

DOCKETED	
Docket Number:	09-AFC-05C
Project Title:	Abengoa Mojave Compliance
TN #:	266959
Document Title:	COMP10-10-01 Notice of Violation from Lahontan Regional Water Quality Control Board-Workplan Submission
Description:	N/A
Filer:	Mahnaz Ghamati
Organization:	Abengoa Solar
Submitter Role:	Applicant
Submission Date:	10/31/2025 9:58:38 AM
Docketed Date:	10/31/2025

Mojave Solar LLC

42134 Harper Lake Road
Hinkley, California 92347

Phone: 760 308 0400

Subject:	09-AFC-5C
Condition Number:	COPM 10
Description:	Notice of Violation of Waste Discharge Prohibitions and California Water Code section 13243- Workplan Submission
Submittal Number:	COMP10-10-01

October 30, 2025

Ashley Gutierrez, CPM
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
Ashley.Gutierrez@energy.ca.gov
Submitted electronically via email

Ms. Gutierrez,

Pursuant to Condition of Compliance 10, please find attached the "Groundwater Quality Assessment and Contaminated Soil Remediation Work Plan," which was submitted to the Lahontan Regional Water Quality Control Board on October 23, 2025, in response to the Notice of Violation (NOV) dated August 18, 2025.

The NOV references findings from the Environmental Site Investigation Report prepared by Hushmand Associates, Inc., submitted by MSP in October 2024. The Lahontan Water Board staff alleges a violation of Waste Discharge Prohibitions and California Water Code Section 13243 due to the unauthorized discharge of heat transfer fluid compounds into the Harper Valley Groundwater Basin from the Alpha East Land Treatment Unit (LTU).

Please let me know if you need any additional documentation or clarification.

Sincerely,
Mahnaz Ghamati

Quality, Environmental & Compliance Manager

Mojave Solar LLC

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Attachment: Groundwater Quality Assessment and Contaminated Soil Remediation Work Plan

**GROUNDWATER QUALITY ASSESSMENT AND
CONTAMINATED SOIL REMEDIATION WORK PLAN
ALPHA EAST BIOREMEDIATION UNIT
MOJAVE SOLAR PLANT NEAR HINKLEY, CALIFORNIA**



Prepared for:

ATLANTICA Sustainable Infrastructure
Mojave Solar LLC
42134 Harper Lake Road
Hinkley, California 92347

Prepared by



250 Goddard
Irvine, California 92618
(949) 777-1266

October 2025

October 15, 2025

Mojave Solar LLC

Mojave Solar Project
42134 Harper Lake Road
Hinkley, California 92347

Attention: Ms. Mahnaz Ghamati, Quality, Environmental &
Compliance Manager

**Subject: Workplan: Groundwater Quality Assessment and Contaminated Soil Removal
and Disposal, Alpha East Land Treatment Unit (LTU)
Mojave Solar Plant, Hinkley, California
For Submittal to Agencies**

Dear Ms. Ghamati:

Hushmand Associates, Inc. (HAI) is pleased to provide this Groundwater Monitoring and Site Remediation Workplan (Workplan) to address the groundwater quality assessment adjacent to Alpha East Land Treatment Unit (LTU) and contaminated soil removal and replacement with compacted clean soil at Alpha East LTU at the Mojave Solar Plant (MSP) near Hinkley, California (**Figure 1**). This Workplan has been prepared in response to a Notice of Violation (NOV) letter dated August 18, 2025, issued by the California Regional Water Board – Lahontan Region (RWB) in response to the accidental discharge of waste to groundwater (violation of Waste Discharge Prohibition II.A.1. and II.B.4., and California Water Code section 13243.), CEC's comments received via MS email dated August 26, 2025, and the virtual meeting between RWB, CEC, MS, and HAI on September 24, 2025. A copy of the NOV is included in **Attachment A**.

1.0 INTRODUCTION

A Sampling and Analysis Plan (SAP) for the Alpha East Bioremediation Unit, dated June 21, 2024, was prepared by HAI and submitted to MS and the agencies. The SAP included total of 6 soil borings (B1 through B6) within the Alpha East LTU for collection of soil and soil vapor samples for laboratory analysis. Refer to **Figure 2a** for the locations of soil borings. The SAP also proposed extending the soil boring B6 to groundwater, expected to be around 33-35 ft below ground surface (bgs), and collecting a grab sample of groundwater using a hydropunch sampler for laboratory testing. The SAP was submitted for review and approval to MS and the agencies.

Upon approval of the SAP, HAI conducted the field work which was completed during June and July of 2024. During the field investigation, perched groundwater was encountered in soil boring B6 at a depth of 40-41.5 feet bgs. A grab sample of the perched groundwater was collected for

laboratory analysis. Based on the analytical results, the grab groundwater sample collected in soil boring B6 contained 280 ug/L Biphenyl, 990 ug/L Diphenyl Oxide, Toluene at 8.3 ug/L, and MBAS at 0.33 ug/L. Soil samples were also collected from B6 for laboratory analysis. Based on the analytical test results, with the exception of soil sample collected at the 6 feet depth interval of B6 which contained Biphenyl and Diphenyl Oxide at concentrations of 1800 ug/L and 5100 ug/L, the remaining samples collected from the depths of 11 feet, 16 feet and 41 feet of the soil boring B6 did not contain HTF and any other VOCs at reportable concentrations. Copies of the tables containing the analytical test results for soil, and grab groundwater samples from B6 are attached as **Attachment B** to this Workplan for reference. HAI documented the results of the SAP in a report entitled “Environmental Site Investigation Report”, dated October 2024, and submitted the report to MS for review and submittal to the RWB and CEC.

Upon review of the October 2024 Report, the RWB issued a NOV letter dated August 18, 2025, requiring response actions to include; immediately covering the LTU with plastic sheeting (or alternative) to prevent infiltration of precipitation through the waste management unit, to keep the cover in place until cleanup goals have been achieved, and submit a workplan by Monday, November 17, 2025 to delineate the release to groundwater and remove secondary sources to groundwater contamination.

MSP confirmed that, upon receipt of the NOV, a liner was promptly installed at the Alpha East LTU and photographic documentation was provided to both the RWB and CEC.



MS requested HAI to help develop the workplan for corrective action. To align the corrective action with the CEC and RWB expectations, a virtual Teams meeting was held on September 24, 2025, between MS, HAI, CEC, and RWB. It was agreed to perform groundwater sampling using combination of drill rig and hydro punch to collect two groundwater samples at two locations, downstream of Alpha East LTU as shown in **Figures 2a and 2b** prior to installation of two long-

term permanent groundwater monitoring wells. After analyzing the results of the groundwater samples from hydropunch locations, the proposed locations of the two new monitoring wells will be re-evaluated and adjusted accordingly. The two new monitoring wells will be installed on the upgradient and downgradient sides of Alpha East LTU. Soil excavation, removal, handling, and replacement with clean soil in Alpha East LTU were also discussed during the virtual meeting and are addressed later in this Workplan.

This Workplan has been prepared in response to the RWB's comments in the above-referenced NOV, the CEC comments, and the September 24, 2025, virtual meeting and includes the following information:

Site Maps: A site map showing the locations of previous soil, soil vapor, and groundwater sample collections, the estimated groundwater flow directions, and the proposed locations of the recommended hydropunch groundwater samples and new perched groundwater monitoring wells.

Tabulated Analytical Data: Tabulated analytical data for soil, soil vapor and groundwater that has been collected from the LTU during 2024 Alpha LTU investigation.

Soil Vapor Sampling Information: A copy of the batch canister certification report for each vapor sampling canister with the name of the leak check compound used during sampling on July 18, 2024 is included as **Attachment C** in this Workplan.

Sampling and Analysis: Descriptions of soil and groundwater sampling procedures, a list of constituents to be analyzed, and the name and certification of the analytical laboratory is described in this Workplan.

Drilling, logging, and Well Installation: Descriptions of the proposed drilling method for the installation of hydro punch and the perched groundwater wells, soil logging procedures, and the proposed groundwater well construction design.

Land Treatment Unit Construction Details: The original design drawings provided by MS are included in Attachment D of this Workplan. We do not have access to the CQA documentation for LTU construction, to discuss the deviations from the original plans.

Excavation of Contaminated Soils: Description of the excavation and removal of contaminated soils from above and beneath the bentomat clay liner for stockpiling based on the field PID screening, for onsite use or offsite disposal based on laboratory results.

2.0 SITE INFORMATION

2.1 Site Location

The Mojave Solar Plant (MSP) is located east and west of Harper Lake Road and north and south of Lockhart Road near Hinkley, San Bernardino County, California. The property includes Section 33 and portions of Sections 28, 29, 30, and 32 within Township 11 North, Range 4 West, San Bernardino Base and Meridian (Figures 1 and 2). The site is relatively level with a gentle slope toward Harper Lake to the northeast. Surface elevations at the project site range from approximately 2,100 feet mean sea level (msl) at the southwestern area of the site to approximately 2,025 feet msl at the northeastern portion of the site close to Harper Lake.

The MSP consists of two independently operable solar fields referred to as Alpha and Beta, each feeding a 140-megawatt (gross) power island. The Alpha and Beta plants are located to the north and south of Lockhart Road, respectively. Each solar field has 1,128 parabolic trough collectors, consisting of support structures, mirrors, receiver tubes, and drive systems. The sun provides 100% of the power supplied to the project through solar-thermal collectors.

The waste facilities at the MSP include two pairs of evaporation ponds and two associated LTUs. The evaporation ponds and LTUs comprise the waste management units (WMUs) to be monitored per the Detection Monitoring Program (DMP).

One pair of evaporation ponds and an associated LTU are associated with the Alpha plant and the second pair of ponds and an LTU are associated with Beta plant. One of the two LTUs is located west of the Alpha ponds, and the second one is located east of the Beta ponds. Each LTU covers an area of approximately 75 feet by 150 feet. LTUs were constructed with a low permeability base designed to slow the rate of water infiltration in the treatment area. The LTUs are surrounded by 4-feet high reinforced concrete walls, 2-feet of which are above-ground. The perimeter walls and grading are designed to control and prevent stormwater runoff from flowing in or out of the units.

2.2 Site Geology and Hydrogeology

The following sections provide a summary of the MSP regional and local hydrogeology. The locations of groundwater monitoring wells at MSP are shown in **Figure 2b**.

Based on background information, the MSP is located in the Harper Valley Groundwater Basin (HVGB), a sub-basin of the regional Mojave River Basin (MRB). Within the MRB, two aquifers are recognized by the USGS and the Mojave Basin Area Watermaster, commonly referred to as the Floodplain and Regional aquifers. These aquifers are hydraulically connected, with underflow from the Floodplain aquifer to the Regional aquifer. Transmissivity is significantly larger within the Floodplain aquifer than within the Regional aquifer. Regional groundwater flow direction beneath the site has generally been toward the north and northeast at a gradient ranging from 0.001 to 0.02 feet/foot (ft/ft) (MSP, 2009).

A shallow perched groundwater zone underlies the site. Eight groundwater monitoring wells were installed in this perched zone in January 2014 to meet the requirements of the CCR Title 27. Four wells were installed around the perimeter of each evaporation pond (four per pond) to detect possible releases from the evaporation ponds. The DMP wells MWP-A100-400 and MWP-B100-400 are screened in the Quaternary alluvium consisting of sand/silty sand/clayey sand. Well completion report and boring log for nearby groundwater monitoring well MWP-A200 indicates silty fine to coarse sand (SM) ranging with depth from medium dense to very dense to 14 ft below ground surface (bgs), very dense clayey medium to coarse sand (SC) from 14 to 17 ft bgs, a layer of very dense well graded sand (SW) from 17 to 18.5 ft bgs, and very dense silty coarse sand (SM) to 34 ft bgs.

2.3 Land Treatment Units

As described in the Land Treatment Units (LTU) Preliminary Closure/Post Closure Maintenance Plan (MSP, 2014), each LTU covers an area of approximately 75 by 150 feet and is constructed of a base consisting of a liner of Bentomat® geosynthetic clay liner, a bentonite layer, cover soil (min 12”), and an additional 24” of native soil mixed with soil cement on top of the cover soil. This base serves as a competent platform to the land treatment activities and slows the rate of surface water infiltration in the treatment area. The LTUs are used to treat soils impacted by spills of the heat transfer fluid (HTF) used in equipment at the site. The HTF consists of diphenyl oxide (73.5%) and diphenyl (26.5%), as detailed in the attached Safety Data Sheet (SDS). The compacted and native soil beneath the LTU is designated as a “treatment zone.” The LTUs are surrounded on all sides by 2-foot-high reinforced concrete walls. These walls and site grading will control and prevent potential inflow (run-on) of surface storm water into the units or runoff of storm water from the units. The drawings for Alpha LTU is included in **Attachment D**.

The LTU is divided into two sides, East and West, each equipped with three sampling ports for collecting samples per the detection monitoring plan.

2.4 Detected Soil and Groundwater Contamination

Analytical test results on samples taken from depths of 7 to 10 feet on the East side (sample ports E2 and E3) indicated the presence of detectable concentrations of Biphenyl and Diphenyl Oxide. The test results for samples obtained in 2018-2025 time period are provided in **Attachment E** (Table 29b from 2024 Annual DMP report).

3.0 GROUNDWATER QUALITY ASSESSMENT

As required by the RWB, we will install two permanent groundwater monitoring wells, one downgradient within 50 feet of the northern edge of Alpha East LTU, and one upgradient monitoring well within 50 feet of the southern edge of Alpha East LTU, which will later be included in the MSP Detection Monitoring Program (DMP).

During the virtual meeting on September 24, 2025, HAI proposed to install two soil borings at locations shown on **Figures 2a** and **2b**, prior to the installation of the two groundwater monitoring wells, and collect grab groundwater samples for laboratory analysis with the intention of using the laboratory results to help best locate the two new permanent perched groundwater monitoring wells. The proposed initial groundwater sampling and analysis using a hydropunch was verbally agreed upon by CEC and RWB.

The groundwater quality assessment will include the following tasks.

Task 3.1 – Pre-field Activities

Standard Operating Procedures - HAI's Standard Operating Procedures (SOP) will be followed during the field work. A copy of the SOP is included in **Appendix A**.

Health and Safety Plan – A Health and Safety Plan (H&S) has been prepared by HAI, and a copy is included in **Appendix B**. H&S procedures will be followed during the field work. It mainly includes Level D personal protective equipment (PPE) which will be worn by the field crew during soil sampling activities.

Permits - Prior to the start of field work, HAI will obtain all necessary permits from the San Bernardino County Department of Public Health for the drilling of the two soil borings and collection of grab groundwater samples using a hydropunch, and for the installation of two new perched groundwater monitoring wells.

Staking/Marking Boring Locations - HAI will stake/mark the drilling locations clearly and notify Underground Service Alert (USA) to obtain underground utility clearance.

Underground Utility Clearance – After marking/staking the hydropunch and perched groundwater monitoring well locations, HAI will notify Underground Service Alert (USA) at least 72 hours prior to conducting drilling. For additional safety reasons and to minimize potential liabilities to MS and HAI, HAI recommends the use of geophysical methods (e.g. ground penetrating radar [GPR]) to help locate utilities, if present. HAI will subcontract a private utility locator for completing a geophysical survey of the site so that public or private underground utilities at the proposed boring locations can be identified prior to beginning fieldwork.

Drilling Contractor Selection - HAI will select a qualified driller with C-57 license and extensive experience in installation of monitoring wells in San Bernardino County for the drilling and groundwater sampling using hydropunch, and installation of groundwater monitoring well(s).

Brief summaries of the procedures that will be used for the collection of grab groundwater samples using hydropunch and installation of 2 permanent perched groundwater monitoring wells are provided below.

Task 3.2 – Grab Groundwater Sampling Using Hydropunch

- Soil borings will be drilled at the locations shown on **Figures 2a** and **2b** utilizing the combination of hollow stem auger drilling method and hydropunch groundwater sampling.
- Soil borings will be drilled to about 28 to 30 feet bgs, followed by advancing a hydropunch to 31 feet bgs or until groundwater is encountered. Grab samples of groundwater from two locations will be collected using the hydropunch.
- All drilling and sampling equipment/tools will be decontaminated before and after drilling each soil boring and between sampling groundwater.
- An experienced engineer or geologist under direct supervision of California-licensed Professional Geologist or Professional Engineer will log the soil borings per ASTM D 2487 standards.
- Groundwater samples will be collected in laboratory prepared containers, and will be labeled, preserved, packaged and delivered under Chain-of-Custody to the laboratory.
- All Health and Safety procedures will be followed by field personnel, and the work area and breathing zone will be routinely monitored for VOCs using a Photo Ionization Detector (PID) equivalent to MiniRAE 3000.
- All excess drill cuttings, decontamination liquids and used PPE will be placed in Department of Transportation (DOT) 55-gal drums, and drums will be sealed and labelled for proper disposal pending the receipt and evaluation of analytical results. Waste drums will be removed from the site and properly disposed within 90 days of waste generation.
- After sampling is completed each hydropunch boring will be backfilled up to depth of 5 ft bgs with 5% Bentonite/Portland cement grout and above 5 ft depth the borings will be backfilled with local native soil per the requirement of the San Bernardino County Department of Health permit.
- Boring locations will be measured from the Alpha East LTU for presentation on a figure/map of the LTU.

Perched Groundwater Monitoring Well Installation

- As required by the RWB, we will install two permanent groundwater monitoring wells, one downgradient of Alpha East LTU, and one upgradient of the Alpha East LTU. The proposed locations of the monitoring wells MW-LTU-A1 and MWLTU-A2 are shown in **Figure 2b**. Per our virtual meeting on September 24, 2025, HAI will discuss the analytical results for the grab samples with the RWB and CEC to adjust the location of the downgradient well, as necessary.
- The design of the new perched monitoring wells will be similar to the design of the existing monitoring wells shown in **Figure 3**.

- HAI's State of California Certified Engineering Geologist (CEG) will log the soil borings according to the Unified Soil Classification System (USCS).
- The soil cuttings generated from the borings will be drummed and all soil borings will be backfilled with non-shrink cement bentonite grout. The sampler and augers will be decontaminated between borings.
- Soil samples will be obtained using clean rings/tubes and taken to our Geotechnical Laboratory for grain size, and plasticity determinations.
- After completion of groundwater monitoring wells installation, the two wells will be developed to remove fine sediments, and any residuals from the borehole and filter pack, allowing groundwater to flow freely into the well screen.
- Following well development, groundwater samples will be collected in laboratory prepared containers, labeled and sent to Eurofins Calscience laboratory in Tustin, a State-certified laboratory, for analysis.

Task 3.3 - Laboratory Testing

- The collected groundwater samples will be analyzed using the appropriate EPA Test Methods for the following compounds:
 - EPA Test Method 8015B modified for detection/identification of Biphenyl (CAS NO. 92-52-4), and Diphenyl Oxide (CAS No. 101-84-8),
 - EPA Test Method 8260B for VOCs,
- Laboratory to provide results in report and excel spreadsheet format (to facilitate screening of results) and full Laboratory Quality Control results.

Task 3.4 – Evaluation of Results

- The laboratory results and comparisons will be summarized in “screening” tables for ease of review.
- Compare the test results to the State and Federal criteria and to the established allowable levels by RWQCB, CEC and DTSC. The detected concentrations of analytes in the groundwater samples will be discussed with RWQCB and CEC.

Task 3.5 - Prepare Report

- HAI will prepare a report summarizing the results of the groundwater quality investigation. The report will include a summary of work performed including introduction and purpose of the investigation, a brief summary of the site's background, descriptions of field activities, maps showing the site location and locations of new monitoring wells and hydropunch sampling, tabulated analytical results, and our evaluation of the results and recommendations for additional work, if warranted. The report will also include copies of boring logs and well construction design, chain of custody records, copies of laboratory reports, Health and Safety Plan, and the SOP. The report will be prepared and signed by HAI California Licensed PE with extensive experience in environmental investigations/ remediation.

