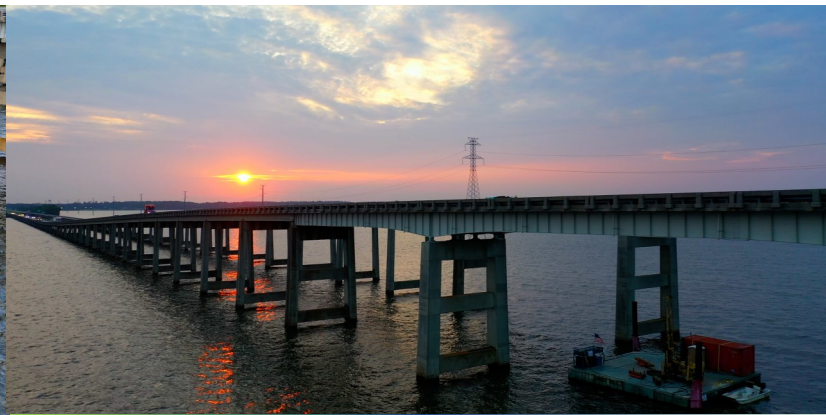




GEOTECHNICAL SUBSURFACE DATA REPORT

I-95 Bridge Replacement(s) over Lake Marion
Clarendon/Orangeburg County, South Carolina



PREPARED FOR

TranSystems
1859 Summerville Ave.
Suite 600
Charleston, South Carolina 29405



PREPARED BY

F&ME Consultants, Inc.
211 Business Park Boulevard
Columbia, South Carolina 29203

SCDOT Project ID: P041130
FME Project No.: G6744.00

September 30, 2024

September 30, 2024

Mr. John Hartland, PE
TranSystems
12802 Tampa Oaks Boulevard, Suite 330
Tampa, Florida 33637

Re: Geotechnical Subsurface Data Report
I-95 Bridge Replacement(s) over Lake Marion
Clarendon/Orangeburg County, South Carolina
SCDOT Project ID: P041130
FME Project No.: G6744.00

Mr. Hartland:

Submitted herein is F&ME Consultants, Inc's (FME) Geotechnical Subsurface Data Report for the I-95 Bridge Replacement(s) over Lake Marion. This report contains findings from our subsurface field exploration and laboratory testing program.

Please notify us if there are any questions.

Sincerely,

F&ME CONSULTANTS



John F. Hamilton, PE
Geotechnical Design Manager



Attachments

JFH/rl:jfh



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1. PROJECT DESCRIPTION

The project site is located on Interstate 95 (I-95) over Lake Marion on the border of Clarendon County and Orangeburg County in South Carolina. A site location plan is presented in the Appendix as Figure 1.

The project consists of demolishing the existing I-95 Northbound and Southbound bridges and replacing them with a single structure that accommodates both travel directions. Both the main span bridges and overflow bridges are designated for replacement. The new bridges will provide an additional future travel lane in each direction compared to the existing bridges.

The geotechnical subsurface investigation(s) was performed in general accordance with the 2022 SCDOT Geotechnical Design Manual (GDM).

2. SUBSURFACE EXPLORATION

From January 10, 2023 through June 29, 2023, seventy-six (76) Soil Test Borings (STBs), one (1) Auger Probe Boring, four (4) Electro-Piezocone Soundings (CPT), four (4) Dilatometer Soundings, and six (6) Bulk Samples were performed at the site. The soils were visually classified in the field based upon the Unified Soil Classification System (USCS) in general accordance with ASTM D2488.

A Boring Location Plan (Figure 2 through Figure 13) displaying the test locations performed during the subsurface exploration is provided in Section 2 of the Appendix. A generalized Subsurface Profile is presented in Section 3 of the Appendix. The geologic boundaries shown on the subsurface profile are F&ME's interpretation of the depositional characteristics of the various geologies encountered at the site. These geologic boundaries were determined by F&ME engineers and geologists.

STBs were performed with either a CME 45B barge mounted drill rig or a CME 550X ATV mounted drill rig. Rotary wash drilling techniques were used to maintain a stable borehole. Standard Penetration Testing (SPTs) were continuously sampled in the top ten (10) feet. In soil borings B-2 and B-47, SPTs were continuously sampled in the top fifty (50) feet to calibrate the adjacent CPT to the site soils. Following the continuous sampling, SPTs were performed on standard five (5) foot intervals, thereafter, to the boring termination depths. SPTs were performed in general accordance with ASTM D1586 to determine the relative densities and consistencies of the subsurface soils and to collect subsurface soil samples. An automatic hammer with a calibrated Energy Transfer Ratio was used to perform the SPTs. Each boring's calibrated Energy Transfer Ratio value is provided on the boring logs provided in Section 4 of the Appendix.

Four (4) Electro-Piezocone Sounding Tests (designated as CPT-1 through CPT-4) were also performed at the site. A CME 550X drill rig was used to advance the CPT equipment. CPT tests were generally performed at 5-centimeter intervals. The Electro-Piezocone Sounding Logs are provided in Section 4D of the Appendix.

Four (4) Dilatometer Soundings (designated as DMT-1 through DMT-4) were collected from the bridge embankments. Dilatometer Soundings were advanced using a CME 550X ATV mounted rig. Dilatometer recordings were generally performed on one-foot intervals. These soundings extended to refusal conditions at each test location. The Dilatometer Sounding Logs are provided in Section 4E of the Appendix.

A piston sampler was utilized to collect one (1) intact Shelby tube sample within Auger Boring B-52U. The Auger Probe Boring was offset approximately five (5) feet from its corresponding Soil Test Boring. The sample was collected in a (3) inch diameter, thirty (30) inch long Shelby tube. A copy of the Auger Probe boring Log is provided in Section 4B of the Appendix.

Six (6) Bulk Soil Samples (designated as BS-1 through BS-6) were collected with Manual Auger Boring equipment from the soil material comprising the bridge embankments. The Manual Auger Boring Logs are provided in Section 4C of the Appendix.

Due to the quantity of information generated, we have placed the field investigation summary table in Section 4 of the Appendix.

3. LABORATORY TESTING SUMMARY

Following completion of the subsurface investigation, soil samples were selected by FME personnel for laboratory testing. The tests were conducted in an AASHTO certified laboratory in accordance with applicable ASTM/AASHTO standards.

The laboratory testing performed on the soil samples collected from the Soil Test Borings is summarized in the table below. Data sheets containing the results from this testing are provided in Section 5A in the Appendix.

Laboratory Testing Summary Table – Soil Test Boring (Split-Spoon Samples)

Type of Test	Quantity	Procedure
Moisture Content	378	AASHTO T265 (ASTM D2216)
Atterberg Limits	381	AASHTO T89/T90 (ASTM D4318)
Wash 200 Grain Size	78	AASHTO T11 (ASTM D1140)
Grain-Size Distribution w/ Wash 200	247	ASTM D6913/AASHTO T11 (ASTM D1140)
Hydrometer and Grain Size	55	ASTM D7928/D6913
Unconfined Compressive Strength of Cohesive Soil	114	AASHTO T208 (ASTM (D2166)
Compressive Strength of Rock Cores	30	ASTM D7012
pH	4	AASHTO T289/ASTM G51
Resistivity	4	AASHTO T288
Chloride	4	AASHTO T291
Sulfate	4	AASHTO T290 (ASTM C1580)

The laboratory testing performed on the Bulk Soil Samples are summarized in the table below. The data sheets containing the results from this testing are provided in Section 5C of the Appendix.

Laboratory Testing Summary Table – Bulk Soil Samples

Type of Test	Quantity	Procedure
Moisture Content	6	AASHTO T265 (ASTM D2216)
Atterberg Limits	6	AASHTO T89/T90 (ASTM D4318)
Grain-size Distribution w/ Wash 200	6	ASTM D6913/AASHTO T11 (ASTM D1140)
Direct Shear	3	AASHTO T236 (ASTM D3080)
Consolidated-Undrained Triaxial	1	AASHTO T297 (ASTM D4767)
California Bearing Ratio	2	AASHTO T193 (ASTM D1883)
pH	2	AASHTO T289/ASTM G51
Resistivity	2	AASHTO T288
Chloride Content	2	AASHTO T291
Sulfate	2	AASHTO T290 (ASTM C1580)

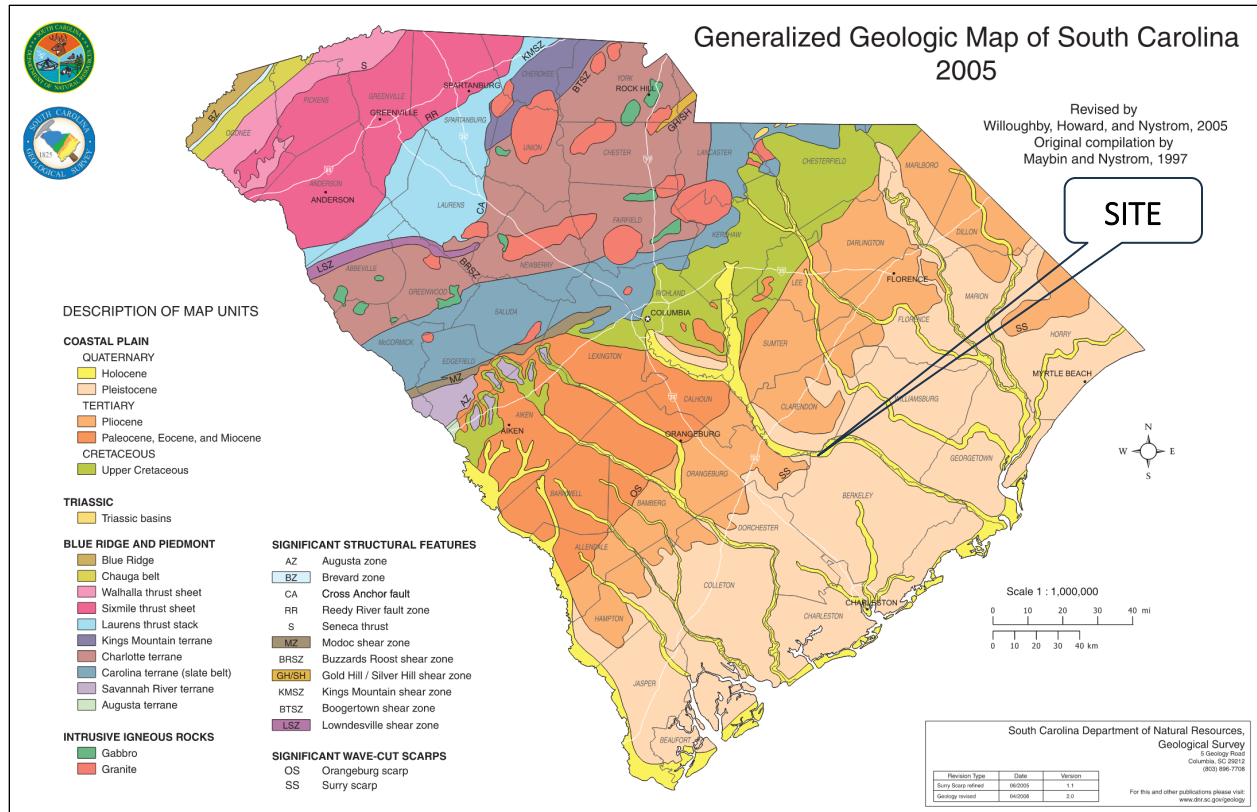
The material extracted from the UD sample was not deemed appropriate for triaxial or consolidation testing. As such, no laboratory testing was performed on UD samples.

4. SUBSURFACE CONDITIONS

4.1. SITE GEOLOGY

The bridge site is located near the contact of the Lower and Middle Coastal Plain geologic units of South Carolina. This contact is considered the location of the Surry Scarp. The Coastal Plain unit has a gently dipping topography towards the ocean and is comprised of several geologic formations, which represent sedimentary sequences believed to have been formed during periods of eustatic sea level rise/fall or tectonic uplift/subsidence over geologic time.

The following figure displays the location of the site relative to the Generalized Geologic Map of South Carolina. The boring locations were overlaid on the quadrangle maps developed by the South Carolina Geologic Survey. This figure is provided in the Appendix, and the quadrangle maps can be accessed at the following links ([Vance Quadrangle](#) & [Saint Paul Quadrangle](#)).



The following geologic strata were encountered in the subsurface investigation. The strata are presented in descending order relative to their age (youngest to oldest).

- Existing Embankment Fill
- Alluvium (Holocene)
- Marietta Unit (Pliocene)
- Santee Limestone (Eocene)
- Undifferentiated Eocene
- Williamsburg Formation (Paleocene)

On the southwestern end of the site and below the embankment fill, the geologic mapping indicates that the near surface soils consist of Marietta unit material on eastern side of the interstate and Duplin Formation material on the western side of the interstate. Both of these deposits are of Pliocene age. From the subsurface data collected, we interpret the material collected in the soil borings to be Marietta Unit deposits. We do not believe to have sampled the Duplin Formation soils.

The soil composition of the Marietta Unit generally consists of low to high plasticity clay and non-plastic to medium plasticity sands. The SPT blow counts in the Marietta Unit generally suggest stiff to very stiff clays and medium dense sands.

The surficial soils at the bottom of the lake consist of Holocene-aged alluvium. The soil composition of the Alluvium is variable and generally consists of medium to high plasticity clays and non-plastic to medium plasticity sands. The SPT blow counts in the Alluvium generally suggest very soft to soft clays and very loose to loose sands.

Below the alluvium, the Pliocene-aged soils, and the Pleistocene-aged soils, Santee Limestone was encountered. The soil composition of the limestone generally consists of non-plastic to medium plasticity sands. The field HCl testing generally indicated a strong reactivity. A majority of the SPT blow counts performed in the limestone were 100+ bpf, although there were areas where the blow counts were less than 50 bpf.

Below the Santee Limestone, Undifferentiated Eocene-age deposits were encountered. Within the Eocene deposits, the relative densities are lower than that of the overlying limestone, and conventional soil drilling with SPT testing was performed. The Eocene deposits are predominantly sandy with some interbedded clay layers. The SPT blow counts in the Eocene deposits generally suggest hard clays and medium dense to very dense sands.

Below the Eocene deposits, the Paleocene-aged Williamsburg Formation was encountered. The distinguishing characteristics of the Williamsburg Formation is waxy, black, high plasticity silt or clay layer at the top contact. Below this silt/clay layer, the Williamsburg Formation is predominantly sandy. The SPT blow counts in the Williamsburg Formation generally suggest hard silts and clays and medium dense to very dense sands.

4.2.SOIL STRATIGAPHY

The soil test borings indicate six (6) geologic strata at the site. The following table summarizes the geologic stratigraphy.

Soil Stratification Table

Geology	¹ Elevation of Top of Layer (ft-MSL)	USCS Soil Type	SPT N-Values (bpf)	Average CPT Tip Resistance (tsf)
Existing Fill	+120	SP, SM, SC, SP-SM, CL	4 to 55	80
Marrietta Unit (Pliocene)	+100	SM, SC, SC-SM, CL, CH	8 to 73	60
Alluvium (Holocene)	+57 to +40	SP, SM, SC, SP-SM, SP-SC, SW-SM, ML, CL, CL-ML, CH	0 to 34	30
Santee Limestone (Eocene)	+36	GM, SP, SM, ML, CL	2 to 100+	N/A
Undifferentiated Eocene	+5	SP, SM, SC, CL	1 to 100+	N/A
Williamsburg Formation (Paleocene)	-11	GP, SP, SM, SC, SP-SM, SP-SC, ML, CL, MH, CH	6 to 100+	N/A

¹ Elevations are generalized from the totality of subsurface information collected

4.3. LIMESTONE CONDITIONS

Within the limestone material, coring operations were conducted when an SPT blow count of 50 blows for less than two (2) inches of penetration was observed. The core lengths generally ranged from twenty (20) feet to sixty (60) feet. NQ sized rock coring equipment was used to recover the core samples. Although the soil boring logs show zones where “no recovery” was retrieved from the split-spoon sampler or the soil coring operation, this result should not be interpreted as voids within the limestone mass. Furthermore, there was no indication from the drilling operation (ie. fluid loss) to indicate karst conditions within the limestone mass.

The material recovered from the coring operation is considered ‘limestone’, which is a common geologic term used in this region of the South Carolina coastal plain. The term ‘limestone’ is somewhat of a misnomer, given that the material is not a true rock formation. In the coastal plain of South Carolina, limestone is considered a soil deposit with varying degrees of cementation. The cementation gives a resemblance to weak bedrock characteristics.

Laboratory unconfined compression tests were performed on the recovered core samples in the limestone. Based on this testing, the strength of the limestone is classified as extremely weak to strong with unconfined compressive strengths generally ranging from 50 psi to 8,000 psi. The core recovery (REC) ranges from zero percent (0%) to one hundred percent (100%), and the rock-quality designation (RQD) for the lengths recovered ranges from zero percent (0%) to one hundred percent (100%).

The laboratory data sheets from the rock core compressive strength testing are provided in Section 5 of the Appendix. In addition, photos of the limestone material recovered from the coring operation are also provided in Section 5 of the Appendix.

4.4. GROUNDWATER

Groundwater table measurements were recorded immediately following completion of the borings/soundings and/or 24-hours following completion of the boring/sounding. The groundwater table was encountered near elevation +75 ft-MSL, which generally matches the surface water elevation of Lake Marion at the time of the subsurface investigation. In general, we would anticipate that ground water table elevation would approximate the Lake Marion stage elevation and would fluctuate accordingly.

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

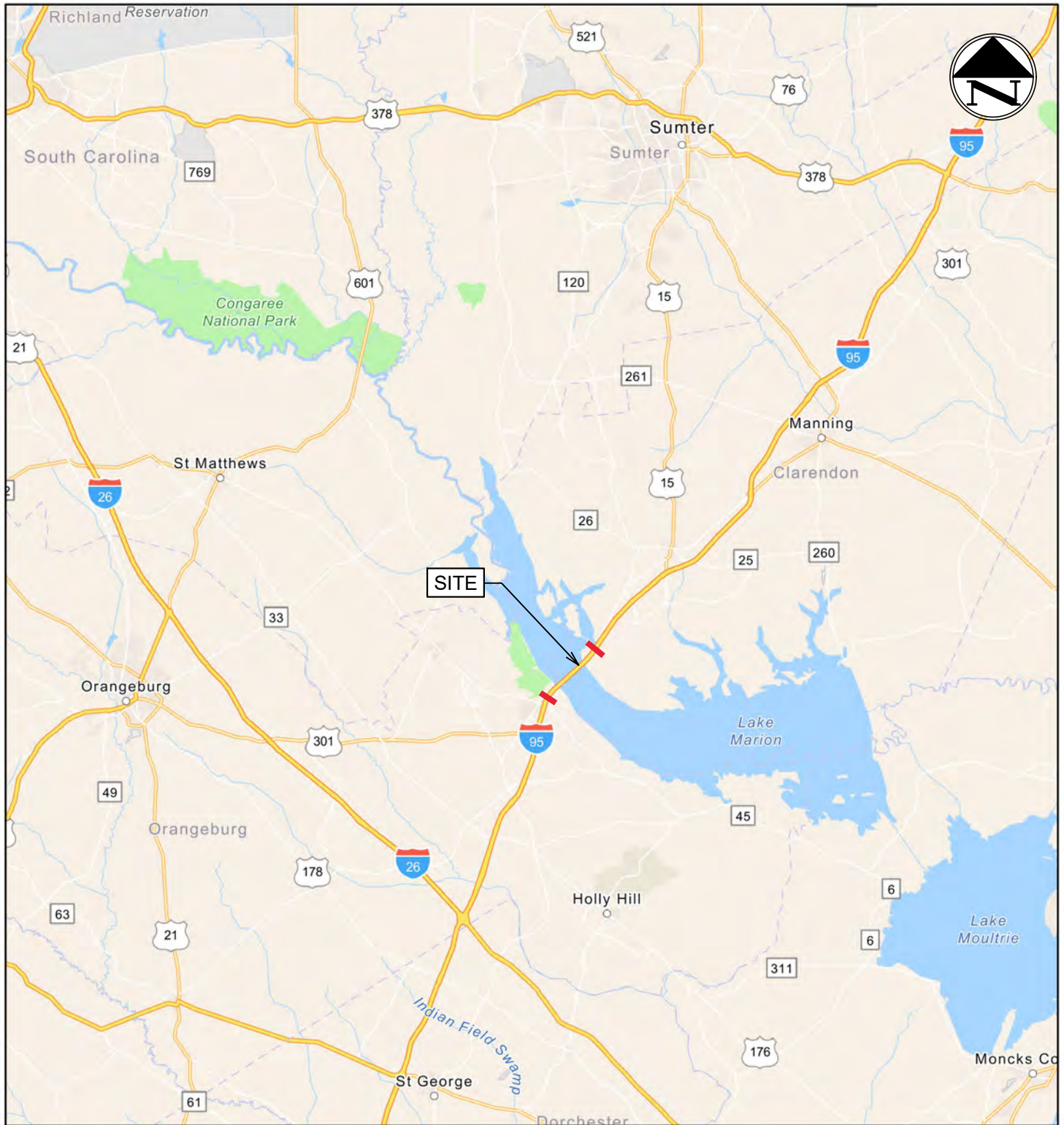
SECTION 1	SITE LOCATION PLAN
SECTION 2	TESTING LOCATION PLAN
SECTION 3	SUBSURFACE EXPLORATION LOGS
SECTION 3A	SOIL TEST BORING (STB) LOGS
SECTION 3B	AUGER BORING LOGS
SECTION 3C	BULK SOIL SAMPLE LOGS
SECTION 3D	ELECTRO-PIEZOCONE (CPT) LOGS
SECTION 3E	DILATOMETER SOUNDING (DMT) LOGS
SECTION 4	LABORATORY TEST RESULTS
SECTION 4A	SPLIT SPOON SAMPLES
SECTION 4B	UNDISTURBED SAMPLES
SECTION 4C	BULK SOIL SAMPLES
SECTION 4D	SOIL CORE SAMPLES
SECTION 5	EXISTING ASPHALT CORE PHOTOS
SECTION 6	SPT HAMMER CALIBRATION REPORT

I-95 Bridge Replacement over Lake Marion

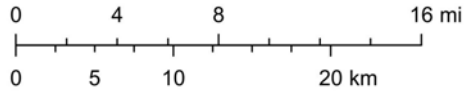
Geotechnical Subsurface Data Report

APPENDIX

SECTION 1 SITE LOCATION PLAN



1:577,791



F&M CONSULTANTS, INC.
COLUMBIA, SC

4			
3			
2			
1			
REV.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP ____ - ____
R/W		DATE	

I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SITE LOCATION PLAN

SCALE: AS NOTED

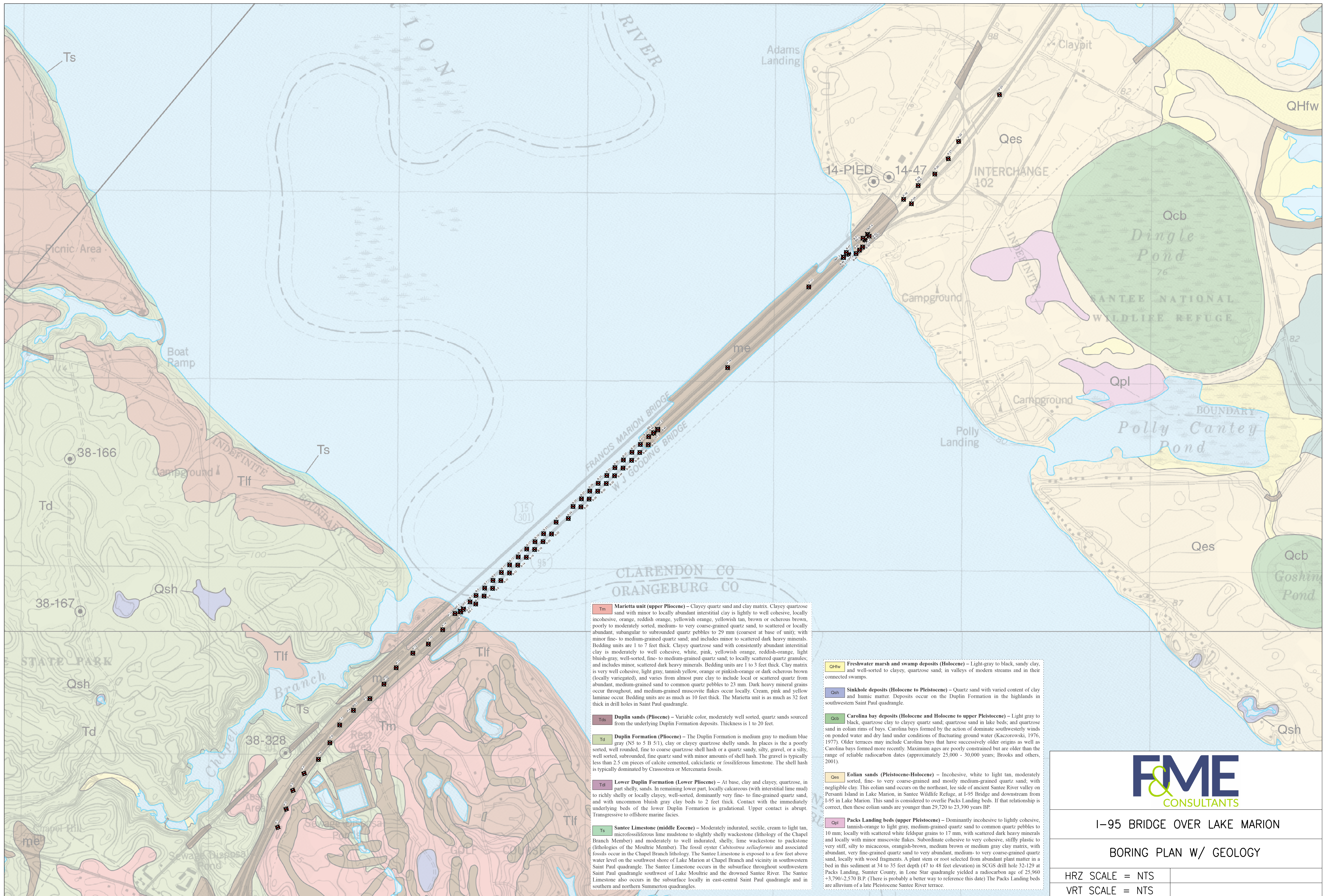
FIGURE 1

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 2 TESTING LOCATION PLAN



Tm Marietta unit (upper Pliocene) – Clayey quartz sand and clay matrix. Clayey quartzose sand with minor to locally abundant interstitial clay is lightly to well cohesive, locally incohesive, orange, reddish orange, yellowish orange, yellowish tan, brown or ochraceous brown, poorly to moderately sorted, medium- to very coarse-grained quartz sand, to scattered or locally abundant, subangular to subrounded quartz pebbles to 29 mm (coarsest at base of unit), with minor fine- to medium-grained quartz sand; and includes minor to scattered dark heavy minerals. Bedding units are 1 to 7 feet thick. Clayey quartzose sand with consistently abundant interstitial clay is moderately to well cohesive, white, pink, yellowish orange, reddish-orange, light bluish-gray, well-sorted, fine- to medium-grained quartz sand, to locally scattered quartz granules, and includes minor, scattered dark heavy minerals. Bedding units are 1 to 3 feet thick. Clay matrix is very well cohesive, light gray, tannish yellow, orange or pinkish-orange or dark ochreous brown (locally variegated), and varies from almost pure clay to include local or scattered quartz from abundant, medium-grained sand to common quartz pebbles to 23 mm. Dark heavy mineral grains occur throughout, and medium-grained muscovite flakes occur locally. Cream, pink and yellow laminae occur. Bedding units are as much as 10 feet thick. The Marietta unit is as much as 32 feet thick in drill holes in Saint Paul quadrangle.

Td Duplin sands (Pliocene) – Variable color, moderately well sorted, quartz sands sourced from the underlying Duplin Formation deposits. Thickness is 1 to 20 feet.

Tif Duplin Formation (Pliocene) – The Duplin Formation is medium gray to medium blue gray (NS to S B 5'1), clay or clayey quartzose, shelly sands. In places is the a poorly sorted, well rounded, fine to coarse quartzose shell hash or a quartz sandy, silty, gravel, or a silty, well sorted, subrounded, fine quartz sand with minor amounts of shell hash. The gravel is typically less than 2.5 cm pieces of calcite cemented, calciclastic or fossiliferous limestone. The shell hash is typically dominated by *Crassostrea* or *Mercenaria* fossils.

Tdl Lower Duplin Formation (Lower Pliocene) – At base, clay and clayey, quartzose, in part shelly, sands. In remaining lower part, locally calcareous (with interstitial lime mud) to richly shelly or locally clayey, well-sorted, dominantly very fine- to fine-grained quartz sand, and with uncommon bluish gray clay beds to 2 feet thick. Contact with the immediately underlying beds of the lower Duplin Formation is gradational. Upper contact is abrupt. Transgressive to offshore marine facies.

Ts Santee Limestone (middle Eocene) – Moderately indurated, sectile, cream to light tan, microfossiliferous lime mudstone to slightly shelly wackestone (lithology of the Chapel Branch Member) and moderately to well indurated, shelly, lime wackestone to packstone (lithologies of the Moultrie Member). The fossil oyster *Cabistroa sellaeformis* and associated fossils occur in the Chapel Branch lithology. The Santee Limestone is exposed to a few feet above water level on the southwest shore of Lake Marion at Chapel Branch and vicinity in southwestern Saint Paul quadrangle. The Santee Limestone occurs in the subsurface throughout southwestern Saint Paul quadrangle southwest of Lake Moultrie and the drowned Santee River. The Santee Limestone also occurs in the subsurface locally in east-central Saint Paul quadrangle and in southern and northern Sumnerton quadrangles.

QHfw Freshwater marsh and swamp deposits (Holocene) – Light-gray to black, sandy clay, and well-sorted to clayey, quartzose sand; in valleys of modern streams and in their connected swamps.

Qsh Sinkhole deposits (Holocene to Pleistocene) – Quartz sand with varied content of clay and humic matter. Deposits occur on the Duplin Formation in the highlands in southwestern Saint Paul quadrangle.

Qcb Carolina bay deposits (Holocene and Holocene to upper Pleistocene) – Light gray to black, quartzose clay to clayey quartz sand; quartzose sand in lake beds; and quartzose sand in eolian rims of bays. Carolina bays formed by the action of dominate westerly winds on ponded water and dry land under conditions of fluctuating ground water (Kaczorowski, 1976, 1977). Older terraces may include Carolina bays that have successively older origins as well as Carolina bays formed more recently. Maximum ages are poorly constrained but are older than the range of reliable radiocarbon dates (approximately 25,000 - 30,000 years; Brooks and others, 2001).

Qes Eolian sands (Pleistocene-Holocene) – Incohesive, white to light tan, moderately sorted, fine- to very coarse-grained and mostly medium-grained quartz sand, with negligible clay. This eolian sand occurs on the northeast, lee side of ancient Santee River valley on Persant Island in Lake Marion, in Santee Wildlife Refuge, at I-95 Bridge and downstream from I-95 in Lake Marion. This sand is considered to overlie Packs Landing beds. If that relationship is correct, then these eolian sands are younger than 29,720 to 23,390 years BP.

Qpl Packs Landing beds (upper Pleistocene) – Dominantly incohesive to lightly cohesive, tannish-orange to light gray, medium-grained quartz sand to common quartz pebbles to 10 mm; locally with scattered white feldspar grains to 17 mm, with scattered dark heavy minerals and locally with minor muscovite flakes. Subordinate cohesive to very cohesive, stiffly plastic to very stiff, silty to micaceous, orangish-brown, medium brown or medium gray clay matrix, with abundant, very fine-grained quartz sand to very abundant, medium- to very coarse-grained quartz sand, locally with wood fragments. A plant stem or root selected from abundant plant matter in a bed in this sediment at 34 to 35 feet depth (47 to 48 feet elevation) in SCGS drill hole 32-129 at Packs Landing, Sumter County, in Lone Star quadrangle yielded a radiocarbon age of 25,960 ± 3,790-2,570 B.P. (There is probably a better way to reference this date) The Packs Landing beds are alluvium of a late Pleistocene Santee River terrace.



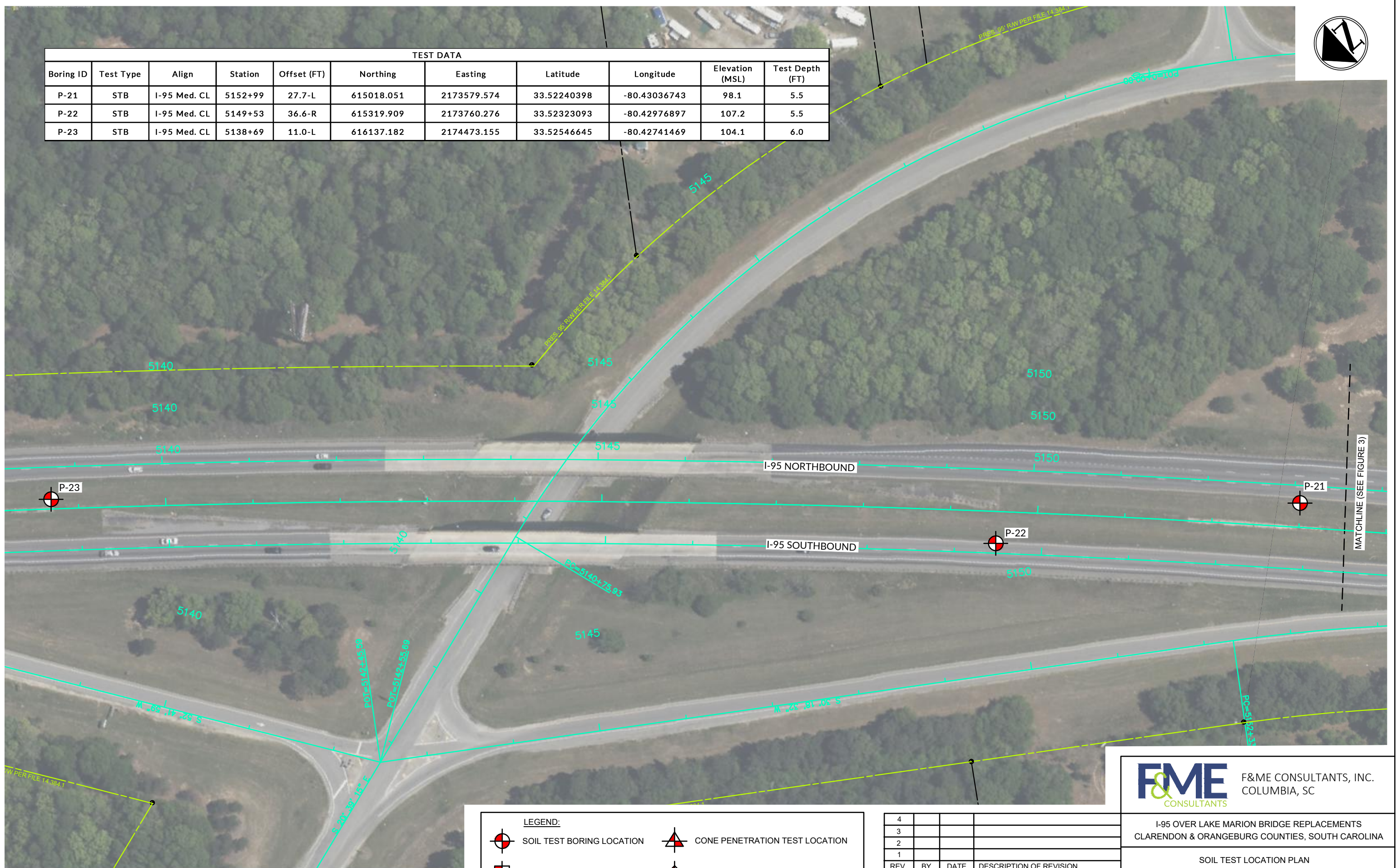
I-95 BRIDGE OVER LAKE MARION

BORING PLAN W/ GEOLOGY





HRZ SCALE = NTS
 VRT SCALE = NTS



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-21	STB	I-95 Med. CL	5152+99	27.7-L	615018.051	2173579.574	33.52240398	-80.43036743	98.1	5.5
P-22	STB	I-95 Med. CL	5149+53	36.6-R	615319.909	2173760.276	33.52323093	-80.42976897	107.2	5.5
P-23	STB	I-95 Med. CL	5138+69	11.0-L	616137.182	2174473.155	33.52546645	-80.42741469	104.1	6.0



LEGEND:

-  SOIL TEST BORING LOCATION
-  CONE PENETRATION TEST LOCATION
-  BULK SAMPLE TEST LOCATION
-  DILATOMETER TEST LOCATION

4			
3			
2			
1			
REV.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP
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 F&ME CONSULTANTS, INC.
 COLUMBIA, SC

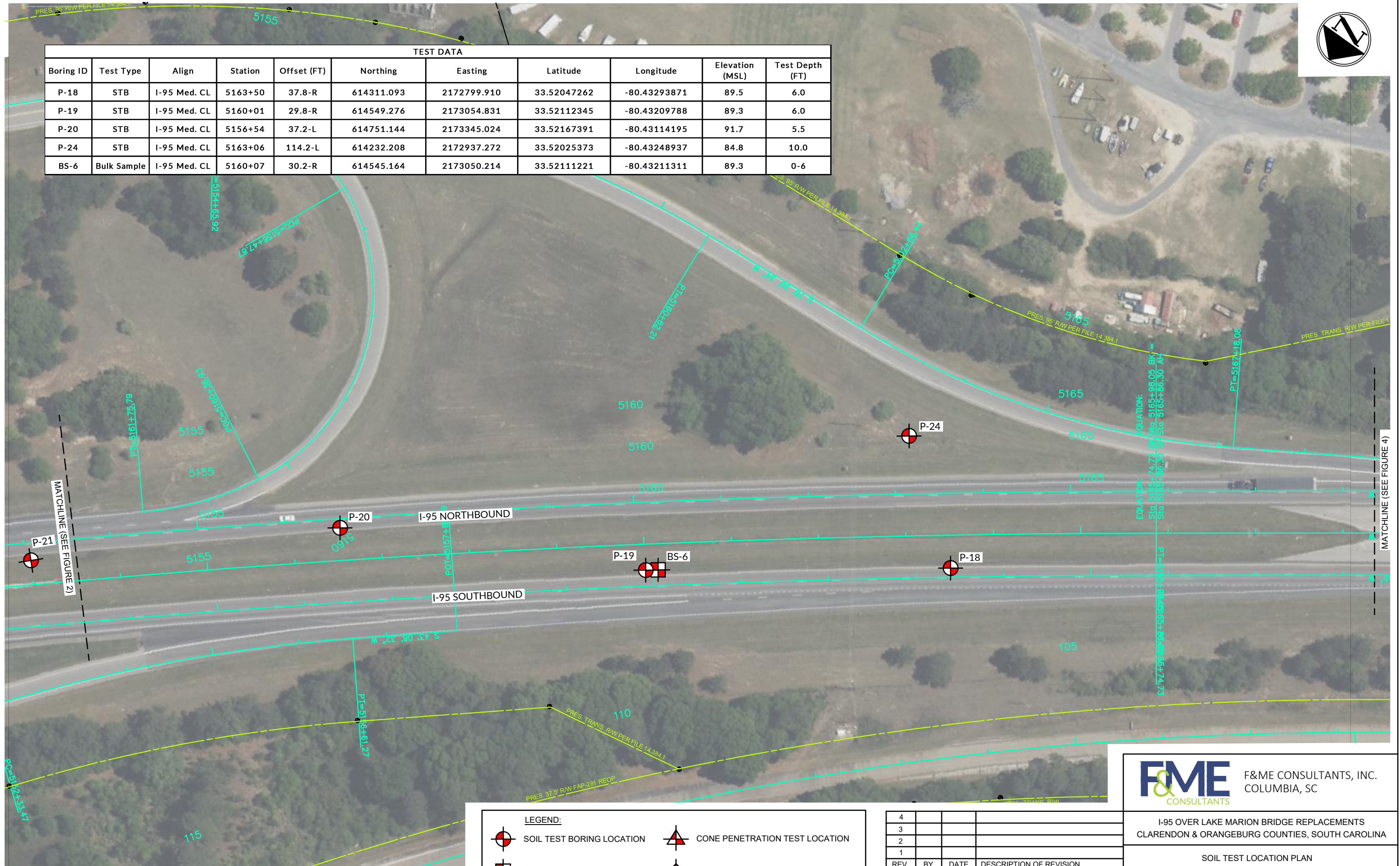
I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
 CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

SCALE: 1"=100' FIGURE 2



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-18	STB	I-95 Med. CL	5163+50	37.8-R	614311.093	2172799.910	33.52047262	-80.43293871	89.5	6.0
P-19	STB	I-95 Med. CL	5160+01	29.8-R	614549.276	2173054.831	33.52112345	-80.43209788	89.3	6.0
P-20	STB	I-95 Med. CL	5156+54	37.2-L	614751.144	2173345.024	33.52167391	-80.43114195	91.7	5.5
P-24	STB	I-95 Med. CL	5163+06	114.2-L	614232.208	2172937.272	33.52025373	-80.43248937	84.8	10.0
BS-6	Bulk Sample	I-95 Med. CL	5160+07	30.2-R	614545.164	2173050.214	33.52111221	-80.43211311	89.3	0-6



LEGEND:

	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

REV.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP
R/W		DATE	

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 F&ME CONSULTANTS, INC.
 COLUMBIA, SC

I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
 CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

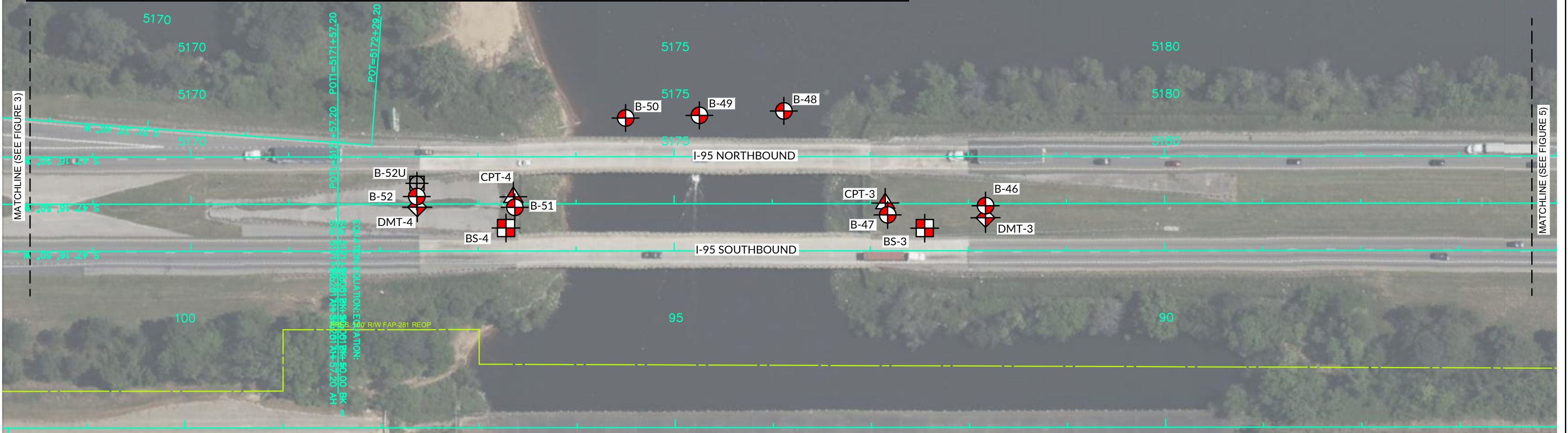
SCALE: 1"=100'

FIGURE 3



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
CPT-3	CPT	I-95 Med. CL	5177+08	0.6-L	613360.847	2171830.338	33.51787536	-80.43613741	89.4	44.4
CPT-4	CPT	I-95 Med. CL	5173+29	7.2-L	613613.203	2172113.426	33.51856474	-80.43520395	89.5	38.4
BS-3	Bulk Sample	I-95 Med. CL	5177+48	25.0-R	613352.292	2171783.331	33.51785255	-80.43629182	89.5	0-5
BS-4	Bulk Sample	I-95 Med. CL	5173+21	24.5-R	613641.635	2172097.323	33.51864313	-80.43525628	90.3	0-5
DMT-3	Dilatometer	I-95 Med. CL	5178+10	14.5-R	613302.496	2171744.894	33.51771626	-80.43641884	88.4	5.0
DMT-4	Dilatometer	I-95 Med. CL	5172+31	3.3-R	613687.437	2172178.283	33.51876780	-80.43498979	88.1	16.0

TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
B-46	STB	I-95 Med. CL	5178+10	8.9-R	613298.461	2171748.780	33.51770511	-80.43640616	88.4	60.0
B-47	STB	I-95 Med. CL	5177+10	11.5-R	613368.085	2171820.339	33.51789541	-80.43617010	89.4	74.6
B-48	STB	I-95 Med. CL	5176+05	94.5-L	613361.970	2171969.923	33.51787635	-80.43567936	78.5	110.8
B-49	STB	I-95 Med. CL	5175+19	90.1-L	613423.620	2172030.168	33.51804490	-80.43548056	77.9	118.4
B-50	STB	I-95 Med. CL	5174+43	87.5-L	613476.581	2172083.679	33.51818967	-80.43530402	77.6	106.8
B-51	STB	I-95 Med. CL	5173+30	3.4-R	613619.979	2172105.081	33.51858349	-80.43523122	89.5	71.1
B-52	STB	I-95 Med. CL	5172+30	0.3-R	613685.608	2172180.698	33.51876274	-80.43498190	88.1	39.3
B-52U	Auger Probe	I-95 Med. CL	5172+30	12.6-L	613676.074	2172189.413	33.51873640	-80.43495348	88.1	16.0



LEGEND:

- SOIL TEST BORING LOCATION
- CONE PENETRATION TEST LOCATION
- BULK SAMPLE TEST LOCATION
- DILATOMETER TEST LOCATION
- AUGER PROBE TEST LOCATION

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SOIL TEST LOCATION PLAN

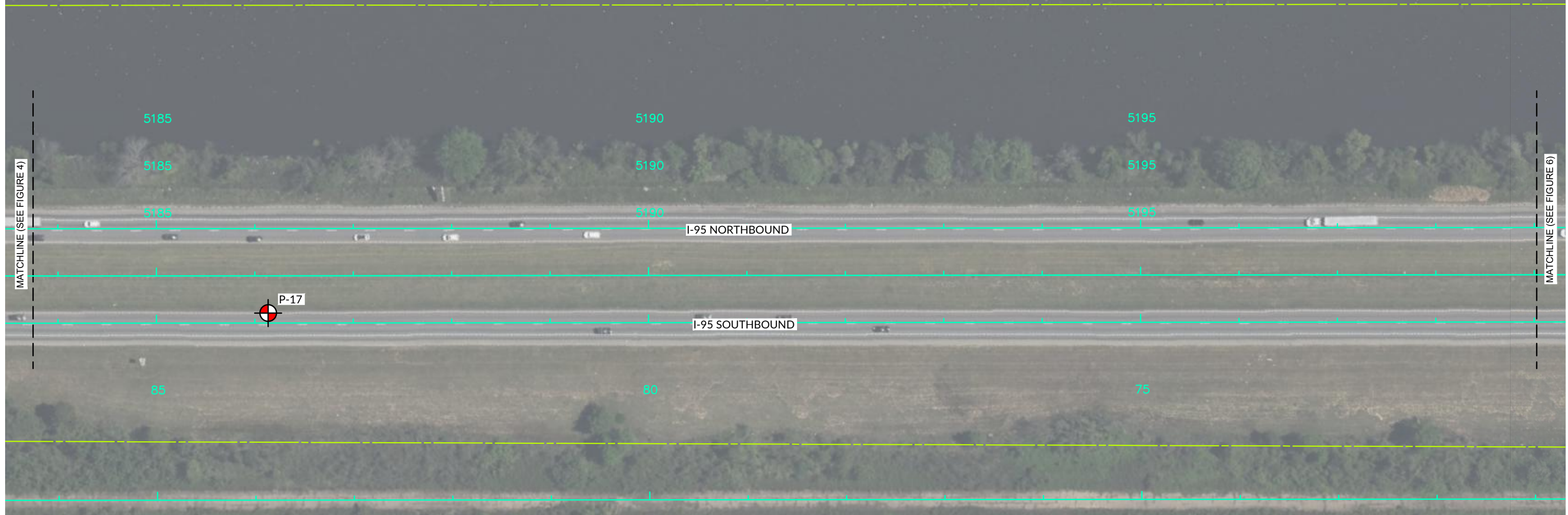
SCALE: 1"=100' FIGURE 4



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-17	STB	I-95 Med. CL	5186+06	37.9-R	612779.728	2171144.275	33.51628837	-80.43839905	90.0	5.5

MATCHLINE (SEE FIGURE 4)

MATCHLINE (SEE FIGURE 6)



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SOIL TEST LOCATION PLAN

SCALE: 1"=100' FIGURE 5

LEGEND:			
	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

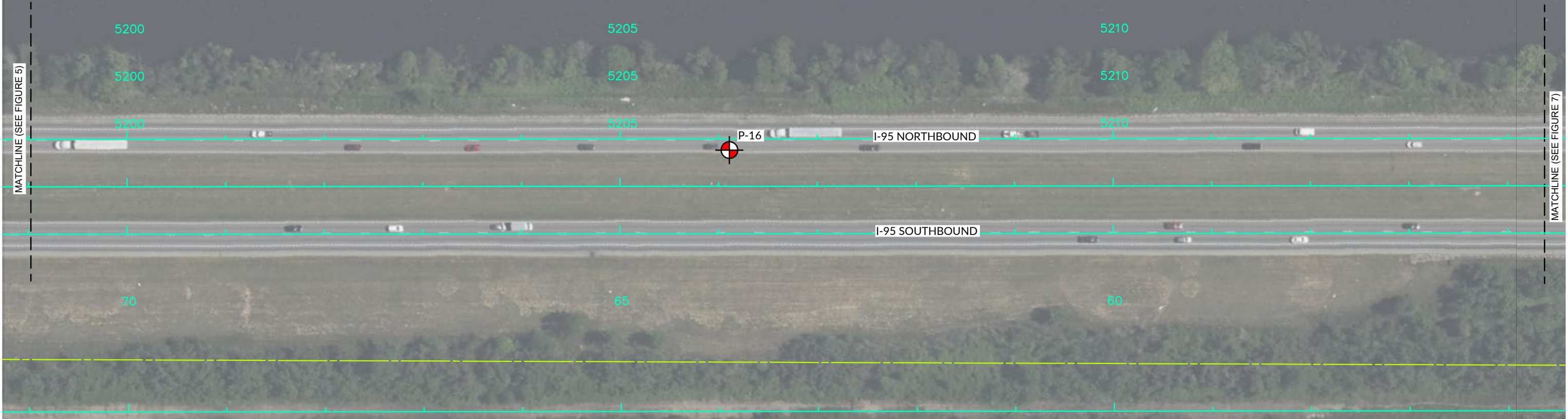
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DWG.	CTC	DATE 9.8.23	GROUP
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TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-16	STB	I-95 Med. CL	5206+04	36.6-L	611369.993	2169727.386	33.51243464	-80.44307334	89.9	6.0

MATCHLINE (SEE FIGURE 5)

MATCHLINE (SEE FIGURE 7)



LEGEND:			
	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

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REV.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP
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SOIL TEST LOCATION PLAN

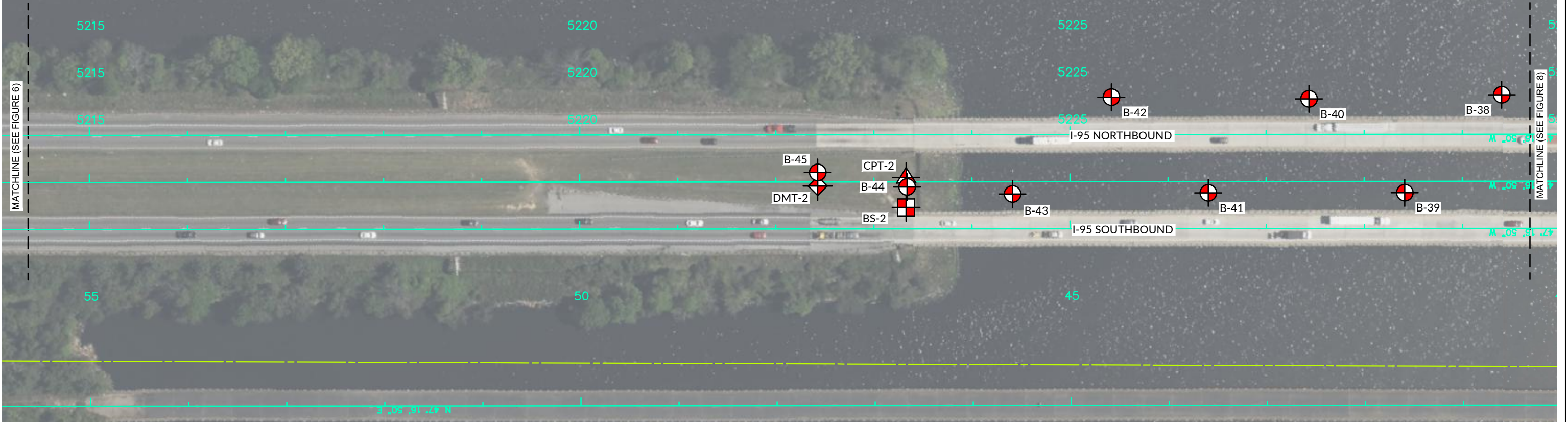
SCALE: 1"=100'

FIGURE 6



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
CPT-2	CPT	I-95 Med. CL	5223+26	4.5-L	610225.276	2168440.446	33.50930726	-80.44731618	89.2	50.8
BS-2	Bulk Sample	I-95 Med. CL	5223+26	26.0-R	610247.773	2168419.770	33.50936940	-80.44738363	90.5	0-5
DMT-2	Dilatometer	I-95 Med. CL	5222+35	4.1-R	610292.850	2168500.944	33.50949210	-80.44711650	88.3	7.0

TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
B-38	STB	I-95 Med. CL	5229+33	88.3-L	609751.768	2168051.074	33.50801149	-80.44860205	78.0	119.2
B-39	STB	I-95 Med. CL	5228+34	11.5-R	609892.272	2168056.135	33.50839761	-80.44858298	78.8	120.5
B-40	STB	I-95 Med. CL	5227+36	84.3-L	609888.083	2168192.833	33.50838409	-80.44813454	77.9	117.5
B-41	STB	I-95 Med. CL	5226+34	11.5-R	610028.122	2168203.331	33.50876884	-80.44809764	78.7	122.7
B-42	STB	I-95 Med. CL	5225+35	86.1-L	610023.453	2168342.036	33.50875397	-80.44764262	77.5	119.9
B-43	STB	I-95 Med. CL	5224+34	12.4-R	610164.242	2168349.314	33.50914084	-80.44761627	78.3	113.2
B-44	STB	I-95 Med. CL	5223+27	5.4-R	610231.811	2168432.986	33.50932533	-80.44734055	89.2	110.0
B-45	STB	I-95 Med. CL	5222+35	9.6-L	610282.892	2168510.269	33.50946460	-80.44708607	88.3	60.0



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CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

LEGEND:

	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

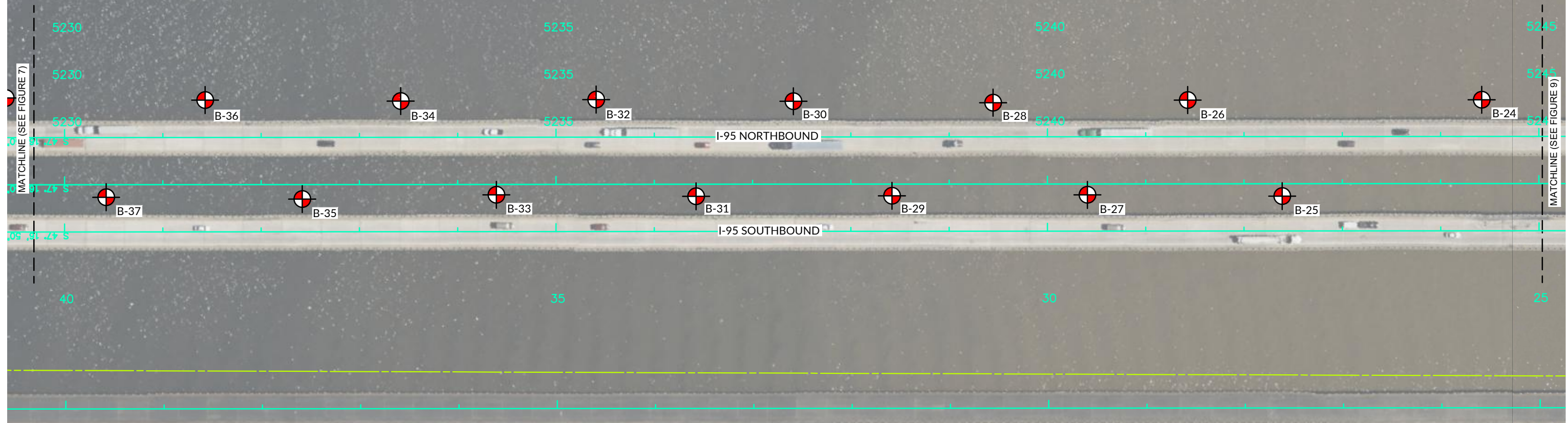
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REV.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP
R/W		DATE	

SCALE: 1"=100'

FIGURE 7



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
B-24	STB	I-95 Med. CL	5244+35	85.2-L	608735.327	2166945.832	33.50523385	-80.45224610	77.7	120.7
B-25	STB	I-95 Med. CL	5242+32	12.6-R	608944.884	2167028.611	33.50580863	-80.45197086	77.9	121.3
B-26	STB	I-95 Med. CL	5241+36	85.2-L	608938.229	2167165.530	33.50578835	-80.45152175	77.8	117.4
B-27	STB	I-95 Med. CL	5240+33	11.2-R	609078.330	2167175.176	33.50617329	-80.45148766	77.8	120.3
B-28	STB	I-95 Med. CL	5239+38	82.7-L	609074.379	2167309.292	33.50616047	-80.45104769	77.7	116.7
B-29	STB	I-95 Med. CL	5238+35	11.9-R	609213.799	2167320.773	33.50654351	-80.45100760	77.9	121.3
B-30	STB	I-95 Med. CL	5237+34	84.3-L	609211.019	2167459.597	33.50653384	-80.45055216	77.9	122.8
B-31	STB	I-95 Med. CL	5236+35	12.2-R	609349.148	2167466.889	33.50691340	-80.45052583	78.6	120.8
B-32	STB	I-95 Med. CL	5235+34	86.2-L	609345.821	2167608.385	33.50690219	-80.45006163	77.9	121.4
B-33	STB	I-95 Med. CL	5234+32	10.6-R	609485.847	2167617.306	33.50728693	-80.45002992	78.5	121.9
B-34	STB	I-95 Med. CL	5233+35	84.8-L	609481.726	2167753.548	33.50727361	-80.44958297	78.1	120.8
B-35	STB	I-95 Med. CL	5232+34	14.5-R	609623.233	2167760.323	33.50766246	-80.44955827	78.5	121.1
B-36	STB	I-95 Med. CL	5231+36	86.0-L	609615.783	2167900.481	33.50763993	-80.44909853	78.0	114.8
B-37	STB	I-95 Med. CL	5230+35	12.7-R	609756.704	2167907.527	33.50802716	-80.44907295	79.1	121.1



LEGEND:			
	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

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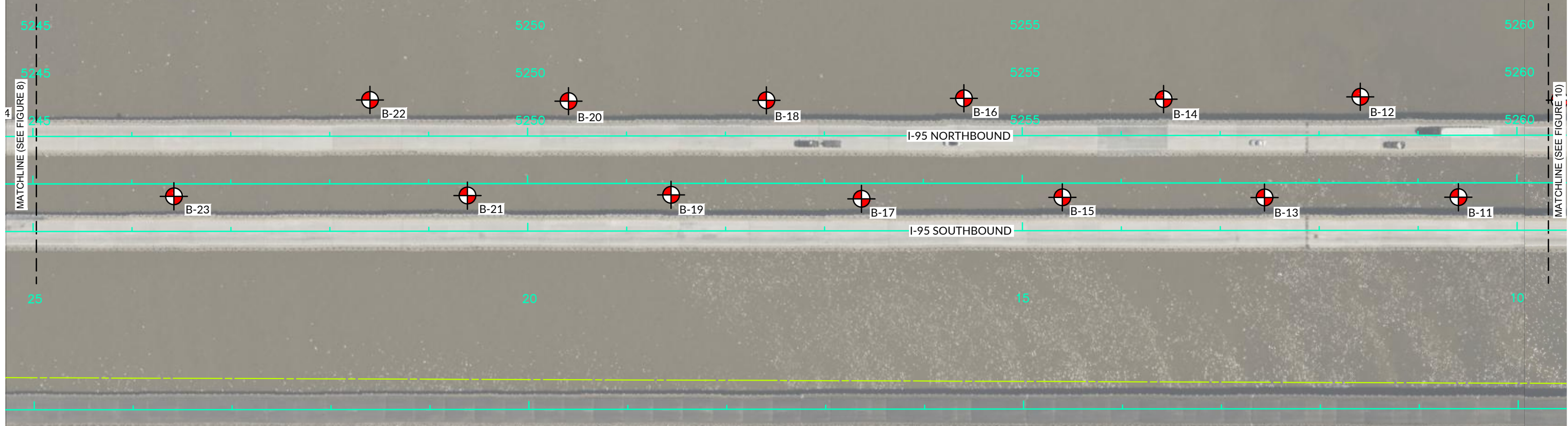
I-95 OVER LAKE MARION BRIDGE REPLACEMENTS
CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

SCALE: 1"=100' FIGURE 8



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
B-11	STB	I-95 Med. CL	5259+33	14.6-R	607791.781	2165776.936	33.50265738	-80.45609750	78.4	182.9
B-12	STB	I-95 Med. CL	5258+34	87.0-L	607784.386	2165918.571	33.50263501	-80.45563295	77.9	130.1
B-13	STB	I-95 Med. CL	5257+38	14.7-R	607924.753	2165920.744	33.50302079	-80.45562339	78.3	118.8
B-14	STB	I-95 Med. CL	5256+36	84.8-L	607920.903	2166063.194	33.50300815	-80.45515610	77.6	119.0
B-15	STB	I-95 Med. CL	5255+33	14.3-R	608063.118	2166071.113	33.50339892	-80.45512766	78.4	172.3
B-16	STB	I-95 Med. CL	5254+34	85.8-L	608057.027	2166212.106	33.50338014	-80.45466518	78.1	120.2
B-17	STB	I-95 Med. CL	5253+30	15.7-R	608201.895	2166219.436	33.50377822	-80.45463862	78.5	118.5
B-18	STB	I-95 Med. CL	5252+34	83.9-L	608193.861	2166357.478	33.50375413	-80.45418586	77.6	118.7
B-19	STB	I-95 Med. CL	5251+38	11.5-R	608329.330	2166363.648	33.50412639	-80.45416326	77.9	121.5
B-20	STB	I-95 Med. CL	5250+34	83.2-L	608330.047	2166503.973	33.50412633	-80.45370286	77.4	120.1
B-21	STB	I-95 Med. CL	5249+32	12.1-R	608469.382	2166514.435	33.50450915	-80.45366611	78.6	121.0
B-22	STB	I-95 Med. CL	5248+33	84.6-L	608465.156	2166652.355	33.50449553	-80.45321368	77.8	119.5
B-23	STB	I-95 Med. CL	5246+35	12.5-R	608671.062	2166732.160	33.50506032	-80.45294827	78.4	121.1



LEGEND:			
	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

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 CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

SCALE: 1"=100' FIGURE 9



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-14	STB	I-95 Med. CL	5273+65	24.4-L	606792.226	2164751.830	33.49992478	-80.45947790	105.8	6.0
P-15	STB	I-95 Med. CL	5270+16	37.0-R	607074.180	2164966.793	33.50069667	-80.45876781	117.0	5.5
CPT-1	CPT	I-95 Med. CL	5268+52	4.8-R	607161.200	2165108.396	33.50093382	-80.45830174	119.5	44.2
BS-1	Bulk Sample	I-95 Med. CL	5268+72	24.9-R	607162.859	2165080.578	33.50093878	-80.45839298	120.5	0-5
DMT-1	Dilatometer	I-95 Med. CL	5269+21	7.0-R	607116.118	2165056.408	33.50081065	-80.45847308	116.6	14.8

TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
B-1	STB	I-95 Med. CL	5269+21	CL	607111.043	2165061.176	33.50079663	-80.45845752	116.6	60.0
B-2	STB	I-95 Med. CL	5268+57	4.5-L	607151.020	2165111.103	33.50090580	-80.45829304	119.5	170.0
B-3	STB	I-95 Med. CL	5266+83	10.1-R	607279.796	2165228.982	33.50125805	-80.45790408	76.4	100.0
B-4	STB	I-95 Med. CL	5266+35	85.0-L	607242.761	2165329.059	33.50115481	-80.45757638	78.4	111.5
B-5	STB	I-95 Med. CL	5265+32	19.4-R	607389.619	2165334.265	33.50155839	-80.45755678	78.8	170.2
B-6	STB	I-95 Med. CL	5264+35	83.0-L	607379.735	2165474.522	33.50152920	-80.45709679	78.6	120.1
B-7	STB	I-95 Med. CL	5263+32	12.7-R	607519.787	2165485.150	33.50191400	-80.45705950	78.6	119.3
B-8	STB	I-95 Med. CL	5262+34	84.8-L	607515.059	2165623.691	33.50189900	-80.45660506	78.4	171.2
B-9	STB	I-95 Med. CL	5261+35	13.3-R	607653.954	2165629.463	33.50228068	-80.45658372	78.3	188.9
B-10	STB	I-95 Med. CL	5260+36	83.4-L	607650.164	2165767.968	33.50226826	-80.45612937	78.8	189.1



LEGEND:

- SOIL TEST BORING LOCATION
- CONE PENETRATION TEST LOCATION
- BULK SAMPLE TEST LOCATION
- DILATOMETER TEST LOCATION

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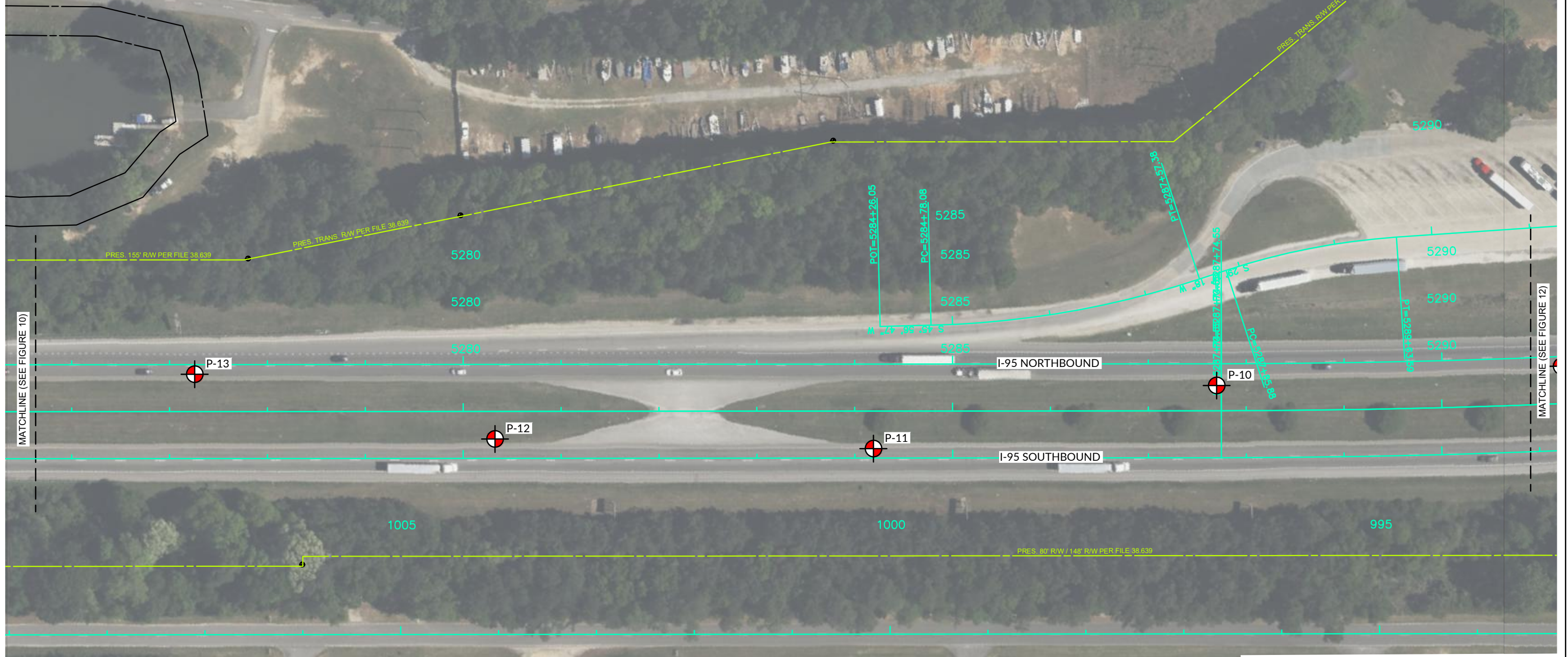
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 CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

SCALE: 1"=100' FIGURE 10



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-10	STB	I-95 Med. CL	5287+63	25.7-L	605842.879	2163725.767	33.49733010	-80.46286036	101.7	6.0
P-11	STB	I-95 Med. CL	5284+12	38.4-R	606127.965	2163939.985	33.49811063	-80.46215271	100.7	5.5
P-12	STB	I-95 Med. CL	5280+25	28.2-R	606382.717	2164230.805	33.49880668	-80.46119426	98.1	6.0
P-13	STB	I-95 Med. CL	5277+18	38.2-L	606542.121	2164501.327	33.49924094	-80.46030402	99.4	5.5



LEGEND:

	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

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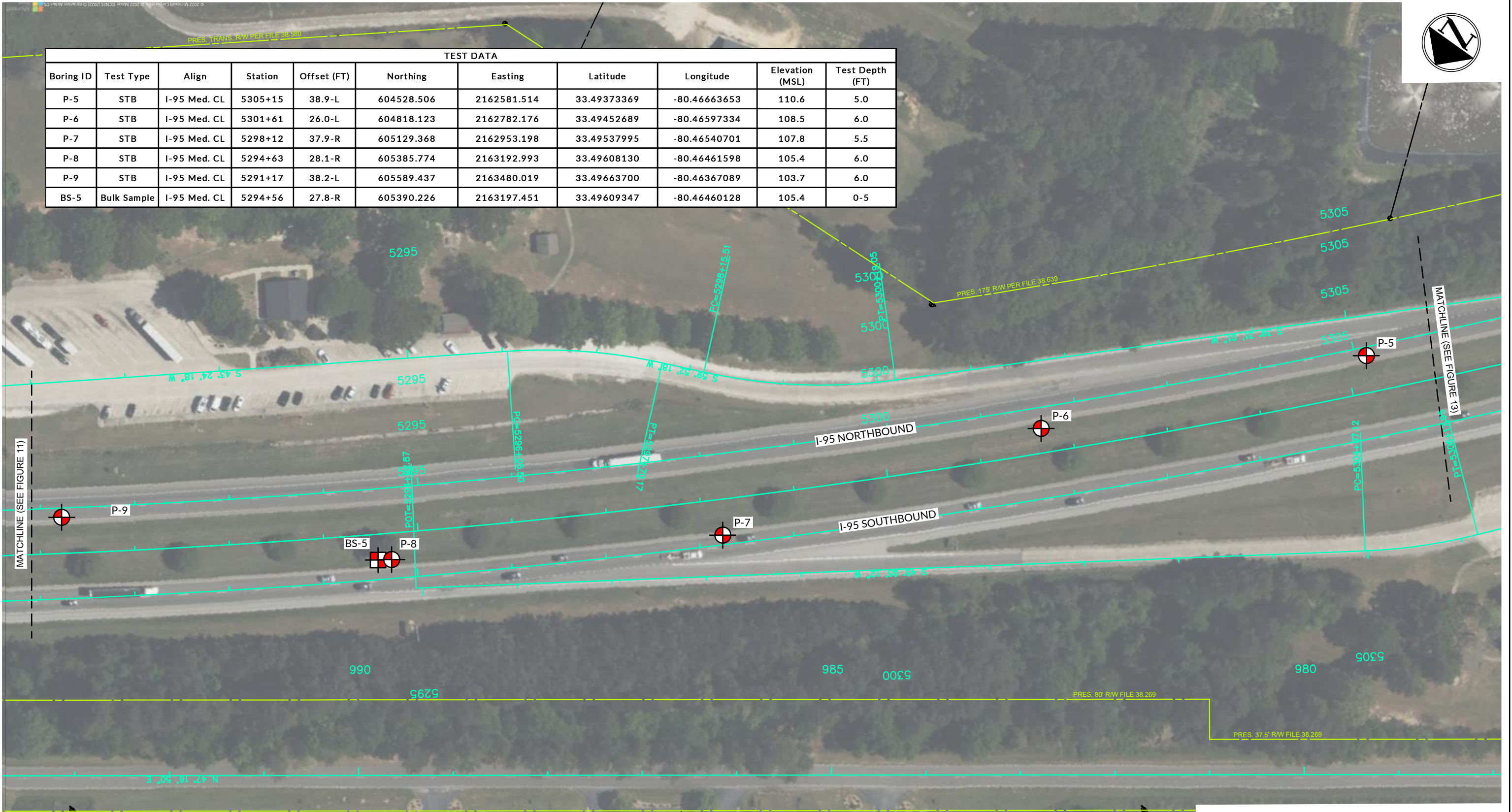
SOIL TEST LOCATION PLAN

SCALE: 1"=100'

FIGURE 11



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-5	STB	I-95 Med. CL	5305+15	38.9-L	604528.506	2162581.514	33.49373369	-80.46663653	110.6	5.0
P-6	STB	I-95 Med. CL	5301+61	26.0-L	604818.123	2162782.176	33.49452689	-80.46597334	108.5	6.0
P-7	STB	I-95 Med. CL	5298+12	37.9-R	605129.368	2162953.198	33.49537995	-80.46540701	107.8	5.5
P-8	STB	I-95 Med. CL	5294+63	28.1-R	605385.774	2163192.993	33.49608130	-80.46461598	105.4	6.0
P-9	STB	I-95 Med. CL	5291+17	38.2-L	605589.437	2163480.019	33.49663700	-80.46367089	103.7	6.0
BS-5	Bulk Sample	I-95 Med. CL	5294+56	27.8-R	605390.226	2163197.451	33.49609347	-80.46460128	105.4	0-5



LEGEND:			
	SOIL TEST BORING LOCATION		CONE PENETRATION TEST LOCATION
	BULK SAMPLE TEST LOCATION		DILATOMETER TEST LOCATION

4			
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REV.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9.8.23	GROUP
R/W		DATE	

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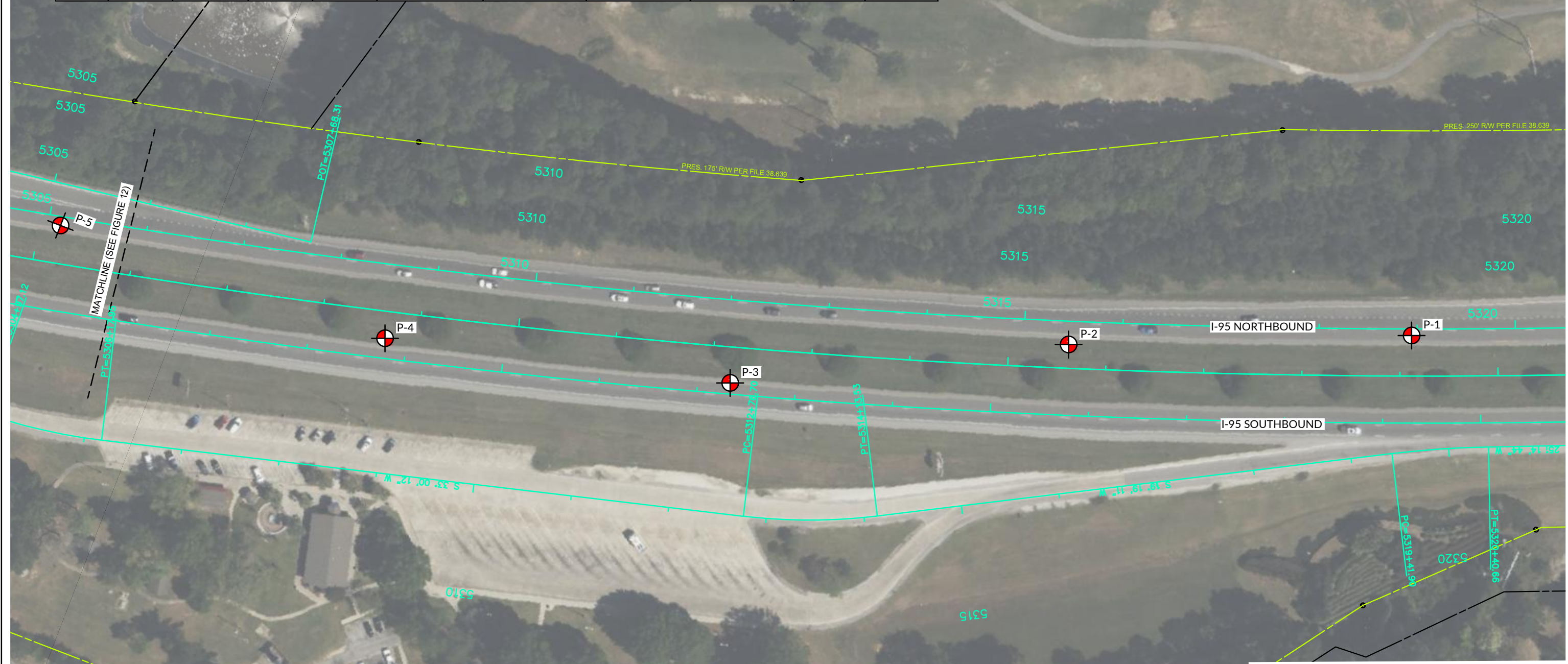
SOIL TEST LOCATION PLAN

SCALE: 1"=100'

FIGURE 12



TEST DATA										
Boring ID	Test Type	Align	Station	Offset (FT)	Northing	Easting	Latitude	Longitude	Elevation (MSL)	Test Depth (FT)
P-1	STB	I-95 Med. CL	5319+04	41.3-L	603342.730	2161871.980	33.49048450	-80.46898416	113.9	6.0
P-2	STB	I-95 Med. CL	5315+54	24.1-L	603660.583	2162018.247	33.49135609	-80.46849899	114.9	6.0
P-3	STB	I-95 Med. CL	5312+12	36.5-R	603987.209	2162135.812	33.49225219	-80.46810781	115.4	5.5
P-4	STB	I-95 Med. CL	5308+59	27.6-R	604282.561	2162331.948	33.49306122	-80.46745939	112.6	6.0



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CLARENDON & ORANGEBURG COUNTIES, SOUTH CAROLINA

SOIL TEST LOCATION PLAN

LEGEND:

- SOIL TEST BORING LOCATION
- CONE PENETRATION TEST LOCATION
- BULK SAMPLE TEST LOCATION
- DILATOMETER TEST LOCATION

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REV.	BY	DATE	DESCRIPTION OF REVISION
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DWG.	CTC	DATE 9.8.23	GROUP
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SCALE: 1"=200' FIGURE 13

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

I-95 Bridge(s) over Lake Marion
Field Investigation Summary - Bridges
 Clarendon/Orangeburg County, South Carolina



Test ID	Test Hole Locale	Alignment	Station	Offset from CL	Northing	Easting	Latitude	Longitude	Elevation	Depth
				ft	ft	ft			ft-MSL	ft
B-1	Bridge Embankment	I-95 Median CL	5269+21	CL	607111.0	2165061.2	33.50079663	-80.45845752	116.6	60
B-2	Bridge End Bent	I-95 Median CL	5268+57	4.5-L	607151.0	2165111.1	33.5009058	-80.45829304	119.5	100
B-3	Bridge Interior Bent	I-95 Median CL	5266+83	10.1-R	607279.8	2165229.0	33.50125805	-80.45790408	76.4	108.8
B-4	Bridge Interior Bent	I-95 Median CL	5266+35	85.0-L	607242.8	2165329.1	33.50115481	-80.45757638	78.4	111.5
B-5	Bridge Interior Bent	I-95 Median CL	5265+32	19.4-R	607389.6	2165334.3	33.50155839	-80.45755678	78.8	170.2
B-6	Bridge Interior Bent	I-95 Median CL	5264+35	83.0-L	607379.7	2165474.5	33.5015292	-80.45709679	78.6	120.1
B-7	Bridge Interior Bent	I-95 Median CL	5263+32	12.7-R	607519.8	2165485.2	33.501914	-80.4570595	78.6	119.3
B-8	Bridge Interior Bent	I-95 Median CL	5262+34	84.8-L	607515.1	2165623.7	33.501899	-80.45660506	78.4	171.2
B-9	Bridge Interior Bent	I-95 Median CL	5261+35	13.3-R	607652.8	2165630.5	33.50228068	-80.45658372	78.3	188.9
B-10	Bridge Interior Bent	I-95 Median CL	5260+36	83.4-L	607650.2	2165768.0	33.50226826	-80.45612937	78.8	189.1
B-11	Bridge Interior Bent	I-95 Median CL	5259+33	14.6-R	607791.8	2165776.9	33.50265738	-80.4560975	78.4	182.9
B-12	Bridge Interior Bent	I-95 Median CL	5258+34	87.0-L	607784.4	2165918.6	33.50263501	-80.45563295	77.9	130.1
B-13	Bridge Interior Bent	I-95 Median CL	5257+38	14.7-R	607924.8	2165920.7	33.50302079	-80.45562339	78.3	118.8
B-14	Bridge Interior Bent	I-95 Median CL	5256+36	84.8-L	607920.9	2166063.2	33.50300815	-80.4551561	77.6	119
B-15	Bridge Interior Bent	I-95 Median CL	5255+33	14.3-R	608063.1	2166071.1	33.50339892	-80.45512766	78.4	172.3
B-16	Bridge Interior Bent	I-95 Median CL	5254+34	85.8-L	608057.0	2166212.1	33.50338014	-80.45466518	78.1	120.2
B-17	Bridge Interior Bent	I-95 Median CL	5253+30	15.7-R	608201.9	2166219.4	33.50377822	-80.45463862	78.5	118.5
B-18	Bridge Interior Bent	I-95 Median CL	5252+34	83.9-L	608193.9	2166357.5	33.50375413	-80.45418586	77.6	118.7
B-19	Bridge Interior Bent	I-95 Median CL	5251+38	11.5-R	608329.3	2166363.6	33.50412639	-80.45416326	77.9	121.5
B-20	Bridge Interior Bent	I-95 Median CL	5250+34	83.2-L	608330.0	2166504.0	33.50412633	-80.45370286	77.4	120.1
B-21	Bridge Interior Bent	I-95 Median CL	5249+32	12.1-R	608469.4	2166514.4	33.50450915	-80.45366611	78.6	121
B-22	Bridge Interior Bent	I-95 Median CL	5248+33	84.6-L	608465.2	2166652.4	33.50449553	-80.45321368	77.8	119.5
B-23	Bridge Interior Bent	I-95 Median CL	5246+35	12.5-R	608671.1	2166732.2	33.50506032	-80.45294827	78.4	121.1
B-24	Bridge Interior Bent	I-95 Median CL	5244+35	85.2-L	608735.3	2166945.8	33.50523385	-80.4522461	77.7	120.7
B-25	Bridge Interior Bent	I-95 Median CL	5242+32	12.6-R	608944.9	2167028.6	33.50580863	-80.45197086	77.9	120.1
B-26	Bridge Interior Bent	I-95 Median CL	5241+36	85.2-L	608938.2	2167165.5	33.50578835	-80.45152175	77.8	117.4
B-27	Bridge Interior Bent	I-95 Median CL	5240+33	11.2-R	609078.3	2167175.2	33.50617329	-80.45148766	77.8	120.8
B-28	Bridge Interior Bent	I-95 Median CL	5239+38	82.7-L	609074.4	2167309.3	33.50616047	-80.45104769	77.7	116.7
B-29	Bridge Interior Bent	I-95 Median CL	5238+35	11.9-R	609213.8	2167320.8	33.50654351	-80.4510076	77.9	121.3
B-30	Bridge Interior Bent	I-95 Median CL	5237+34	84.3-L	609211.0	2167459.6	33.50653384	-80.45055216	77.9	122.8
B-31	Bridge Interior Bent	I-95 Median CL	5236+35	12.2-R	609349.1	2167466.9	33.5069134	-80.45052583	78.6	120.6
B-32	Bridge Interior Bent	I-95 Median CL	5235+34	86.2-L	609345.8	2167608.4	33.50690219	-80.45006163	77.9	121.4
B-33	Bridge Interior Bent	I-95 Median CL	5234+32	10.6-R	609485.8	2167617.3	33.50728693	-80.45002992	78.5	121.9
B-34	Bridge Interior Bent	I-95 Median CL	5233+35	84.8-L	609481.7	2167753.5	33.50727361	-80.44958297	78.1	120.8
B-35	Bridge Interior Bent	I-95 Median CL	5232+34	14.5-R	609623.2	2167760.3	33.50766246	-80.44955827	78.5	121.1
B-36	Bridge Interior Bent	I-95 Median CL	5231+36	86.0-L	609615.8	2167900.5	33.50763993	-80.44909853	78	114.8
B-37	Bridge Interior Bent	I-95 Median CL	5230+35	12.7-R	609756.7	2167907.5	33.50802716	-80.44907295	79.1	121.1
B-38	Bridge Interior Bent	I-95 Median CL	5229+33	88.3-L	609751.8	2168051.1	33.50801149	-80.44860205	78	119.2
B-39	Bridge Interior Bent	I-95 Median CL	5228+34	11.5-R	609892.3	2168056.1	33.50839761	-80.44858298	78.8	120.5
B-40	Bridge Interior Bent	I-95 Median CL	5227+36	84.3-L	609888.1	2168192.8	33.50838409	-80.44813454	77.9	117.5
B-41	Bridge Interior Bent	I-95 Median CL	5226+34	11.5-R	610028.1	2168203.3	33.50876884	-80.44809764	78.7	122.7
B-42	Bridge Interior Bent	I-95 Median CL	5225+35	86.1-L	610023.5	2168342.0	33.50875397	-80.44764262	77.5	119.9
B-43	Bridge Interior Bent	I-95 Median CL	5224+34	12.4-R	610164.2	2168349.3	33.50914084	-80.44761627	78.3	108.2
B-44	Bridge End Bent	I-95 Median CL	5223+27	5.4-R	610231.8	2168433.0	33.50932533	-80.44734055	89.2	110
B-45	Bridge Embankment	I-95 Median CL	5222+35	9.6-L	610282.9	2168510.3	33.5094646	-80.44708607	88.3	60
B-46	Bridge Embankment	I-95 Median CL	5178+10	8.9-R	613298.5	2171748.8	33.51770511	-80.43640616	88.4	60
B-47	Bridge End Bent	I-95 Median CL	5177+10	11.5-R	613368.1	2171820.3	33.51789541	-80.4361701	89.4	74.6
B-48	Bridge Interior Bent	I-95 Median CL	5176+05	94.5-L	613362.0	2171969.9	33.51787635	-80.43567936	78.5	110.8
B-49	Bridge Interior Bent	I-95 Median CL	5175+19	90.1-L	613423.6	2172030.2	33.5180449	-80.43548056	77.9	118.4
B-50	Bridge Interior Bent	I-95 Median CL	5174+43	87.5-L	613476.6	2172083.7	33.51818967	-80.43530402	77.6	106.8
B-51	Bridge End Bent	I-95 Median CL	5173+30	3.4-R	613620.0	2172105.1	33.51858349	-80.43523122	89.5	71.1
B-52	Bridge Embankment	I-95 Median CL	5172+30	0.3-R	613685.6	2172180.7	33.51876274	-80.4349819	88.1	39.3
B-52U	Bridge Embankment	I-95 Median CL	5172+30	12.6-L	613674.8	2172185.1	33.5187364	-80.43495348	88.1	16
CPT-1	Bridge End Bent	I-95 Median CL	5268+52	4.8-R	607151.0	2165111.1	33.5009058	-80.458293	119.5	44.25
CPT-2	Bridge End Bent	I-95 Median CL	5223+26	4.5-L	610231.8	2168433.0	33.5093253	-80.4473405	89.2	50.76
CPT-3	Bridge End Bent	I-95 Median CL	5177+08	0.6-L	613368.1	2171820.3	33.5178954	-80.4361701	89.4	44.36
CPT-4	Bridge End Bent	I-95 Median CL	5173+29	7.2-L	613620.0	2172105.1	33.5185835	-80.4352312	89.5	38.38
DMT-1	Bridge Embankment	I-95 Median CL	5269+21	7.0-R	607111.0	2165061.2	33.50081065	-80.45847308	116.6	14.8
DMT-2	Bridge Embankment	I-95 Median CL	5222+35	4.1-R	610282.9	2168510.3	33.5094921	-80.4471165	88.3	7
DMT-3	Bridge Embankment	I-95 Median CL	5178+10	14.5-R	613298.5	2171748.8	33.51771626	-80.43641884	88.4	3.2
DMT-4	Bridge Embankment	I-95 Median CL	5172+31	3.3-R	613685.6	2172180.7	33.5187678	-80.43498979	88.1	16

I-95 Bridge(s) over Lake Marion
Field Investigation Summary - Pavements
 Clarendon/Orangeburg County, South Carolina



Test ID	Test Hole Locale	Alignment	Station	Offset from CL	Northing	Easting	Latitude	Longitude	Elevation	Depth
				<i>ft</i>	<i>ft</i>	<i>ft</i>			<i>ft-MSL</i>	<i>ft</i>
P-1	Rdwy Embankment	I-95 Median CL	5319+04	41.3-L	603343	2161872	33.49048450	-80.46898416	113.9	5
P-2	Rdwy Embankment	I-95 Median CL	5315+54	24.1-L	603661	2162018	33.49135609	-80.46849899	114.9	6
P-3	Rdwy Embankment	I-95 Median CL	5312+12	36.5-R	603987	2162136	33.49225219	-80.46810781	115.4	6
P-4	Rdwy Embankment	I-95 Median CL	5308+59	27.6-R	604283	2162332	33.49306122	-80.46745939	112.6	6
P-5	Rdwy Embankment	I-95 Median CL	5305+15	38.9-L	604529	2162582	33.49373369	-80.46663653	110.6	5
P-6	Rdwy Embankment	I-95 Median CL	5301+61	26.0-L	604818	2162782	33.49452689	-80.46597334	108.5	6
P-7	Rdwy Embankment	I-95 Median CL	5298+12	37.9-R	605129	2162953	33.49537995	-80.46540701	107.8	6
P-8	Rdwy Embankment	I-95 Median CL	5294+63	28.1-R	605386	2163193	33.49608130	-80.46461598	105.4	6
P-9	Rdwy Embankment	I-95 Median CL	5291+17	38.2-L	605589	2163480	33.49663700	-80.46367089	103.7	5
P-10	Rdwy Embankment	I-95 Median CL	5287+63	25.7-L	605843	2163726	33.49733010	-80.46286036	101.7	6
P-11	Rdwy Embankment	I-95 Median CL	5284+12	38.4-R	606128	2163940	33.49811063	-80.46215271	100.7	6
P-12	Rdwy Embankment	I-95 Median CL	5280+25	28.2-R	606383	2164231	33.49880668	-80.46119426	98.1	6
P-13	Rdwy Embankment	I-95 Median CL	5277+18	38.2-L	606542	2164501	33.49924094	-80.46030402	99.4	6
P-14	Rdwy Embankment	I-95 Median CL	5273+65	24.4-L	606792	2164752	33.49992478	-80.45947790	105.8	6
P-15	Rdwy Embankment	I-95 Median CL	5270+16	37.0-R	607074	2164967	33.50069667	-80.45876781	117.0	6
P-16	Rdwy Embankment	I-95 Median CL	5206+04	36.6-L	611370	2169727	33.51243464	-80.44307334	89.9	5
P-17	Rdwy Embankment	I-95 Median CL	5186+06	37.9-R	612780	2171144	33.51628837	-80.43839905	90.0	6
P-18	Rdwy Embankment	I-95 Median CL	5163+50	37.8-R	614311	2172800	33.52047262	-80.43293871	89.5	6
P-19	Rdwy Embankment	I-95 Median CL	5160+01	29.8-R	614549	2173055	33.52112345	-80.43209788	89.3	6
P-20	Rdwy Embankment	I-95 Median CL	5156+54	37.2-L	614751	2173345	33.52167391	-80.43114195	91.7	6
P-21	Rdwy Embankment	I-95 Median CL	5152+99	27.7-L	615018	2173580	33.52240398	-80.43036743	98.1	6
P-22	Rdwy Embankment	I-95 Median CL	5149+53	36.6-R	615320	2173760	33.52323093	-80.42976897	107.2	6
P-23	Rdwy Embankment	I-95 Median CL	5138+69	11.0-L	616137	2174473	33.52546645	-80.42741469	104.1	6
P-24	Rdwy Embankment	I-95 Median CL	5163+06	114.2-L	614232	2172937	33.52025373	-80.43248937	84.8	10

I-95 Bridge(s) over Lake Marion
Field Investigation Summary - Bulk Samples
 Clarendon/Orangeburg County, South Carolina



Test ID	Test Hole Locale	Alignment	Station	Offset from CL	Northing	Easting	Latitude	Longitude	Elevation	Depth
				<i>ft</i>	<i>ft</i>	<i>ft</i>			<i>ft-MSL</i>	<i>ft</i>
BS-1	Roadway Embankment	I-95 Median CL	5268+72	24.9-R	607162.9	2165080.6	33.50093878	-80.45839298	120.5	5
BS-2	Roadway Embankment	I-95 Median CL	5223+26	26.0-R	610247.8	2168419.8	33.5093694	-80.44738363	90.5	5
BS-3	Roadway Embankment	I-95 Median CL	5177+48	25.0-R	613352.3	2171783.3	33.51785255	-80.43629182	89.5	5
BS-4	Roadway Embankment	I-95 Median CL	5173+21	24.5-R	613641.6	2172097.3	33.51864313	-80.43525628	90.3	5
BS-5	Roadway Embankment	I-95 Median CL	5294+56	27.8-R	605385.8	2163193.0	33.49609347	-80.46460128	105.4	5
BS-6	Roadway Embankment	I-95 Median CL	5160+07	30.2-R	614549.3	2173054.8	33.52111221	-80.43211311	89.3	5

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

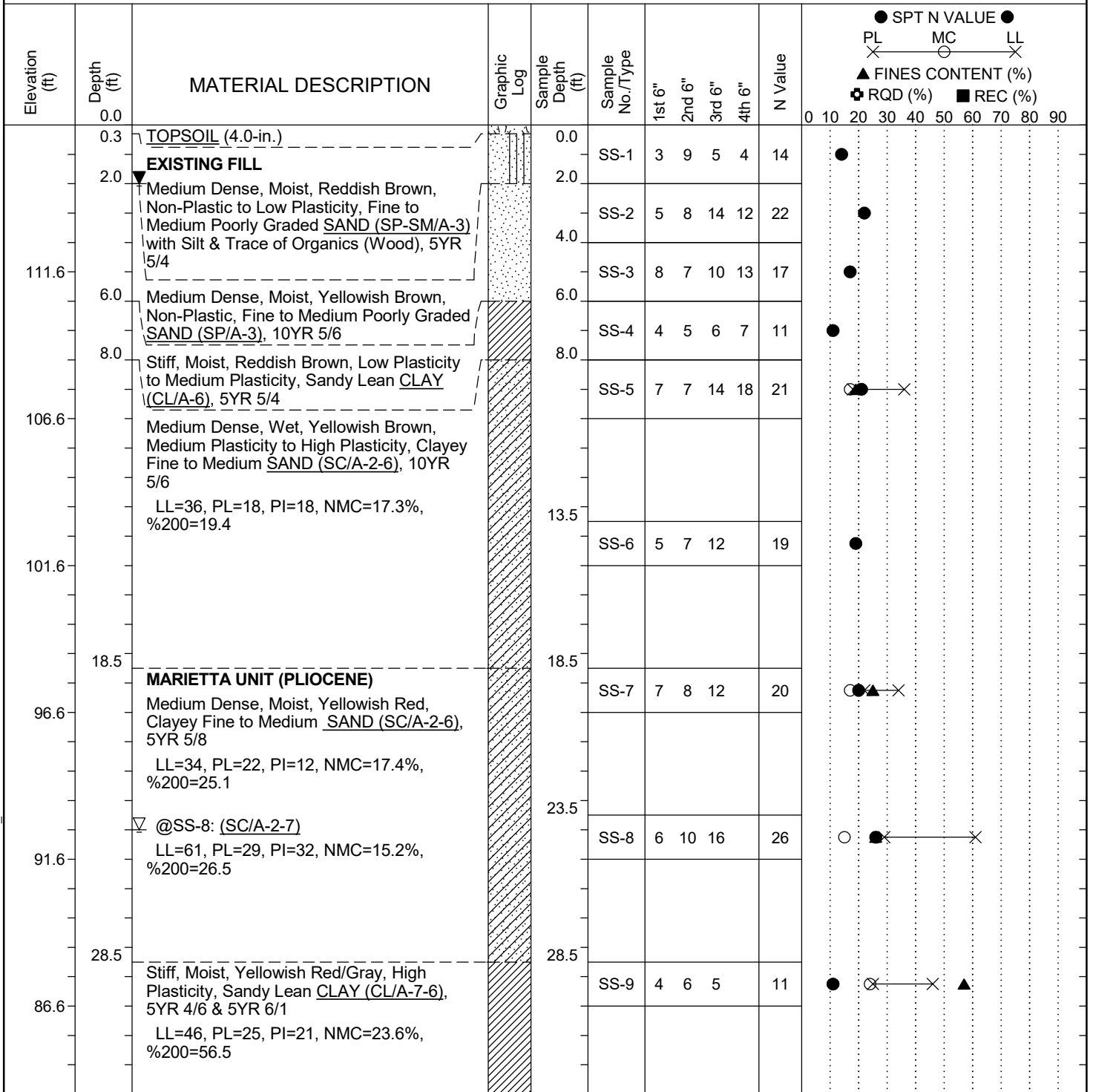
APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

SECTION 3A SOIL TEST BORING (STB) LOGS

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-1
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5269+21	Offset: CL Alignment: I-95 Med. CL
Elev.: 116.6 ft	Latitude: 33.50079663	Longitude: -80.45845752 Date Started: 1/9/2023
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft Date Completed: 1/9/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB 24 (Cave@27) 24HR 2(Cave@7)



LEGEND

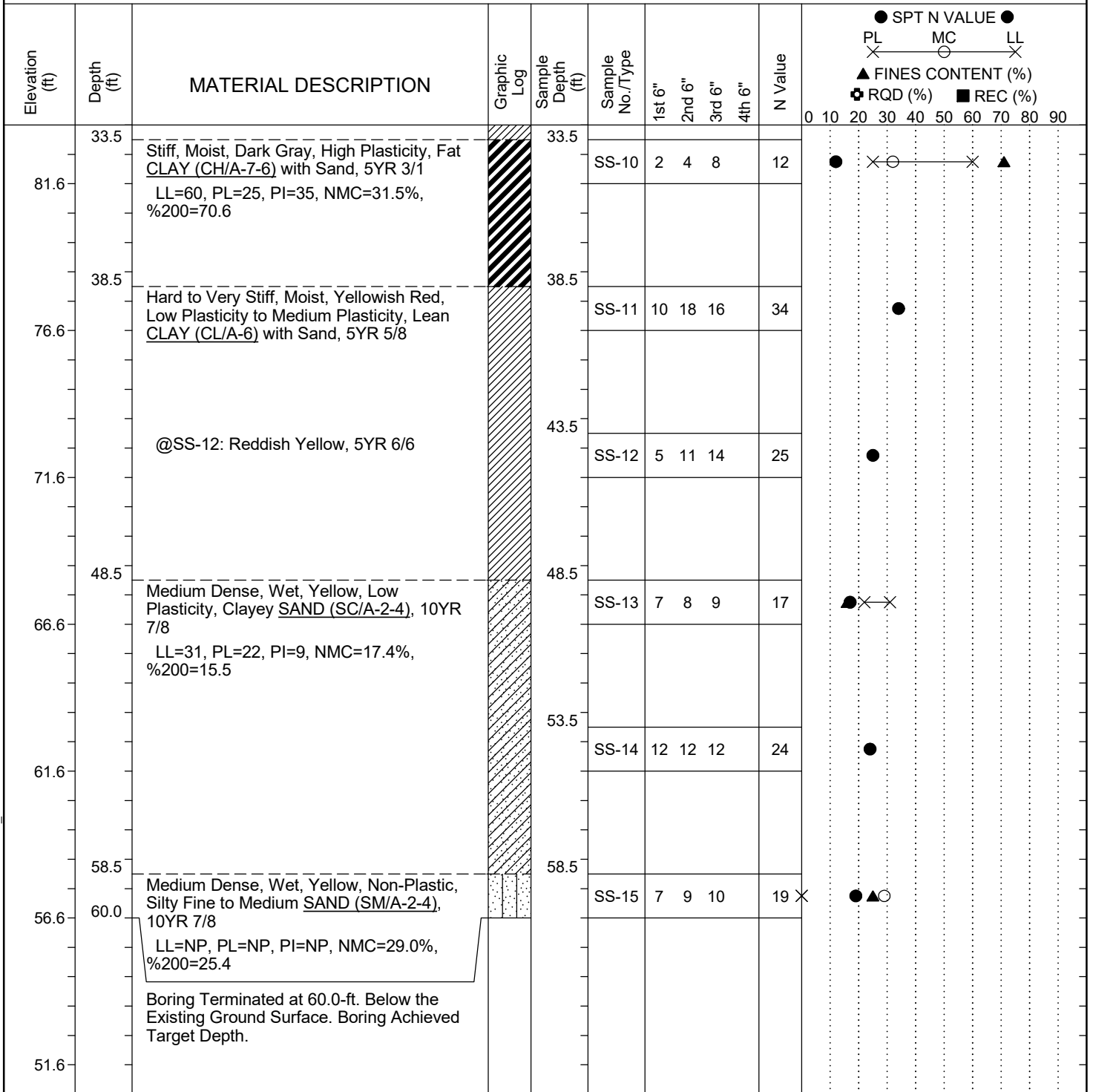
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-1
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5269+21	Offset: CL Alignment: I-95 Med. CL
Elev.: 116.6 ft	Latitude: 33.50079663	Longitude: -80.45845752 Date Started: 1/9/2023
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft Date Completed: 1/9/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB 24 (Cave@27) 24HR 2(Cave@7)



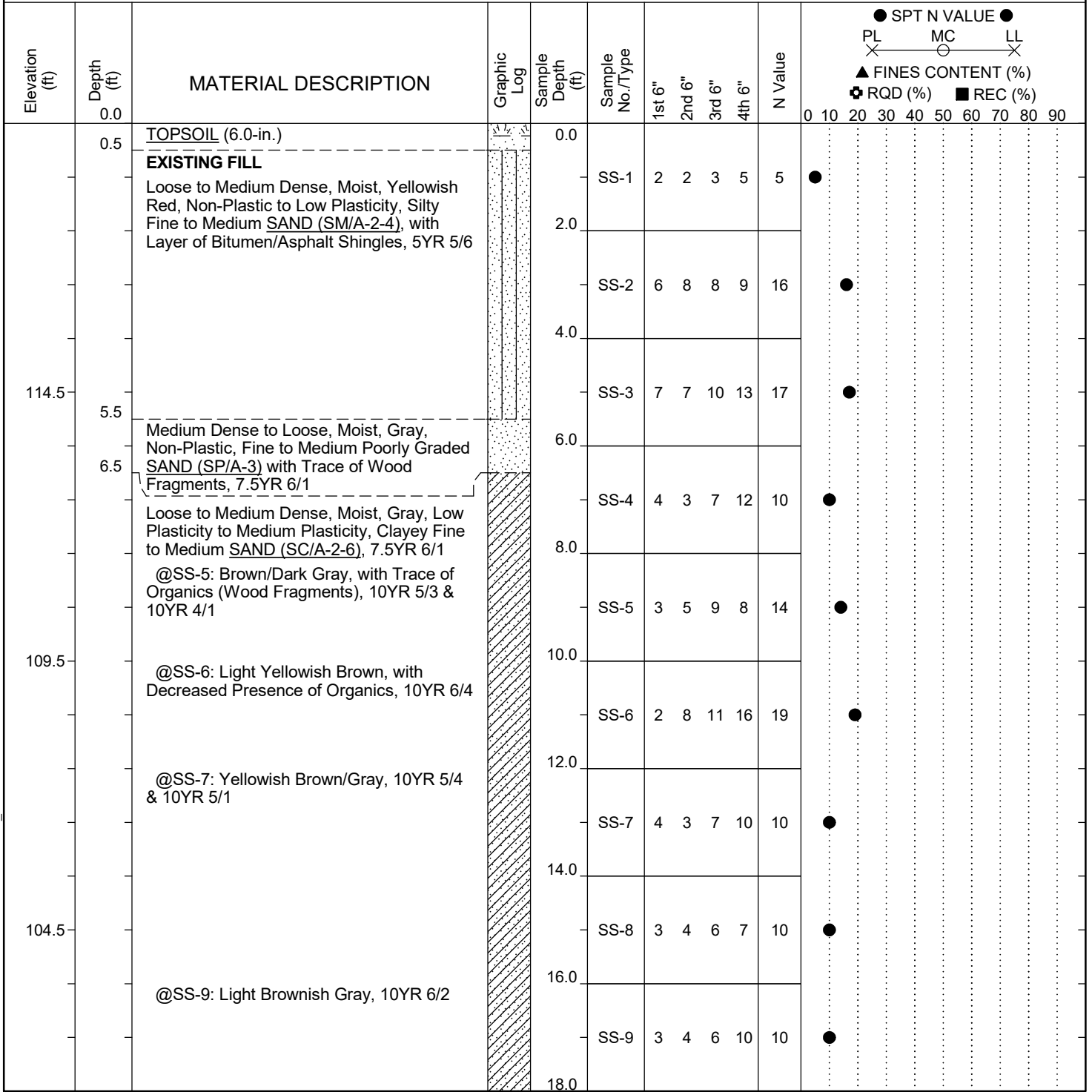
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130		County: Clarendon/Orangeburg		Boring No.: B-2	
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement				Route: I-95	
Eng./Geo.: R. Wessinger		Boring Location: 5268+57		Offset: 4.5-L	Alignment: I-95 Med. CL
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304	Date Started: 1/16/2023		
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft	Date Completed: 1/18/2023		
Bore Hole Diameter (in): 4		Sampler Configuration		Liner Required: Y (N)	Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic	Energy Ratio: 78%		
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB	45 ft	24HR	45(Cave@80)



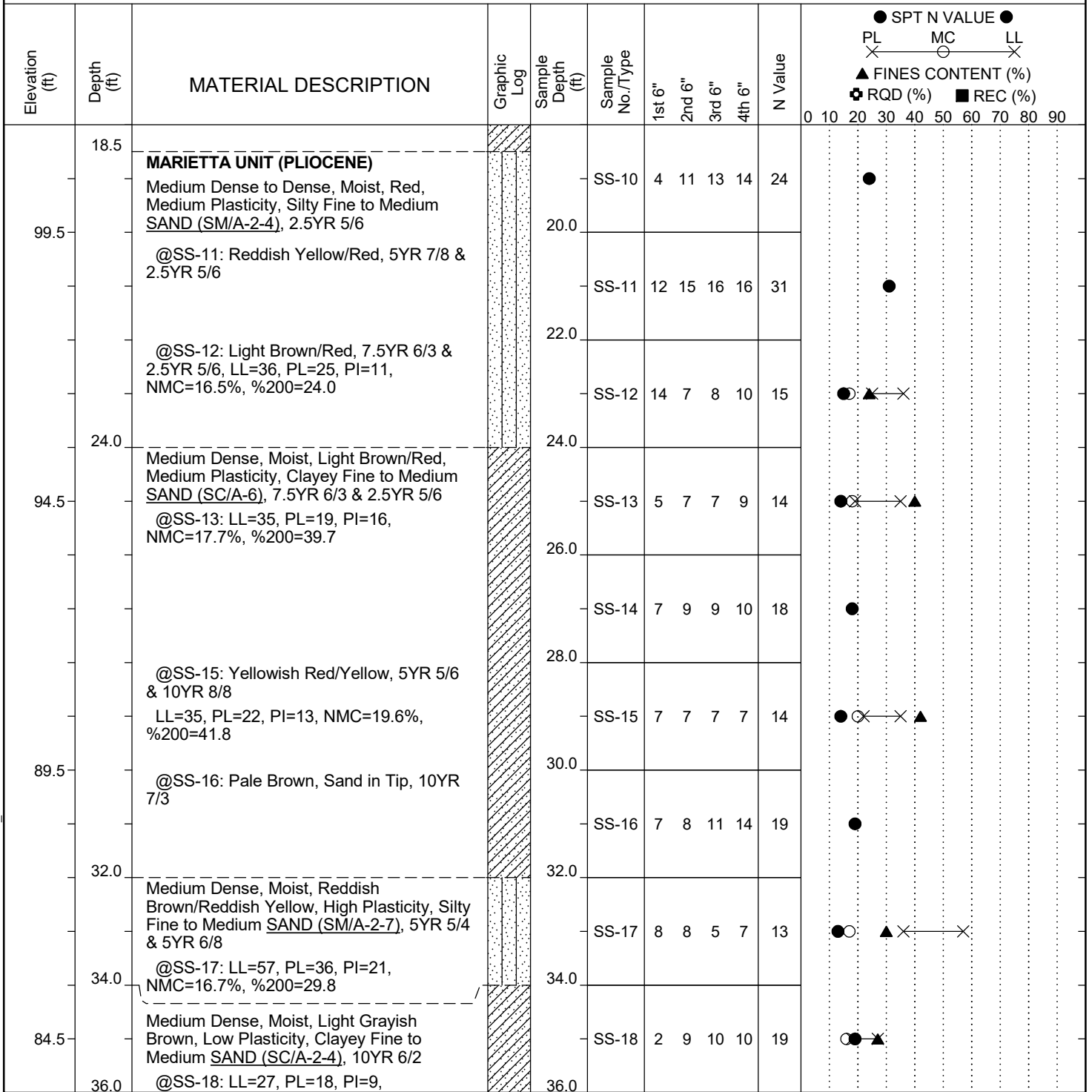
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5268+57	Offset: 4.5-L
Alignment: I-95 Med. CL	Date Started: 1/16/2023	Date Completed: 1/18/2023
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB 45 ft
Core Size: NQ	Driller: R. Huffstetler	24HR: 45(Cave@80)



LEGEND

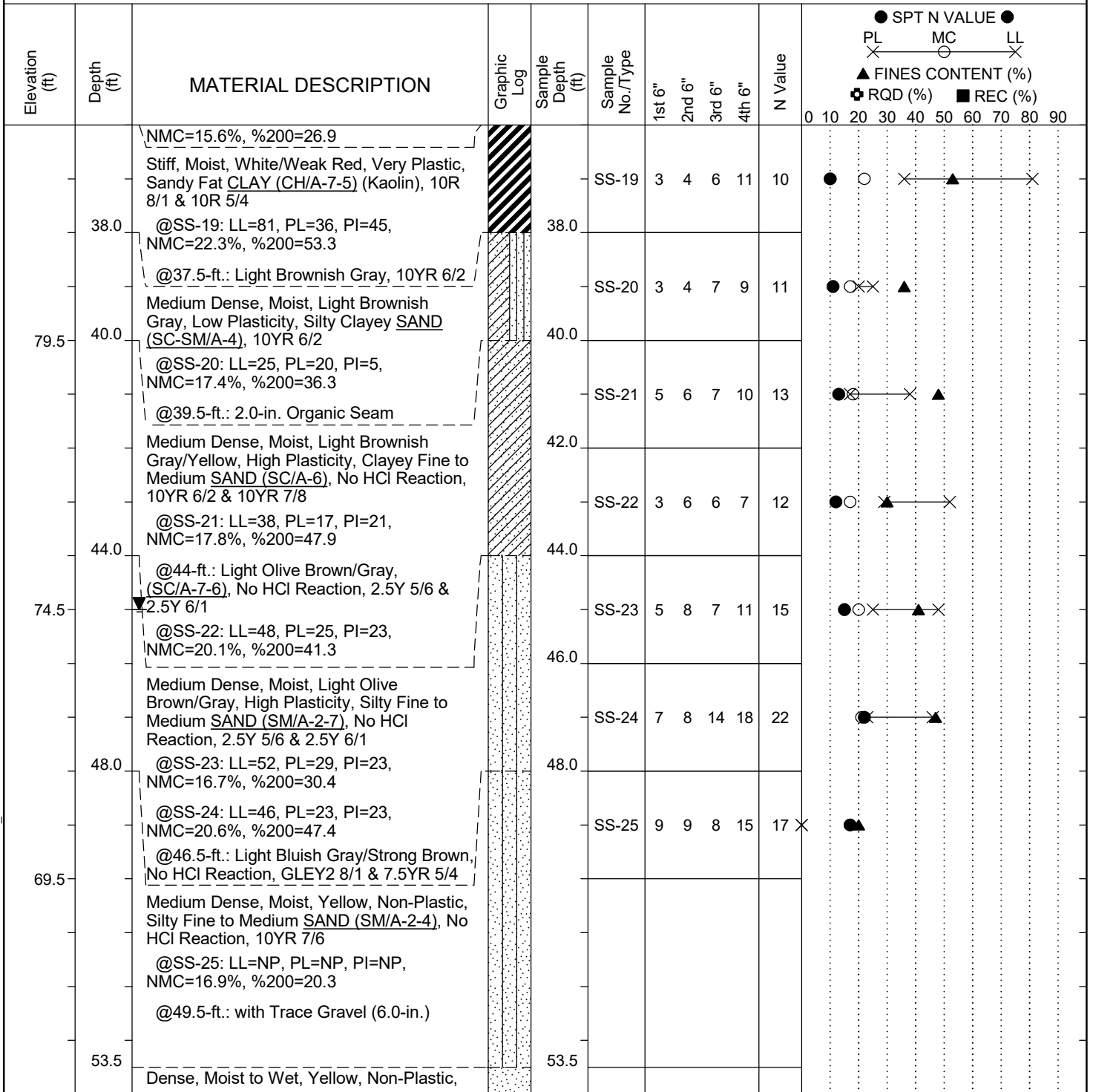
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5268+57	Offset: 4.5-L
Alignment: I-95 Med. CL	Date Started: 1/16/2023	Date Completed: 1/18/2023
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft
Bore Hole Diameter (in.): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB 45 ft
Core Size: NQ	Driller: R. Huffstetler	24HR: 45(Cave@80)



LEGEND

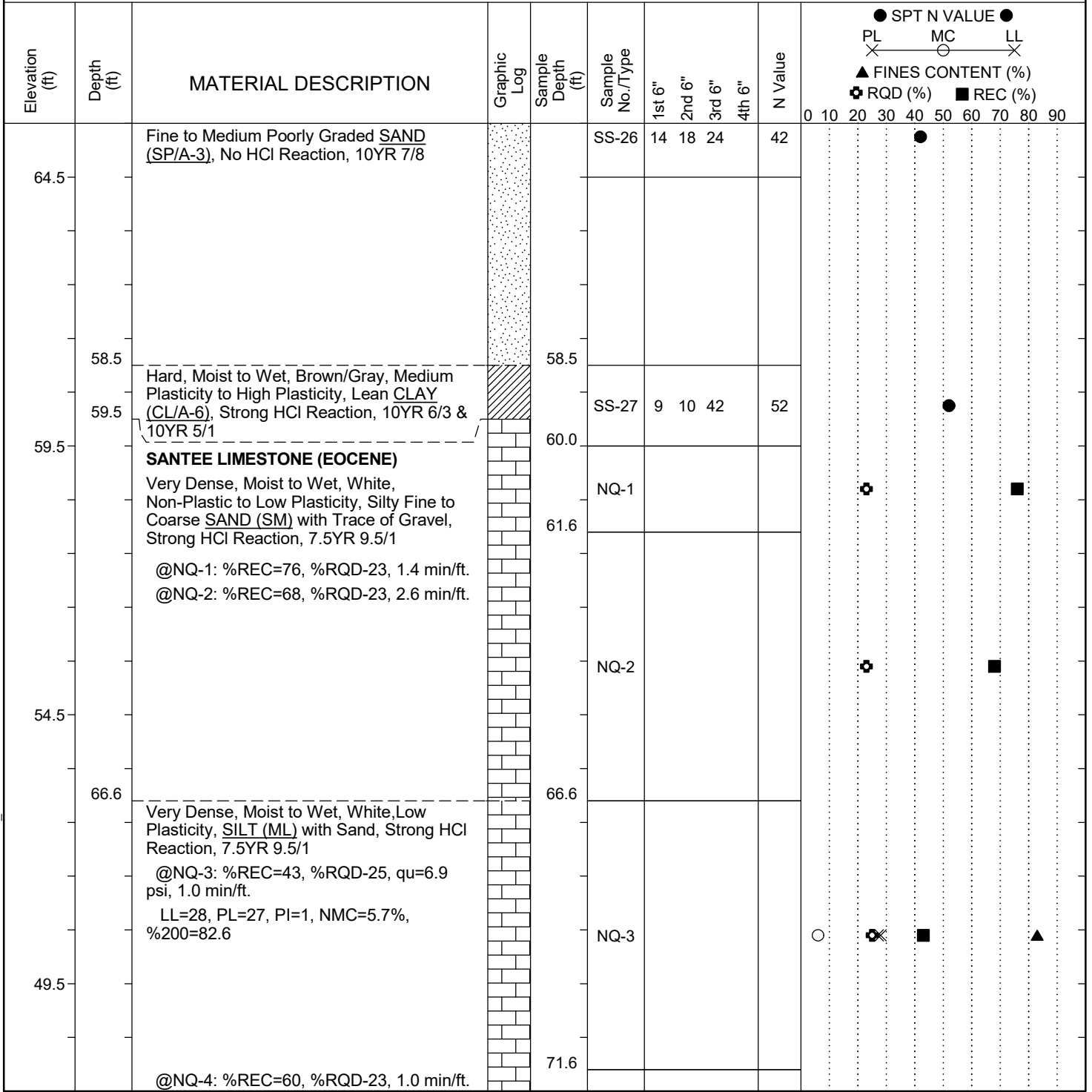
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5268+57	Offset: 4.5-L Alignment: I-95 Med. CL
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304 Date Started: 1/16/2023
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft Date Completed: 1/18/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 45 ft 24HR 45(Cave@80)



LEGEND

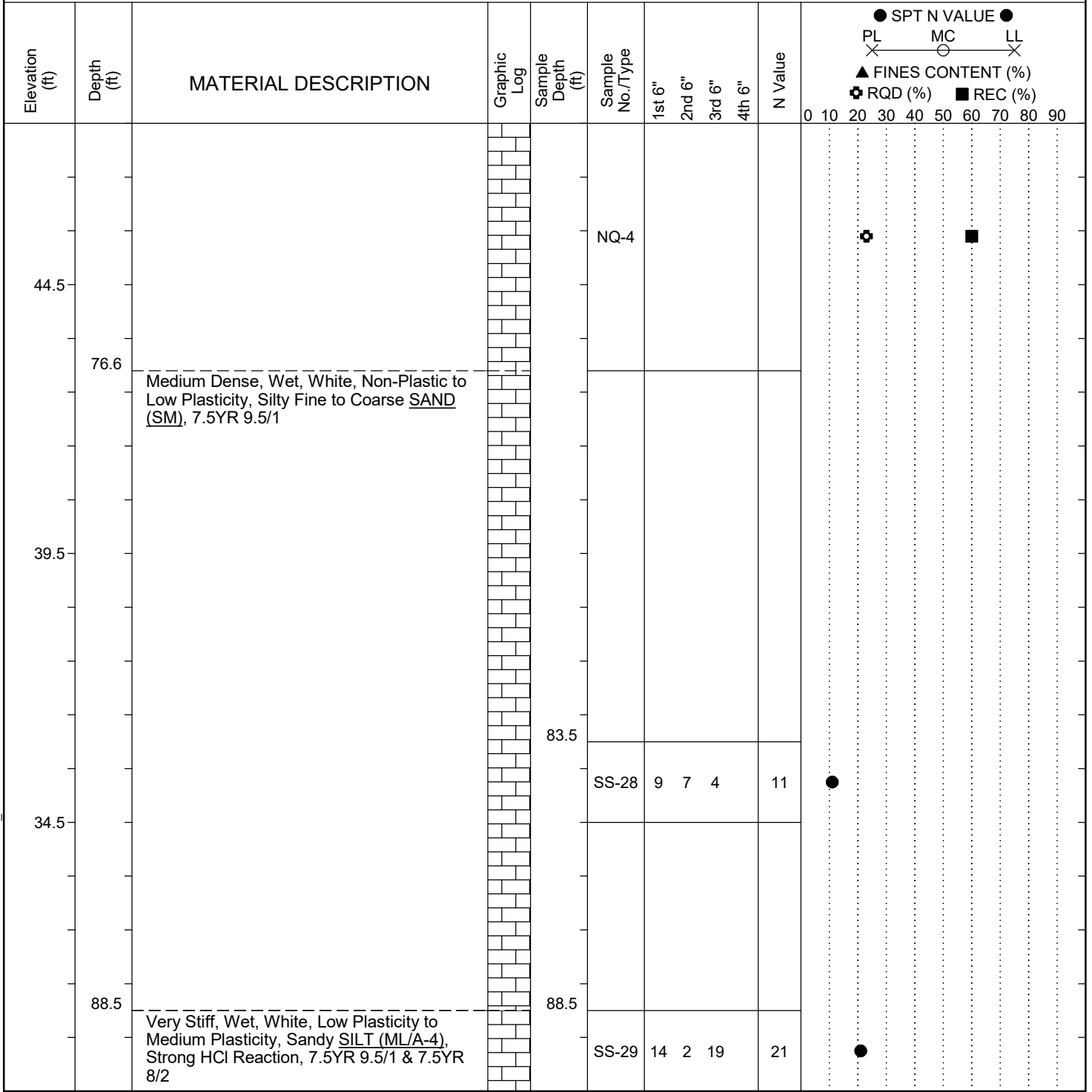
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5268+57	Offset: 4.5-L Alignment: I-95 Med. CL
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304 Date Started: 1/16/2023
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft Date Completed: 1/18/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 45 ft 24HR 45(Cave@80)



LEGEND Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5268+57	Offset: 4.5-L Alignment: I-95 Med. CL
Elev.: 119.5 ft	Latitude: 33.5009058	Longitude: -80.45829304 Date Started: 1/16/2023
Total Depth: 100 ft	Soil Depth: 82.9 ft	Core Depth: 17.1 ft Date Completed: 1/18/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 45 ft 24HR 45(Cave@80)

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value	● SPT N VALUE ● PL X — MC ○ — LL X ▲ FINES CONTENT (%) ⊕ RQD (%) ■ REC (%)									
											0	10	20	30	40	50	60	70	80	90
24.5	93.5	Medium Dense to Dense, Moist to Wet, Pale Brown, Non-Plastic to Low Plasticity, Silty Fine to Medium SAND (SM/A-2-4) 2.5Y 7/3		93.5	SS-30	7	9	10		19	●									
		@95.5-ft.: Hard Drilling																		
19.5	98.5	Hard, Moist to Wet, Very Pale Brown, Low Plasticity to Medium Plasticity, Sandy SILT (ML/A-4), 10YR 8/2		98.5	SS-31	12	13	27		40	●									
14.5	100.0	Boring Terminated at 100.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.																		

