



Los Angeles Regional Water Quality Control Board

April 13, 2023

Mr. Christian Darville
Lisi Aerospace/Hi-Shear Corporation
2600 Skypark Drive
Torrance, California 90509-2975

Certified Mail
Return Receipt Requested
Claim No. 7022 2410 0003 2801 2202

Mr. Richard Doyle
Magellan Aerospace, Middletown, Inc.
2320 Wedekind Drive
Middletown, Ohio 45042-2390

Certified Mail
Return Receipt Requested
Claim No. 7022 2410 0003 2801 2196

Mr. Bailey Su
Excellon Technologies, LLC
20001 S. Rancho Way
Rancho Dominguez, California 90220

Certified Mail
Return Receipt Requested
Claim No. 7022 2410 0003 2801 2189

Corporate Secretary
Esterline Technologies Corporation
1301 East 9th Street, Suite 3000
Cleveland, Ohio 44114

Certified Mail
Return Receipt Requested
Claim No. 7022 2410 0003 2801 2172

Mr. Tim A. Goetz
Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505

Certified Mail
Return Receipt Requested
Claim No. 7022 2410 0003 2801 2165

Mr. Ward Olson
Dasco Engineering Corporation
24747 Crenshaw Boulevard
Torrance, California 90505

Certified Mail
Return Receipt Requested
Claim No. 7021 1970 0000 9152 2374

Mr. Aram Chaparyan
City Manager
City of Torrance
3031 Torrance Boulevard
Torrance, California 90503

Certified Mail
Return Receipt Requested
Claim No. 7021 1970 0000 9152 2367

NORMA CAMACHO, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

SUBJECT: REVIEW OF DRAFT REMEDIAL ACTION PLAN; CLEANUP AND ABATEMENT ORDER NO. R4-2021-0079 AMENDMENT

SITE: SKYPARK COMMERCIAL PROPERTIES (ASSESSOR PARCEL NO. 7377-006-906), 24701 – 24777 CRENSHAW BOULEVARD AND 2530, 2540, AND 2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA (SCP NO. 1499, GLOBAL ID NO. T10000014333)

Dear Mr. Darville, et al.:

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) is the state agency with primary responsibility for the protection of groundwater and surface water quality within major portions of Los Angeles and Ventura counties, including the above referenced site (Site). To accomplish this, the Los Angeles Water Board oversees the investigation and cleanup of discharges of waste that may affect the quality of waters of the state as authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7).

On June 18, 2021, the Los Angeles Water Board issued Cleanup and Abatement Order No. R4-2021-0079 (Order) directing you to develop a comprehensive remedial action plan(s) (RAP) for cleanup of wastes in soil matrix, soil vapor, and groundwater by March 31, 2022. On December 19, 2022, the Los Angeles Water Board staff received the *Draft Remedial Action Plan* (Draft RAP), submitted on behalf of Hi-Shear Corporation (HSC) by Genesis Engineering & Redevelopment (GER) for review.

A summary of the Draft RAP followed by Los Angeles Water Board comments are included below.

SUMMARY OF THE DRAFT REMEDIAL ACTION PLAN

According to HSC, the objective of the Draft RAP is to move the technical process forward for the Site by identifying and addressing data gaps so that a detailed groundwater feasibility study can be conducted, followed by pilot tests for groundwater remedies prior to the development of a “final” RAP to address all contaminated media. The Draft RAP contains various components, including but not limited to, groundwater and soil vapor monitoring; investigations and data gaps; current interim mitigation actions; initial evaluations of remedial alternatives; and conditionally approved interim remedial actions.

For brevity, we limit our comments to primarily those activities proposed in the Draft RAP.

SUMMARY OF DRAFT RAP – GROUNDWATER AND SOIL VAPOR MONITORING

The Draft RAP summarized the distributions and trends of select volatile organic compounds (VOCs), such as tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-

dichloroethene (1,1-DCE), in the shallow groundwater zone using data collected in June 2022.

1. The east-southeast (i.e., downgradient) extents of the PCE, TCE, and 1,1-DCE plumes in the shallow groundwater zone are defined by low to below laboratory detection limits along Pennsylvania Avenue, Cypress Street, and Pennsylvania Avenue, respectively.
2. The select VOCs groundwater concentration trends have been steadily decreasing since the 1990s at the HSC property. Decreases in concentrations at the HSC property were more prominent after enhanced in-situ bioremediation (EISB) injections.
3. The select VOCs groundwater concentration trends are less discernable with some variability at the East Adjacent Properties (EA Properties).
4. The select VOCs groundwater concentration trends are relatively stable to decreasing in shallow groundwater zone wells downgradient and east of Crenshaw Boulevard.

The Draft RAP referenced HSC's August 19, 2020 *Proposed Revision to the Groundwater Monitoring Plan* (Proposed GWM Revisions) that provides reasoning and justification for groundwater monitoring frequency reduction, elimination of certain groundwater monitoring wells, and elimination of certain analytes and parameters.

The Draft RAP summarized the distribution of select VOCs, such as PCE, TCE, and 1,1-DCE, in shallow (i.e., 5 and/or 15 feet below ground surface [ft-bgs]) soil vapor probes using data collected between 2019 and 2021. The data is summarized below:

1. Elevated shallow PCE soil vapor concentrations are located on the HSC property (centered around VP-1); north of Skypark Drive on Crenshaw Boulevard (centered around VP-32); on Property 1 of EA Properties (centered around VP-49); and east of Crenshaw Boulevard and south of Amsler Street (centered around VP-63).
2. Elevated shallow TCE soil vapor concentrations are located on the HSC property (centered around VP-1), north of Skypark Drive on Crenshaw Boulevard (centered on VP-32); on Property 1 of EA Properties (centered around VP-49, VP-50, and VP-107); and east of Crenshaw Boulevard and south of Amsler Street (centered around VP-62).
3. Elevated shallow 1,1-DCE soil vapor concentrations are located on the HSC property (centered around VP-1), on Property 1 of EA Properties (centered around VP-49); and east of Crenshaw Boulevard and south of Amsler Street (centered around VP-63).

The Draft RAP proposes to sample all soil vapor probes associated with the Site on an annual basis, as shown in Attachment 1, *Figure 18 – Proposed Annual Soil Vapor Monitoring* (Figure 18). Soil vapor samples will be collected from all probes at each location and will be analyzed for VOCs by a mobile laboratory. Soil vapor probes installed in the future will be incorporated into the proposed Site-wide annual soil vapor monitoring program. The monitoring program will be reassessed following the first comprehensive round of sampling. The Draft RAP notes that periodic sampling of soil vapor probes necessary for the evaluation of remedial system(s) (i.e., soil vapor extraction [SVE]) will be coordinated with the Site-wide soil vapor monitoring to avoid duplication of efforts.

SUMMARY OF DRAFT RAP – INVESTIGATIONS AND DATA GAPS

The Draft RAP identified remaining investigation data gaps that are proposed to be addressed prior to the development of a “final” RAP. The Draft RAP proposed the following field activities to address the data gaps, organized by property and/or media:

1. Perched groundwater beneath the Hi-Shear property.
 - a. Install three perched groundwater monitoring wells (PMW-1 through PMW-3), as shown in Attachment 2, *Figure 21 – Proposed Perched Groundwater Wells Beneath the HSC Property* (Figure 21).
 - i. Construct using 2-inch diameter Schedule 40 polyvinyl chloride (PVC) with 5-foot screened intervals (1 foot of screen above water table and 4 feet of screen below water table) and 0.001-inch screen slot size.
 - b. Groundwater samples will be sampled and analyzed for VOCs by EPA Method 8260B, perchlorate by EPA Method 6850, and for total petroleum hydrocarbons (TPH) by EPA Method 8015M.
 - c. Incorporate perched groundwater monitoring wells into the groundwater monitoring program.
2. Soil vapor beneath the EA Properties.
 - a. Advance two borings and install soil vapor probes at 5, 15, 30, 45, 65, and 85 ft-bgs inside the unoccupied building on Property 1 of the EA Properties, as shown in Attachment 3, *Figure 20 – Proposed Soil Vapor Probe Locations* (Figure 20). These borings are in addition to the investigative component of the Revised EAP IRAP conditionally approved by the Los Angeles Water Board on July 27, 2022.