4.0 CONTAMINATED SOIL EXCAVATION, REMOVAL, AND ALPHA EAST LTU CLOSURE

Per the September 24, 2025, virtual meeting with CEC and RWB, MS will either restore the Alpha East LTU or close it provided there is sufficient remaining LTU space for contaminated soil storage. If closure option is selected by MS, then MS will provide a plan to the RWB and CEC stating the protocol for proper management of an emergency high volume spill/leak.

Following the abovementioned meeting MS requested HAI to search for an environmental remediation contractor to handle removal of the contaminated soil, liner, and sample ports from Alpha East LTU and backfill the excavation with clean soil. MS indicated that they would proceed with Alpha East LTU closure.

In addition, during the virtual meeting it was decided that pre-soil removal sampling would not be required, and that the best option would be to excavate the contaminated soils from Alpha East LTU for either onsite use or proper offsite disposal based on analytical results for the samples.

Following excavation of the contaminated soils and the LTU liner, stockpiling the contaminated soil, confirmatory sampling and testing at bottom and walls of excavation for non-detects, composite sampling and testing of stockpile soil samples, and transport of contaminated soil stockpiles to appropriate landfill, import clean soil, backfill and compact, and abandon the Alpha East LTU. The soil samples will be analyzed for Biphenyl, Diphenyl Oxide, and Volatile Organic Compounds (VOCs) using EPA method 8260B. During excavation of the contaminated soil and LTU liner, HAI will document the as-built details of the liner system to complement information obtained from the project documents on the liner system construction.

For contaminated soil management scope, HAI proposes to conduct the following tasks:

Task 4.1 –Pre-field Activities

Health and Safety Plan - Health and safety procedures to be followed during the field work are included in **Appendix B**. Level D personal protective equipment (PPE) will be worn by the field crew during soil sampling activities. PID will be used to monitor soil, work area and breathing zone for VOCs.

Excavation/Backfilling Contractor Selection - HAI will select a qualified excavation/backfilling earthwork contractor to handle soil excavation, transportation, and backfilling needs.

Staking Excavation Area - HAI will coordinate with the selected Contractor and Client to stake/mark the excavation area and notify Underground Service Alert (USA) to obtain underground utility clearance.

Underground Utility Clearance – After marking/staking the excavation area, HAI/Contractor will notify Underground Service Alert (USA) at least 72 hours prior to mobilization. For additional safety reasons and to minimize potential liabilities to MS and HAI, HAI recommends the use of geophysical methods (e.g. ground penetrating radar [GPR]) to help locate utilities.

HAI will subcontract a private utility locator for completing a geophysical survey of the site so

that public or private underground utilities at the proposed excavation area can be identified prior to beginning fieldwork.

Task 4.2 – Soil Excavation and Sampling

- A remediation contractor will be mobilized to remove the contaminated soil from Alpha East LTU.
- MS will secure all permits associated with the impacted soil removal project. Remediation contractor will secure a Cal-OSHA permit.
- The excavation contractor will prepare and implement their own Site-Specific Health and Safety Plan for review by HAI and MS prior to the start of work.
- The area to be excavated has been estimated to be approximately 80 feet long by 40 feet wide. The soil within LTU will be excavated to about 2.5 below the bottom of the LTU to remove the contaminated soil beneath the LTU. The excavated soil will be stockpiled next to the excavation area (i.e., within 100 feet).
- During the excavation, HAI will use a PID to screen soil removed for the VOCs. The excavated soils will be stockpiled on and covered with visqueen at the end of each day. The following PID readings will be used to separate the stockpile areas as follows:
 - Stockpile 1 (PID reading 0-100 ppm),
 - Stockpile 2 (PID reading 100-1000 ppm),
 - Stockpile 3 (PID reading >1000 ppm).
- Upon completion of the excavation activities, each stockpile will be divided into 4 sections, and 3 samples will be collected from each section at equal depth interval from the top to the bottom of the stockpile. The 3 samples from each section will be composed at the laboratory and will be analyzed for Biphenyl (CAS NO. 92-52-4), and Diphenyl Oxide (CAS No. 101-84-8) using EPA Test Method 8015B modified, and VOCs using EPA Test Method 8260B, for a total of 4 samples from each stockpile.
- When PID readings are within 0-100 ppm for the soils excavated from the bottom of the LTU excavation, HAI will collect up to 10 confirmatory samples in laboratory provided containers from the base and the walls of the excavation. Soil samples will be labeled, preserved, packaged and delivered under Chain-of-Custody to the laboratory for laboratory analysis (expedited turnaround) to inform the contractor of the results immediately and avoid demobilization or significant downtime. The excavation activities will terminate when laboratory results are non-detect for Diphenyl, Diphenyl Oxide and VOCs in the confirmatory samples.
- Two existing sample ports will be removed and disposed of as trash off site. No sample ports will be reinstalled.
- MS will supply water for dust control and backfill. The remediation contractor will supply a water truck to transport water to the excavation area.
- MS will review and use the laboratory results for each stockpile to determine the disposal requirement, based on the detected concentrations of HTF in the samples. The stockpiles with the laboratory reported results between 0-100 mg/kg for the HTF compounds will

be used onsite. The stockpiles with the laboratory reported results between 100-1000 mg/kg, and >1000 mg/kg for the HTF compounds will be evaluated for proper disposal at offsite disposal facilities with the required manifest signed by MS.

- The excavated area will be backfilled with clean import soil and compacted.
- The clean soil has been estimated to be imported from Vulcan Materials in Barstow, California. The remediation contractor will make proper arrangements prior to mobilization for HAI to conduct soil testing, acceptance, and to conduct Proctor density testing.
- The remediation contractor will provide box shoring to support the retaining wall to a depth of two feet below the bottom elevation of the footing. No undermining of the footing will be conducted.
- HAI will provide soil compaction testing and reporting.

Task 4.3 - Laboratory Testing

- Soil samples will be tested by Eurofins Calscience of Tustin, California, a State Certified chemical analysis laboratory, as follows:
 - EPA Test Method 8015B modified for detection/identification of Biphenyl (CAS NO. 92-52-4), and Diphenyl Oxide (CAS No. 101-84-8),
 - EPA Test Method 8260B for VOCs,
- Laboratory will provide results in report and excel spreadsheet format (to facilitate screening of results) and full Laboratory Quality Control results.

Task 4.4 - Prepare Report

HAI will prepare a report summarizing the field activities during excavation, sampling of the stockpiles, supported by photos, drawings of the final excavation and stockpiles' sizes, stockpile sample locations and depths, and field notes. All data collected during the excavation phase of the investigation will be provided in tables, and a summary of the data evaluation and fate of the excavated soils based on the analytical results will be provided in the report. Copies of all chain-of-custody and laboratory reports will be included in the report. Report will be prepared and signed by HAI California Licensed PE with extensive experience in environmental investigations/remediation.

Prepared by Hushmand Associates, Inc.

Ben Hushmand, President, CA PE 44777 Date

Included:

FIGURES

Figure 1 – Site Location

Figure 2a - Alpha East LTU Soil Boring and Groundwater Grab Sample Locations with HTF Test Results and Proposed Hydropunch Groundwater Sample Locations

Figure 2b - Proposed Locations of Hydropunch Groundwater Sample and Additional Monitoring Wells

Figure 3 - Proposed Well Design

APPENDICES

Appendix A - Standard Operating Procedures for Field Operations

Appendix B - Site-Specific Health and Safety Plan for Mojave Solar Project Alpha East Land Treatment Unit

ATTACHMENTS

Attachment A - Copy of NOV Letter

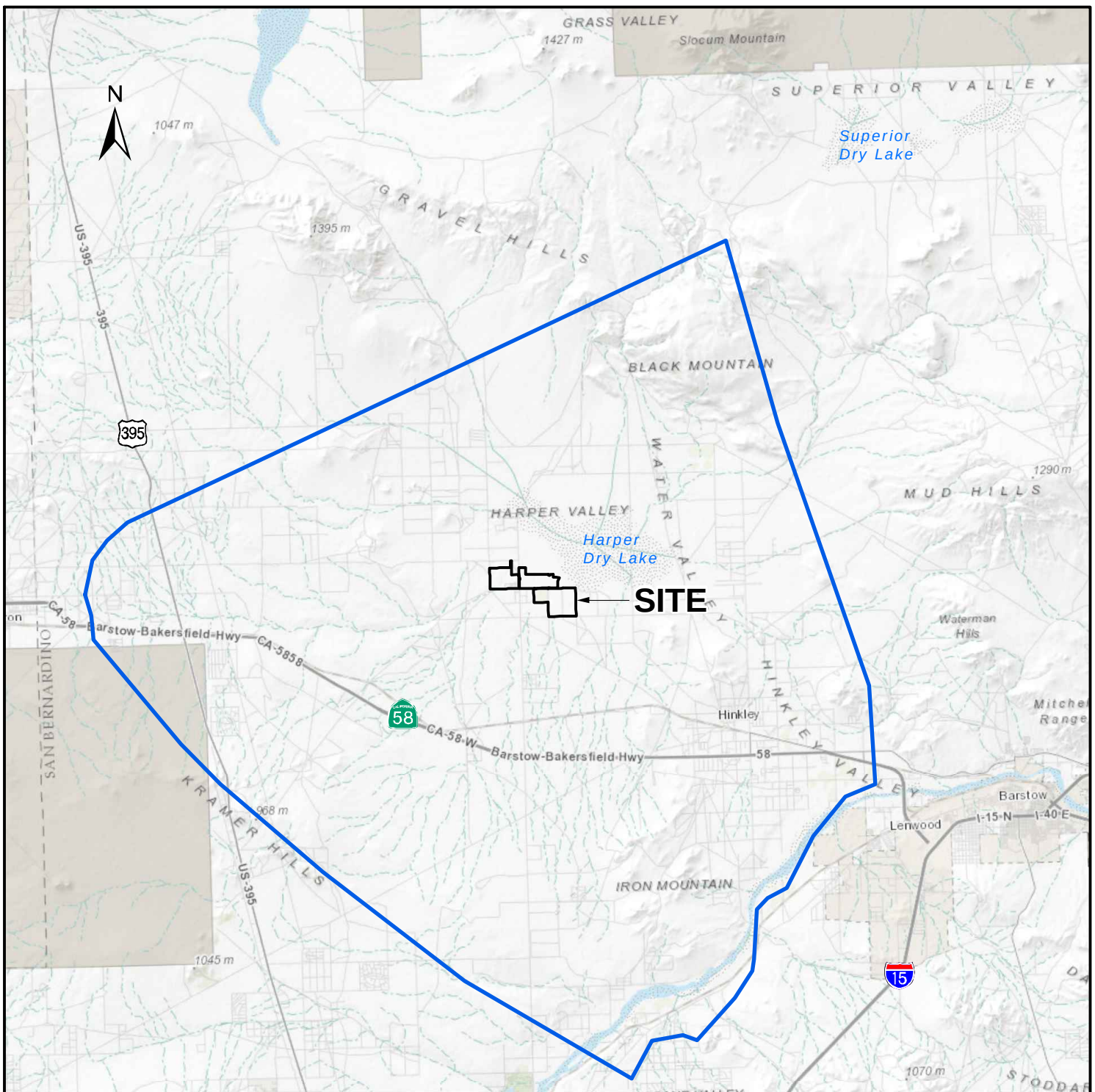
Attachment B - Copies of the Tables containing the Analytical Results For Soil, and Grab Groundwater Samples (2024 Investigation Results)

Attachment C - Copy of Batch Canister Certification

Attachment D - Alpha LTU Drawings

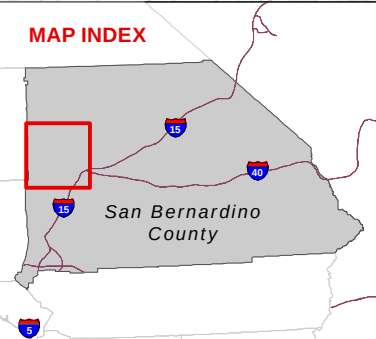
Attachment E - Table 29b from 2024 Annual DMP Report

FIGURES



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

MAP INDEX



SCALE IN MILES

0 5 10

SITE LOCATION

FIGURE

1

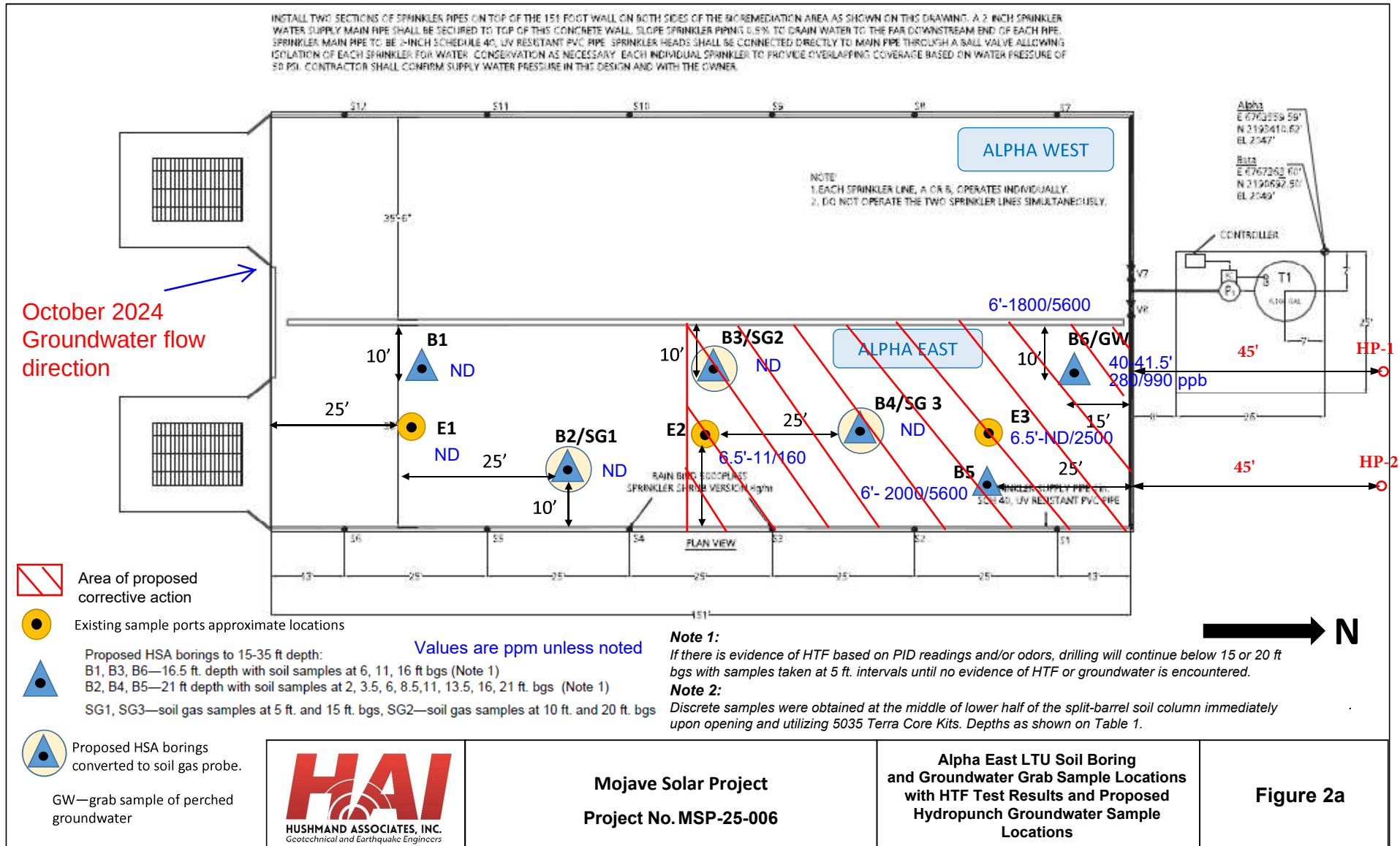
PROJECT NO.

DATE

MSP-25-006

10/07

MOJAVE SOLAR PROJECT
SAN BERNARDINO COUNTY, CALIFORNIA

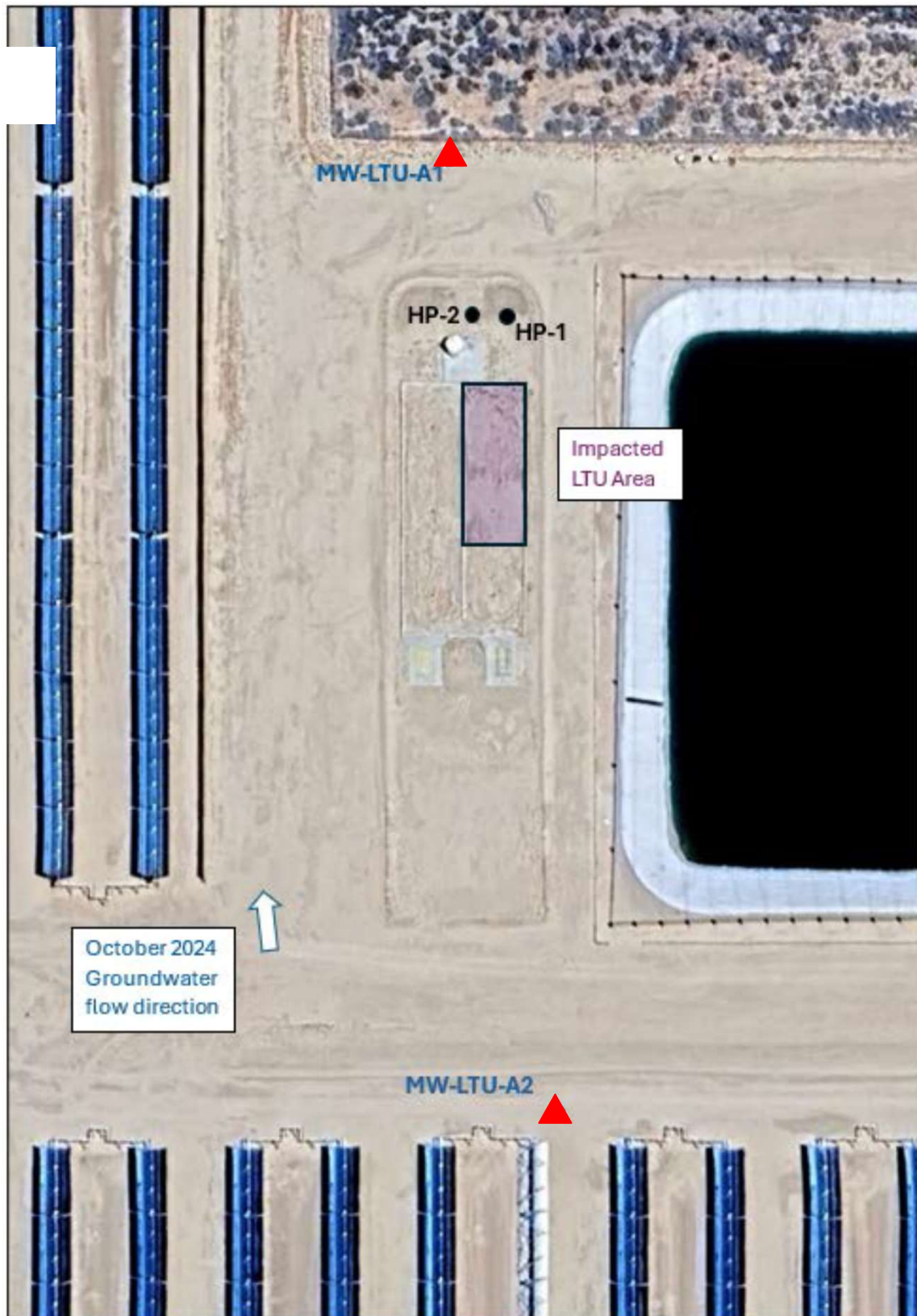


Proposed HSA borings to 15-35 ft depth:

B1, B3, B6—16.5 ft. depth with soil samples at 6, 11, 16 ft bgs (Note 1)

B2, B4, B5—21 ft depth with soil samples at 2, 3.5, 6, 8.5, 11, 13.5, 16, 21 ft. bgs (Note 1)