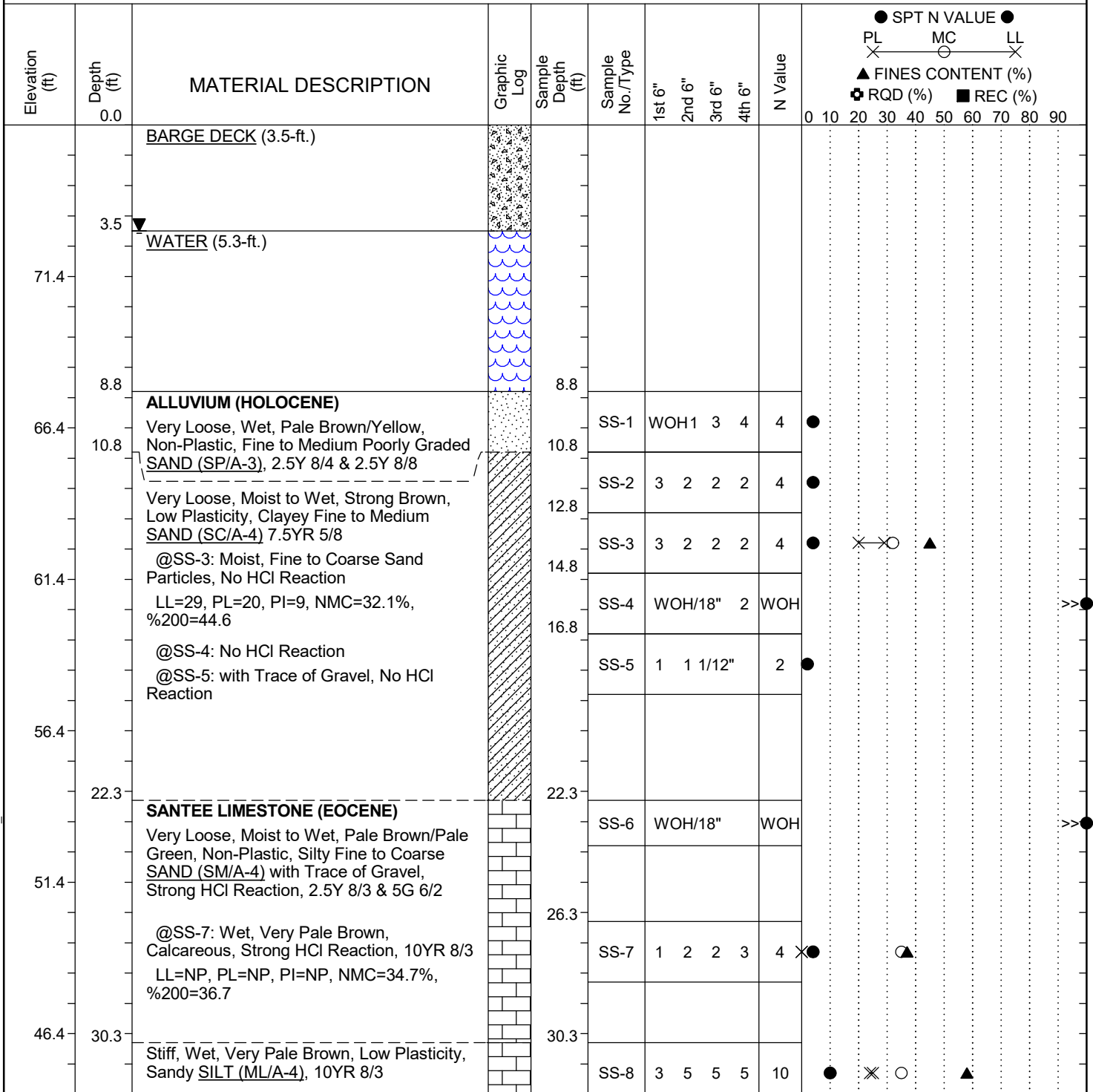
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5266+83	Offset: 10.1-R
Alignment: I-95 Med. CL	Date Started: 6/2/2023	Date Completed: 6/5/2023
Elev.: 76.4 ft	Latitude: 33.50125805	Longitude: -80.45790408
Total Depth: 108.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



LEGEND

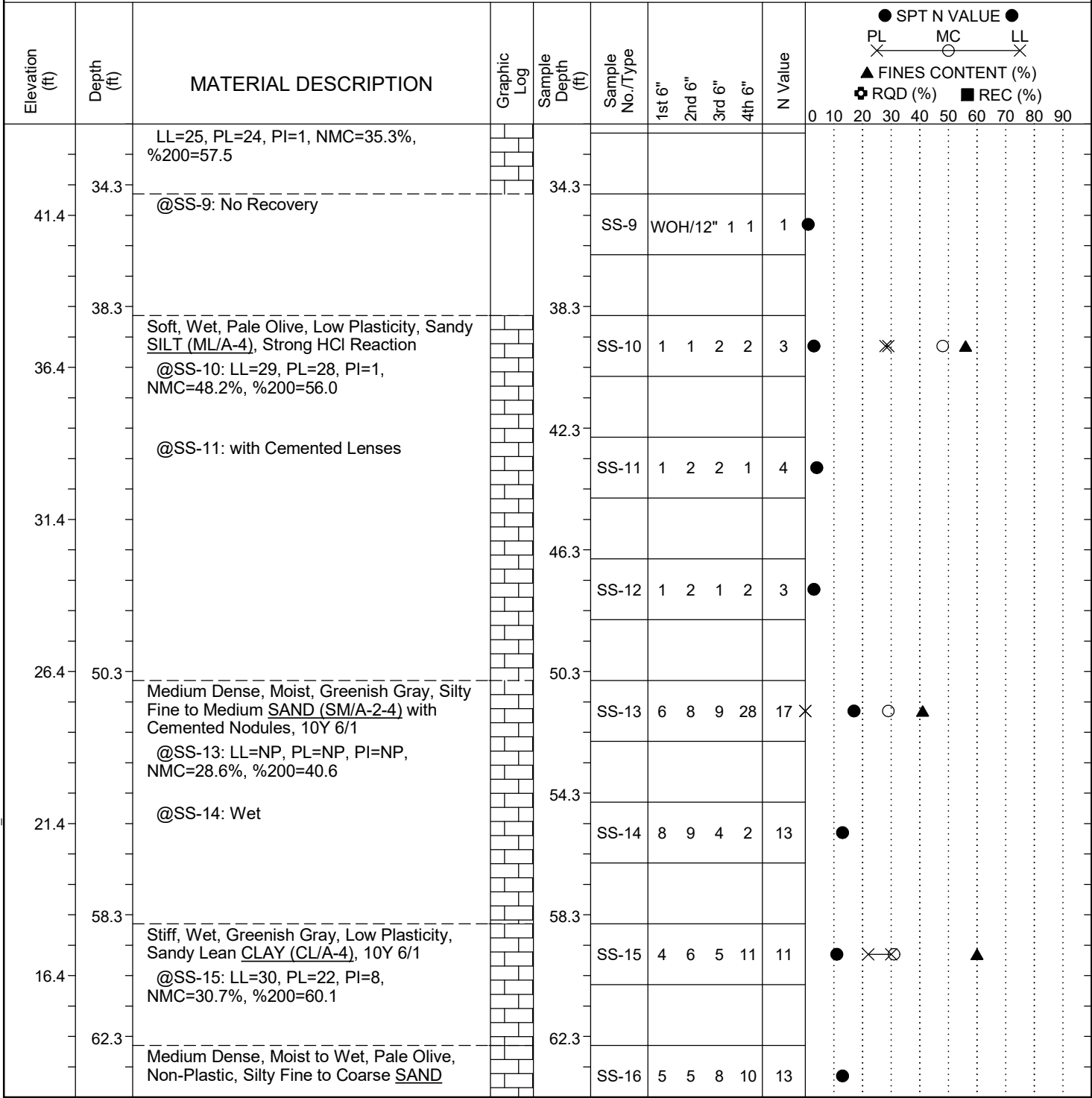
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5266+83	Offset: 10.1-R
Alignment: I-95 Med. CL	Date Started: 6/2/2023	Date Completed: 6/5/2023
Elev.: 76.4 ft	Latitude: 33.50125805	Longitude: -80.45790408
Total Depth: 108.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



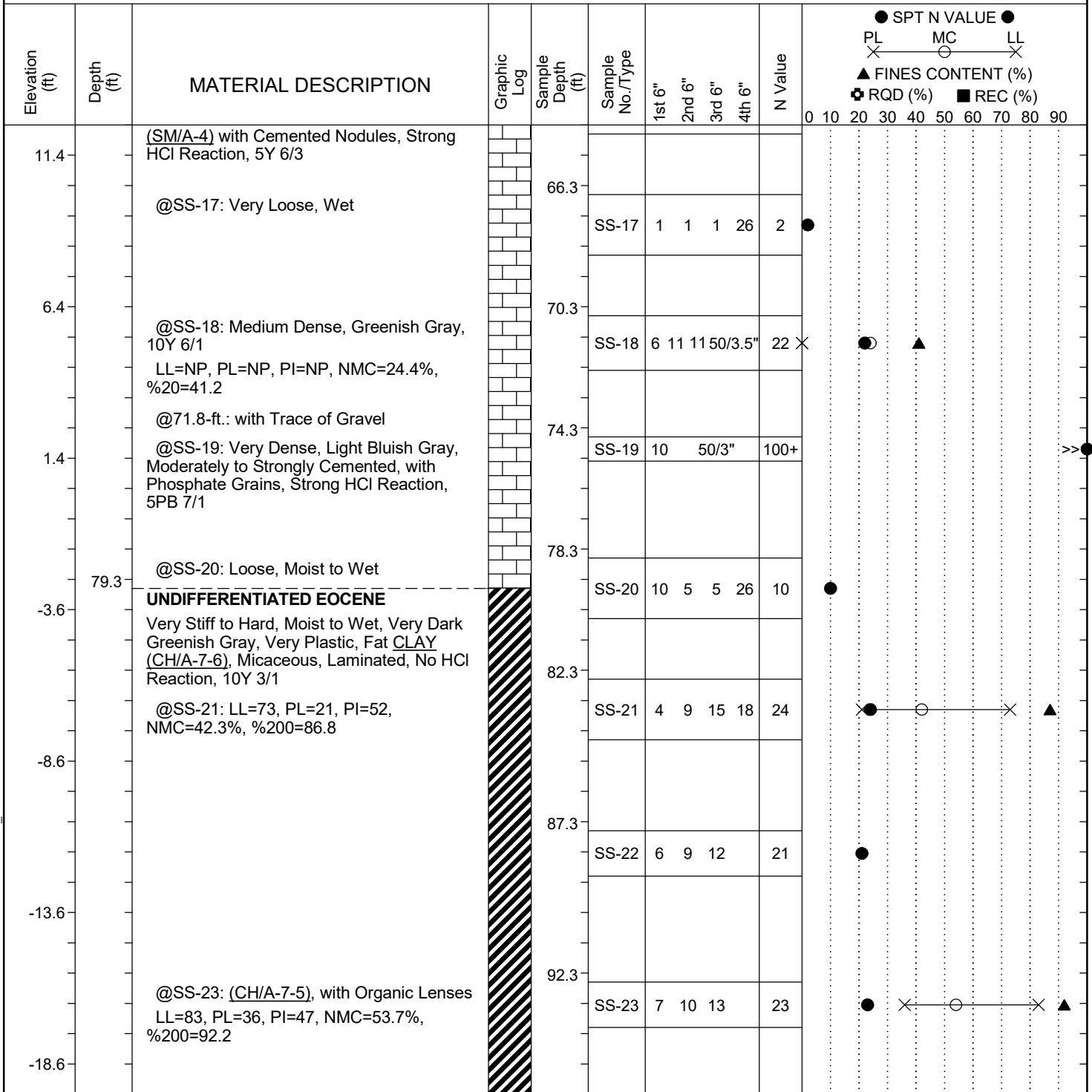
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SAMPLER TYPE SS - Split Spoon UD - Undisturbed Sample AWG - Rock Core, 1-1/8"		DRILLING METHOD HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing		DRILLING METHOD RW - Rotary Wash RC - Rock Core	
NQ - Rock Core, 1-7/8" CU - Cuttings CT - Continuous Tube					

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5266+83	Offset: 10.1-R
Alignment: I-95 Med. CL	Date Started: 6/2/2023	Date Completed: 6/5/2023
Elev.: 76.4 ft	Latitude: 33.50125805	Longitude: -80.45790408
Total Depth: 108.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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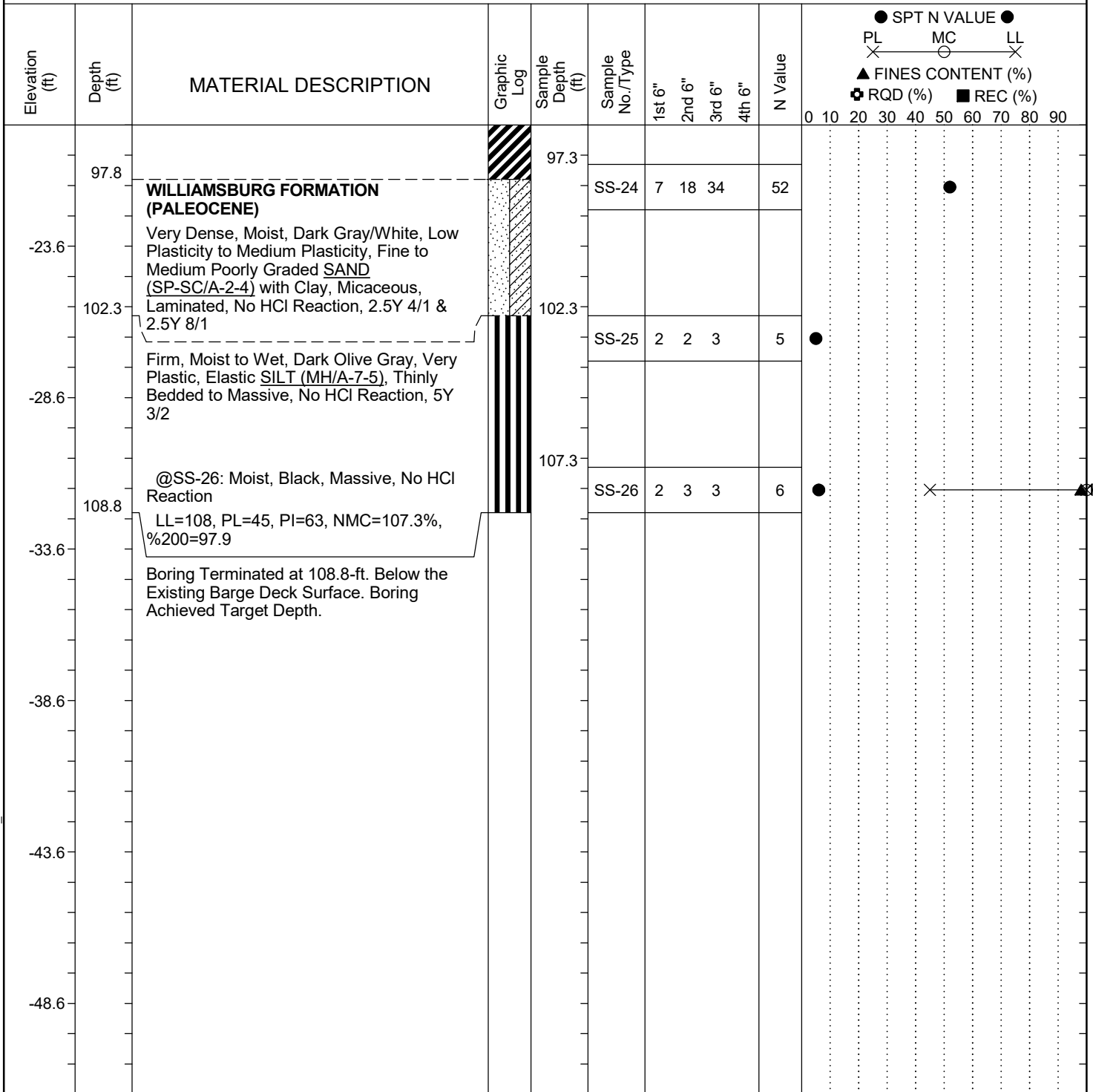
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5266+83	Offset: 10.1-R
Alignment: I-95 Med. CL	Date Started: 6/2/2023	Date Completed: 6/5/2023
Elev.: 76.4 ft	Latitude: 33.50125805	Longitude: -80.45790408
Total Depth: 108.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



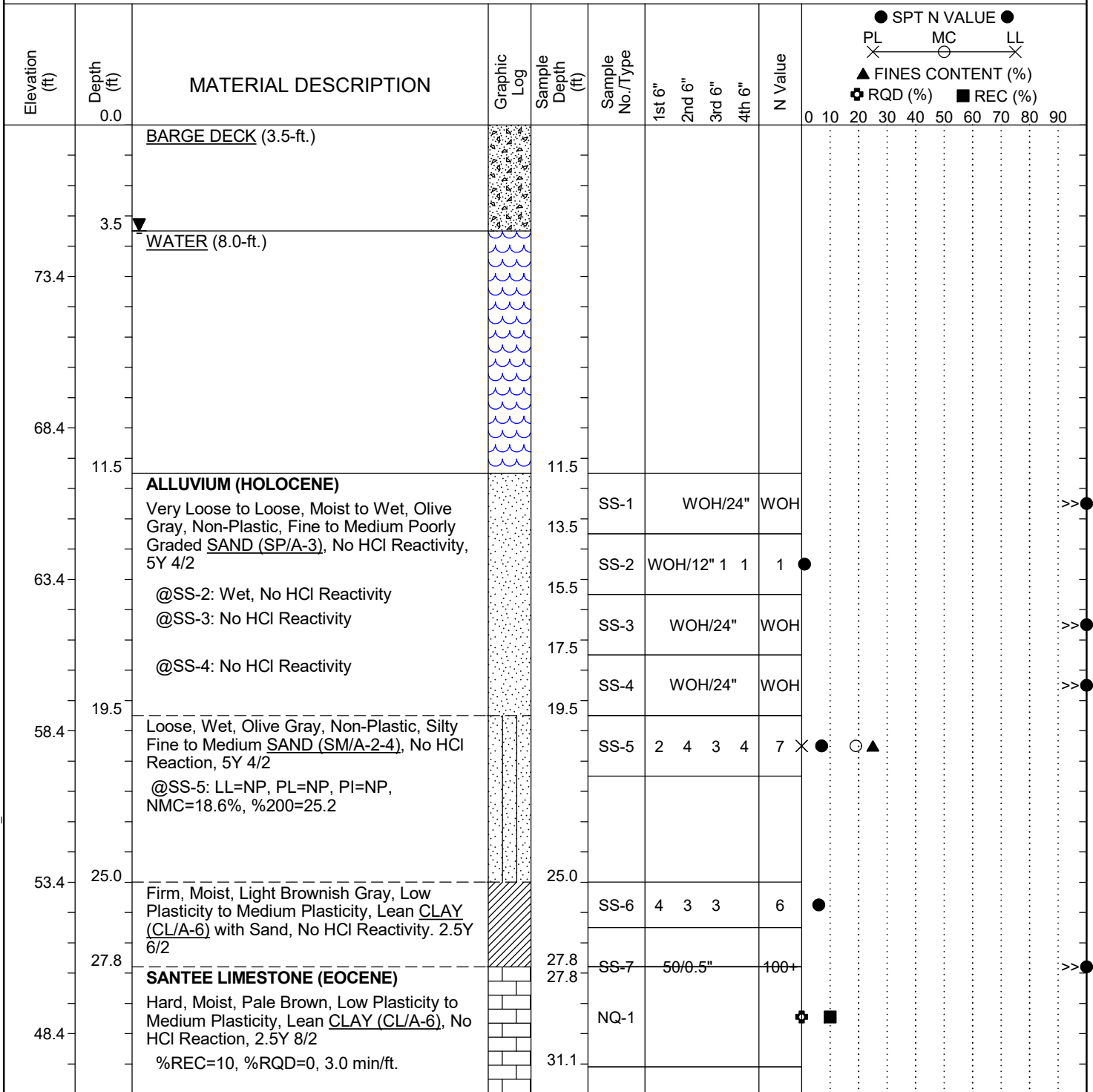
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ - SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5266+35	Offset: 85.0-L Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50115481	Longitude: -80.45757638 Date Started: 4/11/2023
Total Depth: 111.5 ft	Soil Depth: 41.7 ft	Core Depth: 58.3 ft Date Completed: 4/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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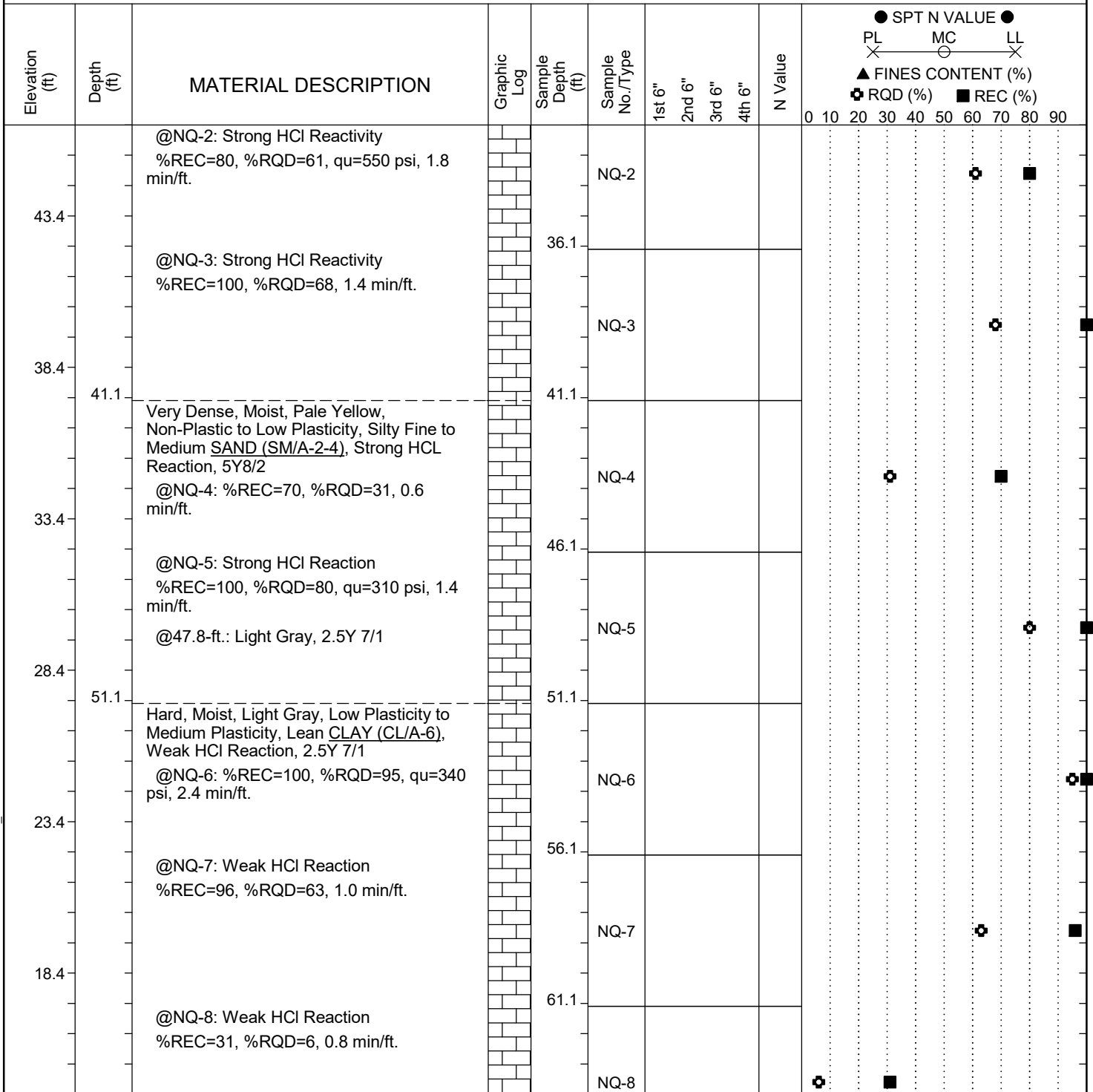
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5266+35	Offset: 85.0-L
Alignment: I-95 Med. CL	Date Started: 4/11/2023	Date Completed: 4/11/2023
Elev.: 78.4 ft	Latitude: 33.50115481	Longitude: -80.45757638
Total Depth: 111.5 ft	Soil Depth: 41.7 ft	Core Depth: 58.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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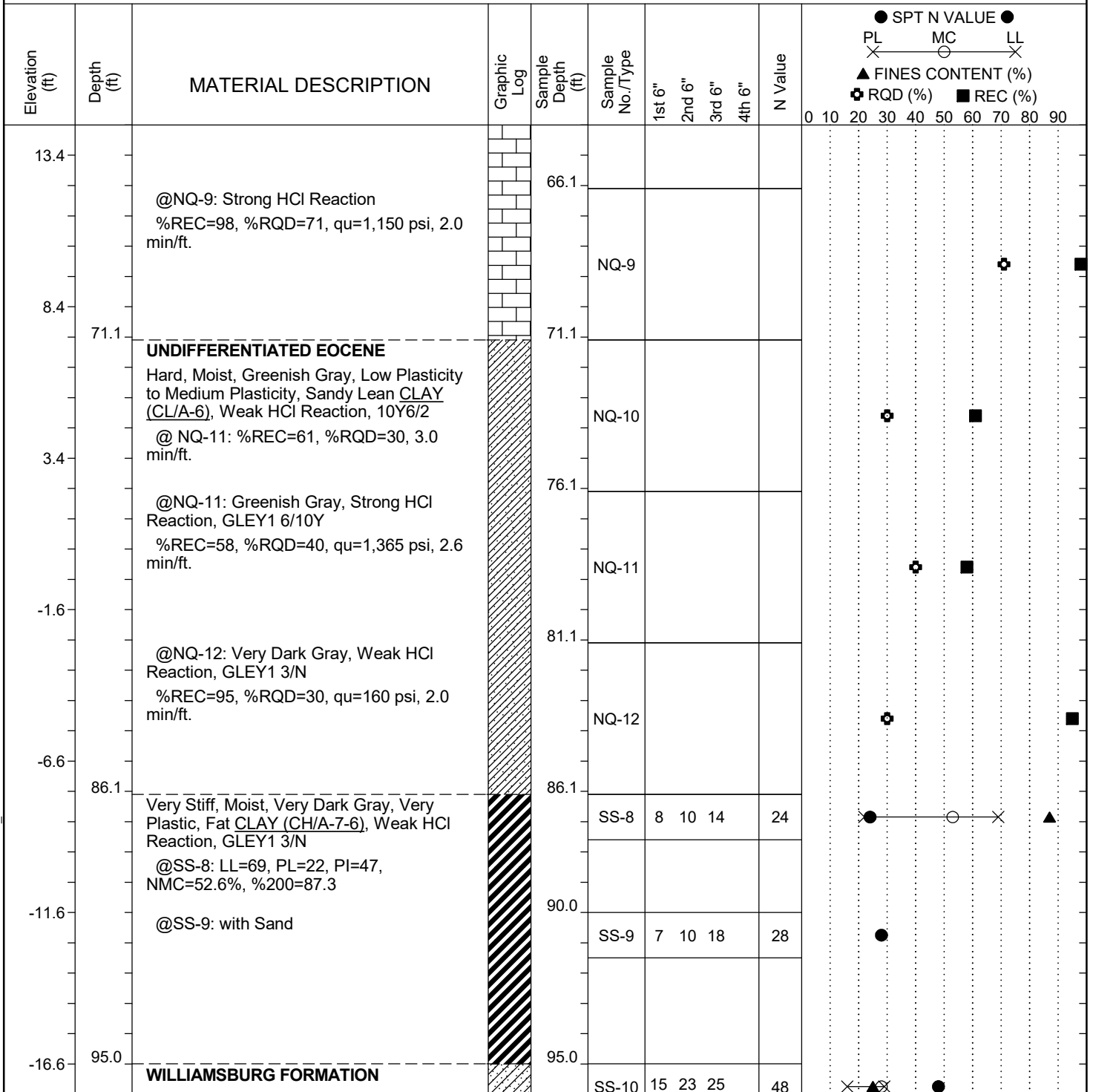
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5266+35	Offset: 85.0-L
Alignment: I-95 Med. CL	Date Started: 4/11/2023	Date Completed: 4/11/2023
Elev.: 78.4 ft	Latitude: 33.50115481	Longitude: -80.45757638
Total Depth: 111.5 ft	Soil Depth: 41.7 ft	Core Depth: 58.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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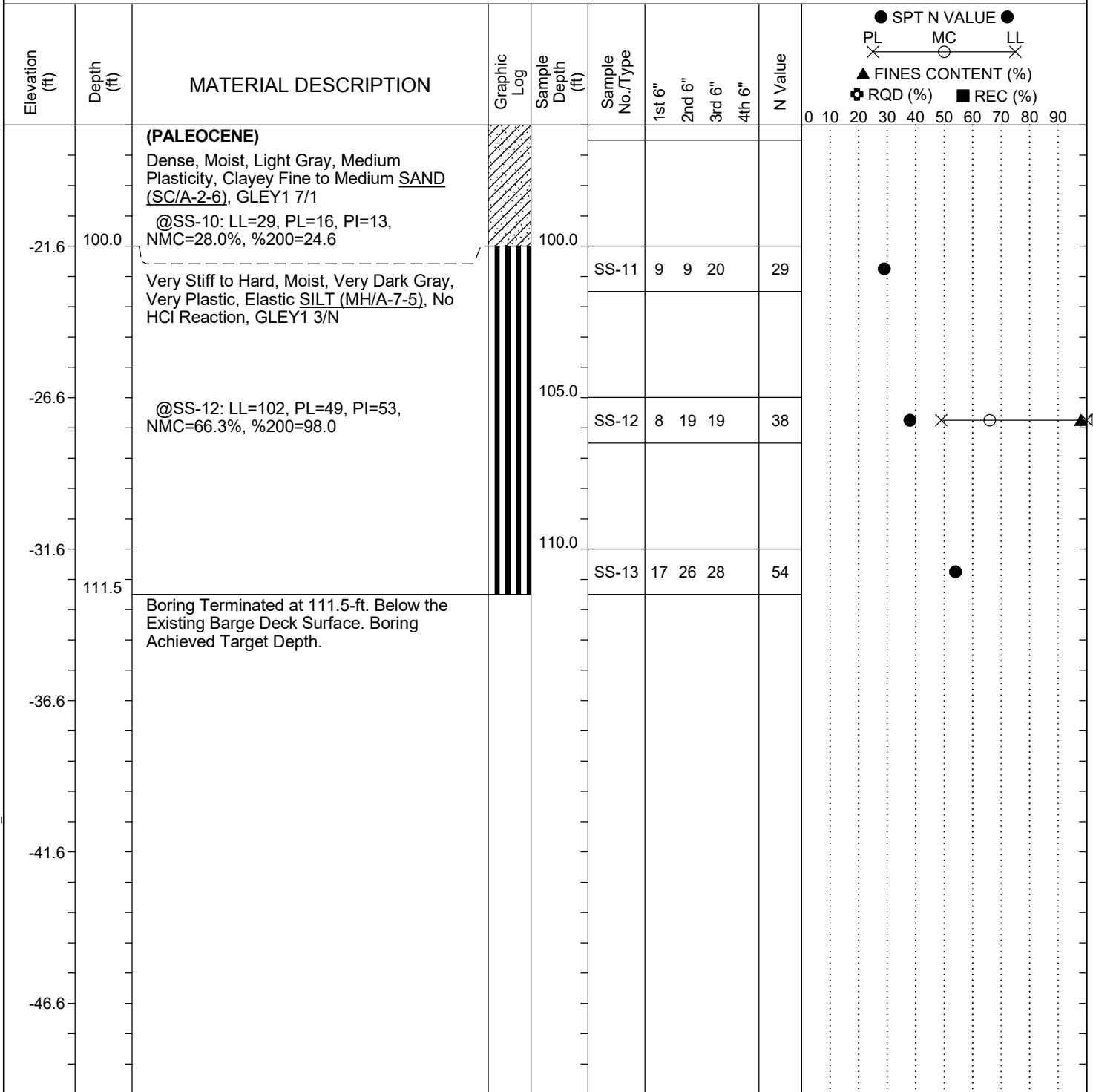
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5266+35	Offset: 85.0-L
Alignment: I-95 Med. CL	Date Started: 4/11/2023	Date Completed: 4/11/2023
Elev.: 78.4 ft	Latitude: 33.50115481	Longitude: -80.45757638
Total Depth: 111.5 ft	Soil Depth: 41.7 ft	Core Depth: 58.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



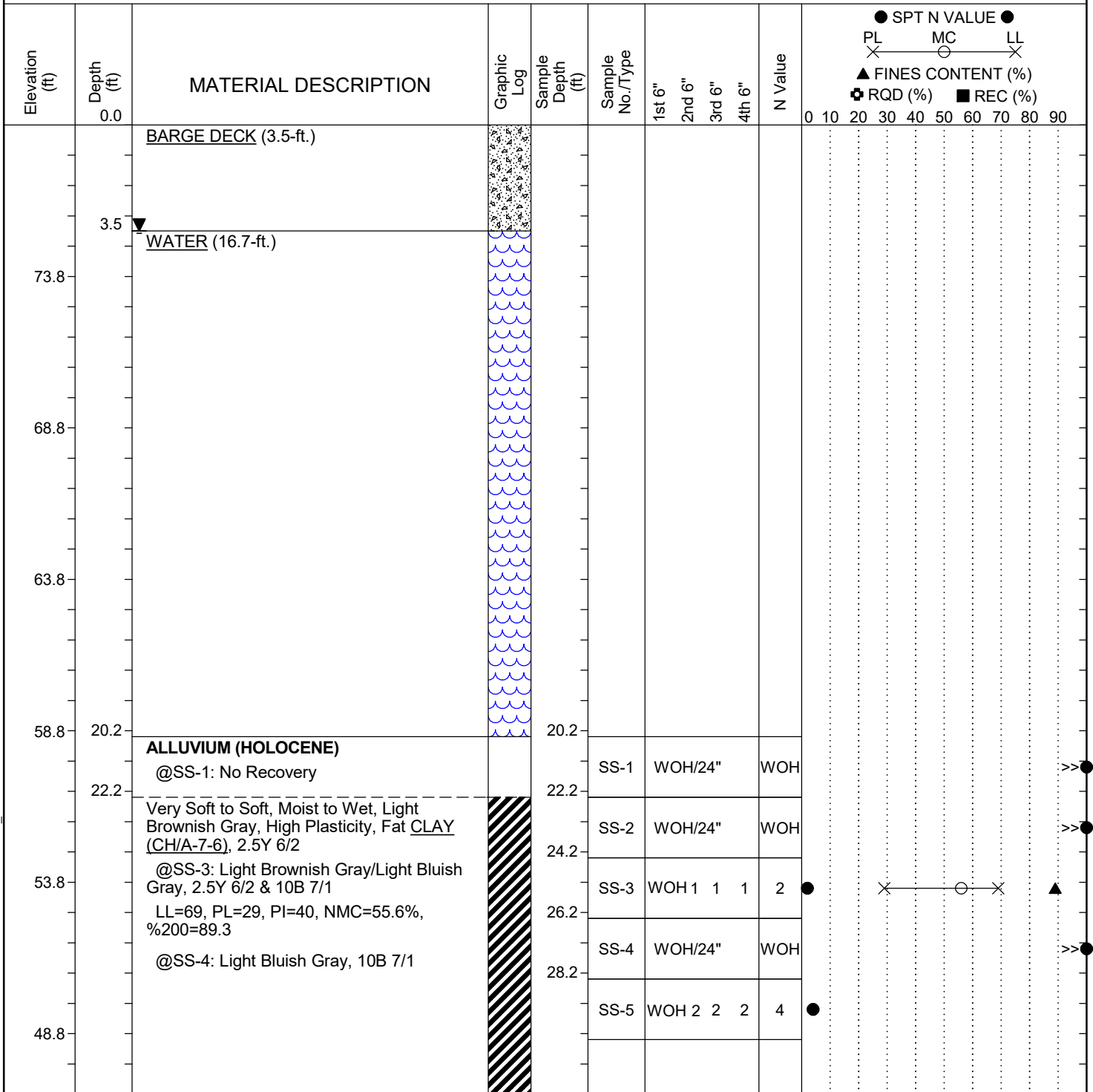
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678 Date Started: 5/30/2023
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft Date Completed: 6/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: L. Guempel	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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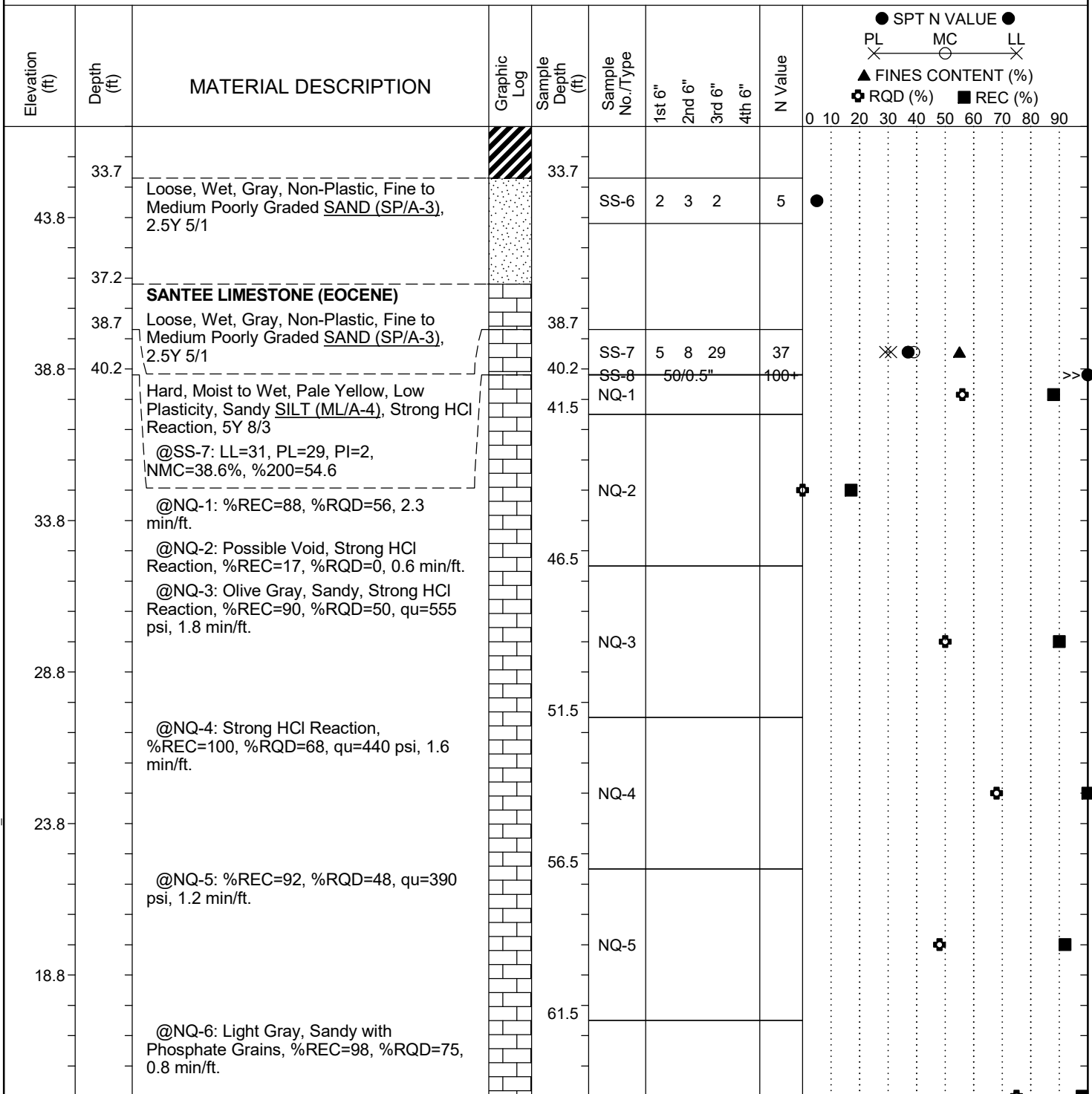
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R
Alignment: I-95 Med. CL	Date Started: 5/30/2023	Date Completed: 6/2/2023
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: L. Guempel	Groundwater: TOB	24HR: 3.5 ft



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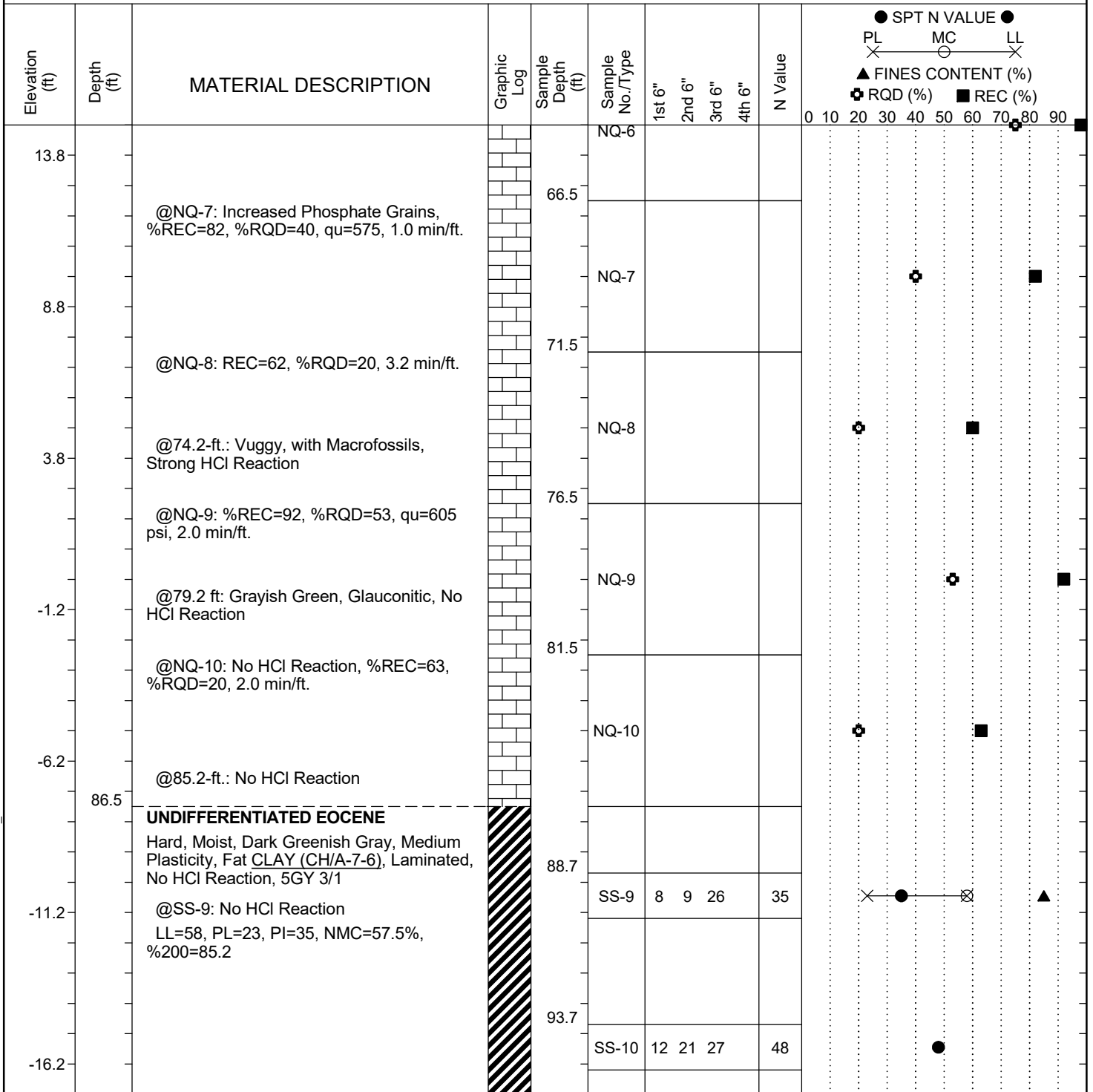
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R
Alignment: I-95 Med. CL	Date Started: 5/30/2023	Date Completed: 6/2/2023
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: L. Guempel	Groundwater: TOB	24HR: 3.5 ft



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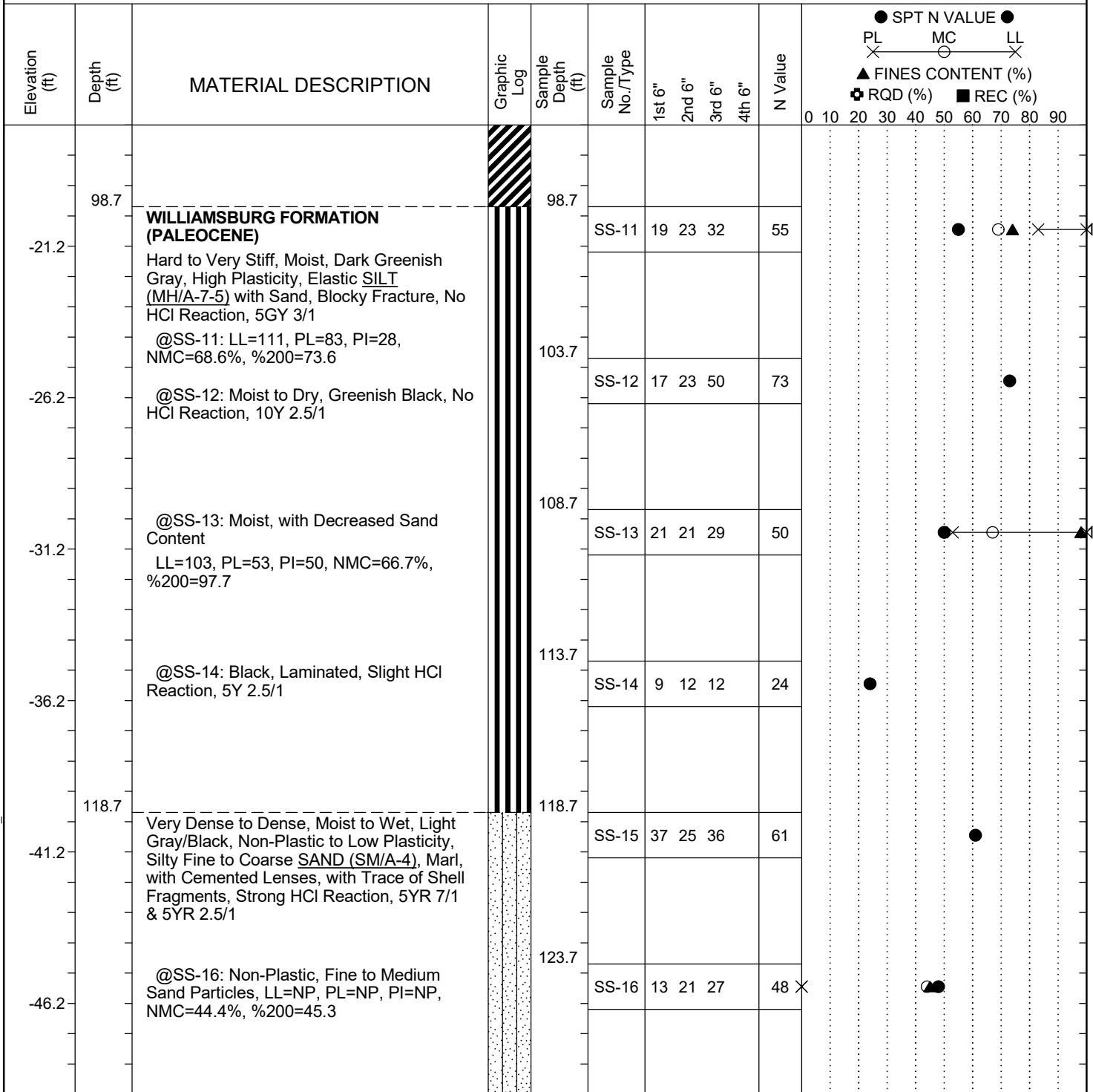
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678 Date Started: 5/30/2023
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft Date Completed: 6/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: L. Guempel	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

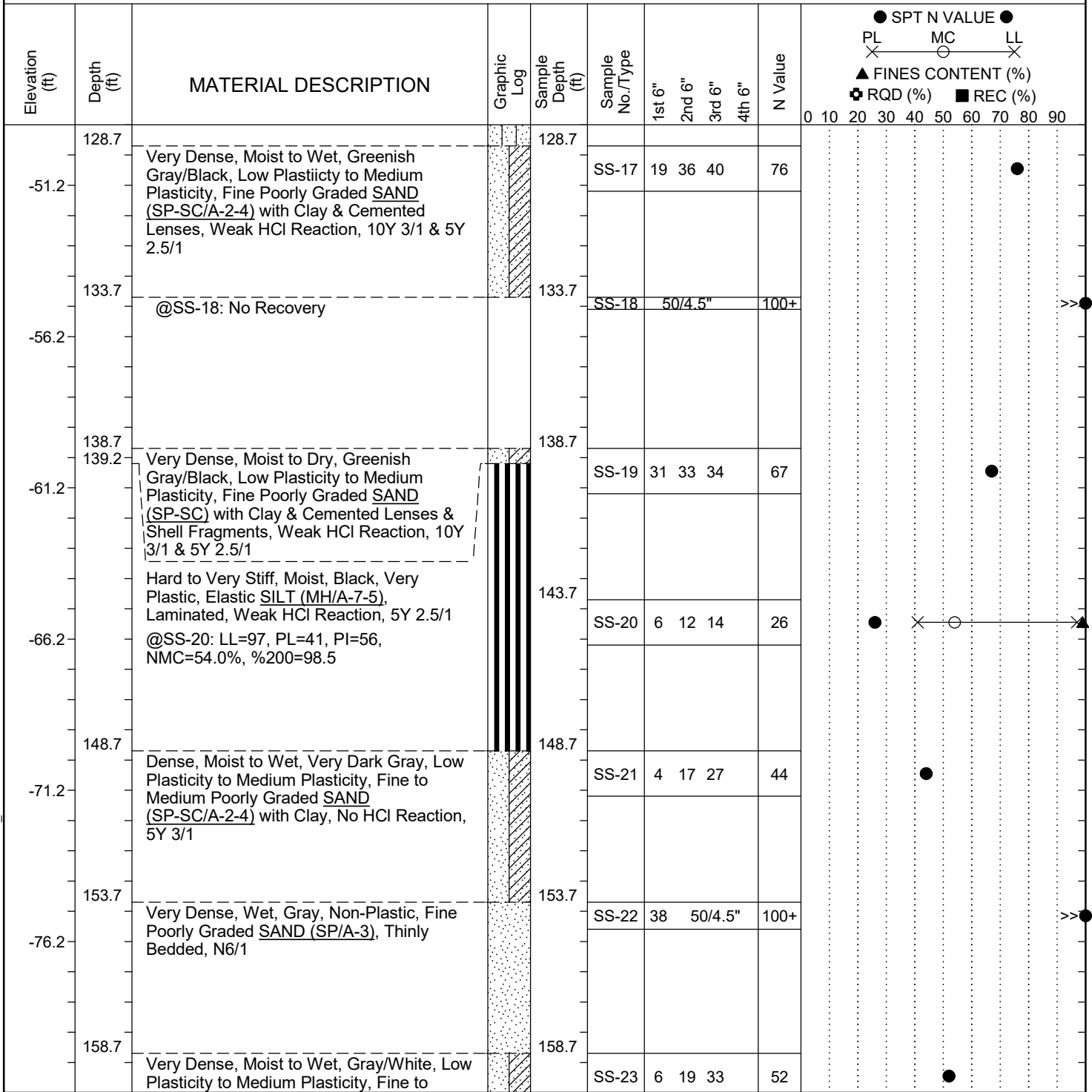
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678 Date Started: 5/30/2023
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft Date Completed: 6/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: L. Guempel	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

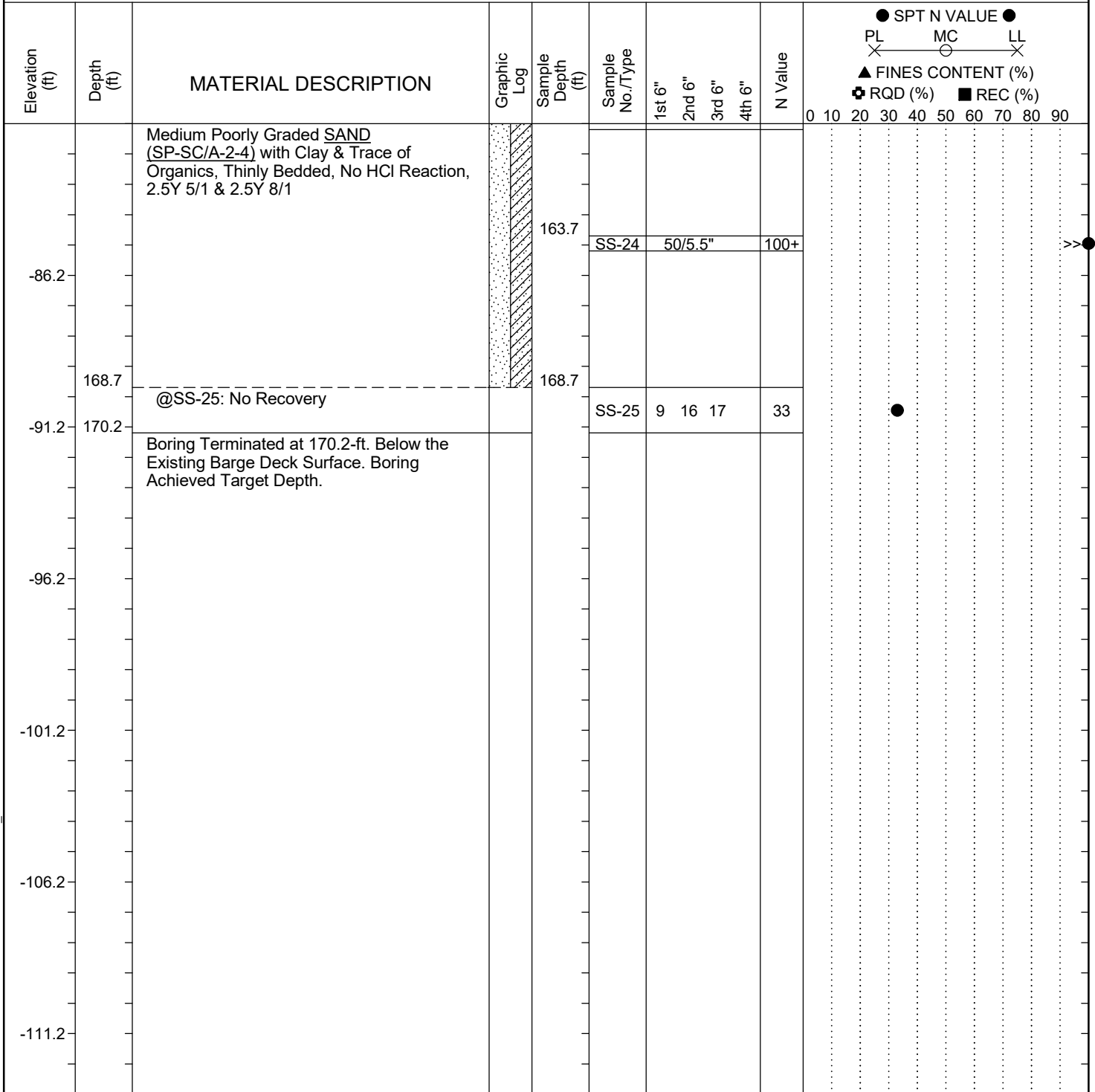
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5265+32	Offset: 19.4-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50155839	Longitude: -80.45755678 Date Started: 5/30/2023
Total Depth: 170.2 ft	Soil Depth: 103.7 ft	Core Depth: 46.3 ft Date Completed: 6/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: L. Guempel	Groundwater: TOB 3.5 ft 24HR 3.5 ft



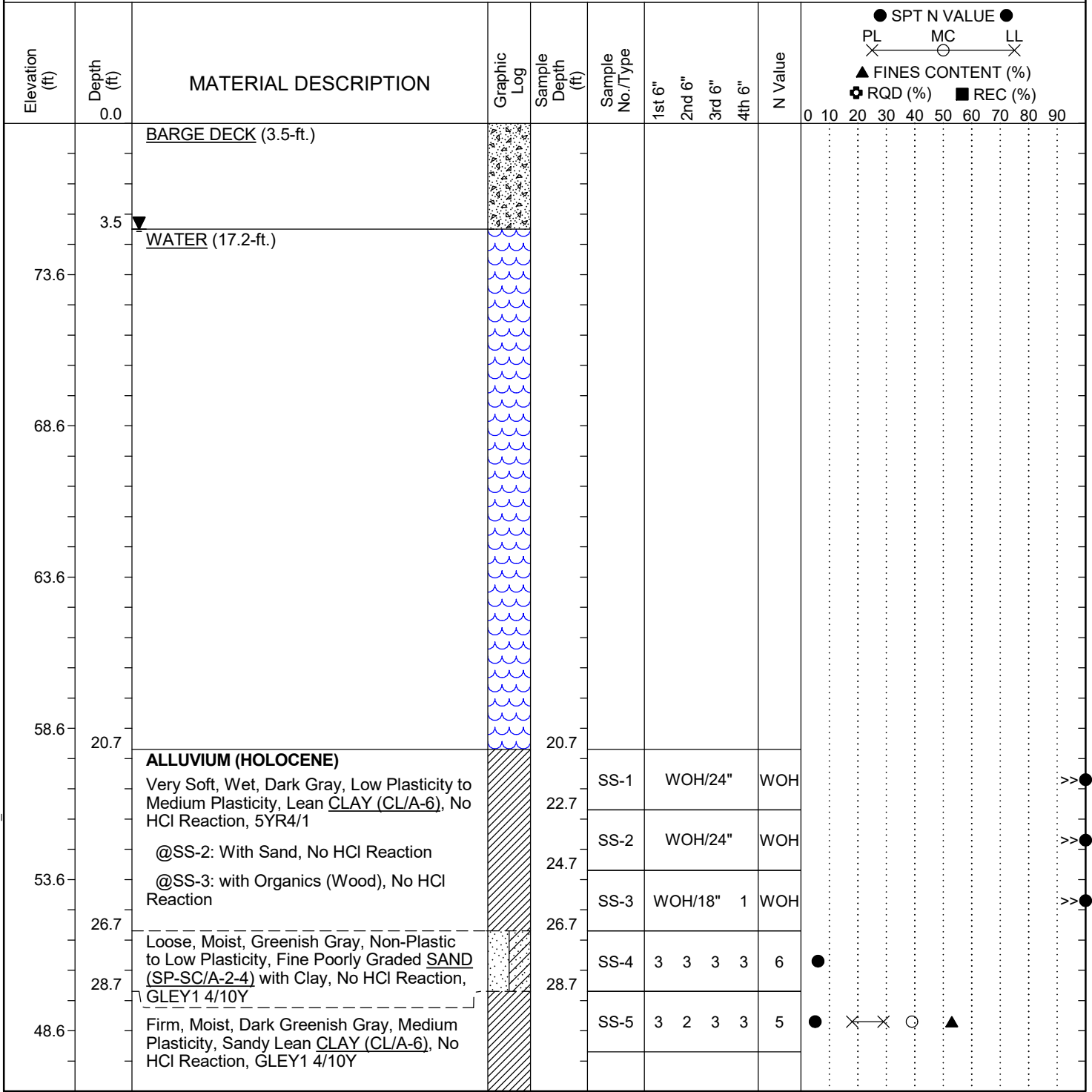
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5264+35	Offset: 83.0-L
Alignment: I-95 Med. CL	Date Started: 4/10/2023	Date Completed: 4/11/2023
Elev.: 78.6 ft	Latitude: 33.5015292	Longitude: -80.45709679
Total Depth: 120.1 ft	Soil Depth: 54 ft	Core Depth: 46 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



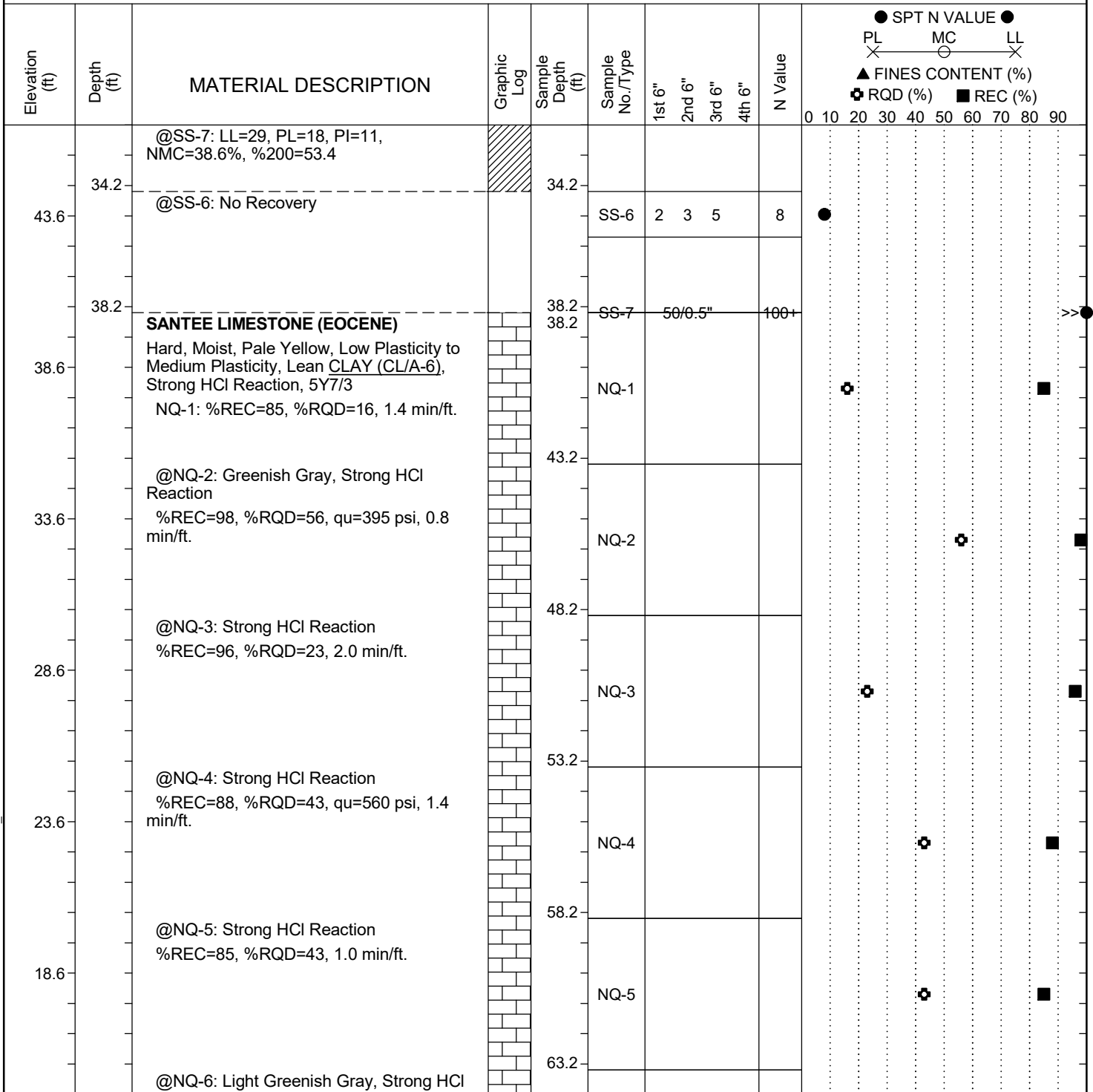
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5264+35	Offset: 83.0-L
Alignment: I-95 Med. CL	Date Started: 4/10/2023	Date Completed: 4/11/2023
Elev.: 78.6 ft	Latitude: 33.5015292	Longitude: -80.45709679
Total Depth: 120.1 ft	Soil Depth: 54 ft	Core Depth: 46 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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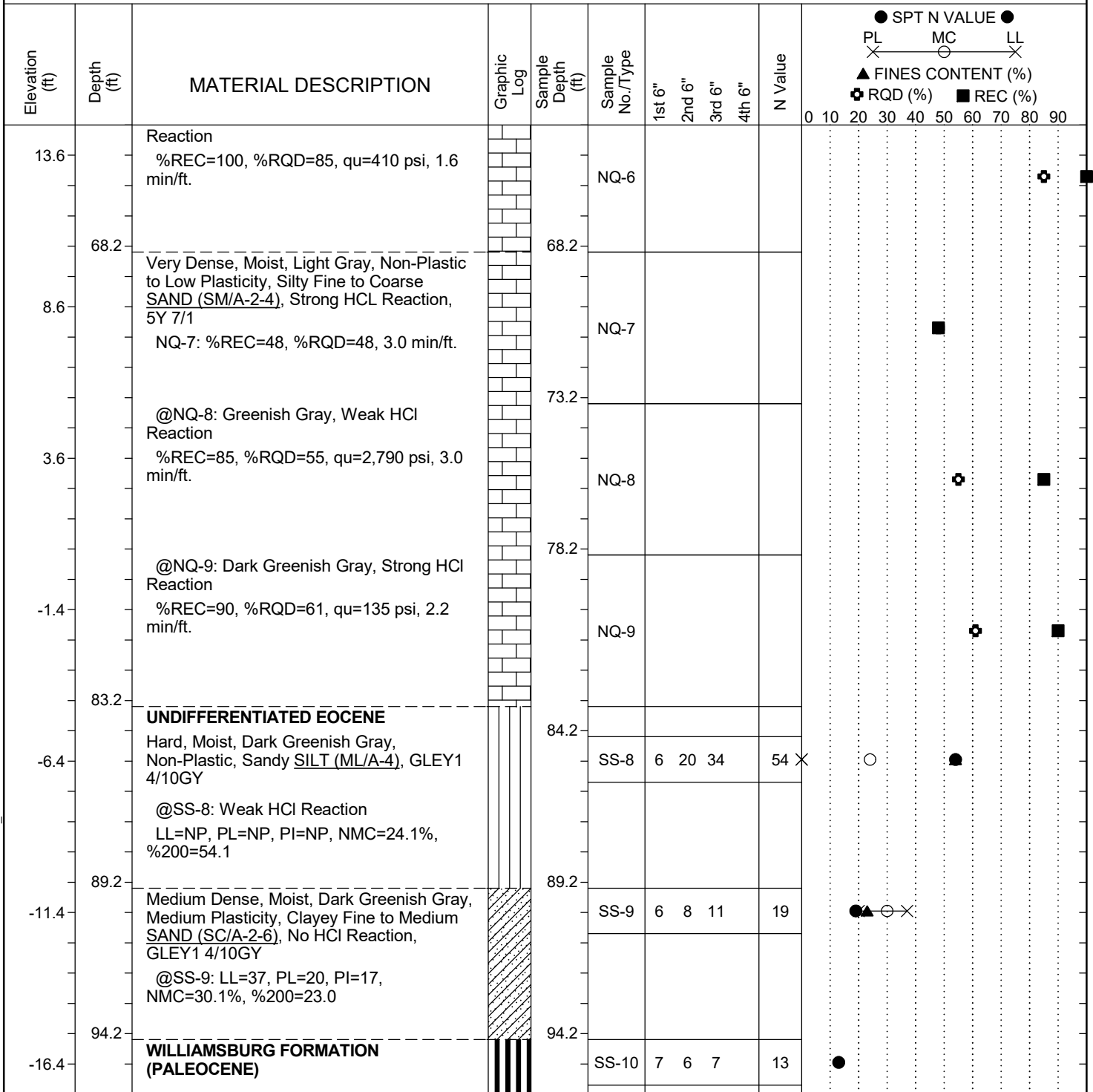
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5264+35	Offset: 83.0-L
Alignment: I-95 Med. CL	Date Started: 4/10/2023	Date Completed: 4/11/2023
Elev.: 78.6 ft	Latitude: 33.5015292	Longitude: -80.45709679
Total Depth: 120.1 ft	Soil Depth: 54 ft	Core Depth: 46 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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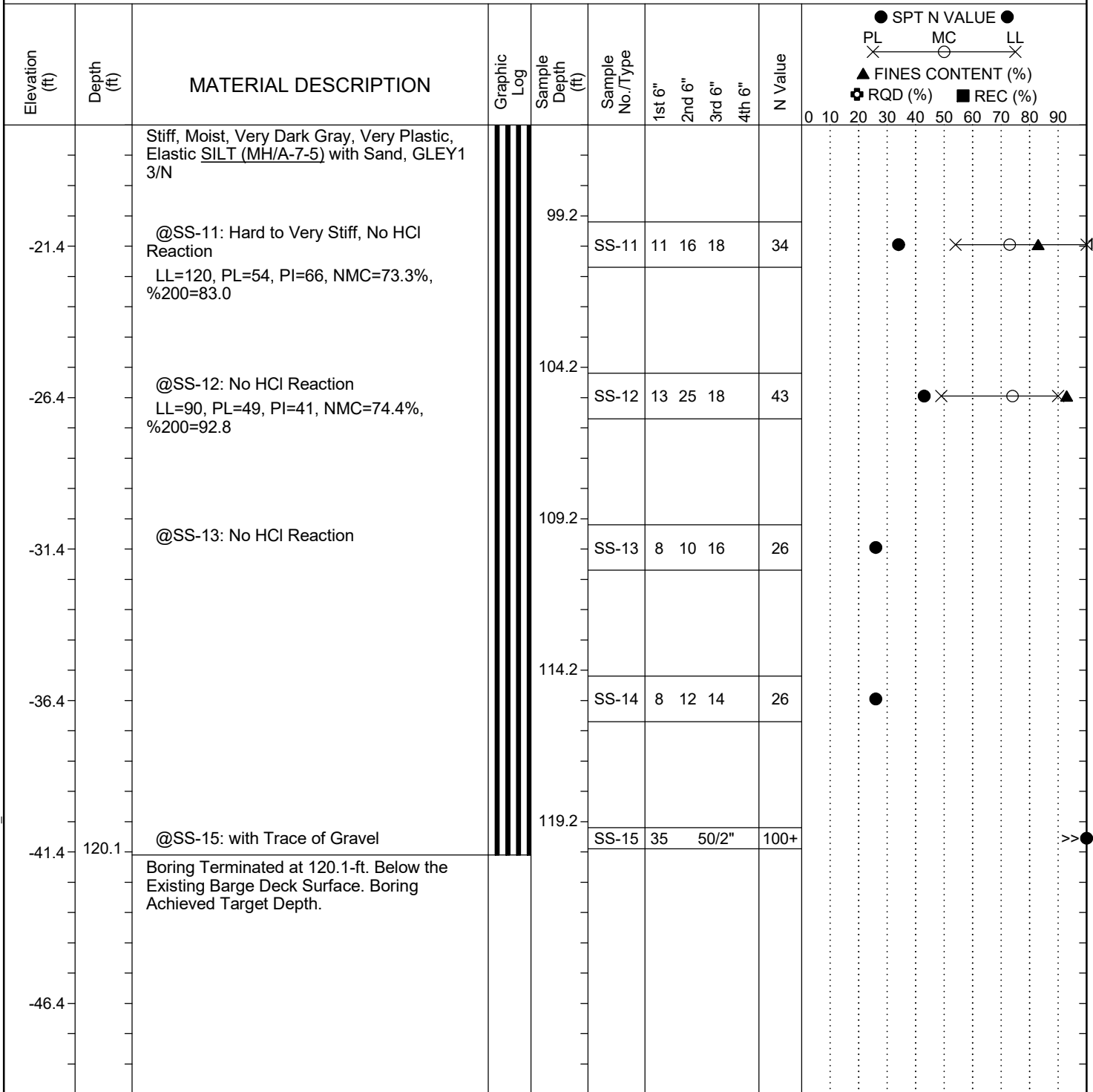
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5264+35	Offset: 83.0-L Alignment: I-95 Med. CL
Elev.: 78.6 ft	Latitude: 33.5015292	Longitude: -80.45709679 Date Started: 4/10/2023
Total Depth: 120.1 ft	Soil Depth: 54 ft	Core Depth: 46 ft Date Completed: 4/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



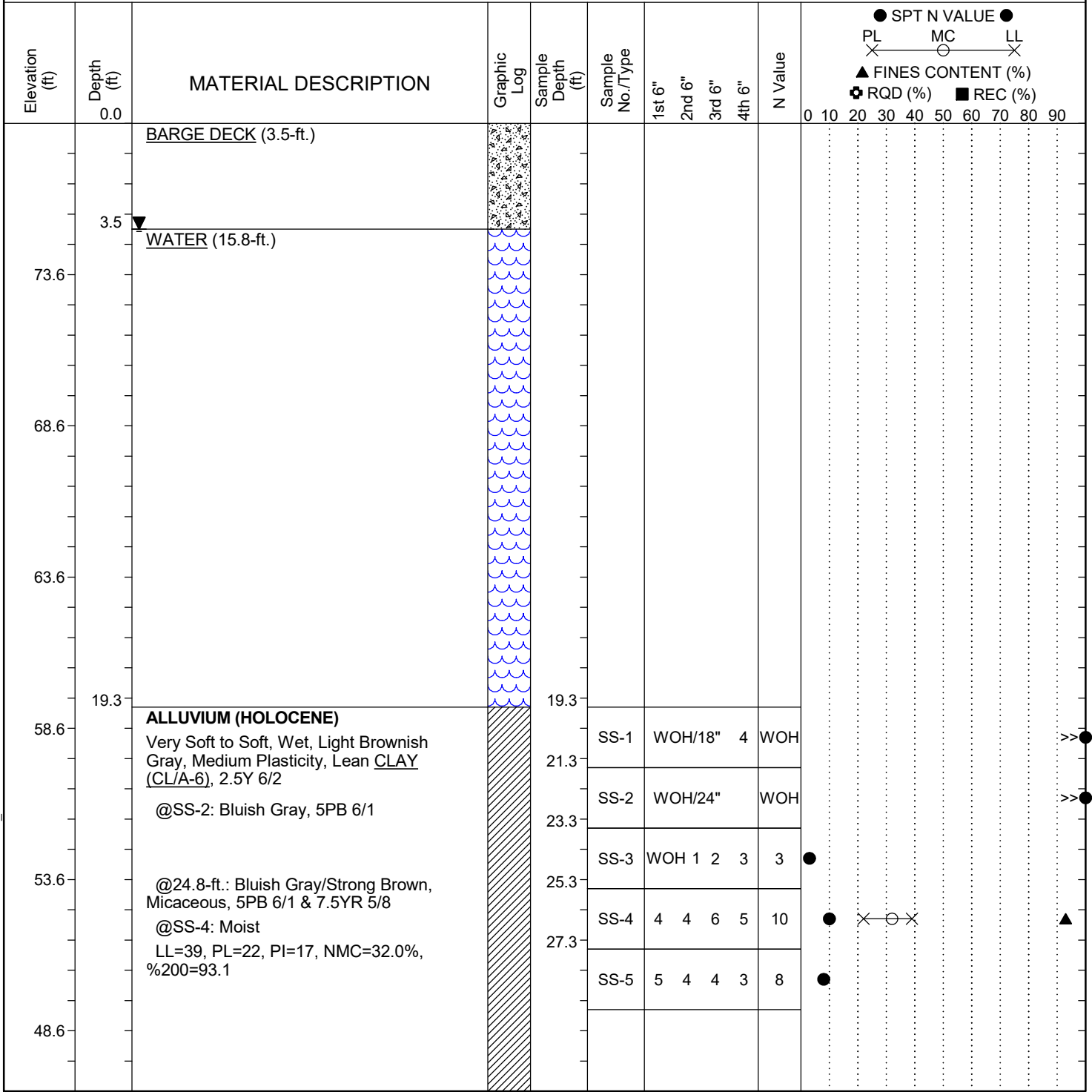
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-7
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5263+32	Offset: 12.7-R
Alignment: I-95 Med. CL	Date Started: 5/25/2023	Date Completed: 5/30/2023
Elev.: 78.6 ft	Latitude: 33.501914	Longitude: -80.4570595
Total Depth: 119.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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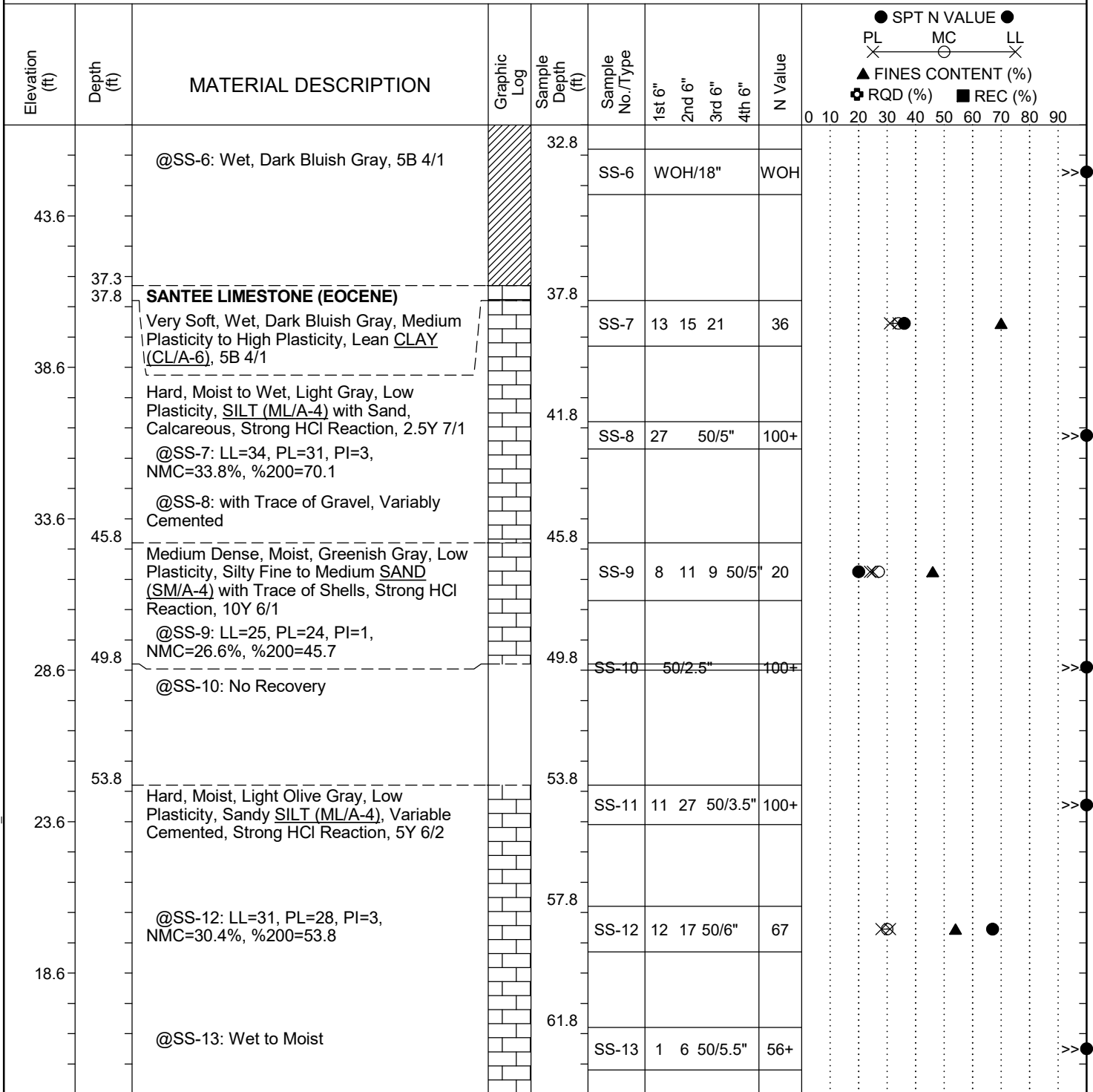
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-7
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5263+32	Offset: 12.7-R
Alignment: I-95 Med. CL	Date Started: 5/25/2023	Date Completed: 5/30/2023
Elev.: 78.6 ft	Latitude: 33.501914	Longitude: -80.4570595
Total Depth: 119.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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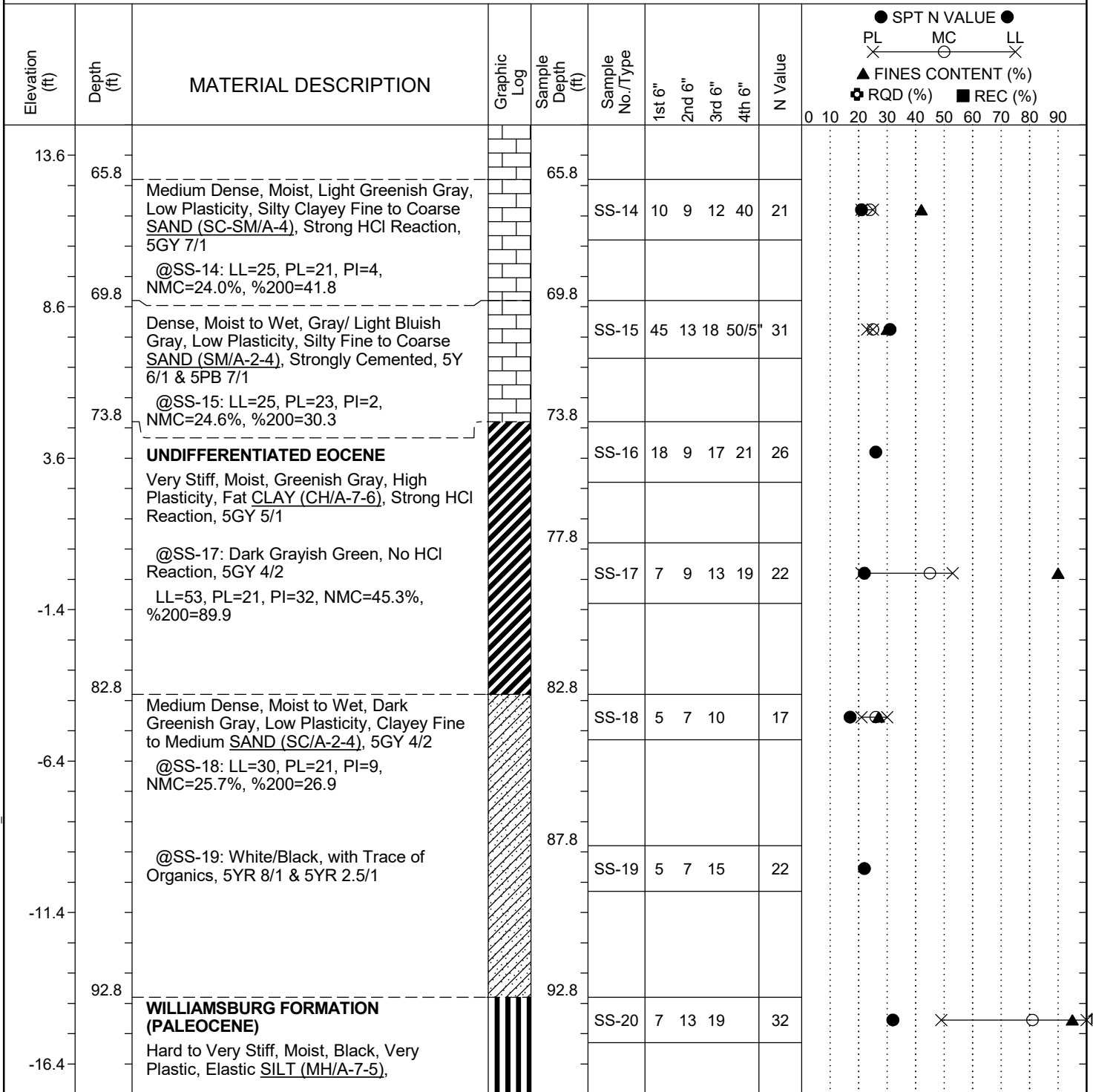
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-7
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5263+32	Offset: 12.7-R
Alignment: I-95 Med. CL	Date Started: 5/25/2023	Date Completed: 5/30/2023
Elev.: 78.6 ft	Latitude: 33.501914	Longitude: -80.4570595
Total Depth: 119.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



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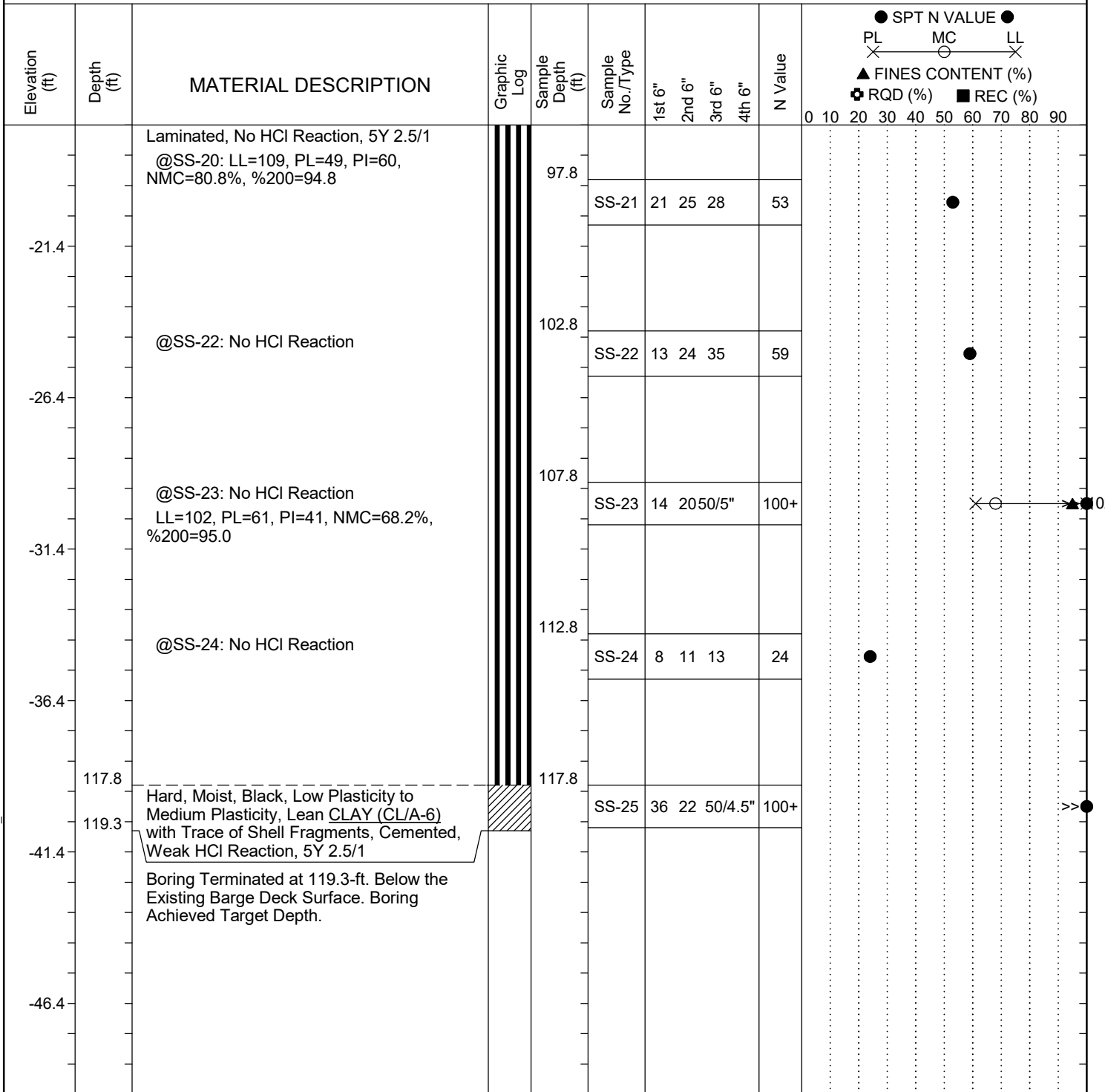
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-7
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5263+32	Offset: 12.7-R
Alignment: I-95 Med. CL	Date Started: 5/25/2023	Date Completed: 5/30/2023
Elev.: 78.6 ft	Latitude: 33.501914	Longitude: -80.4570595
Total Depth: 119.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



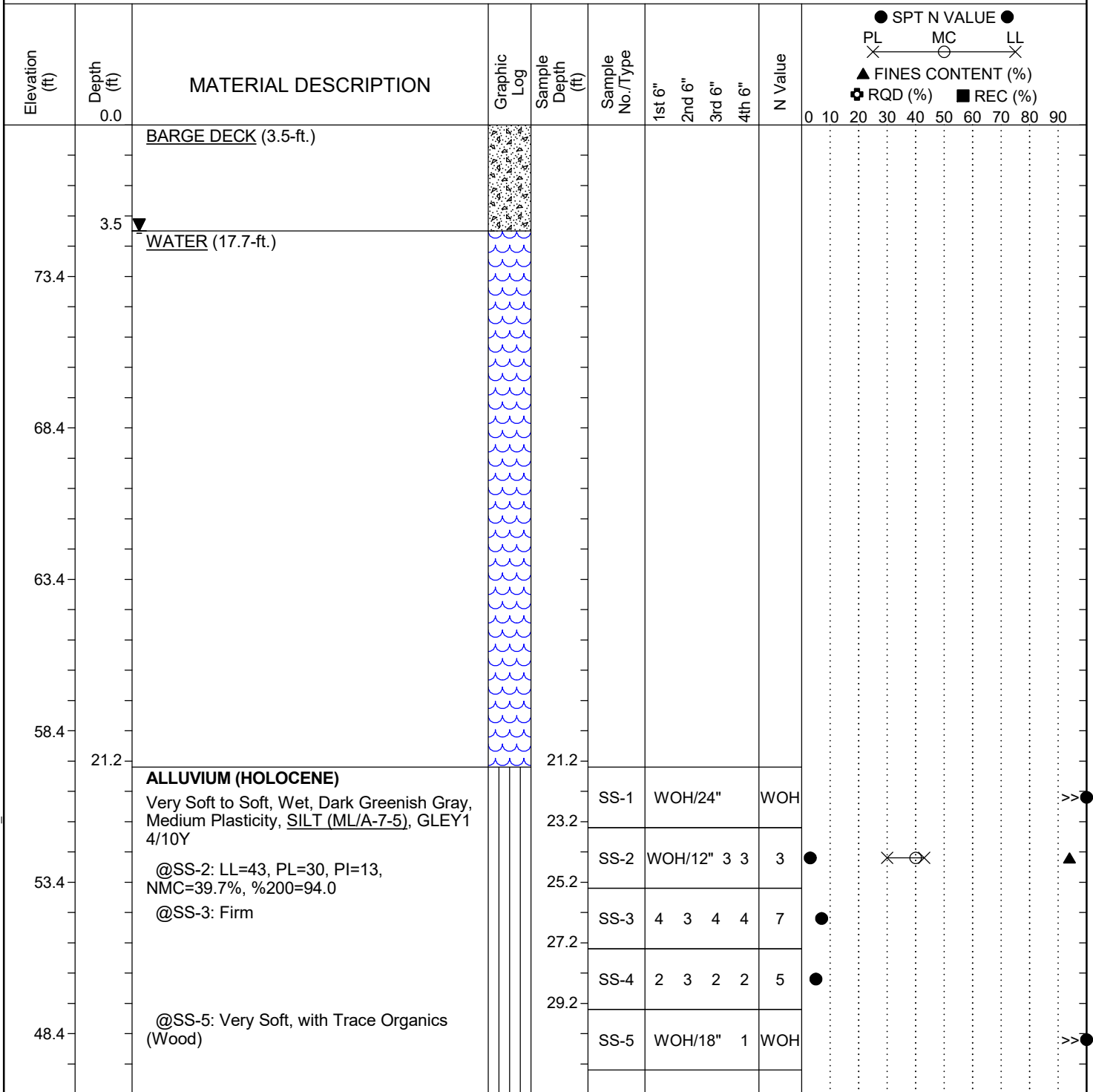
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 4/5/2023	Date Completed: 4/6/2023
Elev.: 78.4 ft	Latitude: 33.501899	Longitude: -80.45660506
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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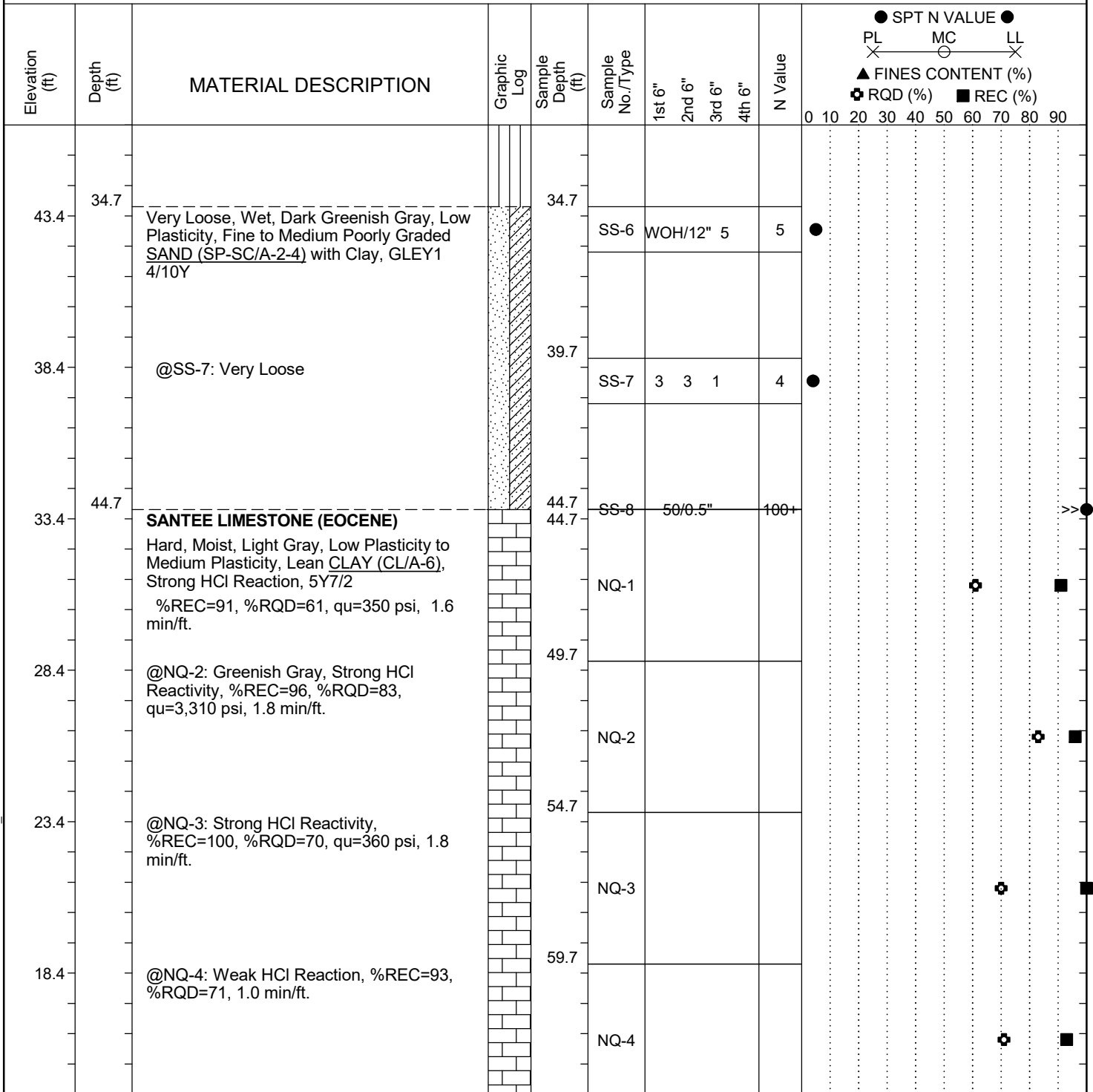
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 4/5/2023	Date Completed: 4/6/2023
Elev.: 78.4 ft	Latitude: 33.501899	Longitude: -80.45660506
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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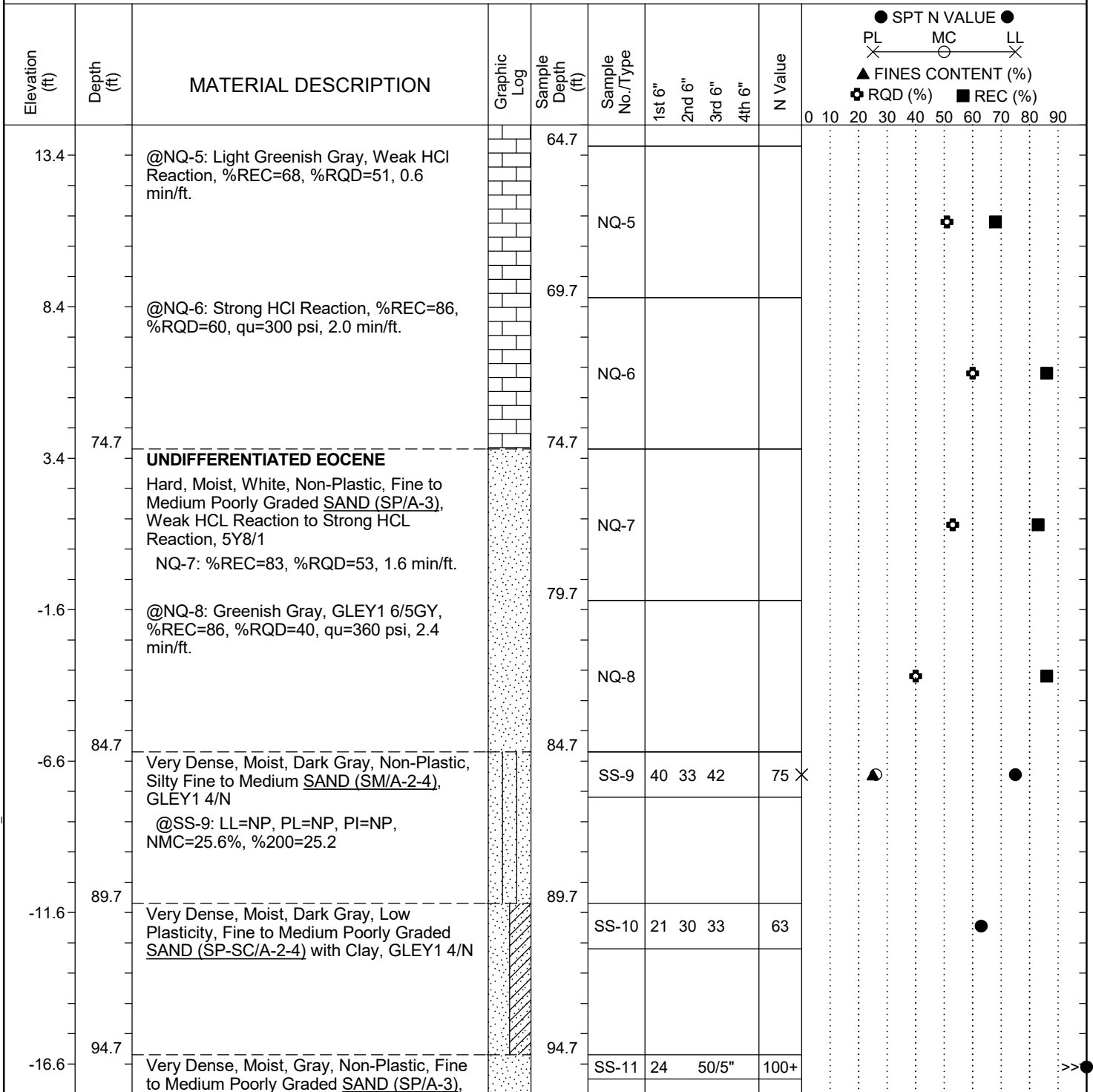
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 4/5/2023	Date Completed: 4/6/2023
Elev.: 78.4 ft	Latitude: 33.501899	Longitude: -80.45660506
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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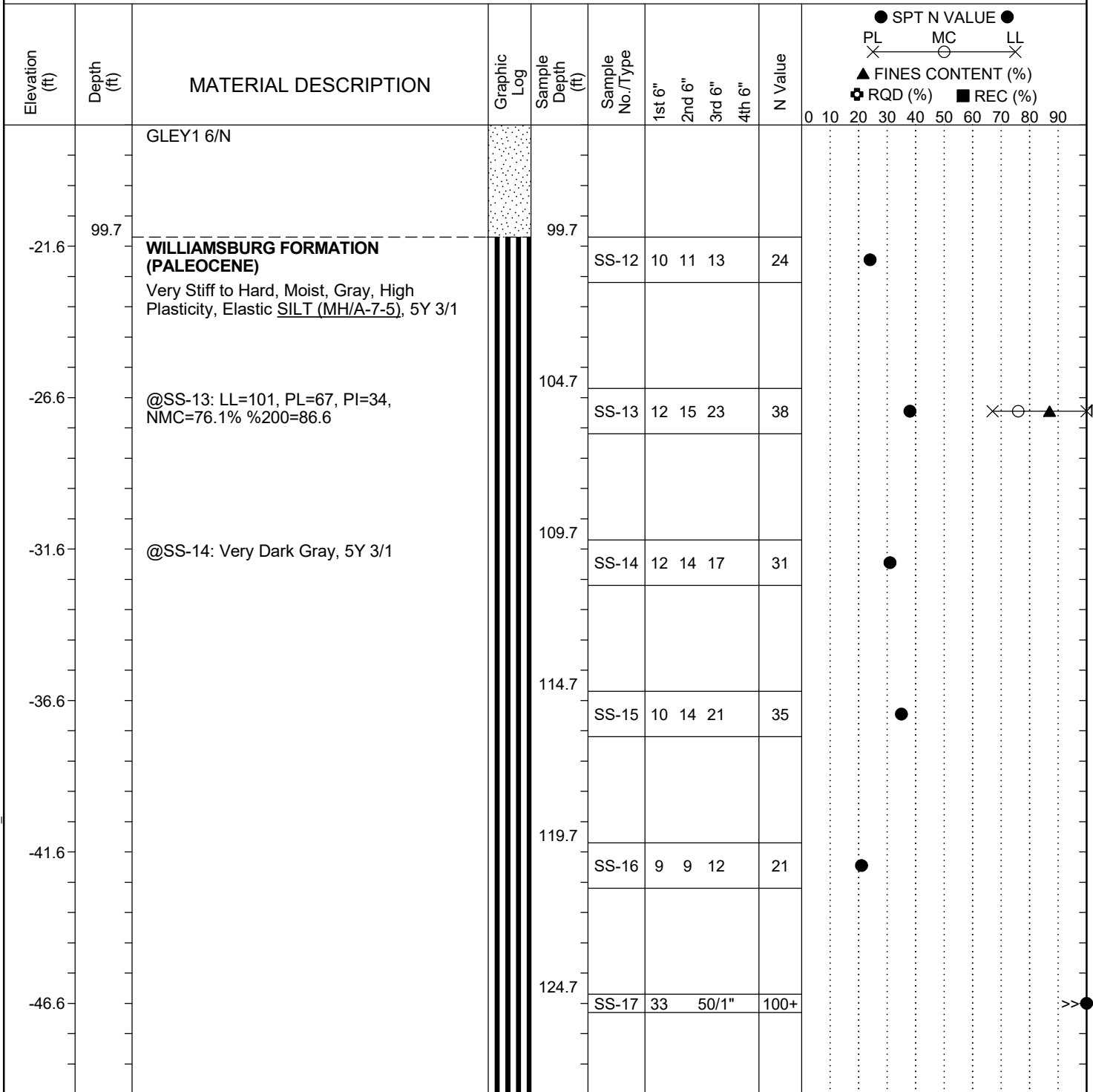
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 4/5/2023	Elev.: 78.4 ft
Latitude: 33.501899	Longitude: -80.45660506	Date Completed: 4/6/2023
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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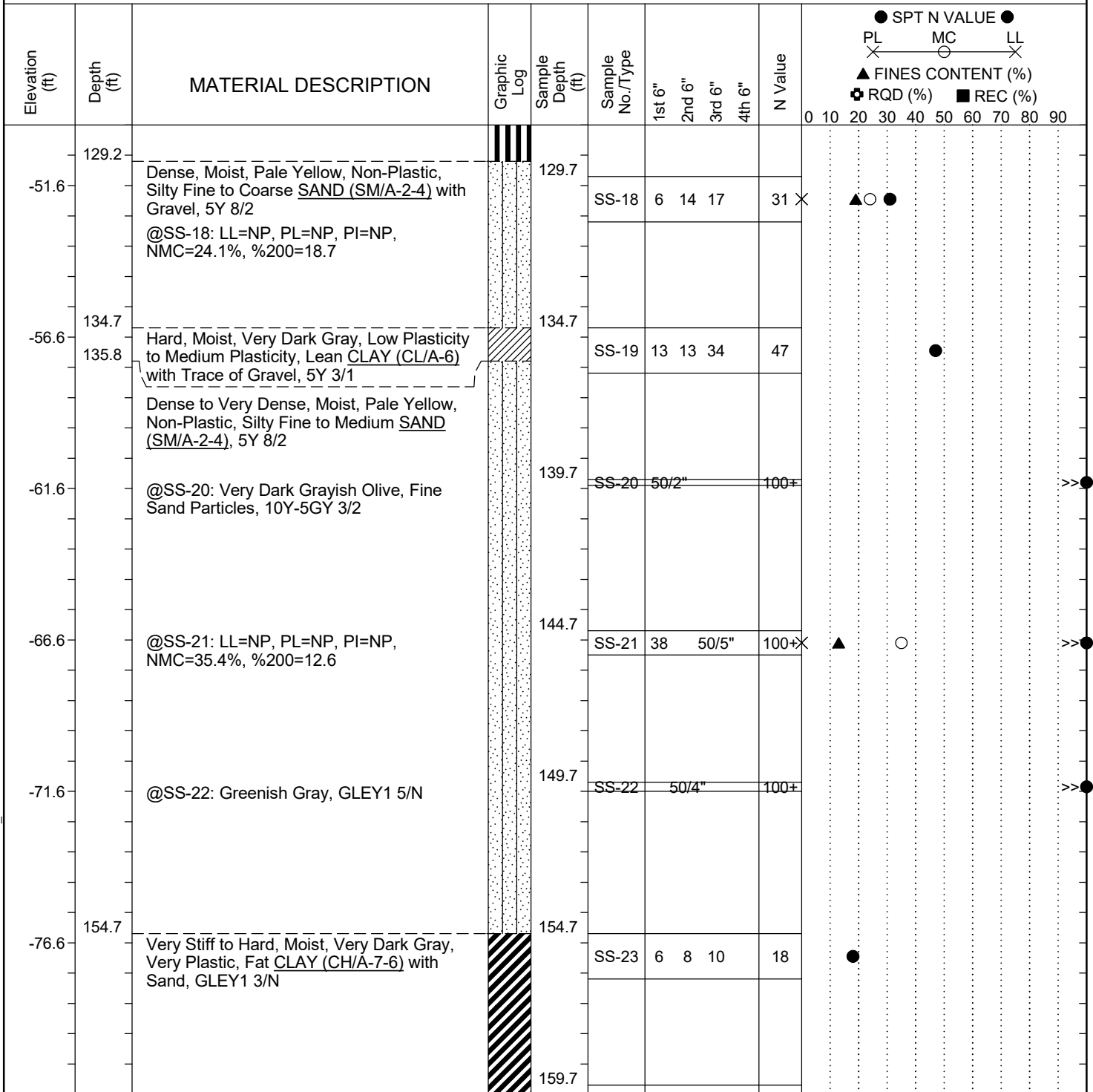
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 4/5/2023	Date Completed: 4/6/2023
Elev.: 78.4 ft	Latitude: 33.501899	Longitude: -80.45660506
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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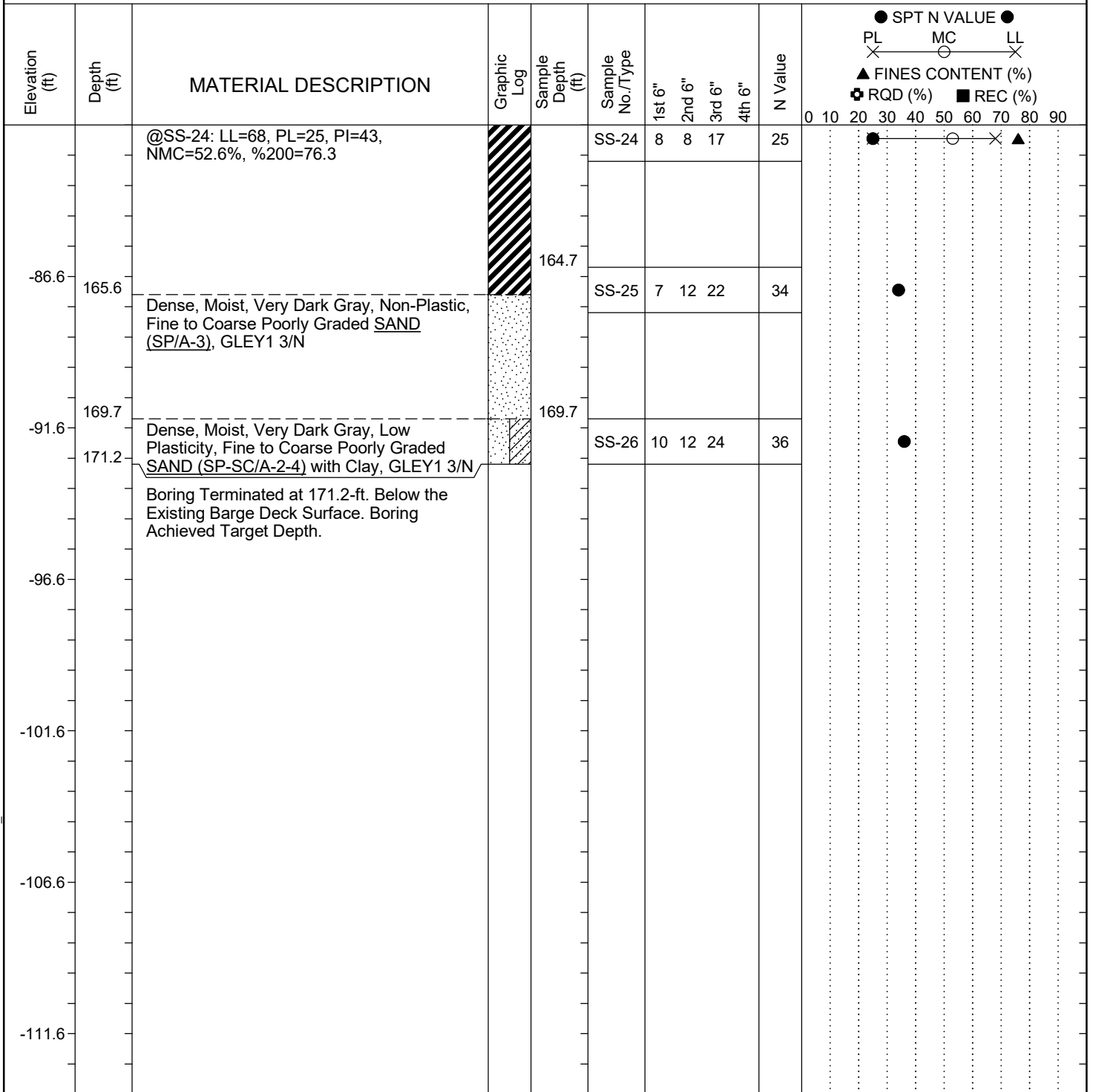
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5262+34	Offset: 84.8-L Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.501899	Longitude: -80.45660506 Date Started: 4/5/2023
Total Depth: 171.2 ft	Soil Depth: 110 ft	Core Depth: 40 ft Date Completed: 4/6/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



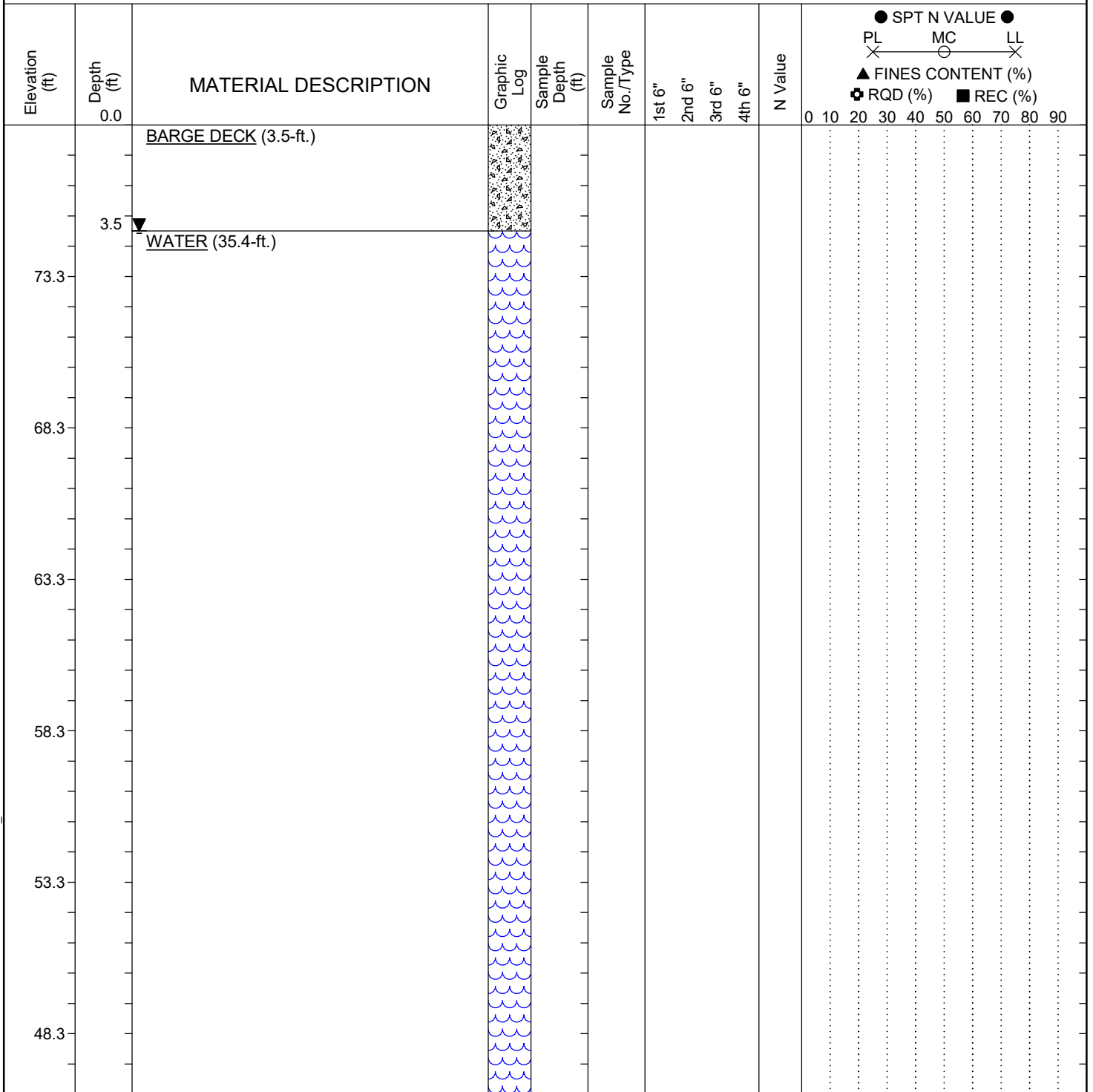
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372 Date Started: 5/23/2023
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft Date Completed: 5/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



LEGEND

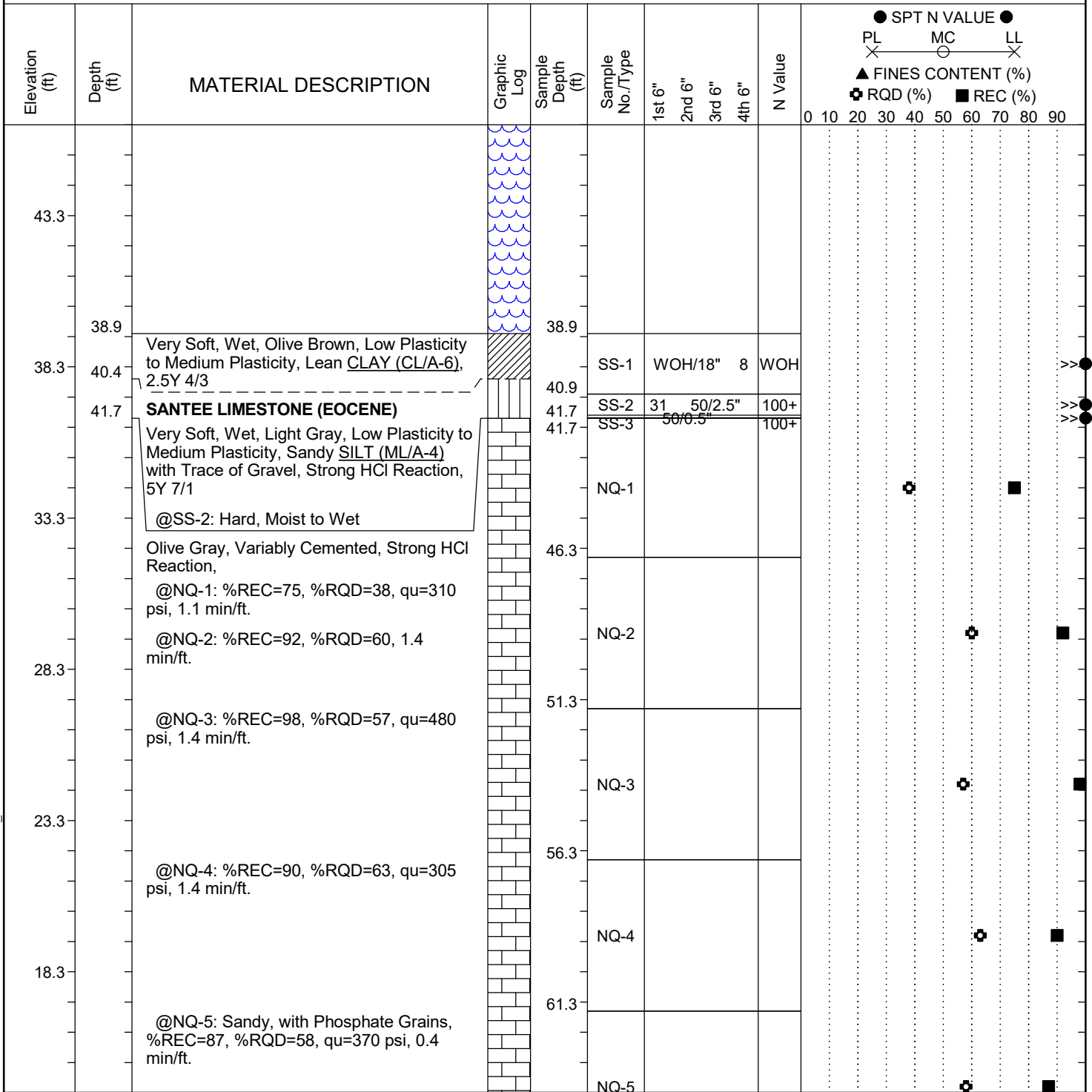
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372 Date Started: 5/23/2023
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft Date Completed: 5/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

