

GEOTECHNICAL DATA REPORT SR-222 FROM NEAR SR-468 TO NEAR CAMPGROUND RD HAYWOOD COUNTY, TENNESSEE

TDOT PROJECT No. R4S222-S1-002 TDOT PIN No. 132709.00 TDOT GES No. 3805723

Prepared for:

FISHER ARNOLD, INC. MEMPHIS, TENNESSEE

Prepared by:

GEOTECHNOLOGY, LLC MEMPHIS, TENNESSEE

Date:

MARCH 9, 2023

Geotechnology Project No.:

J042140.01

SAFETY
QUALITY
INTEGRITY
PARTNERSHIP
OPPORTUNITY
RESPONSIVENESS



March 9, 2023

Mr. John Pankey, P.E. Fisher Arnold, Inc. 9180 Crestwyn Hills Drive Memphis, Tennessee 38125

Re: Geotechnical Data Report

SR-222 From Near SR-468 To Near Campground Rd

Haywood County, Tennessee

Geotechnology Project No. J042140.01 TDOT Project No. R4S222-S1-002

TDOT Pin No. 132709.00 TDOT GES No. 3805723

Dear Mr. Pankey:

Presented in this report are the results of the geotechnical exploration performed by Geotechnology, LLC for the referenced project. The report includes our understanding of the project, observed site conditions, and support data as listed in the Table of Contents.

We appreciate the opportunity to provide geotechnical services for this project. If you have any questions regarding this report, or if we can be of any additional service to you, please do not hesitate to contact us.

Respectfully submitted,

GEOTECHNOLOGY, LLC

Amber Meadows Project Engineer

ABM/ASE:abm

Copies submitted: Client (email)

Ashraf S. Elsayed, Ph.D., P.E. Chief Engineer – South Region



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Geotechnical Data Report SR-222 From Near SR-468 To Near Campground Rd Haywood County, Tennessee

March 9, 2023 | Geotechnology Project No. J042140.01

1.0 SCOPE OF SERVICES

Presented in this report are the results of the geotechnical exploration for the proposed improvements and widening of SR-222. The project location is shown on Figure 1 included in Appendix B.

A total of 48 borings were performed in the vicinity of the site as shown on Figures 2 through 12 included in Appendix B. The boring logs, along with field and laboratory test results, are enclosed. Unless noted otherwise, all dimensions, measurements, depths, and locations in this report should be considered approximate. Important information prepared by the Geotechnical Business Council (GBC) of the Geoprofessional Business Association for studies of this type is presented in Appendix A for your review.

2.0 GENERAL INFORMATION

Planned Modifications

The project extends along SR-222 from approximately two miles north of its intersection with I-40 to ¼-mile north of its intersection with Campground Road.

Geology

The site is located in Haywood County in southwestern Tennessee on the Gulf Coastal Plain. The Coastal Plain in the project area is characterized by flat to hilly topography and many rivers and creeks. Approximately 200 feet of relief occur across the county.

Geologically, the site is near the north-central part of the Mississippi Embayment, a trough-like depression plunging southward along an axis approximating the present course of the Mississippi River. Sediment depth in the project area is approximately 2,900 feet. The unconsolidated sediments consist of clay, silt (aeolian, alluvial and marine), sand, gravel and lignite. Except for some local beds of ferruginous and calcareous sandstone, there is no well-consolidated rock above the Paleozoic Formation, which forms the rock below the sediments.

The uppermost formation over most of Haywood County is Pleistocene Epoch Loess, which consists of clayey silts and silty clays. Loess is predominantly silt, but with varying amounts of clay, and is generally buff-colored and uniform in texture. The thickness of the loess is usually about 20 to 30 feet, but typically is greater than 60 feet along the Mississippi River. The loess cap thins to the east, commonly terminating at the Mississippi Embayment boundary.



The next formation in succession is a discontinuous series of alluvial deposits referred to as the Terrace Deposits. The terrace deposits are tertiary period in age, thin gradually eastward, and are absent in many places as a result of erosion or non-deposition. The alluvial deposits are composed mostly of coarse-grained quartz sand, fine-grained iron-stained quartz and chert gravel. Lenses of yellowish-brown clay are frequently present locally in the lower part of the deposits. These materials are typically red or brown, dense and well graded, and the thickness ranges from 0 to 200 feet. They generally occur 35 to 50 feet below the ground surface.

Underlying the terrace deposits is the Tertiary Period Claiborne/Wilcox Formation, which is characterized as sand layers interbedded with gray to white clay, silty clay, lignitic clay, and lignite. The Claiborne/Wilcox Formation is typically more than 400 feet thick.

Sediments deposited by streams along the channels and on the flood plains during flood periods are referred to as Alluvium. These materials are from the Holocene Period, and are composed of clay, silt, sand, and gravel. The alluvium in the Memphis area is generally confined to strips along the Mississippi River and its tributaries, and it is frequently subjected to flooding and reworking. Lignite, peat, and carbonaceous materials are distributed irregularly throughout the upper level. Alluvial sands are usually white or gray, loose to medium dense, and poorly graded. The loose and poorly graded alluvial sands can be susceptible to liquefaction during seismic events.

3.0 GEOTECHNICAL EXPLORATION

The geotechnical exploration consisted of 58 borings, designated as Borings BR-1, -2, W-1A, -1B, -2, -3A, -3B, -4 through -21, E-1 through -16, CON-1 through -7, and SP-1 through -10. The borings were drilled along the edge of the pavement and in the shoulders of the existing roadway in the project area between December 13, 2022 and January 26, 2023. Borings CON-1 through -7 were drilled along the edge of the pavement of Stanton-Somerville Road. Borings SP-1 through -10 were drilled for the signal poles at the planned BO entrances and improved Stanton-Somerville intersection. Approximate locations of the borings are shown on Figures 2 through 12 in Appendix B and summarized in Table 1. The coordinates and depth of each boring location are also summarized in Appendix B.

Table 1. Boring Locations.

Number of Borings	Boring Location
24	SR 222 Westbound Shoulder
15	SR 222 Eastbound Shoulder
2	Box Culvert
2	Blue Oval 1 Intersection
2	Blue Oval 2 Intersection
3	Stanton-Somerville Southbound Shoulder
4	Signal Poles - SR 222 Westbound Shoulder
6	Signal Poles - SR 222 Eastbound Shoulder



The borings were drilled with track- and ATV-mounted rotary drill rigs using hollow stem auger and rotary wash drilling methods to a maximum depth of 80 feet. Sampling procedures included Standard Penetration Test (SPT) and thin-walled (Shelby) tube methods. SPT's were conducted at 2.5- and 5-foot depth intervals using an automatic hammer to obtain the standard penetration resistance, or N-values¹, of the sampled material. Pavement cores were also obtained at selected locations along SR 222. Samples collected by Geotechnology were visually examined by a geologist and transported to our laboratory for further evaluation and testing. The samples were examined in the laboratory by a geotechnical professional who prepared descriptive logs of the materials encountered. Logs of the borings are presented in Appendix C. An explanation of the terms and symbols used on the boring logs is also provided in Appendix C. Listed in Table 2 are in situ tests and measurements made as part of the fieldwork and recorded on the boring logs. Descriptions and photographs of the pavement cores are provided in Section 5.0 and Appendix E, respectively.

Table 2. Field Tests and Measurements.

Item	Test Method
Soil Classification	ASTM D 2488/ D 3282
Standard Penetration Test (SPT)	ASTM D 1586/ AASHTO T206
Thin-Walled (Shelby) Tube Sampling	ASTM D 1587/ AASHTO T207
Phreatic Surface Level Measurement in Boring	ASTM D 4750

The boring logs and related information depict subsurface conditions only at the specific locations and times where sampling was conducted. The passage of time could result in changes in conditions, interpreted to exist, at or between the locations where sampling was conducted.

4.0 LABORATORY REVIEW AND TESTING

Laboratory testing was performed on soil samples to assess engineering and index properties. Moisture contents, Atterberg limits, percent fines, pH, resistivity, and UU test results are presented on the boring logs in Appendix C. Laboratory test results for Atterberg, grain size (sieve) analysis, resistivity, moisture-density (proctor), CBR, and unconsolidated-undrained triaxial compression (UU), are presented in Appendix D. Laboratory tests and corresponding test method standards are listed in Table 3.

¹ The standard penetration resistance, or N-value, is defined as the number of blows required to drive the split-spoon sampler 12 inches with a 140-pound hammer falling 30 inches. Since the split spoon sampler is driven 18 inches or until refusal, the blows for the first 6 inches are for seating the sampler, and the number of blows for the final 12 inches is the N-value. Additionally, "refusal" of the split-spoon sampler occurs when the sampler is driven less than 6 inches with 50 blows of the hammer.



Table 3. Summary of Laboratory Tests and Methods.

Laboratory Test	ASTM	AASHTO
Moisture Content	D 2216	T 265
Atterberg Limits	D 4318	T 98
Grain Size Analysis by Sieving	D 6913	T 88
Unconsolidated-Undrained Triaxial Compression (UU)	D 2850	T 296
Soil Electrical Resistivity	G 57	T 288
Soil pH	D 4972	T 289
Moisture-Density (Standard Effort)	D 698	T 99
California Bearing Ratio (CBR)	D 1883	T 193

The boring logs were prepared from field logs, visual classification of the soil samples, and laboratory test results. Terms and symbols used on the boring logs are presented on the Boring Log: Terms and Symbols in Appendix C. Stratification lines on the boring logs indicate approximate changes in strata. The transition between materials could be gradual or could occur between recovered samples. The stratification given on the boring logs, or described herein, is for use by Geotechnology in its analyses and should not be used as the basis of design or construction cost estimates without realizing that there can be variation from that shown or described.

5.0 EXPLORATION RESULTS

Pavement Information

Core samples were collected from the existing SR-222 pavement near the locations of Borings E-1, E-7, W-5, W-10, and W-21. Borings E-12, E-14, W-16, W-19, and W-20 were drilled in the existing pavement along SR-222 and CON-5 through -7 were drilled in the existing pavement along Stanton-Somerville Road. The approximate thickness of asphalt measured from the pavement cores and in the borings are shown in Table 4. Photographs of the pavement cores are provided in Appendix E.



Table 4. Approximate Asphaltic Material Thicknesses.

Boring	Location	SR-222 Station (feet)	Total Asphalt Thickness (inches)
E-1a		3042+05	4½
E-7 ^a		3095+69	41/4
E-12		3117+50	10
E-14		3131+30	10
W-5 ^a	SR-222	3072+59	4¾
W-10 ^a	SR-222	3093+08	5
W-16		3118+83	10
W-19		3136+45	6
W-20		3139+48	10
W-21 ^a		3143+30	17
CON-5		3118+52	10
CON-6	Stanton-Somerville Road	3118+28	6
CON-7		3118+09	10

^a Pavement core

General Stratigraphy

The stratigraphy encountered in the borings generally consisted of intermixed layers of predominantly fine-grained soils classified as clayey silt (ML), lean clay (CL), fat clay (CH), and sandy clay (CL/CH) and predominantly coarse-grained soils classified as clayey sand (SC), sand with clay (SP-SC), and silty sand (SM). In some areas the stratigraphy encountered in the borings consisted of predominantly fine-grained soils and fine-grained soils underlain by predominantly coarse-grained soils. Detailed descriptions of the stratigraphy encountered are presented on the boring logs Appendix C.

Groundwater

Groundwater was encountered during drilling at approximate depths of 6, 10, and 23 feet (El 313 to El 285) in Borings SP-8, SP-5, and BR-1, respectively. Groundwater levels vary over time due to seasonal variation in precipitation, recharge, or other factors not evident at the time of exploration.

6.0 LIMITATIONS

This report has been prepared on behalf of, and for the exclusive use of, the client for specific application to the named project as described herein. If this report is provided to other parties, it should be provided in its entirety with all supplementary information. In addition, the client should make it clear the information is provided for factual data only, and not as a warranty of subsurface conditions presented in this report.

Geotechnology has attempted to conduct the services reported herein in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently



practicing in the same locality and under similar conditions. The report is not a bidding document and should not be used for that purpose.

Our scope for this phase of the project did not include any environmental assessment or investigation for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors noted or unusual or suspicious items or conditions observed are strictly for the information of our client. Our scope did not include an assessment of the effects of flooding and erosion of creeks or rivers adjacent to or on the project site.

Our scope did not include: any services to investigate or detect the presence of mold or any other biological contaminants (such as spores, fungus, bacteria, viruses, and the by-products of such organisms) on and around the site; or any services, designed or intended, to prevent or lower the risk of the occurrence of an infestation of mold or other biological contaminants.

The information contained in this report is based on the data obtained from the geotechnical exploration. The field exploration methods used indicate subsurface conditions only at the specific locations where samples were obtained, only at the time they were obtained, and only to the depths penetrated. Consequently, subsurface conditions could vary gradually, abruptly, and/or nonlinearly between sample locations and/or intervals.

The information presented in this report should not be used without Geotechnology's review and assessment if the nature, design, or location of the facilities is changed, if there is a lapse in time between the submittal of this report and the start of work at the site, or if there is a substantial interruption or delay during work at the site. If changes are contemplated or delays occur, Geotechnology must be allowed to review them to assess their impact on the findings given in this report. Geotechnology will not be responsible for any claims, damages, or liability associated with any other party's interpretations of the subsurface data or with reuse of the subsurface data in this report.

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Appendix A IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGINEERING REPORT

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you - assumedly a client representative - interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will <u>not</u> likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do <u>not</u> rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it;
 e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do <u>not</u> rely on an executive summary. Do <u>not</u> read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- · the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- · the composition of the design team; or
- · project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are <u>not</u> final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnicalengineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- · confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you've included the material for information purposes only. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, only from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and be sure to allow enough time to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. Geotechnical engineers are not building-envelope or mold specialists.



Telephone: 301/565-2733

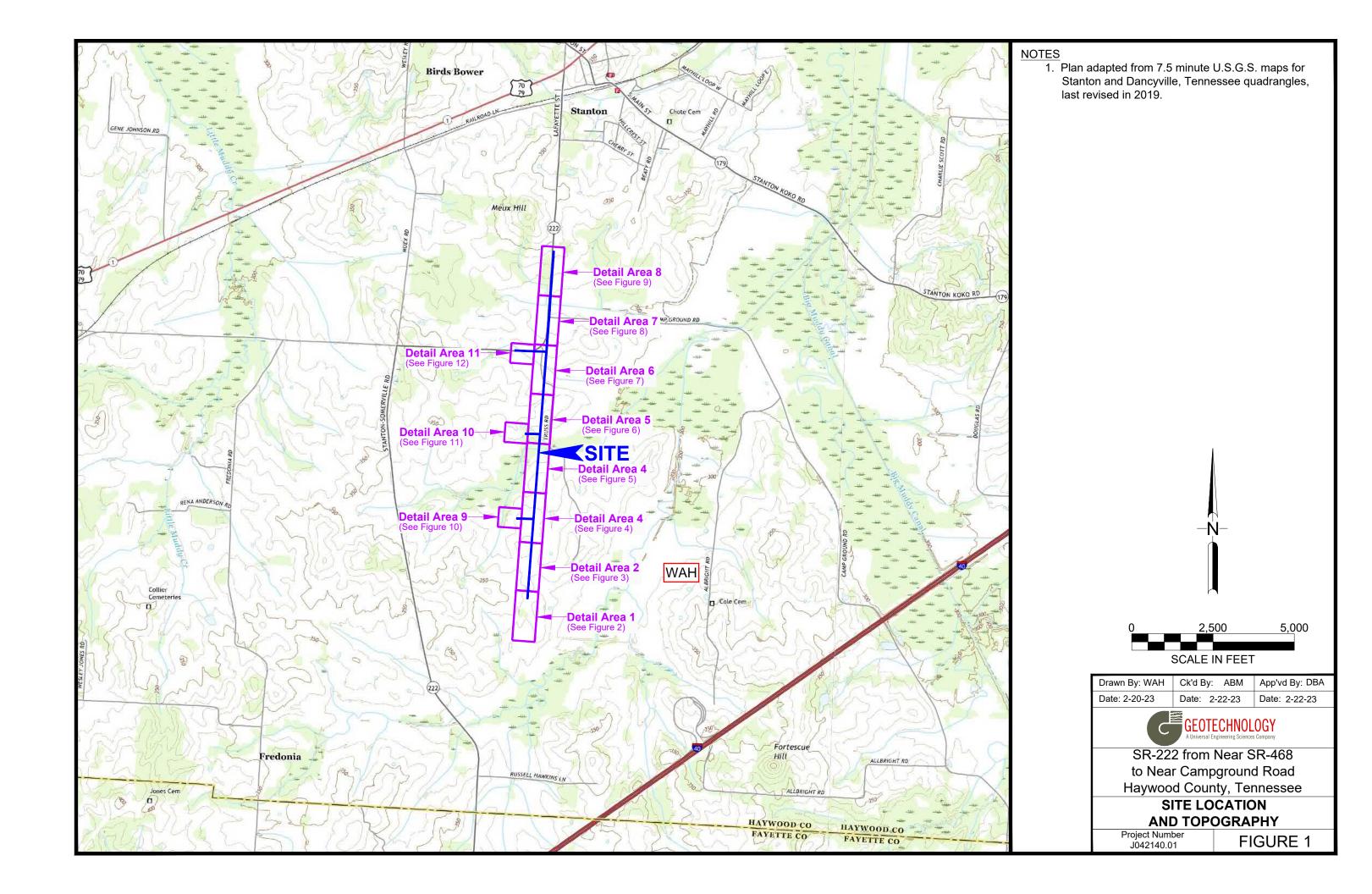
e-mail: info@geoprofessional.org www.geoprofessional.org

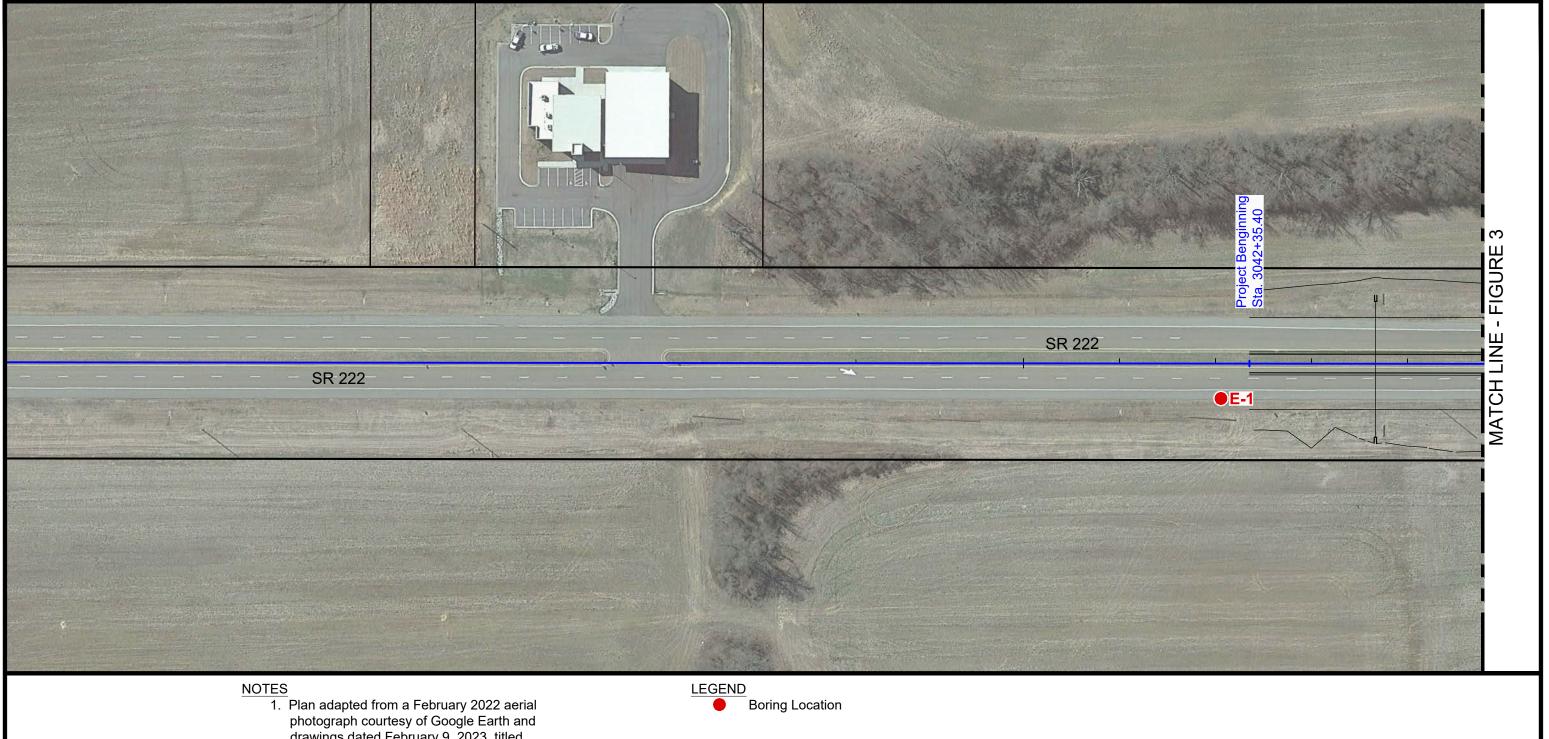
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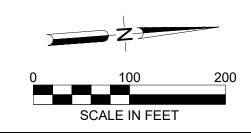
Appendix B
FIGURES AND BORING LOCATION SUMMARY





1. Plan adapted from a February 2022 aerial photograph courtesy of Google Earth and drawings dated February 9, 2023, titled "Proposed Layout", prepared by State of Tennessee Department of Transportation.

2. Borings were located in the field by the project surveyor.



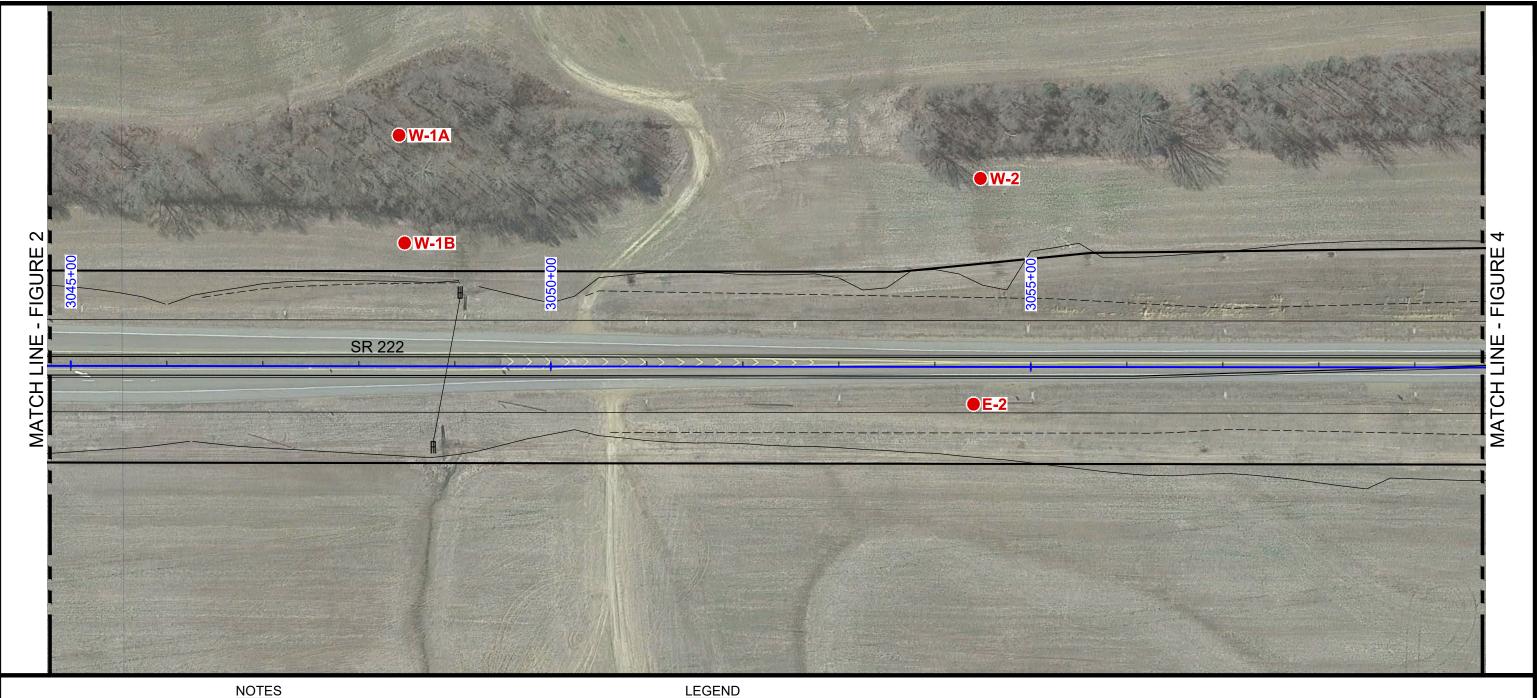
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Drawn By: WAH	Ck'd By: ABM	App'vd By: DBA



SR-222 from Near SR-468 to Near Campground Road Haywood County, Tennessee

AERIAL PHOTOGRAPH OF DETAIL AREA 1 AND BORING LOCATIONS

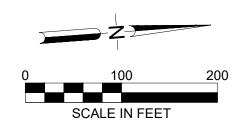
Project Number J042140.01 FIGURE 2



1. Plan adapted from a February 2022 aerial photograph courtesy of Google Earth and drawings dated February 9, 2023, titled "Proposed Layout", prepared by State of Tennessee Department of Transportation.

2. Borings were located in the field by the project surveyor.

LEGEND Boring Location



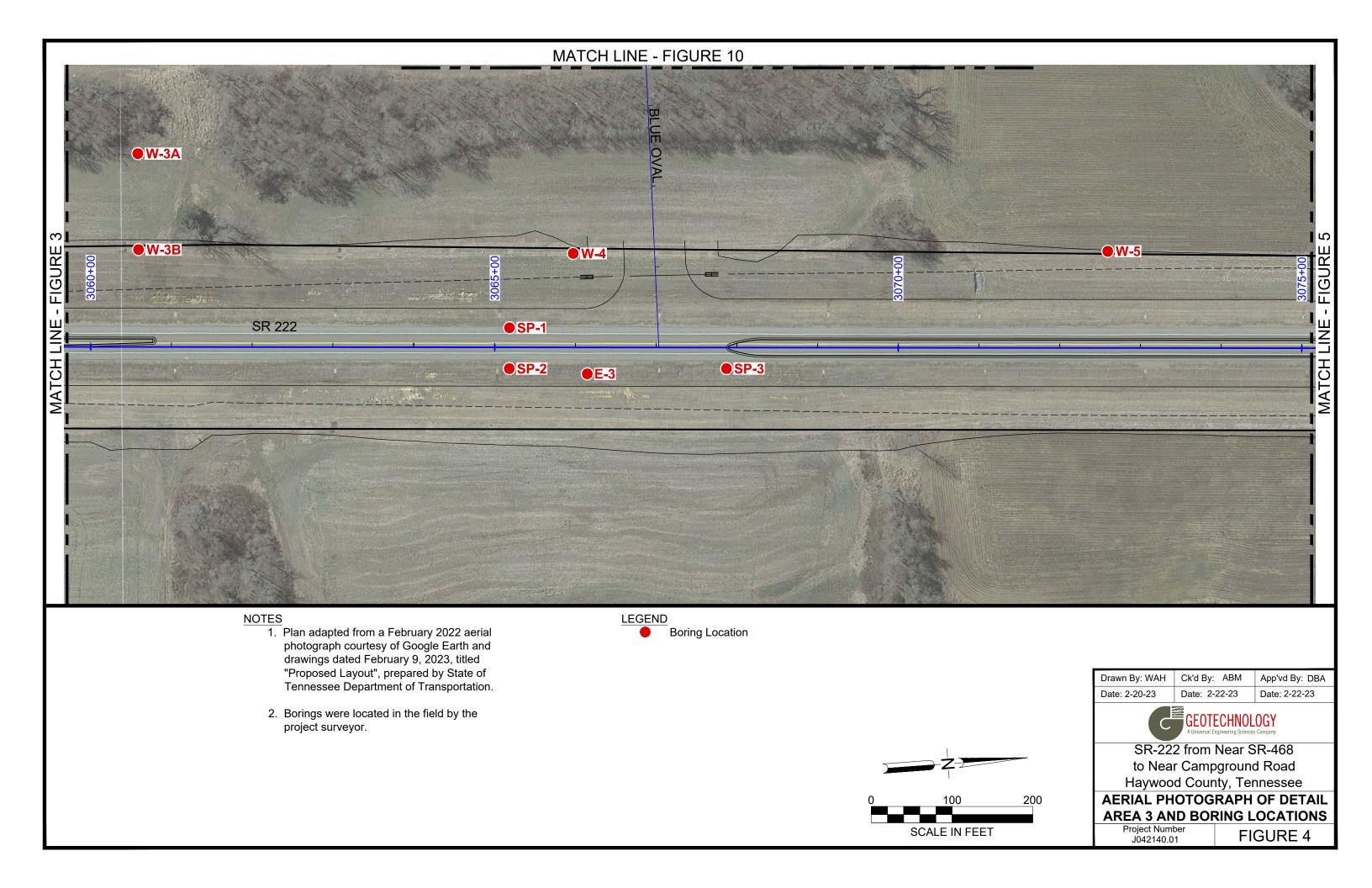
Drawn By: WAH	Ck'd By: ABM	App'vd By: DBA
Date: 2-20-23	Date: 2-22-23	Date: 2-22-23

