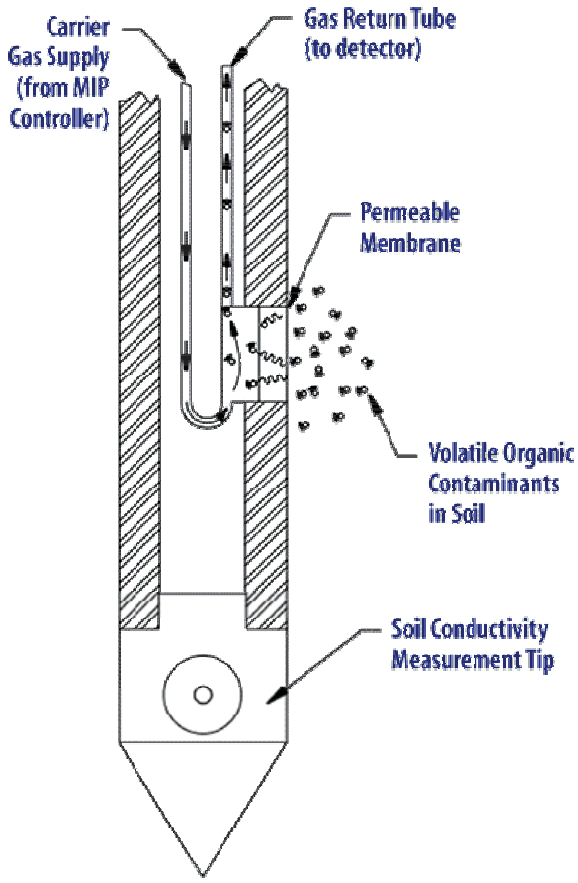
MIP Boring	Date	Notes
4-1-MIP-1	03-11-2010	Hand auger to 5' bgs. Encountered refusal at 43.05' bgs.
4-1-MIP-2	03-11-2010	Hand auger to 5' bgs. Encountered refusal at 43.75' bgs.
4-1-MIP-3	03-10-2010	Hand auger to 5' bgs. Encountered refusal at 42.65' bgs.
4-1-MIP-4	03-09-2010	Hand auger to 5' bgs. EC fault at 15' bgs. EC fault would not reset at 22' - stop pull out - switch probe. Re-advance - lost heater at 20' bgs - stop - pull out - switch probe – re-advance. Encountered refusal at 42.75' bgs. This log combines raw data files MIP-4 (0'-22') and MIP-4A (22'- 42.75').
4-1-MIP-5	03-09-2010	Hand auger to 5' bgs. Encountered refusal at 42.55' bgs.
4-1-MIP-6	03-08-2010	Hand auger to 5' bgs. Lost heater at 33' due to ec fault. Heater went out at 42' - stop - pull out. Advance back to 42'. Refusal at 44.35' bgs.
4-1-MIP-7	03-10-2010	Hand auger to 5' bgs. Encountered refusal at 40.05' bgs.
4-1-MIP-8	03-08-2010	Hand auger to 5' bgs. Encountered refusal at 43.85' bgs.
4-1-MIP-9	03-10-2010	Hand auger to 5' bgs. Encountered refusal at 40.95 ' bgs.
4-1-MIP-10	03-10-2010	Hand auger to 5' bgs. Encountered refusal at 43.65' bgs.
4-1-MIP-11	03-09-2010	Hand auger to 5' bgs. Encountered refusal at 44.75' bgs.
4-1-MIP-12	03-10-2010	Hand auger to 5' bgs. Encountered refusal at 43.75 ' bgs.

2. MIP System Overview:

The MIP is a direct push tool that produces continuous chemical and physical logs of the vadose and saturated zones. It locates VOCs in-situ and shows you where they occur relative to the geologic and hydrologic units. Vertical profiles, transects, 3D pictures and maps can all be made from the electronic data generated by the MIP logs. Its unique capability of providing reliable, real-time information allows you to make better and timely decisions while your team is still in the field.

The MIP is a down hole tool that heats the soils and groundwater adjacent to the probe to 120 degrees C. This increases volatility and the vapor phase diffuses across a membrane into a closed, inert gas loop that carries these vapors to a series of detectors housed at the surface. Continuous chemical logs or profiles are generated from each hole. Soil conductivity is also measured and these logs can be compared to the chemical logs to better understand where the VOCs occur. The MIP technology is only appropriate for volatile organic compounds (VOCs). The gas stream can be analyzed with multiple detectors, for example an electron capture detector is used to detect chlorinated solvents, a photo-ionization detector is used to detect petroleum hydrocarbons, and a flame ionization detector is used to detect methane.





2.a Equipment Used:

- Geoprobe 6600
- MIP Controller (Nitrogen Flow and Heater)
- Geoprobe FC 5000 Computer
- HP 5890 Gas Chromatograph
- ECD (Electron Capture Detector)
- PID (Photo Ionization Detector) 10.2 eV Lamp
- FID (Photo Ionization Detector)
- 150' Geoprobe Trunkline
- 1.75" O.D. 6510 MIP Probe
- 1.5" O.D. Drive Rods

2.b Detector Overview

- ECD – Electron Capture Detector uses a radioactive Beta emitter (electrons) to ionize some of the carrier gas and produce a current between a biased pair of electrodes. When organic molecules contain electronegative functional groups, such as halogens, phosphorous, and nitro groups pass by the detector, they capture some of the electrons and reduce the current measured between the electrodes.

- PID – Photo Ionization Detector sample stream flows through the detector's reaction chamber where it is continuously irradiated with high energy ultraviolet light. When compounds are present that have a lower ionization potential than that of the irradiation energy (10.2 electron volts with standard lamp) they are ionized. The ions formed are collected in an electrical field, producing an ion current that is proportional to compound concentration. The ion current is amplified and output by the gas chromatograph's electrometer.

- FID – Flame Ionization Detector consists of a hydrogen / air flame and a collector plate. The effluent from the GC (trunkline) passes through the flame, which breaks down organic molecules and produces ions. The ions are collected on a biased electrode and produce an electric signal.

2.c MIP Data Collected

- <u>Depth</u> - Data is collected from twenty data points per foot. 0.05', 0.10', 0.15', etc…

- <u>Electrical Conductivity</u> - Electrical Conductivity data is measured/collected in milli-siemens per Meter (ms/M). The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, will have a higher EC signal. While coarser grained sediments, sands and gravel, will have a lower EC signal. The coarser grained sediments will allow the migration of contaminants and the finer grained sediments will trap the contaminant.

- <u>Speed / Advancement Rate</u> - Speed data is measured/collected in feet per minute (ft/min). Speed is an indication of the physical advancement rate of the MIP probe. Speed of the MIP probe can vary due to operator advancement and dense soil types. Speed log can provide soil type information which can be

correlated with electrical conductivity. Lower advancement speed, correlated with lower conductivity or larger grained soils would more than likely be associated with dense or compacted sands.

- Temperature - Temperature data is measured/collected in Degrees Celsius. Temperature is an indication of the physical temperature of the MIP block. Minimum and Maximum temperature is collected at each vertical interval. Vironex's temperature protocol indicates that the MIP probe temperature shall maintain a minimum temperature of 75 Degrees Celsius.

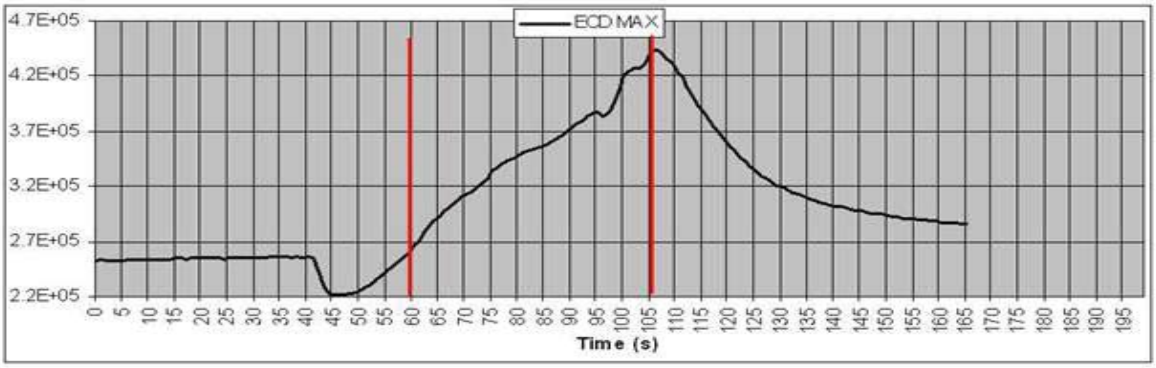
- Pressure - Pressure data is measured/collected in PSI. Pressure is an indication of the internal pressure of the nitrogen lines located within the trunkline and the pressure behind the membrane. Minimum and Maximum temperature is collected at each vertical interval. Geoprobes temperature protocol indicates that the MIP probe pressure shall not exceed 1.5 PSI difference from baseline.

- Detector (ECD, PID, FID) - Detector responses are measured/collected in micro Volts (uV). Detector responses are an indication of relative contaminant responses. Minimum and Maximum detector responses are collected at each vertical interval.

3. MIP QA/QC

Vironex adheres to Geoprobes Standard Operating Procedure, technical Bulletin No. MK3010, prepared: May, 2003. The response testing is a necessary part of the MIP logging process because it ensures that the system is working correctly and also enables the operator to measure the response time. Response time is the time it takes for the contaminant to go from the probe, through the trunk line, and to the detectors. This time is entered into the FC5000 computer for depth calculations. A response test is completed at the beginning of the day, between each boring, and at the end of each day. The response time will vary due to weather temperatures and length of the trunkline.

Per Geoprobe's SOP, a pass response is indicated as double the noise above the baseline.



APPENDIX A

Physical Properties Chart

Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
1,1,1,2-Tetrachloroethane	$C_2H_2Cl_4$	1.5532	6	167.8498	-70.2	130.5	<0.1 g/100 mL at 20.5 C	●		
1,1,1-Trichloroethane	$C_2H_3Cl_3$	1.3376	N/A	133.4047	-32.6	74.1	Slightly soluble. 0.1495 g/100 mL	●		
1,1,2,2-Tetrachloroethane	$C_2H_2Cl_4$	1.595	N/A	167.8498	-43	146.3	Soluble. 0.2962 g/100 mL	●		
1,1,2-Trichloroethane	$C_2H_3Cl_3$	1.4411	N/A	133.4047	-36.5	113.8	Insoluble. 0.442 g/100 mL	●		
1,1-Dichloroethane	$C_2H_4Cl_2$	1.176	-5	98.9596	-97.4	57.3	Slightly soluble. 0.506 g/100 mL	●		
1,1-Dichloroethene	$C_2H_2Cl_2$	1.213	-28	96.9438	-122.1	31.7	Insoluble. 0.225 g/100 mL	●	●	
2,3-Dichloropropene	$C_3H_4Cl_2$	1.204	10	110.9706	10	94	<0.1 g/100 mL at 22 C	●	●	
1,2,3-Trichlorobenzene	$C_6H_3Cl_3$	1.69	126	181.4487	52.6	219	Insoluble	●	●	
1,2,3-Trichloropropane	$C_3H_5Cl_3$	1.389	82	147.4315	-14.7	156	insoluble. 0.18 g/100 mL	●		
1,2,4-Trichlorobenzene	$C_6H_3Cl_3$	1.4634	110	181.4487	16.95	214.4	Insoluble. 0.0049 g/100 mL	●	●	
1,2-Dichlorobenzene	$C_6H_4Cl_2$	1.306	67	147.0036	-15	180.5	slightly soluble. 0.008396 g/100 mL	●	●	
1,2-Dichloroethane	$C_2H_4Cl_2$	1.253	13	98.9596	-35.3	83.5	Slightly soluble. 0.8608 g/100 mL	●		
1,2-Dichloropropane	$C_3H_6Cl_2$	1.1558	15	112.9864	-100.4	96.8	Slightly soluble. 0.27 g/100 mL	●		
1,3-Dichlorobenzene	$C_6H_4Cl_2$	1.288	67	147.0036	-24.76	173	insoluble. 0.0125 g/100 mL	●	●	
1,4-Dichlorobenzene	$C_6H_4Cl_2$	1.2417	67	147.0036	53.1	173.4	Insoluble. 0.00813 g/100 mL	●	●	
1,2-Dichloropropane	$C_3H_6Cl_2$	1.1558	15	112.9864	-100.4	96.8	Slightly soluble. 0.27 g/100 mL	●		
2-Chloropropane	C_3H_7Cl	0.862	-32	78.5413	-117.18	35.74	0.31 g/100 mL at 20 C	●		
2-Chlorotoluene	C_7H_7Cl	1.082	47	126.5853	-35.1	158.97	Slightly soluble	●	●	
3-Chloropropene	C_3H_5Cl	0.938	-29	76.5255	-134.5	44 - 46	Slightly soluble. 0.337 g/100 mL	●	●	
4-Chlorotoluene	C_7H_7Cl	1.07	49	126.5853	7.5	161.9	<0.1 g/100 mL at 20 C	●	●	
Carbon tetrachloride	CCl_4	1.594	N/A	153.823	-22.9	76.7	Slightly sol. 0.08048 g/100 mL	●		
Chlorobenzene	C_6H_5Cl	1.1066	29	112.5585	-45.6	130	Slightly soluble. 0.0497 g/100 mL	●	●	
Chloroethane	C_2H_5Cl	0.92	-50	64.5145	-136.4	12.3	Soluble. 0.574 g/100 mL at 20 C	●		
Chloroform	$CHCl_3$	1.49845	N/A	119.3779	-63.7	61.7	Slightly sol. 0.795 g/100 mL	●		
Chloromethane	CH_3Cl	0.991	N/A	50.4877	-97.1	-24.2	insoluble. 0.5325 g/100 mL	●		
cis-1,2-Dichloroethene	$C_2H_2Cl_2$	1.284	6	96.9438	-80.5	60	0.08 g/100 mL	●	●	
cis-1,3-Dichloropropene	$C_3H_4Cl_2$	1.22	N/A	110.9706	-50	104.3	<0.1 g/100 mL at 20.5 C	●	●	
cis-1,4-Dichloro-2-butene	$C_4H_6Cl_2$	1.188	56	124.9974	-48	152	0.058 g/100 mL	●	●	
Methylene Chloride	CH_2Cl_2	1.3255	N/A	84.9328	-96.7	39.8	Slightly sol. 1.32 g/100 mL	●		
Tetrachloroethene	C_2Cl_4	1.623	N/A	165.834	-22.3	121.1	Almost insoluble 0.015 g/100 mL	●	●	
Trans-1,2-Dichloroethene	$C_2H_2Cl_2$	1.257	6	96.9438	-50	47.5	Slightly. 0.63 g/100 mL	●	●	

Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
trans-1,3-Dichloropropene	$C_3H_4Cl_2$	1.217	27	110.9706	N/A	112	<0.1 g/100 mL at 20.5 C	●	●	
trans-1,4-Dichloro-2-butene	$C_4H_6Cl_2$	1.183	N/A	124.9974	2	155.5	0.085 g/100 mL at 25 C	●	●	
Trichloroethene	C_2HCl_3	1.462	N/A	131.3889	-86	86.7	Slightly soluble. 0.11 g/100 mL	●	●	
Vinyl Chloride	C_2H_3Cl	0.9106	42	62.4987	-153.7	-13.9	Slightly soluble 0.11 g/100 mL	●	●	
Benzene	C_6H_6	0.8786	-11	78.1134	5.5	80.1	Slightly sol. 0.18 g/100 mL		●	●
Hexane	C_6H_{14}	0.6548	-22	86.1766	-95	69	Slightly sol. .000947 g/100 mL		●	●
n-Butylbenzene	$C_{10}H_{14}$	0.86	59	134.2206	-88	183	insoluble		●	●
1,2,4-Trimethylbenzene	C_9H_{12}	0.876	48	120.1938	-43.8	169	Slightly soluble		●	●
1,3,5-Trimethylbenzene	C_9H_{12}	0.865	44	120.1938	-44.7	165	insoluble		●	●
Ethyl Benzene	C_8H_{10}	0.867	15	106.167	-94.9	136.2	0.0206 g/100 mL		●	●
m,p-Xylene	C_8H_{10}	0.862	25	106.167	-50	140	Insoluble. 0.0175 g/100 mL		●	●
Naphthalene	$C_{10}H_8$	0.997	78	128.1732	80.6	218	Slightly soluble. 0.0031 g/100 mL		●	●
o-Xylene	C_8H_{10}	0.897	32	106.167	-25.2	144	0.00 g/100 mL. Insoluble		●	●
n-Propylbenzene	C_9H_{12}	0.862	47	120.1938	-101.6	159	insoluble		●	●
Toluene	C_7H_8	0.867	4	92.1402	-93	110.6	Slightly sol. 0.0526 g/100 mL		●	●
1,2-Dibromo-3-chloropropane	$C_3H_5Br_2Cl$	2.05	N/A	236.3335	6	195	0.123 g/100 mL	●		
1,2-Dibromoethane	$C_2H_4Br_2$	2.17	1	187.8616	9.97	131.7	Slightly sol. 0.4152 g/100 mL	●		
1,3-Dichloropropane	$C_3H_6Cl_2$	1.188	20	112.9864	-99	120.4	insoluble	●		
Acrylonitrile	C_3H_3N	0.8075	-5	53.0634	-83.55	77.3	Soluble. 7.45 g/100 mL		●	
Bromobenzene	C_6H_5Br	1.495	51	157.0095	-30.8	155	insoluble. <0.1 g/100 mL at 20.5 C	●	●	
Bromochloromethane	CH_2BrCl	1.991	N/A	129.3838	-88	67.8	Slightly soluble. 0.1-0.5 g/100 mL at 20 C	●		
Bromodichloromethane	$CHBrCl_2$	1.971	N/A	163.8289	-57.1	90.1	Slightly soluble. 0.6735 g/100 mL	●		
Bromoform	$CHBr_3$	2.894	N/A	252.7309	8.3	149.5	Slightly soluble. 0.301 g/100 mL	●		
Bromomethane	CH_3Br	1.732	N/A	94.9387	-93.7	3.56	Very slightly soluble. 1.522 g/100 mL	●		
Carbon disulfide	CS_2	1.2632	-30	76.131	-110	46.2	Slightly sol. 0.1185 g/100 mL		●	
Cumene	C_9H_{12}	0.862	31	120.1938	-96	151	insoluble. 0.00499 g/100 mL		●	
Dibromochloromethane	$CHBr_2Cl$	2.451	N/A	208.2799	-22	120	0.4 g/100 mL	●		
Dibromomethane	CH_2Br_2	2.497	N/A	173.8348	-53	97	Soluble. 1.193 g/100 mL	●		
Freon 11	CCl_3F	1.494	N/A	137.3684	-111	23.8	insoluble. 0.124 g/100 mL	●		
Freon 113	$C_2Cl_3F_3$	1.575	N/A	187.3762	-36.4	47.6	0.02 g/100 mL. Slightly soluble. Insoluble	●		

Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
Hexachlorobutadiene	C_4Cl_6	1.68	N/A	260.762	-21	210	Insoluble. 0.00032 g/100 mL	●	●	
p-Cymene	$C_{10}H_{14}$	0.86	47	134.2206	-67	176 - 178	insoluble		●	
sec-Butylbenzene	$C_{10}H_{14}$	0.862	45	134.2206	-75	173	0.00176 g/100mL		●	
Styrene	C_8H_8	0.9045	32	104.1512	-30.6	145.2	0.032 g/100 mL		●	●
tert-Butylbenzene	$C_{10}H_{14}$	0.867	44	134.2206	-58	169	0.00295 g/100 mL		●	

* Compound with no flashpoint are not ignitable.

** If temperature is not otherwise noted, assume 25° C.

● indicates a possible response on specific detector

Associated Parent Compound
Chlorinated
Gasoline
Diesel
Gasoline and Diesel
Not typical of primary compounds

APPENDIX B

MIP BORINGS

5292 Pacheco Boulevard
Pacheco, CA 94553
P:(925) 521-1490
F:(925) 521-1494
www.vironex.com

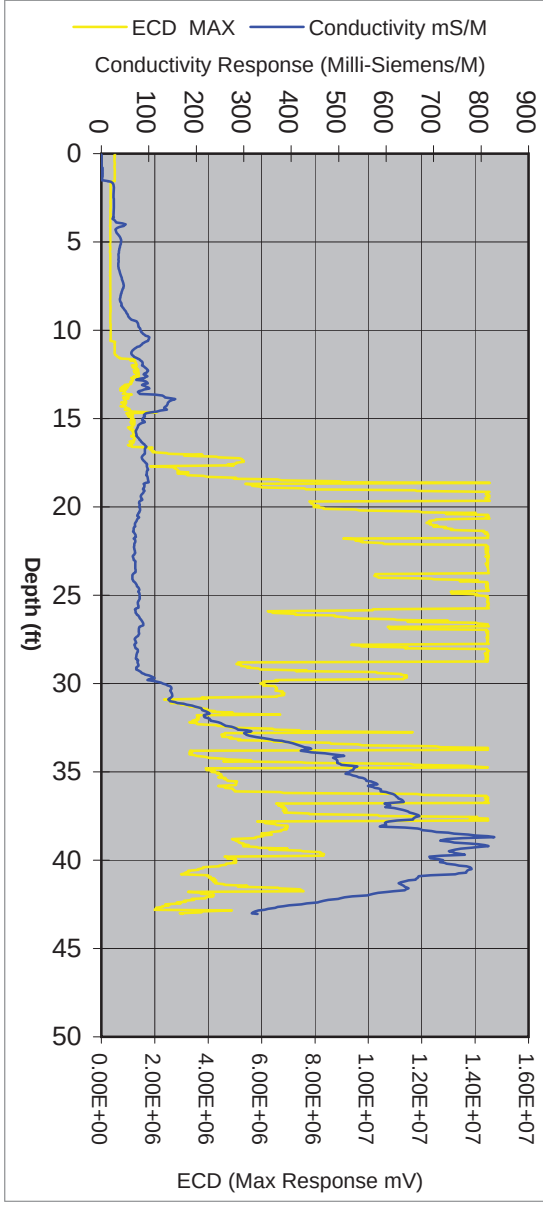
Boring Name: 4-1-MIP-1

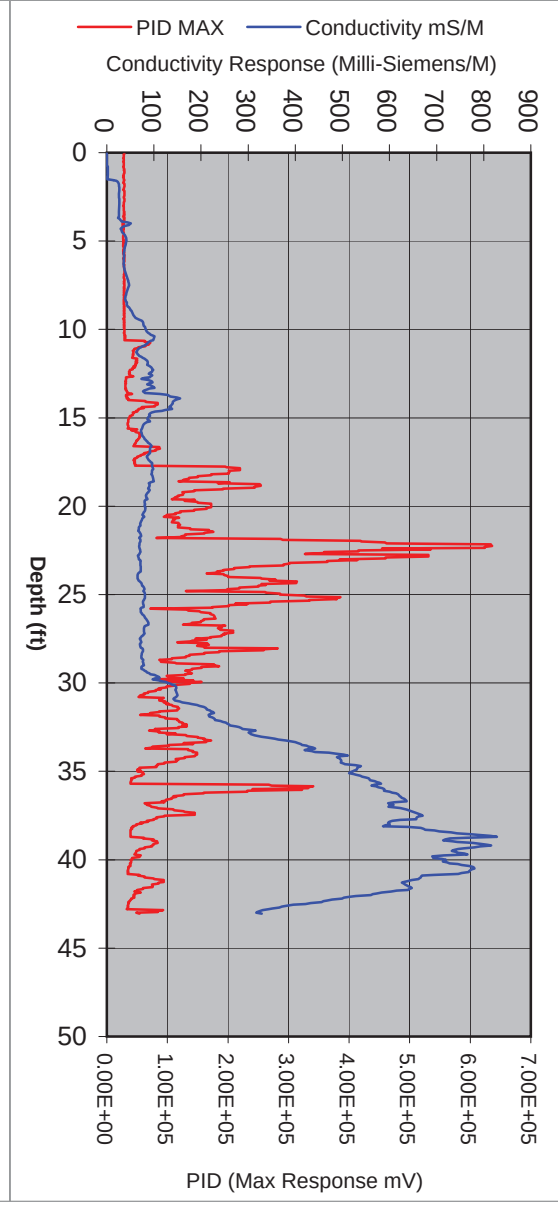
Total Depth (ft): 43.05

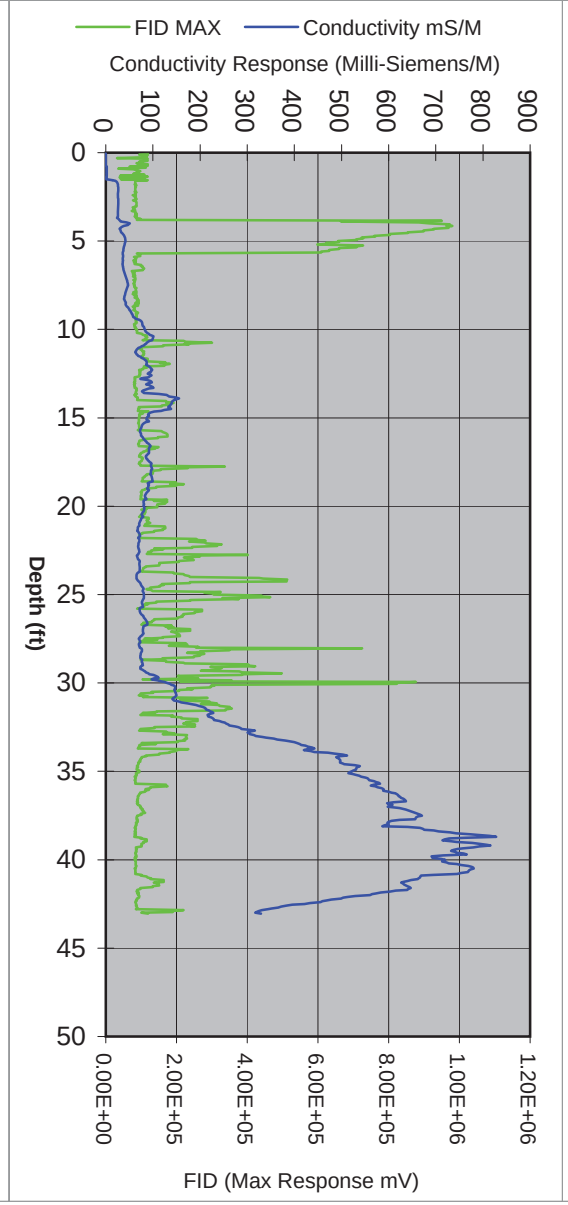
Notes: Hand auger to 5' bgs. Encountered refusal at 43.05' bgs.

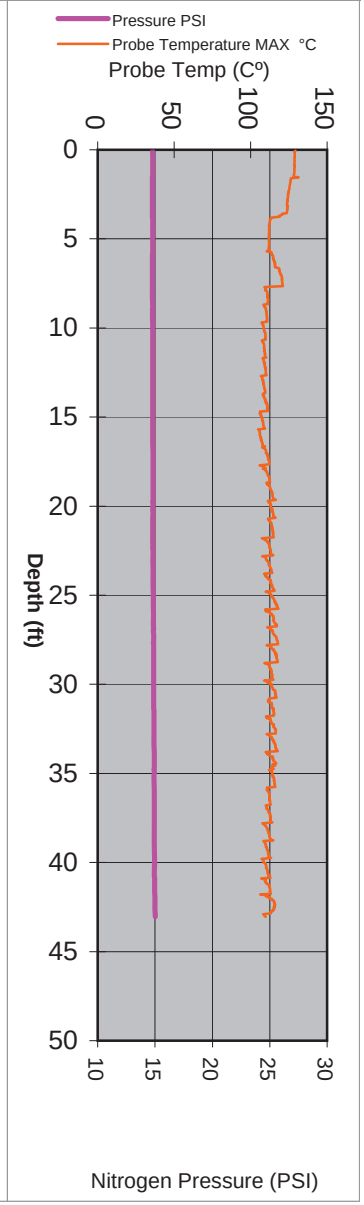
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Thu Mar 11 2010 09:41
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Thu Mar 11 2010 10:26
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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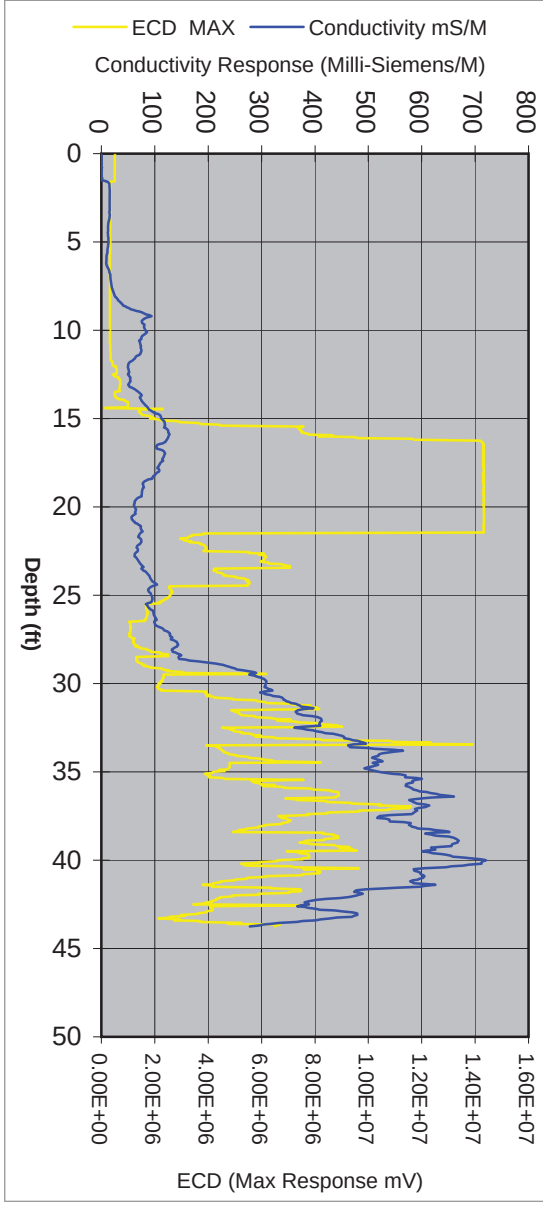
Boring Name: 4-1-MIP-2

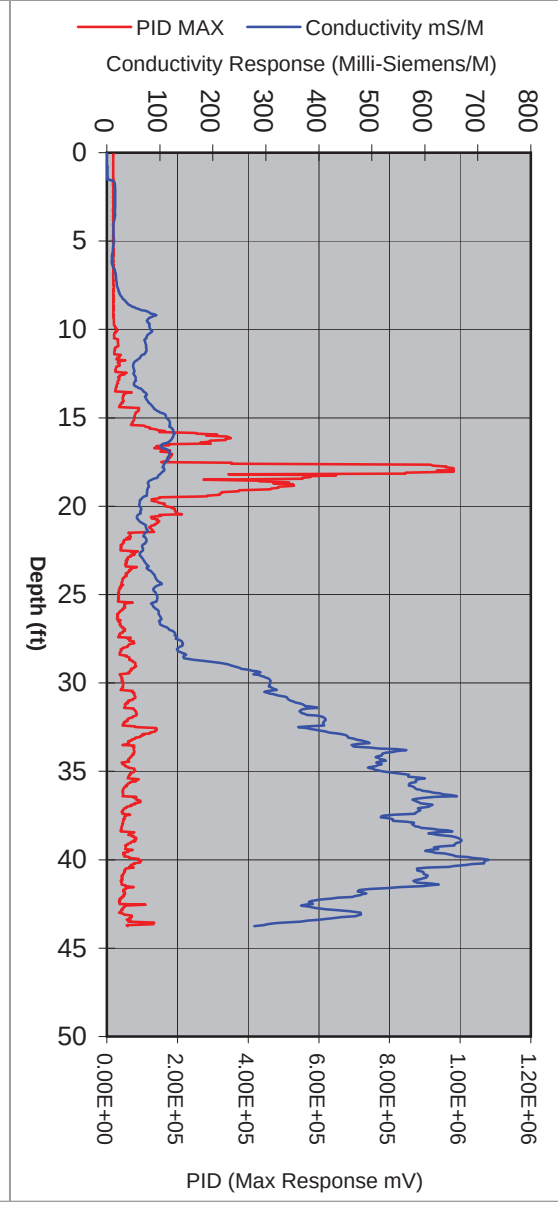
Total Depth (ft): 43.75

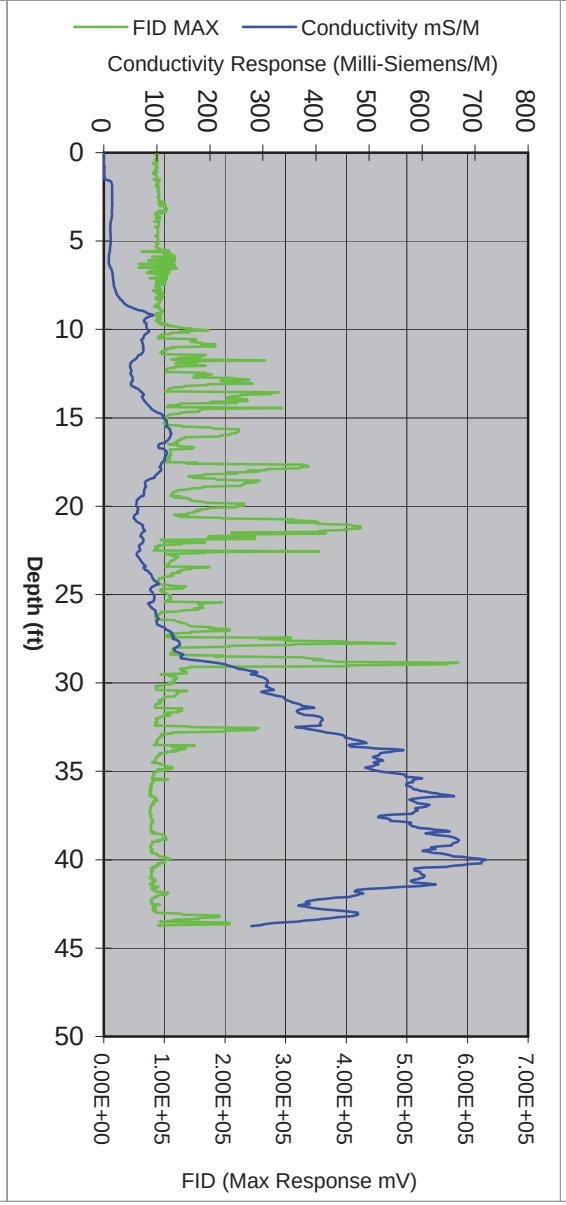
Notes: Hand auger to 5' bgs. Encountered refusal at 43.75' bgs.

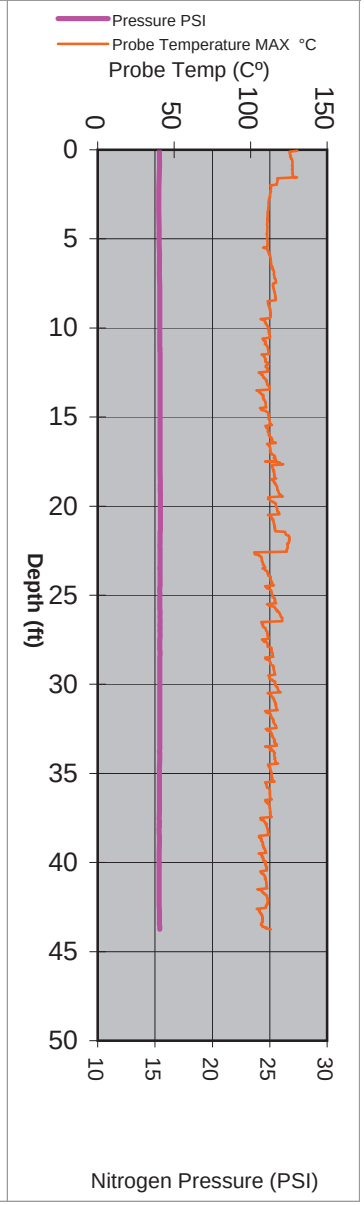
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Thu Mar 11 2010 07:59
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Thu Mar 11 2010 08:46
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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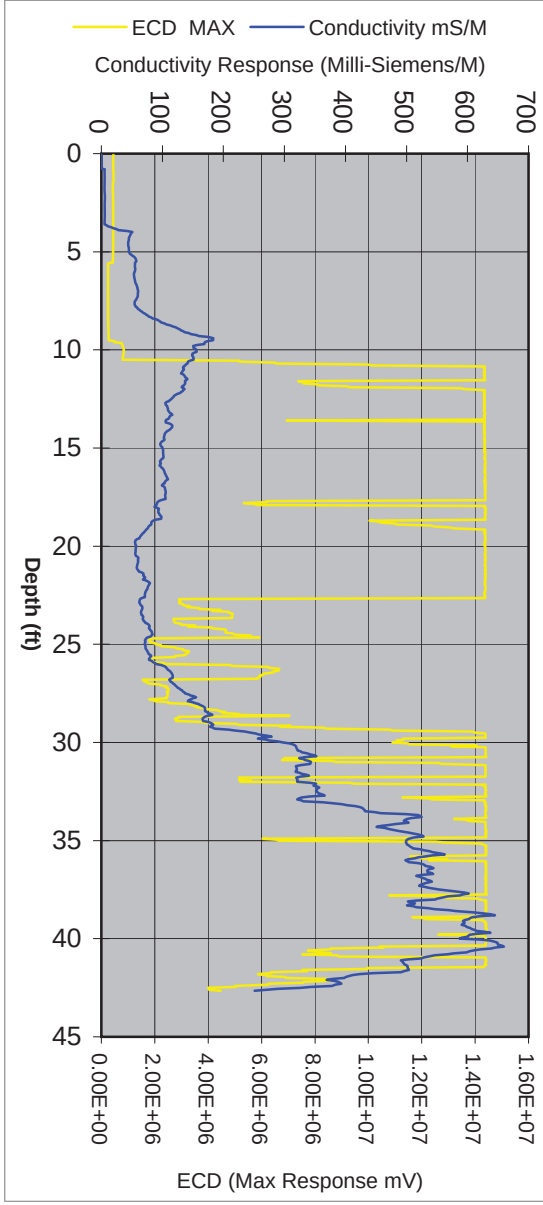
Boring Name: 4-1-MIP-3

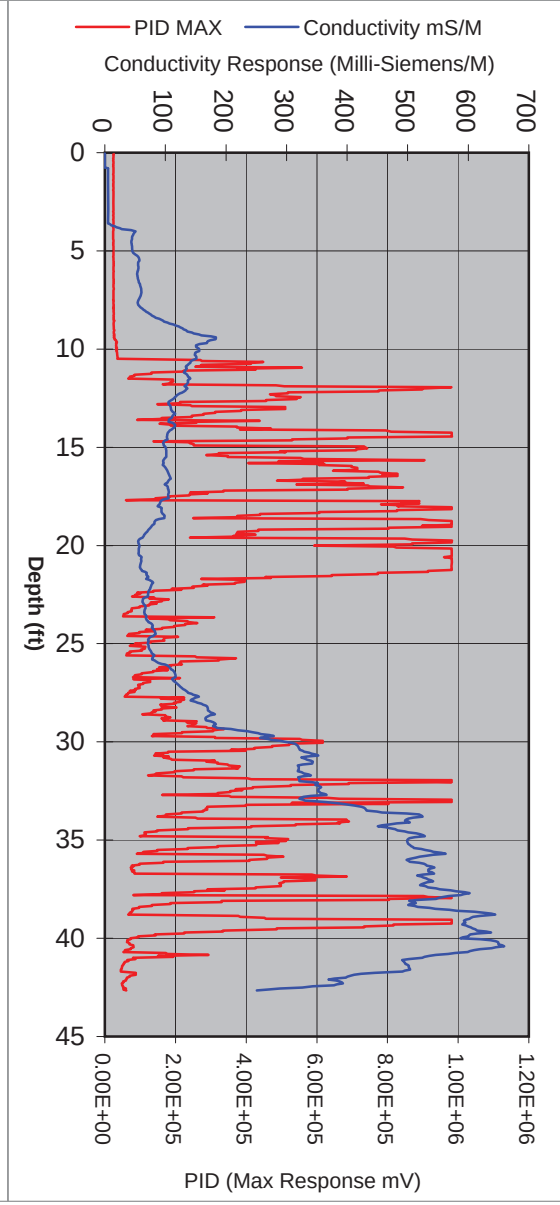
Total Depth (ft): 42.65

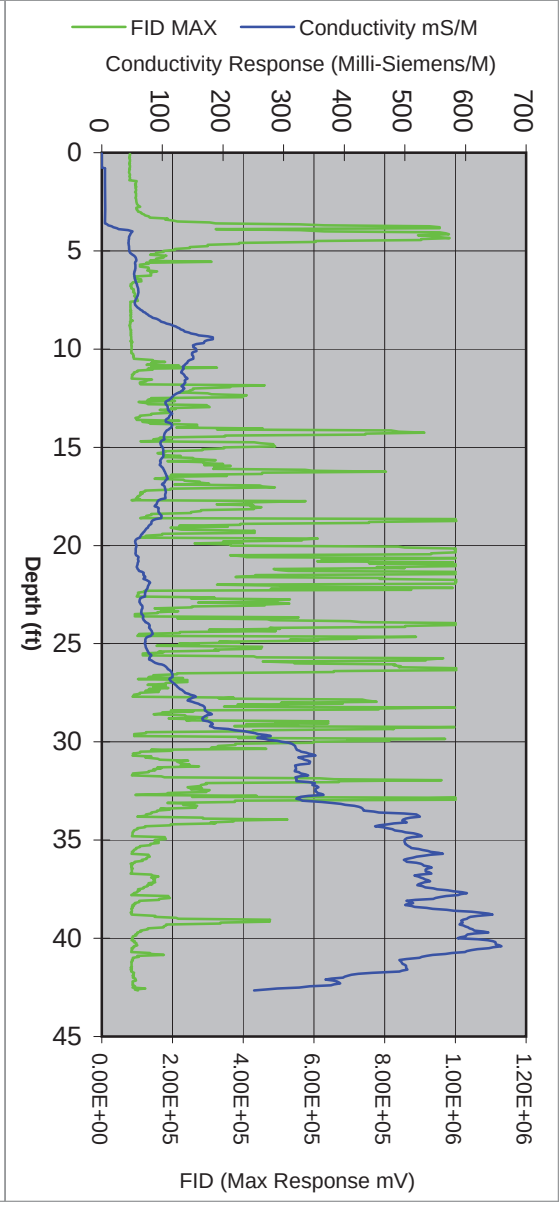
Notes: Hand auger to 5' bgs. Encountered refusal at 42.65' bgs.

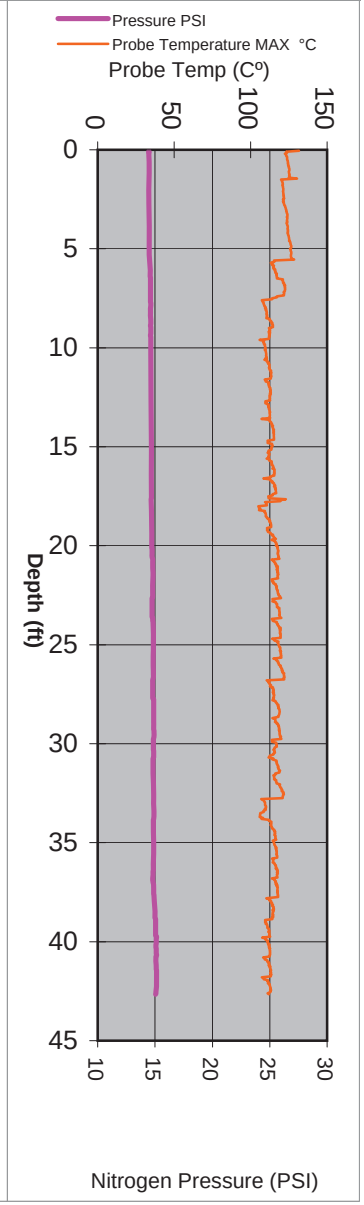
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Wed Mar 10 2010 08:22
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Wed Mar 10 2010 09:08
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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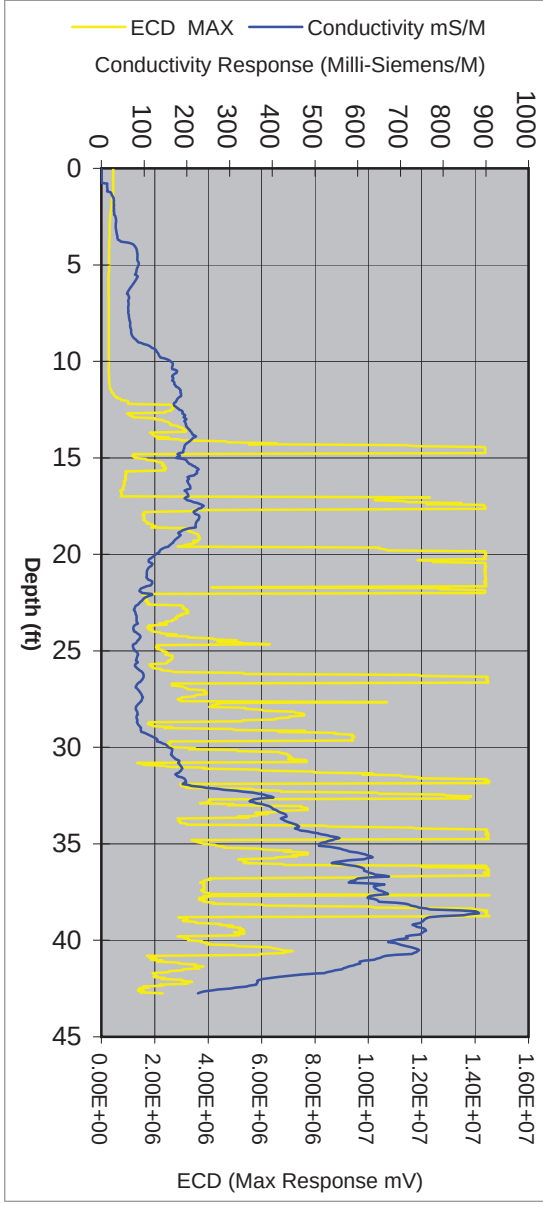
Boring Name: 4-1-MIP-4

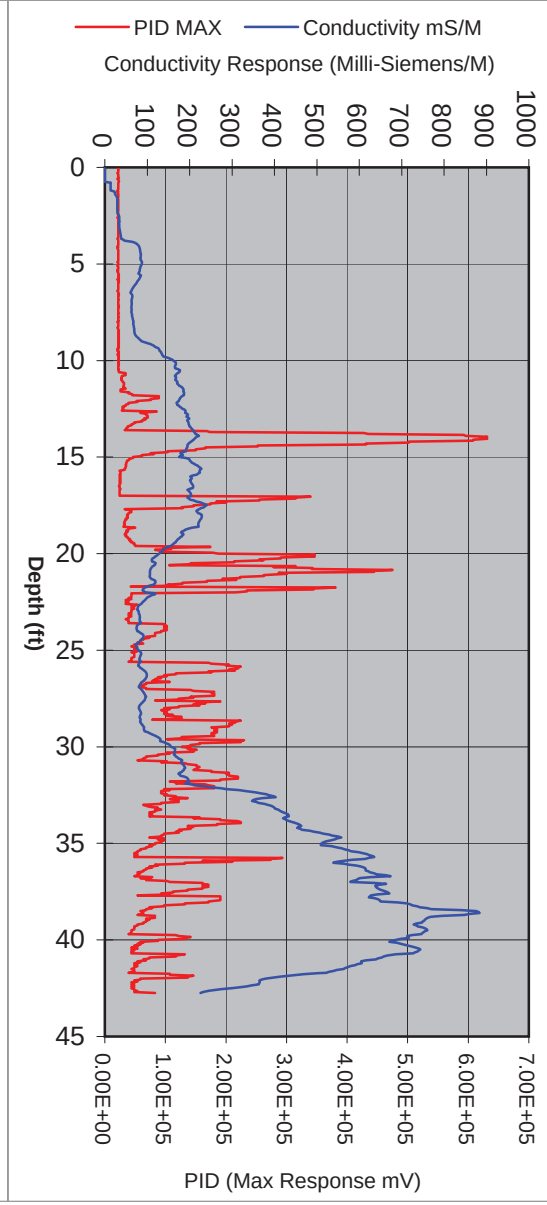
Total Depth (ft): 42.75

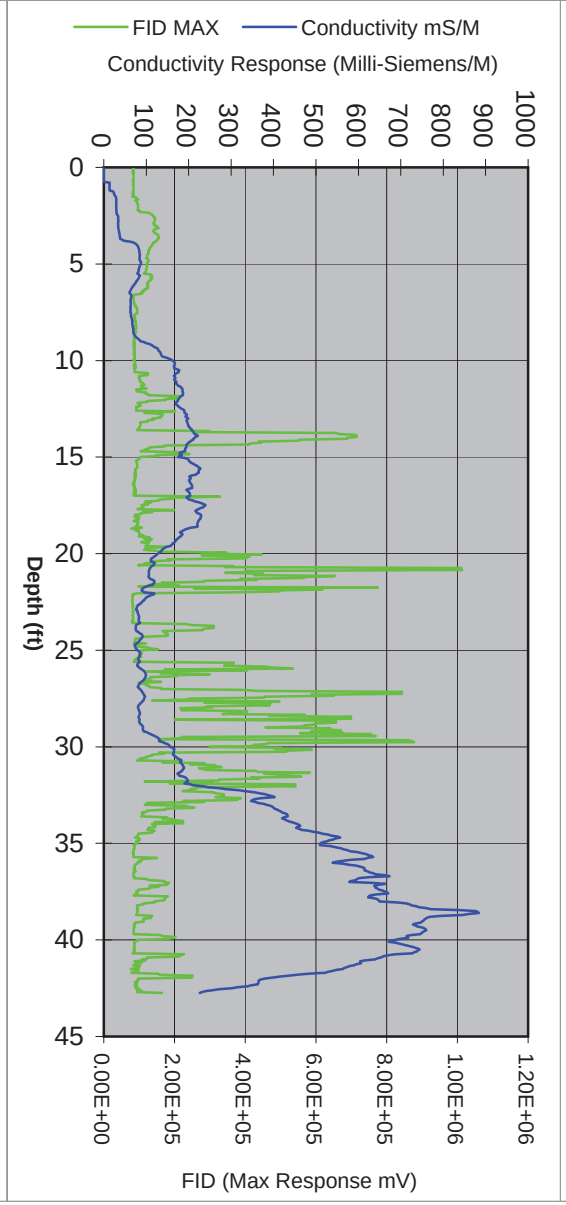
Notes: Hand auger to 5' bgs. EC fault at 15' bgs. EC fault would not reset at 22' - stop oull out - switch probe. Readvance lost heater at 20' bgs - stopped - pulled out - switch probe - readvance. Encountered refusal at 42.75' bgs. This log combines raw data files MIP-4 (0'-22') and MIP-4A (22'- 42.75').

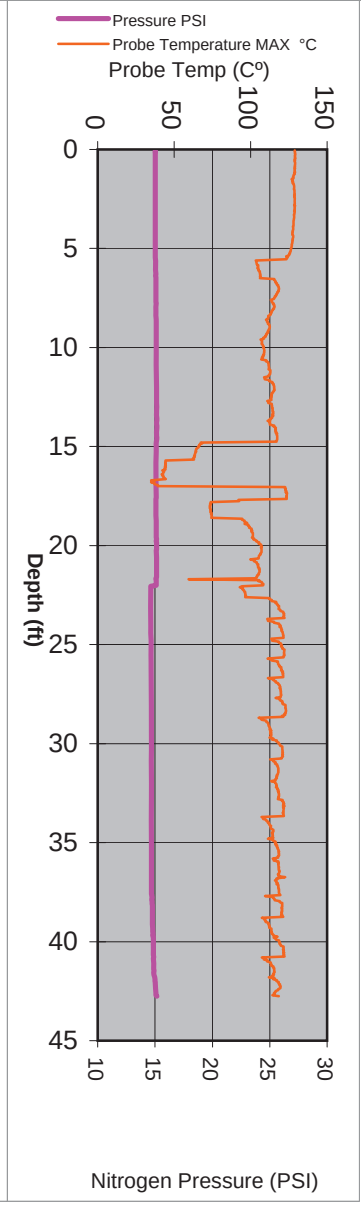
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Tue Mar 09 2010 09:52
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Tue Mar 09 2010 13:21
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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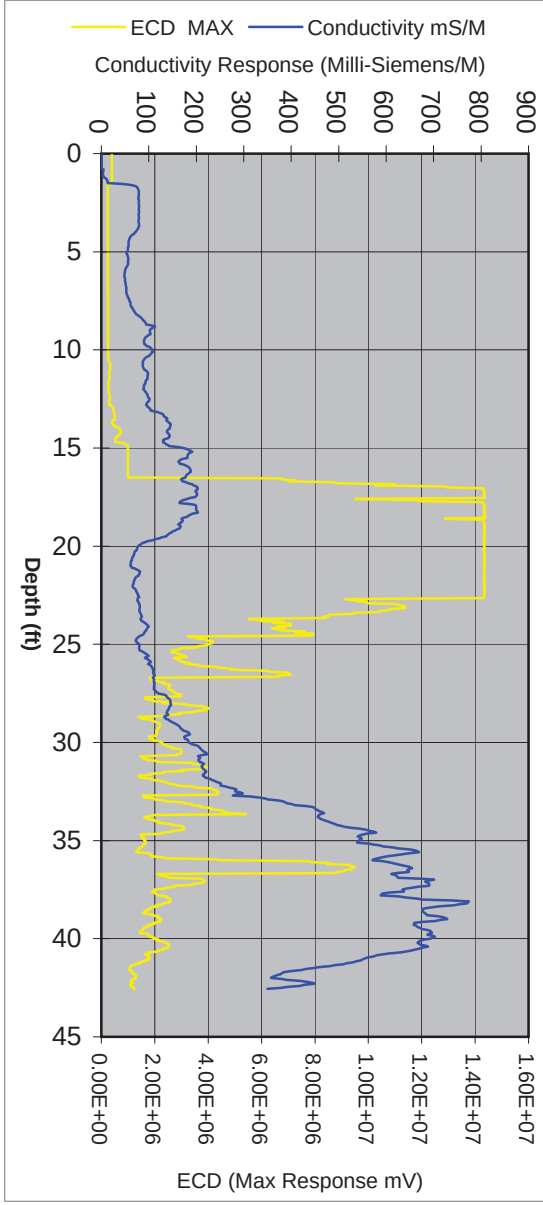
Boring Name: 4-1-MIP-5

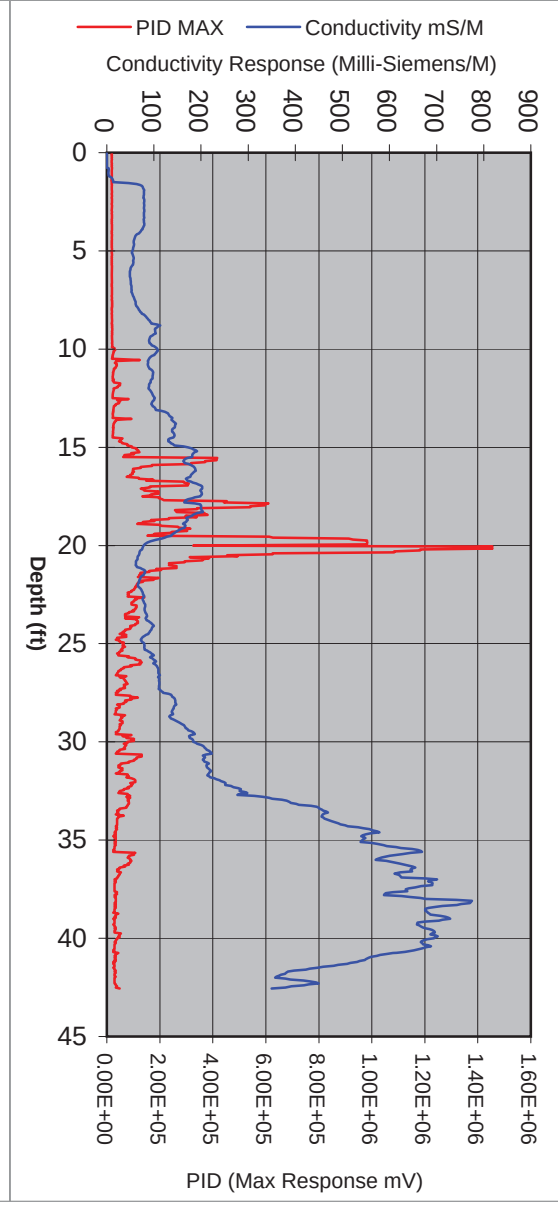
Total Depth (ft): 42.55

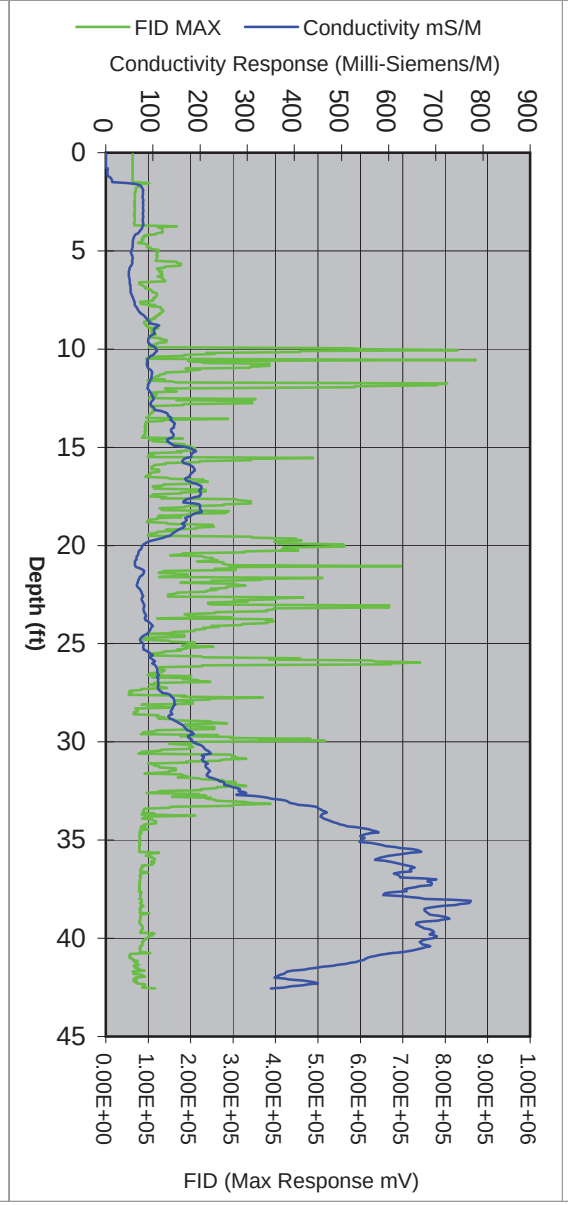
Notes: Hand auger to 5' bgs. Encountered refusal at 42.55' bgs.

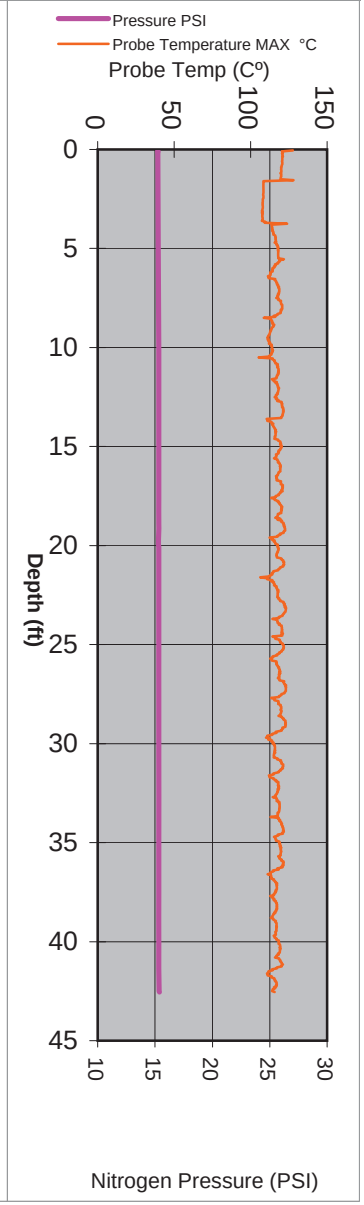
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Tue Mar 09 2010 08:33
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Tue Mar 09 2010 09:17
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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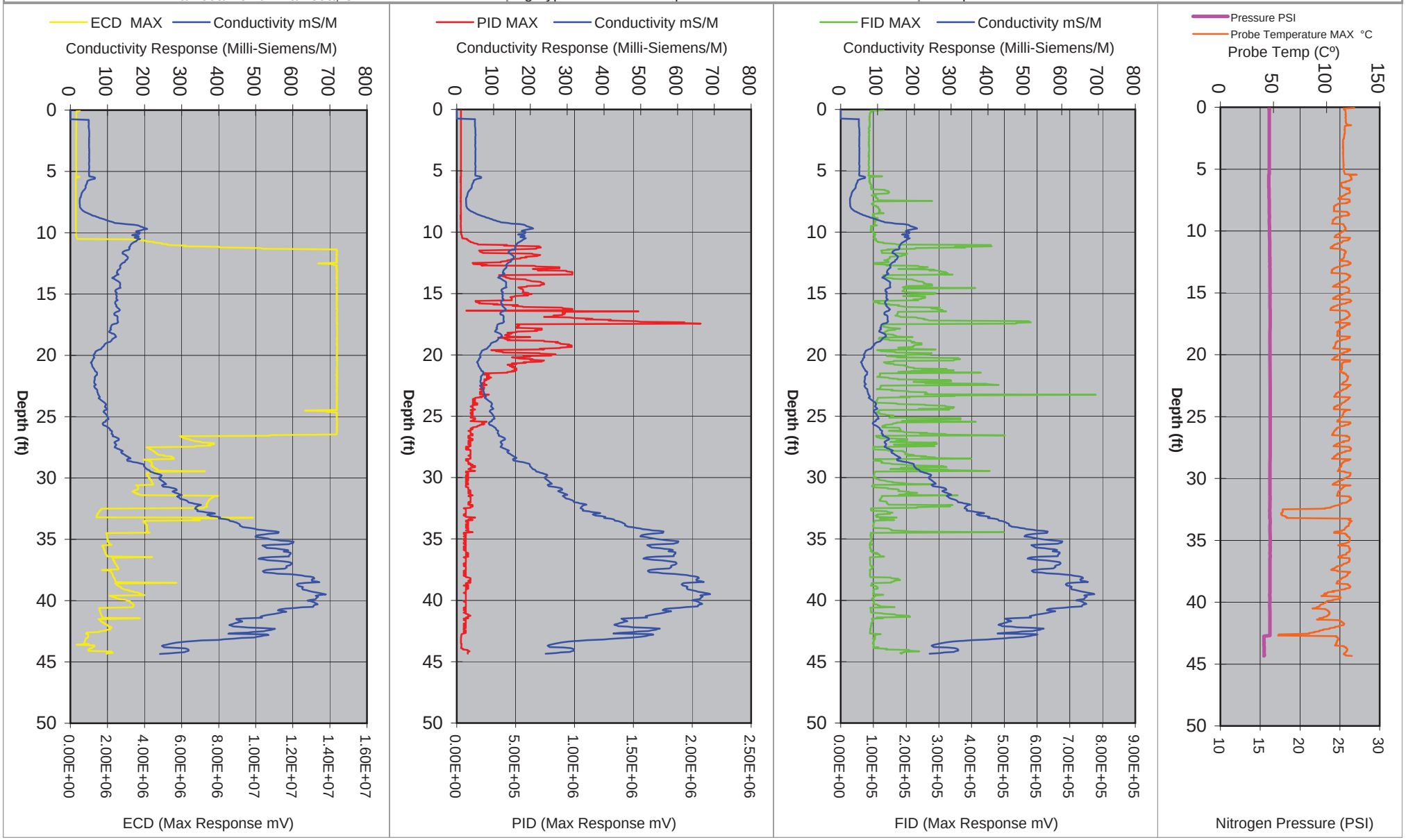
Boring Name: 4-1-MIP-6

Total Depth (ft): 44.35

Notes: Hand auger to 5' bgs. Lost heater at 33' due to ec fault. Heater went out at 42' - stop - pull out. Advance back to 42'. Refusal at 44.35' bgs.

GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental& Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Mon Mar 08 2010 12:00
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Mon Mar 08 2010 13:36
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul



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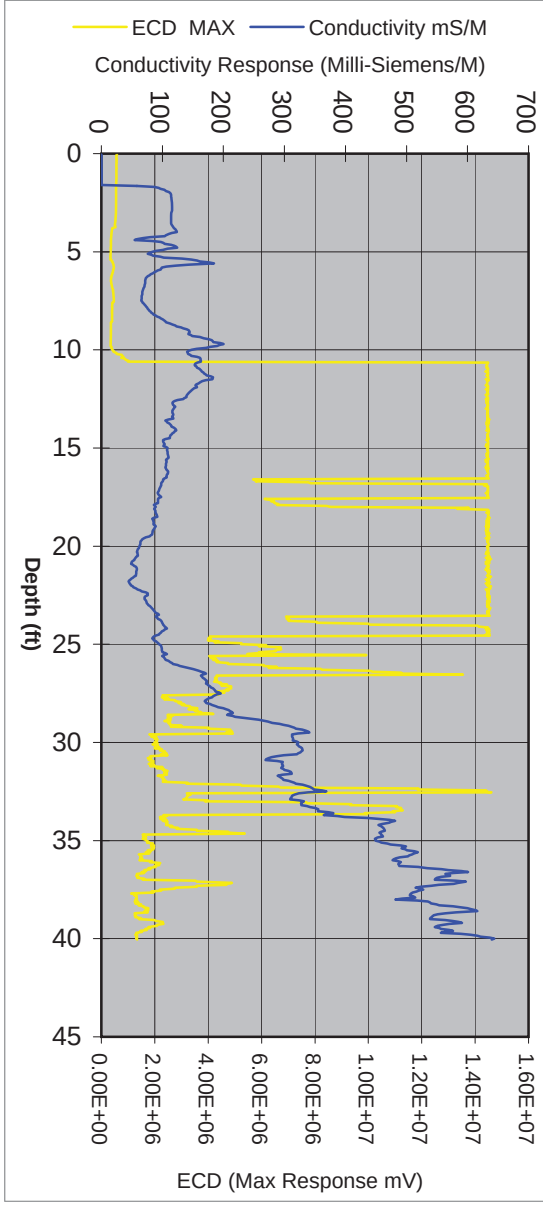
Boring Name: 4-1-MIP-7

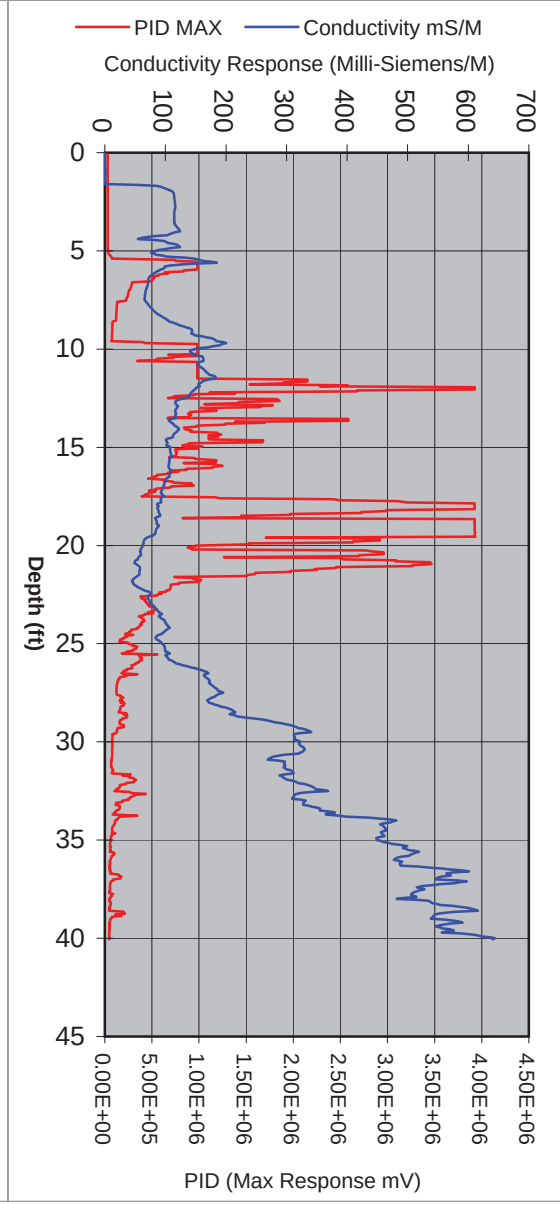
Total Depth (ft): 40.05

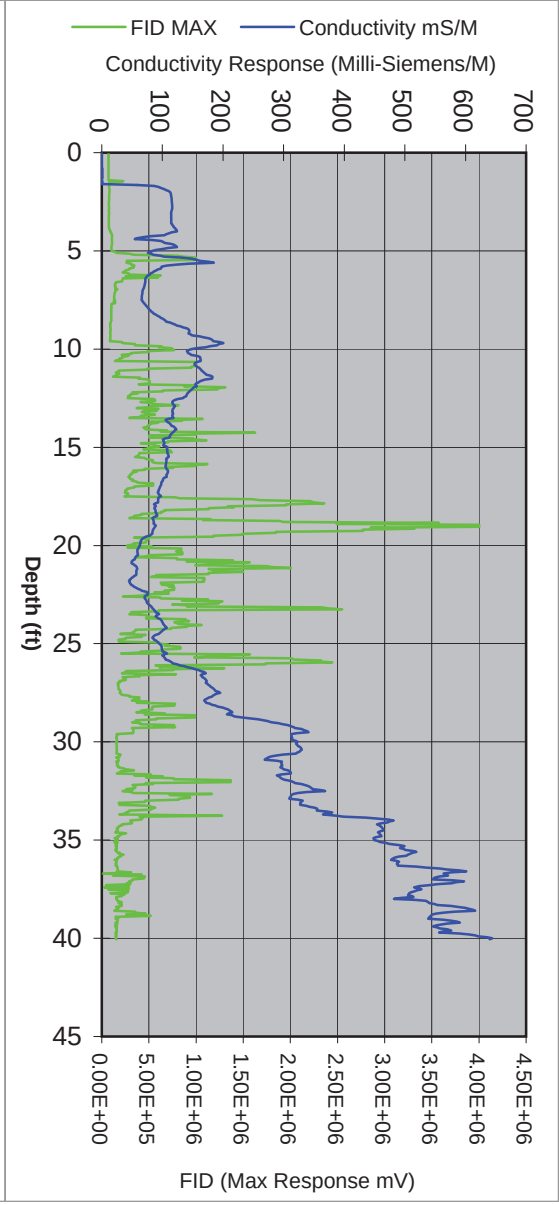
Notes: Hand auger to 5' bgs. Encountered refusal at 40.05' bgs.

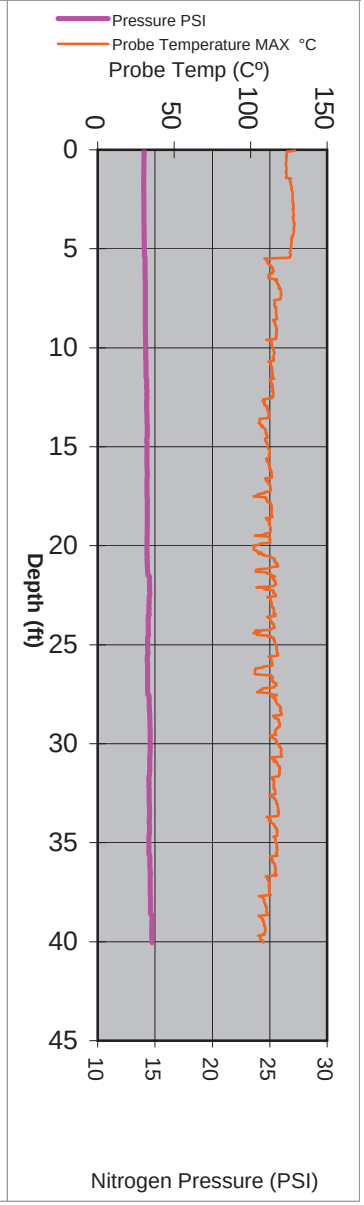
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Wed Mar 10 2010 09:53
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Wed Mar 10 2010 10:35
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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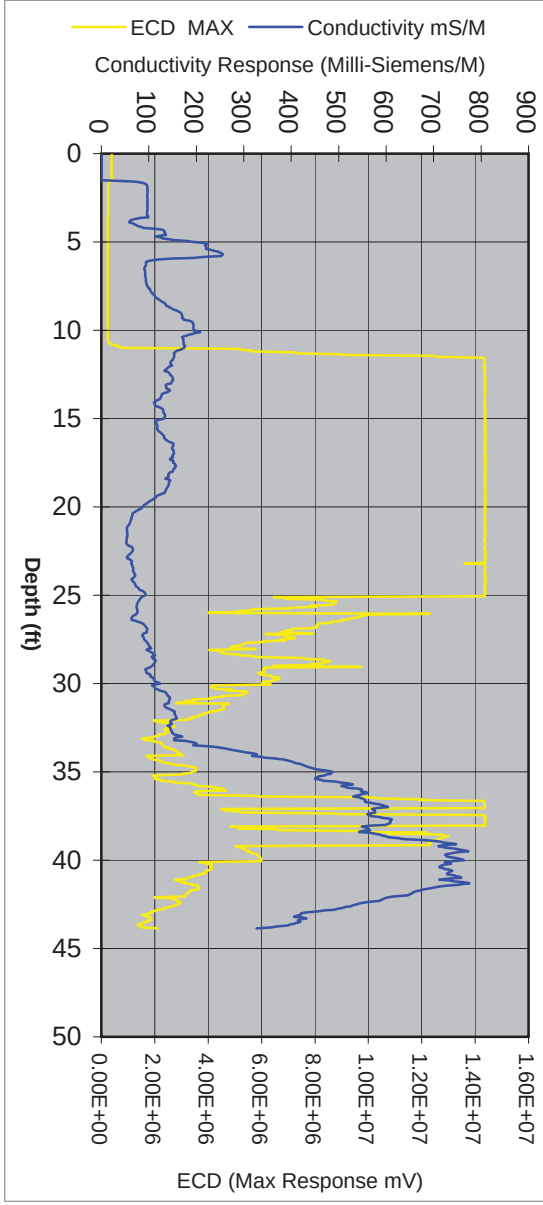
Boring Name: 4-1-MIP-8

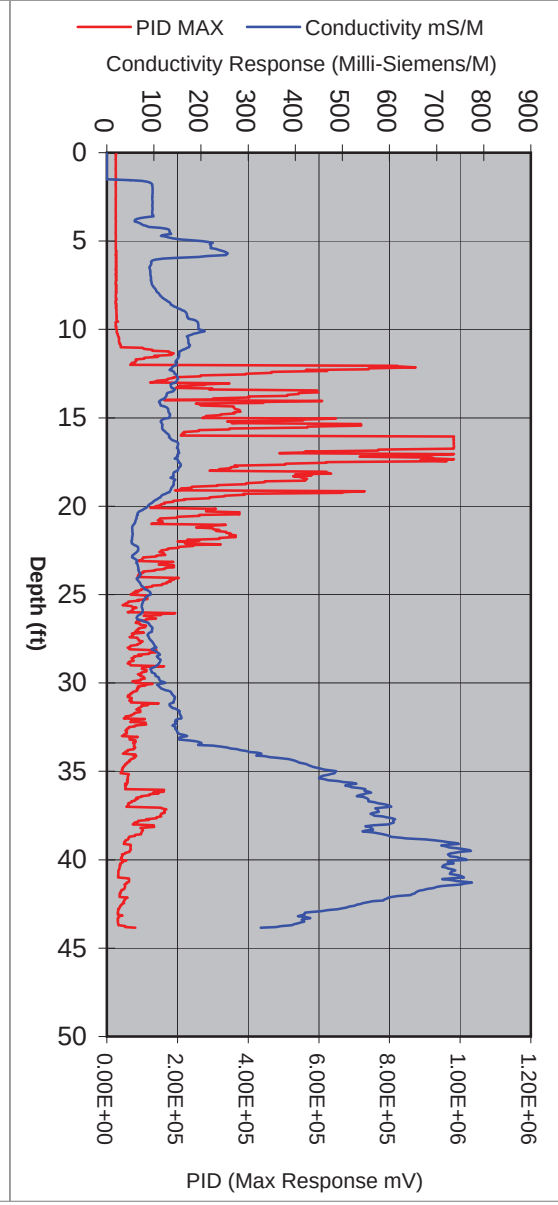
Total Depth (ft): 43.85

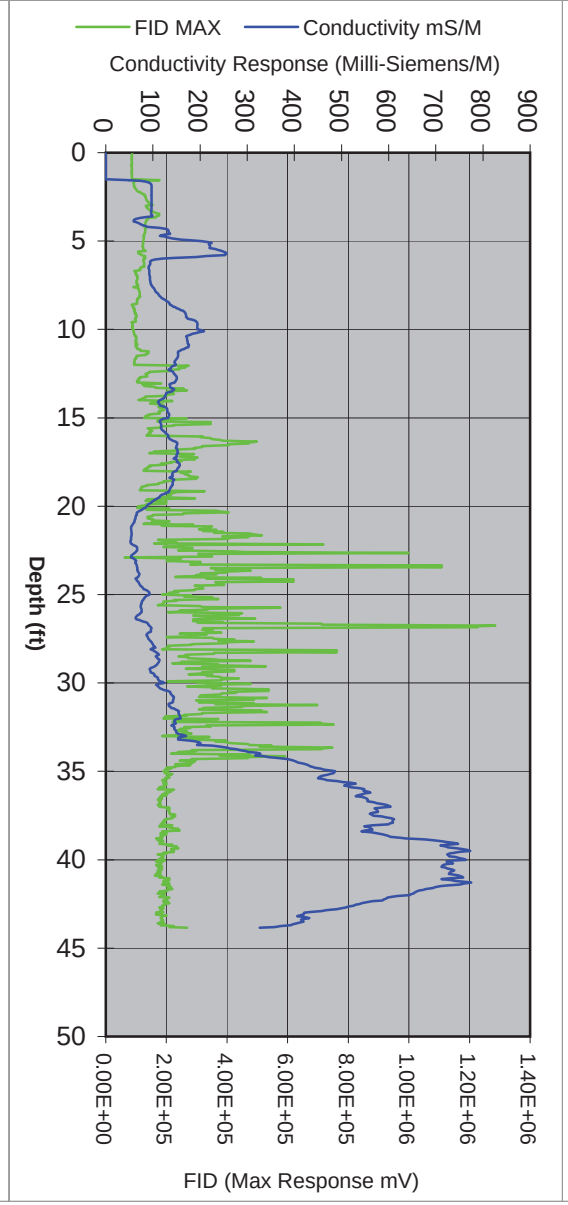
Notes: Hand auger to 5' bgs. Encountered refusal at 43.85' bgs.

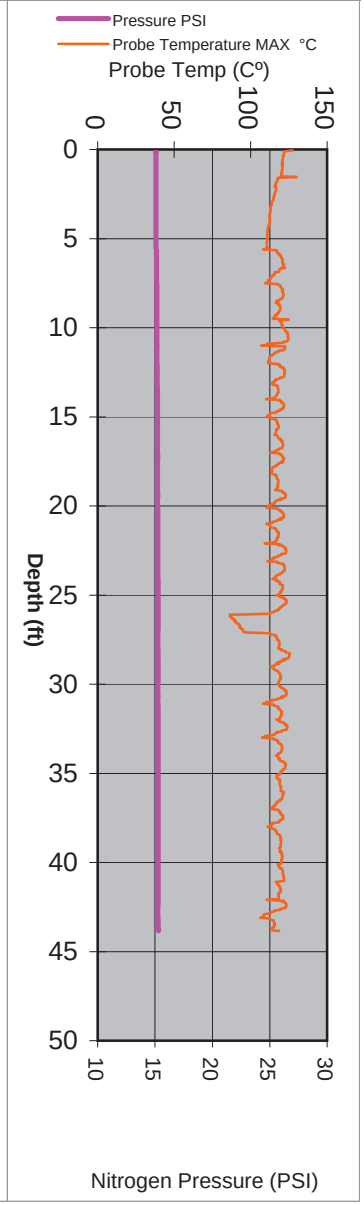
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental& Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Mon Mar 08 2010 14:53
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Mon Mar 08 2010 15:45
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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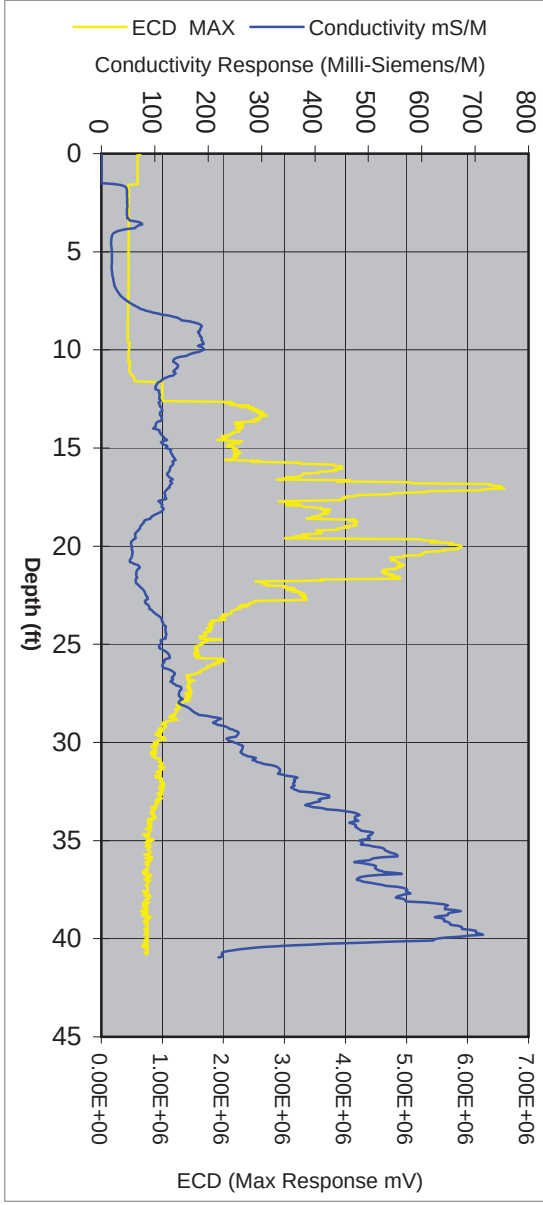
Boring Name: 4-1-MIP-9

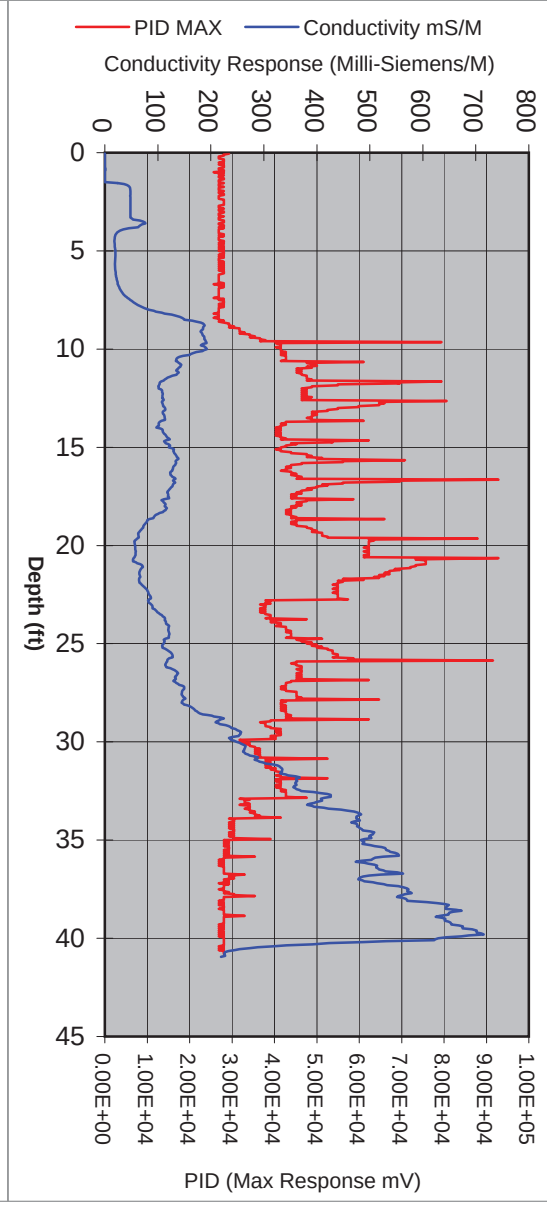
Total Depth (ft): 40.95

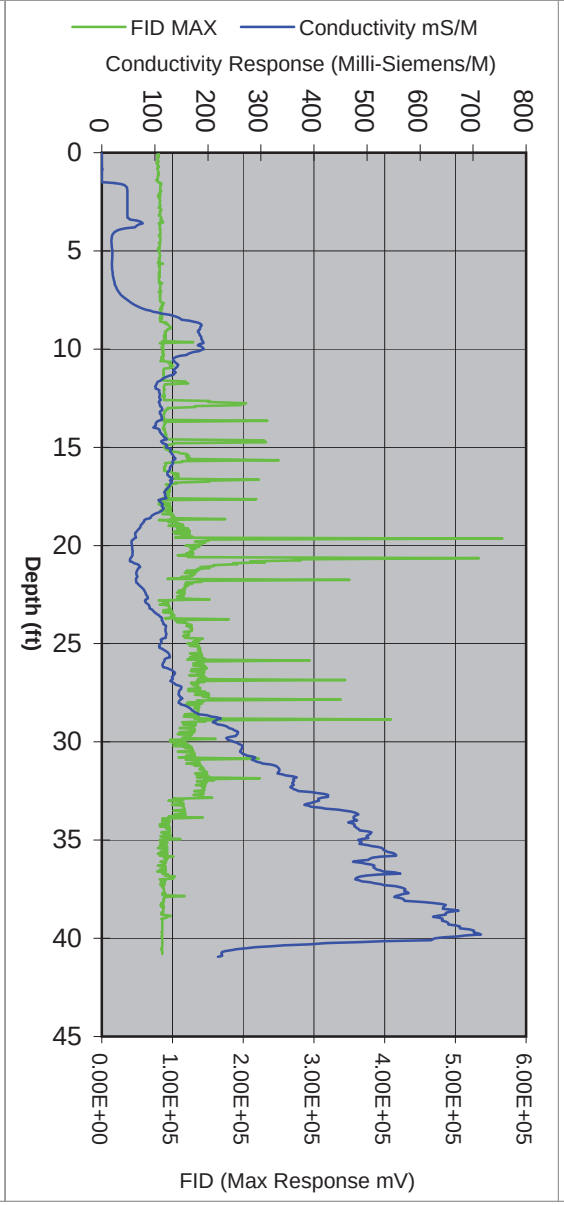
Notes: Hand auger to 5' bgs. Encountered refusal at 40.95 ' bgs.

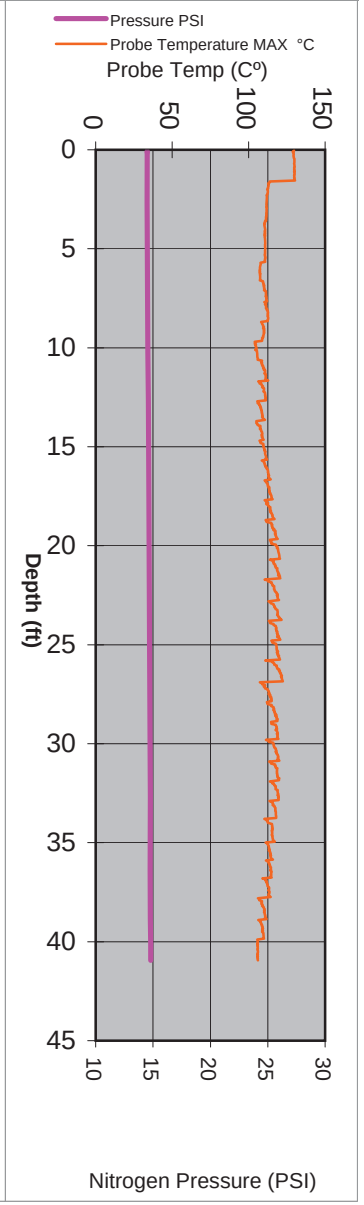
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Wed Mar 10 2010 14:42
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Wed Mar 10 2010 15:23
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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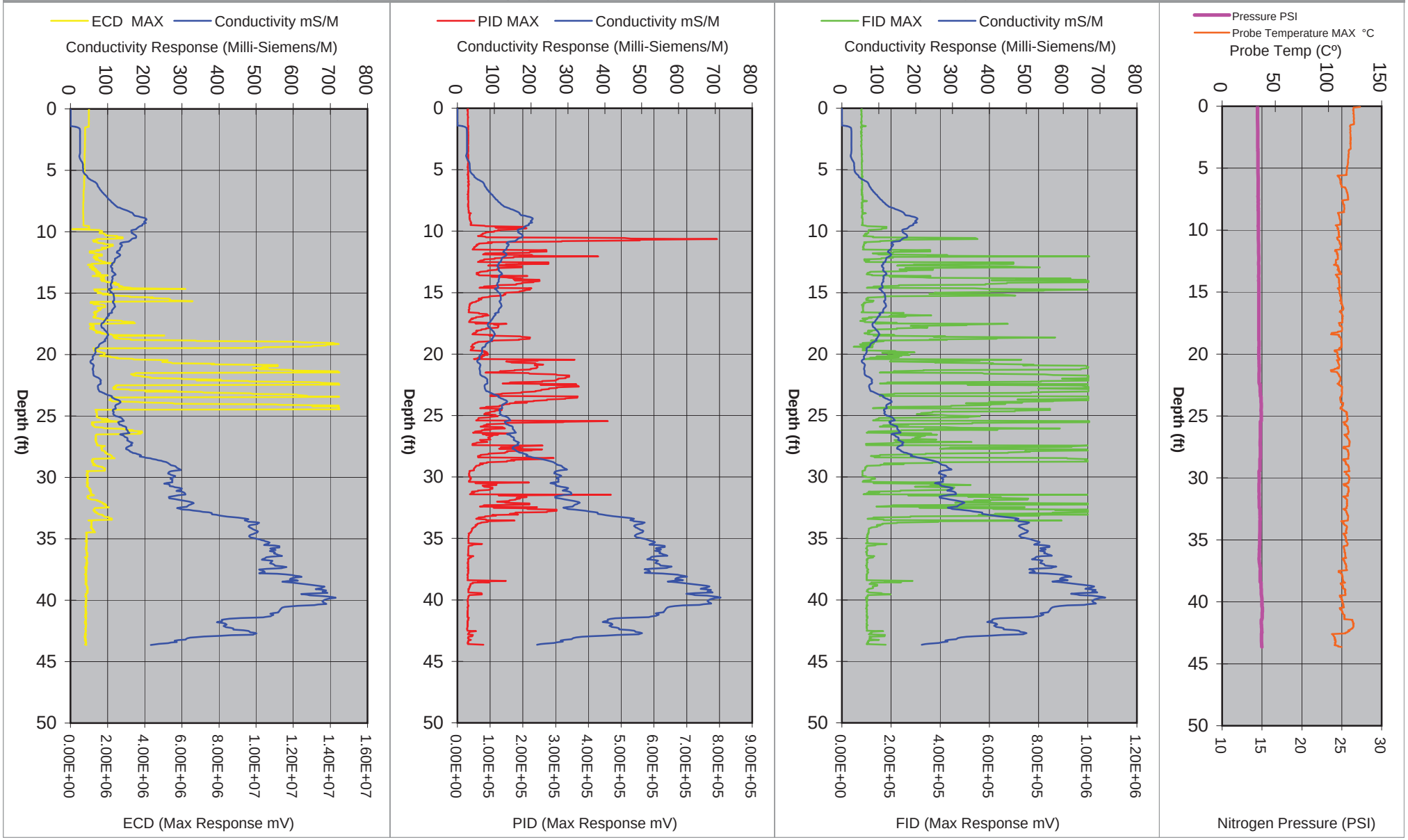
Boring Name: 4-1-MIP-10

Total Depth (ft): 43.65

Notes: Hand auger to 5' bgs. Encountered refusal at 43.65' bgs.

GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Wed Mar 10 2010 11:18
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Wed Mar 10 2010 12:02
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul



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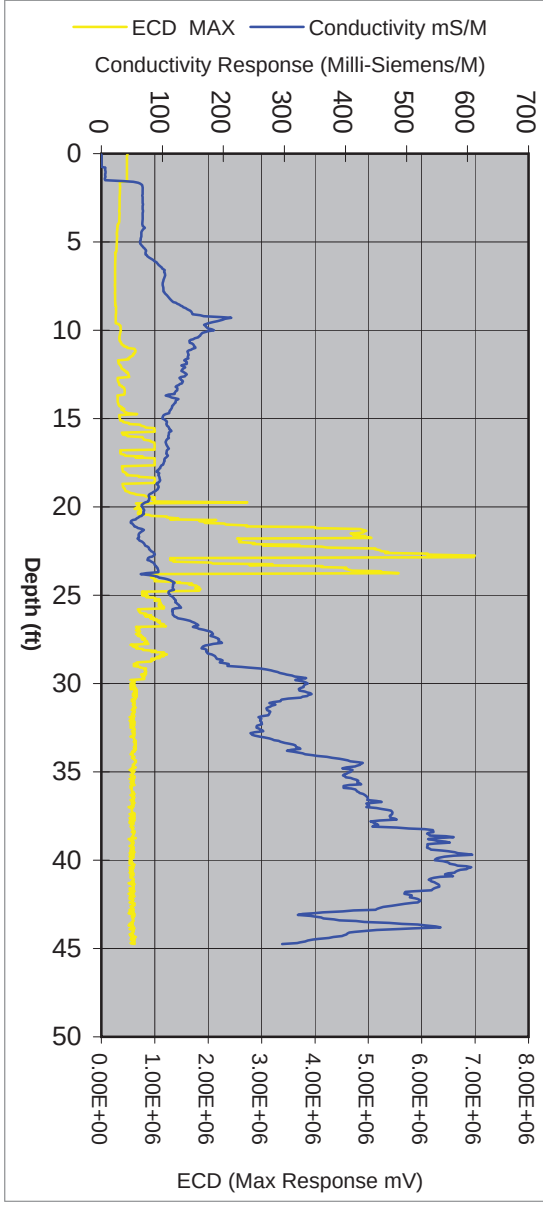
Boring Name: 4-1-MIP-11

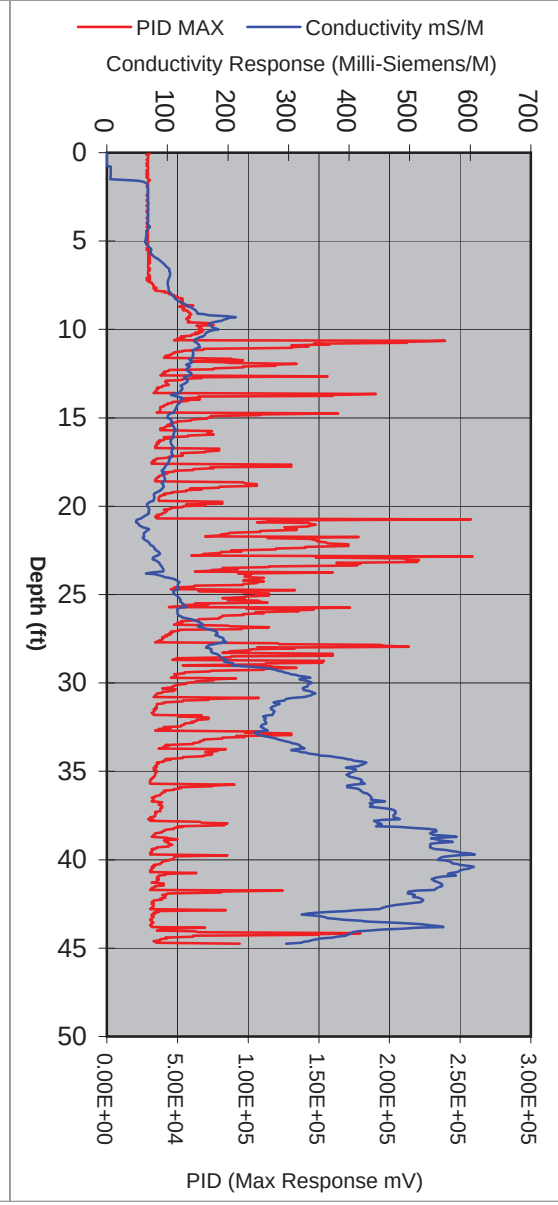
Total Depth (ft): 44.75

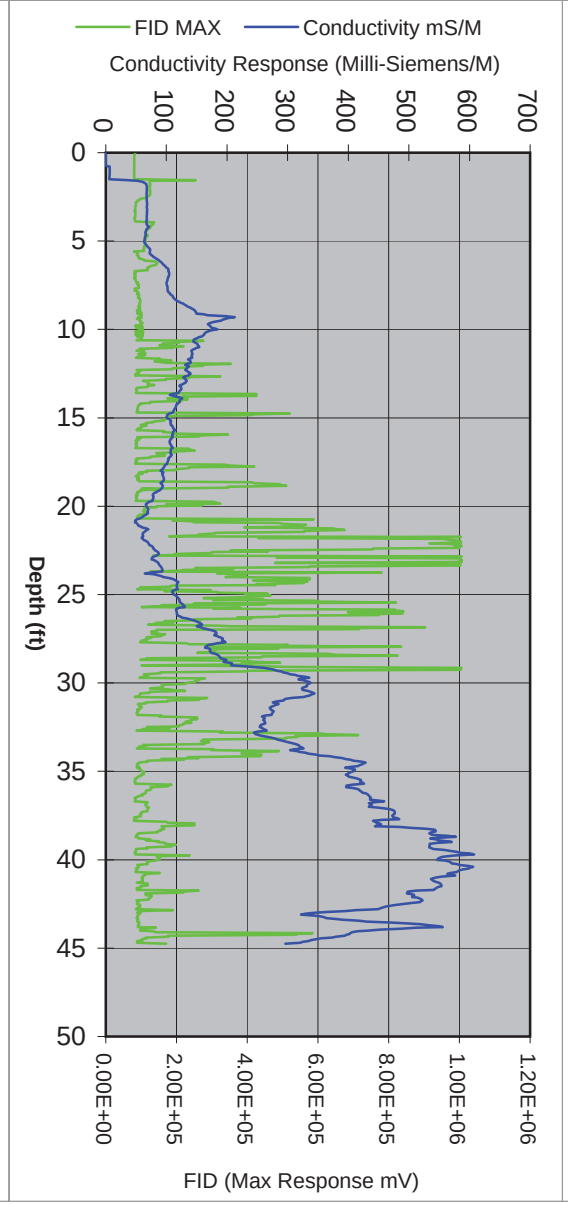
Notes: Hand auger to 5' bgs. Encountered refusal at 44.75' bgs.

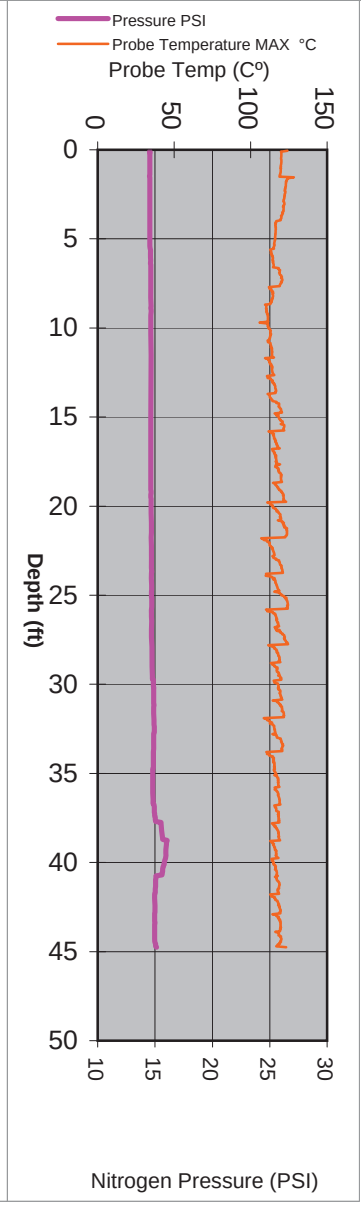
GW Depth (ft): Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Tue Mar 09 2010 14:22
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Tue Mar 09 2010 15:11
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









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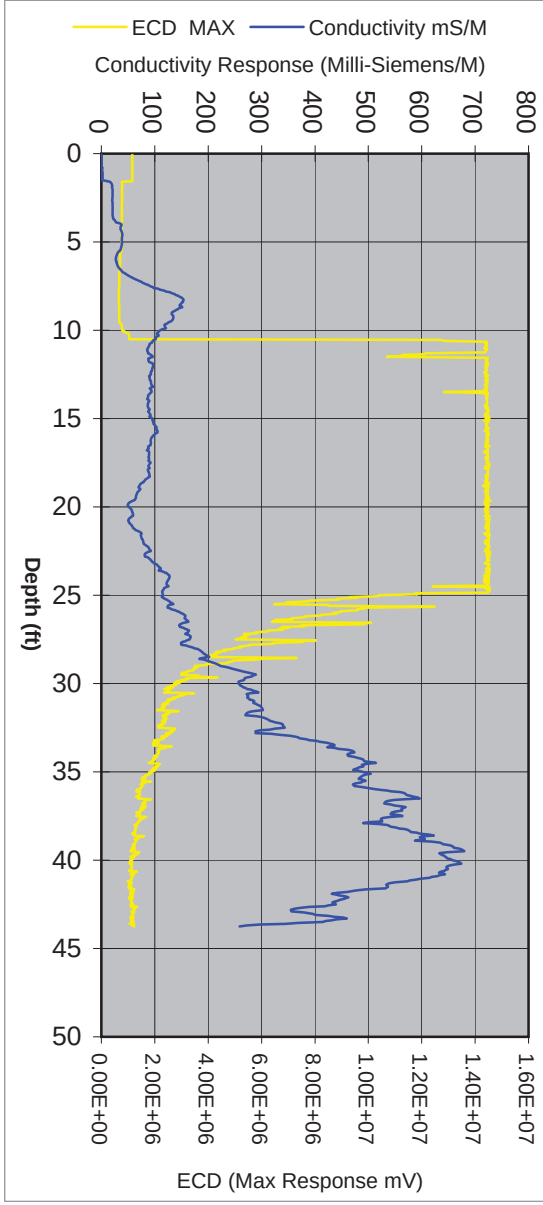
Boring Name: 4-1-MIP-12

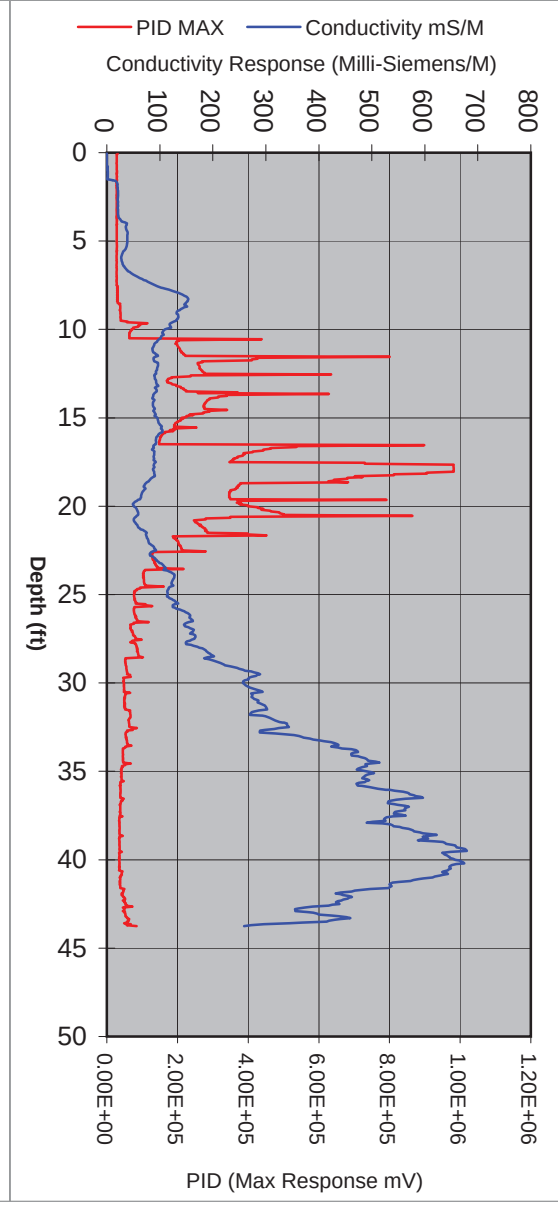
Total Depth (ft): 43.75

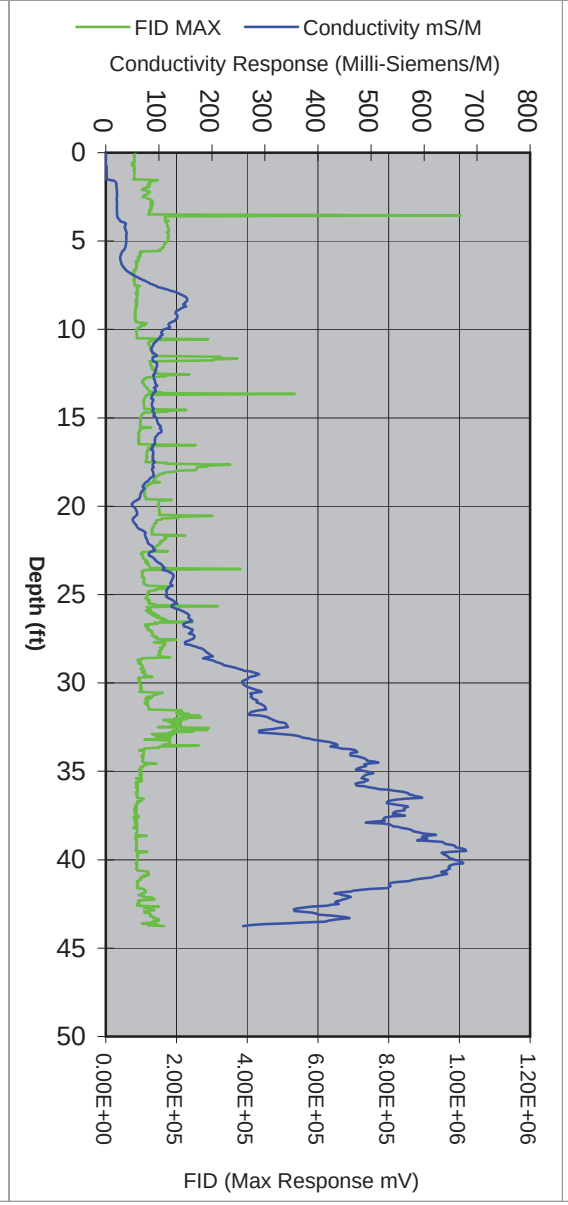
Notes: Hand auger to 5' bgs. Encountered refusal at 43.75 ' bgs.

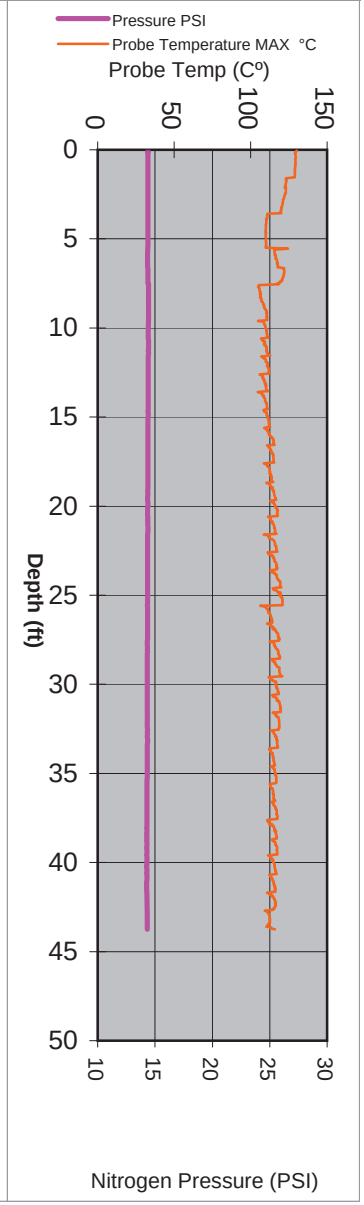
GW Depth (ft):
Depth of GW Provided by Client

Job Information		MIP Sampling Information			
Client Company:	Shaw Environmental & Infrastructure, Inc.	Trunkline Length:	150'	Start Boring Time:	Wed Mar 10 2010 13:28
Project Name:	Alameda Plume 4-1 Treatability Study	Probe Type:	6520	End Boring Time:	Wed Mar 10 2010 14:15
Site Address:	Alameda Point - Alameda, CA	Rig Type:	Geoprobe 6600	MIP Specialist:	Jeff Paul









BORING NO. MWP-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/19/2010
DRILLER	Gene		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/19/2010

SCREEN: Diameter: 2 in. Length: 20 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20
CASING Diameter: 2 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
					AS		Asphalt	Hand augered to 5'BGS
	0.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. moist.	
	1.0							
	1.5							
	2.0							
	2.5							
	3.0				SM		Silty sand. greenish black (Gley1 2.5/1). 70% medium to fine sand, 30% silt. moist.	
	3.5							
	4.0							
	4.5							
	5.0						Silty sand. greenish black (Gley1 2.5/1). 70% medium to fine sand, 30% silt. wet. medium dense.	15.3 ppm
	5.5							
	6.0							0.0 ppm
	6.5						Silty sand. very dark greenish gray (Gley1 3/1). 80% medium to fine sand, 20% silt. wet. medium dense.	
	7.0							0.0 ppm
	7.5				SP		Poorly graded sand. greenish gray (Gley1 5/1). medium to fine sand, trace fines. wet. medium dense.	
	8.0							0.0 ppm
	8.5							
	9.0				SP?		Sand???	0.0 ppm
	9.5							
	10.0				SC		Clayey sand. greenish gray (Gley1 5/1). 70% medium to fine sand, 30% clay. wet. dense. brown oxidation staining.	0.0 ppm
	10.5							
	11.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	11.5							
	12.0							0.0 ppm
	12.5							
	13.0							0.0 ppm
	13.5							
	14.0							0.0 ppm
	14.5							
	15.0							3.1 ppm
					SP		Same as below	0.0 ppm

BORING NO. MWP-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/19/2010
DRILLER	Gene		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/19/2010

SCREEN: Diameter: 2 in. Length: 20 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 2 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	
	16.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	29.1 ppm
	16.5							
	17.0							59.5 ppm
	17.5							
	18.0							60.6 ppm
	18.5							
	19.0							50.0 ppm
	19.5							
	20.0							130 ppm
	20.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	PID is not working properly; stop collecting VOC measurements.
	21.0							
	21.5							
	22.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	22.5							
	23.0							
	23.5							
	24.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. damp. dense.	
	24.5							
	25.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	
	25.5							
	26.0							
	26.5							
	27.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	27.5							
	28.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	
	28.5							
	29.0							
	29.5							
	30.0				SM		Same as below	

BORING NO. MWP-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/19/2010
DRILLER	Gene		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/19/2010
SCREEN:	Diameter: 2 in.	Length: 20 ft	Type/Size: S Steel, 0.010" Wire Wrap	SAND PACK: #1/20	
CASING	Diameter: 2 in.	Length: 15 ft.	Type Schedule 80 PVC	TRANSITION SAND: #60	

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	30.5				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	31.0							
	31.5							
	32.0							
	32.5							
	33.0				SP-SM		Poorly graded sand with silt. olive (5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	33.5							
	34.0				SM		Silty sand. olive (5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	34.5							
	35.0						Not logged.	
	35.5							
	36.0							TD = 36' BGS
	36.5							
	37.0							
	37.5							
	38.0							
	38.5							
	39.0							
	39.5							
	40.0							
	40.5							
	41.0							
	41.5							
	42.0							
	42.5							
	43.0							
	43.5							
	44.0							
	44.5							
	45.0							

BORING NO. MWP-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 2 in. Length: 20 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 2 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt Not logged	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SP		Poorly graded sand. greenish black (Gley1 2.5/1). medium to fine sand, trace fines. wet. medium dense.	0.0 ppm
	5.5							
	6.0				SP-SM		Poorly graded sand with silt. dark greenish gray (Gley1 4/1). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	6.5							
	7.0				SP?		Sand???	5.7 ppm
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SM		Silty sand. olive (5Y4/3). 60% fine sand, 40% silt, trace medium sand. damp. dense.	0.5 ppm
	10.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	11.0							4.1 ppm
	11.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense. greenish gray reduction staining.	
	12.0							9.4 ppm
	12.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	13.0							100 ppm
	13.5				SP		Poorly graded sand. olive brown (2.5Y4/3). medium to sand, trace fines. wet. medium dense.	
	14.0				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand. 20% silt. damp. dense. greenish gray reduction staining.	178 ppm
	14.5							70.4 ppm
	15.0				SP-SM		Same as below	202 ppm

BORING NO. MWP-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 2 in. Length: 20 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 2 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP-SM		Poorly graded sand with silt. olive gray (5Y4/2). 90% medium to fine sand, 10% silt. wet. medium dense. oxidation staining.	
	16.0						Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	359 ppm
	16.5							
	17.0				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	490 ppm
	17.5							
	18.0							397 ppm
	18.5							
	19.0							774 ppm Sudan IV test is negative
	19.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. damp. dense.	575 ppm
	20.0						Silty sand. olive brown (2.5Y4/3). 75% medium to fine sand, 25% silt. damp. dense.	393 ppm
	20.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. loose.	
	21.0							17.6 ppm
	21.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	
	22.0							4.9 ppm
	22.5							
	23.0							3.5 ppm
	23.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. damp. dense.	
	24.0							2.9 ppm
	24.5							
	25.0							2.5 ppm
	25.5				SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fines. wet. loose.	0.0 ppm 25'-26': soil is saturated
	26.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. medium dense.	3.1 ppm
	26.5							
	27.0							1.5 ppm
	27.5						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fines. wet. medium dense.	
	28.0							1.8 ppm
	28.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	29.0							1.2 ppm
	29.5							1.5 ppm
	30.0				SP		Same as below	19.0 ppm

BORING NO. MWP-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 36 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 2 in. Length: 20 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20
CASING Diameter: 2 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	30.5				SP		Poorly graded sand. olive (5Y4/3). medium sand. damp. medium dense.	
	31.0							12.0 ppm
	31.5							
	32.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	11.9 ppm
	32.5							
	33.0							27.9 ppm
	33.5							
	34.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. damp. dense.	22.9 ppm
	34.5							
	35.0							37.5 ppm
	35.5						Not logged.	
	36.0							TD = 36' BGS
	36.5							
	37.0							
	37.5							
	38.0							
	38.5							
	39.0							
	39.5							
	40.0							
	40.5							
	41.0							
	41.5							
	42.0							
	42.5							
	43.0							
	43.5							
	44.0							
	44.5							
	45.0							

BORING NO. PEW-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	PFM ft-bgs	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock Not logged	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SP		Poorly graded sand. very dark greenish gray (Gley1 3/1). medium to fine sand, trace fines. wet. medium dense	0.1 ppm
	5.5				SP-SM		Poorly graded sand with silt. very dark greenish gray (Gley1 3/1). 90% medium to fine sand, 10% silt. wet. medium dense.	
	6.0							0.6 ppm
	6.5				SP		Poorly graded sand. very dark greenish gray (Gley1 3/1). medium to fine sand, trace fines. wet. medium dense.	
	7.0						Poorly graded sand. olive gray (5Y4/2). medium to fine sand, trace fines. wet. medium dense.	3.3 ppm
	7.5							
	8.0							10.6 ppm
	8.5				SP?		Sand???	
	9.0							
	9.5							
	10.0				SC		Clayey sand. olive (5Y4/4). 55% fine sand, 45% clay. damp. dense	137 ppm
	10.5				SM		Silty sand. olive brown (2.5Y4/4). 75% medium to fine sand, 25% silt. damp. medium dense.	
	11.0							153 ppm
	11.5						Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. damp. medium dense.	
	12.0				SC		Clayey sand. olive brown (2.5Y4/4). 55% fine sand, 45% clay. damp. dense.	21.7 ppm
	12.5				SP		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	13.0							77.0 ppm
	13.5							
	14.0							144 ppm
	14.5							114 ppm
	15.0				SP-SM		Same as below.	33.0 ppm

BORING NO. PEW-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	PFM ft-bgs	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. loose.	
	16.0		15.87		SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	72.8 ppm
	16.5							
	17.0							163 ppm
	17.5							
	18.0							79.3 ppm
	18.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. dense.	
	19.0							110 ppm
	19.5							
	20.0							157 ppm
					SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fine. damp. medium dense.	13.3 ppm
	20.5							
	21.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fine. wet. medium dense.	9.8 ppm
	21.5							
	22.0							0.4 ppm
	22.5							
	23.0							1.4 ppm
	23.5							
	24.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fine. damp. dense.	0.0 ppm
	24.5							
	25.0		25.12				Soil not logged.	0.1 ppm
	25.5							
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. PEW-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock. Not logged	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 80% medium to fine sand, 20% silt. wet. medium dense.	3.0 ppm
	5.5							
	6.0				SP		Poorly graded sand. dark greenish gray (Gley1 4/1). medium to fine sand, trace fines. wet. medium dense.	0.3 ppm 8.0 ppm
	6.5							
	7.0				SP?		Sand???	
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				CH		Sandy Clay. dark greenish gray (Gley 1 4/1). 70% clay and silt, 30% fine sand. moist. hard. plastic. oxidation staining.	82.9 ppm
	10.5				SC		10.5': Clayey sand. olive brown (2.5Y4/4). 60% medium to fine sand, 40% clay. dense moist. reddish oxidation staining and greenish reduction staining.	244 ppm
	11.0							
	11.5							
	12.0				SP-SM		Poorly graded sand with silt. dark yellowish brown (10YR4/4). 90% medium to fine sand, 10% silt. damp medium dense	535 ppm
	12.5				SP		12.5': Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	407 ppm
	13.0							
	13.5							
	14.0							238 ppm
	14.5							272 ppm
	15.0				SP-SM		Same as below.	218 ppm

BORING NO. PEW-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010
SCREEN:	Diameter: 4 in.	Length: 10 ft	Type/Size: S Steel, 0.010" Wire Wrap	SAND PACK: #1/20	
CASING	Diameter: 4 in.	Length: 15 ft.	Type Schedule 80 PVC	TRANSITION SAND: #60	

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	16.0							404 ppm
	16.5							
	17.0							95.4 ppm
	17.5				SP?		Sand???	17.5-20': no recovery due to acetate sleeve getting jammed in the core barrel
	18.0							
	18.5							
	19.0							
	19.5							
	20.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. loose.	0.1 ppm 20'-21': soil is saturated
	20.5							
	21.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	82.4 ppm
	21.5							
	22.0							25.6 ppm
	22.5						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. damp. dense.	
	23.0							24.0 ppm
	23.5							
	24.0							3.2 ppm
	24.5							
	25.0							0.4 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. PEW-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rdodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock. Not logged	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SP		Poorly graded sand. very dark greenish gray (Gley1 3/1). medium to fine sand. wet. loose.	0.0 ppm
	5.5				SP-SM		Poorly graded sand with silt. very dark greenish gray (Gley1 3/1). 90% fine sand, 10% silt, trace medium sand. wet. medium dense.	
	6.0							0.0 ppm
	6.5				SP?		Sand???	
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				CH		Sandy clay. greenish gray (Gley1 6/1). 60% clay and silt, 40% fine sand. moist. hard. plastic. oxidation staining.	82.1 ppm
	10.5							
	11.0				SM		Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. wet. dense. greenish gray reduction staining.	128 ppm
	11.5							
	12.0							85.1 ppm
	12.5							
	13.0							78.8 ppm
	13.5				SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fines. wet. medium dense.	
	14.0							16.1 ppm
	14.5							73.1 ppm
	15.0				SM		Same as below.	24.2 ppm

BORING NO. PEW-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rdodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive brown (2.5Y4/4). 75% medium to fine sand, 25% silt. damp. medium dense.	
	16.0							187 ppm
	16.5							
	17.0							109 ppm
	17.5							
	18.0							205 ppm
	18.5				SP		Poorly graded sand. dark greenish gray (Gley1 4/1). 90% medium sand, 10% fine sand. wet. medium dense.	
	19.0							844 ppm
	19.5							Sudan IV test is negative
	20.0							1,171 ppm
	20.5						Poorly graded sand. olive (5Y4/3). 90% medium sand, 10% fine sand. damp. dense.	7.5 ppm
	21.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	13.1 ppm
	21.5							
	22.0							2.0 ppm
	22.5							
	23.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. dense.	0.1 ppm
	23.5							
	24.0							0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. PEW-04

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock. Not logged	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 80% medium to fine sand, 20% silt. wet. medium dense.	0.0 ppm
	5.5							
	6.0				SP-SM		Poorly graded sand with silt. very dark greenish gray (Gley1 3/1). 90% medium to fine sand, 10% silt. wet. medium dense.	1.5 ppm
	6.5				SP?		Sand???	
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				ML		Sandy silt. dark greenish gray (Gley1 4/1). 60% silt, 40% fine sand. moist. firm. brown oxidation staining.	421 ppm
	10.5							
	11.0							103 ppm
	11.5				SM		Silty sand. olive brown (2.5Y4/4). 75% medium to fine sand, 25% silt. damp. dense. greenish gray reduction staining.	
	12.0							160 ppm
	12.5							
	13.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	50.3 ppm
	13.5							
	14.0							28.0 ppm
	14.5							
	15.0							90.0 ppm 10.1 ppm

BORING NO. PEW-04

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/11/2010
SCREEN:	Diameter: 4 in.	Length: 10 ft	Type/Size: S Steel, 0.010" Wire Wrap	SAND PACK: #1/20	
CASING	Diameter: 4 in.	Length: 15 ft.	Type Schedule 80 PVC	TRANSITION SAND: #60	

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5						15':Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. loose.	
	16.0							18.5 ppm
	16.5							
	17.0				SM		Silty sand. olive brown (2.5Y4/4). 75% medium to fine sand, 25% silt. damp. medium dense.	15.2 ppm
	17.5							
	18.0							92.7 ppm
	18.5							
	19.0							68.6 ppm
	19.5							
	20.0							53.2 ppm
					SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. medium dense.	4.5 ppm
	20.5						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. loose.	20.5'-22': soil is saturated.
	21.0							0.0 ppm
	21.5							
	22.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. medium dense.	0.7 ppm
	22.5							
	23.0							2.3 ppm
	23.5							
	24.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fines. wet. dense.	0.5 ppm
	24.5							
	25.0							0.0 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. PMLS-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/15/2010
DRILLER	Gerald		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/15/2010

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt.	Utilities were cleared using air knife technology, unable to log soil from 0'-5'
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 80% medium to fine sand, 20% silt. wet. medium dense.	0.0 ppm
	5.5							
	6.0							0.0 ppm
	6.5							
	7.0						Silty sand. very dark greenish gray (Gley1 3/1). 80% medium to fine sand, 20% silt. wet. medium dense.	0.0 ppm
	7.5							
	8.0				SP-SM		Poorly graded sand with silt. dark greenish gray (Gley1 4/1). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	8.5				SP?		Sand???	
	9.0							
	9.5							
	10.0				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. damp. medium dense.	0.0 ppm
	10.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	11.0						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. loose.	6.1 ppm 11'-12.5': Soil is saturated
	11.5							
	12.0							10.3 ppm
	12.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	13.0							53.2 ppm
	13.5							
	14.0						Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. moist. dense.	92.7 ppm
	14.5							
	15.0				SM		Same as below.	198 ppm 67.7 ppm

BORING NO. PMLS-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/15/2010
DRILLER	Gerald		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/15/2010

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive (5Y4/3). 80% medium to fine sand, 20% silt. wet. medium dense. reddish brown oxidation staining.	
	16.0						Silty sand. olive (5Y4/3). 80% medium to fine sand, 20% silt. wet. loose. reddish brown oxidation staining.	17.3 ppm 16'-17': Soil is saturated
	16.5							
	17.0				SP-SM		Poorly graded sand with silt. olive gray (5Y4/2). 90% medium to fine sand, 10% silt. damp. medium dense. reddish brown oxidation staining.	71.0 ppm
	17.5							
	18.0							106 ppm
	18.5							
	19.0							136 ppm
	19.5							
	20.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. loose.	191 ppm 30.3 ppm 20'-22': Soil is saturated
	20.5							
	21.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. loose.	3.9 ppm
	21.5							
	22.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. damp. dense.	8.3 ppm
	22.5							
	23.0							0.0 ppm
	23.5							
	24.0							0.0 ppm
	24.5							
	25.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense. reddish brown oxidation staining.	1.7 ppm 3.6 ppm
	25.5							
	26.0							4.5 ppm
	26.5						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. loose. reddish brown oxidation staining.	26.5'-27.5': Soil is saturated 0.0 ppm
	27.0							
	27.5						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense. reddish brown oxidation staining.	
	28.0							1.7 ppm
	28.5							
	29.0							5.0 ppm
	29.5							
	30.0						Same as below.	23.1 ppm 54.9 ppm

BORING NO. PMLS-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/15/2010
DRILLER	Gerald		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/15/2010

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	30.5				SP		Poorly graded sand. olive (5Y4/3). medium to fine sand. damp. medium dense.	30.5'-31.5': Soil is saturated
	31.0						Poorly graded sand. olive (5Y4/3). medium to fine sand. wet. loose.	3.4 ppm
	31.5						Poorly graded sand. olive (5Y4/3). 90% fine sand, 10% medium sand. damp. dense. brown oxidation staining.	
	32.0							51.4 ppm
	32.5							
	33.0				SP-SM		Poorly graded sand with silt. olive gray (5Y4/2). 90% medium to fine sand, 10% silt. damp. medium dense. brown oxidation staining.	42.4 ppm
	33.5							
	34.0							114 ppm
	34.5				SM		Silty sand. olive gray (5Y4/2). 70% medium to fine sand, 30% silt. moist. dense. brown oxidation staining.	146 ppm
	35.0						Not logged	
	35.5							TD=35.5' BGS
	36.0							
	36.5							
	37.0							
	37.5							
	38.0							
	38.5							
	39.0							
	39.5							
	40.0							
	40.5							
	41.0							
	41.5							
	42.0							
	42.5							
	43.0							
	43.5							
	44.0							
	44.5							
	45.0							

BORING NO. PMLS-06

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
					AS		Asphalt	Hand augered to 5'BGS
	0.5				SP		2": Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. moist.	
	1.0							
	1.5							
	2.0							
	2.5							
	3.0				CH		Clay. very dark greenish gray (Gley1 3/1). moist. plastic.	
	3.5				SP		Poorly graded sand. greenish black (Gley1 2.5/1). medium to fine sand, trace fines. wet.	
	4.0							
	4.5							
	5.0						Poorly graded sand. greenish black (Gley1 2.5/1). medium to fine sand. wet. loose.	0.0 ppm 5-6': Soil is saturated
	5.5							
	6.0						Poorly graded sand. greenish black (Gley1 2.5/1). medium to fine sand. wet. medium dense.	0.0 ppm
	6.5							
	7.0				SP-SM		Poorly graded sand with silt. very dark greenish gray (Gley1 3/1). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	7.5							
	8.0						Poorly graded sand with silt. dark greenish gray (Gley1 3/1). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	8.5							
	9.0							10.8 ppm
	9.5				SP?		Sand???	
	10.0				SM		Silty sand. olive brown (2.5Y4/4). 60% fine sand, 40% silt. moist. dense. reddish brown oxidation staining, greenish gray reduction staining.	73.4 ppm
	10.5				SP-SM		10.5': Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. damp. medium dense.	
	11.0						11': Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	139 ppm 11'-14': soil is saturated
	11.5							
	12.0							133 ppm
	12.5							
	13.0							72 ppm
	13.5							
	14.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	60.4 ppm
	14.5							
	15.0							100 ppm 17.0 ppm

BORING NO. PMLS-06

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP		Same as above.	
					SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	16.0							7.7 ppm
	16.5							
	17.0							46.3 ppm
	17.5							
	18.0							61.0 ppm
	18.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. damp. dense.	
	19.0							31.0 ppm
	19.5							
	20.0							34.4 ppm
					SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. medium dense.	13.1 ppm
	20.5							
	21.0							11.6 ppm
	21.5							
	22.0							7.3 ppm
	22.5						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand, trace fines. wet. medium dense. reddish brown oxidation staining.	
	23.0							10.4 ppm
	23.5							
	24.0							3.4 ppm
	24.5							
	25.0							3.1 ppm
							Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	5.9 ppm
	25.5							
	26.0							5.4 ppm
	26.5							
	27.0							3.1 ppm
	27.5						Poorly graded sand. olive brown (2.5Y4/4). 80% fine sand, 20% medium sand, trace fines. wet. dense. reddish brown oxidation staining.	
	28.0							2.0 ppm
	28.5							
	29.0						Poorly graded sand. olive (5Y4/3). medium to fine sand, trace fines. wet. dense. reddish brown oxidation staining.	0.3 ppm
	29.5							
	30.0							0.0 ppm
					SP?		Sand???	

