January 26, 2021

Vallco Property Owner, LLC
2600 El Camino Real
Palo Alto, CA 94304
Attn: Reed Moulds

Subject: Soil Vapor Investigation Report
Former Vallco Mall, Cupertino, California

Dear Mr. Moulds,

On behalf of Vallco Property Owner LLC (VPO), WSP USA Inc. (WSP) has prepared this Soil Vapor Investigation Report for an area within the Former Sears Automotive Center on the Former Vallco Mall Site (the Vallco Site) located at 10123 North Wolfe Road in Cupertino, California. The purpose of this investigation was to assess concentrations of potential volatile organic compounds (VOCs) in soil vapors in the northern portion of the former Sears Automotive Center. This report documents investigation activities that took place on November 22-23, 2020 and presents analytical results from the investigation, as well as steps going forward to address these results as part of the redevelopment of the Vallco Site.

BACKGROUND & INVESTIGATION APPROACH

The Vallco Site is anticipated to be used for commercial and residential buildings, subsurface and surface parking areas, and landscaping. In September 2018, the City of Cupertino (the City) approved a project for the Site that will include 2,402 residential units, up to 485,912 square feet of retail/entertainment uses, and 1,981,447 square feet of office uses. Approximately 10,500 parking spaces will be provided in both above-and below ground structures.

Planned development includes extensive subsurface parking that will require excavation of soil to a depth of 20 to 32 ft-below ground surface (bgs) across much of the Site. Specifically, the excavation within the Former Sears Automotive Center (Sears Area) will be to a depth of 32 ft bgs. Buildings above an underground parking structure will be constructed within the Sears Area.

The Sears Automotive Center was constructed in 1970 on the southwest side of the Mall property and was later referenced as a closed Leaking Underground Storage Tank (LUST) site on the state Geotracker website. This designation was a result of the removal of six underground storage tanks (UST) in 1985 and dispenser island and product lines in 1994. The Santa Clara County Fire Department (SCCFD) required implementation of an approved closure plan for the demolition of the former Sears Automotive Center due to the presence of an oil-water separator, hydraulic lifts, petroleum fluid pipelines, battery storage area, and lead containing materials. A Closure Plan for the Former Sears Automotive Center was submitted to the SCCFD on March 25, 2019 and approved by the SCCFD by letter dated April 11, 2019 and included soil sampling under the oil-water separator, remnant piping and any other subsurface equipment for proper characterization and subsequent disposal.

Consistent with the Closure Plan, soil samples were collected beneath an oil-water separator, acid neutralization chamber, and 17 hydraulic lifts during building demolition in January through February 2020 to determine if these features had impacted surrounding soil. All soil samples collected were analyzed for the following list of compounds:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g), TPH as diesel (TPH-D), and TPH as motor oil (TPH-MO) by U.S. Environmental Protection Agency (EPA) method 8015 (fuel scan)
- Hexane Extractable Materials (Oil and Grease) by EPA method 1664
- Volatile Organic Compounds (VOCs), with chlorinated hydrocarbons (full scan) by EPA method 8260B
- Polychlorinated biphenyls (PCB) by EPA method 8082A
- Cadmium (Cd), Chromium (Cr), Lead (Pb), Nickel (Ni), and Zinc (Zn) by EPA method 6010B
- Semi Volatile Organic Compounds (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAHs) by EPA method 8270

Samples collected from beneath the acid neutralization chamber and the base of 11 hydraulic lifts after their removal, all located on the basement level in the southern portion of the former Sears Automotive Center, did not contain any detections above the respective ESL/RSLs for any of the compounds included in the analysis listed above. After the removal of six hydraulic lift cylinders in the northern portion of the former Sears Automotive Center, samples were taken at three of the six cylinders (locations HL-1, HL-4, and HL-6 and all soil sample locations are shown on Figure 1) at approximately nine ft-bgs, which is from the soils immediately beneath the base of three of these cylinders. After the removal of the oil-water separator and associated piping, three samples were taken approximately 12 to 14 ft-bgs which is immediately beneath the separator and piping. Several of these samples yielded results that exceed the PCB ESL/RSL; two of three samples beneath the oil-water separator also exceeded the TSCA cleanup level of 1 mg/kg for PCBs. Two samples collected at a depth of nine ft-bgs, immediately below each of two (HL-4 and HL-6) of the three former hydraulic lift cylinders, exceeded the RSL for TPH-D. Soil samples from HL-4 also contained 1,1-dichloroethane (48 µg/kg) and tetrachloroethene (41 µg/kg), well below their respective ESL/RTSLs (3,600 µg/kg and 590 µg/kg).

In response to the detections of PCBs above the ESL/RSL, 22 step-out borings were advanced in the northern portion of the Center to delineate the extent of PCB impacted soil and to sample under the remaining three former hydraulic lifts, HL-2, HL-3, and HL-5 (Figure 1). Details concerning the results of the step-out sampling and the proposed removal actions associated with the PCB detections are detailed in the Appendix A of the Excavation Management Plan, Revised January 2021.

Although the VOCs detected in soil at HL-4 were below residential ESLs/RSLs and recognizing that the area will be excavated as part of development, in discussion with the Santa Clara County Department of Environmental Health (SCCDEH) and the City of Cupertino in December 2020, it was agreed that it would be prudent to collect soil vapor samples in the Sears Area to better understand if potential VOC source soils may be present. Thus, four multi-depth soil vapor borings (SV-1 through SV-4 in Figure 1) were installed on November 22-23, 2020 to a maximum depth of 29 to 30 feet bgs within the Sears Area planned for excavation.

SOIL STRATIGRAPHY AND GROUNDWATER OCCURRENCE

The four soil borings drilled for the soil gas probes encountered silts and clays with varying percentages of sand from ground surface to approximately 17 ft-bgs (Appendix A). A zone of coarser grained soils (i.e., sand and gravel) was encountered between approximately 17 and 21 ft-bgs, below which was another clayey zone that extended to a depth of approximately 28 ft-bgs. A second coarse-grained unit

comprised of well-graded sand and gravel was encountered at 28 ft-bgs and continued to the bottom of the borings, which were terminated at 31 ft-bgs. Two of the four nested soil gas probes installed in each boring were installed in the two coarse-grained units, in additional to the finer-grained material that occurred in the upper 15 feet of the soil profile.

Groundwater was not encountered during the drilling of the soil borings. Historic information for the Site indicates that groundwater is found between 80 to 90 ft-bgs.

DESCRIPTION OF FIELD ACTIVITIES

On November 22 and November 23, 2020, WSP retained Trinity Drilling to install four nested multi-depth soil gas monitoring wells (SV-1 to SV-4) in order to develop an understanding of conditions beneath the current northern area of the former Sears Automotive Center (Figure 1).

Before intrusive activities began, the boring locations were cleared for underground utilities and an underground service alert was contacted to locate underground utilities and to mark utility trenches coming onto the property. The drilling work was conducted by Trinity Drilling of Santa Cruz who is a California C-57 licensed driller. The investigation was performed under the direction of a licensed California professional geologist.

SOIL GAS PROBE INSTALLATION

Soil gas probes were installed generally at the following depth intervals: 5-6 ft-bgs, 12-14 ft-bgs, 19-21 ft-bgs, and 29-30 ft-bgs.

DRILLING PROCEDURES

A GeoProbe® 5400 direct push drill rig was used to advance each boring down to the desired depth. The drill rig was equipped with a 4-foot Macro Core® continuous core sampler with acetate sleeves, which created a 2.5-inch diameter hole.

At each sampling location, a boring was advanced and the remaining multi-depth probes were installed. The target depths for the well screens were sometimes adjusted slightly based on the observations made from the soil core.

DECONTAMINATION PROCEDURES

All subsurface drilling equipment was decontaminated before use at the site. During the course of the investigation, the drillers utilized both wet and dry techniques to decontaminate equipment. Disposable equipment intended for one-time use was not decontaminated but was packaged for appropriate disposal by Trinity Drilling.

The sampling rod went through a wet decontamination between each boring location and either a wet or dry decontamination between each boring run advancement depending on whether soil was sticking to the inside of the sampling rod. The shoe of the sampling rod went through a wet decontamination after each run and between boring locations.

A wet decontamination was completed by scrubbing the equipment in a non-phosphate detergent followed by two separate tap-water rinses. Dry decontamination was completed by scrubbing the equipment with a dry wire brush.

SOIL GAS WELL CONSTRUCTION DETAILS

The nested soil gas monitoring wells were constructed using ¼-inch diameter Nylaflow™ sample tubing with a one-inch long stainless steel filter screen inserted at the bottom. The tubing was inserted into the open boring by hand. Approximately 6-inches of clean, graded, kiln dried, #3 silica sand was poured 0.5 foot above and below the screened tip. Bentonite granules (Benseal Sealing and Plugging Agent) were placed within the annular space above the sand pack and between the screened intervals (*e.g.*, for nested wells). The bentonite granules were hydrated every 1 to 1.5 feet using a tremie pipe for probes deeper than 10 feet bgs. At the top of the soil gas well, the remaining annulus was filled with 1 to 5% bentonite-cement slurry with some fine sand added for strength.