- b. Advance seven borings and install soil vapor probes at 5, 15, 30, 45, 65, and 85 ft-bgs on Properties 2 and 3 of the EA Properties, as shown in Figure 20.
3. Soil vapor between the perched and regional groundwater beneath EA Properties and Torrance Airport.
 - a. Advance three borings to beneath the perched groundwater and above the regional groundwater and pair with triple-nested groundwater monitoring wells, as shown in Attachment 4, *Figure 22 - Proposed Soil Vapor Probes Beneath the Perched Groundwater Zone Beneath the EA Properties* (Figure 22). Install soil vapor probes at 80 ft-bgs.
 - b. Soil vapor samples will be analyzed for VOC by EPA Method 8260B when a mobile lab is used, and EPA Method TO-15 when samples are collected in summa canisters.
4. Perched and Regional Groundwater
 - a. Install five additional locations of clustered perched and regional (shallow and intermediate groundwater zones) groundwater monitoring wells on Property 1 of EA Properties in lieu of well locations proposed in the investigative component of the Revised EAP IRAP, as shown in Attachment 5, *Figure 23 – Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas* (Figure 23).
 - i. Soil vapor probes will be installed at 65 ft-bgs and 85 ft-bgs to further assess the soil vapor between the perched and regional groundwater, where perched groundwater is present.
 - b. Install four locations of clustered shallow and intermediate groundwater zone monitoring wells on Properties 2 and 3 of EA Properties, as shown in Figure 23.
 - c. Perched groundwater monitoring wells will be constructed using 2-inch diameter Schedule 40 PVC with 5-foot screened intervals (1 foot of screen above water table and 4 feet of screen below water table) and 0.001-inch screen slot size. Shallow groundwater zone monitoring wells will be constructed using 2-inch diameter Schedule 40 PVC and screened from 85 to 95 ft-bgs with 0.002-inch screen slot size. Intermediate groundwater zone monitoring wells will be constructed using 2-inch diameter Schedule 40 PVC and screened from 140 to 150 ft-bgs with 0.002-inch screen slot size.

- d. Groundwater samples will be sampled and analyzed for VOCs by EPA Method 8260B and perchlorate by EPA Method 6850. The perched and regional groundwater monitoring wells will be monitored and sampled according to the Proposed GWM Revisions.
5. Regional groundwater south of the Site on the Torrance Airport
- a. Install two dual-nested groundwater monitoring wells, as shown in Attachment 6, *Figure 24 – Proposed Groundwater Monitoring Wells on the Southern Plume Boundary* (Figure 24).
 - i. Screen in the shallow groundwater zone between 80 ft-bgs and 90 ft-bgs
 - ii. Screen in the intermediate groundwater zone between 140 ft-bgs and 150 ft-bgs
 - iii. Temporary or permanent conductor casing will be installed where perched groundwater is present
 - b. Incorporate the dual-nested groundwater monitoring wells into the groundwater monitoring program.

SUMMARY OF DRAFT RAP – INTERIM MITIGATION ACTIONS AND EVALUATION OF REMEDIAL ALTERNATIVES

The Draft RAP summarized the ongoing interim mitigation and conditionally approved investigative and remedial activities at the Site. The Draft RAP also provided initial evaluation and consideration of the following remedial alternatives for soil and groundwater:

1. Soil remedial alternatives considered include excavation and soil vapor extraction.
2. Groundwater remedial alternatives considered include groundwater extraction and treatment (aka “pump and treat”), dual-phase extraction, EISB, in-situ chemical oxidation (ISCO), zero valent iron (ZVI) application, air sparging, permeable reactive barrier (PRB), and monitored natural attenuation (MNA).

The Draft RAP identified the following remedial alternatives to be retained or as potentially viable for the Site by media.

1. Soil and soil vapor will be treated using SVE. SVE has been effective at the HSC property and has been conditionally approved in the Revised EAP IRAP to be implemented at a portion of the EA Properties.

2. Groundwater remedies proposed to be retained or potentially retained include EISB in conjunction with a recirculation approach, ISCO for perched groundwater zones with high concentrations, ZVI application, air sparging, PRB in conjunction with “other source area alternatives,” and MNA for downgradient areas in conjunction with (and if supported) by source control measures and supporting data.

A detailed and thorough evaluation of the remedial alternatives was not conducted due to the site assessment data gaps.

LOS ANGELES WATER BOARD COMMENTS AND REQUIREMENTS

The Los Angeles Water Board has reviewed the Draft RAP and has the following comments and requirements:

1. The Draft RAP does not satisfy the comprehensive RAP(s) requirement in the Order (Required Action No. 4.b.), but rather serves as a summary of the Site and a framework for the development of a comprehensive RAP. The Draft RAP proposes investigative work is responsive to Task 3.a. (site assessment workplan), which the Order required to be prepared by September 10, 2021, with all investigation completed by September 12, 2022. The original due dates for both vertical and lateral delineation and the comprehensive RAP remain operative and the Los Angeles Water Board has exercised enforcement discretion to date for the missing or incomplete submittals. The conditionally approved investigative, mitigative, and remedial Site activities described below must be completed in an efficient, timely manner, as stated herein. This letter does not extend the original deadlines, nor does it waive potential enforcement for the failure to comply with the investigation and remediation deadlines in the Order.
 - a. Los Angeles Water Board staff concurs with the initial evaluation of remedial alternatives. The remedial alternatives evaluated in the Draft RAP are not expected to exacerbate perched and/or regional groundwater conditions and are viable approaches for cleanup of the Site. Additional evaluation(s) and subsequent pilot studies are warranted. The evaluations and subsequent pilot studies shall address concentrations observed in the intermediate groundwater zone as well.
2. The requirements for the implementation of the *Groundwater Removal Action Workplan* (Groundwater IRAP), as conditionally approved on October 18, 2022, and the remedial component of the *Removal Action Workplan for the East Adjacent Properties* (Revised EAP IRAP), as conditionally approved on January 17, 2023, remain unchanged. The implementation reports for the Groundwater IRAP and Revised EAP IRAP are due May 15, 2023, and September 15, 2023, respectively. Implementing interim remedial actions, including pilot studies as conditionally

approved in the Groundwater IRAP and Revised EAP IRAP will better inform and facilitate the development of a comprehensive RAP. To reduce the source contaminant mass and mitigate the continued migration of contamination beneath the Hi-Shear property and EA Properties, the activities conditionally approved in the Groundwater IRAP and Revised EAP IRAP shall be carried out expeditiously.

On February 21, 2023, the Los Angeles Water Board received a technical memorandum (Tech Memo), submitted on behalf of the City of Torrance (City) by Terraphase Engineering Inc. (Terraphase), in response to the conditional approval of the ZVI barrier aspect of the Groundwater IRAP. The Tech Memo is intended to provide justification(s) and the rationale(s) for leaving the ZVI barrier the same size as originally proposed in the Groundwater IRAP. On March 21, 2023, the Los Angeles Water Board received a time extension request, submitted on behalf of the City by Terraphase, for the submittal of the implementation report for the Groundwater IRAP. The Los Angeles Water Board will review the Tech Memo and time extension request under separate cover in future correspondence.

3. The Los Angeles Water Board will respond to the Proposed GWM Revisions under separate cover. Dischargers named in the Order are not relieved of triannual groundwater monitoring obligations during the review and consideration of the Proposed GWM Revisions.
 - a. Note at the time of this writing, the 3rd triannual 2022 groundwater monitoring report has yet to be submitted. The report was due January 15, 2023.
 - b. For comparison and monitoring purposes, all groundwater monitoring wells, regardless of depth(s), following their incorporation to the existing and ongoing monitoring program, shall analyze constituents and parameters consistent with the existing approved monitoring program (e.g., perchlorate shall be analyzed using EPA Method 314.0).
4. The Los Angeles Water Board conditionally approves the proposed Site-wide soil vapor monitoring program with the following comments and requirements:
 - a. Soil vapor probes on public properties east of Crenshaw Boulevard shall be monitored as follows:
 - i. Soil vapor probes (at 5 and 15 ft-bgs) identified and conditionally approved in the Los Angeles Water Board letter, dated November 15, 2021, shall continue to be monitored on a semiannual basis. Deep soil vapor probes (i.e., greater than 15 ft-bgs) at these locations shall be monitored on an annual basis.

- ii. Soil vapor probes across all depths on public properties east of Crenshaw Boulevard that were not identified in the conditional approval, dated November 15, 2021, shall be monitored on an annual basis.
- b. Soil vapor probes across all depths west of Crenshaw Boulevard shall be monitored on an annual basis.
- c. Part of the conditional approval of the investigative component of the Revised EAP IRAP, dated July 27, 2022, was the collection of soil vapor samples from newly installed and existing soil vapor probes across all depths located on the EA Properties and the former Nike Missile Base. Part of the conditional approval of the *Revised Off-Site Assessment Work Plan* (Revised Work Plan), dated October 31, 2022, was the collection of soil vapor samples from newly installed and existing soil vapor probes on the Lowe's Property (i.e., 2700 Skypark Drive property). At the time of this writing, Los Angeles Water Board staff understands that the field activities for the soil vapor portion of the investigative component of the Revised EAP IRAP have not been completed. The annual and/or semiannual soil vapor monitoring, as conditionally approved in this letter, shall be coordinated, and carried out with the soil vapor sampling portions of the investigation component of the Revised EAP IRAP and Revised Work Plan to minimize duplication of efforts, where appropriate.
- d. The annual and semiannual soil vapor monitoring schedule is as follows:

Sampling Months	Report(s) Due Date
April – June (Semiannual; Annual)	July 31
October – December (Semiannual)	January 31

The first Site-wide annual soil vapor monitoring report is due **July 31, 2024**.

5. The Los Angeles Water Board conditionally approves the proposed scope of work to assess the perched groundwater beneath the HSC property, as shown in Figure 21, with the following comments and requirements:
 - a. The proposed locations are in an area with limited environmental data and/or proximal to Areas of Potential Concern (AOPC), AOPC-1 and AOPC-

2, and former Building No. 4. These areas have historically been associated with TPH, VOCs, and perchlorate; therefore, soil samples shall be collected at 5-foot intervals to total depth during installation of groundwater monitoring wells and be analyzed for VOCs, perchlorate, and TPH using United States EPA Method 8260B, 314.0, and 8015M, respectively.