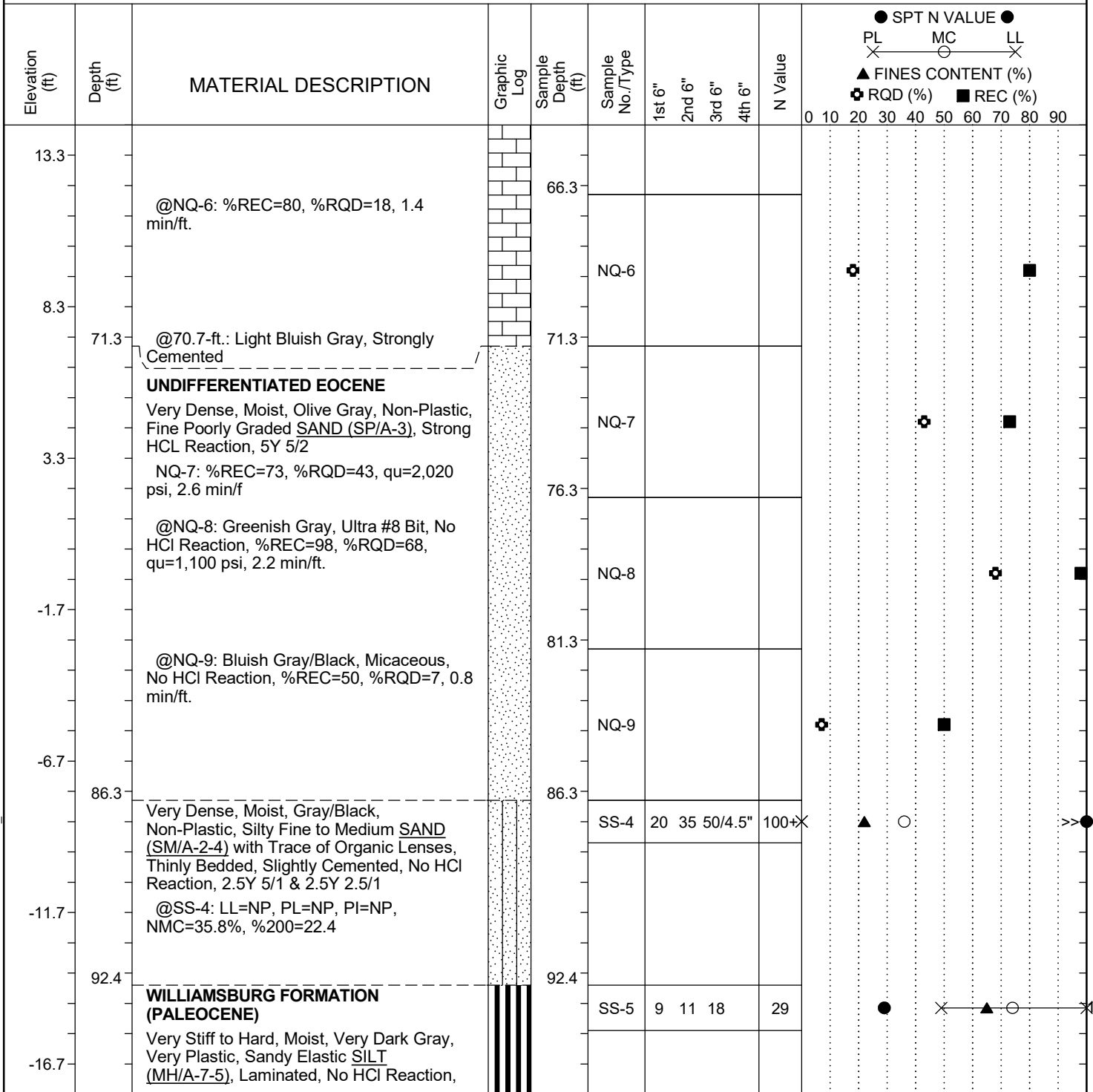
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372 Date Started: 5/23/2023
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft Date Completed: 5/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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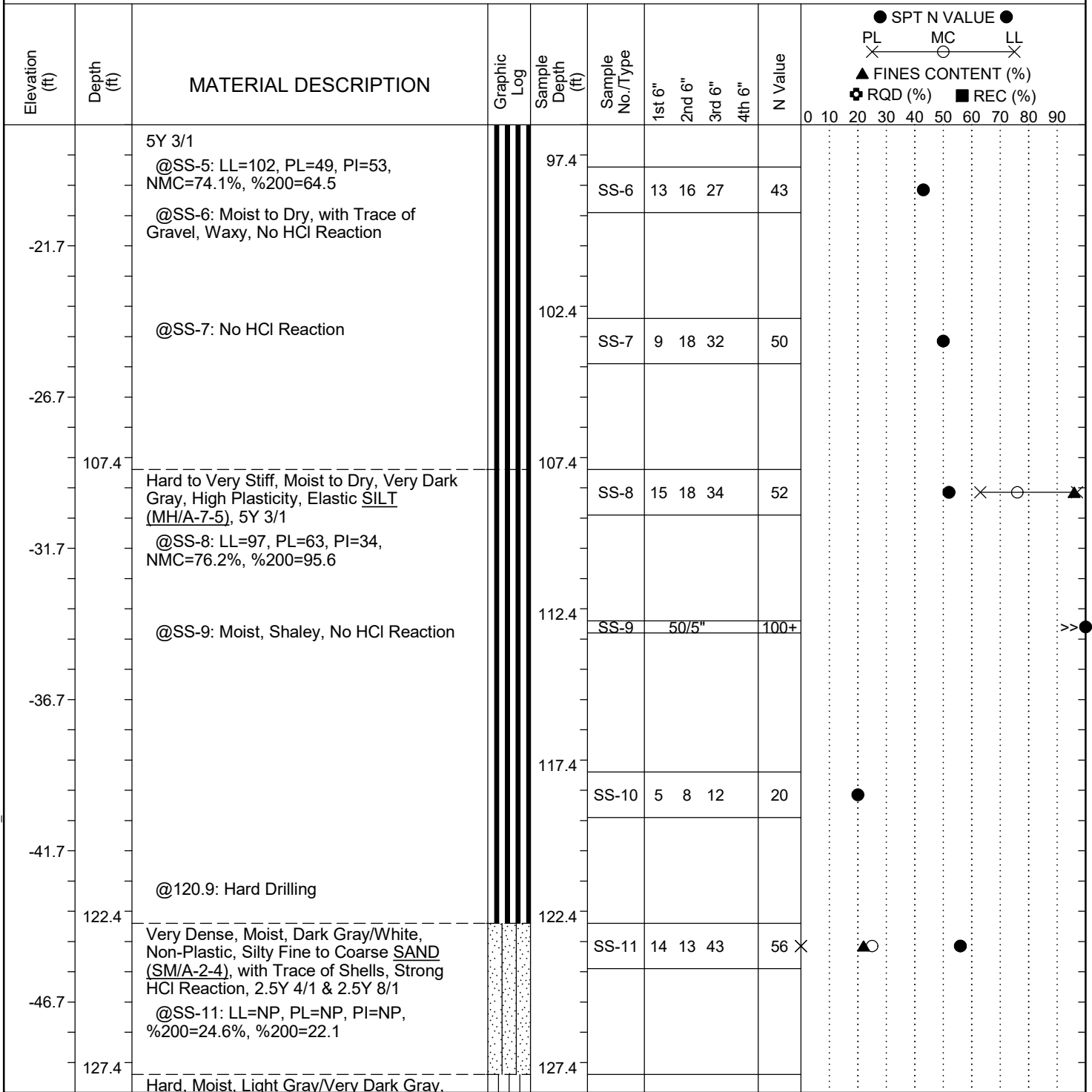
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R
Alignment: I-95 Med. CL	Date Started: 5/23/2023	Date Completed: 5/25/2023
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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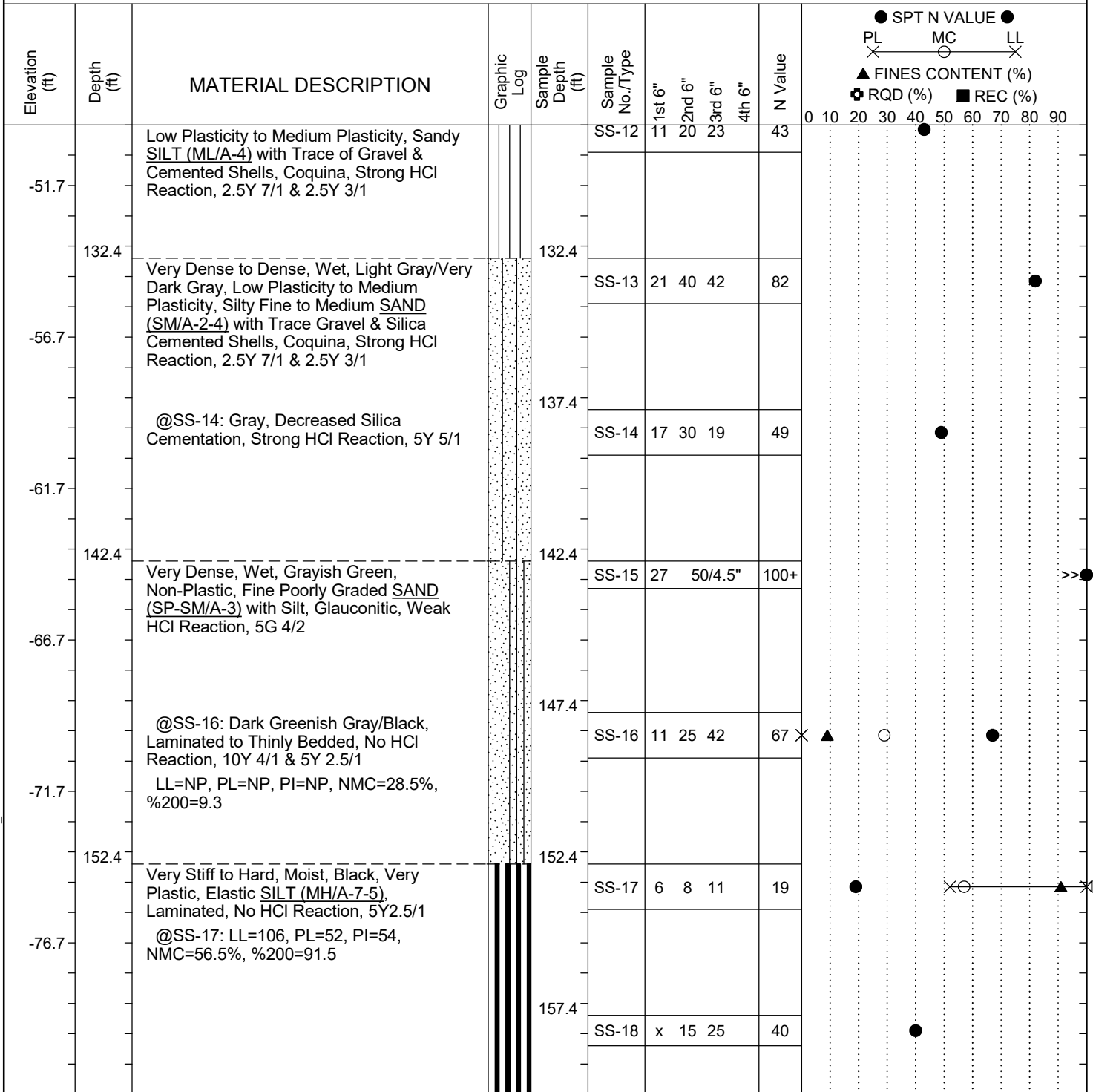
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R
Alignment: I-95 Med. CL	Date Started: 5/23/2023	Date Completed: 5/25/2023
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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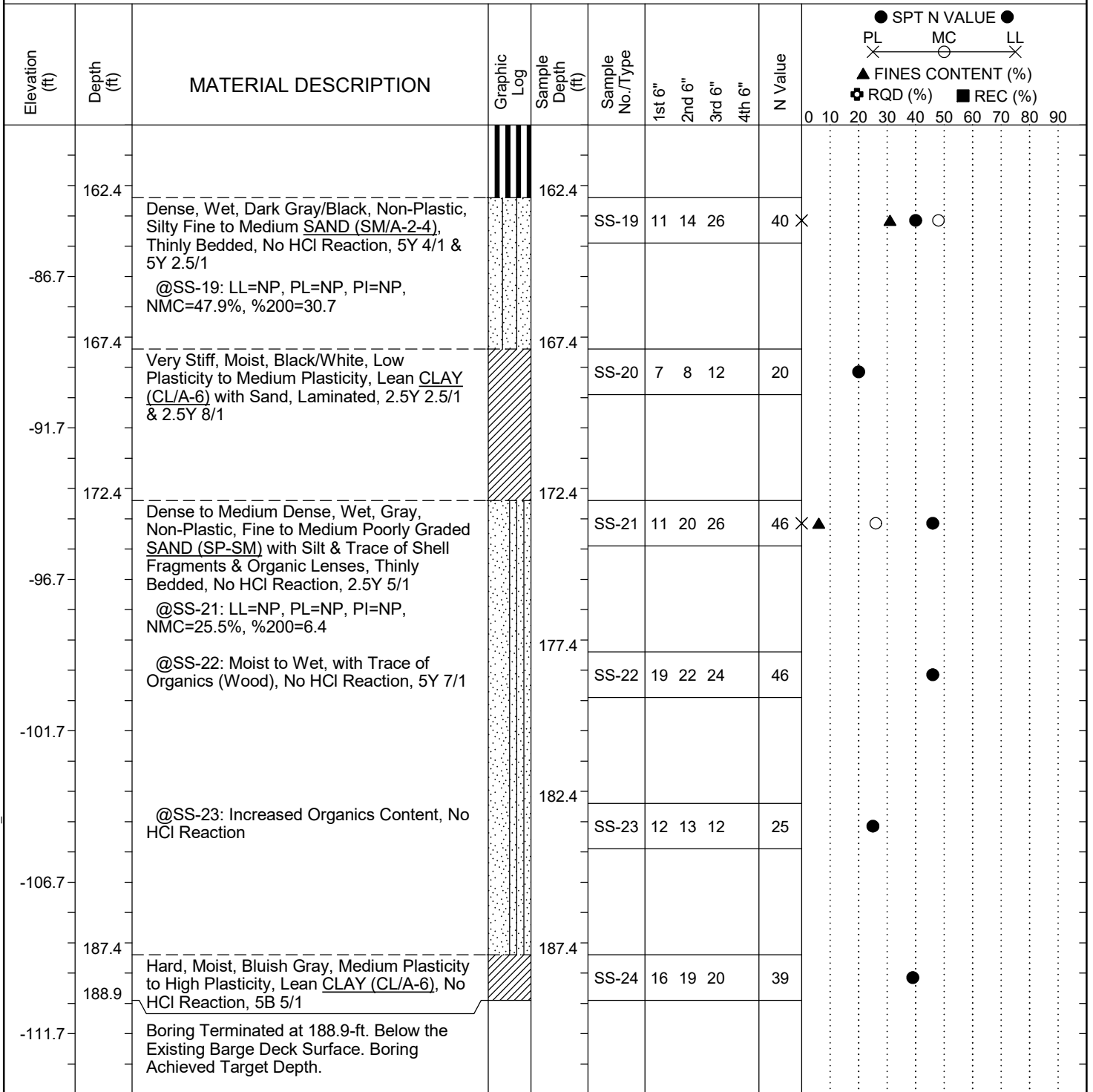
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5261+35	Offset: 13.3-R
Alignment: I-95 Med. CL	Date Started: 5/23/2023	Date Completed: 5/25/2023
Elev.: 78.3 ft	Latitude: 33.50228068	Longitude: -80.45658372
Total Depth: 188.9 ft	Soil Depth: 105.4 ft	Core Depth: 44.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



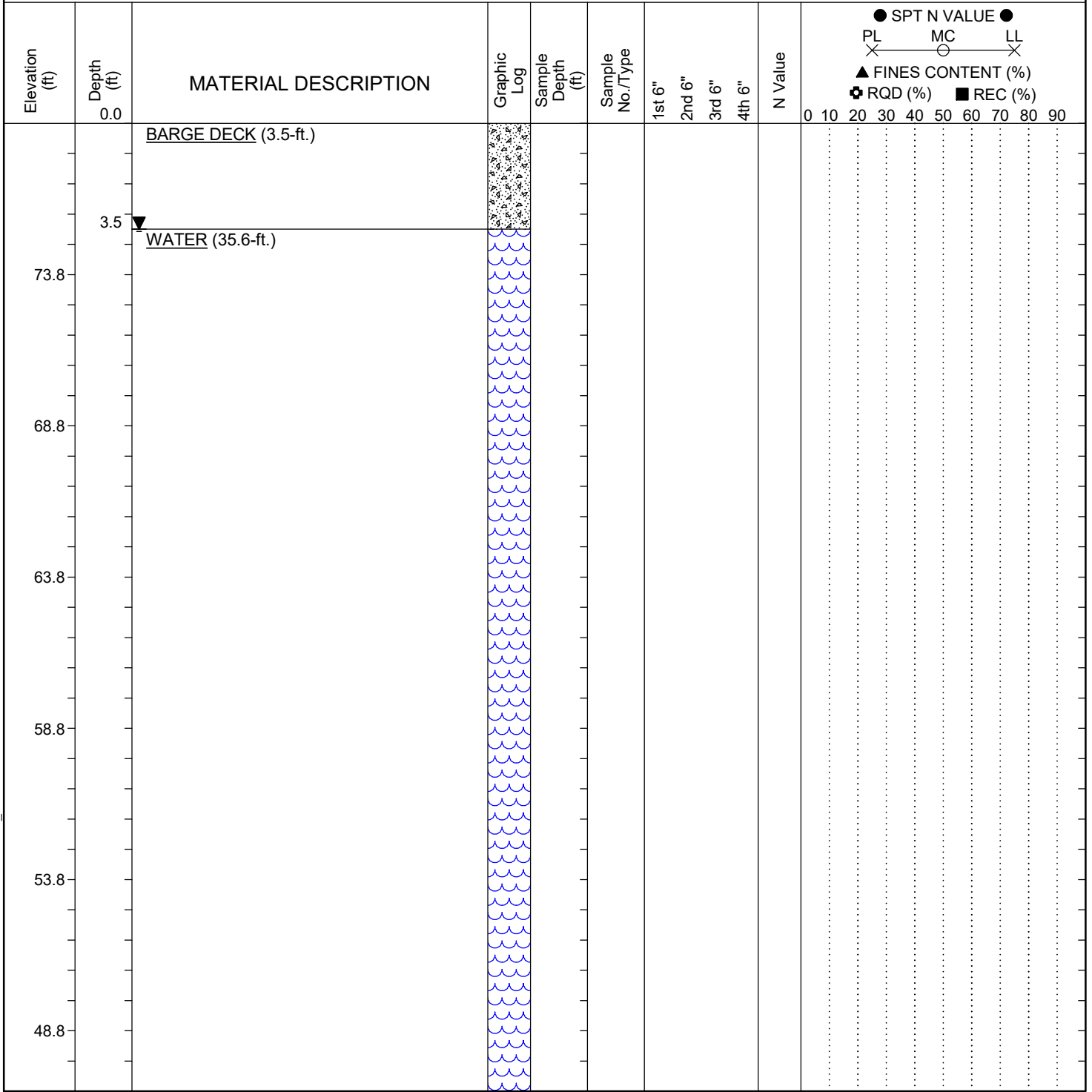
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L
Alignment: I-95 Med. CL	Date Started: 3/30/2023	Date Completed: 3/31/2023
Elev.: 78.8 ft	Latitude: 33.50226826	Longitude: -80.45612937
Total Depth: 189.1 ft	Soil Depth: 115 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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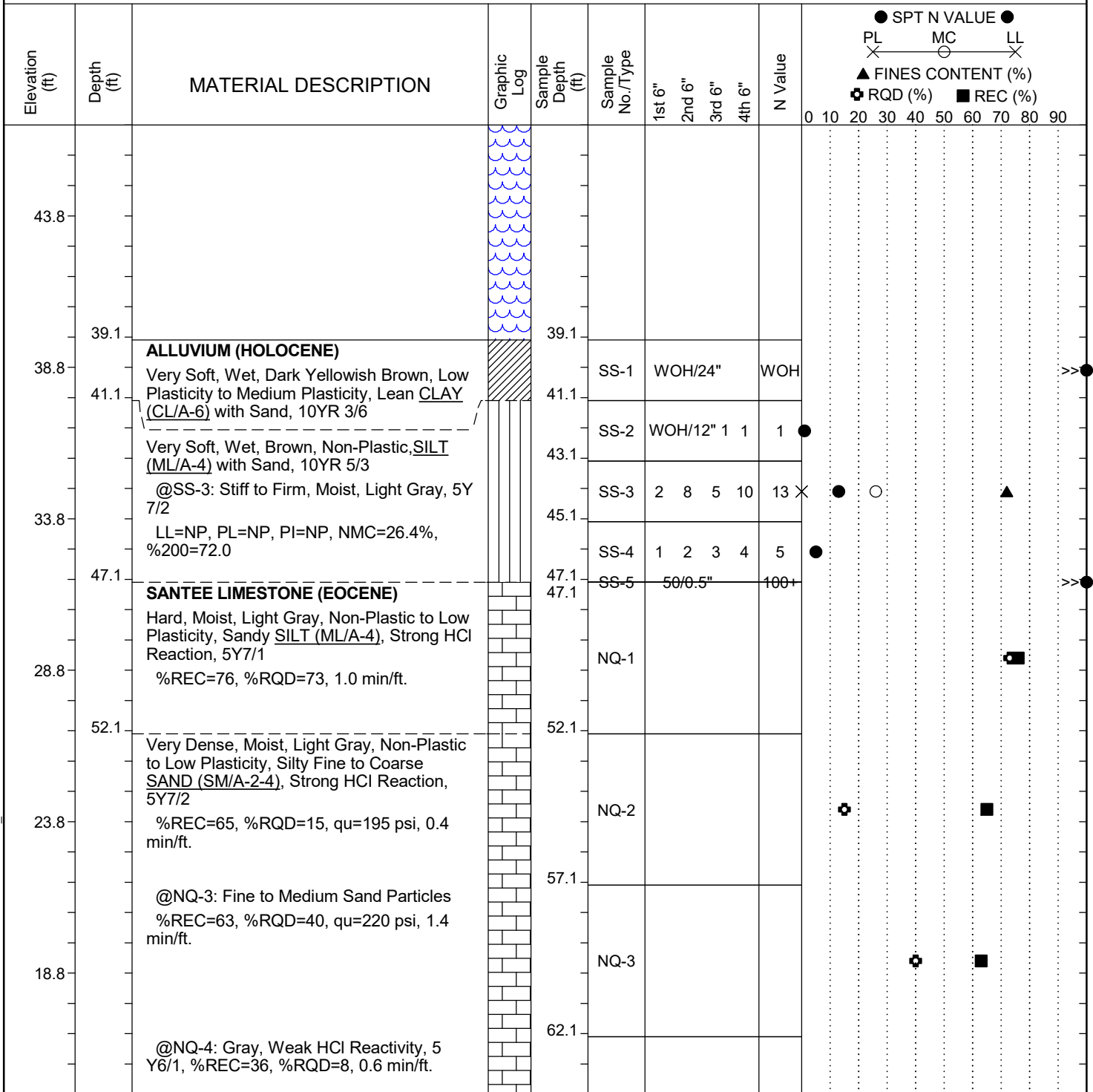
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ - SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L
Alignment: I-95 Med. CL	Date Started: 3/30/2023	Date Completed: 3/31/2023
Elev.: 78.8 ft	Latitude: 33.50226826	Longitude: -80.45612937
Total Depth: 189.1 ft	Soil Depth: 115 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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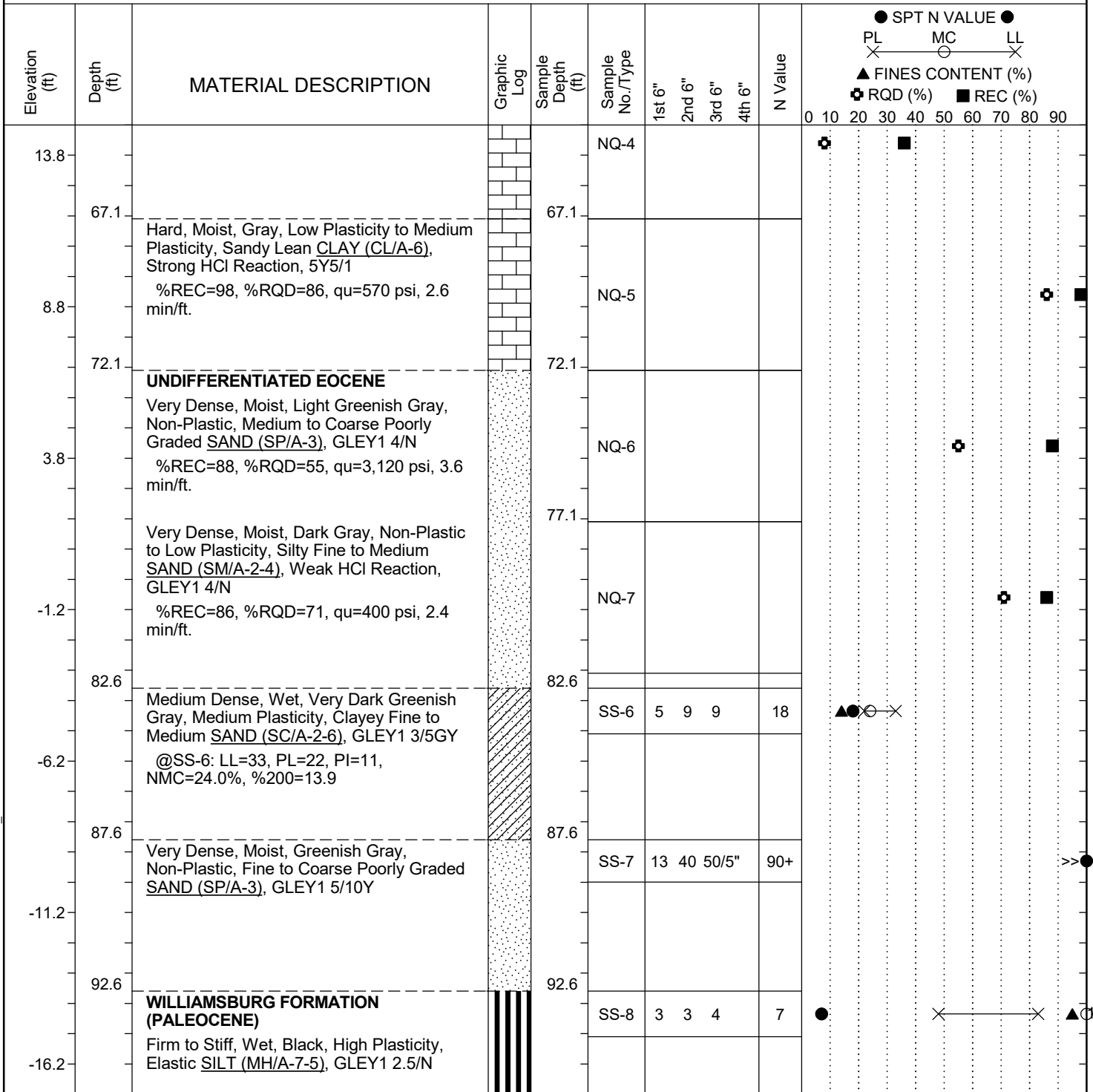
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L
Alignment: I-95 Med. CL	Date Started: 3/30/2023	Date Completed: 3/31/2023
Elev.: 78.8 ft	Latitude: 33.50226826	Longitude: -80.45612937
Total Depth: 189.1 ft	Soil Depth: 115 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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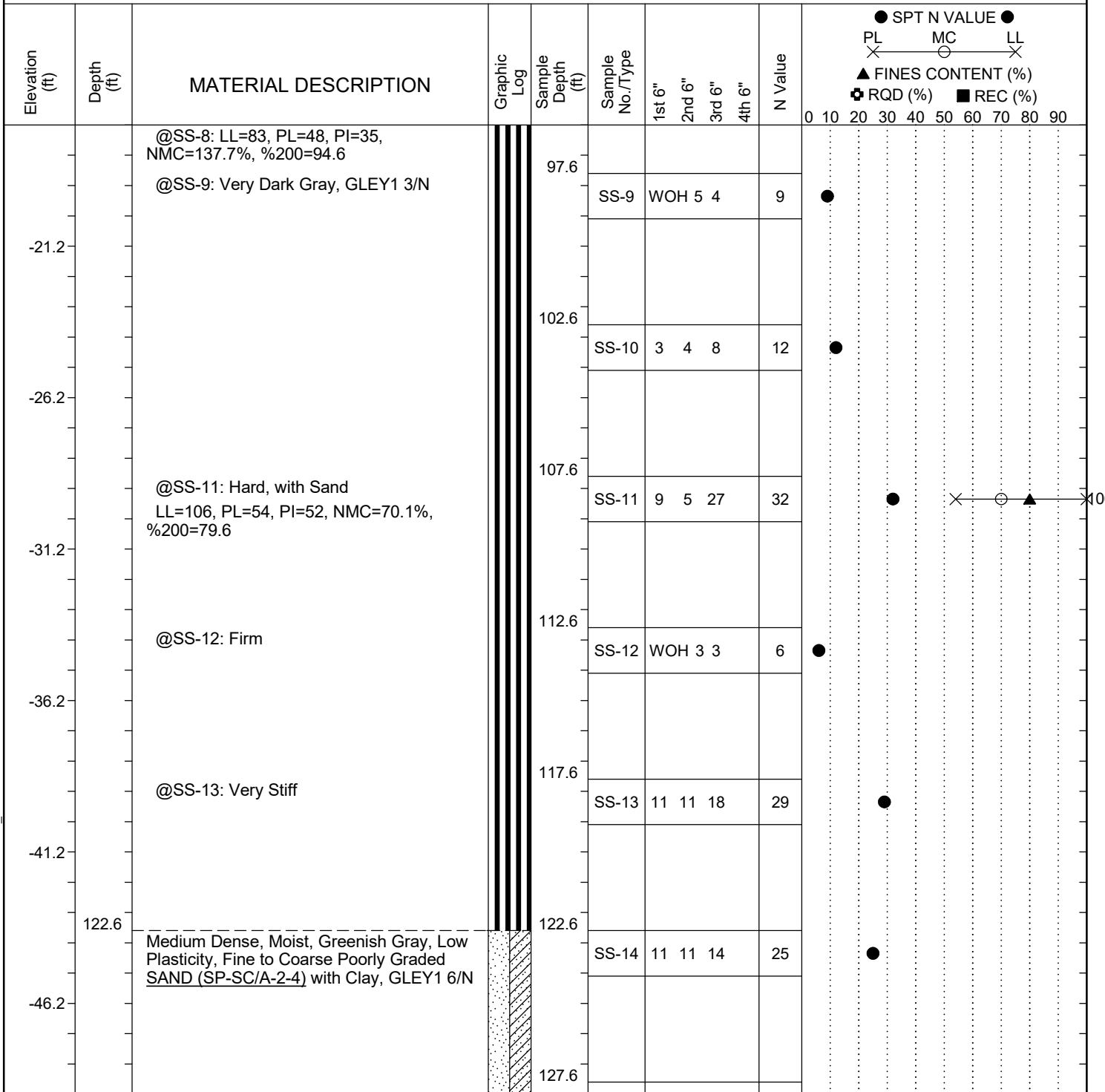
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L Alignment: I-95 Med. CL
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Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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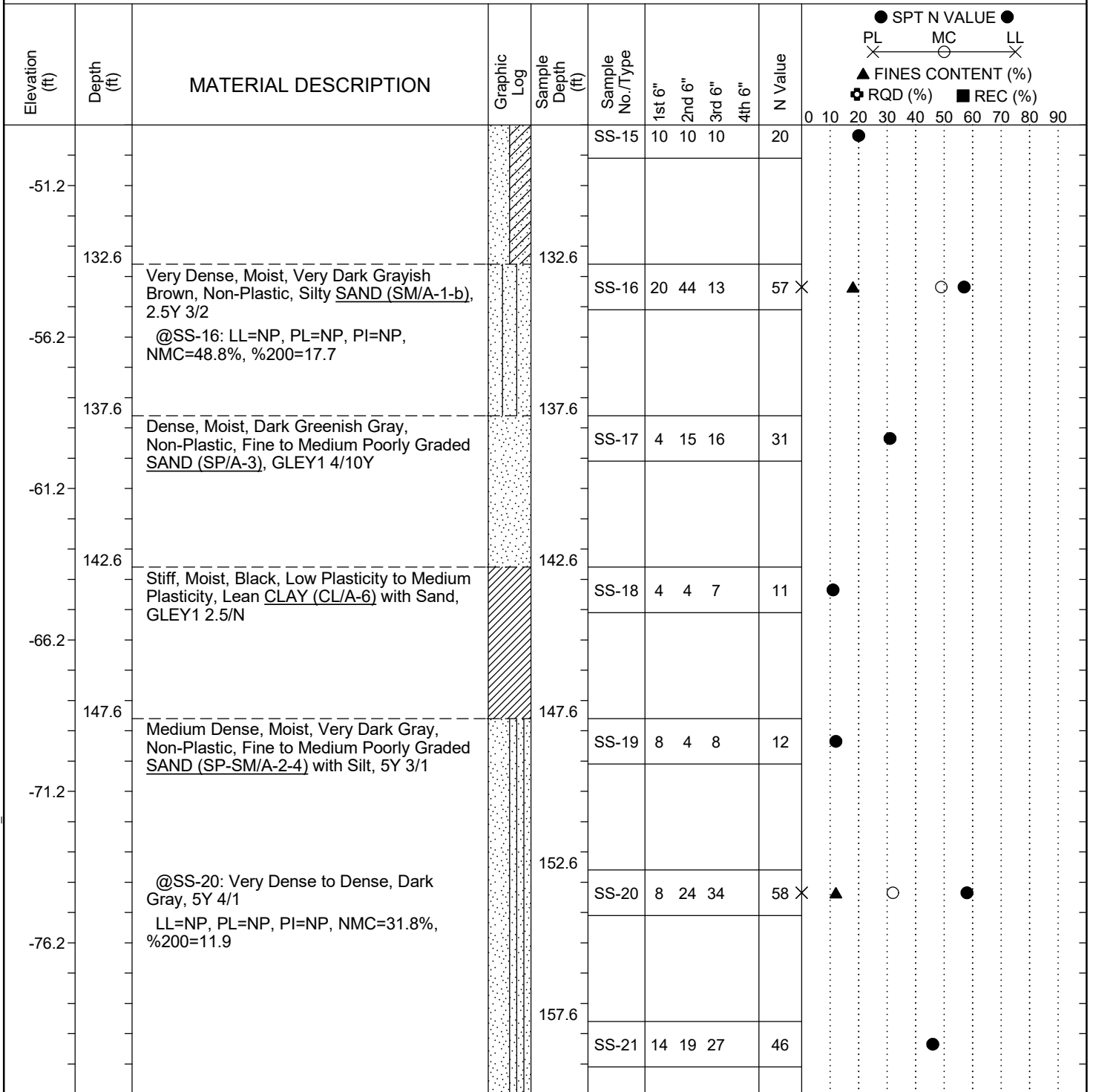
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L
Alignment: I-95 Med. CL	Date Started: 3/30/2023	Latitude: 33.50226826
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Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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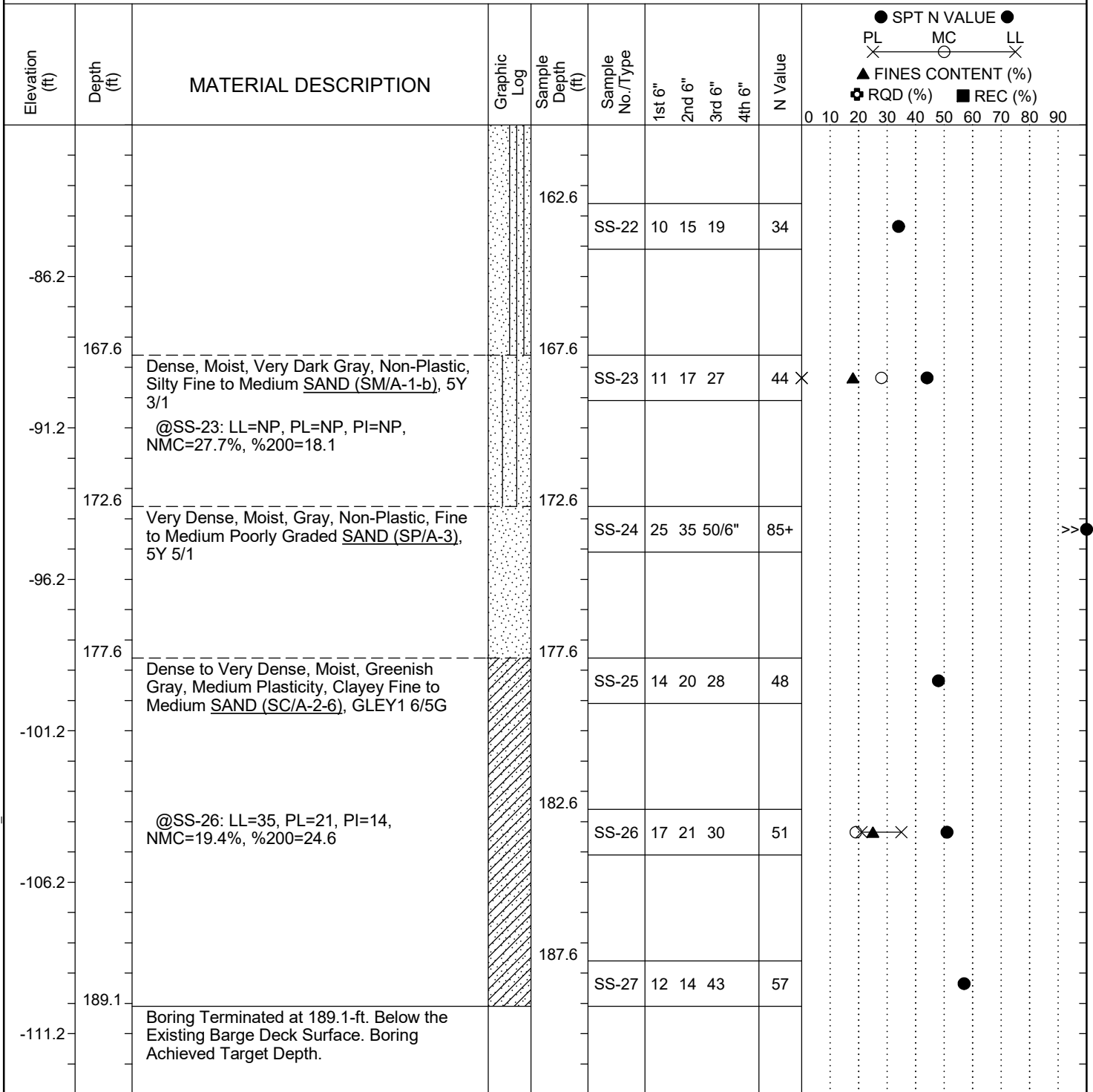
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5260+36	Offset: 83.4-L
Alignment: I-95 Med. CL	Date Started: 3/30/2023	Date Completed: 3/31/2023
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Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



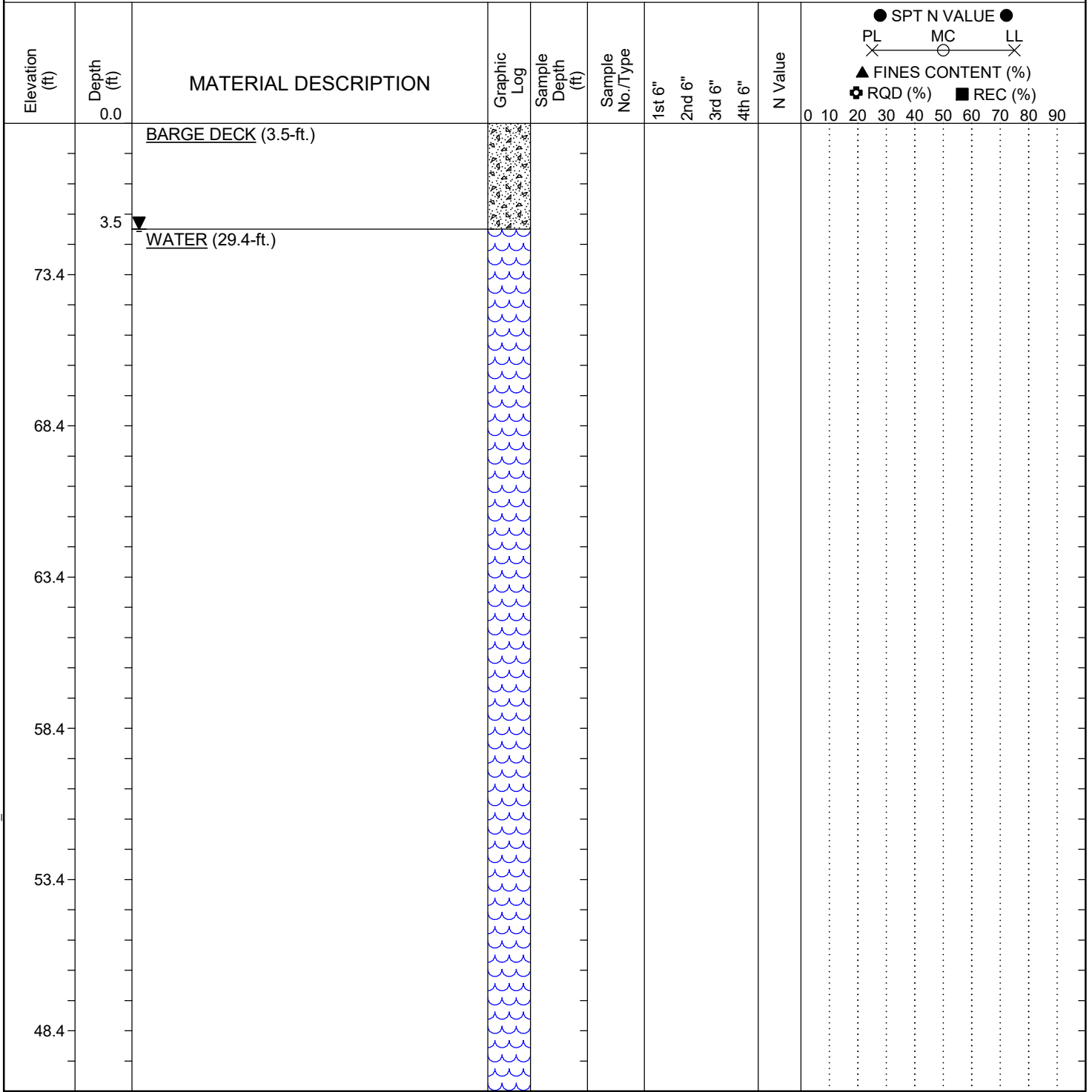
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50265738	Longitude: -80.4560975 Date Started: 5/17/2023
Total Depth: 182.9 ft	Soil Depth: 115.3 ft	Core Depth: 34.7 ft Date Completed: 5/22/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



● SPT N VALUE ●
 PL — MC — LL
 X — X — X
 ▲ FINES CONTENT (%)
 ⊕ RQD (%) ■ REC (%)

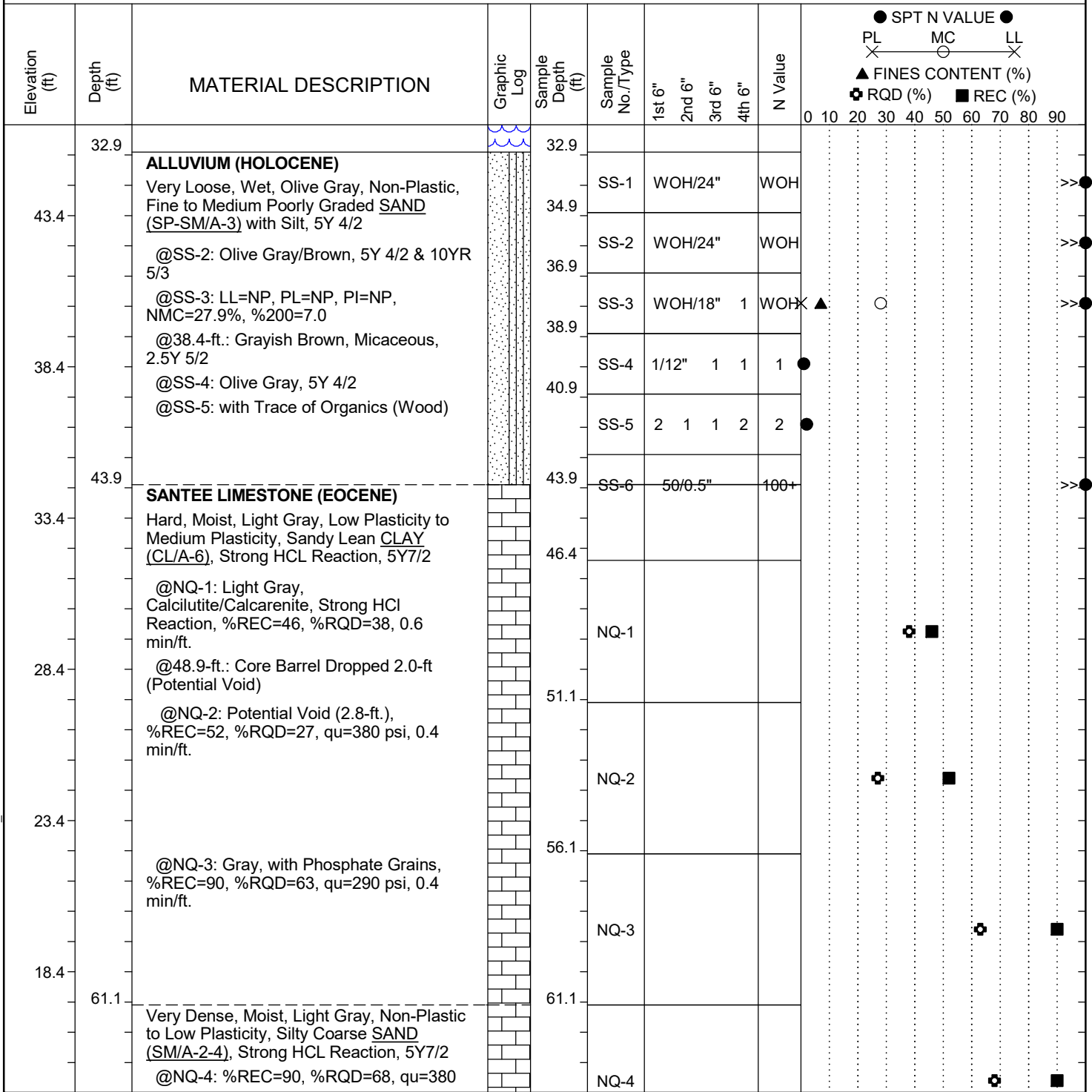
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
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AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R Alignment: I-95 Med. CL
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Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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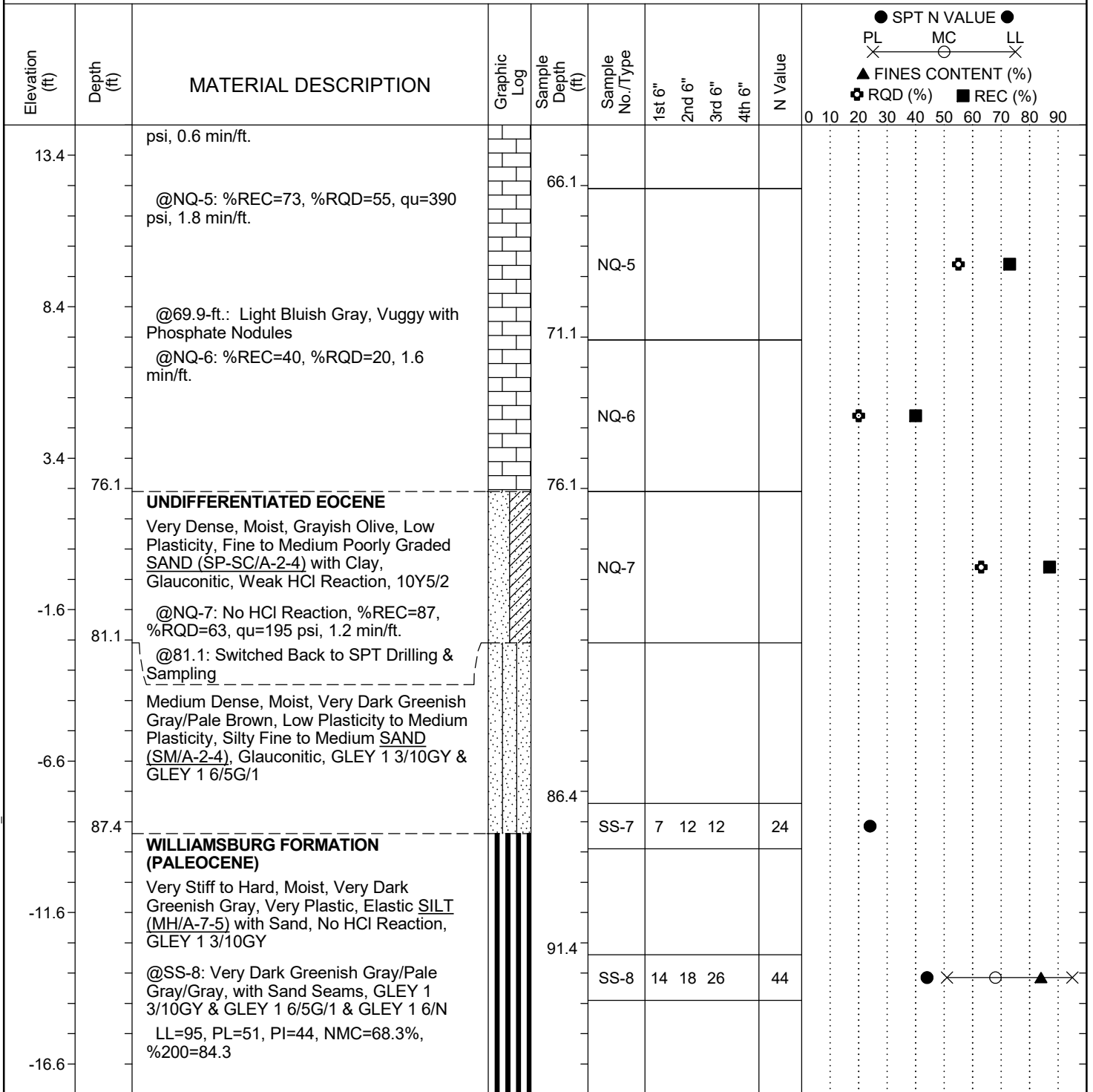
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R
Alignment: I-95 Med. CL	Date Started: 5/17/2023	Date Completed: 5/22/2023
Elev.: 78.4 ft	Latitude: 33.50265738	Longitude: -80.4560975
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Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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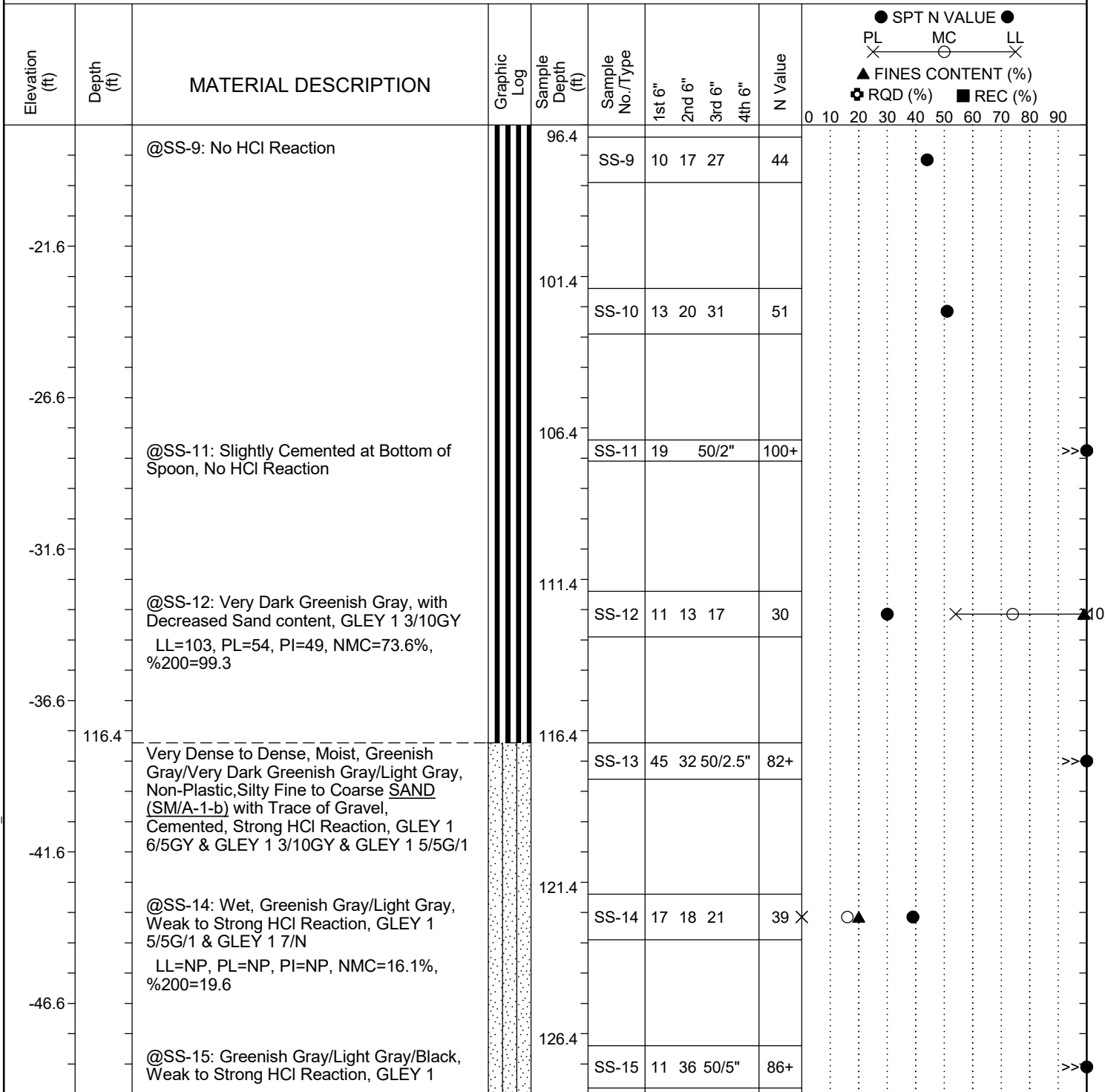
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R Alignment: I-95 Med. CL
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Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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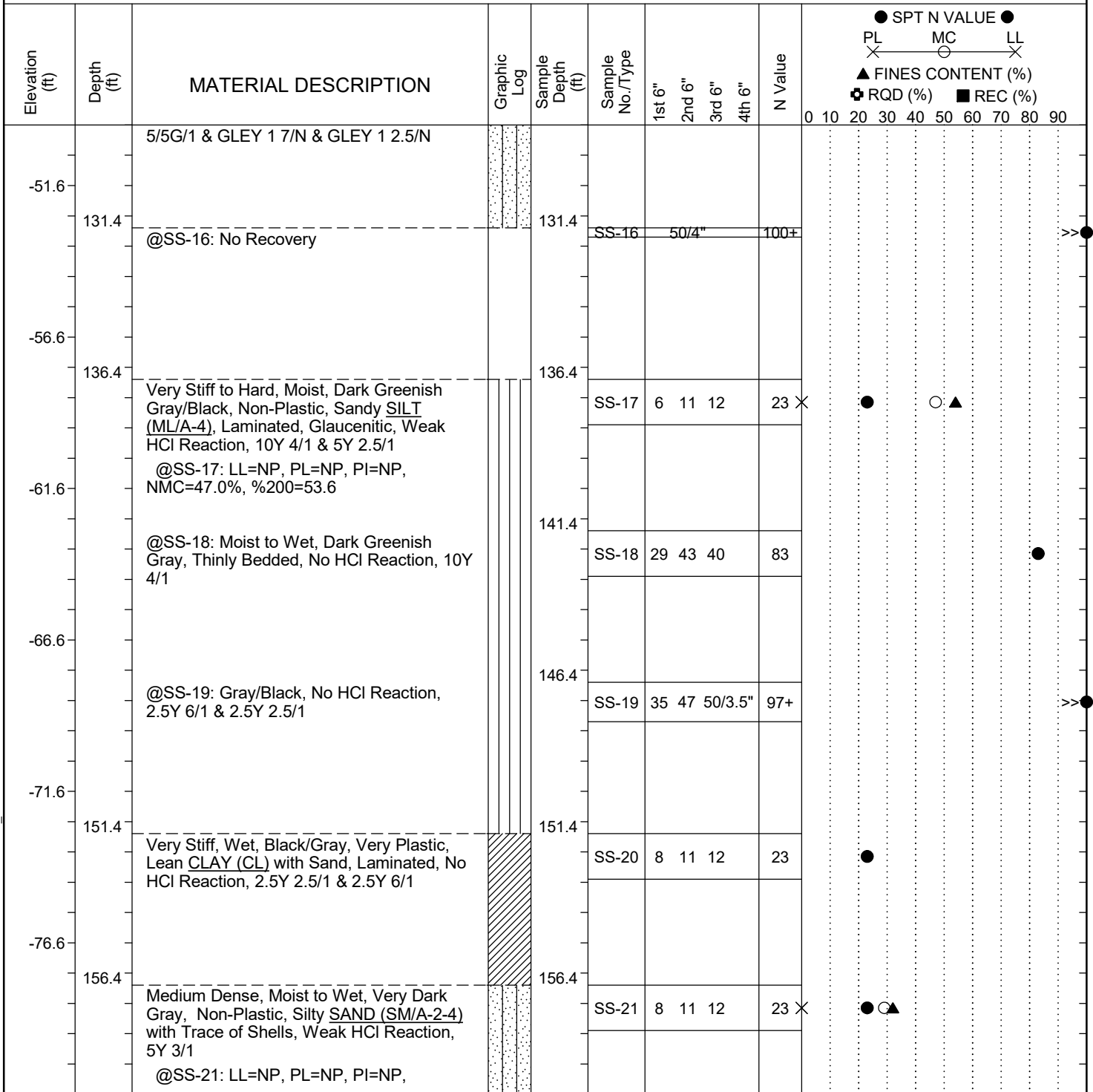
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50265738	Longitude: -80.4560975 Date Started: 5/17/2023
Total Depth: 182.9 ft	Soil Depth: 115.3 ft	Core Depth: 34.7 ft Date Completed: 5/22/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

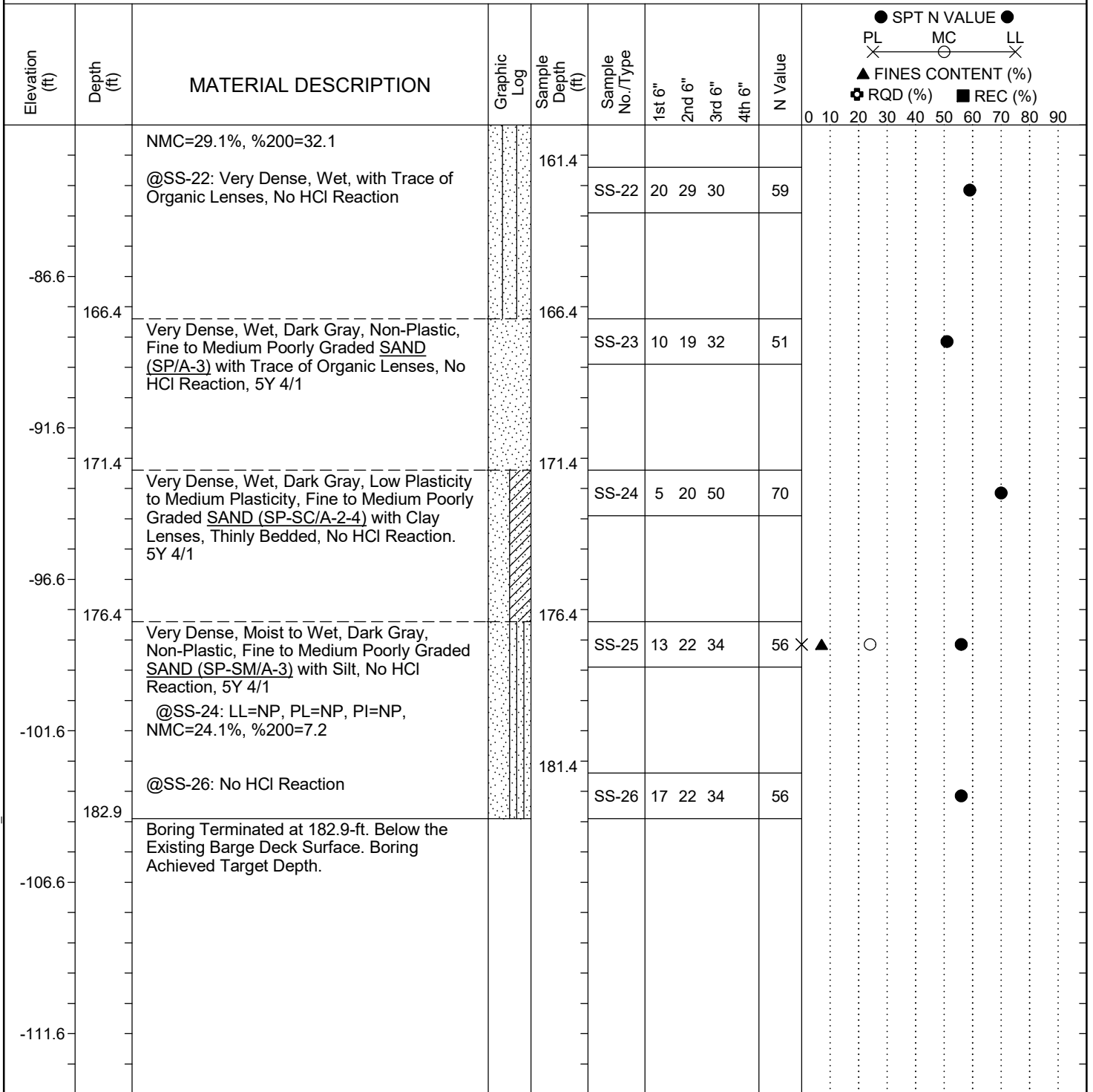
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5259+33	Offset: 14.6-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50265738	Longitude: -80.4560975 Date Started: 5/17/2023
Total Depth: 182.9 ft	Soil Depth: 115.3 ft	Core Depth: 34.7 ft Date Completed: 5/22/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



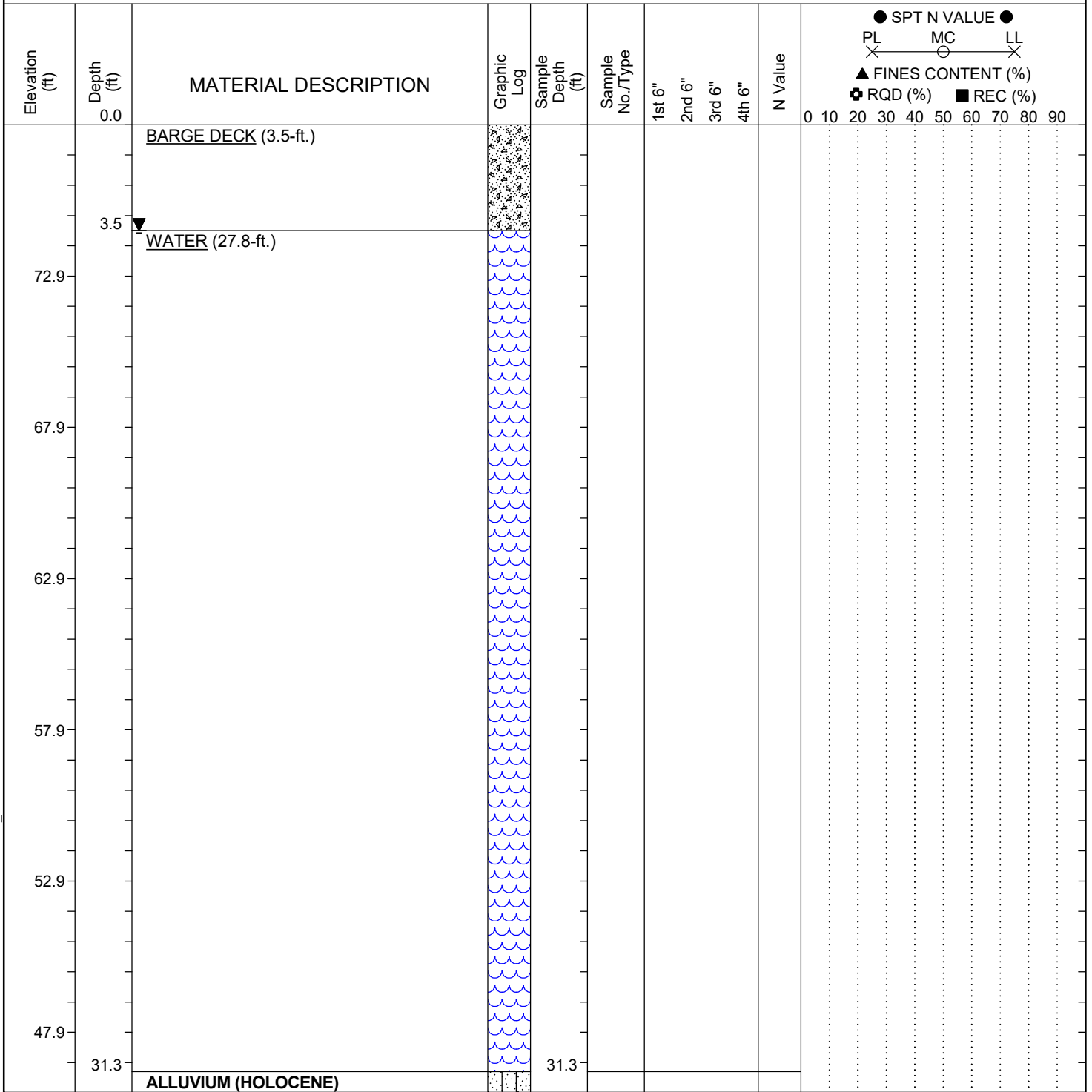
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5258+34	Offset: 87.0-L
Alignment: I-95 Med. CL	Date Started: 3/29/2023	Date Completed: 3/29/2023
Elev.: 77.9 ft	Latitude: 33.50263501	Longitude: -80.45563295
Total Depth: 130.1 ft	Soil Depth: 59.4 ft	Core Depth: 39.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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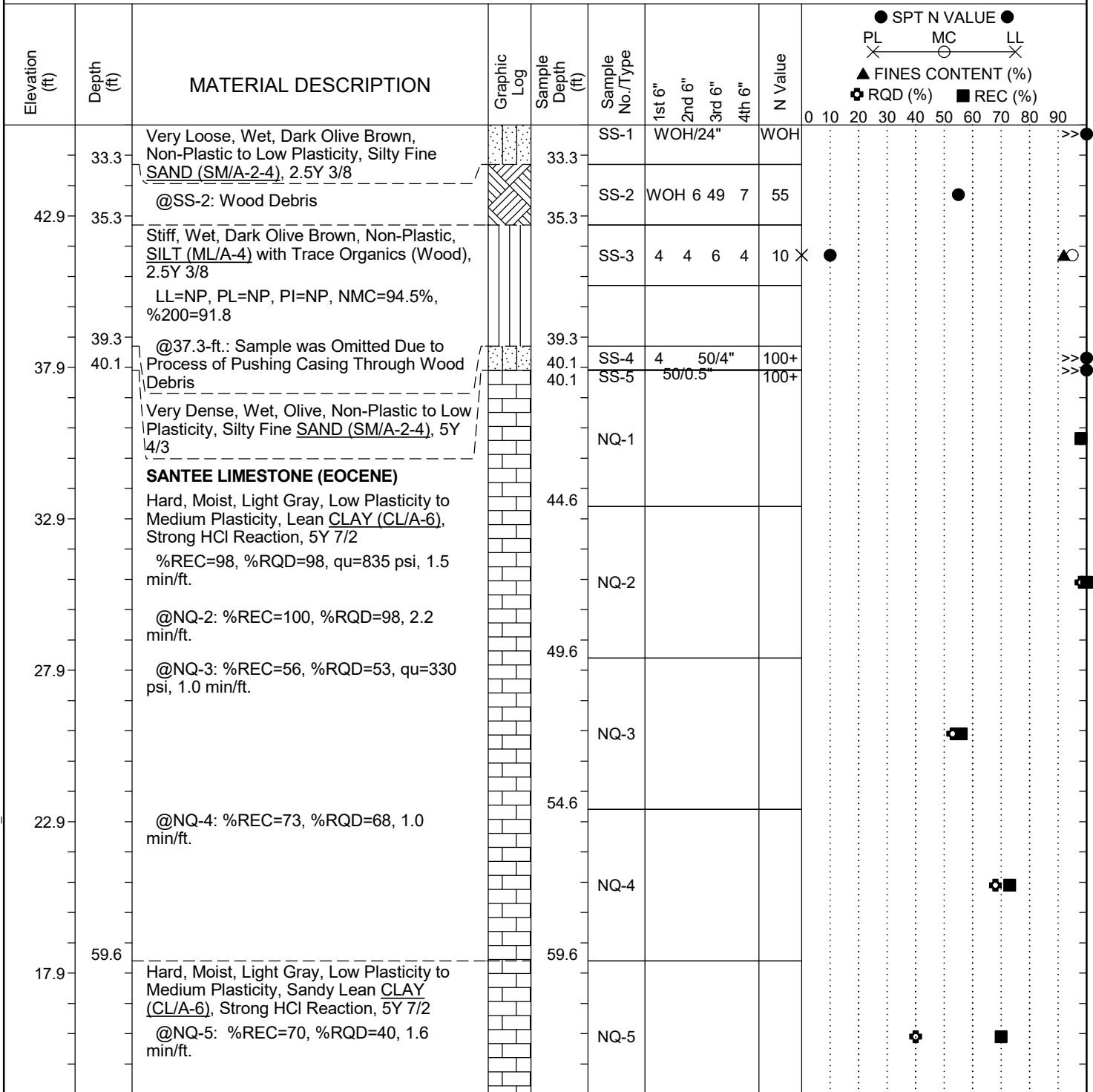
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5258+34	Offset: 87.0-L Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50263501	Longitude: -80.45563295 Date Started: 3/29/2023
Total Depth: 130.1 ft	Soil Depth: 59.4 ft	Core Depth: 39.5 ft Date Completed: 3/29/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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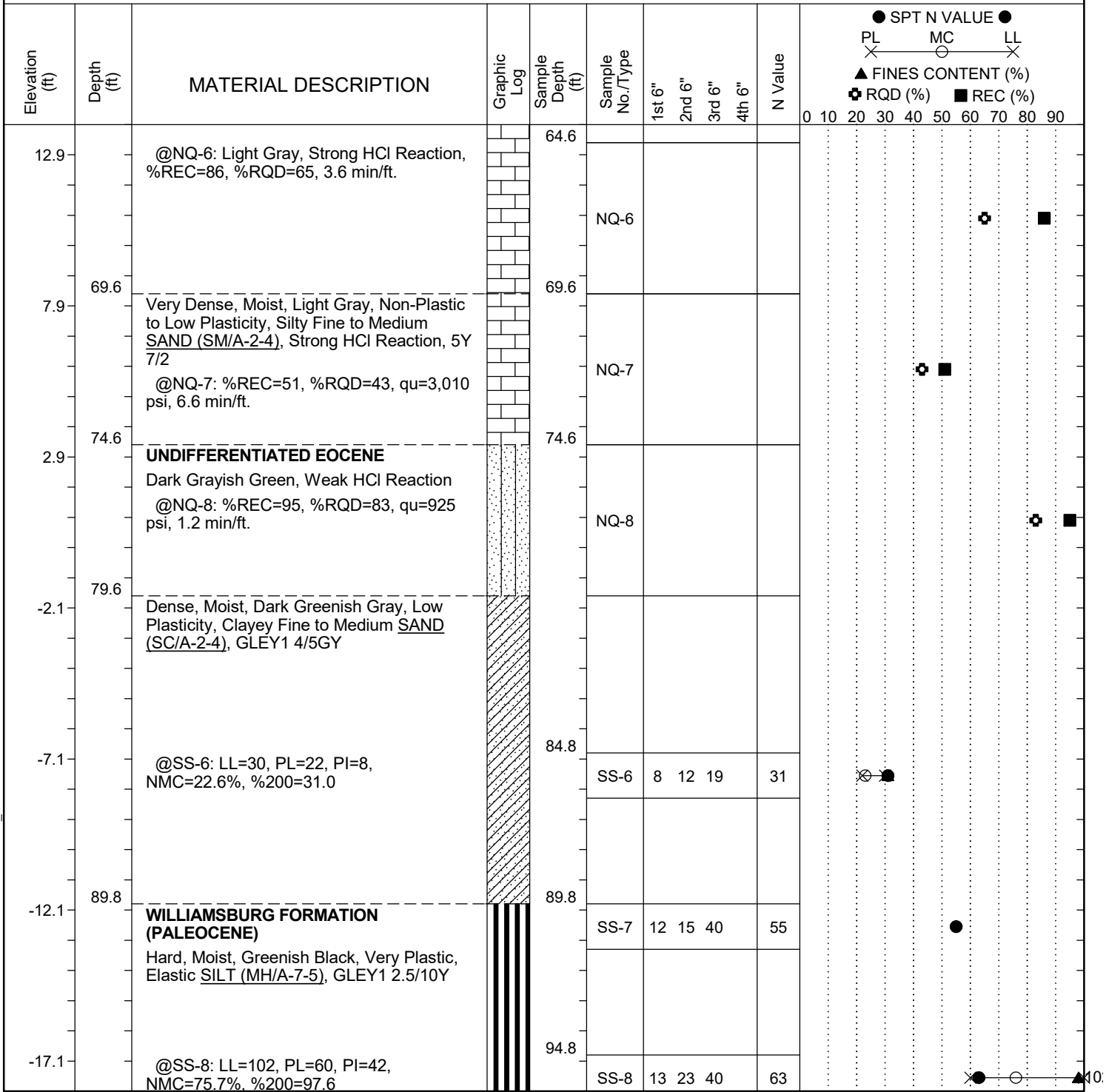
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5258+34	Offset: 87.0-L Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50263501	Longitude: -80.45563295 Date Started: 3/29/2023
Total Depth: 130.1 ft	Soil Depth: 59.4 ft	Core Depth: 39.5 ft Date Completed: 3/29/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



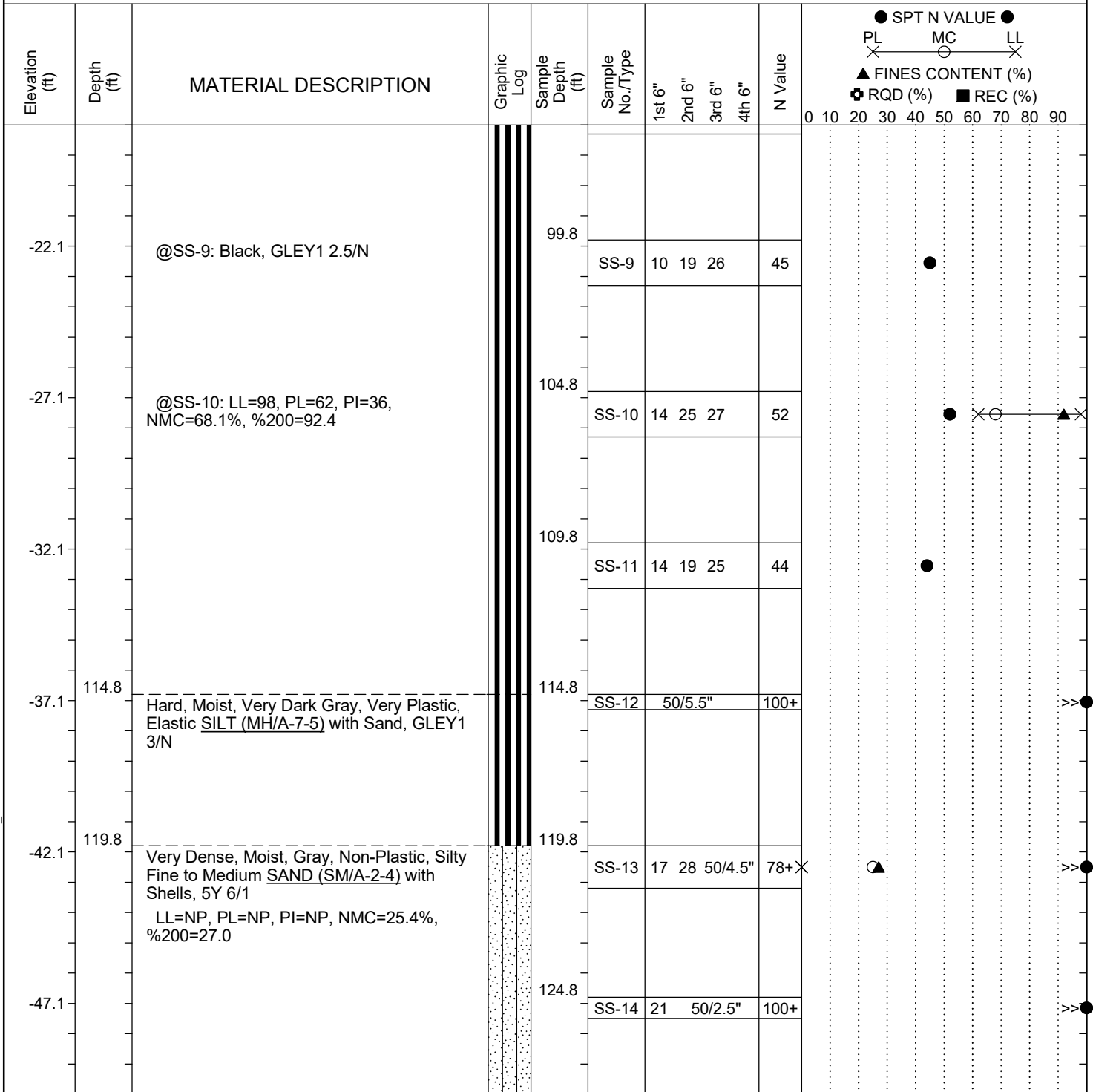
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5258+34	Offset: 87.0-L
Alignment: I-95 Med. CL	Date Started: 3/29/2023	
Elev.: 77.9 ft	Latitude: 33.50263501	Longitude: -80.45563295
Total Depth: 130.1 ft	Soil Depth: 59.4 ft	Core Depth: 39.5 ft
Date Completed: 3/29/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



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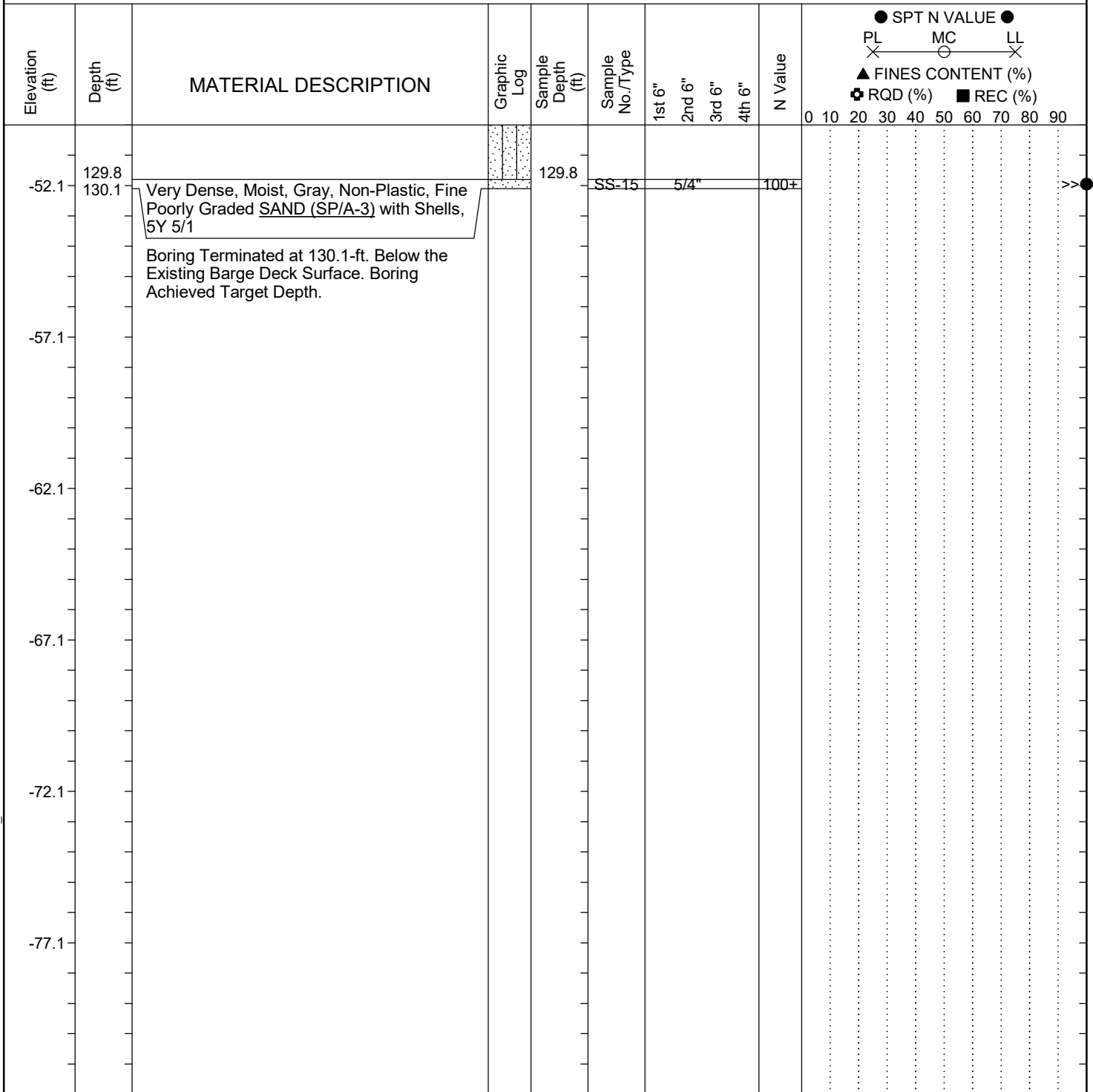
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5258+34	Offset: 87.0-L
Alignment: I-95 Med. CL	Date Started: 3/29/2023	Date Completed: 3/29/2023
Elev.: 77.9 ft	Latitude: 33.50263501	Longitude: -80.45563295
Total Depth: 130.1 ft	Soil Depth: 59.4 ft	Core Depth: 39.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



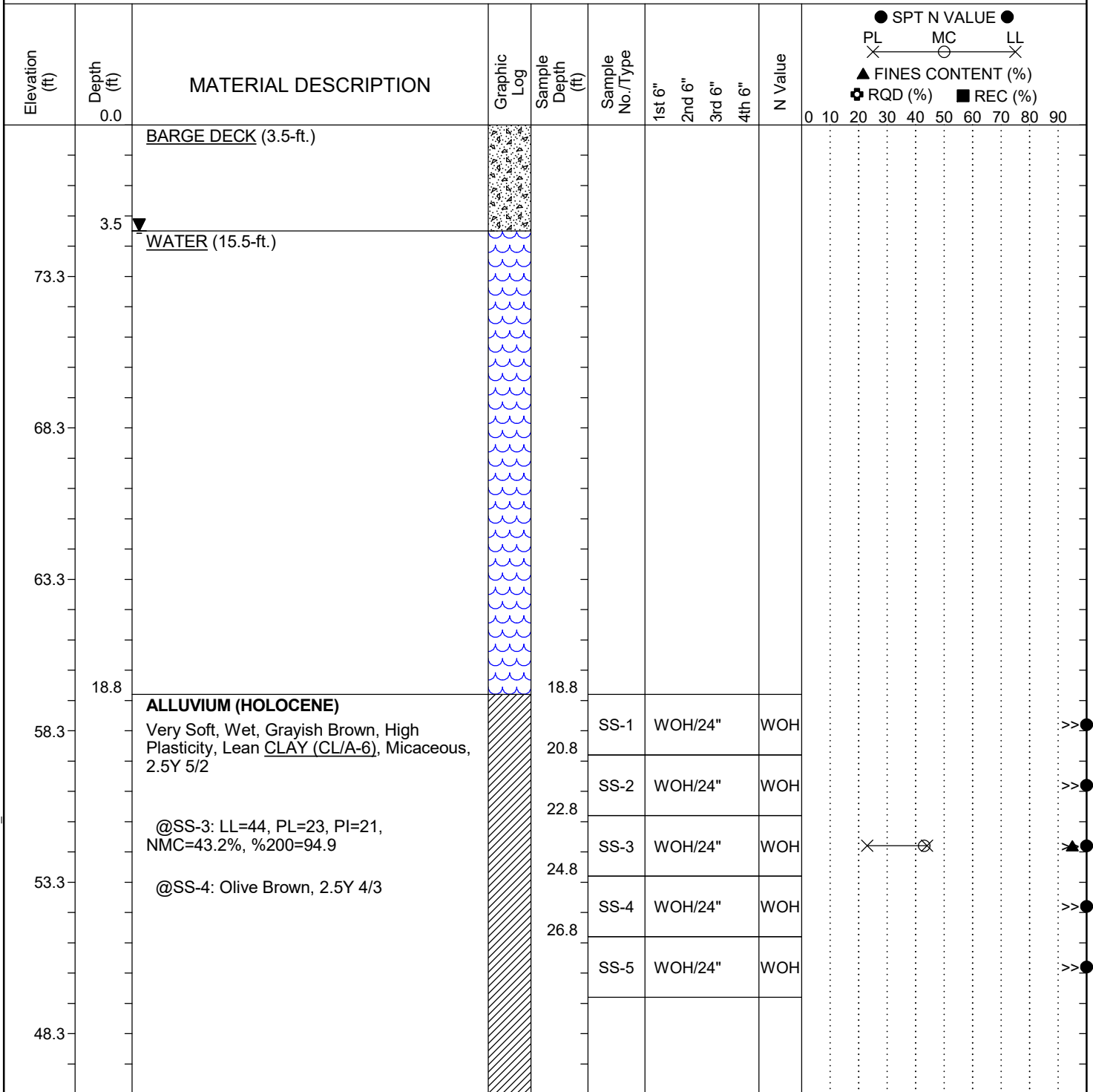
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-13
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5257+38	Offset: 14.7-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50302079	Longitude: -80.45562339 Date Started: 5/16/2023
Total Depth: 118.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 5/17/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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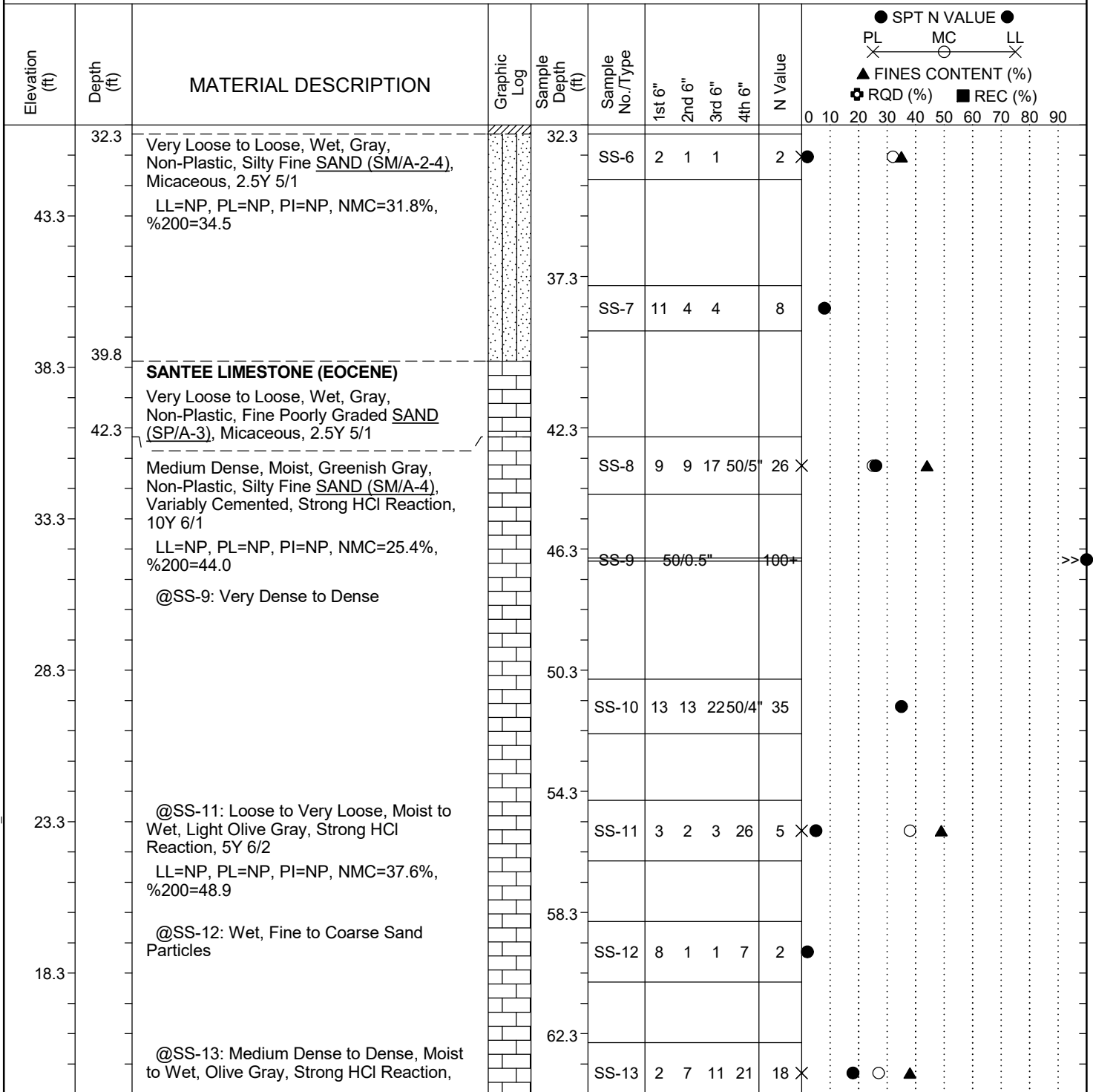
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SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-13
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5257+38	Offset: 14.7-R
Alignment: I-95 Med. CL	Date Started: 5/16/2023	Date Completed: 5/17/2023
Elev.: 78.3 ft	Latitude: 33.50302079	Longitude: -80.45562339
Total Depth: 118.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



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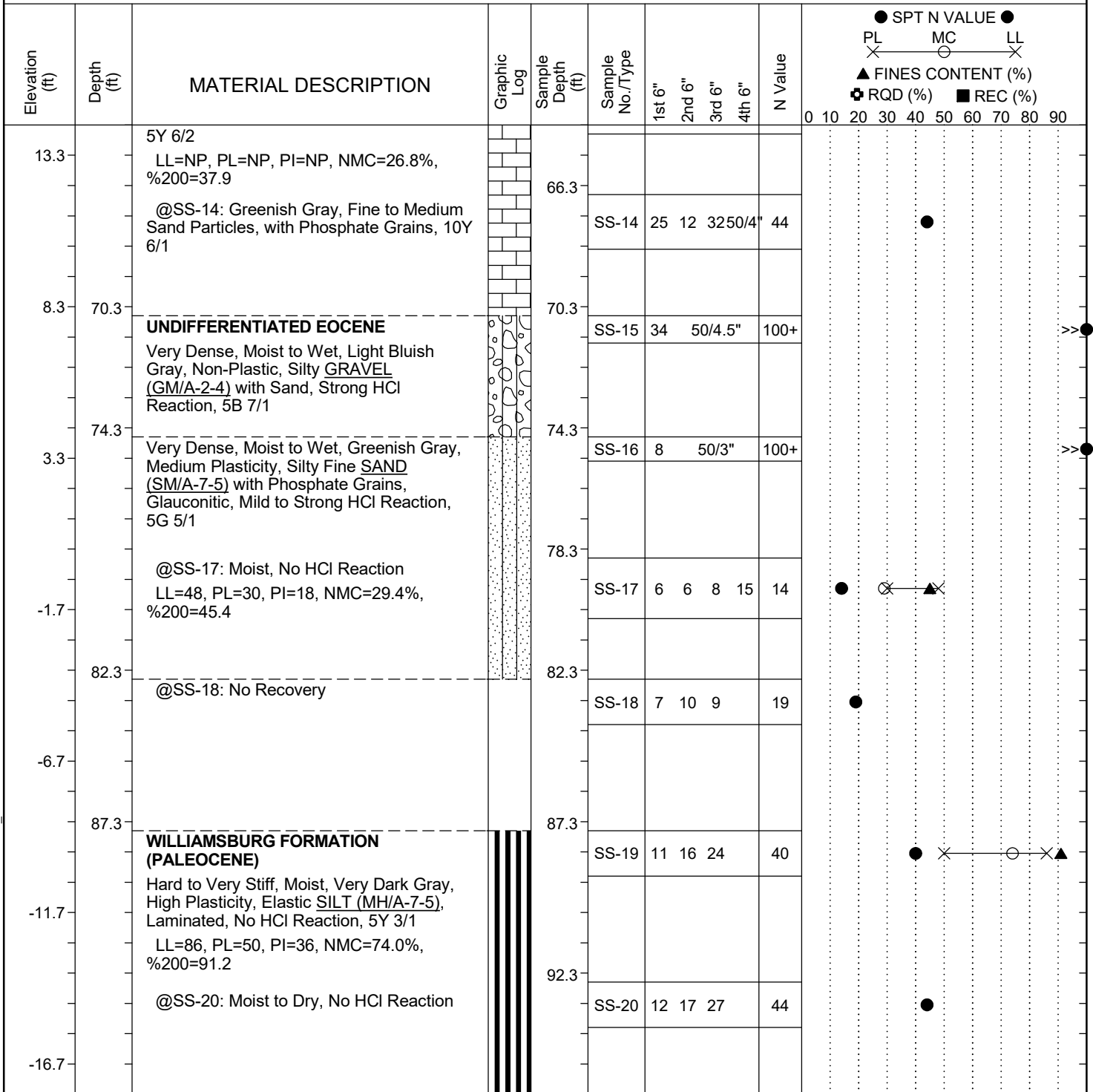
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-13
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5257+38	Offset: 14.7-R
Alignment: I-95 Med. CL	Date Started: 5/16/2023	Date Completed: 5/17/2023
Elev.: 78.3 ft	Latitude: 33.50302079	Longitude: -80.45562339
Total Depth: 118.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



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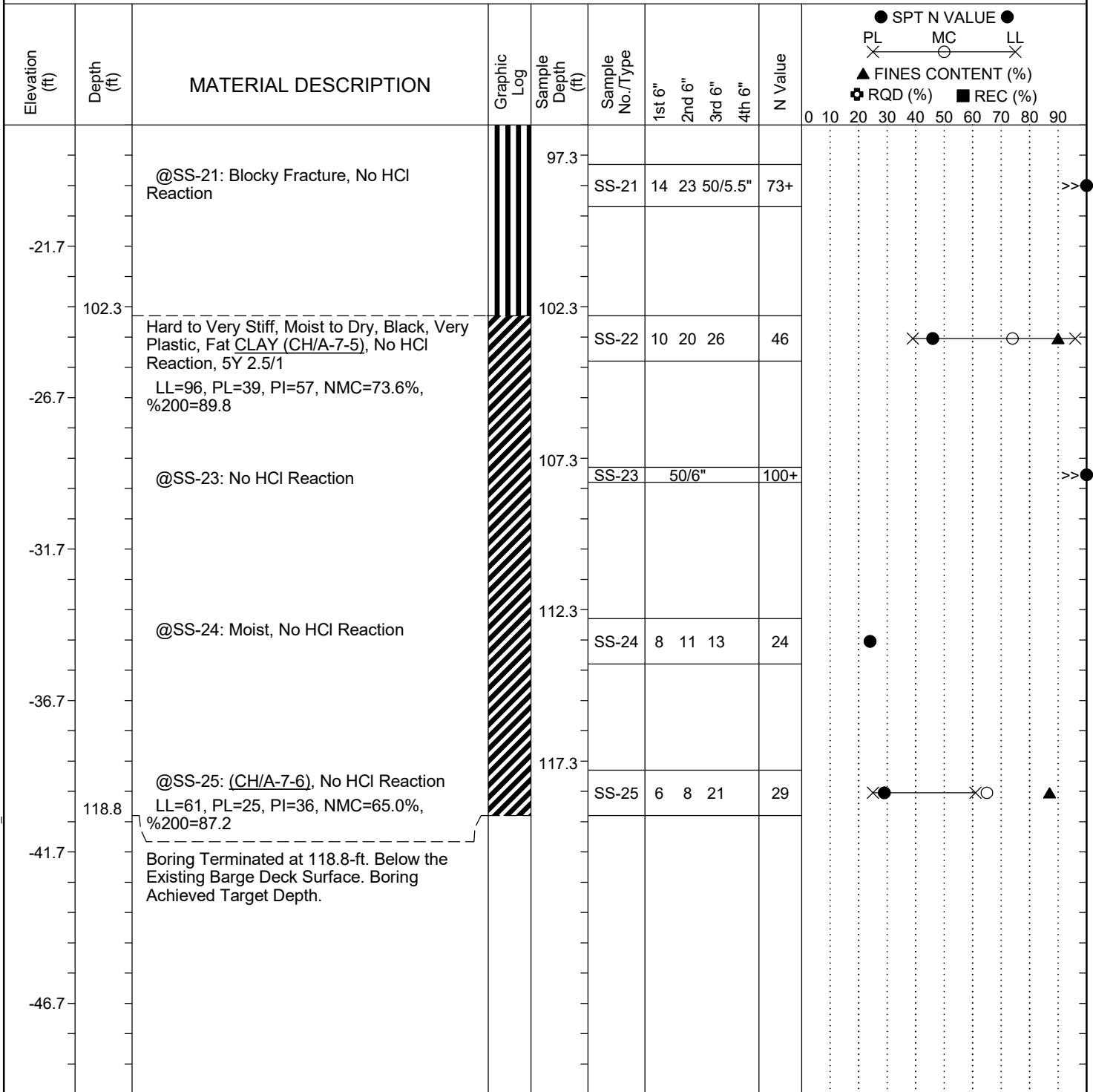
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-13
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5257+38	Offset: 14.7-R
Alignment: I-95 Med. CL	Date Started: 5/16/2023	Date Completed: 5/17/2023
Elev.: 78.3 ft	Latitude: 33.50302079	Longitude: -80.45562339
Total Depth: 118.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



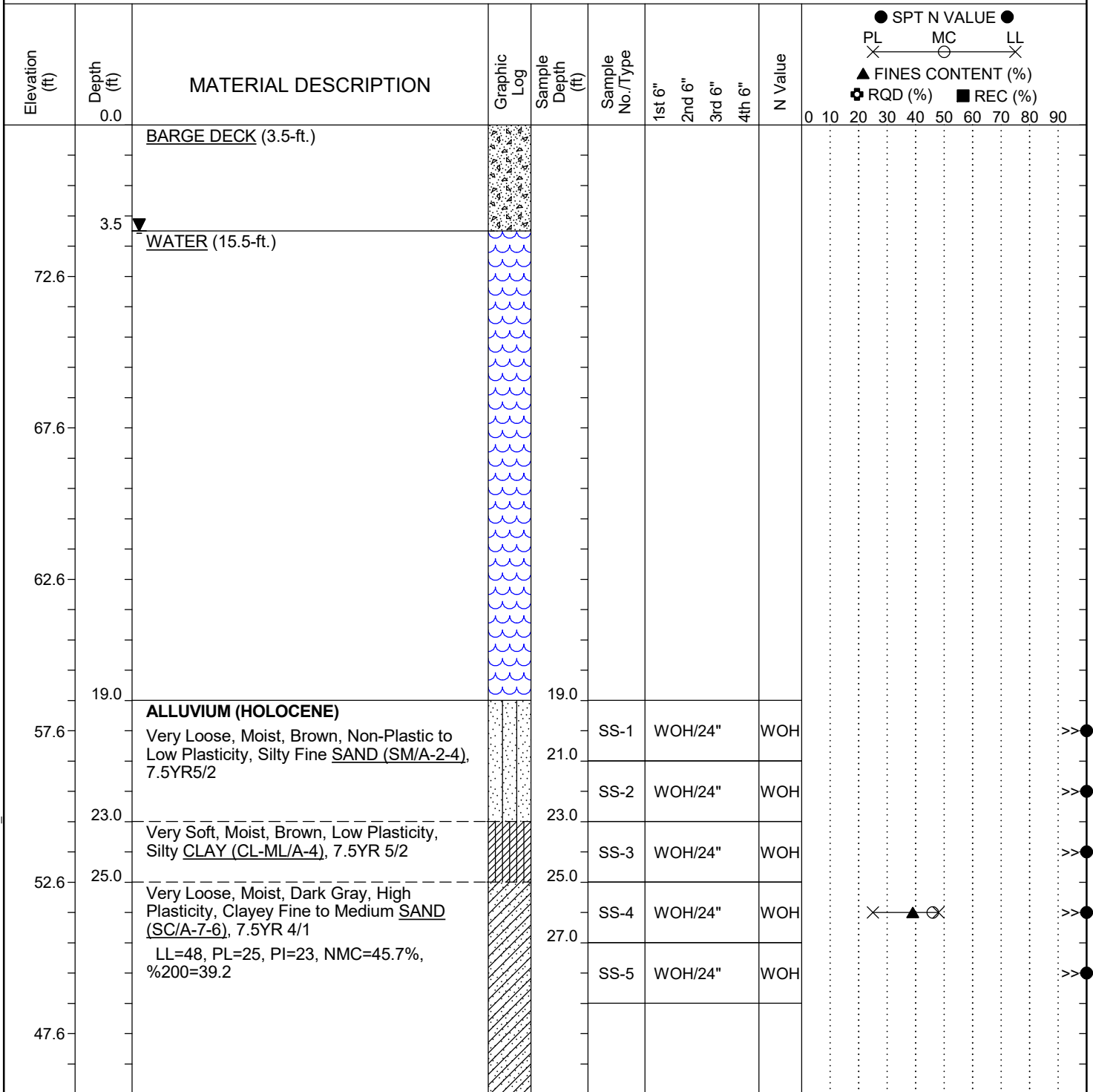
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-14
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5256+36	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/28/2023	Date Completed: 3/28/2023
Elev.: 77.6 ft	Latitude: 33.50300815	Longitude: -80.4551561
Total Depth: 119 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



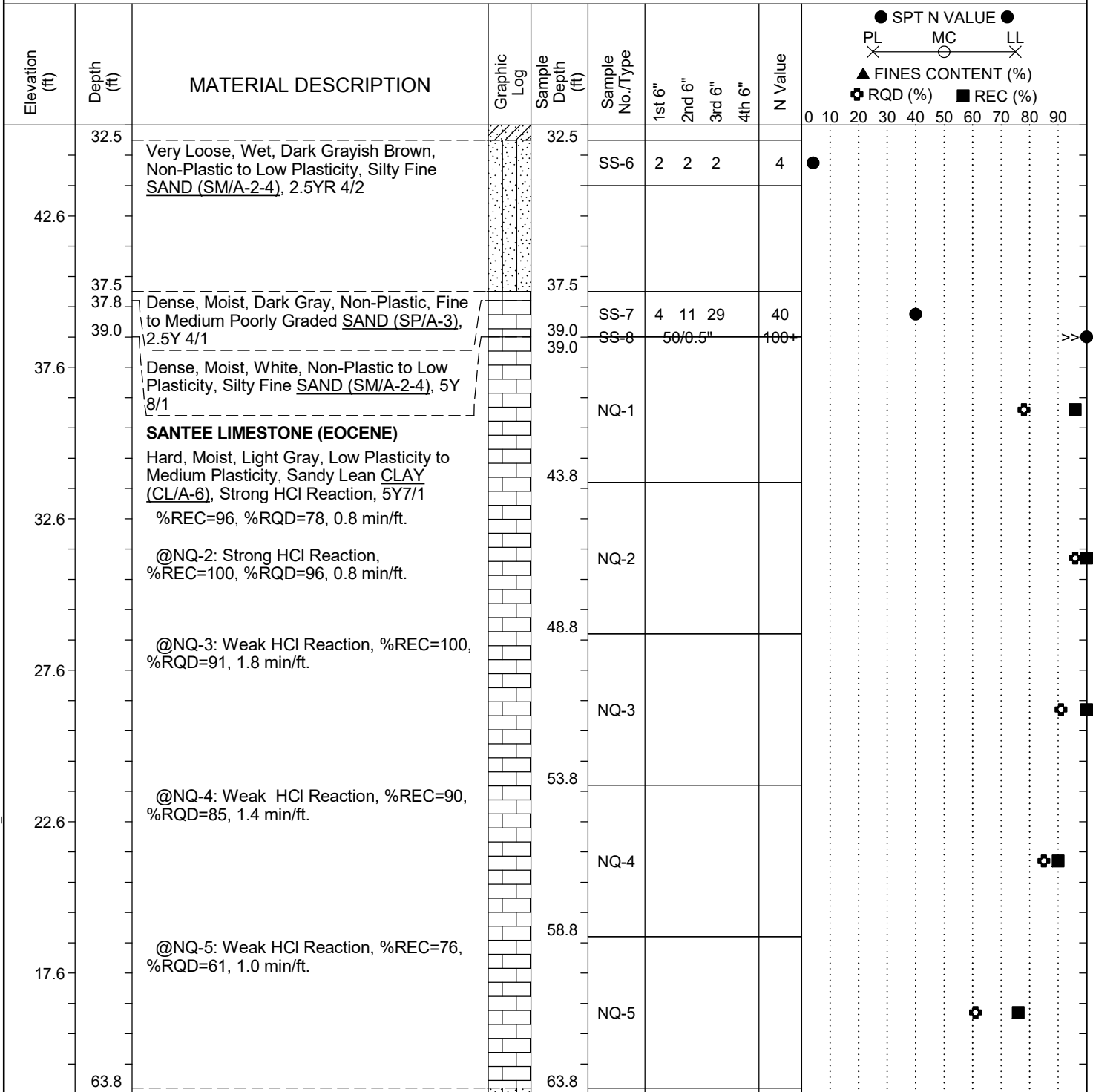
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-14
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5256+36	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/28/2023	Date Completed: 3/28/2023
Elev.: 77.6 ft	Latitude: 33.50300815	Longitude: -80.4551561
Total Depth: 119 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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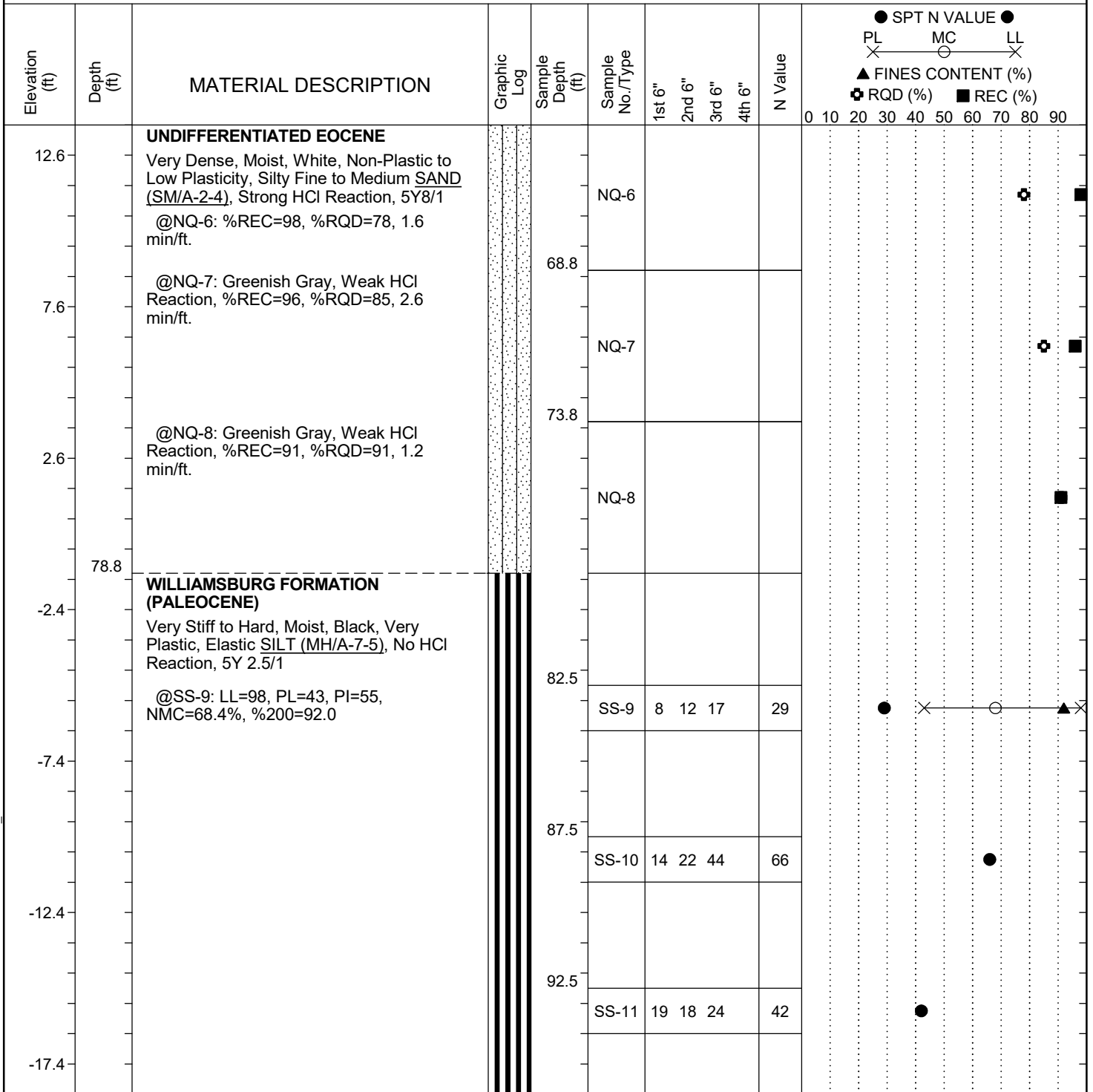
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-14
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5256+36	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/28/2023	Date Completed: 3/28/2023
Elev.: 77.6 ft	Latitude: 33.50300815	Longitude: -80.4551561
Total Depth: 119 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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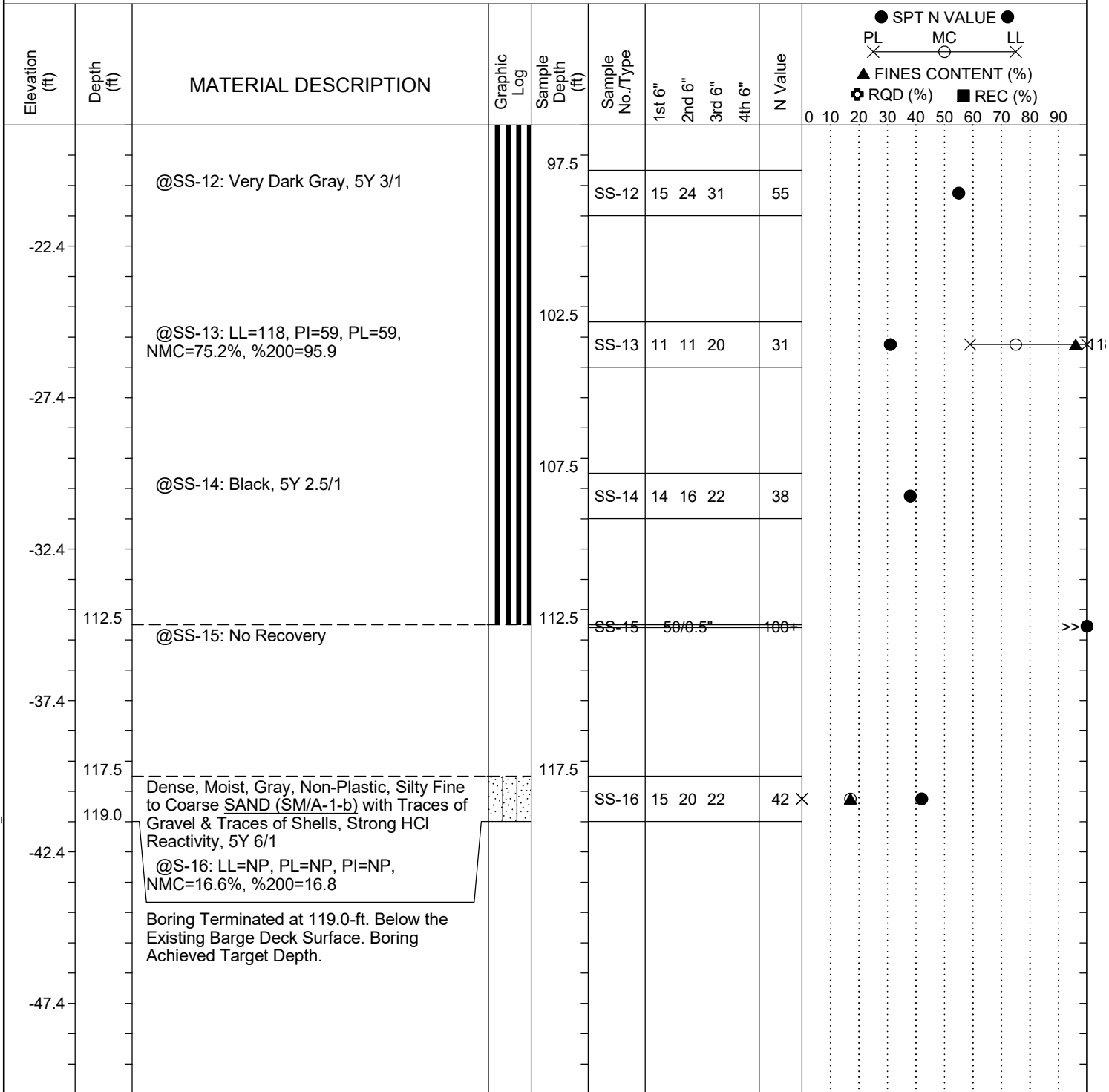
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-14
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5256+36	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/28/2023	Elev.: 77.6 ft
Latitude: 33.50300815	Longitude: -80.4551561	Date Completed: 3/28/2023
Total Depth: 119 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



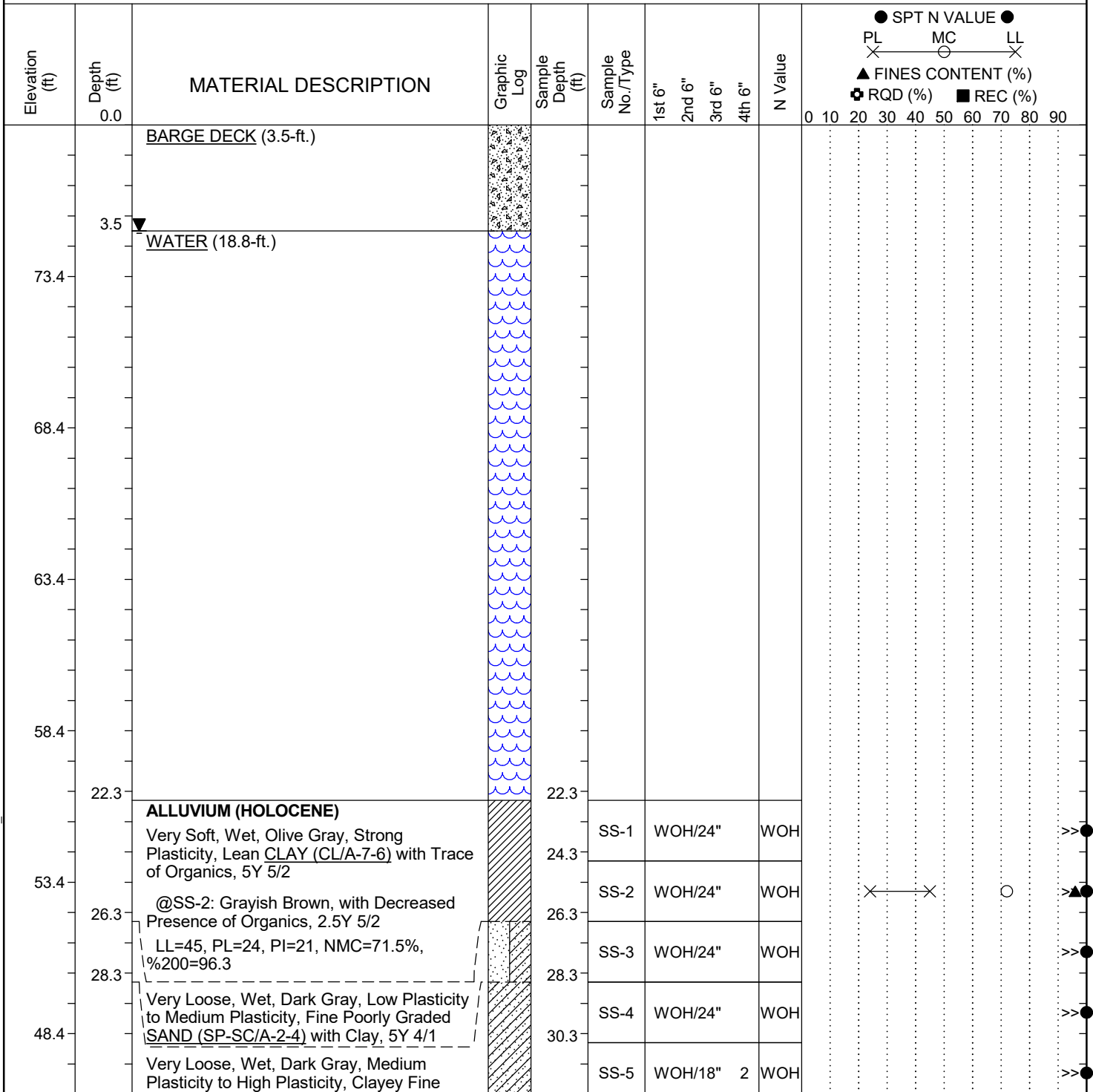
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766 Date Started: 5/11/2023
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft Date Completed: 5/16/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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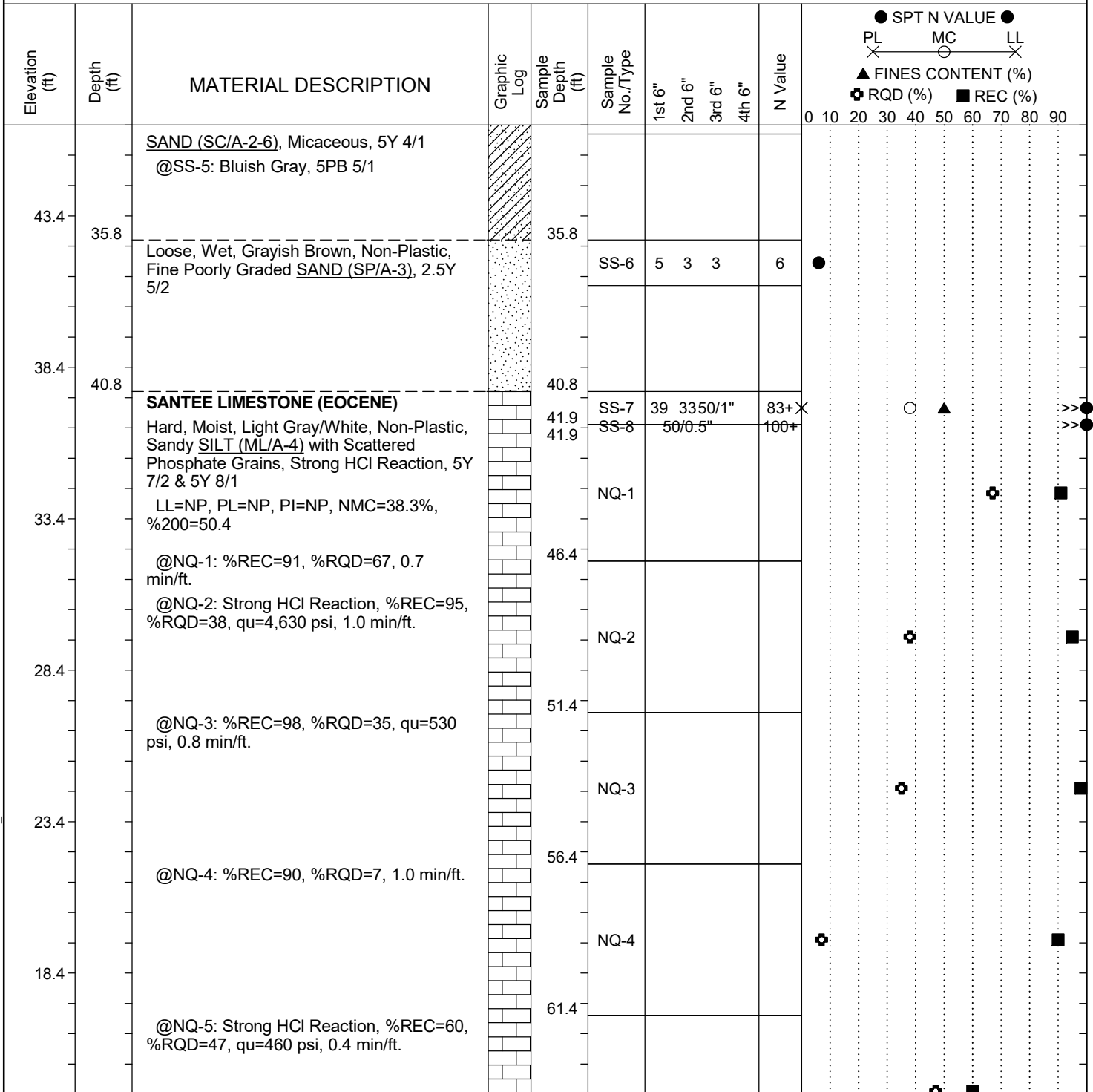
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766 Date Started: 5/11/2023
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft Date Completed: 5/16/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

