AllWest Environmental

Subsurface Investigation Report

Posada de Colores, 2221 Fruitvale Avenue, Oakland, CA 94601

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ALLWEST PROJECTS 17104.23
August 29, 2017

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TABLE OF CONTENTS

TABLES

FIGURES

APPENDIX

SUBSURFACE INVESTIGATION REPORT

Posada de Colores, 2221 Fruitvale Avenue, Oakland, CA 94601

I. EXECUTIVE SUMMARY

AllWest Environmental, Inc. (AllWest) conducted a subsurface investigation on August 10, 2017 to characterize soil, groundwater and sub-slab soil vapor conditions at the subject property referenced above. The purpose of the investigation was to assess whether a tetrachloroethene (PCE) release occurred at the subject property as a result of historical dry cleaning operations. The scope of work was summarized in our proposal dated July 10, 2017.

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 developed with an eight story building constructed in 1979, occupied by the Posada de Colores senior residential center. The former commercial building at the northeast corner of the subject property on the corner of East 23rd Street and Fruitvale Avenue was occupied by a dry cleaner from circa 1950 to 1972.

On August 10, 2017, three soil borings (SB-1, SB-2 and SB-3) were advanced using Geoprobe® Direct Push Technology (DPT) methods to depths of approximately 16 to 23 feet below ground surface (bgs). Borings SB-1 and SB-2 were located in the parking and landscaped areas east of the subject property building. Boring SB-3 was located in the lawn area north of the building in the northeast corner of the subject property in the vicinity of the former dry cleaner (Figure 2).

Soil samples were collected from each boring at depths of 4.5-5.0, 9.5-10.0 and 14.5-15.0 feet bgs for laboratory analysis. Groundwater was encountered in each boring at depths ranging from approximately 15.5 to 22.2 feet bgs, with static groundwater levels at approximately 15.1 to 16.2 feet bgs. A groundwater sample was collected from each boring for laboratory analysis.

All soil and groundwater samples were submitted to McCampbell Analytical, Inc. in Pittsburg, California. Each soil and groundwater sample was analyzed for PCE and its breakdown products including trichloroethene (TCE), vinyl chloride, cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE) by analytical method SW8260B.

Two holes were drilled by Roto-Hammer methods through the concrete floor slab inside the subject building, and temporary Vapor Pin™ sub-slab soil vapor probes (SVP-1 and SVP-2) installed in the electrical room and stairwell near the northwest and northeast corners of the building. Soil vapor samples were collected in 1-liter Summa canisters. Each sub-slab soil vapor sample was submitted to Eurofins/CalScience of Garden Grove, California for laboratory analysis of PCE and its breakdown products (TCE, vinyl chloride, cis-1,2-DCE, and trans-1,2-DCE) by TO-15M and tracer gas helium by ASTM D1946.

PCE was detected in two of the soil samples analyzed from boring SB-3 at 4.5-5.0 and 9.5-10.0 feet bgs at concentrations of 0.015 milligrams per kilogram (mg/Kg) and 0.056 mg/Kg, below the applicable California Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) Environmental Screening Level (ESL) of 0.42 milligrams per kilogram (mg/Kg) for residential land use. No other analytes were detected above their respective laboratory reporting limits in any of the soil samples analyzed. Soil analytical data are summarized in Table 1.

PCE was detected in one of the groundwater samples analyzed from SB-3 at a concentration of 120,000 micrograms per liter (µg/L), exceeding the applicable SFRWQCB drinking water-based ESL of 5.0 µg/L, and the applicable SFRWQCB vapor intrusion risk ESL of 100 µg/L for residential land use. No other analytes were detected above their respective laboratory reporting limits in any of the groundwater samples analyzed. Groundwater analytical data are summarized in Table 2.

PCE was detected in each of the sub-slab soil vapor samples SVP-1 and SVP-2, at concentrations of 16 micrograms per cubic meter (µg/m^3) and 1,000 µg/m^3. The PCE concentration detected in SVP-1 exceeded the applicable residential sub-slab soil vapor ESL of 240 µg/m^3. None of the other analyzed constituents were detected above their respective laboratory detection limits.

Based on the sampling data, AllWest concludes that a PCE release occurred at the subject property, likely from historical site dry cleaning operations onsite. Since PCE concentrations detected in groundwater and soil vapor exceeded applicable residential ESLs for vapor intrusion risk, a potential human health risk associated with the PCE release exists. Because of the uncertainty of local groundwater flow direction, and the likely existence of shallow perched water-bearing zones, the extent of the PCE plume in groundwater has not been defined.

We recommend further soil, groundwater and soil vapor assessment be conducted, and that indoor air quality samples be collected inside the subject property building to evaluate potential vapor intrusion risk to human health of building occupants.

II. PROJECT BACKGROUND

A. Site Location and Description

The subject property is located on the southwest corner of Fruitvale Avenue and East 23rd Street within a mixed commercial and residential area of the City of Oakland, Alameda County, California (Figure 1). The subject property consists of a 0.87 acre rectangular parcel. The subject property is bound by 23rd Street on the north, Fruitvale Avenue on the east, East 22nd Street on the south, and residential properties to the west. Residential properties are located across East 23rd Street and East 22nd Street to the north and south. Mixed residential and commercial properties are located across Fruitvale Avenue to the east.

The east side of the subject property is developed with an eight story, 81,571 square foot concrete tilt-up building constructed in 1979, occupied by the Posada de Colores senior residential center with 100 residential units. The west side of the subject property is occupied by a paved driveway and parking area and landscaped areas. The northeast corner of the subject property between the building and the intersection of East 23rd Street and Fruitvale Avenue is occupied by a lawn and landscaped areas.

The northeast boundary of the subject property along East 23rd Street, the northeast and southeast corners along Fruitvale Avenue, and the southwest boundary along East 22nd Street is separated from the sidewalks by wrought iron perimeter fencing with gated driveway entrances along East 23rd and East 22nd Streets. A concrete wall topped with barbed wire along the northwestern subject property boundary separates the parking area from residential properties to the west.

A site vicinity map and a site plan are attached as Figures 1 and 2.

B. Site Geology and Hydrogeology

The property is located on the East Bay Plain at an elevation of approximately 90 feet above mean sea level (msl) along the eastern slopes of the San Francisco Bay and immediately west of the East Bay Hills. The local topography slopes gently to the southwest. Regionally, the area is comprised of a series of northwest and southeast striking ridges and basins forming the California Coast Ranges, composed of Franciscan Formation sedimentary and metamorphic bedrock. The

subject site is located approximately 2¼ miles to the west of the northwest/southeast trending Hayward Fault, located at the foot of the East Bay Hills (SFRWQCB, *East Bay Plain Groundwater Beneficial Use Evaluation Report*, 1999).

According to the SFRWQCB Water Quality Control Plan (Basin Plan), March 20, 2015, the subject site is located within the Santa Clara Valley Groundwater Basin, East Bay Plain Sub-Basin (2-9.04) which consists of alluvial fans formed by creeks exiting the Diablo Range and flowing toward San Francisco Bay, and some foothill areas underlain by older sediments. The majority of water-bearing materials are composed of Quaternary alluvium, consisting of unconsolidated gravel, sand, silt, and clay.

Groundwater within the East Bay Plain Sub-Basin (2-9.04) has existing beneficial uses for municipal, industrial and agricultural uses (RWQCB, 2015).

Soils encountered during this subsurface investigation consisted of interbedded sandy to clayey silts, silty to sandy clays, and silty to clayey sands and gravels. During this subsurface investigation, unconfined groundwater was encountered at approximately 15.5 to 16 feet bgs in two of the borings (SB-1 and SB-2). Confined groundwater was encountered at approximately 22.2 feet bgs in boring SB-3, which stabilized at a static depth of approximately 16.2 feet bgs.

According to groundwater monitoring data obtained from the California State Water Resources Control Board (SWRCB) GeoTracker website, groundwater flow direction varies from southwest to north-northeast at the former Shell service station (current O'Reilly's Auto Parts Store) at 2001 Fruitvale Avenue, located approximately 400 feet south-southwest of the subject property.

C. Site Background

According to the Partner *Phase I Environmental Site Assessment Report* , the subject property was formerly vacant land as early as 1903, developed with residential and commercial properties as early as 1912 through circa 1974, vacant between circa 1974 and 1978, and developed with the current structure in 1979. Tenants on the subject property included various markets/grocery stores, residential occupants, dry cleaner businesses, and a doctor's office (Partner, 2017).

D. Previous Reports

A *Phase I Environmental Site Assessment Report* dated June 27, 2017 was performed by Partner Engineering and Science, Inc. (Partner) at the subject property.

According to a review of historical sources and the regulatory database report, the subject property was formerly occupied by a dry cleaner business at the former site buildings from at least 1950 to circa 1972. Building department records indicated a dry cleaning machine was installed at the subject property in 1969. Since the 1930s, dry cleaning operations have typically used chlorinated solvents, particularly tetrachloroethylene (PCE), during the dry cleaning process.

No additional pertinent information regarding the former drycleaner was encountered during the course of Partner's ESA. No evidence of a release at the subject property was identified in the regulatory records reviewed for the ESA. However, Partner noted that the former dry cleaning business operated during a time of little to no regulatory oversight, which would account for the lack of regulatory records available for review. Based on the use of the subject property as a drycleaner for approximately 22 years and the nature of dry cleaning solvents, Partner concluded this former on-site dry cleaner represents a Recognized Environmental Concern.

III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation was to assess whether a PCE release occurred at the subject property as a result of historical dry cleaning operations.

The scope of work as performed consisted of the following tasks:

1. Prepared a site-specific health and safety plan;

2. Obtained a drilling permit from Alameda County Public Works Agency (ACPWA);

3. Engaged the service of Underground Service Alert (USA) and a private underground utility locator to locate and clear underground utilities within the proposed investigation area so that the potential of accidental damage to underground utilities was reduced during the subsurface investigation. Notified ACEHS and facility owners tenants prior to the start of field work;

4. Retained the services of a C-57 licensed drilling contractor, Environmental Control Associates, Inc. (ECA) of Aptos, CA, for the advancement by Geoprobe® direct push technology (DPT) methods, using a track-mounted rig for each of the three borings (SB-1, SB-2 and SB-3) to a depth of 15.5 to 22.2 feet bgs.

5. Soil samples were collected from each boring at depths of 4.5-5.0, 9.5-10.0 and 14.5-15.0 feet bgs for laboratory analysis.

6. Collected one groundwater sample from each boring for laboratory analysis;

7. At the completion of drilling and sample collection, removed Geoprobe® drive casings and temporary PVC well screen and casings, backfilled each boring with a "neat" cement grout slurry;

8. ECA drilled two holes through the interior concrete floor slab using Roto-Hammer methods, and installed two temporary sub-slab Vapor Pin™ vapor probes (SVP-1 and SVP-2).

9. Collected two soil vapor samples from the sub-slab proves SVP-1 and SVP-2.

10. Analyzed nine soil samples and three groundwater samples for PCE and its breakdown products: TCE, vinyl chloride, cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE) by EPA Method 8260B;

11. Stored waste soil cuttings in a 10-gallon drum onsite pending analytical profiling and disposal;

12. Maintained soil and groundwater samples under chain-of-custody and transported them to a California State Water Resources Control Board (SWRCB) Environmental Laboratory Accredited Program (ELAP)-certified, McCampbell Analytical of Pittsburg, California (McCampbell) for chemical analyses;

13. Maintained soil vapor samples under chain-of-custody and transported them to a California SWRCB ELAP-certified laborartory, Eurofins/CalScience of Garden Grove, California (CalScience) for chemical analyses;

14. Analyzed two sub-slab soil vapor samples for PCE and its breakdown products: TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride by TO-15M.

15. Prepare a written 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 prepared a site specific health and safety plan prior to mobilizing to the site. A tailgate safety meeting was given prior to commencing work. All site personnel were required to review the health and safety plan.

B. Drilling Permit Application

AllWest prepared and submitted a drilling permit application for the Geoprobe® DPT borings to ACPWA for review and approval. ACPWA issued permit number W2017-0610 for the proposed borings. Upon permit approval, AllWest notified ACPWA of the drilling schedule a minimum of 5 working days in advance of the drilling date to allow scheduling of grouting inspection. A copy of permit is located in Appendix A.

C. Underground Utility Inspection

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

On August 4, 2017, a private underground utility locator, Ground Penetrating Radar Systems, Inc (GPRS). of San Francisco, California, was employed by AllWest to conduct a magnetometer and GPR sweep investigation to locate marked and unmarked underground utilities in the vicinity of the proposed boring locations.

D. Geoprobe® DPT Boring Advancement

On August 10, 2017, ECA advanced three soil borings (SB-1, SB-2 and SB-3) by a track-mounted rig using the Geoprobe® DPT continuous coring method to define site lithology and to collect soil and groundwater samples. The soil borings were advanced to a maximum explored depths ranging from approximately 15.5 to 22.2 feet bgs. Borings SB-1 and SB-2 were located in the parking and landscaped areas east of the subject property building. Boring SB-3 was located in the lawn area north of the building in the northeast corner of the subject property in the vicinity of the former dry cleaner. Boring locations are shown in Figure 2.

E. Soil Sampling

Continuous core soil samples were collected from each of the three soil borings for lithologic characterization and potential laboratory analysis. Soil samples were collected from each boring at depths of 4.5-5.0, 9.5-10.0 and 14.5-15.0 feet bgs for laboratory analysis.

Soil sampling was accomplished by ECA using a nominal 4-foot long, 2.25-inch outside diameter (OD) Geoprobe® Macro-Core® stainless steel core barrel drive probe and extension rods. The drive probe was equipped with nominal 1.5-inch inside diameter (ID) clear PVC plastic tubes that lined the interior of the probe. The probe and insert tubes were together pneumatically driven using a percussion hammer to the specified depth. After the specified drive interval, the drive probe and rods were retrieved to the surface. The PVC tube containing subsurface soil was then removed.

The recovered soil samples were inspected after each drive interval, with lithologic and relevant drilling observations recorded. Soil samples were screened for organic vapors using a photo-ionization detector (PID). PID readings, soil staining and other relevant observations were recorded. Standard Geoprobe® DPT soil sampling procedures are included in Appendix B. Soil sample depth intervals, PID readings, lithology and visual observations are included in the borings logs in Appendix E.

F. Groundwater Sampling

Grab groundwater samples were collected by AllWest from each of the three borings (SB-1, SB-2 and SB-3). After the advancement of each boring to its total depth, temporary PVC solid casing and perforated well screen was placed into the boreholes. Depth to groundwater was measured at approximately 15.1 to 16.2 feet bgs prior to sampling. Groundwater samples were collected using a peristaltic pump with disposable polyethylene (PE) tubing. Groundwater samples were contained in laboratory provided containers, consisting of two 40-milliliter (ml) volatile organic analysis (VOA)

glass vials preserved with hydrochloric acid (HCl) for PCE and breakdown products analysis. Groundwater sampling methods were performed in general accordance with standard Geoprobe® DPT groundwater sampling procedures included in Appendix B.

