Appendix 6.9-3: Vapor Intrusion Risk Assessment

Kimley»Horn

TECHNICAL MEMORANDUM

To: Amanda Acuna and Lisa Kranitz, City of Gardena

From: Cassie Bretschger

Date: February 15, 2024

Subject: **Hazardous Materials Data for 1610 West Artesia Boulevard Project Peer Review**

Kimley-Horn has conducted a peer review of the Project's *Phase I Environmental Site Assessment (*Environmental Management Strategies, Inc., October 2023), *Phase II Environmental Site Assessment Report (*Environmental Management Strategies, Inc., February 2024), and Vapor Intrusion Risk Assessment (Environmental Management Strategies, Inc., February 2024) on behalf of the City of Gardena. These analyses meet the applicable provisions of CEQA and the State CEQA Guidelines and is adequate for inclusion in the Project SCEA.

Please do not hesitate to contact Cassie Bretschger at 657-204-4798 or cassie.bretschger@kimley-horn.com with any questions.

ADVANCED ENVIRONMENTAL GROUP, INC
8 GOODYEAR, SUITE 125, IRVINE, CALIFORNIA 92618 // (949) 361-7797

February 12, 2024

Ms. Cassie Bretschger
Kimley-Horn
1100 West Town and Country Road, Suite 700
Orange, CA 92868

Subject: Technical Memorandum
Response to Kimley Horn Comments - February 2024
Vapor Intrusion Risk Evaluation (VIRE)

Site: Former Auto Service Center
1610 West Artesia Boulevard
Gardena, CA 90248

Project Number: EMS614

Dear Ms. Bretschger:

Advanced Environmental Group, Inc. (AEG) is pleased to present this Technical Memorandum/Vapor Intrusion Risk Evaluation (VIRE) for the property located at 1610 West Artesia Boulevard in Gardena, California ("the Site", illustrated as Figure 1 attached). This VIRE is in response to your Technical Memorandum of November 6, 2023, which was a Peer Review of Phase I and Phase II Environmental Site Assessments performed for the property by Environmental Management Strategies, Inc. (EMS) dated October 5, 2022, and July 18, 2023, respectively. AEG is the successor to EMS having acquired EMS over the past summer. Revisions to the two reports were completed based on recommendations provided within the Peer Review Technical Memorandum dated September 28, 2023, by Kimley-Horn.

Kimley-Horn is the consultant to the City of Gardena and requested that a VIRE be prepared for the site to demonstrate that the levels of soil vapor as it pertains to future residential receptors are below the DTSC's target risk levels identified within the DTSC Final Draft Supplemental Guidance: Screening and Evaluating Vapor Intrusion guidance document dated February 2023 (DTSC 2023).

1 Planned Development

The Picerne Group plans to develop the Site as a podium residential development thereby likely eliminating vapor intrusion risk to residences. The development will consist of one level of underground parking, one level of ground floor parking, and residences starting on the first podium level. Both underground parking and ground-level parking will encompass the entire site from property boundary to property boundary. Development of the underground parking garage will include the excavation and removal of soil down to approximately 15 feet across the Site with shoring on all sides during construction. Prior to pouring the engineered concrete slab for the

underground parking, a 15-mil thick moisture barrier may be placed under the concrete slab for moisture and vapor control. The decision to install the moisture barrier is optional and will be made during construction based on the amount of moisture observed in the soil. The use of the vapor barrier is optional but not required for vapor intrusion mitigation. After construction, the lowest level of the parking garage will be mechanically ventilated. The system will operate continuously at a low speed and fan speed will adjust based on the carbon monoxide levels. The ground-level parking will be passively ventilated to outside air. The potential vapor intrusion pathway from sub-slab soil vapor contamination into the lower-level parking garage will be limited through implemented engineering controls which include the concrete slab and mechanical ventilation. The planned construction of two levels of ventilated parking below the residences eliminates a potential vapor intrusion pathway from the subsurface soil vapor into the first level residences.

The following discussion presents how the planned development is in accordance with the DTSC 2023 guidance document.

2 Vapor Intrusion Evaluation Risk Methodology

The DTSC Supplemental Guidance for Screening and Evaluating Vapor Intrusion was followed to perform the VIRE for the site. The Supplemental Guidance describes a preliminary VI screening process that practitioners and regulators may use to determine if current or future building occupants are at risk from VI. As described below, AEG followed the established four-step evaluation process to assess VI at the site. Each step evaluation is described in the sections below.

2.1 Vapor Intrusion Attenuation Factors

Vapor attenuation refers to the reduction in vapor forming chemical (VFC) concentrations that occurs during vapor migration in the subsurface, coupled with the dilution that can occur when the vapors enter a building and mix with indoor air (Johnson and Ettinger, 1991). The AF is a unitless number defined as the ratio between the indoor air concentration ($C_{indoor\ air}$) for a given VFC and its subsurface concentration as follows, using soil gas concentrations ($C_{soil\ gas}$) as an example:

$$AF = \frac{C_{indoor\ air}}{C_{soil\ gas}}$$

The AF is an inverse measure of the overall decrease in concentration due to attenuation mechanisms that occur as vapors migrate from the subsurface into a building. That is, the greater the attenuation, the smaller the value of AF (USEPA, 2012b; USEPA, 2015a). Concentrations of VFCs in soil gas (sub-slab soil gas, exterior soil gas, or deeper soil gas) or groundwater can be used to estimate indoor air concentrations. To find the indoor air concentration of a VFC you can multiply the concentration of soil gas by the attenuation factor. Indoor air concentrations and potential risk estimated from groundwater VFC concentrations can be used as a supporting line of evidence but should rarely be a primary line of evidence for VI decision-making.