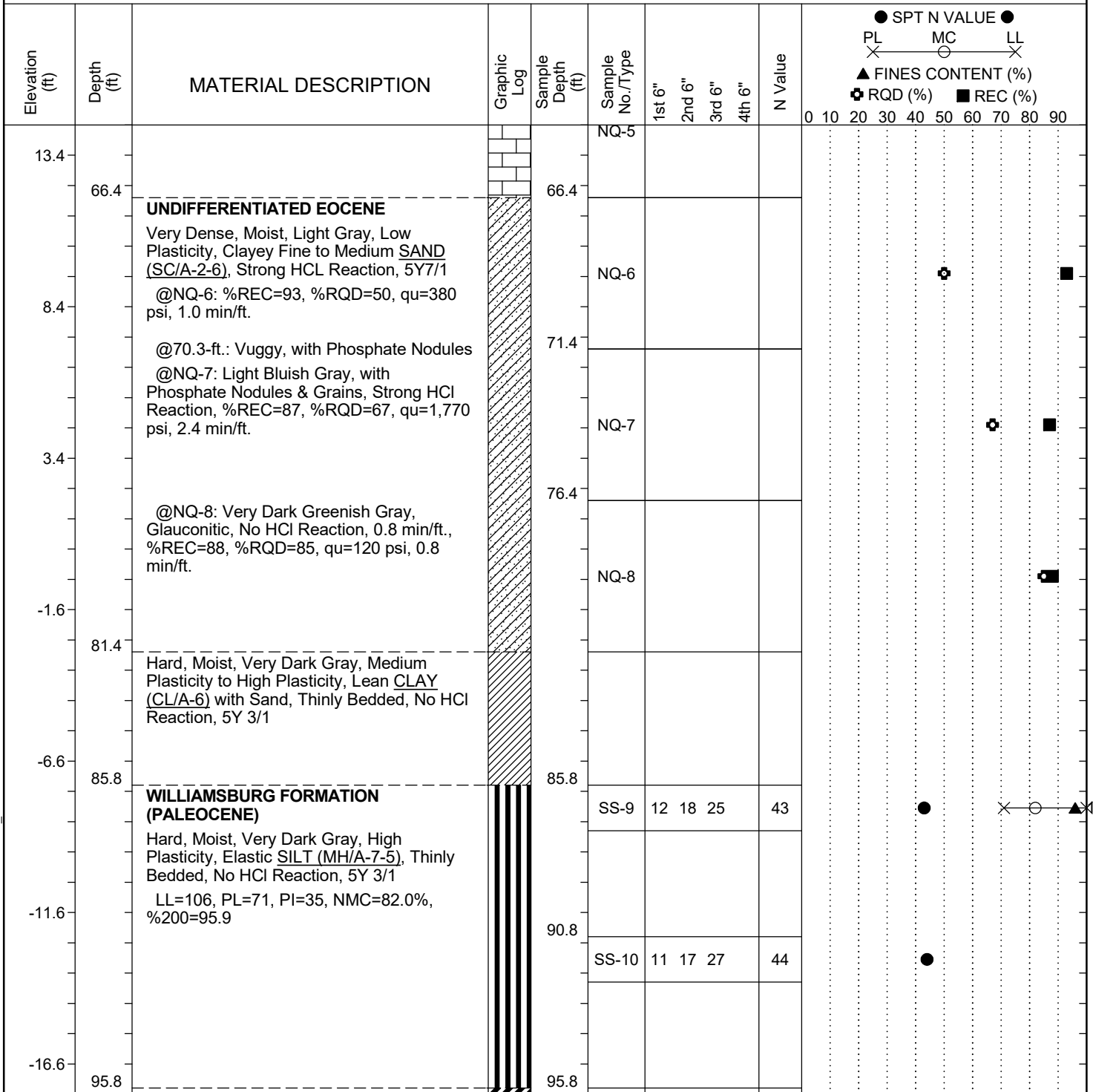
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R
Alignment: I-95 Med. CL	Date Started: 5/11/2023	Date Completed: 5/16/2023
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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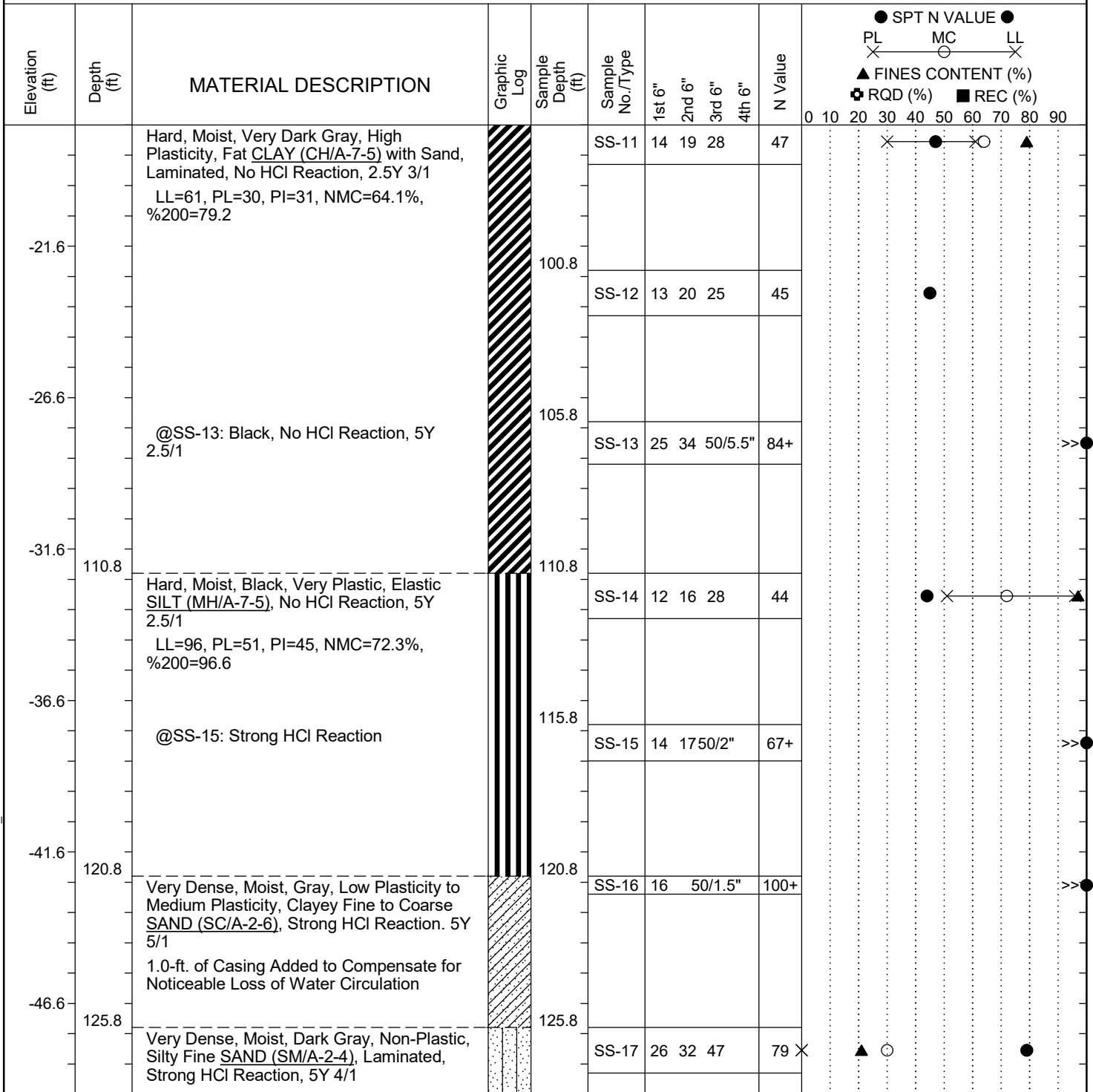
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766 Date Started: 5/11/2023
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft Date Completed: 5/16/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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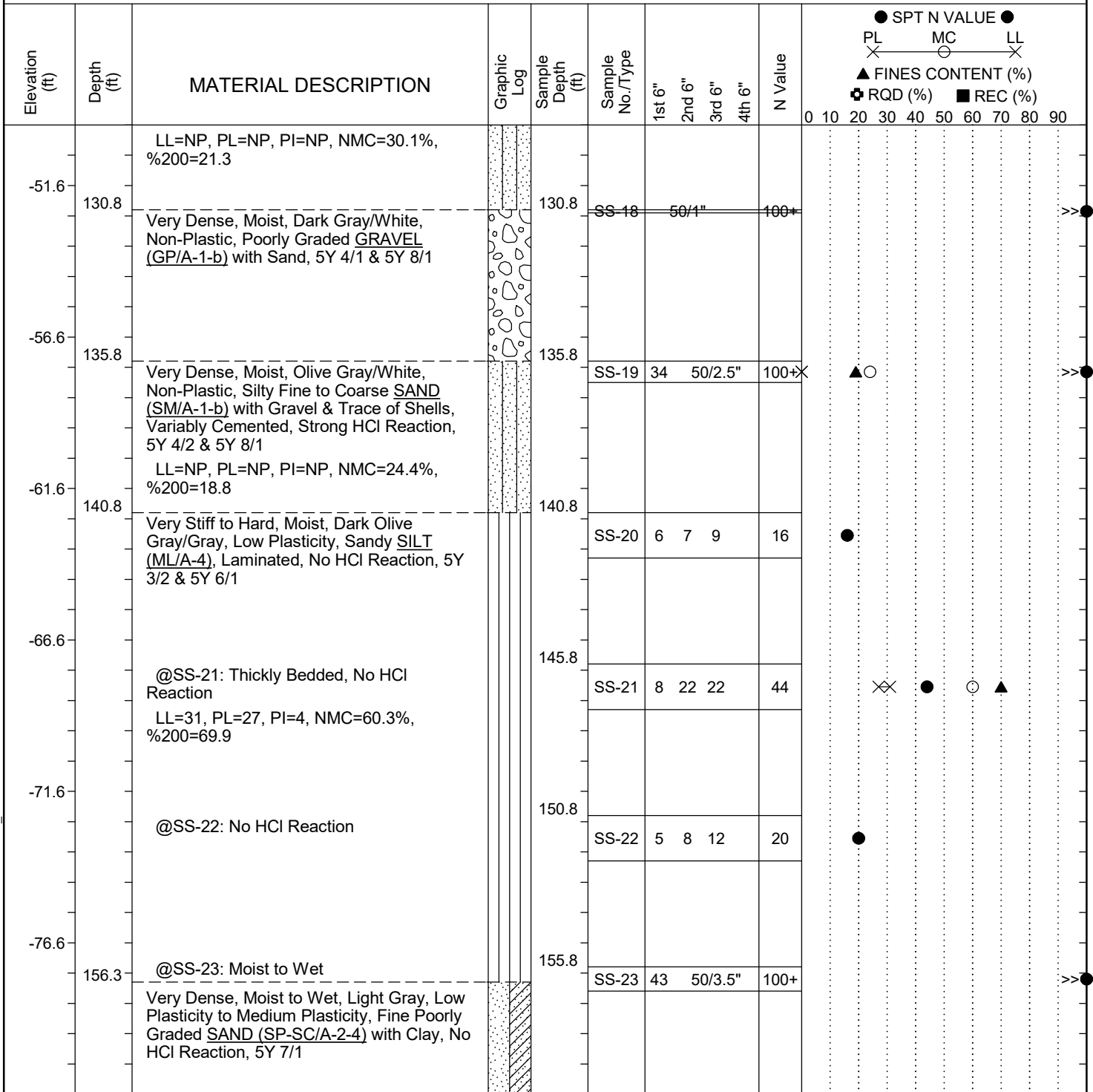
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R
Alignment: I-95 Med. CL	Date Started: 5/11/2023	Date Completed: 5/16/2023
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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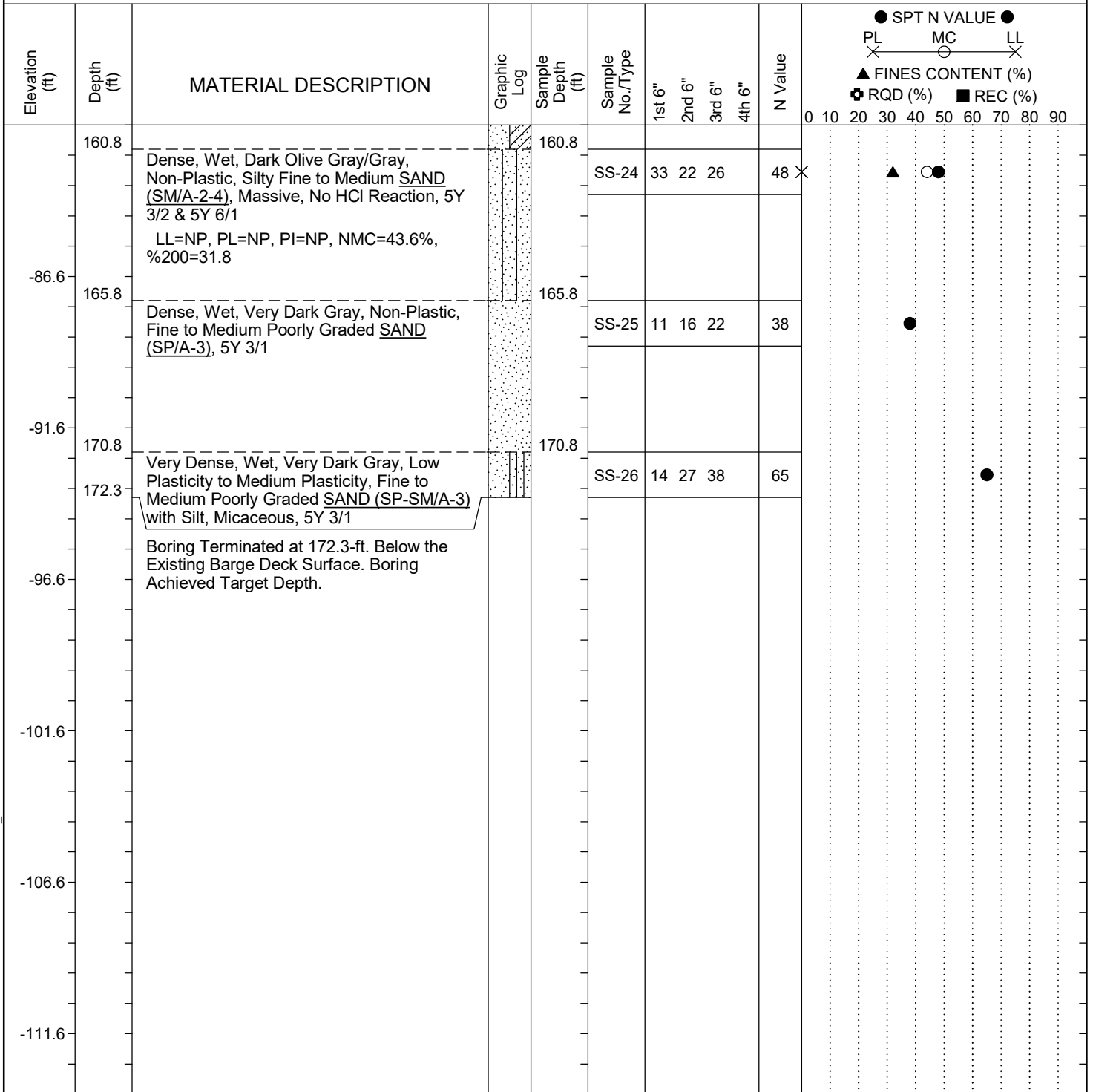
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5255+33	Offset: 14.3-R
Alignment: I-95 Med. CL	Date Started: 5/11/2023	
Elev.: 78.4 ft	Latitude: 33.50339892	Longitude: -80.45512766
Total Depth: 172.3 ft	Soil Depth: 110.5 ft	Core Depth: 39.5 ft
Date Completed: 5/16/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



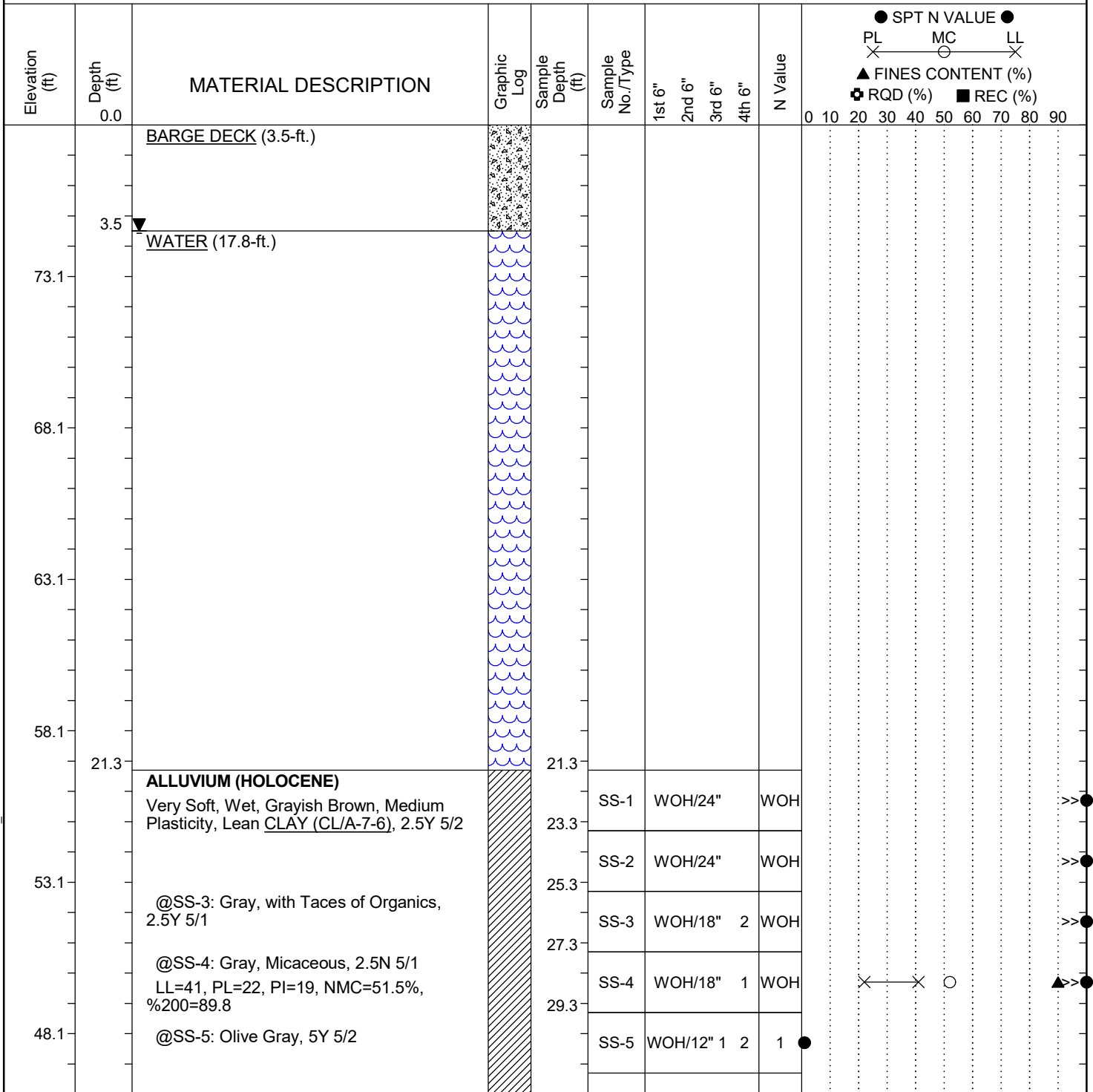
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-16
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5254+34	Offset: 85.8-L
Alignment: I-95 Med. CL	Date Started: 3/23/2023	Date Completed: 3/24/2023
Elev.: 78.1 ft	Latitude: 33.50338014	Longitude: -80.45466518
Total Depth: 120.2 ft	Soil Depth: 59.1 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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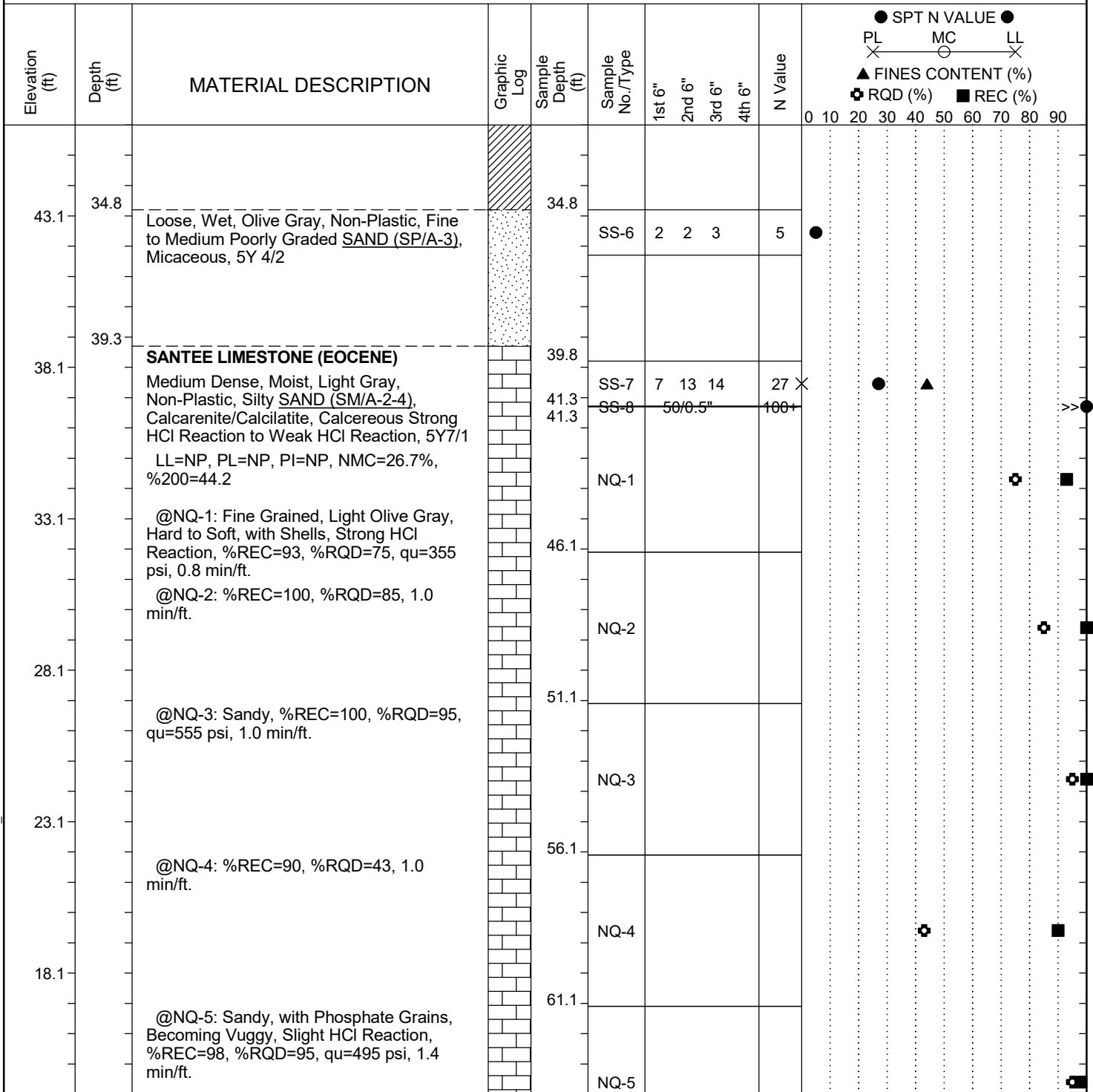
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-16
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5254+34	Offset: 85.8-L
Alignment: I-95 Med. CL	Date Started: 3/23/2023	Date Completed: 3/24/2023
Elev.: 78.1 ft	Latitude: 33.50338014	Longitude: -80.45466518
Total Depth: 120.2 ft	Soil Depth: 59.1 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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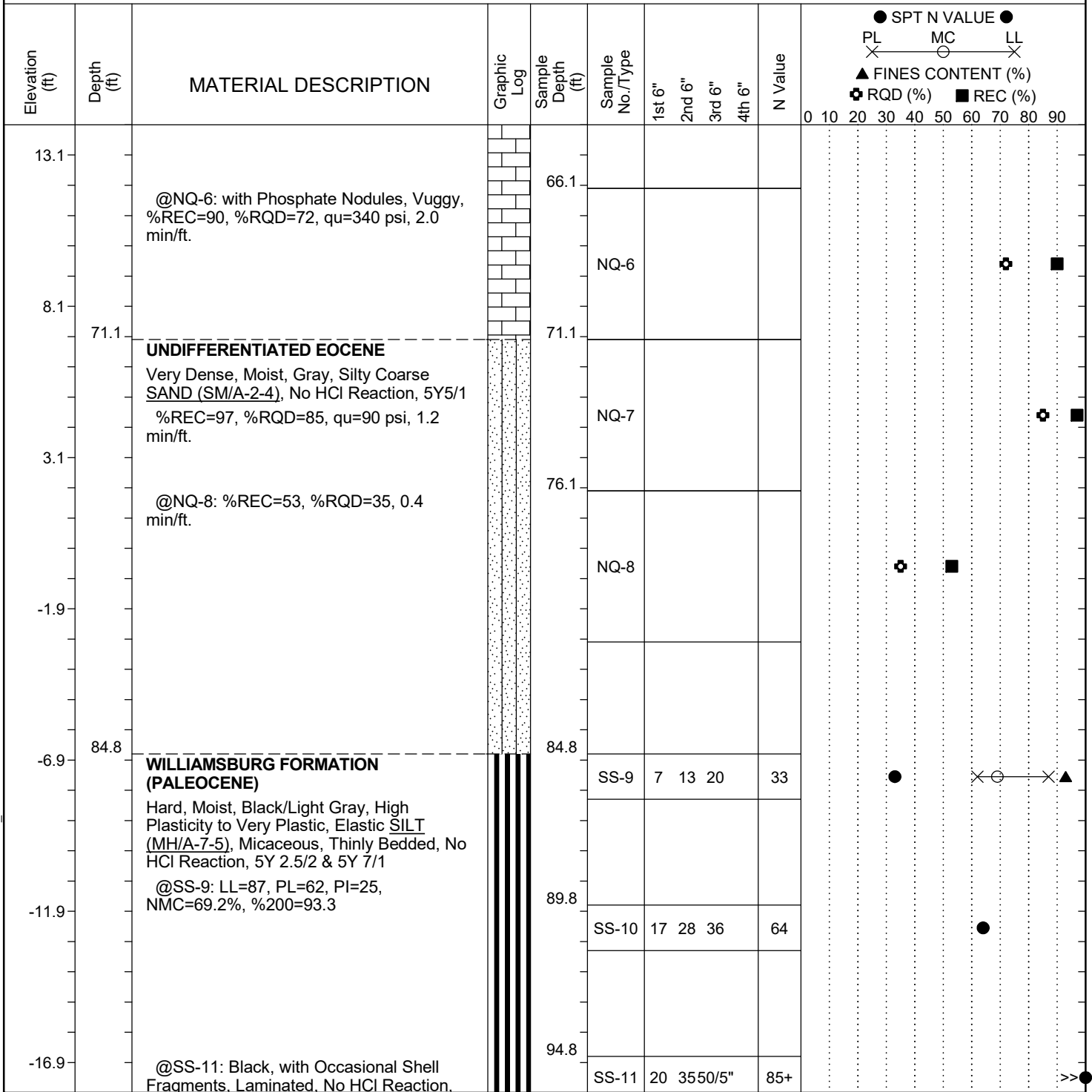
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-16
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5254+34	Offset: 85.8-L Alignment: I-95 Med. CL
Elev.: 78.1 ft	Latitude: 33.50338014	Longitude: -80.45466518 Date Started: 3/23/2023
Total Depth: 120.2 ft	Soil Depth: 59.1 ft	Core Depth: 39.8 ft Date Completed: 3/24/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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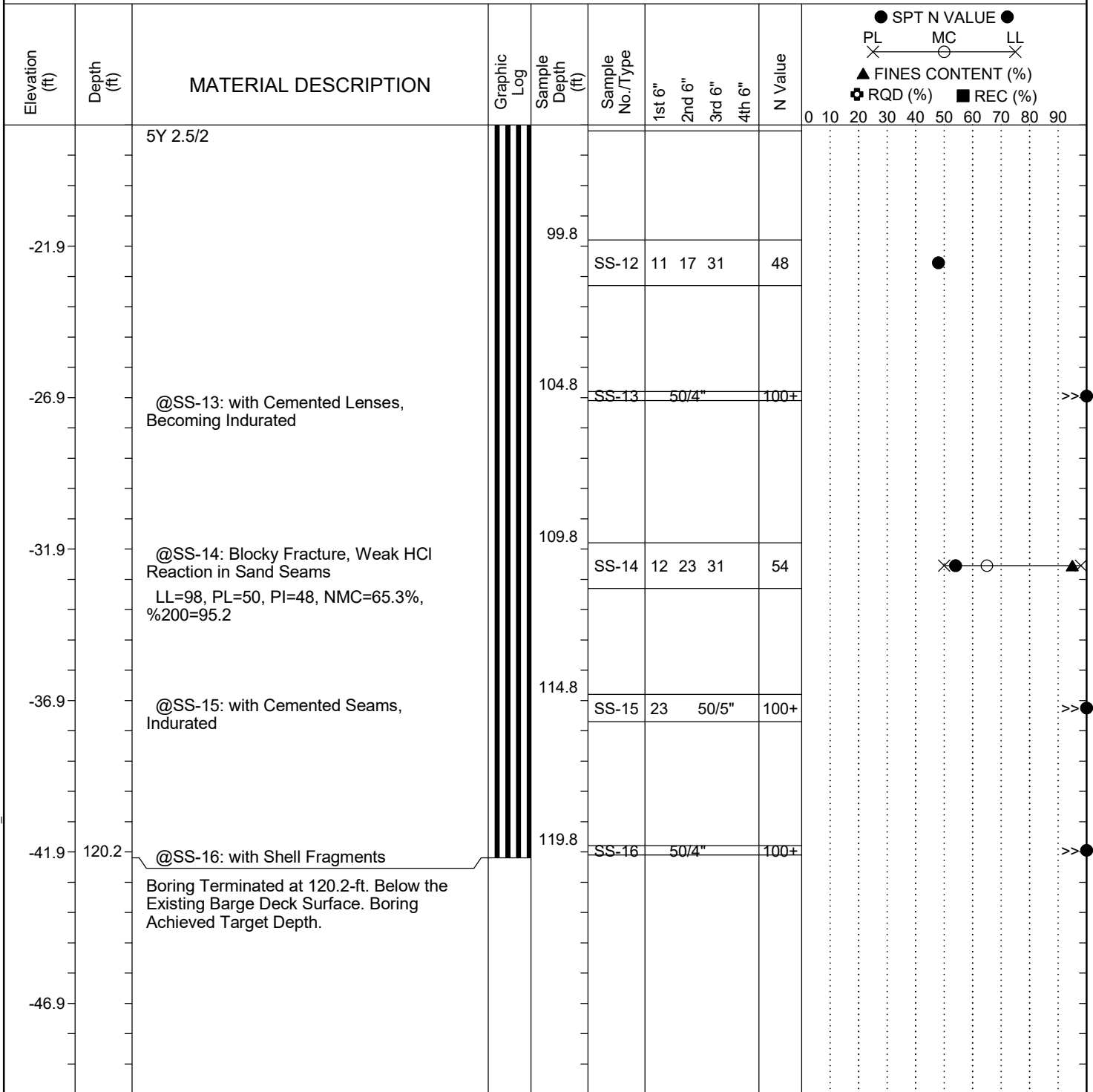
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-16
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5254+34	Offset: 85.8-L
Alignment: I-95 Med. CL	Date Started: 3/23/2023	Date Completed: 3/24/2023
Elev.: 78.1 ft	Latitude: 33.50338014	Longitude: -80.45466518
Total Depth: 120.2 ft	Soil Depth: 59.1 ft	Core Depth: 39.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



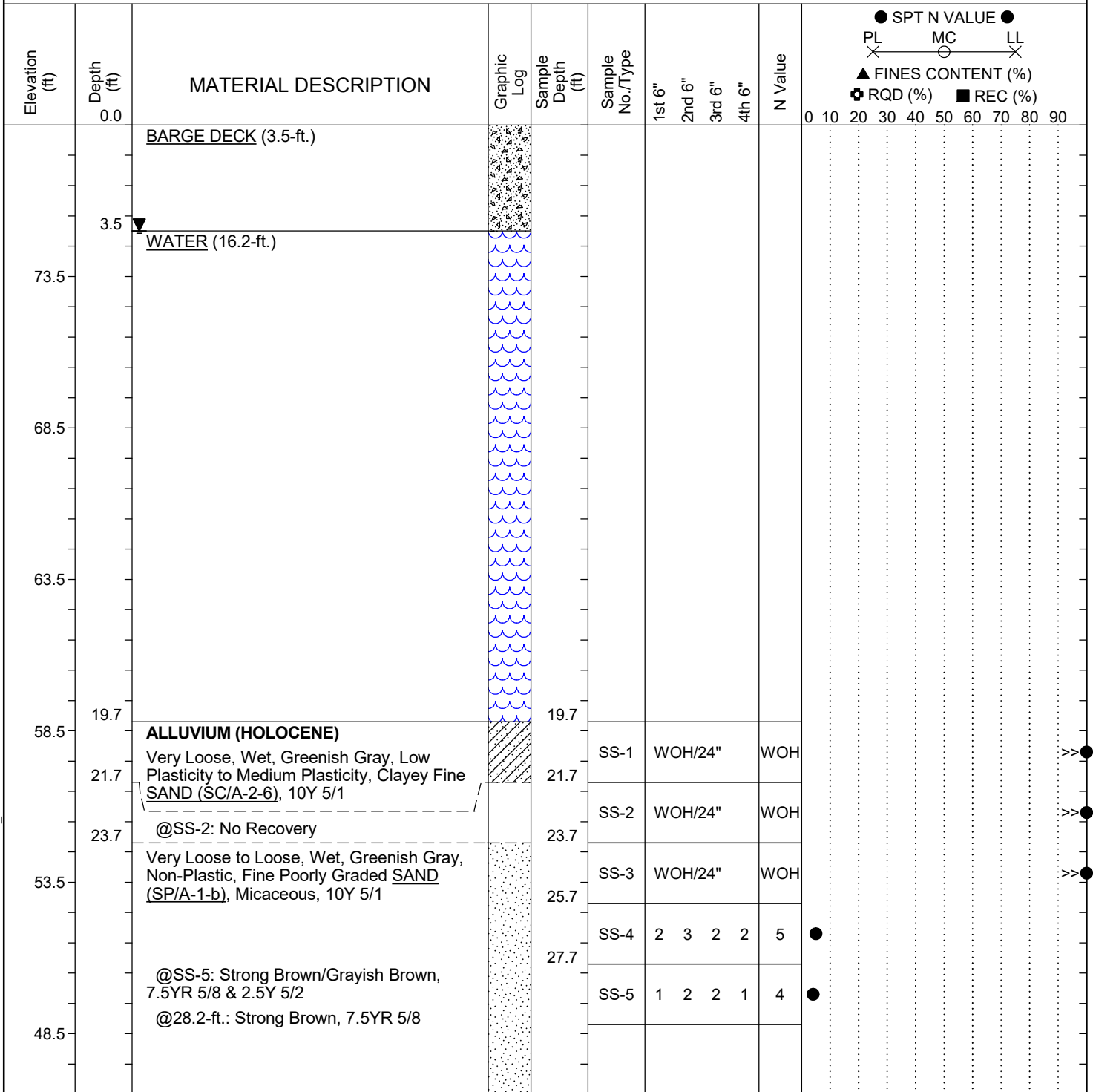
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-17
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5253+30	Offset: 15.7-R
Alignment: I-95 Med. CL	Date Started: 5/10/2023	Date Completed: 5/11/2023
Elev.: 78.5 ft	Latitude: 33.50377822	Longitude: -80.45463862
Total Depth: 118.5 ft	Soil Depth: 98.8 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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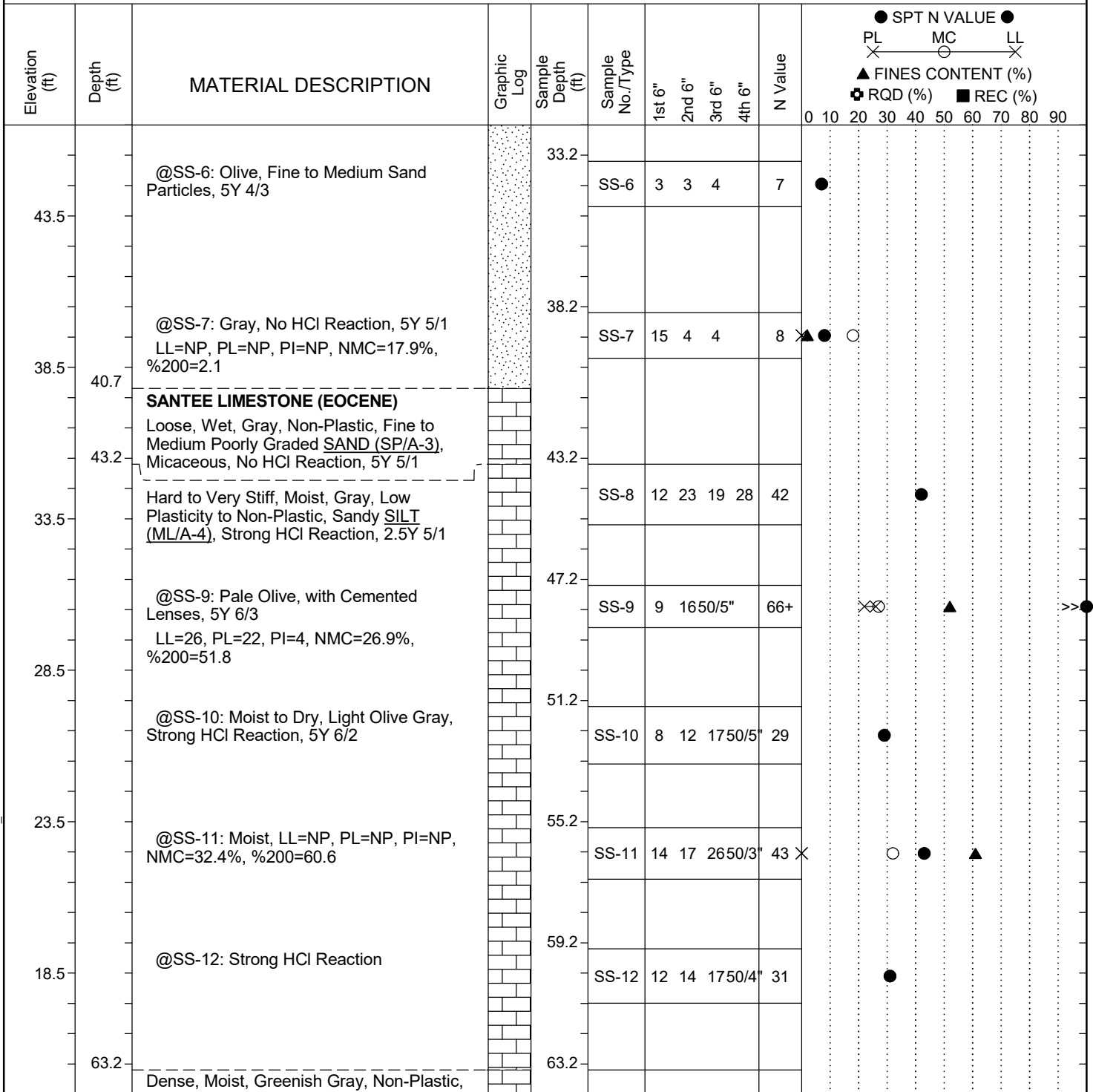
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-17
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5253+30	Offset: 15.7-R
Alignment: I-95 Med. CL	Date Started: 5/10/2023	Date Completed: 5/11/2023
Elev.: 78.5 ft	Latitude: 33.50377822	Longitude: -80.45463862
Total Depth: 118.5 ft	Soil Depth: 98.8 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



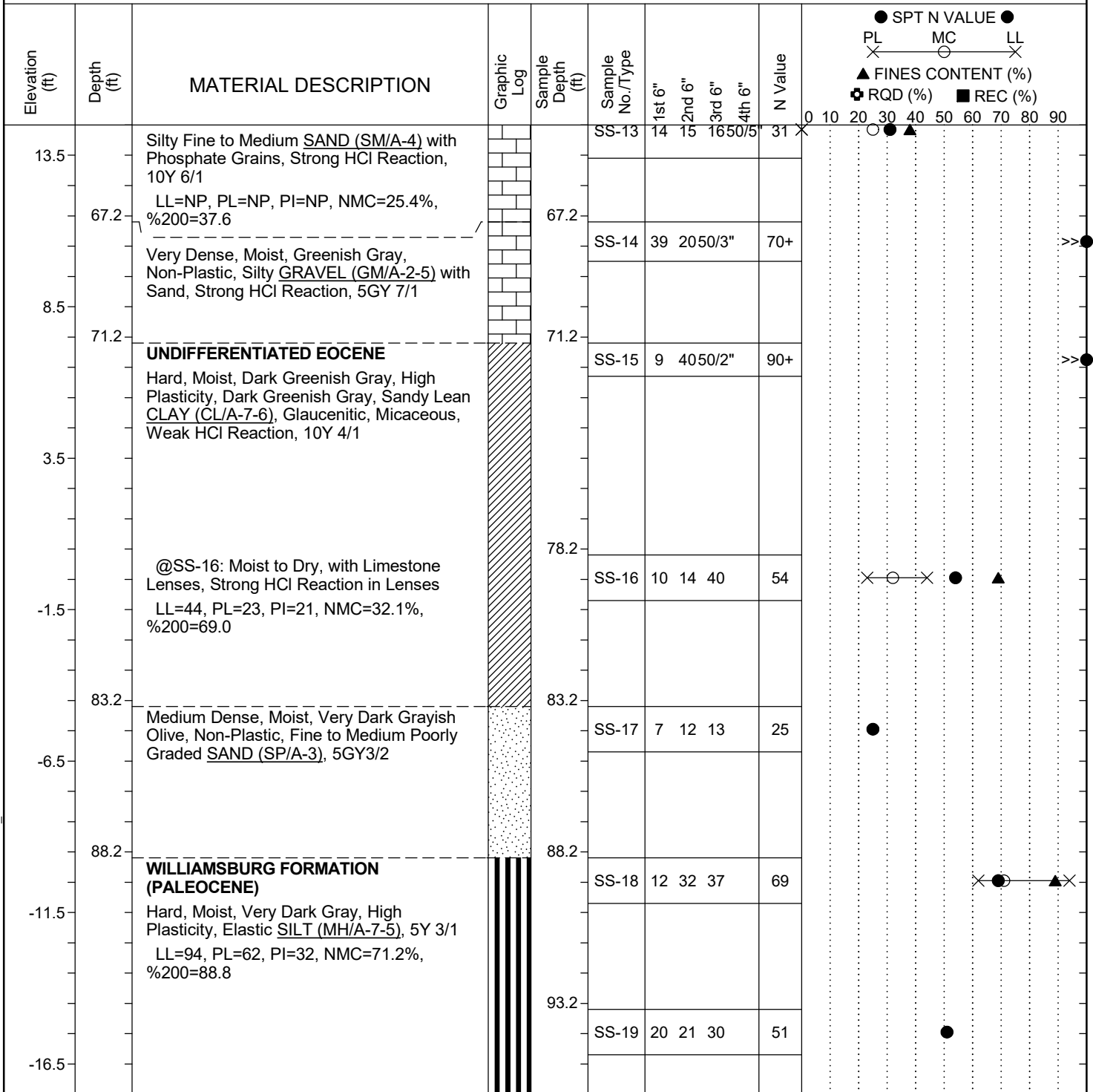
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-17
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5253+30	Offset: 15.7-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50377822	Longitude: -80.45463862 Date Started: 5/10/2023
Total Depth: 118.5 ft	Soil Depth: 98.8 ft	Core Depth: N/A ft Date Completed: 5/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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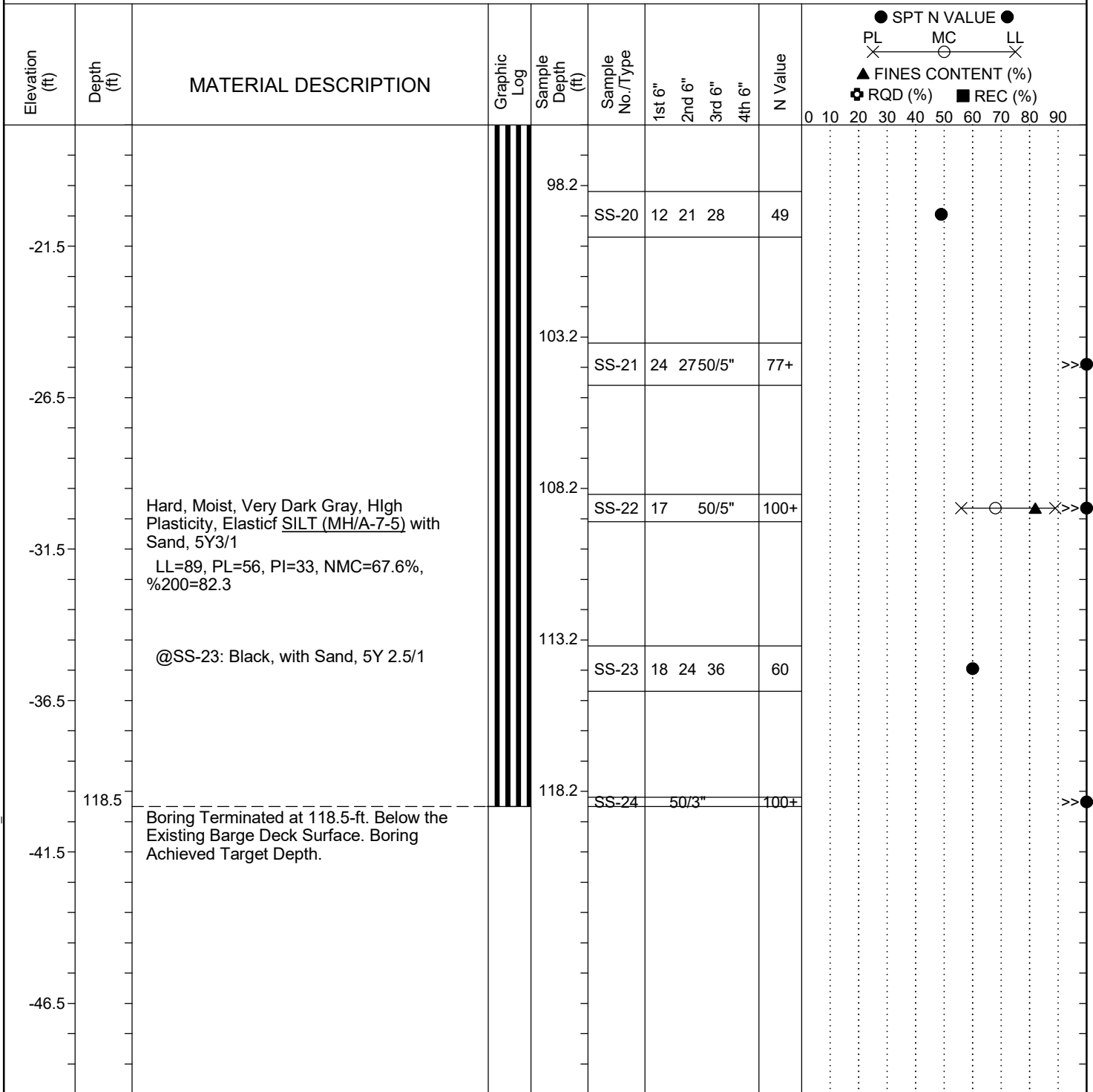
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/14/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-17
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5253+30	Offset: 15.7-R
Alignment: I-95 Med. CL	Date Started: 5/10/2023	Date Completed: 5/11/2023
Elev.: 78.5 ft	Latitude: 33.50377822	Longitude: -80.45463862
Total Depth: 118.5 ft	Soil Depth: 98.8 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



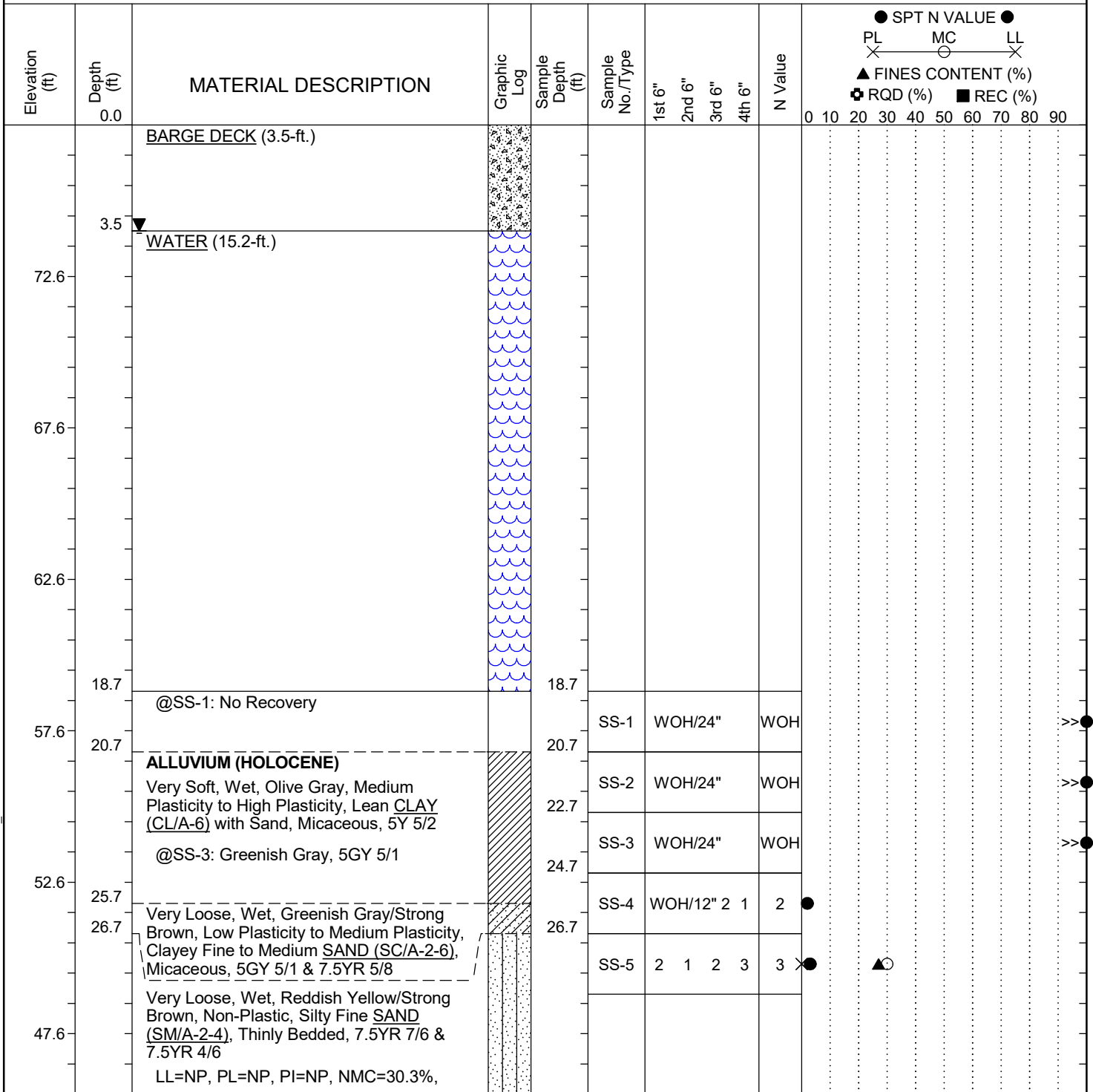
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/14/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-18
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5252+34	Offset: 83.9-L
Alignment: I-95 Med. CL	Date Started: 3/22/2023	Date Completed: 3/23/2023
Elev.: 77.6 ft	Latitude: 33.50375413	Longitude: -80.45418586
Total Depth: 118.7 ft	Soil Depth: 65 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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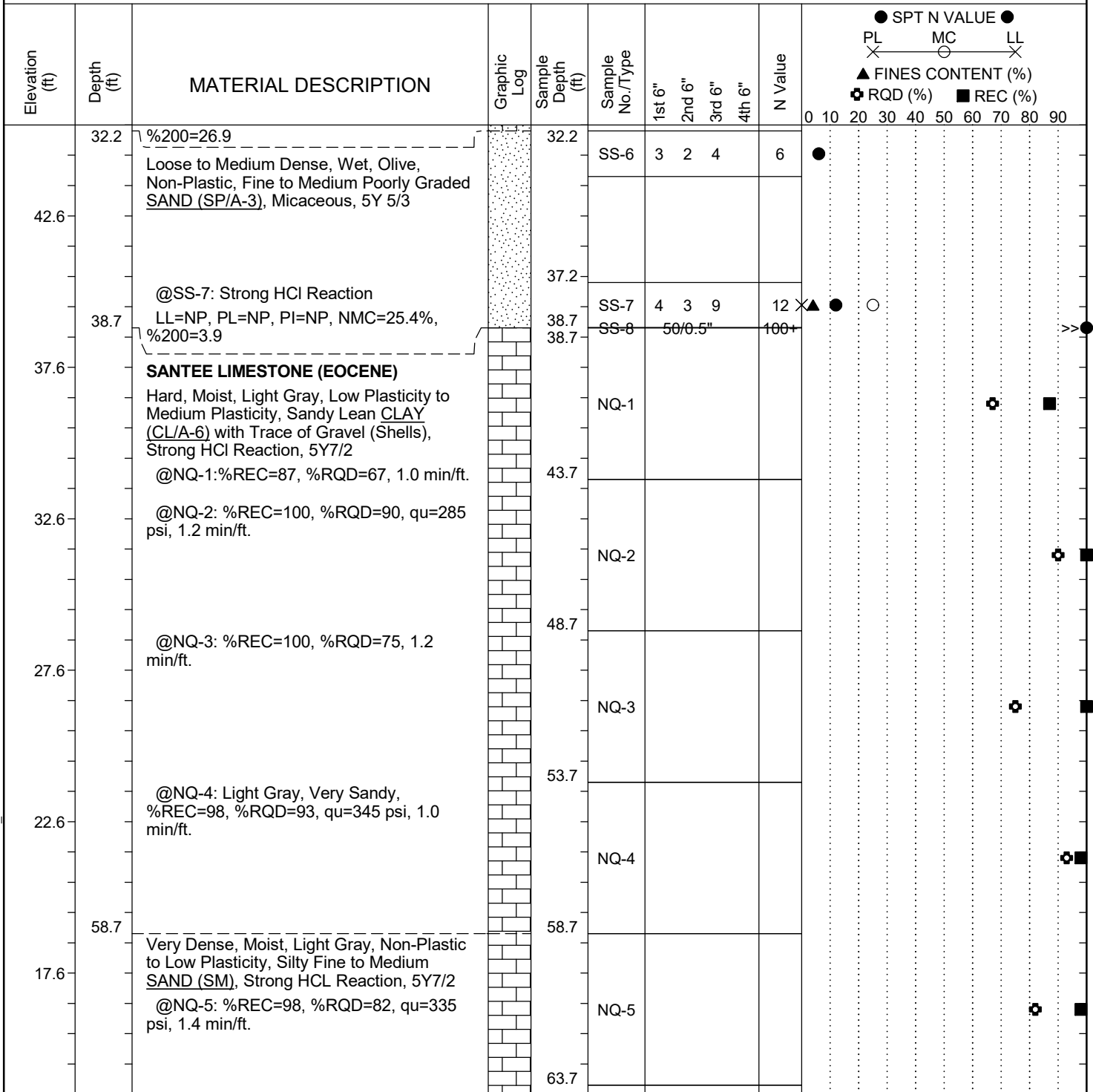
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-18
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5252+34	Offset: 83.9-L
Alignment: I-95 Med. CL	Date Started: 3/22/2023	Date Completed: 3/23/2023
Elev.: 77.6 ft	Latitude: 33.50375413	Longitude: -80.45418586
Total Depth: 118.7 ft	Soil Depth: 65 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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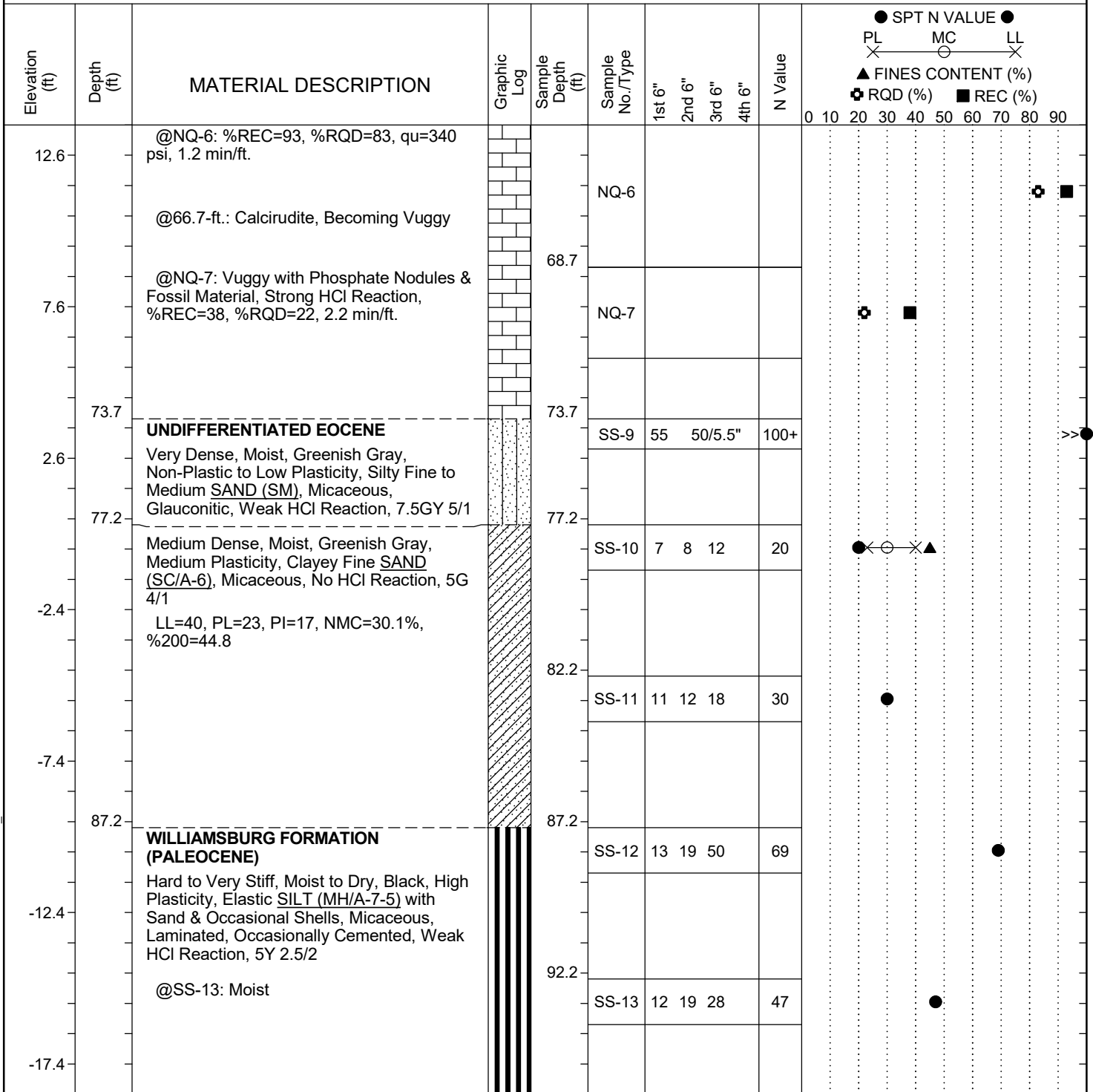
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-18
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5252+34	Offset: 83.9-L
Alignment: I-95 Med. CL	Date Started: 3/22/2023	Date Completed: 3/23/2023
Elev.: 77.6 ft	Latitude: 33.50375413	Longitude: -80.45418586
Total Depth: 118.7 ft	Soil Depth: 65 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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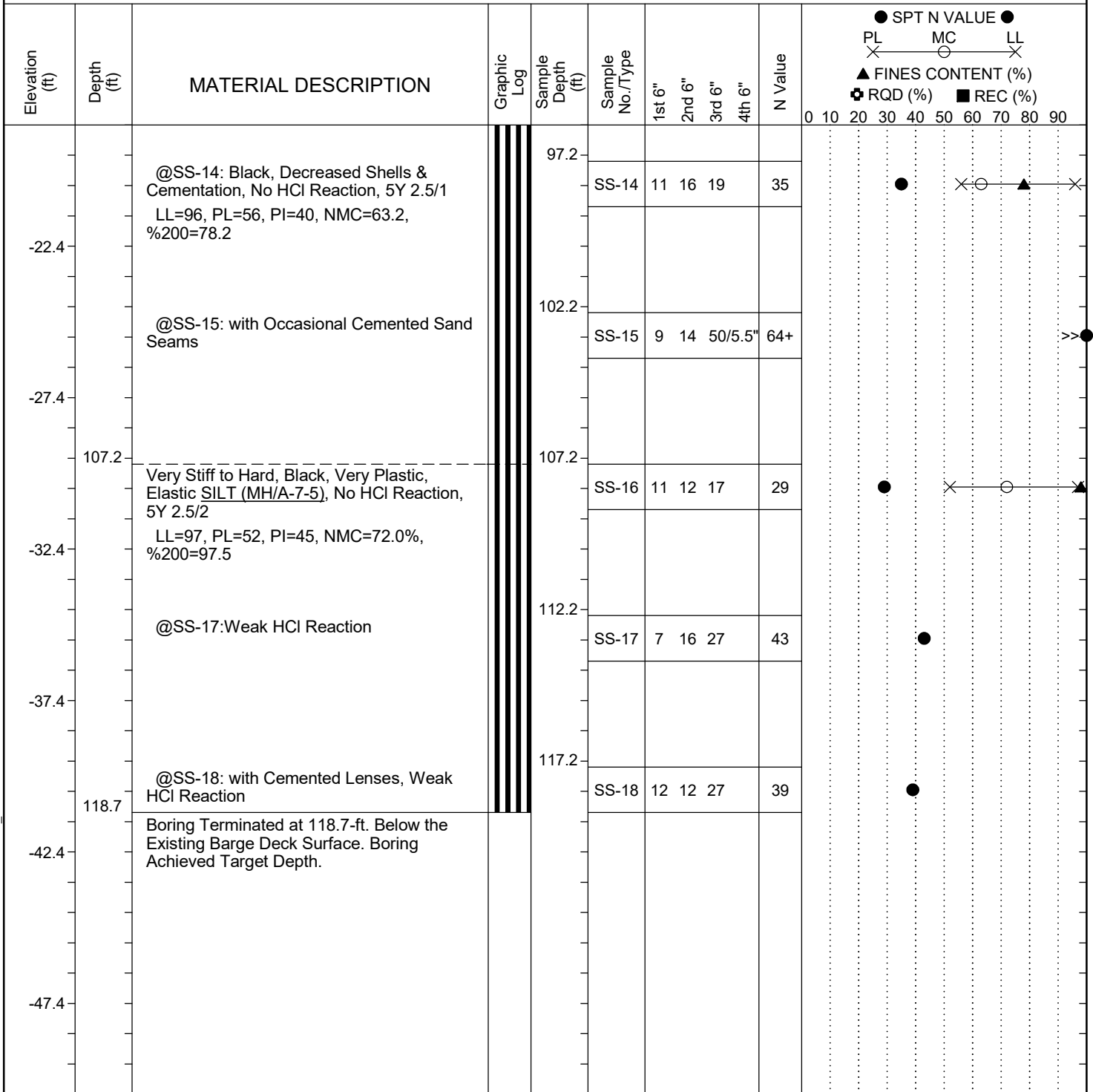
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-18
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5252+34	Offset: 83.9-L
Alignment: I-95 Med. CL	Date Started: 3/22/2023	Date Completed: 3/23/2023
Elev.: 77.6 ft	Latitude: 33.50375413	Longitude: -80.45418586
Total Depth: 118.7 ft	Soil Depth: 65 ft	Core Depth: 35 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



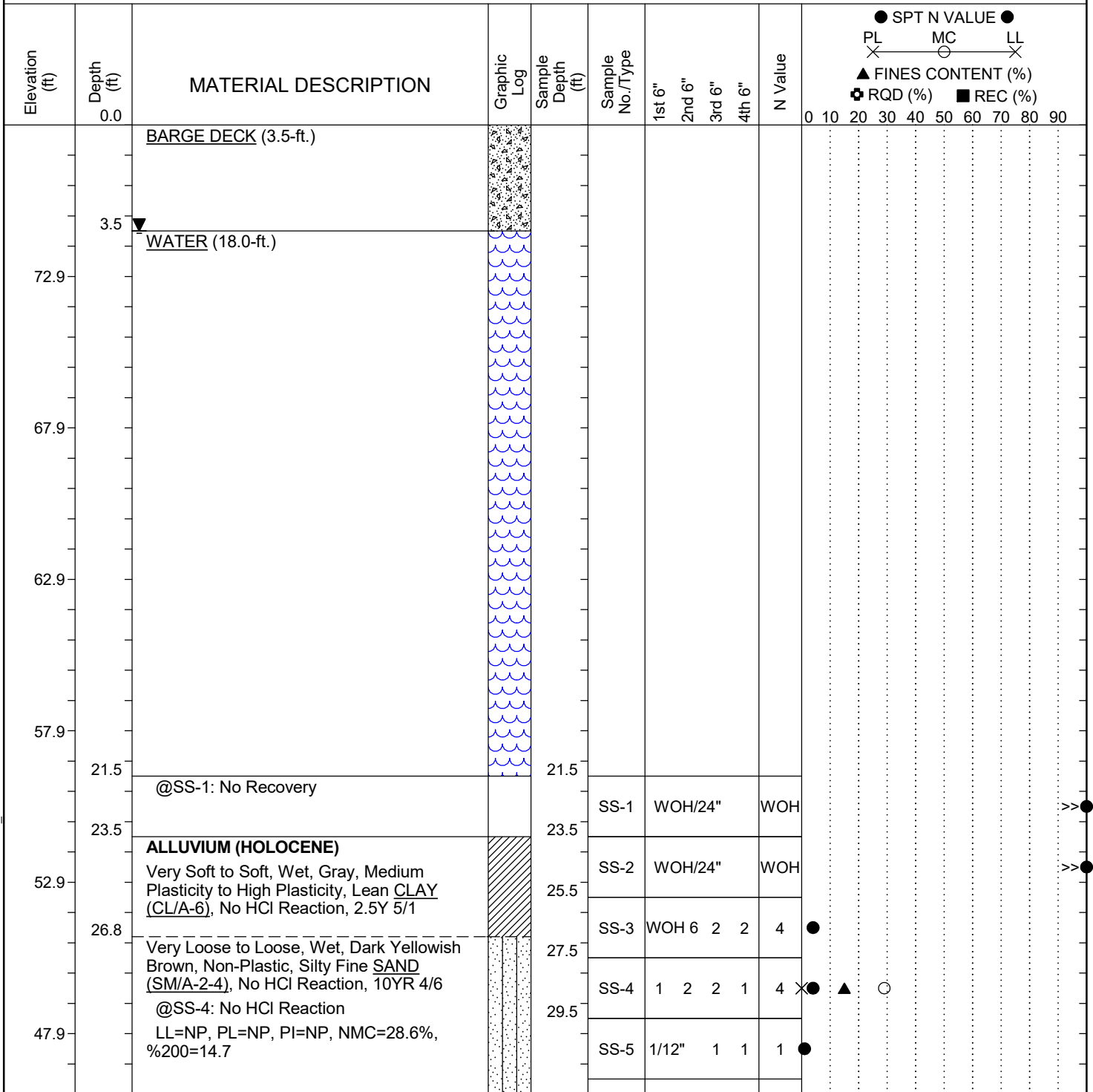
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-19
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5251+38	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50412639	Longitude: -80.45416326 Date Started: 5/9/2023
Total Depth: 121.5 ft	Soil Depth: 65.3 ft	Core Depth: 34.7 ft Date Completed: 5/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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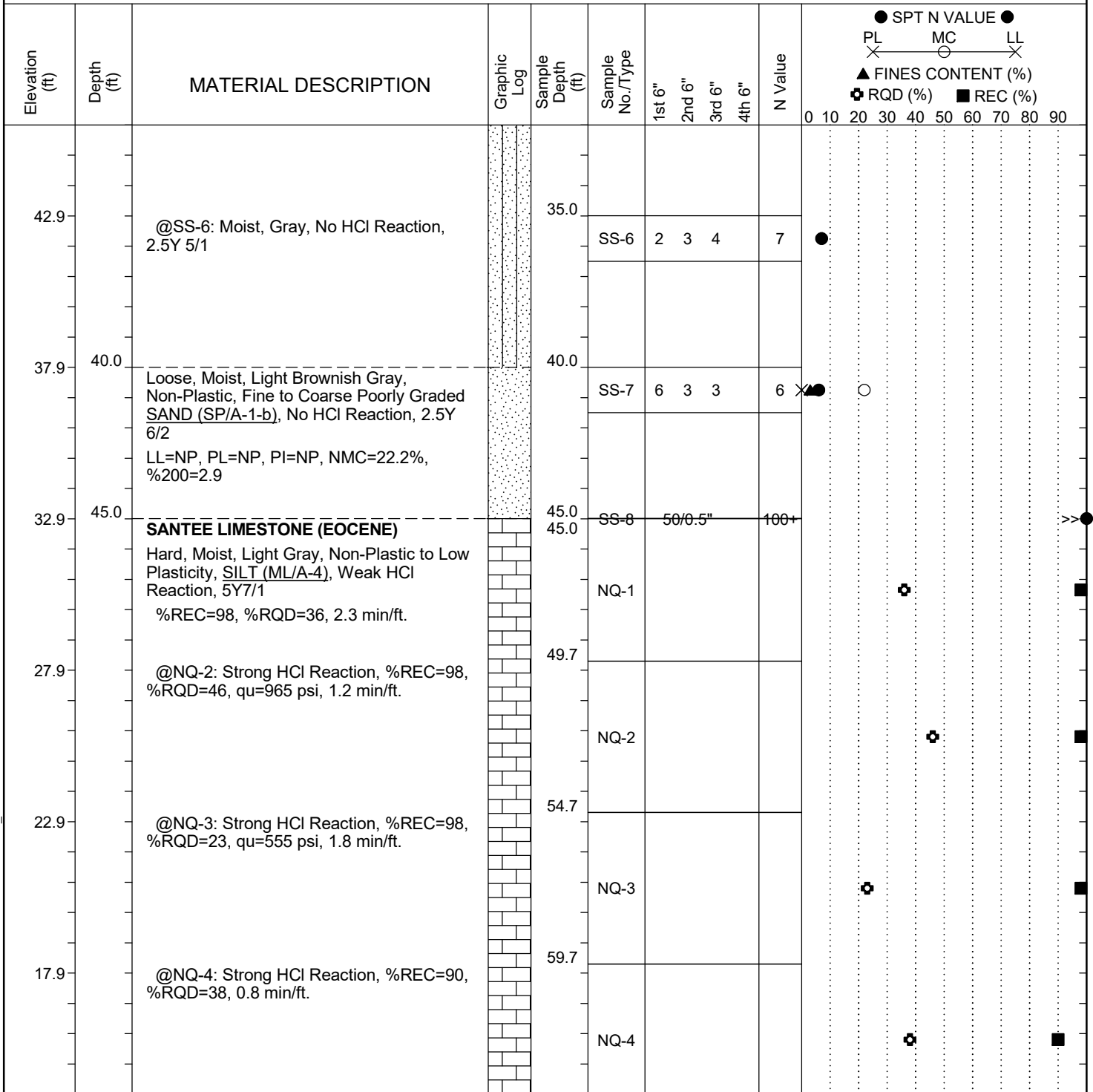
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SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-19
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5251+38	Offset: 11.5-R
Alignment: I-95 Med. CL	Date Started: 5/9/2023	
Elev.: 77.9 ft	Latitude: 33.50412639	Longitude: -80.45416326
Total Depth: 121.5 ft	Soil Depth: 65.3 ft	Core Depth: 34.7 ft
Date Completed: 5/10/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



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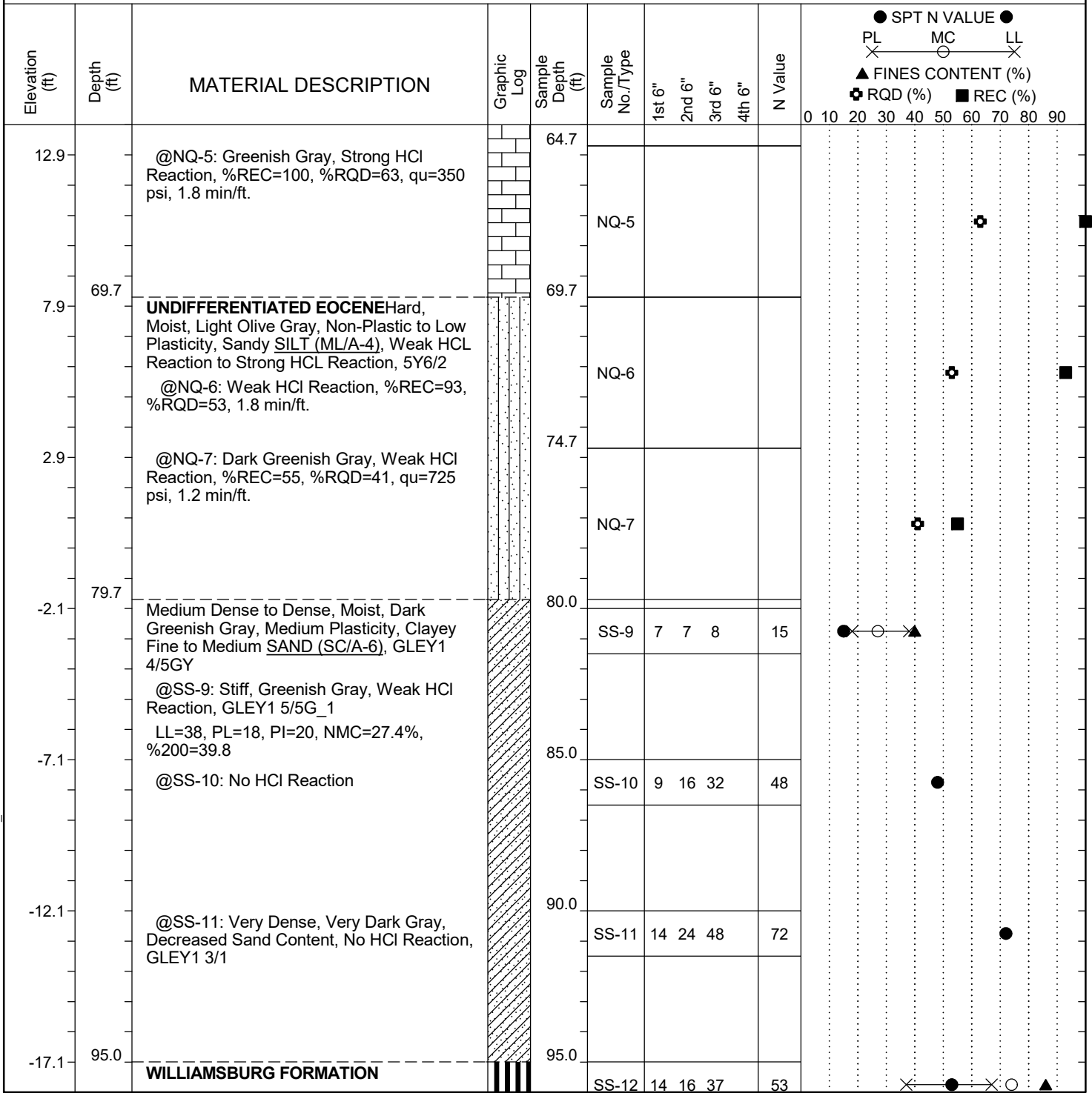
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-19
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5251+38	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50412639	Longitude: -80.45416326 Date Started: 5/9/2023
Total Depth: 121.5 ft	Soil Depth: 65.3 ft	Core Depth: 34.7 ft Date Completed: 5/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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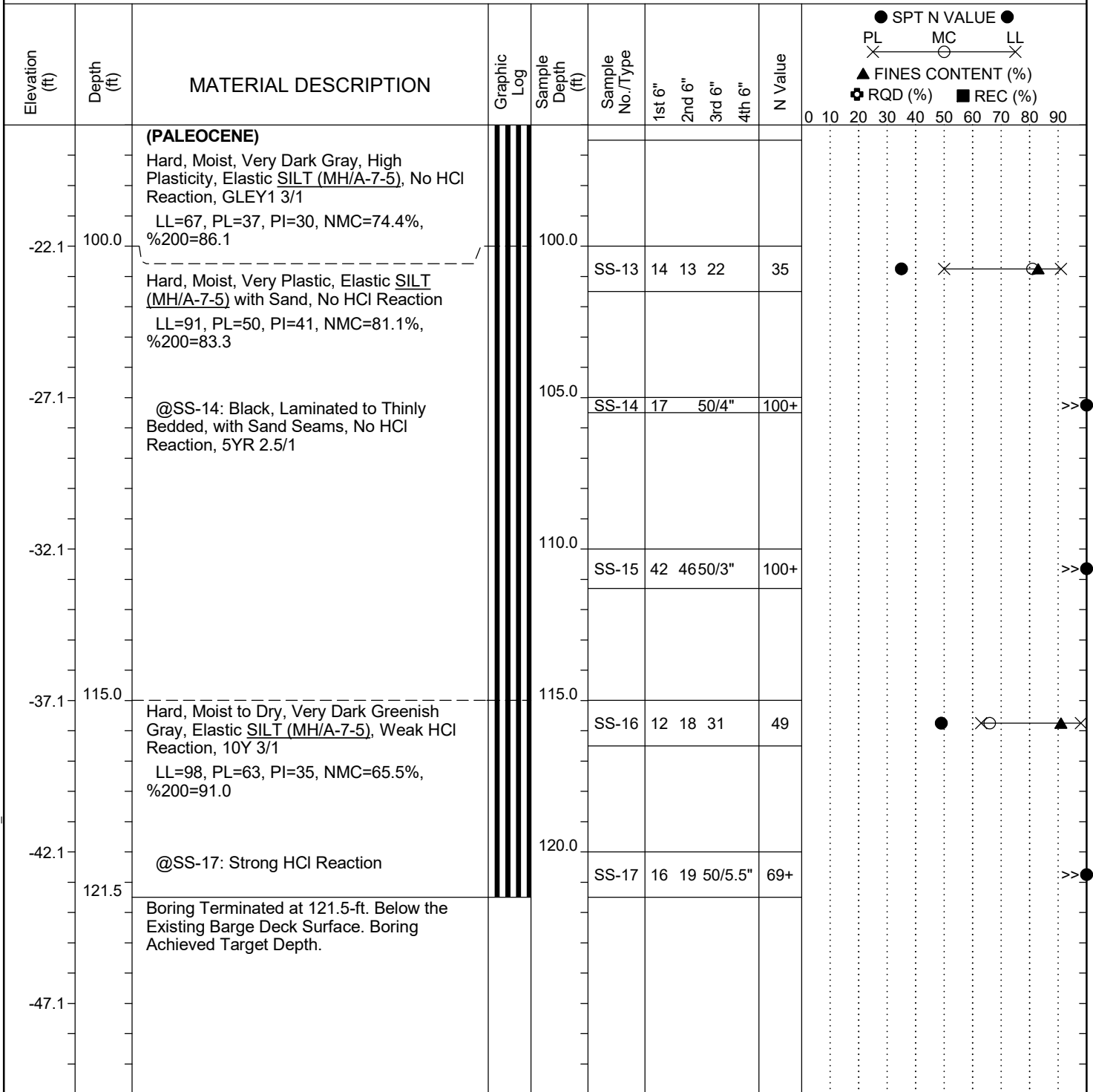
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-19
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5251+38	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50412639	Longitude: -80.45416326 Date Started: 5/9/2023
Total Depth: 121.5 ft	Soil Depth: 65.3 ft	Core Depth: 34.7 ft Date Completed: 5/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



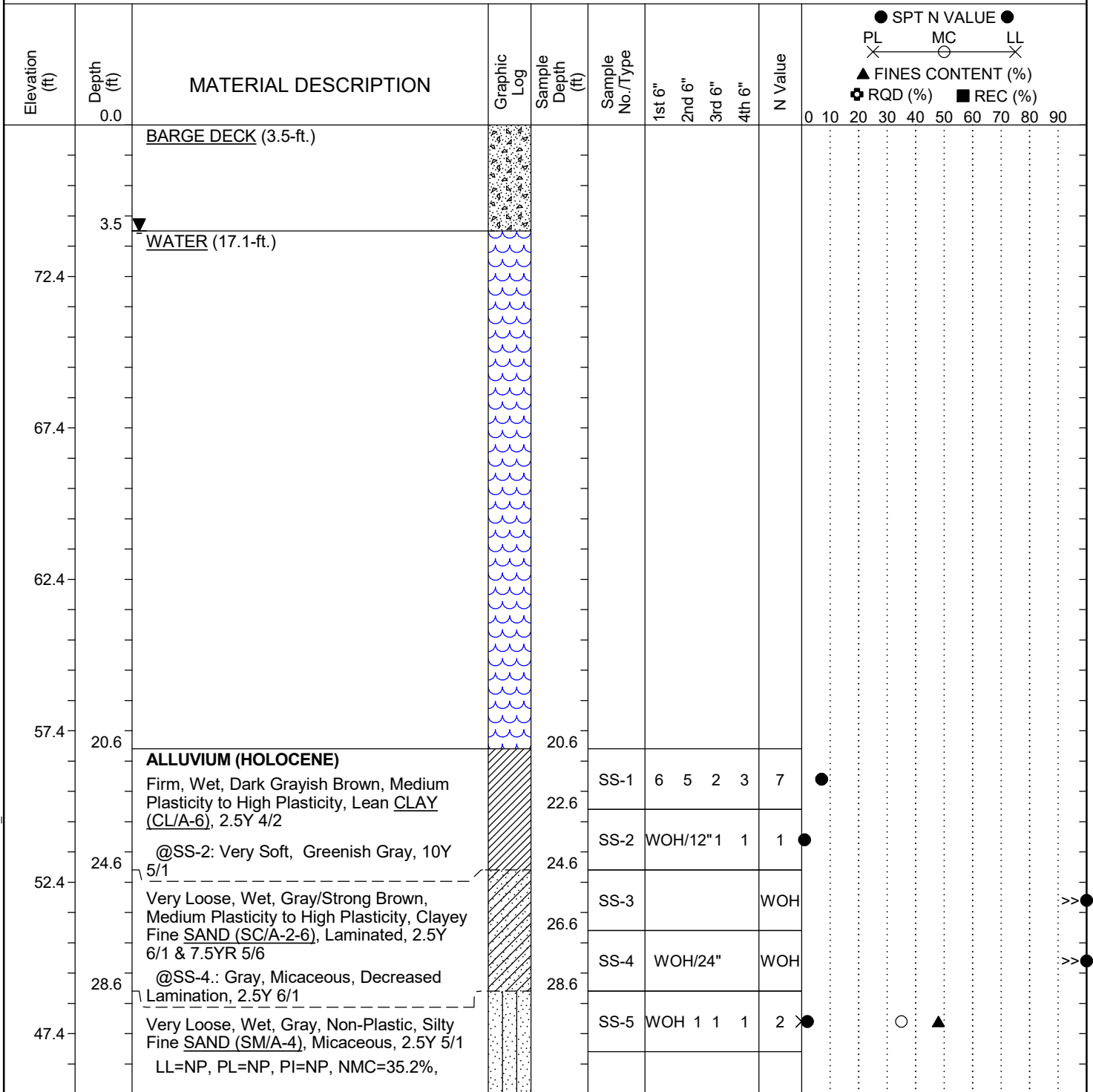
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-20
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5250+34	Offset: 83.2-L
Alignment: I-95 Med. CL	Date Started: 3/20/2023	Date Completed: 3/21/2023
Elev.: 77.4 ft	Latitude: 33.50412633	Longitude: -80.45370286
Total Depth: 120.1 ft	Soil Depth: 66.2 ft	Core Depth: 32.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



LEGEND

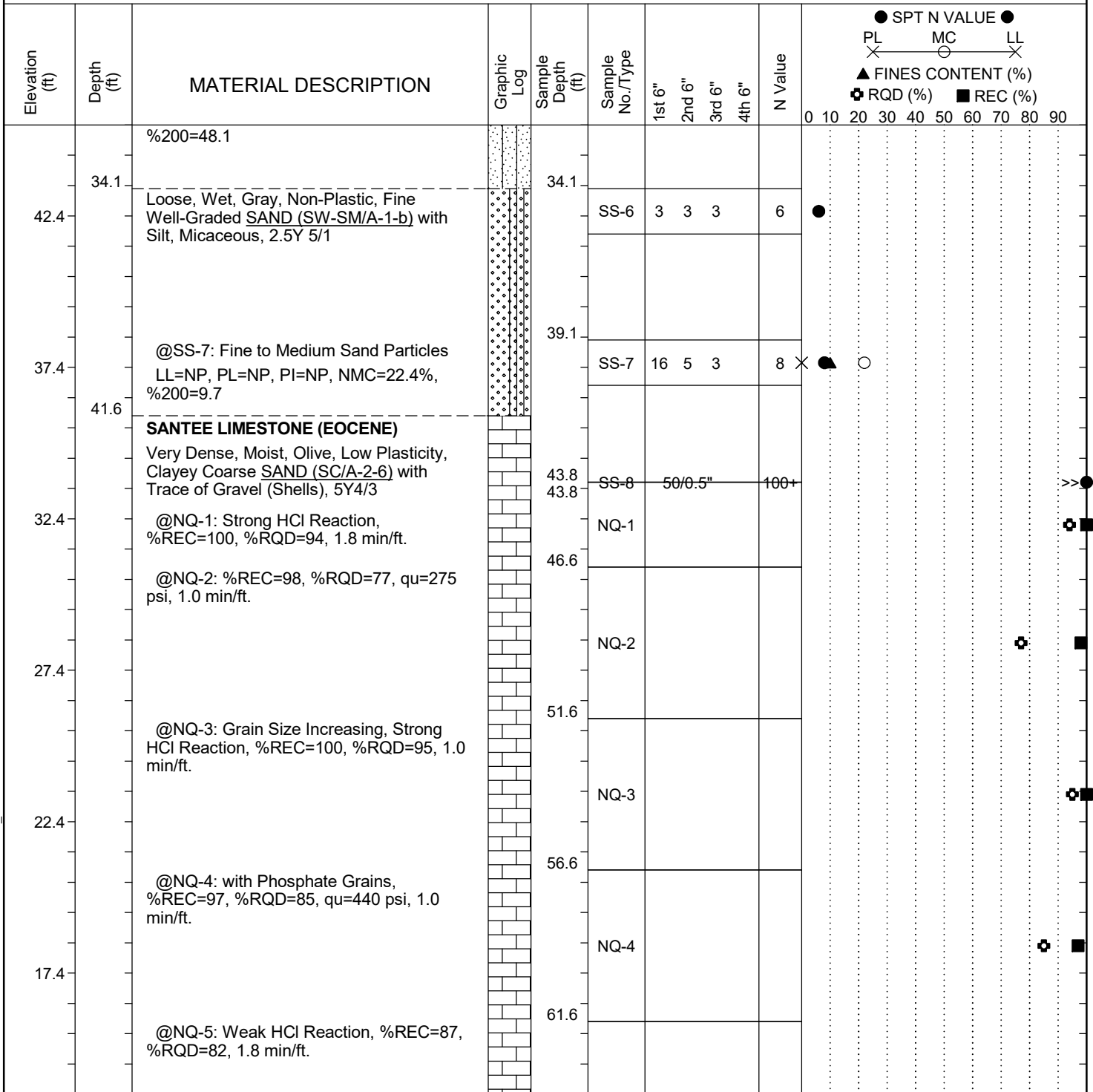
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-20
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5250+34	Offset: 83.2-L
Alignment: I-95 Med. CL	Date Started: 3/20/2023	Date Completed: 3/21/2023
Elev.: 77.4 ft	Latitude: 33.50412633	Longitude: -80.45370286
Total Depth: 120.1 ft	Soil Depth: 66.2 ft	Core Depth: 32.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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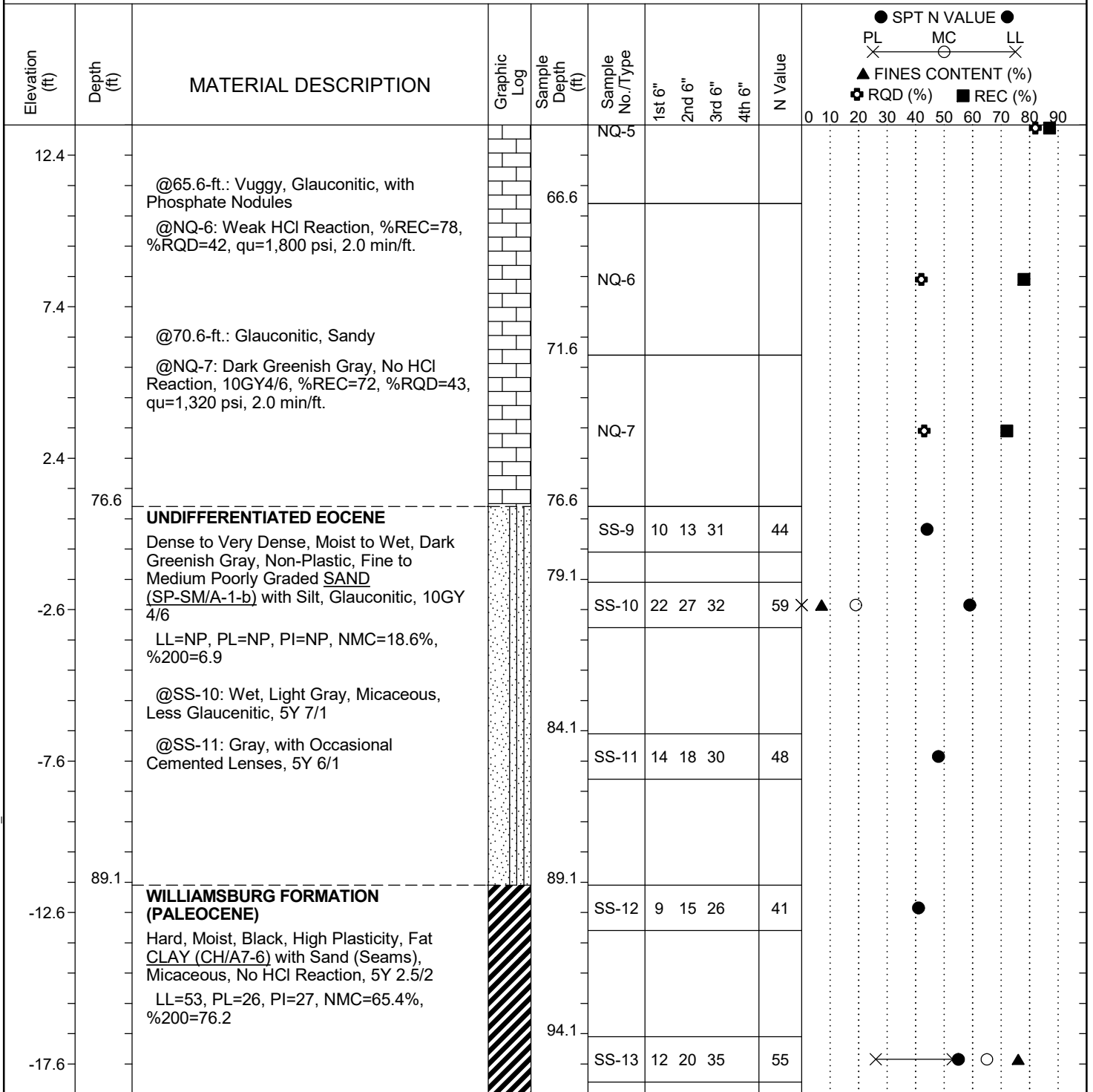
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-20
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5250+34	Offset: 83.2-L
Alignment: I-95 Med. CL	Date Started: 3/20/2023	Date Completed: 3/21/2023
Elev.: 77.4 ft	Latitude: 33.50412633	Longitude: -80.45370286
Total Depth: 120.1 ft	Soil Depth: 66.2 ft	Core Depth: 32.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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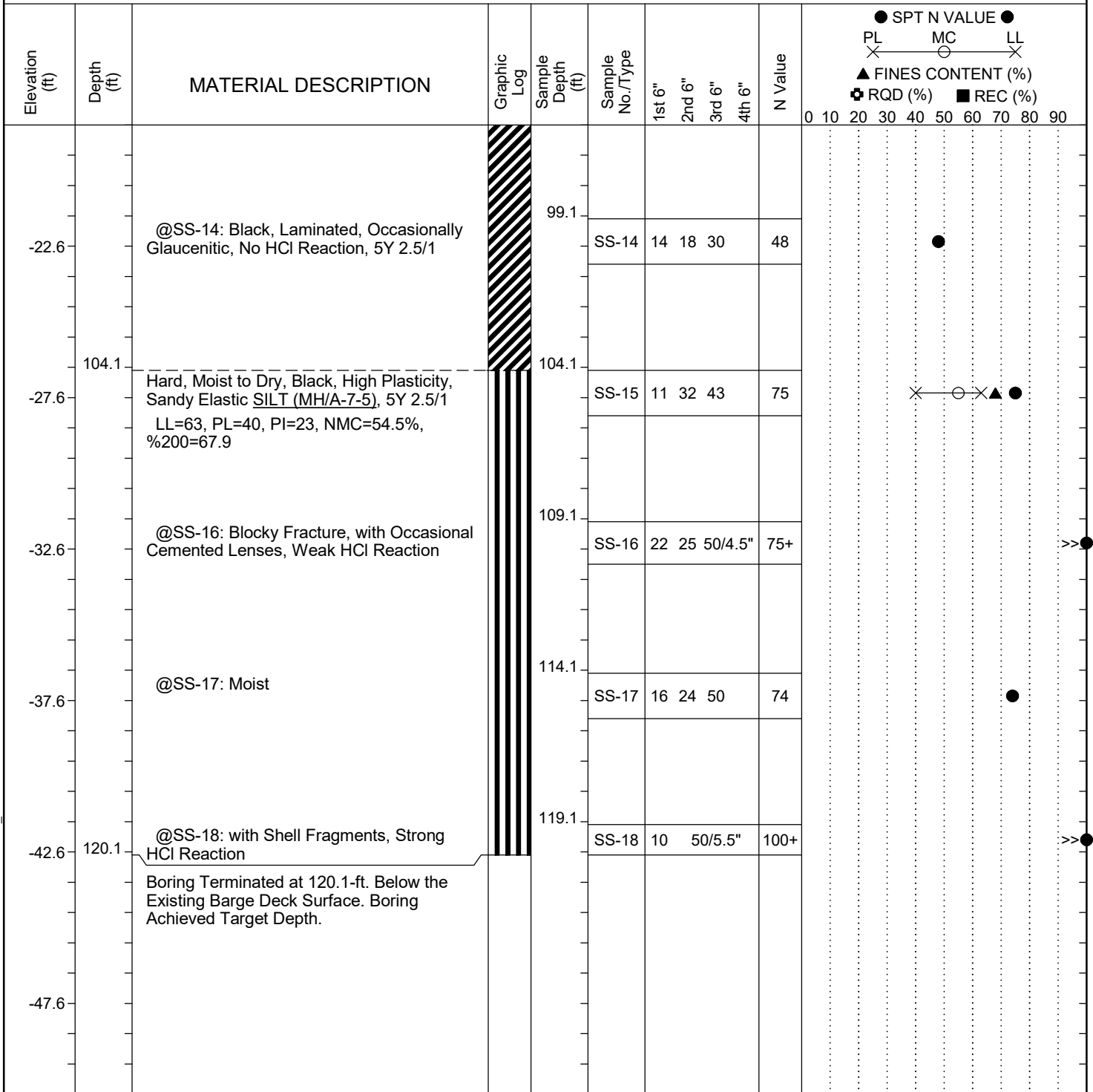
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-20
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5250+34	Offset: 83.2-L
Alignment: I-95 Med. CL	Date Started: 3/20/2023	Date Completed: 3/21/2023
Elev.: 77.4 ft	Latitude: 33.50412633	Longitude: -80.45370286
Total Depth: 120.1 ft	Soil Depth: 66.2 ft	Core Depth: 32.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



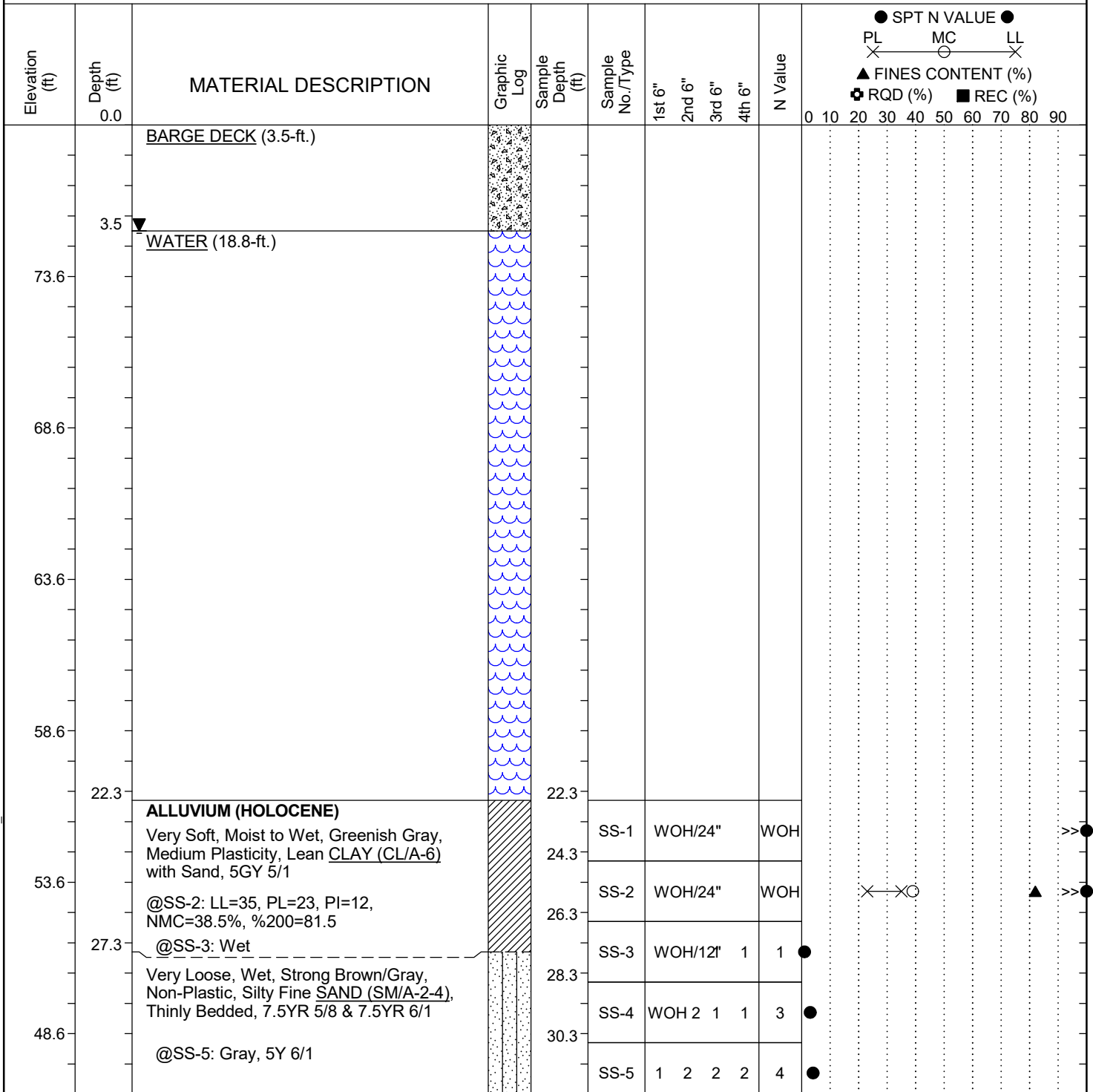
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-21
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5249+32	Offset: 12.1-R
Alignment: I-95 Med. CL	Date Started: 5/8/2023	Date Completed: 5/9/2023
Elev.: 78.6 ft	Latitude: 33.50450915	Longitude: -80.45366611
Total Depth: 121 ft	Soil Depth: 98.7 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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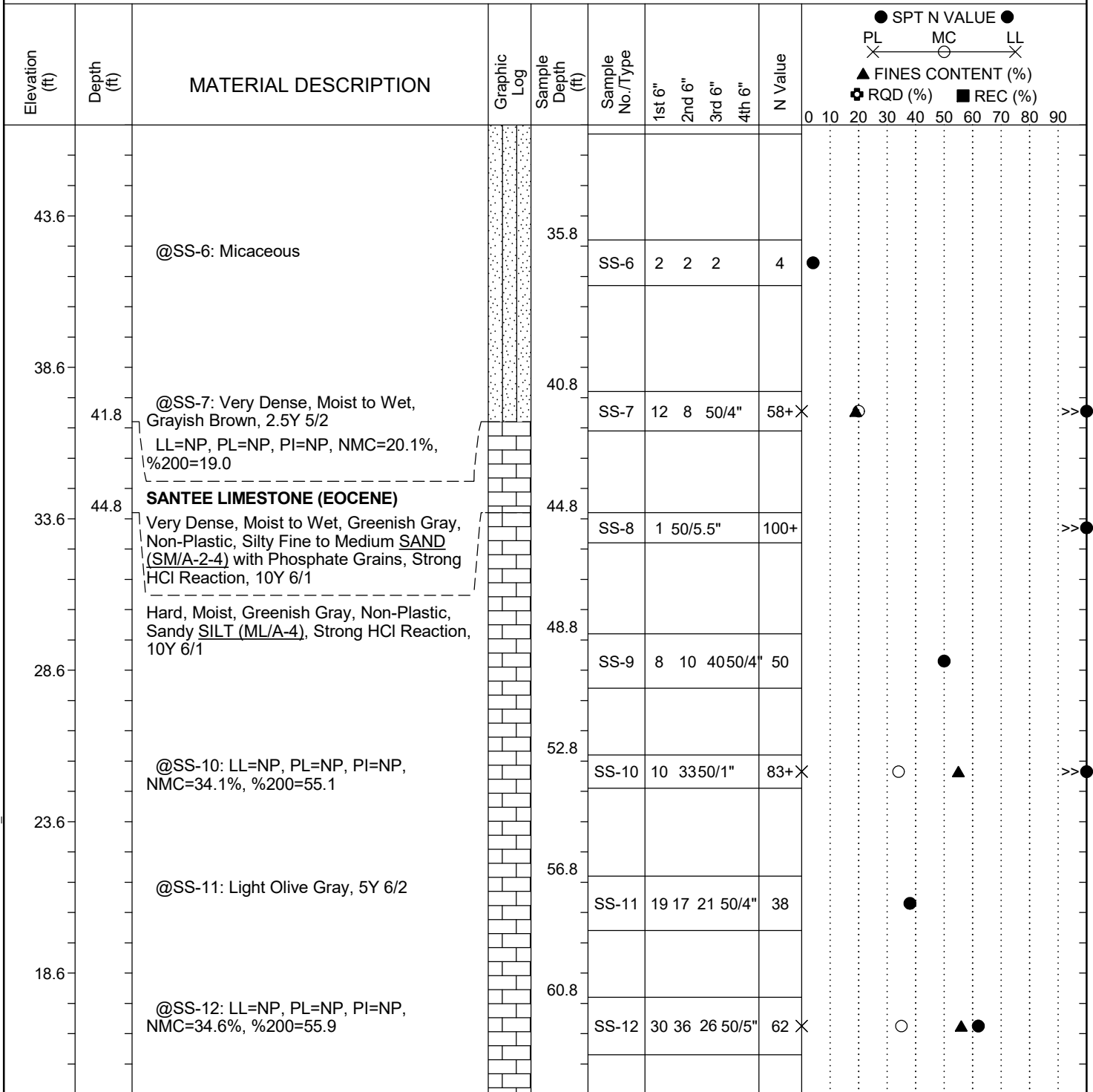
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-21
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5249+32	Offset: 12.1-R
Alignment: I-95 Med. CL	Date Started: 5/8/2023	Date Completed: 5/9/2023
Elev.: 78.6 ft	Latitude: 33.50450915	Longitude: -80.45366611
Total Depth: 121 ft	Soil Depth: 98.7 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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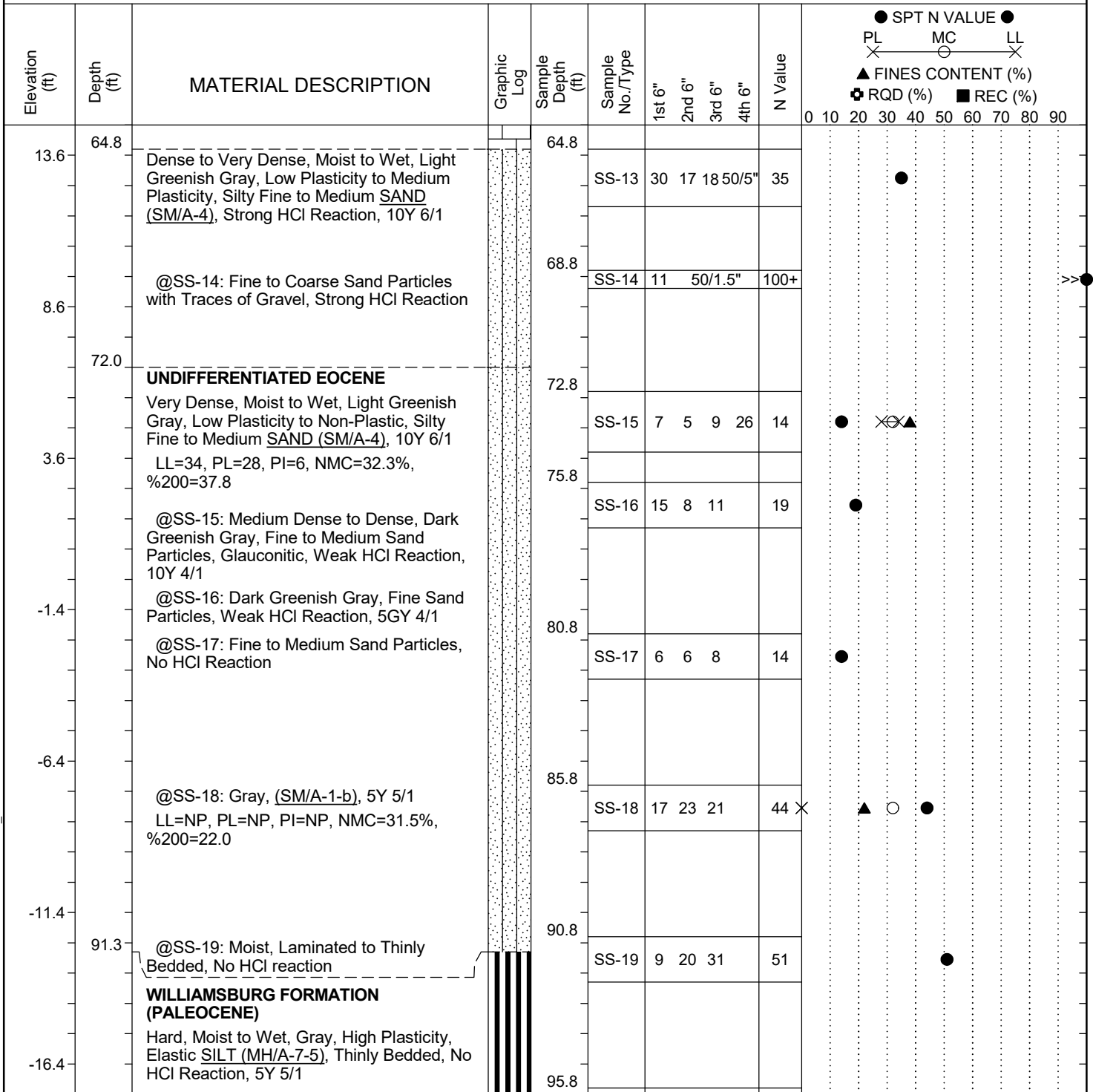
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-21
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5249+32	Offset: 12.1-R
Alignment: I-95 Med. CL	Date Started: 5/8/2023	Date Completed: 5/9/2023
Elev.: 78.6 ft	Latitude: 33.50450915	Longitude: -80.45366611
Total Depth: 121 ft	Soil Depth: 98.7 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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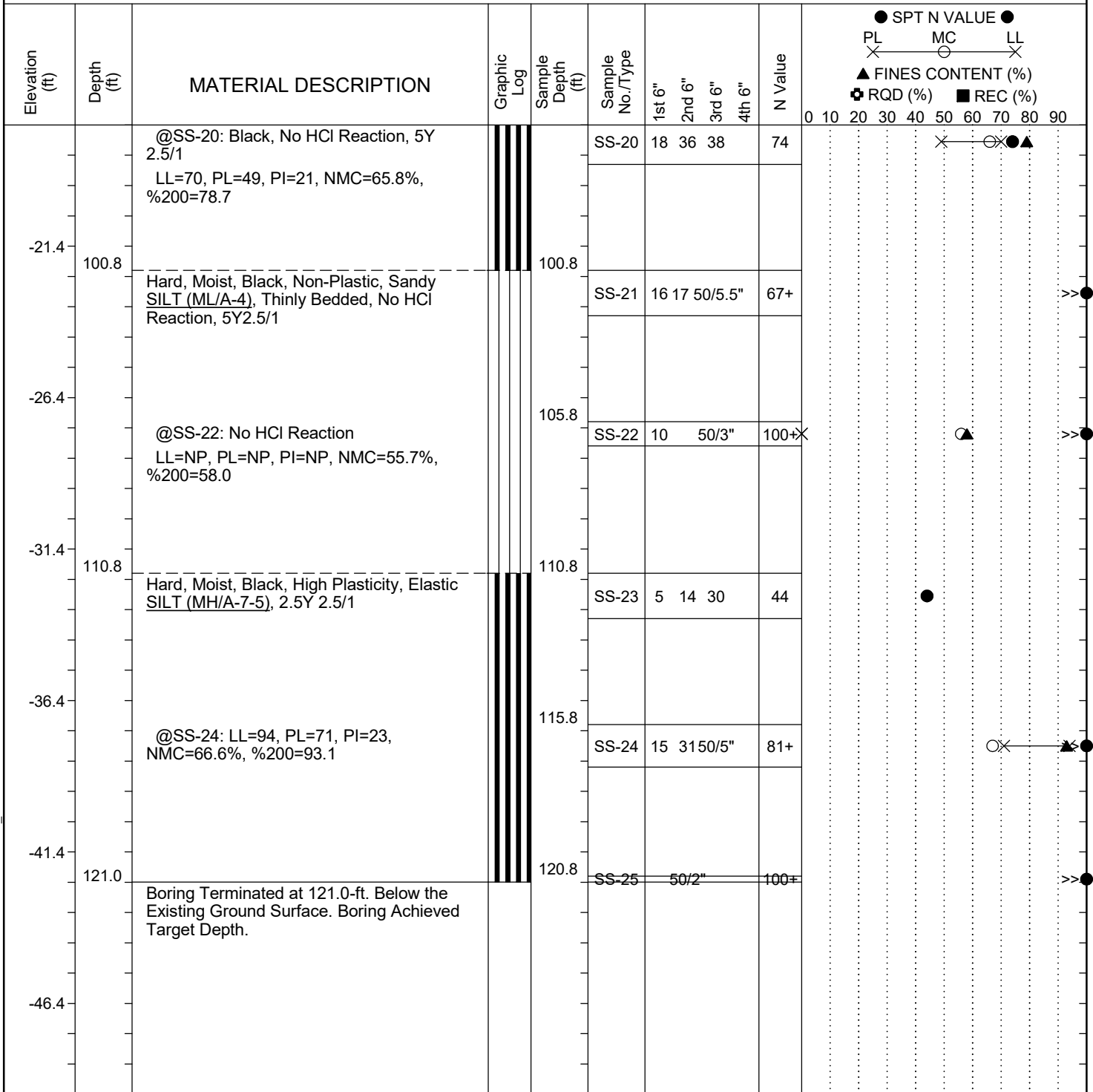
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-21
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5249+32	Offset: 12.1-R
Alignment: I-95 Med. CL	Date Started: 5/8/2023	Date Completed: 5/9/2023
Elev.: 78.6 ft	Latitude: 33.50450915	Longitude: -80.45366611
Total Depth: 121 ft	Soil Depth: 98.7 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



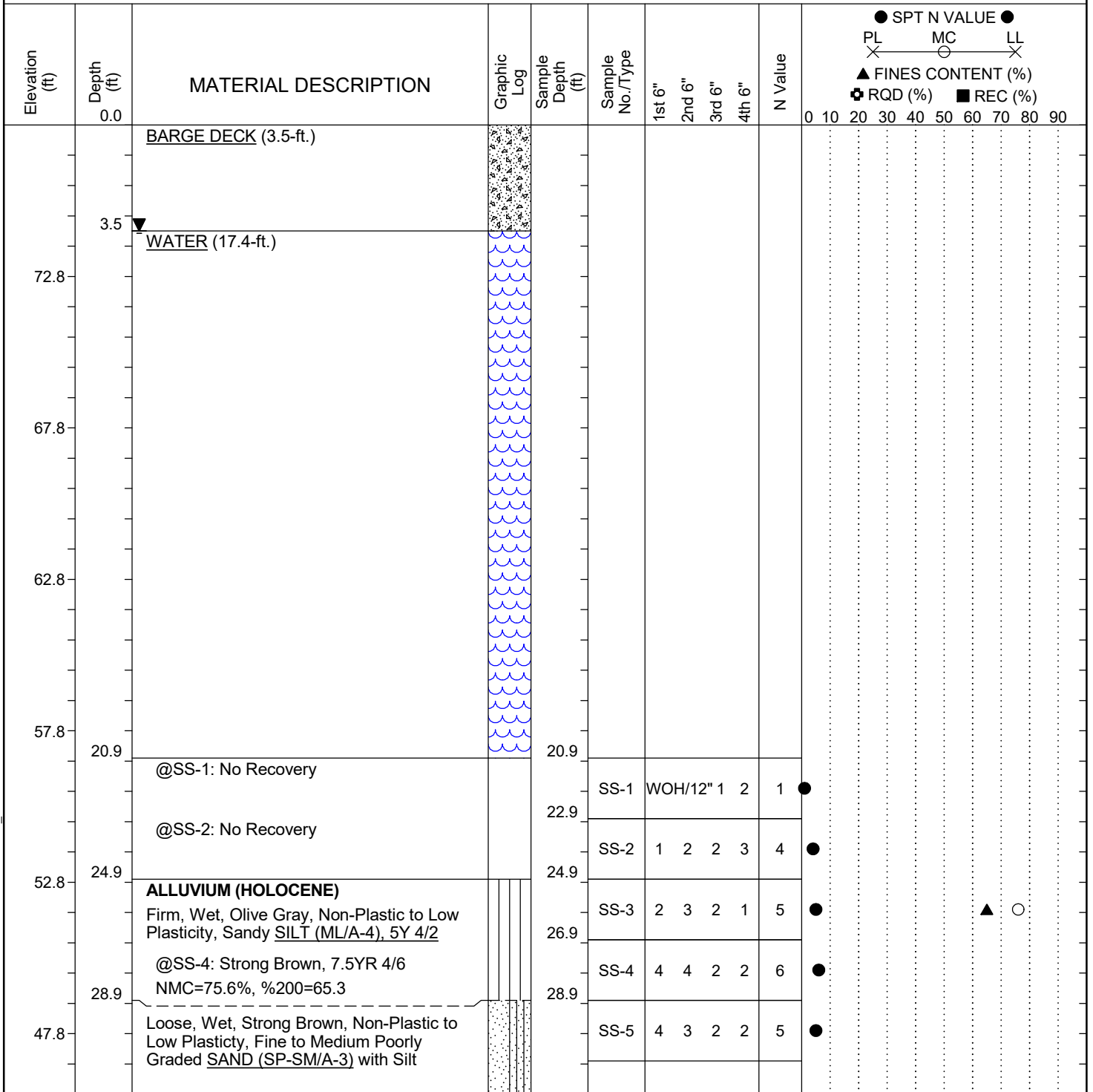
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-22
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5248+33	Offset: 84.6-L
Alignment: I-95 Med. CL	Date Started: 3/17/2023	Date Completed: 3/18/2023
Elev.: 77.8 ft	Latitude: 33.50449553	Longitude: -80.45321368
Total Depth: 119.5 ft	Soil Depth: 68.1 ft	Core Depth: 30.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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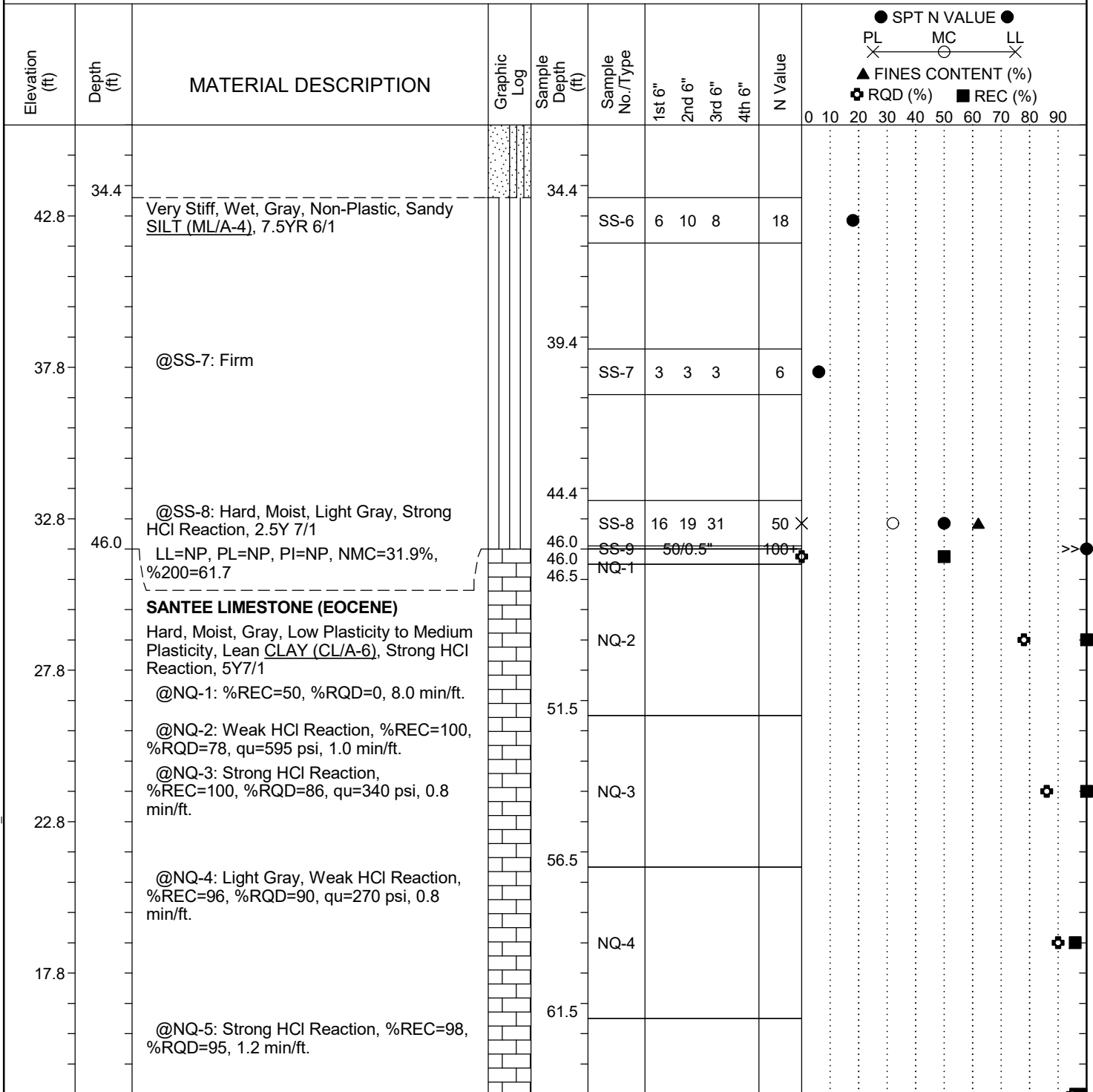
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-22
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5248+33	Offset: 84.6-L
Alignment: I-95 Med. CL	Date Started: 3/17/2023	Date Completed: 3/18/2023
Elev.: 77.8 ft	Latitude: 33.50449553	Longitude: -80.45321368
Total Depth: 119.5 ft	Soil Depth: 68.1 ft	Core Depth: 30.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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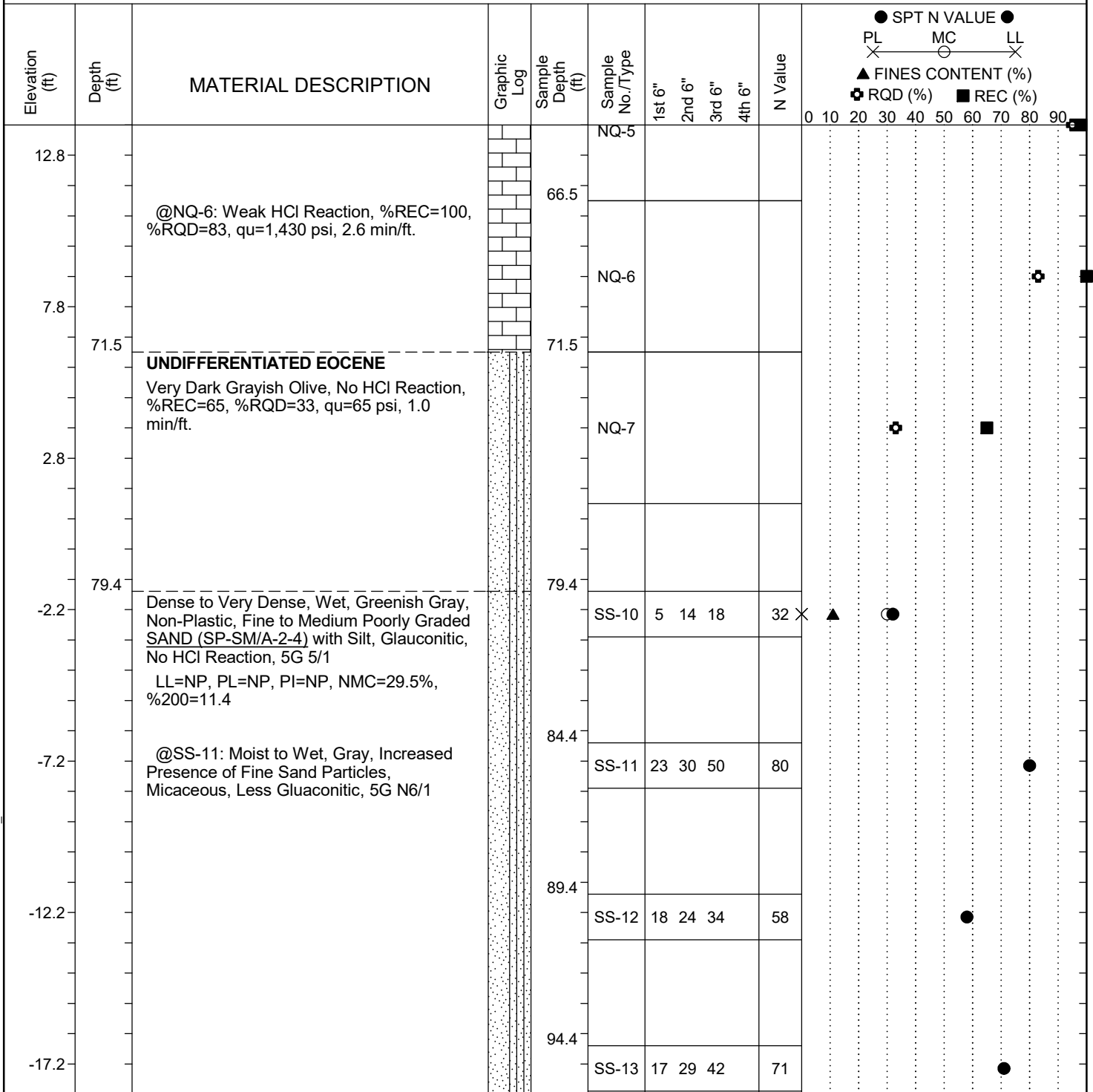
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-22
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5248+33	Offset: 84.6-L
Alignment: I-95 Med. CL	Date Started: 3/17/2023	Date Completed: 3/18/2023
Elev.: 77.8 ft	Latitude: 33.50449553	Longitude: -80.45321368
Total Depth: 119.5 ft	Soil Depth: 68.1 ft	Core Depth: 30.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