At the well head, a two-way polycarbonate stop valve was attached to the sample tubing on each individual well to create a seal and facilitate sample collection. As each probe was installed, the end of the sampling tube was capped to prevent outside contamination until the stop valve could be attached.

INVESTIGATION DERIVED WASTE

All soil cuttings, decontamination and rinse water, cement cores, and disposable equipment were contained in separate Department of Transportation authorized drums. The drums were temporarily placed in a secure area on-site. The waste was disposed of in accordance with applicable local, state, and federal regulations.

SOIL GAS SAMPLE COLLECTION AND ANALYSIS

Soil gas samples were collected in Summa canisters following a minimum of two hours of equilibration between installation of the probe and sampling These sampling protocols were in general accordance with the California Environmental Protection Agency's (CalEPA) Active Soil Gas Investigation Advisory, dated July 2015 (CalEPA, 2015). Summa canisters were batch-certified as clean at the specified reporting limits. The Soil Vapor Monitoring Field Sheets are included in Appendix A.

A shut-in test of the sampling manifold was performed before sampling each probe. Helium gas was used during sampling as a leak check compound to determine if the soil gas probes were compromised. A helium shroud was constructed over top of the well head of each probe using plastic sheeting. An atmosphere of at least 20 % helium was maintained inside the shroud during sampling. A helium meter was used to measure the concentration of helium in the shroud. The concentrations of helium were documented on the Soil Vapor Monitoring Field Sheets included in Appendix A.

Soil gas borings were purged at a flow rate of either 100 or 200 milliliters per minute and a vacuum of less than 100 inches of water was maintained during purging and sampling. Three probe (well) volumes were purged from each boring before collecting the soil gas sample. Samples were collected in 1-liter Summa canisters.

Immediately following collection, the samples were packaged and shipped to Enthalpy Laboratories for analysis for VOCs using EPA Method TO-15 and helium by ASTM D1946.

SOIL GAS ANALYTICAL RESULTS AND DISCUSSION

A summary of soil gas analytical results for VOCs is presented in Table 1. Results were compared to the existing applicable residential screening levels (ESLs).

The compounds noted with bold type in Table 1 were detected in at least one sample at a concentration greater than the laboratory method detection limit (MDL). The compounds noted in bold type with yellow shading indicate that the detected concentration exceeded the RSL.

The compounds with exceedances, showing the residential ESL, SV-boring number-depth, and exceedance result include the following:

- Methylene Chloride: (ESL 34 µg/m³), SV-3-21, 52 µg/m³
- Chloroform (ESL 4.1 µg/m³): SV-2-14, 93 µg/m³; SV-3-4, 140 µg/m³; SV-3-15, 160 µg/m³; SV-4-5, 9.5 µg/m³; SV-4-12, 370 µg/m³; and SV-4-20, 5 µg/m³
- Benzene (ESL 3.2 µg/m³): SV-2-14, 61 µg/m³; SV-2-30, 6 µg/m³; SV-3-12, 20 µg/m³; SV-4-12, 27 µg/m³
- Tetrachloroethene (ESL 15 µg/m³): SV-3-12, 30 µg/m³; SV-3-21,190 µg/m³; SV-4-30, 19 µg/m³

  Ethylbenzene (ESL 37 µg/m³): SV-2-14, 100 µg/m³

Of these compounds, only PCE was detected in the soil sample at location HL-4 and the highest soil vapor concentrations were near HL-4 and the oil-water separator. Overall, these ESL exceedances are consistent with low VOC levels found in one soil sample from HL-4 and are not indicative of source level VOCs in the subsurface (notably benzene and PCE are at multiple depths in two borings). Methylene chloride and ethyl benzene were isolated results in two different borings and chloroform could be an artifact from potable water.

It should also be noted that that the MDLs for one or more samples shown as “undetected” for the following compounds exceeded the respective ESL for these compounds:

- 1,4-Dioxane
- Vinyl Chloride
- 1,1-Dichloroethane
- Chloroform
- Carbon Tetrachloride
- Benzene
- 1,2-Dichloroethane
- Trichloroethene
- 1,2-Dichloropropane
- Bromodichloromethane
- 1,1,2-Trichloroethane
- Tetrachloroethene
- 1,2-Dibromoethane
- Hexachlorobutadiene

— Naphthalene

REMOVAL ACTIONS AND VERIFICATION SAMPLING

As noted, as part of the redevelopment of the Sears Area per VOP's development plan, excavation and disposition of removed soils will be performed to a depth of 32 ft bgs in this Area. This excavation should effectively remove soils containing soil vapors that exceed ESLs. To verify residual VOC concentrations in soil vapor in the soils below 32 ft bgs, soil vapor samples will be collected on a grid over the 10 foot by 20 foot excavation rectangle to a depth of 5 feet below the base of the removal excavation (a total of approximately four to six samples is anticipated) and analyzed for soil vapors using USEPA Method 8260B (gas chromatograph/mass spectrometer [GC/MS]) modified for soil gas. Based on the available soil vapor data, significant vapor intrusion is not anticipated to occur in the planned development due to the presence of the ventilated underground garage structure below all of the occupied residential space. However, if the soil vapor verification samples exhibit levels of concern (exceeding ESLs) for any compound, indoor air monitoring will be conducted within the garage to determine if significant soil vapor intrusion is occurring within the garage.

Please don't hesitate to contact us if you have any questions or need additional information.

Sincerely,

Richard E. Freudenberger

Richard E. Freudenberger
Managing Director, Regional
408.206.3504

Figure

Figure 1 – Sears Investigation Areas and Soil Vapor Borings

Table

Table 1 – Soil Gas Analytical Results

Appendix A

Soil Vapor Monitoring Field Sheets and Boring Logs

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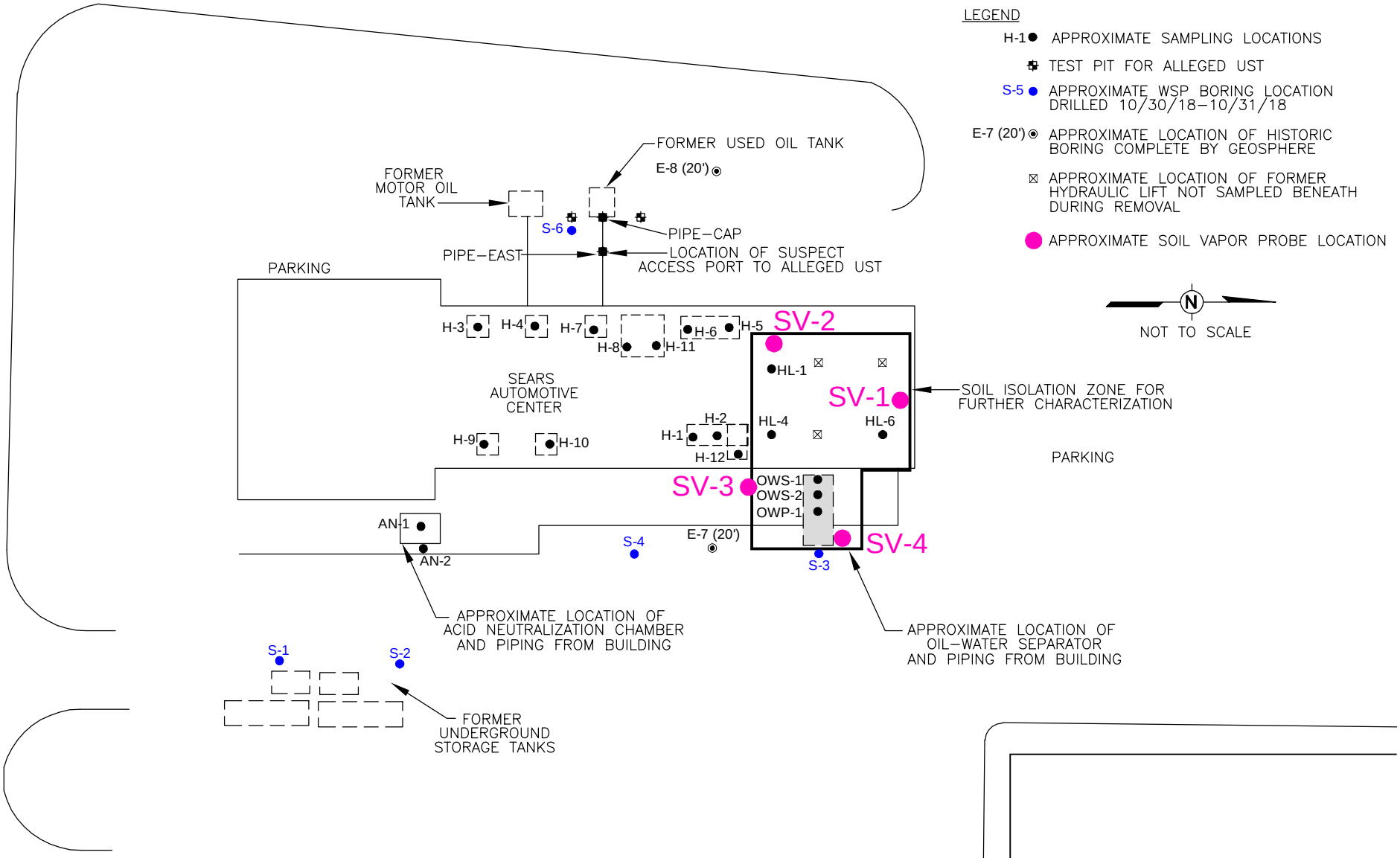