2.2 Recommended Attenuation Factors for Screening

Both USEPA and DTSC recommends the empirically derived AF of 0.03 be used as an initial conservative value to protect public health under most building occupancy scenarios. This value was used to evaluate the available soil gas site data.

2.3 Environmental Screening Levels (ESLs)

San Fransisco Regional Water Board (SFRWB)

In the evaluation of current soil vapor data, AEG utilized ESLs published by SFRWB published in January 2019. The Environmental Screening Levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. ESLs address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts to drinking water, vapor intrusion, and impacts to aquatic habitat). The SFRWB used methodologies and equations developed by the USEPA when calculating human health direct exposure ESLs. Numerous inputs including target risk, physical and chemical properties, toxicity values, and exposure parameters were used in calculating the ESLs. A combination of exposure assumptions with chemical-specific toxicity values were used to calculate a one-in-a-million ($1x10^{-6}$) cancer target risk or noncancer target risk with a target hazard quotient (THQ) of 1.

EPA Region 9 Regional Screening Levels (RSLs)

In situations where ESLs were not available for VOCs detected in soil vapor, the EPA Region 9 Regional Screening Levels (RSLs) for Ambient Air were used. The RSL values were adjusted for soil gas comparison using the recommended attenuation factor outlined above. RSLs are chemical-specific concentrations for individual contaminants in air, drinking water and soil that may warrant further investigation or Site cleanup. RSLs have been developed for both commercial/industrial and residential scenarios with residential RSLs being typically lower than commercial/industrial scenarios. The RSL cancer endpoint for air is based on the calculation of contaminant intake through inhalation that would produce the probability of a $1x10^{-6}$ excess cancer risk or noncancer target with a THQ of 1.

$$\text{Cancer Risk} = \frac{RSL_{cancer}}{\text{AF}}$$

$$\text{Non} - \text{Cancer Risk} = \frac{RSL_{non-cancer}}{\text{AF}}$$

RSL = Regional Screening Level for Ambient Air
AF = Attenuation Factor (Unitless)

The USEPA has established acceptable incremental cancer risk levels to be within the risk range of 1 in 10,000 (1.0E-04) and 1.0E-06; risks greater than 1.0E-04 are generally considered unacceptable. The California Environmental Protection Agency (Cal-EPA) has defined a risk of 1 in 100,000 (1.0E-05) as the "no significant level" for carcinogens under California's Safe Water and Toxic Enforcement Act (Proposition 65), which is the notification trigger level for most California air districts.

3 Prioritization of Buildings and Selection of Sampling Approach for Vapor Intrusion Evaluation

Evaluation of current building use and future development plans of the site were performed during the EMS Phase II Environmental Site Assessment (Phase II ESA). During the ESA, soil sampling and soil vapor testing were performed at potential source areas on Site. Figure 2 attached illustrates the boring locations on Site, and Figure 3 and 4 attached illustrate the results of soil vapor testing performed in October 2022 at 5- and 15-foot depths. The sampling approach selected to be used

for the vapor intrusion evaluation will include soil vapor data collected in October 2022, future soil vapor data to be collected after the removal of source areas and if needed, indoor air testing to be performed after the construction of the lower-level and podium parking garage.

The soil vapor concentrations measured in October 2022 are consistent with the existing source areas which include underground clarifiers and auto lifts from the former auto repair facility.

A Soils Management Plan (SMP) will be used to monitor the removal of the underground clarifiers and auto lifts prior to full Site excavation. The SMP will include the excavation and removal of clarifiers/underground storage tanks, piping, dispensers or other underground storage tank components, hydraulic auto lifts and any contaminated soil from the Site. A licensed contractor approved by the City of Gardena Building Services department will be retained prior to the removal of the hydraulic auto lifts and clarifiers/underground storage tanks. As part of the removal process the clarifiers/underground storage tanks will be pumped out and cleaned prior to removal. Health and safety measures will also be included in the SMP for any personnel that may come in contact with contaminated soil during the excavation and removal process. Measures may include personal protective equipment and periodic monitoring of work breathing zones using a handheld organic vapor analyzer. Soils will be profiled prior to disposal and confirmation soil samples will be collected from the side walls and bottom of each excavation to confirm impacted soils have been removed. It is anticipated that removal of the source areas will occur in the third or fourth quarter of 2024. As part of the SMP, a soil vapor sampling work plan will be included of potential soil vapor probe installation locations and depths. These soil vapor probes will be installed to assess the effectiveness of source removal on the Site. It is anticipated that soil vapor probes will be installed at or near locations previously sampled during the October 2022 Phase II ESA. Results from this investigation will be used to evaluate soil vapor concentrations that would likely be encountered below the parking garage concrete slab after source removal. As discussed previously, the planned development will include the excavation of all soil from the surface to a depth of 15 feet. Results from this investigation will be included in an additional subsurface investigation report where future vapor intrusion risk and potential mitigation measures will be evaluated. This report will be presented to the City of Gardena Building and Services Department (GBSD) and Los Angeles County Fire Department (LACFD) Health and Hazardous Material Division (HHMD) for review and approval.