LEGEND

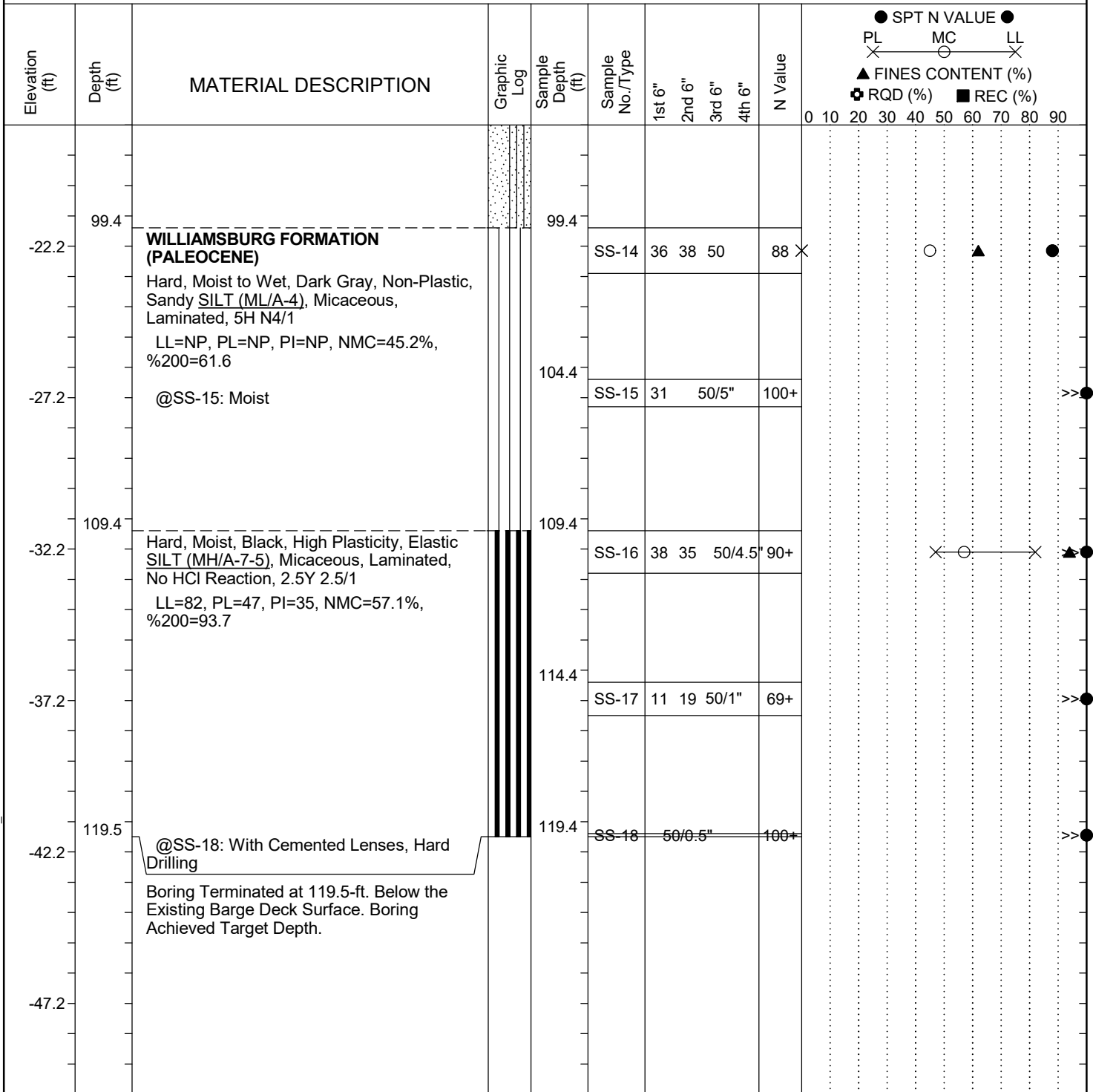
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-22
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5248+33	Offset: 84.6-L
Alignment: I-95 Med. CL	Date Started: 3/17/2023	Date Completed: 3/18/2023
Elev.: 77.8 ft	Latitude: 33.50449553	Longitude: -80.45321368
Total Depth: 119.5 ft	Soil Depth: 68.1 ft	Core Depth: 30.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



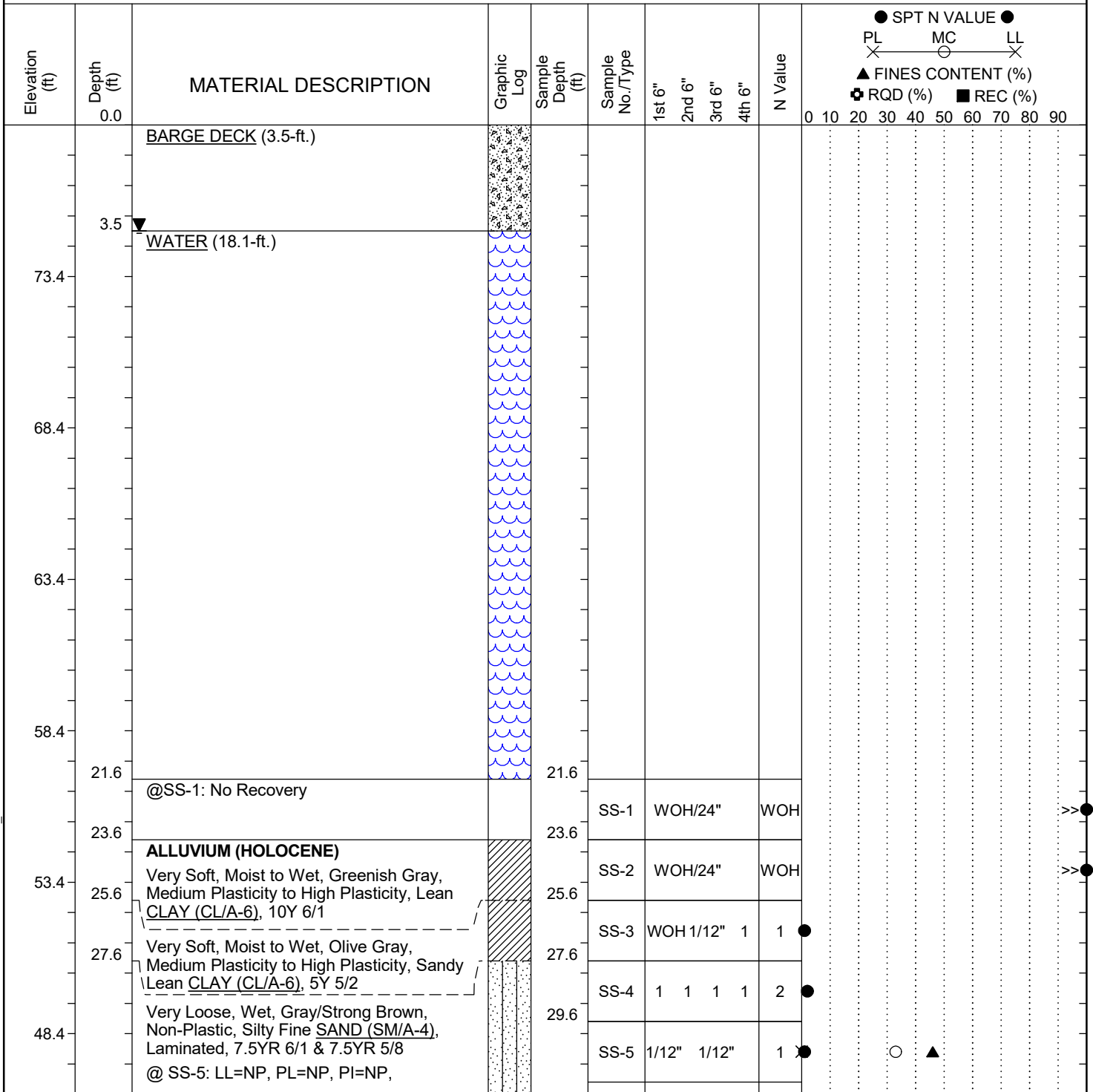
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-23
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5246+35	Offset: 12.5-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50506032	Longitude: -80.45294827 Date Started: 5/4/2023
Total Depth: 121.1 ft	Soil Depth: 69.5 ft	Core Depth: 30 ft Date Completed: 5/5/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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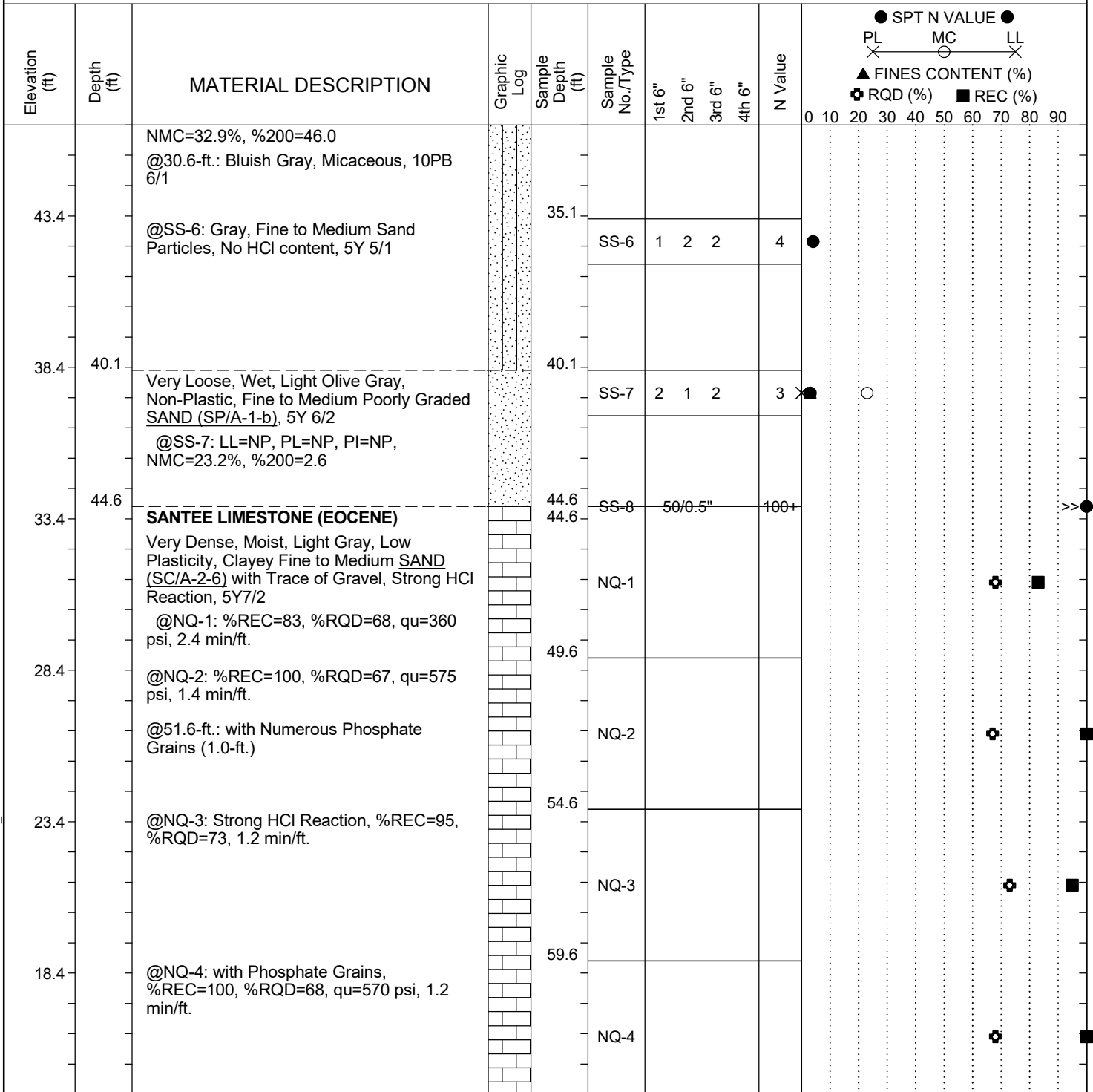
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-23
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5246+35	Offset: 12.5-R
Alignment: I-95 Med. CL	Date Started: 5/4/2023	
Elev.: 78.4 ft	Latitude: 33.50506032	Longitude: -80.45294827
Total Depth: 121.1 ft	Soil Depth: 69.5 ft	Core Depth: 30 ft
Date Completed: 5/5/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



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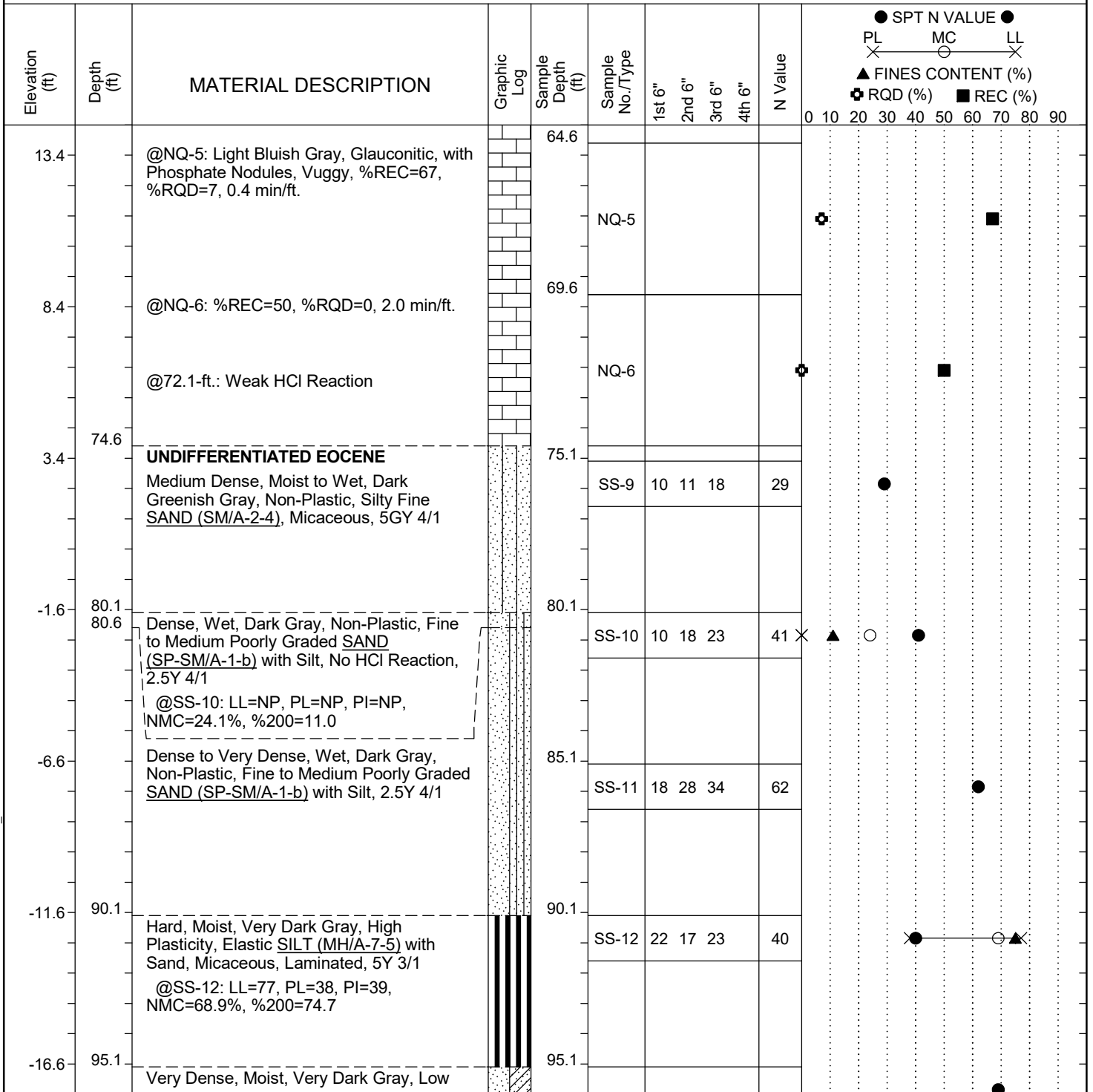
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ - SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-23
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5246+35	Offset: 12.5-R
Alignment: I-95 Med. CL	Date Started: 5/4/2023	
Elev.: 78.4 ft	Latitude: 33.50506032	Longitude: -80.45294827
Total Depth: 121.1 ft	Soil Depth: 69.5 ft	Core Depth: 30 ft
Date Completed: 5/5/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



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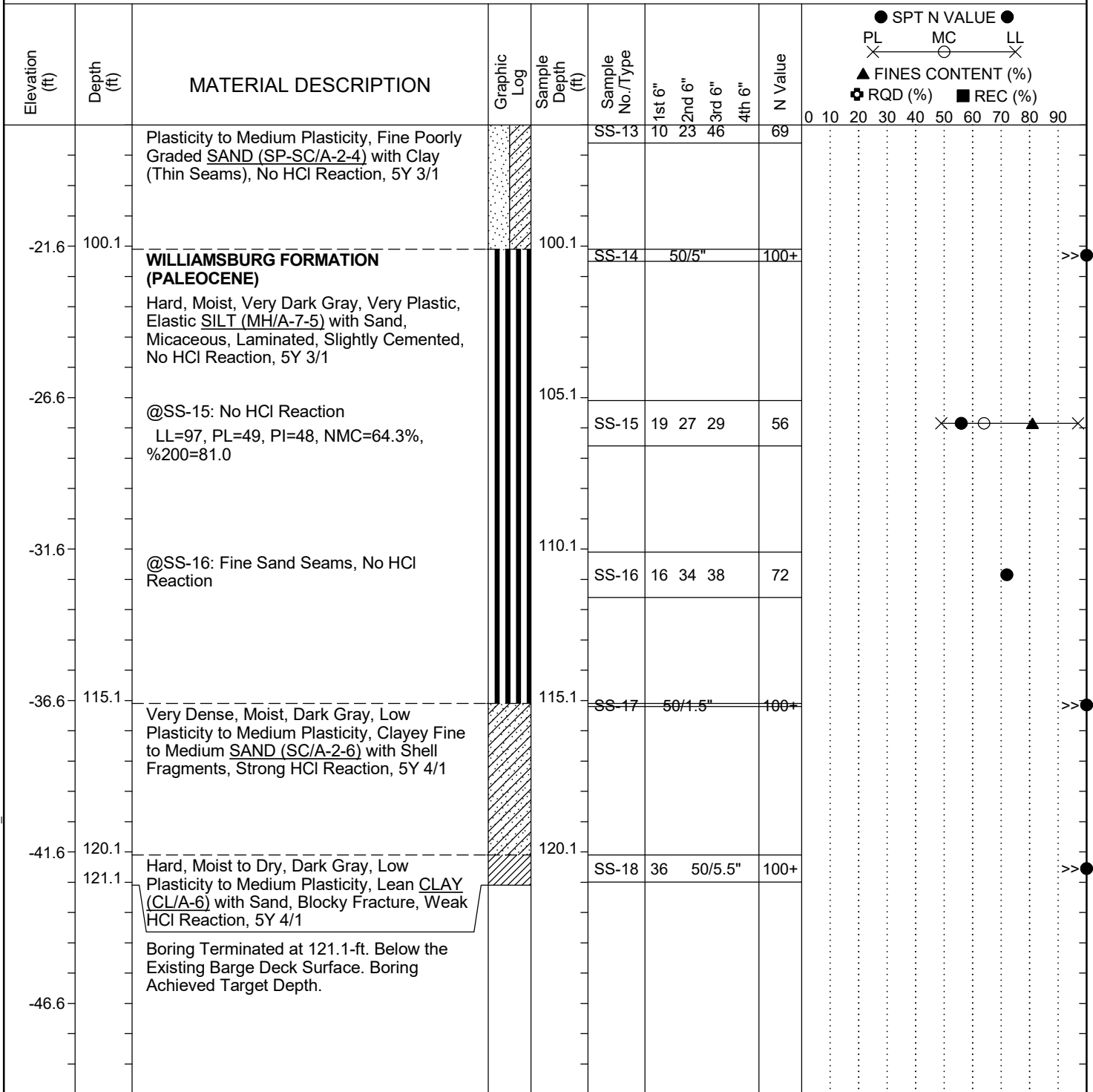
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-23
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5246+35	Offset: 12.5-R Alignment: I-95 Med. CL
Elev.: 78.4 ft	Latitude: 33.50506032	Longitude: -80.45294827 Date Started: 5/4/2023
Total Depth: 121.1 ft	Soil Depth: 69.5 ft	Core Depth: 30 ft Date Completed: 5/5/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



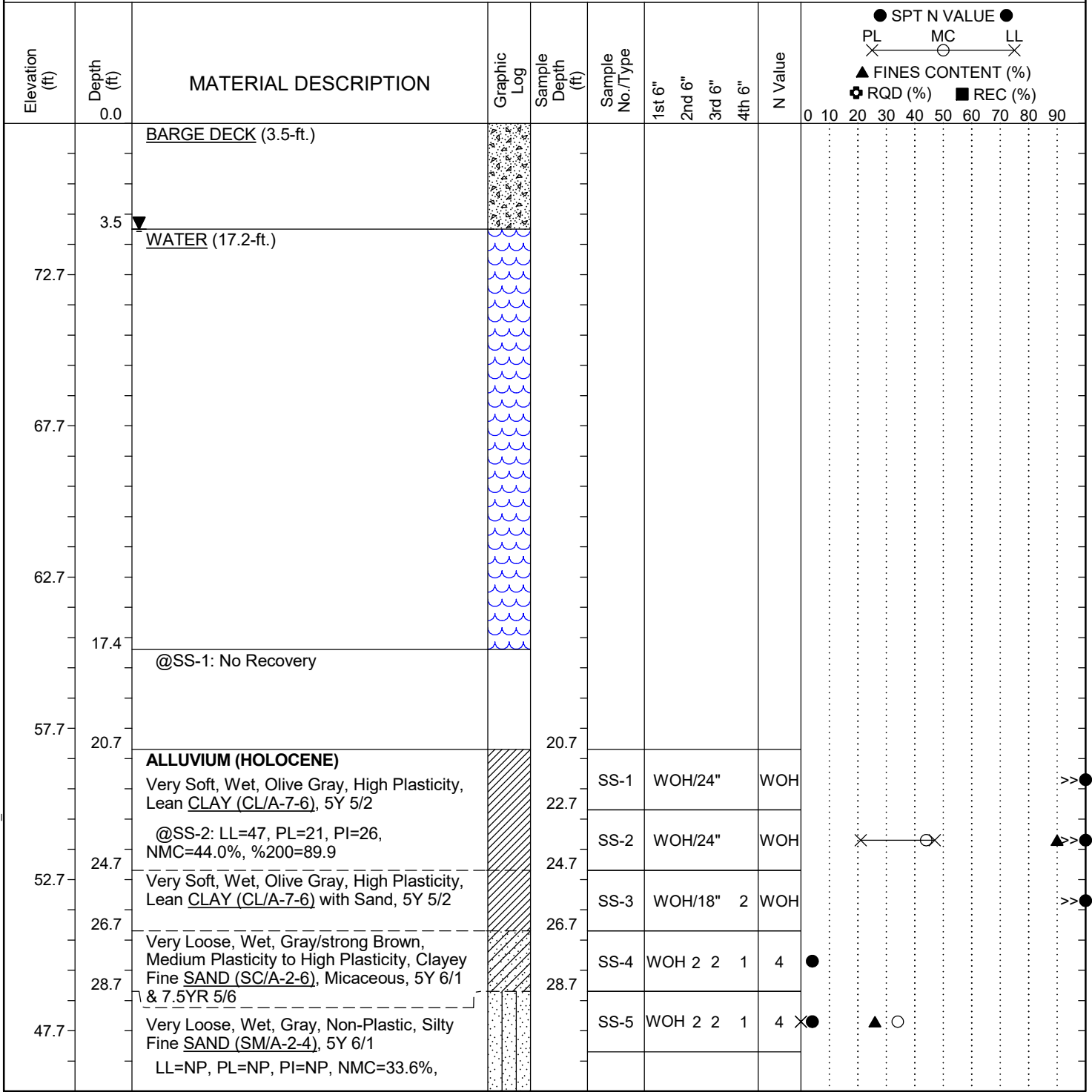
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-24
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5244+35	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/15/2023	Date Completed: 3/16/2023
Elev.: 77.7 ft	Latitude: 33.50523385	Longitude: -80.4522461
Total Depth: 120.7 ft	Soil Depth: 77.1 ft	Core Depth: 22.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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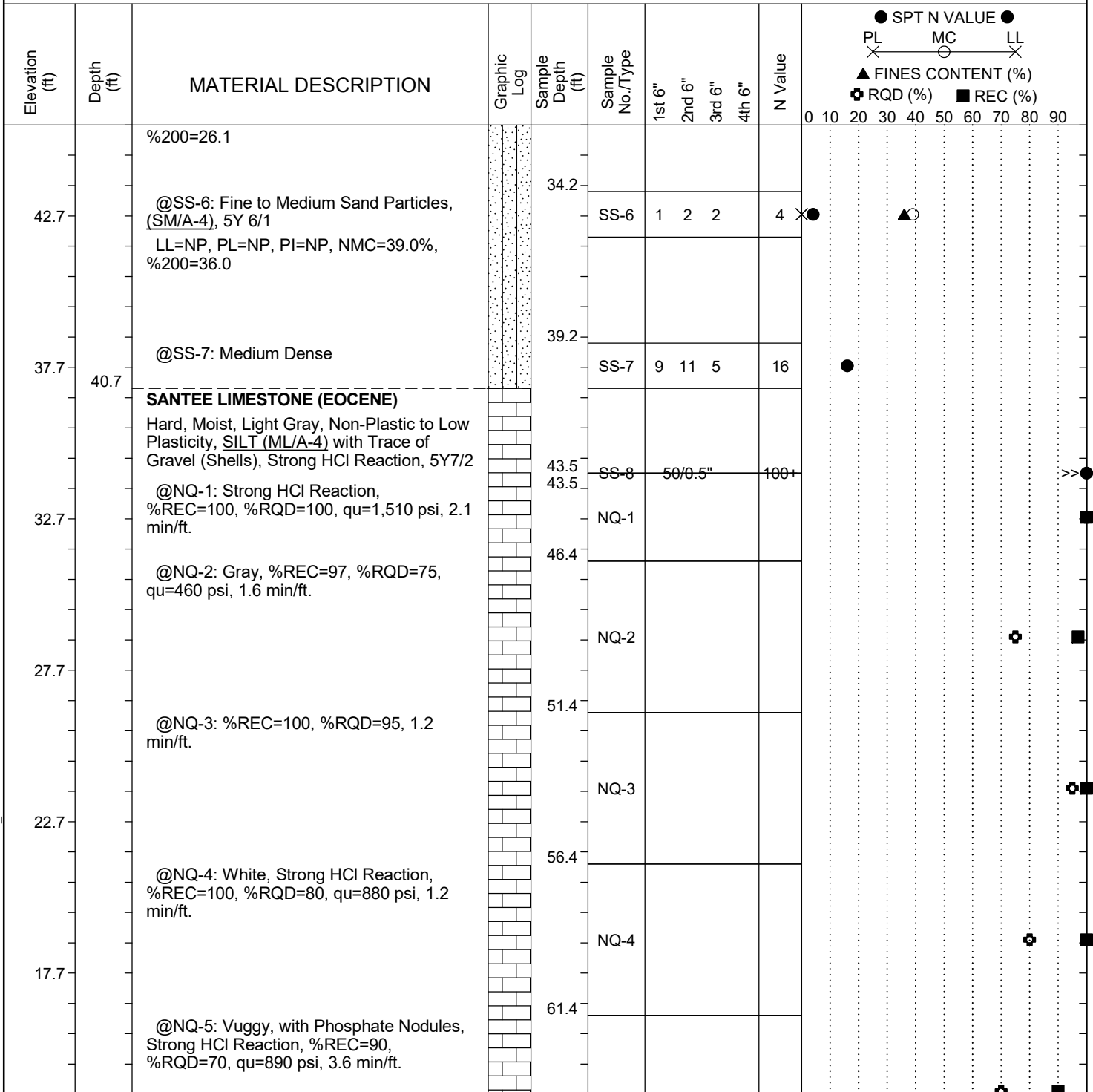
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-24
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5244+35	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/15/2023	Date Completed: 3/16/2023
Elev.: 77.7 ft	Latitude: 33.50523385	Longitude: -80.4522461
Total Depth: 120.7 ft	Soil Depth: 77.1 ft	Core Depth: 22.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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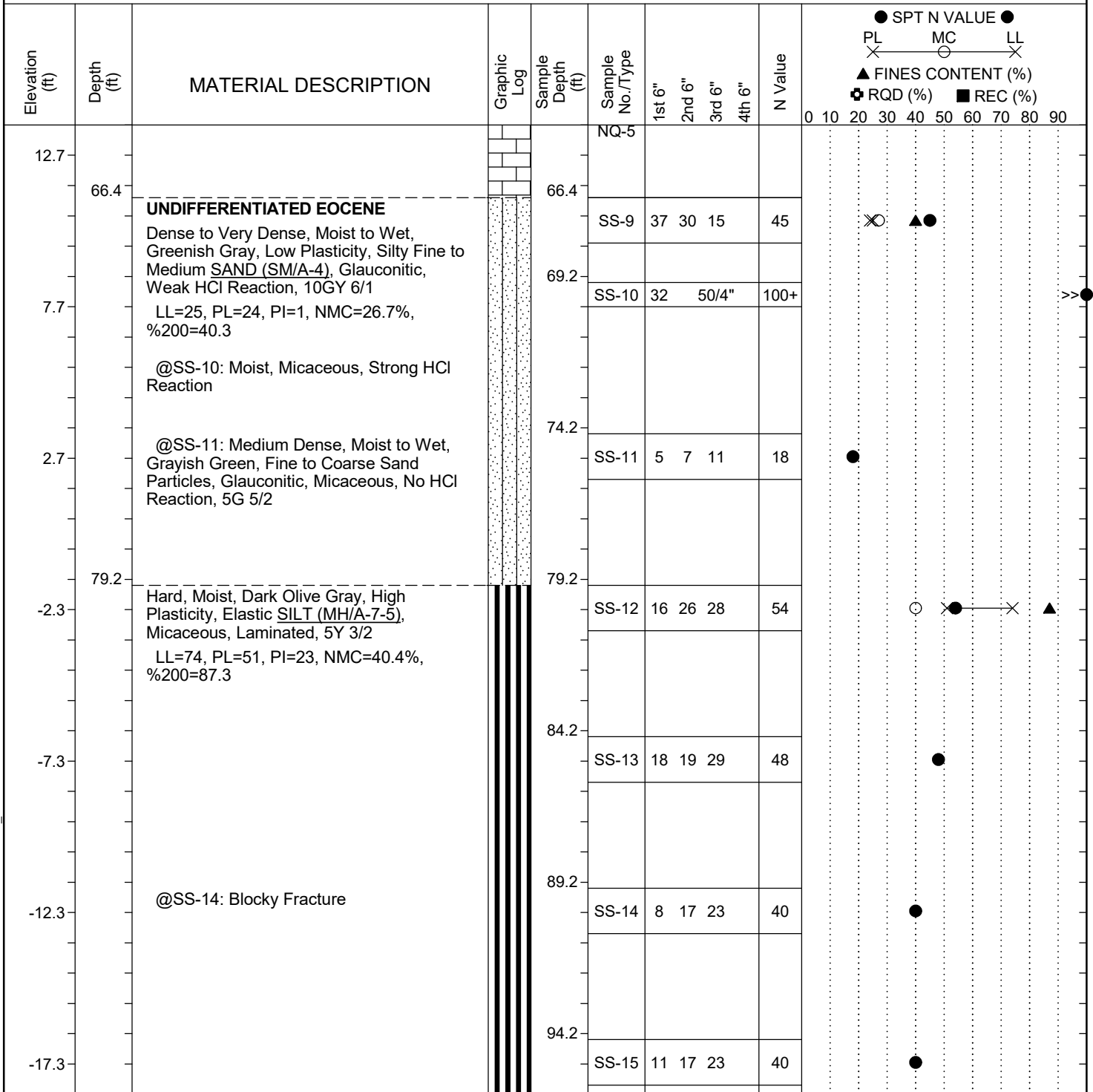
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-24
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5244+35	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/15/2023	Date Completed: 3/16/2023
Elev.: 77.7 ft	Latitude: 33.50523385	Longitude: -80.4522461
Total Depth: 120.7 ft	Soil Depth: 77.1 ft	Core Depth: 22.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



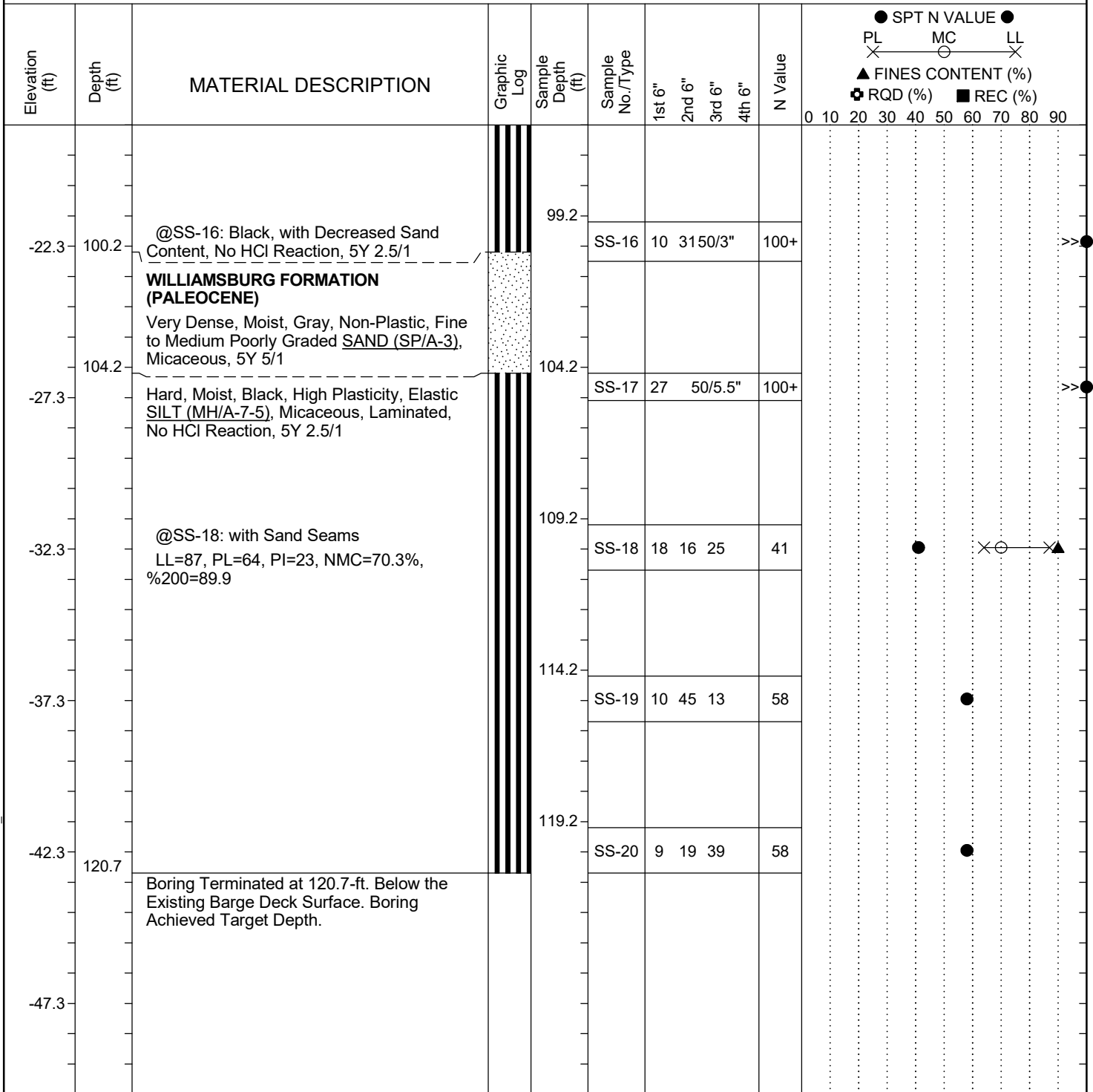
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-24
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5244+35	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/15/2023	Date Completed: 3/16/2023
Elev.: 77.7 ft	Latitude: 33.50523385	Longitude: -80.4522461
Total Depth: 120.7 ft	Soil Depth: 77.1 ft	Core Depth: 22.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



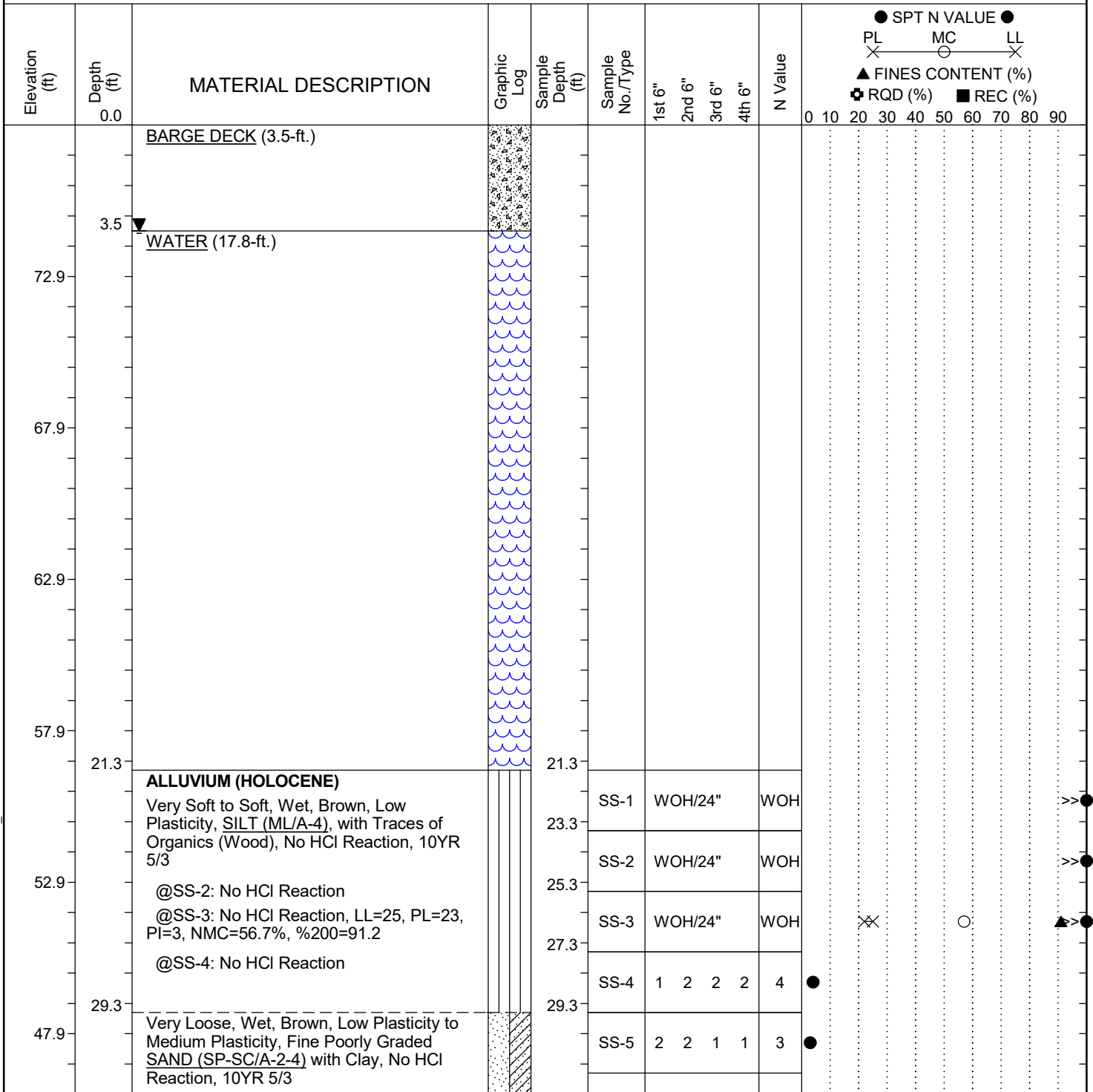
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-25
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5242+32	Offset: 12.6-R
Alignment: I-95 Med. CL	Date Started: 5/2/2023	Date Completed: 5/3/2023
Elev.: 77.9 ft	Latitude: 33.50580863	Longitude: -80.45197086
Total Depth: 120.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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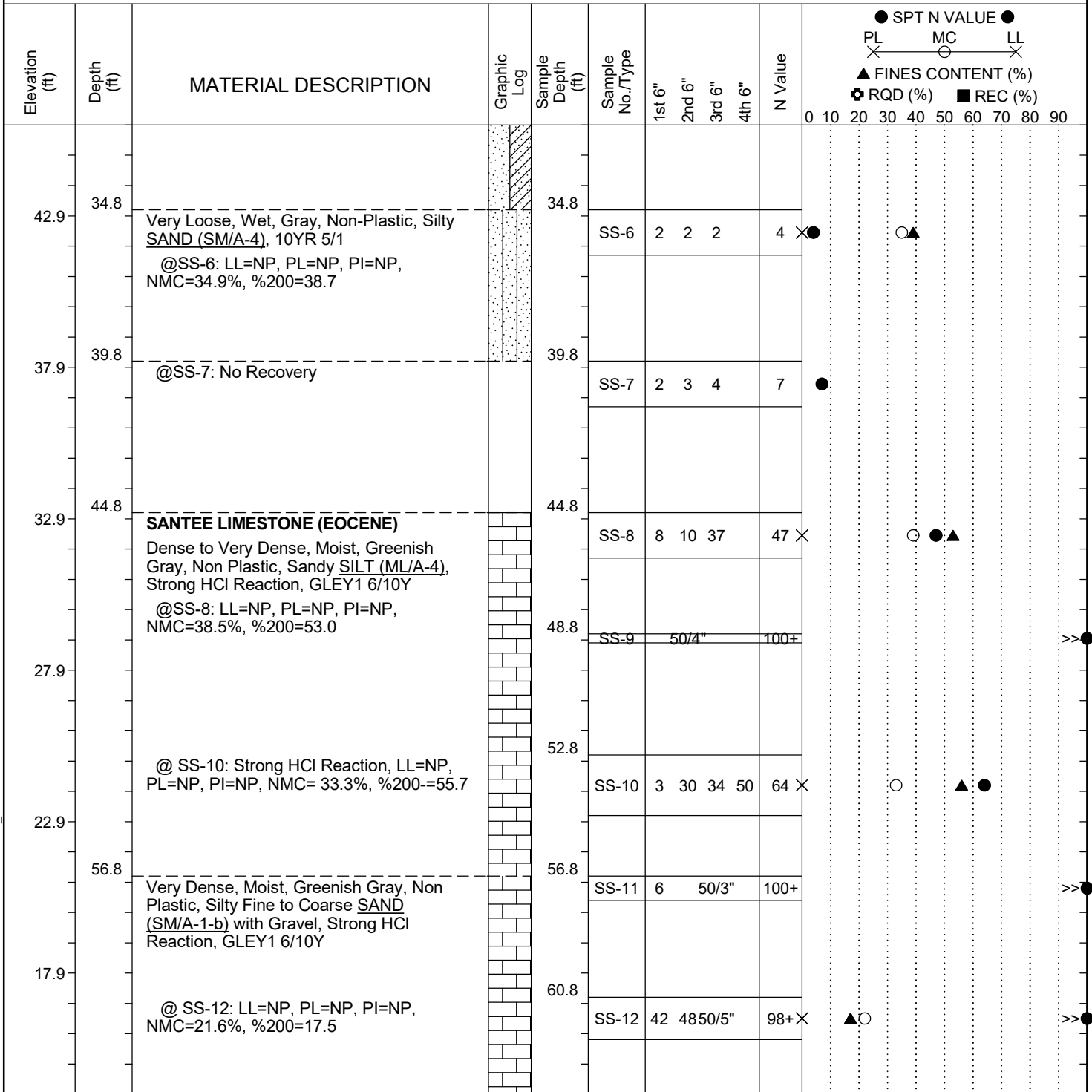
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-25
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5242+32	Offset: 12.6-R Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50580863	Longitude: -80.45197086 Date Started: 5/2/2023
Total Depth: 120.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 5/3/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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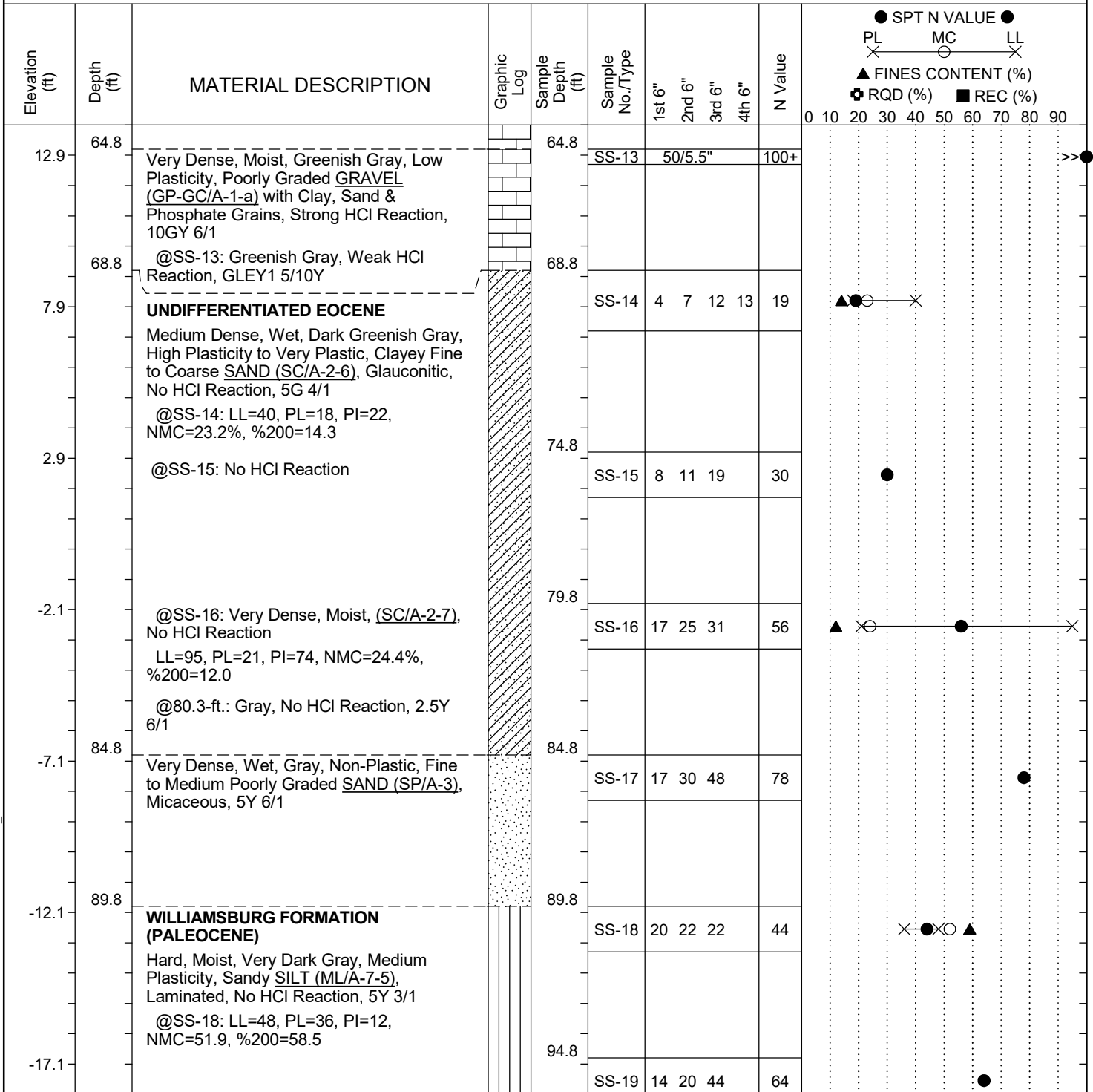
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-25
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5242+32	Offset: 12.6-R
Alignment: I-95 Med. CL	Date Started: 5/2/2023	Date Completed: 5/3/2023
Elev.: 77.9 ft	Latitude: 33.50580863	Longitude: -80.45197086
Total Depth: 120.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



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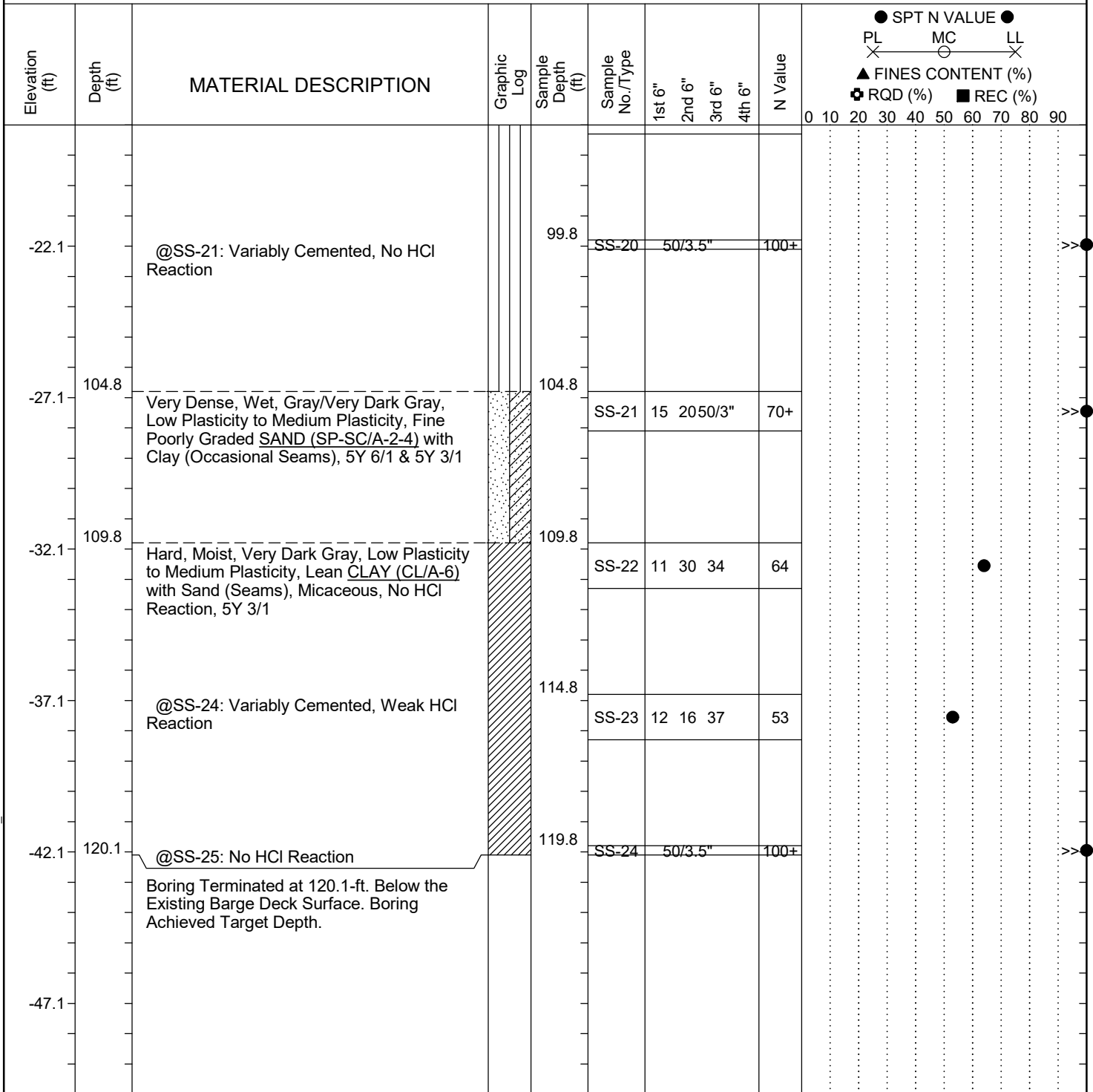
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-25
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5242+32	Offset: 12.6-R
Alignment: I-95 Med. CL	Date Started: 5/2/2023	Date Completed: 5/3/2023
Elev.: 77.9 ft	Latitude: 33.50580863	Longitude: -80.45197086
Total Depth: 120.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



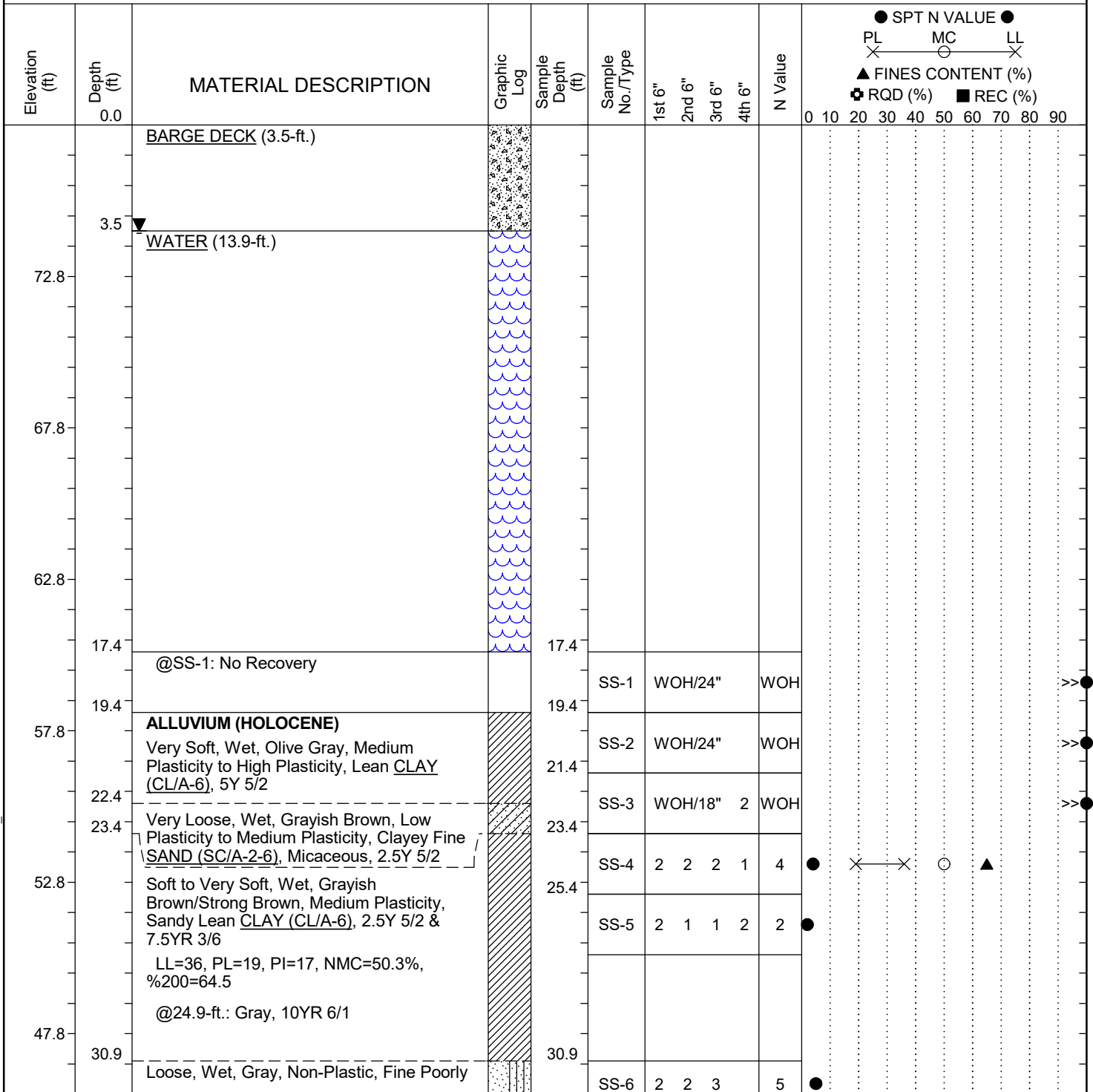
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-26
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5241+36	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/14/2023	Date Completed: 3/15/2023
Elev.: 77.8 ft	Latitude: 33.50578835	Longitude: -80.45152175
Total Depth: 117.4 ft	Soil Depth: 79 ft	Core Depth: 21 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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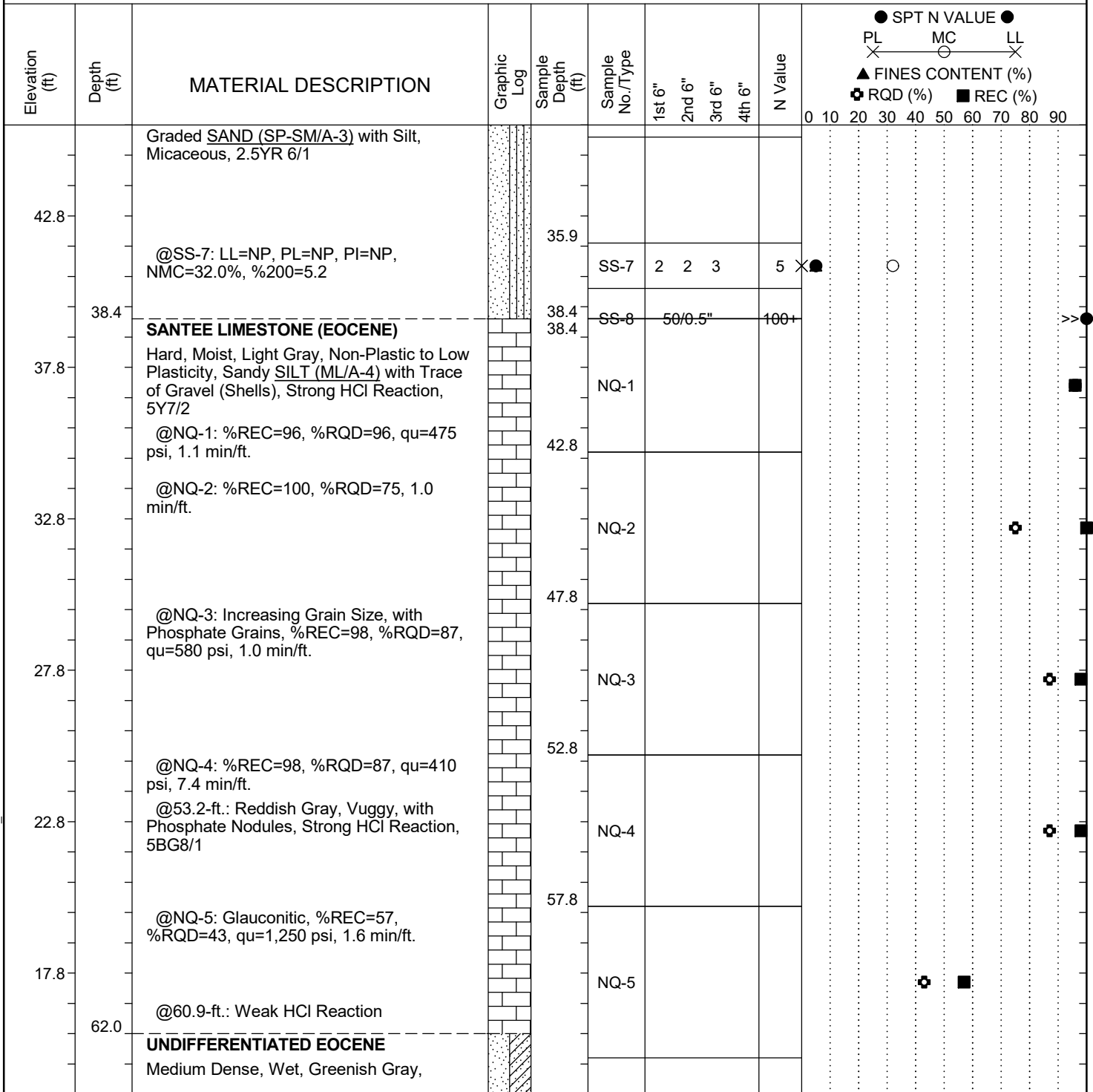
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-26
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5241+36	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/14/2023	Date Completed: 3/15/2023
Elev.: 77.8 ft	Latitude: 33.50578835	Longitude: -80.45152175
Total Depth: 117.4 ft	Soil Depth: 79 ft	Core Depth: 21 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



LEGEND

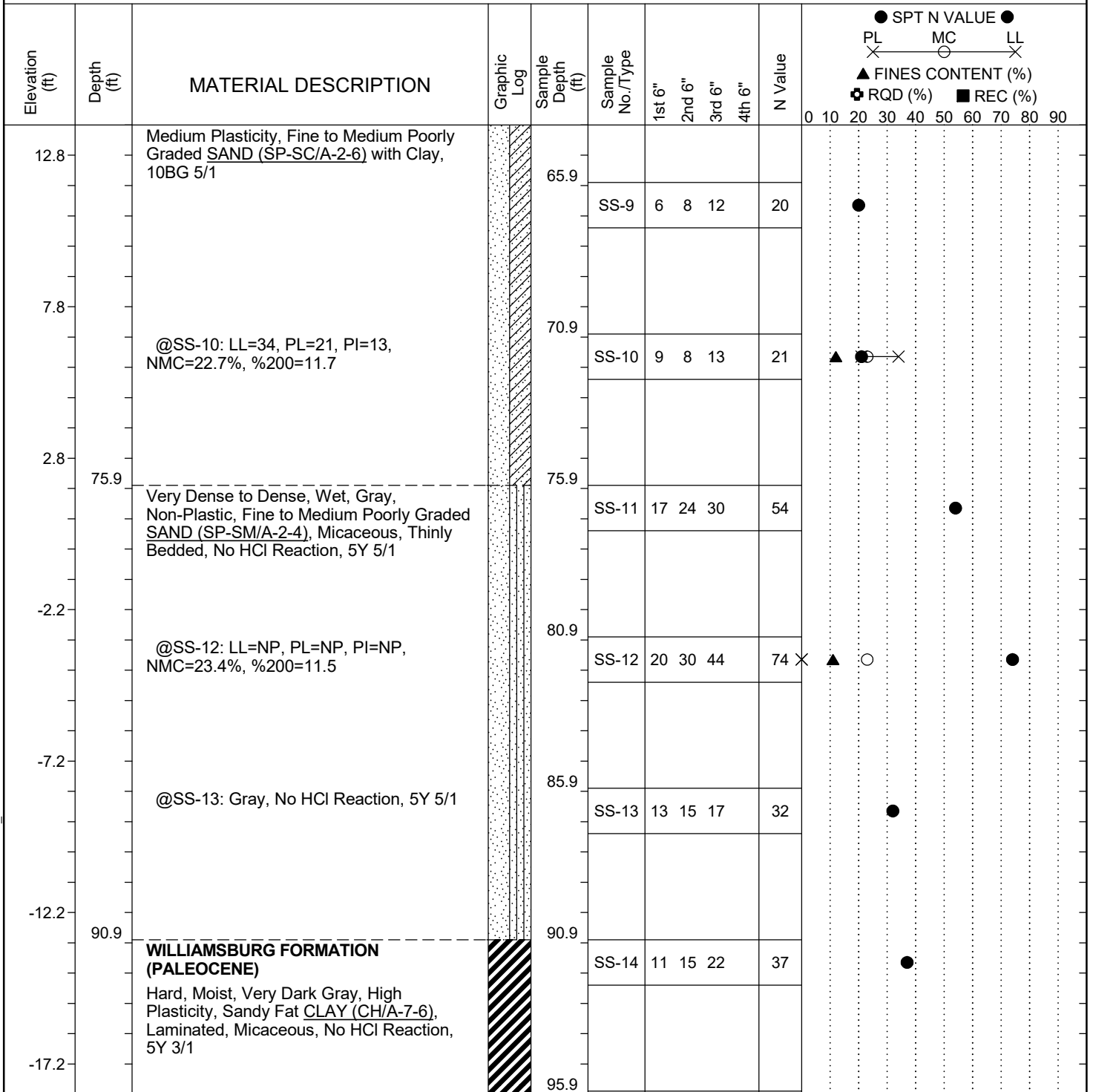
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-26
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5241+36	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/14/2023	Date Completed: 3/15/2023
Elev.: 77.8 ft	Latitude: 33.50578835	Longitude: -80.45152175
Total Depth: 117.4 ft	Soil Depth: 79 ft	Core Depth: 21 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



LEGEND

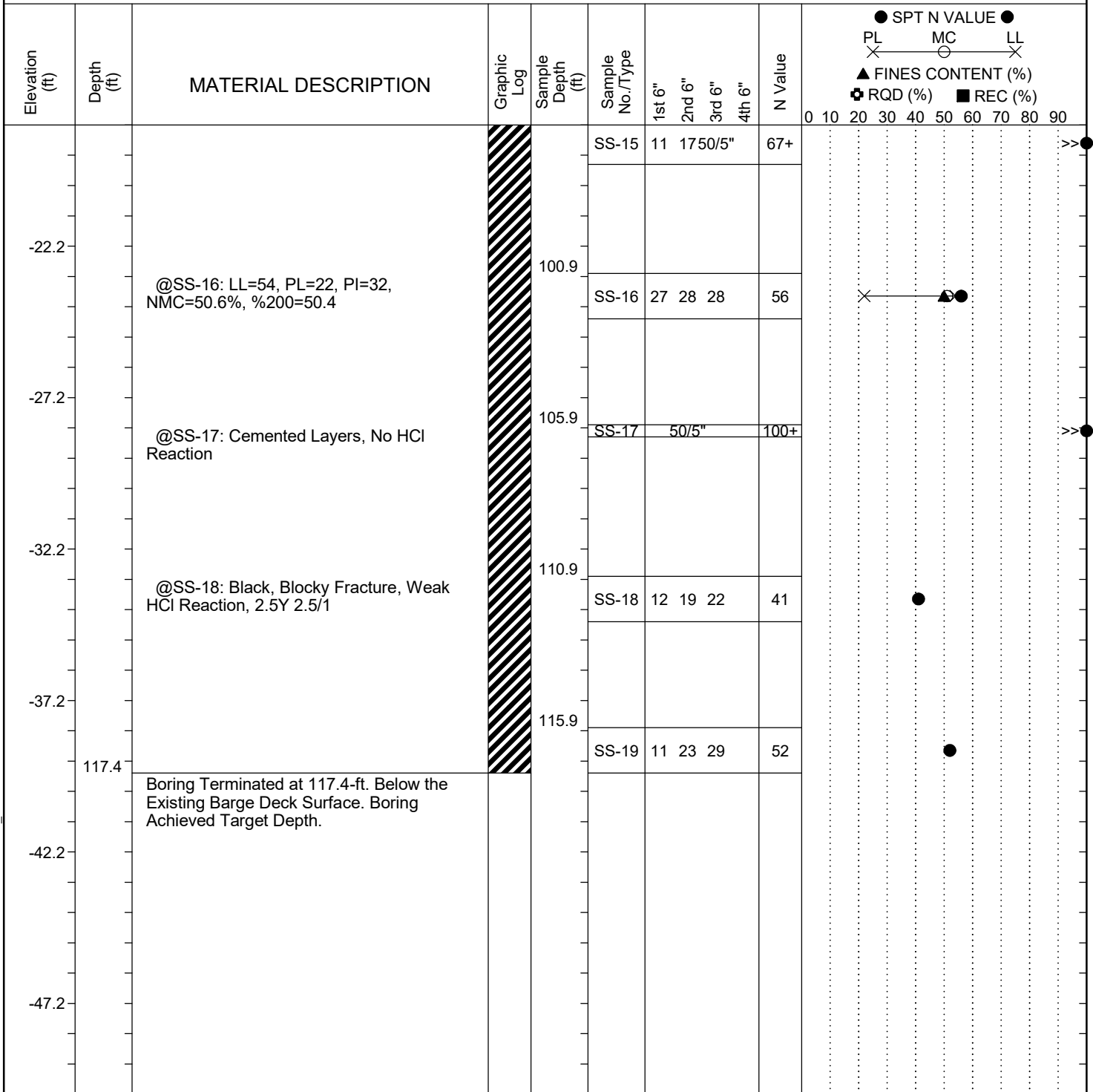
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-26
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5241+36	Offset: 85.2-L
Alignment: I-95 Med. CL	Date Started: 3/14/2023	Date Completed: 3/15/2023
Elev.: 77.8 ft	Latitude: 33.50578835	Longitude: -80.45152175
Total Depth: 117.4 ft	Soil Depth: 79 ft	Core Depth: 21 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



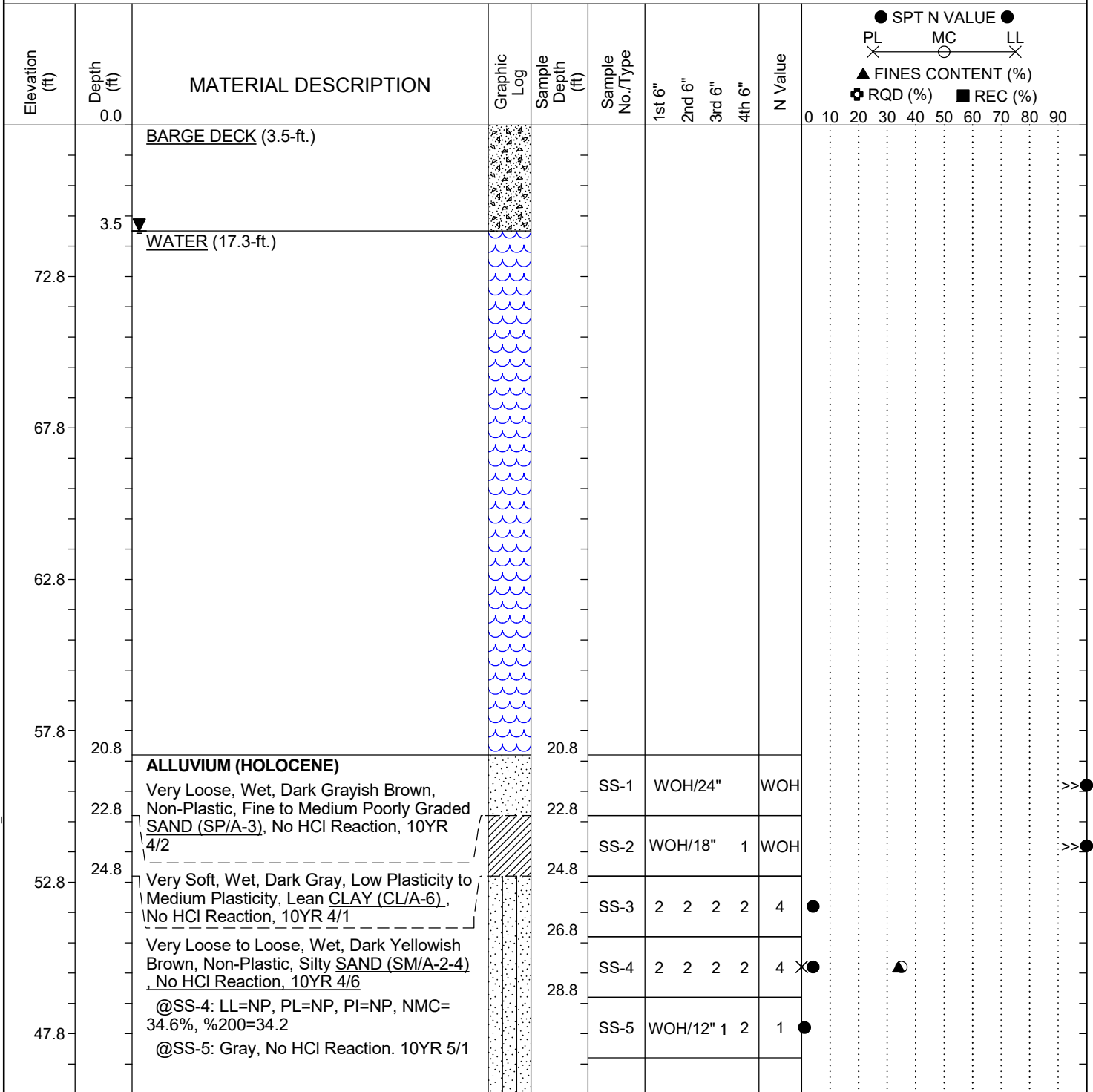
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-27
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5240+33	Offset: 11.2-R Alignment: I-95 Med. CL
Elev.: 77.8 ft	Latitude: 33.50617329	Longitude: -80.45148766 Date Started: 5/1/2023
Total Depth: 120.8 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 5/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

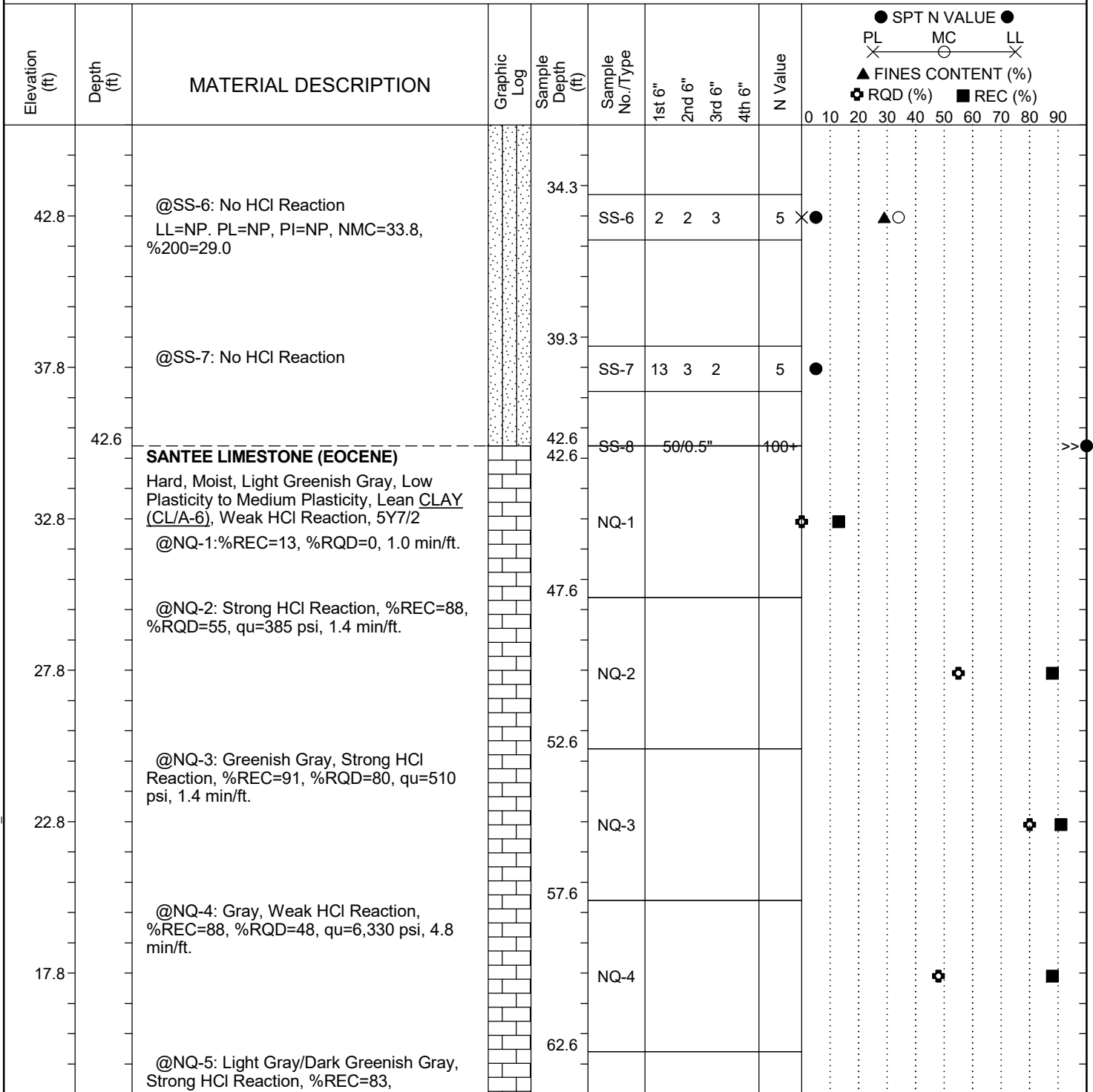
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-27
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5240+33	Offset: 11.2-R
Alignment: I-95 Med. CL	Date Started: 5/1/2023	Date Completed: 5/2/2023
Elev.: 77.8 ft	Latitude: 33.50617329	Longitude: -80.45148766
Total Depth: 120.8 ft	Soil Depth: 75 ft	Core Depth: 25 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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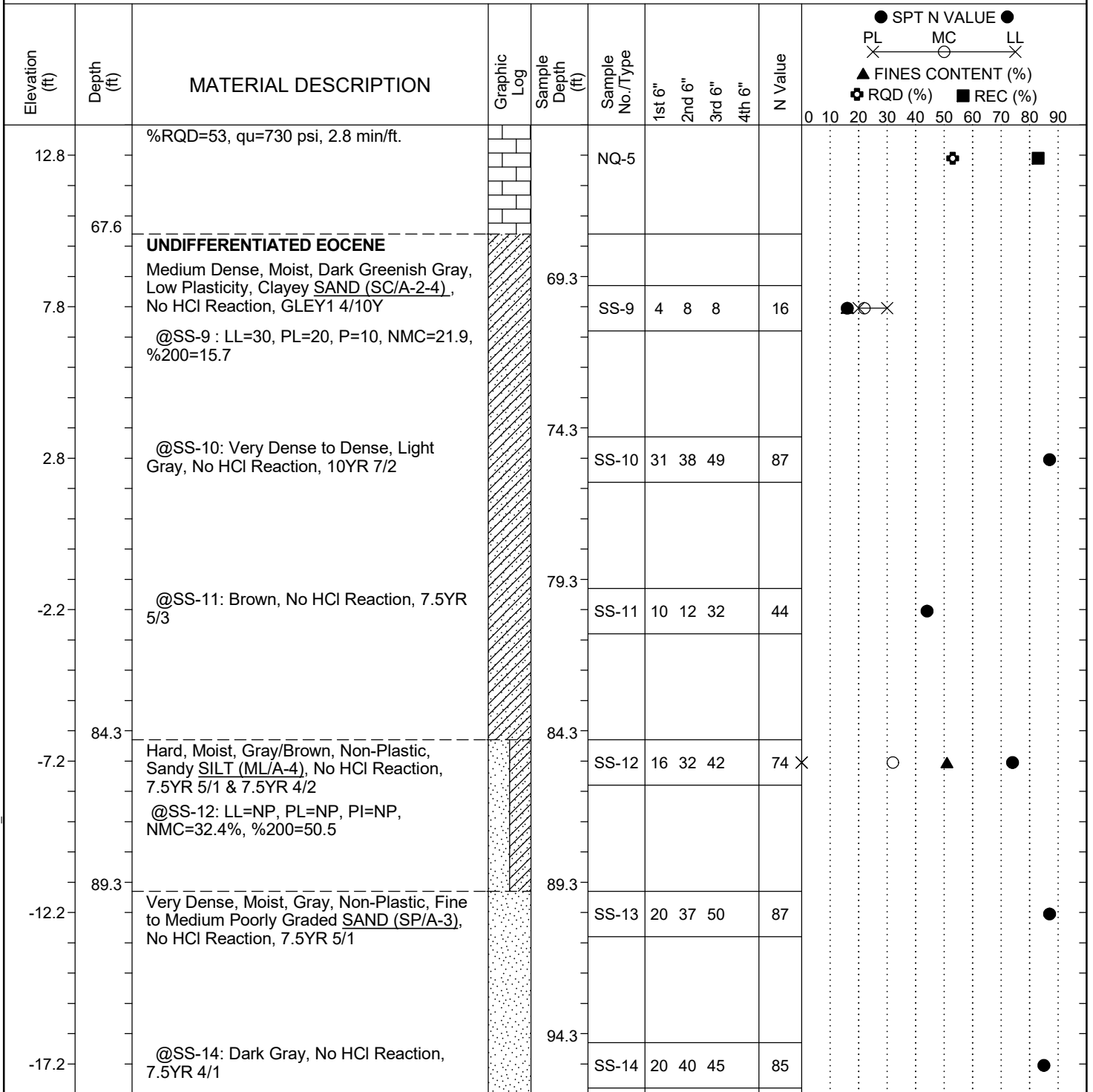
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-27
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5240+33	Offset: 11.2-R Alignment: I-95 Med. CL
Elev.: 77.8 ft	Latitude: 33.50617329	Longitude: -80.45148766 Date Started: 5/1/2023
Total Depth: 120.8 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 5/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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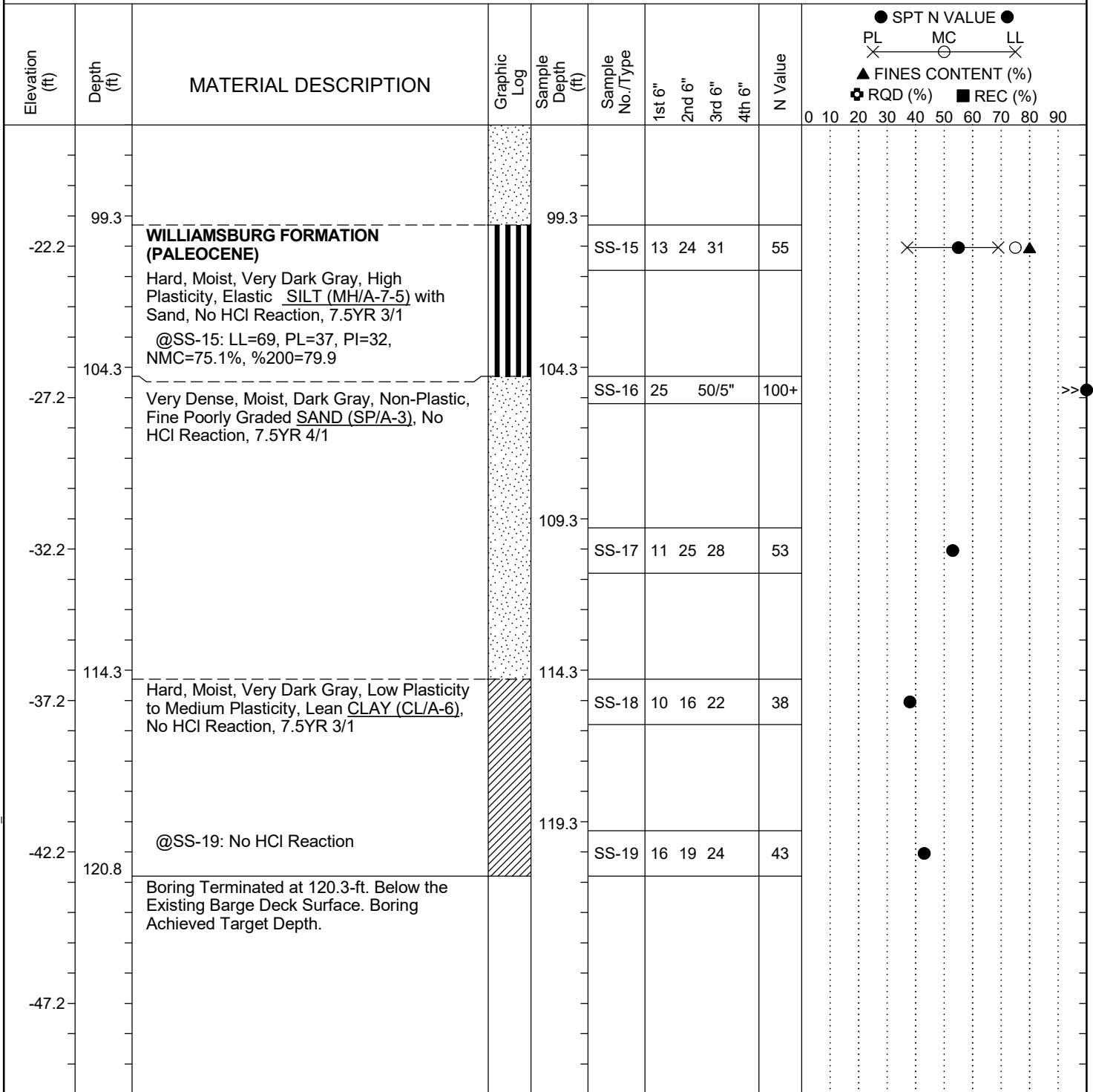
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-27
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5240+33	Offset: 11.2-R Alignment: I-95 Med. CL
Elev.: 77.8 ft	Latitude: 33.50617329	Longitude: -80.45148766 Date Started: 5/1/2023
Total Depth: 120.8 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 5/2/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



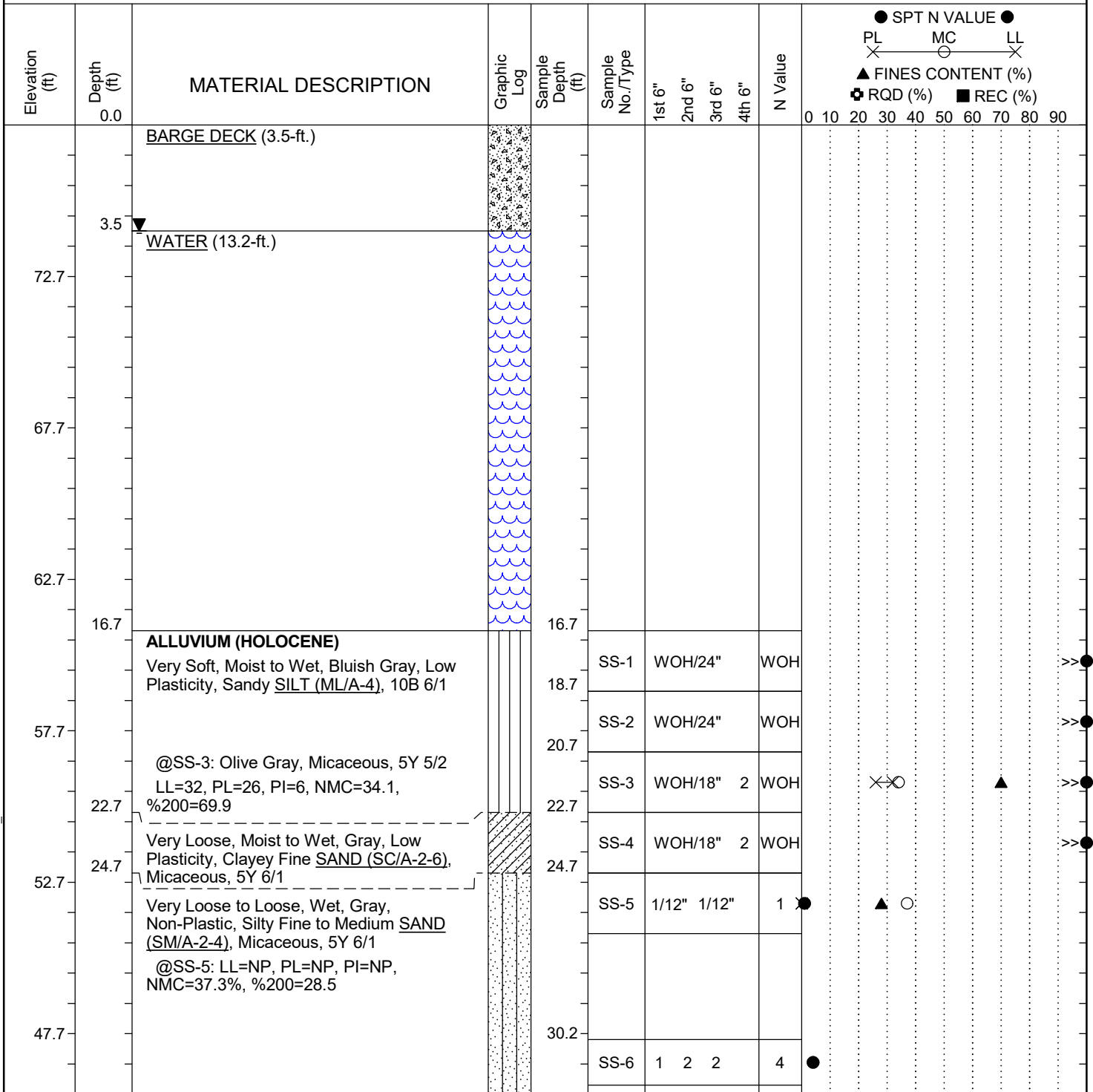
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-28
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5239+38	Offset: 82.7-L
Alignment: I-95 Med. CL	Date Started: 3/13/2023	Date Completed: 3/14/2023
Elev.: 77.7 ft	Latitude: 33.50616047	Longitude: -80.45104769
Total Depth: 116.7 ft	Soil Depth: 74.2 ft	Core Depth: 25.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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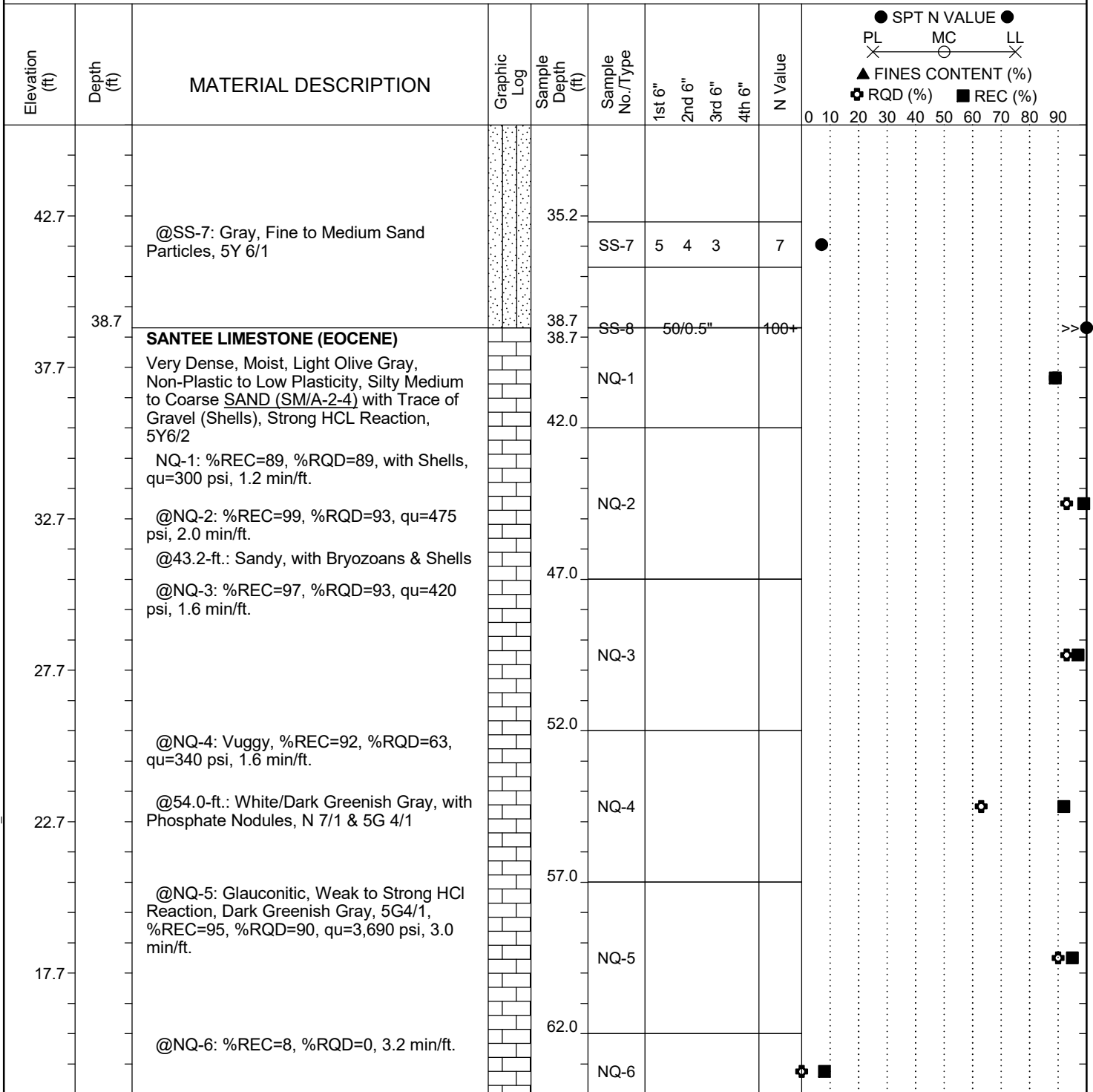
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-28
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5239+38	Offset: 82.7-L
Alignment: I-95 Med. CL	Date Started: 3/13/2023	Date Completed: 3/14/2023
Elev.: 77.7 ft	Latitude: 33.50616047	Longitude: -80.45104769
Total Depth: 116.7 ft	Soil Depth: 74.2 ft	Core Depth: 25.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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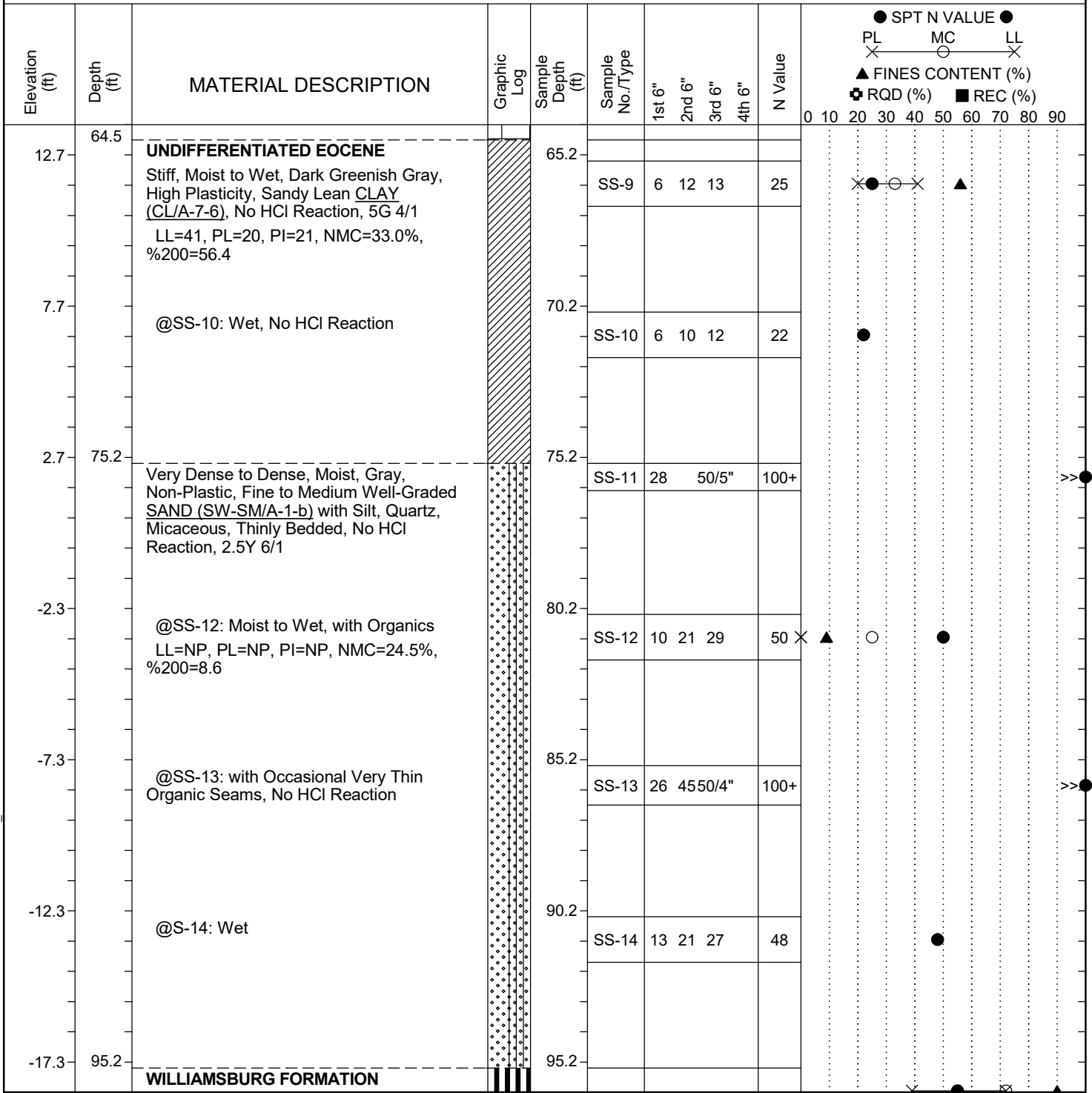
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-28
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5239+38	Offset: 82.7-L
Alignment: I-95 Med. CL	Date Started: 3/13/2023	Date Completed: 3/14/2023
Elev.: 77.7 ft	Latitude: 33.50616047	Longitude: -80.45104769
Total Depth: 116.7 ft	Soil Depth: 74.2 ft	Core Depth: 25.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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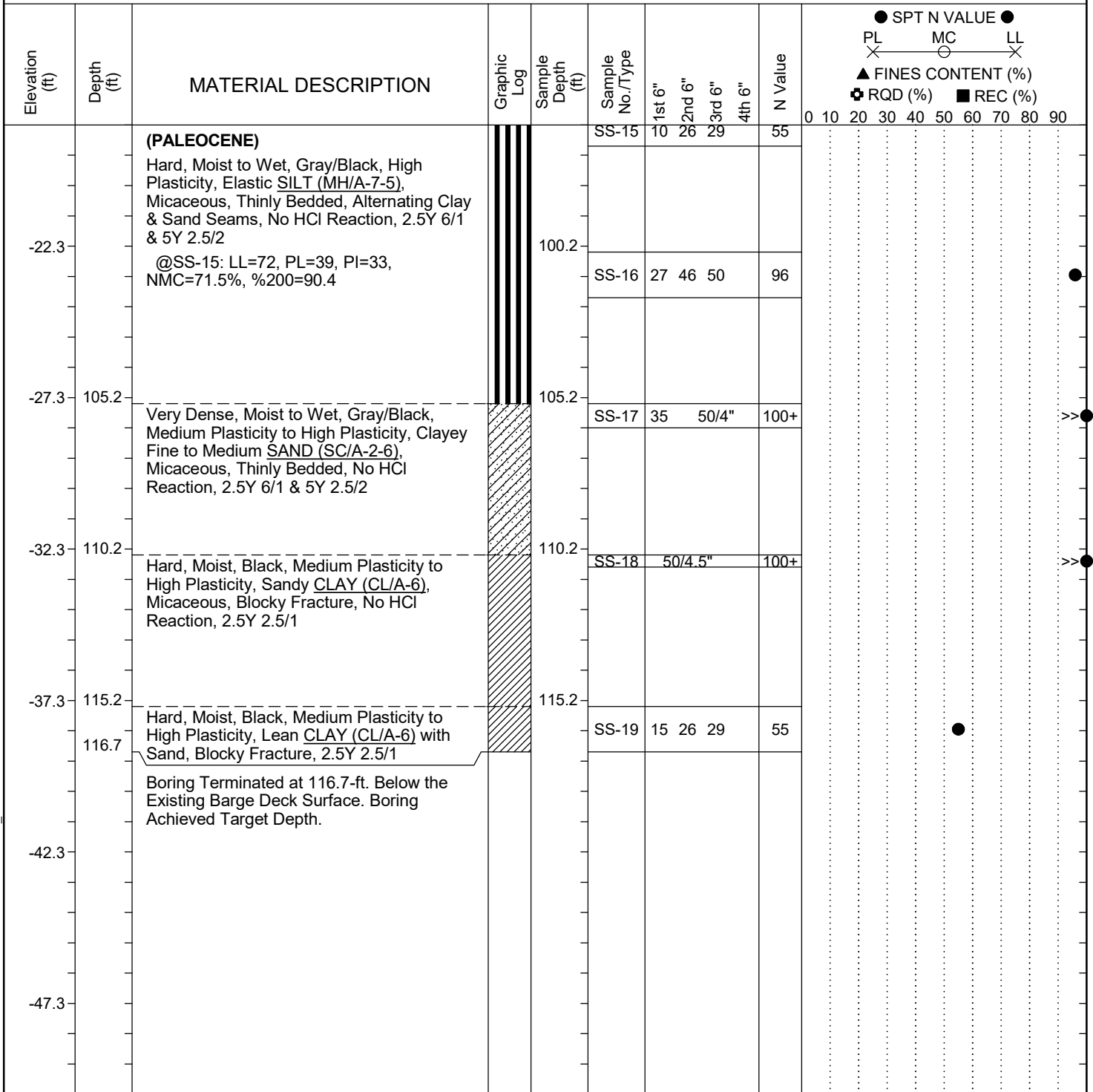
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-28
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5239+38	Offset: 82.7-L
Alignment: I-95 Med. CL	Date Started: 3/13/2023	Date Completed: 3/14/2023
Elev.: 77.7 ft	Latitude: 33.50616047	Longitude: -80.45104769
Total Depth: 116.7 ft	Soil Depth: 74.2 ft	Core Depth: 25.8 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



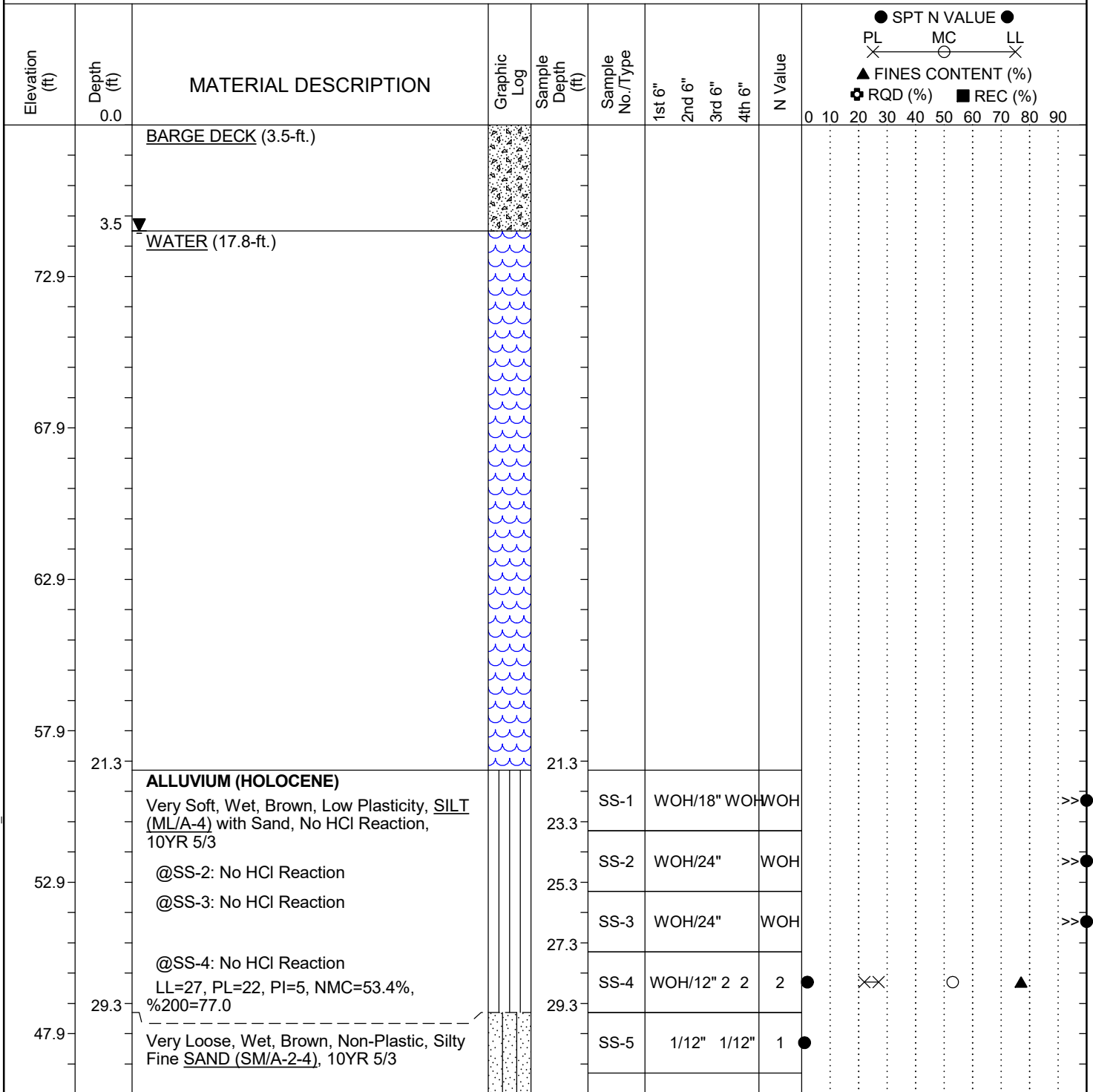
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-29
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5238+35	Offset: 11.9-R
Alignment: I-95 Med. CL	Date Started: 4/27/2023	Date Completed: 4/27/2023
Elev.: 77.9 ft	Latitude: 33.50654351	Longitude: -80.4510076
Total Depth: 121.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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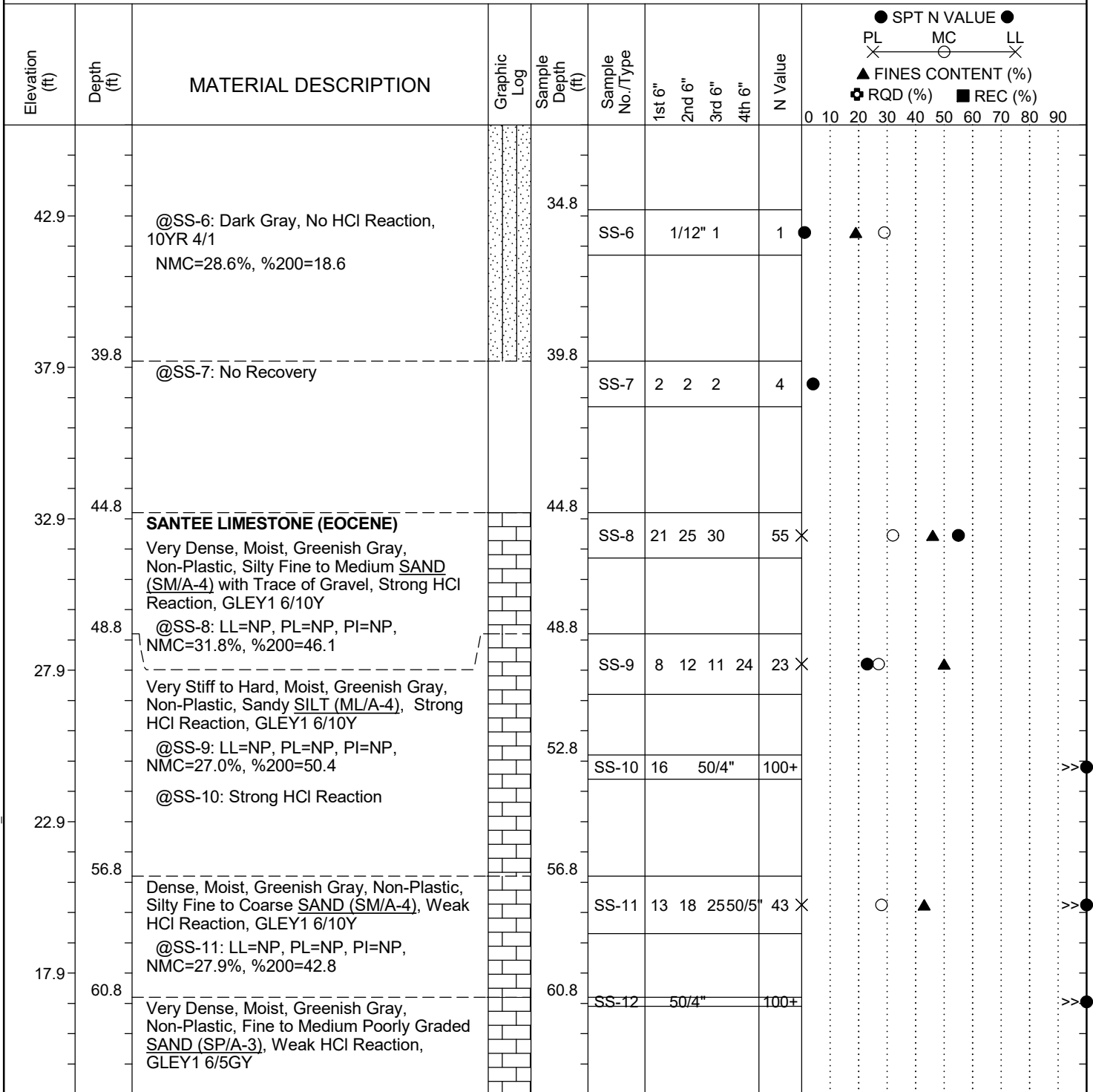
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-29
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5238+35	Offset: 11.9-R
Alignment: I-95 Med. CL	Date Started: 4/27/2023	Date Completed: 4/27/2023
Elev.: 77.9 ft	Latitude: 33.50654351	Longitude: -80.4510076
Total Depth: 121.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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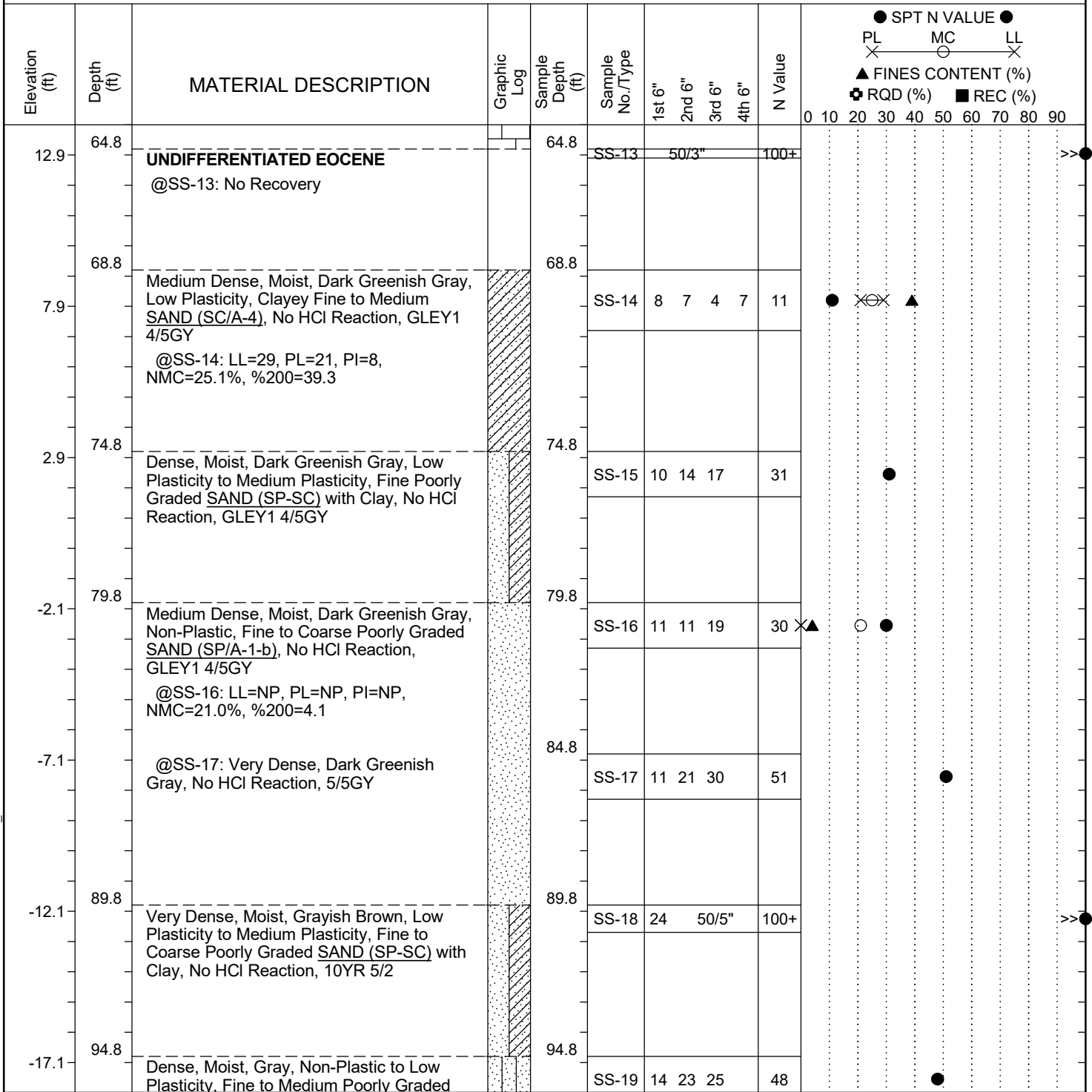
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-29
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5238+35	Offset: 11.9-R Alignment: I-95 Med. CL
Elev.: 77.9 ft	Latitude: 33.50654351	Longitude: -80.4510076 Date Started: 4/27/2023
Total Depth: 121.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/27/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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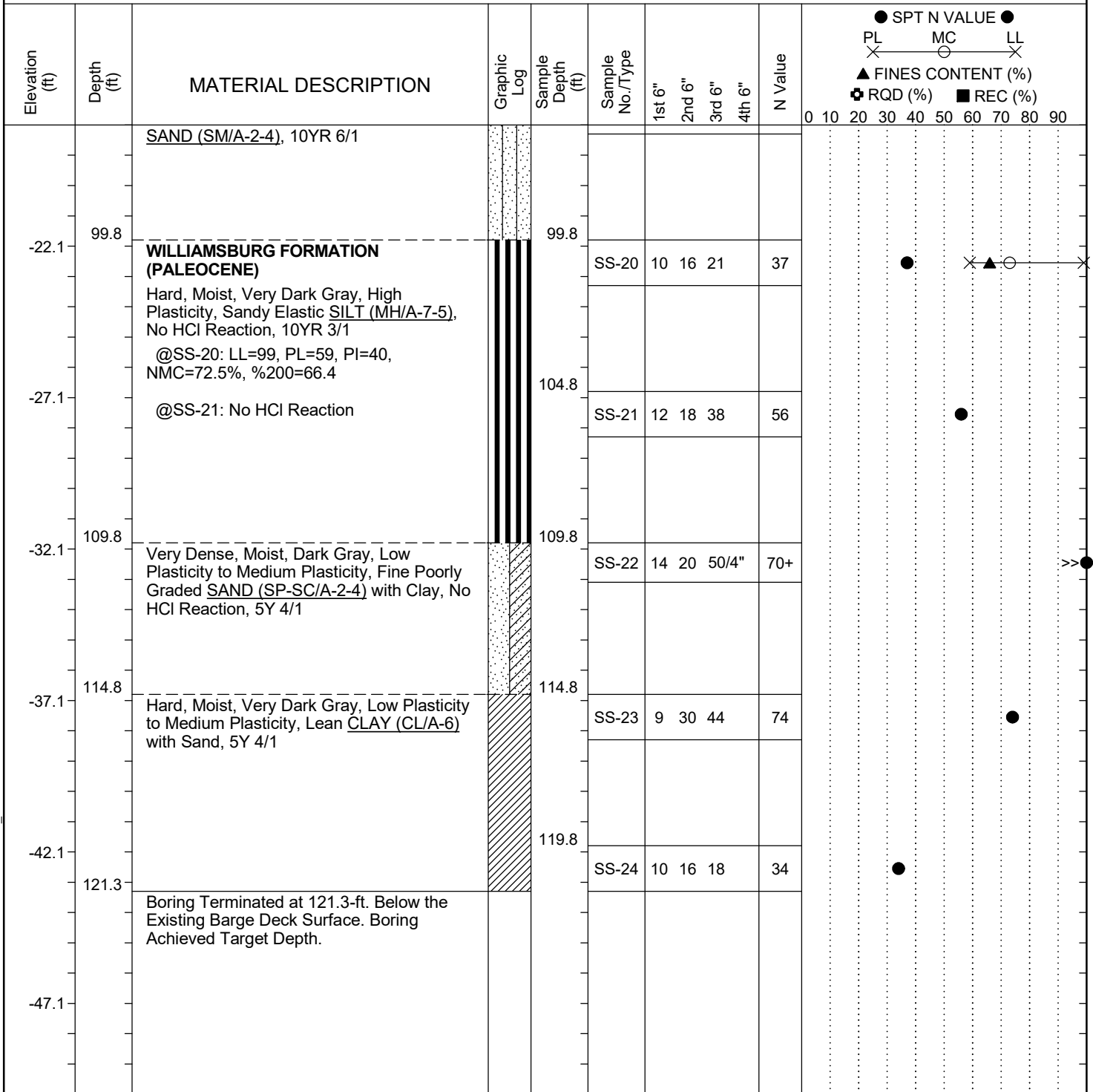
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-29
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5238+35	Offset: 11.9-R
Alignment: I-95 Med. CL	Date Started: 4/27/2023	Date Completed: 4/27/2023
Elev.: 77.9 ft	Latitude: 33.50654351	Longitude: -80.4510076
Total Depth: 121.3 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