- b. Submit a report, at a minimum documenting the results of the perched groundwater assessment, field observations, laboratory data, conclusions, and recommendations. Task 3.a. – Site Assessment (i.e., vertical and lateral delineation) of the Order is the underlying requirement of this proposed scope of work.
6. The Los Angeles Water Board conditionally approves the scope of work to assess soil vapor beneath the EA Properties, as shown in Figure 20, with the following comments and requirements:
- a. Los Angeles Water Board staff is concerned about the potential continued source(s) in the vicinity of groundwater monitoring well MW-8 on Property 3 of EA Properties. Recent PCE groundwater concentrations at MW-8 were detected up to two orders of magnitude greater than its maximum contaminant level (MCL). Recent TCE groundwater concentrations at MW-8 were detected more than three orders of magnitude greater than its MCL. These recent elevated PCE and TCE groundwater concentrations indicate rebounding to nearly pre-2017 EISB injection levels at the HSC property.
 - b. Soil samples shall be collected at 5-foot intervals to total depth and screened for VOCs using a photo ionization detector (PID). Soil samples from the proposed soil vapor probe depths (i.e., 5, 15, 30, 45, 65, and 85 ft-bgs) shall be submitted for laboratory analysis of VOCs. In addition, soil samples at any depth interval that exhibit PID readings or visual staining shall also be submitted for laboratory analysis of VOCs.
 - c. Note that the Site has been experiencing local rising groundwater levels. Soil vapor probes that cannot be installed at 85 ft-bgs shall be installed above the existing water table or at 75 ft-bgs (to be consistent with the conditionally approved *Revised Off-Site Assessment Work Plan* dated August 5, 2022 [i.e., assessment of the south-southwestern, north-northwestern, and western extents of VOC impacts to soil vapor on and in vicinity of the Lowe's Property]) to prolong accessibility and life spans of the soil vapor probes.
 - d. Submit a report, at a minimum documenting the results of the soil and soil vapor assessment, field observations, laboratory data, conclusions, and recommendations. Task 3.a. – Site Assessment (i.e., vertical and lateral

delineation) of the Order is the underlying requirement of this proposed scope of work.

7. The proposed scope of work to assess soil vapor between the perched and regional groundwater beneath EA Properties and Torrance Airport, as shown in Figure 22, is approved. Submit a report, at a minimum documenting the results of the soil vapor assessment, field observations, laboratory data, conclusions, and recommendations. Task 3.a. – Site Assessment (i.e., vertical and lateral delineation) of the Order is the underlying requirement of this proposed scope of work.
8. The Los Angeles Water Board conditionally approves the proposed scope of work for the assessment of the perched and regional (shallow and intermediate groundwater zones) groundwater beneath the EA Properties with the following comments and requirements:
 - a. Los Angeles Water Board staff recognizes the potential duplication of efforts between portions of the conditionally approved investigative component of the Revised EAP IRAP and the proposed scope of work in the Draft RAP. The following modifications and integrations should be made:
 - i. The one perched and five regional groundwater monitoring wells proposed and conditionally approved in the investigative component of the Revised EAP IRAP are to be replaced by the clustered groundwater monitoring wells proposed in the Draft RAP. Attachment 7, *Los Angeles Water Board Modified Figure 20 – Proposed Groundwater Sampling Locations* shows the locations of the perched and regional groundwater monitoring wells from the investigative component of the Revised EAP IRAP that will be replaced (marked by red X's). Attachment 8, *Los Angeles Water Board Modified Figure 23 – Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas* shows the locations of the clustered groundwater monitoring wells and the perched and regional groundwater monitoring wells (marked by red X's) that do not need to be installed.
 - ii. Consistent with the conditional approval of the groundwater monitoring well installation portion of the investigative component of the Revised EAP IRAP, dated July 27, 2022, soil samples shall be collected at 5 ft-bgs at 5-foot intervals to first encountered groundwater. Soil samples shall be analyzed for VOCs and perchlorate using EPA Method 8260B and 314.0, respectively.

- b. The Draft RAP proposes soil vapor probes to be installed at 65 ft-bgs and 85 ft-bgs to assess soil vapor between the perched and regional groundwater, where perched groundwater is present. Given the concerns for the local rising regional groundwater levels and the limited information regarding the perched groundwater zone, the set of two soil vapor probes shall be installed at depths based on the encountered field conditions between the two water bearing zones.
 - c. Submit a report, at a minimum documenting the results of the perched and regional (shallow and intermediate) groundwater assessment, field observations, laboratory data, conclusions, and recommendations. The report should also include VOCs concentration contours of the intermediate groundwater zone. Task 3.a. – Site Assessment (i.e., vertical and lateral delineation) of the Order is the underlying requirement of this proposed scope of work.
9. The proposed scope of work to delineate regional (shallow and intermediate) groundwater, and perched groundwater where present, south of the Site and beneath the Torrance Airport, as shown in Figure 24, is approved. Submit a report, at a minimum documenting the installation of groundwater monitoring wells, field observations, laboratory data, conclusions, and recommendations. Task 3.a. – Site Assessment (i.e., vertical and lateral delineation) of the Order is the underlying requirement of this proposed scope of work.
10. At the time of this writing, Los Angeles Water Board staff understands that the field activities of the investigative component of the Revised EAP IRAP have not been completed. The investigations associated with addressing data gaps in this letter shall be coordinated and carried out to minimize duplication of efforts, where appropriate.
11. Upload the reports and the required electronic submittals of information, including the soil vapor probe and/or sub-slab soil vapor probe locations and analytical data, to GeoTracker. All necessary data and parameters (e.g., sampling/field points) shall be entered into GeoTracker in accordance with Attachment 5 of the “Final Draft Supplemental Guidance: Screening and Evaluating Vapor Intrusion,” prepared by the Department of Toxic Substance Control and California Water Resources Control Boards dated February 2023. For your convenience, the GeoTracker Global ID for this Site is T10000014333.

The revisions to Cleanup and Abatement Order No. R4-2021-0079, Attachment B Revised Time Schedule (attached), **adding deadlines for annual soil vapor monitoring reports**, constitute an amendment to the requirements of the Cleanup and Abatement Order No. R4-2021-0079 (Order) originally dated June 18, 2021. All other aspects of the Order No. R4-2021-0079 originally dated June 18, 2021, and the amendments thereto,

including the original deadlines for submission of a site assessment workplan (September 10, 2021), completion of vertical and lateral delineation (September 12, 2022), and submission of the implementation report for the investigative component of the Revised EAP IRAP (December 30, 2022) remain in full force and effect. The scopes of work noted herein (Comments and Requirements Nos. 5 through 9) are associated with Task 3.a. of the Order. As discussed above, applicable deadlines for this work have passed and this letter does not provide additional extensions. Pursuant to section 13350 of the California Water Code, failure to comply with the requirements of the Order No. R4-2021-0079 by the specified due date, including date(s) in this amendment, may result in civil liability administratively imposed by the Los Angeles Water Board in an amount up to five thousand dollars (\$5,000) for each day of failure to comply.

If you have any questions regarding this letter, please contact Mr. Kevin Lin at (213) 576-6781 or via email at kevin.lin@waterboards.ca.gov, or contact Dr. Angelica Castaneda, Site Cleanup Unit IV Supervisor, at (213) 576-6737 or via email at angelica.castaneda@waterboards.ca.gov.

Sincerely,

Hugh
Marley

Digitally signed
by Hugh Marley
Date: 2023.04.13
18:01:19 -07'00'

