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Data Response Set 1 - Appendix A

DR GEO-1 Geotechnical Engineering Report - Volume 1, Part 1

Darden Solar Facility

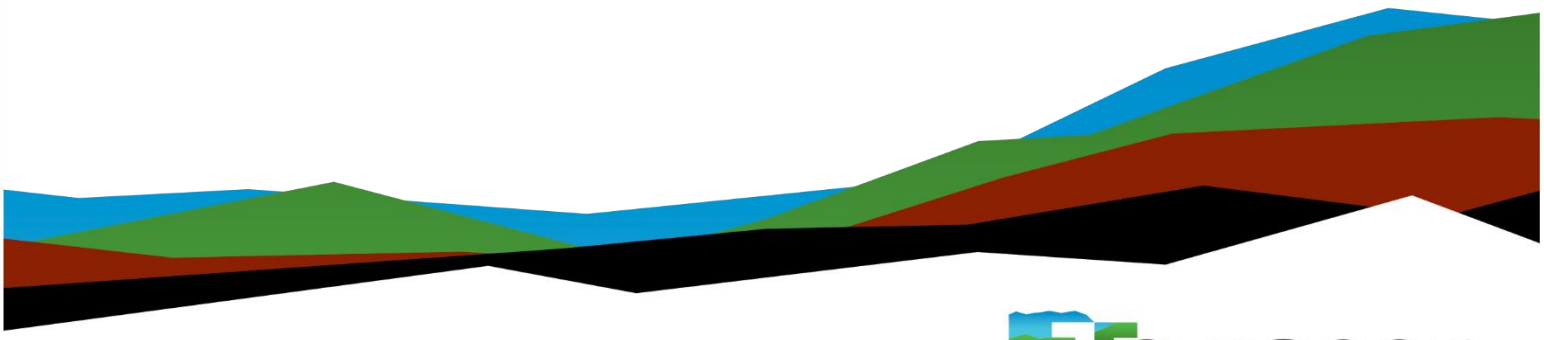
Preliminary Geotechnical Engineering Report

Volume I

October 13, 2023 | Terracon Project No. 60225172

Prepared for:

IP Darden I, LLC



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October 13, 2023

IP Darden I, LLC

Attn: Mrs. Mandy Chan
P: (410) 860-8906
E: mandy@intersectpower.com

Re: Preliminary Geotechnical Engineering Report
Darden Solar Facility
Cantua Creek, Fresno County, California
Terracon Project No. 60225172

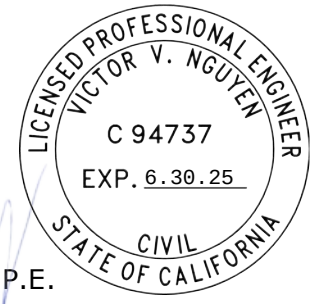
Dear Mrs. Chan:

We have completed the scope of Preliminary Geotechnical Engineering services for the above referenced project in general accordance with IP Darden I, LLC Statement of Work No. 1 dated December 14, 2022 and First and Second Amendments to the Statement of Work dated February 21, 2023 and May 1st, 2023, respectively. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and access roads for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon



Victor V. Nguyen, P.E.
Senior Staff Engineer

Joshua R. Morgan, P.E.
Regional Geotechnical Manager

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Attachments

Note: This report was originally delivered in a web-based format. **Blue Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon logo will bring you back to this page. For more interactive features, please view your project online at **client.terracon.com**.

Refer to each individual Attachment for a listing of contents.

Geohazards and Considerations

Item	Overview Statement [1]
Pile Drivability	Pile driving difficulty is not a concern at the site. All piles were driven to target depths with no refusals encountered.
Shallow Bedrock	Shallow bedrock is not anticipated at the site.
Frost Potential	Frost susceptibility is not anticipated at the site.
Expansive soils	Expansive soils are present on this site. Expansion heave forces are not anticipated to be a design concern for driven piles supporting array fields due to low active zone depths. Expansive heave forces are anticipated to structures supported on shallow concrete foundations within the original substation, BESS, and hydrogen facility location. As such, mitigative measures have been provided in this report. Expansive heave forces are not anticipated to affect shallow foundations within the alternate facilities area.
Shallow Groundwater	Groundwater was encountered on site at approximate depths ranging from 14 to 24½ feet below existing site grades (bgs).
Liquefaction	Liquefaction analysis was conducted within the proposed substation area. Analysis results indicate on-site soils within this area are susceptible to liquefaction at approximate depths of 7½ to 12 and 35 to 39 feet bgs. This area of the site is situated within relatively flat farmland, it is our opinion that lateral spreading hazard within this area of the site is low. Groundwater is anticipated to be deeper than 50 feet below existing site grades within the alternate facilities area. Based on the anticipated depth to historic groundwater, it is our opinion that liquefaction hazard within this area is considered low. Subsequently, other geologic hazards related to liquefaction (such as lateral spreading) are also considered low.
Karst	Karst is not a concern at this site.

1. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

Introduction

This report presents the results of our subsurface exploration and Preliminary Geotechnical Engineering services performed for the proposed solar power facility to be located in Cantua Creek, Fresno County, California. The purpose of these services was to provide information and geotechnical engineering recommendations relative to the proposed solar development.

The preliminary geotechnical engineering Scope of Services for this project included soil borings, field electrical resistivity testing, laboratory thermal resistivity testing, laboratory corrosion testing, and pile load testing. Additional details can be found in the **Exploration and Testing Procedures** section of this report.

Project Description

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	The following information was provided via email on 10/11/2022 by NEER: ▪ Darden Solar Project - Geotechnical Investigation Scope of Work; provided via email November 9, 2022 ▪ Proposed project boundaries, alignments, and parcel statuses for the site (Multiple Google Earth .KMZ files)
Project Description	The proposed solar project consists of construction of an approximately 9,100-acre solar array field. In addition, a substation, switchyard, BESS, hydrogen facility, and approximately 10-mile-long gen-tie line are also anticipated on site. Furthermore, we understand that an alternate substation and hydrogen facility location (located near the proposed switchyard) are also being considered. Our scope of services includes subsurface characterization for the alternate facilities.
Proposed Structures	Solar arrays, transformers, various ancillary equipment structures, battery containers, pole-structures, and access roads are planned as part of the site development.
Construction	We anticipate the solar array structures will be supported by driven steel piles. We anticipate BESS structures will be supported on mat

Item	Description
	foundations, grade beams, driven piles, or short drilled piers. We anticipate substation/switchyard structures will be supported on mat foundations, spread footings, or drilled piers. We anticipate hydrogen facility structures will be supported on mat foundations or spread footings.
Maximum Loads (Assumed based on previous experience)	We have estimated the following foundation loads for the project: **Panel array racking system:** ▪ PV Module Downward: 1 – 7 kips ▪ PV Module Uplift: 0.5 – 3 kips ▪ PV Module Lateral: 1 – 2 kips ▪ PV Module Moment: 0.1 to 30 kip-ft **Ancillary Electrical Equipment in the Array:** ▪ 50 kips **Transformers:** ▪ 500 to 1,000 psf contact pressure **BESS Pads:** ▪ 400 to 800 psf contact pressure **Ground Line Reaction Loads at T-Lines** ▪ 65 kips axial compression ▪ 210 kips shear ▪ 15,000 foot-kips overturning moment
Grading	We assume that the PV array fields will generally follow existing grades within a majority of the PV field areas. We assume that proposed batteries will be built on multiple pads with gears near existing with minimal earthwork required, excluding remedial grading requirements. We assume that grading at substations/switchyard/hydrogen facility will be minimal with cut/fill on the order of 2 to 3 feet to create a level pad for support of proposed equipment.
Access Roads	We understand that access roads are anticipated on site. We Understand anticipated low-volume access road traffic conditions and allowable design parameters consist of the following: ▪ Vehicle primarily comprised of pickup truck ▪ Vehicles will travel only twice per week ▪ Service Life of 30 years ▪ Based on the above, we estimate a total ESAL of 10,000. This should be verified by the project Civil Engineer ▪ Allowable rut depth of 1.5” and 2” In addition, the road section should be able to accommodate single passes by a standard aerial ladder fire truck.

Item	Description
	Terracon should be contacted if significant changes in traffic loads or in the characteristics described are anticipated.

Terracon should be notified if any of the above information is inconsistent with the planned construction, as modifications to our recommendations may be necessary.

Site Conditions

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located in Cantua Creek, Fresno County, California and is situated within various parcels totaling an approximate footprint of 9,100 acres within the array areas. The alternate substation, hydrogen facility, and switchyard include an additional 85 acres. Approximate coordinates for the center of the array fields are 36.4915°N, 120.2049°W. Approximate coordinates for the center of the alternate facilities and switchyard area are 36.4256°N, 120.3986°W. See **Site Location**
Existing Improvements	Undeveloped, predominantly used for agricultural purposes
Current Ground Cover	Crop fields, exposed soils, and waist-high brush
Existing Topography	Generally, the site is relatively flat and has approximate elevations ranging from 188 to 245 feet and generally increases in elevation towards the west and south within array fields. Elevations at the gen-tie range from 260 feet at the eastern limits by the array fields to 520 feet at the point of termination at the alternate facilities location. Elevations along the gen-tie generally increases towards west. Topography at the alternate facilities area is generally flat with elevations ranging from 490 feet at the northeast corner to 560 feet at the southwest corner and generally increases in elevation towards the southwest direction.

Geotechnical Characterization

Exploration Results

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting, and our understanding of the project.

Subsurface conditions encountered within the array area (including the substation and BESS locations) generally consisted of soft to hard fat and lean clay with varying amounts of sand with minor interbedded layers of very loose to medium dense sand with varying amounts of silt and clay. A sandy silt layer was encountered in boring B-111 to an approximate depth of 15 feet below existing site grades (bgs).

Subsurface conditions along the alternate facilities area (Boring ID SW-1, Sub-2, and E-2) generally consisted of loose to very dense sand with varying amounts of silt, clay, and gravel. A minor interbedded layer of medium stiff to stiff sandy lean clay was encountered in boring Sub-2 between approximate depths of 25 to 30 feet bgs.

Subsurface conditions encountered along the proposed gen-tie alignment generally consisted of interbedded layers of soft to very stiff lean clay with varying amounts of sand, sandy silt, silty clay and very loose to very dense sand with varying amounts of silt and clay. A more detailed of subsurface conditions encountered at each gen-tie boring location is provided in the **Deep Foundations** section of this report.

Conditions observed at each exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** attachment of this report.

Groundwater

Groundwater was encountered on site within various borings at approximate depths ranging from 14 to 24½ feet below existing site grades (bgs) within array fields, and at approximate depths of 20 and 30 feet bgs in borings T-1 and T-2, respectively. Groundwater was not encountered during subsurface exploration at the alternate facilities site.

In clayey soils with low permeability, the accurate determination of groundwater level may not be possible without long term observation. Long term observation after drilling could not be performed as borings were backfilled immediately upon completion due to safety concerns. Groundwater levels can best be determined by implementation of a groundwater monitoring plan.

Based on review of historical groundwater data from the State Waterboards Water Data Library from State Well No. 16S16E25N002M located within the project site, historic groundwater

levels recorded in 2004 are anticipated to be approximately 4 feet BGS. Based on review of historical groundwater data from the State Waterboards Water Data Library from State Well No. 17S15E30G002M located approximately 0.92 miles southeast of the alternate facilities site, historic groundwater levels recorded in 2004 are anticipated to be deeper than 300 feet BGS.

Due to the distance and elevation change between the gen-tie borings historic groundwater levels at each gen-tie boring location has been summarized in the following table:

			Elevation from Year 1995 (ft, bgs)	**Year Recorded**	**Approximate Distance from Well to Boring or site (mi)**	**Elevation at Boring (ft)**
			284	2007	0.49 W	270
			284	2007	0.51 E	289
			71	2017	0.50 E	308
				1998	0.50 SW	333
				1998	0.55 NW	363
				1998	0.14 N	377
		428		1996	0.46 W	414
				2006	0.58 NW	445
				2006	0.06 NE	459
				2017	0.8 SE	484

Groundwater conditions may change because of seasonal variations in rainfall, runoff, and other conditions not apparent at the time of exploration. Therefore, groundwater levels during construction or at other times may be higher or lower than expected.

The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project. Long-term groundwater monitoring was outside the scope of services for this project.

[1] https://wdl.water.ca.gov/

Field Electrical Resistivity

Field measurements of soil electrical resistivity were performed by Terracon. The locations and results of the field electrical resistivity testing are included in the **Field Soil Electrical Resistivity Test Results** section of this report.

Laboratory Thermal Resistivity

Thermal resistivity tests were analyzed by Geotherm USA. Terracon collected bulk samples of subsurface materials obtained within proposed array (23 bulk samples) and substation/BESS areas (2 bulk samples). Each bulk sample had a Modified Proctor test performed, and each bulk sample was tested for thermal resistivity tests on samples remolded to 85% in the array areas or 90% in the substation/BESS location. The percent compaction is based on comparing to the material's maximum dry density as determined by test method ASTM D1557 (Modified Proctor). Tests included a minimum of 4 readings, including optimum moisture content or as-received moisture (whichever is higher), totally dry condition, and 2 intermediate moisture contents. The individual laboratory thermal resistivity dry-out curves are provided in the **Laboratory Test Results** section of this report. For convenience, maximum and minimum thermal resistivity results for wet and dry tests at 85% and 95% relative compaction are summarized below.

Thermal Resistivity Test Results Summary

Condition	Parameter	Min.	Max.	
Remolded to 85%	Remolded Wet	62	94	23
	Remolded Dry	178	248	
Remolded to 90%	Remolded Wet	83	87	2
	Remolded Dry	182	205	

moisture content.

2. The "Dry" samples were tested at a moisture content of 0%.

Laboratory Corrosion Testing

The table below lists the results of laboratory pH, soluble sulfate, sulfides, soluble chloride, total salts, oxidation-reduction potential (redox), and electrical resistivity testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

For convenience, minimum and maximum values for each respective test is provided in the following table:

Parameter	Number of Tests	Min.	Max.
pH	97	7.79	9.63
Soluble Sulfate (% by weight)	97	<0.01	
Sulfides (mg/kg)	97	Nil	Nil
Soluble Chloride (mg/kg)	97	53	927
Total Salts (mg/kg)	97	477	
Redox (mV)	97	+671	+730
			2,144

Results of soluble sulfate testing can be classified in accordance with ACI 318 – Building Code Requirements for Structural Concrete. Based on review of ACI 318, soluble sulfate testing indicate samples of the on-site soils tested have sulfate concentrations ranging from exposure class S0 to S2 when classified in accordance with Table 19.3.1.1 of the ACI Design Manual. Concrete should be designed in accordance with the exposure class provisions of the ACI Design Manual, Section 318, Chapter 19.

Numerous sources are available to characterize corrosion potential to buried metals using the parameters above. Section 10.7.5 of the AASHTO LRFD Bridge Manual, 9th Edition, 2020, states the following soil or site conditions should be considered as indicative of potential deterioration or corrosion situation for steel piles:

- Soil electrical resistivity less than 2,000 ohm-cm
- Ph value less than 5.5
- Ph value between 5.5 and 8.5 with high organic content
- Sulfate concentration greater than 1,000 ppm (mg/kg)

These test results are provided to assist in determining the type and degree of corrosion protection that may be required. We recommend that a NACE certified corrosion

professional be retained to analyze the need for corrosion protection and to design appropriate protective measures, if required.

Imported fill materials may have significantly different properties than the site materials noted above and should be evaluated if expected to be in contact with metals used for construction.

Seismic Site Class

Substation, BESS, and Hydrogen Facility

The 2022 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16, and 2022 CBC. The 2022 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class E sites with a mapped S_s value greater than or equal 0.2.

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class E sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) states that "the site coefficient F_a tend to decrease with intensity for softer sites, values of spectrum shape adjustment factor C_a tend to increase such that the net effect is approximately the same intensity of MCE_R ground motions for Site Classes C, D, and E when MCE_R ground motion intensity is strong (i.e., $S_{MS} \geq 1.0$)." Therefore, ASCE 7-16 permits the use of the value of the site coefficient F_a of Site Class C (F_a = 1.2) for Site Class E sites (for values of S_S greater than or equal to 1.0 g) in lieu of site-specific hazard analysis.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficient F_a value of 1.2 and F_v from Table 1613.2.3(2) presented in Section 16.4.4 of the 2022 CBC.

2022 California Building Code Site Classification (CBC) [1]	E [2]
Site Latitude (°N) [3]	36.4479
Site Longitude (°W) [3]	120.2454
S_s Spectral Acceleration for a 0.2-Second Period	1.241

Description	Value
S_1 Spectral Acceleration for a 1-Second Period	0.414
F_a Site Coefficient for a 0.2-Second Period	1.200
F_v Site Coefficient for a 1-Second Period	2.376

1. Seismic site classification in general accordance with the *2022 California Building Code*.
2. The 2022 California Building Code (CBC) requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings were extended to a maximum depth of 51½ feet, and this seismic site class definition considers that similar or denser soils continue below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.
3. Coordinates were centered around hydrogen, substation, and BESS facilities. Seismic design parameters (including PGA_M) may also be applied to array areas, borings T-1, and T-2.

Typically, a site-specific ground motion study may generate less conservative coefficients and acceleration values which may reduce construction costs. We recommend consulting with a structural engineer to evaluate the need for such study and its potential impact on construction costs. Terracon should be contacted if a site-specific ground motion study is desired.

Alternate Facilities Area

The 2022 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16 and 2022 CBC. The 2022 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than or equal 0.2.

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) states that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." Based on our understanding of the proposed structures, it is our assumption that the exception in Section 11.4.8 applies to the proposed structure. However, the structural engineer should verify the applicability of this exception.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of 2022 CBC.

2022 California Building Code Site Classification (CBC) [1]	D [2]
Site Latitude (°N) [3]	36.4253
Site Longitude (°W) [3]	120.3986
S_s Spectral Acceleration for a 0.2-Second Period	1.5
S_1 Spectral Acceleration for a 1-Second Period	0.52
F_a Site Coefficient for a 0.2-Second Period	1.0
F_v Site Coefficient for a 1-Second Period	1.78

1. Seismic site classification in general accordance with the *2022 California Building Code*.
2. The 2022 California Building Code (CBC) requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings were extended to a maximum depth of 51½ feet, and this seismic site class definition considers that similar or denser soils continue below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.
3. Coordinates were centered around alternate hydrogen, alternate substation, and switchyard facilities.

Seismic Site Class Considerations

Typically, a site-specific ground motion study may generate less conservative coefficients and acceleration values which may reduce construction costs. We recommend consulting with a structural engineer to evaluate the need for such study and its potential impact on construction costs. Terracon should be contacted if a site-specific ground motion study is desired.

