

**Appendix G.**

**Hazardous Materials Technical Memorandum**



November 16, 2022  
Project No. 212124002

Ms. Lauren Reese  
SWCA Environmental Consultants  
3838 Camino Del Rio N, Suite 220  
San Diego, California 92108

Subject: Technical Review Memorandum and Summary of Environmental Activities  
The Riverview Project  
22500 Soledad Canyon Road  
Santa Clarita, California 91350

Dear Ms. Reese:

Ninyo & Moore has prepared this Technical Review Memorandum and Summary of Environmental Activities which outlines the findings of our review of available environmental documents associated with the property located at 22500 Soledad Canyon Road, Santa Clarita, California 91350 (Site).

## **SITE DESCRIPTION**

The Site consists of an approximate 35-acre property and is the location of the former Saugus Speedway with Assessor's Parcel Number 2836-011-018.

It is Ninyo and Moore's understanding that The Riverview Owner LPV, LLC (Riverview) proposes to construct a mixed-use development including approximately 318 residences, approximately 67,692 square feet of studio space and approximately 2,000 square feet of office space. The proposed development would also include a pool, spa, fountain wall, fire pit seating area, dog park, a central community open space area and four-story parking garage.

The project includes the grading of approximately 800,000 cubic yards of soil to be balanced on-site and removal of nine oak trees. The project site contains the former Saugus Speedway, which currently operates as a swap meet, and is directly adjacent to the Santa Clarita Metrolink Station.

## **ENVIRONMENTAL DOCUMENT REVIEW**

Documents reviewed which are related to historical environmental assessments and investigations conducted at the Site were sourced from SWCA Environmental Consultants or the State of California's Department of Toxic Substances Control (DTSC) EnviroStor website. Information obtained from this review is summarized below.

## **AVOCET Environmental, Inc. (AVOCET), 2007, Revised Preliminary Endangerment Assessment Report, Saugus Swap Meet Property, Santa Clarita, California, March 21**

On November 16, 2006 AVOCET conducted a Preliminary Endangerment Assessment (PEA) for the Site on behalf of Rodeo Land Company (Rodeo), with oversight from the DTSC, which was subsequently revised on March 21, 2007. AVOCET's Revised PEA report presented the results of the Site investigations and a human health risk assessment (HHRA) that was conducted as part of a proposed redevelopment project. The PEA identified and investigated 17 environmental targets, which represent areas or features where potentially hazardous substances are known or suspected to have been used, stored, or handled, namely former underground storage tanks (USTs), former oil storage areas, machine shops, drum storage areas, areas of pesticide and herbicide use during past agricultural use, and areas of groundwater contamination attributable to releases from the Whittaker-Bermite facility. The 2007 PEA references five USTs containing fuel and possibly heating oil. According to AVOCET, while all five former tanks were believed to have been removed, evidence of removal for only three was identified. According to AVOCET, aside from locally elevated concentrations of lead in near-surface soil beneath the former speedway bleachers and other wooden structures, results of the PEA revealed that the impact of past operations at the Site on the subsurface appeared to have been negligible. However, results of the PEA also showed that concentrations of perchlorate and volatile organic compounds (VOCs) attributable to the former Whittaker-Bermite facility were present in groundwater beneath the Site, with the highest VOC concentrations in groundwater in the southwest corner of the site, closest to the former Whittaker-Bermite facility. It was AVOCET's opinion, that VOCs appeared to have off-gassed from groundwater and were also present in soil vapor beneath the Site. In July 2006, groundwater was encountered between 10 and 12 feet below ground surface (bgs), although according to AVOCET, data reported by Whittaker-Bermite indicated that the depth to groundwater beneath the Site fluctuates significantly in response to precipitation or the lack thereof.

