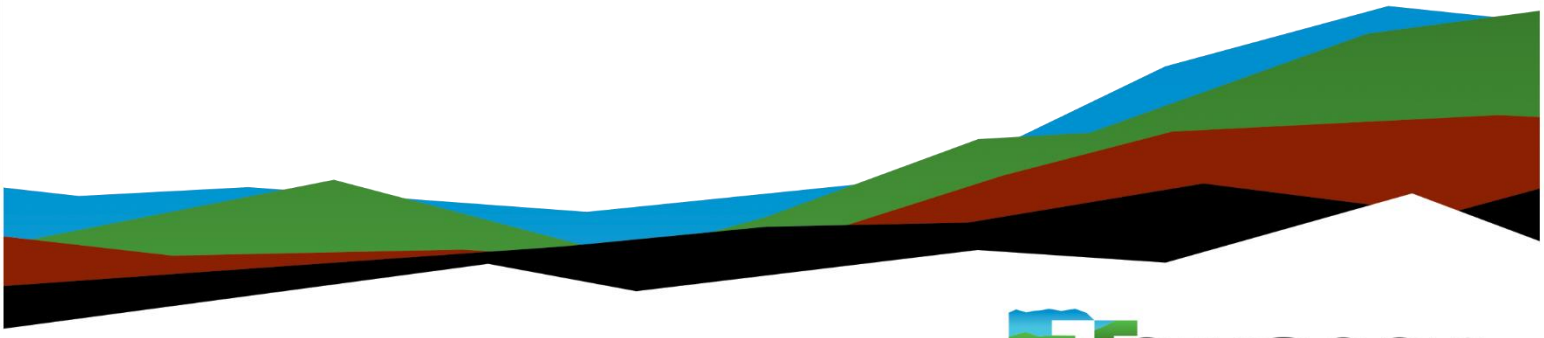
Weirs Creek Solar

Preliminary Geotechnical Engineering Report

June 28, 2024 | Terracon Project No. N4245089

Prepared for:

NextEra Energy Resources LLC
700 Universe Blvd
Juno Beach, FL 33408



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June 28, 2024

NextEra Energy Resources LLC
700 Universe Blvd
Juno Beach, FL 33408

Attn: Ms. Esther Atkinson
P: (352) 261-1281
E: esther.atkinson@nexteraenergy.com

Re: Preliminary Geotechnical Engineering Report
Weirs Creek Solar
Providence and Nebo, KY
Terracon Project No. N4245089

Dear Ms. Atkinson:

We have completed the scope of Preliminary Geotechnical Engineering services for the above referenced project in general accordance with Terracon Proposal No. P57235034 dated April 10, 2023, and Terracon Proposal No. PN4245089 dated March 15, 2024. This report presents the findings of the subsurface exploration and provides preliminary geotechnical recommendations concerning earthwork, foundations, and access roadways for the proposed solar facility. Additional geotechnical exploration, including borings and pile load testing, should be completed to further refine the recommendations provided in this report as the project design progresses.

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

Nikhil Sharma

Nikhil Sharma, E.I.T.
Staff Engineer

STATE OF KENTUCKY
YOGESH S REGE
30963
LICENSED
PROFESSIONAL ENGINEER

Yogesh Rege, P.E.
Senior Consultant, Senior Principal

SME Review By: Jimmy M. Jackson, P.E. (FL)

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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

Design Related Geohazards [1]			
Geohazard	**Is it a Concern Here?**	**Confidence Level**	**Data Source**
Seismicity	No	High	https://www.usgs.gov/maps/seismicity-map-state-kentucky
Liquefaction - Settlement	No	High	https://www.usgs.gov/maps/seismicity-map-state-kentucky
Liquefaction – Lateral Spread	No	High	https://www.usgs.gov/maps/seismicity-map-state-kentucky
Karst	No	High	https://eec.ky.gov/Environmental-Protection/Water/GW/Pages/GWKarst.aspx
Landslide Risk	No	High	https://www.usgs.gov/
Faults	No	High	https://www.usgs.gov/
Adfreeze	Yes	High	Modified Berggren Equation and Borings and test pits performed
Earth Fissures	No	High	Not applicable
Slope Creep	No	High	https://www.usgs.gov/
Frost Heave Potential	Yes	High	Borings and test pits performed
Existing Mines	Yes	High	https://www.americangeosciences.org/critical-issues/maps/interactive-atlas-coal-mine-maps-kentucky#google_vignette
Mine Spoils	No	High	https://www.americangeosciences.org/critical-issues/maps/interactive-atlas-coal-mine-maps-kentucky#google_vignette
Large areas of undocumented fill below 2 feet	No	High	Borings and test pits performed
Corrosive Soil	Yes	Moderate	Laboratory Testing
Expansive Soils	Yes	High	Borings and test pits performed
Collapsible Soils	No	High	Borings and test pits performed

Design Related Geohazards [1]			
Geohazard	**Is it a Concern Here?**	**Confidence Level**	**Data Source**
Organic Soils (Not including topsoil)	No	High	Borings and test pits performed
Alluvial Soil	No	High	https://websoilsurvey.nrcs.usda.gov/app
Loess Deposits	No	High	https://www.usgs.gov/

1. This summary is for convenience only. It should be used in conjunction with the entire report. Refer to **Geotechnical Overview** for additional information.

Construction Related Geohazards [1]			
Geohazard	**Is it a Concern Here?**	**Confidence Level**	**Data Source**
High Plasticity Soils in Upper 3 Feet	No	High	Borings, test pits and testing performed
Bedrock in Upper 5 Feet	No	High	Borings and test pits performed, USGS Geology
Bedrock in Upper 20 feet	Yes	High	Borings and test pits performed, USGS Geology
Pile Drivability	Yes	High	Borings, test pits and Pile Testing Performed, USGS Geology
Groundwater in Upper 5 Feet	Yes	High	Borings and test pits performed, NRCS SSURGO
Groundwater in Upper 15 Feet	Yes	High	Borings and test pits performed, NRCS SSURGO
Artesian Groundwater Conditions	No	High	NRCS SSURGO

1. This summary is for convenience only. It should be used in conjunction with the entire report. Refer to **Geotechnical Overview** for additional information.

Geotechnical Parameters

Parameter [1]	Array	Substation
	Value	Value
NEER Soil Behavior Classification, 0 to 3 feet	D-11 and E-11	D-10 and D-11
SPT N-Values, blows per foot (bpf), 0 to 3 feet	2 to 10	5
NEER Soil Behavior Classification, 3 to 10 feet	C-5, D-9, D-10, D-11, E-10, E-11, and A-2	D-10, D-11, and A-2
SPT N-Values (bpf), 3 to 10 feet	3 to 18	5 to 16
NEER Soil Behavior Classification, 10 to 20 feet	C-5, D-9, D-10, D-11, and A-2	A-2
SPT N-Values (bpf), 10 to 20 feet	9 to 50+	16 to 50+
Depth to Rock (ft)	6.0 to 18.5	8.5
In-Situ Moisture Content (%), 0 to 3 feet	15 to 28	23
Liquid Limit (%), 0 to 3 feet	30 to 44	--
Plastic Limit (%), 0 to 3 feet	19 to 28	--
Plasticity Index (%), 0 to 3 feet	4 to 25	--
Depth to Water (ft)	2.5 to 19	Not Encountered
Estimated Seasonal High Groundwater Level (ft)	1.4	1.4
Depth of Caving in Borings (ft)	Not Applicable	Not Applicable
Depth of Caving in Test Pits (ft)	Not Applicable	Not Applicable
Depth of Auger Refusal (ft)	12 to 14.5 feet in few borings	Not Encountered
Depth to Dense or Hard Soils with N-Value > 30 bpf (ft)	8.5 to 13.5	8.5
Depth of Pile Driving Refusal (ft)	Not Encountered within 10 ft	Not Applicable
Depth of Pile Pre-Drill (ft)	N/A	N/A
Thermal Resistivity (rho) 95% of ASTM D698, Remolded 1 to 4 ft	Wet: 64 to 75 °C-cm/W; Dry: 154 to 176 °C-cm/W	Testing in Progress
Laboratory Minimum Electrical Resistivity (Ω-cm)	1,260	3,000

Parameter [1]	Array	Substation
	Value	Value
Sulfates (mg/kg)	0 to 4740	6
Chlorides (mg/kg)	0.1 to 87	32
pH	4.2 to 7.6	7.6
Frost Depth (ft)	2	2
Short Period (Ss) Mapped Spectral Parameter	0.75	0.75
1-Second Period (S1) Mapped Spectral Parameter	0.22	0.22
Seismic Site Classification	C	C
Peak Ground Acceleration (PGAm)	0.37	0.37
USGS Seismic Zone Map (Modified Mercalli)	Zone 2	Zone 2

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

Data Summary Table

Boring ID [1]	Latitude/ Longitude	Depth to Rock (ft)	Depth to Dense or Hard Soil, N > 30 bpf (ft)	Depth to Measured GW (ft)	Thermal Resistivity 85% (°C-cm/W) [2]	Thermal Resistivity 95% [2]	Thermal Resistivity Undisturbed (°C-cm/W) [3]
B-1[4]	37.39963/ -87.70619	>19.4	18.5	Not Encountered	Not Applicable	Testing in Progress	Testing in Progress
B-2[4]	37.4017/ -87.69713	13.5	13.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
B-3[4]	37.41052/ -87.68729	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
B-4[4]	37.41588/ -87.68625	13.5	13.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
B-5[4]	37.41722/ -87.67812	13.5	13.5	Not Encountered	Not Applicable	Testing in Progress	Testing in Progress
B-6[4]	37.42322/ -87.67658	8.5	8.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
B-7[4]	37.42036/ -87.67455	>12	>12	Not Encountered	Not Applicable	Testing in Progress	Not Tested
B-8[4]	37.42277/ -87.66924	6.0	6.0	Not Encountered	Not Applicable	Not Tested	Not Tested
B-9[4]	37.41893/ -87.67022	6.0	6.0	Not Encountered	Not Applicable	Testing in Progress	Not Tested
SB-10[4]	37.42105/ -87.68743	13.5	13.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
SB-11[4]	37.42352/ -87.69004	13.5	13.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
SB-12[4]	37.42582/ -87.69249	13.5	13.5	14.5	Not Applicable	Testing in Progress	Not Tested
SB-13[4]	37.42857/ -87.69581	18.5	18.5	Not Encountered	Not Applicable	Testing in Progress	Not Tested
SB-14[4]	37.43057/ -87.69664	8.5	8.5	Not Encountered	Not Applicable	Testing in Progress	Testing in Progress
SB-1	37.42179/ -87.68539	18.5	18.5	3.0	Not Applicable	Wet:64, Dry: 163	Not Tested

Boring ID [1]	Latitude/ Longitude	Depth to Rock (ft)	Depth to Dense or Hard Soil, N > 30 bpf (ft)	Depth to Measured GW (ft)	Thermal Resistivity 85% (°C-cm/W) [2]	Thermal Resistivity 95% [2]	Thermal Resistivity Undisturbed (°C-cm/W) [3]
SB-2	37.42122/ -87.68675	13.5	13.5	2.5	Not Applicable	Wet:71, Dry: 159	Not Tested
AB-1	37.42041/ -87.67985	15.0	15.0	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-2	37.42071/ -87.68161	13.5	13.5	2.5	Not Applicable	Wet:74, Dry: 158	Not Tested
AB-3	37.42260/ -87.67887	12.0	12.0	Not Encountered	Not Applicable	Wet:67, Dry: 163	Not Tested
AB-4	37.42112/ -87.67480	13.5	13.5	Not Encountered	Not Applicable	Wet:75, Dry: 164	Not Tested
AB-5	37.42055/ -87.66739	8.5	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-6	37.41919/ -87.67054	>20	>20	Not Encountered	Not Applicable	Wet:73, Dry: 176	Not Tested
AB-7	37.41831/ -87.66740	13.5	13.5	3.0	Not Applicable	Wet:71, Dry: 173	Not Tested
AB-8	37.41763/ -87.66459	13.5	8.5	Not Encountered	Not Applicable	Wet:73, Dry: 166	Not Tested
AB-9	37.41563/ -87.66401	13.5	8.5	Not Encountered	Not Applicable	Wet:64, Dry: 163	Not Tested
AB-10	37.41167/ -87.66500	15.0	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-11	37.41354/ -87.66449	13.5	13.5	4.0	Not Applicable	Wet:72, Dry: 160	Not Tested
AB-12	37.42276/ -87.67133	8.5	6.0	Not Encountered	Not Applicable	Wet:66, Dry: 171	Not Tested
AB-13	37.41278/ -87.66759	13.5	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-14	37.41026/ -87.66704	13.5	8.5	Not Encountered	Not Applicable	Wet:65, Dry: 168	Not Tested
AB-15	37.40769/ -87.66610	13.5	8.5	2.0	Not Applicable	Wet:67, Dry: 154	Not Tested

Boring ID [1]	Latitude/ Longitude	Depth to Rock (ft)	Depth to Dense or Hard Soil, N > 30 bpf (ft)	Depth to Measured GW (ft)	Thermal Resistivity 85% (°C-cm/W) [2]	Thermal Resistivity 95% [2]	Thermal Resistivity Undisturbed (°C-cm/W) [3]
AB-16	37.40453/ -87.66735	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-17	37.40643/ -87.67040	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-18	37.40356/ -87.67243	18.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-19	37.40817/ -87.67364	13.5	13.5	18.5	Not Applicable	Not Tested	Not Tested
AB-20	37.39134/ -87.68371	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-21	37.40796/ -87.67726	13.5	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-22	37.40542/ -87.67846	8.5	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-23	37.39973/ -87.65837	15.0	15.0	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-24	37.40039/ -87.66118	18.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-25	37.39782/ -87.66174	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-26	37.39663/ -87.65794	18.5	18.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-27	37.38783/ -87.68021	18.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-28	37.39418/ -87.65916	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-29	37.39513/ -87.66283	13.5	8.5	Not Encountered	Not Applicable	Not Tested	Not Tested
AB-30	37.39260/ -87.67778	13.5	13.5	Not Encountered	Not Applicable	Not Tested	Not Tested

1. This summary is for convenience only. It should be used in conjunction with the entire report.
2. Percent compaction compared to ASTM D698. Samples collected from a depth of about 1 to 4 feet.

Boring ID [1]	Latitude/ Longitude	Depth to Rock (ft)	Depth to Dense or Hard Soil, N > 30 bpf (ft)	Depth to Measured GW (ft)	Thermal Resistivity 85% (°C-cm/W) [2]	Thermal Resistivity 95% [2]	Thermal Resistivity Undisturbed (°C-cm/W) [3]

3. Undisturbed samples collected from a depth of about 4 to 6 feet.
4. Additional parcels have been added to the solar site boundary of the project. For the new parcels, borings B-1 through B-9 are in the array area, borings SB-10 through SB-13 are for the transmission line, and boring SB-14 is in the new substation location.

Executive Summary

Based on the results of the preliminary exploration, we believe development of a solar power facility is feasible for this site. The borings and test pits generally found marginal strength clays (medium stiff) to depths of about 8.5 feet below existing site grades underlain by hard cohesive and dense granular soils further underlain by bedrock. Based on the results of the pile load tests we would expect pile embedment depths to range from about 5 to 10 feet. The test piles (PLT-22-1 through PLT-22-4) were installed to a minimum depth of 7 feet. Therefore, additional testing would be required to determine if an embedment depth less than 7 feet is possible in those areas.

The site is underlain by underground coal mines. Terracon prepared a Preliminary Mine Desktop Review Report dated April 22, 2024. Please refer to this report for information related to underground mines and suspected subsidence areas. Due to the presence of the underground mines, the site carries the risk of subsidence related settlement and sinkhole development.

This report includes considerations for potential geohazards along with preliminary recommendations and parameters for driven steel piles, slab on grade foundations, earthwork, and gravel surface access roads. It should be noted that the exploration locations and pile load tests were performed at large distances from each other, therefore actual conditions may vary from those encountered. Additionally, this study was completed to provide preliminary recommendations for estimating purposes. Additional field exploration and pile load testing should be completed as the project design progresses.

Preliminary Embedment Depth Analysis

The following top-of-pile loads were considered to determine the pile size and embedment depth:

- Compressive load: 3,000 pounds
- Uplift load: 1,500 pounds
- Lateral load: 3,500 pounds applied at 5.5 feet above the ground surface.
- Adfreeze uplift force: 1,500 pounds per square foot (psf) acting over a depth of 0.9 feet.

The actual top-of-pile structural loads will vary based on the selected racking system and the manufacturer’s load information as determined in accordance with requirements by the applicable building codes and local municipality. Additionally, our analysis has not considered potential steel loss due to corrosion.

The analyses were performed by starting out with the pile shape needed to structurally support the lateral load and the minimum embedment depth needed to support the compression and/or tension load. The pile embedment was deepened as necessary until a lateral deflection of approximately 0.6 inches or less was achieved at the ground surface when subject to the lateral load. If the deflection criteria could not be met by deepening the pile embedment due to the pile reaching a point of fixity, the next larger size of pile was modeled.

Our analyses have been performed using preliminary information and are intended to assist you in roughly evaluating construction costs and viability for the proposed project. Ultimately, the design of foundations for the solar panel racking system will depend on a number of factors including the actual structural loading conditions, anticipated corrosion losses, and other factors where complete and final information is not available at this time.

PEA Results

Zone	Pile Size	Embedment Depth (feet-bgs)
1	W6x8.5	6
2	W6x8.5	6
3	W6x8.5	6
4	W6x8.5	6
5	W6x8.5	7

Based on our results, we would not expect piles to exceed a total length of 19.5 feet which is the maximum length a typical Vermeer PD10 pile driving machine can install.

Introduction

This report presents the results of our subsurface exploration and Preliminary Geotechnical Engineering services performed for the proposed Weirs Creek Solar Project located in Providence and Nebo, KY. The purpose of these services was to provide information and preliminary geotechnical engineering recommendations relative to the proposed solar development.

- Subsurface soil conditions
- Groundwater conditions
- Seismic site classification per IBC
- Site preparation and earthwork
- Contributory risk components
- Foundation design and construction
- Pile embedment analysis
- Mat slab design and construction
- Access roadways

The preliminary geotechnical engineering Scope of Services for this project included the advancement of test borings, laboratory testing, pile load testing, engineering analysis, and preparation of this report. The scope of services performed as part of this preliminary study are shown in the following table:

Type of Exploration / Test	Number
SPT Borings (Array Area)	39[1]
SPT Borings (Substation Area)	1[2]
SPT Borings (Transmission Line)	4[1]
Test Pits	20[1]
Axial Tension and Lateral Pile Load Test Locations	26[1]
Axial Compression Pile Load Test Locations	22[1]
Field Electrical Earth Resistivity (EER) Test Locations	21[1]
Thermal Resistivity Test Locations	19[1]
Corrosion Analysis Tests	31[1]

1. As per the proposal PN4245089, additional parcels have been added to the solar site boundary for this project. For the new parcels, 9 additional borings,

Type of Exploration / Test	Number

borings B-1 through B-9 were located in the array area, two borings SB-10 through SB-13 were drilled for the transmission line, four additional pile load tests, PLT-22-1 through PLT-22-4 were performed in the array area, and five test pits TP-1 through TP-5, and six EER tests EER-1 through EER-6 were added to the original scope.

2. Initially as per proposal P57235034 substation borings SB-1 and SB-2 were performed. However, in the new scope the location of the substation has changed, therefore boring SB-14 was performed.

Drawings showing the site and boring/test pit locations are shown on the **Site Location** and **Exploration Plan**, respectively. The EER locations are shown in the **Electrical Earth Resistivity Plan** attachments. The results of the pile load tests are included in the **Pile Load Test Results** attachment. The results of the laboratory testing performed on soil samples obtained from the site during our field exploration are included on the boring logs and in the **Exploration Results** section.

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	An email request for proposal was provided by Christian Rivera-Rivera on March 6, 2023. The request included a site kmz file, a Schedule of Values, and Scope of Work for the project. As per the email March 7, 2024, additional parcels were added to the site boundary. The email included: ■ Preliminary Geotech SOW document ■ Preliminary Project information document with requested testing quantities

Item	Description
Project Description	It is our understanding that the Client intends to develop an approximately 150 MWac Photovoltaic (PV) facility and an electrical substation with a buildable area of about 850 acres. The power plant will consist of solar panels installed on steel structures and various other equipment and appurtenances associated with the substation (e.g. switchgear, transformers, inverters and overhead and underground electrical conveyance), operations and maintenance (O&M) building, transmission line, and the Battery Energy Storage System (BESS) containers.
Proposed Structure	The proposed project will include the construction of ground-mounted, solar panels on steel racks preferably founded on driven W-Section steel beams. Electrical equipment will be supported on concrete slabs-on-grade, spread footings, or drilled piers at several locations on site.
Structures Maximum Loads	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 **Substation and Battery Structures:** ▪ Substation Structures: 250 kips ▪ BESS Containers: 70 kips
Grading	It is anticipated that the site work involves cut/fill within +/- 2 feet of existing grade. Localized high and low areas may require greater depths/heights of cut/fill; however, a site grading plan has not been developed at time of this report.

Item	Description
Access Roads	Unpaved access roads are planned for the site to support operational (i.e., post construction) traffic which we understand to be: ■ Array Access Roads: 250 ESALs ■ Substation Access Road: 500 ESALs ■ Design Life = 30 years ■ Allowable Rut Depth = 2 inches ■ Design Serviceability Loss = 2.0 ■ Vehicle Tire Pressure = 80 psi We understand it is acceptable for the access roads to require ongoing maintenance throughout their design life.

Terracon should be notified if any of the above information is inconsistent with the planned construction, especially the grading limits, 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 site is located in Providence and Nebo, KY. The site consists of multiple parcels of land with a total area of about 850 acres. The approximate center of the site is located at (37.406568, -87.669392). See **Site Location**
Existing Improvements	Mostly undeveloped parcel used for agriculture with some residential dwellings. The site is underlain by underground mines as indicated in the Preliminary Mine Desktop Review Report submitted on April 22, 2024.
Current Ground Cover	The project site appears to generally consist of fields that are used for agricultural purposes.
Existing Topography	The ground surface elevations across the site generally increase to the East, with ground surface elevations ranging from approximately 370 feet to 420 feet above Mean Sea Level.

Geotechnical Characterization

Soil Survey

The Soil Survey for the project area was obtained from the Soil Surveys of Webster County and Hopkins County, Kentucky, prepared by the United States Department of Agriculture (USDA), Soil Conservation Service (now renamed the Natural Resource Conservation Service - NRCS). The soil surveys present shallow (typically upper 80 inches) soil stratification information.

In general, the soil surveys indicate the near-surface soils are silty loam and clayey loam. It should be noted that the NRCS Soil Survey is not intended as a substitute for site-specific geotechnical exploration; rather it is a useful tool in planning a project scope in that it provides information relative to the soil types likely to be encountered. Boundaries between adjacent soil types on the NRSC Soil Survey maps are approximate.

Site Geology

Based on information obtained from USGS maps, the subsurface geology at this site is categorized by rock units of the Pennsylvanian, Pleistocene to Holocene group. This group consists of alternating shale, sandstone, and occasional limestone strata that were deposited in marine environments which once covered western Kentucky.

The site is underlain by underground mines as indicated in the Preliminary Mine Desktop Review Report submitted on April 22, 2024.

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. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of the site. Conditions observed at each exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** and the GeoModel can be found in the **Figures** attachment of this report.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring and test pit location, refer to the GeoModel.

Model Layer	Layer Name	General Description
1	**Surface**[1]	Topsoil
2	**Clay**	Lean Clay (CL), light gray, brown Lean/Fat Clay (CL/CH), brown Silt (ML), light brown
3	**Sand/Coal Seam**[2, 3, 4]	Poorly Graded Sand (SP), with clay, reddish brown Coal, black Boulder and Cobbles
4	**Bedrock**	Shale and claystone, gray to black Sandstone, gray and brown

1. Due to prior usage of the site for agricultural purposes, it is possible that the previously tilled horizon would comprise of highly organic soils to deeper depths than the topsoil thickness noted on the logs and these soils should be stripped prior to grading.
2. Granular soils were encountered in borings B-1 and AB-27.
3. Coal was encountered in borings SB-13 and AB-10.
4. Cobbles and boulders were encountered in test pits ATP-4 and ATP-5.

Groundwater

The borings were advanced in the dry using a Hollow Stem Auger drilling technique that allows short term groundwater observations to be made while drilling. Groundwater conditions may be different at the time of construction. Mapping by the Natural Resources Conservation Service (NRCS) indicates a seasonal high groundwater level within 1 to 2 feet of the ground surface. Groundwater conditions may change because of seasonal variations in rainfall, runoff, and other conditions not apparent at the time of drilling. The following table presents groundwater levels observed at the time of exploration and delayed measurements taken at select locations in temporary observation wells.

Exploration Location	Depth to Groundwater [1] (feet)			Groundwater Elevations [1] (feet-NAVD)
	While Sampling	At completion	Observation Well	
SB-1	-	3.0	4.0 after 57 days	380.2 to 381.2
SB-2	-	2.5	5.0	374.7 to 377.2

Exploration Location	Depth to Groundwater [1] (feet)			Groundwater Elevations [1] (feet-NAVD)
	While Sampling	At completion	Observation Well	
			after 57 days	
AB-2	19.0	2.5	-	374.5
AB-7	-	-	3.0 after 53 days	416.6
AB-11	-	4.0	-	399.5
AB-15	-	-	2.0 after 51 days	399.5
AB-19	18.5	-	-	361.7
SB-12	14.5	-	-	-

1. The ground surface elevations at the boring locations (SB-1, SB-2, and AB-1 through AB-30) were measured by a 3rd party firm using construction grade GPS. The groundwater levels were measured by a Solinst Water Level Meter Model 102.

Groundwater was not observed in the other boring during advancement or for the short duration that the boring was allowed to remain open. However, this does not necessarily mean that the boring was terminated above groundwater. Due to the low permeability of the soils encountered in the borings, a relatively long period of time may be necessary for a groundwater level to develop and stabilize in a borehole in these materials.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, depth of water, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structures may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Infiltration Testing

Double ring infiltrometer testing was performed in general accordance with ASTM D3385 at twelve (12) locations and at depths of approximately 1 to 1½ feet below the existing ground surface. The test setup consisted of a 12-inch diameter inner ring and a 24-inch

diameter outer ring. The rings were driven into the subgrade approximately 6 inches below bottom of the excavation.

Water was added to the inner and outer rings, and the falling head method was used during testing, to determine soil infiltration. With the falling head method, the drop in water level was measured during specific time intervals, and water was added as necessary to maintain over 2 inches of depth in both rings. The infiltration rate was calculated using the following formula:

$$V_{IR}=\Delta V_{IR} / (A_{IR} \cdot \Delta t)$$

where:

V_{IR} = inner ring infiltration rate, in/hr
ΔV_{IR} = volume of liquid infiltrated through the inner ring in a specific time interval, in^3
A_{IR} = internal area of inner ring, in^2
Δt = time interval, hr

The following table summarizes the results of the infiltration tests:

Location	Soil Description	Latitude [1]	Longitude [1]	Existing grade (ft) [1]	Infiltration Rate (in/hr)
IT-1	Lean Clay	37.4245	-87.6806	382	0.25
IT-2	Lean Clay	37.4218	-87.6854	384	0.50
IT-3	Lean Clay	37.4199	-87.6795	406	0.25
IT-4	Lean Clay	37.4228	-87.6714	417	2.75
IT-5	Lean Clay	37.4171	-87.6648	392	0.25
IT-6	Lean Clay	37.4115	-87.6656	382	0.50
IT-7	Lean Clay	37.4080	-87.6773	376	2.50
IT-8	Lean Clay	37.4040	-87.6735	401	1.00
IT-9	Lean Clay	37.4077	-87.6658	386	0.25
IT-10	Lean Clay	37.4006	-87.6587	399	1.00
IT-11	Lean Clay	37.3934	-87.6571	375	0.50
IT-12	Lean Clay	37.3894	-87.6816	371	0.25

1. The coordinates and elevations of the existing grade for each test locations were obtained from Google Earth Pro.

The infiltration rate obtained by testing is an approximate value. The test result is influenced by the soil structure, soil layering, condition of the soil surface, degree of saturation of the soil, chemical and physical nature of the soil, head of the applied liquid, temperature of the liquid, and diameter and depth of embedment of rings. Due to these factors, infiltration rates across the site may vary, and thus, the results obtained here

are primarily for comparative use. Furthermore, the performance of the full-scale working facility might have a different infiltration rate due to soil disturbance caused by grading events and siltation during operation. Presence of groundwater and bedrock at shallower depths could also potentially impact the calculated rate of infiltration at this site.

Bedrock/Pre-Drilling

Bedrock strata were encountered at depths ranging from approximately 6.0 to 18.5 feet below the ground surface at most of the boring locations. Bedrock strata will likely influence the installation of some of the driven piles, depending on the pile embedment depth, the depth of bedrock, and the type of rock encountered.

In our experience, highly weathered bedrock strata that can be easily penetrated with a flight auger (claystone, shale) may also be penetrated by driven piles. Harder bedrock (sandstone, limestone) will likely result in pile refusal or require pre-drilling.

All the driven test piles installed for this study were able to reach their intended embedment depths of 5, 7, 8 and 10 feet bgs and did not encounter refusal. However, boring locations and test pits nearby suggest pre-drilling may be necessary at this site. The small sample size of test piles does not provide enough data for compiling recommendations for pre-drilling in these areas and we suggest further investigation during the design level phase of the project.

Field Electrical Resistivity

Field Electrical Resistivity tests were performed on 21 locations throughout the site as seen in Field Electrical Resistivity Test Plan. The results of the Field Electrical Resistivity tests can be found in the **Exploration Results** section.

Laboratory Thermal Resistivity

Nineteen laboratory thermal resistivity tests were completed as per the scope on remolded bulk soil samples collected from the site. The remolded samples were tested at 85 or 95% of the material's maximum dry density as determined by test method ASTM D698 (Standard Proctor). The individual laboratory thermal resistivity dry-out curves are provided in the **Laboratory Test Results** section of this report and are summarized below.

Thermal Resistivity Test Results Summary

Test Condition	Thermal Resistivity (°C-cm/W)				Number of Tests
	Parameter	Min.	Max.	Average	
Remolded to 85 or 95%	Remolded Wet	47	75	66	19
	Remolded Dry	154	227	165	19

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.

Corrosivity Test Results Summary

Parameter	Number of Tests	Min.	Max.	Average
pH	31	4.2	7.6	5.1
Soluble Sulfate (mg/kg)	31	0	4740	324
Sulfides (mg/kg)	31	--	--	--
Soluble Chloride (mg/kg)	31	0.1	87	11.7
Redox (mV)	31	236	477	391
Electrical Resistivity (Ω-cm)	31	1260	9990	4,195

Results of soluble sulfate testing can be classified in accordance with ACI 318 – Building Code Requirements for Structural Concrete. 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

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil/bedrock properties observed at the site and as described on the exploration logs and results, our professional opinion is for that a **Seismic Site Classification of C** be considered for the project. Subsurface explorations at this site were extended to a maximum depth of 30 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

Given a Site Class C, the geographic location of the project site, and Sections 1613.3.3 and 1613.3.4 of the IBC, the design parameters listed below may be used:

Description [1]	Value
Risk Category	I
PGA_M	0.37g
S_s	0.75g
S_1	0.22g
F_A	1
F_V	1.27
S_{DS} Spectral Acceleration for a Short Period	0.5g
S_{D1} Spectral Acceleration for a 1-Second Period	0.19g

Description [1]	Value

1. These values were obtained using online seismic design maps and tools provided by the ASCE 7 Hazard Tool (https://asce7hazardtool.online/)

Pile Load Testing

For the initial scope (Terracon Proposal No. P57235034), pile load tests were performed at a total of 22 locations across the site. The test piles consisted of wide flange W6x9 steel piles. These test piles were installed to embedment depths of 5 to 8 feet below ground surface. The piles are identified in this report as text "PLT" followed by test number followed by letter "A" (piles embedded to depths of 5 feet below existing ground surface) and "B" (piles embedded to depths of 8 feet below existing ground surface) and "C" (piles embedded to depths of 5 feet below existing ground surface). The piles were tested for axial tension first and lateral load next. The "C" piles were installed with less stick-up and were tested for compression capacity only.

For the additional parcels, pile load tests were performed at a total of four locations. The test piles consisted of wide flange W6x9 steel piles. These test piles were installed to embedment depths of 7 to 10 feet below ground surface. The piles are identified in this report as text "PLT" followed by test number followed by letter "A" (piles embedded to depths of 7 feet below existing ground surface) and "B" (piles embedded to depths of 10 feet below existing ground surface). The piles were tested for axial tension first and lateral load next. Pre-drilling with an approximately 10-inch diameter oversized hole to a depth of 2 feet was performed prior to the installation of each pile in the additional parcel areas.

Pile Driving

The pile driving operation was performed with a track-mounted, Vermeer 10 pile driver. A summary of the time required to advance each pile to its specified embedment depth is summarized in the **Pile Driving Load Testing Results** and the table below.

Summary of Pile Installation Times

Pile Tip Depth (feet-bgs)	Drive Time (seconds)		
	Min.	Max.	Average
5	23	66	41.5
8	55	249	126.5
7	18	32	24.7

Summary of Pile Installation Times

Pile Tip Depth (feet-bgs)	Drive Time (seconds)		
	Min.	Max.	Average
10	55	78	71

Summary of Pile Load Test Results

The individual pile load test results are provided in the **Pile Load Test Results** section. The following table provides a summary of each test pile location, embedment depth, total drive time, uplift load at ¼-inch of vertical displacement, lateral load at ½-inch of lateral displacement, and compressive load at ¼-inch of vertical displacement:

Pile Load Test Results Summary

Location	Pile Tip Depth (ft-bgs)	Total Drive Time (seconds)	Uplift Load at ¼" Displacement (lbs.)	Lateral Load at ½'' Displacement (lbs.)	Compression Load at ¼" Displacement (lbs.)
PLT-1A	5.0	64	5,640	3,970	--
PLT-1B	8.0	161	8,730	4,590	--
PLT-1C	5.0	59	--	--	9,210
PLT-2A	5.0	41	6,320	3,770	--
PLT-2B	8.0	78	6,890	3,810	--
PLT-2C	5.0	47	--	--	8,030
PLT-3A	5.0	66	7,200	3,800	--
PLT-3B	8.0	102	8,860	4,360	--
PLT-3C	5.0	35	--	--	5,070
PLT-4A	5.0	23	3,370	2,360	--
PLT-4B	8.0	101	7,700	2,830	--
PLT-4C	5.0	25	--	--	6,780
PLT-5A	5.0	55	8,180	2,280	--
PLT-5B	8.0	145	9,250	3,700	--

Pile Load Test Results Summary

Location	Pile Tip Depth (ft-bgs)	Total Drive Time (seconds)	Uplift Load at ¼" Displacement (lbs.)	Lateral Load at ½'' Displacement (lbs.)	Compression Load at ¼" Displacement (lbs.)
PLT-5C	5.0	52	--	--	12,510
PLT-6A	5.0	44	6,120	3,060	--
PLT-6B	8.0	132	>10,000	3,650	--
PLT-6C	5.0	42	--	--	5,720
PLT-7A	5.0	61	7,490	3,590	--
PLT-7B	8.0	169	>10,000	3,480	--
PLT-7C	5.0	55	--	--	11,510
PLT-8A	5.0	44	5,520	2,990	--
PLT-8B	8.0	134	>10,000	2,950	--
PLT-8C	5.0	51	--	--	10,170
PLT-9A	5.0	40	7,620	3,390	--
PLT-9B	8.0	186	>10,000	4,000	--
PLT-9C	5.0	56	--	--	>13,000
PLT-10A	5.0	64	6,480	3,400	--
PLT-10B	8.0	249	>10,000	3,820	--
PLT-10C	5.0	54	--	--	10,150
PLT-11A	5.0	32	4,650	2,530	--
PLT-11B	8.0	151	>10,000	2,850	--
PLT-11C	5.0	32	--	--	6,560
PLT-12A	5.0	58	6,030	3,710	--
PLT-12B	8.0	94	7,520	3,340	--

Pile Load Test Results Summary

Location	Pile Tip Depth (ft-bgs)	Total Drive Time (seconds)	Uplift Load at ¼" Displacement (lbs.)	Lateral Load at ½'' Displacement (lbs.)	Compression Load at ¼" Displacement (lbs.)
PLT-12C	5.0	64	--	--	10,190
PLT-13A	5.0	43	4,760	2,380	--
PLT-13B	8.0	129	9,110	3,120	--
PLT-13C	5.0	43	--	--	7,050
PLT-14A	5.0	63	6,960	3,280	--
PLT-14B	8.0	143	>10,000	Data Corrupted	--
PLT-14C	5.0	63	--	--	12,320
PLT-15A	5.0	45	5,530	3,420	--
PLT-15B	8.0	146	>10,000	3,950	--
PLT-15C	5.0	40	--	--	8,800
PLT-16A	5.0	23	2,300	2,770	--
PLT-16B	8.0	86	7,720	3,480	--
PLT-16C	5.0	23	--	--	3,660
PLT-17A	5.0	30	4,950	2,900	--
PLT-17B	8.0	83	8,940	3,560	--
PLT-17C	5.0	25	--	--	7,400
PLT-18A	5.0	45	5,810	2,540	--
PLT-18B	8.0	116	>10,000	3,790	--
PLT-18C	5.0	19	--	--	4,070
PLT-19A	5.0	39	4,970	3,500	--
PLT-19B	8.0	95	8,250	4,430	--

Pile Load Test Results Summary

Location	Pile Tip Depth (ft-bgs)	Total Drive Time (seconds)	Uplift Load at ¼" Displacement (lbs.)	Lateral Load at ½'' Displacement (lbs.)	Compression Load at ¼" Displacement (lbs.)
PLT-19C	5.0	36	--	--	7,030
PLT-20A	5.0	30	4,210	3,570	--
PLT-20B	8.0	119	8,630	3,470	--
PLT-20C	5.0	28	--	--	7,900
PLT-21A	5.0	37	5,720	3,200	--
PLT-21B	8.0	109	7,880	4,700	--
PLT-21C	5.0	50	--	--	9,110
PLT-22A	5.0	24	4,060	3,280	--
PLT-22B	8.0	55	5,500	2,770	--
PLT-22C	5.0	39	--	--	7,880
PLT-22-1A	7.0	25	6,590	1,550	--
PLT-22-1B	10.0	55	11,270	2,050	--
PLT-22-2A	7.0	24	4,940	1,640	--
PLT-22-2B	10.0	78	12,610	1,610	--
PLT-22-3A	7.0	18	4,540	1,390	--
PLT-22-3B	10.0	75	>15,000	1,480	--
PLT-22-4A	7.0	32	7,160	1,750	--
PLT-22-4B	10.0	76	13,270	1,430	--

1. The ">" sign indicates the load was achieved prior to reaching the noted deflection.

Geotechnical Overview

The following sections provide additional details regarding potential geohazards for the site.

Seismicity

Based on the Spectral Acceleration for a 1-second period, S_{D1} value of 0.19g, the site can be categorized as Seismic Zone 2 based on AASHTO LRFD Table 3.10.6.1. Therefore, there is low risk of seismicity hazard at the project site.

Liquefaction - Settlement

The site is in Seismic Zone 2 and cohesive soils and bedrock were generally encountered at the site. Additionally, based on the seismic earthquake liquefaction potential mapped by Kentucky, the chance for liquefaction is low. Therefore, there is low risk of Settlement associated with liquefaction at the project site.

Liquefaction – Lateral Spread

The site is in Seismic Zone 2 and cohesive soils and bedrock were encountered at the site. Additionally, based on the seismic earthquake liquefaction potential mapped by Kentucky, the chance for liquefaction is low. Therefore, there is low risk of lateral spread associated with liquefaction at the project site.

Karst

According to USGS information, the bedrock underlying the site mostly consists of shale with the occasional presence of limestone, sandstone, claystone, and coal. The site is not located in an active karst area and therefore the karst potential is considered to be low.

Landslide Risk

Landslides are not considered to be a concern at this site.

Faults

Based on the USGS information, the site is not located in a region of active faults. Therefore, there is low risk associated with faults at the project site.

Adfreeze

It is Terracon's professional opinion that the near-surface overburden soils encountered in the borings drilled at this site are frost susceptible. In cold weather climates, design to resist frost heave forces exerted on foundations is often a significant factor in the foundation design. Specifically, pile lengths will need to be long enough to counteract potential heave forces in the seasonal frost zone.

As the frost penetrates deeper into the soil and the ground swells due to freezing, a portion of the soil profile and ground surface will rise due to frost heaving. The upward displacement is due to freezing water contained in the soil voids along with the formation of ice lenses in the soil. The freezing material grips the steel pile and exerts an uplift force due to the adfreeze stress developed around the surface area of the pile. The amount of upward force depends on the following:

- The thickness of ice lenses formed in the seasonal frozen ground
- The bond between the steel pile surface and the frozen ground
- The surface area of the steel pile in the seasonally frozen ground

Adfreeze on pile foundations may be significant. If the anchorage of the foundations and the deadweight of the pile are not sufficient to resist these upward forces, adfreeze load can cause uplift to structures. Based on our review of soil samples and associated references, we recommend an adfreeze stress of 1,500 psf be considered when determining the frost heave load on a pile. The box perimeter of the pile (two times the pile shape depth, d, plus two times the flange width, b_f) acting over a depth of 0.9 feet should be considered when determining the adfreeze stress on a pile. The adfreeze depth was calculated using the Modified Berggren equation along with a review of nearby weather station information and the results of the soil borings completed at the site.

Depending on the final size of the solar panels, the adfreeze uplift forces could govern the design and embedment depth of the steel piles; therefore, uplift might be the primary factor in foundation costs.

Earth Fissures

Earth fissures are not a concern at this site.

Slope Creep

Slope creep is not a concern at this site.

Existing Mines

The site is underlain by underground mines as indicated in the Preliminary Mine Desktop Review Report submitted on April 22, 2024. Due to the presence of the underground mines, the site carries the risk of subsidence related settlement and sinkhole development.

Mine Spoils

We did not encounter mine spoils in the limited number of borings performed at the site.

Large Areas of Undocumented Fill Below 2 Feet

We did not find undocumented fill below a depth of 2 feet in the limited borings performed. Based on the prior and current use of the site as agricultural land, we would not anticipate that undocumented fill below 2 feet is present at this site, however fill might be present near the previously developed areas such as residential structures, barns, etc.

Corrosive Soils

The 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.

Expansive Soils

A layer of fat clay was encountered in two borings about 8 to 11 feet below ground surface. Fat clay has higher potential to shrink and swell with moisture changes compared to other soils and becomes unstable with typical earthwork and construction traffic after precipitation events. Therefore, there is low risk associated with expansive soils in the project area.

Collapsible Soils

Based on the available geologic hazard maps, the risk of collapsible soil is negligible in the project area. Therefore, there is low risk of collapsible soils in the project area.

Organic Soils (Not Including Topsoil)

Organic soils, other than topsoil, were not found in the limited number of borings performed at the site. However, due to prior usage of the site for agricultural purposes, previously tilled organic soils may be present to depths deeper than the topsoil thickness noted on the boring logs.

Alluvial soils

Based on the NCRS website, the risk of flood plain is negligible in the area. Therefore, there is low risk of alluvial soils in the project site.

Loess Deposits

Based on the USGS, the risk of loess is moderate in the project site. However, the borings did not indicate the presence of loess.

High Plasticity Soils in Upper 3 Feet

Fat clay was encountered in two borings about 8 to 11 feet below ground surface. Therefore, there is low risk of high plasticity soils in upper 3 feet at the project site.

Bedrock in Upper 5 Feet

Bedrock strata were encountered at depths ranging from approximately 6.0 to 18.5 feet below the ground surface in the borings. Therefore, bedrock is not anticipated to be encountered in upper 5 feet based on limited number of borings performed at the site.

Bedrock in Upper 20 Feet

Bedrock was encountered at depths ranging from approximately 6.0 to 18.5 feet below the ground surface in the limited number of borings performed at the site.

Pile Drivability

Although the test piles installed for this study did not encounter refusal, we anticipate some piles may encounter difficult driving conditions or refusal in sandstone, claystone, or shale bedrock which was found as shallow as 6.0 feet in the borings. Therefore, we recommend pre-drilling be considered when evaluating construction costs for this site.

Groundwater in Upper 5 Feet

Groundwater was encountered as shallow as 2 feet in one of the test borings. Therefore, there is high risk of groundwater in the upper 5 feet at the project site.

Groundwater in Upper 15 Feet

Groundwater was encountered as shallow as 2 feet in one of the test borings. Therefore, there is high risk of groundwater in the upper 15 feet at the project site.

Artesian Groundwater Conditions

Artesian groundwater conditions were not found in the limited number of borings completed at the site. Therefore, there is low risk of artesian groundwater conditions in the project area.

Driven Steel Pile Foundations

We have performed preliminary geotechnical analyses for driven pile foundations to support the typical PV panel racking system. Subsequent analyses will be required once design level geotechnical information is available and once other design considerations are more fully defined. **THEREFORE, THE RESULTS OF THE ANALYSES DESCRIBED BELOW ARE NOT SUITABLE FOR FINAL DESIGN.** Instead, this analysis is intended to assist you in roughly evaluating construction costs and development viability for the proposed project. It should also be noted that our analyses are based on short-term conditions based on boring information. For this type of foundation system, provisions for flexible or adjustable connection between the posts and the array superstructure are recommended.

For the initial scope (PLT-1 through PLT-22) the pile embedment depths were 5 and 8 feet and based on the results of the pile load testing program, we have divided the site into four axial zones (Zone 1, 2, 3, and 4). The lateral load tests were less variable and therefore only one lateral zone was made for this site.

Axial Site Zoning

Zone	Location
1	PLT-4, PLT-16
2	PLT-11, PLT-13, PLT-17, PLT-19, PLT-20, PLT-22
3	PLT-1, PLT-2, PLT-6, PLT-8, PLT-10, PLT-12, PLT-15, PLT-18, and PLT-21

Axial Site Zoning

Zone	Location
4	PLT-3, PLT-5, PLT-7, PLT-9, and PLT-14

For the additional PLT's (PLT-22-1 through PLT-22-4) the pile embedment depths were 7 and 10 feet, based on the results, the axial and lateral load tests were less variable and therefore only one axial and lateral zone was created for the additional parcels.

Axial Site Zoning

Zone	Location
5	PLT-22-1, PLT-22-2, PLT-22-3, and PLT-22-4

Axial Capacity

The axial uplift capacity of driven piles may be estimated based on skin friction developed along the perimeter of the pile, while the compression capacity may be estimated using the skin friction and end bearing. When determining embedment depths, the perimeter of a wide flange beam should be taken as twice the sum of the flange width and section depth. The upper 12 inches of soil for each pile should be neglected in the axial uplift or compression capacity analyses.

Below are tables of values recommended for the different zones:

Axial Design Parameters

Zone	Minimum Pile Embedment Depth (feet-bgs)	Ultimate Uplift and Compression Skin Friction, q_s (psf)[1]	Ultimate End Bearing, $Q_{ult(end)}$ (lbs.)
1[2]	5	300	1,500
	5 to 8	950	
2[2]	5	500	2,000
	5 to 8	950	
3[2]	5	650	3,000
	5 to 8	850	
4[2]	5 to 8	850	4,000
5[3]	7	600	1,500
	7 to 10	1,250	1,500

Axial Design Parameters

Zone	Minimum Pile Embedment Depth (feet-bgs)	Ultimate Uplift and Compression Skin Friction, q_s (psf)[1]	Ultimate End Bearing, $Q_{ult(end)}$ (lbs.)

1. The upper 1 foot of soil should be neglected when determining the skin friction capacity of the pile due to freeze/thaw effects.
2. Values for zone 1 through zone 4 are applicable only for piles installed to the minimum depth of 5 feet without refusal.
3. Values for zone 5 are applicable only for piles installed to the minimum depth of 7 feet without refusal.

The above values are to be used in the following equations to obtain the ultimate uplift or compression load capacity of a pile:

$$Q_{ult\ (compressive)} = Q_{ult\ (end)} + \Sigma(H \times P \times q_s)$$
$$Q_{ult\ (uplift)} = \Sigma(H \times P \times q_s)$$

Q_{ult} = Ultimate uplift or compression capacity of pile (lbs.)
$Q_{ult\text{-}(end)}$ = Ultimate end bearing capacity per the table above (lbs.)
H = Depth of embedment of pile (ft)
P = Box perimeter area/ft. of pile. (i.e., W6x9 = 1.64 ft.)
q_s = Skin friction per table above (psf).

For Allowable Stress Design (ASD), we recommend the allowable skin friction and end bearing values be determined by applying a factor of safety of at least 1.5 to the ultimate value. For piles embedded deeper than 8 feet in zones 1 through 4 or 10 feet in Zone 5, we recommend applying a factor of safety of at least 2.0 to the ultimate skin friction and end bearing values provided.

Three example calculations are shown below to determine the allowable tension capacity for a 5-foot embedded pile in Zone 1, an 8-foot embedded pile in Zone 1, and a 12-foot pile in Zone 1:

5-foot Embedment (Zone 1): $Q_{allowable\ (uplift)} = (5\text{-}1) \times 1.64 \times \frac{300}{1.5} = 1{,}312$ pounds

8-foot Embedment (Zone 1): $Q_{allowable\ (uplift)} = (5\text{-}1) \times 1.64 \times \frac{300}{1.5} + (8\text{-}5) \times 1.64 \times \frac{950}{1.5} = 4{,}428$ pounds

12-foot Embedment (Zone 1): $Q_{allowable\ (uplift)} = (5\text{-}1) \times 1.64 \times \frac{300}{1.5} + (8\text{-}5) \times 1.64 \times \frac{950}{1.5} + (12\text{-}8) \times 1.64 \times \frac{950}{2.0} = 7{,}544$ pounds

The provided skin friction values are applicable for piles that are driven using equipment similar to a Vermeer PD10 pile driver with a hydraulically operated hammer.

Piles should have a minimum center-to-center spacing of at least five times their largest cross-sectional dimension to prevent reduction in the axial capacities due to group effects.

Final pile design to be completed by an engineer licensed in the State of Kentucky based upon information contained in this geotechnical report and independent pile load testing.

Lateral Capacity

Lateral load response of pile foundations was calculated using the computer program *L-Pile 2022*, by Ensoft, Inc. The stiffness of the pile and the stress-strain properties of the surrounding soils determine the lateral resistance of the foundation. We modeled the lateral response of the tested piles to evaluate L-Pile input parameters that can be used for preliminary analysis. Recommended L-Pile input parameters for preliminary lateral load analysis for driven pile foundations are shown in the following tables:

PLT-1 through PLT-22						
GeoModel Layer	**Depth (feet bgs)**	**LPILE Soil Model**	**Effective Unit Weight γ, (pcf)** [1]	**Cohesion, c (psf)**	**Friction Angle, ϕ (°)**	**Strain Factor, (ε_{50}) and Static Lateral Subgrade Modulus (k)** [1]
1	0 – 2	Stiff clay w/o free water	120	1,000	--	default
2	2 – 20	Stiff clay w/o free water	62.6	2,500	--	default

PLT-22-1 through PLT-22-4						
GeoModel Layer	**Depth (feet bgs)**	**LPILE Soil Model**	**Effective Unit Weight γ, (pcf) [1]**	**Cohesion, c (psf)**	**Friction Angle, ϕ (°)**	**Strain Factor, (ε_{50}) and Static Lateral Subgrade Modulus (k) [1]**
1	0 – 6	Stiff clay w/o free water	115	1,000	--	default
2	6 – 20	Stiff clay w/o free water	120	3,000	--	default

For (PLT-1 through PLT-22) lateral load test results were consistent between the different embedment depths at the site. Therefore, we have provided one p-multiplier value for piles installed at least 5 feet below the ground surface:

PLT-1 through PLT-22	
Minimum Pile Embedment Depth (feet-bgs)	**P-Multiplier [1, 2]**
≥5	1.7

1. The p-multiplier in the upper 0.9 feet should be reduced by 30% due to seasonal freeze/thaw impacts. For example, the p-multiplier for upper 0.9 feet of a pile installed to a depth of 5 feet would be 1.2.
2. The p-multiplier values provided in this table are only applicable to piles installed to a depth of at least 5 feet.

For (PLT-22-1 through PLT-22-4) lateral load test results were also consistent between the different embedment depths at the site. Therefore, we have provided one p-multiplier value for piles installed at least 7 feet below the ground surface:

PLT-22-1 through PLT-22-4	
Minimum Pile Embedment Depth (feet-bgs)	**P-Multiplier [1, 2]**
≥7	2.6

PLT-22-1 through PLT-22-4	
Minimum Pile Embedment Depth (feet-bgs)	**P-Multiplier [1, 2]**

1. The p-multiplier in the upper 0.9 feet should be reduced by 30% due to seasonal freeze/thaw impacts. For example, the p-multiplier for upper 0.9 feet of a pile installed to a depth of 7 feet would be 1.82.
2. The p-multiplier values provided in this table are only applicable to piles installed to a depth of at least 7 feet.

Lateral analyses were performed by using LPILE to generate a load vs. deflection curve that was generally consistent with the field load test results. For (PLT-1 through PLT-22) the shear load was applied at approximately 3 feet above the ground surface and for (PLT-22-1 through PLT-22-4) the shear load was applied at approximately 2 feet above the ground surface.

The effective unit weight and cohesion were based on the results of the SPT borings. The p-multiplier was then adjusted (by trial-and-error method) such that the applied load resulted in a deflection value that matched the load test results. Please note that this procedure was based on only one discrete set of data determined at about six inches from the ground surface during the field load testing. These results should be used for LPILE analysis only using the 2022 version of LPILE.

The structural engineer should evaluate the moment capacity of the pile as part of their structural evaluation. Piles should have a minimum center-to-center spacing of at least five times their largest cross-sectional dimension in the direction of the lateral loads, or the lateral capacities should be reduced due to group effects. If piles will be spaced closer than five times their largest cross-sectional dimension, we should be notified to provide supplemental recommendations regarding resistance to lateral loads.

Preliminary Recommendations for Isolated Slab Foundations

We understand that some equipment may be supported on mat/slab foundations while other structures and BESS Containers may be supported on shallow spread footings. Soft to medium stiff clays were encountered near the surface, as such, if unsuitable bearing soils are encountered in footing excavations, the excavations should be extended deeper to suitable soils (at least stiff consistency) and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The footings could also bear on properly compacted backfill extending down to the suitable soils. Over-excavation for compacted backfill placement below footings should extend

laterally beyond all edges of the footings at least 8 inches per foot of over excavation depth below footing base elevation. The over excavation should then be backfilled up to the footing base elevation with engineered fill placed in lifts of 8 inches or less in loose thickness and compacted to at least 98 percent of the material's maximum dry density (ASTM D 698). We would expect an allowable bearing capacity of 2,000 psf with total settlement of about 1 inch, depending on minimum foundation width and embedment.

Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible (NFS) fill or structural slabs (for instance, structural stoops in front of building doors). Placement of NFS material in large areas may not be feasible; however, the following recommendations are provided to help reduce potential frost heave:

- Provide surface drainage away from the building and slabs, and toward the site storm drainage system.
- Install drains around the perimeter of the building, stoops, below exterior slabs and access roadways, and connect them to the storm drainage system.
- Grade clayey subgrades, so groundwater potentially perched in overlying more permeable subgrades, such as sand or aggregate base, slope toward a site drainage system.
- Place NFS fill as backfill beneath slabs and access roadways critical to the project.
- Place a 3 horizontal to 1 vertical (3H:1V) transition zone between NFS fill and other soils.

As an alternative to extending NFS fill to the full frost depth of 2 feet, consideration can be made to placing extruded polystyrene or cellular concrete under a buffer of at least 2 feet of NFS material.

Preliminary Earthwork Recommendations

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. The near surface clayey soils encountered in the borings will require reworking/stabilization to provide acceptable subgrade soils for construction. Site preparation where inverter mat foundations will be installed should include clearing and grubbing, installation of a site drainage system (where necessary), subgrade preparation, proof rolling and vibratory densification using a sheepsfoot roller, 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 accessibility and drainage where necessary.

We would expect typical earthmoving equipment (bulldozers, excavators, sheepsfoot, steel drum vibratory rollers) to be suitable for completion of earthwork activities on the

site. The most challenging obstacle for earthwork construction will be the control of surface and groundwater, especially during the typical Kentucky wet season. The site should be graded to prevent ponding of surface water. Additionally, dewatering (rim ditches, sump pumps, well points, etc.) may be needed to lower the groundwater and allow for adequate compaction in trenches.

Preliminary Drilled Shaft Recommendations

It is anticipated that some of the substation structures/appurtenances and transmission line structures will be supported on deep foundation systems such as drilled shaft foundation elements.

It is recommended that each drilled shaft element be at least 1.5 feet in diameter with shaft lengths of at least 10 feet, and it should be terminated within at least medium dense granular soil or at least stiff native cohesive soil or socketed minimum 3 feet into the competent bedrock. Geotechnical engineer should inspect the bearing stratum to confirm the competency of the bedrock layer.

Recommended geotechnical parameters of deep foundations have been developed for use in L-PILE computer program for substation boring. Additionally, the ultimate skin friction (side resistance) and end bearing capacities for substation boring have been developed and are presented below in the L-PILE parameters table. Please note that the values listed in the table for end bearing and side resistance are ultimate values, thus, the appropriate factors of safety recommended below should be applied by the designer. For the transmission line borings parameters for MFAD computer program and the ultimate skin friction (side resistance) and end bearing capacities have been developed. Please note that the values listed in the table for end bearing and side resistance are ultimate values, thus, the appropriate factors of safety recommended below should be applied by the designer.

It is recommended that the drilled shaft design should incorporate a factor of safety of 3 for end bearing, 2.5 for side resistance in axial compression, and 3 is recommended for side resistance against uplift. Soil parameters for axial design of drilled shaft are provided in the following section.

Based on the encountered subsurface conditions, laboratory test results, and Standard Penetration Test results, design parameters have been developed for the substation area and transmission lines, as shown in the following tables:

Drilled Shaft Design Parameters

Test Boring SB-14

Layer Number	Material Type / L-Pile Model	Depth to Bottom of Layer (feet) [1]	Total Unit Weight (pcf)	Friction Angle (degrees)	Un-drained Shear Strength (psf)	L-Pile Parameter, k-value (pci)	L-Pile Parameter, ε_{50}	Ultimate Skin Friction in Compression (ksf)	Ultimate End Bearing (ksf)
1 [2]	Sand	2	113	29	--	Default	--	0.06	--
2	Soft Clay (Matlock)	6	123	--	0.5	Default	0.020	0.45	--
3	Stiff Clay w/o Free Water	8.5	125	--	1	Default	0.012	0.70	9
4	Stiff Clay w/o Free Water (Claystone modelled as Clay)	15	130	--	4	Default	0.004	1.0	30
5	Claystone	15.5	131	See table below for rock properties				1.1	40
6	Shale	25.0	131	See table below for rock properties				1.1	40

Groundwater was not encountered during drilling[3].

Layer Number	Material Type	Approximate Depth to Bottom of Layer [1] (feet)	Total Unit Weight (pcf)	Uniaxial Compressive Strength (psi)	RQD (%)
5	Weak Rock (Claystone Bedrock)	15.5	131	50	0
6	Weak Rock (Shale Bedrock)	25.0	131	100	8

Layer Number	Material Type	Approximate Depth to Bottom of Layer [1] (feet)	Initial Modulus of Rock Mass (psi)	Strain Factor
5	Weak Rock (Claystone Bedrock)	15.5	300	0.0005
6	Weak Rock (Shale Bedrock)	25.0	500	0.0005

Notes:

1. Depth referenced to existing ground surface.
2. The side resistance of the uppermost 2 feet of the soil should be ignored due to the potential for disturbance caused during the drilled shaft construction.
3. Groundwater levels during construction at other times in the life of the structures may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Drilled shaft length may need to be adjusted (increased) to resist the lateral loads and moments acting at or near the ground surface elevation (structural loads). Soil Parameters and Models for Lateral Load Analyses of Drilled Shafts section provided above for the detailed lateral load analyses of drilled shaft foundation.

Drilled Shaft Design Parameters for Transmission Line

Test Boring SB-10

Layer Number	Material Type	Depth to Bottom of Layer (feet) (1)	Total Unit Weight (pcf)	Deformation Modulus (ksi)	Friction Angle (degrees)	Undrained Shear Strength (ksf)	Ultimate Skin Friction in Compression (ksf)	Ultimate End Bearing (ksf)
1 (2)	Clay	6	122	0.18	--	0.25	0.25	--
2	Clay	13.5	124	0.5	--	0.75	0.60	6.8
3	Clay (Claystone modelled as Clay)	15	131	2.5	--	4.0	1.0	30
4	Claystone	15.5	131	Refer Table below for Rock Properties			1.1	40
5	Claystone	21.8	131	Refer Table below for Rock Properties			1.1	40
6	Shale	25.0	131	Refer Table below for Rock Properties			1.1	40

Groundwater was not encountered during drilling[3].

Layer Number	Material Type	Approximate Depth to Top of Layer (feet) (1)	Approximate Depth to Bottom of Layer (feet) (1)	Effective Rock Cohesion (ksf)	Effective Friction Angle for Rock (degrees)	Rock/ Concrete Bond Strength (ksf)	Deformation Modulus (ksi)
4	Claystone	15.0	15.5	2.4	31	2	308
5	Claystone	15.5	21.8	2.6	31	2	440
6	Shale	21.8	25.0	2.4	31	7	308

Test Boring SB-11

Layer Number	Material Type	Depth to Bottom of Layer (feet) (1)	Total Unit Weight (pcf)	Deformation Modulus (ksi)	Friction Angle (degrees)	Undrained Shear Strength (ksf)	Ultimate Skin Friction in Compression (ksf)	Ultimate End Bearing (ksf)
1 (2)	Clay	13.5	124	0.50	--	0.75	0.60	--
2	Clay (Claystone modelled as Clay)	15.0	130	2.5	--	4.0	1.0	30
4	Claystone	15.5	131	Refer Table below for Rock Properties			1.1	40
5	Shale	18.0	131	Refer Table below for Rock Properties			1.1	40
6	Claystone	24.0	131	Refer Table below for Rock Properties			1.1	40
7	Shale	25.0	131	Refer Table below for Rock Properties			1.1	40

Groundwater was not encountered during drilling[3].

Layer Number	Material Type	Approximate Depth to Top of Layer (feet) (1)	Approximate Depth to Bottom of Layer (feet) (1)	Effective Rock Cohesion (ksf)	Effective Friction Angle for Rock (degrees)	Rock/ Concrete Bond Strength (ksf)	Deformation Modulus (ksi)
4	Claystone	15.0	15.5	2.4	31	2	308

5	Shale	15.5	18.0	2.6	31	7	308
6	Claystone	18.0	24.0	2.6	32	2	440
7	Shale	24.0	25.0	2.6	32	7	440

Test Boring SB-12

Layer Number	Material Type	Depth to Bottom of Layer (feet) (1)	Total Unit Weight (pcf)	Deformation Modulus (ksi)	Friction Angle (degrees)	Undrained Shear Strength (ksf)	Ultimate Skin Friction in Compression (ksf)	Ultimate End Bearing (ksf)
1 (2)	Clay	6	124	0.50	--	0.75	0.60	--
2	Clay	13.5	128	1.2	--	2	0.70	18
3	Clay (Claystone modelled as Clay)	15	130	2.5	--	4	1.0	30
4	Claystone	15.3	131	Refer Table below for Rock Properties			1.1	40
5	Shale	17.3	131	Refer Table below for Rock Properties			1.1	40
6	Claystone	25.0	131	Refer Table below for Rock Properties			1.1	40

Groundwater was encountered at 14.5 feet during drilling[3].

Layer Number	Material Type	Approximate Depth to Top of Layer (feet) (1)	Approximate Depth to Bottom of Layer (feet) (1)	Effective Rock Cohesion (ksf)	Effective Friction Angle for Rock (degrees)	Rock/ Concrete Bond Strength (ksf)	Deformation Modulus (ksi)
4	Claystone	15.0	15.3	2.4	31	2	308
5	Shale	15.3	17.3	2.4	31	2	308
6	Claystone	17.3	25.0	2.6	32	2	440

Test Boring SB-13

Layer Number	Material Type	Depth to Bottom of Layer (feet) [1]	Total Unit Weight (pcf)	Deformation Modulus (ksi)	Friction Angle (degrees)	Undrained Shear Strength (ksf)	Ultimate Skin Friction in Compression (ksf)	Ultimate End Bearing (ksf)
1 [2]	Clay	6	123	0.35	--	0.5	0.45	--
2	Clay	15	128	1.2	--	2	0.70	--
3	Clay	18.5	130	2.5	--	4	1.0	--
4	Coal (Coal modelled as Sand)	20.3	115	0.6	30	--	--	--
5	Shale	23.5	131	Refer Table below for Rock Properties			1.1	40
6	Claystone	27.0	131	Refer Table below for Rock Properties			1.1	40
7	Claystone	30.0	131	Refer Table below for Rock Properties			1.1	40

Groundwater was not encountered during drilling[3].

Layer Number	Material Type	Approximate Depth to Top of Layer (feet) [1]	Approximate Depth to Bottom of Layer (feet) [1]	Effective Rock Cohesion (ksf)	Effective Friction Angle for Rock (degrees)	Rock/ Concrete Bond Strength (ksf)	Deformation Modulus (ksi)
5	Shale	20.3	23.5	2.4	31	7	308
6	Claystone	23.5	27.0	2.4	31	2	308
7	Claystone	27.0	30.0	2.4	31	2	308

Notes:

1. Depth referenced to existing ground surface.
2. The side resistance of the uppermost 2 feet of the soil should be ignored due to the potential for disturbance caused during the drilled shaft construction.
3. Groundwater levels during construction at other times in the life of the structures may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Drilled Shaft Construction Considerations

The following additional construction considerations should be followed during the drilled shaft installations:

- It is anticipated that most drilled shafts may have to be constructed by using the slurry displacement method.
- A casing if used during construction of the shaft, should be removed after concrete is poured. Casing should not be left in place permanently as during the shaft construction process, voids/gaps could get created between the casing and the surrounding soils. If the casing cannot be removed for some reason, jet grouting should be performed to completely fill the gaps/voids between the casing and the surrounding soils. In that case there may still be a reduction in the skin friction capacity of the shaft, which will have to be evaluated by the project geotechnical and structural engineers.
- The actual bearing elevation at each drilled shaft location should be determined in the field during construction through inspection by an authorized representative of the Geotechnical Engineer.
- To facilitate shaft construction, concrete should be on-site and ready for placement as shaft excavations are completed.
- It is recommended that no completed drilled shaft holes be left open overnight without being filled with concrete.
- Drilled shaft installation methods should account for cobble and boulders if encountered during drilling.

Access Roadways

General Comments

Roadway designs are provided for the traffic conditions and roadway design service period conditions as noted the **Project Description** and in the following sections of this report. A critical aspect of roadway performance is site preparation. Roadway designs noted in this section are contingent upon the site being prepared as recommended in the **Earthwork** section. Additionally, our recommendations are based on *Chapter 4 Low-Volume Road Design* found in AASHTO 1993.

Native Soil Subgrade

Because the on-site subgrade soils are susceptible to strength loss and instability with increases in moisture content and volume change, we recommend that the aggregate base layer be placed on a biaxial geogrid to improve longer-term support. As an alternative to the geogrid, the upper 8 inches of the subgrade below the aggregate base could be

chemically treated. The on-site clay soils can be treated with hydrated lime at an application rate of approximately 5 to 7 percent or Portland cement at an approximate application rate of 6 to 8 percent. The lime and cement percentages are in terms of the material's compacted dry unit weight.

Design Parameters

We understand unpaved access roads are planned throughout the site. The unpaved road sections for post-construction use have been developed under the following assumptions:

Aggregate Roadway Design Parameters

Parameter	Design Value	Comments
Traffic Loading	Array Area = 250 ESALs[1] Substation Road = 500 ESALs[1]	Assumed
Design Service Period	30 years	Assumed
Subgrade CBR	3	Assumed
Subgrade Resilient Modulus, M_R	6,750 psi (dry) 4,500 psi (wet/saturated) 20,000 psi (frozen)	Assumed
Aggregate Base Elastic Modulus	20,000 psi	Assumed
Allowable Rut Depth	2 inches	Assumed
Design Serviceability Loss	2.0	Assumed
Vehicle Tire Pressure	80 psi	Assumed

1. ESAL = 18 kips Equivalent Single Axle Load

Access Road Sections

As a minimum, we recommend the following minimum component thicknesses for unpaved access roads:

Typical Unpaved Road Section – Post Construction Traffic

Aggregate Thickness (in.)[1]	Subgrade Material[2]	Geogrid Stabilization	Area
4	12" of compacted native soil	None	Array Areas
6	12" of compacted native soil	None	Substation Road

1. KYTC crushed limestone dense graded aggregate.
2. Though not required structurally, an optional stabilized subgrade layer may be prudent to allow efficient compaction and construction of the aggregate surface course.

We would consider the above options appropriate for light passenger truck maintenance vehicles but should be suitable to support access for a single fire truck in the event of an emergency. Additionally, the substation access road should be suitable to support infrequent heavy deliveries to replace electrical equipment throughout the design life.

Note that whichever type of unpaved road is chosen, there will be a need for an ongoing maintenance program. Ruts or potholes that develop should be filled with additional aggregate base rather than by re-grading. Also, the unpaved roadway would need to be constructed with adequate drainage to prevent the ponding of water which would contribute to additional ongoing maintenance.

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 effect 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.

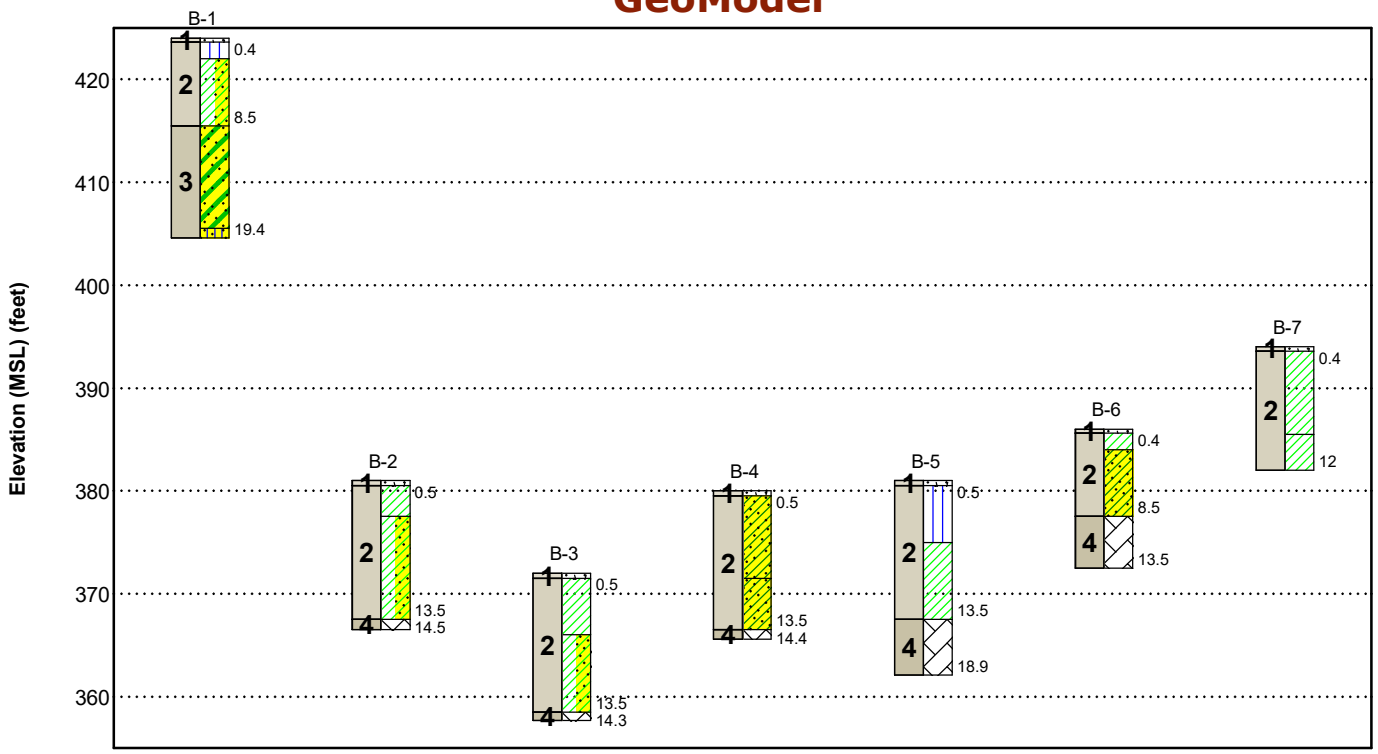
Figures

Contents:

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Surface	Topsoil
2	Clay	Lean Clay (CL), light gray, brown and Lean/Fat Clay (CL/CH), brown ,Silt (ML), light brown
3	Sand/Coal Seam	Poorly Graded Sand (SP), clayey sand, and silty sand, reddish brown, Coal, black
4	Bedrock	Shale and claystone, gray to black Sandstone, gray and brown

LEGEND

Topsoil
Clayey Sand
Claystone
Silt
Silty Sand
Sandy Lean Clay
Lean Clay with Sand
Lean Clay

▽ First Water Observation

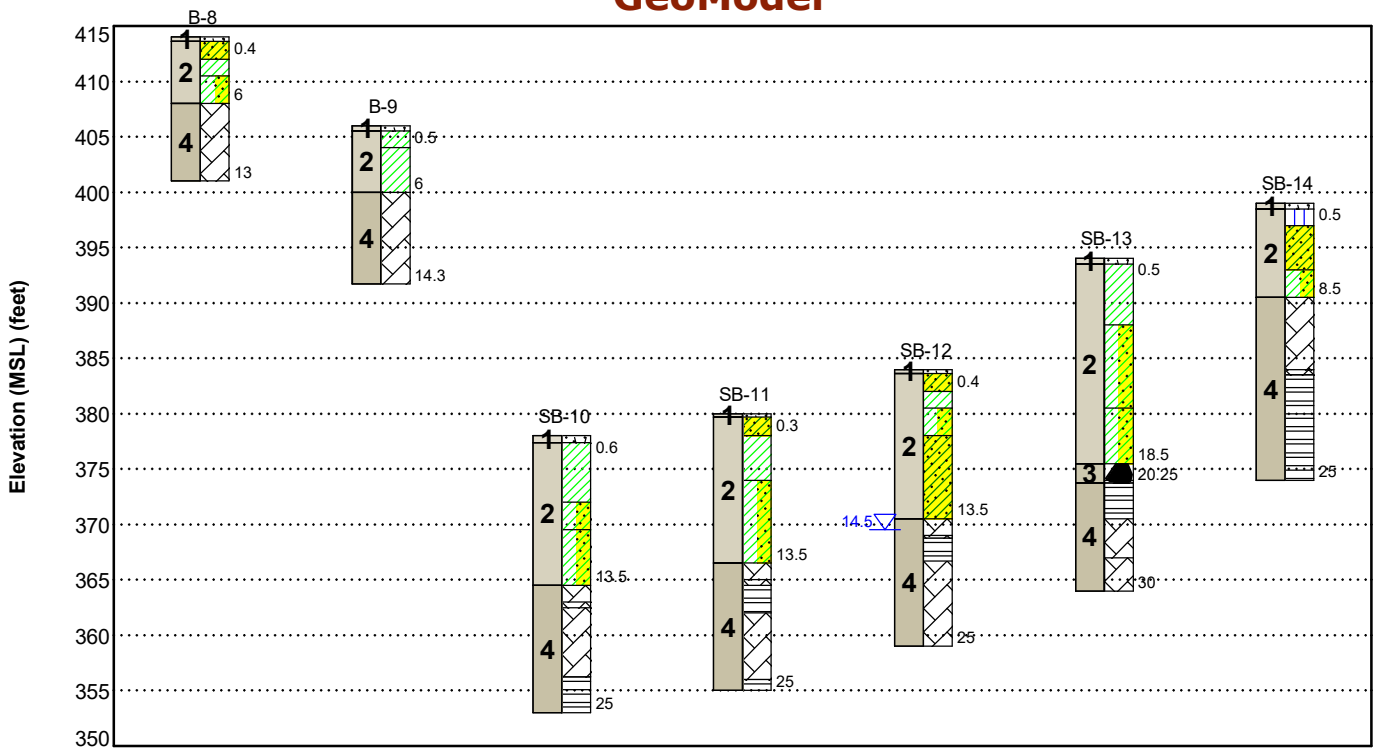
The groundwater levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

GeoModel



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Model Layer	Layer Name	General Description
1	**Surface**	Topsoil
2	**Clay**	Lean Clay (CL), light gray, brown and Lean/Fat Clay (CL/CH), brown ,Silt (ML), light brown
3	**Sand/Coal Seam**	Poorly Graded Sand (SP), clayey sand, and silty sand, reddish brown, Coal, black
4	**Bedrock**	Shale and claystone, gray to black Sandstone, gray and brown

LEGEND

- Topsoil
- Lean Clay with Sand
- Coal
- Sandy Lean Clay
- Claystone
- Silt
- Lean Clay
- Shale

▽ First Water Observation

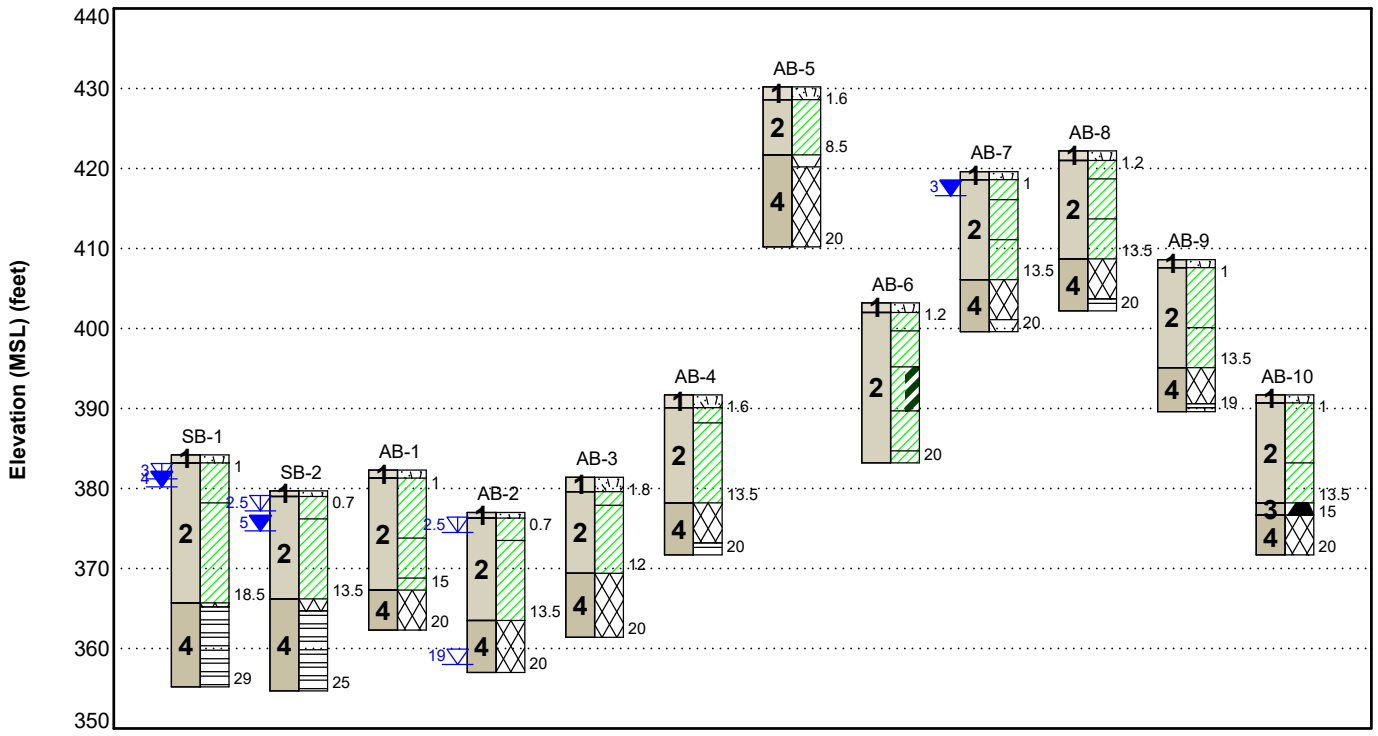
The groundwater levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

GeoModel



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Model Layer	Layer Name	General Description
1	Surface	Topsoil
2	Clay	Lean Clay (CL), light gray, brown Lean/Fat Clay (CL/CH), brown Silt (ML), light brown
3	Sand/Coal Seam	Poorly Graded Sand (SP), with clay, reddish brown Coal, black
4	Bedrock	Shale, gray to black Sandstone, gray and brown

LEGEND

Topsoil
Lean Clay
Highly Weathered Shale
Shale
Weathered Shale
Lean Clay/Fat Clay
Limestone
Coal

First Water Observation
Second Water Observation
Third Water Observation

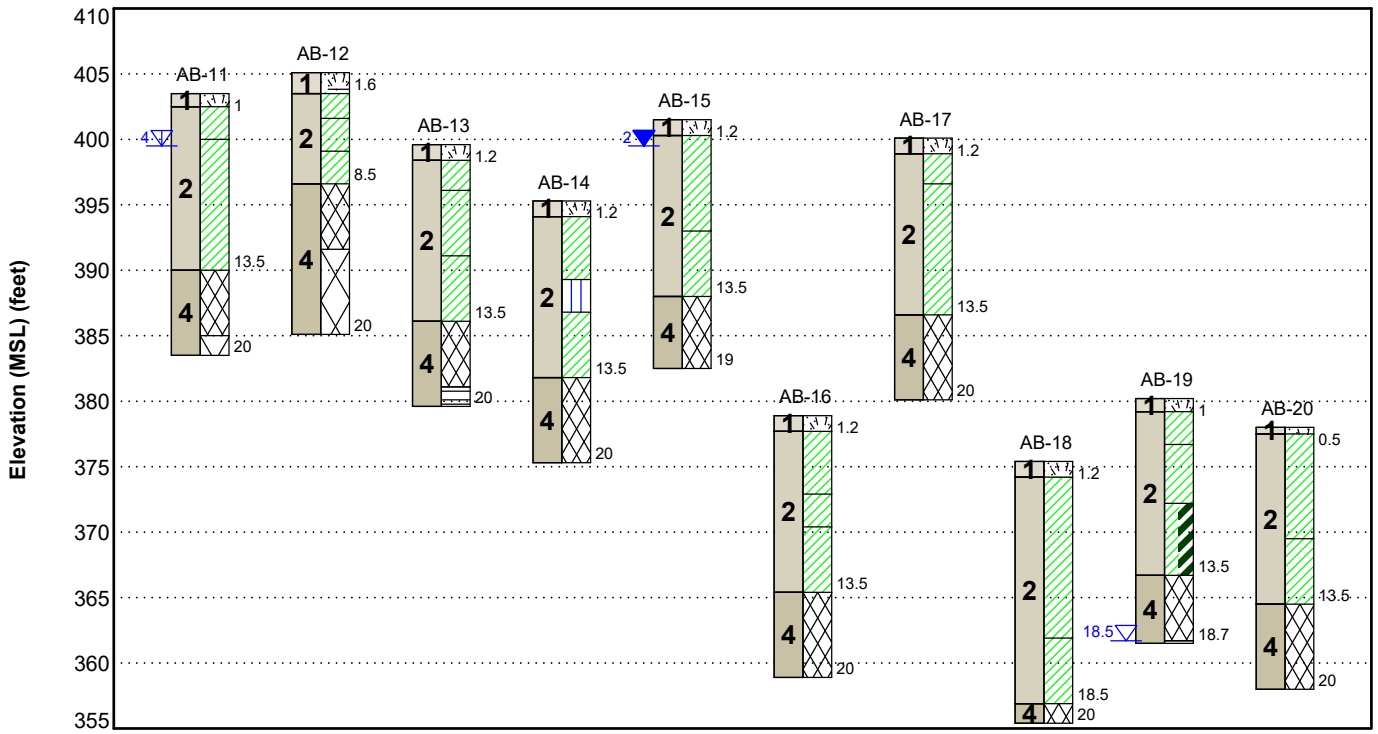
The groundwater levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Surface	Topsoil
2	Clay	Lean Clay (CL), light gray, brown Lean/Fat Clay (CL/CH), brown Silt (ML), light brown
3	Sand/Coal Seam	Poorly Graded Sand (SP), with clay, reddish brown Coal, black
4	Bedrock	Shale, gray to black Sandstone, gray and brown

LEGEND

Topsoil
Lean Clay
Highly Weathered Shale
Weathered Shale
Shale
Silt
Lean Clay/Fat Clay

First Water Observation
Second Water Observation
Third Water Observation

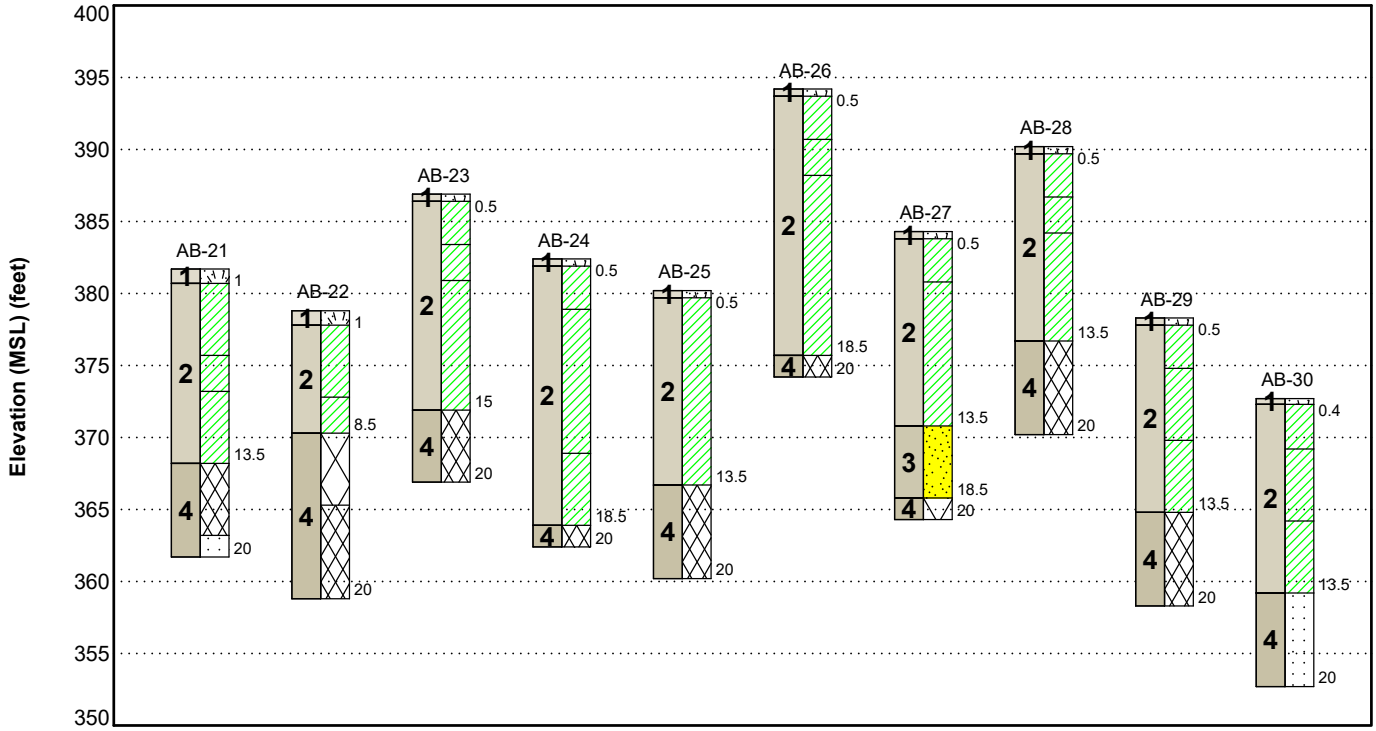
The groundwater levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

GeoModel



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Model Layer	Layer Name	General Description
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4	Bedrock	Shale, gray to black Sandstone, gray and brown

LEGEND

- Topsoil
- Lean Clay
- Highly Weathered Shale
- Sandstone
- Weathered Shale
- Poorly-graded Sand

- First Water Observation
- Second Water Observation
- Third Water Observation

The groundwater levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Attachments

Exploration and Testing Procedures

Field Exploration

Type of Exploration / Test	Number
SPT Borings (Array Area)	39[1]
SPT Borings (Substation Area)	1[2]
SPT Borings (Transmission Line)	4[1]
Test Pits	20[1]

1. As per the proposal PN4245089, additional parcels have been added to the solar site boundary for this project. For the new parcels, 9 additional borings, borings B-1 through B-9 were located in the array area, two borings SB-10 through SB-13 were drilled for the transmission line, and five test pits TP-1 through TP-5, were added to the original scope.
2. Initially as per proposal P57235034 substation borings SB-1 and SB-2 were performed. However, in the new scope the location of the substation has changed, therefore boring SB-14 was performed.

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 (solid flight and hollow stem). Five samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge was pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel 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 is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings were backfilled with auger cuttings after their completion.

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.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests. The laboratory testing program included the following types of tests:

- Moisture Content
- Atterberg Limits
- Grain Size Analysis
- Standard Proctor
- Chemical Analysis for Determining Corrosivity
- Thermal Resistivity Testing

The laboratory testing program often included examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we described and classified the soil samples in accordance with the Unified Soil Classification System.

Site Location and Exploration Plans

Contents:

Note: All attachments are one page unless noted above.

Site Location

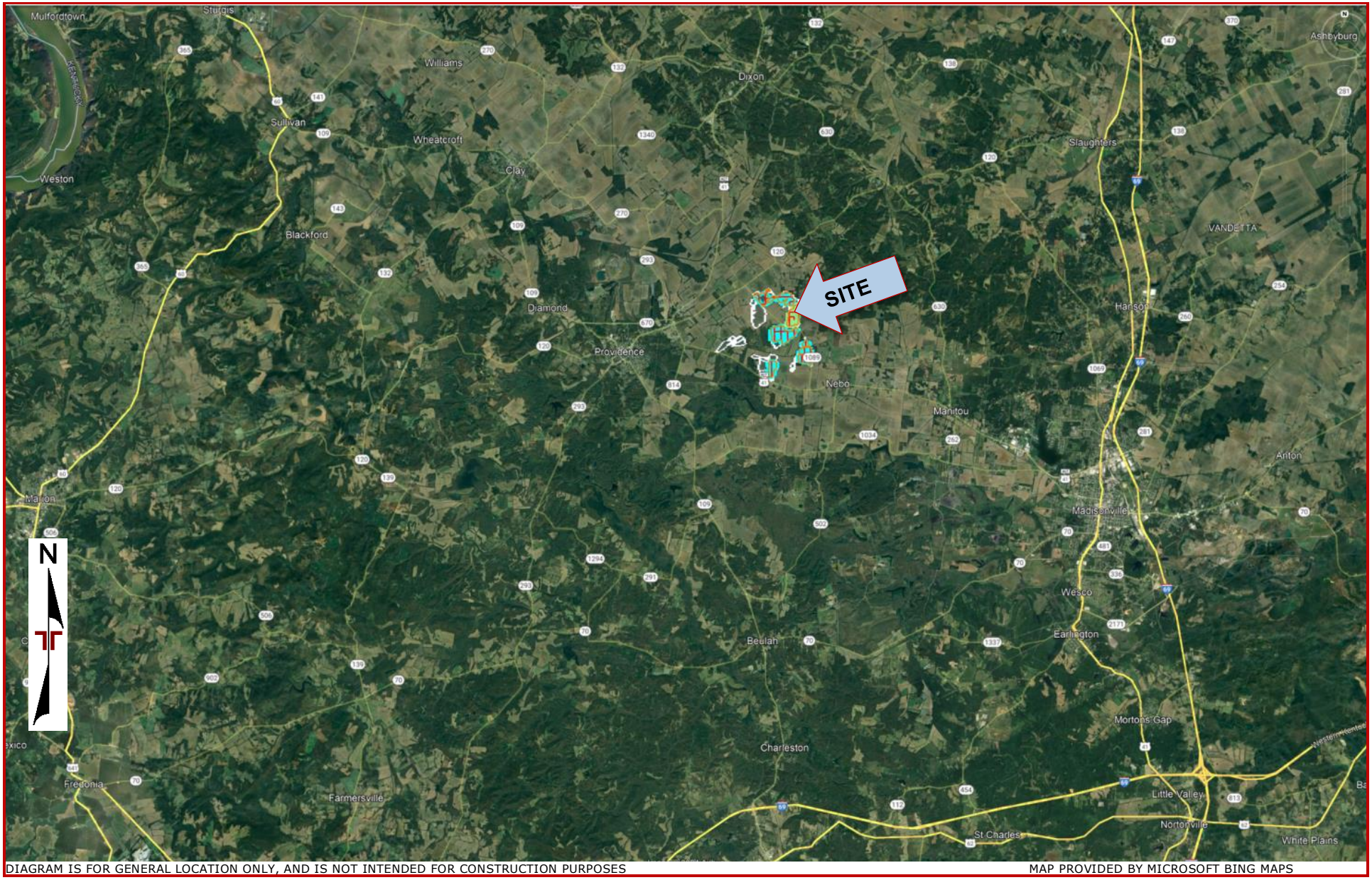
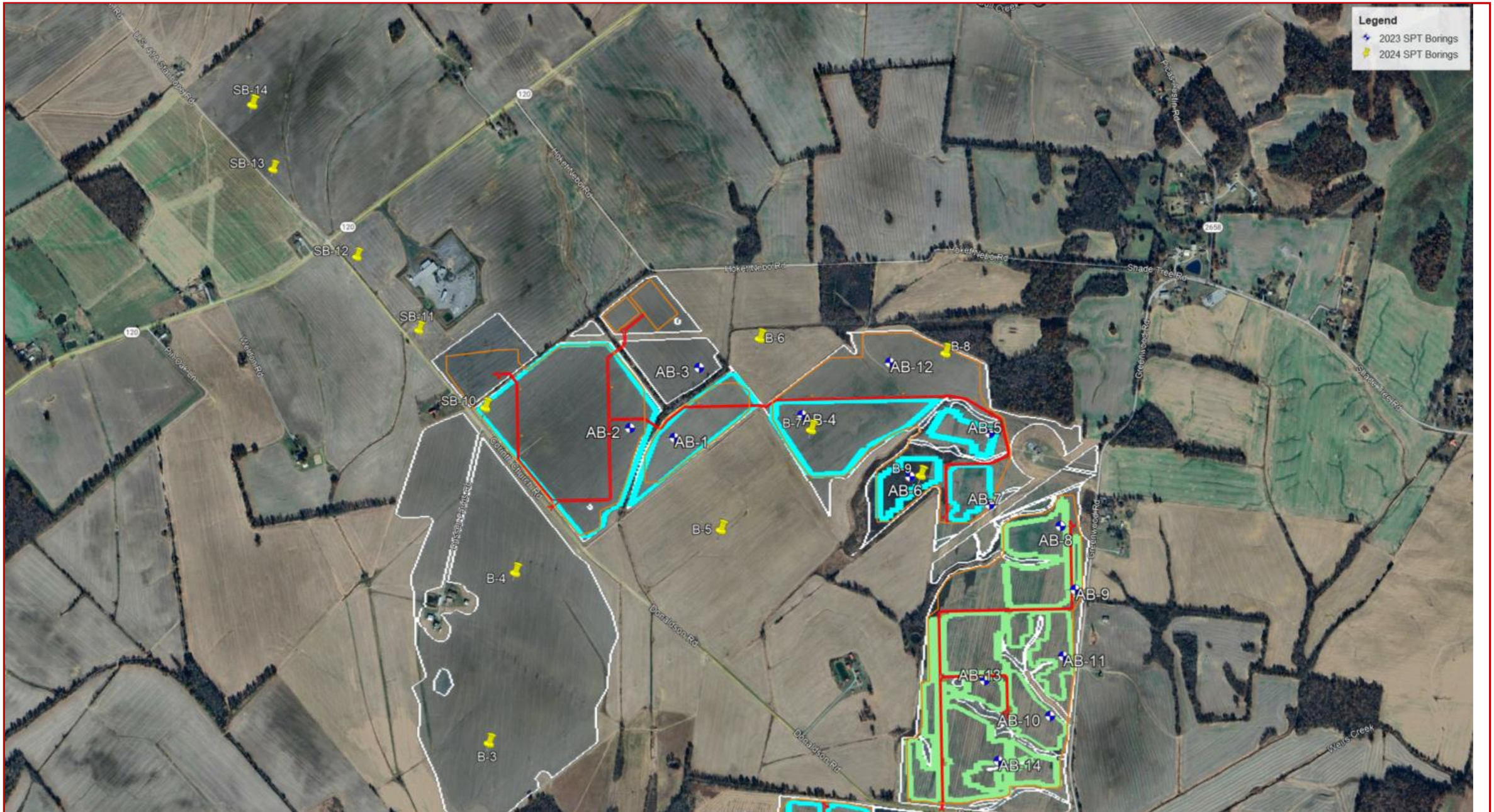


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Plan (SPT Locations)



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MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Plan (SPT Locations)

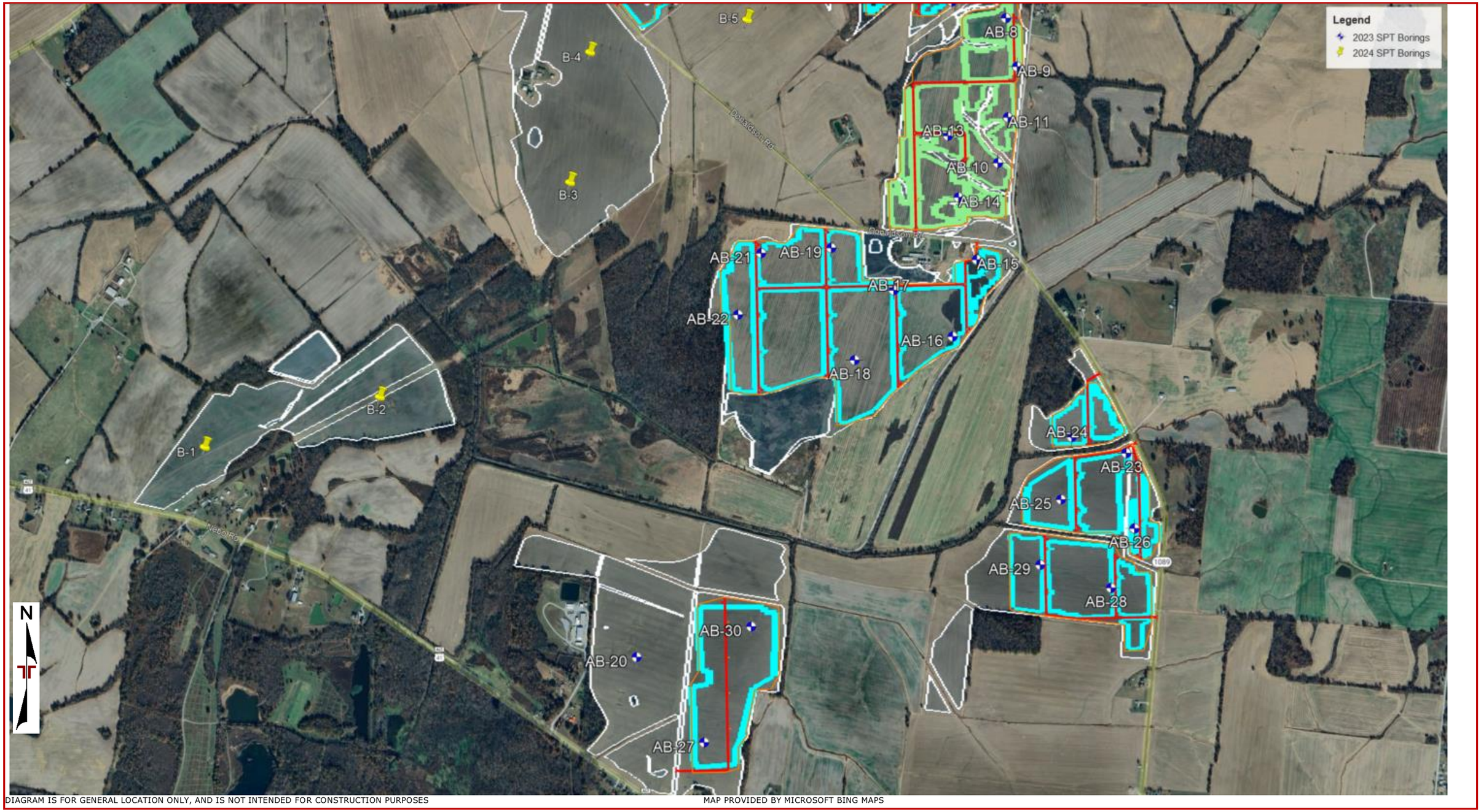


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EER Location Plan

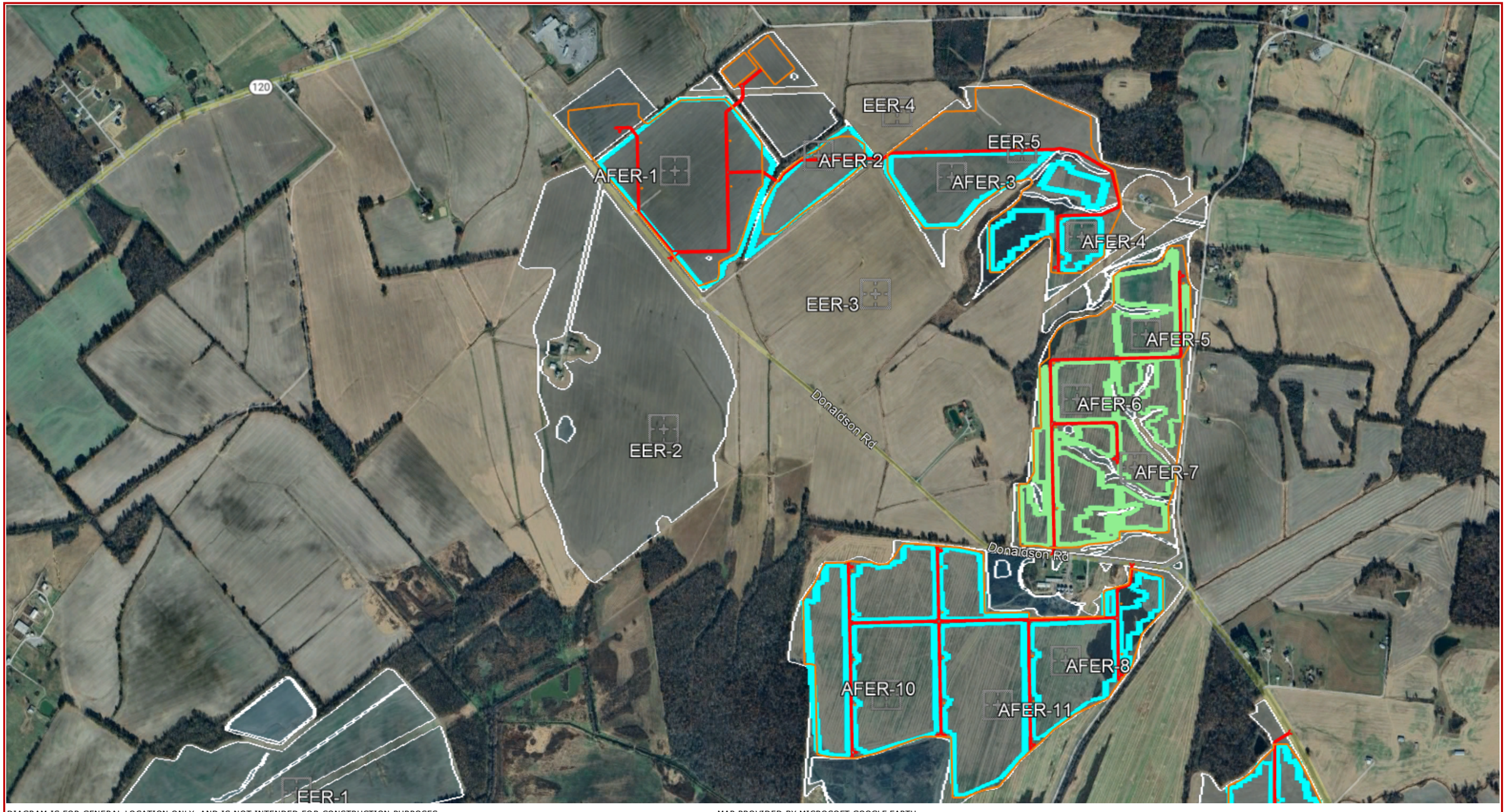


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT GOOGLE EARTH

EER Location Plan

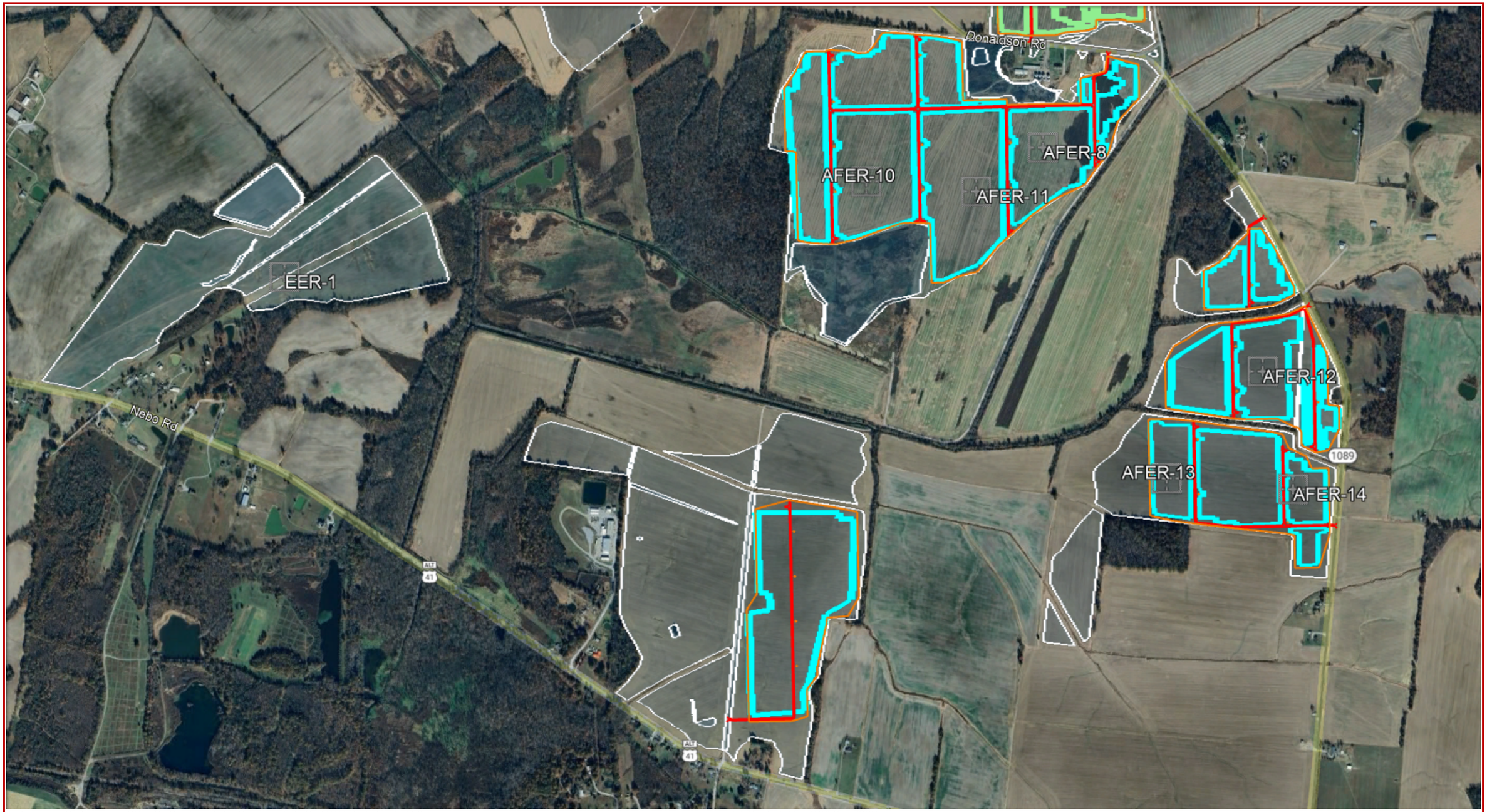


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT GOOGLE EARTH

Exploration Plan (Test Pit Locations)

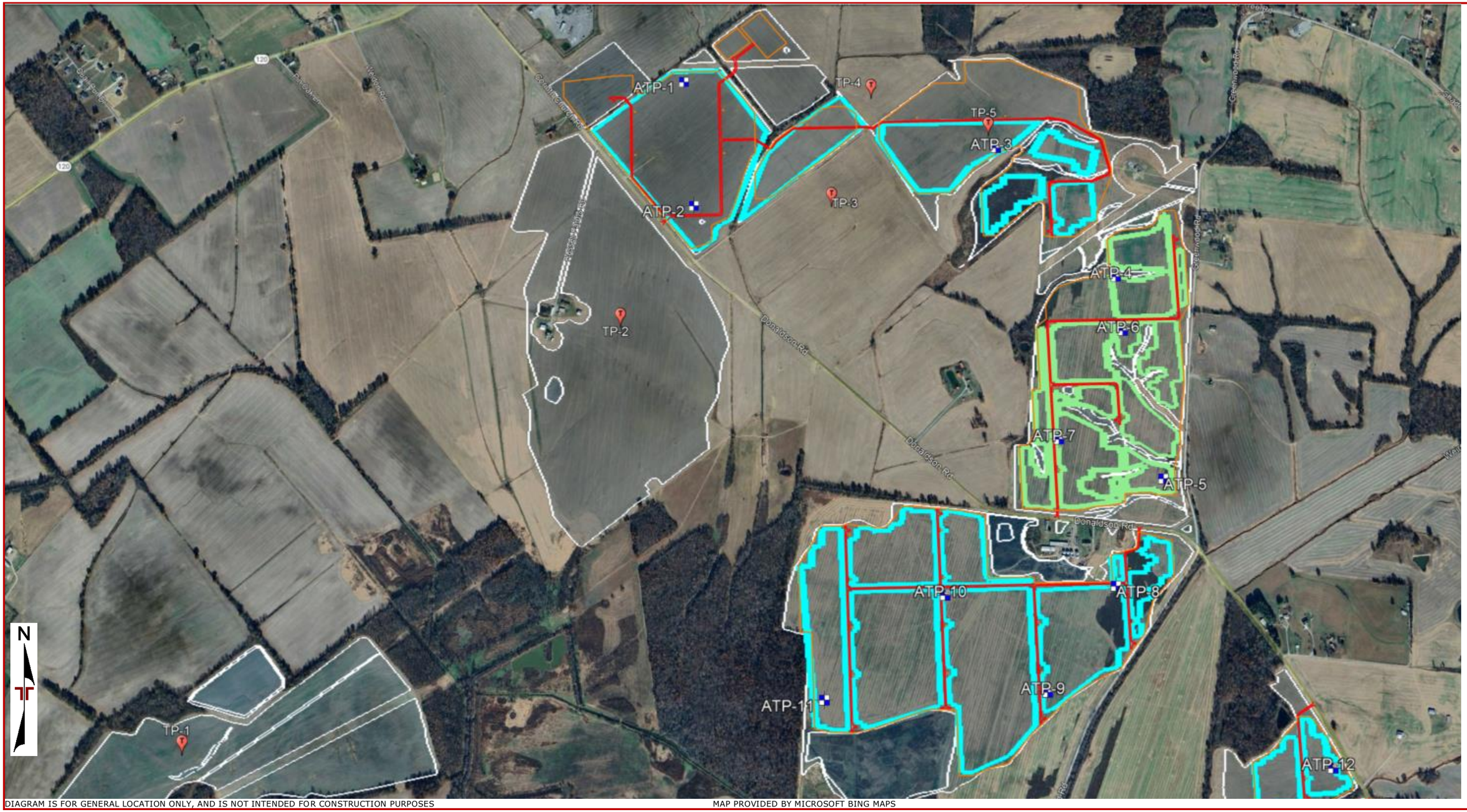


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Plan – (Test Pit Locations)

