AllWest Environmental

SUPPLEMENTAL SOIL AND SOIL VAPOR ASSESSMENT REPORT

2550 & 2525 Irving Street, San Francisco, California 94122

PREPARED FOR:

The Police Credit Union
2550 Irving Street
San Francisco, CA 94122

ALLWEST PROJECT 202006.23
July 14, 2020

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I. EXECUTIVE SUMMARY

AllWest Environmental, Inc. has conducted a supplemental soil and soil vapor investigation to further delineate tetrachloroethylene (PCE) contamination previously identified at the subject property referenced above (Figures 1 and 2). The purpose of this work was to further characterize the concentrations of PCE in soil vapor and determine potential on and off-site contamination sources. This study builds upon four previous subsurface and three indoor air quality assessments conducted by AllWest in 2019 and 2020.

This executive summary is provided solely for the purpose of overview. Any party who relies on this report must read the full report. The executive summary may omit details, any one of which could be crucial to the proper understanding and risk assessment of the subject matter.

The subject property is defined by The Police Credit Union (TPCU) building and client parking lot at 2550 Irving Street (north side) and TPCU employee parking lot at 2525 Irving Street (south side). A former dry cleaner, Albrite Cleaners, occupied the building at 2511 Irving Street, adjacent to the subject 2525 Irving Street parcel, for approximately 75 years before vacating the premises circa 2015.

AllWest observed the advancement of 20 borings completed as single or twin soil vapor probes across the northern and southern subject property parcels and within the Irving Street right-of-way. Eleven permanent twin clustered soil vapor probes were installed on TPCU property, five temporary single vapor probes were installed in Irving Street and four temporary multi-depth vapor probes were installed on TPCU employee parking lot. Sample locations were chosen to address data gaps in previous AllWest investigations and to establish the origin of the PCE release. During the boring advancement, soil samples were generally collected from standard depths of 1-1.5, 4.5-5, 9.5-10 and/or 14.5-15 feet bgs.

To aid sample data comprehension, AllWest designates TPCU building (including loading dock) as Area A, TPCU client parking lot and employee lunch area as Area B, sample locations on the south and north side of Irving Street as Area C and the TPCU employee parking lot as Area D.

Six permanent twin vapor probe clusters were installed at 5 and 15 feet bgs within the TPCU branch office building (Area A): SVP-8A/B; SVP-9A/B; SVP-10A/B; SVP-12A/B; SVP-13A/B and SVP-18A/B. One permanent twin vapor probe cluster was installed at the TPCU loading dock at the northwest corner of the site (SVP-11A/B). As part of the assessment AllWest also collected soil vapor samples from four existing sub-slab soil vapor pins within the TPCU building (VP-1A, VP-2A, VP-3 and VP-4). Soil samples were collected from depths of 1-1.5, 4.5-5, 9.5-10 and 14.5-15 feet bgs in Area A. For location SVP-11A/B (loading dock) samples were collected at 4.5- 5, 9.5-10, and 15 feet bgs.

Four permanent twin vapor probe clusters were installed at 5 and 15 feet bgs within the TPCU client parking lot (Area B): SVP-7A/B; SVP-14A/B; SVP-15A/B; SVP-16A/B. Three soil samples were collected from each of these locations at depths of 4.5, 10 and 15 feet bgs.

Four temporary twin vapor probe clusters were located within the TPCU employee parking lot on the south side of Irving Street (Area D): SVP-19A/B; SVP-20A/B; SVP-21A/B; SVP-22A/B. Three soil samples were collected from each of the vapor probe locations at 4.5-5, 9.5-10 and 14.5-15 feet bgs.

Five temporary single vapor probes were located within the Irving Street right-of-way north of the former Albrite cleaners and south of TPCU building (Area C): SVP-3; SVP-4; SVP-5; SVP-6 and SVP-17. Three soil samples were collected from each of the vapor probe locations at 4.5-5, 9.5-10 and 14.5-15 feet bgs

Field work was initiated on May 23 and concluded on June 13, 2020.

Selected soil and soil vapor samples collected from all soil vapor borings/probes and vapor pins were analyzed for PCE, its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride, and the leak detection gas helium (soil vapor only). Soil sample analysis was performed by McCampbell Analytical, Inc. of Pittsburg, California. Soil vapor sample analysis was performed by Eurofins/Calscience, Inc. (ECI) of Garden Grove, California. Both labs are State Water Resources Control Board (SWRCB) Environmental Laboratory Accreditation Program (ELAP) certified.

Sixty six soil samples were submitted to the analytical laboratory, of which forty-eight were selected for analysis. No constituents of concern (COCs) were detected in any soil samples at concentrations above detection limits except sample SVP-12 collected with TPCU building at 4.5-5 feet bgs which reported PCE at 0.052 milligrams per kilogram (mg/kg). This concentration did not exceed applicable San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESLs). This detection suggests a PCE release occurred on the TPCU site likely from the former cleaner identified as operating between circa 1928 and 1949. Soil analytical results are included in Table 1.

Soil vapor PCE concentrations within the TPCU extended building envelope (Area A) at 15 feet bgs ranged from 280 to 1,700 micrograms per cubic meter (µg/m^3). At 5 feet bgs PCE concentrations ranged from 290 to 1,500 µg/m^3. Sub-slab PCE soil vapor concentrations ranged from 390 to 1,100 µg/m^3. Based on the entire PCE soil vapor data set collected by AllWest in 2019 and 2020, the primary origin of the PCE plume is the former Albrite Cleaners. Based on the identified PCE soil concentrations in SVP-12, and Area A PCE soil vapor concentrations, the former TPCU site cleaner contributed (to an unknown but relatively insignificant extent) to the plume. Soil vapor analytical results are included in Table 2.

PCE concentrations in the TPCU client parking lot (Area B) at 15 feet bgs ranged from 220 to 540 µg/m^3. At 5 feet bgs PCE concentrations ranged from 140 to 590 µg/m^3. Based on proximity to Irving Street sewer lines, the likely source for this contamination is the former Albrite Cleaners.

Area C soil vapor probes were temporary installations in the Irving Street right-of-way with vapor samples collected at 15 feet bgs. PCE concentrations at these locations, north of the former Albrite Cleaners but south of TPCU building, ranged between 1,000 and 2,500 µg/m^3. Based on proximity to 2511 Irving Street and main and lateral sewer lines leading from it, the likely source for this contamination is the former Albrite Cleaners.

Area D (employee parking lot) PCE soil vapor concentrations at 15 feet bgs ranged between 200 and 1,800 µg/m^3. At 5 feet bgs soil vapor sample concentrations ranged between 390 and 1,300 µg/m^3. Based on proximity, the likely source for this contamination is the former Albrite Cleaner.

Across the northern and southern site parcels and Irving Street, soil vapor concentrations ranged from 120 µg/m^3 to 2,500 µg/m^3. The applicable commercial/industrial SFRWQCB PCE ESL for vapor intrusion is 67 µg/m^3. The applicable PCE residential ESL for vapor intrusion is 15 µg/m^3. No other COCs were detected in soil vapor samples. Soil vapor analytical data are included in Table 2.

AllWest concludes the TPCU 2550 Irving Street parcel and TPCU parking lot at 2525 Irving Street have been impacted by a PCE soil vapor plume. The PCE concentration distribution gradient, gradually decreasing from the Irving Street sewer lines (potential release pathways) north through the subject site indicates the former Albright Cleaners at 2511 Irving was likely the primary release source, potentially via the main and lateral sewer lines. The detection of a relatively lower concentration of PCE in a shallow 5 feet bgs soil sample in SVP-12 in the center of the former site cleaners also indicates an onsite PCE release. However, the release does not appear significant as PCE soil vapor concentrations do not materially increase in sample values collected within TPCU building compared to concentrations in samples from the Irving Street right-of-way. The PCE plume likely extends off-site north of the TPCU building.

II. PROJECT BACKGROUND

A. Site Location and Description

The subject property, addressed as 2500-2550 Irving Street, is an irregularly-shaped parcel totaling approximately 0.44 acre, located in a mixed residential and commercial area in the Sunset district of San Francisco. The subject property is bound by 26th Avenue to the east, 27th Avenue to the west, Irving Street to the south and residential homes to the north. Access to the property is from Irving Street and/or 27th Avenue. The subject property is developed with a two-story approximately 18,561 square-foot office building and parking lot. The subject building is occupied by the San Francisco Police Credit Union (SFPCU).

The subject property also includes two contiguous, rectangular undeveloped parcels, together comprising 0.12 acres, on the south side of Irving Street (employee parking lot parcels) between 26th and 27th Avenues at 2525 Irving Street. A site vicinity map is presented as Figure 1, and a site plan as Figure 2. A summary of site historical background, and previous environmental investigations and analytical data is included in Appendix A.

B. Site Geology and Hydrogeology

Based on a review of the USGS Note 36 California Geomorphic Provinces map, the property is located in the Coast Ranges geomorphic province of California. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay.

The northern Coast Ranges are dominated by the irregular, knobby landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges is subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Point Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to north of the Farallon Islands. Geologically, the area of the subject property is underlain by Mesozoic era Eugeosynclinal Deposits.

Soils encountered during the AllWest May 2020 subsurface investigation consisted of fine to coarse-grained, well-graded gravelly sand and sandy gravel fill material from beneath asphalt surface pavement/ground surface to approximately 1-2 feet bgs, underlain by very fine to fine-grained poorly-graded sand to the maximum explored depth of approximately 15 feet bgs.

According to California's Groundwater Bulletin 118, the subject property is located in the San Francisco Bay Hydrologic Region and lies in the Merced Valley Groundwater Basin (Basin No. 2-035). The Merced Valley groundwater basin is located on the western portion of the San Francisco Peninsula (Phillips, et al. 1993).

According to the California Regional Water Quality Control Board (CRWQCB), San Francisco Bay Region *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*, Table 2-2, the subject property lies in the Westside A Groundwater Basin (Basin ID Number 2-35A), which has designated existing and potential beneficial uses including municipal, process, industrial and agricultural.

Groundwater was first encountered during the AllWest September 2019 subsurface investigation at approximately 80 to 90 feet bgs, with static depths to groundwater of 77.30 to 78.86 feet bgs.

Based on topography and nearby sites in the Geotracker database, the groundwater flow direction is anticipated towards the north-northwest, making properties located to the south-southeast up-gradient.

The nearest significant surface water to the subject property are Elk Glen Lake and Mallard Lake in Golden Gate Park, approximately ¼ mile north-northwest. Stow Lake, also in Golden Gate Park, is approximately 1/3 mile northeast. The Pacific Ocean is approximately 1½ miles west.

III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation was to establish whether the former Albrite Cleaners impacted soil vapor at subject property; to establish whether TPCU property is a source of a commingled soil vapor plume and to further delineate the lateral and vertical extent of the soil vapor plume.

The scope of work as performed included:

1) Updated the site safety plan, obtained drilling permits from the City of San Francisco Department of Public Health (SFDPH) Environmental Health Branch (EHB), obtained monitoring well encroachment and street occupancy permits from the City of San Francisco Department of Public Works (SFDPW), and organized and scheduled field activities, procured equipment and coordinated with utility locating, drilling and analytical laboratory subcontractors;

2) Engaged the services of Underground Service Alert (USA) and a private underground utility locator (GPRS) to locate and clear underground utilities within the proposed investigation area so the potential of accidental damage to underground utilities would be reduced.

3) Retained the services of a C-57 licensed drilling contractor and conducted approximately ten days of field work at the property. Cored asphalt and/or concrete pavement at 20 boring locations: two in the parking lane on the south side of Irving Street adjacent to the former dry cleaners at 2511 Irving (Area B), three in the parking lane on the north side of Irving Street adjacent to the subject property (Area B), six within the subject TPCU building (Area A), five in the subject property driveways, parking lots and loading dock adjacent to the TPCU building and in the western parking lot (Areas A and B), and four within the 2525 Irving Street southern parking lot parcel adjacent to the former dry cleaners at 2511 Irving (Area D).Boring locations area shown in Figure 2.

4) Advanced all 20 borings using Geoprobe-type direct push technology (DPT) methods to approximately 15.5 feet bgs. Collected a total of approximately 66 soil samples: three soil samples per boring at depths of approximately 5, 10, and 15 feet bgs from all onsite and offsite exterior borings, and additional soil samples at approximately 1-1.5 feet bgs in the six interior borings within the subject property TPCU building. Removed drive casings and completed the five DPT borings along Irving Street as temporary single soil vapor probes at 15 feet bgs. Completed the 11 DPT borings on the subject property as permanent twin nested soil vapor probes at 5 and 15 feet bgs, with traffic-rated vault box surface completions. Completed the 4 DPT borings on the 2525 Irving Street southern parking lot parcel as temporary twin nested soil vapor probes at 5 and 15 feet bgs.

5) Collected 35 soil vapor samples from the newly installed probes and four from the existing interior sub-slab vapor pin probes VP-1A, VP-2A, VP-3 and VP-4, in general accordance with *DTSC Advisory – Active Soil Gas Investigations*, July 2015.

6) Contained all soil corings generated during the assessment in 55-gallon drums onsite pending profiling for disposal. Collected one composite soil sample from the waste soil drums.

7) Analyzed 48 selected soil samples (one per boring at 15 feet bgs in the nine offsite borings, three per boring at 5, 10 and 15 feet bgs in the five onsite exterior borings and four per boring at 1, 5, 10 and 15 feet bgs for the six onsite TPCU building interior borings) for PCE and its degradation products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride.

8) Analyzed one four-point composite waste drum soil sample for total petroleum hydrocarbons as gasoline, diesel and motor oil (TPH-g/d/mo) with silica gel cleanup, volatile organic compounds VOCs, polyaromatic hydrocarbons and polynuclear aromatics (PAHs/PNAs) and Title 22 CAM 17 metals.

9) Analyzed 39 soil vapor samples (35 from the newly installed probes and 4 from the existing vapor pin probes) for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride, and the leak detection gas helium.

10) At the completion of drilling and sampling activities, temporary soil vapor probes were removed and borings were backfilled with “neat” cement grout slurry;

11) Maintained samples under chain-of-custody and transported the samples to a California State Water Resources Control Board (SWRCB) Environmental Laboratory Accreditation Program (ELAP) certified analytical laboratory for chemical analyses.

12) Prepared a written *Supplemental Soil & Soil Vapor Assessment Report* describing the field activities, summarizing the laboratory data, presenting investigation findings, and providing conclusions and recommendations.

IV. INVESTIGATIVE ACTIVITIES

A. Health and Safety Plan

AllWest updated the existing site specific health and safety plan (HASP) prior to mobilizing to the site. A tailgate safety meeting was held prior to commencing work. All site personnel were required to review the health and safety plan. The HASP was updated to include SFDPH Covid-19 provisions.

B. Drilling and Encroachment Permit Application

Prior to the start of subsurface activities, a drilling permit was obtained from San Francisco Department of Public Health (SFDPH) Environmental Health Branch (EHB), and a monitoring well encroachment and street occupancy permits were obtained from the City of San Francisco Department of Public Works (SFDPW), for the exploratory soil borings a minimum of 10 working days prior to field activities. Forty eight hours advance notice was given to the SFDPH EHB for inspection of soil sampling and grout sealing. Seventy two hours of advance notice was given to SFDPW for the encroachment and street occupancy permits. The drilling and encroachment permits are included in Appendix B.

C. Underground Utility Locating

To avoid damage to underground utility installations during the course of the subsurface investigation, AllWest contacted USA, an organization for public utility information, on the pending subsurface investigation. USA then notified public and private entities that maintain underground utilities within the site vicinity to locate and marked their installations for field identification.

An underground utility locator, Ground Penetrating Radar Systems, Inc., (GPRS) of San Francisco, California, was retained by AllWest on May 15, 2020 to conduct a magnetometer and ground penetrating radar (GPR) sweep investigation to locate marked and unmarked underground utilities in the vicinity of the proposed boring locations.

D. Geoprobe® DPT Boring Advancement and Soil Sampling

From May 23 to May 28, 2020, a State of California C-57 licensed drilling contractor [Environmental Control Associates, Inc. of Aptos, California (ECA)] advanced 20 borings to a depth of 15.5 feet bgs by a truck-mounted or limited access track-mounted rig using Geoprobe® direct push technology (DPT) continuous coring methods. Boring locations are shown on Figure 2.

Continuous DPT soil coring and sampling methods were conducted in general accordance with standard Geoprobe® DPT soil boring advancement and sampling procedures (Appendix C.). Soil samples for lithologic characterization and potential laboratory analysis were collected in 4 feet long by 1.6-inch diameter PVC liners inside the core barrel sampler which was hydraulically driven to the designated sampling depths. Soil samples for potential laboratory analysis were cut from the PVC liners in 6 inch long sections and sealed with Teflon™ squares and plastic caps.

AllWest collected soil samples for laboratory analysis from 5, 10, and 15 feet bgs from all onsite and offsite exterior borings, and additional soil samples at approximately 1-1.5 feet bgs in the six interior borings within the subject property TPCU building. Indications of soil contamination such as staining, petroleum odors and elevated organic vapor concentrations as measured by a photo-ionization detector (PID) were observed in soil samples

collected from borings SVP-10 and SVP-12 within the subject TPCU building in the vicinity of the former cleaner. Boring logs with sample interval locations and PID measurement data are included in Appendix D.

E. Temporary Soil Vapor Probe Installation

Borings located in areas C (SVP-3, SVP-4, SVP-5, SVP-6, SVP-17) and D (SVP-19A/B, SVP-20A/B, SVP-21A/B, SVP-22A/B) were advanced using Geoprobe® DPT continuous coring equipment to 15.5 feet bgs. The area C borings within the Irving Street right-of-way were completed as temporary single soil vapor probes at 15 feet bgs and the area D borings were completed as temporary nested twin soil vapor probes at 5 and 15 feet bgs (Figure 2). After the DPT borings were advanced to the specified depth, the core barrel probes and drive rods were removed, leaving the boreholes open.

Plastic soil gas probes, ½-inch diameter by 2-inches long and tipped with porous plastic membranes, were inserted into the bottom of each borehole at 5 and/or 15 feet bgs. The probe tips were attached to lengths of 0.25-inch OD NylaFlow™ tubing extending two feet above the top of the asphalt steet or parking lot. pavement A fine sand filter pack was placed into the boreholes annulus from 4.5 to 5.5 and/or 14.5 to 15.5 feet bgs around the probe(s). Non-hydrated granular bentonite was placed from 3.5-4.5 feet bgs and/or 13.5-14.5 feet bgs above the filter pack. Hydrated bentonite chips were used to fill the annular space above the non-hydrated granular bentonite between each sand pack interval and to the top of the pavement. The bentonite was allowed to hydrate and borehole conditions to equalize for 2 hours prior to sampling activities.

Soil gas probe installation procedures were performed in general accordance with guidelines presented in the DTSC *Advisory – Active Soil Gas Investigations*, July, 2015 (DTSC, 2015). Standard Geoprobe® DPT soil gas probe advancement and installation procedures and generic construction diagrams are included in Appendix E. As-built probe construction diagrams are included with the boring logs in Appendix D.

F. Permanent Soil Vapor Probe Cluster Installation

Following soil boring advancement to the designated total depth of 15.5 feet bgs, borings located in area A (SVP-8A/B, SVP-9A/B, SVP-10A/B, SVP-11A/B, SVP-12A/B) and in area B (SVP-7A/B, SVP-14A/B, SVP-15A/B, SVP-16A/B) on the TPCU 2500-2550 Irving Street subject site were completed by ECA as permanent nested twin soil vapor probe clusters with probes at 5 and 15 feet bgs. The permanent nested soil vapor probe cluster locations are shown on Figures 2 and 3.

The vapor probe clusters were constructed with 0.25-inch OD Teflon tubing and ½-inch diameter by 2-inches long plastic or stainless steel probe tips tipped with porous plastic membranes at 5 and 15 feet bgs. Fine sand filter pack was placed in the borehole annulus around each individual nested probe and tubing at depth intervals of approximately 4.5 to 5.5 feet bgs and 14.5 to 15.5 feet bgs.

A one foot thick layer of dry granular bentonite was placed above the lower sand filter pack interval at 14.5 to 13.5 feet bgs. A grout slurry consisting of hydrated Portland cement with 5% bentonite was placed from the top of the granular bentonite at 13.5 feet bgs to 1 foor below the bottom of the next sand pack interval at approximately 5.5 feet bgs, below the next nested probe at 5 feet bgs. A one foot thick layer of dry granular bentonite was placed below and above the upper sand filter pack interval at 6.5 to 5.5 feet bgs and 4.5 to 3.5 feet bgs, with a bentonite/sand/cement grout slurry then placed to 0.5 feet bgs.

A 6-inch diameter traffic-rated vault box was then placed flush with the pavement in a 10-inch diameter cored hole around the top of each borehole and probe tubing, and the annular space sealed with concrete slurry. The bentonite and cement grout were allowed to hydrate and cure, and borehole conditions to equalize, for at least 48 hours prior to sampling activities. As-built vapor probe construction diagrams are included with the boring logs in Appendix D. AllWest soil vapor probe installation and sampling procedures and generic schematic probe diagrams are included in Appendix E.

G. Soil Vapor Sampling

Soil vapor samples were collected from the temporary probes during drilling activities on May 27 and 28, 2020, at least 2 hours following probe installation. Soil vapor samples were collected from the permanent probes on May 30 through June 1, 2020 at least 2 days after completion of drilling and probe installation activities. Soil gas

sampling procedures were in general accordance with the DTSC *Vapor Intrusion Guidance* (DTSC, October 2011) and the DTSC *Advisory - Active Soil Gas Investigations*, (DTSC, July 2015). Soil gas sampling was performed at least five days after any significant (greater than ½-inch) precipitation occurred. Prior to soil gas purging and sample collection, a vacuum leak test of the flow-controller/gauge manifold assembly was performed for a minimum of 5 minutes. Prior to sample collection, approximately three system volumes of soil gas was purged at a flow rate of approximately 200 millimeters per minute (ml/min) from the probes using a dedicated 6-liter capacity SUMMA purge canister. Purge volumes were typically 705 milliliters (ml for 5 feet bgs probes and 840 ml for 15 feet bgs probes.

During purging and gas sample collection, a vacuum leak test of the gas probe annular seal, fittings and flow-controller/gauge manifold assembly was performed using helium as a leak tracer inside an airtight shroud. The helium concentration within the shroud was monitored with a helium gas detection meter with a minimum precision of 0.1% to keep the concentration at approximately 10-20% (or two orders of magnitude above the minimum meter detection limit). The helium tracer gas was infused into the shroud at the required concentration at least 5 minutes prior to purging and sample collection. Following purging and prior to sampling activities, helium concentrations in the purged soil vapor was monitored using a helium gas detection meter connected to the sample tubing via a "T" fitting and 3-way valve, to evaluate potential leakage in the gas probe annular seal.

Following purging of probe SVP-13B on May 31, 2020, helium was detected in the purged soil vapor at a concentration greater than 5% of the shroud ambient helium concentration, indicating the probe annular had failed the leak test. The probe surface seal was repaired with hydrated granular bentonite topped with concrete slurry, and SVP-13B was re-sampled on June 13, 2020 approximately a week after the repair. Helium was not detected in the purged soil vapor prior to sampling, indicating the annular seal had been successfully repaired, and a sample was collected. However, due to a laboratory log-in error, the sample was not analyzed.

Following purging, flow rates of approximately 200 ml/min were used to fill the 1-liter capacity SUMMA soil gas sample canisters. The canisters were filled to approximately 80% of capacity, with approximately 5 inches of mercury (in Hg) vacuum remaining. During post-purging and sampling monitoring, helium concentrations were not detected in soil gas from the downhole probe, indicating no vacuum leakage from the surface seal. All pertinent field observations, pressure, times and readings were recorded. Sample containers were labeled, placed in a dark container and transported under chain-of-custody control to the analytical laboratory. Standard soil gas sampling procedures and a manifold system schematic diagram are included in Appendix E. Soil gas sampling field logs are included in Appendix F.

H. Borehole Backfilling

At the completion of drilling, installation and sampling activities of the temporary soil vapor probes, and removal of all rods, probes, samplers, and other equipment, the borings were backfilled with a "neat" Portland Type I or II cement grout slurry to ground surface level. The asphalt area over the exterior parking lot borings was restored to match their previous condition as closely as possible.

I. Investigative Derived Waste Containment and Disposal

All investigative derived wastes, consisting of soil (unused sample intervals) were stored at the property in one 55-gallon drum, awaiting test results to determine the proper disposal method.

J. Sample Preservation, Storage, Handling and Chain-Of-Custody Procedures

To prevent the loss of constituents of interest, all soil samples were preserved by storing in an ice chest cooled to 4ºC with crushed ice immediately after their collection and during transportation to the laboratory. After filling and closing the sample valve, all SUMMA canisters were removed from the manifold, labeled with sampling information, including initial and final vacuum pressures, placed in a dark container and transported under chain-of-custody to the analytical laboratory. The standard chain-of-custody protocols will be followed through all stages of sample handling.

All samples collected for this project were transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for

analysis, initial and final SUMMA canister vacuum pressures, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document will also include the name of person receiving the samples, and date and time samples were received. Laboratory sample chain-of-custody documents are included in Appendix G.

V. ASSESSMENT FINDINGS AND DISCUSSION

A. Subsurface Conditions

Soil

Soils encountered during this subsurface investigation consisted of fine-grained, poorly-graded sands with fine angular gravel fragments and asphalt debris indicative of fill material from beneath surface pavement/ground surface to approximately 4 to 5 feet bgs, underlain by fine-grained poorly-graded sand to the maximum explored depth of approximately 15.5 feet bgs. Angular gravel fragments and wood debris indicative of fill material was noted to approximately 13 feet bgs in boring SVP-12. Groundwater was not encountered. Boring logs are provided in Appendix D.

B. Environmental Screening Levels

To assess if the identified constituents of concern (COCs) in soil pose a risk to human health and the environment, AllWest compared analytical data generated during this investigation to Environmental Screening Levels (ESLs) for residential and commercial/industrial land use. The ESLs are compiled by the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) in User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final – January 24, 2019, Revision 2 (updated July 25, 2020).

Under most circumstances, the presence of a chemical at a concentration below the corresponding ESL is presumed to not pose a significant risk to human health or the environment. The ESLs are conservative in nature. Concentrations of chemicals above ESLs do not necessary indicate that impacts to human health or the environment exist, or that remedial measures are required; only that further evaluation is required. ESLs are not intended to be used as a "clean-up" standard.

Tier 1 ESLs are based on a generic conceptual site model designed for use at most sites; assuming residential land use, potential discharge to surface water and groundwater as a potential drinking water resource. Tier 1 ESLs used in this investigation were established using Table S-1 - Direct Exposure Human Health Risk Levels, Table S-2 – Terrestrial Habitat Levels, Table S-3 – Leaching to Groundwater Levels, Table S-4 - Gross Contamination Levels, Table S-5 - Odor Nuisance Levels, or Table SG-1 - Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels (RWQCB, 2019).

Tier 2 commercial/industrial ESLs used in this investigation were established using Table S-1 - Direct Exposure Human Health Risk Levels, Table S-2 – Terrestrial Habitat Levels, Table S-3 – Leaching to Groundwater Levels, Table S-4 - Gross Contamination Levels, Table S-5 - Odor Nuisance Levels, Table SG-1 - Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, and the site-specific Tier 2 Interactive Tool, Table T2-1: Tier 2 ESL Input and Output (RWQCB, 2019).

The Tier 2 ESLs for the subject site were established with the following assumptions: current commercial/industrial property use, a 'fine to coarse' soil type, deep groundwater (>10 feet bgs) which is a potential drinking water resource, and shallow direct exposure, soil depths (≤10 ft bgs). The SFRWQCB and the City of San Francisco Public Utilities Commission (SFPUC) considers groundwater resources within the Westside A Groundwater Basin to be a beneficial resource for potential municipal or domestic use. The nearest surface water is Elk Glen Lake and Mallard Lake in Golden Gate Park, approximately ¼ mile north-northwest of the subject site. Therefore, aquatic habitat goal-derived ESLs are applicable to the subject site.

Since the majority of the subject property is either asphalt paved or occupied by a building with a concrete floor slab, with a minor amount of landscaped area, the minimally vegetated area terrestrial habitat goal-derived ESLs are applicable to the subject site.

C. Soil Sample Analytical Data and Screening Levels

AllWest collected 66 soil samples from all borings during the investigation. Forty eight selected soil samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a California certified independent analytical laboratory. All samples were analyzed for PCE and breakdown constituents: TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride via SW 8260B.

- Soil samples collected at depth intervals of 1-1.5 feet bgs, 4.5-5 feet bgs, 9.5-10 feet bgs and 14.5-15 feet bgs from borings SVP-8, SVP-9, SVP-10, SVP-12, SVP-13 and SVP-18 within TPCU building (Area A) were analyzed.

- Soil samples collected from borings SVP-7, SVP-11, SVP-14, SVP-15 and SVP-16 at depth intervals of 4.5-5 feet, 9.5-10 feet bgs and 14.5-15 feet bgs at locations within the 2550 Irving Street TPCU client parking lot (Area B) and loading dock (Area A) were analyzed.

- Soil samples were collected from borings SVP-3, SVP-4, SVP-5, SVP-6 and SVP-17 at 4.5-5 feet, 9.5-10 feet and 14.5-15 feet bgs, located within Irving Street (Area C).

- Soil samples collected from borings SVP-19, SVP-20, SVP-21 and SVP 22 at 4.5-5 feet, 9.5-10 feet, and 14.5-15 feet bgs at locations within the 2525 Irving Street TPCU employee parking lot (Area D) were analyzed.

- PCE was detected at 0.052 mg/kg in a soil sample from boring SVP-12 in TCPU building at 4.5-5 feet bgs. The Tier 1 soil leaching ESL for PCE where groundwater is a drinking water resource is 0.080 mg/kg. The Tier 2 Commercial Industrial Direct Exposure ESL for PCE is 2.7 mg/kg. The detected PCE concentration does not exceed either ESL.

- No other COCs were detected in any other soil samples analyzed during this investigation.

Soil sample analytical results are summarized in Table 1. Laboratory analytical reports are included in Appendix G. Soil analytical results from previous investigations are summarized in Appendix A, Table A-1.

D. Soil Vapor Analytical Data and Screening Levels

All soil vapor sample analysis was performed California state certified independent analytical laboratory, Eurofins/Calscience, Inc. (ECI) of Garden Grove, California. Of 39 soil vapor samples collected, 38 samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE, vinyl chloride by EPA Method TO-15 and the leak detection gas helium by ASTM D1946. One soil vapor sample, from SVP-13B at 15 feet bgs, was not analyzed due to a laboratory error.

- PCE was detected in all 38 analyzed soil vapor samples at concentrations ranging from 120 micrograms per cubic meter (µg/m$^{3)}$ to 2,500 µg/m^3. The applicable commercial/industrial SFRWQCB PCE ESL for vapor intrusion is 67 µg/m^3. The applicable PCE residential ESL for vapor intrusion is 15 µg/m^3. No other COCs were detected in soil vapor samples.

- PCE concentrations diminish across the study area to the north from Irving Street (Area C) and from the TPCU building (Area A)to the west toward 27th Avenue (Area B). The highest PCE concentrations are at the Irving Street sample locations (2,500 µg/m^3 at SVP-3 on the north side of Irving Street and 2,500 µg/m^3 at SVP-3 in front of the former Albrite cleaners) and the lowest concentrations are at the north TPCU property boundary (SVP-16-A/B, SVP 15-A/B, SVP 10A/B and SVP-11) where concentrations ranged from 120 to 620 µg/m^3 for 5 feet bgs and 220 to 650 µg/m^3 at 15 ft bgs.

- PCE soil vapor concentrations from samples collected in the same locations or vicinities at depths of 0.5, 5 and 15 feet bgs are within an order of magnitude of each other. There do not appear to be any consistent depth-related trends or correlations in PCE concentrations from the available data.

- Although PCE was detected in soil sample SVP-12 at 4.5 feet, the soil vapor PCE concentration at this location is 1,500 µg/m^3 at 5 feet bgs and 1,600 µg/m^3 at 15 feet bgs, which is lower than the

2,500 µg/m^3 at 15 feet bgs detected in SVP-5 within Irving Street to the south. A significant PCE release from the former onsite cleaner at this location should have resulted in higher PCE soil vapor concentration. It should be noted that the former onsite cleaners was in operation circa 1928 to 1949, and has not been operating in more than 70 years, so any releases may likely have attenuated..

- Soil vapor PCE concentrations within the TPCU extended building envelope (Area A) at 15 feet bgs ranged from 280 to 1,700 µg/m^3 with the most elevated 15 foot bgs PCE concentration at SVP-8B. At 5 feet bgs PCE concentrations ranged from 209 to 1,500 µg/m^3 with the most elevated concentration at SVP-12A.

- AllWest suggests there are primary and secondary sources for PCE vapor contamination within TPCU building. Based on PCE data across the project site the former Albrite Cleaners is the likely primary source while the former cleaner that occupied the subject property before TPCU developed their building is the secondary source.

- PCE concentrations in the TPCU client parking lot (Area B) at 15 feet bgs ranged from 220 to 540 µg/m^3. At 5 feet bgs PCE concentrations ranged from 140 to 590 µg/m^3. Based on proximity to the 2511 Irving property and laterals extending to the sewer lines within Irving Street, the likely source for this contamination is the former Albrite Cleaners. The current main sewer line is at a depth of approximately 9.2 to 10.7 feet bgs. According to dates on the SFDPW sewer line plans, the main sewer line in Irving Street was apparently replaced some time after May 2015, after the Albright Cleaners ceased operations. Albright Cleaners was in operation for approximately 65 years from circa 1949 to 2014.

- Area C soil vapor probes were temporary installations within the Irving Street right-of-way with vapor samples collected at 15 feet bgs, below the depth of the adjacent sewer line. PCE concentrations at these locations, north of the former Albrite Cleaners but south of TPCU building, ranged between 1,000 and 2,500 µg/m^3. Based on proximity to 2511 Irving Street and to sewer lines beneath the street, the likely source for this contamination is the former Albrite Cleaners.

- Area D (employee parking lot) PCE soil vapor concentrations at 15 feet bgs ranged between 200 and 1,800 µg/m^3. At 5 feet bgs soil vapor sample concentrations ranged between 390 and 1,300 µg/m^3. Based on proximity, the likely source for this contamination is the former Albrite Cleaner.

- No other COCs were detected in the soil vapor samples.

Soil vapor sample analytical results are summarized in Table 2 and Figure 2, and laboratory analytical reports are included in Appendix G. Soil vapor analytical results from previous investigations are summarized in Figure 3 and Appendix A, Table A-2.

E. Analytical Laboratory QA/QC

A review of laboratory internal quality assurance/quality control (QA/QC) report indicates the method blank and sample spike data for all analyses were within the laboratory recovery limits, except for benzene, toluene and ethylbenzene spike and surrogate recoveries outside of acceptance limits. The samples were also analyzed within the acceptable EPA holding times. Despite the spike and surrogate recovery issues, the data from McCampbell Analytical and Eurofins/CalScience are considered to be of good quality. Laboratory QA/QC reports and chain-of-custody records are included in Appendix F.

VI. CONCLUSIONS AND RECOMMENDATIONS

AllWest concludes the soil vapor within the TPCU 2550 Irving Street parcel and TPCU parking lot at 2525 Irving Street have been impacted with PCE likely originating from the former Albrite dry cleaner at 2511 Irving Street, which likely extends off-site north of the TPCU building. Based on the PCE detected in a soil sample collected from within the TPCU building, AllWest also concludes the subject property has contributed to the soil vapor plume to an unknown but relatively insignificant extent.

VII. LIMITATIONS

The work described in this report was performed in accordance with the Environmental Consulting Agreement between The Police Credit Union (Client) and AllWest Environmental, Inc, dated May 2020. AllWest has prepared this report for the exclusive use of the Client for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representations, either expressed or implied are made as to the professional advice offered. The services provided for the Client were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed, the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest is not responsible for the accuracy of the test data from an independent laboratory, or for any analyte quantities falling below the recognized standard detection limits or for the method utilized by the independent laboratories.

Background information that AllWest has used in preparing this report, including but not limited to previous field measurements, analytical results, site plans, and other data, has been furnished to AllWest by the Client, its previous consultants, and/or third parties. AllWest has relied on this information as furnished. AllWest is not responsible, for nor has it confirmed, the accuracy of this information.

VIII. REFERENCES

AllWest, *Environmental Site Assessment, 2525 & 2550 Irving Street, San Francisco, California 94122*, February 8, 2019.

AllWest, *Phase II Subsurface Investigation Report, 2550 Irving Street, San Francisco, California 94122*, June 21, 2019.

AllWest, *Phase II Subsurface Investigation Report, 2500-2550 Irving Street, San Francisco, California 94122*, August 19, 2019

AllWest, Phase *II Subsurface Investigation Report, 2525 Irving Street, San Francisco, California 94122*, August 19, 2019.

AllWest Environmental, Inc. (AllWest), *Indoor Air Quality Monitoring Report, 2550 Irving Street, San Francisco, California 94122*, August 29, 2019.

AllWest Environmental, Inc. (AllWest), *Second 2020 Semiannual Indoor Air Quality Monitoring Report, Police Credit Union, 2550 Irving Street, San Francisco, California 94122*, January 21, 2019.

AllWest Environmental, Inc. (AllWest), *First Quarter 2020 Indoor Air Quality Monitoring Report, Police Credit Union, 2550 Irving Street, San Francisco, California 94122*, February 13, 2020.

Duverge, Dylan Jacques, San Francisco State University, *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, December 2011.

Lawrence Berkeley National Laboratory, *Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory, Table 3: Summary Statistics for Background Data Sets After Removal of Outliers*, April, 2009.

State of California Department of Toxics Substance Control (DTSC) and California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), *Advisory – Active Soil vapor Investigations*. July 2015.

DTSC, *Frequently Asked Questions, 2012 Advisory – Active Soil Gas Investigations (ASGI)*, March 2013.

DTSC, *Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011.

State of California Department of Water Resources (DWR), *California's Groundwater, Bulletin 118*, updated 2003.

State of California Environmental Protection Agency (Cal EPA), *Drilling, Coring, Sampling and Logging at Hazardous Substance Release Sites.* Guidance Manual for Ground Water Investigations, July 1995.

Cal EPA, *Reporting Hydrogeologic Characterization Data from Hazardous Substance Release Sites.* Guidance Manual for Ground Water Investigations, July 1995.

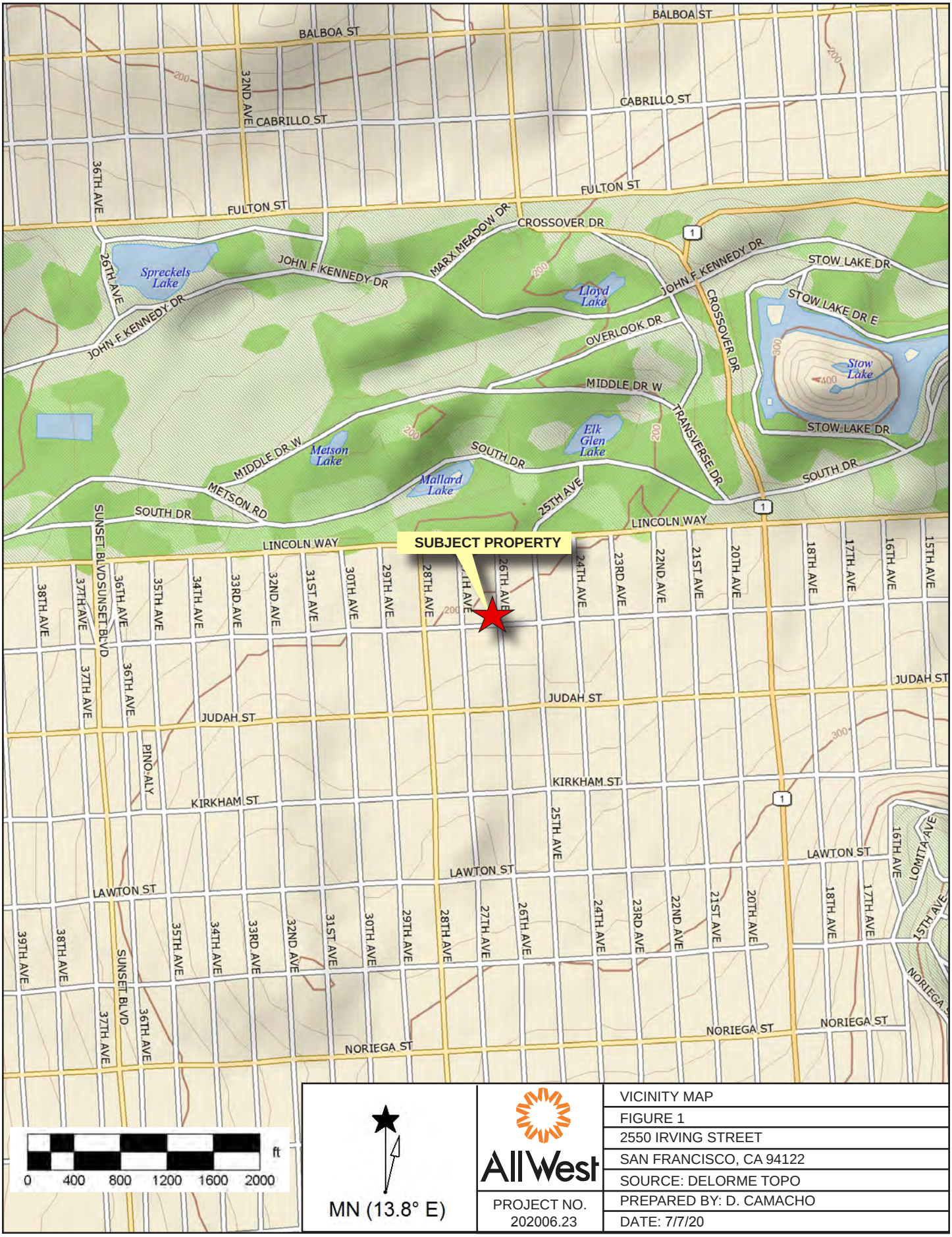
State of California San Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB), *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)*, Interim Final – January 24, 2019.

SFRWQCB, *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan),* May 4, 2017.