Once development of the Site is complete and vapor intrusion risk and potential mitigation measures have been addressed, indoor air testing will be performed at 6 locations to evaluate whether there is any vapor intrusion risk in the lower-level parking garage. Indoor air testing will include 8-hour duration tests performed twice six-months apart and will include outdoor air tests to confirm background levels. Any enclosed space in the lower-level parking garage, such as utility rooms, will also be tested. In the event indoor air sample results exceed SVSLs, additional mitigation measures will be implemented and are discussed further in section 6.

4 Evaluation of Vapor Intrusion Risk Using Soil Vapor Data

Soil vapor data was collected from the Phase II ESA testing performed in October 2022 (see Table 2 attached from the Phase II ESA report). In general, soil vapor testing revealed volatile organic compounds (VOCs), consisting of benzene, ethylbenzene, tetrachloroethene, xylenes and total petroleum hydrocarbons as gasoline (TPHg), were above residential ESLs established by the San Francisco Regional Water Quality Control Board, July 2019 (RWQCB 2019) in general proximity to the source areas on the Site. The highest concentrations of VOCs were found at the 5-foot depth level. Although VOCs were also detected at the 15-foot depth level, they were significantly lower and more closely represent the anticipated soil vapor concentrations anticipated below the lower-

level garage slab.

Based on the results from the Phase II ESA it was determined that the SMP would include the removal of the source areas including clarifiers/underground storage tanks and hydraulic auto lifts prior to grading. The SMP will include procedures for sampling of the soils from the sidewalls of the source areas and a soil vapor sampling work plan to confirm source area contamination has been removed.

The evaluation of vapor intrusion risk will use soil vapor data collected both from the October 2022 Phase II ESA and after removal of source areas on Site. The results of soil vapor testing outlined in the SMP will be discussed in a subsurface investigation report that will compare soil vapor sample results prior to and after remediation in order to assess the effectiveness of source removal. The subsurface investigation and future vapor intrusion risk assessment will be used to evaluate what the representative soil vapor concentrations in soil will be like after construction of the lower-level parking garage. The risk assessment will compare soil vapor concentrations to soil vapor screening levels (SVSLs) established by the State of California at the time of construction. The soil vapor samples collected at a depth of 15 feet will be compared to the October 2022 soil vapor samples from similar locations to establish a baseline for anticipated soil vapor concentrations below the lower-level garage slab. If the results from the risk assessment conclude that source area removal has been effective and VOC concentrations are below SVSLs for residential use, then no further action will be required.

Once soil vapor testing is completed and future vapor intrusion risk has been determined, excavation will proceed across the Site to a depth of 15 feet. If contaminated soil is still present at the Site after source removal an additional SMP will be amended prior to any further excavation at the Site. As an option, a 15-mil thick vapor barrier may be placed to control moisture prior to pouring of the engineered concrete slab for the lower-level parking garage. The engineered concrete slab, along with the optional vapor barrier, should retard any potential vapor or moisture migration into the parking garage.

5 Future Indoor Air Investigation

In the event the results of the risk assessment determine that source removal has not been effective in reducing soil vapor VOC concentrations below residential SVSLs then implementation of engineering controls will be discussed and implemented (e.g., impermeable membrane or passive venting). Following the development of the property and construction of the parking garage, an indoor air investigation will be performed to confirm the effectiveness of the engineering controls and to confirm that there is no vapor intrusion of VOCs into the lower-level parking garage. The indoor air investigation will be outlined in an indoor air investigation work plan that will be developed for the Site after construction has been completed. Indoor air testing will be performed using 6-liter, passivated stainless steel canisters. The test duration will be 8 hours and will include at least six testing locations evenly spread across the lower-level parking garage in a grid pattern. Any potential vapor migration pathways such as elevator shafts, stairwells and utility conduits, any sumps with contaminated groundwater, occupied spaces and chemical storage areas will be tested. A parking garage survey will be performed to develop a sampling plan.

Outdoor air tests will be performed both upwind and downwind of the parking garage at ground level to establish baseline indoor air concentrations. The outdoor air tests will also be performed over an 8-hour period. Results of the indoor and outdoor air tests will be compared to SVSLs for the particular VOCs mentioned previously that were detected in the soil vapor samples collected prior to construction. The indoor air and outdoor air testing will be repeated six months later. The

additional round of testing is consistent with the DTSC 2023 in order to evaluate any seasonal variations that influence vapor intrusion.

The results of both rounds of indoor and outdoor air testing will be evaluated based on comparison with the residential SVSLs established by the State of California at the time of construction. The results and analysis of this testing will be included in an indoor and outdoor air sampling testing report that will be presented to the GBSD and LACFD HHMD.

6 Current and Future Risk Evaluation and Management Decisions

If soil vapor sampling concludes that source removal has been effective and VOC concentrations are below SVSLs for residential use, then no further action will be required. In the event the risk assessment determines the source removal is not effective then future risk evaluations and management decisions will be dependent on indoor air testing in the lower-level parking garage. If results of both rounds of indoor air testing are below residential SVSLs for all target VOCs found in soil vapor, then no further action is warranted. No future risk evaluation or management decisions will be necessary. If some VOC compounds are found above residential SVSLs for indoor air, then further work is warranted. Results from indoor and outdoor testing after construction of the parking garage will be included in a report made available to the City of Gardena.