BORING NO. PMLS-06

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/12/10
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 35.5 FEET	DATE FINISHED: 11/12/10

SCREEN: Diameter: 1.7in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 35 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	30.5				SP?		Sand???	30'-35': no recovery because acetate liner broke.
	31.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace silt. wet. loose.	0.0 ppm 31'-32': soil is saturated
	31.5							
	32.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	32.5							
	33.0				SP		Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. wet. medium dense.	0.0 ppm
	33.5							
	34.0						Poorly graded sand. olive brown (2.5Y4/3). medium to fine sand. damp. dense.	0.0 ppm
	34.5							
	35.0							0.0 ppm
	35.5						Not logged	TD=35.5' BGS
	36.0							
	36.5							
	37.0							
	37.5							
	38.0							
	38.5							
	39.0							
	39.5							
	40.0							
	40.5							
	41.0							
	41.5							
	42.0							
	42.5							
	43.0							
	43.5							
	44.0							
	44.5							
	45.0							

BORING NO. SIW-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt	Hand augered to 5'BGS
					GP		0.25': Poorly graded gravel with sand. very dark brown (10YR2/2). 55% fine gravel, 45% coarse to fine sand. wet. subangular to subrounded.	Base rock
	1.0				SP-SM		1': Poorly graded sand with silt. olive brown (2.5Y4/3). 90% medium to fine sand, 10% silt. damp. subrounded.	
	1.5							
	2.0				SM		Silty sand. greenish black (Gley1 2.5/1). 80% medium to fine sand, 20% silt. damp. subrounded.	
	2.5							
	3.0							
	3.5						Silty sand. black (Gley1 2.5/). 70% medium to fine sand, 30% silt, trace medium sand. wet. subrounded to rounded. rootlets.	
	4.0							
	4.5							
	5.0						Silty sand. greenish black (Gley1 2.5/1). 85% fine sand, 15% silt, trace medium sand. wet. medium dense. subangular.	8.8 ppm
	5.5							
	6.0						Silty sand. very dark greenish gray (Gley1 3/1). 85% medium to fine sand, 15% silt. wet. medium dense. subrounded.	10.6 ppm
	6.5							
	7.0						Silty sand. olive (5Y4/4). 85% medium to fine sand, 15% silt. wet. medium dense. subrounded.	10.3 ppm
	7.5							
	8.0							46.0 ppm
	8.5							118 ppm
	9.0				SP?		Sand???	
	9.5							
	10.0				ML		Sandy silt. olive (5Y5/6). 55% silt, 45% medium to fine sand. wet. soft. non-plastic	9.7 ppm
	10.5							
	11.0						Silt. greenish gray (Gley1 5/1). 90% silt, 10% fine sand. damp. firm. semi-plastic. oxidation staining.	101 ppm
	11.5				SM		Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. damp. medium dense. subrounded.	
	12.0							63.8 ppm
	12.5							
	13.0							17.6 ppm
	13.5						Silty sand. greenish gray (Gley1 5/1) 60% fine sand, 40% silt. damp. medium dense. subrounded to rounded. oxidation staining	
	14.0							20.6 ppm
	14.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense. subrounded	0.0 ppm
	15.0							0.0 ppm

BORING NO. SIW-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Rodrigo Cano		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP-SM		Same as above	
	16.0				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense. subrounded.	0.0 ppm
	16.5							
	17.0							2.8 ppm
	17.5							
	18.0							0.2 ppm
	18.5							
	19.0							0.0 ppm
	19.5						Silty sand. olive brown (2.5Y4/4). 70% medium to fine sand, 30% silt. wet. medium dense. subrounded.	0.0 ppm
	20.0				SP		Poorly graded sand. olive (5Y4/4). 70% medium sand, 30% fine sand. wet. dense. subangular to subrounded.	0.0 ppm
	20.5							
	21.0							0.0 ppm
	21.5							
	22.0						Poorly graded sand. olive (5Y4/4). medium to fine sand. wet. dense. subangular to subrounded.	0.0 ppm
	22.5							
	23.0							TD of well = 23' BGS
	23.5				SM		Silty sand. light olive brown (2.5Y5/4). 85% medium to fine sand, 15% silt. wet. dense. subangular to subrounded.	0.0 ppm
	24.0							0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SIW-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Gerald		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt.	Hand augered to 5'BGS
							Base rock.	Base rock
	1.0				SP		Poorly graded sand. olive brown (2.5Y4/4). fine sand, trace fine gravel, trace fines. moist. loose.	0'-5': Soil logged by Tim Ripp
	1.5							
	2.0						Poorly graded sand. greenish black (Gley1 2.5/1). fine sand, trace fine gravel, trace fines. moist. loose. trace shell fragments.	
	2.5							
	3.0							
	3.5							
	4.0							
	4.5				SP-SM		Poorly graded sand with silt. black (Gley1 2.5/). 90% fine sand, 10% silt. wet. loose to medium dense.	
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 60% fine sand, 20% medium sand, 20% silt. wet. loose. subangular.	1.8 ppm
	5.5							
	6.0							71 ppm
	6.5							
	7.0				SP-SM		Poorly graded sand with silt. olive (5Y4/3). 90% medium to fine sand, 10% silt. wet. medium dense. subrounded.	17.0 ppm
	7.5				SP?			31.1 ppm
	8.0						Sand to silty sand???	
	8.5							
	9.0							
	9.5							
	10.0				CH		Clay with sand. dark greenish gray (Gley1 4/1). 55% clay, 30% silt, 15% fine sand. damp. hard. plastic. oxidation staining.	4.1 ppm
	10.5							
	11.0				SC		Clayey sand. greenish gray (Gley1 5/1). 60% fine sand, 40% clay. damp. dense. subangular. oxidation staining.	7.2 ppm
	11.5							
	12.0				SM		Silty sand. olive brown (2.5Y4/4). 60% medium to fine sand, 40% silt. damp. dense. subrounded.	0.0 ppm
	12.5							
	13.0							0.0 ppm
	13.5						Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. damp. dense. subrounded.	
	14.0				SP?		Sand???	0.0 ppm
	14.5							
	15.0				SM		Same as below.	0.0 ppm

BORING NO. SIW-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Gerald		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. wet. medium dense.	
	16.0							0.0 ppm
	16.5							
	17.0							0.0 ppm
	17.5							
	18.0							0.0 ppm
	18.5							
	19.0							0.0 ppm
	19.5							
	20.0							0.0 ppm 0.0 ppm
	20.5						Silty sand. olive (5Y4/3). 85% medium to fine sand, 15% silt. wet. loose.	
	21.0							0.0 ppm
	21.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	
	22.0							0.0 ppm
	22.5							
	23.0							0.0 ppm
	23.5				SM		Silty sand. olive brown (2.5Y4/4). 85% fine sand, 15% silt, trace medium sand. wet. dense.	
	24.0							0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SIW-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Gerald		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock.	Hand augered to 5'BGS
					SP		Poorly graded sand. olive brown (2.5Y3/3). fine sand, trace coarse to medium sand, trace fines. moist. loose. subrounded.	0'-5': Soil logged by Tim Ripp.
	1.0							
	1.5							
	2.0							
	2.5							
	3.0						Poorly graded sand. greenish black (Gley1 2.5/1). wet. roots/plant matter up to 1/8" in diameter.	
	3.5							
	4.0							
	4.5							
	5.0				SP-SM		Poorly graded sand with silt. greenish black (Gley1 2.5/1). 90% fine sand, 10% silt, trace medium sand. wet. loose.	0.0 ppm
	5.5							
	6.0						Poorly graded sand with silt. greenish black (Gley1 2.5/1). 90% medium to fine sand, 10% silt. wet. loose.	0.0 ppm
	6.5							
	7.0						Poorly graded sand with silt. olive (5Y4/3). 90% medium to fine sand, 10% silt. wet. loose.	10.6 ppm 145 ppm
	7.5				SP?		Sand???	
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SM		Silty sand. black (5Y2.5/1). 80% fine sand, 20% silt, trace medium sand. wet. medium dense.	0.0 ppm
	10.5						Silty sand. olive brown (2.5Y4/4). 70% medium to fine sand, 30% silt. damp. medium dense.	
	11.0							6.9 ppm
	11.5							
	12.0							2.2 ppm
	12.5							
	13.0							0.0 ppm
	13.5							
	14.0						Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. damp. medium dense. reddish brown oxidation staining, greenish gray reduction staining.	0.0 ppm
	14.5							0.0 ppm
	15.0						Same as below.	0.0 ppm

BORING NO. SIW-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/9/2010
DRILLER	Gerald		Boring 10 in.	TOTAL DEPTH: 26 FEET	DATE FINISHED: 11/9/2010

SCREEN: Diameter: 4 in. Length: 10 ft Type/Size: S Steel, 0.010" Wire Wrap SAND PACK: #1/20

CASING Diameter: 4 in. Length: 15 ft. Type Schedule 80 PVC TRANSITION SAND: #60

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. light olive brown (2.5Y5/4). 75% medium to fine sand, 25% silt. wet. medium dense.	
	16.0						Silty sand. light olive brown (2.5Y5/4). 85% medium to fine sand, 15% silt. wet. medium dense.	0.0 ppm
	16.5							
	17.0							0.0 ppm
	17.5							
	18.0							0.0 ppm
	18.5						Silty sand. light olive brown (2.5Y5/4). 75% medium to fine sand, 25% silt. wet. medium dense.	
	19.0							0.0 ppm
	19.5							
	20.0							0.0 ppm
					SP		Poorly graded sand. olive (5Y4/3). medium to fine sand. wet. medium dense.	0.0 ppm
	20.5							
	21.0							0.0 ppm
	21.5							
	22.0							0.0 ppm
	22.5							
	23.0							0.0 ppm
	23.5							
	24.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/3). 90% medium to fine sand, 10% silt. wet. medium dense.	0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5						Soil not logged	
	26.0							TD = 26' BGS
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SMLS-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/10/2010
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/10/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt Not logged.	Hand augered to 5'BGS.
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				CL		Clay with sand. greenish black (Gley1 2.5/1). 80% clay, 20% fine sand. wet. soft. semi-plastic.	0.0 ppm
	5.5				SP		Poorly graded sand. greenish black (Gley1 2.5/1). 80% medium sand, 20% fine sand. wet. loose.	Sudan IV test is positive. No obvious DNAPL staining
	6.0				SM		Silty sand. greenish black (Gley1 2.5/1). 85% medium to fine sand, 15% silt. wet. medium dense.	253 ppm
	6.5							
	7.0							2.2 ppm
	7.5							
	8.0						Silty sand. dark greenish gray (Gley1 4/1). 85% medium to fine sand, 15% silt. wet. medium dense.	75.2 ppm
	8.5							
	9.0							34.2 ppm
	9.5							
	10.0				SC		Clayey sand. greenish black (Gley1 2.5/1). 70% fine sand, 30% clay, trace medium sand. wet. medium dense.	3.2 ppm
	10.5				CH		10.5': Sandy clay. greenish gray (Gley1 5/1). 50% clay, 30% fine sand, 20% silt. moist. firm. plastic. oxidation staining.	291 ppm
	11.0				SM			83.2 ppm
	11.5						11': Silty sand. olive brown (2.5Y4/4). 60% fine sand, 40% silt. moist. dense. oxidation and reduction staining.	246 ppm
	12.0							187 ppm
	12.5							107 ppm
	13.0						Silty sand. olive (5Y4/3). 80% medium to fine sand, 20% silt. damp. dense. oxidation and reduction staining.	49.9 ppm
	13.5							29.9 ppm
	14.0				SP-SM		Poorly graded sand with silt. dark greenish gray (Gley1 4/1). 90% medium to fine sand, 10% silt. damp. medium dense.	2.6 ppm 1.5 ppm
	14.5							
	15.0				SM		Same as below	3.4 ppm

BORING NO. SMLS-01

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/10/2010
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/10/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive brown (2.5Y4/3). 85% medium to fine sand. 15% silt. wet. medium dense.	
	16.0							36.8 ppm
	16.5							
	17.0							118 ppm
	17.5							
	18.0							716 ppm
	18.5							
	19.0							482 ppm
	19.5							Sudan IV test is positive, no obvious DNAPL staining
	20.0				SP		Poorly graded sand. dark olive gray (5Y3/2). 80% medium sand, 20% fine sand, trace fines. wet. medium dense.	1,015 ppm 37.2 ppm
	20.5							
	21.0							26.4 ppm
	21.5							
	22.0							18.3 ppm
	22.5							
	23.0							TD of well = 23' BGS 3.3 ppm
	23.5							
	24.0							0.4 ppm
	24.5							
	25.0							0.1 ppm
	25.5							TD = 25'BGS The bentonite seals between screened intervals are ~0.2' thick and are centered vertically
	26.0							
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SMLS-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/11/2010
SCREEN:	Diameter: 1.7 in.	Length:6"or3"	Type/Size: Ports wrapped in 5x100 mesh screen	SAND PACK: #1/20	
CASING	Diameter: 1.7 in.	Length: 23 ft.	Type Polyethlyene		

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt over base rock Not logged	Hand augered to 5'BGS
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 85% medium to fine sand, 15% silt. wet. medium dense.	9.1 ppm
	5.5						Silty sand. dark greenish gray (Gley1 4/1). 85% medium to fine sand, 15% silt. wet. medium dense.	
	6.0							44.5 ppm
	6.5				SP?		Sand???	
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SC		Clayey sand. dark greenish gray (Gley1 4/1). 60% fine sand, 40% clay and silt, trace medium sand. damp. dense. oxidation staining.	52.5 ppm
	10.5							
	11.0							182 ppm
	11.5							
	12.0				SM		Silty sand. olive (5Y4/4). 70% medium to fine sand, 30% silt. damp. medium dense. reddish brown oxidation staining, greenish gray reduction staining.	87.7 ppm
	12.5							
	13.0				SP-SM		Poorly graded sand with silt. olive (5Y4/3). 90% medium to fine sand, 10% silt. damp. medium dense.	23.5 ppm
	13.5							
	14.0							43.9 ppm
	14.5							1.9 ppm
	15.0				SP		Same as below	0.0 ppm

BORING NO. SMLS-02

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace silt. wet. loose.	15'-16': soil is saturated
	16.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	6.7 ppm
	16.5							
	17.0							22.8 ppm
	17.5							
	18.0							22.1 ppm
	18.5							
	19.0				SM		Silty sand. olive (5Y4/3). 80% medium to fine sand, 20% silt. damp. dense. oxidation staining.	812 ppm
	19.5							308 ppm
	20.0				SP		Poorly graded sand. olive (5Y4/3). medium to fine sand, trace fines. wet. medium dense.	4.1 ppm
	20.5							
	21.0							4.6 ppm
	21.5							
	22.0							0.7 ppm
	22.5						Poorly graded sand. olive (5Y4/3). medium to fine sand, trace fines. wet. dense.	
	23.0							TD of well = 23' BGS 1.6 ppm
	23.5							
	24.0							0.2 ppm
	24.5							
	25.0							0.1 ppm
	25.5							TD = 25'BGS The bentonite seals between screened intervals are ~0.2' thick and are centered vertically
	26.0							
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SMLS-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/11/2010
SCREEN:	Diameter: 1.7 in.	Length:6"or3"	Type/Size: Ports wrapped in 5x100 mesh screen	SAND PACK: #1/20	
CASING	Diameter: 1.7 in.	Length: 23 ft.	Type Polyethlyene		

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt Not logged	Hand augered to 5'BGS
	1.0							
	1.5							
	2.0							
	2.5							
	3.0							
	3.5							
	4.0							
	4.5							
	5.0				SM		Silty sand. greenish black (Gley1 2.5/1). 80% medium to fine sand, 20% silt. wet. medium dense.	2.5 ppm
	5.5						Silty sand. dark greenish gray (Gley1 4/1). 80% medium to fine sand, 20% silt. wet. medium dense.	
	6.0				SP?		Sand???	27.7 ppm
	6.5							
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SC		Clayey sand. greenish gray (Gley1 5/1). 55% fine sand, 45% clay. moist. dense. oxidation staining.	13.2 ppm
	10.5							
	11.0				SM		Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. damp. medium dense.	31.7 ppm
	11.5							
	12.0							19.0 ppm
	12.5						Silty sand. olive brown (2.5Y4/4). 80% medium to fine sand, 20% silt. wet. medium dense.	
	13.0							11.8 ppm
	13.5				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. dense.	
	14.0							1.1 ppm
	14.5							1.8 ppm
	15.0				SM		Same as below	0.0 ppm

BORING NO. SMLS-03

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/11/2010
DRILLER	Rodrigo Cano		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/11/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive brown (2.5Y4/3). 80% medium to fine sand, 20% silt. wet medium dense.	
	16.0							7.3 ppm
	16.5							
	17.0							10.7 ppm
	17.5							
	18.0							9.3 ppm
	18.5							
	19.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/3). 90% medium to fine sand, 10% silt. damp. medium dense.	1.4 ppm
	19.5							
	20.0				SP		Poorly graded sand. olive brown (2.5Y4/4). 80% medium sand, 20% fine sand, trace fines. wet. medium dense.	32.3 ppm 0.0 ppm
	20.5							
	21.0							0.0 ppm
	21.5							
	22.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	0.0 ppm
	22.5							
	23.0							TD of well = 23' BGS 0.0 ppm
	23.5							
	24.0							0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5							TD = 25'BGS The bentonite seals between screened intervals are ~0.2' thick and are centered vertically
	26.0							
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SMLS-05

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/8/2010
DRILLER			Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/8/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt	Hand augered to 5'BGS
					GP		Poorly graded gravel. dark olive brown (2.5Y3/3). 90% fine gravel, 10% coarse to fine sand, trace coarse gravel. dry. angular to subrounded.	Base rock
	1.0				SP		1': Poorly graded sand. olive brown (2.5Y4/3). medium sand, trace fine sand. damp. medium dense. subrounded.	
	1.5						Poorly graded sand. greenish black (Gley1 2.5/1). medium to fine sand. damp. medium dense. subangular to subrounded.	
	2.0							
	2.5							
	3.0							
	3.5							
	4.0						Poorly graded sand. greenish black (Gley1 2.5/1). medium sand. wet. medium dense. subrounded. coated in VOCs.	182 ppm Sudan IV test is positive.
	4.5				CH		4.5': Clay. greenish black (Gley1 2.5/1). damp. soft. plastic.	
	5.0				SP?		Sand???	
	5.5							
	6.0							
	6.5							
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SM		Silty sand. olive brown (2.5Y4/4). 85% fine sand, 15% silt. damp. medium dense. subangular to subrounded.	0.0 ppm
	10.5				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. damp. medium dense. subrounded	
	11.0				ML		Silt with sand. dark yellowish brown (10YR4/6) oxidation staining, greenish gray (Gley1 5/1) reduction staining. 85% silt, 15% fine sand. damp. firm. non-plastic.	1.4 ppm
	11.5							
	12.0				SM		Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand, 15% silt. damp. medium dense. subrounded.	2.4 ppm
	12.5							
	13.0							62.1 ppm
	13.5				ML		Sandy silt. olive brown (2.5Y4/4). 60% silt, 40% fine sand, trace medium sand. firm. semi-plastic.	
	14.0				CH		Sandy clay. greenish gray (Gley1 5/1). 70% clay, 30% fine sand. damp. firm. plastic. olive brown (2.5Y4/4) oxidation staining. rootlets.	29.7 ppm
	14.5							
	15.0							4.6 ppm
					SM		Same as below.	0.0 ppm

BORING NO. SMLS-05

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/8/2010
DRILLER			Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/8/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5				SM		Silty sand. olive brown (2.5Y4/4). 85% medium to fine sand. 15% silt. wet. medium dense. subangular to subrounded.	
	16.0						Silty sand. olive (5Y4/3). 85% medium to fine sand, 15% silt. wet. medium dense. subangular to subrounded.	
	16.5							
	17.0							0.0 ppm
	17.5							
	18.0				SP		Poorly graded sand. olive (5Y4/3). medium to fine sand, trace fines. wet. medium dense. subrounded to rounded	2.1 ppm
	18.5							
	19.0							139 ppm
	19.5							19': ~1" layer of stained soil w/ high VOC concentrations; Sudan IV test is positive.
	20.0							225 ppm
	20.5							Sudan IV test is positive.
	21.0							1.5 ppm
	21.5							
	22.0							0.0 ppm
	22.5							
	23.0							TD of well = 23' BGS
	23.5							
	24.0							
	24.5							
	25.0							0.0 ppm
	25.5							TD = 25'BGS The bentonite seals between screened intervals are ~0.2' thick and are centered vertically
	26.0							
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

BORING NO. SMLS-06

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/8/2010
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/10/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	0.5				AS		Asphalt	Hand augered to 5'BGS
					SW		0.25': Well graded sand with gravel. olive brown (2.5Y4/3). 70% coarse to fine sand, 30% fine gravel. dry. loose. subrounded to rounded.	Base rock
	1.0				SP		1': Poorly graded sand. olive brown (2.5Y4/3). medium sand. damp. loose. subrounded.	
	1.5							
	2.0						Poorly graded sand. greenish black (Gley1 2.5/1). medium sand. damp. medium dense. subrounded	
	2.5							
	3.0							
	3.5							
	4.0							
	4.5				ML		Sandy silt. dark greenish gray (Gley1 4/1). 70% silt, 30% fine sand. moist. firm. semi-plastic.	
	5.0				SP-SM		Poorly graded sand with silt. greenish black (Gley1 2.5/1). 90% fine sand, 10% silt, trace medium sand. wet. medium dense.	2.4 ppm
	5.5							
	6.0						Poorly graded sand with silt. olive gray (5Y4/2). 90% fine sand, 10% silt, trace medium sand. wet. medium dense.	7.1 ppm 5.5 ppm
	6.5				SP?		Sand???	
	7.0							
	7.5							
	8.0							
	8.5							
	9.0							
	9.5							
	10.0				SP		Poorly graded sand. very dark greenish gray (Gley1 3/1). 80% medium sand, 20% fine sand, trace coarse sand, trace fines. wet. loose.	0.9 ppm
	10.5				SM		10.5': Silty sand. light olive brown (2.5Y5/4). 75% medium to fine sand, 25% silt. wet. medium dense.	26.1 ppm
	11.0							
	11.5							
	12.0							0.6 ppm
	12.5						10.5': Silty sand. light olive brown (2.5Y5/4). 85% medium to fine sand, 15% silt. wet. medium dense.	
	13.0							0.2 ppm
	13.5							
	14.0							0.0 ppm
	14.5							0.0 ppm
	15.0				SP-SM		Same as below	0.0 ppm

BORING NO. SMLS-06

Shaw Environmental, Inc.

COORDINATES: N.
E.

PROJECT	Alameda Plume 4-1	PROJECT NUMBER	135889	FIELD GEOLOGIST: Michael Glas	TOC ELEV: ft amsl
LOCATION	Alameda, CA	DRILLING METHOD	HSA	CHECKED BY:	GS ELEV:
DRILL CO.	WDC	LOGGING METHOD	Continous	APPROVED BY:	DATE BEGAN: 11/8/2010
DRILLER	Robert Estrada		Boring 8 in.	TOTAL DEPTH: 25 FEET	DATE FINISHED: 11/10/2010

SCREEN: Diameter: 1.7 in. Length:6"or3" Type/Size: Ports wrapped in 5x100 mesh screen SAND PACK: #1/20

CASING Diameter: 1.7 in. Length: 23 ft. Type Polyethlyene

Elevation (ft amsl)	Depth (feet)	Well Completion	Blow per 6-inches	Recovery	USCS Symbol	Profile	Description	Comments
	15.5						Poorly graded sand with silt. olive brown (2.5Y5/4). 90% medium to fine sand, 10% silt. wet. medium dense.	
	16.0				SM		Silty sand. light olive brown (2.5Y5/4). 80% medium to fine sand, 20% silt. wet. medium dense.	0.0 ppm
	16.5							
	17.0							0.0 ppm
	17.5							
	18.0						Silty sand. light olive brown (2.5Y5/4). 80% medium to fine sand, 20% silt. wet. medium dense. oxidation and reduction staining.	0.0 ppm
	18.5							
	19.0						Silty sand. olive brown (2.5Y4/4). 70% fine sand, 30% silt, trace medium sand. damp. medium dense.	0.0 ppm
	19.5							
	20.0						Silty sand. olive (5Y4/3). 85% medium to fine sand, 15% silt. wet. medium dense.	0.0 ppm 2.6 ppm
	20.5							
	21.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium sand, trace fine sand. wet. loose.	1.7 ppm
	21.5							
	22.0						Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand. wet. medium dense.	1.0 ppm
	22.5							
	23.0				SP-SM		Poorly graded sand with silt. olive brown (2.5Y4/4). 90% medium to fine sand, 10% silt. wet. medium dense.	TD of well = 23' BGS 0.4 ppm
	23.5							
	24.0				SP		Poorly graded sand. olive brown (2.5Y4/4). medium to fine sand, trace fines. wet. medium dense.	0.0 ppm
	24.5							
	25.0							0.0 ppm
	25.5							TD = 25'BGS The bentonite seals between screened intervals are ~0.2' thick and are centered vertically
	26.0							
	26.5							
	27.0							
	27.5							
	28.0							
	28.5							
	29.0							
	29.5							
	30.0							

Appendix B
Multi-level Sampling Installation Photographs

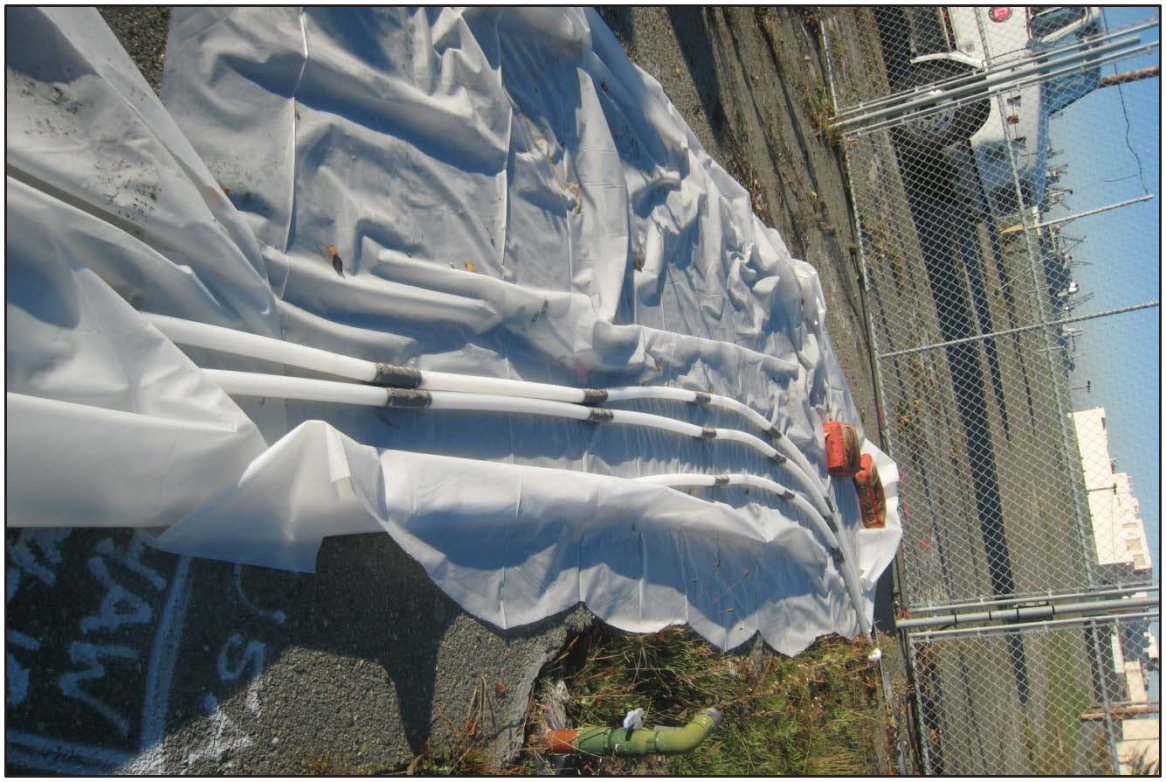


Photo No. 1: Top down view of Multilevel Wells prior to installation

Photo No. 2: Bottom up view of Multilevel Wells prior to installation

Photo No. 3: Top down view of Multilevel Well end cap

Photo No. 4: Bottom up view of Multilevel Well end cap

Photo No. 5: Side view of well screens

Photo No. 6: Side view of screen interval

Appendix C
Non Hazardous Investigation-Derived Waste

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

Generator ID Number	Page 1 of	Emergency Response Phone	Manifest Tracking Number
CA2170023236	1	925-383-6502	000090402GBF

Generator's Name and Mailing Address: US Navy-BRAC-PMO-W (Alameda Point) 1 Ave. of the Palms Suite 161, San Francisco, CA 94130-1807 415-743-4713

Generator's Site Address (if different than mailing address): Site 41, Alameda Point, Alameda, CA 94501

Generator's Phone: 415-743-4713

Generator's Name or Mailing Address: Black Gold Industries — U.S. EPA ID Number: CAD983609678

Transporter 1 Company Name: Siemens Water Technologies, 5375 South Boyle Ave, Vernon, CA 90058 (323) 277-1500 — U.S. EPA ID Number: CAD097030993

Transporter 2 Company Name — U.S. EPA ID Number

Designated Facility Name and Site Address	U.S. EPA ID Number
Siemens Water Technologies, 5375 South Boyle Ave, Vernon, CA 90058 (323) 277-1500	CAD097030993

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group, if any)	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	Hazardous waste liquid, n.o.s. (trichloroethylene), 9, NA3082, PG III	01	TT	2600	G	D040 343 F002

14. Special Handling Instructions and Additional Information: Profile # P190348 CTO-03 Site 41 — Tracking # 7302

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Douglas DeLong — Signature: [signature] for gonzalez — Month Day Year: 03 12 11

16. International Shipments: Import to U.S. / Export from U.S. / Port of Entry/Exit — Date leaving U.S.:

Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials: Rudy Gonzalez — Signature: Rudy gonzalez — Month Day Year: 03 02 11

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy: Quantity / Type / Residue / Partial Rejection / Full Rejection

Manifest Reference Number — U.S. EPA ID Number

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER (INT'L) — DESIGNATED FACILITY

EPA Form 8700-22. Rev. 3/05. Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CA2170023236
2. Page 1 of: 1
3. Emergency Response Phone: 925-383-6502
4. Manifest Tracking Number: 000090400GBF

5. Generator's Name and Mailing Address
USNavy-BRAC-PMO-W (Alameda Point)
1 Ave. of the Palms, Suite 161
San Francisco, CA 94130-1807
Generator's Phone: (415) 743-4713

Generator's Site Address (if different than mailing address)
Site 4-1, Alameda Point
Alameda, CA 94501

6. Transporter 1 Company Name: [illegible]
U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Chemical Waste Management
35251 Old Skyline Rd., Kettleman City, CA 93239
Facility's Phone: 559-386-6107
U.S. EPA ID Number: CAT000646117

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Hazardous Waste Solid, n.o.s. (trichloroethylene, dichloroethylene), 9, NA3077, PG III	01	CM	016	Y	F002	181	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1x Roll-off, Profile # 603043 Bin # PT2079
CTA03, Site 4-1 Service # Truck # 730

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 03 Day 28 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JAMES [illegible] Signature: [illegible] Month 03 Day 28 Year 11
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CA2170023236
2. Page 1 of: 1
3. Emergency Response Phone: 925-383-6502
4. Manifest Tracking Number: 000090401GBF

5. Generator's Name and Mailing Address
US Navy-BRAC-PMO-W (Alameda Point)
1 Ave. of the Palms Ste 161, San Francisco, CA 94130-1807
Generator's Phone (415) 743-4713

Generator's Site Address (if different than mailing address)
Site 4-1. Alameda Point
Alameda, CA 94501

6. Transporter 1 Company Name: Intrinsic Transportation Inc.
U.S. EPA ID Number: CAR000165274

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Chemical Waste Management
35251 Old Skyline Rd., Kettleman City, CA 93239
Facility's Phone: 559-386-6107
U.S. EPA ID Number: CAT000646117

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Hazardous Waste solid, n.o.s. (trichloroethylene, dichloroethylene), 9, NA3077, PG III	01	CM	15	Y	F002	181	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1x Roll-off, Profile # 603043 Bin # 230 Truck 550-VP08072
Trailer 123-35030-X
CTO-03 Site 4-1 Service # Trip # 7201

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 3 Day 4 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Kreicher Signature: David Kreicher Month 3 Day 4 Year 11
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Appendix D
Well Survey Report

Coordinate System	US State Plane : Zone		California Zone 3 0403
Project Datum	NAD 1927 (Conus)		
Vertical Datum	none	Geoid Model	geoid03
Coordinate Units	US survey feet		

Name	Northing	Easting	Elevation	Code
100	470778.461	1481979.84	10.881sft	SIW-1,,
101	470778.888	1481980.412	11.222sft	GND,,
102	470773.803	1481978.154	10.716sft	SIW-2,,
103	470774.168	1481978.72	11.117sft	GND,,
104	470768.444	1481976.349	10.781sft	SIW-3,,
105	470768.965	1481976.893	11.104sft	GND,,
106	470771.518	1481974.115	10.503sft	SMLS-6,,
107	470771.585	1481974.143	11.057sft	LID,,
108	470776.623	1481976.005	10.648sft	SMLS-5,,
109	470776.533	1481975.954	11.034sft	LID,,
110	470786.418	1481979.262	11.069sft	PIPE BREAK,,
111	470779.371	1481968.778	10.564sft	SMLS-1,,
112	470779.265	1481968.716	10.972sft	LID,,
113	470776.963	1481968.084	10.580sft	SMLS-2,,
114	470776.94	1481968.035	10.973sft	LID,,
115	470774.671	1481967.276	10.650sft	SMLS-3,,
116	470774.598	1481967.241	10.926sft	LID,,
117	470777.964	1481960.2	10.401sft	SMLS-8,,
118	470777.903	1481960.092	10.863sft	LID,,
119	470780.077	1481961.07	10.565sft	SMLS-7,,
120	470780.058	1481960.962	10.865sft	LID,,
121	470785.644	1481963.012	10.595sft	SMLS-4,,
122	470785.481	1481962.94	10.990sft	LID,,
123	470786.094	1481960.03	10.514sft	PEW-2,,
124	470786.208	1481959.341	10.879sft	GND,,
125	470791.325	1481961.799	10.275sft	PEW-1,,
126	470792.058	1481962.375	11.018sft	GND,,
127	470780.195	1481957.997	10.287sft	PEW-3,,
128	470780.769	1481958.527	10.734sft	GND,,
129	470777.399	1481956.766	10.183sft	PEW-4,,
130	470778.073	1481957.039	10.837sft	GND,,
131	470774.006	1481942.178	10.285sft	PMLS-6,,
132	470773.922	1481942.152	10.774sft	LID,,
133	470777.887	1481944.149	10.459sft	PMLS-5,,
134	470777.828	1481944.169	10.726sft	LID,,
135	470785.523	1481940.633	10.596sft	MWP-2,,
136	470785.41	1481940.609	10.941sft	LID,,
137	470784.876	1481947.687	10.609sft	PMLS-4,,
138	470784.649	1481947.635	10.783sft	LID,,
139	470787.538	1481949.362	10.611sft	PMLS-3,,
140	470787.574	1481949.169	10.875sft	LID,,
141	470794.13	1481952.309	10.694sft	PMLS-2,,
142	470794.114	1481952.276	10.956sft	LID,,
143	470797.615	1481953.897	10.655sft	PMLS-1,,
144	470797.684	1481953.896	10.988sft	LID,,
145	470800.983	1481948.593	10.717sft	MWP-1,,
146	470801.02	1481948.594	11.074sft	LID,,
147	470799.569	1481920.489	11.293sft	P-4-1-MWIA2,,
148	470799.27	1481920.562	11.363sft	GND,,
149	470716.68	1481963.192	11.315sft	MW360-1,,
150	470716.737	1481963.141	11.840sft	LID,,
151	470769.854	1481841.752	11.435sft	PP41MW08,,
152	470769.855	1481841.679	11.784sft	LID,,

LatLong Alameda

Project : 07148 12 07 2010

User name	Charles Capp	Date & Time	12/6/2010 14:07
Coordinate System	US State Plane 1983	Zone	California Zone 3 0403
Project Datum	NAD 1983 (Conus)		
Vertical Datum		Geoid Model	geoid03
Coordinate Units	US survey feet		

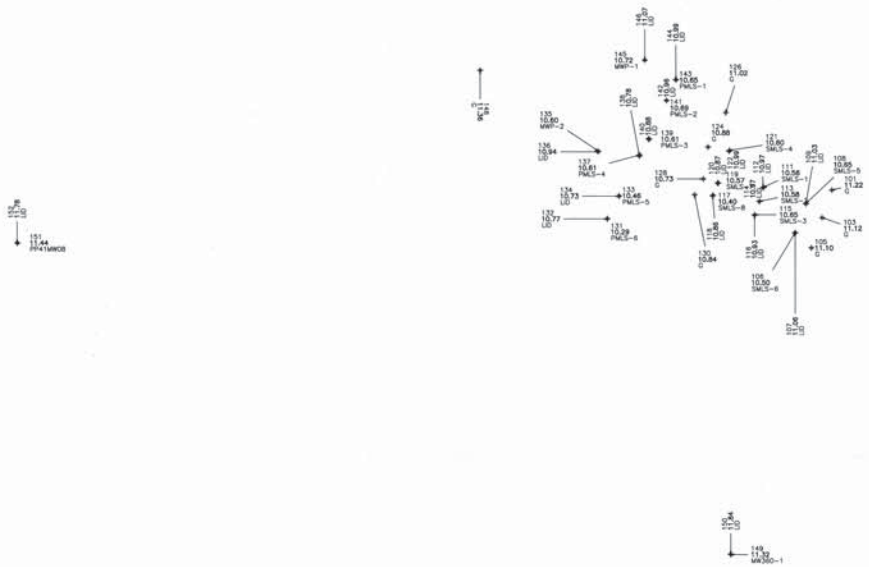
Name	Northing	Easting	Latitude	Longitude	Elevation	Code
100	2111185.815	6043346.615	37°46'45.44199"N	122°17'36.87154"W	10.881sft	SIW-1,,
101	2111186.242	6043347.187	37°46'45.44631"N	122°17'36.86452"W	11.222sft	GND,,
102	2111181.157	6043344.929	37°46'45.39562"N	122°17'36.89143"W	10.716sft	SIW-2,,
103	2111181.522	6043345.495	37°46'45.39934"N	122°17'36.88447"W	11.117sft	GND,,
104	2111175.798	6043343.124	37°46'45.34231"N	122°17'36.91263"W	10.781sft	SIW-3,,
105	2111176.319	6043343.668	37°46'45.34756"N	122°17'36.90598"W	11.104sft	GND,,
106	2111178.872	6043340.89	37°46'45.37227"N	122°17'36.94119"W	10.503sft	SMLS-6,,
107	2111178.939	6043340.918	37°46'45.37294"N	122°17'36.94085"W	11.057sft	LID,,
108	2111183.977	6043342.78	37°46'45.42309"N	122°17'36.91887"W	10.648sft	SMLS-5,,
109	2111183.887	6043342.729	37°46'45.42219"N	122°17'36.91948"W	11.034sft	LID,,
110	2111193.772	6043346.037	37°46'45.52053"N	122°17'36.88064"W	11.069sft	PIPE BREAK,,
111	2111186.725	6043335.554	37°46'45.44889"N	122°17'37.00952"W	10.564sft	SMLS-1,,
112	2111186.619	6043335.492	37°46'45.44783"N	122°17'37.01026"W	10.972sft	LID,,
113	2111184.317	6043334.859	37°46'45.42495"N	122°17'37.01760"W	10.580sft	SMLS-2,,
114	2111184.294	6043334.81	37°46'45.42471"N	122°17'37.01820"W	10.973sft	LID,,
115	2111182.025	6043334.051	37°46'45.40214"N	122°17'37.02711"W	10.650sft	SMLS-3,,
116	2111181.952	6043334.016	37°46'45.40141"N	122°17'37.02753"W	10.926sft	LID,,
117	2111185.318	6043326.976	37°46'45.43335"N	122°17'37.11601"W	10.401sft	SMLS-8,,
118	2111185.257	6043326.868	37°46'45.43273"N	122°17'37.11734"W	10.863sft	LID,,
119	2111187.431	6043327.846	37°46'45.45440"N	122°17'37.10568"W	10.565sft	SMLS-7,,
120	2111187.412	6043327.738	37°46'45.45420"N	122°17'37.10702"W	10.865sft	LID,,
121	2111192.998	6043329.788	37°46'45.50980"N	122°17'37.08283"W	10.595sft	SMLS-4,,
122	2111192.835	6043329.716	37°46'45.50818"N	122°17'37.08368"W	10.990sft	LID,,
123	2111193.448	6043326.806	37°46'45.51368"N	122°17'37.12007"W	10.514sft	PEW-2,,
124	2111193.562	6043326.117	37°46'45.51468"N	122°17'37.12868"W	10.879sft	GND,,
125	2111198.679	6043328.575	37°46'45.56573"N	122°17'37.09929"W	10.275sft	PEW-1,,
126	2111199.412	6043329.151	37°46'45.57308"N	122°17'37.09229"W	11.018sft	GND,,
127	2111187.549	6043324.773	37°46'45.45499"N	122°17'37.14398"W	10.287sft	PEW-3,,
128	2111188.123	6043325.303	37°46'45.46076"N	122°17'37.13752"W	10.734sft	GND,,
129	2111184.753	6043323.542	37°46'45.42712"N	122°17'37.15865"W	10.183sft	PEW-4,,
130	2111185.427	6043323.815	37°46'45.43383"N	122°17'37.15541"W	10.837sft	GND,,
131	2111181.36	6043308.954	37°46'45.39081"N	122°17'37.33952"W	10.285sft	PMLS-6,,
132	2111181.276	6043308.928	37°46'45.38998"N	122°17'37.33982"W	10.774sft	LID,,
133	2111185.241	6043310.925	37°46'45.42955"N	122°17'37.31590"W	10.459sft	PMLS-5,,
134	2111185.182	6043310.945	37°46'45.42897"N	122°17'37.31564"W	10.726sft	LID,,
135	2111192.877	6043307.409	37°46'45.50436"N	122°17'37.36151"W	10.596sft	MWP-2,,
136	2111192.764	6043307.385	37°46'45.50324"N	122°17'37.36178"W	10.941sft	LID,,
137	2111192.23	6043314.463	37°46'45.49931"N	122°17'37.27350"W	10.609sft	PMLS-4,,
138	2111192.003	6043314.411	37°46'45.49705"N	122°17'37.27410"W	10.783sft	LID,,
139	2111194.892	6043316.138	37°46'45.52594"N	122°17'37.25328"W	10.611sft	PMLS-3,,
140	2111194.928	6043315.945	37°46'45.52626"N	122°17'37.25569"W	10.875sft	LID,,
141	2111201.484	6043319.085	37°46'45.59166"N	122°17'37.21815"W	10.694sft	PMLS-2,,
142	2111201.468	6043319.052	37°46'45.59149"N	122°17'37.21856"W	10.956sft	LID,,
143	2111204.969	6043320.673	37°46'45.62641"N	122°17'37.19920"W	10.655sft	PMLS-1,,
144	2111205.038	6043320.672	37°46'45.62709"N	122°17'37.19923"W	10.988sft	LID,,
145	2111208.337	6043315.369	37°46'45.65870"N	122°17'37.26607"W	10.717sft	MWP-1,,
146	2111208.374	6043315.37	37°46'45.65906"N	122°17'37.26606"W	11.074sft	LID,,
147	2111206.924	6043287.265	37°46'45.63940"N	122°17'37.61574"W	11.293sft	P-4-1-MWIA2,,
148	2111206.625	6043287.338	37°46'45.63646"N	122°17'37.61476"W	11.363sft	GND,,
149	2111124.034	6043329.967	37°46'44.82813"N	122°17'37.06413"W	11.315sft	MW360-1,,
150	2111124.091	6043329.916	37°46'44.82868"N	122°17'37.06478"W	11.840sft	LID,,
151	2111177.21	6043208.529	37°46'45.33076"N	122°17'38.58925"W	11.435sft	PP41MW08,,
152	2111177.211	6043208.456	37°46'45.33075"N	122°17'38.59016"W	11.784sft	LID,,

ALAMEDA POINT SURVEYS

ALAMEDA POINT, CA

DECEMBER 6, 2010

BELLECCI & ASSOCIATES, INC.
CONCORD, CALIFORNIA



GPS Survey for monitoring locations at Alameda Point

The drawing points are based on the California Coordinate System, NAD 83, Zone 3, Navd 88.

Control Points utilized for this survey are as follows:

Bench Mark 941	4750 Tidal 7 (HT0882)
Northing	2,111,475.06
Easting	6,042,015.50
NAVD 88 Elev.	9.13 feet

Bench Mark 941	4750 R Tidal (HT3553)
Northing	2,108,334.69
Easting	6,042,444.56
NAVD 88 Elev.	11.67 feet

A report was delivered to te Concord Show office showing Latitude and Longitude values for the topographic coordinate positions in both NAD 83 and NAVD 88 values

CHARLES M. CAPP PLS 6925 — DATE: 12-7-2010

LICENSED LAND SURVEYOR
CHARLES M. CAPP
No. 6925
EXP. 9-30-11
STATE OF CALIFORNIA
12-7-2010

Bellecci & Associates, inc.
Civil Engineering • Land Surveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

SHEET 1 OF 1

JOB NO. 10042

Appendix E
Data Collection Logs

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8/13/12	8/14/12	8/15/12	8/16/12	8/17/12		
Time		222	0800	0900	0540		
GENERATOR							
Runtime		1563.3	1580.5	1605.1	1625.8		
L1 (volts)		114	114	114	114		
L2 (volts)		0	0	0	0		
L3 (volts)		114	114	114	114		
L12 (volts)		114	114	114	114		
L23 (volts)		115	114	114	114		
L31 (volts)		228	229	229	228		
Freq (Hz)		60.1	59.8	60.2	60.1		
il Pressure (psi)		56	50	56	56		
Temp (°F)		195	194	194	194		
Fuel (%)		7	31	99	89		
Battery (volts)		14.6	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)		30+	30+	30+	30+		
FI-101 (gallons)		55653.12	56143.52	56862.54	57456.39		
PI-101B (psi)		29	34	35	36		
PI-102A (psi)		30+	30+	30+	30+		
FI-102 (gallons)		54977.79	55460.12	56166.18	56746.86		
PI-102B (psi)		29	33	35	35		
PI-103A (psi)		30+	30+	30+	30+		
FI-103 (gallons)		51487.32	51972.32	52702.71	53306.54		
PI-103B (psi)		30	31	34	34		
PI-104A (psi)		40	42	42	43		
FI-104 (gallons)		55875.41	56344.72	57049.33	57638.91		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date		8/14/12	8/15/12	8/16/12	8/17/12		
PI-104B (psi)		30	31	33	34		
FI-105 (gallons)		208248.33	210107.02	212871.65	215157.42		
PI-201A (psi)		24	27	29	29		
PI-201B (psi)		24	27	29	29		
~~PI-202A (psi)~~							
~~PI-202B (psi)~~							
~~PI-203A (psi)~~							
~~PI-203B (psi)~~							
~~PI-204A (psi)~~							
~~PI-204B (psi)~~							
FI-205 (gallons)		23581.09	25388.87	28081.58	30296.54		
PI-205 (psi)		17	19	23	24		
PI-206 (psi)		16	15	19.5	21		
FI-301 (gallons)		68038.01	68470.13	69229.77	76701.35		
PI-301 (psi)		2.1	2.6	0.8	0.8		
FI-302 (gallons)		62260.45	63171.62	64532.16	65195.53		
PI-302 (psi)		0	0	0	0.3		
FI-302 (gallons)		68259.80	69857.76	69753.40	70017.26		
PI-302 (psi)		1.2	2	0	0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-20-12	8-21-12	8-22-12	—	8-24-12		
Time	1230	1000	0830	—	0830		
GENERATOR							
Runtime	1704.6	1726.3	1748.5				
L1 (volts)	114	114	114		114		
L2 (volts)	Ø	Ø	Ø		Ø		
L3 (volts)	114	113	114		114		
L12 (volts)	114	114	114		114		
L23 (volts)	114	113	114		114		
L31 (volts)	229	227	229		229		
Freq (Hz)	60.2	60.0	59.9		60.3		
Oil Pressure (psi)	54	58	58		57		
Temp (°F)	194°	195	194		194		
Fuel (%)	48%	99	86		66		
Battery (volts)	14.6	14.5	14.6		14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+		30+		
FI-101 (gallons)	59766.80	603171.58	609666.49		621063.40		
PI-101B (psi)	30+	30+	30+		30+		
PI-102A (psi)	30+	30+	30+		30+		
FI-102 (gallons)	590153.72	598056.25	605157.90		619519.25		
PI-102B (psi)	30+	30+	30+		30+		
PI-103A (psi)	30+	30+	30+		30+		
FI-103 (gallons)	556076.78	563200.25	570076.74		584533.0		
PI-103B (psi)	30+	30+	30+		30+		
PI-104A (psi)	30+	30+	30+		30+		
FI-104 (gallons)	599780.25	605840.48	612219.85		627022.00		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-20-12	8-21-12	8-22-12	—	8-24-12		
PI-104B (psi)	30+	30+	30+	—	30+		
FI-105 (gallons)	22395222.30	22677250	22942327.14	—	23484241		
PI-201A (psi)	30+	30+	30+	—	30+		
PI-201B (psi)	30+	30+	30+	—	30+		
~~PI-202A (psi)~~							
~~PI-202B (psi)~~							
~~PI-203A (psi)~~							
~~PI-203B (psi)~~							
~~PI-204A (psi)~~							
~~PI-204B (psi)~~							
FI-205 (gallons)	388066.50	414539.95	441337.81	—	494909.90		
PI-205 (psi)	24	26	28	—	30+		
PI-206 (psi)	18	22	25	—	30+		
FI-301 (gallons)		738991.68	747707.37	—	768599.50		
PI-301 (psi)	~~0~~	0.5	2.5	—	1.2		
FI-302 (gallons)	679358.35	~~688708.45~~ ~~738941.00~~	697839.51	—	718169.45		
PI-302 (psi)	2.5	1.8	1.5	—	1.5		
FI-303 (gallons)	755226.30	764086.45	775993.68	—	792759.44		
PI-303 (psi)	2.1	~~0~~	1.0	—	0.5		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-27-12	8-28-12	8-29-12	8-30-12	8-31-12		
Time	0815	0730	0745	1216	0950		
GENERATOR							
Runtime	1868.4	1891.7	1915.4	1943.9	1965.5		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	114	114	114		
L12 (volts)	114	114	114	114	114		
L23 (volts)	114	114	114	114	114		
L31 (volts)	228	228	229	228	229		
Freq (Hz)	60.0	60.3	60.0	60.4	59.8		
Oil Pressure (psi)	54	55	57	57	58		
Temp (°F)	195	194	194	194	194		
Fuel (%)	69	58	80	60	54		
Battery (volts)	14.5	14.5	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	631795.35	634108.35	636798.35	640663.33	644639.37		
PI-101B (psi)	30+	30+	30+	30+	30+		
PI-102A (psi)	30+	30+	30+	30+	30+		
FI-102 (gallons)	637461.10	643053.32	649158.10	656462.67	661653.25		
PI-102B (psi)	30+	30+	30+	30+	30+		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	606228.53	613942.95	619536.50	627451.20	633495.10		
PI-103B (psi)	30+	30+	30+	30+	30+		
PI-104A (psi)	30+	30+	30+	30+	30+		
FI-104 (gallons)	648311.65	655971.14	661919.15	668303.85	674003.15		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-27-12	8-28-12	8-29-12	8-30-12	8-31-12		
PI-104B (psi)	30+	30+	30+	30+	30+		
FI-105 (gallons)	2419353.32	2440593.88	2462766.5	2488418.5	2509264.29		
PI-201A (psi)	30+	30+	30+	30+	30+		
PI-201B (psi)	30+	30+	30+	30+	30+		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	562130.55	582587.45	603738.95	628239.60	648207.30		
PI-205 (psi)	30+	30+	30+	29	30		
PI-206 (psi)	30+	30+	30+	25	29		
FI-301 (gallons)	794838.37	801822.23	809506.47	817342.25	824732.88		
PI-301 (psi)	1.5	2.8	2.5	1.6	.5		
FI-302 (gallons)	743817.41	752071.26	759829.85	769641.00	776750.12		
PI-302 (psi)	4.5	2.4	3.8	3.1	4.5		
FI-302 (gallons)	815421.72	823055.17	831170.12	844057.75	853015.20		
PI-302 (psi)	2.0	1.5	2.5	2.0	2.4		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9-3-12	9-4-12	9-5-12	9-6-12	9/7/12		
Time		0930	1000	1200	0945		
GENERATOR							
Runtime		2061.1	2085.7		2133.3		
L1 (volts)		114	114	114	114		
L2 (volts)		Ø	Ø	Ø	Ø		
L3 (volts)		114	114	114	114		
L12 (volts)		114	114	114	114		
L23 (volts)		114	114	114	114		
L31 (volts)		228	228	228	229		
Freq (Hz)		59.9	60.0	59.9	60.3		
Oil Pressure (psi)		52	54	56	51		
Temp (°F)		193	194	194	194		
Fuel (%)		62	75	62	96		
Battery (volts)		14.4	14.5	14.6	14.6		
SYSTEM							
PI-101A (psi)		30+	30+	30+	30+		
FI-101 (gallons)		658914.95	662583.45	666717.05	67447.61		
PI-101B (psi)		30+	30+	30+	34		
PI-102A (psi)		30+	30+	30+	30+		
FI-102 (gallons)		685175.83	691586.25	668491.55	70623.20		
PI-102B (psi)		30+	30+	30+	33		
PI-103A (psi)		30+	30+	30+	30+		
FI-103 (gallons)		660225.74	667738.10	675462.93	683197.6		
PI-103B (psi)		30+	30+	30+	34		
PI-104A (psi)		30+	30+	30+	30+		
FI-104 (gallons)		656583.95	703481.35	710425.80	71816.97		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date		9-4-12	9-5-12	9-6-12	9-7-12		
PI-104B (psi)		30+	30+	30+	32		
FI-105 (gallons)		2597331.10	2621118.60	2646818.40	2674605.2		
PI-201A (psi)		30+	30+	26	28		
PI-201B (psi)		30+	30+	26	28		
~~PI-202A (psi)~~							
~~PI-202B (psi)~~							
~~PI-203A (psi)~~							
~~PI-203B (psi)~~							
~~PI-204A (psi)~~							
~~PI-204B (psi)~~							
FI-205 (gallons)		73308285	75658195	78103145	80957.34		
PI-205 (psi)		30+	30+	15	20		
PI-206 (psi)		30+	30+	12	14.5		
FI-301 (gallons)		854857.35	862855.0	873258.8	88389.59		
PI-301 (psi)		0.4	1.5	1.2	0.5 ~~83391.69~~		
FI-302 (gallons)		808869.35	815838.52	824472.45	83391.69		
PI-302 (psi)		1.6	2.7	1.2	0.5		
FI-302 (gallons)		892267.4	905768.58	9130463	923049.5		
PI-302 (psi)		0	0.9	1.0	1.0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9/10/12	9/11/12	9/12/12	9/13/12	9/14/12	9/15/12	
Time	1030	1500	1556	1600	1418		
GENERATOR							
Runtime	2206.7	2234.7	2258.8	2282.7	2305.1		
L1 (volts)	114V	114	114	114	114		
L2 (volts)	ØV	Ø	Ø	Ø	Ø		
L3 (volts)	114	115	114	114	114		
L12 (volts)	114	114	114	114	113		
L23 (volts)	114	115	115	114	115		
L31 (volts)	229	229	228	229	228		
Freq (Hz)	60.0	59.9	59.9	60.0	60.1		
Oil Pressure (psi)	53	53	58	56	56		
Temp (°F)	194	194	195	195	195		
Fuel (%)	56	77	64	48	95		
Battery (volts)	14.6	14.5	14.5	14.5	14.5		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	69820.23	70669.75	71424.74	72091.74	72780.19		
PI-101B (psi)	31	35	31	31	31		
PI-102A (psi)	30+	30+	30+	30+	30+		
FI-102 (gallons)	72810.99	73694.05	74464.89	75158.21	75903.80		
PI-102B (psi)	31	35	31	31	31		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	70653.37	71498.96	72242.14	72896.92	73578.93		
PI-103B (psi)	31	35	31	31	31		
PI-104A (psi)	40	42	40	40	39		
FI-104 (gallons)	73866.48	74738.86	75489.54	76156.94	76843.59		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9/10/12	9/11/12	9/12/12	9/13/12	9/14/12	9/15/12	9/16/12
PI-104B (psi)	~~40~~ 30	34	30	30	31		
FI-105 (gallons)	27554.55	27864.70	28127.82	28359.59	28600.55		
PI-201A (psi)	25	30	25	26	26		
PI-201B (psi)	25	30	26	26	25		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	88933.87	91969.24	94556.99	96845.29	99225.79		
PI-205 (psi)	15	20	16	15	15		
PI-206 (psi)	10	15	10	9.5	10		
FI-301 (gallons)	90930.61	91811.53	92803.17	93578.83	94430.30		
PI-301 (psi)	1.5	0.5	1.5	0.0	0.0 ~~46.18~~		
FI-302 (gallons)	86055.88	87135.86	87922.89	88636.32	89346.18		
PI-302 (psi)	2.5	0.0 ~~39~~	3.2	0.0	2.0		
FI-302 (gallons)	95453.86	96144.59	97702.74	98573.40	99501.80		
PI-302 (psi)	0.5	0.0	0.0	2.5	2.5		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9-17-12	9-18-12	9-19-12	9-20-12	9-21-12		
Time	1400	1230	0800	1600	0700		
GENERATOR							
Runtime	2376.8	2399.4	2418.8	2450.8	2465.9		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	114	114	114		
L12 (volts)	114	114	114	114	114		
L23 (volts)	114	114	114	114	114		
L31 (volts)	229	228	229	227	229		
Freq (Hz)	60.0	60.0	60.0	60.1	60.0		
Oil Pressure (psi)	54	53	53	53	53		
Temp (°F)	194	194	194	194	193		
Fuel (%)	56	60	89	72	62		
Battery (volts)	14.6	14.6	14.6	14.5	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30	30	30		
FI-101 (gallons)	749004.15	756070.40	762953.70	771544.50	776389.30		
PI-101B (psi)	30+	30	30	30	30		
PI-102A (psi)	30+	30	30	30	30		
FI-102 (gallons)	779238.05	787271.80	793101.58	803113.72	808184.15		
PI-102B (psi)	30+	30	30	30	30		
PI-103A (psi)	30+	30	30	30	30		
FI-103 (gallons)	757289.85	765082.45	771411.70	780215.33	786985.90		
PI-103B (psi)	30+	30	30	30	30		
PI-104A (psi)	30+	30	30	30	30		
FI-104 (gallons)	791680.70	799616.82	806118.05	816860.85	820378.79		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9-17-12	9-18-12	9-19-12	9-20-12	9-21-12		
PI-104B (psi)	30+	30	30	30	30		
FI-105 (gallons)	2930941.75	2953401.90	2972460.28	3002149.10	3016431.90		
PI-201A (psi)	26	28	27	26	25		
PI-201B (psi)	26	28	27	27	24		
PI-202A (psi)	—	—	—	—	—		
PI-202B (psi)	—	—	—	—	—		
PI-203A (psi)	—	—	—	—	—		
PI-203B (psi)	—	—	—	—	—		
PI-204A (psi)	—	—	—	—	—		
PI-204B (psi)	—	—	—	—	—		
FI-205 (gallons)	1061397.82	1084616.70	1103469.97	1132588.20	1146478.60		
PI-205 (psi)	14	14	13	16	13		
PI-206 (psi)	10	10	10	11	9		
FI-301 (gallons)	969505.94	977908.50	985359.94	998818.25	1005485.80		
PI-301 (psi)	5.0	2.0	2.0	2.5	4.0		
FI-302 (gallons)	916452.40	927082.12	935317.25	946262.50	951195.20		
PI-302 (psi)	0.0	1.0	2.0	2.5	3.0		
FI-302 (gallons)	1020365.95	1026327.15	1031059.50	1038375.10	1042335.2		
PI-302 (psi)	2.0	2.0	3.0	2.5	4.0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9.24.12	9.25.12	9.26.12	9/27/12	9-28-12		
Time	1305	1130	1030	1035	1230		
GENERATOR							
Runtime	2543.5	2565.2	2588.1	2612.2	2638.3		
L1 (volts)	114	114	114	114	114		
L2 (volts)	~~114~~ ~~0~~	~~0~~	~~0~~	0	~~0~~		
L3 (volts)	114	114	114	114	113		
L12 (volts)	114	114	114	114	114		
L23 (volts)	114	114	114	114	113		
L31 (volts)	229	229	228	229	228		
Freq (Hz)	60.0	60.0	59.9	60.1	60.1		
Oil Pressure (psi)	57	58	57	58	57		
Temp (°F)	194	194	193	193	194		
Fuel (%)	71	58	46	71	56		
Battery (volts)	14.5	14.6	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30	30	30	30+	30+		
FI-101 (gallons)	78478.93	79133.76	79798.29	80422.15	81051.82		
PI-101B (psi)	30	30	28	28	25		
PI-102A (psi)	30	30	30	30+	~~25~~ 30+		
FI-102 (gallons)	81737.84	82374.67	82985.21	83888.37	84678.51		
PI-102B (psi)	30	30	29	29	25		
PI-103A (psi)	30	30	30	30+	30+		
FI-103 (gallons)	79548.89	80294.21	80862.04	81820.36	82654.57		
PI-103B (psi)	30	30	29	28	25		
PI-104A (psi)	30	30	30	38	42		
FI-104 (gallons)	82932.4	83693.65	84212.12	85097.46	85898.10		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9.24.12	9.25.12	9.26.12	9/27/12	9-28-12		
PI-104B (psi)	30	30	28	28	25		
FI-105 (gallons)	304463.17	306685.67	308545.97	311279.34	313628.30		
PI-201A (psi)	24	24	24	25	19		
PI-201B (psi)	25	23	24	23	20		
PI-202A (psi)	—	—	—				
PI-202B (psi)	—	—	—				
PI-203A (psi)	—	—	—				
PI-203B (psi)	—	—	—				
PI-204A (psi)	—	—	—				
PI-204B (psi)	—	—	—				
FI-205 (gallons)	1174015.20	1195674.50	1214986.10	1240917.46	1264772.03		
PI-205 (psi)	14	12	12	13	13		
PI-206 (psi)	10	10	8	6	10		
FI-301 (gallons)	1016877.20	1023717.60	1031964.13	1040449.39	1047775.42		
PI-301 (psi)	0.2	0.3	5.0	5.0	8.0		
FI-302 (gallons)	964263.60	973836.55	981914.60	993336.70	1002257.53		
PI-302 (psi)	0.0	0.2	4.5	4.0	8.0		
FI-303 (gallons)	1048593.40	1055733.60	1060519.88	1068942.73	1077223.56		
PI-302 (psi)	0.1	0.4	4.0	5.0	10		

SHAW

OU-2B SITE 4-1

Data Collection 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10/1/12	10/2/12	10/3/12	10/4/12	10/5/12	10/6/12	10/7/12
Time	1205	1230	1130	1033	1010		
GENERATOR							
Runtime	2709.7	2734.1	2757.1	2780.2	2803.8		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	115	114	114		
L12 (volts)	114	114	114	114	114		
L23 (volts)	114	114	115	114	114		
L31 (volts)	228	229	228	229	229		
Freq (Hz)	59.9	59.7	60.2	59.9	60.0		
Oil Pressure (psi)	56	55	54	53	52		
Temp (°F)	195	195	194	194	193		
Fuel (%)	72	58	92	82	101		
Battery (volts)	14.5	14.4	14.5	14.5	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	81092.86	81214.27	81675.83	81959.76	82413.85		
PI-101B (psi)	27	25	22	22	29		
PI-102A (psi)	30+	30+	30+	30+	30+		
FI-102 (gallons)	84716.58	85070.11	85404.05	85741.88	86033.45		
PI-102B (psi)	27	25	22	22	29		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	82196.02	82998.37	83275.60	83546.19	~~83955.55~~	83750.55	
PI-103B (psi)	26	24	22	22	28		
PI-104A (psi)	42	40	40	40	42		
FI-104 (gallons)	85919.55	86206.46	86469.27	86729.54	~~86783.42~~	86983.42	

SHAW

OU-2B SITE 4-1

Data Collection 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10/1	10/2	10/3	10/4	10/5	10/6	10/7
PI-104B (psi)	26	23	21	21	27		
FI-105 (gallons)	313745.93	314667.90	315520.29	316383.54	317329.75		
PI-201A (psi)	24	21	21	20	28		
PI-201B (psi)	22	19	17	17	26		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	1265021.0	1273944.39	1282032.32	1290018.05	1299322.00		
PI-205 (psi)	13	12	10	10	14		
PI-206 (psi)	7	7	8	7	10		
FI-301 (gallons)	104838.70	105273.2[illegible]	105671.37	105984.83	106466.70		
PI-301 (psi)	7	2.5	3.5	3.5	4.0		
FI-302 (gallons)	100392.15	100590.32	100860.46	101125.67	101439.19		
PI-302 (psi)	7.5	4.0	4.5	5.0	6.0		
FI-302 (gallons)	107877.24	108031.29	108242.24	108561.78	108756.18		
PI-302 (psi)	2.5	5.0	6.5	6.5	5.5		

SHAW

JU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10/8	10/9	10/10	10/11	10/12	10/13	10/14
Time	0800	0910	1315	1130	1030		
GENERATOR							
Runtime	2873.7	2898.2	2926.3	2948.6	2971.4		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	0		
L3 (volts)	114	114	114	114	114		
L12 (volts)	115	114	114	114	114		
L23 (volts)	114	115	115	114	115		
L31 (volts)	229	229	229	229	229		
Freq (Hz)	60.0	60.0	60.1	60.0	60.1		
Oil Pressure (psi)	51	57	57	57	57		
Temp (°F)	193	194	194	193	193		
Fuel (%)	71	58	94	83	72		
Battery (volts)	14.6	14.6	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	82479.79	83016.15	83522.75	83940.16	84344.21		
PI-101B (psi)	30	34	35	34	38		
PI-102A (psi)	30+	30+	30+	30+	30+		
FI-102 (gallons)	86087.41	86780.56	87470.49	88047.85	88610.86		
PI-102B (psi)	29	34	34	35	34		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	83827.03	84584.04	85344.15	85976.05	86593.97		
PI-103B (psi)	28	30	29	28	28		
PI-104A (psi)	42	36	34	36	40		
FI-104 (gallons)	86990.25	87672.43	88362.45	88935.01	89486.78		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10/8/12	10/9/12	10/10/12	10/11/12	10/12/12		
PI-104B (psi)	28	34	34	34	35		
FI-105 (gallons)	317573.40	319412.33	321313.76	322903.19	324413.14		
PI-201A (psi)	24	30	30	30	30		
PI-201B (psi)	23	28	29	29	29		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	130122.68	137998.93	133864.55	135410.04	136896.92		
PI-205 (psi)	15	19	17	16	12		
PI-206 (psi)	12	14	12	12	8		
FI-301 (gallons)	106523.30	107338.68	108131.38	108759.53	109379.94		
PI-301 (psi)	7.0	6.5	5.0	5.0	4.0		
FI-302 (gallons)	101478.87	102702.59	103953.97	105010.83	106007.71		
PI-302 (psi)	8.5	7.5	7.0	8.0	4.5		
FI-302 (gallons)	108819.73	108994.46	109125.95	109236.42	93501.65		
PI-302 (psi)	4.5	5.5	6.0	6.0	6.0		