FIGURES

DELORME

Topo USA® 8



AllWest

VICINITY MAP	
FIGURE 1	
2550 IRVING STREET	
SAN FRANCISCO, CA 94122	
SOURCE: DELORME TOPO	
PREPARED BY: D. CAMACHO	
PROJECT NO. 202006.23	DATE: 7/7/20

C:\Drawing Files\AllWest Environmental\202006.23\202006.23 Fig 2, 2020 SV Sample Data WSV Probes - 06/25/2020

VP-2A	
Date	5/30/20
Depth	0.5'
PCE	710

VP-3	
Date	5/30/20
Depth	0.5'
PCE	370

SVP-10A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	320	280

SVP-15A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	120	240

SVP-13A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	290	NA

SVP-16A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	140	220

SVP-14A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	590	540

SVP-7A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	470	340

SVP-11A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	630	650

SVP-12A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	1,500	1,600

SVP-18A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,200	1,000

VP-1A	
Date	5/30/20
Depth	0.5'
PCE	1,100

SVP-9A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,300

VP-4	
Date	5/30/20
Depth	0.5'
PCE	960

SVP-8A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,700

SVP-17	
Date	5/28/20
Depth	15'
PCE	1,700

SVP-4	
Date	5/28/20
Depth	15'
PCE	2,200

SVP-3	
Date	5/28/20
Depth	15'
PCE	2,500

SVP-19A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	570	990

SVP-21A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	390	200

SVP-6	
Date	5/28/20
Depth	15'
PCE	1,000

SVP-5	
Date	5/28/20
Depth	15'
PCE	2,500

SVP-22A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,800

SVP-20A/B		
Date	5/27/20	
Depth	A - 5'	B - 15'
PCE	1,300	910

RESIDENTIAL PROPERTIES (26th STREET)

RESIDENTIAL PROPERTIES (27th STREET)

CREDIT UNION PARCEL

FORMER 2550 IRVING GAS STATION

FORMER 2520 CLEANERS 1929-1948

FORMER GAS STATION BUILDINGS

FORMER 2500 IRVING GAS STATION

IRVING STREET

POTENTIAL FORMER USTs/PUMP ISLAND

COMMERCIAL WITH RESIDENTIAL ABOVE (IRVING STREET)

PARKING LOT PARCELS 2525 IRVING STREET

FORMER DRY CLEANER (2511 IRVING STREET)

BANK (2501 IRVING STREET)

RESIDENTIAL PROPERTIES (27th STREET)

RESIDENTIAL PROPERTIES (26th STREET)

27th AVENUE

26th AVENUE

STOP

N

LEGEND

- B-15 — Temporary Soil Vapor Probe (Path Forward, 12-14-12/15/19)
- VP-4 — Sub-Slab Vapor Pin (AllWest, VP-1 and VP-2, 5/21/19, VP-1A, VP-2A, VP-3 and VP-4, 7/17/19)
- SVP-5A/B — Geoprobe Temporary Soil Vapor Probe Cluster to 5 & 15 Feet bgs (AllWest, 5/27/20)
- SVP-8A/B — Geoprobe Permanent Soil Vapor Cluster to 5 & 15 Feet bgs (AllWest, 5/23-5/24/20)
- SVP-1 — Geoprobe Boring With Temporary Soil Vapor Probe to 5-Feet bgs (AllWest, 7/17/19)
- SVP-3 — Geoprobe Temporary Soil Vapor Probe to 15 Feet bgs (AllWest, 5/28/20)

AREA A
AREA B
AREA C
AREA D

AllWest designates TPCU building (including loading dock) as Area A, TPCU client parking lot and employee lunch area as Area B, sample locations on the south and north side of Irving Street as Area C and the TPCU employee parking lot as Area D

- Approximate Property Boundaries
- Sewer and Storm Drain Lines
- MH — Manhole
- 2020 Soil Vapor Sample Data

Notes:
- NS - Not Sampled
- NA - Not Analyzed (lab error)
- PCE - Tetrachloroethene
- PCE Values in micrograms per cubic meter ($\mu g/m^3$)

- Base Map Sources:
  City and County of San Francisco, Department of Public Works
  Google Earth

0 50 100
APPROXIMATE SCALE IN FEET

AllWest

FIGURE 2

2020 SOIL VAPOR SAMPLE DATA WITH SOIL VAPOR PROBES

2500-2525 Irving Street

San Francisco, California

PROJECT NO: 202006.23

SOURCE: AllWest

DRAWN BY: CM (06/25/2020)

C:\Drawing Files\AllWest Environmental\202006.23\202006.23 Fig 3, 2019 & 2020 SV Sample Data WSV Probes - 06/25/2020

B-15	12/14/19	
Depth	8'	18'
Chloroform	5.4	ND(<5.7)
PCE	48	380

SVP-13A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	290	NA

B-14	12/14/19	
Depth	5'	15'
Chloroform	5.4	ND(<5.7)
PCE	100	590

SVP-16A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	140	220

SVP-14A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	590	540

SVP-7A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	470	340

B-13	12/14/19	
Depth	5'	15'
Chloroform	<5.9	9.2
PCE	380	790

SVP-6	
Date	5/28/20
Depth	15'
PCE	1,000

SVP-5	
Date	5/28/20
Depth	15'
PCE	2,500

SVP-22A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,800

SVP-20A/B		
Date	5/27/20	
Depth	A - 5'	B - 15'
PCE	1,300	910

VP-2A		
Date	7/19/19	5/30/20
Depth	0.5'	0.5'
PCE	650	710

VP-3		
Date	7/19/19	5/30/20
Depth	0.5'	0.5'
PCE	270	370

SVP-15A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	120	240

SVP-10A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	320	280

B-16	12/15/19
Depth	4'
Chloroform	ND(<5.6)
PCE	240

VP-2	
Date	5/21/19
Depth	0.5'
PCE	490

B-17	12/15/19	
Depth	7'	17'
Chloroform	7.9	ND(<5.2)
PCE	520	900

SVP-11A/B		
Date	6/01/20	
Depth	A - 5'	B - 15'
PCE	630	650

SVP-12A/B		
Date	5/31/20	
Depth	A - 5'	B - 15'
PCE	1,500	1,600

SVP-18A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,200	1,000

VP-1A		
Date	7/19/19	5/30/20
Depth	0.5'	0.5'
PCE	1,100	1,100

VP-1	
Date	5/21/19
Depth	0.5'
PCE	530

SVP-9A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,300

VP-4		
Date	7/19/19	5/30/20
Depth	0.5'	0.5'
PCE	660	960

SVP-8A/B		
Date	5/30/20	
Depth	A - 5'	B - 15'
PCE	1,300	1,700

SVP-17	
Date	5/28/20
Depth	15'
PCE	1,700

SVP-4	
Date	5/28/20
Depth	15'
PCE	2,200

SVP-3	
Date	5/28/20
Depth	15'
PCE	2,500

SVP-1	
Date	7/17/19
Depth	5'
PCE	1,800

SVP-19A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	570	990

SVP-2	
Date	7/17/19
Depth	5'
PCE	1,300

SVP-21A/B		
Date	5/28/20	
Depth	A - 5'	B - 15'
PCE	390	200

RESIDENTIAL PROPERTIES (27th STREET)

RESIDENTIAL PROPERTIES (26th STREET)

CREDIT UNION PARCEL

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PARKING LOT PARCELS 2525 IRVING STREET

FORMER DRY CLEANER (2511 IRVING STREET)

BANK (2501 IRVING STREET)

RESIDENTIAL PROPERTIES (27th STREET)

RESIDENTIAL PROPERTIES (26th STREET)

27th AVENUE

26th AVENUE

STOP

N

LEGEND

- B-15 ▲ Temporary Soil Vapor Probe (Path Forward, 12-14-12/15/19)
- VP-4 ⊙ Sub-Slab Vapor Pin (AllWest, VP-1 and VP-2, 5/21/19, VP-1A, VP-2A, VP-3 and VP-4, 7/17/19)
- SVP-5A/B ▲ Geoprobe Temporary Soil Vapor Probe Cluster to 5 & 15 Feet bgs (AllWest, 5/27/20)
- SVP-8A/B ▲ Geoprobe Permanent Soil Vapor Cluster to 5 & 15 Feet bgs (AllWest, 5/23-5/24/20)
- SVP-1 ▲ Geoprobe Boring With Temporary Soil Vapor Probe to 5-Feet bgs (AllWest, 7/17/19)
- SVP-3 ▲ Geoprobe Temporary Soil Vapor Probe to 15 Feet bgs (AllWest, 5/28/20)

AREA A
AREA B
AREA C
AREA D

AllWest designates TPCU building (including loading dock) as Area A, TPCU client parking lot and employee lunch area as Area B, sample locations on the south and north side of Irving Street as Area C and the TPCU employee parking lot as Area D

- Approximate Property Boundaries
- Sewer and Storm Drain Lines
- (MH) Manhole
- 2019 Soil Vapor Sample Data
- 2020 Soil Vapor Sample Data

Notes:
- NS - Not Sampled
- NA - Not Analyzed (lab error)
- PCE - Tetrachloroethene
- PCE Values in micrograms per cubic meter ($\mu g/m^3$)

- Base Map Sources:
  City and County of San Francisco, Department of Public Works
  Google Earth

0 50 100
APPROXIMATE SCALE IN FEET

AllWest

FIGURE 3

2019 AND 2020 SOIL VAPOR SAMPLE DATA WITH SOIL VAPOR PROBES

2500-2525 Irving Street

San Francisco, California

PROJECT NO: 202006.23

SOURCE: AllWest

DRAWN BY: CM (06/25/2020)

TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
2525 & 2550 Irving Street
San Francisco, California
AllWest Project No. 202006.23

Sample Name and Depth in feet bgs	Date Sampled	cis-1,2-Dichloroethene (cis-1,2-DCE) (mg/kg)	trans-1,2-Dichloroethene (trans-1,2-DCE) (mg/kg)	Tetrachloroethane (PCE) (mg/kg)	Trichloroethene (TCE) (mg/kg)	Vinyl Chloride (mg/kg)
SVP-3 (14.5-15)	5/28/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-4 (14.5-15)	5/28/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-5 (14.5-15)	5/28/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-6 (14.5-15)	5/28/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-7 (4.5-5)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-7 (9.5-10)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-7 (14.5-15)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-8 (1-1.5)	5/24/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-8 (4.5-5)	5/24/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-8 (9.5-10)	5/24/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-8 (14.5-15)	5/24/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-9 (1-1.5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-9 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-9 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-9 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-10 (1-1.5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-10 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-10 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-10 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-11 (4.5-5)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-11 (9.5-10)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-11 (14.5-15)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-12 (1-1.5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-12 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	0.052	ND (<0.0050)	ND (<0.0050)
SVP-12 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
2525 & 2550 Irving Street
San Francisco, California
AllWest Project No. 202006.23

SVP-12 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-13 (1-1.5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-13 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-13 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-13 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-14 (4.5-5)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-14 (9.5-10)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-14 (14.5-15)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-15 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-15 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-15 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-16 (4.5-5)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-16 (9.5-10)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-16 (14.5-15)	5/26/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-17 (14.5-15)	5/28/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-18 (1-1.5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-18 (4.5-5)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-18 (9.5-10)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-18 (14.5-15)	5/23/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-19 (14.5-15)	5/27/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-20 (14.5-15)	5/27/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-21 (14.5-15)	5/27/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SVP-22 (14.5-15)	5/27/2020	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
SFRWQCB Tier 1 Soil Leaching ESL - Groundwater is Drinking Water Resource		**0.19 (SL)**	**0.65 (SL)**	**0.080 (SL)**	**0.085 (SL)**	**0.0015 (SL)**
SFRWQCB Tier 2 Commercial/Industrial Direct Exposure ESL		**85 (DE)**	**600 (DE)**	**2.7 (DE)**	**6.1 (DE)**	**0.15 (DE)**

Notes: All samples analyzed at McCampbell Analytical, Inc., Pittsburg, California by EPA Method 8260B.
All results are reported in milligrams per kilogram (mg/kg)

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
2525 & 2550 Irving Street
San Francisco, California
AllWest Project No. 202006.23

bgs = below ground surface

Concentrations exceeding the applicable ESLs are indicated in **bold font**

ND - Not Detected above laboratory reporting limit (listed in paranthesis)

San Francisco Bay Regional Water Quality Control Board (SFRWQCB), User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), January 2019.

Tier 1 Environmental Screening Levels (ESLs) for residential land use and soil disposal acceptance profiling were established using the Tier 1 ESL Summary Table based on a generic conceptual site model designed for use at most sites. These ESLs were established with the following assumptions: Land Use = Residential, Groundwater Use = Drinking Water Resource, MCL Priority over RIsk-based Levels = Yes, Discharge to Surface Water = Saltwater & Freshwater, Vegetation Level = Substantial, Soil Exposure Depths = Shallow (≤10 ft bgs).

Tier 2 Environmental Screening Levels (ESLs) forcommercial/industrial land use where groundwater IS a potential drinking water resource were established using the site-specific Tier 2 Interactive Tool, Table T2-1: Tier 2 ESL Input and Output. These ESLs were established with the following assumptions: Commercial property use, minimal vegetation level, drinking water resource groundwater use, discharge to surface water, and shallow soil depths (≤10 ft bgs) for direct exposure.

DE - Direct Exposure (*Table S-1 Direct Exposure Human Health Risk Levels*)

SL = Soil Leaching (*Table S-3 - Leaching to Groundwater Levels, Drinking Water*)

Table 2
Summary of Soil Vapor Analytical Data
The Police Credit Union
2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

Probe & Sample ID Number	Date	Sample Depth feet bgs	Probe Type	Location	cis-1,2-Dichloroethene (cis-1,2-DCE) µg/m^3	trans-1,2-Dichloroethene (trans-1,2-DCE) µg/m^3	Tetrachloroethene (PCE) µg/m^3	Trichloroethene (TCE) µg/m^3	Vinyl Chloride µg/m^3	Helium** (Leak detection gas) (% v/v)
VP-1A	5/30/2020	0.5	SPVP	Area A - Inside PCU	ND (<2.3)	ND (<2.3)	**1,100**	ND (<3.1)	ND (<1.5)	ND (<0.025)
VP-2A	5/31/2020	0.5	SPVP	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**710**	ND (<2.8)	ND (<1.3)	ND (<0.025)
VP-3	5/30/2020	0.5	SPVP	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**370**	ND (<2.7)	ND (<1.3)	ND (<0.025)
VP-4	5/30/2020	0.5	SPVP	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**960**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-3	5/28/2020	15	T	Area C - S. side of Irving Street	ND (<9.9)	ND (<9.9)	**2,500**	ND (<13)	ND (<6.4)	ND (<0.025)
SVP-4	5/28/2020	15	T	Area C - S. side of Irving Street	ND (<9.9)	ND (<9.9)	**2,200**	ND (<13)	ND (<6.4)	ND (<0.025)
SVP-5	5/28/2020	15	T	Area C - S. side of Irving Street	ND (<9.9)	ND (<9.9)	**2,500**	ND (<13)	ND (<6.4)	ND (<0.025)
SVP-6	5/28/2020	15	T	Area C - S. side of Irving Street	ND (<6.3)	ND (<6.3)	**1,000**	ND (<8.6)	ND (<4.1)	ND (<0.025)
SVP-7A	6/1/2020	5	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**470**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-7B	6/1/2020	15	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**340**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-8A	5/30/2020	5	PNC	Area A - Inside PCU	ND (<2.2)	ND (<2.2)	**1,300**	ND (<3.0)	ND (<1.4)	ND (<0.025)
SVP-8B	5/30/2020	15	PNC	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**1,700**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-9A	5/30/2020	5	PNC	Area A - Inside PCU	ND (<2.1)	ND (<2.1)	**1,300**	ND (<2.8)	ND (<1.3)	ND (<0.025)
SVP-9B	5/30/2020	15	PNC	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**1,300**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-10A	5/31/2020	5	PNC	Area A - Inside PCU	ND (<2.1)	ND (<2.1)	**320**	ND (<2.8)	ND (<1.4)	ND (<0.025)
SVP-10B	5/31/2020	15	PNC	Area A - Inside PCU	ND (<3.8)	ND (<3.8)	**280**	ND (<5.2)	ND (<2.5)	ND (<0.025)
SVP-11A	6/1/2020	5	PNC	Area A- PCU Loading Dock	ND (<2.0)	ND (<2.0)	**630**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-11B	6/1/2020	15	PNC	Area A- PCU Loading Dock	ND (<2.0)	ND (<2.0)	**650**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-12A	5/31/2020	5	PNC	Area A - Inside PCU	ND (<6.1)	ND (<6.1)	**1,500**	ND (<8.3)	ND (<3.9)	ND (<0.025)
SVP-12B	5/31/2020	15	PNC	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**1,600**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-13A	5/31/2020	5	PNC	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**290**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-13B	6/13/2020	15	PNC	Area A - Inside PCU	NA	NA	NA	NA	NA	NA
SVP-14A	6/1/2020	5	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**590**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-14B	6/1/2020	15	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**540**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-15A	6/1/2020	5	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**120**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-15B	6/1/2020	15	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**240**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-16A	6/1/2020	5	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**140**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-16B	6/1/2020	15	PNC	Area B - PCU Parking Lot	ND (<2.0)	ND (<2.0)	**220**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-17	5/28/2020	15	T	Area C - N. side of Irving Street	ND (<9.9)	ND (<9.9)	**1,700**	ND (<13)	ND (<6.4)	ND (<0.025)
SVP-18A	5/30/2020	5	PNC	Area A - Inside PCU	ND (<2.1)	ND (<2.1)	**1,200**	ND (<2.9)	ND (<1.4)	ND (<0.025)
SVP-18B	5/30/2020	15	PNC	Area A - Inside PCU	ND (<2.0)	ND (<2.0)	**1,000**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-19A	5/28/2020	5	TNC	Area D - Southern Parking Lot	ND (<2.0)	ND (<2.0)	**570**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-19B	5/28/2020	15	TNC	Area D - Southern Parking Lot	ND (<5.0)	ND (<5.0)	**990**	ND (<6.7)	ND (<3.2)	ND (<0.025)
SVP-20A	5/27/2020	5	TNC	Area D - Southern Parking Lot	ND (<7.9)	ND (<7.9)	**1,300**	ND (<11)	ND (<5.1)	ND (<0.025)
SVP-20B	5/27/2020	15	TNC	Area D - Southern Parking Lot	ND (<4.0)	ND (<4.0)	**910**	ND (<5.4)	ND (<2.6)	ND (<0.025)
SVP-21A	5/28/2020	5	TNC	Area D - Southern Parking Lot	ND (<2.0)	ND (<2.0)	**390**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-21B	5/28/2020	15	TNC	Area D - Southern Parking Lot	ND (<2.0)	ND (<2.0)	**200**	ND (<2.7)	ND (<1.3)	ND (<0.025)
SVP-22A	5/28/2020	5	TNC	Area D - Southern Parking Lot	ND (<6.3)	ND (<6.3)	**1,300**	ND (<8.6)	ND (<4.1)	ND (<0.025)
SVP-22B	5/28/2020	15	TNC	Area D - Southern Parking Lot	ND (<9.9)	ND (<9.9)	**1,800**	ND (<13)	ND (<6.4)	ND (<0.025)

Table 2
Summary of Soil Vapor Analytical Data
The Police Credit Union
2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

Probe & Sample ID Number	Date	Sample Depth feet bgs	Probe Type	Location	cis-1,2-Dichloroethene (cis-1,2-DCE) µg/m^3	trans-1,2-Dichloroethene (trans-1,2-DCE) µg/m^3	Tetrachloroethene (PCE) µg/m^3	Trichloroethene (TCE) µg/m^3	Vinyl Chloride µg/m^3	Helium** (Leak detection gas) (% v/v)
SFRWQCB ESL	**Commercial Soil Gas**				**1,200 VI**	**12,000 VI**	**67 VI**	**100 VI**	**5.2 VI**	**NE**
SFRWQCB ESL	**Residential Soil Gas**				**280 VI**	**2,800 VI**	**15 VI**	**18 VI**	**0.32 VI**	**NE**

Notes:

Samples analyzed for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride by EPA Method TO-15, Eurofins/Calscience, Inc., Garden Grove, CA
Helium by analytical method ASTM D1946, Eurofins/Calscience, Inc., Garden Grove, CA

µg/m^3 = Micrograms per cubic meter = 0.001 micrograms per liter
bgs = below ground surface
% v/v = percent by volume
ND = Not detected at or above laboratory reporting limit
NE = Not Established
VI = Vapor Intrusion Human Health Risk Screening Level
NS = Not Sampled; No Recovery
NA = Not Analyzed due to laboratory error
Bold Font = Detected values exceed regulatory screening levels.
***** = LCS or LCSD is outside acceptance limits.
****** = Leak detection gas or agent

Locations:
Southern parking lot is located at 2525 Irving Street
Police Credit Union (PCU) building, parking lot and loading dock are located at 2550 Irving Street
The five sample locations along Irving Street were located within the parking lanes

AMBIENT = Helium leak detection gas shroud ambient air sample.
T = Temporary soil vapor probe (single), one time sampling event.
TNC = Temporary soil vapor probe (nested cluster), one time sampling event.
PNC = Permanent soil vapor probe (nested cluster), probe remains in the subsurface and can be sampled again. Flush-mounted vault box installation.
SPVP = Semi-Permanent Vapor Pin sub-slab soil vapor probe; remains within the floor slab and can be sampled again. Flush mounted, metal cover but no vault box, easily removed.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for sub-slab and soil gas vapor intrusion for commercial/industrial and residential land use were established using the Tier 2 *Table SG-1 - Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels,* and *Table SG-2 - Subslab/Soil Gas Vapor Intrusion: Odor Nuisance Levels, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)* , Interim Final, January 24, 2019. These ESLs were established for commercial/industrial and residential property use.

APPENDIX A

APPENDIX A.

PREVIOUS SITE INVESTIGATIONS

Phase I Environmental Site Assessment for 2525 and 2550 Irving Street, San Francisco, CA, AllWest Environmental (February 2019)

AllWest performed a Phase I Environmental Site Assessment (ESA) on the subject property including the northern adjacent property in January and February 2019. The ESA conclusions were presented in the AllWest report titled *Environmental Site Assessment, 2525 & 2550 Irving Street, San Francisco, CA 94122* dated February 8, 2019.

The north adjacent property (credit union) was undeveloped prior to construction of two commercial structures on the middle of the parcel circa 1927 with occupancies including a variety of stores/shops and a clothes cleaner. Another building was constructed on the credit union parcel between the late-1920 and 1932, housing an undertaker through at least the mid-1950s.

From at least 1940 to the mid-1960s, gas stations operated at the 26th (2500 Irving) and 27th Avenue (2550 Irving) corners of the credit union parcel. In 1965, the original, eastern portion of the existing building was constructed on the parcel, occupied by a mortuary/funeral chapel. By 1968, the building increased in size to the current configuration and the customer parking lot added. The mortuary operated at the parcel through the mid-1980s.

Significant quantities of hazardous materials are not present at the northern adjacent property; hazardous waste is not generated. Previous operators of the two gas stations, clothes cleaner and mortuary/undertaker at the subject property are expected to have stored/used hazardous materials in their site operations, although no documentation was available to confirm these assertions. There is no documentation or visual evidence of existing underground storage tanks (USTs) at the site.

With the exception of one building permit for installation of a waste oil UST at the 2550 Irving Street gas station (27th Avenue corner) in 1941, no records were available related to UST installations or removals. Following cessation of gas station operations, a 1963 aerial photograph of the 2550 Irving Street gas station location showed the concrete slabs associated with the former building and pump island(s) remaining but the structures removed. Subsequently, this area of the property was paved for the customer parking lot.

The approximate location of the former service station buildings, concrete slabs and presumed former USTs on the north adjacent property (2550 Irving Street) are shown in Figure 2.

AllWest identified an Recognized Environmental Conditions (REC) at the north adjacent property from its historical land use activities as two gas stations (1940 – 1963) and clothes cleaner (1928 – 1949). AllWest also identified a REC on the north adjacent property from an off-site concern, the former operation of a dry cleaning facility on an up-gradient/adjoining property (2511 Irving Street - Subject Property) for nearly 75 years. Based on the period of time in operation, as well as operation into the 2010s, there is a moderate possibility a dry cleaning solvent release occurred. Based on the location of the site with respect to the subject property, there is a moderately-low likelihood that impacted ground water from the subject property has migrated beneath the subject property.

Although not considered RECs, AllWest identified a moderate likelihood that USTs remain present on the north adjacent property because concrete slab foundations of the station remained present following demolition of the gas station structures prior to paving of the area as the existing parking lot, and no construction has been completed on that area of the subject property.

AllWest recommended assessment be performed to evaluate the potential impact to site soils, groundwater and soil vapor from historical land use activities (AllWest, 2019).

Phase II Environmental Site Assessment for 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (May 2019)

AllWest conducted a subsurface investigation at the subject property on May 21, 2019, consisting of the advancement of five soil borings (B-1 through B-5) to 10 feet bgs and the installation of two temporary sub-slab Vapor Pin™ type probes inside the subject building (San Francisco Police Credit Union).
Five selected soil samples (collected from each of the borings at approximately 4.5-5 feet bgs) were analyzed for total petroleum hydrocarbons as diesel and motor oil (TPH-d and TPH-mo) with silica gel cleanup, total petroleum hydrocarbons as gasoline (TPH-g), volatile organic compounds (VOCs), polynuclear aromatics (PNAs) and

polyaromatic hydrocarbons (PAHs), and LUFT-5 metals (cadmium, chromium, lead, nickel and zinc). The two soil vapor samples were analyzed for tetrachloroethene (PCE) and its degradation products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE) and vinyl chloride, and the leak detection gas helium.

No COCs were detected in any soil samples at concentrations exceeding applicable SFBRWQCB ESLs and/or State of California Title 22 TTLC, STLC or TCLP levels. PCE was detected in the sub-slab soil vapor samples collected from VP-1 and VP-2 at 530 micrograms per cubic meter (µg/m^3) and 480 µg/m^3 exceeding the applicable commercial/industrial SFRWQCB ESL of 67 µg/m^3. None of the other analyzed constituents were detected above their respective laboratory detection limits.

A ground penetrating radar (GPR) scan of the western parking lot at 2550 Irving Street revealed no evidence of current or former underground storage tanks (USTs); however, a long, narrow anomaly was detected in the southwest corner that may be the former fuel dispenser island concrete slab.

AllWest recommended additional investigation at the subject property to delineate the extent and origin of PCE detected in soil vapor samples.

Phase II Environmental Site Assessment for 2525 Irving Street, San Francisco, CA, AllWest Environmental (August 2019)

AllWest conducted a subsurface investigation of the employee parking lot parcels on the south side of Irving Street at 2525 Irving Street on July 17, 2019, consisting of the advancement of two borings (B-6 and B-7) to 12 feet below ground surface (bgs) in the central portion of the parking lot and one boring (B-8) to approximately 47 feet bgs in the northeast corner of the parking lot. Two additional borings (SVP-1 and SVP-2) were advanced to 5.5 feet bgs on the northeast side of the parking lot adjacent to the former dry cleaner at 2511 Irving Street. Two temporary soil vapor probes were installed at a depth of 5 feet bgs within these borings. Groundwater was not encountered in any of the borings.

Sixteen soil samples were collected from the five borings. Ten selected soil samples collected from borings B-6, B-7, SVP-1 and SVP-2 at depth intervals of 1-1.5 feet bgs and 4.5-5 feet bgs, and from borings B-6 and B-7 at depth intervals of 9.5-10 feet bgs, were analyzed for TPH-d and TPH-mo with silica gel cleanup, total petroleum TPH-g, VOCs and LUFT-5 metals. Two selected soil samples collected from boring B-8 at depth intervals of 4.5-5 feet bgs and 9.5-10 feet bgs were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride. Soil vapor samples collected from temporary probes SVP-1 and SVP-2 were analyzed for PCE, its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride, and the leak detection gas helium.

No constituents of concern (COCs) were detected in any soil samples at concentrations exceeding applicable San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Level (ESLs) and/or State of California Title 22 Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) or Toxic Characteristic Leaching Procedure (TCLP levels).

PCE was detected in soil vapor samples collected from borings SVP-1 and SVP-2 at 1,800 micrograms per cubic meter (µg/m^3) and 1,300 µg/m^3, exceeding the applicable commercial/industrial SFRWQCB ESL of 67 µg/m^3. No other COCs were detected in soil vapor samples.

AllWest concluded the subject 2525 Irving Street parcel had been impacted by a PCE soil vapor plume likely originating from the adjacent former dry cleaner at 2511 Irving Street. AllWest recommended additional investigation to delineate the extent and origin of the PCE soil vapor plume and potential impact to groundwater at the subject 2525 Irving Street parcel.

Phase II Environmental Site Assessment for 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (August 2019)

AllWest conducted a subsurface investigation on July 17 and 18, 2019 at 2500-2550 Irving Street. On July 17, 2019, boring B-9 was advanced to a depth of approximately 52 feet bgs in the northeast corner of the driveway west of the PCU building (2550 Irving Street). Boring B-8 was advanced to approximately 47 feet bgs at the northeast corner of the 2525 Irving Street employee parking lot parcel.

On July 18, 2019, four semi-permanent sub-slab Vapor Pins™ (VP-1A, VP-2A, VP-3 and VP-4) were installed within the PCU building at 2550 Irving Street and one soil boring (B-10) was advanced to approximately 40 feet bgs within

the landscaped sidewalk area of the subject site parcel (2550 Irving Street). Boring and vapor pin locations are shown on Figure 2. Groundwater was not encountered during the investigation.

Soil samples were collected from borings B-8, B-9 and B-10 at depth intervals of 1-1.5 feet bgs, 4-4.5 feet bgs, 9.5-10 feet bgs, 19.5-20 feet bgs, 29.5-30 feet bgs and 39.5-40 feet bgs. Samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride. No COCs were detected in analyzed soil samples. No groundwater samples were collected or analyzed.

One soil vapor sample was collected from each sub-slab Vapor Pin™ probe (VP-1A, VP-2A, VP-3 and VP-4) on July 19, 2019. Collected soil vapor samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride and the leak detection gas helium. PCE was detected in all soil vapor samples at concentrations ranging from 270 to 1,100 µg/m^3, exceeding the applicable commercial/industrial SFRWQCB sub-slab soil gas vapor intrusion ESL of 67 µg/m^3.

No other COCs were detected in any soil vapor samples at concentrations exceeding applicable ESLs.

In addition to collecting semi-annual sub slab soil vapor samples in early 2020, AllWest recommended an indoor air quality assessment be conducted at the property to evaluate PCE concentrations above the slab within the Credit Union building. AllWest also recommended another attempt be made to collect groundwater samples at the property.

Indoor Air Quality Monitoring Report, 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (August 2019)

AllWest conducted an indoor air quality monitoring event on August 19 and 20, 2019 at the subject site. Four IAQ samples were collected within the first floor of the PCU building and one OAA control sample was collected adjacent to the western exterior wall of the PCU building. The IAQ and OAA samples were collected over a 24-hour period from August 19 to August 20, 2019.

PCE was detected in all four of the IAQ samples and in the OAA sample. Detected PCE concentrations in all four IAQ samples exceeded the applicable SFRWQCB commercial/industrial indoor air ESL of 2.0 µg/m^3. The PCE breakdown products TCE and 1,1-DCE were detected in all OAA and IAQ samples, but at low concentrations not exceeding applicable ESLs.

AllWest concluded that PCE soil vapor intrusion impacted the indoor air quality of the subject site building and is a potential human health risk to building occupants. AllWest recommended additional semiannual indoor air quality and sub-slab vapor monitoring of existing Vapor Pin™ probes be conducted during the winter season in accordance with *DTSC* protocols.

Subsurface Investigation, 2500-2511 Irving Street, San Francisco, CA, AllWest Environmental (September 2019)

AllWest conducted a subsurface investigation on September 26 and 27, 2019. The purpose of this subsurface investigation was to link a potential PCE release from the former Albrite Cleaners to sub-slab soil vapor and indoor air PCE concentrations detected in the PCU building. The former Albrite Cleaners is located in the presumed upgradient direction from the subject property.

The investigation consisted of the advancement of two borings (B-11 and B-12) by hollow-stem auger (HSA) drilling methods to total depths of 80 feet bgs; B-11 and 90 feet bgs (B-12), and the collection of two groundwater samples [B-11 (GW) and B-12 (GW)]. No soil samples were collected from B-11. Five soil samples were collected from boring B-12 at depth intervals of 4.5-5 feet bgs, 9.5-10 feet bgs, 14.5-15 feet bgs, 19.5-20 feet bgs and 24.5-25 feet bgs. Boring locations are shown on Figure 2.

Five soil and two groundwater samples were analyzed for PCE and its degradation products TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride. PCE was not detected in the groundwater sample collected from boring B-11, advanced at the subject property behind the 2550 Irving Street (PCU) building. PCE was detected in a groundwater sample collected from boring B-12, located in front of the former Albrite Cleaners, at a concentration of 0.71 micrograms per liter (µg/L), well below its applicable commercial/industrial vapor intrusion ESL of 2.8 µg/L. No constituents of concern (COCs) were detected in soil samples collected from boring B-12.

Based on the sample data collected during this investigation, and previous 2019 AllWest subsurface assessments at the property including 2525 Irving Street (the parking lot across Irving Street from the PCU building and adjacent to the former Albright Cleaners), AllWest concluded a PCE release from former Albrite Cleaners at 2511 Irving Street has occurred. This opinion is based on the detected PCE concentrations in groundwater and in two soil vapor

samples collected from the adjacent 2525 Irving Street parking lot during a previous 2019 assessment. PCE concentrations in sub-slab vapor and indoor air quality samples collected from the PCU building at 2550 Irving Street, which exceeded applicable ESLs, likely resulted from the Albrite PCE release but additional site data is needed to further substantiate this opinion. Because the subject property, 2550 Irving Street, was formerly developed with a gasoline service station and a cleaners (of unreferenced type) and because PCE concentrations in the groundwater sample collected from boring B-11 at 2511 Irving Street are below commercial/industrial vapor intrusion ESLs, AllWest could not unequivocally state the Albrite release is the sole cause of the elevated soil vapor and indoor air quality concentrations at the PCU building.

Soil Vapor Investigation, Path Forward Partners, Inc. (December 2019)

Path Forward Partners, Inc. (Path Forward) conducted a soil vapor investigation at the subject 2500-1550 PCU site on December 14 and 15, 2019. Four temporary twin soil vapor probes (B-13-5/15, B-14-5/15, B-15-8/18 and B-17-7/17) and one single soil vapor probe (B-17-7) were installed at depths of 4 to 8 feet bgs and 15 to 18 feet bgs. PCE was detected in all soil vapor samples at concentrations ranging from 48 to 900 µg/m^3; all except one exceeding applicable commercial/industrial ESLs. Low concentrations of several other VOCs were detected. AllWest was not provided with a report of this investigation; only with figures and a data summary table.

Indoor Air Quality Monitoring Report, 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (December 2019)

AllWest conducted an indoor air quality monitoring event on December 29 and 30, 2019 at the subject site. Four IAQ samples were collected within the first floor of the PCU building and one OAA control sample was collected adjacent to the western exterior wall of the PCU building. Sample locations were the same as the August 2019 event. The IAQ and OAA samples were collected over a 24-hour period from December 29 - 20, 2019.

PCE was detected in all four of the IAQ samples at concentrations ranging from 0.2.9 micrograms per cubic meter (µg/m^3) in sample IAQ-1 to 4.3 µg/m^3 in IAQ-1 and IAQ-2. Detected PCE concentrations in all four IAQ samples exceeded the applicable San Francisco Regional Water Quality Control Board (SFRWQCB) commercial/industrial indoor air Environmental Screening Level (ESL) of 2.0 µg/m^3 (based on direct exposure human health risk). PCE was not detected in the outdoor ambient air control sample OAA-1. None of the other analyzed constituents were detected above their respective laboratory detection limits in either in or outdoor samples.

AllWest concluded that PCE soil vapor intrusion has impacted the indoor air quality of the subject site building and is a potential human health risk to building occupants. Since the previous August 2019 indoor air monitoring event, PCE concentrations have remained relatively stable, indicating negligible seasonal variations between summer and winter (dry and wet seasons).

AllWest recommends indoor air quality and sub-slab vapor monitoring of existing Vapor Pin™ probes be conducted during the 2020 summer season in accordance with Department of Toxic Substances Control (DTSC) protocols (DTSC, 2011).

Indoor Air Quality Monitoring Report, 2500-2550 Irving Street, San Francisco, CA, AllWest Environmental (February 2020)

AllWest Environmental, Inc. (AllWest) conducted an indoor air quality monitoring event on February 2 and 3, 2020 to assess the indoor air concentrations of the dry cleaning solvent tetrachloroethene (PCE) at the property following modifications to the building heating, ventilation and air conditioning (HVAC) system and interior doors. .

In March 2019 PCU significantly reduced their occupancy of the subject building restricting employee use to the western half of the ground-floor where retail financial services are provided to PCU members. Use of the second floor and eastern half of the first floor were curtailed to PCU staff. Since PCU was not using 75% of the building, modifications to the HVAC system were enacted to reduce energy use and operating costs.

Modifications to the HVAC system included powering down the equipment servicing the entire 2nd floor and the eastern half of the 1st floor and replacing/adding MERV 13 particulate air filters and purifiers to help eliminate harmful pollutants, odors, bacteria, etc. The HVAC economizer was also shutdown to insure the unit was only re-circulating interior air. HVAC flow levels were increased to maximum to increase circulation. Four interior locking doors were installed on the first floor of the subject site, including three office access doors north of the waiting area and one office access door adjacent to the public restroom. Thermostats were checked and programmed as needed for

operational areas. The building envelope was not sealed and the HVAC system was not operating in a positive pressure ventilation mode.

Four indoor air quality (IAQ) samples (IAQ-1 to IAQ-4) were collected within the first floor of the Police Credit Union (PCU) building. The location of the indoor and outdoor air samples collected in February 2020 were the same as those collected in December and August 2019.

Sample IAQ-1 was located adjacent to the bank teller counter, IAQ-2 was located in the central portion of the bank floor, IAQ-3 was located in the bathroom, and IAQ-4 was located near the southwest corner of the PCU building. One outdoor ambient air (OAA) control sample (OAA-1) was collected within a fenced-in area adjacent to the western exterior wall of the PCU building.

Samples IAQ-1 and IAQ-2 were located in the portion of the building with operating HVAC system and samples IAQ-3 and IAQ-4 were located in the portion of the building where the HVAC system was shutdown. The IAQ and OAA samples were collected over a 24-hour period from February 2 to February 3, 2020. IAQ and OAA sample locations are shown on Figure 2.

The IAQ and OAA samples were analyzed by EPA Method TO-15 SIM for PCE and its breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE) and vinyl chloride.

PCE was detected in each IAQ sample at concentrations ranging from 0.90 micrograms per cubic meter ($\mu g/m^3$) in sample IAQ-1 to 3.3 $\mu g/m^3$ in IAQ-4. Detected PCE concentrations samples IAQ-3 and IAQ-4, located in the portion of the building where the HVAC system was shutdown, exceeded the applicable San Francisco Regional Water Quality Control Board (SFRWQCB) commercial/industrial indoor air Environmental Screening Level (ESL) of 2.0 $\mu g/m^3$ (based on direct exposure human health risk).

PCE concentrations in IAQ 1 & 2, located in the portion of the building with operating HVAC system, did not exceed the ESL. PCE was not detected in the outdoor ambient air control sample OAA-1. The PCE breakdown product TCE was detected in sample IAQ-3, but at a concentration below its respective commercial/industrial ESL. No other analyzed constituents were detected above their respective laboratory detection limits in either indoor or outdoor samples.

PCE concentrations detected in samples IAQ-1 and IAQ-2 did not exceed the applicable commercial/industrial ESL and were significantly less than those concentrations detected in the previous August and December 2019 events. PCE concentrations in IAQ-3 and IAQ-4 were similar to the August and December 2019 events.

Indoor air quality within the non-ventilated eastern portion of the subject property building is impacted to levels above commercial/industrial ESLs by soil vapor intrusion of PCE, and presents a potential human health risk to subject building occupants.

Groundwater Investigation, Path Forward Partners, Inc. (February 2020)

Path Forward conducted a subsurface investigation on the PCU subject property at 2550 Irving Street on February 23, 2020. Three soil borings ((B-18, B-19 and B-20) were advanced, of which two (B-19 and B-20) encountered groundwater. Two groundwater samples were collected from borings B-19 and B-20 in the northwestern portion of the subject property. PCE was detected at a concentration of 0.67 µg/L in the groundwater sample from B-20, well below its applicable commercial/industrial vapor intrusion ESL of 2.8 µg/L. PCE was not detected in the groundwater sample from B-19. AllWest was not provided with a report of this investigation; only with a data summary figure.

TABLE A-1
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA
2511, 2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

Sample Name and Depth in feet bgs	Date Sampled	TPH-g (C6-C12) (mg/kg)	TPH-d (C10-C23) (mg/kg)	TPH-mo (C18-C36) (mg/kg)	Tetrachloroethane (PCE) (mg/kg)	Other VOCs (mg/kg)	PAHs & PNAs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickle (mg/kg)	Zinc (mg/kg)
B-1 (4.5-5)	5/21/2019	ND (<1.0)	13	**210**	ND (<0.0050)	ND (varies)	ND (varies)	ND (<0.25)	44	9.0	24	28
B-2 (4.5-5)	5/21/2019	ND (<1.0)	3.6	70	ND (<0.0050)	ND (varies)	ND (varies)	ND (<0.25)	57	4.6	26	24
B-3 (4.5-5)	5/21/2019	ND (<1.0)	1.1	19	ND (<0.0050)	ND (varies)	ND (varies)	ND (<0.25)	49	**39**	26	68
B-4 (4.5-5)	5/21/2019	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	ND (varies)	ND (<0.25)	57	10	30	45
B-5 (4.5-5)	5/21/2019	ND (<1.0)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	ND (varies)	ND (<0.25)	45	2.5	24	21
B-6 (1-1.5)	7/17/2019	ND (<0.25)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-6 (4.5-5)	7/17/2019	ND (<0.25)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-6 (9.5-10)	7/17/2019	ND (<0.25)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-7 (1-1.5)	7/17/2019	ND (<0.25)	5.0	58	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-7 (4.5-5)	7/17/2019	ND (<0.25)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-7 (9.5-10)	7/17/2019	ND (<0.25)	ND (<1.0)	ND (<5.0)	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-8 (4.5-5)	7/17/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-8 (9.5-10)	7/17/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA

TABLE A-1
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA
2511, 2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

B-9 (4.5-5)	7/17/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-9 (9.5-10)	7/17/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-10 (4.5-5)	7/18/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-10 (9.5-10)	7/18/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-12 (4.5-5)	9/27/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-12 (9.5-10)	9/27/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-12 (14.5-15)	9/27/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-12 (19.5-20)	9/27/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
B-12 (24.5-25)	9/27/2019	NA	NA	NA	ND (<0.0050)	ND (varies)	NA	NA	NA	NA	NA	NA
SFRWQCB Tier 1 ESLs		**100 (Res-ON)**	**260 (Res-DE)**	**100 (Res-ON)**	**0.080 (SL)**	**Varies or NE**	**Varies or NE**	**1.9 (TH)**	**160 (TH)**	**32 (TH)**	**86 (CW-DE)**	**340 (TH)**
SFRWQCB Tier 2 Commercial/Industrial ESLs		**500 (Com-ON)**	**1,000 (Com-ON)**	**500 (Com-ON)**	**2.7 (DE)**	**Varies or NE**	**Varies or NE**	**1,100 (Com-DE)**	**1,800,000 (Com-DE)**	**320 (Com-DE)**	**11,000 (Com-DE)**	**350,000 (Com-DE)**
SFRWQCB Tier 2 Construction Worker ESLs		**500 (CW-ON)**	**1,000 (CW-ON)**	**500 (CW-ON)**	**33 (DE)**	**Varies or NE**	**Varies or NE**	**51 (CW-DE)**	**530,000 (CW-DE)**	**180 (CW-DE)**	**86 (CW-DE)**	**110,000 (CW-DE)**
Title 22 TTLC (mg/kg)		**NE**	**NE**	**NE**	**NE**	**Varies or NE**	**Varies or NE**	**100**	**2,500**	**1,000**	**2,000**	**5,000**
Title 22 STLC (mg/L)		**NE**	**NE**	**NE**	**NE**	**Varies or NE**	**Varies or NE**	**1.0**	**5.0 (Cr III & total)**	**5.0**	**20**	**250**
Title 22 TCLP (mg/L)		**NE**	**NE**	**NE**	**0.70**	**Varies or NE**	**Varies or NE**	**1.0**	**5.0**	**5.0**	**NE**	**NE**

TABLE A-1
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA
2511, 2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

Notes:

All samples analyzed at McCampbell Analytical, Inc., Pittsburg, California.

All results are reported in milligrams per kilogram (mg/kg)

bgs = below ground surface

VOCs - Volatile Organic Compounds, analytical method SW8260B

TPH-g - Total Petroleum Hydrocarbons as Gasoline, analytical method SW8260B

TPH-d - Total Petroleum Hydrocarbons as Diesel, analytical method SW8015 without Silica Gel cleanup

TPH-mo - Total Petroleum Hydrocarbons as Motor Oil, analytical method SW8015 without Silica Gel cleanup

ND - Not Detected above laboratory reporting limit (listed in paranthesis)

NA - Not Analyzed

NE - Not Established

PAHs = Polyaromatic hydrocarbons

PNAs = Polynuclear aromatics

SFRWQCB ESLs = San Francisco Bay Regional Water Quality Control Board (), *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)* , Tier 1 Environmental Screening Levels (ESLs), January 23, 2019. Based on a generic conceptual site model designated for use at most sites. See User's Guide Chapter 2. Input settings are: Land Use = Residential; Groundwater Use = Drinking Water Resource; MCL Priority over Risk-Based Levels = Yes; Intact Building Slab = Yes; Groundwater Depth = Shallow; Soil Type = Sand Scenario; Soil Exposure Depth = Shallow. Tier 2 ESLs from *Table S-1 - Direct Exposure Human Health Risk Levels* , *Table S-2 - Terrestrial Habiitat Levels* , *Table S-3 - Leaching to Groundwater* , *Table S-4 - Gross Contamination Levels* , and *Table S-5 - Odor Nuisance Levels* .

Res-DE = Residential Direct Exposure Human Health Risk Levels *(Table S-1 Direct Exposure Human Health Risk Levels)*

Com-DE = Commercial/Industrial Direct Exposure Human Health Risk Levels *(Table S-1 Direct Exposure Human Health Risk Levels)*

CW-DE = Construction Worker / Any Site Use Direct Exposure Human Health Risk Levels *(Table S-1 Direct Exposure Human Health Risk Levels)*

Res-ON = Residential Odor Nuisance Levels *(Table S-5 - Odor Nuisance Levels)*

Com-ON = Residential Odor Nuisance Levels *(Table S-5 - Odor Nuisance Levels)*

CW-ON = Residential Odor Nuisance Levels *(Table S-5 - Odor Nuisance Levels)*

Concentrations exceeding the applicable ESLs are indicated in **bold font**

TTLC - Total Threshold Limit Concentration value for hazardous waste established by State of California Code of Regulations Title 22, Chapter 11, Article 3, Tables II and III.

STLC - Soluble Threshold Limit Concentration value for hazardous waste established by State of California Code of Regulations Title 22, Chapter 11, Article 3, Tables II and III.

TABLE A-1
SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA
2511, 2525 & 2550 Irving Street
San Francisco, California 94122
AllWest Project No. 202006.23

TCLP - Toxicity Characteristic Leaching Procedure value for hazardous waste established by State of California Code of Regulations Title 22, Chapter 11, Article 3, Tables II and III.

Table A-2
Soil Vapor Historical Analytical Data Summary
2125, 2500 & 2550 Irving Street
San Francisco, California
AllWest Project 202006.23

Probe & Sample ID Number	Date	Depth (feet bgs)	Probe Type	Acetone µg/m^3	2-Butanone (MEK) µg/m^3	Chloroform µg/m^3	cis-1,2-DCE µg/m^3	Isopropanol µg/m^3	PCE µg/m^3	Toluene µg/m^3	TCE µg/m^3	trans-1,2-DCE µg/m^3	Vinyl Chloride µg/m^3	Other VOCs µg/m^3	TPH-g µg/m^3	Helium (Leak detect gas) (% v/v)
VP-1	5/21/2019	0.5	TSS	56	ND (<10)	8.6	ND (<4.5)	46	**530**	ND (<4.3)	NA	ND (<4.5)	ND (<2.9)	ND (varies)	ND (<9,300)	ND (<0.0100)
VP-2	5/21/2019	0.5	TSS	57	9.5	ND (<2.4)	ND (<2.3)	27	**480**	3.6	NA	ND (<2.3)	ND (<1.3)	ND (varies)	ND (<9,300)	ND (<0.0100)
SVP-1	7/17/2019	5	T	NA	NA	NA	ND (<2.0)	NA	**1,800**	NA	ND (<2.7)	ND (<2.0)	ND (<1.3)	NA	NA	ND (<0.025)
SVP-2	7/17/2019	5	T	NA	NA	NA	ND (<2.0)	NA	**1,300**	NA	ND (<2.7)	ND (<2.0)	ND (<1.3)	NA	NA	ND (<0.025)
VP-1A	7/19/2019	0.5	SPVP	NA	NA	NA	ND (<6.3)	NA	**1,100**	NA	ND (<8.6)	ND (<6.3)	ND (<4.1)	NA	NA	ND (<0.025)
VP-2A	7/19/2019	0.5	SPVP	NA	NA	NA	ND (<6.3)	NA	**650**	NA	ND (<8.6)	ND (<6.3)	ND (<4.1)	NA	NA	ND (<0.025)
VP-3	7/19/2019	0.5	SPVP	NA	NA	NA	ND (<6.3)	NA	**270**	NA	ND (<8.6)	ND (<6.3)	ND (<4.1)	NA	NA	ND (<0.025)
VP-4	7/19/2019	0.5	SPVP	NA	NA	NA	ND (<2.0)	NA	**660**	NA	ND (<2.7)	ND (<2.0)	ND (<1.3)	NA	NA	ND (<0.025)
SFRWQCB ESL	Commercial Soil Gas			**1,000,000 (ON)**	**730,000 (DE)**	**18 (DE)**	**1,200 VI**	**NL**	**67 (DE)**	**44,000 (DE)**	**100 (DE)**	**12,000 VI**	**5.2 VI**	**Varies or NE**	**330 (ON)**	**NE**

Notes:

Laboratory analyses by Eurofins Calscience, Garden Grove, CA
µg/m^3 = micrograms per cubic meter
TPH-g = total petroleum hydrocarbons as gasoline, analytical method TO-3M
VOCs = volatile organic compounds, analytical method TO-15 SIM
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE =trans-1,2-Dichloroethene
PCE = perchloroethylene / tetrachloroethene
TCE = trichloroethene
MEK = Methyl Ethyl Ketone (2-Butanone)
ND = Not detected above the listed reporting limit
NL = Not listed
NE = Not established
Bold Font = Detected values exceed regulatory screening levels.
TSS = Temporary Sub-Slab Vapor Pin
SPVP = Semi-Permanent Sub-Slab Vapor Pin
NA = Not Analyzed

SFRWQCB ESLs = San Francisco Regional Water Quality Control Board, *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Tier 2 ESLs from Table SG-1 - Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, Commercial/Industrial* , and *Table SG-2 - Subslab/Soil Gas Vapor Intrusion: Odor Nuisance Levels* , Interim Final - January 23, 2019.