The lower-level parking garage will be ventilated 24 hours a day, 7 days a week, primarily as an effective control of carbon monoxide emissions from automobiles. The ventilation is planned to be increased and decreased based on carbon monoxide levels measured by sensors in the parking garage. It is anticipated that the ventilation will also provide a useful engineering control measure to mitigate vapor intrusion into the parking garage.

Both rounds of indoor air testing will be performed in the parking garage while the carbon monoxide ventilation system is operating. If the results of both rounds of indoor air testing indicate that VOCs levels found in the lower-level parking garage are from vapor intrusion of the target compounds found in soil vapor, then ventilation will be increased accordingly to disperse any vapor intrusion. The indoor air testing will be repeated with two sampling events spaced 6 months apart. Appropriate ventilation adjustments will be made, and indoor air testing will be repeated at 6-month intervals until indoor air concentrations of target VOCs are consistently below residential SVSLs for two consecutive indoor air sampling events.

Indoor air testing combined with ventilation of the lower-level parking garage will ensure that there is no vapor migration of soil vapor compounds into the podium level residences found two stories higher over the lower-level parking garage. If mitigation measures are warranted, they will be outlined, and the results presented in a report that will be presented to the GBSD and LACFD HHMD.

7 Closing

We appreciate the opportunity to provide this Vapor Intrusion Risk Evaluation to Kimley-Horn and the City of Gardena in support of The Picerne Group's development of the property located at 1610 West Artesia Boulevard in the City of Gardena. Development of the Site will include the planned removal of all sources of soil vapor contamination including subsurface clarifiers/underground storage tanks, piping, dispensers or other underground storage tank components, hydraulic auto lifts and any contaminated soil. Confirmation sampling performed

during the source removal process will confirm soil vapor concentrations of target compounds from past Site activities. The Site will be excavated down to a depth 15 feet and all excavated soils will be removed from the Site. An optional 15-mil vapor and moisture mitigation barrier may be used based on observed moisture conditions. The engineered concrete slab of the lower-level parking garage along with ventilation of the lower-level parking garage are likely to ensure that there will be no environmental risk posed by the Site to the first level of residences on the podium level and above once source removal has been completed. All reports produced including the SMP, additional subsurface investigation and indoor and outdoor air sampling will be presented to the GBSD and LACFD HHMD.

Please feel free to contact me at (949) 679-9500 extension 106 if you have any questions.

