

**PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT
3601 NORTH MISSION ROAD
LOS ANGELES, CALIFORNIA 90031**

PREPARED FOR:

Lincoln Park Holdings, LLC
3601 North Mission Road
Los Angeles, California 90031

PREPARED BY:



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Report Date: September 6, 2024
Project Number: 23-1944



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Lincoln Park Holdings, LLC

3601 North Mission Road
Los Angeles, California 90031

Subject: Phase II Environmental Site Assessment Report
3601 North Mission Road
Los Angeles, California 90031
Project Number: 23-1944

Earth Science LLC is pleased to provide Lincoln Park Holdings, LLC (LPH) with the results of this Phase II Environmental Site Assessment (ESA) Report (Report) for the property located at 3601 North Mission Road, Los Angeles, California 90031.

We appreciate the opportunity to provide environmental services to LPH. If you have any questions concerning this Report, please contact our office at (949) 441-0433.

Respectfully,

Sean Rakhshani
Principal

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ACRONYMS AND ABBREVIATIONS

bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CEG	Certified Engineering Geologist
CHG	Certified Hydrogeologist
DLR	Detection limit for purposes of reporting
DTSC	Department of Toxic Substances Control
DTSC SLs	DTSC Note 3 Modified Screening Levels
Earth Science	Earth Science LLC
ESA	Environmental Site Assessment
HERO	Human and Ecological Risk Office
HHRA	Human health risk assessment
LPH	Lincoln Park Holdings, LLC
LARWQCB	Los Angeles Regional Water Quality Control Board
MCLs	Maximum Contaminant Levels
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
NFA	No further action
Pb	Lead
PCBs	Polychlorinated biphenyls

ACRONYMS AND ABBREVIATIONS – *CONTINUED*

PG	Professional Geologist
PHG	Public Health Goal
PID	Photo-ionization detector
ppm	Parts per million
PRG	Preliminary Remediation Goal
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
Report	Phase II Environmental Site Assessment Report
RSLs	Regional Screening Levels
Site	3601 North Mission Road, Los Angeles, California 90031
SunStar	SunStar Laboratories, Inc.
SWRCB	California State Water Resources Control Board
TPH	Total petroleum hydrocarbons
TPH as DRO	Total petroleum hydrocarbons as diesel
TPH as GRO	Total petroleum hydrocarbons as gasoline
TPH as MORO	Total petroleum hydrocarbons as motor oil
USA	Underground Service Alert
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency

ACRONYMS AND ABBREVIATIONS – *CONTINUED*

VOCs	Volatile organic compounds
WEESI	West End Environmental Sampling, Inc.

1 INTRODUCTION

Earth Science LLC (Earth Science) has prepared this Phase II Environmental Site Assessment (ESA) Report (Report) on behalf of Lincoln Park Holdings, LLC (LPH) for the property located at 3601 North Mission Road, Los Angeles, California 90031 (Site); please refer to **Figure 1** for the **Site Vicinity Map**.

This Phase II ESA was performed by Earth Science at the request of LPH and in response to comments from a third party which were provided to Earth Science. The third party comments include an allegation that a former transformer manufacturing facility (located at 2037 Lincoln Park Avenue) has impacted the soils at the Site. The third party's allegations include a statement that "...there is a high probability for lead and PCB contamination beyond the remediation site..." The former transformer manufacturing facility has been fully-remediated under the supervision of the California State Water Resources Control Board (SWRCB), Los Angeles Regional Water Quality Control Board (LARWQCB), has received a regulatory case closure/no further action (NFA) determination from the LARWQCB, has been redeveloped as residential apartments, and is located greater than 100 feet to the west of the Site (beyond Lincoln Park Avenue). The offsite property located to the west of the Site and addressed as 2037 Lincoln Park Avenue which the third party cites as a source of contamination impacting the Site had contamination extending to depths of 2.0 to 3.0 feet below ground surface (bgs) (*"Approval of Site Closure – Amistad Apartments Property, 2037 Lincoln Park Avenue, Los Angeles, CA [SLIC No. 996]" prepared by the LARWQCB, May 7, 2002*).

The third party comments also included an allegation that a property located at 3801 North Mission Road has impacted the groundwater at the Site. The third party's allegations include a statement that "Under the DTSC list, the property behind the proposed site on 3801 Mission Road has contaminated water sources." The property addressed as 3801 North Mission Road is located approximately 650 feet away from the Site and is interpreted to be situated hydrogeologically cross-gradient relative to the Site. The property located at 3801 North Mission Road received a regulatory case closure/NFA determination from the LARWQCB.

Therefore, the objective of this Phase II ESA was to assess the presence of contamination at the Site, including presence or absence of lead and polychlorinated biphenyls (PCBs) in soils at the Site, and the presence or absence of total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX) and fuel oxygenates, in groundwater at the Site.

This Report documents the advancement of three borings (B-1 through B-3) to a terminal depth of 20 feet bgs and the collection and analysis of soil and groundwater samples from the Site.

The following sections provide information detailing the Site background; local geology and hydrogeology; Site investigation scope of work; Site investigation results; Report summary; Report certifications and limitations; and Report references.

2 SITE BACKGROUND

The following sections provide details regarding the Site description and previous investigations performed at the Site to date.

2.1 SITE DESCRIPTION

The Site is located in commercial and residential area of Los Angeles, California. The Site is bounded to the north by Barbee Street; to the south by North Mission Road; to the east by a commercial development; and to the west by Lincoln Park Avenue. The Site consists of an irregular-shaped parcel which is improved with an asphalt-paved parking lot, landscaping, and perimeter fencing/walls. Access to the Site is available from Barbee Street located along the northern boundary, from North Mission Road located along the southern boundary, and from Lincoln Park Avenue located along the western boundary.

2.2 PREVIOUS ENVIRONMENTAL DOCUMENTS

The following is a summary of the relevant, previous environmental documents prepared for the Site, based on information made available to Earth Science as of the date of this Report. The following document was reviewed prior to developing and implementing the Phase II ESA scope of work:

- ***Environmental Review, 3601-3615 North Mission Road, Los Angeles, California 90031, November 6, 2023.*** Earth Science prepared this report on behalf of LPH. The key findings and conclusions of the above-referenced report included the following:
 - **Earth Science concluded that there is no pathway for soil contamination from the 2037 Lincoln Park Avenue property to impact the Site and no justification for the speculation that soil contamination from the 2037 Lincoln Park Avenue property impacted offsite properties, including the Site.** Specifically, the fact that the soil contamination at the 2037 Lincoln Park Avenue property was cleaned up under State environmental regulatory agency oversight to the strictest cleanup standards allowing reuse of the property for residence land use and received a case closure/NFA determination, the fact that there is no significant elevation difference between the 2037 Lincoln Park Avenue property and the Site, and the fact that the 2037 Lincoln Park Avenue property is located over 100 feet away from the Site, indicates that there is no evidence that the 2037 Lincoln Park Avenue property has impacted the Site or that the Site contains any potential soil contamination.

- **Earth Science concluded that there is no pathway for groundwater contamination from the 3801 North Mission Road property to impact the Site and no justification for the speculation that groundwater contamination from the 3801 North Mission Road property impacted offsite properties, including the Site.** Specifically, the fact that the 3801 North Mission Road property was cleaned up under State environmental regulatory agency oversight and received a case closure/NFA determination, the fact that the 3801 North Mission Road property is located approximately 650 feet away from the Site, the fact that the 3801 North Mission Road property is inferred to be situated hydrogeologically cross-gradient relative to the Site, and the fact that the most hydrogeologically down-gradient groundwater monitoring well located on the southwestern boundary of the 3801 North Mission Road property was non-detect for contamination, indicates that there is no evidence that the 3801 North Mission Road property has impacted the Site or that the Site contains any potential groundwater contamination.

3 LOCAL GEOLOGY AND HYDROGEOLOGY

The Site is located at an elevation ranging from approximately 355 to 360 feet above mean sea level and the topography in the vicinity of the Site gradually slopes towards the southwest (*United States Geological Survey 7.5 Minute Topographic Map, Los Angeles, California Quadrangle, 2022*).

The Site is located in Los Angeles County, within the Central Basin portion of the Peninsular Ranges geomorphic physiographic province of California. According to the California Department of Conservation, this area is described as follows: The Peninsular Ranges is a series of ranges separated by northwest trending valleys, sub-parallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is more like the Sierra Nevada, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert. The Los Angeles Basin and the island groups (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province.