As part of the PEA in 2006, AVOCET conducted a human health risk assessment (HHRA) to estimate the potential risks associated with contaminants in different media. At the time, the conceptual redevelopment plan called for a mixed use project with commercial units at ground level and residential units on the second and higher floors. According to AVOCET, the HHRA was very conservative, at DTSC's request, and the estimated human health risks were higher than the generally accepted Incremental Lifetime Cancer Risk (ILCR) threshold of  $1 \times 10^{-6}$ . Based on the results of the PEA and HHRA, DTSC drafted a "Land Use Covenant" (LUC) that would prohibit residential units at ground level; however, according to AVOCET, the LUC was never executed.

## **AVOCET, 2015, Additional Phase II Investigation and Vapor Intrusion Assessment, Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita, California, August 3**

In May 2015, AVOCET conducted an additional Phase II Site Investigation and Vapor Intrusion Assessment to assess current VOC concentrations in soil vapor beneath the Site and evaluate the associated human health risks through a vapor intrusion assessment. On May 19 and 20, 2015, eight soil borings (SGP023 through SGP030) were advanced to a depth of 25 feet bgs at various locations throughout the Site, including a “worst case” location. According to AVOCET, the “worst case” location was assumed to be the southwest corner of the Site, where Whittaker-Bermite’s monitoring data indicate the highest VOC concentrations in groundwater are present. For purposes of the May 2015 assessment, AVOCET assumed that the highest VOC concentrations in soil vapor would coincide with the highest concentrations in groundwater. According to AVOCET, three representative soil samples, collected at 5, 15, and 25 feet bgs, were selected for a suite of physical property tests to provide site-specific data for vapor intrusion modeling. Soil samples were submitted to PTS Laboratories, Inc. (PTS) for its California Environmental Protection Agency (Cal-EPA) DTSC Vapor Intrusion suite of analyses. Temporary soil vapor probes were installed at depths of 5 and 25 feet bgs in borings SGP023 through SGP028, and at depths of 5, 15, and 25 feet bgs in borings SGP029 AND SGP030. A total of 18 soil vapor samples collected from the temporary soil vapor probes were analyzed by Jones Environmental, Inc. (Jones), of Fullerton, California for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260B in an onsite mobile laboratory.

Soil vapor analytical results reported that VOCs, including tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), and toluene were present in 17 of the 18 soil vapor samples collected at the Site. According to AVOCET, PCE was reported with a maximum concentration of 20.5 micrograms per liter ( $\mu\text{g/L}$ ) in the 25-foot sample from boring SGP029. Seven of the reported PCE concentrations at 5 feet bgs exceeded the residential California Human Health Screening Level (CHHSL) and of these seven, five also exceeded the commercial/industrial CHHSL. According to AVOCET, VOC concentrations were highest in the soil vapor samples from 25 feet bgs and decreased in concentration in shallower soil vapor samples, which is consistent with offgassing from groundwater. According to AVOCET, the highest VOC concentrations, including those of PCE, were reported in samples from soil vapor probe SGP026, located on the eastern portion of the Site, and soil vapor probes SGP029 and SGP030, both located in the southwest corner of the Site, within an area considered the “no-build zone”. According to AVOCET, a previous geotechnical evaluation conducted at the Site indicated a fault trace through the southwestern corner of the Site and suggested sandy soils beneath the Site could be susceptible to liquefaction, and considered the southwest corner of the Site a “no-build zone”. Additionally, AVOCET stated that the highest VOC concentrations in soil vapor in the southwest corner of the Site

coincided with the highest VOC concentrations migrating in groundwater from the adjoining former Whittaker-Bermite facility.

According to AVOCET, conservative modeling was used to assess potential human health risks associated with vapor intrusion. Results of the 2015 vapor intrusion assessment indicated that the estimated risk associated with vapor intrusion into future residential structures in the southwest corner of the Site exceeded the generally accepted ILCR threshold limit of  $1 \times 10^{-6}$ , although the estimated noncancer risks are well below the threshold Hazard Index (HI) of 1.0. It is in AVOCET's opinion, that DTSC would likely require active mitigation measures, most likely subslab depressurization, for residential structures in the southwest corner of the Site. AVOCET stated that elsewhere at the Site, the human health risks associated with VOCs in soil vapor were acceptable, and active mitigation measures would likely not be required.