SHAW

OU-2B SITE 4-1

2012

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-15	10-16	10-17	10-18	10-19		
Time	1030	1335	1600	1100	1415		
GENERATOR							
Runtime	3043.7	3070.6	3097.0	3116.5	3143.3		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	114	115	114		
L12 (volts)	114	114	114	114	114		
L23 (volts)	114	114	115	115	114		
L31 (volts)	228	229	229	229	229		
Freq (Hz)	60.0	60.1	60.0	60.0	60.0		
Oil Pressure (psi)	54	53	51	53	49		
Temp (°F)	193	194	194	194	193		
Fuel (%)	68	52	100	89	91		
Battery (volts)	14.5	14.5	14.4	14.5	14.5		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	84487.47	84936.73	85501.72	~~88592~~	← 85926.19	86511.24	
PI-101B (psi)	31	30	30	29	31		
PI-102A (psi)	31	30	30+	30+	30+		
FI-102 (gallons)	88667.30	89277.92	89880.64	90328.31	90905.64		
PI-102B (psi)	30+	31	31	30+	31		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	86677.55	87527.90	88373.39	89005.41	88875.60		
PI-103B (psi)	BROKEN	34	33	31	30		
PI-104A (psi)	35	35	31	30	30		
FI-104 (gallons)	89558.39	90393.77	91030.87	91674.84	92306.50		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-15	10-16	10-17	10-18	10-19		
PI-104B (psi)	31	30	31	30	31		
FI-105 (gallons)	324686.43	326683.62	328596.54	330042.24	332015.33		
PI-201A (psi)	29	28	29	27	29		
PI-201B (psi)	29	28	28	29	30		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	137074.22	139903.10	140959.05	142485.90	144382.35		
PI-205 (psi)	15	17	14	17	18		
PI-206 (psi)	11	11	10	13	12		
FI-301 (gallons)	109453.34	110325.92	111241.88	111835.57	112884.55		
PI-301 (psi)	6.0	7.6	5.0	7.0	6.0		
FI-302 (gallons)	106121.80	107372.48	108554.56	109445.31	110594.17		
PI-302 (psi)	6.0	6.0	6.5	7.0	5.0		
FI-302 (gallons)	109474.14	109571.85	109710.34	109812.59	109923.07		
PI-302 (psi)	5.0	6.5	5.0	6.0	5.0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-22-12	10-23-12	10-24-12	10-25-12	10-26-12		
Time	1000	1050	0900	1320	1130		
GENERATOR							
Runtime	3211.2	3235.7	3257.4	3285.8	3307.9		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	114	114	114		
L12 (volts)	114	114	115	114	114		
L23 (volts)	113	115	114	115	115		
L31 (volts)	227	228	228	228	229		
Freq (Hz)	59.9	60.0	60.1	59.9	60.0		
Oil Pressure (psi)	54	52	57	56	54		
Temp (°F)	193	193	193	193	193		
Fuel (%)	50	95	85	74	101		
Battery (volts)	14.6	14.6	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+	30+	30+		
FI-101 (gallons)	86545.21	87192.50	87547.23	88181.21	88609.84		
PI-101B (psi)	31	30	32	31	31		
PI-102A (psi)	30+	30+	30+	30+	30+		
FI-102 (gallons)	90936.99	91432.54	91901.99	92520.84	92940.08		
PI-102B (psi)	30+	30+	30+	30+	30+		
PI-103A (psi)	30+	30+	30+	30+	30+		
FI-103 (gallons)	89924.02	90719.56	91312.01	92261.27	92863.24		
PI-103B (psi)	30+	30+	30+	30+	30+		
PI-104A (psi)	32	31	32	31	30		
FI-104 (gallons)	92347.19	93060.85	93769.18	94713.19	95356.07		

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OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-22-12	10-23-12	10-24-12	10-25-12	10-26-12		
PI-104B (psi)	30	30	31	30	30		
FI-105 (gallons)	332139.06	333944.70	335693.68	337821.80	339321.45		
PI-201A (psi)	27	29	29	29	29		
PI-201B (psi)	28	29	29	29	29		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	144494.95	146137.83	147744.88	149921.93	151485.93		
PI-205 (psi)	14	17	20	16	16		
PI-206 (psi)	14	12	15	12	13		
FI-301 (gallons)	112936.51	113857.34	114515.56	115707.54	116486.05		
PI-301 (psi)	6.5	6.0	7.0	7.5	5.5		
FI-302 (gallons)	110659.72	111901.65	112715.38	114168.64	115088.34		
PI-302 (psi)	6.5	5.5	6.0	7.0	6.0		
FI-302 (gallons)	109930.63	109986.97	110561.42	110665.86	111757.75		
PI-302 (psi)	4.5	5.0	5.0	8.0	7.5		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-29-12	10-30-12	10-31-12	11-1-12	11-2-12		
Time	1600	1200	1125	0910	1208		
GENERATOR							
Runtime	—	3404.5	3427.5	3449.4	3476.3		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	11	Ø		
L3 (volts)	114	114	114	114	114		
L12 (volts)	114	116	114	119	114		
L23 (volts)	115	113	114	109	114		
L31 (volts)	229	228	228	228	228		
Freq (Hz)	60.1	60.0	60.1	60.1	60.0		
Oil Pressure (psi)	56	56	53	53	55		
Temp (°F)	193	193	193	193	193		
Fuel (%)	68	56	85	74	56		
Battery (volts)	14.6	14.5	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+	30+	30+	29	29		
FI-101 (gallons)	88745.91	89151.61	89641.19	90114.11	91035.30		
PI-101B (psi)	31	32	32	29	28		
PI-102A (psi)	30+	30+	30+	29	29		
FI-102 (gallons)	93110.97	93726.01	94456.91	95141.74	95935.39		
PI-102B (psi)	30+	30+	30+	29	28		
PI-103A (psi)	30+	30+	30+	30+	29		
FI-103 (gallons)	93086.61	93645.09	94314.03	94936.66	95883.42		
PI-103B (psi)	30+	30+	30+	30	29		
PI-104A (psi)	32	35	33	36	33		
FI-104 (gallons)	95682.37	96287.81	96907.65	97551.65	98428.80		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	10-29-12	10-30-12	10-31-12	11-1-12	11-2-12		
PI-104B (psi)	30+	30+	30+	29	29		
FI-105 (gallons)	339860.92	341429.28	343268.11	345084.10	347533.04		
PI-201A (psi)	29	30	27	25	26		
PI-201B (psi)	29	29	27	24	25		
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)							
PI-204B (psi)							
FI-205 (gallons)	151917.58	153572.23	155394.05	156993.23	159508.28		
PI-205 (psi)	15	17	15	13	14		
PI-206 (psi)	15	16	15	11	15		
FI-301 (gallons)	116785.51	117617.96	118656.32	119654.34	121087.76		
PI-301 (psi)	5	11	12	11	12		
FI-302 (gallons)	115458.53	116616.96	117906.63	119082.83	120881.11		
PI-302 (psi)	4	12	11	10	12		
FI-302 (gallons)	110765.65	110765.65	110765.65	110765.65	110765.65		
PI-302 (psi)	0	0	0	0	0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	11-05-12	11-6-12	11/7/12	11/8/12	11/9/12		
Time	1430	1330	1015	1330	1105		
GENERATOR							
Runtime	3551.5	3574.1	3594.6	3621.9	3643.5		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	114	114	114		
L12 (volts)	114	114	115	116	114		
L23 (volts)	115	115	113	113	114		
L31 (volts)	228	228	229	229	229		
q (Hz)	60	60.3	59.9	60	60.0		
Oil Pressure (psi)	53	56	53	55	53		
Temp (°F)	193	194	192	192	192		
Fuel (%)	66	85	75	60%	101		
Battery (volts)	14.5	~~60.3~~ 14.6	14.6	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+		30+	30+	30+		
FI-101 (gallons)	91788.53		92470.08	92642.19	92714.69		
PI-101B (psi)	28		16	~~97411.87~~	17		
PI-102A (psi)	30+		30+	30+	30+		
FI-102 (gallons)	96586.72		97248.86	97411.47	97500.73		
PI-102B (psi)	25		16	18	17		
PI-103A (psi)	30+		30+	30+	30+		
FI-103 (gallons)	96618.09		97249.58	97388.435 ~~97388.635~~	97465.53		
PI-103B (psi)	24		23	20	19		
04A (psi)	29		25	26	25		
FI-104 (gallons)	99151.37		99927.04	100074.11	100156.28		

OU-2B SITE 4-1

Data Collection

	Monday	~~Tuesday~~ Wednesday	~~Wednesday~~ Thursday	~~Thursday~~ Friday	Friday	Saturday	Sunday
Date	11-5-12	11-7-12	11-8-12		11/9/12		
PI-104B (psi)	26	24	17		18		
FI-105 (gallons)	349561.65	351504.16	351905.475	~~352712.61~~	352112.61		
PI-201A (psi)	18	13	15		14		
PI-201B (psi)	20	13	15		14		
FI-205 (gallons)	161518.29	163410.08	163792.22		163972.90		
PI-205 (psi)	8	8	12		9		
PI-206 (psi)	8	8	12		11.5		
FI-301 (gallons)	122011.89	122628.33	122853.26		122980.59		
PI-301 (psi)	6	8	7		7		
FI-302 (gallons)	122221.94	122922.46	123006.77 ~~123277~~		123045.63		
PI-302 (psi)	5	10	11		11		
FI-302 (gallons)	110961	111928.99	112107.32		112177.39		
PI-302 (psi)	6	8	8		7		

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	11/12/12	11/13/12	11/14/12	11/15/12	11/16/12		
Time	1415	0830	1450	0930	1010		
GENERATOR							
Runtime	3718.5	3737.1	3767.2	3785.9	3810.5		
L1 (volts)	114	114	114	114	114		
L2 (volts)	Ø	Ø	Ø	Ø	Ø		
L3 (volts)	114	114	115	114	114		
L12 (volts)	114	114	113	114	114		
L23 (volts)	114	114	115	114	114		
L31 (volts)	229	229	229	229	229		
Freq (Hz)	60.0	59.9	~~60~~ 60.0	60.0	60.0		
Oil Pressure (psi)	54	49.9	~~47~~ 49	48	48		
Temp (°F)	193	192	193	192	192		
Fuel (%)	69	58	90	82	71		
Battery (volts)	14.6	14.6	14.5	14.6	14.6		
SYSTEM							
PI-101A (psi)	30+	30	30+	30+	30+		
FI-101 (gallons)	92747.34	92795.09	92928.58	93013.41	93128.51		
PI-101B (psi)	17	17 ~~75 82.51~~	18	19	19		
PI-102A (psi)	30+	30	30	30	30		
FI-102 (gallons)	97530.50	97582.51	97699.41	97774.90	97873.36		
PI-102B (psi)	16	17	19	18	18		
PI-103A (psi)	30+	27	28	27	26		
FI-103 (gallons)	97492.46	97537.54	97641.90	97705.23	97790.70		
PI-103B (psi)	17	18	20	20	19		
PI-104A (psi)	24	23	24	24	24		
FI-104 (gallons)	100184.10	100231.43	100338.00	100402.01	100487.55		

[redacted]

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	11/12/12	11/13/12	11/14/12	11/15/12	11/16/12		
PI-104B (psi)	17	16	16	~~24~~ 17	17		
FI-105 (gallons)	352181.20	~~122~~ 352302.21	352598.11	352784.48	353033.48		
PI-201A (psi)	14	14.5	13	14	15		
PI-201B (psi)	14	14.5	13	14	15		
FI-205 (gallons)	164039.69	164151.64	164429.45	164602.52	164834.51		
PI-205 (psi)	10	11	11	11	11		
PI-206 (psi)	10	11	11	11	11		
FI-301 (gallons)	123018.95	123116.73	123323.82	123451.62	123579.96		
PI-301 (psi)	5.0	5.0	5.0	4.0	5.0		
FI-302 (gallons)	123074.37	123112.61	123201.77	123255.15	123356.78		
PI-302 (psi)	8.0	9.0	10.0	9.0	11.0		
FI-302 (gallons)	112190.60	112210.83	112276.34	112332.18	112414.10		
PI-302 (psi)	7.5	8.5	7.5	7.5	6.0		

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	11/19/12	11/20/12	Completion of project				
Time	1730	1230	System Shut off			12:45 PM	
GENERATOR						11/20/12	
Runtime	3886.5	3908.9					
L1 (volts)	114	114					
L2 (volts)	ϕ	0					
L3 (volts)	114	114					
L12 (volts)	114	115					
L23 (volts)	114	114					
L31 (volts)	229	228					
Freq (Hz)	60	60.0					
... Pressure (psi)	48	43					
Temp (°F)	193	192					
Fuel (%)	71	60					
Battery (volts)	14.6	14.6					
SYSTEM							
PI-101A (psi)	30+	30+					
FI-101 (gallons)	93150.29	93229.92					
PI-101B (psi)	22	19					
PI-102A (psi)	30+	29 ~~97895.92~~					
FI-102 (gallons)	97895.10	97989.92					
PI-102B (psi)	26.5	19.5					
PI-103A (psi)	30+	27					
FI-103 (gallons)	97808.57	97883.84					
PI-103B (psi)	22.5	20					
04A (psi)	27	22					
FI-104 (gallons)	100504.77	100576.22					

SHAW

OU-2B SITE 4-1

Data Collection

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	11/19/12	11/20/12	Completion of Project				
PI-104B (psi)	20	17	System shut off 11/20/12				12:45PM
FI-105 (gallons)	353043.97	353675.06					
PI-201A (psi)	~~15~~ 17	15.5					
PI-201B (psi)	~~15~~ 17	15.5					
PI-202A (psi)							
PI-202B (psi)							
PI-203A (psi)							
PI-203B (psi)							
PI-204A (psi)	~~25~~						
04B (psi)	~~25~~						
FI-205 (gallons)	164483.44	165061.81					
PI-205 (psi)	30	14.0					
PI-206 (psi)	24	13.0					
FI-301 (gallons)	123595.28	123650.08					
PI-301 (psi)	6.5	6.5					
FI-302 (gallons)	123387.44	123508.57					
PI-302 (psi)	12	9.5					
FI-303 (gallons)	112432.94	112487.14					
PI-303 (psi)	10.	7.0					

Appendix F
Groundwater Sampling Logs

Shaw® Shaw Environmental, Inc.

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DATE	7-9-12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.65	ft.	GEO PUMP	LVE030091
Depth to Bottom		ft.	YSI 6820	58557
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0945 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	N/A	N/A Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	19.21	6.160	6.97	~~-19.3~~ 48.7	60.4	2.8	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-20120709
Sample Date/Time:	7-9-12 — 0950
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST, COOL, BREEZY, UPPER 50s

Analyses & Volume Collected:			
	VOC (8260B)	☒	VOAs with HCl
	Sulfide (SM 4500-S2)	☒	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☒	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☒	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☒	VOAs with H3PO4
	DHC DNA (qPCR)	☒	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

#1

Shaw® Shaw Environmental, Inc.

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DATE	7.9.12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.60	ft.	GEO PUMP	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1020 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	19.75	6.081	6.83	-55.2	33.1	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-20120709
Sample Date/Time:	7.9.12 — ~~0950~~ 1025
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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DATE	7.9.12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.72	ft.	GED Pump	LVE 030991
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1105 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	19.67	5.981	6.84	-45.6	30.5	-0.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-20120709
Sample Date/Time:	7.9.12 — 1055
Sampler ID:	R. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: R. Lee

Shaw® Shaw Environmental, Inc.

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DATE	7-9-12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.64	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: ~~1110~~ 1115 ~~AM~~ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	20.54	5.358	7.25	-90.9	45.0	-1.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-20120709		MW990 / 1125
Sample Date/Time:	7-9-12 1120		
Sampler ID:	K. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.81	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1205 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	21.40	5.750	6.99	74.0	38.5	2.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-1-20120709		MW9902
Sample Date/Time:	7·9·12 1210		1215
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☒	VOAs with HCl
	Sulfide (SM 4500-S2)	☒	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☒	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☒	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☒	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☒	1L with no preservative
		☐	

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.71	ft.	GEO PUMP	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1235 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1305	N/A	N/A	22.22	5.896	6.97	-82.1	50.9	7.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-20120709
Sample Date/Time:	7.9.12 — 1240
Sampler ID:	K.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.57	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1310 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1330	N/A	N/A	22.13	5.921	6.93	-75.6	40.9	~~-57.2~~ 54.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-20120709
Sample Date/Time:	7.9.12 — 1315
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.74	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58577
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: _____ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	19.82	9.186	6.77	-36.4	51.3	555.4	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS4-1-20120710
Sample Date/Time:	7·10·12 / 0815
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☒ KLee	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☒ KLee	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☒ KLee	VOAs with H3PO4
	DHC DNA (qPCR)	☒ KLee	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. LEE

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PML54-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.74	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58357
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0835 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0845	N/A	N/A	19.84	5.964	7.07	-75.5	36.6	2.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PML54-2-2012 0710
Sample Date/Time:	7·10·12 / 0840
Sampler ID:	
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☒	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☒	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: AMLS4-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.72	ft.	GEO PUMP	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	585574
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0850 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.18	13.07	6.94	-22.3	30.9	~~40~~ 5.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	AMLS4-5-20120710
Sample Date/Time:	7·10·12 0855
Sampler ID:	K.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.93	ft.	GEO Pump	LVE03091
Depth to Bottom	N/A	ft.	YSI 6820	58557
Screen Interval	N/A	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0905 Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	20.30	24.64	6.76	-56.9	60.8	~~57.6~~ 1.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS4-6-20120710
Sample Date/Time:	7·10·12 / 0910
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	20.58	5.018	7.03	-44.8	4.08	3.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 4 071912
Sample Date/Time:	071912 / 1205
Sampler ID:	JM
Weather Conditions:	SUNNY

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1220	N/A	N/A	20.99	5.475	7.10	-56.6	3.61	4.4	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 3 071912		
Sample Date/Time:	07/19/12 / 1215		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	21.22	5.966	7.04	-66.5	1.84	8.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 2 071912
Sample Date/Time:	07/19/12 / 1225
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~(uS/cm)~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1240	N/A	N/A	21.45	6.053	7.16	-55.0	3.84	5.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW1 071912		
Sample Date/Time:	07/19/12 / 1235		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1700	N/A	N/A	20.61	5.037	7.21	-67.6	3.56	2.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 4 071912		
Sample Date/Time:	07/19/12 / 1655		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	360921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ms/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1710	N/A	N/A	20.68	5.491	7.20	-60.2	6.62	2.4	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW307 1912
Sample Date/Time:	07/19/12 / 1705
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1720	N/A	N/A	20.46	5.915	7.14	-65.1	5.07	3.3	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 2 071912
Sample Date/Time:	07/19/12 / 1715
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1730	N/A	N/A	21.21	6.030	7.20	-63.4	4.99	9.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 1 071912
Sample Date/Time:	07/19/12 / 1725
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1205	N/A	N/A	20.43	4.996	7.28	-65.3	3.73	2.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 4 (48hrs) 072012
Sample Date/Time:	07/20/12 / 1200
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	N/A	N/A	20.64	5.480	7.11	-63.4	2.67	1.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03(48hrs) - 072012
Sample Date/Time:	07/20/12 / 1210
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	20.96	5.764	7.12	-63.3	3.56	2.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 02 (48hrs) 07 20 12		
Sample Date/Time:	07/20/12 / 1220		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1235	N/A	N/A	21.29	5.949	7.15	-60.5	4.18	3.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01(USW3) 072012
Sample Date/Time:	07/20/12 / 1230
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1325	N/A	N/A	21.77	5.498	7.31	-46.8	3.83	2.4	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 04 - 072312
Sample Date/Time:	07/23/12 1320
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1335	N/A	N/A	24.66	2.498	7.14	-72.6	2.79	2.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 03 072312		
Sample Date/Time:	07/23/12 / 1330		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1345	N/A	N/A	24.83	5.957	7.27	-49.5	3.74	5.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW 01 072312
Sample Date/Time: 07/23/12 / 1340
Sampler ID: JM
Weather Conditions: Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1355	N/A	N/A	21.40	5.696	7.17	-44.0	3.93	1.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02 072312
Sample Date/Time:	07/23/12 / 1350
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	21.31	5.520	7.19	-65.3	4.04	4.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW-01 - 072612
Sample Date/Time:	07/26/12 / 1110
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	20.97	5.614	7.18	-78.9	4.32	9.3	
	dark/black	but cleared	up after	1/L of	purging				

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 2- 072612		
Sample Date/Time:	07/26/12 / 1120		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	21.65	5.612	6.93	-60.3	3.52	4.9	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-1 - 072612
Sample Date/Time:	07/26/12 / 1130
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	21.08	1.259	8.80	-54.2	4.39	5.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2-07262012		
Sample Date/Time:	07/26/12 / 1140		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	21.75	4.875	7.18	-103.7	3.95	3.8	
		STRONG FUEL SMELL							

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 4 - 072612
Sample Date/Time:	07/26/12 / 1150
Sampler ID:	VM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	20.76	5.232	7.22	-47.2	2.36	3.4	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 04 072612
Sample Date/Time:	07/26/12 / 1205
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1220	N/A	N/A	20.87	5.412	7.12	-58.6	3.85	3.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 03 07
Sample Date/Time:	07/26/12 / 1215
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 60520	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	21.03	5.570	7.17	-52.7	~~[illegible]~~ 3.89	4.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02 072612
Sample Date/Time:	07/26/12 / 1225
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1240	N/A	N/A	21.09	5.807	7.14	-52.9	3.90	40	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 072612
Sample Date/Time:	07/26/12 / 1235
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1055	N/A	N/A	21.32	5.511	7.15	-56.4	2.57	7.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 1 -073012		
Sample Date/Time:	07/30/12 / 1050		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	21.86	5.575	6.90	-45.8	2.67	25.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1 073012
Sample Date/Time:	07/30/12 / 1100
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	21.60	1.562	8.41	-41.4	8.84	5.9	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2 073012
Sample Date/Time:	07/30/12 / 1110
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	21.31	5.564	7.21	-55.8	4.39	8.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 2 - 073012
Sample Date/Time:	07/30/12 / 1120
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	22.54	6.543	7.19	-121.0	2.96	4.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 4 - 073012		
Sample Date/Time:	07/30/12 / 1130		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	22.68	5.270	7.15	-51.3	2.77	3.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 4 - 073012
Sample Date/Time:	07/30/12 / 1155
Sampler ID:	JM
Weather Conditions:	SUNNY

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	21.36	5.483	7.06	-60.4	3.10	0.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW3 073012
Sample Date/Time:	07/30/12 1205
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1220	N/A	N/A	20.98	5.529	7.11	-39.7	2.86	1.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 2 073012		
Sample Date/Time:	07/30/12 / 1215		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PFW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	21.18	5.766	7.15	-49.4	3.10	3.3	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PFW 1 073012
Sample Date/Time:	9/30/12 / 1225
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	21.45	5.528	6.93	-63.7	4.46	4.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW01-080612		
Sample Date/Time:	08/06/12 / 1120		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI ~~[illegible]~~ ~~8260~~	26921
Depth to Bottom		ft.	6820	
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1130	N/A	N/A	21.65	5.696	7.31	-76.6	3.36	10.2	PRODUCT IN WELL

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-080612		
Sample Date/Time:	08/06/12 / 1125		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	21.60	5.715	7.41	-72.4	4.00	6.9	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1 080612		
Sample Date/Time:	08/06/12 / 1140		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	21.85	4.489	7.57	-90.2	3.75	3.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2 080612		
Sample Date/Time:	08/06/12 / 1150		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1205	N/A	N/A	21.56	5.380	7.41	-103.3	4.21	3.7	00 OR
									CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04 080612		
Sample Date/Time:	08/06/12 / 1200		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PFW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	26921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	N/A	N/A	21.91	5.892	7.96	-105.4	4.66	3.6	SLIGHT
									ODOR
									CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PFW 01 - 080612
Sample Date/Time:	08/06/12 / 1210
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	21.61	5.789	7.37	-63.2	3.77	21.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-080612		
Sample Date/Time:	08/06/12 / 1220		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1235	N/A	N/A	21.80	5.287	7.36	-70.1	3.69	1.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-080612
Sample Date/Time: 08/06/12 / 1230
Sampler ID: JM
Weather Conditions: Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 86820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1245	N/A	N/A	21.03	5.634	7.20	-73.3	3.64	4.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 04 - 080612
Sample Date/Time:	080612 / 1240
Sampler ID:	JM
Weather Conditions:	SUNNY

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.57	5.833	7.58	-70.9	4.09	15.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW 01 - 081312
Sample Date/Time:	08/13/12 / 0855
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW 2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0910	N/A	N/A	20.51	49.47	7.11	-99.5	1.19	56.2	PRODUCT IN WELL

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW 02-081312		
Sample Date/Time:	08/13/12 / 0905		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: S1W 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	06921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	20.30	7.891	7.49	-67.1	1.57	17.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	S1W 03 - 081312		
Sample Date/Time:	08/13/12 / ~~0915~~ 0920		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0945	N/A	N/A	21.11	6.712	7.44	-76.6	3.26	3.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 01-081312		
Sample Date/Time:	08/13/12 / 0940		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0955	N/A	N/A	21.21	5.498	7.32	-74.6	4.45	2.6	PRODUCT IN WELL

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 02 - 08/13/12		
Sample Date/Time:	08/13/12 / 0950		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	21.11	5.858	7.36	-77.3	5.10	7.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1 - 08/3/2
Sample Date/Time:	08/3/2 / 1000
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	20.84	5.442	7.43	-90.1	3.73	3.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-08/12
Sample Date/Time:	08/13/12 / 1010
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	21.30	5.731	7.32	-68.1	4.59	1.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04-081312		
Sample Date/Time:	08/13/12 / 1020		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	20.72	5.500	7.23	-63.6	5.92	2.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW 04 - 081312
Sample Date/Time: 08/13/12 / 1025
Sampler ID: JM
Weather Conditions: Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	1	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~uS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	21.02	5.783	7.37	-65.1	9.24	1.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 03 - 08 13 12
Sample Date/Time:	08/13/12 / 1045
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PFW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	20.95	5.962	7.19	-62.9	6.53	0.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PFW 02 - 08/13/12		
Sample Date/Time:	08/13/12 / 1055		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	21.45	6.086	7.44	-60.7	7.74	2.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 01 - 08/13/12
Sample Date/Time:	08/13/12 / 1105
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	20.90	6.060	7.41	-66.0	3.09	16.2	LACTATE

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01 - 081612		
Sample Date/Time:	08/16/12 / 1006		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.64	29.67	6.75	-80.3	1.81	114.6	PRODUCT LACTATE

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SIW02 - 081612
Sample Date/Time: 08/16/12 / 1015
Sampler ID: JM
Weather Conditions: OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	20.63	6.888	7.31	-60.8	2.46	15.4	LACTATE

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW03 - 081612
Sample Date/Time:	08/16/12 / 1025
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	20.91	5.701	7.30	-69.8	3.31	2.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 01 - 081612		
Sample Date/Time:	08/16/12 / 1035		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	21.36	5.847	7.22	-61.3	2.77	29	PRODUCT CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 02-08/16/12		
Sample Date/Time:	08/16/12 1045		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ uS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	21.95	6.083	7.30	-68.3	4.04	5.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-1 - 081612		
Sample Date/Time:	08/16/12 / 1055		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	20.92	5.454	7.45	-82.9	3.91	4.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2-08162		
Sample Date/Time:	08/16/12 / 1105		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.21	5.768	7.30	-63.8	3.87	2.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04 - 081612
Sample Date/Time:	08/16/12 / 1115
Sampler ID:	JM
Weather Conditions:	Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PFW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1130	N/A	N/A	20.22	5.622	7.40	-55.1	5.35	0.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PFW 04 - 08/16/12		
Sample Date/Time:	08/16/12 / 1125		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom	/	ft.		
Screen Interval	/	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	20.87	5.798	7.45	-58.2	6.06	1.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW 03-08/16/12
Sample Date/Time: 08/16/12 / 1135
Sampler ID: JM
Weather Conditions: Sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	20.56	5.977	7.38	-55.3	4.79	1.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 02 - 08/16/12		
Sample Date/Time:	08/16/12 / 1145		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	21.30	6.047	7.44	-56.1	5.60	3.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-081612		
Sample Date/Time:	08/16/12 1155		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: S/W 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0945	N/A	N/A	19.10	5.790	6.52	-44.8	4.46	11.3	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	S/W 01 - 082012		
Sample Date/Time:	08/20/12 1 0940		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0955	N/A	N/A	19.35	12.71	6.58	-155.5	2.54	67.3	PRODUCT

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SW02-082012
Sample Date/Time:	08/20/12 1950
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	19.38	6.002	7.44	-59.1	3.14	13.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW 03 - 082012
Sample Date/Time:	08/20/12 / 1000
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~8/20/12~~ SPW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	20.59	5.710	7.30	-62.6	2.99	3.3	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW01 - 082012		
Sample Date/Time:	08/20/12 / 1010		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	20.96	5.817	7.36	-59.3	3.64	3.9	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-082012		
Sample Date/Time:	08/20/12 / 1020		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	20.57	6.060	7.41	-69.8	4.04	4.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-1 - 08/20/2
Sample Date/Time:	08/20/12 / 1030
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	~~20.F~~ 20.64	5.441	7.54	-83.6	10.15	6.1	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2 - 082012		
Sample Date/Time:	08/20/12 / 1040		
Sampler ID:	JN		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1055	N/A	N/A	20.78	5.761	7.55	-62.2	9.63	1.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 04 - 082012		
Sample Date/Time:	08/20/12 / 1050		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	19.74	5.679	7.66	-54.4	9.89	4.0	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-082012
Sample Date/Time:	08/20/12 / 1100
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	19.96	5.759	7.55	-56.0	11.83	6.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 03 - 082012
Sample Date/Time:	08/20/12 / 1110
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	20.21	6.101	7.40	-51.6	10.22	11.4	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 02 082012		
Sample Date/Time:	08/20/12 / 1120		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	20.42	6.042	7.57	-53.5	12.74	3.3	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-082012		
Sample Date/Time:	08/20/12 / 1130		
Sampler ID:	OVERCAST		
Weather Conditions:	JM		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SLMS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.73	ft.	YSI 6820	36920
Depth to Bottom	N/A	ft.		
Screen Interval	17.5-18	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0940 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	20.25	5.771	6.89	-74.5	2.73	3.7	CLEAR
									7/9/12

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SLMS 4-2 (07/09/12)		
Sample Date/Time:	07/09/12 / 0950		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.73	ft.	YSI 6820	36920
Depth to Bottom	N/A	ft.		
Screen Interval	18.5-19	ft.		

Purging Method: [X] Peristaltic Pump [ ] Bailer [ ] Grunfos Pump [ ] Bladder Pump

Pump Start Time: 1025 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	20.25	5.873	7.28	-100.7	5.91	1.2	CLEAR

7/9/12

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 4-3 (07/09/12)		
Sample Date/Time:	07/09/12 / 1030		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~451 6820~~	~~30920~~
Depth to Bottom	N/A	ft.	N/A	N/A
Screen Interval	21-26	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump N/A
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

7/9/12

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-4 (07/09/12)	MW9903 (07/09/12)
Sample Date/Time:	07-09-12 / 1220	07-09-12 / 1225
Sampler ID:	JM	
Weather Conditions:	OVERCAST	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~751-6820~~	~~36920~~
Depth to Bottom	N/A	ft.	N/A	N/A
Screen Interval	21-26	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump N/A
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

7/9/12

SAMPLE INFORMATION

Sample Number:	PEW-3 (07/09/12)		
Sample Date/Time:	07.09.12 / 1235		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~TSI~~ N/A	N/A
Depth to Bottom	N/A	ft.		
Screen Interval	21-26	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump N/A
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
						7/9/12			

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-2 (07/09/12)
Sample Date/Time:	07-09-12 / 1240
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	N/A
Depth to Bottom	N/A	ft.		
Screen Interval	21-26	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump N/A

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
								07/09/12	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-1 (07/09/12)		
Sample Date/Time:	07-09-12 / 1250		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS-43-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.71	ft.	YSI 6820	36920
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0810 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	20.14	9.081	6.65	-49.5	2.56	2.9	CLEAR
							7/10/12		

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-1 (07/10/12)
Sample Date/Time:	07-10-12 / 0815
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.71	ft.	YSI 6820	~~36920~~ 36920
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0830 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0845	N/A	N/A	20.15	5.420	7.09	~~2.36~~ -94.5	2.30	2.8	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-2 (07/10/12)
Sample Date/Time:	07/10/12 / 0840
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☒	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☒	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.72	ft.	YSI 6820	36920
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0850 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.12	12.51	6.98	-74.7	2.51	2.6	CLEAR
							7/10/12		

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-5 (07/10/12)
Sample Date/Time:	07.10.12 / 0855
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.93	ft.	YSI 6820	36920
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 0905 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	20.20	26.58	6.67	-20.8	1.96	5.9	CLEAR
						7/10/12			

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-6 (07/10/12)
Sample Date/Time:	07/10/12 / 0910
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: S1W01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.07	5.990	7.53	-58.8	9.34	15.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	S1W01- 082312
Sample Date/Time:	08/23/12 / 1015
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	19.99	9.319	6.77	-136.7	9.54	67.1	product

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW02-082312
Sample Date/Time:	08/23/12 / 1025
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	20.15	5.910	7.36	-56.1	10.74	7.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW03-082312
Sample Date/Time:	08/23/12 / 1035
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW-01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	20.97	5.728	7.25	-60.9	9.10	2.2	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 01- 082312
Sample Date/Time:	08/23/12 / 1045
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	21.05	5.862	7.33	-60.3	9.01	3.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-082312		
Sample Date/Time:	08/23/12 / 1055		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YS/10820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	21.00	5.993	7.36	-64.9	8.70	1.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-1 -082312		
Sample Date/Time:	08/23/12 / 1105		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	20.91	5.035	7.61	-70.2	10.19	~~CLEAR~~ 5.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-2 - 082312
Sample Date/Time:	08/23/12 / 1115
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	20.96	5.782	7.57	-57.2	10.75	1.6	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04-082312
Sample Date/Time:	08/23/12 / 1125
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	19.93	5.680	7.52	-57.2	10.69	2.0	clear

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 04 - 082312		
Sample Date/Time:	08/23/12 / 1135		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1150	N/A	N/A	20.27	5.709	7.46	-50.8	12.45	27	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-082312
Sample Date/Time: 08/23/12 / 1145
Sampler ID: JM
Weather Conditions: OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	20.44	6.201	7.37	-50.9	10.95	4.5	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW 02- 082312		
Sample Date/Time:	08/23/12 / 1155		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	20.89	5.922	7.48	11.3	10.59	1.7	CLEAR

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-082312		
Sample Date/Time:	08/23/12 / 1205		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	20.83	6.014	7.42	-61.8	6.84	7.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01-082712
Sample Date/Time:	08/27/12 / 1005
Sampler ID:	JM
Weather Conditions:	sunny

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.86	10.47	6.73	-225.9	2.35	281.9	product

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW02-082712		
Sample Date/Time:	08/27/12 / 1015		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: S1W03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	21.77	6.001	7.10	-71.3	1.70	3.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	S1W03-082712		
Sample Date/Time:	08/27/12 / 1025		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	mS/cm ±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	21.87	5.753	7.35	-76.5	3.77	3.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW01-082712		
Sample Date/Time:	08/27/12 / 1035		
Sampler ID:	JM		
Weather Conditions:	Sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW-02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	21.88	5.931	7.12	-65.5	0.82	2.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-082712		
Sample Date/Time:	08/27/12 / 1045		
Sampler ID:	JM		
Weather Conditions:	sunny		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	21.72	6.067	6.97	-66.3	2.55	3.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-082712
Sample Date/Time:	08/27/12 / 1015
Sampler ID:	JM
Weather Conditions:	SUNNY

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	21.57	5.567	7.30	-75.3	4.43	2.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SPW 3-2-082712
Sample Date/Time: 08/27/12 / 1105
Sampler ID: JM
Weather Conditions: SUNNY

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.61	5.879	7.26	-40.7	5.22	2.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 04 - 08/27/12		
Sample Date/Time:	08/27/12 / 1115		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	360921
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1130	N/A	N/A	20.95	5.806	7.30	-63.2	5.06	1.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-082712		
Sample Date/Time:	08/27/12 / 1120		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 8/27/12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: _____ Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	21.42	5.797	7.41	-54.7	4.92	2.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW 03 - 082712
Sample Date/Time: 08/27/12 / 1135
Sampler ID: JM
Weather Conditions: SUNNY

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

DATE 8/27/12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 4820	360921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1150	N/A	N/A	21.26	6.430	7.19	-30.1	5.69	2.33	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-082712		
Sample Date/Time:	08/27/12 / 1145		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 10820	36921
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	22.66	5.841	7.48	-38.3	7.72	4.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-082712
Sample Date/Time: 08/27/12 / 1155
Sampler ID: JM
Weather Conditions: sunny

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	20.98	6.817	6.54	-53.8	2.82	7.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01-083012		
Sample Date/Time:	08/30/12 / 1005		
Sampler ID:	JN		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.55	12.47	6.73	-254.2	4.07	92.1	product/fuel

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW02-083012		
Sample Date/Time:	08/30/12 / 1015		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	mS/cm ±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	21.03	0.365	7.27	-143.8	3.70	10.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW03-.083012		
Sample Date/Time:	08/30/12 / 1025		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	21.17	5.927	7.23	-95.5	3.98	3.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW01-083012		
Sample Date/Time:	08/30/12 / 1035		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	15557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	21.36	6.128	7.26	-95.0	2.32	5.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-083012		
Sample Date/Time:	08/30/12 / 1045		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	21.21	6.080	7.46	-98.1	2.62	3.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-083012		
Sample Date/Time:	08/30/12 / 1055		
Sampler ID:	UM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI U820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	21.14	5.850	7.40	-120.7	2.10	4.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SPW 3-2-083012
Sample Date/Time: 08/30/12 / 1105
Sampler ID: JM
Weather Conditions: SUNNY

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.27	5.969	7.47	-116.7	5.34	4.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SPW04-083012
Sample Date/Time: 08/30/12 / 1115
Sampler ID: JM
Weather Conditions: SUNNY

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 8/30/12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1130	N/A	N/A	20.22	5.831	7.54	-52.4	3.55	2.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-083012		
Sample Date/Time:	08/30/12 / 1125		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58537
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	20.68	5.803	7.41	-54.7	8.00	4.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-083012		
Sample Date/Time:	08/30/12 / 1135		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1150	N/A	N/A	20.74	6.489	7.44	-22.9	5.49	3.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-083012		
Sample Date/Time:	08/20/12 / 1145		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	21.27	5.877	7.54	-20.0	7.89	4.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-083012		
Sample Date/Time:	08/30/12 / 1155		
Sampler ID:	UM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	19.87	6.419	7.36	-110.7	1.36	13.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01-090412		
Sample Date/Time:	09/04/12 / 1000		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	20.02	13.40	6.75	-202.6	2.30	34.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW 02- 090412		
Sample Date/Time:	09/04/12 / 1010		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW 03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	20.07	6.439	7.41	-212.4	0.57	9.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW03-090412
Sample Date/Time:	09/04/12 / 1020
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	21.13	0.035	7.45	-121.4	4.12	5.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW01-090412
Sample Date/Time:	09/04/12 / 1030
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	21.06	6.201	7.31	-138.3	5.16	5.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-090412		
Sample Date/Time:	09/04/12 / 1040		
Sampler ID:	VM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW 3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	98557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1055	N/A	N/A	21.13	6.075	7.35	-90.2	3.46	6.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-090412
Sample Date/Time:	09/04/12 / 1050
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	5557
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	20.88	5.362	7.51	-119.2	2.37	7.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW 3-2-090412		
Sample Date/Time:	09/04/12 / 1100		
Sampler ID:	JM		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SPW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	18557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	24.30	5.718	7.44	-197.2	4.96	4.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04-090412
Sample Date/Time:	09/04/12 / 1110
Sampler ID:	JM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	20.55	6.052	7.90	-110.0	0.17	3.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-090412		
Sample Date/Time:	09/04/12 / 1120		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	20.70	5.989	7.66	-132.5	4.57	4.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03 - 090412
Sample Date/Time:	09/04/12 / 1130
Sampler ID:	JM
Weather Conditions:	SUNNY

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	20.85	6.772	7.44	-73.4	4.78	4.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-090412		
Sample Date/Time:	09/04/12 / 1140		
Sampler ID:	JM		
Weather Conditions:	SUNNY		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	21.69	5.901	7.58	-41.8	5.99	2.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-090412
Sample Date/Time: 09/04/12 / 1150
Sampler ID: JM
Weather Conditions: SUNNY

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SIW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	15857
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	19.79	6.703	6.31	-102.1	3.75	19.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01-090612
Sample Date/Time:	09/06/12 / 0855
Sampler ID:	JM : KL
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0910	N/A	N/A	19.95	11.62	7.02	158.8	3.19	5.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW02-090612
Sample Date/Time:	9-6-12 — 1005
Sampler ID:	KC SJM
Weather Conditions:	OVERCAST

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6820	58557
Depth to Bottom	/	ft.		
Screen Interval	/	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	19.95	6.271	7.03	-140.4	2.77	6.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW03-090612
Sample Date/Time:	9·6·12 / 0915
Sampler ID:	JM + KI
Weather Conditions:	OVERCAST

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0930	N/A	N/A	21.13	6.119	7.09	-97.9	5.45	4.6	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW1-090612		
Sample Date/Time:	9.6.12 / 0925		
Sampler ID:	JM+KL		
Weather Conditions:	OVERCAST		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6920	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	21.44	6.158	7.16	-122.9	3.38	5.7	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW2-090612
Sample Date/Time:	9-6-12 / 09:35
Sampler ID:	JM + KL
Weather Conditions:	CLEARING; WARMER

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0945	N/A	N/A	21.58	5.899	7.24	-14.4	2.21	4.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-090612		
Sample Date/Time:	9.6.12 / 0940		
Sampler ID:	JM + KL		
Weather Conditions:	WARM, CLEARING		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0955	N/A	N/A	21.58	5.741	7.27	-139.7	5.73	2.8	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2-090612
Sample Date/Time:	9·6·12 0950
Sampler ID:	JM + KL
Weather Conditions:	CLEAR; WARM

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	21.30	5.844	7.48	200.2	4.67	4.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW-4-090612		
Sample Date/Time:	9-6-12 / 1000		
Sampler ID:	JM + KL		
Weather Conditions:	CLEAR; WARM		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(µS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	20.55	5.925	7.57	-14.6	1.62	4.2	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-4-090612
Sample Date/Time:	9.6.12 1005
Sampler ID:	JM+KL
Weather Conditions:	CLEAR; WARM

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~AA~~ AW PEW-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	20.83	5.858	7.45	-95.6	7.36	3.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW-3-090612
Sample Date/Time: 9·6·12 / 1010
Sampler ID: JM+KL
Weather Conditions: CLEAR; WARM

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV) 2x VOA	☐	VOAs ~~with H3PO4~~ & Ace
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: AW

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	21.16	6.648	7.39	-76.2	9.25	4.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-2-090612
Sample Date/Time:	9.6.12 / 1015
Sampler ID:	JM+KL
Weather Conditions:	CLEAR; WARM

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV) 2xVOA	☑	VOAs ~~with H3PO4~~
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	21.50	5.905	7.54	-41.1	7.17	7.1	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-1-090612
Sample Date/Time:	9·6·12 / 1020
Sampler ID:	JM + KL
Weather Conditions:	CLEAR; WARM

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

COC 139941-21

Project Name:	Plume 4-1		
Project Number:	139941	Well ID:	SIW-1
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	20.31	6.459	6.71	170.8	3.48	11.5	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW-1-091012		
Sample Date/Time:	9·10·12 / 0900		
Sampler ID:	K. LEE		
Weather Conditions:	OVERCAST, MILD, 64°F		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	20.23	~~23.64~~ 6.318	6.65	-228.9	2.41	2.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW-2-091012		
Sample Date/Time:	9/10/12 / 0910		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	20.67	~~18.05~~ 6.299	6.92	239.1	2.39	3.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW-3-091012		
Sample Date/Time:	9.12.10 / 0920		
Sampler ID:	K.Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	~~21.80~~ 21.97	~~6.730~~ 6.220	6.91	-142.2	2.92	3.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW-1-091012		
Sample Date/Time:	9 10 12 / 0930		
Sampler ID:	K. LEE		
Weather Conditions:	CLEARING; WARMING; 68°F		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAL

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	21.63	6400	6.88	-197.8	2.80	4.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW-2-091012		
Sample Date/Time:	9.10.12 / 1000		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	21.89	5.928	7.08	99.6	3.54	24	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-091012		
Sample Date/Time:	9.10.12 / 1010		
Sampler ID:	K. LEE		
Weather Conditions:	CLEAR; MILD; 68°F		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	21.58	2.998	7.45	-130.4	3.55	4.1	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2-090912
Sample Date/Time:	9 10 12 1020
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	22.43	5.946	7.08	-237.4	3.21	4.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW-4-091012
Sample Date/Time:	9.10.12 / 1030
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~M·S/CM~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	21.14	6.379	7.17	-133.2	6.97	4.2	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-4-091012
Sample Date/Time:	9·10·12 / 1100
Sampler ID:	K. Lee
Weather Conditions:	Clear; mild; 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: AEW-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	21.72	6.255	6.98	183.9	5.48	3.8	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	AEW-3-091012		
Sample Date/Time:	9.10.12 / 1110		
Sampler ID:			
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58537
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	21.34	6.775	6.91	-163.4	2.97	4.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-2-091012
Sample Date/Time:	9.10.12 / 1120
Sampler ID:	K. Lee
Weather Conditions:	CLEAR, MILD, 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	22.05	6.045	7.11	-68.7	5.35	2.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-1-09102
Sample Date/Time:	9.10.12 / 1130
Sampler ID:	R. Lee
Weather Conditions:	Clear; mild; 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	19.52	6241	6.49	-178.2	6.52	22.1	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SIW01-09/3/12
Sample Date/Time:	9.13.12 / 0820
Sampler ID:	K. Lee
Weather Conditions:	Foggy; 62°F

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SIW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0840	N/A	N/A	19.47	6.622	7.01	-201.3	3.4	22.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SIW02-091312
Sample Date/Time: 9·13·12 / 0835
Sampler ID: K Lee
Weather Conditions: Overcast; 63°F

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: STW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0850	N/A	N/A	20.10	6.232	6.98	209.9	3.80	26.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	STW03-09/312
Sample Date/Time:	9·13·12 / 0845
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SAW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	21.32	6.364	6.92	-183.3	3.54	22.8	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SAW01-09132		
Sample Date/Time:	9.13.12 / 0855		
Sampler ID:	K. LEE		
Weather Conditions:	CLEARING; WARMING; 64°F		
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6020	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0910	N/A	N/A	21.40	6.418	6.95	-170.2	3.37	25.2	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW02-091312
Sample Date/Time:	9·13·12 / 0905
Sampler ID:	K. Lee
Weather Conditions:	CLEARING; WARMING

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~SPW3-1~~ SPW3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	22.33	5.865	7.08	-96.0	4.21	28.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-1-091312
Sample Date/Time:	09·13·12 / 0915
Sampler ID:	K. LEE
Weather Conditions:	MOSTLY CLEAR

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6920	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
~~0930~~	~~N/A~~	~~N/A~~	~~22.34~~	~~6.154~~	~~7.03~~	~~-208.4~~	~~4.25~~	~~24.3~~	~~N/A~~
1000	N/A	N/A	22.12	5.951	7.17	-207.3	3.40	23.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW3-2-0913/2
Sample Date/Time:	9.13.12 / ~~0925~~ 0955
Sampler ID:	K.Lee
Weather Conditions:	Slightly cloudy; 66°F

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SPW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0930	N/A	N/A	22.34	6.154	7.03	200.4	4.25	24.3	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SPW04-09132
Sample Date/Time:	9.13.12 / 0925
Sampler ID:	K. LEE
Weather Conditions:	CLEARING

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	24.19	6.524	6.98	289.6	3.75	35.0	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-09132
Sample Date/Time:	9.13.12 / 1010
Sampler ID:	K. Lee
Weather Conditions:	NICE

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (IIPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	24.40	6.638	6.96	-312.7	2.45	38.2	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-09/3/2
Sample Date/Time: 9.13.12 / 1020
Sampler ID: K. Lee
Weather Conditions: NICER

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-I
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ MS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	23.49	6.567	7.07	-291.3	3.25	25.6	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-091312
Sample Date/Time:	9.13.12 / 1030
Sampler ID:	K. LEE
Weather Conditions:	VERY NICE!

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	24.51	6.644	6.94	294.7	1.66	34.4	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-09132

Sample Date/Time: 9.13.12 / 1040

Sampler ID: K. LEE

Weather Conditions: OUTSTANDING

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-04(24 HR)-091912
Sample Date/Time:	9.19.12 / 1410
Sampler ID:	K. LEE
Weather Conditions:	CLEAR; WARM, 71°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PEW03~~ PEW-03(2ND)-091912
Sample Date/Time:	9·19·12 / 1430
Sampler ID:	K. Lee
Weather Conditions:	Clear; warm; 71°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-02(24 hr)-091912		
Sample Date/Time:	9.19.12 / 1455		
Sampler ID:	K. LEE		
Weather Conditions:	CLEAR, WARM, 71°F		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-01(24we)-091912
Sample Date/Time:	9.19.12 / 1510
Sampler ID:	K. LEE
Weather Conditions:	CLEAR, WARM, 71°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941.03012311
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-04 (48 HRS) - 092012
Sample Date/Time:	9·20·12 / 1340
Sampler ID:	K. LEE
Weather Conditions:	CLEAR, MILD, 70°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-03(48hr)-092012
Sample Date/Time:	9·20·12 / 1345
Sampler ID:	K. Lee
Weather Conditions:	Clear, mild, 70°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW-02(46 ug)-092012
Sample Date/Time: 9·20·12 / 1350
Sampler ID: KLEE
Weather Conditions: CLEAR; MILD; 70°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-01 (48 HR) -092012
Sample Date/Time:	9·20·12 / 1355
Sampler ID:	K. LEE
Weather Conditions:	CLEAR; MILD; 70°F.

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-04(72 hr)-092112
Sample Date/Time:	9.21.12 / 1525
Sampler ID:	K. LEE
Weather Conditions:	NICE, 72°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW Ø3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-Ø3(72HR)-Ø92112
Sample Date/Time:	9·21·12 / 153Ø
Sampler ID:	K. LEE
Weather Conditions:	NICE, 72°F

Analyses & Volume Collected:			
	VOC (8260B)	✓	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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DATE	9·21·12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02(72hr)-092112
Sample Date/Time:	9·21·12 / 1535
Sampler ID:	K. LEE
Weather Conditions:	NICE; 72°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-01(72HR)-092112		
Sample Date/Time:	9.21.12 / 1540		
Sampler ID:	K.LEE		
Weather Conditions:	NICE; 72°F		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-04(14/HA)-092412
Sample Date/Time:	9.24.12 / 1330
Sampler ID:	~~CLEARING, 68°F~~ KHu
Weather Conditions:	CLEARING, 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KHu

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-03(144 HR)-092412
Sample Date/Time:	9·24·12 1355
Sampler ID:	K. LEE
Weather Conditions:	CLEARING, 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-02(144 HR)-092412
Sample Date/Time:	9·24·12 1415
Sampler ID:	R. LEE
Weather Conditions:	CLEARING, 68°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-01(144 HR)-0924/12		
Sample Date/Time:	9-24-12		
Sampler ID:	K. Lee		
Weather Conditions:	CLEARING, 68°F		
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-04(168 HR)-092512
Sample Date/Time:	9·25·12 / 1440
Sampler ID:	K LEE
Weather Conditions:	OVERCAST, 65°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-03 (168 HR) - 092512
Sample Date/Time:	9·25·12 / 1425
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST, 65°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-02(168HR)-092512
Sample Date/Time:	9.25.12
Sampler ID:	KLee
Weather Conditions:	OVERCAST, 65°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW DI

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: _____ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-DI (168HR) - 092512
Sample Date/Time:	9·25·12 / 1350
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST, 65°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PEW0~~ KAL PEW-04-09262
Sample Date/Time:	9·26·12 / 1305
Sampler ID:	K. LEE
Weather Conditions:	WARM + CLEAR, 69°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLa

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-03-092612
Sample Date/Time:	9.26.12 / 1315
Sampler ID:	R. Lee
Weather Conditions:	Warm + Clear, 69°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: RLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-02-092612
Sample Date/Time:	9·26·12 / 1325
Sampler ID:	KLEE
Weather Conditions:	WARM + CLEAR, 69°F

Analyses & Volume Collected			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW 01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW-01-092612		
Sample Date/Time:	9·26·12 / 1335		
Sampler ID:	K. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58537
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(mS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0835	N/A	N/A	19.35	8.732	6.76	-108.3	2.68	44.9	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-092812
Sample Date/Time:	9.28.12 / 0830
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST; COOL; 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0850	N/A	N/A	19.34	8.302	6.80	-93.6	2.66	44.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-092812
Sample Date/Time: 9.28.12 / 0845
Sampler ID: K. LEE
Weather Conditions: OVERCAST, COOL, 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	19.53	7.908	6.77	-107.7	2.12	43.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-092812
Sample Date/Time:	9.28.12 / 0900
Sampler ID:	JC, CEC
Weather Conditions:	OVERCAST; COOL; 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	19.49	8.720	6.90	-100.7	2.33	42.1	N/A

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-092812
Sample Date/Time:	9.28.12 / 0920
Sampler ID:	R. LEE
Weather Conditions:	OVERCAST; COOL; 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
~~1000~~ 1005	N/A	N/A	19.89	7.131	7.05	-57.5	2.97	44.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-2-092812

Sample Date/Time: 9.28.12 / 1000

Sampler ID: KLE

Weather Conditions: OVERCAST; COOL; 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.11	7.513	6.98	-78.7	4.68	43.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-092812
Sample Date/Time:	9.28.12 1015
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST; COOL; 59°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050 ~~1110~~	N/A	N/A	19.82	7.468	6.84	-32.3	3.29	44.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-092812

Sample Date/Time: 9·28·12 / 1045

Sampler ID: K. LEE

Weather Conditions: OVERCAST; COOL; 59°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	20.76	7.084	6.96	-63.3	2.79	43.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-2-092812
Sample Date/Time: 9·28·12 / 1115
Sampler ID: K. LEE
Weather Conditions: OVERCAST; COOL; 59°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	19.96	7.181	6.89	-44.4	2.55	43.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-092812
Sample Date/Time:	9.28.12 / 1140
Sampler ID:	K. LEE
Weather Conditions:	OVERCAST; COOL; 59°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	1/ST 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0950	N/A	N/A	23.01	8.926	6.67	-118.0	2.87	45.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-100312
Sample Date/Time:	10·3·12 0945
Sampler ID:	K. LEE
Weather Conditions:	CLEAR + WARM; 86°F

Analyses & Volume Collected:

VOC (8260B) SGRDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLL

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(mS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1000	N/A	N/A	22.71	8.402	6.88	-102.4	3.31	43.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-100312
Sample Date/Time:	10·3·12 / 0955
Sampler ID:	K. Lee
Weather Conditions:	CLEAR WARM 88°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	22.73	8.013	6.85	-89.7	2.65	44.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-100312
Sample Date/Time: 10·3·12 / 1005
Sampler ID: K. Lee
Weather Conditions: Clear, warm, 88°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	23.32	8.906	6.84	-101.4	3.34	43.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-100312
Sample Date/Time: 10·3·12 / 1015
Sampler ID: K. LEE
Weather Conditions: CLEAR, WARM, 80°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	23.05	7.235	7.00	-61.2	2.73	44.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2
Sample Date/Time:	10·3·12 / ~~1030~~ 1030
Sampler ID:	K. Lee
Weather Conditions:	CLEAR, WARM; 88°F

Analyses & Volume Collected:			
	VOC (8260B) 3 ERD	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	23.29	7.650	7.14	-92.4	5.41	42.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-100312
Sample Date/Time:	10·3·12 / 1040
Sampler ID:	K·LEE
Weather Conditions:	CLEAR, WARM, 88°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	23.31	7.545	6.99	-39.2	2.28	43.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-100312
Sample Date/Time: 10·3·12 1100
Sampler ID: K.LEE
Weather Conditions: CLEAR, WARM, 88°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	5855
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	23.31	7.290	6.98	-67.3	2.07	43.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-100312
Sample Date/Time:	10·3·12 1110
Sampler ID:	K. Lee
Weather Conditions:	CLEAR, HOT, 90°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10·3·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/CM	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	22.57	7.303	6.77	-43.5	0.69	43.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-100312

Sample Date/Time: 10·3·12 / 1120

Sampler ID: K. LEE

Weather Conditions: CLEAR, HOT, 90°F

Analyses & Volume Collected:

VOC (8260B) SERP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10·3·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	23.79	8.582	6.75	248.4	1.95	49.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-100312		
Sample Date/Time:	10·3·12 / 1205		
Sampler ID:	K·LEE		
Weather Conditions:	CLEAR, WARM, 90°F		
Analyses & Volume Collected:	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Ale

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1220	N/A	N/A	25.28	8.601	6.86	-268.1	2.81	47.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-100312
Sample Date/Time:	10·03·12 / 1215
Sampler ID:	K. Gee
Weather Conditions:	CLEAR, WARM, 90°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KGee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(µS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	26.46	8.355	7.01	-296.9	2.93	61.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-100312
Sample Date/Time:	10·3·12 / 1225
Sampler ID:	K. LEE
Weather Conditions:	CLEAR, WARM, 90°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1245	N/A	N/A	25.50	7.972	7.02	-296.5	1.18	63.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-100312
Sample Date/Time: 10.3.12 / 1240
Sampler ID: K. LEE
Weather Conditions: CLEAR, WARM, 90°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	59557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	21.35	8.995	6.85	-114.4	1.25	44.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-100512
Sample Date/Time: 10.5.12 0900
Sampler ID: R. Lee
Weather Conditions: Clear, mild, 70°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	21.76	8.617	6.83	-95.0	1.06	44.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-100512
Sample Date/Time: 10.5.12 0910
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) uS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	22.58	8.031	6.74	-105.1	2.11	43.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-1005-12
Sample Date/Time: 10-5-12 1035
Sampler ID: K. [illegible]
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10·5·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	22.36	9.170	6.91	107.9	1.73	43.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-100512

Sample Date/Time: 10·5·12 1000

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·5·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	22.47	7.142	6.99	-63.2	2.16	43.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-2-100512
Sample Date/Time: 10·5·12 1020
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	59557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	22.82	7.653	6.87	-85.6	3.37	43.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-100512
Sample Date/Time:	10·5·12 / 1045
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	22.77	7.441	6.74	-36.3	2.46	44.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-100512

Sample Date/Time: 10.5.12 / 1115

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: Klee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	23.04	7.231	6.90	-58.5	5.97	44.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-100512		
Sample Date/Time:	10.5.12 1130		
Sampler ID:	K.Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: K. Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7 - 3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	23.96	7.274	6.71	-49.3	1.76	44.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-100512
Sample Date/Time: 10·5·12 / 1150
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	24.41	8.724	6.81	-291.4	2.63	51.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-100512
Sample Date/Time:	10·5·12 / 1220
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1245	N/A	N/A	27.49	8.759	6.92	281.7	2.97	69.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-100512

Sample Date/Time: 10.5.12 / 1240

Sampler ID: K.Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1305	N/A	N/A	27.68	8.264	6.87	304.3	0.31	56.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-100512		
Sample Date/Time:	10.5.12 1300		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1320	N/A	N/A	25.95	7.950	7.03	-292.4	1.83	70.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-100512		
Sample Date/Time:	10·5·12 / 1315		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6920	59557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	20.55	9.060	6.85	-98.0	3.35	44.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-101012
Sample Date/Time:	10·10·12 / 0820
Sampler ID:	K. Lee
Weather Conditions:	OVERCAST; cool; 64°F

Analyses & Volume Collected:			
	VOC (8260B)	☒	VOAs with HCl
	Sulfide (SM 4500-S2)	☒	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☒	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☒	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☒	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	20.62	8.763	6.85	-99.3	2.71	44.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-101012
Sample Date/Time:	10·10·12 0935
Sampler ID:	K·Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10·10·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (mS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0855	N/A	N/A	20.81	8.026	6.74	104.7	3.14	45.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-101012

Sample Date/Time: 10·10·12 / 0850

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	20.56	9.611	6.81	-964	2.41	43.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-101012
Sample Date/Time:	10·10·12 / 0910
Sampler ID:	K·Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 0820	59557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	20.83	7.191	7.02	-59.3	3.72	43.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-101012
Sample Date/Time:	10·10·12 / 0930
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·10·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	SL 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0950	N/A	N/A	21.20	7.095	7.19	-100.1	8.16	44.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-101012
Sample Date/Time:	10·10·12 / 0945
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Lee

DATE 10.10.12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58567
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	21.15	7.612	6.78	-52.5	2.36	45.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-101012

Sample Date/Time: 10.10.12 / 1018

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·10·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMW7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1035	N/A	N/A	21.26	7.173	6.94	-59.4	5.77	43.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMW7-2-101012
Sample Date/Time: 10·10·12 / 1030
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·10·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(mS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1050	N/A	N/A	21.36	7.205	6.88	-48.6	3.27	42.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-101012
Sample Date/Time: 10·10·12 / 1045
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	22.66	8.451	7.00	-253.2	4.57	71.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-101012

Sample Date/Time: 10·10·12 / 1120

Sampler ID: K·LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	22.71	8.593	6.35	-244.9	4.17	40.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-101012

Sample Date/Time: 10·10·12 11:35

Sampler ID:

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	59557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1205	N/A	N/A	23.27	8.461	6.96	-297.0	2.60	62.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-101012

Sample Date/Time: 10-10-12 1200

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~us/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	22.48	7.907	7.11	-288.8	4.13	67.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-101012		
Sample Date/Time:	10·10·12 / 1220		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE ~~10.12.12~~ 10.12.12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: _____ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-101212
Sample Date/Time: 10.12.12 / 0805
Sampler ID: K. LEE
Weather Conditions: CLOUDY; DRIZZLE; 57°F

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAte

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-101212
Sample Date/Time: 10·12·12 / 0815
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) 8GRDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [illegible]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-101212
Sample Date/Time: 10·12·12 / 0825
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) 5ERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project.

SAMPLE INFORMATION

Sample Number:	SMLS1-4-101212
Sample Date/Time:	10·12·12 / 0835
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) 3SRDP	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-101212		
Sample Date/Time:	10·12·12 0840		
Sampler ID:	K.Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-101212
Sample Date/Time:	10·12·12 / 0850
Sampler ID:	
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SGRDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAtt

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-1-101212		
Sample Date/Time:	10·12·12 / 0900		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B) SGRDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-2-101212
Sample Date/Time: 10·12·12 / 0910
Sampler ID:
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [illegible]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-101212
Sample Date/Time: 10·12·12 / 0920
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) 5ERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-101212
Sample Date/Time: 10·12·12 / 1010
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SGRDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-101212
Sample Date/Time: 10·12·12 / 1015
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-101212
Sample Date/Time: 10·12·12 / 1025
Sampler ID: K.LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·12·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-101212
Sample Date/Time: 10·12·12 / 1030
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0815	N/A	N/A	21.12	9.907	6.91	-100.3	3.37	67.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-101612
Sample Date/Time: 10-16-12 / 0810
Sampler ID: K. Lee
Weather Conditions: Cloudy; muggy; 67°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0835	N/A	N/A	21.22	9.649	6.81	-188.5	3.39	64.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-101612
Sample Date/Time: 10·16·12 / 0830
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0855	N/A	N/A	21.59	9.012	6.75	-103.9	3.72	64.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS1-3-1012~~ SMLS1-2-101612
Sample Date/Time:	10·16·12 / 0850
Sampler ID:	K·LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	21.97	9.806	6.84	-100.3	4.21	67.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-101612
Sample Date/Time: 10·16·12 / 0910
Sampler ID: KLE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	24.35	7.674	7.02	-58.3	3.40	65.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-2-101612
Sample Date/Time: 10·16·12 / 0935
Sampler ID: K. Lee
Weather Conditions: CLEARING; SLIGHT BREEZE

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1000	N/A	N/A	26.61	8.201	7.27	-61.9	7.39	83.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-3-101612
Sample Date/Time: 10-16-12 / 0955
Sampler ID: KILGE
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	23.76	8.301	6.76	-72.8	3.87	65.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-101612
Sample Date/Time: 10-16-12 1020
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Kle

DATE 10·16·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SML57-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	68557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	22.93	7.792	6.82	-54.0	4.52	65.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SML57-2-101612

Sample Date/Time: 10·16·12 / 1040

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~SMLS7-2~~ SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	22.93	7.895	6.72	-44.7	3.52	65.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-101612
Sample Date/Time:	10·16·12 1100
Sampler ID:	K·LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	21.26	9.028	6.84	-187.6	2.93	65.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-101712

Sample Date/Time: 10·17·12 / 0900

Sampler ID: K. Lee

Weather Conditions: Clear, Sunny, warm, 69°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YST 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	21.53	8.854	6.90	-169.2	3.92	73.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-101712
Sample Date/Time: 10·17·12 / 0920
Sampler ID: K·LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	1/ST 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0945	N/A	N/A	22.46	9.739	6.81	-273.9	1.90	76.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-101712
Sample Date/Time:	10·17·12 / 0940
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PGW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	23.82	8.780	6.94	-294.1	1.89	77.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PGW01-101712		
Sample Date/Time:	10·17·12 / 1000		
Sampler ID:	KLee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-1, -2, -5, -6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
3-1- 1045	N/A	N/A	22.10	10.82	7.01	-128.1	2.70	64.9	
3-2- 1055			22.59	6.421	7.19	-107.0	3.14	65.1	
3-5- 1100			22.06	20.10	6.74	-107.4	1.10	67.6	
3-6- 1120			22.30	33.60	6.51	-22.1	1.02	72.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS3-1-101712; 3-2-101712; 3-5-101712; 3-6-101712

Sample Date/Time: 101712 3-1=1040 / 3-2@1050 / 3-5@1105 / 3-6@1115

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: AMLS4-1,4-2,4-5,4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

	Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
	Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
4-1	1145	N/A	N/A	22.77	6.325	7.25	-76.6	2.60	66.4	
4-2	1155			23.72	3.898	7.30	-62.8	2.82	64.9	
4-5	1205			23.85	16.43	6.87	-63.0	1.21	68.1	
4-6	1215			23.55	31.81	6.68	-72.1	1.27	66.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	AMLS4-1-101712, 4-2-101712, 4-5-101712, 4-6-101712
Sample Date/Time:	10·17·12 4-1@1140, 4-2@1150, 4-5@1200, 4-6@1210
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
—	N/A	N/A	—						

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 1-1-101912
Sample Date/Time:	10·19·12 1080
Sampler ID:	K. Lee
Weather Conditions:	OVERCAST; SLIGHT BREEZE; 64°F

Analyses & Volume Collected:			
	VOC (8260B) SEDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-101912
Sample Date/Time: 10·19·12 1020
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-101912		
Sample Date/Time:	10·19·12 / 0830		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B) SERP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-101912

Sample Date/Time: 10·19·12 0835

Sampler ID: K.Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: N/A ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 4-2-101912
Sample Date/Time: 10·19·12 / 0845
Sampler ID: Kile
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Kile

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: N/A ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-101912
Sample Date/Time:	10·19·12 / 0850
Sampler ID:	R.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SEQDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: RLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-1-01912
Sample Date/Time:	10·19·12 / 0900
Sampler ID:	KLee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-101912
Sample Date/Time:	10·19·12 / 0910
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SGRDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-101912
Sample Date/Time:	10·19·12 / 0915
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-101912		
Sample Date/Time:	10·19·12 / 0930		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
NA									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-101912

Sample Date/Time: 10·19·12 / 0935

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SEE DP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PEW02-101212~~ PEW02-101912
Sample Date/Time:	10·19·12 / 0940
Sampler ID:	
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-101912

Sample Date/Time: 10·19·12 1045

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	5B557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	20.13	10.12	6.83	-109.9	3.73	66.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS1-1~~ SMLS1-1-102412
Sample Date/Time:	10.24.12 0900
Sampler ID:	K. LEE
Weather Conditions:	LIGHT DRIZZLE; CHILLY; 56°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10-24-12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	20.42	18.10	6.91	-107.1	-2.21(?)	67.4	DO?