Based on information obtained from the National Cooperative Soil Survey prepared by the United States Department of Agriculture Soil Conservation Service, the soil in the vicinity of the Site is classified as Urban land-Ballona-Typic Xerorthents, fine substratum complex, with 0.0 to 5.0 percent slopes. Urban land-Ballona-Typic Xerorthents, fine substratum complex soil is considered to be farmland of statewide importance and is formed in alluvial fans.

The Site is located in Los Angeles County, within the Central Subbasin (4-11.04) of the Coastal Plain of Los Angeles Groundwater Basin. According to the California Department of Water Resources, this area is described as follows: The Central Subbasin occupies a large portion of the southeastern part of the Coastal Plain of Los Angeles Groundwater Basin. This subbasin is commonly referred to as the “Central Basin” and is bounded on the north by a surface divide called the La Brea High, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced, and Puente Hills. The southeast boundary between the Central Basin and the Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage province boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Basin on their way to the Pacific Ocean.

Except for semi-perched aquifers, the aquifers in the Central Basin Pressure Area are confined and generally separated by fine grained aquicludes. These aquicludes are of varying lateral extent and composition and are absent in some areas where aquifers merge. Eight aquifers have been identified in this area including: the semi-perched and Gaspur Aquifers (Recent alluvium); Exposition/Artesia and Gage Aquifers (Lakewood formation); and Hollydale, Lynwood, Silverado, and Sunnyside Aquifers (San Pedro formation).

Based on the information obtained during the advancement of borings at the Site as part of this Phase II ESA, the encountered geology includes fine-grained sands, clayey silts, clays with low plasticity, and gravels. During this Phase II ESA, first groundwater at the Site was encountered during drilling at a depth of 20 feet bgs.

According to reports obtained for nearby properties from the SWRCB's GeoTracker database, groundwater is anticipated to flow in a southwesterly direction in the Site vicinity.

Please refer to the **Boring Logs** in **Appendix A** for additional information regarding the encountered geologic and hydrogeologic conditions at the Site.

4 SITE INVESTIGATION SCOPE OF WORK

The following sections detail the scope of work performed as part of this Site investigation.

4.1 PERMITTING

Prior to implementing any field activities, Earth Science prepared permit applications and work plans and obtained the necessary permits for advancing borings and sampling groundwater at the Site from the Los Angeles County Department of Public Health, Environmental Health Division, Drinking Water Program. Please refer to the ***Permit Documentation*** in **Appendix B** for a copy of the approved permit obtained by Earth Science.

4.2 HEALTH AND SAFETY

A Site-specific Health and Safety Plan was prepared and reviewed with all onsite personnel involved in the project prior to the commencement of field activities.

4.3 WORK PLAN

A Site-specific Work Plan was prepared and reviewed with all onsite personnel involved in the project prior to the commencement of field activities.

4.4 UTILITY CLEARANCE

The Site and boring locations were marked-out and Underground Service Alert (USA) was notified prior to performing fieldwork activities in order to clear public utilities, as required by law. The Site owner was also provided prior notice of the investigation activities to commence on August 26, 2024. Earth Science conducted a metal-detecting survey at the Site using a Minelab deep-penetration metal-detector with a built-in pin-pointer in order to clear the proposed boring locations of private property utilities not covered by the USA-811 notification.

4.5 DRILLING EQUIPMENT

West End Environmental Sampling, Inc. (WEESI) mobilized the required drilling equipment and personnel in order to advance three borings at the Site. WEESI advanced three borings at the Site using a truck-mounted, direct-push drill rig (Geoprobe 5400).

All drilling equipment was cleaned using a high-pressure washer prior to beginning field work. All drilling and sampling equipment was decontaminated between samples and boreholes to prevent cross-contamination.

4.6 BORING LOCATIONS AND DEPTHS

Three borings (B-1 through B-3) were advanced at the Site to a terminal depth of 20 feet bgs. The three boring locations were selected based on field conditions/observations and information from the prior environmental documents prepared for the Site and nearby properties. Please refer to **Figure 2** for the **Boring Location Map** which details the locations of the borings advanced at the Site.

4.7 SOIL AND GROUNDWATER SAMPLING METHODOLOGY

Soil samples were collected and logged from depths of 2.5, 5.0, 10, 15, and 20 feet bgs in all three borings (B-1 and B-3) advanced at the Site. Soil samples were collected using a sampler with an acetate liner and a sampling point. The sampler was advanced by the direct-push drill rig using hollow rods with the inner rods in-place to prevent soil from entering the sampler. Following the advancement of each core interval, the core was retrieved, the core barrel was disassembled, and the sample liner was removed.

All collected soil samples were visually inspected for discoloration, monitored for odors, classified in accordance with the Unified Soil Classification System (USCS), and field-screened for VOCs using a photo-ionization detector (PID) calibrated to isobutylene. All VOC concentrations detected during the screening of soil samples with the PID were 0.0 parts per million (ppm). None of the collected soil samples exhibited any odors or evidence of discoloration/staining.

Groundwater was encountered at the Site during drilling in borings B-1 through B-3 at a depth of 20 feet bgs and temporary groundwater sampling wells were installed at the Site in all three borings. The temporary groundwater sampling wells were constructed using 1.0-inch diameter slotted polyvinyl chloride (PVC) casing which was placed into the soil boring to allow for groundwater to infiltrate the casing. Prior to collecting samples from the temporary groundwater sampling wells, the depth to groundwater was measured in each of the temporary groundwater sampling wells and each temporary groundwater sampling well was also gauged for the potential presence of liquid phase material. A total of four grab groundwater samples were collected from the Site, including one sample from each of the three temporary groundwater sampling wells and one duplicate sample (from the temporary groundwater sampling well in boring B-1) for quality assurance and quality control (QA/QC) purposes.

The groundwater samples were collected using a low-flow rate groundwater pump and dedicated polyethylene tubing. The collected groundwater samples were directly discharged from the polyethylene tubing into the laboratory-provided sampling containers. No obvious evidence of contamination was encountered in the collected groundwater samples, including no obvious signs of free product, sheen, or odors. All groundwater sampling equipment (e.g., water level meter) was decontaminated between sampling events to avoid cross-contamination.

Following completion of all sampling activities, the temporary groundwater sampling wells were removed and the boreholes were backfilled up to grade with Bentonite/Portland cement to form an annular seal in accordance with the approved health department permit. All field activities were completed on August 26, 2024.

Please refer to **Table 1, *Investigation Summary*** for a description of the soil and groundwater sampling performed at the Site.

4.8 SOIL AND GROUNDWATER ANALYSIS

The collected soil and groundwater samples were immediately transferred into a cooler packed with ice and then delivered under chain-of-custody procedures to SunStar Laboratories, Inc. (SunStar), a State of California-certified environmental analytical laboratory. The collected soil and groundwater samples were delivered to SunStar on August 26, 2024.

The soil samples collected from 2.5 and 5.0 feet bgs in all three borings (B-1 through B-3) were analyzed. In total, six collected soil samples were analyzed for lead (Pb) in accordance with United States Environmental Protection Agency (USEPA) Method 6010B and for PCBs in accordance with USEPA Method 8082.

A total of four groundwater samples were collected, including one groundwater sample collected from each of the three temporary groundwater sampling wells and one duplicate groundwater sample. The four groundwater samples were analyzed for TPH as diesel-, gasoline-, and motor oil- range organics (TPH as DRO, TPH as GRO, and TPH as MORO) in accordance with USEPA Method 8015B and for VOCs (including BTEX and fuel oxygenates) in accordance with USEPA Method 8260B.

Please refer to **Table 1, *Investigation Summary*** for a description of the selected soil and groundwater samples which were analyzed.

4.9 QUALITY ASSURANCE AND QUALITY CONTROL

QA/QC and chain-of-custody protocols were followed for all sampling and sample handling activities. QC is achieved through considered procedures and steps which are employed to ensure that the QA objectives are met.

The QA objectives of data validation are to ensure that sampling, analysis, and reporting activities provide data that are accurate, precise, representative, and legally defensible. The QC steps and protocols include:

- Procedures for the collection of field samples, discussed above;
- Appropriate methods and protocols for the analysis of samples, discussed above, and;
- Data validation.

No findings which significantly affected the quality of the samples collected or the laboratory analytical results were identified. Please refer to the ***Laboratory Analytical Report*** in **Appendix C** for further information regarding the laboratory QC methods, protocols, and results.