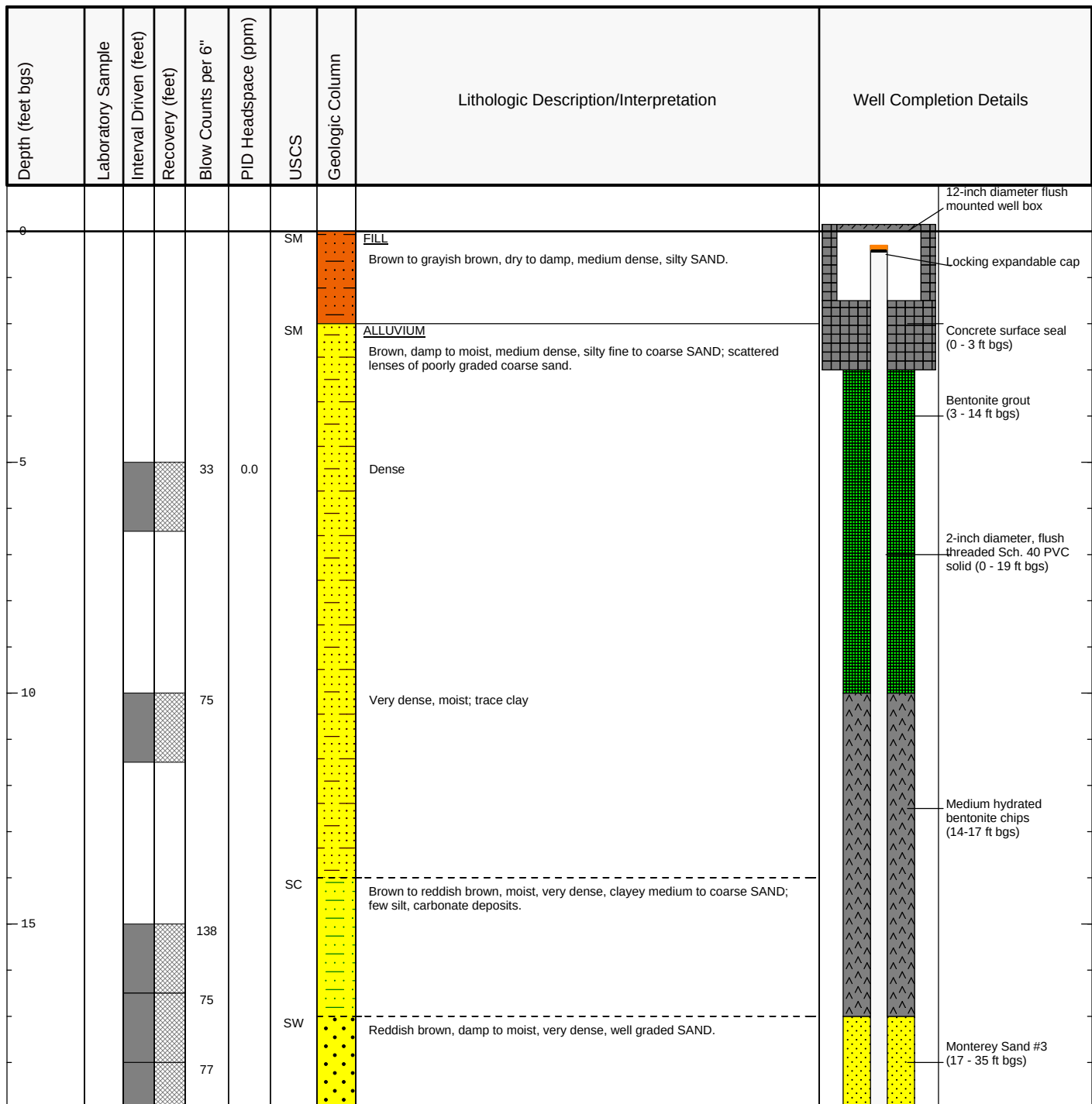
SG1, SG3—soil gas samples at 5 ft. and 15 ft. bgs, SG2—soil gas samples at 10 ft. and 20 ft. bgs



▲ Proposed location of additional monitoring well

● Proposed hydro punch locations

Date Start/Finish: Drilling Company: Driller's Name: Drilling Method: Hollow Stem Auger Bit Size: 8.5-inch Auger Size: 8-inch Rig Type: CME-85 Sampling Method: 1.5" OD SPT, 2.5" OD core			Northing: Easting: Elevation: Total Depth: 35 ft bgs Logged By: Sampled By: Reviewed By:		Boring ID: Client: Location:
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bgs - below ground surface
 ft - feet
 lbs - pounds
 msl - mean sea level
 NM - not measured
 OD - outer diameter
 PID - photoionization detector
 PVC - polyvinyl chloride
 P.G. - Professional Geologist
 ppm - parts per million
 Sch. - schedule

Figure 3 - Proposed Monitoring Well Design

APPENDICES

APPENDIX A

STANDARD OPERATING PROCEDURES FOR FIELD OPERATIONS

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A.1 SOP 1: HOLLOW-STEM AUGER DRILLING/SOIL SAMPLING

A.1.1 REQUIRED EQUIPMENT

- Sampling and Analysis Plan (SAP)
- Site logbook or blank Daily Field Reports and boring logs
- Indelible black-ink pens and markers
- Camera
- Hollow-stem auger drill rig
- Split-barrel samplers
- Photoionization detector (PID)
- Plastic sheeting
- 55-gallon drums
- Insulated cooler(s), chain-of-custody seals, Ziploc bags
- Sample labels and appropriate documentation
- Assorted geology supplies (e.g., hand lens, grain size card, scales, etc., as needed)
- Decontamination equipment

A.1.2 TYPICAL PROCEDURES

A.1.2.1 Preparation

1. Conduct site activity/health and safety briefing.
2. Confirm utility clearance has been completed and site is clear.
3. Calibrate field instrumentation.
4. Record necessary data in field logbook or on Daily Field Report.
5. Obtain photograph(s) of site before drilling.
6. Place plastic sheeting and drums at drilling location to collect cuttings.
7. Move equipment and supplies to drilling location.
8. Set up decontamination and sampling stations.

A.1.2.2 Construction

1. Obtain surface soil samples, if required.
2. Drill to first sampling depth, as described in the SAP.
3. Place three (3) decontaminated stainless sleeves in the split-barrel sampler. (Only at selected locations for obtaining samples for moisture/density as described in the SAP).
4. Place decontaminated split-barrel sampler on center rods.
5. Drive split-barrel sampler. Retrieve sampler.
6. Field screen the sample in accordance with SOP 2 Headspace Field Screening.
7. Collect soil samples for VOC testing using the Terra Core Kit and preservative.
8. Using a stainless-steel scoop fill a 4 oz clean glass jar with soil from the sampler for the remaining testing.
9. Describe soil in accordance with ASTM D2488 on the boring log form.
10. Prepare samples for preservation and transport per SOP 4 Sample Packing and Shipping.
11. Decontaminate the split-barrel sampler and scoop by scraping out soil then washing equipment with tap water/detergent (Alconox or equivalent) solution and rinse equipment twice with tap water.
12. Continue drilling at next sample location. Clean augers must be used at each new location.
13. Collect samples as outlined above.
14. During drilling routinely check auger soil cuttings with PID or FID. If readings exceed 50 ppm stop drilling activities, move personnel about 20 ft. up wind from the drill rig and wait for VOCs to clear. Recheck with PID before returning to drilling/sampling. Also, either have the contractor place the soil in sealed 55-gal drums or cover the stockpile with plastic sheeting secured by clean soil or sandbags.

A.2 SOP 2: HEADSPACE FIELD SCREENING

A.2.1 REQUIRED EQUIPMENT

- Sampling and Analysis Plan (SAP)
- Indelible black-ink pens and markers
- Site logbook or blank Daily Field Reports and boring logs.
- Camera
- Ziploc bags
- Photoionization detector (PID)

A.2.2 TYPICAL PROCEDURE

1. Calibrate PID in accordance with the manufacturer's specifications.
2. Label Ziploc bag with the sample number. Best done in advance of sampling to expedite the process.
3. Use stainless steel spoon to scoop the soil from the split-barrel and place soil immediately in Ziploc bag until bag is approximately one-half full. Seal and shake Ziploc bag to homogenize sample.
4. Let the Ziploc sit for 5 minutes +/- then place PID wand into Ziploc bag, being careful not to contact soil with PID probe.
5. Record highest sustained reading in field logbook or on soil boring log.

A.3 SOP 3: FIELD INSTRUMENT CALIBRATIONS

A.3.1 CALIBRATION FREQUENCY FOR FIELD EQUIPMENT

Field equipment used for on-site measurements will be calibrated in accordance with the manufacturer's specification before and after field use each day, or at a frequency recommended by the equipment manufacturer or industry practice. If any screening or test device requiring calibration cannot immediately be removed from service, the Project Manager may extend the calibration cycle, providing a review of the equipment's history warrants the issuance of an extension. No equipment will be extended more than twice per calibration cycle, nor will the extension exceed one-half the prescribed calibration cycle.

All calibration information will be recorded in the site logbook or Daily Report. This includes the instrument's make, model, serial number, condition, and all adjustments made during calibration of the instrument.

A.4 SOP 4: SAMPLE PACKING AND SHIPPING**A.4.1 REQUIRED EQUIPMENT**

1. Sampling and Analysis Plan (SAP)
2. Indelible black-ink pens
3. Site logbook/ Daily Field Report blanks
4. Ziploc bags
5. Coolers
6. Blue Ice (or equivalent)
7. Strapping tape or duct tape
8. Vermiculite (or equivalent)
9. Sample Logs
10. Sample labels
11. Chain-of-custody forms

A.4.2 TYPICAL PROCEDURES

Note: Before packing, all samples will be individually labeled and noted in the site logbook or Daily Field Report. Labels will be completed with all required information. The samples will be assigned individual numbers. At a minimum the label will have Project Name/No., date, time, sample number, designation if duplicate, and initials of field personnel taking the sample. The labels should be prepared in advance to expedite getting the samples into the cooler. The sample numbers will be used to complete the chain-of-custody forms.

Samples to be hand-delivered to the laboratory:

1. Attach sampling label and custody seals (if necessary) on each sample.
2. Place each sample in a Ziploc bag and align the label so it can be easily read. Seal the bag.
3. Place individual samples into the cooler lined with a larger heavy duty plastic garbage bag so that each container is safely secured.
4. Include three or more (sufficient) Blue Ice packs (or equivalent) to maintain a low temperature environment (approximately 4°C or less). These should be added the night prior to sampling or early on the day of sampling. Blue Ice packs should not be in contact with the sample containers.
5. Prepare a chain-of-custody form for the containers and seal in a Ziploc bag. Place the chain-of-custody form in the cooler. Always transport the cooler with its accompanying chain-of-custody form together.

Samples to be shipped to the Laboratory:

1. Place each sample in a Ziploc bag and align the label so it can be easily read. Seal the bag.
2. Place individual samples into the cooler so that each container has some clearance on all sides.
3. Fill void space with vermiculite or equivalent low-density packing material.
4. Cover the head space inside the cooler with frozen Blue Ice packs (or equivalent).
5. Place the chain-of-custody form in a sealed Ziploc bag and place it in the cooler.
6. Close and latch the cooler. Wrap the cooler and lid with at least two turns of strapping or duct tape. Affix signed custody seals over the edge of the lid and the top of the cooler body at front and rear.
7. Label coolers with up arrows and information to comply with Department of Transportation (DOT) requirements.
8. The HAI geologist will notify the laboratory approximately when and how many samples will arrive. The samples must be kept under refrigeration (or packed with Blue Ice or equivalent) between sampling and analysis processing. The sample containers will be checked on arrival at the laboratory for damage.

A.5 SOP 5: SAMPLING EQUIPMENT DECONTAMINATION**A.5.1 REQUIRED EQUIPMENT**

1. Tap water
2. Deionized water
3. Laboratory-grade detergent (i.e., Alconox or equivalent)
4. 5-gallon buckets, or other appropriate container
5. Scrub brushes
6. Plastic garbage can
7. Methanol
8. Dilute nitric acid (if metals analysis will be conducted)
9. Hexane (if pesticide or PCB analysis will be conducted)
10. Plastic sheeting
11. Sprayers (garden or hand)

A.5.2 TYPICAL PROCEDURE**A.5.2.1 Preparation**

1. Set up decontamination area on plastic sheeting.
2. Set up “clean” area upwind of decontamination area for air drying of equipment.
3. Fill one 5-gallon “wash” bucket with detergent and tap water.
4. Fill spray bottles with tap water, deionized water, and applicable solvents.

A.5.2.2 Decontamination of Sampling Equipment

1. Remove gross contamination from sampling equipment.
2. Wash equipment with tap water/detergent solution.
3. Rinse equipment twice with tap water.
4. Rinse equipment with deionized water (sprayer).
5. Air dry.
6. Place disposable items (sampling gloves, paper towels, etc.) in garbage bag.

A.6 SOP 6: INVESTIGATION-DERIVED WASTE HANDLING**A.6.1 REQUIRED EQUIPMENT**

- 55-gallon drums
- Paint markers
- Tools
- Ziploc bag
- Drum labels

A.6.2 SOLID WASTE HANDLING

1. Solid wastes needing to be containerized will be placed in 55-gallon drums or other approved containers. Solid residues known to be from a contaminated area should not be combined with other residues.
2. After proper decontamination, protective clothing and used disposable sampling equipment should be drummed together and separated from other waste types. Protective clothing and disposable sampling equipment should be collected daily and placed in a dedicated drum for this waste type. Personal protective equipment that does not come in contact with contaminated media can be disposed of (except footwear) along with domestic waste. However, disposable footwear should always be containerized in drums for proper disposal.
3. All filled or partially filled drums must be properly closed, sealed, labeled, and staged before demobilization. If storage is anticipated in excess of 2 weeks, the drums should be covered with a wind/rain resistant cover, such as a plastic or polyethylene tarp. **The waste must be removed within 90 days of waste generation.**

APPENDIX B

**APPENDIX B
SITE-SPECIFIC HEALTH AND SAFETY PLAN
MOJAVE SOLAR PROJECT
ALPHA EAST LAND TREATMENT UNIT**

**In an Emergency Call
Mojave Solar Control
Room (760) 308-0400; If
Not Available Call Mojave
Compliance Manager (760)
308-0385; If Not Available
Dial **911****

Submission to the Agencies

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Attachment B-3	Daily Meeting Log
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1.0 INTRODUCTION

1.1 GENERAL

This Site-specific Health & Safety Plan (HASP) has been prepared by Hushmand Associates, Inc. (HAI) for personnel performing project-specific activities associated with the Mojave Solar Alpha East Land Treatment Unit, referred to herein as the “Project”. The Project is located the Mojave Solar facilities 42134 Harper Lake Road, Hinckley, California.

This plan addresses specific health and safety requirements for field personnel during the field investigation activities. The work to be completed is described in the Sampling and Analysis Plan to which this HASP is appended. All field staff must understand and adhere to the requirements of this HASP. Acknowledgement that personnel are aware of this plan and its contents will be documented by signing the HASP Acknowledgement Form located in Attachment B-1. This HASP has been prepared in accordance with the California Code of Regulations (CCR), Title 8, Section 5192, and the Occupational Safety and Health Administration (OSHA) Standards, Code of Federal Regulations (CFR) Section 1910.120.

1.2 SCOPE OF EXPLORATIONS

Analytical results on samples from existing sample ports at the Alpha East LTU have indicated detected concentrations of Biphenyl (CAS NO. 92-52-4), and Diphenyl Ether (CAS No. 101-84-8). Due to these detections, a Corrective Action Plan (CAP) is required to submit to the agencies. To develop the CAP additional information is needed on the nature and extent of the contamination. To accomplish this, borings are to be completed to obtain soil and soil gas samples from the subsurface at the Alpha East LTU.

2.0 ORGANIZATION AND RESPONSIBILITIES

HAI expects its employees and subcontractor employees to follow the policies and procedures set forth in this document and in the HAI company health and safety program. Employees at all levels of the organization are covered by this requirement and shall not disregard and/or alter policies or procedures herein. In certain cases, deviations to a policy or procedure may be appropriate, but any changes must be justifiable and documented. Changes to this document and HAI health and safety program will only be made with prior approval of the Site Safety Officer (SSO).

The health and safety goal on this project, as on all HAI projects, is to experience **zero injuries** and to remain in full compliance with applicable federal, state, and local health and safety requirements. Accountability for employee health and safety on this project is defined in the following sections. The following identifies the responsible personnel for Health and Safety:

Site Safety Officer

Barzin Sharifi, MS, EIT

- Responsible for all onsite Health and Safety Plan implementation;
- Establishes restricted work zone and decontamination zone at each boring site and delineates each with cones, caution tape and signs;
- Conducts and documents daily onsite Health and Safety briefings;
- Performs work area and breathing zone monitoring with organic vapor analyzer (PID or FID);

- Supervises actions taken onsite related to HASP issues (e.g., exceedance of VOC trigger level and actions taken) and prepares field memorandum to report the issue and actions taken; and
- Reports immediately to CIH and Project Manager any HASP related issue, actions taken and consults with CIH if further action may be needed.

Project Manager/Assistant Manager**Ben Hushmand, PhD, PE/ Santosh Bhattarai, MS, PE**

- Prepares scope of work and supervises implementation;
- Consults with HSO and SSO on any activity or change of activity or location with potential impacts to HASP and/or HASP implementation;
- Communicates directly to the client regarding field work progress and Health and Safety issues;
- Reviews all QC and implements project QA including review of laboratory QA/QC; and
- Supervises and reviews all data screening, data validation and report preparation.

More detail is provided in the next subsections. All personnel conducting work activities on site must have 40-hr and 8-hr refresher training compliant with Cal-OSHA requirements for hazardous waste site work and be under a medical surveillance program.

2.1 PROJECT MANAGER

The Project Manager (PM) has the ultimate responsibility to ensure that the project conforms to contract specifications and that all project activities are conducted safely. The PM can order field activities to be suspended if he/she feels that the project may be jeopardized by not doing so. The PM has the responsibility of coordinating the work with Mojave Solar and regulatory agencies.

2.2 SITE SAFETY OFFICER/FIELD REPRESENTATIVE

The Site Safety Officer (SSO), who may also be HAI field representative on site, is responsible for implementing the HASP during the project field tasks. Items that may be implemented for this project include verifying health and safety qualifications of site personnel; obtaining and maintaining documentation of training, monitoring, and site safety notes; enforcing the requirements of the HASP; and conducting site safety meetings. The SSO can order field activities be suspended due to health and safety deficiencies or concerns.

2.3 SUBCONTRACTORS

Only trained, experienced drilling and backhoe subcontractors, and associated field staff will be used for this project. All personnel on-site will be required to review and understand this HASP. Daily safety meetings will be held in which health and safety issues, such as site access and physical hazards, will be discussed. Subcontractors shall abide by the HASP and directions from the SSO on health and safety matters.

3.0 HAZARD EVALUATION ANALYSIS**3.1 GENERAL**

Because this is a geotechnical/environmental project, the primary hazards associated with the fieldwork are physical and chemical hazards. There is some potential for exposure to soils contaminated with

Biphenyl (CAS NO. 92-52-4), and Diphenyl Ether (CAS No. 101-84-8), chemicals in Therminol VP1 Heat Transfer Fluid used for site operations and treated by bioremediation in the LTU. The Anticipated physical and chemical hazards associated with this project are summarized in Table B-1, Hazard Evaluation Analysis and discussed further in this HASP. Many hazards are common to each task to be conducted during the project and are addressed in Standard Operating Procedures section of this document (HASP).