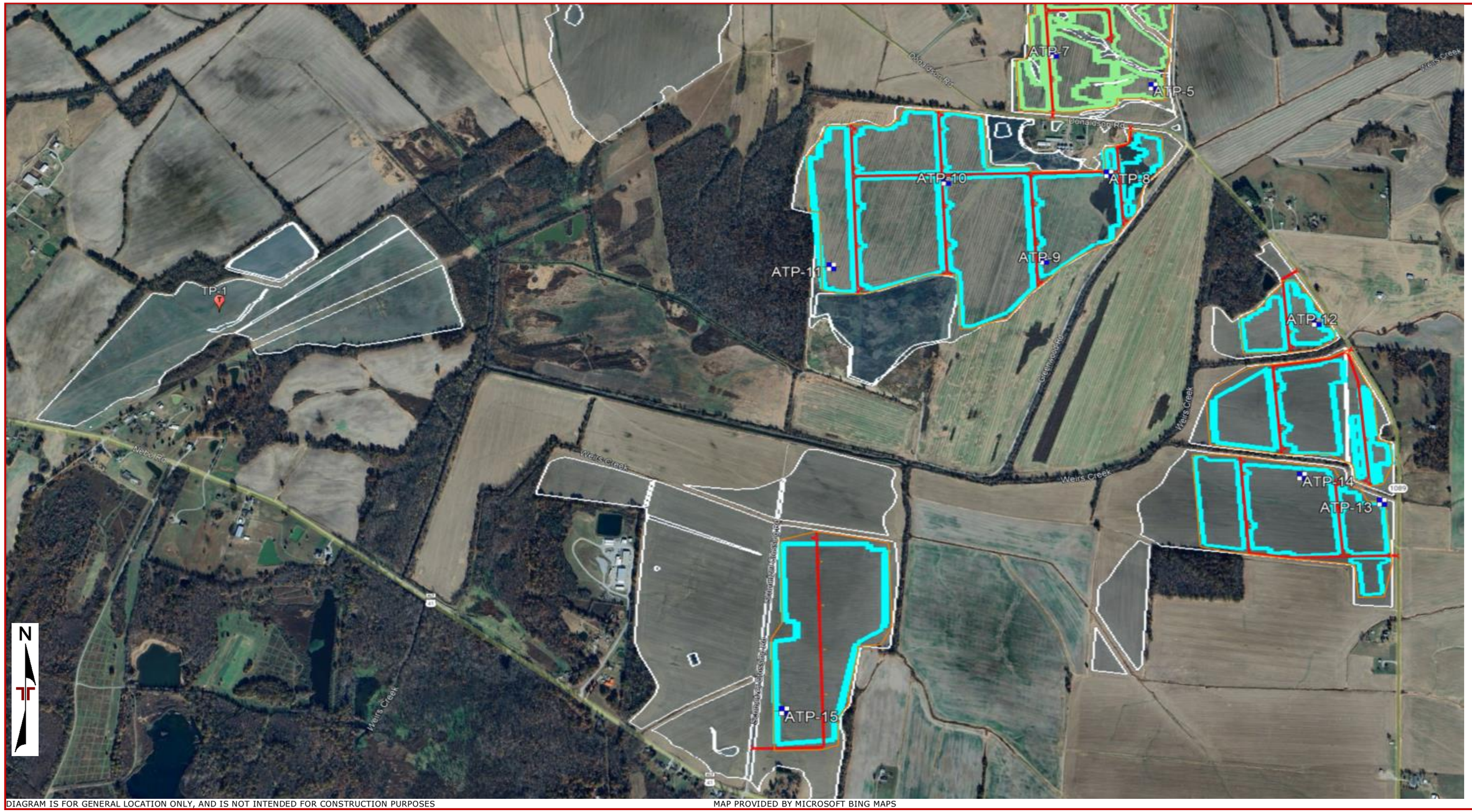


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

PLT Location Plan

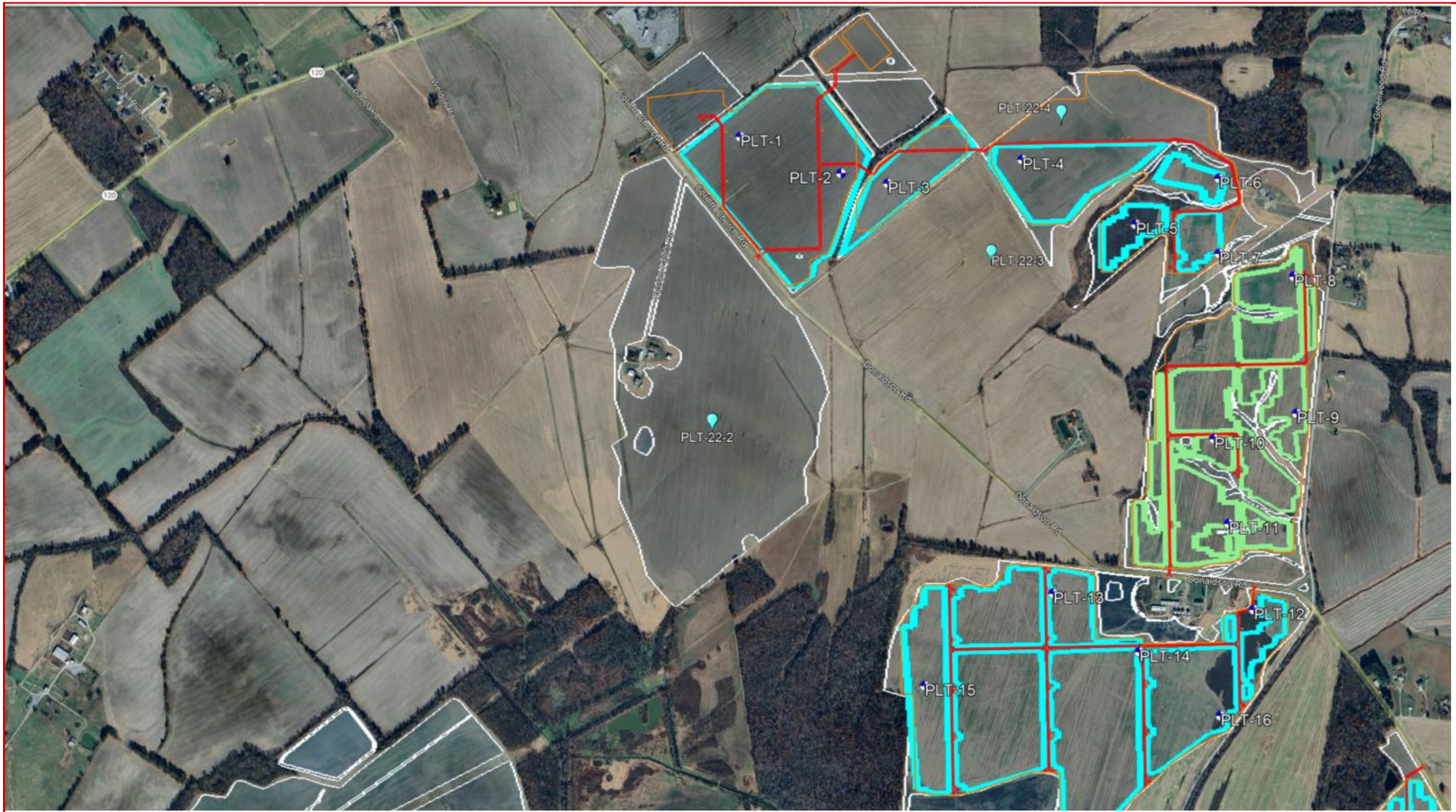


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

PLT Location Plan

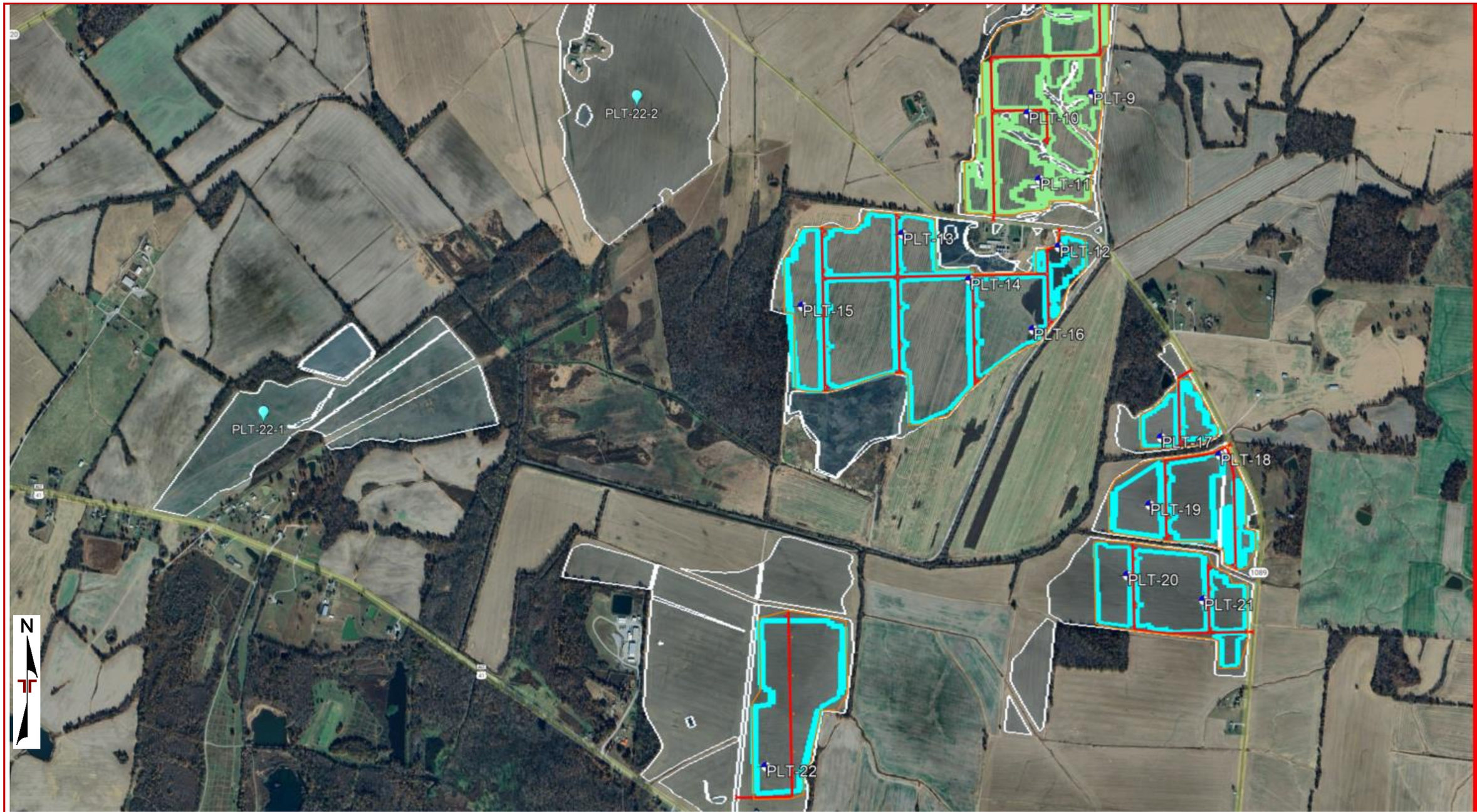


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Exploration and Laboratory Results

Contents:

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-1

Location: See Exploration Plan

Latitude: 37.3996° Longitude: -87.7062°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 424 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.4	**TOPSOIL (5") *** 423.6									
3		2.0	**SILT (ML)**, with clay, brown, very loose 422				18	1-1-2-1 N=3	2.0		25.0	40-28-12
2		8.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, stiff 415.5				18	4-6-8 N=14	3.0		23.0	
				5			29		-			
							16	3-6-9 N=15	4.5		22.0	
3		18.5	**CLAYEY SAND (SC)**, trace gravel, brown, loose to medium dense 405.5				14	4-9-17 N=26	-		13.0	
				10								
							12	5-4-5 N=9	-		16.0	
				15								
		19.4	**SILTY SAND (SM)**, trace gravel, brown, very dense 404.6				12	18-50/5"	-		14.0	
			Boring Terminated at 19.4 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-18-2024

Boring Completed
04-18-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-2

Location: See Exploration Plan

Latitude: 37.4017° Longitude: -87.6971°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 381 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 380.5									
2		3.5	**LEAN CLAY (CL)**, trace sand, trace gravel, brown, soft to medium stiff 377.5				10	1-1-1-1 N=2	1.5		28.0	36-23-13
							10	2-3-4 N=7	2.5		25.0	
							16	4-5-6 N=11	3.0		21.0	
				5								
							18	3-5-5 N=10	3.5		24.0	
							18	3-5-4 N=9	3.0		18.0	
		13.5	367.5	10								
4		14.5	**CLAYSTONE**, brown, completely weathered 366.5				6	15-50/6"	-		15.0	
			Auger Refusal at 14.5 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-18-2024

Boring Completed
04-18-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

800 Morrison Rd
Gahanna, OH

Boring Log No. B-3

Location: See Exploration Plan

Latitude: 37.4105° Longitude: -87.6873°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 372 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 371.5									
2		6.0	**LEAN CLAY (CL)**, trace sand, brown mottled with gray, soft to medium stiff 366				16	1-2-1-2 N=3	2.0		25.0	40-23-17
							18	1-2-2 N=4	2.5		23.0	
				5			25		-			
		13.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown to gray, stiff 358.5				18	3-3-6 N=9	3.5		20.0	
			- color changes to gray at 8.5 feet	10			16	3-4-5 N=9	3.0		24.0	
4		14.3	**CLAYSTONE**, brown, completely weathered 357.7				8	11-50/4"	-		9.0	
			Auger Refusal at 14.3 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-18-2024

Boring Completed
04-18-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-4

Location: See Exploration Plan

Latitude: 37.4159° Longitude: -87.6862°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 380 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 379.5									
2		8.5	**SANDY LEAN CLAY (CL)**, trace gravel, brown mottled with gray, soft to medium stiff 371.5	5			16	1-1-1-2 N=2	1.5		25.0	
							10	1-1-2 N=3	1.5		24.0	
							12	1-2-3 N=5	2.0		22.0	
							12	2-2-3 N=5	3.0		19.0	
		13.5	**SANDY LEAN CLAY (CL)**, trace gravel, brown, very stiff 366.5	10			12	5-8-10 N=18	4.5		15.0	
4		14.4	**CLAYSTONE**, brown, completely weathered 365.6				8	17-50/5"	-		9.0	
			Auger Refusal at 14.4 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-18-2024

Boring Completed
04-18-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-5

Location: See Exploration Plan

Latitude: 37.4172° Longitude: -87.6781°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 381 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 380.5									
3			**SILT (ML)**, with clay, brown mottled with gray, very loose to loose				18	1-1-2-3 N=3	2.0		23.0	30-26-4
							18	2-2-3 N=5	2.0		22.0	
				5			27		-			
2		6.0	375									
			LEAN CLAY (CL), trace sand, trace gravel, brown, medium stiff to stiff				16	2-3-5 N=8	2.5		20.0	
							18	3-3-4 N=7	2.0		22.0	
4				10								
				15								
		13.5	367.5									
			CLAYSTONE, brown to gray, completely weathered				14	10-19-33 N=52	-		15.0	
		18.9	- color changes to gray between 18.5 and 18.9 feet 362.1				5	50/5"	-		11.0	
			Boring Terminated at 18.9 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-6

Location: See Exploration Plan

Latitude: 37.4232° Longitude: -87.6766°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 386 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.4	**TOPSOIL (5") *** 385.6									
2		2.0	**LEAN CLAY (CL)**, trace sand, trace gravel, brown, soft 384				18	1-1-1-1 N=2	1.5		30.0	
			SANDY LEAN CLAY (CL), trace gravel, brown mottled with gray, stiff to very stiff				16	3-6-10 N=16	4.5		17.0	
							16	3-5-7 N=12	3.5		21.0	
				5								
							18	2-3-6 N=9	3.0		21.0	
4		8.5	377.5									
			CLAYSTONE, brown, completely weathered				12	16-10-27 N=37	-		13.0	
		13.5	372.5	10								
			Auger Refusal at 13.5 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-18-2024

Boring Completed
04-18-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-7

Location: See Exploration Plan

Latitude: 37.4204° Longitude: -87.6746°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 394 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.4	**TOPSOIL (5") *** 393.6									
2			**LEAN CLAY (CL)**, trace sand, brown, soft to medium stiff				12	1-1-1-1 N=2	1.5		29.0	
							8	1-1-3 N=4	2.0		26.0	
							14	2-2-4 N=6	2.5		19.0	40-18-22
				5								
							16	3-3-4 N=7	2.5		19.0	
		8.5	385.5									
			LEAN CLAY (CL), trace sand, trace gravel, brown mottled with gray, stiff				16	2-3-5 N=8	3.5		22.0	
				10								
		12.0	382									
			Auger Refusal at 12 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-8

Location: See Exploration Plan

Latitude: 37.4228° Longitude: -87.6692°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 414 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.4	**TOPSOIL (5") *** 413.6									
2		2.0	**SANDY LEAN CLAY (CL)**, trace gravel, brown, soft 412				14	1-2-2-5 N=4	2.0		26.0	
		3.5	**LEAN CLAY (CL)**, trace sand, trace gravel, brown, stiff 410.5				18	2-4-5 N=9	2.5		28.0	
		6.0	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, medium stiff 408	5			16	3-3-4 N=7	2.0		22.0	
4		13.0	**CLAYSTONE**, brown, completely weathered 401				14	6-10-15 N=25	-		14.0	
				10			12	7-11-19 N=30	-		14.0	
			Auger Refusal at 13 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. B-9

Location: See Exploration Plan

Latitude: 37.4189° Longitude: -87.6702°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 406 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 405.5									
2		2.0	**LEAN CLAY (CL)**, trace sand, brown mottled with gray, soft 404				18	1-1-2-4 N=3	2.0		25.0	42-21-21
		6.0	**LEAN CLAY (CL)**, trace sand, trace gravel, brown, stiff 400	5			16	3-4-4 N=8	2.5		22.0	
							23		-			
4		14.3	**CLAYSTONE**, brown, completely weathered - color changes to gray from 13. 5 feet 391.7	10			16	4-12-18 N=30	-		16.0	
							12	9-15-27 N=42	-		14.0	
							10	19-50/4"	-		8.0	
			Auger Refusal at 14.3 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-10

Location: See Exploration Plan

Latitude: 37.4211° Longitude: -87.6874°

Model Layer	Depth (Ft.)	Elevation: 378 (Ft.) +/-	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.6	**TOPSOIL (7") *** 377.4						
2	6.0	**LEAN CLAY (CL)**, trace sand, brrown mottled with gray, soft to medium stiff 372	18	3-3-2-2 N=5	2.5		23.0	34-22-12
			12	1-1-1 N=2	2.0		29.0	
			24		-			
	8.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, stiff 369.5	14	1-4-5 N=9	3.5		18.0	
	13.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, medium stiff 364.5	16	2-2-4 N=6	2.5		27.0	
4	15.0	**CLAYSTONE**, gray, completely weathered, encountered coal fragments 363	10	21-50/4"	-		15.0	
	15.5	**CLAYSTONE**, gray, completely weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 362.5						
		CLAYSTONE, gray, highly weathered, weak, highly fractured, very thin bedding, poor RQD (29%)	60			22		
	21.8	356.25						
		SHALE, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (8%)	35			33		
	25.0	353						
		Boring Terminated at 25 Feet						

Depth (Ft.) 5 10 15 20 25

Water Level Observations

Sample Type

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
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Notes

Elevation Reference: Elevations provided by Google Earth

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-11

Location: See Exploration Plan

Latitude: 37.4235° Longitude: -87.6900°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 380 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.3	**TOPSOIL (4") *** 379.7									
2		2.0	**SANDY LEAN CLAY (CL)**, trace gravel, brown, stiff 378				14	3-3-5-4 N=8	4.0		20.0	
		6.0	**LEAN CLAY (CL)**, trace sand, brown, soft to medium stiff 374				10	1-2-2 N=4	2.5		22.0	
				5			16	2-2-3 N=5	2.0		27.0	33-22-11
		13.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown mottled with gray, stiff to medium stiff 366.5				16	3-3-5 N=8	2.5		18.0	
							14	2-3-4 N=7	3.0		24.0	
4		15.0	**CLAYSTONE**, brown, completely weathered, encountered coal fragments 365	10			10	27-50/5"	-		19.0	
		15.5	**CLAYSTONE**, brown, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 364.5	15			60			35		
		18.0	**SHALE**, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 362									
		24.0	**CLAYSTONE**, gray, highly weathered, weak, highly fractured, very thin bedding, poor RQD (44%) 356	20			60			48		
		25.0	**SHALE**, gray, highly weathered, weak, highly fractured, very thin bedding, poor RQD (42%) 355	25								
			Boring Terminated at 25 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
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-17-2024

Boring Completed
04-17-2024

Notes

Elevation Reference: Elevations provided by Google Earth

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-12

Location: See Exploration Plan

Latitude: 37.4258° Longitude: -87.6925°

Model Layer	Depth (Ft.)	Elevation: 384 (Ft.) +/-	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.4	**TOPSOIL (5") ***	383.6						
2	2.0	**SANDY LEAN CLAY (CL)**, trace gravel, brown mottled with gray, medium stiff	382	16	1-2-4-5 N=6	2.0		23.0	
	3.5	**LEAN CLAY (CL)**, trace sand, brown, stiff	380.5	14	3-5-5 N=10	3.0		22.0	44-19-25
	6.0	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, medium stiff	378	14	2-3-4 N=7	2.5		20.0	
	13.5	**SANDY LEAN CLAY (CL)**, trace gravel, brown, stiff	370.5	16	4-6-9 N=15	4.5+		19.0	
				16	3-4-7 N=11	4.0		24.0	
4	15.0	**CLAYSTONE**, brown, completely weathered	369	1	50/1"	-		4.0	
	15.3	**CLAYSTONE**, brown, completely weathered, weak, highly fractured, very thin bedding, very poor RQD (0%)	368.75	60			20		
	17.3	**SHALE**, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%)	366.67						
		CLAYSTONE, highly weathered, weak, highly fractured, very thin bedding, poor RQD (30%)		60			23		
	25.0		359						
		Boring Terminated at 25 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

Water encountered at 14.5' while drilling

Water not encountered upon completion

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-16-2024

Boring Completed
04-16-2024

Notes

Elevation Reference: Elevations provided by Google Earth

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-13

Location: See Exploration Plan

Latitude: 37.4286° Longitude: -87.6958°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 394 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 393.5									
2		6.0	**LEAN CLAY (CL)**, trace sand, brown mottled with gray, soft to medium stiff 388				14	2-1-1-2 N=2	1.5		22.0	
							18	2-2-2 N=4	2.0		20.0	39-25-14
							16	2-3-3 N=6	2.5		22.0	
				5								
		13.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, stiff to very stiff 380.5				12	2-7-7 N=14	4.5		18.0	
							16	5-7-10 N=17	4.5+		18.0	
				10								
		18.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown mottled with gray, very stiff 375.5				8	11-16-12 N=28	4.5+		16.0	
				15								
3		20.0	**COAL**, gray, completely weathered 374				4	50/5"	-		7.0	
4		20.3	**COAL**, gray, completely weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 373.75	20			57			16		
			SHALE, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (13%)									
		23.5	**CLAYSTONE**, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 370.5	25								

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
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-16-2024

Boring Completed
04-16-2024

Notes

Elevation Reference: Elevations provided by Google Earth

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-13

Model Layer	Graphic Log	Location: See Exploration Plan Latitude: 37.4286° Longitude: -87.6958° Depth (Ft.) / Elevation: 394 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
4		**CLAYSTONE**, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 27.0 367 *(continued)* **CLAYSTONE**, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (14%)				60			27		
		30.0 364 ***Boring Terminated at 30 Feet***	30								

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
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-16-2024

Boring Completed
04-16-2024

Notes
Elevation Reference: Elevations provided by Google Earth
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Boring Log No. SB-14

Location: See Exploration Plan

Latitude: 37.4306° Longitude: -87.6966°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 399 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	H.P. (tsf)	RQD %	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 398.5									
2		2.0	**SILT (ML)**, with clay, brown, loose 397				12	1-2-3-2 N=5	2.0		23.0	NP
		6.0	**SANDY LEAN CLAY (CL)**, trace gravel, brown, medium stiff 393	5			1	3-3-2 N=5	2.5		23.0	
							22		-			
		8.5	**LEAN CLAY WITH SAND (CL)**, trace gravel, brown, stiff 390.5				14	4-4-5 N=9	4.5		20.0	
4		15.0	**CLAYSTONE**, brown, completely weathered 384	10			14	4-7-9 N=16	-		15.0	
							16	27-38-50/5"	-		10.0	
		15.5	**CLAYSTONE**, brown, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (0%) 383.5	15			40			0		
			SHALE, gray, highly weathered, weak, highly fractured, very thin bedding, very poor RQD (8%)	20			60			18		
		25.0	374	25								
			Boring Terminated at 25 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
No free water observed

Drill Rig
Track B-57 (#613)

Hammer Type
Automatic

Driller
K. Reinhart

Logged by
C. Holley

Boring Started
04-16-2024

Boring Completed
04-16-2024

Notes

Elevation Reference: Elevations provided by Google Earth

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25" HSA/NQ2

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. SB-1

Location: See Exploration Plan

Latitude: 37.421794° Longitude: -87.685386°

Model Layer	Depth (Ft.)	Elevation.: 384.2 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	RQD (%)	Unconfined Compressive Strength (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
1	1.0	383.2								
		TOPSOIL (8") *								
2		**LEAN CLAY (CL)**, light brown, medium stiff			18	2-3-3 N=6			23.6	42-23-19
			▽							
			▼		24			2.15	19.7	34-19-15
	6.0	378.2								
		LEAN CLAY (CL), with calcareous nodules, light brown, stiff to very stiff			18	3-4-5 N=9			18.9	28-21-7
					18	4-5-6 N=11			19.3	34-18-16
					18	4-6-10 N=16			23.3	
4	18.5	365.7								
	19.0	**HIGHLY WEATHERED SHALE** 365.2			5	50/5"				
		SHALE, gray to black, moderately fractured, thin bedding, moderately weathered, weak rock			120		48	53.28		
	29.0	355.2								
		Boring Terminated at 29 Feet								

Depth (Ft.): 5, 10, 15, 20, 25

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

▽ At completion of drilling

▼ At groundwater observation well on 7/21/2023

Notes

Elevation Reference: Elevations measured in the field

Set up groundwater observation well on 5/26/2023

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-26-2023

Boring Completed
05-26-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. SB-2

Location: See Exploration Plan

Latitude: 37.421215° Longitude: -87.686754°

Depth (Ft.) Elevation.: 379.7 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	RQD (%)	Unconfined Compressive Strength (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.7 **TOPSOIL (8") *** 379								
2		**LEAN CLAY (CL)**, grayish brown, soft			18	1-1-1 N=2			20.7	
		3.5 376.2								
		LEAN CLAY (CL), light gray and light brown, medium stiff to stiff			18	2-3-4 N=7			22.8	
					24			1.30	22.1	
					18	3-4-5 N=9			22.3	
		13.5 366.2								
4		**HIGHLY WEATHERED SHALE**			17	8-21-50/5"				
		15.0 364.7								
		SHALE, gray to black, moderately fractured, thin bedding, moderately weathered, very weak			120		47	44.64		
		25.0 354.7								
		Boring Terminated at 25 Feet								

5 10 15 20 25

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

At completion of drilling

At groundwater observation well on 7/21/2023

Notes

Elevation Reference: Elevations measured in the field

Set up groundwater observation well on 5/26/2023

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-26-2023

Boring Completed
05-26-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-1

Location: See Exploration Plan

Latitude: 37.420405° Longitude: -87.679851°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 382.3 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0	**TOPSOIL (12") ***							
		1.0	381.3							
2			**LEAN CLAY (CL)**, light gray to light brown, medium stiff to stiff			X	18	2-3-5 N=8	19.1	44-23-21
						X	18	3-4-4 N=8	15.5	28-19-9
				5		X	18	4-4-5 N=9	20.4	33-17-16
		8.5	373.8							
			LEAN CLAY (CL), with calcareous nodules, reddish brown, stiff			X	18	4-5-8 N=13	23.1	32-19-13
		13.5	368.8	10						
			LEAN CLAY (CL), with shale fragments, light brown and light gray, hard			X	18	12-24-40 N=64		
		15.0	367.3	15						
4			**HIGHLY WEATHERED SHALE**, gray			X	10	47-50/4"		
		20.0	362.3	20						
			Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-26-2023

Boring Completed
05-26-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-2

Location: See Exploration Plan

Latitude: 37.420707° Longitude: -87.681605°

Depth (Ft.) | Elevation.: 377.0 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (8") *** 0.7 / 376.3						
2		**LEAN CLAY (CL)**, grayish brown, medium stiff 3.5 / 373.5	▽	X	18	2-3-5 N=8	24.0	
		LEAN CLAY (CL), light gray to light brown, medium stiff to stiff		X	18	2-3-5 N=8	21.1	
				X	18	2-3-4 N=7	26.3	
				X	18	3-4-5 N=9	22.9	
4		**HIGHLY WEATHERED SHALE**, gray to black 13.5 / 363.5		X	18	12-16-33 N=49		
		20.0 / 357	▽	X	9	30-50/2"		
		Boring Terminated at 20 Feet						

5 10 15 20

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 sampling
▽ At completion of drilling

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-26-2023

Boring Completed
05-26-2023

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-3

Location: See Exploration Plan

Latitude: 37.422586° Longitude: -87.678844°

Depth (Ft.) | Elevation.: 381.4 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (22") *** 1.8 / 379.6						
					18	1-1-1 N=2	28.0	
2		**LEAN CLAY (CL)**, grayish brown, soft 3.5 / 377.9						
		LEAN CLAY (CL), light gray and light brown, medium stiff to stiff			18	6-4-7 N=11	24.4	
					18	2-3-3 N=6	27.1	
					18	4-6-7 N=13	18.2	
4		**HIGHLY WEATHERED SHALE**, gray 12.0 / 369.4			3	50/4"		
					3	50/4"		
		20.0 / 361.4						
		Boring Terminated at 20 Feet						

5
10
15
20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-26-2023

Boring Completed
05-26-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-4

Location: See Exploration Plan

Latitude: 37.421114° Longitude: -87.674802°

Model Layer	Depth (Ft.)	Elevation.: 391.7 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.0	**TOPSOIL (19") ***						
	1.6	390.1						
2	1.6	**LEAN CLAY (CL)**, grayish brown, very soft			18	1-0-0 N=0	17.5	
	3.5	388.2						
	3.5	**LEAN CLAY (CL)**, trace calcareous nodules, light brown to reddish brown, stiff to very stiff			18	2-3-6 N=9	25.5	35-15-20
					18	4-6-7 N=13	22.2	39-18-21
					18	5-7-9 N=16	17.5	35-20-15
	13.5	378.2						
4	13.5	**HIGHLY WEATHERED SHALE**, brown to gray, Likely a transition in here somewhere			2	50/2"		
	18.5	373.2						
	18.5	**SHALE**, gray, moderately weathered, weak rock			1	50/1"		
	20.0	371.7						
	20.0	***Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-30-2023

Boring Completed
05-30-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-5

Location: See Exploration Plan

Latitude: 37.420555° Longitude: -87.667396°

Model Layer	Depth (Ft.)	Elevation.: 430.2 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	**TOPSOIL (19") ***								
	1.6	428.6							
2	**LEAN CLAY (CL)**, light brown to light gray, medium stiff to stiff					18	1-3-4 N=7	23.5	
						18	3-3-6 N=9	7.4	
			5			16	3-5-6 N=11		
	8.5	421.7							
4	**WEATHERED SHALE**, light gray					11	30-50/5"	20.5	
	10.0	420.2	10						
	HIGHLY WEATHERED SHALE, light gray and light brown					17	26-36-50/5"	18.8	
			15						
						10	24-50/4"		
	20.0	410.2	20						
	Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-30-2023

Boring Completed
05-30-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-6

Location: See Exploration Plan

Latitude: 37.419176° Longitude: -87.670554°

Model Layer	Depth (Ft.)	Elevation.: 403.2 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.0	**TOPSOIL (14") ***							
	1.2	402							
2	1.2	**LEAN CLAY (CL)**, trace calcareous nodules, grayish brown, medium stiff			X	18	1-3-4 N=7	17.6	40-23-17
	3.5	399.7							
	3.5	**LEAN CLAY (CL)**, with calcareous nodules, light brown, stiff			X	18	4-6-8 N=14	20.8	28-19-9
	8.0	395.2	5						
	8.0				X	18	4-5-6 N=11	21.4	34-16-18
	8.0	**LEAN TO FAT CLAY (CL/CH)**, light brown, stiff			X	18	2-4-5 N=9	17.3	50-22-28
	13.5	389.7	10						
	13.5	**LEAN CLAY (CL)**, with shale fragments, grayish brown, stiff			X	18	3-5-7 N=12		33-18-15
	18.5	384.7	15	▨					
	18.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, light gray and brown, very stiff			X	18	9-11-15 N=26		44-23-21
	20.0	383.2	20						
		Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-7

Location: See Exploration Plan

Latitude: 37.418310° Longitude: -87.667397°

Model Layer	Depth (Ft.)	Elevation.: 419.6 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0	**TOPSOIL (12") ***						
	1.0	418.6						
2	1.0	**LEAN CLAY (CL)**, light brown and light gray, medium stiff		X	16	3-4-4 N=8	19.2	
	3.5	416.1	▼					
	3.5	**LEAN CLAY (CL)**, trace calcareous nodules, light brown, stiff		X	18	4-6-8 N=14	12.0	
	5							
	5			X	18	5-7-7 N=14	23.3	
	8.5	411.1						
	8.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, light brown and gray, hard		X	18	15-21-30 N=51	21.2	
	10							
	13.5	406.1						
4	13.5	**HIGHLY WEATHERED SHALE**, brown and gray		X	9	31-50/4"		
	15							
	18.5	401.1						
	18.5	**WEATHERED SHALE**, gray		X	18	31-42-36 N=78		
	20							
	20.0	399.6						
		Boring Terminated at 20 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

▼ At groundwater observation well on 7/21/2023

Notes

Elevation Reference: Elevations measured in the field

Set up groundwater observation well on 5/31/2023

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-8

Location: See Exploration Plan

Latitude: 37.417629° Longitude: -87.664592°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 422.2 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0	**TOPSOIL (14") ***						
		1.2	421						
2		1.2	**LEAN CLAY (CL)**, light brown, medium stiff		X	18	1-2-4 N=6	18.2	40-23-17
		3.5	418.7						
		3.5	**LEAN CLAY (CL)**, trace calcareous nodules, light brown and light gray, stiff		X	18	4-5-6 N=11	14.7	39-20-19
					X	18	6-7-8 N=15	21.6	28-21-7
		8.5	413.7						
		8.5	**LEAN CLAY (CL)**, with highly weathered shale, light brown, hard		X	18	13-28-41 N=69	19.3	35-20-15
		13.5	408.7						
4		13.5	**HIGHLY WEATHERED SHALE**, gray		X	9	31-50/4"		
		18.5	403.7						
		18.5	**SHALE**, gray, moderately weathered, weak rock		X	5	50/5"		
		20.0	402.2						
		20.0	***Boring Terminated at 20 Feet***						

Depth (Ft.) 5 10 15 20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-9

Location: See Exploration Plan

Latitude: 37.415632° Longitude: -87.664008°

Model Layer	Depth (Ft.)	Elevation.: 408.6 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.0	**TOPSOIL (12") ***							
	1.0	407.6							
2	1.0	**LEAN CLAY (CL)**, trace calcareous nodules, light brown, stiff			X	18	3-4-6 N=10	19.4	
					X	18	4-5-8 N=13	14.0	
			5		X	18	4-5-9 N=14	23.0	
	8.5	400.1							
	8.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, light brown and gray, hard			X	18	4-10-30 N=40	20.1	
			10						
	13.5	395.1							
4	13.5	**HIGHLY WEATHERED SHALE**, gray			X	9	37-50/4"		
			15						
	18.0	390.6							
	18.5	**SHALE**, gray, moderately weathered, weak rock							
	18.5	390.1							
	19.0	**LIMESTONE**, gray, moderately weathered, strong rock			X	3	50/4"		
	19.0	389.6							
		Auger Refusal at 19 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-10

Location: See Exploration Plan

Latitude: 37.411669° Longitude: -87.665004°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 391.7 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0	**TOPSOIL (12") ***							
		1.0	390.7							
2			**LEAN CLAY (CL)**, brownish gray, stiff				18	2-4-5 N=9	22.1	
							18	3-6-9 N=15	13.1	
				5			18	5-6-8 N=14	22.7	
		8.5	383.2							
			LEAN CLAY (CL), with highly weathered shale fragments, light gray, hard				18	11-16-22 N=38	22.1	
				10						
		13.5	378.2							
3			**COAL SEAM**				11	7-50/5"		
		15.0	376.7	15						
4			**HIGHLY WEATHERED SHALE**, gray							
							3	50/2"		
		20.0	371.7	20						
			Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-11

Location: See Exploration Plan

Latitude: 37.413545° Longitude: -87.664487°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 403.5 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0	**TOPSOIL (12") ***						
		1.0	402.5						
2		1.0	**LEAN CLAY (CL)**, light brown and light gray, medium stiff			14	2-3-3 N=6	20.3	
		3.5	400						
		3.5	**LEAN CLAY (CL)**, with calcareous nodules, light brown and light bluish gray, stiff			18	4-4-5 N=9	22.9	
						18	3-5-7 N=12	19.6	
						18	4-6-8 N=14	22.7	
		13.5	390						
4		13.5	**HIGHLY WEATHERED SHALE**, brown			9	32-50/4"		
		18.5	385						
		18.5	**WEATHERED SHALE**, gray			18	15-20-32 N=52		
		20.0	383.5						
		20.0	***Boring Terminated at 20 Feet***						

Depth (Ft.): 5, 10, 15, 20

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

At completion of drilling

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-12

Location: See Exploration Plan

Latitude: 37.422763° Longitude: -87.671329°

Model Layer	Depth (Ft.)	Elevation.: 405.1 (Ft.)	Graphic Log	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.0	**TOPSOIL (19") ***							
	1.6	403.5			X	18	1-1-1 N=2	26.4	
2	3.5	**LEAN CLAY (CL)**, light brown, soft 401.6							
	6.0	**LEAN CLAY (CL)**, trace calcareous nodules, light brown, very stiff 399.1			X	18	5-7-10 N=17	17.3	
	8.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, light brown, hard 396.6			X	18	8-14-22 N=36	11.9	
4	13.5	**HIGHLY WEATHERED SHALE**, brown 391.6			X	15	26-46-50/4"	9.5	
	20.0	**WEATHERED SHALE**, gray 385.1		▽	X	5	50/5"		
					X	5	50/5"		
		Boring Terminated at 20 Feet							

Depth (Ft.): 5, 10, 15, 20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
05-30-2023

Boring Completed
05-30-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-13

Location: See Exploration Plan

Latitude: 37.412783° Longitude: -87.667593°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 399.6 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0	**TOPSOIL (14") ***						
		1.2	398.4						
2		1.2	**LEAN CLAY (CL)**, light brown, medium stiff		X	16	2-2-4 N=6	23.9	39-23-16
		3.5	396.1						
		3.5	**LEAN CLAY (CL)**, grayish brown, very stiff		X	18	4-6-9 N=15	16.2	31-17-14
					X	18	5-8-11 N=19	15.2	45-24-21
		8.5	391.1						
		8.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, grayish brown, hard		X	18	10-18-21 N=39	10.2	44-26-18
		13.5	386.1						
4		13.5	**HIGHLY WEATHERED SHALE**, light brown and light gray		X	18	14-15-15 N=30		
		18.5	381.1						
		18.5	**SHALE**, gray, moderately weathered, weak rock		X	2	50/4"		
		20.0	379.6						
		20.0	***Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-14

Location: See Exploration Plan

Latitude: 37.410257° Longitude: -87.667042°

Elevation.: 395.3 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.0 / 394.1	**TOPSOIL (14") ***						
2		1.2 / 394.1	**LEAN CLAY (CL)**, light brown, soft to medium stiff			18	2-1-2 N=3	22.8	34-18-16
						18	2-3-4 N=7	22.1	33-18-15
		6.0 / 389.3	**SILT (ML)**, with calcareous nodules, light brown, very stiff			18	4-7-14 N=21	11.6	27-23-4
		8.5 / 386.8	**LEAN CLAY (CL)**, with sandstone seams, light brown, very hard			11	40-50/5"	10.5	
4		13.5 / 381.8	**HIGHLY WEATHERED SHALE**, gray			3	50/4"		
						1	50/1"		
		20.0 / 375.3	***Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-15

Location: See Exploration Plan

Latitude: 37.407690° Longitude: -87.666103°

Depth (Ft.) | Elevation.: 401.5 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (14") *** 1.2 / 400.3						
2		**LEAN CLAY (CL)**, with calcareous nodules, light gray to light brown, soft to very stiff	▼		18	2-1-2 N=3	21.0	
					18	2-3-4 N=7	24.9	
					18	4-7-14 N=21	18.5	
		8.5 / 393						
		LEAN CLAY (CL), with sandstone seams, gray and brown, hard			11	40-50/5"	10.1	
		13.5 / 388						
4		**HIGHLY WEATHERED SHALE**, gray			3	50/4"		
		19.0 / 382.5			1	50/1"		
		Auger Refusal at 19 Feet						

5 10 15

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

▼ At groundwater observation well on 7/21/2023

Notes

Elevation Reference: Elevations measured in the field

Set up groundwater observation well on 6/1/2023

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-16

Location: See Exploration Plan

Latitude: 37.404532° Longitude: -87.667337°

Depth (Ft.) Elevation.: 378.9 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (14") *** 1.2 / 377.7						
2		**LEAN CLAY (CL)**, grayish brown to brownish gray, soft 6.0 / 372.9			18	2-1-1 N=2	25.3	
					15	1-2-1 N=3	26.6	
		LEAN CLAY (CL), brownish gray, medium stiff 8.5 / 370.4			18	3-4-2 N=6	20.7	
		LEAN CLAY (CL), light gray, stiff 13.5 / 365.4			18	5-5-6 N=11	18.6	
4		**HIGHLY WEATHERED SHALE**, brown to gray and black 20.0 / 358.9			18	7-17-17 N=34		
					5	50/5"		
		Boring Terminated at 20 Feet						

5 10 15 20

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 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-17

Location: See Exploration Plan

Latitude: 37.406452° Longitude: -87.670405°

Depth (Ft.) | Elevation.: 400.1 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (14") *** 1.2 / 398.9						
2		**LEAN CLAY (CL)**, brown, medium stiff 3.5 / 396.6			16	2-2-3 N=5	26.2	
2		**LEAN CLAY (CL)**, brownish gray, stiff			18	5-6-7 N=13	24.0	
2					18	5-6-7 N=13	17.1	
2					18	5-5-6 N=11	22.4	
2		13.5 / 386.6						
4		**HIGHLY WEATHERED SHALE**, light brown to gray			18	21-24-28 N=52		
4					17	10-30-50/5"		
4		20.0 / 380.1						
		Boring Terminated at 20 Feet						

5 10 15 20

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 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-01-2023

Boring Completed
06-01-2023

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-18

Location: See Exploration Plan

Latitude: 37.403531° Longitude: -87.672383°

Model Layer	Graphic Log	Depth (Ft.) / Elevation.: 375.4 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (14") *** 1.2 / 374.2							
2		**LEAN CLAY (CL)**, light brown and light gray, medium stiff				18	2-2-3 N=5	21.4	
			5			18	2-3-5 N=8	21.1	
						18	3-3-5 N=8	22.7	
						18	3-3-4 N=7	20.8	
			10						
		13.5 / 361.9							
		LEAN CLAY (CL), with sandstone seams, light brown, hard				5	50/5"		
			15						
		18.5 / 356.9							
4		**HIGHLY WEATHERED SHALE**, gray				3	50/4"		
		20.0 / 355.4	20						
		Boring Terminated at 20 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 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-02-2023

Boring Completed
06-02-2023

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-19

Location: See Exploration Plan

Latitude: 37.408160° Longitude: -87.673579°

Model Layer	Depth (Ft.)	Elevation.: 380.2 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (12") ***							
	1.0	379.2							
2		**LEAN CLAY (CL)**, light brown, soft			X	15	1-2-2 N=4	26.0	44-21-23
	3.5	376.7							
		LEAN CLAY (CL), with calcareous nodules, light brown and light gray, stiff to very stiff	5		X	18	1-3-5 N=8	19.3	35-17-18
					X	18	5-7-9 N=16	19.6	40-17-23
	8.0	372.2							
		LEAN TO FAT CLAY (CL/CH), with calcareous nodules, light brown and light gray, stiff			X	18	5-6-6 N=12	27.9	50-19-31
			10						
4		**HIGHLY WEATHERED SHALE**, gray			X	18	18-26-32 N=58		
			15						
	18.5	361.7		▽					
	18.7	361.5 **SHALE**, gray, moderately weathered, weak rock			X	0	50/1"		
		Auger Refusal at 18.7 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 sampling

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-02-2023

Boring Completed
06-06-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-20

Location: See Exploration Plan

Latitude: 37.391318° Longitude: -87.683739°

Model Layer	Graphic Log	Depth (Ft.) / Elevation.: 378.0 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5 **TOPSOIL (6") *** 377.5							
2		**LEAN CLAY (CL)**, light brown, stiff			X	13	2-3-5 N=8	23.8	
					X	18	3-4-7 N=11	19.2	
			5		X	18	5-6-9 N=15	17.1	
		8.5 369.5							
		LEAN CLAY (CL), trace sand, light brown and light gray, very stiff			X	15	5-7-14 N=21	26.7	
			10						
4		13.5 364.5 **HIGHLY WEATHERED SHALE**, gray			X	4	50/5"		
			15						
					X	3	50/4"		
		20.0 358							
		Boring Terminated at 20 Feet	20						

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-21

Location: See Exploration Plan

Latitude: 37.407969° Longitude: -87.677243°

Model Layer	Depth (Ft.)	Elevation.: 381.7 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.0	**TOPSOIL (12") ***						
	1.0	380.7						
2	1.0	**LEAN CLAY (CL)**, light brown, medium stiff to stiff		X	18	3-3-4 N=7	21.6	
				X	18	3-3-5 N=8	19.0	
	6.0	375.7						
	6.0	**LEAN CLAY (CL)**, with calcareous nodules, reddish brown, stiff		X	18	5-5-8 N=13	26.2	
	8.5	373.2						
	8.5	**LEAN CLAY (CL)**, with sand, light brown to brown, hard		X	18	6-30-35 N=65	11.4	
	13.5	368.2						
4	13.5	**HIGHLY WEATHERED SHALE**, with sandstone layers, brown and gray		X	13	27-47-50 N=97		
	18.5	363.2						
	18.5	**HIGHLY WEATHERED SANDSTONE**, brown		X	5	50/5"		
	20.0	361.7						
	20.0	***Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
CME 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-02-2023

Boring Completed
06-02-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-22

Location: See Exploration Plan

Latitude: 37.405401° Longitude: -87.678484°

Depth (Ft.) Elevation.: 378.8 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		**TOPSOIL (12") *** 1.0 / 377.8						
2		**LEAN CLAY (CL)**, light brown, medium stiff		X	18	2-4-4 N=8	21.7	36-21-15
				X	18	3-3-5 N=8	18.2	32-17-15
		6.0 / 372.8						
		LEAN CLAY (CL), trace calcareous nodules, light brown, stiff		X	18	4-5-10 N=15	24.5	67-26-41
		8.5 / 370.3						
4		**WEATHERED SHALE**, light brown		X	17	35-47-50 N=97	10.0	
		13.5 / 365.3						
		HIGHLY WEATHERED SHALE, gray		X	11	37-50/5"		
				X	11	25-50/5"		
		20.0 / 358.8						
		Boring Terminated at 20 Feet						

5 10 15 20

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 55

Hammer Type
Automatic

Driller
Caleb Knisley

Logged by
Jason Friend

Boring Started
06-02-2023

Boring Completed
06-02-2023

Notes

Elevation Reference: Elevations measured in the field

* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-23

Location: See Exploration Plan

Latitude: 37.399711° Longitude: -87.658380°

Depth (Ft.) | Elevation.: 386.9 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5 **TOPSOIL (6") *** 386.4						
2		**LEAN CLAY (CL)**, light brown, stiff			0	3-5-7 N=12		
		3.5 383.4						
		LEAN CLAY (CL), light gray and light brown, soft			17	4-4-10 N=14	17.9	
		6.0 380.9						
		LEAN CLAY (CL), trace calcareous nodules, light gray and light brown, medium stiff to stiff			18	4-5-6 N=11	24.3	
					18	4-3-5 N=8	20.3	
					18	2-4-6 N=10		
4		**HIGHLY WEATHERED SHALE**, black, highly weathered, possible coal seam at 18 ft			7	33-50/1"		
		20.0 366.9						
		Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-24

Location: See Exploration Plan

Latitude: 37.400386° Longitude: -87.661183°

Model Layer	Graphic Log	Depth (Ft.)	Elevation.: 382.4 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") *** 381.9							
2		3.5	**LEAN CLAY (CL)**, grayish brown, soft 378.9				17	1-2-2 N=4	25.4	35-22-13
		13.5	**LEAN CLAY (CL)**, with calcareous nodules, light gray and light brown, stiff 368.9	5			17	2-4-6 N=10	22.1	36-23-13
							18	2-4-10 N=14	18.8	29-17-12
				10			18	3-4-7 N=11	28.9	46-21-25
		18.5	**LEAN CLAY (CL)**, with highly weathered shale fragments, light gray, hard 363.9	15			15	6-13-25 N=38		37-19-18
4		20.0	**HIGHLY WEATHERED SHALE**, gray 362.4				0	50/2"		
			Boring Terminated at 20 Feet	20						

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
06-06-2023

Boring Completed
06-06-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-25

Location: See Exploration Plan

Latitude: 37.397797° Longitude: -87.661736°

Depth (Ft.) | Elevation.: 380.2 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5 **TOPSOIL (6") *** 379.7						
2		**LEAN CLAY (CL)**, trace calcareous nodules, light brown to reddish brown, medium stiff to stiff			13	4-5-5 N=10	22.3	
					18	2-3-4 N=7	19.3	
					18	4-4-7 N=11	19.9	
					18	3-3-5 N=8	20.8	
4		13.5 366.7 **HIGHLY WEATHERED SHALE**, light gray			8	30-50/2"		
					5	50/5"		
		20.0 360.2 ***Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
06-06-2023

Boring Completed
06-01-0623

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-26

Location: See Exploration Plan

Latitude: 37.396584° Longitude: -87.657908°

Elevation.: 394.2 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Description	Elevation (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5	**TOPSOIL (6") ***	393.7							
2			**LEAN CLAY (CL)**, light gray, very soft					16	0-0-0 N=0	25.2	
		3.5		390.7							
			LEAN CLAY (CL), light gray, soft		5			11	1-2-2 N=4	23.1	
		6.0		388.2							
			LEAN CLAY (CL), trace calcareous nodules, light gray and light brown, stiff to very stiff					18	2-5-7 N=12	22.4	
								18	5-6-11 N=17	18.8	
					10						
								18	2-5-7 N=12		
					15						
		18.5		375.7							
4			**HIGHLY WEATHERED SHALE**, gray					16	6-11-20 N=31		
		20.0		374.2	20						
			Boring Terminated at 20 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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
06-01-2023

Boring Completed
06-01-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-27

Location: See Exploration Plan

Latitude: 37.387792° Longitude: -87.680206°

Depth (Ft.) | Elevation.: 384.3 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5 **TOPSOIL (6") *** 383.8						
2		**LEAN CLAY (CL)**, light gray, soft			15	1-2-2 N=4	22.2	
		3.5 380.8						
		LEAN CLAY (CL), light gray to brown, stiff			18	4-6-6 N=12	21.8	
					18	4-5-8 N=13	21.5	
					18	3-3-9 N=12	19.0	
		13.5 370.8						
3		**POORLY GRADED SAND (SP)**, trace clay, reddish brown, dense			17	10-16-18 N=34		
		18.5 365.8						
4		**WEATHERED SHALE**, dark gray			15	12-23-50/5"		
		20.0 364.3						
		Boring Terminated at 20 Feet						

5 10 15 20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-28

Location: See Exploration Plan

Latitude: 37.394185° Longitude: -87.659193°

Model Layer	Graphic Log	Depth (Ft.) / Elevation.: 390.2 (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1		0.5 **TOPSOIL (6") *** 389.7							
2		**LEAN CLAY (CL)**, light gray and light brown, stiff			X	16	4-3-12 N=15	22.3	36-19-17
		3.5 386.7							
		LEAN CLAY (CL), light gray and light brown, medium stiff	5		X	18	2-2-4 N=6	22.5	35-19-16
		6.0 384.2							
		LEAN CLAY (CL), with calcareous nodules, light gray and light brown, stiff			X	18	3-3-6 N=9	21.0	32-19-13
					X	16	3-4-5 N=9	22.1	31-19-12
			10						
4					X	9	25-50/4"		
			15						
					X	2	23-50/5"		
		20.0 370.2							
		Boring Terminated at 20 Feet	20						

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-29

Location: See Exploration Plan

Latitude: 37.395134° Longitude: -87.662822°

Model Layer	Depth (Ft.)	Elevation.: 378.3 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.5	**TOPSOIL (6") *** 377.8						
2	3.5	**LEAN CLAY (CL)**, light gray, medium stiff 374.8			16	1-2-3 N=5	18.3	
2	8.5	**LEAN CLAY (CL)**, light gray and light brown, stiff 369.8			18	2-5-5 N=10	20.4	
2	13.5	**LEAN CLAY (CL)**, with highly weathered shale, light brown, hard 364.8			18	3-4-6 N=10	13.9	
2					16	6-12-22 N=34	22.9	
4	20.0	**HIGHLY WEATHERED SHALE**, gray and light brown 358.3			10	11-50		
					4	12-50/1"		
		Boring Terminated at 20 Feet						

Depth (Ft.): 5, 10, 15, 20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
05-31-2023

Boring Completed
05-31-2023

Weirs Creek Solar
Corinth Church Rd | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Log No. AB-30

Location: See Exploration Plan

Latitude: 37.392608° Longitude: -87.677716°

Model Layer	Depth (Ft.)	Elevation.: 372.7 (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI
1	0.4	**TOPSOIL (4") *** 372.3						
2	3.5	**LEAN CLAY (CL)**, light gray and light brown, stiff 369.2			13	3-4-5 N=9	21.1	34-21-13
2	8.5	**LEAN CLAY (CL)**, light gray and light brown, medium stiff 364.2			18	1-2-4 N=6	24.9	36-17-19
2	13.5	**LEAN CLAY (CL)**, trace sand, light gray and light brown, medium stiff to stiff 359.2			18	2-2-4 N=6	18.7	26-15-11
					17	2-4-4 N=8	19.8	28-17-11
4	20.0	**SANDSTONE**, gray and brown, moderately weathered 352.7			4	50/5"		
					2	50/2"		
		Boring Terminated at 20 Feet						

Depth (Ft.): 5, 10, 15, 20

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
Elevation Reference: Elevations measured in the field
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
3.25 inch HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
Acker Rebel

Hammer Type
Automatic

Driller
Adam Cash

Logged by
Austin Reynolds

Boring Started
05-30-2023

Boring Completed
05-30-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. SubTP-1

Location: See Exploration Plan

Latitude: 37.421260° Longitude: -87.687460°

Graphic Log	Depth (Ft.)	Elevation: 379.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	TOPSOIL (12") *				
	1.0	378			
	LEAN CLAY (CL), light gray and light brown		5		
	6.0	373			
	LEAN CLAY (CL), with calcareous nodules, light gray and light brown				
	10.0	369	10		
	Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. SubTP-2

Location: See Exploration Plan

Latitude: 37.421443° Longitude: -87.685613°

Graphic Log	Depth (Ft.)	Elevation: 382.8 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.0	**TOPSOIL (12") ***			
	1.0	381.8			
		LEAN CLAY (CL), light gray and light brown	5		
	6.0	376.8			
		LEAN CLAY (CL), with calcareous nodules, tan and light brown			
	8.0	374.8			
		LEAN CLAY (CL), with calcareous nodules, dark brown			
	10.0	372.8	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Test Pit Log No. TP-1

Location: See Exploration Plan

Latitude: 37.4015° Longitude: -87.7028°

Graphic Log	Depth (Ft.)	Elevation: 437 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 436.3			
		SANDY LEAN CLAY (CL), brown mottled with gray, medium stiff to stiff, intermittent red-brown mottling	5		
	10.0	427	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
B. Waylon

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
A. Bolek

Test Pit Started
05-01-2024

Test Pit Completed
05-01-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Test Pit Log No. TP-2

Location: See Exploration Plan

Latitude: 37.4147° Longitude: -87.6864°

Graphic Log	Depth (Ft.)	Elevation: 386 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 385.3			
		SANDY LEAN CLAY (CL), brown, soft to medium stiff	5		
	10.0	376	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
B. Waylon

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
A. Bolek

Test Pit Started
04-30-2024

Test Pit Completed
04-30-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Test Pit Log No. TP-3

Location: See Exploration Plan

Latitude: 37.4187° Longitude: -87.6779°

Graphic Log	Depth (Ft.)	Elevation: 398 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 397.3			
		SANDY LEAN CLAY (CL), brown mottled with gray, medium stiff to stiff	5		
	9.5	scraping on rock 388.5			
		Test Pit Refusal at 9.5 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
B. Waylon

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
A. Bolek

Test Pit Started
04-30-2024

Test Pit Completed
04-30-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Test Pit Log No. TP-4

Location: See Exploration Plan

Latitude: 37.4224° Longitude: -87.6763°

Graphic Log	Depth (Ft.)	Elevation: 386 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 385.3			
		LEAN CLAY WITH SAND (CL), brown mottled with gray, medium stiff to stiff	5		
	10.0	376	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
B. Waylon

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
A. Bolek

Test Pit Started
04-30-2024

Test Pit Completed
04-30-2024

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

Terracon
800 Morrison Rd
Gahanna, OH

Test Pit Log No. TP-5

Location: See Exploration Plan

Latitude: 37.4211° Longitude: -87.6715°

Graphic Log	Depth (Ft.)	Elevation: 410 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5	**TOPSOIL (6") *** 409.5			
		LEAN CLAY WITH SAND (CL), brown mottled with gray, medium stiff			
		- color changes to red-brown at 4 feet	5		
	10.0	400	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations provided by Google Earth

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
B. Waylon

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
A. Bolek

Test Pit Started
04-30-2024

Test Pit Completed
04-30-2024

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-1

Location: See Exploration Plan

Latitude: 37.422908° Longitude: -87.683932°

Graphic Log	Depth (Ft.)	Elevation: 388.5 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5 **TOPSOIL (6") ***	388			
	LEAN CLAY (CL), with calcareous nodules, tan and light brown				
	4.0	384.5			
	LEAN CLAY (CL), trace calcareous nodules, tan and light brown		5		
	10.0	378.5	10		
	Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-2

Location: See Exploration Plan

Latitude: 37.418709° Longitude: -87.683498°

Graphic Log	Depth (Ft.)	Elevation: 376.1 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 375.4			
		LEAN CLAY (CL), light gray and light brown			
	5.0	371.1	5		
		LEAN CLAY (CL), with calcareous nodules, light gray and light brown			
	10.0	366.1	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-3

Location: See Exploration Plan

Latitude: 37.420663° Longitude: -87.671230°

Graphic Log	Depth (Ft.)	Elevation: 404.3 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.6	**TOPSOIL (7") *** 403.7			
		LEAN CLAY (CL), trace calcareous nodules, light gray and light brown			
	4.0	400.3			
		LEAN CLAY (CL), with sand, tan and reddish brown	5		
	8.0	396.3			
		LEAN CLAY (CL), with sandstone layers, tan and reddish brown			
	10.0	394.3	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-4

Location: See Exploration Plan

Latitude: 37.416363° Longitude: -87.666583°

Graphic Log	Depth (Ft.)	Elevation: 410.2 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.6	**TOPSOIL (7") *** 409.6			
		LEAN CLAY (CL), trace calcareous nodules, light gray and light brown			
	4.0	406.2			
		LEAN CLAY (CL), dark brown	5		
	6.5	403.7			
	7.0	**BOULDERS & COBBLES** 403.2			
		Test Pit Refusal at 7 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-5

Location: See Exploration Plan

Latitude: 37.409871° Longitude: -87.665067°

Graphic Log	Depth (Ft.)	Elevation: 388.7 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	TOPSOIL (12") *				
	1.0	387.7			
	LEAN CLAY (CL), light gray and light brown				
	4.0	384.7			
	LEAN CLAY (CL), with calcareous nodules, tan and dark brown		5		
	8.0	380.7			
	8.5 **BOULDERS & COBBLES**	380.2			
	Test Pit Refusal at 8.5 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-6

Location: See Exploration Plan

Latitude: 37.414601° Longitude: -87.666400°

Graphic Log	Depth (Ft.)	Elevation: 405.1 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5	**TOPSOIL (6") *** 404.6			
		LEAN CLAY (CL), light gray and light brown			
	4.0	401.1			
		LEAN CLAY (CL), with calcareous nodules, light gray and light brown	5		
	6.0	399.1			
		LEAN CLAY (CL), trace sand, dark brown			
	10.0	395.1	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Logged by
B. Dillon

Test Pit Started
06-13-2023

Abandonment Method
Test pit backfilled with excavated soil upon completion

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-7

Location: See Exploration Plan

Latitude: 37.411119° Longitude: -87.669095°

Graphic Log	Depth (Ft.)	Elevation: 401.4 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	TOPSOIL (12") *				
	1.0	400.4			
	LEAN CLAY (CL), light gray and light brown				
	6.0	395.4	5		
	LEAN CLAY (CL), with calcareous nodules, light gray and light brown				
	8.0	393.4			
	LEAN CLAY (CL), with sand, brown and reddish brown				
	10.0	391.4	10		
	Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-8

Location: See Exploration Plan

Latitude: 37.406539° Longitude: -87.667104°

Graphic Log	Depth (Ft.)	Elevation: 396.8 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	TOPSOIL (12") *				
	1.0	395.8			
	LEAN CLAY (CL), light gray and light brown				
	4.0	392.8			
	LEAN CLAY (CL), trace sand, reddish brown to tan		5		
	8.0	388.8			
	LEAN CLAY (CL), with sand, reddish brown to tan				
	10.0	386.8	10		
	Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-9

Location: See Exploration Plan

Latitude: 37.403312° Longitude: -87.669771°

Graphic Log	Depth (Ft.)	Elevation: 380.3 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.0	**TOPSOIL (12") ***			
	1.0	379.3			
		LEAN CLAY (CL), trace calcareous nodules, brown			
	4.0	376.3			
		LEAN CLAY (CL), light brown and tan	5		
	10.0	370.3	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-10

Location: See Exploration Plan

Latitude: 37.406310° Longitude: -87.673611°

Graphic Log	Depth (Ft.)	Elevation: 378.5 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	TOPSOIL (12") *				
	1.0	377.5			
	LEAN CLAY (CL), light gray and light brown				
	5.0	373.5	5		
	LEAN CLAY (CL), trace calcareous nodules, tan and light brown				
	10.0	368.5	10		
	Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-11

Location: See Exploration Plan

Latitude: 37.403020° Longitude: -87.678440°

Graphic Log	Depth (Ft.)	Elevation: 365.6 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5	**TOPSOIL (6") *** 365.1			
		LEAN CLAY (CL), light gray and light brown			
	6.0	359.6	5		
		LEAN CLAY (CL), with calcareous nodules, light brown			
	10.0	355.6	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-12-2023

Test Pit Completed
06-12-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-12

Location: See Exploration Plan

Latitude: 37.401025° Longitude: -87.659185°

Graphic Log	Depth (Ft.)	Elevation: 386.6 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5	**TOPSOIL (6") *** 386.1			
		LEAN CLAY (CL), possible fill, dark brown, high organic content			
	4.0	382.6			
		LEAN CLAY (CL), with calcareous nodules, light brown and light gray	5		
	9.0	377.6			
		WEATHERED SHALE, black			
	10.0	376.6	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-13

Location: See Exploration Plan

Latitude: 37.394737° Longitude: -87.657187°

Graphic Log	Depth (Ft.)	Elevation: 398.7 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.5	**TOPSOIL (6") *** 398.2			
		LEAN CLAY (CL), light gray and light brown			
	6.0	392.7	5		
		LEAN CLAY (CL), with calcareous nodules, light gray and light brown			
	9.0	389.7			
		LEAN CLAY (CL), with shale fragments, dark gray and dark brown			
	10.0	388.7	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-14

Location: See Exploration Plan

Latitude: 37.395650° Longitude: -87.660196°

Graphic Log	Depth (Ft.)	Elevation: 384.9 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.7	**TOPSOIL (8") *** 384.2			
	4.0	**LEAN CLAY (CL)**, light gray and light brown 380.9			
	9.0	**LEAN CLAY (CL)**, with calcareous nodules, light gray and light brown 375.9	5		
	10.0	**WEATHERED SHALE**, black 374.9	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

Test Pit Completed
06-13-2023

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Test Pit Log No. ATP-15

Location: See Exploration Plan

Latitude: 37.387838° Longitude: -87.680408°

Graphic Log	Depth (Ft.)	Elevation: 386.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
	0.0	**TOPSOIL (12") ***			
	1.0	385			
		LEAN CLAY (CL), light gray and light brown			
	4.0	382			
		LEAN CLAY (CL), trace sand, light gray and light brown	5		
	6.0	380			
		LEAN CLAY (CL), with sandstone layers, reddish brown and tan			
	10.0	376	10		
		Test Pit Terminated at 10 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.

Elevation Reference: Elevations Interpolated Using Google Earth Pro

Water Level Observations
No free water observed

Excavator
CAT 313

Operator
W. Baron

Notes
* Actual thickness and material composition of topsoil should be verified by others

Advancement Method
Excavator

Abandonment Method
Test pit backfilled with excavated soil upon completion

Logged by
B. Dillon

Test Pit Started
06-13-2023

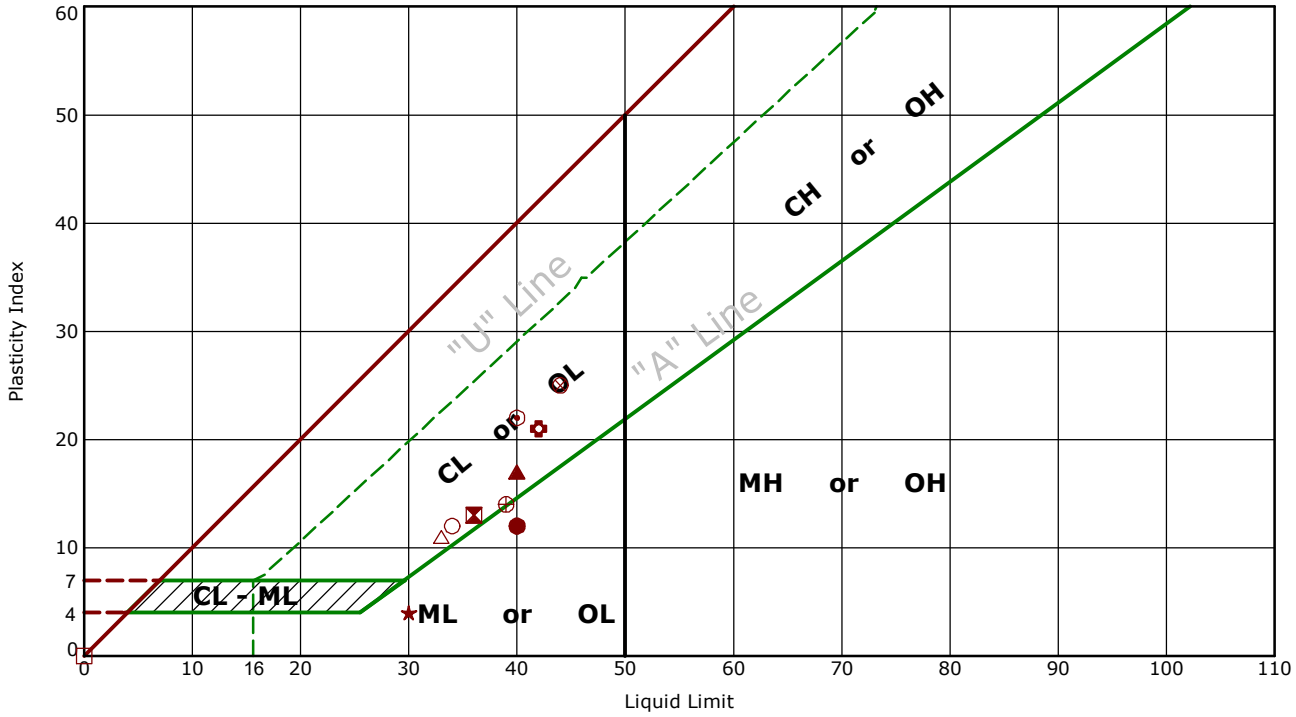
Test Pit Completed
06-13-2023

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

800 Morrison Rd
Gahanna, OH

Atterberg Limit Results

ASTM D4318



	Boring ID	Depth (Ft)	LL	PL	PI	Fines	USCS	Description
●	B-1	0 - 2	40	28	12	97.9	ML	SILT
⊠	B-2	0 - 2	36	23	13	96.8	CL	LEAN CLAY
▲	B-3	0 - 2	40	23	17	95.9	CL	LEAN CLAY
★	B-5	0 - 2	30	26	4	93.4	ML	SILT
⊙	B-7	3.5 - 5	40	18	22	97.4	CL	LEAN CLAY
✿	B-9	0 - 2	42	21	21	95.8	CL	LEAN CLAY
○	SB-10	0 - 2	34	22	12	94.4	CL	LEAN CLAY
△	SB-11	3.5 - 5	33	22	11	94.9	CL	LEAN CLAY
⊗	SB-12	2 - 3.5	44	19	25	94.9	CL	LEAN CLAY
⊕	SB-13	2 - 3.5	39	25	14	89.1	CL	LEAN CLAY
□	SB-14	0 - 2	NP	NP	NP	91.8	ML	SILT

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
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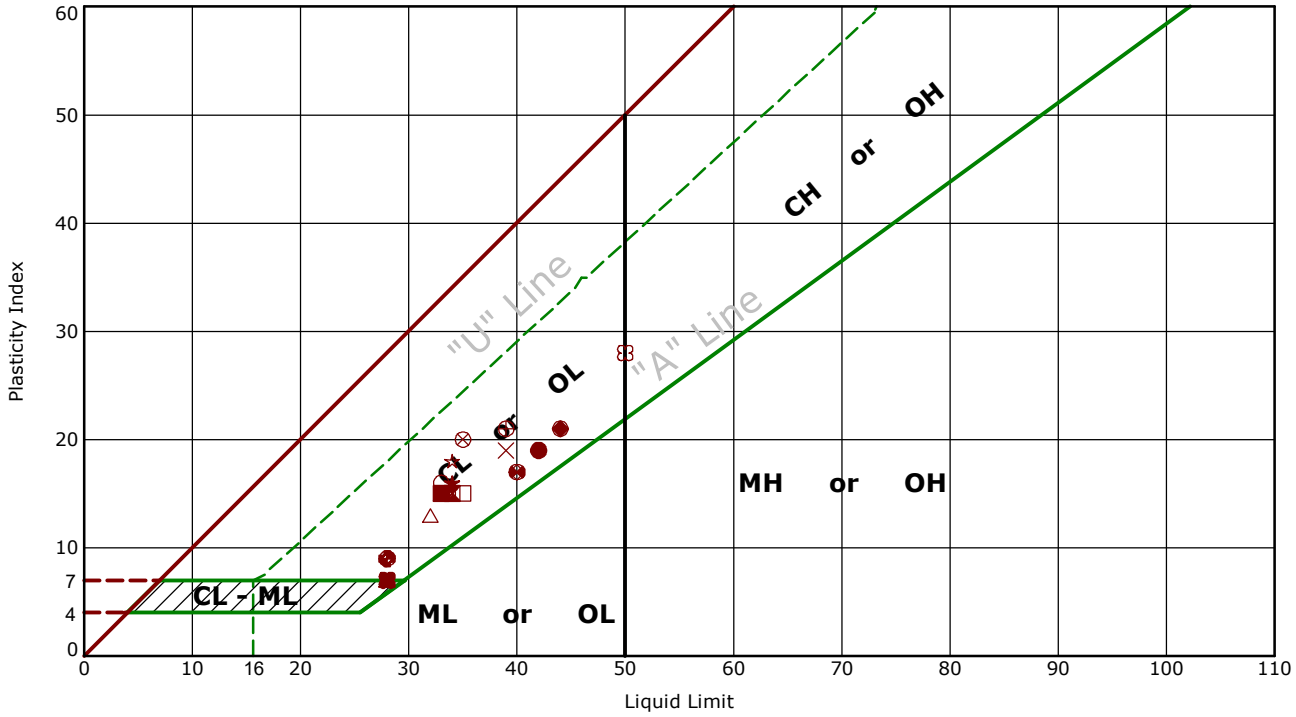
Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Atterberg Limit Results

ASTM D4318



	Boring ID	Depth (Ft)	LL	PL	PI	Fines	USCS	Description
●	SB-1	1 - 2.5	42	23	19		CL	Lean Clay
⊠	SB-1	3 - 5	34	19	15		CL	Lean Clay
▲	SB-1	6 - 7.5	28	21	7		CL	Lean Clay
★	SB-1	8.5 - 10	34	18	16		CL	Lean Clay
⊙	AB-1	1 - 2.5	44	23	21		CL	Lean Clay
✿	AB-1	3.5 - 5	28	19	9		CL	Lean Clay
○	AB-1	6 - 7.5	33	17	16		CL	Lean Clay
△	AB-1	8.5 - 10	32	19	13		CL	Lean Clay
⊗	AB-4	3.5 - 5	35	15	20		CL	Lean Clay
⊕	AB-4	6 - 7.5	39	18	21		CL	Lean Clay
□	AB-4	8.5 - 10	35	20	15		CL	Lean Clay
⊗	AB-6	1 - 2.5	40	23	17		CL	Lean Clay
◒	AB-6	3.5 - 5	28	19	9		CL	Lean Clay
☆	AB-6	6 - 7.5	34	16	18		CL	Lean Clay
⊠	AB-6	8.5 - 10	50	22	28		CL/CH	Lean to Fat Clay
■	AB-6	13.5 - 15	33	18	15		CL-ML	Silty Clay
◆	AB-6	18.5 - 20	44	23	21		CL	Lean Clay
◇	AB-8	1 - 2.5	40	23	17		CL	Lean Clay
✕	AB-8	3.5 - 5	39	20	19		CL	Lean Clay
■	AB-8	6 - 7.5	28	21	7		CL	Lean Clay

Weirs Creek Solar
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13050 Eastgate Park Way Ste 101
Louisville, KY

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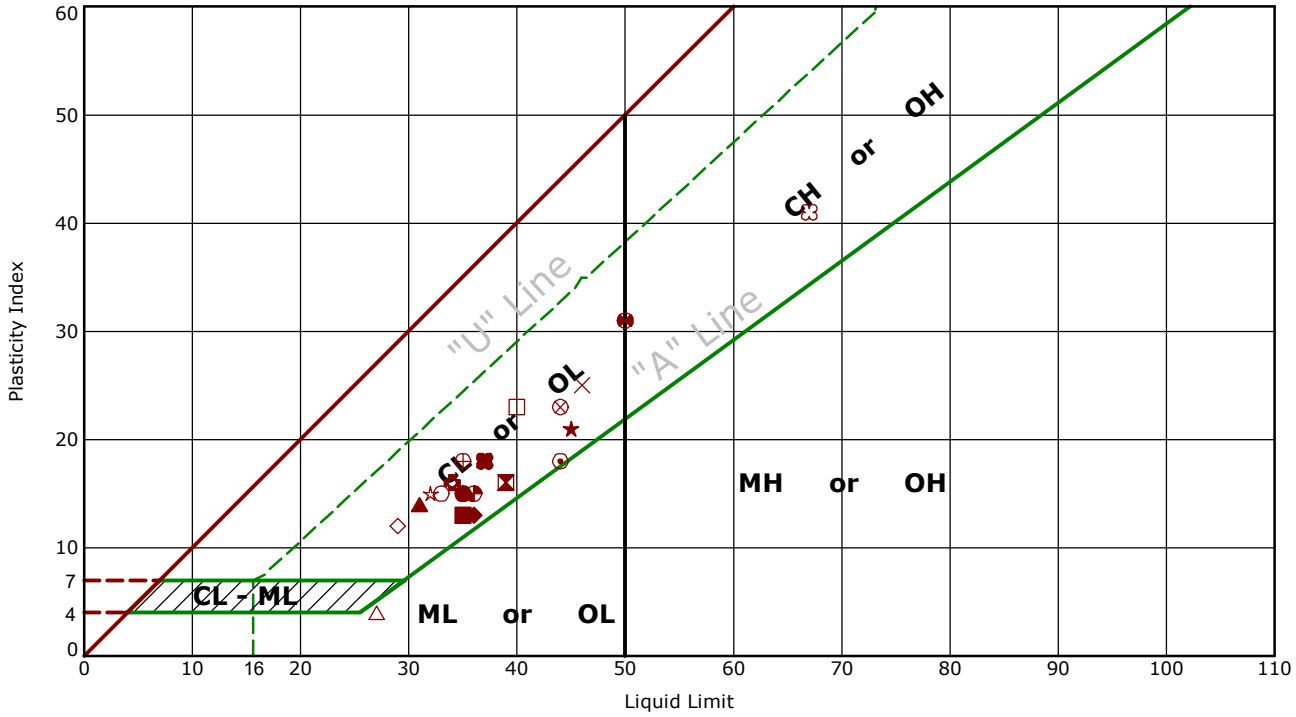

	Boring ID	Depth (Ft)	LL	PL	PI	Fines	USCS	Description
●	AB-8	8.5 - 10	35	20	15		CL	Lean Clay
⊠	AB-13	1 - 2.5	39	23	16		CL	Lean Clay
▲	AB-13	3.5 - 5	31	17	14		CL	Lean Clay
★	AB-13	6 - 7.5	45	24	21		CL	Lean Clay
⊙	AB-13	8.5 - 10	44	26	18		CL	Lean Clay
✿	AB-14	1 - 2.5	34	18	16		CL	Lean Clay
○	AB-14	3.5 - 5	33	18	15		CL	Lean Clay
△	AB-14	6 - 7.5	27	23	4		ML	Silt
⊗	AB-19	1 - 2.5	44	21	23		CL	Lean Clay
⊕	AB-19	3.5 - 5	35	17	18		CL	Lean Clay
□	AB-19	6 - 7.5	40	17	23		CL	Lean Clay
⊠	AB-19	8.5 - 10	50	19	31		CL/CH	Lean to Fat Clay
◒	AB-22	1 - 2.5	36	21	15		CL	Lean Clay
☆	AB-22	3.5 - 5	32	17	15		CL	Lean Clay
✿	AB-22	6 - 7.5	67	26	41		CL	Lean Clay
■	AB-24	1 - 2.5	35	22	13		CL	Lean Clay
◆	AB-24	3.5 - 5	36	23	13		CL	Lean Clay
◇	AB-24	6 - 7.5	29	17	12		CL	Lean Clay
⊗	AB-24	8.5 - 10	46	21	25		CL	Lean Clay
✿	AB-24	13.5 - 15	37	19	18		CL	Lean Clay

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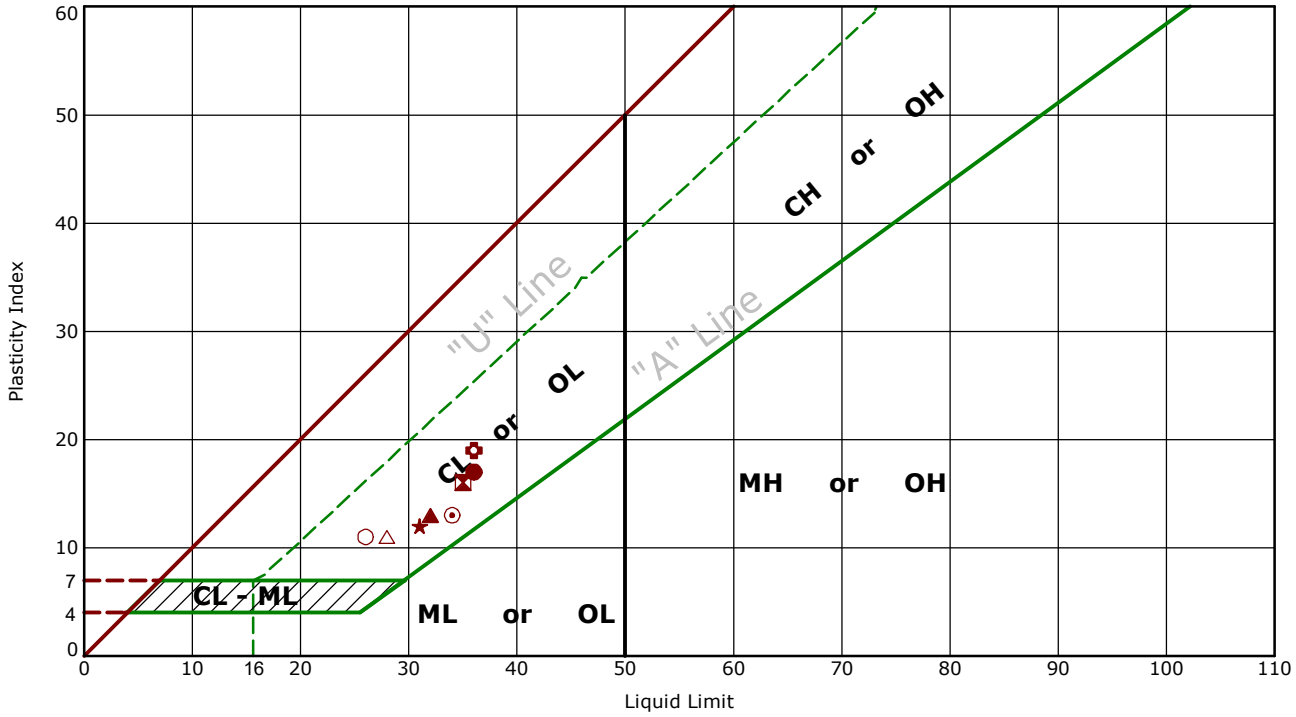

	Boring ID	Depth (Ft)	LL	PL	PI	Fines	USCS	Description
●	AB-28	1 - 2.5	36	19	17		CL	Lean Clay
⊠	AB-28	3.5 - 5	35	19	16		CL	Lean Clay
▲	AB-28	6 - 7.5	32	19	13		CL	Lean Clay
★	AB-28	8.5 - 10	31	19	12		CL	Lean Clay
⊙	AB-30	1 - 2.5	34	21	13		CL	Lean Clay
✿	AB-30	3.5 - 5	36	17	19		CL	Lean Clay
○	AB-30	6 - 7.5	26	15	11		CL	Lean Clay
△	AB-30	8.5 - 10	28	17	11		CL	Lean Clay

Weirs Creek Solar
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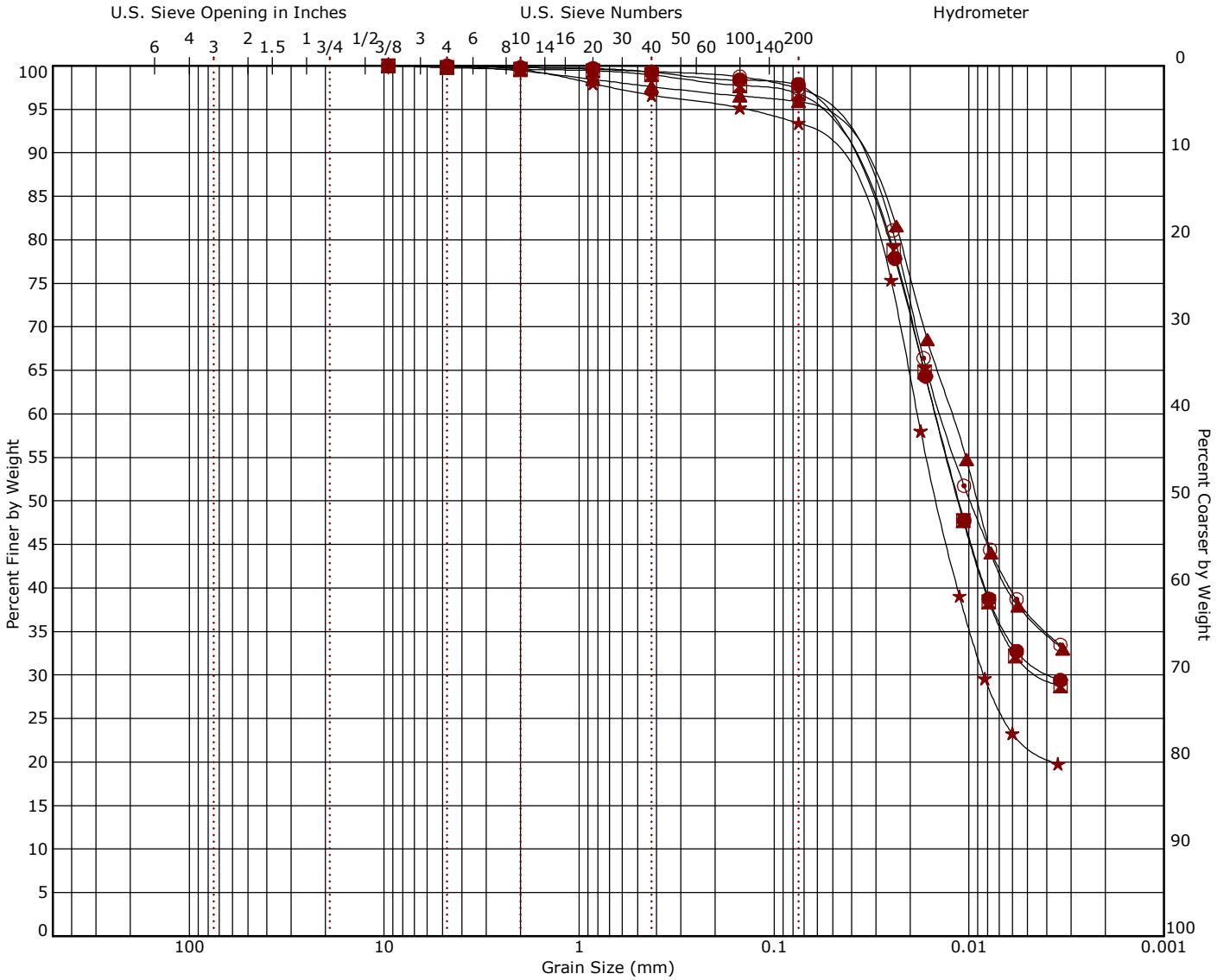
Terracon
800 Morrison Rd
Gahanna, OH

Grain Size Distribution

ASTM D422 / ASTM C136 / AASHTO T27



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	Description	USCS	LL	PL	PI	Cc	Cu
●	B-1	0 - 2	SILT	ML	40	28	12		
⊠	B-2	0 - 2	LEAN CLAY	CL	36	23	13		
▲	B-3	0 - 2	LEAN CLAY	CL	40	23	17		
★	B-5	0 - 2	SILT	ML	30	26	4		
⊙	B-7	3.5 - 5	LEAN CLAY	CL	40	18	22		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-1	0 - 2	9.5	0.015	0.004		0.0	0.0	2.1		66.0	31.9
⊠	B-2	0 - 2	9.5	0.015	0.004		0.0	0.2	3.0		65.5	31.3
▲	B-3	0 - 2	9.5	0.012			0.0	0.1	4.0		59.0	36.9
★	B-5	0 - 2	4.75	0.018	0.008		0.0	0.0	6.6		71.3	22.1
⊙	B-7	3.5 - 5	4.75	0.014			0.0	0.0	2.6		60.0	37.4

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Terracon
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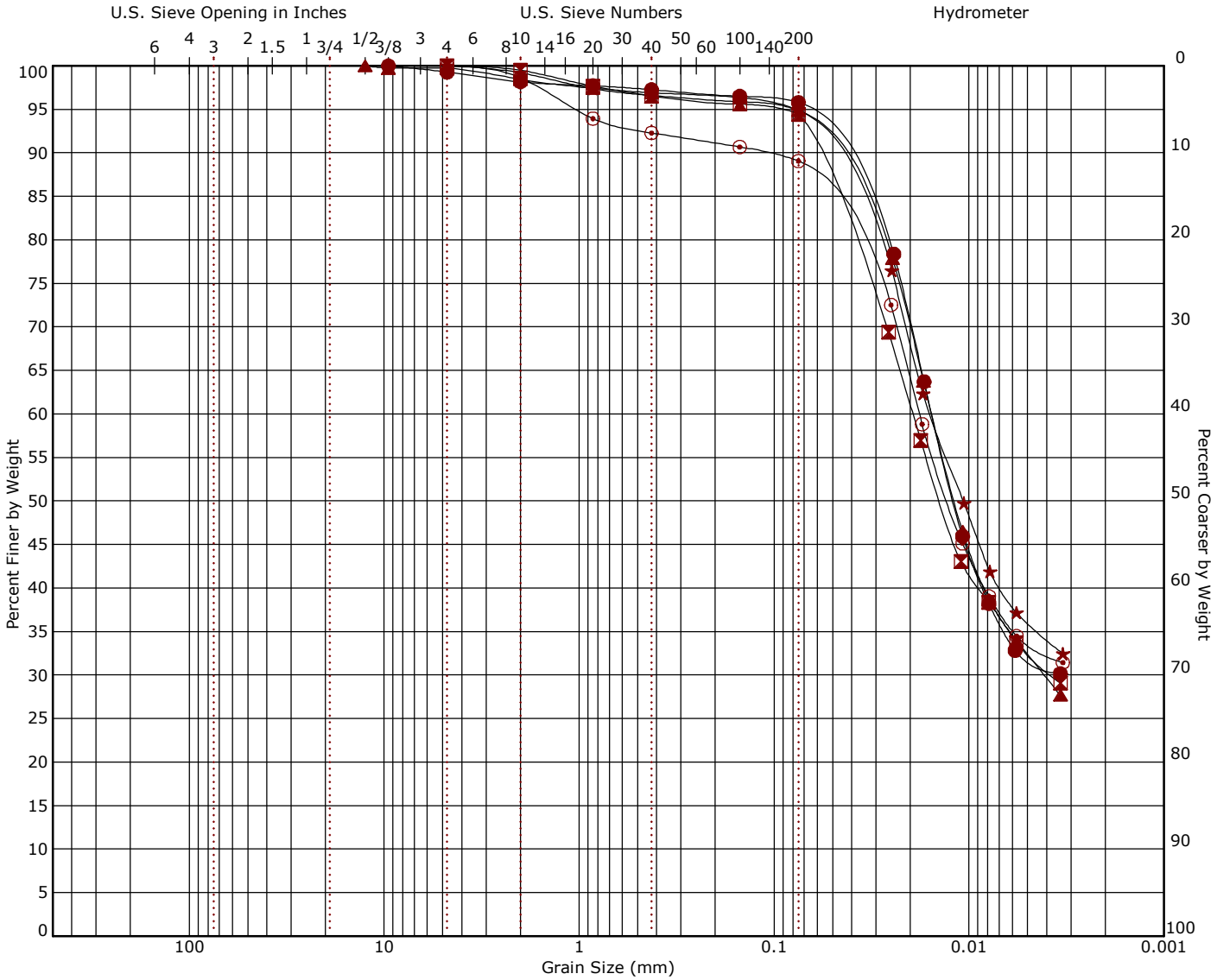
Gahanna, OH

Grain Size Distribution

ASTM D422 / ASTM C136 / AASHTO T27



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	Description	USCS	LL	PL	PI	Cc	Cu
●	B-9	0 - 2	LEAN CLAY	CL	42	21	21		
⊠	SB-10	0 - 2	LEAN CLAY	CL	34	22	12		
▲	SB-11	3.5 - 5	LEAN CLAY	CL	33	22	11		
★	SB-12	2 - 3.5	LEAN CLAY	CL	44	19	25		
⊙	SB-13	2 - 3.5	LEAN CLAY	CL	39	25	14		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-9	0 - 2	9.5	0.015			0.0	0.7	3.5		63.7	32.1
⊠	SB-10	0 - 2	4.75	0.019	0.004		0.0	0.0	5.6		61.9	32.5
▲	SB-11	3.5 - 5	12.5	0.015	0.004		0.0	0.3	4.8		62.5	32.4
★	SB-12	2 - 3.5	4.75	0.016			0.0	0.0	5.1		58.8	36.0
⊙	SB-13	2 - 3.5	4.75	0.018			0.0	0.0	10.9		55.3	33.7

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Grain Size Distribution

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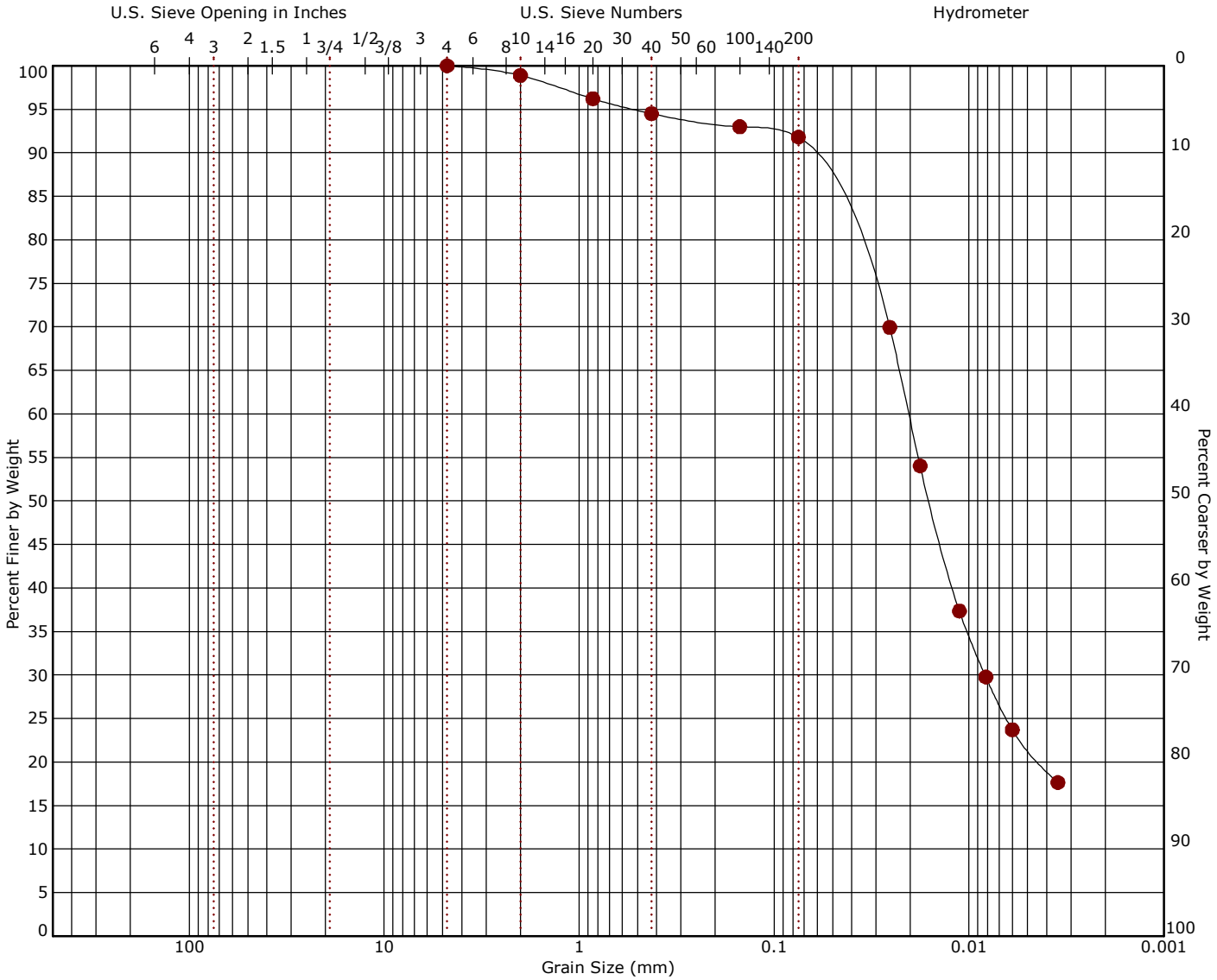

Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID	Depth (Ft)	Description	USCS	LL	PL	PI	Cc	Cu
SB-14	0 - 2	SILT	ML	NP	NP	NP		

Boring ID	Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
SB-14	0 - 2	4.75	0.02	0.008		0.0	0.0	8.2		70.1	21.7

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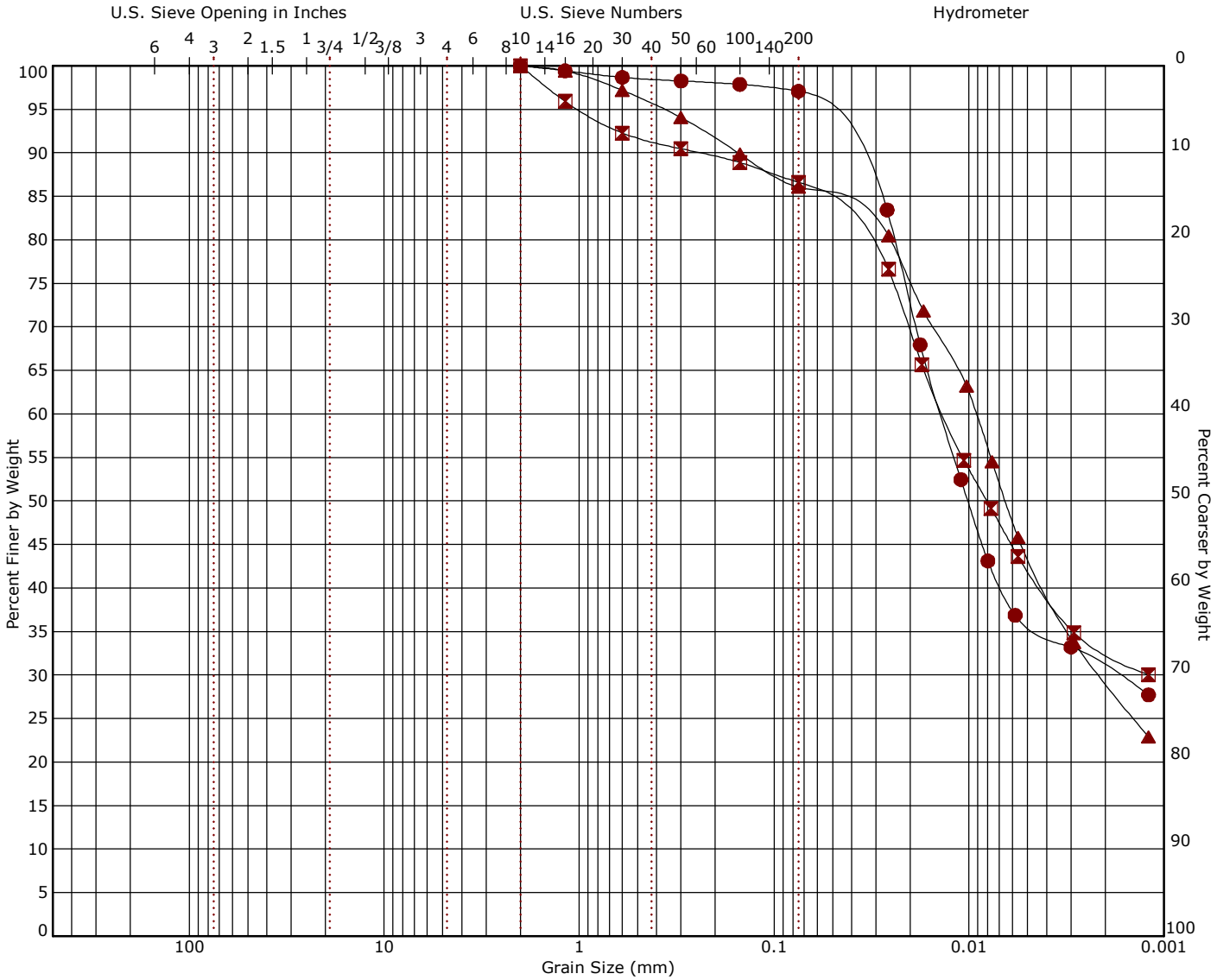
Grain Size Distribution

ASTM D422 / ASTM C136 / AASHTO T27



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

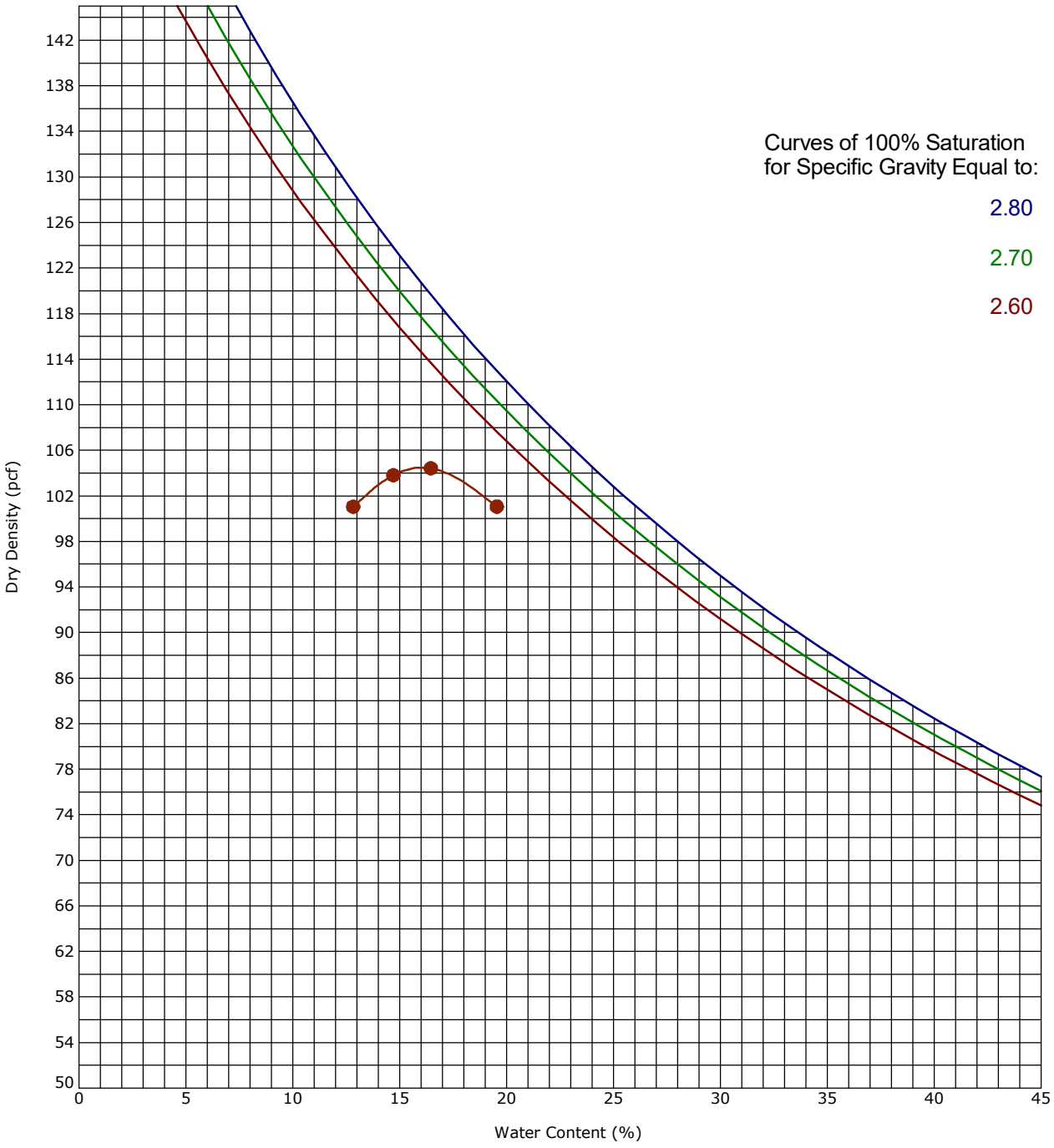
Boring ID	Depth (Ft)	Description	USCS	LL	PL	PI	Cc	Cu
SB-2	5 - 7	Lean clay tace sand	CL					
SB-2	8.5 - 10	Lean clay tace sand	CL					
SB-2	13.5 - 14.9	Lean clay tace sand	CL					

Boring ID	Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
SB-2	5 - 7	2	0.014	0.002		0.0	0.0	2.9		61.0	36.0
SB-2	8.5 - 10	2	0.013			0.0	0.0	13.4		44.5	42.1
SB-2	13.5 - 14.9	2	0.009	0.002		0.0	0.0	14.0		42.3	43.7

800 Morrison Rd
Gahanna, OH

Moisture-Density Relationship

ASTM D698-Method C



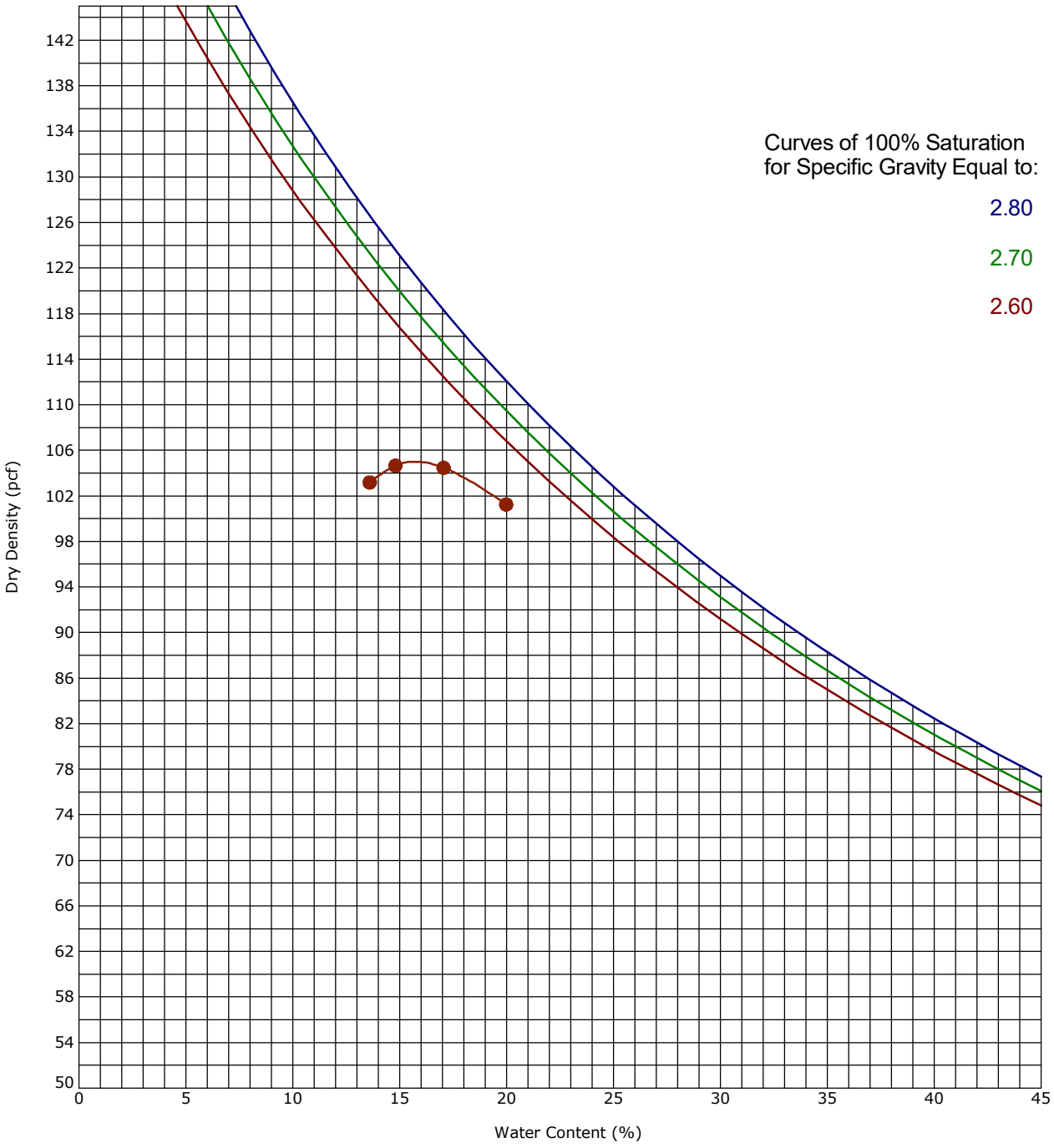
Boring ID	Depth (Ft)	Description of Materials
B-1 Bulk Sample	1 - 5	LEAN CLAY with SAND (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method C	104.5	16.0

800 Morrison Rd
Gahanna, OH

Moisture-Density Relationship

ASTM D698-Method C



Boring ID	Depth (Ft)	Description of Materials
B-5 Bulk Sample	1 - 5	SILT (ML)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method C	105.0	15.7

800 Morrison Rd
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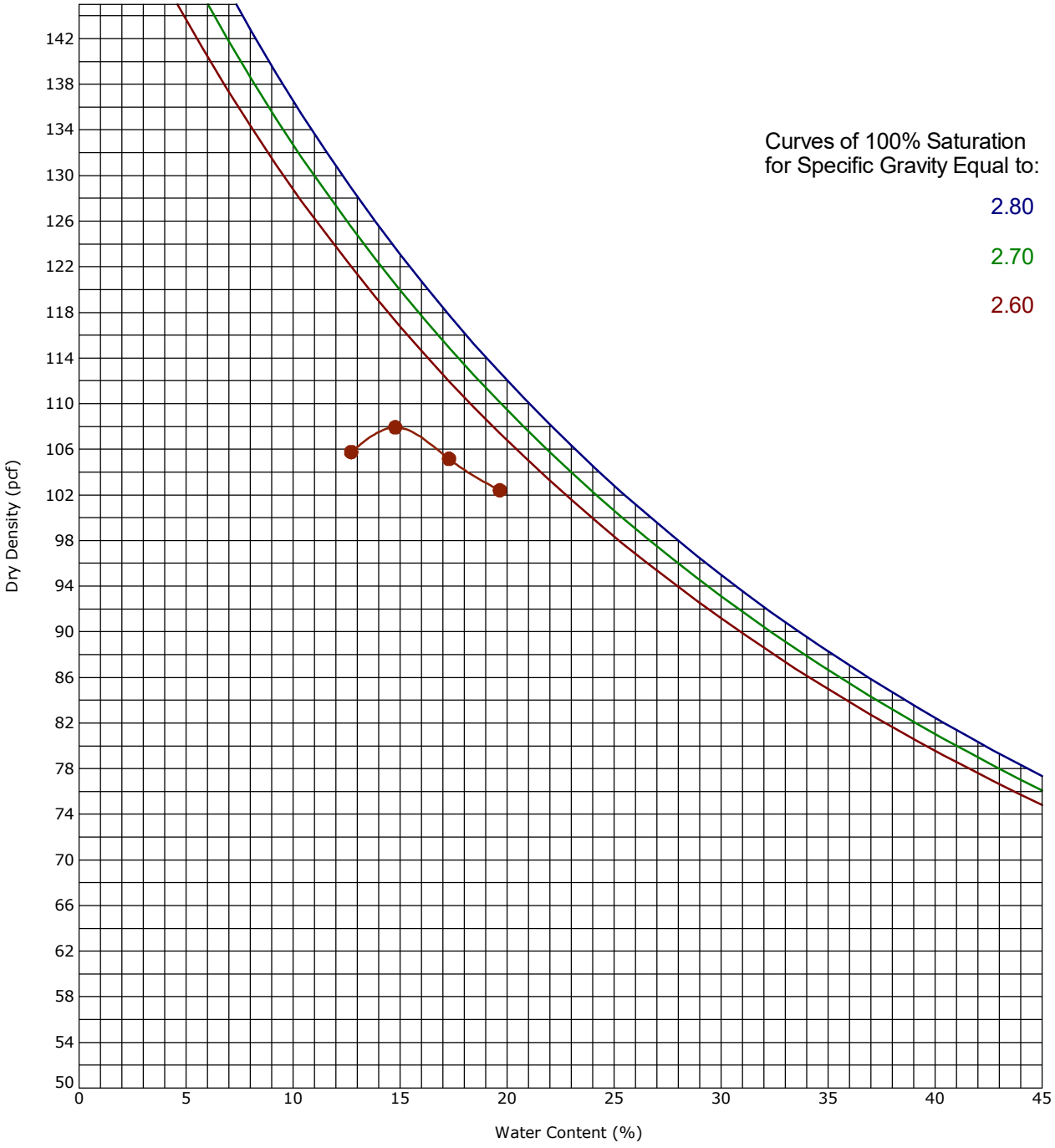
Moisture-Density Relationship