4.10 WASTE MANAGEMENT

Due to the use of a direct-push drill rig, no significant amounts of derived wastes were generated during this investigation. Any remnants of the samples submitted to the analytical laboratory will be held until the maximum sample hold times at which time the sample remnants will be disposed of by the analytical laboratory in a manner consistent with applicable regulations.

5 SITE INVESTIGATION RESULTS

The following sections present the soil and groundwater analysis results from the Site investigation and the applicable regulatory screening levels.

5.1 LABORATORY ANALYTICAL REPORT

Please refer to the ***Laboratory Analytical Report*** in **Appendix C** for the results of the analyzed soil and groundwater samples. The investigation results are summarized in **Table 2 (Soil Analysis Results – Lead)**, **Table 3 (Soil Analysis Results – Polychlorinated Biphenyls)**, **Table 4 (Groundwater Analysis Results – Total Petroleum Hydrocarbons)**, and **Table 5 (Groundwater Analysis Results – Volatile Organic Compounds)**.

5.2 COMPARISON OF REGULATORY SCREENING LEVELS AND THE INVESTIGATION RESULTS

The following sections describe the applicable contaminant screening levels in relation to the investigation results. All results were compared to the applicable California Department of Toxic Substances Control (DTSC) and SWRCB screening levels.

5.2.1 REGULATORY SCREENING LEVELS

The DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 Modified Screening Levels (DTSC SLs) were developed based on the USEPA Regional Screening Levels (RSLs) for use in the HHRA process at hazardous waste sites and permitted facilities. HERO has a long history of working with the USEPA Region 9 office to integrate California-specific risk assessment concerns into the Preliminary Remediation Goal (PRG) listing and the PRG-screening risk assessment process. The DTSC SLs were last updated in May of 2022.

The SWRCB adopted Maximum Contaminant Levels (MCLs) as statewide regulations for water quality. The SWRCB MCLs were last updated on August 16, 2023. MCLs are health-protective drinking water standards to be met by public water systems. MCLs take into account not only chemical health risks, but also factors such as chemical detectability and treatability, as well as costs of treatment. Health and Safety Code §116365(a) requires a contaminant's MCL to be established at a level as close to its Public Health Goal (PHG) as is technologically and economically feasible, placing primary emphasis on the protection of public health. Along with the MCL, a regulated chemical also has a detection limit for purposes of reporting (DLR), the level at which there is confidence about quantification being reported.

5.2.2 SOIL ANALYSIS RESULTS

No contaminants were detected at concentrations exceeding the applicable residential or commercial/industrial use DTSC SLs in any of the analyzed soil samples collected from the Site.

Lead is a naturally-occurring compound, with California soils containing background concentrations of lead (i.e., naturally-occurring levels of lead) ranging from a minimum concentration of 14.3 milligrams per kilogram (mg/kg) to a maximum concentration of 107.9 mg/kg, with a an average concentration of 48.5 mg/kg (*Kearney Foundation Special Report, Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California, March 1996*). Lead was detected in three of the six analyzed soil samples collected from the Site at concentrations ranging from 3.2 to 4.0 mg/kg. Therefore, the concentrations of lead detected at the Site are extremely low, and well below even the minimum concentrations of lead naturally-occurring in California soils, and well below the DTSC SLs for residential and commercial/industrial uses of 80 and 500 mg/kg, respectively.

No PCBs were detected in any of the analyzed soil samples collected from the Site.

5.2.3 GROUNDWATER ANALYSIS RESULTS

No contaminants were detected at concentrations exceeding the applicable SWRCB MCLs in any of the analyzed groundwater samples collected from the Site.

TPH as GRO and TPH as MORO were not detected in any of the four analyzed groundwater samples collected from the Site. TPH as DRO was detected in one of the four analyzed groundwater samples collected from the Site at very low concentrations ranging from 0.11 to 0.13 milligrams per liter (mg/L).

Only one VOC, o-xylene, was detected in one of the four analyzed groundwater samples collected from the Site at a extremely low concentration of 0.00053 mg/L, well below the SWRCB MCL of 1.750 mg/L. No other VOCs were detected in any of the four analyzed groundwater samples collected from the Site.

6 SUMMARY

The objective of this Phase II ESA was to assess the presence of contamination at the Site, including presence or absence of lead and PCBs in soils at the Site, and the presence or absence of TPH and VOCs, including BTEX and fuel oxygenates, in groundwater at the Site.

This Report documents the advancement of three borings (B-1 through B-3) to a terminal depth of 20 feet bgs and the collection and analysis of soil and groundwater samples from the Site.

6.1 FINDINGS

No contaminants were detected at concentrations exceeding the applicable residential or commercial/industrial use DTSC SLs in any of the analyzed soil samples collected from the Site.

No contaminants were detected at concentrations exceeding the applicable SWRCB MCLs in any of the analyzed groundwater samples collected from the Site.

6.2 CONCLUSIONS

As previously stated in the Environmental Review document (dated November 6, 2023) prepared by Earth Science and as confirmed by the results of this Phase II ESA, there is no evidence that the 2037 Lincoln Park Avenue or 3801 North Mission Road properties have impacted the Site or that the Site contains any soil or groundwater contamination.

Based on the findings of this Phase II ESA, Earth Science recommends no further investigation of the Site.

7 CERTIFICATIONS AND LIMITATIONS

This Report was prepared under the direction and review of the professionals listed below. The work described herein was prepared in accordance with generally accepted environmental practices. The completed work includes observations of the Site conditions encountered and the analytical results from samples analyzed by an independent, third-party laboratory during the course of the project. The number and location of samples were selected to provide the required information; however, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

The results, findings, and conclusions in this Report are based on the conditions encountered in the areas explored at the Site at the time of the Earth Science's investigation; in the event that varying conditions are encountered in other areas of the Site during grading and/or construction activities that pose a potential environmental concern, additional investigation and/or testing of the Site may be warranted. All conclusions and/or recommendations are based on observations, laboratory analyses, and governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Earth Science warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental industry that existed at the time and location of work. No other warranties are implied or expressed.

All reports, both verbal and written, as they pertain to the above-referenced property are for the sole use and benefit of LPH. This Report has no other purpose and may not be relied upon by any other person or entity without the prior written consent of Earth Science.

Should you have any questions or comments concerning this Report, please contact our office at (949) 441-0433.

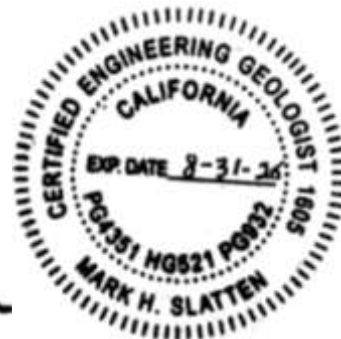
Respectfully,



Sean Rakhshani
Principal



Mark H. Slatten, PG, CEG, CHG, PGp
California Professional Geologist No. 4351



8 REFERENCES

Approval of Site Closure – Amistad Apartments Property, 2037 Lincoln Park Avenue, Los Angeles, CA (SLIC No. 996), prepared by the California State Water Resources Control Board Los Angeles Region, dated May 7, 2002.

California State Water Resources Control Board, GeoTracker Database, accessed via the Internet.

Environmental Review, 3601-3615 North Mission Road, Los Angeles, California 90031, prepared by Earth Science LLC, dated November 6, 2023.

Human Health Risk Assessment Note Number 3, DTSC-Modified Screening Levels, prepared by the Department of Toxic Substances Control, Human and Ecological Risk Office, dated June 2020 - Revised May 2022.

Kearney Foundation Special Report, prepared by the Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California, dated March 1996.