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WSP USA Inc.
2025 GATEWAY PLACE
SUITE 348
SAN JOSE, CA 95110
TEL: +1 408.453.6100

Figure 1

SAMPLING LOCATIONS – SEARS AUTOMOTIVE CENTER

VALLCO FASHION MALL
10123 NORTH WOLFE ROAD
CUPERTINO, CALIFORNIA

PREPARED FOR

VALLCO PROPERTY OWNER LLC
PALO ALTO, CALIFORNIA

Drawn By:	LS	1/21/2021
Checked:	ER	1/21/2021
Approved:		
DWG Name:	314MN2265.000–005	

Table 1

Summary of Sears Closure Soil Vapor Data
Soil Vapor Investigation Report
Former Vallco Mall, Cupertino, California

Analyte [1][2]	Sample ID [3]		SV-1-5	SV-1-13	SV-1-19	SV-1-30	SV-2-4	SV-2-14	SV-2-20	SV-2-30	SV-3-4	SV-3-12	SV-3-21	SV-3-30	SV-4-5	SV-4-12	SV-4-20	SV-4-30	SV-4-300
	CAS No.	ESLs [4]	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)
1,4-Dioxane	123-91-1	1.2E+01	58 U	58 U	0.48 U	58 U	58 U	58 U	0.24 U	0.3 U	58 U	0.48 U	0.96 U	0.48 U	0.12 U	1.2 U	0.24 U	0.48 U	0.48 U
Propylene	115-07-1	--	**2500**	**4200**	0.22 U	5.5 U	**3500**	**6700**	0.11 U	0.14 U	**1600**	0.22 U	0.44 U	0.22 U	0.055 U	0.55 U	0.11 U	0.22 U	0.22 U
Freon 12	75-71-8	--	16 U	16 U	0.46 U	16 U	16 U	4.6 U	**15**	**11**	16 U	0.46 U	0.91 U	**17**	**2.5**	1.1 U	0.23 U	**12**	**12**
Freon 114	76-14-2	--	22 U	22 U	1.2 U	22 U	22 U	12 U	0.58 U	0.72 U	22 U	1.2 U	2.3 U	1.2 U	0.29 U	2.9 U	0.58 U	1.2 U	1.2 U
Chloromethane	74-87-3	3.1E+03	6.6 U	6.6 U	0.62 U	6.6 U	6.6 U	6.2 U	0.31 U	0.39 U	6.6 U	0.62 U	1.2 U	0.62 U	0.15 U	1.5 U	0.31 U	0.62 U	0.62 U
Vinyl Chloride	75-01-4	3.2E-01	8.2 U	8.2 U	0.25 U	8.2 U	8.2 U	2.5 U	0.13 U	0.16 U	8.2 U	0.25 U	0.51 U	0.25 U	0.064 U	0.64 U	0.13 U	0.25 U	0.25 U
1,3-Butadiene	106-99-0	--	7.1 U	7.1 U	0.23 U	7.1 U	7.1 U	2.3 U	0.12 U	0.15 U	7.1 U	0.23 U	0.47 U	0.23 U	0.058 U	0.58 U	0.12 U	0.23 U	0.23 U
Bromomethane	74-83-9	1.7E+02	12 U	12 U	0.75 U	12 U	12 U	7.5 U	0.38 U	0.47 U	12 U	0.75 U	1.5 U	0.75 U	0.19 U	1.9 U	0.38 U	0.75 U	0.75 U
Chloroethane	75-00-3	3.5E+05	8.4 U	8.4 U	0.89 U	8.4 U	8.4 U	8.9 U	0.44 U	0.55 U	8.4 U	0.89 U	1.8 U	0.89 U	0.22 U	2.2 U	0.44 U	0.89 U	0.89 U
Trichlorofluoromethane	75-69-4	--	18 U	18 U	**520**	**390**	18 U	6.9 U	**240**	**63**	**300**	**830**	**1500**	**960**	**46**	1.7 U	**550**	**900**	**910**
1,1-Dichloroethene	75-35-4	2.4E+03	13 U	13 U	1 U	13 U	13 U	10 U	0.52 U	0.65 U	13 U	1 U	2.1 U	1 U	0.26 U	2.6 U	0.52 U	1 U	1 U
Freon 113	76-13-1	--	25 U	25 U	0.83 U	25 U	25 U	8.3 U	0.41 U	0.52 U	25 U	0.83 U	1.7 U	0.83 U	0.21 U	2.1 U	0.41 U	0.83 U	0.83 U
Acetone	67-64-1	1.1E+06	95 U	**640**	**76**	**2900**	95 U	9.5 U	0.47 U	**69**	**2800**	**110**	1.9 U	**60**	**17**	**210**	**30**	**41**	**43**
Carbon Disulfide	75-15-0	--	**64**	**110**	0.28 U	10 U	**410**	**180**	0.14 U	**4.8**	10 U	**94**	0.57 U	0.28 U	**2.6**	**28**	**8.1**	0.28 U	0.28 U
Isopropanol (IPA)	67-63-0	--	98 U	98 U	0.61 U	98 U	98 U	6.1 U	0.31 U	0.38 U	98 U	**40**	1.2 U	0.61 U	0.15 U	1.5 U	0.31 U	0.61 U	**36**
Methylene Chloride	75-09-2	3.4E+01	11 U	11 U	0.51 U	11 U	11 U	5.1 U	0.25 U	0.32 U	11 U	**14**	**52**	0.51 U	**4.9**	1.3 U	0.25 U	**14**	0.51 U
trans-1,2-Dichloroethene	156-60-5	2.8E+03	13 U	13 U	0.47 U	13 U	13 U	4.7 U	0.23 U	0.29 U	13 U	0.47 U	0.93 U	0.47 U	0.12 U	1.2 U	0.23 U	0.47 U	0.47 U
MTBE	1634-04-4	3.6E+02	12 U	12 U	0.27 U	12 U	12 U	2.7 U	0.14 U	0.17 U	12 U	0.27 U	0.54 U	0.27 U	0.068 U	0.68 U	0.14 U	0.27 U	0.27 U
n-Hexane	110-54-3	--	11 U	230	9.5	11 U	**450**	**740**	0.18 U	**75**	**240**	**60**	0.72 U	0.36 U	**3.6**	**190**	0.18 U	0.36 U	0.36 U
1,1-Dichloroethane	75-34-3	5.8E+01	13 U	13 U	0.47 U	13 U	13 U	4.7 U	0.24 U	0.3 U	13 U	0.47 U	0.95 U	0.47 U	0.12 U	1.2 U	0.24 U	**35**	**35**
Vinyl Acetate	108-05-4	--	140 U	140 U	0.27 U	140 U	140 U	2.7 U	0.14 U	0.17 U	140 U	0.27 U	0.54 U	0.27 U	0.068 U	0.68 U	0.14 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	156-59-2	2.8E+02	13 U	13 U	0.38 U	13 U	13 U	3.8 U	0.19 U	0.24 U	13 U	0.38 U	0.76 U	0.38 U	0.095 U	0.95 U	0.19 U	**28**	**28**
2-Butanone	78-93-3	1.7E+05	120 U	120 U	1.3 U	120 U	120 U	13 U	0.66 U	**21**	120 U	1.3 U	2.7 U	1.3 U	**7.6**	**65**	**16**	1.3 U	1.3 U
Ethyl Acetate	141-78-6	--	140 U	140 U	1.1 U	140 U	140 U	11 U	0.54 U	**58**	**180**	**270**	**340**	**33**	0.27 U	2.7 U	0.54 U	**48**	1.1 U
Chloroform	67-66-3	4.1E+00	16 U	16 U	0.4 U	16 U	16 U	**93**	0.2 U	0.25 U	**140**	**160**	0.8 U	0.4 U	**9.5**	**370**	**5**	0.4 U	0.4 U
1,1,1-Trichloroethane	71-55-6	3.5E+04	17 U	17 U	0.77 U	17 U	17 U	7.7 U	0.39 U	0.48 U	17 U	0.77 U	1.5 U	**30**	0.19 U	1.9 U	**5.6**	**50**	**51**
Cyclohexane	110-82-7	--	11 U	11 U	0.66 U	11 U	**1300**	**3000**	**6.2**	**59**	11 U	**32**	1.3 U	0.66 U	0.16 U	**48**	0.33 U	0.66 U	0.66 U
Carbon Tetrachloride	56-23-5	1.6E+01	20 U	20 U	0.57 U	20 U	20 U	5.7 U	0.29 U	0.36 U	20 U	0.57 U	1.1 U	0.57 U	0.14 U	1.4 U	0.29 U	0.57 U	0.57 U
Benzene	71-43-2	3.2E+00	10 U	10 U	0.24 U	10 U	10 U	**61**	0.12 U	**6**	10 U	**20**	0.48 U	0.24 U	**2.6**	**27**	**2.8**	0.24 U	0.24 U
1,2-Dichloroethane	107-06-2	3.6E+00	13 U	13 U	0.59 U	13 U	13 U	5.9 U	0.3 U	0.37 U	13 U	0.59 U	1.2 U	0.59 U	0.15 U	1.5 U	0.3 U	0.59 U	0.59 U
n-Heptane	142-82-5	--	13 U	**72**	**7.8**	13 U	13 U	**180**	0.22 U	**20**	**94**	**85**	0.88 U	0.44 U	0.11 U	**180**	0.22 U	0.44 U	0.44 U
Trichloroethene	79-01-6	1.6E+01	17 U	17 U	0.69 U	17 U	17 U	6.9 U	0.34 U	0.43 U	17 U	0.69 U	1.4 U	0.69 U	0.17 U	1.7 U	0.34 U	0.69 U	0.69 U
1,2-Dichloropropane	78-87-5	9.4E+00	15 U	15 U	0.57 U	15 U	15 U	5.7 U	0.28 U	0.35 U	15 U	0.57 U	1.1 U	0.57 U	0.14 U	1.4 U	0.28 U	0.57 U	0.57 U
Bromodichloromethane	75-27-4	2.5E+00	21 U	21 U	0.51 U	21 U	21 U	5.1 U	0.25 U	0.32 U	21 U	0.51 U	1 U	0.51 U	0.13 U	1.3 U	0.25 U	0.51 U	0.51 U
cis-1,3-Dichloropropene	10061-01-5	--	15 U	15 U	0.85 U	15 U	15 U	8.5 U	0.43 U	0.53 U	15 U	0.85 U	1.7 U	0.85 U	0.21 U	2.1 U	0.43 U	0.85 U	0.85 U
4-Methyl-2-Pentanone	108-10-1	1.0E+05	13 U	13 U	0.66 U	13 U	13 U	6.6 U	0.33 U	**11**	13 U	0.66 U	1.3 U	0.66 U	0.17 U	1.7 U	0.33 U	0.66 U	0.66 U
Toluene	108-88-3	1.0E+04	12 U	12 U	**9.1**	12 U	**150**	**470**	**11**	**17**	12 U	**53**	**18**	**14**	**11**	**78**	**28**	**9.4**	**7.9**
trans-1,3-Dichloropropene	10061-02-6	--	15 U	15 U	1.4 U	15 U	15 U	14 U	0.68 U	0.85 U	15 U	1.4 U	2.7 U	1.4 U	0.34 U	3.4 U	0.68 U	1.4 U	1.4 U
1,1,2-Trichloroethane	79-00-5	5.8E+00	17 U	17 U	0.28 U	17 U	17 U	2.8 U	0.14 U	0.17 U	17 U	0.28 U	0.55 U	0.28 U	0.069 U	0.69 U	0.14 U	0.28 U	0.28 U
Tetrachloroethene	127-18-4	1.5E+01	22 U	22 U	0.66 U	22 U	22 U	6.6 U	0.33 U	0.41 U	22 U	**30**	**190**	**86**	**2.8**	1.7 U	**15**	**19**	**19**
2-Hexanone	591-78-6	--	66 U	66 U	0.4 U	66 U	66 U	4 U	0.2 U	0.25 U	66 U	0.4 U	0.81 U	0.4 U	0.1 U	1 U	0.2 U	**13**	0.4 U
Dibromochloromethane	124-48-1	--	27 U	27 U	0.65 U	27 U	27 U	6.5 U	0.33 U	0.41 U	27 U	0.65 U	1.3 U	0.65 U	0.16 U	1.6 U	0.33 U	0.65 U	0.65 U
1,2-Dibromoethane	106-93-4	1.6E-01	25 U	25 U	0.89 U	25 U	25 U	8.9 U	0.44 U	0.55 U	25 U	0.89 U	1.8 U	0.89 U	0.22 U	2.2 U	0.44 U	0.89 U	0.89 U
Chlorobenzene	108-90-7	1.7E+03	15 U	15 U	0.48 U	15 U	15 U	4.8 U	0.24 U	0.3 U	15 U	0.48 U	0.95 U	0.48 U	0.12 U	1.2 U	0.24 U	0.48 U	0.48 U
Ethylbenzene	100-41-4	3.7E+01	14 U	14 U	0.57 U	14 U	14 U	**100**	0.28 U	**5.6**	14 U	**8.7**	1.1 U	**10**	**2**	1.4 U	0.28 U	0.57 U	0.57 U
m,p-Xylenes	179601-23-1	3.5E+03	2 U	2 U	0.77 U	2 U	2 U	**200**	**7.3**	**20**	2 U	**21**	1.5 U	**39**	**6.2**	1.9 U	**7.3**	0.77 U	0.77 U
o-Xylene	95-47-6	3.5E+03	14 U	14 U	0.4 U	14 U	14 U	**94**	0.2 U	**6.3**	14 U	**8.4**	0.81 U	**27**	**2.9**	1 U	**3.7**	0.4 U	0.4 U
Styrene	100-42-5	3.1E+04	14 U	14 U	0.62 U	14 U	14 U	6.2 U	0.31 U	0.39 U	14 U	0.62 U	1.2 U	0.62 U	0.15 U	1.5 U	0.31 U	0.62 U	0.62 U
Bromoform	75-25-2	8.5E+01	33 U	33 U	1.3 U	33 U	33 U	13 U	0.66 U	0.83 U	33 U	1.3 U	2.6 U	1.3 U	0.33 U	3.3 U	0.66 U	1.3 U	1.3 U