### **AVOCET, 2017, Supplemental Phase II Investigation, Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita, California, 91350, August 8**

In May 2017, AVOCET conducted a supplemental Phase II investigation at the Site to assess current VOC concentrations in soil vapor beneath the Site, evaluate the associated human health risks through a vapor intrusion assessment, and assess current lead concentrations in near-surface soils in the vicinity of the former racetrack and associated bleachers. The supplemental Phase II investigation included the collection and analysis of near-surface soil samples for lead analysis at locations in the vicinity of the former racetrack and associated bleachers, and the collection and analysis of soil vapor samples from soil borings across the Site for vapor intrusion assessment purposes.

On May 11, 2017, 12 soil borings (SGP031 through SGP042) were advanced to a depth of 5.5 feet bgs and 10 soil borings (SS01 through SS10) were advanced to a depth of 2 feet bgs at the Site. According to AVOCET, soil samples were collected at depths of 0.5 and 2 feet bgs from 15 of the 22 borings (borings SGP038 through SGP042 and SS01 through SS-10) and were submitted to Eurofins Calscience, Inc. (Eurofins) in Garden Grove, California. A total of 33 soil samples, including Quality Assurance/Quality Control (QA/QC) duplicate samples, were analyzed for total lead using EPA Method 6010B. Based on the the lead results, AVOCET instructed Eurofins to analyze one of the soil samples for soluble lead pursuant to the California Waste Extraction Test (WET) and the Toxicity Characteristic Leaching Procedure (TCLP) extraction processes.

According to AVOCET, soil analytical results indicated that lead, a naturally occurring metal, was present in near-surface soil in the vicinity of the former raceway and associated bleachers, at concentrations up to 67 milligrams per kilogram (mg/kg), which are below residential and commercial

DTSC modified screening levels (DTSC SLs). According to AVOCET, the reported total lead concentrations were not close to the Total Threshold Limit Concentration (TTLIC), and soluble lead in the one sample that exceeded 50 mg/kg of total lead was below the Soluble Threshold Limit Concentration (STLC) pursuant to both the California WET and TCLP extraction procedures.

Based on these results, AVOCET concluded that the impact of lead-based paint (LBP) debris from the wooden bleachers that formerly surrounded the speedway track on the underlying soil has not been significant, and the area was suitable for commercial development as planned. In addition, AVOCET stated that since the reported total lead concentrations did not exceed the DTSC-SL of 80 mg/kg, the area could potentially be redeveloped for residential purposes should Rodeo choose to modify its redevelopment plan.

Following soil sampling, soil vapor probes were installed in the 12 deeper borings (SGP031 through SGP042) at a depth of 5 feet bgs. Soil vapor probes SGP031 through SGP037 were located in the proposed residential area and the remaining five soil vapor probes were located in the areas proposed for parking or commercial use. Soil vapor samples collected from the 12 soil vapor probes were analyzed for VOCs, including fuel oxygenates using EPA Method 8260B.

Laboratory analytical results reported that the 12 soil vapor samples contained trace concentrations of one or more of three VOCs, namely PCE, TCE, and 1,1,1-trichloroethane (1,1,1-TCA). According to AVOCET, PCE and TCE were the most widely distributed VOCs in soil vapor at the Site, with the highest reported TCE and PCE concentrations in the 5-foot samples from borings SGP031 and SGP034, respectively. Both borings were located in the central portion of the Site, directly beneath the proposed residential areas.

