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October 2, 2020

Job No. 3-420-0619

Ms. Paris Marash
Starbucks Coffee Company
555 Anton Boulevard, Suite 300
Costa Mesa, CA 92626

Office: (714) 885-1944
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Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT**
PROPOSED STARBUCKS
840 WEST HUNTINGTON DRIVE
MONROVIA, CA 91016

Dear Ms. Marash:

At your request and authorization, SALEM Engineering Group, Inc. (SALEM) has prepared this Phase II Environmental Site Assessment Report for the proposed Starbucks located at 840 West Huntington Drive in Monrovia, California.

We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455.

Respectfully submitted,

SALEM Engineering Group, Inc.

Reily Rivera
Environmental Project Manager

Shannon Lodge, PG, QSD
Senior Project Manager

GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • MATERIALS TESTING & INSPECTION • FORENSIC • LABORATORY

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engineering group, inc.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

PROPOSED STARBUCKS
840 WEST HUNTINGTON DRIVE
MONROVIA, CALIFORNIA

SALEM PROJECT NO. 3-420-0619
OCTOBER 2, 2020

PREPARED FOR:

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October 2, 2020 **Job No. 3-420-0619**

PHASE II ENVIRONMENTAL SITE ASSESSMENT

PROPOSED STARBUCKS
840 WEST HUNTINGTON DRIVE
MONROVIA, CALIFORNIA

1.0 EXECUTIVE SUMMARY

Salem Engineering Group, Inc. (SALEM) performed a Phase II Environmental Site Assessment (ESA) to investigate the proposed Starbucks located at 840 West Huntington Drive in Monrovia, California (subject property). The subject property totals approximately 0.55-acre and is comprised of one rectangular-shaped parcel and a portion of one contiguous rectangular-shaped parcel (Los Angeles County Assessor Parcel Numbers [APNs] 8507-008-072 and 8507-008-035, respectively). The investigation was performed in accordance with SALEM's Proposal No. P3-420-1180 dated August 17, 2020.

Starbucks Coffee Company requested that SALEM perform a Phase II ESA to address the Recognized Environmental Conditions (RECs) identified in SALEM's August 11, 2020 Phase I ESA report. The Phase I ESA indicated that the subject property was historically occupied by an automobile dealership business which could have impacted soil or soil vapor due to unauthorized releases to the subsurface through potential septic systems, subsurface hydraulic lifts, underground storage tanks (USTs), or clarifiers.

SALEM recommended conducting a geophysical survey to identify subsurface features of potential environmental concern (septic tanks, USTs, sumps, clarifiers, etc.), and a soil/soil vapor investigation at the subject property to assess on-site shallow soils for potential petroleum hydrocarbon and volatile organic constituent (VOC) impacts, to establish baseline soil and soil vapor concentrations, to evaluate if soil vapor conditions pose a potential vapor intrusion risk to future occupants at the subject property, and to identify potential construction concerns (vapor barrier engineering, design, and installation and off-haul of potential-contaminated soils) associated with the redevelopment process.

The following data summary is based on a review of field and laboratory data obtained during SALEM's September 3, 2020 investigation at the subject property:

- According to California Regional Water Quality Control Board (RWQCB) records for the Containerized Chemical Disposal leaking underground storage tank (LUST) site at 47 East Saint Joseph Street, located approximately 3,400 feet to the northwest of the subject property, groundwater is expected to be encountered over 200 feet below ground surface (bgs). Based upon SALEM's topographic map interpretation, the general direction of groundwater flow in the vicinity of the subject property is toward the south-southeast. However, local groundwater level and flow direction may vary due to seasonal fluctuations in precipitation, usage demands, geology, and/or surface topography. Groundwater was not encountered during the course of this investigation.

- No metallic geophysical anomalies with the expected dimensions of a UST were identified in the area investigated. No areas of disturbed soil indicative of historic UST excavations were identified in the area investigated.

- SALEM installed five soil borings (B-1 through B-5) to depths of 15 feet bgs at the subject property. Soil samples were collected at 5-foot intervals from each boring.

- Generally, soil types consisted of brownish gray, medium- to coarse-grained sand to 15 feet bgs. Lithology graded to brown, moist, and finer-grained as depth increased. Groundwater was not encountered in any of the soil borings. Discolored soil and/or hydrocarbon odors were not identified in the soil samples collected during the installation of the borings.

- VOCs and total petroleum hydrocarbons (TPH) were not identified above laboratory method detection limits in any of the soil samples analyzed. Data suggests that VOCs and TPH are not constituents of potential environmental concern (COPCs) in soil at the subject property.

- Title 22 metals detected in soil included barium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc. The detected concentrations were well below their respective RWQCB Tier 1 commercial/industrial Environmental Screening Levels (ESLs). Data suggests that metals are not a COPC at the subject property.

- Soil vapor probes were installed at depths of 5 and 15 feet bgs in all five borings.

- VOCs were not identified above laboratory method detection limits in the 5-foot bgs vapor samples collected from each boring.

- VOCs were not identified above laboratory method detection limits in the 15-foot bgs vapor samples collected from borings B-1 through B-4. Tetrachloroethene (PCE) was identified in the soil vapor sample collected from boring B-5 at a depth of 15 feet bgs at a concentration of 0.093 micrograms per liter (µg/L). This concentration is above the SF-RWQCB Tier 1 commercial/industrial ESL set at 0.067 µg/L.

- Although the 5-foot bgs vapor sample zone samples, the zone most likely to pose a potential vapor intrusion risk, were non-detect for all VOCs, SALEM utilized the United States Environmental Protection Agency's (EPA's) Vapor Intrusion Screening Level (VISL) Calculator to determine if the PCE identified at 15 feet bgs in B-5 posed a potential risk to future site occupants. This equation uses a soil vapor attenuation factor of 0.03. Using the maximum PCE concentration at 15 feet bgs of 0.093 µg/L, and the default and site-specific values, the calculated incremental risk from vapor intrusion to indoor air for PCE was $5.9x10^{-8}$, which is below the target cancer risk value of $1x10^{-5}$ for a commercial/industrial setting. The hazard quotient for vapor intrusion to indoor air for PCE was 0.016, below the maximum hazard quotient of 1.0. Based on SALEM's review of soil vapor data, the results indicated that projected indoor air risks for the subject property are below regulatory screening levels and do not pose a potential risk to future occupants.

Based on these results, SALEM believes that no additional assessment activities are required. The subject property is suitable for commercial use and no engineering controls (i.e. VOC vapor barrier) are necessary.

2.0 INTRODUCTION

SALEM conducted a Phase II ESA on behalf of Starbucks Coffee Company to investigate the proposed Starbucks located at 840 West Huntington Drive in Monrovia, California (subject property – see Figure 1). The investigation was performed in accordance with SALEM's Proposal No. P3-420-1180 dated August 17, 2020.

The subject property totals approximately 0.55-acre comprised of one rectangular-shaped parcel and a portion of one contiguous rectangular-shaped parcel (Los Angeles County APNs 8507-008-072 and 8507-008-035, respectively).

2.1 Project Objectives

The objectives of this investigation were to:

- Perform a geophysical survey to identify subsurface structures of potential environmental concern;
- Determine if the subject property has been negatively impacted by the historical use of the subject property as an automobile dealership;
- Establish baseline soil and soil vapor concentrations at the subject property;
- Determine if soil vapor concentrations pose a potential vapor intrusion risk to future occupants at the subject property; and
- Evaluate potential construction concerns (vapor barrier engineering, design, and installation, and off-haul of potentially-contaminated soils) associated with the redevelopment process.

2.2 Background

SALEM's August 11, 2020 Phase I ESA identified the following evidence of RECs in connection with the subject property as defined by ASTM E1527-13:

- According to historical information, Becherer Buick operated at the subject property address of 840 West Huntington Drive from at least 1952 until approximately 1994. The subject property was historically occupied by at least two structures associated with the former Becherer Buick automobile dealership. South Coast Air Quality Management District (SCAQMD) records indicate that a "spray paint booth" was permitted to operate at the former dealership in at least 1956. Additionally, Los Angeles County Department of Public Works (LACDPW) records indicated that two USTs were removed from the Becherer Buick dealership in 1994. Reportedly, these two USTs were previously installed at the Becherer Buick dealership in the 1950's without regulatory agency notification. No information was available to determine the use of the two structures formerly located on the subject property. It is possible that these structures were utilized to house the former spray paint booth. Benzene, toluene, lead, and chromium are commonly found in paints and solvents utilized in the automobile painting industry. In light of historical data associated with the automobile painting industry, the potential for a past release does exist which may present a potential vapor intrusion issue. Moreover, the subject property was associated with automobile repair and automobile body shop activities which potentially utilized USTs that may have been installed without any historical, regulatory, municipal, or interview data indicating their presence or location and can present a source for potential vapor intrusion if leaking. Additionally, the disposition of suspected USTs and other sub-grade structures of environmental concern is unknown at this time due to the absence of government agency records.

SALEM recommended conducting a geophysical survey and Phase II ESA at the subject property to assess on-site shallow soils for potential VOC impacts, to establish baseline soil and soil vapor concentrations, to evaluate if soil vapor conditions pose a potential vapor intrusion risk to future occupants at the subject property, and to identify potential construction concerns (vapor barrier engineering, design, and installation, and off-haul of potential contaminated soils) associated with the redevelopment process.

3.0 SCOPE OF WORK

The Phase II ESA scope of services included the following:

- Coordination of pre-field activities including procurement of contracts (e.g., driller and laboratory), evaluation of groundwater data, and access permission;
- Development of a site-specific Health and Safety Plan (HSP);
- Performance of a geophysical survey and private subsurface utility screening;
- Advancement of five soil borings (B-1 through B-5) to depths of 15 feet bgs, with the collection of soil samples at 5-foot intervals from each boring;
- Installation of nested vapor wells in each boring;
- Collection of ten primary and one duplicate soil vapor samples;
- Analytical testing of soil and soil vapor; and
- Preparation of a report that documents field activities, analytical results, and summarizes the findings.

3.1 PRE FIELD ACTIVITIES

3.1.1 Site Safety

SALEM completed a Site HSP for the work proposed at the subject property. A copy of the HSP was kept on-site during field activities. The HSP detailed the work to be performed, safety precautions, emergency response procedures, nearest hospital information, hospital route maps, emergency contact numbers, and onsite personnel responsible for managing emergency situations (intended to protect on-site workers and the public).

3.1.2 Permits

Permits for the soil borings were not required before implementing this project.

3.1.3 Geophysical Investigation

SALEM utilized Spectrum Geophysics (Spectrum) of Chatsworth, California to conduct a geophysical survey for potential buried fuel USTs of 500-gallon capacity or greater and associated appurtenances, or a backfilled UST cavity, as well as other sub-grade structures of environmental concern (hoists, clarifiers, and sumps). Spectrum employed EM-61 high sensitivity metal detection (MD), vertical magnetic gradient (VMG), shallow focus terrain conductivity (TC), and ground penetrating radar (GPR) investigation methods.

The geophysical investigation was performed on the entire subject property. A survey grid was established on a rectangular coordinate system to provide horizontal control. Using a fiberglass measuring tape, Spectrum established an east-west baseline, then marked a series of parallel lines oriented perpendicular to the baseline and spaced 4 feet apart.

The following equipment was used to perform the geophysical survey:

- Radio detection 4000 transmitter with matched receiver;
- Schonstedt Mac Series hand-held magnetometer;
- Fisher TW-6 M-scope – shallow focus metal detector;
- Dynatel 500 Series transmitter with matched receiver;
- Sensors and Software Noggin Cart;
- 8 and 33 KHz and 512 Hz sondes; and
- EM-61 high sensitivity metal detector.

Spectrum initially visually inspected the subject property for evidence of subsurface utilities or other buried features. Each identified utility was investigated using active electromagnetic utility-locating instruments and its surface trace was demarcated on the ground using color-coded spray paint. The subject property was further investigated with a passive electromagnetic receiver tuned to 50/60 cycle electrical current to detect possible electrical lines (with voltages up to 30,000 volts) which may be nearby. The surface traces of detected electrical lines were demarcated on the ground using red spray paint. The subject property was further investigated using audio, radio, and 1 KHz frequencies to identify utilities re-radiating these ambient signals. In addition, the subject property was investigated using a shallow focus terrain conductivity meter to identify possible buried and abandoned conduits, as well as piping which may have no surface expression or which may be less than 20 feet in length.

In an effort to locate buried USTs, Spectrum utilized an EM-61 metal detector at the subject property. The EM-61 transmitter generates a primary field of short pulses of electromagnetic energy that travel downward and outward. This energy becomes "trapped" in conductive materials and causes a secondary magnetic field to be generated in these materials. Between pulses, the receiver measures the voltage of the decay curve of this secondary magnetic field, which is proportional to the conductivity of the subsurface materials. The data was downloaded to a laptop computer and processed in the field. Contour maps were generated to assist in identifying anomalous areas associated with buried metal.

Shallow focus terrain conductivity and GPR were also used to further characterize the source of significant EM-61 anomalies. The surface trace of detected features was marked on the ground with spray paint and/or stakes with flagging ribbon.

Spectrum utilized a Noggin ground penetrating radar unit in an effort to identify possible subsurface obstructions. A high frequency radio signal was transmitted into the ground via the antenna. As radio waves propagated into the ground, these signals were reflected off structures with differing electrical properties. These reflected signals were then captured by the receiver and were presented as vertical profiles on the GPR unit. The results of the geophysical survey are discussed in Section 5.2.

3.1.4 Utility Clearance

The proposed soil boring locations were marked with white paint and Underground Service Alert (USA) was notified at least 48 hours before beginning field activities. USA notified its subscribed members, requesting them to mark their underground utility locations near marked boring locations as required by California State law.

SALEM utilized Spectrum to conduct a private utility survey and locate private utilities that are not investigated or marked by USA.

4.0 SOIL AND SOIL VAPOR INVESTIGATION METHODOLOGY

Field work for the soil sampling, nested vapor well installation, and soil vapor sampling was performed on September 3, 2020. Soil boring and vapor probe locations are shown on Figure 2.

Before arriving at the subject property, the drill rig, tools, and accessories were thoroughly decontaminated with a steam cleaner. Downhole drilling tools and sampling equipment, such as bits, rods, and sample barrels were manually washed/rinsed, pressure washed, and/or steam cleaned between borings and sample intervals at the designated decontamination area.

4.1 Soil Sampling and Soil Vapor Probe Installation Procedures

SALEM installed five soil borings to 15 feet bgs on the subject property (B-1 through B-5). The borings were advanced using a Strataprobe direct-push rig operated by H&P Mobile Geochemistry (H&P) of Signal Hill, California. A 2-foot long Long-Bore Soil Sampler, lined with acetate sleeves, was attached to the bottom of the drive rod. Soil samples were collected at depths of 5-foot intervals in each boring location. At each sample interval, the sampler was retrieved and the acetate sleeve was removed. A portion of the acetate sleeve was cut away from the soil core, capped with Teflon sheets and rubber end caps, and labelled with the sample name, sample date and time, and sampler's initials. The samples were recorded on a chain-of-custody document, sealed in a zip-lock bag, and placed in cold storage pending submittal to Sierra Analytical Labs of Laguna Hills, California, for chemical analysis.

Nested soil vapor probes were installed at depths of 5 and 15 feet bgs in each boring (B-1 through B-5). A 1/8-inch diameter Nylaflow tube, attached to a sample port, was inserted into the open boring and set approximately 3 inches off the bottom. Number 3 washed aquarium sand was poured into the borehole until the sand extended from approximately 3 inches below and 3 inches above the slotted portion of the tube. Approximately 6 inches of fine bentonite crumble was placed in the hole as an annular seal and hydrated with water. Additional bentonite crumble was alternately placed in the hole and hydrated until the 5-foot bgs installation depth was reached. The shallower probes were installed in the same manner as the bottom probe. The remaining open hole was filled with bentonite crumble, hydrated in intervals, to the ground surface. Each Nylaflow tube was labeled with the sample point identification and sample depth.

The soil samples were analyzed by Sierra Analytical Laboratories of Laguna Hills, California for total petroleum hydrocarbons – carbon range analysis (TPH-CRA), VOCs, and Title 22 metals using EPA Methods 8015B, 8260B, and 6010B/7471A, respectively. Soil analytical results are summarized in Tables 1 and 2. Laboratory analytical results and chain-of-custody documentation are provided in Appendix A.

4.2 Soil Vapor Sampling

Soil vapor samples were collected from the soil vapor probes on September 3, 2020 by H&P staff, supervised by SALEM personnel. Soil vapor sample procedures were completed in accordance with the July 2015 Advisory, Active Soil Gas Investigations, published jointly by the DTSC, California Environmental Protection Agency (CalEPA), and the Los Angeles and San Francisco Regional Water Quality Control Boards.

4.2.1 Shut-in Testing

Before purging and sampling of the soil vapor probes, a shut-in test was conducted on the sampling train to check for leaks in the above-ground fittings. The shut-in test was conducted by attaching the complete sample train assembly to the termination valve on the soil vapor probe. With the valve attached to the soil vapor probe in the "off" position, a battery-operated pump was used to evacuate the sample train of air to a minimum measured vacuum of approximately 100 inches of water. The vacuum was observed using an in-line vacuum gauge which was positioned before the purge pump. The vacuum gauge was observed for approximately 1 minute and all above ground connections were considered "air-tight" when the pressure on the gauge did not noticeably dissipate. Sampling did not commence until the above-ground fittings were deemed air-tight.

4.2.2 Leak Testing

Leak testing, using a liquid tracer, was performed on each individual soil vapor probe in order to test the integrity of the entire sampling system. Its purpose was to evaluate whether an adequate seal was established at the soil vapor probe interface with the ground surface, as well as a leak check of all above ground fittings to ensure that the samples collected are not being diluted by ambient air. The leak check compound 1,1-difluoroethane (DFA) was used to evaluate sample integrity. The leak check compound was applied to a paper towel and kept in a closed plastic zip closure bag until it was ready to be used.

Before purging and sampling of the soil vapor probe, the zip closure bag was opened and placed directly at the point of entry of the soil vapor probe into the borehole. Additional saturated towels were also placed near the above-ground sample train connections to ensure there were no leaks in the fittings.

4.2.3 Soil Vapor Sample Collection and Analysis

A battery-operated pump was used to purge each probe. The pump was attached to a 3-way valve, which was then connected to the on/off valve on the soil vapor probe. This 3-way valve allows the sample train to be connected to one port on the valve, and the purge equipment to be attached to the other. This ensured that all of the sample train assembly being used for the collection of the sample was upstream of the purging device. Three purge volumes (calculated to include the sand pack, dry bentonite, and vapor tubing volume) were removed from probes that were able to provide a vapor response to ensure that ambient air from the sampling system was removed, and to demonstrate that samples collected were representative of subsurface conditions.