Table 1

Summary of Sears Closure Soil Vapor Data
Soil Vapor Investigation Report
Former Vallco Mall, Cupertino, California

Analyte [1][2]	Sample ID [3]		SV-1-5	SV-1-13	SV-1-19	SV-1-30	SV-2-4	SV-2-14	SV-2-20	SV-2-30	SV-3-4	SV-3-12	SV-3-21	SV-3-30	SV-4-5	SV-4-12	SV-4-20	SV-4-30	SV-4-300
	CAS No.	ESLs [4]	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)
1,1,2,2-Tetrachloroethane	79-34-5	1.6E+00	22 U	22 U	0.35 U	22 U	22 U	3.5 U	0.18 U	0.22 U	22 U	0.35 U	0.71 U	0.35 U	0.088 U	0.88 U	0.18 U	0.35 U	0.35 U
4-Ethyltoluene	622-96-8	--	16 U	16 U	0.23 U	16 U	16 U	2.3 U	0.12 U	0.14 U	16 U	0.23 U	0.46 U	**11**	0.058 U	0.58 U	0.12 U	0.23 U	0.23 U
1,3,5-Trimethylbenzene	108-67-8	--	16 U	16 U	0.35 U	16 U	16 U	3.5 U	0.18 U	0.22 U	16 U	0.35 U	0.7 U	**34**	0.088 U	0.88 U	0.18 U	0.35 U	0.35 U
1,2,4-Trimethylbenzene	95-63-6	--	16 U	16 U	0.38 U	16 U	16 U	3.8 U	0.19 U	0.24 U	16 U	**9.1**	0.76 U	**47**	**4.2**	0.95 U	0.19 U	0.38 U	0.38 U
1,3-Dichlorobenzene	541-73-1	--	19 U	19 U	0.64 U	19 U	19 U	6.4 U	0.32 U	0.4 U	19 U	0.64 U	1.3 U	0.64 U	0.16 U	1.6 U	0.32 U	0.64 U	0.64 U
1,4-Dichlorobenzene	106-46-7	8.5E+00	19 U	19 U	0.53 U	19 U	19 U	5.3 U	0.27 U	0.33 U	19 U	0.53 U	1.1 U	0.53 U	0.13 U	1.3 U	0.27 U	0.53 U	0.53 U
Benzyl chloride	100-44-7	--	17 U	17 U	0.34 U	17 U	17 U	3.4 U	0.17 U	0.21 U	17 U	0.34 U	0.69 U	0.34 U	0.086 U	0.86 U	0.17 U	0.34 U	0.34 U
1,2-Dichlorobenzene	95-50-1	7.0E+03	19 U	19 U	0.37 U	19 U	19 U	3.7 U	0.19 U	0.23 U	19 U	0.37 U	0.74 U	0.37 U	0.093 U	0.93 U	0.19 U	0.37 U	0.37 U
1,2,4-Trichlorobenzene	120-82-1	7.0E+01	24 U	24 U	2 U	24 U	24 U	20 U	1 U	1.3 U	24 U	2 U	4 U	2 U	0.5 U	5 U	1 U	2 U	2 U
Hexachlorobutadiene	87-68-3	4.3E+00	34 U	34 U	1.6 U	34 U	34 U	16 U	0.79 U	0.99 U	34 U	1.6 U	3.2 U	1.6 U	0.4 U	4 U	0.79 U	1.6 U	1.6 U
Naphthalene	91-20-3	2.8E+00	420 U	420 U	0.61 U	420 U	420 U	6.1 U	0.3 U	0.38 U	420 U	0.61 U	1.2 U	0.61 U	0.15 U	1.5 U	0.3 U	0.61 U	0.61 U
Helium	7440-59-7	--	**1.3**	**3.8**	0.2 U	0.2 U	**2.4**	**5.5**	0.2 U	0.2 U	**0.6**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.3**	0.2 U