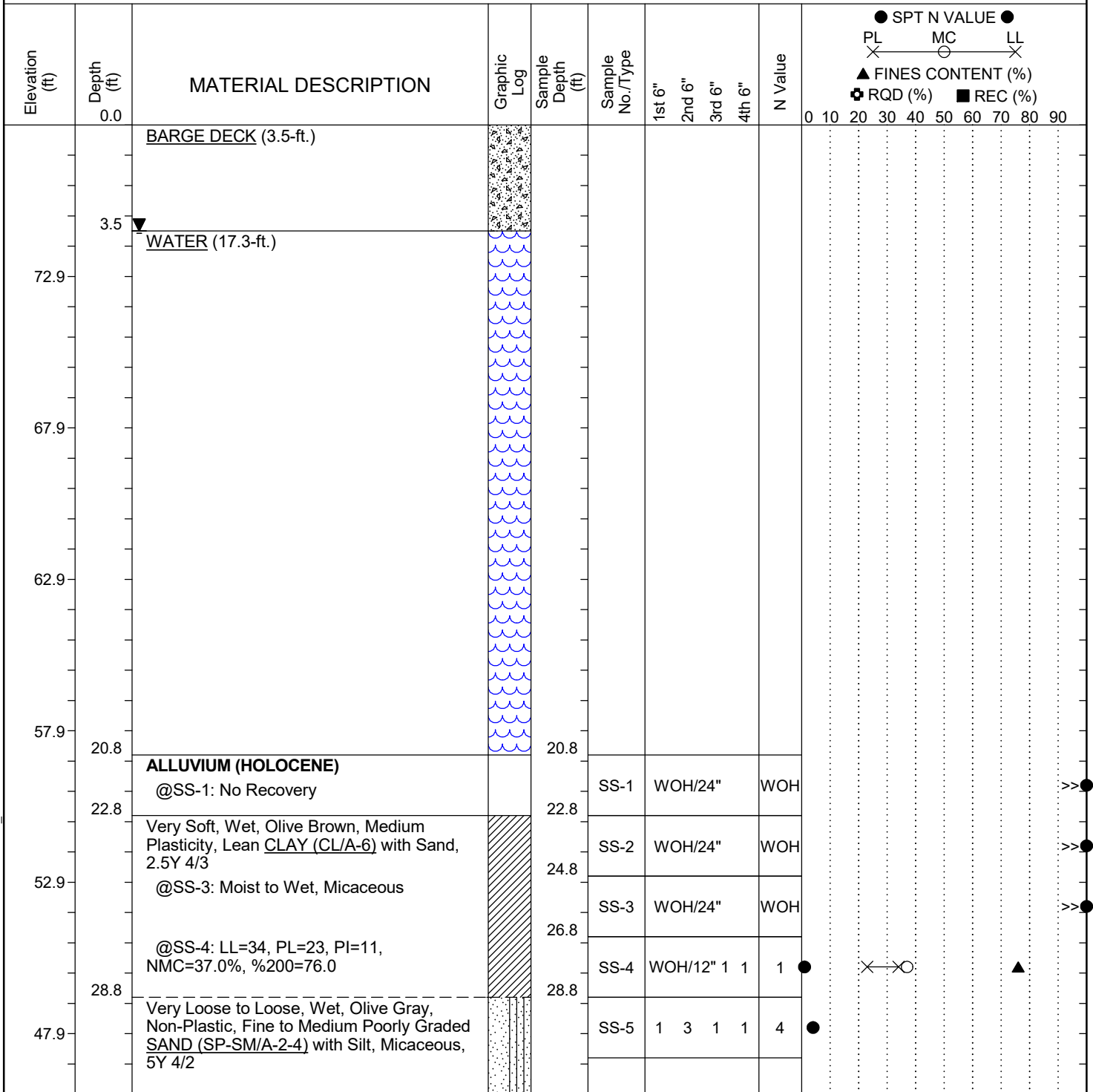
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-30
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5237+34	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 3/8/2023	Date Completed: 3/8/2023
Elev.: 77.9 ft	Latitude: 33.50653384	Longitude: -80.45055216
Total Depth: 122.8 ft	Soil Depth: 77 ft	Core Depth: 25 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



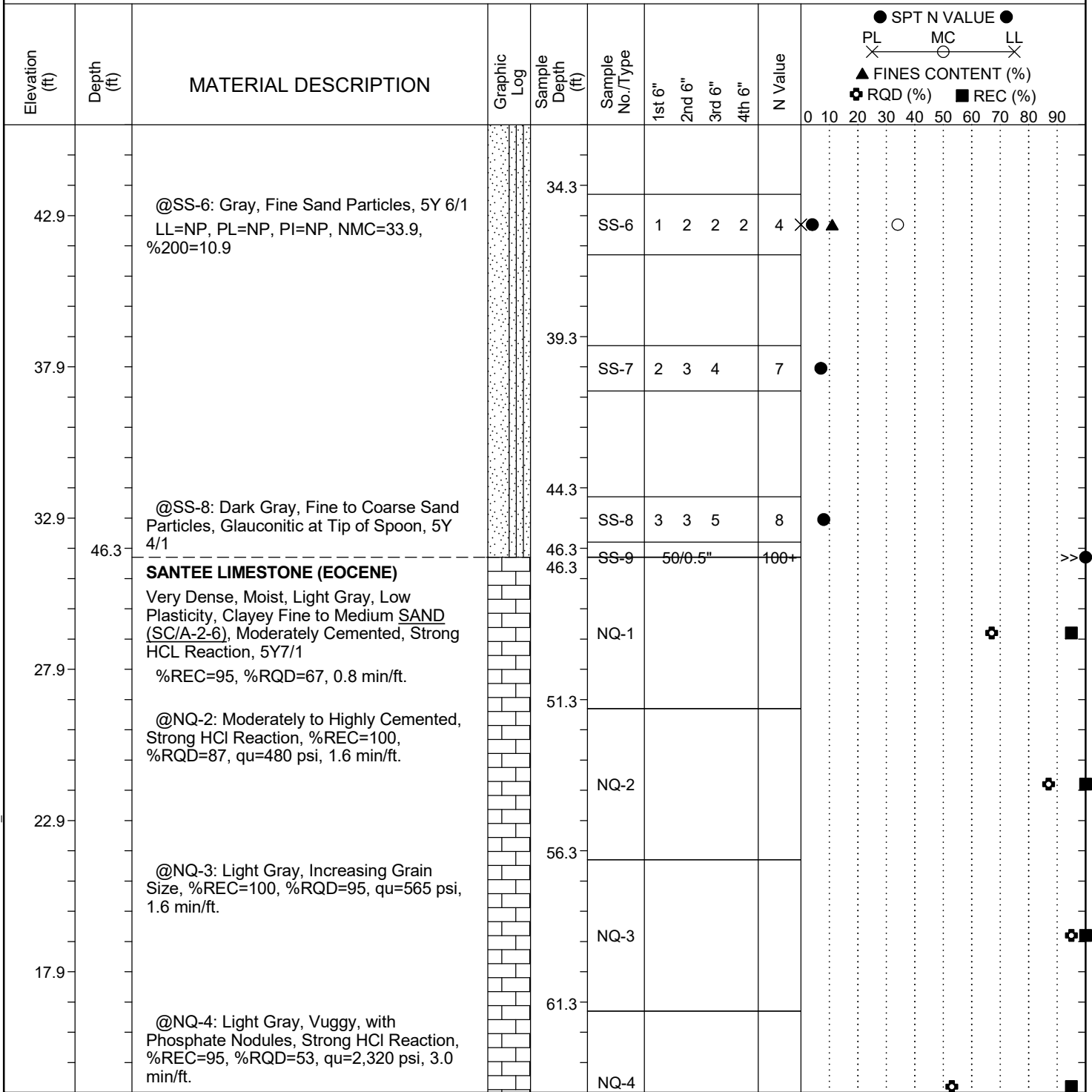
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-30
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5237+34	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 3/8/2023	Date Completed: 3/8/2023
Elev.: 77.9 ft	Latitude: 33.50653384	Longitude: -80.45055216
Total Depth: 122.8 ft	Soil Depth: 77 ft	Core Depth: 25 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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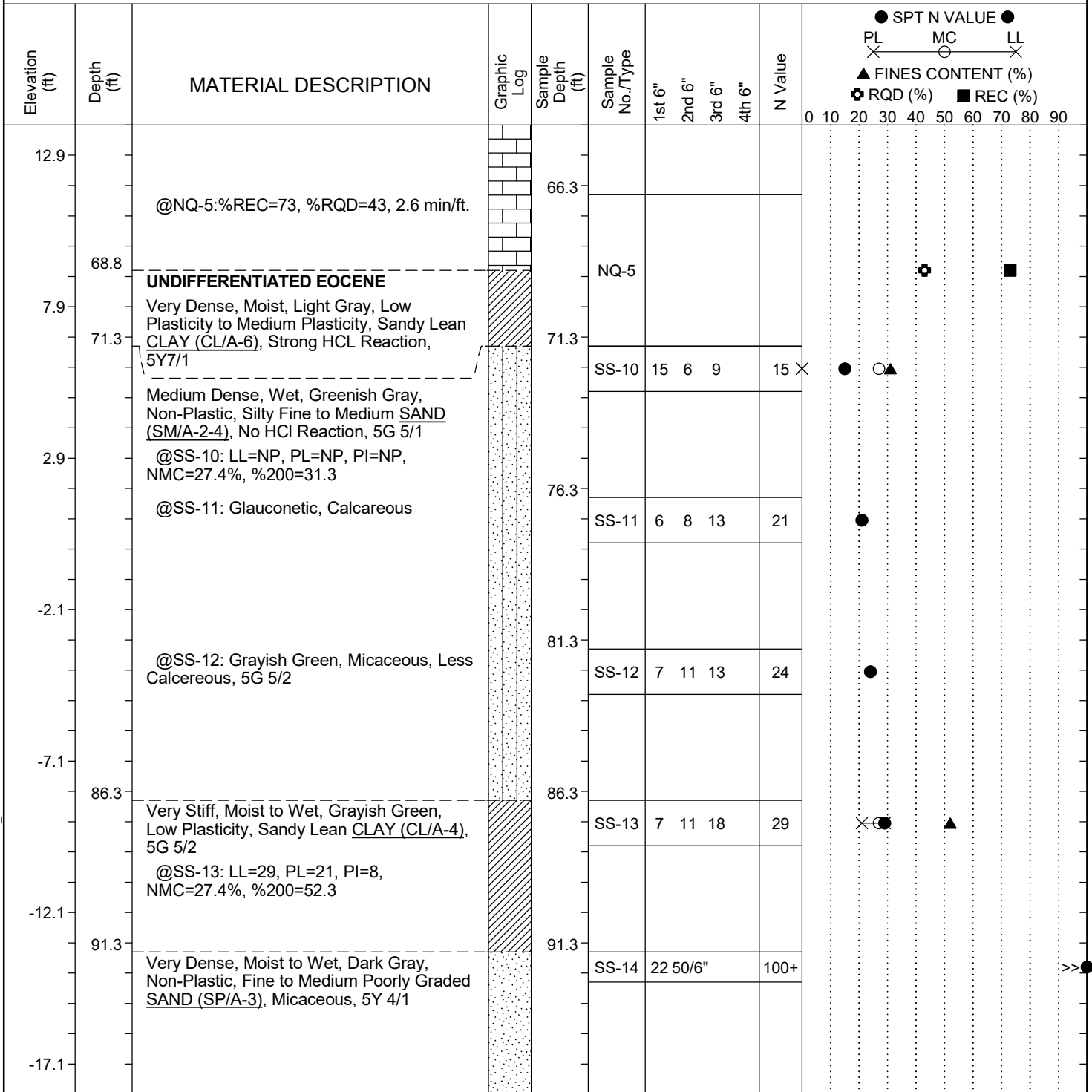
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-30
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5237+34	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 3/8/2023	Date Completed: 3/8/2023
Elev.: 77.9 ft	Latitude: 33.50653384	Longitude: -80.45055216
Total Depth: 122.8 ft	Soil Depth: 77 ft	Core Depth: 25 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



LEGEND

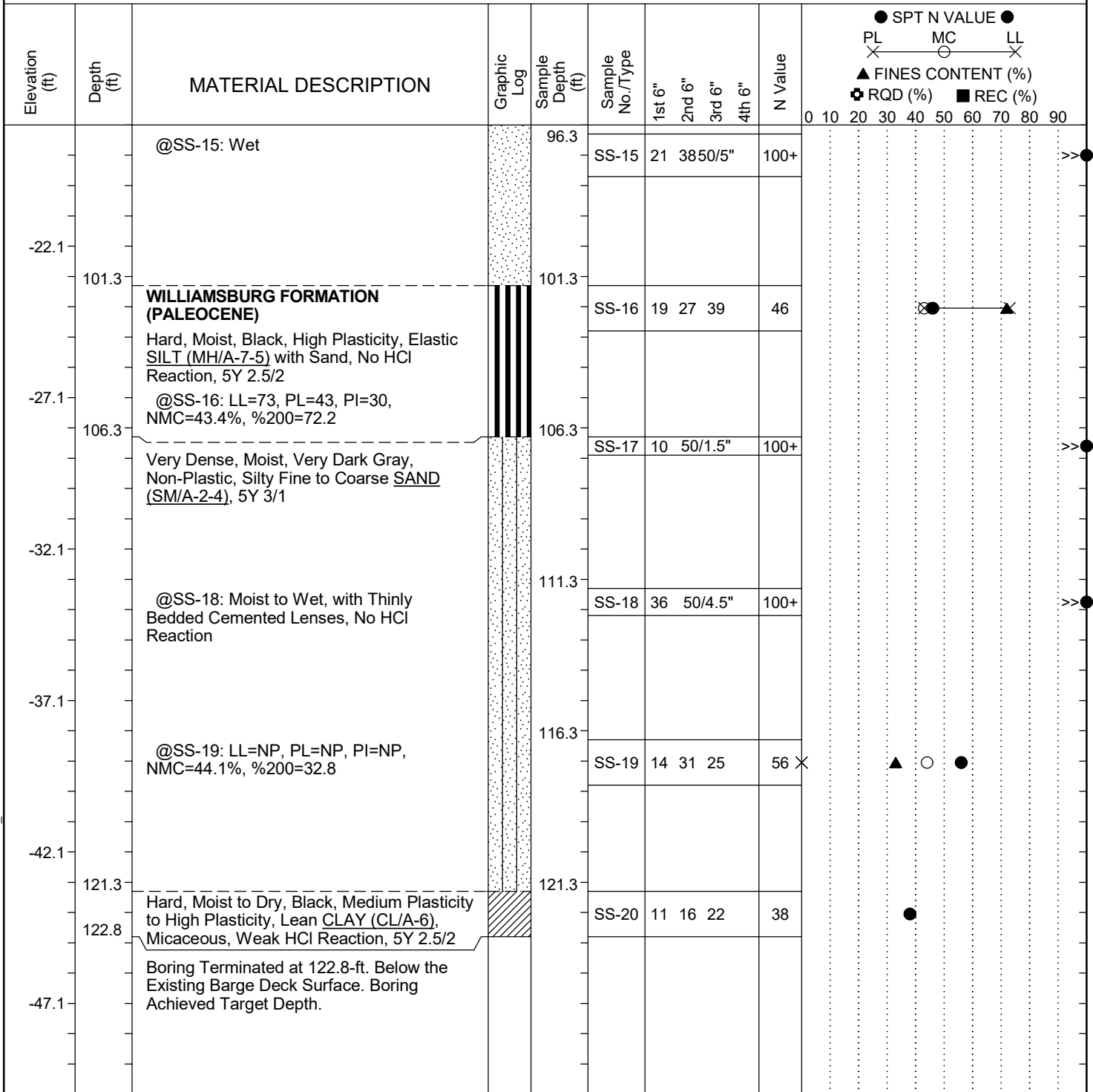
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-30
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5237+34	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 3/8/2023	Date Completed: 3/8/2023
Elev.: 77.9 ft	Latitude: 33.50653384	Longitude: -80.45055216
Total Depth: 122.8 ft	Soil Depth: 77 ft	Core Depth: 25 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



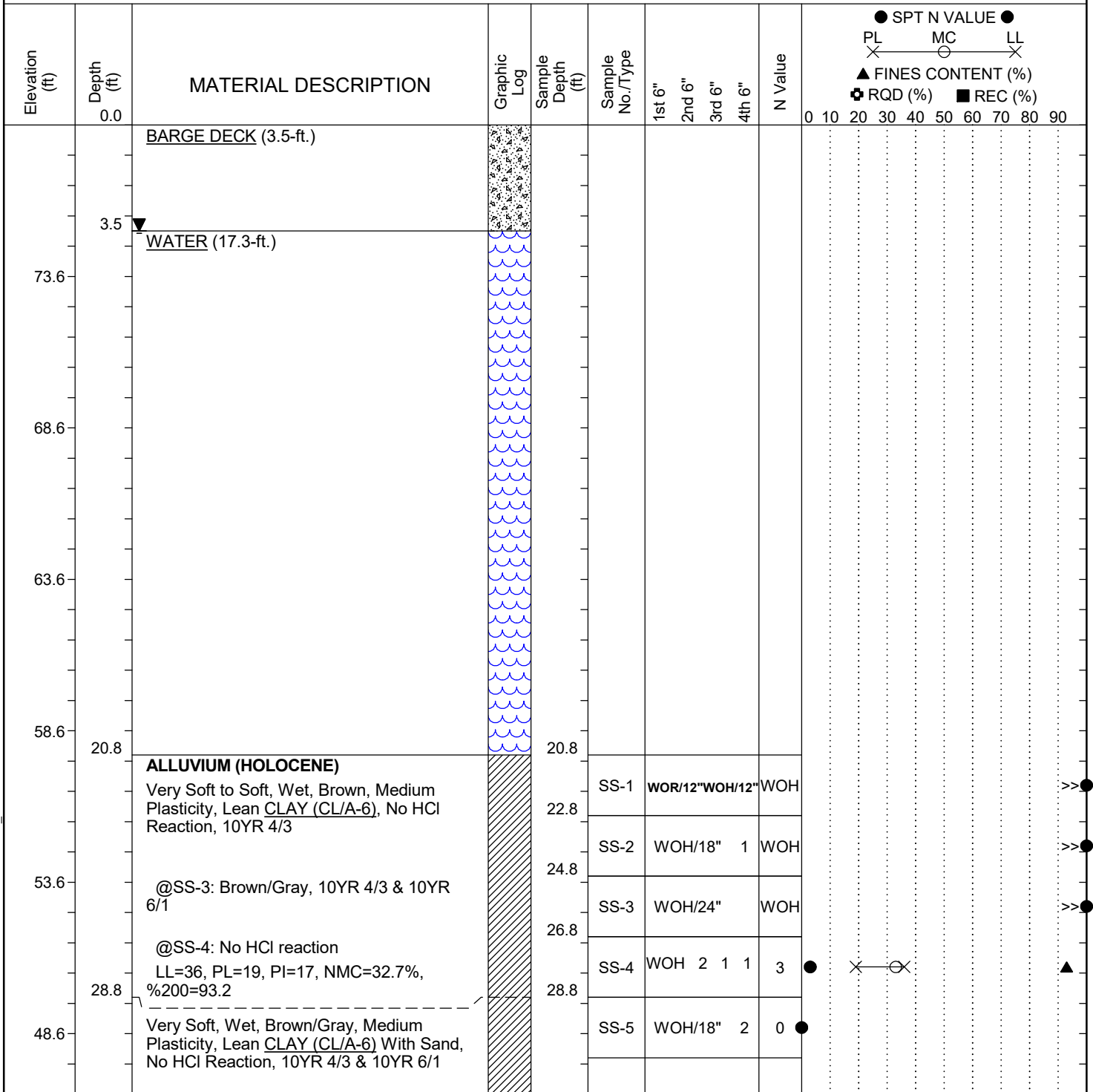
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-31
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5236+35	Offset: 12.2-R Alignment: I-95 Med. CL
Elev.: 78.6 ft	Latitude: 33.5069134	Longitude: -80.45052583 Date Started: 4/26/2023
Total Depth: 120.6 ft	Soil Depth: 65.1 ft	Core Depth: 34.9 ft Date Completed: 4/27/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



LEGEND

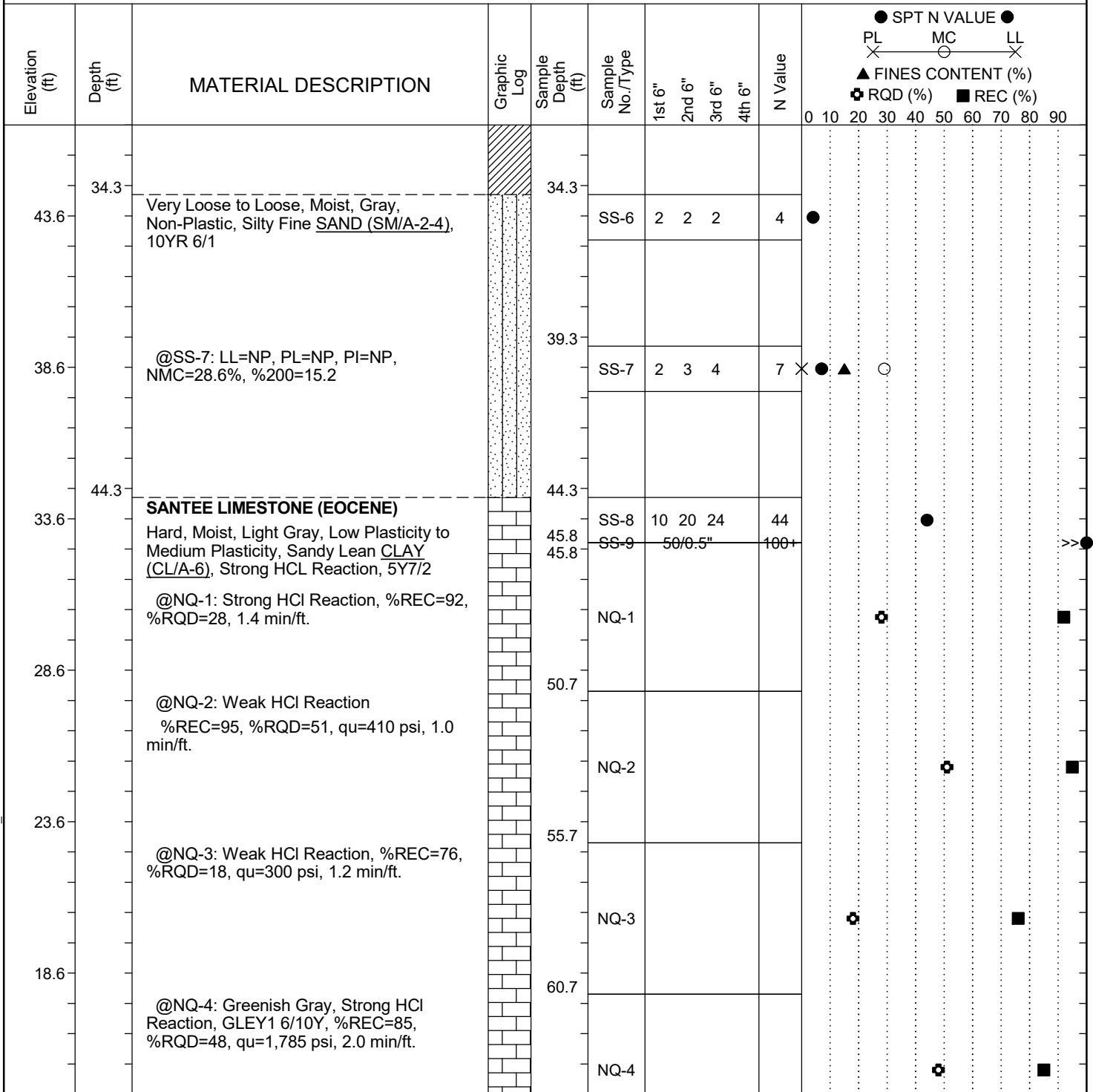
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SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-31
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5236+35	Offset: 12.2-R
Alignment: I-95 Med. CL	Date Started: 4/26/2023	Date Completed: 4/27/2023
Elev.: 78.6 ft	Latitude: 33.5069134	Longitude: -80.45052583
Total Depth: 120.6 ft	Soil Depth: 65.1 ft	Core Depth: 34.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



LEGEND

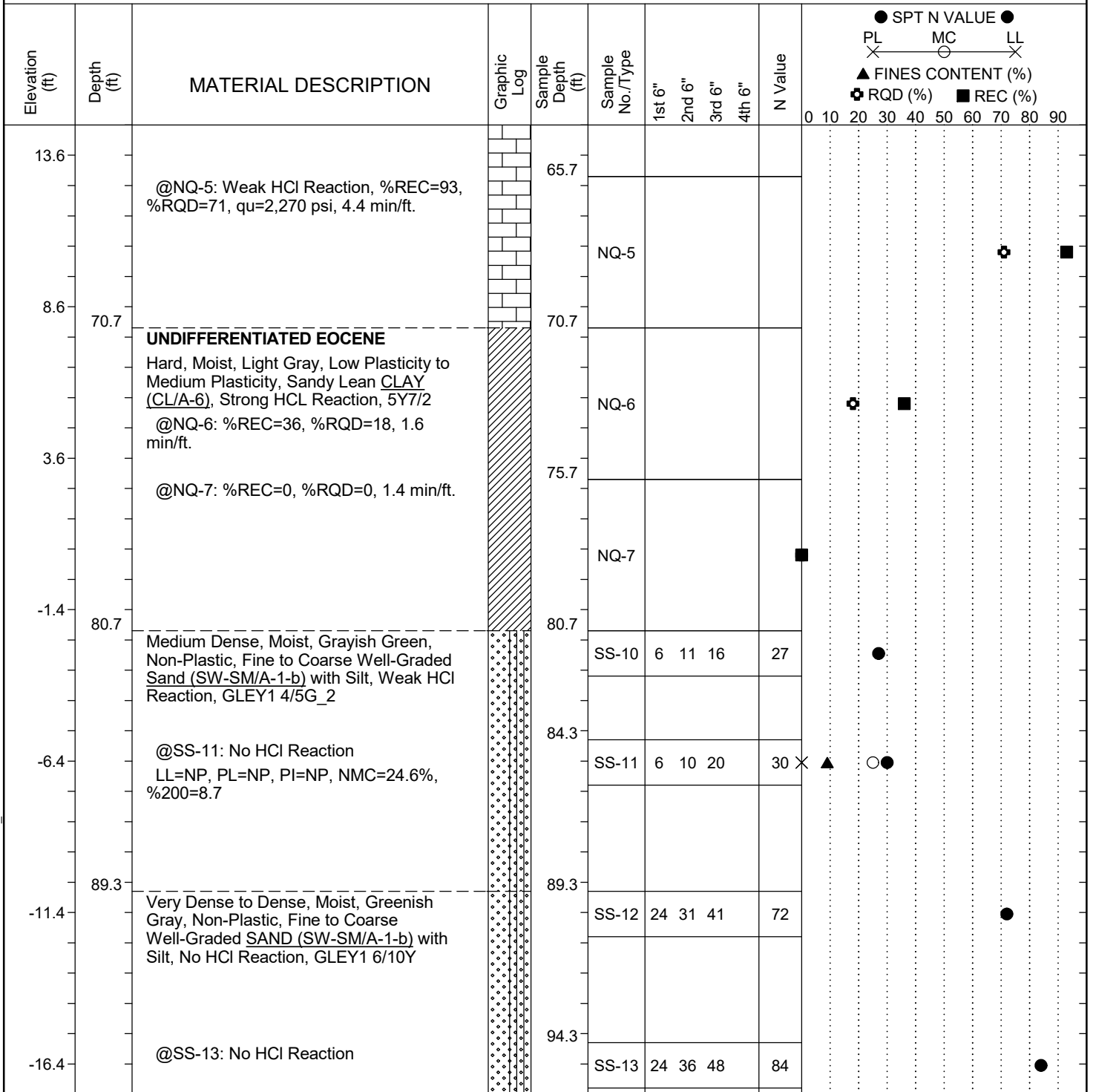
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-31
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5236+35	Offset: 12.2-R Alignment: I-95 Med. CL
Elev.: 78.6 ft	Latitude: 33.5069134	Longitude: -80.45052583 Date Started: 4/26/2023
Total Depth: 120.6 ft	Soil Depth: 65.1 ft	Core Depth: 34.9 ft Date Completed: 4/27/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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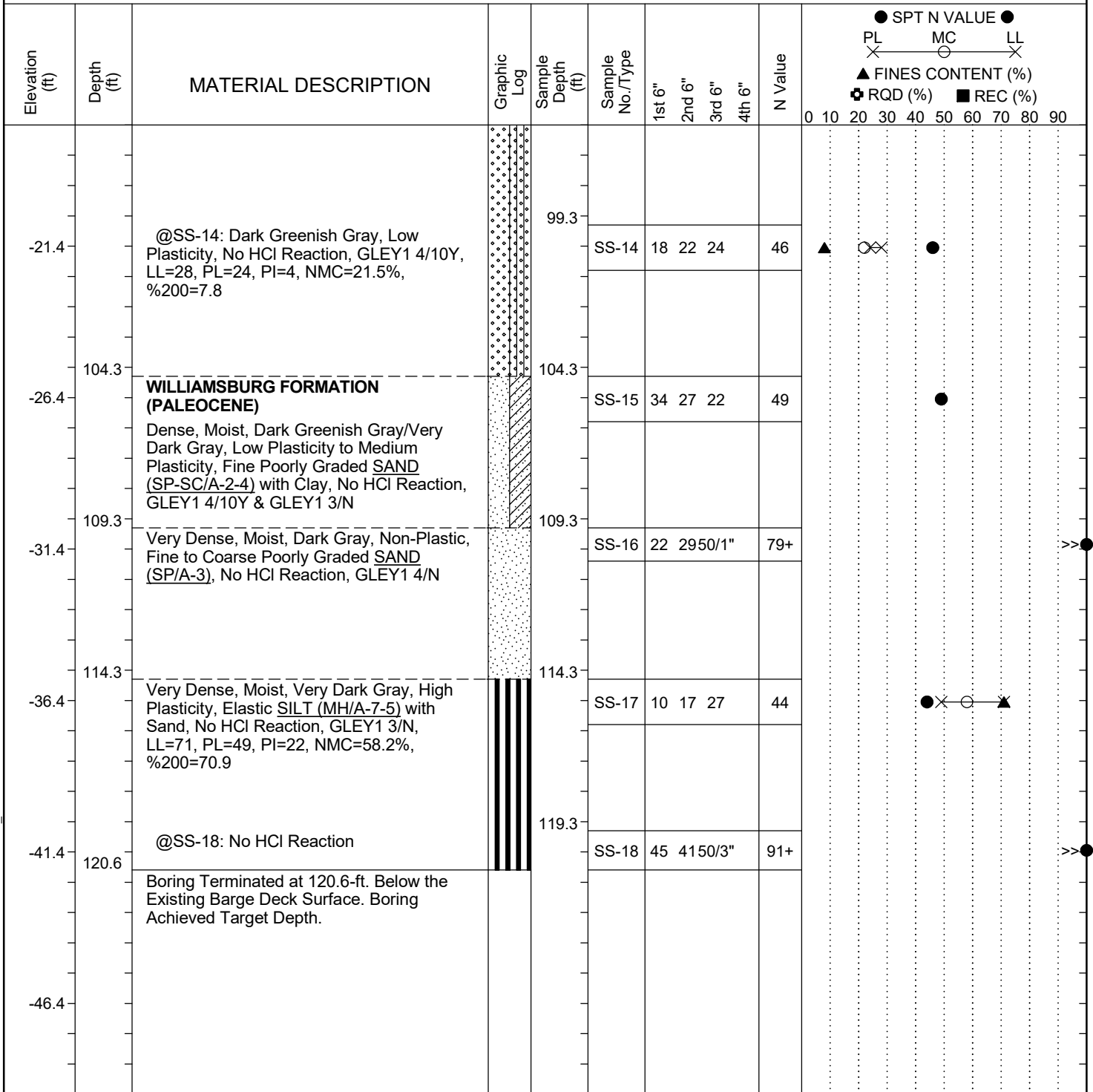
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-31
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5236+35	Offset: 12.2-R Alignment: I-95 Med. CL
Elev.: 78.6 ft	Latitude: 33.5069134	Longitude: -80.45052583 Date Started: 4/26/2023
Total Depth: 120.6 ft	Soil Depth: 65.1 ft	Core Depth: 34.9 ft Date Completed: 4/27/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



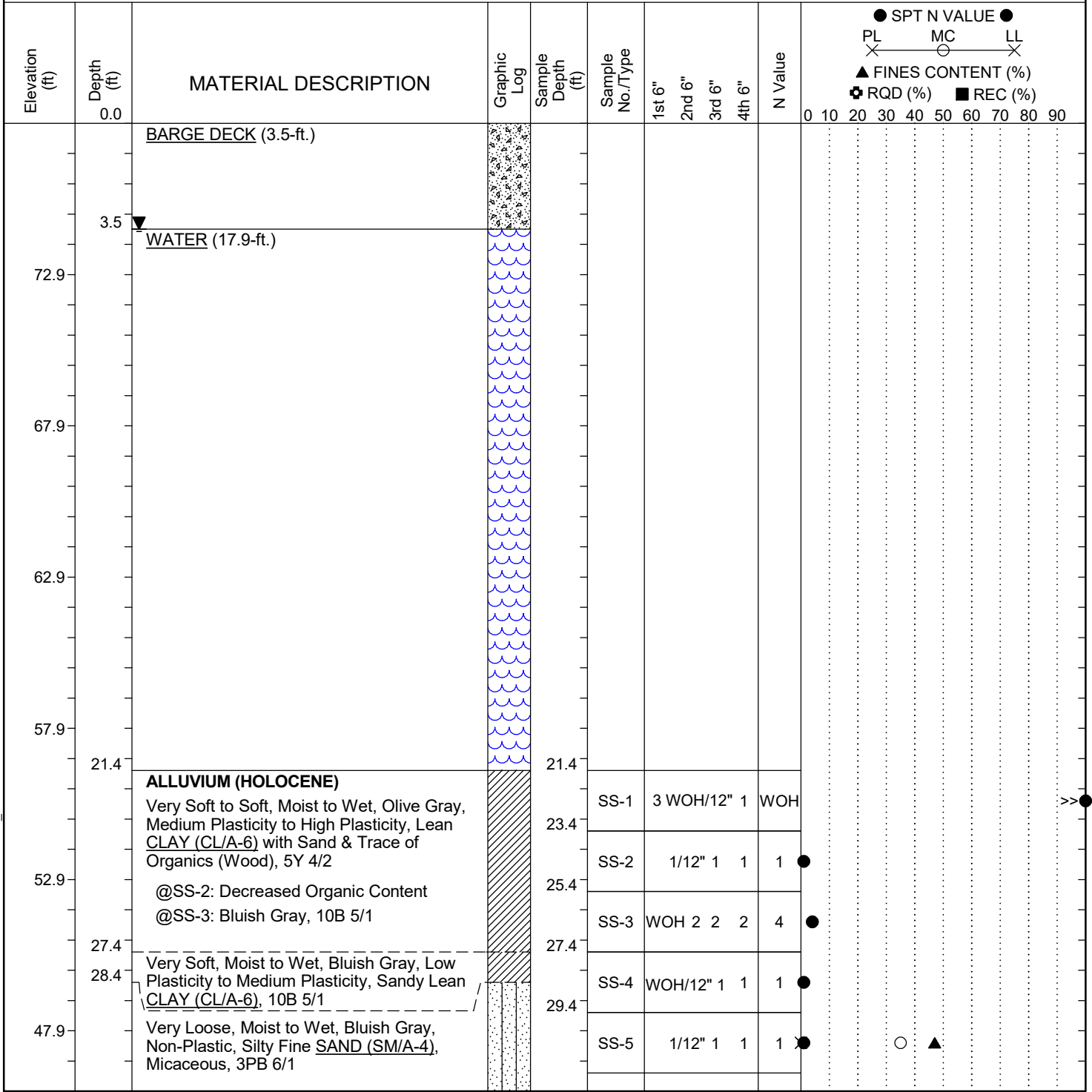
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-32
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5235+34	Offset: 86.2-L
Alignment: I-95 Med. CL	Date Started: 3/7/2023	
Elev.: 77.9 ft	Latitude: 33.50690219	Longitude: -80.45006163
Total Depth: 121.4 ft	Soil Depth: 57.1 ft	Core Depth: 42.9 ft
Date Completed: 3/8/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



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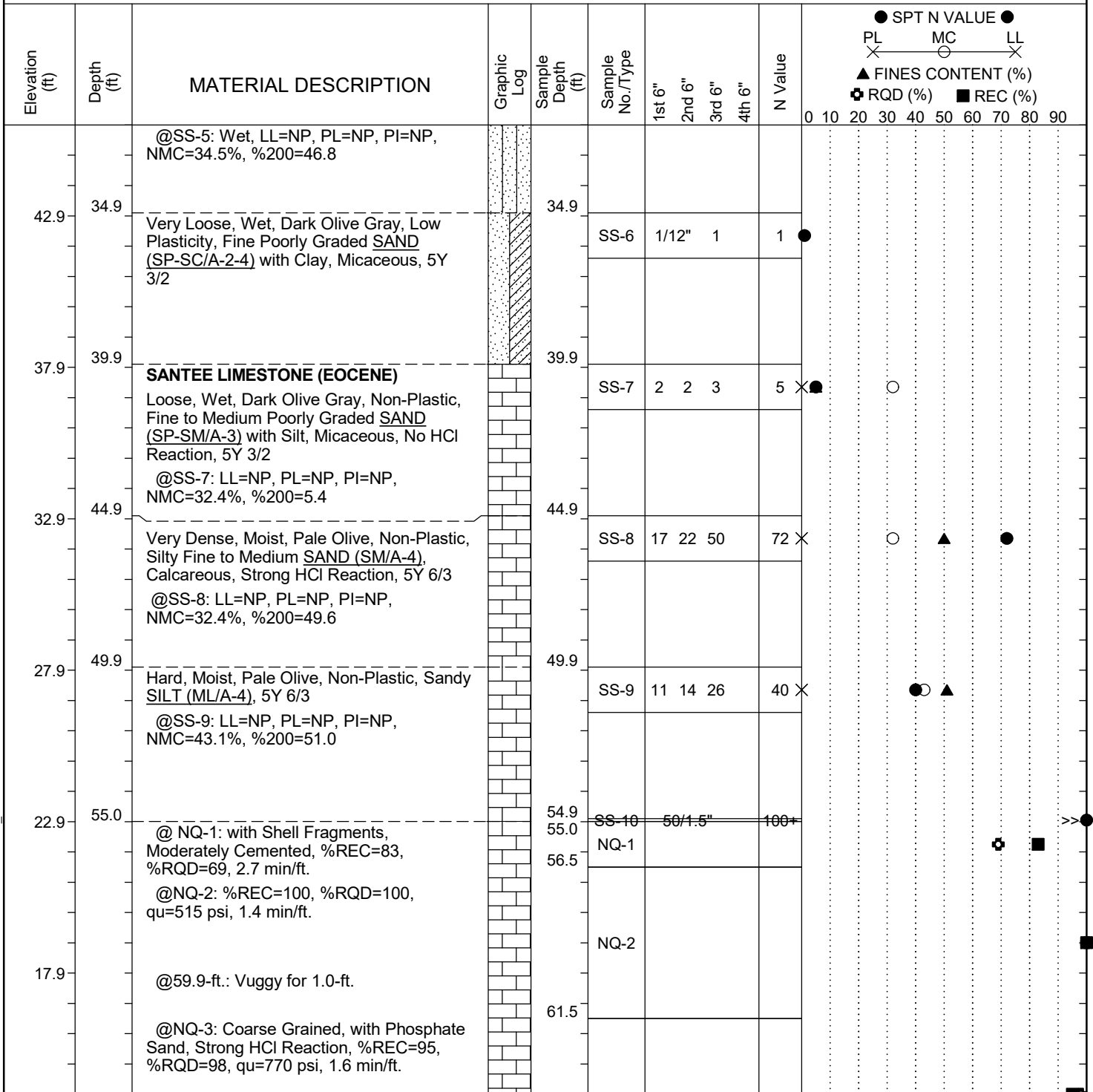
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-32
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5235+34	Offset: 86.2-L
Alignment: I-95 Med. CL	Date Started: 3/7/2023	Date Completed: 3/8/2023
Elev.: 77.9 ft	Latitude: 33.50690219	Longitude: -80.45006163
Total Depth: 121.4 ft	Soil Depth: 57.1 ft	Core Depth: 42.9 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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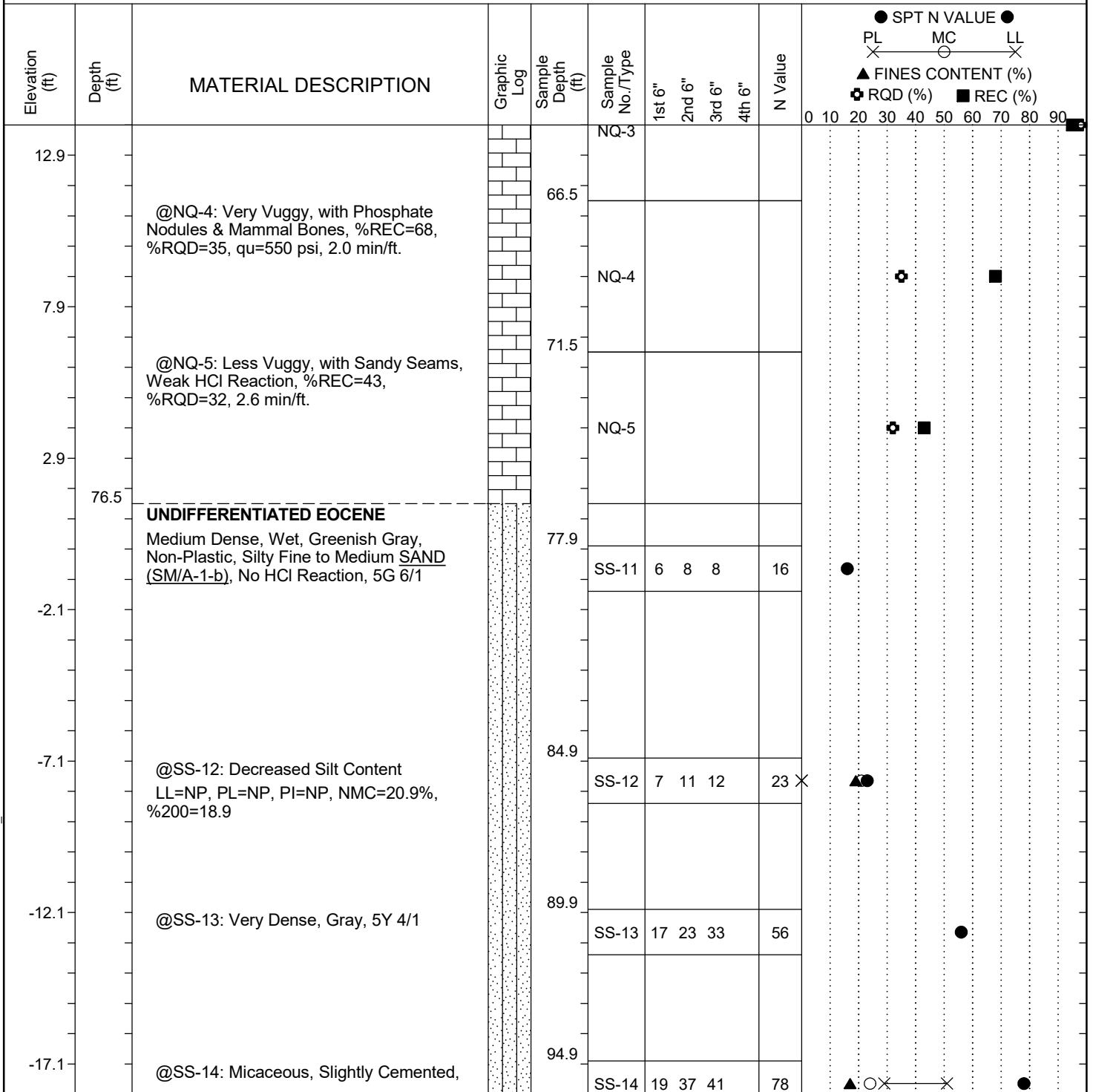
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-32
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5235+34	Offset: 86.2-L
Alignment: I-95 Med. CL	Date Started: 3/7/2023	
Elev.: 77.9 ft	Latitude: 33.50690219	Longitude: -80.45006163
Total Depth: 121.4 ft	Soil Depth: 57.1 ft	Core Depth: 42.9 ft
Date Completed: 3/8/2023	Liner Required: Y (N)	Liner Used: Y (N)
Bore Hole Diameter (in): 4	Sampler Configuration	Energy Ratio: 81%
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
		24HR: 3.5 ft



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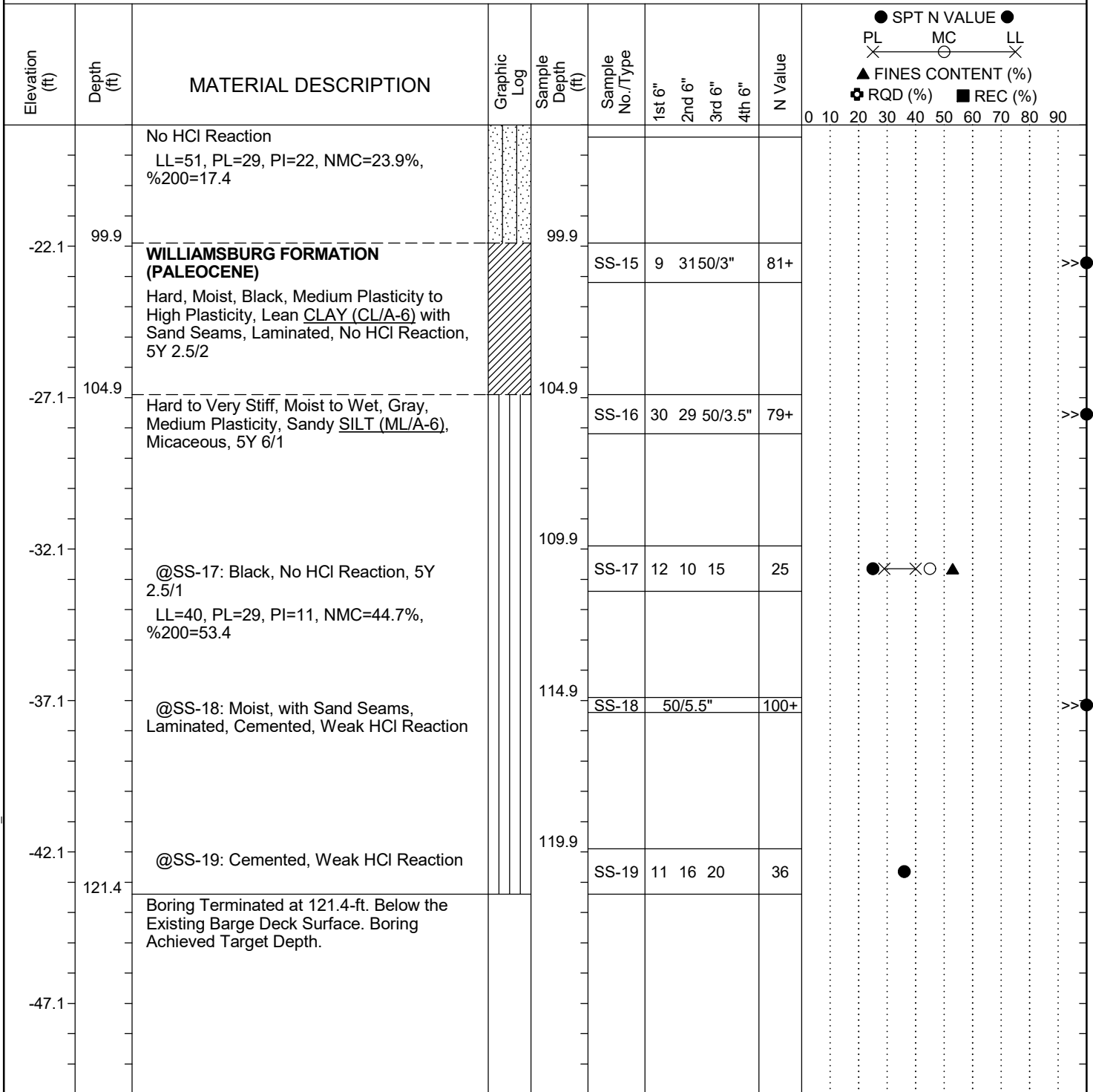
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-32
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5235+34	Offset: 86.2-L
Alignment: I-95 Med. CL	Date Started: 3/7/2023	
Elev.: 77.9 ft	Latitude: 33.50690219	Longitude: -80.45006163
Total Depth: 121.4 ft	Soil Depth: 57.1 ft	Core Depth: 42.9 ft
Date Completed: 3/8/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



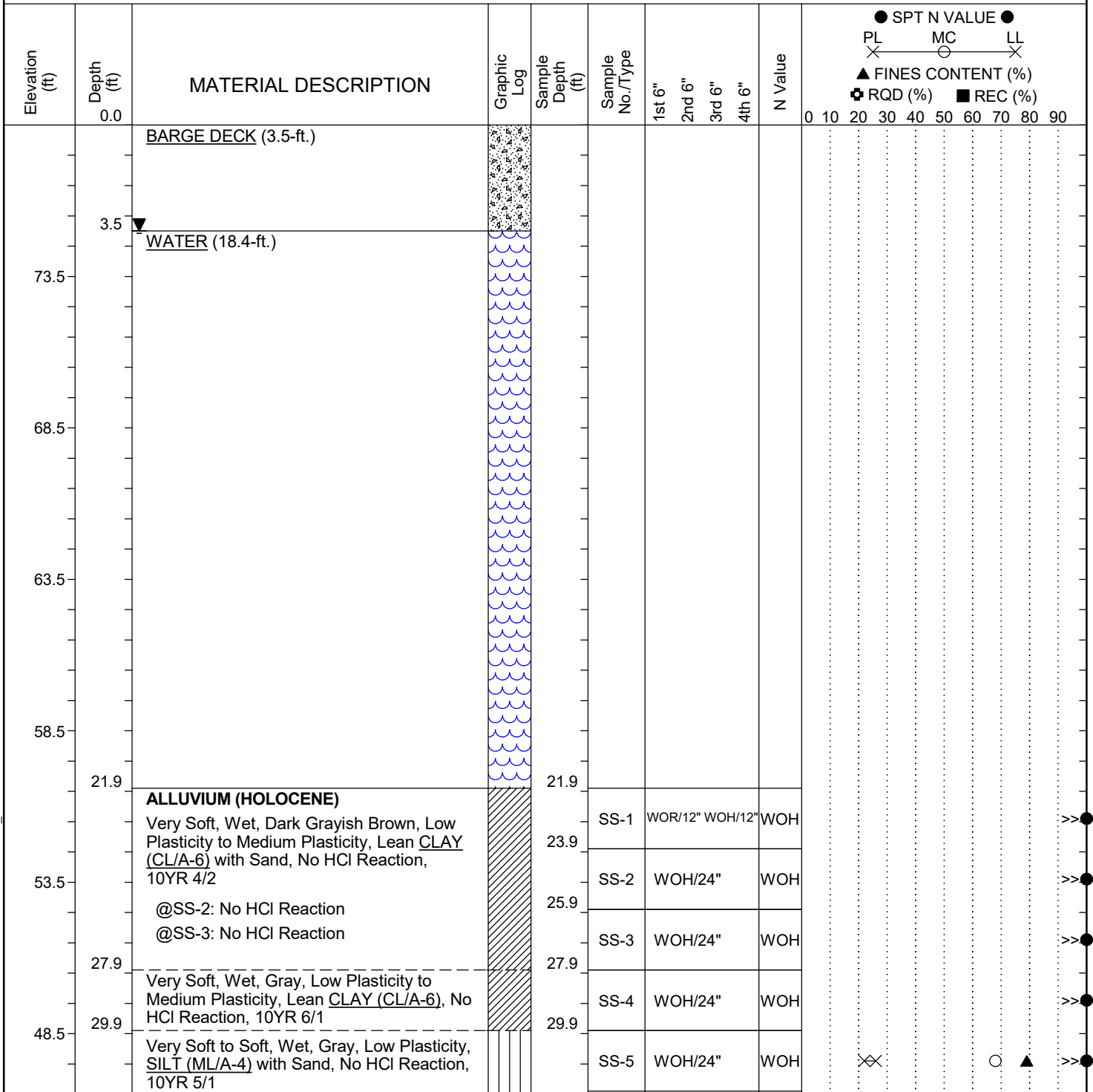
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-33
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5234+32	Offset: 10.6-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50728693	Longitude: -80.45002992 Date Started: 4/24/2023
Total Depth: 121.9 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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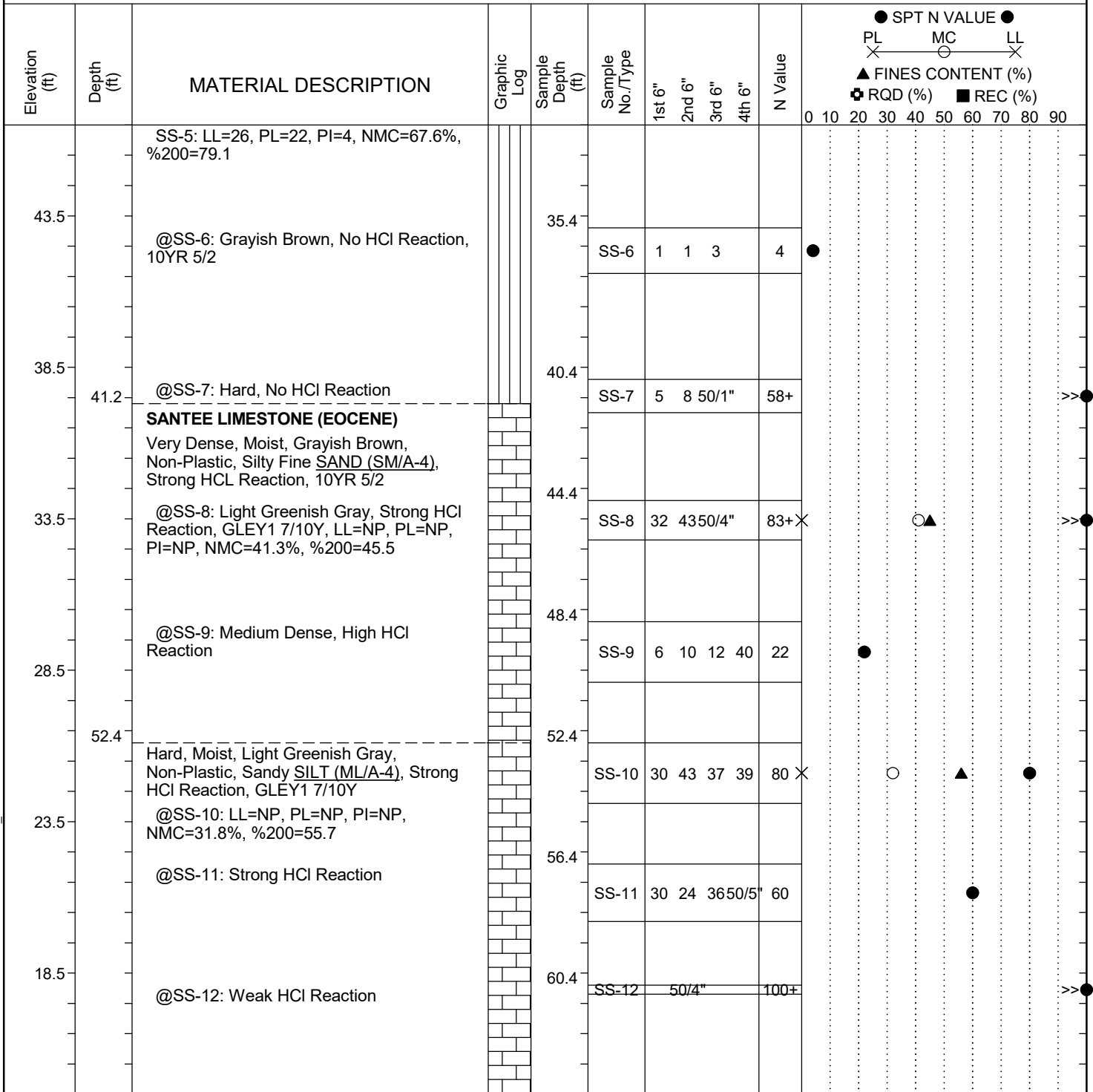
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-33
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5234+32	Offset: 10.6-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50728693	Longitude: -80.45002992 Date Started: 4/24/2023
Total Depth: 121.9 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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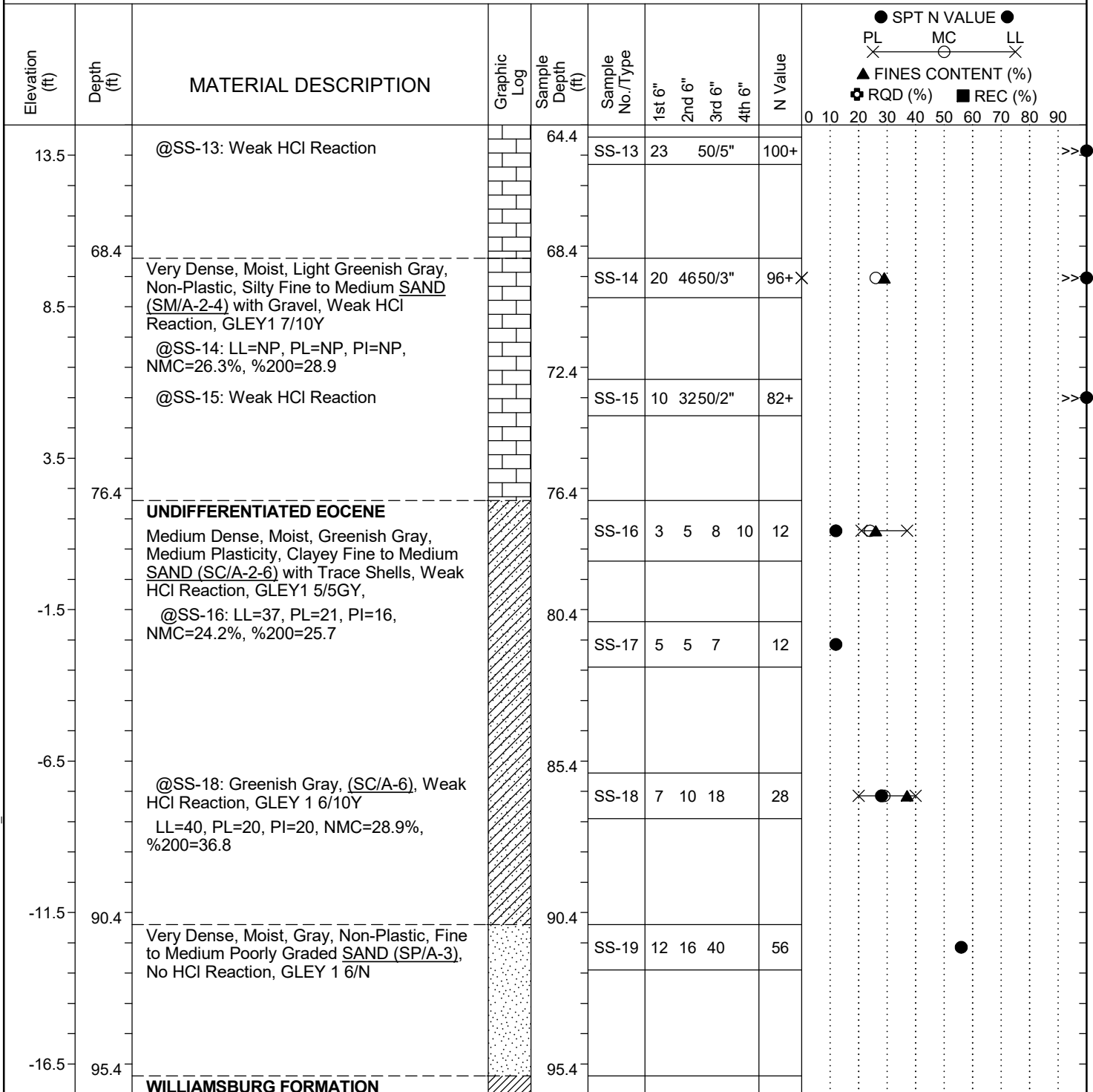
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-33
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5234+32	Offset: 10.6-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50728693	Longitude: -80.45002992 Date Started: 4/24/2023
Total Depth: 121.9 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/25/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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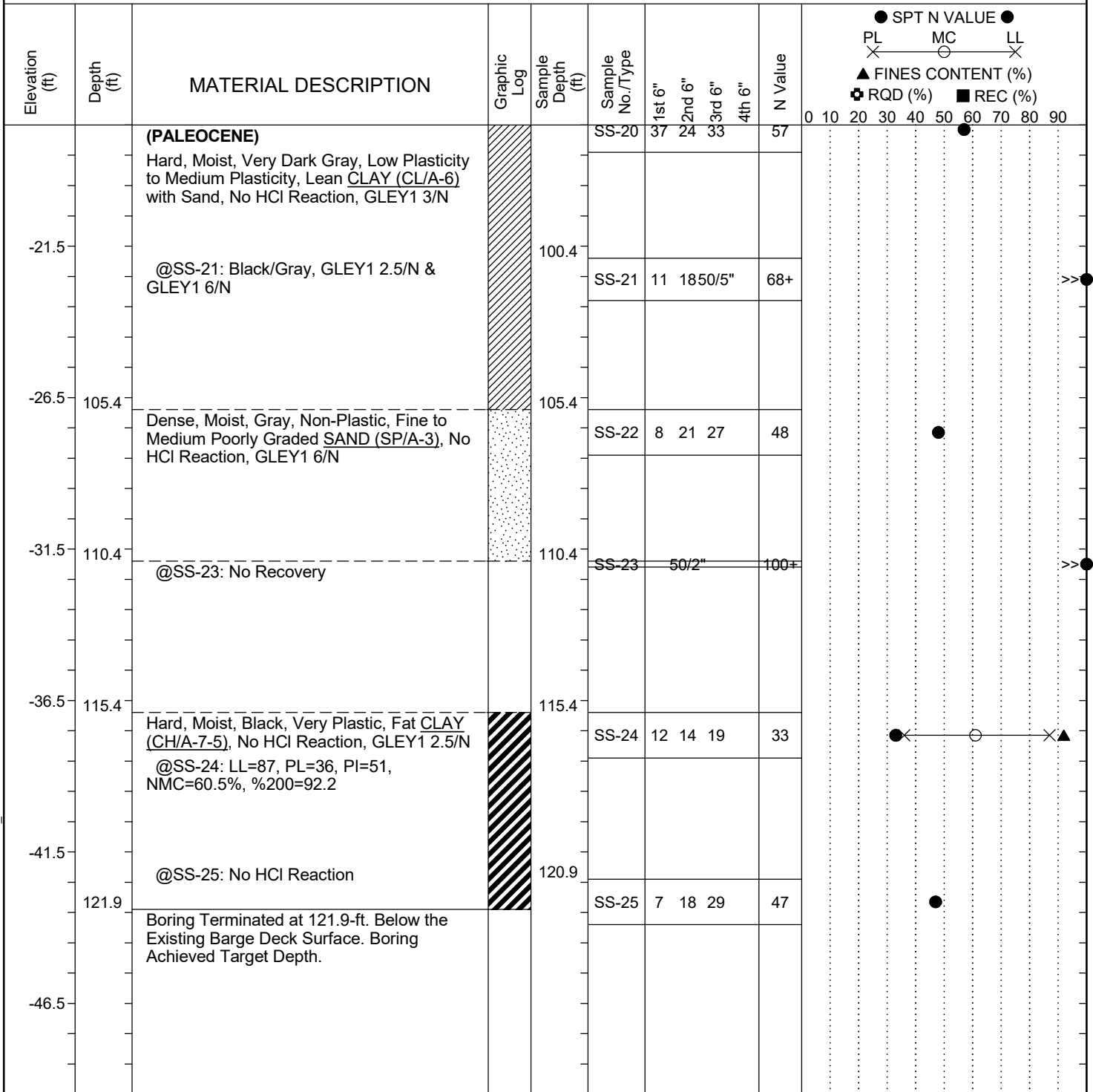
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-33
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5234+32	Offset: 10.6-R
Alignment: I-95 Med. CL	Date Started: 4/24/2023	Latitude: 33.50728693
Elev.: 78.5 ft	Longitude: -80.45002992	Date Completed: 4/25/2023
Total Depth: 121.9 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



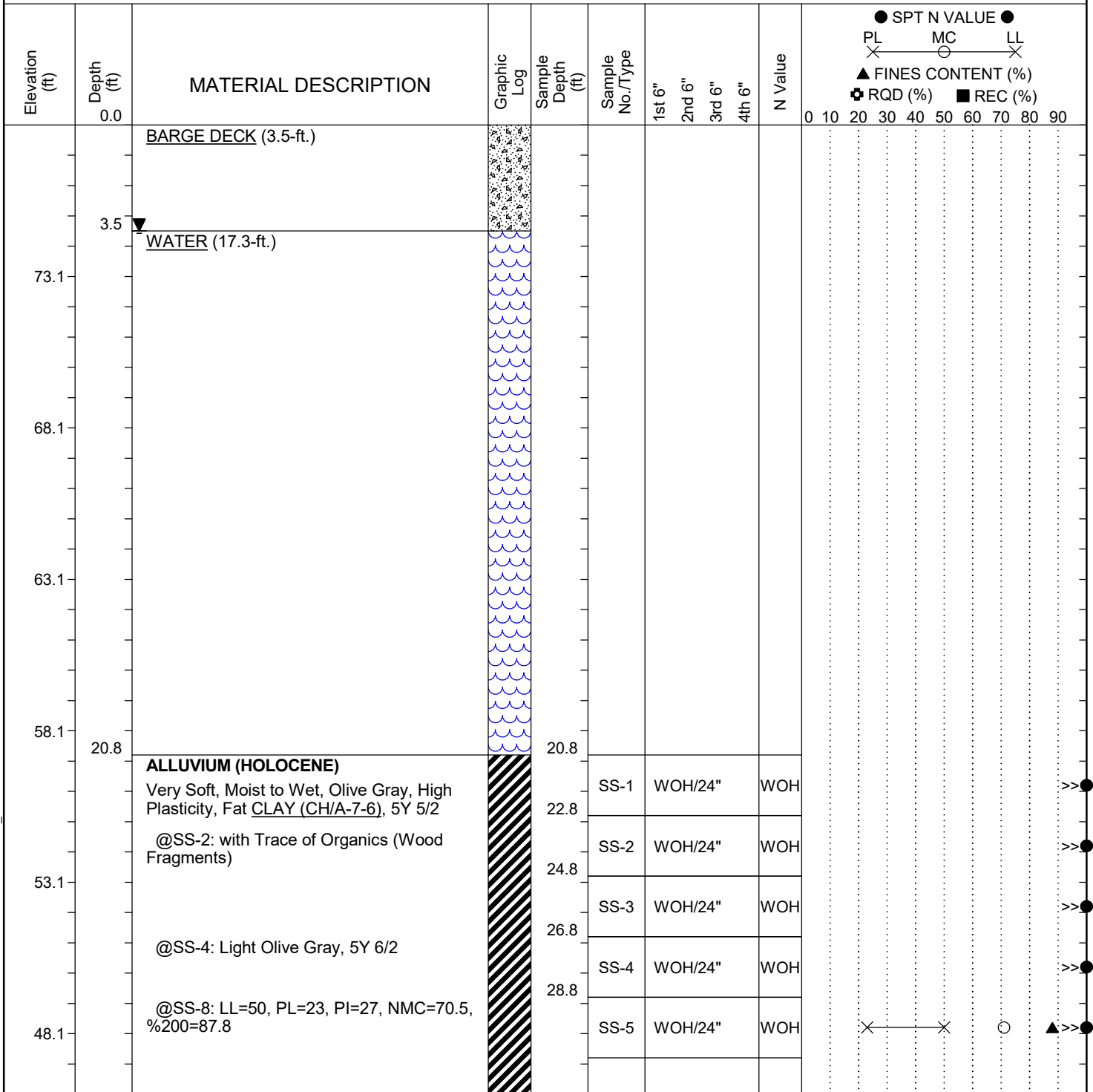
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-34
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5233+35	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/6/2023	Date Completed: 3/6/2023
Elev.: 78.1 ft	Latitude: 33.50727361	Longitude: -80.44958297
Total Depth: 120.8 ft	Soil Depth: 120.8 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



LEGEND

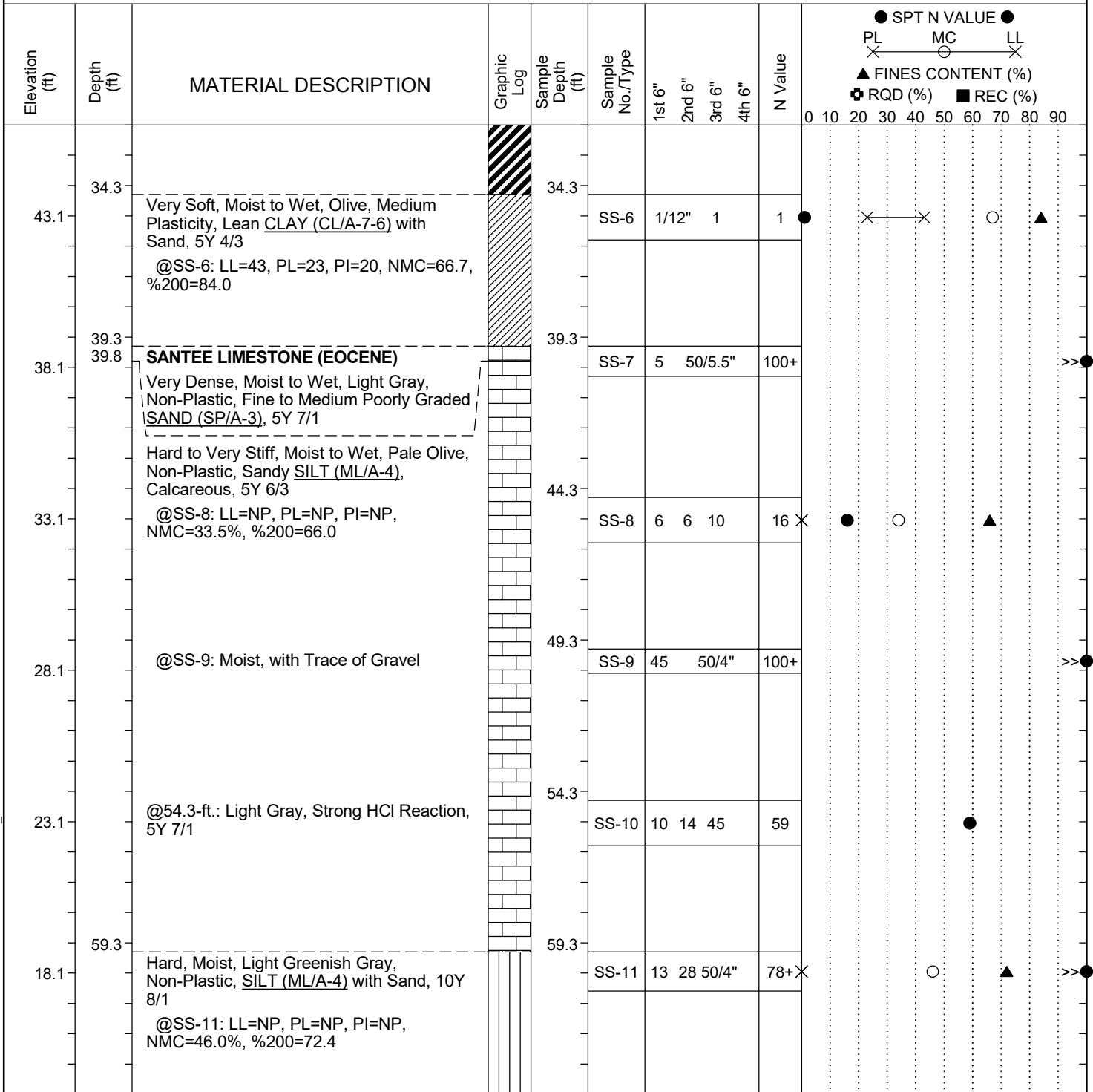
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-34
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5233+35	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/6/2023	
Elev.: 78.1 ft	Latitude: 33.50727361	Longitude: -80.44958297
Total Depth: 120.8 ft	Soil Depth: 120.8 ft	Core Depth: N/A ft
Date Completed: 3/6/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft
		24HR 3.5 ft



LEGEND

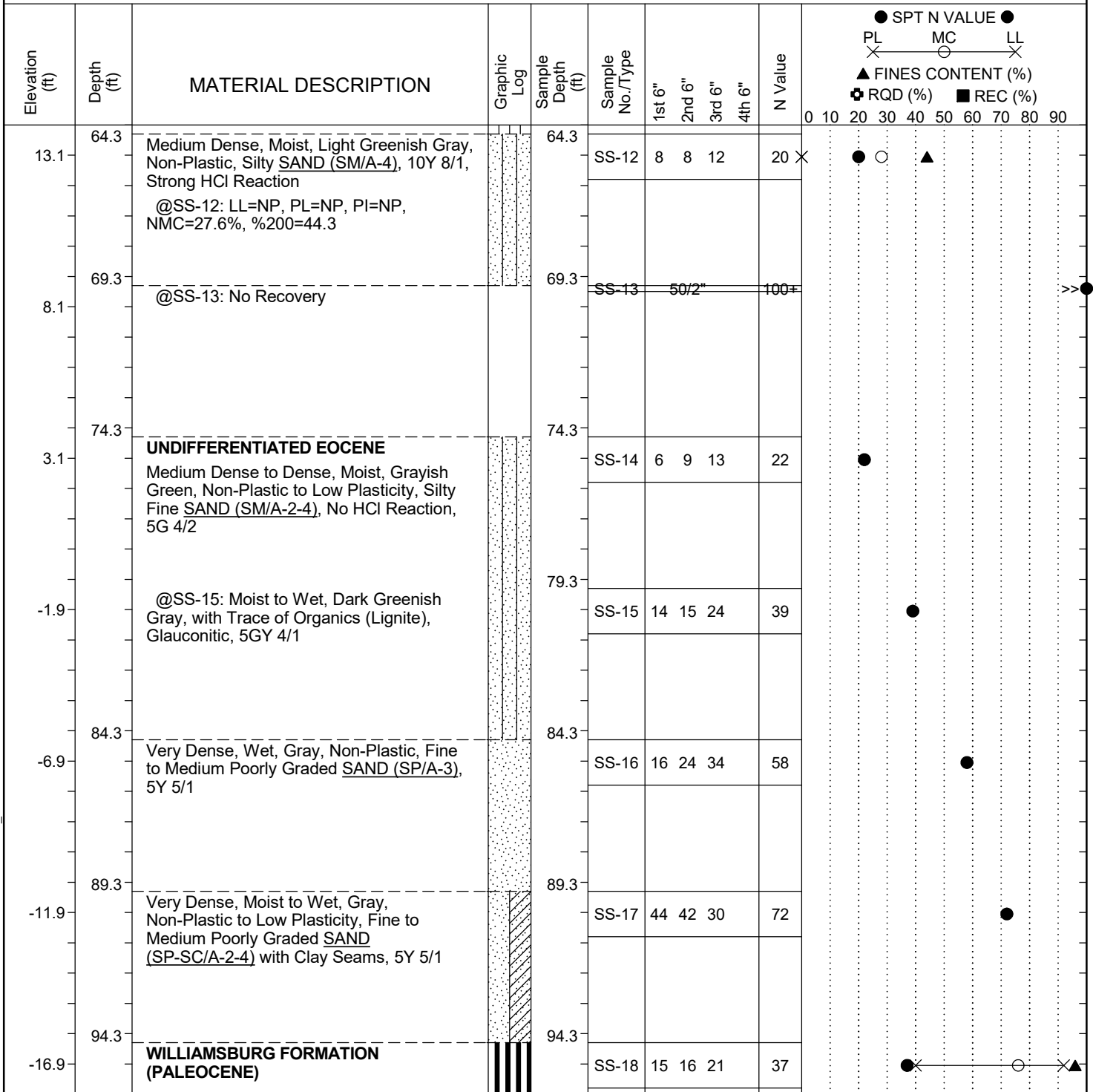
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-34
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5233+35	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/6/2023	
Elev.: 78.1 ft	Latitude: 33.50727361	Longitude: -80.44958297
Total Depth: 120.8 ft	Soil Depth: 120.8 ft	Core Depth: N/A ft
Date Completed: 3/6/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



LEGEND

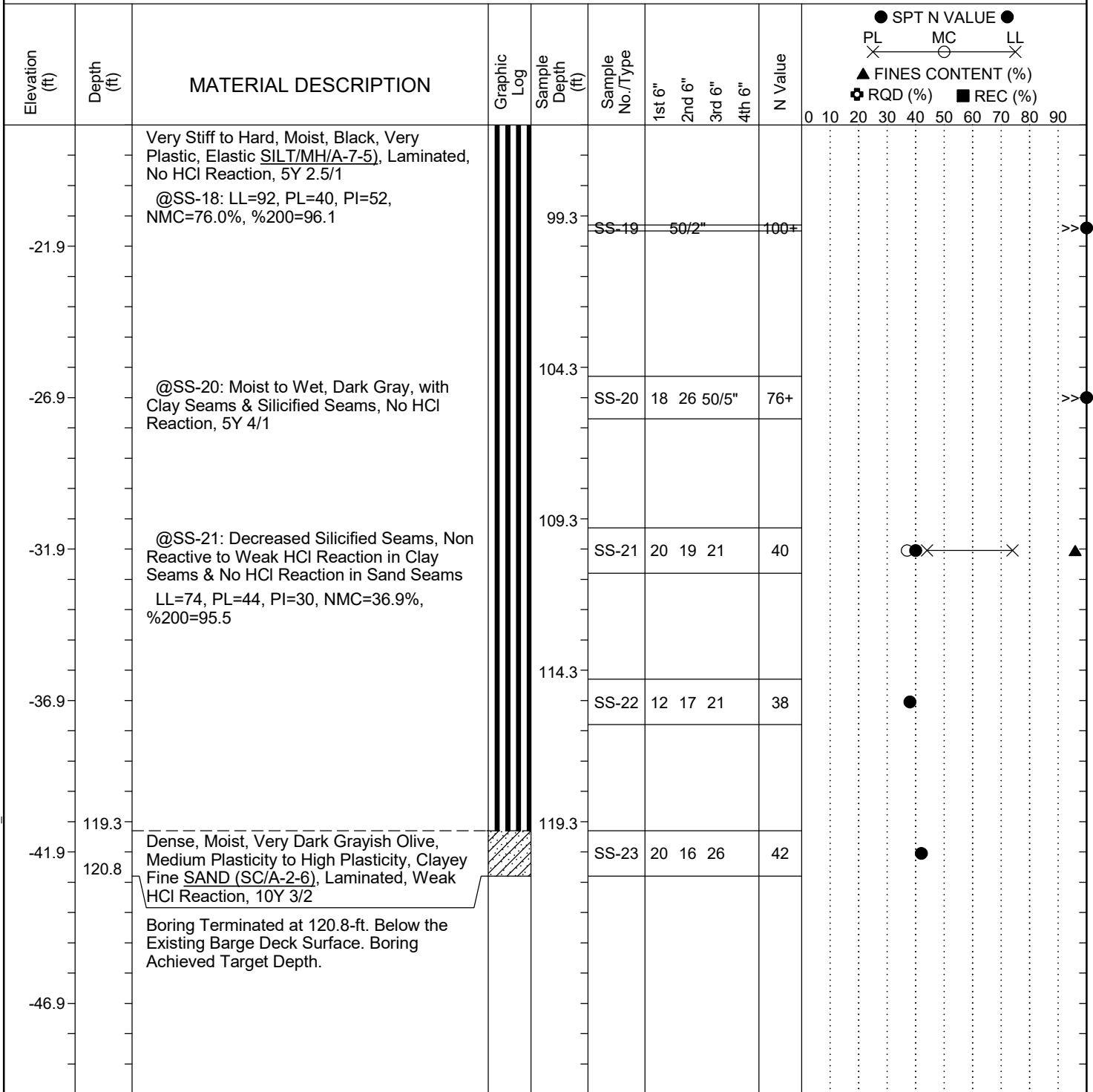
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-34
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5233+35	Offset: 84.8-L
Alignment: I-95 Med. CL	Date Started: 3/6/2023	
Elev.: 78.1 ft	Latitude: 33.50727361	Longitude: -80.44958297
Total Depth: 120.8 ft	Soil Depth: 120.8 ft	Core Depth: N/A ft
Date Completed: 3/6/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft
		24HR 3.5 ft



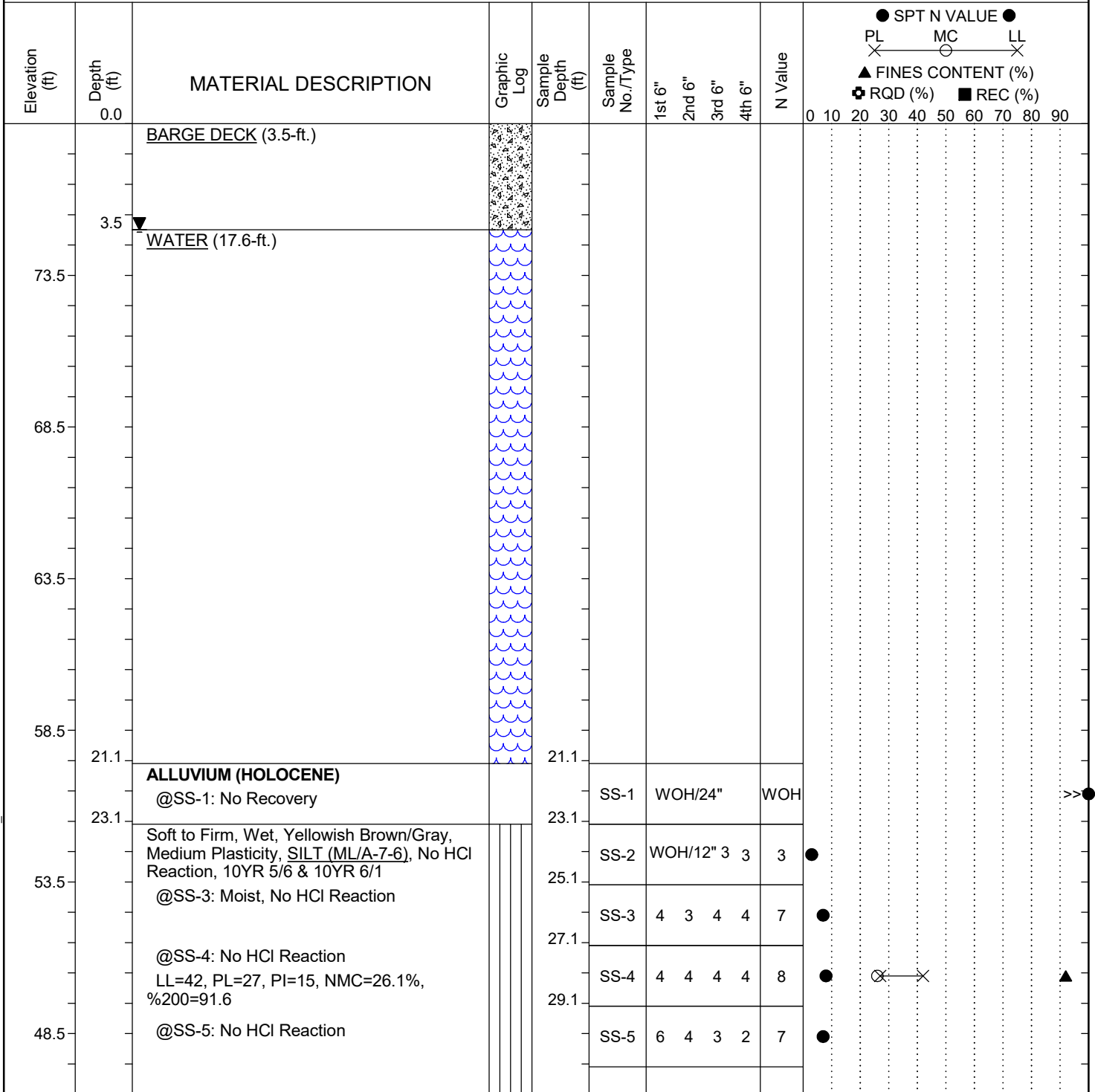
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-35
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5232+34	Offset: 14.5-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50766246	Longitude: -80.44955827 Date Started: 4/20/2023
Total Depth: 121.1 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 4/21/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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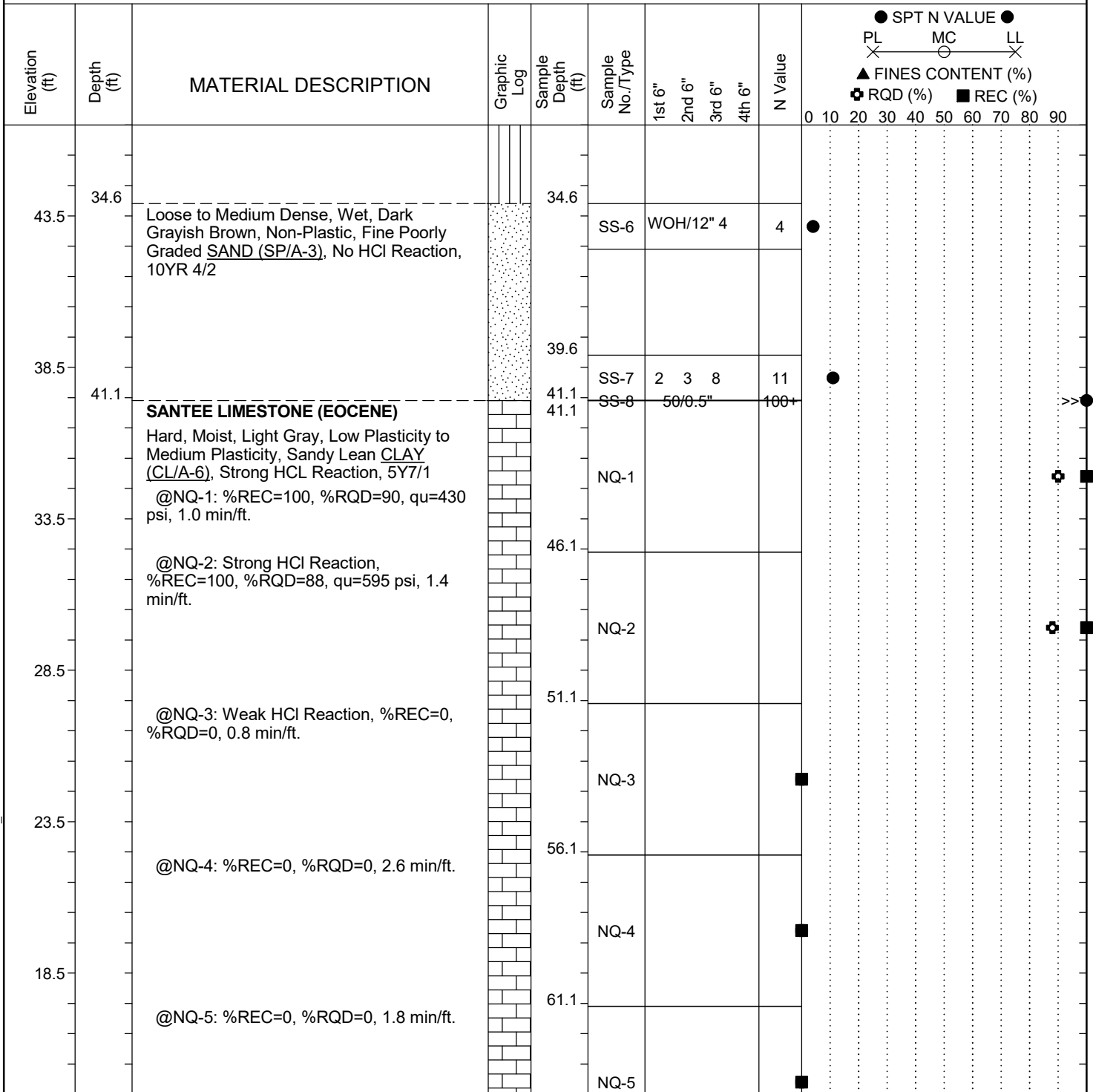
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-35
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5232+34	Offset: 14.5-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50766246	Longitude: -80.44955827 Date Started: 4/20/2023
Total Depth: 121.1 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 4/21/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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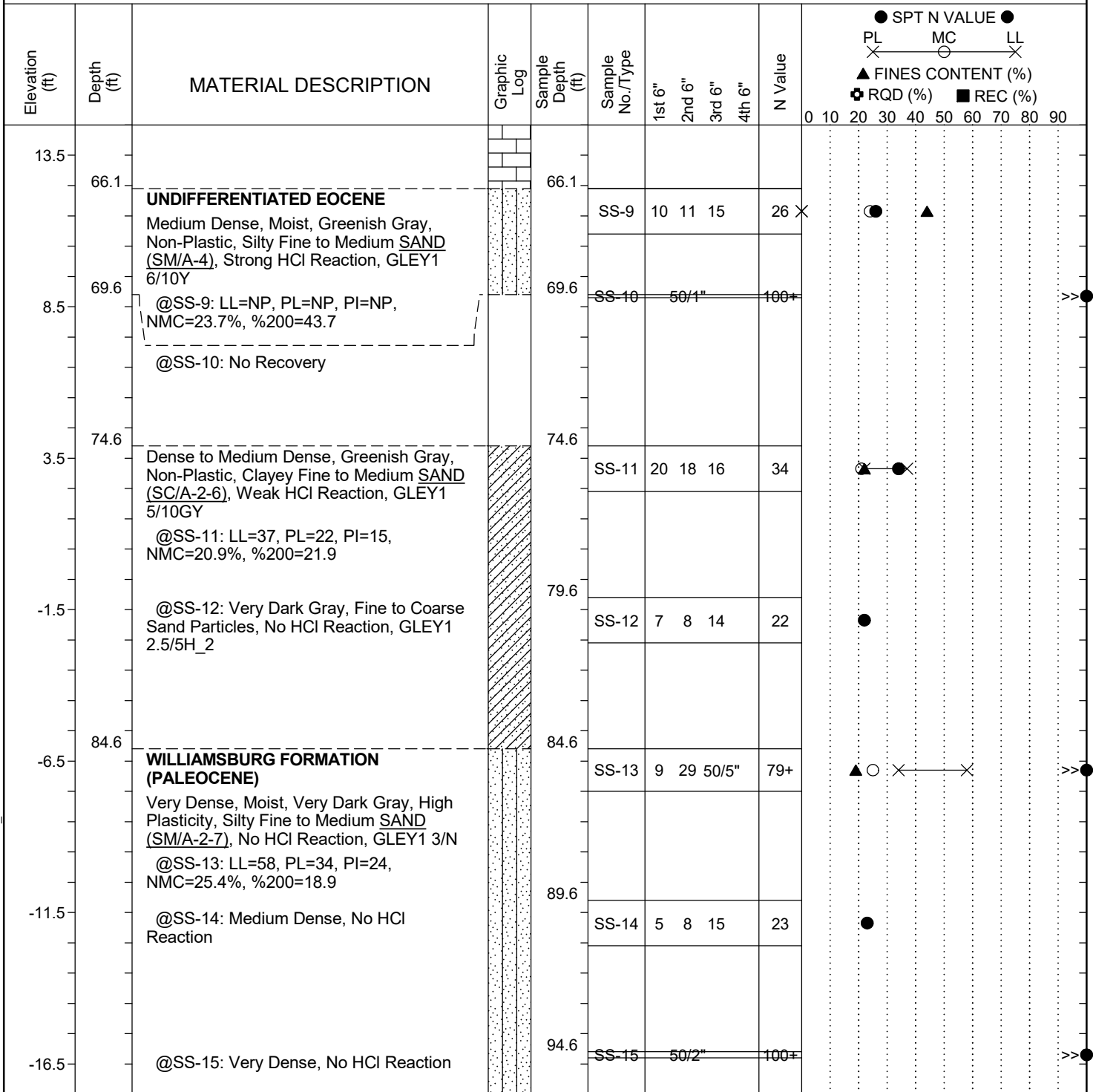
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-35
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5232+34	Offset: 14.5-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50766246	Longitude: -80.44955827 Date Started: 4/20/2023
Total Depth: 121.1 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 4/21/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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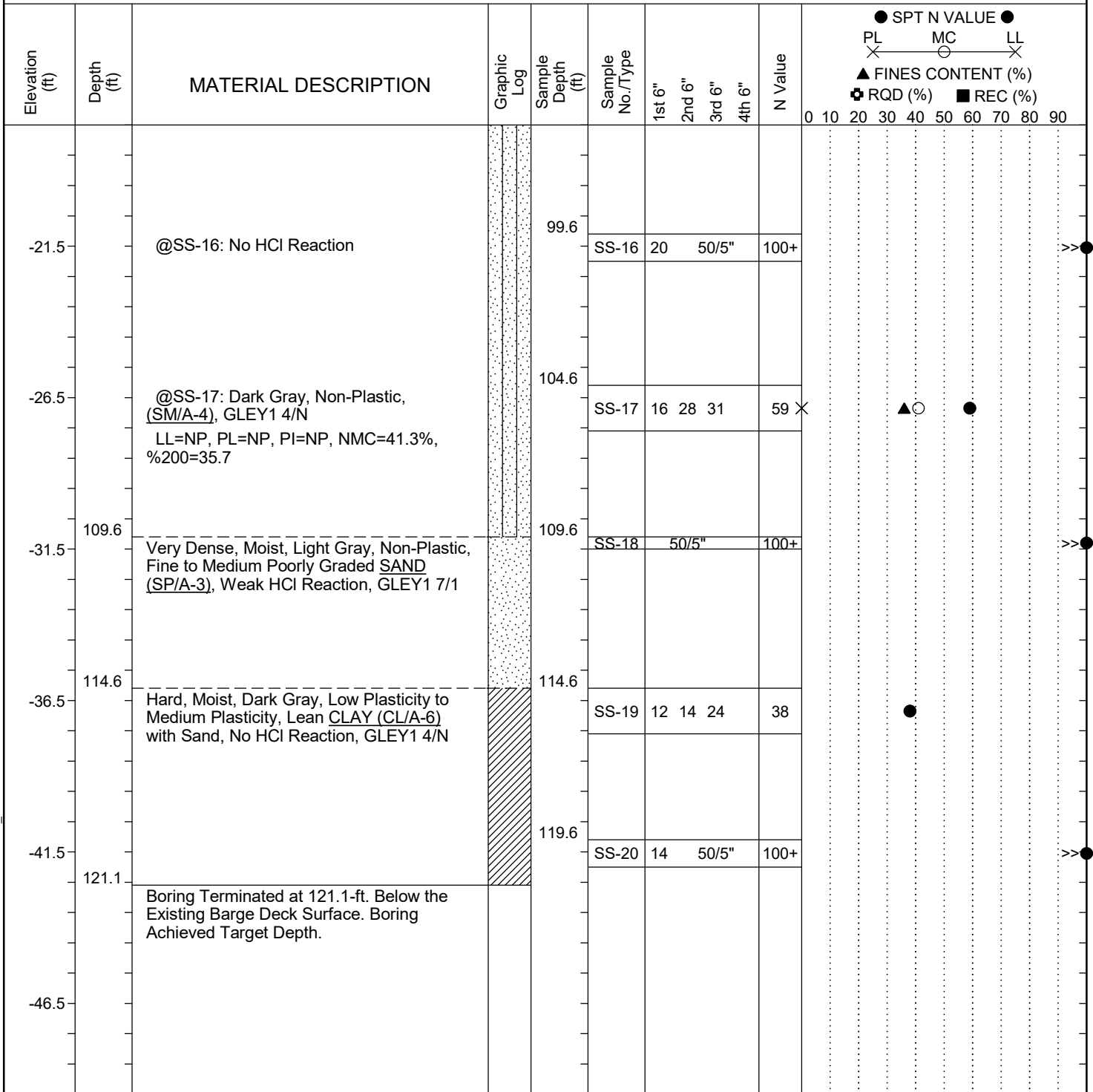
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-35
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5232+34	Offset: 14.5-R Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.50766246	Longitude: -80.44955827 Date Started: 4/20/2023
Total Depth: 121.1 ft	Soil Depth: 75 ft	Core Depth: 25 ft Date Completed: 4/21/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



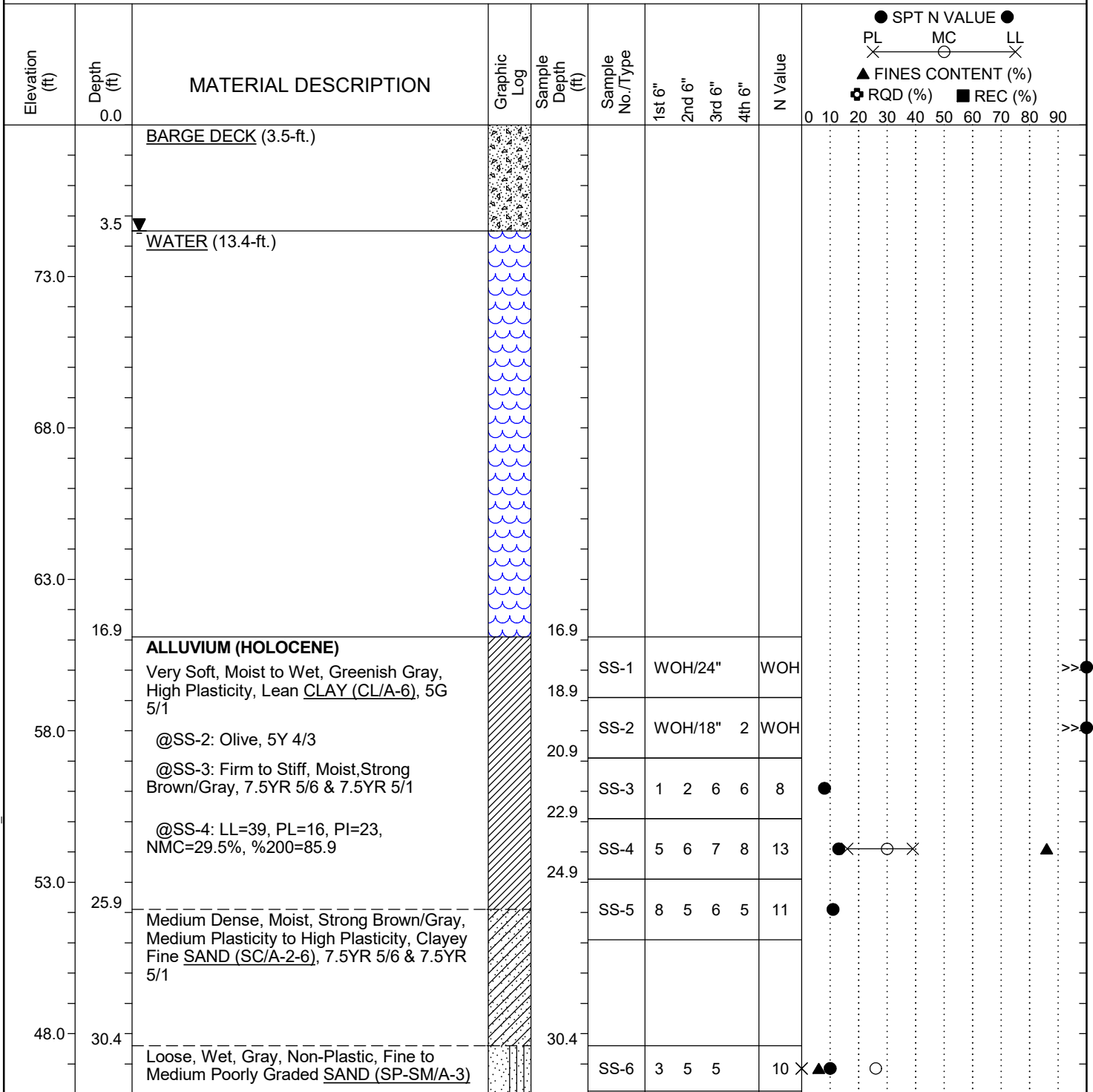
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-36
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5231+36	Offset: 86.0-L
Alignment: I-95 Med. CL	Date Started: 3/1/2023	Date Completed: 3/3/2023
Elev.: 78.0 ft	Latitude: 33.50763993	Longitude: -80.44909853
Total Depth: 114.8 ft	Soil Depth: 65.6 ft	Core Depth: 32.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NW
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



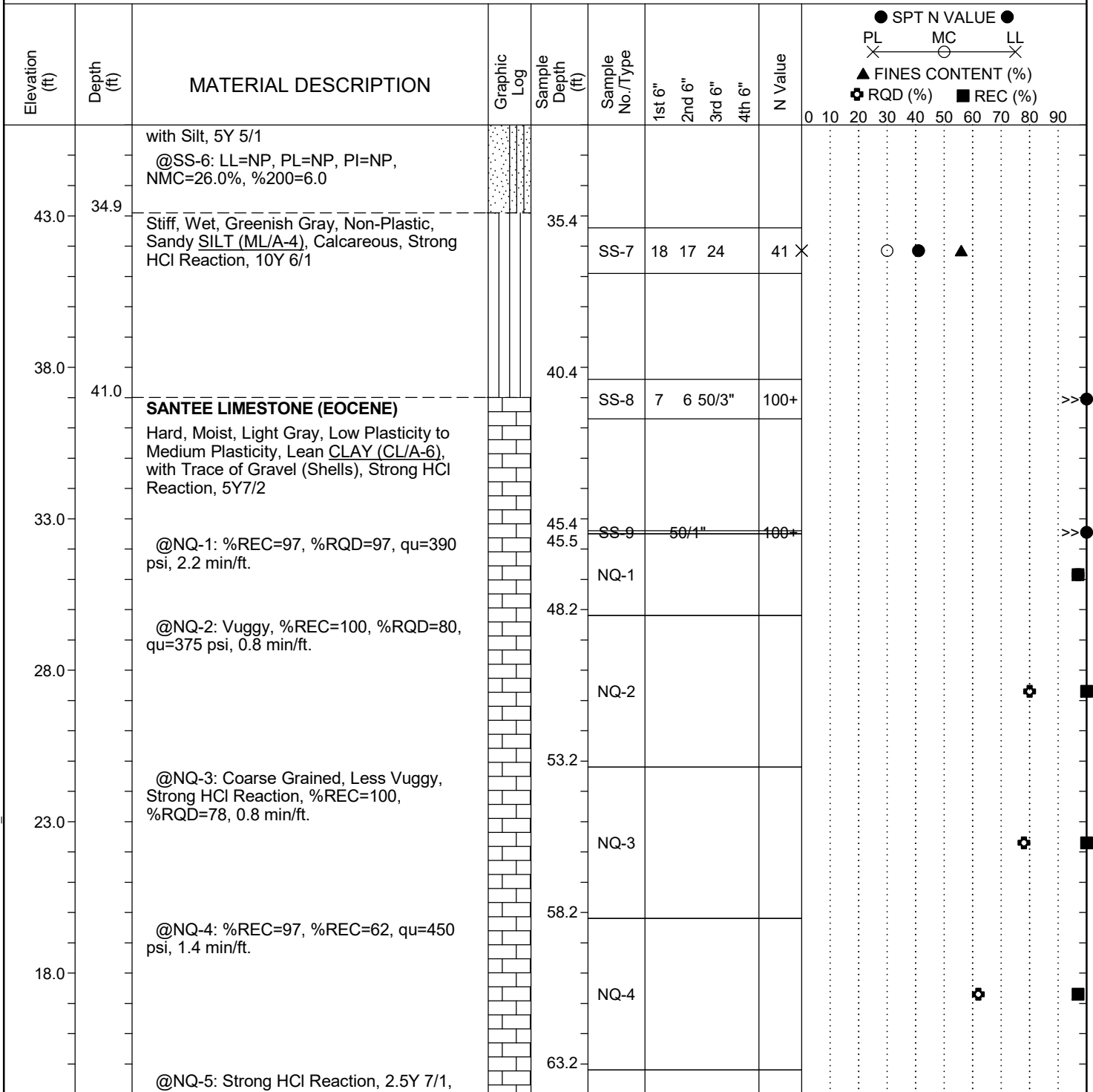
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-36
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5231+36	Offset: 86.0-L
Alignment: I-95 Med. CL	Date Started: 3/1/2023	Date Completed: 3/3/2023
Elev.: 78.0 ft	Latitude: 33.50763993	Longitude: -80.44909853
Total Depth: 114.8 ft	Soil Depth: 65.6 ft	Core Depth: 32.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NW
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



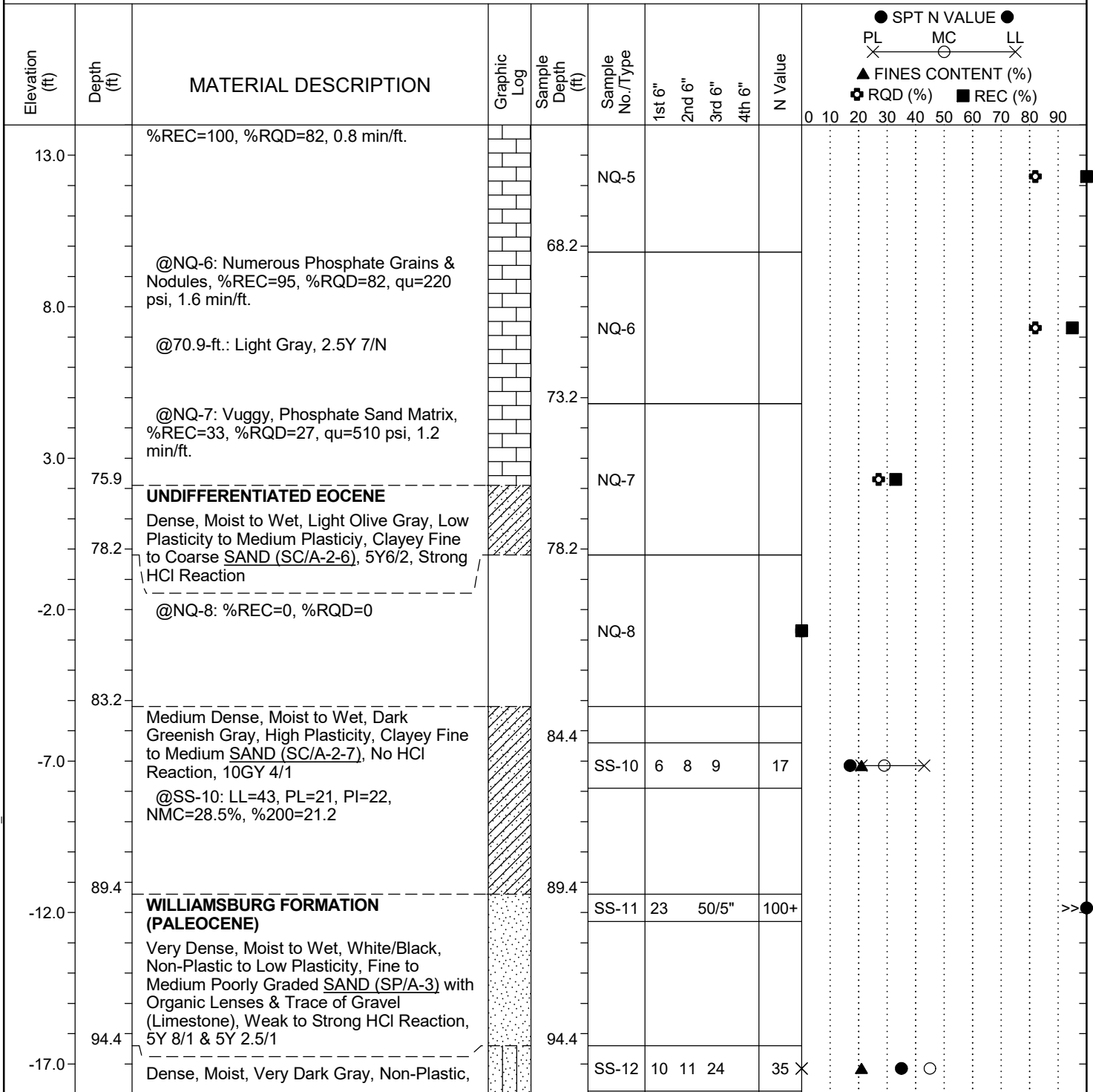
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-36
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5231+36	Offset: 86.0-L
Alignment: I-95 Med. CL	Elev.: 78.0 ft	Latitude: 33.50763993
Longitude: -80.44909853	Date Started: 3/1/2023	
Total Depth: 114.8 ft	Soil Depth: 65.6 ft	Core Depth: 32.3 ft
Date Completed: 3/3/2023	Bore Hole Diameter (in): 4	Sampler Configuration
Liner Required: Y (N)	Liner Used: Y (N)	
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%	Core Size: NW	Driller: D. Harris
Groundwater: TOB	3.5 ft	24HR: 3.5 ft



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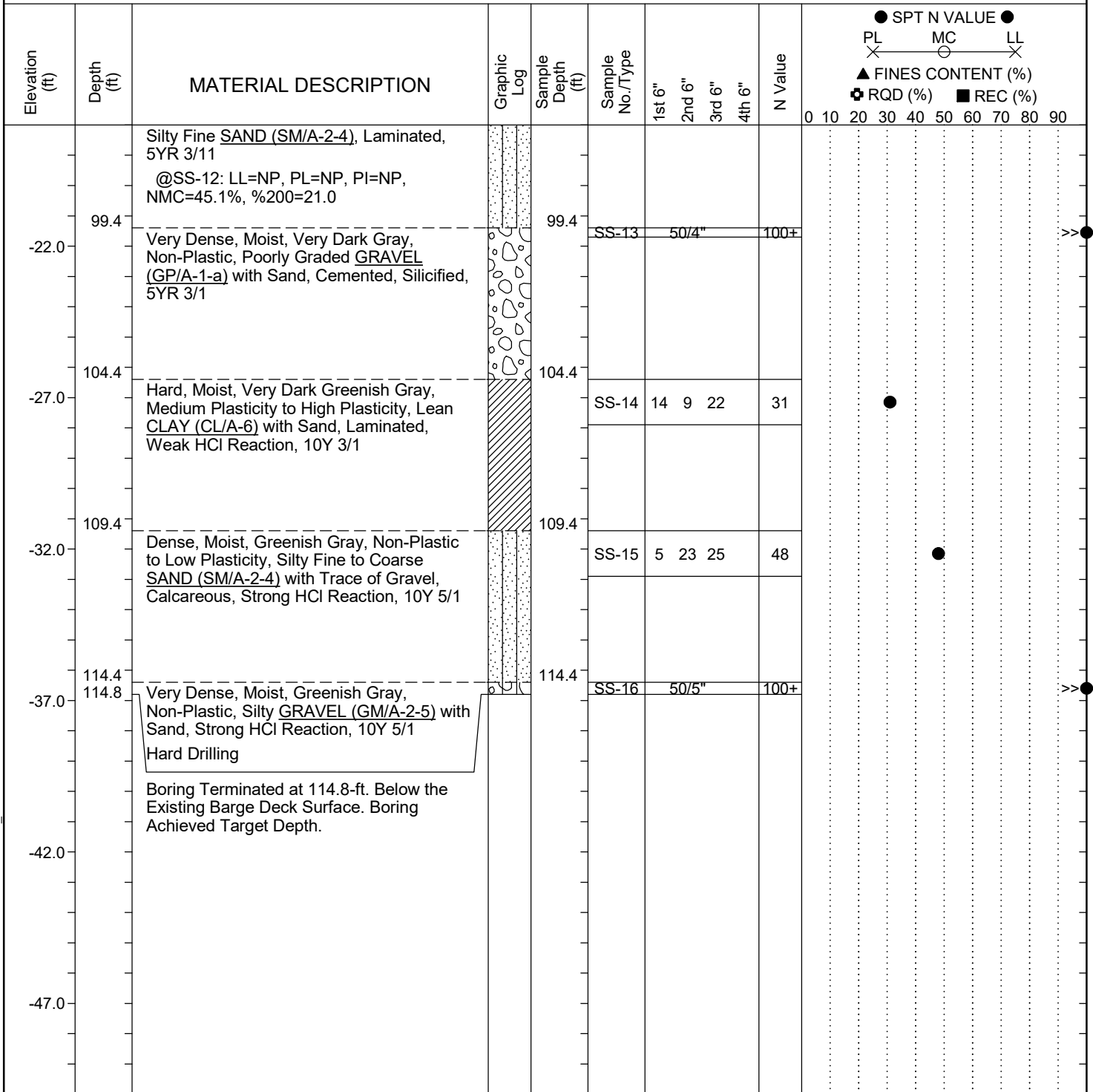
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-36
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5231+36	Offset: 86.0-L
Alignment: I-95 Med. CL	Date Started: 3/1/2023	Date Completed: 3/3/2023
Elev.: 78.0 ft	Latitude: 33.50763993	Longitude: -80.44909853
Total Depth: 114.8 ft	Soil Depth: 65.6 ft	Core Depth: 32.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NW	Driller: D. Harris	24HR: 3.5 ft



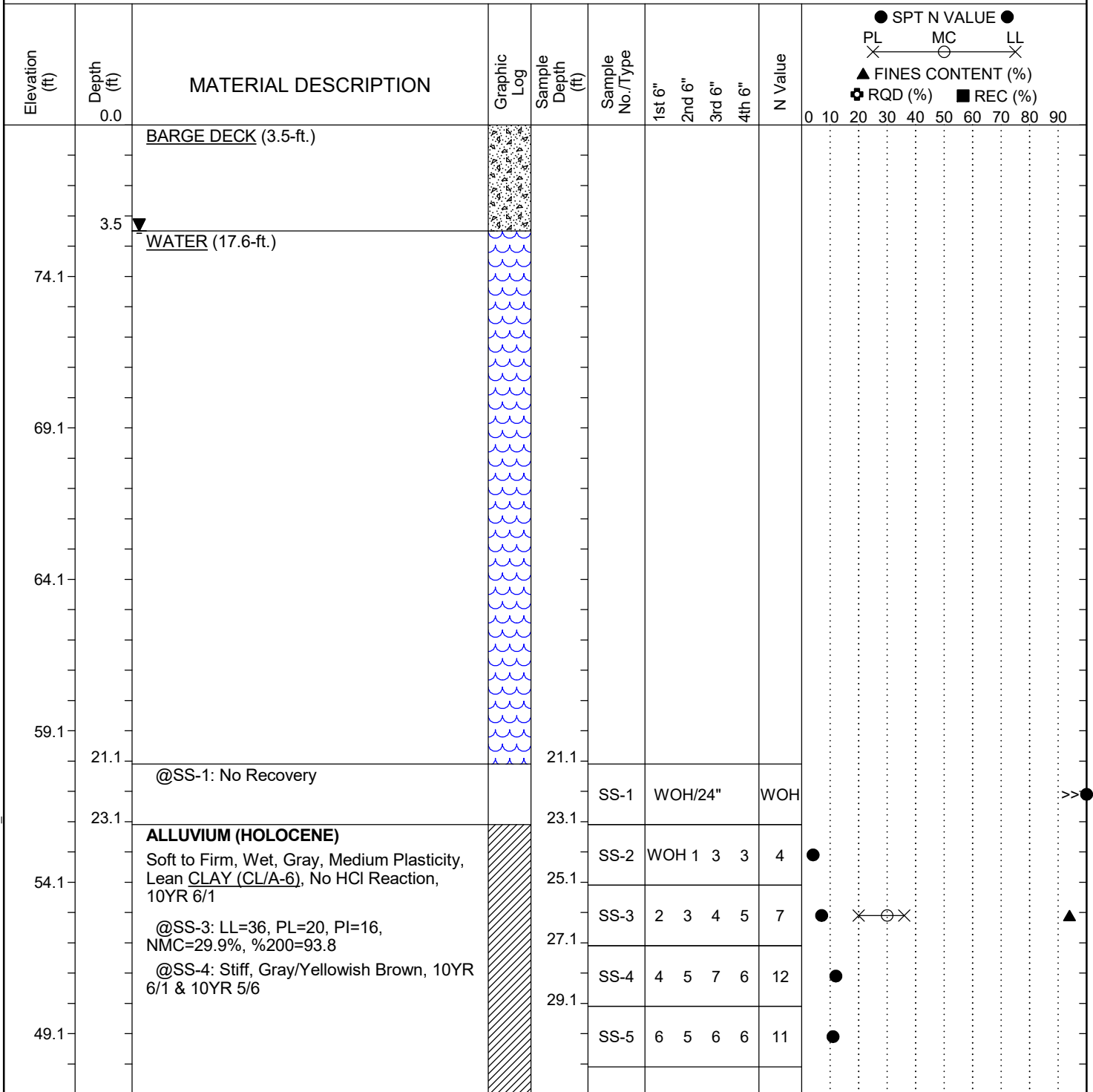
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-37
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5230+35	Offset: 12.7-R Alignment: I-95 Med. CL
Elev.: 79.1 ft	Latitude: 33.50802716	Longitude: -80.44907295 Date Started: 4/19/2023
Total Depth: 121.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/20/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