Faulting and Estimated Ground Motions

Substation, BESS, and Hydrogen Facility

The site is located in southern California, which is a seismically active area. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. As calculated using the USGS Unified Hazard Tool, the fault, which is considered to have the most significant effect at

the site from a design standpoint, has a maximum credible earthquake magnitude of 5.84 and is located approximately 8.45 kilometers from the site.

Based on the USGS Design Maps Summary Report, using the American Society of Civil Engineers (ASCE 7-16) standard, the peak ground acceleration (PGA_M) at the project site is expected to be 0.6g. Based on the USGS Unified Hazard Tool, the project site has a mean magnitude of 6.3. Furthermore, the site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[2]

Alternate Facilities Area

As calculated using the USGS Unified Hazard Tool, the fault, which is considered to have the most significant effect at the alternate facilities area from a design standpoint, has a maximum credible earthquake magnitude of 5.57 and is located approximately 5.67 kilometers from the site.

Based on the USGS Design Maps Summary Report, using the American Society of Civil Engineers (ASCE 7-16) standard, the peak ground acceleration (PGA_M) at the project site is expected to be 0.666 g. Based on the USGS Unified Hazard Tool, the project site has a mean magnitude of 6.4. Furthermore, the site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[3]

Liquefaction

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geological Survey (CGS) has designated certain areas as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure

[2] California Geological Survey (CGS), https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/

[3] California Geological Survey (CGS), https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/

during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table.

Liquefaction analyses for the site was performed in general accordance with the DMG Special Publication 117 and 117A. The seismic settlement study utilized the software "LiquefyPro" by CivilTech. The analysis was based on the soil data from the soil borings within the substation area and a site-modified Peak Ground Acceleration (PGA_m) of 0.6 g and a mean magnitude of 6.3 for the project site. A historical groundwater depth of 4 feet bgs was utilized. LiquefyPro settlement analyses used the Tokimatsu, M-correction method and the fines percentage were corrected for liquefaction using the Modify Stark/Olson method.

Calculation results indicate that on-site soils within the substation area are susceptible to liquefaction at approximate depths of 7½ to 12 and 35 to 39 feet bgs.

Furthermore, seismically induced settlement of saturated and unsaturated sands is estimated to be on the order of 1.6 inches. Differential seismic settlement is anticipated to be on the order of 1-inch. The detailed liquefaction potential analysis results are attached to this report in the **Supporting Information** section at the end of this report.

Pile Load Testing

We completed a preliminary pile load testing program that included:

- Directing the installation of a group of three test piles at each of ninety-one (91) locations.
- Performing full-scale testing under axial compressive loads for one test pile at eighty nine locations (89 tests).
- Performing full-scale testing under axial tensile loads for two test piles in each group (182 tests).
- Performing full-scale testing under lateral loads for two test piles in each group (182 tests).

The pile load testing was performed in general accordance with ASTM D3689 Test Methods for Deep Foundations under Static Axial Tensile Load, ASTM D3966 Test Methods for Deep Foundations under Lateral Load, and ASTM D 1143, Standard Test Method for Deep Foundations under Static Axial Compressive Load.

A summary of the installation procedures and drive time curves are included in the **Test Pile Driving Data** section.

Testing Under Axial Tensile ("pull-out") Load

We performed testing under axial tensile load for the piles at each location using the procedures generally outlined below.

Two (2) piles at each PLT location, were tested under axial tensile ("pull-out") load. The test piles with the designations "A" and "B" were tested under axial tensile load.

Terracon's proprietary tripod system was used to develop the vertical tension reaction. A locking "E"- plate clamp was used to grip the top of the web for the tension tests. A load cell was used to record the applied load, and deflections were recorded using a pair of calibrated indicators (dial or digital) secured to each flange of the test pile with magnetic mounting brackets. The indicators rested on reference beams supported at least five feet from the pile. Terracon applied loads in approximately 500-lb. increments up to 7,000 lbs. (our equipment's maximum safe working load) or to the target failure criteria (0.75-inch). Yield deflection was recorded at 0.25-inch. Terracon recorded deflections after the load was brought back to zero from the target load.

Deflections were recorded using a pair of displacement indicators secured to either side of the test pile flange with a magnetic mounting bracket. The needle of each indicator rested on a reference beam supported at each end with wood and/or masonry blocks at the surface.

Testing Under Lateral Load

After testing under axial tensile load, the piles at each location were then tested under lateral load as described below.

Two (2) piles at each PLT location, were tested under lateral load. The test piles with the designations "A" and "B" were tested under lateral load.

Each pair of test piles was connected using a system of appropriately rated shackles and chain to allow each pile to effectively serve as a reaction for the other. Simultaneous load displacement testing across the strong axis was performed for each pair of piles. The test procedure is generally outlined in the following paragraphs.

A chain system was connected to the test piles using a flange clamp. The load was recorded using a load cell or equivalent and applied with a hydraulic pull cylinder or chain fall in cyclical increments of 500 pounds. The loads were applied in 500-pound increments and cycled such that six (6) cycles of loading occurred if the maximum lateral load of 7,000 pounds. was obtained during the test. The test was unloaded, and the test ended after the conclusion of the test load schedule or after the pile reached ½-inch of lateral displacement measured at 6 inches above the ground surface. Displacement indicators and reference beams supported at each end with wood blocks was used to measure deflection.

The lateral load were applied at a height of 24 inches above the ground surface (AGS).

Testing Under Axial Compressive Load

One (1) pile at each location was tested under axial compressive load. Please note that test piles with the designation "C" were tested under axial compressive load.

The load reaction was developed with heavy equipment such as an excavator located an appropriate distance from the test pile. The load was recorded using a pancake-type load cell and applied with a hydraulic cylinder in increments of 500 pounds up to a maximum of 13,000 pounds. Displacement indicators and reference beams consisting of long square tube sections supported at each end with wood blocks were used to measure deflection. The test was unloaded, and the test ended after the conclusion of the test load schedule or after the pile reaches ¾-inch of axial displacement. Terracon recorded deflections after the load was brought back to zero from the target load. Yield deflection was recorded at 0.25-inch.

PV Array Field

Geotechnical Considerations

We would expect the PV panels to be supported by driven piles.

Based on the results of the pile load testing program, we have divided the site into two axial and lateral zones (Zone A and B). A map of the zones is provided in the **Supporting Information** section at the end of this report.

Solar Panel Support Pile Design Recommendations

The L-PILE analyses considered pile tests performed during subsurface exploration and testing. The analyses considered height of load application of 24 inches, height of displacement dial of 6 inches, and embedment depth based on each respective pile test. Subsurface conditions were modeled as "Stiff Clay Without Free Water". Unit weight values were based on the subsurface conditions encountered on-site. The results of pile tests were reviewed and select pile tests were selected for LPILE modeling to determine the in-situ engineering characteristics at the site.

The L-PILE analyses were performed by applying the maximum field test load at the point of load application. The p-Multiplier was then adjusted (by trial-and-error method) such that the applied load resulted with a deflection value that matched the in-situ test results. The table below neglects a depth of 1 foot for axial and lateral resistance. This neglect is due to depth of scour and/or disturbance from utilities near the piles. Depth of neglect should be verified by the design engineer based on the scour analysis.

Since no lateral deflections were measured below the ground surface during the testing, we have assumed in our analyses that the soil-structure interaction is simulated by a long slender pile and that the pile behaves in a flexural manner as depicted on the LPILE Lateral Deflection versus Depth curves generated for each test pile. Actual lateral deflections of the test and production piles below the ground surface may vary from the results depicted from our analyses. Due to differences in lateral and axial capacities, pile recommendations were split into zones, with Zone "A" corresponding to the weaker zone.

	L-Pile Soil			
	Soft Clay	115		

[1] Note: LPILE Version 2022.12.07 was used in the analysis

The allowable axial skin friction coefficient of a straight-sided pile at the site was determined based on the axial load test results. Based on the axial tension and compression results, the allowable axial capacity of the straight-sided pile for the site can be determined by the following equation:

	Embedment Depths (feet)	**Allowable Skin Resistance**
Tension – Zone A	1-10	F_{ST} (lbs) = 130 psf x P x h
Tension – Zone B	1-10	F_{ST} (lbs) = 400 psf x P x h
Compression – Zone A	1-7	F_{SC} (lbs) = 320 psf x P x h
Compression – Zone B	1-7	F_{SC} (lbs) = 700 psf x P x h

1. Piles extending beyond 7 feet in compression and 10 feet in tension may utilize the provided skin resistance (or factor of safety of 2.0 to the ultimate skin resistance).

Where:
F_{ST} = Allowable Axial Resistance (lbs) Tension
F_{SC} = Allowable Axial Resistance (lbs) Compression
P = Pile perimeter = 2 * Flange Width + 2 * Depth (ft)
h = depth of embedment of pile (ft)

The allowable axial skin resistance parameters utilize a minimum factor of safety of 1.5. The above skin resistance values are applicable for piles that are driven a minimum of 5 feet embedment using equipment similar to a GAYK Model HRE 1000 hydraulic hammer. If a smaller

or larger drive hammer is used, we recommend Terracon be consulted to determine the minimum drive time based on the proposed equipment to be used for driving of the piles.

Geotechnical Overview

The site appears suitable for the proposed construction based upon geotechnical conditions encountered in the test borings, provided that the findings and recommendations presented in this report are incorporated into project design and construction.

Expansive soils are present on this site. This report provides recommendations to help mitigate the effects of soil shrinkage and expansion; however, even if these procedures are followed, some movement and at least minor cracking in the structure should be anticipated. The severity of cracking and other cosmetic damage such as uneven floor slabs will probably increase if any modification of the site results in excessive wetting or drying of the expansive soils. Eliminating the risk of movement and cosmetic distress may not be feasible, but it may be possible to further reduce the risk of movement if significantly more expensive measures are used during construction. We would be pleased to discuss other construction alternatives with you upon request.

We anticipate that the proposed BESS pads will be supported on either a shallow foundation system bearing on engineered fill, driven steel piles, or short drilled shafts.

We anticipation substation/switchyard equipment will be supported on a shallow foundation system bearing on engineered fill or drilled shafts.

We anticipate hydrogen facility equipment will be supported on either a mat foundation or shallow spread footings.

Estimated movements described in this report are based on effective drainage for the life of the structure and cannot be relied upon if effective drainage is not maintained. Exposed ground, extending at least 10 feet from the perimeter, should be sloped a minimum of 5% away from the building to provide positive drainage away from the structure. Grades around the structure should be periodically inspected and adjusted as part of the structure's maintenance program.

Geotechnical engineering recommendations for foundation systems and other earth connected phases of the project are outlined below. The recommendations contained in this report are based upon the results of test borings, laboratory testing, engineering analyses, and our current understanding of the proposed project. The **General Comments** section provides an understanding of the report limitations.

Earthwork

General

Grading plans were not available at the time of this report. Terracon should be given the opportunity to review grading plans when available so that we may revise any recommendations presented herein, if necessary. Based on the available information, we have assumed that earthwork for the project will include clearing and grubbing, minimal (less than three feet) excavation and filling for structures, trenching for cables and conduits, cutting and filling to achieve roadway grade, and excavations for stormwater management.

The site work conditions will be largely dependent on the weather conditions and the contractor's means and methods in controlling surface drainage and protecting the subgrade. Site preparation where shallow foundations are planned should include clearing and grubbing, installation of a site drainage system (where necessary), subgrade preparation, proofrolling and vibratory densification, as necessary. Site preparation is not necessary in the PV Array field or where inverters will be supported on driven piles except to improve site drainage where necessary; this is to preserve overall stability of ground surface and to minimize erosion in the area.

The recommendations presented for design and construction of earth supported elements including foundations, slabs, and access roadways/pavements are contingent upon following the recommendations outlined in this section.

Earthwork on the project should be observed and evaluated by Terracon. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during the construction of the project.

Site Preparation

Although no evidence of fills, utilities, or underground facilities such as septic tanks, cesspools, basements, and utilities was observed during the site reconnaissance, such features could be encountered during construction. If unexpected fills, utilities, or underground facilities are encountered, such features should be removed, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Due to past agricultural uses at the site, considerations should be given to obtaining information related to irrigation practices used at the site. Underground drain tiles may be encountered during construction, these will impact driving and resistance characteristics of the pile foundations. Terracon should be notified if subdrain tiles are known to exist at the site because additional recommendations may be needed.

We recommend the surficial topsoil or root zone material encountered during construction be removed from within the proposed access road limits to remove any organic material that may be present at the surface. Based on subsurface exploration, topsoil depth is anticipated to range from 6 to 12 inches bgs.

The exposed subgrade should then be proofrolled to delineate any soft areas. For subgrades with predominantly cohesive soils, proofrolling can be accomplished using a loaded tandem-axle dump truck with a gross weight of at least 25 tons. Areas that display deflections greater than 1 inch, pumping or rutting should be improved by scarification and compaction, or by removal and replacement with engineered soil fill. Following proofrolling, the proposed structure areas can be constructed.

Subgrade Preparation

The proposed structures may be supported by a shallow concrete foundation system bearing on engineered fill extending to a minimum depth of 2 foot below the bottom of foundations or 5 feet below existing site grades, whichever is greater.

On-site fat clay soils were encountered within array areas (including the original substation, BESS, and hydrogen facility areas). Such soils are considered expansive and not suitable for reuse as engineered fill within structural areas (foundations, structural slabs, etc). These soils may be reused in non-structural areas.

Based on results of laboratory testing, on-site lean clay soils encountered within the alternate facilities area may be utilized as engineered feel within both structural and non-structural areas.

Subgrade soils beneath roadways should be scarified to a minimum depth of 12 inches, moisture conditioned, and compacted. The moisture content and compaction of subgrade soils should be maintained until slab or pavement construction.

Structures supported on either drilled shafts or driven piles may be constructed without the above recommended remedial grading.

Exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of 10 inches, moisture conditioned, and compacted per the compaction requirements in this report.

Excavations

It is anticipated that excavations for the proposed construction in many locations can be accomplished with conventional earthmoving equipment. The subgrade soils exposed during construction are expected to be relatively stable. However, the stability of the subgrade may also be affected by precipitation, repetitive construction traffic or other factors.

The bottom of excavations should be thoroughly cleaned of loose soils and disturbed materials prior to backfill placement and/or construction.

The earthwork contractor is solely responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottoms. Excavations should be sloped or shored in the interest of safety following local and federal regulations, including current OSHA excavation and trench safety standards. As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, and/or state regulations. However, based on the currently available information, we have assumed that excavations deeper than 3 feet will not be required.

Fill Material and Placement

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than six inches in size. Pea gravel or other open-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer.

Due to the array area's (including the original substation, BESS, and hydrogen facility area) soil's expansion potential, they are not recommended for use as engineered fill beneath concrete foundations. Such soils may be used as fill materials for the following:

- general site grading
- exterior non-structural slab areas
- roadway areas

Imported low volume change soils should be used as engineered fill for:

- foundation areas
- foundation backfill

On-site soils within the alternate facilities areas may be utilized as engineered fill within the following areas:

- general site grading
- exterior non-structural slab areas
- roadway areas
- foundation areas
- foundation backfill

Imported soils for use as fill material within proposed structure areas should conform to low volume change materials as indicated in the following specifications:

Gradation	**Percent Finer by Weight (ASTM C 136)**
6"	100
3"	90-100

No. 4 Sieve 50-100
No. 200 Sieve..... 10-30

- Liquid Limit ..... 30 (max)
- Plasticity Index ..... 15 (max)
- Maximum Expansion Index* ..... 20 (max)

*ASTM D4829

The contractor shall notify the Geotechnical Engineer of import sources sufficiently ahead of their use so that the sources can be observed and approved as to the physical characteristic of the import material. For all import material, the contractor shall also submit current verified reports from a recognized analytical laboratory indicating that the import has a "not applicable" (Class S0) potential for sulfate attack based upon current ACI criteria and is "mildly corrosive" to ferrous metal and copper. The reports shall be accompanied by a written statement from the contractor that the laboratory test results are representative of all import material that will be brought to the job.

Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift. Fill lifts should not exceed 10 inches loose thickness.

Fill Material and Placement

Recommended compaction and moisture content criteria for engineered fill materials are as follows:

Material Type and Location	Per the Modified Proctor Test (ASTM D 1557)		
	Minimum Compaction Requirement	Range of Moisture Contents for Compaction Above Optimum	
		Minimum	Maximum
On-site soils and low volume change imported fill:			
Beneath foundations:	90%	0%	+3%
Fill greater than 5 feet in depth:	95%	0%	+3%
Miscellaneous backfill:	85%	0%	+3%
Utility trenches*:	90%	0%	+3%
Bottom of excavation receiving fill:	90%	0%	+3%
Beneath pavements/roadways and exterior slabs:	95%	0%	+3%
Aggregate base:	95%	-2%	+2%

*Upper 12 inches should be compacted to 95% within structural areas. Compaction requirements within utility trenches should be verified with electrical engineer based on thermal resistivity and may be modified accordingly.

Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Backfill against footings and in utility and sprinkler line trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration.

Utility Trenches

It is anticipated that the on-site soils will provide suitable support for underground utilities and piping that may be installed. Any soft and/or unsuitable material encountered at the bottom of excavations should be removed and be replaced with an adequate bedding material. A nonexpansive granular material with a sand equivalent greater than 30 should be used for bedding and shading of utilities, unless allowed or specified otherwise by the utility manufacturer.

On-site materials are considered suitable for backfill of utility and pipe trenches from one foot above the top of the pipe to the final ground surface, provided the material is free of organic matter and deleterious substances.

Trench backfill should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. If trenches are placed beneath footings, the backfill should satisfy the gradation and expansion index requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

Earthwork Construction Considerations

We recommend that a Terracon geotechnical engineer or qualified representative be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during stripping of topsoil, subgrade preparation, placement and compaction of controlled compacted fills, backfilling of excavations, and just prior to construction of any foundations, slabs, or roadways.

Care should be taken to avoid disturbance of prepared subgrade soils. The near surface soils can be easily disturbed, especially by construction traffic. Construction traffic should not operate directly on saturated or low strength soils. If the subgrade becomes saturated, desiccated, or disturbed, the affected materials should either be scarified and compacted, or be removed and replaced as previously discussed. Subgrades should be observed and tested by Terracon prior to construction.

Excavations for utility installations or shallow foundations are not expected to encounter shallow groundwater near-surface. The contractor is responsible for employing appropriate dewatering methods to control seepage and facilitate construction, if needed. In our experience, dewatering of excavations with perched water in granular soils above the water table can be accomplished with typical sump pits and pumps.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices as well as other applicable codes, and in accordance with any applicable local, state, and federal safety regulations. The contractor should be aware that slope height, slope inclination, and excavation depth should in no instance exceed those specified by these safety regulations. Flatter slopes than those dictated by these regulations may be required depending upon the soil conditions encountered and other external factors. These regulations are strictly enforced and if they are not followed, the owner, the contractor, and/or earthwork and utility subcontractor could be liable and subject to substantial penalties. Under no circumstances should the information provided in this report be interpreted to mean that Terracon is responsible for construction site safety or the contractor's activities. Construction site safety is the sole responsibility of the contractor who shall also be solely responsible for the means, methods, and sequencing of the construction operations.