Based on these findings, AVOCET, concluded that VOCs, primarily PCE and TCE, are believed to be related to off-gassing from groundwater impacted by releases at the hydraulically upgradient former Whittaker-Bermite facility and are present in soil vapor beneath most of the Site. It is AVOCET's opinion, that the bedrock that outcrops in the northern portion of the Site is not expected to contain groundwater and therefore, VOCs in soil vapor beneath the northern portion of the Site are unlikely to be of concern. It is AVOCET's opinion, that as Whittaker-Bermite continues remediation efforts in the vadose zone and groundwater, VOC concentrations in groundwater beneath the Site should continue to decline.

A vapor intrusion assessment was conducted to assess the impact of VOCs in soil vapor on building occupants at the Site. According to the 2017 Supplemental Phase II Investigation report, AVOCET modeled vapor intrusion into hypothetical future buildings at the Site using a modified version of the Johnson-Ettinger (J-E) model, which estimates potential future indoor vapor concentrations inside

an enclosed building based on the diffusion and advection of vapors through soil and the building floor. According to AVOCET, vapor intrusion modeling using “worst-case” soil vapor VOC concentrations and other conservative input data indicates that the estimated potential PCE concentration in indoor air in a future residential structure may marginally exceed the DTSC SL, although the estimated concentration is below EPA’s residential Regional Screening Level (RSL). According to AVOCET, the estimated potential TCE and 1,1,1-TCA concentrations in indoor air in a future residential structure are below potentially applicable screening levels. The estimated potential VOC concentrations in indoor air in a future commercial building in the proposed residential area are also below potentially applicable screening levels should Rodeo choose to modify its redevelopment plan. Additionally, AVOCET concluded that in the areas proposed for onsite parking and commercial buildings located in the southern portion of the Site, potential indoor air VOC concentrations, as estimated by the J-E model, are acceptable for the proposed commercial use without mitigation measures. It is AVOCET’s opinion, that for VOCs in soil vapor that may necessitate mitigation measures which are attributable to releases at the former Whittaker-Bermite facility, the associated costs, including cost of previous investigation, should be reimbursable by Whittaker-Bermite or its successors.

Based on the results of the vapor intrusion assessment, AVOCET concluded that DTSC would likely require vapor intrusion mitigation measures for future on-grade residential structures in the proposed residential redevelopment area. It is in AVOCET’s opinion, that although such measures may be appropriate only in certain “worst case” areas, DTSC could require that they be implemented in all residential areas, with the possible exception of where bedrock outcrops in the northern portion of the site.

### **GSI Environmental, Inc. (GSI), 2021a, Results of Limited Phase II Screening Investigation, Former Saugus Speedway, 22500 Soledad Canyon Road, Santa Clarita, California, May 14**

Between March and April 2021, GSI Environmental, Inc. (GSI) conducted a Limited Phase II Screening Investigation to further assess Site conditions. In March 2021, GSI advanced 12 soil borings across the Site and collected soil samples from depths of 1, 5, and 15 feet bgs. According to GSI, soil samples collected from 1 and 5 feet bgs were analyzed for metals using EPA Method 6010B/7471A. The 15-foot soil samples were placed on hold pending the results of the shallower soil samples. Based on the results of the 1 and 5-foot samples, the 15-foot soil samples were not analyzed. Soil vapor probes were installed within each soil boring at depths of 5 and 15 feet bgs. Soil vapor samples were analyzed for VOCs using EPA Method TO-15.



In April 2021, additional soil samples were collected from depths of 1 and 5 feet bgs in 21 locations in the vicinity of the former arena/speedway. The 1-foot soil samples were analyzed for lead using EPA Method 6010B and the 5-foot soil samples were placed on hold pending the results of the shallower samples. Based on the results of the 1-foot samples, the 5-foot samples were not analyzed.

According to GSI, soil analytical results revealed the presence of several metals, including barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc in soil at concentrations above their respective laboratory reporting limits; however, these concentrations were below their respective DTSC and EPA residential and commercial screening levels.