DE = Direct Exposure (*Table SG-1 - Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels*)
ON = Odor Nuisance (*Table SG-2 - Subslab/Soil Gas Vapor Intrusion: Odor Nuisance Levels*)

Appendix A

2020 Subsurface Investigation - Soil Vapor Probe Locations by Site Area

Seven permanent probes were located within the former TPCU branch office (Area A)
SVP-8A/B;
SVP-9A/B;
SVP-10A/B;
SVP-11A/B (exterior loading dock)
SVP-12A/B;
SVP-13A/B
SVP-18A/B.

Vapor pins sampled within the TPCU building;
VP-1A;
VP-2A;
VP-3
VP-4. All of these samples are considered Area A

Four permanent probes were installed within the TPCU client parking lot (Area B):
SVP-7A/B;
SVP-14A/B;
SVP-15A/B;
SVP-16A/B;

Five temporary probes were located in north and south side of Irving street (Area C)
SVP-3
SVP-4
SVP-5
SVP-6
SVP-17

Four permanent probes were located within the TPCU employee parking lot on the south side of Irving Street (Area D):
SVP-19A/B;
SVP-20A/B;
SVP-21A/B;
SVP-22A/B.

APPENDIX B

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH

Application for Monitoring Well Construction/Destruction or Soil Borings

Application Date: 5/11/2020 Start Date: 05/23/2020 Completion Date: 05/29/2020

Job Address/Location: 2550 IRVING STREET, SAN FRANCISCO, CA 94122

To be completed by Owner, Consultant or Driller

Property Owner	Well Owner (If Different)	Consultant/Engineer & Geologist Name
POLICE CREDIT UNION		ALLWEST ENVIRONMENTAL
Address 2550 IRVING STREET	Address	Address 2141 MISSION STREET
City, State, Zip SAN FRANCISCO, CA 94122	City, State, Zip	City, State, Zip SAN FRANCISCO, CA 94110
Telephone Number (800) 222-1391	Telephone Number	Telephone Number 4153912510
Fax Number	Fax Number	Fax Number Email SAM@ALLWEST1.COM / LEONARD@ALLWEST1.COM

Please indicate **Type and Number** of Proposed Wells/Borings

Geotechnical Investigation:
- ☐ Exploratory Wells/borings
- ☐ Cathodic Wells
- ☐ Cone Penetrometer Test
- ☐ Shallow Anodes
- ☐ Other:

Environmental Investigation:
- ☒ Exploratory borings
- ☐ Water/Vapor Extraction Wells
- ☐ Hydropunch
- ☐ LOP Workplan

Monitoring Wells Construction:
- ☐ Chemical Leaks
- ☐ Compliance Well
- ☐ Baseline Study
- ☐ Well Destruction
- ☐ LOP Workplan

Topographic Features – Well to be constructed:

☐ In a Public Sidewalk ☒ In a Public Road ☒ On Private Property ☒ On City Property

Construction Specifications:

Diameter of Well Casing: N/A
Gauge of Casing: N/A
Casing Depth: N/A
Annular Seal Depth: 15.5 FEET BGS
Annular Seal Material: CEMENT/GROUT SLURRY
Other Information:

Destruction Specifications: Well Diameter: Approximate Depth:

Materials and Procedures to be Used: 11 DPT borings to 15.5 ft bgs at 2550 Irving St (6 inside & 5 outside) and completed as permanent SV probes

4 DPT borings to 15.5 feet bgs at 2525 Irving Street, 3 DPT borings to 15.5 feet bgs on north side of Irving Irving Street adjacent to 2550 Irving St, 2 DPT borings to

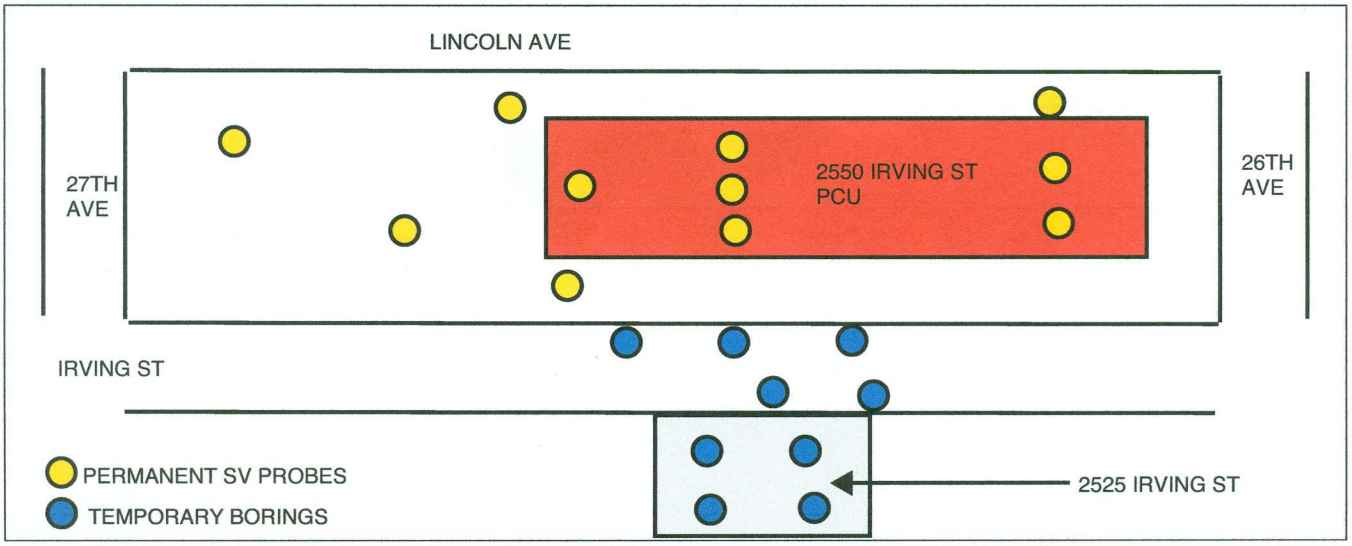
15.5 feet bgs on the south side of Irving adjacent to 2511 and 2525 Irving St. Temporary SVPs installed in borings & sampled, then removed & grouted with neat cement.

Well Location: On the following site plan accurately draw the well location. (Recommend Assessor's Map)

1. Sketch well location to scale, show dimensions to nearest foot.
2. Show a minimum of two dimensions at right angles. Dimensions shall be from the centerline of the closest named street, road or highway.
3. Show location of any existing wells.

DS ES

LOC ID 3445 Received May 18, 2020



Certification by Well Owner/Agent or Driller/Agent:
I certify the information above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the San Francisco Health Code and, if applicable, the Hazardous Materials Permit and Discloser Ordinance of the City/County. It is my responsibility as the responsible party to notify the Department of any changes in the purpose of the well that is indicated on this application form.

If proposed well is to meet compliance with a Hazardous Materials Permit & Disclosure Ordinance, has the Hazardous Materials Unified Program been contacted? ☐ Yes ☐ No

Environmental Control Associates (ECA)	695970
Name and Address of Well/Drilling Company	C-57 Driller's License Number

Leonard P. Niles	05/15/2020	P.G. 5774 / C.H.G 357
Signature of Responsible Professional (Wet signature; **No** substitution of Signature will be accepted)	Date	Civil Engineer Registration Number or Engineering Geologist Certificate Number

Email to whom the approved Application should be sent: sam@allwest1.com / leonard@allwest1.com

Based on information on the application and attachment(s) hereto (if any) and subject to approval noted below, permission is hereby granted to commence the described project. Permission to start may be withheld until a field check verifies all statements made on application by Permittee and is also subject to any "General" and "Special" conditions attached.

For Department of Public Health Office Use Only

Project Number: 7544 Issue Date: 5/20/2020 | 1:25:36 PDT

Number of Wells: Zero (0) Number of Soil Borings: Twenty (20)

This project to construct/destruct is **approved** ☒
This project to construct/destruct is **disapproved** ☐

DocuSigned by: Eurich Santiago A220A718766243B...
Inspector

Emailed May 20, 2020

C:\Drawing Files\AllWest Environmental\19126.23\GW Investigation\19126.23 Fig B_2019 SV Sample Data - 03/30/2020

PRESUMED GROUNDWATER LOW DIRECTION

N

B-15	12/14/19	
Depth	8'	18'
Chloroform	5.4	ND(<5.7)
PCE	48	380

B-16	12/15/19	
Depth	4'	
Chloroform	ND(<5.6)	
PCE	240	

VP-3	
PCE	270

B-14	12/14/19	
Depth	5'	15'
Chloroform	5.4	ND(<5.7)
PCE	100	590

B-17	12/15/19	
Depth	7'	17'
Chloroform	7.9	ND(<5.2)
PCE	520	900

VP-2	
PCE	490

VP-2A	
PCE	650

VP-1	
PCE	530

VP-1A	
PCE	1,100

VP-4	
PCE	660

B-13	12/14/19	
Depth	5'	15'
Chloroform	<5.9	9.2
PCE	380	790

SVP-1	
PCE	1,800

SVP-2	
PCE	1,300

RESIDENTIAL PROPERTIES (26th STREET)

RESIDENTIAL PROPERTIES (27th STREET)

SVP-15A/B

SVP-10A/B

CREDIT UNION PARCEL

SVP-11A/B

SVP-16A/B

SVP-18A/B

FORMER GAS STATION BUILDINGS

FORMER 2520 CLEANERS 1929-1948

SVP-12A/B

SVP-13A/B

FORMER 2550 IRVING GAS STATION

SVP-8A/B

SVP-9A/B

SVP-7A/B

SVP-14A/B

SVP-17

POTENTIAL FORMER USTs/PUMP ISLAND

SVP-6

SVP-5

FORMER 2500 IRVING GAS STATION

IRVING STREET

SVP-3

SVP-4

COMMERCIAL WITH RESIDENTIAL ABOVE (IRVING STREET)

SVP-22A/B

SVP-1

FORMER DRY CLEANER (2511 IRVING STREET)

BANK (2501 IRVING STREET)

SVP-19A/B

PARKING LOT PARCELS 2525 IRVING STREET

SVP-2

SVP-20A/B

SVP-21A/B

RESIDENTIAL PROPERTIES (27th STREET)

RESIDENTIAL PROPERTIES (26th STREET)

27th AVENUE

26th AVENUE

STOP

LEGEND

- B-13 ▲ Soil Vapor Sampling Location (PathForward)
- VP-4 ⊙ Sub-Slab Vapor Pin (AllWest, VP-1 and VP-2, 5/21/19, VP-1A, VP-2A, VP-3 and VP-4, 7/17/19)
- Approximate Property Boundaries
- SVP-5A/B ▲ Proposed Geoprobe Temporary Soil Vapor Probe Cluster to 5 & 15 Feet bgs (AllWest)
- SVP-8A/B ▲ Proposed Geoprobe Permanent Soil Vapor Probe Cluster to 5 & 15 Feet bgs (AllWest)
- SVP-3 ▲ Proposed Geoprobe Temporary Soil Vapor Probe to 15 Feet bgs (AllWest)

Note:

PCE - Tetrachloroethene
PCE Values in micrograms per cubic meter ($\mu g/m^3$)

0 50 100
APPROXIMATE SCALE IN FEET

AllWest

FIGURE B

2019 SOIL VAPOR SAMPLE DATA WITH PROPOSED SOIL VAPOR PROBES

2500-2525 Irving Street

San Francisco, California

PROJECT NO: 202006.23.2

SOURCE: AllWest, PathForward

DRAWN BY: CM / LN (05/01/20)

City and County of San Francisco
San Francisco Public Works · Bureau of Street Use and Mapping
1155 Market Street, 3rd Floor · San Francisco, CA 94103
sfpublicworks.org · tel 415-554-5810 · fax 415-554-6161

20BW-00029 *Boring/Monitoring Well Permit*

Address : Multiple Locations **Cost: $820.00** **Block: Lot: Zip:**

Pursuant to Article 2.4 of the Public Works Code in conjunction to DPW Order 187,005, permission, revocable at the will of the Director of Public Works, to excavate and restore the public right-of-way is granted to Permittee.

ALLWEST ENVIRONMENTAL, INC.

Name: ALLWEST ENVIRONMENTAL, INC.

Conditions	1. An approved application from the Department of Public Health is required before this permit may be used. 2. A Temporary Occupancy Permit is also required to occupy this location (see 19TOC-10111). 3. The permittee is required to complete the work within 14 days from the start date that work commences. Failure to complete the work in 14 days will result in requiring from the permittee a new permit application and a 30-day notice. 4. The permittee shall comply with all existing traffic controls and parking restrictions. The permittee shall also comply with any additional restrictions under the Special Traffic Permit issued by SFMTA. For information related to construction traffic restrictions please reference the latest edition of Regulations for Working in San Francisco Streets, the Blue Book. To download a copy of the Blue Book, please visit https://www.sfmta.com/services/streets-sidewalks/construction-regulations. 5. Pursuant to Article 29 of the San Francisco Police Code, a Night Noise Permit for operation in the Public Right-of-Way shall be required for work that creates any noise 5dBA above the ambient noise level of that area at the nearest property plane. 6. No noise 5dBA above ambient noise levels permitted between the hours of 8:00PM and 7:00AM.
For the Purpose of:	Soil Samples
Start Date	5/27/20
End Date	5/29/20
Size of Trench/Excavation	2.25x100
USA	W925600353
Street Space Linear Footage	0
Inspection	Work shall not commence until this permit has been activated by Public Works. The permittee shall contact Public Works at dpw-bsminspects@sfdpw.org or (415) 554-7149 to activate the permit and schedule inspection at least 72 hours prior to work. Failure to follow the activation process prior to commencing work may result in a correction notice and possible notice of violation.

The undersigned Permittee hereby agrees to comply with all requirements and conditions noted on this permit

Approved Date : 05/27/2020

The permittee shall obtain all necessary permits from the Department of Public Health's Environmental Health Section, 1390 Market Street, Suite 210, telephone (415) 252-3800.
When drilling/excavation in the sidewalk area, entire sidewalk flag(s) must be replaced to adjacent score lines.

Applicant/Permitee | Date

Distribution:
Outside BSM: DPH Environmental Health 1390 Market St. #210

Printed : 6/25/2020 2:38:32 PM Plan Checker Theresa Muehlbauer

STREET EXCAVATION REQUIREMENTS

1. The permittee shall call Underground Service Alert (U.S.A.), telephone number 811, 48 hours prior to any excavation.
2. All work including sidewalk and pavement cutting and removal, lagging, excavation, backfill, and sidewalk and pavement restoration shall be done by a licensed contractor and in accordance with the requirements of the latest edition of Standard Specifications and Plans of San Francisco Public Works, and Department of Public Works Order Nos. 187,005.
3. Sidewalk and pavement restoration shall include the replacement of traffic lane and crosswalk striping, parking stall markings, and curb painting that might have been obliterated during street excavation. The permittee shall perform their work under on the following options:

a. Have the City forces do the striping and painting work at the permittees expense. The permittee shall make a deposit with the Department of Parking & Traffic for this purpose in an amount estimated by the Municipal Transportation Agency (MTA) 7th Floor 1 South Van Ness Ave telephone 701-4500, and notify the MTA at least 48 hours in advance of the time the work is to be done.

b. Perform the work themselves following instructions available at the Department of Parking & Traffic.

4. The permittee shall submit a non-refundable fee to Bureau of Street-Use and Mapping to pay for City Inspection of the backfill and pavement restoration. At least 48 hours in advance, the permittee shall make arrangements with the Street Improvement Section Inspectors, 554-7149, for an inspection schedule.
5. The permittee shall file and maintain an excavation bond in the sum of $25,000.00 with the Department of Public Works, to guarantee the maintenance of the pavement in the excavation area for a period of 3 years following the completion of the backfill and pavement restoration pursuant to Article 2.4.40 of the Public Works Code.
6. The permittee shall conduct construction operations in accordance with the requirements of Article 900 Section 903(a) and (b) of the Traffic Code. The permittee shall contact the MTA 7th Floor 1 South Van Ness Ave telephone 701-4500, for specific restrictions before starting work.
7. The permittee shall obtain the required permits, if any, from regulating agencies of the State of California.
8. The permittee shall verify the locations of any City or public service utility company facilities that may be affected by the work authorized by this permit and shall assume all responsibility for any damage to such facilities. The permittee shall make satisfactory arrangements and payments for any necessary temporary relocation of City or public utility company facilities.
9. The permittee shall obtain a tree permit from Urban Forestry before planting/removing any tree or shrub. Contact at (415) 554-6700.
10. In consideration of this Permit being issued for the work described in the application, Permittee on its behalf and that of any successor or assign, and on behalf of any lessee, promises and agrees to perform all the terms of this Permit and to comply with all applicable laws, ordinances and regulations.
11. Per DPW Order 178,806, the recycling of Cobble Stones and Granite Curb shall follow as:

a. Cobblestones shall be clean of dirt prior to transporting. Extreme care shall be taken during the transporting the cobblestones to minimize damage before delivery to City. The cobblestones shall be neatly and securely placed on pallets so they can be moved about safely after the delivery, The Minimum size of cobblestone shall be 4 inches square (16 square inches). The cobblestones shall be delivered, including off loading, to 901 14th Street on Treasure Island or at alternative location directed by the Department within the City of San Francisco. Contact the Department forty-eight hours (48 hours) prior to delivery. The Department can be reached at (415) 695-6673.

b. Granite Curb shall be neatly and securely placed on pallets so they can be moved about safely after delivery. The Contractor shall exercise care in transporting the granite curb to minimize damage. The length limit of recyclable granite curbs shall be no less than four feet. The granite curb shall be delivered, including off loading, to 901 14th Street on Treasure Island or at an alternative location directed by the Department within the City of San Francisco. Contact Bureau of Street and Sewer Repair (BSSR) at least forty-eight hours (48 hours) prior to delivery. BSSR can be reached at (415) 695-6673.

12. Permittee agrees on its behalf and that of any successor or assign to hold harmless, defend, and indemnify the City and County of San Francisco, including, without limitation, each of its commissions, departments, officers, agents and employees (hereinafter collectively referred to as the "City") from and against any and all losses, liabilities, expenses, claims, demands, injuries, damages, fines, penalties, costs or judgments including, without limitation, attorneys' fees and costs (collectively, "claims") of any kind allegedly arising directly or indirectly from (i) any act by, omission by, or negligence of, Permittee or its subcontractors, or the officers, agents, or employees of either, while engaged in the performance of the work authorized by this Permit, or while in or about the property subject to this Permit for any reason connected in any way whatsoever with the performance of the work authorized by this Permit, or allegedly resulting directly or indirectly from the maintenance or installation of any equipment, facilities or structures authorized under this Permit, (ii) any accident or injury to any contractor or subcontractor, or any officer, agent, or employee of either of them, while engaged in the performance of the work authorized by this Permit, or while in or about the property, for any reason connected with the performance of the work authorized by this Permit, or arising from liens or claims for services rendered or labor or materials furnished in or for the performance of the work authorized by this Permit, (iii) injuries or damages to real or personal property, good will, and persons in, upon or in any way allegedly connected with the work authorized by this Permit from any cause or claims arising at any time, and (iv) any release or discharge, or threatened release or discharge, of any hazardous material caused or allowed by Permittee in, under, on or about the property subject to this Permit or into the environment. As used herein, "hazardous material" means any substance, waste or material which, because of its quantity, concentration of physical or chemical characteristics is deemed by any federal, state, or local governmental authority to pose a present or potential hazard to human health or safety or to the environment.
13. Permittee must hold harmless, indemnify and defend the City regardless of the alleged negligence of the City or any other party, except only for claims resulting directly from the sole negligence or willful misconduct of the City. Permittee specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City from any claim which actually or potentially falls within this indemnity provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Permittee by the City and continues at all times thereafter. Permittee agrees that the indemnification obligations assumed under this Permit shall survive expiration of the Permit or completion of work.
14. Permittee shall obtain and maintain through the terms of this Permit general liability, automobile liability or workers' compensation insurance as the City deems necessary to protect the City against claims for damages for personal injury, accidental death and property damage allegedly arising from any work done under this Permit. Such insurance shall in no way limit Permitee's indemnity hereunder. Certificates of insurance, in form and with insurers satisfactory to the City, evidencing all coverages above shall be furnished to the City before commencing any operations under this Permit, with complete copies of policies furnished promptly upon City request.
15. The permittee and any permitted successor or assign recognize and understand that this permit may create a possessory interest.
16. Pursuant to state law, all survey monuments must be preserved. No work (including saw cutting) may commence within 20’ of a survey monument until an application for Monument Referencing has been approved and notification of monument referencing has occurred. Prior to construction, all CCSF survey monuments shall be referenced by a licensed Land Surveyor on a Corner Record or Record of Survey if any construction will take place within 20 ft. of a monument. For any questions please email Monument.Preservation@sfdpw.org or call 415-554-5827. Note, all survey monuments shall be preserved per state law and disturbance of a survey monument is a crime.

Not all survey monuments are visible.

Permit Addresses

20BW-00029

*RW = RockWheel, SMC = Surface Mounted Cabinets, S/W = Sidewalk Work, DB = Directional Boring, BP= Reinforced Concrete Bus Pad, UB = Reinforced Concrete for Utility Pull Boxes and Curb Ramps
Green background: Staging Only

Number of blocks: 2 Total repair size:5 sqft Total Streetspace:3 Total Sidewalk: sqft

ID	Street Name	From St	To St	Sides	*Other	Asphalt	Concrete	Street Space Feet	Sidewalk Feet
1	IRVING ST	26TH AVE	27TH AVE	North	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	3	0	0	
2		26TH AVE	27TH AVE	South	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	2	0	3	
	Total					**5**	**0**	**3**	

Exceptions - Coordination

It is mandatory that you coordinate your permit with the following jobs listed. You will be required to call each contact listed and create a note including the date contact was made, agreed coordination, name of contact, or date message(s) left if unable to reach a contact.

Street Use Conflicts:

Job #	Activity	Contact	
	- Streetscape project with special materials at this location, permit holder must contact project manager prior to commencing work for restoration requirements and coordination.	**Mike Rieger - (415) 558 -4492**	☐
Your Notes:			
Streets:	IRVING ST / 26TH AVE - 27TH AVE -		

Permit Conflicts:

permit	Dates	Agency	Contact	
Your Notes:				
Streets:				

Exceptions

20BW-00029

Street Name	From St	To St	Message	Job	Contact	Dates
IRVING ST						
	26TH AVE	27TH AVE -	Banners are allowed on this street			
	26TH AVE	27TH AVE -	Please see special paving requirements for Moratorium Streets.	2263J		Jan 16 2017-Jan 16 2022

City and County of San Francisco

(415) 554-5810
FAX (415) 554-6161
http://www.sfdpw.org

Department of Public Works
Bureau of Street-Use and Mapping
1155 Market St, 3rd floor
San Francisco, CA 94103

20BW-00029 *Request to Excavate a Moratorium Street*

For more information about this permit, please call Bureau of Street-Use & Mapping @ 415 554 5810.
Applicant: ALLWEST ENVIRONMENTAL, INC. **Received Date: May 27 2020 8:34AM**
Contact Person: ALLWEST ENVIRONMENTAL, INC.
Contact Phone:(415) 391-2510 x204 **Contact Email:leonard@allwest1.com**
Method:
Purpose:
Reason:
Description: Soil Samples

☐ **Approved** ☐ **Denied**

IRVING ST: 26TH AVE 27TH AVE (7303000) - North

Asphalt Square Footage: 3 | Concrete Square Footage: 0

Moratorium Start Date: 1/16/2017 | Moratorium End Date: 1/16/2022

Date Service Requested: 1/1/1900

Property Owner Name: | Property Owner Phone:

☐ **Approved** ☐ **Denied**

IRVING ST: 26TH AVE 27TH AVE (7303000) - South

Asphalt Square Footage: 2 | Concrete Square Footage: 0

Moratorium Start Date: 1/16/2017 | Moratorium End Date: 1/16/2022

Date Service Requested: 1/1/1900

Property Owner Name: | Property Owner Phone:

Recommended By:	Recommended By:	Approved By:
Permit Coordinator	Division Manager (or designee)	Bureau Manager (or designee)

No Diagram submitted

City and County of San Francisco
San Francisco Public Works · Bureau of Street Use and Mapping
1155 Market Street, 3rd Floor · San Francisco, CA 94103
sfpublicworks.org · tel 415-554-5810 · fax 415-554-6161

20TOC-03869 *Temporary Occupancy Permit*

Address : Multiple Locations **Cost: $703.00 Meters Paid: Y** **Block: Lot: Zip:**

Pursuant to Sections 724, 724.1, 724.2, and 724.3, of the Public Works Code, permission revocable at the will of the Director of Public Works to occupy a portion of the public right-of-way is granted to Permittee.

ALLWEST ENVIRONMENTAL, INC.

Name: ALLWEST ENVIRONMENTAL, INC.

MANDATORY COORDINATION WITH CONFLICTING PERMITS IS REQUIRED. PERMIT HOLDER SHALL NOT COMMENCE WORK WITHOUT FIRST PROPERLY COORDINATING WITH EXISTING PERMIT HOLDERS AS NOTED ON THE EXCEPTION PAGE(S) OF THIS PERMIT. IF THIS PERMIT CONFLICTS WITH A CITY PROJECT OR OTHER APPROVED PERMIT, THE PERMIT HOLDER OF THIS PERMIT SHALL BE RESPONSIBLE FOR THE PROPER COORDINATION AND EVALUATION OF THE SITE PRIOR TO COMMENCING WORK.

Conditions	The permittee shall comply with all existing traffic controls and parking restrictions. The permittee shall also comply with any additional restrictions under the Special Traffic Permit issued by SFMTA. For information related to construction traffic restrictions please reference the latest edition of Regulations for Working in San Francisco Streets, the Blue Book. To download a copy of the Blue Book, please visit https://www.sfmta.com/services/streets-sidewalks/construction-regulations. A minimum four (4) foot wide clear pedestrian walkway must be maintained at all times. SFMTA Tow Procedures may be affected by the Shut Down. Please contact 415 701 2311 or 311 for more information regarding SFMTA enforcement of tow zones. All permits are subject to the requirements, conditions, and prohibitions set forth in San Francisco Health Order No. C19-07 (Shelter In Place), California EXECUTIVE ORDER N-33-20, and any other applicable federal, state, or local laws. For more information please review the Order of the San Francisco Health Officer (https://www.sfdph.org/dph/alerts/files/HealthOrderC19-07-%20Shelter-in-Place.pdf) and the City's webpage with more extensive and regularly updated explanatory information on what is and is not allowed under the City's Order, including with regard to construction (https://sf.gov/stay-home-except-essential-needs).

Event/Operation:	PUC Investigation
Permit Linear Footage	160
Elements of Occupancy	Allwest Truck, ECA Truck, and ECA Trailer
From:	5/27/2020 8AM
Start Time	8AM
To:	5/29/2020 8PM
End Time	8PM
Need to call for Inspection	
Need to post tow-away sign	To activate and register this permit for towing, follow the tow-away sign activation and photo upload process. To tow a vehicle call the Tow Desk at (415) 553-1200.
Special Traffic permit required	CALL FOR Special traffic permit MAY BE required (Please check DPT Blue Book for any traffic restrictions; to obtain a "Blue Book", please contact MTA at (415) 701-4673).
Food:	N
Other:	
Performing Arts:	N
Street Space Hours	8AM Thru 8PM
Meter Segment(s)	IRVING ST: 26TH AVE to 27TH AVE (2500 - 2599) 05/27/2020 thru 05/29/2020 (3 days) IRVING ST: 26TH AVE to 27TH AVE (2500 - 2599) 05/27/2020 thru 05/29/2020 (3 days)
Night Noise	
Work Scope	

The undersigned Permittee hereby agrees to comply with all requirements and conditions noted on this permit

Approved Date : 05/27/2020

Applicant/Permitee Date

Printed : 6/25/2020 2:42:00 PM Plan Checker Theresa Muehlbauer

REVOCABLE PERMIT IS GRANTED SUBJECT TO THE FOLLOWING CONDITIONS

1. The permittee shall pay a permit fee to defray the costs to the City for issuance of this permit and for occupancy of the location(s) permitted herein.
2. The permittee shall abide by all guidelines and conditions set forth in DPW Order No. 165,716, (Establishing Guidelines for Temporary Occupancy of Public Right-of-Ways).
3. The permittee shall be responsible for any damage to any facilities of the City, including but not limited to, the Department of Public Works, the San Francisco Water Department, and public utility companies due to this occupancy.
4. The permittee shall be responsible for obtaining any other required permits and abiding by all rules and regulations of agencies of the City and County of San Francisco, including but not limited to, the Department of Parking and Traffic, the San Francisco Police Department, the Department of Public Health and the Department of City Planning.
5. All elements of the above mentioned/permitted occupancy shall be installed to conform to the applicable provisions, rules, regulations and guidelines of San Francisco Building Code (SFBC), The Americans with Disabilities Act (ADA) and the Americans with Disabilities Act Accessibility Guidelines (ADAAG), including but not limited to providing and maintaining a minimum 4' clearance between the occupancy permitted herein and any existing street furniture (utility poles, parking meters, mail boxes, etc.).
6. In consideration of this Permit being issued for the work described in the application, Permittee on its behalf and that of any successor or assign, and on behalf of any lessee, promises and agrees to perform all the terms of this Permit and to comply with all applicable laws, ordinances and regulations.
7. Permittee agrees on its behalf and that of any successor or assign to hold harmless, defend, and indemnify the City and County of San Francisco, including, without limitation, each of its commissions, departments, officers, agents and employees (hereinafter collectively referred to as the "City") from and against any and all losses, liabilities, expenses, claims, demands, injuries, damages, fines, penalties, costs or judgments including, without limitation, attorneys' fees and costs (collectively, "claims") of any kind allegedly arising directly or indirectly from (i) any act by, omission by, or negligence of, Permittee or its subcontractors, or the officers, agents, or employees of either, while engaged in the performance of the work authorized by this Permit, or while in or about the property subject to this Permit for any reason connected in any way whatsoever with the performance of the work authorized by this Permit, or allegedly resulting directly or indirectly from the maintenance or installation of any equipment, facilities or structures authorized under this Permit, (ii) any accident or injury to any contractor or subcontractor, or any officer, agent, or employee of either of them, while engaged in the performance of the work authorized by this Permit, or while in or about the property, for any reason connected with the performance of the work authorized by this Permit, or arising from liens or claims for services rendered or labor or materials furnished in or for the performance of the work authorized by this Permit, (iii) injuries or damages to real or personal property, good will, and persons in, upon or in any way allegedly connected with the work authorized by this Permit from any cause or claims arising at any time, and (iv) any release or discharge, or threatened release or discharge, of any hazardous material caused or allowed by Permittee in, under, on or about the property subject to this Permit or into the environment. As used herein, "hazardous material" means any substance, waste or material which, because of its quantity, concentration of physical or chemical characteristics is deemed by any federal, state, or local governmental authority to pose a present or potential hazard to human health or safety or to the environment.
8. Permittee must hold harmless, indemnify and defend the City regardless of the alleged negligence of the City or any other party, except only for claims resulting directly from the sole negligence or willful misconduct of the City. Permittee specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City from any claim which actually or potentially falls within this indemnity provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Permittee by the City and continues at all times thereafter. Permittee agrees that the indemnification obligations assumed under this Permit shall survive expiration of the Permit or completion of work.
9. Permittee shall obtain and maintain through the terms of this Permit general liability, automobile liability or workers' compensation insurance as the City deems necessary to protect the City against claims for damages for personal injury, accidental death and property damage allegedly arising from any work done under this Permit. Such insurance shall in no way limit Permitee's indemnity hereunder. Certificates of insurance, in form and with insurers satisfactory to the City, evidencing all coverages above shall be furnished to the City before commencing any operations under this Permit, with complete copies of policies furnished promptly upon City request.
10. The permittee and any permitted successor or assign recognize and understand that this permit may create a possessory interest.

**(TOW-AWAY AND NO STOPPING SIGNS)

1. Tow-Away Signs are installed by the permittee:
2. The permittee shall post signs 72 hours in advance of the occupancy authorized in the permit and remove such signs upon termination of the permit. A permittee must maintain signs during the entire term of occupancy and during the hours specified in the permit. If any information required on a sign must be modified, the permittee shall contact Public Works to determine if a modification can be done rather than change the information on the existing sign. If signs are removed, modified, or altered in any way, it shall be the permittee's responsibility to install new signs containing the required information.

** "No Parking" construction signs may be provided by Public Works at $4/sign. If elected, this cost will be added to your permit.

Permit Addresses

20TOC-03869

*RW = RockWheel, SMC = Surface Mounted Cabinets, S/W = Sidewalk Work, DB = Directional Boring, BP= Reinforced Concrete Bus Pad, UB = Reinforced Concrete for Utility Pull Boxes and Curb Ramps
Green background: Staging Only

Number of blocks: 2 Total repair size:0 sqft Total Streetspace:160 Total Sidewalk: sqft

ID	Street Name	From St	To St	Sides	*Other	Asphalt	Concrete	Street Space Feet	Sidewalk Feet
1	IRVING ST	26TH AVE	27TH AVE	North	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0	100	
2		26TH AVE	27TH AVE	South	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0	60	
	Total					**0**	**0**	**160**	

Exceptions - Coordination

It is mandatory that you coordinate your permit with the following jobs listed. You will be required to call each contact listed and create a note including the date contact was made, agreed coordination, name of contact, or date message(s) left if unable to reach a contact.

Street Use Conflicts:

Job #	Activity	Contact	
	- Streetscape project with special materials at this location, permit holder must contact project manager prior to commencing work for restoration requirements and coordination.	**Mike Rieger - (415) 558 -4492**	☐
Your Notes:			
Streets:	IRVING ST / 26TH AVE - 27TH AVE -		

Permit Conflicts:

permit	Dates	Agency	Contact	
Your Notes:				
Streets:				

Exceptions

20TOC-03869

Street Name	From St	To St	Message	Job	Contact	Dates
IRVING ST						
	26TH AVE	27TH AVE -	Banners are allowed on this street			
	26TH AVE	27TH AVE -	Conflict with existing Street Use Permit.	19B-00113	Andrea Bellas - 415 431 2950 x 12 - 4154312950 x 6019	Dec 31 2019-Dec 20 2020
	26TH AVE	27TH AVE -	Conflict with existing Street Use Permit.	20BW-00029	415 391 2510 - 415 391 2510	May 27 2020-May 29 2020
	26TH AVE	27TH AVE -	Please see special paving requirements for Moratorium Streets.	2263J		Jan 16 2017-Jan 16 2022

No Diagram submitted

APPENDIX C

AllWest

STANDARD GEOPROBE™ DPT SAMPLING PROCEDURES

Soil Sampling

Direct push technology (DPT) soil core sampling using Geoprobe™ or similar methods is accomplished using a nominal 4-foot long, 2-inch outside diameter (OD) stainless steel core barrel drive probe and extension rods. The drive probe is equipped with nominal 1 ½-inch inside diameter (ID) clear PVC plastic tubes that line the interior of the probe. The probe and insert tubes are together hydraulically driven using a percussion hammer in 4-foot intervals to the specified depth. After each drive interval the drive probe and rods are retrieved to the surface. The PVC tube containing subsurface soil is then removed. Selected soil sample intervals can be cut from the 4-foot PVC tube for possible analytical or geotechnical testing, or other purposes.

The drive probe is then cleaned, equipped with a new PVC tube and reinserted into the boring with extension rods as required. The apparatus is then driven following the above procedure until the desired depth is obtained. The PVC tubes and recovered soil are inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples are screened for organic vapors using an organic vapor meter (OVM), photo-ionization detector (PID) or other appropriate device. OVM/PID readings, soil staining and other relevant observations are recorded. The soils contained in the sample liners are then classified according to the Uniform Soil Classification System and recorded on the soil boring logs.

Sample liners selected for laboratory analyses are sealed with Teflon™ sheets, plastic end caps, and silicon tape. Samples can also be collected from inside the liner using an EnCore™ type sampler per EPA Method 5035. The sealed sample liner is then labeled, sealed in a plastic bag, and placed in an ice chest cooled to 4°C with crushed ice for temporary field storage and transportation. The standard chain-of-custody protocol is maintained for all soil samples from the time of collection to arrival at the laboratory.

Groundwater Sampling

Groundwater sampling is performed after the completion of soil sampling and when the boring has reached its desired depth. The steel probe and rods are then removed from the boring and new, nominal 1-inch diameter PVC solid and perforated temporary casing is lowered into the borehole. Alternatively, a retractable screen sampling device such as a Hydropunch™ can be driven to the desired depth and pulled back to expose the screened interval. Depth to water is then measured using an electronic groundwater sounding probe. Groundwater samples are collected using a stainless steel bailer, disposable polyethylene bailer, or check valve or peristaltic pump with disposable Teflon™ or polyethylene sample tubing.

After the retrieval of the bailer, groundwater contained in the bailer (or discharged from sample tubing) is decanted into laboratory provided containers. The containers are then sealed with Teflon™ coated caps with no headspace, labeled, and placed in an ice chest for field storage and transportation to a state certified analytical laboratory. The standard chain-of-custody protocols are followed from sample collection to delivery to the laboratory. A new bailer (or sample tubing) is used for each groundwater sampling location to avoid cross contamination.

APPENDIX D

AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
Telephone: 415-391-2510

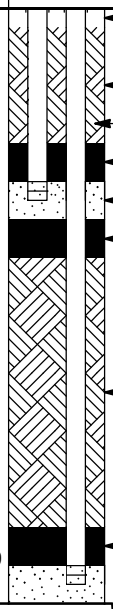
WELL NUMBER SVP-10 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc. core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" concrete	
	MC SVP-10@1-1.5	100	SP		(SP) Tan fine-grained sand with small rock fragments present from ~1-3', petroleum odor noticed in soil (fill)	PID = 2.9
5	MC SVP-10@4.5-5	100	SP		5.0 (SP) Same as above, but no rocks present, petroleum odor becomes stronger as depth increases, staining noticed as color darkens	PID = 6.8
10	MC SVP-10@9.5-10	100	SP		9.0 (SP) Brownish tan fine-grained sand, stong petroleum odor noticed, soil staining present	PID = 8.4
15	MC SVP-10@14.5-15	100	SP		13.0 (SP) Same as above 15.5	PID = 14.9

Bottom of borehole at 15.5 feet.

WELL DIAGRAM



- 6" Traffic rated vault box w/ concrete surface seal
- Cement w/ 5% bentonite grout slurry
- 1/4" OD Teflon tubing
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack
- Dry bentonite granular seal
- Cement w/ 5% bentonite grout slurry
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack

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WELL NUMBER SVP-11 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/26/20 **COMPLETED** 5/26/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 6" thick concrete	
			SP		(SP) Brown fine-grained sand with minor rock fragments, no odor or staining (fill?)	PID = 0.1
					4.0	
5	MC SVP-11@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining	
					8.0	PID = 0.2
			SP		(SP) Same as above	
10	MC SVP-11@9.5-10	100			12.0	PID = 0.2
			SP		(SP) Same as above	
15	MC SVP-11@14.5-15	100			15.5	PID = 0.5

Bottom of borehole at 15.5 feet.

WELL DIAGRAM

- 6" Traffic rated vault box w/ concrete surface seal
- Cement w/ 5% bentonite grout slurry
- 1/4" OD Teflon tubing
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack
- Dry bentonite granular seal
- Cement w/ 5% bentonite grout slurry
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack

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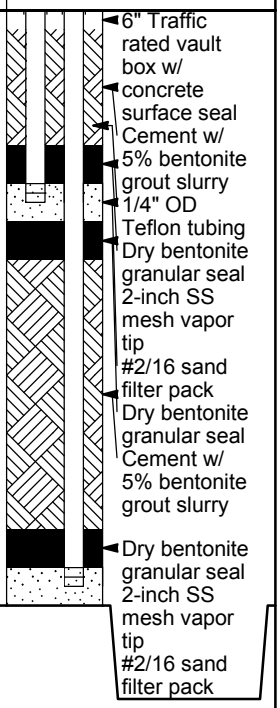
WELL NUMBER SVP-12 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
	MC SVP-12@1-1.5	100	SP		(SP) Tan fine-grained sand, small rock fragments near 4' (fill)	PID = 1
5	MC SVP-12@4.5-5	100	SP		5.0 (SP) Same as above, slightly turning darker brown (fill)	
			SP		9.0 (SP) Same as above, small pieces of rocks and woodis noticed from 12-13' (fill)	PID = 1.4
10	MC SVP-12@9.5-10	100	SP		13.0 (SP) Same as above	PID = 1
15	MC SVP-12@14.5-15	100	SP		15.5	PID = 2.3

Bottom of borehole at 15.5 feet.



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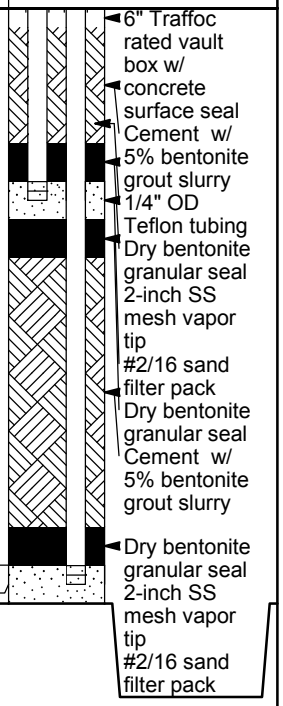
WELL NUMBER SVP-13 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
	MC SVP-13@1-1.5	100	SP		(SP) Tannish brown fine-grained sand, no odor or staining	PID = 0
					4.0	
5	MC SVP-13@4.5-5	100	SP		(SP) Same as above	
					8.0	
10	MC SVP-13@9.5-10	100	SP		(SP) Same as above, color turning darker brown	PID = 0
					12.0	PID = 0
			SP		(SP) Same as above, very minor rock pieces	
15	MC SVP-13@14.5-15	100			15.5	PID = 0

Bottom of borehole at 15.5 feet.



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WELL NUMBER SVP-14 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/26/20 **COMPLETED** 5/26/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
			SP		(SP) Brown fine-grained sand with sparse rock fragments, no odor or staining (fill?)	PID = 0
					4.0	
5	MC SVP-14@4.5-5	100	SP		(SP) Same as above, no rocks present	
					8.0	PID = 0
10	MC SVP-14@9.5-10	100	SP		(SP) Same as above	
					12.0	PID = 0
			SP		(SP) Same as above	
15	MC SVP-14@14.5-15	100			15.5	PID = 0

Bottom of borehole at 15.5 feet.

WELL DIAGRAM:
- 6" Traffic rated vault box w/ concrete surface seal
- Cement w/ 5% bentonite grout slurry
- 1/4" OD Teflon tubing
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack
- Dry bentonite granular seal
- Cement w/ 5% bentonite grout slurry
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack

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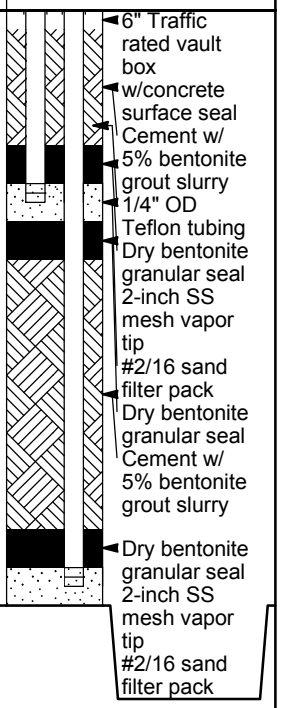
WELL NUMBER SVP-15 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
	MC SVP-15@1-1.5	100	SP		(SP) Brown fine-grained sand, no odor or staining, well sorted, poorly graded	PID = 0.1
5	MC SVP-15@4.5-5	100	SP		5.0 (SP) Same as above	
					9.0	PID = 0
10	MC SVP-15@9.5-10	100	SP		(SP) Same as above	
					13.0 (SP) Same as above	
15	MC SVP-15@14.5-15	100	SP		15.5	PID = 0

Bottom of borehole at 15.5 feet.



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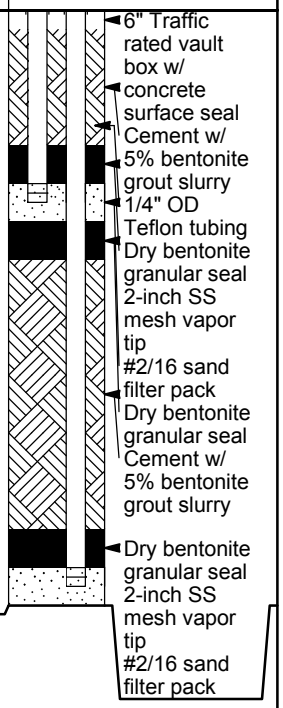
WELL NUMBER SVP-16 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/26/20 **COMPLETED** 5/26/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
			SP		(SP) Brown fine-grained sand, very minor rocks present, no odor or staining (fill?)	PID = 0.2
					4.0	
5	MC SVP-16@4.5-5	100	SP		(SP) Same as above, no rocks present	
					8.0	PID = 0.3
10	MC SVP-16@9.5-10	100	SP		(SP) Same as above, color becomes slightly lighter brown towards 9-12' bgs	
					12.0	PID = 0.3
			SP		(SP) Same as above, color is brown	
15	MC SVP-16@14.5-15	100			15.5	PID = 0.3
					Bottom of borehole at 15.5 feet.	



AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
Telephone: 415-391-2510

BORING NUMBER SVP-17

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/28/20 **COMPLETED** 5/28/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temporary SVP @ 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.7 Asphalt ~8" thick.	
			SP		(SP) Brown fine-grained sand with minor asphalt debris toward 1-2.5, asphalt debris is not present from ~2.5-4' (fill)	PID = 0.2
					4.0	
5	MC SVP-17@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining, very minor rock fragments present and does not appear to be asphalt (fill?)	PID = 0.2
					8.0	
10	MC SVP-17@9.5-10	100	SP		(SP) Brown fine-grained sand, no odor or staining	PID = 0.3
					12.0	
			SP		(SP) Same as above	
15	MC SVP-17@14.5-15	100			15.5	PID = 0.3

Bottom of borehole at 15.5 feet.

AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
Telephone: 415-391-2510

WELL NUMBER SVP-18 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
	MC SVP-18@1-1.5	100	SP		(SP) Tan fine-grained sand with small rock fragments, no odor or staining (fill?)	PID = 1
5	MC SVP-18@4.5-5	100	SP		5.0 (SP) Tan fine-grained sand, no odor or staining	
			SP		9.0 (SP) Same as above	PID = 0.07
10	MC SVP-18@9.5-10	100	SP		13.0 (SP) Same as above	
15	MC SVP-18@14.5-15	100	SP		15.5	PID = 0.2

Bottom of borehole at 15.5 feet.

WELL DIAGRAM

- 6" Traffic rated vault box w/ concrete surface seal
- Cement w/ 5% bentonite grout slurry
- 1/4" OD Teflon tubing
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack
- Dry bentonite granular seal
- Cement w/ 5% bentonite grout slurry
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack

AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
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BORING NUMBER SVP-19 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2525 Irving Street, San Francisco, CA
DATE STARTED 5/27/20 **COMPLETED** 5/27/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temporary SVPs @ 5' and 15" bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 Asphalt ~2" thick.	
			SP		(SP) Brown fine-grained sand, no odor or staining, small asphalt pieces mix in from ~0.5-3' bgs(fill)	PID = 0.3
					4.0	
5	MC SVP-19@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining	PID = 0.3
					8.0	
10	MC SVP-19 @9.5-10	100	SP		(SP) Same as above	PID = 0.4
					12.0	
			SP		(SP) Same as above	
15	MC SVP-19@14.5-15	100			15.5	PID = 0.4

Bottom of borehole at 15.5 feet.

AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
Telephone: 415-391-2510

BORING NUMBER SVP-20 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2525 Irving Street, San Francisco, CA
DATE STARTED 5/27/20 **COMPLETED** 5/27/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES SVP at 5' and 15', removed SVPs, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 Asphalt ~2" thick	
			SP		(SP) Brown fine-grained sand, no odor or staining. Asphalt debris at 0-0.5' bgs (fill?)	PID = 0
					4.0	
5	MC SVP-20@4.5-5	100	SP		(SP) Brown fine-grained sand, very minor rock fragments near 7-8'	
					8.0	PID = 0
					(SP) Same as above, no rocks present	
10	MC SVP-20@9.5-10	100	SP		12.0	
					(SP) Same as above	PID = 0
			SP			
15	MC SVP-20@14.5-15	100			15.5	PID = 0

Bottom of borehole at 15.5 feet.

AllWest Environmental
2141 Mission Street, Suite 100
San Francisco, CA 94110
Telephone: 415-391-2510

BORING NUMBER SVP-21 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2525 Irving Street, San Francisco, CA
DATE STARTED 5/27/20 **COMPLETED** 2/27/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temporary SVPs @ 5' and 15' bgs, removed, grouted w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 Asphalt ~ 2" thick	
			SP		(SP) Brown fine-grained sand with asphalt bebris from approximately 1-2', asphalt debris is minor compared to other borings, soil is mixed throughout, no odor or staining (fill)	PID = 0
					4.0	
5	MC SVP-21@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining, small rock fragments present, but not asphalt (fill?)	PID = 0.1
					8.0	
10	MC SVP-21@9.5-10	100	SP		(SP) Brown fine-grained sand, no odor or staining	PID = 0.1
					12.0	
			SP		(SP) Same as above	
15	MC SVP-21@14.5-15	100			15.5	PID = 0.1

Bottom of borehole at 15.5 feet.

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BORING NUMBER SVP-22 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2525 Irving Street, San Francisco, CA
DATE STARTED 5/27/20 **COMPLETED** 5/27/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6"MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temp SVPs set at 5' and 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 Asphalt ~2" thick	
			SP		(SP) Brown fine-grained sand, no odor or staining; asphalt debris from 0-0.5 feet (fill)	PID = 0
					4.0	
5	MC SVP-22@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining	PID = 0.2
					8.0	
10	MC SVP-22@9.5-10	100	SP		(SP) Same as above	PID = 0.2
					12.0	
			SP		(SP) Same as above	PID = 0.3
15	MC SVP-22@14.5-15	100			15.5	

Bottom of borehole at 15.5 feet.

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BORING NUMBER SVP-3

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2525 Irving Street, San Francisco, CA
DATE STARTED 5/28/20 **COMPLETED** 5/28/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temp SVP @ 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.7 Asphalt ~8" thick	
			SP		(SP) Brown fine-grained sand, no odor or staining; asphalt debris from 0-1.5' (fill)	PID = 0.1
					4.0	
5	MC SVP-3@4.5-5	100	SP		(SP) Same as above	PID = 0.1
					8.0	
10	MC SVP-3@9.5-10	100	SP		(SP) Same as above	PID = 0.3
					12.0	
			SP		(SP) Same as above	PID = 0.3
15	MC SVP-3@14.5-15	100			15.5	

Bottom of borehole at 15.5 feet.

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BORING NUMBER SVP-4

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2511 Irving Street, San Francisco, CA
DATE STARTED 5/28/20 **COMPLETED** 5/28/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temp SVP @ 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.7 Asphalt ~8" thick	
			SP		(SP) Brown, fine-grained sand, no odor or staining, very minor asphalt throughout. Asphalt debis with some sand 0-1.5	PID = 0
					4.0	
5	MC SVP-4@4.5-5	100	SP		(SP) Brown fine-grained sand, no asphalt present, no odor or staining	PID = 0
					8.0	
10	MC SVP-4@9.5-10	100	SP		(SP) Same as above	PID = 0.1
					12.0	
			SP		(SP) Same as above	
15	MC SVP-4@14.5-15	100			15.5	PID = 0.1

Bottom of borehole at 15.5 feet.

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BORING NUMBER SVP-5

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/28/20 **COMPLETED** 5/28/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temp SVP @ 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.7 Asphalt ~8" thick	
			SP		(SP) Brown fine-grained sand, no odor or staining. Asphalt debris 0.5-1' bgs (fill)	PID = 0
					4.0	
5	MC SVP-5@4.5-5	100	SP		(SP) Brown fine-grained sand, no odor or staining	PID = 0
					8.0	
10	MC SVP-5@9.5-10	100	SP		(SP) Same as above	PID = 0
					12.0	
			SP		(SP) Same as above	PID = 0
15	MC SVP-5@14.5-15	100			15.5	

Bottom of borehole at 15.5 feet.

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BORING NUMBER SVP-6

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/28/20 **COMPLETED** 5/28/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES Temp SVP @ 15' bgs, removed, grouted boring w/ cement
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.7 Asphalt ~8" thick	
			SP		(SP) Brown fine-grained sand, no odor or staining, rock fragments present. Asphalt debris with some sand 0.5-1 (fill)	
					4.0	PID = 0.1
5	MC SVP-6@4.5-5	100	SP		(SP) Brown fine-grained sand with very minor rock fragments, does not appear to be any asphalt, no odor or staining	
					8.0	PID = 0.1
10	MC SVP-6@9.5-10	100	SP		(SP) Brown fine-grained sand, no rocks present, no odor or staining	
					12.0	PID = 0.1
			SP		(SP) Same as above	
15	MC SVP@14.5-15	100			15.5	PID = 0.1

Bottom of borehole at 15.5 feet.

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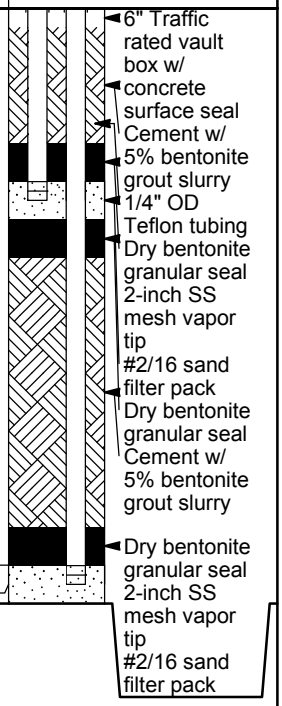
WELL NUMBER SVP-7 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/26/20 **COMPLETED** 5/26/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.) **GROUND WATER LEVELS:**
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia concrete core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
			SP		(SP) Brown fine-grained sand with minor rock fragments, no odor or staining (fill?)	
					4.0	PID = 0
5	MC SVP-7@4.5-5	100	SP		(SP) Same as above (fill?)	
					8.0	PID = 0.2
10	MC SVP-7@9.5-10	100	SP		(SP) Brown fine-grained sand, no rocks present, no odor or staining	
					12.0	PID = 0.2
			SP		(SP) Same as above	
15	MC SVP-7@14.5-15	100				PID = 0.2
					Bottom of borehole at 15.5 feet.	



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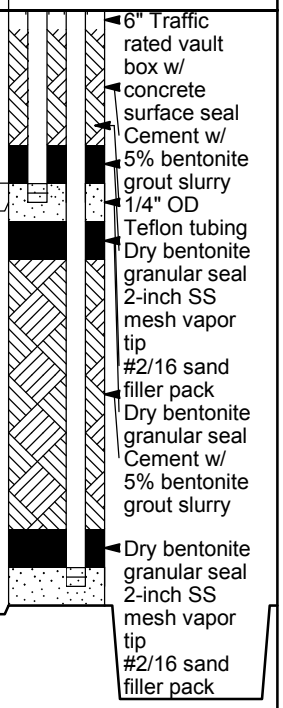
WELL NUMBER SVP-8 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/24/20 **COMPLETED** 5/24/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" thick concrete	
	MC SVP-8@1-1.5	100	SP		(SP) Tan fine-grained sand with small rock fragments, no odor or staining (fill?)	
5	MC SVP-8@4.5-5	100	SP		5.0 (SP) Tannish brown fine-grained sand, no odor or staining, color darkens with depth	PID = 0
					9.0	PID = 0
10	MC SVP-8@9.5-10	100	SP		(SP) Same as above, tannish brown color consistent throughout	
					13.0	PID = 0
15	MC SVP-8@14.5-15	100	SP		(SP) Same as above	
					15.5	PID = 0
					Bottom of borehole at 15.5 feet.	

WELL DIAGRAM



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WELL NUMBER SVP-9 A/B

CLIENT Police Credit Union
PROJECT NAME PCU Subsurface
PROJECT NUMBER 202006.23
PROJECT LOCATION 2550 Irving Street, San Francisco, CA
DATE STARTED 5/23/20 **COMPLETED** 5/23/20
GROUND ELEVATION _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR ECA (Environmental Control Associates, Inc.)
GROUND WATER LEVELS:
DRILLING METHOD DPT (direct push technology), 1.6" ID MacroCore
AT TIME OF DRILLING ---
LOGGED BY Sam Calloway **CHECKED BY** Len Niles
AT END OF DRILLING ---
NOTES 10" dia conc core, 6" dia vault box. Set perm SVPs @ 5' and 15' bgs
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA
0					0.5 4" concrete	
	MC SVP-9@1-1.5	100	SP		(SP) Tan fine-grained sand, very minor rock fragments present, no odor or staining (fill?)	PID = 0.2
5	MC SVP-9@4.5-5	100	SP		5.0 (SP) Tan fine-grained sand, no odor or staining	PID = 0.1
10	MC SVP-9@9.5-10	100	SP		9.0 (SP) Same as above, color becoming tannish brown	PID = 0.1
			SP		13.0 (SP) Same as above.	
15	MC SVP-9@14.5-15	100			15.5	PID = 0.2

Bottom of borehole at 15.5 feet.

WELL DIAGRAM:
- 6" Traffic rated vault box w/ concrete surface seal
- Cement w/ 5% bentonite grout slurry
- 1/4" OD Teflon tubing
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack
- Dry bentonite granular seal
- Cement w/ 5% bentonite grout slurry
- Dry bentonite granular seal
- 2-inch SS mesh vapor tip
- #2/16 sand filter pack

APPENDIX E

STANDARD GEOPROBE® AND VAPOR PIN™ SOIL VAPOR PROBE INSTALLATION AND SAMPLING PROCEDURES

Geoprobe® DPT PRT Temporary Soil Vapor Probe Advancement

The Geoprobe® Direct Push Technology (DPT) Post Run Tubing (PRT) soil vapor sampling process involves driving into the subsurface a disposable Geoprobe® DPT sampling probe with expendable tip and a PRT adapter that are connected to 4-foot sections of Geoprobe® 1.25-inch inside diameter (ID) extension rods. The PRT adapter has a reverse-thread adapter at the upper end to allow the connection of flexible soil vapor sampling tubing with a PRT tubing adaptor after the installation (post-run) of the tip. The entire sampling assembly, the sampling tip, PRT adapter, and the Geoprobe® extension rods, is driven into the subsurface by a truck-mounted hydraulic percussion hammer. The sampler is driven to the desired depth as additional rods are connected. At the desired sampling depth, typically 5 feet below ground surface (bgs) a sufficient length of disposable flexible 0.25-inch OD polyethylene, Nylaflow™ or Teflon™ sample tubing is first lowered through the center of the extension rod and connected to the PRT adapter. Only Teflon™ sample tubing is to be used if naphthalene analysis is intended. The extension rod is then retracted 3 to 4 inches to create a small void around the PRT adapter and the expendable sampling tip for extracting a soil vapor sample from that location. Bentonite chips will be used to fill the annular space between the probe and the subgrade material to the ground surface. The bentonite will then be hydrated with distilled water. The temporary Geoprobe® PRT soil vapor probe will be sampled at least 2 hours following driving of the probe, to allow vapor conditions to equalize in subsurface materials and the bentonite surface seal to hydrate in general accordance with guidelines presented in the CalEPA Department of Toxic Substance Control (DTSC) *Advisory – Active Soil Gas Investigations*, July, 2015.

Geoprobe® DPT Borehole Advancement and Temporary Soil Vapor Probe Installation

Alternatively, borings can be advanced using truck-mounted or limited access Geoprobe® DPT continuous coring equipment using a nominal 4-foot long, 2-inch OD stainless steel core barrel drive sampler and extension rods. The drive probe will be equipped with nominal 1 ½-inch inside diameter (ID) clear PETG plastic tubes that line the interior of the probe. Continuous soil sample cores are recovered for potential lithologic characterization and laboratory analysis. Alternatively, borings can be advanced using truck-mounted or limited access Geoprobe® DPT equipment, or a hand-operated slide hammer, to drive 1-inch outside diameter (OD) rods and probes with expendable steel tips without recovering soil cores. After the probes or core barrels are advanced to the specified depth, typically 5.5 feet bgs, the probes and drive rods are removed, leaving the borehole open with the expendable probe tip (if used) at the bottom.

Plastic or stainless steel soil vapor probes, ½-inch diameter by 2-inches long and tipped with porous plastic membranes, are then inserted to the bottom of the 1-inch diameter boreholes at 5 feet bgs. The probe tips are attached to 7-foot lengths of flexible 0.25-inch OD polyethylene, Nylaflow™ or Teflon™ tubing extending to the top of the floor slab. Only Teflon™ sample tubing is to be used if naphthalene analysis is intended. A 1-foot interval of fine sand filter pack is placed in the borehole annulus around the probe, typically from approximately 4.5 to 5.5 feet bgs. A 1-foot interval of the annular space above the filter pack is then filled with non-hydrated granular bentonite. Hydrated granular bentonite or bentonite chips are then used to fill the annular space above the non-hydrated granular bentonite to the top of the floor slab or surface pavement. The bentonite is allowed to hydrate and borehole conditions to equalize for 2 hours prior to sampling activities, per DTSC vapor sampling guidelines. Temporary soil vapor probe installation procedures will be performed in general accordance with guidelines presented in the DTSC *Advisory – Active Soil Gas Investigations*, July, 2015.

Vapor Pin™ Sub-Slab Soil Vapor Probe Installation

The Cox-Colvin Vapor Pin™ semi-permanent sub-slab soil vapor probes are emplaced as follows: For a flush-mount installation, a 1 ½-inch diameter countersunk hole is drilled at least 1 3/4 inches into the concrete floor slab using a portable electric drill. A 5/8-inch diameter hole is then drilled below the countersunk hole through the concrete floor slab using a portable electric drill, and approximately 1-inch into the underlying soil to form a void. The concrete corings are removed using a brush or vacuum. Place the lower end of Vapor Pin™ assembly into the drilled hole. Place the small hole located in the handle of the extraction/installation tool over the Vapor Pin™ to protect the barb fitting and cap, and tap the Vapor Pin™ into place using a dead blow hammer. Make sure the extraction/installation tool is aligned parallel to the Vapor Pin™ to avoid damaging the barb fitting.

For flush mount installations, unscrew the threaded coupling from the installation/extraction handle and use the hole in the end of the tool to assist with the installation. During installation, the silicone sleeve will form a slight bulge between the slab and the Vapor Pin™ shoulder. Place the protective plastic cap on the Vapor Pin™ barbed fitting to prevent vapor loss prior to sampling. For flush mount installations, cover the Vapor Pin™ with a threaded metal flush mount cover. Allow 2 hours or more (per DTSC sub-slab vapor sampling guidelines) for the sub-slab soil-gas conditions to equilibrate prior to sampling.

Soil Vapor Sampling via Summa Canister

Soil vapor sampling procedures will be similar for Geoprobe® PRT and continuously cored temporary soil vapor probes, and semi-permanent sub-slab soil vapor probes, and will be in general accordance with *DTSC Advisory – Active Soil Gas Investigations*, July 2015. Soil vapor sampling will not be performed if significant precipitation (greater than ½ inch in a 24 hour period) has occurred within the previous five days. The soil vapor probe Teflon™ sample tubing will be connected to the sample manifold system via threaded SwageLok™ connectors.

AllWest will collect soil vapor samples in laboratory prepared 1-liter capacity SUMMA canisters. Prior to vapor purging and sample collection, a vacuum leak shut-in test of the flow-controller/gauge manifold assembly will be performed for a minimum of 1 minute, with a no allowable observed vacuum drop of 0.2 inches of mercury (in Hg). If any noticeable vacuum drop is observed, the manifold fittings will be tightened or manifold replaced and the shut-in test redone. Vacuum gauge sensitivity will register a minimum of 0.5 inches of mercury (in Hg). The sampling system configuration is shown in the attached schematic diagram.

Prior to sample collection, approximately 3 sampling system volumes of soil vapor will be purged at a flow rate of approximately 150-200 milliliters per minute (ml/min) from each vapor probe using a dedicated 6-liter capacity SUMMA purge canister (approximately 200 ml per in Hg vacuum). A 3-way valve (with the handle mounted outside the leak detection shroud) will be opened to divert the flow of purged soil vapor from the probe to the purge Summa canister, after opening the purge Summa valve.

Typical sampling system volumes for Geoprobe® installed soil vapor probes are 4.5 ml/feet for ¼-inch OD/0.17-inch ID tubing, and 200 ml/feet for a 2-inch diameter borehole with sand filter pack (minus tubing volume). Assuming a 2-inch diameter borehole with a 1 foot sand filter pack interval, the typical system volume would be approximately 235 ml for a 5-feet bgs temporary probe, including 6 feet of tubing

above grade. Therefore, 3 system volumes would typically be approximately 705 milliliters (ml) depending on tubing length and borehole diameter, depth and filter pack interval.

Typical sampling system volumes for sub-slab Vapor Pin™ probes are 4.5 ml/feet for ¼-inch OD/0.17-inch ID tubing and 0.17-inch ID Vapor Pin™ probe, and approximately 60 ml/feet for a 5/8-inch diameter borehole within the concrete floor slab. Assuming a 5/8-inch diameter borehole with a 3-inch deep void space in the floor slab below the Vapor Pin™ probe, the typical system volume would be approximately 43 ml including 5 feet of tubing and manifold above grade. Therefore, 3 system volumes would typically be approximately 128 ml depending on sample tubing and manifold length, borehole diameter, and floor slab borehole void depth below the installed Vapor Pin™ probe.

Alternatively, for large purge volumes due to larger diameter and deeper boreholes, an electric battery-powered vacuum pump may be used for purging. The vacuum pump is located outside of the leak detection shroud and connected to the flow-controller/gauge manifold assembly inside the shroud by ¼-inch OD/0.17-inch ID Teflon tubing passing through a 2-way valve (with the handle mounted outside the leak detection shroud). During the purging operation, the valve is opened to allow soil vapor to be purged by the pump. The pump is equipped with a variable rate flow controller, in addition to the flow regulator on the manifold, and the flow rate is set at 150-200 ml/min. The purge volume is determined by the purge time multiplied by the flow rate. When the required soil vapor volume has been purged, the 2-way valve is closed to isolate the pump from the sampling manifold, and the pump turned off.

During purging and sampling, a leak detection test is conducted using helium as a leak tracer inside an airtight plastic shroud covering the entire sampling apparatus, as recommended in the DTSC *Advisory – Active Soil Gas Investigations* (DTSC Appendix C, 2015). The leak detection shroud configuration is shown in the attached schematic diagram. The helium concentration within the shroud is monitored with a helium gas detection meter with a minimum precision of 0.1% to keep the ambient concentration at approximately 10% to 20% (or at least two orders of magnitude above the minimum meter detection limit). The helium tracer gas will be infused into the shroud at the required concentration at least 5 minutes prior to purging and sample collection. The ambient helium concentration within the shroud will be maintained throughout the purge and sample periods to within ±10% of the target concentration.

Depending upon helium availability, other leak detection gases such as isopropyl alcohol (IPA) or difluoroethane (DFA, commonly known as DustOff) may be substituted. Ambient concentrations of IPA within the shroud or purged soil vapor will be measured with a photo-ionization detector (PID); DFA concentrations are not measurable with a PID. The same volume of IPA (typically a cotton ball soaked with 5 milliliters of IPA) or DFA (typically a 5-second aerosol can discharge) will be used for each sample to maintain consistent ambient concentrations within the shroud.

Immediately following purging of 3 sampling system volumes of soil vapor, the 3-way and purge Summa valves will be closed, the sample Summa valve opened, and additional helium added to the shroud to bring the ambient concentration back up to within ±10% of the target concentration. The 3-way valve will then be turned to divert soil vapor from the probe to the sample Summa canister. Flow rates of approximately 150-200 ml/min are used to fill the sample canisters. The canisters are filled to approximate 80% of capacity (approximately 5 inches of mercury vacuum remaining), at which point first the 3-way valve, then the sample Summa valve are closed. All pertinent field observations, pressure, times and readings are recorded.

To verify helium detection (or PID if used) meter accuracy, one (1) ambient air sample per day may collected using a 1-liter SUMMA canister with a 150-200 ml/min flow restrictor inside the leak detection shroud during the sampling of one probe to measure ambient helium (or IPA or DFA if used as leak detection agents instead) concentrations inside the shroud.

After filling the sample Summa canister and closing the sample valve, a leak test of the probe seal will be conducted by using the 3-way valve to divert the flow of purged soil vapor from the probe to the helium detection meter via a monitoring port on the outside of the shroud. If the measured purged soil vapor helium concentration is less than 5% of the ambient shroud concentration, the soil vapor probe seal is presumed to be acceptable (per DTSC Appendix C, 2015). If the measured purged soil vapor helium concentration is greater than 5% of the ambient shroud concentration, the soil vapor probe seal is presumed to be defective, and the probe should be reinstalled and re-sampled.

Following sampling and leak test activities, all SUMMA canisters are removed from the manifold, labeled with sampling information, including initial and final vacuum pressures, placed in a dark container and transported under chain-of-custody to the analytical laboratory. The analytical laboratory will record the final SUMMA canister vacuum upon receipt.

Soil Vapor Sampling via Tenax™ Sorbent Tubes

For collecting soil vapor samples in sorbent tubes for analysis by EPA Method TO-17, the sampling manifold setup, shut-in leak checks, system purging and leak detect shroud setup are similar to that using Summa canisters. However, instead of using Summa canisters for sample collection, samples are collected in stainless steel sample tubes filled with Tenax™ sorbent material. The sorbent tubes are attached with Swagelock™ fittings to the sample manifold downstream from the gauges, filters, flow restrictors, and purge canister or pump, and within the leak detection shroud. In areas of suspected high contaminant concentrations, two (2) Tenax™ sorbent tubes may be placed in series to prevent contaminant breakthrough. A vacuum pump, 100 ml syringe or second SUMMA sample purge canister is attached to the downstream end of the Tenax™ sorbent tubes. If the sample manifold train is too large to fit in the leak detection shroud, the pump, syringe or second sample purge SUMMA may be located outside the shroud with the sample train tubing passing through the shroud wall.

A cotton ball saturated with approximately 5 ml isopropyl alcohol (IPA) and placed inside the shroud will be used as the leak detection gas agent. A photo-ionization detector (PID) is used to monitor IPA concentrations within the leak detection shroud, or purged soil vapor through access ports in the shroud via the 3-way valve. The 3-way valve is used to divert purged soil vapor to either the purge Summa canister during purging, or to the purged soil vapor monitoring port following purging for probe seal leak detection by monitoring IPA concentrations with a PID, as described in the Summa canister sampling section.

Flow rates of approximately 50 to 100 ml/min are used to fill the sorbent tubes with a total sample volume of approximately 1 to 4 liters, depending on the desired laboratory detection limits. The sampling system vacuum should not exceed 100 inches of water (or 7.4 in Hg). All pertinent field observations, pressure, times, and ambient and soil vapor IPA (PID) concentration readings are recorded. After the desired sample volume is withdrawn through the sorbent tubes, the tubes are removed from the manifold, capped with Swagelock™ caps, wrapped in aluminum foil, placed in a sealed plastic tube container, labeled with sampling information, placed in an ice chest cooled to 4°C with crushed ice, and transported under chain-of-custody to the analytical laboratory.

Soil Gas Probe Emplacement Methods

Figure 1
Permanent/Semi-permanent
Gas Probe
Construction

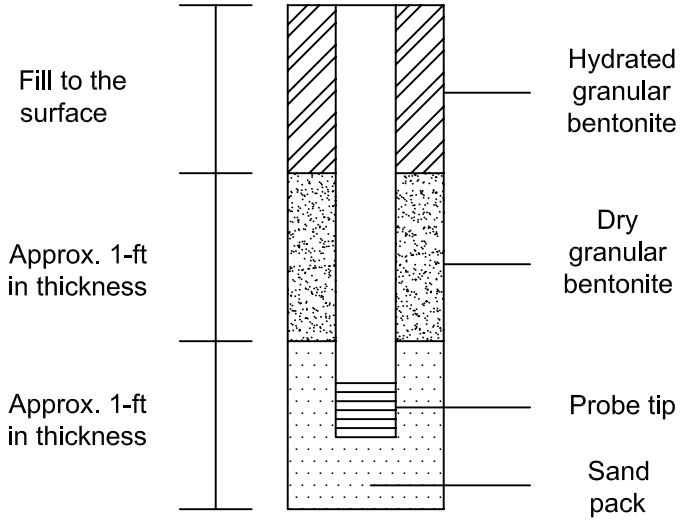
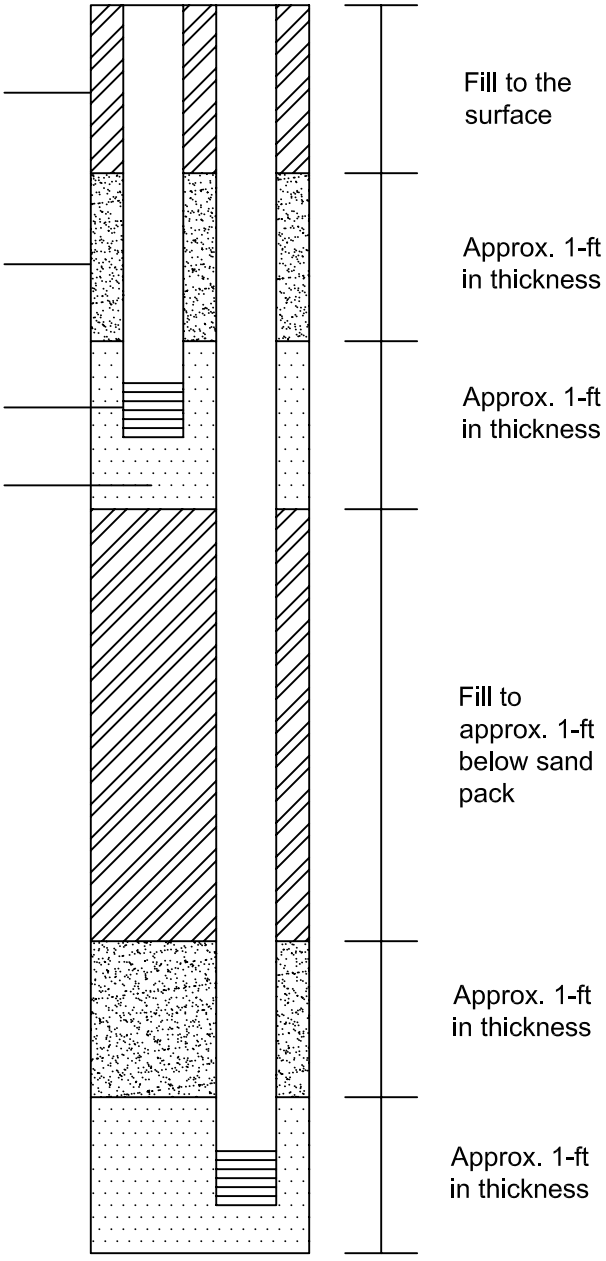
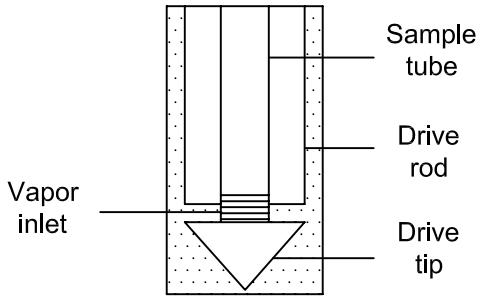


Figure 2
Multi-depth
Gas Probe
Construction

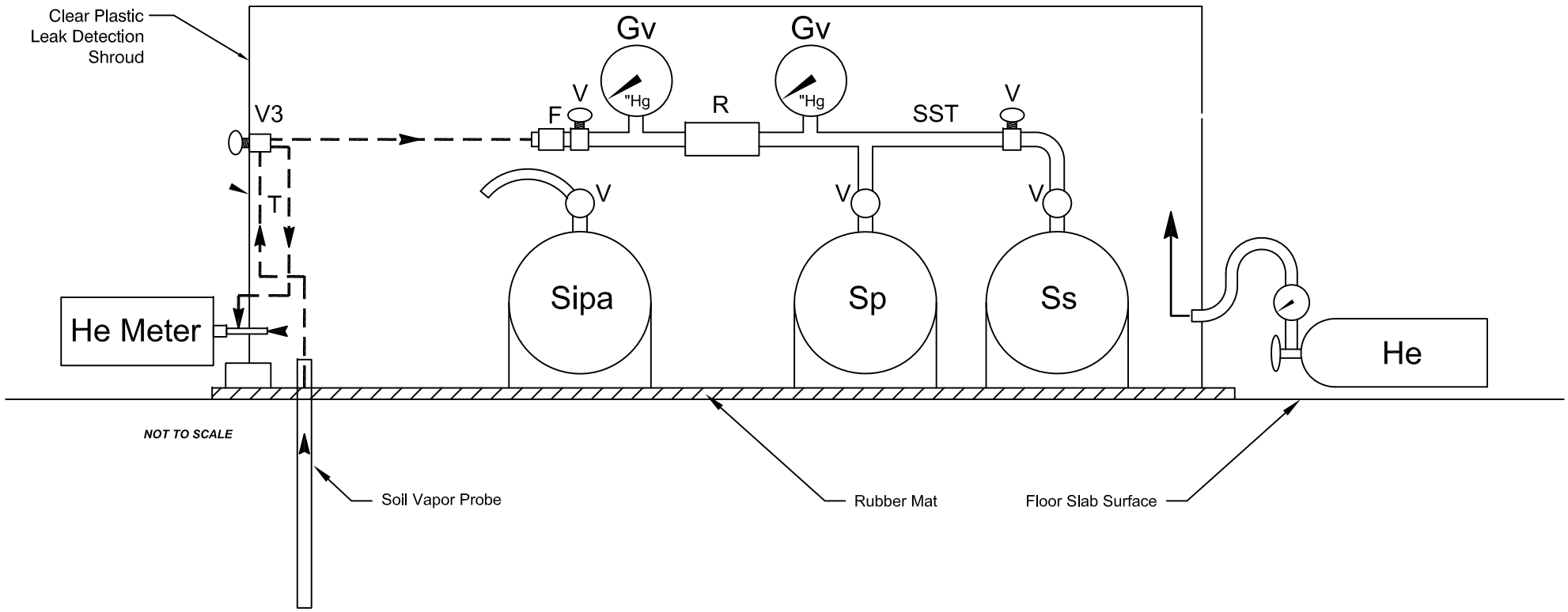


Temporary
Gas Probe Method



Sub-Slab Cox-Colvin Vapor Pin® Installation Sectional View

General Soil Gas Sampling Manifold Schematic with Leak Detection Shroud



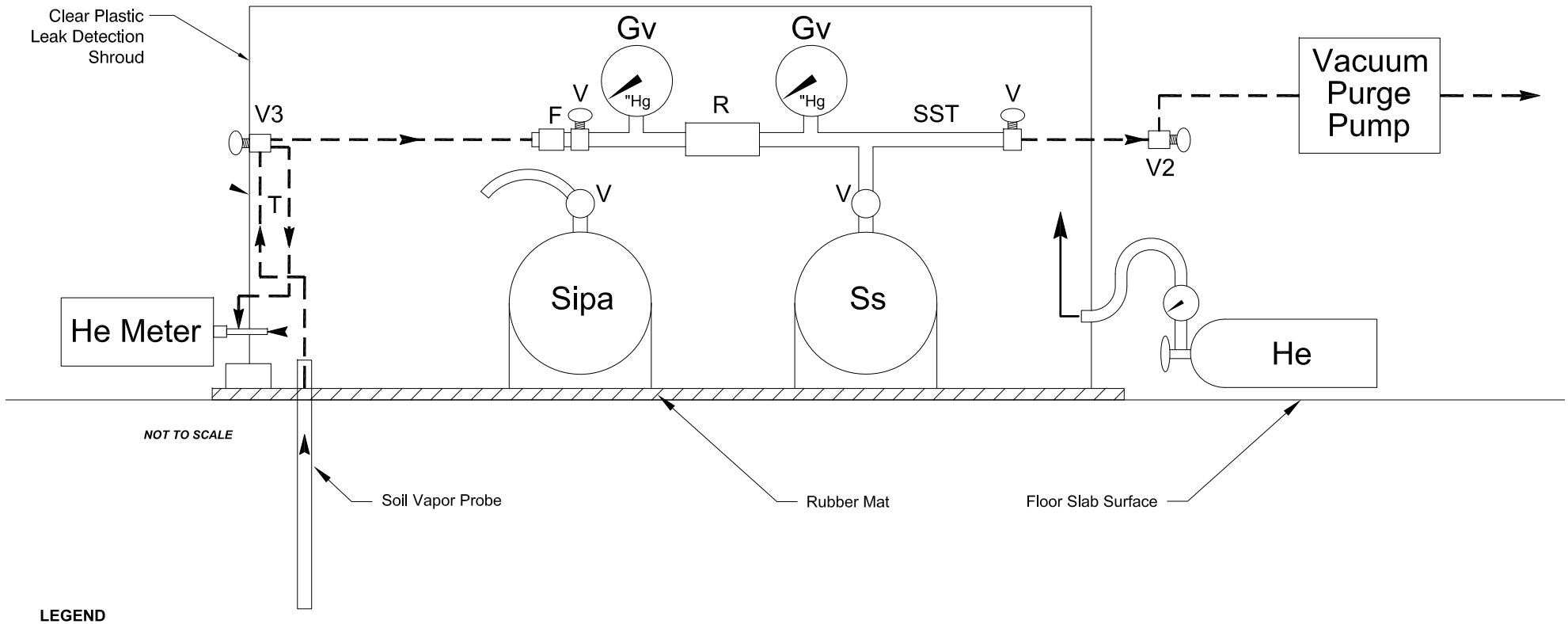
LEGEND

F	=	Filter
V	=	Valve
V3	=	Valve - 3-Way
Gp	=	Pressure Gauge
R	=	Flow Regulator
Gv	=	Vacuum Gauge
Sp	=	Purge Summa Canister
Ss	=	Sample Summa Canister
Sipa	=	Ambient Air Helium Leak Detect Gas Summa Canister
He Meter	=	Helium detector for He concentration readings - Shroud Ambient & Purged Soul Vapor
T	=	Disposable Teflon or Polyethylene Tubing
SST	=	Stainless Steel Tubing and Fittings
He	=	Helium tank, leak detect gas, regulator and tubing

AllWest

STANDARD OPERATING PROCEDURE
SOIL VAPOR SAMPLING
HELIUM SHROUD
SOURCE: ALLWEST
PREPARED BY: C. RAMELB / C. MONAHAN

General Soil Gas Sampling Manifold Schematic with Leak Detection Shroud



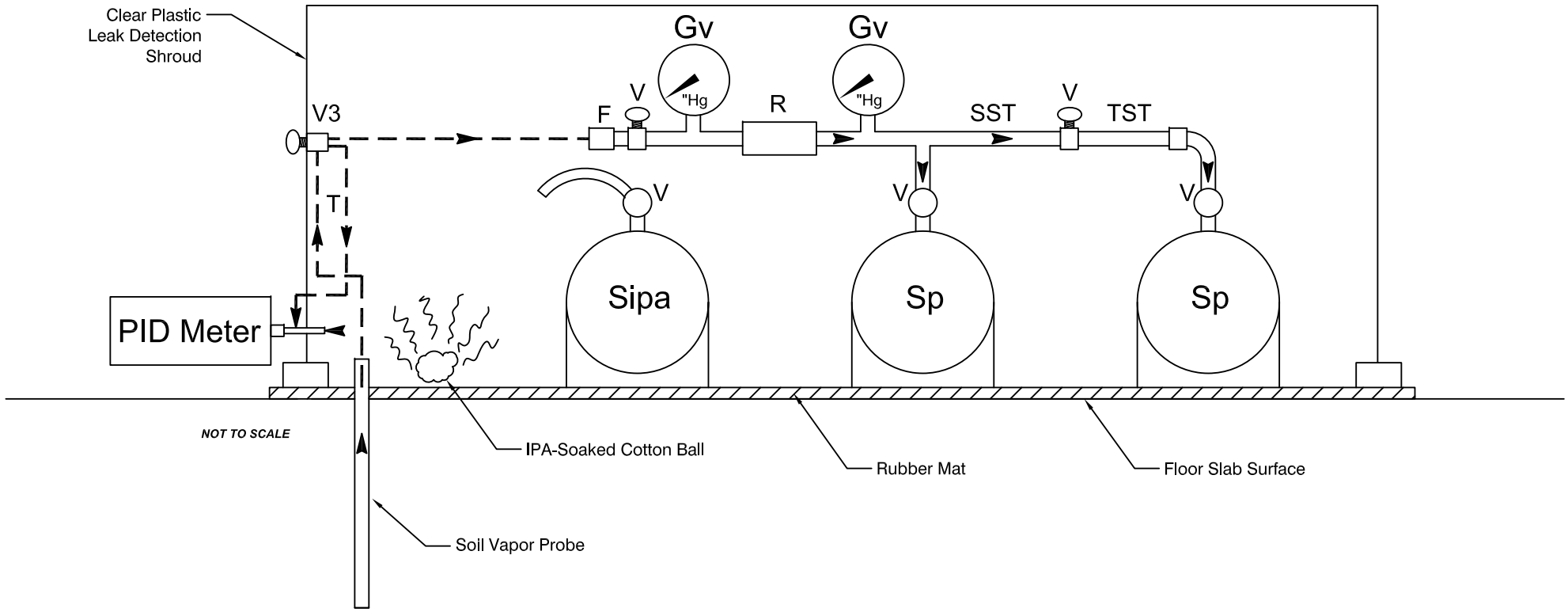
LEGEND

F	=	Filter
V	=	Valve
V3	=	Valve - 3-Way
Gp	=	Pressure Gauge
R	=	Flow Regulator
Gv	=	Vacuum Gauge
Sp	=	Purge Summa Canister
Ss	=	Sample Summa Canister
Sipa	=	Ambient Air Helium Leak Detect Gas Summa Canister
He Meter	=	Helium detector for He concentration readings - Shroud Ambient & Purged Soul Vapor
T	=	Disposable Teflon or Polyethylene Tubing
SST	=	Stainless Steel Tubing and Fittings
He	=	Helium tank, leak detect gas, regulator and tubing
V2	=	Valve, 2-Way
Vacuum Purge Pump	=	Electric Battery-Powered Vacuum Pump wirh Flow Regulator

AllWest

STANDARD OPERATING PROCEDURE
SOIL VAPOR SAMPLING
HELIUM SHROUD
SOURCE: ALLWEST
PREPARED BY: C. RAMELB / C. MONAHAN

General Soil Gas Sampling Manifold Schematic
For Sorbent Tubes with Leak Detection Shroud



LEGEND

F	=	Filter
V	=	Valve
V3	=	Valve - 3-Way
Gp	=	Pressure Gauge
R	=	Flow Regulator
Gv	=	Vacuum Gauge
Sp	=	Purge Summa Canister
TST	=	Tenax Sorbent Tube
Sipa	=	Ambient Air IPA Leak Detect Gas Summa Canister
PID Meter	=	Photo-ionization detector for IPA concentration readings - Shroud Ambient & Purged Soul Vapor
T	=	Disposable Teflon or Polyethylene Tubing
SST	=	Stainless Steel Tubing and Fittings
IPA	=	Isopropyl Alcohol-soaked cotton ball

AllWest

STANDARD OPERATING PROCEDURE
SOIL VAPOR SAMPLING - SORBENT TUBES
HELIUM SHROUD
SOURCE: ALLWEST
PREPARED BY: C. RAMELB / C. MONAHAN

APPENDIX F

Specialists in Physical Due Diligence and Remedial Services

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202606.23 Project Name: PCH Subsurface

Vapor Probe #: VP-1A Purge Summa #: D185 Sample Summa #: LC753

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: Sub-slab Grout/Bentonite: VP

Probe Diameter: 1/4" Line Length: VP Purge Volume: 0.64 "Hg / 127 ml

Tracer Gas: Helium Flow Regulator No: SGM480 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1215	2	-2.75	20%	start Purge
1217		-2		stop Purge
1228	5	-30	18%	start Sample
1233		-5		stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: VP-2A Purge Summa #: D922 Sample Summa #: LC687

Regulatory Agencies: _____

Contractor: Allwest

Hole Diameter: 2" Total Depth: Sub-slab Grout/Bentonite: VP

Probe Diameter: 1/4" Line Length: VP Purge Volume: 0.64 "Hg / 127 ml

Tracer Gas: Helium Flow Regulator No: SGM549 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1349	2	-6	20%	Start Purge
1351		-5.25		stop Purge
1356	5	-30	16%	start sample
1401		-5		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: VP-3 Purge Summa #: D922 Sample Summa #: LC1195

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: Sub-slab Grout/Bemtonite: VP

Probe Diameter: 1/4" Line Length: VP Purge Volume: 0.64" Hg / 127 ml

Tracer Gas: Helium Flow Regulator No: SGM484 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1021	2	-21	18%	start Purge
1023		-20.25		Stop Purge
1028	5	-30	16%	start Sample
1033		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He=0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: VP-4 Purge Summa #: D185 Sample Summa #: LC999

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 5/8" Total Depth: VP Grout/Bentonite: VP

Probe Diameter: 1/4" Line Length: VP Purge Volume: 0.64 "Hg / 127 ml

Tracer Gas: Helium Flow Regulator No: SGM025 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1037	3	-3.5	17%	Start Purge
1040		-2.75	17%	Stop Purge
1046	9	-30	19%	start sample
1055		-5	19%	stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: SVP-3 Purge Summa #: D185 Sample Summa #: LC176

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM286 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1259	6	-20.5	17%	Start Purge
1305		-16		Stop Purge
1310	5	-30	15%	Start Sample
1315		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-Sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-4 Purge Summa #: D185 Sample Summa #: LC936

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg | 839 ml

Tracer Gas: Helium Flow Regulator No: SGM488 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1342	5	-13	19%	Start Purge
1347		-8.5		Stop Purge
1351	4	-30	19%	start Sample
1355		-5		Stop Sample

Remarks: pre-sample He= 0.0 ppm post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-5 Purge Summa #: D619 Sample Summa #: SLC163

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM265 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1549	5	-30	15%	start Purge
1554		-25.5		stop Purge
1600	5	-30	16%	start sample
1605		-5		stop sample

Remarks: pre-sample He = 0.0 ppm

post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-6 Purge Summa #: D805 Sample Summa #: LC912

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2"Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM214 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1503	9	-7	18%	Start Purge
1512		-2.5		stop Purge
1517	5	-30	21%	Start Sample
1522		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-7A Purge Summa #: D740 Sample Summa #: LC987

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 5' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM174 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0936	4	-22	16%	Start Purge
0940		-18.5		Stop Purge
0944	5	-30	11%	Start Sample
0949		-5		Stop Sample

Remarks: pre-Sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-7B Purge Summa #: D740 Sample Summa #: LC436

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM500 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1000	10	-18.5	15%	Start ~~Sample~~ Purge
1010		-14		Stop Purge
1017	11	-30	17%	Start Sample
1028		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-8A Purge Summa #: D120 Sample Summa #: LC509

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentomite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM431 Flow Rate: 150 / 200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0932	5	-30	19%	start Sample Purge
0937		-26.5		Stop Sample Purge
0941	5	-30	21%	start Sample
0946	5	-5		stop Sample

Remarks: pre-sample He = 0.0 ppm

post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: SVP-8B Purge Summa #: D120 Sample Summa #: LC218

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM143 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1000	6	-26.5	15%	start Purge
1006		-22		stop Purge
1010	6	-30	20%	start Sample
1016		-5		stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-9A Purge Summa #: D120 Sample Summa #: LC1022

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5"Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM344 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1144	5	-22	15%	Start Purge
1149		-18.5		Stop Purge
1155	8	-30	16%	Start Sample
1203		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: SVP-9B Purge Summa #: D120 Sample Summa #: LC184

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: @ 4.2"Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM463 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1303	5	-18.5	20%	start Purge
1308		-14		stop purge
1319	5	-30	15%	start sampling
1324		-5		stop sampling

Remarks: pre-sample He = 0.0ppm, post-sample He = 0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-10A Purge Summa #: D922 Sample Summa #: LC1012

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 5' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGMS12 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1230	10	-12	22%	start purge
1240		-8.5		stop purge
1304	9	-30	20%	start sampling
1313		-5		stop sampling

Remarks: purge took longer than usual, sampling did as well

pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-10B Purge Summa #: D922 Sample Summa #: LC1078

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM282 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1320	5	-10.5	17%	start Purge
1325		-6		stop Purge
1332	5	-30	17%	start Sample
1337		-5		stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-11A Purge Summa #: D619 Sample Summa #: LC1051

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5"Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM526 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1500	5	-20.5	14%	Start Purge
1505		-17		Stop Purge
1512	6	-30	17%	Start Sample
1518		-5		Stop Sample

Remarks: pre-sample He = 0.0ppm, post-sample He = 0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-11B Purge Summa #: D619 Sample Summa #: LC562

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2"Hg | 839ml

Tracer Gas: Helium Flow Regulator No: SGM339 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1533	6	-17	20%	start Purge
1539		-12.5		stop Purge
1543	4	-30	18%	start sample
1547		-5		stop sample

Remarks: pre-sample He = 0.0 ppm

post-sample He = 0.0 ppm

Sampler: Sam Calloway

Specialists in Physical Due Diligence and Remedial Services

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: SVP-12A Purge Summa #: D922 Sample Summa #: SLC017

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bemtonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM402 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1052	4	-20	18%	Start Purge
1056		-16.5		Stop Purge
1100	5	-30	16%	Start Sample
1105		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-128 Purge Summa #: D922 Sample Summa #: LC949

Regulatory Agencies: _____

Contractor: Allwest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Htg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM401 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1114	5	-16.5	17%	Start Purge
1119		-12		Stop Purge
1125	5	-30	16%	Start Sample
1130		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/31/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-13A Purge Summa #: D922 Sample Summa #: LC590

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5"Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM315 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0930	4	-29	20%	start Purge
0934		-25.5		stop Purge
0940	5	-30	20%	start Sample
0945		-5		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/13/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-13B Purge Summa #: D922 Sample Summa #: LC1172

Regulatory Agencies: _____

Contractor: Allwest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM189 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass) Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0919	5	-25.5	16%	Start Purge
0924		-21		Stop Purge
0930	5	-30	17%	Start Sample
0935		-5		Stop Sample

Remarks: attempted to collect SV Sample from SVP-13B on 5/31/20, but encountered leak during pre-sample tte test

- Returned on 6/13/20 to collect SV sample. I repaired the vault box by placing wet unscented cat liter and sealing it w/ a conc layer of concrete. No leaks encountered during pre and post-sample tte test.