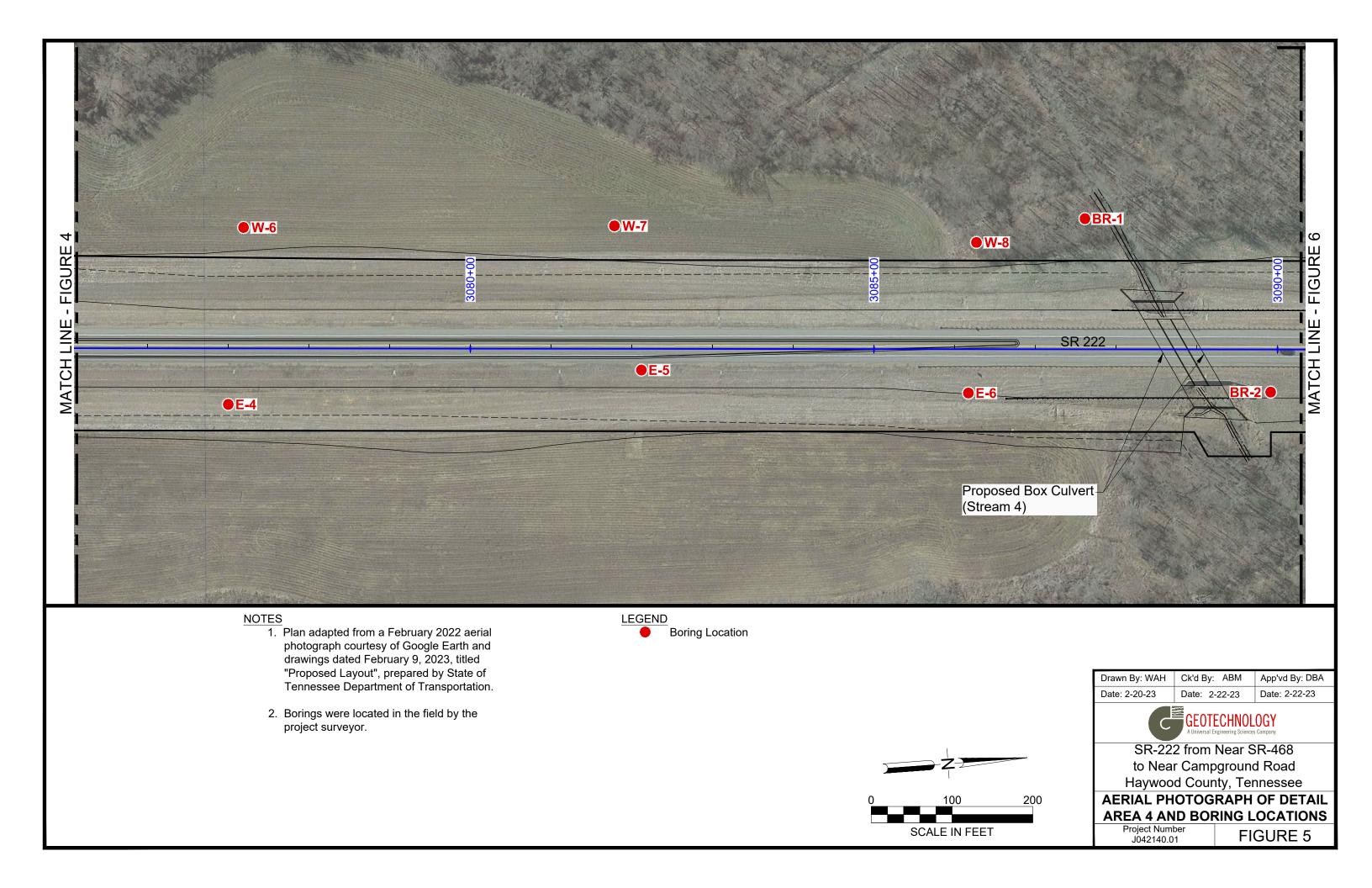


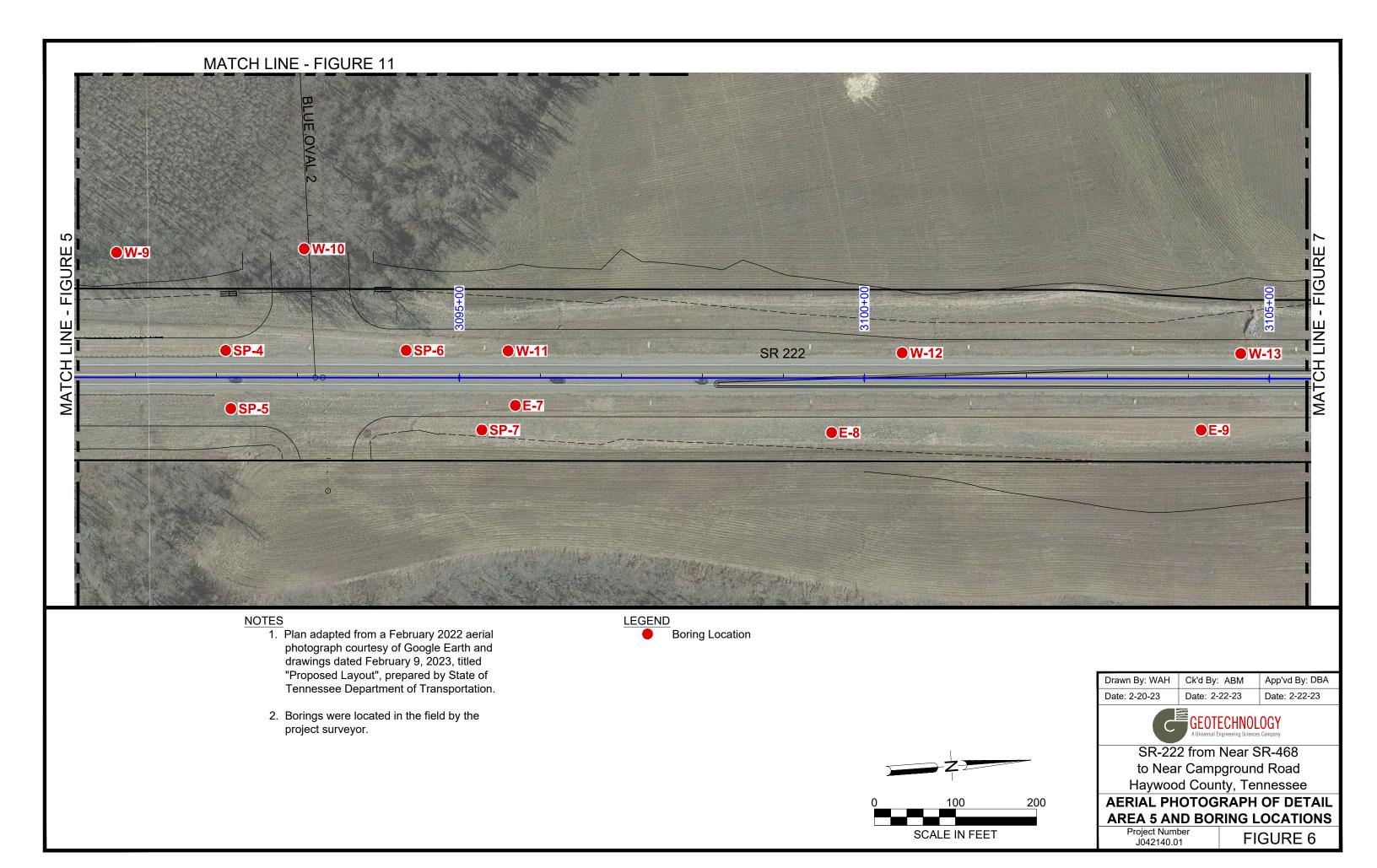
SR-222 from Near SR-468 to Near Campground Road Haywood County, Tennessee

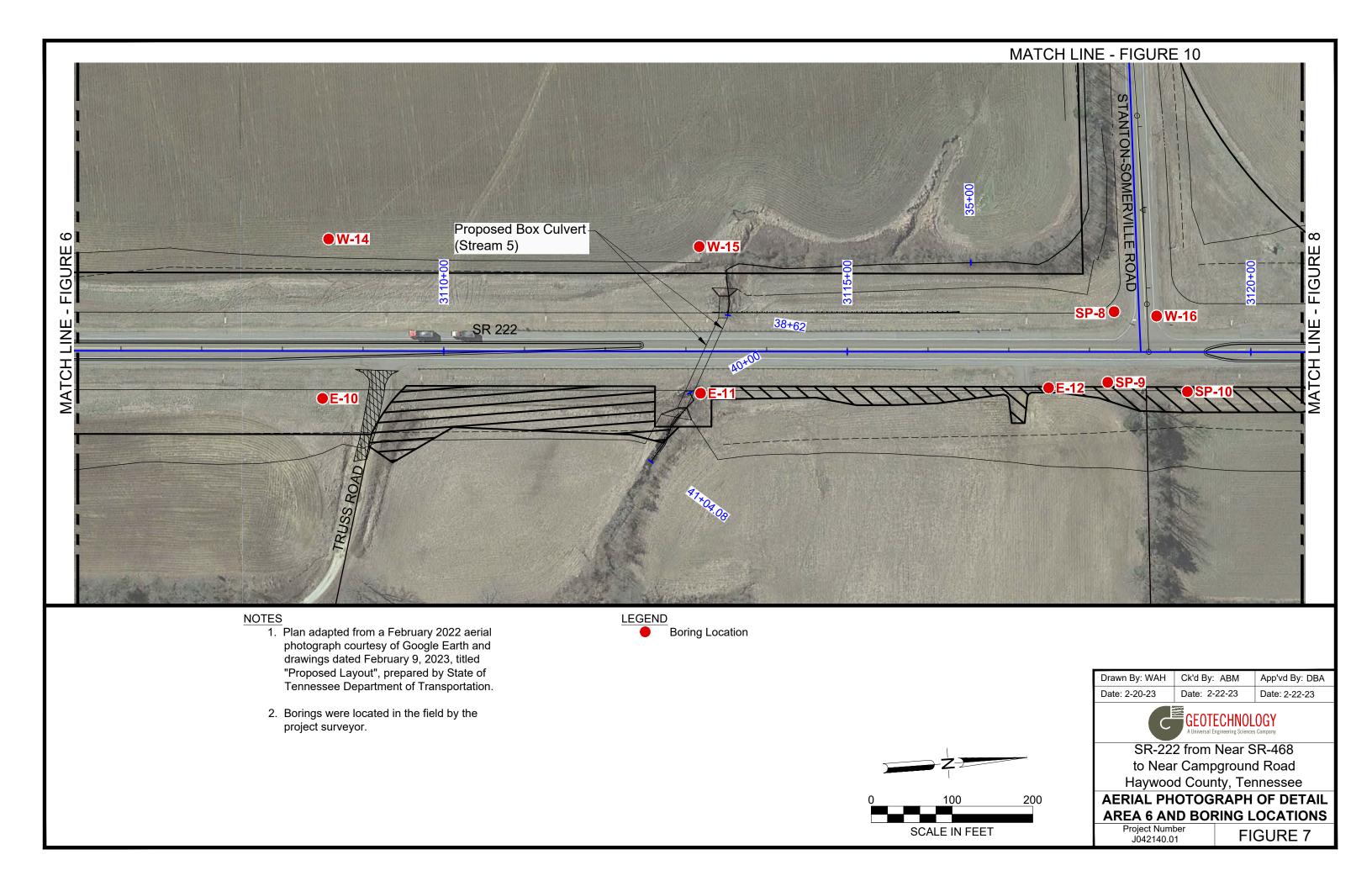
AERIAL PHOTOGRAPH OF DETAIL AREA 2 AND BORING LOCATIONS

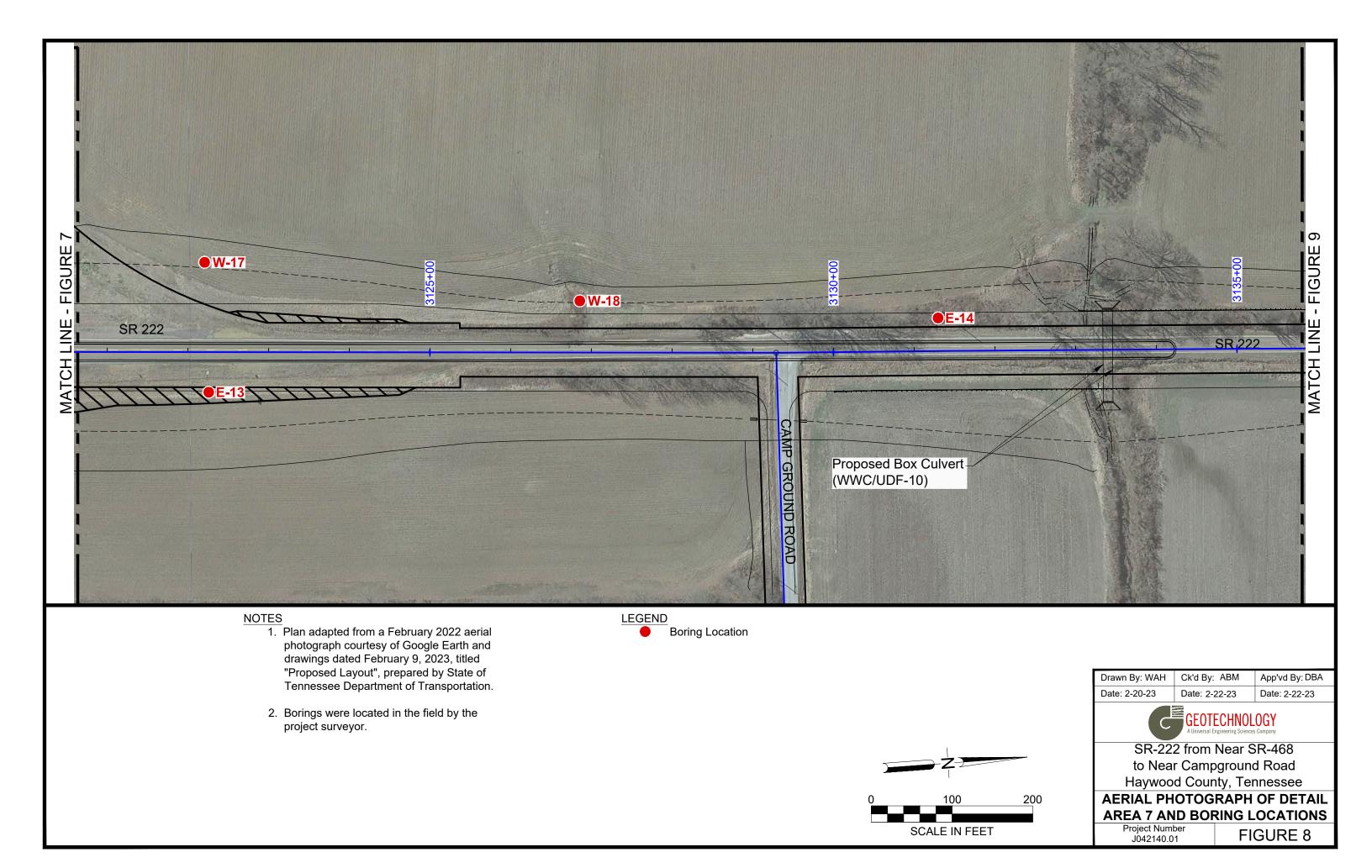
Project Number J042140.01 FIGURE 3

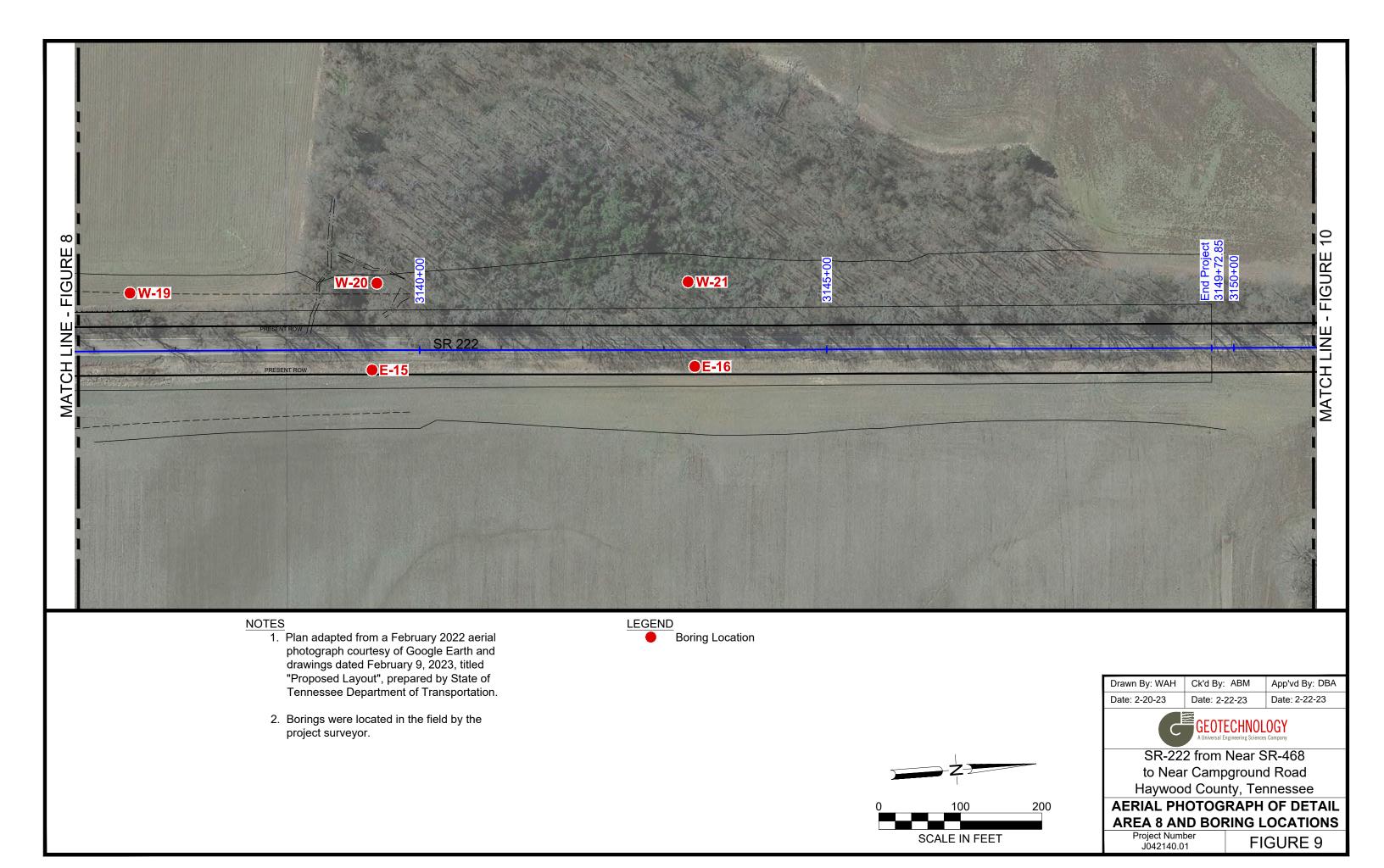














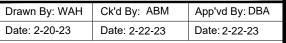
MATCH LINE - FIGURE 4

NOTES

- 1. Plan adapted from a February 2022 aerial photograph courtesy of Google Earth and drawings dated February 9, 2023, titled "Proposed Layout", prepared by State of Tennessee Department of Transportation.
- 2. Borings were located in the field by the project surveyor.

LEGEND Boring Location







SR-222 from Near SR-468 to Near Campground Road Haywood County, Tennessee

AERIAL PHOTOGRAPH OF DETAIL AREA 9 AND BORING LOCATIONS

> Project Number J042140.01

FIGURE 10



MATCH LINE - FIGURE 6

NOTES

- 1. Plan adapted from a February 2022 aerial photograph courtesy of Google Earth and drawings dated February 9, 2023, titled "Proposed Layout", prepared by State of Tennessee Department of Transportation.
- 2. Borings were located in the field by the project surveyor.

LEGEND 200 **Boring Location** SCALE IN FEET

Drawn By: WAH Ck'd By: ABM App'vd By: DBA Date: 2-20-23 Date: 2-22-23 Date: 2-22-23



SR-222 from Near SR-468 to Near Campground Road Haywood County, Tennessee

AERIAL PHOTOGRAPH OF DETAIL AREA 10 AND BORING LOCATIONS

Project Number J042140.01

FIGURE 11



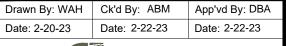
NOTES

 Plan adapted from a February 2022 aerial photograph courtesy of Google Earth and drawings dated February 9, 2023, titled "Proposed Layout", prepared by State of Tennessee Department of Transportation.

2. Borings were located in the field by the project surveyor.

LEGEND Boring Location







SR-222 from Near SR-468 to Near Campground Road Haywood County, Tennessee

AERIAL PHOTOGRAPH OF DETAIL AREA 11 AND BORING LOCATIONS

Project Number J042140.01

FIGURE 12

		Lo	cation		Elevation	Termination
Boring No.	SR-222 Station	Offset	Northing	Easting	(feet)	Depth (feet)
E-1	3042+05.23	36.35	412743.98	953613.52	340.4	15
W-1A	3048+41.09	-240.63	413399.22	953386.17	340.7	30
W-1B	3048+47.07	-128.4	413396.57	953498.53	333.5	15
E-2	3054+39.80	38.79	413974.72	953710.73	329.2	15
W-2	3054+46.81	-196.29	413999.75	953476.88	337.4	30
W-3A	3060+57.54	-239.43	414611.99	953480.75	342.4	30
W-3B	3060+58.57	-120.55	414603.89	953599.36	342.7	15
SP-2	3065+18.09	26.38	415050.77	953781.13	326.0	25
SP-1	3065+18.28	-24.23	415054.85	953730.69	326.0	25
W-4	3065+97.13	-116.34	415140.54	953644.90	329.3	15
CON-2	3066+00.74	-610.05	415182.04	953152.93	326.5	15
E-3	3066+14.72	32.75	415146.63	953794.90	324.7	15
CON-1	3067+61.44	-405.91	415326.59	953368.80	331.8	15
SP-3	3067+87.25	26.1	415319.16	953801.51	325.5	25
W-5	3072+59.43	-119.81	415801.15	953692.29	323.6	15
E-4	3077+00.09	69.38	416225.99	953914.75	317.8	15
W-6	3077+18.72	-149.75	416261.38	953697.70	322.1	15
W-7	3081+78.25	-152.27	416719.75	953730.45	313.4	15
E-5	3082+11.87	26.23	416739.57	953911.01	319.6	15
E-6	3086+17.06	54.29	417141.41	953970.10	311.9	15
W-8	3086+26.83	-132.23	417165.47	953784.87	309.1	15
BR-1	3087+61.24	-161.79	417301.75	953765.72	308.7	75*
BR-2	3089+91.55	52.8	417514.91	953997.36	309.7	80
W-9	3090+76.81	-154.16	417615.81	953797.55	309.1	15
SP-4	3092+11.61	-33.33	417740.93	953928.37	314.2	25
SP-5	3092+18.06	38.45	417741.86	954000.44	314.1	25
CON-4	3092+85.00	-842.93	417876.25	953126.80	326.8	15
W-10	3093+08.42	-158.95	417847.10	953810.56	320.0	15
CON-3	3093+17.49	-477.24	417880.57	953493.91	321.8	15
SP-6	3094+34.48	-33.69	417963.17	953945.12	316.2	25
SP-7	3095+28.03	64.48	418048.91	954050.19	316.0	25
W-11	3095+60.34	-33.22	418088.63	953955.26	316.2	25
E-7	3095+69.27	34.1	418092.36	954023.06	317.4	15
E-8	3099+59.81	67.19	418479.21	954086.03	321.2	15
W-12	3100+46.79	-31.29	418573.49	953994.52	319.5	15
E-9	3104+16.03	63.52	418934.37	954117.40	325.3	15
W-13	3104+64.77	-30.81	418990.20	954027.09	321.0	15
E-10	3108+49.86	58.63	419367.29	954145.83	315.1	15
W-14	3108+57.23	-138.86	419389.80	953949.49	314.2	15
W-15	3113+16.42	-129.95	419846.95	953993.62	311.6	15
E-11	3113+18.31	51.77	419834.88	954174.95	311.5	15
E-12	3117+49.53	44.55	420265.39	954200.85	317.3	15
CON-7	3118+08.95	-1055.54	420409.08	953108.57	318.3	15
SP-9	3118+22.73	37.63	420338.90	954199.58	320.0	25
CON-6	3118+28.13	-734.39	420403.55	953430.25	319.3	 15
SP-8	3118+30.52	-49.98	420353.39	954112.82	319.8	25
CON-5	3118+52.27	-435.47	420404.67	953730.14	320.3	15
W-16	3118+83.21	-44.6	420405.52	954122.23	321.1	15

		Lo	cation		Elevation	Termination
Boring No.	SR-222 Station	Offset	Northing	Easting	(feet)	Depth (feet)
SP-10	3119+21.47	48.98	420436.47	954218.47	319.0	25
W-17	3122+20.82	-111.34	420747.25	954081.60	320.9	15
E-13	3122+26.10	49.68	420740.15	954242.55	319.2	15
W-18	3126+85.69	-64.07	421207.12	954164.42	315.7	15
E-14	3131+29.98	-40.95	421648.15	954219.17	311.7	15
W-19	3136+44.65	-71.41	422163.77	954224.16	313.2	15
E-15	3139+41.54	24.49	422453.10	954340.86	314.9	15
W-20	3139+47.51	-82.06	422467.08	954235.06	315.9	15
W-21	3143+29.78	-83.69	422848.38	954262.24	326.5	15
E-16	3143+37.91	20.32	422848.66	954366.57	318.1	15

Geotechnical Data Report SR-222 From Near SR-468 To Near Campground Rd Haywood County, Tennessee March 9, 2023 | Geotechnology Project No. J042140.01 | TDOT Pin No. 132709.00



Appendix C
BORING INFORMATION

		Datum	ation: 340.4 NAD83	Completion Date: Station:3042+05.2 Offset:36.4	12/13/22	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	∆ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 1,0 1,5 2 PENETRATION	□ - SV _i 0 2 _i 5
	DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	TEDIAL	GRAPI	JNIT V BLOV EREC	SAM		(ASTM D 1586) LUE (BLOWS PE	
	DEF IN	ELEV/	DESCR	IPTION OF WA	IERIAL		DRY I SPT CORE		PI	ATER CONTENT	; % .0 50 LL
l				es of gravel		XXX					
			LEAN CLA	o medium stiff, brown a vY - (CL)	and gray, silty,		1-9-10	SS1		₩ : : : : : : : : : : : : : : : : : : :	
L			→ 95% passi	ng No. 200 sieve							
ŀ			trace organ	nics			7-13-10	SS2		• A	
İ	- 5-	335									
,							4-4-10	SS3		: ♦ : : : : : : :	
INON LINES RETRESSEN LITE AFTEROXIMALE BOUNDANIES DE I WEEN SOIL LITES THO MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.							106	ST4		•	
SES (- 10-	 330								T	·
URPC											
S P P											
STRAT							2.1.1				
	- 15-	325 _	Boring term	ninated at 15 feet.			2-4-4	SS5	4		
MAIE 3 FOR			Boning terr	illilated at 15 leet.							
C LOCAL											
APH 3APH											
	- 20 <i>-</i>	 320									
SADU/											
BE GF											
MAY.											
NO L	- 25-	 315									
2/24/1/20 THE TRANSIT											
물 -											
24/29 -											
GPJ 2	- 30 <i>-</i>	310-									
0638301.											
GTINC 06											
GINT.GPJ									Drawn by: SEM	Checked by: ABM	App'vd. by: DBA
			NDWATER D		<u>DRILLING I</u>				Date: 12/21/22	Date: 2/20/23	Date: 2/20/23
J042140.01	ENC	<u>X</u> FF OUNTF	REE WATER N RED DURING	OT DRILLING	AUGER <u>3 3/4"</u> H					GEOTECHN	ULUCY
		-			WASHBORING FRO				(A Universal Engineering Sci	
VATIC					<u>CME 750X</u> DR					<u> </u>	
1-ELE					HAMMER TYP				From Near SR	SR-222 R-468 To Near Ca	amparound Rd
20 JDM	REI	MARKS	: -		HAMMER EFFICIE	NCY _	84_%		Haywo	ood County, Ten	nessee
OG OF BORING 2020 JDM - ELEVATIONS	IXE.	VI AI AI A							LC	OG OF BORING:	E- 1
.0G OF									Pro	ject No. J0421	40.01

	ce Eleva Datum	ation: 340.7 NAD83	Completion Date: <u>12/27/23</u> Station: 3048+41.1 Offset: <u>-240.6</u>) LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	ES.	Δ - UU/2 0 _i 5 1		□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF MATERIAL	GRAPHIC LOG	GRAPHIC Y UNIT WE PT BLOW (SAMPLES	STANDARD PENETRATION RESISTANCE (ASTM D 1586) N-VALUE (BLOWS PER FOOT) WATER CONTENT, %			
	빌목				S CO		PL	•	10 50 LI
		Topsoil: 6		- xt 1/2. x					
		Medium si	tiff to stiff, gray, silty, LEAN CLAY - CL		2-3-4	SS1	: : \ : : : : : :	. • : : : : : :	
					3-4-5	SS2			
- 5-	336				3-4-5	002		<u> </u>	
		Medium st	tiff to stiff, gray, FAT CLAY - (CH)						
			, 5 3,		2-3-3	SS3		•	
					102	ST4	· · · · · · Δ · · ·		
- 10 -	 331								
		Medium st	tiff to stiff, brown and gray, sandy, LEAN		0.0.4	005			
- 15	 326	CLAY, trad	ce organic - (CL)		2-3-4	SS5	🛦		
					4-3-5	SS6	: : : 🛦 : : : : :		
- 20	 321					-			
		2004							
		. ~ 69% passi	ing No. 200 sieve		2-2-3	SS7	: 🛦: : : : : : : : : : : : : : : : : :	: ::::::: ::	
- 25	 316								
- 30	 311				3-5-6	SS8	🛦	•	
- 00	011	Boring teri	minated at 30 feet.						
							Drown by: NMPG	Chocked by: ARM	Applyd by: DBA
	<u>GROU</u>	NDWATER D	DATA DRILL	NG DATA			Drawn by: NMRG Date: 1/5/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		REE WATER N RED DURING		FROM_	FEET			GEOTECHN A Universal Engineering Sc	OLOGY elences Company
REM	MARKS	:		X_DRILL R TYPE Aut	<u>:0</u>		From Near SR Haywo	SR-222 -468 To Near Co od County, Ten	ampground R nessee
							LOC	G OF BORING:	W- 1A

	ce Eleva	tion: 333.5	Completion Date: 12/22/22 Station:3048+47.1 Offset: -128.4		907	GHT (pcf) OUNTS ERY/RQD	ES		UU, 0 _: 5	/2		TREN() - QU/2 1 _, 5		<u> </u>	- SV 2.5
DEPTH IN FEET	DESC IN FEET DESC		ESCRIPTION OF MATERIAL		GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	STANDARD PENETRATION RESISTANCE (ASTM D 1586) A N-VALUE (BLOWS PER FOOT)							
DE N	ELEV IN P	DEGGI	di fiore of w	AILMAL		ORY SP		PL⊩	10		ATER 20	CONT 30	ENT 4		<u></u> ⊢ L
			es of gravel												
		Medium st	tiff to hard, brown, LE	EAN CLAY - (CL)		6-3-3	SS1								
						0-0-0	001	•	: :				: :		
		─ 97% pass	ing No. 200 sieve				0.70] : : :				
_	000					118	ST2				• : <u> </u>				
— 5 —	-329 -														
		Medium st	tiff to stiff, brown to g	ray, clayey SILT - ML		5-4-4	SS3								
								: : : -			1				
											: : :				
40	004					4-5-9	SS4			A	[•]				
— 10—	324														
		Stiff, gray	to brown, silty, LEAN	CLAY - CL											
— 15—	-3 19					3-4-5	SS5		A		• : :				
13	319	Boring ter	minated at 15 feet.												
20	 314														
_ 20_	314														
	-3 09 -														
25									: :						
									: :						
— 30 —	-304														
									: :				: :		
								: : : :					: :		
								: : : :					: :		
<u> </u>								Drawn	pv.	GBR	Chec	ked by: A	ABM	App'vd. k	ov: DRA
	GROUN	IDWATER D	<u>DATA</u>	DRILLING	DATA			Date:			_	: 2/20/23		Date: 2/2	
		EE WATER N		AUGER <u>3 3/4"</u>	HOLLO	W STEM			1						2
ENC	OUNTER	RED DURING	DRILLING	WASHBORING FF	ROМ	FEET				C	GE	OTEC	HN	JLOGY	
				KJB DRILLER (GBB_LC	GGER			•		A Univ	ersal Enginee	ring Scie	ences Compan	у
				<u>CME 750X</u> D	RILL R	G						_			
				HAMMER TY	PE Aut	<u>0</u>		From	No	ar QE		R-222	r Ca	mpgroi	ınd D
DE	MARKS:			HAMMER EFFICI	ENCY_	84_%		10111	Н	aywo	ood Co	ounty,	Teni	nessee	and K
ENCO	(CATAN									LO	G OF	BORIN	G: \	W- 1B	
										Dro	ioct N	No. J0	424	40.04	