Notes:

[1] Bold results indicate the concentration is greater than the laboratory reporting limit; results highlighted yellow indicate exceedance of screening levels.
[2] Results highlighted salmon indicate the method detection limit exceeded screening levels.
[3] Samples collected by WSP on 11/20/20 & 11/23/20. Sample nomenclature is as follows: "soil vapor-sample location-sample depth".
[4] Environmental Screening Levels (ESLs) in µg/m^3 for direct exposure to human health for residential shallow soil exposure as established by the San Francisco Bay Regional Water Control Board, revised July 2019.

Abbreviations and Acronyms:

µg/m^3 = micrograms per cubic meters
U = compound was not detected at a concentration greater than the method detection limit (MDL) shown
-- = not applicable or not available

SOIL VAPOR MONITORING LOG – VALLCO, CUPERTINO, CALIFORNIA

Date: 11/22/20 Sampled by: Bailey Sam Signature: _____

Weather: Sunny Subcontractor: _____ Signature: _____

SOIL VAPOR SAMPLE ID:	SV-1-5	SV-1-13	SV-1-19	SV-1-30		CRITERIA
WELL PURGE WITH PUMP						
Well purge start time =	1508	1418	1357	1323		
Purge pump flow setting (ml/min) =	200	200	200	200		> 100 ml/min
Purge volume required (ml) =	1047	1181	1281	1465		See purge volume calcs
Time required to remove 3 purge volumes (min) =	5	6	6.5	7		Vol required / flow
Well purge end time =	1513	1424	1406	1330		
Total volume purged =	1047	1181	1281	1465		
SYSTEM SETUP						
Enter sample can manifold number on COC	A10069	A10033	A10034	A10070		
Enter sample can SN number on COC	447	439	423	442		
PURGE SHROUD WITH HELIUM						
Helium concentration in shroud (%) =	30.1	24.6	27.3	30		> 20% Helium
(Record every 2 minutes during sampling)	22.3	27.5	22.3	30		
(Record every 2 minutes during sampling)	24.5	23.4	24.5	25		
(Record every 2 minutes during sampling)			20.0	30		
(Record every 2 minutes during sampling)						
(Record every 2 minutes during sampling)						
(Record every 2 minutes during sampling)						
SHUT-IN TEST AND BOREHOLE SEAL LEAK CHECK						
Manifold Gauge Pressure =	29	29	27	30		
Borehole seal leak check: Helium concentration (%) =	-0.07	-1.5	-3.5	-3.1		<1% Helium
COLLECT SAMPLE						
Record start time and initial canister vacuum on COC	1514/29	1424/29	1406/27	1340/30		
Record end time and final canister vacuum on COC	1546/11	1500/11	1412/5	1347/5		Vacuum of 5 inch Hg or less in sample canister
Well Inspection Obervations						

NOTES :

Collect duplicate sample at monitoring point SV-4. Duplicate sample ID = SV-4-300.

SV-1-30 – hissing noise when purging at the purge can connection, sound dissipates after a purging for a while – ambient air prior to puring, helium level at 1.7

SV-1-19 – SAA

SV-1-13 @ 1435 psi was at 11, @1500 psi remianed at 11 and sample was collected

SV-1-5 @ 1523 psi was at 11, @1546 psi remianed at 11 and sample was collected

SOIL VAPOR MONITORING LOG – VALLCO, CUPERTINO, CALIFORNIA

Date: 11/23/20 Sampled by: Bailey Sam Signature: _____

Weather: Sunny Subcontractor: _____ Signature: _____

SOIL VAPOR SAMPLE ID:	SV-2-4	SV-2-14	SV-2-20	SV-2-30		CRITERIA
WELL PURGE WITH PUMP						
Well purge start time =	0936	0858	0840	1503		
Purge pump flow setting (ml/min) =	200	200	200	200		> 100 ml/min
Purge volume required (ml) =	1030	1197	1298	1465		See purge volume calcs
Time required to remove 3 purge volumes (min) =	5	6	6.5	7		Vol required / flow
Well purge end time =	0941	0904	0846	1509		
Total volume purged =	1030	1197	1298	1465		
SYSTEM SETUP						
Enter sample can manifold number on COC	A10063	A10031	A10022	A10073		
Enter sample can SN number on COC	247	438	C10441	435		
PURGE SHROUD WITH HELIUM						
Helium concentration in shroud (%) =	23.7	23.7	22.4	44.0		> 20% Helium
(Record every 2 minutes during sampling)	25.0	28.2	24.6	36.0		
(Record every 2 minutes during sampling)	21.1	22.3	22.5	25.6		
(Record every 2 minutes during sampling)	20.5	20.9	22.9	21.4		
(Record every 2 minutes during sampling)				20.5		
(Record every 2 minutes during sampling)						
(Record every 2 minutes during sampling)						
SHUT-IN TEST AND BOREHOLE SEAL LEAK CHECK						
Manifold Gauge Pressure =	29	29	29	30		
Borehole seal leak check: Helium concentration (%) =	0.02	-1.9	-2.3	-1.9		<1% Helium
COLLECT SAMPLE						
Record start time and initial canister vacuum on COC	0943/29	0905/29	0847/29	1610/29		
Record end time and final canister vacuum on COC	0950/5	0935/5	0855/5	1618/5		Vacuum of 5 inch Hg or less in sample canister
Well Inspection Obervations						

NOTES :

Collect duplicate sample at monitoring point SV-4. Duplicate sample ID = SV-4-300.

SOIL VAPOR MONITORING LOG – VALLCO, CUPERTINO, CALIFORNIA

Date: 11/23/20 Sampled by: Bailey Sam Signature: _____

Weather: Cloudy Subcontractor: _____ Signature: _____

SOIL VAPOR SAMPLE ID:	SV-3-4	SV-3-12	SV-3-21	SV-3-30		CRITERIA
WELL PURGE WITH PUMP						
Well purge start time =	1225	1042	1025	1005		
Purge pump flow setting (ml/min) =	200	200	200	200		> 100 ml/min
Purge volume required (ml) =	1030	1164	1314	1465		See purge volume calcs
Time required to remove 3 purge volumes (min) =	5	5.8	6.5	7		Vol required / flow
Well purge end time =	1230	1048	1031	1012		
Total volume purged =	1030	1164	1314	1465		
SYSTEM SETUP						
Enter sample can manifold number on COC	AI0064	AI0035	AI0042	AI0072		
Enter sample can SN number on COC	443	421	440	409		
PURGE SHROUD WITH HELIUM						
Helium concentration in shroud (%) =	30.2	22.0	23.9	33.8		> 20% Helium
(Record every 2 minutes during sampling)	23.9	25.7	21.5	30.5		
(Record every 2 minutes during sampling)	22.3	28.2	21.4	30.0		
(Record every 2 minutes during sampling)	25.0	24.2	23.3	26.9		
(Record every 2 minutes during sampling)				21.7		
(Record every 2 minutes during sampling)						
(Record every 2 minutes during sampling)						
SHUT-IN TEST AND BOREHOLE SEAL LEAK CHECK						
Manifold Gauge Pressure =	28	28	27	29		
Borehole seal leak check: Helium concentration (%) =	-2.5	-0.05	-1.9	-2.6		<1% Helium
COLLECT SAMPLE						
Record start time and initial canister vacuum on COC	1236/28	1042/28	1033/27	1013/29		
Record end time and final canister vacuum on COC	1242/5	1056/5	1030/5	1021/5		Vacuum of 5 inch Hg or less in sample canister
Well Inspection Obervations						

NOTES :

Collect duplicate sample at monitoring point SV-4. Duplicate sample ID = SV-4-300.