Construction Observation and Testing

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation, proof-rolling, placement and compaction of controlled compacted fills, backfilling of excavations to the completed subgrade.

The exposed subgrade and each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the structural areas and 5,000 square feet in pavement/roadway areas. One density and water content test for every 50 linear feet of compacted utility trench backfill. This testing frequency criteria may be adjusted during construction as specified by the geotechnical engineer of record.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

Shallow Foundations

Recommendations for foundations for the proposed structures and related structural elements are presented in the following paragraphs.

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

Foundation Design Recommendations

Item	Description
Foundation System	Spread footings, mat foundation, or support slab with thickened edges bearing on engineered fill
Subgrade Preparation Requirements	Engineered fill extending to a minimum depth of 1 foot below the bottom of foundations or 3 feet below existing site grades, whichever is greater.
Maximum Allowable Bearing pressure (based on settlement analysis)[1]	Spread Footings ■ 3,000 psf (up to 5 feet) ■ 1,600 psf (up to 10 feet) ■ 1,100 psf (up to 15 feet) Strip Footings ■ 2,00 psf (up to 3 feet) Mat Foundations or Support Slab with Thickened Edges ■ 1,200 psf (up to 10 by 20 feet) ■ 800 psf (up to 15 by 30 feet) ■ 700 psf (up to 20 by 40 feet) ■ 600 psf (up to 25 by 50 feet)
Design Modulus of Subgrade Reaction, k[2]	160 pounds per square inch per inch (psi/in). The modulus was obtained based on estimates obtained from
Modulus Correction Factor[2]	
	Square footings and mats: 24 inches Strip footings: 18 inches
	About 1-inch
Settlement	About ½ of total settlement over a horizontal distance of 40 feet

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the foundation base elevation. An appropriate factor of safety has been applied. These bearing pressures can be increased by 1/3 for transient loads unless those loads have been factored to account for transient conditions.
2. k values should be reduced to account for dimensional effects of largely loaded areas. Where k_c is the corrected or design modulus value and B is the mat width in feet.

Lateral Earth Pressures

Design Parameters

For engineered fill comprised of on-site soils or imported low volume change materials above any free water surface, recommended equivalent fluid pressures for unrestrained foundation elements are:

ITEM	VALUE[a, b]
Active Case	40 psf/ft
Passive Case	360 psf/ft
At-Rest Case	60 psf/ft
Coefficient of Friction	0.30

[a]Note: The values are based on engineered fill materials used as backfill.
[b]Note: Uniform, horizontal backfill, compacted to at least 90% of the ASTM D 1557 maximum dry density, rendering a maximum unit weight of 125 pcf.

The lateral earth pressures herein do not include any factor of safety and are not applicable for submerged soils/hydrostatic loading. Additional recommendations may be necessary if such conditions are to be included in the design.

Fill against foundation and retaining walls should be compacted to densities specified in the Earthwork section of this report. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors.

Deep Foundations

Drilled Shaft Design Recommendations

Proposed transformer/BESS pads, turning poles, and bus supports may be supported on drilled shaft piers. Total required embedment of the drilled shaft should be determined by the structural engineer based on structural loading and parameters provided in this report.

Drilled Shaft Axial Loading

Allowable skin friction and total capacity charts are attached to our **Supporting Information** section at the end of this report. The values presented for allowable side friction and allowable end bearing include a factor of safety of 2.5 and 3.0, respectively. Due to the groundwater encountered during subsurface exploration and the anticipated depth to historic groundwater within the original substation, BESS, and hydrogen facility

area, and transmission line borings T-1, T-2, we recommend end bearing be ignored within these areas.

Based on the seismic settlement profiles within the original substation, BESS, and hydrogen facility area, on-site soils within these areas are susceptible to liquefaction at approximate depths of 7½ to 12 and 35 to 39 feet bgs. Drilled shafts should avoid terminating within these zones to avoid loss of bearing strength during a liquefaction triggering event.

Furthermore, due to the anticipated liquefaction settlement from 7½ to 12 feet, drilled shafts embedded between approximate depths of 12 to 35 feet should consider downdrag loads (negative friction) on the piers. We recommend that an average negative skin friction of 180 psf/ft be applied to each pier to a depth of 12 feet bgs. Drilled shafts embedded deeper than 35 feet should consider the same negative skin friction value down to a depth of approximately 35 feet bgs. Downdrag loads should be included with total loads.

Drilled piers should have a minimum (center-to-center) spacing of three diameters. Closer spacing may require a reduction in axial load capacity. Axial capacity reduction can be determined by comparing the allowable axial capacity determined from the sum of individual piers in a group versus the capacity calculated using the perimeter and base of the pier group acting as a unit. The lesser of the two capacities should be used in design.

The allowable uplift capacities should only be based on the side friction of the shaft; however, the weight of the foundation should be added to these values to obtain the actual allowable uplift capacities for drilled shafts. Tensile reinforcement should extend to the bottom of shafts subjected to uplift loading.

Drilled Shaft Lateral Loading

Based on our review of the subsurface conditions in the area of the substation/BESS, our laboratory testing, and the Standard Penetration Test (SPT) results, engineering properties have been estimated for the soils conditions as shown in the following table. Due to potential for disturbance within the upper soils around the shaft, lateral and axial capacity of soils within the upper 2 feet should be neglected.

Recommended geotechnical parameters for lateral load analyses by others of drilled shaft foundations have been developed for use in the LPILE computer program. The following table summarizes input values for use in LPILE analyses. LPILE estimated values of k_h may be used. Since deflection or a service limit criterion will most likely control lateral capacity design, no safety/resistance factor is included with the parameters.

Original Substation, BESS, and Hydrogen Facility Areas				
L-Pile Soil Model[1,3]		**Cohesion (psf) [2]**	**ϕ (°) [2]**	**γ (pcf) [2]**
	2-10	800	--	
Stiff Clay w/o Free	10-20	900	--	
Stiff Clay w/o Free	20-40	650	--	
	40-45	1,000	--	
		--	29	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

Alternate Facilities Area				
L-Pile Soil Model[1,3]	**Approximate Depth (feet)**	**Cohesion (psf) [2]**	**ϕ (°) [2]**	**γ (pcf) [2]**
Sand	2-5	--	32	115
Sand	5-7.5	--	36	115
Sand	7.5-15	--	32	120
Sand	15-40	--	31	120
Sand	40-50	--	34	120
Sand	50-52	--	39	120

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

L-Pile Soil Model[1,3]		Cohesion (psf) [2]	ϕ (°) [2]		γ (pcf) [2]
Stiff Clay w/o Free Water	2-7.5	625	--	0.41	
Stiff Clay w/o Free Water	7.5-10	1,250	--	0.81	
Stiff Clay w/o Free Water	10-15	500	--	0.33	58
Stiff Clay w/o Free Water	15-30	1,250	--	0.81	58
	30-35	--	29	0.45	58
Stiff Clay w/o Free Water	35-42	760		0.49	58

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-2

L-Pile Soil Model[1,3]		Cohesion (psf) [2]	ϕ (°) [2]	MFAD	γ (pcf) [2]
	2-5	250	--	0.16	
	5-20	750	--	0.49	
	20-25	1850	--	1.20	
		--	30	0.81	
		1000	--	0.65	
		--		1.80	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-3					
L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]	**MFAD**	**γ (pcf)** [2]
		--	28	0.36	
		350	--	0.24	
		--	30	0.90	
		1750	--	1.14	
	40-42	850	--	0.57	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
3. Default LPILE k_h and E_{50} values are considered acceptable.

L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]		**γ (pcf)** [2]
	2-10	500	--	0.33	
	10-30	850	--	0.55	
	30-32	1500	--	0.98	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-5					
L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]	**MFAD**	**γ (pcf)** [2]
	2-7.5	500	--	0.33	
		--	29	0.63	
		1,100	--	0.72	
		--	29	0.45	
		--	30	0.81	
		--	32	1.61	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
3. Default LPILE k_h and E_{50} values are considered acceptable.

L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]		**γ (pcf)** [2]
	2-25	500	--	0.33	
		--	30	0.81	
		--	34	1.98	
		850	--	0.55	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-7					
L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]	**MFAD**	**γ (pcf)** [2]
Stiff Clay w/o Free	2-10	500	--	0.33	
	10-15	--	28	0.36	
	25	--	30	0.99	
Stiff Clay w/o Free	25-32	1,000	--	0.65	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-8					
L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]		**γ (pcf)** [2]
Water	2-10	500	--	0.33	
Sand		--	30	0.81	
Stiff Clay w/o Free Water		1000	--	0.65	
Sand		--	31	1.08	
Stiff Clay w/o Free Water		1100	--	0.72	
Sand		--	43	4.68	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

T-9					
L-Pile Soil Model[1,3]	**Approximate Depth**	**Cohesion (psf)** [2]	**ϕ (°)** [2]	**MFAD**	**γ (pcf)** [2]
Stiff Clay w/o Free	2-10	500	--	0.33	
Stiff Clay w/o Free	10-15	1,750	--	1.14	
	15-25	--	31	1.17	
Stiff Clay w/o Free	25-42	1,350	--	0.88	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

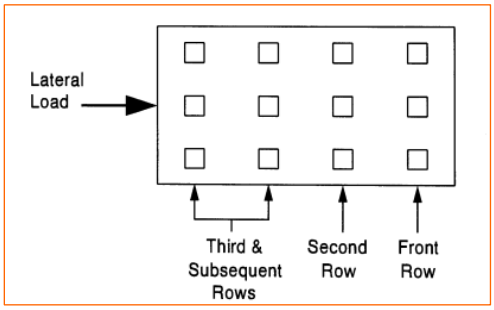
T-10					
L-Pile Soil Model[1,3]		**Cohesion (psf)** [2]	**ϕ (°)** [2]		**γ (pcf)** [2]
	2-5	1,100	--	0.72	
	5-15	2,500	--	1.63	
		--	30	0.81	
		--	38	3.15	
		--	45	6.66	

1. See boring logs for more details on Stratigraphy.
2. Definition of Terms:
   ϕ: Internal friction angle,
   γ: Effective unit weight
3. Default LPILE k_h and E_{50} values are considered acceptable.

The load capacities provided herein are based on the stresses induced in the supporting soil strata. The structural capacity of the shafts/piles should be checked to assure they can safely accommodate the combined stresses induced by axial and lateral forces. Lateral deflections of shafts/piles should be evaluated using an appropriate analysis method, and will depend upon the pile's diameter, length, configuration, stiffness and "fixed head" or "free head" condition. We can provide additional analyses and estimates of lateral deflections for

specific loading conditions upon request. The load-carrying capacity of shafts/piles may be increased by increasing the diameter and/or length.

When piers are used in groups, the lateral capacities of the piers in the second, third, and subsequent rows of the group should be reduced as compared to the capacity of a single, independent pier. Guidance for applying p-multiplier factors to the p values in the p-y curves for each row of pier foundations within a pier group are as follows:



1. Front row: P_m = 0.8;
2. Second row: P_m = 0.4
3. Third and subsequent row: P_m = 0.3.

For the case of a single row of piers supporting a laterally loaded grade beam, group action for lateral resistance of piers would need to be considered when spacing is less than five pier diameters (measured center-to-center). However, spacing closer than 3D (where D is the diameter of the pier) is not recommended due to the potential for the installation of a new pier disturbing an adjacent installed pier, likely resulting in axial capacity reduction.

Drilled Shaft Construction Considerations

Deep loose sand layers were encountered on site. Temporary steel casing may be required to properly drill and clean shafts prior to concrete placement within these layers, if encountered. The drilling speed should be reduced as necessary to minimize vibration and caving of the sand materials. The contractor should be prepared to use casing or other approved means to prevent caving. The contractor should review the boring logs to make sure they are familiar with the anticipated subsurface conditions prior to beginning construction of the deep foundations.

As an alternative to temporary casing, the shaft excavation may be backfilled with a slurry mix in order to help stabilize sloughing sidewalls of the excavation, allowed to dry, and re-drilled through the backfill. The slurry mix design should be submitted to the Geotechnical Engineer for review and approval.

Furthermore, groundwater was encountered throughout the sites. A tremie may need to be utilized for concrete placement if the concrete foundation cannot be placed in dry conditions.

Drilled shaft foundation concrete should be placed immediately after completion of drilling and cleaning. If foundation concrete cannot be placed in dry conditions, a tremie should be used for concrete placement. Due to potential sloughing and raveling, foundation concrete quantities may exceed calculated geometric volumes.

If casing is used for drilled shaft construction, it should be withdrawn in a slow continuous manner maintaining a sufficient head of concrete to prevent infiltration of water or the creation of voids in shaft concrete. Shaft concrete should have a relatively high fluidity when placed in cased shaft holes or through a tremie. Shaft concrete with slump in the range of 6 to 8 inches is recommended.

We recommend that all drilled shaft installations be observed on a full-time basis by an experienced geotechnical engineer in order to evaluate that the soils encountered are consistent with the recommended design parameters. If the subsurface soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required. The Geotechnical Engineer should observe the installation of drilled piers to verify the soil conditions and the diameter and depth of piers. Drilled piers should be constructed true and plumb.

Free-fall concrete placement in drilled piers will only be acceptable if provisions are taken to avoid striking the concrete on the sides of the hole or reinforcing steel. The use of a bottom-dump hopper, or an "elephant's trunk" discharging near the bottom of the hole where concrete segregation will be minimized, is recommended.

If the subsurface soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

Closely spaced piers should be drilled and filled alternately, allowing the concrete to set at least eight hours before drilling the adjacent pier. All excavations should be filled with concrete as soon after drilling as possible. In no event should pier holes be left open overnight. To prevent concrete from striking the walls of the pier and causing caving, the concrete should be placed with appropriate equipment so that the concrete is not allowed to fall freely more than 5 feet. All loose materials should be thoroughly cleaned from the bottom of the pier excavation. If casing is necessary and is utilized, then the casing should be withdrawn concurrently with the concrete placement.

Access Roadways

Access Roadway Design Recommendations

It is our understanding that aggregate surfaced roads will be utilized during the construction of this project.

The roadway design utilized AASHTO design methods for low volume roads. Anticipated long term roadway traffic is anticipated to consist primarily of pick-up trucks with the occasional standard aerial ladder fire truck over a period of 30 years. Based on this provided information, we estimate traffic loads on the order of 10,000 ESALs. Furthermore, we understand the allowable rut depths should be limited to 1.5 and 2 inches. Terracon should be contacted if significant changes in traffic loads or in the characteristics described are anticipated.

Laboratory testing indicated a CBR of 1 within the near-surface fat clay materials.

Based on the CBR test result and our understanding of the anticipated traffic conditions, the aggregate surface course should have a minimum thickness of 7 and 9 inches for allowable rut depths of 2 inches and 1.5 inches, respectively. Tri-axial geogrid reinforcement (Tensar TX140, TX160, or similar) may be considered to reduce the provided minimum aggregate road section thicknesses. Provided that geogrid reinforcement is utilized, the provided minimum pavement section thicknesses may be reduced to 5 and 7 inches for allowable rut depths of 2 inches and 1.5 inches, respectively. Geogrid reinforcement should be placed on the surface of compacted subgrade, beneath the aggregate base section.

Aggregate surface roadways should be constructed over a minimum of 12 inches of scarified, moisture conditioned, and compacted native soils to 95% of the maximum dry density using ASTM D1557. The recommended thicknesses should be measured after full compaction. The width of the roadway should extend a minimum distance of 1 foot on each side of the desired surface width.

Aggregate materials should conform to the specifications of Class II aggregate base in accordance with the requirements and specifications of the State of California Department of Transportation (Caltrans), or other approved local governing specifications.

Positive drainage should be provided during construction and maintained throughout the life of the roadways. Proposed roadway design should maintain the integrity of the road and eliminate ponding.

Roadway Design and Construction Considerations

Regardless of the design, un-surfaced roadways will display varying levels of wear and deterioration. We recommend an implementation of a site inspection program at a frequency of at least once per year to verify the adequacy of the roadways. Preventative measures should be applied as needed for erosion control and re-grading. An initial site inspection should be completed approximately three months following construction.

Preventative maintenance should be planned and provided for through an on-going management program to enhance future roadway performance. Preventative maintenance activities are intended to slow the rate of deterioration, and to preserve the roadway investment.

Surfacing materials should not be placed when the surface is wet. Surface drainage should be provided away from the edge of roadways to reduce lateral moisture transmission into the subgrade.

If rut depths become excessive as construction work progresses, re-grading and re-compaction should be performed as necessary. Care should be taken to reduce or eliminate trafficking of the unpaved access road when the subgrade is wet as this will result in accelerated rutting conditions. Scarification, moisture treatment as necessary, and re-compaction of the roadways will likely be necessary as the roadways deteriorate.

Materials and construction of roadways for the project should be in accordance with the requirements and specifications of the California Department of Transportation or the applicable local governing body.