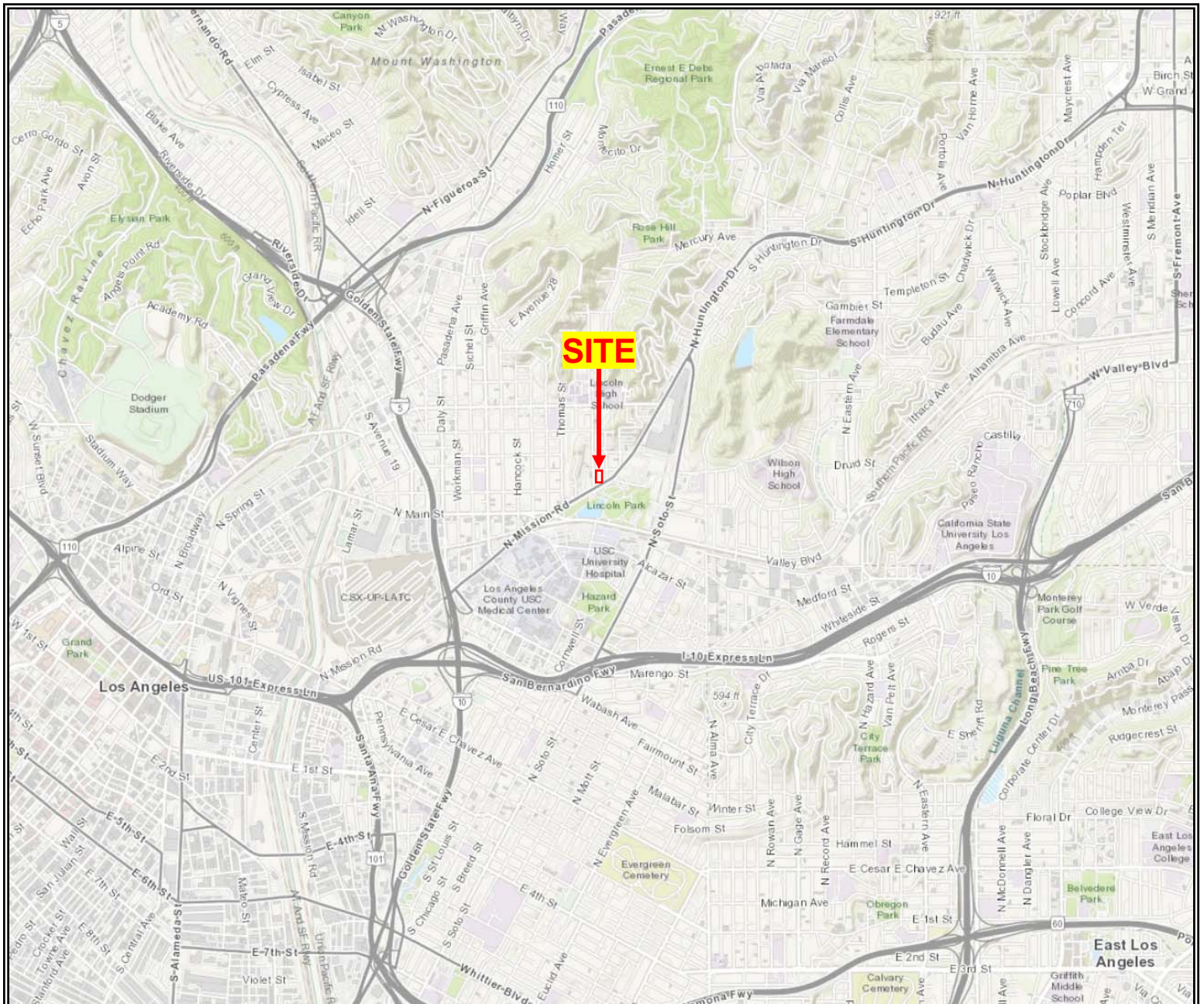
Maximum Contaminant Levels, Detection Limits for Purposes of Reporting, Public Health Goals for Regulated Drinking Water Contaminants, prepared by the California State Water Resources Control Board, Office of Environmental Health Hazard Assessment, dated August 16, 2023.

Underground Storage Tank Program Low Risk Case Review Form, ACS Mission Property, 3801 Mission Road, Los Angeles, CA (LUSTIS File No. 900310361), prepared by the California State Water Resources Control Board Los Angeles Region, dated March 26, 2009.

Underground Storage Tank Program – Case Closure, ACS Mission Property, 3801 Mission Road, Los Angeles, CA (File No. 900310361; D-1 Site), prepared by the California State Water Resources Control Board Los Angeles Region, dated March 30, 2009.

United States Geological Survey 7.5 Minute Topographic Map, Los Angeles, California Quadrangle, dated 2022.

FIGURE 1: SITE VICINITY MAP



Base Map Source: United States Geological Survey, 2023

SCALE: 1" = 4000'
0' 4000'

FIGURE 1: SITE VICINITY MAP
PROJECT NUMBER: 23-1944

FIGURE 2: BORING LOCATION MAP



FIGURE 2: BORING LOCATION MAP
PROJECT NUMBER: 23-1944

TABLE 1: INVESTIGATION SUMMARY

Table 1: Investigation Summary

Boring Identification	Location	Terminal Depth (feet bgs)	Media Sampled	Depth of Analyzed Samples (feet bgs)	Target Contaminants
B-1	Northeastern portion of the Site	20.0	Soil and groundwater	2.5 and 5.0 (Soil) and 20.0 Groundwater	Lead, PCBs, TPH, and VOCs
B-2	Southeastern portion of the Site	20.0	Soil and groundwater	2.5 and 5.0 (Soil) and 20.0 Groundwater	Lead, PCBs, TPH, and VOCs
B-3	Western portion of the Site	20.0	Soil and groundwater	2.5 and 5.0 (Soil) and 20.0 Groundwater	Lead, PCBs, TPH, and VOCs

Notes:

bgs = below ground surface

PCBs = polychlorinated biphenyls

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

TABLE 2: SOIL ANALYSIS RESULTS – **LEAD**

Table 2: Soil Analysis Results - Lead

Analysis Method	USEPA 6010B
Units	Milligrams Per Kilogram (mg/kg)
Sample Identification	Lead (Pb)
B-1-2.5	ND
B-1-5	ND
B-2-2.5	3.3
B-2-5	ND
B-3-2.5	4.0
B-3-5	3.2
DTSC SLs - Residential	80
DTSC SLs - Commercial/Industrial	500

Notes:

USEPA = United States Environmental Protection Agency

ND = not detected above the laboratory reporting limit

DTSC SLs = California Department of Toxic Substances Control, Human and Ecological Risk Office, Human Health Risk Assessment Note Number: 3, Modified Screening Levels, May 2022

TABLE 3: SOIL ANALYSIS RESULTS – POLYCHLORINATED BIPHENYLS

Table 3: Soil Analysis Results - Polychlorinated Biphenyls

Analysis Method	United States Environmental Protection Agency 8082						
Units	Milligrams Per Kilogram (mg/kg)						
Sample Identification	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
B-1-2.5	ND	ND	ND	ND	ND	ND	ND
B-1-5	ND	ND	ND	ND	ND	ND	ND
B-2-2.5	ND	ND	ND	ND	ND	ND	ND
B-2-5	ND	ND	ND	ND	ND	ND	ND
B-3-2.5	ND	ND	ND	ND	ND	ND	ND
B-3-5	ND	ND	ND	ND	ND	ND	ND
DTSC SLs - Residential	4.0	0.20	0.17	0.23	0.23	0.24	0.24
DTSC SLs - Commercial/Industrial	17	0.53	0.49	0.58	0.58	0.59	0.60

Notes:

PCB = polychlorinated biphenyl

ND = not detected above the laboratory reporting limit

DTSC SLs = California Department of Toxic Substances Control, Human and Ecological Risk Office, Human Health Risk Assessment Note Number: 3, Modified Screening Levels, May 2022

TABLE 4: GROUNDWATER ANALYSIS
RESULTS – TOTAL PETROLEUM
HYDROCARBONS

Table 4: Groundwater Analysis Results - Total Petroleum Hydrocarbons

Analysis Method	United States Environmental Protection Agency 8015B		
Units	Milligrams Per Liter (mg/L)		
Sample Identification	TPH as DRO	TPH as GRO	TPH as MORO
B-1-GW	0.13	ND	ND
B-1-GW DUP	0.15	ND	ND
B-2-GW	0.14	ND	ND
B-3-GW	0.11	ND	ND
CA SWRCB MCLs	NRSL	NRSL	NRSL

Notes:

TPH as DRO = total petroleum hydrocarbons as diesel range organics (carbon range C13-C28)

TPH as GRO = total petroleum hydrocarbons as gasoline range organics (carbon range C6-C12)

TPH as MORO = motor oil range organics (carbon range C29-C40)

ND = not detected above the laboratory reporting limit

DUP = duplicate sample

CA SWRCB MCLs = California State Water Resources Control Board Maximum Contaminant Levels, August 16, 2023