G. Sub-Slab Vapor Pin™ Installation

On August 10, 2017, ECA cored through the approximately 8-inch thick concrete floor slab, and approximately 1 inch into the sub-base, using a power-operated Roto-Hammer 5/8-inch diameter coring bit at two locations within the first floor of the subject property building. The borings were completed as temporary sub-slab soil vapor probes (SVP-1 and SVP-2) using Cox-Colvin & Associates, Inc. Vapor Pin™ sampling devices inserted into the boreholes within the floor slabs according to procedures included in Appendix C. The temporary sub-slab soil Vapor Pin™ probe locations are presented on Figure 2.

Sub-slab soil vapor probe installations were in general accordance with the California Department of Toxic Substance Control (DTSC) *Advisory – Active Soil Gas Investigations*, July, 2015. AllWest allowed a minimum 2-hour equilibrium period between the Vapor Pin™ installation and soil vapor sampling activities to ensure compliance with the equilibrium times recommended in DTSC *Frequently Asked Questions, 2012 Advisory – Active Soil Gas Investigations (ASGI)*, March 2013. AllWest Vapor Pin™ sub-slab soil vapor probe installation and sampling procedures and schematics are included in Appendix C.

H. Sub-Slab Vapor Pin™ Sampling

AllWest collected two soil vapor samples from sub-slab vapor probes (SVP-1 and SVP-2) on August 10, 2017. Additionally, an ambient leak detection gas sample (SVP-2-AMBIENT) was collected in the shroud during sampling of SVP-2. Soil vapor sampling was performed in general accordance with the DTSC *Advisory – Active Soil Gas Investigations*, July 2015. Soil vapor sampling procedures and schematic diagrams are included in Appendix C. Soil vapor sampling field logs are included in Appendix D.

AllWest collected soil vapor samples from each probe 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 was performed for a minimum of 2 minutes, with a maximum allowable vacuum drop of 0.2 inches of mercury (in Hg). All samples passed the shut-in test.

Prior to sample collection, a maximum of three sample system volumes of soil vapor (per DTSC, 2015) were purged at a flow rate of approximately 150-200 milliliters per minute (ml/min) from each soil vapor probe, using a dedicated 6-liter capacity SUMMA purge canister. Three sample system volumes equaled approximately 390ml from each sub-slab Vapor Pin™ probe.

While purging and sampling, a leak detection test was conducted using helium as a leak tracer inside a plastic shroud covering the entire sampling apparatus, as recommended in the DTSC *Advisory – Active Soil Gas Investigations* (DTSC, 2015). A three-way valve was fitted in the sample tubing train between the probe and SUMMA canister manifold system to allow starting and stopping of purging and sampling from the outside without excessive leakage of helium, and to allow monitoring of purged soil vapor for helium leakage. A schematic diagram of the soil vapor sampling system and leak detection shroud is included in Appendix C.

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% of the target concentration of approximately 10-20% (or at least three orders of magnitude above the minimum meter detection limit). Following purging of three sample system volumes and final sample collection, the soil vapor purge monitoring port was monitored for helium leak tracer gas concentrations using a helium gas detection meter to determine integrity of the vapor probe surface seal. A maximum of 200 parts per million (ppm), equivalent to 0.02%, helium was detected in the purge monitoring port post-sampling, indicating no significant surface seal leaks.

Flow rates of approximately 150-200 ml/min were used to fill the sample canisters. The canisters were filled to approximate 80% of capacity (approximately 5 inches of mercury vacuum remaining). All pertinent field observations, pressure, times and readings were recorded. 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, Eurofins/Calscience, in Garden Grove, California. The analytical laboratory recorded the final SUMMA canister vacuum upon receipt. Copies of the soil vapor sampling field logs are included in Appendix D.

I. Borehole Backfilling

At the completion of drilling and sampling activities, Geoprobe® DPT drive casings and temporary PVC well screen and casings were removed and the borings were backfilled with a "neat" Portland Type I or II cement grout slurry tremmied into the borehole through a PVC pipe. The level of grout was checked to ascertain if any settling had occurred and "topped off" if required. Grouting activities were observed by an official from ACPWA. Temporary Vapor Pin ™ probes were removed from the concrete floor slabs, and the boreholes sealed with concrete flush with the floor surface.

J. Investigative Derived Waste Containment and Disposal

Investigative derived soil waste was contained onsite in one 10-gallon steel drum pending analytical results, profiling and transport to an appropriate disposal facility.

K. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all groundwater samples were contained in properly preserved laboratory-supplied containers and stored in an ice chest cooled to 4°C with crushed ice immediately after their collection and during transportation to the laboratory. Samples were stored within the cooler in separate zip-lock plastic bags to avoid cross-contamination.

To prevent the loss of constituents of interest, all SUMMA canisters were removed from the manifold, labeled with sampling information, including initial and final vacuum pressures, and placed in a dark container for transport to the laboratory.

L. Chain-Of-Custody Program

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 included the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document also included the name of the person receiving the samples, and date and time samples were received. Chain-of-custody documents are included in Appendix F.

M. Laboratory Analyses

All groundwater samples were analyzed by a State of California SWRCB ELAP-certified independent analytical laboratory, McCampbell Analytical, Inc., of Pittsburg, California. Soil vapor and indoor air samples were analyzed by a State of California SWRCB ELAP-certified independent analytical laboratory, Eurofins/CalScience, of Garden Grove, California. Laboratory analytical reports and chain-of-custody records are included in Appendix F.

Soil

Nine soil samples were submitted for laboratory analysis. Each soil sample was analyzed for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride by EPA Method 8260B.

Groundwater

Three groundwater samples were submitted for laboratory analysis. Each groundwater sample was analyzed for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride by EPA Method 8260B.

Soil Vapor

Two soil vapor samples (one from each sub-slab vapor probe) were submitted for laboratory analysis. Each soil vapor sample was analyzed for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride by TO-15M, and for the leak detection gas helium by ASTM D1946. One ambient shroud leak detection gas sample was analyzed for helium by ASTM D1946.

N. Laboratory Quality Assurance and Quality Control

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

V. ASSESSMENT FINDINGS AND DISCUSSION

A. Subsurface Conditions

Soil

Soils encountered during this subsurface investigation consisted of interbedded sandy to clayey silts, silty to sandy clays, and silty to clayey sands and gravels from beneath surface pavement or unpaved ground surface to an approximate maximum explored depth of 23 feet bgs. A layer of clayey gravelly sand or clayey gravel was encountered in all three borings at depths of approximately 10 feet bgs to the total explored depth of 16 feet bgs in boring SB-1, 15.5 to the total explored depth of 19 feet bgs in boring SB-2, and 16 to 17.5 feet bgs in boring SB-3. The clayey gravel layer in boring SB-3 was underlain by a layer of sandy clay from approximately 17.5 to 21 feet bgs, which was in turn underlain by another clayey gravel layer to the total explored depth of 23 feet bgs. Boring logs are provided in Appendix E.

Groundwater

Unconfined groundwater was encountered at approximately 15.5 feet bgs in the clayey gravelly sand unit in boring SB-1, and at approximately 16 feet bgs in the clayey gravel unit in boring SB-2. Confined groundwater was encountered at approximately 22.2 feet bgs in the lower clayey gravel unit in boring SB-3. The upper clayey gravel unit encountered at approximately 16 to 17.5 feet bgs in SB-3, corresponding to those encountered at that depth range in SB-1 and SB-2, was not saturated. Therefore, in our opinion, the saturated clayey gravelly sand/gravelly clay layers encountered at approximately 15.5 to 16 feet bgs in borings SB-1 and SB-2 represent shallow perched water-bearing zones which are not hydraulically connected to the deeper saturated zone encountered in boring SB-3.

Depths to groundwater in the three borings stabilized at a static depth of approximately 15.1 feet bgs in SB-1, 16.1 feet bgs in SB-2, and 16.2 feet bgs in SB-3, indicating unconfined conditions in SB-1 and SB-2, and confined conditions in SB-3.

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 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 – February 22, 2016, Revision 3 (updated May 23, 2016).

ESLs used in this investigation were established using the site-specific Tier 2 Interactive Tool, *Table T2-1: Tier 2 ESL Input and Output, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs)*, released February 22, 2016, and updated May 23, 2016, by the Bay Area RWQCB.

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 for the subject suite were established with the following assumptions: residential property use, a 'Fine to Coarse' soil type, deep groundwater (>10 feet bgs), and shallow, direct exposure, soil depths (<10 ft bgs).

C. Soil Sample Analytical Data and Screening Levels

The only COCs detected in soil samples were PCE in two of the soil samples analyzed from boring SB-3 at 4.5-5.0 and 9.5-10.0 feet bgs at concentrations of 0.015 milligrams per kilogram (mg/Kg) and 0.056 mg/Kg. No COCs were detected in the soil samples at concentrations exceeding their respective applicable residential land use ESLs, (where established) as summarized below:

Constituent of Concern	Maximum Concentration (mg/Kg)	Residential ESL (mg/Kg)
Tetrachloroethene (PCE)	0.056	0.42
Trichlorothene (TCE)	Not Detected (<0.0050)	0.46
cis-1,2-Dichloroethene (cis-1,2-DCE)	Not Detected (<0.0050)	0.19
trans-1,2-Dichloroethene (trans-1,2-DCE)	Not Detected (<0.0050)	0.67
Vinyl Chloride	Not Detected (<0.0050)	0.0082

Soil sample analytical data and applicable soil ESLs for analyzed COCs are summarized in Table 1.

D. Groundwater Sample Analytical Data and Screening Levels

The only COCs detected in groundwater samples were PCE in one sample analyzed from boring SB-3, at a concentration of 120,000 micrograms per kilogram (µg/L). The detected PCE concentration exceeded the applicable drinking water Maximum Contaminant Level (MCL)-based ESL and the vapor intrusion risk ESL for residential land use as summarized below. No other COCs were detected in the groundwater samples. Applicable MCL-based ESLs and vapor intrusion risk-based ESLs for residential land use are summarized below:

Constituent of Concern	Maximum Concentration (µg/L)	Drinking Water MCL-based ESL (µg/L)	Residential Vapor Intrusion ESL (deep groundwater) (µg/L)
Tetrachloroethene (PCE)	**120,000**	5.0	100
Trichlorothene (TCE)	Not Detected (<0.50/5,000)[1]	5.0	170
cis-1,2-Dichloroethene (cis-1,2-DCE)	Not Detected (<0.50/5,000)[1]	6.0	15,000

Constituent of Concern	Maximum Concentration (µg/L)	Drinking Water MCL-based ESL (µg/L)	Residential Vapor Intrusion ESL (deep groundwater) (µg/L)
trans-1,2-Dichloroethene (trans-1,2-DCE)	Not Detected (<0.50/5,000)[1]	10	31,000
Vinyl Chloride	Not Detected (<0.50/5,000)[1]	0.50	2.0

Notes:

[1] = Elevated detection limits in sample SB-3.

Groundwater analytical data and applicable groundwater ESLs for analyzed COCs are summarized in Table 2.

E. Soil Vapor Analytical Data and Screening Levels

The only COC detected in soil vapor samples was PCE in both samples SVP-1 and SVP-2, at concentrations of 16 micrograms per cubic meter (µg/m^3) and 1,000 µg/m^3. The PCE concentration detected in sample SVP-2 exceeded the applicable residential land use soil vapor ESL. No other COCs were detected in soil vapor samples at concentrations exceeding their respective applicable residential land use soil vapor ESLs as summarized below:

Constituent of Concern	Maximum Concentration (µg/m^3)	Residential ESL (µg/m^3)
Tetrachloroethene (PCE)	1,000	240
Trichlorothene (TCE)	Not Detected (<3.6/3.9)[1]	240
cis-1,2-Dichloroethene (cis-1,2-DCE)	Not Detected (<2.7/2.9)[1]	4,200
trans-1,2-Dichloroethene (trans-1,2-DCE)	Not Detected (<2.7/2.9)[1]	42,000
Vinyl Chloride	Not Detected (<1.7/1.8)[1]	4.7

Notes:

[1] = Detection limits vary.

Soil vapor analytical data and applicable soil vapor ESLs for analyzed COCs are summarized in Table 3.

F. Contaminant Distribution

PCE was detected in soil and groundwater samples only from boring SB-3, located in the vicinity of the former dry cleaner. PCE was detected in samples from both sub-slab soil vapor probes, located in the northeastern portion of the subject site building adjacent to the former dry cleaner vicinity. The highest PCE soil vapor concentration was detected in probe SVP-2 located in the exit stairwell adjacent to Fruitvale Avenue.

PCE was not detected in soil or groundwater samples from borings SB-1 and SB-2 which, due to the historically wide variation in local groundwater flow direction from south-southwest to north-northeast, may be located potentially up, down, or cross-gradient of the former dry cleaner. However, the lack of detected PCE in groundwater samples from these borings may be due to the

samples being collected from localized shallow perched water-bearing zones not hydraulically connected to that encountered at a greater depth in boring SB-3.

VII. CONCLUSIONS AND RECOMMENDATIONS

Based on the sampling data, AllWest concludes a PCE release occurred at the subject property, likely from historical site dry cleaning operations. Since PCE concentrations detected in groundwater and soil vapor exceeded applicable residential ESLs for vapor intrusion risk, a potential human health risk associated with the PCE release exists. Because of the uncertainty of local groundwater flow direction, and the likely existence of shallow perched water-bearing zones, the extent of the PCE plume in groundwater has not been defined.

We recommend further soil, groundwater and soil vapor assessment be conducted, and that indoor air quality samples be collected inside the subject property building to evaluate potential vapor intrusion risk to human health of building occupants.

VIII. LIMITATIONS

The work described in this report was performed in accordance with the Environmental Consulting Agreement between The Unity Council (Client) and AllWest Environmental, Inc, dated October 2016. 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.

IX. REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region (SFWQCB). 2015. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. March.

SFRWQCB. 2016. *User's Guide: Derivation and Application of Environmental Screening Levels*, Interim Final – February, Revision 3 (May 23, 2016).

Partner Engineering and Science, Inc. (Partner) , 2017. *Phase I Environmental Site Assessment Report, Posada de Colores, 2221 Fruitvale Avenue, Oakland ,California 94601*. June 27.