ASTM D698-Method C



Boring ID	Depth (Ft)	Description of Materials
SB-10 Bulk Sample	1 - 5	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method C	107.9	14.8

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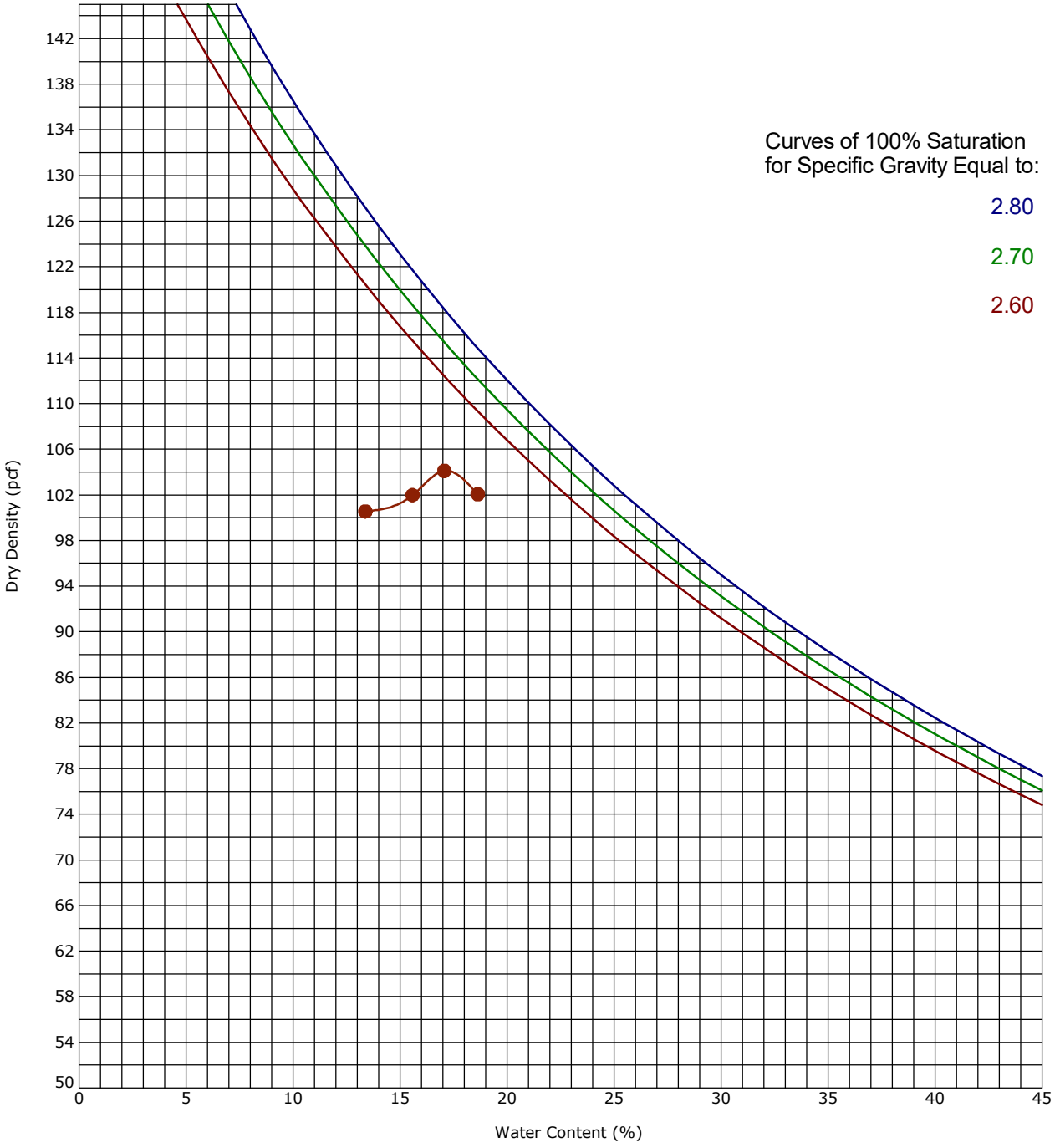
Moisture-Density Relationship

ASTM D698-Method C



Boring ID	Depth (Ft)	Description of Materials
SB-14 Bulk Sample	1 - 5	SANDY LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method C	104.1	17.1

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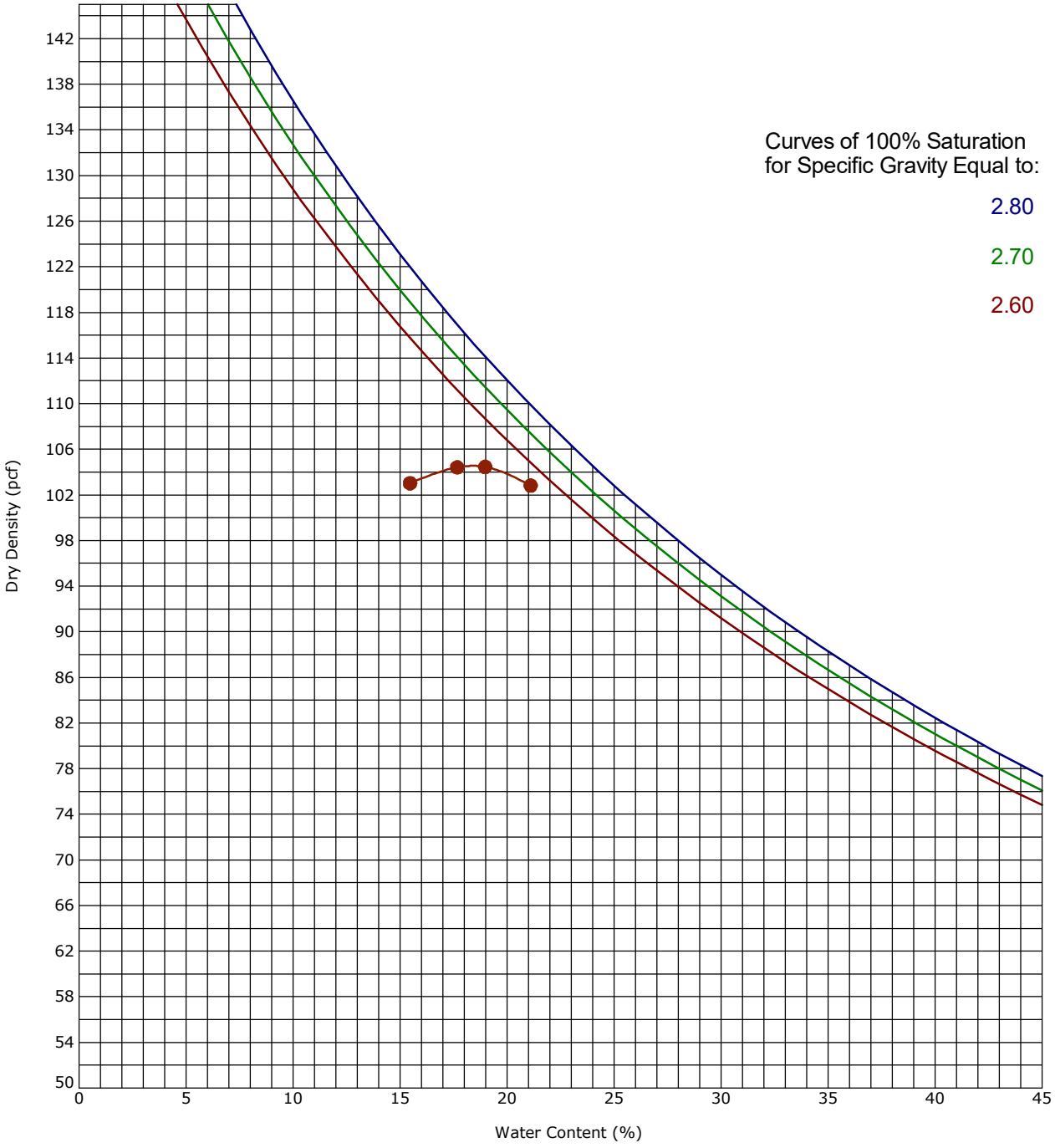
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
SubTP-1	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	104.5	18.4

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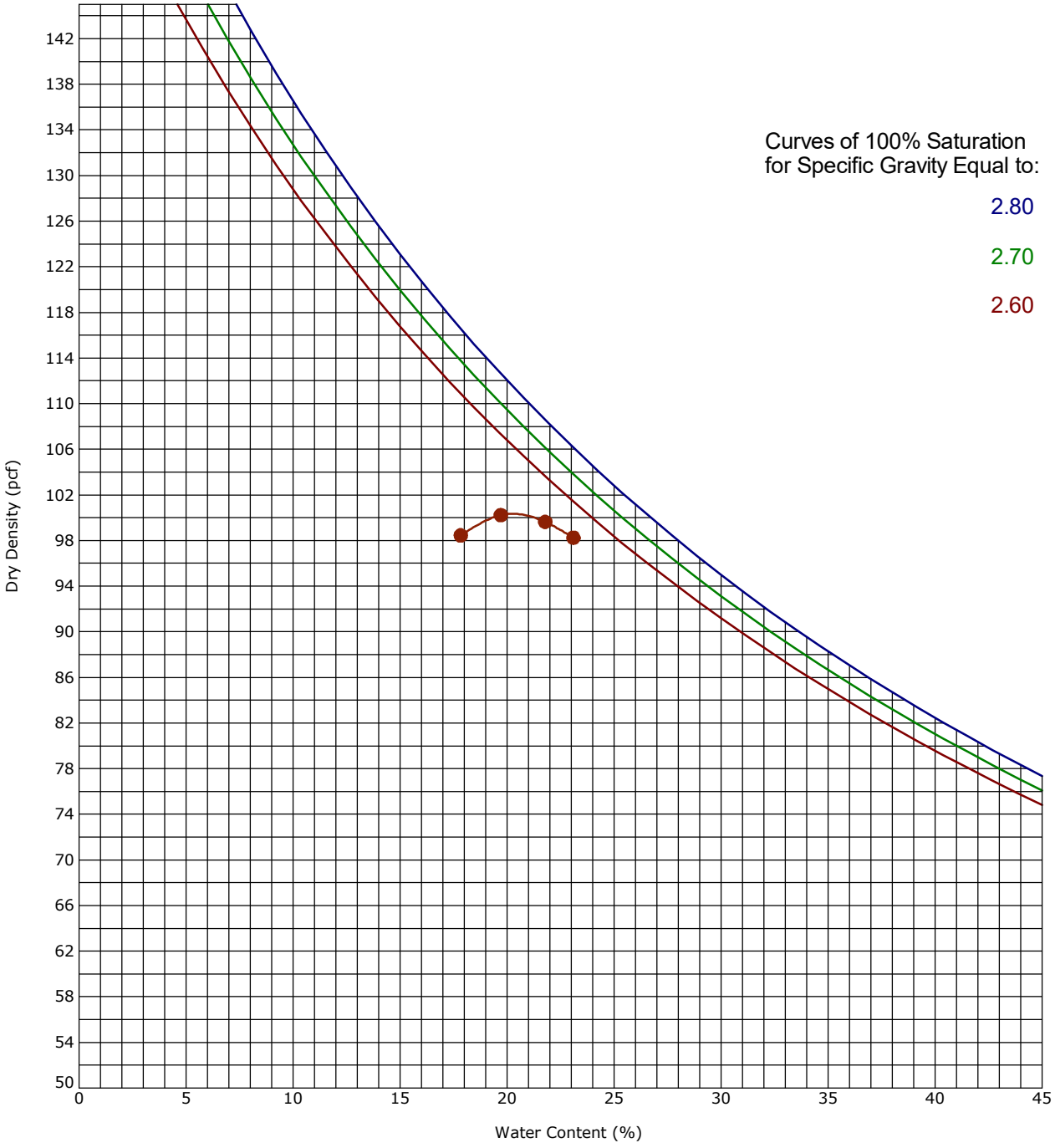
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
SubTP-2	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	100.3	20.3

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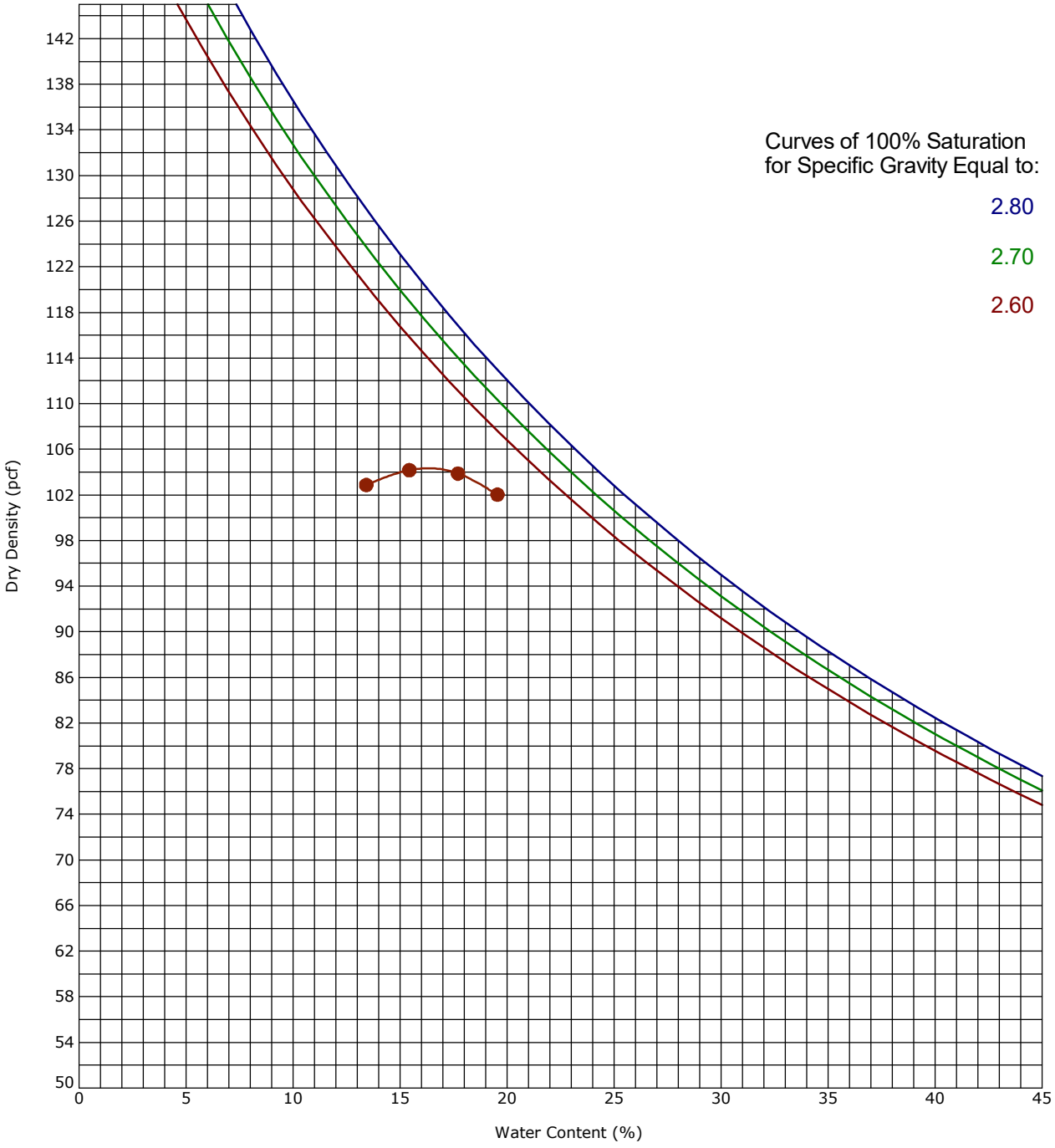
Moisture-Density Relationship

ASTM D698-Method B



Boring ID	Depth (Ft)	Description of Materials
ATP-2	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method B	104.3	16.3

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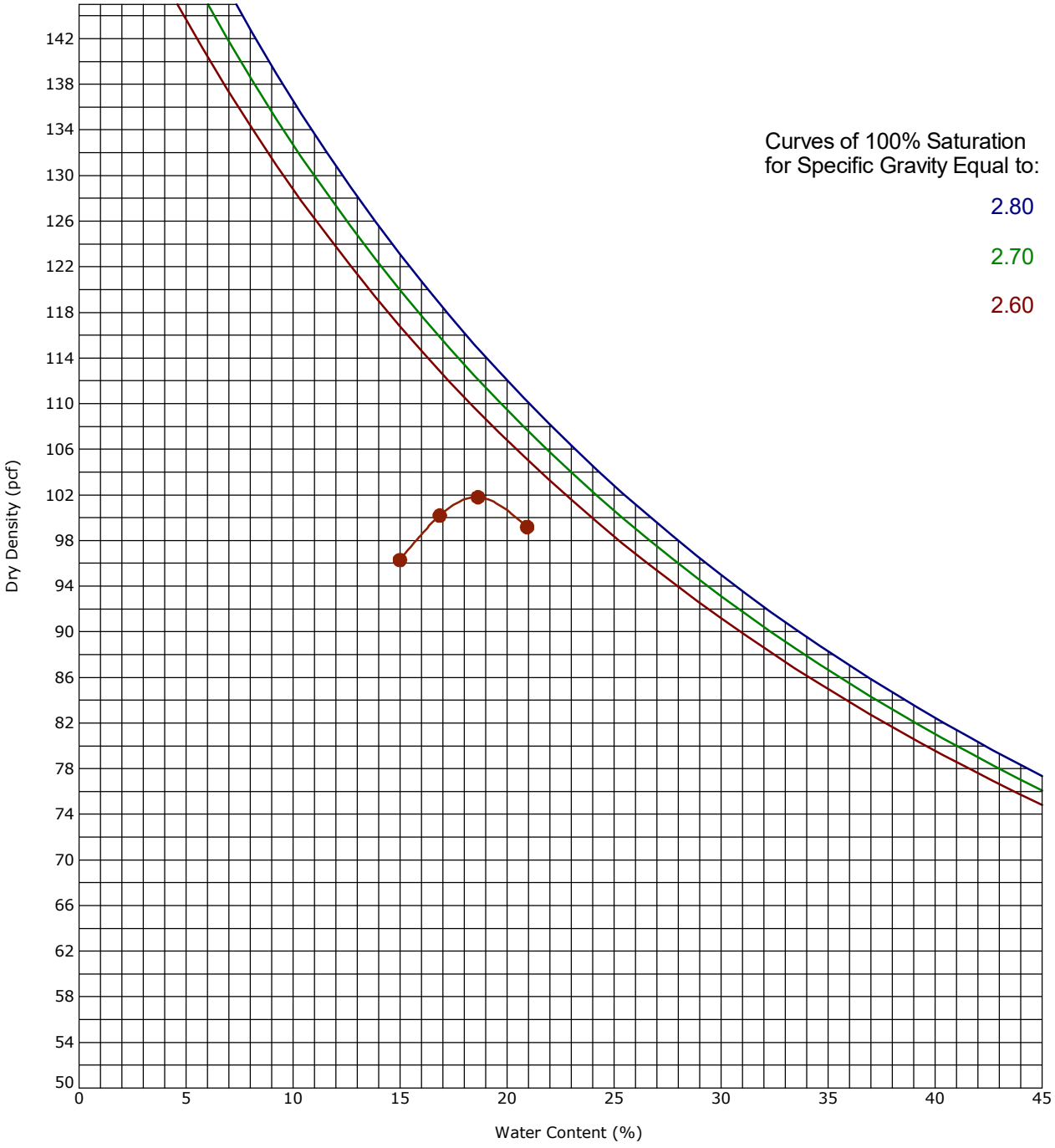
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-3	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	101.8	18.5

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Terracon Project No. 57235034

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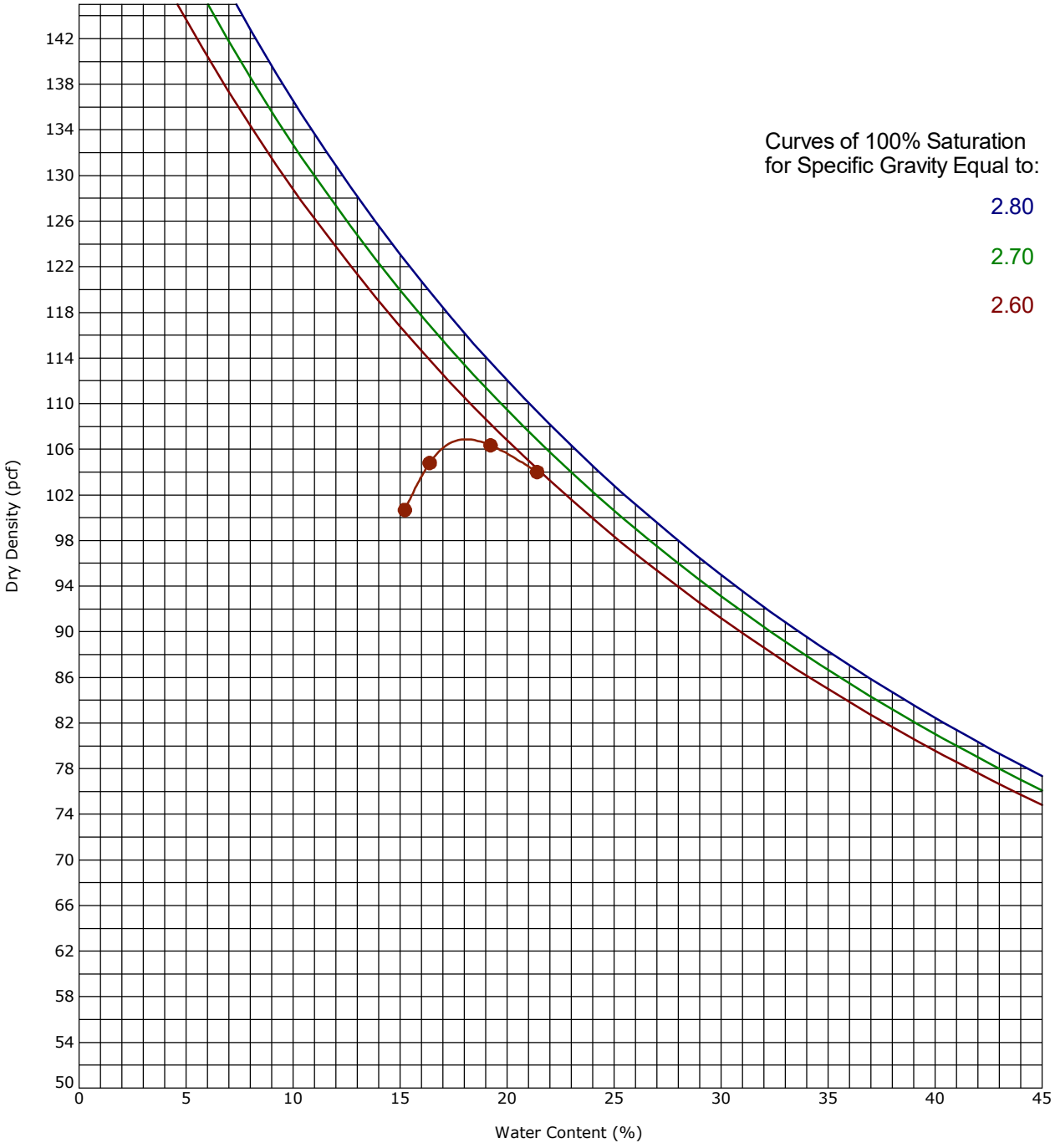
13050 Eastgate Park Way Ste 101
Louisville, KY

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-4	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	106.9	18.0

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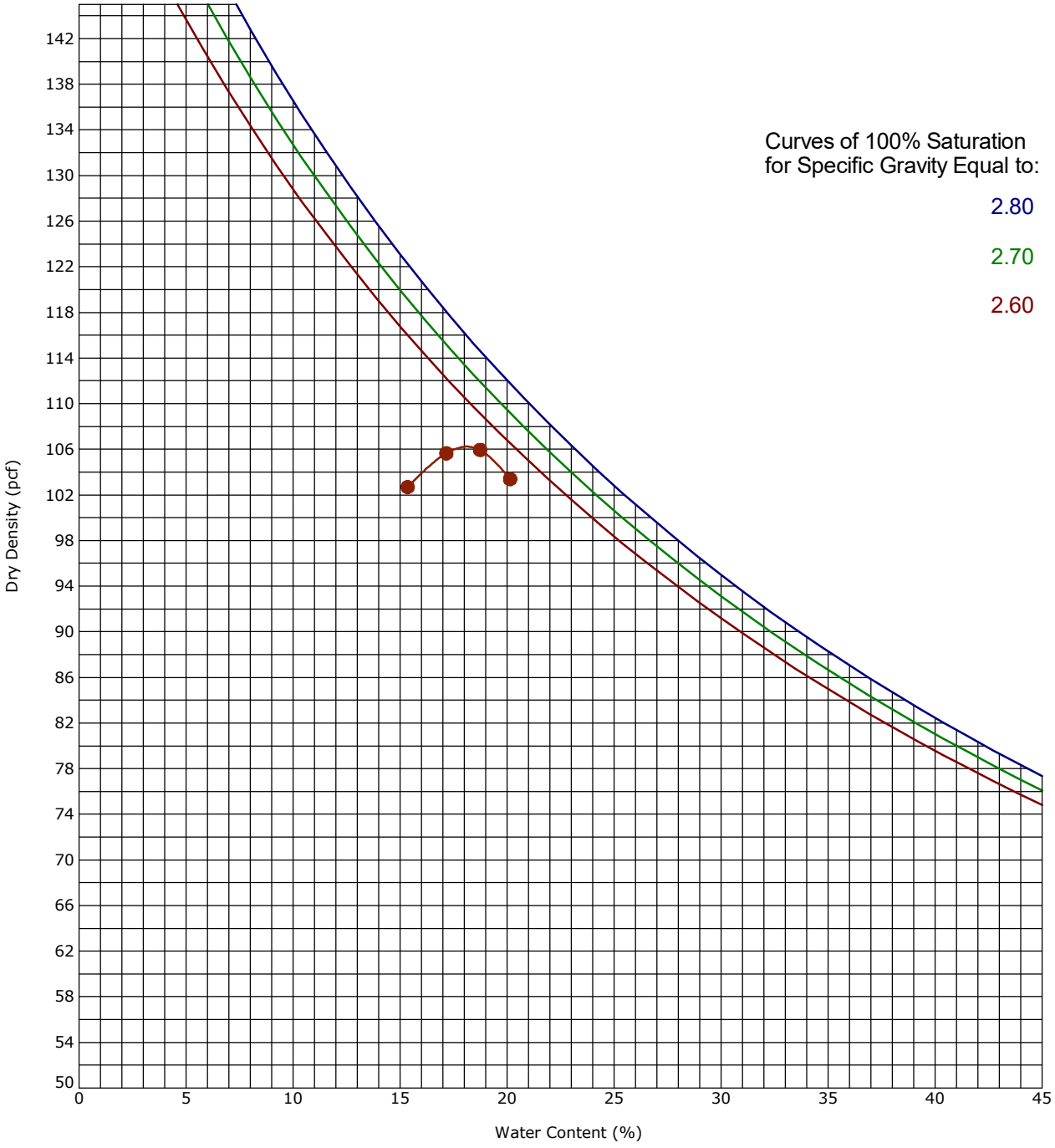
Louisville, KY

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-6	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	106.2	18.2

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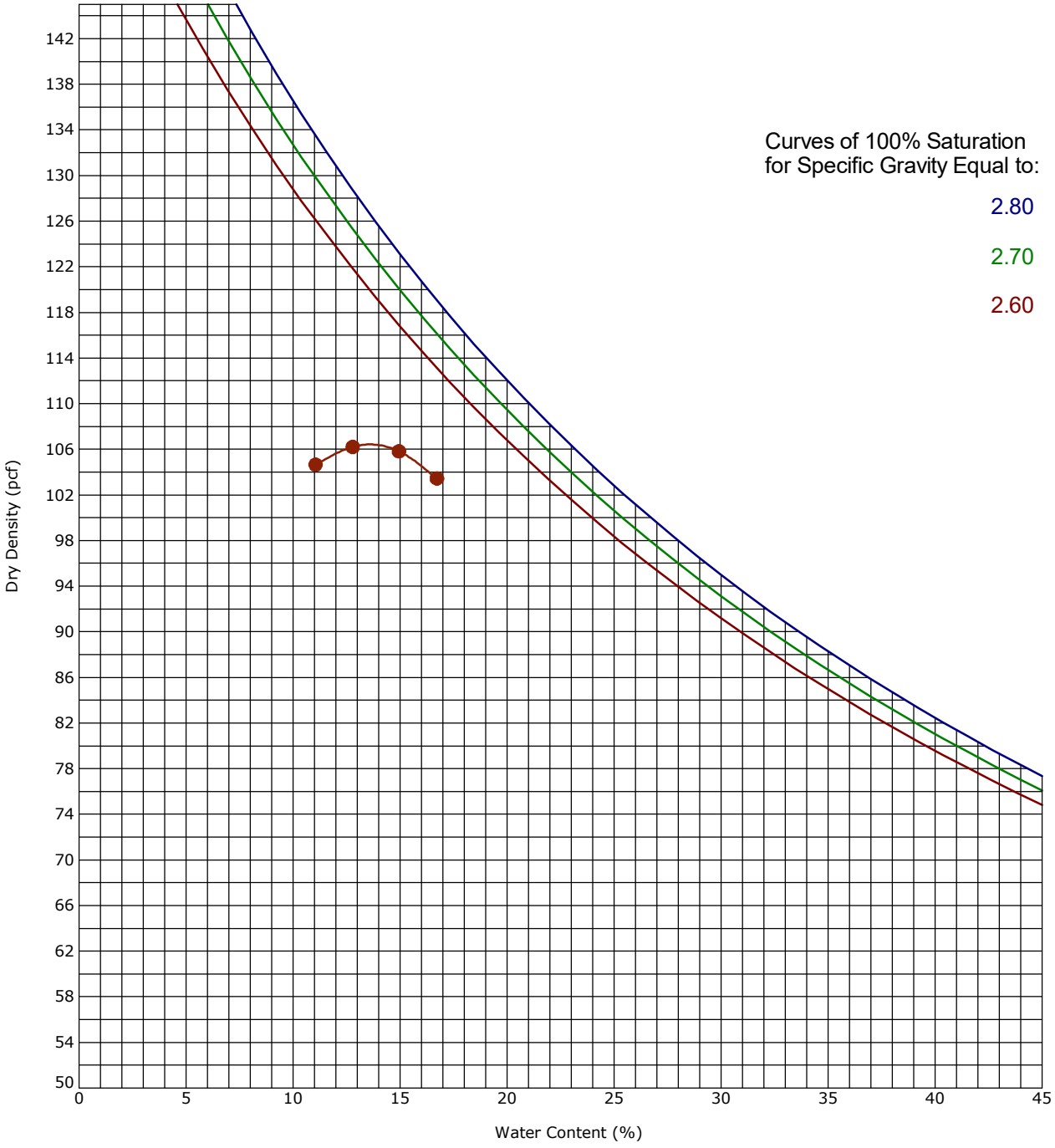
Moisture-Density Relationship

ASTM D698-Method B



Boring ID	Depth (Ft)	Description of Materials
ATP-7	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method B	106.4	13.6

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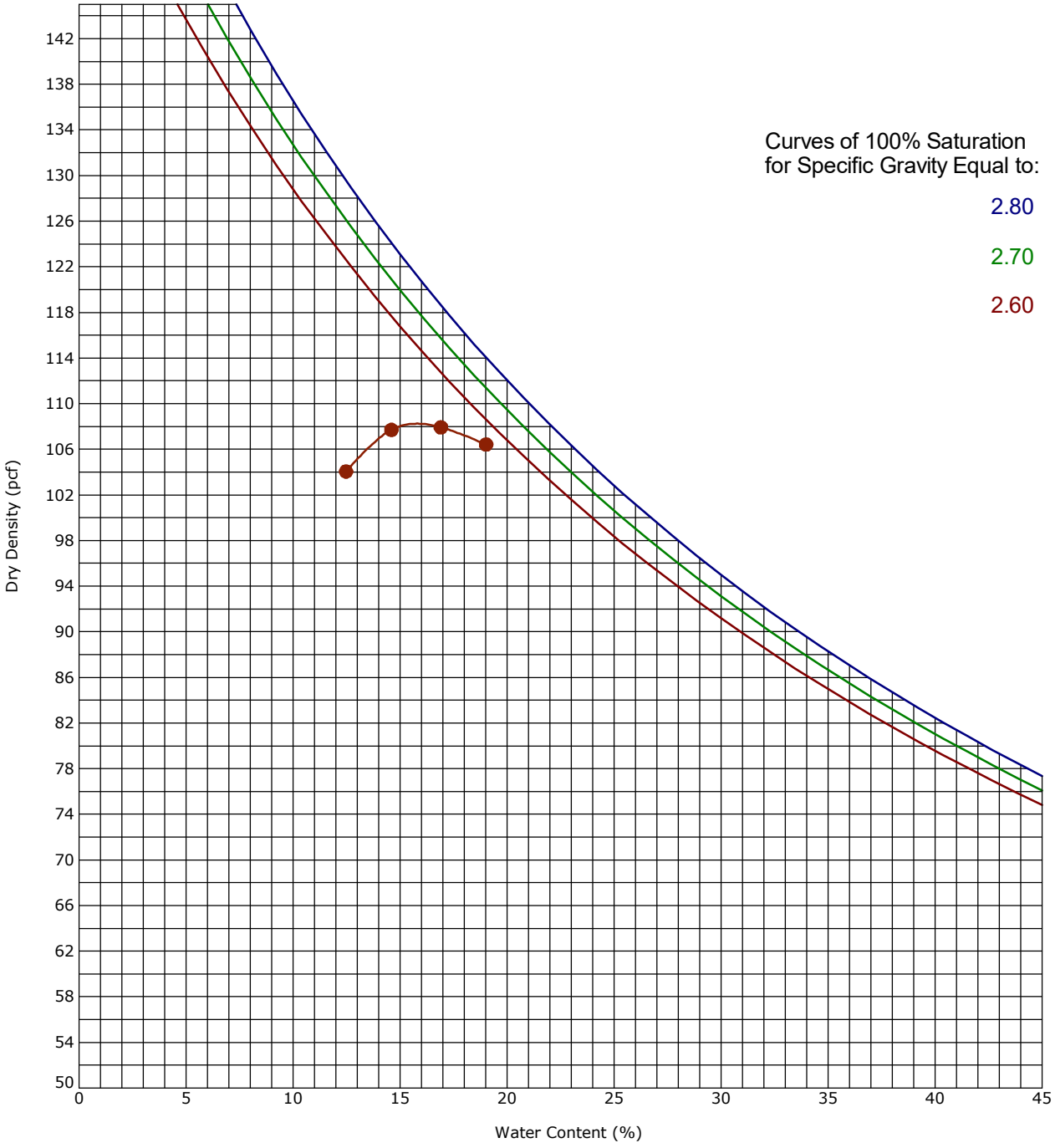
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-8	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	108.2	15.8

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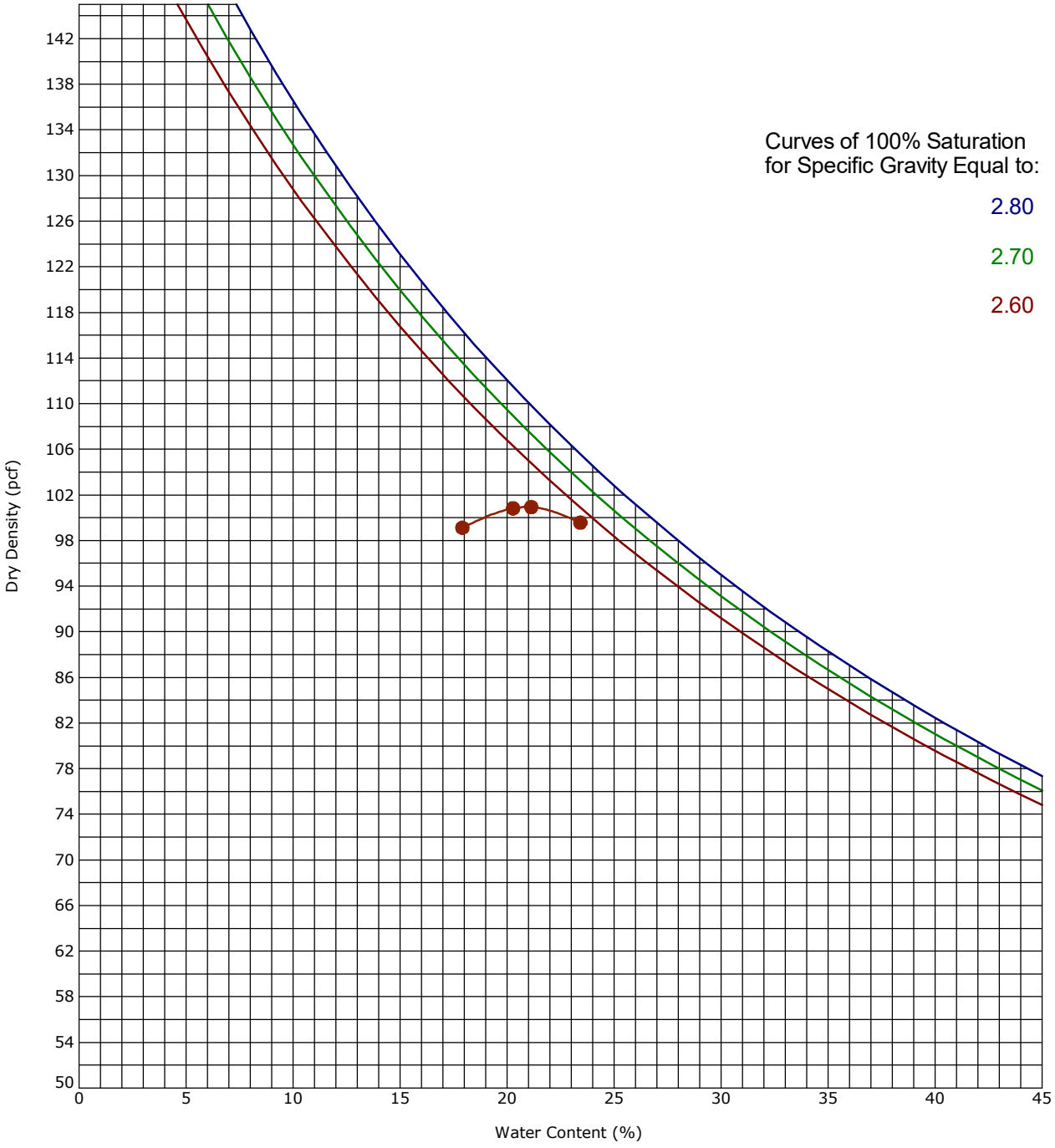
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-9	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	100.9	20.9

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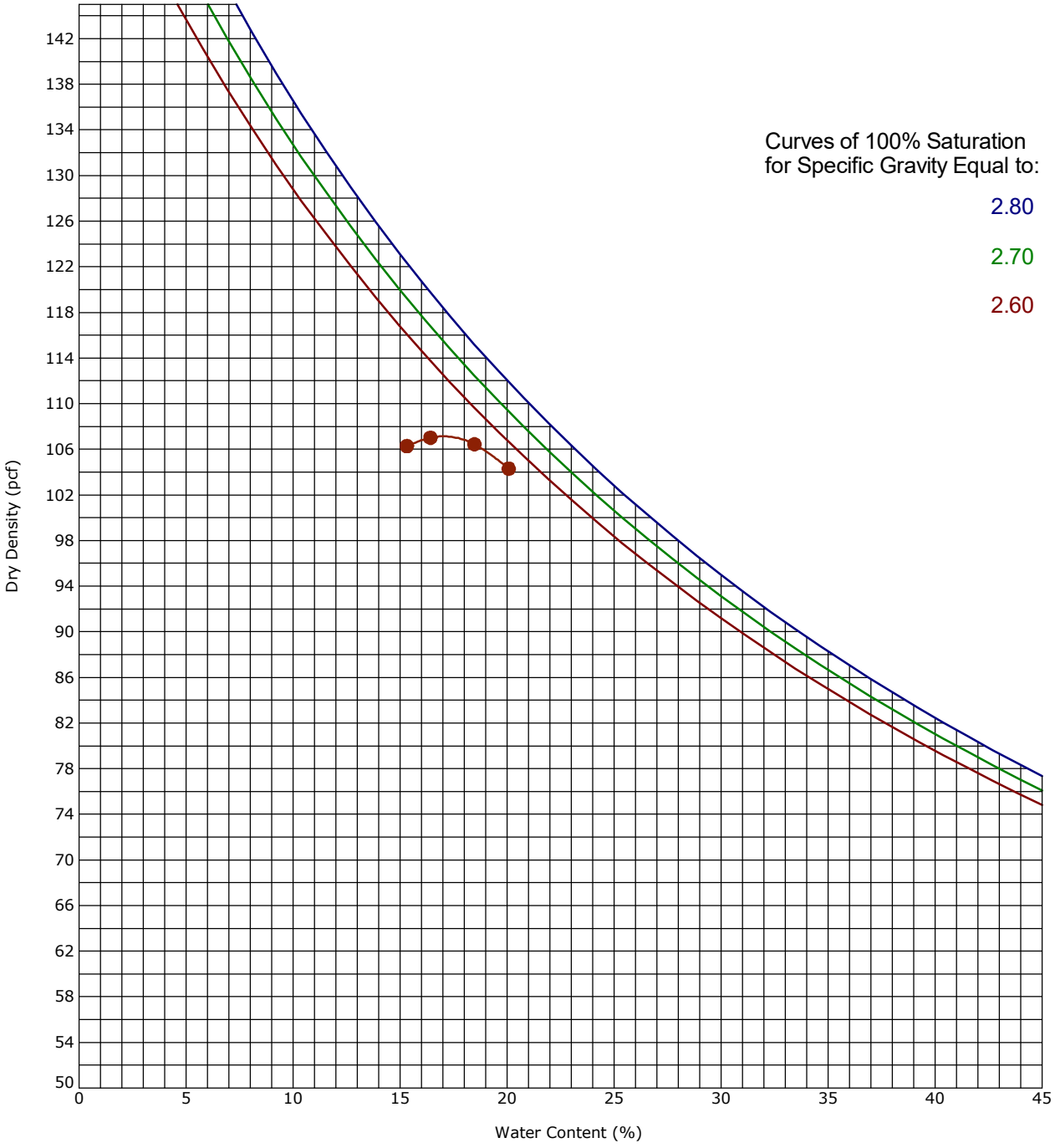
Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
ATP-11	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	107.1	17.1

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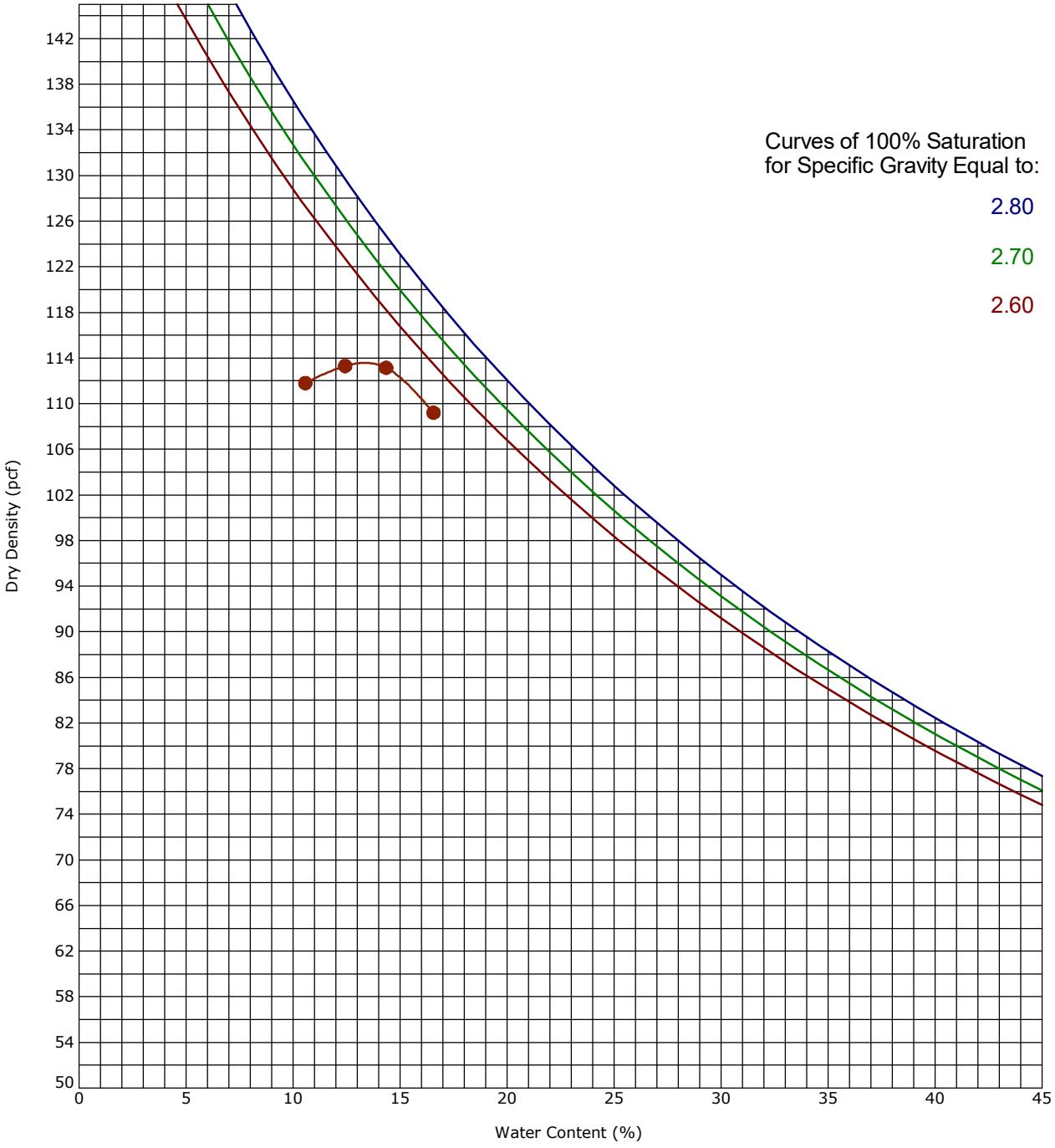
Moisture-Density Relationship

ASTM D698-Method B



Boring ID	Depth (Ft)	Description of Materials
ATP-12	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method B	113.6	13.3

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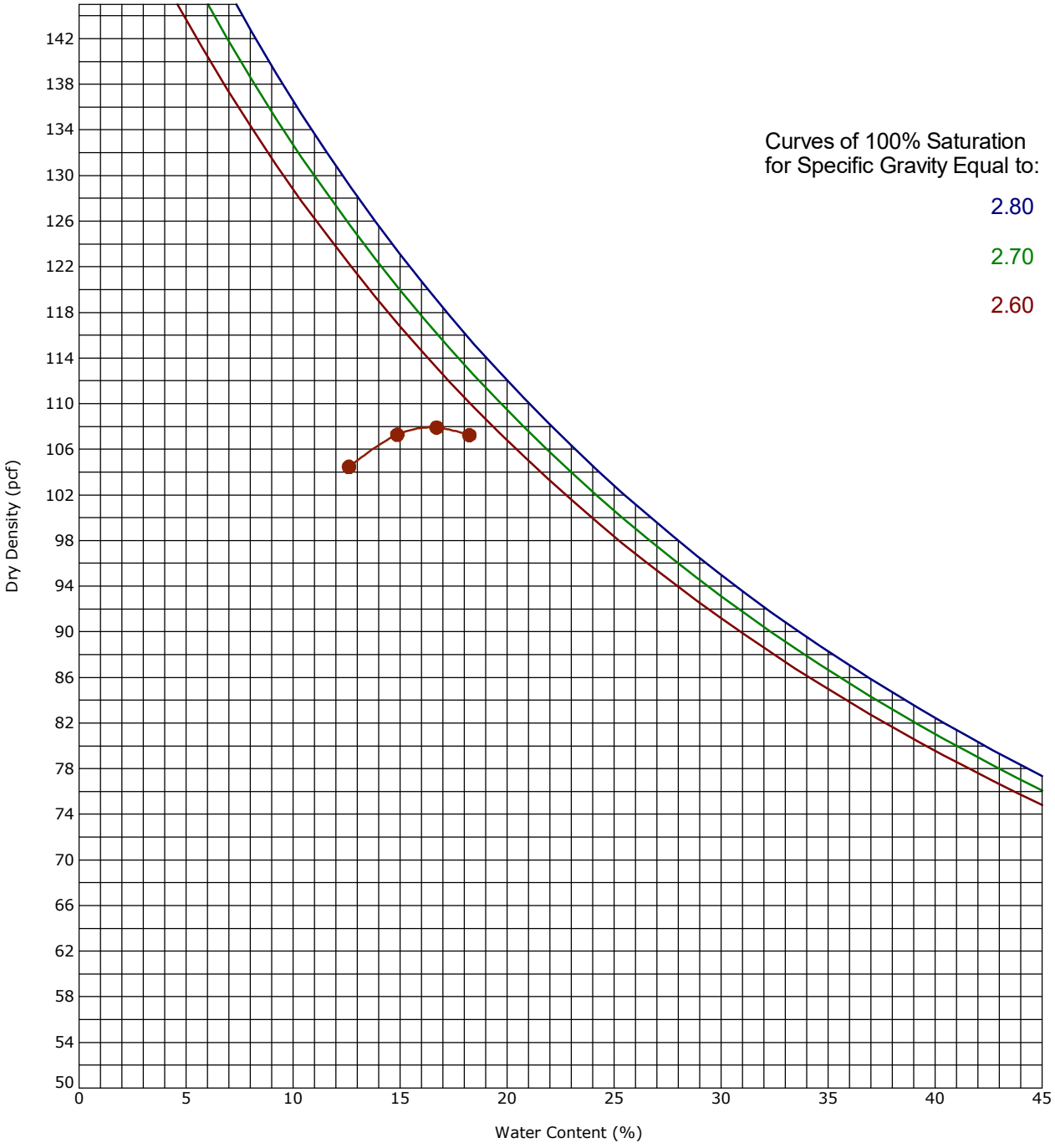
Moisture-Density Relationship

ASTM D698-Method B



Boring ID	Depth (Ft)	Description of Materials
ATP-14	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method B	107.9	16.4

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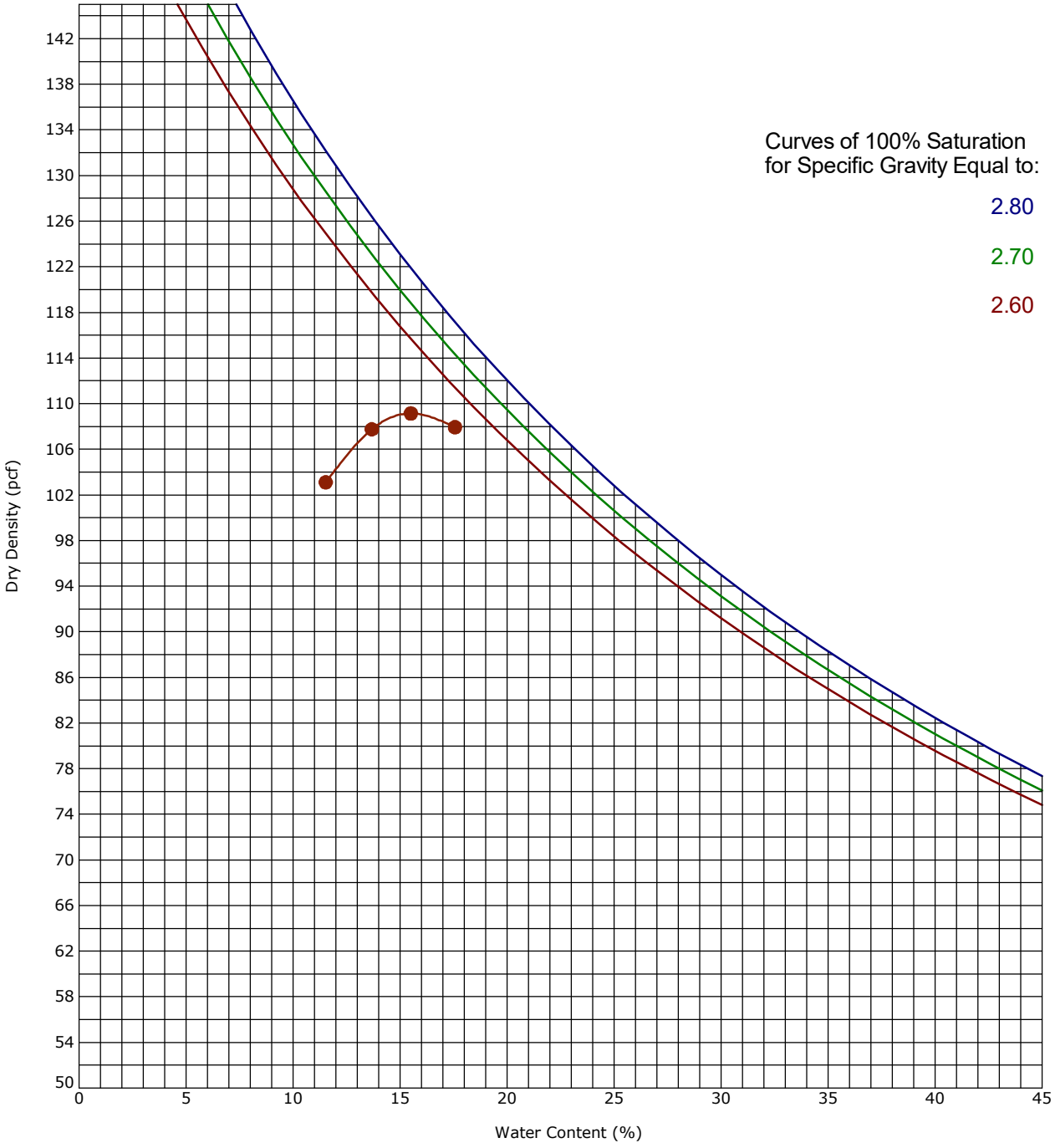
Moisture-Density Relationship

ASTM D698-Method B

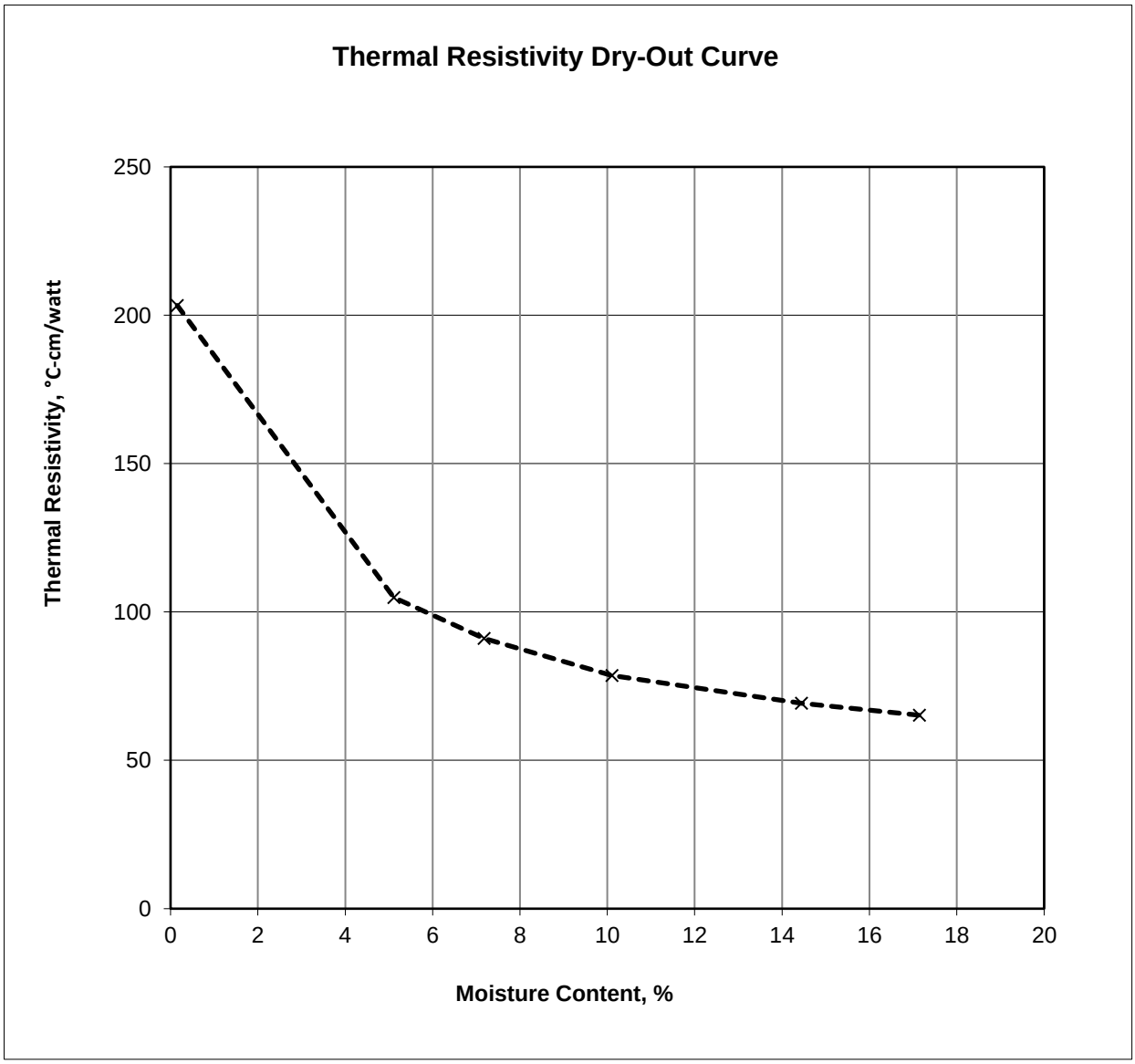


Boring ID	Depth (Ft)	Description of Materials
ATP-15	2 - 4	LEAN CLAY (CL)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method B	109.1	15.5

Project Name: Weirs Creek Solar
Project Number: N4245089
Sample ID: SB-1 Bulk (1-5')
Soil Type: LEAN CLAY WITH SAND
Standard/Modified Proctor: ASTM D 698-C
Max Dry Density, pcf: 104.5
Optimum Moisture Content, %: 16.0
Target % Compaction: 85
Sample Dry Density, pcf: 89
Sample % Compaction: 85

Thermal Resistivity Test Results		
Moisture Content (%)	**Thermal Resistivity (°C-cm/watt)**	**Temperature (°C)**
0.2	203	22.6
5.1	105	23.3
7.2	91	22.6
10.1	79	23.8
14.4	69	18.8
17.1	65	23.8

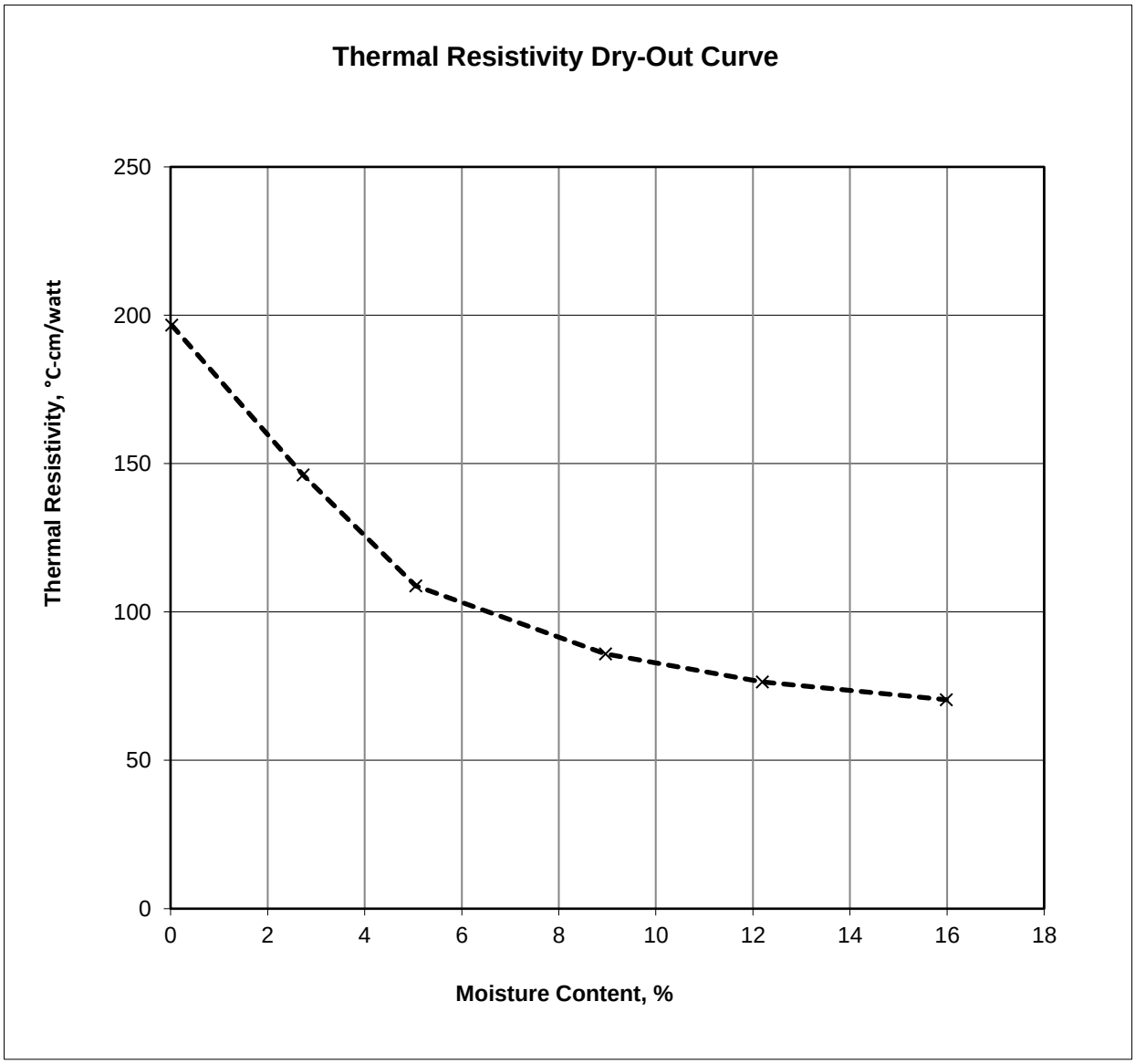


Date: 5-29-24 | Run By: JMR | Reviewed By: MTR

Terracon
800 Morison Rd.,
Columbus, OH 43230

Project Name: Weirs Creek Solar
Project Number: N4245089
Sample ID: SB-5 Bulk (1-5')
Soil Type: SANDY LEAN CLAY
Standard/Modified Proctor: ASTM D 698-C
Max Dry Density, pcf: 105.0
Optimum Moisture Content, %: 15.7
Target % Compaction: 85
Sample Dry Density, pcf: 89
Sample % Compaction: 85

Thermal Resistivity Test Results		
Moisture Content (%)	Thermal Resistivity (°C-cm/watt)	Temperature (°C)
0.0	197	24.2
2.7	146	21.4
5.1	109	22.3
9.0	86	24.5
12.2	76	17.3
16.0	70	23.9

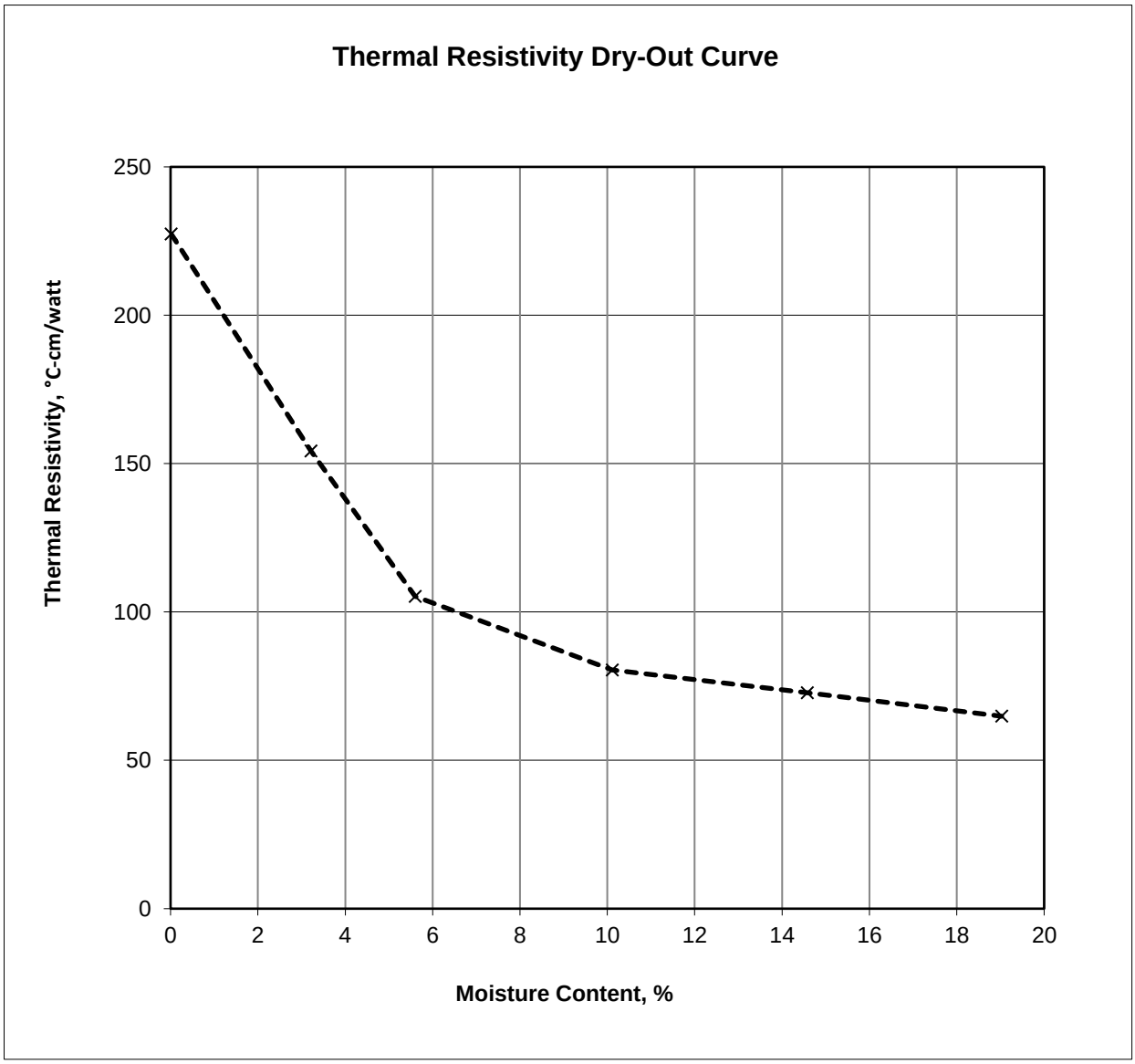


Date: 5-29-24 | Run By: JMR | Reviewed By: MTR

Terracon
800 Morison Rd.,
Columbus, OH 43230

Project Name: Weirs Creek Solar
Project Number: N4245089
Sample ID: SB-14 Bulk (1-5')
Soil Type: SANDY LEAN CLAY
Standard/Modified Proctor: ASTM D 698-C
Max Dry Density, pcf: 104.1
Optimum Moisture Content, %: 17.1
Target % Compaction: 85
Sample Dry Density, pcf: 88
Sample % Compaction: 85

Thermal Resistivity Test Results		
Moisture Content (%)	Thermal Resistivity (°C-cm/watt)	Temperature (°C)
0.0	227	24.1
3.2	154	20.1
5.6	105	20.9
10.1	80	24.7
14.6	73	18.5
19.0	65	24.4

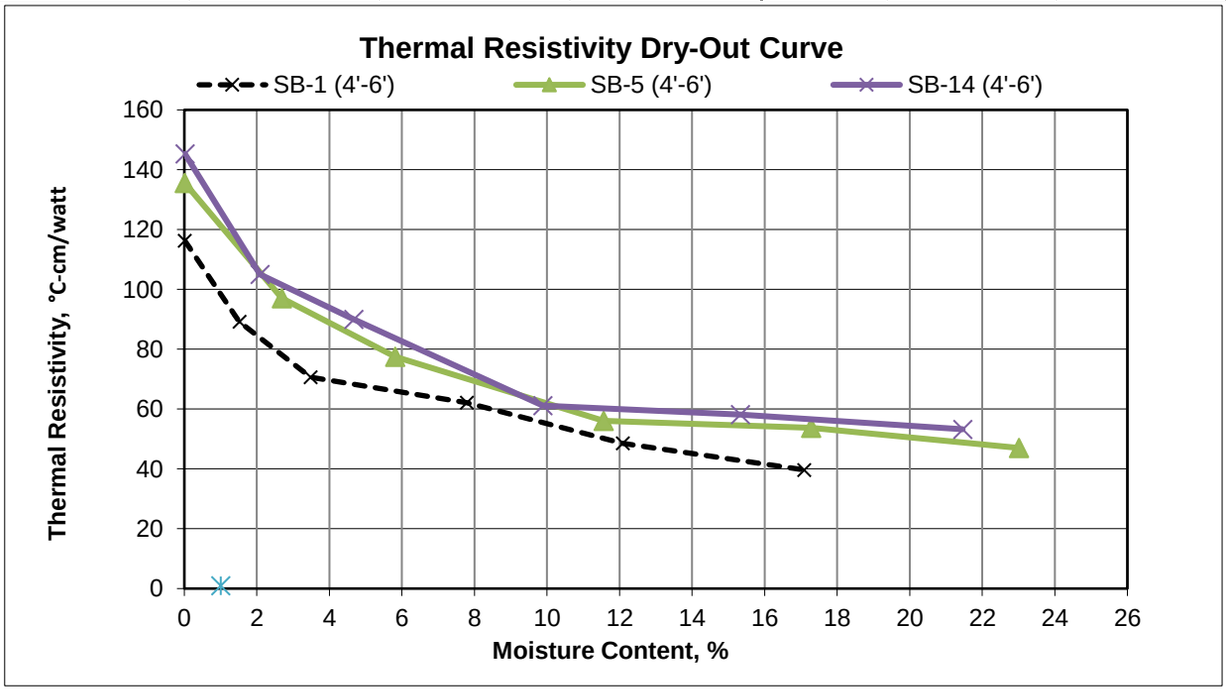


Date: 5-29-24 | Run By: JMR | Reviewed By: MTR

Terracon
800 Morison Rd.,
Columbus, OH 43230

Project Name: Weirs Creek Solar
Project Number: N4245089

Sample ID	Soil Type	In-situ Dry Density (pcf)	In-situ Moisture Content (%)	Thermal Resistivity Test Results		
				Moisture Content (%)	Thermal Resistivity (°C-cm/watt)	Temperature (°C)
SB-1 (4'-6')	LEAN CLAY with sand (CL)	100.1	17.1	0.0	116	22.5
				1.5	89	18.0
				3.5	71	24.3
				7.8	62	23.0
				12.1	49	22.1
				17.1	40	22.3
SB-5 (4'-6')	SILT (ML)	92.8	23.0	0.0	136	23.8
				2.7	97	18.2
				5.8	78	24.6
				11.6	56	19.5
				17.3	54	23.4
				23.0	47	22.5
SB-14 (4'-6')	SANDY SILTY CLAY (CL-ML)	95.0	21.4	0.0	145	23.9
				2.1	105	18.1
				4.7	90	23.6
				9.9	61	23.2
				15.3	58	21.0
				21.5	53	22.0



Date: 5/30/2024 | Run By: JMR | Reviewed By: MTR

Terracon
800 Morison Rd.,
Columbus, OH 43230

21239 FM529 Rd., Bldg. F
Cypress, TX 77433
Tel: 281-985-9344
Fax: 832-427-1752
info@geothermusa.com
http://www.geothermusa.com

July 5, 2023

Terracon
13050 Eastgate Parkwy, Suite 101
Louisville, KY 40223
Attn: Rocky Shang, Ph.D., P.E., M. ASCE

Re: Thermal Analysis of Native Soil Samples
Weirs Creek Solar – Providence, KY (Project No. 57235034)

The following is the report of thermal dryout characterization tests conducted on thirteen (13) native soil samples from the referenced project sent to our laboratory.

Thermal Resistivity Tests: The samples were tested at the 'optimum' moisture content and 95% of the standard Proctor dry density ***provided by Terracon***. The tests were conducted in accordance with the IEEE standard 442-2017. The results are tabulated below and the thermal dryout curves are presented in **Figures 1 to 13.**

Sample ID, Description, Thermal Resistivity, Moisture Content and Density

Sample ID	Depth (ft)	Effort (%)	Description (Terracon)	Thermal Resistivity (°C-cm/W)		Moisture Content (%)	Dry Density (lb/ft^3)
				Wet	Dry		
ATP-2	2-4	95	Yellow brown lean clay	74	158	16.3	104.4
ATP-3	2-4	95	Yellow brown lean clay	67	163	18.5	101.8
ATP-4	2-4	95	Yellow brown lean clay	75	164	18.0	106.8
ATP-6	2-4	95	Yellow brown lean clay	73	176	18.2	106.2
ATP-7	2-4	95	Yellow brown lean clay	71	173	13.6	106.4
ATP-8	2-4	95	Yellow brown lean clay	73	166	15.8	108.2
ATP-9	2-4	95	Yellow brown lean clay	72	160	20.9	100.9
ATP-11	2-4	95	Yellow brown lean clay	68	164	17.0	107.1

Sample ID, Description, Thermal Resistivity, Moisture Content and Density

Sample ID	Depth (ft)	Effort (%)	Description (Terracon)	Thermal Resistivity (°C-cm/W)		Moisture Content (%)	Dry Density (lb/ft^3)
				Wet	Dry		
ATP-12	4-6	95	Yellow brown lean clay	66	171	13.3	113.6
ATP-14	2-4	95	Yellow brown lean clay	65	168	16.4	107.9
ATP-15	2-4	95	Yellow brown lean clay	67	154	15.5	109.1
Sub-1	2-4	95	Yellow brown lean clay	64	163	18.5	104.6
Sub-2	2-4	95	Yellow brown lean clay	71	159	20.3	100.3

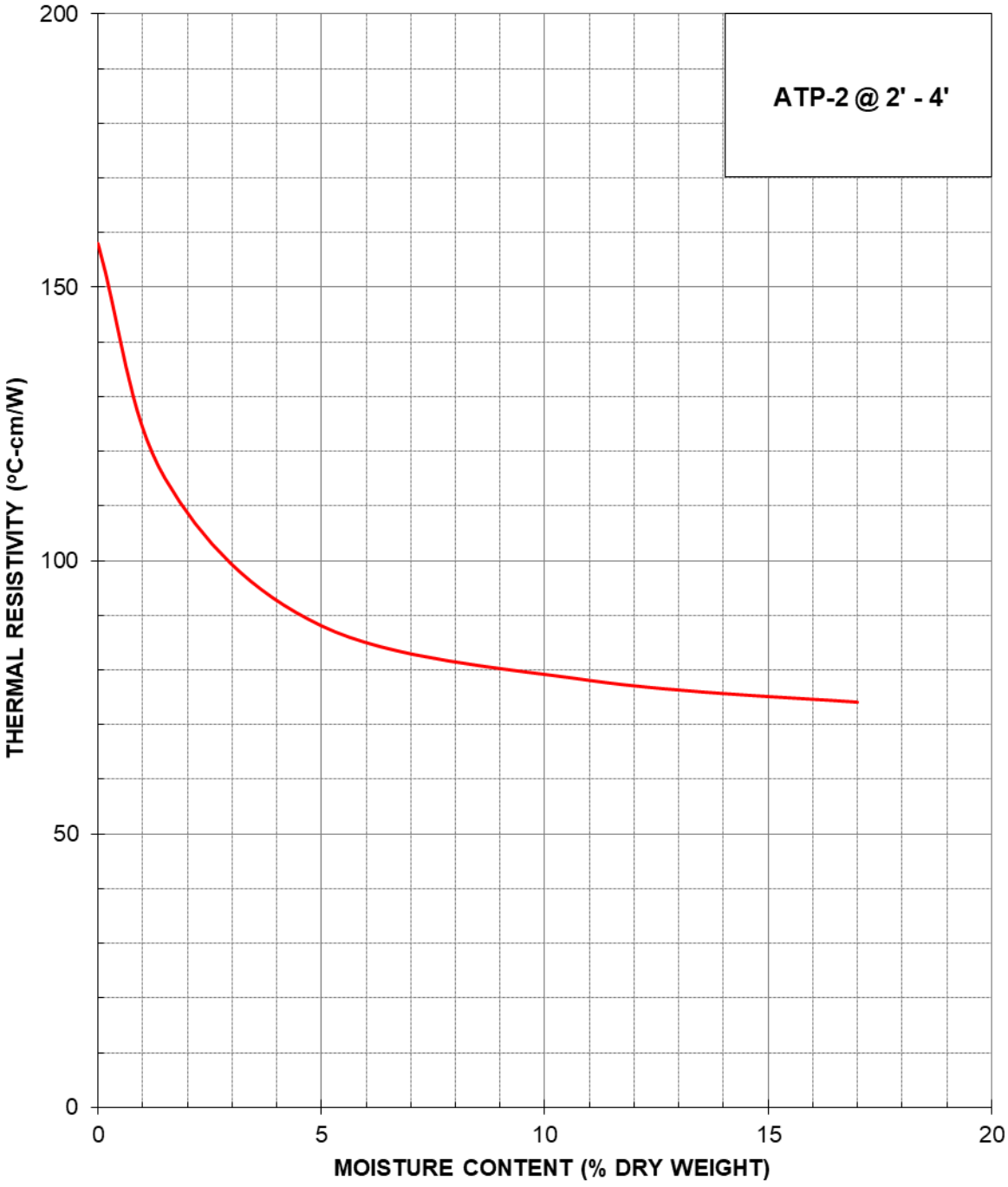
Comments: The thermal characteristic depicted in the dryout curves apply for the soils at their respective test dry density.

Please contact us if you have any questions or if we can be of further assistance.

Geotherm USA

Nimesh Patel

THERMAL DRYOUT CURVE



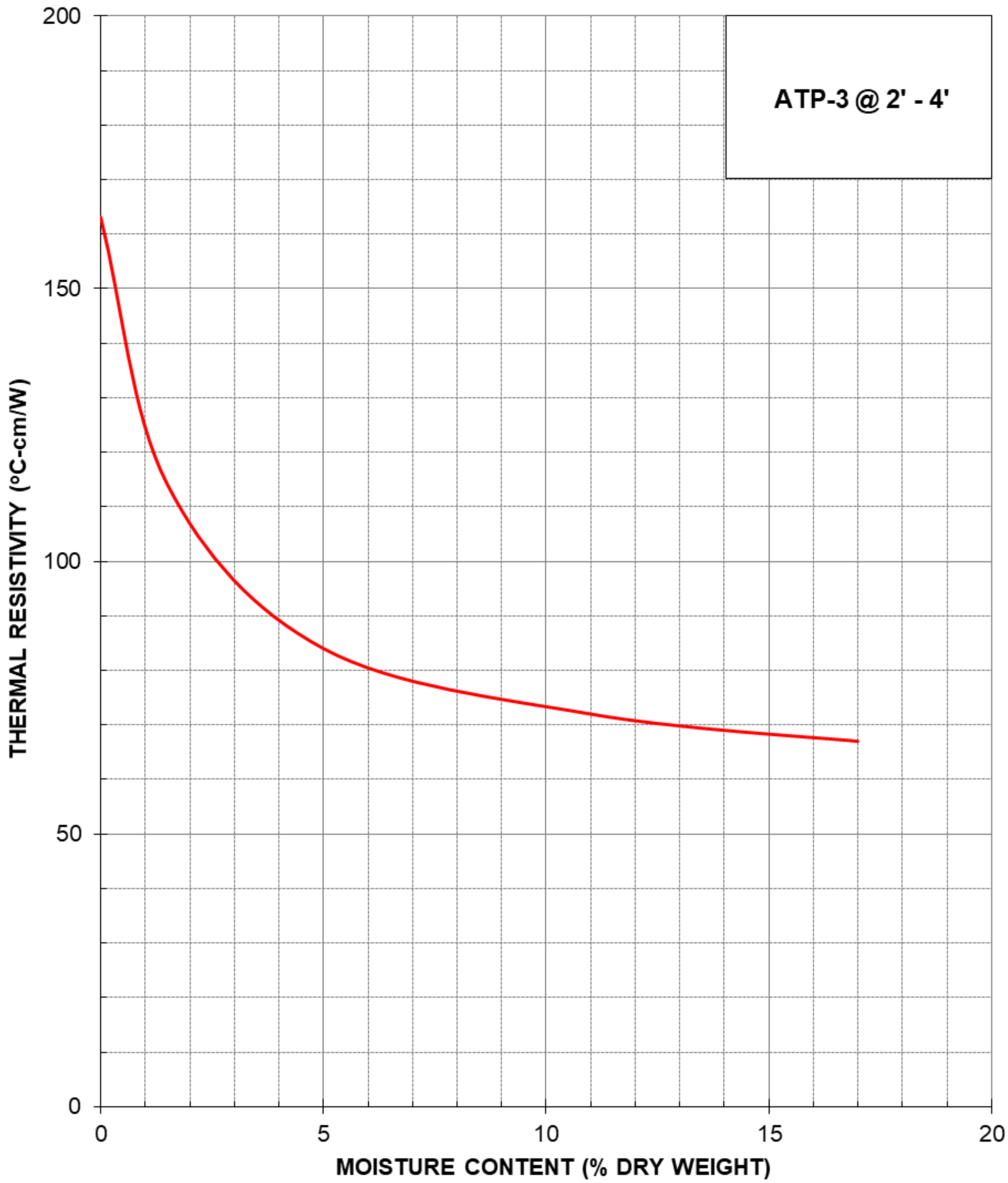
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 1**

THERMAL DRYOUT CURVE



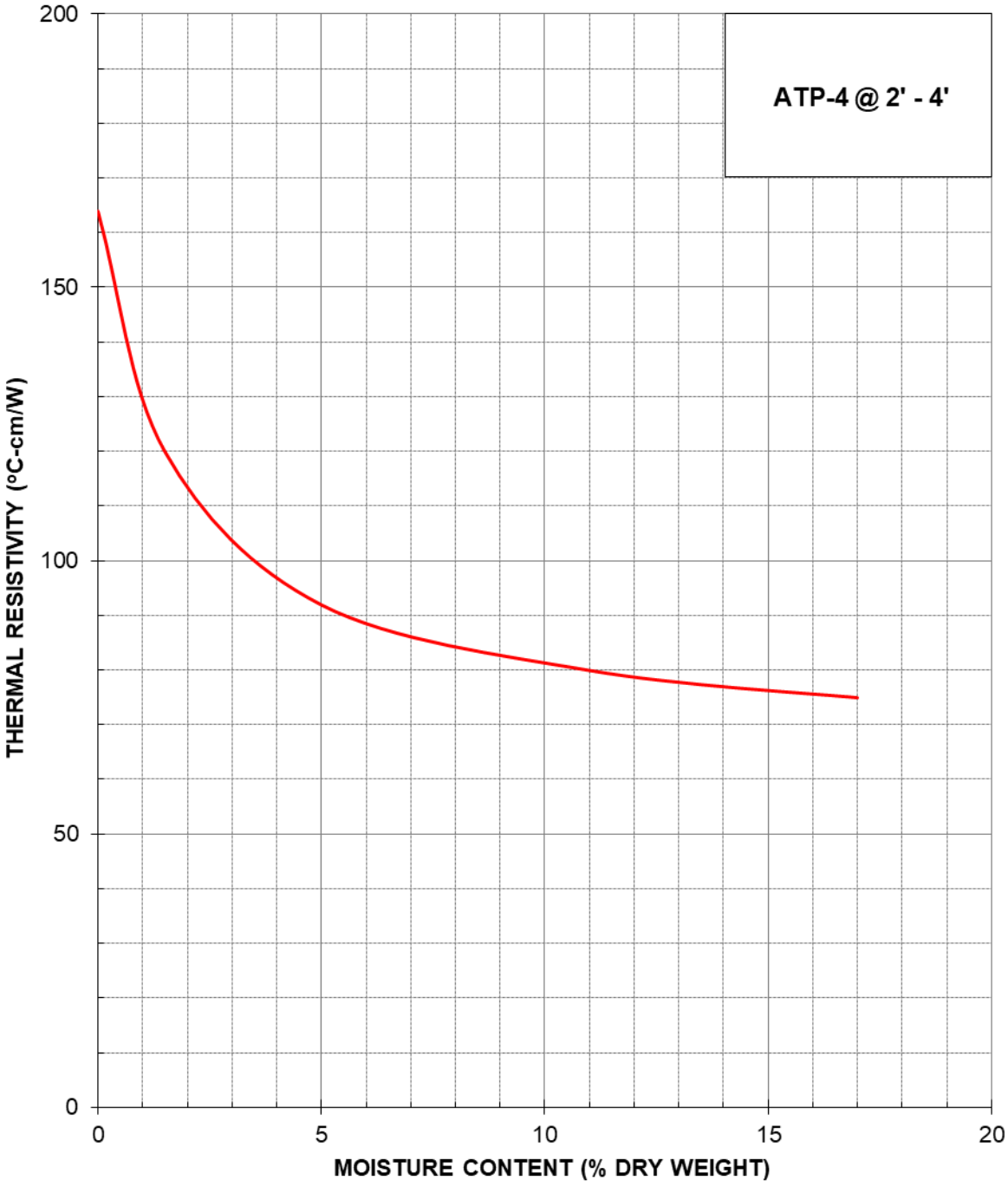
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 2**

THERMAL DRYOUT CURVE



Terracon (Project No. 57235034)

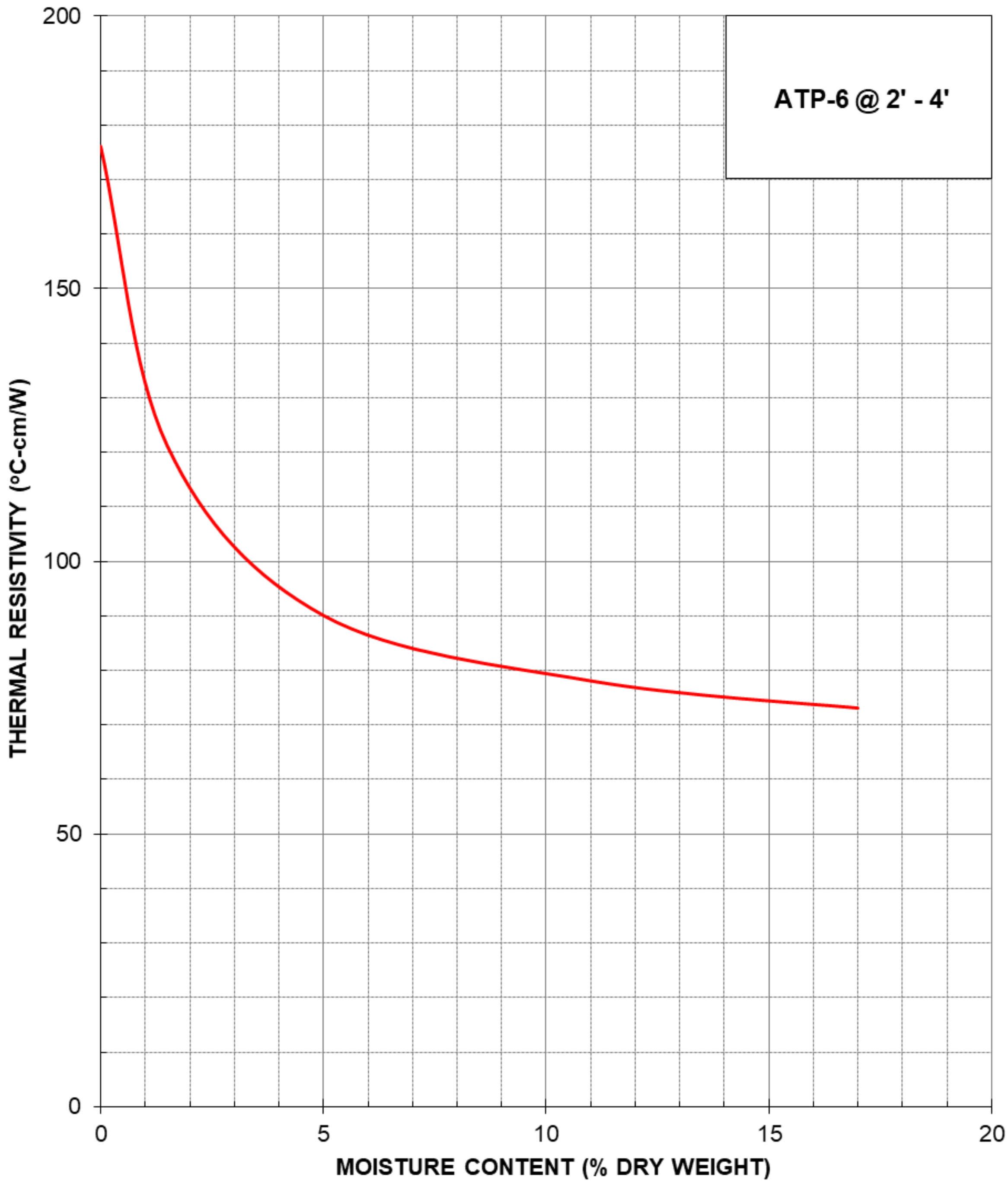
Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 3**

Geotherm USA

THERMAL DRYOUT CURVE



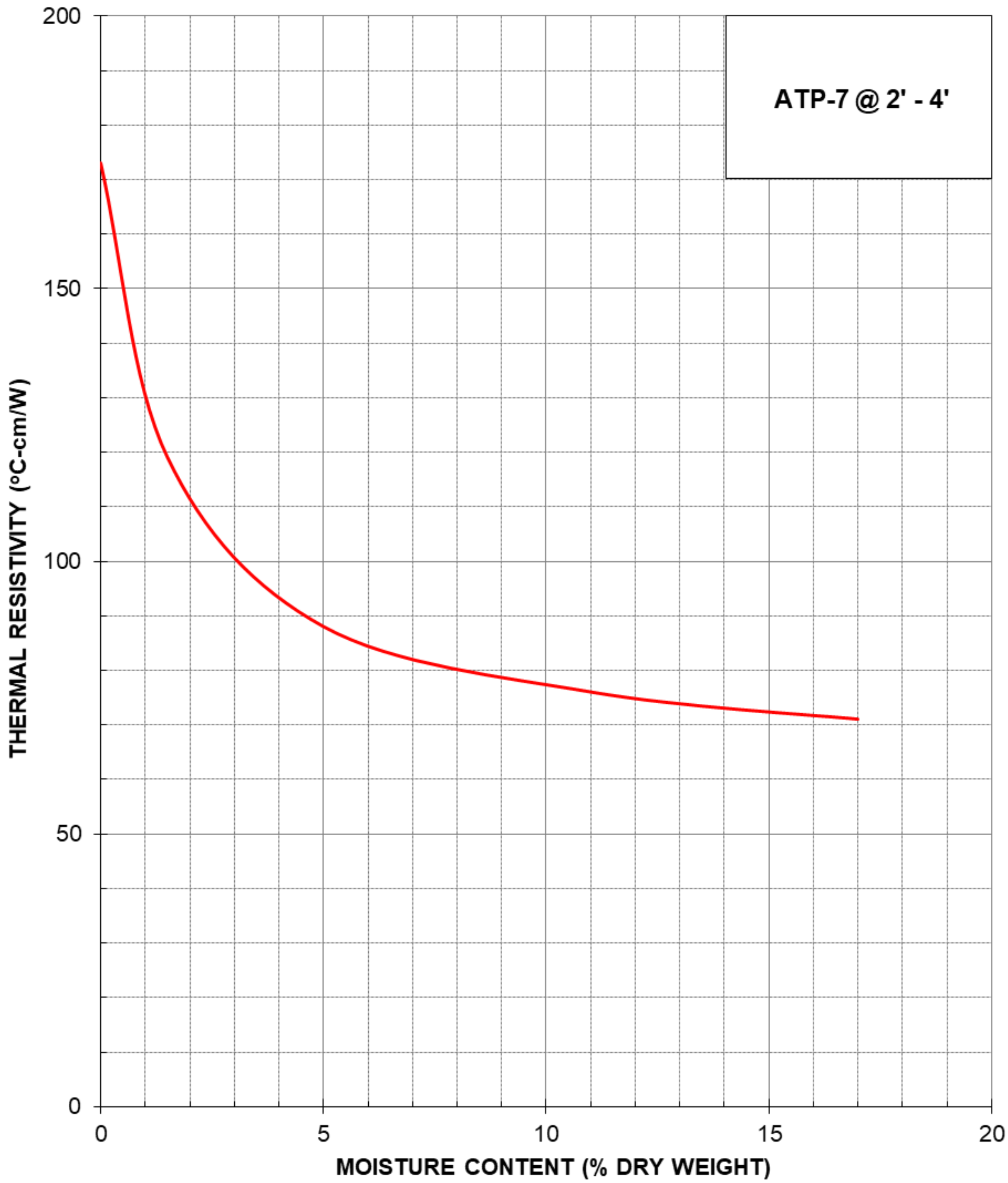
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 4**

THERMAL DRYOUT CURVE



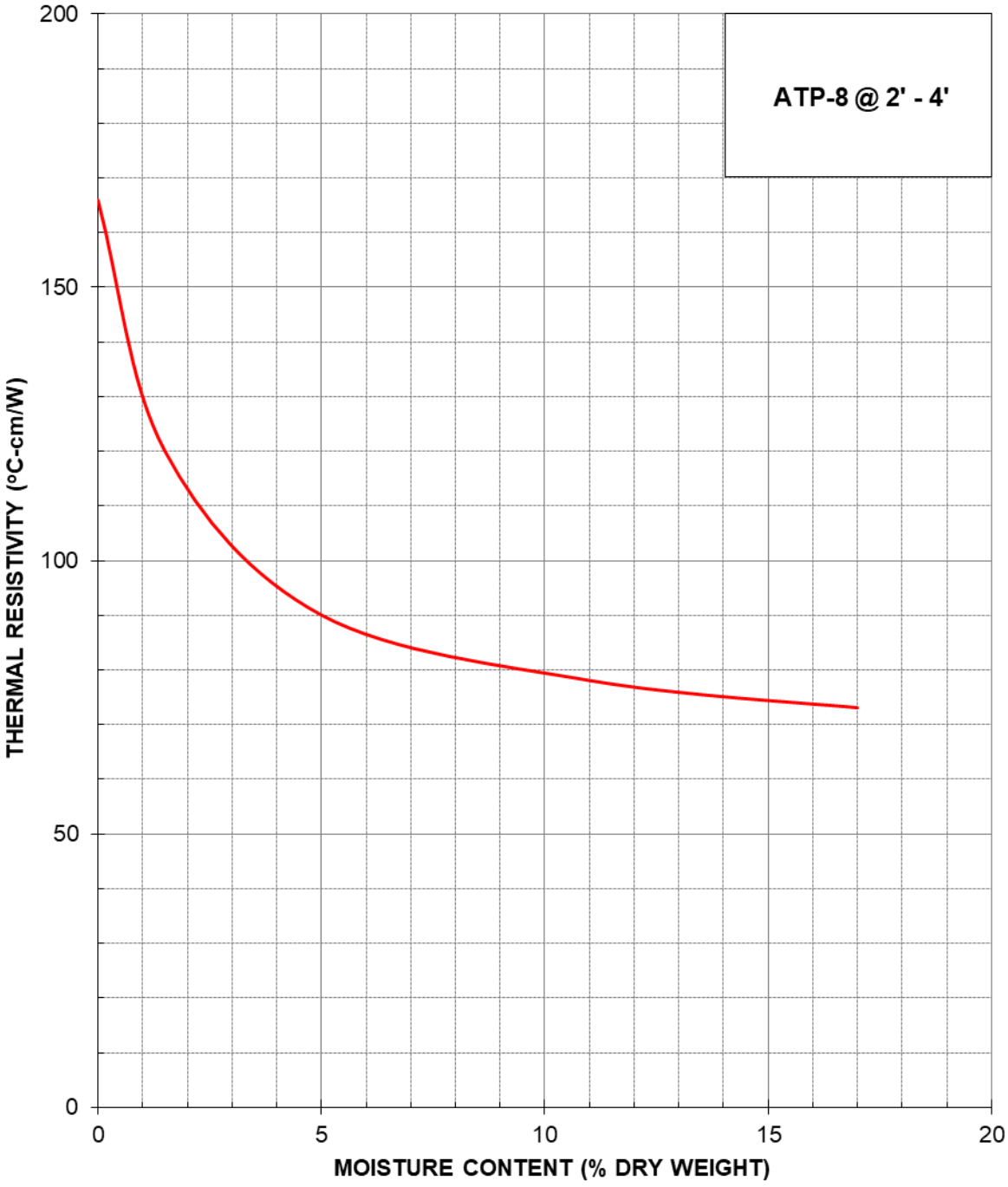
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 5**

THERMAL DRYOUT CURVE



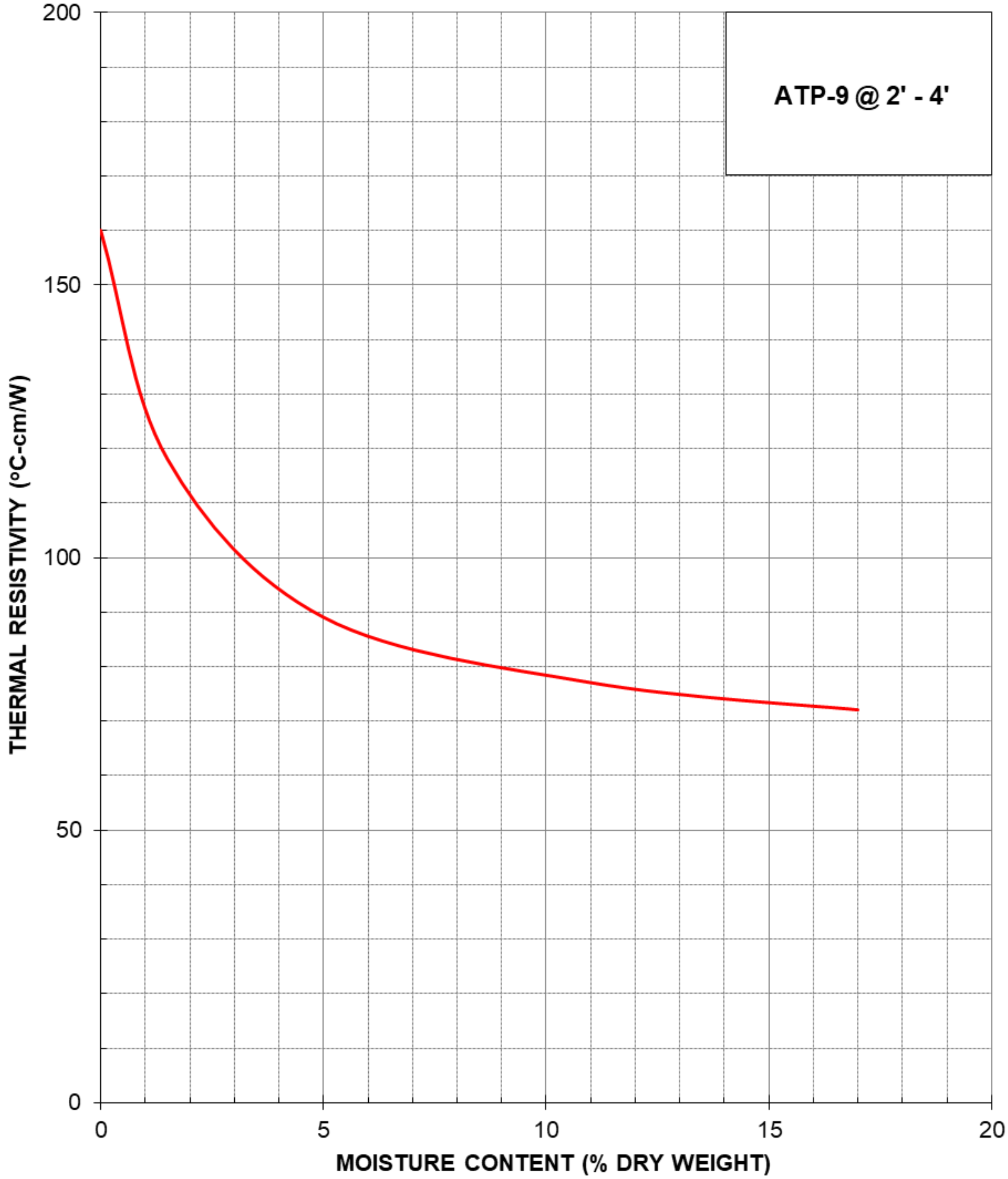
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 6**

THERMAL DRYOUT CURVE

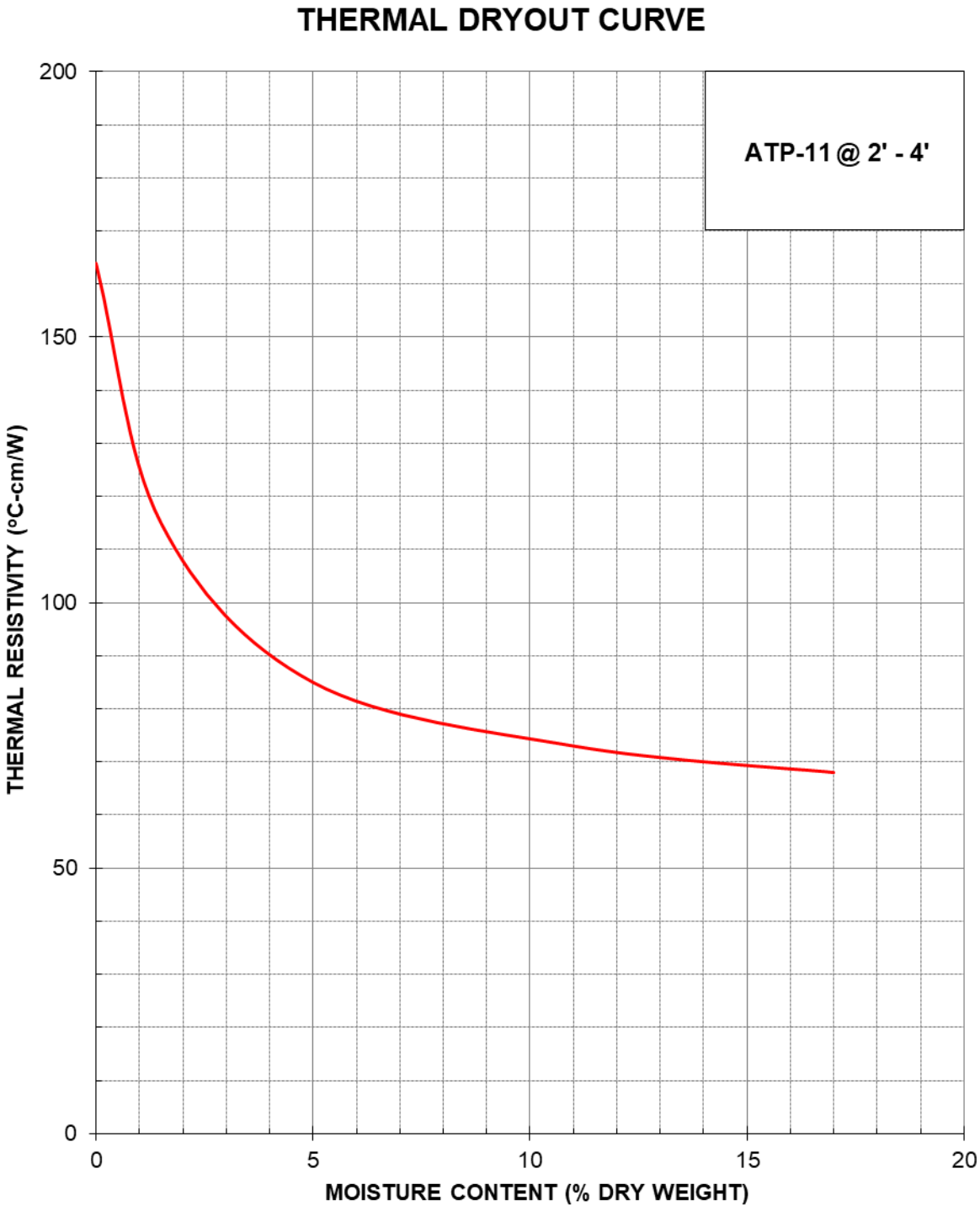


Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 7**



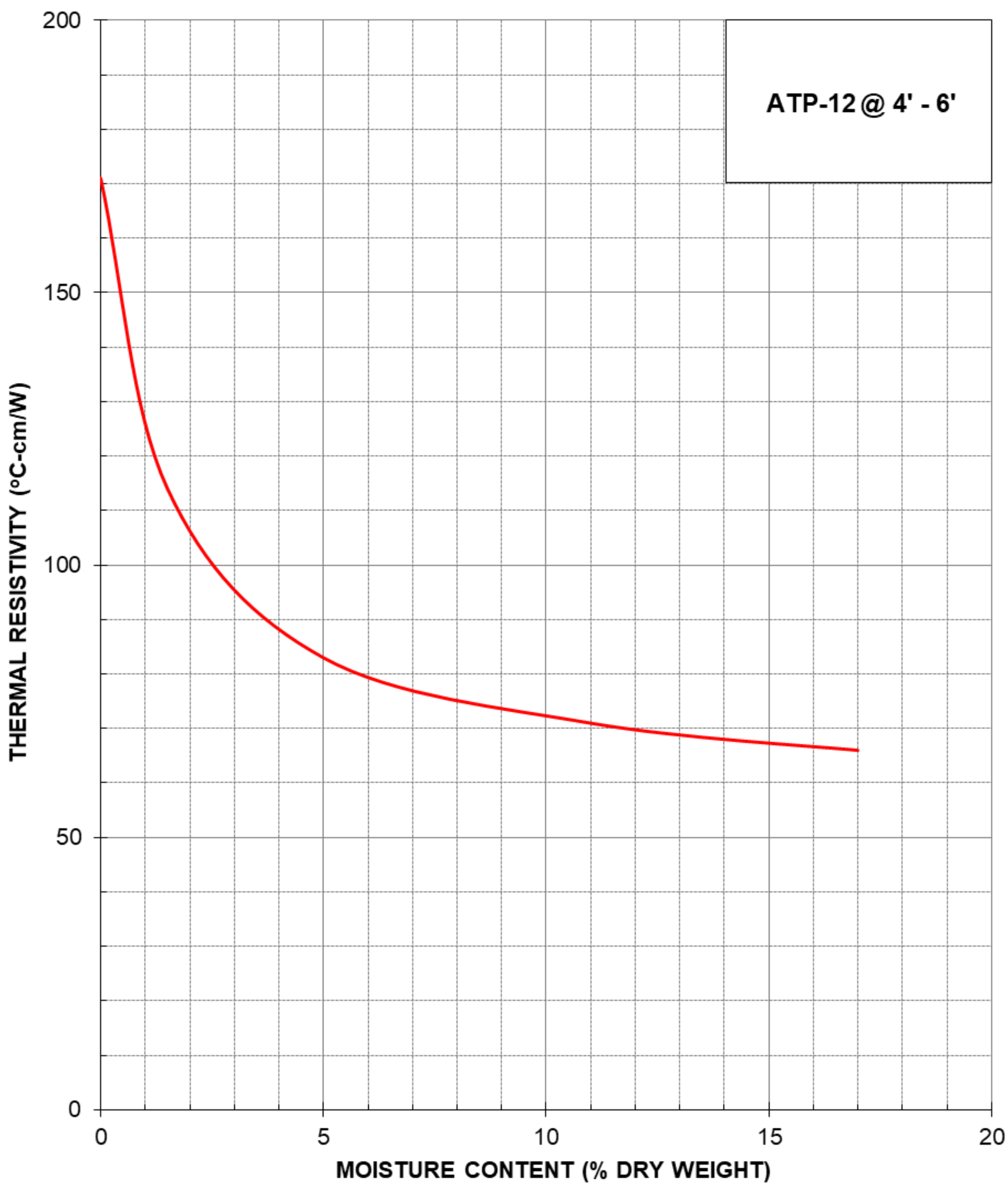
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 8**