H&P used calibrated pumps which allowed for careful monitoring of purge volumes and flow rates. An air-tight 3-way valve was attached to the pump that allowed the purge air to be drawn into the system and then evacuated out the pump's side port. The pump was attached to an in-line vacuum gauge so that probe vacuum could be monitored as the pump drew in the purge vapor. The in-line vacuum gauge ensured that probe vacuum pressures were less than 100 inches of water during purging. During purging, the flow rate was timed so that it did not exceed 200 milliliters per minute. Please note that the pump was used only for purging the soil vapor probes and was not used in the collection of the soil vapor samples.

Soil vapor samples were collected using appropriate gas-tight containers required for the specified analyses. The sample collection assemblies and containers were attached to the soil vapor probe via a 3-way valve before purging the device to avoid cross-contamination. H&P utilized airtight calibrated Summa canisters to collect vapor samples from each probe. The Summa canister was attached via a luer lock connection to a 3-way valve, which allowed the sample to be drawn into the canister and then sealed off by rotating the valve. The canister was attached to the 3-way valve connected to the soil vapor probe on/off valve, and before the purging device. After purging of the soil vapor probe was complete, the valve was rotated so that the flow path of the soil vapor probe was diverted to the Summa canister. The valve on the Summa canister was opened slowly to allow the soil vapor to flow into the canister at a rate of 200 milliliters per minute or less. When the Summa canister was full, as indicated by a negative pressure gauge, the valve on the canister was closed and the canister was then disconnected and immediately placed into a storage container to prevent photo-degradation of the target analytes from direct sunlight.

For each sample, the sample name, date, and time of collection, vapor flow information and results of QA/QC inspections were recorded on field data sheets. Sample name, date, and time were recorded on a chain-of-custody document and transferred to the stationary laboratory for analysis.

Upon submittal to H&P's analytical laboratory, the samples were injected into a gas chromatograph/mass spectrometer (GC/MS) and analyzed for VOCs and fuel oxygenates using EPA Method 8260SV.

Laboratory analytical results for soil vapor samples are summarized in Table 3. Laboratory analytical results and chain-of-custody documentation are provided in Appendix A.

4.2.4 Vapor Probe Abandonment

The soil vapor probe tubing was pulled from each boring after the completion of soil vapor sampling activities. Each location was resurfaced to match existing grade.

5.0 FINDINGS

5.1 Geology and Hydrogeology

The subject property is located within the northern portions of the San Gabriel Valley within the Peninsular Range. The San Gabriel Valley is situated between the San Gabriel Mountains to the north, the San Jose Hills to the east, the Santa Ana Mountains to the south, and the Verdugo Mountains to the west. The San Gabriel Valley is dominated by northwest-trending faults and adjacent anticlinal uplifts. The intervening deep synclinal troughs are filled with poorly consolidated Upper Pleistocene and unconsolidated Holocene sediments. Tectonism of the region is dominated by the interaction of the East Pacific Plate and the North American Plate along a transform boundary.

Local geology is characterized by recent age younger alluvium and Pleistocene age older alluvium consisting of poorly consolidated continental sediments. These sediments consist of interbedded sand, silt, and clay in variable proportions with lenses of gravel. They were deposited in large part by coalescing alluvial fans emanating from canyons exiting the southern San Gabriel Mountains north of the subject property. In the site vicinity, older alluvium occurs at grade to a depth of approximately 700 feet (CDWR, 1966), and comprises a more youthful portion of the alluvial fan which has accumulated at the mouth of Monrovia Canyon.

According to California RWQCB records for the Containerized Chemical Disposal LUST site at 47 East Saint Joseph Street, located approximately 3,400 feet to the northwest of the subject property, groundwater is expected to be encountered over 200 feet bgs. Based upon SALEM's topographic map interpretation, the general direction of groundwater flow in the vicinity of the subject property is toward the south-southeast. However, local groundwater level and flow direction may vary due to seasonal fluctuations in precipitation, usage demands, geology, and/or surface topography.

5.2 Field Observations

At the time of SALEM's September 3, 2020 Phase II ESA, the subject property was occupied by an asphalt-paved parking lot associated with the adjoining commercial structures.

During the visual observations of the subject property, no hazardous substances or petroleum products were observed to be stored or handled on the subject property. Exposed surface soils did not exhibit obvious signs of discoloration. No other obvious evidence (vent pipes, fill pipes, dispensers, etc.) of USTs was noted within the area observed. No standing water or major depressions were observed on the subject property. No indications of former structures, such as foundations, were observed on the subject property.

The results of the geophysical investigation did not identify any metallic geophysical anomalies with the expected dimensions of a UST or areas of disturbed soil indicative of historic UST excavations in the area investigated. Figures generated during the performance of the geophysical survey are included in Appendix B.

SALEM installed five soil borings (B-1 through B-5) to depths of 15 feet bgs at the subject property. Soil boring locations are shown on Figure 2. Generally, soil types consisted of brownish gray, medium- to coarse-grained sand to 15 feet bgs. Lithology graded to brown, moist, and finer-grained as depth increased. Groundwater was not encountered in any of the soil borings. Discolored soil and/or hydrocarbon odors were not identified in the soil samples collected during the installation of the borings.

5.3 Analytical Results

Soil analytical results are summarized in Tables 1 and 2 and soil vapor analytical results are summarized in Table 3. Copies of the laboratory reports and chain-of-custody documentation are included in Appendix A.

5.3.1 Soil Analytical Results

Laboratory analytical results for soil were as follows:

- Barium was identified in all soil samples analyzed at concentrations ranging from 19 to 96 milligrams per kilogram (mg/kg).
- Cobalt was identified in all soil samples analyzed at concentrations ranging from 3.5 to 14 mg/kg.
- Chromium was identified in all soil samples analyzed at concentrations ranging from 4.2 to 17 mg/kg.
- Copper was identified in seven of the ten soil samples analyzed at concentrations ranging from 6.9 to 36 mg/kg.
- Nickel was identified in all soil samples analyzed at concentrations ranging from 3.5 to 18 mg/kg.
- Lead was identified in the soil sample analyzed from boring B-4 at a depth of 5 feet bgs at a concentration of 3.1 mg/kg.
- Vanadium was identified in all soil samples analyzed at concentrations ranging from 14 to 48 mg/kg.
- Zinc was identified in all soil samples analyzed at concentrations ranging from 16 to 61 mg/kg.
- TPH was not identified above laboratory method detection limits in any of the analyzed soil samples.
- VOCs were not identified above laboratory method detection limits in any of the analyzed soil samples.

5.3.2 Soil Vapor Analytical Results

Laboratory analytical results for soil vapor were as follows:

- PCE was identified in the soil vapor sample collected from B-5 at a depth of 15 feet bgs at a concentration of 0.093 µg/L.
- No other VOCs were identified above laboratory method detection limits in the soil vapor samples.
- The sampling tracer compound DFA was not detected above laboratory method detection limits in any of the soil vapor samples analyzed.

6.0 VAPOR INTRUSTION SCREENING MODEL RESULTS

SALEM utilized the EPA's VISL Calculator (http://www.epa.gov/oswer/vaporintrusion/guidance.html), a calculation which is intended to be applied in conjunction with the conservatively developed default attenuation factor referenced in Table 6-1 of the EPA's June 2015 OSWER Publication 9200.2-154 entitled, "OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air" (EPA VI Report). The VISL calculator includes a User's Guide (https://www.epa.gov/vaporintrusion/visl-users-guide). Section 2.3 of the User's Guide describes the process to determine the "Soil Gas Screening Level Equation" and states, "This equation is used to determine the soil gas concentration protective of exposure to indoor air. This equation uses a soil gas attenuation factor. The soil gas attenuation factor used in the calculations is 0.03."

The Near-source Soil Gas Concentration assumes a target cancer risk of 1.0×10^{-5} (consistent with commercial/industrial risk) and a target hazard quotient of 1.0. SALEM utilized the VISL calculator to evaluate potential human health risks associated with the subject property's maximum PCE soil vapor concentrations detected in the samples collected from the depth closest to the zone that could potentially infiltrate into the subject building during the October 8, 2020 soil vapor investigation. Please note that the subject property is zoned for commercial/industrial use.

Using the maximum PCE concentration detected from a depth of 15 feet bgs of 0.093 µg/L, and the default and site-specific values, the calculated incremental risk from vapor intrusion to indoor air for PCE was $5.9x10^{-8}$, which is below the target cancer risk value of $1x10^{-5}$ for a commercial/industrial setting. The hazard quotient for vapor intrusion to indoor air for PCE was 0.016, below the maximum hazard quotient of 1.0. VISL calculator results are presented in Appendix C.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following data summary is based on a review of field and laboratory data obtained during SALEM's September 3, 2020 investigation at the subject property:

- According to California RWQCB records for the Containerized Chemical Disposal LUST site at 47 East Saint Joseph Street, located approximately 3,400 feet to the northwest of the subject property, groundwater is expected to be encountered over 200 feet bgs. Based upon SALEM's topographic map interpretation, the general direction of groundwater flow in the vicinity of the subject property is toward the south-southeast. However, local groundwater level and flow direction may vary due to seasonal fluctuations in precipitation, usage demands, geology, and/or surface topography. Groundwater was not encountered during the course of this investigation.

- No metallic geophysical anomalies with the expected dimensions of a UST were identified in the area investigated. No areas of disturbed soil indicative of historic UST excavations were identified in the area investigated.

- SALEM installed five soil borings (B-1 through B-5) to depths of 15 feet bgs at the subject property. Soil samples were collected at 5-foot intervals from each boring.

- Generally, soil types consisted of brownish gray, medium- to coarse-grained sand to 15 feet bgs. Lithology graded to brown, moist, and finer-grained as depth increased. Groundwater was not encountered in any of the soil borings. Discolored soil and/or hydrocarbon odors were not identified in the soil samples collected during the installation of the borings.

- VOCs and TPH were not identified above laboratory method detection limits in any of the soil samples analyzed. Data suggests that VOCs and TPH are not COPCs in soil at the subject property.

- Title 22 metals detected in soil included barium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc. The detected concentrations were well below their respective RWQCB Tier 1 commercial/industrial ESLs. Data suggests that metals are not a COPC at the subject property.

- Soil vapor probes were installed at depths of 5 and 15 feet bgs in all five borings.

- VOCs were not identified above laboratory method detection limits in the 5-foot bgs vapor samples collected from each boring.

- VOCs were not identified above laboratory method detection limits in the 15-foot bgs vapor samples collected from borings B-1 through B-4. PCE was identified in the soil vapor sample collected from boring B-5 at a depth of 15 feet bgs at a concentration of 0.093 µg/L. This concentration is above the SF-RWQCB Tier 1 commercial/industrial ESL set at 0.067 µg/L.

- Although the 5-foot bgs vapor sample zone samples, the zone most likely to pose a potential vapor intrusion risk, were non-detect for all VOCs, SALEM utilized the EPA's VISL Calculator to determine if the PCE identified at 15 feet bgs in B-5 posed a potential risk to future site occupants. This equation uses a soil vapor attenuation factor of 0.03. Using the maximum PCE concentration at 15 feet bgs of 0.093 µg/L, and the default and site-specific values, the calculated incremental risk from vapor intrusion to indoor air for PCE was $5.9x10^{-8}$, which is below the target cancer risk value of $1x10^{-5}$ for a commercial/industrial setting. The hazard quotient for vapor intrusion to indoor air for PCE was 0.016, below the maximum hazard quotient of 1.0. Based on SALEM's review of soil vapor data, the results indicated that projected indoor air risks for the subject property are below regulatory screening levels and do not pose a potential risk to future occupants.

Based on these results, SALEM believes that no additional assessment activities are required. The subject property is suitable for commercial use and no engineering controls (i.e. VOC vapor barrier) are necessary.

8.0 LIMITATIONS

This Phase II Environmental Site Assessment Report has been prepared for the exclusive use of Starbucks Coffee Company and its affiliates. Unauthorized use of or reliance on the information contained in this report, unless given express written consent by SALEM, is strictly prohibited.

The purpose of an environmental site assessment is to reasonably evaluate the potential for adverse impact from past practices at a given property or neighboring properties. In performing an environmental site assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The professional opinions in this report are based in part on the interpretation of data from discrete sampling locations that may not represent conditions at locations not sampled.

The property owners are solely responsible for notifying all governmental agencies and the public of the existence, release, or disposal of any hazardous materials/wastes or petroleum products at the subject property, whether before, during, or after the performance of SALEM's services. SALEM assumes neither responsibility nor liability for any claim, loss of property value, damage, or injury which results from hazardous materials, wastes or petroleum products being present or encountered at a given site.

9.0 REFERENCES

The following list summarizes the references utilized in preparing this report:

- Department of Toxic Substances Control and Regional Water Quality Control Board, *Soil Gas Advisory*, July 2015.
- California Regional Water Quality Control Board, *Environmental Screening Levels Table*, January 2019.
- SALEM Engineering Group, Inc., *Phase I Environmental Site Assessment, Proposed Starbucks, 840 West Huntington Drive, Monrovia, California*, August 11, 2020.

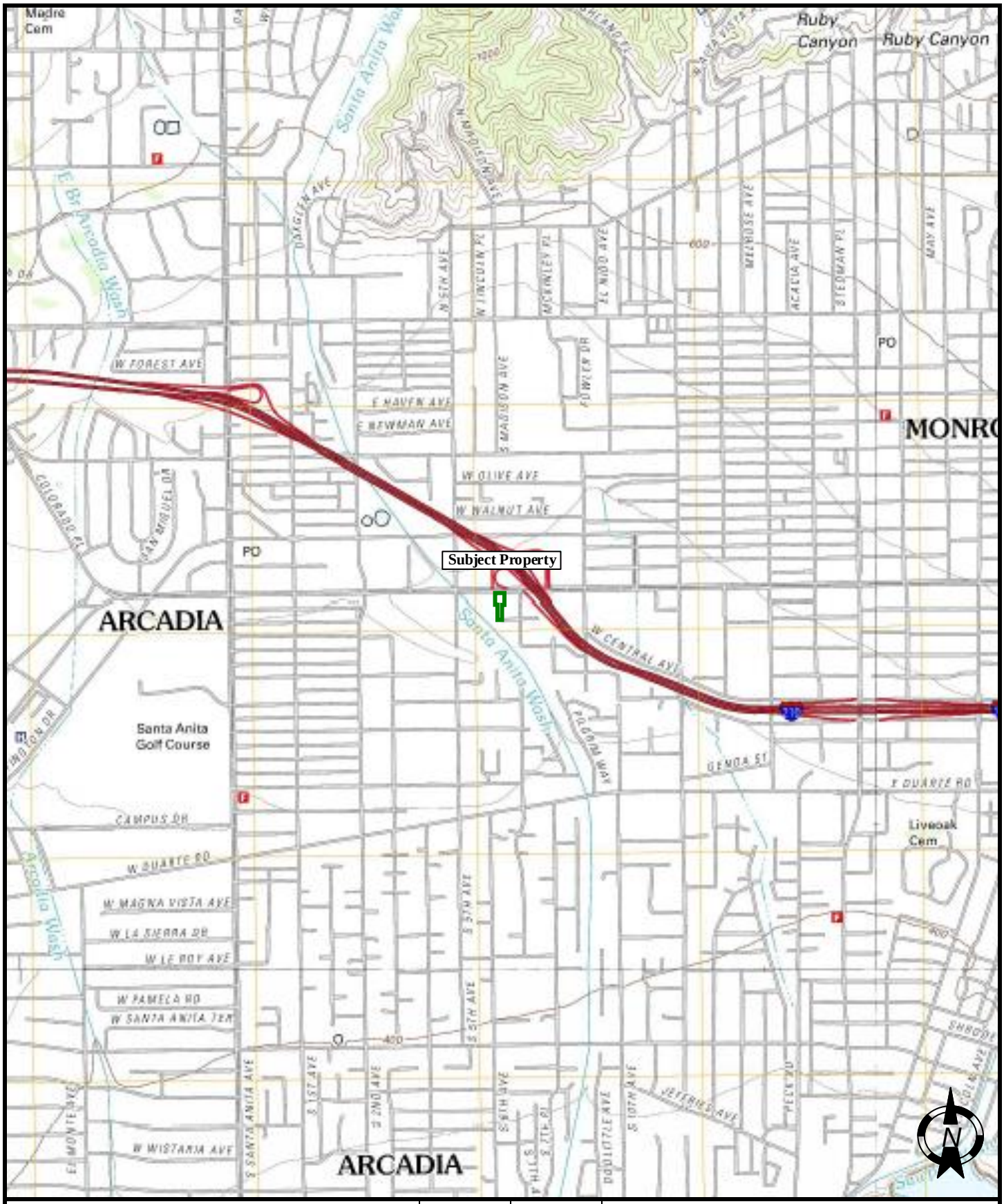
If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office at (909) 980-6435.

Respectfully submitted,

SALEM Engineering Group, Inc.

Reily Rivera
Environmental Project Manager

Shannon Lodge, PG, QSD
Senior Project Manager



SITE LOCATION	SCALE: NTS	DATE: Sept. 2020
PROPOSED STARBUCKS 840 WEST HUNTINGTON DRIVE MONROVIA, CALIFORNIA	DRAWN BY: BR	APPROVED BY: RR
	PROJECT NO.: 3-420-0619	FIGURE NO.: 1

SALEM engineering group, inc.