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

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

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

TABLES

TABLE 1
Summary of Soil Analytical Data
Tetrachloroethene (PCE) and Degradation Products
2221 Fruitvale Avenue
Oakland, California
AllWest Project No. 17104.23

Sample Name and Depth (feet bgs)	Date Sampled	Tetra-chloroethene (PCE) (mg/kg)	Tri-chloroethene (TCE) (mg/kg)	cis-1,2-Dichloroethene (cis-1,2-DCE) (mg/kg)	trans-1,2-Dichloroethene (trans-1,2-DCE) (mg/kg)	Vinyl Chloride (mg/kg)	Other VOCs (mg/kg)
SB-1-4.5-5.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-1-9.5-10.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-1-14.5-15.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-2-4.5-5.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-2-9.5-10.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-2-14.5-15.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-3-4.5-5.0	8/10/2017	0.015	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-3-9.5-10.0	8/10/2017	0.056	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
SB-3-14.5-15.0	8/10/2017	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	NA
RWQCB Residential ESLs: deep groundwater (>10 ft), shallow soils (<10 ft), drinking water		**0.42**	**0.46**	**0.19**	**0.67**	**0.0082**	**NA**

Notes:

All samples analyzed by McCampbell Analytical, Inc., Pittsburg, California
All results are reported in milligrams per kilograms (mg/kg)

VOCs	Volatile organic compounds, Analytical Method SW8260B
ND (<1.0)	Not detected at or above listed reporting limit
NA	Not analyzed or applicable
NE	Not established

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for residential 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, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final, February 22, 2016, Revision 3 (May 23, 2016). These ESLs were established with the following assumptions: Residential property use, a 'fine to coarse scenario' soil type, deep groundwater (>10 ft below ground surface (bgs)), and shallow soil depths (<10 ft bgs) for direct exposure.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for vapor intrusion risk for residential 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, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final, February 22, 2016, Revision 3 (May 23, 2016). These ESLs were established with the following assumptions: Residential property use, a 'fine to coarse scenario' soil type, deep groundwater (>10 ft below ground surface (bgs)), and deep soil depths (>10 ft bgs), for vapor intrusion.

TABLE 2
Groundwater Analytical Data
Tetrachloroethene (PCE) and Degradation Products
2221 Fruitvale Avenue
Oakland, California
AllWest Project No. 17104.23

Sample Name and Depth (feet bgs)	Date Sampled	Tetra-chloroethene (PCE) (µg/L)	Tri-chloroethene (TCE) (µg/L)	cis-1,2-Dichloroethene (cis-1,2-DCE) (µg/L)	trans-1,2-Dichloroethene (trans-1,2-DCE) (µg/L)	Vinyl Chloride (µg/L)	Other VOCs (µg/L)
SB-1	8/10/2017	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	NA
SB-2	8/10/2017	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.50)	NA
SB-3	8/10/2017	**120,000**	ND (<5,000)	ND (<5,000)	ND (<5,000)	ND (<5,000)	NA
RWQCB Residential ESLs: deep groundwater (>10 ft), shallow soils (<10 ft), drinking water		**5.0**	**5.0**	**6.0**	**10**	**0.5**	**NA**
RWQCB Residential ESLs: deep groundwater (>10 ft), fine to coarse soils, vapor intrusion risk		**100**	**170**	**15,000**	**31,000**	**2.0**	**NA**

Notes:

All samples analyzed by McCampbell Analytical, Inc., Pittsburg, California
All results are reported in micrograms per liter (µg/L)

VOCs	Volatile organic compounds, Analytical Method SW8260B
ND (<1.0)	Not detected at or above listed reporting limit
NA	Not analyzed or applicable
NE	Not established

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for commercial/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, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final, February 22, 2016, Revision 3 (May 23, 2016). These ESLs were established with the following assumptions: Residential property use, a 'fine to coarse scenario' soil type, deep groundwater (>10 ft below ground surface (bgs)), and shallow soil depths (<10 ft bgs) for direct exposure.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for vapor intrusion risk for residential 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, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final, February 22, 2016, Revision 3 (May 23, 2016). These ESLs were established with the following assumptions: Residential property use, a 'fine to coarse scenario' soil type, deep groundwater (>10 ft below ground surface (bgs)), and deep soil depths (>10 ft bgs), for vapor intrusion.

TABLE 3
Soil Vapor Analytical Data
Tetrachloroethene (PCE) and Degradation Products
2221 Fruitvale Avenue
Oakland, California
AllWest Project No. 17104.23

Sample Name and Depth (feet bgs)	Date Sampled	Tetra-chloroethene (PCE) (µg/m^3)	Tri-chloroethene (TCE) (µg/m^3)	cis-1,2-Dichloroethene (cis-1,2-DCE) (µg/m^3)	trans-1,2-Dichloroethene (trans-1,2-DCE) (µg/m^3)	Vinyl Chloride (µg/m^3)	Other VOCs (µg/m^3)	Helium (%V)
SVP-1	8/11/2017	16	ND (<3.6)	ND (<2.7)	ND (<2.7)	ND (<1.7)	NA	0.119
SVP-2	8/11/2017	**1,000**	ND (<3.9)	ND (<2.9)	ND (<2.9)	ND (<1.8)	NA	ND (<0.0100)
RWQCB Residential ESLs: deep groundwater (>10 ft), shallow soils (<10 ft), drinking water		**240**	**240**	**4,200**	**42,000**	**4.7**	**NA**	**NE**

Notes:

All samples analyzed by McCampbell Analytical, Inc., Pittsburg, California
All results are reported in milligrams per kilogram (mg/kg)

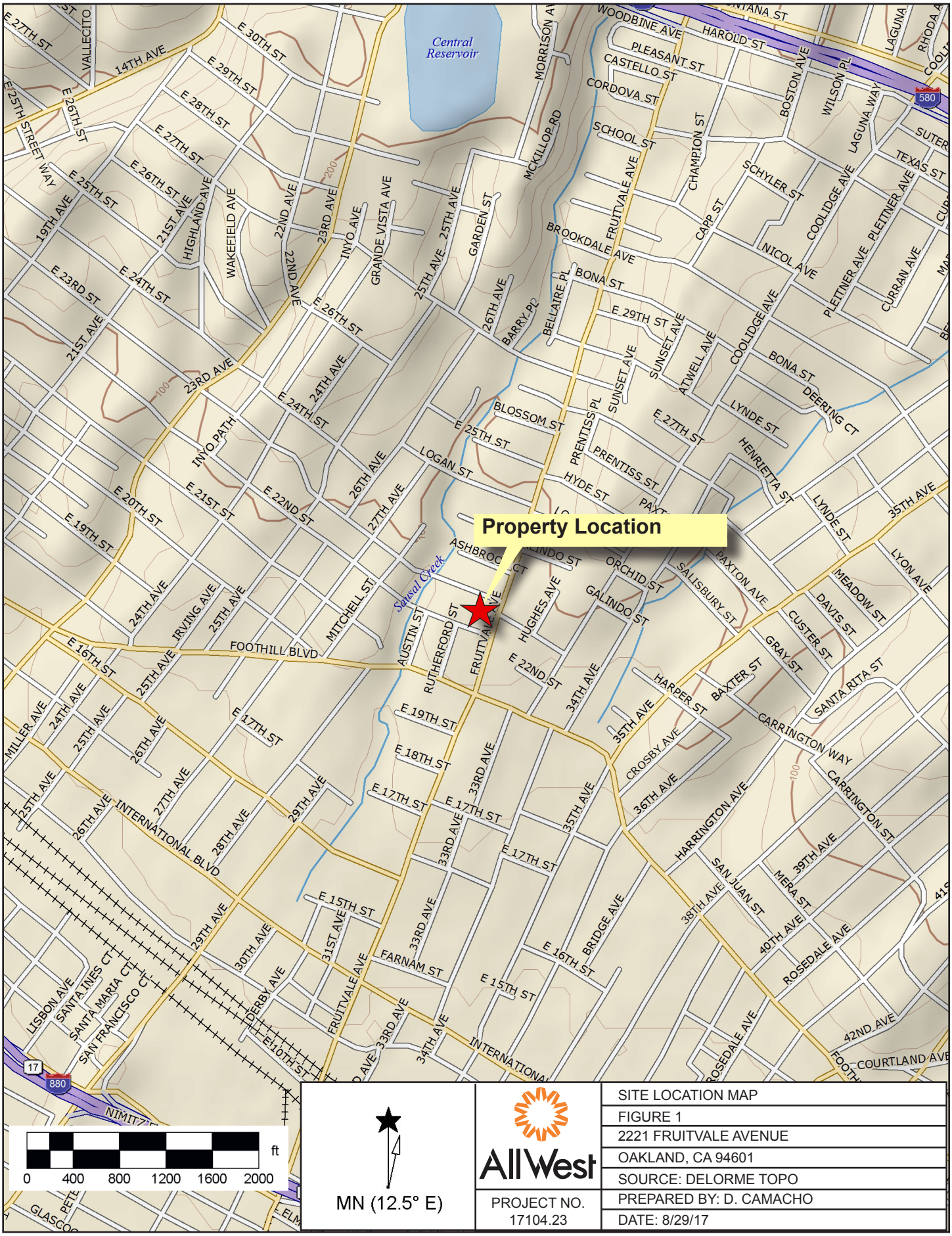
VOCs	Volatile organic compounds, Analytical Method SW8260B
ND (<1.0)	Not detected at or above listed reporting limit
NA	Not analyzed or applicable
NE	Not established

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for residential 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, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final, February 22, 2016, Revision 3 (May 23, 2016). These ESLs were established with the following assumptions: Residential property use, a 'fine to coarse scenario' soil type, deep groundwater (>10 ft below ground surface (bgs)), and shallow soil depths (<10 ft bgs) for direct exposure.

FIGURES

DELORME

Topo USA® 8



AllWest

PROJECT NO. 17104.23	SITE LOCATION MAP
	FIGURE 1
	2221 FRUITVALE AVENUE
	OAKLAND, CA 94601
	SOURCE: DELORME TOPO
	PREPARED BY: D. CAMACHO
	DATE: 8/29/17

C:\Drawing Files\AllWest Environmental\17104.23\17104.23 Fig 2, Site Plan - 08/28/2017

DRIVEWAY

SB-2

SB-1

PARKING

LANDSCAPING

RANGE OF GROUNDWATER FLOW DIRECTIONS

DRIVEWAY

EAST 22ND STREET

CRAFT WORK ROOM

MULTI-PURPOSE ROOM

STORAGE

WOMEN

MEN

MAINTENANCE

UNIT A

KITCHEN

CRAFT ROOM

TRASH ROOM

ELECTRICAL

SVP-1

FORMER DRY CLEANER 2231 FRUITVALE AVENUE

MANAGER

SIDEWALK

SIDEWALK

GAME ROOM

STAIRS

LAUNDRY

STORAGE

OFFICE

OFFICE

LOBBY

LIBRARY-LOUNGE

SVP-2

STAIRS

SB-3

SIDEWALK

SIDEWALK

SIDEWALK

EAST 23RD STREET

FRUITVALE AVENUE

LEGEND

- SB-1 Soil Boring
- SVP-1 Soil Vapor Probe
- Approximate Property Boundary

0 20 40

APPROXIMATE SCALE IN FEET

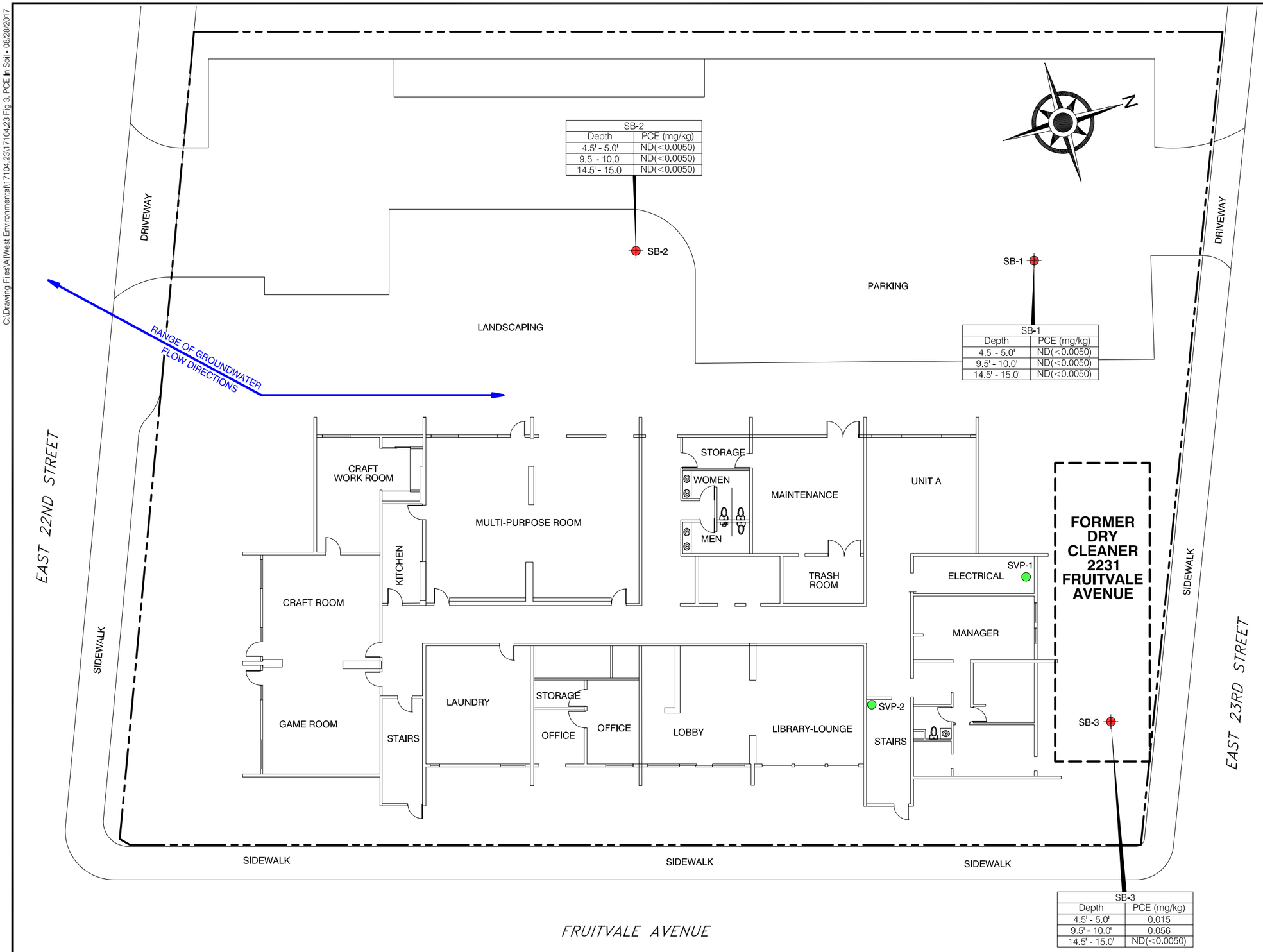
AllWest

FIGURE 2

SITE PLAN

Posada de Colores
2221 Fruitvale Avenue, Oakland, California
PROJECT NO: 17083.28
SOURCE: AllWest
DRAWN BY: CM (8/28/2017)