NRSL = no regulatory screening level



EARTH SCIENCE LLC

TABLE 5: GROUNDWATER ANALYSIS
RESULTS – VOLATILE ORGANIC
COMPOUNDS

Table 5: Groundwater Analysis Results - Volatile Organic Compounds

Analysis Method	United States Environmental Protection Agency 8260B									
Units	Milligrams Per Liter (mg/L)									
Sample Identification	Benzene	DIPE	ETBE	Ethylbenzene	m,p-Xylene	MTBE	o-Xylene	TAME	TBA	Toluene
B-1-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-1-GW DUP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-2-GW	ND	ND	ND	ND	ND	ND	0.00053	ND	ND	ND
B-3-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CA SWRCB MCLs	0.001	NRSL	NRSL	0.300	1.750*	0.013	1.750*	NRSL	NRSL	0.150

Notes:

DIPE = di-isopropyl ether

ETBE = ethyl tert-butyl ether

MTBE = methyl tert-butyl ether

TAME = tert-amyl methyl ether

TBA = tert-butyl alcohol

ND = not detected above the laboratory reporting limit

DUP = duplicate sample


CA SWRCB MCLs = California State Water Resources Control Board Maximum Contaminant Levels, August 16, 2023

NRSL = no regulatory screening level


* = Screening level is for total xylenes

APPENDIX A: BORING LOGS


Boring Number:		B-1			Page 1 of 2	
Location:		Northeastern portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
0.0		0.0	AC	Asphalt concrete paved surface		
0.5						
1.0						
1.5						
2.0						
2.5	B-1-2.5	0.0	CL	Clay, low plasticity, dry, dark brown		
3.0						
3.5						
4.0						
4.5						
5.0	B-1-5	0.0	ML	Silt, clayey, dry, brown		
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0		0.0	ML	Silt, clayey, dry, brown		
10.5						
11.0						
11.5						
12.0						
12.5						

Boring Number:		B-1			Page 2 of 2	
Location:		Northeastern portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
13.0						
13.5						
14.0						
14.5						
15.0		0.0	CL	Clay, low plasticity, dry, brown		
15.5						
16.0						
16.5						
17.0						
17.5						
18.0						
18.5						
19.0						
19.5						
20.0	B-1-GW & B-1-GW DUP	0.0	SM	Sand, fine-grained, silty, wet, gray	 Groundwater encountered at 20.0 feet bgs	
20.5					Total depth = 20.0 feet below ground surface After completion of sampling, backfilled boring to grade	
21.0						
21.5						
22.0						
22.5						
23.0						
23.5						
24.0						
24.5						
25.0						
25.5						














Boring Number:		B-2			Page 1 of 2	
Location:		Southeastern portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
0.0		0.0	AC	Asphalt concrete paved surface		
0.5						
1.0						
1.5						
2.0						
2.5	B-2-2.5	0.0	CL	Clay, low plasticity with trace gravel, dry, dark brown		
3.0						
3.5						
4.0						
4.5						
5.0	B-2-5	0.0	ML	Silt, clayey with trace gravel, dry, brown		
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0		0.0	ML	Silt, clayey, dry, brown		
10.5						
11.0						
11.5						
12.0						
12.5						

Boring Number:		B-2			Page 2 of 2	
Location:		Southeastern portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
13.0						
13.5						
14.0						
14.5						
15.0		0.0	CL	Clay, low plasticity, dry, brown		
15.5						
16.0						
16.5						
17.0						
17.5						
18.0						
18.5						
19.0						
19.5						
20.0	B-2-GW	0.0	SM	Sand, fine-grained, silty, wet, gray	 Groundwater encountered at 20.0 feet bgs	
20.5					Total depth = 20.0 feet below ground surface After completion of sampling, backfilled boring to grade	
21.0						
21.5						
22.0						
22.5						
23.0						
23.5						
24.0						
24.5						
25.0						
25.5						

Boring Number:		B-3			Page 1 of 2	
Location:		Western portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
0.0		0.0	AC	Asphalt concrete paved surface		
0.5						
1.0						
1.5						
2.0						
2.5	B-3-2.5	0.0	CL	Clay, low plasticity with trace gravel, dry, dark brown		
3.0						
3.5						
4.0						
4.5						
5.0	B-3-5	0.0	ML	Silt, clayey with trace gravel, dry, light brown		
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0		0.0	ML	Silt, clayey, dry, brown		
10.5						
11.0						
11.5						
12.0						
12.5						

Boring Number:		B-3			Page 2 of 2	
Location:		Western portion of the Site			Date Started:	8/26/2024
Site Address:		3601-3615 North Mission Road			Date Completed:	8/26/2024
		Los Angeles, California 90031			Depth to Groundwater:	20.0 Feet bgs
Project Number:		23-1944			Field Technician(s):	SR
Drill Rig Type:		Truck-mounted, direct-push drill rig (GeoProbe 5400)			Earth Science LLC	
Sampling Equipment:		1.125-Inch Sampler w/2.5-foot acetate liner			5319 University Drive, Suite 20	
Borehole Diameter:		2.0-Inches			Irvine, CA 92612	
Depth	Sample	PID	USCS	Description	Notes	
13.0						
13.5						
14.0						
14.5						
15.0		0.0	CL	Clay, low plasticity, dry, brown		
15.5						
16.0						
16.5						
17.0						
17.5						
18.0						
18.5						
19.0						
19.5						
20.0	B-3-GW	0.0	SM	Sand, fine-grained, silty, wet, gray	 Groundwater encountered at 20.0 feet bgs	
20.5					Total depth = 20.0 feet below ground surface After completion of sampling, backfilled boring to grade	
21.0						
21.5						
22.0						
22.5						
23.0						
23.5						
24.0						
24.5						
25.0						
25.5						

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES	
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE			GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
		SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
					SP	POORLY-GRADED SANDS, GRAVELLY SAND
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY	
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
					CH	INORGANIC CLAYS OF HIGH PLASTICITY
					OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

Sampler Symbol Descriptions

	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	CC	Cement Concrete
	AC	Asphalt Concrete
	CR	Crushed Rock/Quarry Spalls
	TS	Topsoil/Forest Duff/Sod



Measured groundwater level in exploration, well, or piezometer



Groundwater observed at time of exploration



Perched water observed at time of exploration

Graphic Log Contact

	Distinct contact between soil strata or geologic units
	Approximate location of soil strata change within a geologic soil unit

Material Description Contact

	Distinct contact between soil strata or geologic units
	Approximate location of soil strata change within a geologic soil unit

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

APPENDIX B: PERMIT **DOCUMENTATION**



ENVIRONMENTAL HEALTH

Drinking Water Program



5050 Commerce Drive, Baldwin Park, CA 91706

Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • E-mail: swsadmin@ph.lacounty.gov

http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm

Work Plan Approval

WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS FOR WELL PERMIT APPROVAL
3601 N Mission Road	Los Angeles	90031	seanr@ea-science.com

NOTICE:

- WORK PLAN APPROVALS ONCE GRANTED, ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- POTENTIAL APPROVALS ARE LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION OR WATERMASTER APPROVALS, USE COVENANTS, ENCROACHMENT PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.

TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

✓ WORK PLAN APPROVED FOR: 3 Soil Borings/Exp. Holes	PERMIT NUMBER:	SR0386338	DATE:	August 22, 2024
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ADDITIONAL APPROVAL CONDITIONS:

- Work plan approval is issued for scope of work submitted to the Drinking Water Program. Any modifications to the scope of work will require an additional work plan review.
- Ensure the borings/exploration holes are backfilled within 24 hours of boring construction.
- Ensure to **backfill using a tremie pipe under pressure or equivalent equipment** with approved cement grout, proceeding upward from the bottom of the boring/exploration hole to surface.
- Ensure soil borings are sealed per California Well Standards (Bulletins 74-81 and 74-90)
 - Cement grout mix ratio of 5-6 gallons of water per 94-pound bag of Portland cement.
 - Up to 6% of Bentonite may be added to the cement-based mix.
 - No hydrated Bentonite chips and/or soil cuttings.
- Borings/Exploration holes must comply with all applicable requirements published in the California Well Standards (Bulletins 74-81 and 74-90) and the Los Angeles County Code, Title 11.