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-14A Purge Summa #: D740 Sample Summa #: LC248

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM248 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0825	7	-30	19%	Start Purge
0832		-26.5		Stop Purge
0836	13	-30	17%	start sample
0849		-5		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0ppm

purge and sampling longer than usual, no leaks

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-14B Purge Summa #: D740 Sample Summa #: LC1154

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM376 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0900	5	-26.5	16%	start Purge
0905		-22		Stop Purge
0909	5	-30	18%	start sample
0914		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-15A Purge Summa #: D740 Sample Summa #: LC1003

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM309 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1313	6	-6	19%	Start Purge
1319		-2.5		Stop Purge
1327	6	-30	23%	Start Sample
1333		-5		stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-15B Purge Summa #: D619 Sample Summa #: LC679

Regulatory Agencies: _____

Contractor: Allwest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM501 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: _____

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1358	7	-25	14%	Start Purge
1405		-20.5		Stop Purge
1412	5	-30	17%	Start Sample
1417		-5		Stop Sample

Remarks: pre-sample He= 0.0 ppm, post-sample He= 0.0 ppm

Tubing had crack, repaired tubing and passed leak test

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-16A Purge Summa #: D740 Sample Summa #: LC326

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg | 704 ml

Tracer Gas: Helium Flow Regulator No: SGM533 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1122	5	-14	22%	start Purge
1127		-10.5		stop Purge
1135	5	-30	16%	start Sample
1140		-5		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: [redacted] Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 6/1/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-16B Purge Summa #: D740 Sample Summa #: LC379

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM425 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1156	6	-10.5	19%	start purge
1202		-6		stop purge
1209	5	-30	19%	start sample
1214		-		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-17 Purge Summa #: D185 Sample Summa #: LC210

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 4.2"Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM309 Flow Rate: 180/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1431	4	-8.5	17%	start Purge
1435		-4		stop Purge
1441	5	-30	16%	start Sample
1446		-5		stop Sample

Remarks: pre-sample He = 0.0 post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-18A Purge Summa #: D120 Sample Summa #: ~~LC400~~ SLC088

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5"Hg / 904 ml

Tracer Gas: Helium Flow Regulator No: 56M504 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1403	5	-14	21%	Start Purge
1408	5	-10.5		Stop Purge
1413	5	-30	18%	Start Sample
1418	5	-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Purging and sampling ~~faster than usual, but~~ no leaks detected

-changed summas and purge/sample times normal

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/30/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-18B Purge Summa #: D120 Sample Summa #: ~~LC1196~~ LC1262

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM132 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1430	~~05~~	-10.5	15%	start Purge
1435		-6		stop Purge
1440	5	-30	16%	start Sample
1445		-5		stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampling and purge ~~time shorter than usual~~, leak tests passed

- Changed summas and purge/sample times normal

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCH Subsurface

Vapor Probe #: SVP-19A Purge Summa #: D805 Sample Summa #: LC461

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM102 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0628	4	-14	15%	Start Purge
0632		-10.5		Stop Purge
0650	9	-30	17%	start Sample
0659		-4		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-19B Purge Summa #: D185 Sample Summa #: LC816

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: _____ Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM104 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
710		-30	20%	Start Purge
716	6	-25.5		Stop Purge
0727	6	-30	15%	start Sample
0733		-4		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/27/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-20A Purge Summa #: D185 Sample Summa #: LC1016

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5"Hg / 704ml

Tracer Gas: Helium Flow Regulator No: SGM204 Flow Rate: 180/200 ml/min)

Laboratory Name and Number: _____

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1300	5	-30	17%	Start Purge
1305		~~-26.5~~		Stop Purge
1313	8	-30	16%	Start Sample
1321		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/27/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-20B Purge Summa #: D185 Sample Summa #: LC201

Regulatory Agencies: _____

Contractor: Allwest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2"Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: SGM247 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1410	5	-26.5	18%	Start Purge
1415		-22		Stop Purge
1420	5	-30	16%	Start sample
1425		-3		Stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-21A Purge Summa #: D805 Sample Summa #: LC284

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM013 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: Pass/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0747	5	-10.5	17%	Start purge
0752		-7		Stop purge
0756	5	-30	19%	Start sample
0801		-3		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/28/20

Project No: 202006.23 Project Name: PCU Subsurface

Vapor Probe #: SVP-21B Purge Summa #: D185 Sample Summa #: ~~LC522~~ LC953

Regulatory Agencies: _____

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite: _____

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2" Hg / 839 ml

Tracer Gas: Helium Flow Regulator No: ~~SGM513~~ SGM537 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
0812	6	-25.5	14%	Start sample
0818		-21		stop Sample
0822	5	-30	16%	start Sample
0827		-		Stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

flow regulator SGM513 was faulty and allowed sample to collect in only 2 minutes, changed summa and flow regulator

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/27/20

Project No: 20200623 Project Name: PCU Subsurface

Vapor Probe #: SVP-22A Purge Summa #: D185 Sample Summa #: LC938

Regulatory Agencies:

Contractor: AllWest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 6' Purge Volume: 3.5" Hg / 704 ml

Tracer Gas: Helium Flow Regulator No: SGM462 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1455	5	-22	20%	start Purge
1500		-18.5		stop Purge
1508	5	-30	17%	start sample
1513		-5		stop sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

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SOIL GAS VAPOR FIELD LOG

Date: 5/27/20

Project No: 202006.2B Project Name: PCU Subsurface

Vapor Probe #: SVP-22B Purge Summa #: D185 Sample Summa #: SLC069

Regulatory Agencies:

Contractor: Allwest

Hole Diameter: 2" Total Depth: 15.5' Grout/Bentonite:

Probe Diameter: 1/4" Line Length: 16' Purge Volume: 4.2"Hg | 839 ml

Tracer Gas: Helium Flow Regulator No: SGM123 Flow Rate: 150/200 (ml/min)

Laboratory Name and Number: Eurofins

SAMPLE COLLECTION

Leak Test: (Pass)/Fail

Start Time	Time Elapsed	Pressure	Tracer Gas Conc. (in shroud)	Remarks
1533	5	-18.5	16%	Start Purge
1538		-14		Stop Purge
1550	6	-30	16%	Start Sample
1556		-5		Stop Sample

Remarks: pre-sample He = 0.0 ppm, post-sample He = 0.0 ppm

Sampler: Sam Calloway

APPENDIX G

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2005C95

Report Created for: All West Environmental, Inc

2141 Mission Street, Ste 100
San Francisco, CA 94110

Project Contact: Samuel Calloway
Project P.O.:
Project: 202006.23; PCU Subsurface

Project Received: 05/28/2020

Analytical Report reviewed & approved for release on 06/05/2020 by:

Yen Cao
Project Manager

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Glossary of Terms & Qualifier Definitions

Client: All West Environmental, Inc
Project: 202006.23; PCU Subsurface
WorkOrder: 2005C95

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Detection Summary

Client: All West Environmental, Inc **WorkOrder:** 2005C95
Project: 202006.23; PCU Subsurface

Client ID: SVP-9 (1-1.5) **Lab ID: 2005C95-001A**

No Detections for Method: SW8260B.

Client ID: SVP-9 (4.5-5) **Lab ID: 2005C95-002A**

No Detections for Method: SW8260B.

Client ID: SVP-9 (9.5-10) **Lab ID: 2005C95-003A**

No Detections for Method: SW8260B.

Client ID: SVP-9 (14.5-15) **Lab ID: 2005C95-004A**

No Detections for Method: SW8260B.

Client ID: SVP-10 (1-1.5) **Lab ID: 2005C95-005A**

No Detections for Method: SW8260B.

Client ID: SVP-10 (4.5-5) **Lab ID: 2005C95-006A**

No Detections for Method: SW8260B.

Client ID: SVP-10 (9.5-10) **Lab ID: 2005C95-007A**

No Detections for Method: SW8260B.

Client ID: SVP-10 (14.5-15) **Lab ID: 2005C95-008A**

No Detections for Method: SW8260B.

Client ID: SVP-12 (1-1.5) **Lab ID: 2005C95-009A**

No Detections for Method: SW8260B.

Client ID: SVP-12 (4.5-5) **Lab ID: 2005C95-010A**

Analyte	Result	Qual	RL	DF	Unit	ExtType/ CleanUp	Method
Tetrachloroethene	0.052		0.0050	1	mg/Kg		SW8260B

Client ID: SVP-12 (9.5-10) **Lab ID: 2005C95-011A**

No Detections for Method: SW8260B.

Client ID: SVP-12 (14.5-15) **Lab ID: 2005C95-012A**

No Detections for Method: SW8260B.

Client ID: SVP-13 (1-1.5) **Lab ID: 2005C95-013A**

No Detections for Method: SW8260B.

Client ID: SVP-13 (4.5-5) **Lab ID: 2005C95-014A**

No Detections for Method: SW8260B.

Client ID: SVP-13 (9.5-10) **Lab ID: 2005C95-015A**

No Detections for Method: SW8260B.

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Detection Summary

Client: All West Environmental, Inc **WorkOrder:** 2005C95
Project: 202006.23; PCU Subsurface

Client ID: SVP-13 (14.5-15) **Lab ID: 2005C95-016A**
No Detections for Method: SW8260B.

Client ID: SVP-18 (1-1.5) **Lab ID: 2005C95-017A**
No Detections for Method: SW8260B.

Client ID: SVP-18 (4.5-5) **Lab ID: 2005C95-018A**
No Detections for Method: SW8260B.

Client ID: SVP-18 (9.5-10) **Lab ID: 2005C95-019A**
No Detections for Method: SW8260B.

Client ID: SVP-18 (14.5-15) **Lab ID: 2005C95-020A**
No Detections for Method: SW8260B.

Client ID: SVP-8 (1-1.5) **Lab ID: 2005C95-021A**
No Detections for Method: SW8260B.

Client ID: SVP-8 (4.5-5) **Lab ID: 2005C95-022A**
No Detections for Method: SW8260B.

Client ID: SVP-8 (9.5-10) **Lab ID: 2005C95-023A**
No Detections for Method: SW8260B.

Client ID: SVP-8 (14.5-15) **Lab ID: 2005C95-024A**
No Detections for Method: SW8260B.

Client ID: SVP-15 (4.5-5) **Lab ID: 2005C95-025A**
No Detections for Method: SW8260B.

Client ID: SVP-15 (9.5-10) **Lab ID: 2005C95-026A**
No Detections for Method: SW8260B.

Client ID: SVP-15 (14.5-15) **Lab ID: 2005C95-027A**
No Detections for Method: SW8260B.

Client ID: SVP-7 (4.5-5) **Lab ID: 2005C95-028A**
No Detections for Method: SW8260B.

Client ID: SVP-7 (9.5-10) **Lab ID: 2005C95-029A**
No Detections for Method: SW8260B.

Client ID: SVP-7 (14.5-15) **Lab ID: 2005C95-030A**
No Detections for Method: SW8260B.

Client ID: SVP-11 (4.5-5) **Lab ID: 2005C95-031A**
No Detections for Method: SW8260B.

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Detection Summary

Client: All West Environmental, Inc **WorkOrder:** 2005C95
Project: 202006.23; PCU Subsurface

Client ID: SVP-11 (9.5-10) **Lab ID: 2005C95-032A**
No Detections for Method: SW8260B.

Client ID: SVP-11 (14.5-15) **Lab ID: 2005C95-033A**
No Detections for Method: SW8260B.

Client ID: SVP-14 (4.5-5) **Lab ID: 2005C95-034A**
No Detections for Method: SW8260B.

Client ID: SVP-14 (9.5-10) **Lab ID: 2005C95-035A**
No Detections for Method: SW8260B.

Client ID: SVP-14 (14.5-15) **Lab ID: 2005C95-036A**
No Detections for Method: SW8260B.

Client ID: SVP-16 (4.5-5) **Lab ID: 2005C95-037A**
No Detections for Method: SW8260B.

Client ID: SVP-16 (9.5-10) **Lab ID: 2005C95-038A**
No Detections for Method: SW8260B.

Client ID: SVP-16 (14.5-15) **Lab ID: 2005C95-039A**
No Detections for Method: SW8260B.

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-9 (1-1.5)	2005C95-001A	Soil	05/23/2020 14:10	GC10 06032010.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 14:02
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 14:02
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 14:02
Tetrachloroethene	ND	0.0050	1	06/03/2020 14:02
Trichloroethene	ND	0.0050	1	06/03/2020 14:02
Vinyl Chloride	ND	0.0050	1	06/03/2020 14:02

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 14:02
Toluene-d8	105	86-110	06/03/2020 14:02
4-BFB	91	71-114	06/03/2020 14:02
Benzene-d6	91	62-122	06/03/2020 14:02
Ethylbenzene-d10	103	69-130	06/03/2020 14:02
1,2-DCB-d4	80	55-108	06/03/2020 14:02

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-9 (4.5-5)	2005C95-002A	Soil	05/23/2020 14:17	GC10 06032011.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 14:44
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 14:44
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 14:44
Tetrachloroethene	ND	0.0050	1	06/03/2020 14:44
Trichloroethene	ND	0.0050	1	06/03/2020 14:44
Vinyl Chloride	ND	0.0050	1	06/03/2020 14:44

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 14:44
Toluene-d8	103	86-110	06/03/2020 14:44
4-BFB	92	71-114	06/03/2020 14:44
Benzene-d6	90	62-122	06/03/2020 14:44
Ethylbenzene-d10	101	69-130	06/03/2020 14:44
1,2-DCB-d4	79	55-108	06/03/2020 14:44

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-9 (9.5-10)	2005C95-003A	Soil	05/23/2020 14:25	GC10 06032012.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 15:27
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 15:27
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 15:27
Tetrachloroethene	ND	0.0050	1	06/03/2020 15:27
Trichloroethene	ND	0.0050	1	06/03/2020 15:27
Vinyl Chloride	ND	0.0050	1	06/03/2020 15:27

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/03/2020 15:27
Toluene-d8	103	86-110	06/03/2020 15:27
4-BFB	91	71-114	06/03/2020 15:27
Benzene-d6	78	62-122	06/03/2020 15:27
Ethylbenzene-d10	86	69-130	06/03/2020 15:27
1,2-DCB-d4	70	55-108	06/03/2020 15:27

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-9 (14.5-15)	2005C95-004A	Soil	05/23/2020 14:30	GC10 06032013.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 16:10
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 16:10
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 16:10
Tetrachloroethene	ND	0.0050	1	06/03/2020 16:10
Trichloroethene	ND	0.0050	1	06/03/2020 16:10
Vinyl Chloride	ND	0.0050	1	06/03/2020 16:10

Surrogates	REC (%)	Limits	
Dibromofluoromethane	83	66-116	06/03/2020 16:10
Toluene-d8	105	86-110	06/03/2020 16:10
4-BFB	89	71-114	06/03/2020 16:10
Benzene-d6	93	62-122	06/03/2020 16:10
Ethylbenzene-d10	107	69-130	06/03/2020 16:10
1,2-DCB-d4	82	55-108	06/03/2020 16:10

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-10 (1-1.5)	2005C95-005A	Soil	05/23/2020 15:01	GC10 06032014.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 16:55
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 16:55
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 16:55
Tetrachloroethene	ND	0.0050	1	06/03/2020 16:55
Trichloroethene	ND	0.0050	1	06/03/2020 16:55
Vinyl Chloride	ND	0.0050	1	06/03/2020 16:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 16:55
Toluene-d8	103	86-110	06/03/2020 16:55
4-BFB	92	71-114	06/03/2020 16:55
Benzene-d6	88	62-122	06/03/2020 16:55
Ethylbenzene-d10	98	69-130	06/03/2020 16:55
1,2-DCB-d4	78	55-108	06/03/2020 16:55

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-10 (4.5-5)	2005C95-006A	Soil	05/23/2020 15:07	GC10 06032015.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 17:38
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 17:38
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 17:38
Tetrachloroethene	ND	0.0050	1	06/03/2020 17:38
Trichloroethene	ND	0.0050	1	06/03/2020 17:38
Vinyl Chloride	ND	0.0050	1	06/03/2020 17:38

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 17:38
Toluene-d8	106	86-110	06/03/2020 17:38
4-BFB	92	71-114	06/03/2020 17:38
Benzene-d6	94	62-122	06/03/2020 17:38
Ethylbenzene-d10	107	69-130	06/03/2020 17:38
1,2-DCB-d4	82	55-108	06/03/2020 17:38

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-10 (9.5-10)	2005C95-007A	Soil	05/23/2020 15:15	GC10 06032019.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 20:33
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 20:33
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 20:33
Tetrachloroethene	ND	0.0050	1	06/03/2020 20:33
Trichloroethene	ND	0.0050	1	06/03/2020 20:33
Vinyl Chloride	ND	0.0050	1	06/03/2020 20:33

Surrogates	REC (%)	Limits	
Dibromofluoromethane	87	66-116	06/03/2020 20:33
Toluene-d8	105	86-110	06/03/2020 20:33
4-BFB	93	71-114	06/03/2020 20:33
Benzene-d6	91	62-122	06/03/2020 20:33
Ethylbenzene-d10	103	69-130	06/03/2020 20:33
1,2-DCB-d4	80	55-108	06/03/2020 20:33

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-10 (14.5-15)	2005C95-008A	Soil	05/23/2020 15:26	GC10 06032020.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 21:15
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 21:15
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 21:15
Tetrachloroethene	ND	0.0050	1	06/03/2020 21:15
Trichloroethene	ND	0.0050	1	06/03/2020 21:15
Vinyl Chloride	ND	0.0050	1	06/03/2020 21:15

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/03/2020 21:15
Toluene-d8	104	86-110	06/03/2020 21:15
4-BFB	92	71-114	06/03/2020 21:15
Benzene-d6	89	62-122	06/03/2020 21:15
Ethylbenzene-d10	100	69-130	06/03/2020 21:15
1,2-DCB-d4	79	55-108	06/03/2020 21:15

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-12 (1-1.5)	2005C95-009A	Soil	05/23/2020 11:47	GC10 06032021.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 21:58
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 21:58
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 21:58
Tetrachloroethene	ND	0.0050	1	06/03/2020 21:58
Trichloroethene	ND	0.0050	1	06/03/2020 21:58
Vinyl Chloride	ND	0.0050	1	06/03/2020 21:58

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 21:58
Toluene-d8	105	86-110	06/03/2020 21:58
4-BFB	93	71-114	06/03/2020 21:58
Benzene-d6	85	62-122	06/03/2020 21:58
Ethylbenzene-d10	99	69-130	06/03/2020 21:58
1,2-DCB-d4	77	55-108	06/03/2020 21:58

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-12 (4.5-5)	2005C95-010A	Soil	05/23/2020 11:42	GC10 06032022.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 22:41
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 22:41
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 22:41
Tetrachloroethene	**0.052**	0.0050	1	06/03/2020 22:41
Trichloroethene	ND	0.0050	1	06/03/2020 22:41
Vinyl Chloride	ND	0.0050	1	06/03/2020 22:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	84	66-116	06/03/2020 22:41
Toluene-d8	106	86-110	06/03/2020 22:41
4-BFB	92	71-114	06/03/2020 22:41
Benzene-d6	81	62-122	06/03/2020 22:41
Ethylbenzene-d10	90	69-130	06/03/2020 22:41
1,2-DCB-d4	70	55-108	06/03/2020 22:41

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-12 (9.5-10)	2005C95-011A	Soil	05/23/2020 12:02	GC10 06032023.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/03/2020 23:23
cis-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 23:23
trans-1,2-Dichloroethene	ND	0.0050	1	06/03/2020 23:23
Tetrachloroethene	ND	0.0050	1	06/03/2020 23:23
Trichloroethene	ND	0.0050	1	06/03/2020 23:23
Vinyl Chloride	ND	0.0050	1	06/03/2020 23:23

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/03/2020 23:23
Toluene-d8	106	86-110	06/03/2020 23:23
4-BFB	93	71-114	06/03/2020 23:23
Benzene-d6	86	62-122	06/03/2020 23:23
Ethylbenzene-d10	99	69-130	06/03/2020 23:23
1,2-DCB-d4	78	55-108	06/03/2020 23:23

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-12 (14.5-15)	2005C95-012A	Soil	05/23/2020 12:07	GC10 06032024.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 00:05
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 00:05
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 00:05
Tetrachloroethene	ND	0.0050	1	06/04/2020 00:05
Trichloroethene	ND	0.0050	1	06/04/2020 00:05
Vinyl Chloride	ND	0.0050	1	06/04/2020 00:05

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 00:05
Toluene-d8	105	86-110	06/04/2020 00:05
4-BFB	91	71-114	06/04/2020 00:05
Benzene-d6	84	62-122	06/04/2020 00:05
Ethylbenzene-d10	96	69-130	06/04/2020 00:05
1,2-DCB-d4	76	55-108	06/04/2020 00:05

Analyst(s): AK

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-13 (1-1.5)	2005C95-013A	Soil	05/23/2020 10:51	GC10 06032025.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 00:47
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 00:47
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 00:47
Tetrachloroethene	ND	0.0050	1	06/04/2020 00:47
Trichloroethene	ND	0.0050	1	06/04/2020 00:47
Vinyl Chloride	ND	0.0050	1	06/04/2020 00:47

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 00:47
Toluene-d8	106	86-110	06/04/2020 00:47
4-BFB	93	71-114	06/04/2020 00:47
Benzene-d6	88	62-122	06/04/2020 00:47
Ethylbenzene-d10	101	69-130	06/04/2020 00:47
1,2-DCB-d4	78	55-108	06/04/2020 00:47

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-13 (4.5-5)	2005C95-014A	Soil	05/23/2020 10:55	GC10 06032026.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 01:28
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 01:28
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 01:28
Tetrachloroethene	ND	0.0050	1	06/04/2020 01:28
Trichloroethene	ND	0.0050	1	06/04/2020 01:28
Vinyl Chloride	ND	0.0050	1	06/04/2020 01:28

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 01:28
Toluene-d8	107	86-110	06/04/2020 01:28
4-BFB	91	71-114	06/04/2020 01:28
Benzene-d6	89	62-122	06/04/2020 01:28
Ethylbenzene-d10	104	69-130	06/04/2020 01:28
1,2-DCB-d4	79	55-108	06/04/2020 01:28

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-13 (9.5-10)	2005C95-015A	Soil	05/23/2020 11:00	GC10 06032027.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 02:09
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 02:09
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 02:09
Tetrachloroethene	ND	0.0050	1	06/04/2020 02:09
Trichloroethene	ND	0.0050	1	06/04/2020 02:09
Vinyl Chloride	ND	0.0050	1	06/04/2020 02:09

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 02:09
Toluene-d8	106	86-110	06/04/2020 02:09
4-BFB	92	71-114	06/04/2020 02:09
Benzene-d6	85	62-122	06/04/2020 02:09
Ethylbenzene-d10	97	69-130	06/04/2020 02:09
1,2-DCB-d4	76	55-108	06/04/2020 02:09

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-13 (14.5-15)	2005C95-016A	Soil	05/23/2020 11:07	GC10 06032028.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 02:50
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 02:50
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 02:50
Tetrachloroethene	ND	0.0050	1	06/04/2020 02:50
Trichloroethene	ND	0.0050	1	06/04/2020 02:50
Vinyl Chloride	ND	0.0050	1	06/04/2020 02:50

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 02:50
Toluene-d8	106	86-110	06/04/2020 02:50
4-BFB	90	71-114	06/04/2020 02:50
Benzene-d6	89	62-122	06/04/2020 02:50
Ethylbenzene-d10	102	69-130	06/04/2020 02:50
1,2-DCB-d4	79	55-108	06/04/2020 02:50

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-18 (1-1.5)	2005C95-017A	Soil	05/23/2020 13:35	GC10 06032029.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 03:32
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 03:32
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 03:32
Tetrachloroethene	ND	0.0050	1	06/04/2020 03:32
Trichloroethene	ND	0.0050	1	06/04/2020 03:32
Vinyl Chloride	ND	0.0050	1	06/04/2020 03:32

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 03:32
Toluene-d8	105	86-110	06/04/2020 03:32
4-BFB	92	71-114	06/04/2020 03:32
Benzene-d6	87	62-122	06/04/2020 03:32
Ethylbenzene-d10	99	69-130	06/04/2020 03:32
1,2-DCB-d4	78	55-108	06/04/2020 03:32

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-18 (4.5-5)	2005C95-018A	Soil	05/23/2020 13:41	GC10 06032030.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 04:13
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 04:13
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 04:13
Tetrachloroethene	ND	0.0050	1	06/04/2020 04:13
Trichloroethene	ND	0.0050	1	06/04/2020 04:13
Vinyl Chloride	ND	0.0050	1	06/04/2020 04:13

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 04:13
Toluene-d8	104	86-110	06/04/2020 04:13
4-BFB	93	71-114	06/04/2020 04:13
Benzene-d6	77	62-122	06/04/2020 04:13
Ethylbenzene-d10	88	69-130	06/04/2020 04:13
1,2-DCB-d4	70	55-108	06/04/2020 04:13

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-18 (9.5-10)	2005C95-019A	Soil	05/23/2020 13:45	GC10 06032031.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 04:54
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 04:54
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 04:54
Tetrachloroethene	ND	0.0050	1	06/04/2020 04:54
Trichloroethene	ND	0.0050	1	06/04/2020 04:54
Vinyl Chloride	ND	0.0050	1	06/04/2020 04:54

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 04:54
Toluene-d8	106	86-110	06/04/2020 04:54
4-BFB	91	71-114	06/04/2020 04:54
Benzene-d6	88	62-122	06/04/2020 04:54
Ethylbenzene-d10	101	69-130	06/04/2020 04:54
1,2-DCB-d4	78	55-108	06/04/2020 04:54

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-18 (14.5-15)	2005C95-020A	Soil	05/23/2020 13:52	GC10 06042023.D	199227

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 22:09
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 22:09
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 22:09
Tetrachloroethene	ND	0.0050	1	06/04/2020 22:09
Trichloroethene	ND	0.0050	1	06/04/2020 22:09
Vinyl Chloride	ND	0.0050	1	06/04/2020 22:09

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 22:09
Toluene-d8	103	86-110	06/04/2020 22:09
4-BFB	92	71-114	06/04/2020 22:09
Benzene-d6	88	62-122	06/04/2020 22:09
Ethylbenzene-d10	100	69-130	06/04/2020 22:09
1,2-DCB-d4	79	55-108	06/04/2020 22:09

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-8 (1-1.5)	2005C95-021A	Soil	05/24/2020 09:34	GC10 06042008.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 11:25
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 11:25
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 11:25
Tetrachloroethene	ND	0.0050	1	06/04/2020 11:25
Trichloroethene	ND	0.0050	1	06/04/2020 11:25
Vinyl Chloride	ND	0.0050	1	06/04/2020 11:25

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 11:25
Toluene-d8	105	86-110	06/04/2020 11:25
4-BFB	92	71-114	06/04/2020 11:25
Benzene-d6	90	62-122	06/04/2020 11:25
Ethylbenzene-d10	103	69-130	06/04/2020 11:25
1,2-DCB-d4	80	55-108	06/04/2020 11:25

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-8 (4.5-5)	2005C95-022A	Soil	05/24/2020 09:42	GC10 06042009.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 12:07
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 12:07
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 12:07
Tetrachloroethene	ND	0.0050	1	06/04/2020 12:07
Trichloroethene	ND	0.0050	1	06/04/2020 12:07
Vinyl Chloride	ND	0.0050	1	06/04/2020 12:07

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 12:07
Toluene-d8	105	86-110	06/04/2020 12:07
4-BFB	93	71-114	06/04/2020 12:07
Benzene-d6	89	62-122	06/04/2020 12:07
Ethylbenzene-d10	102	69-130	06/04/2020 12:07
1,2-DCB-d4	80	55-108	06/04/2020 12:07

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-8 (9.5-10)	2005C95-023A	Soil	05/24/2020 09:50	GC10 06042025.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 23:32
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 23:32
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 23:32
Tetrachloroethene	ND	0.0050	1	06/04/2020 23:32
Trichloroethene	ND	0.0050	1	06/04/2020 23:32
Vinyl Chloride	ND	0.0050	1	06/04/2020 23:32

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 23:32
Toluene-d8	104	86-110	06/04/2020 23:32
4-BFB	91	71-114	06/04/2020 23:32
Benzene-d6	91	62-122	06/04/2020 23:32
Ethylbenzene-d10	105	69-130	06/04/2020 23:32
1,2-DCB-d4	80	55-108	06/04/2020 23:32

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-8 (14.5-15)	2005C95-024A	Soil	05/24/2020 09:56	GC10 06042026.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 00:13
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 00:13
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 00:13
Tetrachloroethene	ND	0.0050	1	06/05/2020 00:13
Trichloroethene	ND	0.0050	1	06/05/2020 00:13
Vinyl Chloride	ND	0.0050	1	06/05/2020 00:13

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 00:13
Toluene-d8	105	86-110	06/05/2020 00:13
4-BFB	92	71-114	06/05/2020 00:13
Benzene-d6	90	62-122	06/05/2020 00:13
Ethylbenzene-d10	104	69-130	06/05/2020 00:13
1,2-DCB-d4	80	55-108	06/05/2020 00:13

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-15 (4.5-5)	2005C95-025A	Soil	05/23/2020 10:37	GC10 06042011.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 13:31
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 13:31
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 13:31
Tetrachloroethene	ND	0.0050	1	06/04/2020 13:31
Trichloroethene	ND	0.0050	1	06/04/2020 13:31
Vinyl Chloride	ND	0.0050	1	06/04/2020 13:31

Surrogates	REC (%)	Limits	
Dibromofluoromethane	84	66-116	06/04/2020 13:31
Toluene-d8	102	86-110	06/04/2020 13:31
4-BFB	91	71-114	06/04/2020 13:31
Benzene-d6	94	62-122	06/04/2020 13:31
Ethylbenzene-d10	107	69-130	06/04/2020 13:31
1,2-DCB-d4	81	55-108	06/04/2020 13:31

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-15 (9.5-10)	2005C95-026A	Soil	05/23/2020 10:49	GC10 06042012.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 14:14
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 14:14
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 14:14
Tetrachloroethene	ND	0.0050	1	06/04/2020 14:14
Trichloroethene	ND	0.0050	1	06/04/2020 14:14
Vinyl Chloride	ND	0.0050	1	06/04/2020 14:14

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 14:14
Toluene-d8	103	86-110	06/04/2020 14:14
4-BFB	91	71-114	06/04/2020 14:14
Benzene-d6	89	62-122	06/04/2020 14:14
Ethylbenzene-d10	99	69-130	06/04/2020 14:14
1,2-DCB-d4	78	55-108	06/04/2020 14:14

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-15 (14.5-15)	2005C95-027A	Soil	05/23/2020 10:55	GC10 06042013.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 14:57
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 14:57
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 14:57
Tetrachloroethene	ND	0.0050	1	06/04/2020 14:57
Trichloroethene	ND	0.0050	1	06/04/2020 14:57
Vinyl Chloride	ND	0.0050	1	06/04/2020 14:57

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/04/2020 14:57
Toluene-d8	101	86-110	06/04/2020 14:57
4-BFB	90	71-114	06/04/2020 14:57
Benzene-d6	85	62-122	06/04/2020 14:57
Ethylbenzene-d10	93	69-130	06/04/2020 14:57
1,2-DCB-d4	75	55-108	06/04/2020 14:57

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-7 (4.5-5)	2005C95-028A	Soil	05/26/2020 11:12	GC10 06042014.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 15:40
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 15:40
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 15:40
Tetrachloroethene	ND	0.0050	1	06/04/2020 15:40
Trichloroethene	ND	0.0050	1	06/04/2020 15:40
Vinyl Chloride	ND	0.0050	1	06/04/2020 15:40

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 15:40
Toluene-d8	101	86-110	06/04/2020 15:40
4-BFB	91	71-114	06/04/2020 15:40
Benzene-d6	84	62-122	06/04/2020 15:40
Ethylbenzene-d10	92	69-130	06/04/2020 15:40
1,2-DCB-d4	74	55-108	06/04/2020 15:40

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-7 (9.5-10)	2005C95-029A	Soil	05/26/2020 11:15	GC10 06042015.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 16:23
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 16:23
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 16:23
Tetrachloroethene	ND	0.0050	1	06/04/2020 16:23
Trichloroethene	ND	0.0050	1	06/04/2020 16:23
Vinyl Chloride	ND	0.0050	1	06/04/2020 16:23

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/04/2020 16:23
Toluene-d8	102	86-110	06/04/2020 16:23
4-BFB	90	71-114	06/04/2020 16:23
Benzene-d6	91	62-122	06/04/2020 16:23
Ethylbenzene-d10	101	69-130	06/04/2020 16:23
1,2-DCB-d4	81	55-108	06/04/2020 16:23

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-7 (14.5-15)	2005C95-030A	Soil	05/26/2020 11:20	GC10 06042016.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 17:06
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 17:06
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 17:06
Tetrachloroethene	ND	0.0050	1	06/04/2020 17:06
Trichloroethene	ND	0.0050	1	06/04/2020 17:06
Vinyl Chloride	ND	0.0050	1	06/04/2020 17:06

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/04/2020 17:06
Toluene-d8	101	86-110	06/04/2020 17:06
4-BFB	92	71-114	06/04/2020 17:06
Benzene-d6	82	62-122	06/04/2020 17:06
Ethylbenzene-d10	91	69-130	06/04/2020 17:06
1,2-DCB-d4	74	55-108	06/04/2020 17:06

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-11 (4.5-5)	2005C95-031A	Soil	05/26/2020 12:40	GC10 06042017.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 17:49
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 17:49
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 17:49
Tetrachloroethene	ND	0.0050	1	06/04/2020 17:49
Trichloroethene	ND	0.0050	1	06/04/2020 17:49
Vinyl Chloride	ND	0.0050	1	06/04/2020 17:49

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/04/2020 17:49
Toluene-d8	101	86-110	06/04/2020 17:49
4-BFB	90	71-114	06/04/2020 17:49
Benzene-d6	75	62-122	06/04/2020 17:49
Ethylbenzene-d10	83	69-130	06/04/2020 17:49
1,2-DCB-d4	69	55-108	06/04/2020 17:49

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-11 (9.5-10)	2005C95-032A	Soil	05/26/2020 12:45	GC10 06042027.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 00:54
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 00:54
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 00:54
Tetrachloroethene	ND	0.0050	1	06/05/2020 00:54
Trichloroethene	ND	0.0050	1	06/05/2020 00:54
Vinyl Chloride	ND	0.0050	1	06/05/2020 00:54

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 00:54
Toluene-d8	104	86-110	06/05/2020 00:54
4-BFB	91	71-114	06/05/2020 00:54
Benzene-d6	83	62-122	06/05/2020 00:54
Ethylbenzene-d10	94	69-130	06/05/2020 00:54
1,2-DCB-d4	75	55-108	06/05/2020 00:54

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-11 (14.5-15)	**2005C95-033A**	**Soil**	**05/26/2020 12:49**	**GC10 06042028.D**	**199228**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 01:34
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 01:34
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 01:34
Tetrachloroethene	ND	0.0050	1	06/05/2020 01:34
Trichloroethene	ND	0.0050	1	06/05/2020 01:34
Vinyl Chloride	ND	0.0050	1	06/05/2020 01:34

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 01:34
Toluene-d8	104	86-110	06/05/2020 01:34
4-BFB	90	71-114	06/05/2020 01:34
Benzene-d6	85	62-122	06/05/2020 01:34
Ethylbenzene-d10	96	69-130	06/05/2020 01:34
1,2-DCB-d4	75	55-108	06/05/2020 01:34

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-14 (4.5-5)	**2005C95-034A**	**Soil**	**05/26/2020 09:28**	**GC10 06042029.D**	**199228**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 02:15
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 02:15
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 02:15
Tetrachloroethene	ND	0.0050	1	06/05/2020 02:15
Trichloroethene	ND	0.0050	1	06/05/2020 02:15
Vinyl Chloride	ND	0.0050	1	06/05/2020 02:15

Surrogates	REC (%)	Limits	
Dibromofluoromethane	86	66-116	06/05/2020 02:15
Toluene-d8	103	86-110	06/05/2020 02:15
4-BFB	90	71-114	06/05/2020 02:15
Benzene-d6	76	62-122	06/05/2020 02:15
Ethylbenzene-d10	86	69-130	06/05/2020 02:15
1,2-DCB-d4	69	55-108	06/05/2020 02:15

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-14 (9.5-10)	2005C95-035A	Soil	05/26/2020 09:35	GC10 06042030.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 02:55
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 02:55
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 02:55
Tetrachloroethene	ND	0.0050	1	06/05/2020 02:55
Trichloroethene	ND	0.0050	1	06/05/2020 02:55
Vinyl Chloride	ND	0.0050	1	06/05/2020 02:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 02:55
Toluene-d8	103	86-110	06/05/2020 02:55
4-BFB	91	71-114	06/05/2020 02:55
Benzene-d6	79	62-122	06/05/2020 02:55
Ethylbenzene-d10	89	69-130	06/05/2020 02:55
1,2-DCB-d4	71	55-108	06/05/2020 02:55

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-14 (14.5-15)	2005C95-036A	Soil	05/26/2020 09:39	GC10 06042031.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 03:36
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 03:36
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 03:36
Tetrachloroethene	ND	0.0050	1	06/05/2020 03:36
Trichloroethene	ND	0.0050	1	06/05/2020 03:36
Vinyl Chloride	ND	0.0050	1	06/05/2020 03:36

Surrogates	REC (%)	Limits	
Dibromofluoromethane	84	66-116	06/05/2020 03:36
Toluene-d8	103	86-110	06/05/2020 03:36
4-BFB	90	71-114	06/05/2020 03:36
Benzene-d6	82	62-122	06/05/2020 03:36
Ethylbenzene-d10	94	69-130	06/05/2020 03:36
1,2-DCB-d4	74	55-108	06/05/2020 03:36

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-16 (4.5-5)	2005C95-037A	Soil	05/26/2020 10:09	GC10 06042032.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 04:16
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 04:16
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 04:16
Tetrachloroethene	ND	0.0050	1	06/05/2020 04:16
Trichloroethene	ND	0.0050	1	06/05/2020 04:16
Vinyl Chloride	ND	0.0050	1	06/05/2020 04:16

Surrogates	REC (%)	Limits	
Dibromofluoromethane	84	66-116	06/05/2020 04:16
Toluene-d8	105	86-110	06/05/2020 04:16
4-BFB	91	71-114	06/05/2020 04:16
Benzene-d6	90	62-122	06/05/2020 04:16
Ethylbenzene-d10	104	69-130	06/05/2020 04:16
1,2-DCB-d4	79	55-108	06/05/2020 04:16

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-16 (9.5-10)	2005C95-038A	Soil	05/26/2020 10:22	GC10 06042033.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 04:57
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 04:57
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 04:57
Tetrachloroethene	ND	0.0050	1	06/05/2020 04:57
Trichloroethene	ND	0.0050	1	06/05/2020 04:57
Vinyl Chloride	ND	0.0050	1	06/05/2020 04:57

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 04:57
Toluene-d8	103	86-110	06/05/2020 04:57
4-BFB	90	71-114	06/05/2020 04:57
Benzene-d6	78	62-122	06/05/2020 04:57
Ethylbenzene-d10	89	69-130	06/05/2020 04:57
1,2-DCB-d4	71	55-108	06/05/2020 04:57

Analyst(s): AK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Received:	05/28/2020 15:00	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-16 (14.5-15)	2005C95-039A	Soil	05/26/2020 10:27	GC10 06042024.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/04/2020 22:51
cis-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 22:51
trans-1,2-Dichloroethene	ND	0.0050	1	06/04/2020 22:51
Tetrachloroethene	ND	0.0050	1	06/04/2020 22:51
Trichloroethene	ND	0.0050	1	06/04/2020 22:51
Vinyl Chloride	ND	0.0050	1	06/04/2020 22:51

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/04/2020 22:51
Toluene-d8	104	86-110	06/04/2020 22:51
4-BFB	92	71-114	06/04/2020 22:51
Benzene-d6	87	62-122	06/04/2020 22:51
Ethylbenzene-d10	98	69-130	06/04/2020 22:51
1,2-DCB-d4	78	55-108	06/04/2020 22:51

Analyst(s): AK

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Prepared:	05/29/2020	**BatchID:**	199227
Date Analyzed:	06/03/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199227 2005C95-020AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
Surrogate Recovery						
Dibromofluoromethane	0.104			0.125	83	66-112
Toluene-d8	0.132			0.125	106	92-109
4-BFB	0.0114			0.0125	91	72-112
Benzene-d6	0.0908			0.1	91	81-126
Ethylbenzene-d10	0.105			0.1	105	92-138
1,2-DCB-d4	0.0807			0.1	81	68-108

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Prepared:	05/29/2020	**BatchID:**	199227
Date Analyzed:	06/03/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199227 2005C95-020AMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Dichloroethene	0.0178	0.0170	0.020	89	85	69-126	4.80	20
cis-1,2-Dichloroethene	0.0181	0.0174	0.020	91	87	69-116	4.07	20
trans-1,2-Dichloroethene	0.0182	0.0175	0.020	91	88	73-116	4.14	20
Tetrachloroethene	0.0206	0.0202	0.020	103	101	78-128	2.16	20
Trichloroethene	0.0191	0.0182	0.020	96	91	73-118	4.81	20
Vinyl Chloride	0.00712	0.00632	0.010	71	63	40-125	11.8	20
Surrogate Recovery								
Dibromofluoromethane	0.105	0.104	0.12	84	83	66-112	0.580	20
Toluene-d8	0.131	0.131	0.12	105	105	92-109	0.106	20
4-BFB	0.0116	0.0115	0.012	93	92	72-112	0.910	20
Benzene-d6	0.0920	0.0921	0.10	92	92	81-126	0.167	20
Ethylbenzene-d10	0.104	0.105	0.10	104	105	92-138	1.16	20
1,2-DCB-d4	0.0804	0.0801	0.10	80	80	68-108	0.364	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloroethene	1	0.0166	0.0172	0.020	ND	83	86	47-127	3.55	20
cis-1,2-Dichloroethene	1	0.0168	0.0173	0.020	ND	84	87	56-111	3.20	20
trans-1,2-Dichloroethene	1	0.0172	0.0177	0.020	ND	86	88	51-115	2.89	20
Tetrachloroethene	1	0.0196	0.0203	0.020	ND	98	102	54-127	3.74	20
Trichloroethene	1	0.0179	0.0183	0.020	ND	90	91	47-127	1.96	20
Vinyl Chloride	1	0.00611	0.00639	0.010	ND	61	64	33-114	4.42	20
Surrogate Recovery										
Dibromofluoromethane	1	0.104	0.104	0.12		84	83	66-116	0.691	20
Toluene-d8	1	0.130	0.130	0.12		104	104	86-110	0.478	20
4-BFB	1	0.0115	0.0114	0.012		92	91	71-114	0.536	20
Benzene-d6	1	0.0890	0.0901	0.10		89	90	62-122	1.24	20
Ethylbenzene-d10	1	0.100	0.101	0.10		100	101	69-130	1.32	20
1,2-DCB-d4	1	0.0782	0.0790	0.10		78	79	55-108	1.00	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Prepared:	05/29/2020	**BatchID:**	199228
Date Analyzed:	06/04/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199228 2005C95-039AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
Surrogate Recovery						
Dibromofluoromethane	0.105			0.125	84	66-112
Toluene-d8	0.131			0.125	105	92-109
4-BFB	0.0114			0.0125	91	72-112
Benzene-d6	0.0936			0.1	94	81-126
Ethylbenzene-d10	0.108			0.1	108	92-138
1,2-DCB-d4	0.0821			0.1	82	68-108