C:\Drawing Files\AllWest Environmental\17104.23\17104.23 Fig 3, PCE In Soil - 08/28/2017



LEGEND

- SB-1 — Soil Boring
- SVP-1 — Soil Vapor Probe
- Approximate Property Boundary

Note:
PCE - Tetrachloroethene
mg/kg - Milligrams per Kilogram

0 20 40
APPROXIMATE SCALE IN FEET

AllWest

FIGURE 3

TETRACHLOROETHENE (PCE) IN SOIL

Posada de Colores

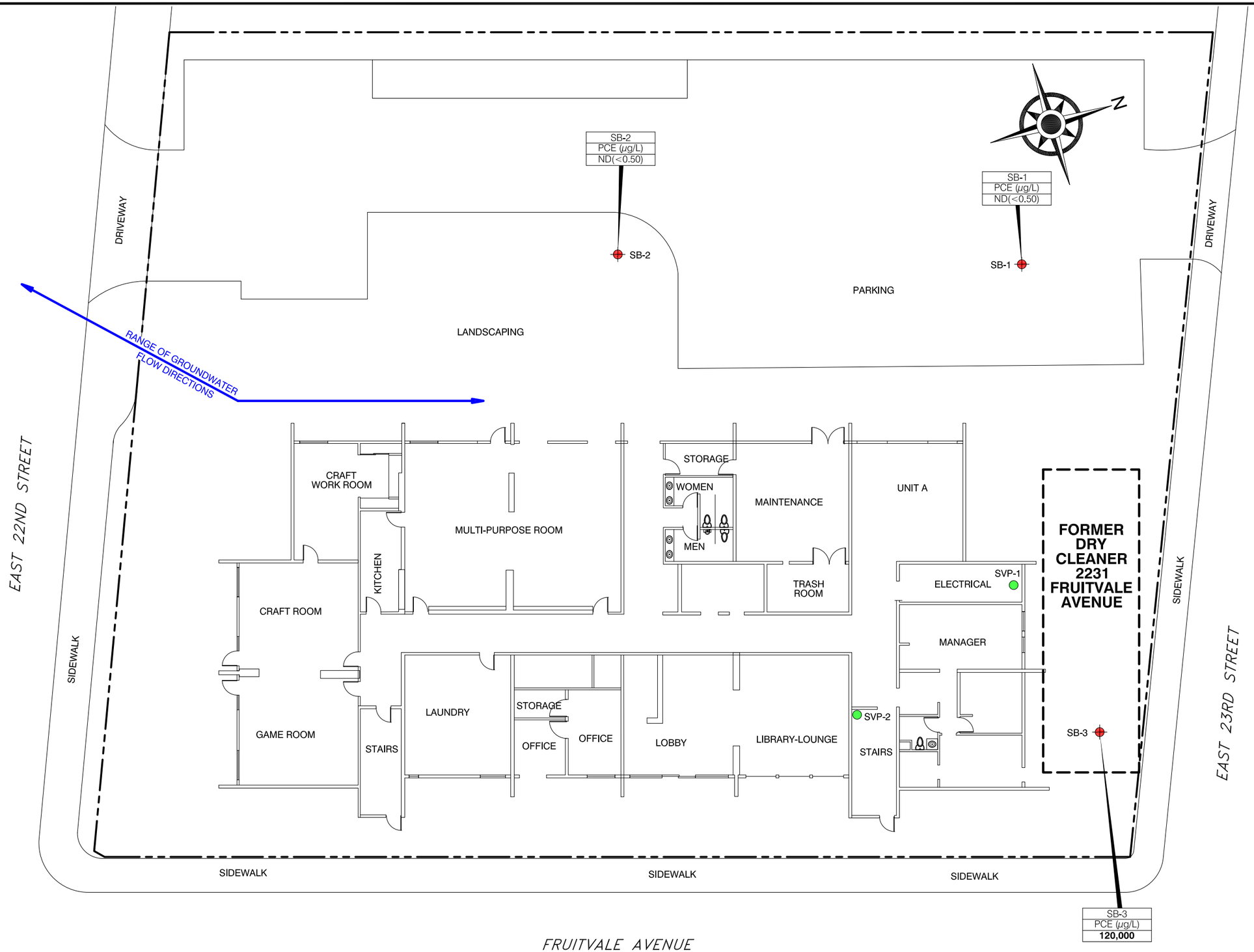
2221 Fruitvale Avenue, Oakland, California

PROJECT NO: 17083.28

SOURCE: AllWest

DRAWN BY: CM (8/28/2017)

C:\Drawing Files\AllWest Environmental\17104.23\17104.23 Fig 4. PCE In GW - 08/28/2017



LEGEND

- SB-1 — Soil Boring
- SVP-1 — Soil Vapor Probe
- Approximate Property Boundary

Note:
PCE - Tetrachloroethene
µg/L - Micrograms per Liter

0 20 40
APPROXIMATE SCALE IN FEET

AllWest

FIGURE 4

TETRACHLOROETHENE (PCE) IN GROUNDWATER

Posada de Colores

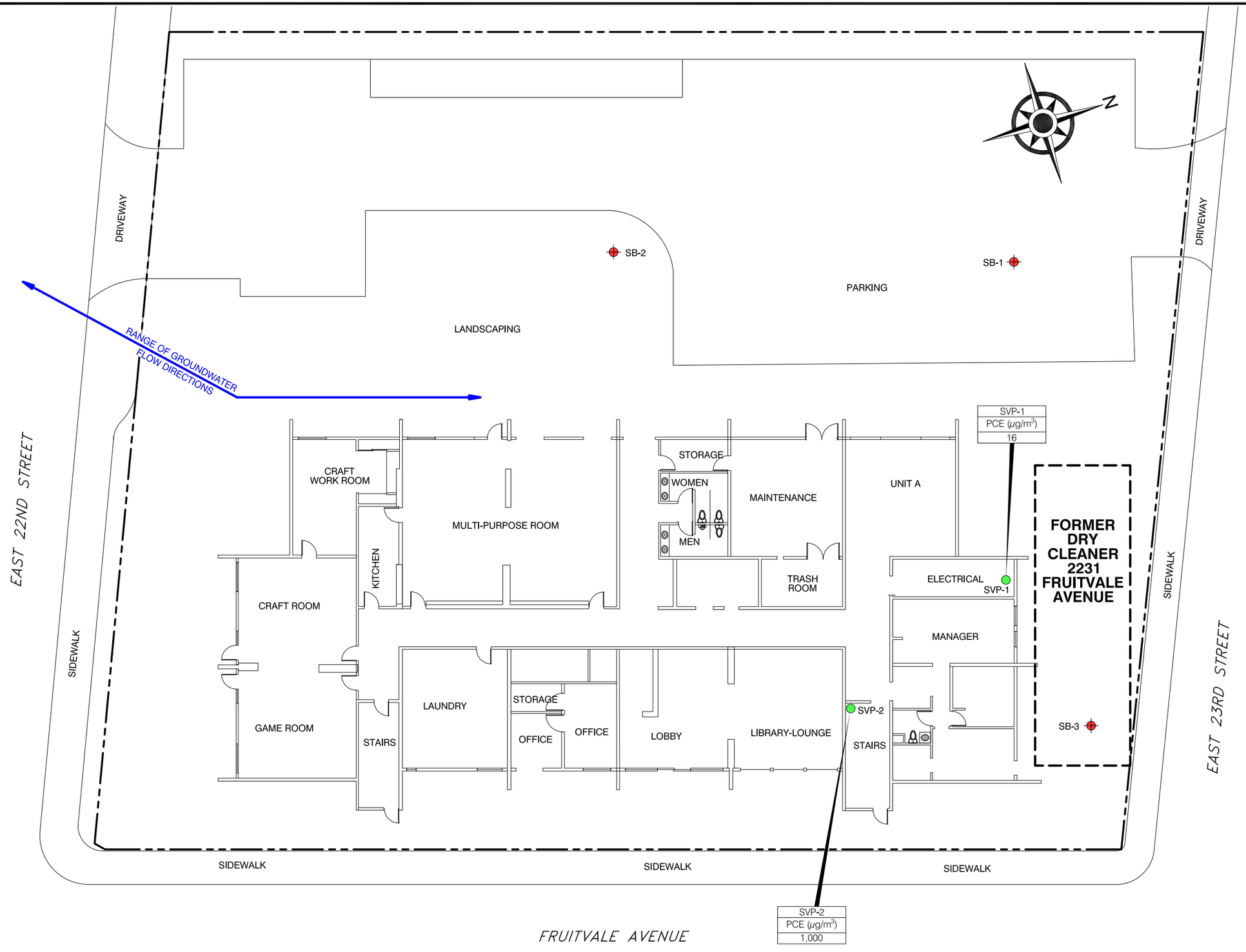
2221 Fruitvale Avenue, Oakland, California

PROJECT NO: 17083.28

SOURCE: AllWest

DRAWN BY: CM (8/28/2017)

C:\Drawing Files\AllWest Environmental\17104.23\17104.23 Fig 5, PCE In Soil Vapor - 08/28/2017



LEGEND

- SB-1 — Soil Boring
- SVP-1 — Soil Vapor Probe
- Approximate Property Boundary

Note:
PCE - Tetrachloroethene
$\mu g/m^3$ - Micrograms per Cubic Meter

0 20 40
APPROXIMATE SCALE IN FEET

AllWest

FIGURE 5

TETRACHLOROETHENE (PCE) IN SOIL VAPOR

Posada de Colores
2221 Fruitvale Avenue, Oakland, California
PROJECT NO: 17083.28
SOURCE: AllWest
DRAWN BY: CM (8/28/2017)

APPENDIX A

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/28/2017 By jamesy

Permit Numbers: W2017-0610
Permits Valid from 08/10/2017 to 08/10/2017

Application Id: 1501016035884 **City of Project Site:** Oakland
Site Location: 2221 Fruitvale Ave
Oakland, CA
Project Start Date: 08/10/2017 **Completion Date:** 08/10/2017
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org

Applicant: AllWest Environmental Inc. - Sara Bloom **Phone:** 415-391-2510
2141 Mission Street, Ste 100, San Francisco, CA 94110
Property Owner: Kenneth Jones The Unity Council c/o Landis **Phone:** 510-868-2865
Development
350 Frank Ogawa Plaza #200, Oakland, CA 94601
Client: ** same as Property Owner **
Contact: Sara Bloom **Phone:** 415-391-2510
Cell: 360-322-9234

Total Due: $265.00
Receipt Number: WR2017-0352 **Total Amount Paid:** $265.00
Payer Name : AllWest Environmental Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes
Driller: Environmental Control Associates - Lic #: 695970 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2017-0610	07/28/2017	11/08/2017	3	2.00 in.	25.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

7. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX B

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 C

STANDARD VAPOR PIN™ SUB-SLAB PROBE INSTALLATION AND SOIL VAPOR SAMPLING PROCEDURES

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.

Vapor Pin™ Sub-Slab Soil Vapor Sampling via Summa Canister

Soil vapor sampling procedures 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 0.25-inch outside diameter (OD)/0.17-inch inside diameter (ID) Teflon sample tubing will be placed over the Vapor Pin™ barbed fitting. Since the 0.17-inch ID tubing may be too small and too rigid to fit over the barbed fitting, it may be necessary to construct a connector sleeve using a short length of 3/8-inch OD/3/16-inch ID flexible silicone Masterflex® or similar tubing to fit over both the Vapor Pin™ barbed fitting and the end of the 0.25-inch OD/0.17-inch ID sample tubing. The sample tubing will then 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 are 4.5 ml/feet for ¼-inch OD/0.17-inch ID tubing and 0.17-inch ID Vapor Pin™ probe,

and 155 ml/feet for a 1-inch diameter borehole within the concrete floor slab. Assuming a 1-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 60 ml including 5 feet of tubing and manifold above grade. Therefore, 3 system volumes would typically be approximately 180 milliliters (ml) depending on sample tubing and manifold length, borehole diameter, and floor slab borehole void depth below the installed Vapor Pin™ probe.

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, 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), and sampling will proceed. 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 the purged soil vapor readings and acceptable vapor probe seal leak test, the 3-way and purge Summa valves will be closed, 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. To verify helium detection (or PID if used) meter accuracy, one (1) ambient air sample per day is usually 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 instead) concentrations inside the shroud.

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. After filling and closing the sample valve, 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.

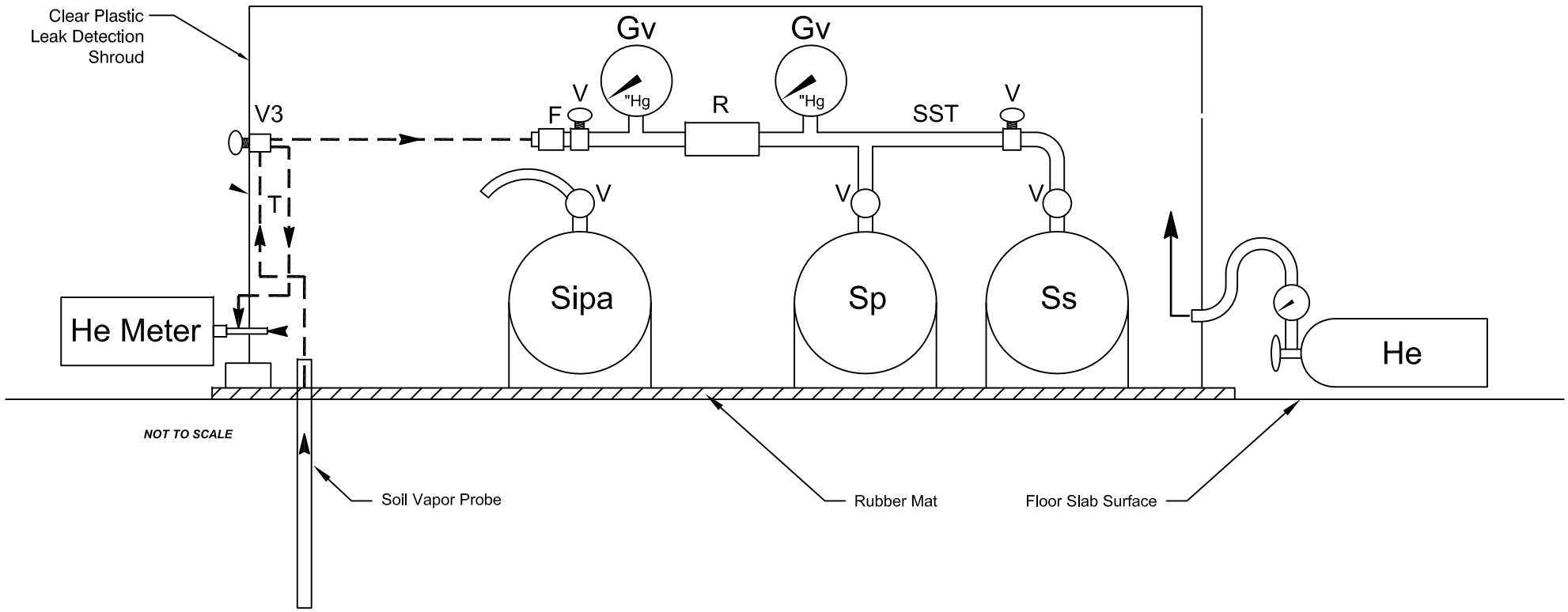
Soil Vapor Sampling via Tenax™ Sorbent Tubes

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.