General Comments

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials, or conditions. If the owner

is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others. Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

Attachments

Field Exploration Results

Contents:

Site Location

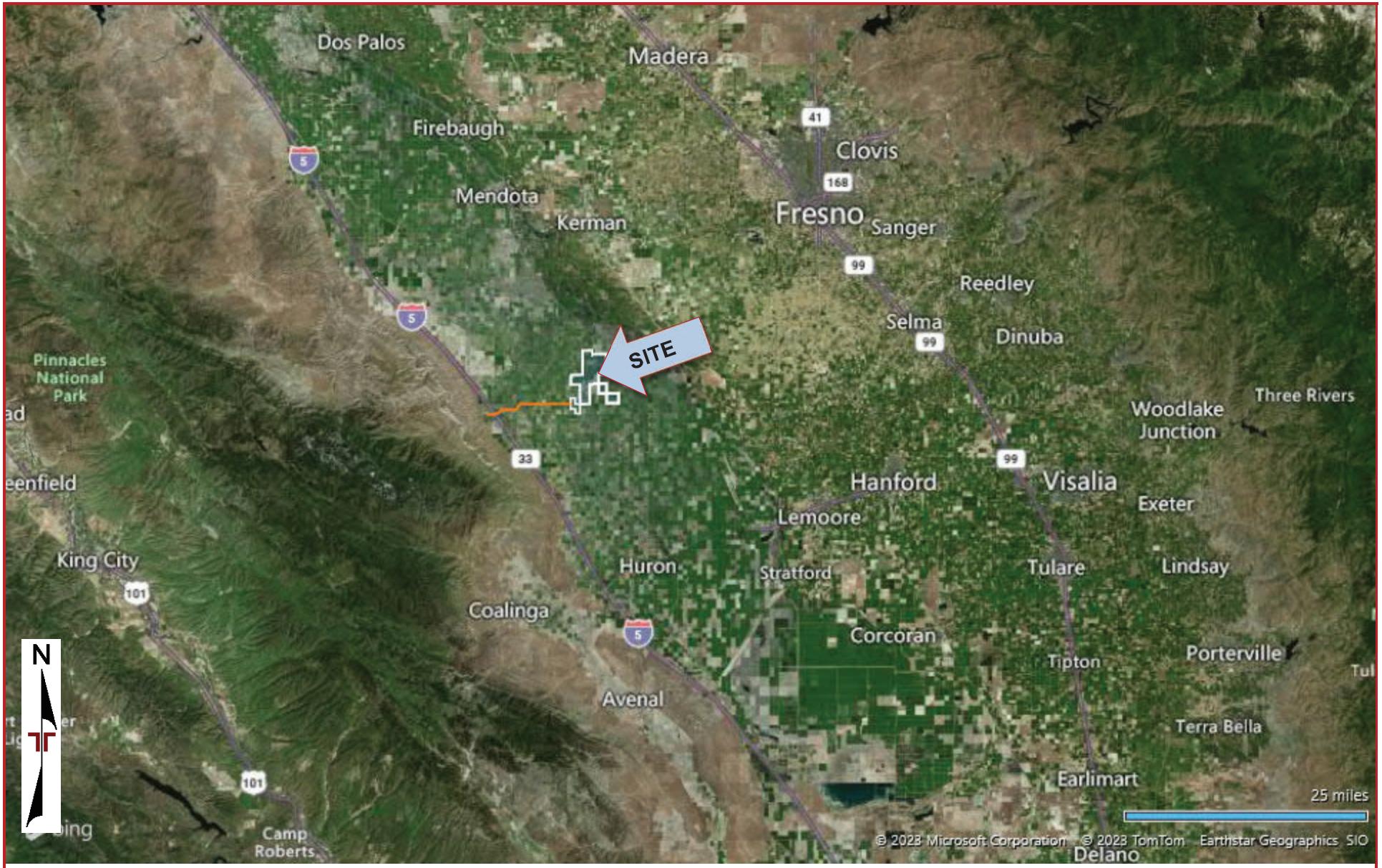
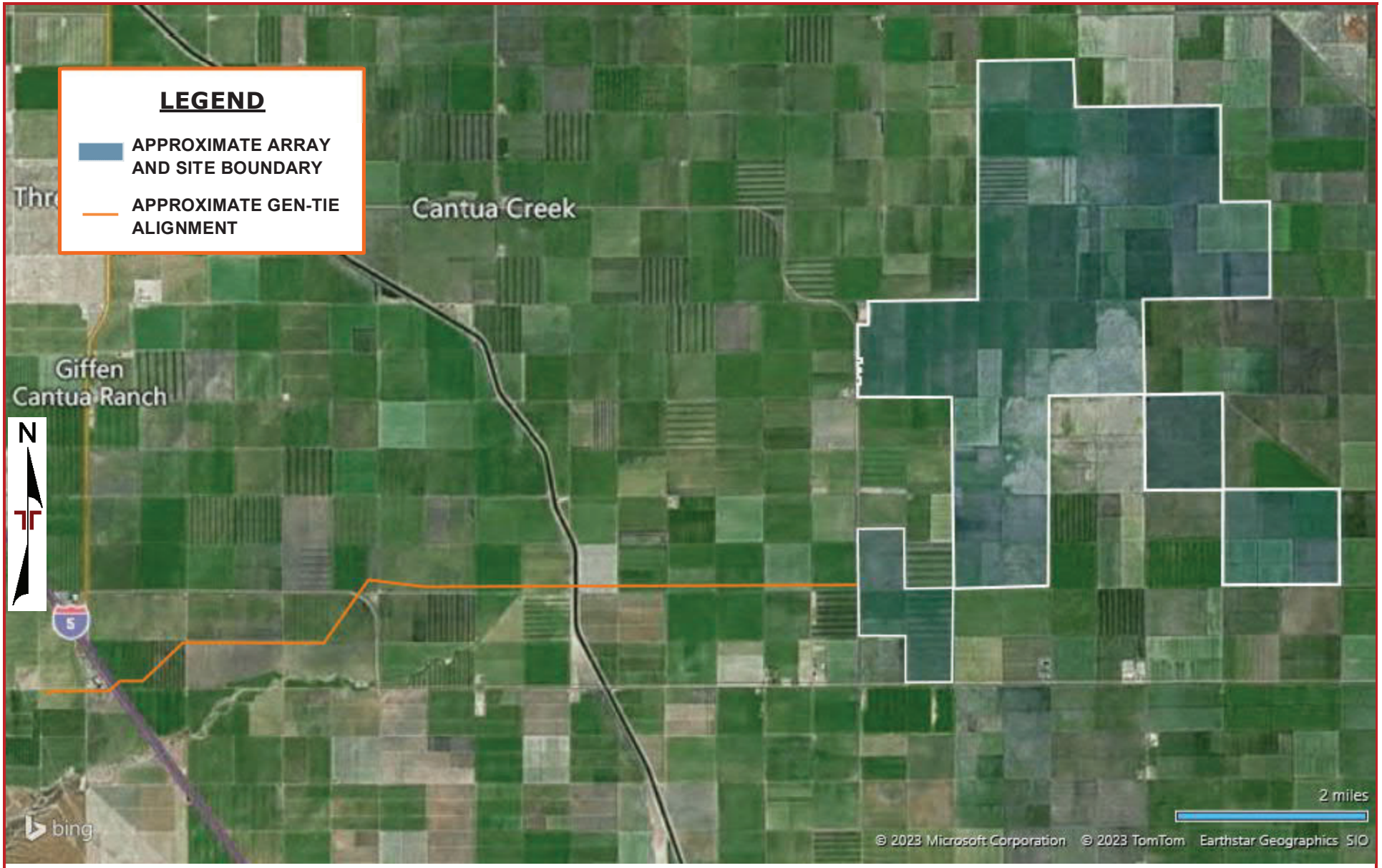


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Site Boundary



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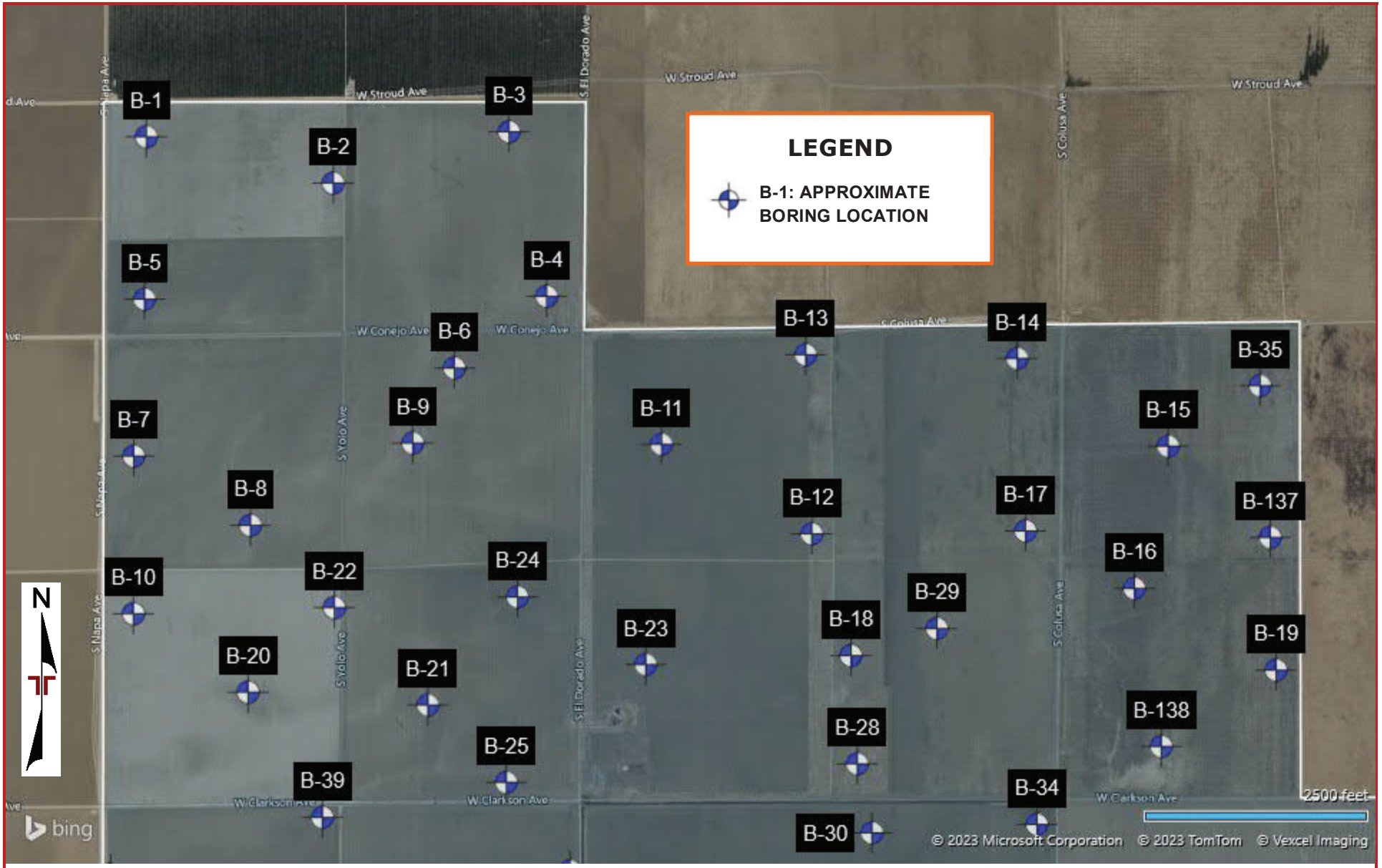
Exploration Locations (Hollow Stem Auger Locations)



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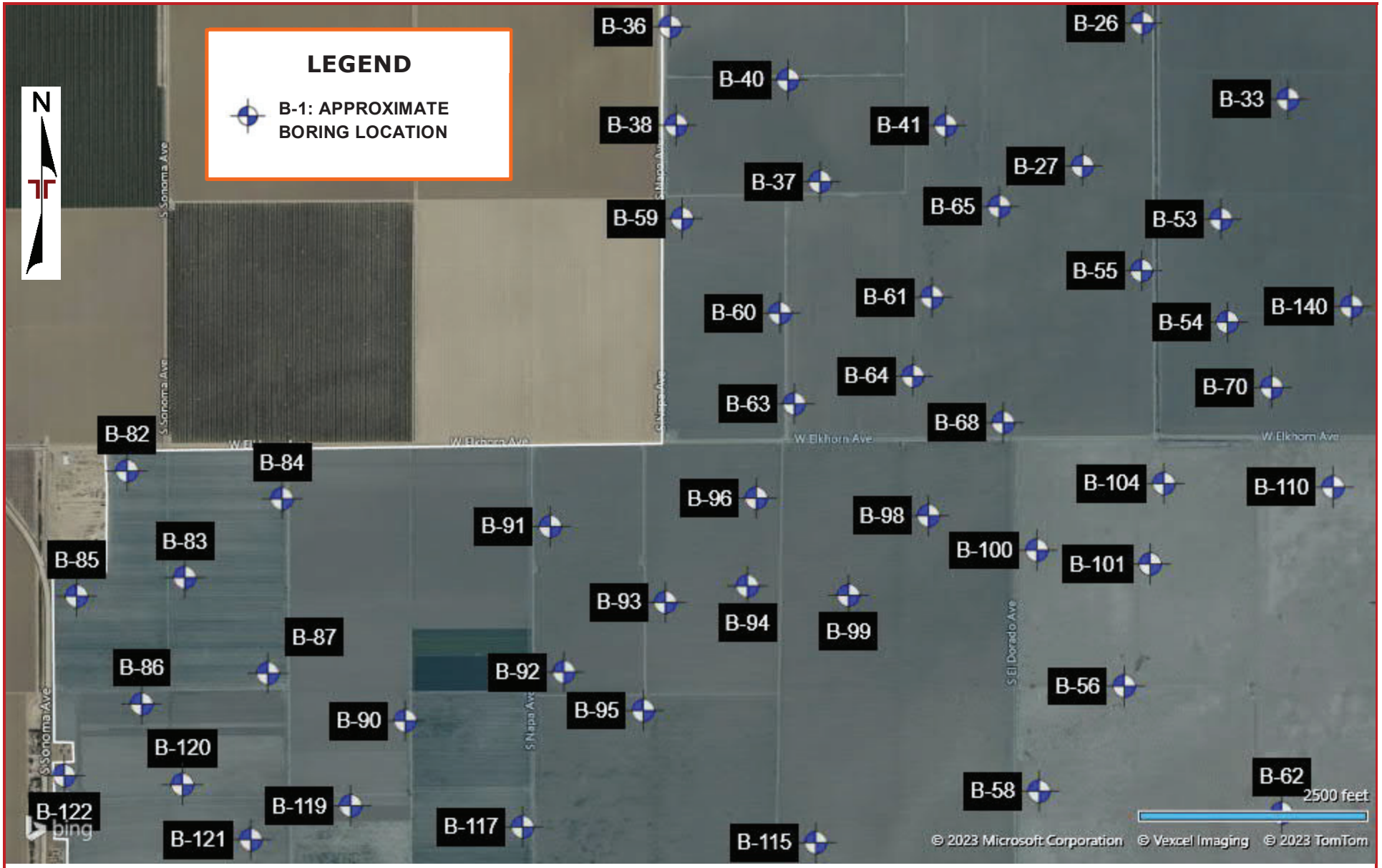

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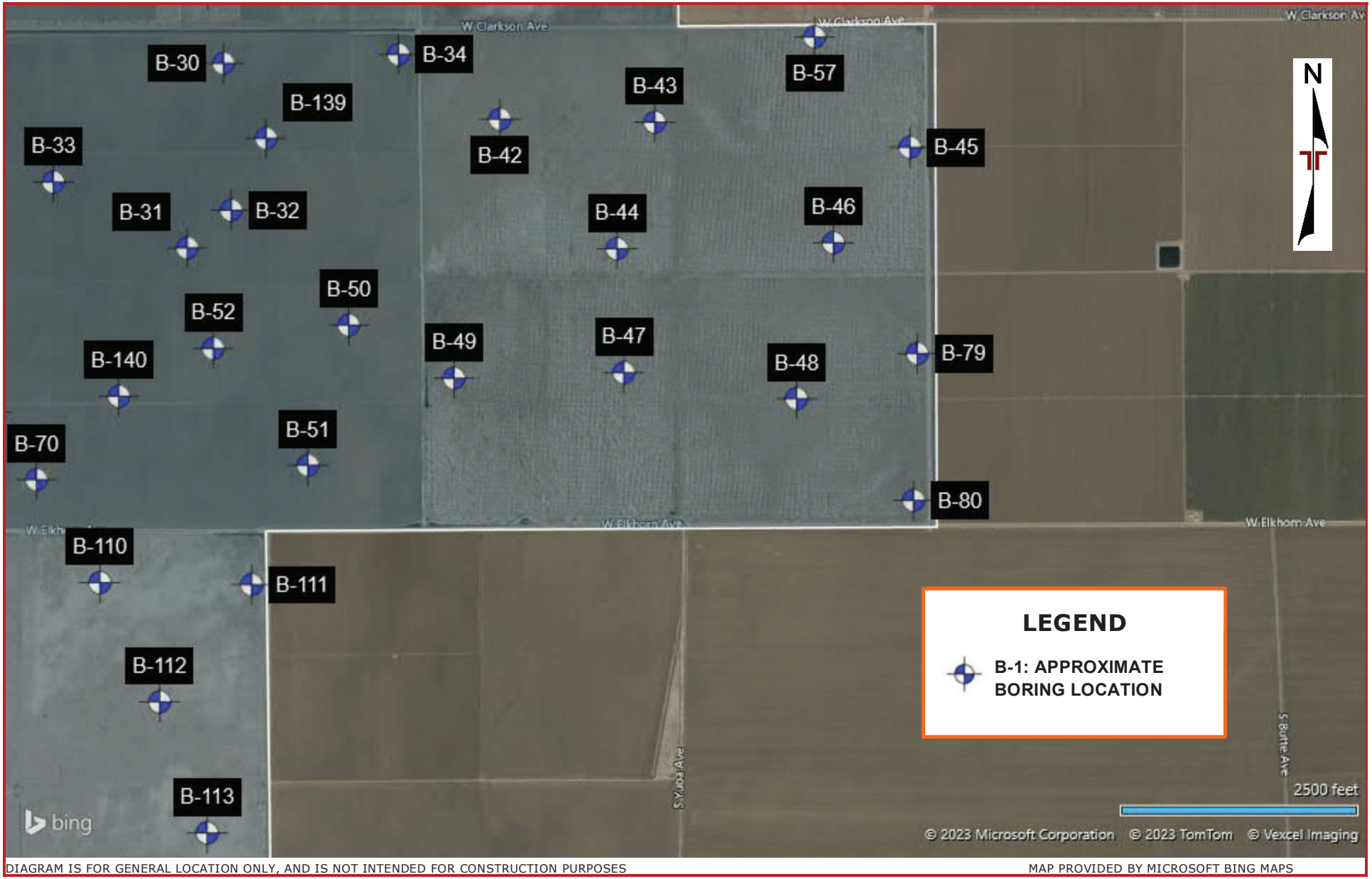