SOIL VAPOR MONITORING LOG – VALLCO, CUPERTINO, CALIFORNIA

Date: 11/23/20 Sampled by: Bailey Sam Signature: _____

Weather: Cloudy Subcontractor: _____ Signature: _____

SOIL VAPOR SAMPLE ID:	SV-4-5	SV-4-12	SV-4-20	SV-4-30	SV-4-300	CRITERIA
WELL PURGE WITH PUMP						
Well purge start time =	1417	1358	1339	1258	1258	
Purge pump flow setting (ml/min) =	200	200	200	200	200	> 100 ml/min
Purge volume required (ml) =	1047	1164	1298	1465	1465	See purge volume calcs
Time required to remove 3 purge volumes (min) =	5	5.8	6.5	7	7	Vol required / flow
Well purge end time =	1422	1404	1346	1305	1305	
Total volume purged =	1047	1164	1298	1465	1465	
SYSTEM SETUP						
Enter sample can manifold number on COC	AI0071	AI0021	AI0039	AI0057	AI0057	
Enter sample can SN number on COC	148	153	195	444	155	
PURGE SHROUD WITH HELIUM						
Helium concentration in shroud (%) =	30.2	25.1	25.0	41.5	41.5	> 20% Helium
(Record every 2 minutes during sampling)	27.6	23.1	27.9	31.4	31.4	
(Record every 2 minutes during sampling)	26.1	23.3	29.9	26.9	26.9	
(Record every 2 minutes during sampling)	25.4	22.7	28.1	25.4	25.4	
(Record every 2 minutes during sampling)			24.1	20.2	20.2	
(Record every 2 minutes during sampling)						
(Record every 2 minutes during sampling)						
SHUT-IN TEST AND BOREHOLE SEAL LEAK CHECK						
Manifold Gauge Pressure =	29	29	29	29	29	
Borehole seal leak check: Helium concentration (%) =	-0.07	-0.09	-2.6	-1.3	-1.3	<1% Helium
COLLECT SAMPLE						
Record start time and initial canister vacuum on COC	1424/29	1405/29	1347/29	1306/29	1306/29	
Record end time and final canister vacuum on COC	1435/5	1414/5	1354/5	1327/5	1327/5	Vacuum of 5 inch Hg or less in sample canister
Well Inspection Obervations						

NOTES :

Collect duplicate sample at monitoring point SV-4. Duplicate sample ID = SV-4-300.

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino
Project #: 31402265.001

Boring No. SV-1 Sheet 1 of 2
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Drilling Co.: Trinity Drilling
Driller: Henry, Jeff

Soil Vapor Probe Depths:
5, 13, 19, 30

First Encountered Groundwater ▽: N/A
Depth to Water in Boring ▼:
Depth to Water in Well:

Boring
Drilling Method: direct push
Hole Diameter: 2.5"
Hole Depth: 31'
Backfill method:
construct SV probe

Sand pack intervals:
4.5-5.5 29.5-30.5
12.5-13.5 #3 sand
18.5-19.5
Seal intervals:
5.5-6.5 - dry bent
6.5-11.5 - hydrated bent. 0-3.5 cement grout
11.5-12.5 - dry bent.
Seal types:
Bent. grumbles #8

Soil Sampling
Method(s): CC
Sampler Length: 5'
Sampler Diameter: 2"

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
				4.5/5		0	CL		SANDY LEAN CLAY (CL), brownish yellow (10YR 6/6), med. plast. fines, 20% f-c sand, 10% f-c gravel, hard, moist
						-1-			
						-2-	CL		@1.4' LEAN CLAY (CL), dark brown (10YR 4/3), med. plast fines, 10% f-m sand, hard, moist
						-3-			@4.2' SAA @1.4 color change to v. dark gray (10YR 3/1), no odor
						-4-			
probe	@5'					-5-			
				3.2/3		-6-			@5' SAA @ 4.2', note ~0.5' of slough at top mat was wet (sandy clay material)
						-7-			
						-8-			@8' SAA @ 1.4'
				2/2		-9-			
						-10-			@10' SAA @ 1.4', some dissiminated caliche
				4/4					
				4/3		-11-			@12.7' SANDY LEAN CLAY (CL), dark yellowish brown (10YR 4/6), med. plast. fines, 35% f-c sand, firm, moist
						-12-			
probe	@13'					-13-	CL		@13' SAA @12.7'
				3.5/2		-14-			
						-15-			@15' SANDY SILT (ML), yellowish brown (10YR 5/6), med. plast. fines, 40% f-m sand, firm, moist
				3.2/3		-16-	ML		
						17	GW		

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino
Project #: 31402265.001

Boring No. SV-1 Sheet 2 of 2
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
						17	GW		@17.2' WELL GRADED GRAVEL w/ SAND (GW), brownish yellow (10YR 6/6), f-c gravel, 30% f-c sand, trace fines
				1.8/2		18			@18' SAA @17.2', 40% f-c sand
probe @	19'					19			
						20			
				2.3/3		21	ML		@20' SAA @15' 30% f-m sand, wet from 20.8-21.3'
						22	CL		@21.3' SANDY LEAN CLAY (CL), dark yellowish brown (10YR 4/6), med. plast. fines, 45% f-c sand, hard, moist.
						23			
				4.2/3		24			@23' SAA @ 21.3', 30% f-c sand
						25			
						26			
				2.5/2		27			@26' SAA @ 23', 5-10% f-c gravel
						28	SW		@27.4' WELL GRADED SAND w/ GRAVEL (SW), pale brown (10YR 6/3), f-c sand, 20% f-c gravel, trace fines, moist
						29			
probe	@ 30'					30			
						31			BOB @ 31'
						32			
						33			
						34			
						35			
						36			
						37			
						38			

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Valico Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. SV-2 Sheet 1 of
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Drilling Co.: Trinity Drilling
Driller:

Soil Vapor Probe Depths:

Sand pack intervals:

Seal intervals:

Seal types:

First Encountered Groundwater ▽:
Depth to Water in Boring ▼:
Depth to Water in Well:

Boring
Drilling Method:
Hole Diameter:
Hole Depth:
Backfill method:

Soil Sampling
Method(s):
Sampler Length:
Sampler Diameter:

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
				5/5		0	CL		SANDY LEAN CLAY w/ GRAVEL (CL), dark yellowish brown (10YR 4/6), med. plast. fines, 15% f-c sand, 15% f-c gravel, dry, hard
						-1-			
						-2-			
						-3-			@4' LEAN CLAY w/ SAND (CL), dark yellowish brown (10YR 4/6), 15% f-c sand, trace f. gravel, dry, hard, black color @ 4-4.2, no odor
probe @ 4'						-4-	CL		
						-5-	CL		@5' LEAN CLAY (CL), dark yellowish brown (10YR 3/4), 5% f-c sand, med. plast. fines, moist, hard
				2.7/5 3		-6-			@8' LEAN CLAY w/ SAND (CL), dark yellowish brown (10YR 3/4), 15% f-c sand, 5% f. gravel, moist, hard
						-7-			@9' SAA @ 5' mottled w/ v. dark grayish brown (10YR 3/2), 10% f-c sand
				2.4/2		-8-	CL		@11' clayey sand lense w/ gravel
						-9-	CL		@11.8' gravel lense
						-10-			@12' seems of f-m sand
				3.7/3		-11-			@13' SAA @ 8',
						-12-			@13.9' SANDY LEAN CLAY (CL), yellowish brown (10YR 5/6), 45% f-c sand, med. plast. fines, moist, hard
						-13-	CL		@17.5' CLAYEY SAND (SC), dark yellowish brown (10YR 4/6), f-c sand, 20% med plast. fines, moist
				2.9/3		-14-	CL		
probe @ 14'						-15-			
				3.7/3		-16-			
						17			

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. SV-2 Sheet 2 of
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
						17	SC		@18' SAA, 15% med. plast. fines
						18			@19.5' transition to POORLY GRADED SAND (SP), brownish yellow (10YR 6/6), f-c sand, trace fines, moist
				2/2		19			
probe	@20'					20	SP		@20' SAA @18'
				2.8/3			SC		@21' SILT, 10YR4/6, med. plast., trace f. sand, soft, wet
						21	ML		
						22	CL		@22' LEAN CLAY W/ SAND (CL), dark yellowish brown (10YR4/6), med. plast. fines, 20% f-c sand, hard, moist
				3.2/2		23			
						24			@24.8' SAA @22', 5% f-c gravel
						25			
				4.5/3		26			@27.3' CLAYEY GRAVEL W/ SAND (GC), 10YR 4/4, 20% med. plast. fines, f-c gravel, 25% f-c sand, moist
						27	CL/GC		
						28			@28.5' WELL GRADED GRAVEL W/ SAND (GW), 25% f-c sand, f-c gravel, moist
				2.4/3			GW		
						29			
probe	@30'					30			
						31			BOB @ 31'
						32			
						33			
						34			
						35			
						36			
						37			
						38			