THERMAL DRYOUT CURVE

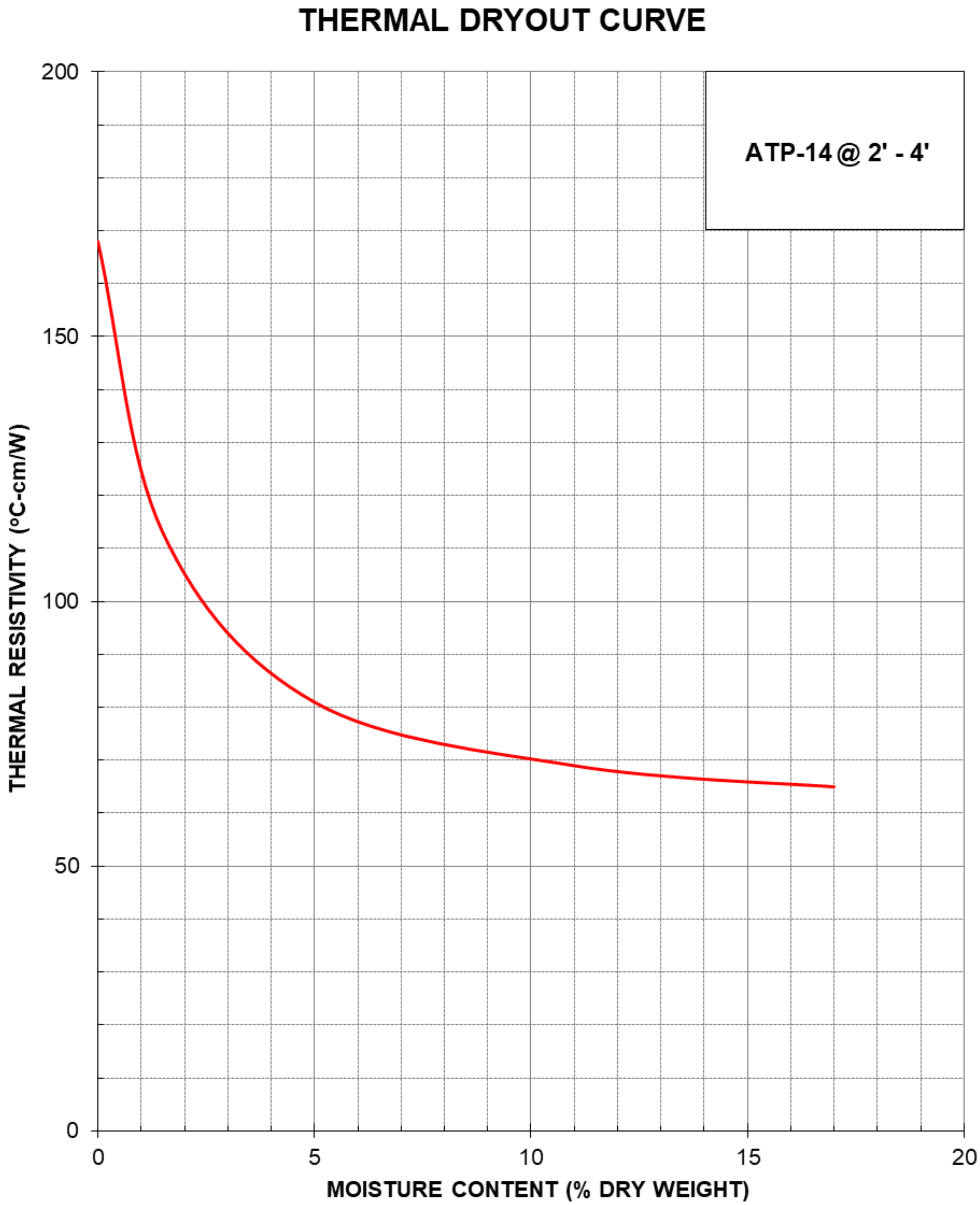


Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 9**



Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 10**

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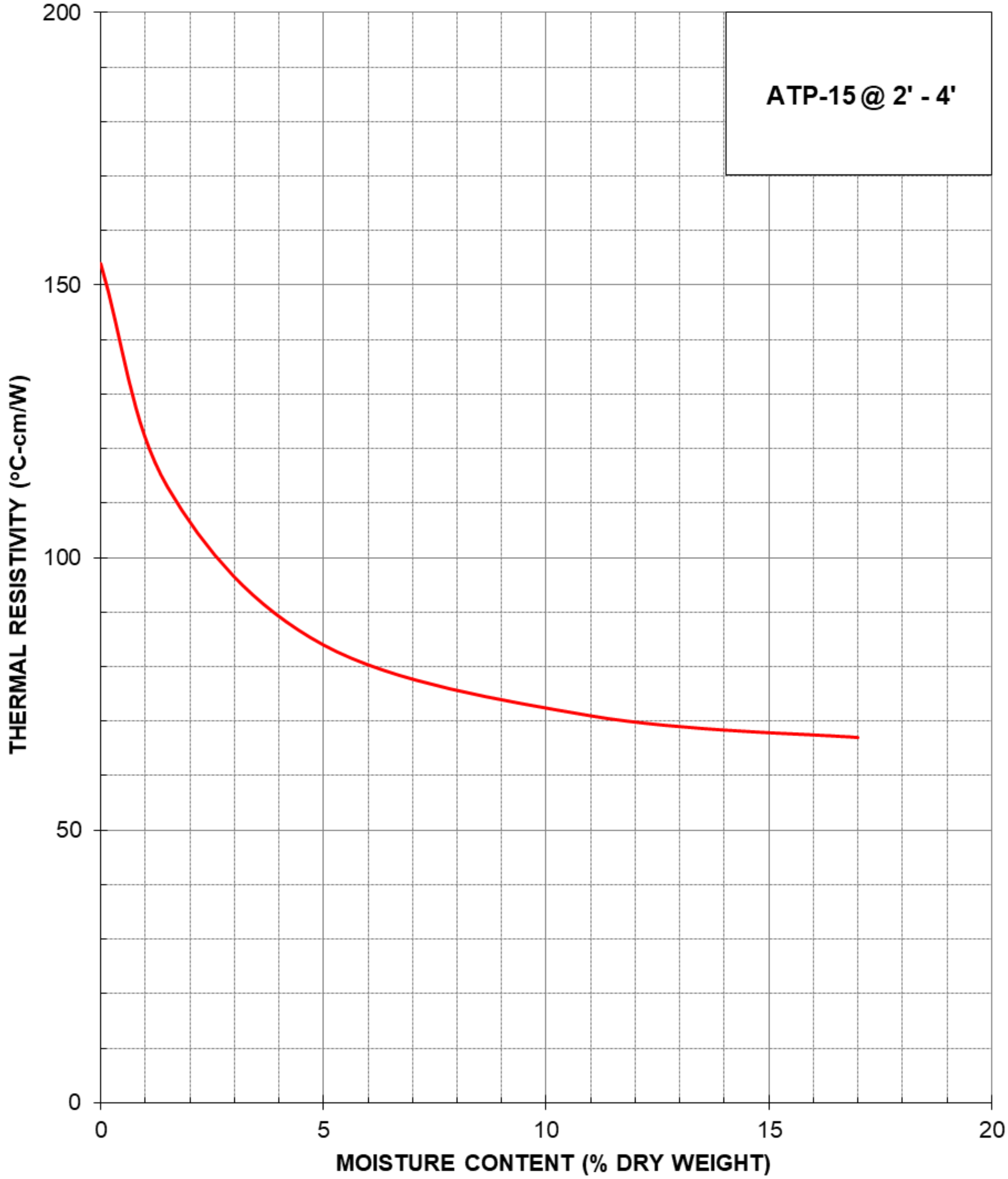
THERMAL DRYOUT CURVE



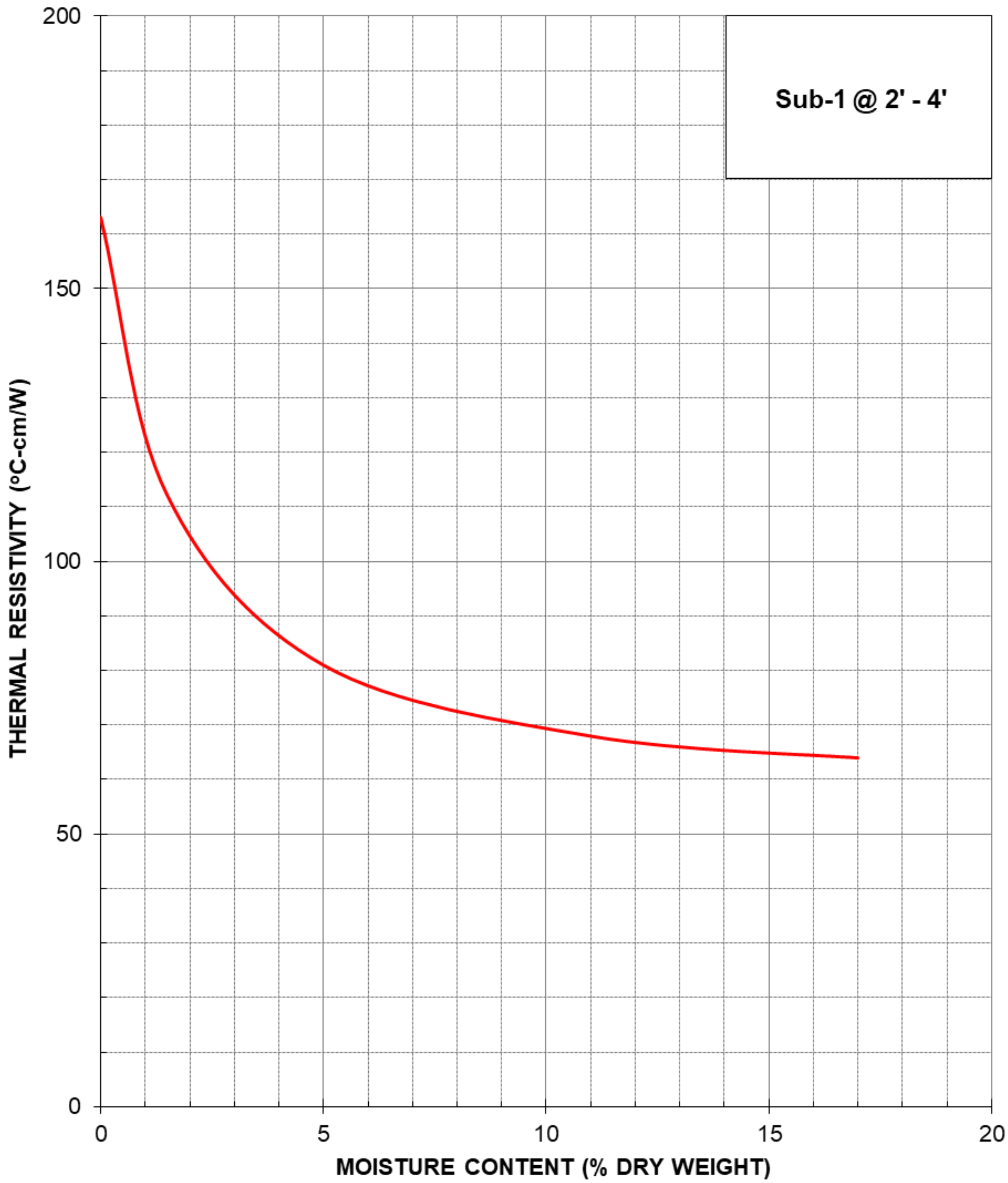
Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 11**

THERMAL DRYOUT CURVE

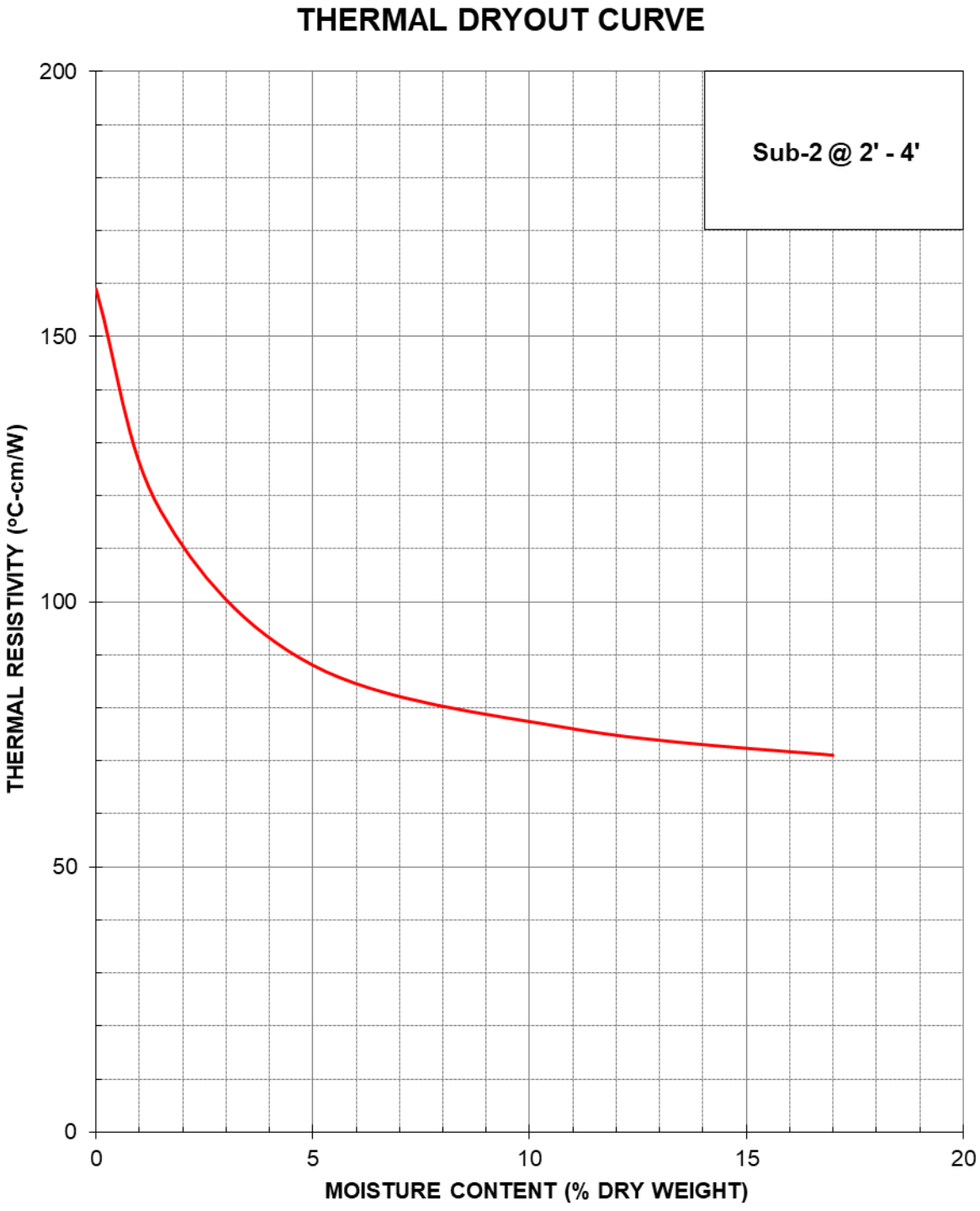


Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

July 2023 **Figure 12**



Terracon (Project No. 57235034)

Weirs Creek Solar – Providence, KY

Thermal Analysis of Native Soil Samples

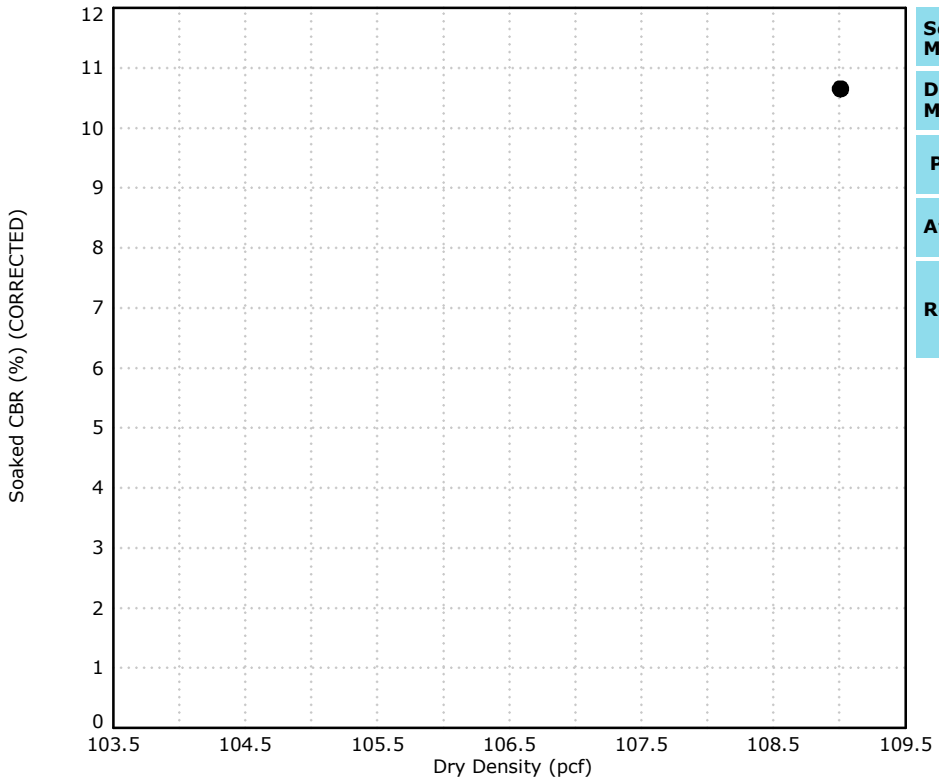
July 2023 **Figure 13**

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

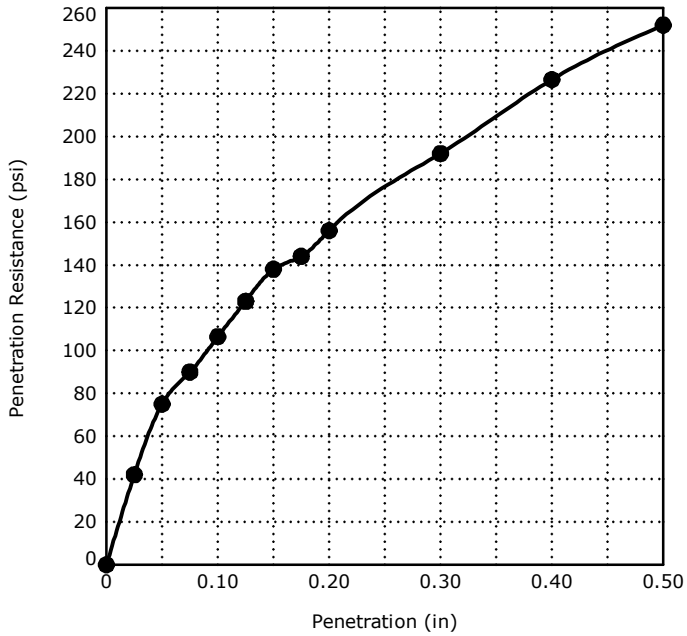
Terracon
800 Morrison Rd
Gahanna, OH

California Bearing Ratio

ASTM D1883-07[2]



Source of Material	SB-10 Bulk Sample 1.0
Description of Material	LEAN CLAY (CL)
Percent Fines	
Atterberg Limits	LL PL PI
Remarks:	



Sample No.	1
Sample Condition	Soaked
Compaction Method	ASTM 698C
Maximum Dry Density, (pcf)	107.9
Optimum Moisture Content, (%)	14.8
Dry Density before Soaking, (pcf)	109.01
Moisture Content, (%)	
After Compaction	15.1
Top 1" After Soaking	16.1
Surcharge, (lbs)	20.00
Swell, (%)	0.31
Bearing Ratio, (%)	10.7

Weirs Creek Solar
Nebo Road | Providence, KY
Terracon Project No. N4245089

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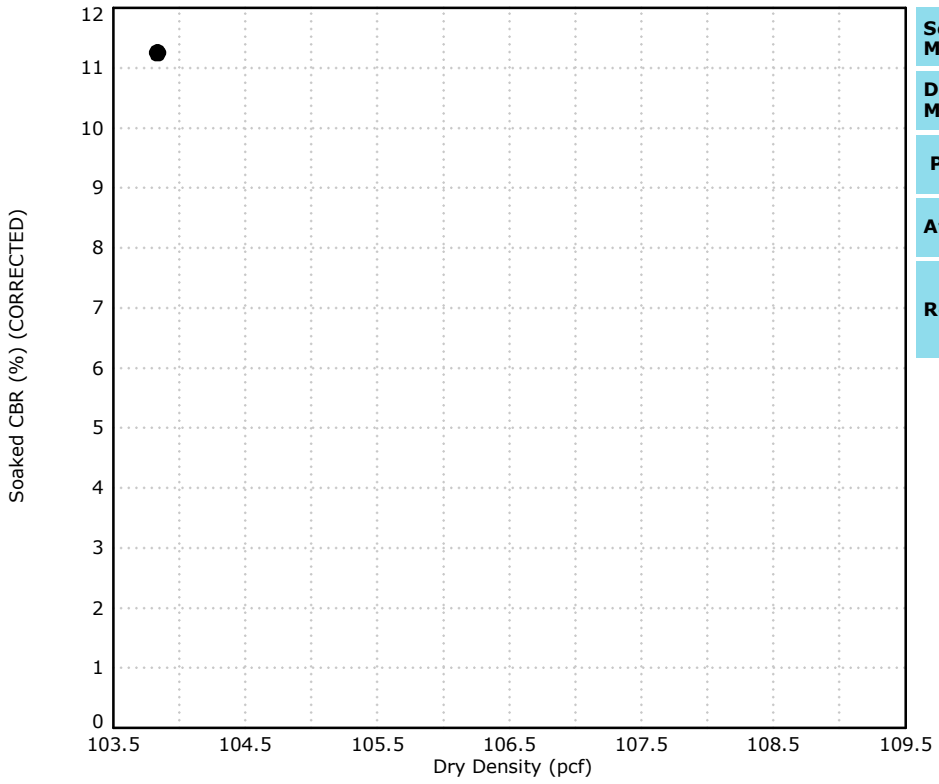
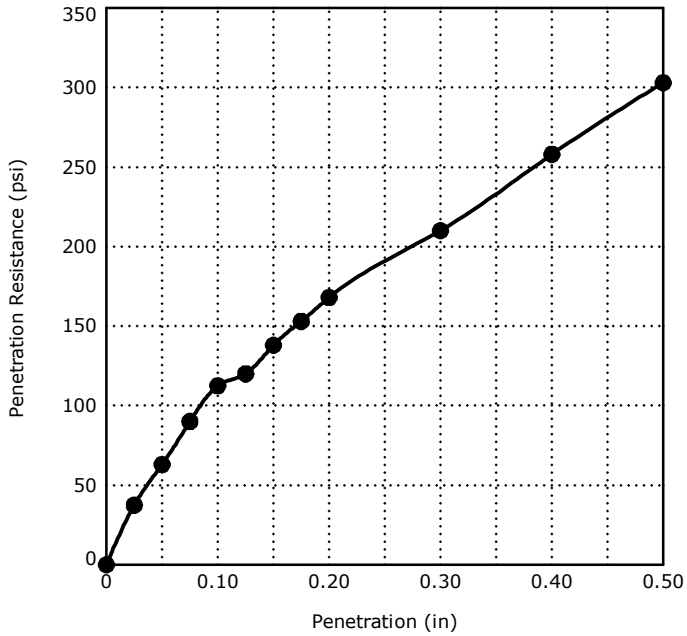
Gahanna, OH

California Bearing Ratio

ASTM D1883-07[2]



Source of Material	SB-14 Bulk Sample 1.0
Description of Material	SANDY LEAN CLAY (CL)
Percent Fines	
Atterberg Limits	LL PL PI
Remarks:	



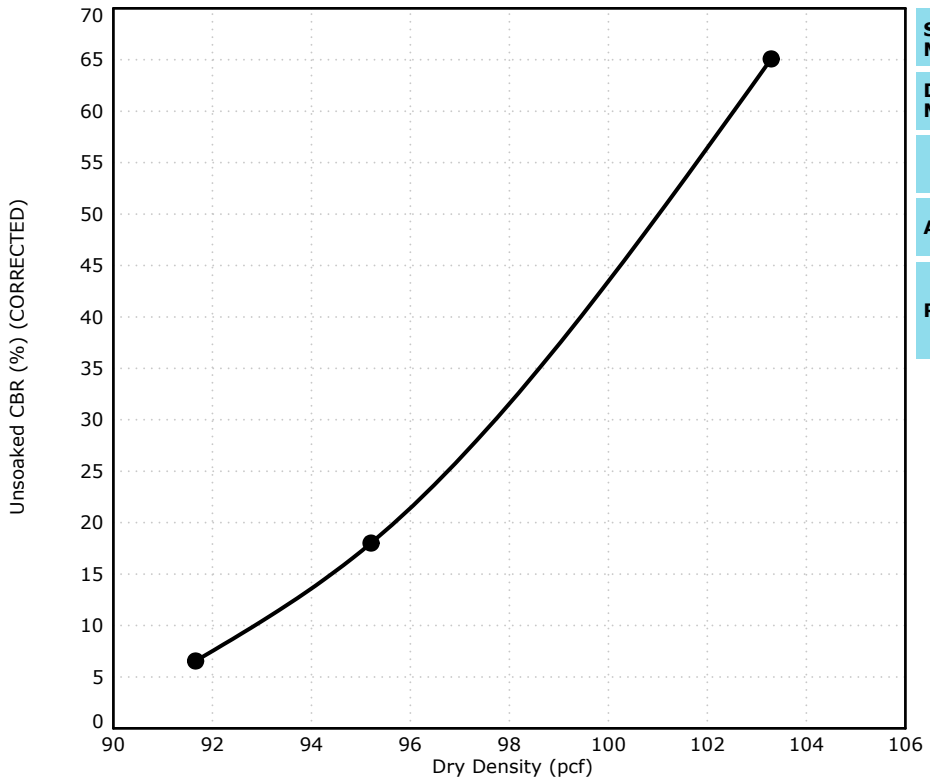
Sample No.	1
Sample Condition	Soaked
Compaction Method	ASTM 698C
Maximum Dry Density, (pcf)	104.1
Optimum Moisture Content, (%)	17.1
Dry Density before Soaking, (pcf)	103.83
Moisture Content, (%)	
After Compaction	16.3
Top 1" After Soaking	18.2
Surcharge, (lbs)	20.00
Swell, (%)	0.33
Bearing Ratio, (%)	11.3

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

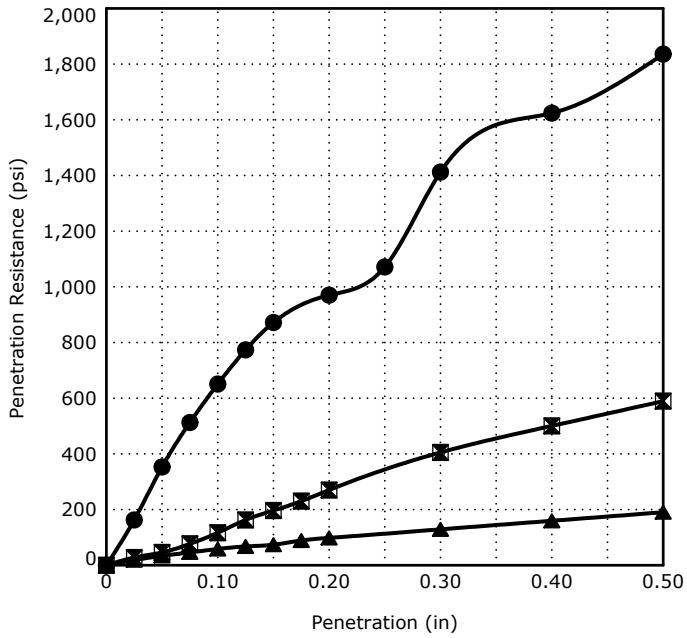
Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

California Bearing Ratio

ASTM D1883-07[2]



Source of Material	ATP-7 2.0
Description of Material	Lean Clay
Percent Fines	
Atterberg Limits	LL PL PI
Remarks:	Lean clay soil sample was taken from test pit without topsoil.



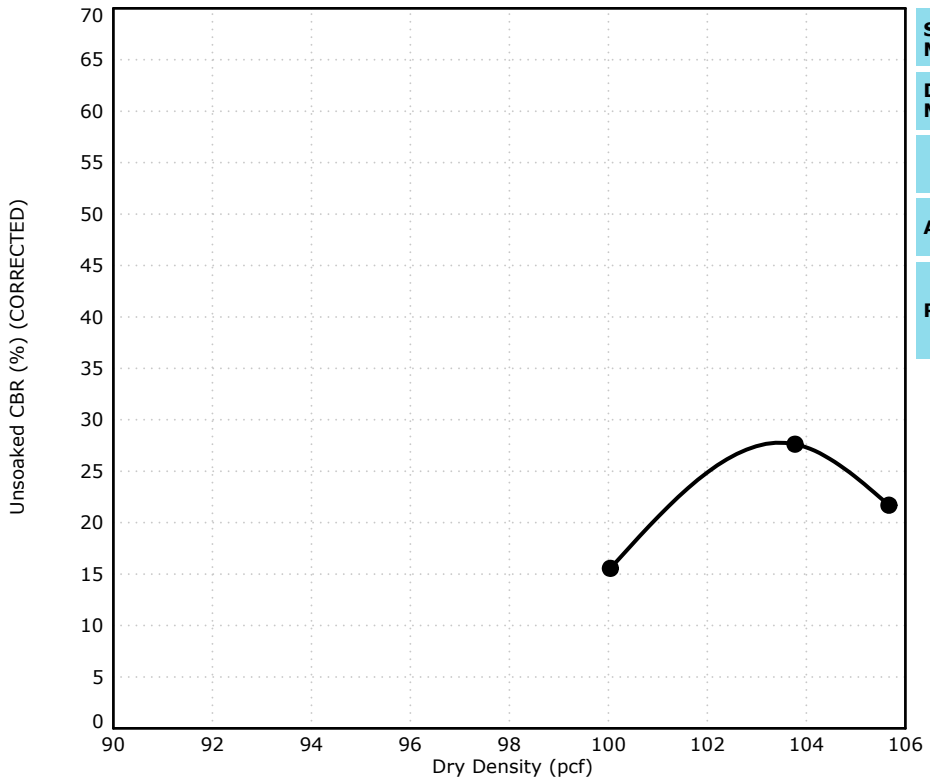
Sample No.	1
Sample Condition	Soaked
Compaction Method	ASTM 698A
Maximum Dry Density, (pcf)	106.4
Optimum Moisture Content, (%)	13.6
Dry Density before Soaking, (pcf)	103.29
Moisture Content, (%)	
After Compaction	15.7
Top 1" After Soaking	15.8
Surcharge, (lbs)	10.00
Swell, (%)	1.25
Bearing Ratio, (%)	6.5

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

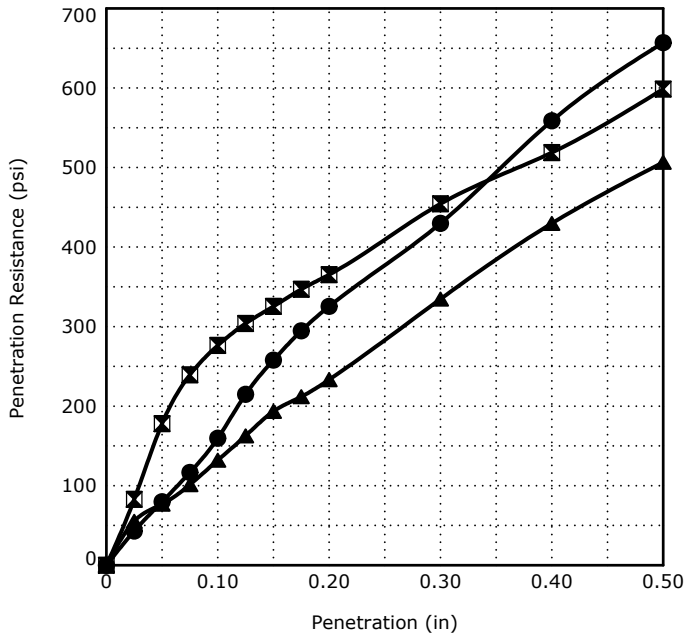
Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

California Bearing Ratio

ASTM D1883-07[2]



Source of Material	ATP-14 2.0
Description of Material	Lean Clay
Percent Fines	
Atterberg Limits	LL PL PI
Remarks:	Lean clay soil sample was taken from test pit without topsoil.



Sample No.	1
Sample Condition	Soaked
Compaction Method	ASTM 698A
Maximum Dry Density, (pcf)	107.9
Optimum Moisture Content, (%)	16.4
Dry Density before Soaking, (pcf)	105.67
Moisture Content, (%)	
After Compaction	18.6
Top 1" After Soaking	18.8
Surcharge, (lbs)	10.00
Swell, (%)	0.37
Bearing Ratio, (%)	15.6

Client
NextEra Energy Resources Development LLC
Juno Beach, FL

Project
Weirs Creek Solar Preliminary
N4245089

Date Received: 5/7/2024

Results from Corrosion Testing

Sample Location	B-2	B-4	B-6	B-7
Sample Depth (ft.)	1.0'-5.0'	1.0'-5.0'	1.0'-5.0'	1.0'-5.0'
pH Analysis, ASTM G51	5.30	5.90	5.70	5.20
Water Soluble Sulfate, ASTM C1580, (mg/kg)	3	6	6	3
Sulfides, AWWA 4500-S D, (mg/kg)	Nil	Nil	Nil	Nil
Chloride, APHA 4500-Cl^- E, (mg/kg)	33	64	15	18
Red-Ox, ASTM G200, (mV)	+387	+358	+376	+340
Total Salts, AWWA 2520 B, (mg/kg)	244	353	310	229
Resistivity (Saturated), ASTM G57, (ohm-cm)	5300	3600	4600	5100

Analyzed By: ChrisAnne Ross
Staff Geologist

Client
NextEra Energy Resources Development LLC
Juno Beach, FL

Project
Weirs Creek Solar Preliminary
N4245089

Date Received: 5/7/2024

Results from Corrosion Testing

Sample Location	B-9	B-10	B-11	B-12
Sample Depth (ft.)	1.0'-5.0'	1.0'-5.0'	1.0'-5.0'	1.0'-5.0'
pH Analysis, ASTM G51	5.20	5.50	6.90	6.60
Water Soluble Sulfate, ASTM C1580, (mg/kg)	4	6	6	5
Sulfides, AWWA 4500-S D, (mg/kg)	Nil	Nil	Nil	Nil
Chloride, APHA 4500-Cl^- E, (mg/kg)	21	87	49	8
Red-Ox, ASTM G200, (mV)	+376	+325	+242	+318
Total Salts, AWWA 2520 B, (mg/kg)	695	1330	990	307
Resistivity (Saturated), ASTM G57, (ohm-cm)	3300	1500	2100	3500

Analyzed By: ChrisAnne Ross
Staff Geologist

Client
NextEra Energy Resources Development LLC
Juno Beach, FL

Project
Weirs Creek Solar Preliminary
N4245089

Date Received: 5/7/2024

Results from Corrosion Testing

Sample Location	B-13	B-14
Sample Depth (ft.)	1.0'-5.0'	1.0'-5.0'
pH Analysis, ASTM G51	5.40	7.60
Water Soluble Sulfate, ASTM C1580, (mg/kg)	6	6
Sulfides, AWWA 4500-S D, (mg/kg)	Nil	Nil
Chloride, APHA 4500-Cl^- E, (mg/kg)	22	32
Red-Ox, ASTM G200, (mV)	+338	+236
Total Salts, AWWA 2520 B, (mg/kg)	215	945
Resistivity (Saturated), ASTM G57, (ohm-cm)	4700	3000

Analyzed By: ChrisAnne Ross
Staff Geologist

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	SubTP-1	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3912
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	D
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	5.53	4.89
Temp. (°C)	22.20	22.20

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
358.8	25	6/21/23 9:46
359.4	25	6/21/23 9:47
360.0	25	6/21/23 9:48

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	2050

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	307

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.399

Natural Moisture Content

27.30%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-1	Sample No.	CORR-1
Depth:	2.0-4.0	Lab No.	3913
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	K
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	5.87	5.26
Temp. (°C)	22.50	22.30

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
335.0	25	6/21/23 9:30
348.3	25	6/21/23 9:34
348.6	25	6/21/23 9:35

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	2260

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	4740

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.625

Natural Moisture Content

21.65%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-2	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3914
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	DW
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.48	3.87
Temp. (°C)	22.30	22.40

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
407.9	25	6/21/23 10:29
408.7	25	6/21/23 10:29
409.2	25	6/21/23 10:30

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3570

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	398

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.537

Natural Moisture Content

24.90%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-3	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3915
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	STA
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.92	4.07
Temp. (°C)	22.40	22.80

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
394.0	25	6/21/23 11:00
393.7	25	6/21/23 11:01
393.3	25	6/21/23 11:02

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	5080

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.711

Natural Moisture Content

21.18%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-4	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3916
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	60
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.35	3.76
Temp. (°C)	21.90	22.20

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
424.2	25	6/21/23 11:16
423.7	25	6/21/23 11:17
423.3	25	6/21/23 11:18

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3610

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	696

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.396

Natural Moisture Content

23.61%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-5	Sample No.	CORR-1
Depth:	2.0-3.0	Lab No.	3917
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	C1
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	5.04	4.35
Temp. (°C)	22.50	22.30

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
462.7	25	6/21/23 12:20
461.4	25	6/21/23 12:21
460.6	25	6/21/23 12:22

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	6090

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.661

Natural Moisture Content

21.42%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-6	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3918
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	VH1
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.27	3.70
Temp. (°C)	22.40	22.00

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
463.4	25	6/21/23 11:41
459.8	25	6/21/23 11:44
459.3	25	6/21/23 11:45

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3620

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	589

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.668

Natural Moisture Content

22.39%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-7	Sample No.	CORR-1
Depth:	2.0-3.0	Lab No.	3920
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	J
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	5.68	5.36
Temp. (°C)	22.60	22.20

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
471.6	25	6/21/23 1:27
462.2	25	6/21/23 1:30
461.8	25	6/21/23 1:31

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	5400

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	521

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.584

Natural Moisture Content

22.62%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-7	Sample No.	CORR-2
Depth:	2.0-4.0	Lab No.	3919
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	E1
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	5.14	4.56
Temp. (°C)	22.30	22.10

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
475.8	25	6/21/23 1:42
475.6	25	6/21/23 1:43
475.1	25	6/21/23 1:44

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	4890

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	508

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.292

Natural Moisture Content

24.61%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-8	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3921
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	DA
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.46	3.93
Temp. (°C)	23.20	22.90

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
454.6	25	6/21/23 12:27
454.9	25	6/21/23 12:28
454.4	25	6/21/23 12:29

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	2960

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.512

Natural Moisture Content

21.80%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-9	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3922
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	A
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.56	3.92
Temp. (°C)	23.20	23.20

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
465.2	25	6/21/23 12:48
464.7	25	6/21/23 12:49
464.3	25	6/21/23 12:50

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	4050

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.454

Natural Moisture Content

25.13%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-10	Sample No.	CORR-1
Depth:	2.0-4.0	Lab No.	3923
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	J
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.71	4.23
Temp. (°C)	22.60	23.10

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
451.6	25	6/21/23 1:04
451.2	25	6/21/23 1:05
450.8	25	6/21/23 1:06

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	4050

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.591

Natural Moisture Content

23.10%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-10	Sample No.	CORR-2
Depth:	2.0-3.0	Lab No.	3924
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	A
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.44	3.94
Temp. (°C)	23.70	23.40

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
454.2	25	6/21/23 1:00
453.6	25	6/21/23 1:01
453.2	25	6/21/23 1:02

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	1260

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.570

Natural Moisture Content

22.75%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-11	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3925
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	S
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.63	3.82
Temp. (°C)	23.20	23.00

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
470.9	25	6/21/23 12:51
466.7	25	6/21/23 12:53
466.6	25	6/21/23 12:54

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	4460

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.553

Natural Moisture Content

26.63%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-12	Sample No.	CORR-2
Depth:	4.0-6.0	Lab No.	3926
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	J
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.78	4.32
Temp. (°C)	23.00	22.90

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
476.8	25	6/21/23 2:15
467.0	25	6/21/23 2:20
466.2	25	6/21/23 2:21

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	4380

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.644

Natural Moisture Content

17.79%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-12	Sample No.	CORR-1
Depth:	4.0-5.0	Lab No.	3927
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	CU
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.32	3.90
Temp. (°C)	22.80	22.50

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
464.9	25	6/21/23 2:15
464.0	25	6/21/23 2:20
463.5	25	6/21/23 2:21

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3110

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	1191

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.108

Natural Moisture Content

17.43%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-13	Sample No.	CORR-1
Depth:	2.0-3.0	Lab No.	3928
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	SP
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.80	4.06
Temp. (°C)	22.80	22.90

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
468.3	25	6/21/23 2:36
468.0	25	6/21/23 2:37
467.5	25	6/21/23 2:38

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3690

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	226

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.681

Natural Moisture Content

22.30%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-13	Sample No.	CORR-2
Depth:	2.0-3.0	Lab No.	3929
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	J
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.25	3.66
Temp. (°C)	22.00	22.20

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
353.3	25	6/22/23 9:14
334.9	25	6/22/2023 9:15
334.7	25	6/22/2023 9:16

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	3460

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.397

Natural Moisture Content

23.26%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-14	Sample No.	PROC-1
Depth:	2.0-4.0	Lab No.	3930
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	Y
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.24	3.58
Temp. (°C)	22.40	22.60

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
305.3	25	6/22/23 8:27
307.5	25	6/22/2023 8:29
308.7	25	6/22/2023 8:30

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	5970

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	Non-Detect

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.223

Natural Moisture Content

21.90%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-15	Sample No.	CORR-1
Depth:	2.0-3.0	Lab No.	3932
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	44
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.22	3.44
Temp. (°C)	23.40	22.80

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
303.5	25	6/22/23 8:45
304.5	25	6/22/23 8:46
305.0	25	6/22/23 8:47

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	9400

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	376

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.240

Natural Moisture Content

20.19%

Notes:

Client

NextEra E&C Project Development
700 Universe Boulevard CPM/JB
Juno Beach, FL 33408

Project

Weirs Creek Solar
Providence, KY 42450

Project No. 57235034

Laboratory Chemical Analysis

Sample Information

Boring:	ATP-15	Sample No.	CORR-2
Depth:	2.0-4.0	Lab No.	3931
Material Description:	Light Brown Clay	Sample Date:	Unknown

Equipment Used

Balance ID:	B-47913	pH Meter ID:	Z-72510
Thermometer ID:	C-60041	Container ID:	8
ORP Meter ID:	Z-82817	ORP Probe ID:	Z-82818
ORP Calibration Value:	220 Mv	ORP Calibration Expiration Date:	7/1/2024
Photometer ID:	Z-82819	Miller Box ID:	Z-82820

pH, ASTM D4972, Method A

Method A	Soil/Water	Soil/$CaCl_2$
Sample Mass (g)	20.00	20.00
pH Reading	4.74	3.85
Temp. (°C)	22.90	22.60

Oxidation-Reduction Potential (ORP), ASTM G200

ORP Reading (Mv)	Temp. (°C)	Date/Time
368.7	25	6/22/23 9:10
370.0	25	6/22/23 9:11
371.6	25	6/22/23 9:12

Soil Resistivity, ASTM G57, Large Box

Miller Box Readings (Ω x cm)	9990

Water-Soluble Sulfate Ion, ASTM C1580

Average Photometer Reading (mg/kg moisture free)	452

Water Soluble Chloride Ion, AASHTO T-291

Sample Mass (g)	100.00
Meter Reading (mg/kg)	0.251

Natural Moisture Content

16.05%

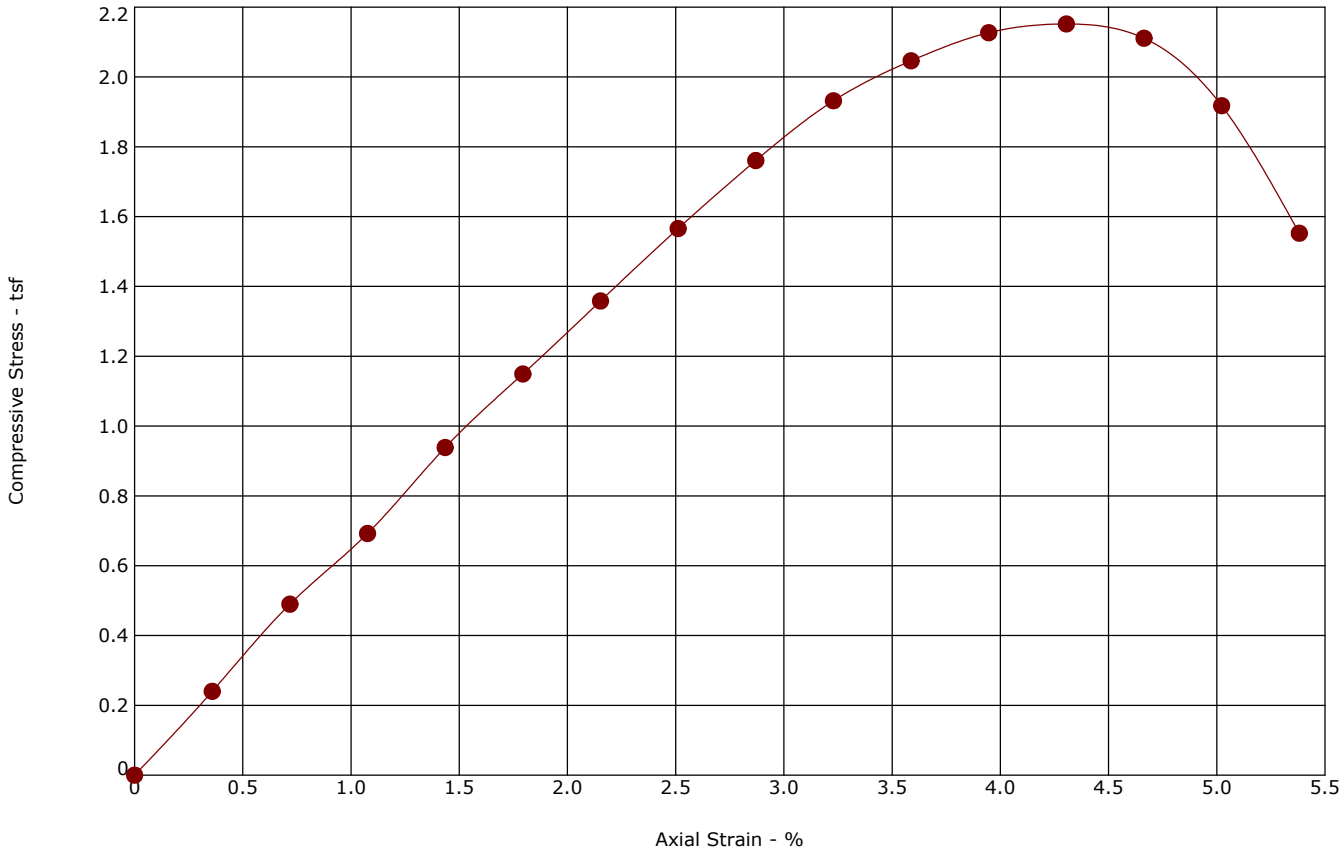
Notes:

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Unconfined Compression Test

ASTM D2166



Boring ID	Depth (Ft)	Sample type	LL	PL	PI	Fines (%)	Description
SB-1	3 - 5	Shelby Tube	34	19	15		LEAN CLAY

Specimen Failure Mode

Specimen Test Data

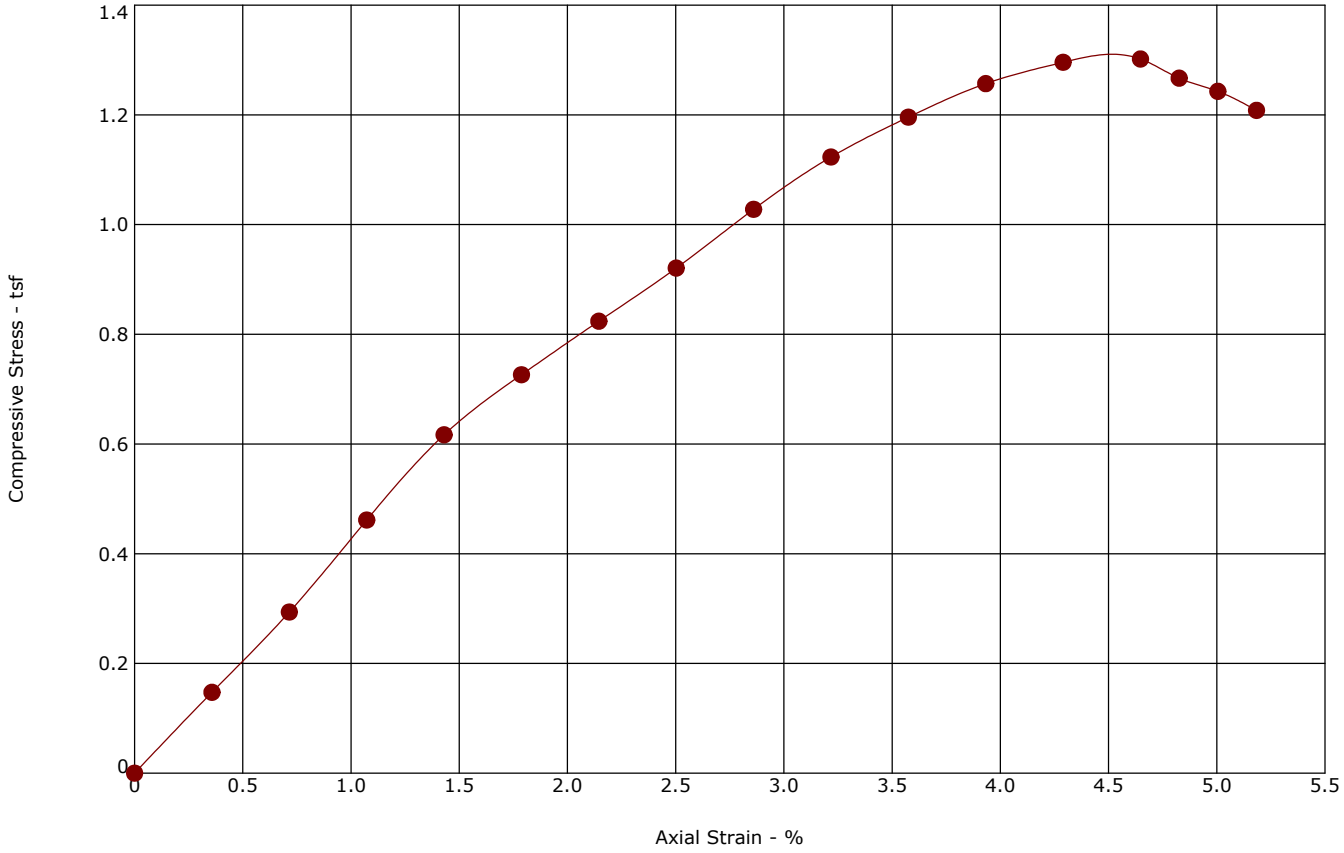
Moisture Content (%):	19.7
Dry Density (pcf):	109
Diameter (in.):	2.83
Height (in.):	5.57
Height / Diameter Ratio:	1.97
Calculated Saturation (%):	100.54
Calculated Void Ratio:	0.52
Assumed Specific Gravity:	2.65
Failure Strain (%):	4.31
Unconfined Compressive Strength (tsf):	2.15
Undrained Shear Strength (tsf):	1.08
Strain Rate (in/min):	
Remarks:	

Weirs Creek Solar
Corinth Chruch Road | Providence, KY
Terracon Project No. 57235034

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Unconfined Compression Test

ASTM D2166



Boring ID	Depth (Ft)	Sample type	LL	PL	PI	Fines (%)	Description
SB-2	5 - 7	Shelby Tube					LEAN CLAY

Specimen Failure Mode

Specimen Test Data

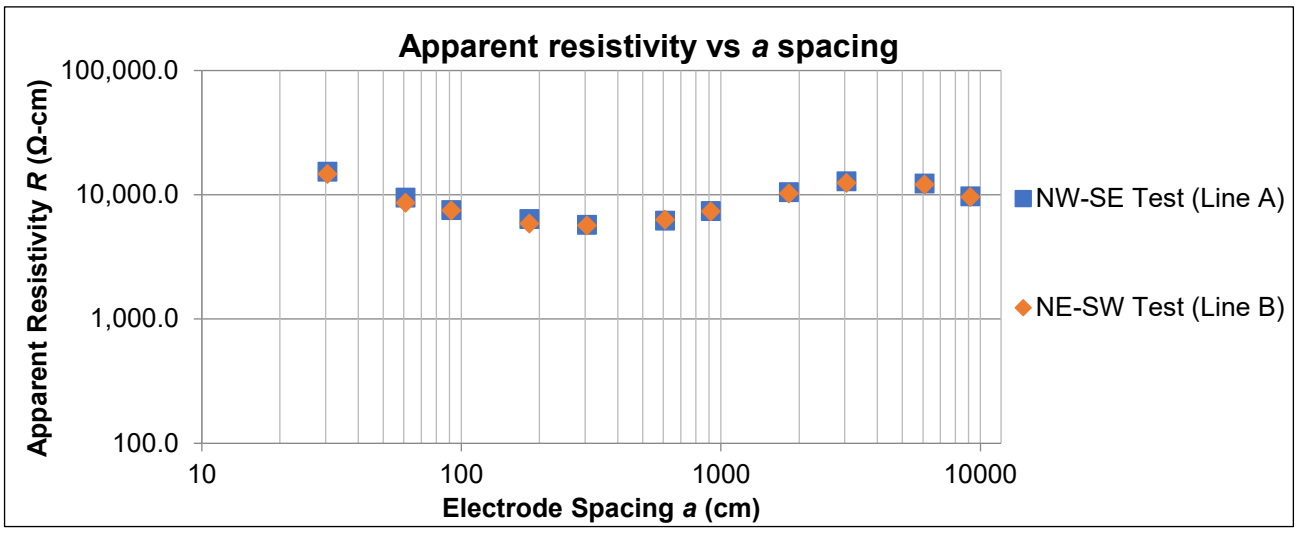
Moisture Content (%):	22.1
Dry Density (pcf):	103
Diameter (in.):	2.84
Height (in.):	5.59
Height / Diameter Ratio:	1.97
Calculated Saturation (%):	96.60
Calculated Void Ratio:	0.61
Assumed Specific Gravity:	2.65
Failure Strain (%):	4.65
Unconfined Compressive Strength (tsf):	1.30
Undrained Shear Strength (tsf):	0.65
Strain Rate (in/min):	
Remarks:	

FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-1**		
Instrument	Mini Res.	**Weather**	30° Clear
Serial #	101451333	**Ground Cond.**	Lean Clay w/ silt
Cal. Check	5/23/2022	**Tested By**	Z. Coman
Test Date	April 28, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	61.20	15339	58.60	14688
2	61	6	15	22.60	9495	20.60	8654
3	91	6	15	12.56	7541	12.44	7471
6	183	6	15	5.48	6366	5.06	5880
10	305	6	15	2.99	5743	2.95	5675
20	610	6	15	1.62	6200	1.65	6315
30	914	6	15	1.28	7375	1.28	7358
60	1829	6	15	0.91	10504	0.89	10262
100	3048	6	15	0.67	12813	0.65	12430
200	6096	6	15	0.32	12295	0.32	12104
300	9144	12	30	0.17	9710	0.17	9595

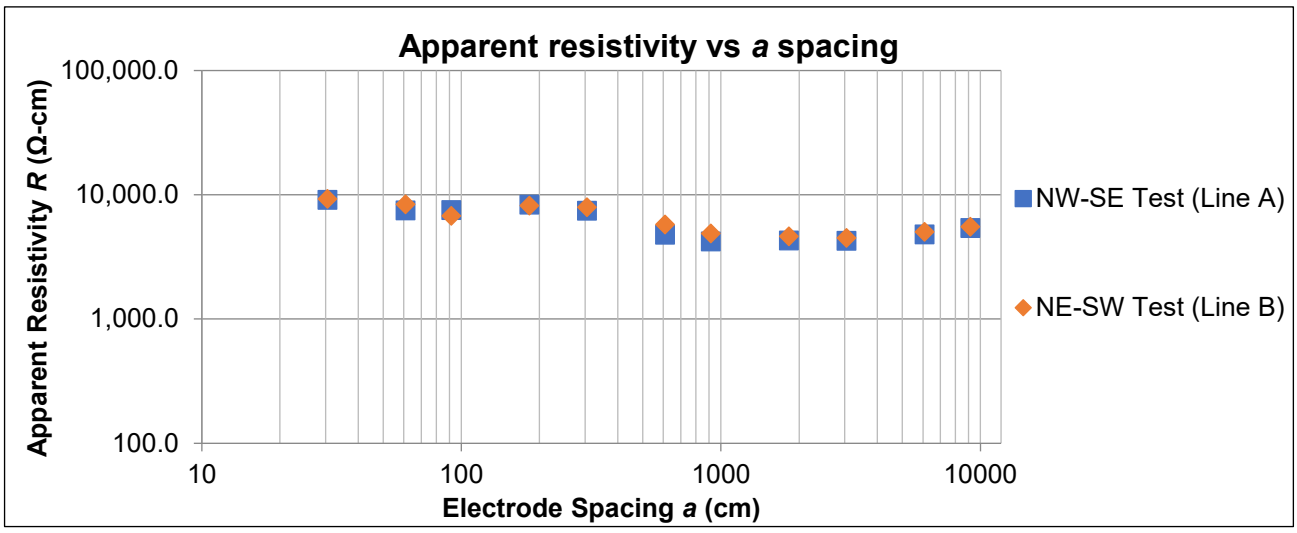


FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-2**		
Instrument	Mini Res.	**Weather**	30° Clear
Serial #	101451333	**Ground Cond.**	Lean Clay w/ silt
Cal. Check	5/23/2022	**Tested By**	Z. Coman
Test Date	April 23, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	36.40	9123	37.00	9274
2	61	6	15	17.80	7479	19.90	8360
3	91	6	15	12.55	7539	11.24	6748
6	183	6	15	7.17	8336	7.02	8157
10	305	6	15	3.86	7427	4.14	7964
20	610	6	15	1.24	4758	1.50	5759
30	914	6	15	0.73	4208	0.85	4897
60	1829	6	15	0.37	4298	0.40	4643
100	3048	6	15	0.22	4252	0.23	4482
200	6096	6	15	0.13	4788	0.13	5018
300	9144	12	30	0.09	5401	0.10	5516

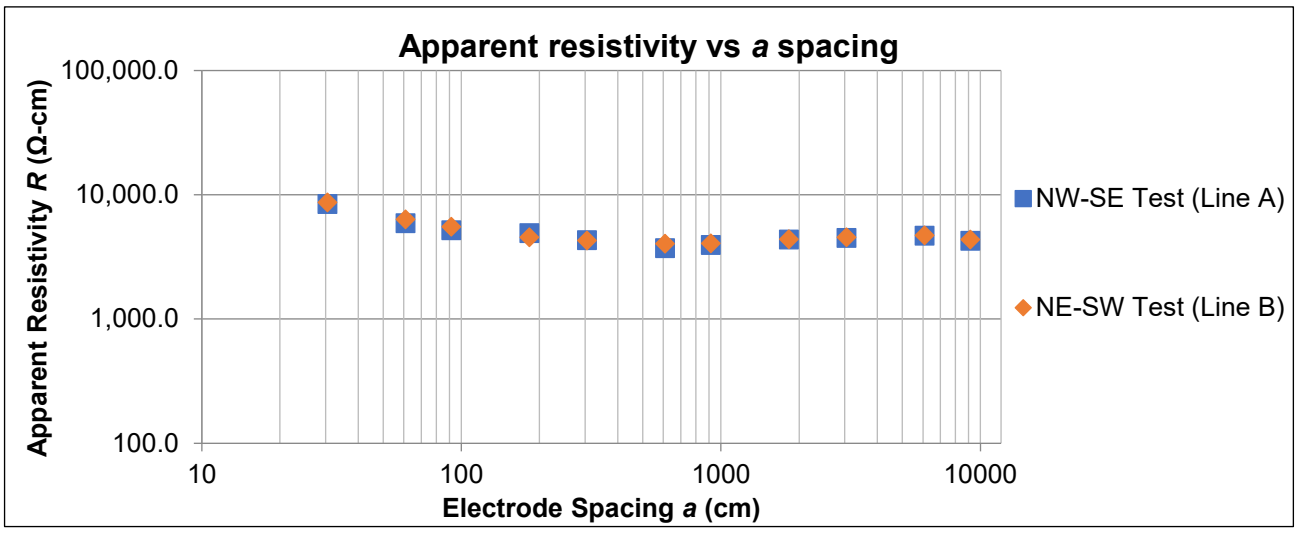


FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-3**		
Instrument	Mini Res.	**Weather**	60° Sunny
Serial #	101451333	**Ground Cond.**	Lean Clay w/ silt
Cal. Check	5/23/2022	**Tested By**	Z. Coman
Test Date	April 23, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	33.60	8422	34.70	8697
2	61	6	15	14.08	5916	15.11	6347
3	91	6	15	8.64	5186	9.20	5525
6	183	6	15	4.24	4926	3.92	4555
10	305	6	15	2.24	4310	2.23	4279
20	610	6	15	0.97	3715	1.05	4038
30	914	6	15	0.69	3937	0.71	4052
60	1829	6	15	0.38	4367	0.38	4378
100	3048	6	15	0.24	4501	0.24	4558
200	6096	6	15	0.12	4673	0.12	4711
300	9144	12	30	0.07	4252	0.08	4367

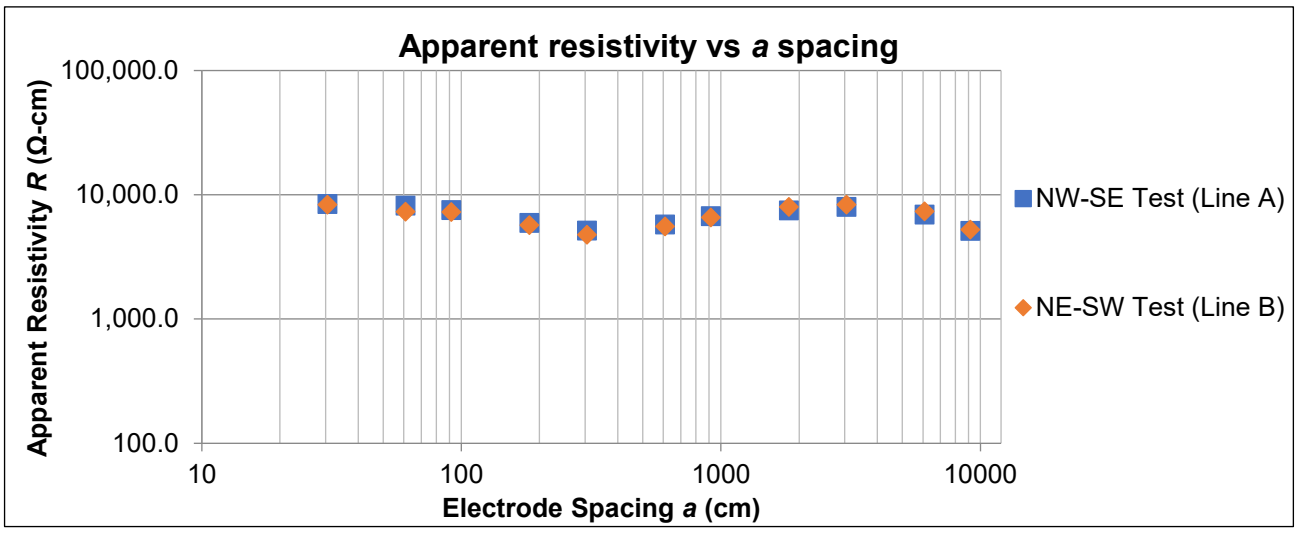


FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-4**		
Instrument	Mini Res.	**Weather**	60° Sunny
Serial #	101451333	**Ground Cond.**	Lean Clay w/ silt
Cal. Check	5/23/2022	**Tested By**	Z. Coman
Test Date	April 23, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts	ER-3 narrowed due to power lines. ER-3 Power line interference station @ 250' spacing		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi a R}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	33.70	8447	33.20	8321
2	61	6	15	19.51	8196	17.42	7317
3	91	6	15	12.57	7550	12.07	7245
6	183	6	15	5.11	5934	4.92	5713
10	305	6	15	2.68	5154	2.48	4775
20	610	6	15	1.51	5771	1.45	5571
30	914	6	15	1.17	6719	1.14	6559
60	1829	6	15	0.65	7504	0.69	7975
100	3048	6	15	0.42	8006	0.43	8312
200	6096	6	15	0.18	6933	0.19	7354
300	9144	12	30	0.09	5113	0.09	5228

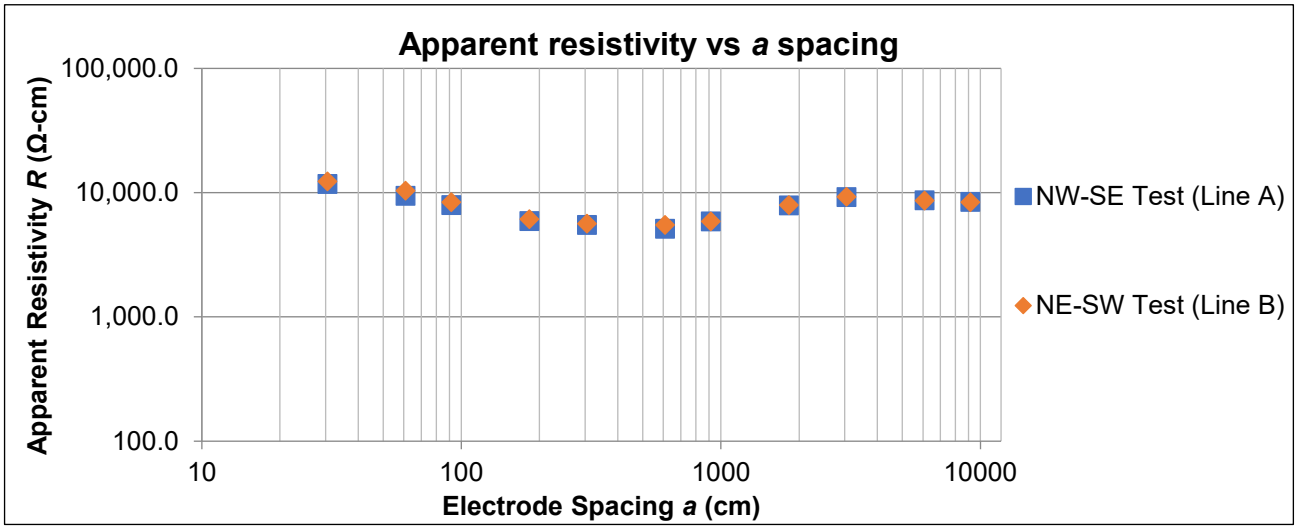


FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-5**		
Instrument	Mini Res.	**Weather**	60° Sunny
Serial #	101451333	**Ground Cond.**	Lean clay w/ silt
Cal. Check	4/23/2024	**Tested By**	Z. Coman
Test Date	April 16, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts	ER-3 narrowed due to power lines. ER-3 Power line interference station @ 250' spacing		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	46.90	11755	49.20	12332
2	61	6	15	22.50	9453	24.70	10377
3	91	6	15	13.19	7921	13.93	8365
6	183	6	15	5.08	5906	5.28	6133
10	305	6	15	2.86	5502	2.93	5629
20	610	6	15	1.34	5119	1.44	5510
30	914	6	15	1.02	5880	1.02	5869
60	1829	6	15	0.69	7907	0.69	7930
100	3048	6	15	0.48	9193	0.48	9250
200	6096	6	15	0.23	8656	0.23	8618
300	9144	12	30	0.15	8446	0.15	8388

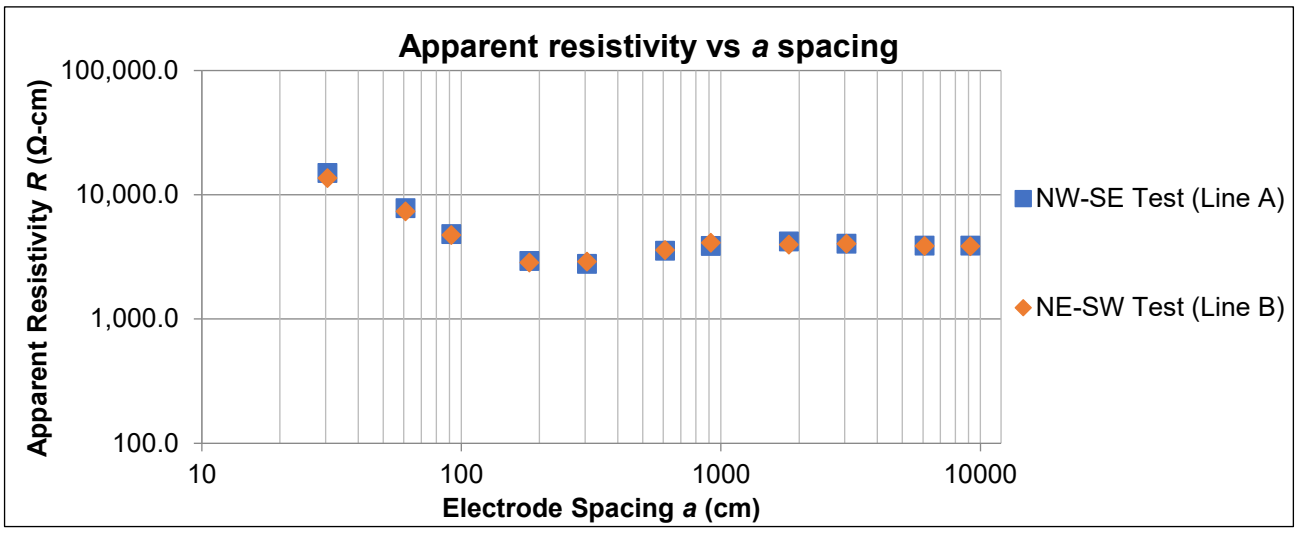


FIELD ELECTRICAL RESISTIVITY TEST DATA
Weirs Solar ■ Providence, KY
6/4/2024 ■ Terracon Project No. N4245089

Array Loc.	**EER-6**		
Instrument	Mini Res.	**Weather**	37° Cloudy
Serial #	101451333	**Ground Cond.**	Lean Clay w/ silt
Cal. Check	5/23/2022	**Tested By**	Z. Coman
Test Date	April 23, 2024	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE
Notes & Conflicts	ER-3 narrowed due to power lines. ER-3 Power line interference station @ 250' spacing		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		**Electrode Depth *b***		**NW-SE Test (Line A)**		**NE-SW Test (Line B)**	
(feet)	(centimeters)	(inches)	(centimeters)	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	(Ω-cm)	Ω	(Ω-cm)
1	30	6	15	59.80	14988	54.20	13585
2	61	6	15	18.52	7781	17.55	7371
3	91	6	15	8.06	4839	7.89	4738
6	183	6	15	2.53	2940	2.45	2853
10	305	6	15	1.45	2779	1.51	2896
20	610	6	15	0.93	3551	0.94	3597
30	914	6	15	0.68	3880	0.72	4121
60	1829	6	15	0.37	4206	0.35	3976
100	3048	6	15	0.21	4041	0.21	4041
200	6096	6	15	0.10	3907	0.10	3869
300	9144	12	30	0.07	3907	0.07	3849



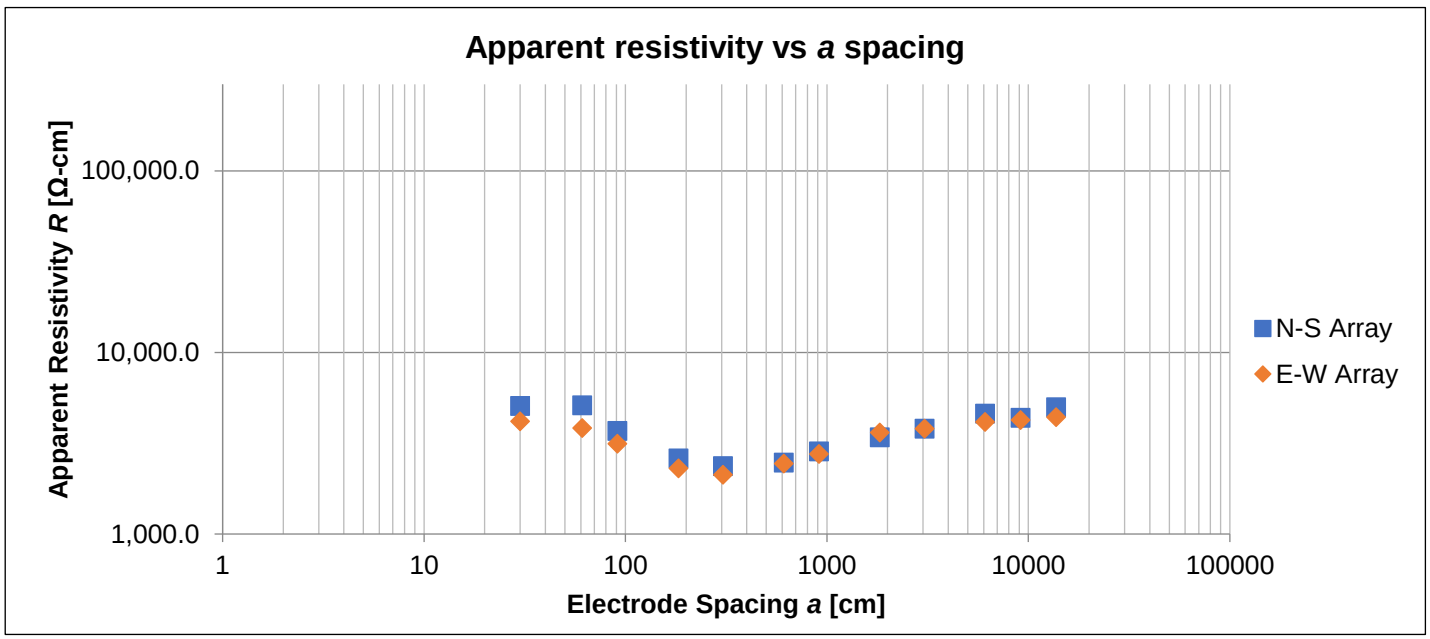
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-1 (37.421033°, -87.684558°)		
Instrument	AEMC	**Weather**	Sunny, 78 degrees
Serial #	6471	**Ground Cond.**	Dry soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Dillon Booker
Test Date	June 13, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	450-Foot 'A' spacing completed with different instrument		

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	25.700	5070	21.200	4180
2	61	2	5	13.172	5110	9.899	3840
3	91	2	5	6.440	3700	5.489	3150
6	183	2	5	2.271	2610	2.002	2300
10	305	2	5	1.234	2370	1.108	2120
20	610	2	5	0.644	2470	0.636	2440
30	914	2	5	0.496	2850	0.481	2760
60	1829	2	5	0.297	3410	0.315	3620
100	3048	2	5	0.199	3810	0.199	3810
200	6096	2	5	0.120	4600	0.108	4140
300	9144	2	5	0.076	4370	0.074	4250
450	13716	2	5	0.058	5000	0.051	4400



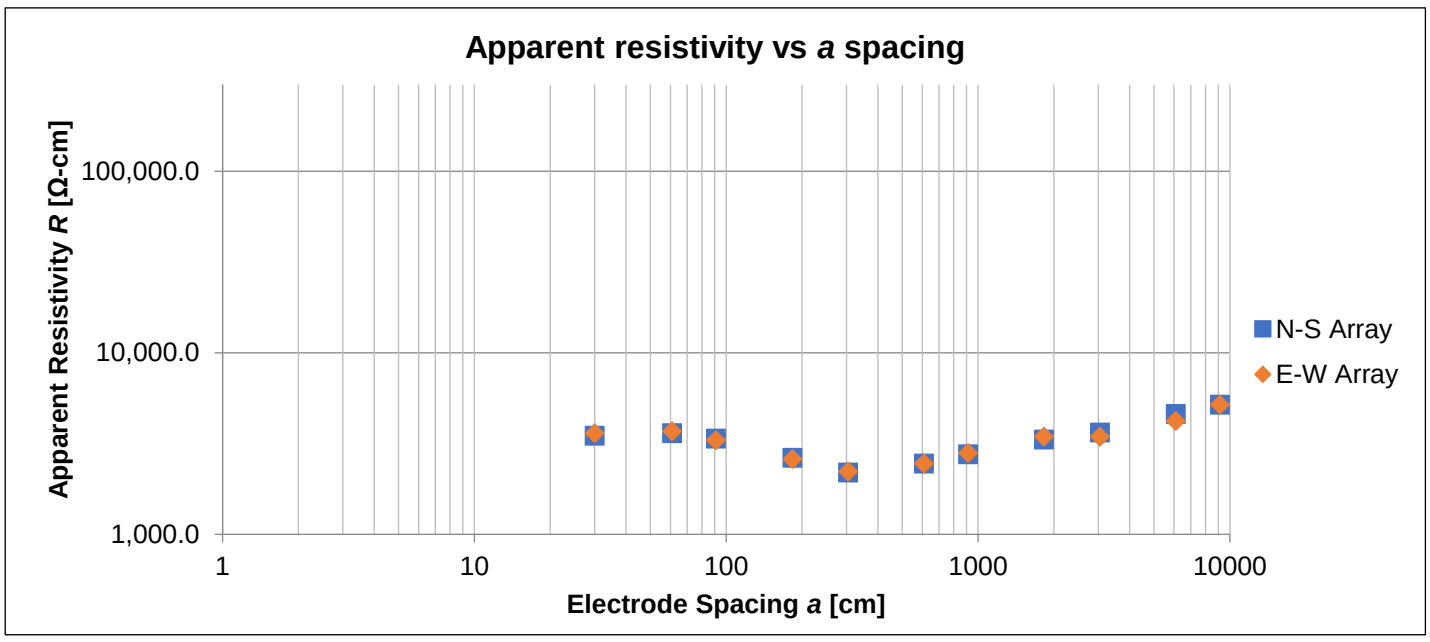
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-1 (37.421033°, -87.684558°)		
Instrument	AEMC	**Weather**	Sunny, 80 degrees
Serial #	6471	**Ground Cond.**	Moist to wet soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 10, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	300-Foot A-Spacing done on 5-19-23, Sunny, 69 degrees, Moist to wet soil		

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	17.700	3490	18.300	3610
2	61	2	5	9.320	3610	9.540	3700
3	91	2	5	5.860	3370	5.750	3300
6	183	2	5	2.290	2640	2.260	2600
10	305	2	5	1.140	2190	1.160	2220
20	610	2	5	0.640	2450	0.640	2450
30	914	2	5	0.480	2760	0.490	2810
60	1829	2	5	0.290	3330	0.300	3450
100	3048	2	5	0.190	3640	0.180	3450
200	6096	2	5	0.120	4600	0.110	4210
300	9144	2	5	0.090	5170	0.090	5170



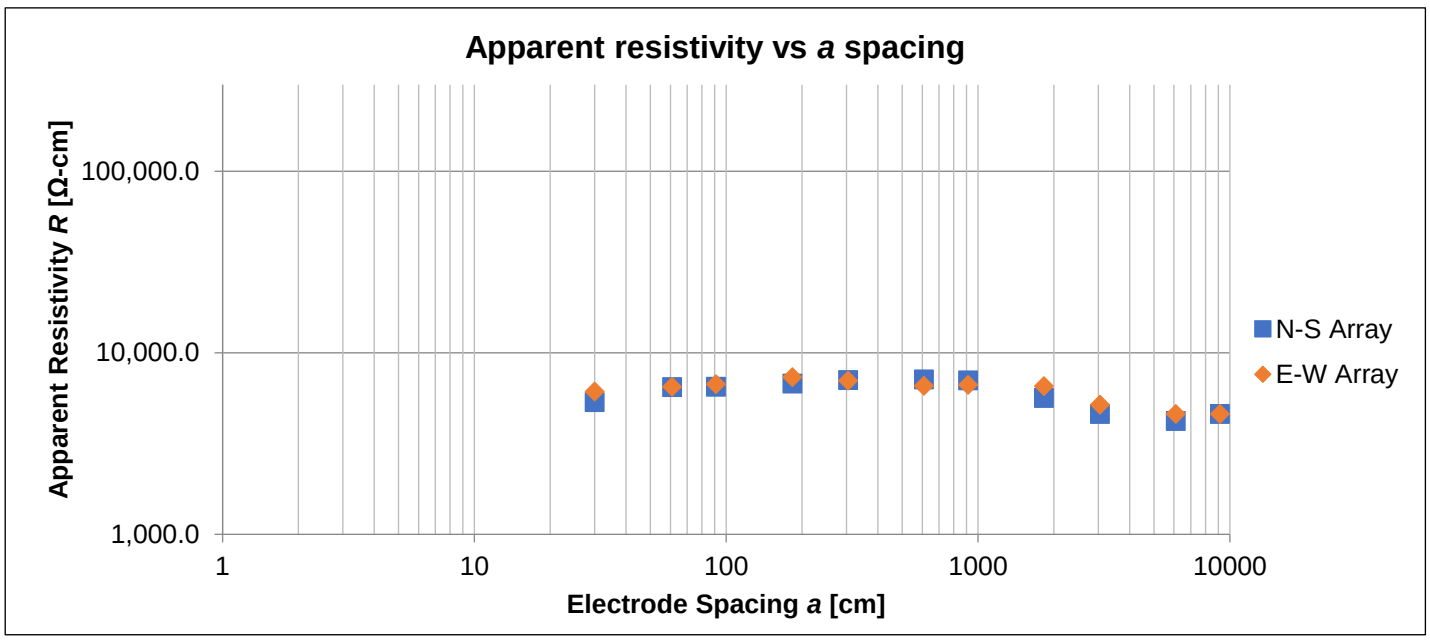
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-2 (37.421511°, -87.678752°)		
Instrument	AEMC	**Weather**	Sunny, 75 degrees
Serial #	6471	**Ground Cond.**	Damp soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 18, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	27.100	5350	31.000	6120
2	61	2	5	16.700	6480	16.800	6510
3	91	2	5	11.300	6490	11.700	6720
6	183	2	5	5.880	6770	6.370	7330
10	305	2	5	3.690	7070	3.660	7020
20	610	2	5	1.860	7130	1.720	6590
30	914	2	5	1.230	7060	1.160	6660
60	1829	2	5	0.490	5630	0.570	6550
100	3048	2	5	0.240	4600	0.270	5170
200	6096	2	5	0.110	4210	0.120	4600
300	9144	2	5	0.080	4600	0.080	4600



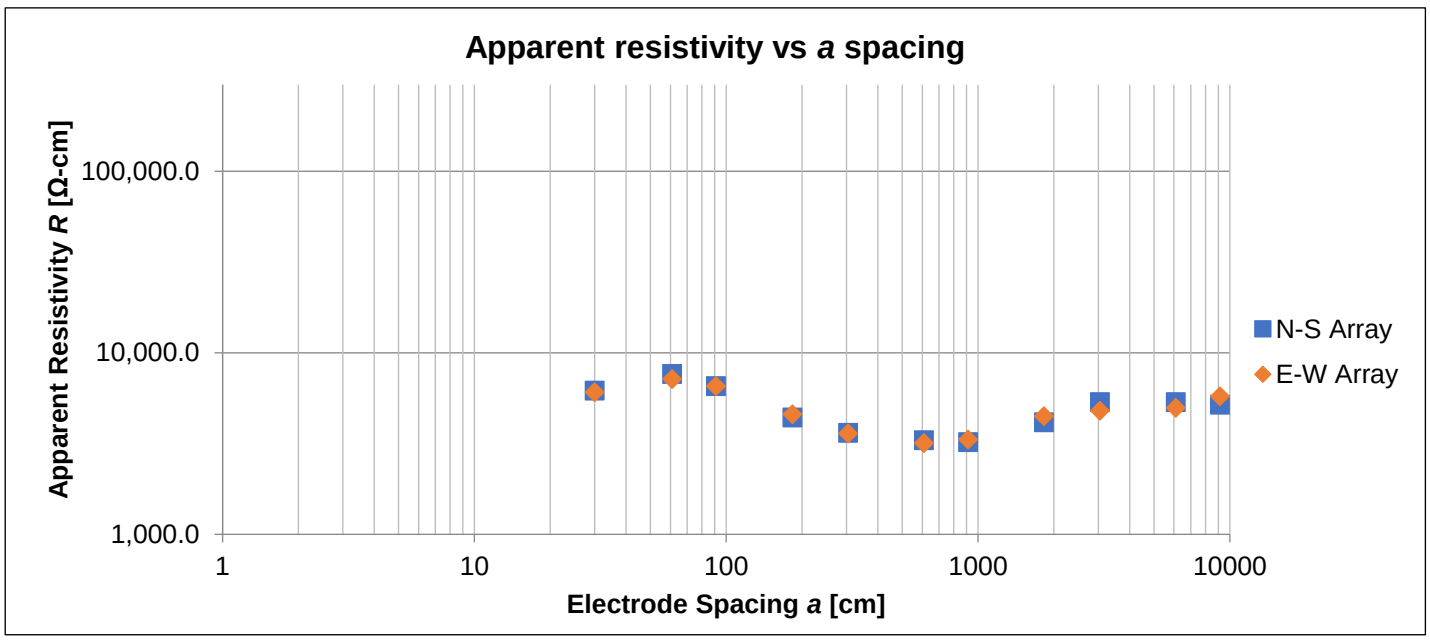
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-3 (37.420811°, -87.673378°)		
Instrument	AEMC	**Weather**	Sunny, 69 degrees
Serial #	6471	**Ground Cond.**	Damp soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 18, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	31.400	6190	30.700	6060
2	61	2	5	19.700	7640	18.500	7170
3	91	2	5	11.400	6550	11.400	6550
6	183	2	5	3.820	4400	3.980	4580
10	305	2	5	1.890	3620	1.870	3590
20	610	2	5	0.860	3300	0.830	3180
30	914	2	5	0.560	3220	0.580	3330
60	1829	2	5	0.360	4140	0.390	4480
100	3048	2	5	0.280	5360	0.250	4790
200	6096	2	5	0.140	5360	0.130	4980
300	9144	2	5	0.090	5170	0.100	5750



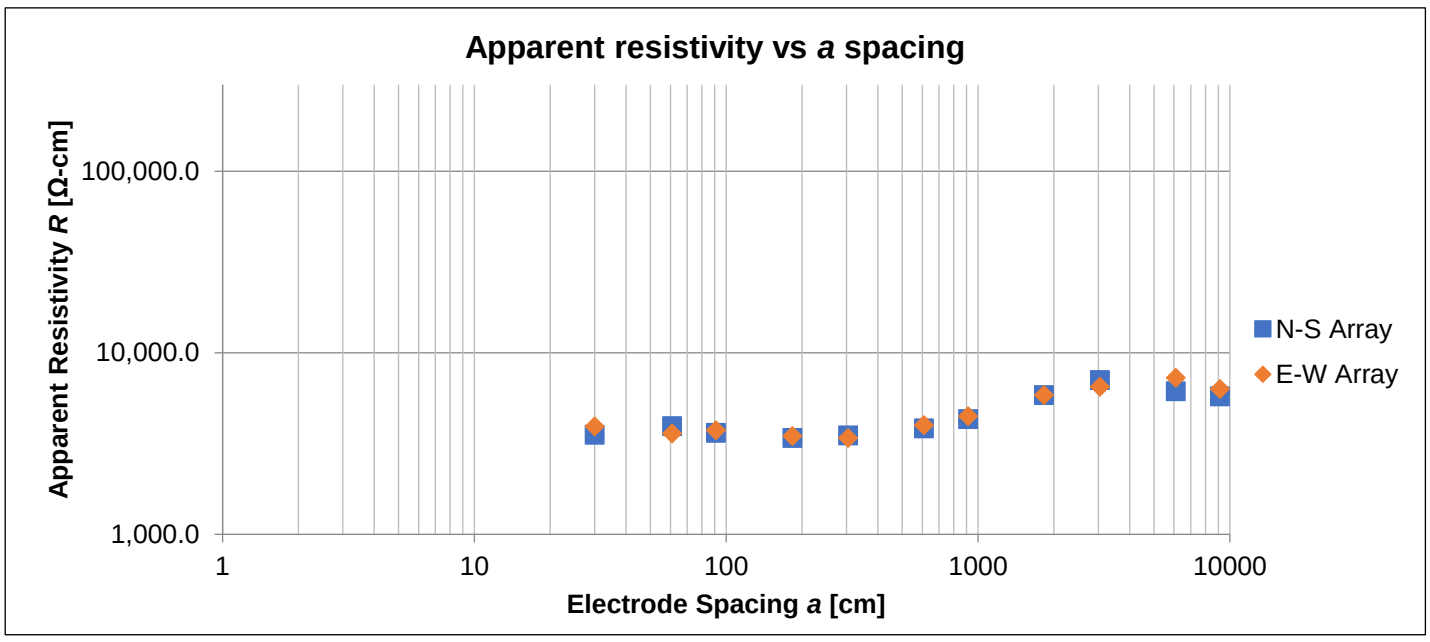
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-4 (37.418892°, -87.668146°)		
Instrument	AEMC	**Weather**	Sunny, 64 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 18, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	17.900	3530	19.900	3930
2	61	2	5	10.200	3950	9.260	3590
3	91	2	5	6.320	3630	6.530	3750
6	183	2	5	2.950	3400	3.020	3480
10	305	2	5	1.830	3510	1.770	3390
20	610	2	5	1.000	3830	1.040	3990
30	914	2	5	0.750	4310	0.780	4480
60	1829	2	5	0.510	5860	0.510	5860
100	3048	2	5	0.370	7090	0.340	6510
200	6096	2	5	0.160	6130	0.190	7280
300	9144	2	5	0.100	5750	0.110	6320



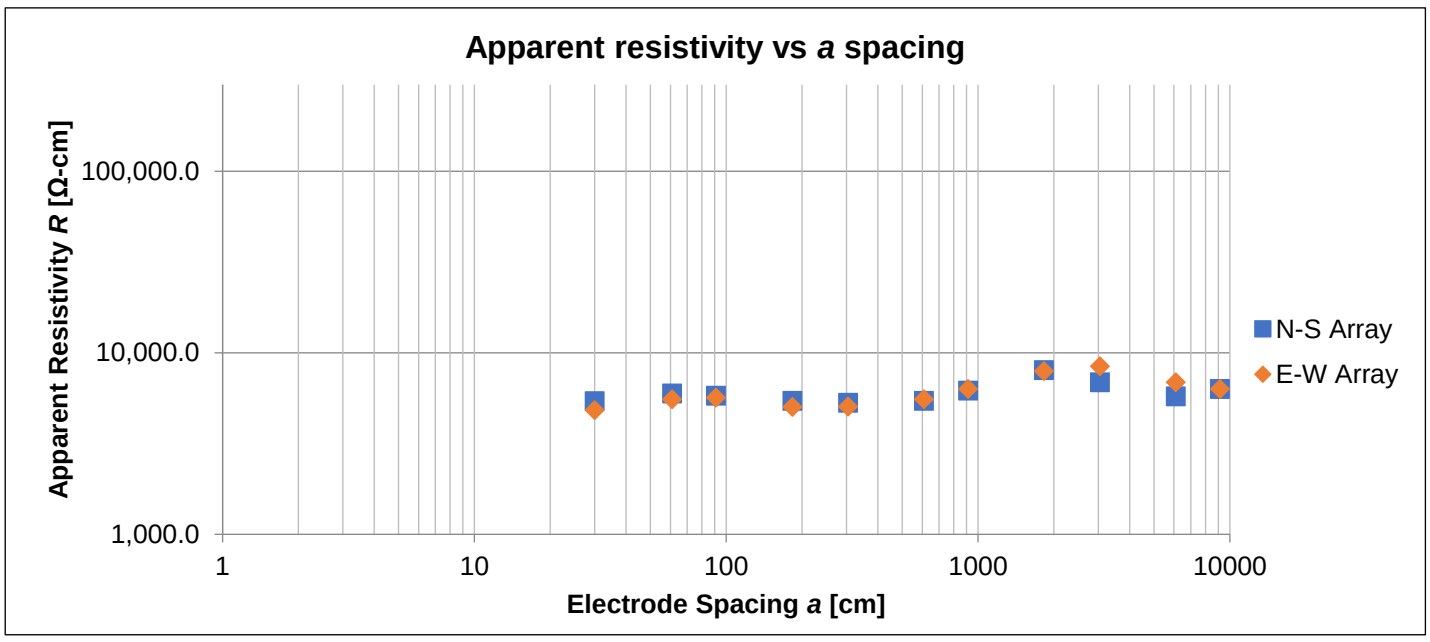
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-5 (37.415760°, -87.665553°)		
Instrument	AEMC	**Weather**	Sunny, 78 degrees
Serial #	6471	**Ground Cond.**	Damp soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 18, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	27.400	5410	24.500	4830
2	61	2	5	15.400	5970	14.300	5540
3	91	2	5	10.100	5810	9.860	5670
6	183	2	5	4.720	5430	4.380	5040
10	305	2	5	2.770	5310	2.640	5060
20	610	2	5	1.420	5440	1.450	5560
30	914	2	5	1.080	6200	1.100	6320
60	1829	2	5	0.700	8040	0.690	7930
100	3048	2	5	0.360	6890	0.440	8430
200	6096	2	5	0.150	5750	0.180	6890
300	9144	2	5	0.110	6320	0.110	6320



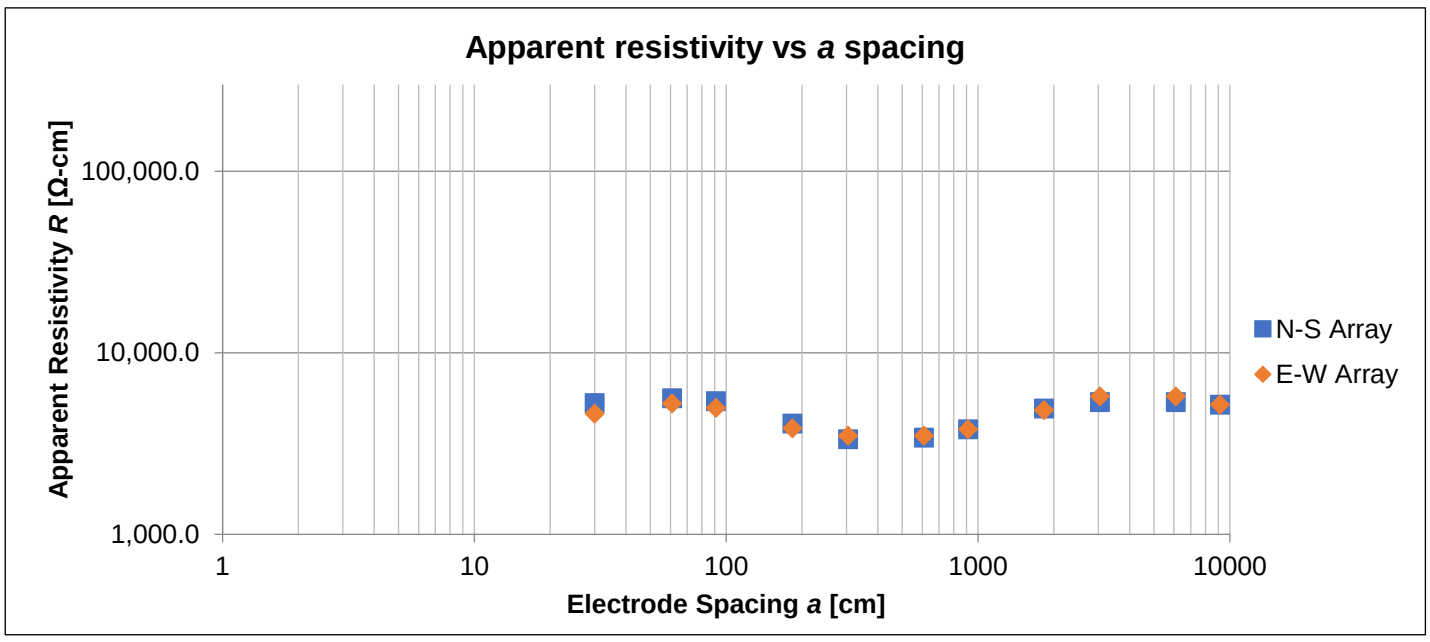
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-6 (37.413690°, -87.668318°)		
Instrument	AEMC	**Weather**	Sunny, 79 degrees
Serial #	6471	**Ground Cond.**	Moist to damp soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 18, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	26.800	5290	23.400	4620
2	61	2	5	14.500	5620	13.600	5270
3	91	2	5	9.430	5420	8.640	4970
6	183	2	5	3.540	4080	3.330	3830
10	305	2	5	1.740	3340	1.820	3490
20	610	2	5	0.890	3410	0.910	3490
30	914	2	5	0.660	3790	0.660	3790
60	1829	2	5	0.430	4940	0.420	4830
100	3048	2	5	0.280	5360	0.300	5750
200	6096	2	5	0.140	5360	0.150	5750
300	9144	2	5	0.090	5170	0.090	5170



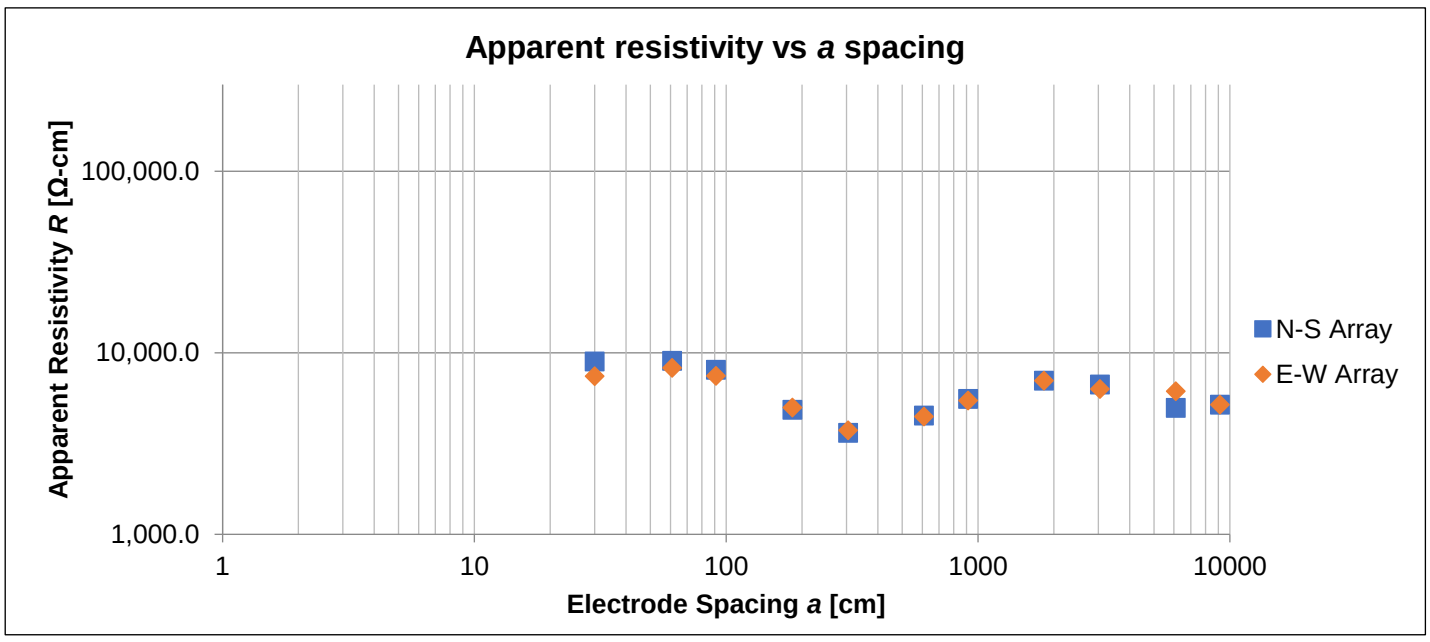
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-7 (37.411507°, -87.665983°)		
Instrument	AEMC	**Weather**	Cloudy, 67 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 11, 2023*	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	300-Foot A-Spacing done on 5-19-23, Cloudy, 72 degrees, Moist soil		

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	45.400	8960	37.600	7420
2	61	2	5	23.300	9030	21.300	8260
3	91	2	5	14.000	8050	13.000	7470
6	183	2	5	4.220	4860	4.340	5000
10	305	2	5	1.890	3620	1.950	3740
20	610	2	5	1.180	4520	1.160	4450
30	914	2	5	0.970	5570	0.950	5460
60	1829	2	5	0.610	7010	0.610	7010
100	3048	2	5	0.350	6700	0.330	6320
200	6096	2	5	0.130	4980	0.160	6130
300	9144	2	5	0.090	5170	0.090	5170



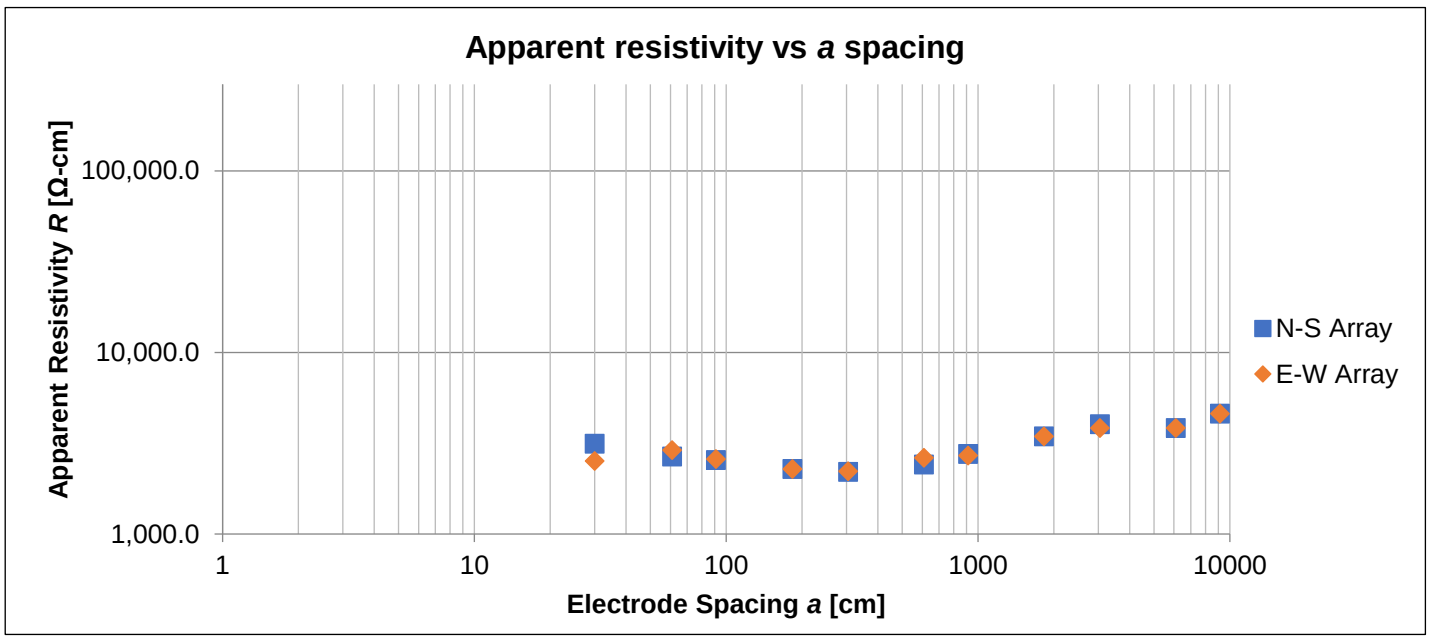
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-8 (37.405290°, -87.668766°)		
Instrument	AEMC	**Weather**	Sunny, 75 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 17, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	15.900	3140	12.800	2530
2	61	2	5	6.880	2670	7.480	2900
3	91	2	5	4.450	2560	4.500	2590
6	183	2	5	1.980	2280	1.980	2280
10	305	2	5	1.150	2200	1.160	2220
20	610	2	5	0.630	2410	0.687	2630
30	914	2	5	0.480	2760	0.470	2700
60	1829	2	5	0.300	3450	0.300	3450
100	3048	2	5	0.210	4020	0.200	3830
200	6096	2	5	0.100	3830	0.100	3830
300	9144	2	5	0.080	4600	0.080	4600



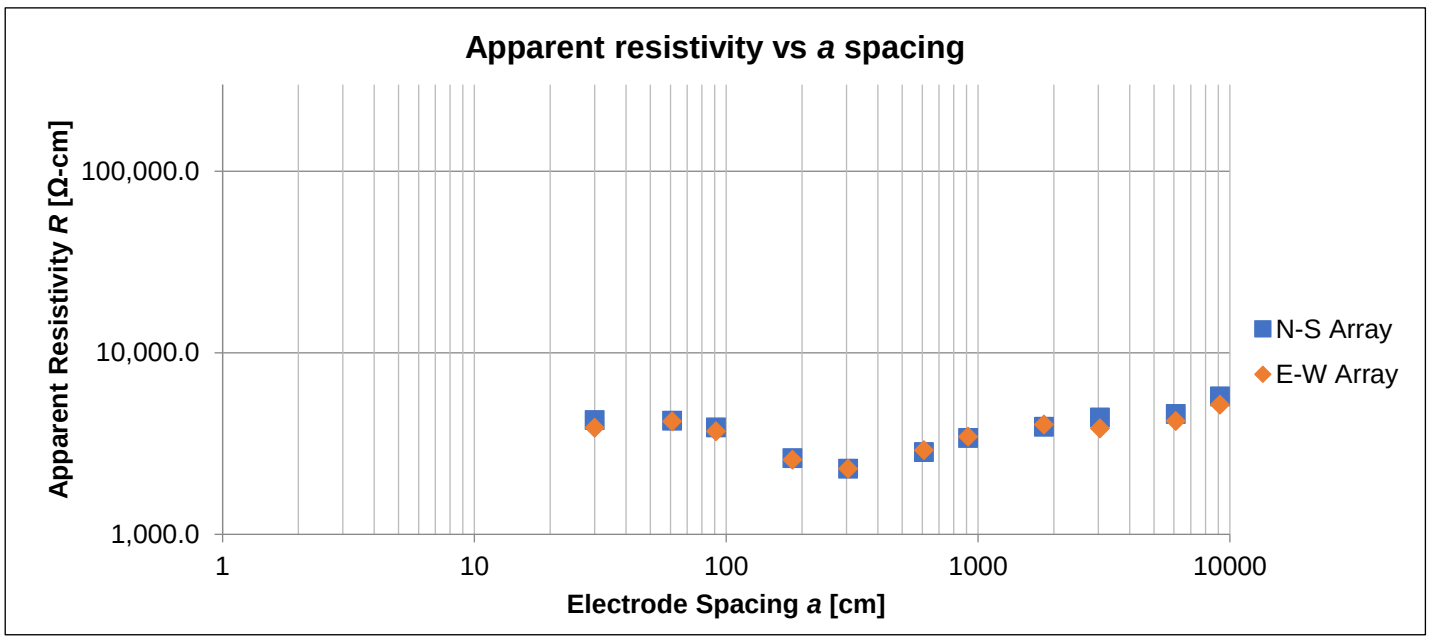
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-9 (37.407315°, -87.675751°)		
Instrument	AEMC	**Weather**	Sunny, 80 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 17, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	21.600	4260	19.600	3870
2	61	2	5	10.900	4230	10.800	4190
3	91	2	5	6.760	3890	6.430	3700
6	183	2	5	2.280	2630	2.240	2580
10	305	2	5	1.200	2300	1.200	2300
20	610	2	5	0.740	2840	0.760	2910
30	914	2	5	0.590	3390	0.600	3450
60	1829	2	5	0.340	3910	0.350	4020
100	3048	2	5	0.230	4400	0.200	3830
200	6096	2	5	0.120	4600	0.110	4210
300	9144	2	5	0.100	5750	0.090	5170



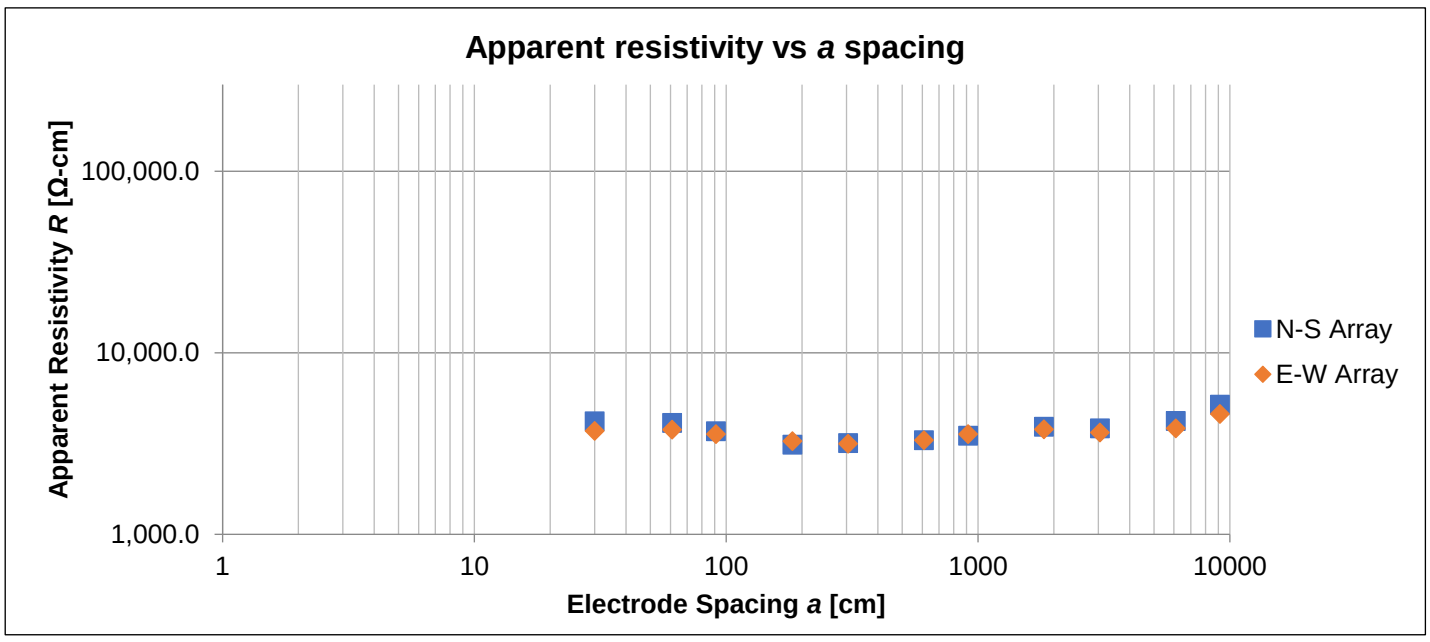
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-10 (37.404192°, -87.676005°)		
Instrument	AEMC	**Weather**	Sunny, 79 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 17, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	21.300	4200	18.800	3710
2	61	2	5	10.600	4110	9.750	3780
3	91	2	5	6.430	3700	6.190	3560
6	183	2	5	2.710	3120	2.830	3260
10	305	2	5	1.660	3180	1.650	3160
20	610	2	5	0.860	3300	0.860	3300
30	914	2	5	0.610	3500	0.620	3560
60	1829	2	5	0.340	3910	0.330	3790
100	3048	2	5	0.200	3830	0.190	3640
200	6096	2	5	0.110	4210	0.100	3830
300	9144	2	5	0.090	5170	0.080	4600



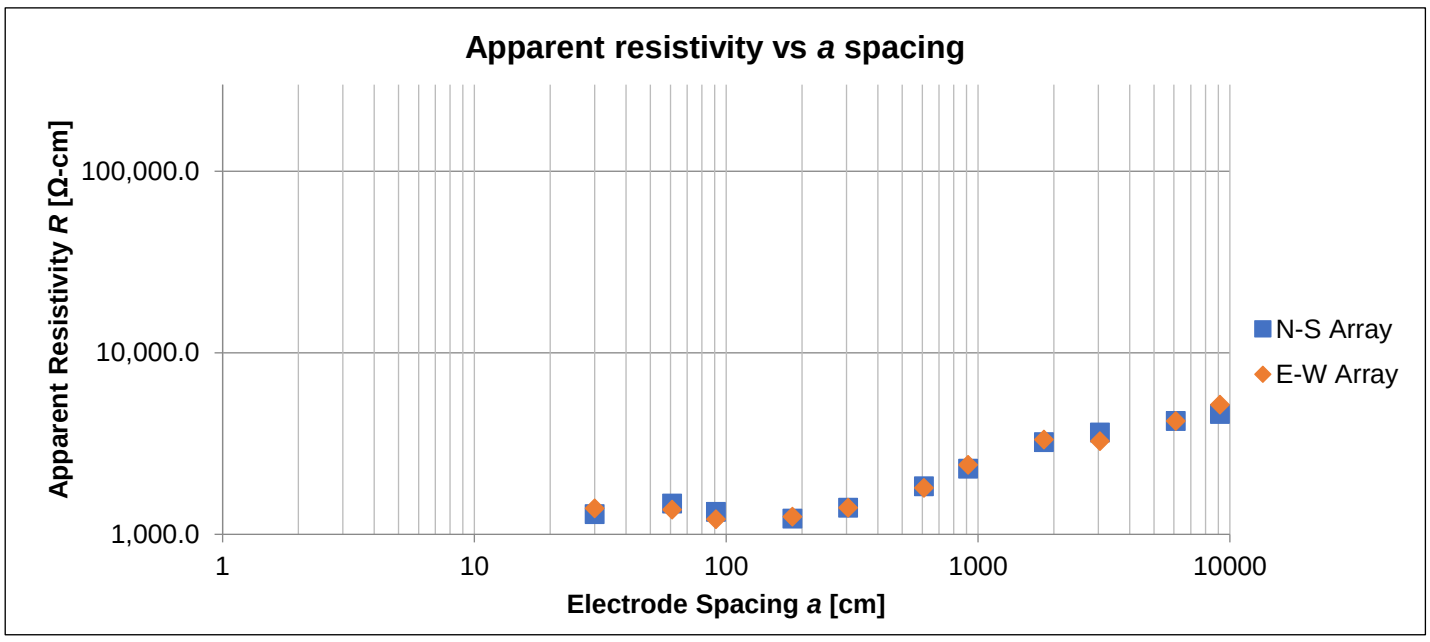
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-11 (37.403869°, -87.671500°)		
Instrument	AEMC	**Weather**	Sunny, 78 degrees
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 17, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	6.540	1290	7.070	1390
2	61	2	5	3.820	1480	3.530	1370
3	91	2	5	2.310	1330	2.110	1210
6	183	2	5	1.060	1220	1.090	1250
10	305	2	5	0.730	1400	0.730	1400
20	610	2	5	0.480	1840	0.470	1800
30	914	2	5	0.400	2300	0.420	2410
60	1829	2	5	0.280	3220	0.290	3330
100	3048	2	5	0.190	3640	0.170	3260
200	6096	2	5	0.110	4210	0.110	4210
300	9144	2	5	0.080	4600	0.090	5170