SITE PLAN SHOWING SOIL BORING/VAPOR WELL LOCATIONS	SCALE: NTS	DATE: Sept. 2020	SALEM engineering group, inc.
PROPOSED STARBUCKS 840 WEST HUNTINGTON DRIVE MONROVIA, CALIFORNIA	DRAWN BY: BR	APPROVED BY: RR	
	PROJECT NO.: 3-420-0619	FIGURE NO.: 2	

TABLE 1

Soil Analytical Summary - TPH-CRA and VOCs

Proposed Starbucks

840 West Huntington Drive

Monrovia, California

Soil Sampling Date	Soil Sample Identification	TPH-CRA by EPA Method 8015B (mg/kg)	VOCs by EPA Method 8260B (µg/kg)
9/3/2020	B-1-5'	ND (5.0)	ND (5.0)
9/3/2020	B-1-15'	ND (5.0)	ND (5.0)
9/3/2020	B-2-5'	ND (5.0)	ND (5.0)
9/3/2020	B-2-15'	ND (5.0)	ND (5.0)
9/3/2020	B-3-5'	ND (5.0)	ND (5.0)
9/3/2020	B-3-15'	ND (5.0)	ND (5.0)
9/3/2020	B-4-5'	ND (5.0)	ND (5.0)
9/3/2020	B-4-15'	ND (5.0)	ND (5.0)
9/3/2020	B-5-5'	ND (5.0)	ND (5.0)
9/3/2020	B-5-15'	ND (5.0)	ND (5.0)

µg/kg = Micrograms per kilogram

mg/kg = Milligrams per kilogram

ND = Not identified above stated method detection limit

TPH-CRA = Total Petroleum Hydrocarbons - Carbon Range Analysis

VOCs = Volatile Organic Compounds

TABLE 2

Soil Analytical Summary - Title 22 Metals

Proposed Starbucks

840 West Huntington Drive

Monrovia, California

Sampling Date	Soil Sample Identification	Barium (mg/kg)	Cobalt (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
9/3/2020	B-1-5'	26	4.7	6.8	15	5.8	ND (3.1)	15	22
9/3/2020	B-1-15'	25	4.0	6.0	12	3.9	ND (3.1)	19	20
9/3/2020	B-2-5'	19	3.5	4.2	ND (9.0)	3.5	ND (3.1)	14	16
9/3/2020	B-2-15'	43	8.4	15	19	9.3	ND (3.1)	48	34
9/3/2020	B-3-5'	22	3.8	5.0	ND (9.0)	4.2	ND (3.1)	14	19
9/3/2020	B-3-15'	32	6.2	7.4	16	6.7	ND (3.1)	23	25
9/3/2020	B-4-5'	96	14	17	36	18	3.1	48	61
9/3/2020	B-4-15'	30	4.9	5.9	9.6	5.1	ND (3.1)	17	23
9/3/2020	B-5-5'	35	5.9	7.8	12	6.7	ND (3.1)	25	25
9/3/2020	B-5-15'	31	3.5	4.3	ND (9.0)	3.9	ND (3.1)	14	16
RWQCB Tier 1 Commercial/Industrial ESL:		220,000	350	1,800,000	47,000	11,000	320	5,800	35,000

mg/kg = Milligrams per kilogram

ND = Not detected above stated method detection limit

* = set for Terrestial Habitate, next lowest ESL is 390 mg/kg set for Residential Shallow Soil Exposure

All samples analyzed using EPA Methods 6010B/7471A

RWQCB = Regional Water Quality Control Board

ESL = Environmental Screening Level

TABLE 3

Soil Vapor Analytical Summary - VOCs

Proposed Starbucks

840 West Huntington Drive

Monrovia, California

Date Sampled	Sample Collection Point	Tetrachloroethene (µg/L)	Volatile Organic Compounds*
9/3/2020	B-1-5'	ND (0.080)	ND (varies)
9/3/2020	B-1-5' Rep	ND (0.080)	ND (varies)
9/3/2020	B-1-15'	ND (0.080)	ND (varies)
9/3/2020	B-2-5'	ND (0.080)	ND (varies)
9/3/2020	B-2-15'	ND (0.080)	ND (varies)
9/3/2020	B-3-5'	ND (0.080)	ND (varies)
9/3/2020	B-3-15'	ND (0.080)	ND (varies)
9/3/2020	B-4-5'	ND (0.080)	ND (varies)
9/3/2020	B-4-15'	ND (0.080)	ND (varies)
9/3/2020	B-5-5'	ND (0.080)	ND (varies)
9/3/2020	B-5-15'	0.093	ND (varies)
RWQCB Tier 1 Commercial/Industrial ESL:		0.067	Varies

µg/L = Micrograms per liter air

ND = Not detected above analytical method detection limit

Rep = Duplicate sample

All samples analyzed by EPA Method 8260SV by gas chromatograph/mass spectrometer

* = All other volatile organic compounds not detected above respective method detection limits

RWQCB = Regional Water Quality Control Board

ESL = Environmental Screening Level

APPENDIX

A

H&P Mobile Geochemistry Inc.

14 September 2020

Jim Robert
Salem Engineering Group, Inc.
8711 Monroe Court, Suite A
Rancho Cucamonga, CA 91730

H&P Project: SLM090420-11
Client Project: 3-420-0619 / 840 W Huntington Dr

Dear Jim Robert:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 03-Sep-20 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Lisa Eminhizer
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP and the National Environmental Laboratory Accreditation Conference (NELAC) for the fields of proficiency and analytes listed on those certificates. H& P is approved as an Environmental Testing Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs for the fields of proficiency and analytes included in the certification process and to the extent offered by the accreditation agency . Unless otherwise noted, accreditation certificate numbers, expiration of certificates, and scope of accreditation can be found at: www.handpmg.com/about/certifications. Fields of services and analytes contained in this report that are not listed on the certificates should be considered uncertified or unavailable for certification.

H&P Mobile
Geochemistry Inc.

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Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-15	E009015-01	Vapor	03-Sep-20	03-Sep-20
B-1-5	E009015-02	Vapor	03-Sep-20	03-Sep-20
B-1-5 REP	E009015-03	Vapor	03-Sep-20	03-Sep-20
B-2-15	E009015-04	Vapor	03-Sep-20	03-Sep-20
B-2-5	E009015-05	Vapor	03-Sep-20	03-Sep-20
B-3-15	E009015-06	Vapor	03-Sep-20	03-Sep-20
B-3-5	E009015-07	Vapor	03-Sep-20	03-Sep-20
B-4-15	E009015-08	Vapor	03-Sep-20	03-Sep-20
B-4-5	E009015-09	Vapor	03-Sep-20	03-Sep-20
B-5-15	E009015-10	Vapor	03-Sep-20	03-Sep-20
B-5-5	E009015-11	Vapor	03-Sep-20	03-Sep-20

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8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

DETECTIONS SUMMARY

Sample ID: **B-1-15** Laboratory ID: **E009015-01**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-1-5** Laboratory ID: **E009015-02**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-1-5 REP** Laboratory ID: **E009015-03**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-2-15** Laboratory ID: **E009015-04**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-2-5** Laboratory ID: **E009015-05**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-3-15** Laboratory ID: **E009015-06**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-3-5** Laboratory ID: **E009015-07**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-4-15** Laboratory ID: **E009015-08**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Sample ID: **B-4-5** Laboratory ID: **E009015-09**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

Sample ID: **B-5-15** Laboratory ID: **E009015-10**

Analyte	Result	Reporting Limit	Units	Method	Notes
Tetrachloroethene	**0.093**	0.080	ug/l	H&P 8260SV	

Sample ID: **B-5-5** Laboratory ID: **E009015-11**

Analyte	Result	Reporting Limit	Units	Method	Notes
No Detections Reported					

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-15 (E009015-01) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-15 (E009015-01) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.8 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-5 (E009015-02) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

H&P Mobile
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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-5 (E009015-02) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*93.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92.4 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*97.3 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-5 REP (E009015-03) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-1-5 REP (E009015-03) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.3 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.6 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*100 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-2-15 (E009015-04) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-2-15 (E009015-04) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.7 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.6 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-2-5 (E009015-05) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-2-5 (E009015-05) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.8 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*100 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

H&P Mobile
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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-3-15 (E009015-06) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-3-15 (E009015-06) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.9 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*95.6 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.2 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-3-5 (E009015-07) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-3-5 (E009015-07) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.4 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.0 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-4-15 (E009015-08) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-4-15 (E009015-08) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*102 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*98.6 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-4-5 (E009015-09) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

H&P Mobile
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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-4-5 (E009015-09) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-5-15 (E009015-10) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	**0.093**	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-5-15 (E009015-10) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.0 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.9 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*98.6 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-5-5 (E009015-11) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
1,1-Difluoroethane (LCC)	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.40	"	"	"	"	"	"	
Chloromethane	ND	0.40	"	"	"	"	"	"	
Vinyl chloride	ND	0.040	"	"	"	"	"	"	
Bromomethane	ND	0.40	"	"	"	"	"	"	
Chloroethane	ND	0.40	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.40	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.40	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.40	"	"	"	"	"	"	
Chloroform	ND	0.080	"	"	"	"	"	"	
Bromochloromethane	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.080	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.080	"	"	"	"	"	"	
Benzene	ND	0.080	"	"	"	"	"	"	
Trichloroethene	ND	0.080	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Bromodichloromethane	ND	0.40	"	"	"	"	"	"	
Dibromomethane	ND	0.40	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	0.80	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.40	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.40	"	"	"	"	"	"	
Tetrachloroethene	ND	0.080	"	"	"	"	"	"	
Dibromochloromethane	ND	0.40	"	"	"	"	"	"	
Chlorobenzene	ND	0.080	"	"	"	"	"	"	
Ethylbenzene	ND	0.40	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
m,p-Xylene	ND	0.40	"	"	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
B-5-5 (E009015-11) Vapor Sampled: 03-Sep-20 Received: 03-Sep-20									
o-Xylene	ND	0.40	ug/l	0.04	EI00909	08-Sep-20	08-Sep-20	H&P 8260SV	
Styrene	ND	0.40	"	"	"	"	"	"	
Bromoform	ND	0.40	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.40	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.40	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.40	"	"	"	"	"	"	
n-Propylbenzene	ND	0.40	"	"	"	"	"	"	
Bromobenzene	ND	0.40	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.40	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.40	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.40	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.40	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
n-Butylbenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.40	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Naphthalene	ND	0.080	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.40	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.4 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*99.7 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*75-125*	"	"	"	"	

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI00909 - EPA 5030										
Blank (EI00909-BLK1)				Prepared & Analyzed: 08-Sep-20						
1,1-Difluoroethane (LCC)	ND	0.40	ug/l							
Dichlorodifluoromethane (F12)	ND	0.40	"							
Chloromethane	ND	0.40	"							
Vinyl chloride	ND	0.040	"							
Bromomethane	ND	0.40	"							
Chloroethane	ND	0.40	"							
Trichlorofluoromethane (F11)	ND	0.40	"							
1,1-Dichloroethene	ND	0.40	"							
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.40	"							
Methylene chloride (Dichloromethane)	ND	0.40	"							
Methyl tertiary-butyl ether (MTBE)	ND	0.40	"							
trans-1,2-Dichloroethene	ND	0.40	"							
1,1-Dichloroethane	ND	0.40	"							
2,2-Dichloropropane	ND	0.40	"							
cis-1,2-Dichloroethene	ND	0.40	"							
Chloroform	ND	0.080	"							
Bromochloromethane	ND	0.40	"							
1,1,1-Trichloroethane	ND	0.40	"							
1,1-Dichloropropene	ND	0.40	"							
Carbon tetrachloride	ND	0.080	"							
1,2-Dichloroethane (EDC)	ND	0.080	"							
Benzene	ND	0.080	"							
Trichloroethene	ND	0.080	"							
1,2-Dichloropropane	ND	0.40	"							
Bromodichloromethane	ND	0.40	"							
Dibromomethane	ND	0.40	"							
cis-1,3-Dichloropropene	ND	0.40	"							
Toluene	ND	0.80	"							
trans-1,3-Dichloropropene	ND	0.40	"							
1,1,2-Trichloroethane	ND	0.40	"							
1,2-Dibromoethane (EDB)	ND	0.40	"							
1,3-Dichloropropane	ND	0.40	"							
Tetrachloroethene	ND	0.080	"							
Dibromochloromethane	ND	0.40	"							

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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI00909 - EPA 5030										
Blank (EI00909-BLK1)				Prepared & Analyzed: 08-Sep-20						
Chlorobenzene	ND	0.080	ug/l							
Ethylbenzene	ND	0.40	"							
1,1,1,2-Tetrachloroethane	ND	0.40	"							
m,p-Xylene	ND	0.40	"							
o-Xylene	ND	0.40	"							
Styrene	ND	0.40	"							
Bromoform	ND	0.40	"							
Isopropylbenzene (Cumene)	ND	0.40	"							
1,1,2,2-Tetrachloroethane	ND	0.40	"							
1,2,3-Trichloropropane	ND	0.40	"							
n-Propylbenzene	ND	0.40	"							
Bromobenzene	ND	0.40	"							
1,3,5-Trimethylbenzene	ND	0.40	"							
2-Chlorotoluene	ND	0.40	"							
4-Chlorotoluene	ND	0.40	"							
tert-Butylbenzene	ND	0.40	"							
1,2,4-Trimethylbenzene	ND	0.40	"							
sec-Butylbenzene	ND	0.40	"							
p-Isopropyltoluene	ND	0.40	"							
1,3-Dichlorobenzene	ND	0.40	"							
1,4-Dichlorobenzene	ND	0.40	"							
n-Butylbenzene	ND	0.40	"							
1,2-Dichlorobenzene	ND	0.40	"							
1,2-Dibromo-3-chloropropane	ND	4.0	"							
1,2,4-Trichlorobenzene	ND	0.40	"							
Hexachlorobutadiene	ND	0.40	"							
Naphthalene	ND	0.080	"							
1,2,3-Trichlorobenzene	ND	0.40	"							
Surrogate: Dibromofluoromethane	*2.03*		*"*	*2.00*		*102*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.01*		*"*	*2.00*		*101*	*75-125*			
Surrogate: Toluene-d8	*2.00*		*"*	*2.00*		*100*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*1.95*		*"*	*2.00*		*97.5*	*75-125*			

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Volatile Organic Compounds by H&P 8260SV - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI00909 - EPA 5030										
LCS (EI00909-BS1)				Prepared & Analyzed: 08-Sep-20						
Dichlorodifluoromethane (F12)	4.5	0.50	ug/l	5.00		90.3	70-130			
Vinyl chloride	5.4	0.050	"	5.00		108	70-130			
Chloroethane	6.2	0.50	"	5.00		124	70-130			
Trichlorofluoromethane (F11)	5.6	0.50	"	5.00		113	70-130			
1,1-Dichloroethene	5.1	0.50	"	5.00		101	70-130			
1,1,2 Trichlorotrifluoroethane (F113)	5.2	0.50	"	5.00		104	70-130			
Methylene chloride (Dichloromethane)	5.1	0.50	"	5.00		103	70-130			
trans-1,2-Dichloroethene	4.9	0.50	"	5.00		98.9	70-130			
1,1-Dichloroethane	5.0	0.50	"	5.00		101	70-130			
cis-1,2-Dichloroethene	5.8	0.50	"	5.00		116	70-130			
Chloroform	5.2	0.10	"	5.00		105	70-130			
1,1,1-Trichloroethane	5.3	0.50	"	5.00		107	70-130			
Carbon tetrachloride	5.5	0.10	"	5.00		110	70-130			
1,2-Dichloroethane (EDC)	5.4	0.10	"	5.00		108	70-130			
Benzene	5.3	0.10	"	5.00		105	70-130			
Trichloroethene	5.8	0.10	"	5.00		115	70-130			
Toluene	5.1	1.0	"	5.00		101	70-130			
1,1,2-Trichloroethane	5.3	0.50	"	5.00		106	70-130			
Tetrachloroethene	5.6	0.10	"	5.00		112	70-130			
Ethylbenzene	5.4	0.50	"	5.00		108	70-130			
1,1,1,2-Tetrachloroethane	5.6	0.50	"	5.00		112	70-130			
m,p-Xylene	11	0.50	"	10.0		108	70-130			
o-Xylene	5.3	0.50	"	5.00		105	70-130			
1,1,2,2-Tetrachloroethane	5.4	0.50	"	5.00		108	70-130			
Surrogate: Dibromofluoromethane	*2.52*		*"*	*2.50*		*101*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.44*		*"*	*2.50*		*97.6*	*75-125*			
Surrogate: Toluene-d8	*2.55*		*"*	*2.50*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.56*		*"*	*2.50*		*102*	*75-125*			

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
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Salem Engineering Group, Inc.	Project: SLM090420-11	
8711 Monroe Court, Suite A	Project Number: 3-420-0619 / 840 W Huntington Dr	Reported:
Rancho Cucamonga, CA 91730	Project Manager: Jim Robert	14-Sep-20 13:20

Notes and Definitions

LCC	Leak Check Compound
ND	Analyte NOT DETECTED at or above the reporting limit
MDL	Method Detection Limit
%REC	Percent Recovery
RPD	Relative Percent Difference

All soil results are reported in wet weight.

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs through PJLA, accreditation number 69070 for EPA Method TO-15, EPA Method 8260B and H&P 8260SV.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743 & 2745.

H&P is approved by the State of Louisiana Department of Environmental Quality under the National Environmental Laboratory Accreditation Conference (NELAC) certification number 04138

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.