Table B-1. Hazard Evaluation Analysis

Description of Task	Potential Hazard	Prevention
Drilling	1. Crushed feet from equipment	- Use steel-toed boots. - Stand in areas outside of auger placement.
	2. Head injury	- Wear hard hat. - Watch for overhead objects including augers and swing equipment. - Stay out of fall zone.
	3. Buried utilities	- Review Mojave Solar utility maps. - Verify locations of markings. - Utilize USA Alert services where applicable. - Hand auger upper 5 ft at each boring location prior to HSA drilling. - Note pavement cuts, drains and location of surface utilities.
	4. Noise	Noise levels of the HAS drill rig are low and typically do not create a noise hazard. If necessary, the drilling crew and geologist will wear hearing protection.
	5. Explosion of Hydrocarbon Vapors	- Monitor VOC level at boring lip and stop drilling if trigger is exceeded. - No smoking allowed in work areas.
	6. Vapor inhalation	Monitor breathing space with PID, if trigger level is exceeded stop drilling until clears or don full face organic vapor respirator.
	7. Potential public exposure to chemicals	- Restrict access to work areas. - Perform monitoring of VOCs in the work area and breathing zone and take designated mitigation actions.

Description of Task	Potential Hazard	Prevention
	8. Worker exposure to Biphenyl (CAS NO. 92-52-4), and Diphenyl Ether (CAS No. 101-84-8) and heavy metals through digestion and/or skin contact	- Use protective gloves and clothing, including Nitrile-based gloves when handling samples. - No eating or smoking in designated work areas.
Sampling –Soil	1. Finger pinch 2. Vapor inhalation, skin contact, splash in eye, digestion	- Use protective gloves and clothing, including Nitrile-based gloves, when handling samples. - Monitor breathing space with PID, if trigger level is exceeded stop drilling until clears or don full face organic vapor respirator. - Wear eye protection goggles. - No eating or smoking in designated work areas.
Surface Logging	1. Vapor inhalation 2. Dermatitis & skin irritation	- Monitor breathing space with PID. - Use protective gloves and clothing, including Nitrile-based, when handling samples.
Lifting	1. Back strain	- Use proper lifting techniques. - Stretch previous to starting work shift. - Wear back brace to promote proper posture. - Lift with legs. - Ask for help if the load is beyond capabilities or heavier than 50 lbs.
Work Zone Movements	1. Vehicle traffic	- Observe traffic patterns prior to work. Set up cones to create safe zone around equipment.* - Walk on sidewalk side of equipment, if possible.
	2. Slip, Trip, Fall	Complete initial site walk noting obstructions near boreholes.

3.2 PHYSICAL HAZARDS

Major hazards associated with this project include working on or near operating drill rigs and slip/trip/fall during geologic mapping. Operating drill rigs expose workers to high noise levels, heavy objects and moving machinery. Workers may also be exposed to falling objects, tripping hazards, exposure to hot or cold weather and the need to lift and carry heavy objects. Workers involved in drilling and trenching in

areas of developed properties should also be aware of the possible presence of buried utility lines. The physical risks are listed below:

- Crush Hazard
- Pinching Hazard
- Moving Machinery
- Buried Utilities
- Traffic
- Falling Objects
- Slip, Trip, Fall
- Noise
- Weather

Many of these hazards are discussed below in greater detail. HAI employees and their subcontractors shall wear modified Level D PPE while on site. Each will carry onsite the required respirator should it be necessary to use it based on VOC conditions and work requirements.

3.2.1 Drilling Operations

Heavy equipment, such as drill rigs, present significant hazards to site personnel. The subcontractor responsible for drilling must enforce a safety program providing specific safety procedures. Site personnel and visitors must be aware of the various hazards associated with the operation of the drill rig. personnel should never stand beside, or to the rear of equipment, and should make sure to remain in the line-of-sight of the operator. Also, personnel should stay clear of any rotating equipment or swing zones.

3.2.2 Utilities and Electricity

Electrical safety will be of concern for those above ground activities using equipment or instrumentation that is powered by electricity or that is near the location of overhead electrical lines while drilling. Electrical cords or plugs will be equipped with a ground-fault circuit interrupter. The **drill rig mast/derrick must be always kept a minimum of 15 feet from overhead electrical lines**. Further details regarding standard procedures for work around electric lines are in the Standard Operating Procedures section.

For subsurface work, **underground utilities/cables must be identified and marked**, if applicable, by site personnel knowledgeable about the existence of such utilities prior to the commencement of drilling. This is to be accomplished for this project by 1) review of utility maps from Mojave Solar 2) use the services of USA Alert where applicable, and 3) hand auguring the upper 5 ft. depth at each deep boring location prior to beginning the HSA drill.

3.2.3 Slips/Trips/Falls

While working, care must be taken when moving around the project site. It is likely that there are changes in elevation such as ruts or holes in the ground, broken pavement, berms, edges, etc. Site personnel should be aware of their surroundings on-site to reduce the potential for slip, trip, and fall hazards. **One way to increase awareness of any potential trip and fall hazards may be to mark them with a bright flag or marker.**

3.2.4 Lifting

The use of some field equipment may involve heavy lifting. To assure personnel safety, the following lifting guidelines will be employed at the site:

- Use two individuals to lift heavy objects.
- Assure steady footing when lifting the load.
- Remind workers to spread their feet no wider than the width of their shoulders when lifting.
- Use only one person to give commands when teams are lifting.
- Lift with legs rather than the back.

3.2.5 Drilling Operations

Heavy equipment, such as drill rigs, present significant hazards to site personnel. The subcontractor responsible for drilling must enforce a safety program providing specific safety procedures. Site personnel and visitors must be aware of the various hazards associated with the operation of the drill rig. Specifically, personnel should never stand besides, or to the rear of equipment, and should make sure to remain in the line-of-sight of the operator. Also, personnel should stay clear of any rotating equipment or swing zones.

3.3 CHEMICAL HAZARDS

There is some potential for exposure to soils contaminated with Biphenyl (CAS NO. 92-52-4), and Diphenyl Ether (CAS No. 101-84-8) during drilling and sampling activities of the exploration program. The manufacture's Safety Data Sheet for Therminol VP1 is included as Attachment B-2. Also, some southern California soils contain high concentrations of naturally occurring heavy metals (e.g. lead, arsenic, copper etc.). The hazards are reduced by limiting dust-generating activities and by protecting against skin contact with product or contaminated sediment. Thus, personnel will wear modified Level D Personal Protective Equipment (PPE) including Nitrile-based gloves to reduce contact with potential contaminants.

3.3.1 Heavy Metals

Heavy metals can produce a wide variety of harmful effects and symptoms in the human body. Based on the field activities that are planned for this project, there is a likelihood of elevated, airborne, heavy metals concentrations, particularly lead from aerially distributed lead from the long-term traffic on the roadway. Heavy metals may be transported via dust particles. Whenever possible, personnel will position themselves upwind of the exploratory activities as an extra precautionary measure. Watering of the ground surface may also be implemented to reduce dust. It is possible that skin contact will present a slight health threat. Therefore, personnel will be protected from skin contact with potentially contaminated sediments by wearing Nitrile work gloves.

3.3.2 Volatile Organic Compounds

Although the potential for exposure to VOC vapors is considered low, there is the possibility that inhalation health threat or direct contact threat may exist with respect to hydrocarbon and other VOC-contaminated soil and/or vapors during the sampling activities. Routine air monitoring will be performed during the field exploration program and workers should be aware of the potential hazard. The monitoring will have a set trigger of 50 ppm for VOCs an alarm will be sounded if the trigger is exceeded. All workers will move upwind of the drilling operations, notify the SSO and PM and note air monitoring results with

the photoionization detector (PID). Field staff will wear modified Level D PPE to prevent skin or eye contact with potential contaminants. Also, smoking, which can exacerbate inhalation of VOCs, will not be allowed within 20 feet of the work zones.

Although considered to be low, the primary risk of exposure on this project is through skin contact with contaminated sediments. **Nitrile work gloves** will be worn to prevent skin contact with potential SVOC contaminants. The likelihood of elevated levels of airborne SVOCs is low, as most SVOCs have a low volatility. As SVOCs are sometimes associated with VOCs in air, routine air monitoring of VOCs will be conducted. If the VOC trigger level of 50 ppm is exceeded the work will stop and all workers will move upwind of the area and wait until the VOCs clear. Field staff will wear modified Level D PPE to prevent skin or eye contact with potential contaminants.

4.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

4.1 EMPLOYEE CLEARANCE AND SITE SAFETY MEETINGS

Each employee assigned to the fieldwork described in this HASP must be:

- (1) given a personal copy of this HASP by the SSO;
- (2) briefed on the health and safety requirements of this HASP by the SSO; and
- (3) Must acknowledge receipt of and willingness to comply with the provisions of the HASP by signing the attached acknowledgement agreement. Individuals refusing to sign the agreement will not be permitted to conduct field work for this project.

Completed agreements shall be provided to the HSO. Completing the above three items provide an employee with the necessary clearance to perform fieldwork for the project.

Regular daily briefings (tailgate safety sessions) will be conducted by the SSO or their designated representative. The tailgate sessions will review the safety requirements set forth in this HASP. The session will also provide a forum for field personnel to discuss any additional safety issues and provide recommendations for changes in procedures and updating this HASP. Each tailgate session shall be documented using the form provided in Attachment B-3.

4.2 INCIDENT REPORTING

If an incident relating to worker health and safety, such as an accident, illness, or unexpected chemical exposure occurs at the project, the Project Manager (PM) or SSO must report the incident to the Corporate Health and Safety Officer using **the accident/incident form** (see Attachment B-4). This form defines the types of incidents which must be reported and the time frame within which these reports must be made. The SSO shall immediately contact Mojave Solar in the event of any accident or health and safety incident.

4.3 PROHIBITED ON-SITE ACTIVITIES

The following are prohibited on-site activities:

- Operating motor vehicles without a valid driver's license;
- Operating a motor vehicle after consuming alcohol or other controlled substance; and
- Smoking while operating equipment, within a 20 foot radius of the borehole, or anytime hazardous vapors are suspected.

5.0 SITE SPECIFIC HEALTH AND SAFETY REQUIREMENTS

5.1 SPECIAL TRAINING

Field personnel involved in collecting samples for environmental analysis will have a current 40-hour Hazardous Materials Safety Course Certificate [OSHA 1910.120(e) (8)] and certificate of having completed the annual 8-hour refresher training. The documentation will be provided to the HSO prior to commencement of the work or prior to a different worker coming to the site (e.g., replacement due to illness or family emergency).

5.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

To protect personnel from potential site health and safety hazards, minimum PPE requirements have been established. These requirements do not preclude the need to conduct air monitoring, nor do they preclude the need to amend PPE requirements as conditions warrant. Any amendment to the minimum PPE requirements must first be approved by the SSO and PM. Site personnel, at their own discretion, may increase, but not decrease, the degree of respiratory protection and PPE used.

5.3 PERSONAL PROTECTIVE EQUIPMENT DESIGNATIONS

The minimum PPE requirements depend on the specific type of activity being performed. These PPE requirements are identified using designations similar to those defined by the Environmental Protection Agency (EPA) as EPA Level A, EPA Level B, EPA Level C, and EPA Level D. EPA Level A, B, or C is not anticipated for the current scope of work. A slight deviation from EPA's Level D will be used during drilling and sampling activities; therefore, the term "modified" shall be used. PPE shall meet the current American National Standards Institute (ANSI) standards.

5.4 MODIFIED LEVEL D PPE REQUIREMENTS

Work uniform or at a minimum long pants and long sleeve shirt shall be worn by field staff. Additionally, the following PPE are required in the field:

- Steel-toed boots
- Work gloves
- Hearing protection (when required)
- Hard-hat
- Safety glasses
- High visibility traffic vest

As indicated previously, there is a potential for exposure to hazardous waste/materials during the course of this project. The primary hazards associated with the drilling operations are potential contaminant exposure, and various physical hazards. With the use of appropriate PPE, air monitoring equipment, awareness, and first aid/emergency response equipment, these hazards should be kept to a minimum.

5.5 DRILLING AND SOIL SAMPLING ACTIVITIES

Drilling, soil sampling activities will be performed with a minimum PPE requirement of Modified Level D. If PID measurements indicate readings above the **action levels specified in Table A-2**, an upgrade to Modified Level C may be required. Appropriate decontamination of equipment, tools, and personnel prior to leaving the Exclusion Zone will be performed to reduce the potential for cross contamination. In the

event that unusual soil or waste material is identified during drilling or actionable atmospheric monitoring concentrations are detected, Mojave Solar shall be notified, and work is to stop until the SSO and PM determine it is safe and appropriate to proceed. In the event drilling activities are not completed at shift's end, the boring will be covered with a traffic-rated steel plate or $\frac{3}{4}$ " plywood sheet with the bucket or auger placed on the cover to prevent removal. Removal of the plate should be performed with non-sparking attachment devices if the presence of gas or other combustibles is suspected.

5.6 SITE VISIT/SITE SURVEY

A minimum of modified Level D PPE will be required for any personnel in the work areas during site visits.

5.7 DECONTAMINATION ACTIVITIES

The minimum level of PPE required for personnel performing decontamination activities is Level D. If a change in site conditions warrants personnel to don higher than Level D PPE, the same level of PPE will be donned during decontamination activities.

6.0 WORK ZONE AIR MONITORING AND PERSONAL MONITORING

6.1 WORK ZONE AIR MONITORING

Exclusion zone and location-specific (over the borehole) monitoring will be routinely performed during the drilling activities, due to the potential for airborne vapor hazards. The air monitoring equipment shall be calibrated in accordance with the manufacturer's guidelines on a daily basis prior to the start of that day's field activities.

Monitoring of the air within the work zone should be performed routinely during above ground drilling activities. However, if at any time airborne concentrations are detected above the action levels, monitoring frequency will be increased. If sustained elevated levels are detected by the meter(s), workers will either evacuate the area for a sufficient period of time to allow the concentrations to return to normal, or the decision to upgrade the level of PPE will be made. If actionable concentrations of monitored gases are identified and do not return to normal concentrations within a reasonable amount of time, evacuate and secure the area, the area will be evacuated and secured, and the HSO/CIH, PM, and the City will be immediately notified.

There is a low potential that contaminants present in the sediments could pose an airborne particulate concern. However, efforts will be taken to minimize the visible dust generated during the project. As long as there are no visible dust emissions, perimeter dust monitoring will not be performed.

6.2 PERSONAL EXPOSURE MONITORING

No personal exposure monitoring will be performed during the drilling and sampling activities on this project. If new information concerning the presence of contamination is discovered during these activities, the HASP will be revised, and depending on the type and frequency of contaminants identified, personal exposure monitoring may be implemented.

Table B-2. Action Levels

Constituent	Action Level	Action
Volatiles (PID)	50 ppm	Clear Drilling Area by 20 feet minimum upwind. Retest site after 2 minutes.

7.0 STANDARD OPERATING PROCEDURES

The standard operating procedures (SOPs) in this section describe the required actions common to the project. These SOPs describe precautions or procedures that are required of personnel involved in any of the field activities.

7.1 SITE GUIDELINES

The following are general guidelines, which shall be followed during all on-site field activities:

- If the PID meter detects elevated levels VOC gas during the field activities, the work shall stop, and all field staff will move up wind of the location until either the levels have decreased to normal (relative to the background reading obtained prior to the start of the project) or alternative engineering or administrative controls have been implemented to lower the levels.
- Maintain line-of-sight with the drill rig operator during drilling operations.
- Personnel shall be properly trained in accordance with federal and state regulations and copies of the applicable training certificates should be present at the job site.
- Personnel shall wear the proper PPE selected for each work task.

All PPE shall be inspected prior to and after wearing. Any defective or damaged PPE shall be tagged as prohibited for use and removed from the site for either repair by an authorized person or destroyed.

- No contaminated tools or sampling equipment are allowed outside the immediate work area.
- No eating, drinking, chewing of tobacco, or smoking in areas that are suspected of being contaminated.
- In the event PPE is ripped or torn, remove the damaged PPE from the site and replace as soon as possible.
- Be alert to any unusual changes in your own condition; never ignore warning signs.
- IMMEDIATELY notify the PM or HSO of any accidents or near misses.
- Be familiar with the site's emergency response procedures and routes of escape.

- Always note the wind direction. Personnel shall remain upwind whenever possible during on-site activities.
- Never climb over or under obstacles that would endanger you or others.
- Hands and face should be thoroughly washed before eating, drinking, or using the restrooms.

7.2 CONFINED SPACE ENTRY

The planned work activities for this project will NOT involve entry into confined spaces.

7.3 FALL PROTECTION

The planned work activities for this project will not require the use of fall protection equipment.

7.4 ELECTRICAL SAFETY

Overhead power lines, downed electrical wires, and buried cables all pose a danger of shock or electrocution if personnel or equipment contact them during site operations. Utility locating activities, electrical equipment used on site, and lightning may also pose a hazard to site personnel. The following procedures have been developed to reduce these potential electrical hazards.

- Low-voltage equipment with ground-fault circuit interrupters and watertight, corrosion resistant connecting cable should be used on site.
- Electrical cords should be inspected for wear daily.
- Electrical cords should be placed so that heavy equipment or repetitive wear is avoided.
- Weather conditions should be monitored, and work should be suspended during electrical storms. Equipment operation should be halted, and personnel are to maintain at least a 20-foot distance from equipment in the event of a lightning storm.
- During drilling and trenching activities, the equipment will be separated by at least 15 feet from any overhead power transmission lines.
- To prevent contact with buried utility lines, the PM or his/her designee must contact local representatives of the telephone, electric, gas companies and other buried utilities to have buried lines located and marked. All contact with utility representatives must be documented.

7.5 ILLUMINATION

Night work is not anticipated during this project. However, the following procedures should be implemented if work is extended into the night. The work area and support zones shall be illuminated with a minimum of 5 foot-candles of artificial light. Locker rooms, restrooms, and changing areas shall have a minimum of 10 foot-candles of light.

7.6 MOTORIZED EQUIPMENT

Motorized equipment includes drill rigs, backhoes, trucks, and automobiles. It is important to remember that the load being handled, dusty conditions, complicated terrain or other equipment may obscure the operator's visibility. The following procedures have been developed to reduce and/or eliminate these potential hazards.

- Site personnel must make their presence known.

- Back-up alarms are required on all equipment, per OSHA requirements in 29 Code of Federal Regulations (CFR) 1926.602(a) (9).
- Operators must stay in moving equipment and wait until it stops before getting off.
- Personnel must be aware of rotating equipment. Do not wear loose clothing or jewelry. Tie long hair back.
- Observe traffic patterns and stay out of the way (minimum of 3-foot distance from the perimeter of the traffic control zone must be maintained at all times). Drill rigs and employee vehicles should be marked with orange traffic cones.

Assure equipment is in working order. Equipment will be checked daily as per OSHA requirements in 29 CFR 1926.601(b) (14).

7.7 PEDESTRIAN TRAFFIC CONTROL

The work covered by this HASP will take place in an area where pedestrian traffic is not anticipated. Staff should be aware of persons approaching the rig. Safety tape should be erected around the drill rig working area if necessary.

8.0 PERSONAL DECONTAMINATION

As there is potential for contact with contaminants or hazardous materials/wastes, the following decontamination steps should be followed.

- Step 1: Scrub boots with soap and water, or remove outer boot covers.
- Step 2: Remove hard-hat and wipe clean.
- Step 3: Remove gloves or any other clothing that was in contact with the contaminated media, place inside doubled, heavy-duty garbage bags or steel drums for proper disposal.
- Step 4: Depart the work area.
- Step 5: Wash hands, face, and neck before breaks and lunch.

Drilling and sampling equipment decontamination procedures are described in the SOPs included in Appendix A.

9.0 EMERGENCY RESPONSE AND ACCIDENT PREVENTION

In the event of an emergency, personnel shall move to an area clear of the drilling rig. The SSO will evaluate the nature of the injury or emergency and will determine the appropriate actions to take. As soon as possible, the PM will be notified. First aid treatment other than for minor cuts or abrasions should be administered by the medical staff located at the nearest hospital, i.e. Barstow Community Hospital

555 S 7th Ave, Barstow, CA 92311(760) 256-1761 or by emergency response personnel. **See Attachment B-5 for a map showing the location of the nearest hospital in the project area. Police, fire, or medical assistance can be summoned by calling 911.** Each HAI employee shall have a cellular phone on their person while working on site.

9.1 EMERGENCY EQUIPMENT

Emergency equipment including first aid kits will be located in the employee's vehicle. The equipment will be readily available in the event of an accident and all site personnel will be aware of its location prior to the start of work.