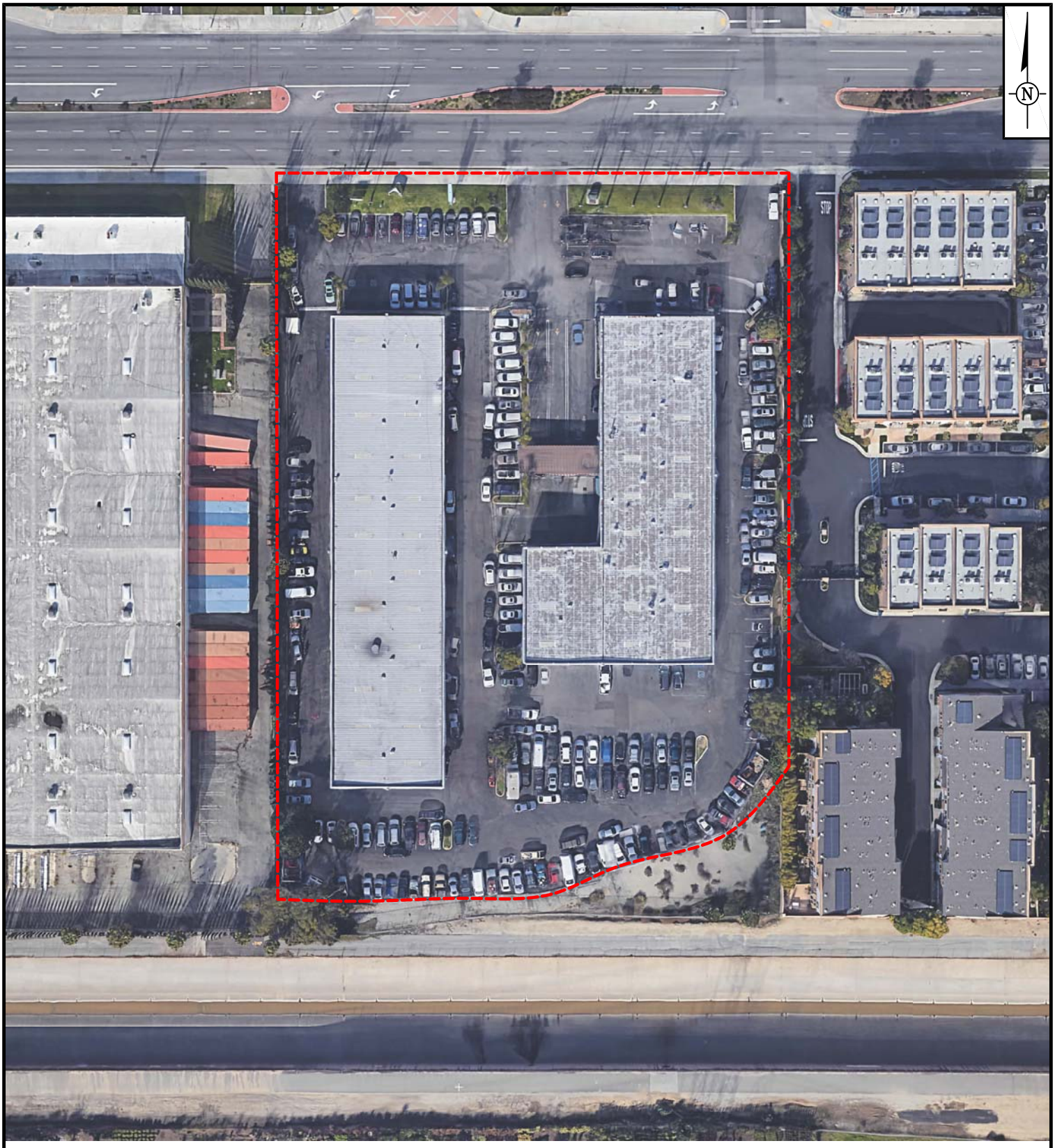
Very truly yours,

Advanced Environmental Group, Inc.

Anthony F. Severini, P.G.
Senior Project Manager

Ashley Flores
Project Manager

Attachments:
Figure 1 – Site Map
Figure 2 – Boring Locations
Figure 3 – Soil Vapor Results – 5 Ft
Figure 4 – Soil Vapor Results – 15 Ft
Table 2 – Soil Vapor Sampling Results for VOCs



Map Source: Google Earth

NOT TO SCALE

SITE MAP

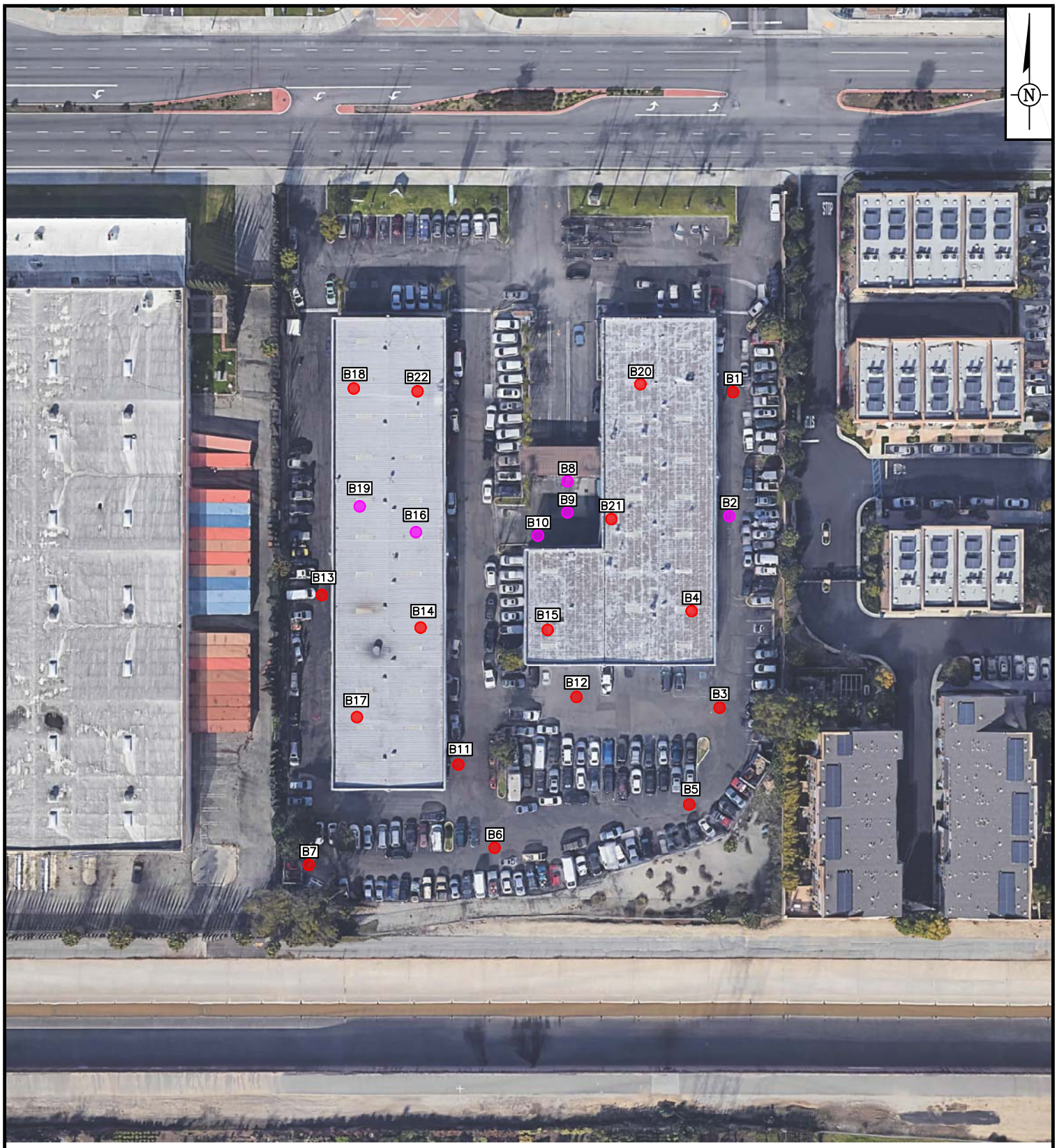
Stein Project
1610 West Artesia Boulevard
Gardena, CA