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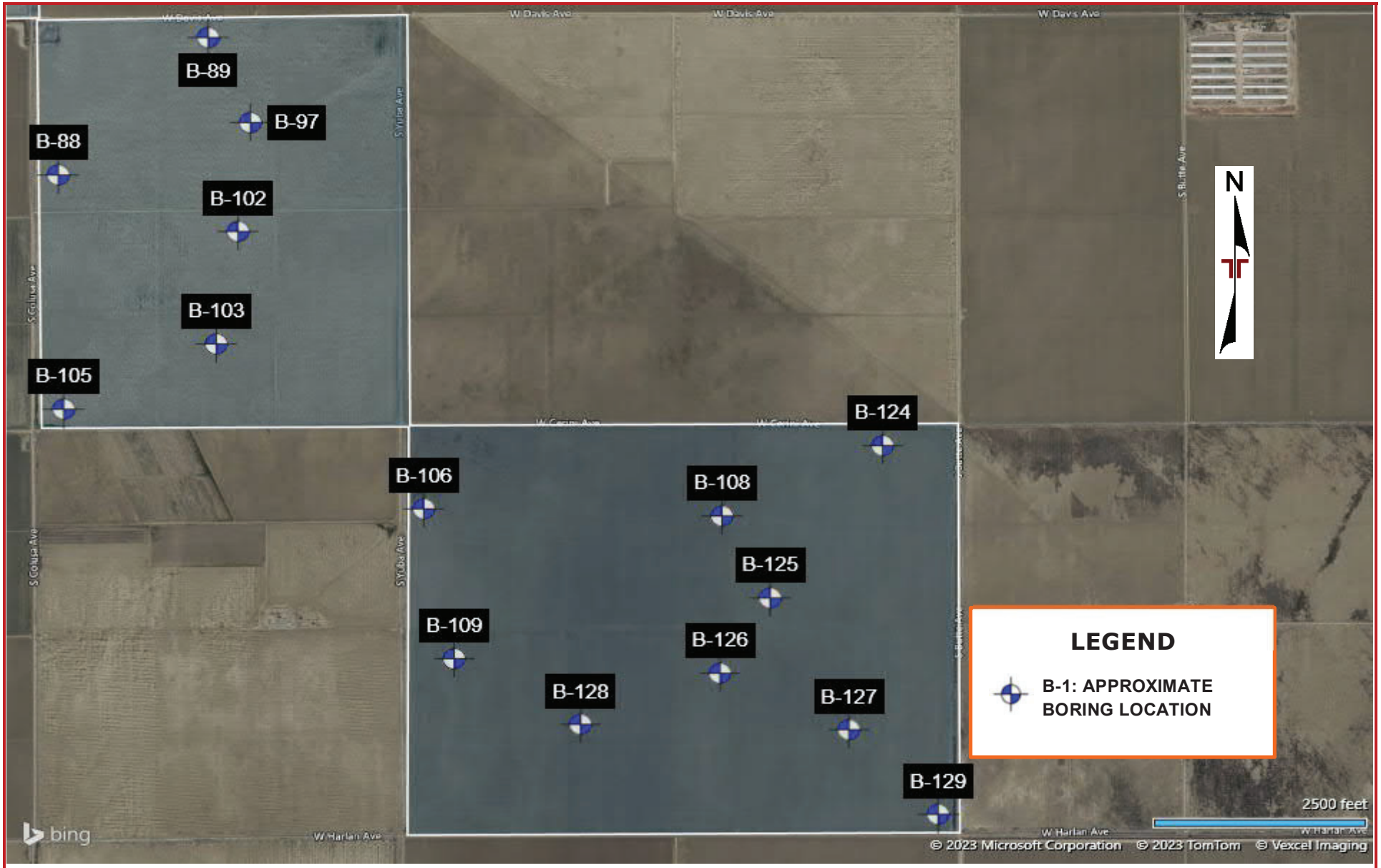

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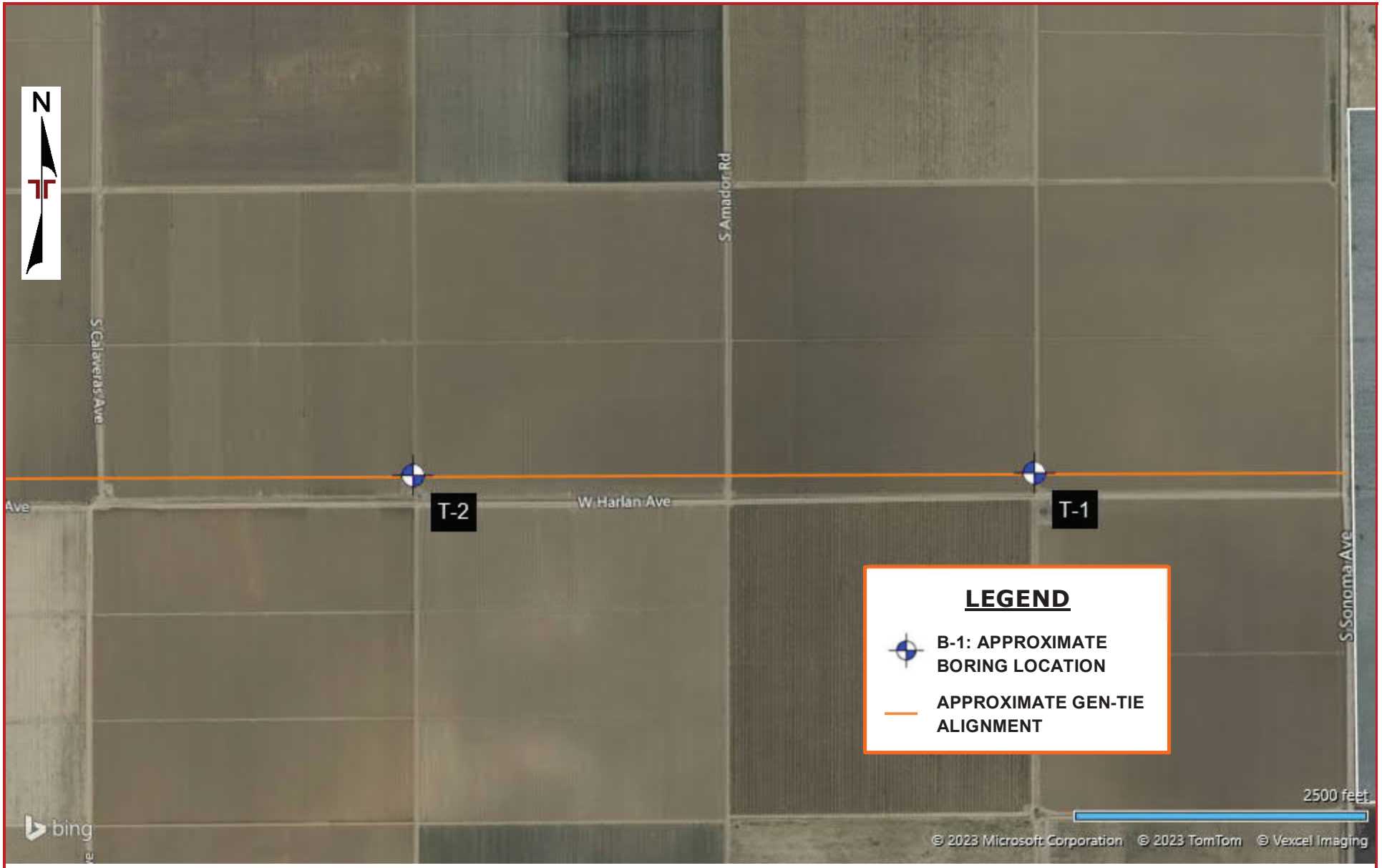

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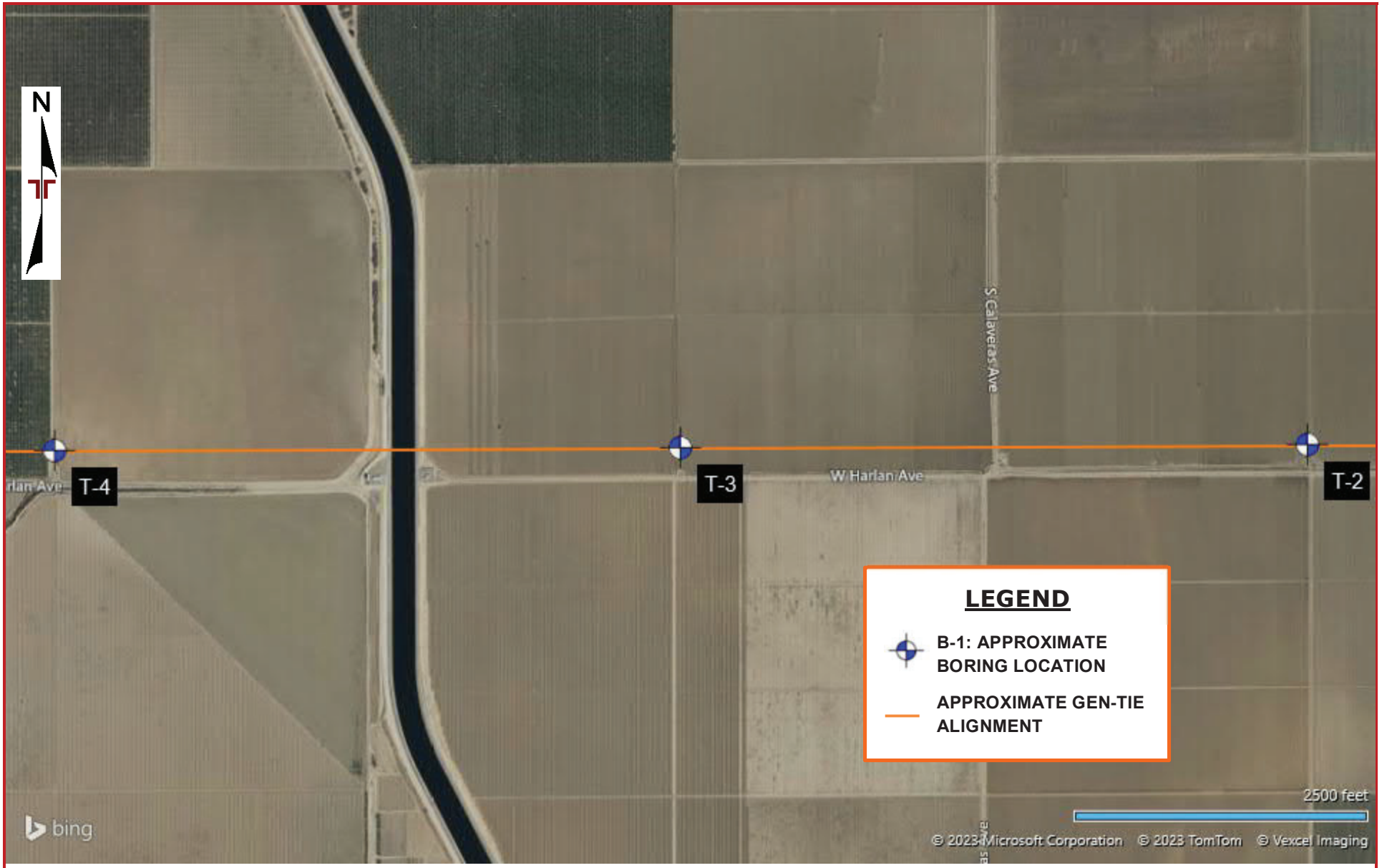

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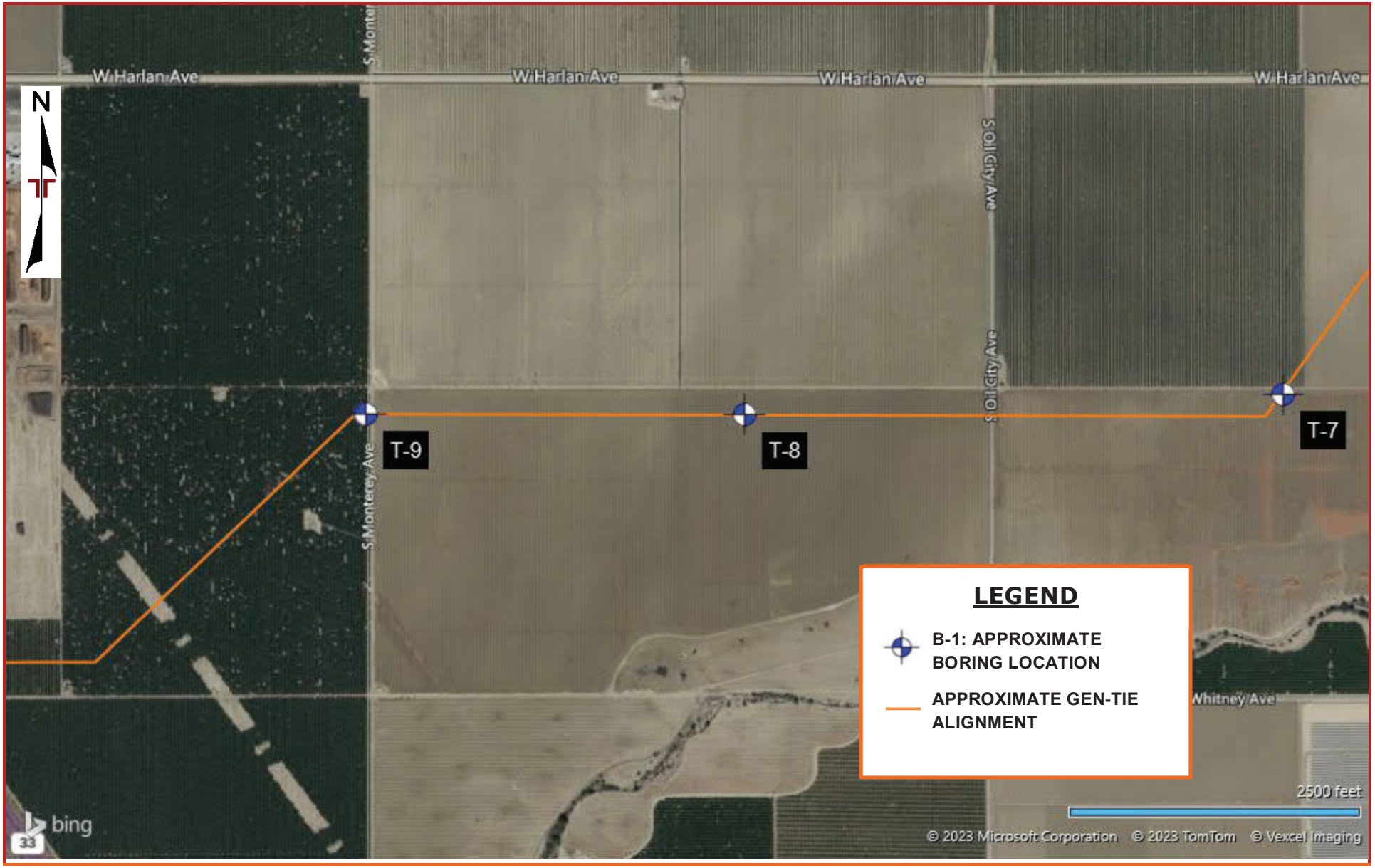

Exploration Locations (Hollow Stem Auger Locations)

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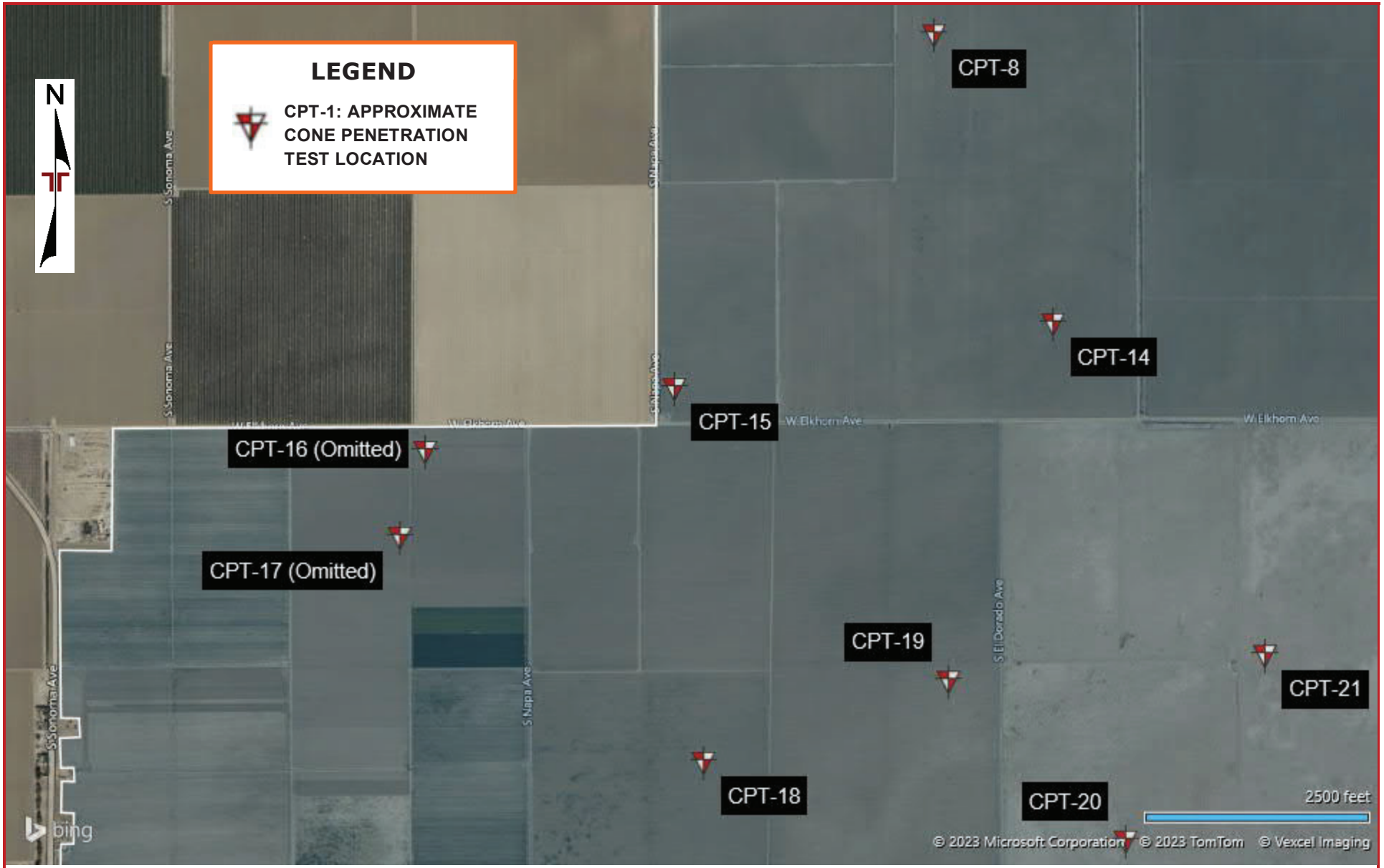
MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Locations (Cone Penetration Test Locations)

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Locations (Cone Penetration Test Locations)