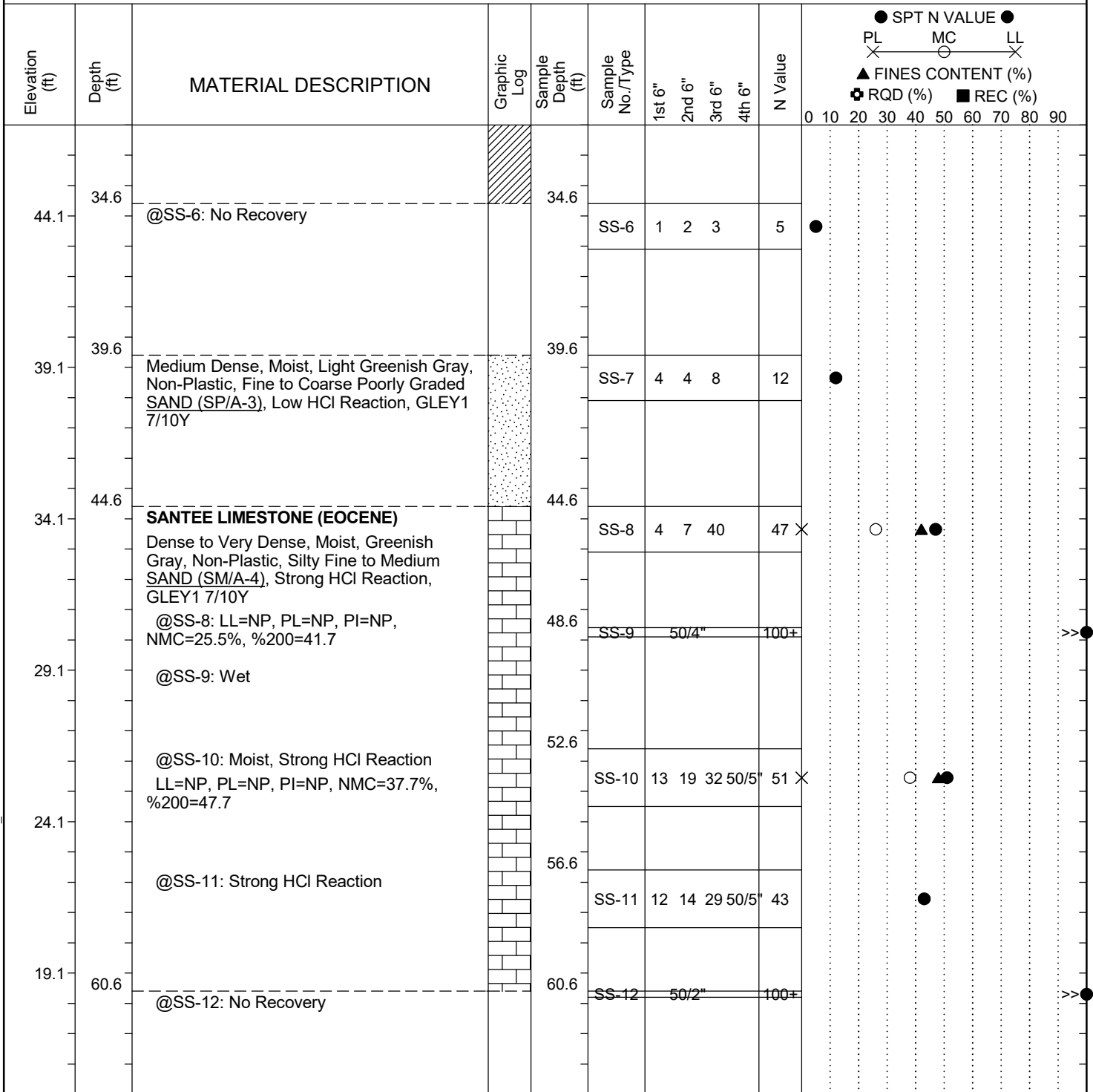
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-37
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5230+35	Offset: 12.7-R
Alignment: I-95 Med. CL	Date Started: 4/19/2023	Date Completed: 4/20/2023
Elev.: 79.1 ft	Latitude: 33.50802716	Longitude: -80.44907295
Total Depth: 121.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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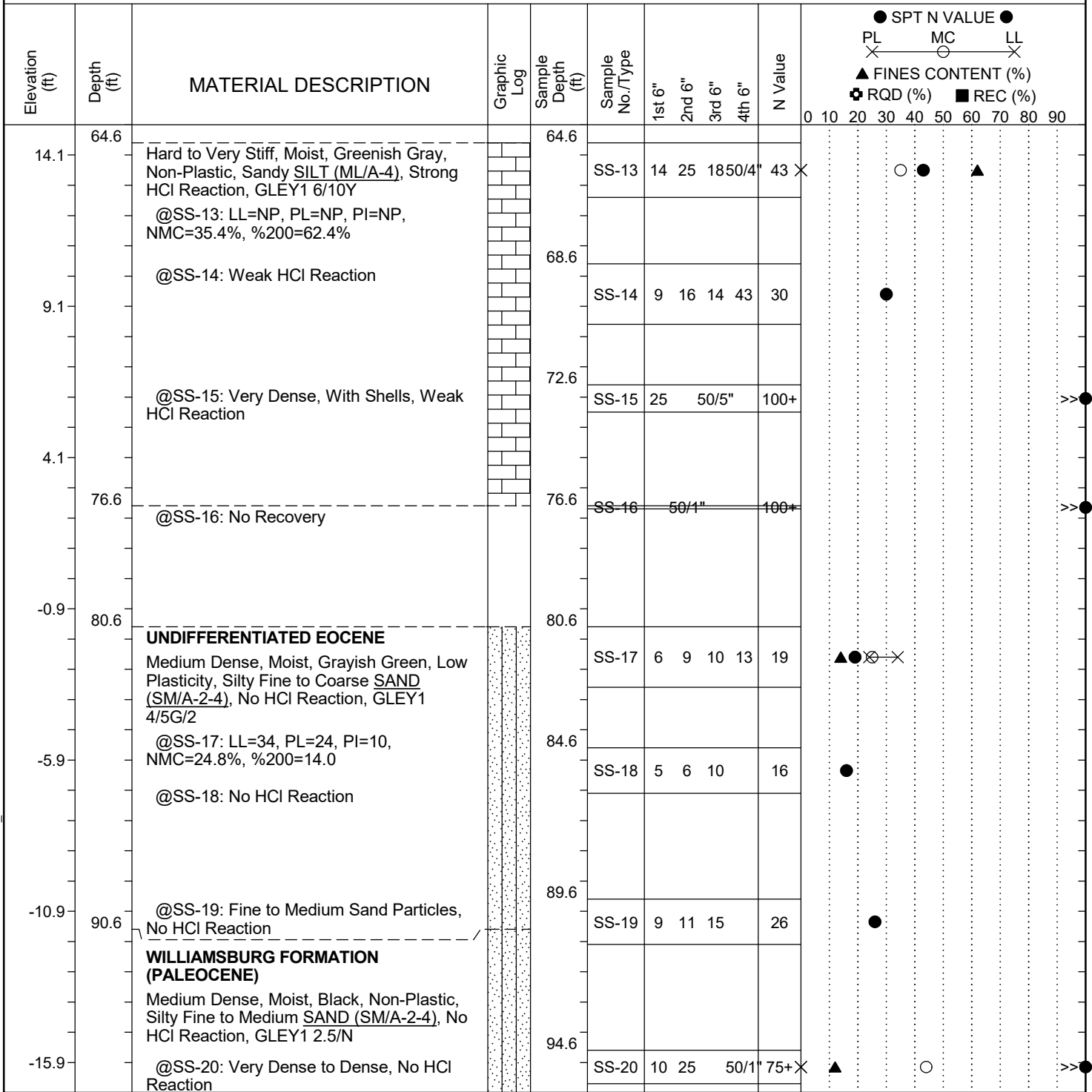
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-37
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5230+35	Offset: 12.7-R Alignment: I-95 Med. CL
Elev.: 79.1 ft	Latitude: 33.50802716	Longitude: -80.44907295 Date Started: 4/19/2023
Total Depth: 121.1 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/20/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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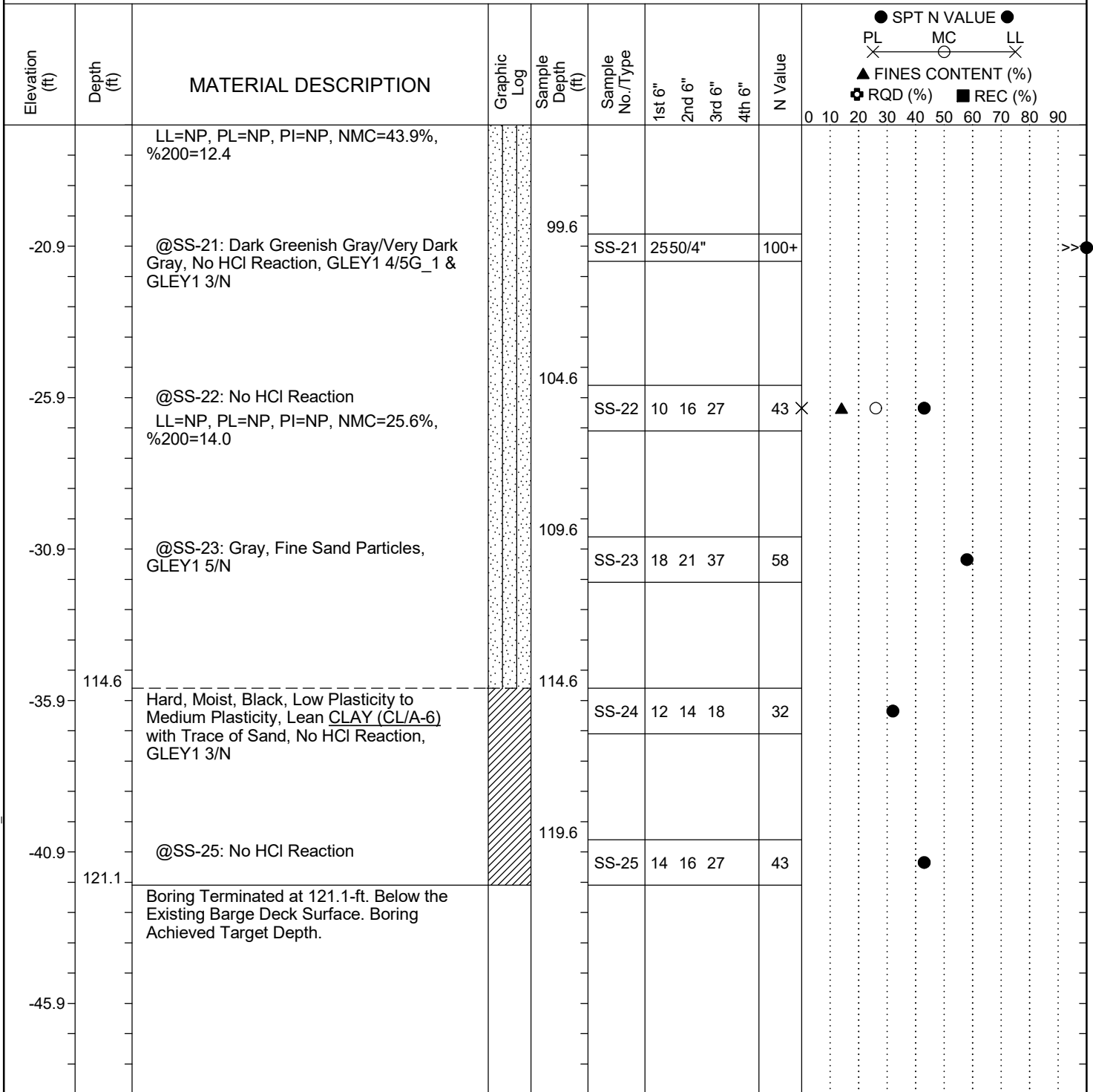
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID:	P041130		County:	Clarendon/Orangeburg		Boring No.:	B-37	
Site Description:	I-95 NB/SB over Lake Marion Bridge Replacement					Route:	I-95	
Eng./Geo.:	C. Thomas		Boring Location:	5230+35		Offset:	12.7-R	
Alignment:	I-95 Med. CL							
Elev.:	79.1 ft		Latitude:	33.50802716		Longitude:	-80.44907295	
Date Started:	4/19/2023							
Total Depth:	121.1 ft		Soil Depth:	100 ft		Core Depth:	N/A ft	
Date Completed:	4/20/2023							
Bore Hole Diameter (in):	4		Sampler Configuration			Liner Required:	Y (N)	
Liner Used:	Y (N)							
Drill Machine:	CME45B		Drill Method:	RW		Hammer Type:	Automatic	
Energy Ratio:	81%							
Core Size:	N/A		Driller:	D. Harris		Groundwater:	TOB 3.5 ft	
24HR:	3.5 ft							



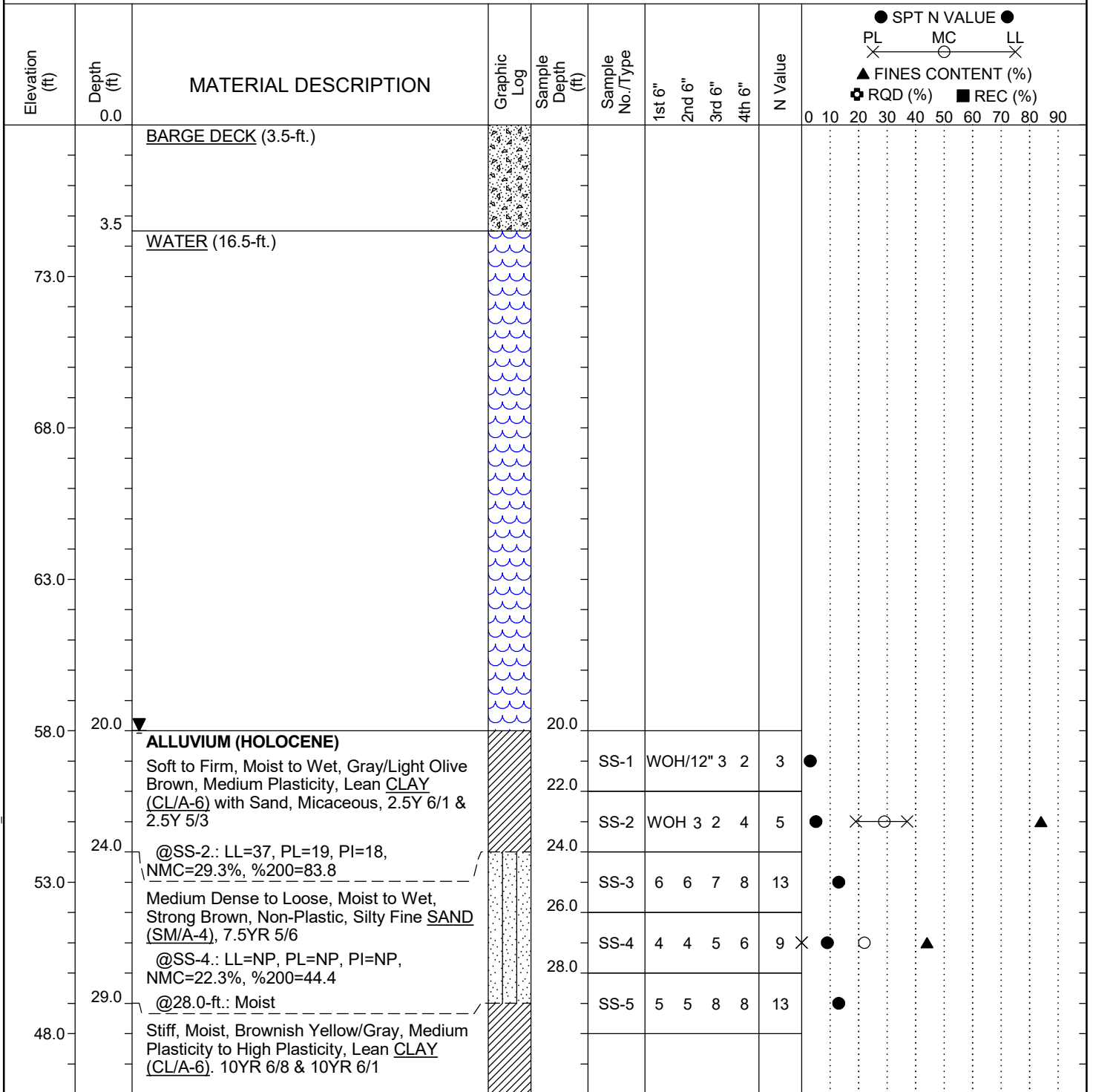
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-38
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5229+33	Offset: 88.3-L
Alignment: I-95 Med. CL	Date Started: 2/22/2023	Latitude: 33.50801149
Elev.: 78.0 ft	Longitude: -80.44860205	Date Completed: 2/23/2023
Total Depth: 119.2 ft	Soil Depth: 56.9 ft	Core Depth: 42.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 20 ft	24HR: 20 ft



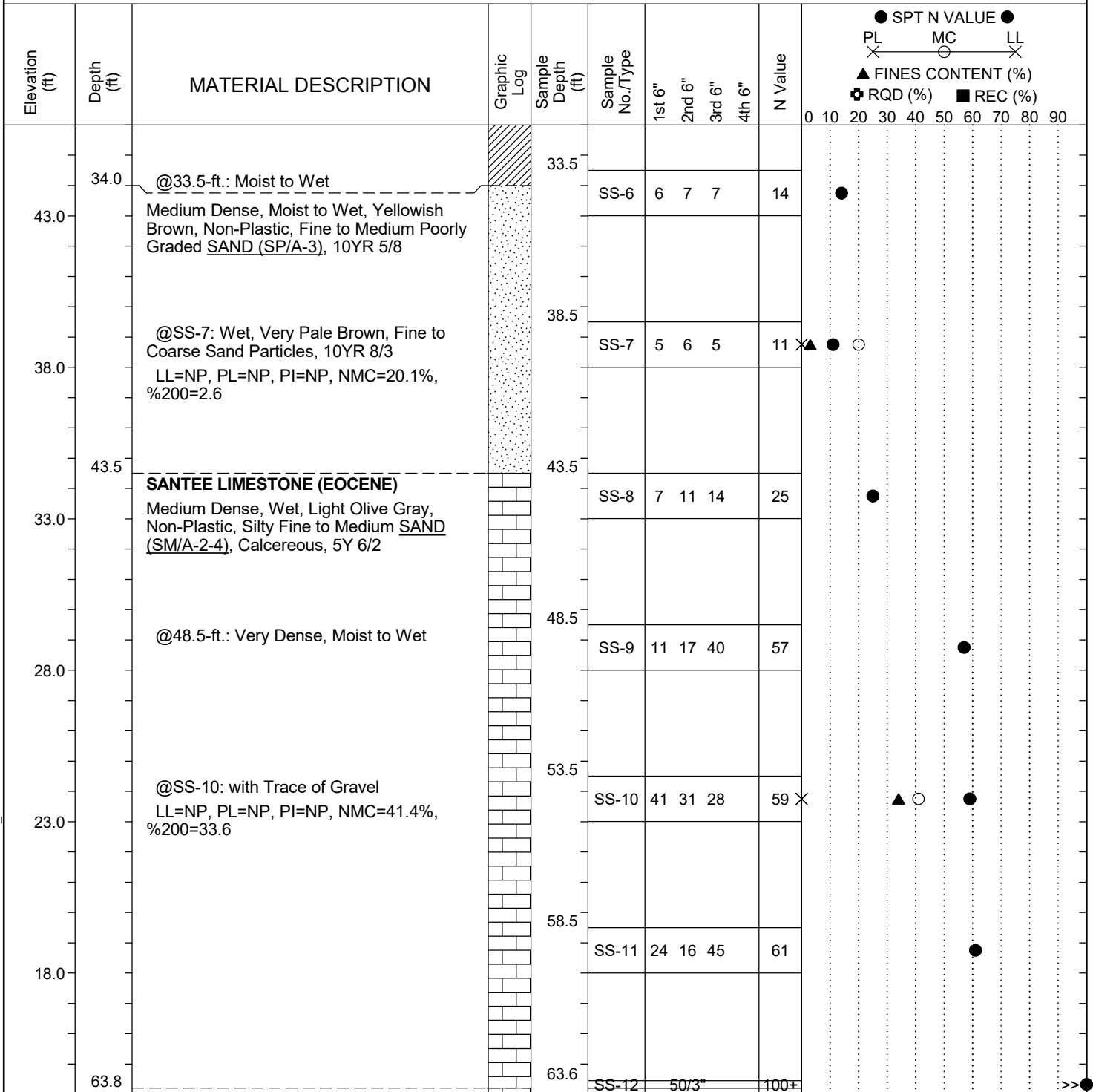
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-38
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5229+33	Offset: 88.3-L
Alignment: I-95 Med. CL	Date Started: 2/22/2023	Date Completed: 2/23/2023
Elev.: 78.0 ft	Latitude: 33.50801149	Longitude: -80.44860205
Total Depth: 119.2 ft	Soil Depth: 56.9 ft	Core Depth: 42.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 20 ft	24HR: 20 ft



LEGEND

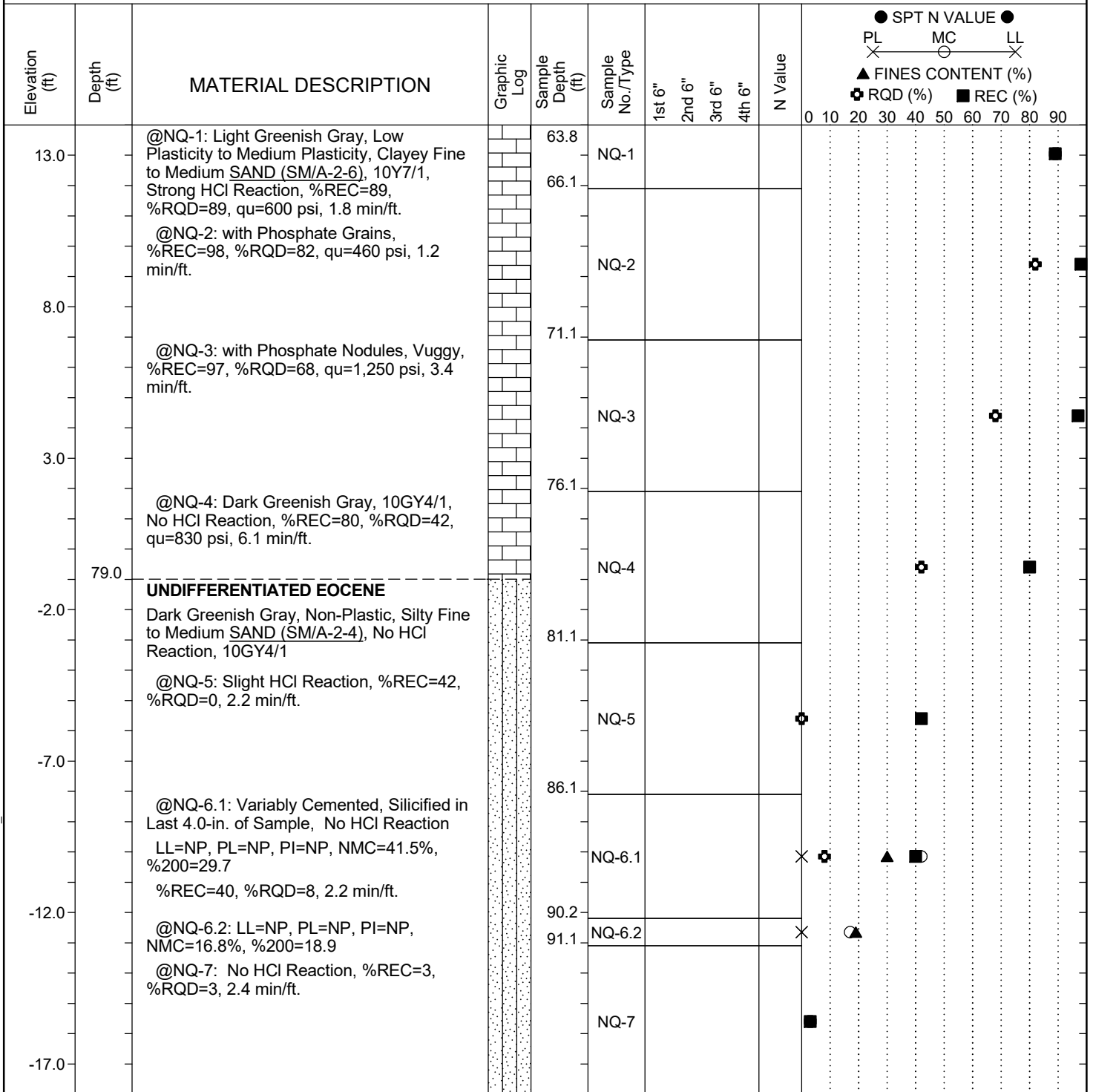
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-38
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5229+33	Offset: 88.3-L Alignment: I-95 Med. CL
Elev.: 78.0 ft	Latitude: 33.50801149	Longitude: -80.44860205 Date Started: 2/22/2023
Total Depth: 119.2 ft	Soil Depth: 56.9 ft	Core Depth: 42.3 ft Date Completed: 2/23/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 20 ft 24HR 20 ft



LEGEND

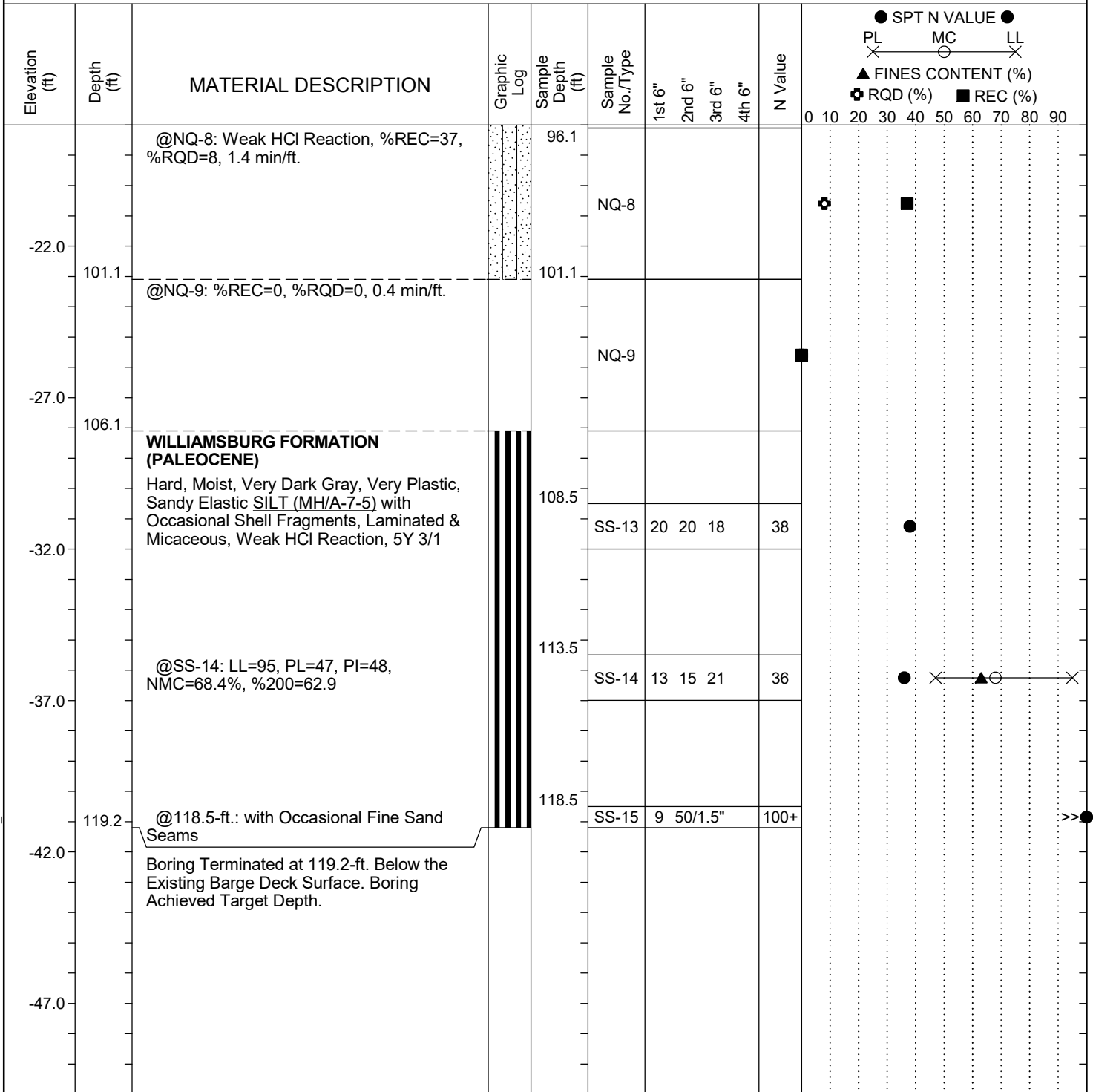
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-38
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5229+33	Offset: 88.3-L
Alignment: I-95 Med. CL	Date Started: 2/22/2023	Latitude: 33.50801149
Elev.: 78.0 ft	Longitude: -80.44860205	Date Completed: 2/23/2023
Total Depth: 119.2 ft	Soil Depth: 56.9 ft	Core Depth: 42.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 20 ft	24HR: 20 ft



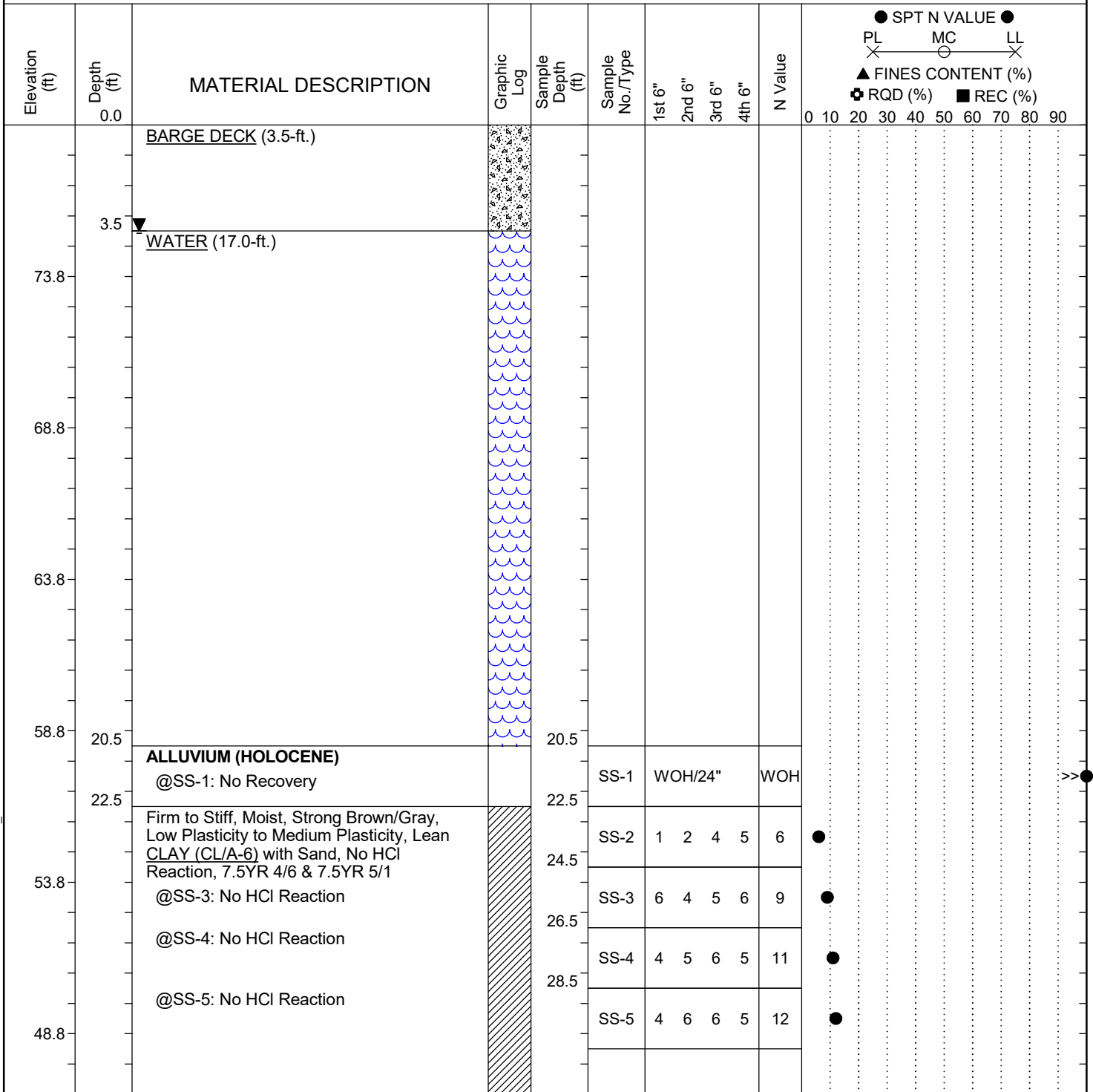
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-39
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5228+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50839761	Longitude: -80.44858298 Date Started: 4/18/2023
Total Depth: 120.5 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft Date Completed: 4/19/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



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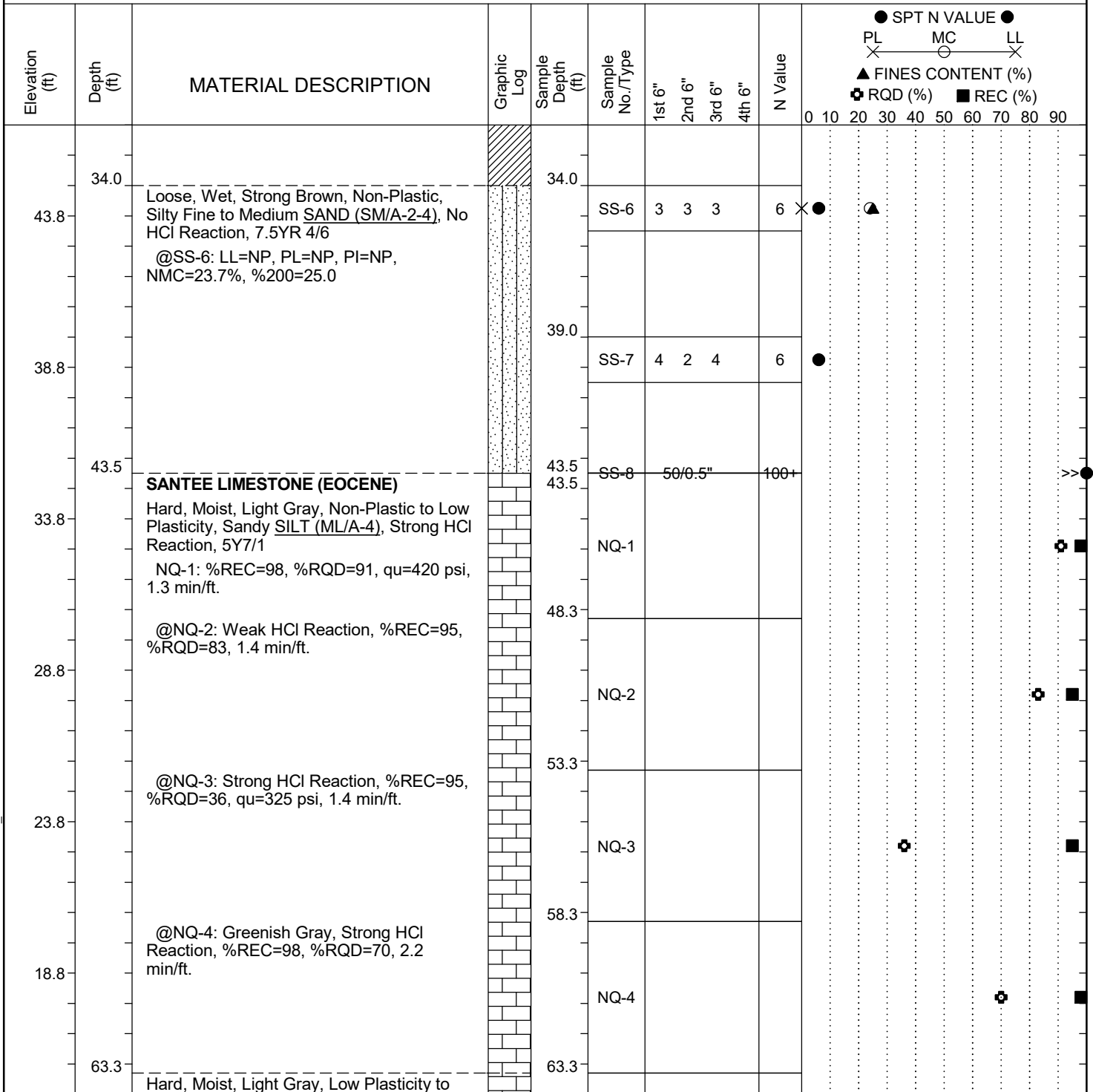
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-39
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5228+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50839761	Longitude: -80.44858298 Date Started: 4/18/2023
Total Depth: 120.5 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft Date Completed: 4/19/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



LEGEND

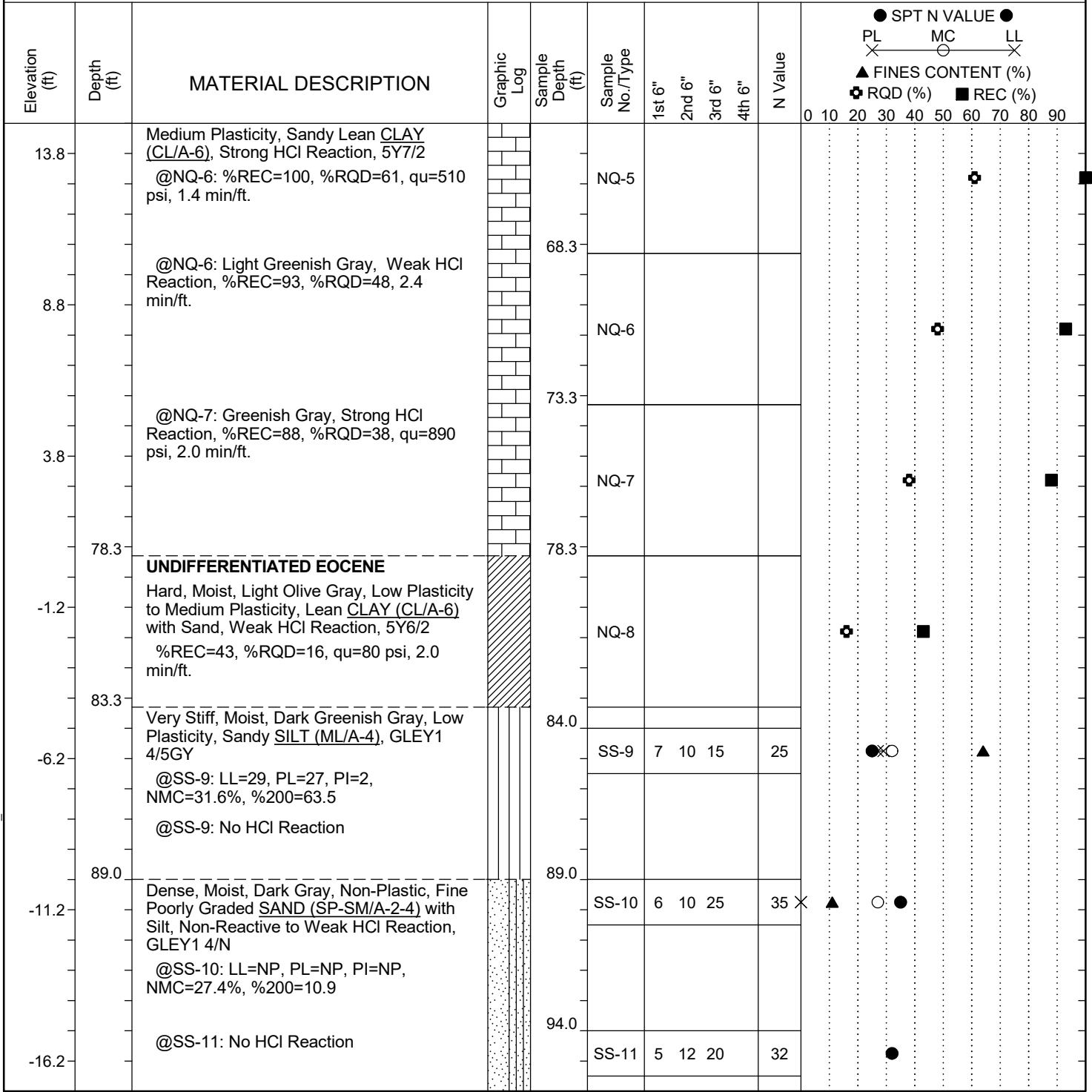
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130		County: Clarendon/Orangeburg		Boring No.: B-39	
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement				Route: I-95	
Eng./Geo.: C. Thomas		Boring Location: 5228+34		Offset: 11.5-R	Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50839761	Longitude: -80.44858298	Date Started: 4/18/2023		
Total Depth: 120.5 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft	Date Completed: 4/19/2023		
Bore Hole Diameter (in): 4		Sampler Configuration		Liner Required: Y (N)	Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic		Energy Ratio: 81%	
Core Size: NQ	Driller: D. Harris	Groundwater: TOB	3.5 ft	24HR	3.5 ft



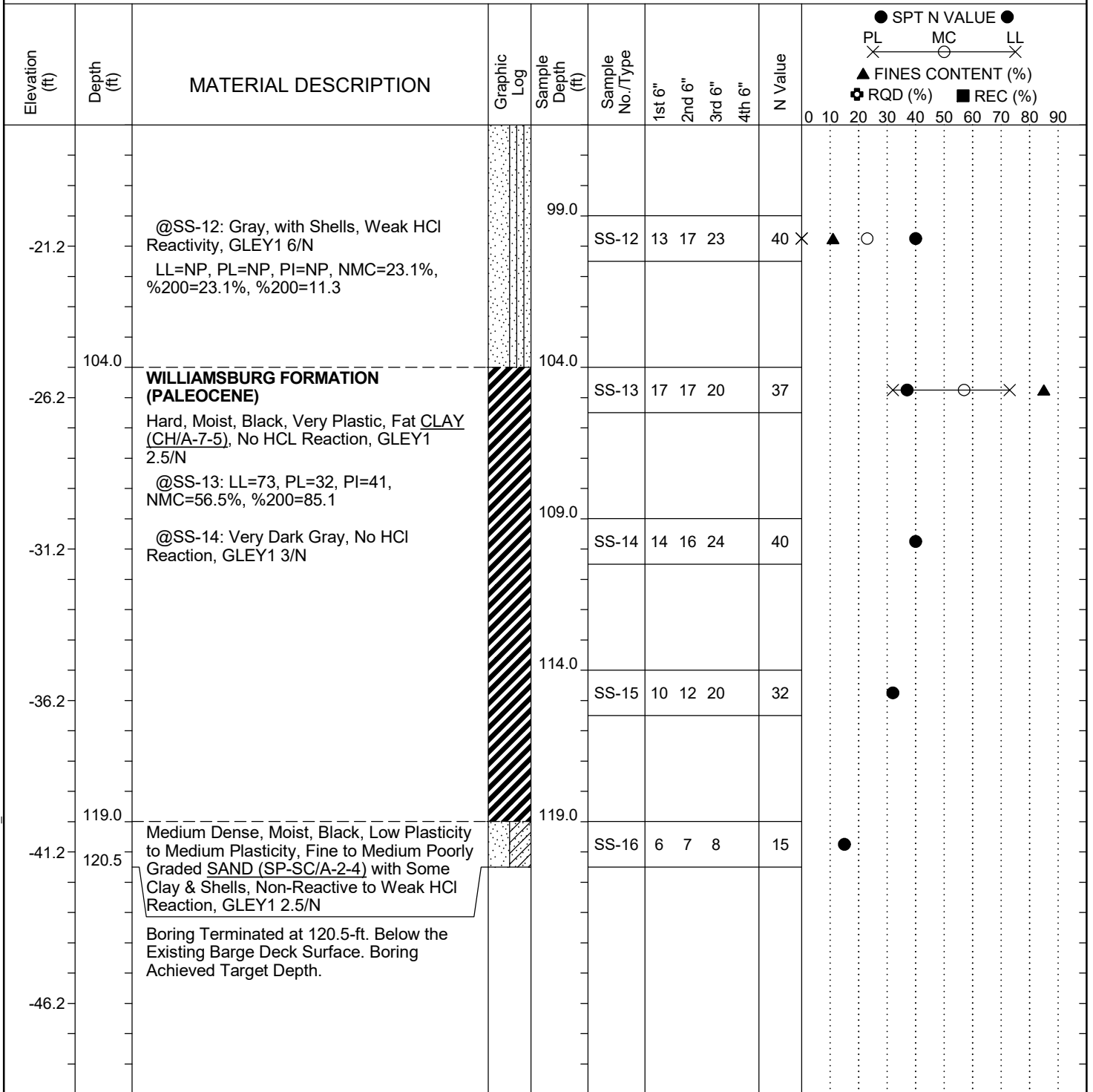
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-39
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5228+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.8 ft	Latitude: 33.50839761	Longitude: -80.44858298 Date Started: 4/18/2023
Total Depth: 120.5 ft	Soil Depth: 60.2 ft	Core Depth: 39.8 ft Date Completed: 4/19/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



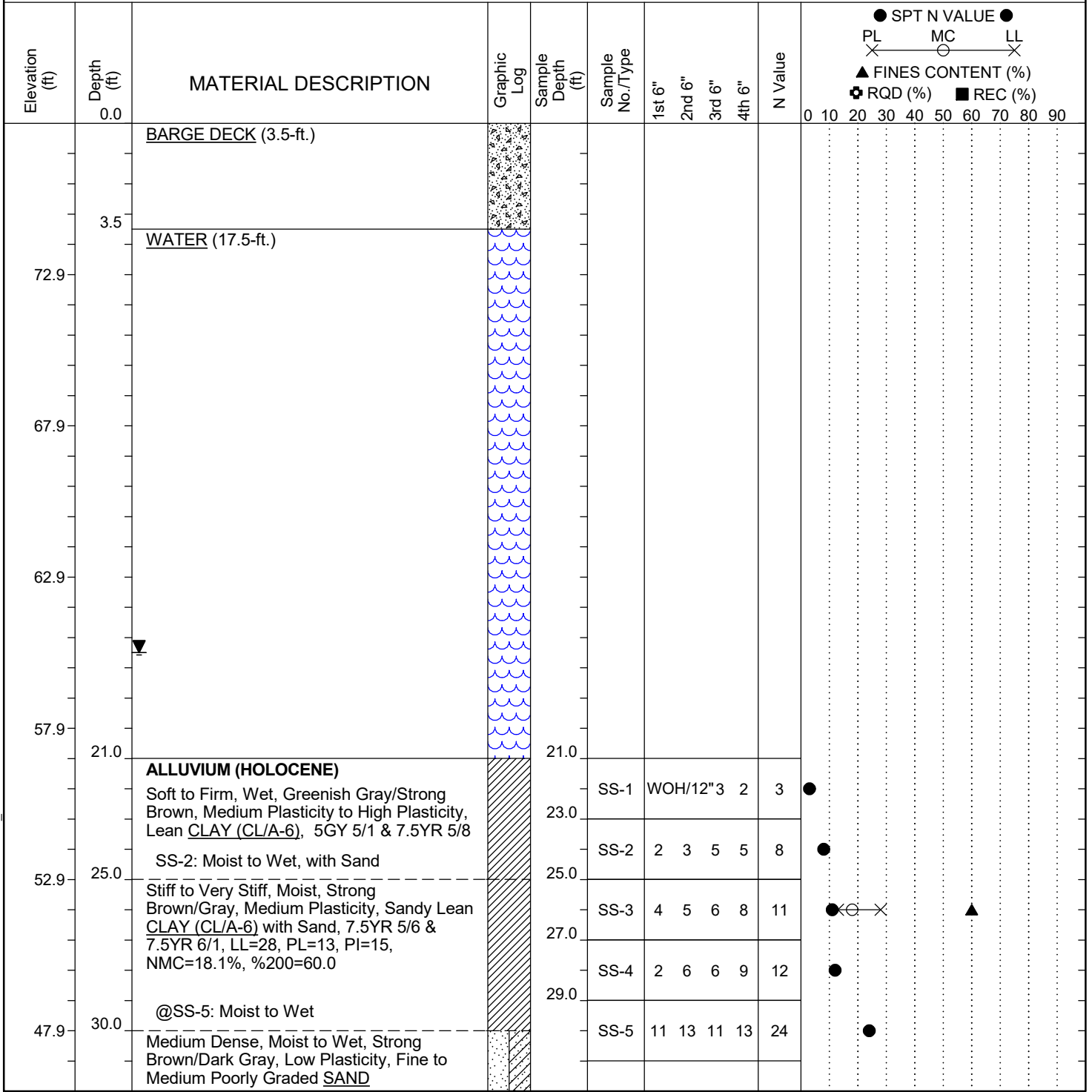
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-40
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5227+36	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 2/21/2023	Date Completed: 2/22/2023
Elev.: 77.9 ft	Latitude: 33.50838409	Longitude: -80.44813454
Total Depth: 117.5 ft	Soil Depth: 55 ft	Core Depth: 41.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 17.5 ft



LEGEND

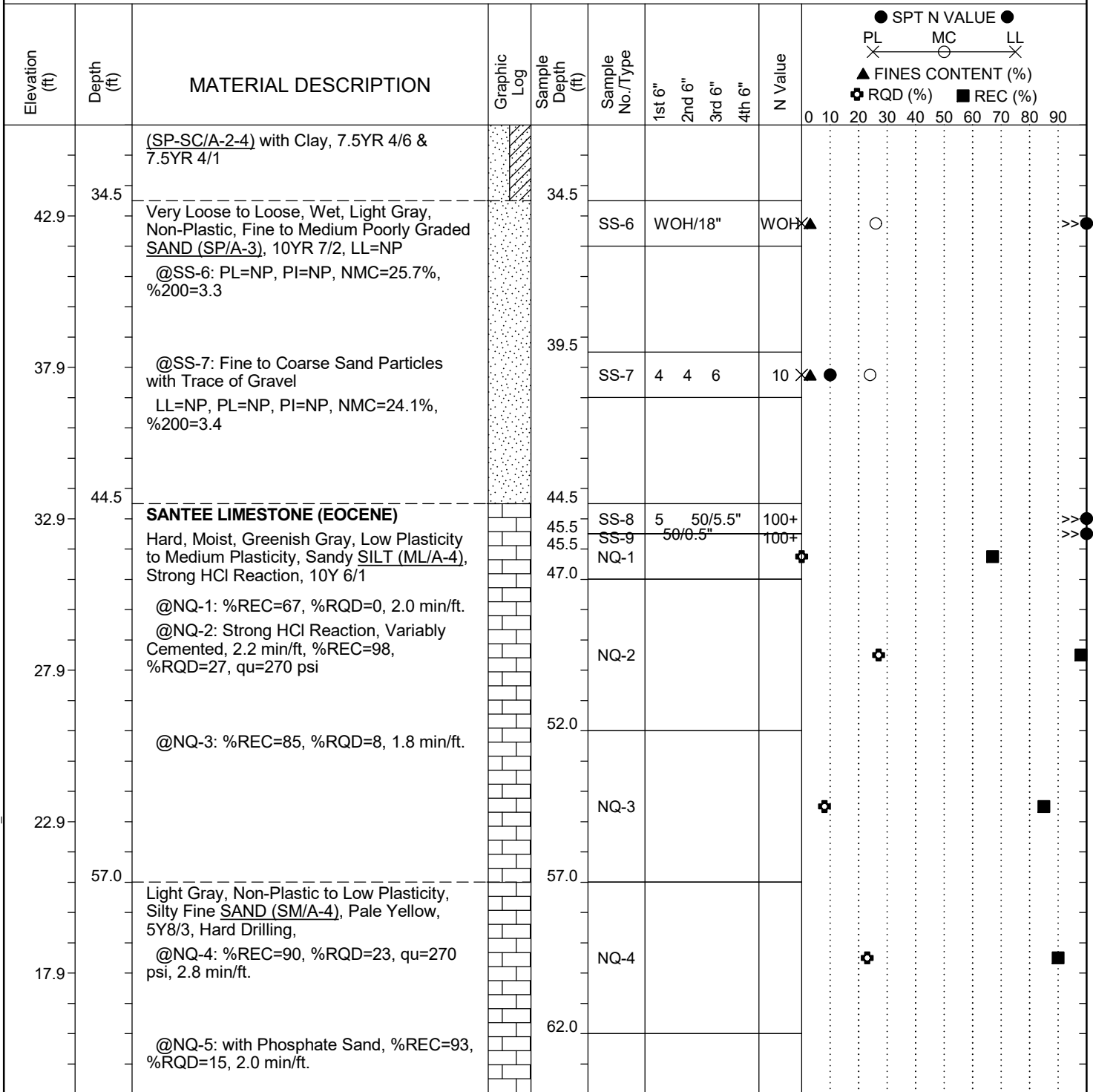
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-40
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5227+36	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 2/21/2023	Latitude: 33.50838409
Elev.: 77.9 ft	Longitude: -80.44813454	Date Completed: 2/22/2023
Total Depth: 117.5 ft	Soil Depth: 55 ft	Core Depth: 41.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 17.5 ft



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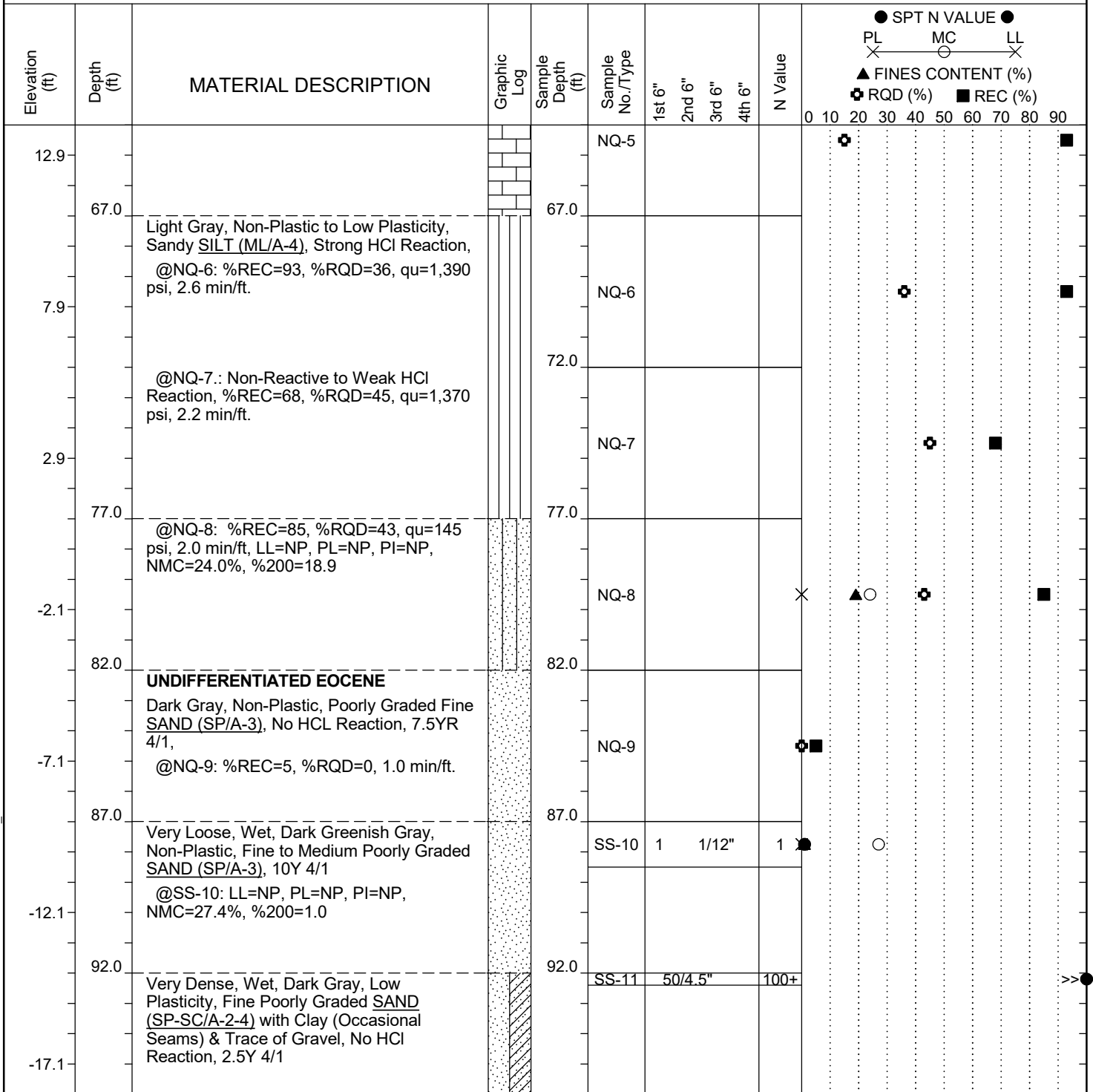
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-40
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5227+36	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 2/21/2023	Date Completed: 2/22/2023
Elev.: 77.9 ft	Latitude: 33.50838409	Longitude: -80.44813454
Total Depth: 117.5 ft	Soil Depth: 55 ft	Core Depth: 41.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	17.5 ft
24HR: 17.5 ft		



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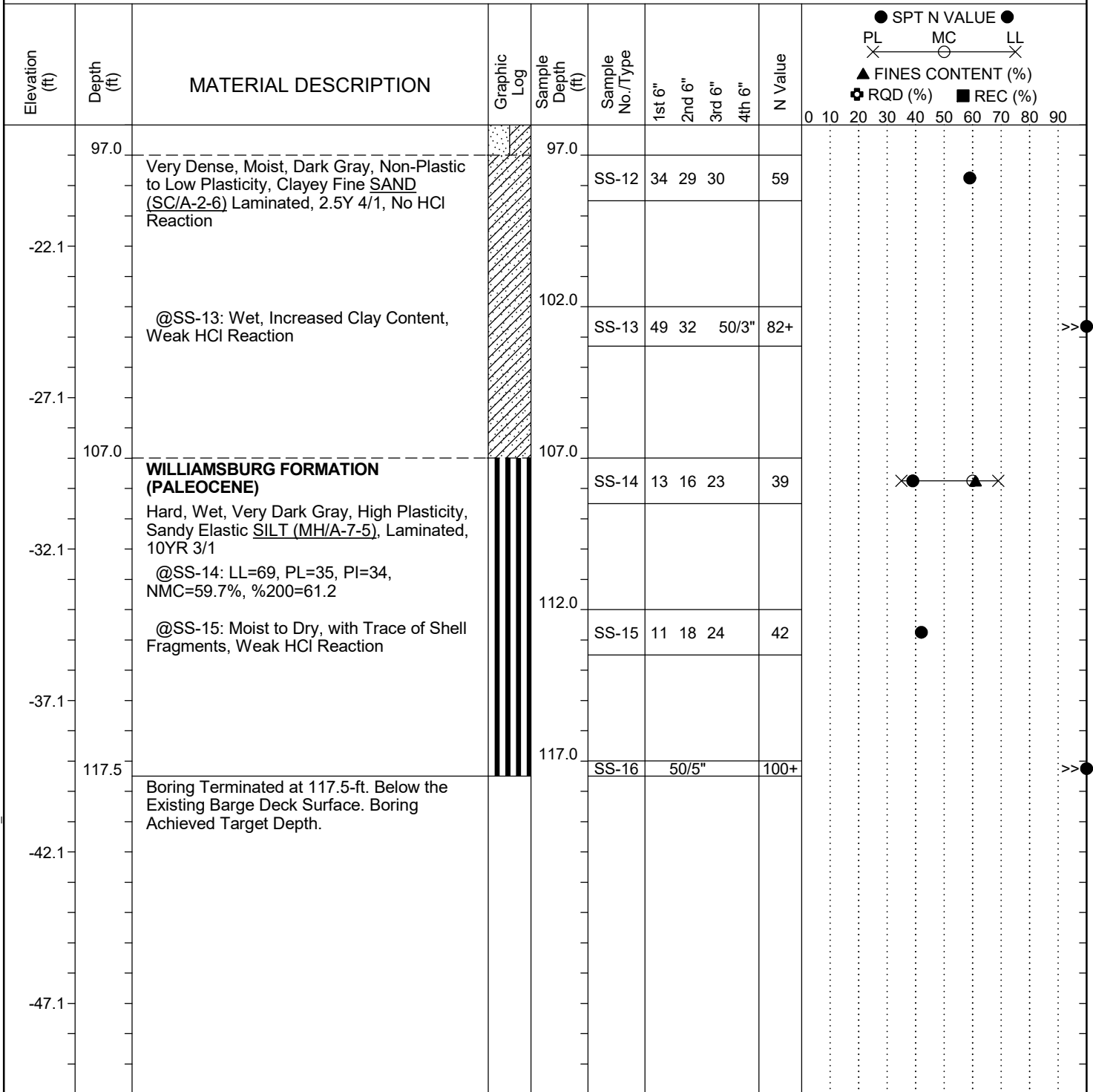
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-40
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5227+36	Offset: 84.3-L
Alignment: I-95 Med. CL	Date Started: 2/21/2023	Date Completed: 2/22/2023
Elev.: 77.9 ft	Latitude: 33.50838409	Longitude: -80.44813454
Total Depth: 117.5 ft	Soil Depth: 55 ft	Core Depth: 41.5 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 17.5 ft
Core Size: NQ	Driller: D. Harris	24HR 17.5 ft



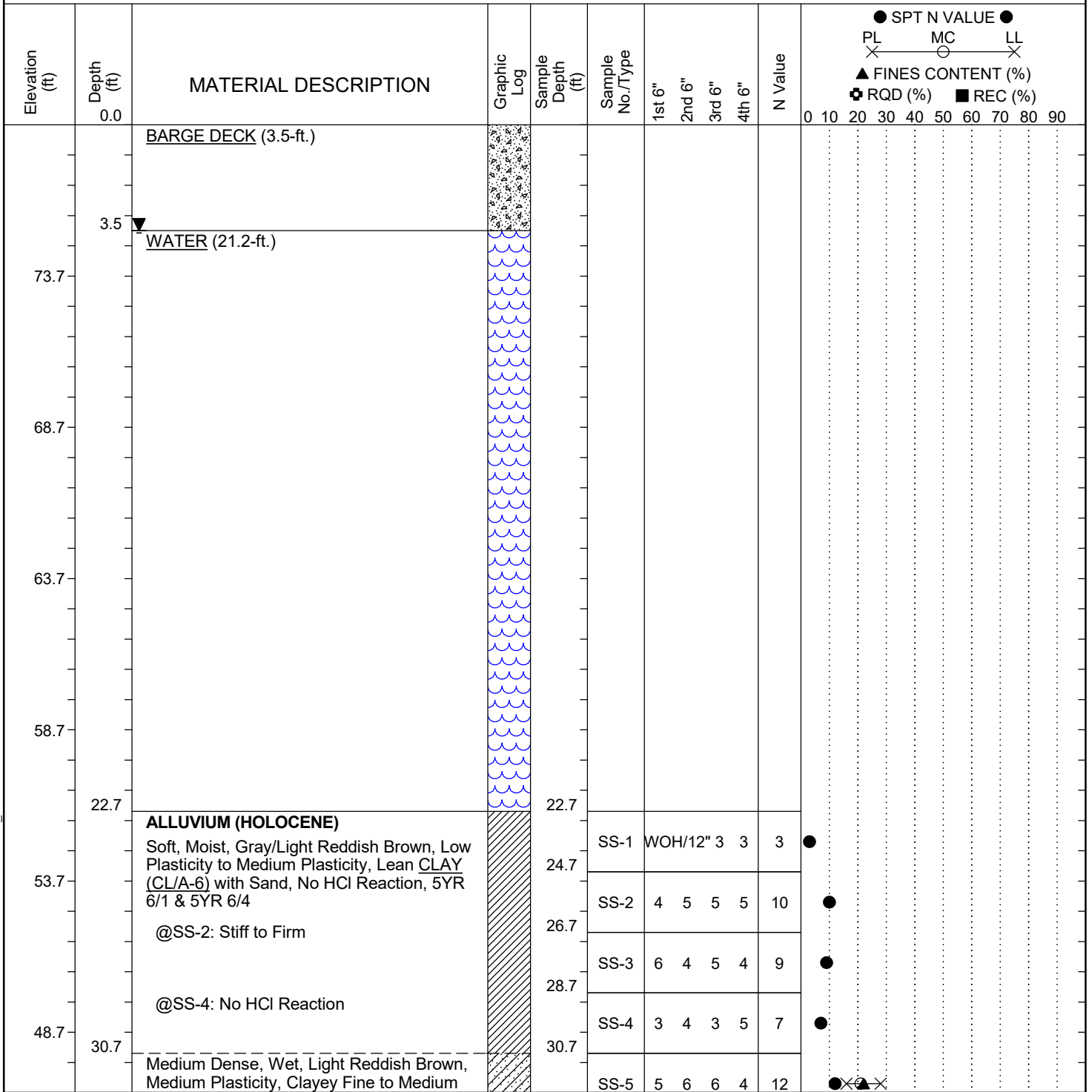
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-41
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5226+34	Offset: 11.5-R
Alignment: I-95 Med. CL	Date Started: 4/13/2023	Date Completed: 4/17/2023
Elev.: 78.7 ft	Latitude: 33.50876884	Longitude: -80.44809764
Total Depth: 122.7 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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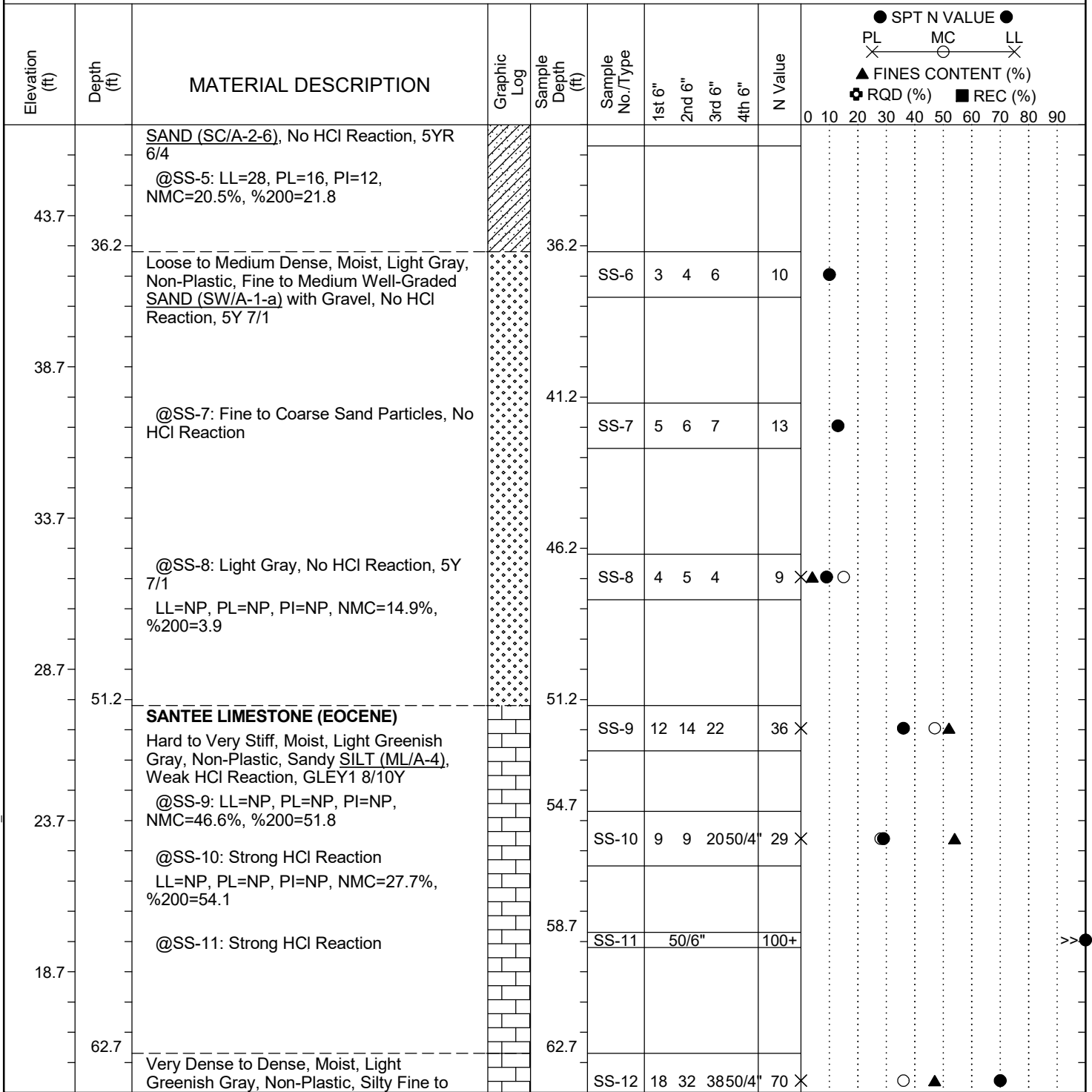
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-41
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5226+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.7 ft	Latitude: 33.50876884	Longitude: -80.44809764 Date Started: 4/13/2023
Total Depth: 122.7 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/17/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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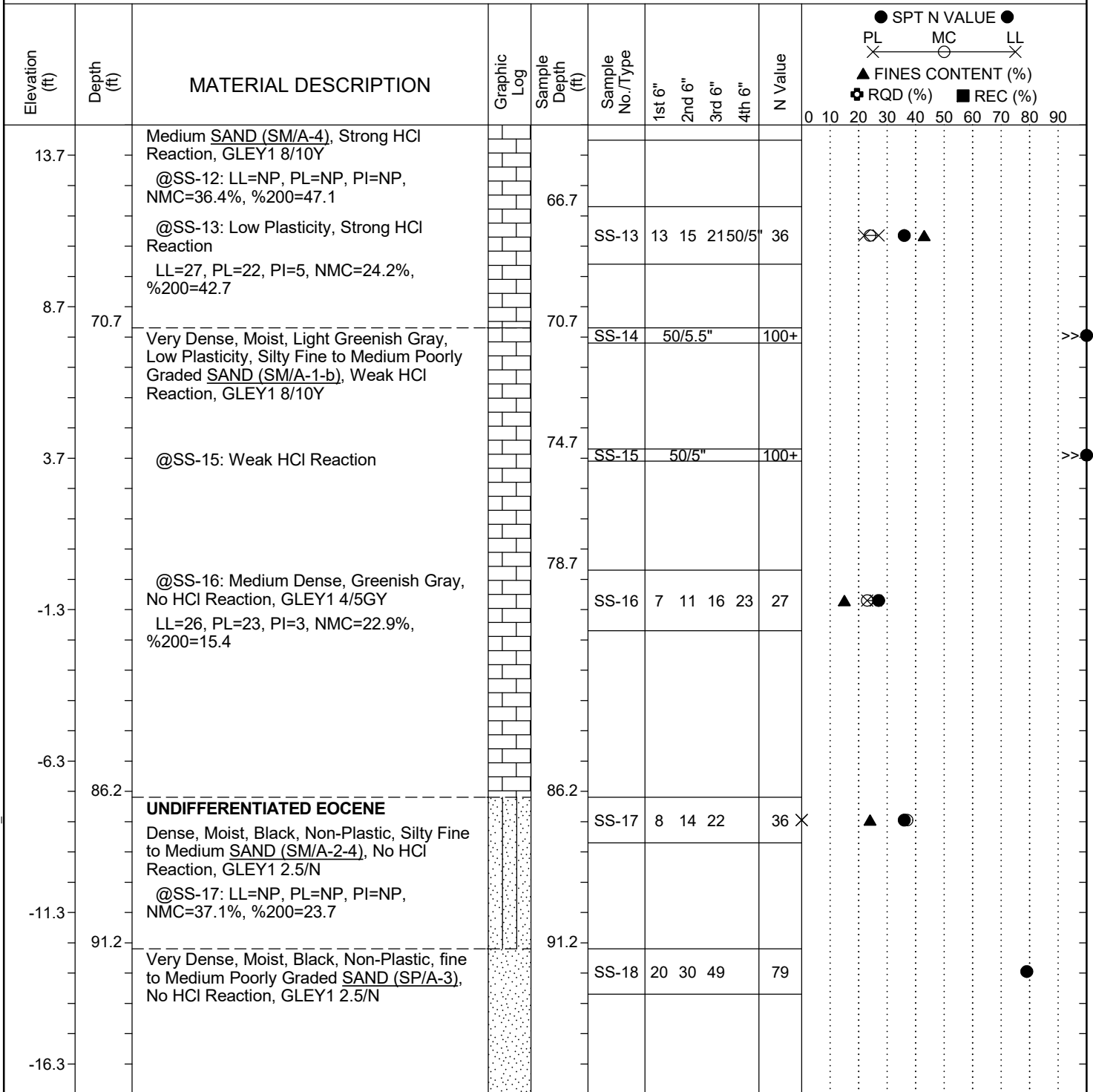
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-41
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5226+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.7 ft	Latitude: 33.50876884	Longitude: -80.44809764 Date Started: 4/13/2023
Total Depth: 122.7 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/17/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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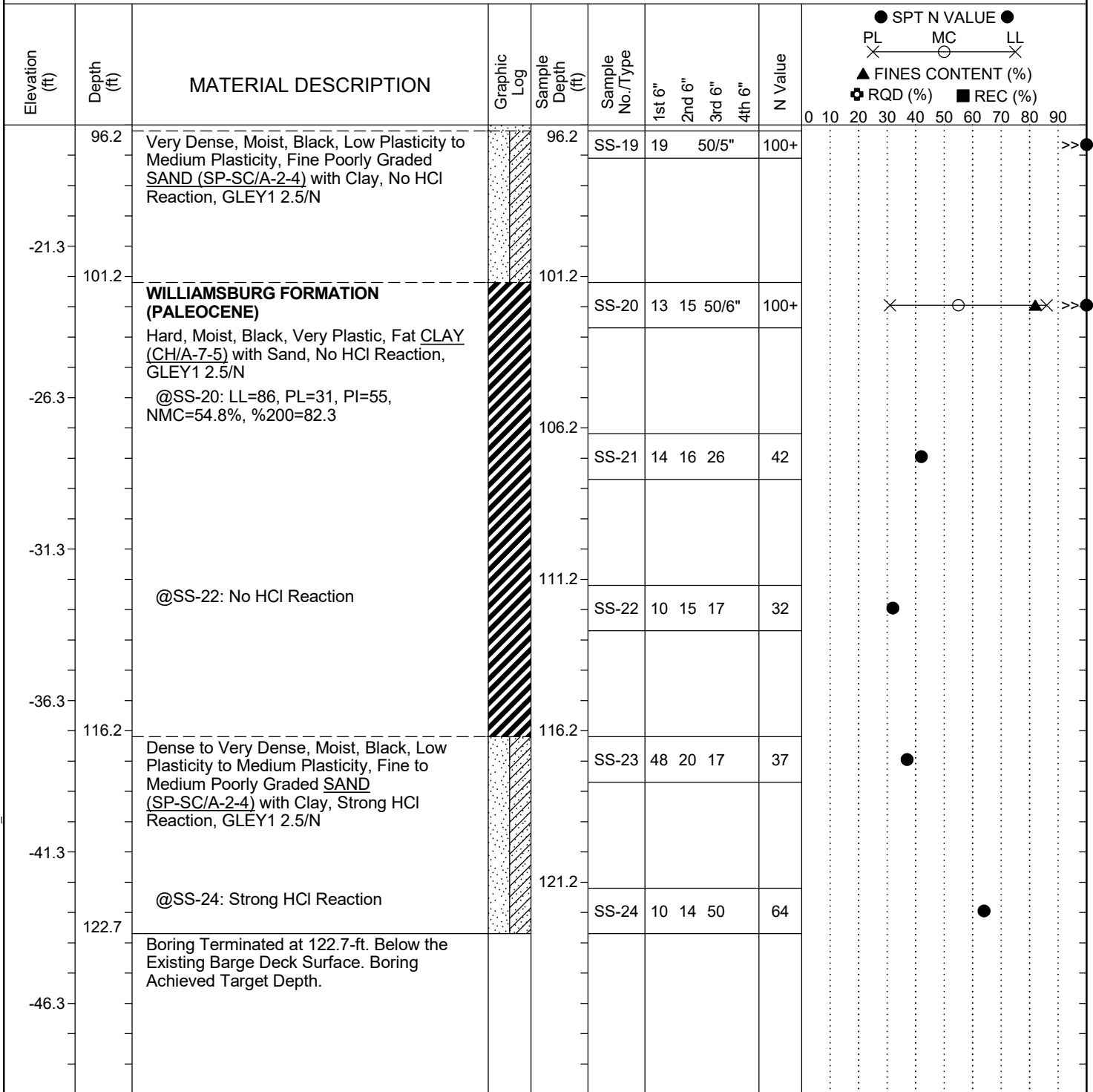
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-41
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5226+34	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 78.7 ft	Latitude: 33.50876884	Longitude: -80.44809764 Date Started: 4/13/2023
Total Depth: 122.7 ft	Soil Depth: 100 ft	Core Depth: N/A ft Date Completed: 4/17/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: N/A	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



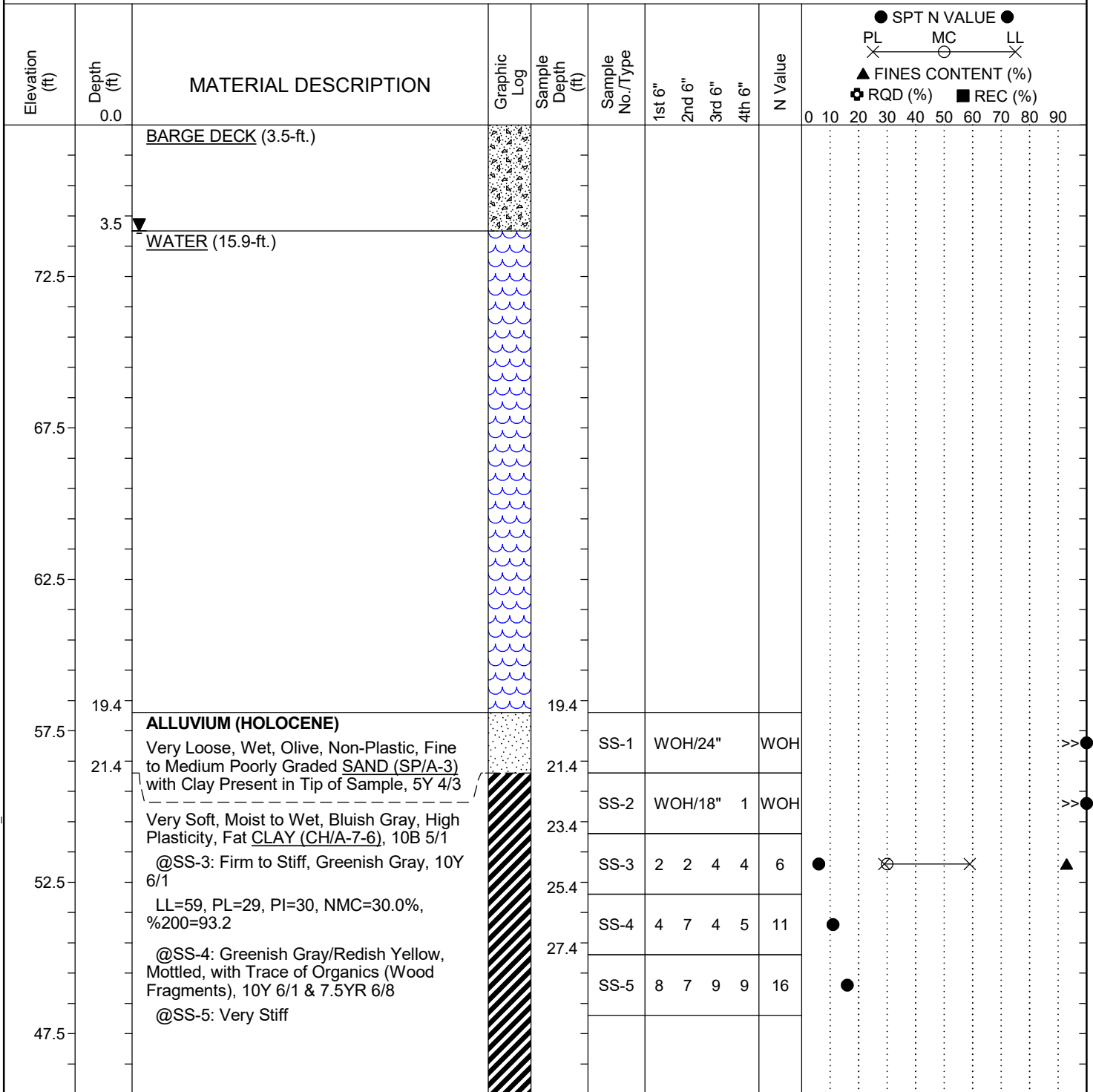
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-42
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5225+35	Offset: 86.1-L
Alignment: I-95 Med. CL	Date Started: 2/16/2023	
Elev.: 77.5 ft	Latitude: 33.50875397	Longitude: -80.44764262
Total Depth: 119.9 ft	Soil Depth: 53.5 ft	Core Depth: 47 ft
Date Completed: 2/21/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%		
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft
24HR: 3.5 ft		



LEGEND

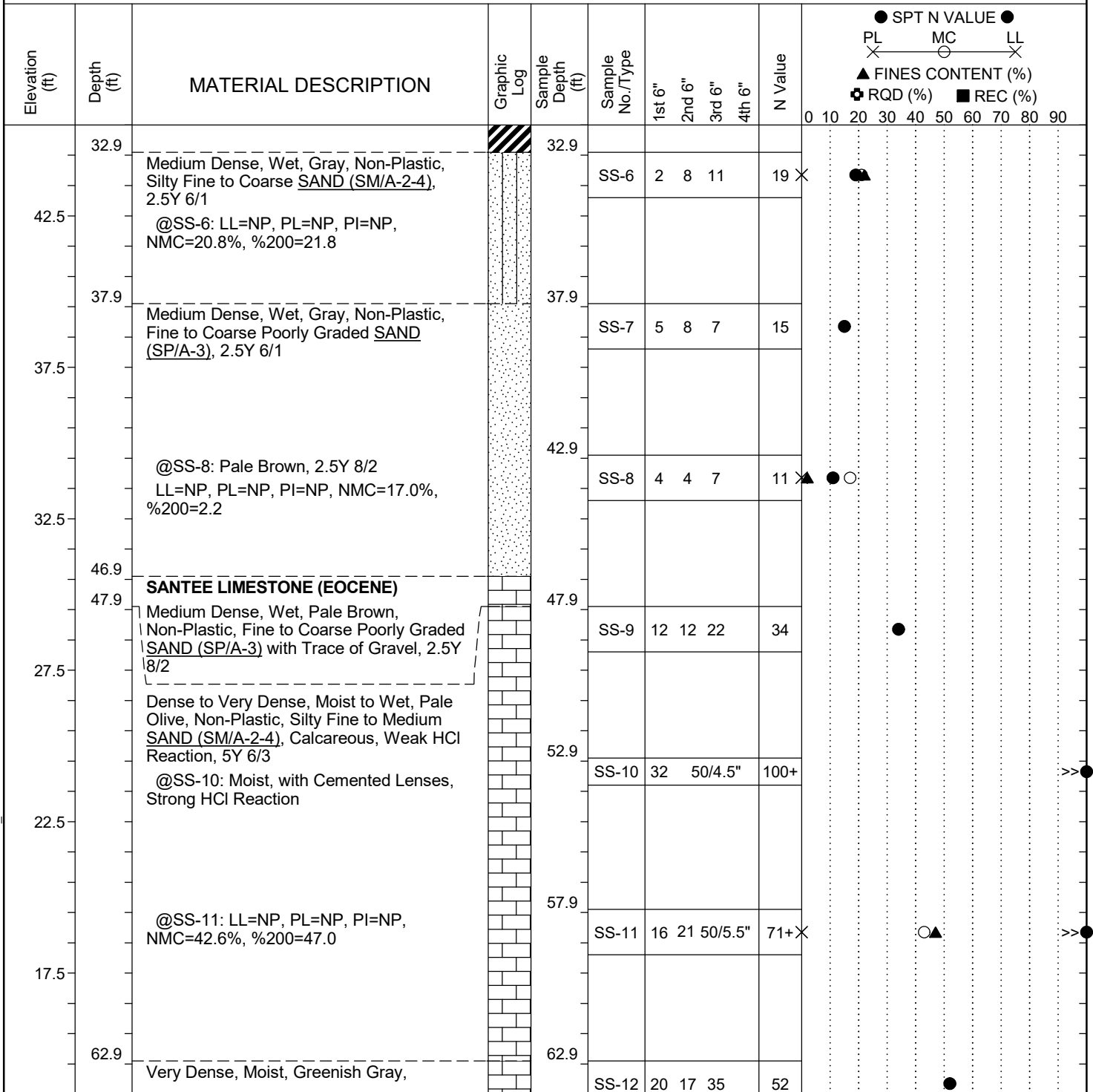
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-42
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5225+35	Offset: 86.1-L
Alignment: I-95 Med. CL	Date Started: 2/16/2023	Date Completed: 2/21/2023
Elev.: 77.5 ft	Latitude: 33.50875397	Longitude: -80.44764262
Total Depth: 119.9 ft	Soil Depth: 53.5 ft	Core Depth: 47 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



LEGEND

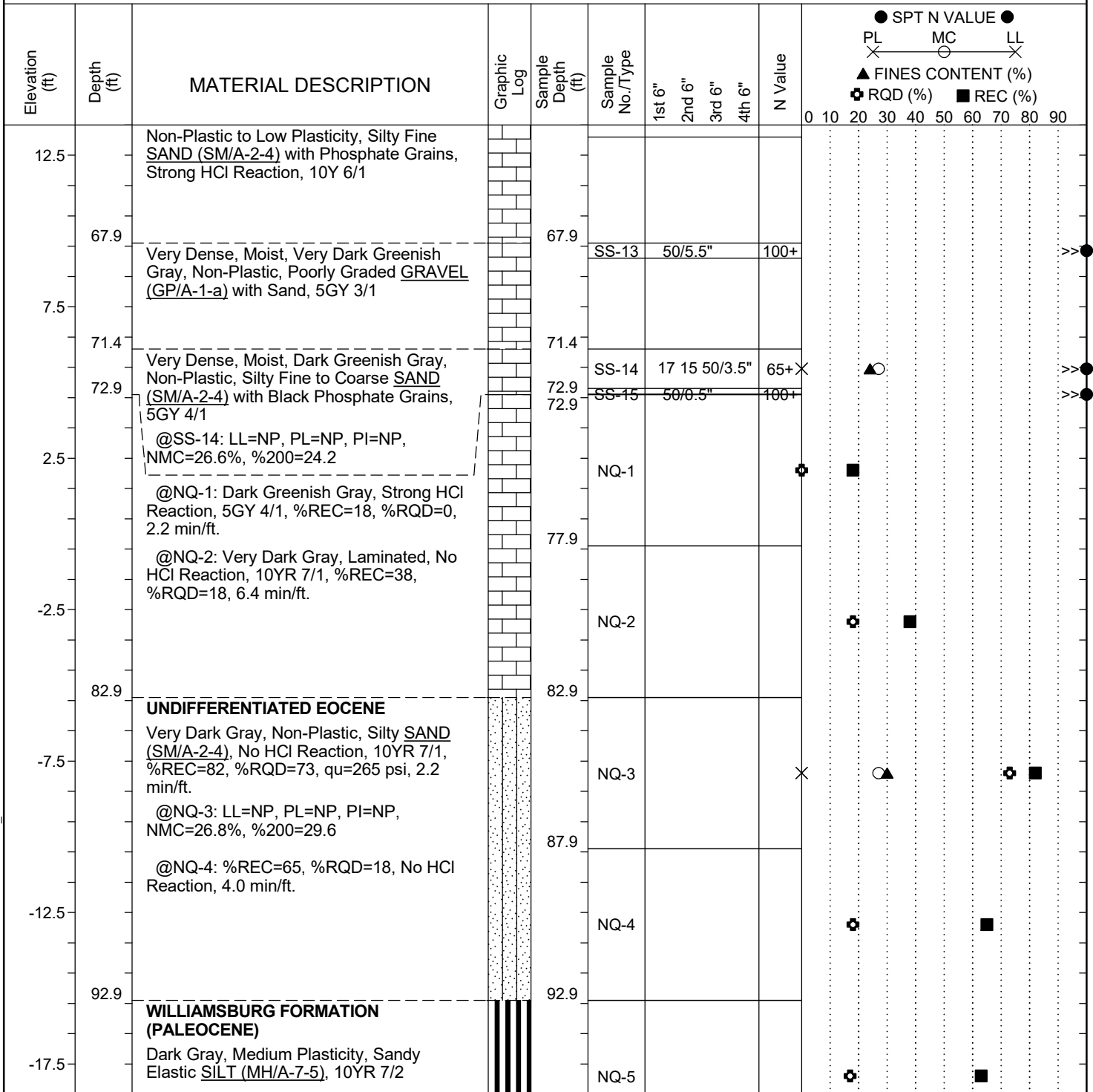
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-42
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5225+35	Offset: 86.1-L
Alignment: I-95 Med. CL	Date Started: 2/16/2023	Date Completed: 2/21/2023
Elev.: 77.5 ft	Latitude: 33.50875397	Longitude: -80.44764262
Total Depth: 119.9 ft	Soil Depth: 53.5 ft	Core Depth: 47 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



LEGEND

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SAMPLER TYPE

DRILLING METHOD

SS - Split Spoon
 UD - Undisturbed Sample
 AWG - Rock Core, 1-1/8"

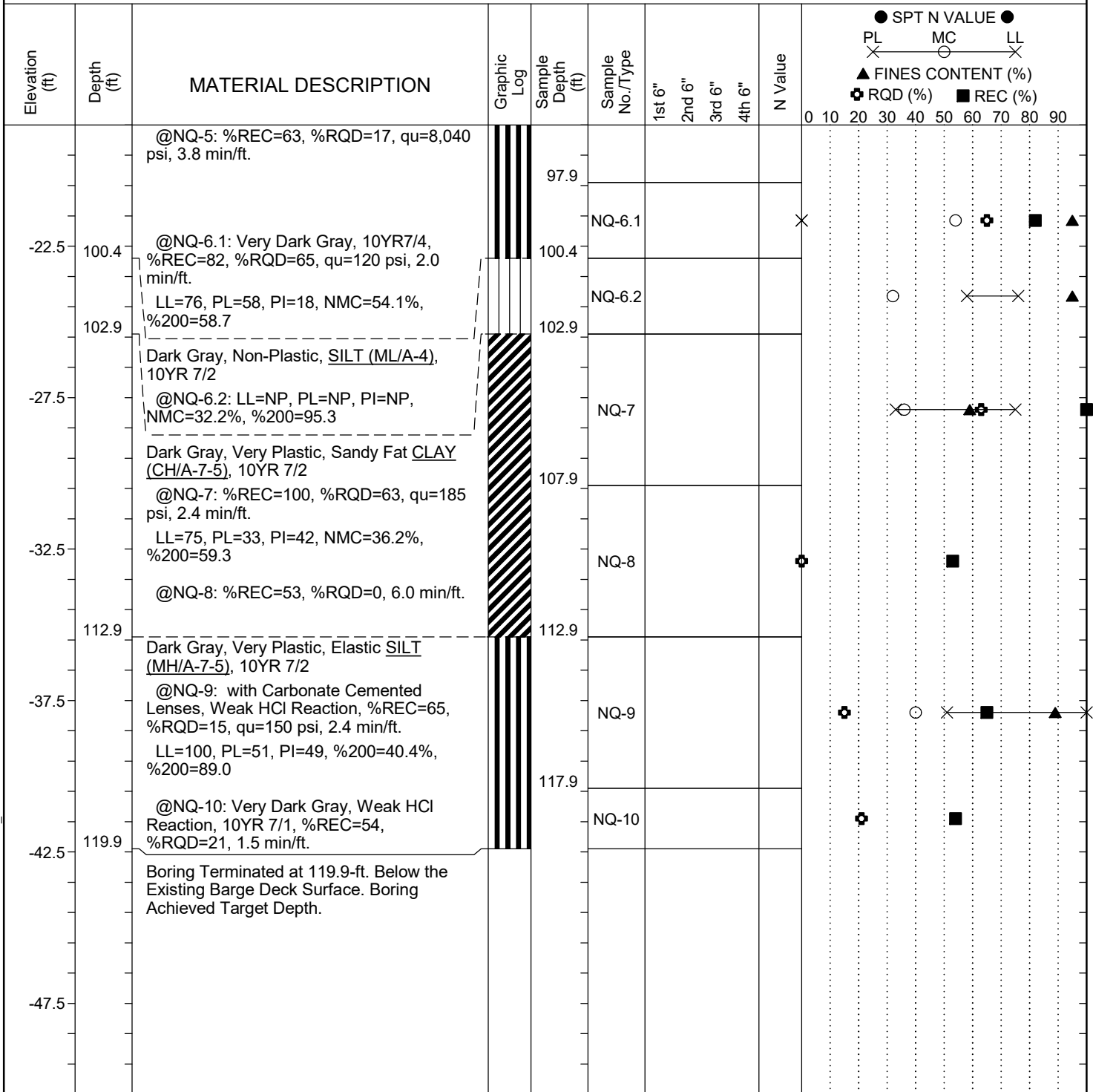
NQ - Rock Core, 1-7/8"
 CU - Cuttings
 CT - Continuous Tube

HSA - Hollow Stem Auger
 CFA - Continuous Flight Augers
 DC - Driving Casing

RW - Rotary Wash
 RC - Rock Core

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-42
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5225+35	Offset: 86.1-L
Alignment: I-95 Med. CL	Date Started: 2/16/2023	Date Completed: 2/21/2023
Elev.: 77.5 ft	Latitude: 33.50875397	Longitude: -80.44764262
Total Depth: 119.9 ft	Soil Depth: 53.5 ft	Core Depth: 47 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



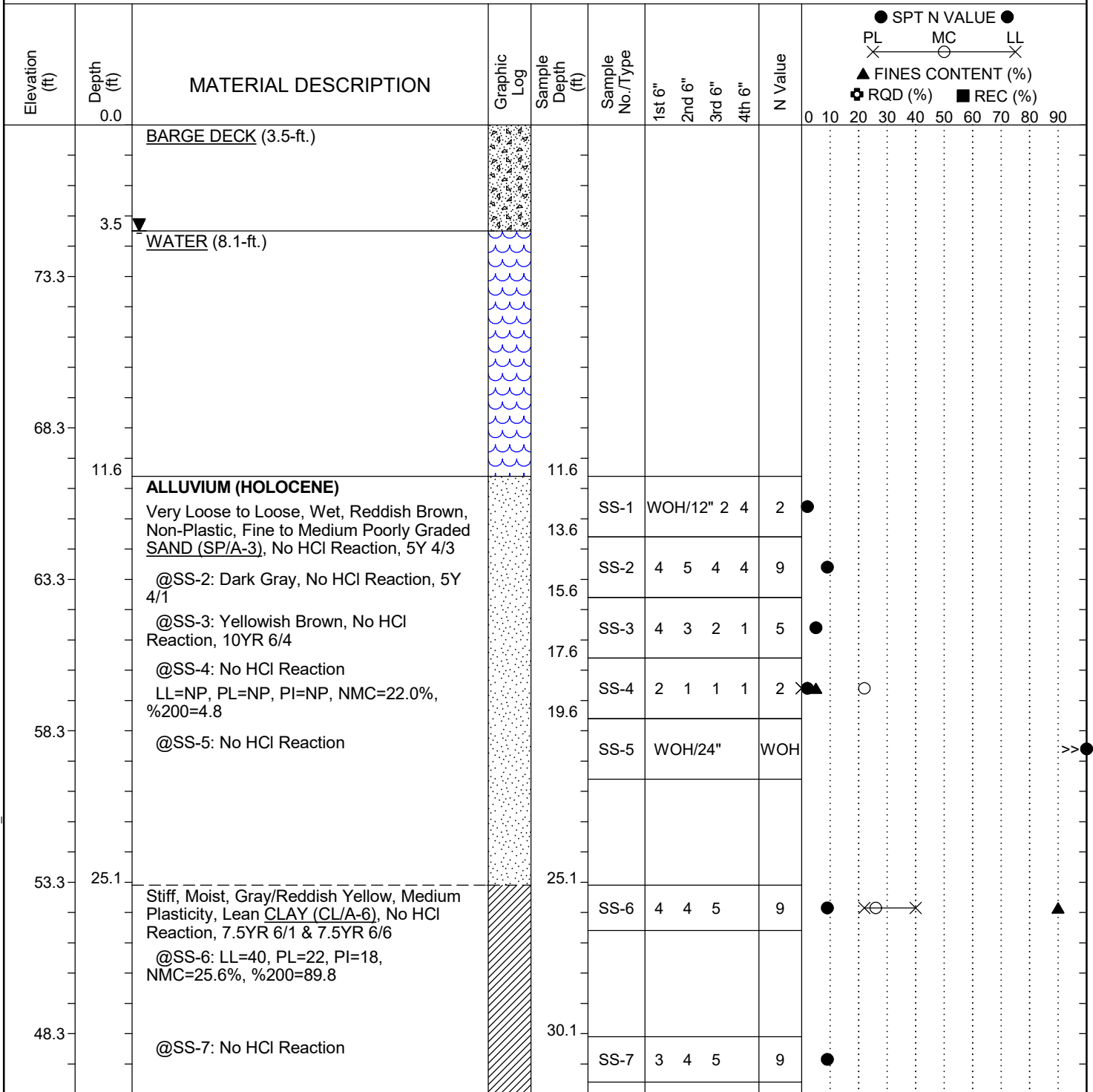
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-43
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5224+34	Offset: 12.4-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50914084	Longitude: -80.44761627 Date Started: 4/12/2023
Total Depth: 108.2 ft	Soil Depth: 53.6 ft	Core Depth: 43 ft Date Completed: 4/13/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR: 3.5 ft



LEGEND

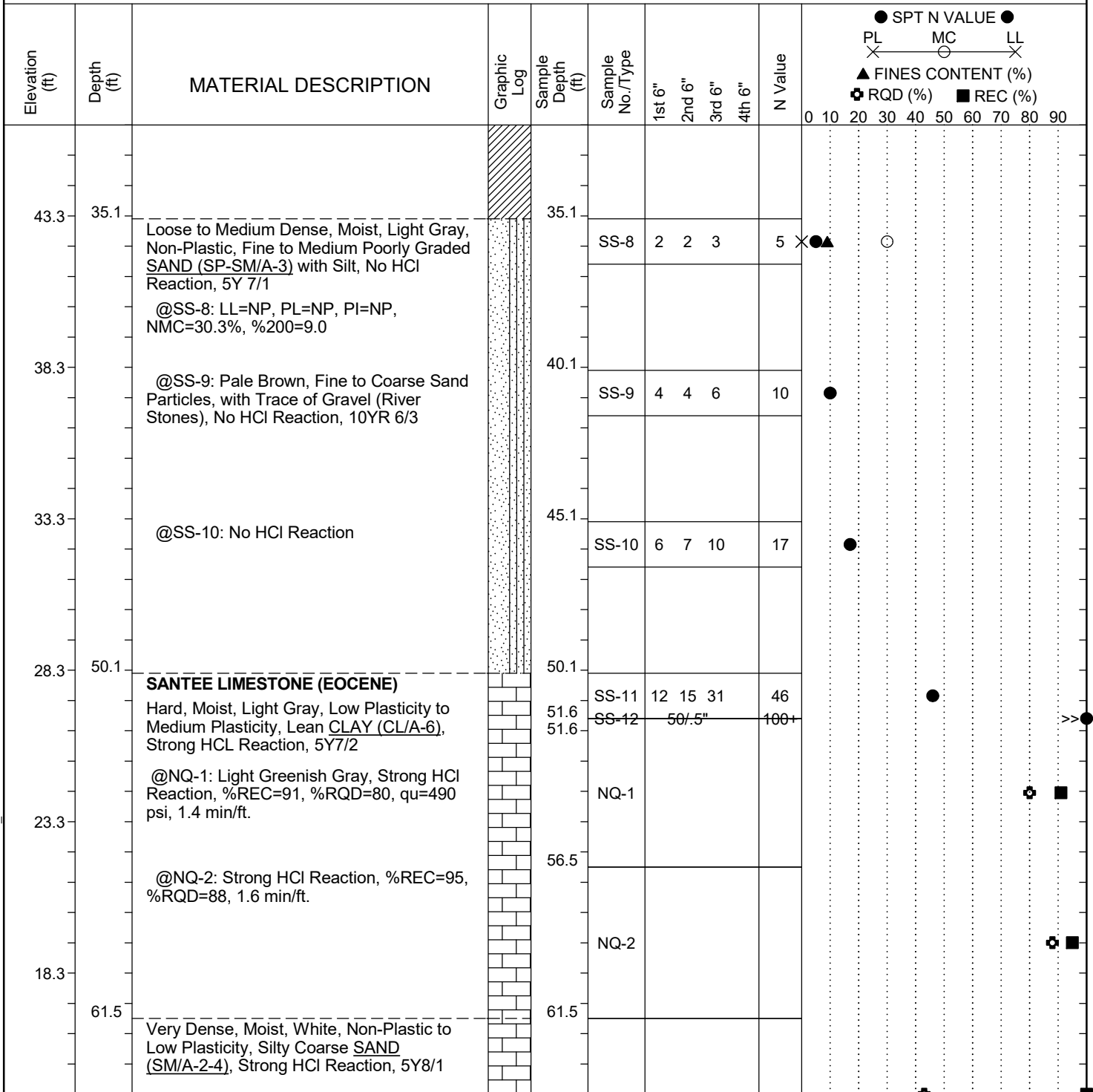
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-43
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5224+34	Offset: 12.4-R
Alignment: I-95 Med. CL	Date Started: 4/12/2023	Date Completed: 4/13/2023
Elev.: 78.3 ft	Latitude: 33.50914084	Longitude: -80.44761627
Total Depth: 108.2 ft	Soil Depth: 53.6 ft	Core Depth: 43 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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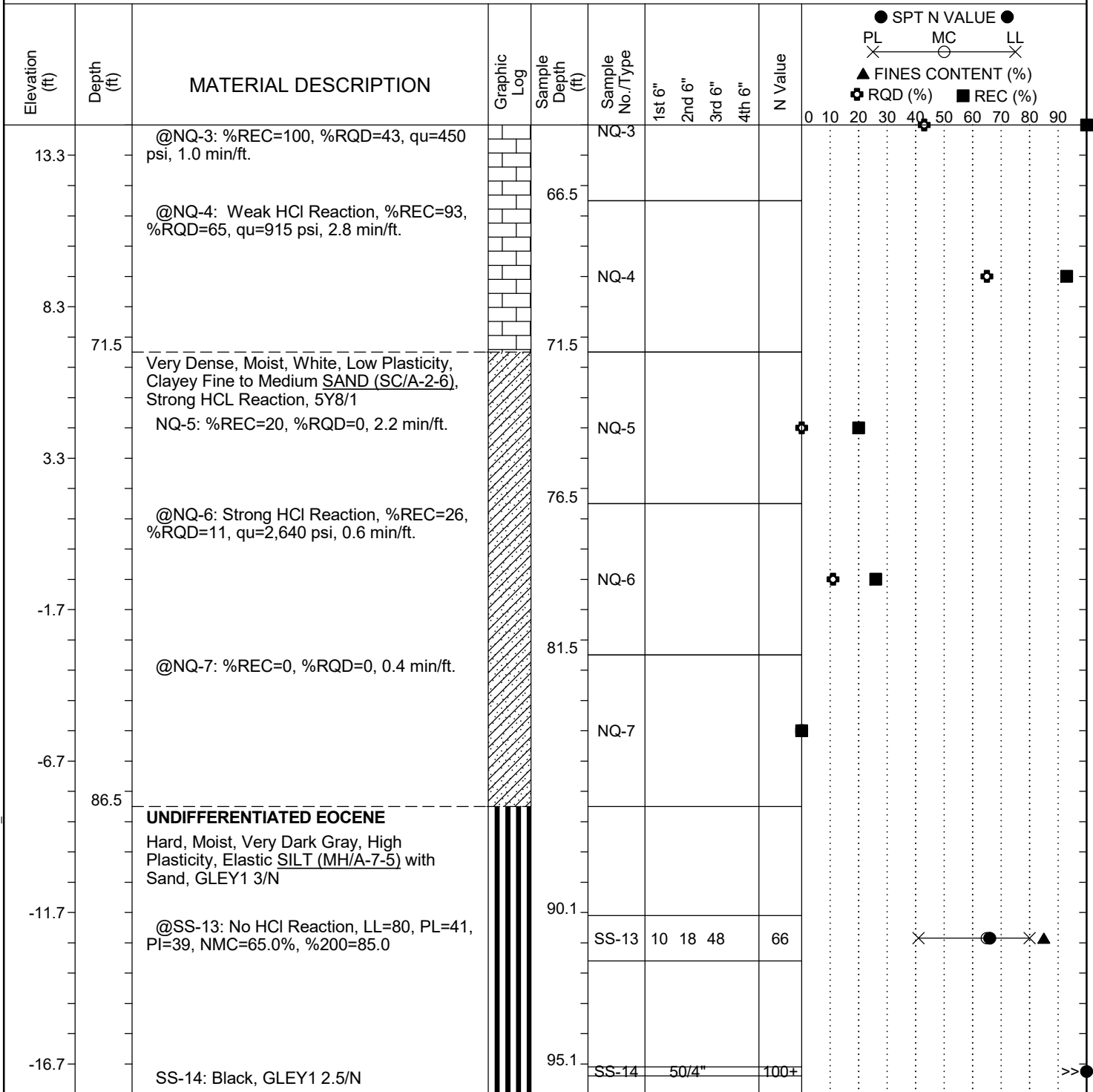
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-43
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5224+34	Offset: 12.4-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50914084	Longitude: -80.44761627 Date Started: 4/12/2023
Total Depth: 108.2 ft	Soil Depth: 53.6 ft	Core Depth: 43 ft Date Completed: 4/13/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



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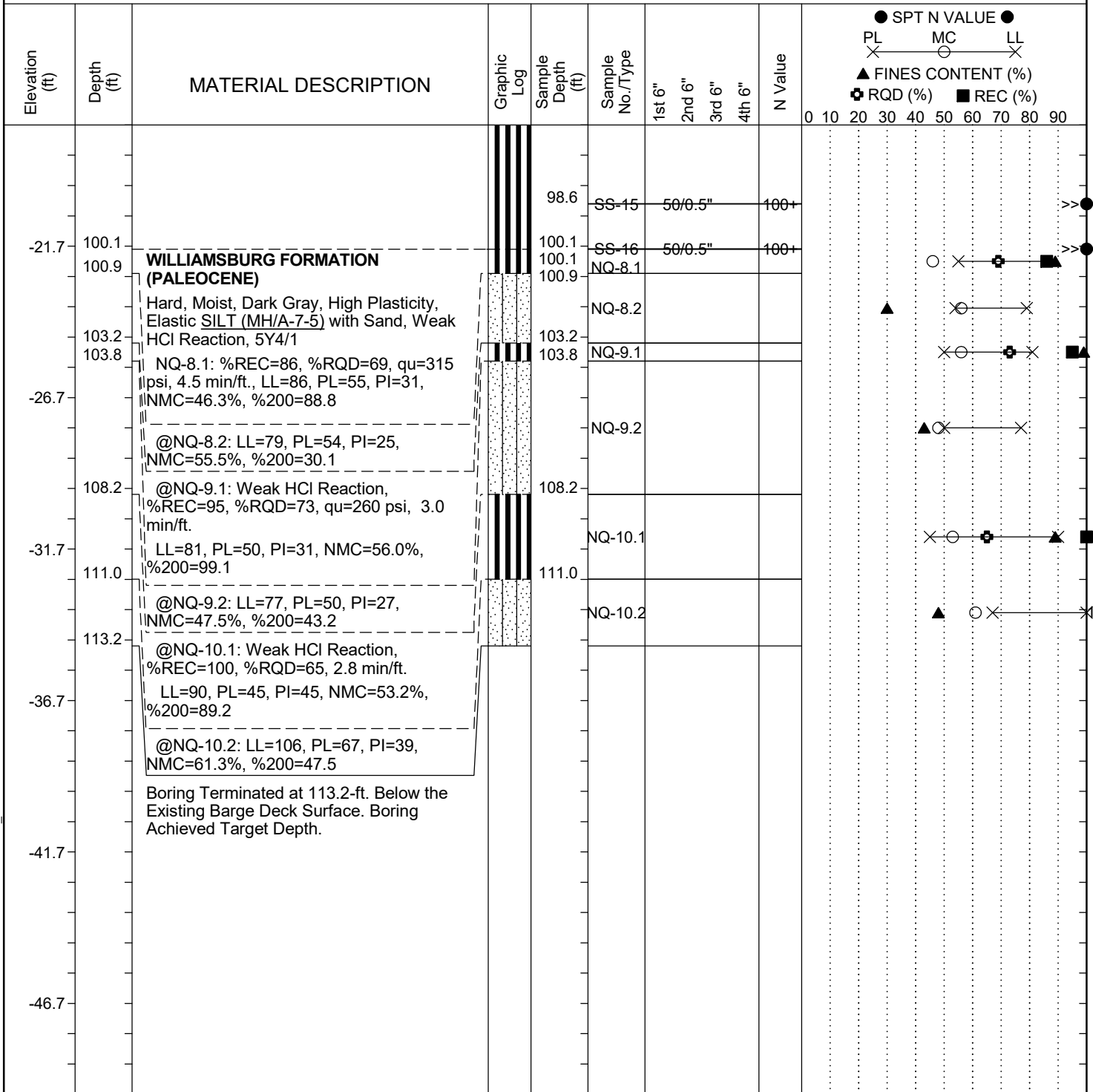
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-43
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5224+34	Offset: 12.4-R Alignment: I-95 Med. CL
Elev.: 78.3 ft	Latitude: 33.50914084	Longitude: -80.44761627 Date Started: 4/12/2023
Total Depth: 108.2 ft	Soil Depth: 53.6 ft	Core Depth: 43 ft Date Completed: 4/13/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



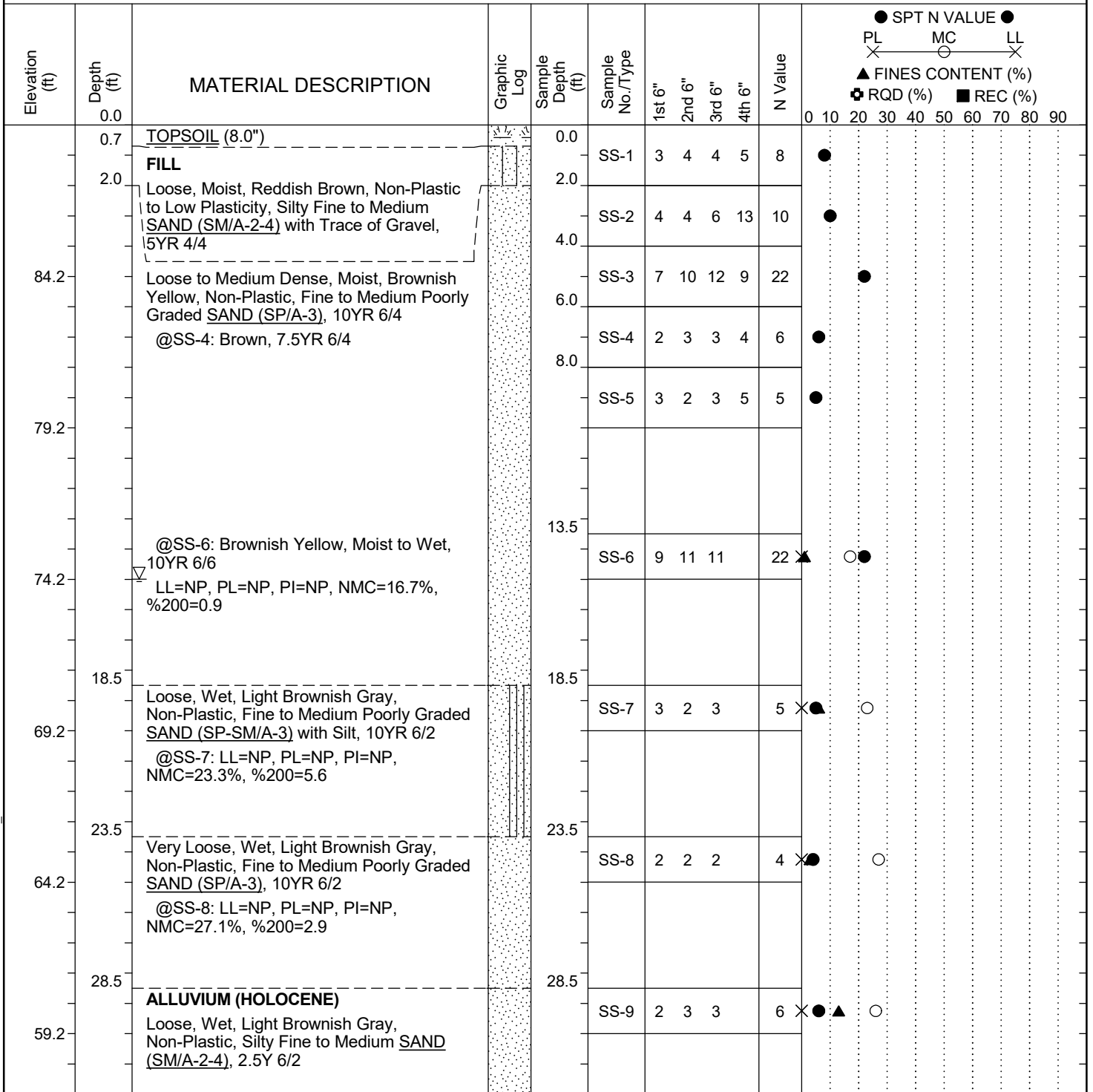
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-44
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5223+27	Offset: 5.4-R
Alignment: I-95 Med. CL	Date Started: 1/19/2023	
Elev.: 89.2 ft	Latitude: 33.50932533	Longitude: -80.44734055
Total Depth: 110 ft	Soil Depth: 82.7 ft	Core Depth: 27.3 ft
Date Completed: 1/30/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 15 ft
24HR		Cave@12



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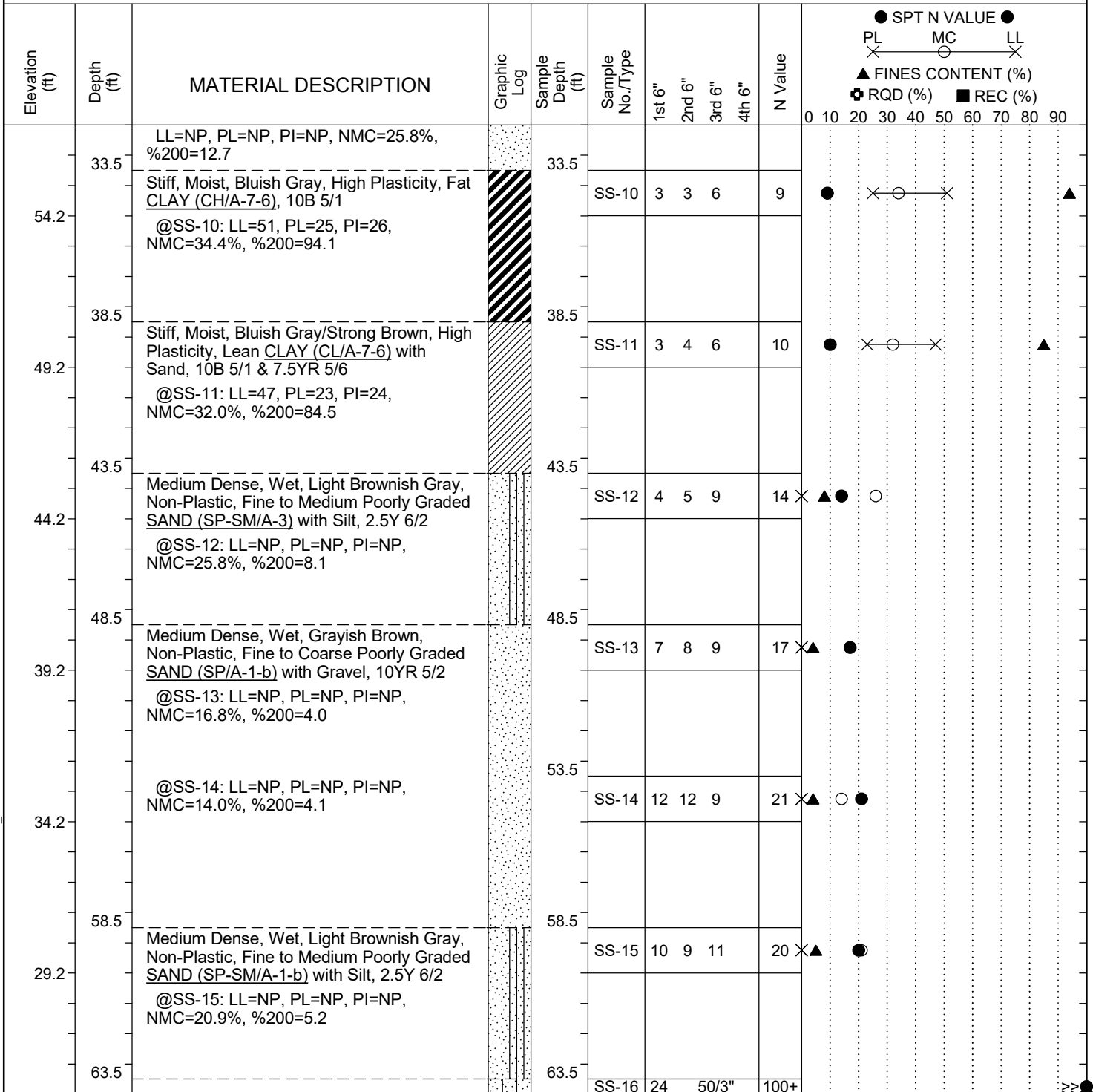
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-44
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5223+27	Offset: 5.4-R
Alignment: I-95 Med. CL	Date Started: 1/19/2023	Date Completed: 1/30/2023
Elev.: 89.2 ft	Latitude: 33.50932533	Longitude: -80.44734055
Total Depth: 110 ft	Soil Depth: 82.7 ft	Core Depth: 27.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 15 ft	24HR Cave@12



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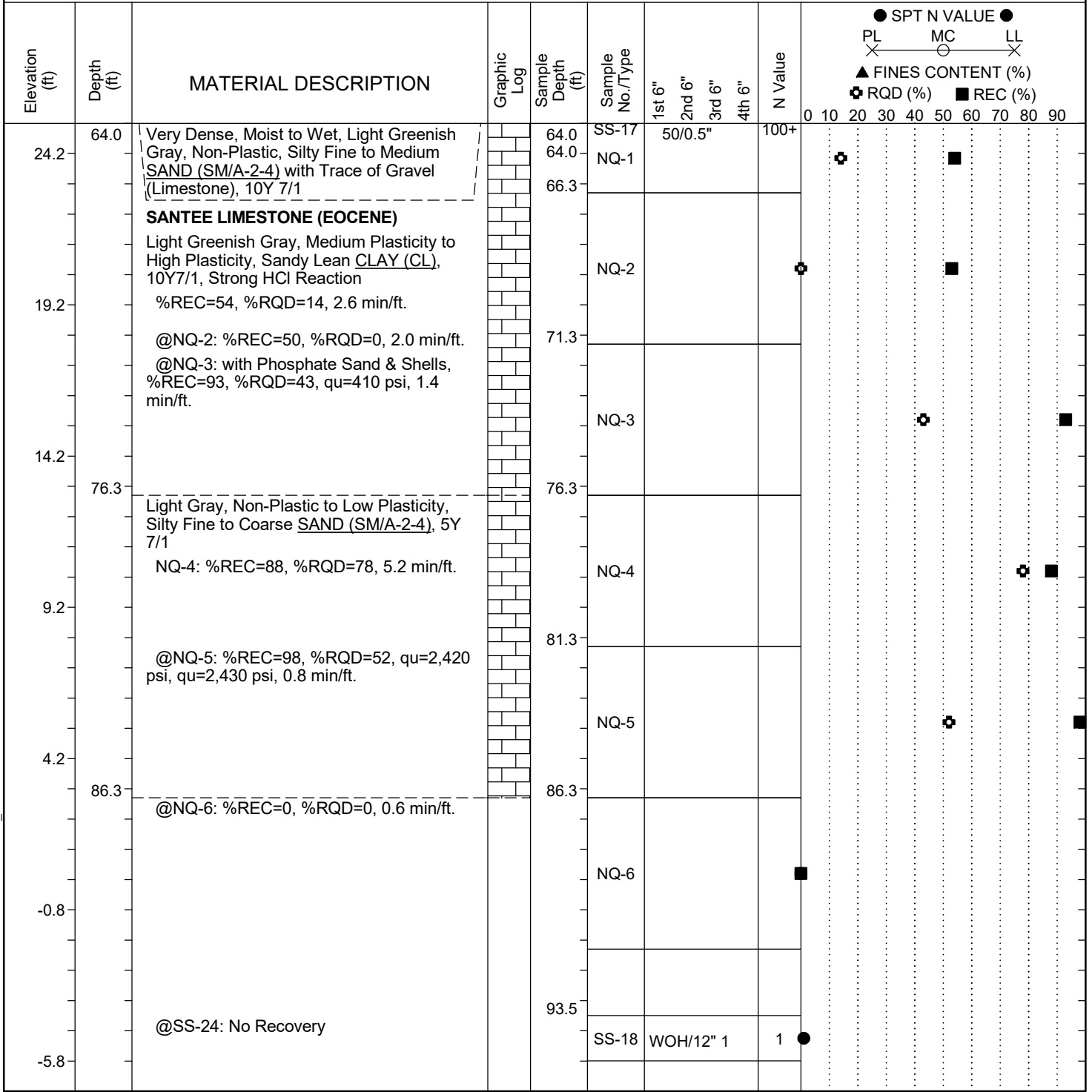
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-44
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5223+27	Offset: 5.4-R
Alignment: I-95 Med. CL	Date Started: 1/19/2023	Date Completed: 1/30/2023
Elev.: 89.2 ft	Latitude: 33.50932533	Longitude: -80.44734055
Total Depth: 110 ft	Soil Depth: 82.7 ft	Core Depth: 27.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB	24HR: Cave@12



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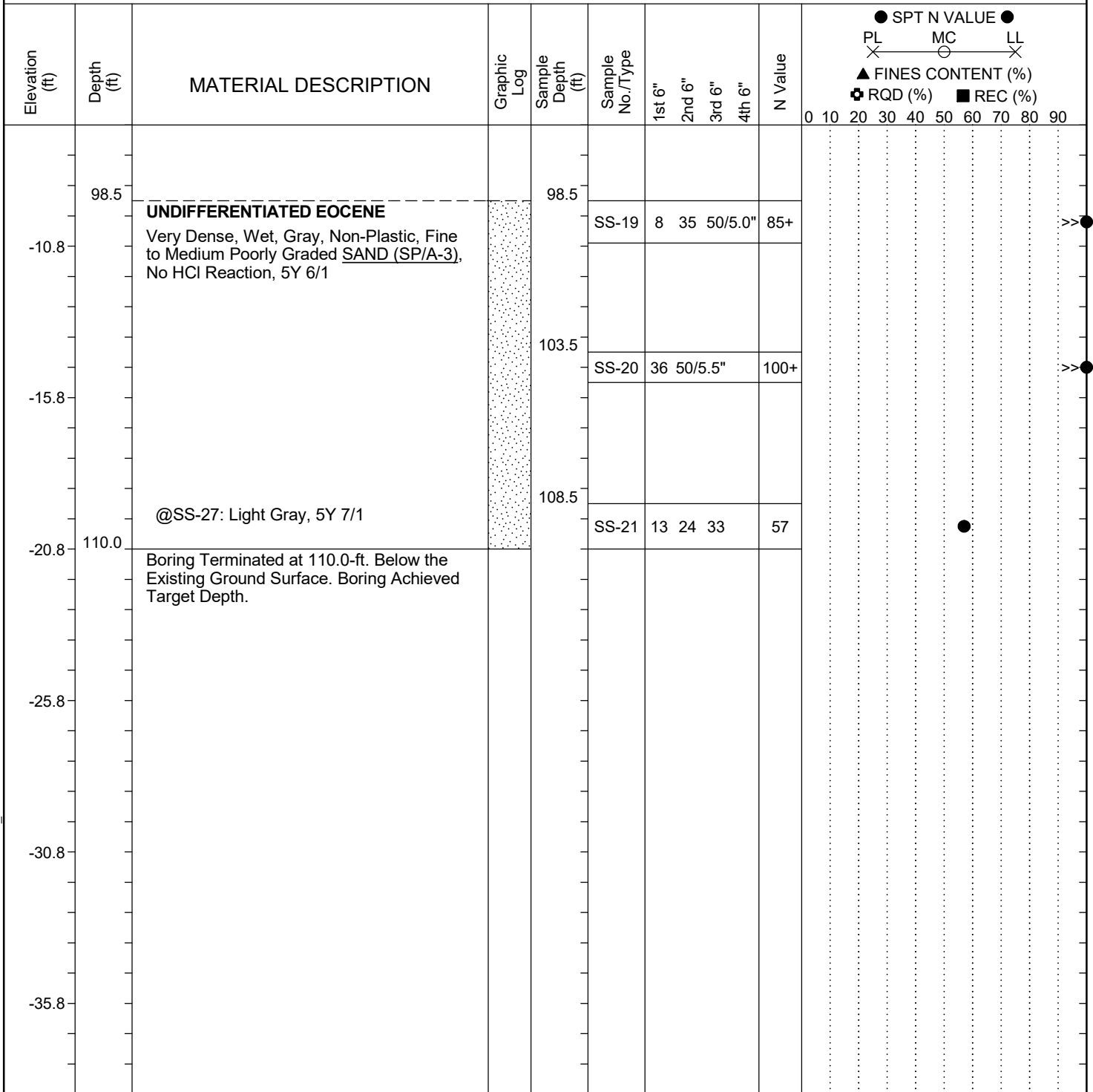
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 4/2/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-44
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5223+27	Offset: 5.4-R
Alignment: I-95 Med. CL	Date Started: 1/19/2023	Date Completed: 1/30/2023
Elev.: 89.2 ft	Latitude: 33.50932533	Longitude: -80.44734055
Total Depth: 110 ft	Soil Depth: 82.7 ft	Core Depth: 27.3 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 15 ft	24HR Cave@12