Phase II Environmental Site Assessment

Project Number	EMS614
Project Manager	AS
Drafter	AF
Date	10/28/2022

ENVIRONMENTAL MANAGEMENT STRATEGIES, INC.
Financially Based, Environmental Solutions

Figure 1



Map Source: Google Earth

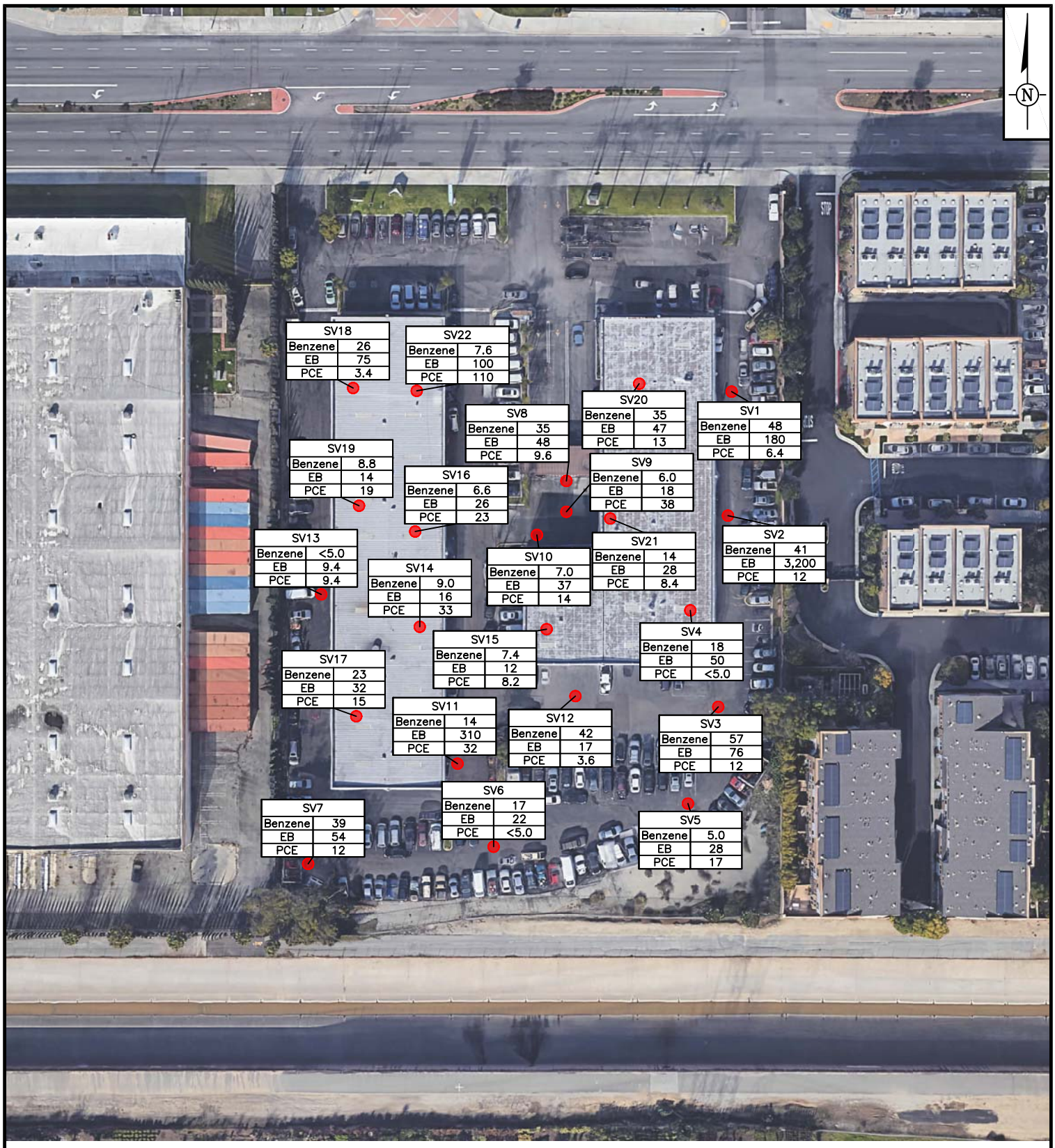
- 5 Ft. Borings
- 15 Ft. Borings

NOT TO SCALE

BORING LOCATIONS

Stein Project
1610 West Artesia Boulevard
Gardena, CA

Project Number: EMS614	Phase II Environmental Site Assessment
Project Manager: AS / Drafter: AF	ENVIRONMENTAL MANAGEMENT STRATEGIES, INC. *Financially Based, Environmental Solutions*
Date: 10/28/2022	Figure 2



Map Source: Google Earth

Soil Vapor Probe Locations
EB Ethylbenzene
PCE Tetrachloroethene
Results in micrograms per cubic meter