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

APPENDIX D

AllWest Environmental, Inc.

Specialists in Physical Due Diligence and Remedial Services

2141 Mission Street, Suite 100
San Francisco, CA 94110
Tel 415.391.2510
Fax 415.391.2008

SOIL GAS VAPOR FIELD LOG

Project No: _____ **Project Name:** FRUITVALE AVE

Date: 8/10/17 **Vapor Probe No:** SVP-1 **Serial No:** 1L: LC389 6L: D854

Regulatory Agencies: _____

Contractor: ECA

Hole Diameter: 5/8" **Total Depth:** 8" **Grout/Bentonite:** NA

Probe Diameter: 1/4" **Line Length:** 7' **Purge Volume:** 389.9mL/1.95"

Tracer Gas: Helium **Flow Regulator:** 150-200 (ml/min) SGM347 **Leak Test:** Pass/Fail

Laboratory Name and Number: _____

SAMPLE COLLECTION

Start Time	Time Elapsed	Pressure	Remarks
1221	—	30"	BEGIN LEAK TEST
1225	4 MIN	30"	END LEAK TEST - PASSED
1228	—	30"	BEGIN PURGING, He @ 11.4%
1231	3 MIN	28"	END PURGE, He @ 11.3%
1233	—	30"	BEGIN SAMPLING, He @ 11.9%
1237	4 MIN	5"	END SAMPLING, He @ 10.9%, 200 ppm

Remarks: ELECTRICAL ROOM

Sampler: S. BLOOM

AllWest Environmental, Inc.

Specialists in Physical Due Diligence and Remedial Services

2141 Mission Street, Suite 100
San Francisco, CA 94110
Tel 415.391.2510
Fax 415.391.2008

SOIL GAS VAPOR FIELD LOG

Project No: _____ **Project Name:** FRUITVALE AVE

Date: 8/10/17 **Vapor Probe No:** SVP-2 **Serial No:** IL-LC081 6L-D854

Regulatory Agencies: _____

Contractor: ECA

Hole Diameter: 5/8" **Total Depth:** 8" **Grout/Bentonite:** —

Probe Diameter: 1/4" **Line Length:** 7' **Purge Volume:** 389.9mL / 1.95"

Tracer Gas: Helium **Flow Regulator:** 150-200 (ml/min) SGM 299 **Leak Test: Pass/Fail**

Laboratory Name and Number: _____

SAMPLE COLLECTION

Start Time	Time Elapsed	Pressure	Remarks
~~1307~~ 1310	—	28"	BEGIN LEAK TEST
1314	4 MIN.	28"	END LEAK TEST
1319	—	28"	BEGIN PURGING, He @ 11.5%
1322	3 MIN	26"	END PURGE, He @ 10.3%
1323	—	30"	BEGIN SAMPLING, He @ 10.8%
1328	5 MIN	5"	END SAMPLING, He @ 10.1%, 0 ppm

Remarks: SVP-2 AMBIENT EMERGENCY EXIT HALLWAY
IL-LC563 A203
START Hg: 30"
FINAL Hg:
START TIME:
END TIME:

Sampler: S. BLOOM

APPENDIX E

AllWest
2141 Mission St Ste 100
San Francisco, CA 94110
Telephone: 415-391-2510
Fax: 415-391-2008

BORING NUMBER SB-1

CLIENT The Unity Council
PROJECT NAME Fruitvale Sub
PROJECT NUMBER 17104.23
PROJECT LOCATION Oakland, CA
DATE STARTED 8/10/17 **COMPLETED** 8/10/17
GROUND ELEVATION _____ **HOLE SIZE** 2
DRILLING CONTRACTOR ECA
GROUND WATER LEVELS:
DRILLING METHOD Geoprobe
▽ **AT TIME OF DRILLING** 15.50 ft
LOGGED BY Leonard Niles **CHECKED BY** Leonard Niles
AT END OF DRILLING ---
NOTES Borehole backfilled with neat cement grout.
▼ **AFTER DRILLING** 15.10 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					0.3 Asphalt.	
			GM		(GM) Silty to Sandy GRAVEL, olive brown, fine to coarse sand and gravel, damp. 1.6	
			ML		(ML) Sandy SILT with Gravel, dark yellowish brown, fine sand, fine to coarse gravel, damp. 3.4 As above, decreasing fine gravel, increasing clay.	
			ML		(ML) Clayey SILT with Sand, dark grayish brown, fine to coarse sand, damp, minor fine gravel, very low plasticity. 5.8	
5	UD SB-1-4.5-5.0	100				PID = 0.1
			SM		6.3 (SM) Silty SAND with Gravel, yellowish brown, fine to coarse sand, fine to coarse gravel, damp.	
			ML		(ML) Clayey SILT with Sand, yellowish brown, fine sand, minor coarse sand to fine gravel, low plasticity, damp. 8.0	
			CL		(CL) Sandy CLAY, dark yellowish brown, fine sand, minor coarse sand to fine gravel, low to moderate plasticity, damp.	
10	UD SB-1-9.5-10.0	100			Increasing sand and gravel. 10.1	PID = 0.1
			SC		(SC) Clayey SAND, yellowish brown, fine to coarse sand, fine gravel, damp to moist, very low plasticity. As above, moist.	
15	UD SB-1-14.5-15.0	100			▼ 16.0 As above, moist to wet at 15.5'.	PID = 0.1

Bottom of borehole at 16.0 feet.

AllWest
2141 Mission St Ste 100
San Francisco, CA 94110
Telephone: 415-391-2510
Fax: 415-391-2008

BORING NUMBER SB-2

CLIENT The Unity Council
PROJECT NAME Fruitvale Sub
PROJECT NUMBER 17104.23
PROJECT LOCATION Oakland, CA
DATE STARTED 8/10/17 **COMPLETED** 8/10/17
GROUND ELEVATION _____ **HOLE SIZE** 2
DRILLING CONTRACTOR ECA
GROUND WATER LEVELS:
DRILLING METHOD Geoprobe
AT TIME OF DRILLING 16.00 ft
LOGGED BY Leonard Niles **CHECKED BY** Leonard Niles
AT END OF DRILLING ---
NOTES Borehole backfilled with neat cement grout.
AFTER DRILLING 16.10 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					0.3 Brick pavers.	
			ML		(ML) Clayey SILT with Sand and Gravel, grayish brown, fine to coarse sand, fine gravel, very low plasticity, damp.	
					3.0	
			SM		(SM) Silty SAND, yellowish brown, very fine to fine sand, damp to moist.	
					4.0	
5	UD SB-2-4.5-5.0	100	CL		(CL) Sandy CLAY, very dark yellowish brown, fine to coarse sand, fine gravel, low plasticity, damp.	PID = 0.1
					Color change to yellowish brown.	
					Increasing sand and fine gravel (7'-8.5' bgs).	
					7.8	
			CL		(CL) Silty CLAY with Sand, yellowish brown, minor fine sand, moderate plasticity, damp.	
					9.5	
10	UD SB-2-9.5-10.0	100	CL		(CL) Sandy CLAY, dark yellowish brown, fine to coarse sand, fine gravel, moderate plasticity, damp.	PID = 0.1
					As above, thin beds of Clayey SAND at 12.3'-12.4' and 13.8'-13.9', color change to yellowish brown.	
15	UD SB-2-14.5-15.0	100				PID = 0.1
					15.5	
			GC		(GC) Clayey GRAVEL, dark yellowish brown, fine to coarse sand, fine to coarse gravel, damp from 15.5'-16' bgs, moist to wet from 16'-19' bgs.	
					As above, moist to wet.	
					19.0	

Bottom of borehole at 19.0 feet.

AllWest
2141 Mission St Ste 100
San Francisco, CA 94110
Telephone: 415-391-2510
Fax: 415-391-2008

BORING NUMBER SB-3

CLIENT The Unity Council
PROJECT NAME Fruitvale Sub
PROJECT NUMBER 17104.23
PROJECT LOCATION Oakland, CA
DATE STARTED 8/10/17 **COMPLETED** 8/10/17
GROUND ELEVATION _____ **HOLE SIZE** 2
DRILLING CONTRACTOR ECA
GROUND WATER LEVELS:
DRILLING METHOD Geoprobe
▽ **AT TIME OF DRILLING** 22.20 ft
LOGGED BY Leonard Niles **CHECKED BY** Leonard Niles
AT END OF DRILLING ---
NOTES Borehole backfilled with neat cement grout.
▼ **AFTER DRILLING** 16.20 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					0.2 Lawn/turf.	
			ML		(ML) Sandy SILT, grayish brown, fine to coarse sand, fine gravel, dry to damp, very low plasticity.	
5	UD SB-3-4.5-5.0	100			5.0 Grades from Sandy SILT to Silty SAND.	PID = 0.1 PID = 0.2
			SM		(SM) Silty SAND, dark yellowish brown, fine sand, moist, very low plasticity.	
					8.0	
			GM		(GM) Silty GRAVEL, yellowish to reddish brown, fine to coarse sand, fine to coarse gravel, damp, greenish-brown serpentinite clasts.	
10	UD SB-3-9.5-10.0	100			10.3	PID = 0.1
			CL		(CL) Sandy CLAY, dark yellowish brown, fine to coarse sand, minor fine gravel, moderate to low plasticity, damp to moist.	
15	UD SB-3-14.5-15.0	100				PID = 0.1
					16.0 ▼	
			GC		(GC) Clayey GRAVEL, yellowish brown, fine to coarse sand, fine to coarse gravel, very low plasticity, damp to moist.	
					17.3	
			CL		(CL) Sandy CLAY, dark yellowish brown, fine to coarse sand, minor fine gravel, moist, moderate to high plasticity.	
20					21.0 As above, increasing gravel.	
			GC		(GC) Clayey GRAVEL, yellowish-reddish brown, fine to coarse sand, fine to coarse gravel, damp to moist.	
					▽ Moist to wet at 22.2'.	
					23.0	

Bottom of borehole at 23.0 feet.

APPENDIX F

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WORK ORDER NUMBER: 17-08-1091

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AllWest Environmental, Inc.

Client Project Name: FRUITVALE

Attention: Leonard Niles
2141 Mission Street
Suite 100
San Francisco, CA 94110-6331

Vikas Patel

Approved for release on 08/21/2017 by:
Vikas Patel
Project Manager

ResultLink ▸

Email your PM ▸

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Contents

Client Project Name: FRUITVALE
Work Order Number: 17-08-1091

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Work Order Narrative

Work Order: 17-08-1091 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/12/17. They were assigned to Work Order 17-08-1091.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	AllWest Environmental, Inc. 2141 Mission Street, Suite 100 San Francisco, CA 94110-6331	Work Order:	17-08-1091
		Project Name:	FRUITVALE
		PO Number:	17104.23
		Date/Time Received:	08/12/17 08:45
		Number of Containers:	2
Attn:	Leonard Niles		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVP-1	17-08-1091-1	08/10/17 12:37	1	Air
SVP-2	17-08-1091-2	08/10/17 13:28	1	Air

Return to Contents

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Detections Summary

Client:	AllWest Environmental, Inc.	Work Order:	17-08-1091
	2141 Mission Street, Suite 100	Project Name:	FRUITVALE
	San Francisco, CA 94110-6331	Received:	08/12/17
Attn:	Leonard Niles		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-1 (17-08-1091-1)						
Helium	0.119		0.0100	%v	ASTM D-1946 (M)	N/A
Tetrachloroethene	16		4.5	ug/m3	EPA TO-15	N/A
SVP-2 (17-08-1091-2)						
Tetrachloroethene	1000		34	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**17-08-1091-1-A**	**08/10/17 12:37**	**Air**	**GC 55**	**N/A**	**08/13/17 23:16**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.119	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**17-08-1091-2-A**	**08/10/17 13:28**	**Air**	**GC 55**	**N/A**	**08/14/17 00:10**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-1125**	**N/A**	**Air**	**GC 55**	**N/A**	**08/13/17 22:40**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	**17-08-1091-1-A**	**08/10/17 12:37**	**Air**	**GC/MS II**	**N/A**	**08/14/17 14:58**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
c-1,2-Dichloroethene	ND	2.7	1.34	
t-1,2-Dichloroethene	ND	2.7	1.34	
Tetrachloroethene	16	4.5	1.34	
Trichloroethene	ND	3.6	1.34	
Vinyl Chloride	ND	1.7	1.34	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-134	
1,2-Dichloroethane-d4	91	67-133	
Toluene-d8	98	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**17-08-1091-2-A**	**08/10/17 13:28**	**Air**	**GC/MS K**	**N/A**	**08/14/17 03:59**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
c-1,2-Dichloroethene	ND	2.9	1.44	
t-1,2-Dichloroethene	ND	2.9	1.44	
Trichloroethene	ND	3.9	1.44	
Vinyl Chloride	ND	1.8	1.44	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	97	67-133	
Toluene-d8	100	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	**17-08-1091-2-A**	**08/10/17 13:28**	**Air**	**GC/MS K**	**N/A**	**08/14/17 04:51**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
Tetrachloroethene	1000	34	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	68-134	
1,2-Dichloroethane-d4	99	67-133	
Toluene-d8	99	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-18937**	**N/A**	**Air**	**GC/MS K**	**N/A**	**08/14/17 01:27**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
Tetrachloroethene	ND	3.4	1.00	
Trichloroethene	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-134	
1,2-Dichloroethane-d4	95	67-133	
Toluene-d8	97	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-18939**	**N/A**	**Air**	**GC/MS II**	**N/A**	**08/13/17 22:45**	**170813L01**