- First aid kit with enough supplies adequate for the number of site personnel.
- A mobile telephone.

9.2 CONTACTS

The personnel listed in Table B3 are the primary points of contact for health and safety related matters at the site. These personnel are also the points of contact to be notified in the event of an accident or incident.

Table B-3. Site Contacts

Title/Contact	Name	Telephone
Mojave Solar Project Manager	Mahnaz Ghamati	O: 760-308-0418 C: 760-498-0549
HAI Project Manager Assistant Project Manager	Ben Hushmand, PhD, PE Santosh Bhattarai, MS, PE	O: 949-777-1266 O: 949-777-1273
HAI Health and Safety Manager	Arash Hushmand	O: 949-777-1266 C: 949-394-8942
HAI Field Geologist/SSO	Barzin Sharifi	O: 949-777-1266 C: 949-874-8585

9.3 ACCIDENT/INCIDENT REPORTING

Accidents and/or near-miss incidents shall be reported, treated, investigated, and mitigated as soon as possible. Accidents or near-miss incidents that occur on site will be reported immediately to the PM. The HSO will investigate the accident or near miss incident and complete the Accident/Incident Field Report Form located in Attachment B-5. The cause shall be removed from site or isolated/demarcated to reduce the hazard(s) and the chance of a reoccurring accident or near-miss incident. The SSO will notify the PM within 24 hours of an accident or near miss incident.

10.0 TRAINING

It is HAI policy to require all personnel on site to have completed the applicable training for the tasks to be performed as required by the applicable OSHA Regulations. All personnel entering the site shall receive site-specific Hazard Communication training and shall be familiar with this HASP. Site-specific training shall include at least:

- the description of chemical and physical hazards associated with the project;

- site control, monitoring, and standard operating procedures that are applicable to the project;
- location of emergency response equipment;
- accident/incident procedures; and
- The location of the nearest hospital.

Acknowledgement of these requirements shall be documented by signing the Acknowledgement Form located in Attachment B-1. Personnel operating heavy equipment (drill rig) shall be properly trained and shall provide proof of this training, if requested and records are available. Training requirements for site personnel will be reviewed by the PM to assure compliance with this HASP.

An initial (pre-entry) safety meeting will be held prior to the start of on-site work. This safety meeting will be documented on the Daily Meeting (Attachment B-2), and any questions about the HASP will be answered. In addition, the pre-entry safety meeting will review site safety rules and prohibitions, the location of emergency equipment such as eye wash stations and fire extinguishers, escape routes, accident reporting, directions to the nearest medical facilities, how to summon medical assistance, and PPE requirements for the specific tasks. This safety training should enable site personnel to perform their work in a safe manner.

Safety meetings will be held daily at the beginning of each shift. These meetings are conducted to review pertinent aspects of site operations and to establish safe working procedures for those operations. All field staff will be required to sign the Daily Meeting Log in Attachment B-2 or in the field logbook. If determined necessary, additional safety meetings will be held to address deficiencies noted or procedural improvements that could be made based on the previous day's activities. All safety meetings will be documented.

11.0 MEDICAL SURVEILLANCE AND RECORDKEEPING

All workers on site will currently be under a medical surveillance program which involves annual physical including blood tests, respiratory capability to wear respirator, and special examination and testing if they have had a prior exposure. Documentation of the status of each workers program will be provided to the HSO prior to commencement of the onsite work.

The safety and health-related records or logs that are required to be maintained for personnel working at the site include:

- Pertinent training records for all personnel.
- Accident/Incident reports.
- Employee/visitor register (may be part of logbook).
- SSO field and safety meeting notes and site inspection records.
- Environmental and employee exposure monitoring records (if required).

Questions regarding this Health and Safety Plan should be referred to Ben Hushmand, PhD, PE.

ATTACHMENT B-1
SITE-SPECIFIC HEALTH & SAFETY ACKNOWLEDGEMENT FORM

SITE-SPECIFIC HEALTH & SAFETY ACKNOWLEDGEMENT FORM

I have read the Site-Specific Health & Safety Plan and understand the hazards, precautions required, and responsibilities involved in working at this site.

[illegible]

ATTACHMENT B-2

SAFETY DATA SHEET THREMINOL VP1

Therminol® VP1 Heat Transfer Fluid

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SECTION 1. IDENTIFICATION

Product name : Therminol® VP1 Heat Transfer Fluid

Product code : 34152-00, P3415203, P3415202, P3415200, E3415201

Manufacturer or supplier's details

Company name of supplier : Eastman Chemical Company

Address : 200 South Wilcox Drive
Kingsport TN 37660-5280

Telephone : (423) 229-2000

Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use

Recommended use : Heat transfer fluids

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Inhalation) : Category 4

Skin irritation : Category 2

Specific target organ toxicity : Category 3 (Respiratory system)
- single exposure

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary Statements : **Prevention:**

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P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Components**

Chemical name	CAS-No.	Concentration (% w/w)
diphenyl oxide	101-84-8	>= 70 - < 90
Biphenyl; diphenyl	92-52-4	>= 20 - < 30

Eastman is committed to the safety, health and environment of our employees, our customers, and the communities we operate within. As part of this commitment, Eastman's Safety Data Sheets (SDS) are prepared in accordance with all applicable national and local regulations. The compositions of our documents reflect these requirements which include, but are not limited to, requirements under the Globally Harmonized System of Classification and Labeling (GHS). These compositions commonly involve the use of ranges versus specific analytical values. If you require a composition that is more specific, please refer to the Certificate of Analysis, sales specification, or contact your Customer Service Representative.

SECTION 4. FIRST AID MEASURES

If inhaled	: Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. Consult a physician if necessary.
In case of skin contact	: Wash off immediately with soap and plenty of water while

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removing all contaminated clothes and shoes.
If skin irritation occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	:	IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	Causes skin irritation. May cause respiratory irritation. The molten product can cause serious burns. Harmful if inhaled.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Carbon dioxide (CO2) Dry chemical Foam
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire.
Hazardous combustion products	:	Hazardous decomposition products due to incomplete combustion Carbon oxides
Further information	:	Use a water spray to cool fully closed containers. Do not allow run-off from fire fighting to enter drains or water courses. This product is not classified as a fire-resistant heat transfer fluid. Precautions to avoid sources of ignitions should be taken.
Special protective equipment for fire-fighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Ventilate the area. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Avoid contact with skin and eyes. Material can create slippery conditions.
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Wear appropriate personal protective equipment.
Local authorities should be advised if significant spillages cannot be contained.

- Environmental precautions : Clear up spills immediately and dispose of waste safely.
Avoid release to the environment.
Collect spillage.
- Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Prevent runoff from entering drains, sewers, or streams.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapors or spray mist.
Handle product only in closed system or provide appropriate exhaust ventilation at machinery.
In case of insufficient ventilation, wear suitable respiratory equipment.
Keep away from flames and sparks.
Wear appropriate personal protective equipment.
Avoid contact with skin, eyes and clothing.
Wash thoroughly after handling.
Wash contaminated clothing before reuse.
Drain or remove substance from equipment prior to break-in or maintenance.
Handle in accordance with good industrial hygiene and safety practice.
- Conditions for safe storage : Store locked up.
Keep container tightly closed in a dry and well-ventilated place.
Keep in a cool place away from oxidizing agents.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
diphenyl oxide	101-84-8	TWA (Vapor)	1 ppm	ACGIH
		STEL (Vapor)	2 ppm	ACGIH
		TWA (Vapor)	1 ppm 7 mg/m3	NIOSH REL
		TWA (Vapor)	1 ppm 7 mg/m3	OSHA Z-1
		TWA (Vapor)	1 ppm 7 mg/m3	OSHA P0

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Biphenyl; diphenyl	92-52-4	TWA	0.2 ppm	ACGIH
		TWA	0.2 ppm 1 mg/m3	NIOSH REL
		TWA	0.2 ppm 1 mg/m3	OSHA Z-1
		TWA	0.2 ppm 1 mg/m3	OSHA P0

Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable.
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hand protection

Remarks : Wear suitable gloves. When handling hot material, use heat resistant gloves.

Eye protection : Wear safety glasses with side shields (or goggles).

Skin and body protection : Wear suitable protective clothing.

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : colorless

Odor : characteristic

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Odor Threshold	:	not determined
pH	:	not determined
Melting point/range	:	54 °F / 12 °C
Boiling point/boiling range	:	495 °F / 257 °C (1,013 hPa)
Flash point	:	230 °F / 110 °C Method: Pensky-Martens closed cup 255 °F / 124 °C Method: Cleveland open cup
Evaporation rate	:	not determined
Self-ignition	:	1150 °F / 621 °C Method: ASTM D2155
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	not determined
Relative vapor density	:	not determined
Relative density	:	1.06 (77 °F / 25 °C)
Density	:	1,060 kg/m ³ (77 °F / 25 °C)
Solubility(ies) Water solubility	:	0.025 g/l
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	not determined
Decomposition temperature	:	not determined
Viscosity Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	2.48 mm ² /s (104 °F / 40 °C) 0.99 mm ² /s (212 °F / 100 °C)
Explosive properties	:	Not classified

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Oxidizing properties : Not classified

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.

Conditions to avoid : Heating in air.
Keep away from flames and sparks.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Emits acid smoke and fumes when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Harmful if inhaled.

Product:

Acute oral toxicity : LD50 (Rat): 2,050 mg/kg
Assessment: May be harmful if swallowed.

Acute inhalation toxicity : LC50 (Rat, male and female): 2.66 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: Harmful if inhaled.

Acute dermal toxicity : LD50 Dermal (Rabbit): Assessment: Not classified

Components:**diphenyl oxide:**

Acute oral toxicity : LD50 Oral (Rat, female): 2,830 mg/kg

Acute inhalation toxicity : LC50: Test atmosphere: vapor
Remarks: No data available

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 7,940 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Species : Rabbit
Exposure time : 24 h

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Assessment : Causes skin irritation.
Result : slight

Components:**diphenyl oxide:**

Species : Rabbit
Exposure time : 4 h
Result : none

Biphenyl; diphenyl:

Species : Rabbit
Result : slight

Species : Humans
Assessment : Irritating to skin.
Result : strong

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No eye irritation
Exposure time : 24 h
Assessment : Not classified

Components:**diphenyl oxide:**

Species : Rabbit
Result : corneal opacity
Exposure time : 4 h
Assessment : irritating

Result : slight to moderate

Biphenyl; diphenyl:

Species : Rabbit
Result : slight irritation

Species : Humans
Result : strong
Assessment : Irritating to eyes.

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

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Respiratory sensitization

Not classified based on available information.

Product:

Remarks : No data available

Components:**diphenyl oxide:**

Test Type	: Skin Sensitization
Species	: Guinea pig
Assessment	: Not classified
Method	: OECD 406: Guinea pig sensitization
Result	: non-sensitizing

Test Type	: Human experience
Species	: Humans
Assessment	: Not classified
Method	: Human Repeat Insult Patch Test
Result	: non-sensitizing

Biphenyl; diphenyl:

Test Type	: OECD 406: Guinea pig sensitization
Species	: Guinea pig
Assessment	: Not classified
Result	: Does not cause skin sensitization.

Germ cell mutagenicity

Not classified based on available information.

Components:**diphenyl oxide:**

Genotoxicity in vitro	: Test Type: Salmonella typhimurium assay (Ames test)
	Metabolic activation: +/- activation
	Method: Bacterial Reverse Mutation Assay
	Result: negative

Test Type: Mutagenicity - Mammalian
Metabolic activation: +/- activation
Method: In vitro Mammalian Cell Gene Mutation Test
Result: negative

Test Type: Mutagenicity - Mammalian
Metabolic activation: +/- activation
Method: In vitro Mammalian Chromosome Aberration Test
Result: negative

Test Type: Mutagenicity - Mammalian
Metabolic activation: +/- activation
Method: OECD Guideline 482
Result: negative

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1.5	03/02/2023	150000093459	Date of first issue: 09/06/2016
PRD		SDSUS / Z8 / 0001	

Biphenyl; diphenyl:

Genotoxicity in vitro : Test Type: Salmonella typhimurium assay (Ames test)
Metabolic activation: +/- activation
Method: Bacterial Reverse Mutation Assay
Result: negative

Test Type: Mutagenicity - Mammalian
Metabolic activation: + activation
Method: In vitro Mammalian Cell Gene Mutation Test
Result: positive

Test Type: Chromosome aberration test in vitro
Metabolic activation: +/- activation
Method: In vitro Mammalian Chromosome Aberration Test
Result: negative

Test Type: Mutagenicity - Mammalian
Method: OECD Guideline 482
Result: negative

Genotoxicity in vivo : Species: Mouse (male and female)
Method: Mammalian Erythrocyte Micronucleus Test
Result: negative

Species: Rat (male)
Method: Mammalian Bone Marrow Chromosome Aberration Test
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**Biphenyl; diphenyl:**

Species : Rat, male and female
Application Route : Ingestion
Method : OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies
Remarks : Expert judgment
Not classified

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Remarks: No data available

Components:**diphenyl oxide:**

Reproductive toxicity - Assessment : Based on available data the classification criteria are not met.
Not classified as hazardous.

Biphenyl; diphenyl:

Effects on fetal development : Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 3,000 ppm
Embryo-fetal toxicity.: NOAEL: 8,000 ppm
Method: OECD Test Guideline 414

Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL: 500 mg/kg body weight
Embryo-fetal toxicity.: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 414

Reproductive toxicity - Assessment : Based on available data the classification criteria are not met.
Not classified as hazardous.

STOT-single exposure

May cause respiratory irritation.

Components:**diphenyl oxide:**

Routes of exposure : Inhalation
Assessment : Based on available data, the classification criteria are not met.

Biphenyl; diphenyl:

Routes of exposure : Inhalation
Target Organs : Respiratory system
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT-repeated exposure

Not classified based on available information.

Components:**diphenyl oxide:**

Assessment : Based on available data, the classification criteria are not met.

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Biphenyl; diphenyl:

Target Organs	: Kidney, Liver, Urinary bladder
Assessment	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity**Product:**

Species	: Rat, male and female
	: 0.051 mg/l
Application Route	: Inhalation study:
Exposure time	: 90 days

Species	: Rat
LOAEL	: 500 mg/l
Application Route	: by gavage

Components:**diphenyl oxide:**

Species	: Rat, male and female
NOAEL	: 301 mg/kg
Application Route	: Oral Study
Exposure time	: 90 days
Remarks	: (highest dose tested)

Species	: Rat, male and female
NOAEL	: 1000 mg/kg
Application Route	: Dermal Study
Exposure time	: 90 days
Remarks	: (highest dose tested)

Species	: Rat, male and female
NOAEL	: 139 mg/m ³
Application Route	: inhalation (vapor)
Exposure time	: 28 days
Remarks	: (highest dose tested)

Biphenyl; diphenyl:

Species	: Rat, male and female
NOAEL	: 39 mg/kg
Application Route	: in feed
Exposure time	: 2 year
Method	: OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies
Target Organs	: Blood, Kidney, Liver

Species	: Rabbit
NOAEL	: > 2,000 mg/kg
Application Route	: Dermal

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Exposure time : 28 days
Remarks : No significant adverse effects were reported

Aspiration toxicity

Not classified based on available information.

Product:

Not classified

Experience with human exposure**Product:**

Inhalation : Remarks: Harmful if inhaled.
May cause respiratory irritation.

Skin contact : Remarks: Causes skin irritation.

Eye contact : Remarks: None known.

Ingestion : Remarks: None known.

Further information**Product:**

Remarks : None known.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****diphenyl oxide:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): 1.7 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (algae)): 0.455 mg/l
plants Exposure time: 72 h

Biphenyl; diphenyl:

Toxicity to fish : EC50 (Pimephales promelas (fathead minnow)): 3 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.36 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (Chlorella pyrenoidosa): 1.3 mg/l

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plants Exposure time: 72 h

NOEC (Chlorella pyrenoidosa): 0.66 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.229 mg/l
Exposure time: 96 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.17 mg/l
Exposure time: 21 d

M-Factor (Chronic aquatic toxicity) : 1

Persistence and degradability**Product:**

Biodegradability : Remarks: No data available

Biochemical Oxygen Demand (BOD) : Remarks: No data available

Chemical Oxygen Demand (COD) : Remarks: No data available

BOD/COD : Remarks: No data available

Components:**diphenyl oxide:**

Biodegradability : Result: Readily biodegradable.
Method: Ready Biodegradability: Modified MITI Test (I)

Biochemical Oxygen Demand (BOD) : Remarks: No data available

Chemical Oxygen Demand (COD) : Remarks: No data available

Biphenyl; diphenyl:

Biodegradability : Result: Readily biodegradable.
Method: Ready Biodegradability: Modified MITI Test (I)

Bioaccumulative potential**Components:****diphenyl oxide:**

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Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 49 - 594
Method: OECD Test Guideline 305

Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 196

Biphenyl; diphenyl:

Bioaccumulation : Bioconcentration factor (BCF): 1,900

Mobility in soil**Components:****diphenyl oxide:**

Distribution among environmental compartments : Koc: 1960, log Koc: 3.3

Biphenyl; diphenyl:

Distribution among environmental compartments : Medium: Soil
Koc: 1546, log Koc: 3.19
Method: OECD Test No. 106: Adsorption - Desorption Using a Batch Equilibrium Method

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

This material when discarded may be a hazardous waste as that term is defined by the Resource Conservation and Recovery Act (RCRA), 40 CFR 261.24, due to its toxicity characteristic. This material should be analyzed in accordance with Method 1311 for the compound D018 BENZENE.

Consult 40 CFR 268.40 or appropriate local regulations for concentration based standards.

This product meets the criteria for a synthetic used oil under the U.S. EPA Standards for the Management of Used Oil (40 CFR 279). Those standards govern recycling and disposal in lieu of 40 CFR 260 -272 of the Federal hazardous waste program in states that have adopted these used oil regulations. Consult your attorney or appropriate regulatory official to be sure these standards have been adopted in your state. Recycle or burn in accordance with the applicable standards.

Eastman Chemical Company operates a used fluid return program for certain fluids under these used oil standards.

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Contact your Sales Representative for details.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No.	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Diphenyl Ether, biphenyl)
Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 964
Packing instruction (passenger aircraft)	: 964
Remarks	: Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

IMDG-Code

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl Ether, biphenyl, diphenyl)
Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes
Remarks	: Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

UN/ID/NA number	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (biphenyl)
Class	: 9
Packing group	: III
Labels	: CLASS 9
ERG Code	: 171
Marine pollutant	: yes(diphenyl)
Remarks	: Shipping in package sizes of less than 5 L (liquids) or 5 KG (solids) may lead to a non-regulated classification.

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Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Biphenyl; diphenyl	92-52-4	100	377

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Biphenyl; diphe- 92-52-4
nyl

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory

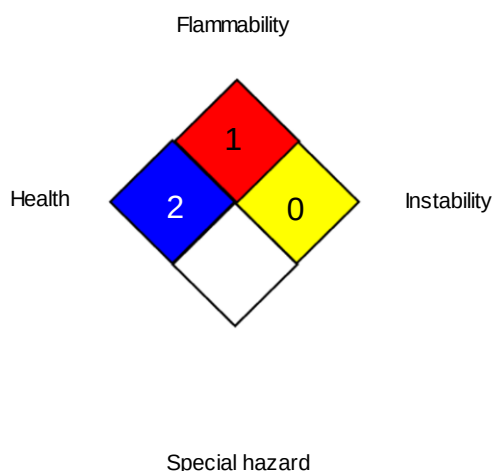
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TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Further information****NFPA 704:****HMIS® IV:**

HEALTH	/	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized Sys-

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tem; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to : www.therminol.com/products/
compile the Material Safety
Data Sheet

Revision Date : 03/02/2023

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / Z8

ATTACHMENT B-3
DAILY MEETING LOG

Job No. _____

Boring(s) No. _____

Page _____ of _____

DAILY MEETING LOG

Project Name: _____ Date: _____

Field Representative(s): _____

Work Site Location: _____

Physical Hazards: _____

Chemical Hazards: _____

Safety Equipment on Site: _____

Personal Protection Levels and Specific Equipment: _____

Nearest Medical Facility: _____

First Aid Location: _____

Fire Suppression Device: _____

Spill Kit: _____

Emergency Phone Numbers: _____

Emergency Evacuation Route: _____

The above hazards and controls have been adequately explained to me.