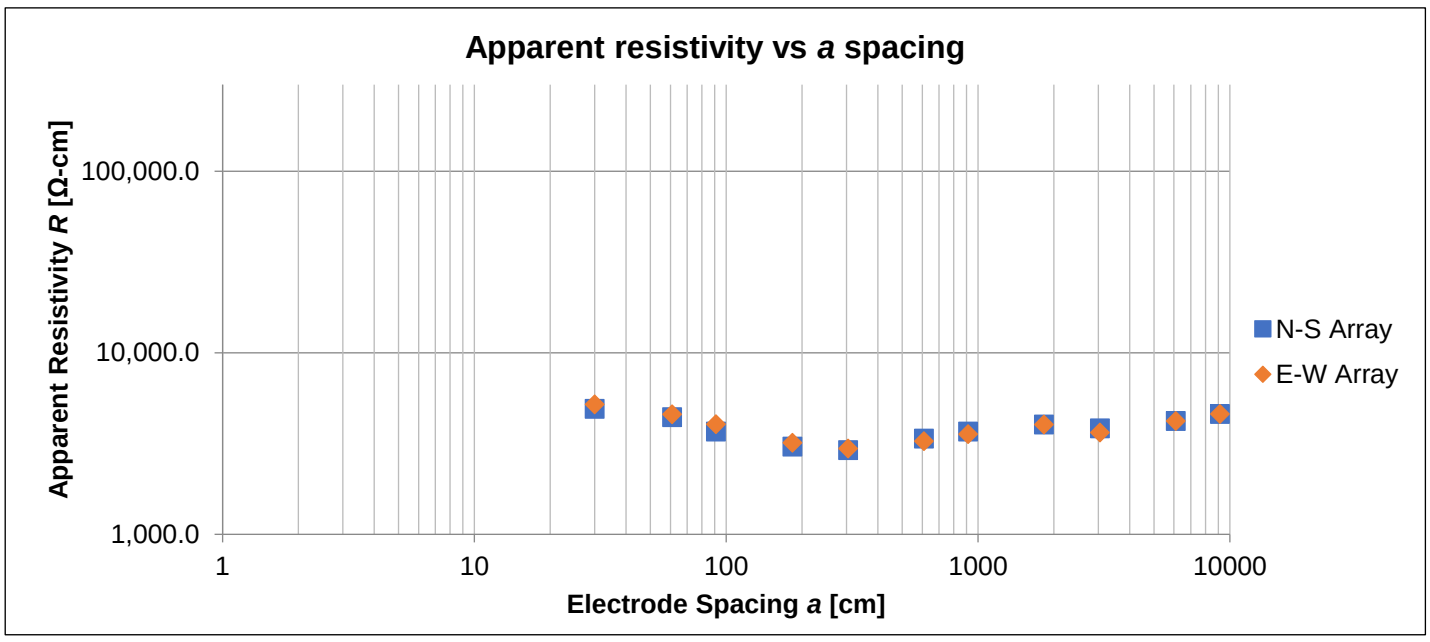
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-12 (37.397994°, -87.659771°)		
Instrument	AEMC	**Weather**	Cloudy, 76 degrees
Serial #	6471	**Ground Cond.**	Damp soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 19, 2023	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	24.900	4910	26.300	5190
2	61	2	5	11.400	4420	11.800	4580
3	91	2	5	6.410	3680	7.030	4040
6	183	2	5	2.640	3040	2.770	3190
10	305	2	5	1.520	2910	1.550	2970
20	610	2	5	0.880	3370	0.850	3260
30	914	2	5	0.640	3680	0.620	3560
60	1829	2	5	0.350	4020	0.350	4020
100	3048	2	5	0.200	3830	0.190	3640
200	6096	2	5	0.110	4210	0.110	4210
300	9144	2	5	0.080	4600	0.080	4600



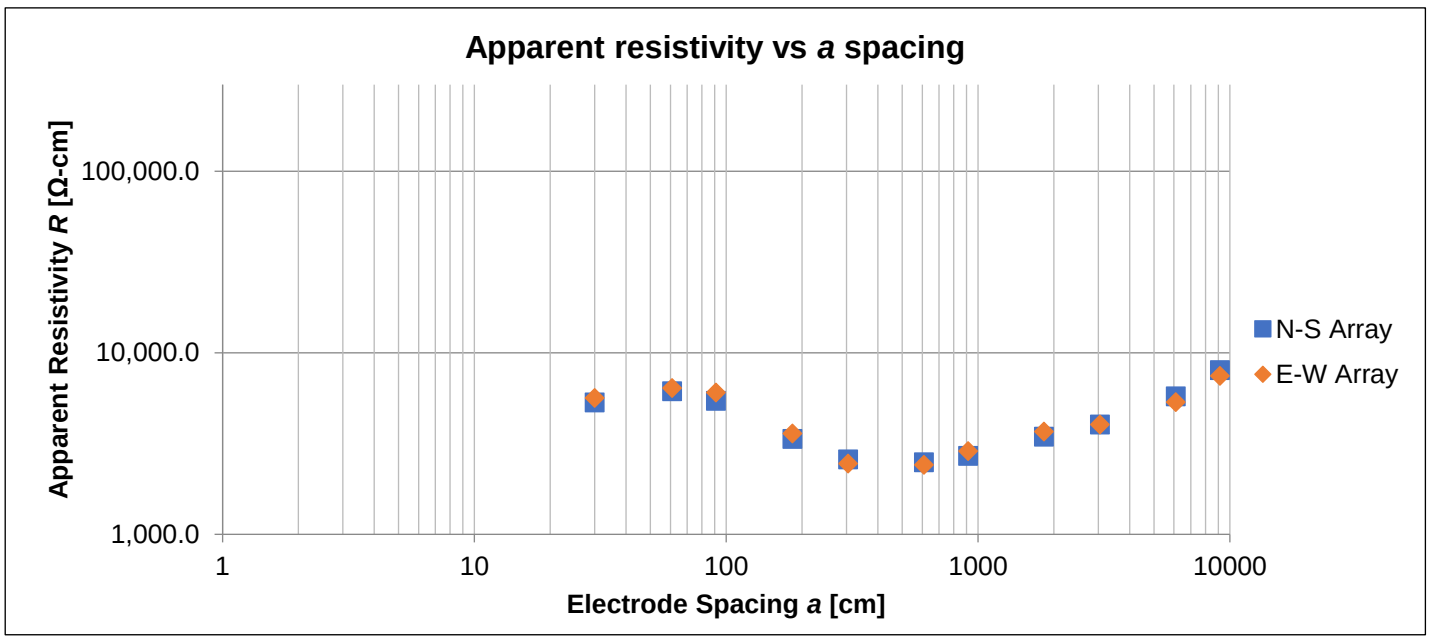
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-13 (37.394509°, -87.663695°)		
Instrument	AEMC	**Weather**	Sunny, 79 degrees*
Serial #	6471	**Ground Cond.**	Moist soil
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 10, 2023*	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	300-Foot A-Spacing done on 5-19-23, Cloudy, 73 degrees, Moist soil		

Apparent resistivity ρ is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	27.000	5330	28.600	5640
2	61	2	5	15.800	6130	16.500	6400
3	91	2	5	9.450	5430	10.500	6040
6	183	2	5	2.910	3350	3.120	3590
10	305	2	5	1.350	2590	1.280	2450
20	610	2	5	0.650	2490	0.630	2410
30	914	2	5	0.470	2700	0.500	2870
60	1829	2	5	0.300	3450	0.320	3680
100	3048	2	5	0.210	4020	0.210	4020
200	6096	2	5	0.150	5750	0.140	5360
300	9144	2	5	0.140	8040	0.130	7470



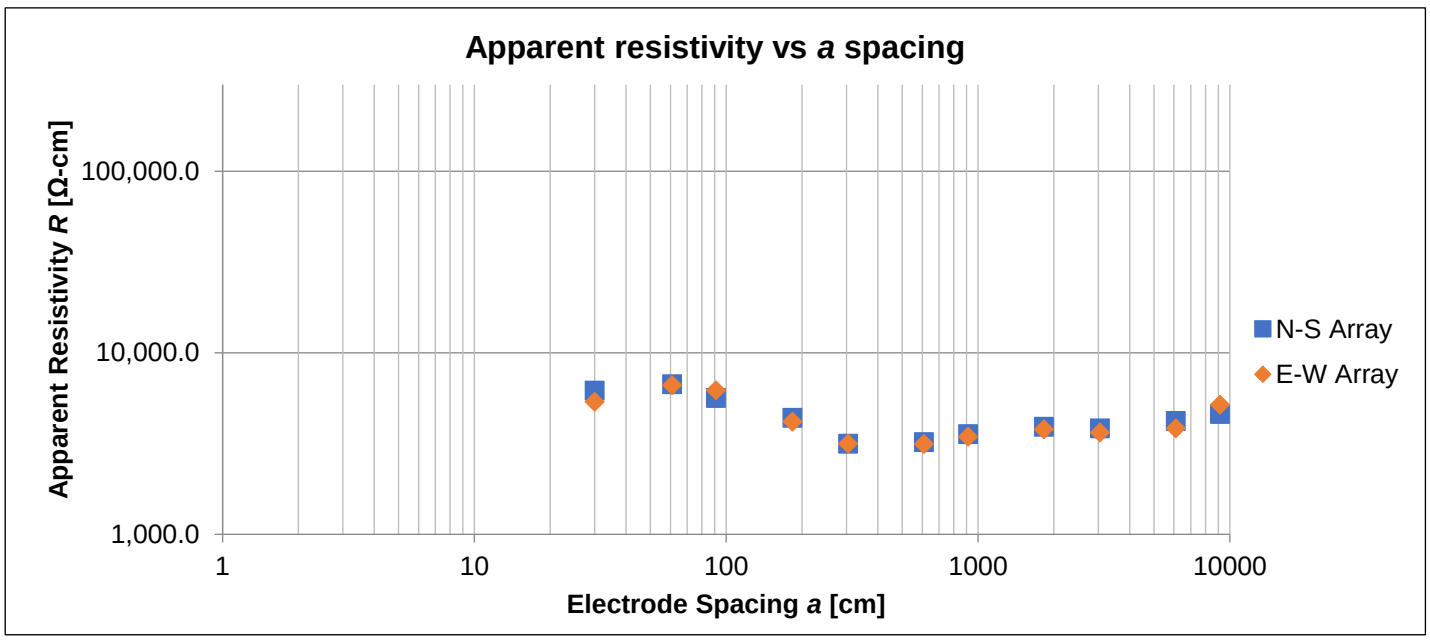
FIELD ELECTRICAL RESISTIVITY TEST DATA

Weirs Creek Solar ■ Providence, Webster County, Kentucky
Terracon Project No. 572355034

Array Loc.	AFER-14 (37.394157°, -87.658532°)		
Instrument	AEMC	**Weather**	Sunny, 77 degrees*
Serial #	6471	**Ground Cond.**	Moist soil*
Cal. Check	Rocky Shang	**Tested By**	Pete Henderlong and Baron Williams
Test Date	May 10, 2023*	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	300-Foot A-Spacing done on 5-19-23, Sunny, 72 degrees, Moist soil		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2+4b^2}} - \dfrac{a}{\sqrt{a^2+b^2}}}$

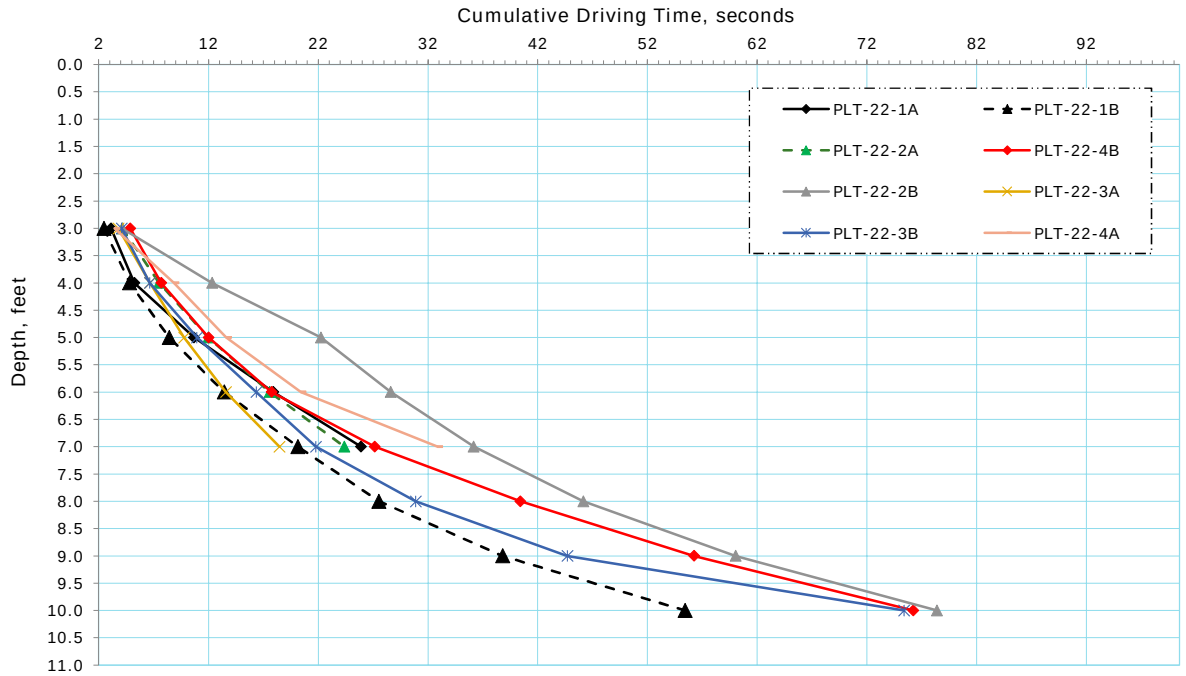
Electrode Spacing *a*		Electrode Depth *b*		NW-SE Test		NE-SW Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
1	30	2	5	31.400	6190	27.200	5370
2	61	2	5	17.300	6710	17.100	6630
3	91	2	5	9.790	5630	10.800	6210
6	183	2	5	3.810	4390	3.630	4180
10	305	2	5	1.650	3160	1.650	3160
20	610	2	5	0.840	3220	0.820	3140
30	914	2	5	0.620	3560	0.600	3450
60	1829	2	5	0.340	3910	0.330	3790
100	3048	2	5	0.200	3830	0.190	3640
200	6096	2	5	0.110	4210	0.100	3830
300	9144	2	5	0.080	4600	0.090	5170



Pile Load Test Results

Contents:

TEST PILE DRIVING RECORDS
Weirs Creek Solar
Terracon Project No.: N4245089



Depth, feet	Cumulative Driving Time, seconds							
	PLT-22-1A	PLT-22-1B	PLT-22-2A	PLT-22-2B	PLT-22-3A	PLT-22-3B	PLT-22-4A	PLT-22-4B
0.0	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet	Pre-drilled to 2.0 feet
1.0								
2.0								
3.0	2.62	1.97	3.65	3.63	3.3	3.6	2.95	4.37
4.0	4.74	4.32	7.01	11.83	6.16	6.15	8.35	7.19
5.0	10.19	7.92	11.49	21.75	9.26	10.45	13.12	11.52
6.0	17.42	12.94	17.09	28.12	13.08	15.85	19.92	17.25
7.0	25.4	19.64	23.89	35.67	17.95	21.29	32.36	26.64
8.0		27.04		45.65		30.38		39.93
9.0		38.32		59.53		44.2		55.76
10.0		54.93		77.88		74.89		75.72
11.0								
Embedment Depth, ft	7.0	10.0	7.0	10.0	7.0	10.0	7.0	10.0
Total Drive Time, sec	25	55	24	78	18	75	32	76
Average, sec/ft	5.1	6.9	4.8	9.7	3.6	9.4	6.5	9.5

NOTES:
Pile were installed on 22nd April, 2024

Legend for Post Designations:
A = axial tension and lateral load test pile with 7 ft target embedment
B = axial tension and lateral load test pile with 10 ft target embedment

57235034 Weirs Creek Solar Project

Number in each cell represents cumulative time per foot during installation. Refusal Criteria: 120 seconds/ft

PLT Location	ID	WOH inches	Drive Time (s) /Embedment Depth (ft)								Notes	Install Date
			0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8		
1	A	3	4	11	23	40	64				APV	6/20/2023
	B	4	6	14	30	53	74	99	131	161		
	C	3	4	10	21	37	59					
2	A	3	3	8	17	29	41					6/20/2023
	B	5	4	9	17	26	35	46	63	78		
	C	3	5	11	23	34	47					
3	A	2	7	12	25	42	66					6/20/2023
	B	3	5	9	18	29	43	59	79	102		
	C	2	8	12	17	25	35					
4	A	5	4	7	11	15	23					6/20/2023
	B	6	3	6	10	14	20	34	62	101		
	C	5	3	7	10	16	25					
5	A	2	4	9	18	33	55					6/20/2023
	B	4	5	8	14	29	51	79	109	145		
	C	5	3	8	16	32	52					
6	A	3	5	10	19	29	44					6/20/2023
	B	4	4	9	18	31	46	64	85	132		
	C	2	5	10	18	29	42					
7	A	3	6	12	24	41	61					6/20/2023
	B	5	4	10	20	38	59	85	122	169		
	C	3	5	12	21	36	55					
8	A	4	4	7	14	26	44					6/20/2023
	B	6	3	5	12	21	37	58	90	134		
	C	6	3	8	17	31	51					
9	A	3	4	8	15	25	40					6/20/2023
	B	3	4	8	18	30	48	79	127	186		
	C	5	3	7	16	31	56					
10	A	4	5	11	23	39	64					6/20/2023
	B	6	4	10	22	40	62	97	154	249		
	C	2	3	7	17	30	54					
11	A	4	2	6	12	21	32					6/20/2023
	B	2	3	7	11	21	32	49	76	151		
	C	2	3	7	13	21	32					

12	A	3	6	15	27	41	58					
	B	8	4	9	16	29	42	57	74	94		6/20/2023
	C	2	7	14	25	40	64					
13	A	6	3	8	15	26	43					
	B	6	3	10	18	29	42	60	88	129		6/20/2023
	C	5	4	10	18	28	43					
14	A	5	5	13	23	38	63					
	B	6	4	10	18	34	53	76	105	143		6/20/2023
	C	2	7	13	27	42	63					
15	A	5	4	8	18	29	45					
	B	6	4	11	20	32	44	62	90	146		6/20/2023
	C	5	3	8	17	27	40					
16	A	6	4	7	11	16	23				APV	
	B	5	4	7	10	13	19	31	52	86		6/20/2023
	C	3	5	8	13	17	23					
17	A	2	4	7	11	18	30				APV	
	B	4	3	6	8	17	27	41	60	83		6/21/2023
	C	2	4	6	9	14	25					
18	A	6	2	7	17	28	45					
	B	5	5	12	21	35	51	68	89	116		6/21/2023
	C	7	2	5	9	12	19					
19	A	3	4	9	19	27	39					
	B	2	4	11	18	28	38	51	69	95		6/21/2023
	C	5	2	8	17	25	36					
20	A	5	2	6	11	16	30					
	B	1	5	8	12	18	31	50	78	119		6/21/2023
	C	2	5	8	14	19	28					
21	A	3	4	11	19	24	37					
	B	2	6	12	21	34	48	65	81	109		6/21/2023
		1	7	13	22	33	50					
22	A	3	3	6	10	17	24					
	B	2	4	9	11	13	18	28	38	55		6/21/2023
	C	3	3	7	16	28	39					

Tension Load Test Result for PLT-22-01A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

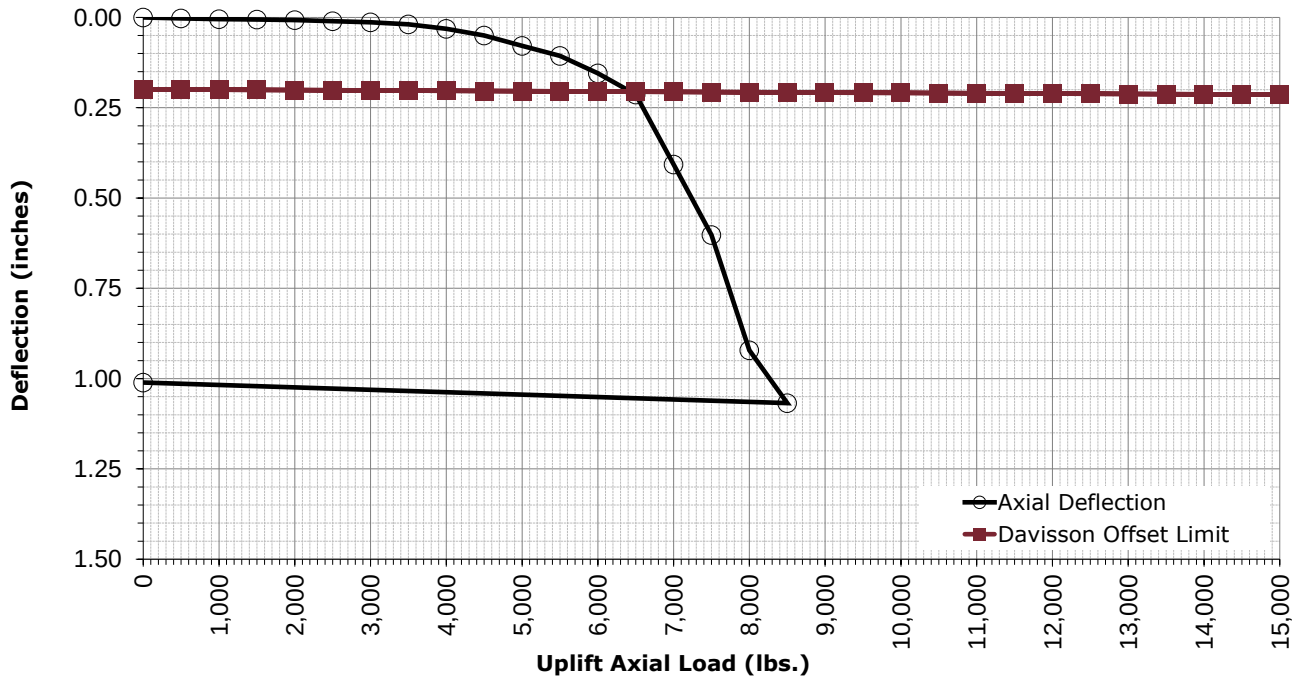
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	5/1/2024

Pile Information

Pile ID:	PLT-01A
Latitude [deg.]:	37.40087
Longitude[deg.]:	-87.70440
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	25
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.000	0.200	
7%	1000	0.005	0.001	0.200	
10%	1500	0.006	0.001	0.201	
13%	2000	0.007	0.002	0.201	
17%	2500	0.010	0.002	0.202	
20%	3000	0.013	0.003	0.202	
23%	3500	0.019	0.003	0.203	
27%	4000	0.032	0.004	0.203	
30%	4500	0.050	0.004	0.204	
33%	5000	0.079	0.005	0.204	
37%	5500	0.106	0.005	0.205	
40%	6000	0.155	0.006	0.205	
43%	6500	0.213	0.006	0.206	
47%	7000	0.407	0.007	0.206	
50%	7500	0.602	0.007	0.207	
53%	8000	0.921	0.008	0.207	
57%	8500	1.068	0.008	0.207	
60%	9000		0.009	0.208	
63%	9500		0.009	0.208	
67%	10000		0.010	0.209	
70%	10500		0.010	0.209	
73%	11000		0.011	0.210	
77%	11500		0.011	0.210	
80%	12000		0.012	0.211	
83%	12500		0.012	0.211	
87%	13000		0.013	0.212	
90%	13500		0.013	0.212	
93%	14000		0.014	0.213	
97%	14500		0.014	0.213	
100%	15000		0.015	0.214	
0%	0	1.011	0.000	0.199	



Tension Load Test Result for PLT-22-01B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

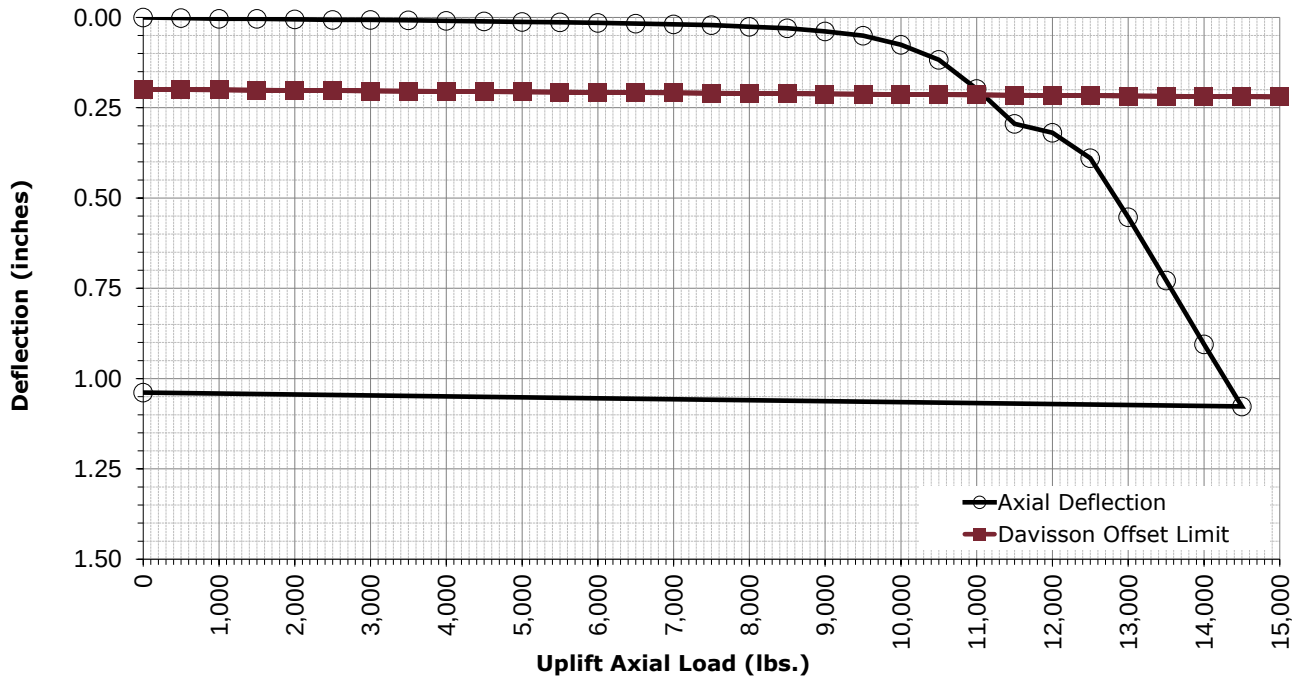
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	5/1/2024

Pile Information

Pile ID:	PLT-01B
Latitude [deg.]:	37.40087
Longitude[deg.]:	-87.70440
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	55
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1000	0.004	0.001	0.201	
10%	1500	0.004	0.002	0.201	
13%	2000	0.005	0.003	0.202	
17%	2500	0.007	0.003	0.203	
20%	3000	0.007	0.004	0.203	
23%	3500	0.008	0.005	0.204	
27%	4000	0.009	0.006	0.205	
30%	4500	0.011	0.006	0.205	
33%	5000	0.012	0.007	0.206	
37%	5500	0.014	0.008	0.207	
40%	6000	0.015	0.008	0.208	
43%	6500	0.017	0.009	0.208	
47%	7000	0.019	0.010	0.209	
50%	7500	0.021	0.010	0.210	
53%	8000	0.026	0.011	0.210	
57%	8500	0.030	0.012	0.211	
60%	9000	0.039	0.013	0.212	
63%	9500	0.051	0.013	0.212	
67%	10000	0.076	0.014	0.213	
70%	10500	0.117	0.015	0.214	
73%	11000	0.198	0.015	0.215	
77%	11500	0.295	0.016	0.215	
80%	12000	0.319	0.017	0.216	
83%	12500	0.390	0.017	0.217	
87%	13000	0.553	0.018	0.217	
90%	13500	0.728	0.019	0.218	
93%	14000	0.905	0.020	0.219	
97%	14500	1.077	0.020	0.219	
100%	15000		0.021	0.220	
0%	0	1.039	0.000	0.199	



Tension Load Test Result for PLT-22-02A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

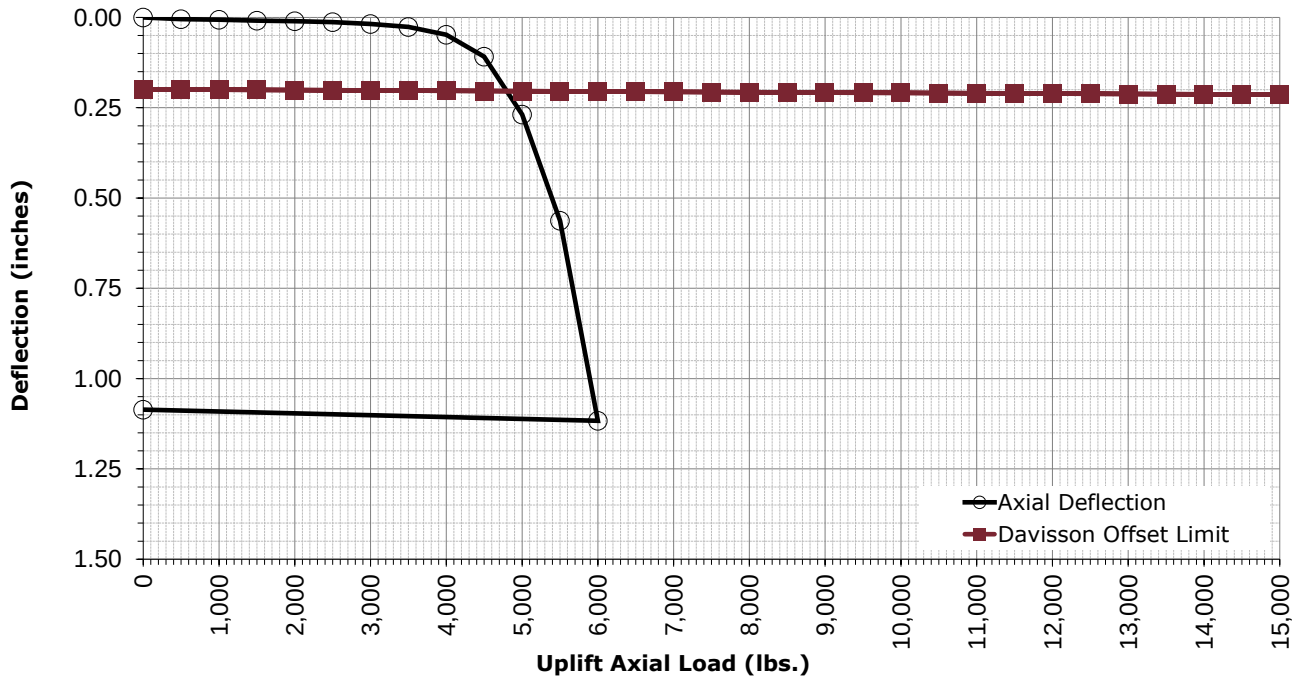
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-02A
Latitude [deg.]:	37.41295
Longitude[deg.]:	-87.68645
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	24
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.000	0.200	
7%	1000	0.006	0.001	0.200	
10%	1500	0.009	0.001	0.201	
13%	2000	0.010	0.002	0.201	
17%	2500	0.013	0.002	0.202	
20%	3000	0.018	0.003	0.202	
23%	3500	0.026	0.003	0.203	
27%	4000	0.048	0.004	0.203	
30%	4500	0.109	0.004	0.204	
33%	5000	0.269	0.005	0.204	
37%	5500	0.563	0.005	0.205	
40%	6000	1.117	0.006	0.205	
43%	6500		0.006	0.206	
47%	7000		0.007	0.206	
50%	7500		0.007	0.207	
53%	8000		0.008	0.207	
57%	8500		0.008	0.207	
60%	9000		0.009	0.208	
63%	9500		0.009	0.208	
67%	10000		0.010	0.209	
70%	10500		0.010	0.209	
73%	11000		0.011	0.210	
77%	11500		0.011	0.210	
80%	12000		0.012	0.211	
83%	12500		0.012	0.211	
87%	13000		0.013	0.212	
90%	13500		0.013	0.212	
93%	14000		0.014	0.213	
97%	14500		0.014	0.213	
100%	15000		0.015	0.214	
0%	0	1.086	0.000	0.199	



Tension Load Test Result for PLT-22-02B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

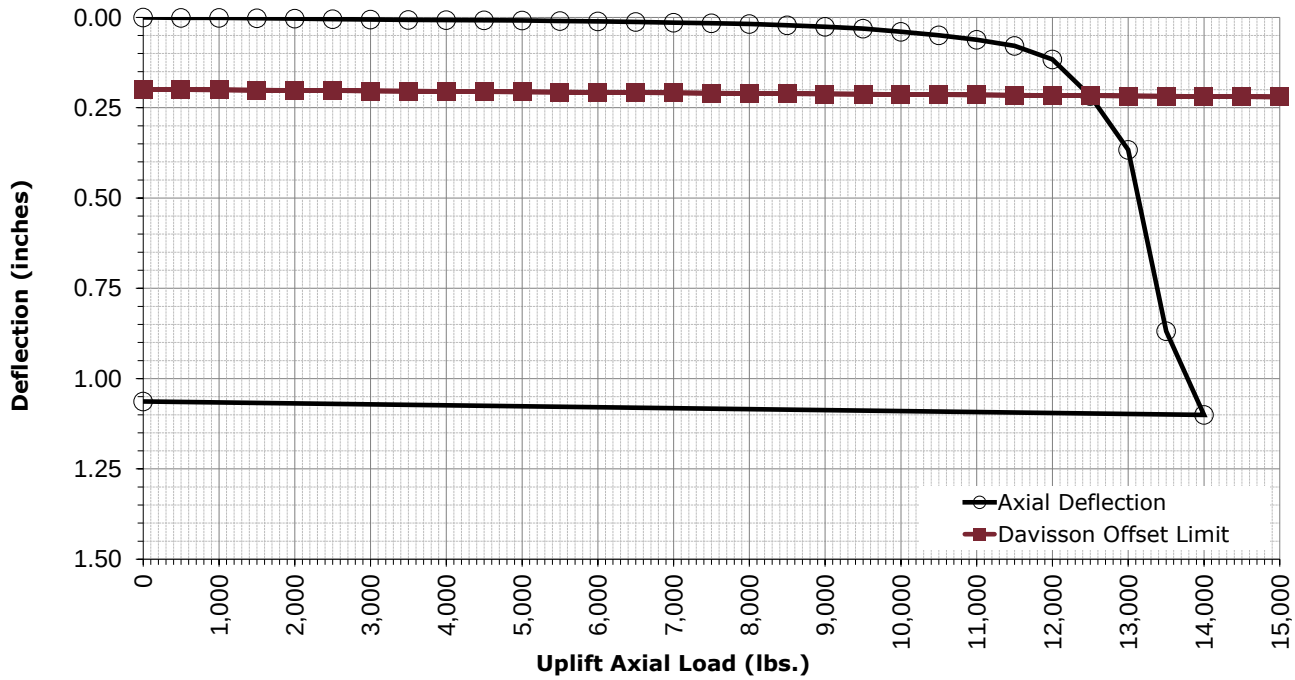
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-02B
Latitude [deg.]:	37.41295
Longitude[deg.]:	-87.68645
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	78
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1000	0.001	0.001	0.201	
10%	1500	0.002	0.002	0.201	
13%	2000	0.003	0.003	0.202	
17%	2500	0.005	0.003	0.203	
20%	3000	0.006	0.004	0.203	
23%	3500	0.007	0.005	0.204	
27%	4000	0.008	0.006	0.205	
30%	4500	0.008	0.006	0.205	
33%	5000	0.009	0.007	0.206	
37%	5500	0.010	0.008	0.207	
40%	6000	0.011	0.008	0.208	
43%	6500	0.012	0.009	0.208	
47%	7000	0.014	0.010	0.209	
50%	7500	0.016	0.010	0.210	
53%	8000	0.018	0.011	0.210	
57%	8500	0.022	0.012	0.211	
60%	9000	0.026	0.013	0.212	
63%	9500	0.031	0.013	0.212	
67%	10000	0.040	0.014	0.213	
70%	10500	0.050	0.015	0.214	
73%	11000	0.062	0.015	0.215	
77%	11500	0.079	0.016	0.215	
80%	12000	0.116	0.017	0.216	
83%	12500	0.218	0.017	0.217	
87%	13000	0.366	0.018	0.217	
90%	13500	0.869	0.019	0.218	
93%	14000	1.101	0.020	0.219	
97%	14500		0.020	0.219	
100%	15000		0.021	0.220	
0%	0	1.063	0.000	0.199	



Tension Load Test Result for PLT-22-03A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

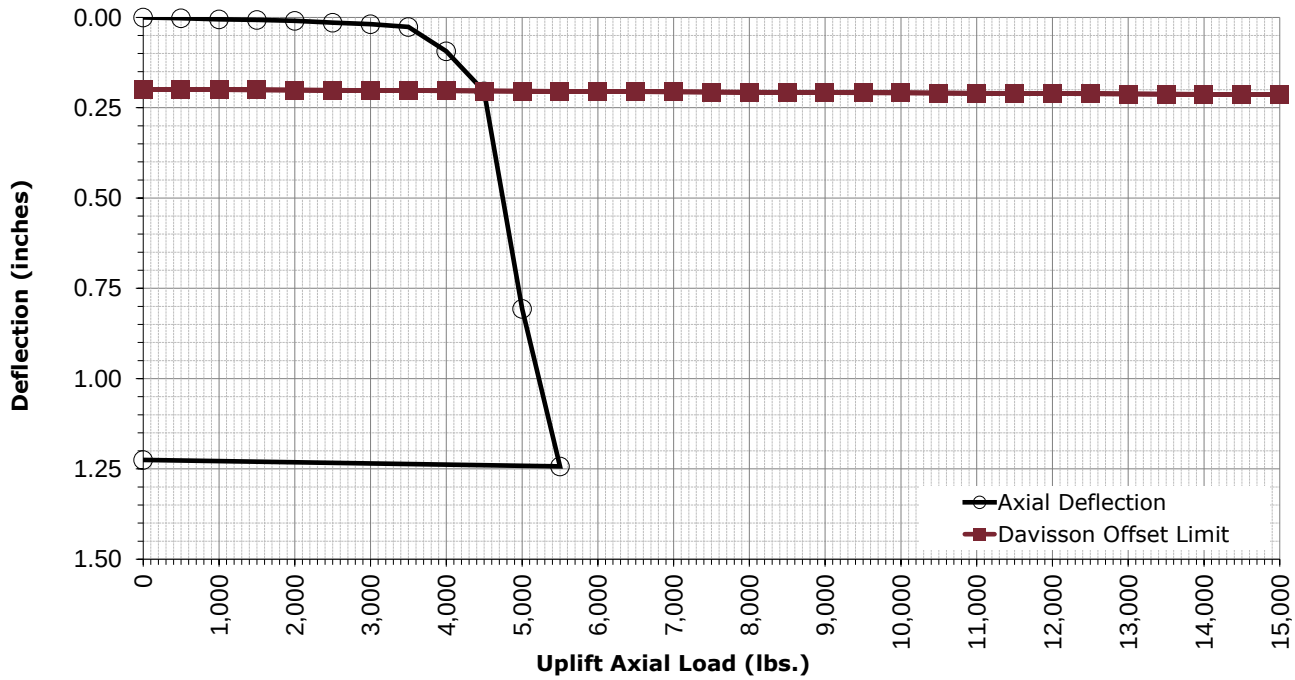
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-03A
Latitude [deg.]:	37.41799
Longitude[deg.]:	-87.67597
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	18
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.000	0.200	
7%	1000	0.005	0.001	0.200	
10%	1500	0.007	0.001	0.201	
13%	2000	0.010	0.002	0.201	
17%	2500	0.014	0.002	0.202	
20%	3000	0.019	0.003	0.202	
23%	3500	0.026	0.003	0.203	
27%	4000	0.094	0.004	0.203	
30%	4500	0.205	0.004	0.204	
33%	5000	0.807	0.005	0.204	
37%	5500	1.243	0.005	0.205	
40%	6000		0.006	0.205	
43%	6500		0.006	0.206	
47%	7000		0.007	0.206	
50%	7500		0.007	0.207	
53%	8000		0.008	0.207	
57%	8500		0.008	0.207	
60%	9000		0.009	0.208	
63%	9500		0.009	0.208	
67%	10000		0.010	0.209	
70%	10500		0.010	0.209	
73%	11000		0.011	0.210	
77%	11500		0.011	0.210	
80%	12000		0.012	0.211	
83%	12500		0.012	0.211	
87%	13000		0.013	0.212	
90%	13500		0.013	0.212	
93%	14000		0.014	0.213	
97%	14500		0.014	0.213	
100%	15000		0.015	0.214	
0%	0	1.225	0.000	0.199	



Tension Load Test Result for PLT-22-03B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

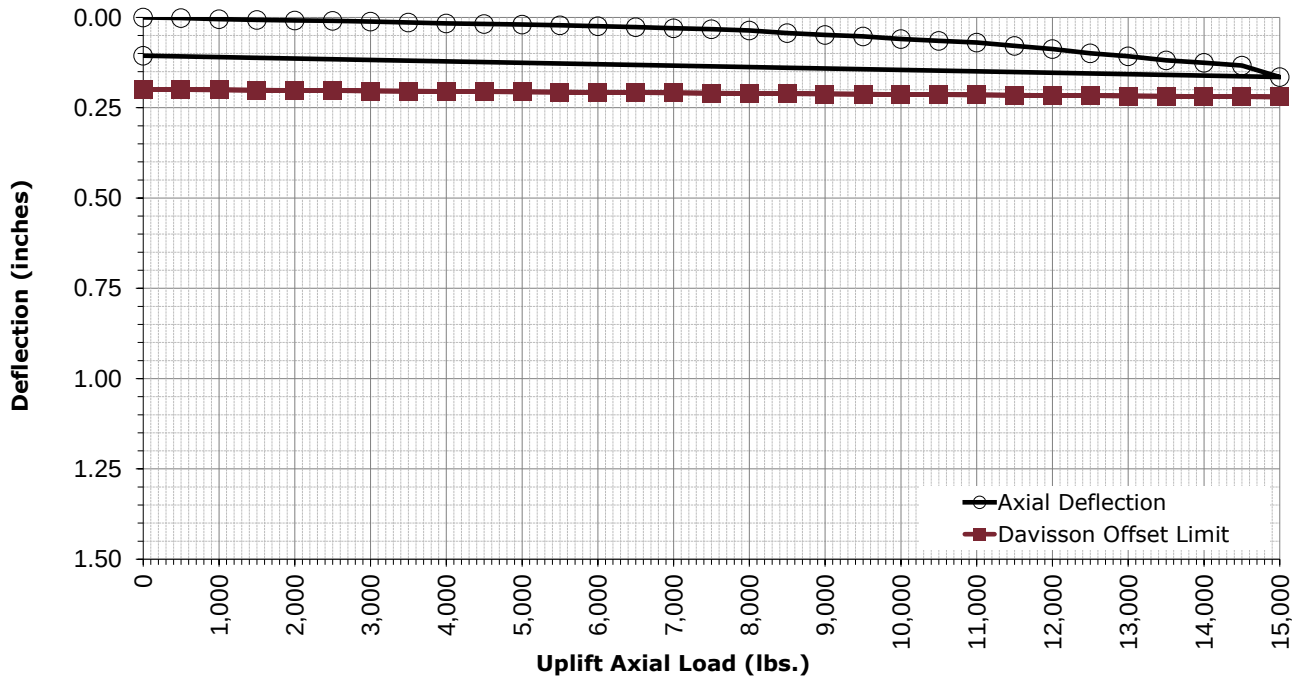
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-03B
Latitude [deg.]:	37.41799
Longitude[deg.]:	-87.67597
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	75
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1000	0.005	0.001	0.201	
10%	1500	0.007	0.002	0.201	
13%	2000	0.008	0.003	0.202	
17%	2500	0.009	0.003	0.203	
20%	3000	0.011	0.004	0.203	
23%	3500	0.014	0.005	0.204	
27%	4000	0.017	0.006	0.205	
30%	4500	0.018	0.006	0.205	
33%	5000	0.020	0.007	0.206	
37%	5500	0.022	0.008	0.207	
40%	6000	0.024	0.008	0.208	
43%	6500	0.027	0.009	0.208	
47%	7000	0.030	0.010	0.209	
50%	7500	0.033	0.010	0.210	
53%	8000	0.036	0.011	0.210	
57%	8500	0.043	0.012	0.211	
60%	9000	0.048	0.013	0.212	
63%	9500	0.052	0.013	0.212	
67%	10000	0.060	0.014	0.213	
70%	10500	0.065	0.015	0.214	
73%	11000	0.069	0.015	0.215	
77%	11500	0.079	0.016	0.215	
80%	12000	0.088	0.017	0.216	
83%	12500	0.099	0.017	0.217	
87%	13000	0.108	0.018	0.217	
90%	13500	0.119	0.019	0.218	
93%	14000	0.126	0.020	0.219	
97%	14500	0.133	0.020	0.219	
100%	15000	0.165	0.021	0.220	
0%	0	0.106	0.000	0.199	



Tension Load Test Result for PLT-22-04A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

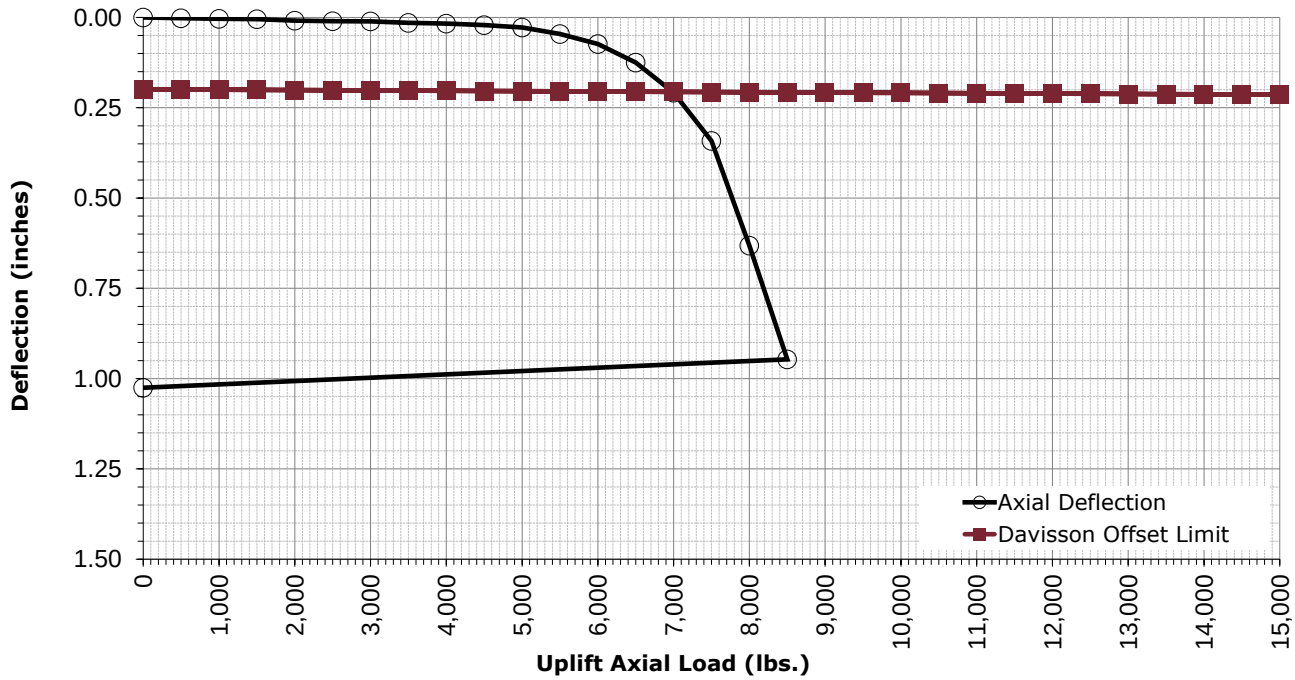
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-04A
Latitude [deg.]:	37.42216
Longitude[deg.]:	-87.67333
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	32
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.000	0.200	
7%	1000	0.004	0.001	0.200	
10%	1500	0.005	0.001	0.201	
13%	2000	0.009	0.002	0.201	
17%	2500	0.011	0.002	0.202	
20%	3000	0.011	0.003	0.202	
23%	3500	0.015	0.003	0.203	
27%	4000	0.017	0.004	0.203	
30%	4500	0.021	0.004	0.204	
33%	5000	0.028	0.005	0.204	
37%	5500	0.046	0.005	0.205	
40%	6000	0.074	0.006	0.205	
43%	6500	0.125	0.006	0.206	
47%	7000	0.208	0.007	0.206	
50%	7500	0.342	0.007	0.207	
53%	8000	0.632	0.008	0.207	
57%	8500	0.947	0.008	0.207	
60%	9000		0.009	0.208	
63%	9500		0.009	0.208	
67%	10000		0.010	0.209	
70%	10500		0.010	0.209	
73%	11000		0.011	0.210	
77%	11500		0.011	0.210	
80%	12000		0.012	0.211	
83%	12500		0.012	0.211	
87%	13000		0.013	0.212	
90%	13500		0.013	0.212	
93%	14000		0.014	0.213	
97%	14500		0.014	0.213	
100%	15000		0.015	0.214	
0%	0	1.025	0.000	0.199	



Tension Load Test Result for PLT-22-04B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

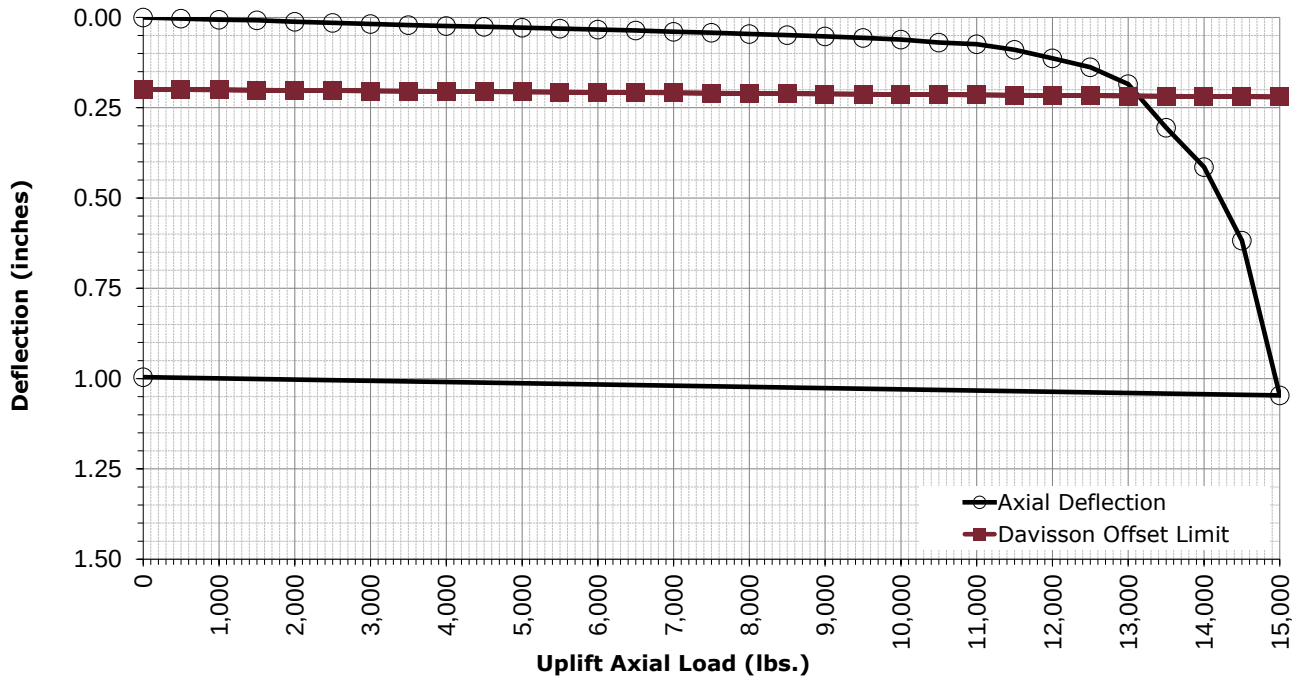
Test Date and Representative

Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information

Pile ID:	PLT-04B
Latitude [deg.]:	37.42216
Longitude[deg.]:	-87.67333
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.96
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	76
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1000	0.006	0.001	0.201	
10%	1500	0.008	0.002	0.201	
13%	2000	0.012	0.003	0.202	
17%	2500	0.015	0.003	0.203	
20%	3000	0.018	0.004	0.203	
23%	3500	0.021	0.005	0.204	
27%	4000	0.024	0.006	0.205	
30%	4500	0.026	0.006	0.205	
33%	5000	0.028	0.007	0.206	
37%	5500	0.031	0.008	0.207	
40%	6000	0.034	0.008	0.208	
43%	6500	0.036	0.009	0.208	
47%	7000	0.040	0.010	0.209	
50%	7500	0.042	0.010	0.210	
53%	8000	0.046	0.011	0.210	
57%	8500	0.049	0.012	0.211	
60%	9000	0.052	0.013	0.212	
63%	9500	0.057	0.013	0.212	
67%	10000	0.061	0.014	0.213	
70%	10500	0.069	0.015	0.214	
73%	11000	0.074	0.015	0.215	
77%	11500	0.089	0.016	0.215	
80%	12000	0.113	0.017	0.216	
83%	12500	0.138	0.017	0.217	
87%	13000	0.185	0.018	0.217	
90%	13500	0.306	0.019	0.218	
93%	14000	0.414	0.020	0.219	
97%	14500	0.618	0.020	0.219	
100%	15000	1.047	0.021	0.220	
0%	0	0.996	0.000	0.199	



Tension Load Test Result for PLT-1A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

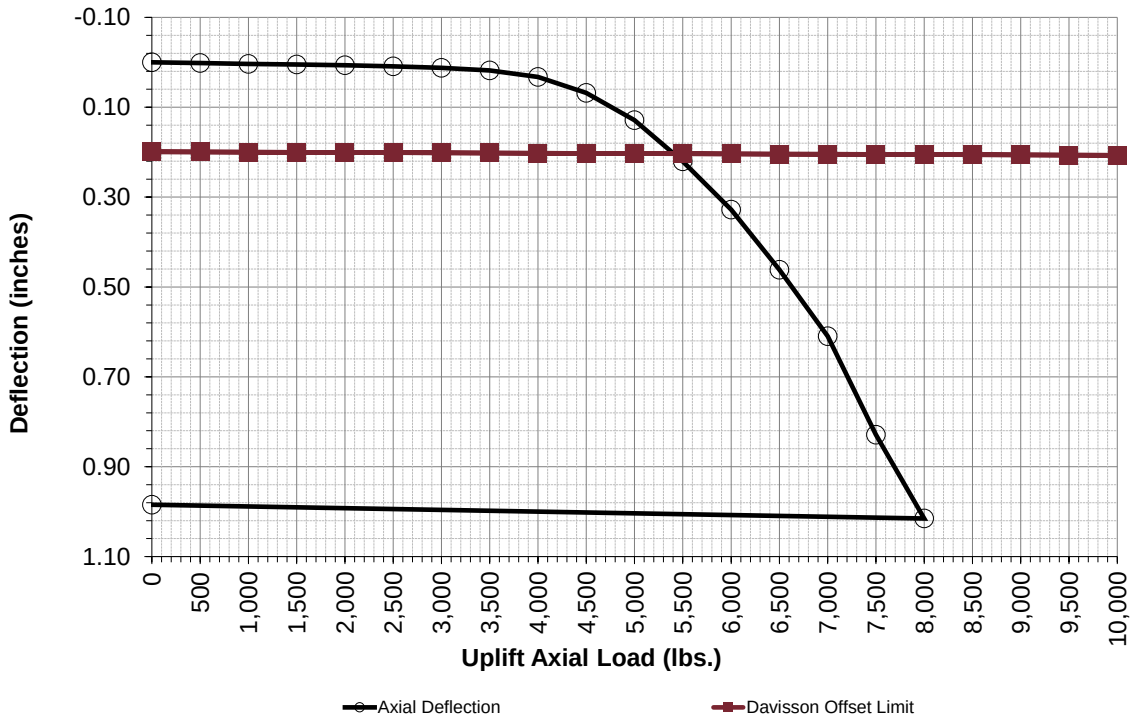
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-1A
Latitude [deg.]:	37.421800°
Longitude[deg.]:	-87.685390°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	64

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.000	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.005	0.001	0.200	
20%	2000	0.007	0.002	0.201	
25%	2500	0.009	0.002	0.201	
30%	3000	0.013	0.002	0.201	
35%	3500	0.018	0.003	0.202	
40%	4000	0.033	0.003	0.202	
45%	4500	0.068	0.003	0.203	
50%	5000	0.129	0.004	0.203	
55%	5500	0.221	0.004	0.203	
60%	6000	0.328	0.005	0.204	
65%	6500	0.462	0.005	0.204	
70%	7000	0.610	0.005	0.205	
75%	7500	0.829	0.006	0.205	
80%	8000	1.015	0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.985	0.000	0.199	



Tension Load Test Result for PLT-1B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

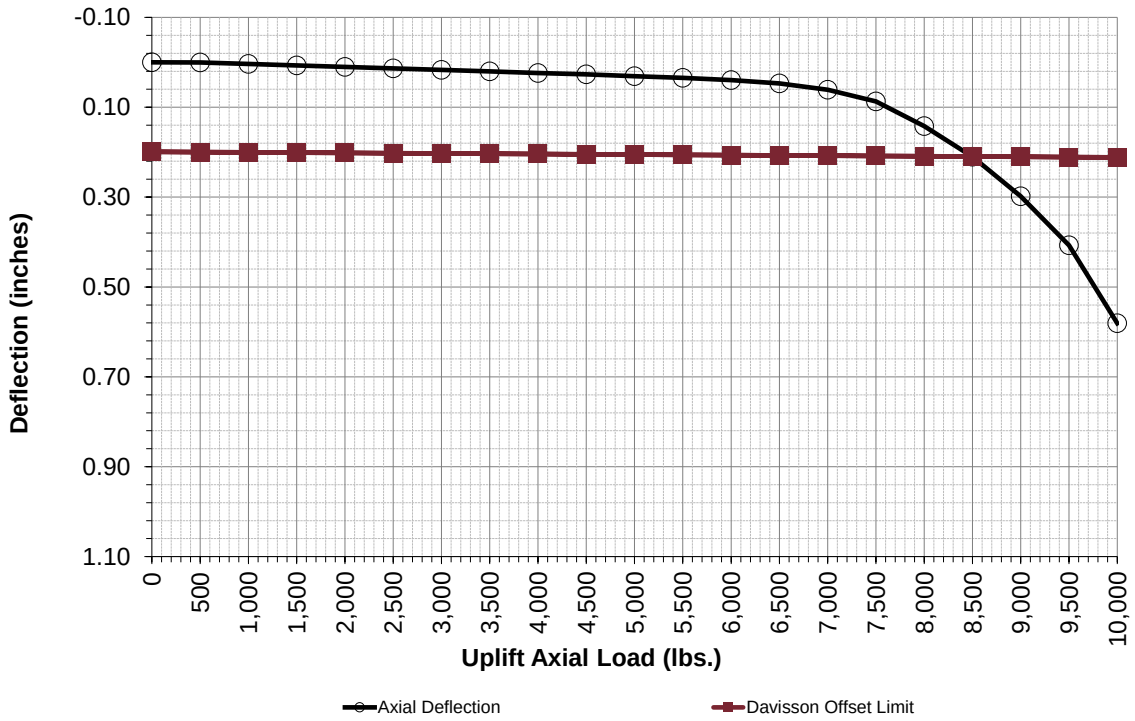
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-1B
Latitude [deg.]:	37.421800°
Longitude[deg.]:	-87.685390°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	161

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.007	0.002	0.201	
20%	2000	0.010	0.002	0.202	
25%	2500	0.014	0.003	0.202	
30%	3000	0.017	0.004	0.203	
35%	3500	0.020	0.004	0.203	
40%	4000	0.024	0.005	0.204	
45%	4500	0.027	0.006	0.205	
50%	5000	0.031	0.006	0.205	
55%	5500	0.035	0.007	0.206	
60%	6000	0.040	0.007	0.207	
65%	6500	0.047	0.008	0.207	
70%	7000	0.061	0.009	0.208	
75%	7500	0.087	0.009	0.208	
80%	8000	0.142	0.010	0.209	
85%	8500	0.210	0.010	0.210	
90%	9000	0.298	0.011	0.210	
95%	9500	0.407	0.012	0.211	
100%	10000	0.581	0.012	0.212	
0%	0		0.000	0.199	



Tension Load Test Result for PLT-2A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

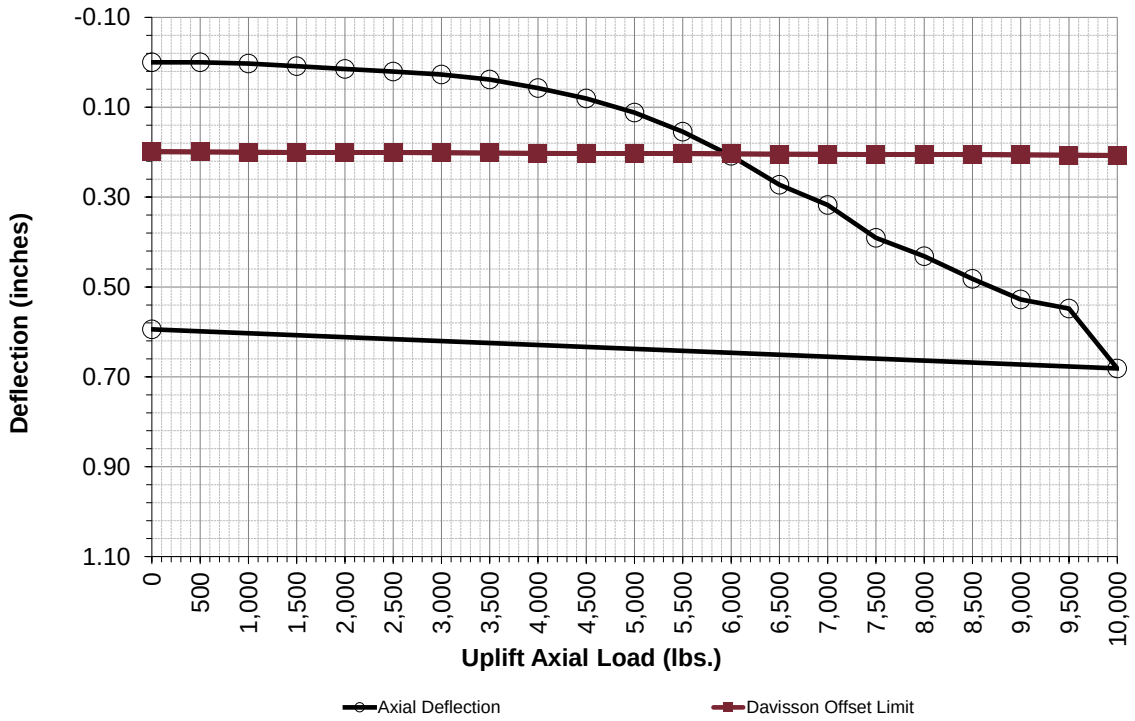
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-2A
Latitude [deg.]:	37.420707°
Longitude[deg.]:	-87.681606°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	41

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.009	0.001	0.200	
20%	2000	0.015	0.002	0.201	
25%	2500	0.021	0.002	0.201	
30%	3000	0.027	0.002	0.201	
35%	3500	0.039	0.003	0.202	
40%	4000	0.058	0.003	0.202	
45%	4500	0.081	0.003	0.203	
50%	5000	0.112	0.004	0.203	
55%	5500	0.154	0.004	0.203	
60%	6000	0.208	0.005	0.204	
65%	6500	0.273	0.005	0.204	
70%	7000	0.318	0.005	0.205	
75%	7500	0.391	0.006	0.205	
80%	8000	0.432	0.006	0.205	
85%	8500	0.482	0.007	0.206	
90%	9000	0.528	0.007	0.206	
95%	9500	0.548	0.007	0.207	
100%	10000	0.681	0.008	0.207	
0%	0	0.594	0.000	0.199	



Tension Load Test Result for PLT-2B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

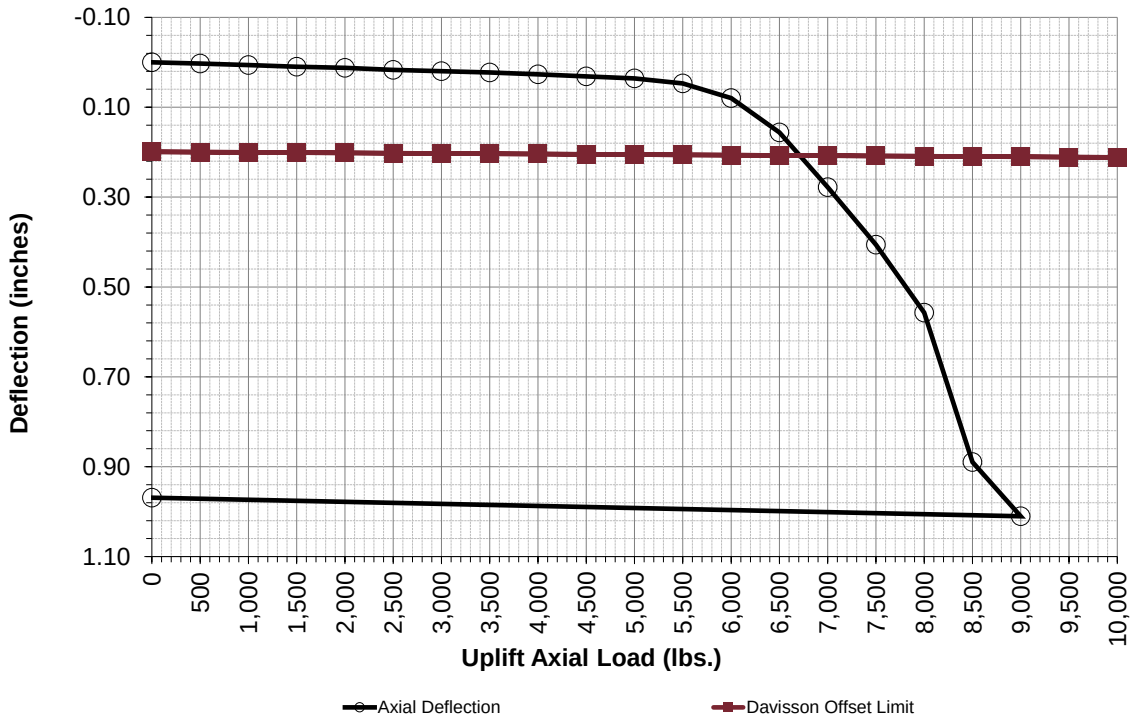
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-2B
Latitude [deg.]:	37.420707°
Longitude[deg.]:	-87.681606°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	78

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.006	0.001	0.200	
15%	1500	0.010	0.002	0.201	
20%	2000	0.013	0.002	0.202	
25%	2500	0.017	0.003	0.202	
30%	3000	0.020	0.004	0.203	
35%	3500	0.023	0.004	0.203	
40%	4000	0.027	0.005	0.204	
45%	4500	0.032	0.006	0.205	
50%	5000	0.036	0.006	0.205	
55%	5500	0.047	0.007	0.206	
60%	6000	0.080	0.007	0.207	
65%	6500	0.156	0.008	0.207	
70%	7000	0.278	0.009	0.208	
75%	7500	0.406	0.009	0.208	
80%	8000	0.557	0.010	0.209	
85%	8500	0.890	0.010	0.210	
90%	9000	1.010	0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.969	0.000	0.199	



Tension Load Test Result for PLT-3A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

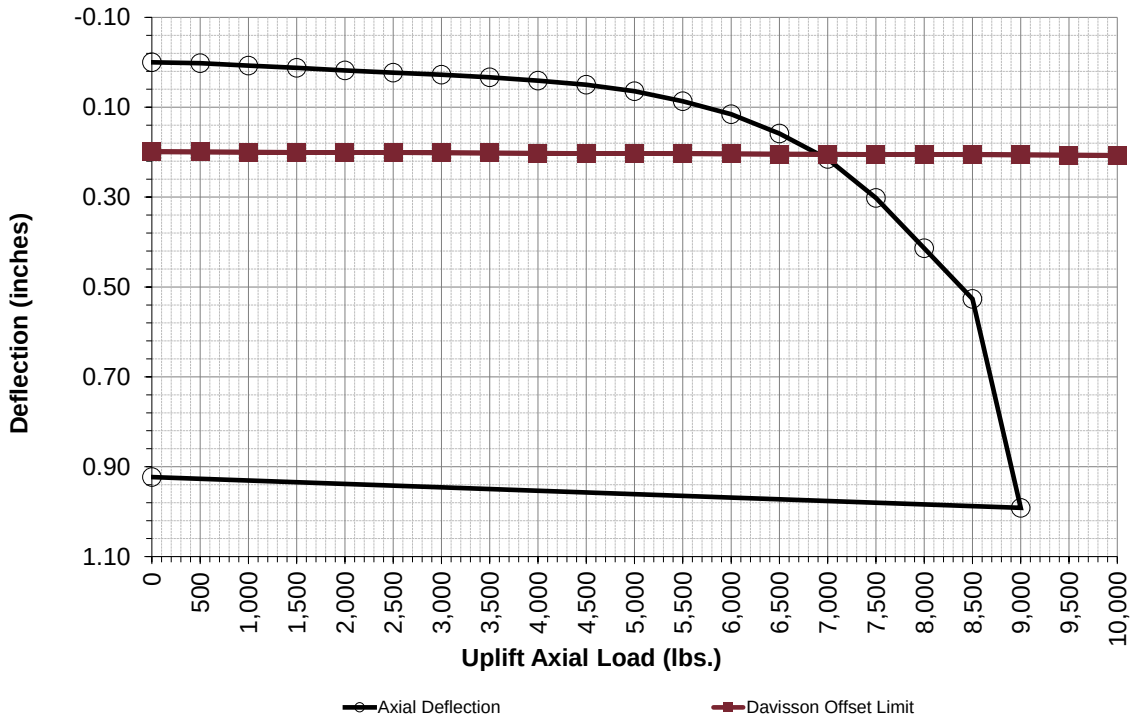
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-3A
Latitude [deg.]:	37.420405°
Longitude[deg.]:	-87.679850°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	66

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.000	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.013	0.001	0.200	
20%	2000	0.018	0.002	0.201	
25%	2500	0.023	0.002	0.201	
30%	3000	0.028	0.002	0.201	
35%	3500	0.034	0.003	0.202	
40%	4000	0.041	0.003	0.202	
45%	4500	0.050	0.003	0.203	
50%	5000	0.064	0.004	0.203	
55%	5500	0.087	0.004	0.203	
60%	6000	0.116	0.005	0.204	
65%	6500	0.159	0.005	0.204	
70%	7000	0.215	0.005	0.205	
75%	7500	0.302	0.006	0.205	
80%	8000	0.414	0.006	0.205	
85%	8500	0.527	0.007	0.206	
90%	9000	0.992	0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.923	0.000	0.199	



Tension Load Test Result for PLT-3B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

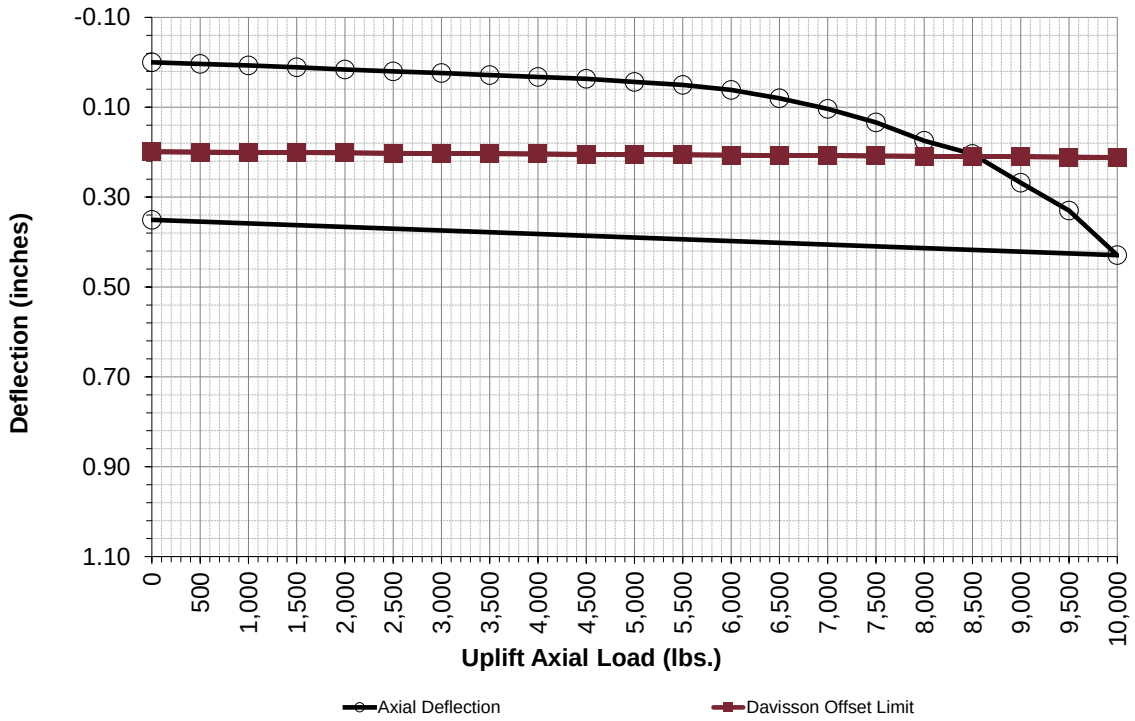
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-3B
Latitude [deg.]:	37.420405°
Longitude[deg.]:	-87.679850°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	102

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.004	0.001	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.011	0.002	0.201	
20%	2000	0.016	0.002	0.202	
25%	2500	0.020	0.003	0.202	
30%	3000	0.024	0.004	0.203	
35%	3500	0.028	0.004	0.203	
40%	4000	0.033	0.005	0.204	
45%	4500	0.037	0.006	0.205	
50%	5000	0.044	0.006	0.205	
55%	5500	0.051	0.007	0.206	
60%	6000	0.062	0.007	0.207	
65%	6500	0.080	0.008	0.207	
70%	7000	0.104	0.009	0.208	
75%	7500	0.134	0.009	0.208	
80%	8000	0.175	0.010	0.209	
85%	8500	0.204	0.010	0.210	
90%	9000	0.268	0.011	0.210	
95%	9500	0.330	0.012	0.211	
100%	10000	0.429	0.012	0.212	
0%	0	0.351	0.000	0.199	



Tension Load Test Result for PLT-4A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

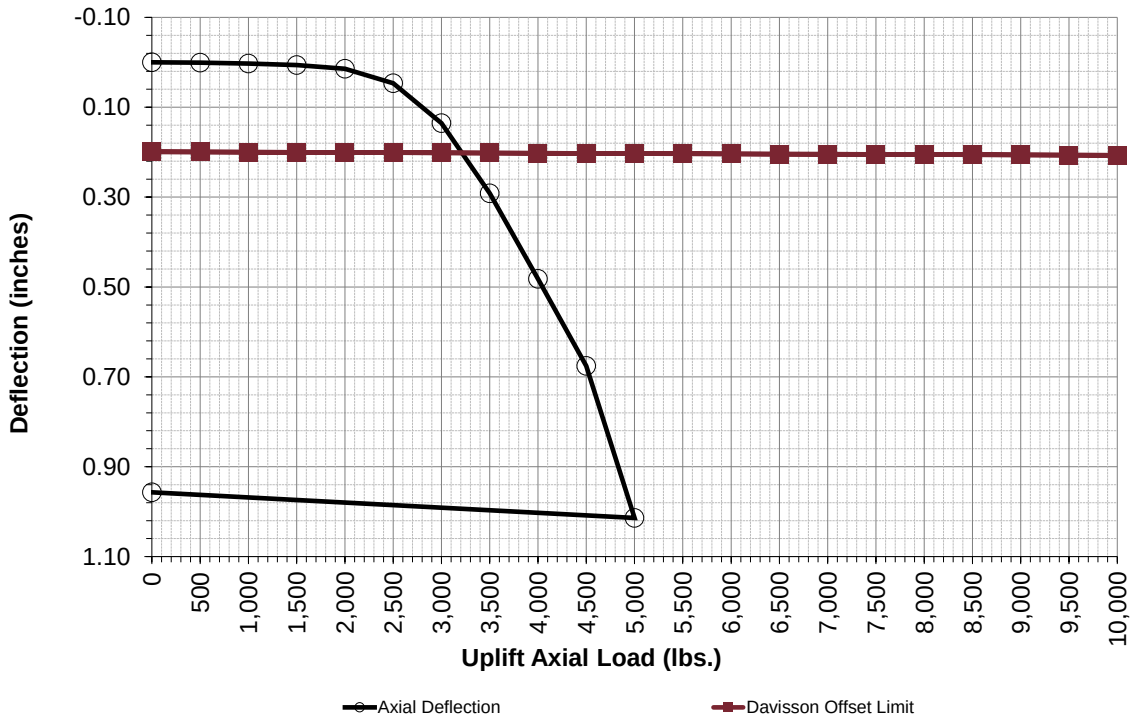
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-4A
Latitude [deg.]:	37.421115°
Longitude[deg.]:	-87.674801°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	23

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.006	0.001	0.200	
20%	2000	0.015	0.002	0.201	
25%	2500	0.047	0.002	0.201	
30%	3000	0.136	0.002	0.201	
35%	3500	0.292	0.003	0.202	
40%	4000	0.482	0.003	0.202	
45%	4500	0.676	0.003	0.203	
50%	5000	1.014	0.004	0.203	
55%	5500		0.004	0.203	
60%	6000		0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.957	0.000	0.199	



Tension Load Test Result for PLT-4B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

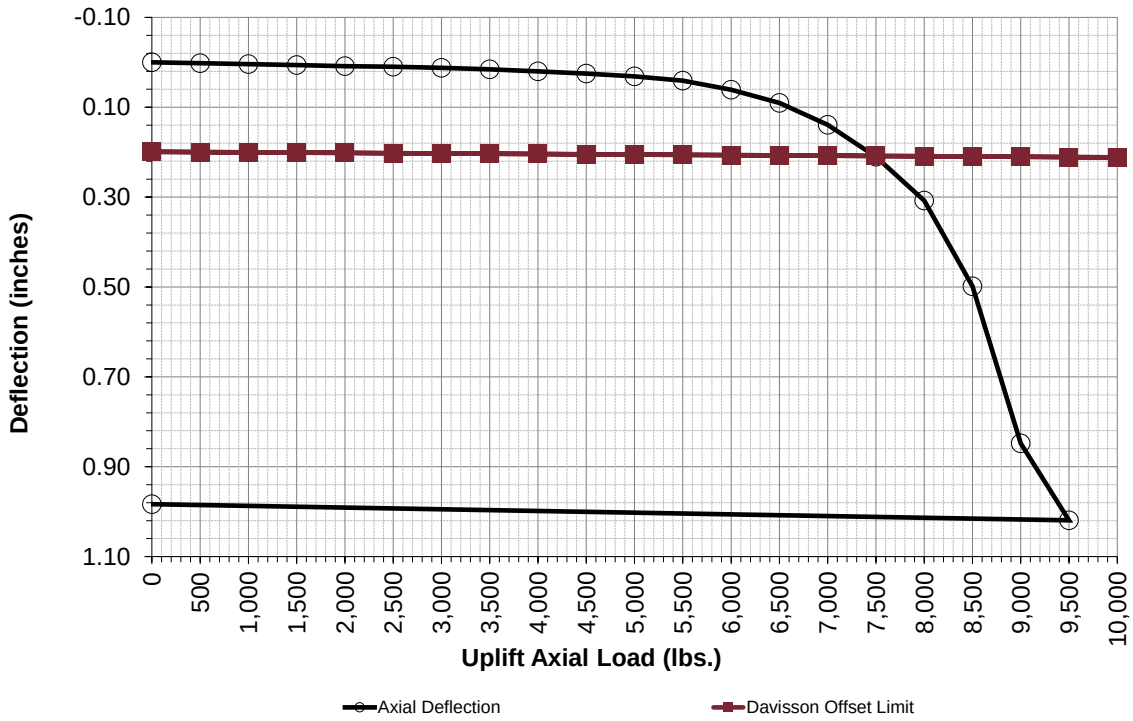
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-4B
Latitude [deg.]:	37.421115°
Longitude[deg.]:	-87.674801°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	101

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.009	0.002	0.202	
25%	2500	0.010	0.003	0.202	
30%	3000	0.013	0.004	0.203	
35%	3500	0.016	0.004	0.203	
40%	4000	0.020	0.005	0.204	
45%	4500	0.025	0.006	0.205	
50%	5000	0.031	0.006	0.205	
55%	5500	0.041	0.007	0.206	
60%	6000	0.061	0.007	0.207	
65%	6500	0.091	0.008	0.207	
70%	7000	0.139	0.009	0.208	
75%	7500	0.210	0.009	0.208	
80%	8000	0.308	0.010	0.209	
85%	8500	0.499	0.010	0.210	
90%	9000	0.848	0.011	0.210	
95%	9500	1.019	0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.983	0.000	0.199	



Tension Load Test Result for PLT-5A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

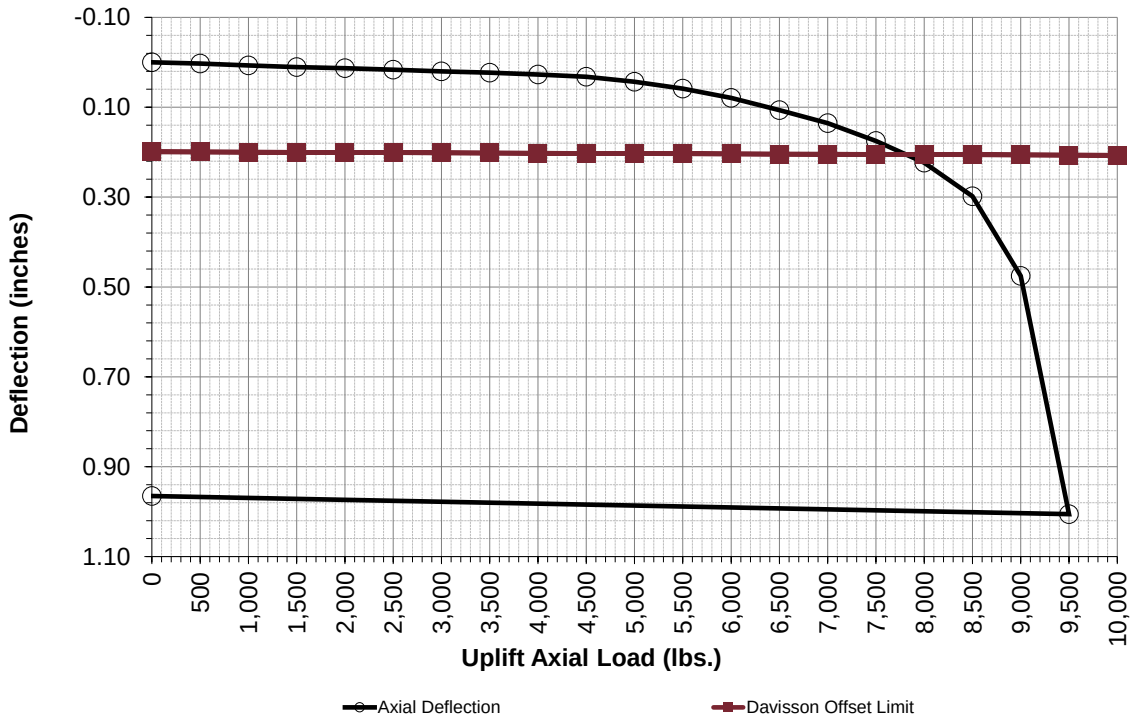
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-5A
Latitude [deg.]:	37.419188°
Longitude[deg.]:	-87.670540°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	55

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.011	0.001	0.200	
20%	2000	0.013	0.002	0.201	
25%	2500	0.016	0.002	0.201	
30%	3000	0.020	0.002	0.201	
35%	3500	0.023	0.003	0.202	
40%	4000	0.027	0.003	0.202	
45%	4500	0.032	0.003	0.203	
50%	5000	0.044	0.004	0.203	
55%	5500	0.059	0.004	0.203	
60%	6000	0.079	0.005	0.204	
65%	6500	0.107	0.005	0.204	
70%	7000	0.136	0.005	0.205	
75%	7500	0.175	0.006	0.205	
80%	8000	0.223	0.006	0.205	
85%	8500	0.298	0.007	0.206	
90%	9000	0.475	0.007	0.206	
95%	9500	1.006	0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.965	0.000	0.199	



Tension Load Test Result for PLT-5B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

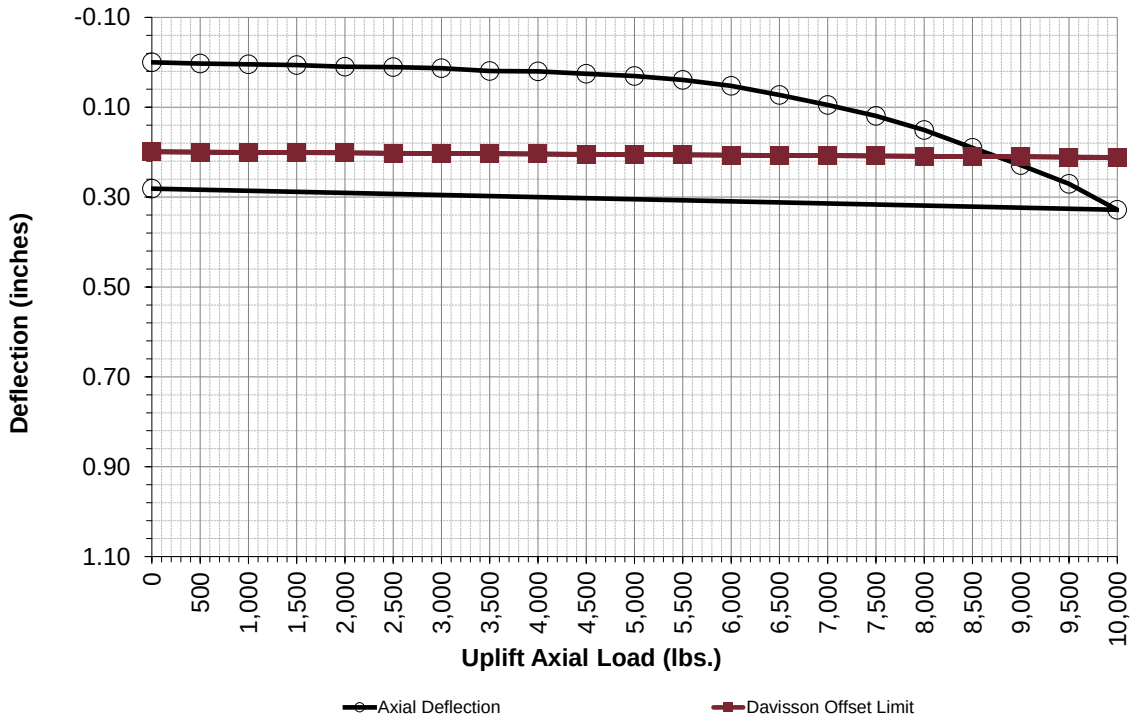
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-5B
Latitude [deg.]:	37.419188°
Longitude[deg.]:	-87.670540°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	145

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.005	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.010	0.002	0.202	
25%	2500	0.011	0.003	0.202	
30%	3000	0.013	0.004	0.203	
35%	3500	0.019	0.004	0.203	
40%	4000	0.020	0.005	0.204	
45%	4500	0.026	0.006	0.205	
50%	5000	0.031	0.006	0.205	
55%	5500	0.039	0.007	0.206	
60%	6000	0.052	0.007	0.207	
65%	6500	0.073	0.008	0.207	
70%	7000	0.095	0.009	0.208	
75%	7500	0.120	0.009	0.208	
80%	8000	0.151	0.010	0.209	
85%	8500	0.191	0.010	0.210	
90%	9000	0.229	0.011	0.210	
95%	9500	0.271	0.012	0.211	
100%	10000	0.328	0.012	0.212	
0%	0	0.281	0.000	0.199	



Tension Load Test Result for PLT-6A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

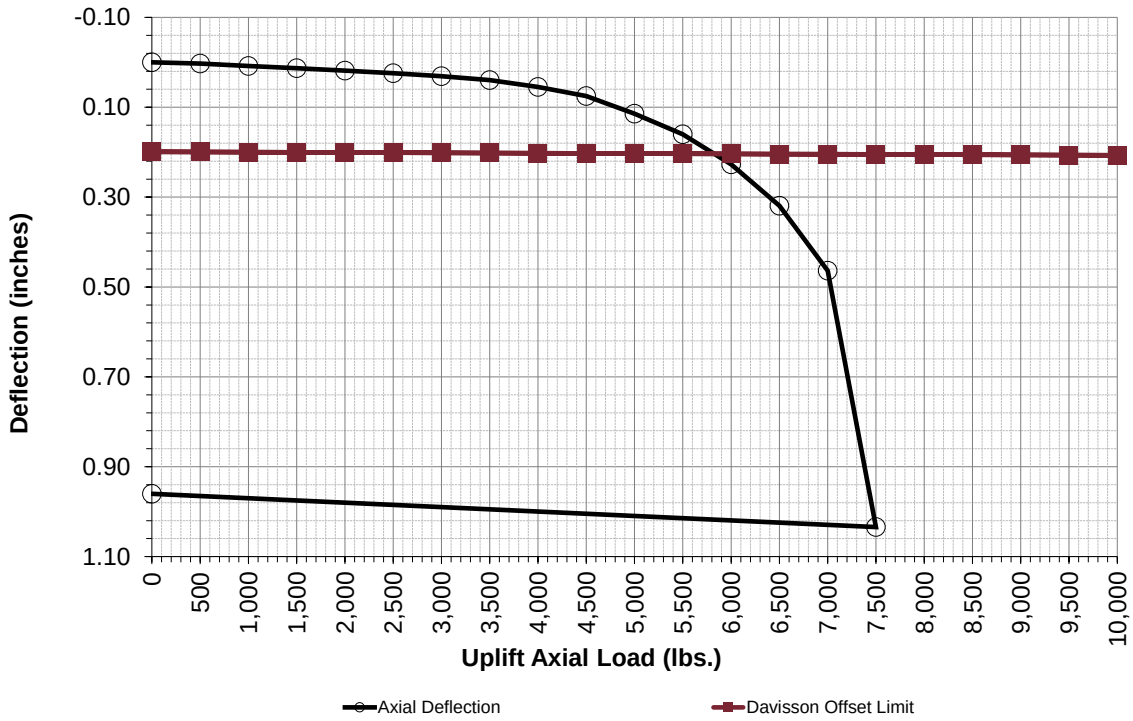
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-6A
Latitude [deg.]:	37.420553°
Longitude[deg.]:	-87.667394°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	44

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.008	0.001	0.200	
15%	1500	0.013	0.001	0.200	
20%	2000	0.019	0.002	0.201	
25%	2500	0.025	0.002	0.201	
30%	3000	0.031	0.002	0.201	
35%	3500	0.040	0.003	0.202	
40%	4000	0.055	0.003	0.202	
45%	4500	0.075	0.003	0.203	
50%	5000	0.115	0.004	0.203	
55%	5500	0.160	0.004	0.203	
60%	6000	0.227	0.005	0.204	
65%	6500	0.319	0.005	0.204	
70%	7000	0.464	0.005	0.205	
75%	7500	1.034	0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.960	0.000	0.199	



Tension Load Test Result for PLT-6B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

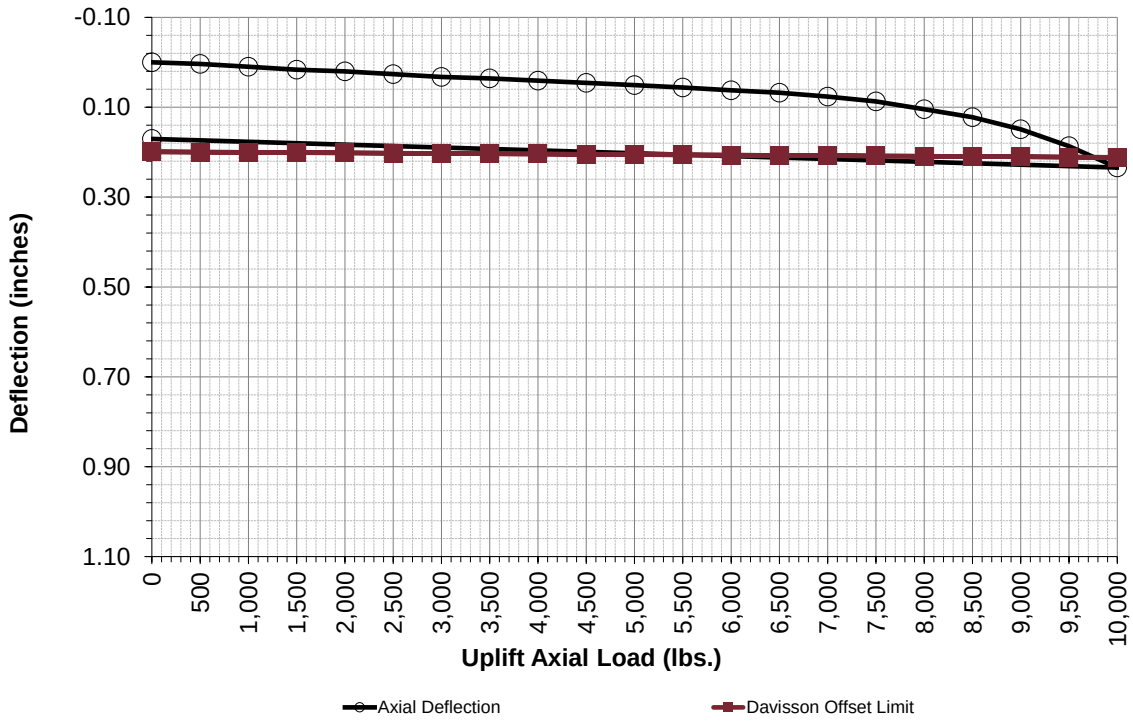
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-6B
Latitude [deg.]:	37.420553°
Longitude[deg.]:	-87.667394°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	132

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.004	0.001	0.200	
10%	1000	0.010	0.001	0.200	
15%	1500	0.016	0.002	0.201	
20%	2000	0.020	0.002	0.202	
25%	2500	0.027	0.003	0.202	
30%	3000	0.033	0.004	0.203	
35%	3500	0.036	0.004	0.203	
40%	4000	0.041	0.005	0.204	
45%	4500	0.046	0.006	0.205	
50%	5000	0.051	0.006	0.205	
55%	5500	0.056	0.007	0.206	
60%	6000	0.062	0.007	0.207	
65%	6500	0.068	0.008	0.207	
70%	7000	0.077	0.009	0.208	
75%	7500	0.087	0.009	0.208	
80%	8000	0.105	0.010	0.209	
85%	8500	0.122	0.010	0.210	
90%	9000	0.149	0.011	0.210	
95%	9500	0.187	0.012	0.211	
100%	10000	0.234	0.012	0.212	
0%	0	0.171	0.000	0.199	



Tension Load Test Result for PLT-7A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

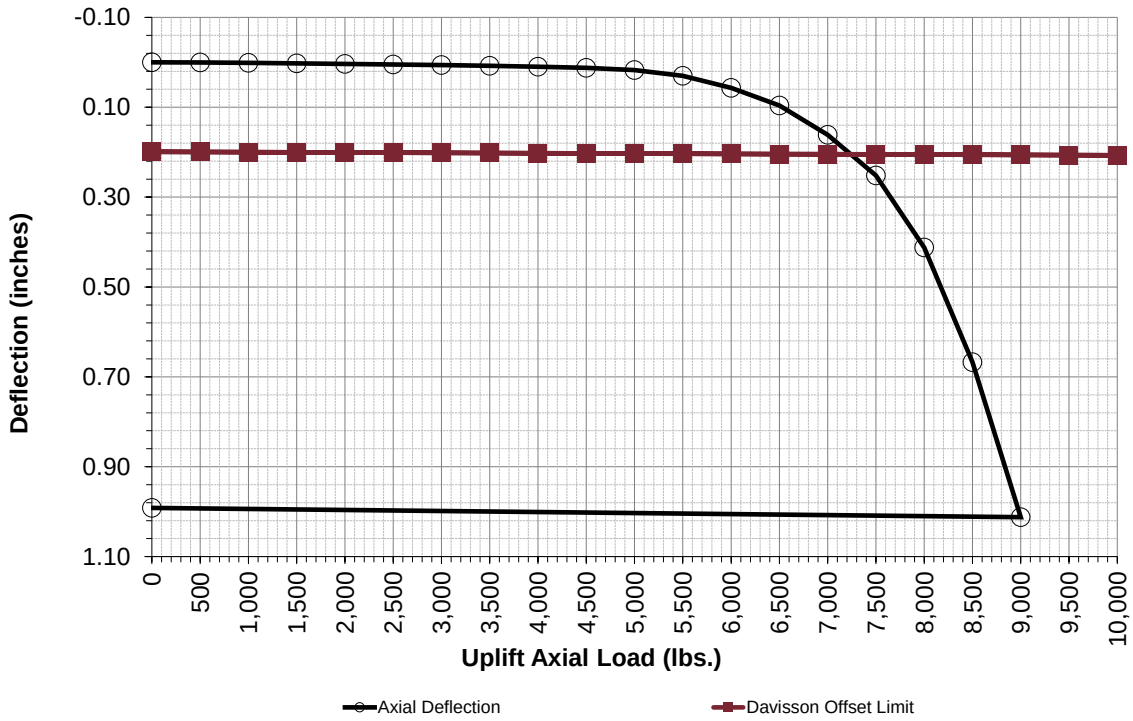
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-7A
Latitude [deg.]:	37.418312°
Longitude[deg.]:	-87.667395°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	61

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.001	0.001	0.200	
15%	1500	0.003	0.001	0.200	
20%	2000	0.004	0.002	0.201	
25%	2500	0.005	0.002	0.201	
30%	3000	0.006	0.002	0.201	
35%	3500	0.008	0.003	0.202	
40%	4000	0.010	0.003	0.202	
45%	4500	0.012	0.003	0.203	
50%	5000	0.017	0.004	0.203	
55%	5500	0.030	0.004	0.203	
60%	6000	0.057	0.005	0.204	
65%	6500	0.096	0.005	0.204	
70%	7000	0.162	0.005	0.205	
75%	7500	0.252	0.006	0.205	
80%	8000	0.412	0.006	0.205	
85%	8500	0.668	0.007	0.206	
90%	9000	1.012	0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.992	0.000	0.199	



Tension Load Test Result for PLT-7B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

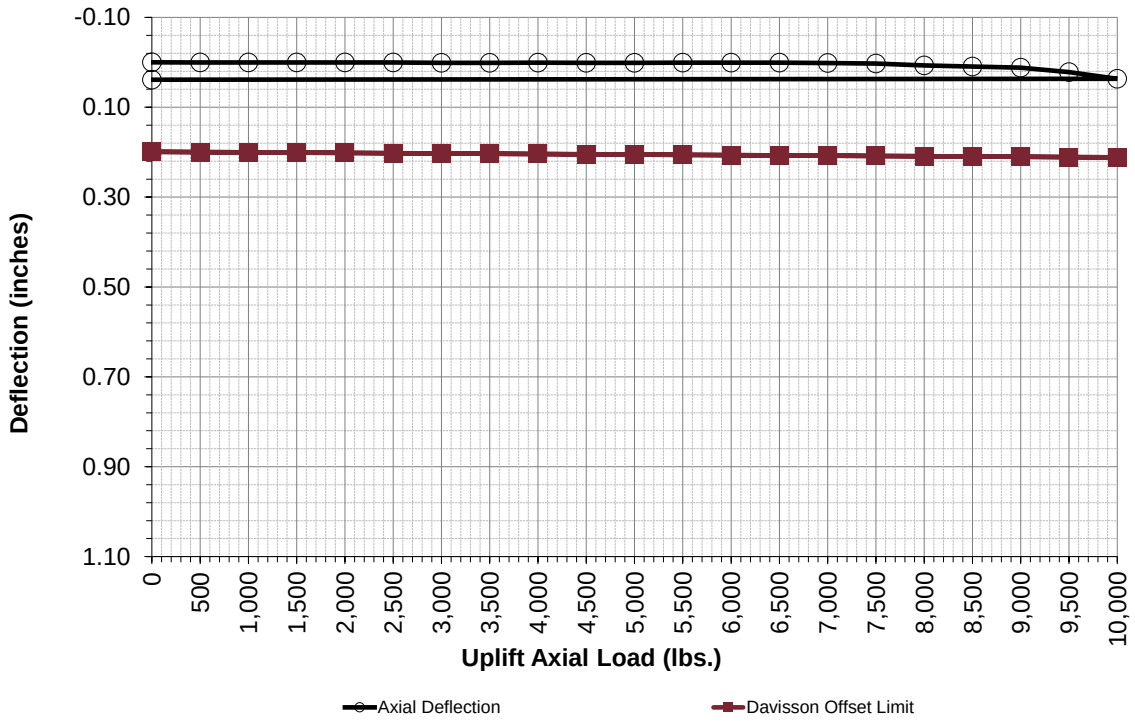
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-7B
Latitude [deg.]:	37.418312°
Longitude[deg.]:	-87.667395°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	169

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.001	0.200	
10%	1000	0.000	0.001	0.200	
15%	1500	0.000	0.002	0.201	
20%	2000	0.000	0.002	0.202	
25%	2500	0.000	0.003	0.202	
30%	3000	0.001	0.004	0.203	
35%	3500	0.001	0.004	0.203	
40%	4000	0.001	0.005	0.204	
45%	4500	0.001	0.006	0.205	
50%	5000	0.001	0.006	0.205	
55%	5500	0.001	0.007	0.206	
60%	6000	0.001	0.007	0.207	
65%	6500	0.001	0.008	0.207	
70%	7000	0.002	0.009	0.208	
75%	7500	0.003	0.009	0.208	
80%	8000	0.007	0.010	0.209	
85%	8500	0.009	0.010	0.210	
90%	9000	0.012	0.011	0.210	
95%	9500	0.022	0.012	0.211	
100%	10000	0.037	0.012	0.212	
0%	0	0.039	0.000	0.199	



Tension Load Test Result for PLT-8A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

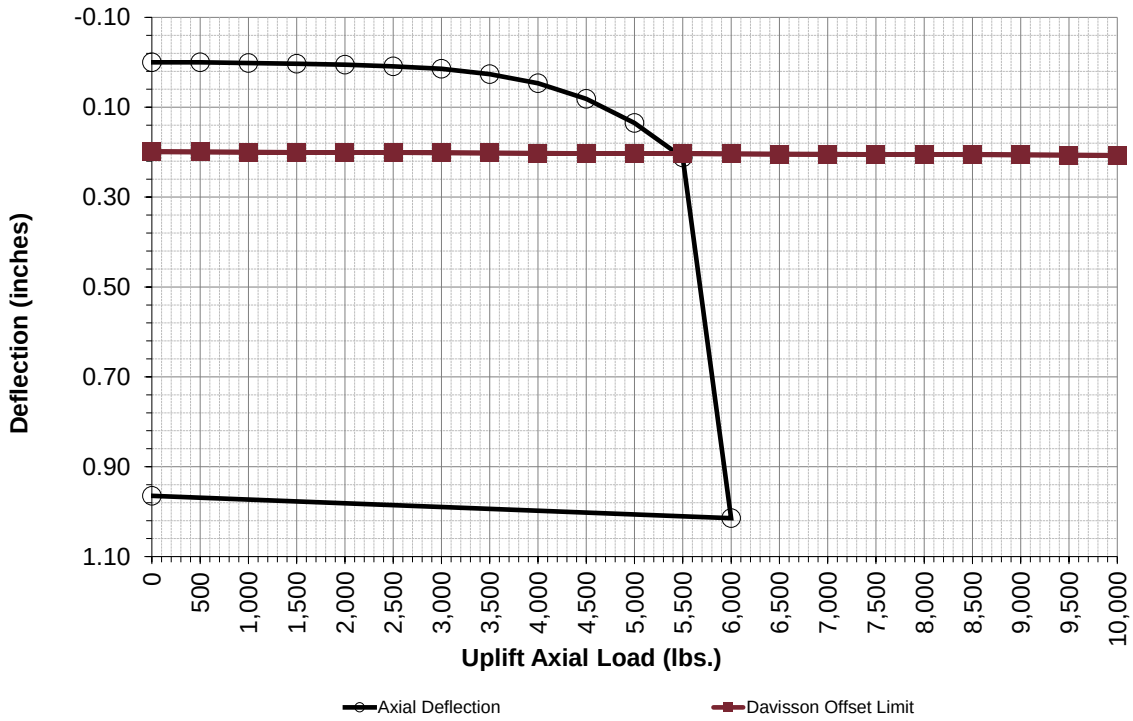
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-8A
Latitude [deg.]:	37.417629°
Longitude[deg.]:	-87.664594°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	44

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.003	0.001	0.200	
20%	2000	0.006	0.002	0.201	
25%	2500	0.009	0.002	0.201	
30%	3000	0.015	0.002	0.201	
35%	3500	0.027	0.003	0.202	
40%	4000	0.047	0.003	0.202	
45%	4500	0.082	0.003	0.203	
50%	5000	0.135	0.004	0.203	
55%	5500	0.212	0.004	0.203	
60%	6000	1.015	0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.965	0.000	0.199	



Tension Load Test Result for PLT-8B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

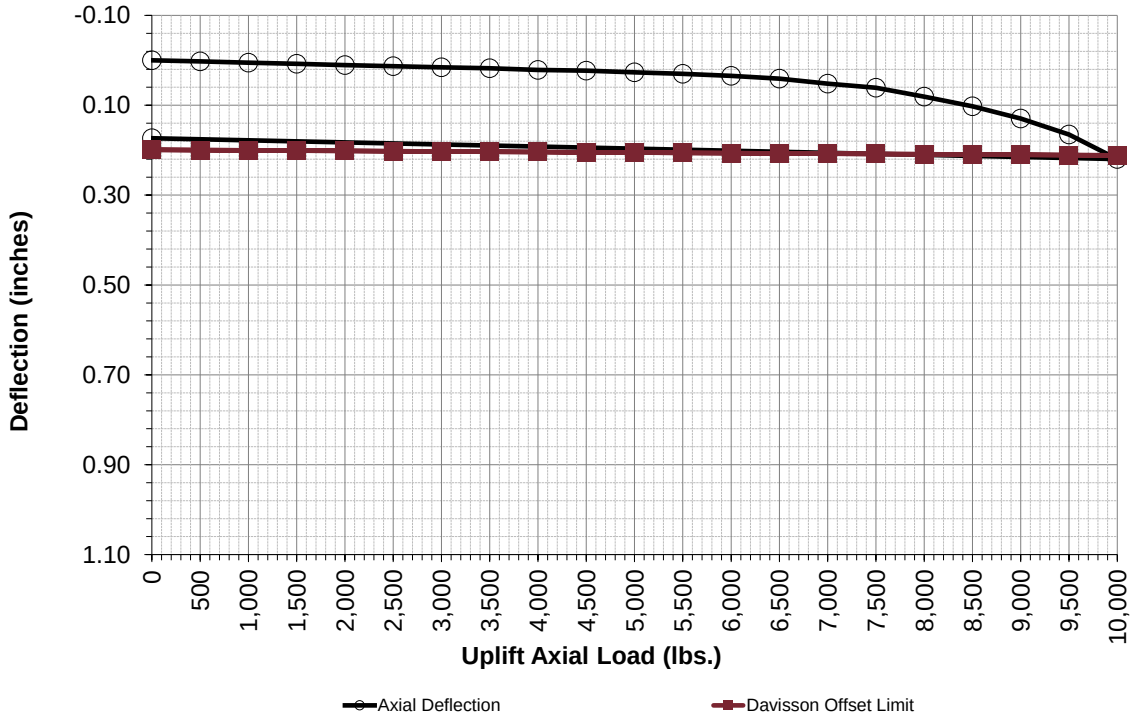
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-8B
Latitude [deg.]:	37.417629°
Longitude[deg.]:	-87.664594°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	134

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.006	0.001	0.200	
15%	1500	0.008	0.002	0.201	
20%	2000	0.011	0.002	0.202	
25%	2500	0.013	0.003	0.202	
30%	3000	0.016	0.004	0.203	
35%	3500	0.018	0.004	0.203	
40%	4000	0.021	0.005	0.204	
45%	4500	0.023	0.006	0.205	
50%	5000	0.027	0.006	0.205	
55%	5500	0.030	0.007	0.206	
60%	6000	0.035	0.007	0.207	
65%	6500	0.041	0.008	0.207	
70%	7000	0.052	0.009	0.208	
75%	7500	0.061	0.009	0.208	
80%	8000	0.081	0.010	0.209	
85%	8500	0.102	0.010	0.210	
90%	9000	0.130	0.011	0.210	
95%	9500	0.165	0.012	0.211	
100%	10000	0.220	0.012	0.212	
0%	0	0.173	0.000	0.199	



Tension Load Test Result for PLT-9A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

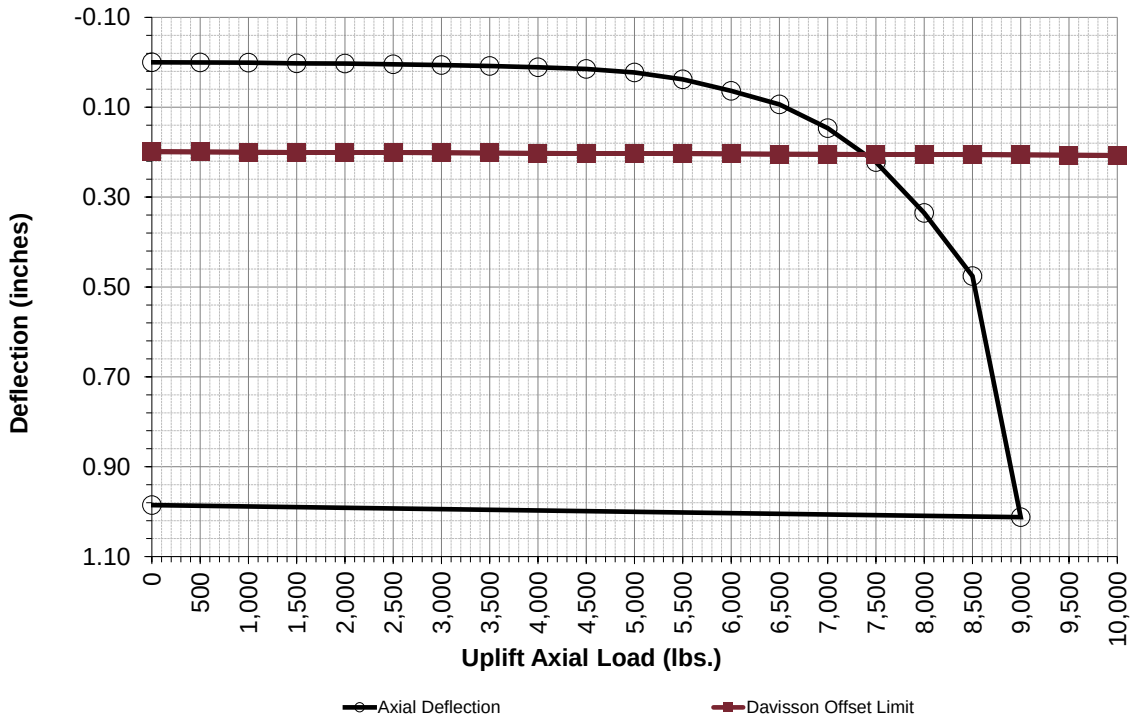
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-9A
Latitude [deg.]:	37.413545°
Longitude[deg.]:	-87.664487°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	40