Parameter	Result	RL	DF	Qualifiers
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
Tetrachloroethene	ND	3.4	1.00	
Trichloroethene	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-134	
1,2-Dichloroethane-d4	108	67-133	
Toluene-d8	99	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: ASTM D-1946 (M)
Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-1125	**LCS**	**Air**	**GC 55**	**N/A**	**08/13/17 19:38**	**170813L01**
099-12-872-1125	**LCSD**	**Air**	**GC 55**	**N/A**	**08/13/17 21:16**	**170813L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.8024	80	0.9055	91	80-120	12	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: EPA TO-15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-18937	**LCS**	**Air**	**GC/MS K**	**N/A**	**08/13/17 21:40**	**170813L01**
095-01-021-18937	**LCSD**	**Air**	**GC/MS K**	**N/A**	**08/13/17 22:36**	**170813L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
c-1,2-Dichloroethene	99.12	106.1	107	103.0	104	70-130	3	0-30	
t-1,2-Dichloroethene	99.12	105.5	106	101.5	102	70-130	4	0-30	
Tetrachloroethene	169.6	160.3	95	177.4	105	70-130	10	0-30	
Trichloroethene	134.3	142.1	106	141.2	105	70-130	1	0-30	
Vinyl Chloride	63.91	59.66	93	58.87	92	70-134	1	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110-6331

Project: FRUITVALE

Date Received: 08/12/17
Work Order: 17-08-1091
Preparation: N/A
Method: EPA TO-15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-18939	**LCS**	**Air**	**GC/MS II**	**N/A**	**08/13/17 20:04**	**170813L01**
095-01-021-18939	**LCSD**	**Air**	**GC/MS II**	**N/A**	**08/13/17 20:54**	**170813L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
c-1,2-Dichloroethene	99.12	101.9	103	104.3	105	70-130	2	0-30	
t-1,2-Dichloroethene	99.12	101.2	102	104.2	105	70-130	3	0-30	
Tetrachloroethene	169.6	175.4	103	176.3	104	70-130	1	0-30	
Trichloroethene	134.3	137.2	102	135.8	101	70-130	1	0-30	
Vinyl Chloride	63.91	69.29	108	66.33	104	70-134	4	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 17-08-1091 Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
SVP-1	-29.50 in Hg	-5.10 in Hg	LC389	Summa Canister 1L
SVP-2	-29.50 in Hg	-5.00 in Hg	LC081	Summa Canister 1L

Return to Contents

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Sample Analysis Summary Report

Work Order: 17-08-1091 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-1946 (M)	N/A	460	GC 55	2
EPA TO-15	N/A	866	GC/MS K	2
EPA TO-15	N/A	1087	GC/MS II	2

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 17-08-1091 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

AIR CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **17-08-1091**

DATE: 8/10/17
PAGE: 1 OF 1

LABORATORY CLIENT: ALLWEST ENVIRONMENTAL
ADDRESS: 2141 MISSION ST, STE 100
CITY: SAN FRANCISCO STATE: CA ZIP: 94110
TEL: (415) 391-2510 E-MAIL: LEONARD@ALLWESTI.COM

CLIENT PROJECT NAME / NO.: FRUITVALE
P.O. NO.: 17104.23
PROJECT CONTACT: LEONARD NILES
LAB CONTACT OR QUOTE NO.:
PROJECT ADDRESS: 1221 FRUITVALE AVE
SAMPLER(S): (PRINT) S. BLOOM
CITY: OAKLAND STATE: CA ZIP:

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD: ☐ COELT EDF ☐ OTHER
UNITS:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	MATRIX: Indoor (I) Soil Vap. (SV) Ambient (A)	SAMPLING EQUIPMENT: Media ID	Canister Size 6L or 1L	Flow Controller ID	START SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	STOP SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	TO-15(M) PCE, TCE, cis-1,2-DCE, TRANS-1,2-DCE, VINYL CHLORIDE ONLY			ASTM D1946 (He)	
1	SVP-1	SVP-1	SV	LC389	1L	SGM347	8/10/17	1233	30	8/10/17	1237	5"	X			X	
2	SVP-2	SVP-2	SV	LC081	1L	SGM299	8/10/17	1323	30	8/10/17	1328	5"	X			X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Jana Adams			
Relinquished by: (Signature)	Received by: (Signature/Affiliation) ECL	Date: 08/12/17	Time: 0845
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

Return to Contents

191

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

Ship From
ALLWEST
SARA BLOOM
2141 MISSION STREET
#100
SAN FRANCISCO, CA 94110

Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 9 lb(s)
Reference:
ALLWEST
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 537194749 **NPS**

ORC **A**

GARDEN GROVE

D92845A

70698617

Print Date: 8/10/2017 4:19 PM

Package 1 of 2

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

Return to Contents

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WORK ORDER NUMBER: 17-08- 1091

SAMPLE RECEIPT CHECKLIST

COOLER ∅ OF ∅

CLIENT: Allwest. Environmental

DATE: 08 / 12 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): _____°C (w/ CF): _____°C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☑ Air ☐ Filter Checked by: 728

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present (BOX) ☐ N/A Checked by: 728

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 8or

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☑ No relinquished date ☑ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☑ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 8or

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: 728

Return to Contents

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1708524

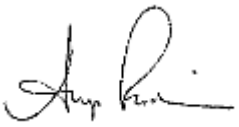
Report Created for: All West Environmental, Inc

2141 Mission Street, Ste 100
San Francisco, CA 94110

Project Contact: Leonard Niles
Project P.O.:
Project Name: 17104.23; Fruitvale - Oakland

Project Received: 08/11/2017

Analytical Report reviewed & approved for release on 08/21/2017 by:



Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

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CA ELAP 1644 ♦ NELAP 4033ORELAP

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

Glossary of Terms & Qualifier Definitions

Client: All West Environmental, Inc
Project: 17104.23; Fruitvale - Oakland
WorkOrder: 1708524

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
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
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
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

b1	Aqueous sample that contains greater than ~1 vol. % sediment

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Glossary of Terms & Qualifier Definitions

Client: All West Environmental, Inc
Project: 17104.23; Fruitvale - Oakland
WorkOrder: 1708524

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/11/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-4.5-5.0	1708524-001A	Soil	08/10/2017 09:15	GC28	143536

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 14:15
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 14:15
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 14:15
Tetrachloroethene	ND	0.0050	1	08/20/2017 14:15
Trichloroethene	ND	0.0050	1	08/20/2017 14:15
Vinyl Chloride	ND	0.0050	1	08/20/2017 14:15

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 14:15
Toluene-d8	114	70-130	08/20/2017 14:15
4-BFB	89	70-130	08/20/2017 14:15
Benzene-d6	98	60-140	08/20/2017 14:15
Ethylbenzene-d10	100	60-140	08/20/2017 14:15
1,2-DCB-d4	73	60-140	08/20/2017 14:15

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-9.5-10.0	1708524-002A	Soil	08/10/2017 09:42	GC28	143536

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 14:55
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 14:55
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 14:55
Tetrachloroethene	ND	0.0050	1	08/20/2017 14:55
Trichloroethene	ND	0.0050	1	08/20/2017 14:55
Vinyl Chloride	ND	0.0050	1	08/20/2017 14:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 14:55
Toluene-d8	114	70-130	08/20/2017 14:55
4-BFB	89	70-130	08/20/2017 14:55
Benzene-d6	99	60-140	08/20/2017 14:55
Ethylbenzene-d10	101	60-140	08/20/2017 14:55
1,2-DCB-d4	75	60-140	08/20/2017 14:55

Analyst(s): KF

(Cont.)

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/11/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-14.5-15.0	**1708524-003A**	**Soil**	**08/10/2017 09:52**	**GC28**	**143536**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 15:35
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 15:35
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 15:35
Tetrachloroethene	ND	0.0050	1	08/20/2017 15:35
Trichloroethene	ND	0.0050	1	08/20/2017 15:35
Vinyl Chloride	ND	0.0050	1	08/20/2017 15:35

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 15:35
Toluene-d8	114	70-130	08/20/2017 15:35
4-BFB	89	70-130	08/20/2017 15:35
Benzene-d6	96	60-140	08/20/2017 15:35
Ethylbenzene-d10	94	60-140	08/20/2017 15:35
1,2-DCB-d4	71	60-140	08/20/2017 15:35

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-4.5-5.0	**1708524-005A**	**Soil**	**08/10/2017 11:12**	**GC28**	**143536**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 16:15
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 16:15
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 16:15
Tetrachloroethene	ND	0.0050	1	08/20/2017 16:15
Trichloroethene	ND	0.0050	1	08/20/2017 16:15
Vinyl Chloride	ND	0.0050	1	08/20/2017 16:15

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 16:15
Toluene-d8	112	70-130	08/20/2017 16:15
4-BFB	90	70-130	08/20/2017 16:15
Benzene-d6	94	60-140	08/20/2017 16:15
Ethylbenzene-d10	94	60-140	08/20/2017 16:15
1,2-DCB-d4	72	60-140	08/20/2017 16:15

Analyst(s): KF

(Cont.)

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

Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/11/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-9.5-10.0	**1708524-006A**	**Soil**	**08/10/2017 11:14**	**GC28**	**143536**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 16:55
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 16:55
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 16:55
Tetrachloroethene	ND	0.0050	1	08/20/2017 16:55
Trichloroethene	ND	0.0050	1	08/20/2017 16:55
Vinyl Chloride	ND	0.0050	1	08/20/2017 16:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 16:55
Toluene-d8	114	70-130	08/20/2017 16:55
4-BFB	90	70-130	08/20/2017 16:55
Benzene-d6	93	60-140	08/20/2017 16:55
Ethylbenzene-d10	92	60-140	08/20/2017 16:55
1,2-DCB-d4	72	60-140	08/20/2017 16:55

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-14.5-15.0	**1708524-007A**	**Soil**	**08/10/2017 11:23**	**GC28**	**143536**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 17:35
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 17:35
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 17:35
Tetrachloroethene	ND	0.0050	1	08/20/2017 17:35
Trichloroethene	ND	0.0050	1	08/20/2017 17:35
Vinyl Chloride	ND	0.0050	1	08/20/2017 17:35

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	08/20/2017 17:35
Toluene-d8	112	70-130	08/20/2017 17:35
4-BFB	87	70-130	08/20/2017 17:35
Benzene-d6	96	60-140	08/20/2017 17:35
Ethylbenzene-d10	95	60-140	08/20/2017 17:35
1,2-DCB-d4	73	60-140	08/20/2017 17:35

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/11/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-4.5-5.0	1708524-009A	Soil	08/10/2017 13:00	GC28	143536

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 18:15
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 18:15
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 18:15
Tetrachloroethene	**0.015**	0.0050	1	08/20/2017 18:15
Trichloroethene	ND	0.0050	1	08/20/2017 18:15
Vinyl Chloride	ND	0.0050	1	08/20/2017 18:15

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 18:15
Toluene-d8	113	70-130	08/20/2017 18:15
4-BFB	90	70-130	08/20/2017 18:15
Benzene-d6	96	60-140	08/20/2017 18:15
Ethylbenzene-d10	94	60-140	08/20/2017 18:15
1,2-DCB-d4	72	60-140	08/20/2017 18:15

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-9.5-10.0	1708524-010A	Soil	08/10/2017 13:05	GC28	143536

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 18:55
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 18:55
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 18:55
Tetrachloroethene	**0.056**	0.0050	1	08/20/2017 18:55
Trichloroethene	ND	0.0050	1	08/20/2017 18:55
Vinyl Chloride	ND	0.0050	1	08/20/2017 18:55

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	08/20/2017 18:55
Toluene-d8	115	70-130	08/20/2017 18:55
4-BFB	90	70-130	08/20/2017 18:55
Benzene-d6	100	60-140	08/20/2017 18:55
Ethylbenzene-d10	100	60-140	08/20/2017 18:55
1,2-DCB-d4	75	60-140	08/20/2017 18:55

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/11/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	mg/Kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-14.5-15.0	**1708524-011A**	**Soil**	**08/10/2017 13:15**	**GC28**	**143536**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.0050	1	08/20/2017 13:35
cis-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 13:35
trans-1,2-Dichloroethene	ND	0.0050	1	08/20/2017 13:35
Tetrachloroethene	ND	0.0050	1	08/20/2017 13:35
Trichloroethene	ND	0.0050	1	08/20/2017 13:35
Vinyl Chloride	ND	0.0050	1	08/20/2017 13:35

Surrogates	REC (%)	Limits	
Dibromofluoromethane	107	70-130	08/20/2017 13:35
Toluene-d8	113	70-130	08/20/2017 13:35
4-BFB	90	70-130	08/20/2017 13:35
Benzene-d6	98	60-140	08/20/2017 13:35
Ethylbenzene-d10	99	60-140	08/20/2017 13:35
1,2-DCB-d4	74	60-140	08/20/2017 13:35

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/17/17-8/18/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-GW	1708524-004A	Water	08/10/2017 09:22	GC10	143798

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.50	1	08/17/2017 01:40
cis-1,2-Dichloroethene	ND	0.50	1	08/17/2017 01:40
trans-1,2-Dichloroethene	ND	0.50	1	08/17/2017 01:40
Tetrachloroethene	ND	0.50	1	08/17/2017 01:40
Trichloroethene	ND	0.50	1	08/17/2017 01:40
Vinyl Chloride	ND	0.50	1	08/17/2017 01:40
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	101	70-130		08/17/2017 01:40
Toluene-d8	102	70-130		08/17/2017 01:40
4-BFB	90	70-130		08/17/2017 01:40

Analyst(s): KF Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-GW	1708524-008A	Water	08/10/2017 10:18	GC10	143798

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.50	1	08/17/2017 02:21
cis-1,2-Dichloroethene	ND	0.50	1	08/17/2017 02:21
trans-1,2-Dichloroethene	ND	0.50	1	08/17/2017 02:21
Tetrachloroethene	ND	0.50	1	08/17/2017 02:21
Trichloroethene	ND	0.50	1	08/17/2017 02:21
Vinyl Chloride	ND	0.50	1	08/17/2017 02:21
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	101	70-130		08/17/2017 02:21
Toluene-d8	102	70-130		08/17/2017 02:21
4-BFB	91	70-130		08/17/2017 02:21

Analyst(s): KF Analytical Comments: b1

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Received:	8/11/17 13:10	**Extraction Method:**	SW5030B
Date Prepared:	8/17/17-8/18/17	**Analytical Method:**	SW8260B
Project:	17104.23; Fruitvale - Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-GW	**1708524-012A**	**Water**	**08/10/2017 11:52**	**GC16**	**143798**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	5000	10,000	08/18/2017 14:50
cis-1,2-Dichloroethene	ND	5000	10,000	08/18/2017 14:50
trans-1,2-Dichloroethene	ND	5000	10,000	08/18/2017 14:50
Tetrachloroethene	**120,000**	5000	10,000	08/18/2017 14:50
Trichloroethene	ND	5000	10,000	08/18/2017 14:50
Vinyl Chloride	ND	5000	10,000	08/18/2017 14:50