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-102412

Sample Date/Time: 10-24-12 / 0915

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMW1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	19.71	9.369	6.77	-90.4	1.19	65.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMW1-3-102412		
Sample Date/Time:	10-24-12 0930		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: NA

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0950	N/A	N/A	23.04	9.969	6.78	-106.4	-1.11	64.8	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-102412
Sample Date/Time: 10.24.12 / 0945
Sampler ID: R.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	20.41	7.715	7.03	-51.4	0.30	65.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-2-102412
Sample Date/Time: 10-24-12 1020
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	20.91	7.979	7.24	-84.9	0.59	67.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-102412
Sample Date/Time:	10-24-12 1035
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

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SAMPLE COLLECTION LOG

KLee

Project Name:	Plume 4-1		
Project Number:	139941	Well ID:	~~PLW04~~ SMLS7-1
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	21.22	8.24	6.75	-89.2	-2.01	65.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PLW04-102412~~ SMLS7-1-102412		
Sample Date/Time:	10-24-12 / 1100		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10-24-12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

KLee

Project Name:	Plume 4-1	Well ID:	~~PLM03~~ SMLS7-2
Project Number:	139941		
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.22	7.447	7.02	63.3	0.15	64.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PLM03-102412~~ SMLS7-2-102412		
Sample Date/Time:	10-24-12 / 1115		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10-24-12

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SAMPLE COLLECTION LOG

Project Name:	Plume 4-1	Well ID:	~~PEW02~~ SMLS7-3
Project Number:	139941		
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	21.20	5.522	7.00	25.4	0.69	67.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PEW02-10-24-12~~ SMLS7-3-10-24-12		
Sample Date/Time:	10-24-12 / 1130		
Sampler ID:	K.Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	N/A	N/A	29.76	9.020	6.91	-125.3	-1.58	62.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-102412
Sample Date/Time:	10-24-12 1210
Sampler ID:	K Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	21.37	8.962	6.98	-112.0	-0.04	73.4	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-102412
Sample Date/Time:	10-24-12 / 1225
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1245	N/A	N/A	22.29	9.614	6.71	-273.3	9.87	66.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-102412
Sample Date/Time:	10·24·12 / 1240
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1300	N/A	N/A	21.33	8.864	6.85	-292	10.16	74.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-102412
Sample Date/Time: 10-24-12 1255
Sampler ID: R. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: RLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-102612
Sample Date/Time: 10-26-12 10:25
Sampler ID: K. Lee
Weather Conditions: Dry cloudy; cool; 59°F

Analyses & Volume Collected:			
	VOC (8260B) 15 ERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-102612

Sample Date/Time: 10.26.12 / 0830

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

DATE 10.26.12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-102612

Sample Date/Time: 10.26.12 / 0835

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [illegible]

Shaw® Shaw Environmental, Inc.

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DATE	10.26.12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: _____ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 1-4-102612
Sample Date/Time:	10.26.12 / 0840
Sampler ID:	KAlle
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAlle

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: N/A ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet *(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 4-2-102612
Sample Date/Time:	10-26-12 / 1050
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-3-102612
Sample Date/Time: 10-26-12 / 0855
Sampler ID: R. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: RLL

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-102612
Sample Date/Time: 10.26.12 0905
Sampler ID: R.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SGRDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

DATE 10-26-12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 7-2-102612
Sample Date/Time: 10-26-12 1910
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-102612
Sample Date/Time: 10·26·12 1015
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) 3EADP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: N/A ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: ~~PEW01~~ PEW04 102612
Sample Date/Time: 10·26·12 / 0925
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-102612
Sample Date/Time: ~~10-26-2012~~ 10-26-12 / 0930
Sampler ID: K Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-102612
Sample Date/Time: 10·26·12 / 0935
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-102612

Sample Date/Time: 10·26·12 1894B

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	~~IN-SITU 9500~~	~~67992~~ KLee
Depth to Bottom		ft.	YSI 6820	505567
Screen Interval		ft.		

Purging Method: N/A ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	20.49	10.35	6.62	-108.1	~~12.8~~ 12.54	66.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-103112
Sample Date/Time:	10.31.12 1015
Sampler ID:	K. LEE
Weather Conditions:	Cloudy; cool; 62°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	LSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	20.68	10.26	6.76	103.8	~~28.7~~ 2.70	67.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS-12-103112
Sample Date/Time:	10·31·12 0935
Sampler ID:	K·LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1000	N/A	N/A	20.84	9.605	6.63	-96.1	2.18	66.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-103112
Sample Date/Time:	10·31·12 1955
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.77	10.30	6.70	-126.3	2.23	65.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-10.31.12
Sample Date/Time:	10·31·12 / 1015
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 10·31·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	21.11	7.982	6.74	-53.2	4.18	65.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-103112
Sample Date/Time:	10·31·12 1035
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	21.12	8.106	7.05	-84.4	18.6	65.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-103112
Sample Date/Time:	10·31·12 1055
Sampler ID:	K·Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	21.12	8.871	6.59	-100.7	32.9	67.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-1-103112
Sample Date/Time:	10·31·12 1120
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	20.80	8.305	6.86	-75.0	51.2	64.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-103112
Sample Date/Time:	10·31·12 / 1135
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Alex

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	20.58	8.381	6.56	-37.9	53.3	64.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-102112
Sample Date/Time:	10·31·12 / 1155
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10% ?	NA	
1250	N/A	N/A	20.29	9.204	6.73	-137.7	80.27	61.7	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-103112
Sample Date/Time:	10·31·12 1245
Sampler ID:	KAee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity ~~(FNU/NTU)~~	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1310	N/A	N/A	20.90	9.453	6.69	133.8	53.54	61.7	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-10.31.12
Sample Date/Time:	10·31·12 1305
Sampler ID:	K.Cee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAle

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10% ?	NA	
1325	N/A	N/A	20.35	9.616	6.76	-228.9	95.43	61.4	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-10312
Sample Date/Time:	10·31·12 1320
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	YSI 6820	58557
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1340	N/A	N/A	20.42	8.761	6.89	268.3	28.33	76.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-103112
Sample Date/Time:	10·31·12 / 1335
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-110212
Sample Date/Time: 11·2·12 / 0930
Sampler ID: K. Lee
Weather Conditions: Partly cloudy; cool; 60°F

Analyses & Volume Collected:

VOC (8260B) 5 x 40	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-110212		
Sample Date/Time:	11-2-12 / 0935		
Sampler ID:	K. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-110212
Sample Date/Time: 11·2·12 / 0945
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERPO	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-110212
Sample Date/Time:	11·2·12 / 0950
Sampler ID:	KLE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLE

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 4-2-110212
Sample Date/Time:	11·2·12 / 0955
Sampler ID:	K.Gu
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAU

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-110212
Sample Date/Time:	11-2-12 / 1000
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 7-1-110212

Sample Date/Time: 11·2·12 / 1010

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-2-110212
Sample Date/Time:	11·2·12 / 1015
Sampler ID:	K Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-3-110212
Sample Date/Time:	11·2·12 / 1020
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-110212
Sample Date/Time: 11·2·12 1035
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-110212
Sample Date/Time:	11·2·12 / 1040
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SGRDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-110212

Sample Date/Time: 11·2·12 / 1045

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-110211
Sample Date/Time:	11·2·12 / 1050
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ RUGGED READER ("R.R.")	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0820	N/A	N/A	19.95	7.521	6.84	-88	1.66	3.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-110712
Sample Date/Time:	11·7·12 / 0815
Sampler ID:	K. Lee
Weather Conditions:	Pty cloudy; cool; 68°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w RR.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0840	N/A	N/A	20.43	7.545	6.86	-98	2.13	2.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-110712
Sample Date/Time: 11·7·12 0835
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.31	7.266	6.74	89	1.76	1.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-110712

Sample Date/Time: 11·7·12 / 0855

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w R.R	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	20.37	7.233	6.76	-120	0.98	2.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-110712

Sample Date/Time: 11·7·12 0910

Sampler ID: R.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: RLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	Trow 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	20.49	5.812	6.79	-62	1.01	0.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-110712
Sample Date/Time:	11·7·12 / 0935
Sampler ID:	R. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 11.7.12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS 4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	Trol 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: NA
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1000	N/A	N/A	20.52	6.028	7.05	~~5.35~~ -99	5.35	2.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: ~~SMLS4-3-10~~ SMLS4-3-110712
Sample Date/Time: 11.7.12 1055
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 11·7·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TRAU 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1020	N/A	N/A	20.40	6.759	0.67	-81	1.38	0.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-110712

Sample Date/Time: 11·7·12 / 1015

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID:

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.		
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: _____ Approximate depth of pump inlet*(ft)_____

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	

ERRONEOUSLY SKIPPED

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:			
Sample Date/Time:	/		
Sampler ID:			
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Notes:	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
HDPE - High Density Polyethylene	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
VOA - Volatile Organic Analysis Vial	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ R.R	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	20.45	6.237	6.76	-68	4.64	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-2-110712

Sample Date/Time: 11·7·12 1035

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: _____

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ R.R	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	20.59	6.438	6.58	-68	1.35	1.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-110712		
Sample Date/Time:	11·7·12 1855		
Sampler ID:	K.LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1140	N/A	N/A	18.80	0.676	6.87	-174	2.27	5.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SA-PEW04-110712
Sample Date/Time: 11·7·12 / 1135
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	18.93	6.540	6.85	193	2.42	12.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-110712

Sample Date/Time: 11·7·12 @ 1150

Sampler ID: K. LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	Trol 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	19.13	6.793	6.87	-278	1.60	38.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-110712
Sample Date/Time: 11·7·12 / 1205
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500 w/ R.R.	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	mS/cm ±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	18.81	6.424	6.97	-294	2.65	11.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-110712

Sample Date/Time: 11·7·12 1220

Sampler ID: K.Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, inc.

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DATE	~~11.15.12~~ 11.14.12 KLee

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water		ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0805	N/A	N/A	20.39	7.515	6.87	-93	2.08	2.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-~~11512~~ 111412 KLee
Sample Date/Time:	~~11.15.12~~ 11.14.12 0800
Sampler ID:	K.Lee
Weather Conditions:	CLEAR; MILD BREEZE, 63°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name:	Plume 4-1		
Project Number:	139941	Well ID:	SMLS1-2
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROW 9500	67992
Depth to Bottom	N/A	ft.		
Screen Interval	N/A	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0825	N/A	N/A	20.49	7.67	6.86	-102	1.52	2.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-~~HA12~~ 111412
Sample Date/Time:	~~11.15.12~~ 11.14.12 / 0820
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Tzou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0845	N/A	N/A	20.71	7.504	6.79	-95	1.91	2.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

(14) HLL

SAMPLE INFORMATION

Sample Number:	SMLS1-3-~~111512~~ 111412
Sample Date/Time:	~~11-15-12~~ 1084
Sampler ID:	R.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: HLL

DATE ~~11-15-12~~ 11-14-12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.47	7.388	6.82	-125	0.81	2.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-~~111512~~ 111412

Sample Date/Time: ~~11-15-12~~ 11-14-12 0855

Sampler ID: K.L.

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLL

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROW 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	20.73	5.899	6.92	80	1.63	0.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-~~11515~~ 111412
Sample Date/Time:	~~11·15·12~~ 11·14·12 0920
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE ~~11-15-12~~ 11-14-12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0945	N/A	N/A	20.75	6.109	7.14	108	5.58	6.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-~~11-15-12~~ 111412
Sample Date/Time:	~~11-15-12~~ 11-14-12 0940
Sampler ID:	R. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	20.52	6.692	6.72	-92	1.75	2.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-1-~~11.15.12~~ 111412
Sample Date/Time:	~~11.15.12~~ 11.14.12 1005
Sampler ID:	R. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	20.69	6.430	6.81	-121	3.73	1.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-2 - ~~11-15-12~~ 111412
Sample Date/Time:	~~11-15-12~~ 11-14-12 1025
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

DATE ~~11-15-12~~ 11-14-12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	21.03	6.512	6.61	-76	1.56	0.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-~~11512~~ 111412
Sample Date/Time:	~~11-15-12~~ 11-14-12 1040
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1125	N/A	N/A	24.87	7.989	6.81	-199	0.94	7.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - ~~300-500 ml/min~~ (SVOA/inorganics)

NA not a stabilization parameter for this project

11-14-12

SAMPLE INFORMATION

Sample Number:	PEW04- ~~11-15-12~~ 11/14/12
Sample Date/Time:	~~11-15-12~~ / 1120
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	24.51	7.852	6.80	-243	0.76	9.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

11.14.12 KLee

SAMPLE INFORMATION

Sample Number:	PEW03-~~11512~~ 111412
Sample Date/Time:	~~11.15.12~~ 1140
Sampler ID:	K.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE ~~11-15-12~~ 11-14-12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name:	Plume 4-1	Well ID:	PEW02
Project Number:	139941		
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1205	N/A	N/A	24.85	7.619	6.88	-296	1.05	43.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

11-14-12 KLee

SAMPLE INFORMATION

Sample Number:	PEW02-~~11-15-12~~ 11/14/12		
Sample Date/Time:	~~11-15-12~~ / 1200		
Sampler ID:	R. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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DATE	~~11·15·12~~ 11·14·12

SAMPLE COLLECTION LOG

Project Name:	Plume 4-1	Well ID:	PEW01
Project Number:	139941		
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
~~1225~~ 1255	N/A	N/A	23.33	7.056	6.95	-313	1.29	19.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PEW01-111512~~	PEW01-~~111512~~ 111412
Sample Date/Time:	~~11-15-12~~ / 1220	
Sampler ID:	R. LEE	
Weather Conditions:		

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval	1	ft.	1	

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 1-1-111612
Sample Date/Time: 11·16·12 / 0800
Sampler ID: K. LEE
Weather Conditions: RAINY; CALM; 61°F

Analyses & Volume Collected:

VOC (8260B) SBRD	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom	/	ft.	/	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-111612
Sample Date/Time:	11·16·12 / 0805
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-111612

Sample Date/Time: 11·16·12 / 0810

Sampler ID: K. LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-111612
Sample Date/Time:	11·16·12 / 0815
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-~~1446~~ 111612
Sample Date/Time:	11·16·12 / 0825
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-3-111612

Sample Date/Time: 11·16·12 / 0830

Sampler ID: K. LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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DATE	11·16·12

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-1-111612
Sample Date/Time: 11·16·12 1084Φ
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom	/	ft.	/	
Screen Interval	/	ft.	/	

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-2-111612
Sample Date/Time: 11·16·12 / 0845
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-111612
Sample Date/Time: 11·16·12 / 0850
Sampler ID: K·Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) 5ERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~SMLS~~ PEW04 Ate

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04 - 111612
Sample Date/Time:	11·16·12 / 0905
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SGRDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Ate

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval	L	ft.	L	

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SW: PEW03-111612
Sample Date/Time: 11·16·12 / 0910
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-111612
Sample Date/Time:	11·16·12 / 0915
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B) SERDP	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	N/A	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
N/A									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW01-111612
Sample Date/Time:	11·16·12 / 0920
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B) SERDP	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) NA

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0900	N/A	N/A	20.27	7.450	6.78	-99	2.02	4.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-111912
Sample Date/Time:	11·19·12 / 0855
Sampler ID:	K. Lee
Weather Conditions:	Pt. cloudy · cool

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0915	N/A	N/A	20.52	7.604	6.76	-109	1.08	2.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-2-111912
Sample Date/Time:	11.19.12 / 0910
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 11·19·12

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	20.52	7.594	6.73	-94	1.68	3.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-111912

Sample Date/Time: 11·19·12 1030

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom	1	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0955	N/A	N/A	20.61	7.407	6.79	-126	0.98	3.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-111912
Sample Date/Time:	11·19·12 / 0950
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	20.86	5.847	6.82	-75	1.21	1.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-2-111912
Sample Date/Time:	11·19·12 / 1025
Sampler ID:	K.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS4·3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Troll 9500	67982
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ms/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	21.01	6.123	7.09	-154	5.02	4.4	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-3-111912

Sample Date/Time: 11·19·12 1040

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trow 9500	67992
Depth to Bottom	1	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.64	7.140	6.64	-97	1.28	3.2	–

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-1-111912
Sample Date/Time:	11·19·12 / 1115
Sampler ID:	K·LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	21.79	6.647	6.78	-137	3.61	1.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-2-111912

Sample Date/Time: 11.19.12 1130

Sampler ID: K.Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1150	N/A	N/A	21.40	6.476	6.62	-88	1.50	2.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-111912
Sample Date/Time:	11·19·12 1145
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

KLee

Project Name:	Plume 4-1	Well ID:	~~PMLS4~~ + PMLS3-1
Project Number:	139941		
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	21.13	7.395	6.89	-54	2.08	0.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

KLee

SAMPLE INFORMATION

Sample Number:	~~PMLS4~~ PMLS3-1-111912
Sample Date/Time:	11·19·12 / 1220
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	~~Sulfide (SM 4500-S2)~~	~~☑~~	HDPE with ZnAc2 & NaOH
	~~Sulfate/Nitrate/Chloride (300.0)~~	~~☑~~	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	~~Volatile Fatty Acids (HPLC/UV)~~	~~☑~~	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

KLee

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1240	N/A	N/A	20.58	4.184	7.17	-70	1.41	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS3-2-111912		
Sample Date/Time:	11·19·12 / 1235		
Sampler ID:	K.Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	~~Sulfide (SM 4500-S2)~~	☑	~~HDPE with ZnAc2 & NaOH~~
	~~Sulfate/Nitrate/Chloride (300.0)~~	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	~~Volatile Fatty Acids (HPLC/UV)~~	☑	~~VOAs with H3PO4~~
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

KLee

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

KLee

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~PMLS 4-5~~ PMLS3-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: NA

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1250	N/A	N/A	20.52	14.28	6.76	-81	1.92	4.9	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

KLee

SAMPLE INFORMATION

Sample Number:	~~PMLS4-5-111912~~ PMLS3-5-111912
Sample Date/Time:	11·19·12 / 1245
Sampler ID:	K Lee
Weather Conditions:	

Analyses & Volume Collected:		
VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	☑	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

KLee

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: ~~PMLS4~~ PMLS3-6 KLee

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1305	N/A	N/A	21.23	20.19	6.63	11	1.80	2.1	ORP?

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS3-6-111912

Sample Date/Time: 11·19·12 1300

Sampler ID: K·LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	~~☑~~	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	~~☑~~	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	~~☑~~	~~VOAs with H3PO4~~
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

KLee

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom	1	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1320	N/A	N/A	21.38	5.482	7.04	-48	1.19	0.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-1-111912
Sample Date/Time: 11·19·12 / 1315
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	~~☑~~	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	~~☑~~	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	~~☑~~	~~VOAs with H3PO4~~
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

KLee

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1330	N/A	N/A	21.44	2.886	7.25	-16	2.36	0.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-2-111912
Sample Date/Time: 11·19·12 1325
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	~~☑~~	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	~~☑~~	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	~~☑~~	VOAs with H3PO4
~~DHC DNA (qPCR)~~	~~☑~~	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

KLee

Prepared By: KLee

DATE 11·19·12

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trow 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1345	N/A	N/A	21.31	1.304	6.57	-49	1.41	4.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-5-111912

Sample Date/Time: 11·19·12 1340

Sampler ID: K·LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	☑	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
KAll 1400 ~~1345~~	N/A	N/A	21.34	24.48	6.59	-51	3.18	7.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-6-111912 KAll
Sample Date/Time: 11-19-12 ~~1340~~ 1355
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
~~Sulfide (SM 4500-S2)~~	~~☑~~	HDPE with ZnAc2 & NaOH
~~Sulfate/Nitrate/Chloride (300.0)~~	~~☑~~	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
~~Volatile Fatty Acids (HPLC/UV)~~	~~☑~~	~~VOA~~s with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

KAll

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAll

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1415	N/A	N/A	25.02	5.070	6.97	-141	4.00	8.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW04-111912
Sample Date/Time: 11·19·12 / 1410
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1435	N/A	N/A	24.13	1.608	7.17	-147	2.81	32.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW03-111912
Sample Date/Time:	11·19·12 / 1430
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1455	N/A	N/A	21.62	6.778	6.77	-145	2.97	10.7	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW02-111912
Sample Date/Time: 11·19·12 / 1450
Sampler ID: K.LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PGW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1510	N/A	N/A	2036	4.305	6.86	-164	0.83	17.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PGW01-111912
Sample Date/Time: 11·19·12 1505
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0840	N/A	N/A	16.88	7574	6.92	721	2.54	7.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-1-010713

Sample Date/Time: 1·7·13 / 0845

Sampler ID: K. Lee

Weather Conditions: Cloudy, cool

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Tacu 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	17.13	8387	6.96	-117	1.64	3.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-010713
Sample Date/Time: 1·7·13 / 0910
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K Lee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0925	N/A	N/A	18.07	8486	6.76	-102	1.86	3.2	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-3-010713
Sample Date/Time:	1·7·13 / 0930
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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KAtt

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	17.55	8371	7.05	-137	1.95	13.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

KAtt

Sample Number:	~~SMLS1-4-070~~ SMLS 1-4-010713
Sample Date/Time:	1.7.13 / 0940
Sampler ID:	K.LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAtt

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	18.62	6450	6.92	-78	0.98	2.3	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS 4-2-07~~ SMLS 4-2-010713
Sample Date/Time:	1·7·13 1010
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	18.70	6.213	7.11	-93	5.53	5.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-010713
Sample Date/Time:	1·7·13 / 1030
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	2718.80	7191	6.92	-121	0.79	2.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 7-1-010713
Sample Date/Time: 1-7-13 @ 1045
Sampler ID: K.LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Teou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	19.13	6952	6.90	-102	2.34	2.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 7-2-010713
Sample Date/Time: 1·7·13 / 1105
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7·3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	18.94	3312	6.82	-64	1.44	2.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-3-010713
Sample Date/Time:	1·7·13 1120
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500	67992
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	HAD TO RE-BOOT RUGGED READER
1225 1210	N/A	N/A	19.37	7511	6.92	-49	1.06	0.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS3-1-010713 [illegible]
Sample Date/Time: 1·7·13 1215 1230
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [illegible]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~PMLS~~ TROLL 9500	67992
Depth to Bottom		ft.	Ate	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	REBOOT! AGAIN.
1235 (1245 Ate)	N/A	N/A							
SAMPLING SUSPENDED DUE TO EQUIPMENT FAILURE W/ TROLL 9500									
SAMPLE PMLS 3-2-010713 NOT OBTAINED.									

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-2-010713 Ate		
Sample Date/Time:	1·7·13 / ~~1240~~ 1250		
Sampler ID:	K. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KAte

Shaw® Shaw Environmental, Inc.

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KLee

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~Trow 9500~~	~~67992~~
Depth to Bottom		ft.	YSI 6920 (Equipco rental)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1115	N/A	N/A	19.30	11962	6.81	92.5	1.50	2.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

KLee

Sample Number:	~~PMLS3-5-010713~~ PMLS3-5-010813
Sample Date/Time:	~~1-7-13~~ 1-8-13 / 1120
Sampler ID:	KLee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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KLee

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~KLee Troll 9500~~	~~67992~~
Depth to Bottom	1	ft.	YSI 6920 (Equipco Rental)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1145	N/A	N/A	20.39	729	6.30	-83.7	1.35	1.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

KLee

SAMPLE INFORMATION

Sample Number:	~~PMLS3-6-010713~~ PMLS 3-6-010813
Sample Date/Time:	~~1·7·13~~ 1·8·13 / 1150
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~Troll 9500~~	67992
Depth to Bottom		ft.	YSI 6920 (Equipco rental)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	19.34	5952	6.96	-61.4	1.05	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PMLS 4-1-010713~~ PMLS 4-1-010813
Sample Date/Time:	~~1-7-13~~ 1-8-13 1205
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

DATE ~~1-7-13~~ 1-8-13 KLee

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	KLee Trou 9500	67992
Depth to Bottom		ft.	YSI 692D (Equipco rental)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	N/A	N/A	19.01	3321	7.18	-63.9	1.02	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

KLee

Sample Number:	~~PMLS4-2-010713~~ PMLS4-2-010813
Sample Date/Time:	~~1-7-13~~ 1-8-13 / 1220
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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DATE	~~1-7-13~~ 1-8-13 KLee

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~Troll 9500~~	~~67992~~
Depth to Bottom		ft.	YSI 6920 (equipco rental)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1225	N/A	N/A	19.12	61	5.87	-59.1	1.27	2.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PMLS4-5-010713~~ PMLS4-5-010813
Sample Date/Time:	~~1-7-13~~ 1-8-13 1230
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	~~TROLL 9500~~	~~67992~~
Depth to Bottom		ft.	YSI 6920 (EQUIPCO RENTAL)	
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1240	N/A	N/A	18.89	23993	6.82	48.5	2.06	7.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~PMLS 4-6-010713~~ PMLS4-6-010813
Sample Date/Time:	~~1·7·13~~ 1·8·13 / 1245
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	136 6920 (AR Equip Co.)	
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1105	N/A	N/A	19.11	3454	7.05	-26.5	1.52	0.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-2-010813
Sample Date/Time:	1·8·13 / 1110
Sampler ID:	K. Lee
Weather Conditions:	Clear, mild, 57°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0935	N/A	N/A	18.50	764/2	7.13	-5	1.48	21.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-1-031913
Sample Date/Time:	3·19·13 / 0940
Sampler ID:	K. LEE
Weather Conditions:	MOSTLY SUNNY; 52

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	18.84	8037	6.96	-48	1.12	15.2	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 1-2-031913
Sample Date/Time:	3·19·13 1010
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1025	N/A	N/A	19.29	7544	6.86	-43	1.43	2.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS1-3~~ SMLS1-3-031913
Sample Date/Time:	3·19·13 1030
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☐	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (AEGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	N/A	N/A	19.27	7647	7.05	-53	0.77	7.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS1-4-031913
Sample Date/Time:	3·19·13 1045
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trou 9500 (Argus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1110	N/A	N/A	19.32	5899	6.91	-112	1.70	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS4-2-031913

Sample Date/Time: 3·19·13 / 1115

Sampler ID: K.LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes: STRONG SULFUR ODOR

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	19.32	5.913	6.91	-71	1.68	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	MW9901-031913		
Sample Date/Time:	3·19·13 / 1125		
Sampler ID:	R. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
	FIELD DUPE	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS ~~7-1~~ 4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity ~~(uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1130	N/A	N/A	19.35	5895	7.22	-93	7.43	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS 7-1-031913~~ SMLS4-3-031913
Sample Date/Time:	3·19·13 / 1135
Sampler ID:	
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By:

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SAMPLE COLLECTION LOG

Project Name:	Plume 4-1		
Project Number:	139941	Well ID:	~~SMLS7-2~~ SMLS7-1
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Troll 9500 (Argus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization		Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1150	N/A	N/A	19.66	6820	6.98	-71	1.77	1.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS7-2 031913~~ SMLS7-1-031913
Sample Date/Time:	3·19·13 1155
Sampler ID:	R. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name:	Plume 4-1		
Project Number:	139941	Well ID:	~~SMLS7-3~~ ~~SMLS7~~ SMLS7-2
Project Location:	Alameda		

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119467
Depth to Bottom	/	ft.		
Screen Interval	/	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1200	N/A	N/A	19.45	6010	7.02	-108	2.48	6.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	~~SMLS7-3-031913~~ SMLS7-2-031913
Sample Date/Time:	3·19·13 / 1205
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	N/A	N/A	19.77	5209	6.85	-86	1.97	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS7-3-03191 3		
Sample Date/Time:	3·19·13 / 1220		
Sampler ID:	K. LEE		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom	/	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0840	N/A	N/A	17.71	6884	4.55	~~381~~ -77	1.78	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS3-1-032013
Sample Date/Time:	3.20.13 / 0845
Sampler ID:	K. LEE
Weather Conditions:	RAINY; SLIGHT BREEZE; MID-50'S

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (Aegus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0855	N/A	N/A	17.75	6891	7.06	-74	2.60	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS3-2-032013
Sample Date/Time:	3-20-13 0900
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (Aegus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	18.32	13240	6.96	-153	1.50	0.7	–

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS3-5-032013
Sample Date/Time: 3·20·13 / 0910
Sampler ID: R. Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Troll 9500 (Argus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0920	N/A	N/A	18.02	15020	6.70	-45	1.31	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS3-6-032013		
Sample Date/Time:	3·20·13 / 0925		
Sampler ID:	K. Lee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (Aegus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0930	N/A	N/A	17.94	6934	7.16	-84	2.12	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-1-032013

Sample Date/Time: 3·20·13 / 0935

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trow 9500 (Argus)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: NA

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0940	N/A	N/A	18.34	3147	7.35	-67	1.88	0.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS4-2-032013
Sample Date/Time:	3·20·13 1045
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	Trow 9500 (Argus)	1119464
Depth to Bottom	1	ft.		
Screen Interval		ft.		

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0950	N/A	N/A	18.34	3147	7.35	-67	1.88	0.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	MW9902-032013
Sample Date/Time:	3·20·13 1055
Sampler ID:	KLEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☐	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1000	N/A	N/A	18.79	9692	6.78	-146	1.25	14.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 4-5-032013
Sample Date/Time:	3·20·13 1005
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	TROLL 9500 (ARGUS)	1119464
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1010	N/A	N/A	18.05	23880	6.95	-92	2.54	3.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS 4-6-032013

Sample Date/Time: 3.20.13 / 1015

Sampler ID: K. LEE

Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

DATE 5·1·13

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW01

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	~~N/A~~ 3.54	ft.	YSI 6820	84311
Depth to Bottom	25	ft.		
Screen Interval	10	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: ~~N/A~~ 0950 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0955	240	3.80	21.37	0.998	6.81	-80.9	0.85	25.2	
1000	275	3.95	20.99	1.003	6.80	-87.7	0.74	20.1	
1003	275	4.02	20.71	1.007	6.78	-94.2	0.58	14.5	
1006	~~300~~ 240	4.16	20.49	1.013	6.75	-101.9	0.44	11.6	
—		—	—	—	—	—	—	—	
1009	300	4.19	20.42	1.015	6.74	-106.8	0.36	8.3	
1012	300	4.19	20.46	1.025	6.72	-111.4	0.34	8.2	
1015	300	4.19	20.46	1.037	6.72	-117.0	0.30	6.8	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW01-050113
Sample Date/Time: 5·1·13 / 1020
Sampler ID: K. LEE
Weather Conditions: CLEAR, WARM, 76°

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW02

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.41 N/A	ft.	YSI 6820	84311
Depth to Bottom	25	ft.		
Screen Interval	10	ft.		

Purging Method: [X] Peristaltic Pump [ ] Bailer [ ] Grunfos Pump [ ] Bladder Pump

Pump Start Time: 1035 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	±1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1040	300	3.59	20.33	5.269	6.91	-109.6	0.53	4.6	
1045	300	3.68	20.17	5.350	6.96	-116.5	0.47	75.8	FORGOT TO SHADE
1048	300	3.69	20.02	5.451	6.99	-121.7	0.41	3.9	
1051	300	~~3.70~~ 3.69	19.93	5.564	6.99	-125.4	0.35	14.6	
1054	300	3.69	19.90	5.640	6.99	-128.7	0.31	3.7	
1057	300	3.69	19.84	5.779	6.98	-134.8	0.27	118.9	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW02-050113
Sample Date/Time:	5·1·13 1100
Sampler ID:	K.Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	[x]	VOAs with HCl
	Sulfide (SM 4500-S2)	[ ]	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	[ ]	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	[x]	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	[ ]	VOAs with H3PO4
	DHC DNA (qPCR)	[ ]	1L with no preservative
		[ ]	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: Kle

Shaw® Shaw Environmental, Inc.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW03

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.37 ~~N/A~~ KAW	ft.	YSI 6820	84311
Depth to Bottom	25 I	ft.		
Screen Interval	10	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1130 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) ~~mS/cm~~	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
~~1135~~	~~300~~	~~3.38~~ 3.38							~~KLee~~
1140	300	3.73	22.08	1.784	7.08	-139.2	0.80	12.8	
1143	300	3.90	21.31	1.749	7.09	-143.2	0.47	10.2	
1146		4.08	20.94	1.742	7.07	-144.5	0.34	24.9	
1149		4.13	20.68	1.748	7.08	-146.7	0.29	9.3	
1152		4.15	20.59	1.758	7.08	-148.0	0.27	11.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PEW03-050113
Sample Date/Time: 5·1·13 / 1155
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

NOTE: COVER FOR WELL IS BLOCKED BY FENCING. WHEN REMOVING, PULL TOWARD INTERIOR OF FENCED AREA AS FLAT AS POSSIBLE.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PEW04

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	3.67	ft.	YSI 6820	84311
Depth to Bottom	25	ft.		
Screen Interval	10	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1210 Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1215	300	3.86	21.00	2.012	6.82	-115.5	1.14	9.8	
1218		3.89	20.80	6.056	6.95	-145.6	0.48	52.0	
1221		3.84	20.80	7.136	6.97	-148.7	0.33	45.0	
1224		3.84	21.04	7.779	6.99	-150.8	0.27	14.6	
1227		3.84	21.08	7.988	6.99	-150.4	0.26	3.3	
1230		3.84	21.08	8.065	6.99	-150.7	0.25	5.4	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PEW04-050113
Sample Date/Time:	5·1·13 / 1235
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

NOTE: SUN DIRECTLY OVERHEAD, SHADING SONDE AS BEST AS POSSIBLE.

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS 1-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co.)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	20.74	4014	7.00	-104.7	6.71	75.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 1-1-061113
Sample Date/Time:	6·11·13 / 1010
Sampler ID:	K. Lee
Weather Conditions:	Overcast; 62°F

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: K. Lee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 1-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co.)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval	1	ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1030	N/A	N/A	20.56	7916	6.86	-124.1	6.23	55.6	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-2-061113

Sample Date/Time: 6·11·13 / 1035

Sampler ID: K Lee

Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☐	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: SMLS 1-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1045	N/A	N/A	20.52	7768	6.77	-118.9	6.71	69.1	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-3-061113
Sample Date/Time: 6·11·13 / 1050
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS1-4

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equipto)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1100	N/A	N/A	20.77	754.6	6.90	-120.2	5.90	52.3	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS1-4-060113

Sample Date/Time: 6·11·13 / 1105

Sampler ID: K. Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KL

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1120	N/A	N/A	21.28	6.021	6.71	-85.7	7.15	51.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS 4-2-061113
Sample Date/Time: 6-11-13 / 1125
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 4-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1135	N/A	N/A	21.44	6.643	7.24	-92.4	12.61	51.6	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS4-3-061113
Sample Date/Time:	6·11·13 / 1140
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:			
	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KALC

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920-10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1155	N/A	N/A	21.44	7085	6.80	-126.5	2.73	55.0	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-1-061113
Sample Date/Time:	6·11·13 / 1200
Sampler ID:	K Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☐	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1210	N/A	N/A	20.89	6147	7.04	-108.1	11.29	62.7	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	SMLS 7-2-060113		
Sample Date/Time:	6·11·13 1215		
Sampler ID:	K. Cee		
Weather Conditions:			
Analyses & Volume Collected:	VOC (8260B)	☑	VOAs with HCl
	Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
	Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
	Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
	Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
	DHC DNA (qPCR)	☑	1L with no preservative
		☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

Shaw® Shaw Environmental, Inc.

SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: SMLS 7-3

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Temp Co)	YSI-6920-1B
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~µS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1230	N/A	N/A	29.61	5742	6.70	71.6	8.77	51.1	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: SMLS7-3-0611.3
Sample Date/Time: 6-11-13 / 1235
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☑	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☑	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☑	VOAs with H3PO4
DHC DNA (qPCR)	☑	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: AMLS3-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~ mS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0830	N/A	N/A	20.16	6285	6.76	-69.4	4.83	51.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	AMLS3-1-061213
Sample Date/Time:	6.12.13 / 0835
Sampler ID:	K. Lee
Weather Conditions:	Clear, mild; 52°F

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: [signature]

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda
Well ID: PMLS 3·2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 692Ø (Temp Lo.)	YSI-692Ø.1Ø
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: N/A
Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0845	N/A	N/A	19.88	6179	6.68	-92.4	5.17	5Ø.5	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)
NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS 3-2-Ø61213
Sample Date/Time: 6·12·13 / Ø85Ø
Sampler ID: K. Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS3-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0855	N/A	N/A	19.81	12537	6.67	-89.2	4.19	55.5	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 3-5-061213
Sample Date/Time:	6·12·13 / 0900
Sampler ID:	K. LEE
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 3-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equip Co)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (µS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
0905	N/A	N/A	19.63	20818	6.33	-22.3	4.81	51.7	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS 3-6-061213
Sample Date/Time: 6·12·13 / 0910
Sampler ID: K. LEE
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS 4-1

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 692Ø	YSI-692Ø.1Ø
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (~~uS/cm~~) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
Ø915	N/A	N/A	2Ø.Ø1	6874	6.87	-76.1	5.74	51.Ø	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number:	PMLS 4-1-Ø61213
Sample Date/Time:	6·12·13 / Ø92Ø
Sampler ID:	K. Lee
Weather Conditions:	

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-2

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (Equipco)	YSI-6920.10
Depth to Bottom	↓	ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	--	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1005	N/A	N/A	19.81	6593	6.66	-64.7	6.16	52.0	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-2-060213

Sample Date/Time: 6·12·13 / 1010

Sampler ID: K.Lee

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes: PUMP MALFUNCTION

HDPE - High Density Polyethylene

VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-5

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 6920 (EquipCo)	YSI-6920.10
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: N/A Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	Conductivity (uS/cm) mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1015	N/A	N/A	20.34	11529	6.38	-27.4	4.99	54.8	—

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-5-061213
Sample Date/Time: 6·12·13 / 1020
Sampler ID: K.Lee
Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

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SAMPLE COLLECTION LOG

Project Name: Plume 4-1
Project Number: 139941
Project Location: Alameda

Well ID: PMLS4-6

WELL DATA

			Sampling equipment/meters used	Serial # or ID #
Depth to Water	N/A	ft.	YSI 692Ø (Equipto)	YSI-692Ø.1Ø
Depth to Bottom		ft.		
Screen Interval		ft.		

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: NA

Approximate depth of pump inlet*(ft) N/A

PURGE DATA

Time of Reading	Purge Rate (ml/min)	Dynamic Depth to Water	Temp. (°C)	~~Conductivity (uS/cm)~~ mS/cm	pH	ORP (mV)	DO (mg/L)	Turbidity (FNU/NTU)	Notes
Purge Stabilization	–	Feet	± 1 °C	±10%	±0.1 units	±10 mV	±10%	NA	
1Ø3Ø	N/A	N/A	2Ø.84	23515	6.56	-78.5	4.98	51.Ø	

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

Flow Rate During Sampling: 100 ml/min or less (VOA) - 300-500 ml/min. (SVOA/inorganics)

NA not a stabilization parameter for this project

SAMPLE INFORMATION

Sample Number: PMLS4-6-Ø61213

Sample Date/Time: 6·12·13 / 1Ø35

Sampler ID: K. LEE

Weather Conditions:

Analyses & Volume Collected:

VOC (8260B)	☑	VOAs with HCl
Sulfide (SM 4500-S2)	☐	HDPE with ZnAc2 & NaOH
Sulfate/Nitrate/Chloride (300.0)	☐	HDPE with no preservative
Dissolved Gases (RSK-175 M)	☑	VOAs with HCl
Volatile Fatty Acids (HPLC/UV)	☐	VOAs with H3PO4
DHC DNA (qPCR)	☐	1L with no preservative
	☐	

Notes:
HDPE - High Density Polyethylene
VOA - Volatile Organic Analysis Vial

Prepared By: KLee

Appendix G
Groundwater Analytical Reports

APPENDIX G – GROUNDWATER ANALYTICAL REPORTS

IS AVAILABLE ELECTRONICALLY

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA
COMMAND RECORDS MANAGER, CODE EV33
NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
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Appendix H
Data Quality Assessment

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Attachment 1 Summary Table: Final Qualified Analytical Results, Plume 4-1 Treatability Study, Alameda Point, July 2012 to June 2013

Acronyms and Abbreviations

EPA	U.S. Environmental Protection Agency
Final SAP	*Addendum 01 to Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study at Plume 4-1, Operable Unit 2B, Installation Restoration Site 4*
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MS	matrix spike
MSD	matrix spike duplicate
QC	quality control
RPD	relative percent difference
Shaw	Shaw Environmental, Inc., a CB&I company
Shaw E&I	Shaw Environmental & Infrastructure, Inc.

1.0 Laboratory Data Quality Assessment

The data quality assessment describes the findings of the data review and validation and is provided to document the quality of the analytical data used for project decisions. The project-specific sampling, analysis activities, overall quality control (QC), and quality assurance protocols are presented in the following document:

- *Addendum 01 to the Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study at Plume 4-1, Operable Unit 2B, Installation Restoration Site 4* (Final SAP; Shaw Environmental & Infrastructure, Inc. (Shaw E&I], 2012)

Soil and groundwater samples collected for this project were shipped to Calscience Environmental Laboratory located in Garden Grove, California for analysis. Calscience is a U.S. Department of Defense Environmental Laboratory Accreditation Program-accredited laboratory and a State of California National Environmental Laboratory Accreditation Program-accredited laboratory.

In accordance with the project Final SAP (Shaw E&I, 2012) data review requirements, the analytical results obtained from treatability study groundwater samples were reviewed by a Shaw Environmental, Inc., a CB&I company (Shaw), Project Chemist. The intended use of this data is to evaluate a treatability study for alternative remediation technologies and the data are not intended for site investigation or closure. The sample results obtained for the purpose of waste characterization or permit compliance were also reviewed by the Shaw Project Chemist; however, the following sections focus on the treatability groundwater data review findings.

A Shaw Project Chemist manually performed a Level III data review for the groundwater and soil samples collected per the requirements of the Final SAP (Shaw E&I, 2011). Table 1 summarizes sample delivery group, sample numbers, sampling dates, analytical methods and data review level for the samples. The validation was performed in accordance with the guidelines and control criteria specified in the following documents:

- *Quality Systems Manual for Environmental Laboratories*, Version 4.2 (U.S. Department of Defense, 2010)
- *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (U.S. Environmental Protection Agency [EPA], 2008)
- *Test Methods for Evaluating Solid Waste, SW-846 Physical/Chemical Methods* (EPA, 2007)

- Project specific quality assurance project plan and sampling and analysis plan

The following QC elements were included in the Level III data review:

- Sample receipt and preservation
- Sample holding times
- Laboratory method blanks
- Surrogate recoveries
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Relative percent difference (RPD)
- Initial calibrations
- Continuing calibrations
- Field blanks
- Field duplicate

The following sections present a discussion of the data review and validation findings. Data were reviewed in terms of precision, accuracy, representativeness, comparability, and completeness; parameters were evaluated for the analytical data as follows:

- Accuracy is demonstrated by recovery of target analytes from fortified blank and sample matrices, LCS/LCSD and MS/MSD, respectively. The recovery of target analytes from fortified samples is compared to acceptance criteria. When these criteria are not met, the data are flagged as appropriate.
- Precision is expressed as RPD between the results of replicate sample analyses: sample duplicates, LCSDs and MSDs. When analyte RPDs exceed the acceptance criteria, the data are flagged as appropriate.
- Representativeness of the samples submitted for analysis is ensured by adherence to standard sampling techniques and protocols.
- Comparability of sample results is ensured through the use of approved sampling and analysis methods.
- Completeness is expressed as a ratio of number of usable data to all analytical data.

The following sections provide a discussion of the data review and validation. The following table presents the definition of data qualification flags and reason codes applied to the sample results. Table 2 summarizes qualified data from the review. The final data summary table showing all validated results for the Plume 4-1 Treatability Study is provided in the data quality assessment, Attachment 1.

Data Qualificaiton Flags and Reason Codes

Qualifier	Definition
	No Qualifier indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for but was not detected above the reported sample quantitation limit.
J	The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Qualifier denotes the data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria. Results are rejected and data are not usable for project decisions.
Reason Code	**Description**
A	Serial dilution outside criteria (Level IV)
B1	Method blank contaminants above reporting limit
B2	Calibration blank contaminants above reporting limit
B2	Calibration blank indicates negative interference, false negatives may be present
B3	Trip blank contamination
B4	Equipment rinsate contamination
B5	Ambient/source blank contamination
C	ICV or continuing calibration verification percent D outside control limits
C1	Initial calibration relative standard deviation outside control limit
C2	Initial calibration relative response factor outside control limit
C3	Continuing calibration relative response factor outside control limit
D1	Sample Duplicate RPD outside control limit
D2	Matrix Duplicate RPD outside control limit
E	The sample results exceed the linear calibration range of the instrument
F	Hydrocarbon pattern does not match hydrocarbon pattern in the standard
H	Holding time exceeded

Reason Code	Description
I	Internal standard recovery outside control limit
L	LCS outside control limits
LC	Leak check compound detected in sample above control limits
M	MS outside control limits
M1	MS, MSD, or RPD outside of control limits
O	Interference check sample outside acceptance criteria
P	Analyte qualified based on the professional judgment of the reviewer
S	Surrogate recovery outside control limit
T	Temperature outside acceptance criteria
Tr	Value reported detected between the detection limit and limit of quantitation
W	Pesticide breakdown outside criteria (Level IV)
X	Raised reporting limit due to matrix interference or high analyte concentration
Y	Analyte was not confirmed by a second column
Y1	Primary and confirmation analysis RPD outside control limit

1.1 Sample Receipt and Preservation

Samples were picked up at the project site by the laboratory courier the same day as sample collection, if possible. If samples were held overnight at the site, they were stored in a locked area in the on-site sample refrigerator or in a cooler with ice. Sample coolers were packed with ice, and the samples contained within were received at the laboratory within the specified temperature range of 0 to 6 degrees Celsius in compliance with the recommended EPA preservation requirements.

1.2 Sample Holding Time (Reason Code H)

Sample holding times were evaluated by comparing the sample collection dates to the sample analysis dates. Analysis holding times were reviewed for all samples to determine the validity of analytical results. Based on the review, all samples met their respective analysis holding time requirements.

1.3 Laboratory Method Blank (Reason Code B1)

All field sample results were evaluated with respect to the laboratory method blank prepared and analyzed for each analytical batch. Target analytes were not detected in the laboratory method blanks (reason code B1).

1.4 Trip Blank (Reason Code B3)

Trip blanks were prepared at the laboratory and stored along with all groundwater samples for volatile analysis. Volatile samples were maintained in as few coolers as possible to minimize the number of required trip blanks. If an analyte concentration detected in project sample was less than five times the associated blank concentration (or 10 times for common laboratory contaminant), then the sample result was reported as not detected (U) at the specified limit of quantitation. Acetone was detected in the trip blank of sample delivery group 12-11-1162 at a concentration of 7.4 micrograms per liter (µg/L). Acetone was also detected at trace concentrations in samples SMLS 1-1 (11/14/12) and SMLS 1-2 (11/14/12). Due to the blank contamination, project sample results were qualified as not-detect (U) for Acetone, reason code B3 at the limit of quantitation.

1.5 Equipment Rinse Blank (Reason Code B4)

Equipment rinse blanks are used to evaluate the effectiveness of field decontamination procedures and to determine if cross contamination between sampling locations may be occurring. All groundwater samples for the treatability study were collected using dedicated equipment and as a result no equipment rinse blanks were collected.

1.6 Surrogate Recovery (Reason Code S)

Surrogate standards are spike compounds added to field and laboratory QC samples for organic analysis to evaluate matrix effect and method accuracy on an individual sample basis. Based on the review, surrogate recoveries in all samples were within the acceptable control limits with exceptions noted in Table 2 (Reason code S). Table 2 shows the detected and not detected sample results that were qualified as estimated (J) or (UJ) due to out of control surrogate recoveries. In all instances, deviations in surrogate recovery were minor, therefore no data were rejected and all data are usable as qualified.

1.7 Laboratory Control Sample/Laboratory Control Sample Duplicate (Reason Code L)

The LCS is an aliquot of analyte-free sample matrix spiked with target analytes and is prepared with each analytical batch for each analysis. The recovery of target analytes from the LCS analysis is a measurement of method performance in an interference-free sample matrix. The review indicated that LCS analyses were performed for every laboratory QC batch. All of the LCS and LCSD recoveries met the established control criteria.

1.8 Matrix Spike/Matrix Spike Duplicate (Reason Code M)

The MS and MSD samples are a portion of a field sample spiked with target analytes, and are prepared with each analytical batch. The MS/MSD results are used to evaluate any bias

introduced to the method due to matrix interference, and to measure accuracy and precision for each analytical batch.

For all MS/MSD analyses, percent recoveries and the RPDs between MS and MSD met established accuracy and precision requirements with exceptions noted in Table 2 (Reason Code M). Table 2 shows the detected and not detected sample results that were qualified as estimated (J) or (UJ), due to non-compliant MS/MSD recoveries.

1.9 Initial Calibrations (Reason Code G1)

Instrument calibration is performed for each analysis according to the EPA method requirements. The linear analytical range is established for each method by analysis of standards prepared at increasing concentrations that cover the expected sample concentrations. The acceptability of the initial calibration is determined by calculation of a percent relative standard deviation or correlation coefficient. Based on the review, initial calibration requirements were met for all analyses.

1.10 Continuing Calibrations (Reason Code C)

Following initial calibrations and routinely during sample analysis, the stability of analytical systems is monitored by analysis of continuing calibration standards at concentrations near the mid-point of the linear range. All continuing calibration requirements were met for all methods, with some exceptions. For these exceptions, the percent differences between the initial calibration relative response factor and the continuing calibration relative response factor exceeded the 20 percent method control requirement. In all cases above, the continuing calibration verification exceedances were minor and data usability was not affected due to the calibration deficiencies. Table 2 shows the detected and not detected sample results that were qualified as estimated (J) or (UJ), reason code (C) for calibration deficiencies.

1.11 Field Duplicate

Field duplicate samples are scheduled to be collected at a minimum rate of 10 percent of the total number of groundwater samples collected. Due to a field sampling error only five field duplicates were collected. All collected sets did meet the RPD goal of 35 percent for groundwater samples with a few exceptions noted in Table 4. Data are not qualified due to field duplicate exceedances.

1.12 Completeness

The following section presents a discussion of analytical and technical completeness for the sampling event. Table 5 summarizes completeness calculations for each analytical method.

1.12.1 Analytical Completeness

Analytical completeness is a quantitative expression of how closely the results adhered to all QC requirements based on the number of data points qualified for any reason. The analytical completeness goal is 90 percent. Analytical completeness is calculated as follows:

$$\% \text{ Analytical Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Total Number of Results}} \times 100$$

Analytical completeness is based on samples qualified for any reason and includes all target analytes. The analytical completeness goal was met for all methods.

1.12.2 Technical Completeness

Technical completeness is a quantitative expression of the data usability based on the number of rejected data. The technical completeness calculation considers all data that are not rejected to be usable for project decisions. The technical completeness goal for the project is 95 percent and is calculated as follows:

$$\% \text{ Technical Completeness} = \frac{\text{Number of Usable Results}}{\text{Total Number of Results}} \times 100$$

The technical completeness goal was met for all methods; therefore, sufficient usable data were obtained to meet the project data quality objectives.

1.13 Summary

Based on the above data review, there were no significant, systematic problems identified with the performance of any analytical methods. Although some results were qualified as estimated, the data usability was not affected. The data overall are of good technical quality and meet project objectives. All data reported are usable and available for project decisions.

2.0 References

Shaw Environmental & Infrastructure, Inc., 2012, *Addendum 01 to Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study at Plume 4-1, Operable Unit 2B, Installation Restoration Site 4*

U.S. Department of Defense, 2010, *Quality Systems Manual for Environmental Laboratories*, Version 4.2.

U.S. Environmental Protection Agency (EPA), 2007, *Test Methods for Evaluating Solid Waste, SW-846 Physical/Chemical Methods*.

EPA, 2008, *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*.

EPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*.