Mobile Geochemistry, Inc.
2470 Impala Drive, Carlsbad, CA 92010
& Field Office - Signal Hill, CA
W handpmg.com E info@handpmg.com
P 760.804.9678 F 760.804.9159

VAPOR / AIR Chain of Custody

DATE: 09/03/2020
Page 1 of 2

Lab Client and Project Information

Lab Client/Consultant: SALEM Engineering Group Inc.	Project Name / #: 3-420-0619
Lab Client Project Manager: Jim Robert	Project Location: 840 W Huntington Dr. Monrovia
Lab Client Address: 8711 Monroe Ct Suite A	Report E-Mail(s): Jim@salem.net
Lab Client City, State, Zip: Rancho Cucamonga, CA 91730	Reily@salem.net
Phone Number: (909) 980-6455 / (909) 456-4968	

Sample Receipt (Lab Use Only)

Date Rec'd: 9/4/20 Control #: 200638.02
H&P Project # SLM090420-11
Lab Work Order # E009015
Sample Intact: ☒ Yes ☐ No ☐ See Notes Below
Receipt Gauge ID: 60206 Temp: RT
Outside Lab:
Receipt Notes/Tracking #:
Lab PM Initials: KB

Reporting Requirements

☒ Standard Report ☐ Level III ☐ Level IV
☐ Excel EDD ☐ Other EDD:
☐ CA Geotracker Global ID:

Turnaround Time

☒ **Standard** (7 days for preliminary report, 10 days for final report)
☐ **Rush** (specify):

Sampler Information

Sampler(s): J. VANDERWAL
Signature:
Date: 9-3-20

Additional Instructions to Laboratory:

8260SV w/ LRLs - KB 9/8

*** Preferred VOC units (please choose one):**
☒ µg/L ☐ µg/m³ ☐ ppbv ☐ ppmv

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa, Tedlar, Tube, etc.	CONTAINER ID (###)	Lab use only: Receipt Vac	VOCs Standard Full List ☒ 8260SV ☐ TO-15 LL	VOCs Short List / Project List ☐ 8260SV ☐ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15	TPHv as Gas ☐ 8260SVm ☐ TO-15m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Leak Check Compound ☒ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2				
B-1-15		09/03/20	1306	SV	400	684	-3.27	X						X						
B-1-5		09/03/20	1307	SV	400	693	-3.32	X						X						
B-1-5 REP		09/03/20	1312	SV	400	694	-3.21	X						X						
B-2-15		09/03/20	1328	SV	400	695	-3.61	X						X						
B-2-5		09/03/20	1329	SV	400	688	-3.16	X						X						
B-3-15		09/03/20	1345	SV	400	698	-3.08	X						X						
B-3-5		09/03/20	1347	SV	400	699	-3.27	X						X						
B-4-15		09/03/20	1400	SV	400	696	-3.90	X						X						
B-4-5		09/03/20	1402	SV	400	697	-2.66	X						X						

	Company:	Date:	Time:		Company:	Date:	Time:
Approved/Relinquished by: Reily Re	SALEM	9/3/2020	1445	Received by: J. VANDERWAL	H&P	9-3-20	1445
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

*Approval constitutes as authorization to proceed with analysis and acceptance of conditions on back

Mobile Geochemistry, Inc.
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& Field Office - Signal Hill, CA
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VAPOR / AIR Chain of Custody

DATE: 09/03/2020

Lab Client and Project Information

Lab Client/Consultant: SALEM Engineering Group Inc.	Project Name / #: 3-420-0619
Lab Client Project Manager: Jim Robert	Project Location: 840 W Huntington Dr. Monrovia
Lab Client Address: 8711 Monroe Ct Suite A	Report E-Mail(s): Jim@salem.net Reily@salem.net
Lab Client City, State, Zip: Rancho Cucamonga, CA 91730	
Phone Number: 909-456-4968	

Sample Receipt (Lab Use Only)

Date Rec'd: 9/4/20	Control #: 200638.02
H&P Project # SLM090420-11	
Lab Work Order #	
Sample Intact: ☒ Yes ☐ No ☐ See Notes Below	
Receipt Gauge ID: 60206	Temp: RT
Outside Lab:	
Receipt Notes/Tracking #:	
Lab PM Initials: MB	

Reporting Requirements

☒ Standard Report ☐ Level III ☐ Level IV
☐ Excel EDD ☐ Other EDD: _____
☐ CA Geotracker Global ID: _____

Turnaround Time

☒ **Standard** (7 days for preliminary report, 10 days for final report)
☐ **Rush** (specify): _____

Sampler Information

Sampler(s): J VANDERWAL
Signature:
Date: 9-5-2020

Additional Instructions to Laboratory:

* **Preferred VOC units (please choose one):**
☒ µg/L ☐ µg/m³ ☐ ppbv ☐ ppmv

LRLs

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa, Tedlar, Tube, etc.	CONTAINER ID (###)	Lab use only: Receipt Vac	VOCs Standard Full List ☒ 8260SV ☐ TO-15 LRL	VOCs Short List / Project List ☐ 8260SV ☐ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15	TPHv as Gas ☐ 8260SVm ☐ TO-15m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Leak Check Compound ☒ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2				
B-5-15		09/03/20	1415	SV	400	700	-3.52	X						X						
B-5-5		09/03/20	1416	SV	400	701	-3.98	X						X						
		~~09/03/20~~																		

Approved/Relinquished by: Reily Ri	Company: SALEM	Date: 9/3/2020	Time: 1445	Received by: J VANDERWAL	Company: H&P	Date: 9-5-20	Time: 1443
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

*Approval constitutes as authorization to proceed with analysis and acceptance of conditions on back

H&P Mobile Geochemistry Inc.

FMS005
Revision: 3
Revised: 1/15/16
Effective: 1/25/16
Page 1 of 1

Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: SLM090320-SP8/TECH
Date: 09-03-2020
Site Address: 840 W Huntington Dr Monrovia, LA
Page: 1 of
Consultant: SALEM
H&P Rep(s): J. Vanderwal, B. Mann, B. Villarosales
Reviewed: EC
Consultant Rep(s): Reily Rivera
Scanned: Thomas

Equipment Info
Inline Gauge ID#:
Pump ID#: 038/010

Purge Volume Information
PV Amount: 3PV
PV Includes: ☒ Tubing, ☒ Sand 40%, ☒ Dry Bent 50%

Leak Check Compound
A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.
☒ 1,1-DFA ☐ 1,1,1,2-TFA ☐ IPA ☐ Other:

	Sample and Summa Information							Probe Specs							Purge & Collection Information						
	Point ID	Summa ID #	Sample Kit ID #	Start Time	Initial Vac (" Hg)	End / Sample Time	End Vac (" Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	ProbeVac ☐ Hg ☒ H_2O
1	B-1-15	684	143	1303	-30+	1306	0	15	17	1/8	12	1.5	12	1.5	✓	✓	726	200	3:38	200	-5
2	B-1-5	693	017	1304	-30+	1307	0	5	7	1/8	12	1.5	12	1.5	✓	✓	958	200	4:47	200	-5
3	B-1-5 rep	694	017	1308	-30+	1312	0	5	7	1/8	12	1.5	12	1.5	✓	✓	1358	200	—	200	-5
4	B-2-15	695	033	1325	-30+	1328	0	15	17	1/8	12	1.5	6	1.5	✓	✓	726	200	3:38	200	-5
5	B-2-5	688	158	1326	-30+	1329	0	5	7	1/8	12	1.5	12	1.5	✓	✓	958	200	4:47	200	0
6	B-3-15	698	056	1343	-30+	1345	0	15	17	1/8	12	1.5	6	1.5	✓	✓	726	200	3:38	200	-5
7	B-3-5	699	156	1344	-30+	1347	0	5	7	1/8	12	1.5	12	1.5	✓	✓	958	200	4:47	200	0
8	B-4-15	469	077	1357	-30+	1400	0	15	17	1/8	12	1.5	6	1.5	✓	✓	726	200	3:38	200	-5
9	B-4-5	697	205	1358	-27	1402	0	5	7	1/8	12	1.5	12	1.5	✓	✓	958	200	4:47	200	0
10	B-5-15	700	086	1412	-30+	1415	0	15	17	1/8	12	1.5	6	1.5	✓	✓	726	200	3:38	200	-5
11	B-5-5	701	080	1413	-30+	1416	0	5	7	1/8	12	1.5	12	1.5	✓	✓	958	200	4:47	200	0
12																					

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):

18 September 2020

Jim Robert
SALEM Engineering Group
8711 Monroe Ct # A
Rancho Cucamonga, CA 91730

RE:SB Monrovia

Work Order No.: 2009077

Attached are the results of the analyses for samples received by the laboratory on 09/04/20 12:10.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accredidation Program (ELAP) No. 2320.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-5'	2009077-01	Soil	09/03/20 08:49	09/04/20 12:10
B-1-15'	2009077-03	Soil	09/03/20 09:15	09/04/20 12:10
B-2-5'	2009077-04	Soil	09/03/20 09:40	09/04/20 12:10
B-2-15'	2009077-06	Soil	09/03/20 09:53	09/04/20 12:10
B-3-5'	2009077-07	Soil	09/03/20 10:19	09/04/20 12:10
B-3-15'	2009077-09	Soil	09/03/20 10:34	09/04/20 12:10
B-4-5'	2009077-10	Soil	09/03/20 10:54	09/04/20 12:10
B-4-15'	2009077-12	Soil	09/03/20 11:05	09/04/20 12:10
B-5-5'	2009077-13	Soil	09/03/20 11:40	09/04/20 12:10
B-5-15'	2009077-15	Soil	09/03/20 11:49	09/04/20 12:10

26052 MERIT CIRCLE SUITE 105, LAGUNA HILLS, CALIFORNIA 92653
TELEPHONE: (949) 348-9389 FAX: (949) 348-9115
E-MAIL: SIERRALABS @ SIERRALABS.NET

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-5' (2009077-01) Soil Sampled: 09/03/20 08:49 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**26**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**4.7**	0.80	"	"	"	"	"	"	
Chromium	**6.8**	1.2	"	"	"	"	"	"	
Copper	**15**	9.0	"	"	"	"	"	"	
Mercury	ND	0.23	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**5.8**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**15**	3.9	"	"	"	"	"	"	
Zinc	**22**	2.0	"	"	"	"	"	"	
B-1-15' (2009077-03) Soil Sampled: 09/03/20 09:15 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**25**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**4.0**	0.80	"	"	"	"	"	"	
Chromium	**6.0**	1.2	"	"	"	"	"	"	
Copper	**12**	9.0	"	"	"	"	"	"	
Mercury	ND	0.23	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**3.9**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**19**	3.9	"	"	"	"	"	"	
Zinc	**20**	2.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-2-5' (2009077-04) Soil Sampled: 09/03/20 09:40 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**19**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**3.5**	0.80	"	"	"	"	"	"	
Chromium	**4.2**	1.2	"	"	"	"	"	"	
Copper	ND	9.0	"	"	"	"	"	"	
Mercury	ND	0.21	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**3.5**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**14**	3.9	"	"	"	"	"	"	
Zinc	**16**	2.0	"	"	"	"	"	"	
B-2-15' (2009077-06) Soil Sampled: 09/03/20 09:53 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**43**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**8.4**	0.80	"	"	"	"	"	"	
Chromium	**15**	1.2	"	"	"	"	"	"	
Copper	**19**	9.0	"	"	"	"	"	"	
Mercury	ND	0.20	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**9.3**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**48**	3.9	"	"	"	"	"	"	
Zinc	**34**	2.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-3-5' (2009077-07) Soil Sampled: 09/03/20 10:19 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**22**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**3.8**	0.80	"	"	"	"	"	"	
Chromium	**5.0**	1.2	"	"	"	"	"	"	
Copper	ND	9.0	"	"	"	"	"	"	
Mercury	ND	0.20	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**4.2**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**14**	3.9	"	"	"	"	"	"	
Zinc	**19**	2.0	"	"	"	"	"	"	
B-3-15' (2009077-09) Soil Sampled: 09/03/20 10:34 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**32**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**6.2**	0.80	"	"	"	"	"	"	
Chromium	**7.4**	1.2	"	"	"	"	"	"	
Copper	**16**	9.0	"	"	"	"	"	"	
Mercury	ND	0.21	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**6.7**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**23**	3.9	"	"	"	"	"	"	
Zinc	**25**	2.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-5' (2009077-10) Soil Sampled: 09/03/20 10:54 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**96**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**14**	0.80	"	"	"	"	"	"	
Chromium	**17**	1.2	"	"	"	"	"	"	
Copper	**36**	9.0	"	"	"	"	"	"	
Mercury	ND	0.21	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**18**	3.4	"	"	"	"	"	"	
Lead	**3.1**	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**48**	3.9	"	"	"	"	"	"	
Zinc	**61**	2.0	"	"	"	"	"	"	
B-4-15' (2009077-12) Soil Sampled: 09/03/20 11:05 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**30**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**4.9**	0.80	"	"	"	"	"	"	
Chromium	**5.9**	1.2	"	"	"	"	"	"	
Copper	**9.6**	9.0	"	"	"	"	"	"	
Mercury	ND	0.20	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**5.1**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**17**	3.9	"	"	"	"	"	"	
Zinc	**23**	2.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-5-5' (2009077-13) Soil Sampled: 09/03/20 11:40 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**35**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**5.9**	0.80	"	"	"	"	"	"	
Chromium	**7.8**	1.2	"	"	"	"	"	"	
Copper	**12**	9.0	"	"	"	"	"	"	
Mercury	ND	0.23	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**6.7**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**25**	3.9	"	"	"	"	"	"	
Zinc	**25**	2.0	"	"	"	"	"	"	
B-5-15' (2009077-15) Soil Sampled: 09/03/20 11:49 Received: 09/04/20 12:10									
Silver	ND	1.0	mg/kg	1	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Arsenic	ND	4.0	"	"	"	"	"	"	
Barium	**31**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	1.7	"	"	"	"	"	"	
Cobalt	**3.5**	0.80	"	"	"	"	"	"	
Chromium	**4.3**	1.2	"	"	"	"	"	"	
Copper	ND	9.0	"	"	"	"	"	"	
Mercury	ND	0.23	"	"	B0I0804	09/08/20	09/08/20 17:21	EPA 7471A	
Molybdenum	ND	1.0	"	"	B0I0805	09/08/20	09/08/20 17:31	EPA 6010B	
Nickel	**3.9**	3.4	"	"	"	"	"	"	
Lead	ND	3.1	"	"	"	"	"	"	
Antimony	ND	9.0	"	"	"	"	"	"	
Selenium	ND	6.2	"	"	"	"	"	"	
Thallium	ND	4.0	"	"	"	"	"	"	
Vanadium	**14**	3.9	"	"	"	"	"	"	
Zinc	**16**	2.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-5' (2009077-01) Soil Sampled: 09/03/20 08:49 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*74.0 %*	*60-175*		"	"	"	"	
B-1-15' (2009077-03) Soil Sampled: 09/03/20 09:15 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*87.2 %*	*60-175*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-2-5' (2009077-04) Soil Sampled: 09/03/20 09:40 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*65.6 %*	*60-175*		"	"	"	"	
B-2-15' (2009077-06) Soil Sampled: 09/03/20 09:53 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*62.0 %*	*60-175*		"	"	"	"	

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SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-3-5' (2009077-07) Soil Sampled: 09/03/20 10:19 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*72.4 %*	*60-175*		"	"	"	"	
B-3-15' (2009077-09) Soil Sampled: 09/03/20 10:34 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*60-175*		"	"	"	"	

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SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-5' (2009077-10) Soil Sampled: 09/03/20 10:54 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*68.0 %*	*60-175*		"	"	"	"	
B-4-15' (2009077-12) Soil Sampled: 09/03/20 11:05 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*108 %*	*60-175*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-5-5' (2009077-13) Soil Sampled: 09/03/20 11:40 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*118 %*	*60-175*		"	"	"	"	
B-5-15' (2009077-15) Soil Sampled: 09/03/20 11:49 Received: 09/04/20 12:10									
HC < C8	ND	1.0	mg/kg	1	B0I1404	09/11/20	09/14/20 10:49	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	ND	1.0	"	"	"	"	"	"	
C24 <= HC < C28	ND	1.0	"	"	"	"	"	"	
C28 <= HC < C32	ND	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*91.6 %*	*60-175*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-5' (2009077-01) Soil Sampled: 09/03/20 08:49 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-5' (2009077-01) Soil Sampled: 09/03/20 08:49 Received: 09/04/20 12:10									
Naphthalene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.2 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*74-121*	"	"	"	"	
B-1-15' (2009077-03) Soil Sampled: 09/03/20 09:15 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-15' (2009077-03) Soil Sampled: 09/03/20 09:15 Received: 09/04/20 12:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-15' (2009077-03) Soil Sampled: 09/03/20 09:15 Received: 09/04/20 12:10									
m,p-Xylene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.2 %*		*80-120*		"	"	"	
Surrogate: Toluene-d8		*110 %*		*81-117*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*74-121*		"	"	"	
B-2-5' (2009077-04) Soil Sampled: 09/03/20 09:40 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-2-5' (2009077-04) Soil Sampled: 09/03/20 09:40 Received: 09/04/20 12:10									
trans-1,3-Dichloropropene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.0 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*91.4 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*74-121*	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-2-15' (2009077-06) Soil Sampled: 09/03/20 09:53 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-2-15' (2009077-06) Soil Sampled: 09/03/20 09:53 Received: 09/04/20 12:10									
Naphthalene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*94.2 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*74-121*	"	"	"	"	
B-3-5' (2009077-07) Soil Sampled: 09/03/20 10:19 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-3-5' (2009077-07) Soil Sampled: 09/03/20 10:19 Received: 09/04/20 12:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-3-5' (2009077-07) Soil Sampled: 09/03/20 10:19 Received: 09/04/20 12:10									
m,p-Xylene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.2 %*		*80-120*		"	"	"	
Surrogate: Toluene-d8		*100 %*		*81-117*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.0 %*		*74-121*		"	"	"	
B-3-15' (2009077-09) Soil Sampled: 09/03/20 10:34 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-3-15' (2009077-09) Soil Sampled: 09/03/20 10:34 Received: 09/04/20 12:10									
trans-1,3-Dichloropropene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.6 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*74-121*	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-5' (2009077-10) Soil Sampled: 09/03/20 10:54 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-5' (2009077-10) Soil Sampled: 09/03/20 10:54 Received: 09/04/20 12:10									
Naphthalene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.0 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*91.0 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*74-121*	"	"	"	"	
B-4-15' (2009077-12) Soil Sampled: 09/03/20 11:05 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-15' (2009077-12) Soil Sampled: 09/03/20 11:05 Received: 09/04/20 12:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-4-15' (2009077-12) Soil Sampled: 09/03/20 11:05 Received: 09/04/20 12:10									
m,p-Xylene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.8 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*90.8 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*		*74-121*	"	"	"	"	
B-5-5' (2009077-13) Soil Sampled: 09/03/20 11:40 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-5-5' (2009077-13) Soil Sampled: 09/03/20 11:40 Received: 09/04/20 12:10									
trans-1,3-Dichloropropene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*94.6 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*74-121*	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-5-15' (2009077-15) Soil Sampled: 09/03/20 11:49 Received: 09/04/20 12:10									
Benzene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-5-15' (2009077-15) Soil Sampled: 09/03/20 11:49 Received: 09/04/20 12:10									
Naphthalene	ND	5.0	µg/kg	1	B0I1005	09/10/20	09/10/20 12:10	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.2 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.8 %*		*74-121*	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I0804 - EPA 7471A										
Blank (B0I0804-BLK1)				Prepared & Analyzed: 09/08/20						
Mercury	ND	0.23	mg/kg							
LCS (B0I0804-BS1)				Prepared & Analyzed: 09/08/20						
Mercury	0.14	0.23	mg/kg	0.167		83.8	70-130			
Matrix Spike (B0I0804-MS1)		**Source: 2009077-01**		Prepared & Analyzed: 09/08/20						
Mercury	0.16	0.23	mg/kg	0.164	0.02	85.4	70-130			
Matrix Spike Dup (B0I0804-MSD1)		**Source: 2009077-01**		Prepared & Analyzed: 09/08/20						
Mercury	0.15	0.23	mg/kg	0.163	0.02	79.8	70-130	6.45	30	
Batch B0I0805 - EPA 3050B										
Blank (B0I0805-BLK1)				Prepared & Analyzed: 09/08/20						
Antimony	ND	9.0	mg/kg							
Arsenic	ND	4.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.2	"							
Cadmium	ND	1.7	"							
Chromium	ND	1.2	"							
Cobalt	ND	0.80	"							
Copper	ND	9.0	"							
Lead	ND	3.1	"							
Molybdenum	ND	1.0	"							
Nickel	ND	3.4	"							
Selenium	ND	6.2	"							
Silver	ND	1.0	"							
Thallium	ND	4.0	"							
Vanadium	ND	3.9	"							
Zinc	ND	2.0	"							