Surrogates	REC (%)	Limits	
Dibromofluoromethane	116	70-130	08/18/2017 14:50
Toluene-d8	97	70-130	08/18/2017 14:50
4-BFB	130	70-130	08/18/2017 14:50

Analyst(s): AK Analytical Comments: b1

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	0.980	0.10	1	-	98	72-156
tert-Amyl methyl ether (TAME)	ND	0.0398	0.0050	0.050	-	80	53-116
Benzene	ND	0.0467	0.0050	0.050	-	93	63-137
Bromobenzene	ND	0.0453	0.0050	0.050	-	91	68-126
Bromochloromethane	ND	0.0441	0.0050	0.050	-	88	72-126
Bromodichloromethane	ND	0.0451	0.0050	0.050	-	90	61-127
Bromoform	ND	0.0325	0.0050	0.050	-	65	49-100
Bromomethane	ND	0.0434	0.0050	0.050	-	87	40-161
2-Butanone (MEK)	ND	0.184	0.020	0.20	-	92	43-157
t-Butyl alcohol (TBA)	ND	0.176	0.050	0.20	-	88	41-135
n-Butyl benzene	ND	0.0703	0.0050	0.050	-	141	102-160
sec-Butyl benzene	ND	0.0730	0.0050	0.050	-	146	74-168
tert-Butyl benzene	ND	0.0655	0.0050	0.050	-	131	88-157
Carbon Disulfide	ND	0.0513	0.0050	0.050	-	103	42-151
Carbon Tetrachloride	ND	0.0521	0.0050	0.050	-	104	49-149
Chlorobenzene	ND	0.0450	0.0050	0.050	-	90	77-121
Chloroethane	ND	0.0435	0.0050	0.050	-	87	41-134
Chloroform	ND	0.0471	0.0050	0.050	-	94	69-133
Chloromethane	ND	0.0402	0.0050	0.050	-	80	31-119
2-Chlorotoluene	ND	0.0540	0.0050	0.050	-	108	79-139
4-Chlorotoluene	ND	0.0504	0.0050	0.050	-	101	77-138
Dibromochloromethane	ND	0.0395	0.0050	0.050	-	79	58-121
1,2-Dibromo-3-chloropropane	ND	0.0163	0.0040	0.020	-	82	39-115
1,2-Dibromoethane (EDB)	ND	0.0449	0.0040	0.050	-	90	67-119
Dibromomethane	ND	0.0410	0.0050	0.050	-	82	66-117
1,2-Dichlorobenzene	ND	0.0376	0.0050	0.050	-	75	59-109
1,3-Dichlorobenzene	ND	0.0484	0.0050	0.050	-	97	75-130
1,4-Dichlorobenzene	ND	0.0440	0.0050	0.050	-	88	71-122
Dichlorodifluoromethane	ND	0.0189	0.0050	0.050	-	38, F2	43-68
1,1-Dichloroethane	ND	0.0490	0.0050	0.050	-	98	62-139
1,2-Dichloroethane (1,2-DCA)	ND	0.0442	0.0040	0.050	-	88	58-135
1,1-Dichloroethene	ND	0.0461	0.0050	0.050	-	92	42-145
cis-1,2-Dichloroethene	ND	0.0463	0.0050	0.050	-	93	67-129
trans-1,2-Dichloroethene	ND	0.0472	0.0050	0.050	-	94	54-139
1,2-Dichloropropane	ND	0.0458	0.0050	0.050	-	92	68-125
1,3-Dichloropropane	ND	0.0470	0.0050	0.050	-	94	65-125
2,2-Dichloropropane	ND	0.0527	0.0050	0.050	-	105	45-151

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0496	0.0050	0.050	-	99	64-138
cis-1,3-Dichloropropene	ND	0.0518	0.0050	0.050	-	104	62-134
trans-1,3-Dichloropropene	ND	0.0458	0.0050	0.050	-	92	59-128
Diisopropyl ether (DIPE)	ND	0.0465	0.0050	0.050	-	93	52-129
Ethanol	ND	2.84	0.50	2.5	-	114, F2	40-113
Ethylbenzene	ND	0.0532	0.0050	0.050	-	106	74-142
Ethyl tert-butyl ether (ETBE)	ND	0.0446	0.0050	0.050	-	89	53-125
Freon 113	ND	0.0416	0.0050	0.050	-	83	51-126
Hexachlorobutadiene	ND	0.0671	0.0050	0.050	-	134	70-158
Hexachloroethane	ND	0.0548	0.0050	0.050	-	110	80-160
2-Hexanone	ND	0.0392	0.0050	0.050	-	78	41-116
Isopropylbenzene	ND	0.0555	0.0050	0.050	-	111	77-146
4-Isopropyl toluene	ND	0.0642	0.0050	0.050	-	128	96-159
Methyl-t-butyl ether (MTBE)	ND	0.0415	0.0050	0.050	-	83	58-122
Methylene chloride	ND	0.0488	0.0050	0.050	-	98	58-135
4-Methyl-2-pentanone (MIBK)	ND	0.0398	0.0050	0.050	-	80	40-112
Naphthalene	ND	0.0221	0.0050	0.050	-	44	23-73
n-Propyl benzene	ND	0.0640	0.0050	0.050	-	128	82-160
Styrene	ND	0.0463	0.0050	0.050	-	93	68-124
1,1,1,2-Tetrachloroethane	ND	0.0484	0.0050	0.050	-	97	70-128
1,1,2,2-Tetrachloroethane	ND	0.0427	0.0050	0.050	-	85	57-111
Tetrachloroethene	ND	0.0541	0.0050	0.050	-	108	73-145
Toluene	ND	0.0517	0.0050	0.050	-	103	76-130
1,2,3-Trichlorobenzene	ND	0.0275	0.0050	0.050	-	55	43-72
1,2,4-Trichlorobenzene	ND	0.0360	0.0050	0.050	-	72	47-95
1,1,1-Trichloroethane	ND	0.0504	0.0050	0.050	-	101	60-141
1,1,2-Trichloroethane	ND	0.0445	0.0050	0.050	-	89	62-118
Trichloroethene	ND	0.0459	0.0050	0.050	-	92	72-132
Trichlorofluoromethane	ND	0.0439	0.0050	0.050	-	88	43-135
1,2,3-Trichloropropane	ND	0.0467	0.0050	0.050	-	93	57-122
1,2,4-Trimethylbenzene	ND	0.0578	0.0050	0.050	-	116	81-152
1,3,5-Trimethylbenzene	ND	0.0610	0.0050	0.050	-	122	78-160
Vinyl Chloride	ND	0.0425	0.0050	0.050	-	85	42-131
Xylenes, Total	ND	0.152	0.0050	0.15	-	101	70-130

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.1202	0.125		0.12	96	100	70-130
Toluene-d8	0.144	0.143		0.12	115	115	70-130
4-BFB	0.01252	0.0134		0.012	100	107	70-130
Benzene-d6	0.09364	0.103		0.10	94	103	60-140
Ethylbenzene-d10	0.1159	0.124		0.10	116	125	60-140
1,2-DCB-d4	0.08317	0.0824		0.10	83	82	60-140

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.804	0.825	1	ND	80	82	72-156	2.52	20
tert-Amyl methyl ether (TAME)	0.0341	0.0349	0.050	ND	68	70	53-116	2.42	20
Benzene	0.0404	0.0417	0.050	ND	81	83	63-137	3.19	20
Bromobenzene	0.0408	0.0414	0.050	ND	82	83	68-126	1.38	20
Bromochloromethane	0.0374	0.0380	0.050	ND	75	76	72-126	1.46	20
Bromodichloromethane	0.0402	0.0406	0.050	ND	80	81	61-127	1.02	20
Bromoform	0.0290	0.0294	0.050	ND	58	59	49-100	1.50	20
Bromomethane	0.0358	0.0353	0.050	ND	72	71	40-161	1.34	20
2-Butanone (MEK)	0.147	0.150	0.20	ND	74	75	43-157	2.06	20
t-Butyl alcohol (TBA)	0.145	0.148	0.20	ND	73	74	41-135	1.56	20
n-Butyl benzene	0.0598	0.0618	0.050	ND	120	124	102-160	3.24	20
sec-Butyl benzene	0.0581	0.0627	0.050	ND	116	125	74-168	7.65	20
tert-Butyl benzene	0.0557	0.0575	0.050	ND	111	115	88-157	3.27	20
Carbon Disulfide	0.0434	0.0450	0.050	ND	87	90	42-151	3.68	20
Carbon Tetrachloride	0.0452	0.0469	0.050	ND	90	94	49-149	3.65	20
Chlorobenzene	0.0397	0.0408	0.050	ND	79	82	77-121	2.94	20
Chloroethane	0.0372	0.0363	0.050	ND	74	73	41-134	2.58	20
Chloroform	0.0410	0.0421	0.050	ND	82	84	69-133	2.69	20
Chloromethane	0.0326	0.0325	0.050	ND	65	65	31-119	0	20
2-Chlorotoluene	0.0472	0.0485	0.050	ND	94	97	79-139	2.87	20
4-Chlorotoluene	0.0446	0.0453	0.050	ND	89	91	77-138	1.55	20
Dibromochloromethane	0.0349	0.0356	0.050	ND	70	71	58-121	1.96	20
1,2-Dibromo-3-chloropropane	0.0147	0.0147	0.020	ND	74	74	39-115	0	20
1,2-Dibromoethane (EDB)	0.0389	0.0400	0.050	ND	78	80	67-119	2.78	20
Dibromomethane	0.0359	0.0364	0.050	ND	72	73	66-117	1.44	20
1,2-Dichlorobenzene	0.0342	0.0345	0.050	ND	68	69	59-109	0.731	20
1,3-Dichlorobenzene	0.0422	0.0435	0.050	ND	84	87	75-130	3.14	20
1,4-Dichlorobenzene	0.0396	0.0402	0.050	ND	79	80	71-122	1.45	20
Dichlorodifluoromethane	0.0143	0.0144	0.050	ND	29,F1	29,F1	43-68	0	20
1,1-Dichloroethane	0.0422	0.0429	0.050	ND	84	86	62-139	1.67	20
1,2-Dichloroethane (1,2-DCA)	0.0384	0.0399	0.050	ND	77	80	58-135	3.84	20
1,1-Dichloroethene	0.0392	0.0400	0.050	ND	78	80	42-145	1.78	20
cis-1,2-Dichloroethene	0.0400	0.0406	0.050	ND	80	81	67-129	1.52	20
trans-1,2-Dichloroethene	0.0396	0.0405	0.050	ND	79	81	54-139	2.25	20
1,2-Dichloropropane	0.0396	0.0405	0.050	ND	79	81	68-125	2.38	20
1,3-Dichloropropane	0.0405	0.0411	0.050	ND	81	82	65-125	1.36	20
2,2-Dichloropropane	0.0457	0.0470	0.050	ND	91	94	45-151	2.62	20

(Cont.)

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0446	0.0438	0.050	ND	89	88	64-138	1.66	20
cis-1,3-Dichloropropene	0.0445	0.0459	0.050	ND	89	92	62-134	3.20	20
trans-1,3-Dichloropropene	0.0394	0.0406	0.050	ND	79	81	59-128	2.85	20
Diisopropyl ether (DIPE)	0.0395	0.0399	0.050	ND	79	80	52-129	1.04	20
Ethylbenzene	0.0458	0.0477	0.050	ND	92	95	74-142	4.06	20
Ethyl tert-butyl ether (ETBE)	0.0377	0.0382	0.050	ND	75	76	53-125	1.24	20
Freon 113	0.0337	0.0349	0.050	ND	67	70	51-126	3.34	20
Hexachlorobutadiene	0.0585	0.0619	0.050	ND	117	124	70-158	5.70	20
Hexachloroethane	0.0482	0.0503	0.050	ND	91	95	80-160	4.23	20
2-Hexanone	0.0334	0.0339	0.050	ND	67	68	41-116	1.70	20
Isopropylbenzene	0.0466	0.0496	0.050	ND	93	99	77-146	6.31	20
4-Isopropyl toluene	0.0561	0.0576	0.050	ND	112	115	96-159	2.73	20
Methyl-t-butyl ether (MTBE)	0.0355	0.0360	0.050	ND	71	72	58-122	1.23	20
Methylene chloride	0.0416	0.0424	0.050	ND	83	85	58-135	1.89	20
4-Methyl-2-pentanone (MIBK)	0.0337	0.0344	0.050	ND	67	69	40-112	1.96	20
Naphthalene	0.0213	0.0208	0.050	ND	43	42	23-73	2.59	20
n-Propyl benzene	0.0539	0.0562	0.050	ND	108	112	82-160	4.18	20
Styrene	0.0399	0.0409	0.050	ND	80	82	68-124	2.50	20
1,1,1,2-Tetrachloroethane	0.0432	0.0443	0.050	ND	86	89	70-128	2.50	20
1,1,2,2-Tetrachloroethane	0.0380	0.0377	0.050	ND	76	75	57-111	0.781	20
Tetrachloroethene	0.0460	0.0477	0.050	ND	92	95	73-145	3.58	20
Toluene	0.0447	0.0459	0.050	ND	89	92	76-130	2.60	20
1,2,3-Trichlorobenzene	0.0269	0.0265	0.050	ND	54	53	43-72	1.42	20
1,2,4-Trichlorobenzene	0.0341	0.0342	0.050	ND	68	68	47-95	0	20
1,1,1-Trichloroethane	0.0440	0.0458	0.050	ND	88	92	60-141	4.13	20
1,1,2-Trichloroethane	0.0383	0.0393	0.050	ND	77	79	62-118	2.64	20
Trichloroethene	0.0392	0.0408	0.050	ND	78	82	72-132	4.00	20
Trichlorofluoromethane	0.0371	0.0382	0.050	ND	74	76	43-135	2.95	20
1,2,3-Trichloropropane	0.0410	0.0413	0.050	ND	82	83	57-122	0.645	20
1,2,4-Trimethylbenzene	0.0518	0.0528	0.050	ND	103	106	81-152	1.98	20
1,3,5-Trimethylbenzene	0.0548	0.0557	0.050	ND	110	111	78-160	1.57	20
Vinyl Chloride	0.0353	0.0350	0.050	ND	71	70	42-131	0.820	20
Xylenes, Total	0.128	0.134	0.15	ND	85	89	70-130	4.90	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/11/17	**BatchID:**	143536
Date Analyzed:	8/12/17 - 8/14/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS-143536 1708514-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.125	0.124	0.12		100	99	70-130	1.05	20
Toluene-d8	0.142	0.143	0.12		113	114	70-130	0.816	20
4-BFB	0.0137	0.0137	0.012		110	110	70-130	0	20
Benzene-d6	0.0888	0.0938	0.10		89	94	60-140	5.49	20
Ethylbenzene-d10	0.103	0.111	0.10		103	111	60-140	7.49	20
1,2-DCB-d4	0.0743	0.0779	0.10		74	78	60-140	4.69	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/16/17	**BatchID:**	143798
Date Analyzed:	8/16/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS/LCSD-143798

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/16/17	**BatchID:**	143798
Date Analyzed:	8/16/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS/LCSD-143798

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-
Surrogate Recovery					
Dibromofluoromethane	25.62		25	102	70-130
Toluene-d8	25.42		25	102	70-130
4-BFB	2.289		2.5	92	70-130

(Cont.)