Name	Company	Signature

Site Safety Officer: _____

Project Manager: _____

Checked By: _____

Date: _____

ATTACHMENT B-4

ACCIDENT/INCIDENT FIELD REPORT FORM

ACCIDENT/INCIDENT REPORT FORM

(Filled out by Project Manager or employee, given to HSO/SSO, filed in employee's H&S record file)

Person notified (Ex: Site Mgr, HSO, SSO, or Project Manager): _____

Name of ill or injured person: _____

Date: _____ Time: _____ Supervisor: _____

Site Name and Location: _____

Weather (clear, rain, snow, etc.): _____

Nature of illness/injury: _____

Symptoms: _____

Action Taken: Time off _____ First Aid _____ Medical _____ Oxygen _____

Transported by: _____

Witnessed by: _____

Facility treating (Hospital's name): _____

Treatment: _____

Comments: _____

What was the person doing at the time of the accident/incident? _____

Personal protection clothing worn and equipment used: _____

Cause of accident/incident: _____

What immediate action was taken to prevent reoccurrence? _____

Additional comments: _____

Reporting Employee's Signature _____

Date _____

Supervisor's Signature _____

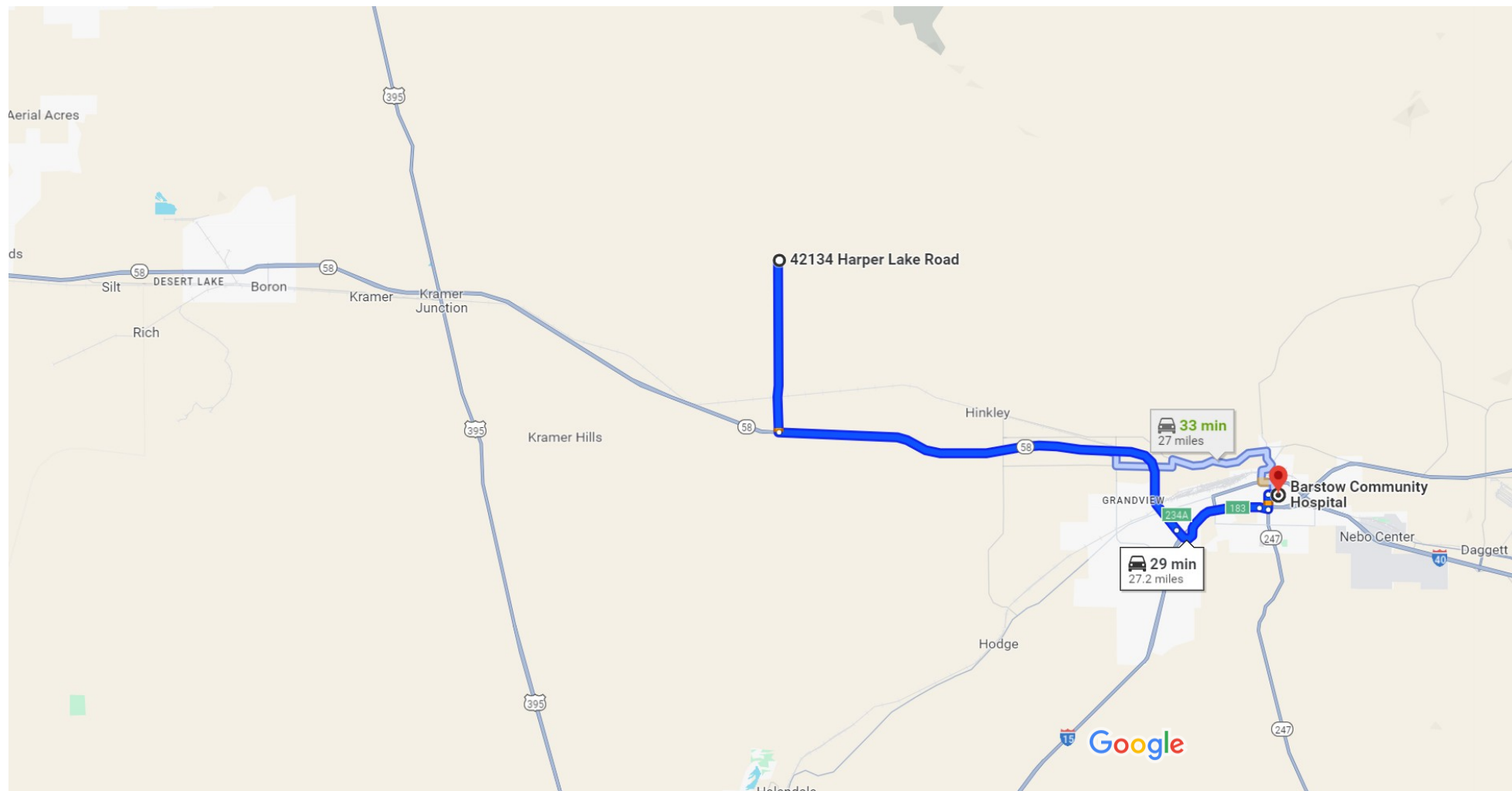
Date _____

ATTACHMENT B-5
HOSPITAL ROUTE MAP



42134 Harper Lake Rd, Hinkley, CA 92347 to Barstow Community Hospital, 820 E Mountain View St, Barstow, CA 92311

Drive 27.2 miles, 29 min



Map data ©2024 2 mi



via CA-58 E

29 min

Fastest route now due to traffic conditions

27.2 miles



via Harper Lake Rd and CA-58 E

33 min

ATTACHMENT A

COPY OF NOV LETTER

Lahontan Regional Water Quality Control Board

August 18, 2025

GeoTracker Global ID: T10000005850

Mahnaz Ghamati
Quality, Environmental & Compliance Manager
Atlantica Sustainable Infrastructure LLC
43134 Harper Lake Toad
Hinkley, CA 93247
Mahnaz.ghamati@atlantica.com

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7017 1450 0001 3059 1819

Notice of Violation of Waste Discharge Prohibitions and California Water Code section 13243, Mojave Solar Facility, 43134 Harper Lake Road, Hinkley, San Bernardino County

The purpose of this Notice is to inform Mojave Solar LLC, subsidiary of Atlantica Inc., that Lahontan Regional Water Quality Control Board (Lahontan Water Board) staff is alleging a violation of Waste Discharge Prohibitions and California Water Code section 13243 for an unauthorized discharge of heat transfer fluid compounds to the Harper Valley Groundwater Basin from the Alpha East Land Treatment Unit (LTU). Lahontan Water Board staff discovered the alleged violation during review of the *Environmental Site Investigation Report*, prepared by Hushmand Associates, Inc. (dated October 2024). This violation is subject to additional enforcement, including administrative civil liability (fine) up to \$10,000 for each day in which the violation occurs pursuant to California Water Code section 13385(c). Your response to this Notice will be taken into consideration by Lahontan Water Board staff when determining what, if any, additional enforcement to take.

VIOLATION

Unauthorized discharge of waste including biphenyl, diphenyl oxide and toluene to groundwater. Violation of Waste Discharge Prohibition II.A.1. and II.B.4., and California Water Code section 13243.

REQUIRED RESPONSE ACTIONS

1. Immediately cover the LTU with plastic sheeting (or alternative) to prevent infiltration of precipitation through the waste management unit. The covering must remain until cleanup goals have been achieved.
2. Submit a workplan by **Monday, November 17, 2025** to delineate the release to groundwater and remove secondary sources to groundwater contamination.

ESSRA MOSTAFAVI, CHAIR | BEN LETTON, EXECUTIVE OFFICER

- A. Signatory Requirements:** The workplan must be prepared, signed, and stamped by an appropriately experienced California-licensed Professional Geologist or Professional Engineer.
- B. Elements to be Included:** Include the following items in the workplan:
- a. Site Map:** A map that graphically depicts the step-out locations where drilling and sampling will be conducted. Include the known direction of groundwater flow and gradient. Show the locations where the previous soil, soil vapor, and groundwater samples were collected to investigate the release from the LTU.
 - b. Tabulated Analytical Data:** Tabulated analytical data for soil, soil vapor and groundwater that has been collected from the LTU.
 - c. Soil Vapor Sampling Information:** A copy of the batch canister certification report for each vapor sampling canister and the name of the leak check compound used during sampling on July 18, 2024.
 - d. Sampling and Analysis Plan:** A sampling and analysis plan (SAP) for groundwater, soil and soil vapor including the list of constituents to be analyzed, method of sample collection, depth of sample collection, frequency of sample collection and the name and certification of the analytical laboratory. Include the expected reporting limits and laboratory analytical method detection limits obtainable by the analytical laboratory.
 - e. Drilling Method:** The proposed drilling method to collect samples and soil vapor probes.
 - f. Land Treatment Unit Construction Details:** The as-built construction drawings for the land treatment units and a narrative discussion of deviations from the original plans.
 - g. Secondary Source Removal System:** A proposed strategy to remove the chemical compounds in soil that are affecting groundwater.
- C. Soil Logging:** Log soil lithology according to the Unified Soil Classification System (USCS) using an appropriately experienced and California-licensed Professional Geologist or Professional Engineer.
- D. Investigation Derived Waste Handling:** Containerize and clearly labeled all investigation derived waste pending transport for offsite disposal. Label the containers in a manner that is easily interpreted by emergency response personnel as to the contents of the container. Remove the containers from the Site within 90 days of waste generation.
- E. Permitting:** Obtain boring permits prior to commencement of the approved scope of work.

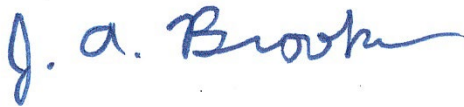
3. Alternatively, if you believe that you have received this Notice in error, or that any of the information provided in this Notice is incorrect or incomplete, submit a written response explaining your position.

ADDITIONAL ENFORCEMENT

The Lahontan Water Board takes the above-referenced violation very seriously, as indicated by the significant fines that can be imposed for such violations. Additional days of violation will continue to accumulate until the conditions resulting in the alleged violations are corrected. As set forth above, your response to this Notice will be taken into consideration when staff is determining whether to take additional enforcement actions, including referring this case to the State Water Resources Control Board's (State Water Board) Office of Enforcement for legal action.

Electronic document submittal is required. Please upload all documents and correspondence regarding this case to the State Water Resources Control Board GeoTracker Data Management System under Global ID T10000005850.

If you have any questions regarding this notice, please contact Case Manager Kerri O'Keefe, Engineering Geologist, at (530) 542-5473 (kerri.okeefe@waterboards.ca.gov), or me at (530) 542-5420 (jeff.brooks@waterboards.ca.gov).



Jeff Brooks, PG
Senior Engineering Geologist
Chief – Cleanup, Site Investigation & Enforcement Unit

cc: Ashley Gutierrez, California Energy Commission
James Ackerman, California Energy Commission
Hurshbir Shahi, California Energy Commission
Alex Mayer, California Energy Commission
Timothy Middlemis-Clark, Lahontan Water Board
Shelby Barker, Lahontan Water Board
Kerri O'Keefe, Lahontan Water Board

ATTACHMENT B

**COPIES OF THE TABLES CONTAINING THE ANALYTICAL
RESULTS FOR SOIL, AND GRAB GROUNDWATER SAMPLES
(2024 INVESTIGATION RESULTS)**

Table 1. Summary of Laboratory Test Results- Soil Samples (Contd...)

Boring ID	Sample ID	Sample Collection Date	Sample Depth (ft below LTU surface grade 7-24) (A)	Diesel Range Organics (DRO) SW846 8015B			Gasoline Range and Light HC (EPA 8015B (M)) TPH GRO (C4-C12) mg/kg	Title 22 Metals (EPA 6010B/7471A)																	1,1,1,2-Tetrachloroethane ug/kg	1,1,1-Trichloroethane ug/kg	1,1,2,2-Tetrachloroethane ug/kg	1,1,2-Trichloro-1,2,2-trifluoroethane ug/kg	1,1,2-Trichloroethane ug/kg		
				Biphenyl mg/kg	Diphenyl Oxide mg/kg	Diesel and Heavy HC (C13-C40) mg/kg		Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Cadmium mg/kg	Chromium mg/kg	Soluble Chromium (CA WET) ug/L	Soluble Chromium (TCLP) ug/L	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Silver mg/kg	Thallium mg/kg						Vanadium mg/kg	Zinc mg/kg
B-1	B-1 S-1 5'	07/18/2024	6.0	ND	ND		ND	2.55	38.9	0.249	ND	8.43			2.76	6.58	4.17	0.0358	ND	4.22	ND	ND	ND	17.2	19.1						
	B-1 S-2 10'		11.0	ND	ND		ND	ND	27.5	ND	ND	3.51			1.32	3.83	2.66	0.033	ND	1.70	ND	ND	ND	7.53	9.44	ND	ND				
	B-1 S-3 15'		16.0	ND	ND		ND	3.43	23.8	0.152	ND	5.68			1.80	5.4	2.32	0.0286	ND	2.80	ND	ND	ND	16.3	14						
B-2	B-2 S-1 1'	07/18/2024	2.0	ND	ND		ND	ND	20.5	ND	ND	3.39			1.46	3.24	2.37	0.0332	ND	2.16	ND	ND	ND	4.62	9.51	ND	ND				
	B-2 S-2 2.5'		3.5	ND	ND		ND	2.62	38.00	0.242	ND	7.58			2.70	6.43	3.65	0.0307	ND	4.47	ND	ND	ND	17.2	19.5						
	B-2 S-3 5'		6.0	ND	ND		ND	2.61	28.6	0.171	ND	10.1			2.08	5.56	2.52	0.0332	ND	4.43	ND	ND	ND	13.4	16.1	ND	ND				
	B-2 S-4 7.5'		8.5	ND	ND		ND	3.28	36.5	0.165	ND	5.91			2.20	4.78	2.97	0.0327	ND	2.88	ND	ND	ND	12.5	14.3						
	B-2 S-5 10'		11.0	ND	ND		ND	ND	11.1	ND	ND	2.37			0.772	2.01	1.58	0.0291	ND	1.20	ND	ND	ND	7.91	5.48	ND	ND				
	B-2 S-6 12.5'		13.5	ND	ND		ND	ND	14.7	0.119	ND	2.61			0.988	2.71	1.74	0.0262	ND	1.58	ND	ND	ND	5.91	7.08						
	B-2 S-7 15'		16.0	ND	ND		ND	ND	30.9	ND	ND	4.77			1.38	4.18	2.13	0.0277	ND	1.66	ND	ND	ND	12.4	10.7	ND	ND				
	B-2 S-8 20'		21.0	ND	ND		ND	2.51	19.6	0.122	ND	3.79			1.48	3.46	2.15	0.0291	ND	1.58	ND	ND	ND	13.4	10						
B-3	B-3 S-1 5'	07/17/2024	6.0	ND	ND		ND	ND	26.4	0.149	ND	5.57			1.87	4.68	3.30	0.0362	ND	2.85	ND	ND	ND	11.9	13.2	ND	ND				
	B-3 S-2 10'		11.0	ND	ND		ND	ND	9.43	ND	ND	2.01			0.43	1.74	ND	0.0286	ND	ND	ND	ND	6.33	4.72							
	B-3 S-3 15'		16.0	ND	ND		ND	2.67	24.7	0.22	ND	5.22			2.38	6.02	3.48	0.0259	ND	3.04	ND	ND	ND	15.6	14.9	ND	ND				
	B-3 S-4 20'		21.0	ND	ND		ND	3.03	29	0.218	ND	5.42			2.12	5.04	3.48	0.0301	ND	2.93	ND	ND	ND	15.7	14.8						
B-4	B-4 S-1 1'	07/17/2024	2.0	ND	ND		ND	ND	44.1	0.248	ND	8.33			2.71	7.29	3.84	0.031	ND	4.38	ND	ND	ND	17.5	27.5	ND	ND				
	B-4 S-2 2.5'		3.5	6.0	28.0		ND	ND	2.33	45.6	0.254	ND	8.14			2.88	6.87	3.16	0.0337	ND	4.7	ND	ND	ND	17.8	20.8					
	B-4 S-3 5'		6.0	ND	ND		ND	ND	34.1	0.156	ND	7.41			2.40	6.12	3.78	0.0399	ND	4.14	ND	ND	ND	15.3	17.5	ND	ND				
	B-4 S-4 7.5'		8.5	ND	ND		ND	3.54	35.7	0.236	ND	6.71			2.53	6.06	2.64	0.032	ND	4.05	2.16	ND	ND	15.5	16.4						
	B-4 S-5 10'		11.0	ND	ND		ND	ND	37	0.154	ND	4.26			1.17	3.96	2.11	0.0281	ND	1.96	ND	ND	ND	9.72	10.2	ND	ND				
	B-4 S-6 12.5'		13.5	ND	ND		ND	ND	22.9	0.351	ND	10.3			3.93	7.54	4.26	0.0375	ND	5.69	ND	ND	ND	23.1	22.9						
	B-4 S-7 15'		16.0	ND	ND		ND	ND	18.9	0.193	ND	6.93			1.33	4.75	2.49	0.0326	ND	2.15	ND	ND	ND	16.6	12.2	ND	ND				
	B-4 S-8 20'		21.0	ND	ND		ND	3.74	21.3	0.234	ND	5.34			1.33	3.72	2.46	0.0328	ND	2.14	ND	ND	ND	12.3	11.4						
B-5	B-5 S-1 1'	07/17/2024	2.0	ND	ND		ND	3.94	46.3	0.305	ND	8.67			3.39	7.05	3.84	0.0337	1.87	5.36	ND	ND	ND	17.9	21.3	ND	ND				
	B-5 S-2 2.5'		3.5	ND	ND		ND	2.96	35.8	0.176	ND	7.74			2.71	6.23	2.79	0.035	ND	4.12	ND	ND	ND	16.4	19						
	B-5 S-3 5'		6.0	2,000	5,600		ND	2.75	25.8	0.146	ND	5.36			2.07	4.29	2.46	0.0299	ND	2.75	ND	ND	ND	11.4	12.4	ND	ND				
	B-5 S-4 7.5'		8.5	33.0	110.0		ND	4.06	34.6	0.222	ND	7.51			2.79	6.18	3.29	0.0331	1.05	4.38	ND	ND	ND	17	17.6						
	B-5 S-5 10'		11.0	1.9	8.0		ND	2.57	29.8	0.218	ND	6.83			2.35	5.35	3.12	0.031	ND	3.68	ND	ND	ND	15.1	16.6	ND	ND				
	B-5 S-6 12.5'		13.5	ND	ND		ND	ND	28.5	0.226	ND	6.13			1.97	4.3	2.42	0.028	1.29	2.67	ND	ND	ND	11.7	13.4						
	B-5 S-7 15'		16.0	ND	ND		ND	4.14	10.1	0.157	ND	3.94			0.896	3.47	1.77	0.0275	ND	1.55	ND	ND	ND	11.5	8.8	ND	ND				
	B-5 S-8 20'		21.0	ND	ND		ND	1.91	9.94	0.0919	ND	2.87			0.845	2.3	ND	0.0287	ND	ND	ND	ND	ND	9.01	7.54						
B-6	B-6 S-1 5'	07/18/2024	6.0	1,800	5,100	11,000		ND	2.18	26.4	0.139	ND	5.68			1.92	4.55	1.86	0.034	1.11	2.81	ND	ND	ND	12.5	13	ND	ND			
	B-6 S-2 10'		11.0	ND	ND	ND	ND	ND	4.3	17.7	0.13	ND	4.83			1.48	4.15	2.67	0.027	ND	2.59	ND	ND	ND	14.5	11.5					
	B-6 S-3 15'		16.0	ND	ND	ND		ND	3.23	31	0.2	ND	4.84			2.0	4.61	1.90	0.0266	ND	2.28	ND	ND	ND	14.5	12.4	ND	ND			
	B-6 S-4 40'		41.0	ND	ND	ND	0.079	ND	12	146	1.44	ND	52.4	ND	ND	17.7	51.7	15.3	0.0463	1.7	37.2	ND	ND	ND	102	108					
From 2024 (by others)	E-1	02/21/2024	5.25-5.75 ^(B)	ND	ND																										
	E-2	02/21/2024	6.4-6.9 ^(B)	11.0	160.0																										
	E-3	02/21/2024	6.4-6.9 ^(B)	ND	2,500																										
HA-1	HA-1 @ 1-1.5 ft	07/23/2024	1 - 1.5			ND	ND																								
	HA-1 @ 2-2.5 ft		2 - 2.5			ND	ND																								
HA-2	HA-2 @ 1-1.5 ft	07/23/2024	1 - 1.5			ND	ND																								
	HA-2 @ 2-2.5 ft		2 - 2.5			ND	ND																								
HA-3	HA-3 @ 1-1.5 ft	07/23/2024	1 - 1.5			ND</																									

Table 1. Summary of Laboratory Test Results- Soil Samples (Contd...)