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C95
Date Prepared:	05/29/2020	**BatchID:**	199228
Date Analyzed:	06/04/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199228 2005C95-039AMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Dichloroethene	0.0163	0.0175	0.020	81	88	69-126	7.31	20
cis-1,2-Dichloroethene	0.0166	0.0177	0.020	83	89	69-116	6.45	20
trans-1,2-Dichloroethene	0.0166	0.0181	0.020	83	90	73-116	8.55	20
Tetrachloroethene	0.0193	0.0208	0.020	97	104	78-128	7.21	20
Trichloroethene	0.0176	0.0188	0.020	88	94	73-118	6.63	20
Vinyl Chloride	0.00650	0.00654	0.010	65	65	40-125	0.600	20
Surrogate Recovery								
Dibromofluoromethane	0.105	0.105	0.12	84	84	66-112	0.250	20
Toluene-d8	0.130	0.130	0.12	104	104	92-109	0.0636	20
4-BFB	0.0114	0.0115	0.012	91	92	72-112	1.60	20
Benzene-d6	0.0878	0.0895	0.10	88	90	81-126	1.90	20
Ethylbenzene-d10	0.0987	0.101	0.10	99	101	92-138	2.30	20
1,2-DCB-d4	0.0774	0.0786	0.10	77	79	68-108	1.58	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloroethene	1	0.0177	0.0169	0.020	ND	89	85	47-127	4.68	20
cis-1,2-Dichloroethene	1	0.0185	0.0178	0.020	ND	92	89	56-111	3.43	20
trans-1,2-Dichloroethene	1	0.0183	0.0174	0.020	ND	91	87	51-115	4.84	20
Tetrachloroethene	1	0.0218	0.0214	0.020	ND	109	107	54-127	1.99	20
Trichloroethene	1	0.0201	0.0195	0.020	ND	100	97	47-127	3.07	20
Vinyl Chloride	1	0.00639	0.00619	0.010	ND	64	62	33-114	3.26	20
Surrogate Recovery										
Dibromofluoromethane	1	0.106	0.106	0.12		85	84	66-116	0.158	20
Toluene-d8	1	0.132	0.131	0.12		105	105	86-110	0.741	20
4-BFB	1	0.0117	0.0115	0.012		93	92	71-114	1.13	20
Benzene-d6	1	0.0950	0.0946	0.10		95	95	62-122	0.401	20
Ethylbenzene-d10	1	0.108	0.108	0.10		108	108	69-130	0.345	20
1,2-DCB-d4	1	0.0833	0.0846	0.10		83	85	55-108	1.55	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 2005C95 **ClientCode: AWE**

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▣ Detection Summary ▣ Dry-Weight

Report to:
Samuel Calloway
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(415) 391-2510 FAX: (415) 391-2008

Email: sam@allwest1.com; Leonard@allwest1.co
cc/3rd Party:
PO:
Project: 202006.23; PCU Subsurface

Bill to:
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com,Leonard@allwes

Requested TAT: 5 days;

Date Received: 05/28/2020
Date Logged: 05/29/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
2005C95-001	SVP-9 (1-1.5)	Soil	5/23/2020 14:10	☐	A	A										
2005C95-002	SVP-9 (4.5-5)	Soil	5/23/2020 14:17	☐	A	A										
2005C95-003	SVP-9 (9.5-10)	Soil	5/23/2020 14:25	☐	A	A										
2005C95-004	SVP-9 (14.5-15)	Soil	5/23/2020 14:30	☐	A	A										
2005C95-005	SVP-10 (1-1.5)	Soil	5/23/2020 15:01	☐	A	A										
2005C95-006	SVP-10 (4.5-5)	Soil	5/23/2020 15:07	☐	A	A										
2005C95-007	SVP-10 (9.5-10)	Soil	5/23/2020 15:15	☐	A	A										
2005C95-008	SVP-10 (14.5-15)	Soil	5/23/2020 15:26	☐	A	A										
2005C95-009	SVP-12 (1-1.5)	Soil	5/23/2020 11:47	☐	A	A										
2005C95-010	SVP-12 (4.5-5)	Soil	5/23/2020 11:42	☐	A	A										
2005C95-011	SVP-12 (9.5-10)	Soil	5/23/2020 12:02	☐	A	A										
2005C95-012	SVP-12 (14.5-15)	Soil	5/23/2020 12:07	☐	A	A										
2005C95-013	SVP-13 (1-1.5)	Soil	5/23/2020 10:51	☐	A	A										
2005C95-014	SVP-13 (4.5-5)	Soil	5/23/2020 10:55	☐	A	A										
2005C95-015	SVP-13 (9.5-10)	Soil	5/23/2020 11:00	☐	A	A										

Test Legend:

1	8260VOC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Heidi Fruhlinger

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 2005C95 **ClientCode: AWE**

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2005C95-016	SVP-13 (14.5-15)	Soil	5/23/2020 11:07	☐	A	A										
2005C95-017	SVP-18 (1-1.5)	Soil	5/23/2020 13:35	☐	A	A										
2005C95-018	SVP-18 (4.5-5)	Soil	5/23/2020 13:41	☐	A	A										
2005C95-019	SVP-18 (9.5-10)	Soil	5/23/2020 13:45	☐	A	A										
2005C95-020	SVP-18 (14.5-15)	Soil	5/23/2020 13:52	☐	A	A										
2005C95-021	SVP-8 (1-1.5)	Soil	5/24/2020 09:34	☐	A	A										
2005C95-022	SVP-8 (4.5-5)	Soil	5/24/2020 09:42	☐	A	A										
2005C95-023	SVP-8 (9.5-10)	Soil	5/24/2020 09:50	☐	A	A										
2005C95-024	SVP-8 (14.5-15)	Soil	5/24/2020 09:56	☐	A	A										
2005C95-025	SVP-15 (4.5-5)	Soil	5/23/2020 10:37	☐	A	A										
2005C95-026	SVP-15 (9.5-10)	Soil	5/23/2020 10:49	☐	A	A										
2005C95-027	SVP-15 (14.5-15)	Soil	5/23/2020 10:55	☐	A	A										
2005C95-028	SVP-7 (4.5-5)	Soil	5/26/2020 11:12	☐	A	A										
2005C95-029	SVP-7 (9.5-10)	Soil	5/26/2020 11:15	☐	A	A										
2005C95-030	SVP-7 (14.5-15)	Soil	5/26/2020 11:20	☐	A	A										

Test Legend:

1	8260VOC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Heidi Fruhlinger

Prepared by: Maria Venegas

Comments:

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 2005C95 **ClientCode: AWE**

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2005C95-031	SVP-11 (4.5-5)	Soil	5/26/2020 12:40	☐	A	A										
2005C95-032	SVP-11 (9.5-10)	Soil	5/26/2020 12:45	☐	A	A										
2005C95-033	SVP-11 (14.5-15)	Soil	5/26/2020 12:49	☐	A	A										
2005C95-034	SVP-14 (4.5-5)	Soil	5/26/2020 09:28	☐	A	A										
2005C95-035	SVP-14 (9.5-10)	Soil	5/26/2020 09:35	☐	A	A										
2005C95-036	SVP-14 (14.5-15)	Soil	5/26/2020 09:39	☐	A	A										
2005C95-037	SVP-16 (4.5-5)	Soil	5/26/2020 10:09	☐	A	A										
2005C95-038	SVP-16 (9.5-10)	Soil	5/26/2020 10:22	☐	A	A										
2005C95-039	SVP-16 (14.5-15)	Soil	5/26/2020 10:27	☐	A	A										

Test Legend:

1	8260VOC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Heidi Fruhlinger **Prepared by: Maria Venegas**

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-001A	SVP-9 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 14:10	5 days		☐	
2005C95-002A	SVP-9 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 14:17	5 days		☐	
2005C95-003A	SVP-9 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 14:25	5 days		☐	
2005C95-004A	SVP-9 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 14:30	5 days		☐	
2005C95-005A	SVP-10 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 15:01	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-006A	SVP-10 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 15:07	5 days		☐	
2005C95-007A	SVP-10 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 15:15	5 days		☐	
2005C95-008A	SVP-10 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 15:26	5 days		☐	
2005C95-009A	SVP-12 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 11:47	5 days		☐	
2005C95-010A	SVP-12 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 11:42	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-011A	SVP-12 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 12:02	5 days		☐	
2005C95-012A	SVP-12 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 12:07	5 days		☐	
2005C95-013A	SVP-13 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 10:51	5 days		☐	
2005C95-014A	SVP-13 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 10:55	5 days		☐	
2005C95-015A	SVP-13 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 11:00	5 days		☐	

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-016A	SVP-13 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 11:07	5 days		☐	
2005C95-017A	SVP-18 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 13:35	5 days		☐	
2005C95-018A	SVP-18 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 13:41	5 days		☐	
2005C95-019A	SVP-18 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 13:45	5 days		☐	
2005C95-020A	SVP-18 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 13:52	5 days		☐	

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☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-021A	SVP-8 (1-1.5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/24/2020 9:34	5 days		☐	
2005C95-022A	SVP-8 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/24/2020 9:42	5 days		☐	
2005C95-023A	SVP-8 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/24/2020 9:50	5 days		☐	
2005C95-024A	SVP-8 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/24/2020 9:56	5 days		☐	
2005C95-025A	SVP-15 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 10:37	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-026A	SVP-15 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 10:49	5 days		☐	
2005C95-027A	SVP-15 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/23/2020 10:55	5 days		☐	
2005C95-028A	SVP-7 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 11:12	5 days		☐	
2005C95-029A	SVP-7 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 11:15	5 days		☐	
2005C95-030A	SVP-7 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 11:20	5 days		☐	

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-031A	SVP-11 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 12:40	5 days		☐	
2005C95-032A	SVP-11 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 12:45	5 days		☐	
2005C95-033A	SVP-11 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 12:49	5 days		☐	
2005C95-034A	SVP-14 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 9:28	5 days		☐	
2005C95-035A	SVP-14 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 9:35	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C95
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C95-036A	SVP-14 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 9:39	5 days		☐	
2005C95-037A	SVP-16 (4.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 10:09	5 days		☐	
2005C95-038A	SVP-16 (9.5-10)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 10:22	5 days		☐	
2005C95-039A	SVP-16 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/26/2020 10:27	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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General COC

MAI Work Order # 2005C95

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CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #						
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #							
Delivery Format:	PDF	●	GeoTracker EDF		EDD		Write On (DW)		Detect Summary						

Report To: SAM CALLOWAY Bill To: DARLENE TORIO

Company: ALLWEST ENVIRONMENTAL

Email: SAM@ALLWEST1.COM

Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510

Project Name: PCU SUBSURFACE Project #: 202006.23

Project Location: 2525 IRVING STREET, SF, CA PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: PCE + BREAKDOWNS
SVP-9 (1-1.5)	5/23/20	1410	1	S	1	●
SVP-9 (4.5-5)	5/23/20	1417	1	S	1	●
SVP-9 (9.5-10)	5/23/20	1425	1	S	1	●
SVP-9 (14.5-15)	5/23/20	1430	1	S	1	●
SVP-10 (1-1.5)	5/23/20	1501	1	S	1	●
SVP-10 (4.5-5)	5/23/20	1507	1	S	1	●
SVP-10 (9.5-10)	5/23/20	1515	1	S	1	●
SVP-10 (14.5-15)	5/23/20	1526	1	S	1	●

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* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / AllWest	5/26/20	1500		5/28/20	1307
	5/28/20	1500	Maxxam 2-0	5/28/20	1500

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 5.0 °C Initials MV

wet ICE

Page 1 of 6

MAI Work Order #

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Dry Weight | Bottle Order #
Delivery Format: PDF ● | GeoTracker EDF | EDD | Write On (DW) | Detect Summary

Report To: SAM CALLOWAY Bill To: DARLENE TORIO
Company: ALLWEST ENVIRONMENTAL
Email: SAM@ALLWEST1.COM
Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510
Project Name: PCU SUBSURFACE Project #: 202006.23
Project Location: 2525 IRVING STREET, SF, CA PO #
Sampler Signature: [signature]

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	PCE + BREAKDOWNS
SVP-12 (1-1.5)	5/23/20	1147	1	S	1	●
SVP-12 (4.5-5)	5/23/20	1142	1	S	1	●
SVP-12 (9.5-10)	5/23/20	1202	1	S	1	●
SVP-12 (14.5-15)	5/23/20	1207	1	S	1	●
SVP-13 (1-1.5)	5/23/20	1051	1	S	1	●
SVP-13 (4.5-5)	5/23/20	1055	1	S	1	●
SVP-13 (9.5-10)	5/23/20	1100	1	S	1	●
SVP-13 (14.5-15)	5/23/20	1107	1	S	1	●

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Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / Allwest	5/26/20	1500	[signature]	5/28/20	1307
[signature]	5/28/20	1510	[signature]	5/28/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp ____ °C Initials ____

General COC

MAI Work Order #

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #	
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #	
Delivery Format:	PDF	●	GeoTracker EDF		EDD		Write On (DW)		Detect Summary

Report To: SAM CALLOWAY Bill To: DARLENE TORIO

Company: ALLWEST ENVIRONMENTAL

Email: SAM@ALLWEST1.COM

Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510

Project Name: PCU SUBSURFACE Project #: 202006.23

Project Location: 2525 IRVING STREET, SF, CA PO #

Sampler Signature: [signature]

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	PCE + BREAKDOWNS
SVP-18 (1-1.5)	5/23/20	1335	1	S	1	●
SVP-18 (4.5-5)	5/23/20	1341	1	S	1	●
SVP-18 (9.5-10)	5/23/20	1345	1	S	1	●
SVP-18 (14.5-15)	5/23/20	1352	1	S	1	●
SVP-8 (1-1.5)	5/24/20	0934	1	S	1	●
SVP-8 (4.5-5)	5/24/20	0942	1	S	1	●
SVP-8 (9.5-10)	5/24/20	0950	1	S	1	●
SVP-8 (14.5-15)	5/24/20	0956	1	S	1	●

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Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / Allwest	5/26/20	1500	[signature]	5/28	1307
[signature]	5/28/20	1510	[signature]	5/28/20	1510

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp ______ °C Initials ______

Page 3 of 6

MAI Work Order #_____

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CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #						
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #							
Delivery Format:	PDF	●	GeoTracker EDF		EDD		Write On (DW)		Detect Summary						

Report To: SAM CALLOWAY Bill To: DARLENE TORIO

Company: ALLWEST ENVIRONMENTAL

Email: SAM@ALLWEST1.COM

Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510

Project Name: PCU SUBSURFACE Project #: 202006.23

Project Location: 2525 IRVING STREET, SF, CA PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: PCE + BREAKDOWNS
SVP-15 (4.5-5)	5/23/20	1037	1	S	1	●
SVP-15 (9.5-10)	5/23/20	1049	1	S	1	●
SVP-15 (14.5-15)	5/23/20	1055	1	S	1	●
SVP-7 (4.5-5)	5/26/20	1112	1	S	1	●
SVP-7 (9.5-10)	5/26/20	1115	1	S	1	●
SVP-7 (14.5-15)	5/26/20	1120	1	S	1	●

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Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / Allwest	5/26/20	1500		5/28/20	1307
	5/28/20	1510		5/29/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

General COC

MAI Work Order #

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #	
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #	
Delivery Format:	PDF ●	GeoTracker EDF		EDD		Write On (DW)		Detect Summary	

Report To: SAM CALLOWAY Bill To: DARLENE TORIO
Company: ALLWEST ENVIRONMENTAL
Email: SAM@ALLWEST1.COM
Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510
Project Name: PCU SUBSURFACE Project #: 202006.23
Project Location: 2525 IRVING STREET, SF, CA PO #
Sampler Signature: [signature]

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	PCE + BREAKDOWNS
SVP-11 (4.5-5)	5/26/20	1240	1	S	1	●
SVP-11 (9.5-10)	5/26/20	1245	1	S	1	●
SVP-11 (14.5-15)	5/26/20	1249	1	S	1	●
SVP-14 (4.5-5)	5/26/20	0928	1	S	1	●
SVP-14 (9.5-10)	5/26/20	0935	1	S	1	●
SVP-14 (14.5-15)	5/26/20	0939	1	S	1	●

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Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / Allwest	5/26/20	1500	[signature]	5/28/20	1307
[signature]	5/28/20	1510	[signature]	5/28/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp ______ °C Initials ______

Page 5 of 6

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #	
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #	
Delivery Format:	PDF ●	GeoTracker EDF		EDD		Write On (DW)		Detect Summary	

Report To: SAM CALLOWAY Bill To: DARLENE TORIO
Company: ALLWEST ENVIRONMENTAL
Email: SAM@ALLWEST1.COM
Alt Email: LEONARD@ALLWEST1.COM Tele: 415-391-2510
Project Name: PCU SUBSURFACE Project #: 202006.23
Project Location: 2525 IRVING STREET, SF, CA PO #
Sampler Signature: [signature]

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	PCE + BREAKDOWNS
SVP-16 (4.5-5)	5/26/20	1009	1	S	1	●
SVP-16 (9.5-10)	5/26/20	1022	1	S	1	●
SVP-16 (14.5-15)	5/26/20	1027	1	S	1	●

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / Allwest	5/26/20	1500	[signature]	5/28/20	1307
[signature]	5/28/20	1510	[signature]	5/28/20	1510

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None Temp ____ °C Initials ____

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Sample Receipt Checklist

Client Name:	**All West Environmental, Inc**	Date and Time Received:	**5/28/2020 15:00**
Project:	**202006.23; PCU Subsurface**	Date Logged:	**5/29/2020**
		Received by:	Maria Venegas
WorkOrder №:	**2005C95** Matrix: Soil	Logged by:	Maria Venegas
Carrier:	Benjamin Yslas (MAI Courier)		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					
Sample/Temp Blank temperature	Temp: 5°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

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Analytical Report

WorkOrder: 2005C96

Report Created for: All West Environmental, Inc

2141 Mission Street, Ste 100
San Francisco, CA 94110

Project Contact: Samuel Calloway
Project P.O.:
Project: 202006.23; PCU Subsurface

Project Received: 05/28/2020

Analytical Report reviewed & approved for release on 06/05/2020 by:

Yen Cao
Project Manager

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Glossary of Terms & Qualifier Definitions

Client: All West Environmental, Inc
Project: 202006.23; PCU Subsurface
WorkOrder: 2005C96

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Detection Summary

Client: All West Environmental, Inc **WorkOrder:** 2005C96
Project: 202006.23; PCU Subsurface

Client ID: SVP-20 (14.5-15) **Lab ID: 2005C96-003A**
No Detections for Method: SW8260B.

Client ID: SVP-22 (14.5-15) **Lab ID: 2005C96-006A**
No Detections for Method: SW8260B.

Client ID: SVP-19 (14.5-15) **Lab ID: 2005C96-009A**
No Detections for Method: SW8260B.

Client ID: SVP-21 (14.5-5) **Lab ID: 2005C96-012A**
No Detections for Method: SW8260B.

Client ID: SVP-3 (14.5-15) **Lab ID: 2005C96-015A**
No Detections for Method: SW8260B.

Client ID: SVP-4 (14.5-15) **Lab ID: 2005C96-018A**
No Detections for Method: SW8260B.

Client ID: SVP-5 (14.5-15) **Lab ID: 2005C96-021A**
No Detections for Method: SW8260B.

Client ID: SVP-6 (14.5-15) **Lab ID: 2005C96-024A**
No Detections for Method: SW8260B.

Client ID: SVP-17 (14.5-15) **Lab ID: 2005C96-027A**
No Detections for Method: SW8260B.

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Received:	05/28/2020 15:10	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-20 (14.5-15)	2005C96-003A	Soil	05/27/2020 10:43	GC10 06042034.D	199228

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 05:38
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 05:38
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 05:38
Tetrachloroethene	ND	0.0050	1	06/05/2020 05:38
Trichloroethene	ND	0.0050	1	06/05/2020 05:38
Vinyl Chloride	ND	0.0050	1	06/05/2020 05:38

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 05:38
Toluene-d8	102	86-110	06/05/2020 05:38
4-BFB	90	71-114	06/05/2020 05:38
Benzene-d6	76	62-122	06/05/2020 05:38
Ethylbenzene-d10	86	69-130	06/05/2020 05:38
1,2-DCB-d4	69	55-108	06/05/2020 05:38

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-22 (14.5-15)	2005C96-006A	Soil	05/27/2020 11:14	GC10 06052008.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 12:40
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 12:40
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 12:40
Tetrachloroethene	ND	0.0050	1	06/05/2020 12:40
Trichloroethene	ND	0.0050	1	06/05/2020 12:40
Vinyl Chloride	ND	0.0050	1	06/05/2020 12:40

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 12:40
Toluene-d8	103	86-110	06/05/2020 12:40
4-BFB	90	71-114	06/05/2020 12:40
Benzene-d6	75	62-122	06/05/2020 12:40
Ethylbenzene-d10	85	69-130	06/05/2020 12:40
1,2-DCB-d4	69	55-108	06/05/2020 12:40

Analyst(s): JEM

(Cont.)

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Received:	05/28/2020 15:10	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-19 (14.5-15)	2005C96-009A	Soil	05/27/2020 11:38	GC10 06052009.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 13:22
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 13:22
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 13:22
Tetrachloroethene	ND	0.0050	1	06/05/2020 13:22
Trichloroethene	ND	0.0050	1	06/05/2020 13:22
Vinyl Chloride	ND	0.0050	1	06/05/2020 13:22

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 13:22
Toluene-d8	102	86-110	06/05/2020 13:22
4-BFB	90	71-114	06/05/2020 13:22
Benzene-d6	79	62-122	06/05/2020 13:22
Ethylbenzene-d10	89	69-130	06/05/2020 13:22
1,2-DCB-d4	70	55-108	06/05/2020 13:22

Analyst(s): JEM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-21 (14.5-5)	2005C96-012A	Soil	05/27/2020 12:20	GC10 06052010.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 14:04
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 14:04
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 14:04
Tetrachloroethene	ND	0.0050	1	06/05/2020 14:04
Trichloroethene	ND	0.0050	1	06/05/2020 14:04
Vinyl Chloride	ND	0.0050	1	06/05/2020 14:04

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 14:04
Toluene-d8	100	86-110	06/05/2020 14:04
4-BFB	90	71-114	06/05/2020 14:04
Benzene-d6	73	62-122	06/05/2020 14:04
Ethylbenzene-d10	81	69-130	06/05/2020 14:04
1,2-DCB-d4	66	55-108	06/05/2020 14:04

Analyst(s): JEM

(Cont.)

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Received:	05/28/2020 15:10	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-3 (14.5-15)	2005C96-015A	Soil	05/28/2020 09:15	GC10 06052011.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 14:45
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 14:45
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 14:45
Tetrachloroethene	ND	0.0050	1	06/05/2020 14:45
Trichloroethene	ND	0.0050	1	06/05/2020 14:45
Vinyl Chloride	ND	0.0050	1	06/05/2020 14:45

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 14:45
Toluene-d8	102	86-110	06/05/2020 14:45
4-BFB	89	71-114	06/05/2020 14:45
Benzene-d6	83	62-122	06/05/2020 14:45
Ethylbenzene-d10	94	69-130	06/05/2020 14:45
1,2-DCB-d4	74	55-108	06/05/2020 14:45

Analyst(s): JEM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-4 (14.5-15)	2005C96-018A	Soil	05/28/2020 09:40	GC10 06052012.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 15:27
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 15:27
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 15:27
Tetrachloroethene	ND	0.0050	1	06/05/2020 15:27
Trichloroethene	ND	0.0050	1	06/05/2020 15:27
Vinyl Chloride	ND	0.0050	1	06/05/2020 15:27

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 15:27
Toluene-d8	102	86-110	06/05/2020 15:27
4-BFB	92	71-114	06/05/2020 15:27
Benzene-d6	82	62-122	06/05/2020 15:27
Ethylbenzene-d10	93	69-130	06/05/2020 15:27
1,2-DCB-d4	72	55-108	06/05/2020 15:27

Analyst(s): JEM

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Received:	05/28/2020 15:10	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-5 (14.5-15)	2005C96-021A	Soil	05/28/2020 10:36	GC10 06052013.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 16:08
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 16:08
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 16:08
Tetrachloroethene	ND	0.0050	1	06/05/2020 16:08
Trichloroethene	ND	0.0050	1	06/05/2020 16:08
Vinyl Chloride	ND	0.0050	1	06/05/2020 16:08

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 16:08
Toluene-d8	102	86-110	06/05/2020 16:08
4-BFB	91	71-114	06/05/2020 16:08
Benzene-d6	88	62-122	06/05/2020 16:08
Ethylbenzene-d10	100	69-130	06/05/2020 16:08
1,2-DCB-d4	77	55-108	06/05/2020 16:08

Analyst(s): JEM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-6 (14.5-15)	2005C96-024A	Soil	05/28/2020 11:01	GC10 06052014.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 16:50
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 16:50
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 16:50
Tetrachloroethene	ND	0.0050	1	06/05/2020 16:50
Trichloroethene	ND	0.0050	1	06/05/2020 16:50
Vinyl Chloride	ND	0.0050	1	06/05/2020 16:50

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 16:50
Toluene-d8	103	86-110	06/05/2020 16:50
4-BFB	91	71-114	06/05/2020 16:50
Benzene-d6	85	62-122	06/05/2020 16:50
Ethylbenzene-d10	96	69-130	06/05/2020 16:50
1,2-DCB-d4	74	55-108	06/05/2020 16:50

Analyst(s): JEM

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Received:	05/28/2020 15:10	**Extraction Method:**	SW5030B
Date Prepared:	05/29/2020	**Analytical Method:**	SW8260B
Project:	202006.23; PCU Subsurface	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SVP-17 (14.5-15)	2005C96-027A	Soil	05/28/2020 10:13	GC10 06052015.D	199205

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	06/05/2020 17:32
cis-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 17:32
trans-1,2-Dichloroethene	ND	0.0050	1	06/05/2020 17:32
Tetrachloroethene	ND	0.0050	1	06/05/2020 17:32
Trichloroethene	ND	0.0050	1	06/05/2020 17:32
Vinyl Chloride	ND	0.0050	1	06/05/2020 17:32

Surrogates	REC (%)	Limits	
Dibromofluoromethane	85	66-116	06/05/2020 17:32
Toluene-d8	101	86-110	06/05/2020 17:32
4-BFB	91	71-114	06/05/2020 17:32
Benzene-d6	88	62-122	06/05/2020 17:32
Ethylbenzene-d10	99	69-130	06/05/2020 17:32
1,2-DCB-d4	76	55-108	06/05/2020 17:32

Analyst(s): JEM

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Prepared:	05/29/2020	**BatchID:**	199205
Date Analyzed:	05/29/2020 - 05/31/2020	**Extraction Method:**	SW5030B
Instrument:	GC16, GC38	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199205

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
Surrogate Recovery						
Dibromofluoromethane	0.117			0.125	94	66-112
Toluene-d8	0.128			0.125	102	92-109
4-BFB	0.0118			0.0125	94	72-112
Benzene-d6	0.0886			0.1	89	81-126
Ethylbenzene-d10	0.103			0.1	103	92-138
1,2-DCB-d4	0.0824			0.1	82	68-108

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Dichloroethene	0.0163	0.0157	0.020	81	79	69-126	3.67	20
cis-1,2-Dichloroethene	0.0188	0.0181	0.020	94	90	69-116	4.14	20
trans-1,2-Dichloroethene	0.0177	0.0170	0.020	88	85	73-116	4.14	20
Tetrachloroethene	0.0190	0.0181	0.020	95	91	78-128	4.46	20
Trichloroethene	0.0180	0.0172	0.020	90	86	73-118	4.76	20
Vinyl Chloride	0.00533	0.00511	0.010	53	51	40-125	4.27	20
Surrogate Recovery								
Dibromofluoromethane	0.121	0.121	0.12	97	97	66-112	0.407	20
Toluene-d8	0.129	0.128	0.12	103	102	92-109	0.445	20
4-BFB	0.0121	0.0120	0.012	97	96	72-112	1.17	20
Benzene-d6	0.0919	0.0885	0.10	92	89	81-126	3.72	20
Ethylbenzene-d10	0.102	0.0973	0.10	102	97	92-138	4.95	20
1,2-DCB-d4	0.0789	0.0782	0.10	79	78	68-108	0.938	20

(Cont.)

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	2005C96
Date Prepared:	05/29/2020	**BatchID:**	199228
Date Analyzed:	06/04/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	202006.23; PCU Subsurface	**Sample ID:**	MB/LCS/LCSD-199228

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
Surrogate Recovery						
Dibromofluoromethane	0.105			0.125	84	66-112
Toluene-d8	0.131			0.125	105	92-109
4-BFB	0.0114			0.0125	91	72-112
Benzene-d6	0.0936			0.1	94	81-126
Ethylbenzene-d10	0.108			0.1	108	92-138
1,2-DCB-d4	0.0821			0.1	82	68-108

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Dichloroethene	0.0163	0.0175	0.020	81	88	69-126	7.31	20
cis-1,2-Dichloroethene	0.0166	0.0177	0.020	83	89	69-116	6.45	20
trans-1,2-Dichloroethene	0.0166	0.0181	0.020	83	90	73-116	8.55	20
Tetrachloroethene	0.0193	0.0208	0.020	97	104	78-128	7.21	20
Trichloroethene	0.0176	0.0188	0.020	88	94	73-118	6.63	20
Vinyl Chloride	0.00650	0.00654	0.010	65	65	40-125	0.600	20
Surrogate Recovery								
Dibromofluoromethane	0.105	0.105	0.12	84	84	66-112	0.250	20
Toluene-d8	0.130	0.130	0.12	104	104	92-109	0.0636	20
4-BFB	0.0114	0.0115	0.012	91	92	72-112	1.60	20
Benzene-d6	0.0878	0.0895	0.10	88	90	81-126	1.90	20
Ethylbenzene-d10	0.0987	0.101	0.10	99	101	92-138	2.30	20
1,2-DCB-d4	0.0774	0.0786	0.10	77	79	68-108	1.58	20

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2005C96 **ClientCode: AWE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ■ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
■ Detection Summary ■ Dry-Weight

Report to:
Samuel Calloway
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(415) 391-2510 FAX: (415) 391-2008

Email: sam@allwest1.com; Leonard@allwest1.co
cc/3rd Party:
PO:
Project: 202006.23; PCU Subsurface

Bill to:
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com,Leonard@allwes

Requested TAT: 5 days;

Date Received: 05/28/2020
Date Logged: 05/29/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
2005C96-001	SVP-20 (4.5-5)	Soil	5/27/2020 10:20	☑		A	A									
2005C96-002	SVP-20 (9.5-10)	Soil	5/27/2020 10:28	☑		A	A									
2005C96-003	SVP-20 (14.5-15)	Soil	5/27/2020 10:43	☐	A	A										
2005C96-004	SVP-22 (4.5-5)	Soil	5/27/2020 10:55	☑		A	A									
2005C96-005	SVP-22 (9.5-10)	Soil	5/27/2020 11:00	☑		A	A									
2005C96-006	SVP-22 (14.5-15)	Soil	5/27/2020 11:14	☐	A	A										
2005C96-007	SVP-19 (4.5-5)	Soil	5/27/2020 11:29	☑		A	A									
2005C96-008	SVP-19 (9.5-10)	Soil	5/27/2020 11:34	☑		A	A									
2005C96-009	SVP-19 (14.5-15)	Soil	5/27/2020 11:38	☐	A	A										
2005C96-010	SVP-21 (4.5-5)	Soil	5/27/2020 11:49	☑		A	A									
2005C96-011	SVP-21 (9.5-10)	Soil	5/27/2020 12:00	☑		A	A									
2005C96-012	SVP-21 (14.5-5)	Soil	5/27/2020 12:20	☐	A	A										
2005C96-013	SVP-3 (4.5-5)	Soil	5/28/2020 09:00	☑		A	A									
2005C96-014	SVP-3 (9.5-10)	Soil	5/28/2020 09:10	☑		A	A									
2005C96-015	SVP-3 (14.5-15)	Soil	5/28/2020 09:15	☐	A	A										

Test Legend:

1	8260VOC_S	2	PRDisposal Fee	3	PRHOLD	4	
5		6		7		8	
9		10		11		12	

Project Manager: Heidi Fruhlinger

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 2005C96 **ClientCode: AWE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ▣ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
▣ Detection Summary ▣ Dry-Weight

Report to:
Samuel Calloway
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(415) 391-2510 FAX: (415) 391-2008

Email: sam@allwest1.com; Leonard@allwest1.co
cc/3rd Party:
PO:
Project: 202006.23; PCU Subsurface

Bill to:
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com,Leonard@allwes

Requested TAT: 5 days;

Date Received: 05/28/2020
Date Logged: 05/29/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
2005C96-016	SVP-4 (4.5-5)	Soil	5/28/2020 09:29	☑		A	A									
2005C96-017	SVP-4 (9.5-10)	Soil	5/28/2020 09:34	☑		A	A									
2005C96-018	SVP-4 (14.5-15)	Soil	5/28/2020 09:40	☐	A	A										
2005C96-019	SVP-5 (4.5-5)	Soil	5/28/2020 10:25	☑		A	A									
2005C96-020	SVP-5 (9.5-10)	Soil	5/28/2020 10:29	☑		A	A									
2005C96-021	SVP-5 (14.5-15)	Soil	5/28/2020 10:36	☐	A	A										
2005C96-022	SVP-6 (4.5-5)	Soil	5/28/2020 10:47	☑		A	A									
2005C96-023	SVP-6 (9.5-10)	Soil	5/28/2020 10:55	☑		A	A									
2005C96-024	SVP-6 (14.5-15)	Soil	5/28/2020 11:01	☐	A	A										
2005C96-025	SVP-17 (4.5-5)	Soil	5/28/2020 10:01	☑		A	A									
2005C96-026	SVP-17 (9.5-10)	Soil	5/28/2020 10:10	☑		A	A									
2005C96-027	SVP-17 (14.5-15)	Soil	5/28/2020 10:13	☐	A	A										

Test Legend:

1	8260VOC_S	2	PRDisposal Fee	3	PRHOLD	4	
5		6		7		8	
9		10		11		12	

Project Manager: Heidi Fruhlinger **Prepared by: Maria Venegas**

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C96
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C96-003A	SVP-20 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/27/2020 10:43	5 days		☐	
2005C96-006A	SVP-22 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/27/2020 11:14	5 days		☐	
2005C96-009A	SVP-19 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/27/2020 11:38	5 days		☐	
2005C96-012A	SVP-21 (14.5-5)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/27/2020 12:20	5 days		☐	
2005C96-015A	SVP-3 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/28/2020 9:15	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 202006.23; PCU Subsurface **Work Order:** 2005C96
Client Contact: Samuel Calloway **QC Level:** LEVEL 2
Contact's Email: sam@allwest1.com; Leonard@allwest1.com **Comments:** **Date Logged:** 5/29/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2005C96-018A	SVP-4 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/28/2020 9:40	5 days		☐	
2005C96-021A	SVP-5 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/28/2020 10:36	5 days		☐	
2005C96-024A	SVP-6 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/28/2020 11:01	5 days		☐	
2005C96-027A	SVP-17 (14.5-15)	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	5/28/2020 10:13	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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General COC

MAI Work Order # 2005C96

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ✓ | Quote #
J-Flag / MDL | ESL ✓ | Cleanup Approved | Bottle Order #
Delivery Format: PDF ✓ | GeoTracker EDF | EDD | Write On (DW) | EQuIS

Report To: Sam Calloway | Bill To: Darlene Torio
Company: AllWest Environmental
Email: sam@allwest1.com
Alt Email: leonard@allwest1.com | Tele: 415-391-2510
Project Name: PCU Subsurface | Project #: 202006.23
Project Location: Irving St, SF, CA | PO #
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: PCE + Breakdowns
SVP-20 (4.5-5)	5/27/20	1020	1	S	1	
SVP-20 (9.5-10)		1028				
SVP-20 (14.5-15)		1043				✓
SVP-22 (4.5-5)		1055				
SVP-22 (9.5-10)		1100				
SVP-22 (14.5-15)		1114				✓
SVP-19 (4.5-5)		1129				
SVP-19 (9.5-10)		1134				
SVP-19 (14.5-15)		1138				✓
SVP-21 (4.5-5)		1149				

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions: Hold intervals 4.5-5 and 9.5-10

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / AllWest	5/28/20	1300		5/28/20	1507
	5/28/20	1510		5/28/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 5.6 °C wet ICE Initials MV

Page 1 of 3

General COC

MAI Work Order # _____

McCAMPBELL ANALYTICAL, INC.

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www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ✓ | Quote #
J-Flag / MDL | ESL ✓ | Cleanup Approved | Bottle Order #
Delivery Format: PDF ✓ | GeoTracker EDF | EDD | Write On (DW) | EQuIS

Report To: Sam Calloway | Bill To: Darlene Torio
Company: AllWest Environmental
Email: sam@allwest1.com
Alt Email: leonard@allwest1.com | Tele: 415-391-2510
Project Name: PCU Subsurface | Project #: 202006.23
Project Location: Irving St, SF, CA | PO #
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: PCE + Breakdowns
SVP-21 (9.5-10)	5/27/20	1200	1	S	1	
SVP-21 (14.5-5)	5/27/20	1220				✓
SVP-3 (4.5-5)	5/28/20	0900				
SVP-3 (9.5-10)		0910				
SVP-3 (14.5-15)		0915				✓
SVP-4 (4.5-5)		0929				
SVP-4 (9.5-10)		0934				
SVP-4 (14.5-15)		0940				✓
SVP-5 (4.5-5)		1025				
SVP-5 (9.5-10)		1029				

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Comments / Instructions: Hold intervals 4.5-5 and 9.5-10

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / AllWest	5/28/20	1300		5/28	1307
	5/28/20	1510		5/28/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

General COC

MAI Work Order # _____

McCAMPBELL ANALYTICAL, INC.

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Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ✓ | Quote #
J-Flag / MDL | ESL ✓ | Cleanup Approved | Bottle Order #
Delivery Format: PDF ✓ | GeoTracker EDF | EDD | Write On (DW) | EQuIS

Report To: Sam Calloway | Bill To: Darlene Torio
Company: AllWest Environmental
Email: sam@allwest1.com
Alt Email: leonard@allwest1.com | Tele: 415-391-2510
Project Name: PCH Subsurface | Project #: 202006.23
Project Location: Irving St, SF, CA | PO #
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: PCE + Breakdowns
SVP-5 (14.5-15)	5/28 ~~1036~~	1036	1	S	1	✓
SVP-6 (4.5-5)	5/28 ~~1047~~	1047				
SVP-6 (9.5-10)	5/28 ~~1055~~	1055				
SVP-6 (14.5-15)	5/28 ~~1101~~	1101				✓
SVP-17 (4.5-5)	5/28 ~~1001~~	1001				
SVP-17 (9.5-10)	5/28 ~~1010~~	1010				
SVP-17 (14.5-15)	5/28 ~~1013~~	1013				✓

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

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Comments / Instructions: please hold intervals 4.5-5 and 9.5-10

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Sam Calloway / AllWest	5/28/20	1300		5/28/20	1307
	5/28/20	1510		5/28/20	1510

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

Page 3 of 3

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**All West Environmental, Inc**	Date and Time Received:	**5/28/2020 15:10**
Project:	**202006.23; PCU Subsurface**	Date Logged:	**5/29/2020**
		Received by:	Maria Venegas
WorkOrder №:	**2005C96** Matrix: Soil	Logged by:	Maria Venegas
Carrier:	Benjamin Yslas (MAI Courier)		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					
Sample/Temp Blank temperature	Temp: 5°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-29937-1
Client Project/Site: PCU SUBSURFACE / 202006.23

For:
Allwest Environmental
2141 Mission Street
Suite 100
San Francisco, California 94110

Attn: Sam Calloway

Vik Patel

Authorized for release by:
6/11/2020 2:26:36 PM

Vikas Patel, Project Manager I
(714)895-5494
vikaspatel@eurofinsus.com

Table of Contents

Definitions/Glossary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job ID: 570-29937-1

Job ID: 570-29937-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-29937-1

Comments
No additional comments.

Receipt
The samples were received on 6/4/2020 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 22.0º C.

Receipt Exceptions
The equipment ID for the following sample did not match the information listed on the Chain-of-Custody (COC) : SVP-15B (570-29937-36), the equipment lists LC679, while the COC lists LC697. Sample I.D. matches COC.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC) : SVP-20A (570-29937-1). The container label lists collection time as 11:21, while the COC lists 13:21.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SVP-7B (570-29937-30). The container labels list 7B, while the COC lists SVP-7B.