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/16/17	**BatchID:**	143798
Date Analyzed:	8/16/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS/LCSD-143798

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	180	183	200	90	92	46-155	1.99	20
tert-Amyl methyl ether (TAME)	9.76	9.93	10	98	99	54-140	1.74	20
Benzene	9.72	9.79	10	97	98	47-158	0.669	20
Bromobenzene	9.53	9.68	10	95	97	50-155	1.58	20
Bromochloromethane	9.59	9.65	10	96	96	48-160	0	20
Bromodichloromethane	10.6	10.9	10	106	109	60-156	2.55	20
Bromoform	9.75	9.99	10	98	100	43-149	2.44	20
Bromomethane	8.89	8.57	10	89	86	61-159	3.65	20
2-Butanone (MEK)	37.5	38.8	40	94	97	61-124	3.36	20
t-Butyl alcohol (TBA)	36.8	38.5	40	92	96	42-140	4.64	20
n-Butyl benzene	10.2	10.3	10	102	103	74-138	1.59	20
sec-Butyl benzene	9.77	10.0	10	98	100	72-142	2.40	20
tert-Butyl benzene	9.92	10.2	10	99	101	74-140	2.23	20
Carbon Disulfide	10.4	10.4	10	104	104	64-127	0	20
Carbon Tetrachloride	10.4	10.7	10	104	107	61-158	2.72	20
Chlorobenzene	9.44	9.66	10	94	97	43-157	2.29	20
Chloroethane	8.96	8.48	10	90	85	50-127	5.51	20
Chloroform	9.97	10.3	10	100	103	56-154	3.06	20
Chloromethane	8.56	8.16	10	86	82	41-132	4.76	20
2-Chlorotoluene	9.76	9.98	10	98	100	50-155	2.16	20
4-Chlorotoluene	9.42	9.51	10	94	95	53-153	0.900	20
Dibromochloromethane	9.48	9.81	10	95	98	49-156	3.40	20
1,2-Dibromo-3-chloropropane	3.89	4.00	4	97	100	46-149	2.77	20
1,2-Dibromoethane (EDB)	9.87	10.2	10	99	103	44-155	3.83	20
Dibromomethane	9.88	10.1	10	99	101	50-157	1.76	20
1,2-Dichlorobenzene	9.32	9.50	10	93	95	48-156	1.89	20
1,3-Dichlorobenzene	9.72	9.86	10	97	99	49-159	1.47	20
1,4-Dichlorobenzene	9.42	9.62	10	94	96	51-151	2.07	20
Dichlorodifluoromethane	6.44	6.24	10	64	62	61-117	3.11	20
1,1-Dichloroethane	9.88	10.0	10	99	100	53-153	1.38	20
1,2-Dichloroethane (1,2-DCA)	9.79	10.1	10	98	101	66-125	2.81	20
1,1-Dichloroethene	9.16	9.30	10	92	93	47-149	1.47	20
cis-1,2-Dichloroethene	9.70	9.90	10	97	99	54-155	2.02	20
trans-1,2-Dichloroethene	9.33	9.49	10	93	95	46-151	1.69	20
1,2-Dichloropropane	9.78	10.0	10	98	100	54-153	2.35	20
1,3-Dichloropropane	9.69	9.99	10	97	100	49-150	3.08	20
2,2-Dichloropropane	10.7	10.8	10	107	109	74-147	1.68	20
1,1-Dichloropropene	9.81	9.95	10	98	99	54-150	1.40	20
cis-1,3-Dichloropropene	10.5	11.0	10	105	110	55-159	4.78	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1708524
Date Prepared:	8/16/17	**BatchID:**	143798
Date Analyzed:	8/16/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	17104.23; Fruitvale - Oakland	**Sample ID:**	MB/LCS/LCSD-143798

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	9.82	10.2	10	98	102	74-131	3.70	20
Diisopropyl ether (DIPE)	9.86	10.0	10	99	100	57-136	1.51	20
Ethylbenzene	9.90	10.0	10	99	100	60-152	1.06	20
Ethyl tert-butyl ether (ETBE)	9.99	10.1	10	100	101	55-137	1.42	20
Freon 113	8.92	9.01	10	89	90	47-138	1.08	20
Hexachlorobutadiene	10.6	10.9	10	106	109	66-160	2.42	20
Hexachloroethane	9.12	9.33	10	91	93	75-130	2.23	20
2-Hexanone	9.75	10.0	10	97	100	70-115	2.54	20
Isopropylbenzene	10.2	10.2	10	103	102	59-156	0.0608	20
4-Isopropyl toluene	9.95	10.2	10	100	102	75-138	2.54	20
Methyl-t-butyl ether (MTBE)	9.41	9.68	10	94	97	53-139	2.76	20
Methylene chloride	9.52	9.59	10	95	96	66-127	0.698	20
4-Methyl-2-pentanone (MIBK)	9.74	10.3	10	97	103	42-153	5.41	20
Naphthalene	9.31	9.51	10	93	95	66-127	2.05	20
n-Propyl benzene	9.75	9.93	10	97	99	54-155	1.91	20
Styrene	10.4	10.4	10	104	105	51-152	0.675	20
1,1,1,2-Tetrachloroethane	10.4	10.7	10	104	107	58-159	2.49	20
1,1,2,2-Tetrachloroethane	9.96	10.2	10	100	102	51-150	2.56	20
Tetrachloroethene	9.26	9.58	10	93	96	55-145	3.38	20
Toluene	9.58	9.81	10	96	98	52-137	2.39	20
1,2,3-Trichlorobenzene	9.65	9.92	10	97	99	70-136	2.79	20
1,2,4-Trichlorobenzene	10.2	10.5	10	102	105	74-137	2.91	20
1,1,1-Trichloroethane	10.2	10.4	10	102	105	57-156	2.00	20
1,1,2-Trichloroethane	9.64	9.86	10	96	99	51-150	2.22	20
Trichloroethene	9.06	9.23	10	91	92	43-157	1.80	20
Trichlorofluoromethane	9.33	9.42	10	93	94	50-147	0.875	20
1,2,3-Trichloropropane	9.42	9.64	10	94	96	41-152	2.37	20
1,2,4-Trimethylbenzene	10.3	10.4	10	103	104	57-157	1.18	20
1,3,5-Trimethylbenzene	10.2	10.4	10	102	104	56-159	2.07	20
Vinyl Chloride	9.32	8.81	10	93	88	42-137	5.62	20
Xylenes, Total	29.7	30.0	30	99	100	70-130	1.17	20
Surrogate Recovery								
Dibromofluoromethane	26.0	26.0	25	104	104	70-130	0	20
Toluene-d8	25.5	25.7	25	102	103	70-130	0.776	20
4-BFB	2.62	2.54	2.5	105	102	70-130	3.05	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1708524 **ClientCode: AWE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Leonard Niles
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(360) 618-2789 FAX: (415) 391-2008

Email: Leonard@allwest1.com
cc/3rd Party: sara@allwest1.com;
PO:
ProjectNo: 17104.23; Fruitvale - Oakland

Bill to:
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com

Requested TAT: 5 days;

Date Received: **08/11/2017**
Date Logged: **08/11/2017**

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
1708524-001	SB-1-4.5-5.0	Soil	8/10/2017 09:15	☐	A											
1708524-002	SB-1-9.5-10.0	Soil	8/10/2017 09:42	☐	A											
1708524-003	SB-1-14.5-15.0	Soil	8/10/2017 09:52	☐	A											
1708524-004	SB-1-GW	Water	8/10/2017 09:22	☐		A										
1708524-005	SB-2-4.5-5.0	Soil	8/10/2017 11:12	☐	A											
1708524-006	SB-2-9.5-10.0	Soil	8/10/2017 11:14	☐	A											
1708524-007	SB-2-14.5-15.0	Soil	8/10/2017 11:23	☐	A											
1708524-008	SB-2-GW	Water	8/10/2017 10:18	☐		A										
1708524-009	SB-3-4.5-5.0	Soil	8/10/2017 13:00	☐	A											
1708524-010	SB-3-9.5-10.0	Soil	8/10/2017 13:05	☐	A											
1708524-011	SB-3-14.5-15.0	Soil	8/10/2017 13:15	☐	A											
1708524-012	SB-3-GW	Water	8/10/2017 11:52	☐		A										

Test Legend:

1	8260VOC_S	2	8260VOC_W	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Alexandra Iniguez

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.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC **Project:** 17104.23; Fruitvale - Oakland **Work Order:** 1708524
Client Contact: Leonard Niles **QC Level:** LEVEL 2
Contact's Email: Leonard@allwest1.com **Comments:** **Date Logged:** 8/11/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ 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
1708524-001A	SB-1-4.5-5.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 9:15	5 days		☐	
1708524-002A	SB-1-9.5-10.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 9:42	5 days		☐	
1708524-003A	SB-1-14.5-15.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 9:52	5 days		☐	
1708524-004A	SB-1-GW	Water	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	2	VOA w/ HCl	☐	8/10/2017 9:22	5 days	25%+	☐	
1708524-005A	SB-2-4.5-5.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 11:12	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:** 17104.23; Fruitvale - Oakland **Work Order:** 1708524
Client Contact: Leonard Niles **QC Level:** LEVEL 2
Contact's Email: Leonard@allwest1.com **Comments:** **Date Logged:** 8/11/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ 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
1708524-006A	SB-2-9.5-10.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 11:14	5 days		☐	
1708524-007A	SB-2-14.5-15.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 11:23	5 days		☐	
1708524-008A	SB-2-GW	Water	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	2	VOA w/ HCl	☐	8/10/2017 10:18	5 days	25%+	☐	
1708524-009A	SB-3-4.5-5.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 13:00	5 days		☐	
1708524-010A	SB-3-9.5-10.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 13:05	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:** 17104.23; Fruitvale - Oakland **Work Order:** 1708524
Client Contact: Leonard Niles **QC Level:** LEVEL 2
Contact's Email: Leonard@allwest1.com **Comments:** **Date Logged:** 8/11/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ 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
1708524-011A	SB-3-14.5-15.0	Soil	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	1	Acetate Liner	☐	8/10/2017 13:15	5 days		☐	
1708524-012A	SB-3-GW	Water	SW8260B (VOCs) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>	2	VOA w/ HCl	☐	8/10/2017 11:52	5 days	90%+	☐	

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.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701 1708524
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Leonard Niles Bill To: Darlene Torio

Company: AllWest Environmental, Inc.

2141 Mission Street, Suite 100 darlene@allwest1.com

San Francisco, CA 94110 E-Mail: Leonard

Tele: (415) 391-2510 Fax: (415) 391-2008

Project #: 17104.23 Project Name: Fruitvale-Oakland

Project Location: 2221 Fruitvale Ave., Oakland, CA

Sampler Signature: Leonard Niles

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request	Other	Comments
SB-1-4.5-5.0	SB-1	8/10/17	0915	1	PT		X				X				BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE; TPH as Diesel (8015); Total Petroleum Oil & Grease (1664 / 5520 E/B&F); Total Petroleum Hydrocarbons (418.1); EPA 502.2 / 601 / 8010 / 8021 (HVOCs); MTBE / BTEX ONLY (EPA 602 / 8021); EPA 505/ 608 / 8081 (Cl Pesticides); EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners; EPA 507 / 8141 (NP Pesticides); EPA 515 / 8151 (Acidic Cl Herbicides); EPA 524.2 / 624 / 8260 (VOCs); EPA 525.2 / 625 / 8270 (SVOCs); EPA 8270 SIM / 8310 (PAHs / PNAs); CAM 17 Metals (200.7 / 200.8 / 6010 / 6020); LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020); Lead (200.7 / 200.8 / 6010 / 6020); Filter sample for DISSOLVED metals analysis	PCE & Degradation Products/8260	**Indicate here if these samples are potentially dangerous to handle:
SB-1-9.5-10.0	SB-1		0942	1	PT		X				X					X	
SB-1-14.5-15.0	SB-1		0952	1	PT		X				X					X	
SB-1-GW	SB-1		0922	2	VOA	X					XX					X	
SB-2-4.5-5.0	SB-2		1112	1	PT		X				X					X	
SB-2-9.5-10.0	SB-2		1114	1	PT		X				X					X	
SB-2-14.5-15.0	SB-2		1123	1	PT		X				X					X	
SB-2-GW	SB-2		1018	2	VOA		X				XX					X	
SB-3-4.5-5.0	SB-3		1300	1	PT		X				X					X	
SB-3-9.5-10.0	SB-3		1305	1	PT		X				X					X	
SB-3-14.5-15.0	SB-3		1315	1	PT		X				X					X	
SB-3-GW	SB-3		1152	2	VOA	X					XX					X	

**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.

Relinquished By:	Date:	Time:	Received By:
Leonard Niles	8-11	1030	
Relinquished By:	Date:	Time:	Received By:
	8-11-17	1310	
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS:
Analyze for PCE & degradation products TCE, cis-1,2-DCE, trans-1,2-DCE & vinyl chloride.

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Sample Receipt Checklist

Client Name:	**All West Environmental, Inc**	Date and Time Received	**8/11/2017 13:10**
Project Name:	**17104.23; Fruitvale - Oakland**	Date Logged:	**8/11/2017**
		Received by:	Alexandra Iniguez
WorkOrder №:	**1708524** Matrix: Soil/Water	Logged by:	Alexandra Iniguez
Carrier:	Bernie Cummins (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 ☐

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 ☐
Sample/Temp Blank temperature	Temp: 5.6°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; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	
	(Ice Type: WET ICE)		

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

Comments:

APPENDIX G

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: **SUBSURFACE INVESTIGATION REPORT**

2221 Fruitvale Avenue
Oakland, CA 94601

PROJECT NUMBER: 17104.23

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.