		Completion Date: 12/13/22 Station: 3054+39.8 Offset: 38.8			DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	LES	Δ - UU/2 0 _i 5 1		□ - SV :0 2,5		
		DESCRI	PTION OF MATERIAL	GRAPHIC LOG	RY UNIT WI SPT BLOW ORE RECO	SAMPLES	STANDARD PENETRATION RESISTANCE (ASTM D 1586) N-VALUE (BLOWS PER FOOT) WATER CONTENT, % PL				
	Ш	Fill: 6 inche	s of gravel				10 2	20 30 4	10 50		
			and gray, silty, LEAN CLAY, trace		3-5-6	SS1		• • • • • • • • • • • • • • • • • • • •			
- 5-	 324				3-6-8	SS2	111111	•:::::::			
		trace grave			3-4-6	SS3		•: : : : : : : : : : : :			
- 10-	319 <i></i>				2-4-6	SS4	111141111	• : : : : : : : : : : : : : : : : : : :			
10	010										
		Medium stif	f, tan, gray and brown, FAT CLAY, little		3-3-4	SS5					
— 15—	 314	-	inated at 15 feet.								
- 20-	 309										
- 25-											
20	304										
— 30 —	 299										
							Drawn by: SEM	Checked by: ABM	App'vd. by: DBA		
		NDWATER DA		IG DATA	NA OTENA		Date: 12/21/22	Date: 2/20/23	Date: 2/20/23		
ENC		REE WATER NO RED DURING D		FROM	FEET			GEOTECHN A Universal Engineering Sc			
REM	MARKS	:	CME 750X HAMMER T	_DRILL R FYPE <u>Aut</u>	IG <u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R nessee		
- 1							LC	G OF BORING:	E- 2		
							Pro	ject No. J0421	140.04		

	ce Elevat Datum N	ion: 337.4	Completion Date: <u>12/27/23</u> Station:3054+46.8 Offset: -196.3	907	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SII	Δ - UU/2 0 _i 5 1		□ - SV					
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF MATERIAL		GRAPHIC LOG	UNIT WEI T BLOW C E RECOVE	SAMPLES	STANDARD PENETRATION RESISTANCE (ASTM D 1586) N-VALUE (BLOWS PER FOOT) WATER CONTENT, %							
¤Z │	E'E				PR SP COP		PI		10 50 LI					
			es of gravel											
		Medium st CLAY - (C	iff to stiff, brown and gray, silty, LEAN L)		2-2-4	SS1								
		•	,											
- 5-	-332-				2-2-4	SS2	🛦	•						
					2-3-4	SS3	: : : : : : : : : : : : : : : : : : :	•: : : : : : : : : : : : : : : : : : :						
					2-3-3	SS4	1:4:::::	• : : : : : : : :						
- 10 -	-327 -													
						005								
- 15	-322-				2-4-4	SS5	4							
					98	ST6	: : : : : : : : : : : : : : 4 	•	 ! : : : : :					
- 20	-317 -													
		Medium st	iff to stiff, gray and brown, sandy, LEAN		4 4 4	007								
- 25	-3 12-	CLAY - CL	-		4-4-4	SS7	春							
					4-6-4	SS8	111141111	:::: . ♦::::						
- 30	-307	Boring terr	ninated at 30 feet.	- V////										
							- · · · · · · · · · · ·							
	GROUN	IDWATER D	ATA DRILLIN	<u>G DATA</u>			Drawn by: GBB Date: 1/5/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23					
ENC		EE WATER N ED DURING	DRILLING WASHBORING F KJB DRILLER	ROM GBB_LC	FEET OGGER		C	GEOTECHN A Universal Engineering Sc	OLOGY lences Company					
REM	MARKS:		<u>CME 750X</u> HAMMER T HAMMER EFFI	YPE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R nessee					
							LO	G OF BORING:	W- 2					

	ice Eleva	ation: 342.4 NAD83	Completion Date:		IGHT (pcf) COUNTS /ERY/RQD	ES	∆ - UU/2 0 _i 5 1		□ - SV _. 0 2 _. 5			
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	(ASTM D 1586) A N-VALUE (BLOWS PER FOOT) WATER CONTENT, %					
	Ш	Topsoil: 6	inches	'x¹ 1x' x'			10 2	20 30 4	0 50			
		Medium st	iff, brown and orange, silty, LEAN CLAY, nics and sand- CL		3-4-4	SS1						
		Ctiff hand	n and red, sandy, LEAN CLAY - CL									
— 5—	-337	Suii, brow	iranu reu, sanuy, LEAN CLAT - CL		2-5-7	SS2						
		Medium d - (SM)	ense, brown, gray and white, SILTY SAND		3-8-9	SS3						
		18% pass	ng No. 200 sieve		3-7-8	SS4						
_ 10_	-332-											
— 15 <i>—</i>	327				3-8-11	SS5						
13	321											
	000		nd gray, LEAN CLAY, little sand - (CL) ng No. 200 sieve		2-5-6	SS6						
20	322											
			sandy, FAT CLAY - (CH) ng No. 200 sieve		84	ST7			•			
— 25 <i>—</i>	 317											
		trace grav	el		3-4-6	SS8						
— 30 —	312	Boring ten	ninated at 30 feet.									
							Drawn by: GBB	Checked by: ABM	App'vd. by: DBA			
		NDWATER D					Date: 1/5/23	Date: 2/20/23	Date: 2/20/23			
ENC		REE WATER N RED DURING		ROM	FEET			GEOTECHN A Universal Engineering Sci				
REI	MARKS	::	<u>CME 750X</u> HAMMER T HAMMER EFFIC	YPE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground F			
							LOC	G OF BORING:	W- 3A			
							Proj	ject No. J0421	40.01			

	Surface Elevation:		Station 3060+58.6		IC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SJ-		- UI 0,5	U/2	1.	.0) - QL 1 _. 5	2	2.0	□ - SV 2 _. 5 STANCE
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	ΓERIAL	GRAPHIC LOG	UNIT WE T BLOW RE RECO	SAMPLES			N-	-VA	(AS LUE (TM D 1 BLOV	1586)	R FO	OT)
						SOO		PL	10			0	30		, 10	50 L
		Topsoil: 6	inches n and red, sandy, LEAN	CLAV CL	311////											
		Otili, brown	rand rod, sandy, LEAN	OLAT - OL		4-4-5	SS1		.							
						3-4-7	SS2		: : \			• <u>:</u> : :				
— 5 —	-338															
			brown and red, sandy, ng No. 200 sieve	FAT CLAY - (CH)		106	ST3			 /	 					6
		00 70 passii	ng 140. 200 sleve			100	010				 					
		Medium de	ense, white and red, CL	AYEY SAND - SC		5-7-9	SS4			: :	 (•					
— 10 	-333 -															
								: : :	: :							
														: : :		
— 15—	-328					6-7-9	SS5		: :	: : 4	\ :					
		Boring terr	ninated at 15 feet.						: :					: : :		
								: : :								
									: :							
— 20 –	-323 -															
— 25 —	 318															
									: :		 		· · · · · · · ·			
									: :							
														: : :		
— 30 —	3 13															
30	010							: : :						: : :		
									: :							
	GPOLIN	NDWATER D	ΔΤΔ	DRILLING [ΔΤ Δ	I	1	Draw			M	Che	cked by	: ABM	App'v	d. by: DBA
						6===		Date:	1/9	/22		Date	: 2/20/2	23	Date:	2/20/23
ENC		EE WATER N RED DURING		AUGER <u>3 3/4"</u> H							100	GF	OTE	СНИ	nın	GY
				WASHBORING FRO						(٠,	V			lences Con	npany
ENC(<u>CME 750X</u> DR												
				HAMMER TYP							-		SR-22			· · · =
REN	MARKS:			HAMMER EFFICIE				ron	n Ne	ear Hay	oK WO	od C	ounty	ear Ca , Ten	ampg ness	round Ro
										ı	-00	G OF	BOR	ING:	W- 3E	3
										P	roj	ect l	No. 、	J042′	140.0	1

	⊤	NO F				GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	_	(ASTM D 1586)	
Ī	DEPTH IN FEET	'ATI	DESCRIE	PTION OF MA	TERIAL	GR.	N E E	o)		ALUE (BLOWS PE	
		ELEVATION IN FEET	2200				SP		PI	ATER CONTENT	1, % 10 50 LL
\vdash		ш _	Topsoil: 6 inc	ches		1, 1 _k . '/	-				
F			Stiff, brown to	o tan, silty, LEAN C	LAY, trace organics		3-4-7	SS1			
r			OL.				3-4-7	331		T ::::::::::::::::::::::::::::::::::::	
L			trace metal				0.40	000			
F	- 5-	-321-					2-4-9	SS2		9	
\vdash			FAT CLAY, s	some sand - (CH)							
F				No. 200 sieve se, tan to red SAND	trace clay			ST3		 	<u> </u>
L			(SP-SC)	No. 200 sieve	, trace day -						
IN PURPOSES ONLY.	- 10	 316	10% passing	INO. 200 Sieve			4-7-8	SS4			
주 구											
2 											
<u>-</u> ≸			Stiff top and	red to gray, sandy,	LEAN CLAY trops						
APHIC LOG FOR ILLUS I RATIO	- 15	 311	organics - CL	L	LEAN CLAT, trace		3-4-5	SS5		•::::::::::::::::::::::::::::::::::::::	
<u> </u>	13	311									
3 _											
<u> </u>											
<u>}</u>			Croy EAT C	LAY, trace sand - C	ш		4-3-5	SS6	11141111	111111	
BE GRADUAL.	- 20	306 -	Gray, FAT CI	LAT, trace sand - C	п						
- FR											
MAY BE											
⊠ Z O				ı, sandy, LEAN CLA			4-7-8	SS7		•	
	- 25	3 01		n, FAT CLAY, trace on the state of the state	organics - CH						
I HE I KANSII			Borning torrini	14104 41 20 1001.							
<u> </u>											
2/24/2/3											
<u> </u>	- 30	 296									
0638301											
NC 08											
GTINC											
¬ L									T	12	1
T.GPJ			NDWATER DAT	<u>TA</u>	DRILLING	DATA			Drawn by: JSH Date: 1/30/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
01 GINT.GPJ		GROUN			AUGER <u>3 1/4"</u>	HOLLO	W STEM			OFOTFOLL	01.007
t2140.01 GINT.GPJ		<u>X</u> FR	EE WATER NO							GEOTECHN	ULUGY
J042140.01		<u>X</u> FR	EE WATER NO ^T RED DURING DE		WASHBORING F					A Universal Englessales 6-	lences Company
J042140.01		<u>X</u> FR			WASHBORING F JCG DRILLER	SEM LO	OGGER			A Universal Engineering Sc	lences Company
J042140.01		<u>X</u> FR			WASHBORING F JCG DRILLER Geoprobe D	<u>SEM</u> LO DRILL RI	OGGER G			SR-222	the state of the s
J042140.01	ENC	<u>X</u> FR OUNTEF	RED DURING DF	RILLING	WASHBORING F JCG DRILLER Geoprobe D HAMMER TY	<u>SEM</u> LO DRILL RI 'PE <u>Aut</u>	OGGER G o	eal·	From Near SR Haywo	Control () and accompanies with any expension	ampground Rd
OG OF BORING 2020 JDM - ELEVATIONS J042140.01 GINT.GPJ	ENC	X FR OUNTER	RED DURING DE	RILLING inated at initial	WASHBORING F JCG DRILLER Geoprobe D	SEM_LO DRILL RI PE Aut ue to au	OGGER G o	sal;	Haywo	SR-222 R-468 To Near Ca	ampground Rd nessee

		ce Eleva	Completion Station: 326.0 Completion Station: 3065 Offset: -2	<u>5+18.</u> 3	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5 1	EAR STRENGTH O - QU/2 O 1,5 2 PENETRATION	□ - SV 2.0 2.5
	ĦĦ HH	ELEVATION IN FEET	DESCRIPTION	AF MATERIAL	SRAPH	JNIT W BLOW RECC	SAME		(ASTM D 1586) LUE (BLOWS PE	
	DEPTH IN FEET	LEVA IN FE	DESCRIPTION C	F MATERIAL		SPT SPT SORE		PI	ATER CONTENT	LL
ŀ			Topsoil: 6 inches		124 18. 15.			10 2	20 30 4	50
ŀ			Stiff, tan and red, sandy,	LEAN CLAY - CL		3-5-8	SS1	.	•: : : : : : : : : : : : : : : : : : :	
ŀ			Very stiff, tan and red, sa	andy, FAT CLAY - (CH)		107	ST2			: : : : : : : : : : : :
ŀ	_ 5 _	 321								
,			Medium dense, white and (SC)	d pink, CLAYEY SAND -		4-6-9	SS3			
SOIL IT	40	0.40	22% passing No. 200 sie	eve		4-6-6	SS4			: : : : : : : : : : : : : : : : : : :
GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	— 10 	—316 —								
LUSTRA			∖ -CL	o white, sandy, LEAN CLAY		3-3-4	SS5	: : x : : : : : :	•	
LOG FOR IL	— 15 	 311								
GRAPHIC						5-5-5	SS6			
GRADUAL.	— 20 —	-306 -								
ION MAY			Medium dense, orange a trace organics - SC	and gray, CLAYEY SAND,		5-11-13	SS7			
ANSIT	— 25 -	 301	Boring terminated at 25 f	feet.	777					
2/24/29 THE TRANSIT										
.GPJ	- 30-	—296 —								
GTINC 0638301										
r.GPJ										
.01 GIN		GROU	NDWATER DATA	DRILLING	DATA			Drawn by: JSH Date: 1/30/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
TIONS J042140.01 GINT.GPJ	ENC		REE WATER NOT RED DURING DRILLING	AUGER <u>3 1/4"</u> WASHBORING FF <u>JCG</u> DRILLER <u>5</u>	ROM	FEET			GEOTECHN A Universal Engineering Sc	
OG OF BORING 2020 JDM - ELEVATIONS	REM	//ARKS	:	<u>Geoprobe</u> D HAMMER TY				From Near SR Haywo	SR-222 2-468 To Near Ca and County, Ten	ampground Rd nessee
BORING 2								LO	G OF BORING:	SP- 1
LOG OF								Pro	ject No. J0421	140.01

	ce Eleva	ation: <u>329.3</u>	Completion Date:	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5 1	EAR STRENGTH ○ - QU/2 1,0 1,5 2 PENETRATION	□ - SV 2,0 2 _, 5
DEPTH IN FEET	LEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPH	Y UNIT W SPT BLOW SRE RECC	SAME	A N-VA	(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT	R FOOT)
					R.00		PL 10 2	20 30 4	40 50 LI
			es of gravel n and red, sandy, FAT CLAY - CH						
		Still, blowi	Tand Ted, Sandy, FAT OLAT - OTT		5-6-9	SS1	:::::: X		
					5-7-4	SS2			
- 5-	 324								
		Medium de	ense, red, CLAYEY SAND - (SC)		7-7-9	SS3			
					1-1-9	333			
		─ 49% passi	ng No. 200 sieve			CT4	<u>.</u>		
- 10-	-3 19-					ST4			
- 10-	319								
		Medium st	iff, red and gray, sandy, FAT CLAY - CH		3-3-5	SS5			
- 15 -	 314	Boring terr	ninated at 15 feet.						
		9							
- 20	 309								
- 25	 304								
- 30 -	 299								
	GROUI	NDWATER D	ATA DRILLI	NG DATA			Drawn by: GBB	Checked by: ABM	App'vd. by: DBA
		EE WATER N					Date: 1/9/23	Date: 2/20/23	Date: 2/20/23
ENC		RED DURING					ا ے ∕	GEOTECHN	OLOGY
			KJB DRILLER					A Universal Engineering Sc	
			CME 750X						
			HAMMER	TYPE Aut	<u>o</u>		From Near SE	SR-222 R-468 To Near Ca	amnaround Pa
REM	//ARKS	:	HAMMER EFF	FICIENCY _	<u>84</u> %		Haywo	ood County, Ten	nessee
							LC	OG OF BORING:	W- 4

	ce Elevat	ation: 326.5	Completion Date Station: 3066+00. Offset: -610.1	te: <u>1/5/23</u> 7	C LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 i0 1i5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF N	MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-VA WA	(ASTM D 1586) LUE (BLOWS PE	ER FOOT)
	Ш	Topsoil: 5	inches		17. 18. 17.			10 2		+0 50
				ty, LEAN CLAY - CL		2-4-4	SS1	.		
						2-5-6	SS2		• • • • • • • • • • • • • • • • • • • •	
— 5— ———	-322-					2.5.0	200			
						3-5-6	SS3	.	•	
— 10 —	317					3-5-8	SS4	::::: x :::		
45			n, sandy, LEAN CL	AY - CL		3-5-6	SS5	A • .		
— 15— ———	312	Boring terr	minated at 15 feet.							
	-307-									
— 25—	-302-									
— 30—	 297									
		IDWATER D		DRILLING				Drawn by: GBB Date: 1/5/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N ED DURING		AUGER <u>3 3/4"</u> WASHBORING FR <u>KJB</u> DRILLER <u>(</u>	ROМ	FEET			GEOTECHN A Universal Engineering So	
RFI	MARKS:			<u>CME 750X</u> D HAMMER TYI HAMMER EFFICI	PE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Cod County, Ter	ampground Ro
								LOG	OF BORING:	CON-2
								Proi	ject No. J042	140 01

Surfa	ce Eleva	ation: 324.7	Completion Date: Station:3066+14.7	12/13/22	9	T (pcf) NTS //RQD		SF ∆ - UU/2	HEAR STRENGTH	l, tsf □ - SV
DEPTH IN FEET	LEVATION IN FEET		Offset: 32.8	EDIAI	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	STANDARD	PENETRATION (ASTM D 1586) ALUE (BLOWS PE	R FOOT)
DEI	ELEV.	DESCIN	III HOR OF WAT	LINAL		ORY SP CORI		PL I 10	20 30 4	-, % 0 50 LL
			es of gravel		XXX					
		Loose, gra	y and red, CLAYEY SAN	ID - SC		2-3-7	SS1		•	
- 5-	—320 —	Stiff, tan, g organics -	gray and red, sandy, FAT CH	CLAY, little		2-3-6	SS2	A		
		- SC little organ	ense, tan to gray and red ics ng No. 200 sieve	, CLAYEY SAND			ST3			• • • • • • • • • • • • • • • • • • • •
— 10—	-3 15-	33 /0 passi	ng No. 200 sieve			4-4-8	SS4			
10	010									
		Medium de	ense, tan, gray and red S	AND, trace clay -	<i>V 1 / 1</i>	3-9-9	SS5			
— 15—	310	Boring terr	ninated at 15 feet.							
_ 20-	-305-									
— 25 <i>—</i>	-300-									
— 30 —	—295 —									
	GROU	NDWATER D	<u>ATA</u>	DRILLING I	DATA			Drawn by: SEM Date: 12/21/22	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC!		REE WATER N RED DURING		AUGER <u>3 3/4"</u> F WASHBORING FRO <u>KJB</u> DRILLER <u>G</u>	МС	FEET		C	GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS	:		CME 750X DF HAMMER TYP HAMMER EFFICIE	E Aut	<u>o</u>		From Near S Hayw	SR-222 R-468 To Near Ca ood County, Ten	ampground Ro nessee
								L	OG OF BORING:	E- 3
								Pro	oject No. J0421	140.01

	ce Elevat	331.8 AD83	Completion Date Station:3067+61.4 Offset: -405.9	1/5/23	C LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5	1 _i	AR STRENGTH O - QU/2 0 1,5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	A N	-VAL WA	(ASTM D 1586) LUE (BLOWS PE TER CONTENT	R FOOT) [, %
	<u> </u>	Topsoil: 5	inches		.74 1 ^N . 'V			10	20	0 30 4	10 50
			o hard, brown and tar	, clayey SILT - ML		4-9-13	SS1		: : : • : •	A	
- 5-	-327-					5-14-18	SS2	: : : : : • : : : : : : • :			
		Very stiff to ML	o hard, brown, tan and	d red, sandy SILT -		5-11-15	SS3		 . •		
— 10—	-322-					8-20-23	SS4	· · · · · · · · · · · · · · · · · · ·	· ·		A
10-	J22 —										
		Medium de	ense, brown and red,	CLAYEY SAND - SC		4-7-11	SS5				
— 15 	317	Boring tern	ninated at 15 feet.								
_ 20_	-312-								 		
_ 25_	-307-										
— 30 —	-302 -										
								Drawn by: GE	···	Checked by: ABM	App'vd. by: DBA
	GROUN	IDWATER D	<u>ATA</u>	DRILLING	DATA	:		Date: 1/5/23		Date: 2/20/23	Date: 2/20/23
ENC		EE WATER N ED DURING		AUGER <u>3 3/4"</u> WASHBORING FI KJB DRILLER	ROM_	_ FEET				GEOTECHN A Universal Engineering Sc	
REV	MARKS:			CME 750X I HAMMER TY HAMMER EFFIC	ORILL R 'PE <u>Au</u>	IG to		From Near Hay	SR-	SR-222 468 To Near Ca od County, Ten	ampground R
I XIIII								L	_OG	OF BORING:	CON-1
								E)roi	ect No. J0421	140.04

			ation: 325.5	Completion Date Station:3067+87.3 Offset: 26.1	1/26/23	507.0	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	LES		· UU/2 0 _. 5	0 1 _i 0		l, tsf □ - SV 2,0 2,5 RESISTANCE
	DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	ATERIAL	GRAPHIC LOG	/ UNIT WI PT BLOW RE RECO	SAMPLES	JIA	▲ N-V	(AST ALUE (E	M D 1586) BLOWS PE	R FOOT)
	ΔZ	ELE					S S S S S S S S S S S S S S S S S S S		PL	10	20	•	10 50 LL
			Topsoil: 6			1////							
ŀ			LEAN CLA	y stiff, brown and red XY - (CL) ng No. 200 sieve	to gray, sandy,		3-4-7	SS1		X ∷ ⊢		: : : : : 	
ŀ	_ 5-						2-7-7	SS2			• • • •		
ŀ							3-5-6	SS3		A			
IL IYPES ONLY.							99	ST4		· · · · · · · · · · · · · · · · · · ·			
LINES REPRESENT THE APPROXIMATE BOUNDARIES BE IWEEN SOIL TYPES I MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	— 10 <i>—</i>	316-											
ARIES BEI RATION PI													
BOUND/	— 15—	 311	trace orgai	nics			3-9-8	SS5				<u>:•::::</u>	
SOXIMATE CLOG FOI													
APPI			<u> </u>										
SENT THE SUAL. GR	_ 20_	 306	Stiff, gray,	FAT CLAY - CH			3-4-6	SS6		A : : :			
S REPRES BE GRAD													
	0.5	004	Very stiff, (gray and tan, sandy, l	EAN CLAY - CL		3-6-12	SS7				• • • • • • • • • • • • • • • • • • • •	
STRATIFICAT	— 25 — ———	301	Boring terr	ninated at 25 feet.									
NOTE: ST													
GPJ	— 30 —	 296											
GTINC 0638301													
GPJ													A
01 GINT.		GROU	NDWATER D	<u>ATA</u>	DRILLING	DATA				by: JSH 1/30/23	_	ked by: ABM 2/20/23	App'vd. by: DBA Date: 2/20/23
VS J042140.01	ENC		REE WATER N RED DURING		AUGER <u>3 1/4"</u> WASHBORING FR	ROМ	FEET			\subset	GEO	OTECHN ersal Engineering Sc	OLOGY
ATIO					JCG DRILLER S				-		A PERCUNI		450 (45 18 20 47 HB) [*] (47 18 18 19
OG OF BORING 2020 JDM - ELEVATIONS	RFI	MARKS	S: ST4 too di	sturbed for shea	Geoprobe D HAMMER TY				From	Near S Hayw	S R-468 T ood Co	R-222 o Near Co ounty, Ten	ampground Rd nessee
BORING 20			017 too ui		ogui tootiiigi					L	OG OF I	BORING:	SP- 3
LOG OF										Pro	oject N	lo. J042	140.01

		tion: 323.6 Completion Date Station: 3072+59.4	e: <u>12/21/22</u>)G	HT (pcf) JNTS Y/RQD		Δ - UU	/2	C - QU/2	□ - SV
DEPTH IN FEET	LEVATION IN FEET	Offset: -119.8 DESCRIPTION OF M	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	PLI—	N-VA	PENETRATION (ASTM D 1586) LUE (BLOWS PE	R FOOT)
		Fill: 6 inches of grovel					10	2	20 30 4	0 50
		Fill: 6 inches of gravel Medium stiff, brown, red and gr CLAY - CL	ray, sandy, LEAN		3-3-5	SS1		: : : : : •		
- 5-	-3 19-				3-3-4	SS2]			
					4.4.5	000				
					4-4-5	SS3				
		Stiff, brown to red, silty, LEAN	CLAY - CL		3-5-7	SS4			• : : : : : : : : : : : : : : : : : : :	
- 10-	314									
					2-4-6	SS5				
— 15—	309	Boring terminated at 15 feet.			240	000				
- 20-	-304 -									
- 25-	—299 —									
- 30 -	294									
	GROUN	IDWATER DATA	DRILLING D	<u>ATA</u>			Drawn by: Date: 1/13		Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER NOT EED DURING DRILLING	AUGER <u>3 3/4"</u> H WASHBORING FRO <u>KJB</u> DRILLER <u>JJ</u>	ОМ	FEET			الح	GEOTECHN A Universal Engineering Sci	
RFN	MARKS:		<u>CME 750X</u> DR HAMMER TYPE HAMMER EFFICIE	E <u>Aut</u>	<u>o</u>		From Nea	ar SR aywo	SR-222 -468 To Near Ca od County, Ten	ampground Rd nessee
								LO	G OF BORING:	W- 5
								Proj	ject No. J0421	40.01

	ce Elevat	iad 1317.8	Completion Date Station:3077+00.1 Offset: 69.4	12/13/22	C LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	(· UU/2 0 _. 5	! 1.	O - QU/2 1,5	2	□ - SV
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	PL I		I-VA	(ASTM D 158 LUE (BLOWS ATER CONTI	6) PEF	R FOOT) , %
		Fill: 6 inche	es of gravel and strav	V					-				
		Very stiff, r	red-brown, clayey SIL	T, little sand - ML		3-7-12	SS1			 D 			
— 5 -	-313-	Stiff to very	y stiff, red and brown	, sandy, LEAN CLAY		5-7-8	SS2		· · ·	A			
						4-9-11	SS3		 				
		Medium de SAND - SO	ense, red, brown and	gray, CLAYEY		6-12-12	SS4						
— 10 —	308-												
— 15—	303					4-12-13	SS5			 	A		
10		Boring terr	minated at 15 feet.										
_ 20_													
25	— 293 —												
— 30 —	<u>288</u>												
										- :			
	GROUN	IDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn Date:			Checked by: A Date: 2/20/23	BM	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N EED DURING		AUGER <u>3 3/4"</u> WASHBORING FF KJB DRILLER	ROM	FEET					GEOTEC A Universal Engineer		
RFN	MARKS:			CME 750X DE HAMMER TY HAMMER EFFIC	PE Aut	<u>o</u>		From	Near Ha	· SR ywo	SR-222 -468 To Nea od County, ⁻	r Ca Tenr	mpground R
. (_1)										LO	G OF BORI	NG:	E- 4
										Proi	ect No. J0	121	<i>4</i> 0 01

	ce Eleva [.] Datum <u>N</u>	ian: 322.1	Completion Date: 12/21/22 Station: 3077+18.7 Offset: -149.8	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	JLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV 2,0 2 _, 5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF MATERIAL	GRAPHI	RY UNIT W SPT BLOW ORE RECO	SAMPLES	M N-VA	(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	R FOOT)
	<u>п</u> _	Tanaaili C	inahaa	124 1×1. 1			10 2	20 30 4	40 50 -
		Topsoil: 6 Medium st LEAN CLA	tiff to very stiff, brown, tan and gray, silty,		3-2-4	SS1		· · · · · · · · · · · · · · · · · · ·	
- 5-	317				3-4-5	SS2	::: X :::::	: • : : : : : : :	
					3-4-5	SS3			
					0 4 0		-		
					3-4-6	SS4			
10	3 12								
		─ trace sand	1						
15	307		minated at 15 feet.		3-7-10	SS5			
		boning ten	minated at 15 leet.						
- 20	-302-								
- 25	 297								
- 30	 292								
	GROUN	IDWATER D	ATA DRILLI	NG DATA			Drawn by: GBB Date: 1/13/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N RED DURING		FROM_	FEET			GEOTECHN A Universal Engineering Sc	
REM	MARKS:			X_DRILL R TYPE <u>Aut</u> FICIENCY	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground Ro nessee
							LO	G OF BORING:	W- 6
							1		

	ce Elevat Datum <u>N</u>	ion: 313.4 AD83	Completion Date Station: 3081+78.3 Offset:152.3	e: <u>1/3/23</u>	C LOG	EIGHT (pcf) COUNTS VERY/RQD	LES		- UU/ 0 _: 5	'2	0 1 _i 0	TRENG - QU/2 1 _. 5	2.0	□ - SV) 2,5
DEPTH IN FEET	ELEVATION IN FEET		IPTION OF M	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	PL I		N-VA	(AST ALUE (E	M D 1586 BLOWS CONTE	6) PER	%
		Topsoil: 6 Stiff, brown	inches n and gray, clayey S	LT - ML	, 14 1×. 1	3-6-7	SS1		: : :		•: ::			
		Stiff, brown	n and gray, silty, LEA	N CLAY - CL		3-6-8	SS2			 4	• : :		· · ·	
— 5—	308					3-4-6	SS3		· · ·					
									. • · · · · · · · · · · · · · · · · · ·				· ·	
_ 10-	-303 -					2-5-7	SS4							
— 15 —	298					2-3-6	SS5		A	• : :				
		boring terr	ninated at 15 feet.											
_ 20_														
— 25 —	—288 —													
— 30 —	283												· -	
													·	
	GROUN	DWATER D	ΔΤΔ	DRILLING	2 DATA			Drawi	n by:	SEM	Check	ked by: AE	 BM	App'vd. by: DB
	X FRE	EE WATER N ED DURING	ОТ	AUGER <u>3 3/4"</u> WASHBORING F KJB DRILLER CME 750X	'_HOLLO ROM _JJA_LO DRILL R	FEET GGER IG		Date:	1/9/2	3	GE!	2/20/23 DTECH rrsal Engineerin R-222	INC	
REN	MARKS:			HAMMER T				From	n Nea Ha	aywo	R-468 T ood Co	o Near ounty, T	enn	
												BORIN		

	ce Elevat Datum <u>N</u>	ation: 319.6	Completion Date Station:3082+11.9 Offset: 26.2	e: 12/15/22	5010	EIGHT (pcf) COUNTS /ERY/RQD	LES	∆ - UU/2 0 _. 5	! 1		□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF M	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES		I-VAI	PENETRATION (ASTM D 1586) LUE (BLOWS PENTER CONTENT 0 30 4	R FOOT)
			es of gravel and stra		XXX						
		Stiff, browr trace organ	n and gray, silty, LEA nics	N CLAY - (CL)		2-6-7	SS1	.		•	
— 5 -	 315					11-6-7	SS2			• : : : : : : : :	
						2-4-6	SS3				
						2-4-0	333	A 			
						99	ST4		-Δ-	I →	· · · · · · · · · · · · · · · · · · ·
— 10 —	-3 10 -										
									: :		
		Stiff, red a	nd brown, silty, sand	y, LEAN CLAY - CL		2-5-6	SS5	 			
— 15 	-305	Boring tern	ninated at 15 feet.			200	000				
		-									
— 20 —	-300 -										
— 25 —	 295										
— 30 -	-290 —										
	GROUN	IDWATER D	ATA	DRILLING	DATA			Drawn by: S		Checked by: ABM	
		EE WATER N		AUGER <u>3 3/4"</u>		W STERA		Date: 12/21/	22	Date: 2/20/23	Date: 2/20/23
ENC		ED DURING		WASHBORING FF					ظے	GEOTECHN	OLOGY
				WEC DRILLER					_	A Universal Engineering Sc	
				<u>CME 750X</u> D							
				HAMMER TY				Eugen NI-		SR-222	
DEV	MARKS:			HAMMER EFFICI				rrom Near	ywo	-468 To Near Ca od County, Ten	ampground R nessee
INEN	m⊼iNO.								LO	G OF BORING:	E- 5

		ation: 311.9	Completion Date:12/21/22	C LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0,5	EAR STRENGTH O - QU/2 1,0 1,5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	LEVATION IN FEET	DESCR	RIPTION OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	M N-VA	(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT	R FOOT)
		Fill: 6 inch	es of gravel and straw				10	20 30 4	10 50
			iff, brown, clayey SILT - ML		8-4-4	SS1	•: : : A : : : : :		
— 5—					1-3-5	SS2	11141111		
		trace grave	el						
		audo gravi	.		5-3-3	SS3			
		Verv stiff to	o stiff, brown and gray, silty, LEAN CLAY -						
— 10 —	 302	CL	,		6-12-11	SS4	:::::•	A	
					457	005			
— 15—	 297	Boring terr	minated at 15 feet.		4-5-7	SS5			
— 20 —	—292 —								
— 25 —	—287 —								
— 30 –	 282								
	GROU	NDWATER D	ATA DRILLIN	G DATA	l	1	Drawn by: GBB	Checked by: ABM	App'vd. by: DBA
		REE WATER N			W STEM		Date: 1/13/23	Date: 2/20/23	Date: 2/20/23
ENC		RED DURING						GEOTECHN	
			KJB DRILLER					A Universal Engineering Sc	lences Company
			<u>CME 750X</u> HAMMER T					SR-222	
₽FN	MARKS	:	HAMMER EFFIC				From Near SF Haywo	R-468 To Near Ca bood County, Ten	ampground R nessee
- (-1)		•						OG OF BORING:	E 6
							L	JG OF BORING.	⊏- 0