APPROVED BY:



Delisa Dabney

Delisa Dabney
REHS Environmental Health Specialist III
Drinking Water Program
Environmental Health Protection Division
Los Angeles County Department of Public Health
5050 Commerce Drive
Baldwin Park, CA 91706
Ph (626) 430 - 5420
ddabney@ph.lacounty.gov

APPENDIX C: LABORATORY **ANALYTICAL REPORT**



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

03 September 2024

Sean Rakhshani
Earth Science LLC
5319 University Drive, Suite 20
Irvine, CA 92612
RE: LPH

Enclosed are the results of analyses for samples received by the laboratory on 08/26/24 13:14. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Joann Marroquin
Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-2.5	T243459-01	Soil	08/26/24 08:11	08/26/24 13:14
B-1-5	T243459-02	Soil	08/26/24 08:20	08/26/24 13:14
B-1-GW	T243459-03	Water	08/26/24 08:35	08/26/24 13:14
B-1-GW DUP	T243459-04	Water	08/26/24 08:37	08/26/24 13:14
B-2-2.5	T243459-05	Soil	08/26/24 08:45	08/26/24 13:14
B-2-5	T243459-06	Soil	08/26/24 08:52	08/26/24 13:14
B-3-2.5	T243459-07	Soil	08/26/24 09:30	08/26/24 13:14
B-3-5	T243459-08	Soil	08/26/24 09:35	08/26/24 13:14
B-3-GW	T243459-09	Water	08/26/24 09:44	08/26/24 13:14
B-2-GW	T243459-10	Water	08/26/24 09:51	08/26/24 13:14

SunStar Laboratories, Inc.



Joann Marroquin, Director of Operations

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.

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

DETECTIONS SUMMARY

Sample ID: B-1-2.5 **Laboratory ID:** T243459-01

No Results Detected

Sample ID: B-1-2.5 **Laboratory ID:** T243459-01RE1

No Results Detected

Sample ID: B-1-5 **Laboratory ID:** T243459-02

No Results Detected

Sample ID: B-1-5 **Laboratory ID:** T243459-02RE1

No Results Detected

Sample ID: B-1-GW **Laboratory ID:** T243459-03

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
C13-C28 (DRO)	0.13	0.050	mg/l	EPA 8015B	D-06

Sample ID: B-1-GW DUP **Laboratory ID:** T243459-04

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
C13-C28 (DRO)	0.15	0.050	mg/l	EPA 8015B	D-06

SunStar Laboratories, Inc.



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.

Joann Marroquin, Director of Operations

Earth Science LLC

5319 University Drive, Suite 20

Irvine CA, 92612

Project: LPH

Project Number: 23-1944-6

Project Manager: Sean Rakhshani

Reported:

09/03/24 15:26

Sample ID: B-2-2.5

Laboratory ID: T243459-05

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Lead	3.3	3.0	mg/kg	EPA 6010b	

Sample ID: B-2-2.5

Laboratory ID: T243459-05RE1

No Results Detected

Sample ID: B-2-5

Laboratory ID: T243459-06

No Results Detected

Sample ID: B-2-5

Laboratory ID: T243459-06RE1

No Results Detected

Sample ID: B-3-2.5

Laboratory ID: T243459-07

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Lead	4.0	3.0	mg/kg	EPA 6010b	

Sample ID: B-3-2.5

Laboratory ID: T243459-07RE1

No Results Detected

Sample ID: B-3-5

Laboratory ID: T243459-08

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
Lead	3.2	3.0	mg/kg	EPA 6010b	

SunStar Laboratories, Inc.

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.



Joann Marroquin, Director of Operations

Earth Science LLC

5319 University Drive, Suite 20

Irvine CA, 92612

Project: LPH

Project Number: 23-1944-6

Project Manager: Sean Rakhshani

Reported:

09/03/24 15:26

Sample ID: B-3-5

Laboratory ID: T243459-08RE1

No Results Detected

Sample ID: B-3-GW

Laboratory ID: T243459-09

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
C13-C28 (DRO)	0.11	0.050	mg/l	EPA 8015B	D-06

Sample ID: B-2-GW

Laboratory ID: T243459-10

Analyte	Result	Reporting	Units	Method	Notes
		Limit			
C13-C28 (DRO)	0.14	0.050	mg/l	EPA 8015B	D-06
o-Xylene	0.00053	0.00050	mg/l	EPA 8260B	

SunStar Laboratories, Inc.



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.

Joann Marroquin, Director of Operations



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-1-2.5
T243459-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	ND	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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SunStar Laboratories, Inc.

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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-1-2.5
T243459-01RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		40.3 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		16.3 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.



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Joann Marroquin, Director of Operations



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Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-1-5
T243459-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	ND	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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SunStar Laboratories, Inc.

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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-1-5
T243459-02RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		42.4 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		19.6 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.



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Joann Marroquin, Director of Operations

Earth Science LLC

5319 University Drive, Suite 20

Irvine CA, 92612

Project: LPH

Project Number: 23-1944-6

Project Manager: Sean Rakhshani

Reported:

09/03/24 15:26

B-1-GW

T243459-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Extractable Petroleum Hydrocarbons by 8015B

C6-C12 (GRO)	ND	0.050	mg/l	1	24H0450	08/26/24	08/26/24	EPA 8015B	
C13-C28 (DRO)	0.13	0.050	"	"	"	"	"	"	D-06
C29-C40 (MORO)	ND	0.10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		97.0 %	65-135		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Benzene	ND	0.00050	mg/l	1	24H0448	08/26/24	08/27/24	EPA 8260B	
Toluene	ND	0.00050	"	"	"	"	"	"	
Ethylbenzene	ND	0.00050	"	"	"	"	"	"	
m,p-Xylene	ND	0.0020	"	"	"	"	"	"	
o-Xylene	ND	0.00050	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.0020	"	"	"	"	"	"	
Tert-butyl alcohol	ND	0.010	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0020	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0020	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0010	"	"	"	"	"	"	
Surrogate: <i>Toluene-d8</i>		99.6 %	84.7-108		"	"	"	"	
Surrogate: <i>4-Bromofluorobenzene</i>		100 %	76.7-116		"	"	"	"	
Surrogate: <i>Dibromofluoromethane</i>		105 %	78.7-127		"	"	"	"	

SunStar Laboratories, Inc.



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Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-1-GW DUP
T243459-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Extractable Petroleum Hydrocarbons by 8015B

C6-C12 (GRO)	ND	0.050	mg/l	1	24H0450	08/26/24	08/26/24	EPA 8015B	
C13-C28 (DRO)	0.15	0.050	"	"	"	"	"	"	D-06
C29-C40 (MORO)	ND	0.10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		96.9 %	65-135		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Benzene	ND	0.00050	mg/l	1	24H0448	08/26/24	08/27/24	EPA 8260B	
Toluene	ND	0.00050	"	"	"	"	"	"	
Ethylbenzene	ND	0.00050	"	"	"	"	"	"	
m,p-Xylene	ND	0.0020	"	"	"	"	"	"	
o-Xylene	ND	0.00050	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.0020	"	"	"	"	"	"	
Tert-butyl alcohol	ND	0.010	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0020	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0020	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0010	"	"	"	"	"	"	
Surrogate: <i>Toluene-d8</i>		100 %	84.7-108		"	"	"	"	
Surrogate: <i>4-Bromofluorobenzene</i>		100 %	76.7-116		"	"	"	"	
Surrogate: <i>Dibromofluoromethane</i>		103 %	78.7-127		"	"	"	"	

SunStar Laboratories, Inc.

Joann Marroquin, Director of Operations

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Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-2-2.5
T243459-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	3.3	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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SunStar Laboratories, Inc.

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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-2-2.5
T243459-05RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		41.0 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		16.0 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.



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Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-2-5
T243459-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	ND	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-2-5
T243459-06RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		45.4 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		23.2 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.



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Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-3-2.5
T243459-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	4.0	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-3-2.5
T243459-07RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		40.4 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		13.9 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.

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Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-3-5
T243459-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Lead	3.2	3.0	mg/kg	1	24H0442	08/26/24	08/28/24	EPA 6010b	
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SunStar Laboratories, Inc.

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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-3-5
T243459-08RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Polychlorinated Biphenyls by EPA Method 8082

Aroclor-1016	ND	0.010	mg/kg	1	24H0511	08/26/24	08/29/24	EPA 8082	
Aroclor-1221	ND	0.010	"	"	"	"	"	"	
Aroclor-1232	ND	0.010	"	"	"	"	"	"	
Aroclor-1242	ND	0.010	"	"	"	"	"	"	
Aroclor-1248	ND	0.010	"	"	"	"	"	"	
Aroclor-1254	ND	0.010	"	"	"	"	"	"	
Aroclor-1260	ND	0.010	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		43.1 %	35-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		20.2 %	35-140		"	"	"	"	S-GC

SunStar Laboratories, Inc.