Air Toxics
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job ID: 570-29937-1

Client Sample ID: SVP-20A — Lab Sample ID: 570-29937-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1300		14		ug/m3	4		TO-15	Total/NA

Client Sample ID: SVP-20B — Lab Sample ID: 570-29937-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	910		6.8		ug/m3	2		TO-15	Total/NA

Client Sample ID: SVP-22A — Lab Sample ID: 570-29937-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1300		11		ug/m3	3.2		TO-15	Total/NA

Client Sample ID: SVP-22B — Lab Sample ID: 570-29937-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1800		17		ug/m3	5		TO-15	Total/NA

Client Sample ID: SVP-3 — Lab Sample ID: 570-29937-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2500		17		ug/m3	5		TO-15	Total/NA

Client Sample ID: SVP-4 — Lab Sample ID: 570-29937-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2200		17		ug/m3	5		TO-15	Total/NA

Client Sample ID: SVP-5 — Lab Sample ID: 570-29937-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2500		17		ug/m3	5		TO-15	Total/NA

Client Sample ID: SVP-6 — Lab Sample ID: 570-29937-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1000		11		ug/m3	3.2		TO-15	Total/NA

Client Sample ID: SVP-17 — Lab Sample ID: 570-29937-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1700		17		ug/m3	5		TO-15	Total/NA

Client Sample ID: SVP-19A — Lab Sample ID: 570-29937-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	570		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-19B — Lab Sample ID: 570-29937-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	990		8.5		ug/m3	2.5		TO-15	Total/NA

Client Sample ID: SVP-21A — Lab Sample ID: 570-29937-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	390		3.4		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Detection Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-21B — Lab Sample ID: 570-29937-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	200		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: VP-1A — Lab Sample ID: 570-29937-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1100		12		ug/m3	3.48		TO-15	Total/NA

Client Sample ID: VP-4 — Lab Sample ID: 570-29937-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	960		11		ug/m3	3.2		TO-15	Total/NA

Client Sample ID: SVP-8A — Lab Sample ID: 570-29937-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1300		12		ug/m3	3.48		TO-15	Total/NA

Client Sample ID: SVP-8B — Lab Sample ID: 570-29937-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1700		15		ug/m3	4.416		TO-15	Total/NA

Client Sample ID: SVP-9A — Lab Sample ID: 570-29937-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1300		9.8		ug/m3	2.88		TO-15	Total/NA

Client Sample ID: SVP-9B — Lab Sample ID: 570-29937-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1300		9.0		ug/m3	2.65		TO-15	Total/NA

Client Sample ID: SVP-18A — Lab Sample ID: 570-29937-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1200		9.9		ug/m3	2.92		TO-15	Total/NA

Client Sample ID: SVP-18B — Lab Sample ID: 570-29937-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1000		9.2		ug/m3	2.72		TO-15	Total/NA

Client Sample ID: VP-2A — Lab Sample ID: 570-29937-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	710		9.1		ug/m3	2.69		TO-15	Total/NA

Client Sample ID: VP-3 — Lab Sample ID: 570-29937-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	370		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-10A — Lab Sample ID: 570-29937-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	320		3.6		ug/m3	1.058		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-10B — Lab Sample ID: 570-29937-25

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	280		6.6		ug/m3	1.94		TO-15	Total/NA

Client Sample ID: SVP-12A — Lab Sample ID: 570-29937-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1500		10		ug/m3	3.08		TO-15	Total/NA

Client Sample ID: SVP-12B — Lab Sample ID: 570-29937-27

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene - DL	1600		9.0		ug/m3	2.64		TO-15	Total/NA

Client Sample ID: SVP-13A — Lab Sample ID: 570-29937-28

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	290		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-7A — Lab Sample ID: 570-29937-29

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	470		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-7B — Lab Sample ID: 570-29937-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	340		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-11A — Lab Sample ID: 570-29937-31

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	630		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-11B — Lab Sample ID: 570-29937-32

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	650		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-14A — Lab Sample ID: 570-29937-33

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	590		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-14B — Lab Sample ID: 570-29937-34

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	540		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-15A — Lab Sample ID: 570-29937-35

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	120		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-15B — Lab Sample ID: 570-29937-36

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	240		3.4		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-16A
Lab Sample ID: 570-29937-37

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	140		3.4		ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-16B
Lab Sample ID: 570-29937-38

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	220		3.4		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Client Sample ID: SVP-20A
Lab Sample ID: 570-29937-1
Date Collected: 05/27/20 11:21
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/06/20 23:28	4
trans-1,2-Dichloroethene	ND		7.9		ug/m3			06/06/20 23:28	4
Tetrachloroethene	**1300**		14		ug/m3			06/06/20 23:28	4
Trichloroethene	ND		11		ug/m3			06/06/20 23:28	4
Vinyl chloride	ND		5.1		ug/m3			06/06/20 23:28	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/06/20 23:28*	*4*
4-Bromofluorobenzene (Surr)	*104*		*67 - 131*		*06/06/20 23:28*	*4*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/06/20 23:28*	*4*

Client Sample ID: SVP-20B
Lab Sample ID: 570-29937-2
Date Collected: 05/27/20 14:25
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		4.0		ug/m3			06/07/20 00:16	2
trans-1,2-Dichloroethene	ND		4.0		ug/m3			06/07/20 00:16	2
Tetrachloroethene	**910**		6.8		ug/m3			06/07/20 00:16	2
Trichloroethene	ND		5.4		ug/m3			06/07/20 00:16	2
Vinyl chloride	ND		2.6		ug/m3			06/07/20 00:16	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/07/20 00:16*	*2*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 00:16*	*2*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 00:16*	*2*

Client Sample ID: SVP-22A
Lab Sample ID: 570-29937-3
Date Collected: 05/27/20 15:13
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		6.3		ug/m3			06/07/20 01:04	3.2
trans-1,2-Dichloroethene	ND		6.3		ug/m3			06/07/20 01:04	3.2
Tetrachloroethene	**1300**		11		ug/m3			06/07/20 01:04	3.2
Trichloroethene	ND		8.6		ug/m3			06/07/20 01:04	3.2
Vinyl chloride	ND		4.1		ug/m3			06/07/20 01:04	3.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/07/20 01:04*	*3.2*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 01:04*	*3.2*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 01:04*	*3.2*

Client Sample ID: SVP-22B
Lab Sample ID: 570-29937-4
Date Collected: 05/27/20 15:56
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		9.9		ug/m3			06/07/20 01:53	5
trans-1,2-Dichloroethene	ND		9.9		ug/m3			06/07/20 01:53	5

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Client Sample ID: SVP-22B
Lab Sample ID: 570-29937-4
Date Collected: 05/27/20 15:56
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**1800**		17	ug/m3			06/07/20 01:53	5
Trichloroethene	ND		13	ug/m3			06/07/20 01:53	5
Vinyl chloride	ND		6.4	ug/m3			06/07/20 01:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/07/20 01:53*	*5*
4-Bromofluorobenzene (Surr)	*102*		*67 - 131*		*06/07/20 01:53*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 01:53*	*5*

Client Sample ID: SVP-3
Lab Sample ID: 570-29937-5
Date Collected: 05/28/20 13:15
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 02:41	5
trans-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 02:41	5
Tetrachloroethene	**2500**		17	ug/m3			06/07/20 02:41	5
Trichloroethene	ND		13	ug/m3			06/07/20 02:41	5
Vinyl chloride	ND		6.4	ug/m3			06/07/20 02:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/07/20 02:41*	*5*
4-Bromofluorobenzene (Surr)	*102*		*67 - 131*		*06/07/20 02:41*	*5*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 02:41*	*5*

Client Sample ID: SVP-4
Lab Sample ID: 570-29937-6
Date Collected: 05/28/20 13:55
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 03:29	5
trans-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 03:29	5
Tetrachloroethene	**2200**		17	ug/m3			06/07/20 03:29	5
Trichloroethene	ND		13	ug/m3			06/07/20 03:29	5
Vinyl chloride	ND		6.4	ug/m3			06/07/20 03:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 03:29*	*5*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 03:29*	*5*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 03:29*	*5*

Client Sample ID: SVP-5
Lab Sample ID: 570-29937-7
Date Collected: 05/28/20 16:05
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 04:18	5
trans-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 04:18	5
Tetrachloroethene	**2500**		17	ug/m3			06/07/20 04:18	5
Trichloroethene	ND		13	ug/m3			06/07/20 04:18	5

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Client Sample ID: SVP-5
Lab Sample ID: 570-29937-7
Date Collected: 05/28/20 16:05
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		6.4	ug/m3			06/07/20 04:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 04:18*	*5*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 04:18*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 04:18*	*5*

Client Sample ID: SVP-6
Lab Sample ID: 570-29937-8
Date Collected: 05/28/20 15:22
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		6.3	ug/m3			06/07/20 05:11	3.2
trans-1,2-Dichloroethene	ND		6.3	ug/m3			06/07/20 05:11	3.2
Tetrachloroethene	**1000**		11	ug/m3			06/07/20 05:11	3.2
Trichloroethene	ND		8.6	ug/m3			06/07/20 05:11	3.2
Vinyl chloride	ND		4.1	ug/m3			06/07/20 05:11	3.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/07/20 05:11*	*3.2*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*		*06/07/20 05:11*	*3.2*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 05:11*	*3.2*

Client Sample ID: SVP-17
Lab Sample ID: 570-29937-9
Date Collected: 05/28/20 14:46
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 06:00	5
trans-1,2-Dichloroethene	ND		9.9	ug/m3			06/07/20 06:00	5
Tetrachloroethene	**1700**		17	ug/m3			06/07/20 06:00	5
Trichloroethene	ND		13	ug/m3			06/07/20 06:00	5
Vinyl chloride	ND		6.4	ug/m3			06/07/20 06:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 06:00*	*5*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 06:00*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 06:00*	*5*

Client Sample ID: SVP-19A
Lab Sample ID: 570-29937-10
Date Collected: 05/28/20 06:59
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/08/20 15:38	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/08/20 15:38	1
Tetrachloroethene	**570**		3.4	ug/m3			06/08/20 15:38	1
Trichloroethene	ND		2.7	ug/m3			06/08/20 15:38	1
Vinyl chloride	ND		1.3	ug/m3			06/08/20 15:38	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		06/08/20 15:38	1
4-Bromofluorobenzene (Surr)	99		67 - 131		06/08/20 15:38	1
Toluene-d8 (Surr)	100		70 - 130		06/08/20 15:38	1

Client Sample ID: SVP-19B — **Lab Sample ID: 570-29937-11**
Date Collected: 05/28/20 07:33 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		5.0	ug/m3			06/08/20 16:28	2.5
trans-1,2-Dichloroethene	ND		5.0	ug/m3			06/08/20 16:28	2.5
Tetrachloroethene	**990**		8.5	ug/m3			06/08/20 16:28	2.5
Trichloroethene	ND		6.7	ug/m3			06/08/20 16:28	2.5
Vinyl chloride	ND		3.2	ug/m3			06/08/20 16:28	2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/08/20 16:28	2.5
4-Bromofluorobenzene (Surr)	100		67 - 131		06/08/20 16:28	2.5
Toluene-d8 (Surr)	99		70 - 130		06/08/20 16:28	2.5

Client Sample ID: SVP-21A — **Lab Sample ID: 570-29937-12**
Date Collected: 05/28/20 08:01 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/08/20 17:19	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/08/20 17:19	1
Tetrachloroethene	**390**		3.4	ug/m3			06/08/20 17:19	1
Trichloroethene	ND		2.7	ug/m3			06/08/20 17:19	1
Vinyl chloride	ND		1.3	ug/m3			06/08/20 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/08/20 17:19	1
4-Bromofluorobenzene (Surr)	109		67 - 131		06/08/20 17:19	1
Toluene-d8 (Surr)	93		70 - 130		06/08/20 17:19	1

Client Sample ID: SVP-21B — **Lab Sample ID: 570-29937-13**
Date Collected: 05/28/20 08:27 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:29	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:29	1
Tetrachloroethene	**200**		3.4	ug/m3			06/07/20 02:29	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 02:29	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/07/20 02:29	1
4-Bromofluorobenzene (Surr)	95		67 - 131		06/07/20 02:29	1
Toluene-d8 (Surr)	97		70 - 130		06/07/20 02:29	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Client Sample ID: VP-1A
Lab Sample ID: 570-29937-14
Date Collected: 05/30/20 12:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.3		ug/m3			06/07/20 03:24	1.17
trans-1,2-Dichloroethene	ND		2.3		ug/m3			06/07/20 03:24	1.17
Trichloroethene	ND		3.1		ug/m3			06/07/20 03:24	1.17
Vinyl chloride	ND		1.5		ug/m3			06/07/20 03:24	1.17

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 03:24*	*1.17*
4-Bromofluorobenzene (Surr)	*98*		*67 - 131*		*06/07/20 03:24*	*1.17*
Toluene-d8 (Surr)	*93*		*70 - 130*		*06/07/20 03:24*	*1.17*

Client Sample ID: VP-4
Lab Sample ID: 570-29937-15
Date Collected: 05/30/20 10:55
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:17	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:17	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 04:17	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 04:17*	*1*
4-Bromofluorobenzene (Surr)	*97*		*67 - 131*		*06/07/20 04:17*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*06/07/20 04:17*	*1*

Client Sample ID: SVP-8A
Lab Sample ID: 570-29937-16
Date Collected: 05/30/20 09:46
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.2		ug/m3			06/07/20 05:11	1.124
trans-1,2-Dichloroethene	ND		2.2		ug/m3			06/07/20 05:11	1.124
Trichloroethene	ND		3.0		ug/m3			06/07/20 05:11	1.124
Vinyl chloride	ND		1.4		ug/m3			06/07/20 05:11	1.124

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/07/20 05:11*	*1.124*
4-Bromofluorobenzene (Surr)	*96*		*67 - 131*		*06/07/20 05:11*	*1.124*
Toluene-d8 (Surr)	*95*		*70 - 130*		*06/07/20 05:11*	*1.124*

Client Sample ID: SVP-8B
Lab Sample ID: 570-29937-17
Date Collected: 05/30/20 10:16
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:50	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:50	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 04:50	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 04:50	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/07/20 04:50	1
4-Bromofluorobenzene (Surr)	99		67 - 131		06/07/20 04:50	1
Toluene-d8 (Surr)	101		70 - 130		06/07/20 04:50	1

Client Sample ID: SVP-9A — **Lab Sample ID: 570-29937-18**
Date Collected: 05/30/20 12:03 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 06:09	1.042
trans-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 06:09	1.042
Trichloroethene	ND		2.8	ug/m3			06/07/20 06:09	1.042
Vinyl chloride	ND		1.3	ug/m3			06/07/20 06:09	1.042

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/07/20 06:09	1.042
4-Bromofluorobenzene (Surr)	99		67 - 131		06/07/20 06:09	1.042
Toluene-d8 (Surr)	99		70 - 130		06/07/20 06:09	1.042

Client Sample ID: SVP-9B — **Lab Sample ID: 570-29937-19**
Date Collected: 05/30/20 13:24 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 07:10	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 07:10	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 07:10	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 07:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/07/20 07:10	1
4-Bromofluorobenzene (Surr)	100		67 - 131		06/07/20 07:10	1
Toluene-d8 (Surr)	101		70 - 130		06/07/20 07:10	1

Client Sample ID: SVP-18A — **Lab Sample ID: 570-29937-20**
Date Collected: 05/30/20 14:18 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 08:29	1.084
trans-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 08:29	1.084
Trichloroethene	ND		2.9	ug/m3			06/07/20 08:29	1.084
Vinyl chloride	ND		1.4	ug/m3			06/07/20 08:29	1.084

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/07/20 08:29	1.084
4-Bromofluorobenzene (Surr)	99		67 - 131		06/07/20 08:29	1.084
Toluene-d8 (Surr)	101		70 - 130		06/07/20 08:29	1.084

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Client Sample ID: SVP-18B
Lab Sample ID: 570-29937-21
Date Collected: 05/30/20 14:45
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 09:48	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 09:48	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 09:48	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*06/07/20 09:48*	*1*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*		*06/07/20 09:48*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 09:48*	*1*

Client Sample ID: VP-2A
Lab Sample ID: 570-29937-22
Date Collected: 05/31/20 14:01
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 11:10	1.026
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 11:10	1.026
Trichloroethene	ND		2.8	ug/m3			06/07/20 11:10	1.026
Vinyl chloride	ND		1.3	ug/m3			06/07/20 11:10	1.026

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*06/07/20 11:10*	*1.026*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*		*06/07/20 11:10*	*1.026*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 11:10*	*1.026*

Client Sample ID: VP-3
Lab Sample ID: 570-29937-23
Date Collected: 05/31/20 10:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 12:10	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 12:10	1
Tetrachloroethene	**370**		3.4	ug/m3			06/07/20 12:10	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 12:10	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/07/20 12:10*	*1*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*		*06/07/20 12:10*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 12:10*	*1*

Client Sample ID: SVP-10A
Lab Sample ID: 570-29937-24
Date Collected: 05/31/20 13:13
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 13:30	1.058
trans-1,2-Dichloroethene	ND		2.1	ug/m3			06/07/20 13:30	1.058
Tetrachloroethene	**320**		3.6	ug/m3			06/07/20 13:30	1.058
Trichloroethene	ND		2.8	ug/m3			06/07/20 13:30	1.058

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Client Sample ID: SVP-10A
Lab Sample ID: 570-29937-24
Date Collected: 05/31/20 13:13
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.4	ug/m3			06/07/20 13:30	1.058

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*06/07/20 13:30*	*1.058*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*		*06/07/20 13:30*	*1.058*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 13:30*	*1.058*

Client Sample ID: SVP-10B
Lab Sample ID: 570-29937-25
Date Collected: 05/31/20 13:37
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.8	ug/m3			06/08/20 21:56	1.94
trans-1,2-Dichloroethene	ND		3.8	ug/m3			06/08/20 21:56	1.94
Tetrachloroethene	**280**		6.6	ug/m3			06/08/20 21:56	1.94
Trichloroethene	ND		5.2	ug/m3			06/08/20 21:56	1.94
Vinyl chloride	ND		2.5	ug/m3			06/08/20 21:56	1.94

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/08/20 21:56*	*1.94*
4-Bromofluorobenzene (Surr)	*94*		*67 - 131*		*06/08/20 21:56*	*1.94*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/08/20 21:56*	*1.94*

Client Sample ID: SVP-12A
Lab Sample ID: 570-29937-26
Date Collected: 05/31/20 11:05
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		6.1	ug/m3			06/08/20 22:48	3.08
trans-1,2-Dichloroethene	ND		6.1	ug/m3			06/08/20 22:48	3.08
Tetrachloroethene	**1500**		10	ug/m3			06/08/20 22:48	3.08
Trichloroethene	ND		8.3	ug/m3			06/08/20 22:48	3.08
Vinyl chloride	ND		3.9	ug/m3			06/08/20 22:48	3.08

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/08/20 22:48*	*3.08*
4-Bromofluorobenzene (Surr)	*98*		*67 - 131*		*06/08/20 22:48*	*3.08*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/08/20 22:48*	*3.08*

Client Sample ID: SVP-12B
Lab Sample ID: 570-29937-27
Date Collected: 05/31/20 11:30
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 01:27	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 01:27	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 01:27	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 01:27	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/07/20 01:27	1
4-Bromofluorobenzene (Surr)	83		67 - 131		06/07/20 01:27	1
Toluene-d8 (Surr)	99		70 - 130		06/07/20 01:27	1

Client Sample ID: SVP-13A — **Lab Sample ID: 570-29937-28**
Date Collected: 05/31/20 09:45 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:13	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:13	1
Tetrachloroethene	**290**		3.4	ug/m3			06/07/20 02:13	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 02:13	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 02:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/07/20 02:13	1
4-Bromofluorobenzene (Surr)	91		67 - 131		06/07/20 02:13	1
Toluene-d8 (Surr)	100		70 - 130		06/07/20 02:13	1

Client Sample ID: SVP-7A — **Lab Sample ID: 570-29937-29**
Date Collected: 06/01/20 09:49 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:59	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 02:59	1
Tetrachloroethene	**470**		3.4	ug/m3			06/07/20 02:59	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 02:59	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/07/20 02:59	1
4-Bromofluorobenzene (Surr)	85		67 - 131		06/07/20 02:59	1
Toluene-d8 (Surr)	100		70 - 130		06/07/20 02:59	1

Client Sample ID: SVP-7B — **Lab Sample ID: 570-29937-30**
Date Collected: 06/01/20 10:28 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 03:44	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 03:44	1
Tetrachloroethene	**340**		3.4	ug/m3			06/07/20 03:44	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 03:44	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 03:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/07/20 03:44	1
4-Bromofluorobenzene (Surr)	86		67 - 131		06/07/20 03:44	1
Toluene-d8 (Surr)	99		70 - 130		06/07/20 03:44	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Client Sample ID: SVP-11A
Lab Sample ID: 570-29937-31
Date Collected: 06/01/20 15:18
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:30	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 04:30	1
Tetrachloroethene	**630**		3.4		ug/m3			06/07/20 04:30	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 04:30	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/07/20 04:30*	*1*
4-Bromofluorobenzene (Surr)	*88*		*67 - 131*		*06/07/20 04:30*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/07/20 04:30*	*1*

Client Sample ID: SVP-11B
Lab Sample ID: 570-29937-32
Date Collected: 06/01/20 15:47
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 05:16	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 05:16	1
Tetrachloroethene	**650**		3.4		ug/m3			06/07/20 05:16	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 05:16	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/07/20 05:16*	*1*
4-Bromofluorobenzene (Surr)	*87*		*67 - 131*		*06/07/20 05:16*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 05:16*	*1*

Client Sample ID: SVP-14A
Lab Sample ID: 570-29937-33
Date Collected: 06/01/20 08:49
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 06:02	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 06:02	1
Tetrachloroethene	**590**		3.4		ug/m3			06/07/20 06:02	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 06:02	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/07/20 06:02*	*1*
4-Bromofluorobenzene (Surr)	*85*		*67 - 131*		*06/07/20 06:02*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 06:02*	*1*

Client Sample ID: SVP-14B
Lab Sample ID: 570-29937-34
Date Collected: 06/01/20 09:14
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 06:48	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 06:48	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Client Sample ID: SVP-14B
Lab Sample ID: 570-29937-34
Date Collected: 06/01/20 09:14
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**540**		3.4	ug/m3			06/07/20 06:48	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 06:48	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*06/07/20 06:48*	*1*
4-Bromofluorobenzene (Surr)	*86*		*67 - 131*		*06/07/20 06:48*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/07/20 06:48*	*1*

Client Sample ID: SVP-15A
Lab Sample ID: 570-29937-35
Date Collected: 06/01/20 13:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 07:34	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 07:34	1
Tetrachloroethene	**120**		3.4	ug/m3			06/07/20 07:34	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 07:34	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 07:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/07/20 07:34*	*1*
4-Bromofluorobenzene (Surr)	*90*		*67 - 131*		*06/07/20 07:34*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/07/20 07:34*	*1*

Client Sample ID: SVP-15B
Lab Sample ID: 570-29937-36
Date Collected: 06/01/20 14:17
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 08:20	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 08:20	1
Tetrachloroethene	**240**		3.4	ug/m3			06/07/20 08:20	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 08:20	1
Vinyl chloride	ND		1.3	ug/m3			06/07/20 08:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*06/07/20 08:20*	*1*
4-Bromofluorobenzene (Surr)	*84*		*67 - 131*		*06/07/20 08:20*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/07/20 08:20*	*1*

Client Sample ID: SVP-16A
Lab Sample ID: 570-29937-37
Date Collected: 06/01/20 11:40
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 09:05	1
trans-1,2-Dichloroethene	ND		2.0	ug/m3			06/07/20 09:05	1
Tetrachloroethene	**140**		3.4	ug/m3			06/07/20 09:05	1
Trichloroethene	ND		2.7	ug/m3			06/07/20 09:05	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Client Sample ID: SVP-16A
Lab Sample ID: 570-29937-37
Date Collected: 06/01/20 11:40
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.3		ug/m3			06/07/20 09:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/07/20 09:05*	*1*
4-Bromofluorobenzene (Surr)	*87*		*67 - 131*		*06/07/20 09:05*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/07/20 09:05*	*1*

Client Sample ID: SVP-16B
Lab Sample ID: 570-29937-38
Date Collected: 06/01/20 12:14
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 09:52	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/07/20 09:52	1
Tetrachloroethene	**220**		3.4		ug/m3			06/07/20 09:52	1
Trichloroethene	ND		2.7		ug/m3			06/07/20 09:52	1
Vinyl chloride	ND		1.3		ug/m3			06/07/20 09:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/07/20 09:52*	*1*
4-Bromofluorobenzene (Surr)	*83*		*67 - 131*		*06/07/20 09:52*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/07/20 09:52*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air - DL

Client Sample ID: VP-1A
Lab Sample ID: 570-29937-14
Date Collected: 05/30/20 12:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1100		12		ug/m3			06/08/20 15:55	3.48

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/08/20 15:55*	*3.48*
4-Bromofluorobenzene (Surr)	*85*		*67 - 131*		*06/08/20 15:55*	*3.48*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/08/20 15:55*	*3.48*

Client Sample ID: VP-4
Lab Sample ID: 570-29937-15
Date Collected: 05/30/20 10:55
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	960		11		ug/m3			06/08/20 16:41	3.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*06/08/20 16:41*	*3.2*
4-Bromofluorobenzene (Surr)	*87*		*67 - 131*		*06/08/20 16:41*	*3.2*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/08/20 16:41*	*3.2*

Client Sample ID: SVP-8A
Lab Sample ID: 570-29937-16
Date Collected: 05/30/20 09:46
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1300		12		ug/m3			06/08/20 17:27	3.48

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*06/08/20 17:27*	*3.48*
4-Bromofluorobenzene (Surr)	*86*		*67 - 131*		*06/08/20 17:27*	*3.48*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/08/20 17:27*	*3.48*

Client Sample ID: SVP-8B
Lab Sample ID: 570-29937-17
Date Collected: 05/30/20 10:16
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1700		15		ug/m3			06/08/20 16:36	4.416

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*06/08/20 16:36*	*4.416*
4-Bromofluorobenzene (Surr)	*97*		*67 - 131*		*06/08/20 16:36*	*4.416*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/08/20 16:36*	*4.416*

Client Sample ID: SVP-9A
Lab Sample ID: 570-29937-18
Date Collected: 05/30/20 12:03
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1300		9.8		ug/m3			06/08/20 17:28	2.88

Method: TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		06/08/20 17:28	2.88
4-Bromofluorobenzene (Surr)	98		67 - 131		06/08/20 17:28	2.88
Toluene-d8 (Surr)	100		70 - 130		06/08/20 17:28	2.88

Client Sample ID: SVP-9B — **Lab Sample ID: 570-29937-19**
Date Collected: 05/30/20 13:24 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1300		9.0	ug/m3			06/08/20 18:23	2.65

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/08/20 18:23	2.65
4-Bromofluorobenzene (Surr)	97		67 - 131		06/08/20 18:23	2.65
Toluene-d8 (Surr)	100		70 - 130		06/08/20 18:23	2.65

Client Sample ID: SVP-18A — **Lab Sample ID: 570-29937-20**
Date Collected: 05/30/20 14:18 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1200		9.9	ug/m3			06/08/20 19:18	2.92

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/08/20 19:18	2.92
4-Bromofluorobenzene (Surr)	96		67 - 131		06/08/20 19:18	2.92
Toluene-d8 (Surr)	99		70 - 130		06/08/20 19:18	2.92

Client Sample ID: SVP-18B — **Lab Sample ID: 570-29937-21**
Date Collected: 05/30/20 14:45 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1000		9.2	ug/m3			06/08/20 20:09	2.72

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/08/20 20:09	2.72
4-Bromofluorobenzene (Surr)	99		67 - 131		06/08/20 20:09	2.72
Toluene-d8 (Surr)	99		70 - 130		06/08/20 20:09	2.72

Client Sample ID: VP-2A — **Lab Sample ID: 570-29937-22**
Date Collected: 05/31/20 14:01 — **Matrix: Air**
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	710		9.1	ug/m3			06/08/20 21:01	2.69

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/08/20 21:01	2.69
4-Bromofluorobenzene (Surr)	99		67 - 131		06/08/20 21:01	2.69
Toluene-d8 (Surr)	99		70 - 130		06/08/20 21:01	2.69

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Method: TO-15 - Volatile Organic Compounds in Ambient Air - DL

Client Sample ID: SVP-12B
Lab Sample ID: 570-29937-27
Date Collected: 05/31/20 11:30
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1600		9.0		ug/m3			06/08/20 15:09	2.64

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*06/08/20 15:09*	*2.64*
4-Bromofluorobenzene (Surr)	*87*		*67 - 131*		*06/08/20 15:09*	*2.64*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/08/20 15:09*	*2.64*

Method: D1946 - Fixed Gases (Helium)

Client Sample ID: SVP-20A
Lab Sample ID: 570-29937-1
Date Collected: 05/27/20 11:21
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 17:39	1

Client Sample ID: SVP-20B
Lab Sample ID: 570-29937-2
Date Collected: 05/27/20 14:25
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 18:01	1

Client Sample ID: SVP-22A
Lab Sample ID: 570-29937-3
Date Collected: 05/27/20 15:13
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 18:23	1

Client Sample ID: SVP-22B
Lab Sample ID: 570-29937-4
Date Collected: 05/27/20 15:56
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 18:46	1

Client Sample ID: SVP-3
Lab Sample ID: 570-29937-5
Date Collected: 05/28/20 13:15
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 19:10	1

Client Sample ID: SVP-4
Lab Sample ID: 570-29937-6
Date Collected: 05/28/20 13:55
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 19:33	1

Client Sample ID: SVP-5
Lab Sample ID: 570-29937-7
Date Collected: 05/28/20 16:05
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 19:56	1

Client Sample ID: SVP-6
Lab Sample ID: 570-29937-8
Date Collected: 05/28/20 15:22
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 20:55	1

Method: D1946 - Fixed Gases (Helium)

Client Sample ID: SVP-17
Lab Sample ID: 570-29937-9
Date Collected: 05/28/20 14:46
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 21:24	1

Client Sample ID: SVP-19A
Lab Sample ID: 570-29937-10
Date Collected: 05/28/20 06:59
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 22:08	1

Client Sample ID: SVP-19B
Lab Sample ID: 570-29937-11
Date Collected: 05/28/20 07:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 22:30	1

Client Sample ID: SVP-21A
Lab Sample ID: 570-29937-12
Date Collected: 05/28/20 08:01
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 22:59	1

Client Sample ID: SVP-21B
Lab Sample ID: 570-29937-13
Date Collected: 05/28/20 08:27
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 23:21	1

Client Sample ID: VP-1A
Lab Sample ID: 570-29937-14
Date Collected: 05/30/20 12:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 23:45	1

Client Sample ID: VP-4
Lab Sample ID: 570-29937-15
Date Collected: 05/30/20 10:55
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 00:09	1

Client Sample ID: SVP-8A
Lab Sample ID: 570-29937-16
Date Collected: 05/30/20 09:46
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 00:32	1

Method: D1946 - Fixed Gases (Helium)

Client Sample ID: SVP-8B
Lab Sample ID: 570-29937-17
Date Collected: 05/30/20 10:16
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 01:11	1

Client Sample ID: SVP-9A
Lab Sample ID: 570-29937-18
Date Collected: 05/30/20 12:03
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 01:36	1

Client Sample ID: SVP-9B
Lab Sample ID: 570-29937-19
Date Collected: 05/30/20 13:24
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 01:58	1

Client Sample ID: SVP-18A
Lab Sample ID: 570-29937-20
Date Collected: 05/30/20 14:18
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 02:19	1

Client Sample ID: SVP-18B
Lab Sample ID: 570-29937-21
Date Collected: 05/30/20 14:45
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 10:39	1

Client Sample ID: VP-2A
Lab Sample ID: 570-29937-22
Date Collected: 05/31/20 14:01
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 11:02	1

Client Sample ID: VP-3
Lab Sample ID: 570-29937-23
Date Collected: 05/31/20 10:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 11:32	1

Client Sample ID: SVP-10A
Lab Sample ID: 570-29937-24
Date Collected: 05/31/20 13:13
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 11:57	1

Method: D1946 - Fixed Gases (Helium)

Client Sample ID: SVP-10B
Lab Sample ID: 570-29937-25
Date Collected: 05/31/20 13:37
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 12:21	1

Client Sample ID: SVP-12A
Lab Sample ID: 570-29937-26
Date Collected: 05/31/20 11:05
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 13:06	1

Client Sample ID: SVP-12B
Lab Sample ID: 570-29937-27
Date Collected: 05/31/20 11:30
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 13:28	1

Client Sample ID: SVP-13A
Lab Sample ID: 570-29937-28
Date Collected: 05/31/20 09:45
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 13:51	1

Client Sample ID: SVP-7A
Lab Sample ID: 570-29937-29
Date Collected: 06/01/20 09:49
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 14:14	1

Client Sample ID: SVP-7B
Lab Sample ID: 570-29937-30
Date Collected: 06/01/20 10:28
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 14:37	1

Client Sample ID: SVP-11A
Lab Sample ID: 570-29937-31
Date Collected: 06/01/20 15:18
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 15:00	1

Client Sample ID: SVP-11B
Lab Sample ID: 570-29937-32
Date Collected: 06/01/20 15:47
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 15:21	1

Method: D1946 - Fixed Gases (Helium)

Client Sample ID: SVP-14A
Lab Sample ID: 570-29937-33
Date Collected: 06/01/20 08:49
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 15:45	1

Client Sample ID: SVP-14B
Lab Sample ID: 570-29937-34
Date Collected: 06/01/20 09:14
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 16:11	1

Client Sample ID: SVP-15A
Lab Sample ID: 570-29937-35
Date Collected: 06/01/20 13:33
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 16:33	1

Client Sample ID: SVP-15B
Lab Sample ID: 570-29937-36
Date Collected: 06/01/20 14:17
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 16:55	1

Client Sample ID: SVP-16A
Lab Sample ID: 570-29937-37
Date Collected: 06/01/20 11:40
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 17:20	1

Client Sample ID: SVP-16B
Lab Sample ID: 570-29937-38
Date Collected: 06/01/20 12:14
Matrix: Air
Date Received: 06/04/20 11:00
Sample Container: Summa Canister 1L

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 17:45	1

Surrogate Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(67-131)	(70-130)
570-29937-1	SVP-20A	95	104	97
570-29937-2	SVP-20B	96	100	99
570-29937-3	SVP-22A	94	100	99
570-29937-4	SVP-22B	96	102	99
570-29937-5	SVP-3	94	102	100
570-29937-6	SVP-4	95	100	100
570-29937-7	SVP-5	95	100	99
570-29937-8	SVP-6	94	99	100
570-29937-9	SVP-17	95	100	99
570-29937-10	SVP-19A	98	99	100
570-29937-11	SVP-19B	97	100	99
570-29937-12	SVP-21A	95	109	93
570-29937-13	SVP-21B	96	95	97
570-29937-14	VP-1A	95	98	93
570-29937-14 - DL	VP-1A	102	85	100
570-29937-15	VP-4	95	97	93
570-29937-15 - DL	VP-4	104	87	100
570-29937-16	SVP-8A	95	96	95
570-29937-16 - DL	SVP-8A	103	86	99
570-29937-17	SVP-8B	92	99	101
570-29937-17 - DL	SVP-8B	91	97	101
570-29937-18	SVP-9A	92	99	99
570-29937-18 - DL	SVP-9A	91	98	100
570-29937-19	SVP-9B	92	100	101
570-29937-19 - DL	SVP-9B	92	97	100
570-29937-20	SVP-18A	92	99	101
570-29937-20 - DL	SVP-18A	94	96	99
570-29937-21	SVP-18B	92	99	100
570-29937-21 - DL	SVP-18B	94	99	99
570-29937-22	VP-2A	93	99	100
570-29937-22 - DL	VP-2A	97	99	99
570-29937-23	VP-3	94	99	100
570-29937-24	SVP-10A	92	100	99
570-29937-25	SVP-10B	97	94	97
570-29937-26	SVP-12A	99	98	97
570-29937-27	SVP-12B	94	83	99
570-29937-27 - DL	SVP-12B	102	87	99
570-29937-28	SVP-13A	97	91	100
570-29937-29	SVP-7A	97	85	100
570-29937-30	SVP-7B	97	86	99
570-29937-31	SVP-11A	98	88	98
570-29937-32	SVP-11B	98	87	99
570-29937-33	SVP-14A	99	85	99
570-29937-34	SVP-14B	100	86	98
570-29937-35	SVP-15A	102	90	98
570-29937-36	SVP-15B	103	84	98
570-29937-37	SVP-16A	102	87	100
570-29937-38	SVP-16B	102	83	99
LCS 570-73753/3	Lab Control Sample	98	100	103

Surrogate Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Matrix: Air
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(67-131)	(70-130)
LCS 570-73755/3	Lab Control Sample	94	96	102
LCS 570-73761/3	Lab Control Sample	93	92	96
LCS 570-73767/3	Lab Control Sample	95	97	100
LCS 570-73931/4	Lab Control Sample	94	97	102
LCS 570-73937/3	Lab Control Sample	93	99	100
LCS 570-73940/3	Lab Control Sample	102	100	102
LCSD 570-73753/4	Lab Control Sample Dup	100	98	103
LCSD 570-73755/4	Lab Control Sample Dup	95	95	103
LCSD 570-73761/4	Lab Control Sample Dup	92	92	96
LCSD 570-73767/4	Lab Control Sample Dup	94	96	100
LCSD 570-73931/5	Lab Control Sample Dup	96	96	101
LCSD 570-73937/4	Lab Control Sample Dup	91	98	101
LCSD 570-73940/4	Lab Control Sample Dup	99	100	102
MB 570-73753/8	Method Blank	97	83	97
MB 570-73755/6	Method Blank	96	99	98
MB 570-73761/6	Method Blank	94	94	95
MB 570-73767/6	Method Blank	96	93	99
MB 570-73931/7	Method Blank	95	98	99
MB 570-73937/6	Method Blank	94	95	99
MB 570-73940/6	Method Blank	100	84	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 570-73753/8
Matrix: Air
Analysis Batch: 73753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 15:56	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 15:56	1
Tetrachloroethene	ND		3.4		ug/m3			06/06/20 15:56	1
Trichloroethene	ND		2.7		ug/m3			06/06/20 15:56	1
Vinyl chloride	ND		1.3		ug/m3			06/06/20 15:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/06/20 15:56*	*1*
4-Bromofluorobenzene (Surr)	*83*		*67 - 131*		*06/06/20 15:56*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/06/20 15:56*	*1*

Lab Sample ID: LCS 570-73753/3
Matrix: Air
Analysis Batch: 73753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	93.86		ug/m3		95	70 - 130		
trans-1,2-Dichloroethene			99.1	93.94		ug/m3		95	70 - 140		
Tetrachloroethene			170	158.7		ug/m3		94	70 - 130		
Trichloroethene			134	123.8		ug/m3		92	70 - 130		
Vinyl chloride			63.9	55.77		ug/m3		87	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 570-73753/4
Matrix: Air
Analysis Batch: 73753

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	97.39		ug/m3		98	70 - 130	4	25
trans-1,2-Dichloroethene			99.1	95.76		ug/m3		97	70 - 140	2	25
Tetrachloroethene			170	157.8		ug/m3		93	70 - 130	1	25
Trichloroethene			134	125.9		ug/m3		94	70 - 130	2	25
Vinyl chloride			63.9	56.58		ug/m3		89	70 - 133	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*67 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73755/6
Matrix: Air
Analysis Batch: 73755

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 14:34	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 14:34	1
Tetrachloroethene	ND		3.4		ug/m3			06/06/20 14:34	1
Trichloroethene	ND		2.7		ug/m3			06/06/20 14:34	1
Vinyl chloride	ND		1.3		ug/m3			06/06/20 14:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/06/20 14:34*	*1*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*		*06/06/20 14:34*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/06/20 14:34*	*1*

Lab Sample ID: LCS 570-73755/3
Matrix: Air
Analysis Batch: 73755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	106.4		ug/m3		107	70 - 130		
trans-1,2-Dichloroethene			99.1	106.3		ug/m3		107	70 - 140		
Tetrachloroethene			170	178.3		ug/m3		105	70 - 130		
Trichloroethene			134	140.9		ug/m3		105	70 - 130		
Vinyl chloride			63.9	66.55		ug/m3		104	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*67 - 131*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 570-73755/4
Matrix: Air
Analysis Batch: 73755

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	105.7		ug/m3		107	70 - 130	1	25
trans-1,2-Dichloroethene			99.1	105.8		ug/m3		107	70 - 140	1	25
Tetrachloroethene			170	175.9		ug/m3		104	70 - 130	1	25
Trichloroethene			134	140.8		ug/m3		105	70 - 130	0	25
Vinyl chloride			63.9	67.00		ug/m3		105	70 - 133	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*67 - 131*
Toluene-d8 (Surr)	*103*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73761/6
Matrix: Air
Analysis Batch: 73761

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 14:48	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 14:48	1
Tetrachloroethene	ND		3.4		ug/m3			06/06/20 14:48	1
Trichloroethene	ND		2.7		ug/m3			06/06/20 14:48	1
Vinyl chloride	ND		1.3		ug/m3			06/06/20 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/06/20 14:48*	*1*
4-Bromofluorobenzene (Surr)	*94*		*67 - 131*		*06/06/20 14:48*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*06/06/20 14:48*	*1*

Lab Sample ID: LCS 570-73761/3
Matrix: Air
Analysis Batch: 73761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	106.1		ug/m3		107	70 - 130		
trans-1,2-Dichloroethene			99.1	105.7		ug/m3		107	70 - 140		
Tetrachloroethene			170	170.9		ug/m3		101	70 - 130		
Trichloroethene			134	145.2		ug/m3		108	70 - 130		
Vinyl chloride			63.9	67.90		ug/m3		106	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*67 - 131*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 570-73761/4
Matrix: Air
Analysis Batch: 73761

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	105.9		ug/m3		107	70 - 130	0	25
trans-1,2-Dichloroethene			99.1	105.0		ug/m3		106	70 - 140	1	25
Tetrachloroethene			170	170.7		ug/m3		101	70 - 130	0	25
Trichloroethene			134	143.8		ug/m3		107	70 - 130	1	25
Vinyl chloride			63.9	66.33		ug/m3		104	70 - 133	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*67 - 131*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73767/6
Matrix: Air
Analysis Batch: 73767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 18:42	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/06/20 18:42	1
Tetrachloroethene	ND		3.4		ug/m3			06/06/20 18:42	1
Trichloroethene	ND		2.7		ug/m3			06/06/20 18:42	1
Vinyl chloride	ND		1.3		ug/m3			06/06/20 18:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/06/20 18:42*	*1*
4-Bromofluorobenzene (Surr)	*93*		*67 - 131*		*06/06/20 18:42*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/06/20 18:42*	*1*

Lab Sample ID: LCS 570-73767/3
Matrix: Air
Analysis Batch: 73767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	112.8		ug/m3		114	70 - 130		
trans-1,2-Dichloroethene			99.1	113.2		ug/m3		114	70 - 140		
Tetrachloroethene			170	183.8		ug/m3		108	70 - 130		
Trichloroethene			134	148.6		ug/m3		111	70 - 130		
Vinyl chloride			63.9	70.04		ug/m3		110	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*67 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 570-73767/4
Matrix: Air
Analysis Batch: 73767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	113.5		ug/m3		114	70 - 130	1	25
trans-1,2-Dichloroethene			99.1	114.6		ug/m3		116	70 - 140	1	25
Tetrachloroethene			170	187.3		ug/m3		110	70 - 130	2	25
Trichloroethene			134	150.6		ug/m3		112	70 - 130	1	25
Vinyl chloride			63.9	70.60		ug/m3		110	70 - 133	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*67 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73931/7
Matrix: Air
Analysis Batch: 73931

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 14:46	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 14:46	1
Tetrachloroethene	ND		3.4		ug/m3			06/08/20 14:46	1
Trichloroethene	ND		2.7		ug/m3			06/08/20 14:46	1
Vinyl chloride	ND		1.3		ug/m3			06/08/20 14:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/08/20 14:46*	*1*
4-Bromofluorobenzene (Surr)	*98*		*67 - 131*		*06/08/20 14:46*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/08/20 14:46*	*1*

Lab Sample ID: LCS 570-73931/4
Matrix: Air
Analysis Batch: 73931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	112.1		ug/m3		113	70 - 130		
trans-1,2-Dichloroethene			99.1	110.9		ug/m3		112	70 - 140		
Tetrachloroethene			170	186.2		ug/m3		110	70 - 130		
Trichloroethene			134	148.1		ug/m3		110	70 - 130		
Vinyl chloride			63.9	69.76		ug/m3		109	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*67 - 131*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 570-73931/5
Matrix: Air
Analysis Batch: 73931

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	111.9		ug/m3		113	70 - 130	0	25
trans-1,2-Dichloroethene			99.1	110.5		ug/m3		112	70 - 140	0	25
Tetrachloroethene			170	185.0		ug/m3		109	70 - 130	1	25
Trichloroethene			134	147.1		ug/m3		109	70 - 130	1	25
Vinyl chloride			63.9	70.61		ug/m3		110	70 - 133	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*67 - 131*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73937/6
Matrix: Air
Analysis Batch: 73937

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 14:09	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 14:09	1
Tetrachloroethene	ND		3.4		ug/m3			06/08/20 14:09	1
Trichloroethene	ND		2.7		ug/m3			06/08/20 14:09	1
Vinyl chloride	ND		1.3		ug/m3			06/08/20 14:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/08/20 14:09*	*1*
4-Bromofluorobenzene (Surr)	*95*		*67 - 131*		*06/08/20 14:09*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/08/20 14:09*	*1*

Lab Sample ID: LCS 570-73937/3
Matrix: Air
Analysis Batch: 73937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	115.5		ug/m3		117	70 - 130		
trans-1,2-Dichloroethene			99.1	116.2		ug/m3		117	70 - 140		
Tetrachloroethene			170	185.7		ug/m3		110	70 - 130		
Trichloroethene			134	152.3		ug/m3		113	70 - 130		
Vinyl chloride			63.9	70.75		ug/m3		111	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*67 - 131*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 570-73937/4
Matrix: Air
Analysis Batch: 73937

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	117.5		ug/m3		119	70 - 130	2	25
trans-1,2-Dichloroethene			99.1	116.3		ug/m3		117	70 - 140	0	25
Tetrachloroethene			170	187.1		ug/m3		110	70 - 130	1	25
Trichloroethene			134	153.7		ug/m3		114	70 - 130	1	25
Vinyl chloride			63.9	70.57		ug/m3		110	70 - 133	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*67 - 131*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 570-73940/6
Matrix: Air
Analysis Batch: 73940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 13:36	1
trans-1,2-Dichloroethene	ND		2.0		ug/m3			06/08/20 13:36	1
Tetrachloroethene	ND		3.4		ug/m3			06/08/20 13:36	1
Trichloroethene	ND		2.7		ug/m3			06/08/20 13:36	1
Vinyl chloride	ND		1.3		ug/m3			06/08/20 13:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*06/08/20 13:36*	*1*
4-Bromofluorobenzene (Surr)	*84*		*67 - 131*		*06/08/20 13:36*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/08/20 13:36*	*1*

Lab Sample ID: LCS 570-73940/3
Matrix: Air
Analysis Batch: 73940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			99.1	104.5		ug/m3		105	70 - 130		
trans-1,2-Dichloroethene			99.1	103.8		ug/m3		105	70 - 140		
Tetrachloroethene			170	174.8		ug/m3		103	70 - 130		
Trichloroethene			134	141.1		ug/m3		105	70 - 130		
Vinyl chloride			63.9	51.58		ug/m3		81	70 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 570-73940/4
Matrix: Air
Analysis Batch: 73940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			99.1	104.4		ug/m3		105	70 - 130	0	25
trans-1,2-Dichloroethene			99.1	103.9		ug/m3		105	70 - 140	0	25
Tetrachloroethene			170	173.6		ug/m3		102	70 - 130	1	25
Trichloroethene			134	139.1		ug/m3		104	70 - 130	1	25
Vinyl chloride			63.9	50.66		ug/m3		79	70 - 133	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*67 - 131*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: D1946 - Fixed Gases (Helium)

Lab Sample ID: MB 570-73641/4
Matrix: Air
Analysis Batch: 73641

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/04/20 12:38	1

Lab Sample ID: LCS 570-73641/2
Matrix: Air
Analysis Batch: 73641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Helium			1.00	0.8984		% v/v		90	80 - 120		

Lab Sample ID: LCSD 570-73641/3
Matrix: Air
Analysis Batch: 73641

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Helium			1.00	0.9364		% v/v		94	80 - 120	4	20

Lab Sample ID: MB 570-73643/4
Matrix: Air
Analysis Batch: 73643

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Helium	ND		0.025		% v/v			06/05/20 10:15	1

Lab Sample ID: LCS 570-73643/2
Matrix: Air
Analysis Batch: 73643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Helium			1.00	0.9033		% v/v		90	80 - 120		

Lab Sample ID: LCSD 570-73643/3
Matrix: Air
Analysis Batch: 73643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Helium			1.00	0.9451		% v/v		95	80 - 120	5	20

Air - GC/MS VOA

Analysis Batch: 73753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-27	SVP-12B	Total/NA	Air	TO-15	
570-29937-28	SVP-13A	Total/NA	Air	TO-15	
570-29937-29	SVP-7A	Total/NA	Air	TO-15	
570-29937-30	SVP-7B	Total/NA	Air	TO-15	
570-29937-31	SVP-11A	Total/NA	Air	TO-15	
570-29937-32	SVP-11B	Total/NA	Air	TO-15	
570-29937-33	SVP-14A	Total/NA	Air	TO-15	
570-29937-34	SVP-14B	Total/NA	Air	TO-15	
570-29937-35	SVP-15A	Total/NA	Air	TO-15	
570-29937-36	SVP-15B	Total/NA	Air	TO-15	
570-29937-37	SVP-16A	Total/NA	Air	TO-15	
570-29937-38	SVP-16B	Total/NA	Air	TO-15	
MB 570-73753/8	Method Blank	Total/NA	Air	TO-15	
LCS 570-73753/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73753/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-1	SVP-20A	Total/NA	Air	TO-15	
570-29937-2	SVP-20B	Total/NA	Air	TO-15	
570-29937-3	SVP-22A	Total/NA	Air	TO-15	
570-29937-4	SVP-22B	Total/NA	Air	TO-15	
570-29937-5	SVP-3	Total/NA	Air	TO-15	
570-29937-6	SVP-4	Total/NA	Air	TO-15	
570-29937-7	SVP-5	Total/NA	Air	TO-15	
570-29937-8	SVP-6	Total/NA	Air	TO-15	
570-29937-9	SVP-17	Total/NA	Air	TO-15	
MB 570-73755/6	Method Blank	Total/NA	Air	TO-15	
LCS 570-73755/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73755/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-13	SVP-21B	Total/NA	Air	TO-15	
570-29937-14	VP-1A	Total/NA	Air	TO-15	
570-29937-15	VP-4	Total/NA	Air	TO-15	
570-29937-16	SVP-8A	Total/NA	Air	TO-15	
MB 570-73761/6	Method Blank	Total/NA	Air	TO-15	
LCS 570-73761/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73761/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-17	SVP-8B	Total/NA	Air	TO-15	
570-29937-18	SVP-9A	Total/NA	Air	TO-15	
570-29937-19	SVP-9B	Total/NA	Air	TO-15	
570-29937-20	SVP-18A	Total/NA	Air	TO-15	
570-29937-21	SVP-18B	Total/NA	Air	TO-15	
570-29937-22	VP-2A	Total/NA	Air	TO-15	
570-29937-23	VP-3	Total/NA	Air	TO-15	
570-29937-24	SVP-10A	Total/NA	Air	TO-15	

Air - GC/MS VOA (Continued)