According to GSI, soil vapor analytical results revealed the presence of several VOCs at concentrations above their respective laboratory reporting limits; however, these concentrations were below their respective DTSC and EPA residential and commercial screening levels, except for PCE at a depth of 15 feet bgs at soil vapor probe location SV-8. PCE was detected at a concentration of 580 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) at a depth of 15 feet at this location, which was above the residential screening level of 460  $\mu\text{g}/\text{m}^3$ . A PCE concentration of 420  $\mu\text{g}/\text{m}^3$  was reported in the shallower probe (5 feet bgs) at soil vapor probe location SV-8, which was below the future residential screening level.

Based on these findings, GSI concluded that PCE and TCE concentrations in soil vapor have decreased when compared to 2017 soil vapor analytical results, which according to GSI, was a result of the groundwater remediation efforts at the former Whittaker-Bermite facility, located upgradient of the Site. It is in GSI's opinion, that VOC concentrations in soil vapor are expected to decrease as off-gassing from groundwater decreases as remediation efforts continue at the Whittaker-Bermite property.

### **GSI, 2021b, Supplemental Investigation, Vapor Intrusion Risk Assessment, and Request for No Further Action Determination, Former Saugus Speedway, 22500 Soledad Canyon Road, Santa Clarita, California, August 27**

According to GSI, due to the proximity of the former Whittaker-Bermite facility, the previous developer, Rodeo, pursued regulatory agency closure for subsurface environmental impacts and entered into a Voluntary Cleanup Agreement (VCA), with DTSC in 2006 (VCA No. HAS-A 06/07-049). Following the 2007 PEA, which was conducted by AVOCET on behalf of Rodeo, DTSC closed the VCA on March 11, 2008, noting that the Site was suitable for mixed use development. Three assessments (in 2015, 2017, and 2021) were conducted at the Site following DTSC's 2008 letter, which assessed metal impacts to soil, primarily lead, and VOC impacts in soil gas, related to vapor intrusion concerns.

According to GSI, the subsequent developer, Integral Communities (Integral) entered into a Standard Voluntary Agreement with DTSC on June 22, 2021, and in August 2021, GSI prepared a Supplemental Investigation, Vapor Intrusion Risk Assessment, and Request for No Further Action Determination report on behalf of Integral, which included a summary of the assessments conducted at the Site, the status of the upgradient Whittaker-Bermite groundwater plume that extends beneath the Site, a vapor intrusion risk assessment (VIRA), and discussion supporting the request for a No Further Action (NFA) determination by the DTSC.

According to GSI, results of 2017 and 2021 soil gas assessments have demonstrated that VOC-impacts to soil gas at the Site are related to the Whittaker-Bermite groundwater plume that had migrated from the adjacent property to the east. To evaluate the potential for vapor intrusion to occur at the proposed residential buildings at the Site, GSI evaluated 2017 and 2021 soil gas concentrations on a point-by-point basis. According to GSI, the maximum detected concentration of VOCs in soil gas collected at each location sampled in 2017 and 2021 was selected as the exposure point concentration (EPC). For VOCs that were not detected at a specific soil gas sample location, GSI selected the analytical detection limit as the EPC. At sample points with multiple non-detect results for any single constituent, GSI selected the lowest detection limit as the EPC. Thus, it is GSI's opinion, that this evaluation considered potential worst-case exposures at each location, assuming that soil gas concentrations remain constant over time, which is not the case because of the remediation activities at the Whittaker Bermite site under the oversight of the DTSC.

Potential human health risks associated with estimated exposures to chemicals of potential concern (COPCs) in soil gas were quantified using the comparison of EPCs to residential screening levels protective of carcinogenic and noncarcinogenic adverse health effects. According to GSI, for the evaluation of carcinogenic risks associated with the vapor intrusion pathway, DTSC established  $1 \times 10^{-6}$  as a risk management goal for residential land use, and considers estimated risks between  $1 \times 10^{-6}$  and  $1 \times 10^{-4}$  as indicative of the need for additional data collection, monitoring, additional risk characterization, mitigation, or source removal.