for Renee Purdy
Executive Officer

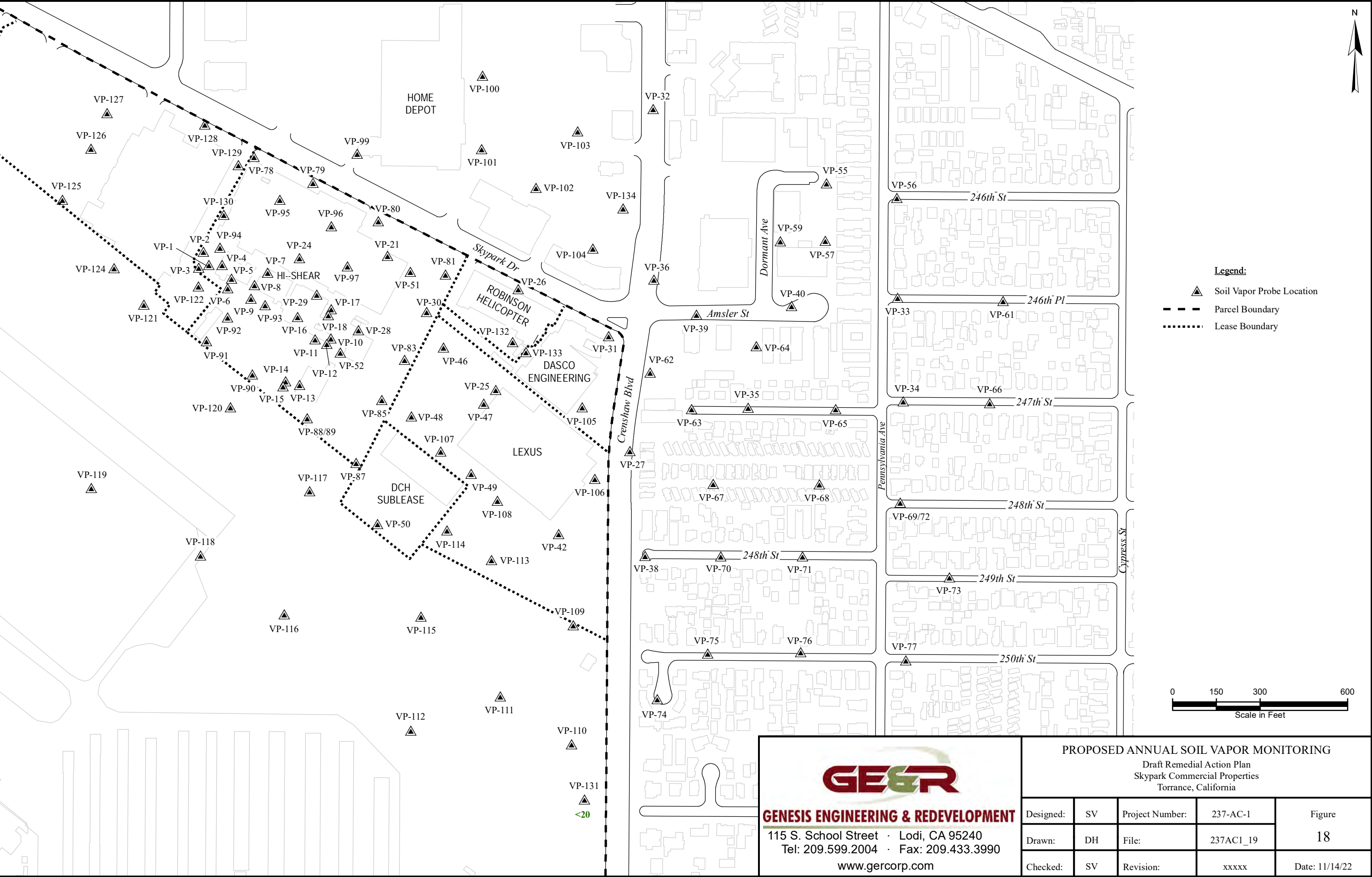
Attachment:

1. Figure 18 – Proposed Annual Soil Vapor Monitoring
2. Figure 21 – Proposed Perched Groundwater Wells Beneath the HSC Property
3. Figure 20 – Proposed Soil Vapor Probe Locations
4. Figure 22 – Proposed Soil Vapor Probes Beneath the Perched Groundwater Zone Beneath the EA Properties
5. Figure 23 – Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas
6. Figure 24 – Proposed Groundwater Monitoring Wells on the Southern Plume Boundary
7. Los Angeles Water Board Modified Figure 20 - Proposed Groundwater Sampling Locations
8. Los Angeles Water Board Modified Figure 23 - Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas
9. Cleanup and Abatement Order No. R4-2021-0079, Attachment B Revised Time Schedule
10. Cleanup and Abatement Order No. R4-2021-0079, Attachment B Revised Time Schedule (underline/strikeout version)

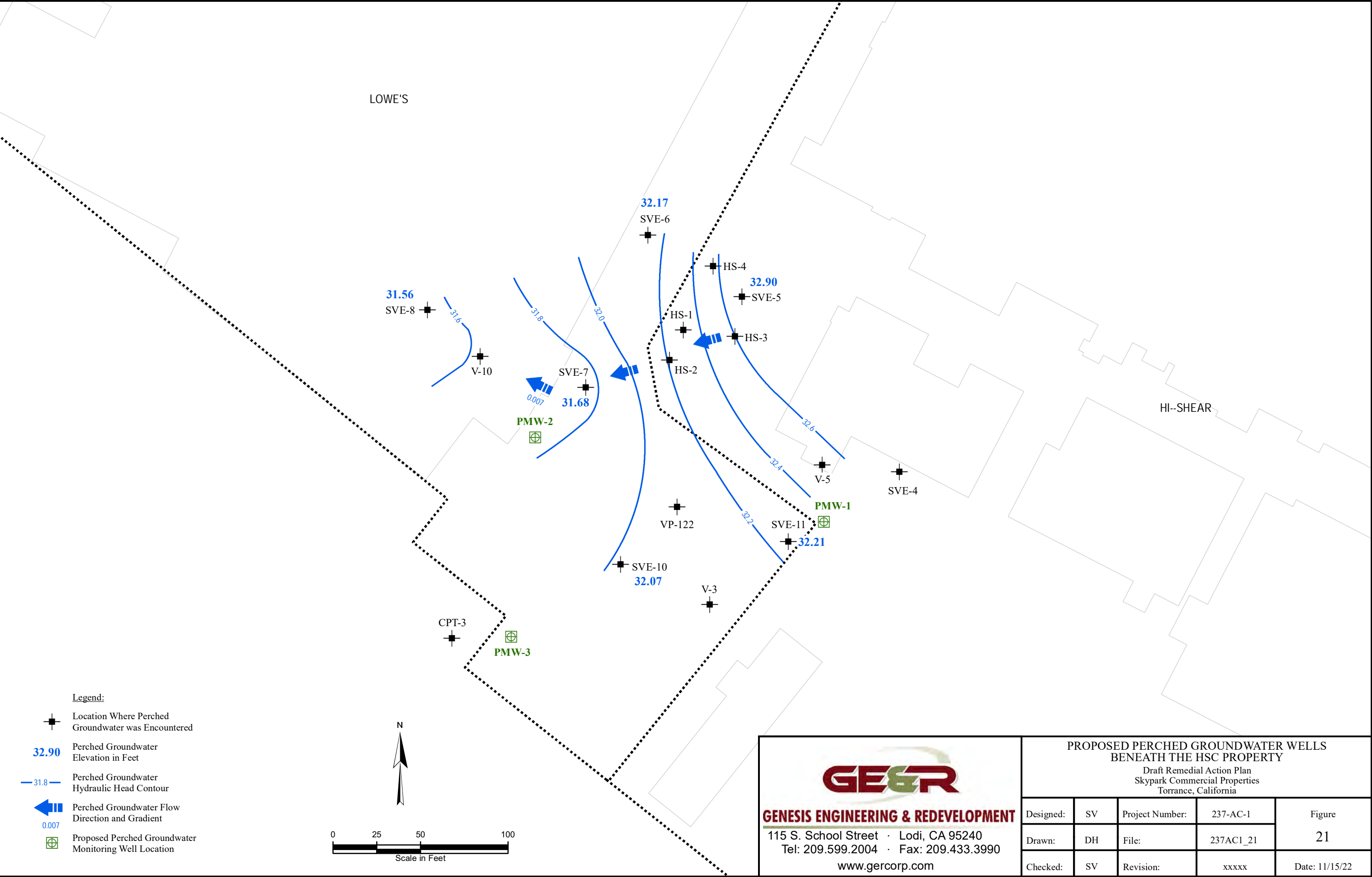
cc (via email):

Dmitriy Ginzburg, State Water Board Division of Drinking Water
Joseph Liles, Water Replenishment District
Carla Dillon, City of Lomita
Ryan Smoot, City of Lomita
Trevor Rusin, City of Lomita
Alan B. Fenstermacher, Rutan & Tucker, LLP
Travis Van Ligten, Rutan & Tucker, LLP
Richard Montevideo, Rutan & Tucker, LLP
Darren Croteau, Terraphase Engineering Inc.
Charlie Robinson, Terraphase Engineering Inc.
Timothy Wood, GSI Environmental Inc.
Peter Scaramella, GSI Environmental Inc.
Sonja A. Inglin, Cermak & Inglin, LLC
Scott D. Warner, BBJ Group
Patrick L. Rendon, Lamb and Kawakami, LLP
Mike Kinworthy, MK Environmental Consulting, Inc.
William J. Beverly, Law Offices of William J. Beverly
Brian M. Ledger, Gordon Rees Scully Mansukhani, LLP
Christopher T. Johnson, Gordon Rees Scully Mansukhani, LLP
Thomas Schmidt, Hamrick & Evans, LLP
David L. Evans, Hamrick & Evans, LLP
Jeff W. Poole, Hamrick & Evans, LLP
Steve Van der Hoven, Genesis Engineering & Redevelopment
Solomon Seyum, Genesis Engineering & Redevelopment