NOT TO SCALE

Soil Vapor Results - 5 FT

Stein Project
1610 West Artesia Boulevard
Gardena, CA

Project Number	EMS614
Project Manager	AS
Drafter	AF
Date	10/27/2022

Phase II Environmental Site Assessment

ENVIRONMENTAL MANAGEMENT STRATEGIES, INC.
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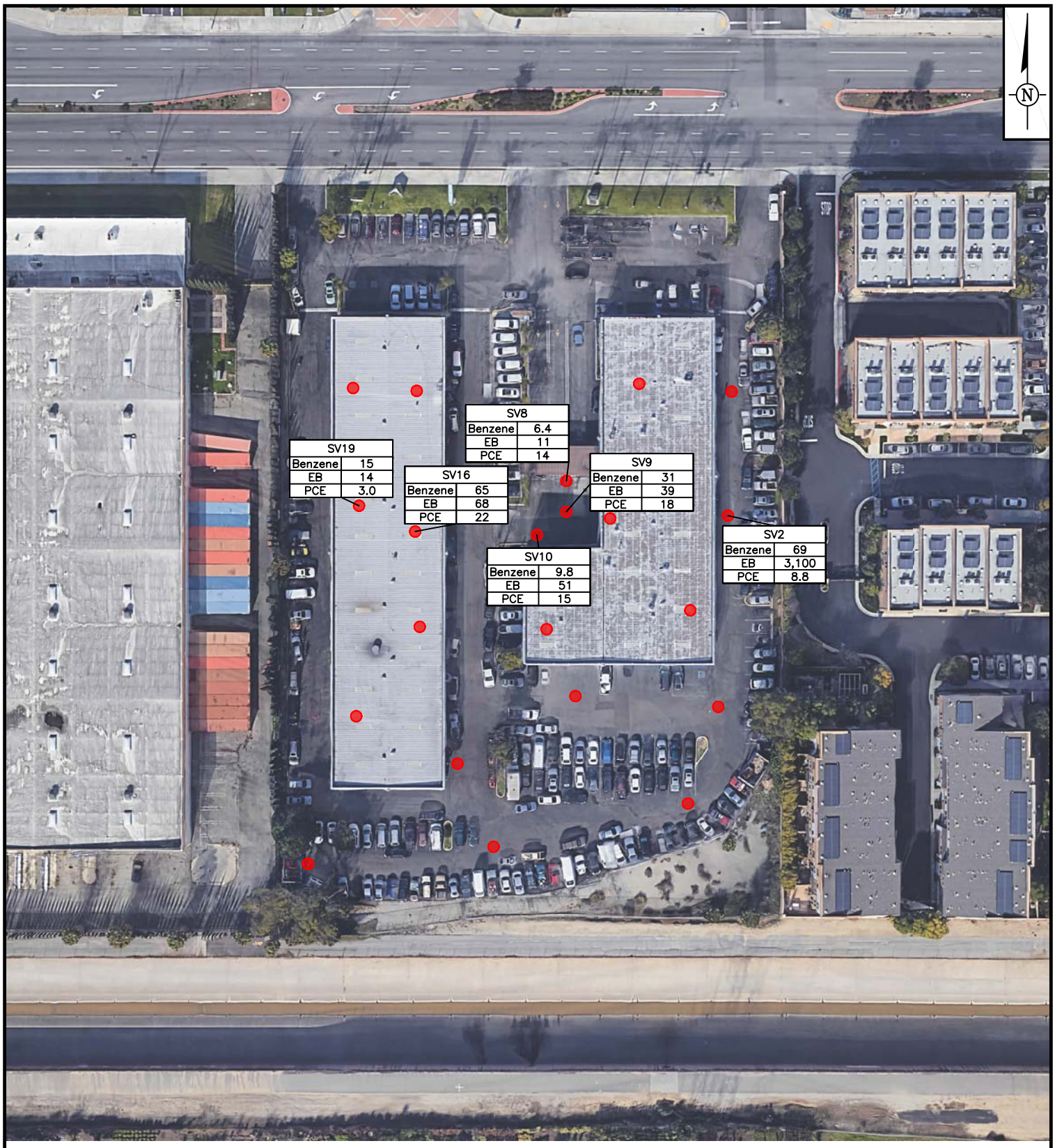
Figure 3



Map Source: Google Earth

Soil Vapor Probe Location
EB Ethylbenzene
PCE Tetrachloroethene
Results in micrograms per cubic meter

NOT TO SCALE

Soil Vapor Results - 15 FT

Stein Project
1610 West Artesia Boulevard
Gardena, CA

Project Number	EMS614
Project Manager	AS
Drafter	AF
Date	10/27/2022

Phase II Environmental Site Assessment

ENVIRONMENTAL MANAGEMENT STRATEGIES, INC.
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Figure 4