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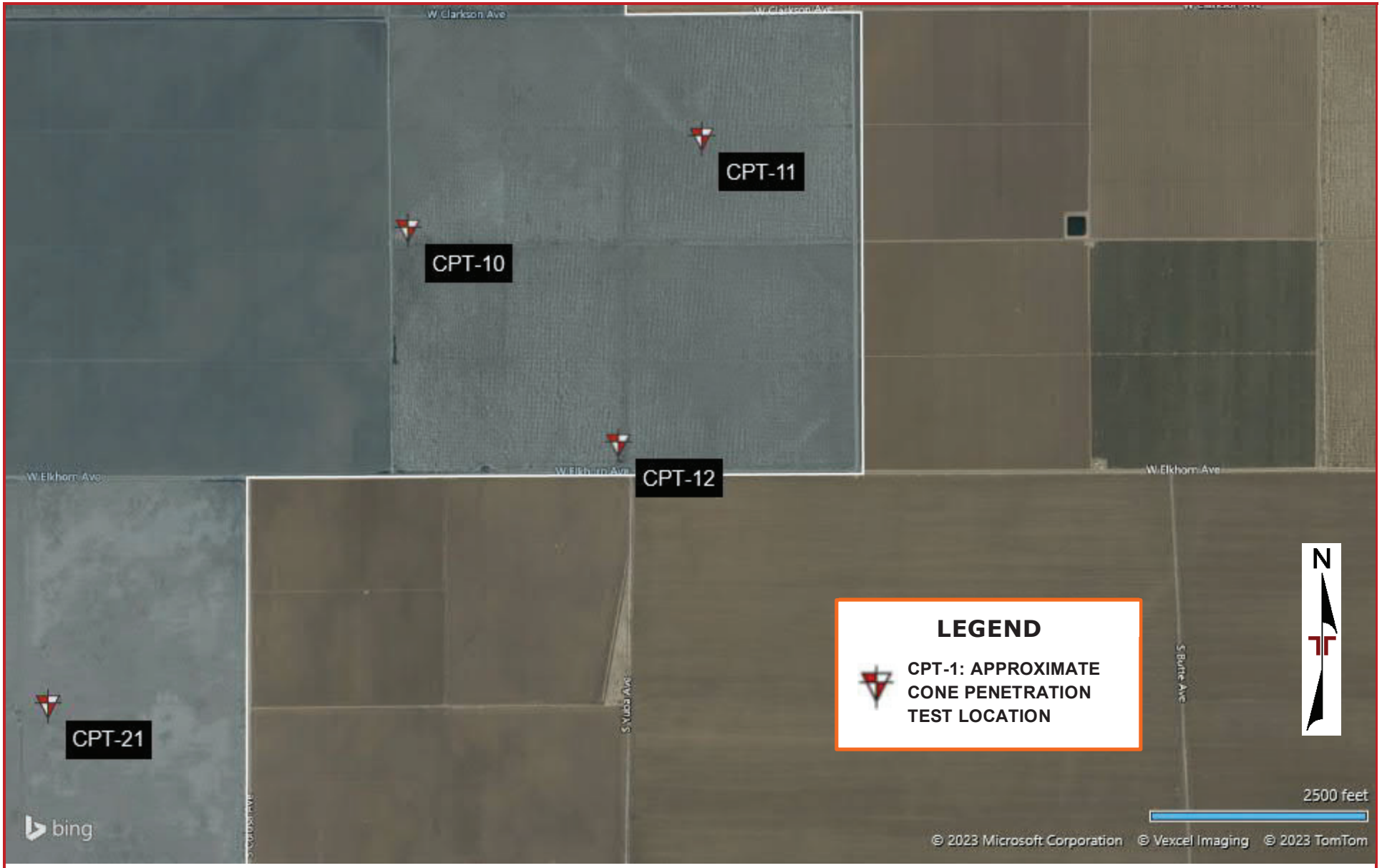

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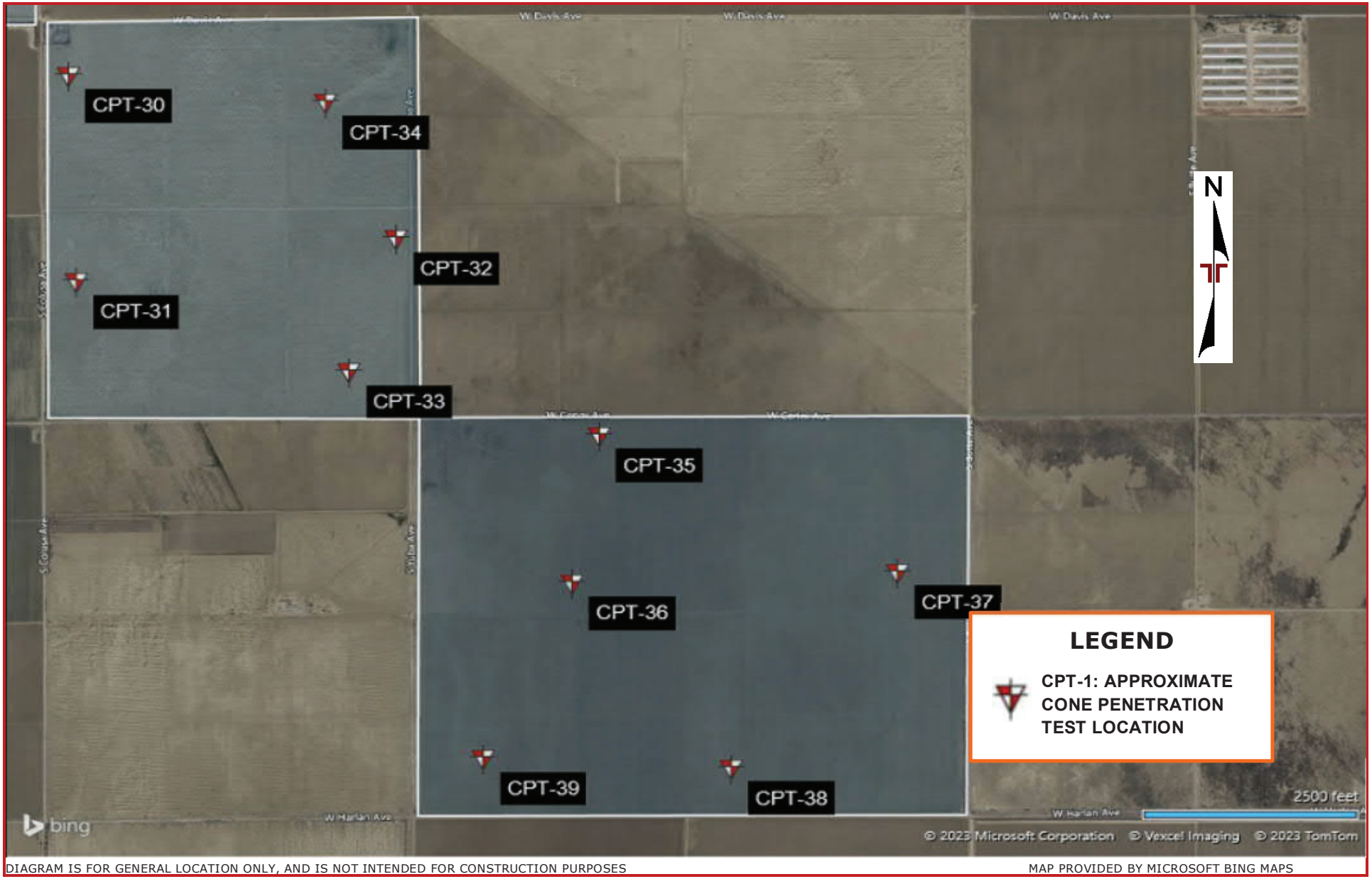

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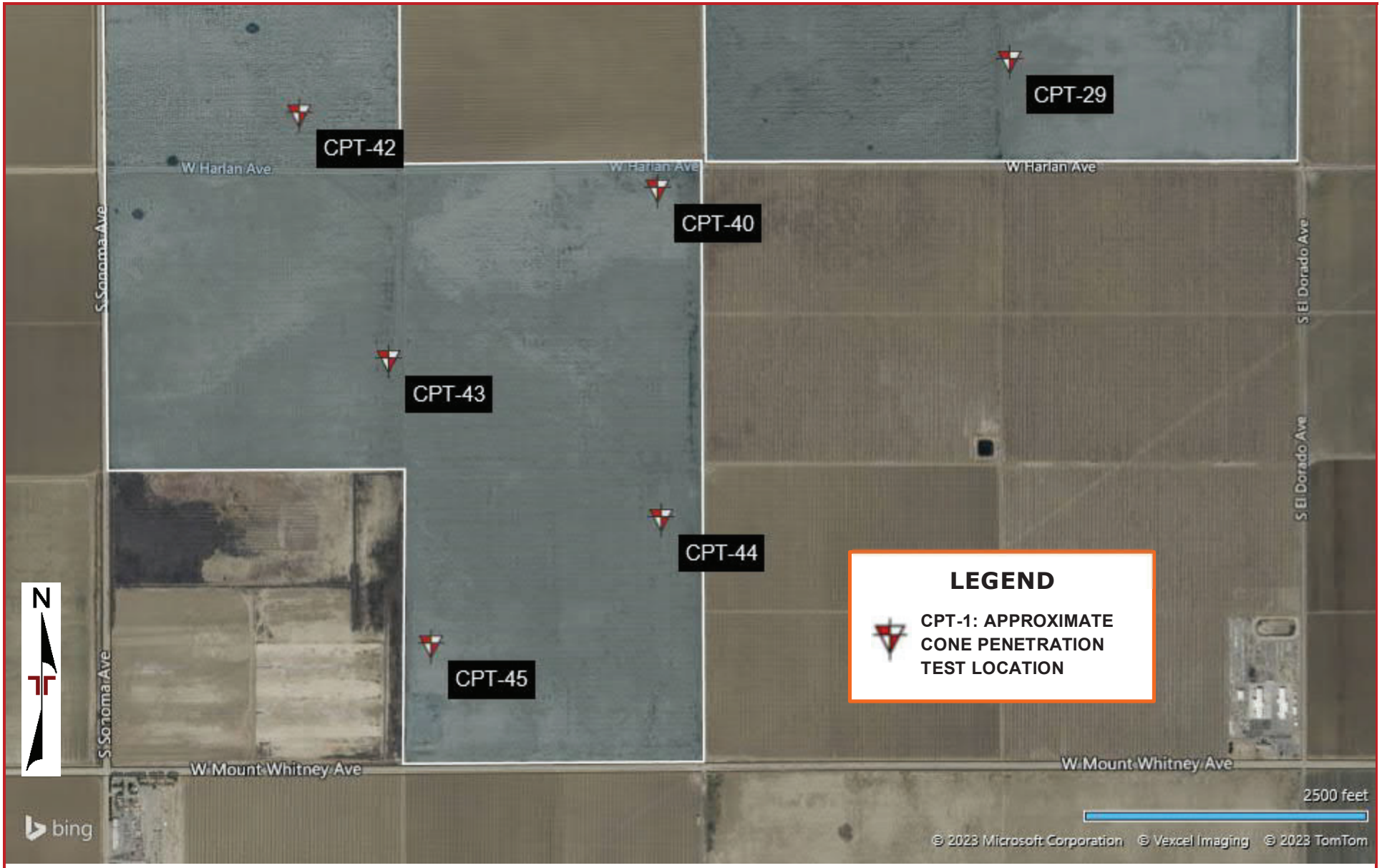

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MAP PROVIDED BY MICROSOFT BING MAPS

Exploration and Testing Procedures

Field Exploration

The following table provides a summary of our geotechnical explorations completed in the array area.

	Hollow Stem Auger Boring	Generally 21½ (One 31½ boring)	Array Area (9,070 acres)
		51½	Alternate Hydrogen
			Switchyard Facility
		31½ to 51½	
39[1]		20 to 21	Array Area (9,070 acres)
	Pile Load Testing (Axial tension, lateral, and compression)	Two axial tension/lateral tests and one compression test	Array Area (9,070 acres)
91	Field Electrical Resistivity Testing	0.5, 1, 2, 5, 10, 15 feet	Array Area (9,070 acres)
1		75, 100, 150, 200	Substation Facility
1		0.5, 1, 2, 5, 10, 15, 25, 75, 100, 150, 200	BESS Facility
1		0.5, 1, 2, 5, 10, 15, 25, 75, 100, 150, 200	Alternate Substation Facility (Sub-2)
1		0.5, 1, 2, 5, 10, 15, 25, 75, 100, 150, 200	Switchyard Facility
92	Corrosion testing samples	-	Array Area (9,070 acres)
1		-	Substation Facility

Number of Explorations	Type of Exploration	Depth (ft) or Description	Location
1		-	BESS Facility
1		-	Alternate Substation Facility
1		-	Alternate Hydrogen Facility
1		-	Switchyard Facility
23	Thermal Resistivity Tests	-	Array Area (9,070 acres)
1		-	Substation Facility
1		-	BESS Facility
1		-	Alternate Substation Facility
1		-	Switchyard Facility

1. CPTs were numbered up to 45 however only 39 CPTs were pushed. CPT 16 and 17 were omitted as they were situated within a farming zone that could not be disturbed. CPT 5, 6, 9, and 13 were converted to soil borings.

Boring Layout and Elevations: Terracon personnel provided the boring layout using handheld GPS equipment (estimated horizontal accuracy of about ±20 feet) and referencing existing site features. Approximate ground surface elevations were estimated using Google Earth. If elevations and a more precise boring layout are desired, we recommend borings be surveyed.

Subsurface Exploration Procedures: We advanced the borings with a track-mounted, drill rig using continuous flight augers (hollow stem). Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Test samples were collected during drilling in general accordance with the appropriate ASTM methods using Standard Penetration Testing (SPT) and sampling using either standard split-spoon or Modified California samplers. A sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration was recorded as the Standard Penetration Test (SPT) resistance value, also referred to as N-values. The N-values are indicated on the boring logs at the test depths.

We also observed the boreholes while drilling and at the completion of drilling for the presence of groundwater. The groundwater levels are shown on the attached boring logs.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our

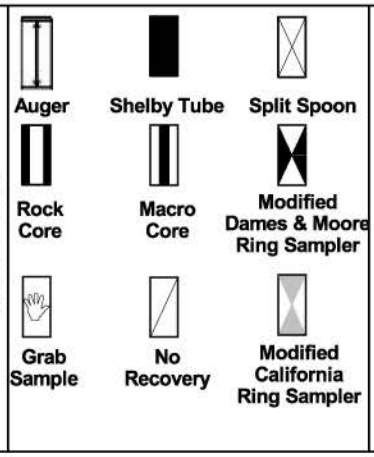
exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials observed during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

GENERAL NOTES

Terracon

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING



WATER LEVEL

Water Initially Encountered

Water Level After a Specified Period of Time

Water Level After a Specified Period of Time

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(b/f)	Standard Penetration Test (blows per foot)
N	N value
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer
(WOH)	Weight of Hammer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength, Qu, psf**	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**
Very Loose	0 - 3	0 - 6	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	500 to 1,000	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium-Stiff	1,000 to 2,000	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	2,000 to 4,000	8 - 15	10 - 18
Very Dense	> 50	≥ 99	Very Stiff	4,000 to 8,000	15 - 30	19 - 42
			Hard	> 8,000	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

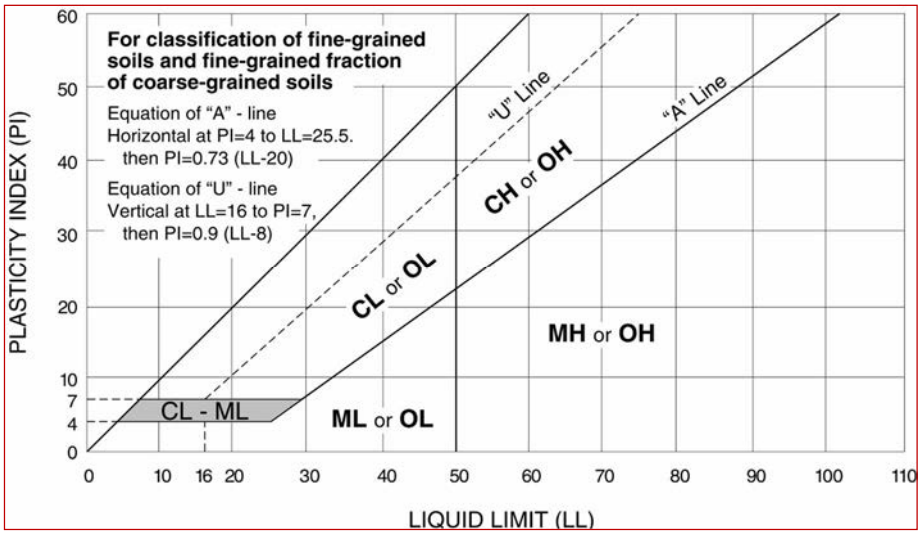
PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

Unified Soil Classification System

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4	Less than 5% fines [C]	Cu≥4 and 1≤Cc≤3 [E]	GW	Well-graded gravel [F]
			Cu<4 and/or [Cc<1 or Cc>3.0] [E]	GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F, G, H]
				GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines [D]	Cu≥6 and 1≤Cc≤3 [E]	SW	Well-graded sand [I]
			Cu<6 and/or [Cc<1 or Cc>3.0] [E]	SP	Poorly graded sand [I]
		More than 12% fines [D]	Fines classify as ML or MH	SM	Silty sand [G, H, I]
			Fines classify as CL or CH	SC	Clayey sand [G, H, I]
No. 200 sieve	Liquid limit less than		PI > 7 and plots above "A" line [J]	CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]	ML	Silt [K, L, M]
			$\frac{LL\ oven\ dried}{LL\ not\ dried}$ < 0.75	OL	Organic clay [K, L, M, N]
					Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more		PI plots on or above "A" line	CH	Fat clay [K, L, M]
			PI plots below "A" line	MH	Elastic silt [K, L, M]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried}$ < 0.75	OH	Organic clay [K, L, M, P]
					Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
[E] $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains ≥ 15% sand, add "with sand" to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI ≥ 4 and plots on or above "A" line.
[O] PI < 4 or plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-1

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown stiff				4-5-7				41-15-26	62
	medium stiff	5			2-3-4 N=7					
	stiff 10.0				4-7-9		30.4	86		
	FAT CLAY (CH), brown, medium stiff 15.0	10			1-2-4 N=6					
	LEAN CLAY (CL), brown, soft to medium stiff 19.0	15	▽		2-2-2 N=4					
	POORLY GRADED SAND (SP), brown, loose 21.0	20			2-2-3 N=5					
	LEAN CLAY (CL), brown, medium stiff 21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-2

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	medium stiff				2-2-3 N=5		21.1			
	stiff	5			4-6-8		35.2	82		
	soft to medium stiff				1-1-3 N=4					
	stiff	10			3-4-8		38.1	82		
	soft	15	▽		0-1-2 N=3					
	medium stiff	20			2-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-3

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown								52-17-35	
	white veins, very stiff				8-9-11		14.4	88		
	stiff	5			4-5-7 N=12					
					4-6-6		26.0	94		
	soft	10			2-1-2 N=3				53-18-35	90
	medium stiff to stiff	15	▽		0-4-4 N=8					
	medium stiff	20			2-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-4

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), light brown medium stiff				3-4-3 N=7					
	stiff	5			4-7-11		23.7	90		
					4-6-8 N=14					
	soft	10			1-2-2		28.5	90		
	15.0 **LEAN CLAY (CL)**, with sand, medium stiff	15			1-2-5 N=7					
	stiff	20			1-6-7 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-5

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), light brown									
	medium stiff				3-2-3		32.3	87		
		5			1-3-3 N=6					
	soft				2-1-3		37.7	83		
	darker brown, stiff	10			2-4-5 N=9 1.5 (HP)					
		15	▽		2-4-7 N=11 1.0 (HP)					
	20.0 **SANDY LEAN CLAY (CL)**, soft to medium stiff	20			1-2-2 N=4 1.0 (HP)					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-6