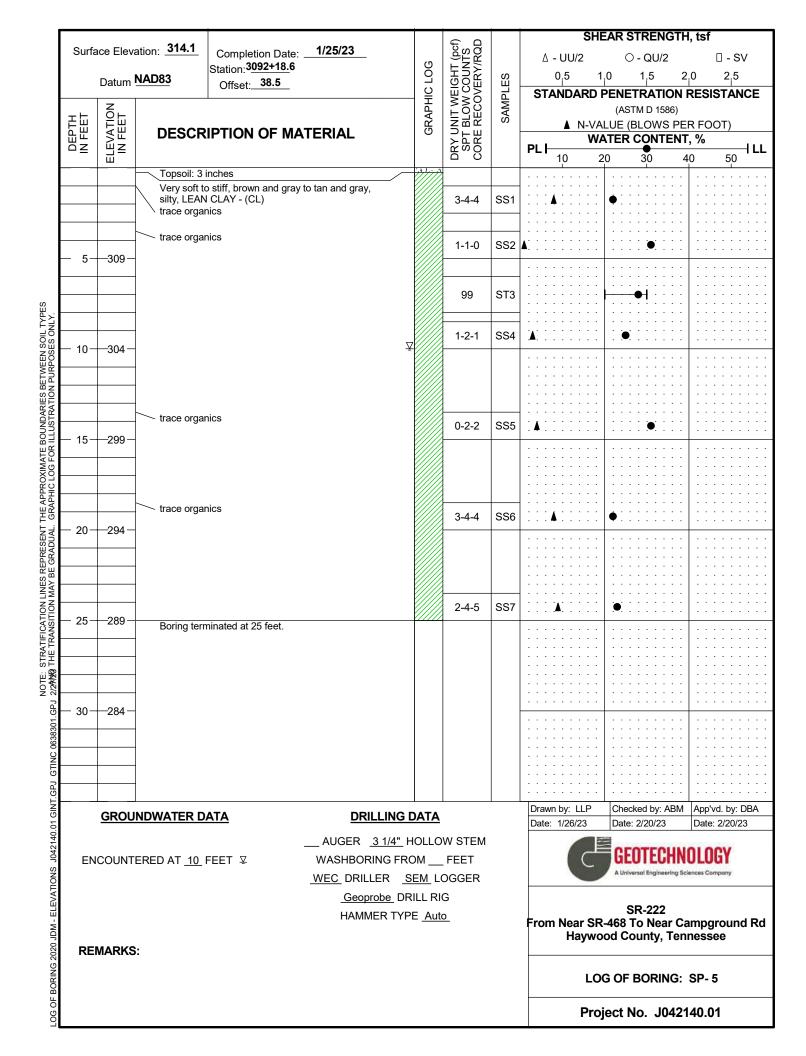
	ace Eleva Datum <u>N</u>	Stati	mpletion Date:	907 2	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 115 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTI	ON OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-VA WA	(ASTM D 1586) LUE (BLOWS PE	R FOOT)
		Topsoil: 6 inches		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1					
		Medium stiff, bro	wn, sandy SILT - ML		3-4-3	SS1	X		
		Stiff, brown SILT	- ML						
— 5—	304 —				3-6-7	SS2			
		Soft to very stiff	brown and gray, silty, LEAN CLAY -						
		(CL)	z.e g. a,, e,, ==, u. e=		2-2-2	SS3		•	
					104	ST4		*	
— 10 <i>—</i>	299								
					0.05	005			
— 15 <i>—</i>	294	Davis a tamaia ata	J -4 45 54	_/////	3-3-5	SS5	4	. •	
		Boring terminate	d at 15 feet.						
— 20 —	289								
— 25 <i>-</i>	284 —								
— 30 —	279								
_ 30_	2/9								
	GROUN	IDWATER DATA	DRILLING	G DATA			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
	X FRI	EE WATER NOT	AUGER <u>3 3/4</u> '	HOLLO	W STFM		Euro. 1/0/20	Date: 2/20/20	Date. LIZUIZU
ENC		ED DURING DRIL					ظے)	GEOTECHN	OLOGY
			KJB DRILLER					A Universal Engineering So	
			CME 750X						
			HAMMER T	YPE Aut	<u>o</u>		From Noor SP	SR-222 -468 To Near C	amnaround D
			HAMMER EFFIC				Haywo	od County, Ter	nessee
REI	MARKS:						LO	G OF BORING:	W- 8
							Proj	ject No. J042	140.01

				 			SHE	AR STRENGT	H, tsf
	Surfac	e Elevation: <u>308.5</u>	Completion Date:		DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD		∆ - UU/2	○ - QU/2	, □ - SV
		NADOO	Station: 3088+65.6	SRAPHIC LOG	FN	\ ₍₀			2,0 2,5
		Datum NAD83	Offset: -123.1	C	ESE	SAMPLES			RESISTANCE
		z		∃ ₹	\ <u>\</u> \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	MP	STANDARD	(ASTM D 1586)	RESISTANCE
	포뇨	NOLE PECE DESCR		I A	P.B.B.B.B.B.B.B.B.B.B.B.B.B.B.B.B.B.B.B	SA	▲ N-VA	LUE (BLOWS PI	ER FOOT)
	DEPTH IN FEET	SE DESCR	RIPTION OF MATERIAL	٥	스 디 프 프 프		WA	TER CONTEN	T. %
					R S		PL 10 2	0 30	40 50 LL
		Topsoil: 5	inches	17///	0.00	004			+
			f, brown and gray, LEAN CLAY - (CL)		2-2-2	SS1			
	— 5 —	-304 ─ \ \ 94% passi	ing No. 200 sieve		2-2-4	SS2			
					3-5-5	SS3			
	- 10-	-299 <i>-</i> -			3-3-5	SS4	1 1 1 [1 1 1 1 1 1		
	— 15	pH = 7.8			2-2-3	SS5	A •		
Υ. Υ.Ε.	_ 20		AYEY SAND - (SC) ing No. 200 sieve			ST6			
ONL		\ 1770 passi	ing No. 200 sieve	_////					
SES	— 25 —	-284 — Soft to stif	f, brown, sandy, FAT CLAY - (CH)	A CONTRACTOR	1-2-2	SS7	A •	<u> </u>	<u> </u>
RPO	23	204							
N PU	20	pH = 8.2			3-4-4	SS8	.		
YES ATIO	<u> 30 + </u>	–279 –							
STR/		Very stiff t	o stiff, gray, FAT CLAY, little sand, trace		5-7-9	SS9			
30CL	— 35—	-274 organics -			<u> </u>	000			
ATE E		pH = 8.0			7-9-11	SS10			
TION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES TION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	- 40 +	-7hu — '	= 969 ohms-cm		1-9-11	3310			
PRC					7044	0044			
E AF	— 45 —	-264			7-9-11	SS11			
L G									
DUA	— 50 —	-259 <i>-</i> -			4-6-5	SS12			
GRA									
Y BE	— 55	-254			3-4-5	SS13	I I I A I I I I		
WA									
	- 60	-249			5-6-9	SS14	: : : : : : : : : : : : :		
ANS									
THE TRANSI	65	Stiff, gray,	LEAN CLAY, little sand - (CL)		5-5-7	SS15	: : : : : <u> </u>	1::::::::	
: S. B9 TH									
NO IE: 2/24/28	— 70 —	-239 - Very dens	e, white and brown, CLAYEY SAND - SC		17-50/3"	SS16		•	
N GPJ 2,	,,,								3°::::::::::::::::::::::::::::::::::::
01.G	— 75—	-234 Hard, whit	e and brown, sandy, FAT CLAY - CH		50/3"	SS17		<u> </u>	<u> </u>
0638301.	13	Boring teri	minated at 75 feet due to split-spoon						5-3":
	90	refusal.							
GTINC	— 80 —	-229							
GPJ									
-OG OF BORING 2020 JDM - ELEVATIONS J042140.01 GINT.GPJ	<u> </u>	GROUNDWATER D	DRILLING	DATA	1		Drawn by: NMRG		App'vd. by: DBA
0.01	٠ ا	CITOGRAPHATER D	DRILLING	PAIA			Date: 1/3/23	Date: 2/20/23	Date: 2/20/23
4214			AUGER <u>3 3/4"</u>					OFOTFOLIA	IOI OOV
3 J04	ENCC	DUNTERED AT 23.5	_ FEET ♀ WASHBORING FR	OM <u>23.</u>	5 FEET			GEUIEUH	IULUGY
NOL			<u>KJB</u> DRILLER <u>N</u>	MRG_L	OGGER			A Universal Engineering S	ciences Company
EVAT			<u>CME 750X</u> D	RILL R	IG				
Ē			HAMMER TY	PE Aut	<u>o</u>		From Near SP	SR-222 -468 To Near C	ampground Rd
JDM			HAMMER EFFIC	IENCY _	<u>84</u> %		Haywo	od County, Tei	nessee
2020	REM	ARKS:						- ·	
NG								G OF BORING:	DD 1
BOR							LO	G OF BURING	ו-אם
3 OF							Droi	ect No. J042	140 01
LOG							Proj	CCL NO. JU42	1 4 0.01

	Surfa	ce Flevs	ation: <u>309.7</u>	Oletion Deter	12/28/22		S G				SHI	EAR S	TRE	NGTH	l, tsf		
				Station: 3089+91.6	IZIZOIZZ	90.	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	S	Δ	- UU 0.5		. 0) - QU 1,5		.0	□ - S 2,5	
		Datum !	NADO3	Offset: 52.8		3RAPHIC LOG	WEIG W CC	SAMPLES	STA			PENE	TRAT	ION			
	표표	ELEVATION IN FEET	DECOD	UDTION OF MAT	FRIAL	SRAP	BLO BRO	SAN		A	N-VA	AS) LUE (TM D 1 BLOW	,	R FO	OT)	ļ
	DEPTH IN FEET	LEVA IN FE	DESCR	IPTION OF MAT	ERIAL		SPT SPT SORE		PL⊦			ATER	—●		-		
		Ш	Topsoil: 4 i	inches				004	:::	10	1	20	30	4 ::::	0	50	
		205	Stiff to med	dium stiff, tan to brown,	sandy SILT - ML		2-5-6 2-2-3	SS1 SS2	A	A	•						
	— 5—	-305 -	Medium sti	iff, brown to gray, clayey	SILT - ML		2-3-3	SS3	Å			•					
	— 10 —	-300 -						*ST4	: : :		: : :	1 1 1	: : :	<u> </u>	::		
	— 15—		resistivity =	= 2,109 ohms-cm			2-2-4	SS5									
0	15	293															
. TYPE, NLY.	— 20 —	 290	Medium sti pH = 7.6	iff, brown, silty, LEAN C	LAY - CL		2-3-3	SS6	: : \		111	111		<u> </u>	11		
N SOIL	— 25 —			y stiff, brown, sandy, LE	AN CLAY - (CL)		2-1-3	SS7									
TWEE	20	200	restivity = 1	1,824 ohms-cm													
IES BE	— 30 —	 280					1-1-2	SS8	: ∆ : :	: : :	: : :	● :::	: : :	: : :	::		
JNDAR USTRA	— 35—	 275		ng No. 200 sieve			4-6-6	SS9								1	
TE BOI OR ILL			pH = 6.7														
OXIMA LOG F	<u> </u>	 270	→ 66% passii	ng No. 200 sieve			7-9-10	SS10			: : : /)::: <u>:</u>				
THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	— 45 —			orown to gray, LEAN CL	AY - (CL)		5-7-10	SS11			A		<u> </u>		: :		
IT THE IL. GR			➤ pH = 8.1					2010									
RESEN RADUA	— 50 —	-260 -					5-9-12	SS12				A: : -			: :		
ION LINES REPRESENT ION MAY BE GRADUAL.	— 55 —	—255 —	Very stiff to	o stiff, brown to gray, sai	ndy, LEAN CLAY -		8-12-16	SS13) <u>Å</u>		::		
ON MA			_				7-8-10	0014									
ICATIC ANSITIC	— 60 —	 250	> pH = 7.9				7-0-10	3314									
STRATIFICATI THE TRANSIT	— 65 —	-245					5-7-10	SS15			<u>:</u> : <u>A</u> :	1 1 1	• <u> </u>	<u> </u>	::		
NOTE: S' 2/24/1/20 TI							5-7-9	SS16									
NO GPJ 2/2	— 70 —	 240					3-7-9	3310									
0638301.G	— 75 —	235					3-4-8	SS17		<u>:</u>	<u> </u>		<u> </u>				
NC 063		222					3-7-11	SS18									
J GTINC	— 80 —	 230 	Boring tern	minated at 80 feet.				1.3							: :		
SINT.GPJ		0000	\ID\\\\ ====		BBH 1 11 C =				Draw	n by:	GBB	Chec	ked by	: : : : ABM	App'\	d. by:	DBA
J042140.01 GINT.			NDWATER D		DRILLING E					1/9/2		_	: 2/20/2		+	2/20/2	
J04214	ENC		REE WATER N RED DURING		AUGER <u>3 3/4"</u> H WASHBORING FRO						للح	GE	OTE	CHN	OLO	GY	
TIONS					KJB DRILLER G					-	Č	A Univ	ersal Engin	neering Sci	ences Co	mpany	
ELEVA.					<u>CME 750X</u> DR HAMMER TYP								SR-22				
J- MQC					HAMMER EFFICIE				Fron	n Nea H	ar SR avwo	2-468 od Co	To Ne	ar Ca , Ten	ımpg ness	roun ee	d Rd
3 2020	REN	//ARKS	: *No recove	ery							_			-			
OG OF BORING 2020 JDM - ELEVATIONS											LO	G OF	BOR	ING:	BR-2	2	
GOFE											Pro	ject N	lo. J	0421	40.0	1	
ľ												,	. J. J			•	

	Datum	ation: 309.1 NAD83	Completion Date: 12/15/22 Station:3090+76.8 Offset: -154.2	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPH	SPT BLOW	SAME	M N-VA	(ASTM D 1586) LUE (BLOWS PE	R FOOT)
		Fill: 6 inche	es of gravel				10 2	20 30 2	10 50
		Medium st	ff, brown and gray, clayey SILT, little race sand - ML		5-4-4	SS1			
	204	LEAN CLA			1-1-1	SS2	A ::::::::::::::::::::::::::::::::::::		
— 5 -	304		el and organics ng No. 200 sieve		3-3-3	SS3			
					0-0-0	000			
— 10—	—299 —				2-2-2	SS4	:▲:::::::	: : ♦ : : : : : :	
		trace grave	le		2-2-2	SS5	: . : : : : : : : : : : : : : : : : :		
— 15 —	—294 —	Boring terr	ninated at 15 feet.						
_ 20_									
20									
— 25 —	—284 —								
— 30—	—279 —								
	GROU	INDWATER D	ATA DRIL	LING DATA			Drawn by: SEM Date: 12/21/22	Checked by: ABM Date: 2/20/23	App'vd. by: DBA
ENC		REE WATER N RED DURING			FEET			GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS	S:	HAMME	50X DRILL R R TYPE <u>Aut</u> FFICIENCY _	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground F nessee
							LO	G OF BORING:	W- 9
							Pro	ject No. J0421	140 01

	Datum	Completion Date: Station: 3092+11.6 Offset: -33.3	1/26/23	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	∆ - UU/2 0 _i 5 1	O - QU/2 1 1 5 2 PENETRATION (ASTM D 1586)	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF MA	TERIAL	GRAF	Y UNIT PT BLC RE RE(SA	WA	LUE (BLOWS PE	Γ, %
					DR CO		PL 10 2	20 30 4	40 50 LL
		Topsoil: 4 inches Medium stiff to stiff, brown SILT		4 1/· .1					
		trace organics			2-5-3	SS1	11141111	•	
					105	ST2		· · · · · · · · · · · · · · · · · · ·	
— 5 —	 309								
		Very soft to medium stiff, brown a silty, LEAN CLAY - CL	and gray to brown,		WH/18"	*SS3		• : : : : : : : : : : : : : : : : : : :	
		trace organics			4.0.0	004			
— 10—	 304	Ü			1-2-3	SS4			
45	200	trace organics			2-3-3	SS5			
— 15 	 299								
		trace sand			0.00	000			
— 20 -	—294 —				2-3-3	SS6		•	
		trace sand			2-3-5	SS7	.	•	
— 25 —	 289	Boring terminated at 25 feet.		(////					
20	004								
_ 30_	 284								
	GROU	NDWATER DATA	DRILLING DA	<u>ATA</u>			Drawn by: JSH Date: 1/30/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		REE WATER NOT RED DURING DRILLING	AUGER <u>3 1/4"</u> HC WASHBORING FROM <u>JCG</u> DRILLER <u>SEI</u> <u>Geoprobe</u> DRIL	М <u>М</u> LC	FEET		C	GEOTECHN A Universal Engineering Sc	OLOGY
REM	//ARKS	:	HAMMER TYPE				From Near SR Haywo	SR-222 -468 To Near Co od County, Ten	ampground Ro nessee
							LO	G OF BORING:	SP- 4
							Pro	ject No. J042	140.01



	Datum	Completion Date Station: 3092+85 Offset: -842.9	- 1/4/23 BY ATERIAL	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5 1	PENETRATION	□ - SV _. 0 2 _. 5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF M	ATERIAL GRAP	SPT BLO	SAN		(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	
		5:11.01.1.1				10 2	20 30 4	0 50
		Fill: 6 inches of gravel Stiff, brown, silty, LEAN CLAY	· Cl					
		trace sand		3-4-6	SS1			
				3-5-6	SS2	· · · · · · · · · · · · · · · · · · ·	•	
— 5 —	—322 —							
		Stiff, red and brown, FAT CLA	', little sand - (CH)	2-6-6	SS3			
				2-0-0	333			
				407	0.7.4			· · · · · · · · · · · · · · · · · · ·
10	217			107	ST4	Δ		
10	 317							
		Stiff, gray and brown, sandy, F	AT CLAY, trace	3-4-5	SS5			
— 15—	 312	organics - CH Boring terminated at 15 feet.		3-4-5	333			
		Bolling terminated at 13 leet.						
— 20 —	 307							
_ 20_								
25	 302							
_ 30-	 297							
\vdash					1	Drawn by: LLP	Checked by: ABM	App'vd. by: DBA
1	GROU	NDWATER DATA	DRILLING DATA	7		Date: 1/5/23	Date: 2/20/23	Date: 2/20/23
		REE WATER NOT	AUGER <u>3 3/4"</u> HOLLO	OW STEM			OFOTFOLIN	OL OOV
ENC	OUNTE	RED DURING DRILLING	WASHBORING FROM				GEOTECHN	ULUGY
1			KJB DRILLER GBB LO				A Universal Engineering Sci	ences Company
			<u>CME 750X</u> DRILL R				SR-222	
1			HAMMER TYPE <u>Au</u>			From Near SR	-468 To Near Ca	mpground R
			HAMMER EFFICIENCY	<u>84</u> %		Haywo	od County, Ten	nessee
BEV	ΛΔRKG							
ENCO	MARKS	:				LOC	G OF BORING: (CON-4

	Datum <u>N</u>	tion: 320.0	Completion Date:	GRAPHIC LOG	/EIGHT (pcf) / COUNTS OVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV :0 2,5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPH	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAME	▲ N-VA W/	(ASTM D 1586) LUE (BLOWS PE	R FOOT)
			es of gravel n, clayey SILT - ML			204			
		Very stiff to	o medium stiff, brown, silty, LEAN CLAY -		3-6-6	SS1	 		
— 5—	3 15	(CL)	o modium can, s.com, cary, cer at cer		107	ST2		<u></u> ΦΔ	
					3-3-4	SS3	 	••••••	
— 10 <i>-</i>	310	─ trace grave	el		2-3-4	SS4			
					1-3-4	SS5	.	• • • • • • • • • • • • • • • • • • • •	
— 15 <i>—</i>	305	Boring terr	ninated at 15 feet.						
20	300 —								
— 25 —	—295 —								
— 30 –	—290 —								
	GROUN	NDWATER D	ATA DRILLING	DATA			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N RED DURING		ROM	FEET			GEOTECHN A Universal Engineering Sc	OLOGY
REI	MARKS:		<u>CME 750X</u> D HAMMER TY HAMMER EFFICI	PE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground F nessee
							LO	G OF BORING:	W-10
							Pro	ject No. J0421	140.01

Surfa	ce Eleva	tion: 321.8 Completion Date	e:1/4/23		(pcf) TS RQD		SI ∆ - UU/2	HEAR STRENGTH	l, tsf □ - SV
	Datum •	Station:3093+17.5 Offset: -477.2)	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	0 _i 5 STANDARE	PENETRATION	i ⁰ 2i ⁵ RESISTANCE
DEPTH IN FEET	LEVATION IN FEET	DESCRIPTION OF M	ATERIAL	GRAF	YY UNIT SPT BLO SRE REC	SAI	V	(ASTM D 1586) ALUE (BLOWS PE VATER CONTENT	· %
					RO SO		PL 10	20 30 4	0 50 LL
		Fill: 6 inches of gravel Medium stiff, brown, silty, LEA	N CLAV trace						
		organics, gravel and sand - CL			2-3-4	SS1	: : \	: 💌 : : : : : : :	
					3-3-3	SS2			
- 5-	 317								
		Stiff, red and brown, FAT CLA	Y, little sand - CH		2-5-5	SS3			
					200	000			
						001			
— 10—	-312 -				3-6-8	SS4		. •	
		Medium stiff, orange and gray, CL	sandy, LEAN CLAY -		2-4-4	SS5		: : : : • : : : : :	
— 15 	-307	Boring terminated at 15 feet.		<i>[,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>	•				
— 20 —	-302 -								
− 25 <i>−</i>	 297								
— 30 —	— 292 —								
	GROUN	IDWATER DATA	DRILLING D	ATA			Drawn by: LLP	Checked by: ABM	App'vd. by: DBA
		EE WATER NOT	AUGER <u>3 3/4"</u> H		W STFM		Date: 1/5/23	Date: 2/20/23	Date: 2/20/23
ENC		ED DURING DRILLING	WASHBORING FRO					GEOTECHN	OLOGY
			KJB DRILLER GE					A Universal Engineering Sc	
			 CME 750X_DR						
			HAMMER TYPE	E <u>Aut</u>	<u>o</u>		From Near S	SR-222 R-468 To Near Ca	ampground Rd
REM	MARKS:		HAMMER EFFICIEI	NCY _	84_%		Hayw	ood County, Ten	nessee
							LC	OG OF BORING:	CON-3
							Pr	oject No. J0421	40.01

		Ation: 316.2 Completion Date Station: 3094+34.5 Offset: -33.7	· 1/25/23	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	∆ - UU/2 0 _i 5 1	O - QU/2 O 1,5 2	□ - SV 2,0 2,5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF MA	ATERIAL	GRAPH	Y UNIT W SPT BLOW SRE RECC	SAMF	▲ N-VA	(ASTM D 1586) LUE (BLOWS PE ATER CONTEN	ER FOOT) F, %
					RO CO		PL 10 2	20 30	40 50 LL
		Topsoil: 3 inches Soft, brown, LEAN CLAY - (CL)							
		91% passing No. 200 sieve			3-2-2	SS1		<u></u>	
		Soft to stiff, brown SILT - (ML)							
_	044				98	ST2	<u>\</u>	· · • · · · · · · · · · · · · · · · ·	
_ 5_	 311								
		Soft to medium stiff, brown and CLAY - CL	gray, silty, LEAN		2-2-3	SS3	: X : : : : : :		
		trace organics							
					1-1-2	SS4	A		
— 10 	 306								
		trace gravel and organics			4.0.4	005			
— 15—	301				1-3-4	SS5			
		Stiff, gray and red to gray, FAT trace gravel and organics	CLAY - CH		2-4-5	SS6	X		
- 20 -	 296								
					2-5-6	SS7			
- 25	 291	Boring terminated at 25 feet.				-	· · · · · - · · · · · · · · · · · · · · · · · · ·		
		_							
- 30-	286 _								
-+									
	GPOU	NDWATER DATA	DRILLING I		<u> </u>		Drawn by: SEM	Checked by: ABM	App'vd. by: DBA
							Date: 1/26/23	Date: 2/20/23	Date: 2/20/23
ENC		REE WATER NOT RED DURING DRILLING	AUGER <u>3 1/4"</u> F					GEOTECHN	UI UGY
			WASHBORING FRO					A Universal Engineering S	
			Geoprobe 7822						
RFN	MARKS	s:	HAMMER TYP				From Near SR Haywo	SR-222 -468 To Near C ood County, Ter	ampground Rd nnessee
I L		•					LO	G OF BORING:	SP- 6
							Pro	ject No. J042	140.01

		Completion Date: Station: 3095+28.0 Offset: 64.5	1/25/23	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	O - QU/2 O 1,5 2 PENETRATION	□ - SV 2,0 2,5
표	ELEVATION IN FEET			ЗАРН	AIT W 3LOW 3ECC	SAMI	A NI V/A	(ASTM D 1586)	D EOOT)
DEPTH IN FEET	VAT	DESCRIPTION OF MA	TERIAL	9	Y UN PT E		WA	LUE (BLOWS PE	
	빌르				PR S CO		PI	•	10 50 LL
		Topsoil: 4 inches		1 1/2 · 1					
		Soft to stiff, brown SILT - (ML) little organics			1-1-3	SS1			
					98	ST2	· · · · · · · · · · · · · · · · · · ·		
— 5 -	 311								
		Medium stiff to stiff, brown and g	ray to tan and gray,		0.0.5	000			
		silty, LEAN CLAY - CL trace organics			2-3-5	SS3			
		trace organics							
— 10—	-306	adoo organioo			5-5-4	SS4	111.	• : : : : : : : : : : : : : : : : : : :	
10	300								
					3-4-5	SS5			
— 15 —	 301								
		Stiff, brown, gray and tan, FAT C	CLAY - CH		0.4.0	000			
— 20 —	- 296 -				2-4-6	SS6	4	•	
					2-4-5	SS7	X		
— 25 —	 291	Boring terminated at 25 feet.							
− 30 	 286								
		· 							
	GROU	NDWATER DATA	DRILLING D	ATA			Drawn by: SEM Date: 1/26/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
	<u>X</u> FF	REE WATER NOT	AUGER <u>3 1/4"</u> HC	OLLO	W STEM		1/20/20		SOFT STATES
ENC	JUNTE	RED DURING DRILLING	WASHBORING FROM				\subset	GEOTECHN	
			WEC DRILLER SE					A Universal Engineering Sc	remore Company
			Geoprobe 7822 D					SR-222	
REM	//ARKS	:	HAMMER TYPE	. Aut	<u>)</u>		From Near SR Haywo	-468 To Near Ca ood County, Ten	ampground Rd nessee
							LO	G OF BORING:	SP- 7
							Pro	ject No. J0421	140.01

	Datum	ation: 316.2 NAD83	Completion Dat Station:3095+60. Offset: -33.2	e: <u>12/16/22</u> 3	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5	EAR STRENGTH ○ - QU/2 1,0 1,5 2 PENETRATION	□ - SV .0 2 _. 5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF N	IATERIAL	GRAPI	RY UNIT V SPT BLOV ORE REC	SAM	PI I	(ASTM D 1586) ALUE (BLOWS PE	
		Tanasili C	See a la co		1, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,			10	20 30 4	0 50
		Topsoil: 6 Medium st	tiff to stiff, brown to I	prown and gray, silty,						
		LEAN CLA	AY, trace organics -	CL		1-3-4	SS1] [[[[[]]]]]		
						2-3-5	SS2	1::4::::	•::::::::::::::::::::::::::::::::::::::	
— 5 -	 311									
		trace sand	I			2-4-5	SS3] : : : : : : : : :	• : : : : : : : : :	
		Stiff, brown	n and red, FAT CLA	Y, trace sand and		3-5-7	SS4			6
— 10 	 306	organics -	(CH)			0-0-7	004		• • • • • • • • • • • • • • • • • • • •	
		Stiff gray	and red, sandy, LEA	AN CLAV trace						
— 15 —	 301	organics -	CL	NV OLAT, HACC		3-5-4	SS5			
15	301	Boring terr	minated at 15 feet.							
— 20 —	 296									
— 25 —	—291 —									
25	231									
— 30 —	 286									
	<u>GROU</u>	NDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn by: SEM Date: 12/21/22	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
		REE WATER N		AUGER <u>3 3/4"</u>	HOLLO	W STEM				01.001
ENC	OUNTE	RED DURING	DRILLING	WASHBORING FF	ROM	FEET		(GEOTECHN	ULUGY
				KJB DRILLER (A Universal Engineering Sc	ences Company
				<u>CME 750X</u> D					SR-222	
				HAMMER TY				From Near SF	R-468 To Near Ca	ampground Ro
				HAMMER EFFICI	IENCY _	<u>84</u> %		Haywo	ood County, Ten	nessee
REM	MARKS	:								
REM	MARKS	:						LC	OG OF BORING:	W-11

		Ation: 317.4 Completion Date Station: 3095+69. NAD83 Offset: 34.1	te: <u>12/15/22</u> 3	5010	GHT (pcf) COUNTS /ERY/RQD	LES	Δ - U 0;	IU/2 5	O - QU/2	2,0	□ - SV 2,5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF N	//ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES		N-V	(ASTM D 1586 ALUE (BLOWS ATER CONTE 20 30	S) PER F	OOT)
		Topsoil: 5 inches		1,4 1,1 ,1							
		Medium stiff, brown and gray, (CL)	silty, LEAN CLAY -		1-2-3	SS1	: : _{_} : : :				
		95% passing No. 200 sieve									
					2-2-4	SS2					
— 5—	 312-				2-2-4	332	•			-	
					1-3-4	SS3					
		trace organics			2-3-5	SS4	11141			.	
— 10 <i>—</i>	 307										
		Stiff, red, brown and gray, sar	ndy, FAT CLAY - CH		2-4-6	SS5					
— 15 —	 302	Boring terminated at 15 feet.			2-4-0	333	•				
		. Dorning terminated at 10 100t.									
										.	
— 20 —	—297 —										
— 25 —	—292 —									-	
— 30—	—287 —										
										.	
	GROU	NDWATER DATA	DRILLING D	<u>ATA</u>			Drawn by Date: 12		Checked by: All Date: 2/20/23		p'vd. by: DBA te: 2/20/23
	_X FF	REE WATER NOT	AUGER <u>3 3/4"</u> H	OLLO	W STEM		2410. 12				
ENC		RED DURING DRILLING	WASHBORING FRO						GEOTECH	INOL	OGY
			WEC DRILLER G						A Universal Engineeri	ng Sciences	Company
			<u>CME 750X</u> DR	ILL R	IG						
			HAMMER TYPE	E <u>Aut</u>	<u>o</u>		From N	lear Si	SR-222 R-468 To Near	Camr	around Ra
			HAMMER EFFICIE	NCY _	<u>84</u> %			Hayw	ood County, T	ennes	see
RE	MARKS	:						L	OG OF BORIN	G: E-	7
								D	nigot No. 104	124.40	01
								Pro	oject No. J04	12140	.01

	Datum	NAD83	Completion Date:	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 STANDARD	O - QU/2 1,0 1,5 2 PENETRATION (ASTM D 1586) ALUE (BLOWS PE	□ - SV 2 _. 0 2 _. 5 RESISTANCE
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	0	DRY U SPT CORE		PI I	ATER CONTENT	
		Topsoil: 6		11/1/					
		CLAY, trace grave	iff to stiff, brown and gray, silty, LEAN se organics - (CL) el		3-4-3	SS1	::X::::•		
- 5-					101	ST2		•••••••	
					1-2-4	SS3		•	
		trace sand							
- 10-	 311	. Trace sand			1-2-4	SS4	1 1 🛦 1 1 1 1 1 1		
					2-3-4	SS5	.	•	
— 15 	 306	Boring terr	ninated at 15 feet.						
- 20-	 301								
- 25-	—296 —								
- 30-									
30	291								
	GROU	NDWATER D	ATA DRILLIN	NG DATA			Drawn by: SEM Date: 1/4/23	Checked by: ABM	App'vd. by: DBA
		REE WATER N					Date. 1/4/23	Date: 2/20/23	Date: 2/20/23
ENC		RED DURING		FROM	FEET		(GEOTECHN A Universal Engineering Sc	OLOGY clences Company
REN	MARKS	: :	CME 750X HAMMER ⁻ HAMMER EFF	TYPE Aut	<u>o</u>		From Near SF Haywo	SR-222 R-468 To Near Co ood County, Ten	ampground R inessee
							L	OG OF BORING:	E- 8
							Pro	oject No. J042	140 01

	ce Elevat	ion: 319.5	Completion Da Station:3100+46 Offset:31.3	te: <u>12/16/22</u> 8	IC LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 115 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF N	MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	MA N-VA	(ASTM D 1586) LUE (BLOWS PE	ER FOOT)
		Topsoil: 6	inches		74 18. 71					
		Medium st	iff, gray, silty, LEAN	I CLAY - CL		2-3-4	SS1	.	• · · · · · · · · · · · · · · · · · · ·	
- 5-	-3 15-					1-3-3	SS2	.	• : : : : : : : : : : : : : : : : : : :	
							000			
						2-2-3	SS3	. A		
40	240					1-2-3	SS4		. •	
— 10 —	 310									
45	205					3-3-5	SS5		•	
— 15—	-305-	Boring terr	ninated at 15 feet.							
— 20 —	-300 -									
20	300									
— 25 	—295 —									
_ 30_	— 290 —									
								D NIMDO	Observation ADM	Analysis by DDA
	GROUN	IDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn by: NMRG Date: 1/5/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
		EE WATER N		AUGER <u>3 3/4"</u>	HOLLO	W STEM				
ENC	OUNTER	ED DURING	DRILLING	WASHBORING FF	ROM	FEET		(C	GEOTECHN	
				KJB DRILLER	GBB_LC	OGGER			A Universal Engineering Se	clences Company
				<u>CME 750X</u> D					CD 200	
				HAMMER TY				From Near SR	SR-222 -468 To Near C	ampground Ro
REN	MARKS:			HAMMER EFFIC	IENCY _	<u>84</u> %		Haywo	od County, Ter	nessee
								LO	G OF BORING:	W-12