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Joann Marroquin, Director of Operations

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

B-3-GW
T243459-09 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Extractable Petroleum Hydrocarbons by 8015B

C6-C12 (GRO)	ND	0.050	mg/l	1	24H0450	08/26/24	08/26/24	EPA 8015B	
C13-C28 (DRO)	0.11	0.050	"	"	"	"	"	"	D-06
C29-C40 (MORO)	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: p-Terphenyl</i>		94.7 %	65-135		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Benzene	ND	0.00050	mg/l	1	24H0448	08/26/24	08/27/24	EPA 8260B	
Toluene	ND	0.00050	"	"	"	"	"	"	
Ethylbenzene	ND	0.00050	"	"	"	"	"	"	
m,p-Xylene	ND	0.0020	"	"	"	"	"	"	
o-Xylene	ND	0.00050	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.0020	"	"	"	"	"	"	
Tert-butyl alcohol	ND	0.010	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0020	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0020	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0010	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	84.7-108		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	76.7-116		"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		104 %	78.7-127		"	"	"	"	

SunStar Laboratories, Inc.



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Joann Marroquin, Director of Operations

Earth Science LLC

5319 University Drive, Suite 20

Irvine CA, 92612

Project: LPH

Project Number: 23-1944-6

Project Manager: Sean Rakhshani

Reported:

09/03/24 15:26

B-2-GW

T243459-10 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Extractable Petroleum Hydrocarbons by 8015B

C6-C12 (GRO)	ND	0.050	mg/l	1	24H0450	08/26/24	08/26/24	EPA 8015B	
C13-C28 (DRO)	0.14	0.050	"	"	"	"	"	"	D-06
C29-C40 (MORO)	ND	0.10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		96.8 %	65-135		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Benzene	ND	0.00050	mg/l	1	24H0448	08/26/24	08/27/24	EPA 8260B	
Toluene	ND	0.00050	"	"	"	"	"	"	
Ethylbenzene	ND	0.00050	"	"	"	"	"	"	
m,p-Xylene	ND	0.0020	"	"	"	"	"	"	
o-Xylene	0.00053	0.00050	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.0020	"	"	"	"	"	"	
Tert-butyl alcohol	ND	0.010	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0020	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0020	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0010	"	"	"	"	"	"	
Surrogate: Toluene-d8		100 %	84.7-108		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	76.7-116		"	"	"	"	
Surrogate: Dibromofluoromethane		104 %	78.7-127		"	"	"	"	

SunStar Laboratories, Inc.



Joann Marroquin, Director of Operations

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Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

Extractable Petroleum Hydrocarbons by 8015B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 24H0450 - EPA 3510C GC

Blank (24H0450-BLK1)

Prepared & Analyzed: 08/26/24

C6-C12 (GRO)	ND	0.050	mg/l							
C13-C28 (DRO)	ND	0.050	"							
C29-C40 (MORO)	ND	0.10	"							
Surrogate: <i>p</i> -Terphenyl	1.79		"	2.00		89.5	65-135			

LCS (24H0450-BS1)

Prepared & Analyzed: 08/26/24

C13-C28 (DRO)	7.97	0.050	mg/l	10.0		79.7	75-125			
Surrogate: <i>p</i> -Terphenyl	1.80		"	2.00		89.8	65-135			

LCS Dup (24H0450-BSD1)

Prepared & Analyzed: 08/26/24

C13-C28 (DRO)	7.65	0.050	mg/l	10.0		76.5	75-125	4.19	20	
Surrogate: <i>p</i> -Terphenyl	1.88		"	2.00		94.0	65-135			

SunStar Laboratories, Inc.



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Joann Marroquin, Director of Operations



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 24H0442 - EPA 3050B

Blank (24H0442-BLK1)

Prepared: 08/26/24 Analyzed: 08/28/24

Lead	ND	3.0	mg/kg							
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LCS (24H0442-BS1)

Prepared: 08/26/24 Analyzed: 08/28/24

Lead	98.6	3.0	mg/kg	100		98.6	75-125			
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Matrix Spike (24H0442-MS1)

Source: T243456-28

Prepared: 08/26/24 Analyzed: 08/28/24

Lead	213	3.0	mg/kg	100	133	79.9	75-125			
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Matrix Spike Dup (24H0442-MSD1)

Source: T243456-28

Prepared: 08/26/24 Analyzed: 08/28/24

Lead	374	3.0	mg/kg	100	133	242	75-125	55.1	20	QM-07
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5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 24H0511 - EPA 3550B Soil

Blank (24H0511-BLK1)

Prepared & Analyzed: 08/29/24

Aroclor-1016	ND	0.010	mg/kg							
Aroclor-1221	ND	0.010	"							
Aroclor-1232	ND	0.010	"							
Aroclor-1242	ND	0.010	"							
Aroclor-1248	ND	0.010	"							
Aroclor-1254	ND	0.010	"							
Aroclor-1260	ND	0.010	"							
Surrogate: Tetrachloro-meta-xylene	0.00396		"	0.0100		39.6	35-140			
Surrogate: Decachlorobiphenyl	0.00297		"	0.0100		29.7	35-140			S-GC

LCS (24H0511-BS1)

Prepared & Analyzed: 08/29/24

Aroclor-1016	0.0609	0.010	mg/kg	0.101		60.3	40-130			
Aroclor-1260	0.0552	0.010	"	0.100		55.2	40-130			
Surrogate: Tetrachloro-meta-xylene	0.00470		"	0.0100		47.0	35-140			
Surrogate: Decachlorobiphenyl	0.00348		"	0.0100		34.8	35-140			S-GC

Matrix Spike (24H0511-MS1)

Source: T243498-01RE1

Prepared & Analyzed: 08/29/24

Aroclor-1016	ND	0.010	mg/kg	0.101	ND		40-130			QM-07
Aroclor-1260	ND	0.010	"	0.100	ND		40-130			QM-07
Surrogate: Tetrachloro-meta-xylene	0.00		"	0.0100			35-140			S-03
Surrogate: Decachlorobiphenyl	0.00		"	0.0100			35-140			S-03

Matrix Spike Dup (24H0511-MSD1)

Source: T243498-01RE1

Prepared & Analyzed: 08/29/24

Aroclor-1016	0.00312	0.010	mg/kg	0.101	ND	3.09	40-130		30	QM-07
Aroclor-1260	0.00306	0.010	"	0.100	ND	3.06	40-130		30	QM-07
Surrogate: Tetrachloro-meta-xylene	0.000262		"	0.0100		2.62	35-140			S-03
Surrogate: Decachlorobiphenyl	0.0000726		"	0.0100		0.726	35-140			S-03

SunStar Laboratories, Inc.

Joann Marroquin, Director of Operations

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Earth Science LLC
5319 University Drive, Suite 20
Irvine CA, 92612

Project: LPH
Project Number: 23-1944-6
Project Manager: Sean Rakhshani

Reported:
09/03/24 15:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 24H0448 - EPA 5030 GCMS

Blank (24H0448-BLK1)

Prepared: 08/26/24 Analyzed: 08/27/24

Benzene	ND	0.00050	mg/l							
Toluene	ND	0.00050	"							
Ethylbenzene	ND	0.00050	"							
m,p-Xylene	ND	0.0020	"							
o-Xylene	ND	0.00050	"							
Tert-amyl methyl ether	ND	0.0020	"							
Tert-butyl alcohol	ND	0.010	"							
Di-isopropyl ether	ND	0.0020	"							
Ethyl tert-butyl ether	ND	0.0020	"							
Methyl tert-butyl ether	ND	0.0010	"							
Surrogate: Toluene-d8	0.0202		"	0.0200		101	84.7-108			
Surrogate: 4-Bromofluorobenzene	0.0198		"	0.0200		98.8	76.7-116			
Surrogate: Dibromofluoromethane	0.0216		"	0.0200		108	78.7-127			

LCS (24H0448-BS1)

Prepared: 08/26/24 Analyzed: 08/27/24

Chlorobenzene	0.0186	0.0010	mg/l	0.0200		93.1	81.1-121			
1,1-Dichloroethene	0.0198	0.0010	"	0.0200		99.3	69.9-130			
Trichloroethene	0.0192	0.0010	"	0.0200		96.0	74.9-133			
Benzene	0.0194	0.00050	"	0.0200		97.2	78.1-123			
Toluene	0.0191	0.00050	"	0.0200		95.4	79.6-123			
Surrogate: Toluene-d8	0.0202		"	0.0200		101	84.7-108			
Surrogate: 4-Bromofluorobenzene	0.0204		"	0.0200		102	76.7-116			
Surrogate: Dibromofluoromethane	0.0211		"	0.0200		106	78.7-127			