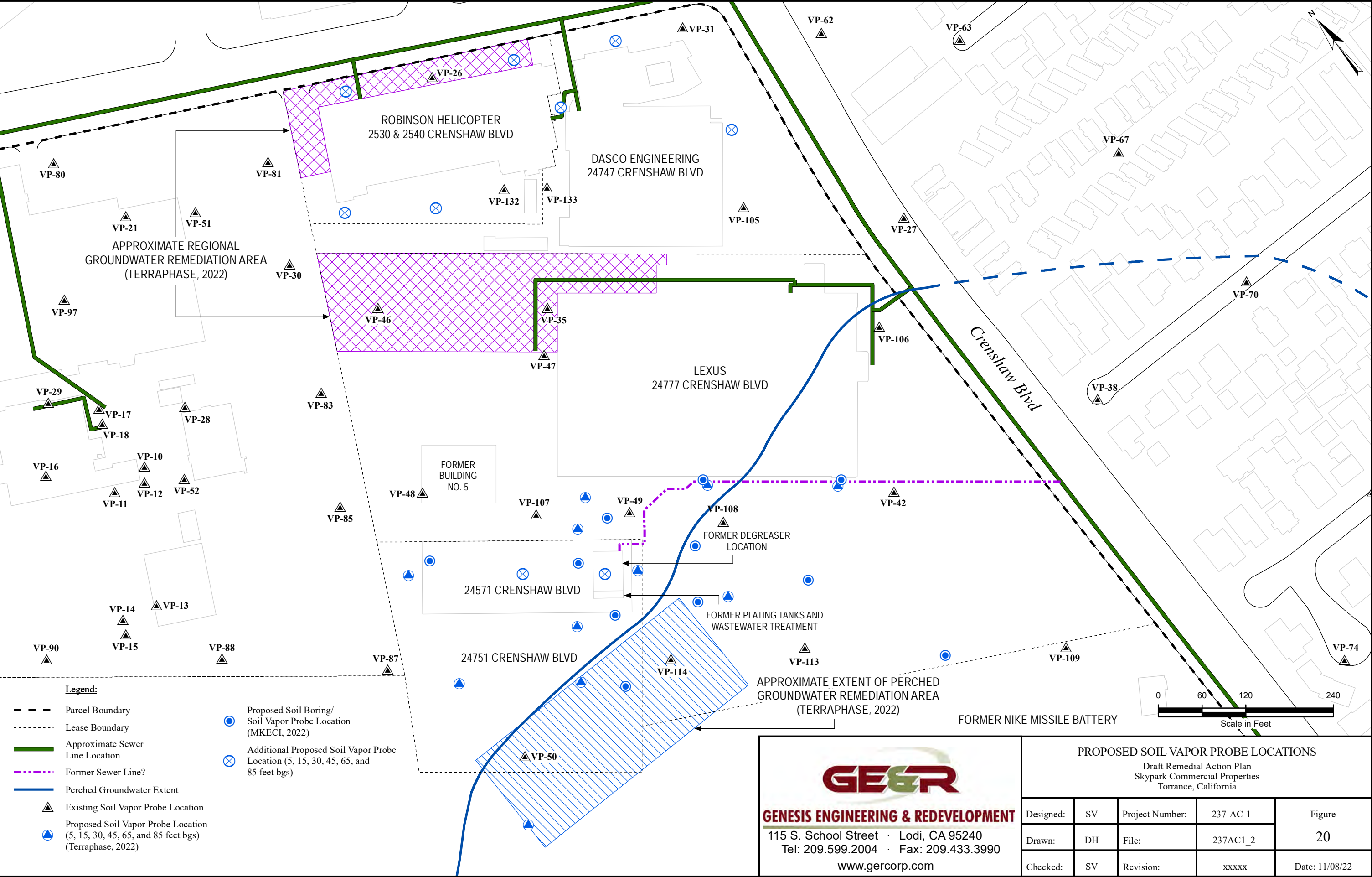
Attachment 1 - Figure 18 – Proposed Annual Soil Vapor Monitoring



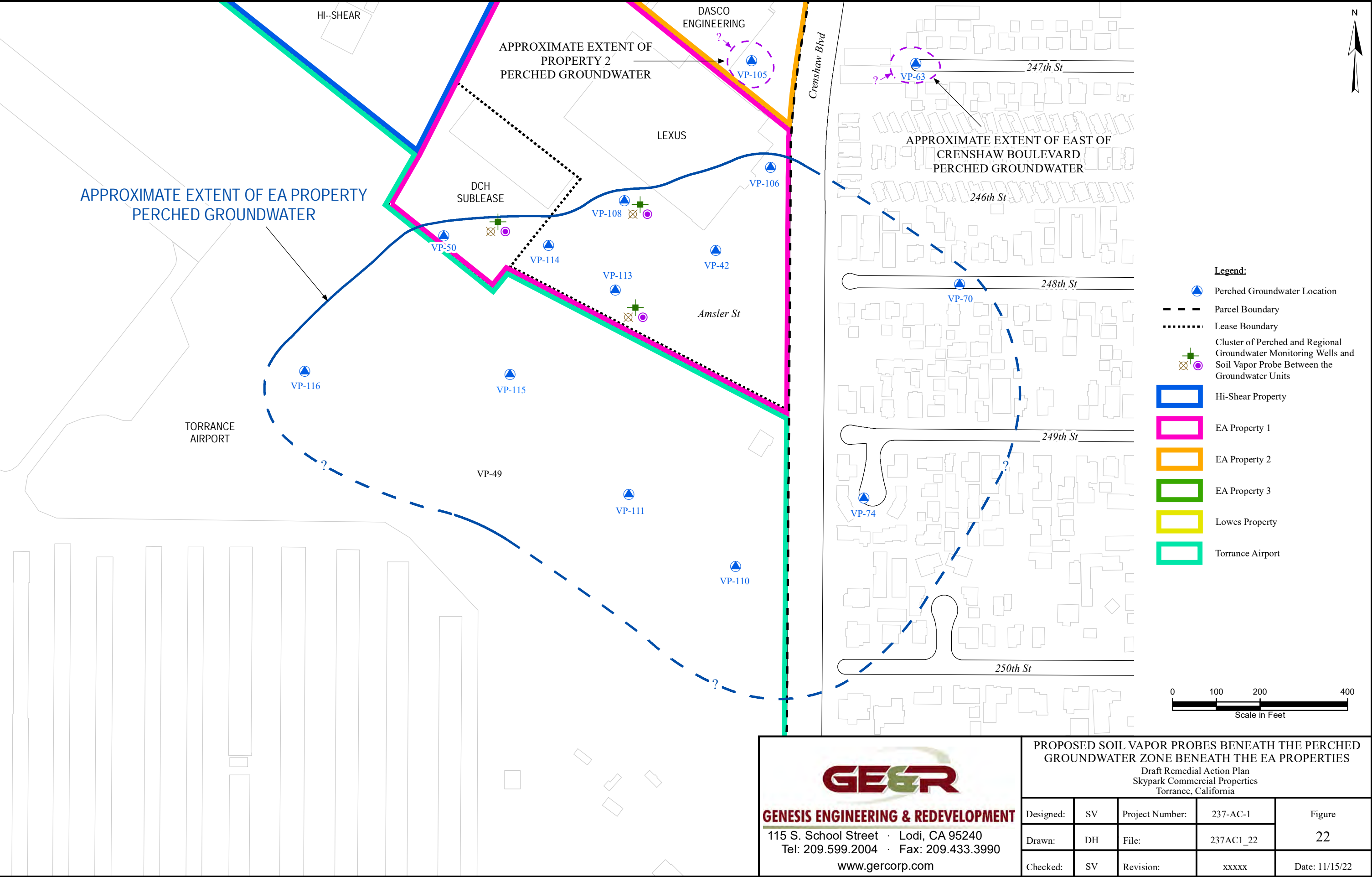
Attachment 2 - Figure 21 – Proposed Perched Groundwater Wells Beneath the HSC Property