Tables

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
7/9/2012	12070512	Groundwater	MW9901 (07/09/12)	SMLS 1-4	CEL	FD	SW8260B	III
7/9/2012	12070512	Groundwater	MW9902 (07/09/12)	SMLS 7-1	CEL	FD	SW8260B	III
7/9/2012	12070512	Groundwater	MW9903 (07/09/12)	PEW 4	CEL	FD	SW8260B	III
7/9/2012	12070512	Groundwater	PEW 1 (07/09/12)	PEW 1	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	PEW 1 (07/09/12)	PEW 1	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	PEW 1 (07/09/12)	PEW 1	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	PEW 1 (07/09/12)	PEW 1	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	PEW 1 (07/09/12)	PEW 1	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	PEW 2 (07/09/12)	PEW 2	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	PEW 2 (07/09/12)	PEW 2	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	PEW 2 (07/09/12)	PEW 2	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	PEW 2 (07/09/12)	PEW 2	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	PEW 2 (07/09/12)	PEW 2	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	PEW 3 (07/09/12)	PEW 3	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	PEW 3 (07/09/12)	PEW 3	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	PEW 3 (07/09/12)	PEW 3	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	PEW 3 (07/09/12)	PEW 3	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	PEW 3 (07/09/12)	PEW 3	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	PEW 4 (07/09/12)	PEW 4	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	PEW 4 (07/09/12)	PEW 4	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	PEW 4 (07/09/12)	PEW 4	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	PEW 4 (07/09/12)	PEW 4	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	PEW 4 (07/09/12)	PEW 4	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 1-1 (07/09/12)	SMLS 1-1	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 1-1 (07/09/12)	SMLS 1-1	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 1-1 (07/09/12)	SMLS 1-1	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 1-1 (07/09/12)	SMLS 1-1	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 1-1 (07/09/12)	SMLS 1-1	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 1-2 (07/09/12)	SMLS 1-2	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 1-2 (07/09/12)	SMLS 1-2	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 1-2 (07/09/12)	SMLS 1-2	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 1-2 (07/09/12)	SMLS 1-2	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 1-2 (07/09/12)	SMLS 1-2	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 1-3 (07/09/12)	SMLS 1-3	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 1-3 (07/09/12)	SMLS 1-3	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 1-3 (07/09/12)	SMLS 1-3	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 1-3 (07/09/12)	SMLS 1-3	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 1-3 (07/09/12)	SMLS 1-3	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 1-4 (07/09/12)	SMLS 1-4	CEL	N	A4500SD	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
7/9/2012	12070512	Groundwater	SMLS 1-4 (07/09/12)	SMLS 1-4	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 1-4 (07/09/12)	SMLS 1-4	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 1-4 (07/09/12)	SMLS 1-4	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 1-4 (07/09/12)	SMLS 1-4	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 4-2 (07/09/12)	SMLS 4-2	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 4-2 (07/09/12)	SMLS 4-2	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 4-2 (07/09/12)	SMLS 4-2	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 4-2 (07/09/12)	SMLS 4-2	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 4-2 (07/09/12)	SMLS 4-2	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 4-3 (07/09/12)	SMLS 4-3	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 4-3 (07/09/12)	SMLS 4-3	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 4-3 (07/09/12)	SMLS 4-3	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 4-3 (07/09/12)	SMLS 4-3	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 4-3 (07/09/12)	SMLS 4-3	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 7-1 (07/09/12)	SMLS 7-1	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 7-1 (07/09/12)	SMLS 7-1	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 7-1 (07/09/12)	SMLS 7-1	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 7-1 (07/09/12)	SMLS 7-1	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 7-1 (07/09/12)	SMLS 7-1	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 7-2 (07/09/12)	SMLS 7-2	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 7-2 (07/09/12)	SMLS 7-2	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 7-2 (07/09/12)	SMLS 7-2	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 7-2 (07/09/12)	SMLS 7-2	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 7-2 (07/09/12)	SMLS 7-2	CEL	N	SW8260B	III
7/9/2012	12070512	Groundwater	SMLS 7-3 (07/09/12)	SMLS 7-3	CEL	N	A4500SD	III
7/9/2012	12070512	Groundwater	SMLS 7-3 (07/09/12)	SMLS 7-3	CEL	N	E300.0	III
7/9/2012	12070512	Groundwater	SMLS 7-3 (07/09/12)	SMLS 7-3	CEL	N	OAHPLC	III
7/9/2012	12070512	Groundwater	SMLS 7-3 (07/09/12)	SMLS 7-3	CEL	N	RSK175	III
7/9/2012	12070512	Groundwater	SMLS 7-3 (07/09/12)	SMLS 7-3	CEL	N	SW8260B	III
7/9/2012	12070512	Field QC	TB (07/09/12)	FieldQC	CEL	TB	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 3-1 (07/10/12)	PMLS 3-1	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 3-1 (07/10/12)	PMLS 3-1	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 3-2 (07/10/12)	PMLS 3-2	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 3-2 (07/10/12)	PMLS 3-2	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 3-5 (07/10/12)	PMLS 3-5	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 3-5 (07/10/12)	PMLS 3-5	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 3-6 (07/10/12)	PMLS 3-6	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 3-6 (07/10/12)	PMLS 3-6	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 4-1 (07/10/12)	PMLS 4-1	CEL	N	RSK175	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
7/10/2012	12070521	Groundwater	PMLS 4-1 (07/10/12)	PMLS 4-1	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 4-2 (07/10/12)	PMLS 4-2	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 4-2 (07/10/12)	PMLS 4-2	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 4-5 (07/10/12)	PMLS 4-5	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 4-5 (07/10/12)	PMLS 4-5	CEL	N	SW8260B	III
7/10/2012	12070521	Groundwater	PMLS 4-6 (07/10/12)	PMLS 4-6	CEL	N	RSK175	III
7/10/2012	12070521	Groundwater	PMLS 4-6 (07/10/12)	PMLS 4-6	CEL	N	SW8260B	III
7/10/2012	12070521	Field QC	TB-(07/10/12)	FieldQC	CEL	TB	SW8260B	III
7/20/2012	12071352	Groundwater	PEW-02(48hr)-072012	PEW 2	CEL	N	OAHPLC	III
7/26/2012	12071594	Groundwater	PEW-02-072612	PEW 2	CEL	N	OAHPLC	III
8/6/2012	12080412	Groundwater	PEW-02-080612	PEW 2	CEL	N	OAHPLC	III
8/6/2012	12080412	Groundwater	PEW-03-080612	PEW 3	CEL	N	OAHPLC	III
8/16/2012	12081268	Groundwater	PEW-02-081612	PEW 2	CEL	N	OAHPLC	III
8/16/2012	12081268	Groundwater	PEW-03-081612	PEW 3	CEL	N	OAHPLC	III
8/23/2012	12081735	Groundwater	PEW-02-082312	PEW 2	CEL	N	OAHPLC	III
8/23/2012	12081735	Groundwater	PEW-03-082312	PEW 3	CEL	N	OAHPLC	III
9/19/2012	12091227	Groundwater	PEW-01-091912	PEW 1	CEL	N	A4500SD	III
9/19/2012	12091227	Groundwater	PEW-01-091912	PEW 1	CEL	N	E300.0	III
9/19/2012	12091227	Groundwater	PEW-01-091912	PEW 1	CEL	N	OAHPLC	III
9/19/2012	12091227	Groundwater	PEW-01-091912	PEW 1	CEL	N	RSK175	III
9/19/2012	12091227	Groundwater	PEW-01-091912	PEW 1	CEL	N	SW8260B	III
9/19/2012	12091227	Groundwater	PEW-02-091912	PEW 2	CEL	N	A4500SD	III
9/19/2012	12091227	Groundwater	PEW-02-091912	PEW 2	CEL	N	E300.0	III
9/19/2012	12091227	Groundwater	PEW-02-091912	PEW 2	CEL	N	OAHPLC	III
9/19/2012	12091227	Groundwater	PEW-02-091912	PEW 2	CEL	N	RSK175	III
9/19/2012	12091227	Groundwater	PEW-02-091912	PEW 2	CEL	N	SW8260B	III
9/19/2012	12091227	Groundwater	PEW-03-091912	PEW 3	CEL	N	A4500SD	III
9/19/2012	12091227	Groundwater	PEW-03-091912	PEW 3	CEL	N	E300.0	III
9/19/2012	12091227	Groundwater	PEW-03-091912	PEW 3	CEL	N	OAHPLC	III
9/19/2012	12091227	Groundwater	PEW-03-091912	PEW 3	CEL	N	RSK175	III
9/19/2012	12091227	Groundwater	PEW-03-091912	PEW 3	CEL	N	SW8260B	III
9/19/2012	12091227	Groundwater	PEW-04-091912	PEW 4	CEL	N	A4500SD	III
9/19/2012	12091227	Groundwater	PEW-04-091912	PEW 4	CEL	N	E300.0	III
9/19/2012	12091227	Groundwater	PEW-04-091912	PEW 4	CEL	N	OAHPLC	III
9/19/2012	12091227	Groundwater	PEW-04-091912	PEW 4	CEL	N	RSK175	III
9/19/2012	12091227	Groundwater	PEW-04-091912	PEW 4	CEL	N	SW8260B	III
9/19/2012	12091227	Field QC	TB-091912	FieldQC	CEL	TB	SW8260B	III
9/26/2012	12091706	Groundwater	PEW-01-092612	PEW 1	CEL	N	A4500SD	III
9/26/2012	12091706	Groundwater	PEW-01-092612	PEW 1	CEL	N	E300.0	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
9/26/2012	12091706	Groundwater	PEW-01-092612	PEW 1	CEL	N	OAHPLC	III
9/26/2012	12091706	Groundwater	PEW-01-092612	PEW 1	CEL	N	RSK175	III
9/26/2012	12091706	Groundwater	PEW-01-092612	PEW 1	CEL	N	SW8260B	III
9/26/2012	12091706	Groundwater	PEW-02-092612	PEW 2	CEL	N	A4500SD	III
9/26/2012	12091706	Groundwater	PEW-02-092612	PEW 2	CEL	N	E300.0	III
9/26/2012	12091706	Groundwater	PEW-02-092612	PEW 2	CEL	N	OAHPLC	III
9/26/2012	12091706	Groundwater	PEW-02-092612	PEW 2	CEL	N	RSK175	III
9/26/2012	12091706	Groundwater	PEW-02-092612	PEW 2	CEL	N	SW8260B	III
9/26/2012	12091706	Groundwater	PEW-03-092612	PEW 3	CEL	N	A4500SD	III
9/26/2012	12091706	Groundwater	PEW-03-092612	PEW 3	CEL	N	E300.0	III
9/26/2012	12091706	Groundwater	PEW-03-092612	PEW 3	CEL	N	OAHPLC	III
9/26/2012	12091706	Groundwater	PEW-03-092612	PEW 3	CEL	N	RSK175	III
9/26/2012	12091706	Groundwater	PEW-03-092612	PEW 3	CEL	N	SW8260B	III
9/26/2012	12091706	Groundwater	PEW-04-092612	PEW 4	CEL	N	A4500SD	III
9/26/2012	12091706	Groundwater	PEW-04-092612	PEW 4	CEL	N	E300.0	III
9/26/2012	12091706	Groundwater	PEW-04-092612	PEW 4	CEL	N	OAHPLC	III
9/26/2012	12091706	Groundwater	PEW-04-092612	PEW 4	CEL	N	RSK175	III
9/26/2012	12091706	Groundwater	PEW-04-092612	PEW 4	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS1-1-092812	SMLS 1-1	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS1-1-092812	SMLS 1-1	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS1-1-092812	SMLS 1-1	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS1-1-092812	SMLS 1-1	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS1-1-092812	SMLS 1-1	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS1-2-092812	SMLS 1-2	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS1-2-092812	SMLS 1-2	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS1-2-092812	SMLS 1-2	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS1-2-092812	SMLS 1-2	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS1-2-092812	SMLS 1-2	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS1-3-092812	SMLS 1-3	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS1-3-092812	SMLS 1-3	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS1-3-092812	SMLS 1-3	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS1-3-092812	SMLS 1-3	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS1-3-092812	SMLS 1-3	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS1-4-092812	SMLS 1-4	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS1-4-092812	SMLS 1-4	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS1-4-092812	SMLS 1-4	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS1-4-092812	SMLS 1-4	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS1-4-092812	SMLS 1-4	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS4-2-092812	SMLS 4-2	CEL	N	A4500SD	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
9/28/2012	12091893	Groundwater	SMLS4-2-092812	SMLS 4-2	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS4-2-092812	SMLS 4-2	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS4-2-092812	SMLS 4-2	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS4-2-092812	SMLS 4-2	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS4-3-092812	SMLS 4-3	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS4-3-092812	SMLS 4-3	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS4-3-092812	SMLS 4-3	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS4-3-092812	SMLS 4-3	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS4-3-092812	SMLS 4-3	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS7-1-092812	SMLS 7-1	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS7-1-092812	SMLS 7-1	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS7-1-092812	SMLS 7-1	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS7-1-092812	SMLS 7-1	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS7-1-092812	SMLS 7-1	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS7-2-092812	SMLS 7-2	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS7-2-092812	SMLS 7-2	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS7-2-092812	SMLS 7-2	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS7-2-092812	SMLS 7-2	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS7-2-092812	SMLS 7-2	CEL	N	SW8260B	III
9/28/2012	12091893	Groundwater	SMLS7-3-092812	SMLS 7-3	CEL	N	A4500SD	III
9/28/2012	12091893	Groundwater	SMLS7-3-092812	SMLS 7-3	CEL	N	E300.0	III
9/28/2012	12091893	Groundwater	SMLS7-3-092812	SMLS 7-3	CEL	N	OAHPLC	III
9/28/2012	12091893	Groundwater	SMLS7-3-092812	SMLS 7-3	CEL	N	RSK175	III
9/28/2012	12091893	Groundwater	SMLS7-3-092812	SMLS 7-3	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	PEW01-100512	PEW 1	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	PEW01-100512	PEW 1	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	PEW01-100512	PEW 1	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	PEW01-100512	PEW 1	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	PEW01-100512	PEW 1	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	PEW02-100512	PEW 2	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	PEW02-100512	PEW 2	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	PEW02-100512	PEW 2	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	PEW02-100512	PEW 2	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	PEW02-100512	PEW 2	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	PEW03-100512	PEW 3	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	PEW03-100512	PEW 3	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	PEW03-100512	PEW 3	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	PEW03-100512	PEW 3	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	PEW03-100512	PEW 3	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/5/2012	12100509	Groundwater	PEW04-100512	PEW 4	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	PEW04-100512	PEW 4	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	PEW04-100512	PEW 4	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	PEW04-100512	PEW 4	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	PEW04-100512	PEW 4	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS1-1-100512	SMLS 1-1	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS1-1-100512	SMLS 1-1	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS1-1-100512	SMLS 1-1	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS1-1-100512	SMLS 1-1	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS1-1-100512	SMLS 1-1	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS1-2-100512	SMLS 1-2	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS1-2-100512	SMLS 1-2	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS1-2-100512	SMLS 1-2	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS1-2-100512	SMLS 1-2	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS1-2-100512	SMLS 1-2	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS1-3-100512	SMLS 1-3	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS1-3-100512	SMLS 1-3	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS1-3-100512	SMLS 1-3	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS1-3-100512	SMLS 1-3	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS1-3-100512	SMLS 1-3	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS1-4-100512	SMLS 1-4	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS1-4-100512	SMLS 1-4	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS1-4-100512	SMLS 1-4	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS1-4-100512	SMLS 1-4	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS1-4-100512	SMLS 1-4	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS4-2-100512	SMLS 4-2	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS4-2-100512	SMLS 4-2	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS4-2-100512	SMLS 4-2	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS4-2-100512	SMLS 4-2	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS4-2-100512	SMLS 4-2	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS4-3-100512	SMLS 4-3	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS4-3-100512	SMLS 4-3	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS4-3-100512	SMLS 4-3	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS4-3-100512	SMLS 4-3	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS4-3-100512	SMLS 4-3	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS7-1-100512	SMLS 7-1	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS7-1-100512	SMLS 7-1	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS7-1-100512	SMLS 7-1	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS7-1-100512	SMLS 7-1	CEL	N	RSK175	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/5/2012	12100509	Groundwater	SMLS7-1-100512	SMLS 7-1	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS7-2-100512	SMLS 7-2	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS7-2-100512	SMLS 7-2	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS7-2-100512	SMLS 7-2	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS7-2-100512	SMLS 7-2	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS7-2-100512	SMLS 7-2	CEL	N	SW8260B	III
10/5/2012	12100509	Groundwater	SMLS7-3-100512	SMLS 7-3	CEL	N	A4500SD	III
10/5/2012	12100509	Groundwater	SMLS7-3-100512	SMLS 7-3	CEL	N	E300.0	III
10/5/2012	12100509	Groundwater	SMLS7-3-100512	SMLS 7-3	CEL	N	OAHPLC	III
10/5/2012	12100509	Groundwater	SMLS7-3-100512	SMLS 7-3	CEL	N	RSK175	III
10/5/2012	12100509	Groundwater	SMLS7-3-100512	SMLS 7-3	CEL	N	SW8260B	III
10/5/2012	12100509	Field QC	TB-100512	FieldQC	CEL	TB	SW8260B	III
10/10/2012	12100784	Groundwater	PEW01-101012	PEW 1	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	PEW01-101012	PEW 1	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	PEW01-101012	PEW 1	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	PEW01-101012	PEW 1	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	PEW01-101012	PEW 1	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	PEW02-101012	PEW 2	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	PEW02-101012	PEW 2	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	PEW02-101012	PEW 2	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	PEW02-101012	PEW 2	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	PEW02-101012	PEW 2	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	PEW03-101012	PEW 3	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	PEW03-101012	PEW 3	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	PEW03-101012	PEW 3	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	PEW03-101012	PEW 3	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	PEW03-101012	PEW 3	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	PEW04-101012	PEW 4	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	PEW04-101012	PEW 4	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	PEW04-101012	PEW 4	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	PEW04-101012	PEW 4	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	PEW04-101012	PEW 4	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS1-1-101012	SMLS 1-1	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS1-1-101012	SMLS 1-1	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS1-1-101012	SMLS 1-1	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS1-1-101012	SMLS 1-1	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS1-1-101012	SMLS 1-1	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS1-2-101012	SMLS 1-2	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS1-2-101012	SMLS 1-2	CEL	N	E300.0	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/10/2012	12100784	Groundwater	SMLS1-2-101012	SMLS 1-2	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS1-2-101012	SMLS 1-2	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS1-2-101012	SMLS 1-2	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS1-3-101012	SMLS 1-3	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS1-3-101012	SMLS 1-3	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS1-3-101012	SMLS 1-3	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS1-3-101012	SMLS 1-3	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS1-3-101012	SMLS 1-3	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS1-4-101012	SMLS 1-4	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS1-4-101012	SMLS 1-4	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS1-4-101012	SMLS 1-4	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS1-4-101012	SMLS 1-4	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS1-4-101012	SMLS 1-4	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS4-2-101012	SMLS 4-2	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS4-2-101012	SMLS 4-2	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS4-2-101012	SMLS 4-2	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS4-2-101012	SMLS 4-2	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS4-2-101012	SMLS 4-2	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS4-3-101012	SMLS 4-3	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS4-3-101012	SMLS 4-3	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS4-3-101012	SMLS 4-3	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS4-3-101012	SMLS 4-3	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS4-3-101012	SMLS 4-3	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS7-1-101012	SMLS 7-1	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS7-1-101012	SMLS 7-1	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS7-1-101012	SMLS 7-1	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS7-1-101012	SMLS 7-1	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS7-1-101012	SMLS 7-1	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS7-2-101012	SMLS 7-2	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS7-2-101012	SMLS 7-2	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS7-2-101012	SMLS 7-2	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS7-2-101012	SMLS 7-2	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS7-2-101012	SMLS 7-2	CEL	N	SW8260B	III
10/10/2012	12100784	Groundwater	SMLS7-3-101012	SMLS 7-3	CEL	N	A4500SD	III
10/10/2012	12100784	Groundwater	SMLS7-3-101012	SMLS 7-3	CEL	N	E300.0	III
10/10/2012	12100784	Groundwater	SMLS7-3-101012	SMLS 7-3	CEL	N	OAHPLC	III
10/10/2012	12100784	Groundwater	SMLS7-3-101012	SMLS 7-3	CEL	N	RSK175	III
10/10/2012	12100784	Groundwater	SMLS7-3-101012	SMLS 7-3	CEL	N	SW8260B	III
10/10/2012	12100784	Field QC	TB-101012	FieldQC	CEL	TB	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/10/2012	12101362	Field QC	TB-101012-2	FieldQC	CEL	TB	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS1-1-101612	SMLS 1-1	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS1-1-101612	SMLS 1-1	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS1-1-101612	SMLS 1-1	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS1-1-101612	SMLS 1-1	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS1-1-101612	SMLS 1-1	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS1-2-101612	SMLS 1-2	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS1-2-101612	SMLS 1-2	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS1-2-101612	SMLS 1-2	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS1-2-101612	SMLS 1-2	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS1-2-101612	SMLS 1-2	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS1-3-101612	SMLS 1-3	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS1-3-101612	SMLS 1-3	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS1-3-101612	SMLS 1-3	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS1-3-101612	SMLS 1-3	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS1-3-101612	SMLS 1-3	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS1-4-101612	SMLS 1-4	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS1-4-101612	SMLS 1-4	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS1-4-101612	SMLS 1-4	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS1-4-101612	SMLS 1-4	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS1-4-101612	SMLS 1-4	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS4-2-101612	SMLS 4-2	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS4-2-101612	SMLS 4-2	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS4-2-101612	SMLS 4-2	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS4-2-101612	SMLS 4-2	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS4-2-101612	SMLS 4-2	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS4-3-101612	SMLS 4-3	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS4-3-101612	SMLS 4-3	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS4-3-101612	SMLS 4-3	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS4-3-101612	SMLS 4-3	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS4-3-101612	SMLS 4-3	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS7-1-101612	SMLS 7-1	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS7-1-101612	SMLS 7-1	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS7-1-101612	SMLS 7-1	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS7-1-101612	SMLS 7-1	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS7-1-101612	SMLS 7-1	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS7-2-101612	SMLS 7-2	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS7-2-101612	SMLS 7-2	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS7-2-101612	SMLS 7-2	CEL	N	OAHPLC	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/16/2012	12101362	Groundwater	SMLS7-2-101612	SMLS 7-2	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS7-2-101612	SMLS 7-2	CEL	N	SW8260B	III
10/16/2012	12101362	Groundwater	SMLS7-3-101612	SMLS 7-3	CEL	N	A4500SD	III
10/16/2012	12101362	Groundwater	SMLS7-3-101612	SMLS 7-3	CEL	N	E300.0	III
10/16/2012	12101362	Groundwater	SMLS7-3-101612	SMLS 7-3	CEL	N	OAHPLC	III
10/16/2012	12101362	Groundwater	SMLS7-3-101612	SMLS 7-3	CEL	N	RSK175	III
10/16/2012	12101362	Groundwater	SMLS7-3-101612	SMLS 7-3	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PEW01-101712	PEW 1	CEL	N	A4500SD	III
10/17/2012	12101362	Groundwater	PEW01-101712	PEW 1	CEL	N	E300.0	III
10/17/2012	12101362	Groundwater	PEW01-101712	PEW 1	CEL	N	OAHPLC	III
10/17/2012	12101362	Groundwater	PEW01-101712	PEW 1	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PEW01-101712	PEW 1	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PEW02-101712	PEW 2	CEL	N	A4500SD	III
10/17/2012	12101362	Groundwater	PEW02-101712	PEW 2	CEL	N	E300.0	III
10/17/2012	12101362	Groundwater	PEW02-101712	PEW 2	CEL	N	OAHPLC	III
10/17/2012	12101362	Groundwater	PEW02-101712	PEW 2	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PEW02-101712	PEW 2	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PEW03-101712	PEW 3	CEL	N	A4500SD	III
10/17/2012	12101362	Groundwater	PEW03-101712	PEW 3	CEL	N	E300.0	III
10/17/2012	12101362	Groundwater	PEW03-101712	PEW 3	CEL	N	OAHPLC	III
10/17/2012	12101362	Groundwater	PEW03-101712	PEW 3	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PEW03-101712	PEW 3	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PEW04-101712	PEW 4	CEL	N	A4500SD	III
10/17/2012	12101362	Groundwater	PEW04-101712	PEW 4	CEL	N	E300.0	III
10/17/2012	12101362	Groundwater	PEW04-101712	PEW 4	CEL	N	OAHPLC	III
10/17/2012	12101362	Groundwater	PEW04-101712	PEW 4	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PEW04-101712	PEW 4	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS3-1-101712	PMLS 3-1	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS3-1-101712	PMLS 3-1	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS3-2-101712	PMLS 3-2	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS3-2-101712	PMLS 3-2	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS3-5-101712	PMLS 3-5	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS3-5-101712	PMLS 3-5	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS3-6-101712	PMLS 3-6	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS3-6-101712	PMLS 3-6	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS4-1-101712	PMLS 4-1	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS4-1-101712	PMLS 4-1	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS4-2-101712	PMLS 4-2	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS4-2-101712	PMLS 4-2	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/17/2012	12101362	Groundwater	PMLS4-5-101712	PMLS 4-5	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS4-5-101712	PMLS 4-5	CEL	N	SW8260B	III
10/17/2012	12101362	Groundwater	PMLS4-6-101712	PMLS 4-6	CEL	N	RSK175	III
10/17/2012	12101362	Groundwater	PMLS4-6-101712	PMLS 4-6	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	PEW01-102412	PEW 1	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	PEW01-102412	PEW 1	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	PEW01-102412	PEW 1	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	PEW01-102412	PEW 1	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	PEW01-102412	PEW 1	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	PEW02-102412	PEW 2	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	PEW02-102412	PEW 2	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	PEW02-102412	PEW 2	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	PEW02-102412	PEW 2	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	PEW02-102412	PEW 2	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	PEW03-102412	PEW 3	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	PEW03-102412	PEW 3	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	PEW03-102412	PEW 3	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	PEW03-102412	PEW 3	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	PEW03-102412	PEW 3	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	PEW04-102412	PEW 4	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	PEW04-102412	PEW 4	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	PEW04-102412	PEW 4	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	PEW04-102412	PEW 4	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	PEW04-102412	PEW 4	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS1-1-102412	SMLS 1-1	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS1-1-102412	SMLS 1-1	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS1-1-102412	SMLS 1-1	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS1-1-102412	SMLS 1-1	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS1-1-102412	SMLS 1-1	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS1-2-102412	SMLS 1-2	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS1-2-102412	SMLS 1-2	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS1-2-102412	SMLS 1-2	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS1-2-102412	SMLS 1-2	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS1-2-102412	SMLS 1-2	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS1-3-102412	SMLS 1-3	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS1-3-102412	SMLS 1-3	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS1-3-102412	SMLS 1-3	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS1-3-102412	SMLS 1-3	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS1-3-102412	SMLS 1-3	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/24/2012	12101828	Groundwater	SMLS1-4-102412	SMLS 1-4	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS1-4-102412	SMLS 1-4	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS1-4-102412	SMLS 1-4	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS1-4-102412	SMLS 1-4	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS1-4-102412	SMLS 1-4	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS4-2-102412	SMLS 4-2	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS4-2-102412	SMLS 4-2	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS4-2-102412	SMLS 4-2	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS4-2-102412	SMLS 4-2	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS4-2-102412	SMLS 4-2	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS4-3-102412	SMLS 4-3	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS4-3-102412	SMLS 4-3	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS4-3-102412	SMLS 4-3	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS4-3-102412	SMLS 4-3	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS4-3-102412	SMLS 4-3	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS7-1-102412	SMLS 7-1	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS7-1-102412	SMLS 7-1	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS7-1-102412	SMLS 7-1	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS7-1-102412	SMLS 7-1	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS7-1-102412	SMLS 7-1	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS7-2-102412	SMLS 7-2	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS7-2-102412	SMLS 7-2	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS7-2-102412	SMLS 7-2	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS7-2-102412	SMLS 7-2	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS7-2-102412	SMLS 7-2	CEL	N	SW8260B	III
10/24/2012	12101828	Groundwater	SMLS7-3-102412	SMLS 7-3	CEL	N	A4500SD	III
10/24/2012	12101828	Groundwater	SMLS7-3-102412	SMLS 7-3	CEL	N	E300.0	III
10/24/2012	12101828	Groundwater	SMLS7-3-102412	SMLS 7-3	CEL	N	OAHPLC	III
10/24/2012	12101828	Groundwater	SMLS7-3-102412	SMLS 7-3	CEL	N	RSK175	III
10/24/2012	12101828	Groundwater	SMLS7-3-102412	SMLS 7-3	CEL	N	SW8260B	III
10/24/2012	12101828	Field QC	TB-102412	FieldQC	CEL	TB	SW8260B	III
10/31/2012	12110083	Groundwater	PEW01-103112	PEW 1	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	PEW01-103112	PEW 1	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	PEW01-103112	PEW 1	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	PEW01-103112	PEW 1	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	PEW01-103112	PEW 1	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	PEW02-103112	PEW 2	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	PEW02-103112	PEW 2	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	PEW02-103112	PEW 2	CEL	N	OAHPLC	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/31/2012	12110083	Groundwater	PEW02-103112	PEW 2	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	PEW02-103112	PEW 2	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	PEW03-103112	PEW 3	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	PEW03-103112	PEW 3	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	PEW03-103112	PEW 3	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	PEW03-103112	PEW 3	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	PEW03-103112	PEW 3	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	PEW04-103112	PEW 4	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	PEW04-103112	PEW 4	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	PEW04-103112	PEW 4	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	PEW04-103112	PEW 4	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	PEW04-103112	PEW 4	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS1-1-103112	SMLS 1-1	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS1-1-103112	SMLS 1-1	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS1-1-103112	SMLS 1-1	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS1-1-103112	SMLS 1-1	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS1-1-103112	SMLS 1-1	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS1-2-103112	SMLS 1-2	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS1-2-103112	SMLS 1-2	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS1-2-103112	SMLS 1-2	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS1-2-103112	SMLS 1-2	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS1-2-103112	SMLS 1-2	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS1-3-103112	SMLS 1-3	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS1-3-103112	SMLS 1-3	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS1-3-103112	SMLS 1-3	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS1-3-103112	SMLS 1-3	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS1-3-103112	SMLS 1-3	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS1-4-103112	SMLS 1-4	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS1-4-103112	SMLS 1-4	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS1-4-103112	SMLS 1-4	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS1-4-103112	SMLS 1-4	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS1-4-103112	SMLS 1-4	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS4-2-103112	SMLS 4-2	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS4-2-103112	SMLS 4-2	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS4-2-103112	SMLS 4-2	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS4-2-103112	SMLS 4-2	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS4-2-103112	SMLS 4-2	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS4-3-103112	SMLS 4-3	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS4-3-103112	SMLS 4-3	CEL	N	E300.0	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
10/31/2012	12110083	Groundwater	SMLS4-3-103112	SMLS 4-3	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS4-3-103112	SMLS 4-3	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS4-3-103112	SMLS 4-3	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS7-1-103112	SMLS 7-1	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS7-1-103112	SMLS 7-1	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS7-1-103112	SMLS 7-1	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS7-1-103112	SMLS 7-1	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS7-1-103112	SMLS 7-1	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS7-2-103112	SMLS 7-2	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS7-2-103112	SMLS 7-2	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS7-2-103112	SMLS 7-2	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS7-2-103112	SMLS 7-2	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS7-2-103112	SMLS 7-2	CEL	N	SW8260B	III
10/31/2012	12110083	Groundwater	SMLS7-3-103112	SMLS 7-3	CEL	N	A4500SD	III
10/31/2012	12110083	Groundwater	SMLS7-3-103112	SMLS 7-3	CEL	N	E300.0	III
10/31/2012	12110083	Groundwater	SMLS7-3-103112	SMLS 7-3	CEL	N	OAHPLC	III
10/31/2012	12110083	Groundwater	SMLS7-3-103112	SMLS 7-3	CEL	N	RSK175	III
10/31/2012	12110083	Groundwater	SMLS7-3-103112	SMLS 7-3	CEL	N	SW8260B	III
10/31/2012	12110083	Field QC	TB-103112	FieldQC	CEL	TB	SW8260B	III
11/7/2012	12110638	Groundwater	PEW01-110712	PEW 1	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	PEW01-110712	PEW 1	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	PEW01-110712	PEW 1	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	PEW01-110712	PEW 1	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	PEW01-110712	PEW 1	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	PEW02-110712	PEW 2	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	PEW02-110712	PEW 2	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	PEW02-110712	PEW 2	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	PEW02-110712	PEW 2	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	PEW02-110712	PEW 2	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	PEW03-110712	PEW 3	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	PEW03-110712	PEW 3	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	PEW03-110712	PEW 3	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	PEW03-110712	PEW 3	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	PEW03-110712	PEW 3	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	PEW04-110712	PEW 4	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	PEW04-110712	PEW 4	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	PEW04-110712	PEW 4	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	PEW04-110712	PEW 4	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	PEW04-110712	PEW 4	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
11/7/2012	12110638	Groundwater	SMLS1-1-110712	SMLS 1-1	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS1-1-110712	SMLS 1-1	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS1-1-110712	SMLS 1-1	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS1-1-110712	SMLS 1-1	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS1-1-110712	SMLS 1-1	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS1-2-110712	SMLS 1-2	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS1-2-110712	SMLS 1-2	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS1-2-110712	SMLS 1-2	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS1-2-110712	SMLS 1-2	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS1-2-110712	SMLS 1-2	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS1-3-110712	SMLS 1-3	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS1-3-110712	SMLS 1-3	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS1-3-110712	SMLS 1-3	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS1-3-110712	SMLS 1-3	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS1-3-110712	SMLS 1-3	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS1-4-110712	SMLS 1-4	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS1-4-110712	SMLS 1-4	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS1-4-110712	SMLS 1-4	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS1-4-110712	SMLS 1-4	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS1-4-110712	SMLS 1-4	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS4-2-110712	SMLS 4-2	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS4-2-110712	SMLS 4-2	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS4-2-110712	SMLS 4-2	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS4-2-110712	SMLS 4-2	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS4-2-110712	SMLS 4-2	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS4-3-110712	SMLS 4-3	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS4-3-110712	SMLS 4-3	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS4-3-110712	SMLS 4-3	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS4-3-110712	SMLS 4-3	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS4-3-110712	SMLS 4-3	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS7-1-110712	SMLS 7-1	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS7-1-110712	SMLS 7-1	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS7-1-110712	SMLS 7-1	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS7-1-110712	SMLS 7-1	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS7-1-110712	SMLS 7-1	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS7-2-110712	SMLS 7-2	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS7-2-110712	SMLS 7-2	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS7-2-110712	SMLS 7-2	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS7-2-110712	SMLS 7-2	CEL	N	RSK175	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
11/7/2012	12110638	Groundwater	SMLS7-2-110712	SMLS 7-2	CEL	N	SW8260B	III
11/7/2012	12110638	Groundwater	SMLS7-3-110712	SMLS 7-3	CEL	N	A4500SD	III
11/7/2012	12110638	Groundwater	SMLS7-3-110712	SMLS 7-3	CEL	N	E300.0	III
11/7/2012	12110638	Groundwater	SMLS7-3-110712	SMLS 7-3	CEL	N	OAHPLC	III
11/7/2012	12110638	Groundwater	SMLS7-3-110712	SMLS 7-3	CEL	N	RSK175	III
11/7/2012	12110638	Groundwater	SMLS7-3-110712	SMLS 7-3	CEL	N	SW8260B	III
11/7/2012	12110638	Field QC	TB-110712	FieldQC	CEL	TB	SW8260B	III
11/14/2012	12111162	Groundwater	PEW01-111412	PEW 1	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	PEW01-111412	PEW 1	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	PEW01-111412	PEW 1	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	PEW01-111412	PEW 1	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	PEW01-111412	PEW 1	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	PEW02-111412	PEW 2	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	PEW02-111412	PEW 2	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	PEW02-111412	PEW 2	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	PEW02-111412	PEW 2	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	PEW02-111412	PEW 2	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	PEW03-111412	PEW 3	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	PEW03-111412	PEW 3	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	PEW03-111412	PEW 3	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	PEW03-111412	PEW 3	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	PEW03-111412	PEW 3	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	PEW04-111412	PEW 4	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	PEW04-111412	PEW 4	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	PEW04-111412	PEW 4	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	PEW04-111412	PEW 4	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	PEW04-111412	PEW 4	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS1-1-111412	SMLS 1-1	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS1-1-111412	SMLS 1-1	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS1-1-111412	SMLS 1-1	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS1-1-111412	SMLS 1-1	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS1-1-111412	SMLS 1-1	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS1-2-111412	SMLS 1-2	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS1-2-111412	SMLS 1-2	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS1-2-111412	SMLS 1-2	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS1-2-111412	SMLS 1-2	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS1-2-111412	SMLS 1-2	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS1-3-111412	SMLS 1-3	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS1-3-111412	SMLS 1-3	CEL	N	E300.0	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
11/14/2012	12111162	Groundwater	SMLS1-3-111412	SMLS 1-3	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS1-3-111412	SMLS 1-3	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS1-3-111412	SMLS 1-3	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS1-4-111412	SMLS 1-4	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS1-4-111412	SMLS 1-4	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS1-4-111412	SMLS 1-4	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS1-4-111412	SMLS 1-4	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS1-4-111412	SMLS 1-4	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS4-2-111412	SMLS 4-2	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS4-2-111412	SMLS 4-2	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS4-2-111412	SMLS 4-2	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS4-2-111412	SMLS 4-2	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS4-2-111412	SMLS 4-2	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS4-3-111412	SMLS 4-3	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS4-3-111412	SMLS 4-3	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS4-3-111412	SMLS 4-3	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS4-3-111412	SMLS 4-3	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS4-3-111412	SMLS 4-3	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS7-1-111412	SMLS 7-1	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS7-1-111412	SMLS 7-1	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS7-1-111412	SMLS 7-1	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS7-1-111412	SMLS 7-1	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS7-1-111412	SMLS 7-1	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS7-2-111412	SMLS 7-2	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS7-2-111412	SMLS 7-2	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS7-2-111412	SMLS 7-2	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS7-2-111412	SMLS 7-2	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS7-2-111412	SMLS 7-2	CEL	N	SW8260B	III
11/14/2012	12111162	Groundwater	SMLS7-3-111412	SMLS 7-3	CEL	N	A4500SD	III
11/14/2012	12111162	Groundwater	SMLS7-3-111412	SMLS 7-3	CEL	N	E300.0	III
11/14/2012	12111162	Groundwater	SMLS7-3-111412	SMLS 7-3	CEL	N	OAHPLC	III
11/14/2012	12111162	Groundwater	SMLS7-3-111412	SMLS 7-3	CEL	N	RSK175	III
11/14/2012	12111162	Groundwater	SMLS7-3-111412	SMLS 7-3	CEL	N	SW8260B	III
11/14/2012	12111162	Field QC	TB-111412	FieldQC	CEL	TB	SW8260B	III
11/19/2012	12111476	Groundwater	PEW01-111912	PEW 1	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	PEW01-111912	PEW 1	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	PEW01-111912	PEW 1	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	PEW01-111912	PEW 1	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PEW01-111912	PEW 1	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
11/19/2012	12111476	Groundwater	PEW02-111912	PEW 2	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	PEW02-111912	PEW 2	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	PEW02-111912	PEW 2	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	PEW02-111912	PEW 2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PEW02-111912	PEW 2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PEW03-111912	PEW 3	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	PEW03-111912	PEW 3	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	PEW03-111912	PEW 3	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	PEW03-111912	PEW 3	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PEW03-111912	PEW 3	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PEW04-111912	PEW 4	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	PEW04-111912	PEW 4	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	PEW04-111912	PEW 4	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	PEW04-111912	PEW 4	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PEW04-111912	PEW 4	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS3-1-111912	PMLS 3-1	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS3-1-111912	PMLS 3-1	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS3-2-111912	PMLS 3-2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS3-2-111912	PMLS 3-2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS3-5-111912	PMLS 3-5	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS3-5-111912	PMLS 3-5	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS3-6-111912	PMLS 3-6	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS3-6-111912	PMLS 3-6	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS4-1-111912	PMLS 4-1	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS4-1-111912	PMLS 4-1	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS4-2-111912	PMLS 4-2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS4-2-111912	PMLS 4-2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS4-5-111912	PMLS 4-5	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS4-5-111912	PMLS 4-5	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	PMLS4-6-111912	PMLS 4-6	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	PMLS4-6-111912	PMLS 4-6	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS1-1-111912	SMLS 1-1	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS1-1-111912	SMLS 1-1	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS1-1-111912	SMLS 1-1	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS1-1-111912	SMLS 1-1	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS1-1-111912	SMLS 1-1	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS1-2-111912	SMLS 1-2	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS1-2-111912	SMLS 1-2	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS1-2-111912	SMLS 1-2	CEL	N	OAHPLC	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
11/19/2012	12111476	Groundwater	SMLS1-2-111912	SMLS 1-2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS1-2-111912	SMLS 1-2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS1-3-111912	SMLS 1-3	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS1-3-111912	SMLS 1-3	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS1-3-111912	SMLS 1-3	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS1-3-111912	SMLS 1-3	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS1-3-111912	SMLS 1-3	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS1-4-111912	SMLS 1-4	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS1-4-111912	SMLS 1-4	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS1-4-111912	SMLS 1-4	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS1-4-111912	SMLS 1-4	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS1-4-111912	SMLS 1-4	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS4-2-111912	SMLS 4-2	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS4-2-111912	SMLS 4-2	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS4-2-111912	SMLS 4-2	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS4-2-111912	SMLS 4-2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS4-2-111912	SMLS 4-2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS4-3-111912	SMLS 4-3	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS4-3-111912	SMLS 4-3	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS4-3-111912	SMLS 4-3	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS4-3-111912	SMLS 4-3	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS4-3-111912	SMLS 4-3	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS7-1-111912	SMLS 7-1	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS7-1-111912	SMLS 7-1	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS7-1-111912	SMLS 7-1	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS7-1-111912	SMLS 7-1	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS7-1-111912	SMLS 7-1	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS7-2-111912	SMLS 7-2	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS7-2-111912	SMLS 7-2	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS7-2-111912	SMLS 7-2	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS7-2-111912	SMLS 7-2	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS7-2-111912	SMLS 7-2	CEL	N	SW8260B	III
11/19/2012	12111476	Groundwater	SMLS7-3-111912	SMLS 7-3	CEL	N	A4500SD	III
11/19/2012	12111476	Groundwater	SMLS7-3-111912	SMLS 7-3	CEL	N	E300.0	III
11/19/2012	12111476	Groundwater	SMLS7-3-111912	SMLS 7-3	CEL	N	OAHPLC	III
11/19/2012	12111476	Groundwater	SMLS7-3-111912	SMLS 7-3	CEL	N	RSK175	III
11/19/2012	12111476	Groundwater	SMLS7-3-111912	SMLS 7-3	CEL	N	SW8260B	III
11/19/2012	12111476	Field QC	TB-111912	FieldQC	CEL	TB	SW8260B	III
11/19/2012	12111476	Field QC	TB-111912-2	FieldQC	CEL	TB	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
1/7/2013	13010330	Groundwater	PMLS3-1-010713	PMLS 3-1	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	PMLS3-1-010713	PMLS 3-1	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS1-1-010713	SMLS 1-1	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS1-1-010713	SMLS 1-1	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS1-1-010713	SMLS 1-1	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS1-1-010713	SMLS 1-1	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS1-1-010713	SMLS 1-1	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS1-2-010713	SMLS 1-2	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS1-2-010713	SMLS 1-2	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS1-2-010713	SMLS 1-2	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS1-2-010713	SMLS 1-2	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS1-2-010713	SMLS 1-2	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS1-3-010713	SMLS 1-3	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS1-3-010713	SMLS 1-3	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS1-3-010713	SMLS 1-3	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS1-3-010713	SMLS 1-3	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS1-3-010713	SMLS 1-3	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS1-4-010713	SMLS 1-4	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS1-4-010713	SMLS 1-4	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS1-4-010713	SMLS 1-4	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS1-4-010713	SMLS 1-4	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS1-4-010713	SMLS 1-4	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS4-2-010713	SMLS 4-2	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS4-2-010713	SMLS 4-2	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS4-2-010713	SMLS 4-2	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS4-2-010713	SMLS 4-2	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS4-2-010713	SMLS 4-2	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS4-3-010713	SMLS 4-3	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS4-3-010713	SMLS 4-3	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS4-3-010713	SMLS 4-3	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS4-3-010713	SMLS 4-3	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS4-3-010713	SMLS 4-3	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS7-1-010713	SMLS 7-1	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS7-1-010713	SMLS 7-1	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS7-1-010713	SMLS 7-1	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS7-1-010713	SMLS 7-1	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS7-1-010713	SMLS 7-1	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS7-2-010713	SMLS 7-2	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS7-2-010713	SMLS 7-2	CEL	N	E300.0	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
1/7/2013	13010330	Groundwater	SMLS7-2-010713	SMLS 7-2	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS7-2-010713	SMLS 7-2	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS7-2-010713	SMLS 7-2	CEL	N	SW8260B	III
1/7/2013	13010330	Groundwater	SMLS7-3-010713	SMLS 7-3	CEL	N	A4500SD	III
1/7/2013	13010330	Groundwater	SMLS7-3-010713	SMLS 7-3	CEL	N	E300.0	III
1/7/2013	13010330	Groundwater	SMLS7-3-010713	SMLS 7-3	CEL	N	OAHPLC	III
1/7/2013	13010330	Groundwater	SMLS7-3-010713	SMLS 7-3	CEL	N	RSK175	III
1/7/2013	13010330	Groundwater	SMLS7-3-010713	SMLS 7-3	CEL	N	SW8260B	III
1/7/2013	13010330	Field QC	TB-010713	FieldQC	CEL	TB	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS3-2-010813	PMLS 3-2	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS3-2-010813	PMLS 3-2	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS3-5-010813	PMLS 3-5	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS3-5-010813	PMLS 3-5	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS3-6-010813	PMLS 3-6	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS3-6-010813	PMLS 3-6	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS4-1-010813	PMLS 4-1	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS4-1-010813	PMLS 4-1	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS4-2-010813	PMLS 4-2	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS4-2-010813	PMLS 4-2	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS4-5-010813	PMLS 4-5	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS4-5-010813	PMLS 4-5	CEL	N	SW8260B	III
1/8/2013	13010397	Groundwater	PMLS4-6-010813	PMLS 4-6	CEL	N	RSK175	III
1/8/2013	13010397	Groundwater	PMLS4-6-010813	PMLS 4-6	CEL	N	SW8260B	III
1/8/2013	13010397	Field QC	TB-010813	FieldQC	CEL	TB	SW8260B	III
3/19/2013	13031370	Groundwater	MW9901-031913	SMLS 4-2	CEL	FD	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS1-1-031913	SMLS 1-1	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS1-1-031913	SMLS 1-1	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS1-1-031913	SMLS 1-1	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS1-1-031913	SMLS 1-1	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS1-1-031913	SMLS 1-1	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS1-2-031913	SMLS 1-2	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS1-2-031913	SMLS 1-2	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS1-2-031913	SMLS 1-2	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS1-2-031913	SMLS 1-2	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS1-2-031913	SMLS 1-2	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS1-3-031913	SMLS 1-3	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS1-3-031913	SMLS 1-3	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS1-3-031913	SMLS 1-3	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS1-3-031913	SMLS 1-3	CEL	N	RSK175	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
3/19/2013	13031370	Groundwater	SMLS1-3-031913	SMLS 1-3	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS1-4-031913	SMLS 1-4	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS1-4-031913	SMLS 1-4	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS1-4-031913	SMLS 1-4	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS1-4-031913	SMLS 1-4	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS1-4-031913	SMLS 1-4	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS4-2-031913	SMLS 4-2	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS4-2-031913	SMLS 4-2	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS4-2-031913	SMLS 4-2	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS4-2-031913	SMLS 4-2	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS4-2-031913	SMLS 4-2	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS4-3-031913	SMLS 4-3	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS4-3-031913	SMLS 4-3	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS4-3-031913	SMLS 4-3	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS4-3-031913	SMLS 4-3	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS4-3-031913	SMLS 4-3	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS7-1-031913	SMLS 7-1	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS7-1-031913	SMLS 7-1	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS7-1-031913	SMLS 7-1	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS7-1-031913	SMLS 7-1	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS7-1-031913	SMLS 7-1	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS7-2-031913	SMLS 7-2	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS7-2-031913	SMLS 7-2	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS7-2-031913	SMLS 7-2	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS7-2-031913	SMLS 7-2	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS7-2-031913	SMLS 7-2	CEL	N	SW8260B	III
3/19/2013	13031370	Groundwater	SMLS7-3-031913	SMLS 7-3	CEL	N	A4500SD	III
3/19/2013	13031370	Groundwater	SMLS7-3-031913	SMLS 7-3	CEL	N	E300.0	III
3/19/2013	13031370	Groundwater	SMLS7-3-031913	SMLS 7-3	CEL	N	OAHPLC	III
3/19/2013	13031370	Groundwater	SMLS7-3-031913	SMLS 7-3	CEL	N	RSK175	III
3/19/2013	13031370	Groundwater	SMLS7-3-031913	SMLS 7-3	CEL	N	SW8260B	III
3/19/2013	13031370	Field QC	TB-031913	FieldQC	CEL	TB	SW8260B	III
3/20/2013	13031470	Groundwater	MW9902-032013	PMLS 4-2	CEL	FD	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS3-1-032013	PMLS 3-1	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS3-1-032013	PMLS 3-1	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS3-2-032013	PMLS 3-2	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS3-2-032013	PMLS 3-2	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS3-5-032013	PMLS 3-5	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS3-5-032013	PMLS 3-5	CEL	N	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
3/20/2013	13031470	Groundwater	PMLS3-6-032013	PMLS 3-6	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS3-6-032013	PMLS 3-6	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS4-1-032013	PMLS 4-1	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS4-1-032013	PMLS 4-1	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS4-2-032013	PMLS 4-2	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS4-2-032013	PMLS 4-2	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS4-5-032013	PMLS 4-5	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS4-5-032013	PMLS 4-5	CEL	N	SW8260B	III
3/20/2013	13031470	Groundwater	PMLS4-6-032013	PMLS 4-6	CEL	N	RSK175	III
3/20/2013	13031470	Groundwater	PMLS4-6-032013	PMLS 4-6	CEL	N	SW8260B	III
3/20/2013	13031470	Field QC	TB-032013	FieldQC	CEL	TB	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS1-1-061113	SMLS 1-1	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS1-1-061113	SMLS 1-1	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS1-1-061113	SMLS 1-1	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS1-1-061113	SMLS 1-1	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS1-1-061113	SMLS 1-1	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS1-2-061113	SMLS 1-2	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS1-2-061113	SMLS 1-2	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS1-2-061113	SMLS 1-2	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS1-2-061113	SMLS 1-2	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS1-2-061113	SMLS 1-2	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS1-3-061113	SMLS 1-3	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS1-3-061113	SMLS 1-3	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS1-3-061113	SMLS 1-3	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS1-3-061113	SMLS 1-3	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS1-3-061113	SMLS 1-3	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS1-4-061113	SMLS 1-4	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS1-4-061113	SMLS 1-4	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS1-4-061113	SMLS 1-4	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS1-4-061113	SMLS 1-4	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS1-4-061113	SMLS 1-4	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS4-2-061113	SMLS 4-2	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS4-2-061113	SMLS 4-2	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS4-2-061113	SMLS 4-2	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS4-2-061113	SMLS 4-2	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS4-2-061113	SMLS 4-2	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS4-3-061113	SMLS 4-3	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS4-3-061113	SMLS 4-3	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS4-3-061113	SMLS 4-3	CEL	N	OAHPLC	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Date Collected	SDG	Matrix	Field ID	Sample Location	Lab	Sample Type	Analytical Method	Review Level
6/11/2013	13060750	Groundwater	SMLS4-3-061113	SMLS 4-3	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS4-3-061113	SMLS 4-3	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS7-1-061113	SMLS 7-1	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS7-1-061113	SMLS 7-1	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS7-1-061113	SMLS 7-1	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS7-1-061113	SMLS 7-1	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS7-1-061113	SMLS 7-1	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS7-2-061113	SMLS 7-2	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS7-2-061113	SMLS 7-2	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS7-2-061113	SMLS 7-2	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS7-2-061113	SMLS 7-2	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS7-2-061113	SMLS 7-2	CEL	N	SW8260B	III
6/11/2013	13060750	Groundwater	SMLS7-3-061113	SMLS 7-3	CEL	N	A4500SD	III
6/11/2013	13060750	Groundwater	SMLS7-3-061113	SMLS 7-3	CEL	N	E300.0	III
6/11/2013	13060750	Groundwater	SMLS7-3-061113	SMLS 7-3	CEL	N	OAHPLC	III
6/11/2013	13060750	Groundwater	SMLS7-3-061113	SMLS 7-3	CEL	N	RSK175	III
6/11/2013	13060750	Groundwater	SMLS7-3-061113	SMLS 7-3	CEL	N	SW8260B	III
6/11/2013	13060750	Field QC	TB-061113	FieldQC	CEL	TB	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS3-1-061213	PMLS 3-1	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS3-1-061213	PMLS 3-1	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS3-2-061213	PMLS 3-2	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS3-2-061213	PMLS 3-2	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS3-5-061213	PMLS 3-5	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS3-5-061213	PMLS 3-5	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS3-6-061213	PMLS 3-6	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS3-6-061213	PMLS 3-6	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS4-1-061213	PMLS 4-1	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS4-1-061213	PMLS 4-1	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS4-2-061213	PMLS 4-2	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS4-2-061213	PMLS 4-2	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS4-5-061213	PMLS 4-5	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS4-5-061213	PMLS 4-5	CEL	N	SW8260B	III
6/12/2013	13060850	Groundwater	PMLS4-6-061213	PMLS 4-6	CEL	N	RSK175	III
6/12/2013	13060850	Groundwater	PMLS4-6-061213	PMLS 4-6	CEL	N	SW8260B	III
6/12/2013	13060850	Field QC	TB-061213	FieldQC	CEL	TB	SW8260B	III

Table 1: Summary of Samples Collected, Collection Date, Analysis Method, and Data Review Level Groundwater Sampling - July 2012 to June 2013 Plume 4-1, Alameda Point, CA

Notes:

SDG	Sample delivery group
CEL	Calscience Environmental Laboratories, Inc.
N	Normal sample sent to the lab
FD	Field duplicate sample
TB	Trip blank
III	Sample received Level III data review

Table 2
Qualified Data Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Sample	Sample Type	Sample Date	Analyte	SDG	Result	DL	LOQ	Dilution	Units	Qualifier
Reason Code B3	**Method SW8260B**									
SMLS1-1-111412	N	11/14/2012	Acetone	12111162	ND	12	40	2.00	ug/l	U
SMLS1-2-111412	N	11/14/2012	Acetone	12111162	ND	30	100	5.00	ug/l	U
Reason Code C	**Method SW8260B**									
PMLS 3-1 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	620	5000	500.00	ug/l	UJ
PMLS 3-2 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	62	500	50.00	ug/l	UJ
PMLS 3-5 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	1.2	10	1.00	ug/l	UJ
PMLS 4-1 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	310	2500	250.00	ug/l	UJ
PMLS 4-2 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	31	250	25.00	ug/l	UJ
PMLS 4-5 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	6.2	50	5.00	ug/l	UJ
PMLS 4-6 (07/10/12)	N	7/10/2012	1,2-Dibromo-3-chloropropane	12070521	ND	12	100	10.00	ug/l	UJ
PMLS 3-1 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	250	5000	500.00	ug/l	UJ
PMLS 3-2 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	25	500	50.00	ug/l	UJ
PMLS 3-5 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	0.5	10	1.00	ug/l	UJ
PMLS 4-1 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	130	2500	250.00	ug/l	UJ
PMLS 4-2 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	13	250	25.00	ug/l	UJ
PMLS 4-5 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	2.5	50	5.00	ug/l	UJ
PMLS 4-6 (07/10/12)	N	7/10/2012	Bromoform	12070521	ND	5	100	10.00	ug/l	UJ
PMLS 3-1 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	1200	5000	500.00	ug/l	UJ
PMLS 3-2 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	120	500	50.00	ug/l	UJ
PMLS 3-5 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	2.5	10	1.00	ug/l	UJ
PMLS 4-1 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	620	2500	250.00	ug/l	UJ
PMLS 4-2 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	62	250	25.00	ug/l	UJ
PMLS 4-5 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	12	50	5.00	ug/l	UJ
PMLS 4-6 (07/10/12)	N	7/10/2012	Naphthalene	12070521	ND	25	100	10.00	ug/l	UJ

Table 2
Qualified Data Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Sample	Sample Type	Sample Date	Analyte	SDG	Result	DL	LOQ	Dilution	Units	Qualifier
Reason Code M	**Method E300.0**									
SMLS1-1-101012	N	10/10/2012	Chloride	12100784	1500	2.6	40	20.00	mg/l	J-
SMLS1-1-101012	N	10/10/2012	Nitrate	12100784	ND	0.042	0.2	2.00	mg/l	UJ
SMLS1-1-101012	N	10/10/2012	Sulfate	12100784	0.51	0.26	4	2.00	mg/l	J-
Reason Code M	**Method OAHPLC**									
PEW-01-092612	N	9/26/2012	Acetic Acid	12091706	38	1.2	4	1.00	mg/l	J+
SMLS7-3-092812	N	9/28/2012	Lactic Acid	12091893	ND	0.89	4	1.00	mg/l	UJ
SMLS7-2-103112	N	10/31/2012	Acetic Acid	12110083	3.5	1.2	4	1.00	mg/l	J+
SMLS7-3-111412	N	11/14/2012	Acetic Acid	12111162	9.2	1.2	4	1.00	mg/l	J-
Reason Code M	**Method SW8260B**									
SMLS 4-2 (07/09/12)	N	7/9/2012	1,2-Dichlorobenzene	12070512	1100	230	500	500.00	ug/l	J-
SMLS 4-2 (07/09/12)	N	7/9/2012	cis-1,2-Dichloroethene	12070512	5000	240	500	500.00	ug/l	J-
PEW 4 (07/09/12)	N	7/9/2012	Styrene	12070512	ND	0.17	1	1.00	ug/l	UJ
SMLS 4-2 (07/09/12)	N	7/9/2012	trans-1,2-Dichloroethene	12070512	230	180	500	500.00	ug/l	J+
SMLS 4-2 (07/09/12)	N	7/9/2012	Trichloroethene	12070512	2800	180	500	500.00	ug/l	J-
SMLS 4-2 (07/09/12)	N	7/9/2012	Vinylchloride	12070512	9000	150	500	500.00	ug/l	J-
PMLS 4-2 (07/10/12)	N	7/10/2012	cis-1,2-Dichloroethene	12070521	4500	48	100	100.00	ug/l	J-
PMLS 3-6 (07/10/12)	N	7/10/2012	Trichloroethene	12070521	3200	7.4	20	20.00	ug/l	J+
PMLS 4-2 (07/10/12)	N	7/10/2012	Vinylchloride	12070521	2000	7.5	25	25.00	ug/l	J-
PEW01-100512	N	10/5/2012	cis-1,2-Dichloroethene	12100509	3700	9.5	20	20.00	ug/l	J-
SMLS1-1-101012	N	10/10/2012	cis-1,2-Dichloroethene	12100784	790	2.4	5	5.00	ug/l	J-
SMLS1-4-101012	N	10/10/2012	cis-1,2-Dichloroethene	12100784	4400	12	25	25.00	ug/l	J-
SMLS4-2-101612	N	10/16/2012	cis-1,2-Dichloroethene	12101362	5800	24	50	50.00	ug/l	J-
SMLS1-3-102412	N	10/24/2012	cis-1,2-Dichloroethene	12101828	17000	48	100	100.00	ug/l	J-
SMLS1-3-102412	N	10/24/2012	Trichloroethene	12101828	4400	37	100	100.00	ug/l	J-

Table 2
Qualified Data Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Sample	Sample Type	Sample Date	Analyte	SDG	Result	DL	LOQ	Dilution	Units	Qualifier
Reason Code M	**Method SW8260B**									
SMLS1-3-110712	N	11/7/2012	cis-1,2-Dichloroethene	12110638	22000	95	200	200.00	ug/l	J-
PMLS4-6-111912	N	11/19/2012	cis-1,2-Dichloroethene	12111476	3600	9.5	20	20.00	ug/l	J-
SMLS1-1-111912	N	11/19/2012	cis-1,2-Dichloroethene	12111476	270	0.95	2	2.00	ug/l	J+
SMLS1-4-010713	N	1/7/2013	Chlorobenzene	13010330	610	0.86	25	5.00	ug/l	J-
MW9901-031913	FD	3/19/2013	cis-1,2-Dichloroethene	13031370	5700	48	100	100.00	ug/l	J-
MW9901-031913	FD	3/19/2013	Vinylchloride	13031370	2300	30	100	100.00	ug/l	J-
PMLS4-2-061213	N	6/12/2013	cis-1,2-Dichloroethene	13060850	330	0.95	2	2.00	ug/l	J-
Reason Code S	**Method SW8260B**									
SMLS 1-3 (07/09/12)	N	7/9/2012	1,1-Dichloroethene	12070512	140	22	50	50.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	1,2,4-Trimethylbenzene	12070512	26	18	250	50.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	1,2-Dichlorobenzene	12070512	1.2	0.46	1	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	1,2-Dichlorobenzene	12070512	3.7	0.46	1	1.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	1,2-Dichlorobenzene	12070512	1400	23	50	50.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	1,4-Dichlorobenzene	12070512	150	22	50	50.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	2-Butanone	12070512	81	2.2	10	1.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	Acetone	12070512	54	6	20	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	Acetone	12070512	6.2	6	20	1.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	Chlorobenzene	12070512	31	8.6	250	50.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	cis-1,2-Dichloroethene	12070512	33	0.48	1	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	cis-1,2-Dichloroethene	12070512	75	0.48	1	1.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	m,p-Xylene	12070512	15	15	500	50.00	ug/l	J+
SMLS 1-3 (07/09/12)	N	7/9/2012	Toluene	12070512	20	12	50	50.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	trans-1,2-Dichloroethene	12070512	6.3	0.37	1	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	trans-1,2-Dichloroethene	12070512	3.3	0.37	1	1.00	ug/l	J+

Table 2
Qualified Data Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Sample	Sample Type	Sample Date	Analyte	SDG	Result	DL	LOQ	Dilution	Units	Qualifier
Reason Code S	**Method SW8260B**									
SMLS 1-3 (07/09/12)	N	7/9/2012	trans-1,2-Dichloroethene	12070512	390	18	50	50.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	Trichloroethene	12070512	3.3	0.37	1	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	Trichloroethene	12070512	65	0.37	1	1.00	ug/l	J+
MW9903 (07/09/12)	FD	7/9/2012	Vinylchloride	12070512	9.7	0.3	1	1.00	ug/l	J+
PEW 3 (07/09/12)	N	7/9/2012	Vinylchloride	12070512	17	0.3	1	1.00	ug/l	J+

Notes: See DQA text for definitions of Qualifiers and Reason Codes.

SDG Sample delivery group
mg/L Milligrams per liter
ug/L Micrograms per liter
DL Detection limit
LOQ Limit of quantitation
N Normal sample sent to the lab
FD Field duplicate
ND Not detected

Table 3
Detected Trip Blank Results and Associated Sample Results
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Field Sample ID	Sample Type	Sample Date	Method	Analyte	Result	DL	LOQ	Units	Qualifier	Reason Code
TB-111412	**TB**	**11/14/2012**	**SW8260B**	**Acetone**	**7.4**	**6**	**20**	**ug/l**	**J**	
PEW01-111412	N	11/14/2012	SW8260B	Acetone	ND	60	200	ug/l	U	
PEW02-111412	N	11/14/2012	SW8260B	Acetone	ND	60	200	ug/l	U	
PEW03-111412	N	11/14/2012	SW8260B	Acetone	ND	60	200	ug/l	U	
PEW04-111412	N	11/14/2012	SW8260B	Acetone	ND	30	100	ug/l	U	
SMLS1-1-111412	N	11/14/2012	SW8260B	Acetone	ND	12	40	ug/l	U	B3
SMLS1-2-111412	N	11/14/2012	SW8260B	Acetone	ND	30	100	ug/l	U	B3
SMLS1-3-111412	N	11/14/2012	SW8260B	Acetone	ND	1200	4000	ug/l	U	
SMLS1-4-111412	N	11/14/2012	SW8260B	Acetone	ND	600	2000	ug/l	U	
SMLS4-2-111412	N	11/14/2012	SW8260B	Acetone	ND	300	1000	ug/l	U	
SMLS4-3-111412	N	11/14/2012	SW8260B	Acetone	ND	120	400	ug/l	U	
SMLS7-1-111412	N	11/14/2012	SW8260B	Acetone	ND	600	2000	ug/l	U	
SMLS7-2-111412	N	11/14/2012	SW8260B	Acetone	ND	3000	10000	ug/l	U	
SMLS7-3-111412	N	11/14/2012	SW8260B	Acetone	ND	6000	20000	ug/l	U	
TB-111912	**TB**	**11/19/2012**	**SW8260B**	**Carbon disulfide**	**0.44**	**0.41**	**5**	**ug/l**	**J**	
PEW01-111912	N	11/19/2012	SW8260B	Carbon disulfide	6	4.1	50	ug/l	J	
PEW02-111912	N	11/19/2012	SW8260B	Carbon disulfide	6.2	4.1	50	ug/l	J	
PEW03-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.8	0.41	5	ug/l	J	
PEW04-111912	N	11/19/2012	SW8260B	Carbon disulfide	0.9	0.41	5	ug/l	J	
PMLS3-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	120	100	1200	ug/l	J	
PMLS3-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	22	20	250	ug/l	J	
PMLS3-5-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.5	2	25	ug/l	J	
PMLS3-6-111912	N	11/19/2012	SW8260B	Carbon disulfide	12	10	120	ug/l	J	
PMLS4-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	25	20	250	ug/l	J	

Table 3
Detected Trip Blank Results and Associated Sample Results
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Field Sample ID	Sample Type	Sample Date	Method	Analyte	Result	DL	LOQ	Units	Qualifier	Reason Code
TB-111912	**TB**	**11/19/2012**	**SW8260B**	**Carbon disulfide**	**0.44**	**0.41**	**5**	**ug/l**	**J**	
PMLS4-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	8.6	8.2	100	ug/l	J	
PMLS4-5-111912	N	11/19/2012	SW8260B	Carbon disulfide	11	8.2	100	ug/l	J	
PMLS4-6-111912	N	11/19/2012	SW8260B	Carbon disulfide	9.8	8.2	100	ug/l	J	
SMLS1-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	0.86	0.82	10	ug/l	J	
SMLS1-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.7	2	25	ug/l	J	
SMLS1-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	91	82	1000	ug/l	J	
SMLS1-4-111912	N	11/19/2012	SW8260B	Carbon disulfide	23	20	250	ug/l	J	
SMLS4-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	49	41	500	ug/l	J	
SMLS4-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	14	8.2	100	ug/l	J	
SMLS7-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	45	41	500	ug/l	J	
SMLS7-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	210	200	2500	ug/l	J	
SMLS7-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	440	410	5000	ug/l	J	
TB-111912-2	**TB**	**11/19/2012**	**SW8260B**	**Carbon disulfide**	**0.48**	**0.41**	**5**	**ug/l**	**J**	
PEW01-111912	N	11/19/2012	SW8260B	Carbon disulfide	6	4.1	50	ug/l	J	
PEW02-111912	N	11/19/2012	SW8260B	Carbon disulfide	6.2	4.1	50	ug/l	J	
PEW03-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.8	0.41	5	ug/l	J	
PEW04-111912	N	11/19/2012	SW8260B	Carbon disulfide	0.9	0.41	5	ug/l	J	
PMLS3-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	120	100	1200	ug/l	J	
PMLS3-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	22	20	250	ug/l	J	
PMLS3-5-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.5	2	25	ug/l	J	
PMLS3-6-111912	N	11/19/2012	SW8260B	Carbon disulfide	12	10	120	ug/l	J	
PMLS4-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	25	20	250	ug/l	J	
PMLS4-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	8.6	8.2	100	ug/l	J	

Table 3
Detected Trip Blank Results and Associated Sample Results
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Field Sample ID	Sample Type	Sample Date	Method	Analyte	Result	DL	LOQ	Units	Qualifier	Reason Code
TB-111912-2	**TB**	**11/19/2012**	**SW8260B**	**Carbon disulfide**	**0.48**	**0.41**	**5**	**ug/l**	**J**	
PMLS4-5-111912	N	11/19/2012	SW8260B	Carbon disulfide	11	8.2	100	ug/l	J	
PMLS4-6-111912	N	11/19/2012	SW8260B	Carbon disulfide	9.8	8.2	100	ug/l	J	
SMLS1-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	0.86	0.82	10	ug/l	J	
SMLS1-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	2.7	2	25	ug/l	J	
SMLS1-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	91	82	1000	ug/l	J	
SMLS1-4-111912	N	11/19/2012	SW8260B	Carbon disulfide	23	20	250	ug/l	J	
SMLS4-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	49	41	500	ug/l	J	
SMLS4-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	14	8.2	100	ug/l	J	
SMLS7-1-111912	N	11/19/2012	SW8260B	Carbon disulfide	45	41	500	ug/l	J	
SMLS7-2-111912	N	11/19/2012	SW8260B	Carbon disulfide	210	200	2500	ug/l	J	
SMLS7-3-111912	N	11/19/2012	SW8260B	Carbon disulfide	440	410	5000	ug/l	J	
TB-061213	**TB**	**6/12/2013**	**SW8260B**	**Hexachlorobutadien**	**0.4**	**0.32**	**1**	**ug/l**	**J**	
PMLS3-1-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	32	100	ug/l	U	
PMLS3-2-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	0.64	2	ug/l	U	
PMLS3-5-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	1.6	5	ug/l	U	
PMLS3-6-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	3.2	10	ug/l	U	
PMLS4-1-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	32	100	ug/l	U	
PMLS4-2-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	0.64	2	ug/l	U	
PMLS4-5-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	8	25	ug/l	U	
PMLS4-6-061213	N	6/12/2013	SW8260B	Hexachlorobutadiene	ND	16	50	ug/l	U	

Table 3
Detected Trip Blank Results and Associated Sample Results
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Notes: See DQA text for definitions of Qualifiers and Reason Codes.

ug/L	Micrograms per liter
DL	Detection limit
LOQ	Limit of quantitation
N	Normal sample sent to the lab
TB	Trip blank
ND	Not detected