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I0805 - EPA 3050B										
LCS (B0I0805-BS1)				Prepared & Analyzed: 09/08/20						
Antimony	108	9.0	mg/kg	100		108	75-125			
Arsenic	103	4.0	"	100		103	78-122			
Barium	107	1.0	"	100		107	80-120			
Beryllium	104	1.2	"	100		104	80-120			
Cadmium	109	1.7	"	100		109	80-120			
Chromium	102	1.2	"	100		102	80-120			
Cobalt	109	0.80	"	100		109	80-120			
Copper	120	9.0	"	100		120	78-122			
Lead	106	3.1	"	100		106	80-120			
Molybdenum	100	1.0	"	100		100	80-120			
Nickel	106	3.4	"	100		106	80-120			
Selenium	112	6.2	"	100		112	76-124			
Silver	102	1.0	"	100		102	60-140			
Thallium	107	4.0	"	100		107	80-120			
Vanadium	101	3.9	"	100		101	80-120			
Zinc	106	2.0	"	100		106	80-120			
LCS Dup (B0I0805-BSD1)				Prepared & Analyzed: 09/08/20						
Antimony	106	9.0	mg/kg	100		106	75-125	1.87	20	
Arsenic	104	4.0	"	100		104	78-122	0.966	20	
Barium	108	1.0	"	100		108	80-120	0.930	20	
Beryllium	103	1.2	"	100		103	80-120	0.966	20	
Cadmium	110	1.7	"	100		110	80-120	0.913	20	
Chromium	103	1.2	"	100		103	80-120	0.976	20	
Cobalt	110	0.80	"	100		110	80-120	0.913	20	
Copper	115	9.0	"	100		115	78-122	4.26	20	
Lead	105	3.1	"	100		105	80-120	0.948	20	
Molybdenum	101	1.0	"	100		101	80-120	0.995	20	
Nickel	106	3.4	"	100		106	80-120	0.00	20	
Selenium	112	6.2	"	100		112	76-124	0.00	20	
Silver	101	1.0	"	100		101	60-140	0.985	40	
Thallium	108	4.0	"	100		108	80-120	0.930	20	
Vanadium	99.7	3.9	"	100		99.7	80-120	1.30	20	
Zinc	108	2.0	"	100		108	80-120	1.87	20	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I0805 - EPA 3050B										
Matrix Spike (B0I0805-MS1)	**Source: 2009077-01**			Prepared & Analyzed: 09/08/20						
Antimony	98.4	9.0	mg/kg	97.7	ND	101	60-140			
Arsenic	97.7	4.0	"	97.7	ND	100	70-130			
Barium	128	1.0	"	97.7	26	104	70-130			
Beryllium	102	1.2	"	97.7	ND	104	70-130			
Cadmium	103	1.7	"	97.7	0.19	105	70-130			
Chromium	104	1.2	"	97.7	6.8	99.5	70-130			
Cobalt	109	0.80	"	97.7	4.7	107	70-130			
Copper	119	9.0	"	97.7	15	106	70-130			
Lead	97.1	3.1	"	97.7	1.0	98.4	70-130			
Molybdenum	97.2	1.0	"	97.7	0.30	99.2	70-130			
Nickel	108	3.4	"	97.7	5.8	105	70-130			
Selenium	108	6.2	"	97.7	1.0	110	70-130			
Silver	89.8	1.0	"	97.7	ND	91.9	60-140			
Thallium	103	4.0	"	97.7	1.4	104	70-130			
Vanadium	111	3.9	"	97.7	15	98.3	70-130			
Zinc	122	2.0	"	97.7	22	102	70-130			
Matrix Spike Dup (B0I0805-MSD1)	**Source: 2009077-01**			Prepared & Analyzed: 09/08/20						
Antimony	97.4	9.0	mg/kg	97.3	ND	100	60-140	1.02	20	
Arsenic	101	4.0	"	97.3	ND	104	70-130	3.32	20	
Barium	127	1.0	"	97.3	26	104	70-130	0.784	20	
Beryllium	96.9	1.2	"	97.3	ND	99.6	70-130	5.13	20	
Cadmium	104	1.7	"	97.3	0.19	107	70-130	0.966	20	
Chromium	101	1.2	"	97.3	6.8	96.8	70-130	2.93	20	
Cobalt	106	0.80	"	97.3	4.7	104	70-130	2.79	20	
Copper	109	9.0	"	97.3	15	96.6	70-130	8.77	30	
Lead	97.5	3.1	"	97.3	1.0	99.2	70-130	0.411	30	
Molybdenum	97.1	1.0	"	97.3	0.30	99.5	70-130	0.103	20	
Nickel	105	3.4	"	97.3	5.8	102	70-130	2.82	20	
Selenium	104	6.2	"	97.3	1.0	106	70-130	3.77	20	
Silver	97.8	1.0	"	97.3	ND	101	60-140	8.53	40	
Thallium	104	4.0	"	97.3	1.4	105	70-130	0.966	20	
Vanadium	107	3.9	"	97.3	15	94.6	70-130	3.67	20	
Zinc	117	2.0	"	97.3	22	97.6	70-130	4.18	20	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I1404 - EPA 3550B Solid Ext										
Blank (B0I1404-BLK1)				Prepared: 09/11/20 Analyzed: 09/14/20						
HC < C8	ND	1.0	mg/kg							
C8 <= HC < C9	ND	1.0	"							
C9 <= HC < C10	ND	1.0	"							
C10 <= HC < C11	ND	1.0	"							
C11 <= HC < C12	ND	1.0	"							
C12 <= HC < C14	ND	1.0	"							
C14 <= HC < C16	ND	1.0	"							
C16 <= HC < C18	ND	1.0	"							
C18 <= HC < C20	ND	1.0	"							
C20 <= HC < C24	ND	1.0	"							
C24 <= HC < C28	ND	1.0	"							
C28 <= HC < C32	ND	1.0	"							
HC >= C32	ND	1.0	"							
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"							
Surrogate: o-Terphenyl	*2.18*		*"*	*2.50*		*87.2*	*60-175*			
LCS (B0I1404-BS1)				Prepared: 09/11/20 Analyzed: 09/14/20						
Diesel Range Organics (C10-C24)	11.0	5.0	mg/kg	10.0		110	80-120			
Matrix Spike (B0I1404-MS1)		**Source: 2009077-15**		Prepared: 09/11/20 Analyzed: 09/14/20						
Diesel Range Organics (C10-C24)	9.26	5.0	mg/kg	10.0	ND	92.6	50-150			
Matrix Spike Dup (B0I1404-MSD1)		**Source: 2009077-15**		Prepared: 09/11/20 Analyzed: 09/14/20						
Diesel Range Organics (C10-C24)	9.69	5.0	mg/kg	10.0	ND	96.9	50-150	4.54	30	

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I1005 - EPA 5035 P & T										
Blank (B0I1005-BLK1)				Prepared & Analyzed: 09/10/20						
Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I1005 - EPA 5035 P & T										
Blank (B0I1005-BLK1)				Prepared & Analyzed: 09/10/20						
Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							
Surrogate: Dibromofluoromethane	*50.3*		*"*	*50.0*		*101*	*80-120*			
Surrogate: Toluene-d8	*45.9*		*"*	*50.0*		*91.8*	*81-117*			
Surrogate: 4-Bromofluorobenzene	*50.7*		*"*	*50.0*		*101*	*74-121*			
LCS (B0I1005-BS1)				Prepared & Analyzed: 09/10/20						
Benzene	53.1	5.0	µg/kg	50.0		106	80-120			
Chlorobenzene	59.9	5.0	"	50.0		120	80-120			
1,1-Dichloroethene	53.6	5.0	"	50.0		107	80-120			
Toluene	46.3	5.0	"	50.0		92.6	80-120			
Trichloroethene	53.1	5.0	"	50.0		106	80-120			

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0I1005 - EPA 5035 P & T										
Matrix Spike (B0I1005-MS1)	**Source: 2009077-01**			Prepared & Analyzed: 09/10/20						
Benzene	50.2	5.0	µg/kg	50.0	ND	100	37-151			
Chlorobenzene	62.3	5.0	"	50.0	ND	125	37-160			
1,1-Dichloroethene	49.5	5.0	"	50.0	ND	99.0	50-150			
Toluene	51.5	5.0	"	50.0	ND	103	47-150			
Trichloroethene	49.8	5.0	"	50.0	ND	99.6	71-157			
Matrix Spike Dup (B0I1005-MSD1)	**Source: 2009077-01**			Prepared & Analyzed: 09/10/20						
Benzene	50.2	5.0	µg/kg	50.0	ND	100	37-151	0.00	30	
Chlorobenzene	57.6	5.0	"	50.0	ND	115	37-160	7.84	30	
1,1-Dichloroethene	52.8	5.0	"	50.0	ND	106	50-150	6.45	30	
Toluene	43.8	5.0	"	50.0	ND	87.6	47-150	16.2	30	
Trichloroethene	58.2	5.0	"	50.0	ND	116	71-157	15.6	30	

26052 MERIT CIRCLE SUITE 105, LAGUNA HILLS, CALIFORNIA 92653
TELEPHONE: (949) 348-9389 FAX: (949) 348-9115
E-MAIL: SIERRALABS @ SIERRALABS.NET

SALEM Engineering Group	Project: SB Monrovia	
8711 Monroe Ct # A	Project Number: 3-420-0619	**Reported:**
Rancho Cucamonga CA, 91730	Project Manager: Jim Robert	09/18/20 09:32

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115
26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 9/3/2020 Page: 1 of 2

Lab Work Order No.: 2009077

Client:	SALEM Engineering Group, Inc.
Client Address:	8711 Monroe Court Suite A Rancho Cucamonga, CA 91730
Client Tel. No.:	(909) 980-6455
Client Fax. No.:	(909) 980-6435
Client Proj. Mgr.:	JIM / RELLY

Client Project ID: 3-420-0619 SB MONROVIA

Turn Around Time Requested: ☐ Immediate ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ ~~4 Day~~ ☐ 5 Day ☑ Normal ☐ Mobile

Analyses Requested

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	TPH-CRA (EPA 8015B)	VOCs (EPA 8260B)	TITLE 22 METALS (6010B/7471A)	Geotracker EDD Info: / Client LOGCODE / Site Global ID / Field Point Names / Comments
B-1-5'	01	9/3/2020	0849	SOIL	ICE	PLASTIC	1	X	X	X	
B-1-10'	02	9/3/2020	0901	SOIL	ICE	PLASTIC	1				
B-1-15'	03	9/3/2020	0915	SOIL	ICE	PLASTIC	1	X	X	X	
B-2-5'	04	9/3/2020	0940	SOIL	ICE	PLASTIC	1	X	X	X	
B-2-10'	05	9/3/2020	0948	SOIL	ICE	PLASTIC	1				
B-2-15'	06	9/3/2020	0953	SOIL	ICE	PLASTIC	1	X	X	X	
B-3-5'	07	9/3/2020	1019	SOIL	ICE	PLASTIC	1	X	X	X	
B-3-10'	08	9/3/2020	1024	SOIL	ICE	PLASTIC	1				
B-3-15'	09	9/3/2020	1034	SOIL	ICE	PLASTIC	1	X	X	X	
B-4-5'	10	9/3/2020	1054	SOIL	ICE	PLASTIC	1	X	X	X	

1 Sampler Signature: Relly Rivera
Printed Name: RELLY RIVERA
Shipped Via:
(Carrier/Waybill No.)

2 Relinquished By: Relly Rivera Date: 9-4-20 Time: 1210
Company: SALEM
Received By: R Zuniga Date: 9-4-20 Time: 1210
Company: SIERRA

3 Relinquished By: Date: Time:
Company:
Received By: Date: Time:
Company:

4 Relinquished By: Date: Time:
Company:
Received By: Date: Time:
Company:

Special Instructions:

15 Total Number of Containers Submitted to Laboratory

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.
* • Samples determined to be hazardous by SIERRA will be returned to CLIENT.

15 Total Number of Containers Received by Laboratory

Sample Disposal:
☐ Return to Client
☐ Lab Disposal *
☐ Archive ____ mos.
☐ Other ____

(FOR LABORATORY USE ONLY - Sample Receipt Conditions:
☑ Intact ☐ Chilled - Temp (°C): 5.0 5.0°
☐ Sample Seals ☐ Preservatives - Verified By
☑ Properly Labelled ☐ Other
☑ Appropriate Sample Container ☑ Storage Location: (WEA2)

Rev 021104

DISTRIBUTION: White - To Accompany Samples, Yellow - Laboratory Copy, Pink - Field Personnel Copy

SIERRA ANALYTICAL
TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115
26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 9/3/2020 Page: 2 of 2

Lab Work Order No.: 2009077

Client: SALEM ENGINEERING GROUP, INC.
Client Address: 8711 MONROE CT.
SUITE A
RANCHO CUCAMONGA, CA 91730
Client Tel. No.: (909) 980-6455
Client Fax. No.: (909) 980-6435
Client Proj. Mgr.: JIM / REIGH

Client Project ID: 3-420-0619
SB MONROVIA

Turn Around Time Requested: ☐ Immediate ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 4 Day ☐ 5 Day ☒ Normal ☐ Mobile

Analyses Requested

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	TPH-CRA (EPA 8015B)	VOCs (EPA 8260B)	Title 22 Metals (EPA 6010B / 7471A)	Geotracker EDD Info: / Client LOGCODE / Site Global ID / Field Point Names / Comments
B-4-10'	11	9/3/2020	1100	SOIL	ICE	PLASTIC	1				
B-4-15'	12	9/3/2020	1105	SOIL	ICE	PLASTIC	1	X	X	X	
B-5-5'	13	9/3/2020	1140	SOIL	ICE	PLASTIC	1	X	X	X	
B-5-10'	14	9/3/2020	1143	SOIL	ICE	PLASTIC	1				
B-5-15'	15	9/3/2020	1149	SOIL	ICE	PLASTIC	1	X	X	X	

1 Sampler Signature: Reigh Ri
Printed Name: REIGH RIVERA
Shipped Via:
(Carrier/Waybill No.)

2 Relinquished By: Reigh Ri Date: 9-4-20 Time: 8:10
Company: SALEM
Received By: A Zack Date: 9-4-20 Time: 1210
Company: SFBSA

3 Relinquished By: Date: Time:
Company:
Received By: Date: Time:
Company:

4 Relinquished By: Date: Time:
Company:
Received By: Date: Time:
Company:

Special Instructions:

Total Number of Containers Submitted to Laboratory

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.
* - Samples determined to be hazardous by SIERRA will be returned to CLIENT.

Total Number of Containers Received by Laboratory

Sample Disposal:
☐ Return to Client
☐ Lab Disposal *
☐ Archive ____ mos.
☐ Other ____

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
☒ Intact ☒ Chilled - Temp (°C) 5.0°
☐ Sample Seals ☐ Preservatives - Verified By
☒ Properly Labelled ☐ Other
☒ Appropriate Sample Container ☒ Storage Location VEGA

Rev: 120321

DISTRIBUTION: White - To Accompany Samples, Yellow - Laboratory Copy, Pink - Field Personnel Copy

APPENDIX

B

Geophysical Investigation

Salem Engineering

Parking Lot
840 West Huntington Drive
Monrovia, California
Project #3594

spectrum geophysics
REVEALING THE SUBSURFACE
20434 Corisco Street
Chatsworth, California 91311
1-877-565-3595

Geophysical Investigation
Parking Lot
840 West Huntington Drive
Monrovia, California

Prepared For:
Salem Engineering
4055 West Shaw Avenue, Suite 110
Fresno, CA 93722

Prepared By:
Spectrum Geophysics
20434 Corisco Street
Chatsworth, CA 91311

September 18, 2020

Charles Carter
California Professional Geophysicist, P.Gp. 1051

spectrum geophysics
REVEALING THE SUBSURFACE

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1.0 INTRODUCTION

Spectrum Geophysics conducted a geophysical investigation on September 3rd, 2020 in a portion of the parking lot located at 840 West Huntington Drive in Monrovia, California. The purpose of the investigation was to locate detectable underground storage tanks (USTs) or backfilled excavations. The area of investigation, as designated by Reily Riviera of Salem Engineering, included an ashpalt covered area with approximate dimesions of 85 feet by 345 feet in size (see Figure 1).

The surficial geology of the site is mapped as Quaternary alluvial fan deposits consisting of unconsolidated to slightly consolidated silt to boulder sized sediments. There could also be artificial fill overlaying the Quaternary sediments within the survey area. The water table is expected to be deeper than the maximum depth of investigation (10 feet), but moisture in the upper five feet of soil could contribute to corrosion of metallic survey targets and signal attenuation in the ground penetrating radar data. It is reported that an auto facility occupied a portion of the site in the past, however it is unclear if any USTs were removed. Site interferences included the parked vehicles and street lights.

2.0 EQUIPMENT

The equipment used during this investigation consisted of a Geonics EM-31 “short” terrain conductivity meter (EM-31) linked to a Juniper Systems Archer field computer (Archer), Geonics EM-61 high-sensitivity metal detector (EM-61) linked to a Juniper Systems Allegro field computer (Allegro), a NavCom SF-2050G DGPS unit with submeter accuracy, RadioDetection 4000 utility locator (RD4000), a Fisher TW-6 M-Scope shallow-focus metal detector (M-Scope) and a Sensors & Software “Noggin Smart Cart” ground penetrating radar (GPR) unit coupled to a 500-MHz antenna.

3.0 METHODS AND FIELD PROCEDURES

Prior to data acquisition a survey grid was established parallel and perpendicular to the planter located in the southwest portion of the survey area. A survey tape was used to establish the survey lines and stations and paint was used to mark the locations of each survey station on the ground.

3.1 EM-61 High Sensitivity Metal Detector

The EM-61 metal detector was used in an effort to delineate areas where metallic objects (such as USTs) may be buried. The EM-61 transmitter generates short pulses of a primary magnetic field that induces eddy currents in nearby metallic objects. Between pulses, the two receiver coils measure the decay of the eddy currents in millivolts (mV). The measured values are proportional to the metal content (ferrous and non-ferrous) of the nearby objects.
After the EM-61 had a few minutes to warm up, the instrument was nulled at a base station with more than four meters of separation between the coils and any known metallic objects. A

static test was then run in which the instrument response to the soil and a metal bolt was monitored for amplitude and consistency. Finally, a cable-shake test was performed to assure the cables were in good working condition and the connectors were fastened properly. The EM-61 used in this survey was found to be working as expected.