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. SV-3 Sheet 1 of 2
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Drilling Co.: Trinity Drilling
Driller: Henry, Jeff

Soil Vapor Probe Depths:
4, 12, 21, 30

Sand pack intervals:
3.5-4.5, 11.5-12.5, 20.5-21.5, 29.5-30.5 #3 Sand

Seal intervals:
4.5-11.5 21.5-29.5 - hydrated bent. crumbles
12.5-20.5 0-2.5 - bent. cement grout

Seal types: bent. crumbles #8

First Encountered Groundwater ▽:
Depth to Water in Boring ▼:
Depth to Water in Well:

Boring
Drilling Method: direct push
Hole Diameter: 2.5"
Hole Depth: 31'
Backfill method: Construct SV probes

Soil Sampling
Method(s): Continuous core
Sampler Length: 5'
Sampler Diameter: 2.5"

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
				5/5		0	GC		CLAYEY GRAVEL w/ SAND (GC), grayish brown (10YR 5/2), f-c gravel, 25% f-c sand, 20% med. plast. fines, dry
						1	CL		@0.8' LEAN CLAY (CL), dark yellowish brown (10YR 3/4), med. plast. fines, 10% f-c gravel, 5% f-c sand, hard, moist
probe @4'						2			
						3			
						4			
						5	CL		@5' LEAN CLAY (CL), dark yellowish brown (10YR 4/4), med. plast. fines, 10% f-c sand, trace f-c gravel, hard, moist
				3.9/3		6			
						7			@8' LEAN CLAY w/ SAND (CL), med. plast. fines, 15% f-c sand, hard, moist
						8	CL		
				1.9/2		9			@11.5' SILT w/ SAND (ML), yellowish brown (10YR 5/6), med. plast. fines, 25% f-c sand, hard, moist
						10			
				2.1/3		11			@13' SAA @11.5'
						12	ML		@16.7' WELL GRADED SAND w/ SILT & GRAVEL, yellowish brown (10YR 5/6), f-c sand, 15% f-c gravel, 8% f/p fines, moist
probe @12'						13			
				2/2		14			
						15			
				2.8/3		16			
						17	SW-SM		

BORING LOG
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San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. BV-3 Sheet 2 of 2
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
						17	SW-SM		@18' POORLY GRADED SAND w/ SILT (SP-SM), brownish yellow (10YR 6/8), f-c sand, 10% lp fines, moist
				1.7/2		18	SP-SM		@19.1' SILT (ML), yellowish brown (10YR 5/8) f-c sand, 10% lp fines, dry, hard
						19	ML		@20' SANDY SILT (ML), brownish yellow (10YR 6/6), low plast. fines, 30% f-m sand, moist, soft
probe @21'				4.5/5		20	ML		@21' SAA @20', 50% f-c sand, hard
						21	ML		@23' ~~SAA~~ LEAN CLAY w/ SAND (CL), dark yellowish brown (10YR 4/6), med. plast. fines, 25% f-c sand, moist, hard
						22			@25' LEAN CLAY (CL), yellowish brown (10YR 5/6), med. plast. fines, 10% f-c sand, hard, moist
						23	CL		@26.5' SANDY LEAN CLAY w/ GRAVEL (CL), dark yellowish brown (10YR 4/4), med. plast. fines, 20% f-c sand, 10% f-c gravel, hard, moist
				3.4/3		24			@28' WELL GRADED SAND w/ GRAVEL (SW), light yellowish brown (10YR 6/4), f-c sand, 20% f-c gravel, trace fines, moist
						25	CL		
						26			
						27	CL		
						28	SW		
				2.3/3		29			
probe @30'						30			
						31			BOB @31'
						32			
						33			
						34			
						35			
						36			
						37			
						38			

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. SV-4 Sheet 1 of 2
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Drilling Co.: Trinity Drilling
Driller: Henry, Jeff

Soil Vapor Probe Depths:
5, 12, 20, 30

Sand pack intervals:
4.5-5.5 11.5-12.5 #3 sand
11.5-20.5 24.5-30.5 #2 sand

Seal intervals:
5.5-6.5 dry bent.
6.5-10.5 hydrated bent. ect.
10.5-11.5 dry bent.

Seal types: Bent crumbles #8

First Encountered Groundwater ▽: N/A
Depth to Water in Boring ▼:
Depth to Water in Well:

Boring
Drilling Method: direct push
Hole Diameter: 2.5"
Hole Depth: 31'
Backfill method: construct SV probes

Soil Sampling
Method(s): CC
Sampler Length: 5'
Sampler Diameter: 2"

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
				4.8/5		0	CL		LEAN CLAY W/SAND (CL), yellowish brown (10YR5/4), 15% f-c sand, 5-10% f-c gravel, hard, moist.
						-1-			
						-2-			@3' SILT (ML), dark yellowish brown (10YR4/4), med. plast. fines, 10% f-m sand, hard, moist
						-3-	ML		
						-4-			@5.5' LEAN CLAY (CL), dark yellowish brown (10YR 3/4), med. plast. fines, 5% f-m sand, hard, moist, disseminated calcite present
probe @ 5'						-5-			
				2.5/3		-6-	CL		
						-7-			@8' SAA @ 5.5'
						-8-			@12' SANDY SILT (ML), yellowish brown (10YR5/6), med. plast. fines, 35% f-m sand, hard, moist
				1.5/2		-9-			
						-10-			@16' SAA @ 12', 45% f-m sand, soft
				4/5		-11-			
probe @ 12'						-12-	ML		
						-13-			
						-14-			
						-15-			
				4.2/5		-16-	ML		
						17			

BORING LOG
WSP USA
2025 Gateway Place, Suite 348
San Jose, CA 95110

Project Name: Former Vallco Mall
Location: 10123 N Wolfe Rd. Cupertino

Project #: 31402265.001

Boring No. SV-4 Sheet 2 of
Date(s) Drilled 11/19/20
Logged By: Elena Robertson

Sample Id/ Time	Sampler Type	PID/FID (ppm)	Blows/6"	Recovery (ft/ft)	Sample Interval	Depth (ft)	USCS Symbol	Graphic Log	Soil Description
						17	SW		@17' WELL GRADED SAND w/ GRAVEL (SW), yellowish brown (10YR 5/6), f-c sand, 20% f-c gravel, trace fines, moist
						18			
						19	ML		@18.5 SILT (ML), brownish yellow (10YR 6/6), med plast. fines, 10% f-m sand, hard, moist
probe @ 20'						20	SM		@20' ~~SAND~~ SILTY SAND (SM), yellowish brown (10YR 5/6), f-c sand, 30% lp fines, moist
				4.8/5		21	ML		@21' SILT w/ SAND (ML), dark yellowish brown (10YR 4/6), med. plast. fines, 25% f-c sand, hard, moist
						22			
						23	CL		@22.5' LEAN CLAY (CL), yellowish brown (10YR 5/6), med. plast, 10% f-c sand, hard, moist
						24			
						25			@27.5' transition to SANDY LEAN CLAY (CL), dark yellowish brown (10YR 4/4), med. plast. fines, 20% f-c sand, 15% f-c gravel, hard, moist
				3.7/3		26			
						27	CL		@28' WELL GRADED SAND w/ GRAVEL (SW), pale brown (10YR 6/3), f-c sand, 20% f-c gravel, trace fines, moist
						28	SW		
				2.4/3		29			
probe @ 30'						30			
						31			BOB @ 31'
						32			
						33			
						34			
						35			
						36			
						37			
						38			

Soil vapor probe wells are built w/ stainless steel filters and are constructed in tremmie pipe.

Tubing = nylaflow tubing
Drillers use one tremmie pipe to set probe and sand pack + dry bent layer then uses seperate tremmie line to do the hydrated bent. lifts.

Review w/ AJW

- hydrated bentonite ok between probes

- Probes @ 5, 10, 20, 30

- HL-4 had VOCs (detectable levels)

Two hours prior to probe install call
408-630-2660

SV-2 is 4' East of HL-1N5

SV-3 is 21' South of OWS-1S5

SV-4 is 10.5' North & 3' east of OWP-1N5

SV-1 is 4.5' North & 7' west of HL-6N5

Note to Bailey

SV-1-5 was set in a clay - may not be able to draw a sample.
In general the shallowest probe was set in a gravely clay.