LCS Dup (24H0448-BSD1)

Prepared: 08/26/24 Analyzed: 08/27/24

Chlorobenzene	0.0193	0.0010	mg/l	0.0200		96.4	81.1-121	3.59	20	
1,1-Dichloroethene	0.0212	0.0010	"	0.0200		106	69.9-130	6.77	20	
Trichloroethene	0.0202	0.0010	"	0.0200		101	74.9-133	4.88	20	
Benzene	0.0207	0.00050	"	0.0200		104	78.1-123	6.32	20	
Toluene	0.0203	0.00050	"	0.0200		102	79.6-123	6.20	20	
Surrogate: Toluene-d8	0.0204		"	0.0200		102	84.7-108			
Surrogate: 4-Bromofluorobenzene	0.0202		"	0.0200		101	76.7-116			
Surrogate: Dibromofluoromethane	0.0213		"	0.0200		107	78.7-127			

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Earth Science LLC

Project: LPH

5319 University Drive, Suite 20

Project Number: 23-1944-6

Irvine CA, 92612

Project Manager: Sean Rakhshani

Reported:

09/03/24 15:26

Notes and Definitions

S-GC	Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
S-03	The surrogate recovery was below acceptance criteria in the sample because of a possible matrix effect. The surrogate recovery was within acceptance criteria in the method blank and LCS.
QM-07	The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
D-06	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
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

SunStar Laboratories, Inc.

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Joann Marroquin, Director of Operations



SunStar Laboratories, Inc.

Chain of Custody Record

PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commerce Drive, Lake Forest, CA 92630
949-297-5020

Earth Science LLC

5319 University Dr, Ste # 20

Client: Irvine, CA 92612

Address:

Phone: 949-441-0433 Fax: 360-656-0906

Project Manager: Sean Raghavani (SR)

Date: 8/26/2024

Project Name: LRH

Collector: SR

Batch #: 1243459

Client Project #: 23-1944-6

EDF #:

Page: 1 of 1

Laboratory ID #	Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	6020 ICP-MS Metals	8082 PCBs	6010 Lead (Pb) only	Comments/Preservative	Total # of containers	
01	B-1-2.5	8/26/2024	8:11 AM	Soil	4oz glass jar															1
02	B-1-5		8:10	↓	↓															1
03	B-1-GW		8:35	Water	VOAs															1
04	B-1-GW DUP		8:37	↓	↓															1
05	B-2-2.5		8:45	Soil	4oz glass jar															1
06	B-2-5		8:52	↓	↓															1
07	B-3-2.5		9:30	↓	↓															1
08	B-3-5		9:35	↓	↓															1
09	B-3-GW		9:44	Water	VOAs															1
10	B-2-GW		9:51	↓	↓															1
Relinquished by: (signature)		Date / Time		Received by: (signature)		Date / Time		Total # of containers		Chain of Custody seals Y/N/A		Seals intact? Y/N/A		Received good condition/cold		Notes				
<u>[Signature]</u>		8/26/2024 1:14 pm		<u>[Signature]</u>		8/26/24 1:34		30		Y		Y		Y		All results in mg/kg (Soil) and mg/L (Groundwater)				
Relinquished by: (signature)		Date / Time		Received by: (signature)		Date / Time														
Relinquished by: (signature)		Date / Time		Received by: (signature)		Date / Time														
Relinquished by: (signature)		Date / Time		Received by: (signature)		Date / Time														

Turn around time: Standard

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T243459

Client Name: Earth Science Project: LPH

Delivered by: ☒ Client ☐ SunStar Courier ☐ GLS ☐ FedEx ☐ Other

If Courier, Received by: _____ Date/Time Courier Received: _____

Lab Received by: Dave Date/Time Lab Received: 8/26/24 13:14

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 11/17/2024

Temperature: Cooler #1	3.2 °C +/- the CF (+ 0.1°C) =	3.3 °C corrected temperature
Temperature: Cooler #2	°C +/- the CF (+ 0.1°C) =	°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (+ 0.1°C) =	°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)		Within criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If NO:		
Samples received on ice?	<input type="checkbox"/> Yes	<input type="checkbox"/> No → Complete Non-Conformance Sheet
If on ice, samples received same day collected?	<input type="checkbox"/> Yes → Acceptable	<input type="checkbox"/> No → Complete Non-Conformance Sheet

Custody seals intact on cooler/sample ☐ Yes ☐ No* ☒ N/A

Sample containers intact ☒ Yes ☐ No*

Sample labels match Chain of Custody IDs ☒ Yes ☐ No*

Total number of containers received match COC ☒ Yes ☐ No*

Proper containers received for analyses requested on COC ☒ Yes ☐ No*

Proper preservative indicated on COC/containers for analyses requested ☐ Yes ☐ No* ☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times ☒ Yes ☐ No*

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: PB 8/26/24

Comments:

WORK ORDER

T243459

Client: Earth Science LLC

Project: LPH

Project Manager: Joann Marroquin

Project Number: 23-1944-6

Report To:

Earth Science LLC
Sean Rakhshani
5319 University Drive, Suite 20
Irvine, CA 92612

Date Due: 09/03/24 17:00 (5 day TAT)

Received By: Dave Berner

Date Received: 08/26/24 13:14

Logged In By: Angel Aguirre

Date Logged In: 08/26/24 13:24

Samples Received at: 3.3°C
Custody Seals No Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confirmed No

Analysis	Due	TAT	Expires	Comments
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T243459-01 B-1-2.5 [Soil] Sampled 08/26/24 08:11 (GMT-08:00) Pacific Time (US &

6010 Pb	09/03/24 15:00	5	02/22/25 08:11
8082 PCB	09/03/24 15:00	5	09/09/24 08:11

T243459-02 B-1-5 [Soil] Sampled 08/26/24 08:20 (GMT-08:00) Pacific Time (US &

6010 Pb	09/03/24 15:00	5	02/22/25 08:20
8082 PCB	09/03/24 15:00	5	09/09/24 08:20

T243459-03 B-1-GW [Water] Sampled 08/26/24 08:35 (GMT-08:00) Pacific Time (US &

8015 Carbon Chain	09/03/24 15:00	5	09/09/24 08:35
8260 BTEX/OXY	09/03/24 15:00	5	09/09/24 08:35

T243459-04 B-1-GW DUP [Water] Sampled 08/26/24 08:37 (GMT-08:00) Pacific Time (US &

8015 Carbon Chain	09/03/24 15:00	5	09/09/24 08:37
8260 BTEX/OXY	09/03/24 15:00	5	09/09/24 08:37

T243459-05 B-2-2.5 [Soil] Sampled 08/26/24 08:45 (GMT-08:00) Pacific Time (US &

6010 Pb	09/03/24 15:00	5	02/22/25 08:45
8082 PCB	09/03/24 15:00	5	09/09/24 08:45

WORK ORDER

T243459

Client: Earth Science LLC

Project Manager: Joann Marroquin

Project: LPH

Project Number: 23-1944-6

Analysis	Due	TAT	Expires	Comments
T243459-06 B-2-5 [Soil] Sampled 08/26/24 08:52 (GMT-08:00) Pacific Time (US &				
6010 Pb	09/03/24 15:00	5	02/22/25 08:52	
8082 PCB	09/03/24 15:00	5	09/09/24 08:52	
T243459-07 B-3-2.5 [Soil] Sampled 08/26/24 09:30 (GMT-08:00) Pacific Time (US &				
6010 Pb	09/03/24 15:00	5	02/22/25 09:30	
8082 PCB	09/03/24 15:00	5	09/09/24 09:30	
T243459-08 B-3-5 [Soil] Sampled 08/26/24 09:35 (GMT-08:00) Pacific Time (US &				
6010 Pb	09/03/24 15:00	5	02/22/25 09:35	
8082 PCB	09/03/24 15:00	5	09/09/24 09:35	
T243459-09 B-3-GW [Water] Sampled 08/26/24 09:44 (GMT-08:00) Pacific Time (US &				
8015 Carbon Chain	09/03/24 15:00	5	09/09/24 09:44	
8260 BTEX/OXY	09/03/24 15:00	5	09/09/24 09:44	
T243459-10 B-2-GW [Water] Sampled 08/26/24 09:51 (GMT-08:00) Pacific Time (US &				
8015 Carbon Chain	09/03/24 15:00	5	09/09/24 09:51	
8260 BTEX/OXY	09/03/24 15:00	5	09/09/24 09:51	