		MAD83	Completion Date: _ Station: 3104+16.0 Offset:63.5	12/15/22	GRAPHIC LOG	EIGHT (pcf) COUNTS WERY/RQD	SJ	C	UU/2) _i 5	1,	O - C O 1;	U/2 5 2		- SV 2 _. 5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF MAT	ΓERIAL	GRAPH	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	PL I		-VAI	(ASTM D LUE (BLC ATER CO	1586) WS PE	R FOOT	
		Fill: 6 inch	es of gravel and straw											
		Medium st organics -	iff, brown, silty, LEAN C CL	LAY, trace		1-3-4	SS1	: : A :			• : : : :			
		Ma diuma at	iiff and and broken FAT	CLAV trace										
— 5 —	320-	organics -	iff, red and brown, FAT CH ing No. 200 sieve	CLAY, trace		2-3-5	SS2							
		Medium st	tiff to stiff, red, brown an	d gray to gray,		1-3-4	SS3	: : : _• :				: : : :		
		trace orga	N CLAY - CL nics			1-0-4	000							
						0.05	004							
— 10 <i>-</i>	315-	-				2-3-5	SS4	4						
		1												
		trace sand	ı						: : :					
- 10- - 15-	310-					2-5-6	SS5		.A		. .			
	310	Boring terr	minated at 15 feet.											
		-										: : : :		
		1												
		1												
20	305-	-												
		1												
	300 –	-												
										: :				
		1							: : :	: :				
25		1												
5 — 30 —	295 –													
		_												
								D=====	 bur 05		Charles	by: ADM	Λ	
5	GROU	INDWATER D	ATA	DRILLING [<u>DATA</u>			Drawn Date:			Checked Date: 2/20		App'vd. Date: 2/2	
_		REE WATER N		AUGER <u>3 3/4"</u> H	HOLLO	W STEM					0505	F01111	0100	,
ENC	OUNTE	RED DURING	DRILLING	WASHBORING FRO							GEOT		ULUG	
				WEC DRILLER G							A Universal E	-ymeening Se	clences Compar	90
				CME 750X DF							SR-2	222		
				HAMMER TYP HAMMER EFFICIE				From	Near	SR	-468 To N	Near C	ampgro	und R
ENC REI	MARKS	S :		HAWINER EFFICIE	INCT_	<u>04</u> 70			пау		od Coun			
											G OF BO			
3									F	Proj	ect No.	J042	140.01	

	ce Eleva	tion: 321.0	Completion Date: Station:3104+64.8 Offset: -30.8	12/16/22	907	IGHT (pcf) SOUNTS 'ERY/RQD	ES		- UU 0 _i 5	//2	⊂ 1 _. 0	TRENG - QU/2 1,5	2,0	□ - S 2,5	
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	STA		N-VA	(AS ALUE (TRATIO TM D 1586 BLOWS I CONTE) PER	FOOT)	ICE
		Topsoil: 6			1/////								- -		·
		Stiff, gray,	silty, LEAN CLAY - C	L		2-5-7	SS1		4	· · · · ·					
— 5 -	3 16					3-4-5	SS2		A : :		• : : :				
		Medium st	iff, gray, FAT CLAY -	СН		2-3-5	SS3		 •			• • • • • •			
10	_311_	Stiff, gray,	sandy, FAT CLAY - C	EH		2-4-5	SS4				: : : : : : •				
10	311														
— 15—		Boring terr	ninated at 15 feet.			2-5-6	SS5		. . A .	: : :	!	•			
		Doming terr	illinated at 10 loot.												
_ 20_	301														
									· · · · · · · · · · · · · · · · · · ·						
— 25 <i>—</i>	—296 —														
- 25- - 30-	—291 —								 						
	291								 						
ENC	GROUN	NDWATER D	ATA	DRILLING I	DATA			Drawr Date:			_	ked by: AE		app'vd. by: Date: 2/20/2	
ENC		EE WATER N RED DURING		AUGER <u>3 3/4"</u> F WASHBORING FRO <u>KJB</u> DRILLER <u>G</u>	МС	FEET		Butc.	(GE	OTECH ersal Engineerin	NO	LOGY	<u> </u>
REM	MARKS:			<u>CME 750X</u> DF HAMMER TYP HAMMER EFFICIE	E Aut	<u>o</u>		From	Ne: H	ar SF aywo	R-468 ⁻	R-222 To Near ounty, To	Cam enne	npgroun essee	d Rd
, REI	*i/LI\I\O.									LC	G OF	BORING	3: W	<i>I</i> -13	
										Pro	ject N	No. J04	214	0.01	

	ce Elevat Datum <mark>N</mark>	ion: 315.1	Completion Date: 12/15/22 Station: 3108+49.9 Offset: 58.6	IC LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-VA WA	(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	R FOOT) -, %
		Fill: 6 inch	es of gravel and straw				10 2	20 30 4	10 50
			o medium stiff, brown and gray, clayey		4-7-6	SS1			
- 5-	-3 10-				3-5-9	SS2			
					200	cca			
					3-8-8	SS3			
					1-2-2	SS4			
- 10 -	-305 -				1-2-2	334		·	
					1-2-4	SS5			
- 15 -	-3 00 -	Boring terr	minated at 15 feet.						
- 20 -	295								
05	000								
- 25 -	 290								
	005								
- 30 -									
	GROUN	IDWATER D	ATA DRILLING	G DATA			Drawn by: SEM Date: 12/15/22	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N ED DURING		ROM	FEET			GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS:		<u>CME 750X</u> HAMMER T HAMMER EFFIC	YPE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R
							LO	G OF BORING:	E-10

	ce Elevat	ation: 314.2	Completion Date Station: 3108+57.2 Offset: -138.9	12/15/22	10 LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTI O - QU/2 10 1:5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF M	ATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	MA N-VA	(ASTM D 1586) LUE (BLOWS PE	ER FOOT)
		Topsoil: 6 i			11. 11. 11					
		CLAY - CL	dium stiff, brown and	gray, slity, LEAN		2-4-5	SS1	::: X::::•		
- 5 -	-309-					3-3-5	SS2	.	• : : : : : : : : : : : : : : : : : : :	
		Soft, brown	n, FAT CLAY, trace o	organics - (CH)		1-1-1	SS3	A ::::::::::::::::::::::::::::::::::::	• I · · · · · ·	
— 10—	-304 -	Medium sti CLAY - (CI	iff to stiff, brown and L)	gray, silty, LEAN		2-2-3	SS4	: \ : : : : : : : : : : : : : : : : : : :	· · · · · · · · · · · · · · · · · · ·	
10	304					101	ST5		I • • • • • • • • • • • • • • • • • • •	1
— 15—	299	Boring tern	ninated at 15 feet.			1-2-4	SS6	4	•::::::::::::::::::::::::::::::::::::::	
		J								
- 20-	—294 —									
_ 25_	—289 —									
— 30 —	—284 —									
	<u>GROUN</u>	IDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn by: SEM Date: 12/21/22	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N ED DURING		AUGER <u>3 3/4"</u> WASHBORING FF WEC DRILLER	ROM	FEET			GEOTECHN A Universal Engineering S	
	AADIGO			CME 750X DE HAMMER TY HAMMER EFFIC	PE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near C od County, Ter	ampground R inessee
KEN	MARKS:							LO	G OF BORING:	W-14
								Proj		

	Datum !	ation: 311.6 NAD83	Completion Date:1/4/23 Station:3113+16.4 Offset:130.0	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 i0 1i5 2 PENETRATION	□ - SV
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPH	DRY UNIT W SPT BLOW CORE RECC	SAME	M N-VA	(ASTM D 1586) LUE (BLOWS PE	R FOOT)
		Topsoil: 6		- 'xt 1///	1				
		Very soft to LEAN CLA	o medium stiff, brown and gray, silty, Y - (CL)		WOH/12" -1	*SS1			
					WOH/18"	SS2			
— 5—									
		some sand	i ng No. 200 sieve		WOH/18"	SS3	 	• • • • • • • • • • • • • • • • • • •	
		7070 pages	119 110. 200 01010						
					1-1-2	SS4	A		
— 10 <i>—</i>	 302								
					1-3-3	SS5		• • • • • • • • • • • • • • • • • • • •	
— 15 <i>—</i>	 297	Boring terr	ninated at 15 feet.						
— 20 —	 292								
— 25 —	 287								
— 30 —	 282								
	GROU	NDWATER D	ATA DRILLING	G DATA			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EEE WATER N RED DURING		ROM _	FEET		C	GEOTECHN A Universal Engineering Sc	OLOGY
REI	MARKS	: *No recove	<u>CME 750X</u> HAMMER T HAMMER EFFIC Pry	YPE Aut	<u>:0</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R nessee
			-				LO	G OF BORING:	W-15
							Dura	ject No. J042	

	ce Elevat Datum <mark>N</mark>	ation: 311.5	Completion Date: 12/20/22 Station: 3113+18.3 Offset: 51.8	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	JLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV 2.0 2 _. 5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPHI	SPT BLOW	SAMPLES	M N-VA	(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	ER FOOT)
	Ш	Gravel: 6 i	nches				10 2	20 30 4	10 50
			, gray and brown, silty, LEAN CLAY, trace		4-5-6	SS1			
- 5-	-307 -				3-4-6	SS2	111141111	•::::::::::::::::::::::::::::::::::::::	
					5-4-5	SS3			
							· · · · · · · · · · · · · · · · · · ·		
					2-2-2	SS4			
- 10-	302								
- 15 -	 297	Poring torr	ninated at 15 feet.		2-3-3	SS5	1.4:::::		
		borning terr	ninated at 15 leet.						
- 20-	 292								
- 25-	—287 —								
- 30-									
	GROUN	IDWATER D	ATA DRILLING	G DATA			Drawn by: SEM Date: 1/4/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		EE WATER N ED DURING		ROM	FEET			GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS:		<u>CME 750X</u> HAMMER T HAMMER EFFIC	YPE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R inessee
							LO	G OF BORING:	E-11

		Datum	Ation: 317.3 Completic Station: 311 Offset: 4		GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 O 1,5 2 PENETRATION	□ - SV _i 0 2 _i 5
	DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION (OF MATERIAL	GRAPH	UNIT W T BLOW E RECC	SAMI	▲ N-VA	(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	R FOOT)
		ELE) IN				R S S S S S S S S S S S S S S S S S S S		PI	•	0 50 LL
			Asphalt: 10 inches							
			Stiff to medium stiff, bro	own and gray, silty, LEAN		6-5-6	SS1		•	
			trace organics			2-3-2	SS2	. A		
	— 5— ———	 312								
rPES .Y.						3-3-3	SS3	•	•	
TION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES TION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	— 10 <i>-</i>	 307				102	ST4	· · · · · · · · Δ	•	
ETWEE										
ARIES B			trace organics							
OUND	— 15 —		trace organics			3-3-5	SS5	11141111	•	
ATE B FOR I	10		Boring terminated at 15	feet.						
SOXIM										
APPF APHIC										
THE GR										
SENT	— 20—	 297								
EPRE GRA										
ES RI Y BE										
TION LIN	— 25 —	—292 —								
STRATIFICAT THE TRANSI										
TRAT HE T										
E:S										
NOTE:										
.GPJ	— 30 —	 287								
0638301										
C 06										
GTINC										
GPJ										
GINT.		GROU	NDWATER DATA	DRILLING I	ΔΤΔ	'		Drawn by: SEM	Checked by: ABM	App'vd. by: DBA
0.01						6===		Date: 1/4/23	Date: 2/20/23	Date: 2/20/23
J042140.01	ENC		REE WATER NOT RED DURING DRILLING	AUGER <u>3 3/4"</u> F					GEOTECHN	ULUGY
SN SN		-	- · · · · · · · · · · · · · · · · · · ·	WASHBORING FRO					A Universal Engineering Sc	A CONTRACTOR OF THE PARTY OF TH
ATIOI				KJB DRILLER JV					en e	THE PARTY OF THE P
ELEV				<u>CME 750X</u> DF HAMMER TYP					SR-222	
20 JDM -	DE	MADVO		HAMMER EFFICIE				From Near SR Haywo	2-468 To Near Ca ood County, Ten	ampground Rd nessee
OG OF BORING 2020 JDM - ELEVATIONS	KE	MARKS).					LC	G OF BORING:	E-12
LOG OF E								Pro	ject No. J0421	40.01

	Datum !	318.3 NAD83	Completion Date:	Z	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS	OVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5 1	EAR STRENGTH O - QU/2 1,0 1,5 2 PENETRATION	□ - SV 2.0 2.5
프늡	ELEVATION IN FEET			AP	NIT W	REC(SAM	▲ NL\/A	(ASTM D 1586) LUE (BLOWS PE	:R FOOT)
DEPTH IN FEET	-WE	DESCR	IPTION OF MATERIAL	, <u> </u>	. Yid	낊		W	ATER CONTENT	Г. %
					L R S	8		PL 10 2	20 30 4	40 50 LL
		Asphalt: 10								
		Suii, brown	and gray, clayey SILT - ML		7-5-	4 :	SS1	::: X ::: % :		
		Stiff to soft trace grave	, gray and brown, silty, LEAN CLA	Y - (CL)	3-10	-0 ;	SS2			
_ 5	 313	· liace grave	51							
		trace sand			5-2-	2	SS3			
		93% passir	ng No. 200 sieve		<u> </u>				T : : : : : : : : : : : : : : : : : : :	
− 10 	-3 08 -				3-2-	3 3	SS4			
		trace organ	nics		2-3-	4 :	SS5	X	•: : : : : : : : :	
— 15 —	-3 03 -	Boring term	ninated at 15 feet.	7//						
− 20 −	298									
25	- 293 -									
23	293									
− 30 	 288									
								Drown by CEM	Chocked by: ADA4	Applyd by DBA
	<u>GROUI</u>	NDWATER DA	ATA <u>E</u>	DRILLING DAT	<u>A</u>			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC	<u>X</u> FR DUNTER	EE WATER N	DRILLING WASHB <u>KJB</u> DF	R <u>3 3/4"</u> HOLL BORING FROM _ RILLER <u>JWD</u>	FEET LOGGEI			C	GEOTECHN A Universal Engineering Sc	
REM	MARKS	:	HA	<u>ME 750X</u> DRILL MMER TYPE <u>A</u> ER EFFICIENCY	uto			From Near SR Haywo	SR-222 R-468 To Near Co ood County, Ten	ampground Rd Inessee
								LOG	G OF BORING:	CON-7
								Pro	ject No. J042	140.01

		Completion Date: _Station: 3118+22.7 NAD83 Completion Date: _ Station: 3118+22.7 Offset: _37.6		SLOG	IGHT (pcf) SOUNTS /ERY/RQD	ES	Δ - UU/2 0 _i 5		□ - SV 2 _i 0 2 _i 5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF MAT	ΓERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-V	(ASTM D 1586) ALUE (BLOWS PE	ER FOOT)
		Topsoil: 3 inches							
		Medium stiff, brown and gray to ta CLAY, trace organics - (CL)	n, silty, LEAN		1-2-3	SS1	. A		
— 5—	—315 —				100	ST2	· · · · · △ · •		1
					2-3-5	SS3		• • • • • • • • • • • • • • • • • • • •	
					1-3-5	SS4			
— 10—	 310								
— 15 —	 305	Medium stiff to stiff, brown and red LEAN CLAY - (CL) trace organics	d to gray, sandy,		2-4-6	SS5		•	
- 10- - 15-		· trace organics							
		55% passing No. 200 sieve							
— 20 —	-300 -	30% passing No. 200 sieve			2-2-3	SS6		[] 	
٥٢	205				3-5-6	SS7	::: X :::		
— 25 —	295	Boring terminated at 25 feet.							
— 30 —	 290								
	<u>GROU</u>	NDWATER DATA	DRILLING DA	<u>ATA</u>			Drawn by: JSH Date: 1/30/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
		REE WATER NOT RED DURING DRILLING	AUGER <u>3 1/4"</u> HO WASHBORING FROM					GEOTECHN	OLOGY
REM			JCG DRILLER SEM	<u>и</u> LC	GGER			A Universal Engineering S	clences Company
RFN	MARKS	:	Geoprobe DRIL				From Near S Hayw	SR-222 R-468 To Near C ood County, Ter	ampground Rd nnessee
	- <i>u</i>	•					LO	OG OF BORING:	SP- 9
							Pro	oject No. J042	140.01

		tion: 319.3	Completion Date: <u>12/20/22</u> Station:3118+28.1	90	HT (pcf) JNTS Y/RQD		Δ - UU/2	O - QU/2	□ - SV
	ELEVATION IN FEET		Offset: -734.4	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	STANDARD	PENETRATION (ASTM D 1586) ALUE (BLOWS PE	
DEPTH IN FEET	EVA P FE	DESCR	IPTION OF MATERIAL	g	SPT SPT ORE			ATER CONTENT	
	급=	A I I4- O :	to also a		F., S		10 2	20 30 4	10 50
		Asphalt: 6 i	o stiff, gray, clayey SILT - ML						
					5-5-9	SS1		•	
_	-314				11-10-10	SS2		 	
_ 5-	-314-								
					7-4-5	SS3	: : : X : : : : :	•::::::::::::::::::::::::::::::::::::::	
>-									
NO S		Medium sti	ff, gray and brown, silty, LEAN CLAY - CL		4-3-2	SS4	: X : : : : : : :		
10	309								
A PUR									
ATION									
USTR		trace organ	nics		3-3-3	SS5			
GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.	-3 04 -	Boring term	ninated at 15 feet.	/////					
96 FG									
J OH									
SRAP									
₫ — 20 —	– 299 –								
10N MAY BE GRADUAL.									
BE G									
MA									
Ó L 25 -	294								
LISANSI — 25 —									
뷭									
2/2 A/2 8									
2									
	 289								
0638;									
GTINC 0638301									
J042140.01 GINT.GPJ	GROUN	NDWATER DA	ATA DRILLING I	DATA			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
2140.0	<u>X</u> FR	EE WATER N	OT AUGER <u>3 3/4"</u> F	HOLLO	W STEM				
	DUNTER	RED DURING I	WASHBURING FRO				(C	GEOTECHN	
NOIL			KJB DRILLER J					A Universal Engineering Sc	tences Company
ELEV			CME 750X DF					SR-222	
- WQC o			HAMMER TYP HAMMER EFFICIE				From Near SR Haywo	R-468 To Near Ca ood County, Ten	ampground Rd nessee
OG OF BORING 2020 JDM - ELEVATIONS	MARKS:						LOC	G OF BORING:	CON-6
0G OF E							Pro	ject No. J0421	140.01

		ation: 319.8	Completion Date: 1/26/23 Station:3118+30.5 Offset: -50.0	POO	GHT (pcf) OUNTS ERY/RQD	S	SHE Δ - UU/2 0 _i 5 1 _i	O - QU/2 0 1,5 2	l, tsf □ - SV 2,0 2,5
DEPTH V FEET	ELEVATION IN FEET		IPTION OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-VAI	PENETRATION (ASTM D 1586) LUE (BLOWS PENTER CONTENT) 0 30 4	R FOOT)
		Topsoil: 4 i							
		Soft to very (CL)	r stiff, brown and gray, silty, LEAN CLAY	(-	1-1-1	SS1	A	. •	
		trace orgar	nics and roots		1-1-2	SS2	A	• • • • • • • • • • • • • • • • • • • •	
- 5-	-315 —								
				⊻	104	ST3		<u> </u>	
- 10	240	trace sand	and organics		2-2-4	SS4			
10	-310 —								
		trace grave	el and organics		3-5-7	SS5			
— 15—— —————————————————————————————————	-305 —								
		Stiff to med	dium stiff, gray and red to brown, sandy,						
- 20	-300 —	LEAN CLA	Y-CL /3		3-3-6	SS6			
- 25-	-295	Boring tern	ninated at 25 feet.		1-2-4	SS7			
		Boiling term	ililated at 25 leet.						
- 30	-290								
	GROU	INDWATER D	ATA DRII I	LING DATA	1		Drawn by: JSH	Checked by: ABM	App'vd. by: DBA
			AUGER <u>3</u>				Date: 1/30/23	Date: 2/20/23	Date: 2/20/23
ENC	OUNTI	ERED AT <u>6.5</u>		IG FROM _	FEET			GEOTECHN A Universal Engineering So	
REM	ARKS	: :		<u>be</u> DRILL RI R TYPE <u>Au</u> t			From Near SR- Haywoo	SR-222 -468 To Near Co od County, Ten	ampground Ro nessee
							LOC	G OF BORING:	SP- 8
							Proj	ect No. J042	140.01

Surfa	ice Flev	ation: 320.3	Completion Date:	12/14/22		පි ගීදු			EAR STRENGTH			
			Station: 3118+52.3		၂ ဗွ	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD		Δ - UU/2	○ - QU/2	□ - SV		
	Datum	NAD83	Offset: -435.5		100	후얼뛰	ES	0,5 1,0 1,5 2,0 2,5 STANDARD PENETRATION RESISTANCE				
	7				GRAPHIC LOG	N N N	SAMPLES	STANDARD		RESISTANCE		
프뉴	흔늡				RA	BLC REC	SA	▲ N-\/A	(ASTM D 1586) LUE (BLOWS PE	R FOOT)		
DEPTH IN FEET	₹‼	DESCR	RIPTION OF MA	ATERIAL	ত	Y I		W	ATER CONTENT	Г. %		
ΩΖ	ELEVATION IN FEET					S CO		PI	••••••••••••••••••••••••••••••••••••••	10 50 L		
		Asphalt: 1	0 inches									
		Medium st	tiff, brown and red, gra	velly SILT - ML	0 0	7-4-3	SS1					
						7-4-3	331					
					, 9 (
		Soft to me	edium stiff, brown and st.)	tan, silty, LEAN		1-2-2	SS2	: : : : : : : :	· · · · · · · · · · · · · · · · · · ·	1		
- 5-	 315	little sand	•									
			ing No. 200 sieve nics and sand			0.4.0	000					
		l adoc orga	inios ana sana			2-1-3	SS3					
						1-2-4	SS4					
_ 10 <i>_</i>	- 310 -						+					
									1			
						2-3-4	SS5	:: x ::::::	•:::::::			
- 15 <i>-</i>	 305	Boring ter	minated at 15 feet.									
		Ŭ										
- 20 <i>-</i>	 300											
- 25-	<u> 295 </u>											
- 30 -	_ 290 –											
							1	Drawn by: SEM	Checked by: ABM	App'vd. by: DBA		
	GROU	NDWATER D	<u>ATA</u>	DRILLING	DATA			Date: 1/9/23	Date: 2/20/23	Date: 2/20/23		
		REE WATER N		AUGER <u>3 3/4"</u>	HOLLO	W STEM				01.001		
ENC	OUNTE	RED DURING	DRILLING	WASHBORING FI	ROM	FEET			GEOTECHN	ULOGY		
				KJB DRILLER	JWD_L0	OGGER			A Universal Engineering Sc	lences Company		
				<u>CME 750X</u> [RILL R	IG						
				HAMMER TY	PE Aut	<u>o</u>		From Near SE	SR-222 2-468 To Near Ca	amnaround D		
				HAMMER EFFIC	IENCY _	<u>84</u> %		Haywo	ood County, Ten	nessee		
REI	MARKS	i:										
								LOC	G OF BORING:	CON-5		
								Pro	ject No. J042'	140.01		

	Datum <u>N</u>	11ion: 321.1	Completion Date:	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 1,0 1,5 2 PENETRATION	□ - SV
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPH	SPT BLOW	SAMI	PI I	(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT 20 30 4	
	ш	Asphalt: 10) inches					10 30 4	
		Stiff, browr (CL)	n to brown and red, silty, LEAN CLAY -		4-6-7	SS1	.		
	040				4-4-5	SS2		•	
— 5 -	316				3-4-5	SS3			
					0-4-0	000			
— 10—	 311	trace organ	nics		3-4-5	SS4	::: x :::::	: ◆ : : : : : : : : : : : : : : : : : :	
10									
		Stiff, browr	n, red and gray, sandy, LEAN CLAY, trace		3-4-5	SS5	: : : : : : : : : : : : : : : : : : :	: : : : : : : : : : : : : : : : : : :	
— 15 -	306	-	ninated at 15 feet.	<i>()////</i>					
— 20—	3 01								
-									
_ 25_	296								
— 30—	—291 —								
	GROUN	NDWATER D	ATA DRILLIN	G DATA			Drawn by: SEM	Checked by: ABM	App'vd. by: DBA
	<u>X</u> FR	EE WATER N RED DURING	OT AUGER <u>3 3/4</u>	"_ HOLLC	W STEM FEET		Date: 1/9/23	GEOTECHN A Universal Engineering Sci	- 10 Control of the C
REM	MARKS:		CME 750X HAMMER T HAMMER EFFI	DRILL R YPE <u>Aut</u>	IG <u>o</u>		From Near SR Haywo	SR-222 2-468 To Near Ca and County, Ten	ampground R nessee
							LO	G OF BORING:	W-16
							Pro	ject No. J0421	140 01

	Datum	vation: 319.0 NAD83	Completion Date:	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5	PENETRATION	□ - SV
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF MATERIAL	GRAP	SPT BLO	SAI	PL I	(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT 20 30 4	Г, %
	Ш	Topsoil: 3	inches	('''')	,		10 ,	20 30 2	10 50
		Medium si trace roots	tiff, brown, silty, LEAN CLAY - (CL) s and organics ing No. 200 sieve		3-3-4	SS1	.	• • • • • • • • • • • • • • • • • • • •	
_ 5_	3 14	Stiff to me - (CH)	edium stiff, gray, red and brown, FAT CLAY		107	ST2		•	
J	314	trace orga	nics		3-4-7	SS3		• • • • • • • • • • • • • • • • • • • •	
		trace sand	1		3-3-5	SS4			
— 10—	309-	-							
— 15—	-304-	Stiff to ver trace sand trace orga			5-6-7	SS5		••••••	
		- - -							
_ 20_	—299 —	-			5-6-10	SS6		• • • • • • • • • • • • • • • • • • • •	
		-							
		Very stiff,	gray, sandy, LEAN CLAY - CL		5-7-9	SS7			
— 25—	—294 —	Boring ten	minated at 25 feet.						
_ 30-	 289	- -							
		-							
	GROU	JNDWATER D	DATA DRILLI	NG DATA	1	1	Drawn by: SEM Date: 1/23/23	Checked by: ABM Date: 2/20/23	App'vd. by: DB/
	<u>X</u> FI	REE WATER N RED DURING	NOT AUGER _ <u>3 1</u> /	SFROM SEM_LO	FEET OGGER		1/25/25	GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS	S :		TYPE <u>Aut</u>			From Near SF Haywo	SR-222 R-468 To Near Ca good County, Ten	ampground F nessee
								G OF BORING:	
							Pro	ject No. J0421	140.01

	Datum N	Sta	ompletion Date:1/3/23 tion: 3122+26.1 Offset:49.7	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _. 5 1	EAR STRENGTH O - QU/2 I,0 1,5 2 PENETRATION	□ - SV 2,0 2,5
DEPTH IN FEET	ELEVATION IN FEET	DESCRIP [*]	TION OF MATERIAL	GRAPI	/ UNIT V PT BLOV RE REC	SAM		(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT	
ဋ	ELE N				R R R		PI		40 50 L
		Topsoil: 6 inch		124 1 _N .	17.				
		Medium stiff to	stiff, gray to brown, clayey SILT -	- ML	3-3-4	SS1	: : 		
					2-3-5	SS2			
– 5–	 314				2-3-5	332	•		
					2-3-6	SS3		•	
- 10-									
					2-5-5	SS4	11114111	•::::::::::::::::::::::::::::::::::::::	
10	-309 -								
5									
70 POLYOL WILLIAM TO THE POLYOL WILLIAM TO T	-	Stiff, gray to re	d, silty, LEAN CLAY - CL		2.4.5	005			
15 - 15	304	Boring termina	tod at 1E fact		3-4-5	SS5	📤	• • • • • • • • • • • • • • • • • • • •	
5		Boring termina	led at 15 leet.						
- 20	 299								
i i									
5	—294 —								
25	294								
25									
- PR									
2/24/28									
<u> -</u> 30 —	 289								
G IINC 0638301									
9 2									
GB.									
	GROUN	IDWATER DATA	\ DR	ILLING DATA	`	•	Drawn by: GBB	Checked by: ABM	
40.01							Date: 1/10/23	Date: 2/20/23	Date: 2/20/23
ENC		EE WATER NOT RED DURING DRI	LLING	3 3/4" HOLLO			الم ا	GEOTECHN	UI UGY
, SNS			WASHBUR	RING FROM _ LER <u>JWD</u> L				A Universal Engineering Se	clences Company
NA NA				750X DRILL F					
ELE				MER TYPE <u>Au</u>			F N. 6-	SR-222	
MODE				EFFICIENCY			From Near SR Haywo	R-468 To Near Cood County, Ter	ampground R inessee
LOG OF BOKING ZOZU JUM - ELEVATIONS JU42/140.01 GIN 1.GFD	MARKS:						LC	OG OF BORING:	E-13
20									•
3							Pro	ject No. J042	140.01

	Datum N	Completion Station: 31224 Offset: 49	<u>-26.</u> 1	SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	PENETRATION	□ - SV		
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF	F MATERIAL	GRAP	Y UNIT \ PT BLO' RE REC	SAN	WA	(ASTM D 1586) LUE (BLOWS PE ATER CONTENT	7, %		
	ᆲᆂ				R _S O		PI	•	10 50 L		
		Topsoil: 6 inches	ray, silty, LEAN CLAY - CL	11 1 _N 1							
		Mediam still, brown and g	ray, siity, ELAN OLAT - OL		3-2-4	SS1	1:4:::::				
					2-2-3	SS2					
— 5 -	 316										
					2-4-4	SS3					
					2-4-4	333					
— 10 —	-3 11-				2-2-3	SS4	[] A [] [] []	• : : : : : : :			
10	311										
					1-3-3	SS5					
— 15—	 306	Boring terminated at 15 fe	et.								
		· · · · g - · · · · · · · · · · · · ·									
— 20 –	301-										
— 25 —	 296										
— 30 	 291										
	GROUN	DWATER DATA	DRILLING D	<u>ATA</u>			Drawn by: SEM	Checked by: ABM	App'vd. by: DBA		
		EE WATER NOT	AUGER <u>3 3/4"</u> H		W STEM		Date: 1/9/23	Date: 2/20/23	Date: 2/20/23		
ENC		ED DURING DRILLING	WASHBORING FRO				ظے ک	GEOTECHN	OLOGY		
			KJB DRILLER J.					A Universal Engineering Sc	lences Company		
			<u>CME 750X</u> DR								
			HAMMER TYPI				From Noar SD	SR-222 -468 To Near Ca	amnaround D		
DEA	MARKS:		HAMMER EFFICIE	MMER EFFICIENCY <u>84</u> %				From Near SR-468 To Near Campground Re Haywood County, Tennessee			
KEN	iiANNO:						LO	G OF BORING:	W-17		

		ation: 315.7 NAD83	Completion Date: 12/20/22 Station: 3126+85.7 Offset: -64.1	50T 2	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV .0 2,5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	RIPTION OF MATERIAL	GRAPHIC LOG	SY UNIT WISPT BLOW	SAMPLES	▲ N-VA	(ASTM D 1586) LUE (BLOWS PE	R FOOT)
					E . S		10 2	20 30 4	10 50 LL
			es of gravel f, brown to red and brown, LEAN CLAY -						
		(CL)			3-2-2	SS1	: ▲:::::::	I : •: : : : : : : : : : : : : : : : : :	
			anics, little sand ing No. 200 sieve						
					2-2-3	SS2	: \		
- 5-	 311	-							
		_			2-3-3	SS3			
		-			2-3-3	SS4			
- 10 -	 306	-			2-3-3	334	•	•	
		_							
45	204	-			4-5-7	SS5	111114110		
- 15-	 301	Boring terr	minated at 15 feet.						
		-							
- 20-	 296	-							
		-							
- 25-	—291 —	-							
20	201								
		_							
- 30 -	 286	-							
		-							
							D b CEM	Charles de la ADM	Analysis by DDA
	<u>GROU</u>	INDWATER D	ATA DRILLIN	<u>G DATA</u>			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		REE WATER N RED DURING		FROM	FEET			GEOTECHN A Universal Engineering Sc	OLOGY
REM	MARKS	6:	<u>CME 750X</u> HAMMER T HAMMER EFFI	YPE Aut	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground Ro nessee
- -							LO	G OF BORING:	W-18