DWG Name: 314MN0570.001-031

Checked: Approved:

A Drawn By: LS 8/26/2020

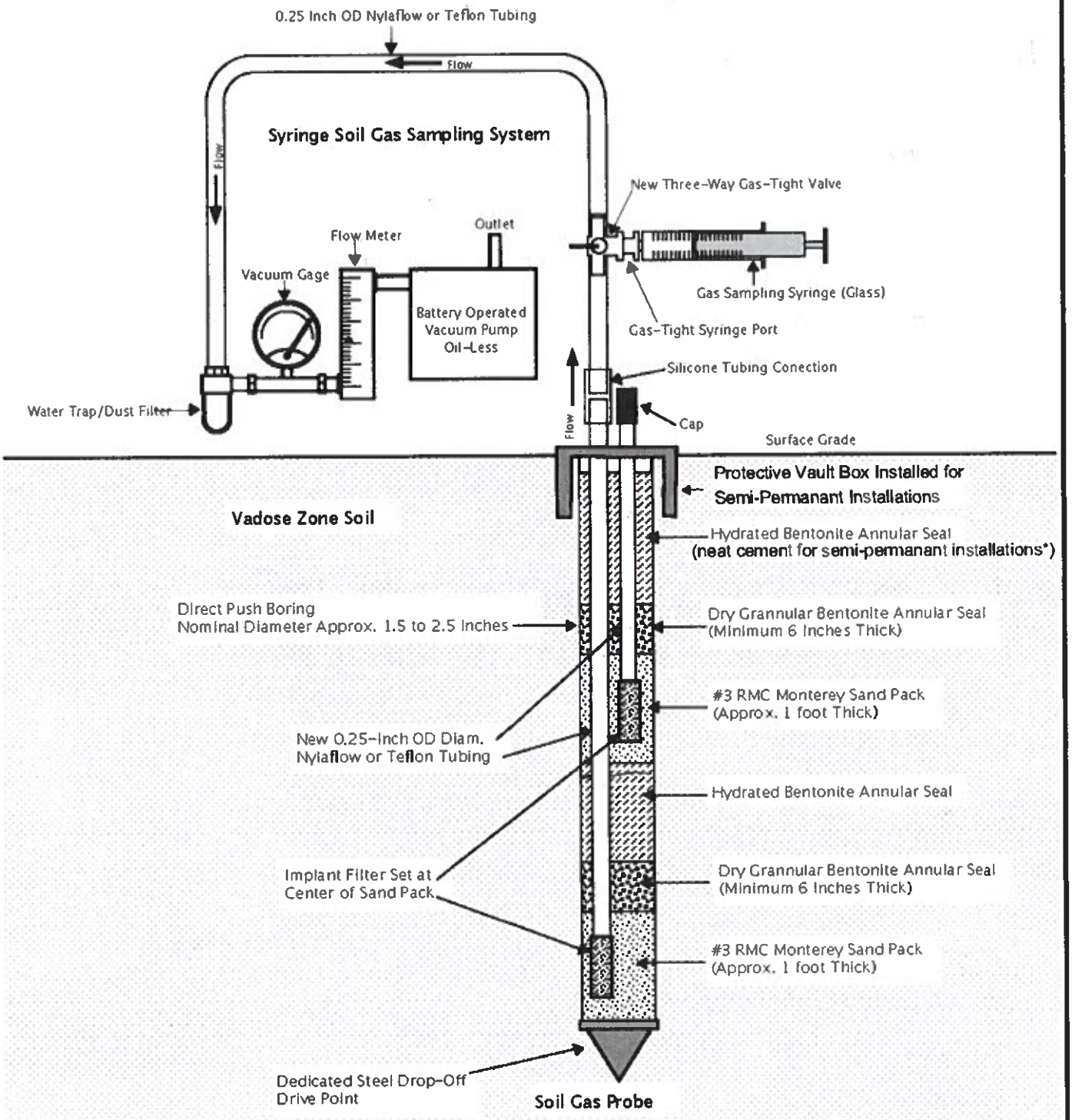


Figure From Environmental Support Technologies January 2015 SOP

*Recommended in DTSC /LARWQCB Advisory – Active Soil Gas Investigations dated July 2015

Drawing Not to Scale

WSP USA Inc.
2025 GATEWAY PLACE
SUITE 348
SAN JOSE, CA 95110
TEL: +1 408.453.6100

Figure 10

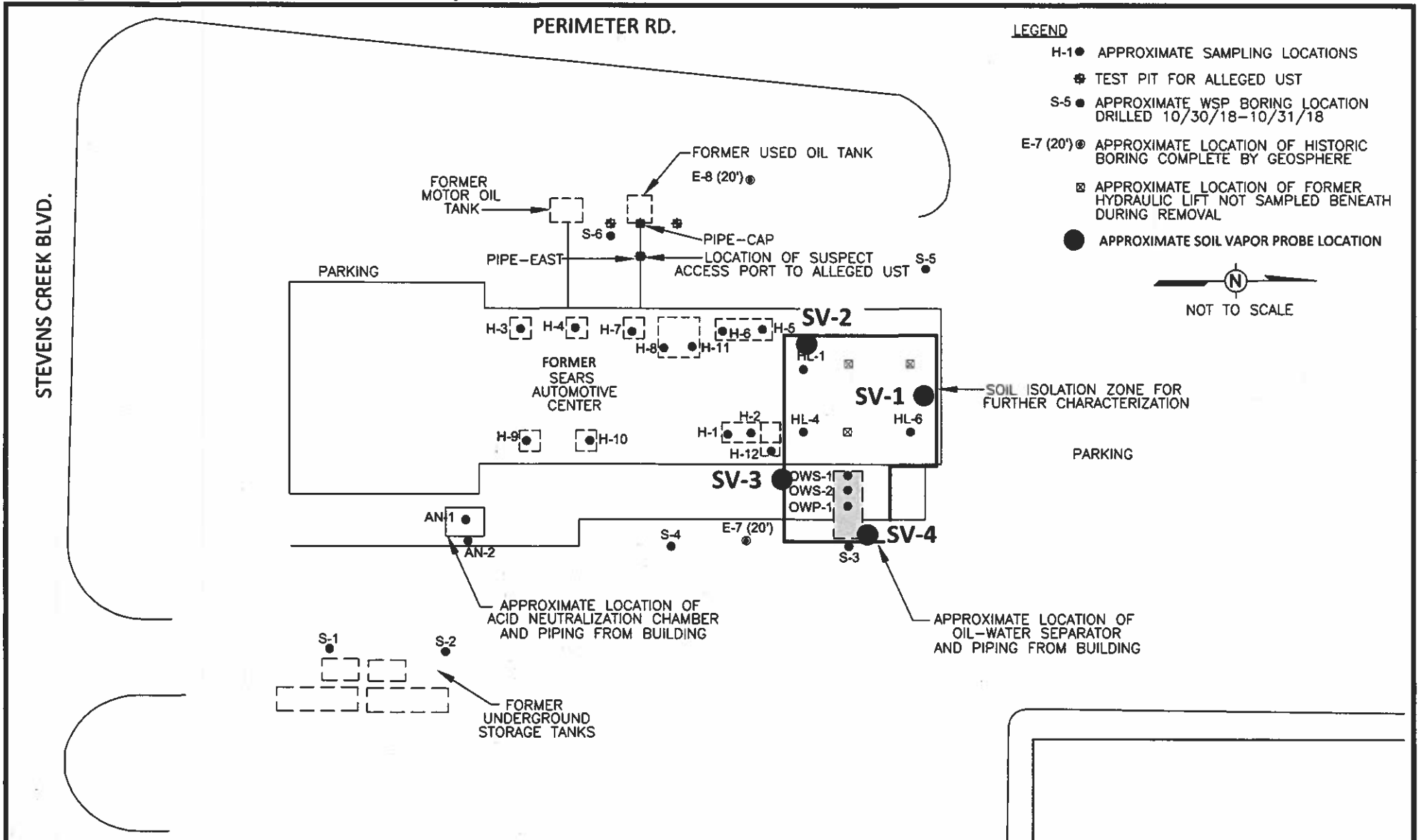
MULTI-DEPTH SOIL GAS WELL CONSTRUCTION

FORMER PNEUMO ABEX SITE
OXNARD, CALIFORNIA

PREPARED FOR

PNEUMO ABEX LLC

R:\Acad\CADD_CLIENTS\VALLCO FASHION MALL\31402265.000\CADD\314MN2265.000-005.dwg 8/13/2020 8:37 PM USLS01166



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DRAFT

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WSP USA Inc.
2025 GATEWAY PLACE
SUITE 348
SAN JOSE, CA 95110
TEL: +1 408.453.6100

Figure 1

SAMPLING LOCATIONS – SEARS AUTOMOTIVE CENTER

VALLCO FASHION MALL
10123 NORTH WOLFE ROAD
CUPERTINO, CALIFORNIA
PREPARED FOR
VALLCO PROPERTY OWNER LLC
PALO ALTO, CALIFORNIA

Drawn By:	LS 6/10/2020
Checked:	ER 6/10/2020
Approved:	
DWG Name:	314MN2265.000–005