EM-61 data acquisition

During this investigation, EM-61 measurements were collected at a rate of five readings per second along parallel north-south lines tied to the survey grid. EM-61 survey lines were spaced 5 feet apart. GPS positions were streamed to the Archer field computer at one second intervals, and EM-61 measurements were interpolated between GPS positions. This resulted in a 0.8-foot station spacing on average. The acquisition software displayed the GPS accuracy in real time and gave a visual warning if submeter accuracy was lost. The GPS accuracy during data acquisition at this site was consistently submeter. Top coil, bottom coil and differential (top coil data minus the bottom coil data) EM-61 data were acquired at this site. Data from the bottom coil were used in this survey to locate shallow targets such as metallic pipes that could get filtered out in the differential data as well as deeper targets like USTs.

3.2 EM-31 Terrain Conductivity Meter

The EM-31 terrain conductivity meter was used in an effort to locate buried objects or backfilled excavations by detecting changes in the conductivity in the near surface soils. EM-31 readings were acquired every 5 feet along north-south grid lines spaced 5 feet apart. A brief description of how the EM-31 works follows.


EM-31SH Data Acquisition

The EM-31 (an electromagnetic induction instrument) consists of two coils (transmitter and receiver) mounted on the ends of a 2-meter-long plastic boom (the EM-31 short coil separation is 2 meters). An alternating current is applied to the transmitter coil, which sends a primary electromagnetic (EM) field into the ground. This primary field induces eddy currents in buried conductive material that is encountered, and these eddy currents generate a secondary magnetic field. This secondary magnetic field is measured at the receiver and compared to the primary field [as a ratio of the secondary field to primary field in parts per thousand (ppt)] and recorded as the in-phase component. The EM-31 also measures the component 90 degrees out of phase with the primary EM field (the quadrature component). The quadrature component is converted to read apparent conductivity in millimhos per meter (mmhos/m). The in-phase component is set to read 0 in background materials, and is sensitive to metal. The primary field generated by the EM-31 short can travel 1.5 times the coil spacing in the vertical plane (3 meters or 9.8 feet) and 0.5 times the coil spacing in the horizontal plane (1 meter or 3.3 feet).

The EM-31 instrument has a long history of demonstrated use for the delineation of undocumented disposal, chemical waste and large buried metallic objects. Conductivity values from the EM-31 measurements can be used to delineate lateral contrasts in subsurface materials. With the aid of regularly spaced survey lines, the EM-31 can be used to distinguish the boundaries between materials exhibiting contrasts in conductivity such as coarse-grained sediments vs. finer-grained soils, metallic material vs. non-metallic material, and chemical contrasts in soils.

3.3 Electromagnetic Utility Location

Active electromagnetic (EM) utility-locating methods were used in order to identify buried utility lines and to relocate EM-31 and EM-61 anomalies. Active locating was executed by conducting an EM signal at a known frequency (8 kHz for this site) on metallic lines exposed at the surface. A receiver, tuned to 8 kHz, was then used to locate the signal maxima of the applied signal. The 8 kHz signal was applied to several lines at this site.

The Fisher M-Scope metal detector was used to locate shallow buried metallic features. The M-Scope has a transmitter and a receiver at the ends of a short boom. The transmitter emits a radio-frequency source signal that induces a secondary magnetic field in metallic material in its immediate vicinity. The receiver measures the signal strength of this secondary magnetic field and emits an audible response, the volume and pitch of which increase in the presence of metallic material. The sensitivity of the M-Scope allows the operator to locate the lateral boundaries of a metallic object.
Detected lines were marked on the ground with paint and plotted on the site map. Detected lines are labelled “C” for conduits of unknown type and “E” for electric lines in Figure 1.

M-Scope

3.4 Ground Penetrating Radar

The GPR was used to search for changes in the soil that may be the result of a backfilled UST pit or broad parabolic reflectors that may be the result of a UST. During the GPR survey, an antenna containing both a transmitter and a receiver was pushed along the ground surface along the same north-south survey lines tied to the grid established for the EM-31 survey. GPR lines were spaced 5 feet apart. The transmitter radiated short pulses of high-frequency radio waves (with a center frequency of 500 MHz) into the ground. As the radio waves propagated into the ground, these waves were reflected at boundaries with contrasting electrical conductivity. The reflected waves were then received at the antenna and displayed as vertical profiles on the GPR unit. High-amplitude reflections are expected at interfaces with a high contrast in electrical conductivity, like dry sand and metal for example. If the electrical conductivity between two

mediums is similar, dry concrete and dry sand for example, the resulting reflector may be weak or undetectable.

GPR data collected during this investigation were processed using GPR-Slice™ V7.0. GPR-Slice™ allows the user to combine 2D profiles (radargrams) to generate a 3D volume or a series of horizontal time slice maps. The time slice maps are used to show the location, size, shape and depth of GPR anomalies. Subtle anomalies that may not be distinguishable between adjacent GPR profiles can be detected with time slice maps.

GPR Data Collection

Before the time slice maps were interpreted the following processing steps were taken.

- Input the survey geometry for each radargram relative to the survey grid
- Set "time zero" for each radargram
- Apply a common gain curve, a low-cut filter (200 MHz) and hi-cut filter (1000 MHz) to all radargrams
- Grid GPR data with respect to GPR reflection amplitudes using inverse distance interpolation method

A total of six 11 nanosecond time slice maps were generated and contoured based on GPR signal intensity (absolute amplitude of reflected GPR scans) for the survey area. Each 11 nanosecond time slice represents approximately 1.5 vertical feet. The time slice contour maps were used to identify GPR anomalies with lateral extents expected for USTs or backfilled excavations. All radargrams and time slices were reviewed, and Figure 5 is presented with a representative time slice. GPR profiles were reviewed in order to distinguish between horizontal GPR reflectors which may be the result of a utility or conductive soil layer, dipping GPR reflectors which may be the result of a sloped edge of a backfilled excavation or broad parabolic reflectors that may be the result of a UST.

4.0 RESULTS

A site map with geophysical interpretation is presented in Figure 1, a contour map of the EM-61 bottom coil data is presented in Figure 2, contour maps of EM-31sh conductivity and in-phase data are presented as Figures 3 and 4, respectively, and GPR signal intensity and GPR profiles are presented in Figures 5 and 6, respectively.

4.1 EM-61

The color scale of the contour map of the EM-61 differential data displays the magnitudes of the measured EM-61 values where light green to yellow colors represent background readings and orange to pink colors represent increasing values above background. Due to the sensitivity of the EM-61, anomalies are usually exaggerated compared to the actual dimensions of the source metal. It is common for a sheared fence post to produce a 7-foot by 7-foot EM-61 anomaly while a 600-gallon UST buried 4 feet below ground surface can produce an EM-61 anomaly with dimensions of 15 feet by 15 feet. The findings of the survey are discussed below.

Moderate-amplitude EM-61 anomalies along the perimeter of the survey area are the result of surface metal such as parked cars and street lights. The linear anomalies are the result of buried metal pipes and were relocated with the M-Scope to confirm the sources and locations of the anomalies.
There were no EM-61 anomalies with the dimensions expected for a metallic UST found within the survey area.

4.2 EM-31

The colors in the EM-31 contour maps represent the magnitudes of the measured values where yellow to light green colors represent background readings, deep green to blue colors represent measured values below background and orange to pink colors represent increasing values above background. The dimensions of EM-31 anomalies are usually much larger than the dimensions of the corresponding sources, however small objects like scrap metal are usually undetected by the EM-31. It should be noted that the orientation of the EM-31 coils relative to a conductor will influence the magnitude of the measured values. When crossing a linear conductor at a right angle to oblique angle, the EM-31 response is typically negative over the conductor with positive “shoulders” either side of the conductor. When surveying parallel to a linear conductor the EM-31 response is typically positive and well above background readings. A discussion of the anomalies identified within the area of investigation may be found below.

The surface metal detected by the EM-61 also created strong EM-31 anomalies. The electric lines that were undetected by the EM-61 produced strong linear EM-31 anomalies. No anomalies with the expected dimensions of a UST were observed in the EM-31 data. No anomalies with the dimensions of a backfilled UST pit were identified in the EM-31 conductivity data.

4.3 GPR

The color scale of the contour map of GPR signal intensity is set so that background is deep blue to light blue, moderated-amplitude anomalies are green to yellow and high-amplitude reflectors are represented by orange to magenta colors.
There are several high-amplitude GPR anomalies within the survey area. While it is possible that some of the GPR anomalies detected are the result of grading or other excavating activities the reflectors detected with GPR are for the most part reflectively horizontal which is not common for backfilled UST pits. The most significant GPR anomaly is centered at (80E, 285N). This anomaly does have the expected dimensions of a UST pit, but does not exhibit the

dipping reflectors expected from the side walls of a backfilled UST excavation. The high-amplitude reflectors imaged within the bounds of this anomaly are horizontal like most of the other high-amplitude GPR reflectors found at this site.
The GPR signal was satisfactory to a depth of approximately 4 feet at this site.

5.0 LIMITATIONS

The detection of subsurface objects is dependent upon acquiring reliable data with geophysical instruments above ground. These data may be interpreted as representative of subsurface objects. The geophysical data, however, may be distorted by a number of factors including corrosion and proximity to other surface and subsurface structures. A discussion of the limitations of each method follows.

5.1 EM-61

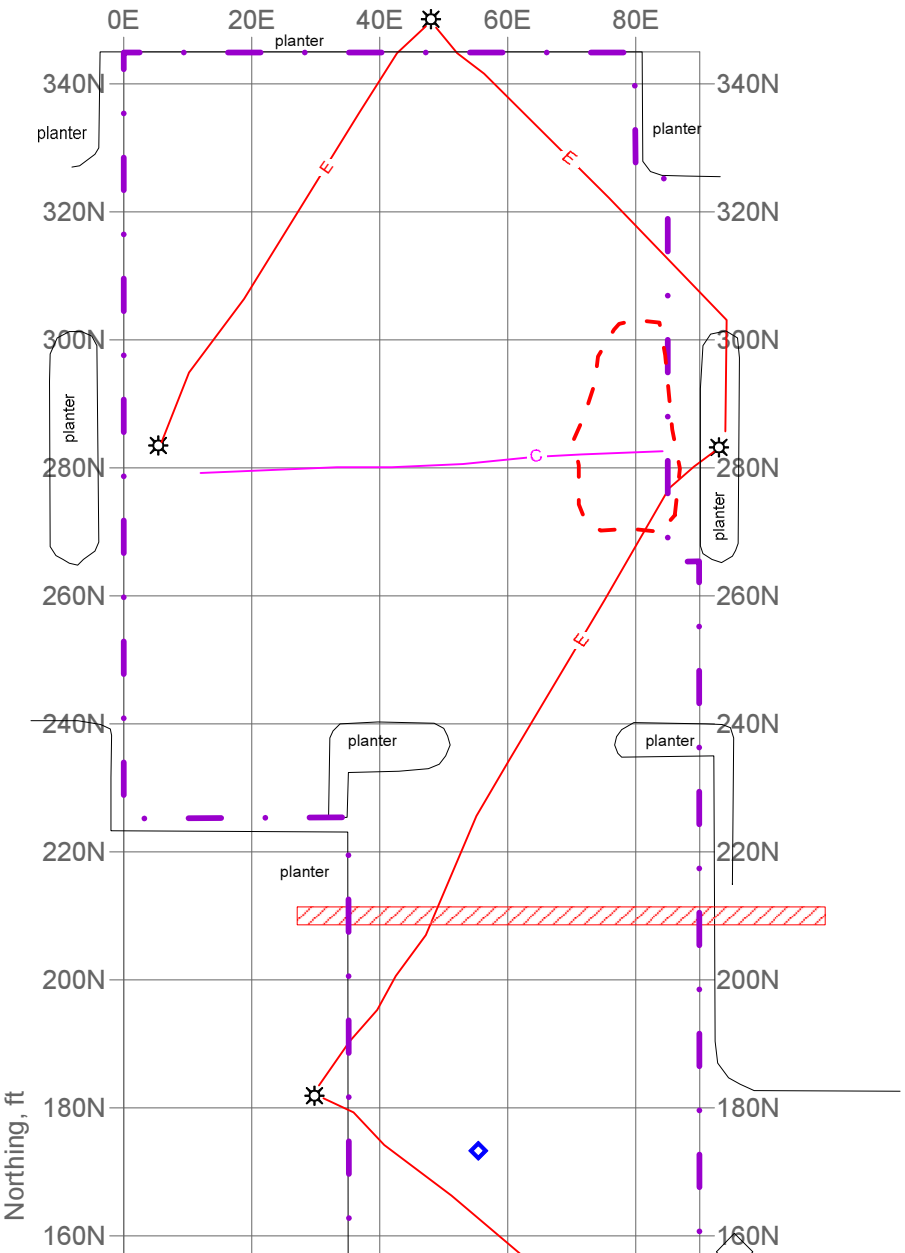
The EM-61 is capable of detecting a 55-gallon drum to a depth of 3 meters under favorable conditions. We recommended a minimum 10-foot buffer between the survey area and any metallic or metal bearing surface cultural features such as buildings, fences or other surface metal which could compromise the quality of the data. The EM-61 data collected within 7 feet of surface metal at this site influenced the EM-61 response adversely. As a result, Spectrum cannot guarantee that a small metallic feature is not present beneath or adjacent to these features.

5.2 EM-31

The EM-31 short is capable of detecting a 55-gallon drum up to a depth of 3 meters under favorable conditions. We recommended a minimum 10-foot buffer between the survey area and any metal bearing surface cultural features such as fences, reinforced concrete or vehicles which could severely compromise the quality of the data. At this site the strong response from buried metal pipes may have masked the response of low-amplitude anomalies expected from a backfilled excavation. As a result, Spectrum cannot guarantee that all subsurface features were detectable near surface metal or buried metallic objects.

5.3 GPR

The performance capability of GPR is dependent on the electrical conductivity of the soil at the site. If the soil conductivity is high, attenuation of the radar signal in the soil can severely restrict the maximum penetration depth of the radar signal. Under favorable conditions depth of penetration can be greater than 10 feet; however, average depths of GPR penetration in Southern California tend to range between 2-5 feet. Soil moisture, especially in clay rich soils, only increases the radar signal attenuation, further limiting the radar performance. The penetration depth of the GPR signal was approximately 4 feet at this site. As a consequence, non-metallic features present at depths greater than 4 feet in the areas adjacent to significant metallic objects may not have been detected due to the shallow penetration of the GPR.



LEGEND

- Area of Geophysical Investigation
- GPR Anomaly
- C — Conduit
- E — Electric Line
- Street Light
- Planter
- Buried Metal
- Electric Trench

0 15 30 (feet)

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MAP: **Site Map with Geophysical Interpretation**

FIGURE NO.: **1**

PROJECT: Parking Lot
840 West Huntington Drive
Monrovia, California

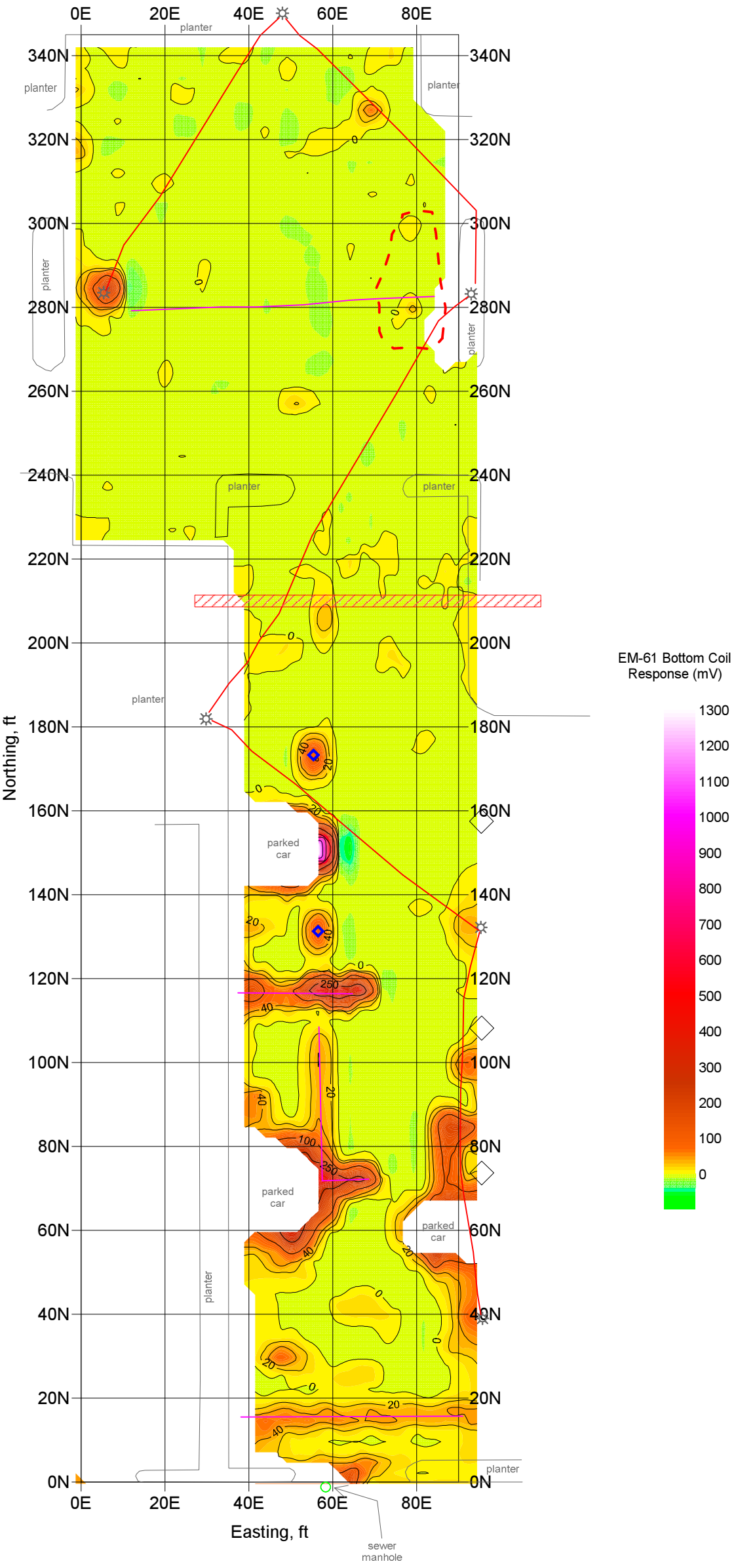
PREPARED FOR: Salem Engineering
Fresno, California