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.001	0.001	0.200	
15%	1500	0.002	0.001	0.200	
20%	2000	0.003	0.002	0.201	
25%	2500	0.005	0.002	0.201	
30%	3000	0.006	0.002	0.201	
35%	3500	0.008	0.003	0.202	
40%	4000	0.011	0.003	0.202	
45%	4500	0.015	0.003	0.203	
50%	5000	0.023	0.004	0.203	
55%	5500	0.038	0.004	0.203	
60%	6000	0.064	0.005	0.204	
65%	6500	0.094	0.005	0.204	
70%	7000	0.147	0.005	0.205	
75%	7500	0.222	0.006	0.205	
80%	8000	0.335	0.006	0.205	
85%	8500	0.476	0.007	0.206	
90%	9000	1.012	0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.985	0.000	0.199	



Tension Load Test Result for PLT-9B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

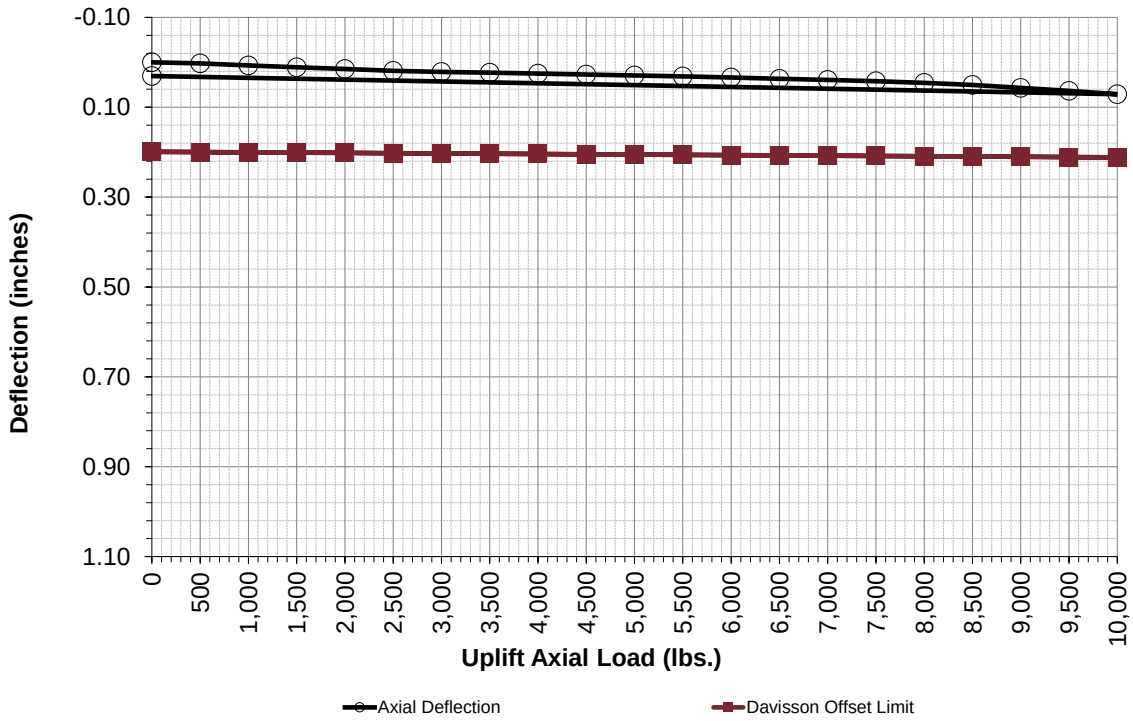
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-9B
Latitude [deg.]:	37.413545°
Longitude[deg.]:	-87.664487°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	186

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.011	0.002	0.201	
20%	2000	0.015	0.002	0.202	
25%	2500	0.019	0.003	0.202	
30%	3000	0.021	0.004	0.203	
35%	3500	0.023	0.004	0.203	
40%	4000	0.025	0.005	0.204	
45%	4500	0.027	0.006	0.205	
50%	5000	0.029	0.006	0.205	
55%	5500	0.031	0.007	0.206	
60%	6000	0.034	0.007	0.207	
65%	6500	0.037	0.008	0.207	
70%	7000	0.039	0.009	0.208	
75%	7500	0.042	0.009	0.208	
80%	8000	0.046	0.010	0.209	
85%	8500	0.051	0.010	0.210	
90%	9000	0.057	0.011	0.210	
95%	9500	0.064	0.012	0.211	
100%	10000	0.071	0.012	0.212	
0%	0	0.031	0.000	0.199	



Tension Load Test Result for PLT-10A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

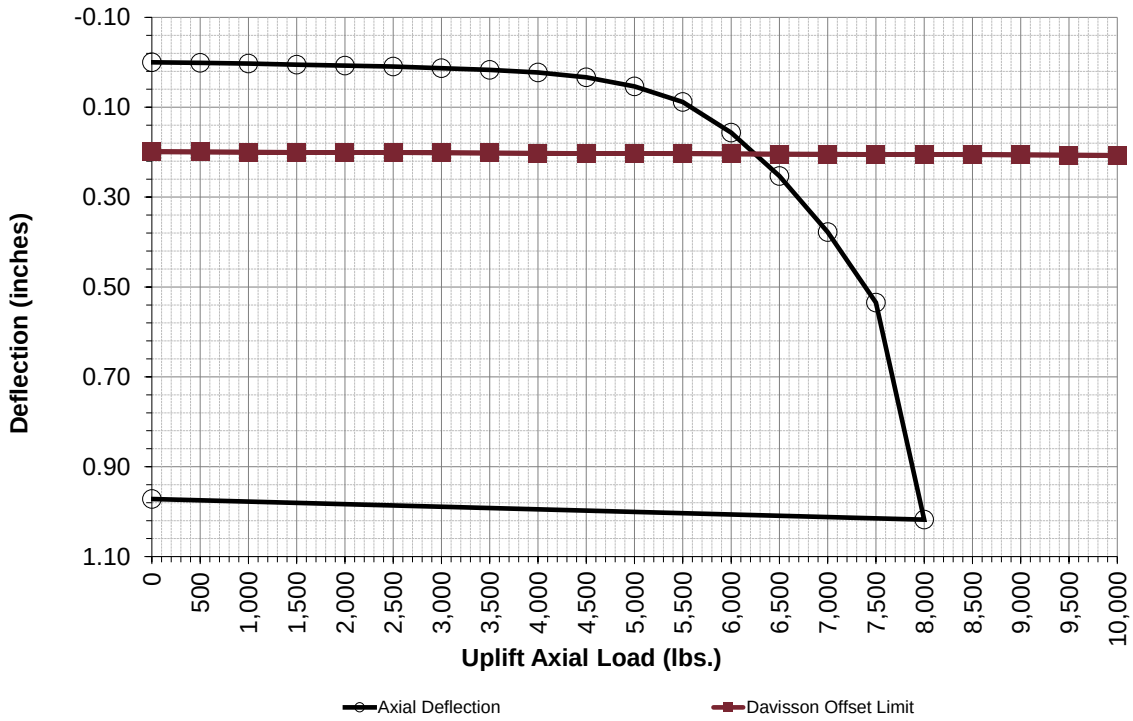
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-10A
Latitude [deg.]:	37.412785°
Longitude[deg.]:	-87.667595°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	64

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.005	0.001	0.200	
20%	2000	0.007	0.002	0.201	
25%	2500	0.009	0.002	0.201	
30%	3000	0.013	0.002	0.201	
35%	3500	0.017	0.003	0.202	
40%	4000	0.023	0.003	0.202	
45%	4500	0.034	0.003	0.203	
50%	5000	0.054	0.004	0.203	
55%	5500	0.088	0.004	0.203	
60%	6000	0.157	0.005	0.204	
65%	6500	0.253	0.005	0.204	
70%	7000	0.378	0.005	0.205	
75%	7500	0.535	0.006	0.205	
80%	8000	1.018	0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.972	0.000	0.199	



Tension Load Test Result for PLT-10B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

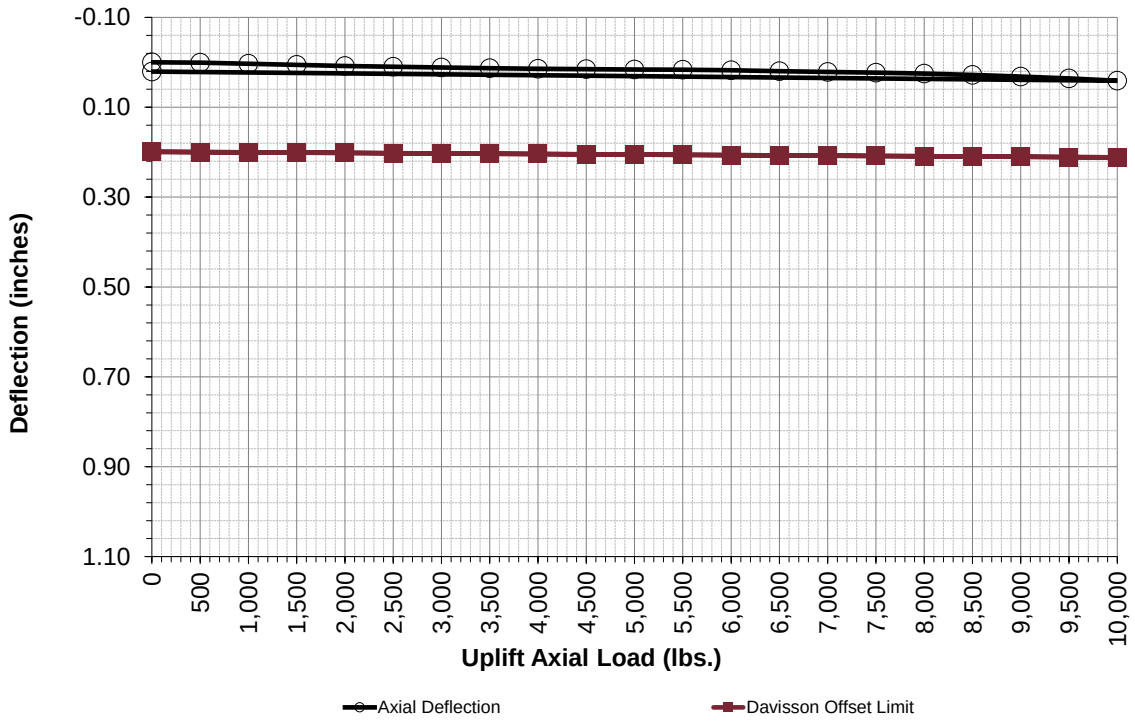
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-10B
Latitude [deg.]:	37.412785°
Longitude[deg.]:	-87.667595°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	249

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.008	0.002	0.202	
25%	2500	0.010	0.003	0.202	
30%	3000	0.012	0.004	0.203	
35%	3500	0.013	0.004	0.203	
40%	4000	0.014	0.005	0.204	
45%	4500	0.015	0.006	0.205	
50%	5000	0.016	0.006	0.205	
55%	5500	0.017	0.007	0.206	
60%	6000	0.018	0.007	0.207	
65%	6500	0.020	0.008	0.207	
70%	7000	0.022	0.009	0.208	
75%	7500	0.023	0.009	0.208	
80%	8000	0.025	0.010	0.209	
85%	8500	0.028	0.010	0.210	
90%	9000	0.032	0.011	0.210	
95%	9500	0.036	0.012	0.211	
100%	10000	0.041	0.012	0.212	
0%	0	0.021	0.000	0.199	



Tension Load Test Result for PLT-11A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

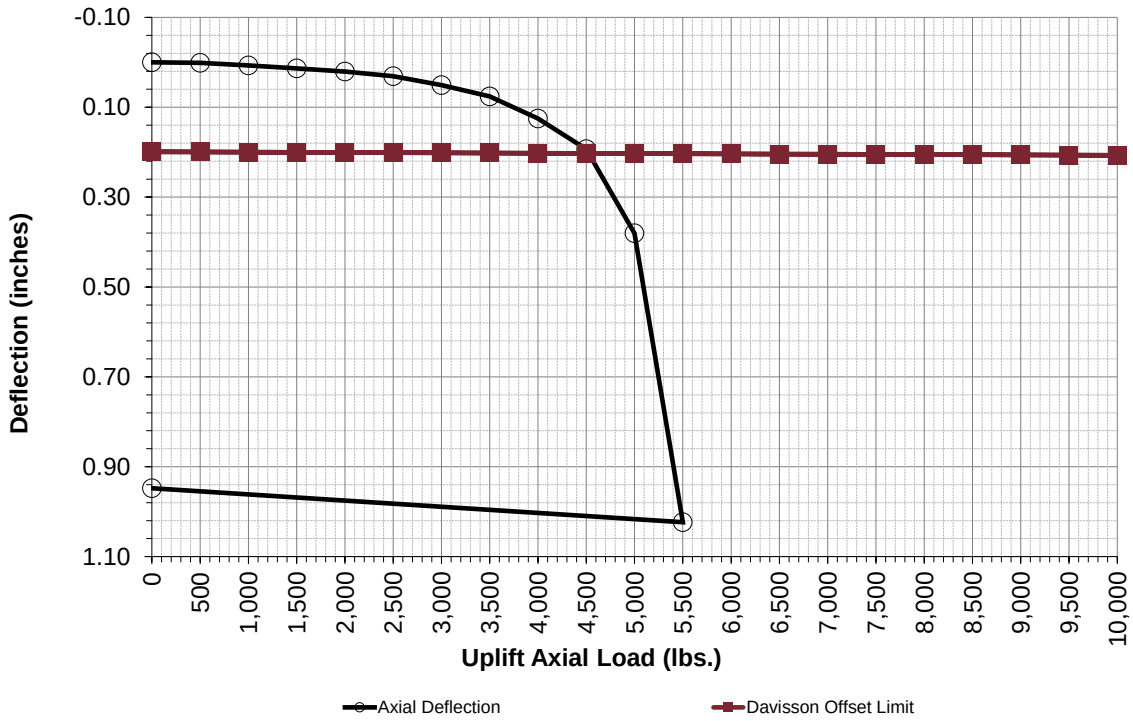
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-11A
Latitude [deg.]:	37.410256°
Longitude[deg.]:	-87.667042°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	32

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.014	0.001	0.200	
20%	2000	0.021	0.002	0.201	
25%	2500	0.031	0.002	0.201	
30%	3000	0.051	0.002	0.201	
35%	3500	0.076	0.003	0.202	
40%	4000	0.125	0.003	0.202	
45%	4500	0.193	0.003	0.203	
50%	5000	0.380	0.004	0.203	
55%	5500	1.024	0.004	0.203	
60%	6000		0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.948	0.000	0.199	



Tension Load Test Result for PLT-11B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

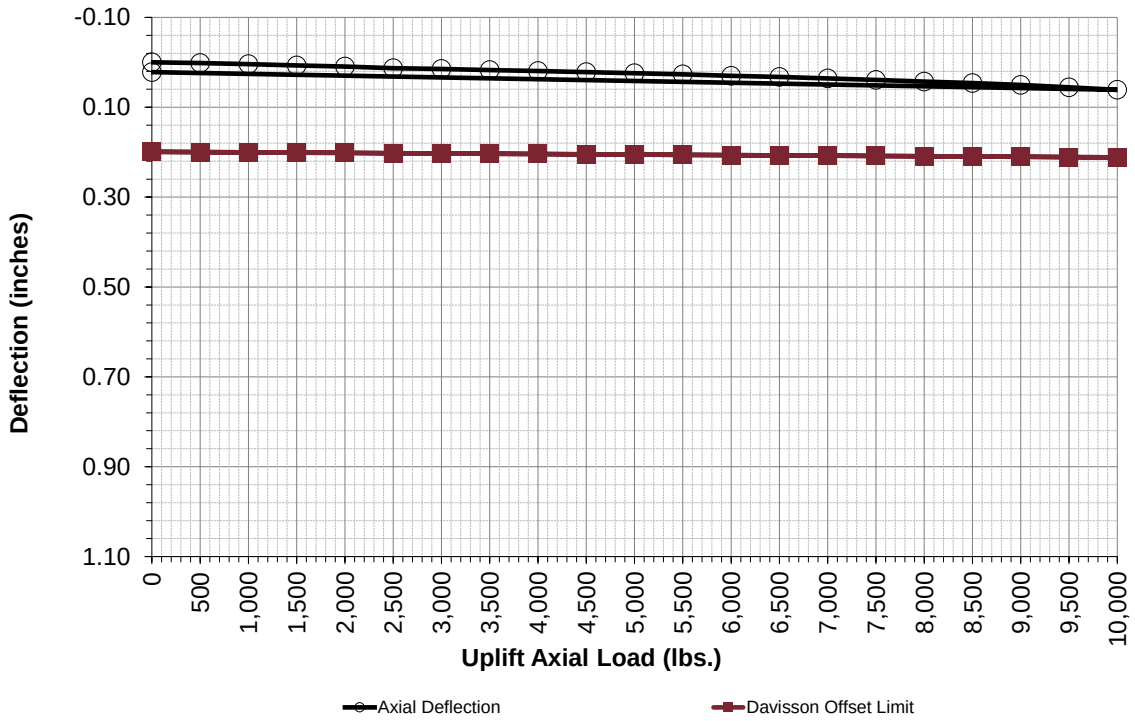
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-11B
Latitude [deg.]:	37.410256°
Longitude[deg.]:	-87.667042°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	151

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.007	0.002	0.201	
20%	2000	0.010	0.002	0.202	
25%	2500	0.013	0.003	0.202	
30%	3000	0.015	0.004	0.203	
35%	3500	0.017	0.004	0.203	
40%	4000	0.020	0.005	0.204	
45%	4500	0.022	0.006	0.205	
50%	5000	0.025	0.006	0.205	
55%	5500	0.027	0.007	0.206	
60%	6000	0.030	0.007	0.207	
65%	6500	0.033	0.008	0.207	
70%	7000	0.036	0.009	0.208	
75%	7500	0.039	0.009	0.208	
80%	8000	0.043	0.010	0.209	
85%	8500	0.046	0.010	0.210	
90%	9000	0.050	0.011	0.210	
95%	9500	0.056	0.012	0.211	
100%	10000	0.061	0.012	0.212	
0%	0	0.022	0.000	0.199	



Tension Load Test Result for PLT-12A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

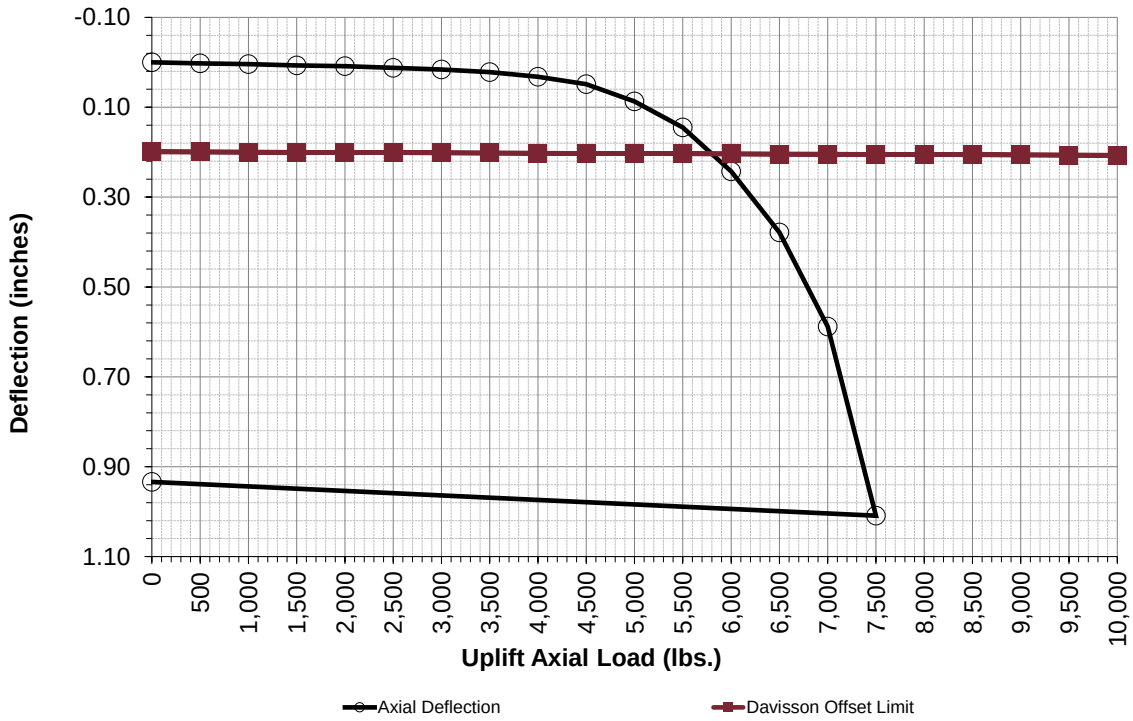
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-12A
Latitude [deg.]:	37.407690°
Longitude[deg.]:	-87.666102°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	58

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.007	0.001	0.200	
20%	2000	0.009	0.002	0.201	
25%	2500	0.013	0.002	0.201	
30%	3000	0.016	0.002	0.201	
35%	3500	0.022	0.003	0.202	
40%	4000	0.032	0.003	0.202	
45%	4500	0.049	0.003	0.203	
50%	5000	0.087	0.004	0.203	
55%	5500	0.145	0.004	0.203	
60%	6000	0.243	0.005	0.204	
65%	6500	0.379	0.005	0.204	
70%	7000	0.588	0.005	0.205	
75%	7500	1.009	0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.934	0.000	0.199	



Tension Load Test Result for PLT-12B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

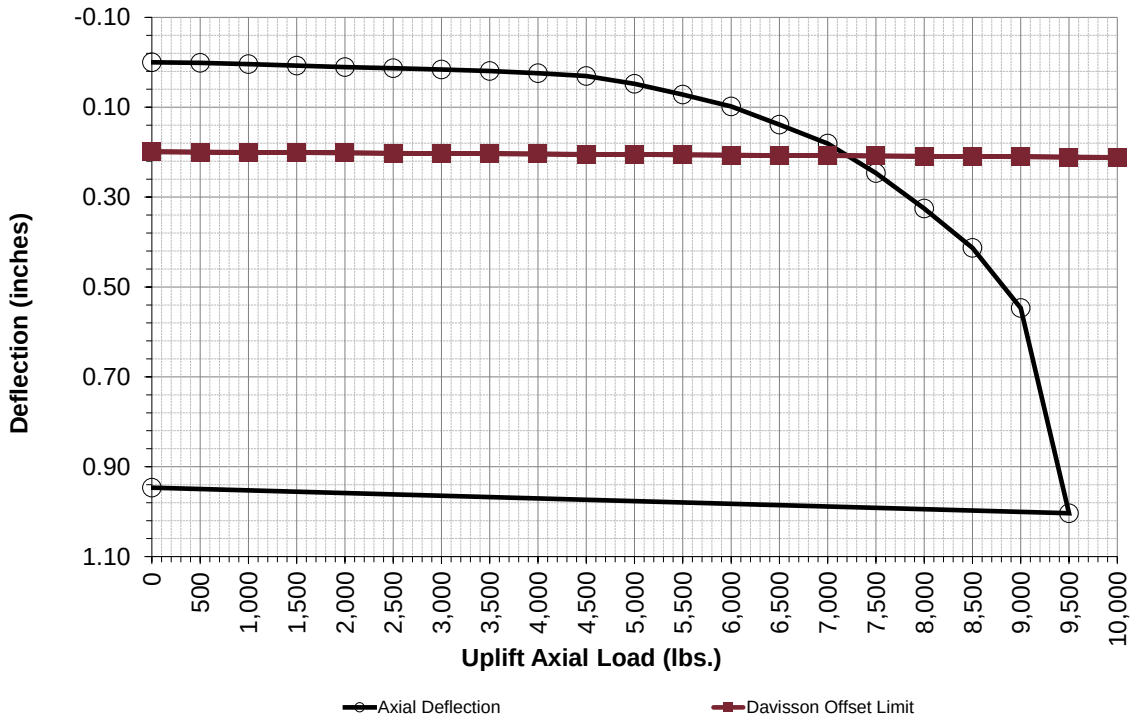
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-12B
Latitude [deg.]:	37.407690°
Longitude[deg.]:	-87.666102°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	94

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.008	0.002	0.201	
20%	2000	0.011	0.002	0.202	
25%	2500	0.013	0.003	0.202	
30%	3000	0.016	0.004	0.203	
35%	3500	0.019	0.004	0.203	
40%	4000	0.024	0.005	0.204	
45%	4500	0.031	0.006	0.205	
50%	5000	0.048	0.006	0.205	
55%	5500	0.072	0.007	0.206	
60%	6000	0.098	0.007	0.207	
65%	6500	0.139	0.008	0.207	
70%	7000	0.181	0.009	0.208	
75%	7500	0.247	0.009	0.208	
80%	8000	0.325	0.010	0.209	
85%	8500	0.413	0.010	0.210	
90%	9000	0.547	0.011	0.210	
95%	9500	1.004	0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.947	0.000	0.199	



Tension Load Test Result for PLT-13A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

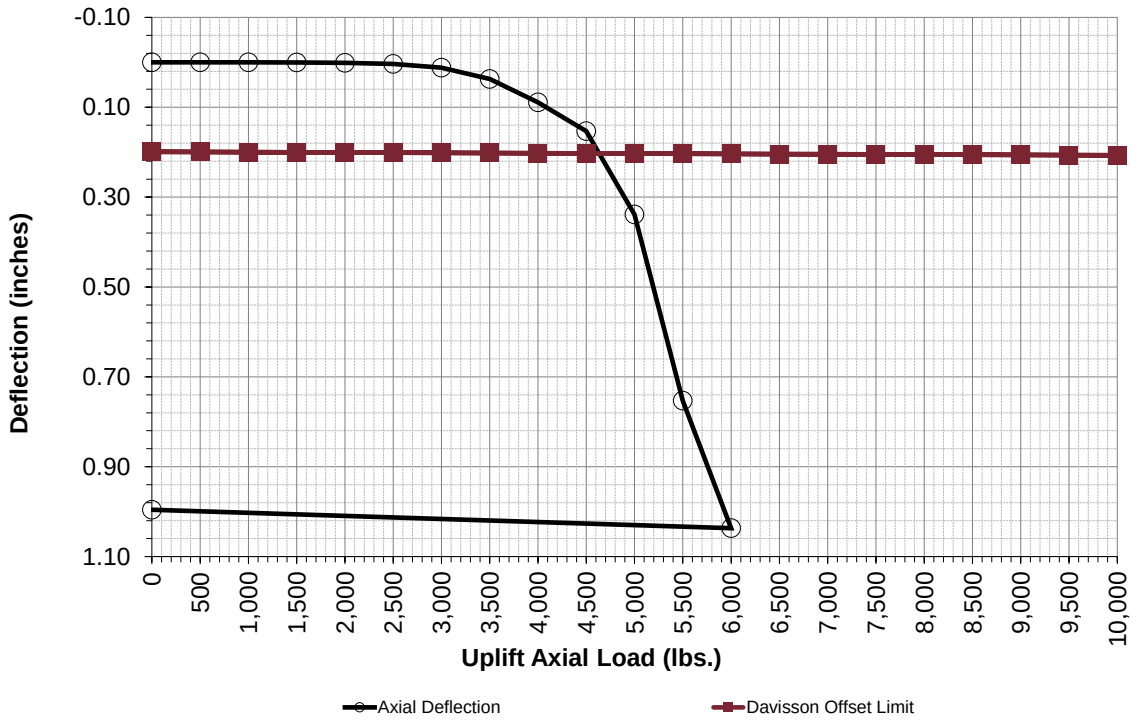
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-13A
Latitude [deg.]:	37.408172°
Longitude[deg.]:	-87.673635°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	43

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.000	0.001	0.200	
15%	1500	0.000	0.001	0.200	
20%	2000	0.001	0.002	0.201	
25%	2500	0.004	0.002	0.201	
30%	3000	0.012	0.002	0.201	
35%	3500	0.037	0.003	0.202	
40%	4000	0.089	0.003	0.202	
45%	4500	0.153	0.003	0.203	
50%	5000	0.339	0.004	0.203	
55%	5500	0.753	0.004	0.203	
60%	6000	1.037	0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.996	0.000	0.199	



Tension Load Test Result for PLT-13B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

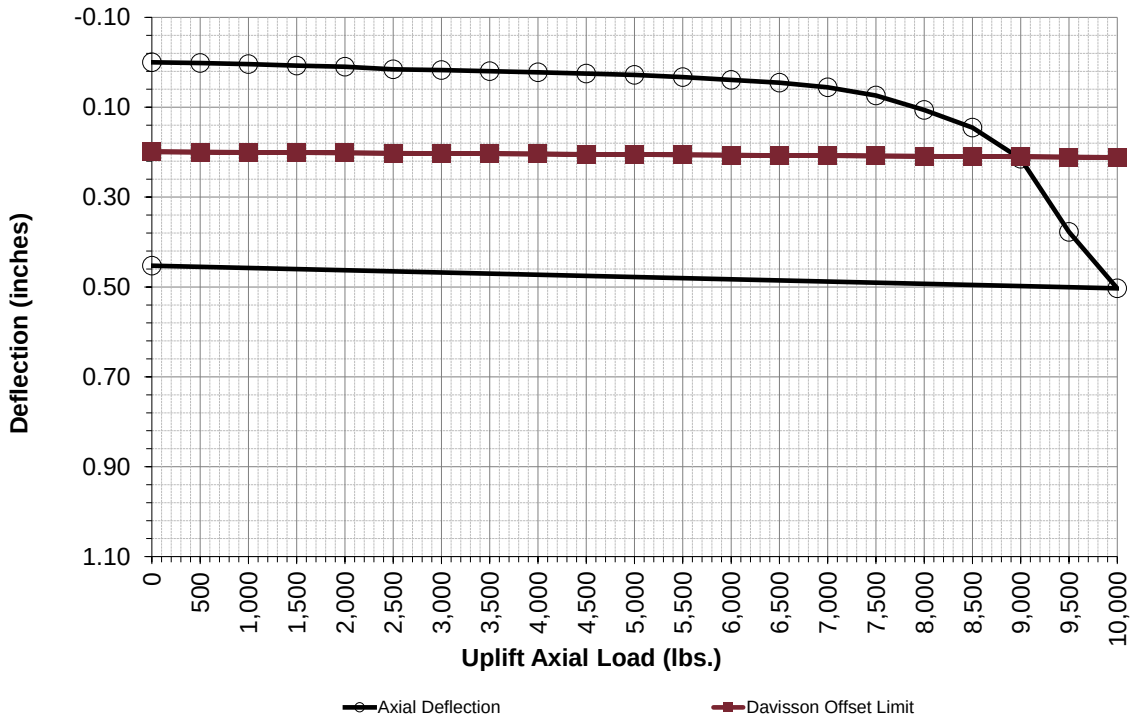
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-13B
Latitude [deg.]:	37.408172°
Longitude[deg.]:	-87.673635°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	129

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.008	0.002	0.201	
20%	2000	0.010	0.002	0.202	
25%	2500	0.016	0.003	0.202	
30%	3000	0.017	0.004	0.203	
35%	3500	0.020	0.004	0.203	
40%	4000	0.022	0.005	0.204	
45%	4500	0.025	0.006	0.205	
50%	5000	0.028	0.006	0.205	
55%	5500	0.033	0.007	0.206	
60%	6000	0.039	0.007	0.207	
65%	6500	0.046	0.008	0.207	
70%	7000	0.056	0.009	0.208	
75%	7500	0.074	0.009	0.208	
80%	8000	0.106	0.010	0.209	
85%	8500	0.146	0.010	0.210	
90%	9000	0.215	0.011	0.210	
95%	9500	0.377	0.012	0.211	
100%	10000	0.503	0.012	0.212	
0%	0	0.453	0.000	0.199	



Tension Load Test Result for PLT-14A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

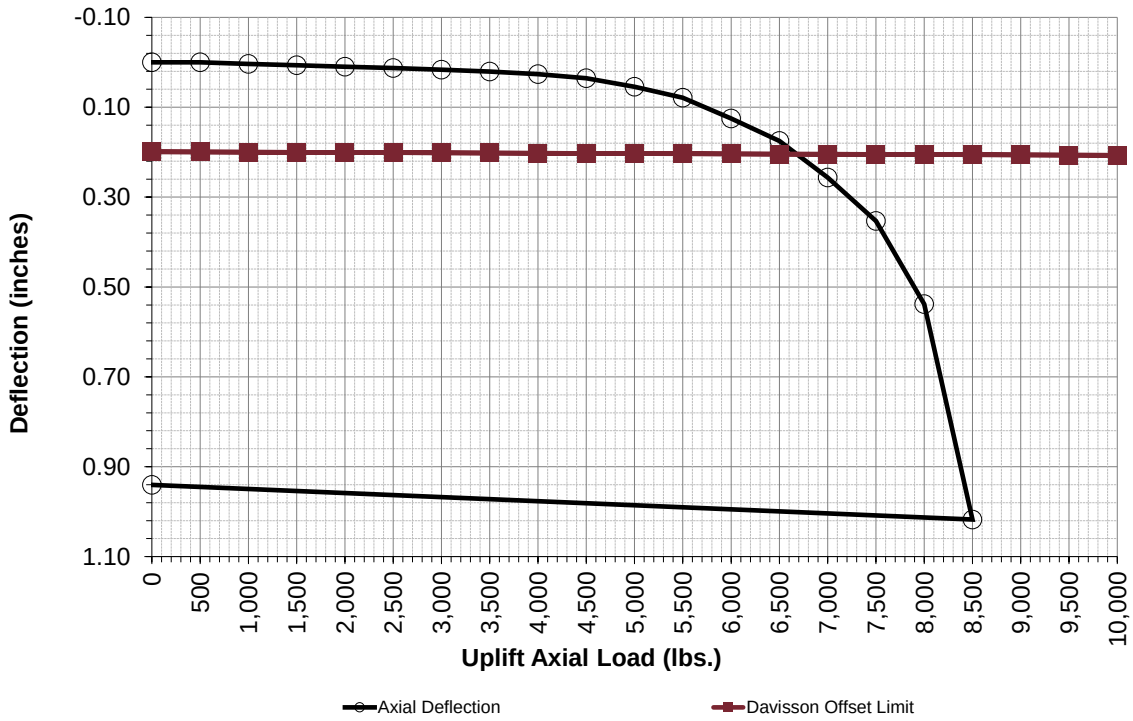
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-14A
Latitude [deg.]:	37.406431°
Longitude[deg.]:	-87.670401°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	63

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.007	0.001	0.200	
20%	2000	0.010	0.002	0.201	
25%	2500	0.013	0.002	0.201	
30%	3000	0.017	0.002	0.201	
35%	3500	0.021	0.003	0.202	
40%	4000	0.027	0.003	0.202	
45%	4500	0.035	0.003	0.203	
50%	5000	0.054	0.004	0.203	
55%	5500	0.079	0.004	0.203	
60%	6000	0.125	0.005	0.204	
65%	6500	0.175	0.005	0.204	
70%	7000	0.257	0.005	0.205	
75%	7500	0.353	0.006	0.205	
80%	8000	0.538	0.006	0.205	
85%	8500	1.018	0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.940	0.000	0.199	



Tension Load Test Result for PLT-14B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

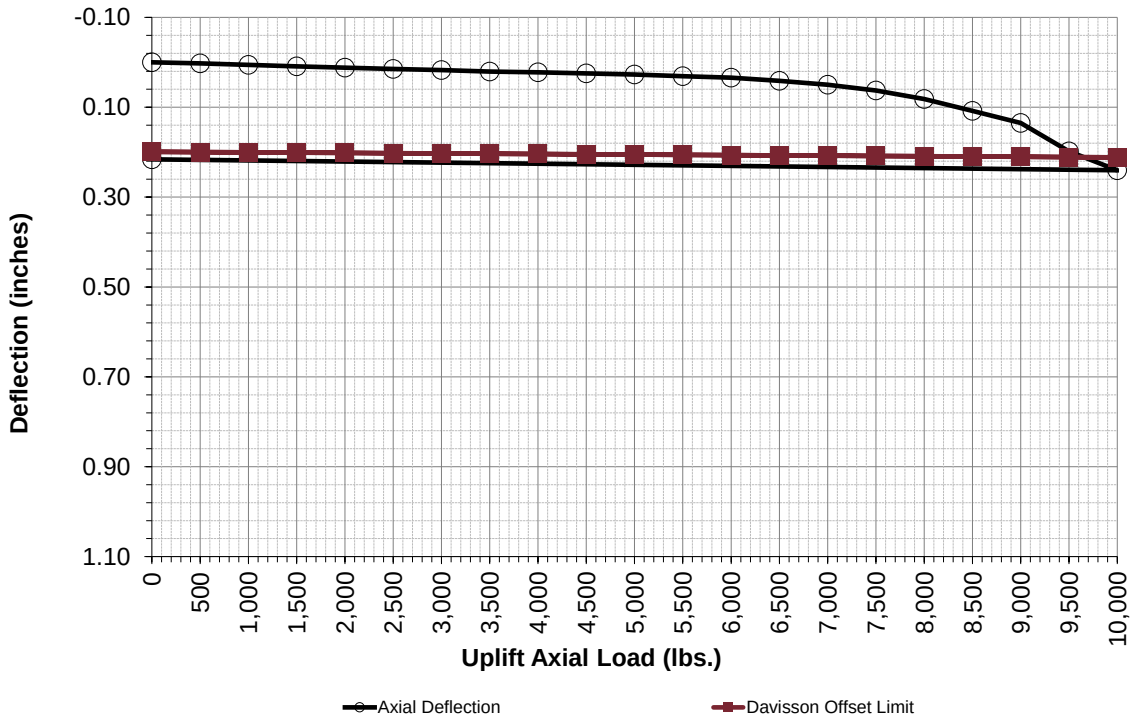
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-14B
Latitude [deg.]:	37.406431°
Longitude[deg.]:	-87.670401°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	143

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.006	0.001	0.200	
15%	1500	0.009	0.002	0.201	
20%	2000	0.012	0.002	0.202	
25%	2500	0.015	0.003	0.202	
30%	3000	0.017	0.004	0.203	
35%	3500	0.021	0.004	0.203	
40%	4000	0.022	0.005	0.204	
45%	4500	0.025	0.006	0.205	
50%	5000	0.027	0.006	0.205	
55%	5500	0.031	0.007	0.206	
60%	6000	0.034	0.007	0.207	
65%	6500	0.041	0.008	0.207	
70%	7000	0.050	0.009	0.208	
75%	7500	0.063	0.009	0.208	
80%	8000	0.082	0.010	0.209	
85%	8500	0.108	0.010	0.210	
90%	9000	0.135	0.011	0.210	
95%	9500	0.198	0.012	0.211	
100%	10000	0.240	0.012	0.212	
0%	0	0.216	0.000	0.199	



Tension Load Test Result for PLT-15A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

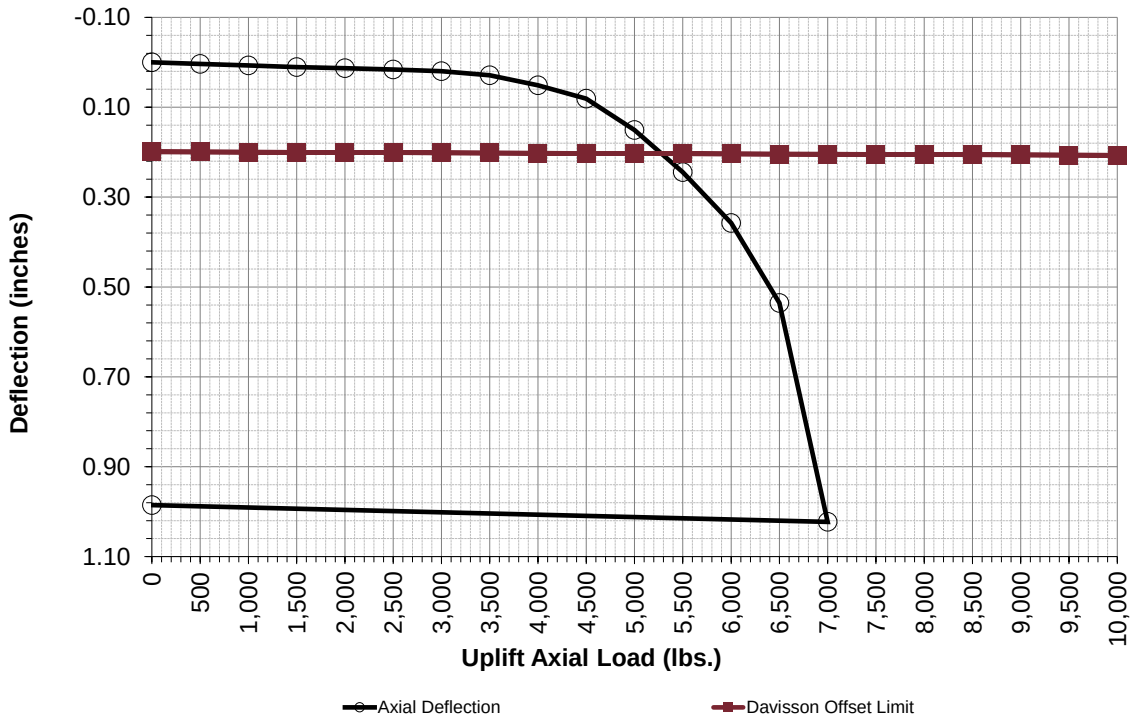
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-15A
Latitude [deg.]:	37.405422°
Longitude[deg.]:	-87.678462°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	45

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.004	0.000	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.011	0.001	0.200	
20%	2000	0.013	0.002	0.201	
25%	2500	0.016	0.002	0.201	
30%	3000	0.020	0.002	0.201	
35%	3500	0.029	0.003	0.202	
40%	4000	0.051	0.003	0.202	
45%	4500	0.081	0.003	0.203	
50%	5000	0.151	0.004	0.203	
55%	5500	0.244	0.004	0.203	
60%	6000	0.358	0.005	0.204	
65%	6500	0.536	0.005	0.204	
70%	7000	1.023	0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.985	0.000	0.199	



Tension Load Test Result for PLT-15B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

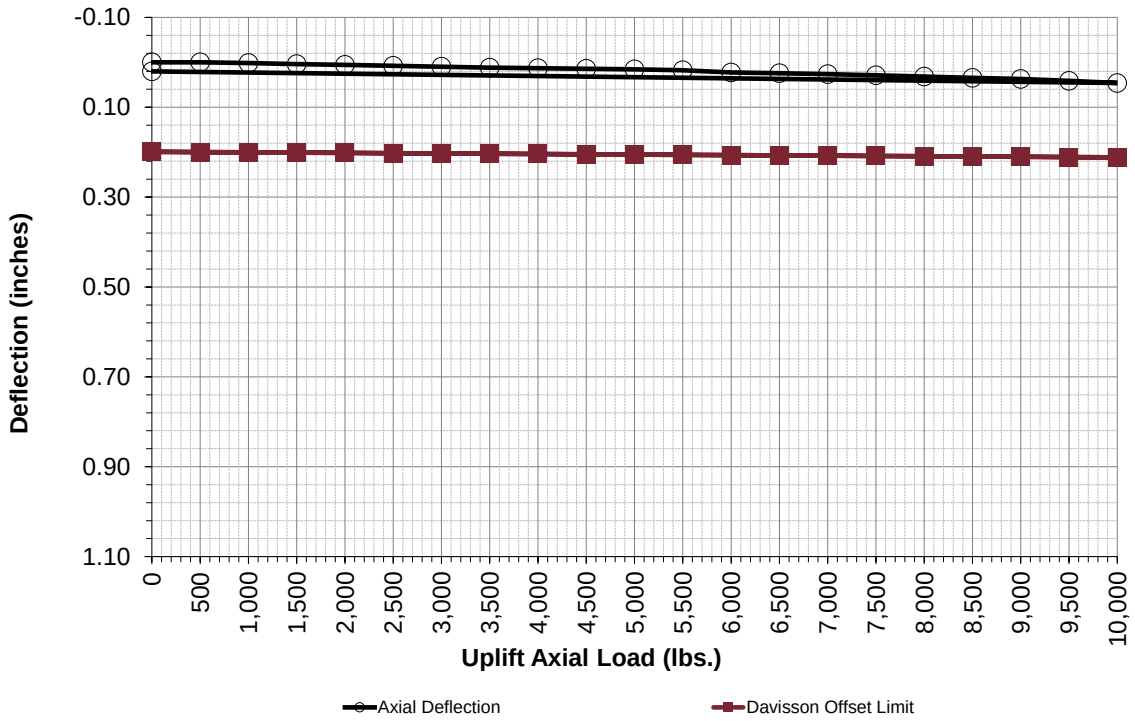
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-15B
Latitude [deg.]:	37.405422°
Longitude[deg.]:	-87.678462°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	146

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.001	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.004	0.002	0.201	
20%	2000	0.006	0.002	0.202	
25%	2500	0.008	0.003	0.202	
30%	3000	0.010	0.004	0.203	
35%	3500	0.012	0.004	0.203	
40%	4000	0.013	0.005	0.204	
45%	4500	0.015	0.006	0.205	
50%	5000	0.016	0.006	0.205	
55%	5500	0.018	0.007	0.206	
60%	6000	0.023	0.007	0.207	
65%	6500	0.024	0.008	0.207	
70%	7000	0.027	0.009	0.208	
75%	7500	0.029	0.009	0.208	
80%	8000	0.032	0.010	0.209	
85%	8500	0.035	0.010	0.210	
90%	9000	0.037	0.011	0.210	
95%	9500	0.041	0.012	0.211	
100%	10000	0.046	0.012	0.212	
0%	0	0.020	0.000	0.199	



Tension Load Test Result for PLT-16A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

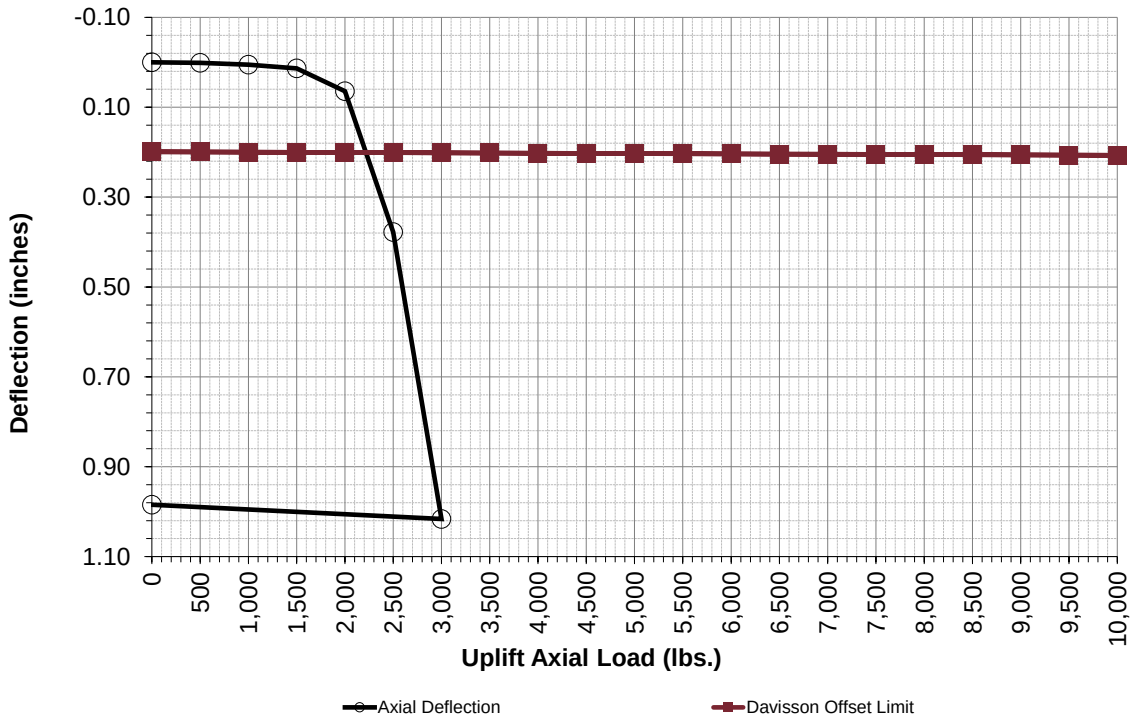
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-16A
Latitude [deg.]:	37.404527°
Longitude[deg.]:	-87.667353°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	23

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.005	0.001	0.200	
15%	1500	0.014	0.001	0.200	
20%	2000	0.064	0.002	0.201	
25%	2500	0.378	0.002	0.201	
30%	3000	1.016	0.002	0.201	
35%	3500		0.003	0.202	
40%	4000		0.003	0.202	
45%	4500		0.003	0.203	
50%	5000		0.004	0.203	
55%	5500		0.004	0.203	
60%	6000		0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.985	0.000	0.199	



Tension Load Test Result for PLT-16B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

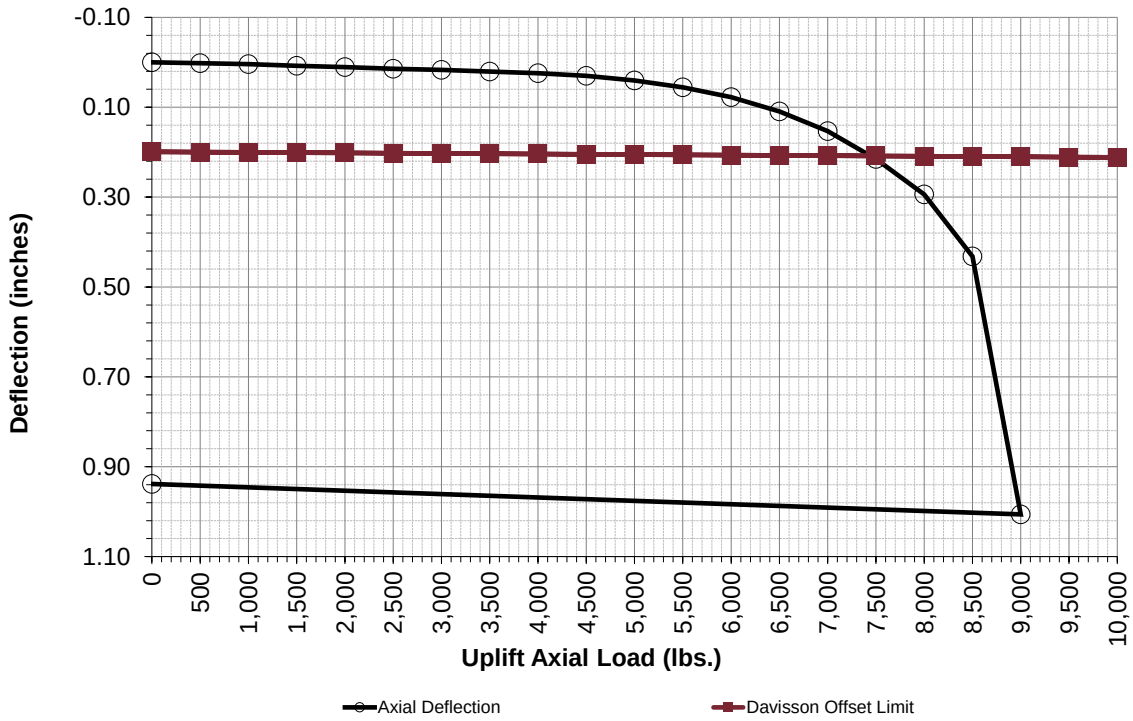
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-16B
Latitude [deg.]:	37.404527°
Longitude[deg.]:	-87.667353°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	86

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.008	0.002	0.201	
20%	2000	0.011	0.002	0.202	
25%	2500	0.014	0.003	0.202	
30%	3000	0.017	0.004	0.203	
35%	3500	0.021	0.004	0.203	
40%	4000	0.025	0.005	0.204	
45%	4500	0.030	0.006	0.205	
50%	5000	0.041	0.006	0.205	
55%	5500	0.056	0.007	0.206	
60%	6000	0.078	0.007	0.207	
65%	6500	0.110	0.008	0.207	
70%	7000	0.153	0.009	0.208	
75%	7500	0.215	0.009	0.208	
80%	8000	0.294	0.010	0.209	
85%	8500	0.432	0.010	0.210	
90%	9000	1.006	0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.938	0.000	0.199	



Tension Load Test Result for PLT-17A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

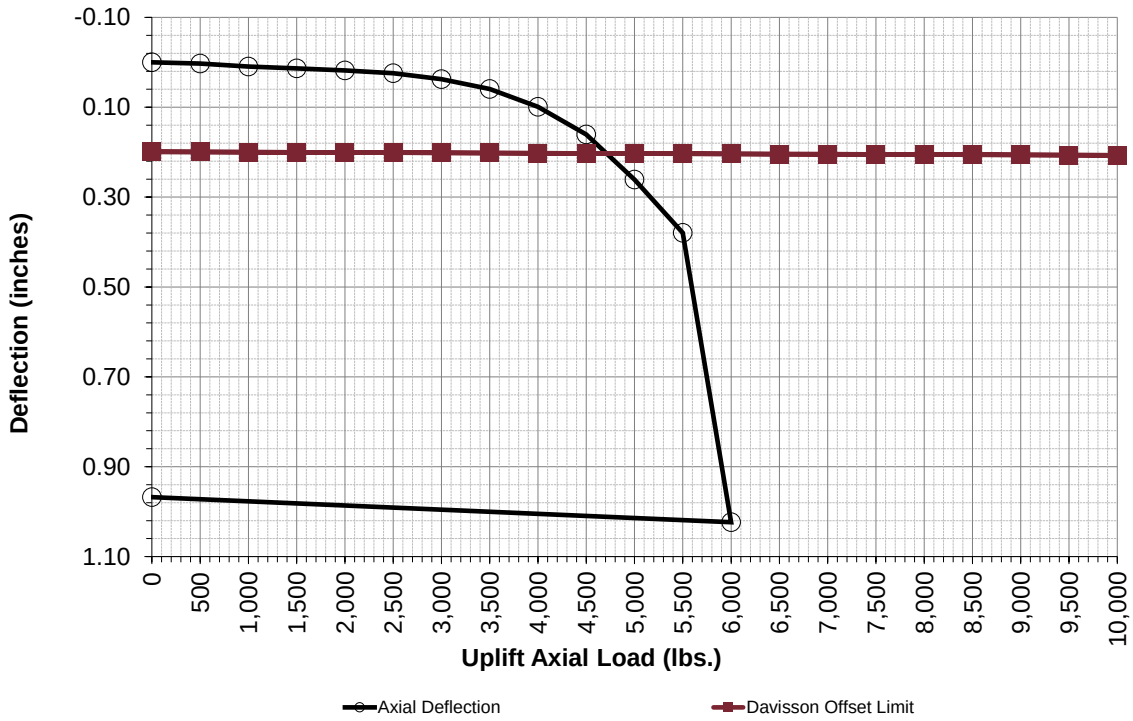
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-17A
Latitude [deg.]:	37.400391°
Longitude[deg.]:	-87.661184°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	30

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.010	0.001	0.200	
15%	1500	0.014	0.001	0.200	
20%	2000	0.018	0.002	0.201	
25%	2500	0.025	0.002	0.201	
30%	3000	0.038	0.002	0.201	
35%	3500	0.059	0.003	0.202	
40%	4000	0.099	0.003	0.202	
45%	4500	0.161	0.003	0.203	
50%	5000	0.261	0.004	0.203	
55%	5500	0.380	0.004	0.203	
60%	6000	1.024	0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.968	0.000	0.199	



Tension Load Test Result for PLT-17B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

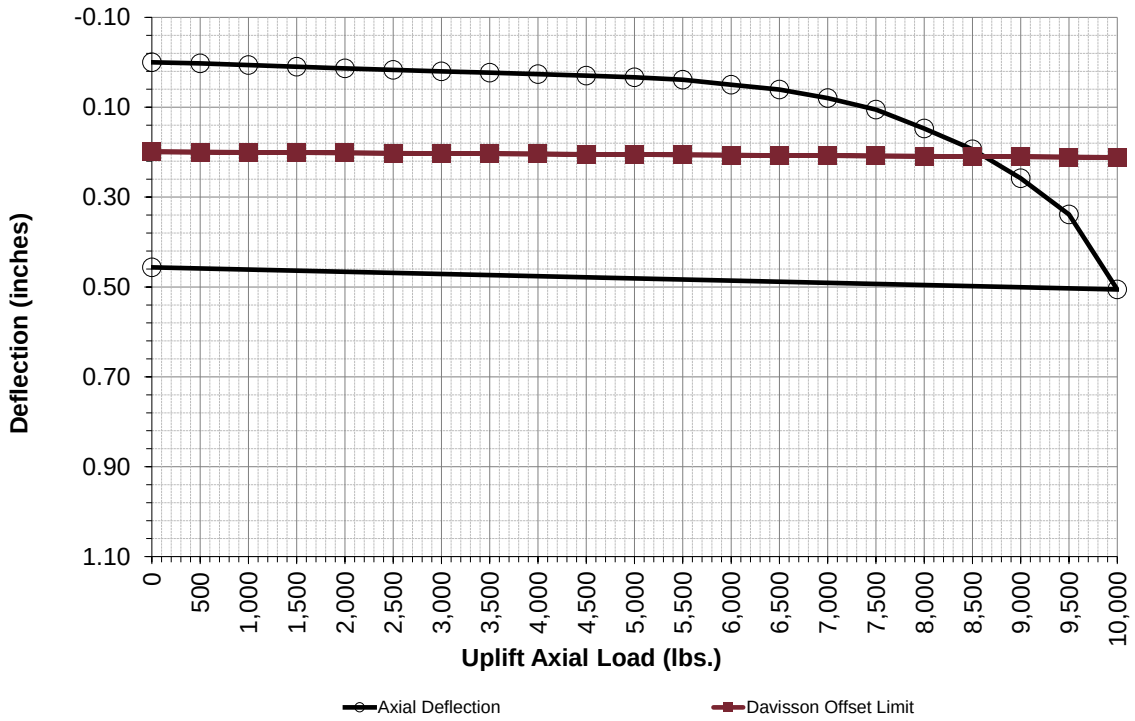
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-17B
Latitude [deg.]:	37.400391°
Longitude[deg.]:	-87.661184°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	83

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.006	0.001	0.200	
15%	1500	0.010	0.002	0.201	
20%	2000	0.014	0.002	0.202	
25%	2500	0.017	0.003	0.202	
30%	3000	0.020	0.004	0.203	
35%	3500	0.023	0.004	0.203	
40%	4000	0.027	0.005	0.204	
45%	4500	0.030	0.006	0.205	
50%	5000	0.034	0.006	0.205	
55%	5500	0.039	0.007	0.206	
60%	6000	0.050	0.007	0.207	
65%	6500	0.061	0.008	0.207	
70%	7000	0.080	0.009	0.208	
75%	7500	0.105	0.009	0.208	
80%	8000	0.148	0.010	0.209	
85%	8500	0.194	0.010	0.210	
90%	9000	0.258	0.011	0.210	
95%	9500	0.339	0.012	0.211	
100%	10000	0.506	0.012	0.212	
0%	0	0.456	0.000	0.199	



Tension Load Test Result for PLT-18A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

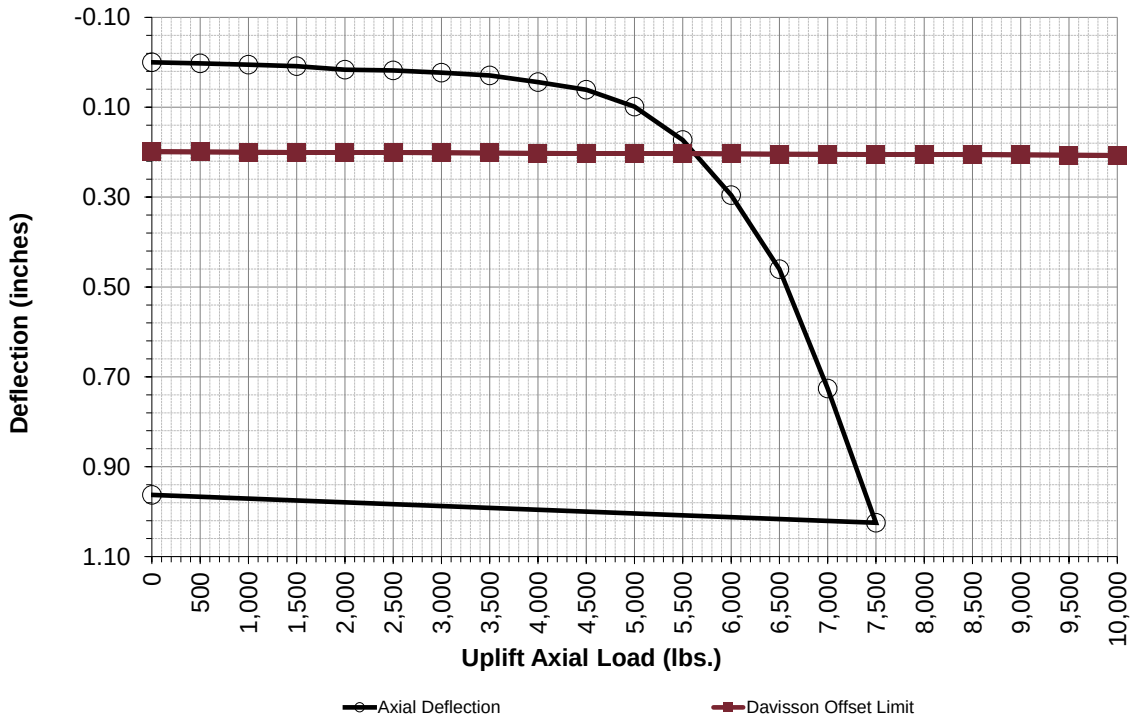
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-18A
Latitude [deg.]:	37.399728°
Longitude[deg.]:	-87.658368°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	45

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.005	0.001	0.200	
15%	1500	0.009	0.001	0.200	
20%	2000	0.016	0.002	0.201	
25%	2500	0.018	0.002	0.201	
30%	3000	0.023	0.002	0.201	
35%	3500	0.029	0.003	0.202	
40%	4000	0.044	0.003	0.202	
45%	4500	0.061	0.003	0.203	
50%	5000	0.099	0.004	0.203	
55%	5500	0.173	0.004	0.203	
60%	6000	0.296	0.005	0.204	
65%	6500	0.461	0.005	0.204	
70%	7000	0.726	0.005	0.205	
75%	7500	1.025	0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.963	0.000	0.199	



Tension Load Test Result for PLT-18B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

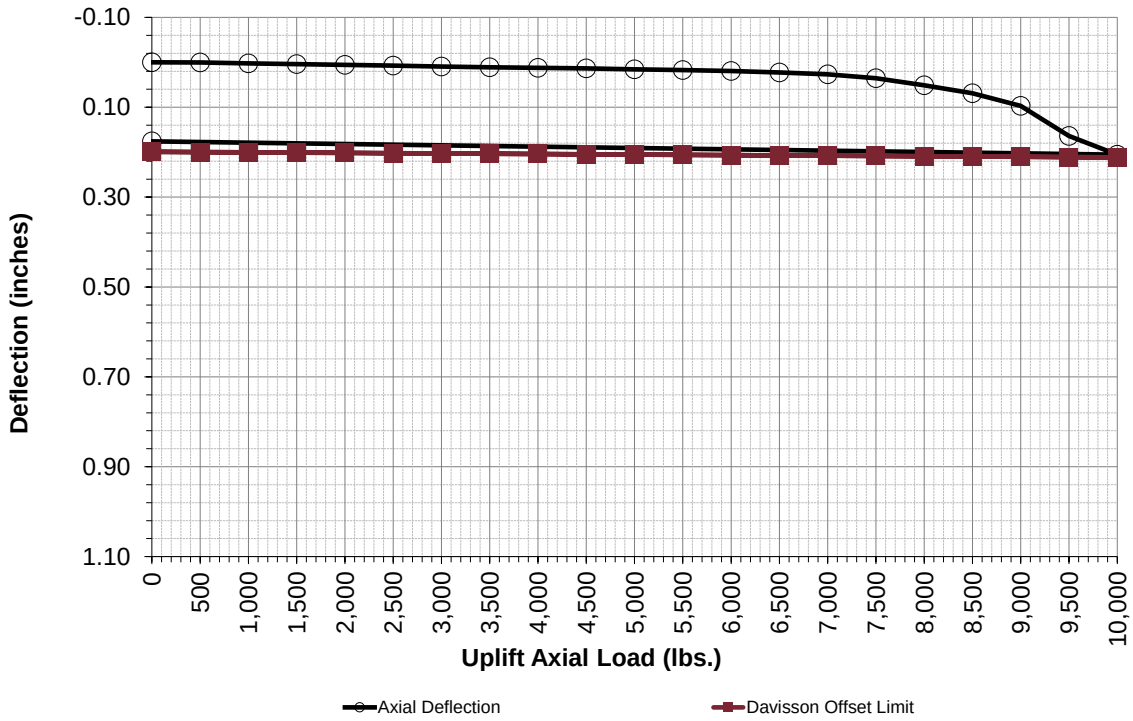
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-18B
Latitude [deg.]:	37.399728°
Longitude[deg.]:	-87.658368°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	116

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.001	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.004	0.002	0.201	
20%	2000	0.006	0.002	0.202	
25%	2500	0.008	0.003	0.202	
30%	3000	0.010	0.004	0.203	
35%	3500	0.011	0.004	0.203	
40%	4000	0.012	0.005	0.204	
45%	4500	0.014	0.006	0.205	
50%	5000	0.016	0.006	0.205	
55%	5500	0.017	0.007	0.206	
60%	6000	0.019	0.007	0.207	
65%	6500	0.023	0.008	0.207	
70%	7000	0.027	0.009	0.208	
75%	7500	0.035	0.009	0.208	
80%	8000	0.051	0.010	0.209	
85%	8500	0.069	0.010	0.210	
90%	9000	0.097	0.011	0.210	
95%	9500	0.164	0.012	0.211	
100%	10000	0.206	0.012	0.212	
0%	0	0.176	0.000	0.199	



Tension Load Test Result for PLT-19A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

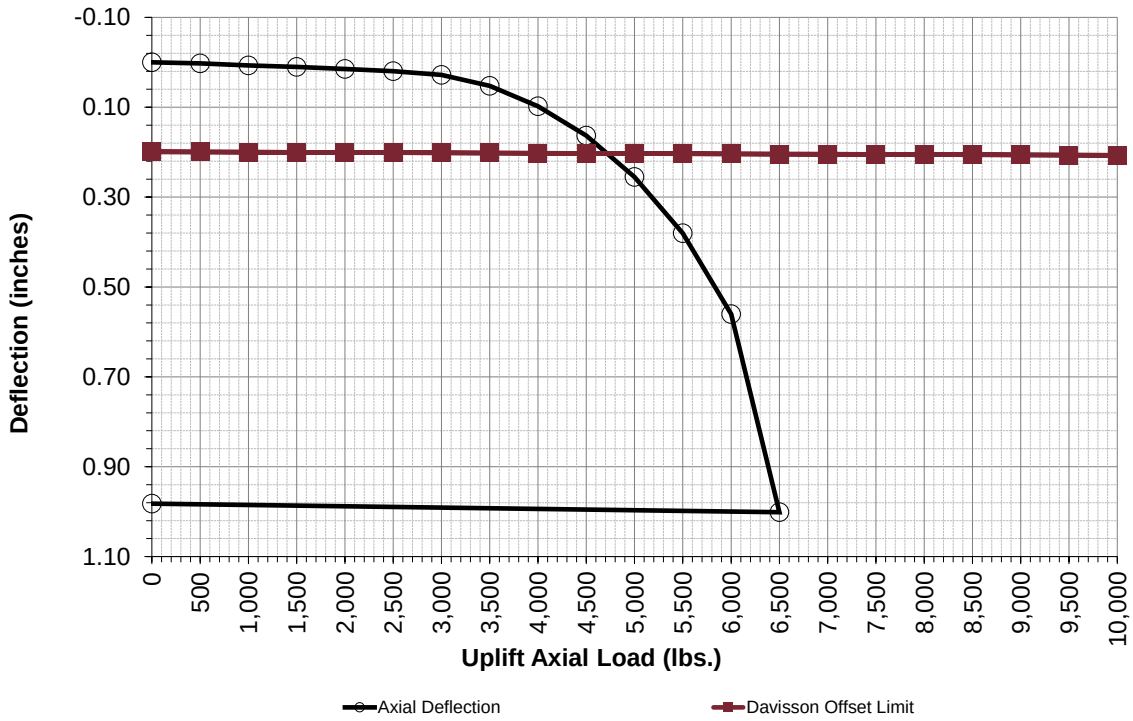
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-19A
Latitude [deg.]:	37.397820°
Longitude[deg.]:	-87.661744°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	39

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.007	0.001	0.200	
15%	1500	0.010	0.001	0.200	
20%	2000	0.015	0.002	0.201	
25%	2500	0.020	0.002	0.201	
30%	3000	0.028	0.002	0.201	
35%	3500	0.052	0.003	0.202	
40%	4000	0.098	0.003	0.202	
45%	4500	0.163	0.003	0.203	
50%	5000	0.255	0.004	0.203	
55%	5500	0.380	0.004	0.203	
60%	6000	0.560	0.005	0.204	
65%	6500	1.001	0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.982	0.000	0.199	



Tension Load Test Result for PLT-19B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

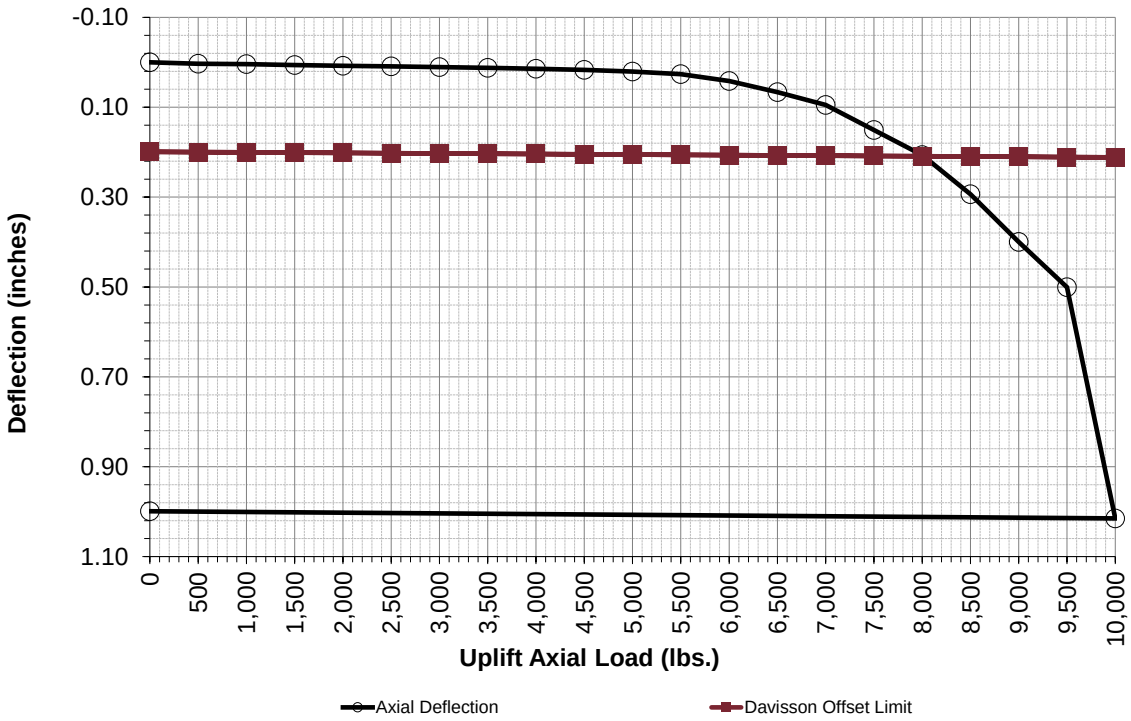
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-19B
Latitude [deg.]:	37.397820°
Longitude[deg.]:	-87.661744°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	95

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.008	0.002	0.202	
25%	2500	0.009	0.003	0.202	
30%	3000	0.011	0.004	0.203	
35%	3500	0.012	0.004	0.203	
40%	4000	0.014	0.005	0.204	
45%	4500	0.017	0.006	0.205	
50%	5000	0.021	0.006	0.205	
55%	5500	0.027	0.007	0.206	
60%	6000	0.042	0.007	0.207	
65%	6500	0.066	0.008	0.207	
70%	7000	0.095	0.009	0.208	
75%	7500	0.151	0.009	0.208	
80%	8000	0.207	0.010	0.209	
85%	8500	0.294	0.010	0.210	
90%	9000	0.400	0.011	0.210	
95%	9500	0.501	0.012	0.211	
100%	10000	1.015	0.012	0.212	
0%	0	0.999	0.000	0.199	



Tension Load Test Result for PLT-20A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

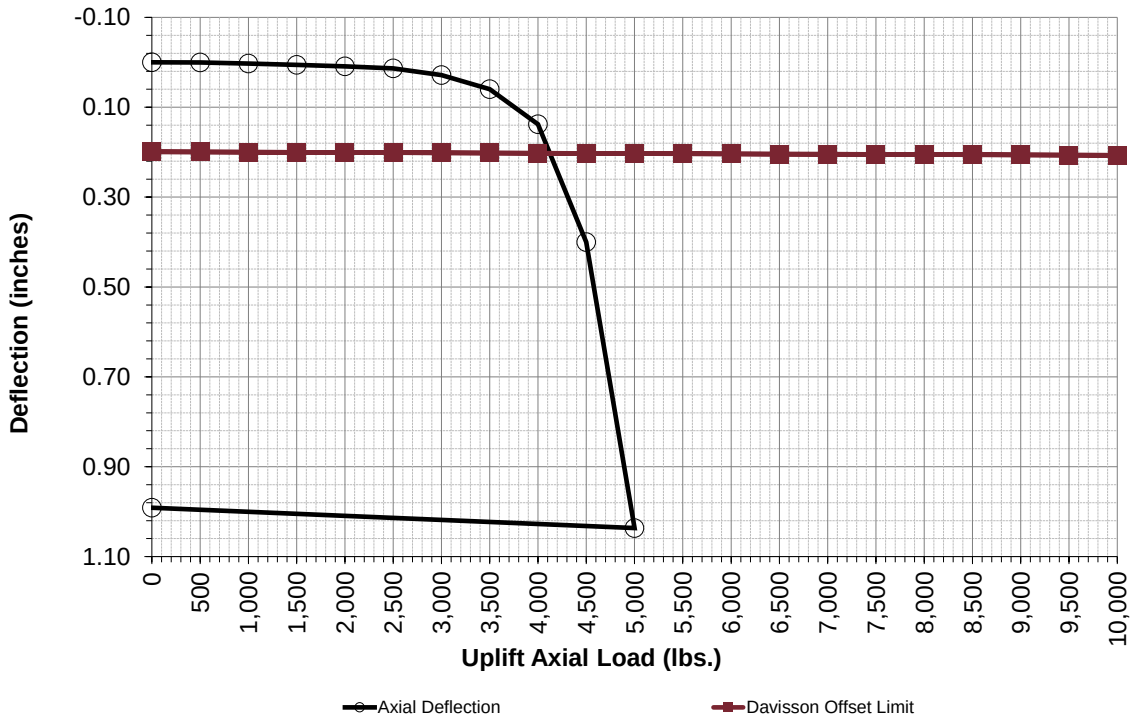
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-20A
Latitude [deg.]:	37.395134°
Longitude[deg.]:	-87.662825°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	30

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.006	0.001	0.200	
20%	2000	0.009	0.002	0.201	
25%	2500	0.014	0.002	0.201	
30%	3000	0.028	0.002	0.201	
35%	3500	0.060	0.003	0.202	
40%	4000	0.138	0.003	0.202	
45%	4500	0.400	0.003	0.203	
50%	5000	1.037	0.004	0.203	
55%	5500		0.004	0.203	
60%	6000		0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.991	0.000	0.199	



Tension Load Test Result for PLT-20B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

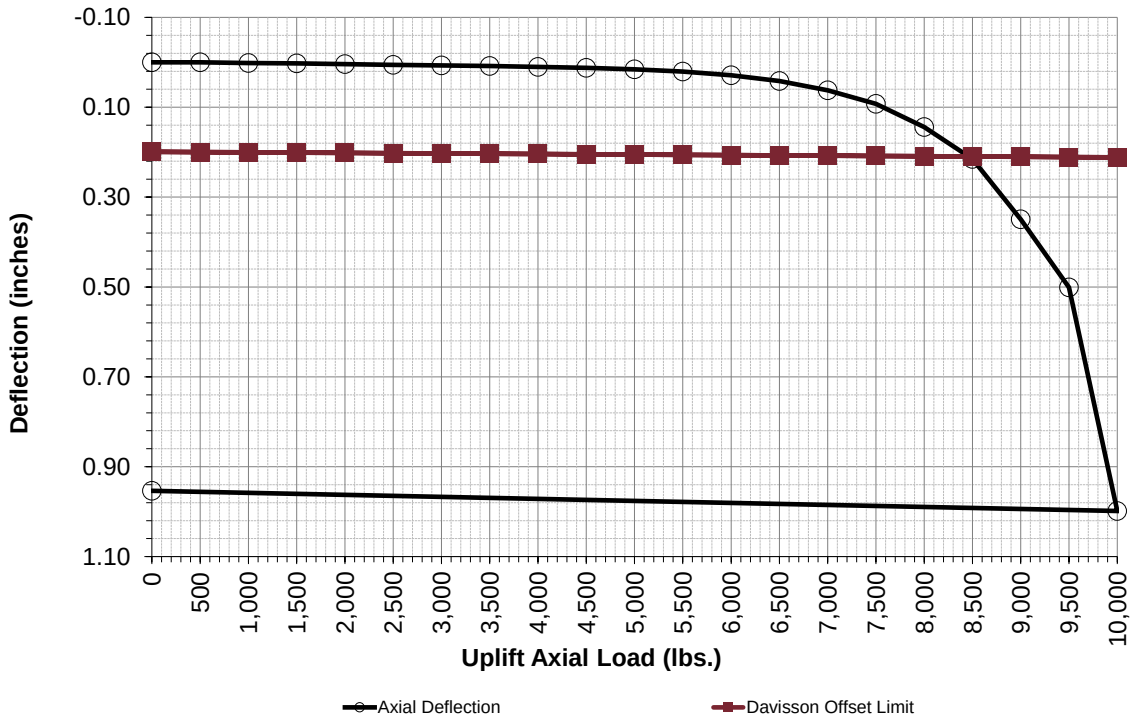
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-20B
Latitude [deg.]:	37.395134°
Longitude[deg.]:	-87.662825°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	119

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.001	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.003	0.002	0.201	
20%	2000	0.004	0.002	0.202	
25%	2500	0.006	0.003	0.202	
30%	3000	0.007	0.004	0.203	
35%	3500	0.008	0.004	0.203	
40%	4000	0.010	0.005	0.204	
45%	4500	0.013	0.006	0.205	
50%	5000	0.016	0.006	0.205	
55%	5500	0.021	0.007	0.206	
60%	6000	0.029	0.007	0.207	
65%	6500	0.042	0.008	0.207	
70%	7000	0.063	0.009	0.208	
75%	7500	0.093	0.009	0.208	
80%	8000	0.144	0.010	0.209	
85%	8500	0.215	0.010	0.210	
90%	9000	0.350	0.011	0.210	
95%	9500	0.501	0.012	0.211	
100%	10000	0.999	0.012	0.212	
0%	0	0.954	0.000	0.199	



Tension Load Test Result for PLT-21A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

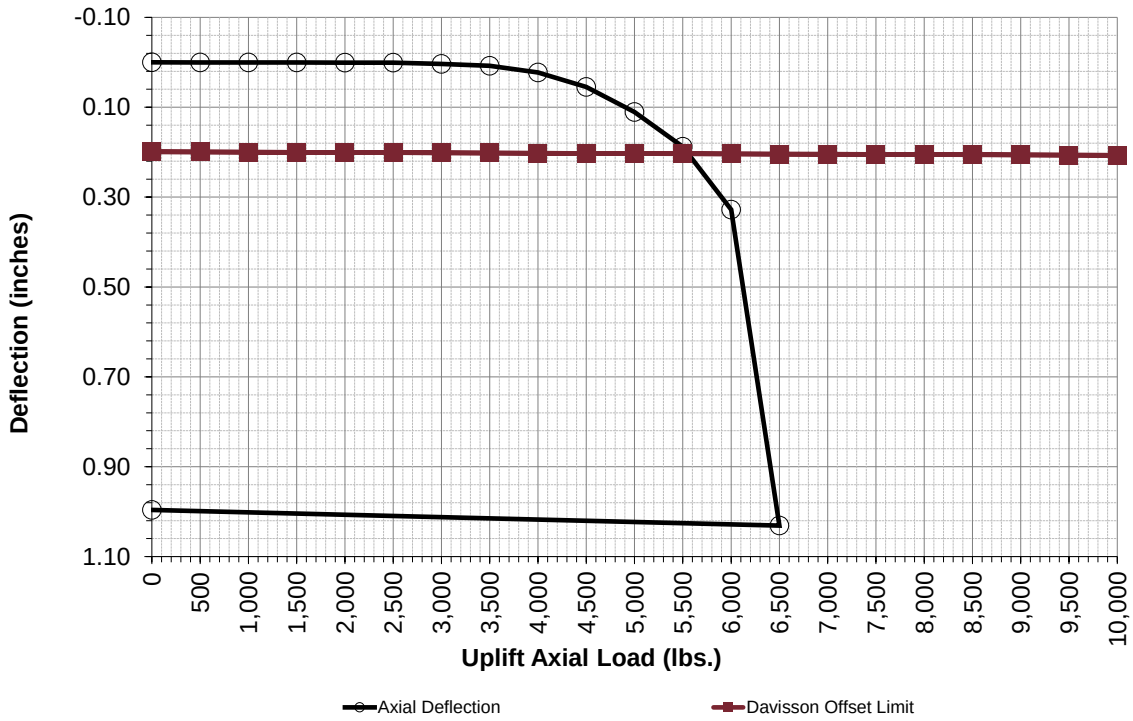
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-21A
Latitude [deg.]:	37.394185°
Longitude[deg.]:	-87.659160°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	37

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.001	0.001	0.200	
15%	1500	0.001	0.001	0.200	
20%	2000	0.001	0.002	0.201	
25%	2500	0.001	0.002	0.201	
30%	3000	0.004	0.002	0.201	
35%	3500	0.008	0.003	0.202	
40%	4000	0.023	0.003	0.202	
45%	4500	0.055	0.003	0.203	
50%	5000	0.111	0.004	0.203	
55%	5500	0.188	0.004	0.203	
60%	6000	0.328	0.005	0.204	
65%	6500	1.031	0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.996	0.000	0.199	



Tension Load Test Result for PLT-21B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

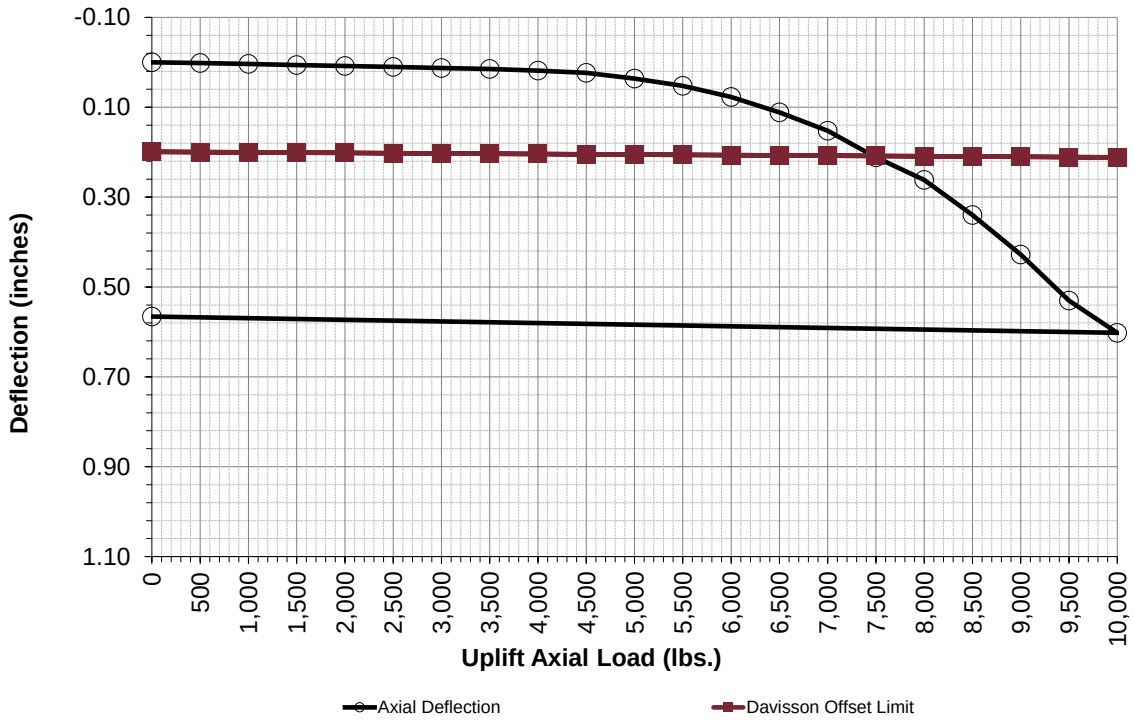
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-21B
Latitude [deg.]:	37.394185°
Longitude[deg.]:	-87.659160°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	109

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.008	0.002	0.202	
25%	2500	0.010	0.003	0.202	
30%	3000	0.013	0.004	0.203	
35%	3500	0.015	0.004	0.203	
40%	4000	0.019	0.005	0.204	
45%	4500	0.024	0.006	0.205	
50%	5000	0.036	0.006	0.205	
55%	5500	0.053	0.007	0.206	
60%	6000	0.077	0.007	0.207	
65%	6500	0.111	0.008	0.207	
70%	7000	0.152	0.009	0.208	
75%	7500	0.211	0.009	0.208	
80%	8000	0.262	0.010	0.209	
85%	8500	0.340	0.010	0.210	
90%	9000	0.428	0.011	0.210	
95%	9500	0.530	0.012	0.211	
100%	10000	0.602	0.012	0.212	
0%	0	0.566	0.000	0.199	



Tension Load Test Result for PLT-22A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

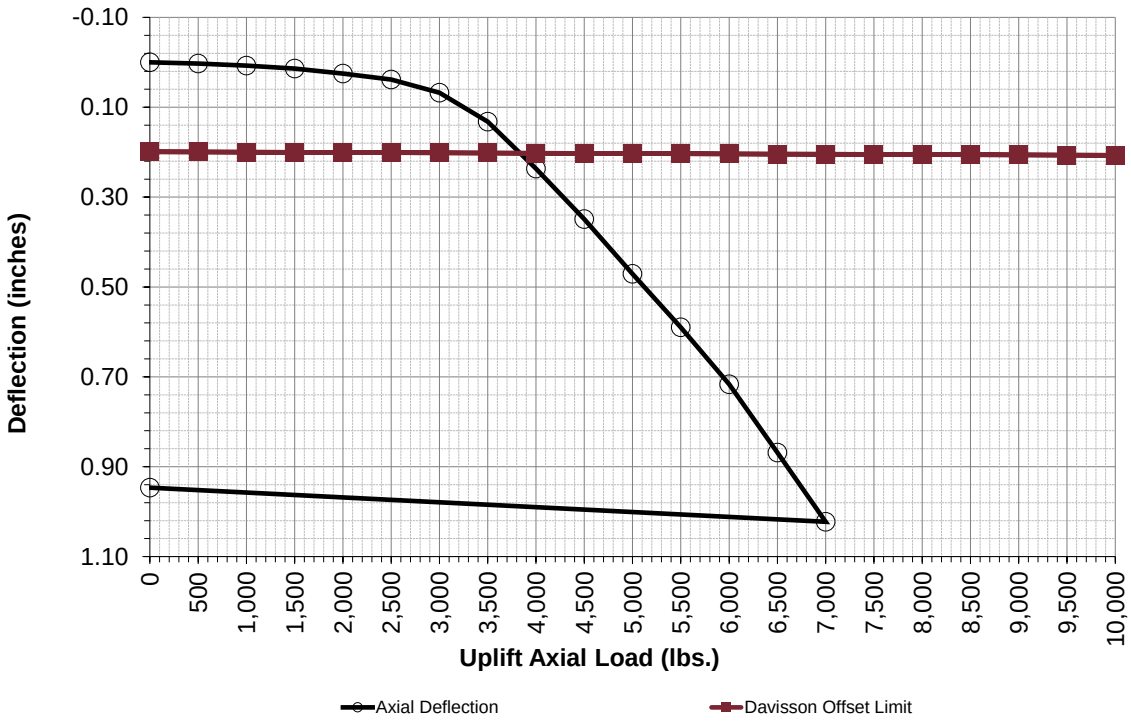
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-22A
Latitude [deg.]:	37.387827°
Longitude[deg.]:	-87.680214°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	24

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.000	0.200	
10%	1000	0.008	0.001	0.200	
15%	1500	0.014	0.001	0.200	
20%	2000	0.025	0.002	0.201	
25%	2500	0.038	0.002	0.201	
30%	3000	0.068	0.002	0.201	
35%	3500	0.132	0.003	0.202	
40%	4000	0.237	0.003	0.202	
45%	4500	0.349	0.003	0.203	
50%	5000	0.471	0.004	0.203	
55%	5500	0.590	0.004	0.203	
60%	6000	0.717	0.005	0.204	
65%	6500	0.869	0.005	0.204	
70%	7000	1.023	0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.947	0.000	0.199	



Lateral Load Test Results for PLT-22-01A

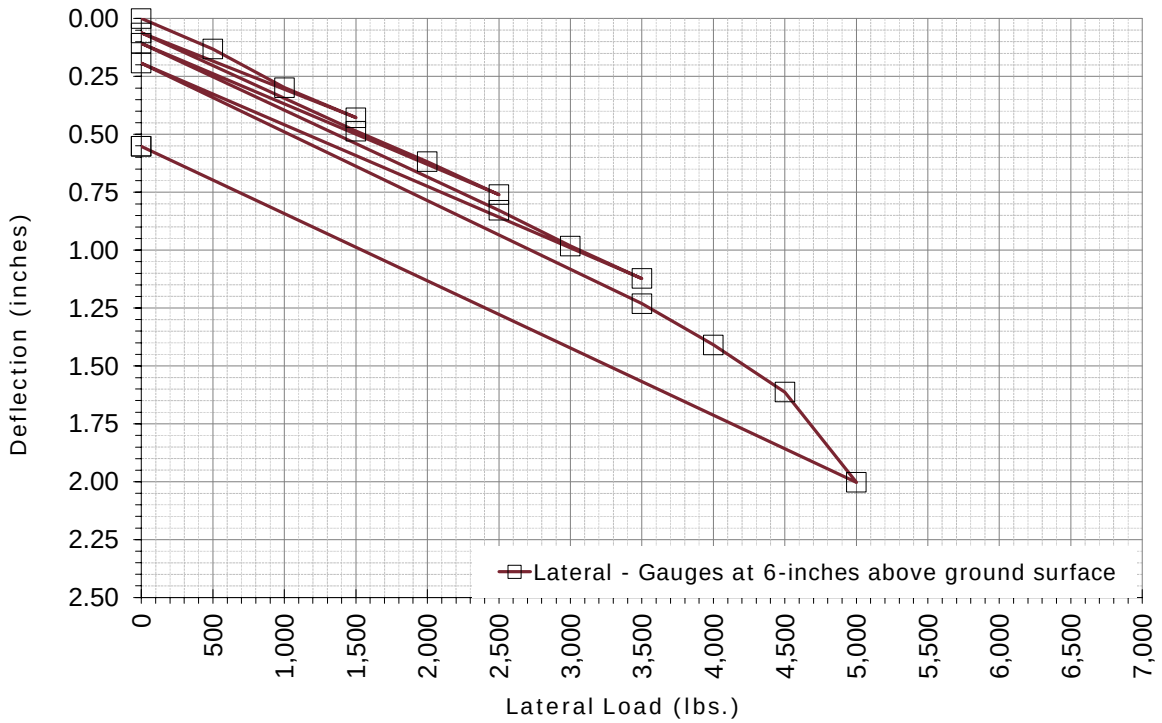
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	5/1/2024

Pile Information	
Pile ID:	PLT-22-01A
Latitude [deg.]:	37.40087
Longitude [deg.]:	-87.70440
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	25
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.132	
14%	1,000	0.298	
21%	1,500	0.427	
0%	0	0.062	
21%	1,500	0.486	
29%	2,000	0.619	
36%	2,500	0.761	
0%	0	0.107	
36%	2,500	0.828	
43%	3,000	0.982	
50%	3,500	1.122	
0%	0	0.193	
50%	3,500	1.231	
57%	4,000	1.409	
64%	4,500	1.613	
71%	5,000	2.003	
0%	0	0.551	
57%	4,000		
71%	5,000		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.551	



Lateral Load Test Results for PLT-22-01B

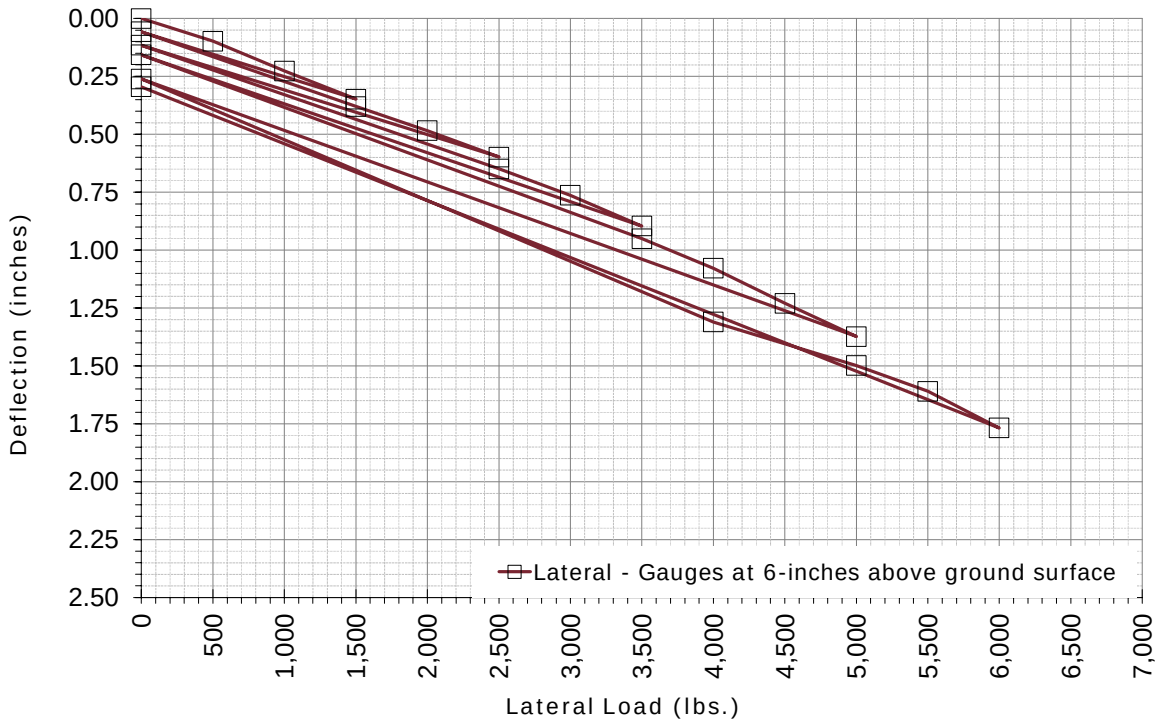
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	5/1/2024

Pile Information	
Pile ID:	PLT-22-01B
Latitude [deg.]:	37.40087
Longitude [deg.]:	-87.70440
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	55
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.098	
14%	1,000	0.226	
21%	1,500	0.348	
0%	0	0.057	
21%	1,500	0.380	
29%	2,000	0.484	
36%	2,500	0.598	
0%	0	0.115	
36%	2,500	0.650	
43%	3,000	0.763	
50%	3,500	0.896	
0%	0	0.156	
50%	3,500	0.951	
57%	4,000	1.079	
64%	4,500	1.230	
71%	5,000	1.374	
0%	0	0.261	
57%	4,000	1.310	
71%	5,000	1.498	
79%	5,500	1.609	
86%	6,000	1.768	
93%	6,500		
100%	7,000		
0%	0	0.295	



Lateral Load Test Results for PLT-22-02A

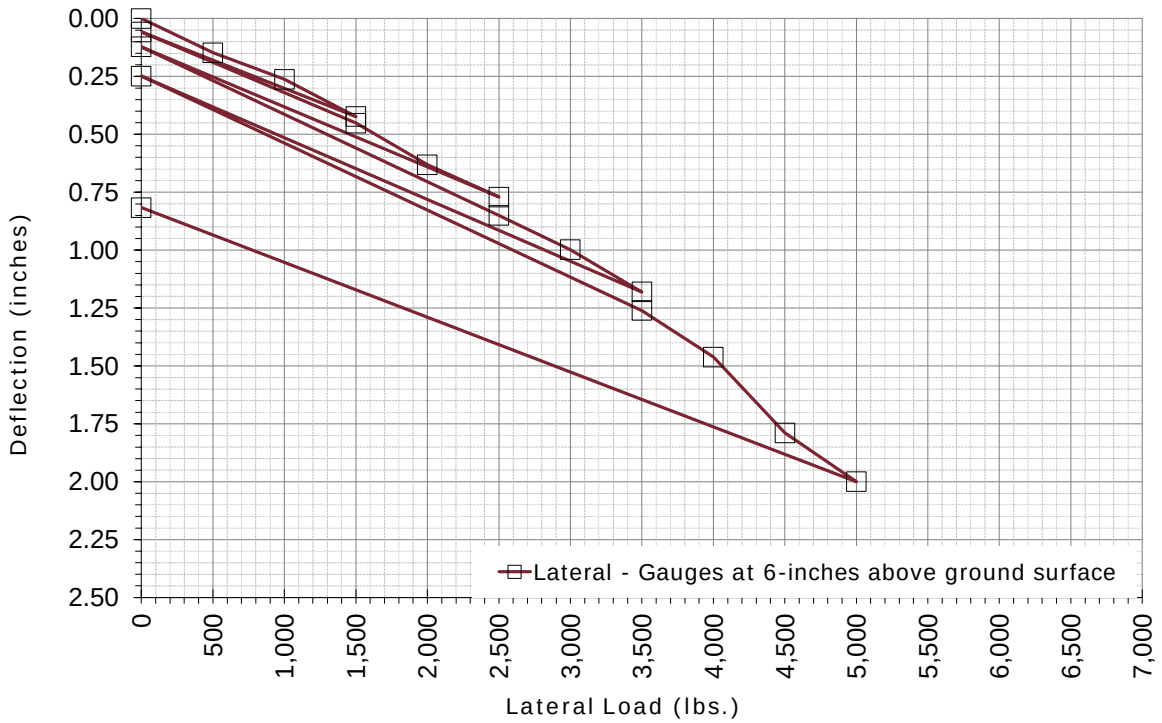
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-02A
Latitude [deg.]:	37.41295
Longitude [deg.]:	-87.68645
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	24
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.148	
14%	1,000	0.263	
21%	1,500	0.423	
0%	0	0.057	
21%	1,500	0.452	
29%	2,000	0.631	
36%	2,500	0.771	
0%	0	0.122	
36%	2,500	0.850	
43%	3,000	0.999	
50%	3,500	1.181	
0%	0	0.248	
50%	3,500	1.260	
57%	4,000	1.462	
64%	4,500	1.789	
71%	5,000	2.000	
0%	0		
57%	4,000		
71%	5,000		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.816	



Lateral Load Test Results for PLT-22-02B

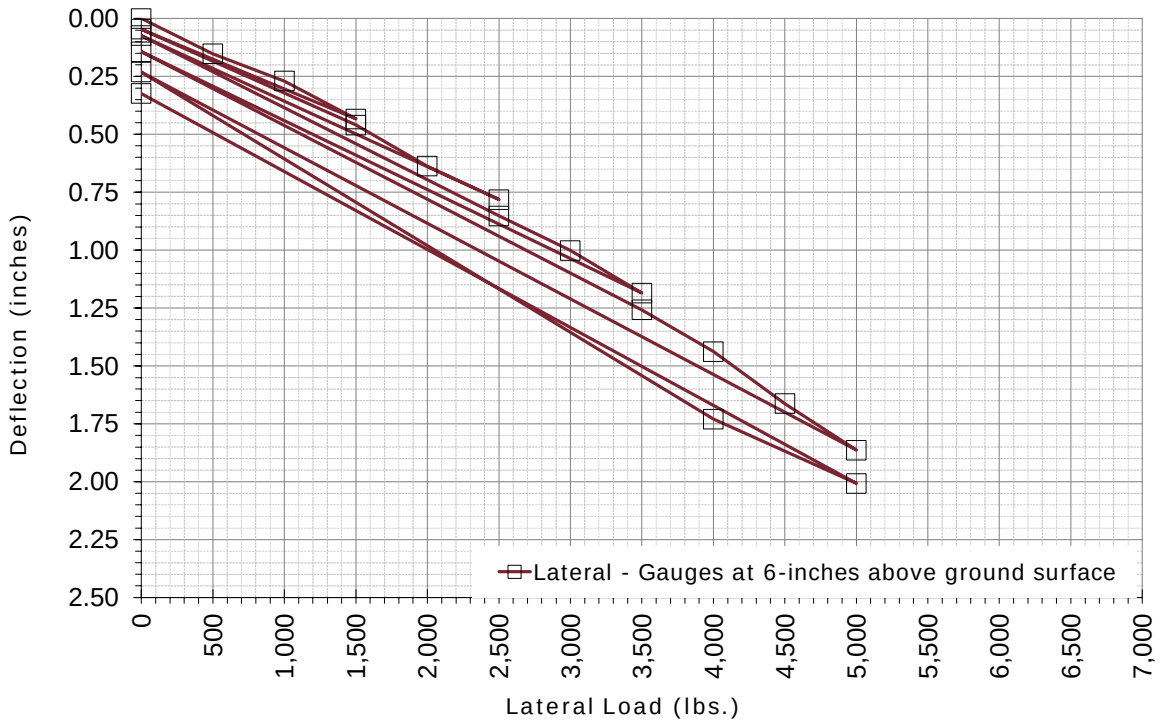
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-02B
Latitude [deg.]:	37.41295
Longitude [deg.]:	-87.68645
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	78
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.152	
14%	1,000	0.270	
21%	1,500	0.434	
0%	0	0.046	
21%	1,500	0.459	
29%	2,000	0.638	
36%	2,500	0.782	
0%	0	0.073	
36%	2,500	0.852	
43%	3,000	1.002	
50%	3,500	1.185	
0%	0	0.144	
50%	3,500	1.258	
57%	4,000	1.438	
64%	4,500	1.663	
71%	5,000	1.864	
0%	0	0.231	
57%	4,000	1.730	
71%	5,000	2.008	
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.324	



Lateral Load Test Results for PLT-22-03A

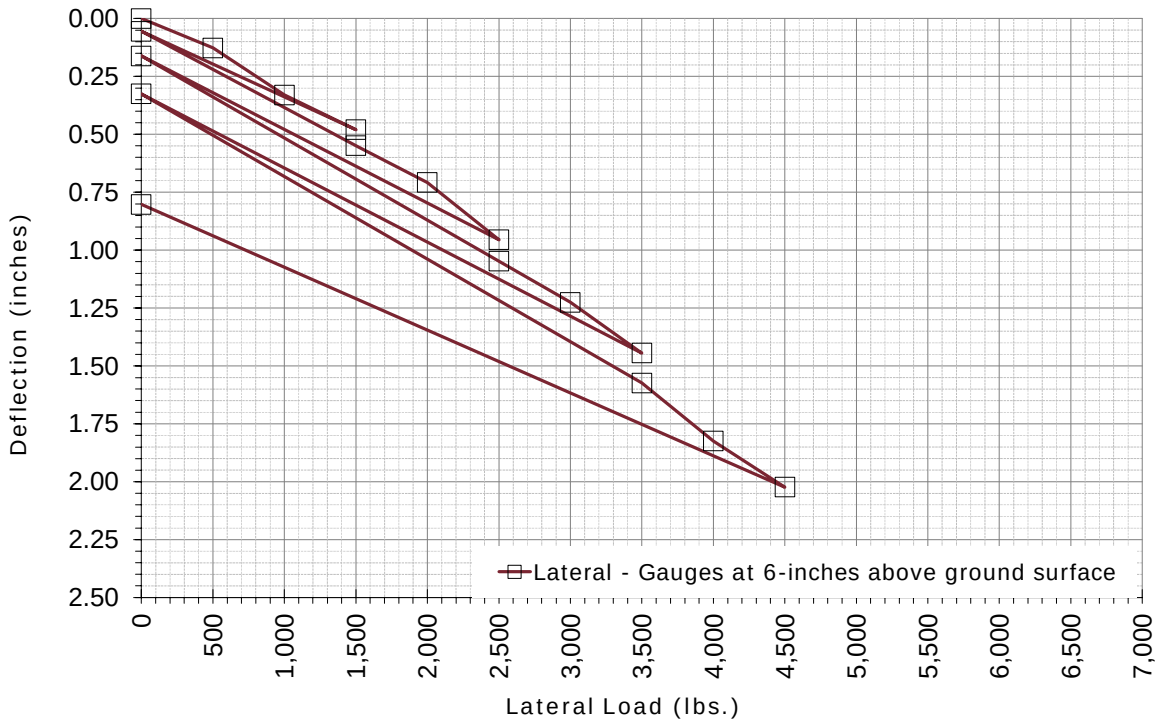
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-03A
Latitude [deg.]:	37.41799
Longitude [deg.]:	-87.67597
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	18
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.127	
14%	1,000	0.330	
21%	1,500	0.480	
0%	0	0.055	
21%	1,500	0.549	
29%	2,000	0.708	
36%	2,500	0.955	
0%	0	0.161	
36%	2,500	1.048	
43%	3,000	1.225	
50%	3,500	1.444	
0%	0	0.325	
50%	3,500	1.573	
57%	4,000	1.824	
64%	4,500	2.024	
71%	5,000		
0%	0		
57%	4,000		
71%	5,000		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.803	



Lateral Load Test Results for PLT-22-03B

Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-03B
Latitude [deg.]:	37.41799
Longitude [deg.]:	-87.67597
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	75
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.157	
14%	1,000	0.318	
21%	1,500	0.474	
0%	0	0.051	
21%	1,500	0.508	
29%	2,000	0.639	
36%	2,500	0.839	
0%	0	0.081	
36%	2,500	0.907	
43%	3,000	1.051	
50%	3,500	1.228	
0%	0	0.158	
50%	3,500	1.302	
57%	4,000	1.511	
64%	4,500	1.721	
71%	5,000	2.015	
0%	0		
57%	4,000		
71%	5,000		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.358	

Lateral Load Test Results for PLT-22-04A

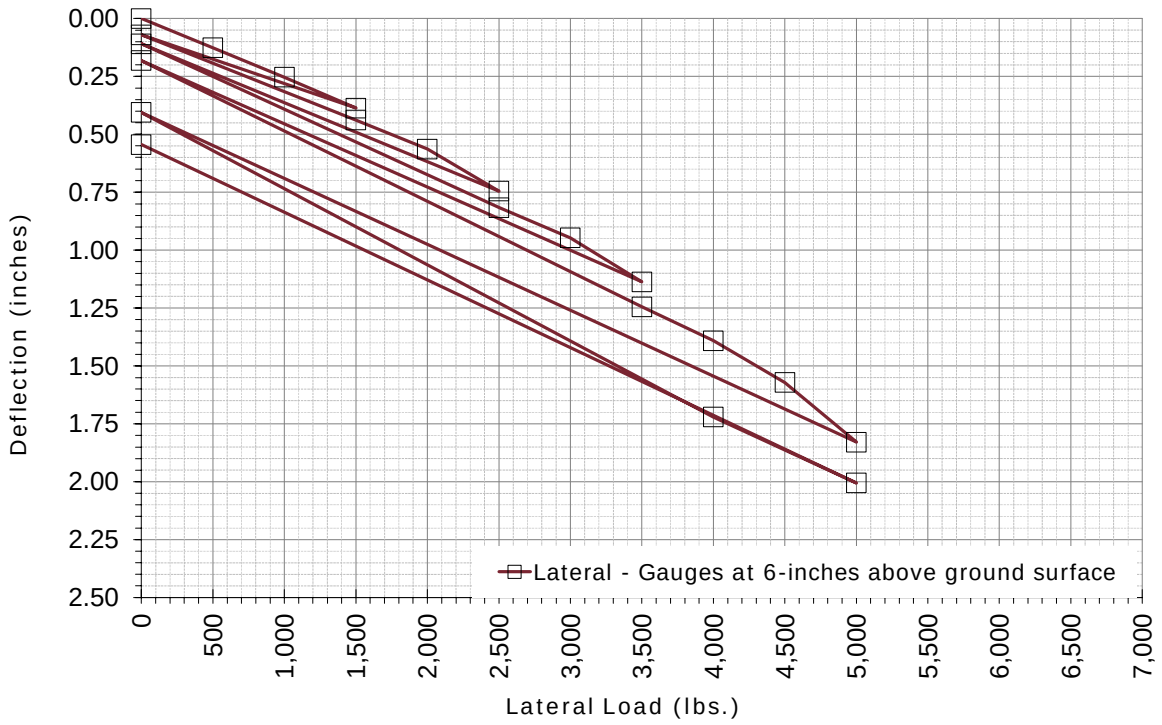
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-04A
Latitude [deg.]:	37.42216
Longitude [deg.]:	-87.67333
Pile Type:	W6X9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	32
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.126	
14%	1,000	0.254	
21%	1,500	0.387	
0%	0	0.070	
21%	1,500	0.438	
29%	2,000	0.563	
36%	2,500	0.746	
0%	0	0.109	
36%	2,500	0.817	
43%	3,000	0.947	
50%	3,500	1.136	
0%	0	0.181	
50%	3,500	1.244	
57%	4,000	1.391	
64%	4,500	1.572	
71%	5,000	1.830	
0%	0	0.405	
57%	4,000	1.721	
71%	5,000	2.005	
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.544	



Lateral Load Test Results for PLT-22-04B

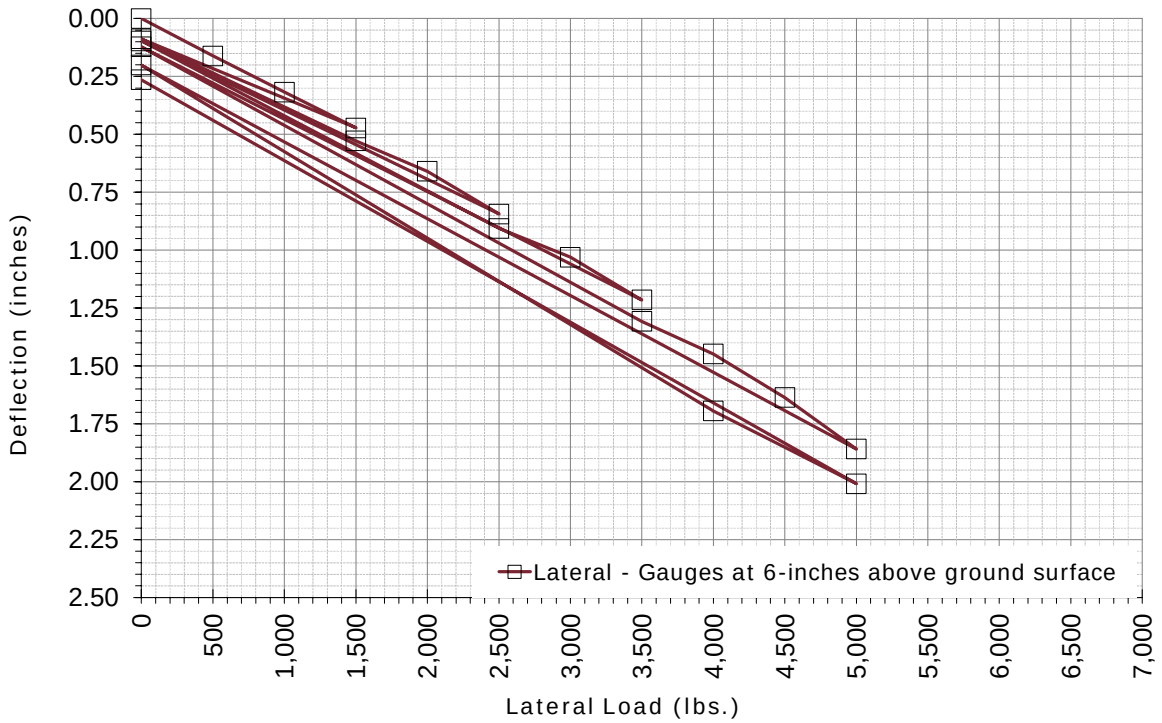
Project Information	
Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	N4245089
Installation Date:	4/22/2024

Lateral Load Test Set Up	
Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	ED JR

Test Date and Representative	
Tested By Terracon Rep:	AB/NS
Date Tested:	4/30/2024

Pile Information	
Pile ID:	PLT-22-04B
Latitude [deg.]:	37.42216
Longitude [deg.]:	-87.67333
Pile Type:	W6X9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	76
Oversized Pre-Drill Depth [in.]:	24
Undersized Pre-Drill Time [sec.]:	0
Undersized Pre-Drill Dia. [in.]:	0
Undersized Pre-Drill Depth [in.]:	0

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.161	
14%	1,000	0.318	
21%	1,500	0.472	
0%	0	0.087	
21%	1,500	0.528	
29%	2,000	0.659	
36%	2,500	0.844	
0%	0	0.096	
36%	2,500	0.907	
43%	3,000	1.030	
50%	3,500	1.215	
0%	0	0.122	
50%	3,500	1.308	
57%	4,000	1.448	
64%	4,500	1.637	
71%	5,000	1.859	
0%	0	0.201	
57%	4,000	1.695	
71%	5,000	2.009	
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.264	



Tension Load Test Result for PLT-22B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, KY
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	25k Ed Jr.