According to GSI, the results of the risk characterization using the DTSC 2011 attenuation factor-applied risk-based screening levels (AF RBSLs) indicated that estimated vapor intrusion risks/hazards for soil gas samples collected in 2017 are at the low end of or below the risk management range, and in 2021 the vapor intrusion risks/hazards are at or below the risk management range.

Based on these findings, GSI concluded that the Site is suitable for residential development based on the following lines of evidence: (1) no onsite sources of VOCs or metals were identified, (2) metals

concentrations in soil at the Site are below residential screening levels, (3) VOC concentrations in soil gas, attributable to off-gassing from groundwater impacted by releases at the hydraulically upgradient former Whittaker-Bermite facility, are decreasing as a result of continued remediation of the Whittaker-Bermite groundwater plume, and (4) a low vapor intrusion risk exists for residential development based on 2021 conservative modeling of soil gas concentrations. As a result, GSI requested that DTSC issue a NFA determination for the Site.

Furthermore, GSI recommended the preparation of a soil management plan (SMP) to be implemented during Site redevelopment.

### **Department of Toxic Substance Control (DTSC), 2021, No Further Action Determination for Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita (Site Code: 301293), December 14**

Based on the results of GSI's Supplemental Investigation, Vapor Intrusion Risk Assessment, and Request for No Further Action Determination report dated August 27, 2021, DTSC issued a no further action (NFA) determination for the Site on December 14, 2021, and determined that the Site is suitable for unrestricted use.

### **Dudek, 2022, Hazardous Materials Assessment for Riverview Development Project, Santa Clarita, California, November 2**

In November 2022, Dudek prepared a Hazardous Materials Assessment (HMA) for the Riverview Development Project, to determine if there are any potential environmental concerns on the Site related to current or historical handling and storage of hazardous materials and/or

wastes. This HMA consisted of a review and summary of regulatory agency records, historical aerial photographs, historical topographic maps, and potential site hazards due to hazardous material pipelines and/or oil and gas wells. Results of the November 2022 HMA identified the following potential impacts on the Site:

- PCE was observed in soil vapor at a concentration of 580  $\mu\text{g}/\text{m}^3$  at 15 feet below ground surface in soil vapor probe location SV-8 during the 2021 investigation (GSI, 2021). This concentration is above residential screening levels established by DTSC. The shallower soil vapor sample at this same location (at 5 feet bgs), had a lower concentration of 420  $\mu\text{g}/\text{m}^3$ , which was below the residential screening level. According to Dudek, there is a potential that this elevated soil gas concentration could impact breathing zone during excavation activities, and health and safety measures may be warranted.
- It is in Dudek's opinion, that soils with elevated lead concentrations observed during the 2007 investigation may still be present at the Site, since the exact locations were not sampled again in the subsequent assessments. However, according to Dudek, these concentrations are likely localized and are expected to be commingled with clean soils and removed during site grading, and are therefore, likely *de minimis* to the proposed project. Should isolated excavations occur

in areas where elevated lead concentrations were previously identified, it is in Dudek's opinion, that these soils could require sampling or special handling procedures for lead prior to disposal.

- According to Dudek, documentation of UST removal was only found for three of the five former USTs (AVOCET, 2007). Geophysical surveys completed in the areas of the two USTs without removal documentation did not reveal evidence of subsurface features, and it is believed all USTs have been removed (AVOCET, 2007). However, since full documentation of the removal or type of decommissioning is not available, it is in Dudek's opinion, there is the potential for a UST or associated UST features (such as piping) to be present at the Site. According to Dudek, a contingency may be warranted, with procedures for identification, documentation, and appropriate removal of USTs, should they be found during construction activities.
- According to Dudek, hazardous materials may still be present at the Site, such as propane and automotive fuels, which would require proper removal and disposal before development of the Site.
- Remaining structures may contain hazardous building materials, such as lead-based paint, asbestos-containing materials, polychlorinated biphenyls, or other metals. Two small buildings near the northwest corner of the Site are known to contain lead-based paint that has not been remediated (Dudek, 2022). It is Dudek's opinion, that a hazardous materials survey may be required prior to building demolition to identify hazardous building materials in other buildings that have not been surveyed. Additionally, Dudek recommended that known hazardous materials and those identified in future surveys should be properly abated prior to or during demolition activities.