PROJECT NO.: 3567

SCALE: 1 inch = 30 feet

FIGURE BY: C. Carter

DATE: 09/18/20



LEGEND

- Area of Geophysical Investigation
- GPR Anomaly
- C — Conduit
- E — Electric Line
- Street Light
- Planter
- Buried Metal
- Electric Trench

0 15 30
(feet)

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MAP
Contour Map of EM-61 Bottom Coil Data

PROJECT
Parking Lot
840 West Huntington Drive
Monrovia, California

FIGURE NO.
2

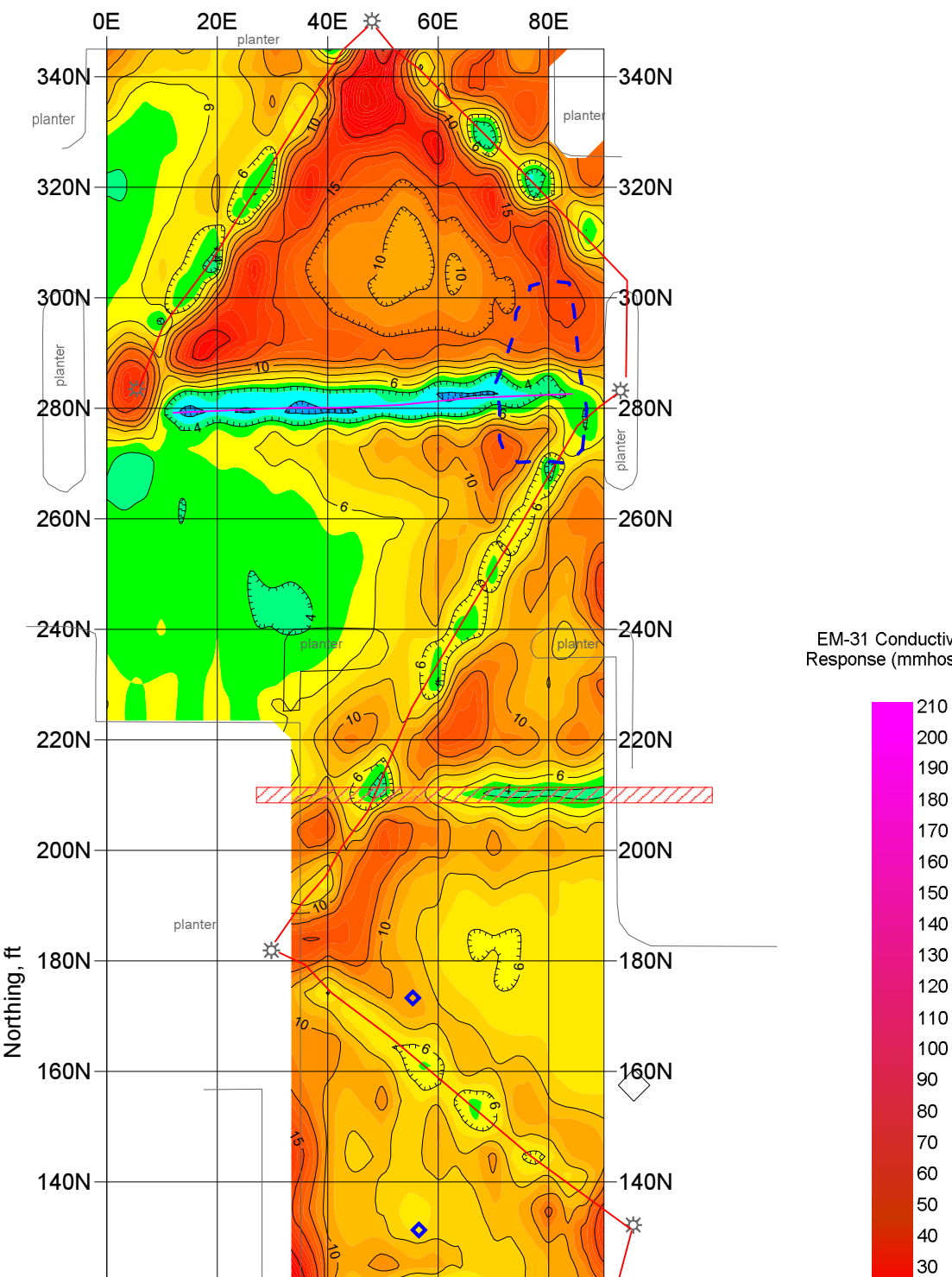
PREPARED FOR
Salem Engineering
Fresno, California

PROJECT NO.
3567

SCALE
1 inch = 30 feet

FIGURE BY
C. Carter

DATE
09/18/20



LEGEND

- Area of Geophysical Investigation
- GPR Anomaly
- Conduit
- Electric Line
- Street Light
- Planter
- Buried Metal
- Electric Trench

0 15 30 (feet)

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MAP
Contour Map of EM-31sh Conductivity Data

PROJECT
Parking Lot
840 West Huntington Drive
Monrovia, California

FIGURE NO.
3

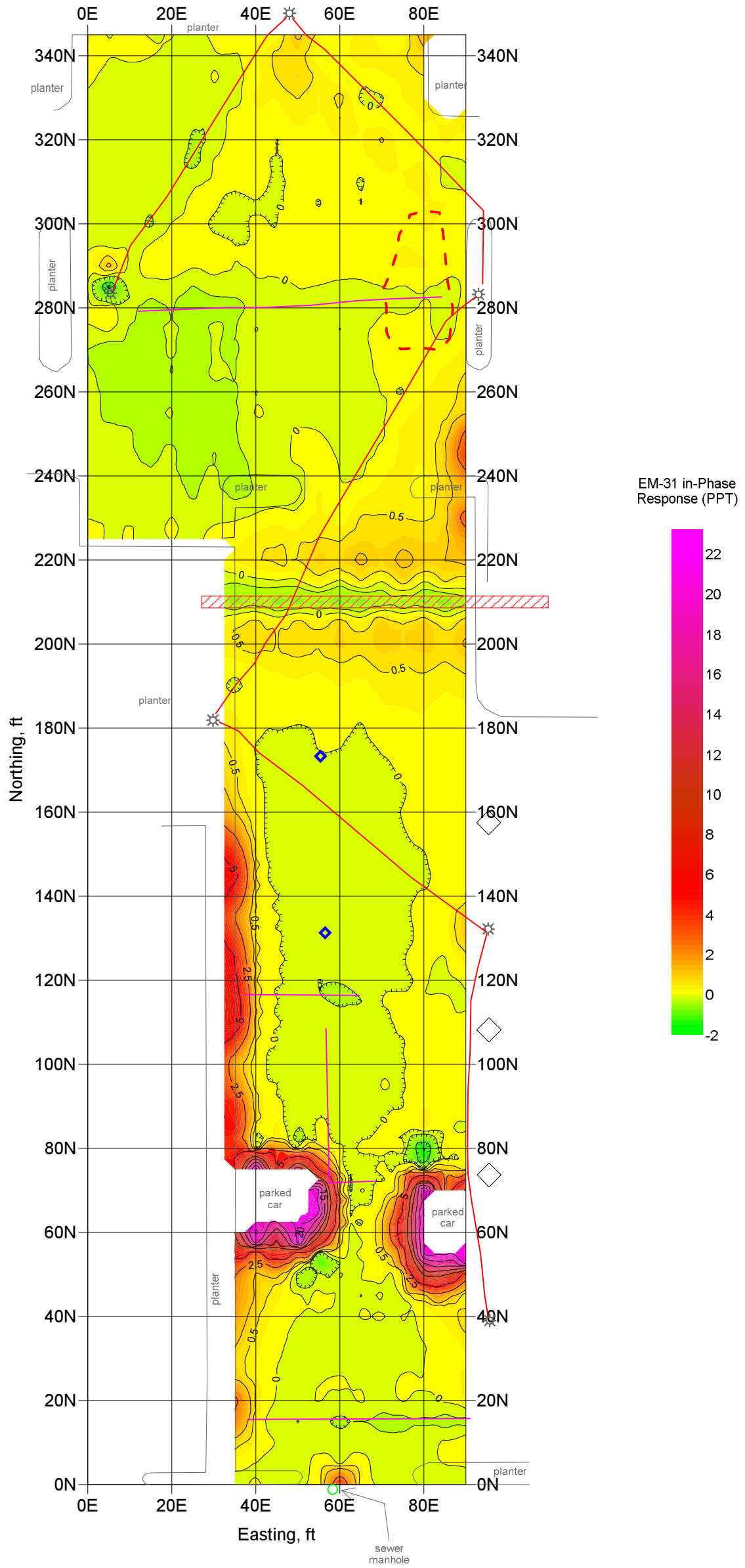
PREPARED FOR
Salem Engineering
Fresno, California

PROJECT NO.
3567

SCALE
1 inch = 30 feet

FIGURE BY
C. Carter

DATE
09/18/20



LEGEND

- Area of Geophysical Investigation
- GPR Anomaly
- Conduit
- Electric Line
- Street Light
- Planter
- Buried Metal
- Electric Trench

0 15 30 (feet)

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MAP: **Contour Map of EM-31sh In-Phase Data**

FIGURE NO.: **4**

PROJECT: Parking Lot
840 West Huntington Drive
Monrovia, California

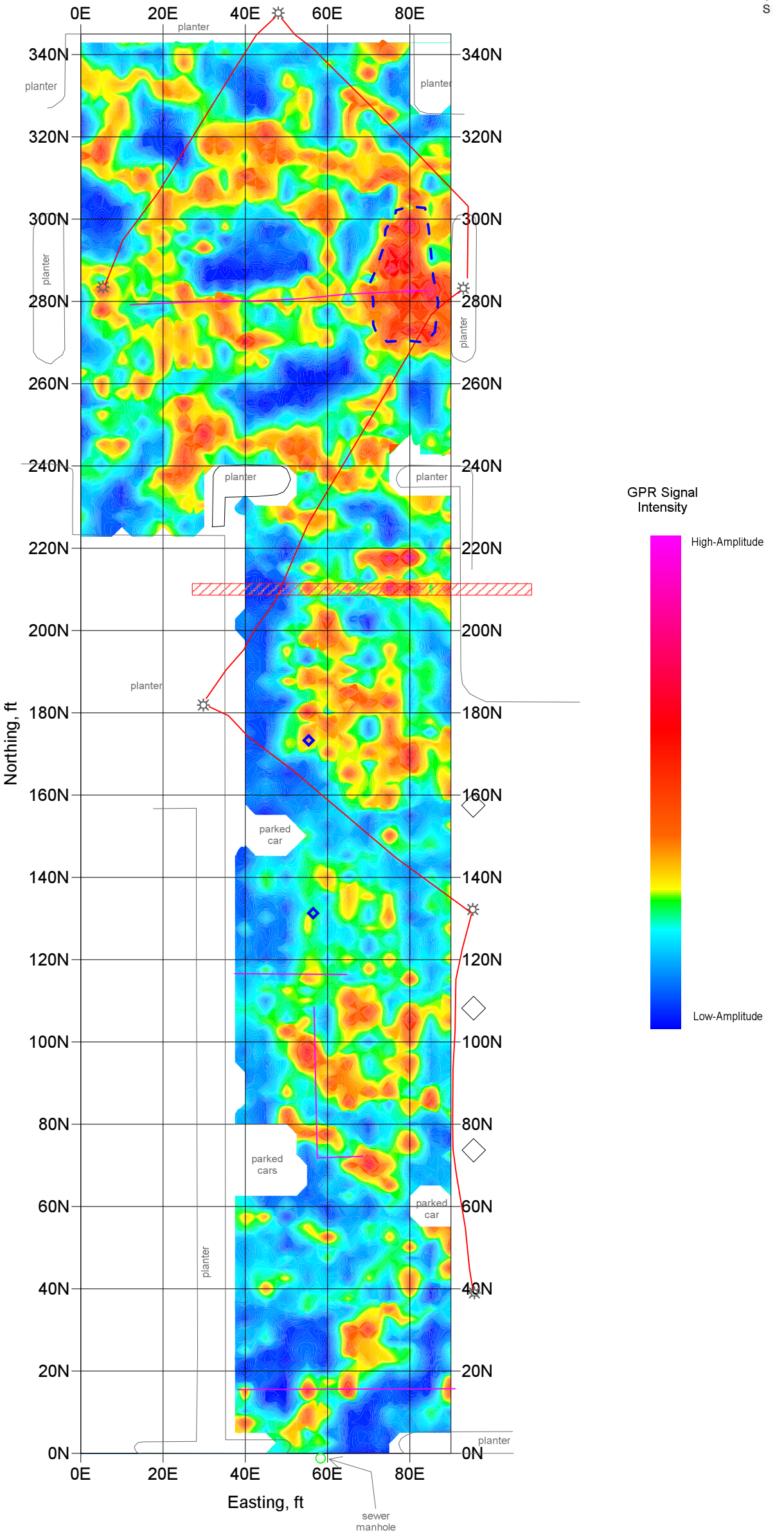
PREPARED FOR: Salem Engineering
Fresno, California

PROJECT NO.: 3567

SCALE: 1 inch = 30 feet

FIGURE BY: C. Carter

DATE: 09/18/20



LEGEND

- Area of Geophysical Investigation
- GPR Anomaly
- Conduit
- Electric Line
- Street Light
- Planter
- Buried Metal
- Electric Trench

0 15 30 (feet)

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MAP
Contour Map of GPR Signal Intensity (9-20ns)