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
PEW 4									
SW8260B	1,1,1,2-Tetrachloroethane	7/9/2012	ND	1	ND	1	ug/l	NC	--
	1,1,1-Trichloroethane		ND	5	ND	5	ug/l	NC	--
	1,1,2,2-Tetrachloroethane		ND	1	ND	1	ug/l	NC	--
	1,1,2-Trichloroethane		ND	1	ND	1	ug/l	NC	--
	1,1-Dichloroethane		ND	5	ND	5	ug/l	NC	--
	1,1-Dichloroethene		0.78 J	1	ND	1	ug/l	NC	--
	1,2,3-Trichloropropane		ND	5	ND	5	ug/l	NC	--
	1,2,4-Trichlorobenzene		ND	5	ND	5	ug/l	NC	--
	1,2,4-Trimethylbenzene		ND	5	ND	5	ug/l	NC	--
	1,2-Dibromo-3-chloropropane		ND	10	ND	10	ug/l	NC	--
	1,2-Dibromoethane		ND	1	ND	1	ug/l	NC	--
	1,2-Dichlorobenzene		1.9	1	1.2	1	ug/l	45.2	No
	1,2-Dichloroethane		ND	1	ND	1	ug/l	NC	--
	1,2-Dichloropropane		ND	1	ND	1	ug/l	NC	--
	1,3,5-Trimethylbenzene		ND	5	ND	5	ug/l	NC	--
	1,3-Dichlorobenzene		ND	1	ND	1	ug/l	NC	--
	1,3-Dichloropropane		ND	5	ND	5	ug/l	NC	--
	1,4-Dichlorobenzene		0.52 J	1	0.47 J	1	ug/l	NC	--
	2-Butanone		28	10	81	10	ug/l	97.2	No
	2-Chlorotoluene		ND	1	ND	1	ug/l	NC	--
	4-Chlorotoluene		ND	1	ND	1	ug/l	NC	--
	4-Methyl-2-pentanone		ND	10	ND	10	ug/l	NC	--
	Acetone		16 J	20	54	20	ug/l	NC	--
	Benzene		ND	1	ND	1	ug/l	NC	--
	Bromobenzene		ND	1	ND	1	ug/l	NC	--
	Bromodichloromethane		ND	5	ND	5	ug/l	NC	--
	Bromoform		ND	10	ND	10	ug/l	NC	--
	Bromomethane		ND	20	ND	20	ug/l	NC	--
	Carbon disulfide		ND	5	ND	5	ug/l	NC	--
	Carbon tetrachloride		ND	1	ND	1	ug/l	NC	--
	Chlorobenzene		ND	5	ND	5	ug/l	NC	--
	Chloroethane		ND	10	ND	10	ug/l	NC	--
	Chloroform		ND	5	ND	5	ug/l	NC	--
	Chloromethane		ND	10	ND	10	ug/l	NC	--
	cis-1,2-Dichloroethene		67	1	33	1	ug/l	68	No
	Dibromochloromethane		ND	1	ND	1	ug/l	NC	--
	Ethylbenzene		ND	1	ND	1	ug/l	NC	--
	Hexachlorobutadiene		ND	1	ND	1	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
PEW 4									
SW8260B	Isopropylbenzene	7/9/2012	ND	5	ND	5	ug/l	NC	--
	m,p-Xylene		ND	10	ND	10	ug/l	NC	--
	Methyl tert butyl ether		ND	1	ND	1	ug/l	NC	--
	Methylene chloride		ND	5	ND	5	ug/l	NC	--
	Naphthalene		ND	10	ND	10	ug/l	NC	--
	n-Butylbenzene		ND	1	ND	1	ug/l	NC	--
	n-Propylbenzene		ND	1	ND	1	ug/l	NC	--
	o-Xylene		ND	1	ND	1	ug/l	NC	--
	sec-Butylbenzene		ND	1	ND	1	ug/l	NC	--
	Styrene		ND	1	ND	1	ug/l	NC	--
	tert-Butylbenzene		ND	1	ND	1	ug/l	NC	--
	Tetrachloroethene		ND	5	ND	5	ug/l	NC	--
	Toluene		ND	1	ND	1	ug/l	NC	--
	trans-1,2-Dichloroethene		11	1	6.3	1	ug/l	54.3	No
	Trichloroethene		18	1	3.3	1	ug/l	138	No
	Trichlorofluoromethane		ND	10	ND	10	ug/l	NC	--
	Vinylchloride		19	1	9.7	1	ug/l	64.8	No
PMLS 4-2									
SW8260B	1,1,1,2-Tetrachloroethane	3/20/2013	ND	25	ND	20	ug/l	NC	--
	1,1,1-Trichloroethane		ND	120	ND	100	ug/l	NC	--
	1,1,2,2-Tetrachloroethane		ND	25	ND	20	ug/l	NC	--
	1,1,2-Trichloroethane		ND	25	ND	20	ug/l	NC	--
	1,1-Dichloroethane		ND	120	ND	100	ug/l	NC	--
	1,1-Dichloroethene		17 J	25	16 J	20	ug/l	NC	--
	1,2,3-Trichloropropane		ND	120	ND	100	ug/l	NC	--
	1,2,4-Trichlorobenzene		ND	120	ND	100	ug/l	NC	--
	1,2,4-Trimethylbenzene		ND	120	ND	100	ug/l	NC	--
	1,2-Dibromo-3-chloropropane		ND	250	ND	200	ug/l	NC	--
	1,2-Dibromoethane		ND	25	ND	20	ug/l	NC	--
	1,2-Dichlorobenzene		87	25	73	20	ug/l	17.5	Yes
	1,2-Dichloroethane		ND	25	ND	20	ug/l	NC	--
	1,2-Dichloropropane		ND	25	ND	20	ug/l	NC	--
	1,3,5-Trimethylbenzene		ND	120	ND	100	ug/l	NC	--
	1,3-Dichlorobenzene		ND	25	ND	20	ug/l	NC	--
	1,3-Dichloropropane		ND	120	ND	100	ug/l	NC	--
	1,4-Dichlorobenzene		21 J	25	19 J	20	ug/l	NC	--
	2-Butanone		ND	250	ND	200	ug/l	NC	--
	2-Chlorotoluene		ND	25	ND	20	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
PMLS 4-2									
SW8260B	4-Chlorotoluene	3/20/2013	ND	25	ND	20	ug/l	NC	--
	4-Methyl-2-pentanone		ND	250	ND	200	ug/l	NC	--
	Acetone		ND	500	ND	400	ug/l	NC	--
	Benzene		ND	25	ND	20	ug/l	NC	--
	Bromobenzene		ND	25	ND	20	ug/l	NC	--
	Bromodichloromethane		ND	120	ND	100	ug/l	NC	--
	Bromoform		ND	250	ND	200	ug/l	NC	--
	Bromomethane		ND	500	ND	400	ug/l	NC	--
	Carbon disulfide		ND	120	ND	100	ug/l	NC	--
	Carbon tetrachloride		ND	25	ND	20	ug/l	NC	--
	Chlorobenzene		ND	120	4.7 J	100	ug/l	NC	--
	Chloroethane		ND	250	ND	200	ug/l	NC	--
	Chloroform		ND	120	ND	100	ug/l	NC	--
	Chloromethane		ND	250	ND	200	ug/l	NC	--
	cis-1,2-Dichloroethene		4,200	25	3,900	20	ug/l	7.4	Yes
	Dibromochloromethane		ND	25	ND	20	ug/l	NC	--
	Ethylbenzene		ND	25	ND	20	ug/l	NC	--
	Hexachlorobutadiene		ND	25	ND	20	ug/l	NC	--
	Isopropylbenzene		ND	120	ND	100	ug/l	NC	--
	m,p-Xylene		ND	250	ND	200	ug/l	NC	--
	Methyl tert butyl ether		ND	25	ND	20	ug/l	NC	--
	Methylene chloride		ND	120	ND	100	ug/l	NC	--
	Naphthalene		ND	250	ND	200	ug/l	NC	--
	n-Butylbenzene		ND	25	ND	20	ug/l	NC	--
	n-Propylbenzene		ND	25	ND	20	ug/l	NC	--
	o-Xylene		ND	25	ND	20	ug/l	NC	--
	sec-Butylbenzene		ND	25	ND	20	ug/l	NC	--
	Styrene		ND	25	ND	20	ug/l	NC	--
	tert-Butylbenzene		ND	25	ND	20	ug/l	NC	--
	Tetrachloroethene		ND	25	ND	20	ug/l	NC	--
	Toluene		ND	25	ND	20	ug/l	NC	--
	trans-1,2-Dichloroethene		380	25	340	20	ug/l	11.1	Yes
	Trichloroethene		490	25	460	20	ug/l	6.3	Yes
	Trichlorofluoromethane		ND	250	ND	200	ug/l	NC	--
	Vinylchloride		1,200	25	1,100	20	ug/l	8.7	Yes
SMLS 1-4									
SW8260B	1,1,1,2-Tetrachloroethane	7/9/2012	ND	10	ND	10	ug/l	NC	--
	1,1,1-Trichloroethane		ND	50	ND	50	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
SMLS 1-4									
SW8260B	1,1,2,2-Tetrachloroethane	7/9/2012	ND	10	ND	10	ug/l	NC	--
	1,1,2-Trichloroethane		ND	10	ND	10	ug/l	NC	--
	1,1-Dichloroethane		ND	50	ND	50	ug/l	NC	--
	1,1-Dichloroethene		ND	10	ND	10	ug/l	NC	--
	1,2,3-Trichloropropane		ND	50	ND	50	ug/l	NC	--
	1,2,4-Trichlorobenzene		ND	50	ND	50	ug/l	NC	--
	1,2,4-Trimethylbenzene		ND	50	ND	50	ug/l	NC	--
	1,2-Dibromo-3-chloropropane		ND	100	ND	100	ug/l	NC	--
	1,2-Dibromoethane		ND	10	ND	10	ug/l	NC	--
	1,2-Dichlorobenzene		57	10	57	10	ug/l	0	Yes
	1,2-Dichloroethane		ND	10	ND	10	ug/l	NC	--
	1,2-Dichloropropane		ND	10	ND	10	ug/l	NC	--
	1,3,5-Trimethylbenzene		ND	50	ND	50	ug/l	NC	--
	1,3-Dichlorobenzene		ND	10	ND	10	ug/l	NC	--
	1,3-Dichloropropane		ND	50	ND	50	ug/l	NC	--
	1,4-Dichlorobenzene		8.5 J	10	8.4 J	10	ug/l	NC	--
	2-Butanone		ND	100	ND	100	ug/l	NC	--
	2-Chlorotoluene		ND	10	ND	10	ug/l	NC	--
	4-Chlorotoluene		ND	10	ND	10	ug/l	NC	--
	4-Methyl-2-pentanone		ND	100	ND	100	ug/l	NC	--
	Acetone		ND	200	ND	200	ug/l	NC	--
	Benzene		ND	10	ND	10	ug/l	NC	--
	Bromobenzene		ND	10	ND	10	ug/l	NC	--
	Bromodichloromethane		ND	50	ND	50	ug/l	NC	--
	Bromoform		ND	100	ND	100	ug/l	NC	--
	Bromomethane		ND	200	ND	200	ug/l	NC	--
	Carbon disulfide		ND	50	ND	50	ug/l	NC	--
	Carbon tetrachloride		ND	10	ND	10	ug/l	NC	--
	Chlorobenzene		5.3 J	50	4.9 J	50	ug/l	NC	--
	Chloroethane		ND	100	ND	100	ug/l	NC	--
	Chloroform		ND	50	ND	50	ug/l	NC	--
	Chloromethane		ND	100	ND	100	ug/l	NC	--
	cis-1,2-Dichloroethene		1,300	10	1,400	10	ug/l	7.4	Yes
	Dibromochloromethane		ND	10	ND	10	ug/l	NC	--
	Ethylbenzene		ND	10	ND	10	ug/l	NC	--
	Hexachlorobutadiene		ND	10	ND	10	ug/l	NC	--
	Isopropylbenzene		ND	50	ND	50	ug/l	NC	--
	m,p-Xylene		ND	100	ND	100	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
SMLS 1-4									
SW8260B	Methyl tert butyl ether	7/9/2012	ND	10	ND	10	ug/l	NC	--
	Methylene chloride		ND	50	ND	50	ug/l	NC	--
	Naphthalene		ND	100	ND	100	ug/l	NC	--
	n-Butylbenzene		ND	10	ND	10	ug/l	NC	--
	n-Propylbenzene		ND	10	ND	10	ug/l	NC	--
	o-Xylene		ND	10	ND	10	ug/l	NC	--
	sec-Butylbenzene		ND	10	ND	10	ug/l	NC	--
	Styrene		ND	10	ND	10	ug/l	NC	--
	tert-Butylbenzene		ND	10	ND	10	ug/l	NC	--
	Tetrachloroethene		ND	50	ND	50	ug/l	NC	--
	Toluene		ND	10	ND	10	ug/l	NC	--
	trans-1,2-Dichloroethene		72	10	77	10	ug/l	6.7	Yes
	Trichloroethene		1,600	10	1,500	10	ug/l	6.5	Yes
	Trichlorofluoromethane		ND	100	ND	100	ug/l	NC	--
	Vinylchloride		350	10	350	10	ug/l	0	Yes
SMLS 4-2									
SW8260B	1,1,1,2-Tetrachloroethane	3/19/2013	ND	50	ND	25	ug/l	NC	--
	1,1,1-Trichloroethane		ND	250	ND	120	ug/l	NC	--
	1,1,2,2-Tetrachloroethane		ND	50	ND	25	ug/l	NC	--
	1,1,2-Trichloroethane		ND	50	ND	25	ug/l	NC	--
	1,1-Dichloroethane		ND	250	ND	120	ug/l	NC	--
	1,1-Dichloroethene		ND	50	ND	25	ug/l	NC	--
	1,2,3-Trichloropropane		ND	250	ND	120	ug/l	NC	--
	1,2,4-Trichlorobenzene		ND	250	ND	120	ug/l	NC	--
	1,2,4-Trimethylbenzene		ND	250	ND	120	ug/l	NC	--
	1,2-Dibromo-3-chloropropane		ND	500	ND	250	ug/l	NC	--
	1,2-Dibromoethane		ND	50	ND	25	ug/l	NC	--
	1,2-Dichlorobenzene		570	50	830	25	ug/l	37.1	No
	1,2-Dichloroethane		ND	50	ND	25	ug/l	NC	--
	1,2-Dichloropropane		ND	50	ND	25	ug/l	NC	--
	1,3,5-Trimethylbenzene		ND	250	ND	120	ug/l	NC	--
	1,3-Dichlorobenzene		ND	50	ND	25	ug/l	NC	--
	1,3-Dichloropropane		ND	250	ND	120	ug/l	NC	--
	1,4-Dichlorobenzene		80	50	100	25	ug/l	22.2	Yes
	2-Butanone		ND	500	ND	250	ug/l	NC	--
	2-Chlorotoluene		ND	50	ND	25	ug/l	NC	--
	4-Chlorotoluene		ND	50	ND	25	ug/l	NC	--
	4-Methyl-2-pentanone		ND	500	ND	250	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
SMLS 4-2									
SW8260B	Acetone	3/19/2013	ND	1000	ND	500	ug/l	NC	--
	Benzene		ND	50	ND	25	ug/l	NC	--
	Bromobenzene		ND	50	ND	25	ug/l	NC	--
	Bromodichloromethane		ND	250	ND	120	ug/l	NC	--
	Bromoform		ND	500	ND	250	ug/l	NC	--
	Bromomethane		ND	1000	ND	500	ug/l	NC	--
	Carbon disulfide		ND	250	ND	120	ug/l	NC	--
	Carbon tetrachloride		ND	50	ND	25	ug/l	NC	--
	Chlorobenzene		92 J	250	100 J	120	ug/l	NC	--
	Chloroethane		150	500	180	250	ug/l	NC	--
	Chloroform		ND	250	ND	120	ug/l	NC	--
	Chloromethane		ND	500	ND	250	ug/l	NC	--
	cis-1,2-Dichloroethene		3,400	50	5,700	100	ug/l	50.5	No
	Dibromochloromethane		ND	50	ND	25	ug/l	NC	--
	Ethylbenzene		ND	50	ND	25	ug/l	NC	--
	Hexachlorobutadiene		ND	50	ND	25	ug/l	NC	--
	Isopropylbenzene		ND	250	ND	120	ug/l	NC	--
	m,p-Xylene		ND	500	ND	250	ug/l	NC	--
	Methyl tert butyl ether		ND	50	ND	25	ug/l	NC	--
	Methylene chloride		ND	250	ND	120	ug/l	NC	--
	Naphthalene		ND	500	ND	250	ug/l	NC	--
	n-Butylbenzene		ND	50	ND	25	ug/l	NC	--
	n-Propylbenzene		ND	50	ND	25	ug/l	NC	--
	o-Xylene		ND	50	ND	25	ug/l	NC	--
	sec-Butylbenzene		ND	50	ND	25	ug/l	NC	--
	Styrene		ND	50	ND	25	ug/l	NC	--
	tert-Butylbenzene		ND	50	ND	25	ug/l	NC	--
	Tetrachloroethene		ND	50	ND	25	ug/l	NC	--
	Toluene		ND	50	ND	25	ug/l	NC	--
	trans-1,2-Dichloroethene		57	50	81	25	ug/l	34.8	Yes
	Trichloroethene		870	50	2,000	25	ug/l	78.7	No
	Trichlorofluoromethane		ND	500	ND	250	ug/l	NC	--
	Vinylchloride		2,000	50	2,300	100	ug/l	14	Yes
SMLS 7-1									
SW8260B	1,1,1,2-Tetrachloroethane	7/9/2012	ND	50	ND	50	ug/l	NC	--
	1,1,1-Trichloroethane		ND	250	ND	250	ug/l	NC	--
	1,1,2,2-Tetrachloroethane		ND	50	ND	50	ug/l	NC	--
	1,1,2-Trichloroethane		ND	50	ND	50	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
SMLS 7-1									
SW8260B	1,1-Dichloroethane	7/9/2012	ND	250	ND	250	ug/l	NC	--
	1,1-Dichloroethene		51	50	55	50	ug/l	7.5	Yes
	1,2,3-Trichloropropane		ND	250	ND	250	ug/l	NC	--
	1,2,4-Trichlorobenzene		ND	250	ND	250	ug/l	NC	--
	1,2,4-Trimethylbenzene		ND	250	ND	250	ug/l	NC	--
	1,2-Dibromo-3-chloropropane		ND	500	ND	500	ug/l	NC	--
	1,2-Dibromoethane		ND	50	ND	50	ug/l	NC	--
	1,2-Dichlorobenzene		790	50	750	50	ug/l	5.2	Yes
	1,2-Dichloroethane		ND	50	ND	50	ug/l	NC	--
	1,2-Dichloropropane		ND	50	ND	50	ug/l	NC	--
	1,3,5-Trimethylbenzene		ND	250	ND	250	ug/l	NC	--
	1,3-Dichlorobenzene		ND	50	ND	50	ug/l	NC	--
	1,3-Dichloropropane		ND	250	ND	250	ug/l	NC	--
	1,4-Dichlorobenzene		80	50	76	50	ug/l	5.1	Yes
	2-Butanone		ND	500	ND	500	ug/l	NC	--
	2-Chlorotoluene		ND	50	ND	50	ug/l	NC	--
	4-Chlorotoluene		ND	50	ND	50	ug/l	NC	--
	4-Methyl-2-pentanone		ND	500	ND	500	ug/l	NC	--
	Acetone		ND	1000	ND	1000	ug/l	NC	--
	Benzene		ND	50	ND	50	ug/l	NC	--
	Bromobenzene		ND	50	ND	50	ug/l	NC	--
	Bromodichloromethane		ND	250	ND	250	ug/l	NC	--
	Bromoform		ND	500	ND	500	ug/l	NC	--
	Bromomethane		ND	1000	ND	1000	ug/l	NC	--
	Carbon disulfide		ND	250	ND	250	ug/l	NC	--
	Carbon tetrachloride		ND	50	ND	50	ug/l	NC	--
	Chlorobenzene		16 J	250	18 J	250	ug/l	NC	--
	Chloroethane		ND	500	ND	500	ug/l	NC	--
	Chloroform		ND	250	ND	250	ug/l	NC	--
	Chloromethane		ND	500	ND	500	ug/l	NC	--
	cis-1,2-Dichloroethene		30,000	500	32,000	500	ug/l	6.5	Yes
	Dibromochloromethane		ND	50	ND	50	ug/l	NC	--
	Ethylbenzene		ND	50	ND	50	ug/l	NC	--
	Hexachlorobutadiene		ND	50	ND	50	ug/l	NC	--
	Isopropylbenzene		ND	250	ND	250	ug/l	NC	--
	m,p-Xylene		ND	500	ND	500	ug/l	NC	--
	Methyl tert butyl ether		ND	50	ND	50	ug/l	NC	--
	Methylene chloride		ND	250	ND	250	ug/l	NC	--

Table 4
Field Duplicate Summary
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Location ID	Analyte	Sample Date	Primary Result	Primary LOQ	Duplicate Result	Duplicate LOQ	Units	RPD %	RPD Goal Met
SMLS 7-1									
SW8260B	Naphthalene	7/9/2012	ND	500	ND	500	ug/l	NC	--
	n-Butylbenzene		ND	50	ND	50	ug/l	NC	--
	n-Propylbenzene		ND	50	ND	50	ug/l	NC	--
	o-Xylene		ND	50	ND	50	ug/l	NC	--
	sec-Butylbenzene		ND	50	ND	50	ug/l	NC	--
	Styrene		ND	50	ND	50	ug/l	NC	--
	tert-Butylbenzene		ND	50	ND	50	ug/l	NC	--
	Tetrachloroethene		ND	250	ND	250	ug/l	NC	--
	Toluene		ND	50	ND	50	ug/l	NC	--
	trans-1,2-Dichloroethene		260	50	290	50	ug/l	10.9	Yes
	Trichloroethene		14,000	500	8,500	50	ug/l	48.9	No
	Trichlorofluoromethane		ND	500	ND	500	ug/l	NC	--
	Vinylchloride		24,000	500	22,000	500	ug/l	8.7	Yes

Notes:

Primary = primary field sample sent to the lab
Duplicate = duplicate field sample sent to the lab
LOQ = limit of quantitation
RPD = relative percent difference
ND = not detected
ug/L = micrograms per liter

RPD formula = 100 x |Primary Result - Duplicate Result| / ((Primary Result + Duplicate Result) / 2)
NC = Not Calculated. RPD is only calculated when the analyte is detected at or above the RL in both the primary sample and the duplicate sample.
-- = Not applicable since RPD not calculated.

RPD goal for groundwater is 35%.

Table 5
Analytical and Technical Completeness
Groundwater Sampling - July 2012 to June 2013
Plume 4-1, Alameda Point, CA

Analytical Method	Number of Analytes	Number of Samples	Number of Results	Number of Qualified Results	Number of Useable Results	Analytical Completeness [Goal = 90 percent] (percent)	Technical Completeness [Goal = 95 percent] (percent)
A4500SD	1	161	161	0	161	100.0	100.0
E300.0	3	161	483	3	483	99.4	100.0
OAHPLC	5	169	845	4	845	99.5	100.0
RSK175	3	209	627	0	627	100.0	100.0
SW8260B	55	232	12760	66	12760	99.5	100.0

Attachment 1
Summary Table: Final Qualified Analytical Results, Plume 4-1 Treatability Study, Alameda Point, July 2012 to June 2013

LOCATION_CODE				PEW 1		PEW 1		PEW 1		PEW 1		PEW 1		PEW 1		PEW 1		PEW 1	
SAMPLE_DATE_SORT				20120709		20120919		20120926		20121005		20121010		20121017		20121024		20121031		20121107		20121114	
SAMPLE_DATE				7/9/2012 12:50		9/19/2012 15:10		9/26/2012 13:35		10/5/2012 13:15		10/10/2012 12:20		10/17/2012 10:00		10/24/2012 12:55		10/31/2012 13:35		11/7/2012 12:20		11/14/2012 12:20	
SAMPLE_NO				PEW 1 (07/09/12)		PEW-01-091912		PEW-01-092612		PEW01-100512		PEW01-101012		PEW01-101712		PEW01-102412		PEW01-103112		PEW01-110712		PEW01-111412	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1600		1500		1400		1400		1500		1500		1400		1400		1400		1600	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	330		200		180		130		140		130		100		110		50		14	
Dissolved gases	RSK175	Ethane	ug/l	2.85		4.33		1.96		4.79		6.58		4.08		3.55		3.9		5.26		4.88	
Dissolved gases	RSK175	Ethylene	ug/l	83		47.9		30.8		104		149		121		127		148		198		343	
Dissolved gases	RSK175	Methane	ug/l	490		91.2		37.3		94.8		148		140		172		244		408		929	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	U	75		38	J+	150		120		190		200		210		270		350	
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	4	U	2	U	2	U	1.2	J	3.3	J	4.4		4.5		3.8	J	7	
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	4	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	2	U	68		60		67		83		170		220		220		200		380	
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.11	J	0.4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	3		6		16		12		16		14		10		21		14	
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	2.5	U	6.4		10	U	10	U	7.7	J	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	10	U	2	U	40	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	10	U	2	U	40	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	10	U	2	U	40	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	35		100		74		110		120		98		99		100		80		96	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	2.5	U	2		10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	2.5	U	2.1		10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	6		15		12	J	19	J	18		17	J	18	J	18	J	13	J	20	
VOCs	SW8260B	2-Butanone	ug/l	25	U	5	U	100	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	25	U	5	U	100	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	Acetone	ug/l	50	U	10	J	200	U	200	U	100	U	250	U	250	U	250	U	200	U	100	U
VOCs	SW8260B	Benzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Bromobenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Bromodichloromethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Bromoform	ug/l	10	U	2	U	40	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	Bromomethane	ug/l	25	U	5	U	100	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	Carbon disulfide	ug/l	2.5	U	0.62	J	10	U	26	J	24	J	19	J	12	U	12	U	10	U	5.2	J
VOCs	SW8260B	Carbon tetrachloride	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Chlorobenzene	ug/l	6.5	J	29		23	J	33	J	35	J	33	J	34	J	38	J	33	J	70	
VOCs	SW8260B	Chloroethane	ug/l	25	U	5	U	100	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	Chloroform	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Chloromethane	ug/l	10	U	2	U	40	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	88		2900		2500		3700	J-	3300		3100		3000		3000		1900		1700	
VOCs	SW8260B	Dibromochloromethane	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Ethylbenzene	ug/l	2.5	U	0.14	J	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Isopropylbenzene	ug/l	10	U	2	U	40	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	m,p-Xylene	ug/l	5	U	1	U	20	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Methylene chloride	ug/l	10	U	2	U	40	U	20	U	10	U	25	U	25	U	25	U	20	U	10	U
VOCs	SW8260B	Naphthalene	ug/l	25	U	5	U	100	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	n-Butylbenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	n-Propylbenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	o-Xylene	ug/l	2.5	U	0.47	J	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	2.5	U	0.53	J	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Styrene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Tetrachloroethene	ug/l	2.5	U	0.5	U	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	Toluene	ug/l	2.5	U	0.52	J	10	U	10	U	5	U	12	U	12	U	12	U	10	U	5	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	17		160		52		100		96		82		75		76		62		58	
VOCs	SW8260B	Trichloroethene	ug/l	7.8		410		330		110		290		220		230		180		9.3	J	5.3	J
VOCs	SW8260B	Trichlorofluoromethane	ug/l	10	U	2	U	40	U	100	U	50	U	120	U	120	U	120	U	100	U	50	U
VOCs	SW8260B	Vinylchloride	ug/l	210		660		410		610		600		560		600		570		380		560	

			PEW 1		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2	
			20121119		20120709		20120720		20120726		20120806		20120816		20120823		20120919		20120926		20121005		20121010
			11/19/2012 15:05		7/9/2012 12:40		7/20/2012 12:20		7/26/2012 12:25		8/6/2012 12:20		8/16/2012 11:45		8/23/2012 11:55		9/19/2012 14:55		9/26/2012 13:25		10/5/2012 13:00		10/10/2012 12:00
			PEW01-111912		PEW 2 (07/09/12)		PEW-02(48hr)-072012		PEW-02-072612		PEW-02-080612		PEW-02-081612		PEW-02-082312		PEW-02-091912		PEW-02-092612		PEW02-100512		PEW02-101012
ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
E300.0	Chloride	mg/l	830		940												1500		1500		1400		1500	
E300.0	Nitrate	mg/l	0.1	U	0.05	U											0.1	U	0.19	J	0.1	U	0.1	U
E300.0	Sulfate	mg/l	2	J	190												170		150		43		100	
RSK175	Ethane	ug/l	4.12		3.36												4.79		2.77		3.15		6.38	
RSK175	Ethylene	ug/l	348		10.9												149		103		235		338	
RSK175	Methane	ug/l	850		300												93.2		59.8		167		355	
OAHPLC	Acetic Acid	mg/l	190		2	U	2	U	2	U	2	U	2	U	2	U	100		130		230		190	
OAHPLC	Butyric Acid	mg/l	1.9	J	2	U	2	U	2	U	2	U	2	U	2	U	10	U	10	U	2	U	3.9	J
OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	10	U	10	U	2	U	2	U
OAHPLC	Propionic Acid	mg/l	170		2	U	2	U	2	U	2	U	2	U	2	U	67		120		220		230	
OAHPLC	Pyruvic Acid	mg/l	0.13	J	0.15	J	0.2	U	0.2	U	0.2	U	0.2	U	0.09	J	0.5	J	1	U	0.2	U	0.2	U
A4500SD	Sulfide, Total	mg/l	3.3		0.06	U											2.7		6.3		15		10	
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,1,1-Trichloroethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,1,2-Trichloroethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,1-Dichloroethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,1-Dichloroethene	ug/l	5	U	2.2	J											9.4		12	U	10	U	8.7	J
SW8260B	1,2,3-Trichloropropane	ug/l	10	U	10	U											10	U	50	U	20	U	10	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	10	U	10	U											10	U	50	U	20	U	10	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	5	U	2.5	U											2.9	J	12	U	10	U	5	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	50	U	10	U											10	U	50	U	100	U	50	U
SW8260B	1,2-Dibromoethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,2-Dichlorobenzene	ug/l	67		66												170		120		170		150	
SW8260B	1,2-Dichloroethane	ug/l	5	U	2.5	U											3.1	J	12	U	10	U	5	U
SW8260B	1,2-Dichloropropane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,3-Dichlorobenzene	ug/l	5	U	5.1												4	J	12	U	10	U	5	U
SW8260B	1,3-Dichloropropane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	1,4-Dichlorobenzene	ug/l	14		23												29		22	J	37		29	
SW8260B	2-Butanone	ug/l	50	U	25	U											25	U	120	U	100	U	50	U
SW8260B	2-Chlorotoluene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	4-Chlorotoluene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	4-Methyl-2-pentanone	ug/l	50	U	25	U											25	U	120	U	100	U	50	U
SW8260B	Acetone	ug/l	82	J	50	U											50	U	250	U	200	U	100	U
SW8260B	Benzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Bromobenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Bromodichloromethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Bromoform	ug/l	10	U	10	U											10	U	50	U	20	U	10	U
SW8260B	Bromomethane	ug/l	50	U	25	U											25	U	120	U	100	U	50	U
SW8260B	Carbon disulfide	ug/l	6	J	2.5	U											2.5	U	12	U	40	J	20	J
SW8260B	Carbon tetrachloride	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Chlorobenzene	ug/l	57		350												70		44	J	99	J	64	
SW8260B	Chloroethane	ug/l	50	U	25	U											25	U	120	U	100	U	50	U
SW8260B	Chloroform	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Chloromethane	ug/l	50	U	10	U											10	U	50	U	100	U	50	U
SW8260B	cis-1,2-Dichloroethene	ug/l	510		1300												3700		3100		3400		4700	
SW8260B	Dibromochloromethane	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Ethylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Hexachlorobutadiene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Isopropylbenzene	ug/l	10	U	10	U											10	U	50	U	20	U	10	U
SW8260B	m,p-Xylene	ug/l	10	U	5	U											5	U	25	U	20	U	10	U
SW8260B	Methyl tert butyl ether	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Methylene chloride	ug/l	10	U	10	U											10	U	50	U	20	U	10	U
SW8260B	Naphthalene	ug/l	50	U	25	U											25	U	120	U	100	U	50	U
SW8260B	n-Butylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	n-Propylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	o-Xylene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	sec-Butylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Styrene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	tert-Butylbenzene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Tetrachloroethene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	Toluene	ug/l	5	U	2.5	U											2.5	U	12	U	10	U	5	U
SW8260B	trans-1,2-Dichloroethene	ug/l	48		51												140		84		71		97	
SW8260B	Trichloroethene	ug/l	5	U	4.6	J											1500		1200		180		800	
SW8260B	Trichlorofluoromethane	ug/l	50	U	10	U											10	U	50	U	100	U	50	U
SW8260B	Vinylchloride	ug/l	460		570												800		520		510		490	

			PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 2		PEW 3		PEW 3		PEW 3		PEW 3	
			20121017		20121024		20121031		20121107		20121114		20121119		20120709		20120806		20120816		20120823		20120919	
			10/17/2012 9:40		10/24/2012 12:40		10/31/2012 13:20		11/7/2012 12:05		11/14/2012 12:00		11/19/2012 14:50		7/9/2012 12:35		8/6/2012 12:30		8/16/2012 11:35		8/23/2012 11:45		9/19/2012 14:30	
			PEW02-101712		PEW02-102412		PEW02-103112		PEW02-110712		PEW02-111412		PEW02-111912		PEW 3 (07/09/12)		PEW-03-080612		PEW-03-081612		PEW-03-082312		PEW-03-091912	
ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
E300.0	Chloride	mg/l	1600		1500		1400		1500		1600		1200		1200								1400	
E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U							0.1	U
E300.0	Sulfate	mg/l	84		76		100		19		11		1	U	260								90	
RSK175	Ethane	ug/l	4.31		6.18		4.8		4.75		4.05		2.98		1.36								1.37	
RSK175	Ethylene	ug/l	223		400		213		314		331		383		10.1								93.2	
RSK175	Methane	ug/l	458		855		746		1350		1330		1460		114								32.5	
OAHPLC	Acetic Acid	mg/l	330		340		320		360		350		290		2	U	2	U	2	U	2	U	140	
OAHPLC	Butyric Acid	mg/l	7		10		12		8.5		7.3		5.8		2	U	2	U	2	U	2	U	10	U
OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	10	U
OAHPLC	Propionic Acid	mg/l	540		490		550		430		400		450		2	U	2	U	2	U	2	U	45	
OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.68		0.2	U	0.2	U	0.09	J	0.11	J	1	U
A4500SD	Sulfide, Total	mg/l	13		12		7.5		20		15		3.3		0.06	U							5.1	
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,1,1-Trichloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,1,2-Trichloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,1-Dichloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,1-Dichloroethene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.55	J							3.4	
SW8260B	1,2,3-Trichloropropane	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	2	U							2	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	2	U							2	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.91	J
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	2	U							2	U
SW8260B	1,2-Dibromoethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,2-Dichlorobenzene	ug/l	140		120		160		120		97		95		3.7	J+							140	
SW8260B	1,2-Dichloroethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							1.6	
SW8260B	1,2-Dichloropropane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.3	J
SW8260B	1,3-Dichlorobenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							2.7	
SW8260B	1,3-Dichloropropane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	1,4-Dichlorobenzene	ug/l	24	J	20	J	29		21		22		23		0.68	J							18	
SW8260B	2-Butanone	ug/l	120	U	100	U	120	U	100	U	50	U	47	J	5	U							5	U
SW8260B	2-Chlorotoluene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	4-Chlorotoluene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	4-Methyl-2-pentanone	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	5	U							5	U
SW8260B	Acetone	ug/l	250	U	200	U	250	U	200	U	100	U	100	J	6.2	J+							6.1	J
SW8260B	Benzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.15	J
SW8260B	Bromobenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Bromodichloromethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Bromoform	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	2	U							2	U
SW8260B	Bromomethane	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	5	U							5	U
SW8260B	Carbon disulfide	ug/l	19	J	10	U	12	U	10	U	4.2	J	6.2	J	0.5	U							0.75	J
SW8260B	Carbon tetrachloride	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Chlorobenzene	ug/l	44	J	35	J	56	J	58	J	81		110		0.29	J							36	
SW8260B	Chloroethane	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	5	U							5	U
SW8260B	Chloroform	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Chloromethane	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	2	U							2	U
SW8260B	cis-1,2-Dichloroethene	ug/l	3400		2900		3700		2600		1300		1300		75	J+							2400	
SW8260B	Dibromochloromethane	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Ethylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.17	J
SW8260B	Hexachlorobutadiene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Isopropylbenzene	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	2	U							2	U
SW8260B	m,p-Xylene	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	1	U							0.37	J
SW8260B	Methyl tert butyl ether	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Methylene chloride	ug/l	25	U	20	U	25	U	20	U	10	U	10	U	2	U							2	U
SW8260B	Naphthalene	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	5	U							5	U
SW8260B	n-Butylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	n-Propylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.19	J
SW8260B	o-Xylene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.6	J
SW8260B	sec-Butylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.57	J
SW8260B	Styrene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	tert-Butylbenzene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Tetrachloroethene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.5	U
SW8260B	Toluene	ug/l	12	U	10	U	12	U	10	U	5	U	5	U	0.5	U							0.57	J
SW8260B	trans-1,2-Dichloroethene	ug/l	74		71		100		64		49		56		3.3	J+							72	
SW8260B	Trichloroethene	ug/l	530		340		970		10	U	5	U	5	U	65	J+							300	
SW8260B	Trichlorofluoromethane	ug/l	120	U	100	U	120	U	100	U	50	U	50	U	2	U							2	U
SW8260B	Vinylchloride	ug/l	460		390		450		510		590		760		17	J+							650	

ANALYTIC_METHOD	Parameter	Units	PEW 3 20120926 9/26/2012 13:15 PEW-03-092612 Result ValQual	PEW 3 20121005 10/5/2012 12:40 PEW03-100512 Result ValQual	PEW 3 20121010 10/10/2012 11:35 PEW03-101012 Result ValQual	PEW 3 20121017 10/17/2012 9:20 PEW03-101712 Result ValQual	PEW 3 20121024 10/24/2012 12:25 PEW03-102412 Result ValQual	PEW 3 20121031 10/31/2012 13:05 PEW03-103112 Result ValQual	PEW 3 20121107 11/7/2012 11:50 PEW03-110712 Result ValQual	PEW 3 20121114 11/14/2012 11:40 PEW03-111412 Result ValQual	PEW 3 20121119 11/19/2012 14:30 PEW03-111912 Result ValQual	PEW 4 20120709 7/9/2012 12:20 PEW 4 (07/09/12) Result ValQual	PEW 4 (Dup) 20120709 7/9/2012 12:25 MW9903 (07/09/12) Result ValQual
E300.0	Chloride	mg/l	1400	1500	1500	1400	1400	1300	1400	1600	240	1400	
E300.0	Nitrate	mg/l	0.078 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.1 U	0.05 U	0.1 U	
E300.0	Sulfate	mg/l	81	10	65	73	74	62	11	7.4	0.48 J	310	
RSK175	Ethane	ug/l	1.77	2.36	2.62	3.12	2	2.94	4.27	3.77	1.06	1.8	
RSK175	Ethylene	ug/l	135	251	331	286	214	271	447	442	123	3.16	
RSK175	Methane	ug/l	49.7	85.8	194	324	274	578	1060	1010	391	102	
OAHPLC	Acetic Acid	mg/l	170	260	240	240	270	320	370	380	58	2 U	
OAHPLC	Butyric Acid	mg/l	20 U	2 U	6.8	6.3	6.9	11	7.4	8.5	1.3 J	2 U	
OAHPLC	Lactic Acid	mg/l	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	
OAHPLC	Propionic Acid	mg/l	210	300	400	350	390	550	490	500	62	2 U	
OAHPLC	Pyruvic Acid	mg/l	2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
A4500SD	Sulfide, Total	mg/l	6	7	4	5.5	3	3	9.8	9	3.6	0.06 U	
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,1,1-Trichloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,1,2-Trichloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,1-Dichloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,1-Dichloroethene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.78 J	0.5 U
SW8260B	1,2,3-Trichloropropane	ug/l	40 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	2 U	2 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	40 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	2 U	2 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.49 J	0.5 U	0.5 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	40 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	2 U	2 U
SW8260B	1,2-Dibromoethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,2-Dichlorobenzene	ug/l	100	130	130	110	140	130	82	75	21	1.9	1.2 J+
SW8260B	1,2-Dichloroethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.32 J	0.5 U	0.5 U
SW8260B	1,2-Dichloropropane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,3-Dichlorobenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	1.2	0.5 U	0.5 U
SW8260B	1,3-Dichloropropane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	1,4-Dichlorobenzene	ug/l	15 J	19	19	19 J	24	22	16 J	18	7.5	0.52 J	0.47 J
SW8260B	2-Butanone	ug/l	100 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5.4 J	28	81 J+
SW8260B	2-Chlorotoluene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	4-Chlorotoluene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	4-Methyl-2-pentanone	ug/l	100 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	5 U	5 U
SW8260B	Acetone	ug/l	200 U	100 U	100 U	200 U	200 U	200 U	200 U	100 U	10 J	16 J	54 J+
SW8260B	Benzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Bromobenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Bromodichloromethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Bromoform	ug/l	40 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	2 U	2 U
SW8260B	Bromomethane	ug/l	100 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	5 U	5 U
SW8260B	Carbon disulfide	ug/l	10 U	27 J	13 J	9.1 J	10 U	10 U	10 U	5 U	2.8 J	0.5 U	0.5 U
SW8260B	Carbon tetrachloride	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Chlorobenzene	ug/l	27 J	41 J	47 J	57 J	66 J	66 J	74 J	87	37	0.5 U	0.5 U
SW8260B	Chloroethane	ug/l	100 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	5 U	5 U
SW8260B	Chloroform	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Chloromethane	ug/l	40 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	2 U	2 U
SW8260B	cis-1,2-Dichloroethene	ug/l	2100	1900	2200	2300	2900	2700	1600	1200	93	67	33 J+
SW8260B	Dibromochloromethane	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Ethylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Hexachlorobutadiene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Isopropylbenzene	ug/l	40 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	2 U	2 U
SW8260B	m,p-Xylene	ug/l	20 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	1 U	1 U
SW8260B	Methyl tert butyl ether	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Methylene chloride	ug/l	40 U	10 U	10 U	20 U	20 U	20 U	20 U	10 U	1 U	2 U	2 U
SW8260B	Naphthalene	ug/l	100 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	5 U	5 U
SW8260B	n-Butylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	n-Propylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	o-Xylene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.25 J	0.5 U	0.5 U
SW8260B	sec-Butylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.31 J	0.5 U	0.5 U
SW8260B	Styrene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 UJ	0.5 U
SW8260B	tert-Butylbenzene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Tetrachloroethene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.5 U	0.5 U	0.5 U
SW8260B	Toluene	ug/l	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	0.28 J	0.5 U	0.5 U
SW8260B	trans-1,2-Dichloroethene	ug/l	35	32	43	40	48	40	29	37	8.3	11	6.3 J+
SW8260B	Trichloroethene	ug/l	510	17	280	270	440	200	10 U	5 U	0.5 U	18	3.3 J+
SW8260B	Trichlorofluoromethane	ug/l	40 U	50 U	50 U	100 U	100 U	100 U	100 U	50 U	5 U	2 U	2 U
SW8260B	Vinylchloride	ug/l	320	440	380	360	330	300	320	590	83	19	9.7 J+

ANALYTIC_METHOD	Parameter	Units	PEW 4 20120919 9/19/2012 14:10 PEW-04-091912 Result ValQual	PEW 4 20120926 9/26/2012 13:05 PEW-04-092612 Result ValQual	PEW 4 20121005 10/5/2012 12:20 PEW04-100512 Result ValQual	PEW 4 20121010 10/10/2012 11:20 PEW04-101012 Result ValQual	PEW 4 20121017 10/17/2012 9:00 PEW04-101712 Result ValQual	PEW 4 20121024 10/24/2012 12:10 PEW04-102412 Result ValQual	PEW 4 20121031 10/31/2012 12:45 PEW04-103112 Result ValQual	PEW 4 20121107 11/7/2012 11:35 PEW04-110712 Result ValQual	PEW 4 20121114 11/14/2012 11:20 PEW04-111412 Result ValQual	PEW 4 20121119 11/19/2012 14:10 PEW04-111912 Result ValQual	PMLS 3-1 20120710 7/10/2012 8:15 PMLS 3-1 (07/10/12) Result ValQual
E300.0	Chloride	mg/l	1500	1400	1500	1400	1500	1400	1400	1400	1600	820	
E300.0	Nitrate	mg/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.1 U	0.1 U	
E300.0	Sulfate	mg/l	75	110	19	84	83	93	88	13	5.8	1 J	
RSK175	Ethane	ug/l	2.03	1.8	1.84	3.34	2.95	3.03	2.81	3.93	3.16	1.96	14.8
RSK175	Ethylene	ug/l	77.1	99.5	158	247	225	220	241	360	338	210	80
RSK175	Methane	ug/l	50.1	48.8	59	143	245	336	445	776	754	566	116
OAHPLC	Acetic Acid	mg/l	170	150	270	210	230	220	260	340	390	150	
OAHPLC	Butyric Acid	mg/l	10 U	10 U	2 U	4.5	6.2	8.2	9.5	6.3	6.4	1.6 J	
OAHPLC	Lactic Acid	mg/l	10 U	10 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	
OAHPLC	Propionic Acid	mg/l	89	160	320	310	370	380	470	480	570	140	
OAHPLC	Pyruvic Acid	mg/l	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
A4500SD	Sulfide, Total	mg/l	9	6	10	6.5	8.5	2.5	3.9	10	5.1	4.2	
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,1,1-Trichloroethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,1,2-Trichloroethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,1-Dichloroethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,1-Dichloroethene	ug/l	4.3	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,2,3-Trichloropropane	ug/l	2 U	40 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	1000 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	2 U	40 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	1000 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.73 J	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.43 J	250 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2 U	40 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	1000 UJ
SW8260B	1,2-Dibromoethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,2-Dichlorobenzene	ug/l	83	63	86	78	69	91	67	67	78	40	550
SW8260B	1,2-Dichloroethane	ug/l	1.6	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.37 J	250 U
SW8260B	1,2-Dichloropropane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,3-Dichlorobenzene	ug/l	1.6	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	1.2	250 U
SW8260B	1,3-Dichloropropane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	1,4-Dichlorobenzene	ug/l	11	10 U	14	11	10	12	9.4 J	9.1	12	7.3	250 U
SW8260B	2-Butanone	ug/l	5 U	100 U	50 U	50 U	50 U	50 U	33 J	24 J	25 U	5 U	2500 U
SW8260B	2-Chlorotoluene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	4-Chlorotoluene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	4-Methyl-2-pentanone	ug/l	5 U	100 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	2500 U
SW8260B	Acetone	ug/l	10 U	200 U	100 U	100 U	100 U	61 J	78 J	41 J	50 U	9.4 J	5000 U
SW8260B	Benzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Bromobenzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Bromodichloromethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Bromoform	ug/l	2 U	40 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	1000 UJ
SW8260B	Bromomethane	ug/l	5 U	100 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	2500 U
SW8260B	Carbon disulfide	ug/l	0.54 J	10 U	31 J	14 J	17 J	5 U	5 U	2.5 U	2.5 U	0.9 J	250 U
SW8260B	Carbon tetrachloride	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Chlorobenzene	ug/l	34	24 J	37 J	30 J	24 J	27 J	22 J	28	51	33	250 U
SW8260B	Chloroethane	ug/l	5 U	100 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	2500 U
SW8260B	Chloroform	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Chloromethane	ug/l	2 U	40 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	1000 U
SW8260B	cis-1,2-Dichloroethene	ug/l	1600	1200	1100	1100	1000	1100	850	470	480	48	38000
SW8260B	Dibromochloromethane	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Ethylbenzene	ug/l	0.14 J	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Hexachlorobutadiene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Isopropylbenzene	ug/l	2 U	40 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	1000 U
SW8260B	m,p-Xylene	ug/l	1 U	20 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	500 U
SW8260B	Methyl tert butyl ether	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Methylene chloride	ug/l	2 U	40 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	1 U	1000 U
SW8260B	Naphthalene	ug/l	5 U	100 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	2500 UJ
SW8260B	n-Butylbenzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	n-Propylbenzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	o-Xylene	ug/l	0.52 J	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.33 J	250 U
SW8260B	sec-Butylbenzene	ug/l	0.43 J	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.26 J	250 U
SW8260B	Styrene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	tert-Butylbenzene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Tetrachloroethene	ug/l	0.5 U	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.5 U	250 U
SW8260B	Toluene	ug/l	0.47 J	10 U	5 U	5 U	5 U	5 U	5 U	2.5 U	2.5 U	0.35 J	250 U
SW8260B	trans-1,2-Dichloroethene	ug/l	66	48	42	41	34	62	48	25	21	6.9	4600
SW8260B	Trichloroethene	ug/l	190	260	22	210	190	480	230	2.5 U	2.5 U	0.38 J	22000
SW8260B	Trichlorofluoromethane	ug/l	2 U	40 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	5 U	1000 U
SW8260B	Vinylchloride	ug/l	1100	610	690	530	440	410	270	220	240	74	7900

ANALYTIC_METHOD	Parameter	Units	PMLS 3-1 20121017 10/17/2012 10:40 PMLS3-1-101712 Result ValQual	PMLS 3-1 20121119 11/19/2012 12:20 PMLS3-1-111912 Result ValQual	PMLS 3-1 20130107 1/7/2013 12:30 PMLS3-1-010713 Result ValQual	PMLS 3-1 20130320 3/20/2013 8:45 PMLS3-1-032013 Result ValQual	PMLS 3-1 20130612 6/12/2013 8:35 PMLS3-1-061213 Result ValQual	PMLS 3-2 20120710 7/10/2012 8:40 PMLS 3-2 (07/10/12) Result ValQual	PMLS 3-2 20121017 10/17/2012 10:50 PMLS3-2-101712 Result ValQual	PMLS 3-2 20121119 11/19/2012 12:35 PMLS3-2-111912 Result ValQual	PMLS 3-2 20130108 1/8/2013 11:10 PMLS3-2-010813 Result ValQual	PMLS 3-2 20130320 3/20/2013 9:00 PMLS3-2-032013 Result ValQual	PMLS 3-2 20130612 6/12/2013 8:50 PMLS3-2-061213 Result ValQual
E300.0	Chloride	mg/l											
E300.0	Nitrate	mg/l											
E300.0	Sulfate	mg/l											
RSK175	Ethane	ug/l	12	11.4	10.2	10.3	11.7	4.14	4.79	4.2	2.47	12.4	8.81
RSK175	Ethylene	ug/l	43.2	51.9	107	129	172	130	63.8	37	52.8	158	64.3
RSK175	Methane	ug/l	104	120	117	129	222	154	84.4	46.7	28.2	147	4670
OAHPLC	Acetic Acid	mg/l											
OAHPLC	Butyric Acid	mg/l											
OAHPLC	Lactic Acid	mg/l											
OAHPLC	Propionic Acid	mg/l											
OAHPLC	Pyruvic Acid	mg/l											
A4500SD	Sulfide, Total	mg/l											
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,1,1-Trichloroethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,1,2-Trichloroethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,1-Dichloroethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,1-Dichloroethene	ug/l	120 U	120 U	100 U	51 J	55 J	25 U	23 J	23 J	13 J	48	5
SW8260B	1,2,3-Trichloropropane	ug/l	250 U	250 U	400 U	200 U	100 U	100 U	50 U	50 U	50 U	40 U	2 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	250 U	250 U	400 U	200 U	100 U	100 U	50 U	50 U	12 U	40 U	2 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1200 U	1200 U	400 U	200 U	200 U	100 UJ	250 U	250 U	50 U	40 U	4 U
SW8260B	1,2-Dibromoethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,2-Dichlorobenzene	ug/l	540	540	320	400	370	43 J	78	73	81	400	57
SW8260B	1,2-Dichloroethane	ug/l	62 J	120 U	100 U	41 J	29 J	25 U	25 U	25 U	12 U	51	2.5
SW8260B	1,2-Dichloropropane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,3-Dichlorobenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1.1 J
SW8260B	1,3-Dichloropropane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	1,4-Dichlorobenzene	ug/l	120 U	120 U	100 U	78 J	48 J	25 U	25 U	25 U	13 J	51	8.9
SW8260B	2-Butanone	ug/l	1200 U	1200 U	1000 U	500 U	500 U	250 U	250 U	250 U	120 U	100 U	10 U
SW8260B	2-Chlorotoluene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	4-Chlorotoluene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	4-Methyl-2-pentanone	ug/l	1200 U	1200 U	1000 U	500 U	500 U	250 U	250 U	250 U	120 U	100 U	10 U
SW8260B	Acetone	ug/l	2500 U	2500 U	2000 U	1000 U	1000 U	500 U	500 U	500 U	250 U	200 U	14 J
SW8260B	Benzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	0.3 J
SW8260B	Bromobenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Bromodichloromethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Bromoform	ug/l	250 U	250 U	400 U	200 U	100 U	100 UJ	50 U	50 U	50 U	40 U	2 U
SW8260B	Bromomethane	ug/l	1200 U	1200 U	1000 U	500 U	500 U	250 U	250 U	250 U	120 U	100 U	10 U
SW8260B	Carbon disulfide	ug/l	120 U	120 J	100 U	50 U	50 U	25 U	25 U	22 J	12 U	10 U	1 U
SW8260B	Carbon tetrachloride	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Chlorobenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	7.2 J	47
SW8260B	Chloroethane	ug/l	1200 U	1200 U	1000 U	500 U	500 U	250 U	250 U	250 U	120 U	100 U	10 U
SW8260B	Chloroform	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Chloromethane	ug/l	1200 U	1200 U	400 U	200 U	200 U	100 U	250 U	250 U	50 U	40 U	4 U
SW8260B	cis-1,2-Dichloroethene	ug/l	20000	21000	17000	16000	16000	940	5300	5100	2900	16000	2000
SW8260B	Dibromochloromethane	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Ethylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Hexachlorobutadiene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Isopropylbenzene	ug/l	250 U	250 U	400 U	200 U	100 U	100 U	50 U	50 U	50 U	40 U	2 U
SW8260B	m,p-Xylene	ug/l	250 U	250 U	200 U	100 U	100 U	50 U	50 U	50 U	25 U	20 U	2 U
SW8260B	Methyl tert butyl ether	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Methylene chloride	ug/l	250 U	250 U	400 U	200 U	100 U	100 U	50 U	50 U	50 U	40 U	2 U
SW8260B	Naphthalene	ug/l	1200 U	1200 U	1000 U	500 U	500 U	250 UJ	250 U	250 U	120 U	100 U	10 U
SW8260B	n-Butylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	n-Propylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	o-Xylene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	0.55 J
SW8260B	sec-Butylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Styrene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	tert-Butylbenzene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Tetrachloroethene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	10 U	1 U
SW8260B	Toluene	ug/l	120 U	120 U	100 U	50 U	50 U	25 U	25 U	25 U	12 U	5 J	1 J
SW8260B	trans-1,2-Dichloroethene	ug/l	1500	1300	1000	1200	1600	380	290	320	340	1100	230
SW8260B	Trichloroethene	ug/l	39000	33000	18000	19000	14000	110	1300	1100	500	20000	310
SW8260B	Trichlorofluoromethane	ug/l	1200 U	1200 U	400 U	200 U	200 U	100 U	250 U	250 U	50 U	40 U	4 U
SW8260B	Vinylchloride	ug/l	3100	3600	4600	4600	5800	3800	1400	1300	1700	4500	1200

ANALYTIC_METHOD	Parameter	Units	PMLS 3-5 20120710 7/10/2012 8:55 PMLS 3-5 (07/10/12) Result ValQual	PMLS 3-5 20121017 10/17/2012 11:05 PMLS3-5-101712 Result ValQual	PMLS 3-5 20121119 11/19/2012 12:45 PMLS3-5-111912 Result ValQual	PMLS 3-5 20130108 1/8/2013 11:20 PMLS3-5-010813 Result ValQual	PMLS 3-5 20130320 3/20/2013 9:10 PMLS3-5-032013 Result ValQual	PMLS 3-5 20130612 6/12/2013 9:00 PMLS3-5-061213 Result ValQual	PMLS 3-6 20120710 7/10/2012 9:10 PMLS 3-6 (07/10/12) Result ValQual	PMLS 3-6 20121017 10/17/2012 11:15 PMLS3-6-101712 Result ValQual	PMLS 3-6 20121119 11/19/2012 13:00 PMLS3-6-111912 Result ValQual	PMLS 3-6 20130108 1/8/2013 11:50 PMLS3-6-010813 Result ValQual	PMLS 3-6 20130320 3/20/2013 9:25 PMLS3-6-032013 Result ValQual
E300.0	Chloride	mg/l											
E300.0	Nitrate	mg/l											
E300.0	Sulfate	mg/l											
RSK175	Ethane	ug/l	0.45	0.664	2.05	0.797	0.876	1.09	1.1	9.22	19.3	3.5	15.1
RSK175	Ethylene	ug/l	28.8	28.9	65.8	24.5	19.6	17.6	24.8	83.8	62.6	29.3	60.3
RSK175	Methane	ug/l	5.61	8.4	28	10.9	17.4	150	14.8	104	179	45.5	337
OAHPLC	Acetic Acid	mg/l											
OAHPLC	Butyric Acid	mg/l											
OAHPLC	Lactic Acid	mg/l											
OAHPLC	Propionic Acid	mg/l											
OAHPLC	Pyruvic Acid	mg/l											
A4500SD	Sulfide, Total	mg/l											
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,1,1-Trichloroethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,1,2-Trichloroethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,1-Dichloroethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,1-Dichloroethene	ug/l	1.7	2.5 U	3.9 J	5 U	1.8 J	2.7 J	10 U	25 U	25	5.3 J	16
SW8260B	1,2,3-Trichloropropane	ug/l	2 U	5 U	5 U	20 U	4 U	5 U	40 U	50 U	25 U	20 U	20 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	2 U	5 U	5 U	5 U	4 U	5 U	40 U	50 U	25 U	5 U	20 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2 UJ	25 U	25 U	20 U	4 U	10 U	40 U	250 U	120 U	20 U	20 U
SW8260B	1,2-Dibromoethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,2-Dichlorobenzene	ug/l	160	91	70	120	140	140	45	45 J	60	29	57
SW8260B	1,2-Dichloroethane	ug/l	0.61 J	2.5 U	3.5 J	5 U	1 U	2.5 U	10 U	25 U	18 J	5 U	10
SW8260B	1,2-Dichloropropane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,3-Dichlorobenzene	ug/l	1.7	2.5 U	2.5 U	5 U	1.6 J	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,3-Dichloropropane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	1,4-Dichlorobenzene	ug/l	18	11	8.1	16	18	19	10 U	25 U	12 U	5 U	9.7 J
SW8260B	2-Butanone	ug/l	5 U	25 U	25 U	50 U	10 U	25 U	100 U	250 U	120 U	50 U	50 U
SW8260B	2-Chlorotoluene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	4-Chlorotoluene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	4-Methyl-2-pentanone	ug/l	5 U	25 U	25 U	50 U	10 U	25 U	100 U	250 U	120 U	50 U	50 U
SW8260B	Acetone	ug/l	10 U	50 U	50 U	100 U	20 U	50 U	200 U	500 U	250 U	100 U	100 U
SW8260B	Benzene	ug/l	0.5 U	2.5 U	0.8 J	5 U	1 U	2.5 U	3.3 J	25 U	12 U	5 U	5 U
SW8260B	Bromobenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Bromodichloromethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Bromoform	ug/l	2 UJ	5 U	5 U	20 U	4 U	5 U	40 U	50 U	25 U	20 U	20 U
SW8260B	Bromomethane	ug/l	5 U	25 U	25 U	50 U	10 U	25 U	100 U	250 U	120 U	50 U	50 U
SW8260B	Carbon disulfide	ug/l	0.5 U	2.5 U	2.5 J	5 U	1 U	2.5 U	10 U	25 U	12 J	5 U	5 U
SW8260B	Carbon tetrachloride	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Chlorobenzene	ug/l	1.1 J	1 J	2 J	5 U	1.2 J	1.5 J	10 U	25 U	12 U	5 U	2.7 J
SW8260B	Chloroethane	ug/l	5 U	25 U	25 U	50 U	10 U	25 U	100 U	250 U	120 U	50 U	50 U
SW8260B	Chloroform	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Chloromethane	ug/l	2 U	25 U	25 U	20 U	4 U	10 U	40 U	250 U	120 U	20 U	20 U
SW8260B	cis-1,2-Dichloroethene	ug/l	450	350	1900	620	390	820	1600	4200	11000	1600	7100
SW8260B	Dibromochloromethane	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Ethylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Hexachlorobutadiene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Isopropylbenzene	ug/l	2 U	5 U	5 U	20 U	4 U	5 U	40 U	50 U	25 U	20 U	20 U
SW8260B	m,p-Xylene	ug/l	1 U	5 U	5 U	10 U	2 U	5 U	20 U	50 U	25 U	10 U	10 U
SW8260B	Methyl tert butyl ether	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Methylene chloride	ug/l	2 U	5 U	5 U	20 U	4 U	5 U	40 U	50 U	25 U	20 U	20 U
SW8260B	Naphthalene	ug/l	5 UJ	25 U	25 U	50 U	10 U	25 U	100 U	250 U	120 U	50 U	50 U
SW8260B	n-Butylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	n-Propylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	o-Xylene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	sec-Butylbenzene	ug/l	0.42 J	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Styrene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	tert-Butylbenzene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Tetrachloroethene	ug/l	0.5 U	2.5 U	2.5 U	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	Toluene	ug/l	0.26 J	2.5 U	1.2 J	5 U	1 U	2.5 U	10 U	25 U	12 U	5 U	5 U
SW8260B	trans-1,2-Dichloroethene	ug/l	38	30	200	57	32	75	120	330	790	110	650
SW8260B	Trichloroethene	ug/l	94	31	130	110	120	340	3200 J+	1100	2700	1300	2200
SW8260B	Trichlorofluoromethane	ug/l	2 U	25 U	25 U	20 U	4 U	10 U	40 U	250 U	120 U	20 U	20 U
SW8260B	Vinylchloride	ug/l	300	240	590	570	240	330	490	1200	2000	470	1700

ANALYTIC_METHOD	Parameter	Units	PMLS 3-6 20130612 6/12/2013 9:10 PMLS3-6-061213 Result ValQual	PMLS 4-1 20120710 7/10/2012 8:15 PMLS 4-1 (07/10/12) Result ValQual	PMLS 4-1 20121017 10/17/2012 11:40 PMLS4-1-101712 Result ValQual	PMLS 4-1 20121119 11/19/2012 13:15 PMLS4-1-111912 Result ValQual	PMLS 4-1 20130108 1/8/2013 12:05 PMLS4-1-010813 Result ValQual	PMLS 4-1 20130320 3/20/2013 9:35 PMLS4-1-032013 Result ValQual	PMLS 4-1 20130612 6/12/2013 9:20 PMLS4-1-061213 Result ValQual	PMLS 4-2 20120710 7/10/2012 8:40 PMLS 4-2 (07/10/12) Result ValQual	PMLS 4-2 20121017 10/17/2012 11:50 PMLS4-2-101712 Result ValQual	PMLS 4-2 20121119 11/19/2012 13:25 PMLS4-2-111912 Result ValQual	PMLS 4-2 20130108 1/8/2013 12:20 PMLS4-2-010813 Result ValQual
E300.0	Chloride	mg/l											
E300.0	Nitrate	mg/l											
E300.0	Sulfate	mg/l											
RSK175	Ethane	ug/l	8.34	7.01	9.61	7.47	2.82	9.52	8.15	3.83	3.16	2.55	3.19
RSK175	Ethylene	ug/l	11	15	27.8	41.8	13.4	55.9	73.7	21.8	3.35	6.58	36.9
RSK175	Methane	ug/l	500	81.2	125	89	38.6	132	204	167	32.6	21.9	40.3
OAHPLC	Acetic Acid	mg/l											
OAHPLC	Butyric Acid	mg/l											
OAHPLC	Lactic Acid	mg/l											
OAHPLC	Propionic Acid	mg/l											
OAHPLC	Pyruvic Acid	mg/l											
A4500SD	Sulfide, Total	mg/l											
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,1,1-Trichloroethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,1,2-Trichloroethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,1-Dichloroethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,1-Dichloroethene	ug/l	5.8 J	120 U	50 U	48 J	100 U	50 U	64 J	19 J	12 U	9.4 J	19 J
SW8260B	1,2,3-Trichloropropane	ug/l	10 U	500 U	100 U	50 U	400 U	200 U	100 U	50 U	25 U	20 U	50 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	10 U	500 U	100 U	50 U	100 U	200 U	100 U	50 U	25 U	20 U	12 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	20 U	500 UJ	500 U	250 U	400 U	200 U	200 U	50 UJ	120 U	100 U	50 U
SW8260B	1,2-Dibromoethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,2-Dichlorobenzene	ug/l	43	630	180	370	330	320	360	72	55	77	120
SW8260B	1,2-Dichloroethane	ug/l	5 U	120 U	50 U	37 J	100 U	50 U	50 U	8.8 J	12 U	10 U	12 U
SW8260B	1,2-Dichloropropane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,3-Dichlorobenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,3-Dichloropropane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	1,4-Dichlorobenzene	ug/l	6 J	120 U	50 U	43 J	100 U	64 J	48 J	11 J	12 J	15 J	20 J
SW8260B	2-Butanone	ug/l	50 U	1200 U	500 U	250 U	1000 U	500 U	500 U	120 U	120 U	100 U	120 U
SW8260B	2-Chlorotoluene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	4-Chlorotoluene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	4-Methyl-2-pentanone	ug/l	50 U	1200 U	500 U	250 U	1000 U	500 U	500 U	120 U	120 U	100 U	120 U
SW8260B	Acetone	ug/l	100 U	2500 U	1000 U	500 U	2000 U	1000 U	1000 U	250 U	250 U	200 U	250 U
SW8260B	Benzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Bromobenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Bromodichloromethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Bromoform	ug/l	10 U	500 UJ	100 U	50 U	400 U	200 U	100 U	50 UJ	25 U	20 U	50 U
SW8260B	Bromomethane	ug/l	50 U	1200 U	500 U	250 U	1000 U	500 U	500 U	120 U	120 U	100 U	120 U
SW8260B	Carbon disulfide	ug/l	5 U	120 U	50 U	25 J	100 U	50 U	50 U	12 U	12 U	8.6 J	12 U
SW8260B	Carbon tetrachloride	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Chlorobenzene	ug/l	2.4 J	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Chloroethane	ug/l	50 U	1200 U	500 U	250 U	1000 U	500 U	500 U	120 U	120 U	100 U	120 U
SW8260B	Chloroform	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Chloromethane	ug/l	20 U	500 U	500 U	250 U	400 U	200 U	200 U	50 U	120 U	100 U	50 U
SW8260B	cis-1,2-Dichloroethene	ug/l	1800	21000	4400	10000	13000	14000	13000	4500 J-	1400	2100	4000
SW8260B	Dibromochloromethane	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Ethylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Hexachlorobutadiene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Isopropylbenzene	ug/l	10 U	500 U	100 U	50 U	400 U	200 U	100 U	50 U	25 U	20 U	50 U
SW8260B	m,p-Xylene	ug/l	10 U	250 U	100 U	50 U	200 U	100 U	100 U	25 U	25 U	20 U	25 U
SW8260B	Methyl tert butyl ether	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Methylene chloride	ug/l	10 U	500 U	100 U	50 U	400 U	200 U	100 U	50 U	25 U	20 U	50 U
SW8260B	Naphthalene	ug/l	50 U	1200 UJ	500 U	250 U	1000 U	500 U	500 U	120 UJ	120 U	100 U	120 U
SW8260B	n-Butylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	n-Propylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	o-Xylene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	sec-Butylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Styrene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	tert-Butylbenzene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Tetrachloroethene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	Toluene	ug/l	5 U	120 U	50 U	25 U	100 U	50 U	50 U	12 U	12 U	10 U	12 U
SW8260B	trans-1,2-Dichloroethene	ug/l	190	1300	320	770	1100	730	830	510	110	140	300
SW8260B	Trichloroethene	ug/l	780	41000	8600	15000	18000	19000	19000	250	2200	2000	3200
SW8260B	Trichlorofluoromethane	ug/l	20 U	500 U	500 U	250 U	400 U	200 U	200 U	50 U	120 U	100 U	50 U
SW8260B	Vinylchloride	ug/l	640	3200	1300	3000	2800	2500	3200	2000 J-	290	440	1300

ANALYTIC_METHOD	Parameter	Units	PMLS 4-2 20130320 3/20/2013 9:45 PMLS4-2-032013 Result ValQual	PMLS 4-2 (Dup) 20130320 3/20/2013 9:55 MW9902-032013 Result ValQual	PMLS 4-2 20130612 6/12/2013 10:10 PMLS4-2-061213 Result ValQual	PMLS 4-5 20120710 7/10/2012 8:55 PMLS 4-5 (07/10/12) Result ValQual	PMLS 4-5 20121017 10/17/2012 12:00 PMLS4-5-101712 Result ValQual	PMLS 4-5 20121119 11/19/2012 13:40 PMLS4-5-111912 Result ValQual	PMLS 4-5 20130108 1/8/2013 12:30 PMLS4-5-010813 Result ValQual	PMLS 4-5 20130320 3/20/2013 10:05 PMLS4-5-032013 Result ValQual	PMLS 4-5 20130612 6/12/2013 10:20 PMLS4-5-061213 Result ValQual	PMLS 4-6 20120710 7/10/2012 9:10 PMLS 4-6 (07/10/12) Result ValQual	PMLS 4-6 20121017 10/17/2012 12:10 PMLS4-6-101712 Result ValQual
E300.0	Chloride	mg/l											
E300.0	Nitrate	mg/l											
E300.0	Sulfate	mg/l											
RSK175	Ethane	ug/l	4.05		2.11	1.38	16.5	8.16	15.8	10.4	12	0.26 J	22.5
RSK175	Ethylene	ug/l	35.2		23	6.43	37.4	48.6	55.2	68.8	48.5	16.4	32
RSK175	Methane	ug/l	507		4840	17.3	191	99.1	206	220	969	2.22	291
OAHPLC	Acetic Acid	mg/l											
OAHPLC	Butyric Acid	mg/l											
OAHPLC	Lactic Acid	mg/l											
OAHPLC	Propionic Acid	mg/l											
OAHPLC	Pyruvic Acid	mg/l											
A4500SD	Sulfide, Total	mg/l											
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,1,1-Trichloroethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,1,2-Trichloroethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,1-Dichloroethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,1-Dichloroethene	ug/l	17 J	16 J	1.3 J	2.4 J	27 J	9.5 J	4.1 J	6.4	12 U	5 U	23 J
SW8260B	1,2,3-Trichloropropane	ug/l	50 U	40 U	2 U	10 U	50 U	20 U	10 U	10 U	25 U	20 U	50 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	50 U	40 U	2 U	10 U	50 U	20 U	2.5 U	10 U	25 U	20 U	50 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	50 U	40 U	4 U	10 UJ	250 U	100 U	10 U	10 U	50 U	20 UJ	250 U
SW8260B	1,2-Dibromoethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,2-Dichlorobenzene	ug/l	87	73	45	160	82	66	100	70	62	38	65
SW8260B	1,2-Dichloroethane	ug/l	12 U	10 U	1 U	2.5 U	16 J	10 U	2.5 U	1.9 J	12 U	5 U	12 J
SW8260B	1,2-Dichloropropane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,3-Dichlorobenzene	ug/l	12 U	10 U	1 J	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,3-Dichloropropane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	1,4-Dichlorobenzene	ug/l	21 J	19 J	8.4	19	25 U	10 U	14	9.7	12 U	5 U	25 U
SW8260B	2-Butanone	ug/l	120 U	100 U	10 U	25 U	250 U	100 U	25 U	25 U	120 U	50 U	250 U
SW8260B	2-Chlorotoluene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	4-Chlorotoluene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	4-Methyl-2-pentanone	ug/l	120 U	100 U	10 U	25 U	250 U	100 U	25 U	25 U	120 U	50 U	250 U
SW8260B	Acetone	ug/l	250 U	200 U	20 U	50 U	500 U	200 U	50 U	50 U	250 U	100 U	500 U
SW8260B	Benzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Bromobenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Bromodichloromethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Bromoform	ug/l	50 U	40 U	2 U	10 UJ	50 U	20 U	10 U	10 U	25 U	20 UJ	50 U
SW8260B	Bromomethane	ug/l	120 U	100 U	10 U	25 U	250 U	100 U	25 U	25 U	120 U	50 U	250 U
SW8260B	Carbon disulfide	ug/l	12 U	10 U	1 U	2.5 U	25 U	11 J	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Carbon tetrachloride	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Chlorobenzene	ug/l	12 U	4.7 J	69	2.5 U	25 U	10 U	2.5 U	1.5 J	12 U	5 U	25 U
SW8260B	Chloroethane	ug/l	120 U	100 U	10 U	25 U	250 U	100 U	25 U	25 U	120 U	50 U	250 U
SW8260B	Chloroform	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Chloromethane	ug/l	50 U	40 U	4 U	10 U	250 U	100 U	10 U	10 U	50 U	20 U	250 U
SW8260B	cis-1,2-Dichloroethene	ug/l	4200	3900	330 J-	340	9200	2700	650	4700	3400	1400	7600
SW8260B	Dibromochloromethane	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Ethylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Hexachlorobutadiene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Isopropylbenzene	ug/l	50 U	40 U	2 U	10 U	50 U	20 U	10 U	10 U	25 U	20 U	50 U
SW8260B	m,p-Xylene	ug/l	25 U	20 U	2 U	5 U	50 U	20 U	5 U	5 U	25 U	10 U	50 U
SW8260B	Methyl tert butyl ether	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Methylene chloride	ug/l	50 U	40 U	2 U	10 U	50 U	20 U	10 U	10 U	25 U	20 U	50 U
SW8260B	Naphthalene	ug/l	120 U	100 U	10 U	25 UJ	250 U	100 U	25 U	25 U	120 U	50 UJ	250 U
SW8260B	n-Butylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	n-Propylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	o-Xylene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	sec-Butylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Styrene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	tert-Butylbenzene	ug/l	12 U	10 U	1 U	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Tetrachloroethene	ug/l	12 U	10 U	1 U	2.1 J	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	Toluene	ug/l	12 U	10 U	0.48 J	2.5 U	25 U	10 U	2.5 U	2.5 U	12 U	5 U	25 U
SW8260B	trans-1,2-Dichloroethene	ug/l	380	340	65	43	500	180	110	290	210	180	480
SW8260B	Trichloroethene	ug/l	490	460	53	900	2300	850	710	330	260	270	2000
SW8260B	Trichlorofluoromethane	ug/l	50 U	40 U	4 U	10 U	250 U	100 U	10 U	10 U	50 U	20 U	250 U
SW8260B	Vinylchloride	ug/l	1200	1100	190	270	2700	980	330	1000	1200	450	2500