## REGULATORY AGENCY INVOLVEMENT

On September 19, 2006, DTSC and Riverview entered into Standard Voluntary Agreement. On May 19, 2021, a Request for Agency Oversight Application was filed by Riverview to determine whether DTSC or the Regional Water Quality Control Board (RWQCB) will be the appropriate lead agency to provide oversight for the assessment and/or remediation of the Site.

At the time of this technical review the DTSC is listed as the lead agency per the EnviroStor website (Site Code: 301293).

## CONCLUSIONS

Following a review of historical documents associated with the Site, the following conclusions were determined:

- Based on the results of AVOCET's PEA report dated March 2006 (Revised), DTSC closed the VCA on March 11, 2008, and determined that the Site was suitable for mixed use development.
- Results of the 2015 soil gas assessment reported that VOCs, primarily PCE and TCE, were present in soil vapor beneath the Site, with the highest VOC concentrations observed in the 25-foot soil vapor samples and decreasing concentrations reported in shallower soil vapor samples, which is consistent with off-gassing from groundwater.

- Results of the 2015 vapor intrusion assessment indicated that the estimated risk associated with vapor intrusion into future residential structures in the southwest corner of the Site exceeded the generally accepted ILCR threshold limit of  $1 \times 10^{-6}$ , although the estimated noncancer risks are well below the threshold HI of 1.0. According to AVOCET, DTSC would likely require active mitigation measures which are limited to residential structures proposed for the southwest corner of the Site (likely subslab depressurization); VOC concentrations in soil vapor reported elsewhere across the are acceptable per the risk to human health and active mitigation measures would likely not be required.
- Results of the 2017 supplemental Phase II Investigation indicated that total lead concentrations in soil were not close to the TTLC, and soluble lead in the one sample that exceeded 50 mg/kg of total lead was below the STLC pursuant to both the California WET and TCLP extraction procedures. Based on these results, AVOCET concluded that the impact of LBP debris from the wooden bleachers that formerly surrounded the speedway track on the underlying soil has not been significant, and that this area was suitable for commercial development as planned.
- March and April 2021 soil analytical results revealed the presence of several metals, including barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc in soil at concentrations above their respective laboratory reporting limits; however, these concentrations were below their respective DTSC and EPA residential and commercial screening levels.
- Results of March/April 2021 soil vapor sampling indicated that PCE and TCE concentrations in soil vapor have decreased when compared to 2017 soil vapor analytical results, which according to GSI, is expected to be due to the groundwater remediation efforts at the former Whittaker-Bermite facility located upgradient of the Site. It is in GSI's opinion, that VOC concentrations in soil vapor are expected to decrease as off-gassing from groundwater decreases and remediation efforts continue at the Whittaker-Bermite property.
- In August 2021, GSI concluded that the Site is suitable for residential development based on the following lines of evidence: no onsite sources of VOCs or metals were identified; metals concentrations in soil at the Site are below residential screening levels; VOC concentrations in soil gas, attributable to off-gassing from groundwater impacted by releases at the hydraulically upgradient former Whittaker-Bermite facility, are decreasing as a result of continued remediation of the Whittaker-Bermite groundwater plume; and a low vapor intrusion risk exists for residential development based on 2021 conservative modeling of soil gas concentrations.
- Based on the results of the Hazardous Materials Assessment dated November 2, 2022, Dudek concluded that:
  - There is a potential that the elevated soil gas concentration of  $580 \mu\text{g}/\text{m}^3$  at 15 feet bgs in soil vapor probe location SV-8 could impact breathing zone during excavation activities, and health and safety measures may be warranted.
  - Soils with elevated lead concentrations observed during the 2007 investigation may still be present at the Site, since the exact locations were not sampled again in the subsequent assessments. Should isolated excavations occur in areas where elevated lead concentrations were previously identified, it is in Dudek's opinion, that these soils could require sampling or special handling procedures for lead prior to disposal.
  - There is the potential for a UST or associated UST features (such as piping) to be present at the Site. According to Dudek, a contingency may be warranted, with procedures for identification, documentation, and appropriate removal of USTs, should they be found during construction activities.