PROJECT
Parking Lot
840 West Huntington Drive
Monrovia, California

FIGURE NO.
5

PREPARED FOR
Salem Engineering
Fresno, California

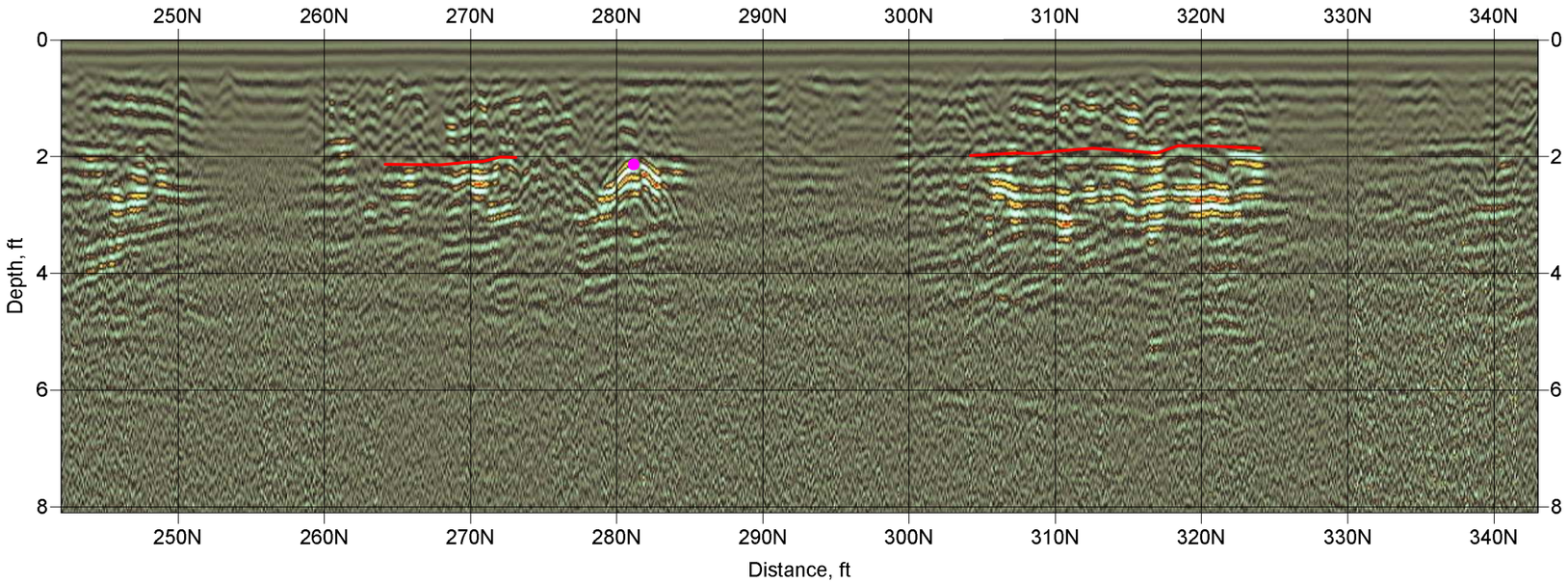
PROJECT NO.
3567

SCALE
1 inch = 30 feet

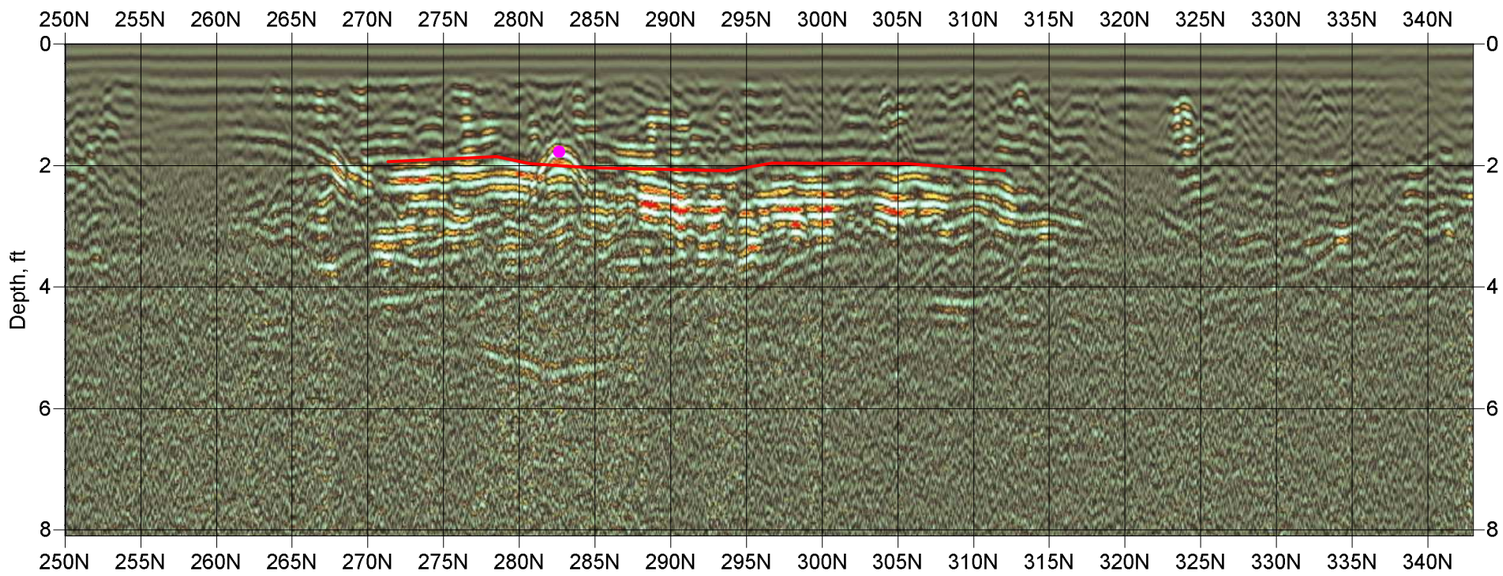
FIGURE BY
C. Carter

DATE
09/18/20

Line: 45E



Line 80E



LEGEND

- High-Amplitude GPR Reflector
- Buried Pipe

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MAP: **GPR Profiles**

PROJECT: Parking Lot
840 West Huntington Drive
Monrovia, California

FIGURE NO.: **6**

PREPARED FOR: Salem Engineering
Fresno, California

PROJECT NO.: 3567

Horizontal Scale: 1 inch = 10 feet
Vertical Exaggeration: 4x

FIGURE BY: C. Carter

DATE: 09/18/20

APPENDIX

C

OSWER VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration Csg (ug/m^3)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
75-07-0	Acetaldehyde		--	--	--	2.20E-06	I	9.00E-03	I	
67-64-1	Acetone		--	--	--			3.10E+01	A	
75-05-8	Acetonitrile									
107-02-8	Acrolein									
79-10-7	Acrylic Acid									
107-13-1	Acrylonitrile									
309-00-2	Aldrin									
107-18-6	Allyl Alcohol									
107-05-1	Allyl Chloride									
7664-41-7	Ammonia									
75-85-4	Amyl Alcohol, tert-									
12674-11-2	Aroclor 1016									
11104-28-2	Aroclor 1221		--	--	--	5.70E-04	S			
11141-16-5	Aroclor 1232		--	--	--	5.70E-04	S			
53469-21-9	Aroclor 1242		--	--	--	5.70E-04	S			
12672-29-6	Aroclor 1248		--	--	--	5.70E-04	S			
11097-69-1	Aroclor 1254		--	--	--	5.70E-04	S			
11096-82-5	Aroclor 1260		--	--	--	5.70E-04	S			
103-33-3	Azobenzene		--	--	--	3.10E-05	I			
56-55-3	Benz[a]anthracene		--	--	--	6.00E-05	E			Mut
71-43-2	Benzene		--	--	--	7.80E-06	I	3.00E-02	I	
100-44-7	Benzyl Chloride		--	--	--	4.90E-05	CA	1.00E-03	P	
92-52-4	Biphenyl, 1,1'-		--	--	--			4.00E-04	X	
111-44-4	Bis(2-chloroethyl)ether		--	--	--	3.30E-04	I			
542-88-1	Bis(chloromethyl)ether		--	--	--	6.20E-02	I			
10294-34-5	Boron Trichloride		--	--	--			2.00E-02	P	
7637-07-2	Boron Trifluoride		--	--	--			1.30E-02	CA	
107-04-0	Bromo-2-chloroethane, 1-		--	--	--	6.00E-04	X			
108-86-1	Bromobenzene		--	--	--			6.00E-02	I	
74-97-5	Bromochloromethane		--	--	--			4.00E-02	X	
75-27-4	Bromodichloromethane		--	--	--	3.70E-05	CA			
75-25-2	Bromoform		--	--	--	1.10E-06	I			
74-83-9	Bromomethane		--	--	--			5.00E-03	I	
106-99-0	Butadiene, 1,3-		--	--	--	3.00E-05	I	2.00E-03	I	
78-92-2	Butyl alcohol, sec-		--	--	--			3.00E+01	P	
75-15-0	Carbon Disulfide		--	--	--			7.00E-01	I	
56-23-5	Carbon Tetrachloride		--	--	--	6.00E-06	I	1.00E-01	I	
463-58-1	Carbonyl Sulfide		--	--	--			1.00E-01	P	
12789-03-6	Chlordane		--	--	--	1.00E-04	I	7.00E-04	I	
7782-50-5	Chlorine		--	--	--			1.50E-04	A	
10049-04-4	Chlorine Dioxide		--	--	--			2.00E-04	I	
75-68-3	Chloro-1,1-difluoroethane, 1-		--	--	--			5.00E+01	I	
126-99-8	Chloro-1,3-butadiene, 2-		--	--	--	3.00E-04	I	2.00E-02	I	
108-90-7	Chlorobenzene		--	--	--			5.00E-02	P	
98-56-6	Chlorobenzotrifluoride, 4-		--	--	--			3.00E-01	P	
75-45-6	Chlorodifluoromethane		--	--	--			5.00E+01	I	
67-66-3	Chloroform		--	--	--	2.30E-05	I	9.80E-02	A	
74-87-3	Chloromethane		--	--	--			9.00E-02	I	
107-30-2	Chloromethyl Methyl Ether		--	--	--	6.90E-04	CA			
76-06-2	Chloropicrin		--	--	--			4.00E-04	CA	
8007-45-2	Coke Oven Emissions		--	--	--	6.20E-04	I			Mut
98-82-8	Cumene		--	--	--			4.00E-01	I	
57-12-5	Cyanide (CN-)		--	--	--			8.00E-04	S	
110-82-7	Cyclohexane		--	--	--			6.00E+00	I	
108-94-1	Cyclohexanone		--	--	--			7.00E-01	P	
110-83-8	Cyclohexene		--	--	--			1.00E+00	X	
72-55-9	DDE, p,p'-		--	--	--	9.70E-05	CA			

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Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
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96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--	6.00E-03	P	2.00E-04	I	Mut
106-93-4	Dibromoethane, 1,2-		--	--	--	6.00E-04	I	9.00E-03	I	
74-95-3	Dibromomethane (Methylene Bromide)		--	--	--			4.00E-03	X	
764-41-0	Dichloro-2-butene, 1,4-		--	--	--	4.20E-03	P			
1476-11-5	Dichloro-2-butene, cis-1,4-		--	--	--	4.20E-03	P			
110-57-6	Dichloro-2-butene, trans-1,4-		--	--	--	4.20E-03	P			
95-50-1	Dichlorobenzene, 1,2-		--	--	--			2.00E-01	H	
106-46-7	Dichlorobenzene, 1,4-		--	--	--	1.10E-05	CA	8.00E-01	I	
75-71-8	Dichlorodifluoromethane		--	--	--			1.00E-01	X	
75-34-3	Dichloroethane, 1,1-		--	--	--	1.60E-06	CA			
107-06-2	Dichloroethane, 1,2-		--	--	--	2.60E-05	I	7.00E-03	P	
75-35-4	Dichloroethylene, 1,1-		--	--	--			2.00E-01	I	
78-87-5	Dichloropropane, 1,2-		--	--	--	3.70E-06	P	4.00E-03	I	
542-75-6	Dichloropropene, 1,3-		--	--	--	4.00E-06	I	2.00E-02	I	
77-73-6	Dicyclopentadiene		--	--	--			3.00E-04	X	
75-37-6	Difluoroethane, 1,1-		--	--	--			4.00E+01	I	
94-58-6	Dihydrosafrole		--	--	--	1.30E-05	CA			
108-20-3	Diisopropyl Ether		--	--	--			7.00E-01	P	
68-12-2	Dimethylformamide		--	--	--			3.00E-02	I	
57-14-7	Dimethylhydrazine, 1,1-		--	--	--			2.00E-06	X	
540-73-8	Dimethylhydrazine, 1,2-		--	--	--	1.60E-01	CA			
513-37-1	Dimethylvinylchloride		--	--	--	1.30E-05	CA			
123-91-1	Dioxane, 1,4-		--	--	--	5.00E-06	I	3.00E-02	I	
106-89-8	Epichlorohydrin		--	--	--	1.20E-06	I	1.00E-03	I	
106-88-7	Epoxybutane, 1,2-		--	--	--			2.00E-02	I	
111-15-9	Ethoxyethanol Acetate, 2-		--	--	--			6.00E-02	P	
110-80-5	Ethoxyethanol, 2-		--	--	--			2.00E-01	I	
141-78-6	Ethyl Acetate		--	--	--			7.00E-02	P	
140-88-5	Ethyl Acrylate		--	--	--			8.00E-03	P	
75-00-3	Ethyl Chloride (Chloroethane)		--	--	--			1.00E+01	I	
97-63-2	Ethyl Methacrylate		--	--	--			3.00E-01	P	
100-41-4	Ethylbenzene		--	--	--	2.50E-06	CA	1.00E+00	I	
75-21-8	Ethylene Oxide		--	--	--	3.00E-03	I	3.00E-02	CA	Mut
151-56-4	Ethyleneimine		--	--	--	1.90E-02	CA			
50-00-0	Formaldehyde		--	--	--	1.30E-05	I	9.80E-03	A	
64-18-6	Formic Acid		--	--	--			3.00E-04	X	
98-01-1	Furfural		--	--	--			5.00E-02	H	
765-34-4	Glycidyl		--	--	--			1.00E-03	H	
76-44-8	Heptachlor		--	--	--	1.30E-03	I			
1024-57-3	Heptachlor Epoxide		--	--	--	2.60E-03	I			
39635-31-9	Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)		--	--	--	1.10E-03	E	1.30E-03	E	
118-74-1	Hexachlorobenzene		--	--	--	4.60E-04	I			
38380-08-4	Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)		--	--	--	1.10E-03	E	1.30E-03	E	
69782-90-7	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)		--	--	--	1.10E-03	E	1.30E-03	E	
52663-72-6	Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)		--	--	--	1.10E-03	E	1.30E-03	E	
32774-16-6	Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)		--	--	--	1.10E+00	E	1.30E-06	E	
87-68-3	Hexachlorobutadiene		--	--	--	2.20E-05	I			
77-47-4	Hexachlorocyclopentadiene		--	--	--			2.00E-04	I	
67-72-1	Hexachloroethane		--	--	--	1.10E-05	CA	3.00E-02	I	
822-06-0	Hexamethylene Diisocyanate, 1,6-		--	--	--			1.00E-05	I	
110-54-3	Hexane, N-		--	--	--			7.00E-01	I	
591-78-6	Hexanone, 2-		--	--	--			3.00E-02	I	
302-01-2	Hydrazine		--	--	--	4.90E-03	I	3.00E-05	P	
7647-01-0	Hydrogen Chloride		--	--	--			2.00E-02	I	
74-90-8	Hydrogen Cyanide		--	--	--			8.00E-04	I	
7664-39-3	Hydrogen Fluoride		--	--	--			1.40E-02	CA	
7783-06-4	Hydrogen Sulfide		--	--	--			2.00E-03	I	

OSWER VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration Csg (ug/m^3)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
67-63-0	Isopropanol		--	--	--			2.00E-01	P	
7439-97-6	Mercury (elemental)		--	--	--			3.00E-04	I	
126-98-7	Methacrylonitrile		--	--	--			3.00E-02	P	
67-56-1	Methanol		--	--	--			2.00E+01	I	
110-49-6	Methoxyethanol Acetate, 2-		--	--	--			1.00E-03	P	
109-86-4	Methoxyethanol, 2-		--	--	--			2.00E-02	I	
96-33-3	Methyl Acrylate		--	--	--			2.00E-02	P	
78-93-3	Methyl Ethyl Ketone (2-Butanone)		--	--	--			5.00E+00	I	
60-34-4	Methyl Hydrazine		--	--	--	1.00E-03	X	2.00E-05	X	
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)		--	--	--			3.00E+00	I	
624-83-9	Methyl Isocyanate		--	--	--			1.00E-03	CA	
80-62-6	Methyl Methacrylate		--	--	--			7.00E-01	I	
25013-15-4	Methyl Styrene (Mixed Isomers)		--	--	--			4.00E-02	H	
1634-04-4	Methyl tert-Butyl Ether (MTBE)		--	--	--	2.60E-07	CA	3.00E+00	I	
75-09-2	Methylene Chloride		--	--	--	1.00E-08	I	6.00E-01	I	Mut
2385-85-5	Mirex		--	--	--	5.10E-03	CA			
64742-95-6	Naphtha, High Flash Aromatic (HFAN)		--	--	--			1.00E-01	P	
91-20-3	Naphthalene		--	--	--	3.40E-05	CA	3.00E-03	I	
13463-39-3	Nickel Carbonyl		--	--	--	2.60E-04	CA	1.40E-05	CA	
98-95-3	Nitrobenzene		--	--	--	4.00E-05	I	9.00E-03	I	
75-52-5	Nitromethane		--	--	--	8.80E-06	P	5.00E-03	P	
79-46-9	Nitropropane, 2-		--	--	--	2.70E-03	H	2.00E-02	I	
62-75-9	Nitrosodimethylamine, N-		--	--	--	1.40E-02	I	4.00E-05	X	Mut
924-16-3	Nitroso-di-N-butylamine, N-		--	--	--	1.60E-03	I			
10595-95-6	Nitrosomethylethylamine, N-		--	--	--	6.30E-03	CA			
111-84-2	Nonane, n-		--	--	--			2.00E-02	P	
32598-14-4	Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)		--	--	--	1.10E-03	E	1.30E-03	E	
74472-37-0	Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)		--	--	--	1.10E-03	E	1.30E-03	E	
31508-00-6	Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)		--	--	--	1.10E-03	E	1.30E-03	E	
65510-44-3	Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)		--	--	--	1.10E-03	E	1.30E-03	E	
57465-28-8	Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)		--	--	--	3.80E+00	E	4.00E-07	E	
109-66-0	Pentane, n-		--	--	--			1.00E+00	P	
75-44-5	Phosgene		--	--	--			3.00E-04	I	
7803-51-2	Phosphine		--	--	--			3.00E-04	I	
123-38-6	Propionaldehyde		--	--	--			8.00E-03	I	
103-65-1	Propyl benzene		--	--	--			1.00E+00	X	
115-07-1	Propylene		--	--	--			3.00E+00	CA	
107-98-2	Propylene Glycol Monomethyl Ether		--	--	--			2.00E+00	I	
75-56-9	Propylene Oxide		--	--	--	3.70E-06	I	3.00E-02	I	
100-42-5	Styrene		--	--	--			1.00E+00	I	
7446-11-9	Sulfur Trioxide		--	--	--			1.00E-03	CA	
1746-01-6	TCDD, 2,3,7,8-		--	--	--	3.80E+01	CA	4.00E-08	CA	
70362-50-4	Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)		--	--	--	1.10E-02	E	1.30E-04	E	
630-20-6	Tetrachloroethane, 1,1,1,2-		--	--	--	7.40E-06	I			
79-34-5	Tetrachloroethane, 1,1,2,2-		--	--	--	5.80E-05	CA			
127-18-4	Tetrachloroethylene	9.3E+01	2.79E+00	5.9E-08	1.6E-02	2.60E-07	I	4.00E-02	I	
811-97-2	Tetrafluoroethane, 1,1,1,2-		--	--	--			8.00E+01	I	
109-99-9	Tetrahydrofuran		--	--	--			2.00E+00	I	
7550-45-0	Titanium Tetrachloride		--	--	--			1.00E-04	A	
108-88-3	Toluene		--	--	--			5.00E+00	I	
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-		--	--	--			5.00E+00	P	
120-82-1	Trichlorobenzene, 1,2,4-		--	--	--			2.00E-03	P	
71-55-6	Trichloroethane, 1,1,1-		--	--	--			5.00E+00	I	
79-00-5	Trichloroethane, 1,1,2-		--	--	--	1.60E-05	I	2.00E-04	X	
79-01-6	Trichloroethylene		--	--	--	see note	I	2.00E-03	I	TCE
96-18-4	Trichloropropane, 1,2,3-		--	--	--			3.00E-04	I	Mut
96-19-5	Trichloropropene, 1,2,3-		--	--	--			3.00E-04	P	

OSWER VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration Csg (ug/m^3)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
121-44-8	Triethylamine		--	--	--			7.00E-03	I	
420-46-2	Trifluoroethane, 1,1,1-		--	--	--			2.00E+01	P	
526-73-8	Trimethylbenzene, 1,2,3-		--	--	--			6.00E-02	I	
95-63-6	Trimethylbenzene, 1,2,4-		--	--	--			6.00E-02	I	
108-67-8	Trimethylbenzene, 1,3,5-		--	--	--			6.00E-02	I	
126-72-7	Tris(2,3-dibromopropyl)phosphate		--	--	--	6.60E-04	CA			
108-05-4	Vinyl Acetate		--	--	--			2.00E-01	I	
593-60-2	Vinyl Bromide		--	--	--	3.20E-05	H	3.00E-03	I	
75-01-4	Vinyl Chloride		--	--	--	4.40E-06	I	1.00E-01	I	VC
108-38-3	Xylene, m-		--	--	--			1.00E-01	S	
95-47-6	Xylene, o-		--	--	--			1.00E-01	S	
106-42-3	Xylene, P-		--	--	--			1.00E-01	S	
1330-20-7	Xylenes		--	--	--			1.00E-01	I	
142-82-5	Heptane, N-		--	--	--			4.00E-01	P	
584-84-9	Toluene-2,4-diisocyanate		--	--	--	1.10E-05	CA	8.00E-06	CA	
91-08-7	Toluene-2,6-diisocyanate		--	--	--	1.10E-05	CA	8.00E-06	CA	

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25
Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25
Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250
Exposure time	(hr/day)	ET_R_SG	24	ET_C_SG	8	ET_SG	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater (-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R_SG	0.03	AFss_C_SG	0.03	AFss_SG	0.03

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene

	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
mIURTCE	mIURTCE_R_SG	1.00E-06	mIURTCE_C_SG	0.00E+00	mIURTCE_SG	0.00E+00
IURTCE	IURTCE_R_SG	3.10E-06	IURTCE_C_SG	4.10E-06	IURTCE_SG	4.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 This factor is used in the equations for mutagenic chemicals.

OSWER VAPOR INTRUSION ASSESSMENT
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Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
		Csg	Cia	CR	HQ	IUR		RfC		
		(ug/m^3)	(ug/m^3)			(ug/m^3)$^{-1}$		(mg/m^3)		i
	Vinyl Chloride	See the Navigation Guide equation for Cia,c for vinyl chloride.								

Notation:
I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).