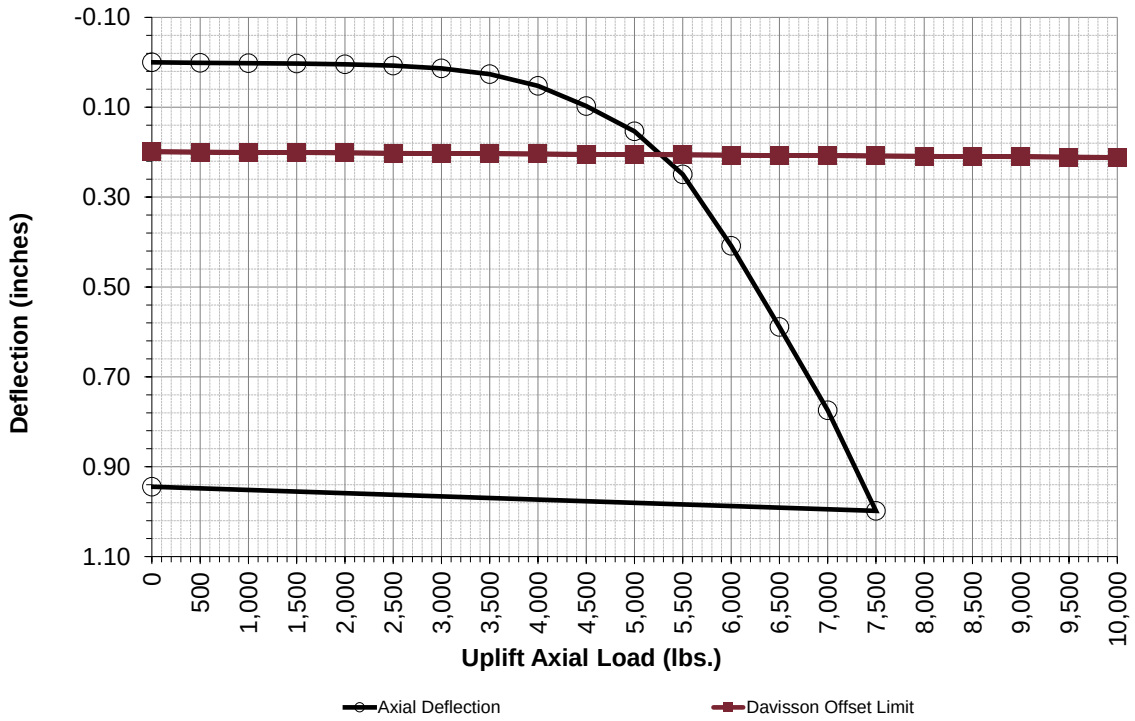
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-22B
Latitude [deg.]:	37.387827°
Longitude[deg.]:	-87.680214°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	48
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	55

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.003	0.002	0.201	
20%	2000	0.005	0.002	0.202	
25%	2500	0.007	0.003	0.202	
30%	3000	0.014	0.004	0.203	
35%	3500	0.027	0.004	0.203	
40%	4000	0.053	0.005	0.204	
45%	4500	0.097	0.006	0.205	
50%	5000	0.154	0.006	0.205	
55%	5500	0.249	0.007	0.206	
60%	6000	0.409	0.007	0.207	
65%	6500	0.589	0.008	0.207	
70%	7000	0.775	0.009	0.208	
75%	7500	0.998	0.009	0.208	
80%	8000		0.010	0.209	
85%	8500		0.010	0.210	
90%	9000		0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.945	0.000	0.199	



Lateral Load Test Result for PLT-1A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

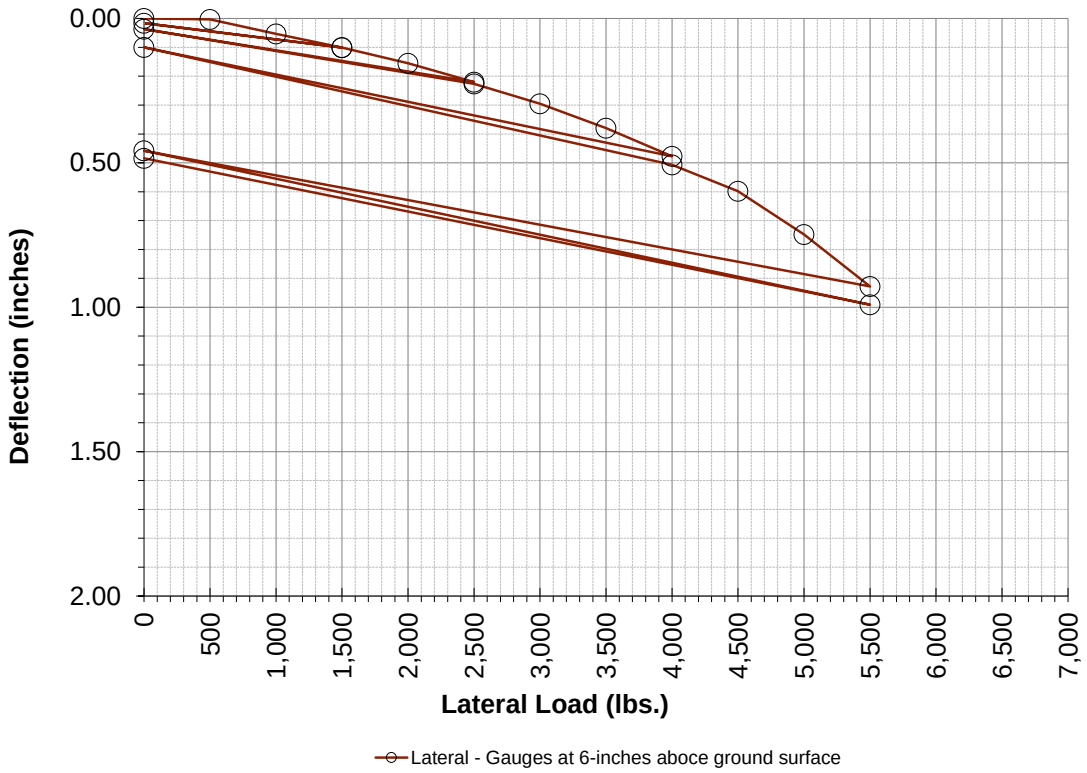
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-1A
Latitude [deg.]:	37.421800°
Longitude [deg.]:	-87.685390°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	64

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.003	
14%	1,000	0.053	
21%	1,500	0.101	
0%	0	0.016	
21%	1,500	0.101	
29%	2,000	0.155	
36%	2,500	0.220	
0%	0	0.037	
36%	2,500	0.227	
43%	3,000	0.295	
50%	3,500	0.380	
57%	4,000	0.477	
0%	0	0.100	
57%	4,000	0.507	
64%	4,500	0.598	
71%	5,000	0.748	
79%	5,500	0.928	
0%	0	0.458	
79%	5,500	0.991	
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.484	



Lateral Load Test Result for PLT-1B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

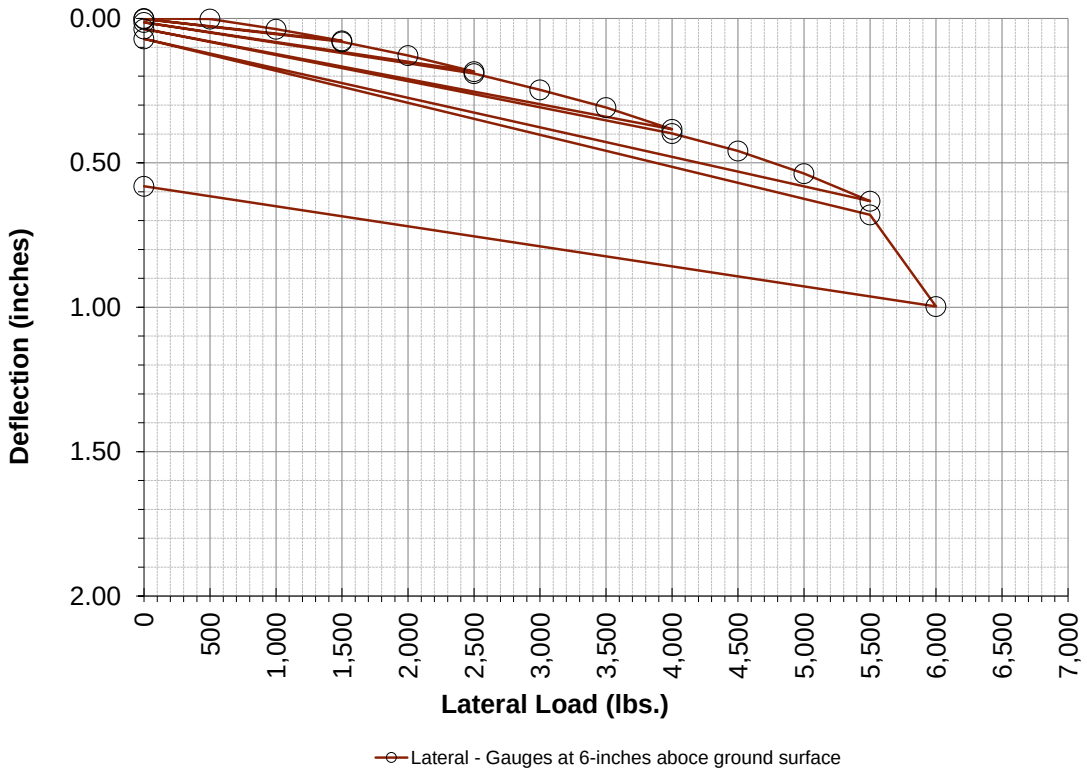
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-1B
Latitude [deg.]:	37.421800°
Longitude [deg.]:	-87.685390°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	161

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.002	
14%	1,000	0.037	
21%	1,500	0.078	
0%	0	0.002	
21%	1,500	0.081	
29%	2,000	0.129	
36%	2,500	0.184	
0%	0	0.014	
36%	2,500	0.191	
43%	3,000	0.247	
50%	3,500	0.308	
57%	4,000	0.384	
0%	0	0.037	
57%	4,000	0.398	
64%	4,500	0.459	
71%	5,000	0.537	
79%	5,500	0.633	
0%	0	0.071	
79%	5,500	0.680	
86%	6,000	0.997	
93%	6,500		
100%	7,000		
0%	0	0.581	



Lateral Load Test Result for PLT-2A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

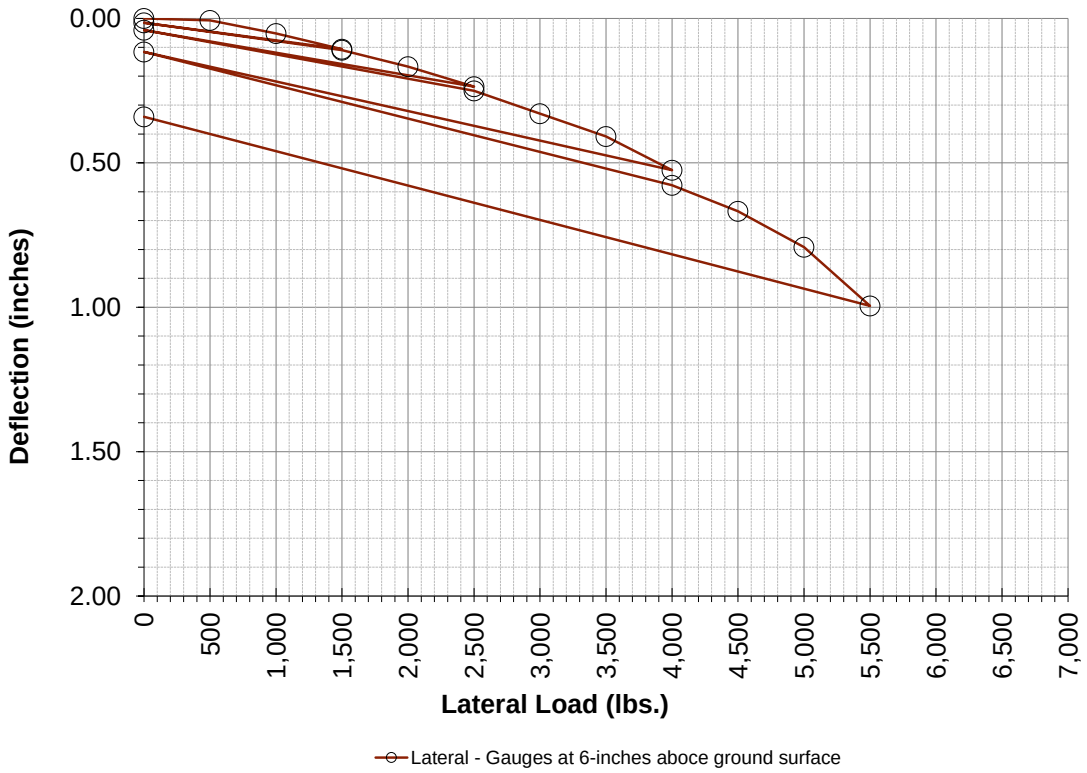
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-2A
Latitude [deg.]:	37.420707°
Longitude [deg.]:	-87.681606°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	41

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.007	
14%	1,000	0.052	
21%	1,500	0.106	
0%	0	0.015	
21%	1,500	0.110	
29%	2,000	0.167	
36%	2,500	0.236	
0%	0	0.040	
36%	2,500	0.251	
43%	3,000	0.330	
50%	3,500	0.409	
57%	4,000	0.525	
0%	0	0.116	
57%	4,000	0.578	
64%	4,500	0.668	
71%	5,000	0.792	
79%	5,500	0.995	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.341	



Lateral Load Test Result for PLT-2B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

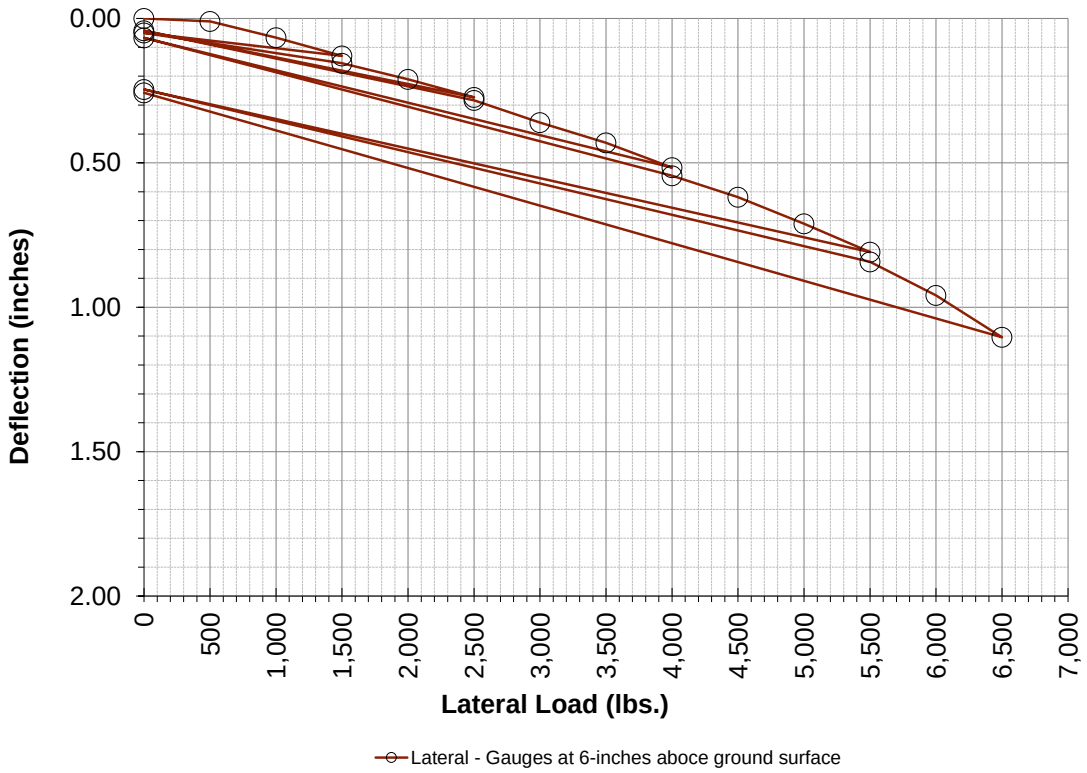
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-2B
Latitude [deg.]:	37.420707°
Longitude [deg.]:	-87.681606°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	78

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.010	
14%	1,000	0.066	
21%	1,500	0.130	
0%	0	0.050	
21%	1,500	0.155	
29%	2,000	0.211	
36%	2,500	0.274	
0%	0	0.042	
36%	2,500	0.283	
43%	3,000	0.361	
50%	3,500	0.431	
57%	4,000	0.517	
0%	0	0.067	
57%	4,000	0.544	
64%	4,500	0.619	
71%	5,000	0.711	
79%	5,500	0.809	
0%	0	0.246	
79%	5,500	0.843	
86%	6,000	0.959	
93%	6,500	1.104	
100%	7,000		
0%	0	0.257	



Lateral Load Test Result for PLT-3A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

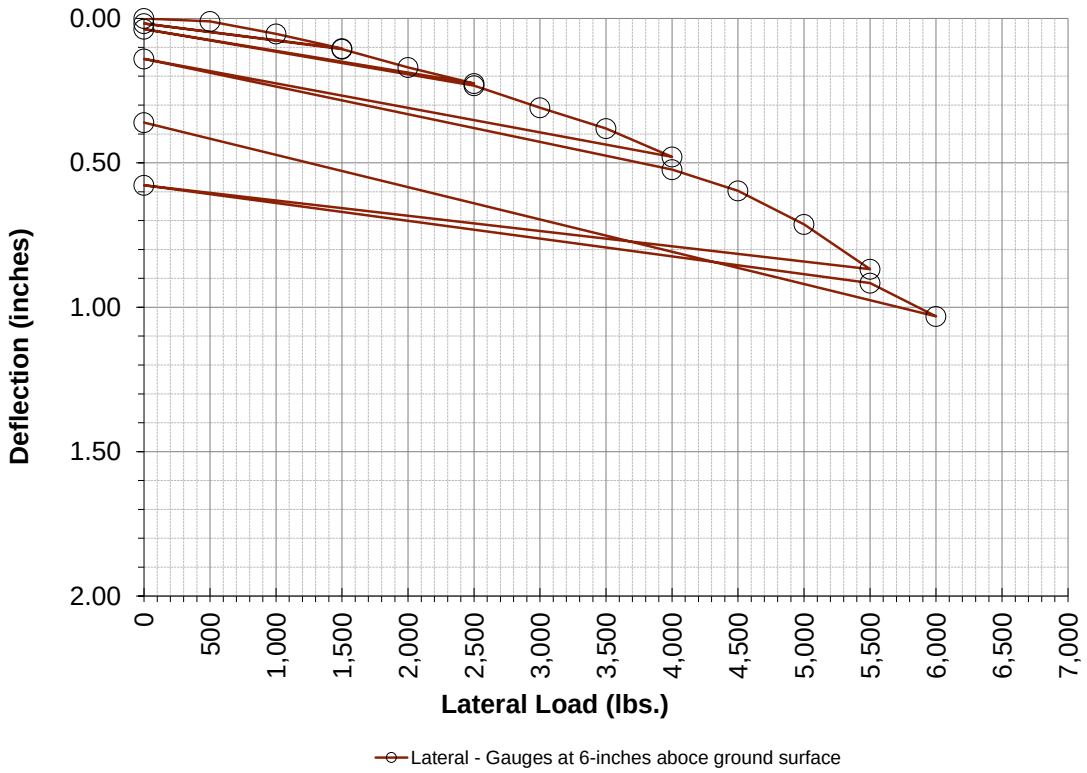
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-3A
Latitude [deg.]:	37.420405°
Longitude [deg.]:	-87.679850°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	66

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.010	
14%	1,000	0.053	
21%	1,500	0.104	
0%	0	0.018	
21%	1,500	0.107	
29%	2,000	0.170	
36%	2,500	0.225	
0%	0	0.037	
36%	2,500	0.233	
43%	3,000	0.309	
50%	3,500	0.381	
57%	4,000	0.480	
0%	0	0.140	
57%	4,000	0.523	
64%	4,500	0.597	
71%	5,000	0.713	
79%	5,500	0.868	
0%	0	0.577	
79%	5,500	0.916	
86%	6,000	1.032	
93%	6,500		
100%	7,000		
0%	0	0.361	



Lateral Load Test Result for PLT-3B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

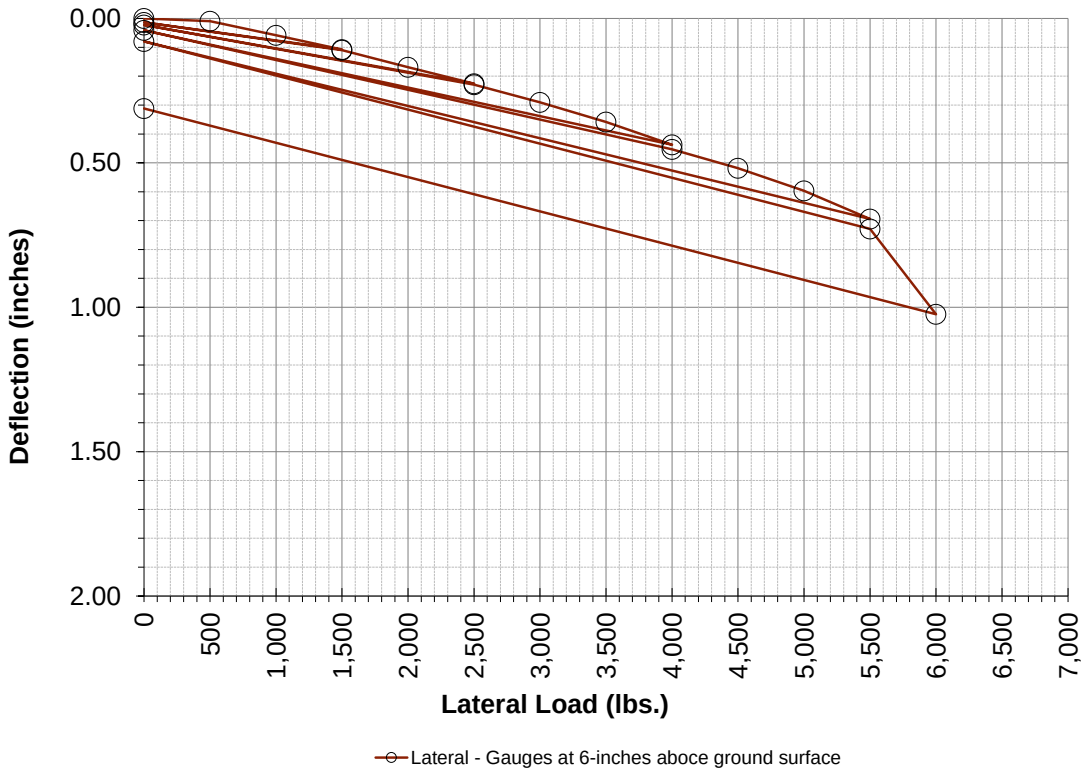
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-3B
Latitude [deg.]:	37.420405°
Longitude [deg.]:	-87.679850°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	102

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.009	
14%	1,000	0.058	
21%	1,500	0.108	
0%	0	0.013	
21%	1,500	0.110	
29%	2,000	0.169	
36%	2,500	0.226	
0%	0	0.023	
36%	2,500	0.230	
43%	3,000	0.291	
50%	3,500	0.359	
57%	4,000	0.438	
0%	0	0.041	
57%	4,000	0.454	
64%	4,500	0.518	
71%	5,000	0.597	
79%	5,500	0.695	
0%	0	0.080	
79%	5,500	0.729	
86%	6,000	1.024	
93%	6,500		
100%	7,000		
0%	0	0.312	



Lateral Load Test Result for PLT-4A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

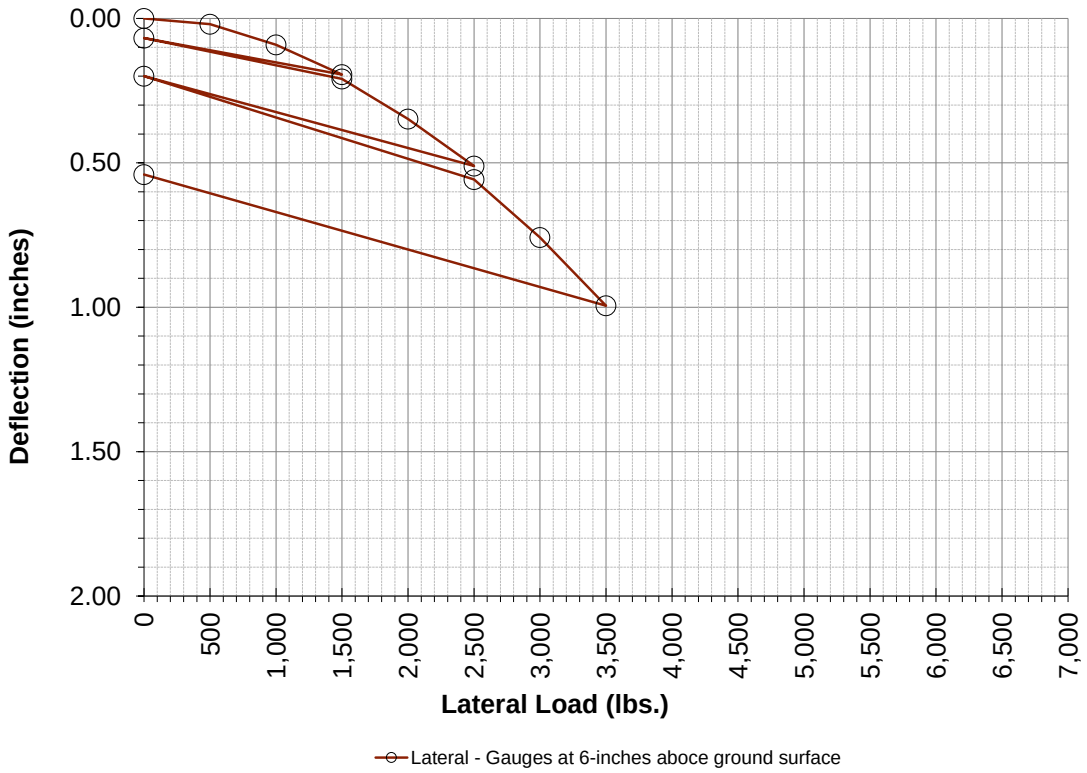
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-4A
Latitude [deg.]:	37.421115°
Longitude [deg.]:	-87.674801°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	23

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.020	
14%	1,000	0.092	
21%	1,500	0.195	
0%	0	0.068	
21%	1,500	0.209	
29%	2,000	0.348	
36%	2,500	0.511	
0%	0	0.200	
36%	2,500	0.558	
43%	3,000	0.759	
50%	3,500	0.995	
57%	4,000		
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.541	



Lateral Load Test Result for PLT-4B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

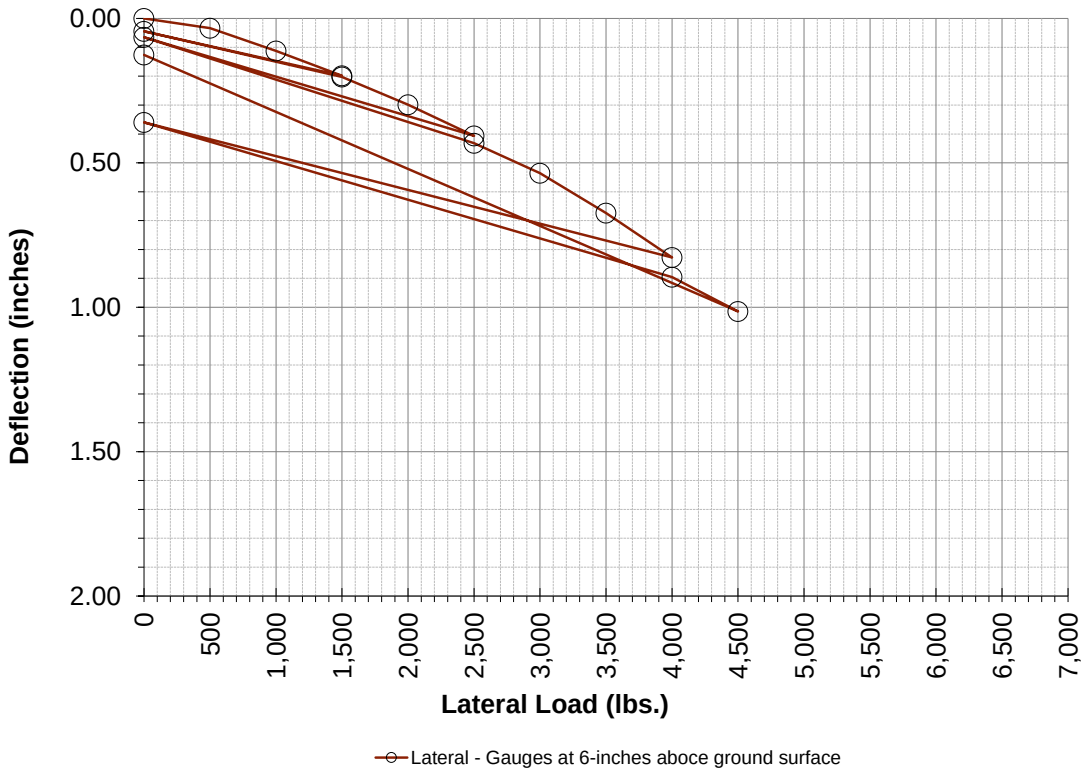
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-4B
Latitude [deg.]:	37.421115°
Longitude [deg.]:	-87.674801°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	101

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.033	
14%	1,000	0.112	
21%	1,500	0.199	
0%	0	0.045	
21%	1,500	0.203	
29%	2,000	0.299	
36%	2,500	0.406	
0%	0	0.065	
36%	2,500	0.432	
43%	3,000	0.536	
50%	3,500	0.674	
57%	4,000	0.828	
0%	0	0.360	
57%	4,000	0.896	
64%	4,500	1.015	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.127	



Lateral Load Test Result for PLT-5A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

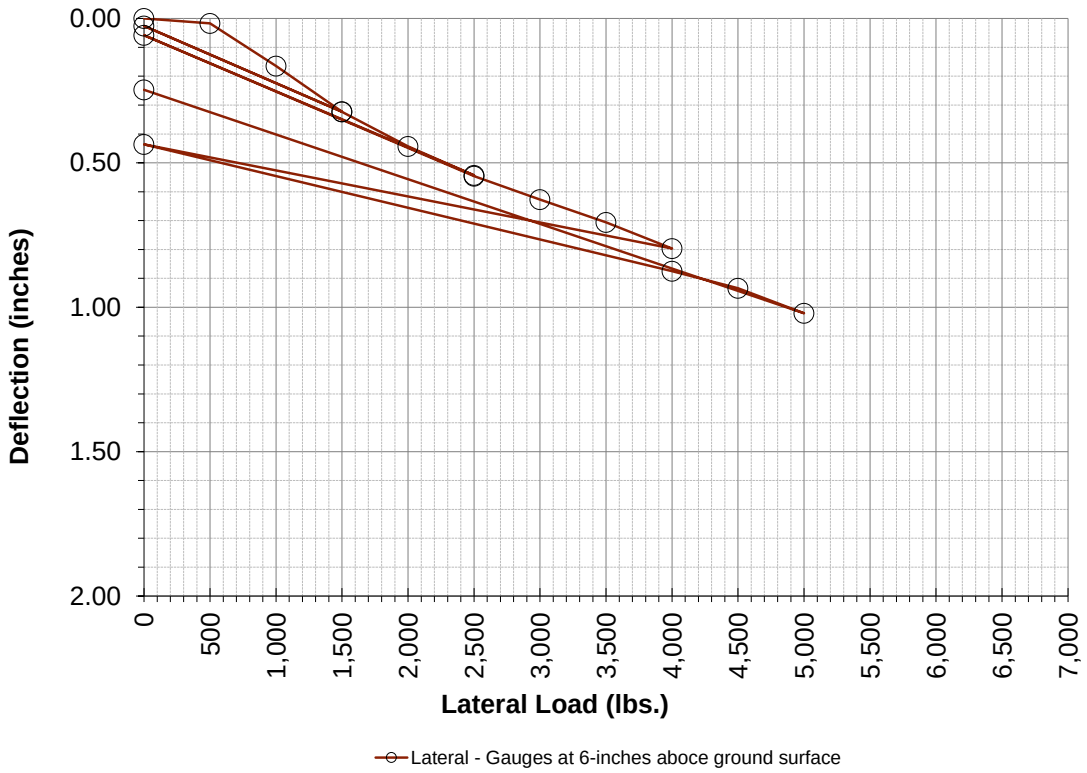
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-5A
Latitude [deg.]:	37.419188°
Longitude [deg.]:	-87.670540°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	55

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.017	
14%	1,000	0.165	
21%	1,500	0.323	
0%	0	0.026	
21%	1,500	0.323	
29%	2,000	0.443	
36%	2,500	0.543	
0%	0	0.058	
36%	2,500	0.546	
43%	3,000	0.627	
50%	3,500	0.706	
57%	4,000	0.797	
0%	0	0.436	
57%	4,000	0.875	
64%	4,500	0.934	
71%	5,000	1.021	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.247	



Lateral Load Test Result for PLT-5B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

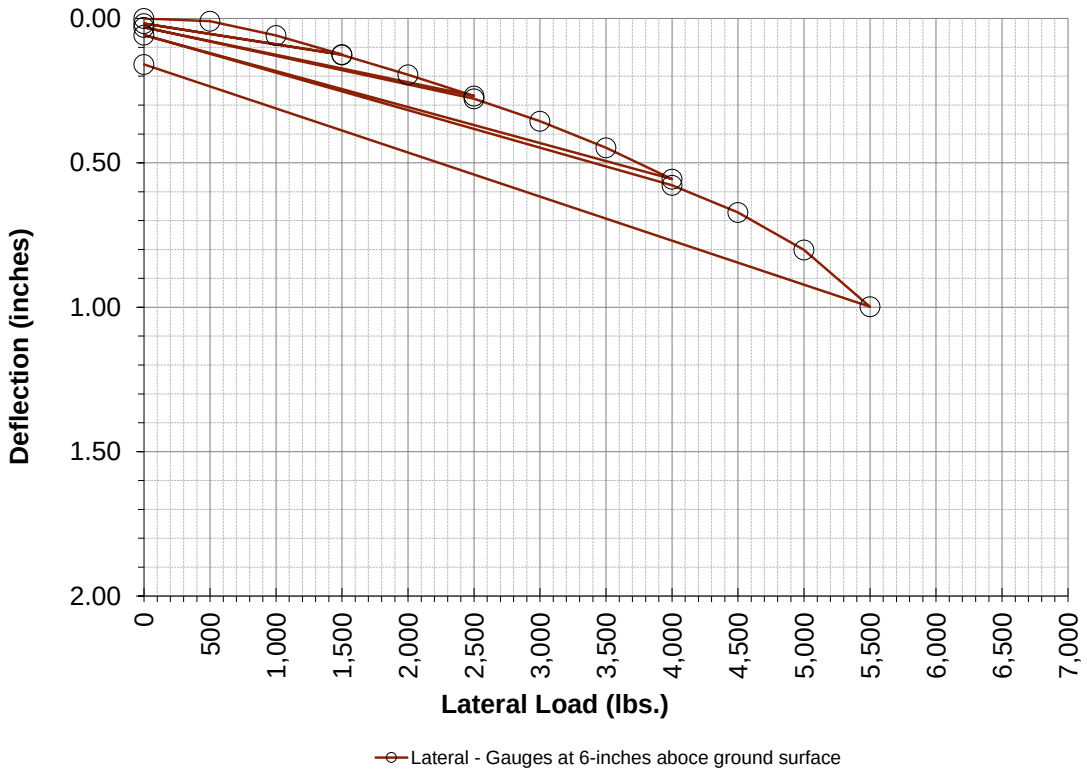
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-5B
Latitude [deg.]:	37.419188°
Longitude [deg.]:	-87.670540°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	145

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.010	
14%	1,000	0.059	
21%	1,500	0.125	
0%	0	0.018	
21%	1,500	0.127	
29%	2,000	0.195	
36%	2,500	0.269	
0%	0	0.031	
36%	2,500	0.278	
43%	3,000	0.356	
50%	3,500	0.448	
57%	4,000	0.557	
0%	0	0.057	
57%	4,000	0.577	
64%	4,500	0.672	
71%	5,000	0.802	
79%	5,500	0.998	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.159	



Lateral Load Test Result for PLT-6A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

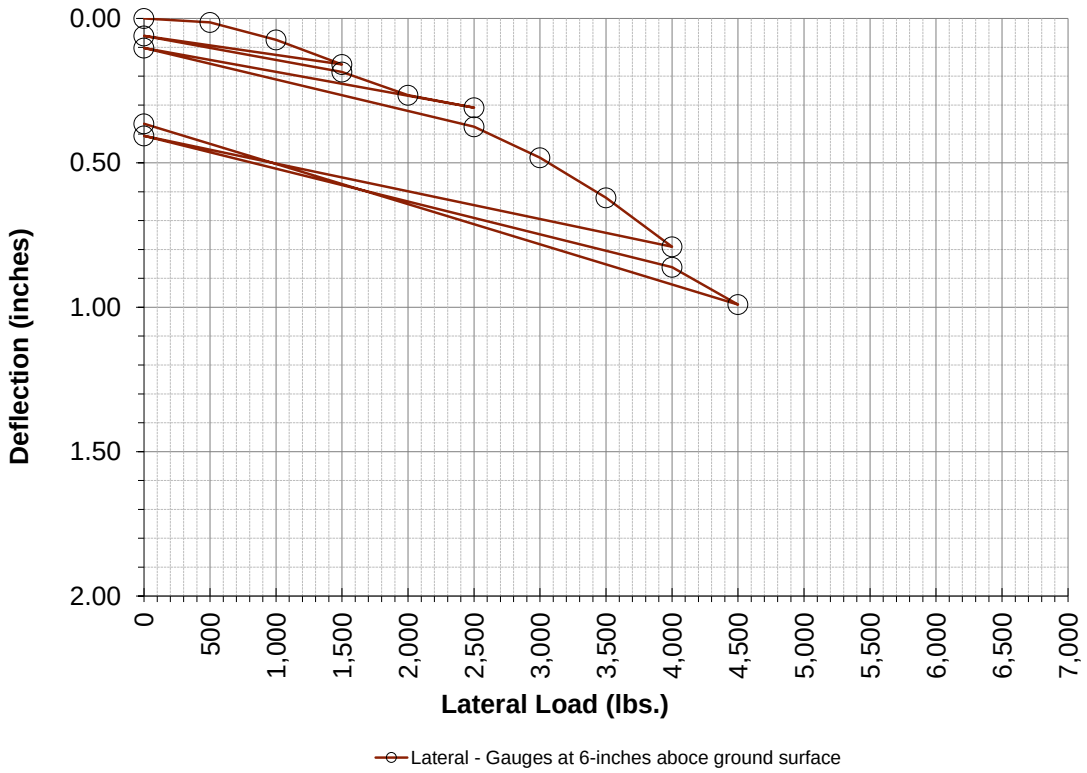
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-6A
Latitude [deg.]:	37.420553°
Longitude [deg.]:	-87.667394°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	44

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.013	
14%	1,000	0.074	
21%	1,500	0.159	
0%	0	0.060	
21%	1,500	0.185	
29%	2,000	0.266	
36%	2,500	0.309	
0%	0	0.102	
36%	2,500	0.375	
43%	3,000	0.482	
50%	3,500	0.621	
57%	4,000	0.791	
0%	0	0.407	
57%	4,000	0.861	
64%	4,500	0.991	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.365	



Lateral Load Test Result for PLT-6B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

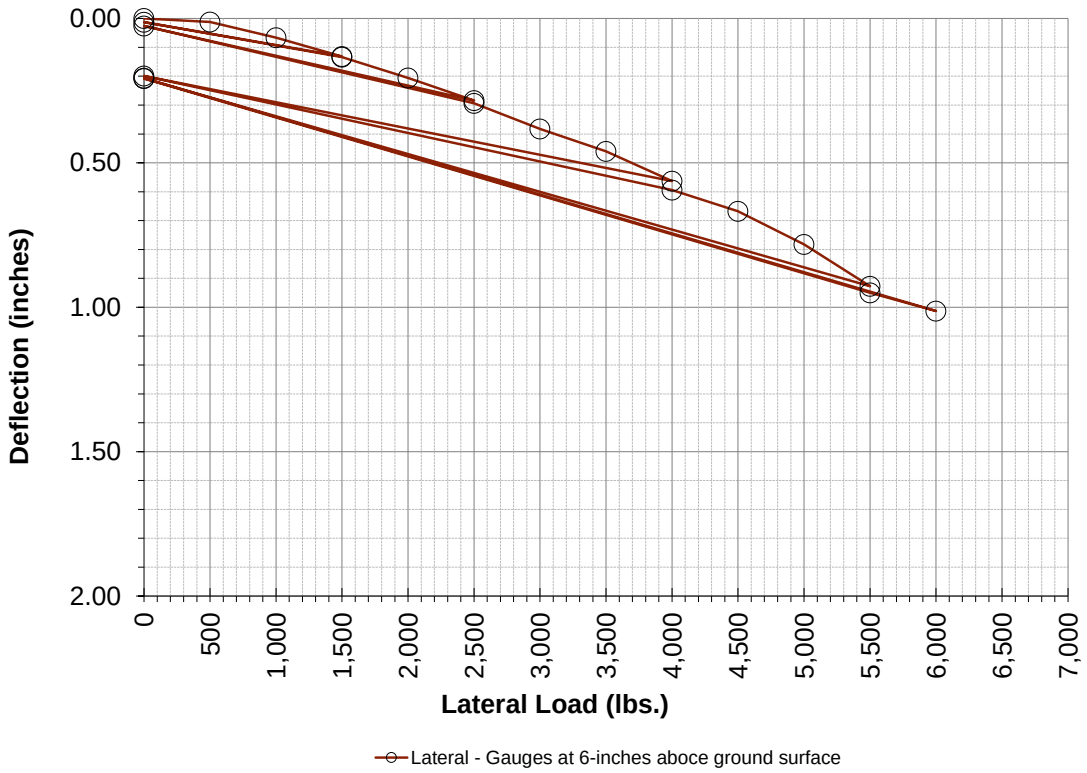
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-6B
Latitude [deg.]:	37.420553°
Longitude [deg.]:	-87.667394°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	132

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.012	
14%	1,000	0.067	
21%	1,500	0.132	
0%	0	0.013	
21%	1,500	0.134	
29%	2,000	0.206	
36%	2,500	0.284	
0%	0	0.026	
36%	2,500	0.294	
43%	3,000	0.383	
50%	3,500	0.460	
57%	4,000	0.563	
0%	0	0.199	
57%	4,000	0.594	
64%	4,500	0.668	
71%	5,000	0.782	
79%	5,500	0.928	
0%	0	0.208	
79%	5,500	0.950	
86%	6,000	1.013	
93%	6,500		
100%	7,000		
0%	0	0.207	



Lateral Load Test Result for PLT-7A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

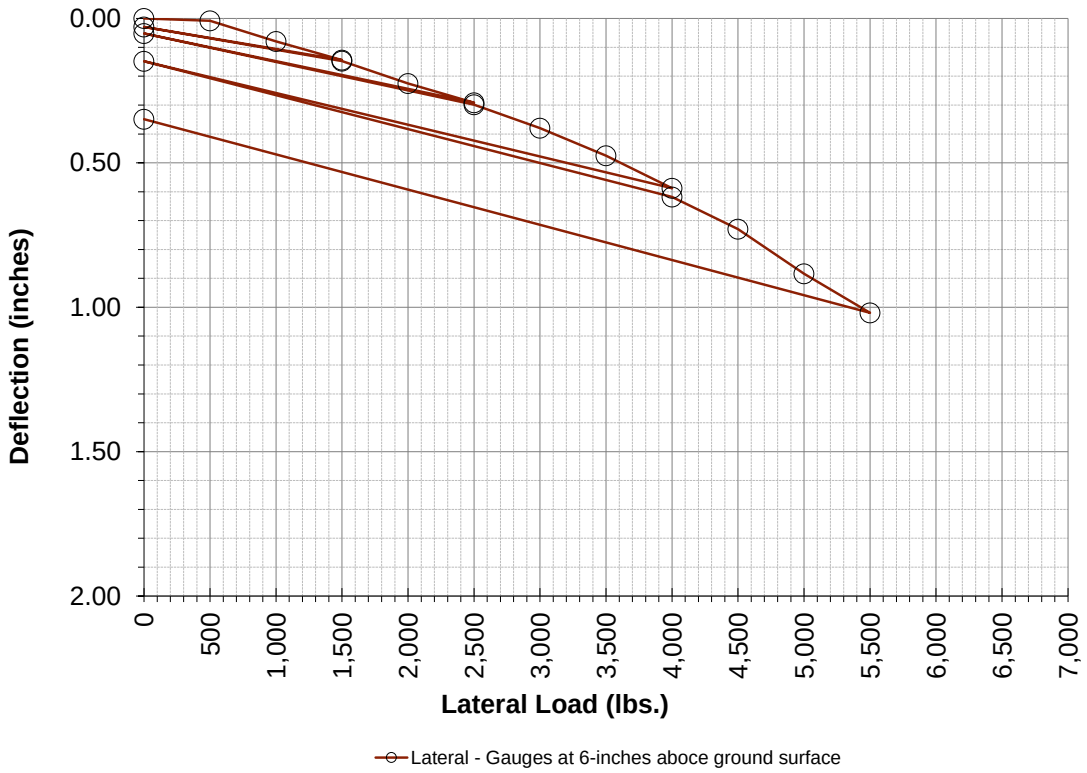
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-7A
Latitude [deg.]:	37.418312°
Longitude [deg.]:	-87.667395°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	61

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.008	
14%	1,000	0.079	
21%	1,500	0.144	
0%	0	0.029	
21%	1,500	0.148	
29%	2,000	0.225	
36%	2,500	0.292	
0%	0	0.052	
36%	2,500	0.299	
43%	3,000	0.380	
50%	3,500	0.476	
57%	4,000	0.588	
0%	0	0.148	
57%	4,000	0.618	
64%	4,500	0.729	
71%	5,000	0.884	
79%	5,500	1.019	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.349	



Lateral Load Test Result for PLT-7B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

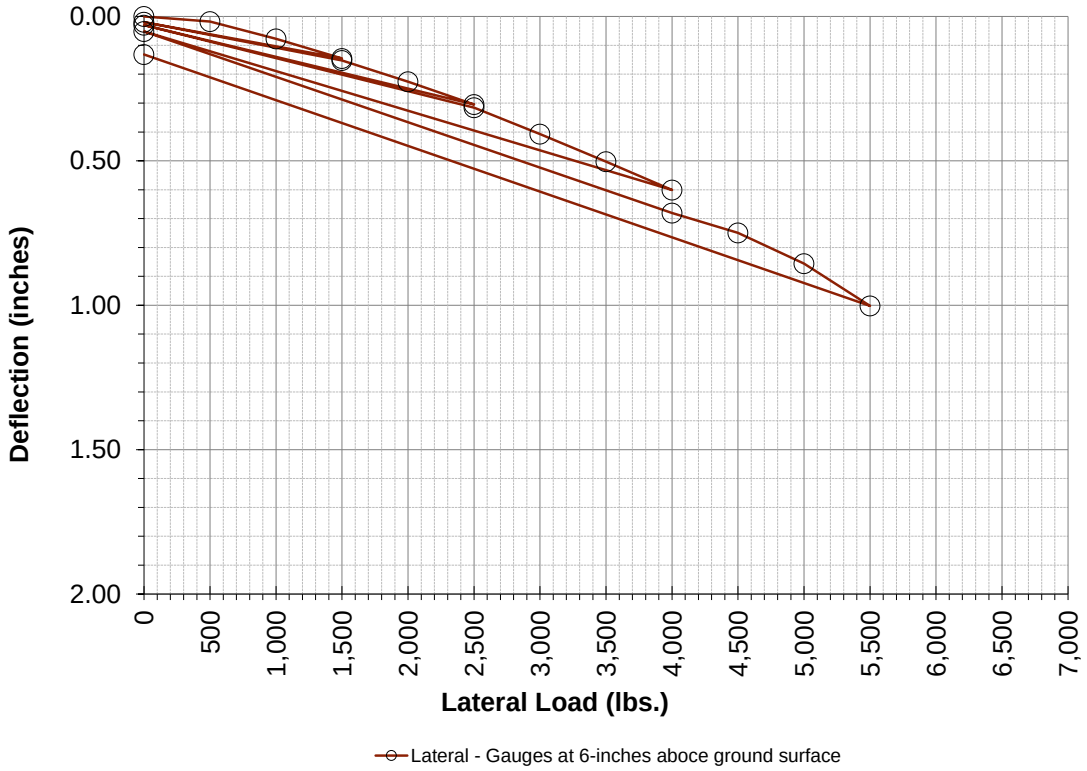
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-7B
Latitude [deg.]:	37.418312°
Longitude [deg.]:	-87.667395°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	169

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.018	
14%	1,000	0.078	
21%	1,500	0.146	
0%	0	0.020	
21%	1,500	0.152	
29%	2,000	0.226	
36%	2,500	0.305	
0%	0	0.030	
36%	2,500	0.316	
43%	3,000	0.407	
50%	3,500	0.503	
57%	4,000	0.601	
0%	0	0.052	
57%	4,000	0.681	
64%	4,500	0.749	
71%	5,000	0.856	
79%	5,500	1.002	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.132	



Lateral Load Test Result for PLT-8A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

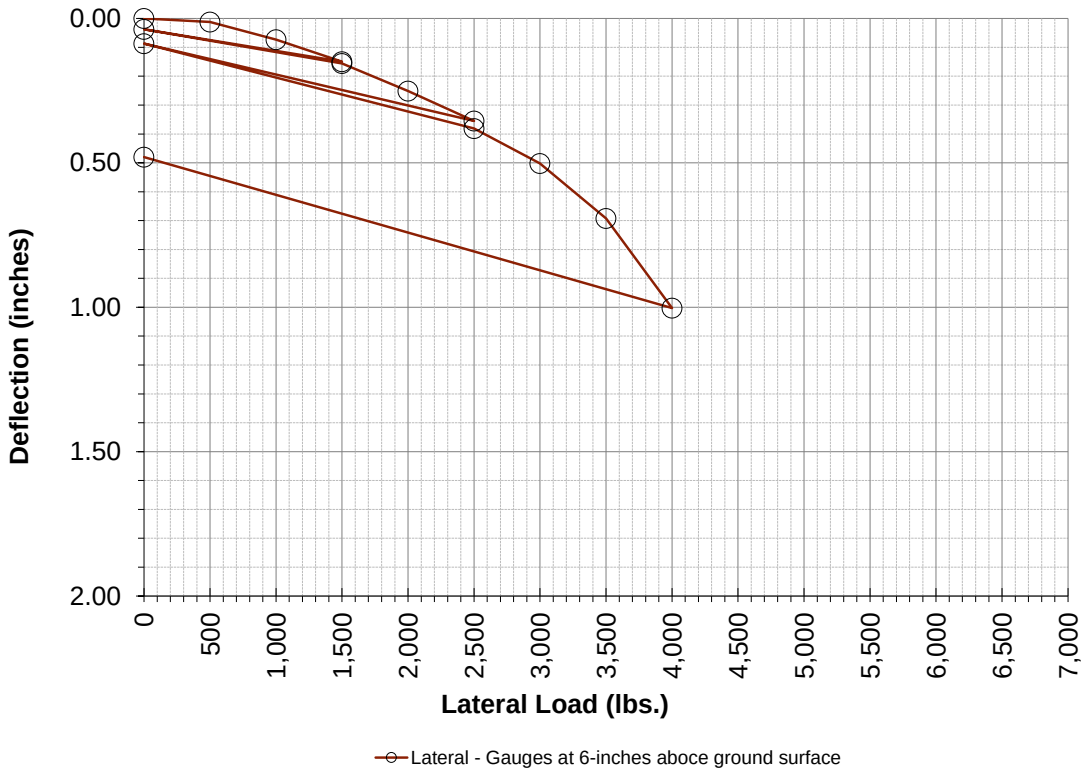
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-8A
Latitude [deg.]:	37.417629°
Longitude [deg.]:	-87.664594°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	44

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.013	
14%	1,000	0.073	
21%	1,500	0.150	
0%	0	0.037	
21%	1,500	0.156	
29%	2,000	0.251	
36%	2,500	0.355	
0%	0	0.087	
36%	2,500	0.381	
43%	3,000	0.502	
50%	3,500	0.692	
57%	4,000	1.003	
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.480	



Lateral Load Test Result for PLT-8B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

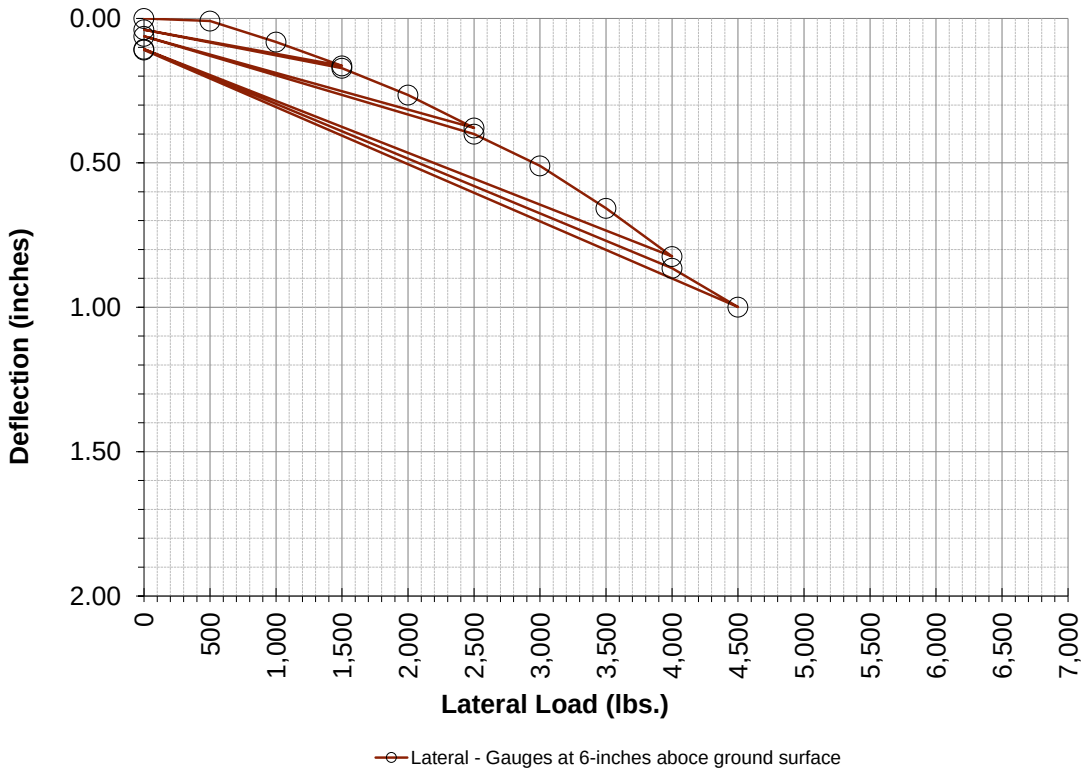
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-8B
Latitude [deg.]:	37.417629°
Longitude [deg.]:	-87.664594°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	134

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.009	
14%	1,000	0.081	
21%	1,500	0.164	
0%	0	0.039	
21%	1,500	0.172	
29%	2,000	0.265	
36%	2,500	0.379	
0%	0	0.062	
36%	2,500	0.400	
43%	3,000	0.510	
50%	3,500	0.657	
57%	4,000	0.824	
0%	0	0.106	
57%	4,000	0.865	
64%	4,500	0.999	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.109	



Lateral Load Test Result for PLT-9A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

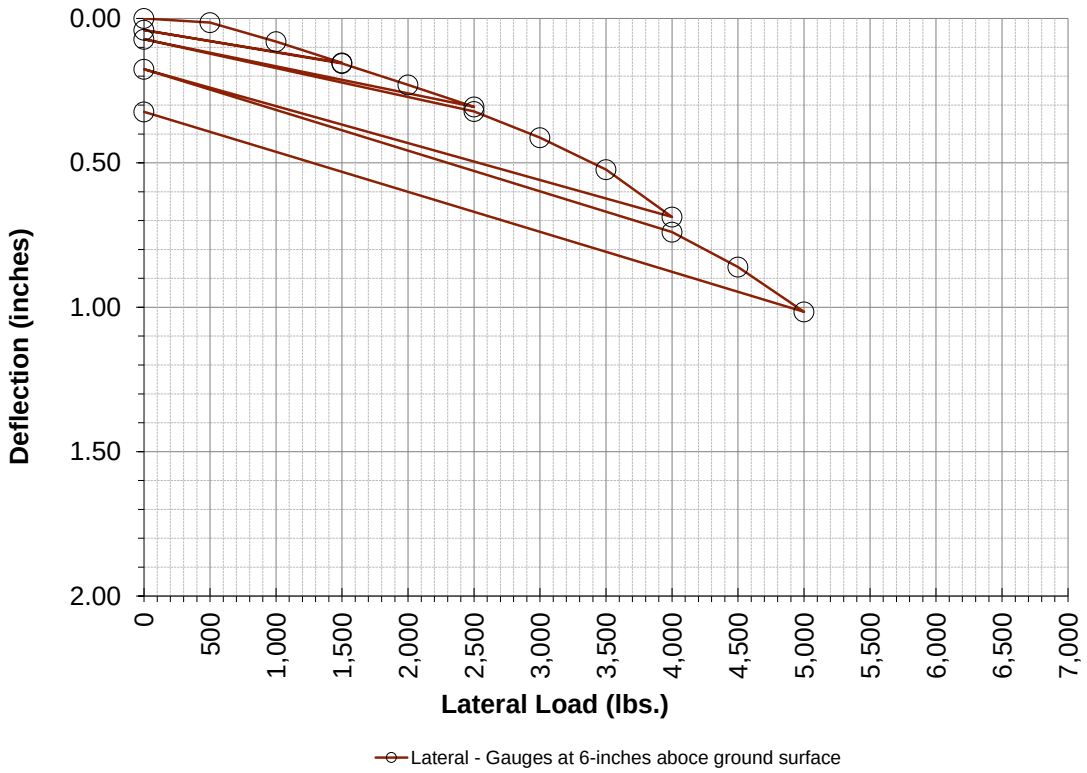
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-9A
Latitude [deg.]:	37.413545°
Longitude [deg.]:	-87.664487°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	40

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.014	
14%	1,000	0.081	
21%	1,500	0.154	
0%	0	0.041	
21%	1,500	0.156	
29%	2,000	0.230	
36%	2,500	0.307	
0%	0	0.072	
36%	2,500	0.322	
43%	3,000	0.413	
50%	3,500	0.524	
57%	4,000	0.687	
0%	0	0.176	
57%	4,000	0.740	
64%	4,500	0.860	
71%	5,000	1.016	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.323	



Lateral Load Test Result for PLT-9B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

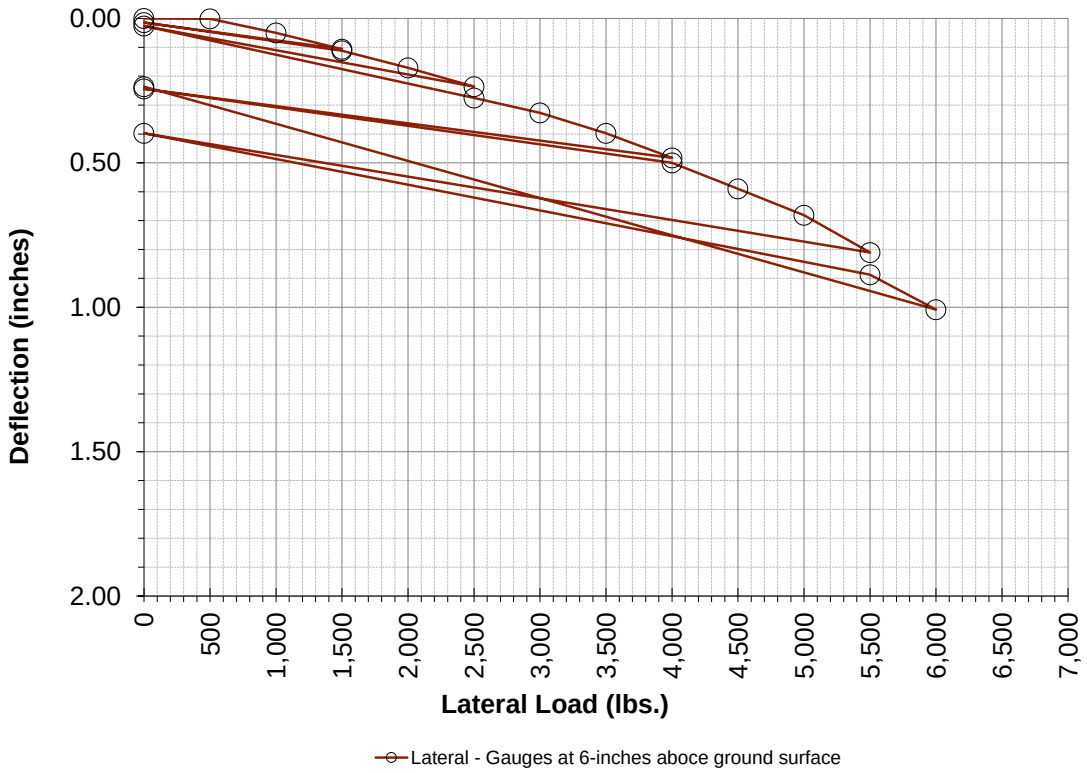
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-9B
Latitude [deg.]:	37.413545°
Longitude [deg.]:	-87.664487°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	186

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.002	
14%	1,000	0.050	
21%	1,500	0.106	
0%	0	0.014	
21%	1,500	0.112	
29%	2,000	0.171	
36%	2,500	0.236	
0%	0	0.026	
36%	2,500	0.276	
43%	3,000	0.327	
50%	3,500	0.397	
57%	4,000	0.483	
0%	0	0.244	
57%	4,000	0.500	
64%	4,500	0.590	
71%	5,000	0.682	
79%	5,500	0.810	
0%	0	0.397	
79%	5,500	0.888	
86%	6,000	1.008	
93%	6,500		
100%	7,000		
0%	0	0.236	



Lateral Load Test Result for PLT-10A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

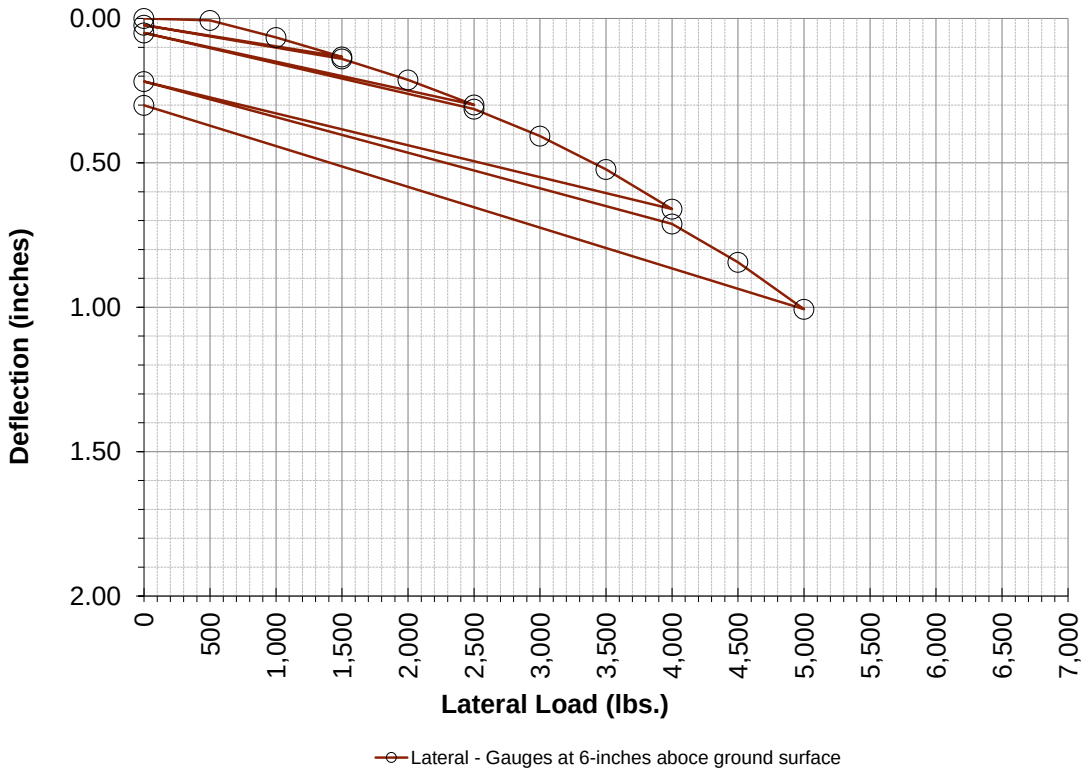
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-10A
Latitude [deg.]:	37.412785°
Longitude [deg.]:	-87.667595°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	64

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.007	
14%	1,000	0.066	
21%	1,500	0.133	
0%	0	0.024	
21%	1,500	0.140	
29%	2,000	0.213	
36%	2,500	0.299	
0%	0	0.050	
36%	2,500	0.314	
43%	3,000	0.407	
50%	3,500	0.523	
57%	4,000	0.660	
0%	0	0.218	
57%	4,000	0.711	
64%	4,500	0.844	
71%	5,000	1.007	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.301	



Lateral Load Test Result for PLT-10B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

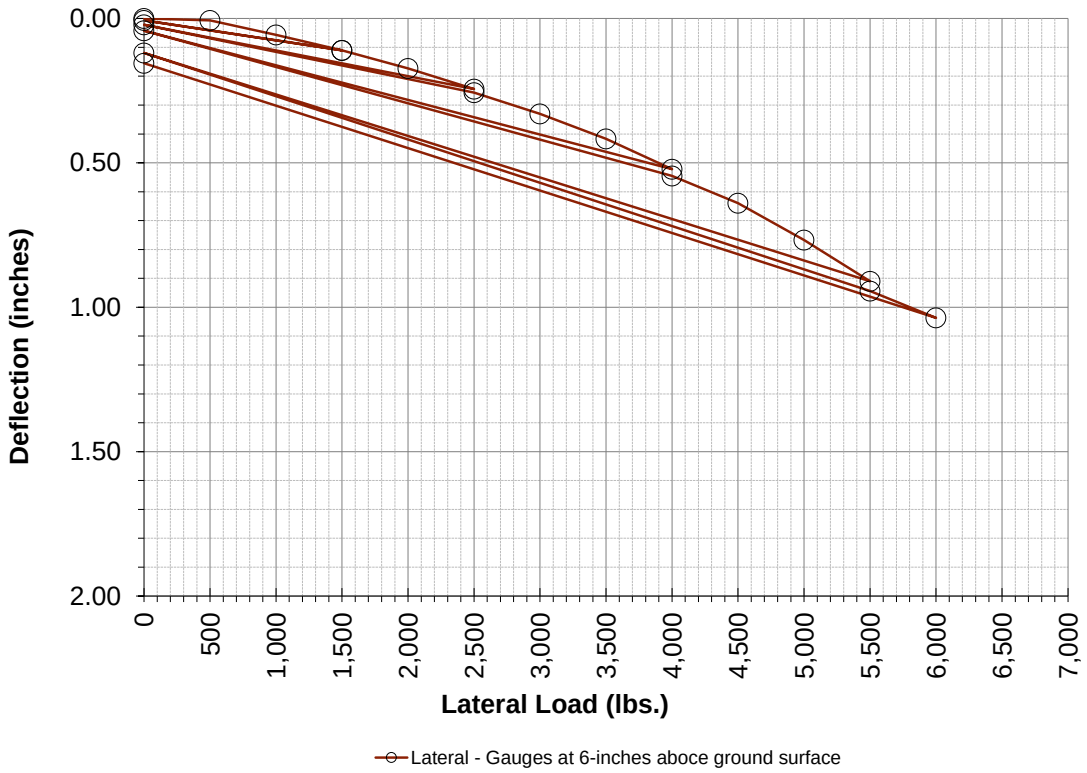
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-10B
Latitude [deg.]:	37.412785°
Longitude [deg.]:	-87.667595°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	249

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.007	
14%	1,000	0.057	
21%	1,500	0.111	
0%	0	0.007	
21%	1,500	0.111	
29%	2,000	0.173	
36%	2,500	0.245	
0%	0	0.022	
36%	2,500	0.257	
43%	3,000	0.330	
50%	3,500	0.417	
57%	4,000	0.522	
0%	0	0.043	
57%	4,000	0.546	
64%	4,500	0.639	
71%	5,000	0.768	
79%	5,500	0.910	
0%	0	0.119	
79%	5,500	0.944	
86%	6,000	1.037	
93%	6,500		
100%	7,000		
0%	0	0.155	



Lateral Load Test Result for PLT-11A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

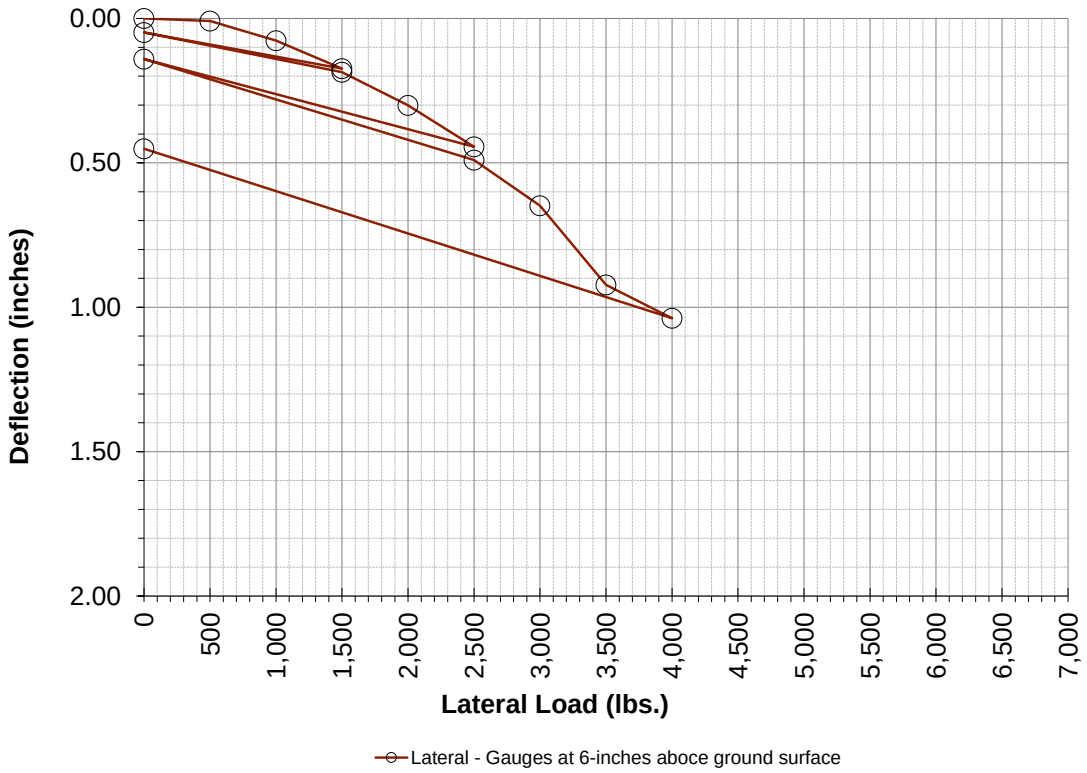
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-11A
Latitude [deg.]:	37.410256°
Longitude [deg.]:	-87.667042°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	32

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.009	
14%	1,000	0.077	
21%	1,500	0.174	
0%	0	0.048	
21%	1,500	0.186	
29%	2,000	0.301	
36%	2,500	0.445	
0%	0	0.141	
36%	2,500	0.490	
43%	3,000	0.648	
50%	3,500	0.923	
57%	4,000	1.038	
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.451	



Lateral Load Test Result for PLT-11B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

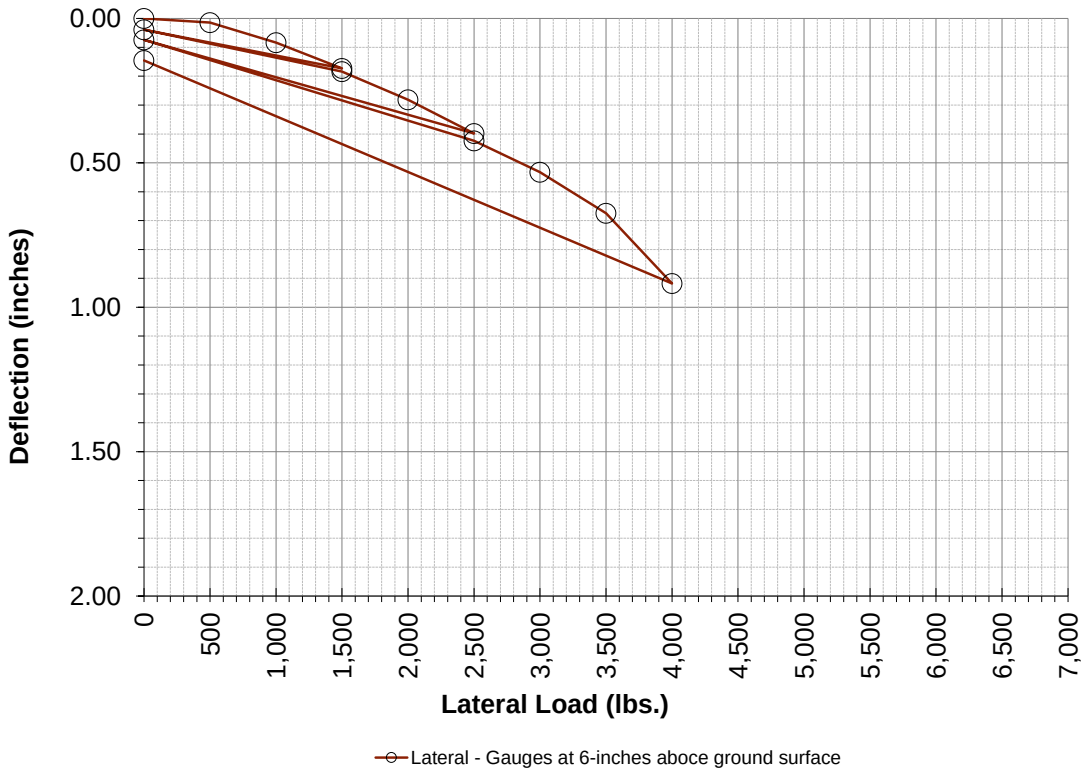
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-11B
Latitude [deg.]:	37.410256°
Longitude [deg.]:	-87.667042°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	151

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.014	
14%	1,000	0.084	
21%	1,500	0.173	
0%	0	0.039	
21%	1,500	0.184	
29%	2,000	0.281	
36%	2,500	0.398	
0%	0	0.074	
36%	2,500	0.424	
43%	3,000	0.532	
50%	3,500	0.674	
57%	4,000	0.918	
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.146	



Lateral Load Test Result for PLT-12A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

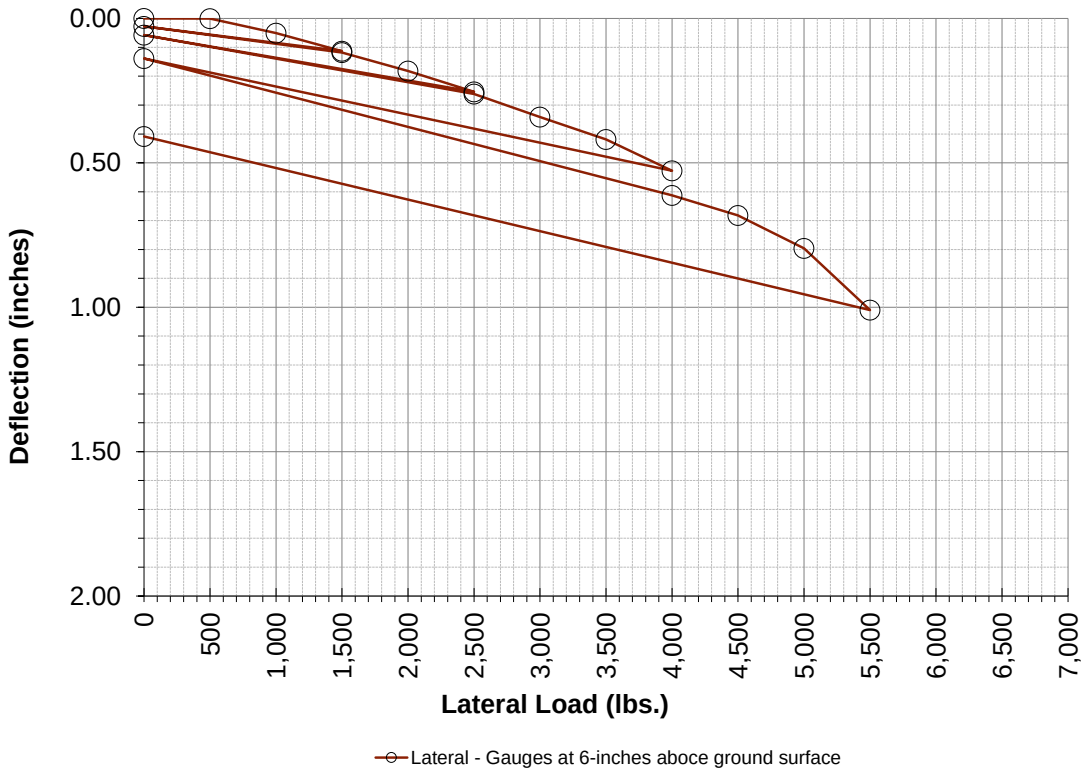
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-12A
Latitude [deg.]:	37.407690°
Longitude [deg.]:	-87.666102°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	58

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.001	
14%	1,000	0.051	
21%	1,500	0.114	
0%	0	0.027	
21%	1,500	0.118	
29%	2,000	0.182	
36%	2,500	0.254	
0%	0	0.058	
36%	2,500	0.261	
43%	3,000	0.342	
50%	3,500	0.419	
57%	4,000	0.528	
0%	0	0.139	
57%	4,000	0.613	
64%	4,500	0.682	
71%	5,000	0.796	
79%	5,500	1.010	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.409	



Lateral Load Test Result for PLT-12B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

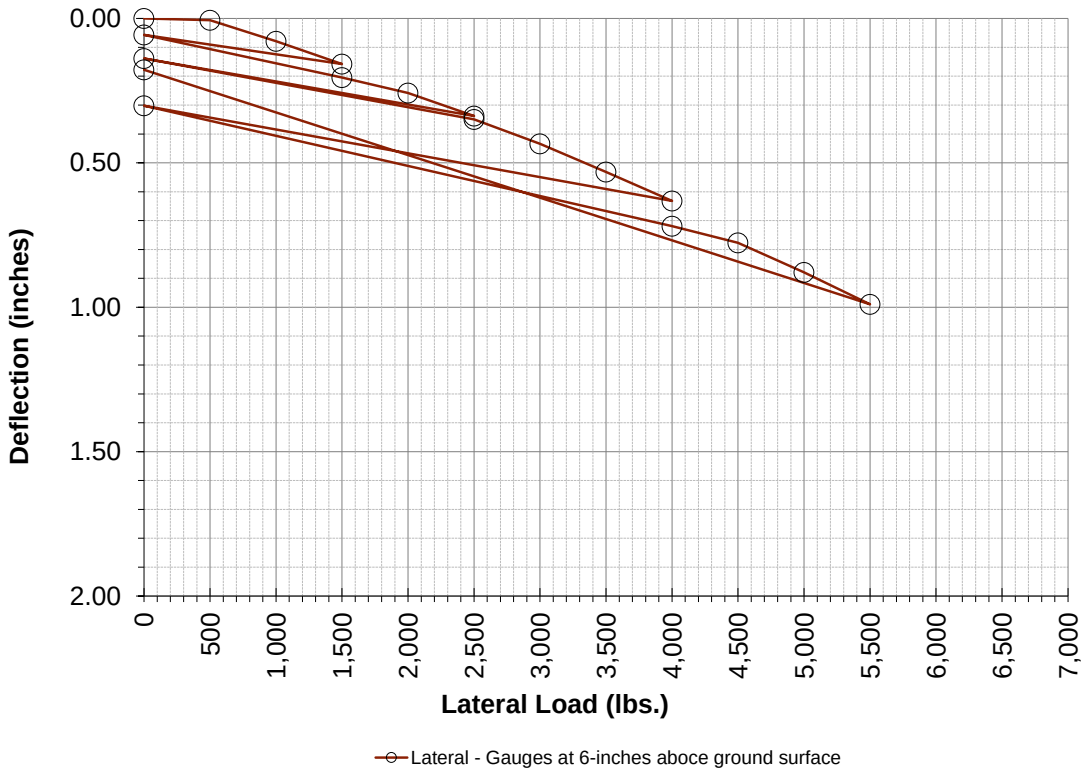
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-12B
Latitude [deg.]:	37.407690°
Longitude [deg.]:	-87.666102°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	94

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.006	
14%	1,000	0.079	
21%	1,500	0.158	
0%	0	0.057	
21%	1,500	0.204	
29%	2,000	0.258	
36%	2,500	0.338	
0%	0	0.138	
36%	2,500	0.350	
43%	3,000	0.434	
50%	3,500	0.532	
57%	4,000	0.632	
0%	0	0.302	
57%	4,000	0.719	
64%	4,500	0.777	
71%	5,000	0.879	
79%	5,500	0.990	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.178	



Lateral Load Test Result for PLT-13A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

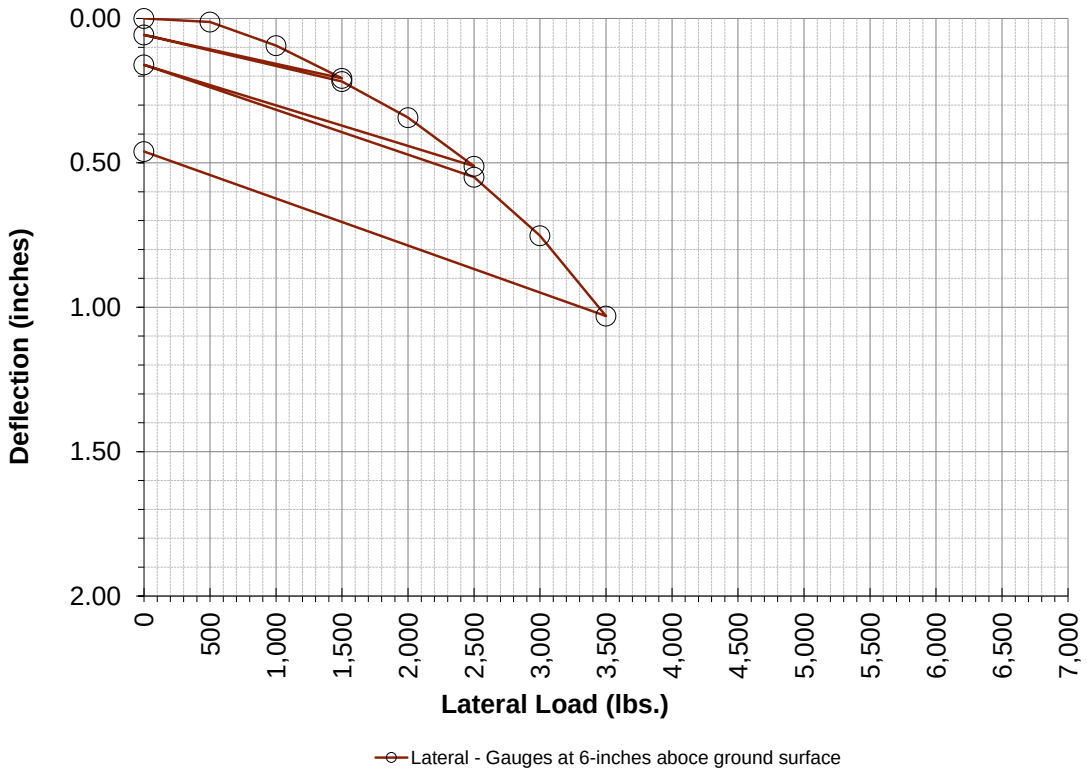
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-13A
Latitude [deg.]:	37.408172°
Longitude [deg.]:	-87.673635°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	43

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.012	
14%	1,000	0.094	
21%	1,500	0.207	
0%	0	0.057	
21%	1,500	0.218	
29%	2,000	0.343	
36%	2,500	0.512	
0%	0	0.161	
36%	2,500	0.550	
43%	3,000	0.752	
50%	3,500	1.031	
57%	4,000		
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.461	



Lateral Load Test Result for PLT-13B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

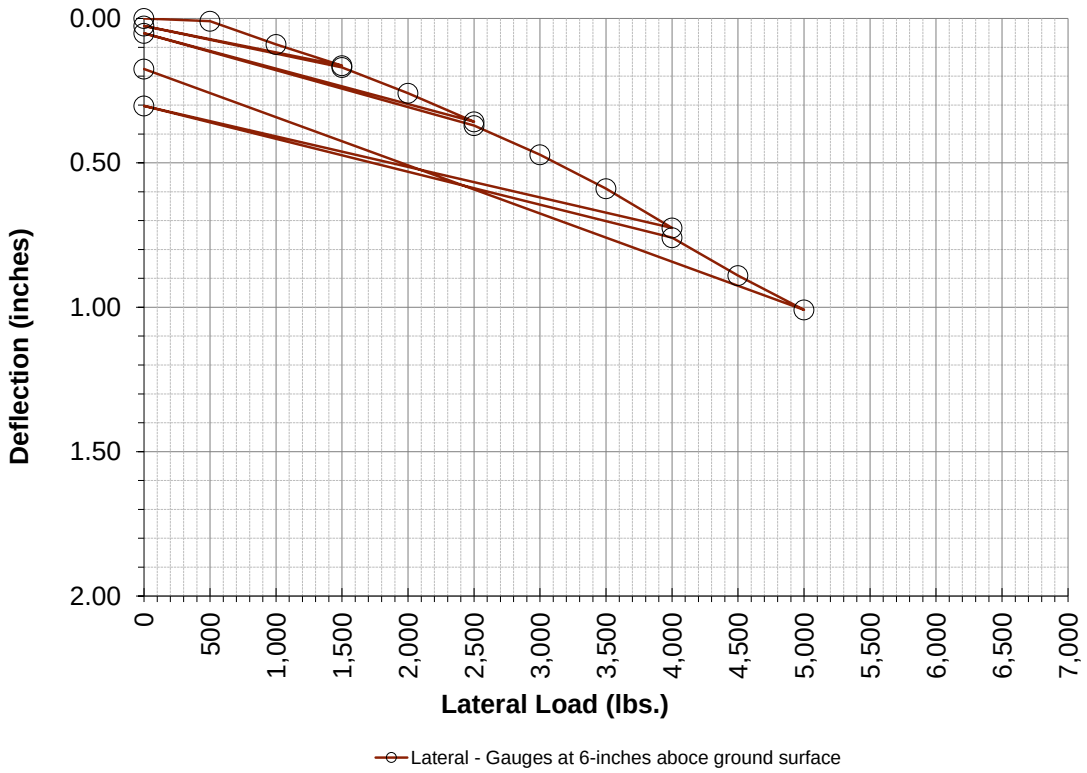
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-13B
Latitude [deg.]:	37.408172°
Longitude [deg.]:	-87.673635°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	129

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.009	
14%	1,000	0.090	
21%	1,500	0.163	
0%	0	0.026	
21%	1,500	0.169	
29%	2,000	0.259	
36%	2,500	0.358	
0%	0	0.051	
36%	2,500	0.371	
43%	3,000	0.472	
50%	3,500	0.590	
57%	4,000	0.725	
0%	0	0.303	
57%	4,000	0.759	
64%	4,500	0.890	
71%	5,000	1.009	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.175	



Lateral Load Test Result for PLT-14A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

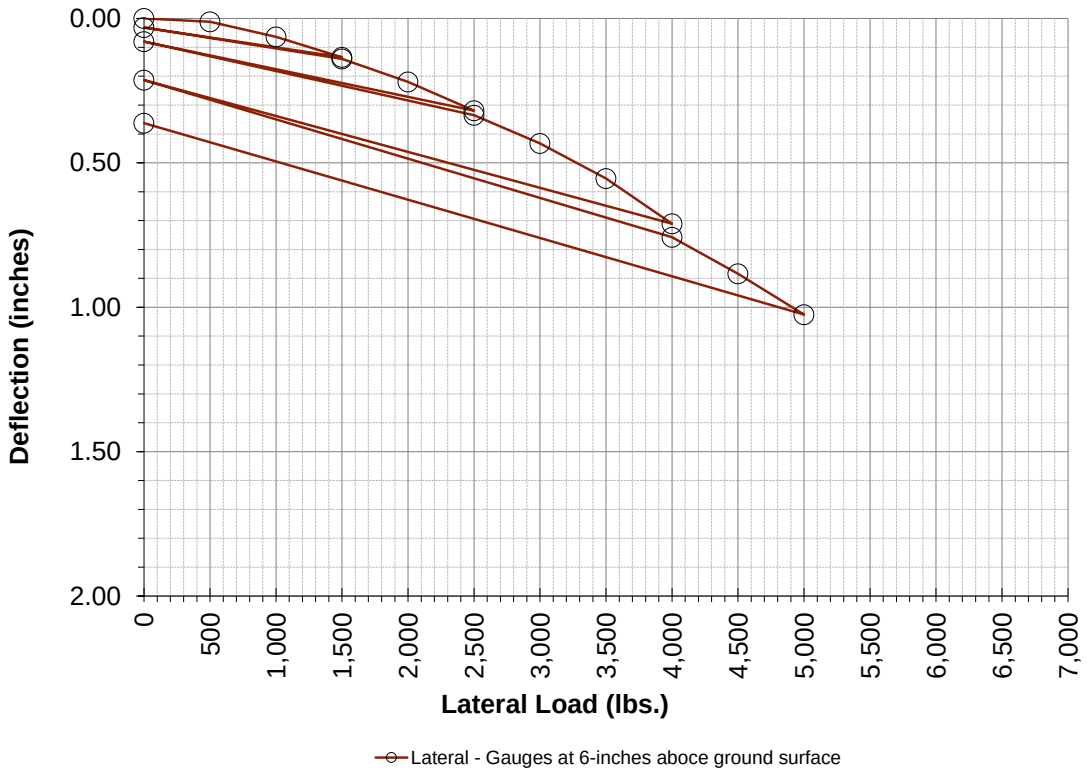
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-14A
Latitude [deg.]:	37.406431°
Longitude [deg.]:	-87.670401°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	63

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.012	
14%	1,000	0.064	
21%	1,500	0.134	
0%	0	0.032	
21%	1,500	0.140	
29%	2,000	0.220	
36%	2,500	0.320	
0%	0	0.080	
36%	2,500	0.335	
43%	3,000	0.433	
50%	3,500	0.554	
57%	4,000	0.711	
0%	0	0.214	
57%	4,000	0.758	
64%	4,500	0.884	
71%	5,000	1.025	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.363	



Lateral Load Test Result for PLT-14B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

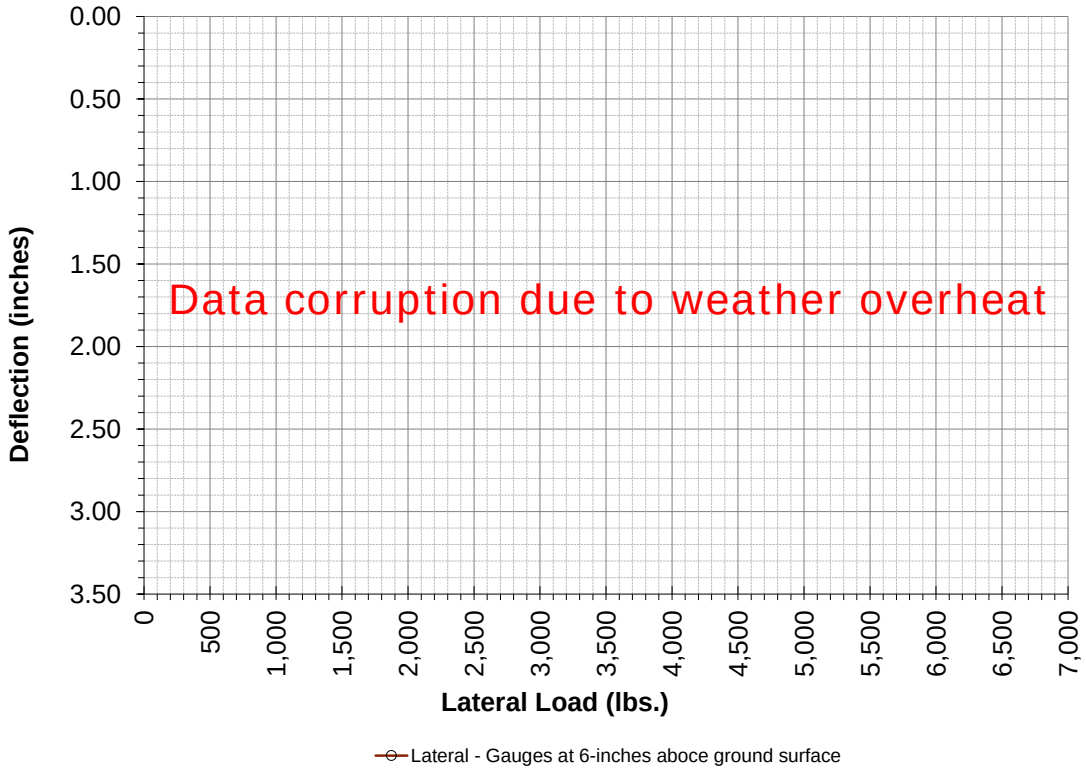
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-14B
Latitude [deg.]:	37.406431°
Longitude [deg.]:	-87.670401°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	143

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0		Data corruption due to weather overheat
7%	500		
14%	1,000		
21%	1,500		
0%	0		
21%	1,500		
29%	2,000		
36%	2,500		
0%	0		
36%	2,500		
43%	3,000		
50%	3,500		
57%	4,000		
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0		



Lateral Load Test Result for PLT-15A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

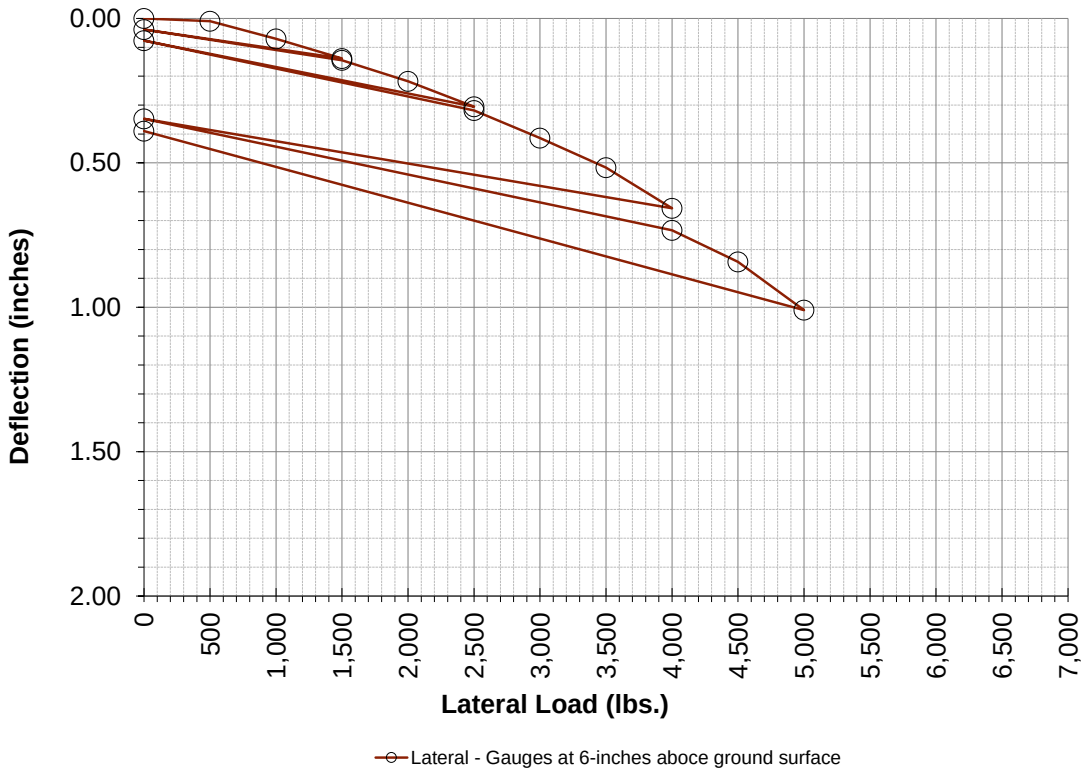
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-15A
Latitude [deg.]:	37.405422°
Longitude [deg.]:	-87.678462°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	45

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.010	
14%	1,000	0.071	
21%	1,500	0.139	
0%	0	0.038	
21%	1,500	0.145	
29%	2,000	0.218	
36%	2,500	0.306	
0%	0	0.077	
36%	2,500	0.318	
43%	3,000	0.414	
50%	3,500	0.517	
57%	4,000	0.657	
0%	0	0.348	
57%	4,000	0.734	
64%	4,500	0.843	
71%	5,000	1.010	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.390	



Lateral Load Test Result for PLT-15B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

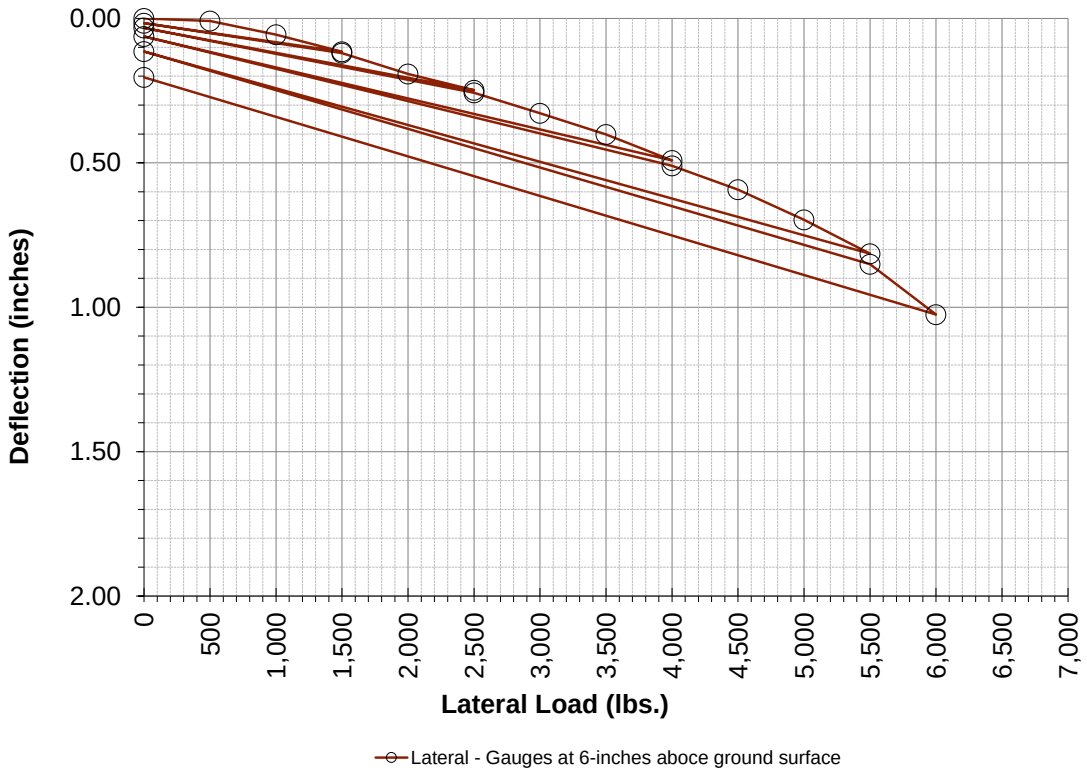
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-15B
Latitude [deg.]:	37.405422°
Longitude [deg.]:	-87.678462°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	146

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.009	
14%	1,000	0.056	
21%	1,500	0.116	
0%	0	0.016	
21%	1,500	0.120	
29%	2,000	0.192	
36%	2,500	0.249	
0%	0	0.033	
36%	2,500	0.258	
43%	3,000	0.328	
50%	3,500	0.402	
57%	4,000	0.492	
0%	0	0.062	
57%	4,000	0.510	
64%	4,500	0.593	
71%	5,000	0.697	
79%	5,500	0.815	
0%	0	0.115	
79%	5,500	0.851	
86%	6,000	1.025	
93%	6,500		
100%	7,000		
0%	0	0.204	



Lateral Load Test Result for PLT-16A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

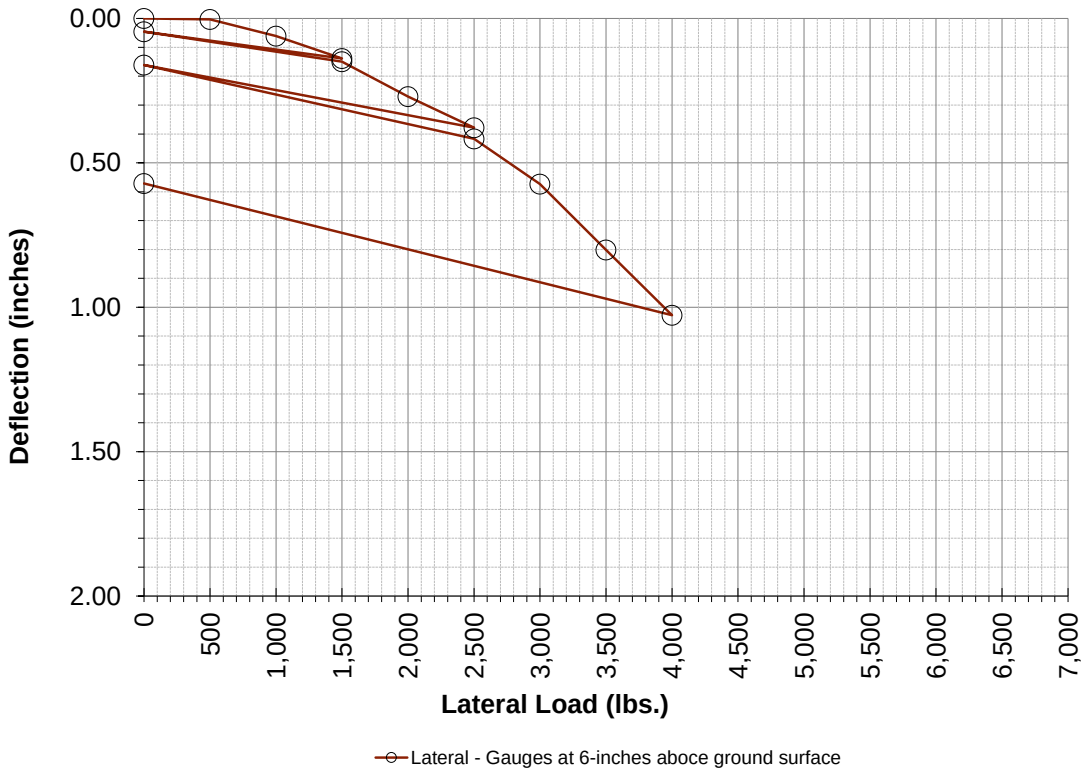
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-16A
Latitude [deg.]:	37.404527°
Longitude [deg.]:	-87.667353°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	23

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.003	
14%	1,000	0.061	
21%	1,500	0.139	
0%	0	0.046	
21%	1,500	0.150	
29%	2,000	0.271	
36%	2,500	0.378	
0%	0	0.162	
36%	2,500	0.417	
43%	3,000	0.573	
50%	3,500	0.802	
57%	4,000	1.028	
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.572	



Lateral Load Test Result for PLT-16B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

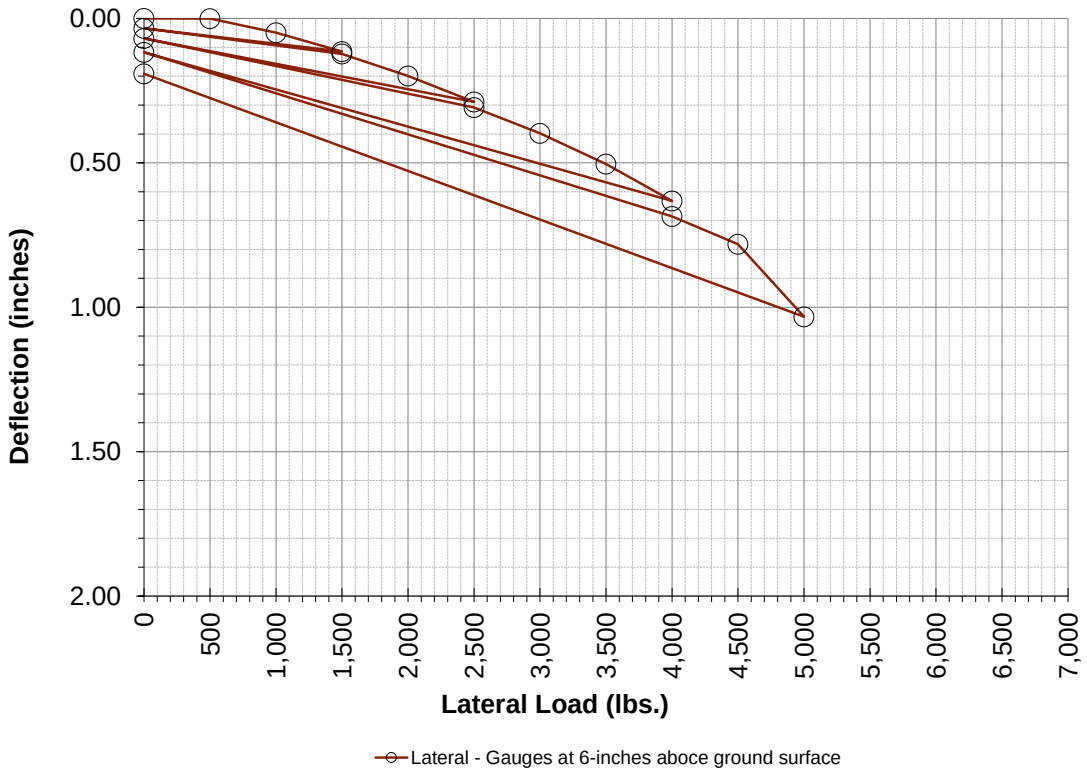
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-16B
Latitude [deg.]:	37.404527°
Longitude [deg.]:	-87.667353°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	86

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.001	
14%	1,000	0.049	
21%	1,500	0.115	
0%	0	0.034	
21%	1,500	0.123	
29%	2,000	0.199	
36%	2,500	0.289	
0%	0	0.069	
36%	2,500	0.308	
43%	3,000	0.397	
50%	3,500	0.504	
57%	4,000	0.632	
0%	0	0.117	
57%	4,000	0.686	
64%	4,500	0.782	
71%	5,000	1.033	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.191	



Lateral Load Test Result for PLT-17A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

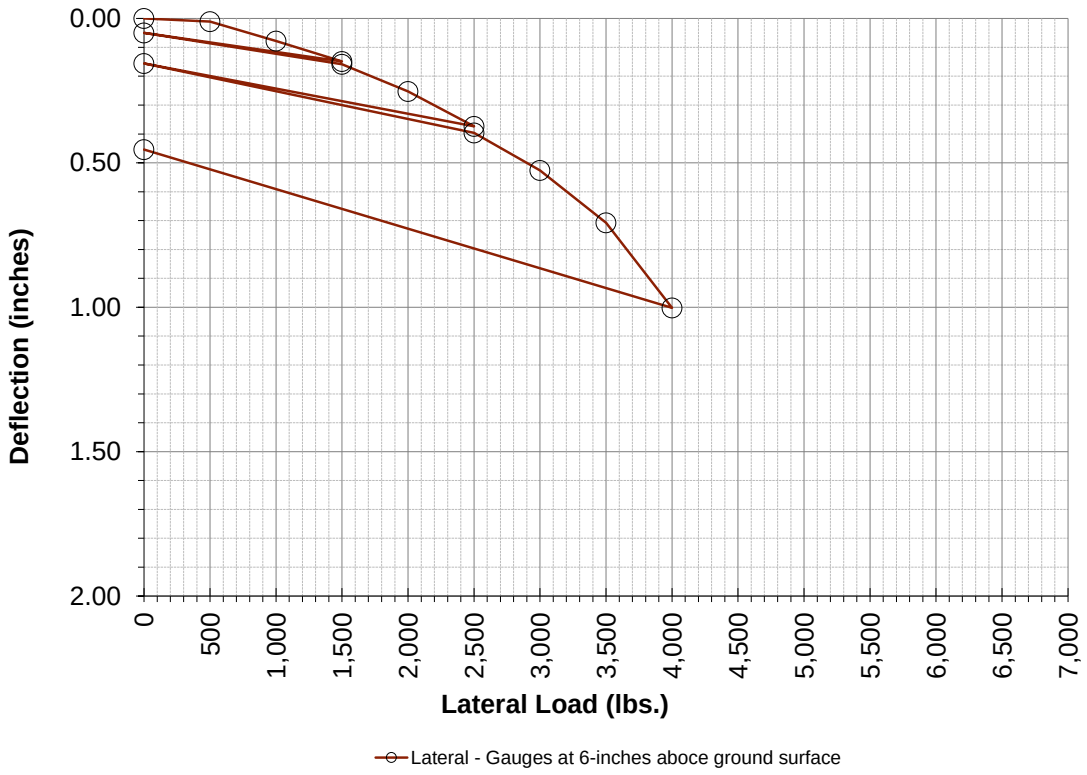
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-17A
Latitude [deg.]:	37.400391°
Longitude [deg.]:	-87.661184°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	30

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.011	
14%	1,000	0.078	
21%	1,500	0.149	
0%	0	0.050	
21%	1,500	0.159	
29%	2,000	0.253	
36%	2,500	0.374	
0%	0	0.156	
36%	2,500	0.396	
43%	3,000	0.526	
50%	3,500	0.707	
57%	4,000	1.002	
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.454	



Lateral Load Test Result for PLT-17B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