TABLE 2
SOIL VAPOR SAMPLING RESULTS FOR VOCs
1610 WEST ARTESIA BOULEVARD, GARDENA, CA

Probe ID	Depth (ft)	Date	Benzene	Carbon disulfide	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	meta- and para-Xylenes	ortho-Xylene	Total Petroleum Hydrocarbons (GRO)
			µg/m³													
SV1	5	10/19/2022	48	67	<5.0	180	<5.0	<5.0	<5.0	6.4	610	7.4	<5.0	690	170	64,000
SV2	5	10/19/2022	41	<5.0	<5.0	3,200	69	3.8	<5.0	12	420	74	38	12,000	3,300	680,000
	Dup		38	<5.0	<5.0	3,000	68	4.0	<5.0	13	420	89	42	11,000	3,300	510,000
	15		69	81	<5.0	3,100	86	<5.0	68	8.8	410	170	74	13,000	4,500	700,000
SV3	5	10/19/2022	57	430	46	76	<5.0	<5.0		12	73	8.4	<5.0	340	90	16,000
SV4	5	10/19/2022	18	<5.0	<5.0	50	4.2	4.6	10	<5.0	190	51	18	220	85	11,000
SV5	5	10/19/2022	5.0	<5.0	<5.0	28	<5.0	<5.0	3.4	17	60	13	4.8	140	45	3,600
SV6	5	10/19/2022	17	<5.0	<5.0	22	<5.0	<5.0	<5.0	<5.0	82	<5.0	<5.0	95	28	4,000
SV7	5	10/19/2022	39	26	<5.0	54	<5.0	3.2	<5.0	12	360	14	5.6	190	56	160,000
SV8	5	10/19/2022	35	32	<5.0	48	<5.0	17	<5.0	9.6	360	32	10	180	58	280,000
	15		6.4	<5.0	<5.0	11	<5.0	<5.0	<5.0	14	50	6.2	<5.0	50	14	5,600
SV9	5	10/19/2022	6.0	13	<5.0	18	<5.0	<5.0	<5.0	38	72	16	4.4	64	20	190,000
	15		31	73	<5.0	39	<5.0	<5.0	<5.0	18	180	6.2	<5.0	170	55	27,000
SV10	5	10/19/2022	7.0	<5.0	<5.0	37	<5.0	<5.0	<5.0	14	79	10	3.8	160	62	49,000
	15		9.8	<5.0	<5.0	51	<5.0	<5.0	3.2	15	140	11	4.4	240	95	19,000
SV11	5	10/19/2022	14	<5.0	<5.0	310	6.0	<5.0	4.0	32	110	12	4.4	1,300	380	130,000
SV12	5	10/19/2022	42	<5.0	27	17	<5.0	<5.0	<5.0	3.6	88	3.2	<5.0	68	18	28,000
SV13	5	10/20/2022	<5.0	<5.0	<5.0	9.4	<5.0	<5.0	<5.0	9.4	32	5.8	<5.0	46	16	9,800
SV14	5	10/20/2022	9.0	<5.0	<5.0	16	<5.0	<5.0	4.4	33	69	13	4.4	57	20	47,000
SV15	5	10/20/2022	7.4	<5.0	<5.0	12	<5.0	<5.0	<5.0	8.2	55	5.2	<5.0	34	11	71,000
	Dup	10/20/2022	7.2	<5.0	<5.0	10	<5.0	<5.0	<5.0	7.8	54	4.2	<5.0	33	9.8	67,000
SV16	5	10/20/2022	6.6	<5.0	<5.0	26	<5.0	9.4	<5.0	23	110	18	7.2	84	30	650,000
	15		65	64	<5.0	68	<5.0	12	<5.0	22	460	38	16	190	68	1,300,000
SV17	5	10/20/2022	23	<5.0	<5.0	32	<5.0	3.4	7.0	15	200	14	6.0	100	32	120,000
SV18	5	10/20/2022	26	20	<5.0	75	<5.0	<5.0	<5.0	3.4	220	13	5.6	350	120	87,000

TABLE 2
SOIL VAPOR SAMPLING RESULTS FOR VOCs
1610 WEST ARTESIA BOULEVARD, GARDENA, CA

Probe ID	Depth (ft)	Date	Benzene	Carbon disulfide	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	meta- and para-Xylenes	ortho-Xylene	Total Petroleum Hydrocarbons (GRO)
			µg/m^3													
SV19	5	10/20/2022	**8.8**	<5.0	<5.0	**44**	<5.0	**3.6**	<5.0	**19**	**190**	**38**	**14**	**160**	**55**	**350,000**
	15		**15**	<5.0	<5.0	**14**	<5.0	<5.0	<5.0	**3.0**	**100**	**9.6**	**3.0**	**48**	**15**	**32,000**
SV20	5	10/20/2022	**35**	<5.0	<5.0	**47**	<5.0	<5.0	<5.0	**13**	**320**	**18**	**8.4**	**150**	**43**	**290,000**
SV21	5	10/20/2022	**14**	<5.0	<5.0	**28**	<5.0	**4.0**	<5.0	**8.4**	**140**	**19**	**7.4**	**96**	**30**	**150,000**
SV22	5	10/20/2022	**7.6**	<5.0	<5.0	**100**	<5.0	<5.0	**6.8**	**110**	**130**	**21**	**9.0**	**440**	**120**	**48,000**
Screening Level																
SFB ESL			**3.2**	NA	**280**	**37**	NA	NA	NA	**15**	**10,000**	NA	NA	**3,500**	**3,500**	**20,000**
RSL Region 9			**12**	**24,333**	NA	**37**	NA	NA	NA	**367**	**1.7E+05**	**2,100**	**2,100**	**3,333**	**3,333**	NA

Notes:

µg/ =m^3 micrograms per cubic meter

NA = Not Applicable

SFRWQCB ESL = San Francisco Regional Water Quality Control Board - Enivronmental Screening Levels - January 2019

RSL Region 9 = Environmental Protection Agency Regional Screening Levels Region 9 - May 2022 - Adjusted for Soil Gas Using an Attenuation Factor of 0.03