	Datum	ation: <u>311.7</u>	Completion Date Station: 3131+30.	e: <u>12/19/22</u>)	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 i0 1i5 2 PENETRATION	□ - SV 2.0 2.5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF M	IATERIAL	GRAPH	SPT BLOW	SAMI	PL I	(ASTM D 1586) LUE (BLOWS PE	Γ, %
		Asphalt: 10) inches					10 2	20 30 4	40 50
		Medium st CLAY, trac	iff to stiff, gray and be organics - (CL)	prown, silty, LEAN		5-4-4	SS1			
		68% passi	ng No. 200 sieve			3-2-4	SS2		· · · · · · · · · · · · · · · · · · ·	
— 5—	307									
						4-5-6	SS3	: : : : : : : : : : : : : : : : : : :	· • · · · · · · · · · · · · · · · · · ·	
						3-4-6	SS4			
— 10 —	302									
— 15 <i>—</i>						4-4-6	SS5			
		Boring terr	minated at 15 feet.							
— 20 <i>—</i>	—292 —									
— 25 —	—287 —									
00	000									
— 30 —	—282 —									
	GROU	NDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn by: SEM Date: 1/4/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		REE WATER N RED DURING		AUGER <u>3 3/4"</u> WASHBORING FF <u>KJB</u> DRILLER <u>.</u>	ROM	FEET			GEOTECHN A Universal Engineering Se	OLOGY
				CME 750X C HAMMER TY HAMMER EFFIC	PE Aut	IG <u>o</u>		From Near SR Haywo	SR-222 -468 To Near Cod County, Ter	ampground R inessee
REM	MARKS):						LO	G OF BORING:	E-14

		ation: 313.2	Completion Date: Station: 3136+44.7 Offset: -71.4	12/20/22	907	IGHT (pcf) SOUNTS FRY/RQD	ES	∆ - l	JU/2 5	0 1 _i 0		□ - S\ 2 _. 0	
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MA	TERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES		▲ N-V	(AST ALUE (E	TM D 1586) BLOWS PI	RESISTAN ER FOOT) T, % 40 50	
		organics -	dium stiff, gray, clayey ML	SILT, trace		6-7-4	SS1		A	· · · · ·			
		trace orgai				4-3-4	SS2						
- 5-	 308					4-3-4	332						
						3-4-5	SS3			• : :			
						4-3-5	SS4]] 	 	· · · · · · · · · · · · · · · · · · ·			
_ 10_	-3 03 -												
— 15—						3-3-5	SS5						
- 20-	—293 —	Boring terr	ninated at 15 feet.										
— 25 —	 288												
— 30—	—283 —												: -
	GROU	INDWATER D	<u>ATA</u>	DRILLING	DATA			Drawn b			ked by: ABN 2/20/23	App'vd. by: [
		REE WATER N RED DURING		AUGER <u>3 3/4"</u> I WASHBORING FR <u>KJB</u> DRILLER <u>J</u>	ОМ	FEET				GEO	OTECHN		
REN	MARKS	3:		CME 750X DI HAMMER TYF HAMMER EFFICIE	PE <u>Aut</u>	<u>o</u>		From N	lear S Hayw	R-468 T	R-222 o Near County, Ter	ampground nessee	d R
		••							L	OG OF	BORING:	W-19	
									Pr	oject N	lo. J042	140.01	

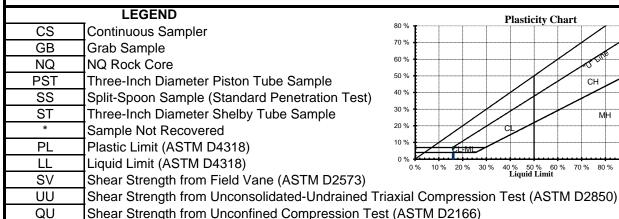
		nation: 314.9	Completion Date:	5010	IGHT (pcf) SOUNTS /ERY/RQD	ES	Δ - UU/2 0 _i 5 1		□ - SV _. 0 2 _. 5
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	A N-VA	PENETRATION I (ASTM D 1586) LUE (BLOWS PE ATER CONTENT	R FOOT)
		Topsoil: 6 in	nches	1,1 1 _N 1,1					
		Soft to med CLAY - (CL trace organ			0-1-1	SS1	A		
		88% nassir	ng No. 200 sieve						
- 5-	 310 <i>_</i> _	- 00 70 pason	g 110. 200 01010		2-2-4	SS2	1:4:::::	 :	
-		-							
		_			2-3-4	SS3		. •	
		-							
- 10-	 305	-			1-2-3	SS4	: X : : : : : : :	. ♦	
10		-							
		_							
		-							
— 15—					2-2-4	SS5	1:4:::::	:♦:::::::::	
- 15-	-300-	Boring term	ninated at 15 feet.						
		_							
- 20 -	 295	-							
		-							
		_							
- 25	 290	-							
		-							
		-							
— 30 —	—285 —	_							
		_							
		_							
							Drawn by CDD	Chapted by ADM	Applied his DDA
	GROU	INDWATER DA	ATA DRILLI	NG DATA			Drawn by: GBB Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23
ENC		REE WATER NO RED DURING I		FROM	FEET			GEOTECHN A Universal Engineering Sci	
REM	MARKS	S:		X DRILL R TYPE Aut FICIENCY	<u>o</u>		From Near SR Haywo	SR-222 -468 To Near Ca od County, Ten	ampground R nessee
							LO	G OF BORING:	E-15
							Pro	ject No. J0421	40.01

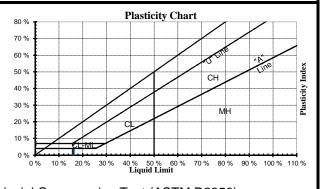
	ce Eleva Datum ^I	ation: 315.9	Completion Date Station:3139+47.5 Offset:82.1	12/20/22	GRAPHIC LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _. 5 1	EAR STRENGTH O - QU/2 10 1,5 2 PENETRATION	□ - SV 2.0 2.5			
DEPTH IN FEET	ELEVATION IN FEET	DESCR	IPTION OF M	MATERIAL		DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	(ASTM D 1586) • N-VALUE (BLOWS PER FOOT) WATER CONTENT, % PL 0 20 30 40 50					
		Asphalt: 10) inches										
		Very stiff, t	orown SILT, little gra	vel - ML		7-15-10	SS1		. A				
- 5-	-3 11 -		dium stiff, brown, silt ng No. 200 sieve	y, LEAN CLAY - (CL)		2-2-1	SS2	A ::::::::::::::::::::::::::::::::::::	····•································				
						1-2-2	SS3		•				
- 10-	-3 06 -					1-2-2	SS4	: A ::::::	:●:::::::				
						2-2-4	SS5		•				
— 15— —	3 01	Boring terr	ninated at 15 feet.										
_ 20_	—296 —												
— 25— —	 291												
20	200												
- 30-	286												
	00011	NDWATED D	ATA	DDII I INO	DATA			Drawn by: RSP	Checked by: ABM	App'vd. by: DBA			
		NDWATER D		DRILLING				Date: 1/4/23	Date: 2/20/23	Date: 2/20/23			
ENC		REE WATER N RED DURING		AUGER <u>3 3/4"</u>				الم ا	GEOTECHN	ULUGY			
				WASHBORING FF					A Universal Engineering Se				
				WEC DRILLER _ CME 750X_D									
				HAMMER TY					SR-222				
D=-	AADVO			HAMMER EFFIC				From Near SR Haywo	2-468 To Near Cood County, Ter	ampground R inessee			
KEN	MARKS	:						LO	LOG OF BORING: W-20				

	ce Elev	Station 3143+29		IC LOG	EIGHT (pcf) COUNTS VERY/RQD	LES	Δ - UU/2 0 _i 5 1	EAR STRENGTH O - QU/2 i0 1i5 2 PENETRATION	□ - SV			
DEPTH IN FEET	ELEVATION IN FEET	DESCRIPTION OF	MATERIAL	GRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	▲ N-VA WA	(ASTM D 1586) ▲ N-VALUE (BLOWS PER FOOT) WATER CONTENT, %				
	Ш	Asphalt: 17 inches			О		10 2	20 30 4	10 50			
		Stiff, red and brown, silty, LE	AN CLAY trace sand -									
		CL CL	O <u></u> , a o o o a a		5-4-5	SS1	. .					
- 5-	322	Medium dense, red and brov (SC) 32% passing No. 200 sieve	vn, CLAYEY SAND -		5-7-8	SS2						
		Stiff, red, brown and gray, sa	andy, LEAN CLAY - CL		3-4-5	SS3						
					3-4-5	000						
					3-5-6	SS4						
— 10 	317											
		Stiff, gray, LEAN CLAY - CL			3-4-5	SS5						
— 15 	312-	Boring terminated at 15 feet.		/////								
— 20 -	307											
— 25 —	-302-											
— 30 -	 297											
	GROU	NDWATER DATA	<u>DRILLING D</u>	<u>ATA</u>			Drawn by: SEM Date: 1/9/23	Checked by: ABM Date: 2/20/23	App'vd. by: DBA Date: 2/20/23			
	X FREE WATER NOT		AUGER <u>3 3/4"</u> H	OLLO	W STEM				20220			
	<u>X</u> FF				CENTERINOLO							
	<u>X</u> FF	RED DURING DRILLING	WASHBORING FRO	M	_ FEE I							
	<u>X</u> FF							A Universal Engineering Sc				
	<u>X</u> FF		WASHBORING FRO	<u>/D</u> L0	OGGER							
	<u>X</u> FF		WASHBORING FRO <u>KJB</u> DRILLER <u>JW</u>	<u>/D</u> L0 ILL R	OGGER IG		From Near SR	SR-222	lences Company			
ENC	<u>X</u> FF OUNTE	RED DURING DRILLING	WASHBORING FRO <u>KJB</u> DRILLER <u>JW</u> <u>CME 750X</u> DRI	/ <u>D</u> L0 ILL R <u>Aut</u>	DGGER IG <u>o</u>		From Near SR Haywo		ampground Ro			
ENC	<u>X</u> FF	RED DURING DRILLING	WASHBORING FRO KJB DRILLER JW CME 750X DRI HAMMER TYPE	/ <u>D</u> L0 ILL R <u>Aut</u>	DGGER IG <u>o</u>		Haywo	SR-222 -468 To Near C	ampground Ronessee			

		AD83	Station: 3143+37.9 Offset: 20.3		SRAPHIC LOG	DRY UNIT WEIGHT (pcf) SPT BLOW COUNTS CORE RECOVERY/RQD	SAMPLES	0 _j 5 1	H, tsf				
DEPTH IN FEET	ELEVATION IN FEET	DESCRI	PTION OF MA	ATERIAL	GRAF	Y UNIT PT BLC RE RE(SA	W	(ASTM D 1586) ALUE (BLOWS PE ATER CONTENT	Γ, %			
	밀목					DR. CO		PI		40 50 L			
		Topsoil: 4 in	to very stiff, brown	to red. silty I FAN	1,1,1,1								
		CLAY - (CL))	to rou, only, LL7 ar		2-4-4	SS1	11141111					
						2-3-4	SS2	X					
− 5 +	-313 -												
						108	ST3						
						100	313						
_ 10-						2-5-6	SS4						
— 10 —	-308					2-3-0	334						
10		Stiff, brown	to gray, sandy, LEAI	N CLAY - CL		3-5-6	SS5	\ \					
15	303	Boring term	inated at 15 feet.		- /////·								
í)													
- 20 -	 298												
20	250												
20													
_ 25	 293												
25													
!													
77777													
2													
	 288												
0 INC 0838301													
2													
2								Drawn by: GBB	Checked by: ABM	App'vd. by: DBA			
5	GROUN	IDWATER DA	<u>tta</u>	DRILLING	DATA			Date: 1/9/23	Checked by: ABM Date: 2/20/23	Date: 2/20/23			
LOG OF BOKING ZOZU JUM - ELEVATIONS JUAZ 140.01 GIN 1.GFD		EE WATER NO		AUGER <u>3 3/4"</u>	HOLLO	W STEM			O FOTFOU	01001			
Š ENC¢	ENCOUNTERED DURING DRILLING		WASHBORING FF	ROM	FEET			GEOTECHN	ULUGY				
<u></u>			KJB DRILLER (A Universal Engineering So	tiences Company				
T \			<u>CME 750X</u> D					SR-222					
IJ - -			HAMMER TY				From Near SR	R-468 To Near Ca	ampground R				
RFN	MARKS:			HAMMER EFFICI	ENCY_	<u>84</u> %		Haywo	ood County, Ten	nessee			
								LOG OF BORING: E-16					
									o or boranto.				

BORING LOG: TERMS AND SYMBOLS





SOIL GRAIN SIZE

US STANDARD SIEVE

	12"	3"	3/4	ļ" <i>4</i>	4 10	0 4	0 20	0	
BOULDERS	СОВЕ	N FS	GRA\	√EL		SAND		SILT	CLAY
DOOLDLING	COBL	,LLS (COARSE	FINE	COARSE	MEDIUM	FINE		CLC
	300	76.2	2 19.:		76 2.0	00 0.4	42 0.0	74 0.0	05

SOIL GRAIN SIZE IN MILLIMETERS

UNIFIED SOIL CLASSIFICATION SYSTEM

	Major Di	visions	Symbol	Description
00	Gravel	Clean Gravels	GW	Well-Graded Gravel, Gravel- Sand Mixture
ed 50% 200	and	Little or no Fines	GP	Poorly-Graded Gravel, Gravel-Sand Mixture
rain han No. ize)	Gravelly	Gravels with	GM	Silty Gravel, Gravel-Sand-Silt Mixture
Single	Soil	Appreciable Fines	GC	Clayey-Gravel, Gravel-Sand-Clay Mixture
se-G ore t than the S	Cond and	Clean Sands	SW	Well-Graded Sand, Gravelly Sand
oarse- s (More ger tha Sieve	Sand and Sandy	Little or no Fines	SP	Poorly-Graded Sand, Gravelly Sand
Coar Soils (M Larger Sie	Soils	Sands with	SM	Silty Sand, Sand-Silt Mixture
So	Jolis	Appreciable Fines	SC	Clayey-Sand, Sand-Clay Mixture
Is o	Silts and	Liquid Limit	ML	Silt, Sandy Silt, Clayey Silt, Slight Plasticity
d Soils 50% n No. Size)	Clays	Less Than 50	CL	Lean Clay, Sandy Clay, Silty Clay, Low to Medium Plasticity
ined (inan 5 than ve Si	Clays	Less man so	OL	Organic Silts or Lean Clays, Low Plasticity
~ `. · α	Silts and	Liquid Limit	MH	Silt, High Plasticity
യ ഉ ≅ ഗ	Clays	Greater Than 50	CH	Fat Clay, High Plasticity
Fine-Gra (More t Smaller 200 Si	Oldys	Oreater Than 50	ОН	Organic Clay, Medium to High Plasticity
正)のい	High	nly Organic Soils	PT	Peat, Humus, Swamp Soil

STRENC	GTH OF COHESIVE	SOILS	DENSITY OF GRANULAR SOILS				
Consistency	Undrained Shear	Unconfined Comp. Strength (tsf)	Descriptive Term	Approximate N ₆₀ -Value Range			
Very Soft	Strength (tsf) less than 0.125	less then 0.25	Very Loose	0 to 4			
Soft	0.125 to 0.25	0.25 to 0.5	Loose	5 to 10			
Medium Stiff	0.25 to 0.5	0.5 to 1.0	Medium Dense	11 to 30			
Stiff	0.5 to 1.0	1.0 to 2.0	Dense	31 to 50			
Very Stiff	1.0 to 2.0	2.0 to 3.0	Very Dense	>50			
Hard	greater than 2.0	greater than 4.0					

N-Value (Blow Count) is the last two, 6-inch drive increments (i.e. 4/7/9, N = 7 + 9 = 16). Values are shown as a summation on the grid plot and shown in the Unit Dry Weight/SPT column.

RELATIVE CO	OMPOSITION	OTHER TERMS
Trace	0 to 10%	Layer - Inclusion greater than 3 inches thick.
Little	10 to 20%	Seam - Inclusion 1/8-inch to 3 inches thick
Some	20 to 35%	Parting - Inclusion less than 1/8-inch thick
And	35 to 50%	Pocket - Inclusion of material that is smaller than sample diameter

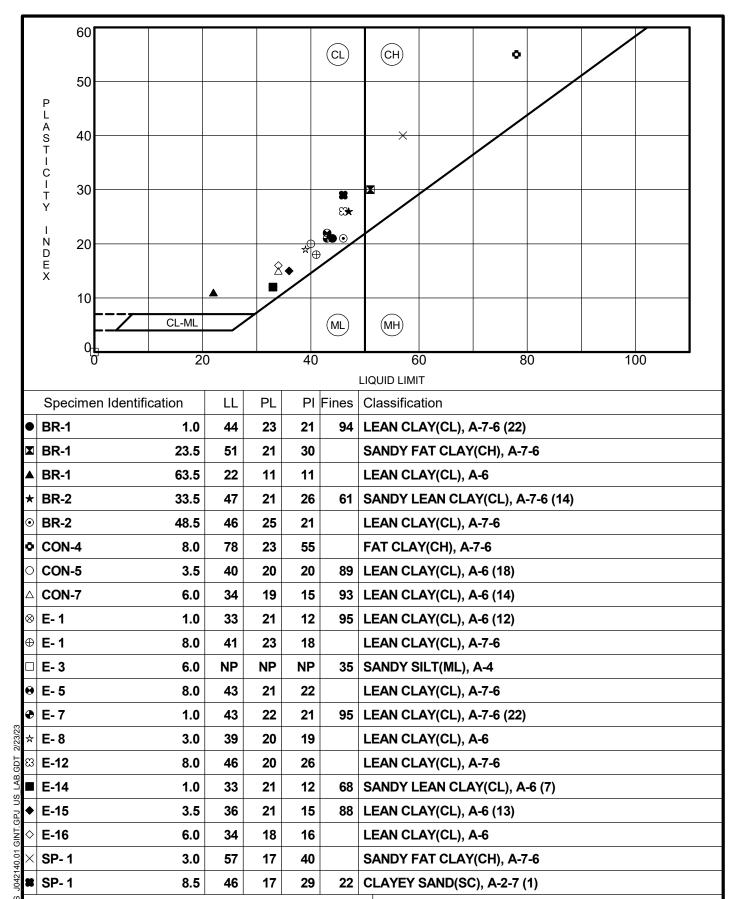


Relative composition and Unified Soil Classification System (USCS) designations are based on visual descriptions and are approximate only. If laboratory tests were performed to classify the soil, the USCS designation is shown in parenthesis.

Geotechnical Data Report SR-222 From Near SR-468 To Near Campground Rd Haywood County, Tennessee March 9, 2023 | Geotechnology Project No. J042140.01 | TDOT Pin No. 132709.00



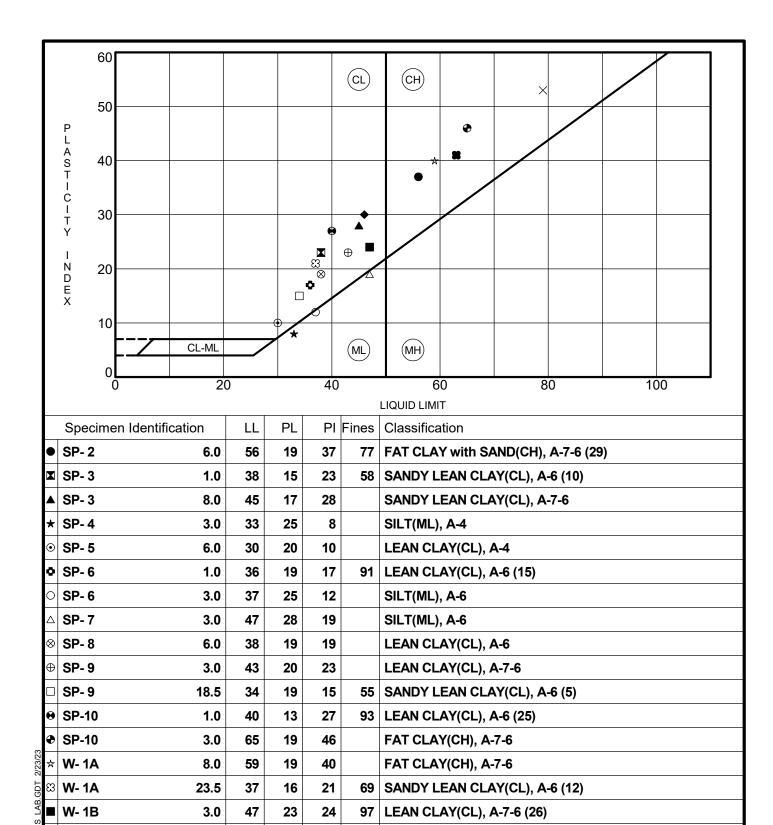
Appendix D
LABORATORY TEST DATA





ATTERBERG LIMITS RESULTS

SR-222





18.0

18.5

23.0

6.0

46

36

79

63

16

19

26

22

30

17

53

41

81

52

LEAN CLAY(CL), A-7-6

LEAN CLAY with SAND(CL), A-6 (13)

SANDY FAT CLAY(CH), A-7-6 (23)

SANDY FAT CLAY(CH), A-7-6 (22)

♦ W- 2

 \Diamond

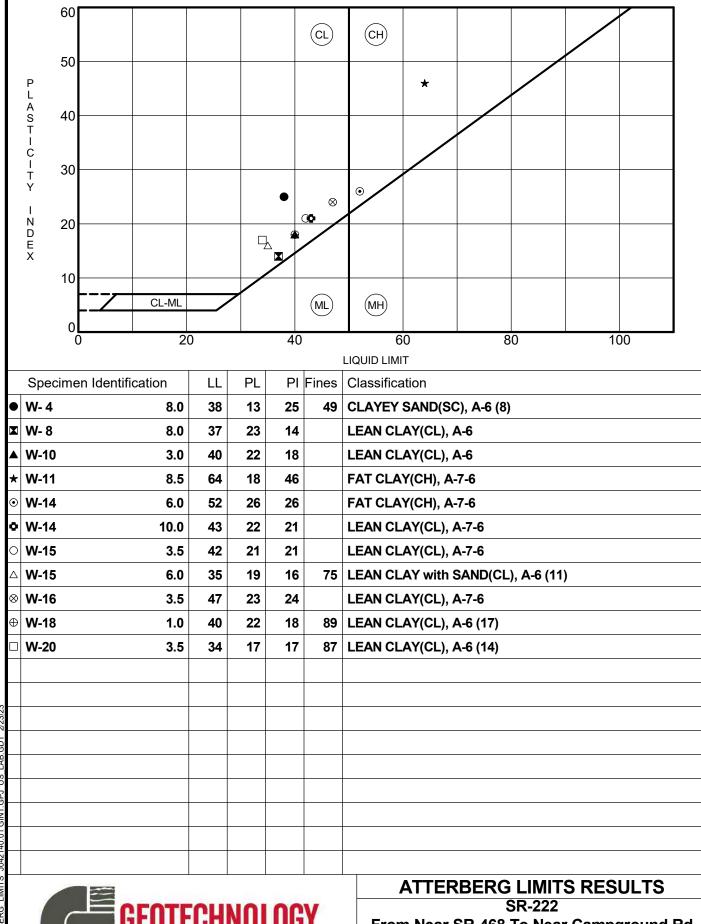
W- 3A

W- 3A

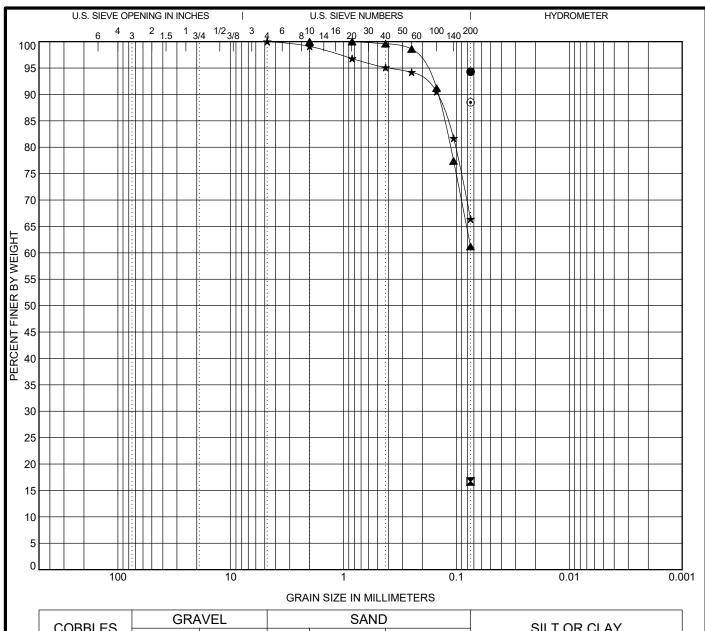
W- 3B

ATTERBERG LIMITS RESULTS

SR-222



A Universal Engineering Sciences Company



CORRIES	GRA	VEL		SAND)	SUITORCLAV
COBBLES	coarse	fine	coarse	medium	fine	SILT OR CLAY

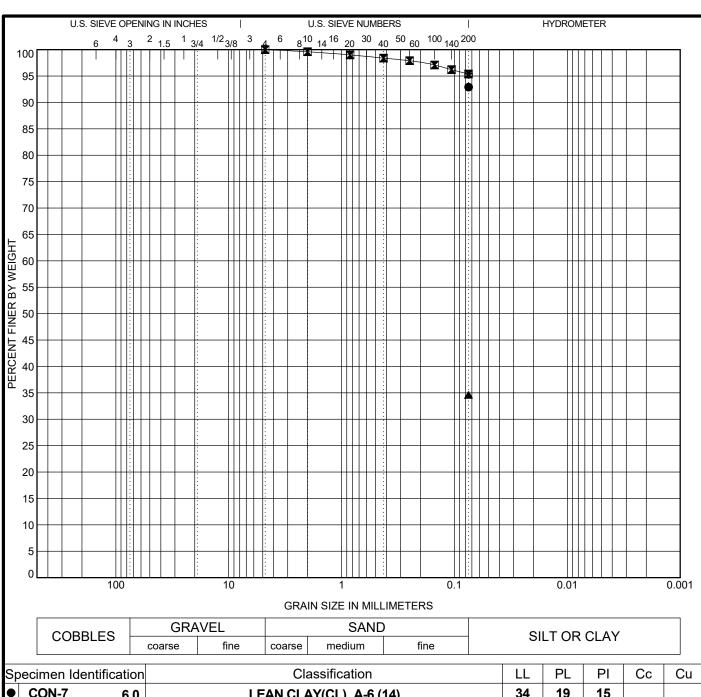
Sp	ecimen Ide	ntification		Cla	assification			LL	PL	PI	Сс	Cu
•	BR-1	1.0		LEAN CLAY(CL), A-7-6 (22)						21		
\blacksquare	BR-1	18.0		CLAYEY SAND(SC), A-2-6								
▲	BR-2	33.5	SA	SANDY LEAN CLAY(CL), A-7-6 (14)						26		
*	BR-2	38.5		SANDY LEAN CLAY(CL), A-7-6								
•	CON-5	3.5		LEAN CLA	AY(CL), A-6 (18)		40	20	20		
Sp	ecimen Ide	ntification	D100	D60	D30	D10	%Grav	∕el %	∕₀Sand	%Si	It 9	6Clay
•	BR-1	1.0	0.075				0.0		0.0		94.3	
\blacksquare	BR-1	18.0	0.075				0.0		0.0		16.7	
A	BR-2	33.5	2				0.0		38.8	61.2		
*	BR-2	38.5	4.75	4.75 0.0							66.4	
•	CON-5	3.5	0.075	0.075							88.5	



US GRAIN SIZE J042140.01 GINT.GPJ US LAB.GDT 2/23/23

GRAIN SIZE DISTRIBUTION

SR-222

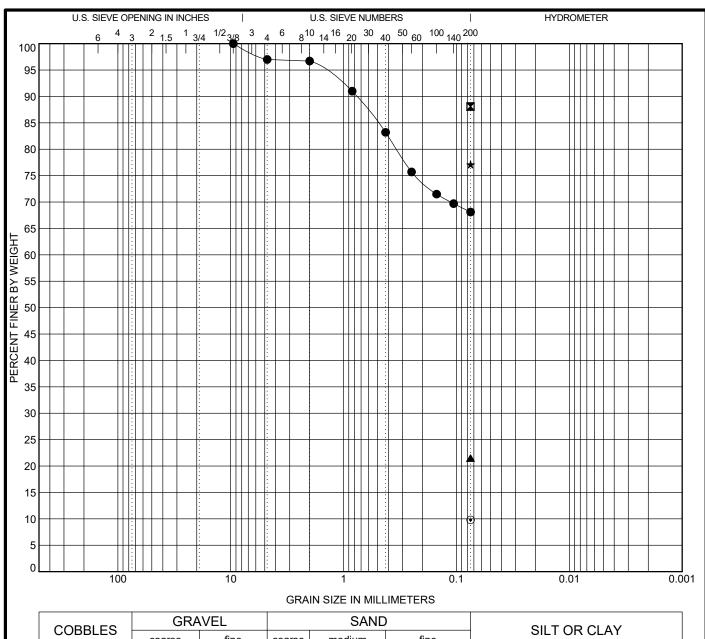


Sp	oecimen Iden	ntification		Cla	ssification			LL	PL	PI	Сс	Cu	
•	CON-7	6.0		LEAN CLA	Y(CL), A-6 (14)		34	19	15			
X	E- 1	1.0		LEAN CLA	Y(CL), A-6 (12)		33	21	12			
lack	E- 3	6.0		SANDY S		NP	NP	NP					
*	E- 7	1.0		LEAN CLAY	(CL), A-7-6	(22)		43	22	21			
0	E- 9	3.5		FAT CLA	Y(CH), A-7-0	3							
Sp	oecimen Ider	ntification	D100	D60	D30	D10	%Grav	∕el %	6Sand	%Sil	It 9	6Clay	
•	CON-7	6.0	0.075				0.0		0.0		92.9		
×	E- 1	1.0	4.75				0.0		4.6		95.4		
	E- 3	6.0	0.075				0.0		0.0		34.6		
▲	E- 7	1.0	0.075				0.0		0.0		95.4		
	E- 9	3.5	0.075				0.0		0.0		95.3		
<u>•</u>						GRAIN SIZE DISTRIBUTION							
3						SD_222							