1,1-Dichloroethane ug/kg	1,1-Dichloroethene (1,1-Dichloroethylene) ug/kg	1,1-Dichloropropene ug/kg	1,2,3-Trichlorobenzene ug/kg	1,2,3-Trichloropropane ug/kg	1,2,4-Trichlorobenzene ug/kg	1,2,4- Trimethylbenzene ug/kg	1,2-Dibromo-3- Chloropropane ug/kg	1,2-Dibromoethane ug/kg	1,2-Dichlorobenzene ug/kg	1,2-Dichloroethane ug/kg	1,2-Dichloropropane ug/kg	1,3,5-Trimethylbenzene ug/kg	1,3-Dichlorobenzene ug/kg	1,3-Dichloropropane ug/kg	1,4-Dichlorobenzene ug/kg	2,2-Dichloropropane ug/kg	2-Butanone (MEK) ug/kg	2-Chlorotoluene ug/kg	2-Hexanone ug/kg	4-Chlorotoluene ug/kg	4-Methyl-2-pentanone (MIBK) ug/kg	Acetone ug/kg	Benzene ug/kg	Bromobenzene ug/kg
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND	ND	ND	54	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.9	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND
ND	ND	ND	ND	ND	ND	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	11	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	29	170	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	ND
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	14	NE	NE	NE	NE	NE	NE	NE	NE	10	NE	NE	NE	NE	150	NE	4,000	NE	NE	NE	NE	NE	10	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	0.7	NE	NE	NE	NE	NE	NE	NE	NE	0.5	NE	NE	NE	NE	7.5	NE	200.0	NE	NE	NE	NE	NE	0.5	NE
16.0	NE	NE	NE	0.021	35	NE	0.057	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.4	NE
7,100	350	NE	300	21	260	NE	25	NE	NE	NE	NE	NE	NE	2,200	NE	NE	NE	2,500	NE	2,300	NE	46	NE	
16	1,000	NE	930	3.1	110	NE	0.094	0.16	9,300	2	4.4	1,500	NE	23,000	11	NE	190,000	NE	1,300	NE	140,000	670,000	5.1	1,800

Table 1. Summary of Laboratory Test Results- Soil Samples (Contd...)

VOCs (EPA 8260B)																						
Bromochloromethane ug/kg	Bromodichloromethane ug/kg	Bromoform ug/kg	Bromomethane ug/kg	Carbon disulfide ug/kg	Carbon tetrachloride ug/kg	Chlorobenzene ug/kg	Chloroethane ug/kg	Chloroform ug/kg	Chloromethane ug/kg	cis-1,2-Dichloroethene ug/kg	cis-1,3-Dichloropropene ug/kg	Dibromochloromethane ug/kg	Dibromomethane ug/kg	Dichlorodifluoromethane ug/kg	Isopropylbenzene ug/kg	m,p-Xylene ug/kg	Methylene Chloride ug/kg	Methyl-t-Butyl Ether (MTBE) ug/kg	n-Butylbenzene ug/kg	o-Xylene ug/kg	p-Isopropyltoluene ug/kg	sec-Butylbenzene ug/kg
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	3.3	0.55	ND	ND	0.45	0.26	ND	0.56
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	9.3	ND	ND	ND	ND	ND	ND	ND	ND	12	1.6	ND	ND	1.3	0.73	0.64	1.7
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	10	2,000	NE	120	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	0.5	100.0	NE	6.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	1.3	86	NE	NE	2.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	26	NE	NE	NE	NE	NE
NE	1,300	3,000	NE	NE	250	NE	NE	NE	NE	84	NE	NE	NE	NE	NE	NE	2,500	NE	18,000	NE	NE	12,000
630	37.6	86	30	3,500	2.9	1,300	57,000	37.6	460	23,000	23,000	39	99	370	NE	NE	1,000	210	58,000	2,800	NE	120,000

Table 1. Summary of Laboratory Test Results- Soil Samples

															SM 4500 P E			EPA 9045C		SM 2540G
Styrene ug/kg	tert-Butylbenzene ug/kg	Tetrachloroethene (PCE) ug/kg	trans-1,2-Dichloroethene ug/kg	trans-1,3-Dichloropropene ug/kg	Trichloroethene (TCE) ug/kg	Trichlorofluoromethane ug/kg	Vinyl acetate ug/kg	Vinyl chloride ug/kg	Toluene (Methyl benzene) ug/kg	Ethylbenzene ug/kg	Xylene ug/kg	N-propylbenzene ug/kg	Napthalene ug/kg	Total Nitrogen (calculated) mg/L	Total Phosphorous mg/L	Potassium mg/L	Sulfate mg/L	Temperature	pH (pH unit)	Moisture Content wt%
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1890				7.41
																900				3.99
																1360				5.87
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			818				5.61
																1910				8.11
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1500				4.62
																1470				6.65
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			481				4.05
																657				4.53
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			943				4.19
																738				3.19
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1260				5.97
																412				1.5
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1370				5.47
																1250				2.77
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1900				1.21
																2000				9.66
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1740				6.33
																1780				6.68
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1080				3.6
																2880				9.26
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1120				5.81
																1070				4.15
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			2230				7.1
																1760				9.54
ND	0.48	ND	ND	ND	ND	ND	ND	ND	0.96	2.5	0.81	0.95	15			1230				4.58
																1670				4.8
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			1600				6.16
																1400				3.92
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			842				2.96
																595				2.84
ND	1.2	ND	ND	ND	ND	ND	ND	ND	9.7	19	2.3	3	25	ND	563	1330	150	22.1	8.5	4.69
														ND	53.8	1220	82	22	8.3	4.17
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61.3	1300	76	22	8.9	4.98
														ND	91.9	9220	250	22	7.8	21.5
														ND	566		94	23.1	8.5	7.51
														ND	657		120	23.2	8.6	8.29
														ND	655		81	23.1	8.8	7.09
														ND	603		55	23.1	8.9	8.6
														ND	549		22	22.9	9.4	7.57
														ND	600		55	22.8	8.8	8.87
														358	583		510	24.5	8.1	0.71
														387	524		500	24.4	8.1	0.62
NE	NE	NE	NE	NE	NE	NE	NE	2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	14	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	0.7	NE	NE	NE	NE	NE	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	2.7	NE	NE	NE	NE	NE	0.15	NE	NE	NE	NE	6.5	NA	NA	NA	NA	NA	NA	NA
32,000	12,000	390	600	NE	NE	5,400	NE	370	5,300	NE	NE	NE	570	NA	NA	NA	NA	NA	NA	NA
35,000	120,000	100	NE	NE	6	350,000	3,800	1.7	47,000	141	2,500	NE	NE	NA	NA	NA	NA	NA	NA	NA



Table 2. Summary of Laboratory Test Results - Groundwater Samples

Boring ID	Sample ID	Sample Collection Date	Sample Depth (ft below grade)	Biphenyl (µg/L)	Diphenyl Oxide (µg/L)	VOCs, (µg/L)												
						Benzene	Toulene	Ethybenzene	Napthalene	N-Propylbenzene	Total Xylenes	2-Butanone (MEK)	MBAS mg/L	Total Nitrogen (calculated) mg/L	Total Phosphorous mg/L	Potassium mg/L	Sulfate mg/L	pH
MW-200A	MW-200A GW-1	07/18/2024	32-70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.2	0.0697	4.72	770	7.1
B-6	B-6 GW-1	07/18/2024	40-41.5	280	990	ND	8.3	ND	ND	ND	ND	ND	0.332	12.9	0.331	8.73	740	7.7
Maximum Contaminant Levels for Drinking Water (California) ^(A)				NE	NE	1	150	300	NE	NE	1,750	NE	NE	NE	NE	NE	NE	NE

Notes:
(A)Maximum Contaminant Levels (MCLs) for Inorganic, Volatile Organic and Non-Volatile Synthetic Chemicals 22 CCR &64444
bold - Value detected above a trigger/screening value
mg/kg - milligram per kilogram
mg/L - milligram per liter
µg/L - microgram per liter
ND - Not Detected
NE - Not Established

Table 3 Soil Gas and Ambient Air Samples (µg/m3) (Contd...)

Boring ID	Sample ID	Sample Collection Date	Sample Depth (ft below grade)	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Difluoroethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene
B-2 (SG-1)	B-2 SG-1 @ 5'	07/18/2024	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-2 SG-1 @ 15'	07/18/2024	15.0	ND	ND	ND	ND	ND	ND	ND	No data	ND	ND	ND	ND	ND	ND	ND	ND
B-3 (SG-2)	B-3 SG-2 @ 10'	07/18/2024	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-3 SG-2 @ 20'	07/18/2024	20.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-4 (SG-3)	B-4 SG-3 @ 5'	07/18/2024	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-4 SG-3 @ 15'	07/18/2024	15.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ambient-Air	Ambient Air A-1	07/18/2024	Ambient	ND	ND	0.5	ND	ND	ND	ND	No data	0.15	No data	No data	No data	ND	No data	ND	No data
Cancer Screening Level (DTSC/OEHHA ^(A))				NE	0.21	NE	NE	7.7	NE	NE	1.7	NE	NE	NE	NE	NE	NE	NE	NE
Non-Cancer Screening Level (DTSC/OEHHA ^(B))				4400	350	NE	NE	3500	310	NE	8.8	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

Highlighted Value detected above a trigger/screening value without attenutaton factor applied/followed by Value with typical construction worker scenario attenuation factor of 10⁻³.

^(A) Office of Environmental Health Hazard Assessment (OEHHA) Commerical/Industrial Scenario's Soil-Gas-Screening Numbers --Cancer

^(B) Office of Environmental Health Hazard Assessment (OEHHA) Commerical/Industrial Scenario's Soil-Gas-Screening Numbers--Non-Cancer

ND - Not Detected (below Reporting Limit)

NE - Not Established

1,4-Dichlorobenzene	2-Butanone (MEK)	2-Hexanone	4-Ethyltoluene	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Benzyl Chloride	Bromo dichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloro methane	Dichlorodifluorom ethane	Dichlorotetrafluoro methane	Ethylbenzene
ND	26	3	ND	ND	130	12/0.012	ND	21/0.021	ND	1.8	19	ND	ND	ND	59	1.2	ND	ND	4.7	2.6	ND	2.1
ND	17	ND	ND	ND	88	6.6/0.0066	ND	ND	ND	ND	5.3	ND	ND	ND	3.2	ND	ND	ND	ND	2.5	No data	1.3
ND	18	3.2	ND	ND	75	6.3/0.0063	ND	2.8/0.0028	ND	ND	5	ND	ND	ND	7.5	ND	ND	ND	ND	2.5	ND	1.3
ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.69	ND	ND	ND	2.6	ND	ND
ND	23	3.2	ND	2.8	140	310/0.31	ND	14/0.0014	ND	1.5	17	ND	8.6	ND	47	2.3	ND	ND	1.6	2.5	ND	23
ND	6.3	ND	ND	ND	30	5.2/0.0052	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3
No data	No data	No data	ND	No data	No data	0.23	No data	ND	No data	No data	No data	0.43	ND	ND	0.49	No data	ND	No data	ND	1.4	No data	0.17
NE	NE	NE	NE	NE	NE	0.42	NE	0.33	11	NE	NE	2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NE	NE	NE	NE	NE	NE	13	NE	350	350	NE	NE	180	NE	NE	NE	NE	35	NE	NE	NE	NE	NE

Table 3 Soil Gas and Ambient Air Samples (µg/m3)

Hexachloro-1,3-butadiene	Isopropanol	m,p-Xylene	Methylene Chloride	Methyl-t-Butyl Ether (MTBE)	n-Butylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride	Chloromethane	Methylene Chloride
ND	23	ND	12	ND	ND	ND	ND	ND	ND	1.6	26	ND	ND	ND	ND	ND	ND	No data	No data
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	No data	No data
ND	12	ND	13	ND	ND	0.89	ND	ND	ND	1.8	28	ND	ND	ND	ND	ND	ND	No data	No data
ND	ND	ND	8.5	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	No data	No data
ND	ND	6.5	3.5	ND	ND	2.4	ND	ND	ND	7.7/0.0077	41	ND	ND	ND	ND	ND	ND	No data	No data
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND	ND	No data	No data
ND	No data	0.48	No data	ND	No data	0.16	No data	No data	No data	ND	1.2	ND	No data	ND	1.2	No data	ND	0.41	21
NE	NE	NE	12	NE	NE	NE	NE	NE	NE	2	NE	NE	NE	NE	NE	NE	0.16	NE	12
NE	NE	NE	1800	NE	880	NE	1800	3900	1800	180	1300	350	NE	NE	5300	NE	440	NE	1800

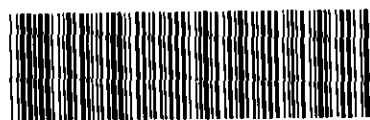


ATTACHMENT C

COPY OF BATCH CANISTER CERTIFICATION



Environment Testing
Calscience



570-191327 Chain of Custody



570-191327 COC

BATCH CANISTER QC CERTIFICATION

Canister Size ☐ 6L ☒ 1L

Certified Canister IDs.

<u>LC154</u>	(Certified Canister)	<u>LC035</u>
<u>LC728</u>		<u>LC1176</u>
<u>LC746</u>		<u>LC911</u>
<u>LC823</u>		<u>LC507</u>
<u>SLC034</u>		<u>LC1241</u>
<u>LC821</u>		<u>LC761</u>

Certification Method ☒ TO-15 ☐ TO-15 SIM

Date Cleaned 7/9/2024

Leak Check Start 7/10/2024 11 00:00 AM
Date Time

Leak Check End 7/11/2024 11:00:00 AM
Date Time

Date Certified 7/12/2024

TALS Job # 570-191327

Gauge ID AIR MG3

Cleaning Equipment ID ☐ Oven 1 ☐ Oven 4
☐ Oven 2 ☐ Oven 7
☒ Oven 3 ☐ Oven 8

Canisters were cleaned as a batch per Eurofins Calscience SOP 51219 (T-016). This certifies that the canisters referenced herein passed the leak test per EPA TO-15, § 8.4.1.2, and the certified canister contains no target analytes above the reporting limits stated in the applicable SOP and/or any client-specified target list of analytes.

Note: Canisters may be sent out with a < 24-hr leak test on approval from the client.

Employee PUID 12GR

Date 7/15/2024



Environment Testing
Calscience



570-191332 Chain of Custody



570-191332 COC

BATCH CANISTER QC CERTIFICATION

Canister Size ☐ 6L ☒ 1L

Certified Canister IDs.

LC666	(Certified Canister)	LC234
LC689		LC367
LC1008		LC1214
LC866		LC764
LC717		LC172
LC1327		LC526

Certification Method ☒ TO-15 ☐ TO-15 SIM

Date Cleaned 7/9/2024

Leak Check Start 7/10/2024 11:00:00 AM
Date Time

Leak Check End 7/11/2024 11:00:00 AM
Date Time

Date Certified. 7/12/2024

TALS Job # 570-191332

Gauge ID AIR MG3

Cleaning Equipment ID ☐ Oven 1 ☒ Oven 4
☐ Oven 2 ☐ Oven 7
☐ Oven 3 ☐ Oven 8

Canisters were cleaned as a batch per Eurofins Calscience SOP 51219 (T-016). This certifies that the canisters referenced herein passed the leak test per EPA TO-15 § 8.4.1.2, and the certified canister contains no target analytes above the reporting limits stated in the applicable SOP and/or any client-specified target list of analytes.

Note: Canisters may be sent out with a < 24-hr leak test on approval from the client.

Employee PUID I2GR

Date 7/15/2024

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-2 / SG-1 SHIPPING DATE: _____
SAMPLER: NT

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter (inches): 8 Dry Bentonite Diameter (inches): 8
Tubing Length (feet): 5 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7262 mLPurge Volume Required before Sampling (mL): 7262 mLPurge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in. Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SGM191A start purge @ 1107
end purge @ 1144

REGULAR SAMPLE

SAMPLE ID: B-2 SG-1 @ 5'VACUUM TEST (PASS/FAIL, VACUUM): PASS

Field Analysis	GEM2000 - O2 (%)	20.9
multi- P&E	GEM2000 - CO2 (%)	0
	GEM2000 - CH4 (%)	0
	PID - Total VOCs (ppmv)	0

CANISTER SERIAL NO.: LC717 FLOW RATE (L/min): 0.1SAMPLE TIME: START: 1145 END: 1155CANISTER PRESSURE: INITIAL: -30 FINAL: -5Helium Concentration Maintained: >10%Helium Bag Reading: 0 ppmLABORATORY: Eurofins

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)
	GEM2000 - CO2 (%)
	GEM2000 - CH4 (%)
	PID - Total VOCs (ppmv)

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained: _____

Helium Bag Reading: _____

LABORATORY: _____

SAMPLER SIGNATURE

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-21SG1 SHIPPING DATE: _____
SAMPLER: NT

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter(inches): 8 Dry Bentonite Diameter(inches): 8
Tubing Length (feet): 15 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200
One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7306 mL
Purge Volume Required before Sampling (mL): 7306 mL
Purge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in.Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SGM134A start purge @ 1017
end purge @ 1054

REGULAR SAMPLE

SAMPLE ID: B-2 SG-1 @ 15'VACUUM TEST (PASS/FAIL,VACUUM): PASS

Field Analysis	GEM2000 - O2 (%)	20.9
multi-RAE	GEM2000 - CO2 (%)	0
	GEM2000 - CH4 (%)	0
	PID - Total VOCs (ppmv)	0

CANISTER SERIAL NO.: LC 154 FLOW RATE (L/min): 0.1SAMPLE TIME: START: 1055 END: 1105CANISTER PRESSURE: INITIAL: -30 FINAL: -5Helium Concentration Maintained : 710 %Helium Bag Reading : 0 ppmLABORATORY: Eurofin

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)
	GEM2000 - CO2 (%)
	GEM2000 - CH4 (%)
	PID - Total VOCs (ppmv)

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained : _____

Helium Bag Reading : _____

LABORATORY: _____

SAMPLER SIGNATURE

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-3 / SG-2 SHIPPING DATE: _____
SAMPLER: NC

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter (inches): 8 Dry Bentonite Diameter (inches): 8
Tubing Length (feet): 10 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7284 mLPurge Volume Required before Sampling (mL): 7284 mLPurge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in.Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SG M023A start purge @ 1249
end purge @ 1326

REGULAR SAMPLE

SAMPLE ID: B-3 SG-2 @ 10'VACUUM TEST (PASS/FAIL,VACUUM): PASS

Field Analysis Multi- RAE	GEM2000 - O2 (%)	<u>20.9</u>
	GEM2000 - CO2 (%)	<u>0</u>
	GEM2000 - CH4 (%) <u>#25</u>	<u>0</u>
	PID - Total VOCs (ppmv)	<u>0</u>

CANISTER SERIAL NO.: LC1327 FLOW RATE (L/min): 0.1SAMPLE TIME: START: 1327 END: 1337CANISTER PRESSURE: INITIAL: -29 FINAL: -5Helium Concentration Maintained: > 10%Helium Bag Reading: 0 ppmLABORATORY: EnviroLink