- According to Dudek, hazardous materials may still be present at the Site, such as propane and automotive fuels, which would require proper removal and disposal before development of the Site.
- According to Dudek, two small buildings near the northwest corner of the Site are known to contain lead-based paint that has not been remediated, and it is in Dudek's opinion, that a hazardous materials survey may be required prior to building demolition to identify hazardous building materials in other buildings that have not been surveyed. Additionally, Dudek recommended that known hazardous materials and those identified in future surveys should be properly abated prior to or during demolition activities.

## RECOMMENDATIONS

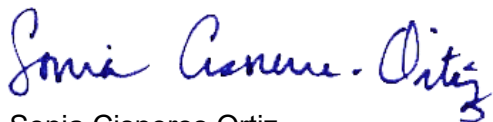
Based on the findings and conclusions detailed herein, Ninyo & Moore recommends a Soil Management Plan (SMP) should be prepared if soil is to be disturbed during construction activities and should describe the protocols for excavation, temporary stockpiling, handling, and disposal of impacted soil that may be encountered at the site. The SMP should also provide guidance for monitoring requirements to be followed during excavation activities, stockpiling procedures, excavated soil waste characterization requirements, soil disposal requirements based on waste characterization, sampling and analyses requirements in the event impacted soil is detected, soil screening levels, and regulatory reporting requirements.

## LIMITATIONS

Our opinions and recommendations are provided in accordance with current practice and the standard of care exercised by environmental consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding our opinions and conclusions.

Ninyo & Moore appreciates the opportunity to provide services on this project.

Respectfully submitted,  
**NINYO & MOORE**



Sonia Cisneros Ortiz  
Project Environmental Scientist



Jeff Aguilar, PG  
Principal Environmental Operations Manager

SCO/JSC/JA/mlc

Attachment: References

## REFERENCES

- AVOCET Environmental, Inc. (AVOCET), 2006, Revised Work Plan Preliminary Endangerment Assessment, Saugus Swap Meet Property, Santa Clarita, California, July 27.
- AVOCET, 2007, Revised Preliminary Endangerment Assessment Report, Saugus Swap Meet Property, Santa Clarita, California, March 21.
- AVOCET, 2015, Additional Phase II Investigation and Vapor Intrusion Assessment, Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita, California, August 3.
- AVOCET, 2017, Supplemental Phase II Investigation, Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita, California, 91350, August 8.
- Department of Toxic Substance Control (DTSC), 2021, No Further Action Determination for Saugus Swap Meet Property, 22500 Soledad Canyon Road, Santa Clarita (Site Code: 301293), December 14.
- Dudek, 2022, Hazardous Materials Assessment for Riverview Development Project, Santa Clarita, California, November 2.
- GSI Environmental Inc. (GSI), 2021a, Results of Limited Phase II Screening Investigation, Former Saugus Speedway, 22500 Soledad Canyon Road, Santa Clarita, California, May 14.
- GSI, 2021b, Supplemental Investigation, Vapor Intrusion Risk Assessment, and Request for No Further Action Determination, Former Saugus Speedway, 22500 Soledad Canyon Road, Santa Clarita, California, August 27.
- State of California Environmental Protection Agency, 2021, Request for Agency Oversight Application, 22500 Soledad Canyon Road, Santa Clarita, California 91350, May 19.