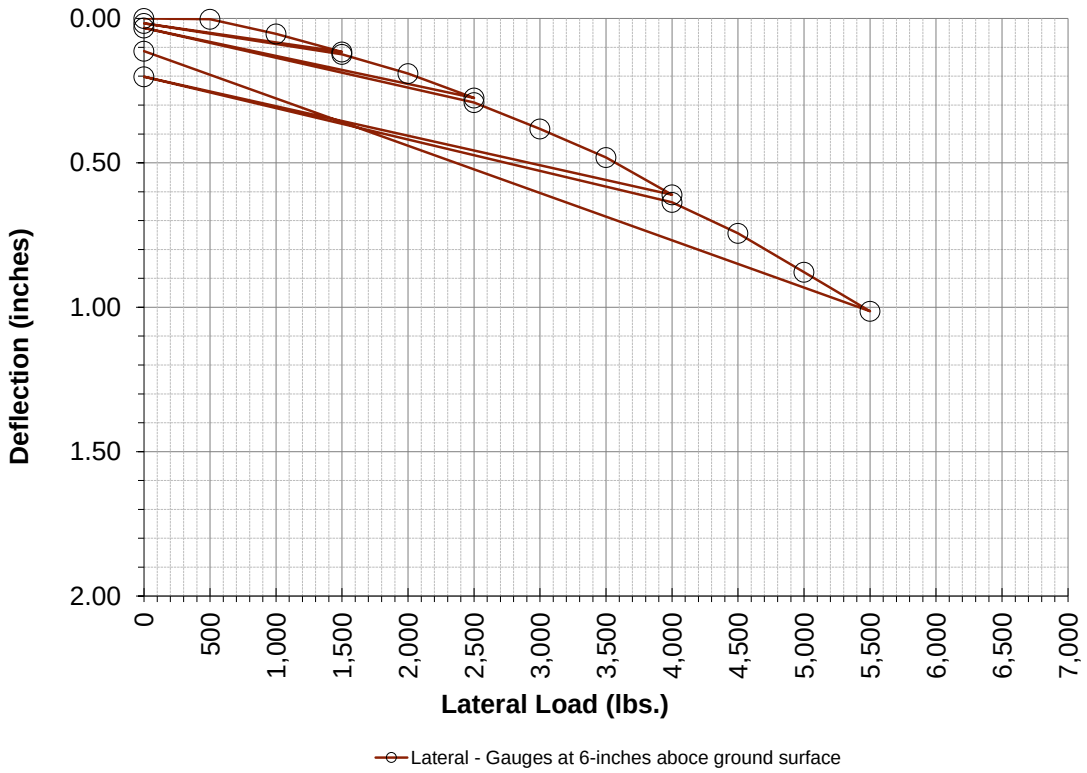
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-17B
Latitude [deg.]:	37.400391°
Longitude [deg.]:	-87.661184°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	83

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.002	
14%	1,000	0.054	
21%	1,500	0.116	
0%	0	0.017	
21%	1,500	0.124	
29%	2,000	0.191	
36%	2,500	0.276	
0%	0	0.033	
36%	2,500	0.291	
43%	3,000	0.382	
50%	3,500	0.482	
57%	4,000	0.610	
0%	0	0.202	
57%	4,000	0.637	
64%	4,500	0.744	
71%	5,000	0.878	
79%	5,500	1.014	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.114	



Lateral Load Test Result for PLT-18A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

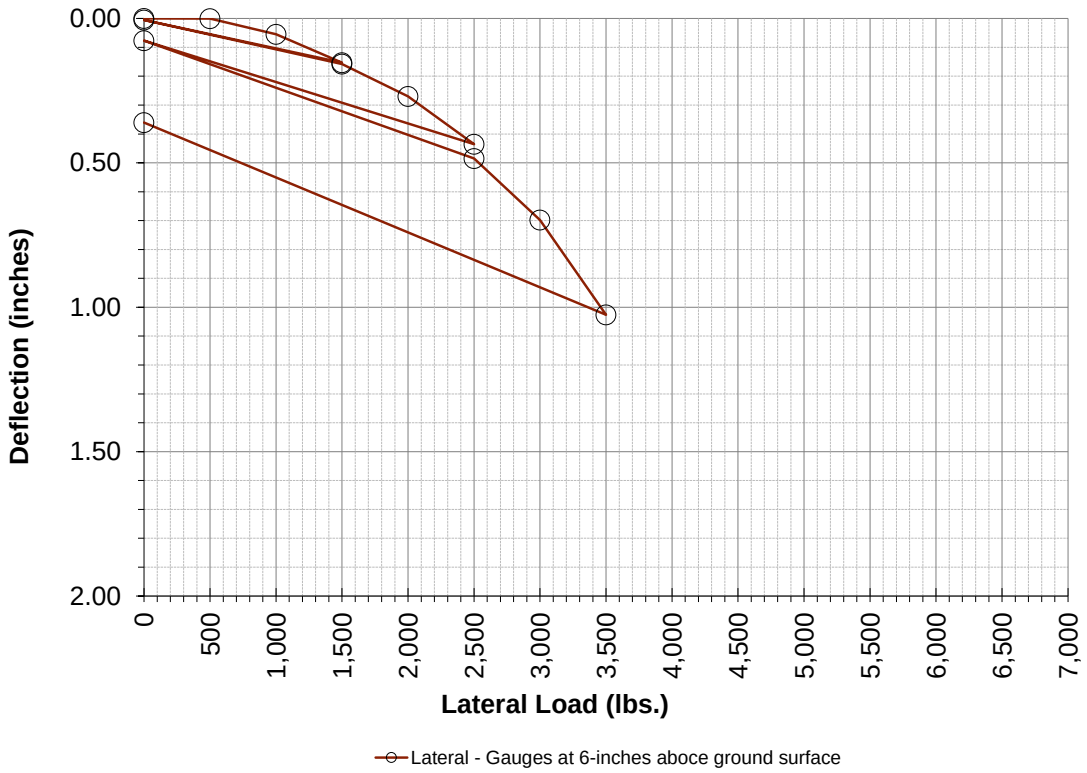
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-18A
Latitude [deg.]:	37.399728°
Longitude [deg.]:	-87.658368°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	45

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.001	
14%	1,000	0.055	
21%	1,500	0.153	
0%	0	0.005	
21%	1,500	0.158	
29%	2,000	0.270	
36%	2,500	0.435	
0%	0	0.077	
36%	2,500	0.485	
43%	3,000	0.698	
50%	3,500	1.026	
57%	4,000		
0%	0		
57%	4,000		
64%	4,500		
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.361	



Lateral Load Test Result for PLT-18B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

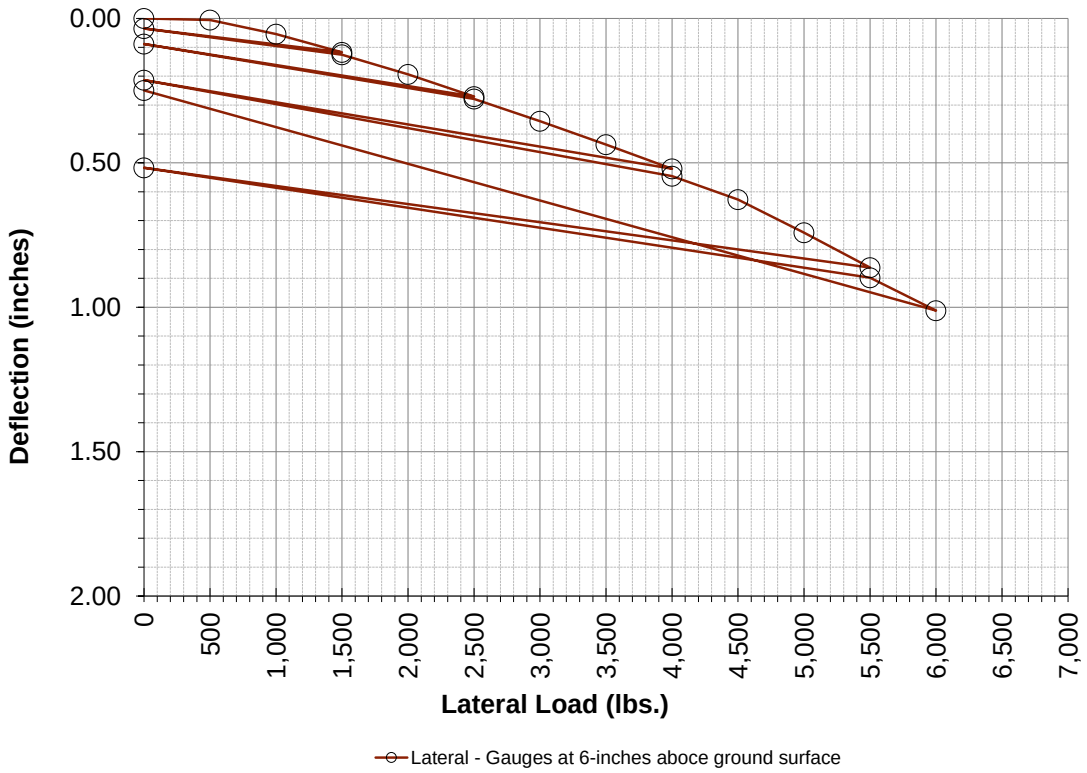
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-18B
Latitude [deg.]:	37.399728°
Longitude [deg.]:	-87.658368°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	116

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.006	
14%	1,000	0.054	
21%	1,500	0.117	
0%	0	0.035	
21%	1,500	0.126	
29%	2,000	0.194	
36%	2,500	0.270	
0%	0	0.088	
36%	2,500	0.279	
43%	3,000	0.356	
50%	3,500	0.437	
57%	4,000	0.521	
0%	0	0.213	
57%	4,000	0.546	
64%	4,500	0.627	
71%	5,000	0.742	
79%	5,500	0.863	
0%	0	0.517	
79%	5,500	0.898	
86%	6,000	1.012	
93%	6,500		
100%	7,000		
0%	0	0.249	



Lateral Load Test Result for PLT-19A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

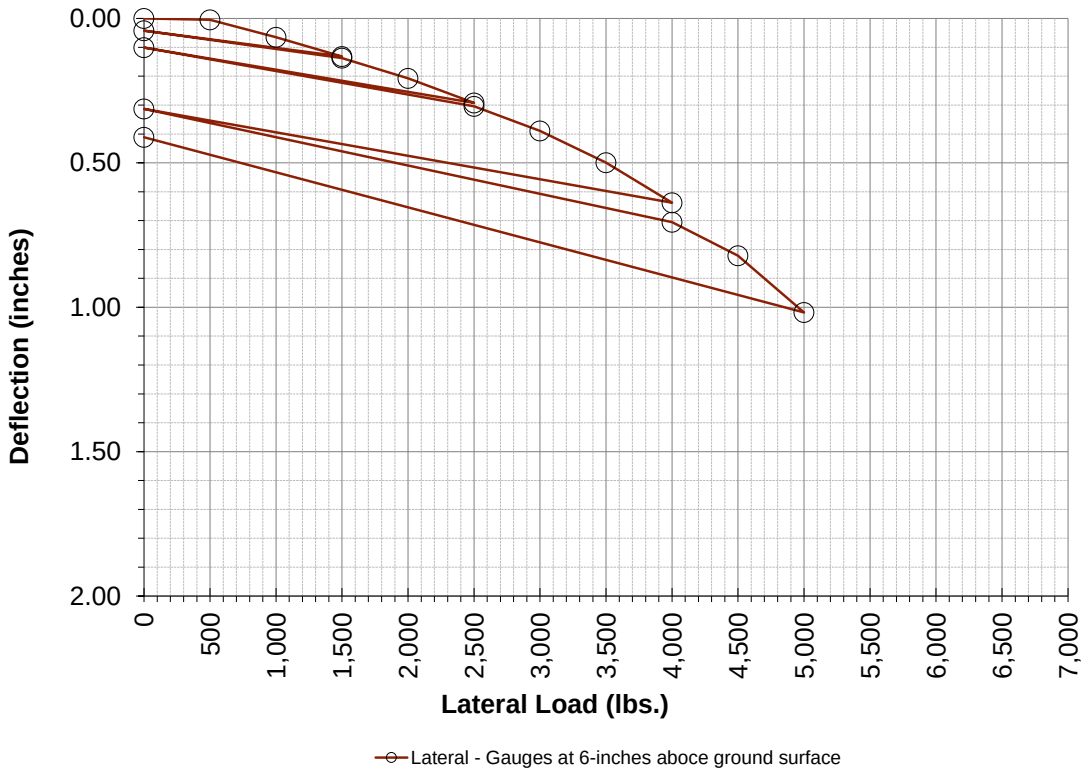
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-19A
Latitude [deg.]:	37.397820°
Longitude [deg.]:	-87.661744°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	39

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.005	
14%	1,000	0.065	
21%	1,500	0.132	
0%	0	0.043	
21%	1,500	0.138	
29%	2,000	0.208	
36%	2,500	0.292	
0%	0	0.101	
36%	2,500	0.304	
43%	3,000	0.389	
50%	3,500	0.499	
57%	4,000	0.638	
0%	0	0.313	
57%	4,000	0.705	
64%	4,500	0.822	
71%	5,000	1.018	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.411	



Lateral Load Test Result for PLT-19B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

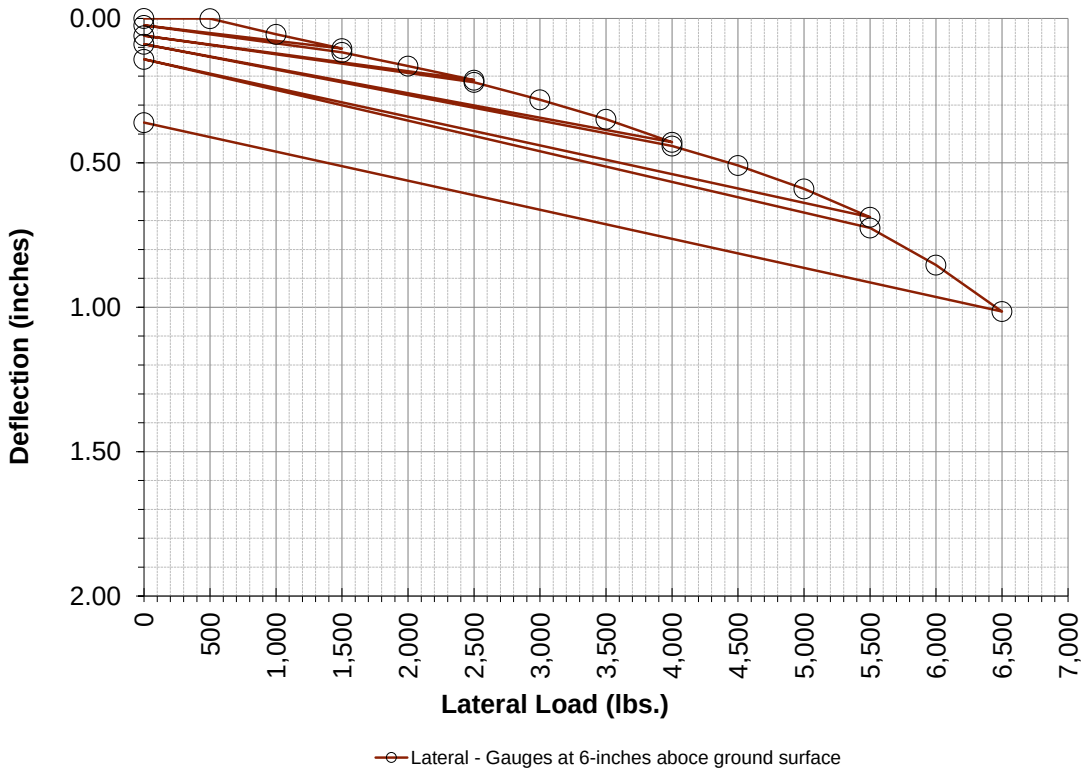
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-19B
Latitude [deg.]:	37.397820°
Longitude [deg.]:	-87.661744°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	95

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.001	
14%	1,000	0.055	
21%	1,500	0.104	
0%	0	0.024	
21%	1,500	0.118	
29%	2,000	0.165	
36%	2,500	0.214	
0%	0	0.059	
36%	2,500	0.221	
43%	3,000	0.281	
50%	3,500	0.349	
57%	4,000	0.429	
0%	0	0.089	
57%	4,000	0.441	
64%	4,500	0.509	
71%	5,000	0.590	
79%	5,500	0.689	
0%	0	0.142	
79%	5,500	0.725	
86%	6,000	0.854	
93%	6,500	1.015	
100%	7,000		
0%	0	0.361	



Lateral Load Test Result for PLT-20A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

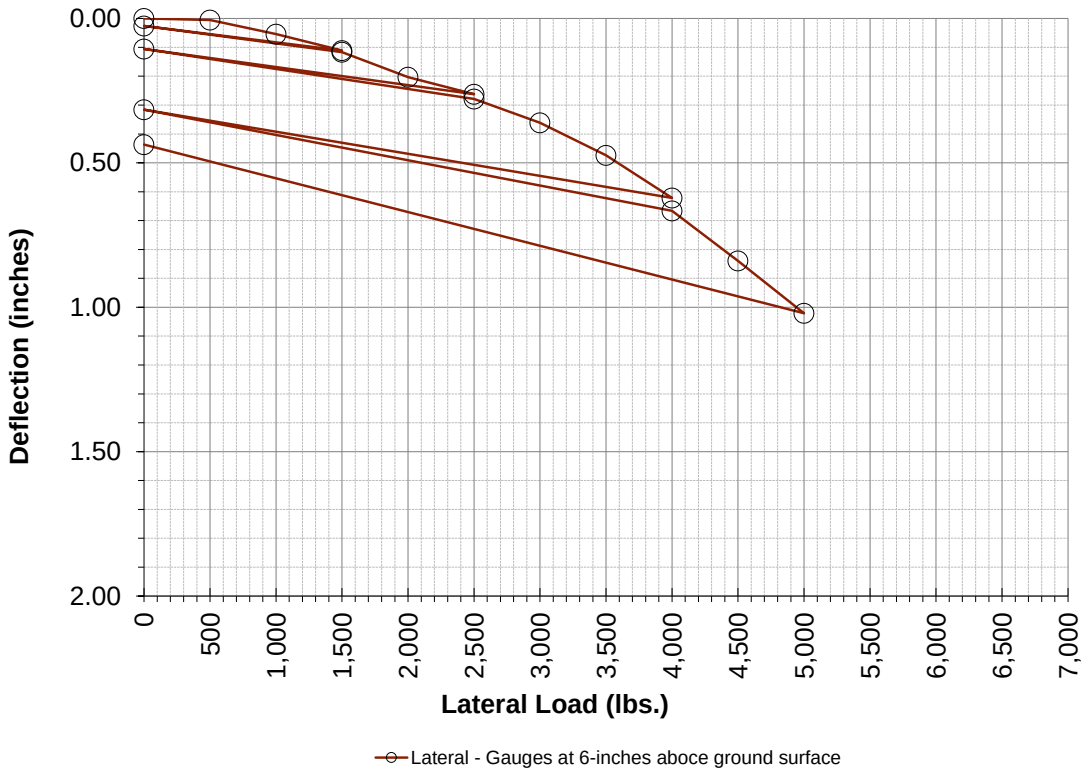
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-20A
Latitude [deg.]:	37.395134°
Longitude [deg.]:	-87.662825°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	30

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.005	
14%	1,000	0.054	
21%	1,500	0.111	
0%	0	0.026	
21%	1,500	0.117	
29%	2,000	0.203	
36%	2,500	0.262	
0%	0	0.106	
36%	2,500	0.279	
43%	3,000	0.362	
50%	3,500	0.474	
57%	4,000	0.622	
0%	0	0.316	
57%	4,000	0.666	
64%	4,500	0.839	
71%	5,000	1.021	
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.437	



Lateral Load Test Result for PLT-20B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

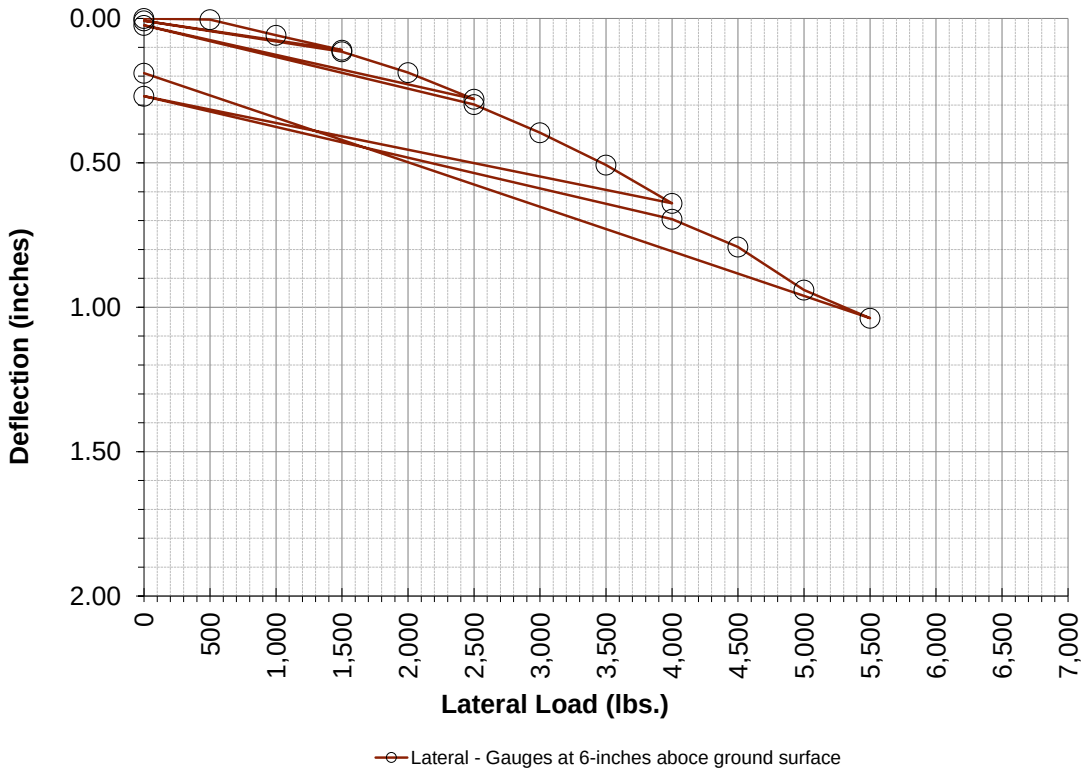
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-20B
Latitude [deg.]:	37.395134°
Longitude [deg.]:	-87.662825°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	119

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.004	
14%	1,000	0.058	
21%	1,500	0.110	
0%	0	0.008	
21%	1,500	0.115	
29%	2,000	0.188	
36%	2,500	0.280	
0%	0	0.024	
36%	2,500	0.298	
43%	3,000	0.396	
50%	3,500	0.508	
57%	4,000	0.640	
0%	0	0.269	
57%	4,000	0.695	
64%	4,500	0.791	
71%	5,000	0.940	
79%	5,500	1.038	
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.190	



Lateral Load Test Result for PLT-21A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

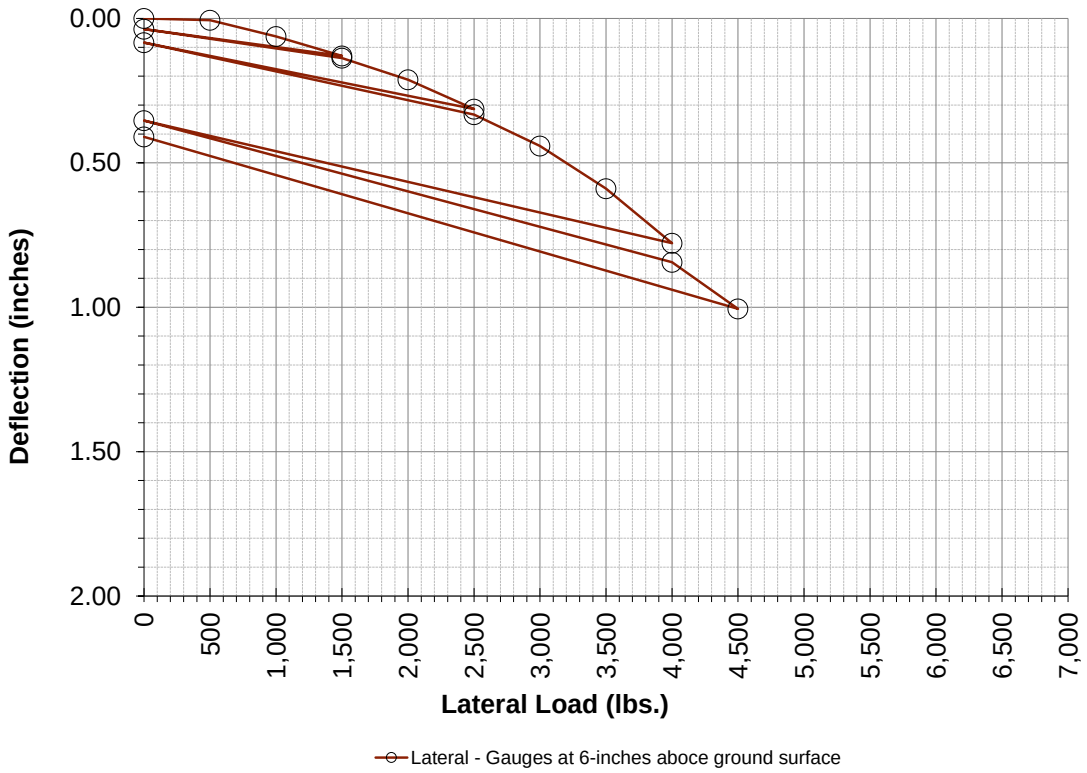
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-21A
Latitude [deg.]:	37.394185°
Longitude [deg.]:	-87.659160°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	37

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.006	
14%	1,000	0.063	
21%	1,500	0.130	
0%	0	0.037	
21%	1,500	0.138	
29%	2,000	0.212	
36%	2,500	0.314	
0%	0	0.084	
36%	2,500	0.333	
43%	3,000	0.441	
50%	3,500	0.589	
57%	4,000	0.778	
0%	0	0.354	
57%	4,000	0.844	
64%	4,500	1.006	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.410	



Lateral Load Test Result for PLT-21B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

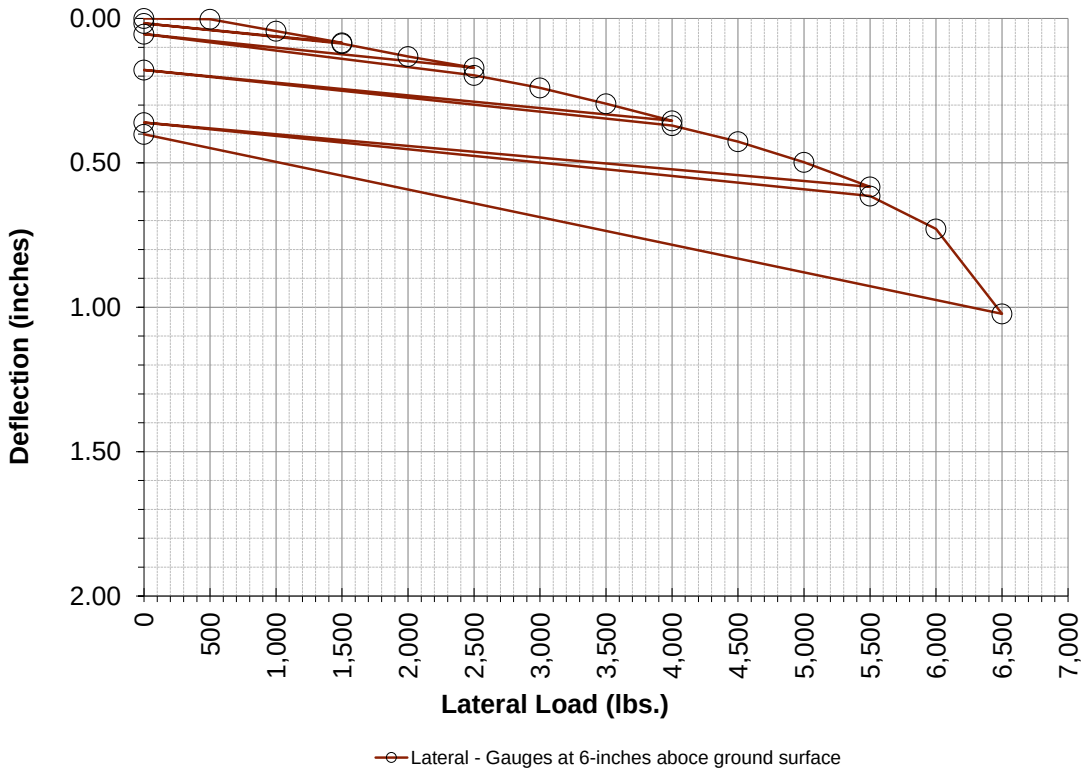
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-21B
Latitude [deg.]:	37.394185°
Longitude [deg.]:	-87.659160°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	109

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.003	
14%	1,000	0.044	
21%	1,500	0.085	
0%	0	0.017	
21%	1,500	0.087	
29%	2,000	0.132	
36%	2,500	0.171	
0%	0	0.054	
36%	2,500	0.197	
43%	3,000	0.240	
50%	3,500	0.295	
57%	4,000	0.355	
0%	0	0.178	
57%	4,000	0.371	
64%	4,500	0.427	
71%	5,000	0.498	
79%	5,500	0.583	
0%	0	0.361	
79%	5,500	0.615	
86%	6,000	0.729	
93%	6,500	1.023	
100%	7,000		
0%	0	0.401	



Lateral Load Test Result for PLT-22A

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

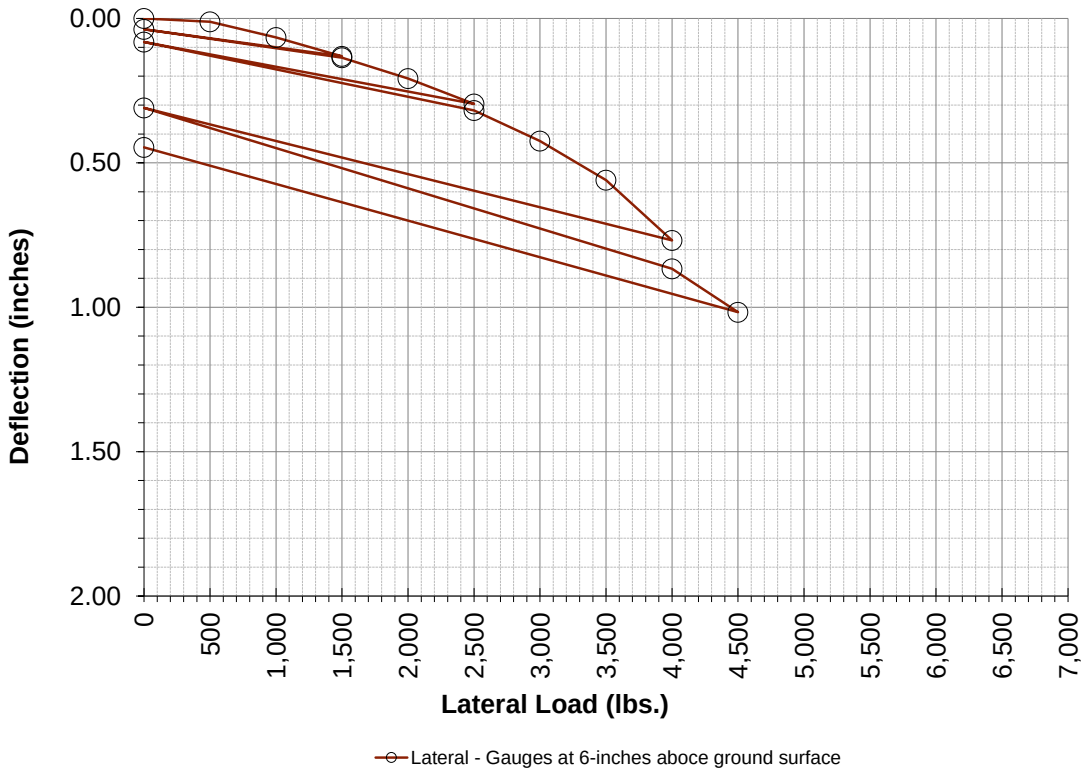
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-22A
Latitude [deg.]:	37.387827°
Longitude [deg.]:	-87.680214°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	24

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.012	
14%	1,000	0.066	
21%	1,500	0.131	
0%	0	0.038	
21%	1,500	0.136	
29%	2,000	0.208	
36%	2,500	0.296	
0%	0	0.082	
36%	2,500	0.319	
43%	3,000	0.425	
50%	3,500	0.560	
57%	4,000	0.769	
0%	0	0.310	
57%	4,000	0.867	
64%	4,500	1.017	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.447	



Lateral Load Test Result for PLT-22B

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	6
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	36
Load Cell:	25k Ed Jr.

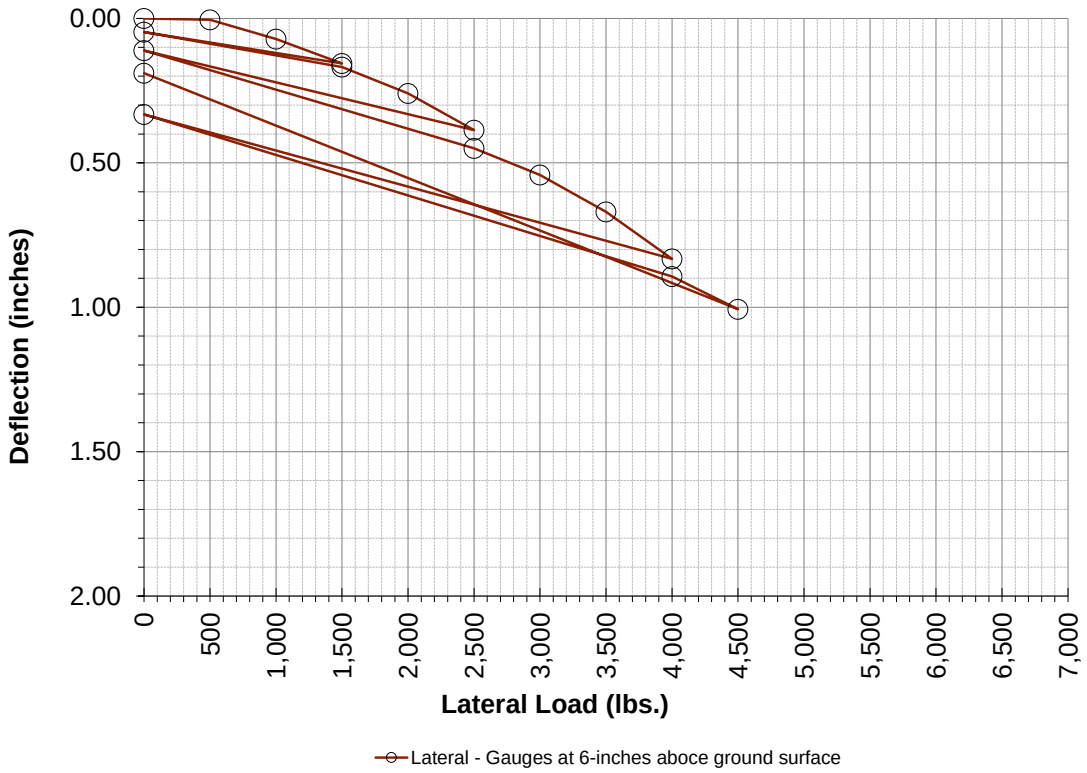
Test Date and Representative

Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-22B
Latitude [deg.]:	37.387827°
Longitude [deg.]:	-87.680214°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	96
Pile Stick-Up [in.]:	48
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	55

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.005	
14%	1,000	0.071	
21%	1,500	0.156	
0%	0	0.047	
21%	1,500	0.168	
29%	2,000	0.260	
36%	2,500	0.387	
0%	0	0.111	
36%	2,500	0.450	
43%	3,000	0.542	
50%	3,500	0.670	
57%	4,000	0.833	
0%	0	0.332	
57%	4,000	0.894	
64%	4,500	1.007	
71%	5,000		
79%	5,500		
0%	0		
79%	5,500		
86%	6,000		
93%	6,500		
100%	7,000		
0%	0	0.190	



Compression Load Test Result for PLT-1C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

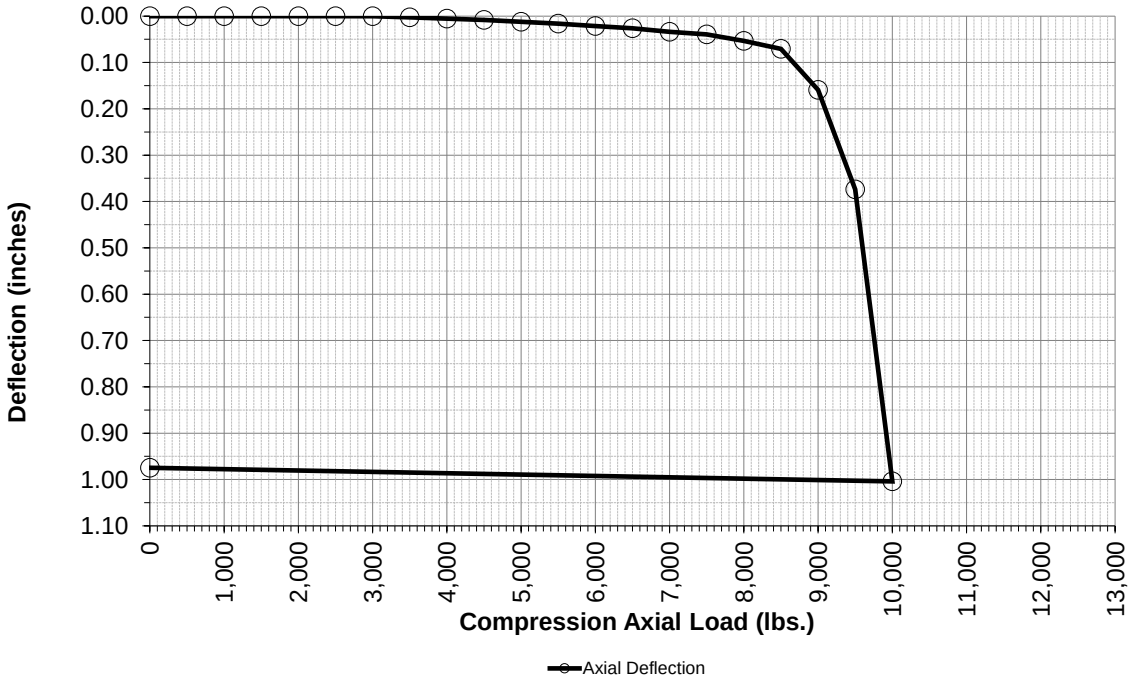
Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-1C
Latitude [deg.]:	37.421800°
Longitude [deg.]:	-87.685390°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	59

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.000	
15%	1,500	0.000	
20%	2,000	0.000	
25%	2,500	0.000	
30%	3,000	0.000	
35%	3,500	0.003	
40%	4,000	0.006	
45%	4,500	0.008	
50%	5,000	0.012	
55%	5,500	0.016	
60%	6,000	0.022	
65%	6,500	0.026	
70%	7,000	0.034	
75%	7,500	0.040	
80%	8,000	0.053	
85%	8,500	0.071	
90%	9,000	0.159	
95%	9,500	0.374	
100%	10,000	1.004	
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.975	



Compression Load Test Result for PLT-2C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

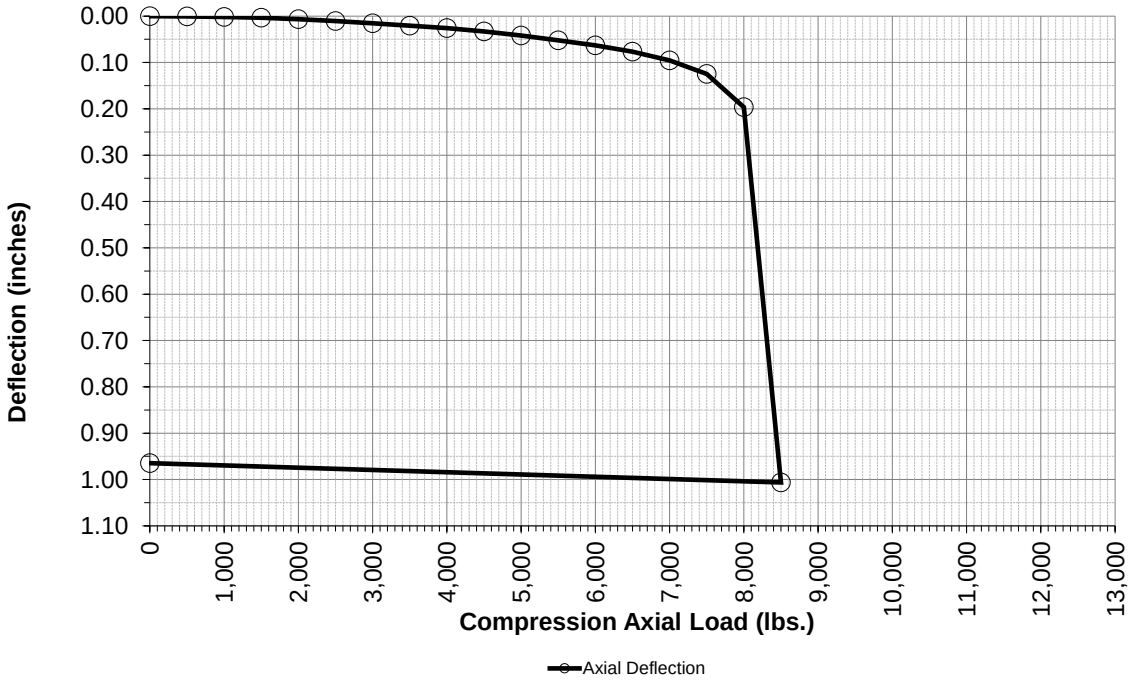
Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-2C
Latitude [deg.]:	37.420707°
Longitude [deg.]:	-87.681606°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	47

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.002	
15%	1,500	0.003	
20%	2,000	0.007	
25%	2,500	0.011	
30%	3,000	0.015	
35%	3,500	0.021	
40%	4,000	0.026	
45%	4,500	0.033	
50%	5,000	0.042	
55%	5,500	0.052	
60%	6,000	0.063	
65%	6,500	0.077	
70%	7,000	0.096	
75%	7,500	0.125	
80%	8,000	0.196	
85%	8,500	1.006	
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.965	



Compression Load Test Result for PLT-3C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

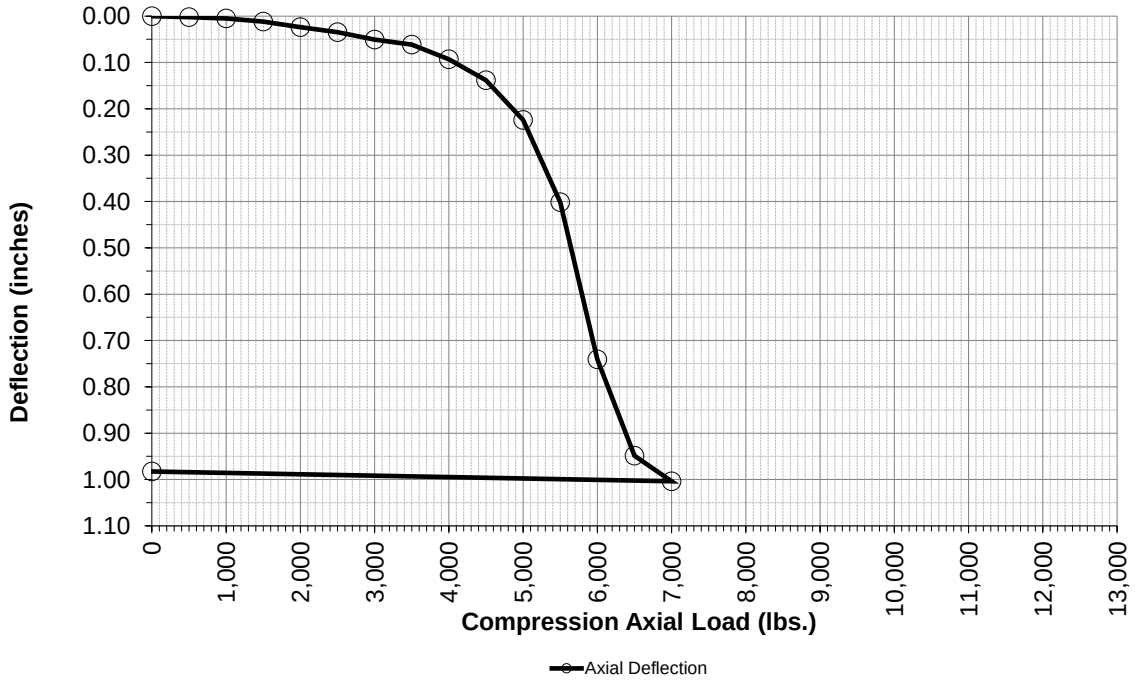
Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-3C
Latitude [deg.]:	37.420405°
Longitude [deg.]:	-87.679850°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	35

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.002	
10%	1,000	0.005	
15%	1,500	0.012	
20%	2,000	0.024	
25%	2,500	0.035	
30%	3,000	0.051	
35%	3,500	0.061	
40%	4,000	0.093	
45%	4,500	0.139	
50%	5,000	0.224	
55%	5,500	0.402	
60%	6,000	0.741	
65%	6,500	0.949	
70%	7,000	1.004	
75%	7,500		
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.983	



Compression Load Test Result for PLT-4C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

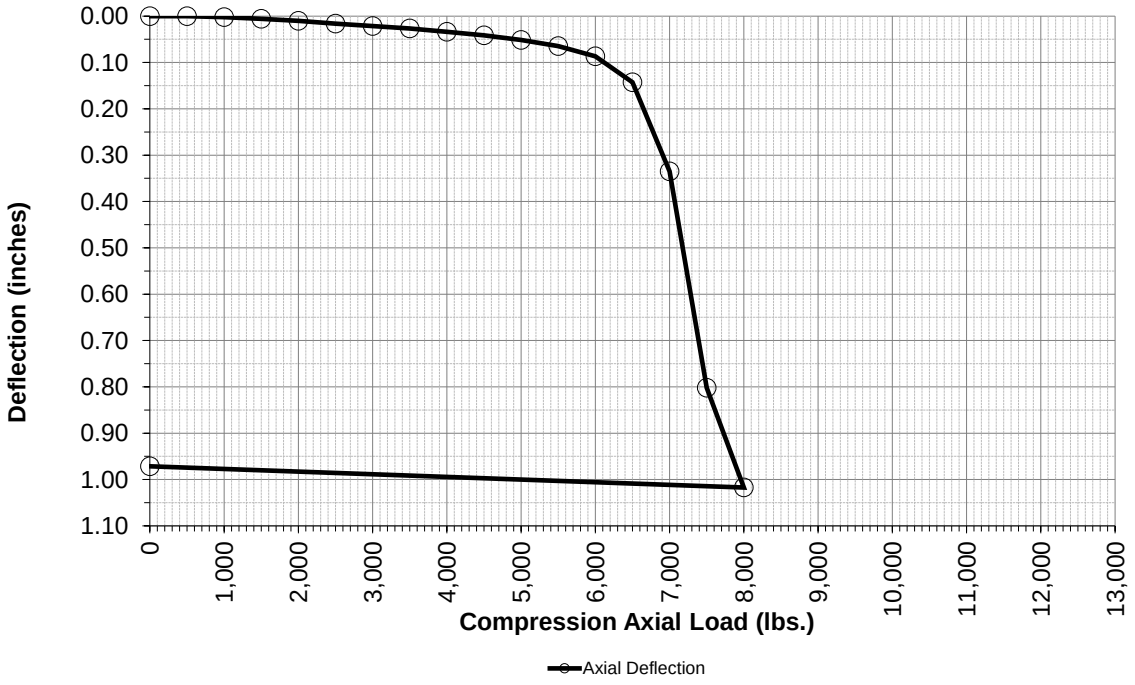
Tested By Terracon Rep:	PH & BW
Date Tested:	6/26/2023

Pile Information

Pile ID:	PLT-4C
Latitude [deg.]:	37.421115°
Longitude [deg.]:	-87.674801°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	25

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.002	
15%	1,500	0.006	
20%	2,000	0.010	
25%	2,500	0.016	
30%	3,000	0.022	
35%	3,500	0.027	
40%	4,000	0.034	
45%	4,500	0.041	
50%	5,000	0.051	
55%	5,500	0.065	
60%	6,000	0.087	
65%	6,500	0.143	
70%	7,000	0.335	
75%	7,500	0.802	
80%	8,000	1.017	
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.972	



Compression Load Test Result for PLT-5C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

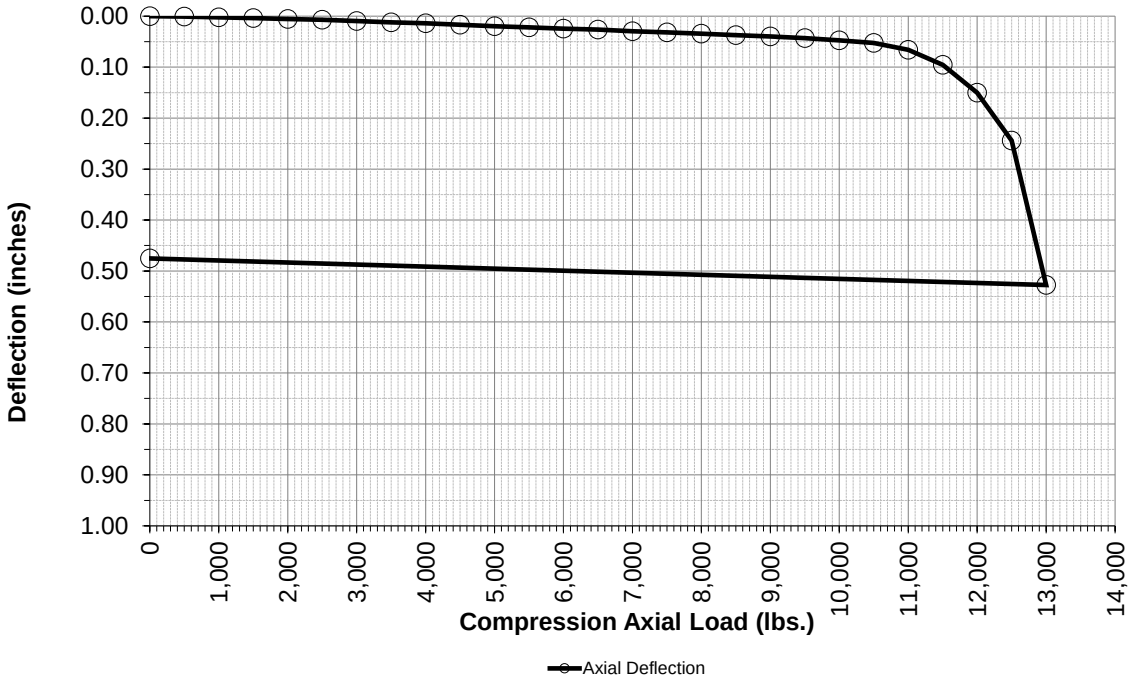
Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-5C
Latitude [deg.]:	37.419188°
Longitude [deg.]:	-87.670540°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	52

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.003	
15%	1,500	0.004	
20%	2,000	0.006	
25%	2,500	0.007	
30%	3,000	0.010	
35%	3,500	0.012	
40%	4,000	0.014	
45%	4,500	0.017	
50%	5,000	0.020	
55%	5,500	0.022	
60%	6,000	0.025	
65%	6,500	0.026	
70%	7,000	0.030	
75%	7,500	0.032	
80%	8,000	0.035	
85%	8,500	0.037	
90%	9,000	0.040	
95%	9,500	0.043	
100%	10,000	0.048	
105%	10,500	0.053	
110%	11,000	0.066	
115%	11,500	0.096	
120%	12,000	0.150	
125%	12,500	0.244	
130%	13,000	0.528	
0%	0	0.475	



Compression Load Test Result for PLT-6C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

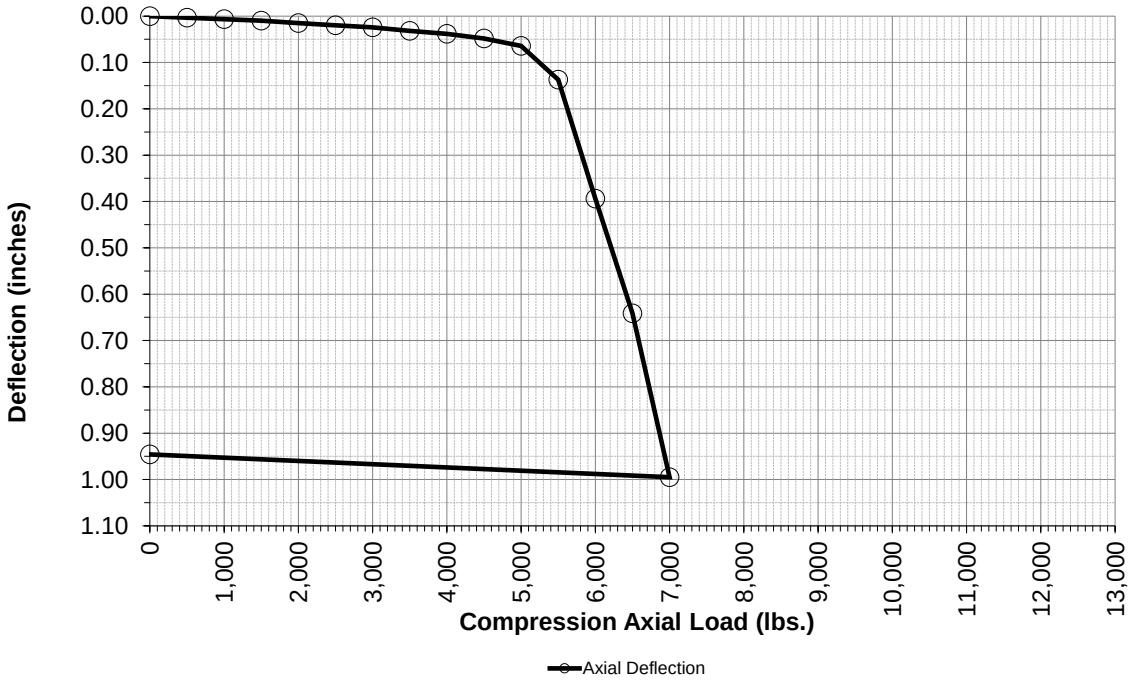
Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-6C
Latitude [deg.]:	37.420553°
Longitude [deg.]:	-87.667394°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	42

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.003	
10%	1,000	0.007	
15%	1,500	0.010	
20%	2,000	0.015	
25%	2,500	0.020	
30%	3,000	0.024	
35%	3,500	0.032	
40%	4,000	0.038	
45%	4,500	0.048	
50%	5,000	0.064	
55%	5,500	0.137	
60%	6,000	0.394	
65%	6,500	0.642	
70%	7,000	0.995	
75%	7,500		
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.946	



Compression Load Test Result for PLT-7C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

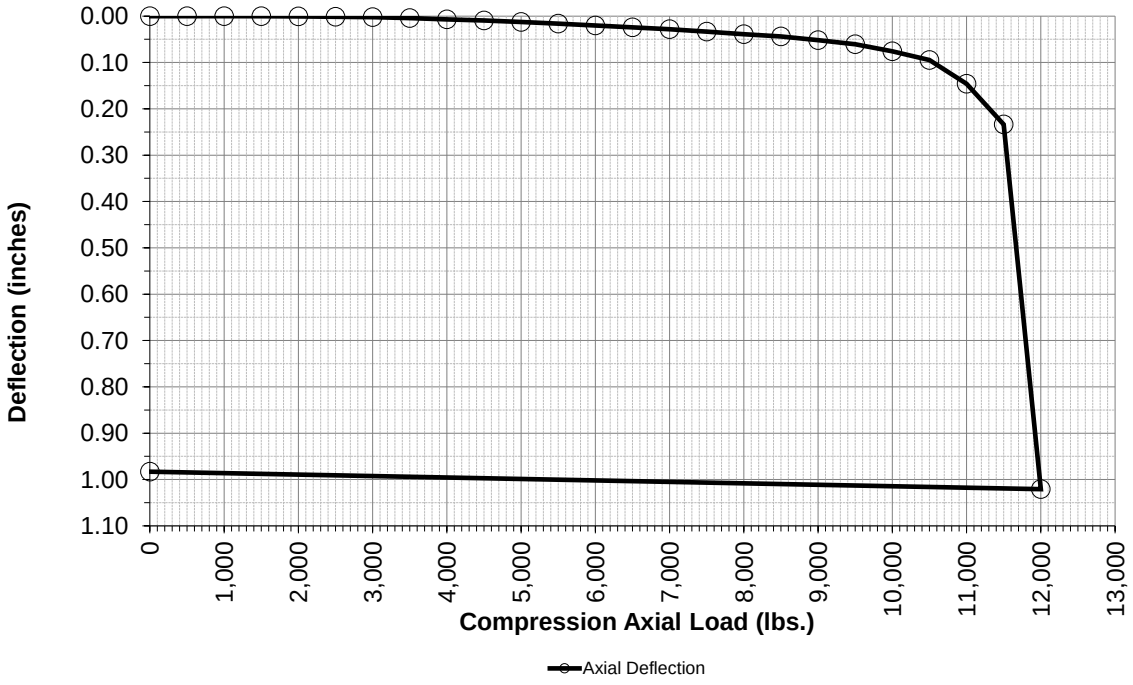
Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-7C
Latitude [deg.]:	37.418312°
Longitude [deg.]:	-87.667395°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	55

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.000	
15%	1,500	0.000	
20%	2,000	0.001	
25%	2,500	0.001	
30%	3,000	0.002	
35%	3,500	0.004	
40%	4,000	0.007	
45%	4,500	0.009	
50%	5,000	0.013	
55%	5,500	0.016	
60%	6,000	0.020	
65%	6,500	0.024	
70%	7,000	0.028	
75%	7,500	0.033	
80%	8,000	0.039	
85%	8,500	0.044	
90%	9,000	0.052	
95%	9,500	0.061	
100%	10,000	0.076	
105%	10,500	0.095	
110%	11,000	0.146	
115%	11,500	0.234	
120%	12,000	1.021	
125%	12,500		
130%	13,000		
0%	0	0.983	



Compression Load Test Result for PLT-8C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

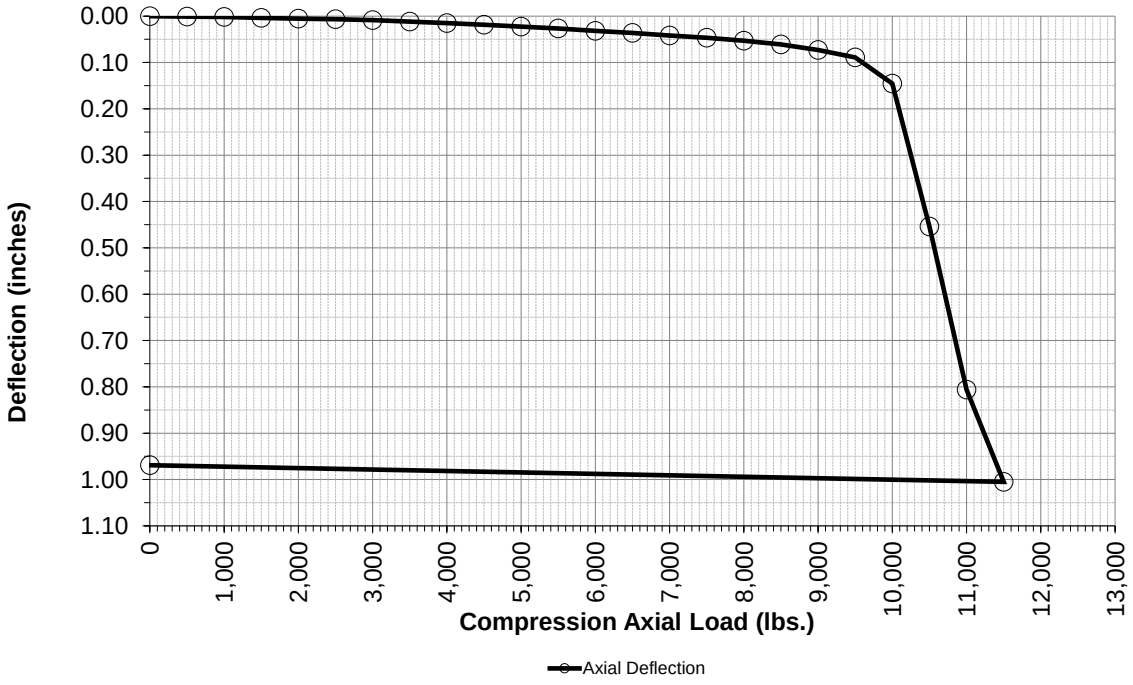
Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-8C
Latitude [deg.]:	37.417629°
Longitude [deg.]:	-87.664594°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	51

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.002	
15%	1,500	0.004	
20%	2,000	0.005	
25%	2,500	0.007	
30%	3,000	0.009	
35%	3,500	0.012	
40%	4,000	0.015	
45%	4,500	0.019	
50%	5,000	0.023	
55%	5,500	0.027	
60%	6,000	0.032	
65%	6,500	0.036	
70%	7,000	0.042	
75%	7,500	0.047	
80%	8,000	0.053	
85%	8,500	0.061	
90%	9,000	0.073	
95%	9,500	0.089	
100%	10,000	0.146	
105%	10,500	0.454	
110%	11,000	0.806	
115%	11,500	1.005	
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.969	



Compression Load Test Result for PLT-9C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

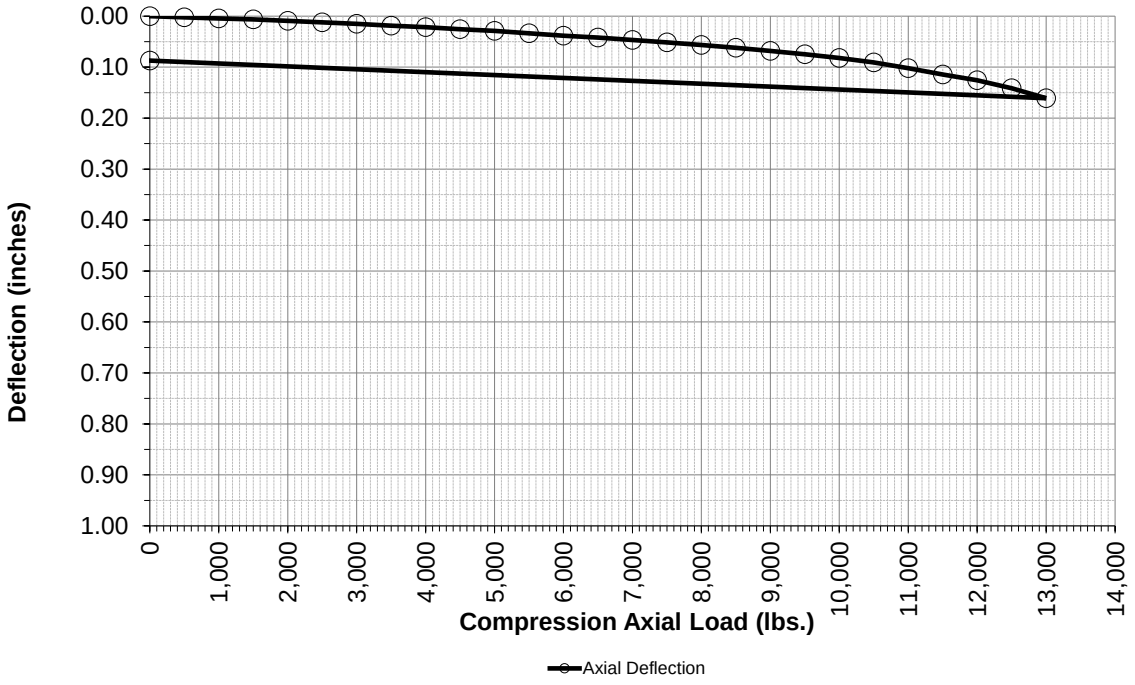
Tested By Terracon Rep:	PH & BW
Date Tested:	6/27/2023

Pile Information

Pile ID:	PLT-9C
Latitude [deg.]:	37.413545°
Longitude [deg.]:	-87.664487°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	56

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.002	
10%	1,000	0.005	
15%	1,500	0.007	
20%	2,000	0.009	
25%	2,500	0.012	
30%	3,000	0.015	
35%	3,500	0.019	
40%	4,000	0.022	
45%	4,500	0.026	
50%	5,000	0.029	
55%	5,500	0.034	
60%	6,000	0.039	
65%	6,500	0.042	
70%	7,000	0.047	
75%	7,500	0.052	
80%	8,000	0.057	
85%	8,500	0.062	
90%	9,000	0.068	
95%	9,500	0.075	
100%	10,000	0.082	
105%	10,500	0.091	
110%	11,000	0.102	
115%	11,500	0.115	
120%	12,000	0.126	
125%	12,500	0.142	
130%	13,000	0.161	
0%	0	0.087	



Compression Load Test Result for PLT-10C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

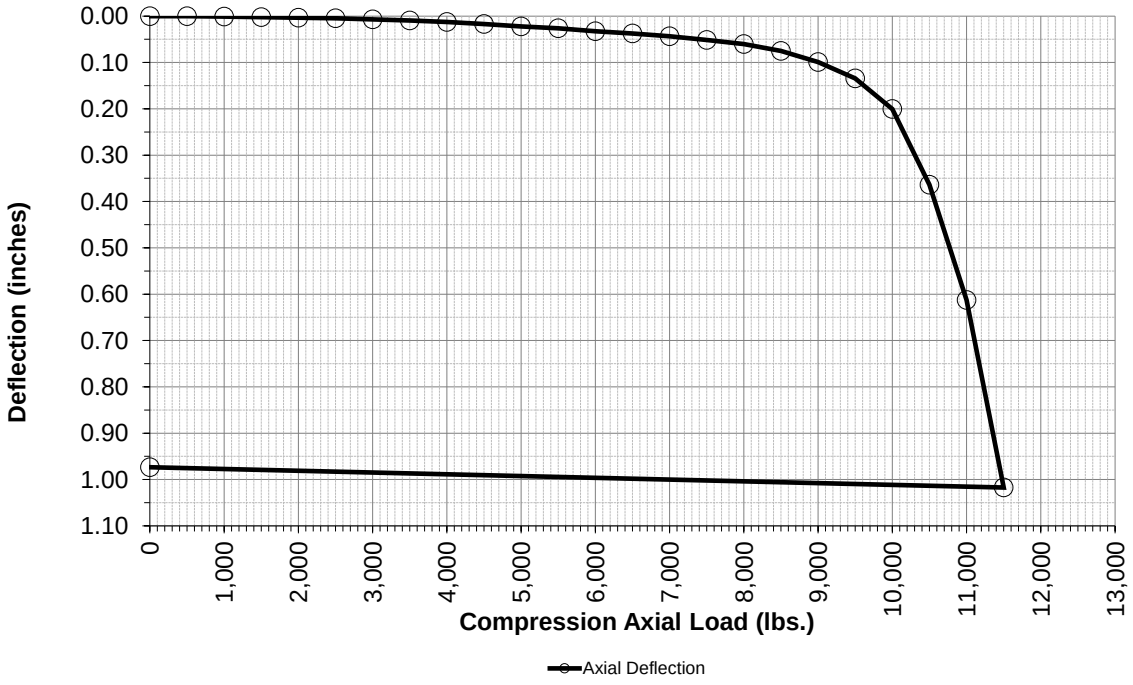
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-10C
Latitude [deg.]:	37.412785°
Longitude [deg.]:	-87.667595°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	54

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.001	
15%	1,500	0.002	
20%	2,000	0.003	
25%	2,500	0.005	
30%	3,000	0.007	
35%	3,500	0.009	
40%	4,000	0.013	
45%	4,500	0.017	
50%	5,000	0.022	
55%	5,500	0.026	
60%	6,000	0.033	
65%	6,500	0.037	
70%	7,000	0.044	
75%	7,500	0.052	
80%	8,000	0.060	
85%	8,500	0.075	
90%	9,000	0.099	
95%	9,500	0.134	
100%	10,000	0.200	
105%	10,500	0.364	
110%	11,000	0.613	
115%	11,500	1.017	
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.974	



Compression Load Test Result for PLT-11C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

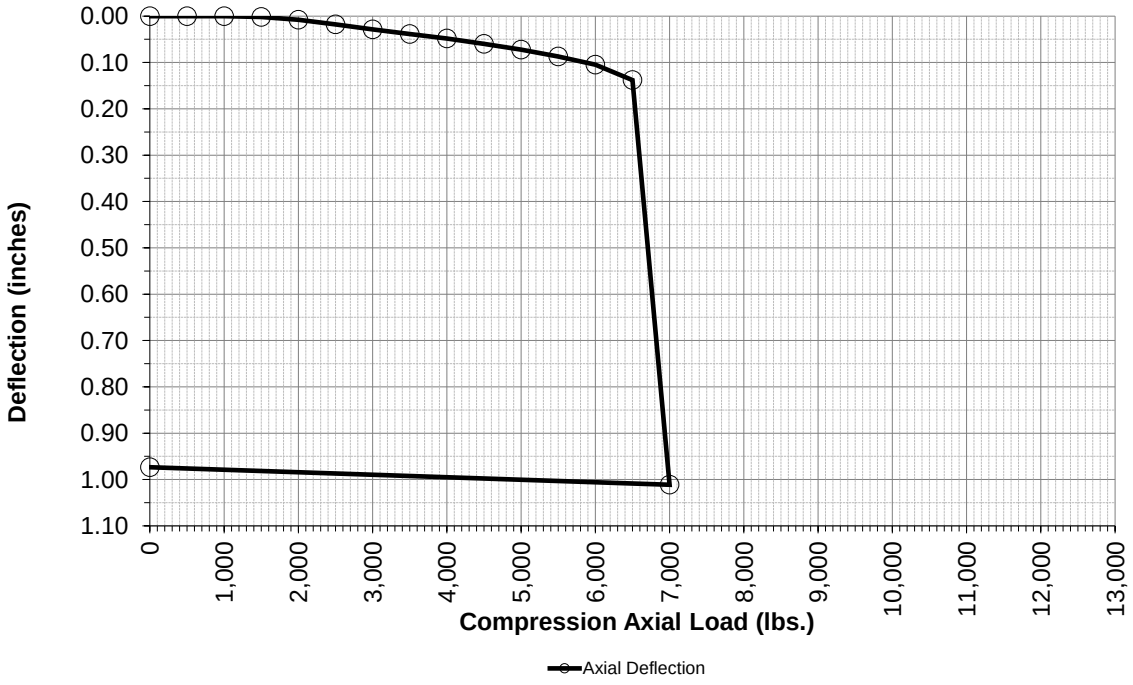
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-11C
Latitude [deg.]:	37.410256°
Longitude [deg.]:	-87.667042°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	32

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.000	
15%	1,500	0.002	
20%	2,000	0.008	
25%	2,500	0.018	
30%	3,000	0.029	
35%	3,500	0.039	
40%	4,000	0.048	
45%	4,500	0.060	
50%	5,000	0.072	
55%	5,500	0.087	
60%	6,000	0.105	
65%	6,500	0.138	
70%	7,000	1.011	
75%	7,500		
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.974	



Compression Load Test Result for PLT-12C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

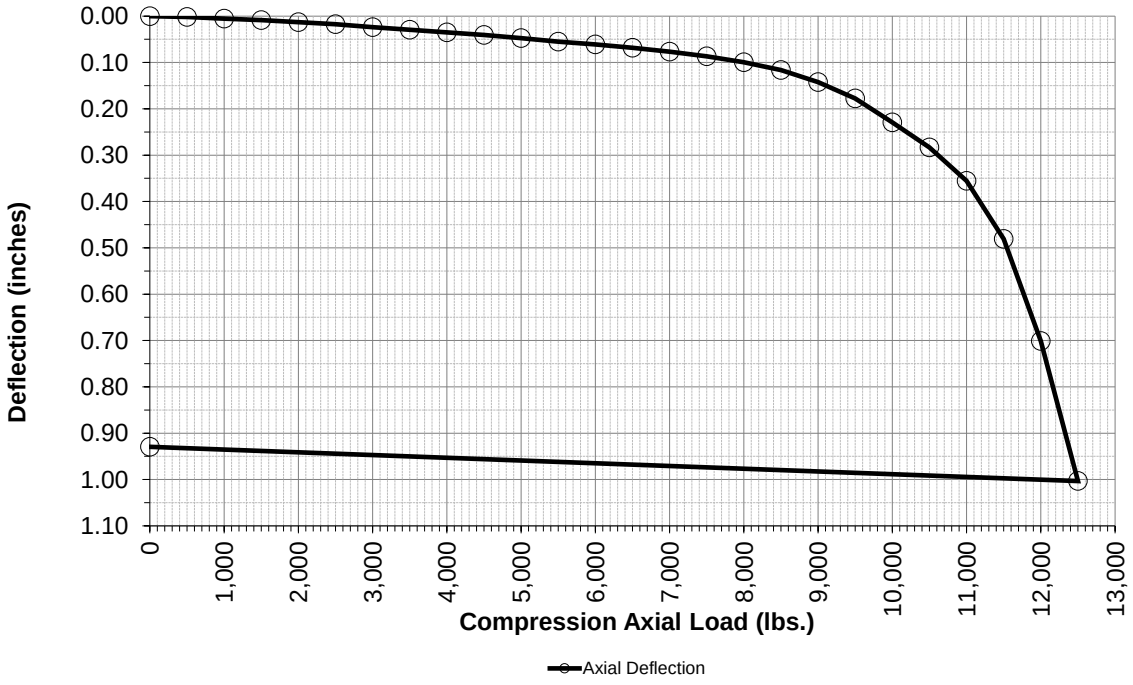
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-12C
Latitude [deg.]:	37.407690°
Longitude [deg.]:	-87.666102°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	64

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.002	
10%	1,000	0.005	
15%	1,500	0.009	
20%	2,000	0.013	
25%	2,500	0.018	
30%	3,000	0.024	
35%	3,500	0.029	
40%	4,000	0.035	
45%	4,500	0.041	
50%	5,000	0.047	
55%	5,500	0.055	
60%	6,000	0.061	
65%	6,500	0.068	
70%	7,000	0.077	
75%	7,500	0.087	
80%	8,000	0.100	
85%	8,500	0.116	
90%	9,000	0.142	
95%	9,500	0.178	
100%	10,000	0.229	
105%	10,500	0.283	
110%	11,000	0.356	
115%	11,500	0.481	
120%	12,000	0.701	
125%	12,500	1.003	
130%	13,000		
0%	0	0.929	



Compression Load Test Result for PLT-13C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

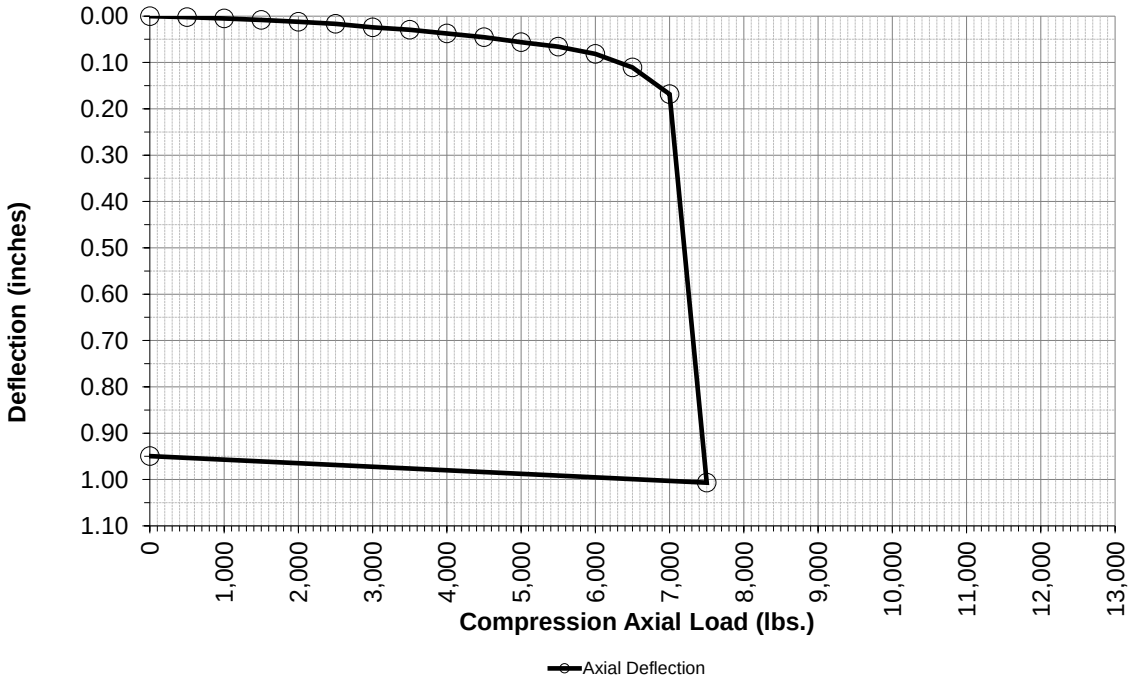
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-13C
Latitude [deg.]:	37.408172°
Longitude [deg.]:	-87.673635°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	43

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.002	
10%	1,000	0.005	
15%	1,500	0.008	
20%	2,000	0.012	
25%	2,500	0.017	
30%	3,000	0.024	
35%	3,500	0.029	
40%	4,000	0.038	
45%	4,500	0.045	
50%	5,000	0.056	
55%	5,500	0.066	
60%	6,000	0.082	
65%	6,500	0.111	
70%	7,000	0.168	
75%	7,500	1.007	
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.950	



Compression Load Test Result for PLT-14C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

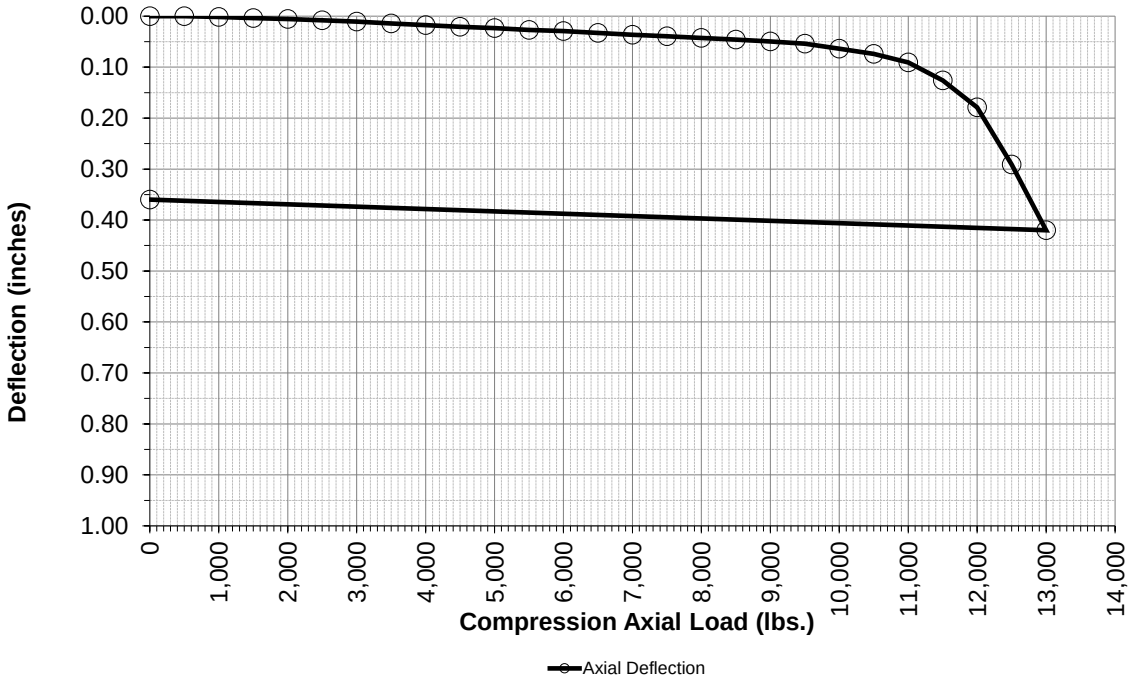
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-14C
Latitude [deg.]:	37.406431°
Longitude [deg.]:	-87.670401°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	63

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.002	
15%	1,500	0.004	
20%	2,000	0.006	
25%	2,500	0.008	
30%	3,000	0.011	
35%	3,500	0.014	
40%	4,000	0.018	
45%	4,500	0.021	
50%	5,000	0.024	
55%	5,500	0.027	
60%	6,000	0.029	
65%	6,500	0.033	
70%	7,000	0.037	
75%	7,500	0.040	
80%	8,000	0.043	
85%	8,500	0.046	
90%	9,000	0.050	
95%	9,500	0.054	
100%	10,000	0.064	
105%	10,500	0.074	
110%	11,000	0.091	
115%	11,500	0.126	
120%	12,000	0.179	
125%	12,500	0.291	
130%	13,000	0.420	
0%	0	0.360	



Compression Load Test Result for PLT-15C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

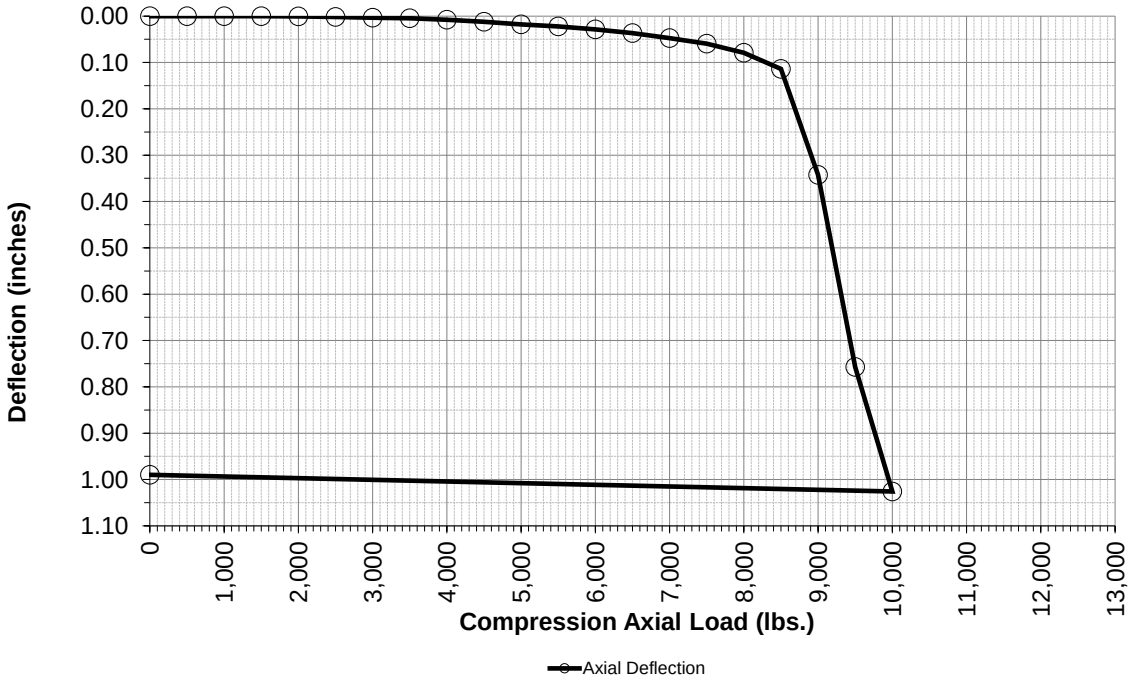
Tested By Terracon Rep:	PH & BW
Date Tested:	6/28/2023

Pile Information

Pile ID:	PLT-15C
Latitude [deg.]:	37.405422°
Longitude [deg.]:	-87.678462°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	40

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.000	
15%	1,500	0.000	
20%	2,000	0.001	
25%	2,500	0.002	
30%	3,000	0.004	
35%	3,500	0.005	
40%	4,000	0.008	
45%	4,500	0.012	
50%	5,000	0.018	
55%	5,500	0.022	
60%	6,000	0.029	
65%	6,500	0.037	
70%	7,000	0.048	
75%	7,500	0.059	
80%	8,000	0.079	
85%	8,500	0.114	
90%	9,000	0.343	
95%	9,500	0.757	
100%	10,000	1.026	
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.990	



Compression Load Test Result for PLT-16C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

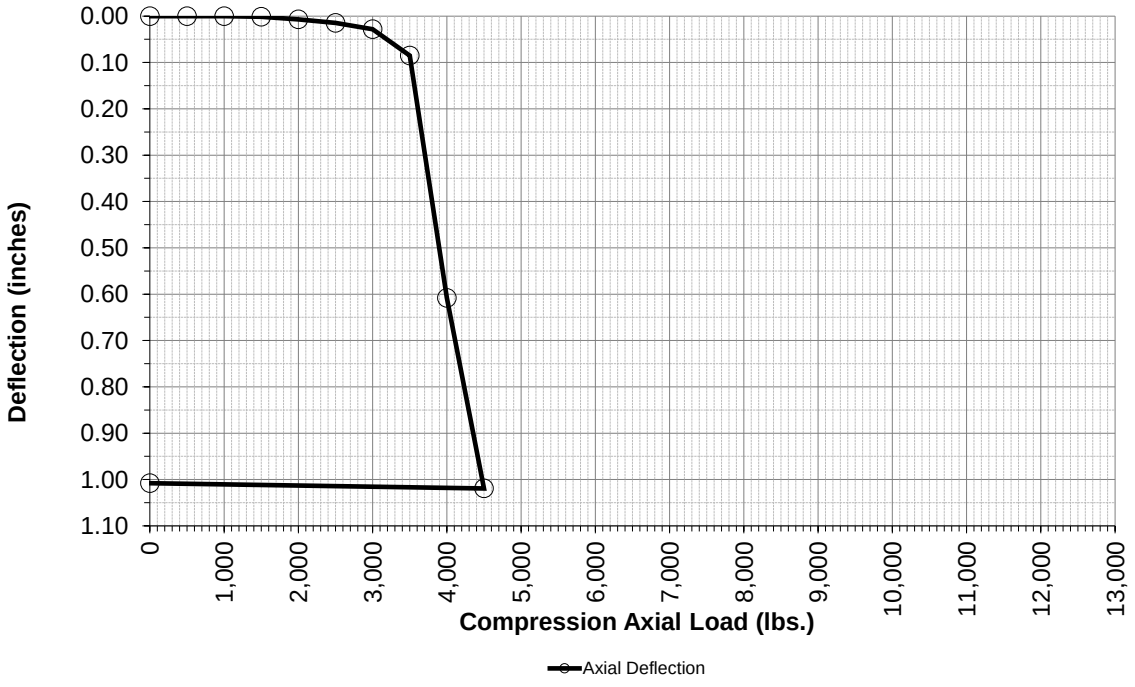
Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-16C
Latitude [deg.]:	37.404527°
Longitude [deg.]:	-87.667353°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	23

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.000	
15%	1,500	0.002	
20%	2,000	0.007	
25%	2,500	0.015	
30%	3,000	0.028	
35%	3,500	0.085	
40%	4,000	0.608	
45%	4,500	1.019	
50%	5,000		
55%	5,500		
60%	6,000		
65%	6,500		
70%	7,000		
75%	7,500		
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	1.008	



Compression Load Test Result for PLT-17C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

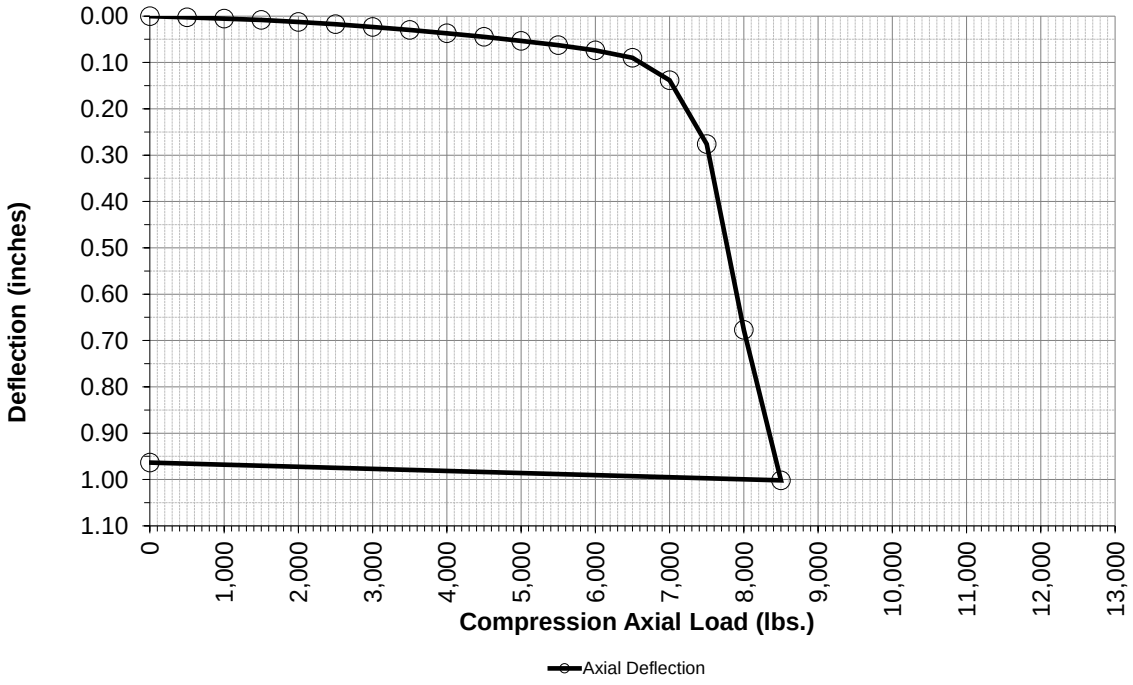
Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-17C
Latitude [deg.]:	37.400391°
Longitude [deg.]:	-87.661184°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	25

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.003	
10%	1,000	0.005	
15%	1,500	0.008	
20%	2,000	0.013	
25%	2,500	0.018	
30%	3,000	0.024	
35%	3,500	0.030	
40%	4,000	0.037	
45%	4,500	0.045	
50%	5,000	0.054	
55%	5,500	0.063	
60%	6,000	0.074	
65%	6,500	0.090	
70%	7,000	0.139	
75%	7,500	0.276	
80%	8,000	0.677	
85%	8,500	1.002	
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.964	



Compression Load Test Result for PLT-18C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

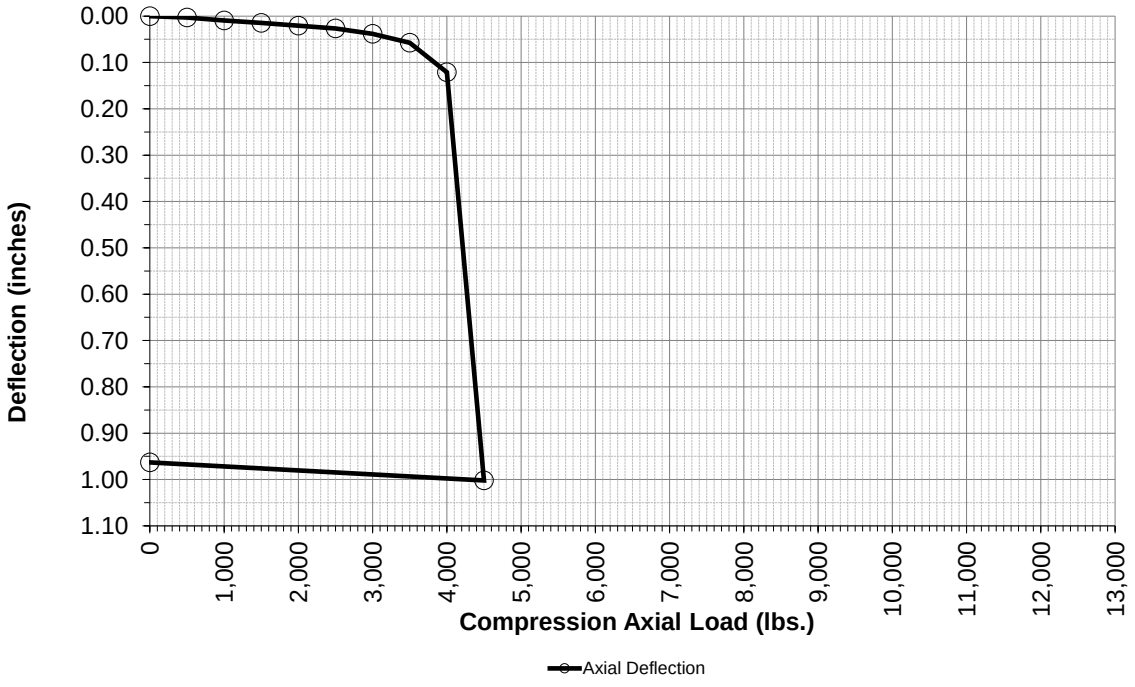
Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-18C
Latitude [deg.]:	37.399728°
Longitude [deg.]:	-87.658368°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	19

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.003	
10%	1,000	0.009	
15%	1,500	0.015	
20%	2,000	0.021	
25%	2,500	0.027	
30%	3,000	0.038	
35%	3,500	0.058	
40%	4,000	0.121	
45%	4,500	1.002	
50%	5,000		
55%	5,500		
60%	6,000		
65%	6,500		
70%	7,000		
75%	7,500		
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.963	



Compression Load Test Result for PLT-19C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

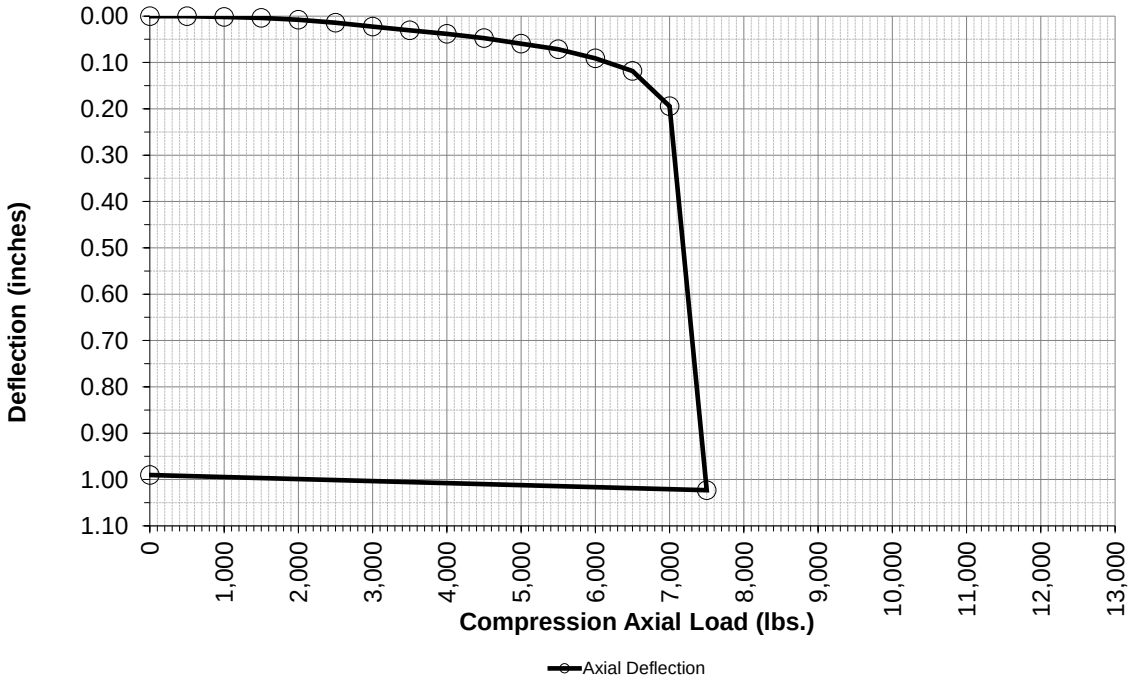
Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-19C
Latitude [deg.]:	37.397820°
Longitude [deg.]:	-87.661744°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	36

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.000	
10%	1,000	0.002	
15%	1,500	0.004	
20%	2,000	0.008	
25%	2,500	0.014	
30%	3,000	0.023	
35%	3,500	0.031	
40%	4,000	0.038	
45%	4,500	0.048	
50%	5,000	0.059	
55%	5,500	0.072	
60%	6,000	0.091	
65%	6,500	0.119	
70%	7,000	0.194	
75%	7,500	1.023	
80%	8,000		
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.990	



Compression Load Test Result for PLT-20C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

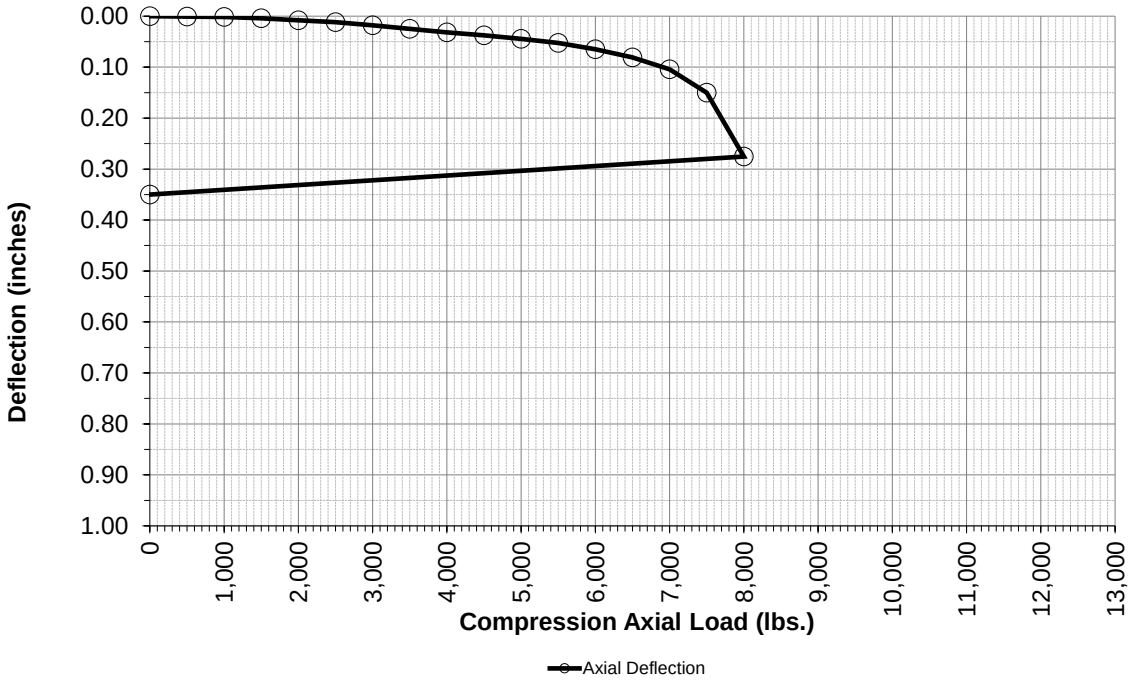
Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-20C
Latitude [deg.]:	37.395134°
Longitude [deg.]:	-87.662825°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	28

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.002	
15%	1,500	0.004	
20%	2,000	0.008	
25%	2,500	0.012	
30%	3,000	0.018	
35%	3,500	0.025	
40%	4,000	0.032	
45%	4,500	0.038	
50%	5,000	0.045	
55%	5,500	0.053	
60%	6,000	0.065	
65%	6,500	0.081	
70%	7,000	0.104	
75%	7,500	0.150	
80%	8,000	0.275	
85%	8,500		
90%	9,000		
95%	9,500		
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.350	



Compression Load Test Result for PLT-21C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

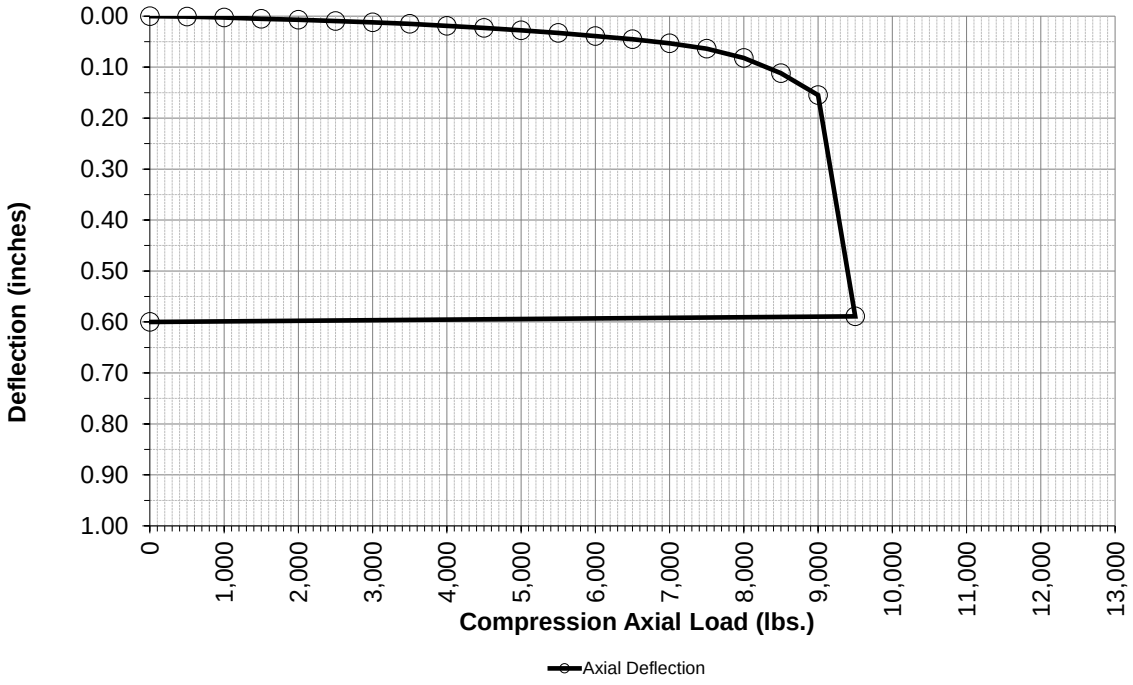
Tested By Terracon Rep:	PH & BW
Date Tested:	6/29/2023

Pile Information

Pile ID:	PLT-21C
Latitude [deg.]:	37.394185°
Longitude [deg.]:	-87.659160°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	50

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.003	
15%	1,500	0.005	
20%	2,000	0.007	
25%	2,500	0.010	
30%	3,000	0.012	
35%	3,500	0.015	
40%	4,000	0.019	
45%	4,500	0.023	
50%	5,000	0.028	
55%	5,500	0.033	
60%	6,000	0.039	
65%	6,500	0.045	
70%	7,000	0.053	
75%	7,500	0.064	
80%	8,000	0.082	
85%	8,500	0.112	
90%	9,000	0.155	
95%	9,500	0.589	
100%	10,000		
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.600	



Compression Load Test Result for PLT-22C

Project Information

Project Name:	Weirs Creek Solar
Project Location:	Providence, Kentucky
Project Number:	57235034

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

Test Date and Representative

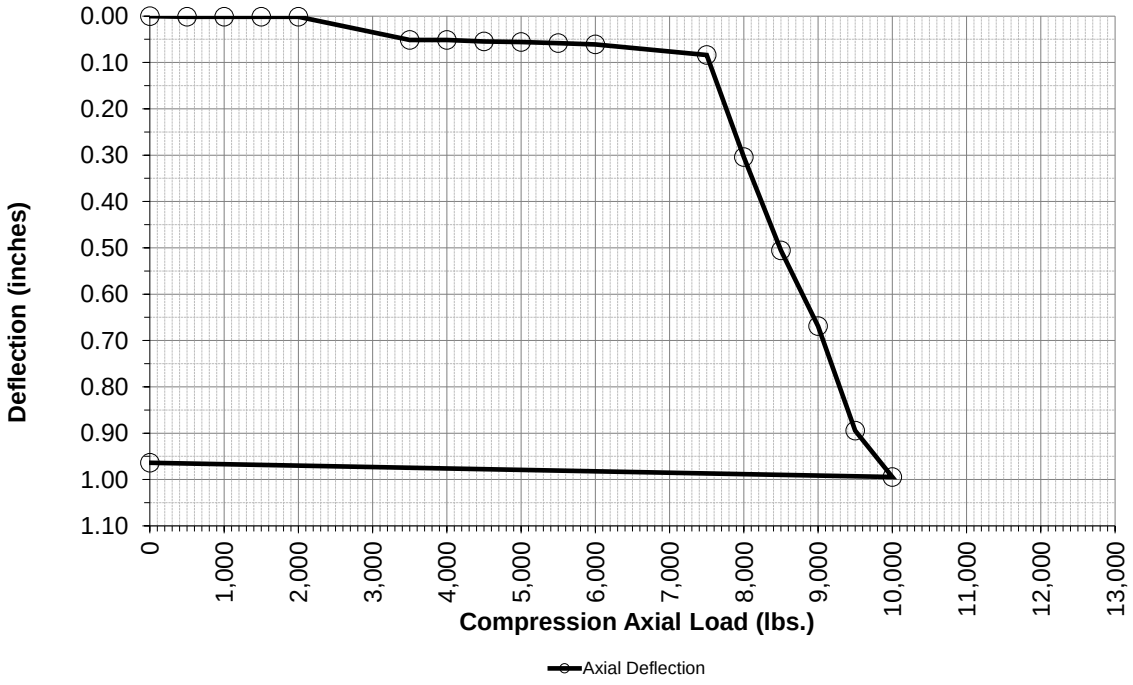
Tested By Terracon Rep:	PH & BW
Date Tested:	6/30/2023

Pile Information

Pile ID:	PLT-22C
Latitude [deg.]:	37.387827°
Longitude [deg.]:	-87.680214°
Pile Type:	W6X9
Pile Embedment Depth [in.]:	60
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	10,000
Pile Area [sq. in.]:	2.68
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	39

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.001	
10%	1,000	0.001	
15%	1,500	0.002	
20%	2,000	0.002	
25%	2,500		
30%	3,000		
35%	3,500	0.051	
40%	4,000	0.051	
45%	4,500	0.055	
50%	5,000	0.056	
55%	5,500	0.058	
60%	6,000	0.061	
65%	6,500		
70%	7,000		
75%	7,500	0.084	
80%	8,000	0.304	
85%	8,500	0.506	
90%	9,000	0.669	
95%	9,500	0.895	
100%	10,000	0.995	
105%	10,500		
110%	11,000		
115%	11,500		
120%	12,000		
125%	12,500		
130%	13,000		
0%	0	0.964	



Supporting Information

Contents:

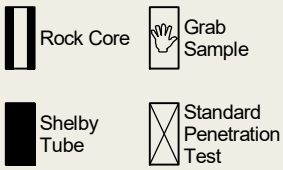
General Notes
Unified Soil Classification System

Note: All attachments are one page unless noted above.

Terracon
800 Morrison Rd
Gahanna, OH

General Notes

Sampling



Water Level

Water Initially Encountered

Water Level After a Specified Period of Time

Water Level After a Specified Period of Time

Cave In Encountered

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

N	Standard Penetration Test Resistance (Blows/Ft.)
(HP)	Hand Penetrometer
(T)	Torvane
(DCP)	Dynamic Cone Penetrometer
UC	Unconfined Compressive Strength
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. 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		**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			**Bedrock**	
Relative Density	**Standard Penetration or N-Value (Blows/Ft.)**	**Consistency**	**Unconfined Compressive Strength Qu (tsf)**	**Standard Penetration or N-Value (Blows/Ft.)**	**Standard Penetration or N-Value (Blows/Ft.)**	**Consistency**
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1	< 20	Weathered
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4	20 - 29	Firm
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8	30 - 49	Medium Hard
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15	50 - 79	Hard
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30	>79	Very Hard
		Hard	> 4.00	> 30		

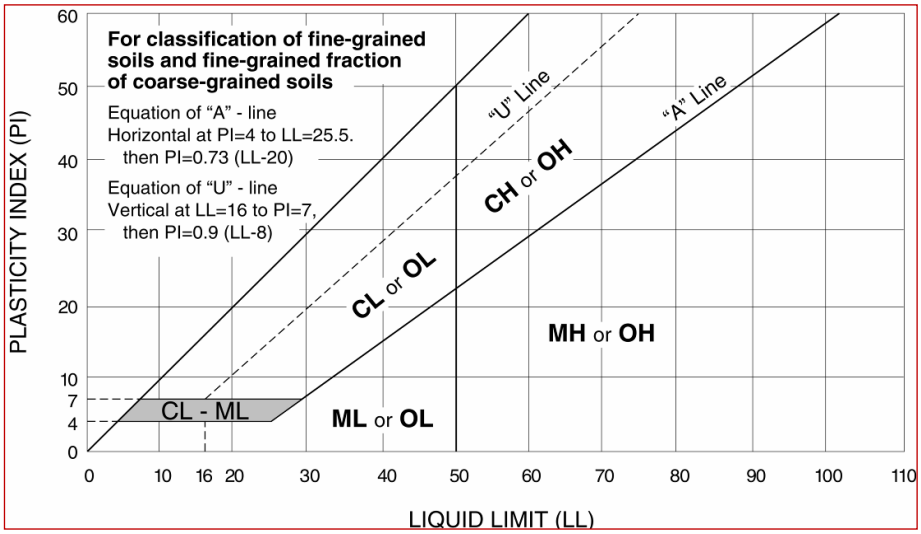
Relevance of Exploration and Laboratory Test Results

Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

Unified Soil Classification System

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Soil Classification	
				Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 4 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** 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]
			Fines classify as CL or CH	GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** 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]
		Sands with Fines: 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]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	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]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OL	Organic clay [K, L, M, N]
					Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	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] $Cu = D_{60}/D_{10}$ $\quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[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.



Rock Classification Notes

WEATHERING	
Term	**Description**
Fresh	Mineral crystals appear bright; show no discoloration. Features show little or now staining on surfaces. Discoloration does not extend into intact rock.
Slightly weathered	Rock generally fresh except along fractures. Some fractures stained and discoloration may extend <0.5 inches into rock.
Moderately weathered	Significant portions of rock are dull and discolored. Rock may be significantly weaker than in fresh state near fractures. Soil zones of limited extent may occur along some fractures.
Highly weathered	Rock dull and discolored throughout. Majority of rock mass is significantly weaker and has decomposed and/or disintegrated; isolated zones of stronger rock and/or soil may occur throughout.
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The rock mass or fabric is still evident and largely intact. Isolated zones of stronger rock may occur locally.

STRENGTH OR HARDNESS		
Description	**Field Identification**	**Uniaxial Compressive Strength, psi**
Extremely strong	Can only be chipped with geological hammer. Rock rings on hammer blows. Cannot be scratched with a sharp pick. Hand specimens require several hard hammer blows to break.	>36,000
Very strong	Several blows of a geological hammer to fracture. Cannot be scratched with a 20d common steel nail. Can be scratched with a geologist's pick only with difficulty.	15,000-36,000
Strong	More than one blow of a geological hammer needed to fracture. Can be scratched with a 20d nail or geologist's pick. Gouges or grooves to ¼ inch deep can be excavated by a hard blow of a geologist's pick. Hand specimens can be detached by a moderate blow.	7,500-15,000
Medium strong	One blow of geological hammer needed to fracture. Can be distinctly scratched with 20d nail. Can be grooved or gouged 1/16 in. deep by firm pressure with a geologist's pick point. Can be fractured with single firm blow of geological hammer. Can be excavated in small chips (about 1-in. maximum size) by hard blows of the point of a geologist's pick;	3,500-7,500
Weak	Shallow indent by firm blow with geological hammer point. Can be gouged or grooved readily with geologist's pick point. Can be excavated in pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.	700-3,500
Very weak	Crumbles under firm blow with geological hammer point. Can be excavated readily with the point of a geologist's pick. Pieces 1-in. or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.	150-700

DISCONTINUITY DESCRIPTION			
Fracture Spacing (Joints, Faults, Other Fractures)		**Bedding Spacing (May Include Foliation or Banding)**	
Description	**Spacing**	**Description**	**Spacing**
Intensely fractured	< 2.5 inches	**Laminated**	< ½-inch
Highly fractured	2.5 – 8 inches	**Very thin**	½ – 2 inches
Moderately fractured	8 inches to 2 feet	**Thin**	2 inches – 1 foot
Slightly fractured	2 to 6.5 feet	**Medium**	1 – 3 feet
Very slightly fractured	> 6.5 feet	**Thick**	3 – 10 feet
		Massive	> 10 feet

ROCK QUALITY DESIGNATION (RQD) [1]	
Description	**RQD Value (%)**
Very Poor	0 - 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 - 100

- The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.