ANALYTIC_METHOD	Parameter	Units	PMLS 4-6 20121119 11/19/2012 13:55 PMLS4-6-111912 Result ValQual	PMLS 4-6 20130108 1/8/2013 12:45 PMLS4-6-010813 Result ValQual	PMLS 4-6 20130320 3/20/2013 10:15 PMLS4-6-032013 Result ValQual	PMLS 4-6 20130612 6/12/2013 10:35 PMLS4-6-061213 Result ValQual	SMLS 1-1 20120709 7/9/2012 9:50 SMLS 1-1 (07/09/12) Result ValQual	SMLS 1-1 20120928 9/28/2012 8:30 SMLS1-1-092812 Result ValQual	SMLS 1-1 20121005 10/5/2012 9:00 SMLS1-1-100512 Result ValQual	SMLS 1-1 20121010 10/10/2012 8:20 SMLS1-1-101012 Result ValQual	SMLS 1-1 20121016 10/16/2012 8:10 SMLS1-1-101612 Result ValQual	SMLS 1-1 20121024 10/24/2012 9:00 SMLS1-1-102412 Result ValQual	SMLS 1-1 20121031 10/31/2012 9:15 SMLS1-1-103112 Result ValQual
E300.0	Chloride	mg/l					1600	1400	1500	1500 J-	1500	1400	1300
E300.0	Nitrate	mg/l					0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
E300.0	Sulfate	mg/l					260	2.9 J	0.83 J	0.51 J-	3.6 J	0.67 J	2.4 J
RSK175	Ethane	ug/l	13.5	22.7	23.8	2.8	9.09	3.71	10.7	1.6	8.47	28.7	8.94
RSK175	Ethylene	ug/l	37.9	86.8	61.2	10.6	155	393	670	139	558	537	625
RSK175	Methane	ug/l	180	277	392	115	161	72.3	155	47.5	521	676	1030
OAHPLC	Acetic Acid	mg/l					2 U	260	300	320	380	430	490
OAHPLC	Butyric Acid	mg/l					2 U	2 U	2 U	7.2	12	15	22
OAHPLC	Lactic Acid	mg/l					2 U	2 U	2 U	2 U	2 U	2 U	2 U
OAHPLC	Propionic Acid	mg/l					2 U	330	400	470	660	750	960
OAHPLC	Pyruvic Acid	mg/l					0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
A4500SD	Sulfide, Total	mg/l					0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,1,1-Trichloroethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,1,2-Trichloroethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,1-Dichloroethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,1-Dichloroethene	ug/l	12 J	11 J	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,2,3-Trichloropropane	ug/l	20 U	40 U	100 U	50 U	100 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	1,2,4-Trichlorobenzene	ug/l	20 U	10 U	100 U	50 U	100 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	1,2,4-Trimethylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	100 U	40 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	1,2-Dibromoethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,2-Dichlorobenzene	ug/l	45	47	40 J	72	1100	130	180	130	100	110	87
SW8260B	1,2-Dichloroethane	ug/l	5.4 J	10 U	25 U	25 U	25 U	5 U	5 U	1.5 J	2.5 U	1.2 J	2.5 U
SW8260B	1,2-Dichloropropane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,3,5-Trimethylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,3-Dichlorobenzene	ug/l	10 U	10 U	25 U	25 U	25 U	7.3 J	11	7.9	6	6	6.5
SW8260B	1,3-Dichloropropane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	1,4-Dichlorobenzene	ug/l	10 U	10 U	25 U	25 U	130	33	44	31	26	28	27
SW8260B	2-Butanone	ug/l	100 U	100 U	250 U	250 U	250 U	50 U	50 U	19 J	25 U	25 U	27 J
SW8260B	2-Chlorotoluene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	4-Chlorotoluene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	4-Methyl-2-pentanone	ug/l	100 U	100 U	250 U	250 U	250 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	Acetone	ug/l	200 U	200 U	500 U	500 U	500 U	100 U	100 U	50 U	50 U	47 J	68 J
SW8260B	Benzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Bromobenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Bromodichloromethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Bromoform	ug/l	20 U	40 U	100 U	50 U	100 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	Bromomethane	ug/l	100 U	100 U	250 U	250 U	250 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	Carbon disulfide	ug/l	9.8 J	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Carbon tetrachloride	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Chlorobenzene	ug/l	10 U	10 U	25 U	25 U	75 J	69	110	81	81	100	110
SW8260B	Chloroethane	ug/l	100 U	100 U	250 U	250 U	250 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	Chloroform	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Chloromethane	ug/l	100 U	40 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	cis-1,2-Dichloroethene	ug/l	3600 J-	2600	4800	8100	12000	420	1300	790 J-	740	950	630
SW8260B	Dibromochloromethane	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Ethylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Hexachlorobutadiene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Isopropylbenzene	ug/l	20 U	40 U	100 U	50 U	100 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	m,p-Xylene	ug/l	20 U	20 U	50 U	50 U	50 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	Methyl tert butyl ether	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Methylene chloride	ug/l	20 U	40 U	100 U	50 U	100 U	10 U	10 U	5 U	5 U	5 U	5 U
SW8260B	Naphthalene	ug/l	100 U	100 U	250 U	250 U	250 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	n-Butylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	3.7 J	2.4 J	1.7 J	1.9 J	2.6 J
SW8260B	n-Propylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	o-Xylene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	sec-Butylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	3.9 J	3 J	2 J	1.9 J	2.6 J
SW8260B	Styrene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	tert-Butylbenzene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Tetrachloroethene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	Toluene	ug/l	10 U	10 U	25 U	25 U	25 U	5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
SW8260B	trans-1,2-Dichloroethene	ug/l	260	240	370	370	130	7.8 J	19	9.7	7.5	24	11
SW8260B	Trichloroethene	ug/l	790	780	610	64	1400	330	280	100	57	78	42
SW8260B	Trichlorofluoromethane	ug/l	100 U	40 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U
SW8260B	Vinylchloride	ug/l	1100	1100	1200	1400	19000	490	390	170	180	170	95

			SMLS 1-1		SMLS 1-1		SMLS 1-1		SMLS 1-1		SMLS 1-1		SMLS 1-1		SMLS 1-2		SMLS 1-2		SMLS 1-2		SMLS 1-2		SMLS 1-2	
			20121107		20121114		20121119		20130107		20130319		20130611		20120709		20120928		20121005		20121010		20121016	
			11/7/2012 8:15		11/14/2012 8:00		11/19/2012 8:55		1/7/2013 8:45		3/19/2013 9:40		6/11/2013 10:10		7/9/2012 10:25		9/28/2012 8:45		10/5/2012 9:10		10/10/2012 8:35		10/16/2012 8:30	
			SMLS1-1-110712		SMLS1-1-111412		SMLS1-1-111912		SMLS1-1-010713		SMLS1-1-031913		SMLS1-1-061113		SMLS 1-2 (07/09/12)		SMLS1-2-092812		SMLS1-2-100512		SMLS1-2-101012		SMLS1-2-101612	
ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
E300.0	Chloride	mg/l	1400		1500		1300		1300		1500		1500		1600		1400		1400		1500		1500	
E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
E300.0	Sulfate	mg/l	0.59	J	0.6	J	1	U	0.45	J	1	U	0.55	J	270		42		9.3		8.1		7.3	
RSK175	Ethane	ug/l	13.4		8.42		7.42		14.3		17.5		3.65		9.04		5.99		11.9		6.31		7.84	
RSK175	Ethylene	ug/l	745		568		614		456		338		41		79		309		677		535		529	
RSK175	Methane	ug/l	1540		1090		1140		3450		2930		115		134		74		149		126		296	
OAHPLC	Acetic Acid	mg/l	470		440		420		330		99		2	U	2	U	130		170		240		270	
OAHPLC	Butyric Acid	mg/l	19		17		14		11		5.7		2	U	2	U	2	U	2	U	2.9	J	9	
OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
OAHPLC	Propionic Acid	mg/l	790		730		660		480		47		2	U	2	U	140		190		320		420	
OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.18	J	0.4		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
A4500SD	Sulfide, Total	mg/l	0.1		0.06	U	0.06	U	0.06	U	0.06	U	0.15		0.06	U	0.1		0.25		0.06	U	0.1	
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,1,1-Trichloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,1,2-Trichloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.74	J	10	U	10	U	2.5	U	2.5	U
SW8260B	1,1-Dichloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,1-Dichloroethene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	80		10	U	10	U	2.5	U	2.5	U
SW8260B	1,2,3-Trichloropropane	ug/l	5	U	2	U	2	U	100	U	20	U	10	U	2	U	20	U	20	U	5	U	5	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	5	U	6.7	J	2	U	100	U	20	U	10	U	2.2	J	20	U	20	U	5	U	5	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	2.5	U	1.2	J	1.4	J	25	U	5	U	7.8	J	7.5		10	U	7.4	J	3.9	J	4.4	J
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	25	U	10	U	10	U	100	U	20	U	20	U	2	U	100	U	100	U	25	U	25	U
SW8260B	1,2-Dibromoethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,2-Dichlorobenzene	ug/l	73		80		53		110		11		28		1300		570		760		460		490	
SW8260B	1,2-Dichloroethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	1.1		10	U	10	U	1.2	J	2.5	U
SW8260B	1,2-Dichloropropane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	1.7	J	10	U	10	U	2.5	U	2.5	U
SW8260B	1,3-Dichlorobenzene	ug/l	5.7		6.9		6.1		25	U	11		13		15		15	J	22		14		15	
SW8260B	1,3-Dichloropropane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	1,4-Dichlorobenzene	ug/l	24		32		27		48	J	71		87		130		88		130		78		88	
SW8260B	2-Butanone	ug/l	27	J	10	U	10	J	250	U	50	U	50	U	5	U	100	U	100	U	14	J	25	U
SW8260B	2-Chlorotoluene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	4-Chlorotoluene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	4-Methyl-2-pentanone	ug/l	25	U	10	U	10	U	250	U	50	U	50	U	5	U	100	U	100	U	25	U	25	U
SW8260B	Acetone	ug/l	61	J	40	U	13	J	500	U	110	J	100	U	7.4	J	200	U	200	U	50	U	50	U
SW8260B	Benzene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.46	J	10	U	10	U	2.5	U	2.5	U
SW8260B	Bromobenzene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Bromodichloromethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Bromoform	ug/l	5	U	2	U	2	U	100	U	20	U	10	U	2	U	20	U	20	U	5	U	5	U
SW8260B	Bromomethane	ug/l	25	U	10	U	10	U	250	U	50	U	50	U	5	U	100	U	100	U	25	U	25	U
SW8260B	Carbon disulfide	ug/l	2.5	U	1	U	0.86	J	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Carbon tetrachloride	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Chlorobenzene	ug/l	120		190		170		460		930		1400		44		190		250		160		220	
SW8260B	Chloroethane	ug/l	25	U	10	U	10	U	250	U	50	U	50	U	76		100	U	100	U	25	U	25	U
SW8260B	Chloroform	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Chloromethane	ug/l	25	U	10	U	10	U	100	U	20	U	20	U	2	U	100	U	100	U	25	U	25	U
SW8260B	cis-1,2-Dichloroethene	ug/l	520		270		270	J+	5400		28		210		43000		920		1300		810		940	
SW8260B	Dibromochloromethane	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Ethylbenzene	ug/l	2.5	U	0.28	J	0.31	J	25	U	5	U	5	U	3.1		10	U	10	U	0.84	J	0.91	J
SW8260B	Hexachlorobutadiene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Isopropylbenzene	ug/l	5	U	2	U	2	U	100	U	20	U	10	U	4.6	J	20	U	20	U	5	U	5	U
SW8260B	m,p-Xylene	ug/l	5	U	0.75	J	0.84	J	50	U	10	U	3.6	J	9.2	J	20	U	20	U	1.6	J	1.9	J
SW8260B	Methyl tert butyl ether	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Methylene chloride	ug/l	5	U	2	U	2	U	100	U	20	U	10	U	2	U	20	U	20	U	5	U	5	U
SW8260B	Naphthalene	ug/l	25	U	10	U	10	U	250	U	50	U	50	U	6.6	J	100	U	100	U	25	U	25	U
SW8260B	n-Butylbenzene	ug/l	2.2	J	1.6	J	1.6	J	25	U	5	U	2.3	J	1.4		10	U	5	J	2.6	J	2	J
SW8260B	n-Propylbenzene	ug/l	2.5	U	0.61	J	0.63	J	25	U	5	U	2.2	J	2.7		10	U	4.7	J	2.3	J	2.4	J
SW8260B	o-Xylene	ug/l	2.5	U	0.96	J	1	J	25	U	5	U	3.4	J	9.3		10	U	10	U	2.2	J	2.3	J
SW8260B	sec-Butylbenzene	ug/l	2.5	J	2.2		2.1		25	U	5	U	5	U	3.1		10	U	5.6	J	3.2	J	2.8	J
SW8260B	Styrene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	tert-Butylbenzene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	0.5	U	10	U	10	U	2.5	U	2.5	U
SW8260B	Tetrachloroethene	ug/l	2.5	U	1	U	1	U	25	U	5	U	5	U	1.7	J	10	U	10	U	2.5	U	2.5	U
SW8260B	Toluene	ug/l	1.3	J	1.1	J	0.99	J	25	U	5	U	2.8	J	9.7		10	U	10	U	1.3	J	1.4	J
SW8260B	trans-1,2-Dichloroethene	ug/l	14		8.3		5		32	J	5	U	4.6	J	200	J	37		39		24		19	
SW8260B	Trichloroethene	ug/l	33		32		17		200		5	U	6.8	J	14000		430		400		130		69	
SW8260B	Trichlorofluoromethane	ug/l	25	U	10	U	10	U	100	U	20	U	20	U	2	U	100	U	100	U	25	U	25	U
SW8260B	Vinylchloride	ug/l	230		140		55		940		20		150		16000		1400		1100		340		560	

			SMLS 1-2		SMLS 1-2		SMLS 1-2		SMLS 1-2		SMLS 1-2	
			20121024		20121031		20121107		20121114		20121119	
			10/24/2012 9:15		10/31/2012 9:35		11/7/2012 8:35		11/14/2012 8:20		11/19/2012 9:10	
			SMLS1-2-102412		SMLS1-2-103112		SMLS1-2-110712		SMLS1-2-111412		SMLS1-2-111912	
ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
E300.0	Chloride	mg/l	1400		1300		1400		1500		1400	
E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
E300.0	Sulfate	mg/l	0.65	J	3.5	J	0.45	J	0.61	J	0.42	J
RSK175	Ethane	ug/l	8.39		8.64		10.6		11.6		9.39	
RSK175	Ethylene	ug/l	726		588		799		777		730	
RSK175	Methane	ug/l	543		862		1340		1170		1020	
OAHPLC	Acetic Acid	mg/l	410		450		460		430		400	
OAHPLC	Butyric Acid	mg/l	13		20		20		18		14	
OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U
OAHPLC	Propionic Acid	mg/l	700		840		780		720		660	
OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.17	J
A4500SD	Sulfide, Total	mg/l	0.06	U	0.06	U	0.15		0.1		0.06	U
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,1,1-Trichloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,1,2-Trichloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,1-Dichloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,1-Dichloroethene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,2,3-Trichloropropane	ug/l	10	U	5	U	5	U	5	U	5	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	10	U	5	U	5	U	5	U	5	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	5	U	3	J	4.9	J	2.9	J	5.7	J
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	1,2-Dibromoethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,2-Dichlorobenzene	ug/l	280		240		170		180		120	
SW8260B	1,2-Dichloroethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,2-Dichloropropane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	5	U	2.5	U	1.6	J	2.5	U	1.7	J
SW8260B	1,3-Dichlorobenzene	ug/l	11		11		13		12		15	
SW8260B	1,3-Dichloropropane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	1,4-Dichlorobenzene	ug/l	59		58		62		73		90	
SW8260B	2-Butanone	ug/l	50	U	25	J	30	J	13	J	29	J
SW8260B	2-Chlorotoluene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	4-Chlorotoluene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	4-Methyl-2-pentanone	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	Acetone	ug/l	100	U	63	J	74	J	100	U	87	J
SW8260B	Benzene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Bromobenzene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Bromodichloromethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Bromoform	ug/l	10	U	5	U	5	U	5	U	5	U
SW8260B	Bromomethane	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	Carbon disulfide	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.7	J
SW8260B	Carbon tetrachloride	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Chlorobenzene	ug/l	190		260		340		530		680	
SW8260B	Chloroethane	ug/l	50	U	25	U	25	U	30	J	25	U
SW8260B	Chloroform	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Chloromethane	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	cis-1,2-Dichloroethene	ug/l	890		810		430		740		530	
SW8260B	Dibromochloromethane	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Ethylbenzene	ug/l	5	U	2.5	U	0.9	J	0.71	J	1.1	J
SW8260B	Hexachlorobutadiene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Isopropylbenzene	ug/l	10	U	5	U	5	U	5	U	5	U
SW8260B	m,p-Xylene	ug/l	10	U	5	U	2.1	J	1.9	J	2.7	J
SW8260B	Methyl tert butyl ether	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Methylene chloride	ug/l	10	U	5	U	5	U	5	U	5	U
SW8260B	Naphthalene	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	n-Butylbenzene	ug/l	5	U	2.2	J	2.5	J	1.6	J	2.5	J
SW8260B	n-Propylbenzene	ug/l	5	U	1.6	J	2.4	J	1.7	J	2.9	J
SW8260B	o-Xylene	ug/l	5	U	1.5	J	2.2	J	1.8	J	3.1	J
SW8260B	sec-Butylbenzene	ug/l	5	U	2.2	J	3.2	J	2.2	J	3.4	J
SW8260B	Styrene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	tert-Butylbenzene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Tetrachloroethene	ug/l	5	U	2.5	U	2.5	U	2.5	U	2.5	U
SW8260B	Toluene	ug/l	5	U	2.5	U	1.4	J	1.7	J	2.1	J
SW8260B	trans-1,2-Dichloroethene	ug/l	21		10		12		23		14	
SW8260B	Trichloroethene	ug/l	80		64		43		56		28	
SW8260B	Trichlorofluoromethane	ug/l	50	U	25	U	25	U	25	U	25	U
SW8260B	Vinylchloride	ug/l	110		74		56		180		110	

LOCATION_CODE				SMLS 1-2		SMLS 1-2		SMLS 1-2		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3	
SAMPLE_DATE_SORT				20130107		20130319		20130611		20120709		20120928		20121005		20121010		20121016		20121024		20121031	
SAMPLE_DATE				1/7/2013 9:10		3/19/2013 10:10		6/11/2013 10:35		7/9/2012 10:55		9/28/2012 9:00		10/5/2012 9:35		10/10/2012 8:50		10/16/2012 8:50		10/24/2012 9:30		10/31/2012 9:55	
SAMPLE_NO				SMLS1-2-010713		SMLS1-2-031913		SMLS1-2-061113		SMLS 1-3 (07/09/12)		SMLS1-3-092812		SMLS1-3-100512		SMLS1-3-101012		SMLS1-3-101612		SMLS1-3-102412		SMLS1-3-103112	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1600		1600		1600		1400		1400		1500		1500		1400		1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	1	U	1	U	1.4	J	280		73		47		36		21		4.4		4.1	
Dissolved gases	RSK175	Ethane	ug/l	13.9		7		20.6		9.24		9.92		9.32		11.4		5.12		7.08		14	
Dissolved gases	RSK175	Ethylene	ug/l	1040		4490		2180		129		263		417		415		456		429		562	
Dissolved gases	RSK175	Methane	ug/l	2900		4210		3570		172		129		150		151		172		358		600	
Organic gases	OAHPLC	Acetic Acid	mg/l	400		180		3.5	J	2	U	29		26		31		140		220		290	
Organic gases	OAHPLC	Butyric Acid	mg/l	13		3.2	J	2	U	2	U	2	U	2	U	2	U	3.9	J	7.8		10	
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	550		12		2	U	2	U	52		25		75		150		290		400	
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.19	J	0.4		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.06	U	0.06	U	0.06	U	0.4		0.25		0.45		0.6		0.7		0.3	
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	25	U	25	U	50	U	140	J+	100	U	100	U	16		50	U	50	U	50	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	100	U	100	U	100	U	100	U	200	U	200	U	5	U	100	U	100	U	100	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	100	U	100	U	100	U	100	U	200	U	200	U	3	J	100	U	100	U	100	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	25	U	21	J	50	U	26	J+	100	U	100	U	19	J	50	U	50	U	50	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	100	U	100	U	200	U	100	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	160		92		130		1400	J+	1500		1700		1600		1300		1500		920	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	5.8	J	50	U	50	U	50	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	25		50	U	50	U	50	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	74		170		150		150	J+	200	J	260		180		190		240		180	
VOCs	SW8260B	2-Butanone	ug/l	250	U	250	U	500	U	250	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	250	U	250	U	500	U	250	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	Acetone	ug/l	500	U	500	U	1000	U	500	U	2000	U	2000	U	50	U	1000	U	1000	U	1000	U
VOCs	SW8260B	Benzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Bromobenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Bromodichloromethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Bromoform	ug/l	100	U	100	U	100	U	100	U	200	U	200	U	5	U	100	U	100	U	100	U
VOCs	SW8260B	Bromomethane	ug/l	250	U	250	U	500	U	250	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	Carbon disulfide	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Chlorobenzene	ug/l	800		1900		1700		31	J+	470	J	550	J	400		490	J	690		790	
VOCs	SW8260B	Chloroethane	ug/l	250	U	250	U	500	U	250	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	Chloroform	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Chloromethane	ug/l	100	U	100	U	200	U	100	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	6900		5600		17000		90000		27000		29000		17000		22000		17000	J-	10000	
VOCs	SW8260B	Dibromochloromethane	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Ethylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.8	J	50	U	50	U	50	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Isopropylbenzene	ug/l	100	U	100	U	100	U	100	U	200	U	200	U	5.6	J	100	U	100	U	100	U
VOCs	SW8260B	m,p-Xylene	ug/l	50	U	50	U	100	U	15	J+	200	U	200	U	8.4	J	100	U	100	U	100	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Methylene chloride	ug/l	100	U	100	U	100	U	100	U	200	U	200	U	5	U	100	U	100	U	100	U
VOCs	SW8260B	Naphthalene	ug/l	250	U	250	U	500	U	250	U	1000	U	1000	U	19	J	500	U	500	U	500	U
VOCs	SW8260B	n-Butylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	3.7	J	50	U	50	U	50	U
VOCs	SW8260B	n-Propylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	6.3		50	U	50	U	50	U
VOCs	SW8260B	o-Xylene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	7.6		50	U	50	U	50	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	4.2	J	50	U	50	U	50	U
VOCs	SW8260B	Styrene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Tetrachloroethene	ug/l	25	U	25	U	50	U	25	U	100	U	100	U	2.5	U	50	U	50	U	50	U
VOCs	SW8260B	Toluene	ug/l	25	U	25	U	50	U	20	J+	100	U	100	U	5.1		50	U	50	U	50	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	48	J	56		45	J	390	J+	130	J	120	J	240		65	J	72	J	54	J
VOCs	SW8260B	Trichloroethene	ug/l	200		25	U	50	U	81000		22000		11000		8000		8400		4400	J-	2200	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	100	U	100	U	200	U	100	U	1000	U	1000	U	25	U	500	U	500	U	500	U
VOCs	SW8260B	Vinylchloride	ug/l	2000		12000		14000		16000		4000		4200		2900		3200		2000		1300	

LOCATION_CODE				SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-3		SMLS 1-4		SMLS 1-4 (Dup)		SMLS 1-4		SMLS 1-4	
SAMPLE_DATE_SORT				20121107		20121114		20121119		20130107		20130319		20130611		20120709		20120709		20120928		20121005	
SAMPLE_DATE				11/7/2012 8:55		11/14/2012 8:40		11/19/2012 9:30		1/7/2013 9:30		3/19/2013 10:30		6/11/2013 10:50		7/9/2012 11:25		7/9/2012 11:25		9/28/2012 9:20		10/5/2012 10:00	
SAMPLE_NO				SMLS1-3-110712		SMLS1-3-111412		SMLS1-3-111912		SMLS1-3-010713		SMLS1-3-031913		SMLS1-3-061113		SMLS 1-4 (07/09/12)		MW9901 (07/09/12)		SMLS1-4-092812		SMLS1-4-100512	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1500		1400		1600		1600		1600		1300				1400		1500	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U			0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	0.77	J	0.69	J	0.59	J	0.46	J	1	U	2	J	290				3.7	J	0.87	J
Dissolved gases	RSK175	Ethane	ug/l	12.8		6.35		6.45		7.67		19.2		55.3		5.38				4.77		6.17	
Dissolved gases	RSK175	Ethylene	ug/l	733		759		946		3620		4060		2130		8.59				529		671	
Dissolved gases	RSK175	Methane	ug/l	1120		869		995		3060		3760		3840		149				251		723	
Organic gases	OAHPLC	Acetic Acid	mg/l	350		340		330		280		110		2	U	2	U			310		330	
Organic gases	OAHPLC	Butyric Acid	mg/l	17		13		10		10		2.5	J	2	U	2	U			2	U	12	
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U			2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	550		530		510		340		24		2	U	2	U			440		620	
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.5		0.2	U	0.2	U			0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.15		0.1		0.1		0.06	U	0.06	U	0.06	U	0.06	U			0.1		0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	200	U	200	U	200	U	1000	U	1000	U	250	U	20	U	20	U	10	U	50	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	200	U	200	U	200	U	1000	U	1000	U	250	U	20	U	20	U	10	U	50	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	4.4	J	25	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1000	U	1000	U	1000	U	1000	U	1000	U	500	U	20	U	20	U	50	U	250	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	1000		900		690		390	J	320	J	320		57		57		160		220	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5.2	J	25	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	210		240		190	J	250	U	340	J	130	J	8.5	J	8.4	J	36		55	
VOCs	SW8260B	2-Butanone	ug/l	1000	U	1000	U	1000	U	2500	U	2500	U	1200	U	50	U	50	U	50	U	250	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	1000	U	1000	U	1000	U	2500	U	2500	U	1200	U	50	U	50	U	50	U	250	U
VOCs	SW8260B	Acetone	ug/l	2000	U	2000	U	2000	U	5000	U	5000	U	2500	U	100	U	100	U	100	U	500	U
VOCs	SW8260B	Benzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Bromobenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Bromodichloromethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Bromoform	ug/l	200	U	200	U	200	U	1000	U	1000	U	250	U	20	U	20	U	10	U	50	U
VOCs	SW8260B	Bromomethane	ug/l	1000	U	1000	U	1000	U	2500	U	2500	U	1200	U	50	U	50	U	50	U	250	U
VOCs	SW8260B	Carbon disulfide	ug/l	100	U	100	U	91	J	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Chlorobenzene	ug/l	1100		1200		1200		1800	J	2200	J	1100	J	5.3	J	4.9	J	190		330	
VOCs	SW8260B	Chloroethane	ug/l	1000	U	1000	U	1000	U	2500	U	2500	U	1200	U	50	U	50	U	50	U	250	U
VOCs	SW8260B	Chloroform	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Chloromethane	ug/l	1000	U	1000	U	1000	U	1000	U	1000	U	500	U	20	U	20	U	50	U	250	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	22000	J-	27000		25000		9200		31000		37000		1300		1400		1600		5700	
VOCs	SW8260B	Dibromochloromethane	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Ethylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Isopropylbenzene	ug/l	200	U	200	U	200	U	1000	U	1000	U	250	U	20	U	20	U	10	U	50	U
VOCs	SW8260B	m,p-Xylene	ug/l	200	U	200	U	200	U	500	U	500	U	250	U	10	U	10	U	10	U	50	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Methylene chloride	ug/l	200	U	200	U	200	U	1000	U	1000	U	250	U	20	U	20	U	10	U	50	U
VOCs	SW8260B	Naphthalene	ug/l	1000	U	1000	U	1000	U	2500	U	2500	U	1200	U	50	U	50	U	50	U	250	U
VOCs	SW8260B	n-Butylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	n-Propylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	o-Xylene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Styrene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Tetrachloroethene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	Toluene	ug/l	100	U	100	U	100	U	250	U	250	U	120	U	5	U	5	U	5	U	25	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	120	J	100	J	98	J	250	U	240	J	130	J	72		77		20		30	J
VOCs	SW8260B	Trichloroethene	ug/l	2600		3900		1900		250	U	2000		97	J	1600		1500		350		140	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	1000	U	1000	U	1000	U	1000	U	1000	U	500	U	20	U	20	U	50	U	250	U
VOCs	SW8260B	Vinylchloride	ug/l	3000		7900		8100		51000		29000		29000		350		350		370		1300	

LOCATION_CODE				SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4		SMLS 1-4	
SAMPLE_DATE_SORT				20121010		20121016		20121024		20121031		20121107		20121114		20121119		20130107		20130319		20130611	
SAMPLE_DATE				10/10/2012 9:10		10/16/2012 9:10		10/24/2012 9:45		10/31/2012 10:15		11/7/2012 9:10		11/14/2012 8:55		11/19/2012 9:50		1/7/2013 9:40		3/19/2013 10:45		6/11/2013 11:05	
SAMPLE_NO				SMLS1-4-101012		SMLS1-4-101612		SMLS1-4-102412		SMLS1-4-103112		SMLS1-4-110712		SMLS1-4-111412		SMLS1-4-111912		SMLS1-4-010713		SMLS1-4-031913		SMLS1-4-061113	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1500		1500		1400		1400		1400		1600		1500		1400		1400		1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	1.5	J	3.4	J	1	U	1.9	J	0.63	J	0.54	J	1	U	1	U	1	U	0.72	J
Dissolved gases	RSK175	Ethane	ug/l	5.58		5.11		14.7		6.15		4.98		2.19		2.7		6.64		75.3		52.6	
Dissolved gases	RSK175	Ethylene	ug/l	574		546		495		525		657		447		474		54.2		122		201	
Dissolved gases	RSK175	Methane	ug/l	888		823		1620		3300		5700		3770		4350		2860		5480		5010	
Organic gases	OAHPLC	Acetic Acid	mg/l	390		360		490		370		370		250		130		58		3.7	J	2	U
Organic gases	OAHPLC	Butyric Acid	mg/l	15		11		25		21		17		12		9.6		2.6	J	2	U	2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	850		650		1100		850		700		650		660		69		2	U	2	U
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.39	J	0.23	J	0.6		0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.06	U	0.06	U	0.06	U	0.1		0.1		0.1		0.06	U	0.06	U	0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	10	U	4	U	2	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	10	U	4	U	2	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	12	U	12	U	12	U	9.3	J	11	J	50	U	25	U	7.5	J	1.8	J	1.9	J
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	10	U	4	U	4	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	190		170		210		290		180		300		160		10		11		28	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	1.9	J	0.68	J	1	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	12	U	12	U	12	U	10	U	9.3	J	50	U	25	U	6.2		3.6		2.8	
VOCs	SW8260B	1,3-Dichloropropane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	49		44		60		61		58		65	J	53		53		30		23	
VOCs	SW8260B	2-Butanone	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	25	U	10	U	10	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	25	U	10	U	10	U
VOCs	SW8260B	Acetone	ug/l	250	U	250	U	250	U	200	U	200	U	1000	U	500	U	50	U	20	U	20	U
VOCs	SW8260B	Benzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	0.38	J	1	U
VOCs	SW8260B	Bromobenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Bromodichloromethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Bromoform	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	10	U	4	U	2	U
VOCs	SW8260B	Bromomethane	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	25	U	10	U	10	U
VOCs	SW8260B	Carbon disulfide	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	23	J	2.5	U	1	U	1	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Chlorobenzene	ug/l	320		330		420		390		440		460	J	450		610	J-	290		220	
VOCs	SW8260B	Chloroethane	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	25	U	10	U	10	U
VOCs	SW8260B	Chloroform	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Chloromethane	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	10	U	4	U	4	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	4400	J-	2700		3000		3100		2100		4600		440		6		25		94	
VOCs	SW8260B	Dibromochloromethane	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Ethylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	0.72	J	0.33	J	0.31	J
VOCs	SW8260B	Hexachlorobutadiene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Isopropylbenzene	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	10	U	4	U	2	U
VOCs	SW8260B	m,p-Xylene	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	2.3	J	0.9	J	0.85	J
VOCs	SW8260B	Methyl tert butyl ether	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Methylene chloride	ug/l	25	U	25	U	25	U	20	U	20	U	100	U	50	U	10	U	4	U	2	U
VOCs	SW8260B	Naphthalene	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	25	U	10	U	10	U
VOCs	SW8260B	n-Butylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	0.48	J	1	U
VOCs	SW8260B	n-Propylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	1.2	J	0.6	J	0.42	J
VOCs	SW8260B	o-Xylene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.1	J	1.1	J	0.9	J
VOCs	SW8260B	sec-Butylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	0.66	J	1	U
VOCs	SW8260B	Styrene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Tetrachloroethene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	2.5	U	1	U	1	U
VOCs	SW8260B	Toluene	ug/l	12	U	12	U	12	U	10	U	10	U	50	U	25	U	1.9	J	1.2	J	1.2	J
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	21	J	14	J	44		34		21		50	U	25	U	2.5	U	1.3	J	2.3	
VOCs	SW8260B	Trichloroethene	ug/l	69		52		50		140		32		83	J	25	U	2.5	U	1.8	J	5.1	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	120	U	120	U	120	U	100	U	100	U	500	U	250	U	10	U	4	U	4	U
VOCs	SW8260B	Vinylchloride	ug/l	890		770		710		1000		1400		7400		1900		24		16		120	

LOCATION_CODE				SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2		SMLS 4-2	
SAMPLE_DATE_SORT				20120709		20120928		20121005		20121010		20121016		20121024		20121031		20121107		20121114		20121119	
SAMPLE_DATE				7/9/2012 9:50		9/28/2012 10:00		10/5/2012 10:20		10/10/2012 9:30		10/16/2012 9:35		10/24/2012 10:20		10/31/2012 10:35		11/7/2012 9:35		11/14/2012 9:20		11/19/2012 10:25	
SAMPLE_NO				SMLS 4-2 (07/09/12)		SMLS4-2-092812		SMLS4-2-100512		SMLS4-2-101012		SMLS4-2-101612		SMLS4-2-102412		SMLS4-2-103112		SMLS4-2-110712		SMLS4-2-111412		SMLS4-2-111912	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1500		1400		1300		1500		1500		1400		1400		1400		1500		1300	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	180		290		250		270		260		240		200		180		210		200	
Dissolved gases	RSK175	Ethane	ug/l	2.53		4.07		4.46		5.26		3.55		5.05		5.37		3.78		5.36		4.98	
Dissolved gases	RSK175	Ethylene	ug/l	960		23.1		72		49.5		77.4		61.7		110		112		196		240	
Dissolved gases	RSK175	Methane	ug/l	80.1		187		232		253		162		219		244		176		266		484	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.1		0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	1.1		25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	18		25	U	25	U	11		25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	2	U	50	U	50	U	2	U	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	2	U	50	U	50	U	1.3	J	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	0.57	J	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	1100	J-	760		910		760		770		630		710		630		650		890	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	8.3		25	U	25	U	1.9	J	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	7.5		25	U	25	U	12		25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	71		85		110		100		94		78		84		77		81		110	
VOCs	SW8260B	2-Butanone	ug/l	5	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	0.28	J	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	5	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	Acetone	ug/l	10	U	500	U	500	U	20	U	500	U	500	U	500	U	500	U	500	U	1000	U
VOCs	SW8260B	Benzene	ug/l	0.45	J	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Bromobenzene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Bromodichloromethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Bromoform	ug/l	2	U	50	U	50	U	2	U	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	Bromomethane	ug/l	5	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	Carbon disulfide	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	49	J
VOCs	SW8260B	Carbon tetrachloride	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Chlorobenzene	ug/l	25		61	J	73	J	71		71	J	64	J	74	J	78	J	81	J	110	J
VOCs	SW8260B	Chloroethane	ug/l	49		250	U	250	U	23		250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	Chloroform	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Chloromethane	ug/l	2	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	5000	J-	6300		8000		7000		5800	J-	4900		4700		3500		2700		5500	
VOCs	SW8260B	Dibromochloromethane	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Ethylbenzene	ug/l	1.3		25	U	25	U	1.3	J	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Isopropylbenzene	ug/l	2.1	J	50	U	50	U	3.4	J	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	m,p-Xylene	ug/l	1.2	J	50	U	50	U	0.7	J	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Methylene chloride	ug/l	1.2	J	50	U	50	U	2	U	50	U	50	U	50	U	50	U	50	U	100	U
VOCs	SW8260B	Naphthalene	ug/l	5	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	n-Butylbenzene	ug/l	0.32	J	25	U	25	U	0.49	J	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	n-Propylbenzene	ug/l	0.75	J	25	U	25	U	0.74	J	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	o-Xylene	ug/l	4.4		25	U	25	U	3.9		25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	0.92	J	25	U	25	U	2.5		25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Styrene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Tetrachloroethene	ug/l	0.5	U	25	U	25	U	1	U	25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	Toluene	ug/l	4.7		25	U	25	U	2.2		25	U	25	U	25	U	25	U	25	U	50	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	230	J+	110		100		200		94		100		93		82		96		120	
VOCs	SW8260B	Trichloroethene	ug/l	2800	J-	3000		6100		2600		2200		1100		590		380		150		470	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	2	U	250	U	250	U	10	U	250	U	250	U	250	U	250	U	250	U	500	U
VOCs	SW8260B	Vinylchloride	ug/l	9000	J-	1700		2200		2100		2200		1800		2000		2200		4200		5400	

LOCATION_CODE				SMLS 4-2		SMLS 4-2		SMLS 4-2 (Dup)		SMLS 4-2		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3	
SAMPLE_DATE_SORT				20130107		20130319		20130319		20130611		20120709		20120928		20121005		20121010		20121016		20121024	
SAMPLE_DATE				1/7/2013 10:10		3/19/2013 11:15		3/19/2013 11:25		6/11/2013 11:25		7/9/2012 10:30		9/28/2012 10:15		10/5/2012 10:45		10/10/2012 9:45		10/16/2012 9:55		10/24/2012 10:35	
SAMPLE_NO				SMLS4-2-010713		SMLS4-2-031913		MW9901-031913		SMLS4-2-061113		SMLS 4-3 (07/09/12)		SMLS4-3-092812		SMLS4-3-100512		SMLS4-3-101012		SMLS4-3-101612		SMLS4-3-102412	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1400				1500		1500		1300		1400		1500		1400		1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	190		170				130		190		180		150		150		160		130	
Dissolved gases	RSK175	Ethane	ug/l	2.86		4.87				6.5		0.43		0.99		1.33		0.36		0.563		0.669	
Dissolved gases	RSK175	Ethylene	ug/l	257		496				355		93		36.6		121		26.7		60.1		54.3	
Dissolved gases	RSK175	Methane	ug/l	2810		4640				3340		15.7		36.5		45.8		12		16.2		23.7	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	U	2	U			2	U	2	U	6.6		12		2.6	J	2	U	2	U
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	2	U			2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U			2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	2	U	2	U			2	U	2	U	7.7		11		1.4	J	4.9		1.6	J
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	J			0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.4				0.06	U	0.06	U	0.06	U	0.35		0.4		0.1		0.3	
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	3.7		12	U	12	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	40	U	100	U	50	U	25	U	50	U	50	U	50	U	1	U	25	U	25	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	40	U	100	U	50	U	25	U	50	U	50	U	50	U	1	U	25	U	25	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	40	U	100	U	50	U	50	U	50	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	480		570		830		760		320		310		330		210		270		280	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	1.4		12	U	12	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	3.2		12	U	12	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	53		80		100		88		38		39	J	43	J	28		33		35	
VOCs	SW8260B	2-Butanone	ug/l	100	U	250	U	120	U	120	U	120	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	100	U	250	U	120	U	120	U	120	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	Acetone	ug/l	200	U	500	U	250	U	250	U	250	U	500	U	500	U	10	U	250	U	250	U
VOCs	SW8260B	Benzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Bromobenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Bromodichloromethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Bromoform	ug/l	40	U	100	U	50	U	25	U	50	U	50	U	50	U	1	U	25	U	25	U
VOCs	SW8260B	Bromomethane	ug/l	100	U	250	U	120	U	120	U	120	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	Carbon disulfide	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Chlorobenzene	ug/l	60	J	92	J	100	J	150		36	J	48	J	58	J	42		48	J	44	J
VOCs	SW8260B	Chloroethane	ug/l	53	J	150	J	180	J	240	J	100	J	250	U	250	U	3.8	J	120	U	120	U
VOCs	SW8260B	Chloroform	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Chloromethane	ug/l	40	U	100	U	50	U	50	U	50	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	2700		3400		5700	J-	4200		2200		4800		4000		3100		2900		2600	
VOCs	SW8260B	Dibromochloromethane	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Ethylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.31	J	12	U	12	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Isopropylbenzene	ug/l	40	U	100	U	50	U	25	U	50	U	50	U	50	U	0.62	J	25	U	25	U
VOCs	SW8260B	m,p-Xylene	ug/l	20	U	50	U	25	U	25	U	25	U	50	U	50	U	0.38	J	25	U	25	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Methylene chloride	ug/l	40	U	100	U	50	U	25	U	50	U	50	U	50	U	1	U	25	U	25	U
VOCs	SW8260B	Naphthalene	ug/l	100	U	250	U	120	U	120	U	120	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	n-Butylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	n-Propylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	o-Xylene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	1.2		12	U	12	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.34	J	12	U	12	U
VOCs	SW8260B	Styrene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Tetrachloroethene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.5	U	12	U	12	U
VOCs	SW8260B	Toluene	ug/l	10	U	25	U	12	U	12	U	12	U	25	U	25	U	0.97	J	12	U	12	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	100		57		81		77		90		80		68		60		50		130	
VOCs	SW8260B	Trichloroethene	ug/l	25		870		2000		1500		3500		1200		780		170		380		190	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	40	U	100	U	50	U	50	U	50	U	250	U	250	U	5	U	120	U	120	U
VOCs	SW8260B	Vinylchloride	ug/l	3800		2000		2300	J-	2100		1900		1400		1400		890		1200		870	

LOCATION_CODE				SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 4-3		SMLS 7-1		SMLS 7-1 (Dup)		SMLS 7-1	
SAMPLE_DATE_SORT				20121031		20121107		20121114		20121119		20130107		20130319		20130611		20120709		20120709		20120928	
SAMPLE_DATE				10/31/2012 10:55		11/7/2012 9:55		11/14/2012 9:40		11/19/2012 10:40		1/7/2013 10:30		3/19/2013 11:35		6/11/2013 11:40		7/9/2012 12:10		7/9/2012 12:15		9/28/2012 10:45	
SAMPLE_NO				SMLS4-3-103112		SMLS4-3-110712		SMLS4-3-111412		SMLS4-3-111912		SMLS4-3-010713		SMLS4-3-031913		SMLS4-3-061113		SMLS 7-1 (07/09/12)		MW9902 (07/09/12)		SMLS7-1-092812	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1400		1500		1400		1400		1500		1500		1500				1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U			0.1	U
Anions	E300.0	Sulfate	mg/l	130		84		76		84		170		97		66		270				200	
Dissolved gases	RSK175	Ethane	ug/l	1.48		1.14		1.92		2.86		1.24		4.1		1.55		4.22				3.42	
Dissolved gases	RSK175	Ethylene	ug/l	93.9		104		152		225		96.8		51.9		16.7		44.2				87.3	
Dissolved gases	RSK175	Methane	ug/l	67.9		68.6		111		256		1040		774		225		139				110	
Organic gases	OAHPLC	Acetic Acid	mg/l	1.3	J	2.4	J	1.3	J	14		2	U	2	U	2	U	2	U			1.8	J
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U			2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U			2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	4.2		7.3		1.9	J	4.3		2	U	2	U	2	U	2	U			2.9	J
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	J	0.2	U	0.2	U			0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.15		0.7		1		1.7		0.06	U	0.15		0.15		0.06	U			0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	51		55		50	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	20	U	20	U	20	U	20	U	50	U	20	U	10	U	100	U	100	U	100	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	20	U	20	U	20	U	20	U	50	U	20	U	10	U	100	U	100	U	100	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	100	U	100	U	100	U	100	U	50	U	20	U	20	U	100	U	100	U	500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	320		270		220		360		250		160		310		790		750		680	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	39		34		27		40		30		26		40		80		76		82	J
VOCs	SW8260B	2-Butanone	ug/l	100	U	100	U	100	U	100	U	120	U	50	U	50	U	250	U	250	U	500	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	100	U	100	U	100	U	100	U	120	U	50	U	50	U	250	U	250	U	500	U
VOCs	SW8260B	Acetone	ug/l	200	U	200	U	200	U	200	U	250	U	100	U	100	U	500	U	500	U	1000	U
VOCs	SW8260B	Benzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Bromobenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Bromodichloromethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Bromoform	ug/l	20	U	20	U	20	U	20	U	50	U	20	U	10	U	100	U	100	U	100	U
VOCs	SW8260B	Bromomethane	ug/l	100	U	100	U	100	U	100	U	120	U	50	U	50	U	250	U	250	U	500	U
VOCs	SW8260B	Carbon disulfide	ug/l	10	U	10	U	10	U	14	J	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Chlorobenzene	ug/l	51	J	48	J	38	J	65	J	74	J	99		160		16	J	18	J	100	J
VOCs	SW8260B	Chloroethane	ug/l	100	U	100	U	100	U	100	U	120	U	32	J	82	J	250	U	250	U	500	U
VOCs	SW8260B	Chloroform	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Chloromethane	ug/l	100	U	100	U	100	U	100	U	50	U	20	U	20	U	100	U	100	U	500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	3300		1700		1400		2500		3300		1400		1200		30000		32000		12000	
VOCs	SW8260B	Dibromochloromethane	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Ethylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Isopropylbenzene	ug/l	20	U	20	U	20	U	20	U	50	U	20	U	10	U	100	U	100	U	100	U
VOCs	SW8260B	m,p-Xylene	ug/l	20	U	20	U	20	U	20	U	25	U	10	U	10	U	50	U	50	U	100	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Methylene chloride	ug/l	20	U	20	U	20	U	20	U	50	U	20	U	10	U	100	U	100	U	100	U
VOCs	SW8260B	Naphthalene	ug/l	100	U	100	U	100	U	100	U	120	U	50	U	50	U	250	U	250	U	500	U
VOCs	SW8260B	n-Butylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	n-Propylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	o-Xylene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Styrene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Tetrachloroethene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	Toluene	ug/l	10	U	10	U	10	U	10	U	12	U	5	U	5	U	25	U	25	U	50	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	76		43		73		81		110		120		160		260		290		120	
VOCs	SW8260B	Trichloroethene	ug/l	180		64		28		100		82		36		620		14000		8500		5700	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	100	U	100	U	100	U	100	U	50	U	20	U	20	U	100	U	100	U	500	U
VOCs	SW8260B	Vinylchloride	ug/l	1400		940		1500		1800		2000		240		100		24000		22000		2700	

LOCATION_CODE				SMLS 7-1		SMLS 7-1		SMLS 7-1		SMLS 7-1		SMLS 7-1		SMLS 7-1		SMLS 7-1		SMLS 7-1	
SAMPLE_DATE_SORT				20121005		20121010		20121016		20121024		20121031		20121107		20121114		20121119		20130107		20130319	
SAMPLE_DATE				10/5/2012 11:15		10/10/2012 10:10		10/16/2012 10:20		10/24/2012 11:00		10/31/2012 11:20		11/7/2012 10:15		11/14/2012 10:05		11/19/2012 11:15		1/7/2013 10:45		3/19/2013 11:55	
SAMPLE_NO				SMLS7-1-100512		SMLS7-1-101012		SMLS7-1-101612		SMLS7-1-102412		SMLS7-1-103112		SMLS7-1-110712		SMLS7-1-111412		SMLS7-1-111912		SMLS7-1-010713		SMLS7-1-031913	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1400		1500		1400		1300		1400		1500		1400		1200		1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	190		190		160		67		33		5.4		4.1		0.66	J	0.96	J	3	J
Dissolved gases	RSK175	Ethane	ug/l	4.55		3.39		3.42		4.82		3.83		4.85		4.81		5.59		9.24		14.5	
Dissolved gases	RSK175	Ethylene	ug/l	147		133		186		339		342		492		281		637		1360		1660	
Dissolved gases	RSK175	Methane	ug/l	144		110		85.2		207		272		530		302		544		1090		3630	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	U	2	U	3.4	J	2	U	32		230		31		220		210		120	
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	2	U	2	U	2	U	3.5	J	6.6		3.6	J	5.7		4.5		2.4	J
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	2	U	2	U	3.2	J	32		27		190		22		200		170		42	
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.07	J	0.2	U	0.2	J
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.1		0.4		1.3		1.5		0.55		0.45		0.2		0.06	U	0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	50	U	40	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	50	U	40	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	50	U	40	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	910		760		850		730		810		690		580		580		45		60	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	120		93	J	100		98	J	110		86	J	75	J	76	J	52		70	
VOCs	SW8260B	2-Butanone	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	120	U	100	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	120	U	100	U
VOCs	SW8260B	Acetone	ug/l	1000	U	1000	U	1000	U	1000	U	1000	U	690	J	1000	U	1000	U	250	U	200	U
VOCs	SW8260B	Benzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Bromobenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Bromodichloromethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Bromoform	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	50	U	40	U
VOCs	SW8260B	Bromomethane	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	120	U	100	U
VOCs	SW8260B	Carbon disulfide	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	45	J	12	U	10	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Chlorobenzene	ug/l	130	J	100	J	120	J	120	J	150	J	160	J	140	J	170	J	470		660	
VOCs	SW8260B	Chloroethane	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	120	U	100	U
VOCs	SW8260B	Chloroform	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Chloromethane	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	50	U	40	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	15000		13000		17000		15000		16000		11000		20000		5800		1500		1700	
VOCs	SW8260B	Dibromochloromethane	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Ethylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Isopropylbenzene	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	50	U	40	U
VOCs	SW8260B	m,p-Xylene	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	25	U	20	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Methylene chloride	ug/l	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	50	U	40	U
VOCs	SW8260B	Naphthalene	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	120	U	100	U
VOCs	SW8260B	n-Butylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	n-Propylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	o-Xylene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Styrene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Tetrachloroethene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Toluene	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	96	J	88	J	92	J	110		110		61	J	130		99	J	40		62	
VOCs	SW8260B	Trichloroethene	ug/l	11000		4900		4100		170		50	U	50	U	50	U	50	U	12	U	10	U
VOCs	SW8260B	Trichlorofluoromethane	ug/l	500	U	500	U	500	U	500	U	500	U	500	U	500	U	500	U	50	U	40	U
VOCs	SW8260B	Vinylchloride	ug/l	3000		2500		3200		2600		2700		4900		6300		7000		1500		1400	

LOCATION_CODE				SMLS 7-1		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2	
SAMPLE_DATE_SORT				20130611		20120709		20120928		20121005		20121010		20121016		20121024		20121031		20121107		20121114	
SAMPLE_DATE				6/11/2013 12:00		7/9/2012 12:40		9/28/2012 11:15		10/5/2012 11:30		10/10/2012 10:30		10/16/2012 10:40		10/24/2012 11:15		10/31/2012 11:35		11/7/2012 10:35		11/14/2012 10:25	
SAMPLE_NO				SMLS7-1-061113		SMLS 7-2 (07/09/12)		SMLS7-2-092812		SMLS7-2-100512		SMLS7-2-101012		SMLS7-2-101612		SMLS7-2-102412		SMLS7-2-103112		SMLS7-2-110712		SMLS7-2-111412	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1500		1400		1400		1400		1500		1400		1400		1400		1600	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.062	J
Anions	E300.0	Sulfate	mg/l	7.4		190		280		240		250		220		200		160		110		70	
Dissolved gases	RSK175	Ethane	ug/l	58.4		1.13		3.1		1.19		1.04		1.66		2.07		0.768		3.28		4.52	
Dissolved gases	RSK175	Ethylene	ug/l	1480		33.4		12.6		19.3		14.2		46.8		73		47.8		210		124	
Dissolved gases	RSK175	Methane	ug/l	5360		42.7		87.8		37.4		31.7		46.9		67.8		24.4		170		153	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2.2	J	3.5	J+	10		14	
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	1.4	J	4.4	
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	4.3		8.2		27		3.1	J
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.1		0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.15		0.45		1	
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	10	U	31	J	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	20	U	100	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	20	U	100	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	40	U	100	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	180		770		1300		1400		1400		1400		1200		1500		1400		960	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	8.7	J	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	74		76		140	J	200	J	170	J	170	J	140	J	170	J	250	U	250	U
VOCs	SW8260B	2-Butanone	ug/l	100	U	250	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	100	U	250	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	Acetone	ug/l	200	U	500	U	2500	U	2500	U	2500	U	2500	U	2500	U	2500	U	5000	U	5000	U
VOCs	SW8260B	Benzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Bromobenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Bromodichloromethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Bromoform	ug/l	20	U	100	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	Bromomethane	ug/l	100	U	250	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	Carbon disulfide	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Chlorobenzene	ug/l	670		22	J	120	J	160	J	140	J	150	J	140	J	180	J	200	J	160	J
VOCs	SW8260B	Chloroethane	ug/l	100	J	250	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	Chloroform	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Chloromethane	ug/l	40	U	100	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	2400		24000		33000		37000		37000		40000		40000		59000		60000		64000	
VOCs	SW8260B	Dibromochloromethane	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Ethylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Isopropylbenzene	ug/l	20	U	100	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	m,p-Xylene	ug/l	20	U	50	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Methylene chloride	ug/l	20	U	100	U	250	U	250	U	250	U	250	U	250	U	250	U	500	U	500	U
VOCs	SW8260B	Naphthalene	ug/l	100	U	250	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	n-Butylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	n-Propylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	o-Xylene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Styrene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Tetrachloroethene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	Toluene	ug/l	10	U	25	U	120	U	120	U	120	U	120	U	120	U	120	U	250	U	250	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	24		320		180	J	140	J	120	J	150	J	170	J	160	J	250	U	240	J
VOCs	SW8260B	Trichloroethene	ug/l	15	J	6000		38000		28000		39000		31000		26000		3700		570		250	U
VOCs	SW8260B	Trichlorofluoromethane	ug/l	40	U	100	U	1200	U	1200	U	1200	U	1200	U	1200	U	1200	U	2500	U	2500	U
VOCs	SW8260B	Vinylchloride	ug/l	2300		23000		3600		3700		2800		4200		3200		3300		8000		7800	

LOCATION_CODE				SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-2		SMLS 7-3		SMLS 7-3		SMLS 7-3		SMLS 7-3		SMLS 7-3	
SAMPLE_DATE_SORT				20121119		20130107		20130319		20130611		20120709		20120928		20121005		20121010		20121016		20121024	
SAMPLE_DATE				11/19/2012 11:30		1/7/2013 11:05		3/19/2013 12:05		6/11/2013 12:15		7/9/2012 13:15		9/28/2012 11:40		10/5/2012 11:50		10/10/2012 10:45		10/16/2012 11:00		10/24/2012 11:30	
SAMPLE_NO				SMLS7-2-111912		SMLS7-2-010713		SMLS7-2-031913		SMLS7-2-061113		SMLS 7-3 (07/09/12)		SMLS7-3-092812		SMLS7-3-100512		SMLS7-3-101012		SMLS7-3-101612		SMLS7-3-102412	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1500		1200		1300		1300		1600		1400		1500		1400		1500		1400	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	31		30		37		42		240		260		230		230		200		150	
Dissolved gases	RSK175	Ethane	ug/l	4.11		9.1		24.4		1.45		2.52		2.76		4		1.76		3.96		6.37	
Dissolved gases	RSK175	Ethylene	ug/l	236		940		902		222		68.4		41.5		59.6		36.9		91.9		191	
Dissolved gases	RSK175	Methane	ug/l	202		1440		3270		287		103		117		136		73.3		132		233	
Organic gases	OAHPLC	Acetic Acid	mg/l	83		57		14		2	U	2	U	1.8	J	2	U	2	U	1.4	J	1.5	J
Organic gases	OAHPLC	Butyric Acid	mg/l	1.9	J	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	30		11		2	U	2	U	2	U	3.8	J	2	U	2.7	J	6.3		11	
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.1	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.5		0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	1.2		0.06	U	0.5		0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	250	U	120	U	100	U	50	U	69		250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	500	U	500	U	400	U	100	U	100	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	500	U	500	U	400	U	100	U	100	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2500	U	500	U	400	U	200	U	100	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	910		640		600		770		700		1600		1600		1700		1100		1600	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	250	U	120	U	140	J	87	J	66		250	U	500	U	230	J	250	U	250	U
VOCs	SW8260B	2-Butanone	ug/l	2500	U	1200	U	1000	U	500	U	250	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	2500	U	1200	U	1000	U	500	U	250	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	Acetone	ug/l	5000	U	2500	U	2000	U	1000	U	500	U	5000	U	10000	U	5000	U	5000	U	5000	U
VOCs	SW8260B	Benzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Bromobenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Bromodichloromethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Bromoform	ug/l	500	U	500	U	400	U	100	U	100	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	Bromomethane	ug/l	2500	U	1200	U	1000	U	500	U	250	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	Carbon disulfide	ug/l	210	J	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Chlorobenzene	ug/l	160	J	130	J	180	J	200	J	16	J	170	J	200	J	170	J	120	J	190	J
VOCs	SW8260B	Chloroethane	ug/l	2500	U	1200	U	1000	U	500	U	250	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	Chloroform	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Chloromethane	ug/l	2500	U	500	U	400	U	200	U	100	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	40000		5000		8400		15000		40000		51000		72000		60000		50000		77000	
VOCs	SW8260B	Dibromochloromethane	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Ethylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Isopropylbenzene	ug/l	500	U	500	U	400	U	100	U	100	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	m,p-Xylene	ug/l	500	U	250	U	200	U	100	U	50	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Methylene chloride	ug/l	500	U	500	U	400	U	100	U	100	U	500	U	1000	U	500	U	500	U	500	U
VOCs	SW8260B	Naphthalene	ug/l	2500	U	1200	U	1000	U	500	U	250	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	n-Butylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	n-Propylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	o-Xylene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Styrene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Tetrachloroethene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	Toluene	ug/l	250	U	120	U	100	U	50	U	25	U	250	U	500	U	250	U	250	U	250	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	200	J	100	J	170	J	85	J	310		250	U	500	U	250	U	250	U	270	J
VOCs	SW8260B	Trichloroethene	ug/l	250	U	120	U	100	U	390		16000		110000		94000		91000		55000		81000	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	2500	U	500	U	400	U	200	U	100	U	2500	U	5000	U	2500	U	2500	U	2500	U
VOCs	SW8260B	Vinylchloride	ug/l	9200		15000		9500		4900		30000		5100		4700		4300		3600		5000	

LOCATION_CODE				SMLS 7-3		SMLS 7-3		SMLS 7-3		SMLS 7-3		SMLS 7-3		SMLS 7-3	
SAMPLE_DATE_SORT				20121031		20121107		20121114		20121119		20130107		20130319		20130611	
SAMPLE_DATE				10/31/2012 11:55		11/7/2012 10:55		11/14/2012 10:40		11/19/2012 11:45		1/7/2013 11:20		3/19/2013 12:20		6/11/2013 12:35	
SAMPLE_NO				SMLS7-3-103112		SMLS7-3-110712		SMLS7-3-111412		SMLS7-3-111912		SMLS7-3-010713		SMLS7-3-031913		SMLS7-3-061113	
Group	ANALYTIC_METHOD	Parameter	Units	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual	Result	ValQual
Anions	E300.0	Chloride	mg/l	1400		1500		1600		1500		1000		1200		1300	
Anions	E300.0	Nitrate	mg/l	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Anions	E300.0	Sulfate	mg/l	130		70		95		82		57		62		64	
Dissolved gases	RSK175	Ethane	ug/l	3.91		4.7		4.09		6.84		11.4		16.6		5.47	
Dissolved gases	RSK175	Ethylene	ug/l	203		314		252		338		495		491		176	
Dissolved gases	RSK175	Methane	ug/l	166		276		221		357		1940		3580		1850	
Organic gases	OAHPLC	Acetic Acid	mg/l	2	J	9.2		9.2	J-	25		2	U	2	U	2	U
Organic gases	OAHPLC	Butyric Acid	mg/l	2	U	1.7	J	1.7	J	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Lactic Acid	mg/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Organic gases	OAHPLC	Propionic Acid	mg/l	13		17		10		2.6	J	2	U	2	U	2	U
Organic gases	OAHPLC	Pyruvic Acid	mg/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.1	J	0.2	U
Sulfide	A4500SD	Sulfide, Total	mg/l	0.06	U	0.5		0.1		0.25		0.06	U	0.1		0.06	U
VOCs	SW8260B	1,1,1,2-Tetrachloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,1,1-Trichloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,1,2,2-Tetrachloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,1,2-Trichloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,1-Dichloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,1-Dichloroethene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,2,3-Trichloropropane	ug/l	500	U	1000	U	1000	U	1000	U	1000	U	400	U	250	U
VOCs	SW8260B	1,2,4-Trichlorobenzene	ug/l	500	U	1000	U	1000	U	1000	U	1000	U	400	U	250	U
VOCs	SW8260B	1,2,4-Trimethylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,2-Dibromo-3-chloropropane	ug/l	2500	U	5000	U	5000	U	5000	U	1000	U	400	U	500	U
VOCs	SW8260B	1,2-Dibromoethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,2-Dichlorobenzene	ug/l	1600		1600		1200		1300		640		610		920	
VOCs	SW8260B	1,2-Dichloroethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,2-Dichloropropane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,3,5-Trimethylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,3-Dichlorobenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,3-Dichloropropane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	1,4-Dichlorobenzene	ug/l	250	U	500	U	500	U	500	U	250	U	120	J	130	J
VOCs	SW8260B	2-Butanone	ug/l	2500	U	5000	U	5000	U	5000	U	2500	U	1000	U	1200	U
VOCs	SW8260B	2-Chlorotoluene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	4-Chlorotoluene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	4-Methyl-2-pentanone	ug/l	2500	U	5000	U	5000	U	5000	U	2500	U	1000	U	1200	U
VOCs	SW8260B	Acetone	ug/l	5000	U	10000	U	10000	U	10000	U	5000	U	2000	U	2500	U
VOCs	SW8260B	Benzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Bromobenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Bromodichloromethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Bromoform	ug/l	500	U	1000	U	1000	U	1000	U	1000	U	400	U	250	U
VOCs	SW8260B	Bromomethane	ug/l	2500	U	5000	U	5000	U	5000	U	2500	U	1000	U	1200	U
VOCs	SW8260B	Carbon disulfide	ug/l	250	U	500	U	500	U	440	J	250	U	100	U	120	U
VOCs	SW8260B	Carbon tetrachloride	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Chlorobenzene	ug/l	210	J	230	J	500	U	200	J	100	J	140	J	180	J
VOCs	SW8260B	Chloroethane	ug/l	2500	U	5000	U	5000	U	5000	U	2500	U	1000	U	1200	U
VOCs	SW8260B	Chloroform	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Chloromethane	ug/l	2500	U	5000	U	5000	U	5000	U	1000	U	400	U	500	U
VOCs	SW8260B	cis-1,2-Dichloroethene	ug/l	100000		120000		140000		120000		46000		34000		49000	
VOCs	SW8260B	Dibromochloromethane	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Ethylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Hexachlorobutadiene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Isopropylbenzene	ug/l	500	U	1000	U	1000	U	1000	U	1000	U	400	U	250	U
VOCs	SW8260B	m,p-Xylene	ug/l	500	U	1000	U	1000	U	1000	U	500	U	200	U	250	U
VOCs	SW8260B	Methyl tert butyl ether	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Methylene chloride	ug/l	500	U	1000	U	1000	U	1000	U	1000	U	400	U	250	U
VOCs	SW8260B	Naphthalene	ug/l	2500	U	5000	U	5000	U	5000	U	2500	U	1000	U	1200	U
VOCs	SW8260B	n-Butylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	n-Propylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	o-Xylene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	sec-Butylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Styrene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	tert-Butylbenzene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Tetrachloroethene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	Toluene	ug/l	250	U	500	U	500	U	500	U	250	U	100	U	120	U
VOCs	SW8260B	trans-1,2-Dichloroethene	ug/l	260	J	500	U	500	U	500	U	250	U	150	J	160	J
VOCs	SW8260B	Trichloroethene	ug/l	23000		590	J	500	U	410	J	580		100	U	730	
VOCs	SW8260B	Trichlorofluoromethane	ug/l	2500	U	5000	U	5000	U	5000	U	1000	U	400	U	500	U
VOCs	SW8260B	Vinylchloride	ug/l	6100		8700		10000		10000		14000		20000		17000	