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), light brown									
	medium stiff				1-3-4 N=7 2.5 (HP)					
	very stiff	5			4-8-12		23.1	93		
	medium stiff				1-2-3 N=5 2.0 (HP)					
	10.0	10			1-3-5 2.0 (HP)		23.0	97		
	LEAN CLAY (CL), trace sand, dark brown, medium stiff	15	▽		2-2-3 N=5 1.0 (HP)				47-15-32	89
	brown	20			1-2-3 N=5 3.0 (HP)					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-7

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), brown stiff				4-6-4		40.3	75		
	soft to medium stiff	5			2-2-2 N=4					60
	7.5 **FAT CLAY (CH)**, trace sand, medium stiff				2-2-4		37.7	78		
	soft to medium stiff	10			1-2-2 N=4					
		15	▽		1-1-3 N=4					
	medium stiff	20			2-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-8

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), light brown soft to medium stiff				1-2-2 N=4					57
	5.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	5			1-2-5 0.25 (HP)		35.6	82		
	medium stiff to stiff				1-3-5 N=8 2.5 (HP)					
	10.0 **SANDY FAT CLAY (CH)**, brown, stiff	10			2-6-9 3.0 (HP)					
	medium stiff	15			2-2-4 N=6 1.0 (HP)					
		20			1-2-3 N=5 1.5 (HP)					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-9

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), brown									
	medium stiff				2-3-4		37.7	78		
	stiff	5			4-6-7 N=13					
	7.5									
	SANDY LEAN CLAY (CL), brown, very stiff				7-8-8		13.8	108		61
	medium stiff	10			2-2-3 N=5					
		15			2-2-3 N=5					
	20.0		▽							
	FAT CLAY (CH), brown, soft	20			2-1-2 N=3					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-10

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), light brown									
	soft to medium stiff				1-2-2 N=4				36-14-22	63
	medium stiff	5			2-2-3		19.2	87		
	7.5									
	LEAN CLAY WITH SAND (CL), light brown, soft to medium stiff				1-1-3 N=4					85
	10.0									
	FAT CLAY (CH), brown, stiff	10			2-5-7		29.0	87		
	soft	15	▽		1-1-2 N=3					
	soft to medium stiff	20			2-2-2 N=4					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-11

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown								44-16-28	77
	very stiff				8-12-15		15.5	88		
	medium stiff	5			3-3-3 N=6					
	7.5									
	LEAN CLAY (CL), trace sand, brown, very stiff				7-14-19					
	stiff	10			3-6-7 N=13					
	soft to medium stiff	15			2-2-2 N=4					
	stiff	20			3-6-7 N=13					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-06-2023

Boring Completed
06-06-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-12

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown									
	medium stiff				4-4-3				59-14-45	83
		5			4-7-8		18.8	89		
					4-6-6 N=12					74
	10.0	10								
	LEAN CLAY (CL), trace sand, brown, stiff				5-7-8		27.2	89		
	medium stiff	15			3-2-4 N=6					
	medium stiff to stiff	20			3-3-5 N=8					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-06-2023

Boring Completed
06-06-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-13

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), brown									
	very stiff				8-10-10		15.4	105		
	medium stiff	5			3-3-4 N=7					
	very stiff white veins				6-10-13		11.7	106		
	10.0									
	LEAN CLAY WITH SAND (CL), brown with white veins, stiff	10			5-7-7 N=14					
	medium stiff	15			2-3-4 N=7					
	21.5	20			1-2-3 N=5					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-14

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	very stiff				8-8-9 N=17					98
		5			7-15-16		20.4	101		
	stiff to very stiff				4-6-9 N=15					
	hard	10			11-22-31		25.0	94		
	medium stiff	15			3-3-4 N=7					
		20			3-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-06-2023

Boring Completed
06-06-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-15

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown									
	very stiff				10-12-14		19.7	102		
	stiff	5			3-5-6 N=11					
					4-6-8		30.7	88		
		10			4-5-7 N=12					
		15			3-5-5 N=10					
		20			4-6-8 N=14					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-06-2023

Boring Completed
06-06-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-16

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	medium stiff to stiff				3-4-4 N=8					97
	very stiff	5			6-8-12		24.5	95		
	medium stiff				3-2-4 N=6					
	very stiff	10			6-15-22		18.8	105		
	stiff	15			5-9-10 N=19					
	21.5	20			5-6-8 N=14					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-05-2023

Boring Completed
06-05-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-17

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown								65-20-45	95
	white veins, very stiff				5-10-10		24.2	98		
	soft to medium stiff	5			1-2-2 N=4					
	very stiff				4-9-14		24.4	95		
		10			4-7-9 N=16					
	medium stiff	15			2-2-3 N=5					
	20.0 **SANDY LEAN CLAY (CL)**, brown, stiff	20	▽		3-5-6 N=11					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
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Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-18

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown									
	stiff				4-5-5 N=10					59
	very stiff	5			8-9-14		18.7	95		
	7.5									
	LEAN CLAY (CL), trace sand, brown, stiff to very stiff				4-7-8 N=15					
	very stiff	10			9-16-16		22.6	100		
	15.0									
	SANDY LEAN CLAY (CL), brown, stiff	15			4-4-6 N=10					59
			▽							
	21.5	20			5-4-5 N=9					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-08-2023

Boring Completed
06-08-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-19

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	stiff				3-7-10		20.4	97		98
	very stiff	5			9-13-15 N=28					
	very stiff				5-12-24		23.6	96		
		10			7-9-13 N=22					
	stiff	15			4-6-8 N=14					
	very stiff	20			7-11-11 N=22					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-06-2023

Boring Completed
06-06-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-20

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown								37-16-21	66
	soft to medium stiff				1-1-3 N=4					
	stiff	5			4-5-9		30.2	80		
	7.5									
	FAT CLAY (CH), trace sand, brown, stiff				4-6-8 N=14					
		10			5-8-10		36.3	83		
	medium stiff	15			4-3-4 N=7					
	soft to medium stiff	20	▽		2-1-3 N=4					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-17-2023

Boring Completed
02-17-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-21

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown								39-15-24	69
	stiff				2-5-8		28.7	91		
		5			3-6-8 N=14					
					3-8-10					
		10			2-4-6 N=10					
	medium stiff to stiff	15			3-4-4 N=8					
	soft	20	▽		1-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-17-2023

Boring Completed
02-17-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-22

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown soft				3-2-1				32-15-17	60
	5.0 **LEAN CLAY (CL)**, trace sand, brown, stiff	5			3-4-5 N=9					
	medium stiff				2-3-4					
	very stiff	10			6-9-12 N=21					
	15.0 **FAT CLAY (CH)**, brown, stiff	15			2-4-5 N=9					
	soft	20	▽		2-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-23

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), brown stiff				5-6-8		13.0	96		
		5			3-3-6 N=9					
	7.5 **FAT CLAY (CH)**, trace sand, brown, stiff				4-8-8		31.5	88		
	10.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	10			3-2-4 N=6					
		15			2-2-4 N=6					
	trace sand	20			2-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-24

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown								67-19-48	
	very stiff				6-10-11		24.8	97		
	5.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	5			4-4-3 N=7					
	stiff				5-8-11		19.2	99		
	medium stiff	10			3-3-3 N=6					
	medium stiff	15			3-3-4 N=7					
	medium stiff	20			2-2-4 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-25

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown									
	medium stiff				1-4-5					
	stiff	5			2-5-7 N=12					
					3-5-5					
	soft	10			1-1-2 N=3					62
	medium stiff	15	▽		1-3-2 N=5					
	20.0 **LEAN CLAY (CL)**, trace sand, brown, soft	20			2-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-28-2023

Boring Completed
03-28-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-26

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown medium stiff to stiff				5-4-4 N=8					
	5.0 **FAT CLAY (CH)**, trace sand, brown, very stiff	5			4-8-12		23.4	88		
	stiff				2-3-6 N=9					
	medium stiff	10			3-4-5		28.7	85		
	soft	15			1-1-2 N=3					
	medium stiff	20			1-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-03-2023

Boring Completed
04-03-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-27

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown, stiff									
					1-5-8		18.9	84		
	dark brown, medium stiff	5			2-3-4 N=7					
	very stiff				4-8-12		17.4	85		
	10.0									
	FAT CLAY (CH), trace sand, brown, medium stiff	10			2-2-5 N=7					
	soft	15			1-1-2 N=3					
	soft to medium stiff	20			1-1-3 N=4					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-03-2023

Boring Completed
04-03-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-28

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), brown									
	medium stiff to stiff				3-3-5 N=8					
	medium stiff	5			3-4-4		25.1	83		
					1-2-3 N=5					
	white veins, very stiff	10			5-9-13					
	stiff	15			3-4-6 N=10					
	medium stiff	20			2-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-29

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown stiff								55-18-37	86
					5-5-5		17.2	101		
	5.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	5			2-2-3 N=5					
	7.5 **FAT CLAY (CH)**, trace sand, brown, stiff				3-7-10					
	white veins	10			3-5-6 N=11					
	15.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	15			2-2-3 N=5					
	soft to medium stiff	20			1-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
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Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-30

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown stiff				3-5-6 N=11					76
	5.0 **LEAN CLAY (CL)**, trace sand, brown, stiff	5			7-9-7		27.9	84		
					2-4-6 N=10					
	very stiff	10			10-16-17		24.9	97		
	15.0 **SANDY LEAN CLAY (CL)**, brown, medium stiff to stiff	15			4-4-4 N=8					
	stiff	20			3-5-8 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-08-2023

Boring Completed
06-08-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-31

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	hard				12-20-24		10.0	99		76
	very stiff	5			6-10-15 N=25					
	7.5									
	LEAN CLAY (CL), trace sand, brown, very stiff				14-12-20		23.2	84		
	stiff	10			3-4-5 N=9					
	medium stiff	15			2-3-4 N=7					
	soft to medium stiff	20	▽		2-2-2 N=4					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-08-2023

Boring Completed
06-08-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-32

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown very stiff				11-12-11 N=23					73
		5			5-12-19		12.0	100		
	7.5 **LEAN CLAY (CL)**, trace sand, brown, very stiff				6-13-15 N=28					
	very stiff	10			10-11-13		25.9	88		
	trace sand, medium stiff	15			3-2-3 N=5					
	trace sand, brown, stiff	20			4-3-6 N=9					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-08-2023

Boring Completed
06-08-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-33

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	hard				14-21-28		13.4	99		84
	stiff	5			5-5-7 N=12					
	7.5									
	LEAN CLAY (CL), trace sand, brown, hard				20-34-39		19.5	98		
	stiff	10			4-6-8 N=14					
	very stiff	15			6-8-11 N=19					
	stiff	20	▽		4-4-7 N=11					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-34

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown medium stiff				2-2-4 N=6					
	5.0 **LEAN CLAY WITH SAND (CL)**, brown, stiff	5			5-5-8		27.1	91		
					2-4-7 N=11					
	very stiff	10			8-11-11		22.5	98		
	soft	15			2-1-2 N=3					
	medium stiff	20			2-3-4 N=7					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-08-2023

Boring Completed
06-08-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-35

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	very stiff				9-10-11		20.0	103		
	white veins, stiff	5			4-5-8 N=13					
					4-7-11		30.8	85		
		10			4-6-8 N=14					
		15			3-5-8 N=13					
		20			3-6-7 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-22-2023

Boring Completed
02-22-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
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Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-36

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	CLAYEY SAND (SC), brown, loose									46
					3-3-2 N=5					
		5			4-4-6		11.6	96		43
	7.5									
	SANDY LEAN CLAY (CL), brown, soft to medium stiff				2-2-2 N=4				34-22-12	64
	stiff	10			5-6-12		37.0	81		
	15.0									
	LEAN CLAY (CL), trace sand, light brown, stiff	15			3-4-5 N=9					
	soft	20			1-1-2 N=3					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-25-2023

Boring Completed
01-25-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-37

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	stiff				4-5-6		21.4	91		
	soft to medium stiff	5			2-2-2 N=4					
	stiff				3-4-6		34.0	84		
	white veins	10			3-5-6 N=11					
	medium stiff	15			2-2-3 N=5					
	soft to medium stiff	20			1-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-17-2023

Boring Completed
02-17-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-38

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	medium stiff				3-3-3 N=6				47-18-29	72
	stiff	5			5-6-7		19.9	93		
	medium stiff				2-3-3 N=6					
	stiff	10			5-6-7		30.8	86		
	soft	15	▽		2-2-1 N=3					
	soft to medium stiff	20			2-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-25-2023

Boring Completed
01-25-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-39

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	stiff				3-6-8					
	medium stiff to stiff	5			2-4-4 N=8					83
	stiff				7-8-9					
	medium stiff	10			2-3-4 N=7					
	stiff	15			2-3-6 N=9					
	medium stiff	20			2-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-25-2023

Boring Completed
01-25-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-40

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, gray to olive gray									
	medium stiff				3-2-4 N=6				50-17-33	
	stiff	5			5-5-7		25.0	94		
					5-5-5 N=10					
		10			5-7-10		26.6	88		
	very stiff	15	▽		4-8-8 N=16					
	soft to medium stiff	20			3-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-26-2023

Boring Completed
01-26-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-41

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), brown with white veins								55-19-36	
	very stiff				7-10-10		13.6	93		
	medium stiff	5			2-2-3 N=5					
	7.5 **LEAN CLAY (CL)**, brown, stiff				3-5-9		13.4	102		
		10			3-5-6 N=11					
	medium stiff to stiff	15			3-3-5 N=8					
	soft to medium stiff	20	▽		1-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-17-2023

Boring Completed
02-17-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-42

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), light brown									
	very stiff				3-7-9 N=16				56-17-39	
	stiff	5			4-8-10		17.7	92		
	medium stiff to stiff				3-4-4 N=8					66
	stiff	10			3-4-6		20.6	93		
	soft to medium stiff	15			1-2-2 N=4					
	stiff	20			2-4-5 N=9					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-43

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown									
	stiff				2-4-6		28.2	89		
	white veins	5			3-5-5 N=10					
					3-6-7		26.6	91		
		10			3-6-7 N=13					
	medium stiff	15			1-3-4 N=7					
		20			2-2-4 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-44

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), light brown stiff				2-5-6 N=11					
	5.0 **FAT CLAY (CH)**, trace sand, dark brown, very stiff	5			6-10-13		20.6	103		
	soft to medium stiff				1-2-2 N=4					
	white veins, stiff	10			2-5-6		19.1	101		
	medium stiff	15			2-3-3 N=6					
	soft	20			1-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-29-2023

Boring Completed
03-29-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
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Terracon
23041 Avenida De La Carlota
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Laguna Hills, CA

Boring Log No. B-45

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown stiff				5-6-8 3.5 (HP)		28.8	84		
	5.0 **LEAN CLAY (CL)**, trace sand, brown, stiff	5			1-4-6 N=10 4.5 (HP)					
	7.5 **FAT CLAY (CH)**, trace sand, dark brown, stiff				5-7-11 4.0 (HP)		27.7	95		
	light brown, medium stiff to stiff	10			5-3-5 N=8					
	15.0 **LEAN CLAY (CL)**, trace sand, brown, soft to medium stiff	15			1-2-2 N=4					
	soft	20			1-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-46

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, light brown stiff				5-5-4 N=9					
		5			4-8-7		18.8	102		
	7.5 **FAT CLAY (CH)**, trace sand, brown, stiff				3-4-5 N=9					
		10			3-5-5		17.2	107		
		15			2-4-5 N=9					
	soft to medium stiff	20			1-1-3 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-29-2023

Boring Completed
03-29-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-47

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, light brown stiff	5			5-9-13 4.5 (HP)					
					2-5-7 N=12 4.5 (HP)					
	7.5 **FAT CLAY (CH)**, trace sand, dark brown, stiff				4-4-5 4.0 (HP)		23.3	96		
		10			3-3-4 N=7 3.0 (HP)					
		15			2-3-4 N=7 2.0 (HP)					
	soft to medium stiff 21.5	20			1-1-1 N=2					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-48

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, light brown with white veins									
	stiff				5-6-7 N=13					
	very stiff	5			5-10-17		22.1	101		
	7.5									
	SANDY FAT CLAY (CH), dark brown, soft				1-1-2 N=3					
	stiff	10			3-7-9					
	brown, medium stiff	15			2-3-4 N=7					
	20.0									
	CLAYEY SAND (SC), loose	20			1-2-3 N=5					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-49

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, light brown									
	stiff				4-6-8 4.5 (HP)		20.4	93	48-16-32	
	very stiff	5			4-8-9 N=17 4.5 (HP)					
	7.5 **FAT CLAY (CH)**, trace sand, dark brown, stiff				5-7-9 4.5 (HP)		19.3	102		
	10.0 **SANDY FAT CLAY (CH)**, brown, stiff, loose	10			3-4-5 N=9					
	brown, medium stiff	15			1-2-3 N=5					
	20.0 **FAT CLAY (CH)**, trace sand, brown, soft	20			1-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-30-2023

Boring Completed
03-30-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
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Laguna Hills, CA

Boring Log No. B-50

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown									
	stiff				4-5-6 N=11				56-15-41	81
	5.0	5			9-13-15					
	LEAN CLAY (CL), trace sand, brown, very stiff									
	stiff				4-5-9 N=14					
	very stiff	10			7-12-12		15.8	107		
	stiff	15			3-4-5 N=9					
	medium stiff	20			2-2-4 N=6					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-51

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown								59-16-43	84
	stiff				3-6-9		16.8	93		
	stiff to very stiff	5			5-6-9 N=15					
	stiff				4-6-6		18.9	101		
		10			3-4-6 N=10					
	medium stiff	15			2-3-3 N=6					
	stiff	20			4-5-8 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-52

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown									
	stiff				6-8-4 N=12					66
	very stiff	5			7-12-22		21.1	98		
	stiff				4-6-7 N=13					
		10			7-7-11		31.2	88		
	medium stiff	15			3-3-3 N=6					
	stiff	20			4-6-7 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-53

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown								49-14-35	84
	very stiff				9-14-15		15.6	100		
	stiff to very stiff	5			4-6-9 N=15					
	stiff				5-8-10		20.8	99		
	medium stiff	10			3-3-4 N=7					
		15			2-2-3 N=5					
	stiff	20			5-6-7 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-54

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	very stiff				8-11-13 N=24					82
		5			4-7-18		18.9	92		
					5-9-11 N=20					
	stiff	10			3-7-8		25.1	92		
	medium stiff to stiff	15			1-3-5 N=8					
	brown, stiff	20	▽		4-5-7 N=12					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
2R Drilling

Logged by
CR

Boring Started
06-07-2023

Boring Completed
06-07-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-55

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), light brown									
	very stiff				5-10-14					
	stiff	5			5-6-8 N=14					
	7.5									
	FAT CLAY (CH), trace sand, dark brown, stiff				3-6-7		23.6	96		
	10.0									
	CLAYEY SAND (SC), loose	10			1-3-2 N=5					
	loose	15			2-3-6 N=9					26
	medium dense	20	▽		4-5-5 N=10					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-03-2023