Analysis Batch: 73767 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-73767/6	Method Blank	Total/NA	Air	TO-15	
LCS 570-73767/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73767/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-10	SVP-19A	Total/NA	Air	TO-15	
570-29937-11	SVP-19B	Total/NA	Air	TO-15	
570-29937-12	SVP-21A	Total/NA	Air	TO-15	
MB 570-73931/7	Method Blank	Total/NA	Air	TO-15	
LCS 570-73931/4	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73931/5	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-17 - DL	SVP-8B	Total/NA	Air	TO-15	
570-29937-18 - DL	SVP-9A	Total/NA	Air	TO-15	
570-29937-19 - DL	SVP-9B	Total/NA	Air	TO-15	
570-29937-20 - DL	SVP-18A	Total/NA	Air	TO-15	
570-29937-21 - DL	SVP-18B	Total/NA	Air	TO-15	
570-29937-22 - DL	VP-2A	Total/NA	Air	TO-15	
570-29937-25	SVP-10B	Total/NA	Air	TO-15	
570-29937-26	SVP-12A	Total/NA	Air	TO-15	
MB 570-73937/6	Method Blank	Total/NA	Air	TO-15	
LCS 570-73937/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73937/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 73940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-14 - DL	VP-1A	Total/NA	Air	TO-15	
570-29937-15 - DL	VP-4	Total/NA	Air	TO-15	
570-29937-16 - DL	SVP-8A	Total/NA	Air	TO-15	
570-29937-27 - DL	SVP-12B	Total/NA	Air	TO-15	
MB 570-73940/6	Method Blank	Total/NA	Air	TO-15	
LCS 570-73940/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 570-73940/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Air - GC VOA

Analysis Batch: 73641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-1	SVP-20A	Total/NA	Air	D1946	
570-29937-2	SVP-20B	Total/NA	Air	D1946	
570-29937-3	SVP-22A	Total/NA	Air	D1946	
570-29937-4	SVP-22B	Total/NA	Air	D1946	
570-29937-5	SVP-3	Total/NA	Air	D1946	
570-29937-6	SVP-4	Total/NA	Air	D1946	
570-29937-7	SVP-5	Total/NA	Air	D1946	
570-29937-8	SVP-6	Total/NA	Air	D1946	
570-29937-9	SVP-17	Total/NA	Air	D1946	
570-29937-10	SVP-19A	Total/NA	Air	D1946	

Air - GC VOA (Continued)

Analysis Batch: 73641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-11	SVP-19B	Total/NA	Air	D1946	
570-29937-12	SVP-21A	Total/NA	Air	D1946	
570-29937-13	SVP-21B	Total/NA	Air	D1946	
570-29937-14	VP-1A	Total/NA	Air	D1946	
570-29937-15	VP-4	Total/NA	Air	D1946	
570-29937-16	SVP-8A	Total/NA	Air	D1946	
570-29937-17	SVP-8B	Total/NA	Air	D1946	
570-29937-18	SVP-9A	Total/NA	Air	D1946	
570-29937-19	SVP-9B	Total/NA	Air	D1946	
570-29937-20	SVP-18A	Total/NA	Air	D1946	
MB 570-73641/4	Method Blank	Total/NA	Air	D1946	
LCS 570-73641/2	Lab Control Sample	Total/NA	Air	D1946	
LCSD 570-73641/3	Lab Control Sample Dup	Total/NA	Air	D1946	

Analysis Batch: 73643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-29937-21	SVP-18B	Total/NA	Air	D1946	
570-29937-22	VP-2A	Total/NA	Air	D1946	
570-29937-23	VP-3	Total/NA	Air	D1946	
570-29937-24	SVP-10A	Total/NA	Air	D1946	
570-29937-25	SVP-10B	Total/NA	Air	D1946	
570-29937-26	SVP-12A	Total/NA	Air	D1946	
570-29937-27	SVP-12B	Total/NA	Air	D1946	
570-29937-28	SVP-13A	Total/NA	Air	D1946	
570-29937-29	SVP-7A	Total/NA	Air	D1946	
570-29937-30	SVP-7B	Total/NA	Air	D1946	
570-29937-31	SVP-11A	Total/NA	Air	D1946	
570-29937-32	SVP-11B	Total/NA	Air	D1946	
570-29937-33	SVP-14A	Total/NA	Air	D1946	
570-29937-34	SVP-14B	Total/NA	Air	D1946	
570-29937-35	SVP-15A	Total/NA	Air	D1946	
570-29937-36	SVP-15B	Total/NA	Air	D1946	
570-29937-37	SVP-16A	Total/NA	Air	D1946	
570-29937-38	SVP-16B	Total/NA	Air	D1946	
MB 570-73643/4	Method Blank	Total/NA	Air	D1946	
LCS 570-73643/2	Lab Control Sample	Total/NA	Air	D1946	
LCSD 570-73643/3	Lab Control Sample Dup	Total/NA	Air	D1946	

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-20A
Lab Sample ID: 570-29937-1
Date Collected: 05/27/20 11:21
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		4	400 mL	400 mL	73755	06/06/20 23:28	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 17:39	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-20B
Lab Sample ID: 570-29937-2
Date Collected: 05/27/20 14:25
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		2	400 mL	400 mL	73755	06/07/20 00:16	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 18:01	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-22A
Lab Sample ID: 570-29937-3
Date Collected: 05/27/20 15:13
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		3.2	400 mL	400 mL	73755	06/07/20 01:04	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 18:23	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-22B
Lab Sample ID: 570-29937-4
Date Collected: 05/27/20 15:56
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5	400 mL	400 mL	73755	06/07/20 01:53	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 18:46	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-3
Lab Sample ID: 570-29937-5
Date Collected: 05/28/20 13:15
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5	400 mL	400 mL	73755	06/07/20 02:41	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 19:10	WMI4	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-4
Lab Sample ID: 570-29937-6
Date Collected: 05/28/20 13:55
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5	400 mL	400 mL	73755	06/07/20 03:29	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 19:33	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-5
Lab Sample ID: 570-29937-7
Date Collected: 05/28/20 16:05
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5	400 mL	400 mL	73755	06/07/20 04:18	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 19:56	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-6
Lab Sample ID: 570-29937-8
Date Collected: 05/28/20 15:22
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		3.2	400 mL	400 mL	73755	06/07/20 05:11	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 20:55	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-17
Lab Sample ID: 570-29937-9
Date Collected: 05/28/20 14:46
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		5	400 mL	400 mL	73755	06/07/20 06:00	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 21:24	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-19A
Lab Sample ID: 570-29937-10
Date Collected: 05/28/20 06:59
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73931	06/08/20 15:38	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 22:08	WMI4	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-19B
Lab Sample ID: 570-29937-11
Date Collected: 05/28/20 07:33
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		2.5	400 mL	400 mL	73931	06/08/20 16:28	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 22:30	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-21A
Lab Sample ID: 570-29937-12
Date Collected: 05/28/20 08:01
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73931	06/08/20 17:19	LEW3	ECL 2
	Instrument ID: GCMSHH									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 22:59	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-21B
Lab Sample ID: 570-29937-13
Date Collected: 05/28/20 08:27
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73761	06/07/20 02:29	LEW3	ECL 2
	Instrument ID: GCMSNN									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 23:21	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: VP-1A
Lab Sample ID: 570-29937-14
Date Collected: 05/30/20 12:33
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.17	400 mL	400 mL	73761	06/07/20 03:24	LEW3	ECL 2
	Instrument ID: GCMSNN									
Total/NA	Analysis	TO-15	DL	3.48	400 mL	400 mL	73940	06/08/20 15:55	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/04/20 23:45	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: VP-4
Lab Sample ID: 570-29937-15
Date Collected: 05/30/20 10:55
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73761	06/07/20 04:17	LEW3	ECL 2
	Instrument ID: GCMSNN									
Total/NA	Analysis	TO-15	DL	3.2	400 mL	400 mL	73940	06/08/20 16:41	LEW3	ECL 2
	Instrument ID: GCMSZZ									

Client Sample ID: VP-4
Lab Sample ID: 570-29937-15
Date Collected: 05/30/20 10:55
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 00:09	WMI4	ECL 2

Client Sample ID: SVP-8A
Lab Sample ID: 570-29937-16
Date Collected: 05/30/20 09:46
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.124	400 mL	400 mL	73761	06/07/20 05:11	LEW3	ECL 2
	Instrument ID: GCMSNN									
Total/NA	Analysis	TO-15	DL	3.48	400 mL	400 mL	73940	06/08/20 17:27	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 00:32	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-8B
Lab Sample ID: 570-29937-17
Date Collected: 05/30/20 10:16
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73767	06/07/20 04:50	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	TO-15	DL	4.416	400 mL	400 mL	73937	06/08/20 16:36	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 01:11	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-9A
Lab Sample ID: 570-29937-18
Date Collected: 05/30/20 12:03
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.042	400 mL	400 mL	73767	06/07/20 06:09	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	TO-15	DL	2.88	400 mL	400 mL	73937	06/08/20 17:28	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 01:36	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-9B
Lab Sample ID: 570-29937-19
Date Collected: 05/30/20 13:24
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73767	06/07/20 07:10	LEW3	ECL 2
	Instrument ID: GCMSOOO									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-9B
Lab Sample ID: 570-29937-19
Date Collected: 05/30/20 13:24
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15	DL	2.65	400 mL	400 mL	73937	06/08/20 18:23	LEW3	ECL 2
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 01:58	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-18A
Lab Sample ID: 570-29937-20
Date Collected: 05/30/20 14:18
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.084	400 mL	400 mL	73767	06/07/20 08:29	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	TO-15	DL	2.92	400 mL	400 mL	73937	06/08/20 19:18	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73641	06/05/20 02:19	WMI4	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-18B
Lab Sample ID: 570-29937-21
Date Collected: 05/30/20 14:45
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73767	06/07/20 09:48	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	TO-15	DL	2.72	400 mL	400 mL	73937	06/08/20 20:09	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 10:39	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: VP-2A
Lab Sample ID: 570-29937-22
Date Collected: 05/31/20 14:01
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.026	400 mL	400 mL	73767	06/07/20 11:10	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	TO-15	DL	2.69	400 mL	400 mL	73937	06/08/20 21:01	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 11:02	S8WJ	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: VP-3
Lab Sample ID: 570-29937-23
Date Collected: 05/31/20 10:33
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73767	06/07/20 12:10	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 11:32	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-10A
Lab Sample ID: 570-29937-24
Date Collected: 05/31/20 13:13
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.058	400 mL	400 mL	73767	06/07/20 13:30	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 11:57	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-10B
Lab Sample ID: 570-29937-25
Date Collected: 05/31/20 13:37
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.94	400 mL	400 mL	73937	06/08/20 21:56	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 12:21	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-12A
Lab Sample ID: 570-29937-26
Date Collected: 05/31/20 11:05
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		3.08	400 mL	400 mL	73937	06/08/20 22:48	LEW3	ECL 2
	Instrument ID: GCMSOOO									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 13:06	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-12B
Lab Sample ID: 570-29937-27
Date Collected: 05/31/20 11:30
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 01:27	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	TO-15	DL	2.64	400 mL	400 mL	73940	06/08/20 15:09	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 13:28	S8WJ	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-13A
Lab Sample ID: 570-29937-28
Date Collected: 05/31/20 09:45
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 02:13	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 13:51	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-7A
Lab Sample ID: 570-29937-29
Date Collected: 06/01/20 09:49
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 02:59	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 14:14	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-7B
Lab Sample ID: 570-29937-30
Date Collected: 06/01/20 10:28
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 03:44	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 14:37	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-11A
Lab Sample ID: 570-29937-31
Date Collected: 06/01/20 15:18
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 04:30	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 15:00	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-11B
Lab Sample ID: 570-29937-32
Date Collected: 06/01/20 15:47
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 05:16	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 15:21	S8WJ	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-14A
Lab Sample ID: 570-29937-33
Date Collected: 06/01/20 08:49
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 06:02	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 15:45	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-14B
Lab Sample ID: 570-29937-34
Date Collected: 06/01/20 09:14
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 06:48	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 16:11	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-15A
Lab Sample ID: 570-29937-35
Date Collected: 06/01/20 13:33
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 07:34	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 16:33	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-15B
Lab Sample ID: 570-29937-36
Date Collected: 06/01/20 14:17
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 08:20	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 16:55	S8WJ	ECL 2
	Instrument ID: GC55									

Client Sample ID: SVP-16A
Lab Sample ID: 570-29937-37
Date Collected: 06/01/20 11:40
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 09:05	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 17:20	S8WJ	ECL 2
	Instrument ID: GC55									

Lab Chronicle

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Client Sample ID: SVP-16B
Lab Sample ID: 570-29937-38
Date Collected: 06/01/20 12:14
Matrix: Air
Date Received: 06/04/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	400 mL	400 mL	73753	06/07/20 09:52	LEW3	ECL 2
	Instrument ID: GCMSZZ									
Total/NA	Analysis	D1946		1	1 mL	1 mL	73643	06/05/20 17:45	S8WJ	ECL 2
	Instrument ID: GC55									

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Allwest Environmental
Job ID: 570-29937-1
Project/Site: PCU SUBSURFACE / 202006.23

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job ID: 570-29937-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	ECL 2
D1946	Fixed Gases (Helium)	ASTM	ECL 2

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job ID: 570-29937-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-29937-1	SVP-20A	Air	05/27/20 11:21	06/04/20 11:00	Air Canister (1-Liter) #LC1016
570-29937-2	SVP-20B	Air	05/27/20 14:25	06/04/20 11:00	Air Canister (1-Liter) #LC201
570-29937-3	SVP-22A	Air	05/27/20 15:13	06/04/20 11:00	Air Canister (1-Liter) #LC938
570-29937-4	SVP-22B	Air	05/27/20 15:56	06/04/20 11:00	Air Canister (1-Liter) #SLC069
570-29937-5	SVP-3	Air	05/28/20 13:15	06/04/20 11:00	Air Canister (1-Liter) #LC176
570-29937-6	SVP-4	Air	05/28/20 13:55	06/04/20 11:00	Air Canister (1-Liter) #LC936
570-29937-7	SVP-5	Air	05/28/20 16:05	06/04/20 11:00	Air Canister (1-Liter) #SLC163
570-29937-8	SVP-6	Air	05/28/20 15:22	06/04/20 11:00	Air Canister (1-Liter) #LC912
570-29937-9	SVP-17	Air	05/28/20 14:46	06/04/20 11:00	Air Canister (1-Liter) #LC210
570-29937-10	SVP-19A	Air	05/28/20 06:59	06/04/20 11:00	Air Canister (1-Liter) #LC461
570-29937-11	SVP-19B	Air	05/28/20 07:33	06/04/20 11:00	Air Canister (1-Liter) #LC816
570-29937-12	SVP-21A	Air	05/28/20 08:01	06/04/20 11:00	Air Canister (1-Liter) #LC284
570-29937-13	SVP-21B	Air	05/28/20 08:27	06/04/20 11:00	Air Canister (1-Liter) #LC953
570-29937-14	VP-1A	Air	05/30/20 12:33	06/04/20 11:00	Air Canister (1-Liter) #LC753
570-29937-15	VP-4	Air	05/30/20 10:55	06/04/20 11:00	Air Canister (1-Liter) #LC999
570-29937-16	SVP-8A	Air	05/30/20 09:46	06/04/20 11:00	Air Canister (1-Liter) #LC509
570-29937-17	SVP-8B	Air	05/30/20 10:16	06/04/20 11:00	Air Canister (1-Liter) #LC218
570-29937-18	SVP-9A	Air	05/30/20 12:03	06/04/20 11:00	Air Canister (1-Liter) #LC1022
570-29937-19	SVP-9B	Air	05/30/20 13:24	06/04/20 11:00	Air Canister (1-Liter) #LC184
570-29937-20	SVP-18A	Air	05/30/20 14:18	06/04/20 11:00	Air Canister (1-Liter) #SLC088
570-29937-21	SVP-18B	Air	05/30/20 14:45	06/04/20 11:00	Air Canister (1-Liter) #LC1262
570-29937-22	VP-2A	Air	05/31/20 14:01	06/04/20 11:00	Air Canister (1-Liter) #LC687
570-29937-23	VP-3	Air	05/31/20 10:33	06/04/20 11:00	Air Canister (1-Liter) #LC1195
570-29937-24	SVP-10A	Air	05/31/20 13:13	06/04/20 11:00	Air Canister (1-Liter) #LC1012
570-29937-25	SVP-10B	Air	05/31/20 13:37	06/04/20 11:00	Air Canister (1-Liter) #LC1078
570-29937-26	SVP-12A	Air	05/31/20 11:05	06/04/20 11:00	Air Canister (1-Liter) #SLC017
570-29937-27	SVP-12B	Air	05/31/20 11:30	06/04/20 11:00	Air Canister (1-Liter) #LC949
570-29937-28	SVP-13A	Air	05/31/20 09:45	06/04/20 11:00	Air Canister (1-Liter) #LC590
570-29937-29	SVP-7A	Air	06/01/20 09:49	06/04/20 11:00	Air Canister (1-Liter) #LC987
570-29937-30	SVP-7B	Air	06/01/20 10:28	06/04/20 11:00	Air Canister (1-Liter) #LC436
570-29937-31	SVP-11A	Air	06/01/20 15:18	06/04/20 11:00	Air Canister (1-Liter) #LC1051
570-29937-32	SVP-11B	Air	06/01/20 15:47	06/04/20 11:00	Air Canister (1-Liter) #LC562
570-29937-33	SVP-14A	Air	06/01/20 08:49	06/04/20 11:00	Air Canister (1-Liter) #LC248
570-29937-34	SVP-14B	Air	06/01/20 09:14	06/04/20 11:00	Air Canister (1-Liter) #LC1154
570-29937-35	SVP-15A	Air	06/01/20 13:33	06/04/20 11:00	Air Canister (1-Liter) #LC1003
570-29937-36	SVP-15B	Air	06/01/20 14:17	06/04/20 11:00	Air Canister (1-Liter) #LC679
570-29937-37	SVP-16A	Air	06/01/20 11:40	06/04/20 11:00	Air Canister (1-Liter) #LC326
570-29937-38	SVP-16B	Air	06/01/20 12:14	06/04/20 11:00	Air Canister (1-Liter) #LC379

Vikas Patel

From: Sam Calloway <sam@allwest1.com>
Sent: Friday, June 5, 2020 10:34 AM
To: mark.christine@testamericainc.com
Cc: Mr. Leonard Niles; Vikas Patel
Subject: Re: Eurofins Calscience sample confirmation files from 570-29937-1 PCU SUBSURFACE / 202006.23

SVP-15B is summa LC679

SVP-20A time is 11:21

SVP-7B is 7B

On Fri, Jun 5, 2020 at 9:45 AM Mark Christine <noreply@eurofinslimsservices.com> wrote:

> Hello,
>
> Attached please find the sample confirmation files for job 570-29937-1; PCU SUBSURFACE / 202006.23.
>
> The equipment ID for the following sample did not match the information listed on the Chain-of-Custody (COC) : SVP-15B (570-29937-36), the equipment lists LC679, while the COC lists LC697. Sample I.D. matches COC. Please verify.
>
> The container label for the following samples did not match the information listed on the Chain-of-Custody (COC) : SVP-20A (570-29937-1). The container label lists collection time as 11:21, while the COC lists 13:21. Please verify.
>
> The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SVP-7B (570-29937-30). The container labels list 7B, while the COC lists SVP-7B. Please verify.
>
> Please feel free to contact me or your PM Vikas Patel if you have any questions.
>
> Thank you.
>
> **Mark B Christine**
> Project Manager Assistant
>
> Eurofins Calscience LLC
>
> E-mail: mark.christine@testamericainc.com
> www.eurofinsus.com/env

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570-29937 Chain of Custody

AIR CHAIN OF CUSTODY RI

DATE: 6/2/2020

PAGE: 1 OF 3

LABORATORY CLIENT: ALLWEST ENVIRONMENTAL	CLIENT PROJECT NAME / NUMBER: PCU SUBSURFACE / 202006.23	P.O. NO.:
ADDRESS: 2141 MISSION ST	PROJECT ADDRESS: 2525 & 2550 IRVING ST	LAB CONTACT OR QUOTE NO.:
CITY: SF STATE: CA ZIP: 94110	CITY: SAN FRANCISCO STATE: CA ZIP:	SAMPLER(S): (PRINT) SAM CALLOWAY
TEL: 415-391-2510 E-MAIL: SAM@ALLWEST1.COM / LEONARD@ALLWEST1.COM	PROJECT CONTACT: SAM CALLOWAY	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS X STANDARD

☐ EDD X UNITS ug/m3

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment: Media ID #	Canister Size 6L or 1L	Flow Controller ID #	Start Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	PCE + BREAKDOWNS	HELIUM			
1	SVP-20A	SVP-20	SV	LC1016	1	SGM204	5/27/2020	1313	-30	5/27/2020	1321	-5	X	X			
2	SVP-20B	SVP-20	SV	LC201	1	SGM247	5/27/2020	1420	-30	5/27/2020	1425	-3	X	X			
3	SVP-22A	SVP-22	SV	LC938	1	SGM462	5/27/2020	1508	-30	5/27/2020	1513	-5	X	X			
4	SVP-22B	SVP-22	SV	SLC069	1	SGM123	5/27/2020	1550	-30	5/27/2020	1556	-5	X	X			
5	SVP-3	SVP-3	SV	LC176	1	SGM286	5/28/2020	1310	-30	5/28/2020	1315	-5	X	X			
6	SVP-4	SVP-4	SV	LC936	1	SGM488	5/28/2020	1351	-30	5/28/2020	1355	-5	X	X			
7	SVP-5	SVP-5	SV	SLC163	1	SGM265	5/28/2020	1600	-30	5/28/2020	1605	-5	X	X			
8	SVP-6	SVP-6	SV	LC912	1	SGM214	5/28/2020	1517	-30	5/28/2020	1522	-5	X	X			
9	SVP-17	SVP-17	SV	LC210	1	SGM309	5/28/2020	1441	-30	5/28/2020	1446	-5	X	X			
10	SVP-19A	SVP-19	SV	LC461	1	SGM102	5/28/2020	650	-30	5/28/2020	659	-4	X	X			
11	SVP-19B	SVP-19	SV	LC816	1	SGM104	5/28/2020	727	-30	5/28/2020	733	-4	X	X			
12	SVP-21A	SVP-21	SV	LC284	1	SGM013	5/28/2020	756	-30	5/28/2020	801	-3	X	X			
13	SVP-21B	SVP-21	SV	LC953	1	SGM537	5/28/2020	822	-30	5/28/2020	827	-5	X	X			
14	VP-1A	VP-1A	SV	LC753	1	SGM480	5/30/2020	1228	-30	5/30/2020	1233	-5	X	X			
15	VP-4	VP-4	SV	LC999	1	SGM025	5/30/2020	1046	-30	5/30/2020	1055	-5	X	X			

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Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 6/4/2020	Time: 11:00
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PAGE: 2 OF 3

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LABORATORY CLIENT: ALLWEST ENVIRONMENTAL	CLIENT PROJECT NAME / NUMBER: PCU SUBSURFACE / 202006.23	P.O. NO.:
ADDRESS: 2141 MISSION ST	PROJECT ADDRESS: 2525 & 2550 IRVING ST	LAB CONTACT OR QUOTE NO.:
CITY: SF STATE: CA ZIP: 94110	CITY: SAN FRANCISCO STATE: CA ZIP:	SAMPLER(S): (PRINT) SAM CALLOWAY
TEL: 415-391-2510 E-MAIL: SAM@ALLWEST1.COM / LEONARD@ALLWEST1.COM	PROJECT CONTACT: SAM CALLOWAY	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS X STANDARD

☐ EDD X UNITS _____ug/m3_____

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment: Media ID #	Canister Size 6L or 1L	Flow Controller ID #	Start Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	PCE + BREAKDOWNS	HELIUM			
16	SVP-8A	SVP-8	SV	LC509	1	SGM431	5/30/2020	941	-30	5/30/2020	946	-5	X	X			
17	SVP-8B	SVP-8	SV	LC218	1	SGM143	5/30/2020	1010	-30	5/30/2020	1016	-5	X	X			
18	SVP-9A	SVP-9	SV	LC1022	1	SGM344	5/30/2020	1155	-30	5/30/2020	1203	-5	X	X			
19	SVP-9B	SVP-9	SV	LC184	1	SGM463	5/30/2020	1319	-30	5/30/2020	1324	-5	X	X			
20	SVP-18A	SVP-18	SV	SLC088	1	SGM504	5/30/2020	1413	-30	5/30/2020	1418	-5	X	X			
21	SVP-18B	SVP-18	SV	LC1262	1	SGM132	5/30/2020	1440	-30	5/30/2020	1445	-5	X	X			
22	VP-2A	VP-2A	SV	LC687	1	SGM549	5/31/2020	1356	-30	5/31/2020	1401	-5	X	X			
23	VP-3	VP-3	SV	LC1195	1	SGM484	5/31/2020	1028	-30	5/31/2020	1033	-5	X	X			
24	SVP-10A	SVP-10	SV	LC1012	1	SGM512	5/31/2020	1304	-30	5/31/2020	1313	-5	X	X			
25	SVP-10B	SVP-10	SV	LC1078	1	SGM282	5/31/2020	1332	-30	5/31/2020	1337	-5	X	X			
26	SVP-12A	SVP-12	SV	SLC017	1	SGM402	5/31/2020	1100	-30	5/31/2020	1105	-5	X	X			
27	SVP-12B	SVP-12	SV	LC949	1	SGM401	5/31/2020	1125	-30	5/31/2020	1130	-5	X	X			
28	SVP-13A	SVP-13	SV	LC590	1	SGM315	5/31/2020	940	-30	5/31/2020	945	-5	X	X			
29	SVP-7A	SVP-7	SV	LC987	1	SGM174	6/1/2020	944	-30	6/1/2020	949	-5	X	X			
30	SVP-7B	SVP-7	SV	LC436	1	SGM500	6/1/2020	1017	-30	6/1/2020	1028	-5	X	X			

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Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 6/4/2020	Time: 11:00
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LABORATORY CLIENT: ALLWEST ENVIRONMENTAL	CLIENT PROJECT NAME / NUMBER: PCU SUBSURFACE / 202006.23	P.O. NO.:	
ADDRESS: 2141 MISSION ST	PROJECT ADDRESS: 2525 & 2550 IRVING ST	LAB CONTACT OR QUOTE NO.:	
CITY: SF STATE: CA ZIP: 94110	CITY: SAN FRANCISCO STATE: CA ZIP:		
TEL: 415-391-2510 E-MAIL: SAM@ALLWEST1.COM / LEONARD@ALLWEST1.COM	PROJECT CONTACT: SAM CALLOWAY	SAMPLER(S): (PRINT) SAM CALLOWAY	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS X STANDARD

☐ EDD X UNITS ug/m3

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment: Media ID #	Canister Size 6L or 1L	Flow Controller ID #	Start Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24 hr clock)	Canister Pressure ("Hg)	PCE + BREAKDOWNS	HELIUM			
31	SVP-11A	SVP-11	SV	LC1051	1	SGM526	6/1/2020	1512	-30	6/1/2020	1518	-5	X	X			
32	SVP-11B	SVP-11	SV	LC562	1	SGM339	6/1/2020	1543	-30	6/1/2020	1547	-5	X	X			
33	SVP-14A	SVP-14	SV	LC248	1	SGM248	6/1/2020	836	-30	6/1/2020	849	-5	X	X			
34	SVP-14B	SVP-14	SV	LC1154	1	SGM376	6/1/2020	909	-30	6/1/2020	914	-5	X	X			
35	SVP-15A	SVP-15	SV	LC1003	1	SGM309	6/1/2020	1327	-30	6/1/2020	1333	-5	X	X			
36	SVP-15B	SVP-15	SV	LC697	1	SGM501	6/1/2020	1412	-30	6/1/2020	1417	-5	X	X			
37	SVP-16A	SVP-16	SV	LC326	1	SGM533	6/1/2020	1135	-30	6/1/2020	1140	-5	X	X			
38	SVP-16B	SVP-16	SV	LC379	1	SGM425	6/1/2020	1209	-30	6/1/2020	1214	-5	X	X			

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ALLWEST
SAM CALLOWAY
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Tracking #: 549209117

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Tracking #: 549209126

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GARDEN GROVE

92841A

ORC CA927-CL0

Print Date: 6/2/2020 10:03 AM

570-29937 Waybill

Loc: 570
29937

6/11/2020

Login Sample Receipt Checklist

Client: Allwest Environmental

Job Number: 570-29937-1

Login Number: 29937
List Number: 1
Creator: Andujo, Italy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Summa Canister Dilution Worksheet

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job No.: 570-29937-1

Lab Sample ID	Canister Volume (L)	Presampling Pressure ("Hg)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
570-29937-1	1	-29.5	-5.5	0.82	0.82	-2.70135	0.82	0.82		1.00	1.00	AIR MG-4	06/04/20 19:02	WMI4
570-29937-2	1	-29.5	-3.5	0.88	0.88	-1.71904	0.88	0.88		1.00	1.00	AIR MG-4	06/04/20 19:02	WMI4
570-29937-3	1	-29.5	-4.2	0.86	0.86	-2.06285	0.86	0.86		1.00	1.00	AIR MG-4	06/04/20 19:03	WMI4
570-29937-4	1	-29.5	-2.4	0.92	0.92	-1.17877	0.92	0.92		1.00	1.00	AIR MG-4	06/04/20 19:05	WMI4
570-29937-5	1	-29.5	-2.6	0.91	0.91	-1.277	0.91	0.91		1.00	1.00	AIR MG-4	06/04/20 19:05	WMI4
570-29937-6	1	-29.5	-6.2	0.79	0.79	-3.04516	0.79	0.79		1.00	1.00	AIR MG-4	06/04/20 19:05	WMI4
570-29937-7	1	-29.5	-3.8	0.87	0.87	-1.86639	0.87	0.87		1.00	1.00	AIR MG-4	06/04/20 19:08	WMI4
570-29937-8	1	-29.5	-5.8	0.81	0.81	-2.84869	0.81	0.81		1.00	1.00	AIR MG-4	06/04/20 19:09	WMI4
570-29937-9	1	-29.5	-4.6	0.85	0.85	-2.25931	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:09	WMI4
570-29937-10	1	-29.5	0	1.00	1.00	0	1.00	1.00		1.00	1.00	AIR MG-4	06/04/20 19:09	WMI4
570-29937-11	1	-29.5	-3	0.90	0.90	-1.47346	0.90	0.90		1.00	1.00	AIR MG-4	06/04/20 19:10	WMI4
570-29937-12	1	-29.5	-1	0.97	0.97	-0.491154	0.97	0.97		1.00	1.00	AIR MG-4	06/04/20 19:11	WMI4
570-29937-13	1	-29.5	-0.8	0.97	0.97	-0.392923	0.97	0.97		1.00	1.00	AIR MG-4	06/04/20 19:11	WMI4
570-29937-14	1	-29.5	-5.4	0.82	0.82	-2.65223	0.82	0.82		1.00	1.00	AIR MG-4	06/04/20 19:11	WMI4
570-29937-14	1	-29.5	-18.4	0.39	0.39	5	1.34	1.34		3.48	3.48	Air MG-4	06/08/20 14:09	LEW3
570-29937-15	1	-29.5	-6	0.80	0.80	-2.94692	0.80	0.80		1.00	1.00	AIR MG-4	06/04/20 19:11	WMI4
570-29937-15	1	-29.5	-17.4	0.42	0.42	5	1.34	1.34		3.20	3.20	Air MG-4	06/08/20 14:08	LEW3

Summa Canister Dilution Worksheet

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job No.: 570-29937-1

Lab Sample ID	Canister Volume (L)	Presampling Pressure ("Hg)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
570-29937-16	1	-29.5	-4.4	0.85	0.85	-2.16108	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:12	WMI4
570-29937-16	1	-29.5	-18.4	0.39	0.39	5	1.34	1.34		3.48	3.48	Air MG-4	06/08/20 14:06	LEW3
570-29937-17	1	-29.5	-3.2	0.89	0.89	-1.57169	0.89	0.89		1.00	1.00	AIR MG-4	06/04/20 19:12	WMI4
570-29937-17	1	-29.5	-15.4	0.49	0.49	5	1.34	1.34		2.76	2.76	Air MG-4	06/08/20 13:56	LEW3
570-29937-18	1	-29.5	-4.4	0.85	0.85	-2.16108	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:12	WMI4
570-29937-18	1	-29.5	-16	0.47	0.47	5	1.34	1.34		2.88	2.88	Air MG-4	06/08/20 14:02	LEW3
570-29937-19	1	-29.5	-3.2	0.89	0.89	-1.57169	0.89	0.89		1.00	1.00	AIR MG-4	06/04/20 19:13	WMI4
570-29937-19	1	-29.5	-14.8	0.51	0.51	5	1.34	1.34		2.65	2.65	Air MG-4	06/08/20 14:03	LEW3
570-29937-20	1	-29.5	-5.2	0.83	0.83	-2.554	0.83	0.83		1.00	1.00	AIR MG-4	06/04/20 19:13	WMI4
570-29937-20	1	-29.5	-16.2	0.46	0.46	5	1.34	1.34		2.92	2.92	Air MG-4	06/08/20 13:53	LEW3
570-29937-21	1	-29.5	-5.8	0.81	0.81	-2.84869	0.81	0.81		1.00	1.00	AIR MG-4	06/04/20 19:13	WMI4
570-29937-21	1	-29.5	-15.2	0.49	0.49	5	1.34	1.34		2.72	2.72	Air MG-4	06/08/20 13:52	LEW3
570-29937-22	1	-29.5	-4.4	0.85	0.85	-2.16108	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:19	WMI4
570-29937-22	1	-29.5	-15	0.50	0.50	5	1.34	1.34		2.69	2.69	Air MG-4	06/08/20 13:50	LEW3
570-29937-23	1	-29.5	-4.8	0.84	0.84	-2.35754	0.84	0.84		1.00	1.00	AIR MG-4	06/04/20 19:19	WMI4
570-29937-24	1	-29.5	-4.6	0.85	0.85	-2.25931	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:19	WMI4
570-29937-25	1	-29.5	-4.2	0.86	0.86	-2.06285	0.86	0.86		1.00	1.00	AIR MG-4	06/04/20 19:20	WMI4
570-29937-25	1	-29.5	-16	0.47	0.47	-1.42435	0.90	0.90		1.94	1.94	Air MG-4	06/08/20 13:49	LEW3
570-29937-26	1	-29.5	-8	0.73	0.73	-3.92923	0.73	0.73		1.00	1.00	AIR MG-4	06/04/20 19:20	WMI4
570-29937-26	1	-29.5	-16.9	0.44	0.44	5	1.34	1.34		3.08	3.08	Air MG-4	06/08/20 13:55	LEW3
570-29937-27	1	-29.5	-6.2	0.79	0.79	-3.04516	0.79	0.79		1.00	1.00	AIR MG-4	06/04/20 19:20	WMI4
570-29937-27	1	-29.5	-14.8	0.51	0.51	4.9	1.33	1.33		2.64	2.64	Air MG-4	06/08/20 14:05	LEW3

Summa Canister Dilution Worksheet

Client: Allwest Environmental
Project/Site: PCU SUBSURFACE / 202006.23

Job No.: 570-29937-1

Lab Sample ID	Canister Volume (L)	Presampling Pressure ("Hg)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
570-29937-28	1	-29.5	-5.2	0.83	0.83	-2.554	0.83	0.83		1.00	1.00	AIR MG-4	06/04/20 19:22	WMI4
570-29937-29	1	-29.5	-3.8	0.87	0.87	-1.86639	0.87	0.87		1.00	1.00	AIR MG-4	06/04/20 19:22	WMI4
570-29937-30	1	-29.5	-3.4	0.89	0.89	-1.66992	0.89	0.89		1.00	1.00	AIR MG-4	06/04/20 19:22	WMI4
570-29937-31	1	-29.5	-4	0.87	0.87	-1.96462	0.87	0.87		1.00	1.00	AIR MG-4	06/04/20 19:22	WMI4
570-29937-32	1	-29.5	-5.6	0.81	0.81	-2.75046	0.81	0.81		1.00	1.00	AIR MG-4	06/04/20 19:23	WMI4
570-29937-33	1	-29.5	-5.6	0.81	0.81	-2.75046	0.81	0.81		1.00	1.00	AIR MG-4	06/04/20 19:23	WMI4
570-29937-34	1	-29.5	-2.2	0.93	0.93	-1.08054	0.93	0.93		1.00	1.00	AIR MG-4	06/04/20 19:23	WMI4
570-29937-35	1	-29.5	-3.4	0.89	0.89	-1.66992	0.89	0.89		1.00	1.00	AIR MG-4	06/04/20 19:24	WMI4
570-29937-36	1	-29.5	-5.2	0.83	0.83	-2.554	0.83	0.83		1.00	1.00	AIR MG-4	06/04/20 19:24	WMI4
570-29937-37	1	-29.5	-4.4	0.85	0.85	-2.16108	0.85	0.85		1.00	1.00	AIR MG-4	06/04/20 19:24	WMI4
570-29937-38	1	-29.5	-1.4	0.95	0.95	-0.687616	0.95	0.95		1.00	1.00	AIR MG-4	06/04/20 19:25	WMI4

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg
Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig
Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)
14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

APPENDIX H

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: **SUPPLEMENTAL SOIL AND SOIL VAPOR ASSESSMENT REPORT**

2550 & 2525 Irving Street
San Francisco, CA 94122

PROJECT NUMBER: 202006.23

To: AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110

From (Applicant): _____

_____

_____

(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant states they have thoroughly reviewed the report and had the opportunity to discuss with AllWest the report's methodology, findings and conclusion(s).

Applicant hereby applies for permission to rely upon AllWest's work product, as described above, for the purpose of (state here the purpose for which you wish to rely upon the work product):

Applicant only can accept and rely upon AllWest work product under the strict understanding that Applicant is bound by all provisions in the General Conditions to the Work Authorization Agreement provided below. Every report, recommendation, finding, or conclusion issued by AllWest shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. AllWest may withhold permission at its sole discretion or require additional re-use fees or terms.

FEES: A $1,650 coordination and reliance fee, payable in advance, will apply. If desired, for an additional $150 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

REQUESTED BY	**APPROVED BY**
_____	**AllWest Environmental, Inc.**
Applicant Company	
_____	_____
Print Name and Title	Print Name and Title
_____	_____
Signature and Date	Signature and Date

GENERAL CONDITIONS TO THE WORK AUTHORIZATION AGREEMENT

It is hereby agreed that the Client retains AllWest to provide services as set forth in the Work Authorization attached hereto (the "Work"). This contract shall be controlled by the following terms and conditions, and these terms and conditions shall also control any further assignments performed pursuant to this Work Authorization. Client's signature on this Work Authorization constitutes Client's agreement to the all terms to this contract, including these General Conditions.

FEES AND COSTS

1. AllWest shall charge for work performed by its personnel at the rates identified in the Work Authorization. These rates are subject to reasonable increases by AllWest upon giving Client 30 days advance notice. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services (defined below) under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty- eight cents ($0.58) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Reimbursable costs will be charged to the client only as outlined in the Work Authorization if the scope of work is for Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Assessment or ALTA survey. Invoices for work performed shall be submitted monthly. Payment will be due upon receipt of invoice. Client shall pay interest on the balance of unpaid invoices which are overdue by more than 30 days, at a rate of 18% per annum as well as all attorney fees and costs incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its sole discretion.

STANDARD OF CARE

2. AllWest will perform its work in accordance with the standard of care of its industry, as it is at the time of the work being performed, and applicable in the locale of the work being performed. AllWest makes no other warranties, express or implied regarding its work.

LIMITATION OF REMEDIES

3. Client expressly agrees that to the fullest extent permitted by law, Client's remedies for any liability incurred by AllWest, and/or its employees or agents, for any and all claims arising from AllWest's services, shall be $50,000 or its fees, whichever is greater.

Client may request a higher limitation of remedies, but must do so in writing. Upon such written request, AllWest may agree to increase this limit in exchange for a mutually negotiated higher fee commensurate with the increased risk to AllWest. Any such agreed increase in fee and limitation of remedies amount must be memorialized by written agreement which expressly amends the terms of this clause.

As used in this section, the term "limitation of remedies" shall apply to claims of any kind, including, but not limited to, claims brought in contract, tort, strict liability, or otherwise, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to AllWest's services or the services of AllWest's subcontractors, consultants, agents, officers, directors, and employees from any cause(s). AllWest shall not be liable for any claims of loss of profits or any other indirect, incidental, or consequential damages of any nature whatsoever. Client & AllWest have specifically negotiated this limitation.

INDEMNIFICATION

4. Notwithstanding any other provision of this Agreement, Client agrees, to the fullest extent permitted by law, to waive any claim against, release from any liability or responsibility for, and , indemnify and hold harmless AllWest, its employees, agents and sub-consultants (collectively, Consultant) from and against any and all damages, liabilities, claims, actions or costs of any kind, including reasonable attorney's fees and defense costs, arising or alleged to arise out of or to be in any way connected with the Project or the performance or non-performance of Consultant of any services under this Agreement, excepting only any such liabilities determined by a court or other forum of competent jurisdiction to have been caused by the negligence or willful misconduct of Consultant. This provision shall be in addition to any rights of indemnity that Consultant may have under the law and shall survive and remain in effect following the termination of this Agreement for any reason. Should any part of this provision be determined to be unenforceable, AllWest and Client agree that the rest of the provision shall apply to the maximum extent permitted by law. The Client's duty to defend AllWest shall arise immediately upon tender of any matter potentially covered by the above obligations to indemnify and hold harmless.

MEDIATION & JUDICIAL REFERENCE

5. In an effort to resolve any conflicts or disputes that arise regarding the performance of this agreement, the Client & AllWest agree that all such disputes shall be submitted to non-binding mediation, using a mutually agreed upon mediation service experienced in the resolution of construction disputes. Unless the parties mutually agree otherwise, such mediation shall be a condition precedent to the initiation of any other adjudicative proceedings. It is further agreed that any dispute that is not settled pursuant to such mediation shall be adjudicated by a court appointed referee in accordance with the Judicial Reference procedures as set forth in California Code of Civil Procedure Section 638 et seq. The parties hereby mutually agree to waive any right to a trial by jury regarding any dispute arising out of this agreement.

The parties further agree to include a similar mediation, Judicial Reference & waiver of jury trial provision in their agreements with other independent contractors & consultants retained for the project and require them to similarly agree to these dispute resolution procedures. The cost of said Mediation shall be split equally between the parties. This agreement to mediate shall be specifically enforceable under the prevailing law of the jurisdiction in which this agreement was signed.

HAZARDOUS WASTE

6. Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of performing the services set out in the scope of work within this Agreement, which may include, but is not necessarily limited to such services as assisting the Client in assessing any problem which may exist and in assisting the

Client in formulating a remedial program. Client acknowledges that while necessary for investigations, commonly used exploration methods employed by AllWest may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout or other means, according to a state of practice design is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest will not sign or execute hazardous waste manifests or other waste tracking documents on behalf of Client unless Client specifically establishes AllWest as an express agent of Client under a written agency agreement approved by AllWest. In addition, Client agrees that AllWest shall not be required to sign any documents, no matter requested by whom, that would have the effect of AllWest providing any form of certification, guarantee, or warranty as to any matter or to opine on conditions for which the existence AllWest cannot ascertain. Client also agrees that it shall never seek or otherwise attempt to have AllWest provide any form of such certification, guarantee or warranty in exchange for resolution of any disputes between Client and AllWest, or as a condition precedent to making payment to AllWest for fees and costs owing under this Agreement.

Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter , arranger or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake and arrange for the removal, treatment, storage, disposal and/or treatment of hazardous material and investigation derived waste (such as drill cuttings) and further, assumes full responsibility for such wastes to the complete exclusion of any responsibility, duty or obligation upon AllWest. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

FORCE MAJUERE

7. Neither party shall be responsible for damages or delays in performance under this Agreement caused by acts of God, strikes, lockouts, accidents or other events or condition (other than financial inability) beyond the other Party's reasonable control.

TERMINATION

8. This Agreement may be terminated by either party upon ten (10) days' written notice should the other party substantially fail to perform in accordance with its duties and responsibilities as set forth in this Agreement and such failure to perform is through no fault of the party initiating the termination. Client agrees that if it chooses to terminate AllWest for convenience, and AllWest has otherwise satisfactorily performed its obligations under this Agreement to that point, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client, and Client agrees to pay AllWest's reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

Upon notice of termination by Client to AllWest, AllWest may issue notice of such termination to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project, and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

DOCUMENTS

9. Any documents prepared by AllWest, including, but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are instruments of service and shall remain the property of AllWest and AllWest retains copyrights to these instruments of service. AllWest grants to Client a non-exclusive license to use these instruments of service for the purpose of completing and maintaining the Project. The Client shall be permitted to retain a copy of any instruments of service, but Client expressly agrees and acknowledges that the instruments of service may not be used by the Client on other projects, or for any other purpose, except the project for which they were prepared, unless Client first obtains a written agreement expanding the license to such use from AllWest, and with appropriate compensation to AllWest. Client further agrees that such instruments of service shall not be provided to any third parties without the express written permission of AllWest.

Client shall furnish, or cause to be furnished to AllWest all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF Client fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in its possession during the period that AllWest is actively providing its services (including up to 30 days after its final invoice), Client shall release AllWest from any and all liability for risks and damages the Client incurs resulting from its reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for the accuracy or completeness of Client-provided documents. Client-provided documents will remain the property of the Client.

ACCESS TO PROJECT

10. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest. Client's failure to provide such timely access and permission shall constitute a material breach of this Agreement excusing AllWest from performance of its duties under this Agreement.

CONFIDENTIAL INFORMATION

11. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the

research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

INDEPENDENT CONTRACTOR

12. Both Client and AllWest agree that AllWest is an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

ENTIRE AGREEMENT

13. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes and replaces in its entirety all prior and contemporaneous proposals, agreements, representations and understandings of the Parties. The Parties have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act.

INTEGRATION

14. This is a fully integrated Agreement. The terms of this Agreement may be modified only by a writing signed by both Parties. The terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language in an effort to reach the intended result.

MODIFICATION / WAIVER / PARTIAL INVALIDITY

15. Failure on the part of either party to complain of any act or omission of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or its application be unenforceable to any extent, the Parties agree that the remainder of this Agreement shall not be affected and shall be enforced to the greatest extent permitted by law.

INUREMENT / TITLES

16. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. , et al., incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled.

AUTHORITY

17. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture, limited liability company or a partnership, the signatories below warrant that said entity is properly and duly organized and existing under the laws of the state of its formation and pursuant to the organizational and operating document of the entity, and the laws of the state of its formation, said signatory has authority act on behalf of and commit the entity to this Agreement.

COUNTERPARTS

18. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document.

THIRD PARTY BENEFICIARIES / CONTROLLING LAW

19. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

TIME BAR TO LEGAL ACTION

20. Any legal actions by either party against the other related to this Agreement, shall be barred after one year has passed from the time the claimant knew or should have known of its claim, and under no circumstances shall be initiated after two years have passed from the date by which AllWest completes its services.