GRAIN SIZE DISTRIBUTION

SR-222

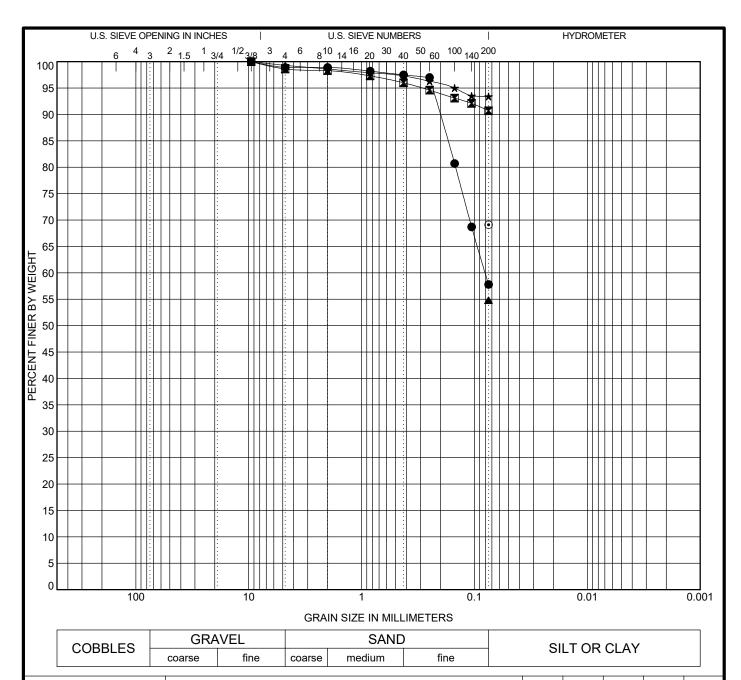


COBBLES	GRA	VEL		SAND)	SILT OR CLAY
	coarse	fine	coarse	medium	fine	SILT OR CLAT

S	pecimen Ider	ntification		Cla	assification			LL	PL	PI	Сс	Cu
•	E-14	1.0	S	ANDY LEAN	CLAY(CL), A	\-6 (7)		33	21	12		
X	E-15	3.5		LEAN CLAY(CL), A-6 (13)								
4	SP- 1	8.5		CLAYEY SA	ND(SC), A-2-	7 (1)		46	17	29		
<u>,</u>	SP- 2	6.0	FAT	CLAY with	SAND(CH), A	-7-6 (29)		56	19	37		
2/23/23	SP- 2	7.0	POORLY G	RADED SAN	ND with CLA	(SP-SC), A	-2-7					
ັ _ລ S	pecimen Idei	ntification	D100	D60	D30	D10	%Grav	/el	%Sand	%Si	lt 9	6Clay
AB.G.	E-14	1.0	9.5				3.0		28.9		68.1	
3	E-14 E-15	3.5	0.075				0.0		0.0		88.1	
<u>_</u>	SP-1	8.5	0.075				0.0		0.0		21.5	
0.01 GINI.GPJ	SP-2	6.0	0.075				0.0		0.0		77.1	
5	SP- 2	7.0	0.075				0.0		0.0		9.8	



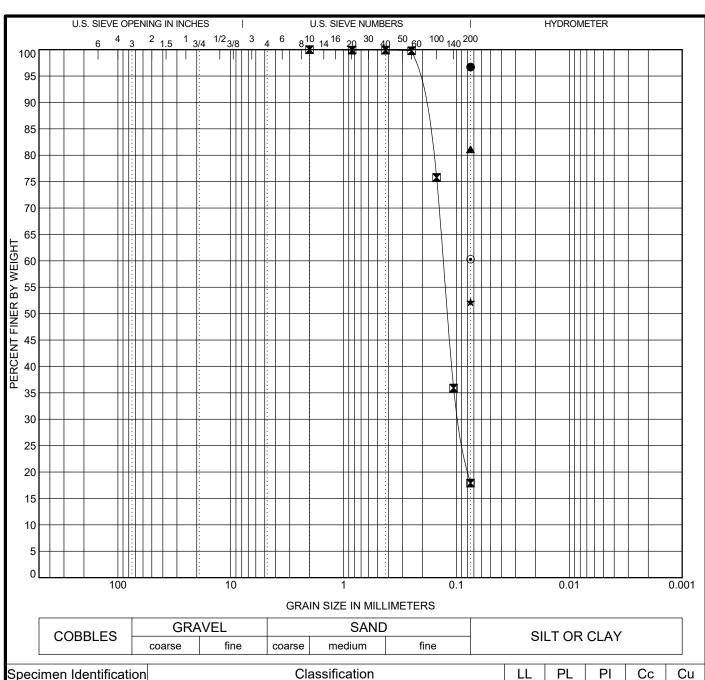
SR-222



Sp	oecimen Ide	ntification		Cla	assification		L	L	PL	PI	Сс	Cu
•	SP- 3	1.0	S	SANDY LEAN	CLAY(CL), A	-6 (10)	3	8	15	23		
×	SP-6	1.0		LEAN CLAY(CL), A-6 (15)						17		
	SP- 9	18.5	;	SANDY LEAN	3	4	19	15				
ູ ★	SP-10	1.0		LEAN CLAY(CL), A-6 (25)						27		
0	W- 1A	23.5	5	SANDY LEAN CLAY(CL), A-6 (12)						21		
Sp	pecimen Ide	ntification	D100	D60	D30	D10	%Gravel	%	Sand	%Sil	t ^c	%Clay
AB.G	W- 1A pecimen Ide SP- 3	1.0	9.5	0.08			1.1	4	1.1		57.8	
S X	SP-6	1.0	9.5				1.4		7.9		90.7	
	SP- 9	18.5	0.075				0.0	(0.0		54.8	
★	SP-10	1.0	9.5				0.7	,	5.9		93.4	
5 0	W- 1A	23.5	0.075				0.0	(0.0		69.1	



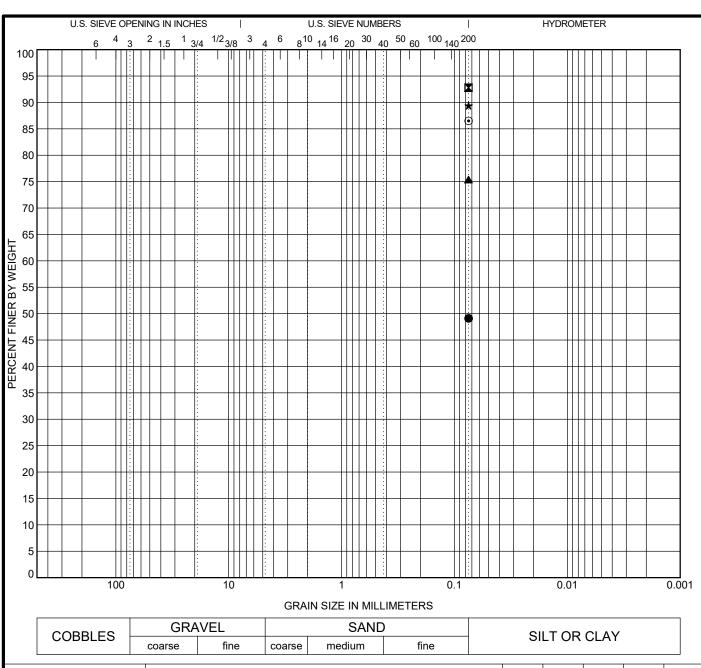
SR-222



Sp	pecimen Ide	ntification		Cla	assification			LL	PL	PI	Сс	Cu
•	W- 1B	3.0		LEAN CLAY(CL), A-7-6 (26)				47	23	24		
×	W- 3A	8.5		SILTY SAND(SM), A-2-4 (0)								
A	W- 3A	18.5	LE	LEAN CLAY with SAND(CL), A-6 (13)					19	17		
ຼ ★	W- 3A	23.0	S	SANDY FAT CLAY(CH), A-7-6 (23)				79	26	53		
0	W- 3B	6.0	S	SANDY FAT CLAY(CH), A-7-6 (22)					22	41		
ր Տլ	oecimen Ide	ntification	D100	D60	D30	D10	%Grave	I %	Sand	%Si	It 9	6Clay
B.G.	W- 3B pecimen Ide W- 1B	3.0	0.075				0.0		0.0		96.7	
¬SU	W- 3A	8.5	2	0.131	0.095		0.0		82.1		17.9	
G _P	W- 3A	18.5	0.075				0.0		0.0		81.1	
₩ Ti	W- 3A	23.0	0.075				0.0		0.0		52.2	
0.01	W- 3B	6.0	0.075				0.0		0.0		60.3	



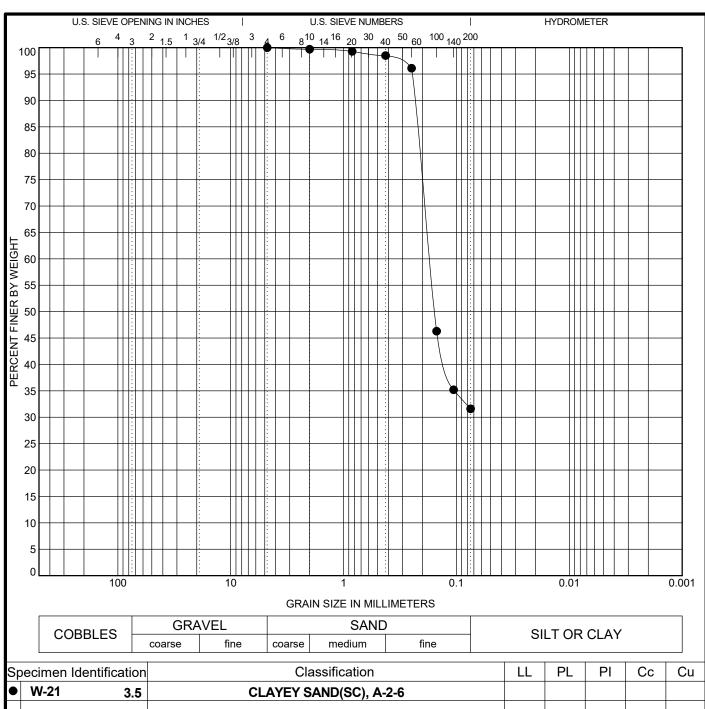
SR-222



Sp	oecimen Idei	ntification		Cla	assification		L	L	PL	PI	Сс	Cu
•	W- 4	8.0		CLAYEY SAND(SC), A-6 (8)						25		
\blacksquare	W- 9	3.5		SILT(ML), A-6								
	W-15	6.0	LE	LEAN CLAY with SAND(CL), A-6 (11) LEAN CLAY(CL), A-6 (17)					19	16		
ູ ★	W-18	1.0							22	18		
0	W-20	3.5		LEAN CLAY(CL), A-6 (14)				4	17	17		
չ Տր	pecimen Idei	ntification	D100	D60	D30	D10	%Gravel	%	Sand	%Sil	t 9	6Clay
Ð. Ö	W-20 pecimen Idei W- 4	8.0	0.075				0.0		0.0		49.1	
g	W- 9	3.5	0.075				0.0		0.0		92.8	
<u>ૄ</u>	W-15	6.0	0.075				0.0		0.0		75.4	
≥ ₹	W-18	1.0	0.075				0.0		0.0		89.4	
5 0	W-20	3.5	0.075				0.0		0.0		86.5	



SR-222



S n	pecimen Identification Classification								PL	PI	Сс	Cu
Sh		ווע						LL	I L	L.I	CC	Cu
	W-21 3.	5		CLAYEY S	AND(SC), A-2	2-6						
	ecimen Identification	on D	100	D60	D30	D10	%Grave	1 %	Sand	%Sil	lt %	6Clay
•	W-21 3.	5 4	.75	0.173			0.0		68.4		31.6	
• •												



SR-222



DATE: 1/26/2023 CLIENT: Fisher Arnold

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: CON-4 SAMPLE NO.: ST-4 DEPTH (ft.): 8.0-10.0

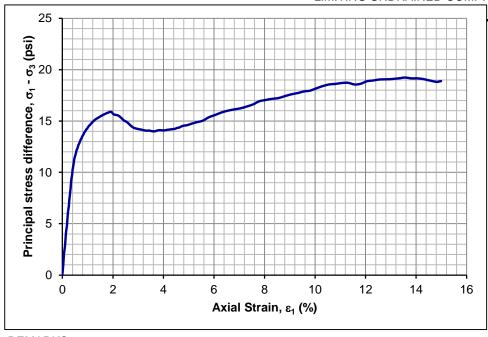
SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

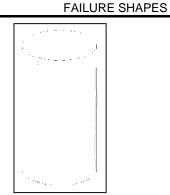
Stiff, red and gray, FAT CLAY - (CH) SAMPLE DESCRIPTION:

LIQUID LIMIT (%): 78 PLASTIC LIMIT (%): 23 PLASTICITY INDEX (%): 55 USCS: CH

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed) LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***					
AVERAGE DIAMETER (in.):	2.87	MOISTURE CONTENT AFTER FAILURE (%)**:	25.4				
HEIGHT (in.):	6.07	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0				
HEIGHT TO DIAMETER RATIO:	2.11	AXIAL STRAIN AT FAILURE (%):	13.6				
WET UNIT WEIGHT (pcf):	129.5	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	19.2				
DRY UNIT WEIGHT (pcf):	106.6	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3				
VOID RATIO:	0.61	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	24.5				
MOISTURE CONTENT (%)*:	21.5	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	2,770				
DEGREE OF SATURATION (%):	96.9	UNDRAINED SHEAR STRENGTH, su (psf):	1,385				
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	2,610				





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/19/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: E-1 SAMPLE NO.: ST-4 DEPTH (ft.): 8.0-10.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

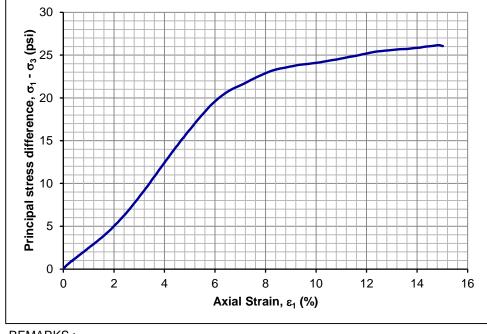
SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

LIQUID LIMIT (%): 41 PLASTIC LIMIT (%): 23 PLASTICITY INDEX (%): 18 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***	
AVERAGE DIAMETER (in.):	2.81	MOISTURE CONTENT AFTER FAILURE (%)**:	20.4
HEIGHT (in.):	5.86	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	2.08	AXIAL STRAIN AT FAILURE (%):	14.8
WET UNIT WEIGHT (pcf):	130.0	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	26.2
DRY UNIT WEIGHT (pcf):	106.3	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3
VOID RATIO:	0.61	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	31.4
MOISTURE CONTENT (%)*:	22.4	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	3,770
DEGREE OF SATURATION (%):	100.0	UNDRAINED SHEAR STRENGTH, su (psf):	1,885
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	3,470





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/23/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: E-5 SAMPLE NO.: ST-4 DEPTH (ft.): 8.0-10.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

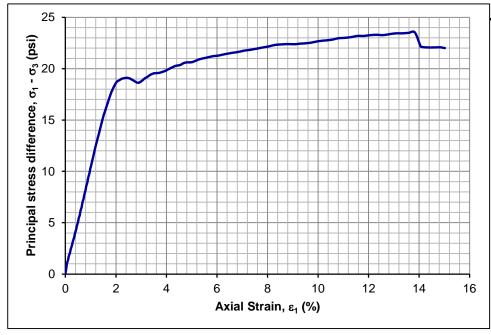
SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

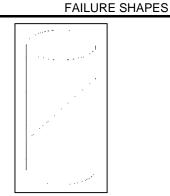
LIQUID LIMIT (%): 43 PLASTIC LIMIT (%): 21 PLASTICITY INDEX (%): 22 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***	
AVERAGE DIAMETER (in.):	2.84	MOISTURE CONTENT AFTER FAILURE (%)**:	25.3
HEIGHT (in.):	5.57	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	1.96	AXIAL STRAIN AT FAILURE (%):	13.8
WET UNIT WEIGHT (pcf):	123.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	23.5
DRY UNIT WEIGHT (pcf):	99.0	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3
VOID RATIO:	0.73	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	28.8
MOISTURE CONTENT (%)*:	24.4	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	3,390
DEGREE OF SATURATION (%):	91.5	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,695
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	3,265





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/23/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

INITIAL SAMPLE DATA

BORING NO.: E-8 SAMPLE NO.: ST-3 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

LIQUID LIMIT (%): 39 PLASTIC LIMIT (%): 20 PLASTICITY INDEX (%): 19 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

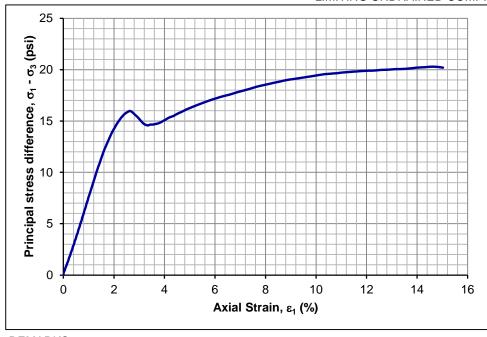
LOAD CELL NO.:

AVERAGE DIAMETER (in.):	2.85	MOISTURE CONTENT AFTER FAILURE (%)**:	24.4
HEIGHT (in.):	5.58	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	1.96	AXIAL STRAIN AT FAILURE (%):	14.6
WET UNIT WEIGHT (pcf):	124.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	20.3
DRY UNIT WEIGHT (pcf):	100.5	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3
VOID BATIO:	0.71	MA IOD DDINOIDAL STRESS AT FAILURE - (poi):	22.6

VOID RATIO: 0.71 MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi): 22.6 MOISTURE CONTENT (%)*: 23.5 UNDRAINED COMPRESSIVE STRENGTH, U_u (psf): 2,920 DEGREE OF SATURATION (%): 91.6 UNDRAINED SHEAR STRENGTH, s_u (psf): 1,460

LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):

FAILURE DATA***





2,800

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/24/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

MOISTURE CONTENT (%)*:

LOCATION: Haywood County, Tennessee

INITIAL SAMPLE DATA

BORING NO.: E-12 SAMPLE NO.: ST-3 DEPTH (ft.): 8.0-10.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

25.2

SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

LIQUID LIMIT (%): 46 PLASTIC LIMIT (%): 20 PLASTICITY INDEX (%): 26 USCS: CL

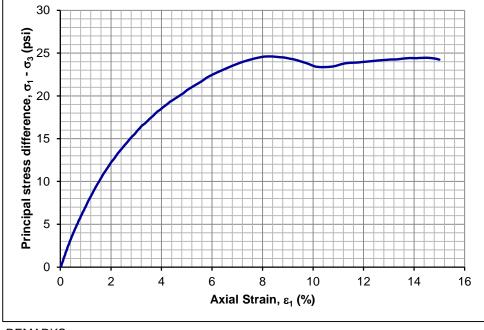
SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

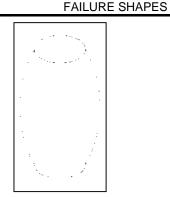
LOAD CELL NO.:

THITTING OF WITH ELE DICTION				_
AVERAGE DIAMETER (in.):	2.85	MOISTURE CONTENT AFTER FAILURE (%)**:	24.7	-
HEIGHT (in.):	6.12	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0	
HEIGHT TO DIAMETER RATIO:	2.15	AXIAL STRAIN AT FAILURE (%):	8.3	
WET UNIT WEIGHT (pcf):	127.6	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	24.6	
DRY UNIT WEIGHT (pcf):	101.9	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3	
VOID RATIO:	0.68	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	29.9	

DEGREE OF SATURATION (%): 100.0 UNDRAINED SHEAR STRENGTH, s_u (psf): 1,770 LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf): N/A

UNDRAINED COMPRESSIVE STRENGTH, U, (psf):





3,540

FAILURE DATA***

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/2/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: SP-1 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

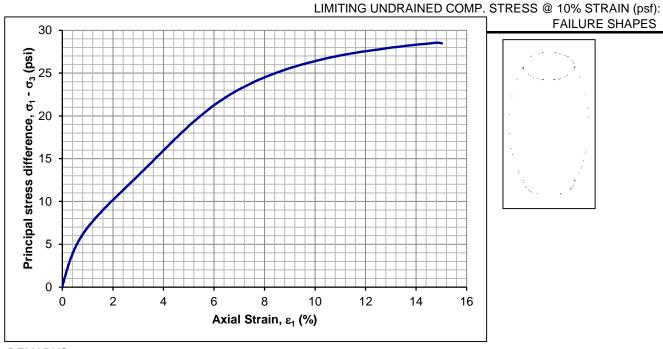
SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Very stiff, gray, sandy, FAT CLAY - (CH)

LIQUID LIMIT (%): 57 PLASTIC LIMIT (%): 17 PLASTICITY INDEX (%): 40 USCS: CH

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed) LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***					
AVERAGE DIAMETER (in.):	2.83	MOISTURE CONTENT AFTER FAILURE (%)**:	20.9				
HEIGHT (in.):	5.68	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0				
HEIGHT TO DIAMETER RATIO:	2.01	AXIAL STRAIN AT FAILURE (%):	14.8				
WET UNIT WEIGHT (pcf):	129.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	28.6				
DRY UNIT WEIGHT (pcf):	106.5	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3				
VOID RATIO:	0.61	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	30.9				
MOISTURE CONTENT (%)*:	21.3	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	4,110				
DEGREE OF SATURATION (%):	96.0	UNDRAINED SHEAR STRENGTH, s _u (psf):	2,055				





3,800

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/20/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: SP-4 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

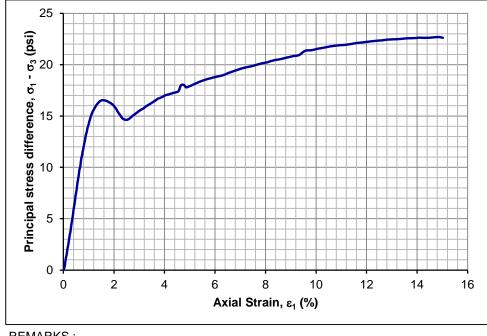
SAMPLE DESCRIPTION: Stiff, brown SILT - (ML)

LIQUID LIMIT (%): 33 PLASTIC LIMIT (%): 25 PLASTICITY INDEX (%): 8 USCS: ML

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed) LOAD CELL NO.:

INITIAL SAMPLE DATA FAILURE DATA***

AVERAGE DIAMETER (in.):	2.81	MOISTURE CONTENT AFTER FAILURE (%)**:	36.1
HEIGHT (in.):	5.60	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	1.99	AXIAL STRAIN AT FAILURE (%):	14.8
WET UNIT WEIGHT (pcf):	127.8	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	22.7
DRY UNIT WEIGHT (pcf):	104.7	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3
VOID RATIO:	0.64	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	25.0
MOISTURE CONTENT (%)*:	22.0	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	3,270
DEGREE OF SATURATION (%):	94.8	UNDRAINED SHEAR STRENGTH, su (psf):	1,635
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	3,100





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/3/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: SP-6 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

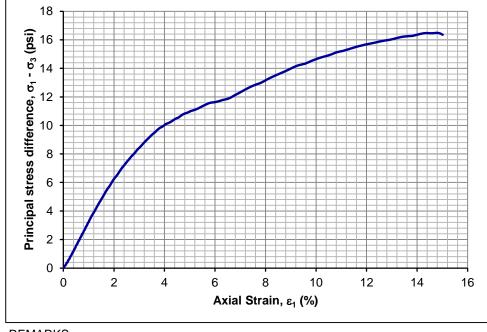
SAMPLE DESCRIPTION: Stiff, brown SILT - (ML)

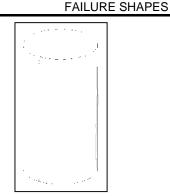
LIQUID LIMIT (%): 37 PLASTIC LIMIT (%): 25 PLASTICITY INDEX (%): 12 USCS: ML

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***					
AVERAGE DIAMETER (in.):	2.84	MOISTURE CONTENT AFTER FAILURE (%)**:	26.2				
HEIGHT (in.):	6.00	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0				
HEIGHT TO DIAMETER RATIO:	2.11	AXIAL STRAIN AT FAILURE (%):	14.8				
WET UNIT WEIGHT (pcf):	124.9	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	16.5				
DRY UNIT WEIGHT (pcf):	98.4	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3				
VOID RATIO:	0.74	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	18.8				
MOISTURE CONTENT (%)*:	26.9	UNDRAINED COMPRESSIVE STRENGTH, Uu (psf):	2,370				
DEGREE OF SATURATION (%):	99.5	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,185				
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	2.110				





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/3/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: SP-7 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Stiff, brown SILT - (ML)

LIQUID LIMIT (%): 47 PLASTIC LIMIT (%): 28 PLASTICITY INDEX (%): 19 USCS: ML

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***	
AVERAGE DIAMETER (in.):	2.83	MOISTURE CONTENT AFTER FAILURE (%)**:	25.8
HEIGHT (in.):	6.17	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	2.18	AXIAL STRAIN AT FAILURE (%):	14.8
WET UNIT WEIGHT (pcf):	123.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	20.9
DRY UNIT WEIGHT (pcf):	98.1	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3
VOID RATIO:	0.75	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	23.3
MOISTURE CONTENT (%)*:	25.6	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	3,020
DEGREE OF SATURATION (%):	94.0	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,510

8

Axial Strain, ε_1 (%)

10

12

14

16



FAILURE SHAPES

2,890

LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):

REMARKS:

0

2

4

6

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/3/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

DEGREE OF SATURATION (%):

LOCATION: Haywood County, Tennessee

BORING NO.: SP-8 SAMPLE NO.: ST-3 DEPTH (ft.): 6.0-8.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Very stiff, tan, LEAN CLAY - (CL)

LIQUID LIMIT (%): 38 PLASTIC LIMIT (%): 19 PLASTICITY INDEX (%): 19 USCS: CL

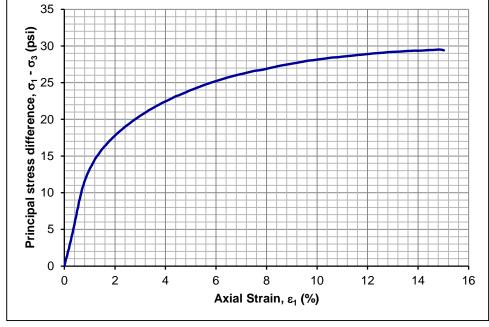
SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.87	MOISTURE CONTENT AFTER FAILURE (%)**:	22.7		
HEIGHT (in.):	6.07	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.11	AXIAL STRAIN AT FAILURE (%):	14.9		
WET UNIT WEIGHT (pcf):	127.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_{1} - σ_{3} (psi):	29.5		
DRY UNIT WEIGHT (pcf):	103.9	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	4.1		
VOID RATIO:	0.65	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	33.6		
MOISTURE CONTENT (%)*:	22.5	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	4,250		

LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):

UNDRAINED SHEAR STRENGTH, su (psf):



94.8



2,125

4,055

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/4/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: SP-9 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

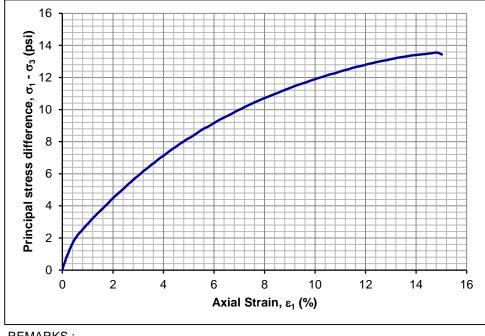
SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

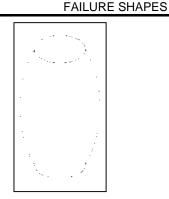
SAMPLE DESCRIPTION: Medium stiff, brown, LEAN CLAY - (CL)

LIQUID LIMIT (%): 43 PLASTIC LIMIT (%): 20 PLASTICITY INDEX (%): 23 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed) LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.83	MOISTURE CONTENT AFTER FAILURE (%)**:	14.5		
HEIGHT (in.):	6.12	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.16	AXIAL STRAIN AT FAILURE (%):	14.8		
WET UNIT WEIGHT (pcf):	124.8	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	13.6		
DRY UNIT WEIGHT (pcf):	100.3	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3		
VOID RATIO:	0.71	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	15.9		
MOISTURE CONTENT (%)*:	24.4	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	1,950		
DEGREE OF SATURATION (%):	94.5	UNDRAINED SHEAR STRENGTH, s _u (psf):	975		
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	1.715		





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/3/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

DEGREE OF SATURATION (%):

LOCATION: Haywood County, Tennessee

BORING NO.: SP-10 SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

100.0

SAMPLE DESCRIPTION: Stiff, brown, FAT CLAY - (CH)

LIQUID LIMIT (%): 65 PLASTIC LIMIT (%): 19 PLASTICITY INDEX (%): 46 USCS: CH

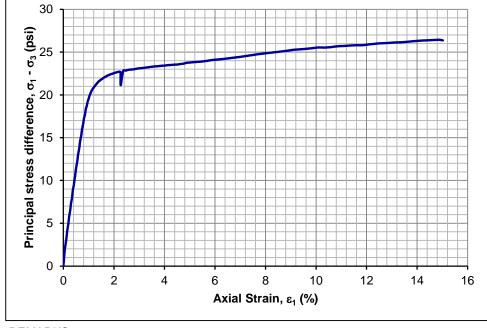
SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***		
AVERAGE DIAMETER (in.):	2.87	MOISTURE CONTENT AFTER FAILURE (%)**:	23.2	
HEIGHT (in.):	5.93	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0	
HEIGHT TO DIAMETER RATIO:	2.07	AXIAL STRAIN AT FAILURE (%):	14.9	
WET UNIT WEIGHT (pcf):	130.3	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	26.4	
DRY UNIT WEIGHT (pcf):	106.6	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3	
VOID RATIO:	0.61	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	28.8	
MOISTURE CONTENT (%)*-	22.2	UNDRAINED COMPRESSIVE STRENGTH U. (nsf):	3.810	

LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):

UNDRAINED SHEAR STRENGTH, su (psf):





1,905

3,675

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/19/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-1A SAMPLE NO.: ST-4 DEPTH (ft.): 8.0-10.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

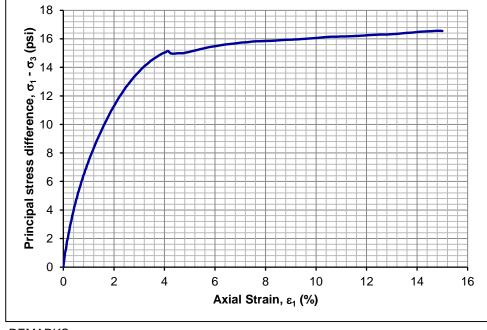
SAMPLE DESCRIPTION: Stiff, brown, FAT CLAY - (CH)

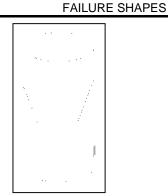
LIQUID LIMIT (%): 59 PLASTIC LIMIT (%): 19 PLASTICITY INDEX (%): 40 USCS: CH

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.85	MOISTURE CONTENT AFTER FAILURE (%)**:	26.5		
HEIGHT (in.):	6.00	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.11	AXIAL STRAIN AT FAILURE (%):	14.8		
WET UNIT WEIGHT (pcf):	125.4	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	16.6		
DRY UNIT WEIGHT (pcf):	101.7	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3		
VOID RATIO:	0.69	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	21.8		
MOISTURE CONTENT (%)*:	23.3	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	2,390		
DEGREE OF SATURATION (%):	93.3	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,195		





2,315

LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/19/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-1B SAMPLE NO.: ST-2 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Hard, brown, LEAN CLAY - (CL)

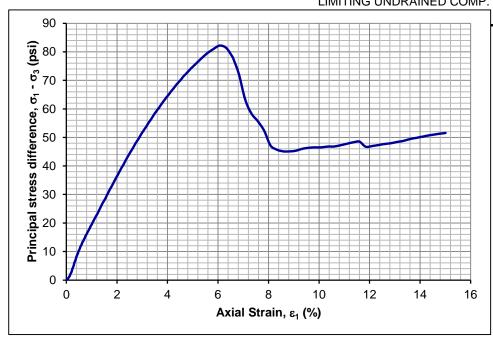
LIQUID LIMIT (%): 47 PLASTIC LIMIT (%): 23 PLASTICITY INDEX (%): 24 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA FAILURE DATA***

AVERAGE DIAMETER (in.):	2.86	MOISTURE CONTENT AFTER FAILURE (%)**:	19.5
HEIGHT (in.):	5.65	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	1.97	AXIAL STRAIN AT FAILURE (%):	6.1
WET UNIT WEIGHT (pcf):	129.2	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	82.2
DRY UNIT WEIGHT (pcf):	118.2	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3
VOID RATIO:	0.45	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	84.5
MOISTURE CONTENT (%)*:	9.3	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	11,830
DEGREE OF SATURATION (%):	56.7	UNDRAINED SHEAR STRENGTH, s _u (psf):	5,915
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	N/A