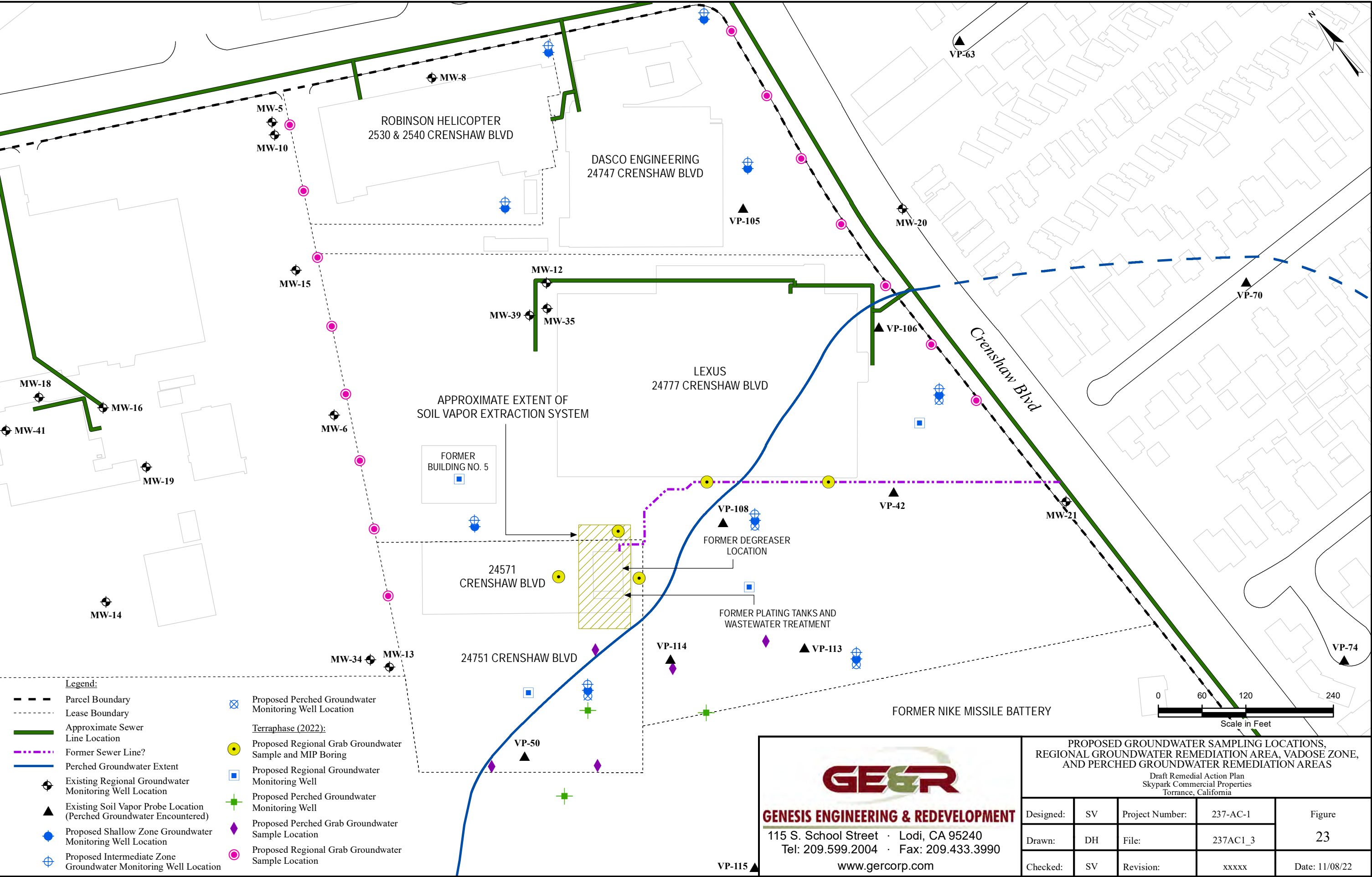
Attachment 3 - Figure 20 – Proposed Soil Vapor Probe Locations



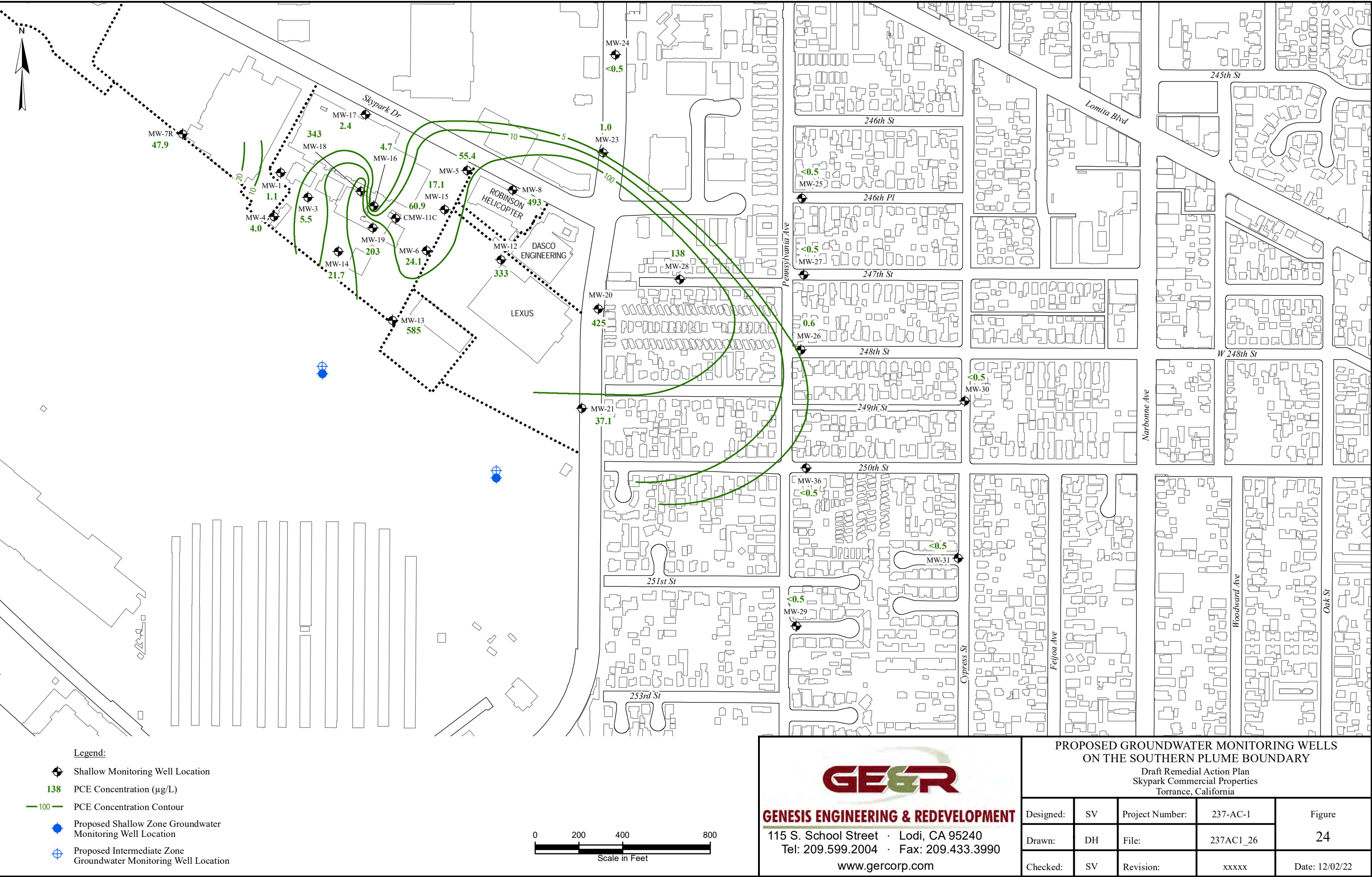
Attachment 4 - Figure 22 – Proposed Soil Vapor Probes Beneath the Perched Groundwater Zone Beneath the EA Properties

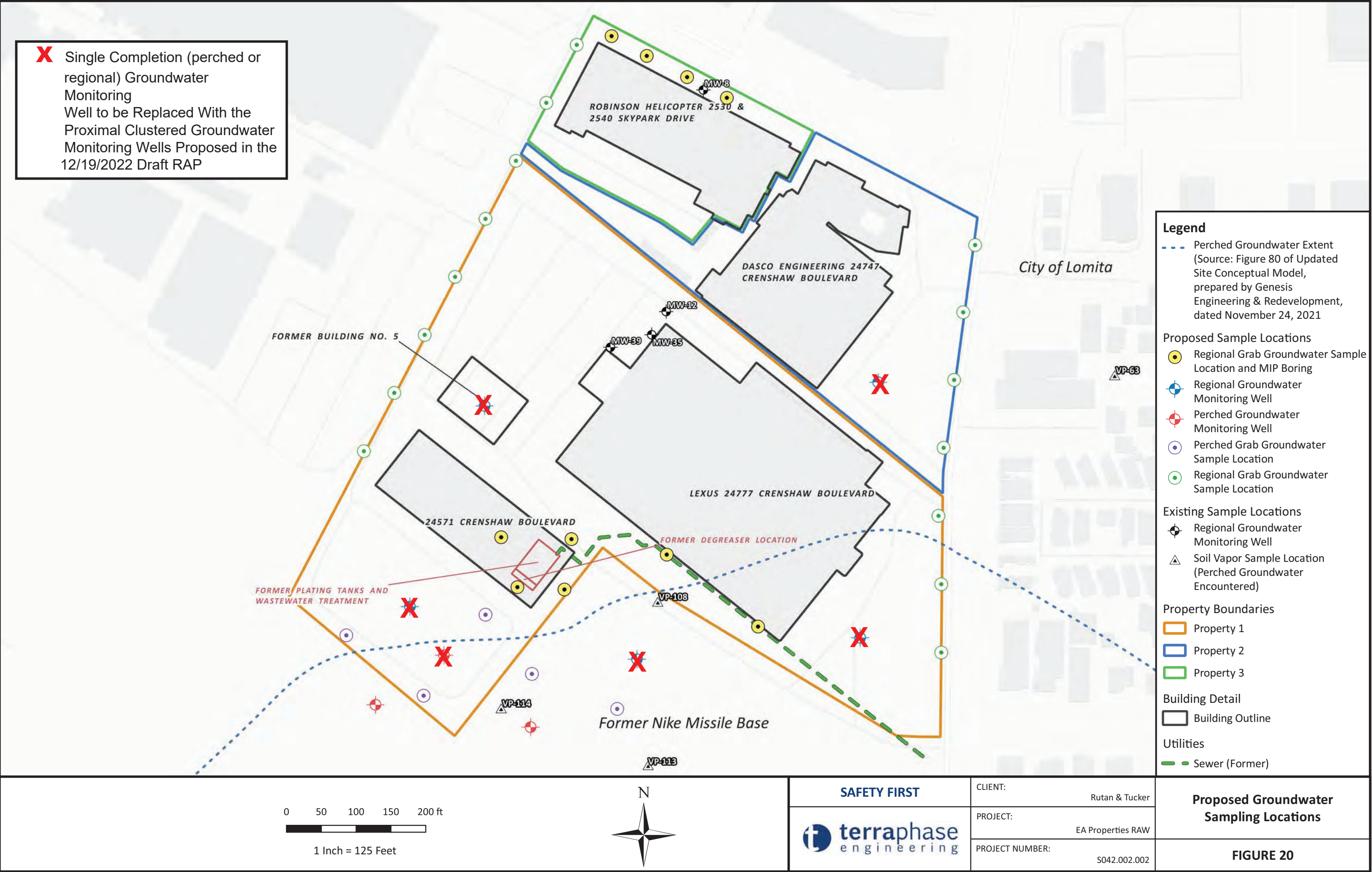


Attachment 5 - Figure 23 – Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas



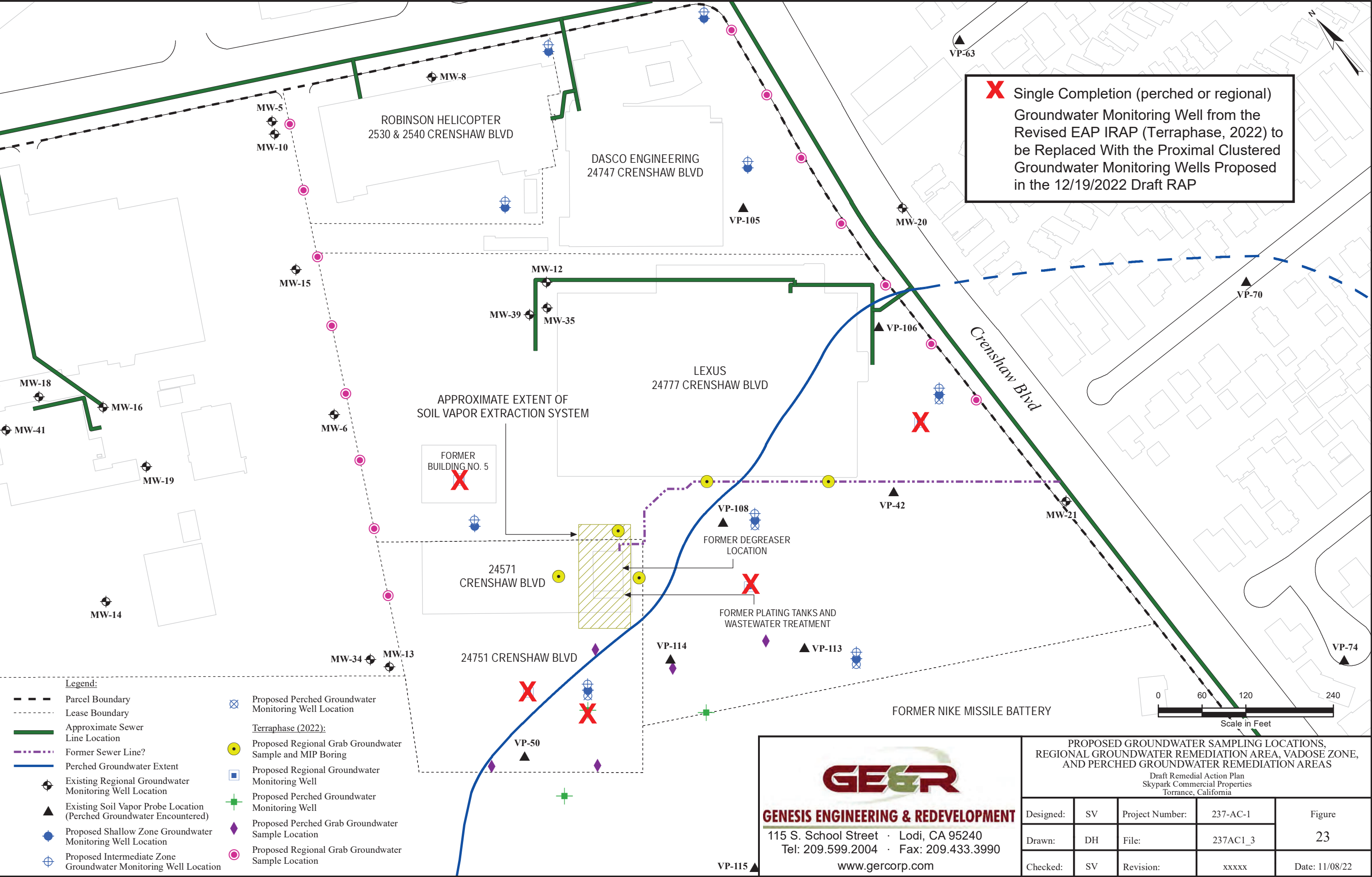
Attachment 6 - Figure 24 – Proposed Groundwater Monitoring Wells on the Southern Plume Boundary





N:\GIS\Proj\S042.002_Hishear\QGIS\QZ and GPKG\20220601\QZ322_S042.002_Hishear.qgz Figure 20 - Proposed Groundwater Sampling 2021-03-26T15:56:13.000 Created by: initial Checked by: initial

Attachment 8 - Los Angeles Water Board Modified Figure 23 – Proposed Groundwater Sampling Locations, Regional Groundwater Remediation Area, Vadose Zone, and Perched Groundwater Remediation Areas



GENESIS ENGINEERING & REDEVELOPMENT
115 S. School Street · Lodi, CA 95240
Tel: 209.599.2004 · Fax: 209.433.3990
www.gercorp.com

PROPOSED GROUNDWATER SAMPLING LOCATIONS,
REGIONAL GROUNDWATER REMEDIATION AREA, VADOSE ZONE,
AND PERCHED GROUNDWATER REMEDIATION AREAS

Draft Remedial Action Plan
Skypark Commercial Properties
Torrance, California

Designed:	SV	Project Number:	237-AC-1	Figure 23
Drawn:	DH	File:	237AC1_3	
Checked:	SV	Revision:	xxxxx	Date: 11/08/22

**CLEANUP AND ABATEMENT ORDER NO. R4-2021-0079
ATTACHMENT B: REVISED TIME SCHEDULE**

DIRECTIVE	DUE DATE
<p>1. Site Conceptual Model:</p> <p>The Dischargers shall prepare and submit to the Regional Board a Site Conceptual Model which provides details on and illustrates waste discharge scenario(s), geology and hydrogeology, waste constituent fate and transport in soil, soil vapor, and groundwater, distribution of waste constituents, exposure pathways, sensitive receptors and other relevant information.</p> <p>[Note that the Regional Board may require revisions to the Site Conceptual Model as necessary to complete the Model.]</p>	<p>Site Conceptual Model due September 10, 2021.</p> <p>Revisions due within 60 days of receiving directive from the Regional Board.</p>
<p>2. Risk Assessment:</p> <p>The Dischargers shall:</p> <ul style="list-style-type: none"> a. Prepare and submit a comprehensive HHRA b. Prepare and submit implementation reports for the response zones designated in the Vapor Intrusion Response Plan. <ul style="list-style-type: none"> i. Completion report for the Accelerated Response Zone ii. Interim completion report for the Evaluate Need for Action Zone. iii. Completion report for the Evaluate need for Action Zone c. Submit a revised Evaluate Need for Action Zone Plan and its Figure 7 – Proposed VI Assessment Sectors d. Prepare and submit semi-annual and annual soil vapor monitoring reports. <ul style="list-style-type: none"> i. Continue to monitor and submit semi-annual soil vapor probe monitoring reports for the 	<p>September 10, 2021</p> <p>August 15, 2022</p> <p>August 15, 2022</p> <p>March 17, 2023</p> <p>August 13, 2021</p> <p>Semi-annually beginning January 31, 2022</p>

DIRECTIVE	DUE DATE
<p>network of soil vapor probes (at 5 and 15 feet below ground surface) east of Crenshaw Boulevard as conditionally approved on November 15, 2021.</p> <p>ii. Monitor and submit annual soil vapor monitoring reports for all soil vapor probes across all depths associated with the Site, not otherwise covered in Directive 2.d.i. (above).</p> <p>Monitoring Periods April – June (Semiannual; Annual) October – December (Semiannual)</p>	<p>First Site-wide annual soil vapor monitoring report due July 31, 2024.</p> <p>Report Due Date July 31st January 31st</p>
<p>3. Site Assessment:</p> <p>a. The Dischargers shall prepare and submit Site Assessment Work Plan(s) for each Property</p> <p>The Dischargers shall implement the Site Assessment Work Plan(s) according to the approved schedule</p> <p>The Dischargers shall submit the Site Assessment Completion Report(s)</p> <p>Submit implementation report for the investigative component of the Revised EAP IRAP.</p> <p>b. Hi-Shear Corporation shall submit the Additional Scope Report</p> <p>c. Hi-Shear Corporation shall submit the Module IV Report</p> <p>d. Hi-Shear Corporation shall submit the Onsite Vertical Groundwater Investigation Report</p>	<p>September 10, 2021</p> <p>According to the schedule approved by the Executive Officer. Vertical and lateral delineation must be completed no later than September 12, 2022</p> <p>According to the schedule approved by the Executive Officer</p> <p>December 30, 2022</p> <p>October 15, 2021</p> <p>October 15, 2021</p> <p>August 27, 2021</p>