Boring Completed
04-03-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-56

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), brown medium stiff				2-2-4 N=6					
	5.0 **FAT CLAY (CH)**, trace sand, brown, stiff	5			3-7-11		22.5	92		
	7.5 **SANDY FAT CLAY (CH)**, brown, medium stiff				1-3-3 N=6					
	stiff	10			3-6-7		18.2	98		
	soft	15			1-1-2 N=3					
	20.0 **CLAYEY SAND (SC)**, brown, medium dense	20			3-7-4 N=11					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-31-2023

Boring Completed
03-31-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-57

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown with white veins									
	very stiff				11-11-13					94
	stiff	5			4-5-6 N=11					
					3-6-8		26.2	92		
	10.0 **FAT CLAY (CH)**, trace sand, brown with white veins, soft to medium stiff	10			2-1-3 N=4					
	medium stiff to stiff	15			2-3-5 N=8					
		20			2-3-5 N=8					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-23-2023

Boring Completed
02-23-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-58

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, dark brown									
	stiff				3-5-7 N=12 2.5 (HP)					
	very stiff	5			7-10-10 3.0 (HP)		24.8	92		
	medium stiff				2-3-3 N=6 1.5 (HP)					
		10			2-4-5 1.5 (HP)		29.1	92		93
	15.0 **SANDY FAT CLAY (CH)**, dark brown, soft	15	▽		1-1-2 N=3					64
	medium stiff	20			1-2-4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-31-2023

Boring Completed
03-31-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-59

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	stiff				5-5-7		21.3	98		
	medium stiff	5			2-2-3 N=5					
	stiff				4-8-10		24.5	75		
	10.0 **FAT CLAY (CH)**, trace sand, brown, stiff	10			3-4-5 N=9					
	stiff	15	▽		3-5-6 N=11					
	20.0 **LEAN CLAY (CL)**, trace sand, brown, soft to medium stiff	20			1-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-17-2023

Boring Completed
02-17-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-60

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), dark brown									
	medium stiff to stiff				4-4-4 N=8					
	stiff	5			1-6-6					
	soft to medium stiff				2-2-2 N=4					85
	brown, stiff	10			3-6-9		25.6	93		
	stiff	15	▽		3-4-5 N=9					
	soft to medium stiff	20			1-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-25-2023

Boring Completed
01-25-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-61

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace organics, brown									
	very stiff				12-12-9		25.6	93		
	5.0 **LEAN CLAY WITH SAND (CL)**, brown, medium stiff	5			3-3-4 N=7					
	7.5 **LEAN CLAY (CL)**, trace sand, dark brown, hard				9-16-29		25.1	96		
	stiff to very stiff	10			4-7-8 N=15					
	stiff	15			4-4-7 N=11					
	medium stiff	20			2-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-26-2023

Boring Completed
01-26-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-62

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), dark brown									
	stiff				4-5-7 N=12					
		5			2-4-6		21.6	93		
	soft to medium stiff				2-2-2 N=4					76
	medium stiff	10			2-4-5		21.4	93		
	15.0									
	FAT CLAY (CH), trace sand, brown, soft to medium stiff	15			1-2-2 N=4					
	soft	20			3-1-2 N=3					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-31-2023

Boring Completed
03-31-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-63

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), dark brown								51-18-33	78
	stiff				8-9-9		23.9	98		
	medium stiff	5			2-3-3 N=6					
	very stiff				5-10-12		23.2	96		
	stiff	10			3-5-6 N=11					
	soft to medium stiff	15			1-2-2 N=4					
		20	▽		2-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-25-2023

Boring Completed
01-25-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-64

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	stiff				5-6-4 N=10					
		5			4-7-9		21.1	90		
	dark brown				4-6-8 N=14					
	very stiff	10			7-9-12		26.6	94		
	stiff	15			4-4-5 N=9					
	soft	20			2-1-2 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-26-2023

Boring Completed
01-26-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-65

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), trace gravel, light brown									
	very stiff								51-24-27	76
					15-15-18		9.1	109		
	5.0	5								
	SANDY FAT CLAY (CH), tan, stiff				4-5-6 N=11					66
	7.5									
	FAT CLAY WITH SAND (CH), brown, hard				12-23-26		17.8	103		79
	10.0	10								
	LEAN CLAY WITH SAND (CL), dark gray, stiff				5-6-7 N=13					
		15			3-5-6 N=11					
	medium stiff	20			2-2-4 N=6					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-26-2023

Boring Completed
01-26-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-66

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), light brown stiff				4-5-5 N=10				49-16-33	74
		5			4-5-7					
	7.5 **FAT CLAY (CH)**, trace sand, dark brown, medium stiff stiff				2-2-3 N=5					
		10			3-7-7		32.4	93		
	15.0 **CLAYEY SAND (SC)**, brown, very loose	15			1-1-2 N=3					
	20.0 **FAT CLAY (CH)**, brown, medium stiff	20			2-3-4 N=7					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
03-31-2023

Boring Completed
03-31-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-67

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	stiff				4-5-5		22.0	78		
	medium stiff	5			2-3-4 N=7					
					3-4-5		24.5	87		
	soft to medium stiff	10			1-2-2 N=4					
	soft	15			1-1-2 N=3					
	medium stiff to stiff	20	▽		2-3-5 N=8					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-68

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), light brown								47-16-31	69
	stiff				6-7-2 N=9					
	medium stiff	5			3-5-2		17.1	94		
	medium stiff to stiff				3-3-5 N=8					
	brown, stiff	10			6-6-10		21.6	96		
	15.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	15			2-2-4 N=6					
	soft	20	▽		2-2-1 N=3					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
JB

Boring Started
01-26-2023

Boring Completed
01-26-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-69

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	CLAYEY SAND (SC), light brown medium dense				11-10-14		7.6	92	30-12-18	47
	5.0 **POORLY GRADED SAND WITH CLAY (SP-SC)**, light brown, loose	5			2-3-4 N=7					6
	7.5 **SANDY FAT CLAY (CH)**, light brown, stiff				8-5-8		24.0	92		
	dark brown, medium stiff	10			1-2-3 N=5					
		15			2-2-4 N=6					
		20			2-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-70

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	very stiff				5-8-9 N=17					
		5			6-10-13		28.2	79		
					5-7-11 N=18					
	stiff	10			5-7-11					
		15			7-5-6 N=11					
	soft to medium stiff	20			2-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
Cal Pac Drilling

Logged by
AT

Boring Started
01-26-2023

Boring Completed
01-26-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-71

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown stiff				4-5-11		12.8	95	39-14-25	
		5			4-4-6 N=10 4.5 (HP)					
	7.5 **FAT CLAY (CL)**, trace sand, light brown, stiff				5-4-7		20.0	93		
	medium stiff	10			2-3-3 N=6 2 (HP)					
	dark brown, soft to medium stiff	15			1-2-2 N=4 .5 (HP)					
	soft	20	▽		0-1-1 N=2 1.5 (HP)					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Notes

Advancement Method
Hallow Stem auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-72

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL) medium stiff				2-3-3 N=6					
	stiff	5			5-6-8		15.4	91		
	7.5 **FAT CLAY (CH)**, dark brown, medium stiff				2-2-3 N=5 2 (HP)					
	10.0 **CLAYEY SAND (SC)**, dark brown, loose	10			4-6-7		18.4	92		
		15			0-1-3 N=4					34
		20	▽		1-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-73

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, light brown									
	stiff				3-7-7		30.4	79		
	5.0 **SANDY FAT CLAY (CH)**, light brown, medium stiff	5			2-2-3 N=5					
	dark brown, stiff				1-5-9		23.1	93		
	soft	10			1-2-1 N=3					68
	soft to medium stiff	15			1-1-3 N=4					
	medium stiff	20	▽		0-1-4 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-74

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	medium stiff				1-2-3 N=5					
	stiff	5			3-7-10		31.7	84		
	dark brown, medium stiff				1-3-3 N=6					92
	10.0									
	SANDY FAT CLAY (CH), dark brown, medium stiff	10			2-3-6		29.8	85		54
	soft	15	▽		1-1-2 N=3					
	20.0	20								
	POORLY GRADED SAND (SP), trace clay, loose				2-1-3 N=4					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-04-2023

Boring Completed
04-04-2023

Notes

Advancement Method
Halllow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-75

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, dark brown									
	stiff				4-7-9		25.6	91		
	medium stiff	5			1-4-3 N=7					
					2-3-5		28.1	85		
	soft	10			1-1-2 N=3					
		15			1-1-2 N=3					
	medium stiff	20			0-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-76

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	medium stiff to stiff				2-3-5 N=8					
	stiff	5			4-4-8		24.2	91		
	soft				1-1-2 N=3					
	stiff	10			2-3-8		19.3	103		
	soft	15			1-2-2 N=4					
	medium stiff	20			3-3-4 N=7					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Notes

Advancement Method
Hallow stem auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-77

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown very stiff									67
	5.0				5-7-12		23.3	90		
	SANDY FAT CLAY (CH), brown, medium stiff	5			2-2-4 N=6					
	7.5									
	LEAN CLAY (CL), trace sand, dark brown, stiff soft				3-6-5		23.7	90		
		10			1-1-2 N=3					89
	15.0	15								
	FAT CLAY (CH), trace sand, dark brown, stiff soft				2-3-7 N=10					
	21.5	20	▽		0-0-2 N=2					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-78

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), dark brown stiff				6-6-6 N=12					
	sandy	5			10-7-7		22.9	96		
	7.5 **SANDY LEAN CLAY (CL)**, dark brown, medium stiff to stiff				1-3-5 N=8					68
	stiff	10			3-7-7		28.2	72		
	medium stiff	15	▽		2-2-5 N=7					
	20.0 **FAT CLAY (CH)**, dark brown, medium stiff to stiff	20			1-2-6 N=8					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-79

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), brown								58-19-39	
	very stiff				11-10-12		16.9	103		
	stiff	5			5-5-7 N=12					
					5-6-6		28.8	81		
	medium stiff	10			3-2-3 N=5					
	15.0 **LEAN CLAY (CL)**, brown, medium stiff	15			2-2-3 N=5					
	soft to medium stiff	20			2-1-3 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-23-2023

Boring Completed
02-23-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-80

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown with white veins									
	stiff				5-5-6 N=11				54-26-28	94
		5			5-5-6		24.4	96		
	medium stiff				2-2-5 N=7					
	10.0									
	SANDY FAT CLAY (CH), brown with white veins, stiff	10			3-6-11		17.7	102		
	soft to medium stiff	15			2-2-2 N=4					
	medium stiff	20			2-2-4 N=6					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-23-2023

Boring Completed
02-23-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-81

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	very stiff				6-9-13		21.4	102		
	medium stiff to stiff	5			2-4-4 N=8					
	medium stiff				2-3-5		28.8	93		
	10.0 **LEAN CLAY (CL)**, trace sand, brown, medium stiff	10			1-3-4 N=7					
	medium stiff to stiff	15			1-4-4 N=8					
	medium stiff	20	▽		2-2-4 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-15-2023

Boring Completed
04-15-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-82

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	medium stiff				3-2-3 N=5					
	stiff	5			4-4-7		17.5	91		
	soft to medium stiff				2-1-3 N=4					
	stiff	10			4-6-9		27.4	84		
	medium stiff	15			4-3-4 N=7					
	20.0 **LEAN CLAY WITH SAND (CL)**, brown, soft 21.5	20			1-2-1 N=3					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
While drilling

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-83

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), brown									
	stiff				7-6-5		19.5	96		
	medium stiff	5			2-3-3 N=6					
					3-4-4		25.3	88		
		10			2-3-3 N=6					
	11.5 **SILTY SAND (SM)**, brown, loose, loose									
	15.0 **FAT CLAY (CH)**, trace sand, brown, soft to medium stiff	15	▽		1-2-2 N=4					
	medium stiff	20			2-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-84

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown medium stiff				2-3-3 N=6				55-19-36	78
		5			2-3-4		20.4	95		
	7.5 **LEAN CLAY WITH SAND (CL)**, brown, soft 10.0				1-1-2 N=3					
	CLAYEY SAND (SC), brown, loose 15.0	10			3-6-7		9.6	87		
	POORLY GRADED SAND WITH CLAY (SP-SC), brown, loose	15			5-3-3 N=6					
	very loose, no recovery 21.5	20	▽		2-1-1 N=2					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-85

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), brown									
	very stiff				6-10-13		22.3	93		
	medium stiff	5			3-3-3 N=6					
	stiff				3-5-6		24.7	86		
	medium stiff to stiff	10			3-3-5 N=8					
	15.0	15			0-4-3 N=7					
	CLAYEY SAND (SC), brown, loose									
	20.0	20	▽		3-2-4 N=6					
	LEAN CLAY (CL), brown, medium stiff									
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-86

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), brown stiff				3-5-6 N=11					
		5			5-7-9					
	medium stiff to stiff				0-3-5 N=8					
	stiff	10			5-5-5		29.1	83		
		15			2-4-5 N=9					
		20	▽		2-2-11 N=13					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-87

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), trace sand, brown									
	stiff				6-7-7 N=14				55-25-30	
	soft	5			2-1-1					
	medium stiff				3-3-4 N=7					
	10.0	10			2-3-4					
	CLAYEY SAND (SC), brown, loose		▽							
	trace gravels	15			4-3-6 N=9					
	20.0	20								
	LEAN CLAY (CL), trace sand, brown, medium stiff				0-3-3 N=6					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-88

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY FAT CLAY (CH), brown stiff				3-5-6 N=11					
	5.0 **FAT CLAY (CH)**, dark brown, very stiff	5			4-7-14		25.3	95		
	medium stiff				2-3-4 N=7					
	stiff 15.0	10			2-5-7		33.7	82		
	FAT CLAY WITH SAND (CH), dark brown, soft 20.0	15			1-1-1 N=2					
	POORLY GRADED SAND WITH CLAY (SP-SC), loose 21.5	20			0-2-2 N=4					
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-89

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	SANDY LEAN CLAY (CL), brown very stiff				2-14-18		18.1	96		
	5.0 **FAT CLAY (CH)**, dark brown, stiff	5			2-5-6 N=11					
	stiff				3-6-12		24.8	88		
	medium stiff	10			2-3-4 N=7					
	15.0 **CLAYEY SAND (SC)**, brown, loose	15			1-2-2 N=4					
	20.0 **POORLY GRADED SAND (SP)**, brown, loose	20	▽		1-2-3 N=5					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-06-2023

Boring Completed
04-06-2023

Notes

Advancement Method
Hallow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-90

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY (CH), brown with white veins								55-18-37	
	stiff				5-4-5 N=9					
		5			4-5-9		25.7	90		
	medium stiff				2-3-2 N=5					
	stiff	10			3-4-6		26.2	94		
			▽							
	medium stiff	15			2-2-3 N=5					
	soft to medium stiff	20			0-2-2 N=4					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-16-2023

Boring Completed
02-16-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-91

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	stiff				4-6-7		27.4	83		82
	soft	5			2-1-2 N=3					
	stiff				3-5-6		26.9	91		
	trace organics, medium stiff	10			2-2-4 N=6					
	stiff	15	▽		2-5-7 N=12					
	medium stiff	20			2-2-5 N=7					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
DD

Boring Started
02-21-2023

Boring Completed
02-21-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-92

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	very stiff				3-7-9 N=16					
	trace organics	5			5-9-14		27.0	88		
	stiff				4-5-7 N=12					
	very stiff	10			4-6-13		33.6	87		
	stiff	15			2-4-6 N=10					
	medium stiff	20	▽		3-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-23-2023

Boring Completed
01-23-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-93

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									87
	stiff				4-7-10		26.2	88		
		5			3-3-6 N=9					
	very stiff				8-10-12		27.8	92		
	medium stiff	10			2-3-4 N=7					
	stiff	15			3-3-6 N=9					
		20			4-5-7 N=12					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-24-2023

Boring Completed
01-24-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-94

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	stiff				3-4-8 N=12					
		5			4-7-10		24.5	90		
	medium stiff to stiff				3-4-4 N=8					
	stiff	10			4-6-11		25.4	84		
	medium stiff to stiff	15			2-3-5 N=8					
	medium stiff	20	▽		3-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-24-2023

Boring Completed
01-24-2023

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-95

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown stiff									77
	4.0				7-7-6		17.7	103		
	LEAN CLAY (CL), trace sand, brown stiff to very stiff	5			5-6-9 N=15					
	7.5									
	CLAYEY SAND (SC), brown, loose				4-5-7		12.4	95		
	10.0									
	LEAN CLAY WITH SAND (CL), stiff	10			4-5-5 N=10					
	medium stiff	15			3-4-3 N=7					
	stiff	20	▽		3-5-4 N=9					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
▽ While drilling

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-23-2023

Boring Completed
01-23-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-96

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY WITH SAND (CL), brown									
	2.5									
	LEAN CLAY (CL), trace sand, brown, stiff				4-5-7 N=12					
		5			4-7-6		22.2	89		
	very stiff				6-10-12 N=22					
	stiff	10			4-5-9		35.1	84		
	medium stiff	15			3-3-2 N=5					
	soft	20			3-1-2 N=3					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Water Level Observations
Groundwater not encountered

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-24-2023

Boring Completed
01-24-2023

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-97

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	LEAN CLAY (CL), trace sand, brown									
	very stiff				9-17-20		18.1	96		
	stiff	5			2-5-8 N=13					
	very stiff				7-9-10		28.4	90		
	10.0									
	SANDY FAT CLAY (CH), dark brown, stiff	10			2-4-7 N=11					
	medium stiff	15			2-2-4 N=6					
	soft	20			1-1-1 N=2					
	21.5									
	Boring Terminated at 21.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Drill Rig
Diedrich D-50 (track)

Hammer Type
Automatic

Driller
Terracon

Logged by
AH

Boring Started
04-05-2023

Boring Completed
04-05-2023

Notes

Advancement Method
hallow stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Darden Solar Facility
Cantua Creek | Fresno, CA
Terracon Project No. 60225172

Terracon
23041 Avenida De La Carlota
Ste 350
Laguna Hills, CA

Boring Log No. B-98

Graphic Log	Location: See Exploration Plan Depth (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	EXPANSION INDEX	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
	FAT CLAY WITH SAND (CH), brown									
	very stiff				7-7-12 N=19				52-17-35	74
		5			8-10-11					
					6-9-12 N=21					
		10			6-9-16					
	stiff	15			3-5-8 N=13					
	medium stiff	20			3-3-3 N=6					
	21.5 ***Boring Terminated at 21.5 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
Groundwater not encountered

Notes

Advancement Method
Hollow Stem Auger

Abandonment Method
Boring backfilled with bentonite slurry and auger cuttings upon completion.

Drill Rig
CME 75 (track)

Hammer Type
Automatic

Driller
CalPac Drilling

Logged by
AT

Boring Started
01-24-2023

Boring Completed
01-24-2023