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)	
	GEM2000 - CO2 (%)	
	GEM2000 - CH4 (%)	
	PID - Total VOCs (ppmv)	

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained: _____

Helium Bag Reading: _____

LABORATORY: _____

SAMPLER SIGNATURE



Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-3 / SG 2 SHIPPING DATE: _____
SAMPLER: NT

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter (inches): 8 Dry Bentonite Diameter (inches): 8
Tubing Length (feet): 20 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7329 mLPurge Volume Required before Sampling (mL): 7329 mLPurge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in.Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SG M147A start purge @ 1159
end purge @ 1236

REGULAR SAMPLE

SAMPLE ID: B-3 SG-2 @ 20'VACUUM TEST (PASS/FAIL, VACUUM): PASS

Field Analysis	GEM2000 - O2 (%)	20.9
Multi-RAE	GEM2000 - CO2 (%)	0
	GEM2000 - CH4 (%)	0
	PID - Total VOCs (ppmv)	0

CANISTER SERIAL NO.: LC367 FLOW RATE (L/min): 10.1SAMPLE TIME: START: 1237 END: 1247CANISTER PRESSURE: INITIAL: -28 FINAL: -5Helium Concentration Maintained: >10 %Helium Bag Reading: 0 ppmLABORATORY: Eurofin

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)
	GEM2000 - CO2 (%)
	GEM2000 - CH4 (%)
	PID - Total VOCs (ppmv)

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained: _____

Helium Bag Reading: _____

LABORATORY: _____

SAMPLER SIGNATURE



Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-4 / SG3 SHIPPING DATE: _____
SAMPLER: NT

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter (inches): 8 Dry Bentonite Diameter (inches): 8
Tubing Length (feet): 5 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7262 mLPurge Volume Required before Sampling (mL): 7262 mLPurge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in.Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SG M15A start purge @ 1410
end purge @ 1447

REGULAR SAMPLE

SAMPLE ID: B-4 SG-3 @ 5'VACUUM TEST (PASS/FAIL, VACUUM): PASS

Field Analysis	GEM2000 - O2 (%)	20.9
multi- RAE	GEM2000 - CO2 (%)	0
	GEM2000 - CH4 (%)	0
	PID - Total VOCs (ppmv)	0

CANISTER SERIAL NO.: LC666 FLOW RATE (L/min): 0.1SAMPLE TIME: START: 1448 END: 1458CANISTER PRESSURE: INITIAL: -29 FINAL: -5Helium Concentration Maintained: >10%Helium Bag Reading: 0 ppmLABORATORY: EnviroLab

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)
/	GEM2000 - CO2 (%)
	GEM2000 - CH4 (%)
	PID - Total VOCs (ppmv)

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained: _____

Helium Bag Reading: _____

LABORATORY: _____

SAMPLER SIGNATURE

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SOIL VAPOR SAMPLING DATA SHEET

Sheet 1 of 1

A. GENERAL INFORMATION

SITE: Mojave Solar Project SAMPLING DATE: 7/18/24
WELL ID: B-4 / SG3 SHIPPING DATE: _____
SAMPLER: NI

Sand Pack Height (inches): 12 Dry Bentonite Height (inches): 8
Sand Pack Diameter (inches): 8 Dry Bentonite Diameter (inches): 8
Tubing Length (feet): 15 Tubing Diameter (inches): 1/4

* Assumes 40% Sand Porosity and 50% Bentonite Porosity

Purge Flow (mL/min): 200
One System Purge Volume (mL):
(Tubing, Sand Pack, Dry Bentonite Volumes) 7306 mL
Purge Volume Required before Sampling (mL): 7306 mL
Purge Volume Removed (mL): 7500 mL

B. SAMPLE PURGE INFORMATION

Collect Sample with Summa Canister. Ensure the pressure in the canisters is over -26 in.Hg when starting. Stop sample collection with -5 in. HG in Summa Canister.

Notes: orifice = SGM153A start purge @ 1330
end purge @ 1407

REGULAR SAMPLE

SAMPLE ID: B-4 SG-3 @ 15'VACUUM TEST (PASS/FAIL,VACUUM): PASS

Field Analysis	GEM2000 - O2 (%)	20.9
multi- RAE	GEM2000 - CO2 (%)	0
	GEM2000 - CH4 (%)	0
	PID - Total VOCs (ppmv)	0

CANISTER SERIAL NO.: LC948 FLOW RATE (L/min): 0.1SAMPLE TIME: START: 1408 END: 1418CANISTER PRESSURE: INITIAL: -28 FINAL: -5Helium Concentration Maintained : >10%Helium Bag Reading : 0 ppmLABORATORY: EnviroLink

DUPLICATE SAMPLE

SAMPLE ID: _____

VACUUM TEST (PASS/FAIL, VACUUM): _____

Field Analysis	GEM2000 - O2 (%)
	GEM2000 - CO2 (%)
	GEM2000 - CH4 (%)
	PID - Total VOCs (ppmv)

CANISTER SERIAL NO.: _____ FLOW RATE (L/min): _____

SAMPLE TIME: START: _____ END: _____

CANISTER PRESSURE: INITIAL: _____ FINAL: _____

Helium Concentration Maintained : _____

Helium Bag Reading : _____

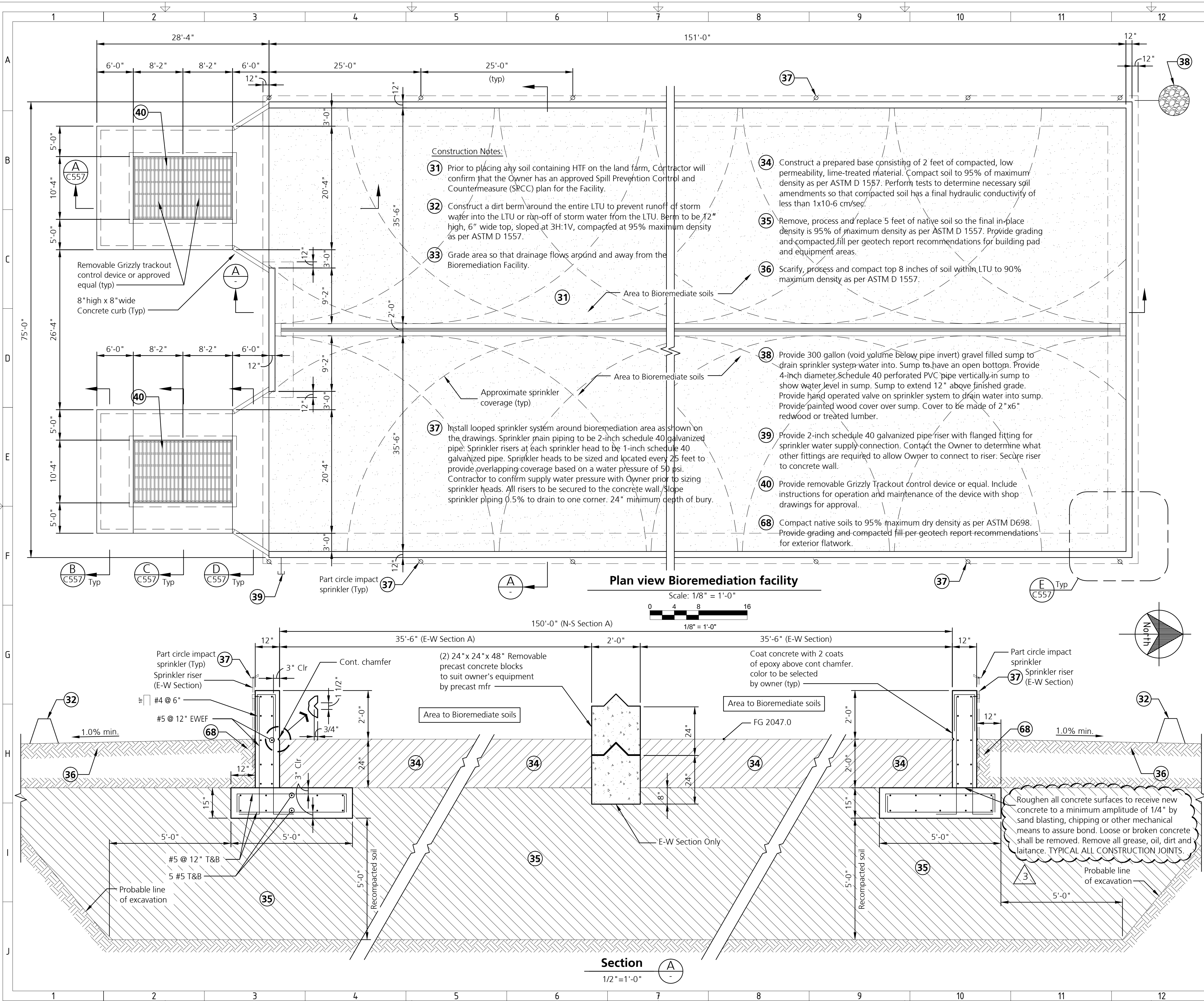
LABORATORY: _____

SAMPLER SIGNATURE

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

ATTACHMENT D
ALPHA LTU DRAWINGS

File: K:\357900_Mojave Solar Power Plant\Project Working Files\CADD\Civil\6007-PLN-GFG-00-50-C556.dwg
Plotted: 3/21/13 at 3:10pm By: tkeane



General Structural Notes:

These notes apply except where specifically noted otherwise on the drawings.

Code:

1. Comply with the 2010 California Building Code

Design Loads:

1. Dead load + weight of a 8,000 lb

2. Seismic design parameters:

- Site class D
- S(ds) = 0.808
- S(d1) = 0.465
- Seismic design category D
- Importance factor, I(e) =

Bureau Veritas North America
Plan review approval of documents
does not authorize construction to
proceed in violation of any federal
state, nor local regulation, whether
shown or not.

General:

- The structural drawings show the completed project. They do not include components that are needed for construction safety. The Contractor is responsible for safety in and around the job site during construction.
- Structures have been designed for operational loads on the completed structures. The Contractor shall provide all necessary temporary bracing, shoring, guying or other means to avoid excessive stresses and to hold structural elements in place during construction.
- Verify all dimensions of equipment, piping, etc. prior to starting work. Notify the engineer of any discrepancies or inconsistencies.
- Any engineering design provided by others and submitted for review shall bear the seal and signature of an insured structural or civil engineer registered in California.
- The cost of design work resulting from errors or omissions in construction shall be borne by the Contractor.
- In case of conflicts, more costly requirements govern for bidding. Submit clarification request prior to proceeding with work.

The 4 digit sheet # shown on reference sheets, match lines, construction callouts and sections is the shortened form of the 18 digit plan #.



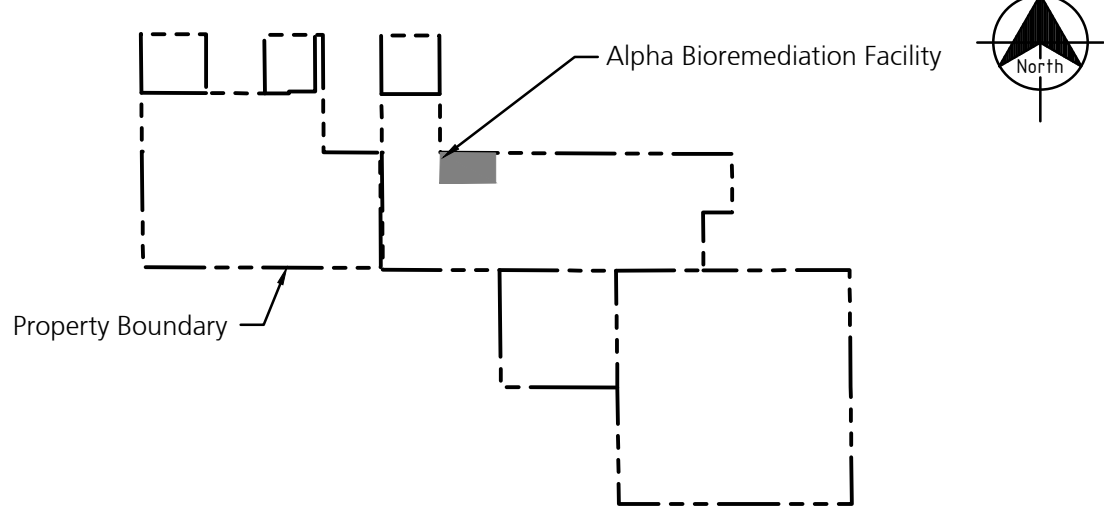
Dig Alert
Dial toll free
1-800-227-2600

At least two days before you dig



Rev.	Date	Description	Drawn By	Checked By	Passed By
3	03/21/2013	Note added - For Permitting	EH	AOB	SSV
2	05/01/2012	For Permitting	EH	AOB	SSV
1	03/01/2012	For Permitting	EH	AOB	SSV
0	12/19/2011	For Review (not for construction)	EH	AOB	SSV

Situation:



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MOJAVE SOLAR LLC

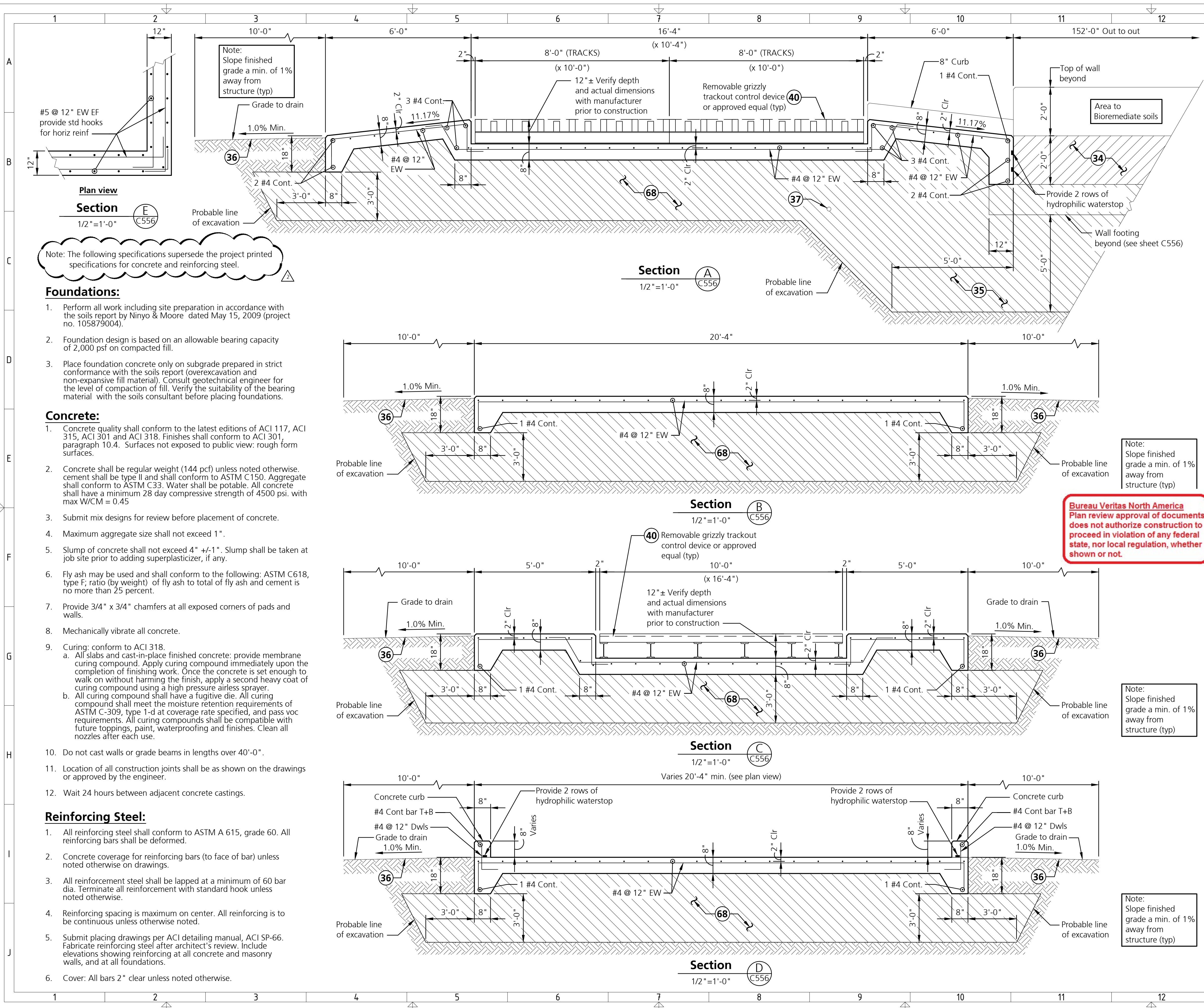
MOJAVE SOLAR PROJECT



ABENER TEYMA MOJAVE

Scale:	Urban Development and Buildings	Plan No:	6007-PLN-GFG-00-50-C556
As Noted	Evaporation Ponds/Bioremediation Facilities	Sheets:	16
	Alpha Site	Sheet No:	8
	Bioremediation Facilities Plan	Plan No. int:	

ANSI D



Foundations:

Concrete:

Reinforcing Steel:

Construction Notes:

The 4 digit sheet # shown on reference sheets, match lines, construction callouts and sections is the shortened form of the 18 digit plan #.



2	05/01/2012	For Permitting	EH	AOB	SSV
1	03/01/2012	For Permitting	EH	AOB	SSV
0	12/19/2011	For Review (not for construction)	EH	AOB	SSV
Rev.	Date	Description	Drawn By	Checked By	Passed By

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Scale: As Noted	Urban Development and Buildings	Plan No:	
	Evaporation Ponds/Bioremediation Facilities	6007-PLN-GFG-00-50-C557	
	Alpha Site	Sheets: 16	Sheet No: 9
	Bioremediation Facilities Sections and Details	Plan No. int:	

ANSI D

ATTACHMENT E

TABLE 29b FROM 2024 ANNUAL DMP REPORT

Draft Table 29b - Soil Analytical Results - Alpha Land Treatment Unit

Sample Identification*	Date	Sample Depth (feet)	1,1-biphenyl (mg/kg)	1,1-oxybisbenzene (mg/kg)
E1	2/21/2018	7.2	ND	ND F1
	2/25/2022	7.3	ND	ND
	2/15/2024	7.72	ND	ND
	3/5/2025	8.97	ND	ND
E2	2/21/2018	7	6,100	16,000
	4/10/2018	8	28	76
	4/10/2018	9	1.5 J	6
	4/23/2018	10	ND	1.3 J
	2/25/2022	10	1,900	11,000
	2/15/2024	8.72	11	160
	3/5/2025	9.17	ND	8
E3	2/21/2018	7.1	8,500	6,400 J
	4/10/2018	8.1	13	90
	4/10/2018	9.1	ND	6
	4/23/2018	10.1	ND	3.1 J
	2/25/2022	9.6	5,900	3,000
	2/15/2024	8.5	ND	2,500
	3/5/2025	7.9	ND	ND
W1	2/21/2018	no sample collected (no soil)		
	2/25/2022	7.3	ND	ND
	2/15/2024	7.35	ND	ND
	3/5/2025	7.6	ND	ND
W2	2/21/2018	no sample collected (no soil)		
	2/25/2022	7.3	ND	ND
	2/15/2024	7.4	ND	ND
	3/5/2025	7.71	ND	ND
W3	2/21/2018	no sample collected (no soil)		
	2/25/2022	7	ND	ND
	2/15/2024	7.25	ND	ND
	3/5/2025	7.5	ND	ND

Notes:

Sample nomenclature from Mojave Solar LLC

Prior to 2/21/18, soil was not present in Alpha LTU during sampling events

F1 = MS and/or MSD Recovery is outside acceptance limits

J = Results is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

ND = analyte not detected at or above the laboratory reporting limit

na = not analyzed

units in milligrams/kilogram

1,1-oxybisbenzene = diphenyl oxide (as listed on the laboratory analyses report)

Results detected above the laboratory reporting limit are bold

* = LTU samples collected and listed in the laboratory analyses report have the LTU area and sample depth included in the sample identification