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/19/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-2 SAMPLE NO.: ST-16 DEPTH (ft.): 18.0-20.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

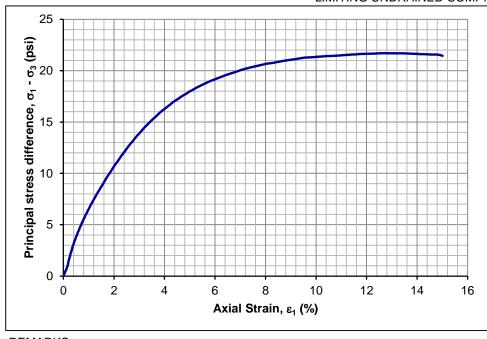
LIQUID LIMIT (%): 46 PLASTIC LIMIT (%): 16 PLASTICITY INDEX (%): 30 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA FAILURE DATA***

		· · · · - • · · · · ·	
AVERAGE DIAMETER (in.):	2.87	MOISTURE CONTENT AFTER FAILURE (%)**:	25.6
HEIGHT (in.):	5.62	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	1.96	AXIAL STRAIN AT FAILURE (%):	12.8
WET UNIT WEIGHT (pcf):	120.0	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	21.7
DRY UNIT WEIGHT (pcf):	97.7	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	11.1
VOID RATIO:	0.76	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	32.8
MOISTURE CONTENT (%)*:	22.9	UNDRAINED COMPRESSIVE STRENGTH, Uu (psf):	3,120
DEGREE OF SATURATION (%):	83.1	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,560
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	3.075





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/23/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-3A SAMPLE NO.: ST-7 DEPTH (ft.): 23.0-25.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

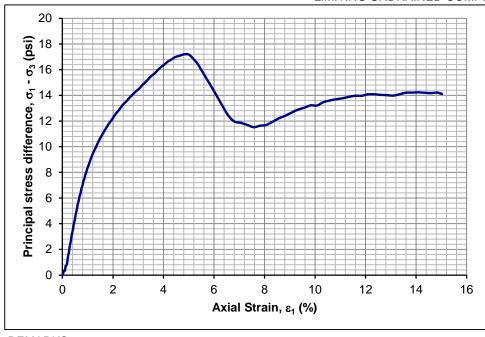
SAMPLE DESCRIPTION: Stiff, brown, sandy, FAT CLAY - (CH)

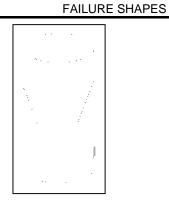
LIQUID LIMIT (%): 79 PLASTIC LIMIT (%): 26 PLASTICITY INDEX (%): 53 USCS: CH

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

INITIAL SAMPLE DATA FAILURE DATA***

AVERAGE DIAMETER (in.):	2.86	MOISTURE CONTENT AFTER FAILURE (%)**:	41.6
HEIGHT (in.):	5.87	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0
HEIGHT TO DIAMETER RATIO:	2.05	AXIAL STRAIN AT FAILURE (%):	4.9
WET UNIT WEIGHT (pcf):	111.3	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	17.2
DRY UNIT WEIGHT (pcf):	83.5	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	14.0
VOID RATIO:	1.05	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	31.2
MOISTURE CONTENT (%)*:	33.2	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	2,480
DEGREE OF SATURATION (%):	86.7	UNDRAINED SHEAR STRENGTH, s _u (psf):	1,240
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	N/A





LOAD CELL NO.:

^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/25/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-8 SAMPLE NO.: ST-4 DEPTH (ft.): 8.0-10.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

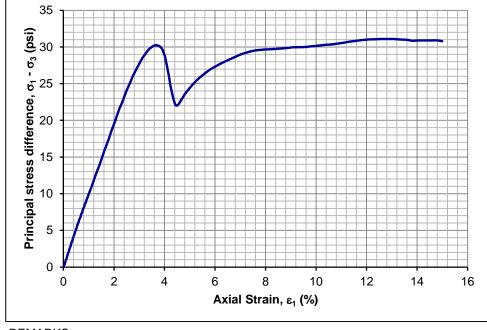
SAMPLE DESCRIPTION: Very stiff, brown, LEAN CLAY- (CL)

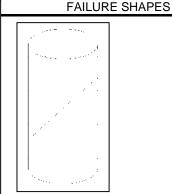
LIQUID LIMIT (%): 37 PLASTIC LIMIT (%): 23 PLASTICITY INDEX (%): 14 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.83	MOISTURE CONTENT AFTER FAILURE (%)**:	23.0		
HEIGHT (in.):	6.16	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.18	AXIAL STRAIN AT FAILURE (%):	12.8		
WET UNIT WEIGHT (pcf):	127.4	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	31.1		
DRY UNIT WEIGHT (pcf):	104.3	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	5.3		
VOID RATIO:	0.65	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	36.4		
MOISTURE CONTENT (%)*:	22.1	UNDRAINED COMPRESSIVE STRENGTH, Uu (psf):	4,480		
DEGREE OF SATURATION (%):	94.3	UNDRAINED SHEAR STRENGTH, s _u (psf):	2,240		
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	4.340		





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 1/24/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-10 SAMPLE NO.: ST-3 DEPTH (ft.): 3.0-5.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

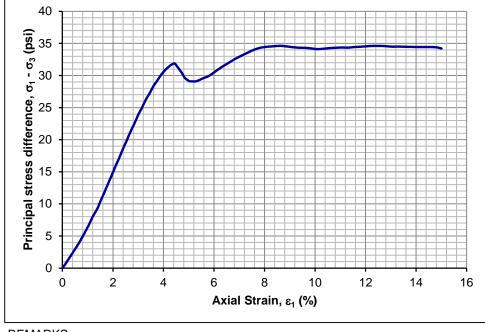
SAMPLE DESCRIPTION: Very stiff, brown, LEAN CLAY - (CL)

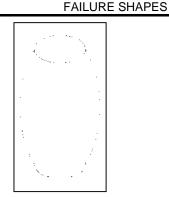
LIQUID LIMIT (%): 40 PLASTIC LIMIT (%): 22 PLASTICITY INDEX (%): 18 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.83	MOISTURE CONTENT AFTER FAILURE (%)**:	22.7		
HEIGHT (in.):	6.19	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.18	AXIAL STRAIN AT FAILURE (%):	8.6		
WET UNIT WEIGHT (pcf):	131.6	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	34.6		
DRY UNIT WEIGHT (pcf):	106.5	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	2.3		
VOID RATIO:	0.61	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	37.0		
MOISTURE CONTENT (%)*:	23.6	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	4,990		
DEGREE OF SATURATION (%):	100.0	UNDRAINED SHEAR STRENGTH, s _u (psf):	2,495		
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	N/A		





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.



CLIENT: Fisher Arnold DATE: 2/20/2023

PROJECT NO.: J042140.01 PROJECT: SR-222 Widening

LOCATION: Haywood County, Tennessee

BORING NO.: W-14 SAMPLE NO.: ST-5 DEPTH (ft.): 10.0-12.0

SAMPLE OBTAINED BY: Shelby Tube CONDITION: Undisturbed

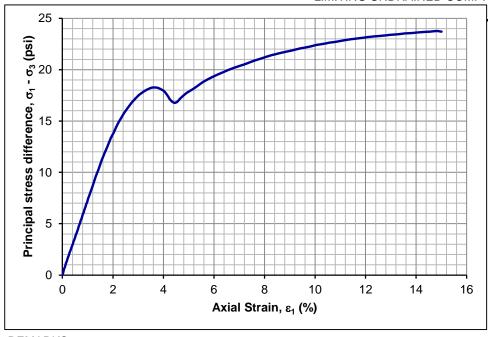
SAMPLE DESCRIPTION: Stiff, brown, LEAN CLAY - (CL)

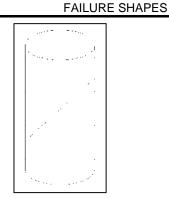
LIQUID LIMIT (%): 43 PLASTIC LIMIT (%): 22 PLASTICITY INDEX (%): 21 USCS: CL

SPECIFIC GRAVITY OF SOLIDS: 2.75 (Assumed)

LOAD CELL NO.:

INITIAL SAMPLE DATA		FAILURE DATA***			
AVERAGE DIAMETER (in.):	2.85	MOISTURE CONTENT AFTER FAILURE (%)**:	25.5		
HEIGHT (in.):	6.11	AVERAGE RATE OF AXIAL STRAIN TO FAILURE (%/min.):	1.0		
HEIGHT TO DIAMETER RATIO:	2.15	AXIAL STRAIN AT FAILURE (%):	14.8		
WET UNIT WEIGHT (pcf):	124.6	PRINCIPAL STRESS DIFFERENCE AT FAILURE, σ_1 - σ_3 (psi):	23.8		
DRY UNIT WEIGHT (pcf):	100.5	MINOR PRINCIPAL STRESS AT FAILURE, σ_3 (psi):	6.4		
VOID RATIO:	0.71	MAJOR PRINCIPAL STRESS AT FAILURE, σ_1 (psi):	30.2		
MOISTURE CONTENT (%)*:	24.0	UNDRAINED COMPRESSIVE STRENGTH, U _u (psf):	3,420		
DEGREE OF SATURATION (%):	93.3	UNDRAINED SHEAR STRENGTH, su (psf):	1,710		
		LIMITING UNDRAINED COMP. STRESS @ 10% STRAIN (psf):	3,220		





^{*} Initial moisture content determined from sample cuttings.

^{**} Final moisture content determined from entire sample.

^{***} Failure stress values have been corrected for membrane effects.

TEST REPORT

Prepared For: Fisher Arnold 9180 Crestwyn Hills Drive Memphis, Tennessee 38125

Project No.: J042140.01 January 20, 2023

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Project Name: SR 222 Improvement

Boring Number: BR-1 Sample ID: SS-9 Depth (ft): 38.5

MINIMUM LABORATORY SOIL RESISTIVITY AASHTO T288

	Resistance	Soil Box	Soil Resistivity	Moisture
Reading	<u>Measurement</u>	Factor (cm)	(ohms-cm)	Content (%)
#1	8,400	0.57	4,788.00	14.6
#2	3,400	0.57	1,938.00	21.9
#3	1,700	0.57	969.00	30.7

Minimum Soil Resistivity 969.00

TEST REPORT

Prepared For: Fisher Arnold 9180 Crestwyn Hills Drive Memphis, Tennessee 38125

Project No.: J042140.01 January 20, 2023

Page 1 of 1

Project Name: SR 222 Improvement

Boring Number: BR-2 Sample ID: SS-5 Depth (ft): 13.5

MINIMUM LABORATORY SOIL RESISTIVITY AASHTO T288

	Resistance	Soil Box	Soil Resistivity	Moisture
Reading	<u>Measurement</u>	Factor (cm)	(ohms-cm)	Content (%)
#1	6,900	0.57	3,933.00	11.4
#2	3,700	0.57	2,109.00	18.8
#3	3,900	0.57	2,223.00	26.9
#4	4,600	0.57	2,622.00	35.2

Minimum Soil Resistivity 2,109.00

TEST REPORT

Prepared For: Fisher Arnold 9180 Crestwyn Hills Drive Memphis, Tennessee 38125

Project No.: J042140.01 January 20, 2023

Page 1 of 1

Project Name: SR 222 Improvement

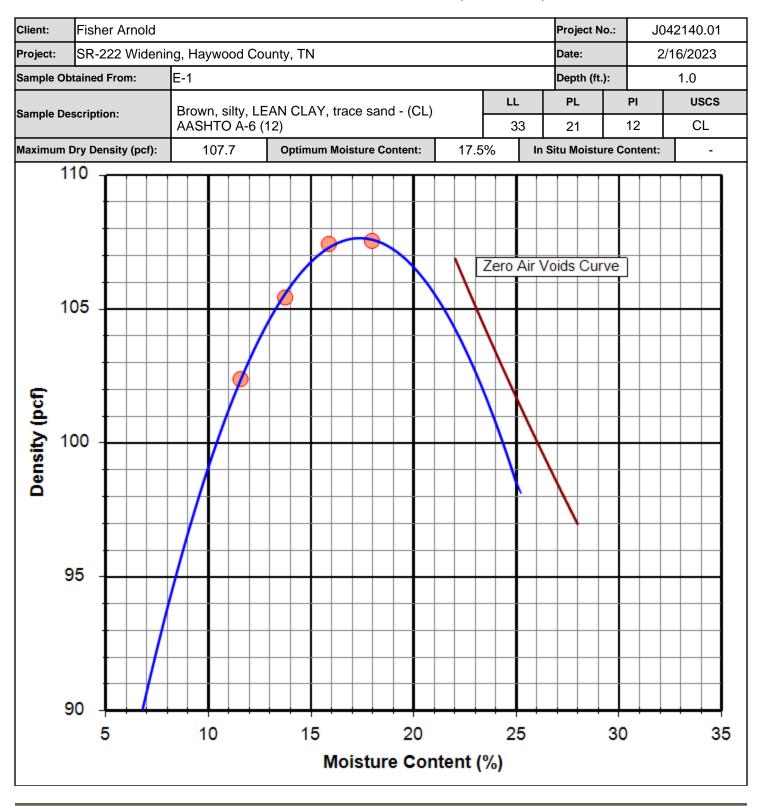
Boring Number: BR-2 Sample ID: SS-7 Depth (ft): 23.5

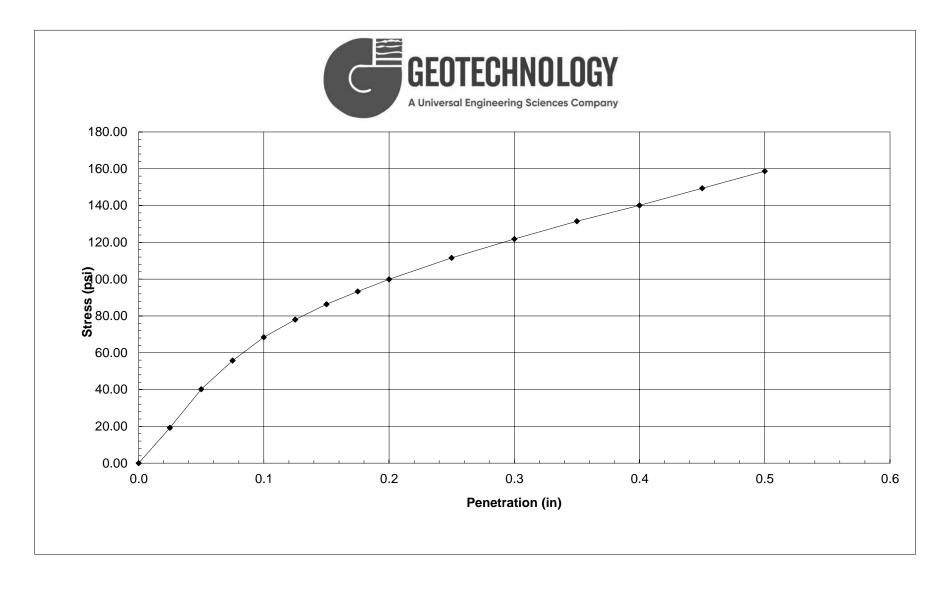
MINIMUM LABORATORY SOIL RESISTIVITY AASHTO T288

	Resistance	Soil Box	Soil Resistivity	Moisture
Reading	Measurement	Factor (cm)	(ohms-cm)	Content (%)
_				
#1	4,300	0.57	2,451.00	11.2
#2	3,200	0.57	1,824.00	18.4
#3	3,600	0.57	2,052.00	25.3

Minimum Soil Resistivity 1,824.00





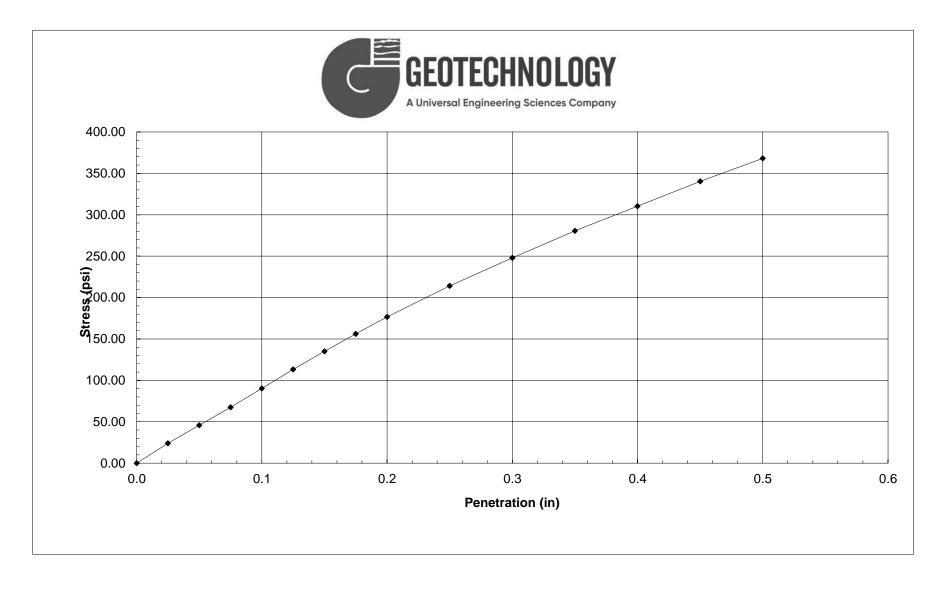


CALIFORNIA BEARING RATIO (CBR) TEST

ASTM D 1883 Project No.: J042140.01

Boring: E-1

Sample: 25 BLOWS - Depth: 1 ft.



CALIFORNIA BEARING RATIO (CBR) TEST

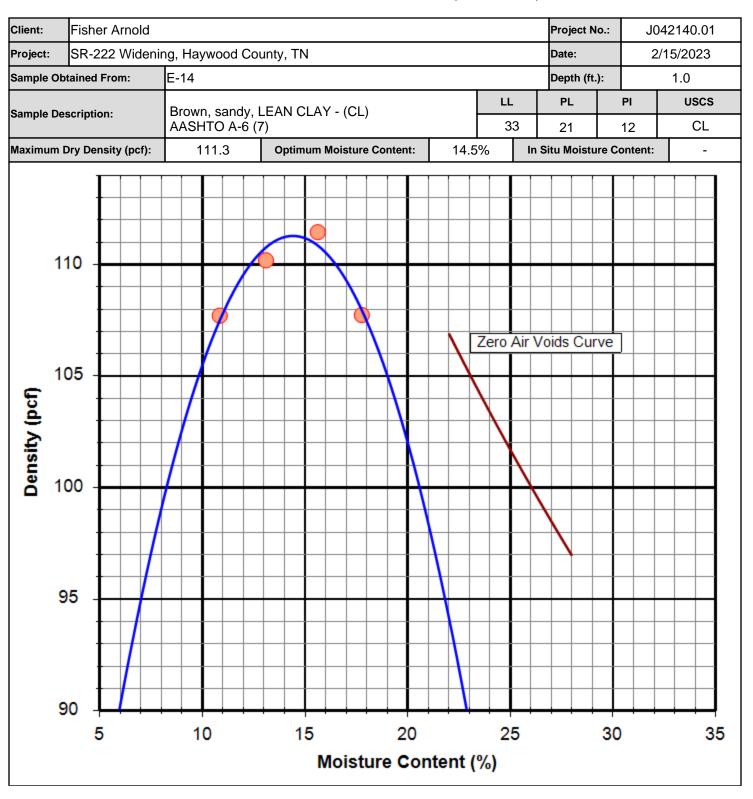
ASTM D 1883

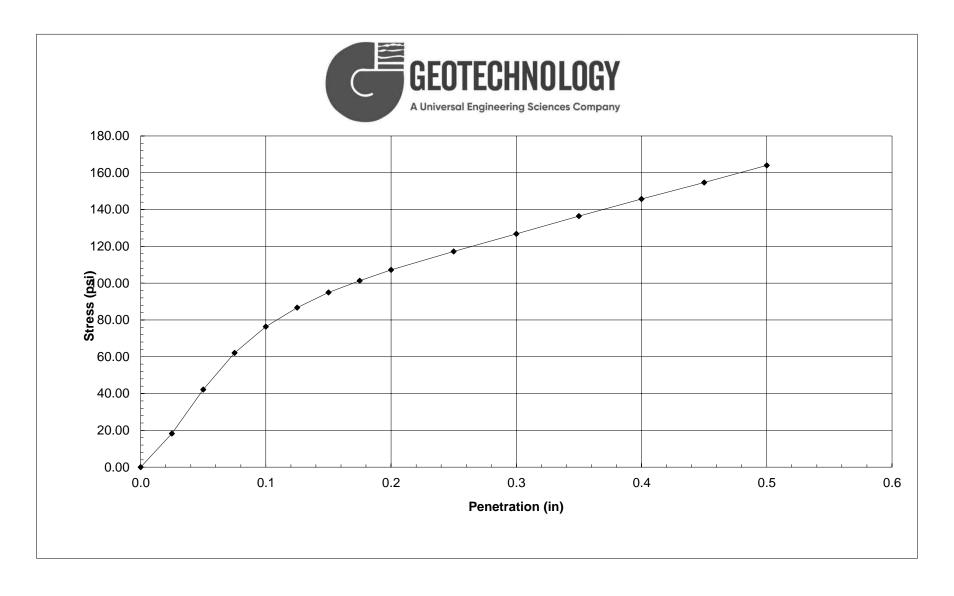
Project No.: J042140.01

Boring: E-1

Sample: 56 BLOWS - Depth: 1 ft.





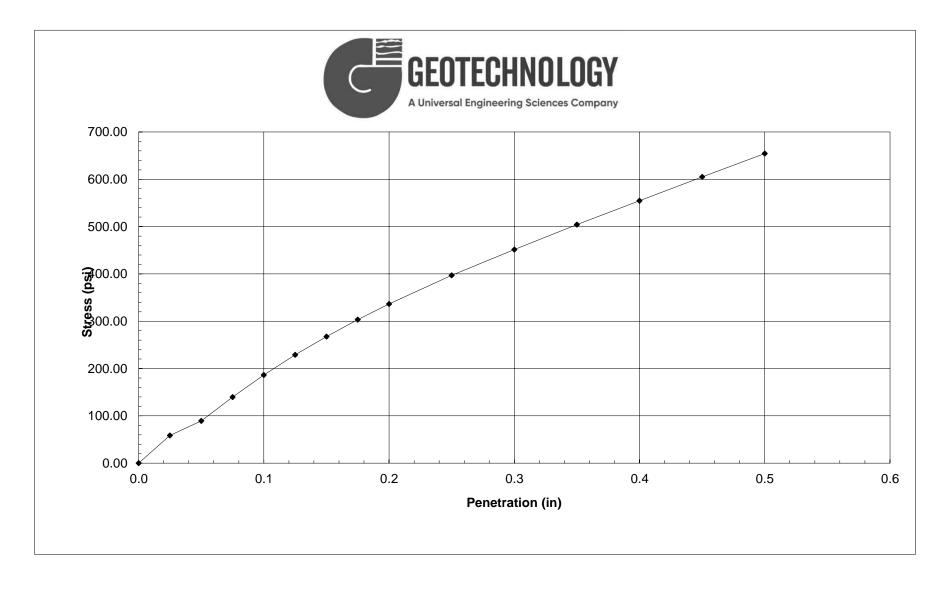


CALIFORNIA BEARING RATIO (CBR) TEST

ASTM D 1883 Project No.: J042140.01

Boring: E-14

Sample: 25 BLOWS - Depth: 1 ft.



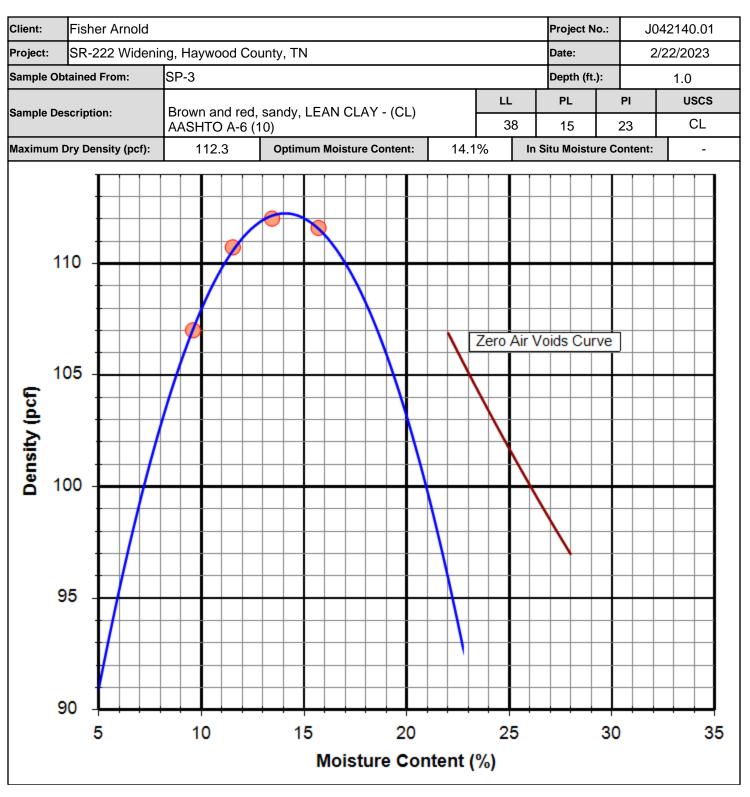
CALIFORNIA BEARING RATIO (CBR) TEST

ASTM D 1883 Project No.: J042140.01

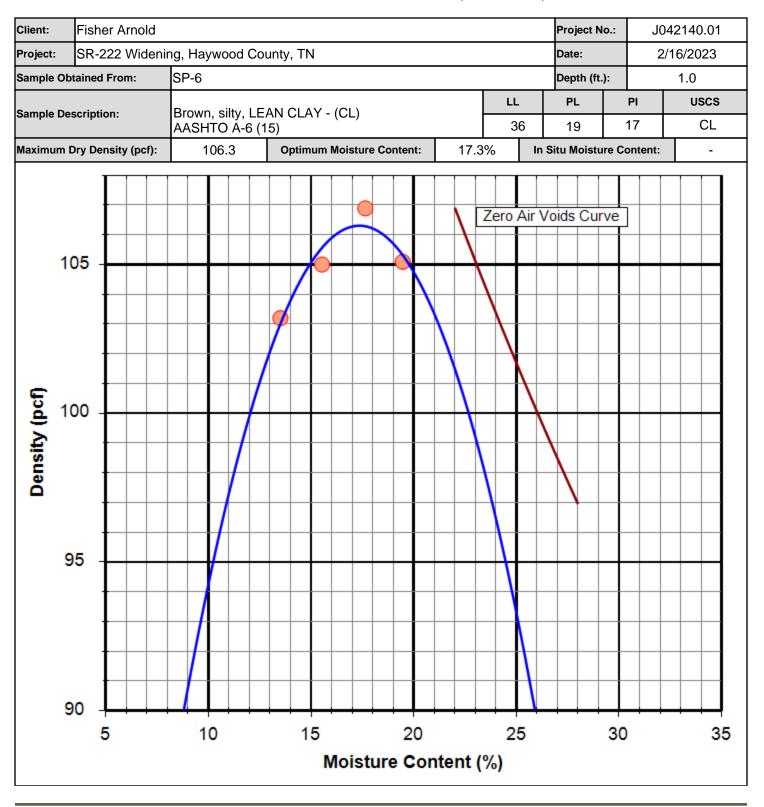
Boring: E-14

Sample: 56 BLOWS - Depth: 1 ft.

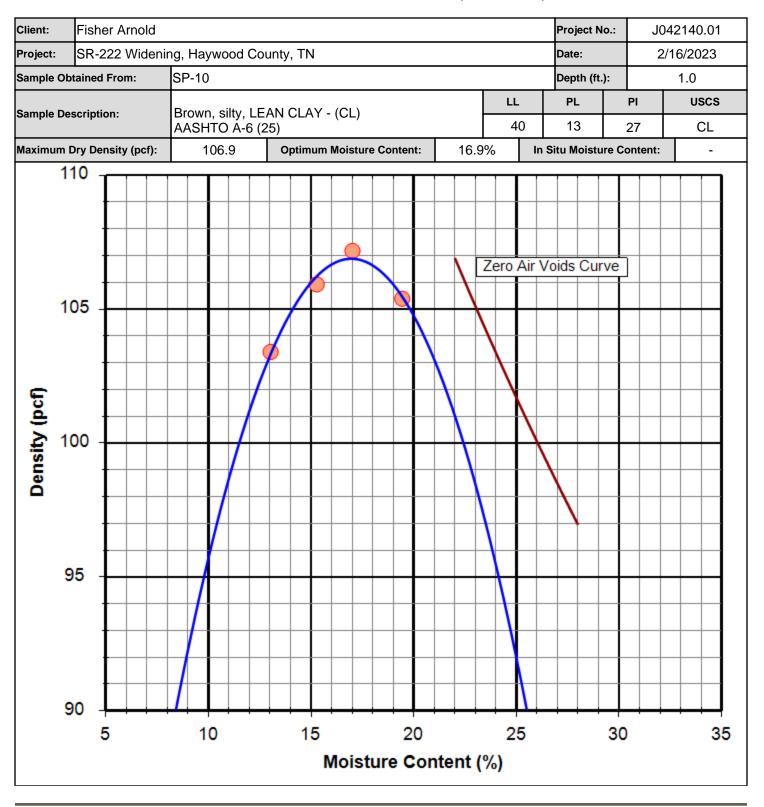












Geotechnical Data Report SR-222 From Near SR-468 To Near Campground Rd Haywood County, Tennessee March 9, 2023 | Geotechnology Project No. J042140.01 | TDOT Pin No. 132709.00



Appendix E
PAVEMENT CORE PHOTOGRAPHS



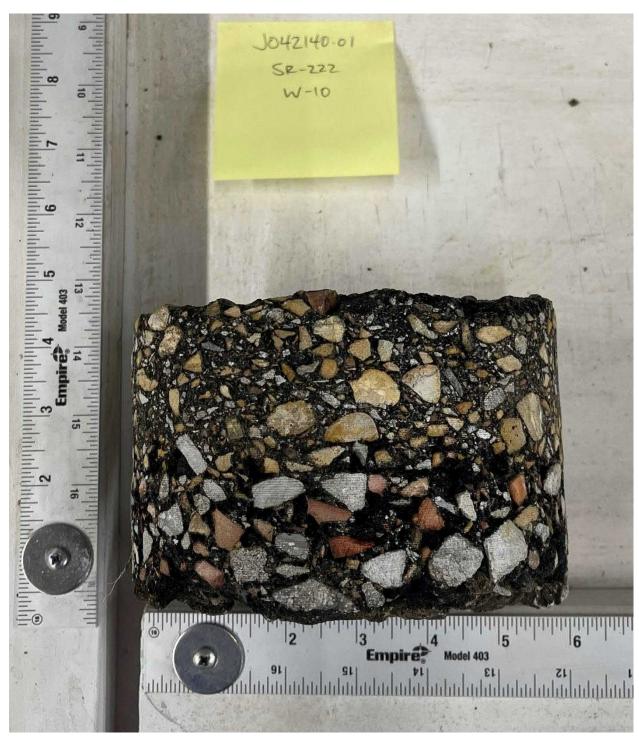
SR-222 From Near SR-468 to Near Campground Road				
Boring E-1				
J042140.01	Photograph 1			
Description: 4½ inches of asphalt. Photograph taken on February 22, 2023.				



SR-222 From Near SR-468 to Near Campground Road			
Boring E-7			
J042140.01	Photograph 2		
Description: 4¼ inches of asphalt. Photograph taken on February 22, 2023.			



SR-222 From Near SR-468 to Near Campground Road				
Boring W-5				
J042140.01	Photograph 3			
Description: 4¾ inches of asphalt. Photograph taken on February 22, 2023.				



SR-222 From Near SR-468 to Near Campground Road				
Boring W-10				
J042140.01	Photograph 4			
Description: 5 inches of asphalt. Photograph taken on February 22, 2023.				



SR-222 From Near SR-468 to Near Campground Road
Boring W-21

J042140.01 Photograph 5

Description: 17 inches of asphalt.

Photograph taken on February 22, 2023.