DIRECTIVE	DUE DATE
e. The Dischargers shall submit the Groundwater Modeling Work Plan	January 7, 2022
<p>4. Conduct Remedial Action:</p> <p>The Dischargers shall:</p> <p>a. Develop and submit the IRAP(s)</p> <ul style="list-style-type: none"> i. Submit the Groundwater IRAP implementation report ii. Prepare and submit Remediation Progress Reports for the implementation of the Groundwater IRAP iii. Submit the Revised EAP IRAP implementation report iv. Submit a complete application/report of Waste Discharge (Form 200) v. Prepare and submit Remediation Progress Reports for the implementation of the Revised EAP IRAP <p>b. Develop and submit the RAP(s)</p> <p>Implement the RAP(s)</p> <p>Prepare and submit Remediation Progress Reports for the implementation of the RAP(s)</p> <p>Upon completion of implementation of the RAP, submit a Remedial Action Completion Report</p>	<p>August 31, 2021</p> <p>May 15, 2023</p> <p>Tri-annually beginning May 15 of the year implementation of the Groundwater IRAP begins.</p> <p>September 15, 2023</p> <p>February 24, 2023</p> <p>Tri-annually beginning September 15 of the year implementation of the Revised EAP IRAP begins.</p> <p>March 31, 2022</p> <p>According to the schedule in the RAP approved by the Executive Officer. RAP Implementation must be complete and cleanup achieved by March 31, 2027.</p> <p>Quarterly beginning January 15 of the year implementation of the RAP begins</p> <p>60 days after completion of implementation of the RAP</p>

DIRECTIVE	DUE DATE
<p>5. Groundwater Monitoring:</p> <p>The Dischargers shall conduct tri-annual groundwater monitoring according to Attachment C (Monitoring and Reporting Program) and the following schedule.</p> <p>Monitoring Period January – April May – August September – December</p>	<p>The next groundwater monitoring report is due on September 15, 2021.</p> <p>Report Due Date May 15th September 15th January 15th</p>
<p>6. Public Participation: The Dischargers shall submit information and take actions addressing public participation requirements of CWC sections 13307.5 and 13307.6, including, but not limited to:</p> <p>a. Submit a baseline community assessment</p> <p>b. Submit an interested persons contact list</p> <p>c. Submit a draft fact sheet</p>	<p>According to the schedule approved by Executive Officer.</p> <p>According to the schedule approved by Executive Officer.</p> <p>According to the schedule approved by Executive Officer.</p>

CLEANUP AND ABATEMENT ORDER NO. R4-2021-0079
ATTACHMENT B: REVISED TIME SCHEDULE OF ORDER

DIRECTIVE	DUE DATE
<p>1. Site Conceptual Model:</p> <p>The Dischargers shall prepare and submit to the Regional Board a Site Conceptual Model which provides details on and illustrates waste discharge scenario(s), geology and hydrogeology, waste constituent fate and transport in soil, soil vapor, and groundwater, distribution of waste constituents, exposure pathways, sensitive receptors and other relevant information.</p> <p>[Note that the Regional Board may require revisions to the Site Conceptual Model as necessary to complete the Model.]</p>	<p>Site Conceptual Model due September 10, 2021.</p> <p>Revisions due within 60 days of receiving directive from the Regional Board.</p>
<p>2. Risk Assessment:</p> <p>The Dischargers shall:</p> <ul style="list-style-type: none"> a. Prepare and submit a comprehensive HHRA b. Prepare and submit implementation reports for the response zones designated in the Vapor Intrusion Response Plan. <ul style="list-style-type: none"> i. Completion report for the Accelerated Response Zone ii. Interim completion report for the Evaluate Need for Action Zone. iii. Completion report for the Evaluate need for Action Zone c. Submit a revised Evaluate Need for Action Zone Plan and its Figure 7 – Proposed VI Assessment Sectors <u>d. Prepare and submit semi-annual and annual soil vapor monitoring reports.</u> <ul style="list-style-type: none"> <u>i. Continue to monitor and submit semi-annual soil vapor probe monitoring reports for the</u> 	<p>September 10, 2021</p> <p>August 15, 2022</p> <p>August 15, 2022</p> <p>March 17, 2023</p> <p>August 13, 2021</p>

DIRECTIVE	DUE DATE
<p><u>network of soil vapor probes (at 5 and 15 feet below ground surface) east of Crenshaw Boulevard as conditionally approved on November 15, 2021.</u></p> <p><u>ii. Monitor and submit annual soil vapor monitoring reports for all soil vapor probes across all depths associated with the Site, not otherwise covered in Directive 2.d.i. (above).</u></p> <p>Prepare and submit semi-annual soil vapor probe monitoring reports for the network of soil vapor probes east of Crenshaw Boulevard according to the following schedule:</p> <p>Monitoring Periods JuneApril – June (Semiannual; Annual) DecemberOctober – December (Semiannual)</p>	<p>Semi-annually beginning January 31, 2022</p> <p><u>First Site-wide annual soil vapor monitoring report due July 31, 2024.</u></p> <p>Report Due Date July 31st January 31st</p>
<p>3. Site Assessment:</p> <p>a. The Dischargers shall prepare and submit Site Assessment Work Plan(s) for each Property</p> <p>The Dischargers shall implement the Site Assessment Work Plan(s) according to the approved schedule</p> <p>The Dischargers shall submit the Site Assessment Completion Report(s)</p> <p><u>Submit implementation report for the investigative component of the Revised EAP IRAP.</u></p> <p>b. Hi-Shear Corporation shall submit the Additional Scope Report</p>	<p>September 10, 2021</p> <p>According to the schedule approved by the Executive Officer. Vertical and lateral delineation must be completed no later than September 12, 2022</p> <p>According to the schedule approved by the Executive Officer</p> <p><u>December 30, 2022</u></p> <p><u>3</u> October 15, 2021</p>

DIRECTIVE	DUE DATE
<p>c. Hi-Shear Corporation shall submit the Module IV Report</p> <p>d. Hi-Shear Corporation shall submit the Onsite Vertical Groundwater Investigation Report</p> <p><u>e.</u> The Dischargers shall submit the Groundwater Modeling Work Plan</p>	<p>October 15, 2021</p> <p>August 27, 2021</p> <p>January 7, 2022</p>
<p>4. Conduct Remedial Action:</p> <p>The Dischargers shall:</p> <p>a. Develop and submit the IRAP(s)</p> <p>i. Submit the Groundwater IRAP implementation report</p> <p>ii. Prepare and submit Remediation Progress Reports for the implementation of the Groundwater IRAP</p> <p><u>iii.</u> Submit the Revised EAP IRAP implementation report</p> <p><u>iii-iv. Submit a complete application/report of Waste Discharge (Form 200)</u></p> <p><u>iv-v.</u> Prepare and submit Remediation Progress Reports for the implementation of the Revised EAP IRAP</p> <p>b. Develop and submit the RAP(s)</p> <p>Implement the RAP(s)</p>	<p>August 31, 2021</p> <p>May 15, 2023</p> <p>Tri-annually beginning May 15 of the year implementation of the Groundwater IRAP begins.</p> <p>September 15, 2023</p> <p><u>February 24, 2023</u></p> <p>Tri-annually beginning September 15 of the year implementation of the Revised EAP IRAP begins.</p> <p>March 31, 2022</p> <p>According to the schedule in the RAP approved by the Executive Officer. RAP Implementation must</p>

DIRECTIVE	DUE DATE
<p>Prepare and submit Remediation Progress Reports for the implementation of the RAP(s)</p> <p>Upon completion of implementation of the RAP, submit a Remedial Action Completion Report</p>	<p>be complete and cleanup achieved by March 31, 2027.</p> <p>Quarterly beginning January 15 of the year implementation of the RAP begins</p> <p>60 days after completion of implementation of the RAP</p>
<p>5. Groundwater Monitoring:</p> <p>The Dischargers shall conduct tri-annual groundwater monitoring according to Attachment C (Monitoring and Reporting Program) and the following schedule.</p> <p>Monitoring Period January – April May – August September – December</p>	<p>The next groundwater monitoring report is due on September 15, 2021.</p> <p>Report Due Date May 15th September 15th January 15th</p>
<p>6. Public Participation: The Dischargers shall submit information and take actions addressing public participation requirements of CWC sections 13307.5 and 13307.6, including, but not limited to:</p> <ul style="list-style-type: none"> a. Submit a baseline community assessment b. Submit an interested persons contact list c. Submit a draft fact sheet 	<p>According to the schedule approved by Executive Officer.</p> <p>According to the schedule approved by Executive Officer.</p> <p>According to the schedule approved by Executive Officer.</p>