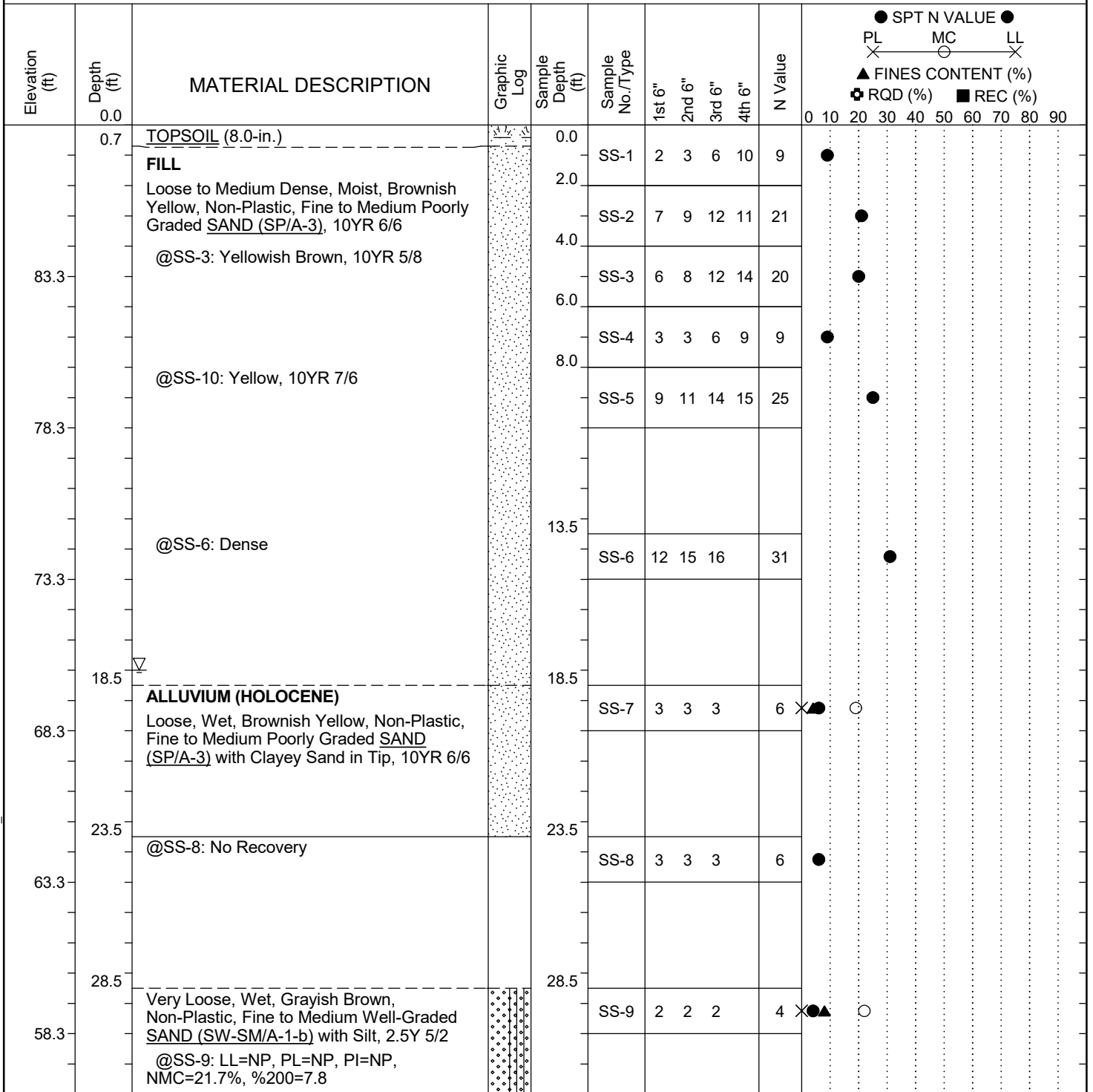
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 4/2/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-45
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5222+35	Offset: 9.6-L
Alignment: I-95 Med. CL	Date Started: 1/19/2023	
Elev.: 88.3 ft	Latitude: 33.5094646	Longitude: -80.44708607
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft
Date Completed: 1/19/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB 18 ft
24HR		Cave@14.5



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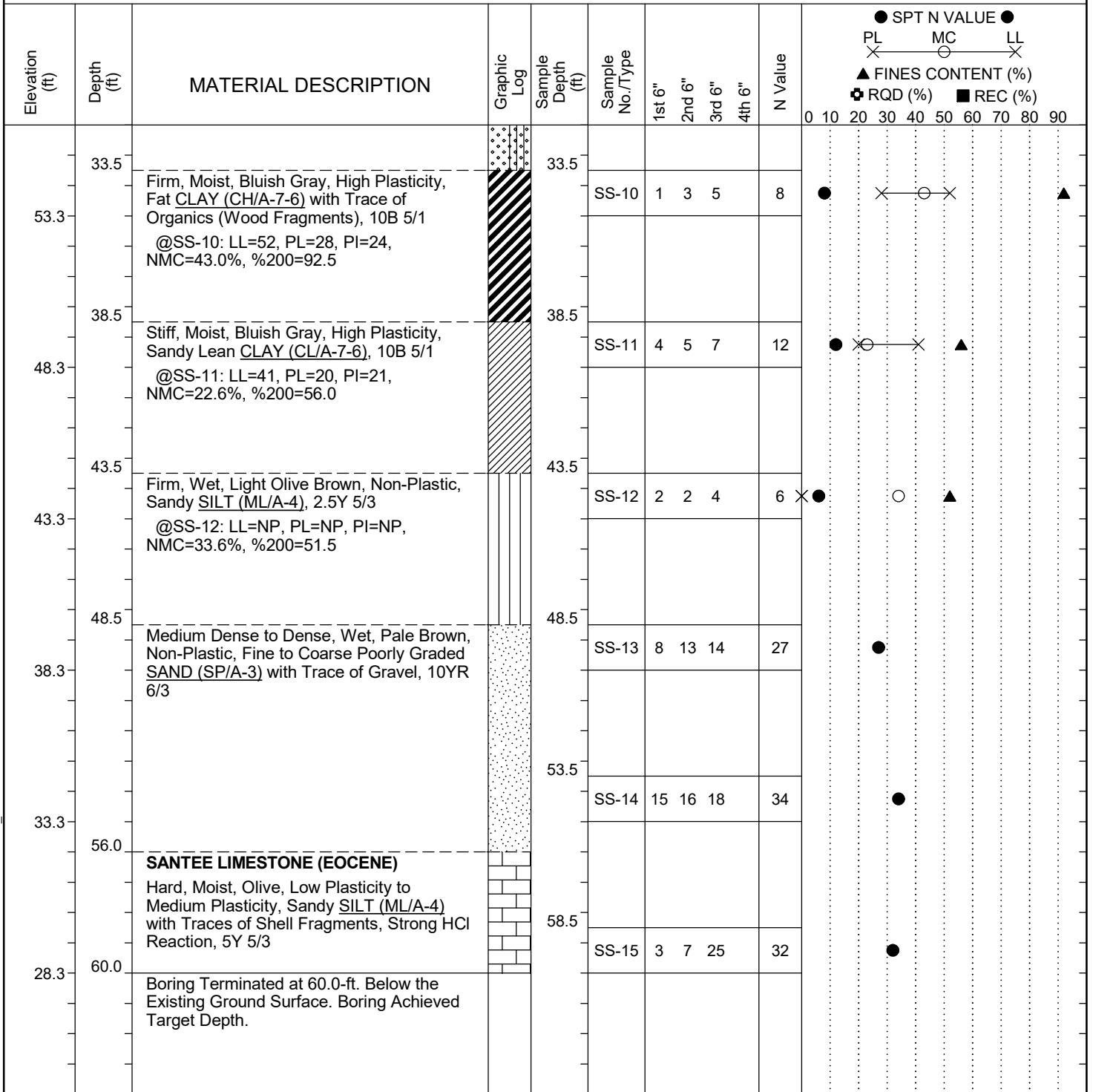
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-45
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5222+35	Offset: 9.6-L
Alignment: I-95 Med. CL	Date Started: 1/19/2023	
Elev.: 88.3 ft	Latitude: 33.5094646	Longitude: -80.44708607
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft
Date Completed: 1/19/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB 18 ft
24HR		Cave@14.5



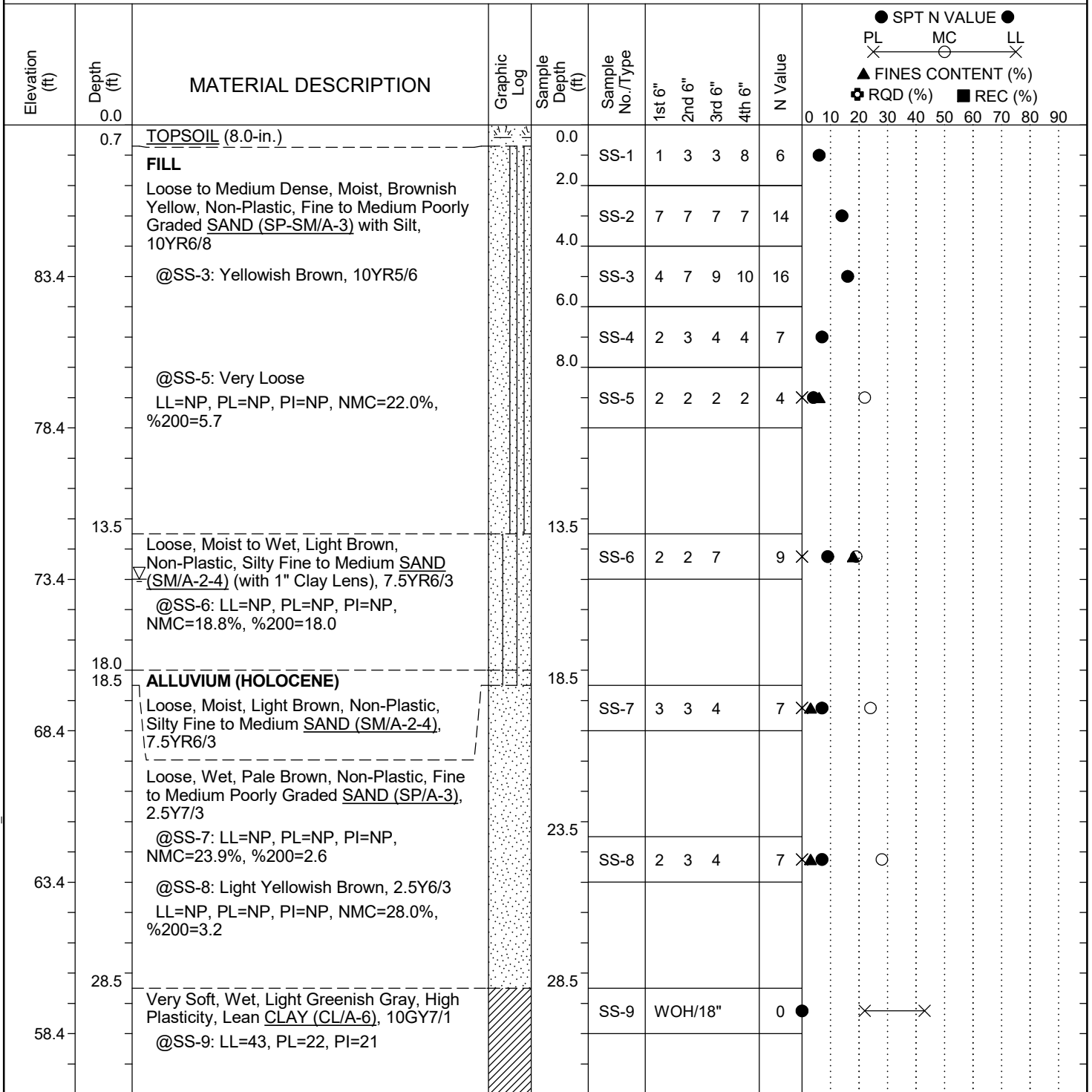
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-46
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5178+10	Offset: 8.9-R
Alignment: I-95 Med. CL	Date Started: 1/30/2023	Date Completed: 1/31/2023
Elev.: 88.4 ft	Latitude: 33.51770511	Longitude: -80.43640616
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: N/A
Driller: R. Huffstetler	Groundwater: TOB 15 ft	24HR: Cave@17



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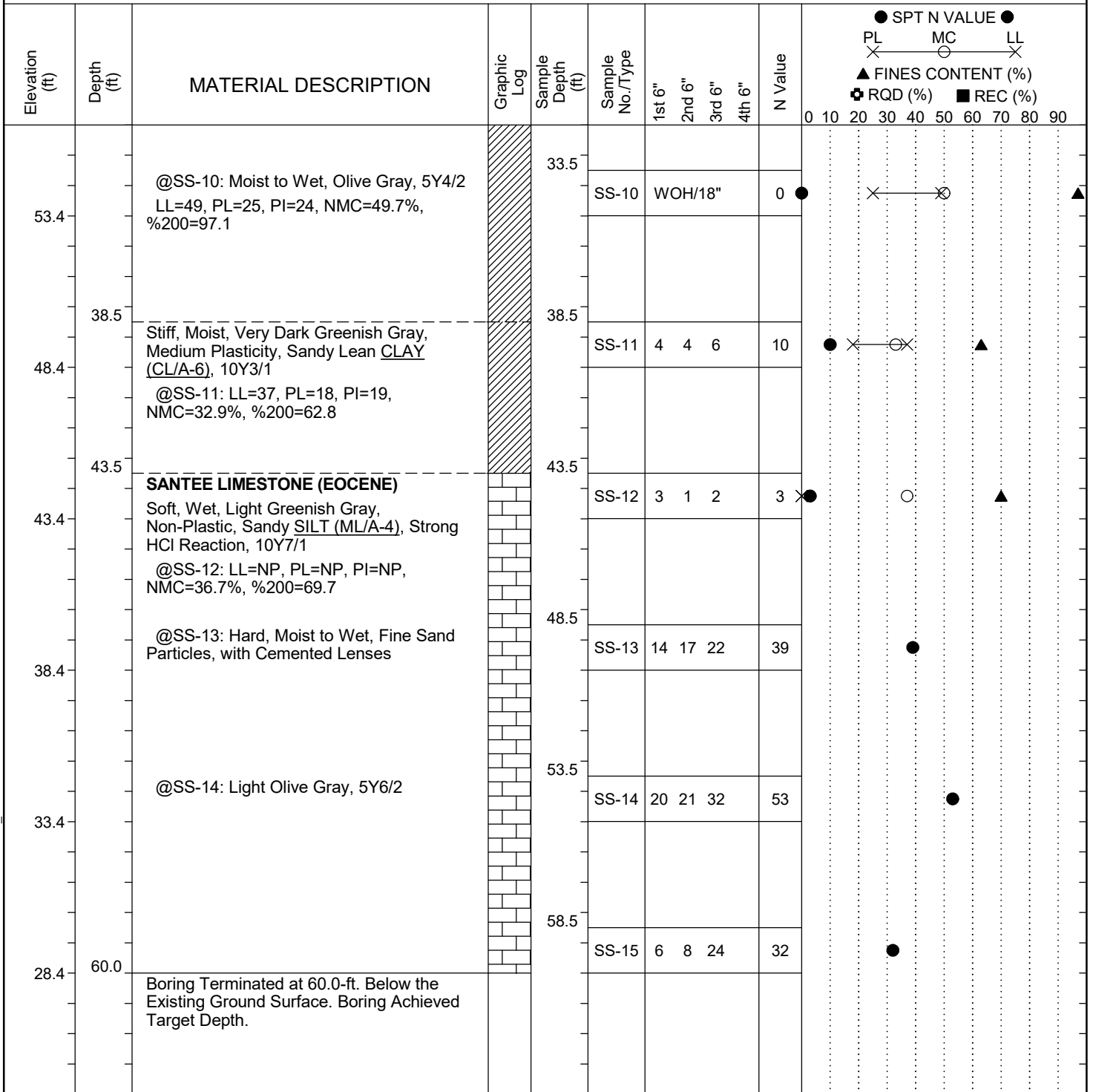
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-46
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5178+10	Offset: 8.9-R
Alignment: I-95 Med. CL	Date Started: 1/30/2023	Date Completed: 1/31/2023
Elev.: 88.4 ft	Latitude: 33.51770511	Longitude: -80.43640616
Total Depth: 60 ft	Soil Depth: 60 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: N/A
Driller: R. Huffstetler	Groundwater: TOB 15 ft	24HR Cave@17



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-47
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: RW/CT	Boring Location: 5177+10	Offset: 11.5-R
Alignment: I-95 Med. CL	Date Started: 1/31/2023	Date Completed: 2/1/2023
Elev.: 89.4 ft	Latitude: 33.51789541	Longitude: -80.4361701
Total Depth: 74.6 ft	Soil Depth: 43 ft	Core Depth: 31.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Core Size: NQ
Driller: R. Huffstetler	Groundwater: TOB 15 ft	24HR: Cave@15.5

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	SPT N VALUE				FINES CONTENT (%)	
						1st 6"	2nd 6"	3rd 6"	4th 6"	N Value	RQD (%)
89.4	0.0	TOPSOIL (6.0-in.)		0.0							
	0.5	@SS-1: No Recovery			SS-1	2	3	4	7	7	
	2.0	FILL Medium Dense to Loose, Moist, Reddish Yellow, Non-Plastic, Fine to Medium Poorly Graded SAND (SP-SM/A-3) with Silt, 5YR6/6		2.0	SS-2	5	7	9	13	16	
84.4	4.0			4.0	SS-3	9	9	11	11	20	
	6.0			6.0	SS-4	3	4	4	5	8	
	8.0			8.0	SS-5	4	5	4	6	9	
79.4	10.0	@SS-6: Light Reddish Brown, 5YR6/4		10.0	SS-6	5	6	6	5	12	
	12.0			12.0	SS-7	3	4	4	3	8	
	14.0			14.0	SS-8	2	3	4	10	7	
74.4	16.0	@SS-9: LL=NP, PL=NP, PI=NP, NMC=19.5%, %200=5.2		16.0	SS-9	7	8	10	11	18	
	18.0	ALLUVIUM (HOLOCENE) Medium Dense to Loose, Moist to Wet, Reddish Yellow, Non-Plastic, Fine to Medium Poorly Graded SAND (SP/A-1-b), 5YR6/6		18.0	SS-10	8	7	7	5	14	
69.4	20.0	@SS-10: LL=NP, PL=NP, PI=NP,		20.0							

LEGEND

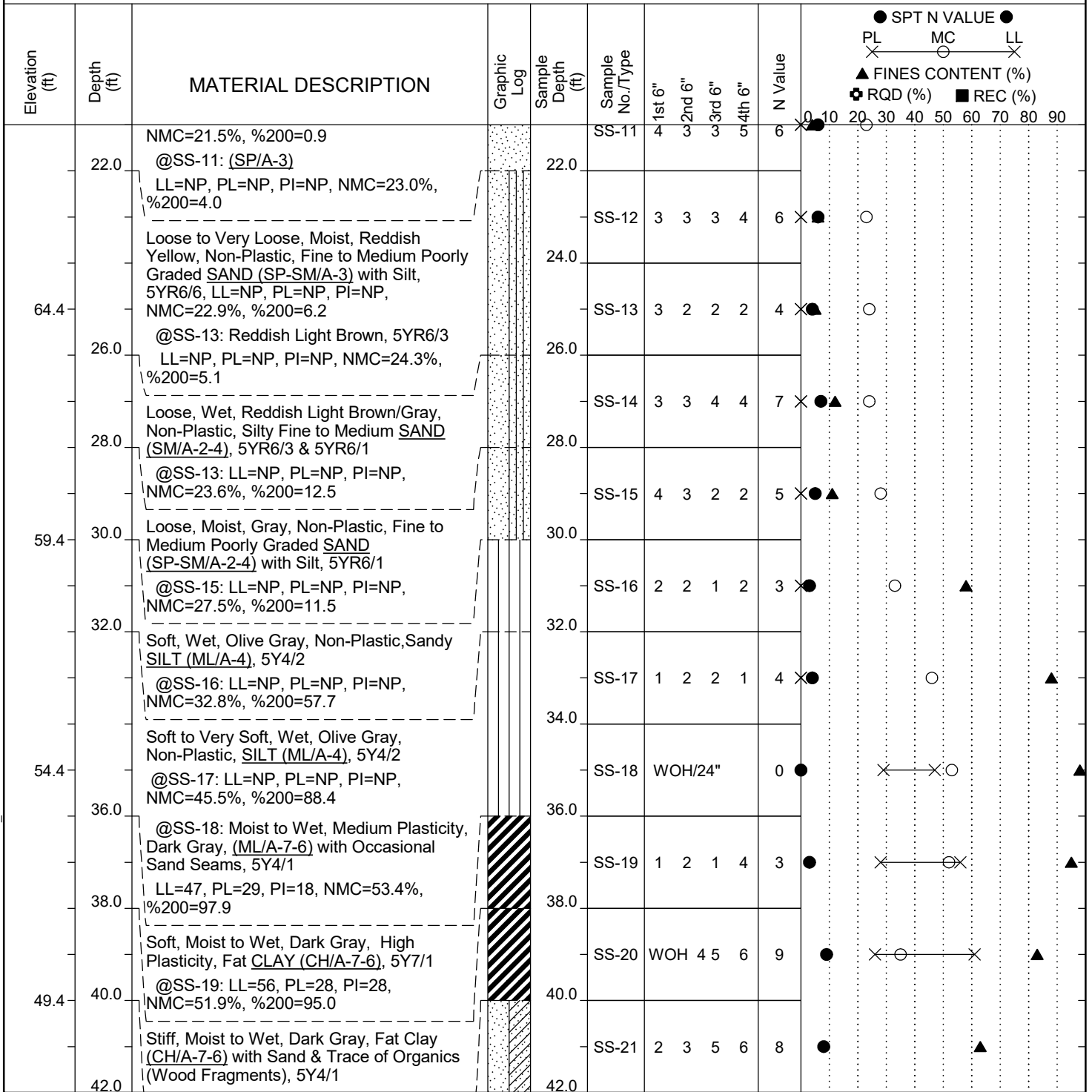
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SAMPLER TYPE SS - Split Spoon UD - Undisturbed Sample AWG - Rock Core, 1-1/8"		DRILLING METHOD HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	
NQ - Rock Core, 1-7/8" CU - Cuttings CT - Continuous Tube		RW - Rotary Wash RC - Rock Core	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/20/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-47
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: RW/CT	Boring Location: 5177+10	Offset: 11.5-R
Alignment: I-95 Med. CL	Date Started: 1/31/2023	Date Completed: 2/1/2023
Elev.: 89.4 ft	Latitude: 33.51789541	Longitude: -80.4361701
Total Depth: 74.6 ft	Soil Depth: 43 ft	Core Depth: 31.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB 15 ft
Core Size: NQ	Driller: R. Huffstetler	24HR Cave@15.5



LEGEND

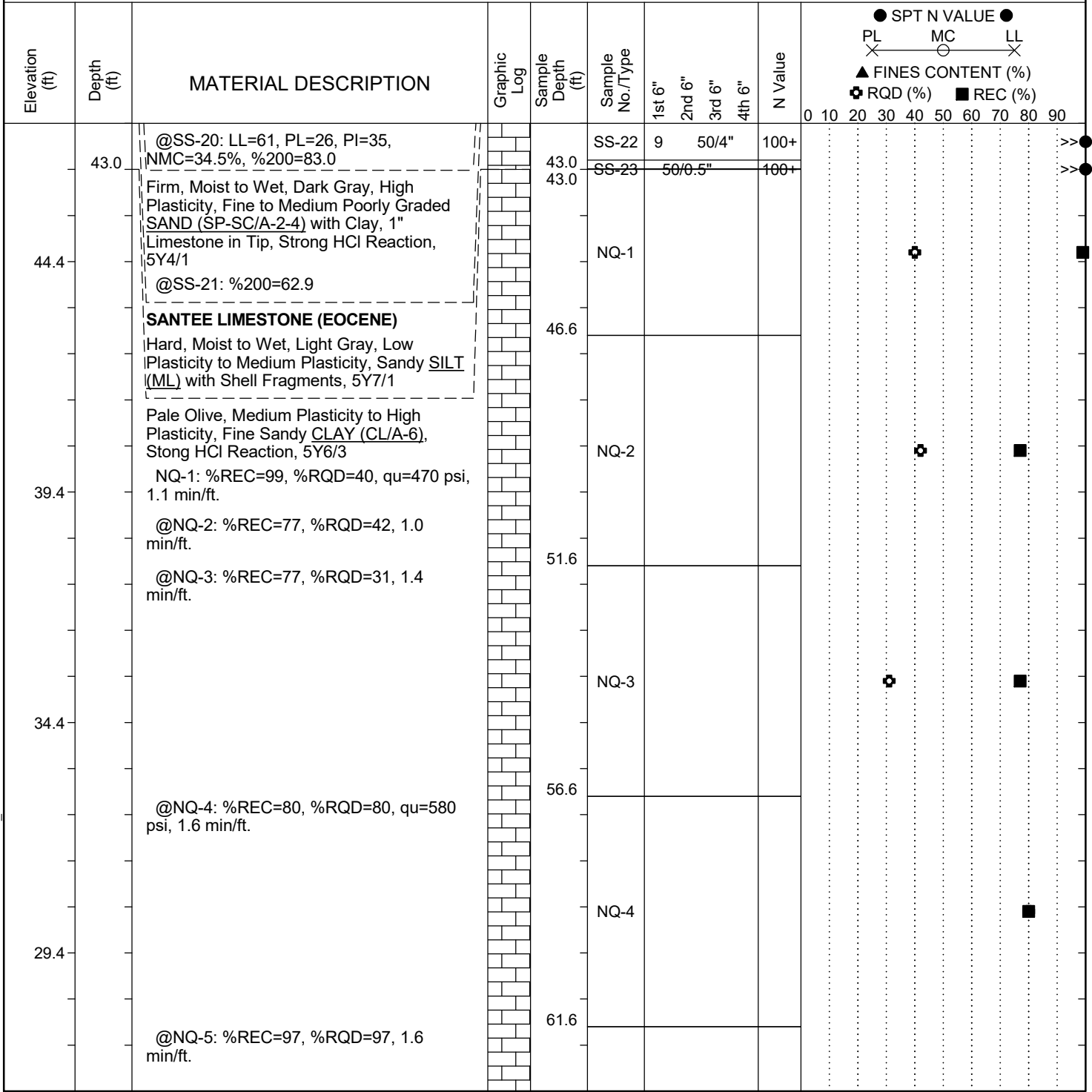
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/20/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-47
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: RW/CT	Boring Location: 5177+10	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 89.4 ft	Latitude: 33.51789541	Longitude: -80.4361701 Date Started: 1/31/2023
Total Depth: 74.6 ft	Soil Depth: 43 ft	Core Depth: 31.6 ft Date Completed: 2/1/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 15 ft 24HR Cave@15.5



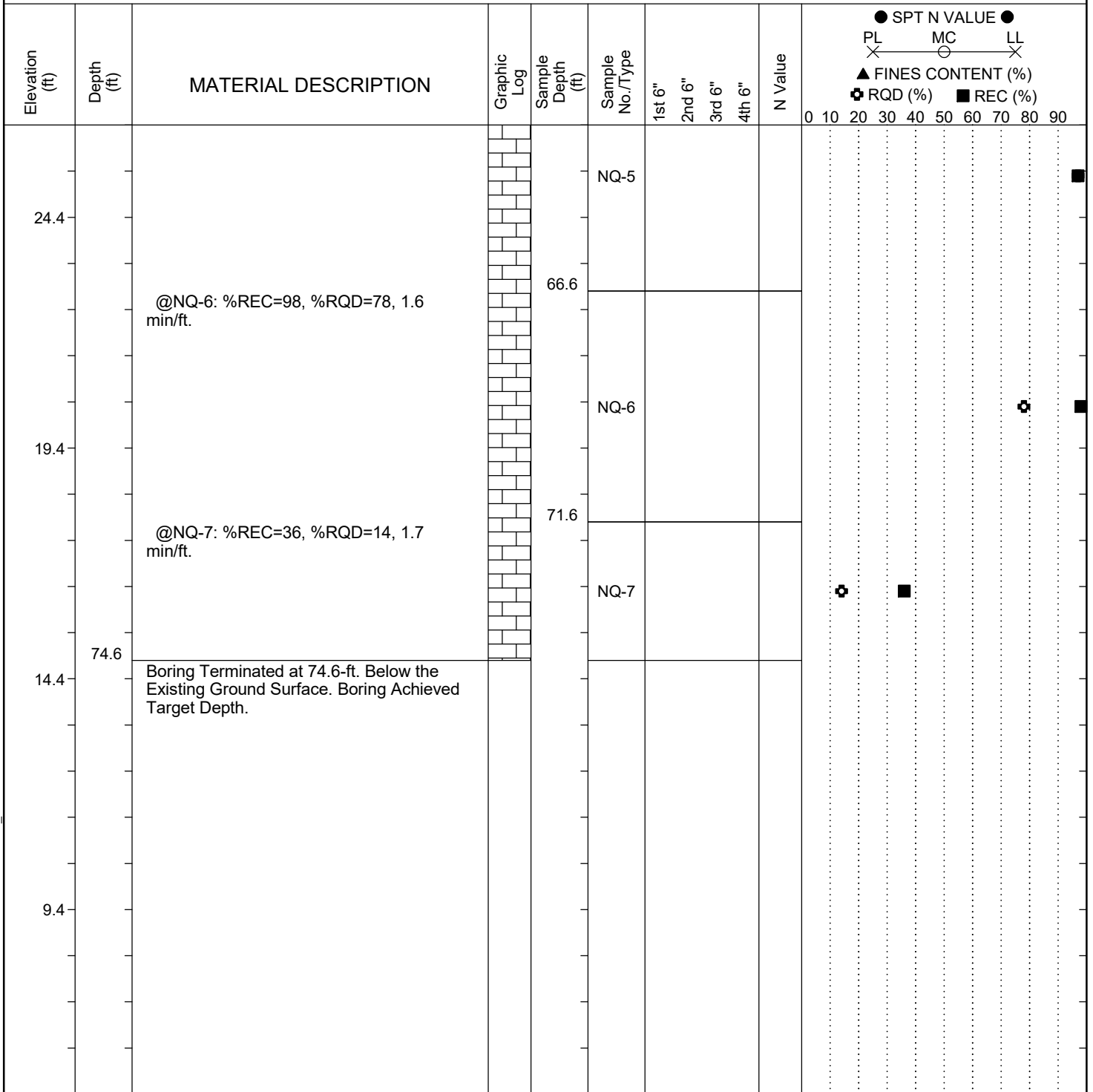
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-47
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: RW/ CT	Boring Location: 5177+10	Offset: 11.5-R Alignment: I-95 Med. CL
Elev.: 89.4 ft	Latitude: 33.51789541	Longitude: -80.4361701 Date Started: 1/31/2023
Total Depth: 74.6 ft	Soil Depth: 43 ft	Core Depth: 31.6 ft Date Completed: 2/1/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB 15 ft 24HR Cave@15.5



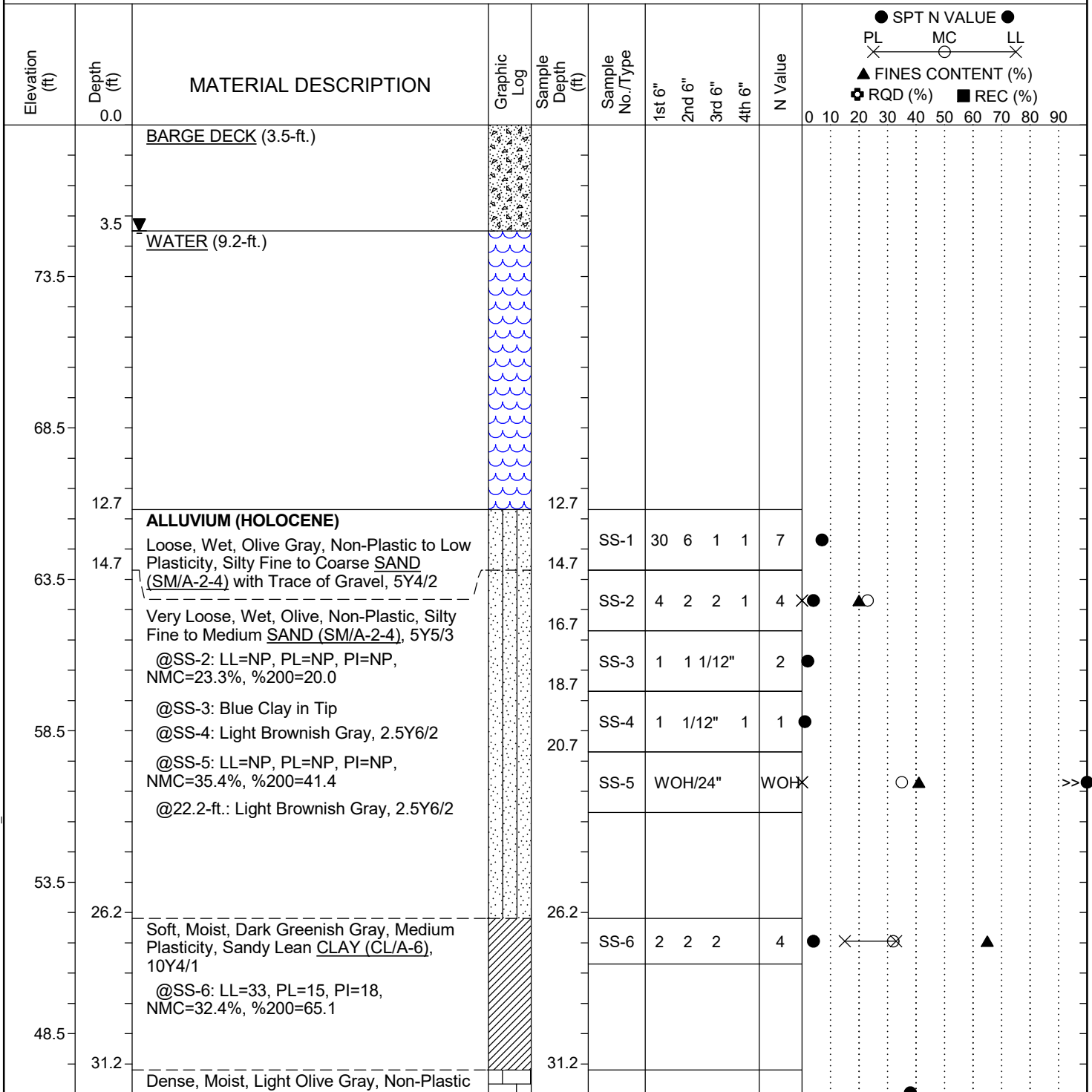
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/20/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-48
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5176+05	Offset: 94.5-L
Alignment: I-95 Med. CL	Date Started: 2/24/2023	Date Completed: 2/27/2023
Elev.: 78.5 ft	Latitude: 33.51787635	Longitude: -80.43567936
Total Depth: 110.8 ft	Soil Depth: 57 ft	Core Depth: 41.1 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: NQ	Driller: D. Harris	24HR: 3.5 ft



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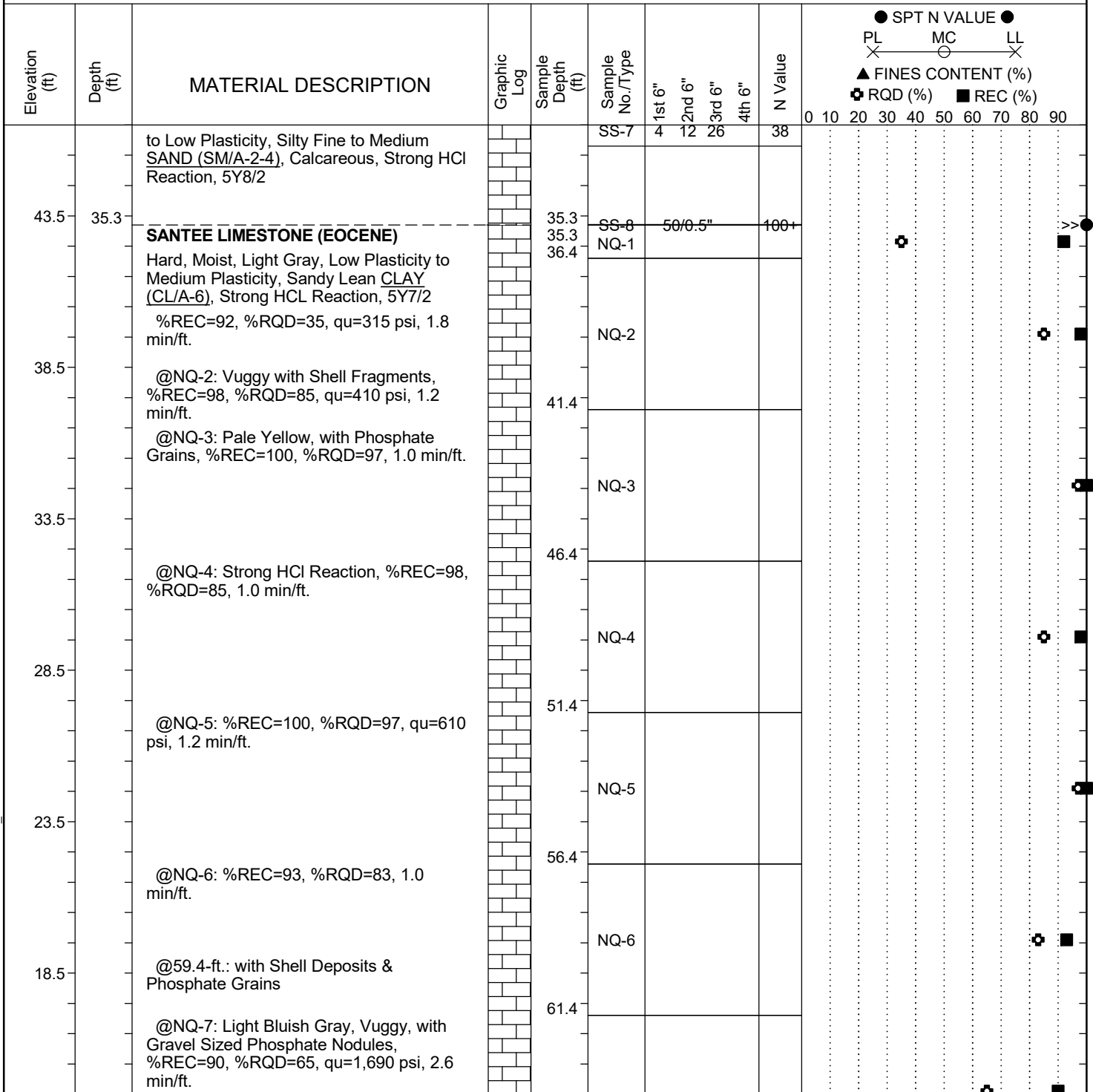
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-48
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5176+05	Offset: 94.5-L
Alignment: I-95 Med. CL	Date Started: 2/24/2023	Latitude: 33.51787635
Elev.: 78.5 ft	Longitude: -80.43567936	Date Completed: 2/27/2023
Total Depth: 110.8 ft	Soil Depth: 57 ft	Core Depth: 41.1 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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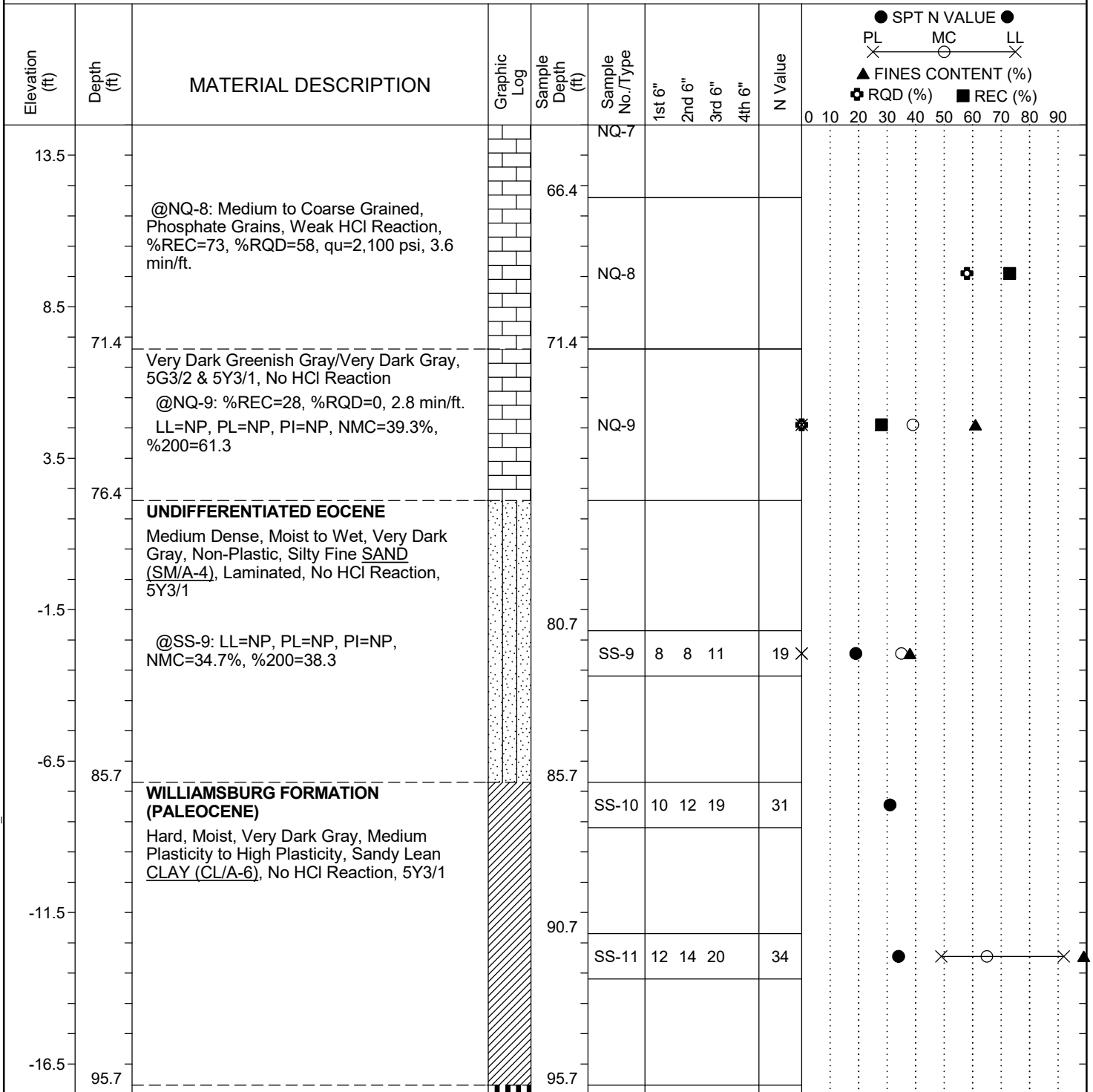
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-48
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5176+05	Offset: 94.5-L
Alignment: I-95 Med. CL	Date Started: 2/24/2023	Latitude: 33.51787635
Elev.: 78.5 ft	Longitude: -80.43567936	Date Completed: 2/27/2023
Total Depth: 110.8 ft	Soil Depth: 57 ft	Core Depth: 41.1 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: NQ
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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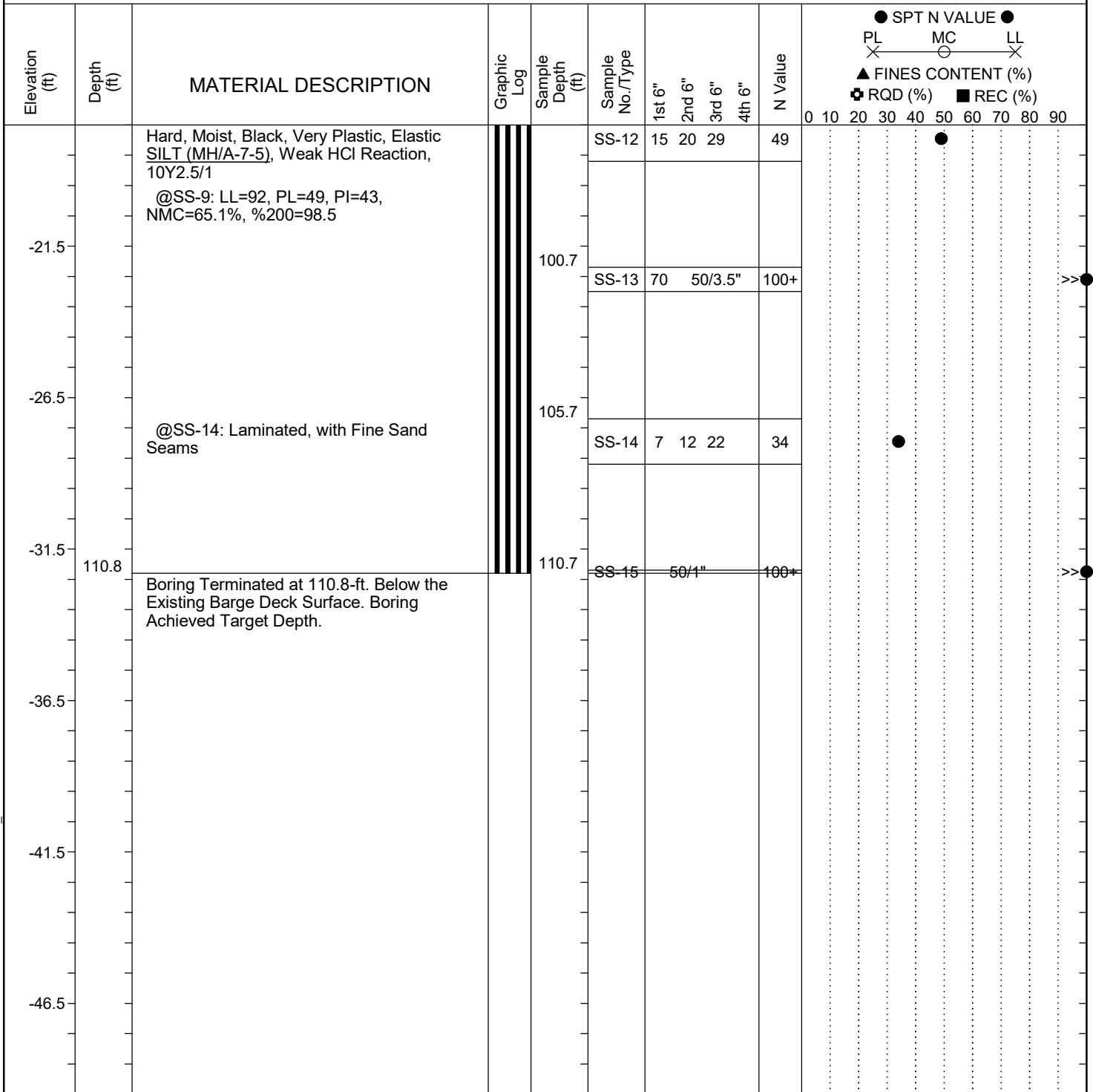
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-48
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5176+05	Offset: 94.5-L Alignment: I-95 Med. CL
Elev.: 78.5 ft	Latitude: 33.51787635	Longitude: -80.43567936 Date Started: 2/24/2023
Total Depth: 110.8 ft	Soil Depth: 57 ft	Core Depth: 41.1 ft Date Completed: 2/27/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 81%
Core Size: NQ	Driller: D. Harris	Groundwater: TOB 3.5 ft 24HR 3.5 ft



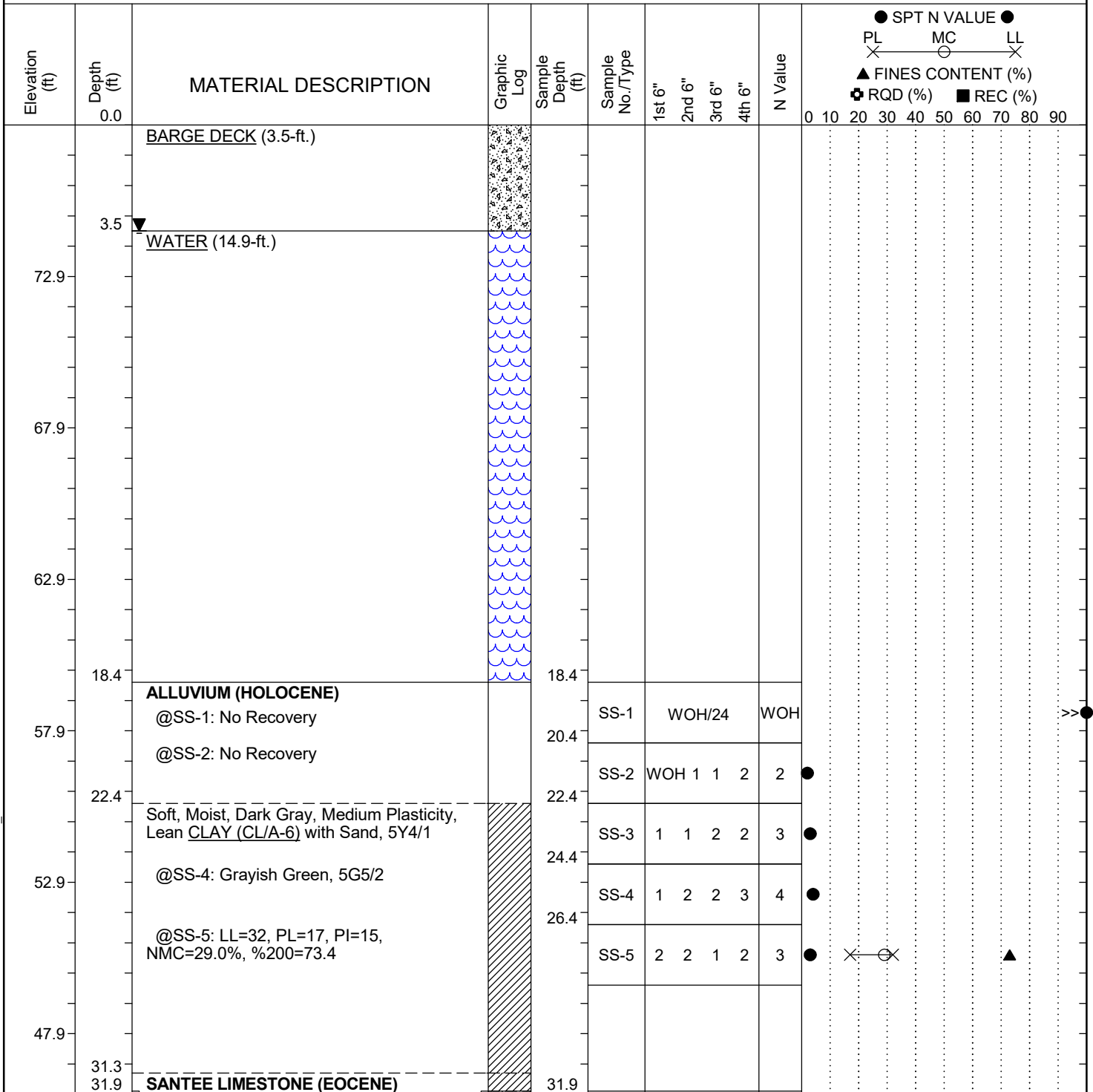
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-49
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5175+19	Offset: 90.1-L
Alignment: I-95 Med. CL	Date Started: 2/28/2023	Elev.: 77.9 ft
Latitude: 33.5180449	Longitude: -80.43548056	Date Completed: 3/1/2023
Total Depth: 118.4 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



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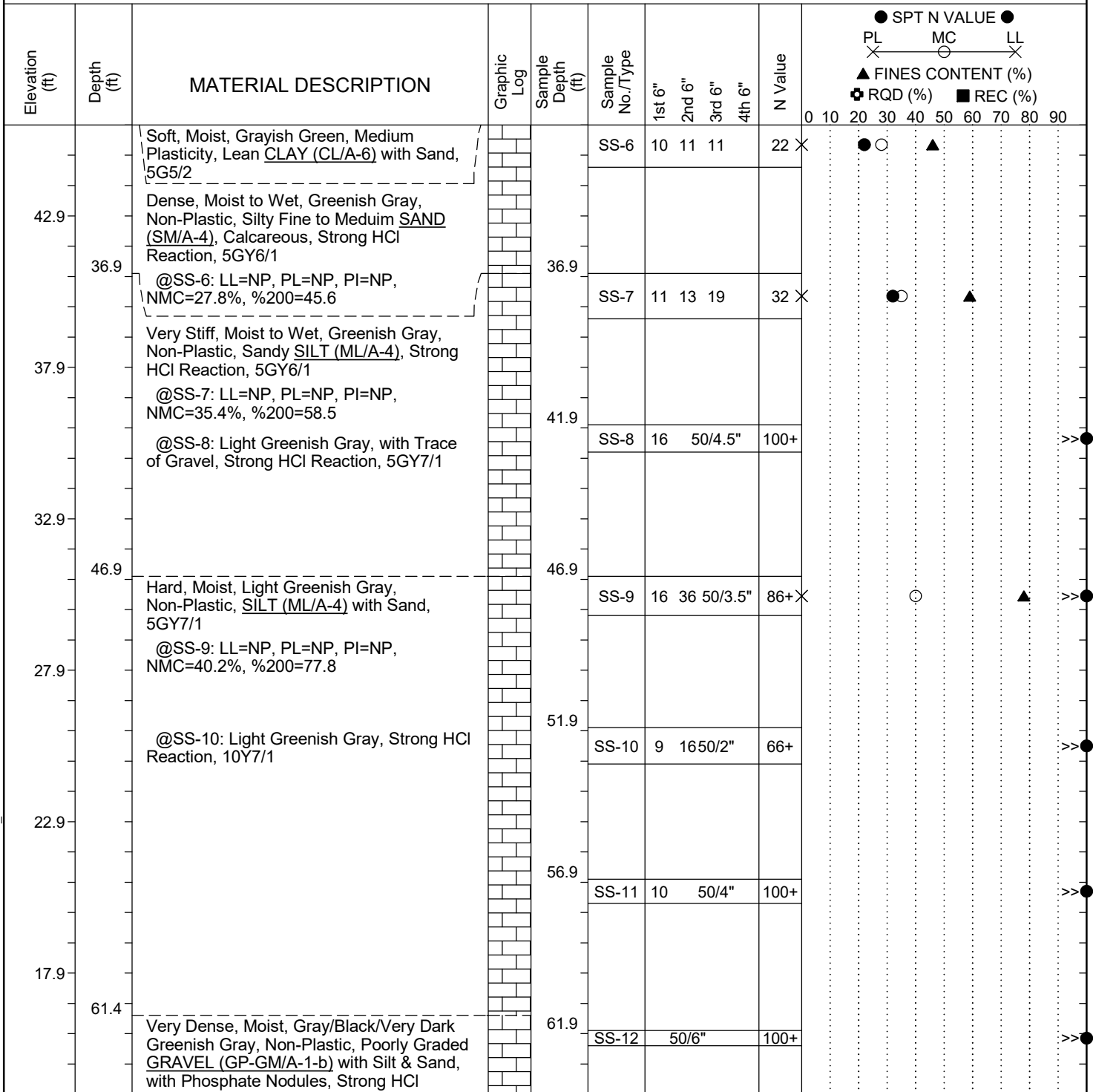
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SC_DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-49
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5175+19	Offset: 90.1-L
Alignment: I-95 Med. CL	Elev.: 77.9 ft	Latitude: 33.5180449
Longitude: -80.43548056	Date Started: 2/28/2023	
Total Depth: 118.4 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Date Completed: 3/1/2023	Bore Hole Diameter (in): 4	Sampler Configuration:
Liner Required: Y (N)	Liner Used: Y (N)	
Drill Machine: CME45B	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 81%	Core Size: N/A	Driller: D. Harris
Groundwater: TOB	3.5 ft	24HR: 3.5 ft



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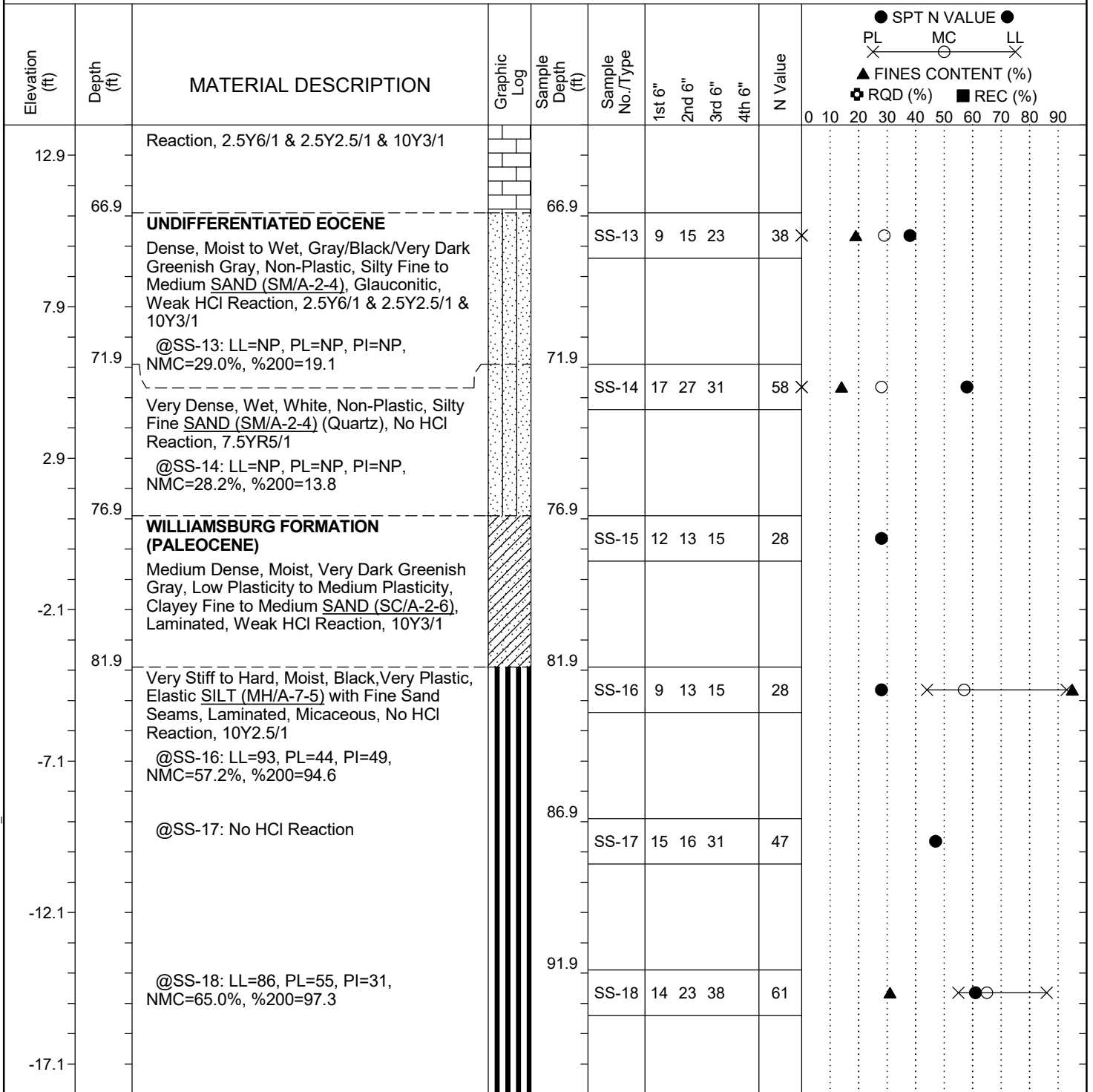
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-49
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5175+19	Offset: 90.1-L
Alignment: I-95 Med. CL	Date Started: 2/28/2023	Date Completed: 3/1/2023
Elev.: 77.9 ft	Latitude: 33.5180449	Longitude: -80.43548056
Total Depth: 118.4 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



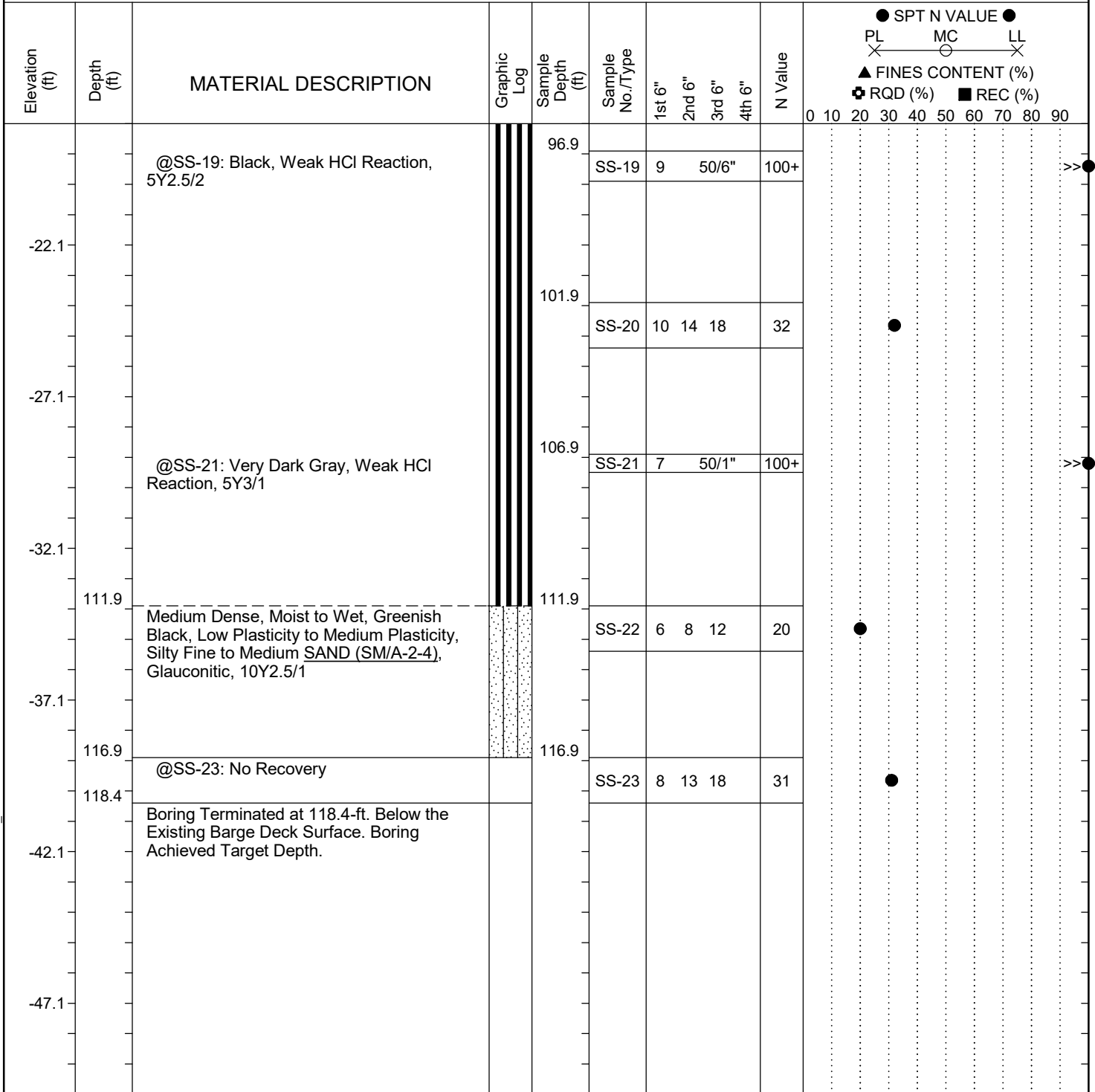
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-49
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5175+19	Offset: 90.1-L
Alignment: I-95 Med. CL	Date Started: 2/28/2023	Elev.: 77.9 ft
Latitude: 33.5180449	Longitude: -80.43548056	Date Completed: 3/1/2023
Total Depth: 118.4 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



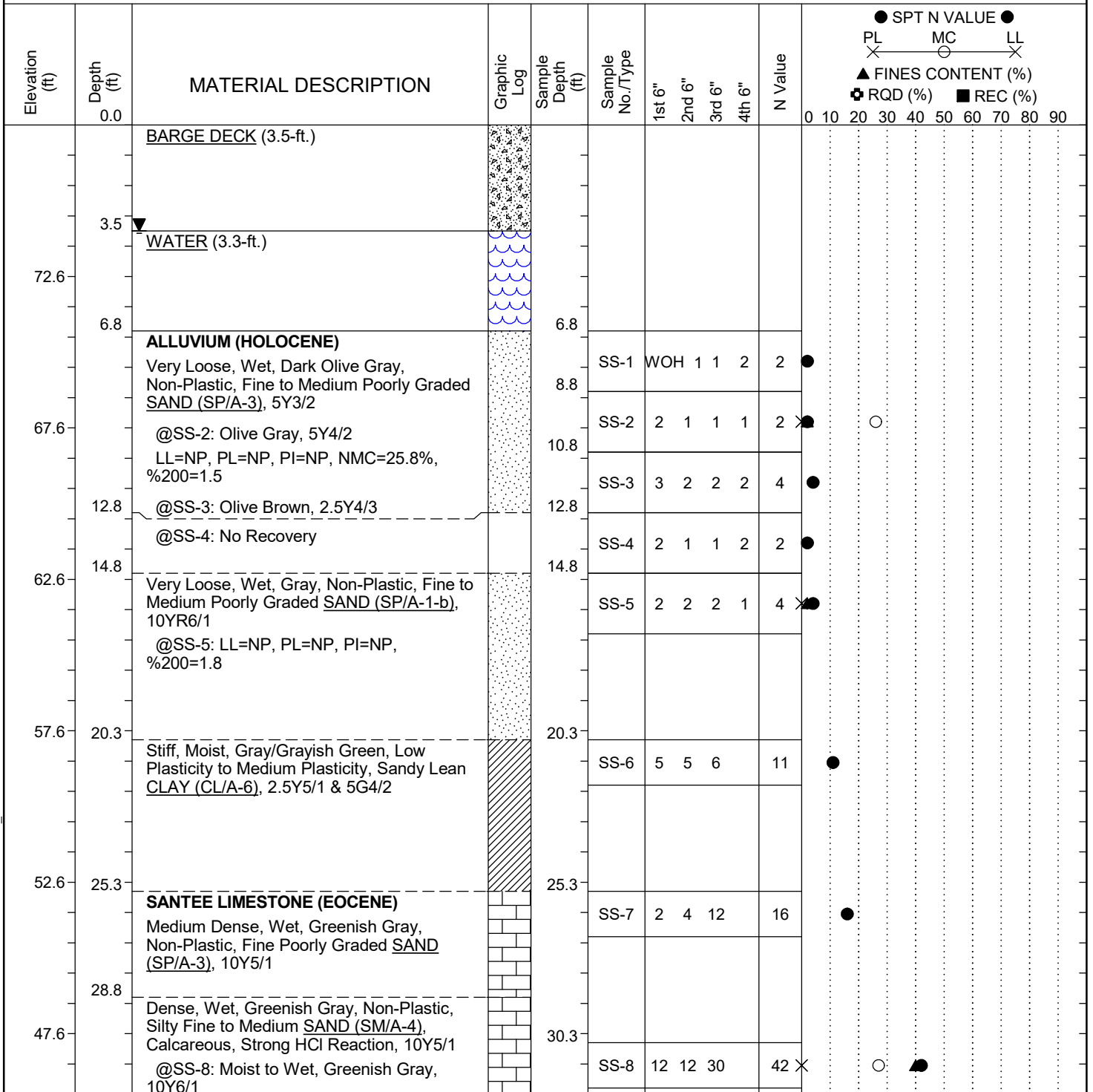
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-50
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5174+43	Offset: 87.5-L
Alignment: I-95 Med. CL	Date Started: 2/27/2023	Date Completed: 2/28/2023
Elev.: 77.6 ft	Latitude: 33.51818967	Longitude: -80.43530402
Total Depth: 106.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



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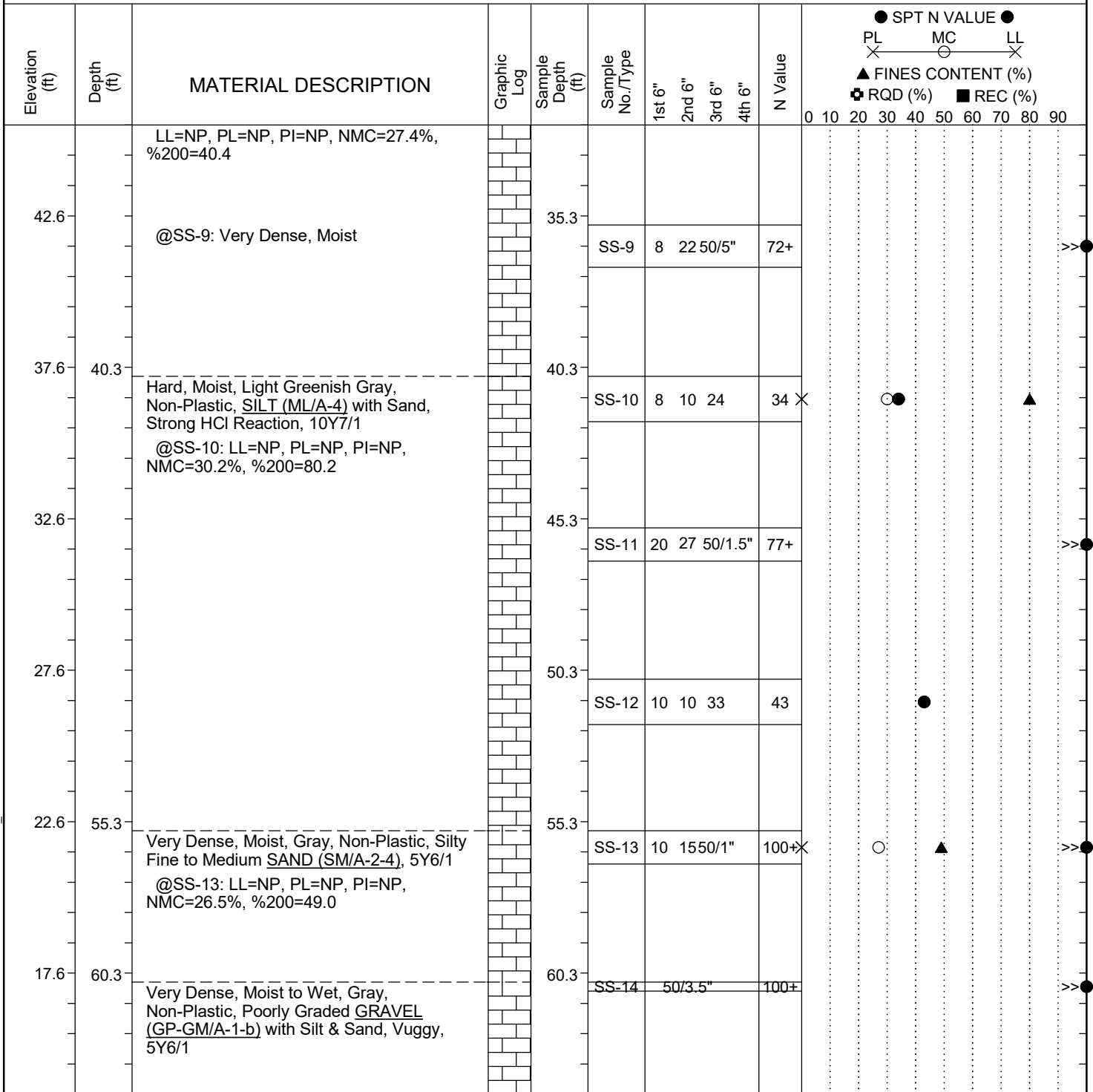
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-50
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5174+43	Offset: 87.5-L
Alignment: I-95 Med. CL	Date Started: 2/27/2023	Date Completed: 2/28/2023
Elev.: 77.6 ft	Latitude: 33.51818967	Longitude: -80.43530402
Total Depth: 106.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB	24HR: 3.5 ft



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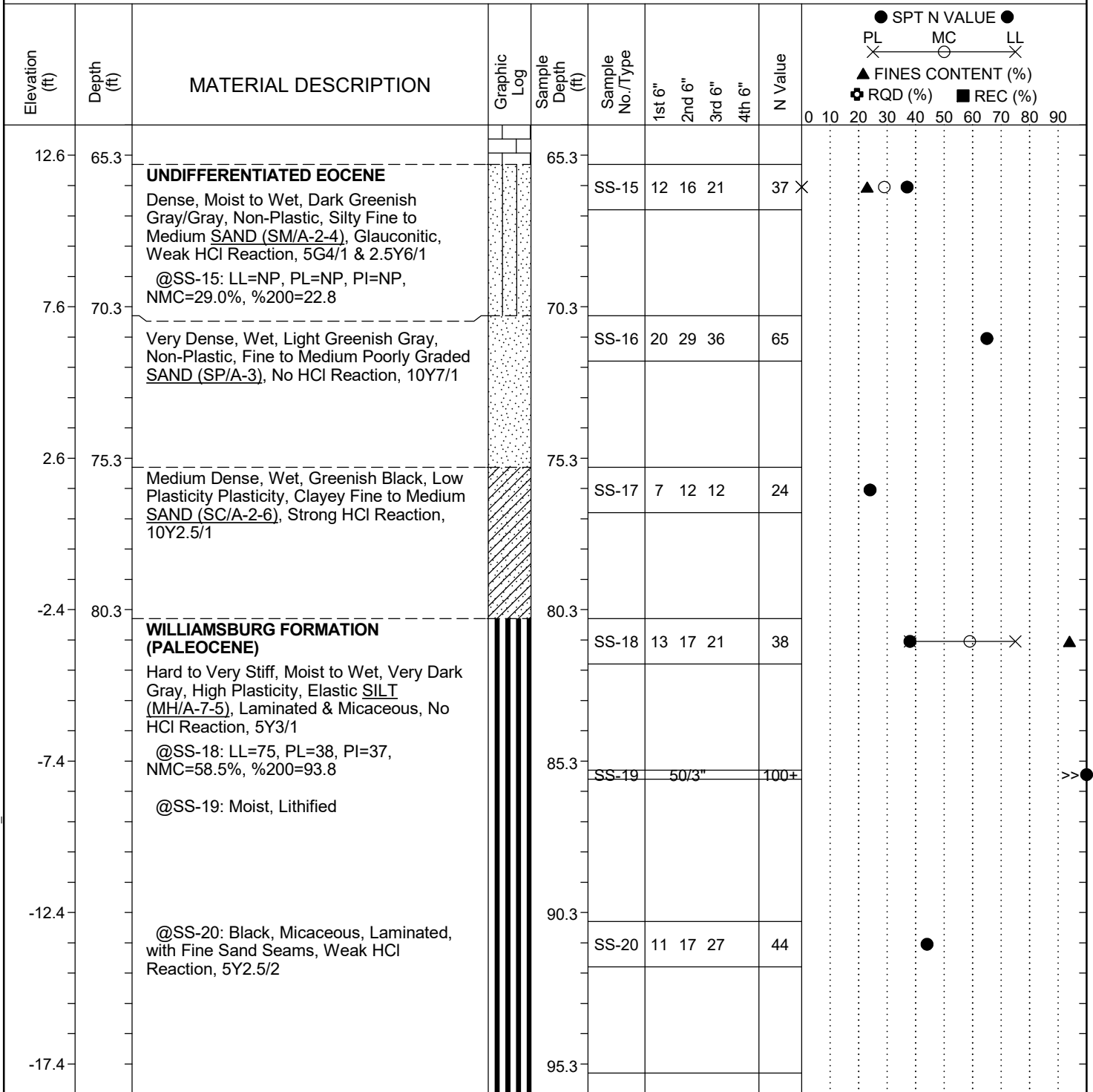
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SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATATEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-50
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5174+43	Offset: 87.5-L
Alignment: I-95 Med. CL	Date Started: 2/27/2023	Date Completed: 2/28/2023
Elev.: 77.6 ft	Latitude: 33.51818967	Longitude: -80.43530402
Total Depth: 106.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Groundwater: TOB 3.5 ft
Core Size: N/A	Driller: D. Harris	24HR: 3.5 ft



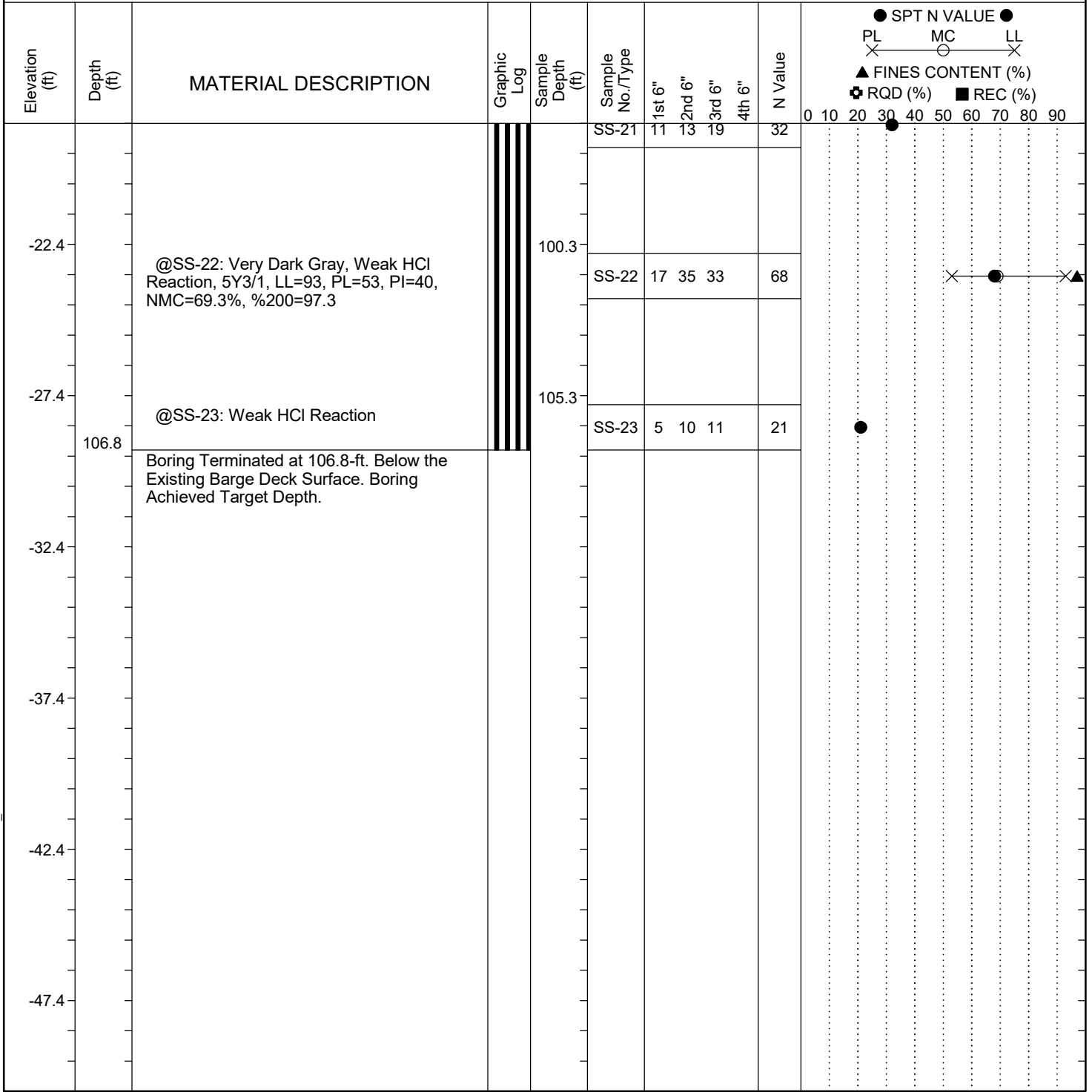
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-50
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: R. Wessinger	Boring Location: 5174+43	Offset: 87.5-L
Alignment: I-95 Med. CL	Date Started: 2/27/2023	Elev.: 77.6 ft
Latitude: 33.51818967	Longitude: -80.43530402	Date Completed: 2/28/2023
Total Depth: 106.8 ft	Soil Depth: 100 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME45B	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 81%	Core Size: N/A
Driller: D. Harris	Groundwater: TOB 3.5 ft	24HR: 3.5 ft



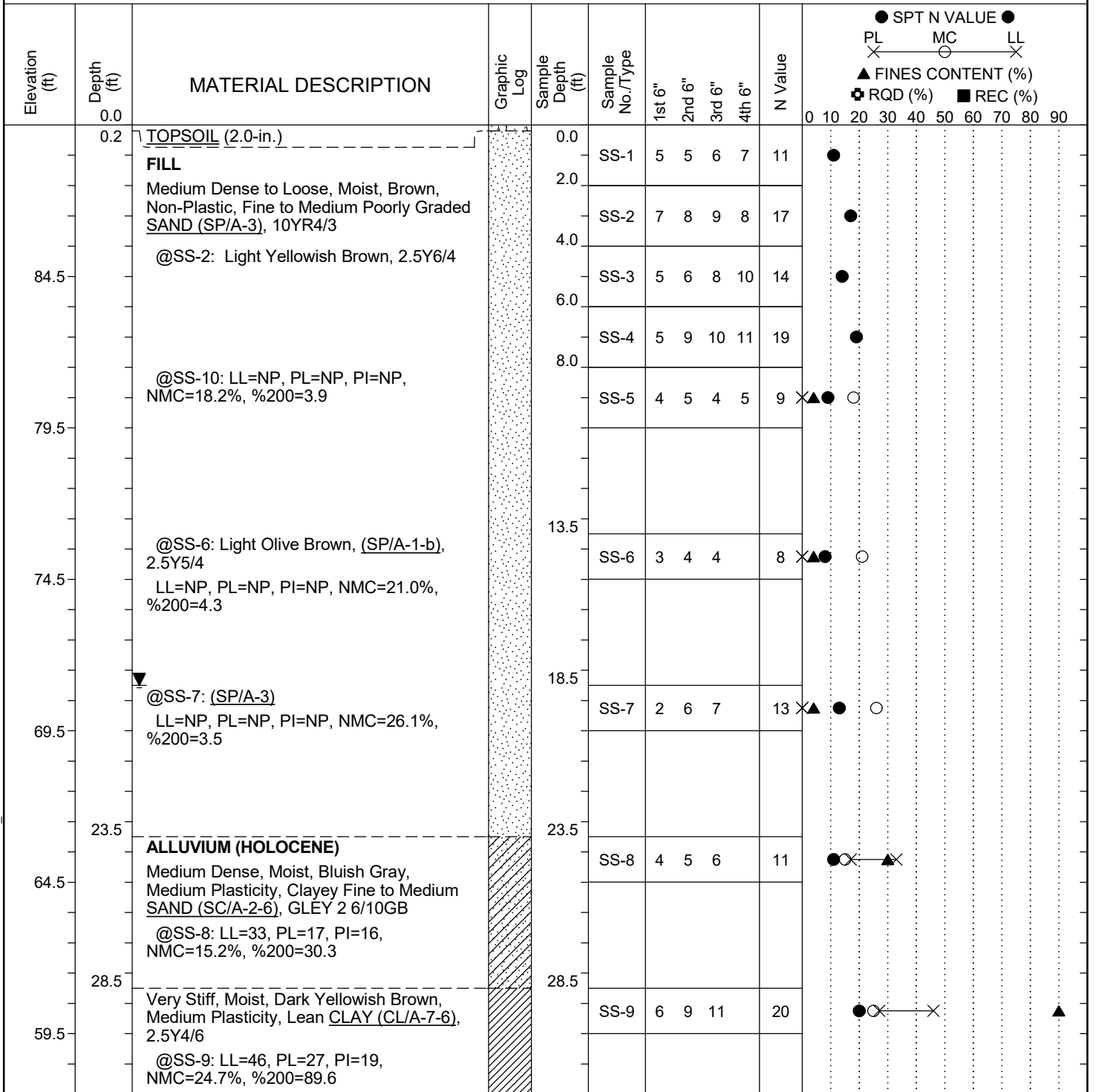
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-51
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location: 5173+30	Offset: 3.4-R
Alignment: I-95 Med. CL	Date Started: 2/7/2023	Date Completed: 2/8/2023
Elev.: 89.5 ft	Latitude: 33.51858349	Longitude: -80.43523122
Total Depth: 71.1 ft	Soil Depth: 41.5 ft	Core Depth: 29.6 ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW/RC
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB N/A
Core Size: NQ	Driller: R. Huffstetler	24HR: 18.5(Cave@15)



LEGEND

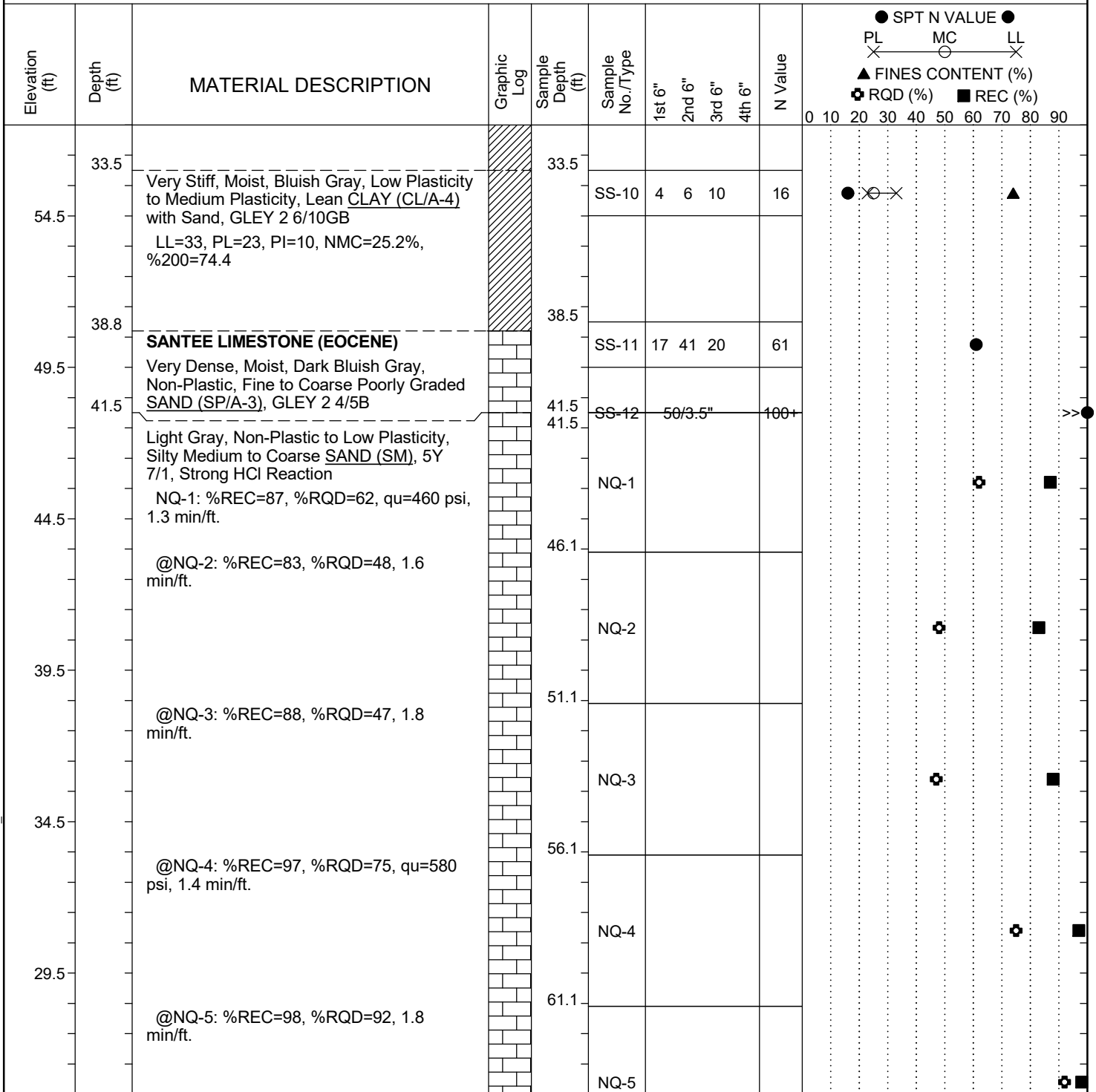
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-51
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location: 5173+30	Offset: 3.4-R
Alignment: I-95 Med. CL		
Elev.: 89.5 ft	Latitude: 33.51858349	Longitude: -80.43523122
Date Started: 2/7/2023		
Total Depth: 71.1 ft	Soil Depth: 41.5 ft	Core Depth: 29.6 ft
Date Completed: 2/8/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB N/A
24HR: 18.5(Cave@15)		



LEGEND

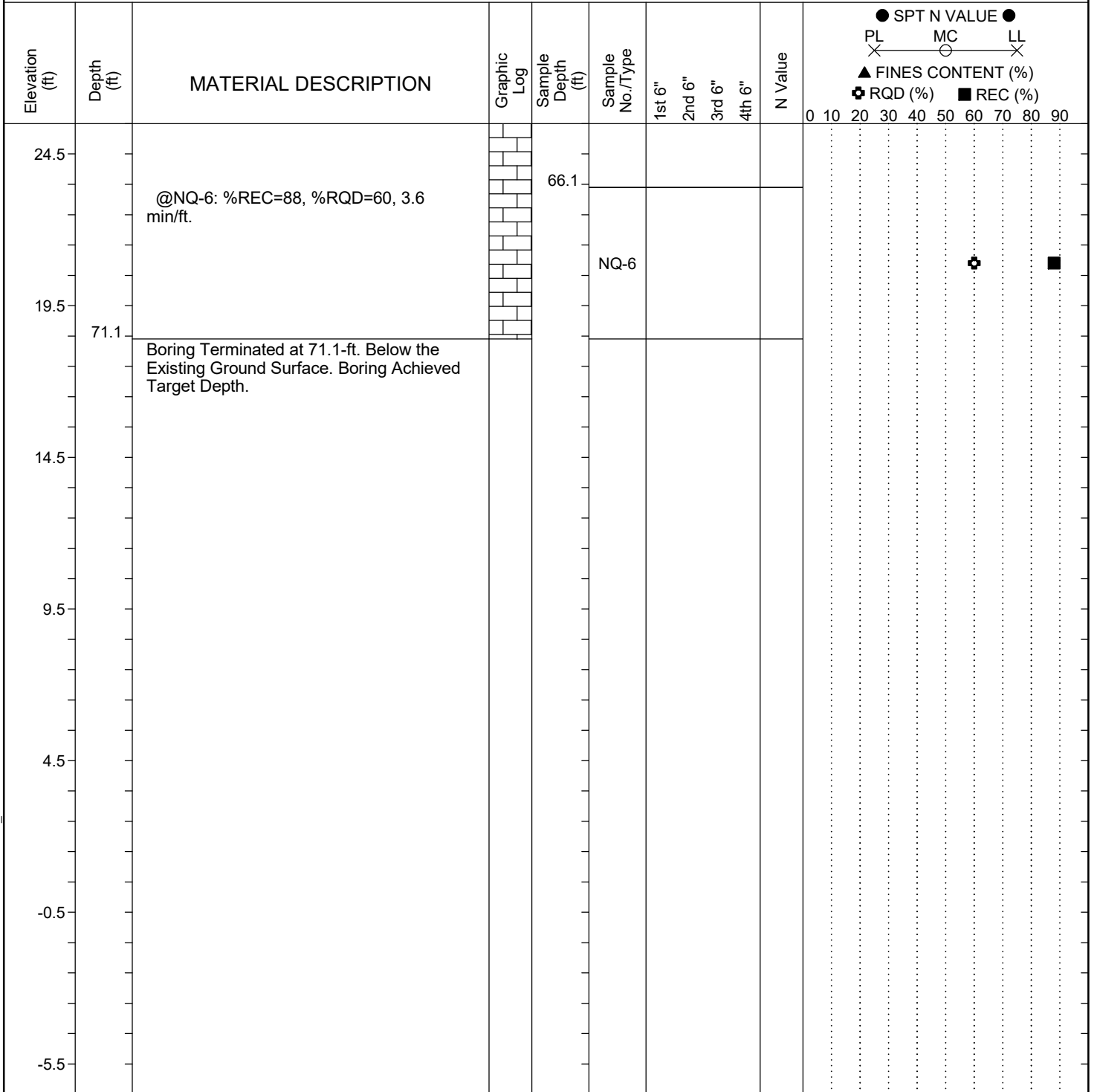
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-51
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location: 5173+30	Offset: 3.4-R Alignment: I-95 Med. CL
Elev.: 89.5 ft	Latitude: 33.51858349	Longitude: -80.43523122 Date Started: 2/7/2023
Total Depth: 71.1 ft	Soil Depth: 41.5 ft	Core Depth: 29.6 ft Date Completed: 2/8/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW/RC	Hammer Type: Automatic Energy Ratio: 78%
Core Size: NQ	Driller: R. Huffstetler	Groundwater: TOB N/A 24HR: 18.5(Cave@15)



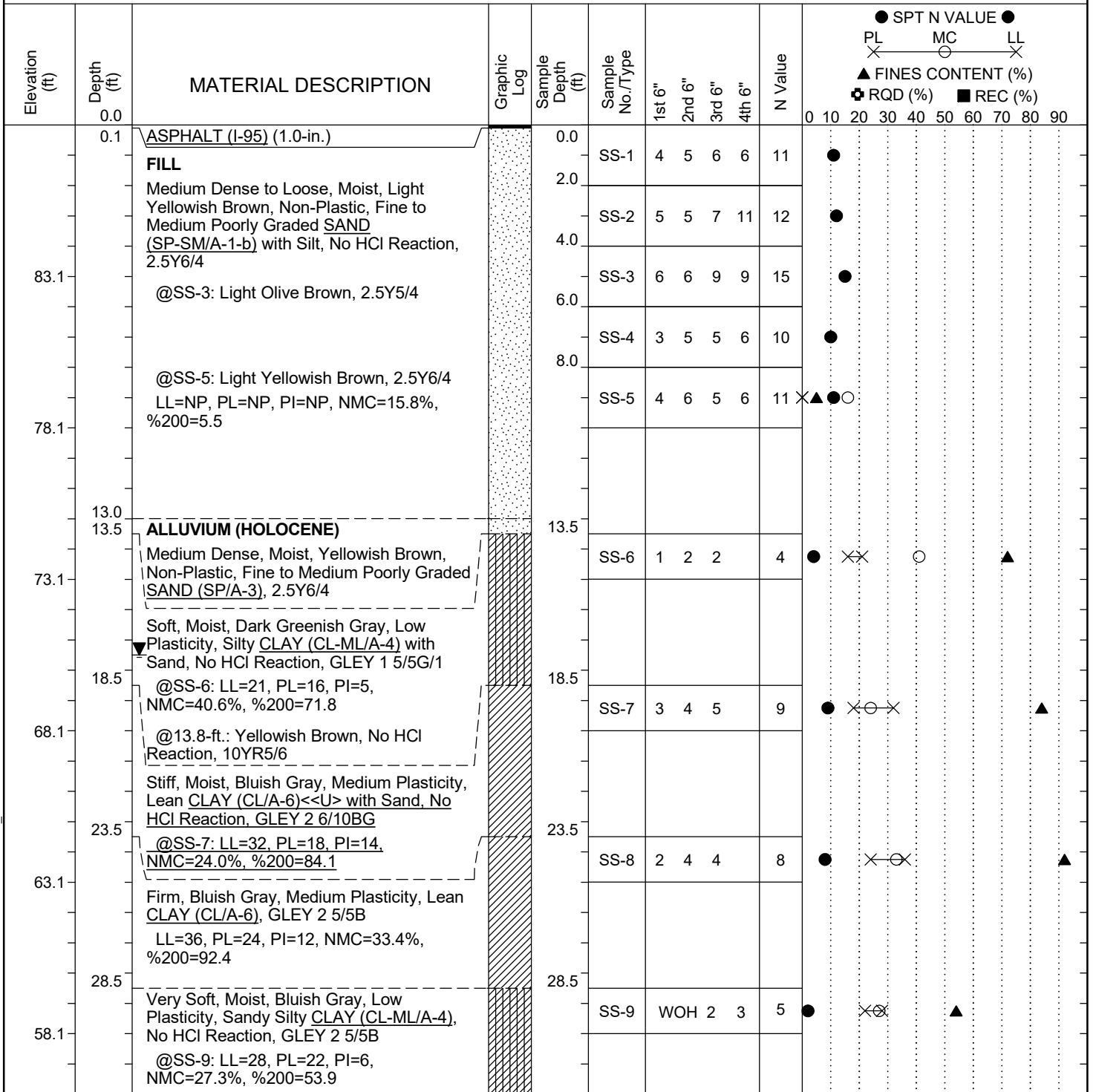
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-52
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location: 5172+30	Offset: 0.3-R
Alignment: I-95 Med. CL		
Elev.: 88.1 ft	Latitude: 33.51876274	Longitude: -80.4349819
Date Started: 2/6/2023		
Total Depth: 39.3 ft	Soil Depth: 39.3 ft	Core Depth: N/A ft
Date Completed: 2/6/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB N/A
24HR: 17.5(Cave@49)		



LEGEND

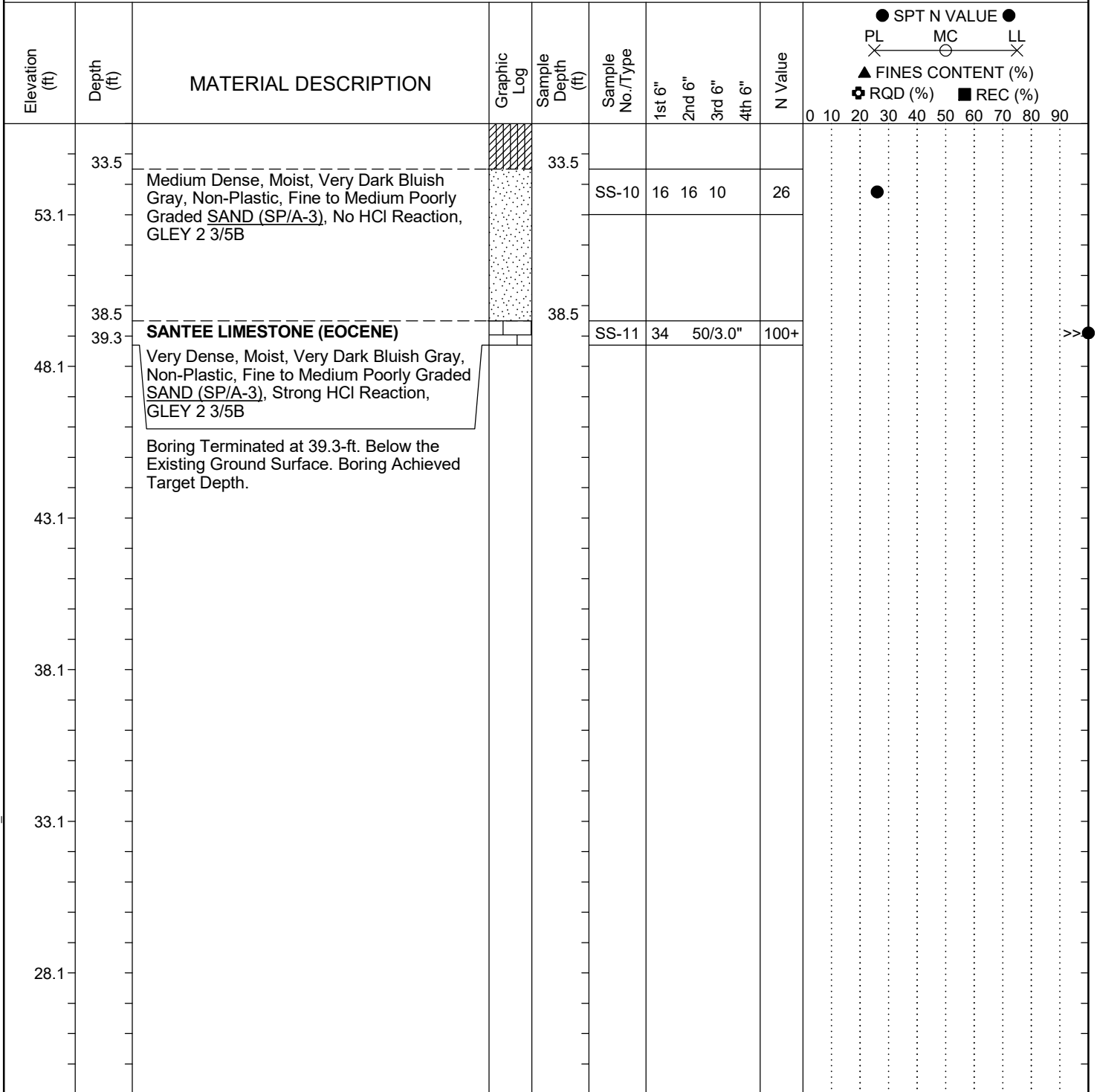
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SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-52
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location: 5172+30	Offset: 0.3-R Alignment: I-95 Med. CL
Elev.: 88.1 ft	Latitude: 33.51876274	Longitude: -80.4349819 Date Started: 2/6/2023
Total Depth: 39.3 ft	Soil Depth: 39.3 ft	Core Depth: N/A ft Date Completed: 2/6/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB N/A 24HR: 17.5(Cave@49)



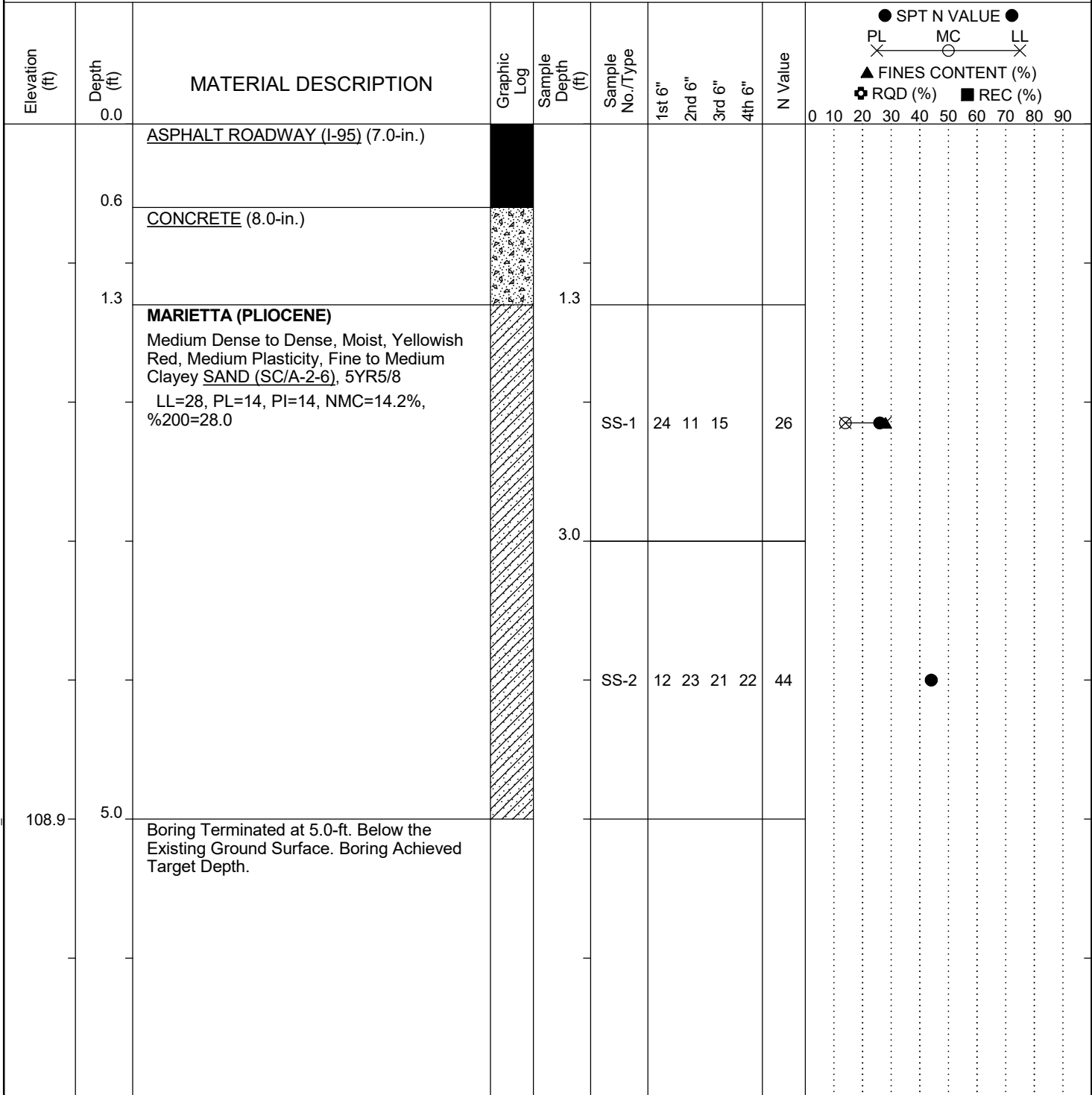
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-1
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5319+04	Offset: 41.3-L
Alignment: I-95 Med. CL	Date Started: 1/10/2023	Date Completed: 1/10/2023
Elev.: 113.9 ft	Latitude: 33.4904845	Longitude: -80.46898416
Total Depth: 5 ft	Soil Depth: 5 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB Not Encountered
Core Size: N/A	Driller: R. Huffstetler	24HR: N/A



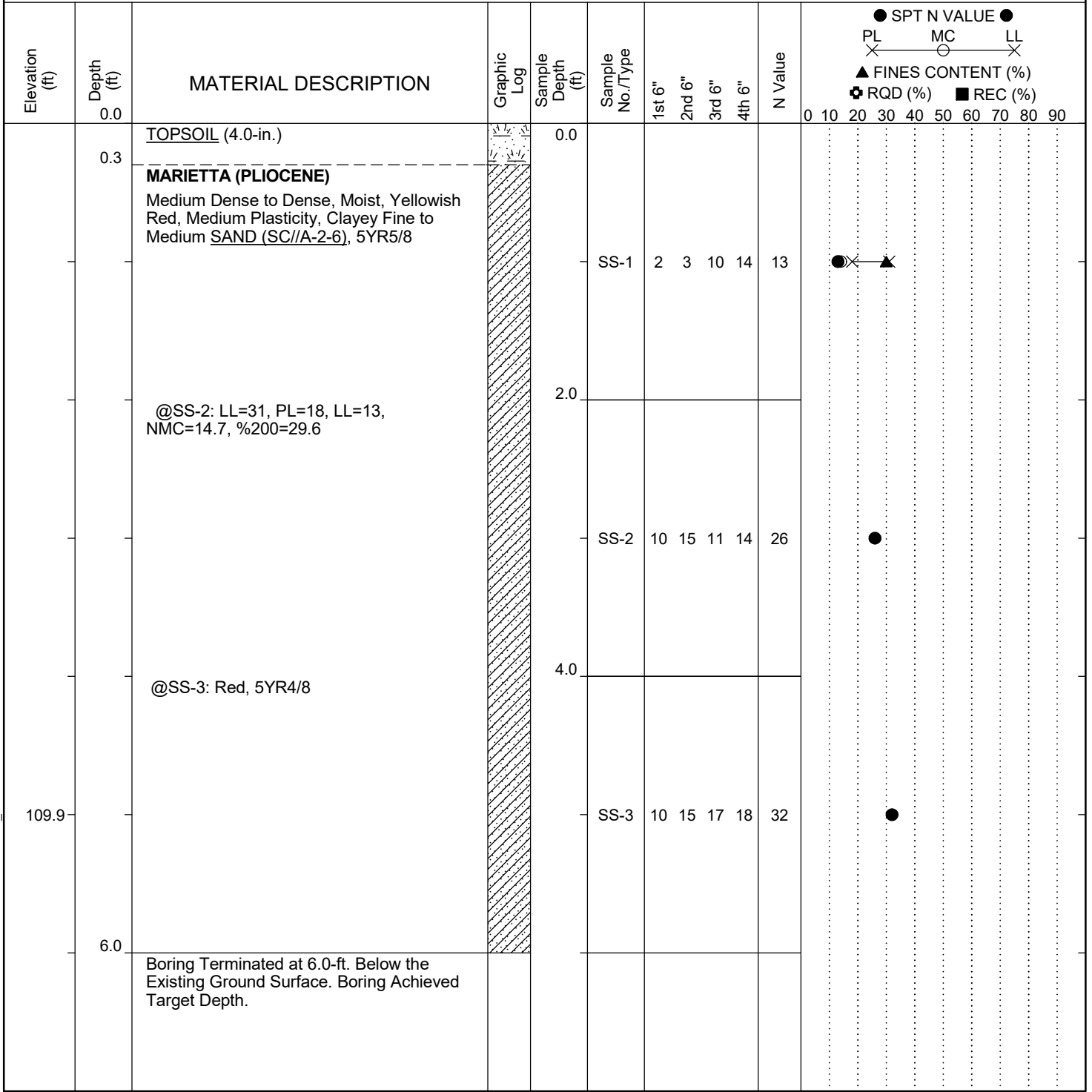
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5315+54	Offset: 24.1-L Alignment: I-95 Med. CL
Elev.: 114.9 ft	Latitude: 33.49135609	Longitude: -80.46849899 Date Started: 1/10/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



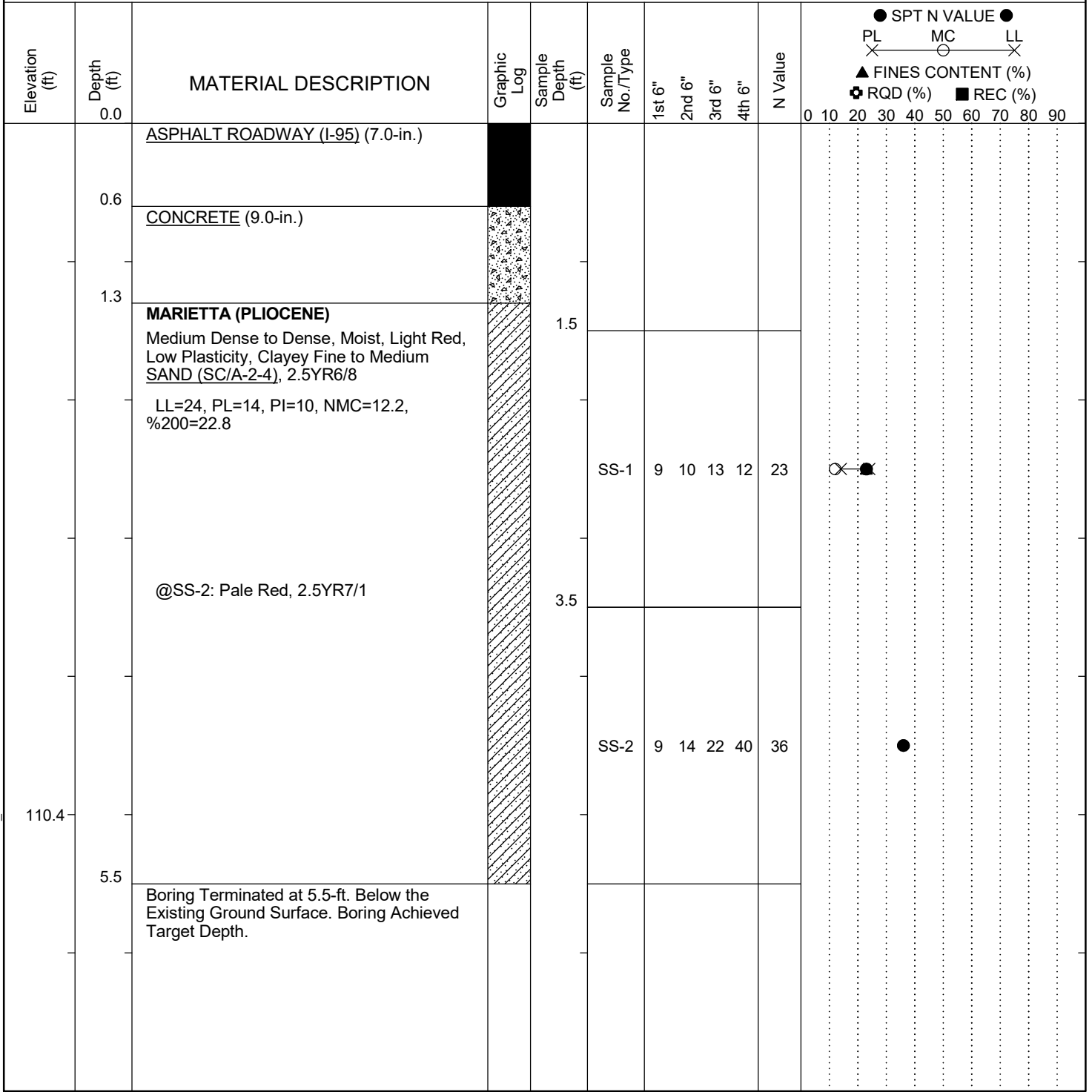
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5312+12	Offset: 36.5-R Alignment: I-95 Med. CL
Elev.: 115.4 ft	Latitude: 33.49225219	Longitude: -80.46810781 Date Started: 1/12/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in.): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



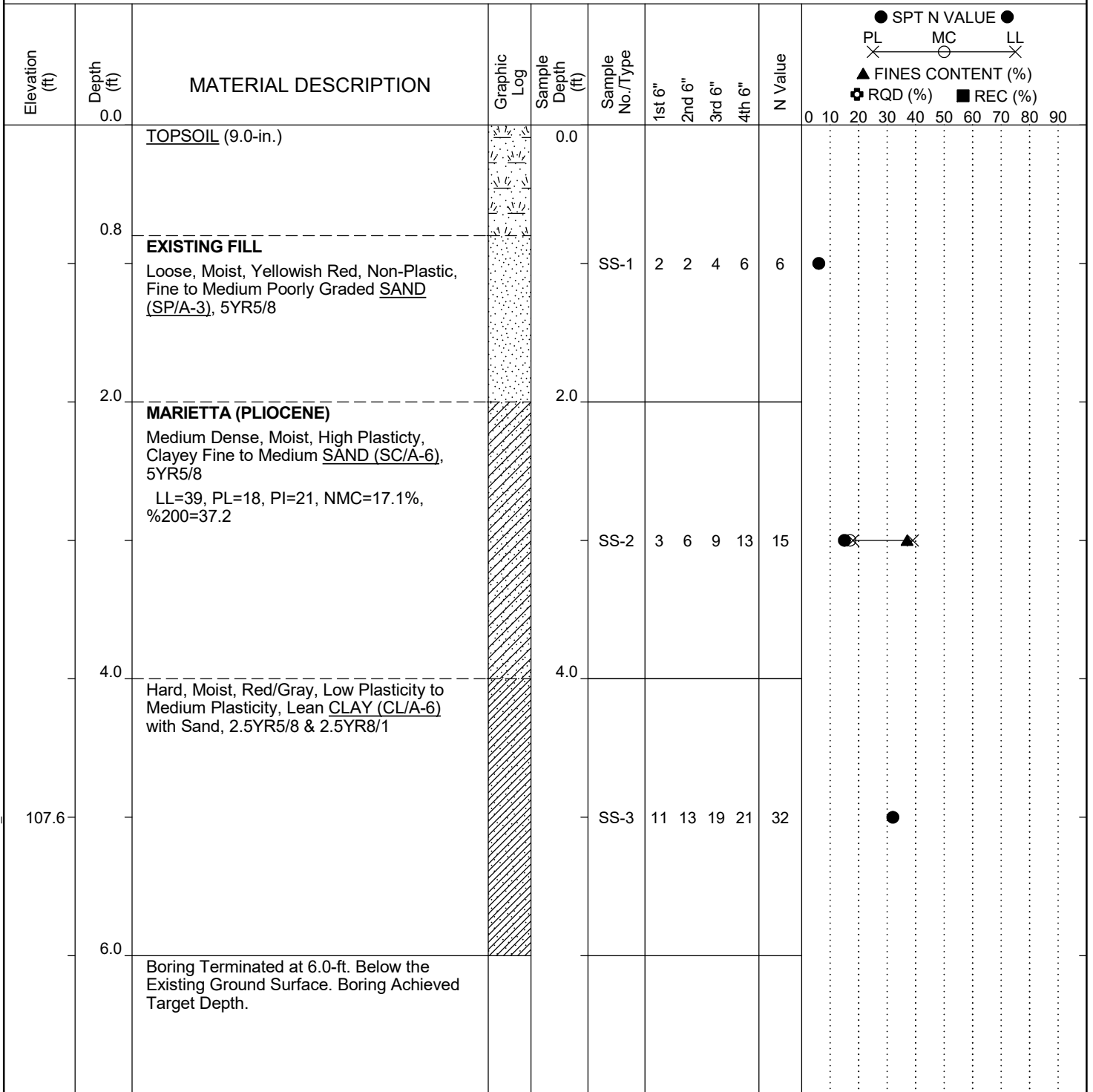
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5308+59	Offset: 27.6-R Alignment: I-95 Med. CL
Elev.: 112.6 ft	Latitude: 33.49306122	Longitude: -80.46745939 Date Started: 1/12/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



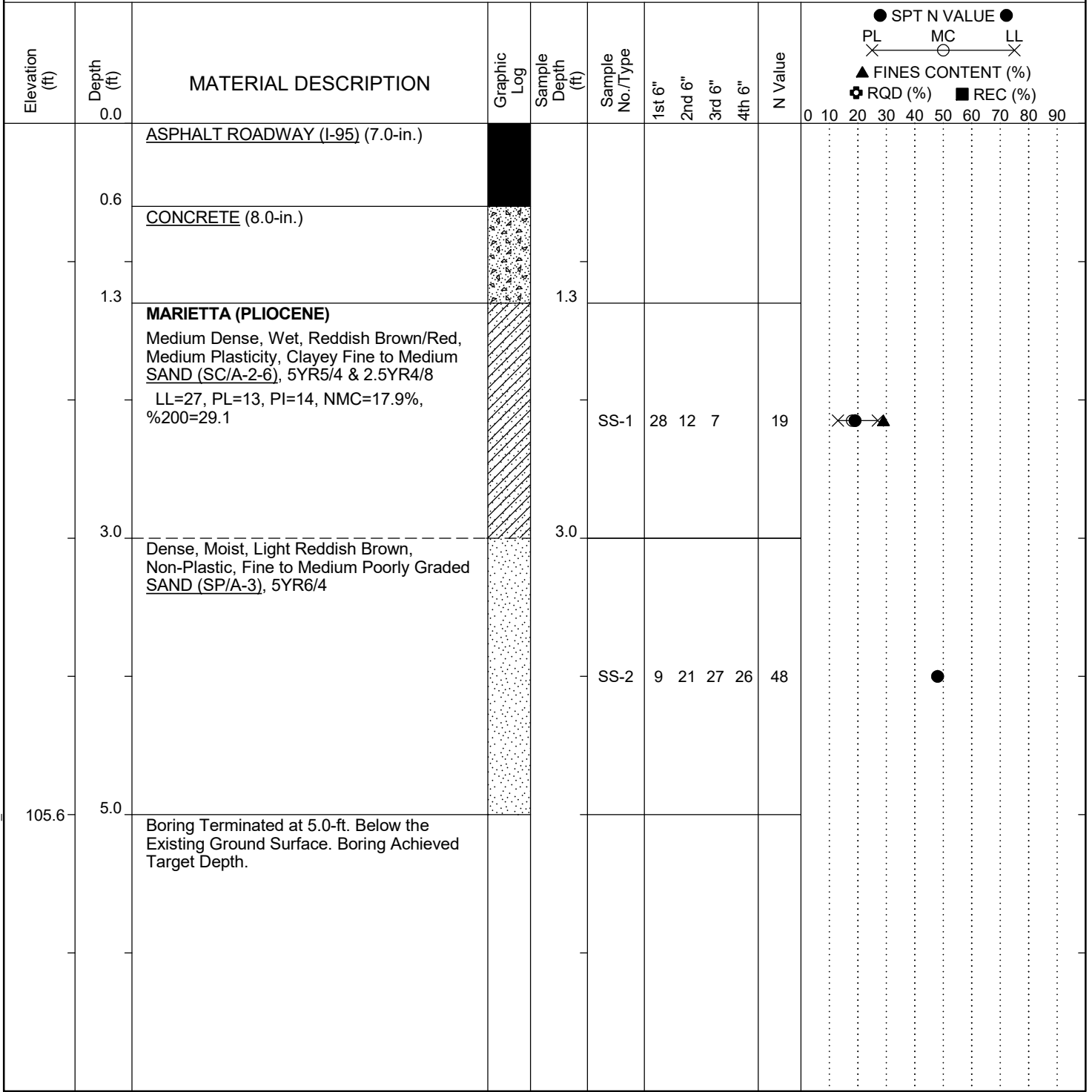
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5305+15	Offset: 38.9-L
Alignment: I-95 Med. CL	Date Started: 1/10/2023	
Elev.: 110.6 ft	Latitude: 33.49373369	Longitude: -80.46663653
Total Depth: 5 ft	Soil Depth: 5 ft	Core Depth: N/A ft
Date Completed: 1/10/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered
24HR: N/A		



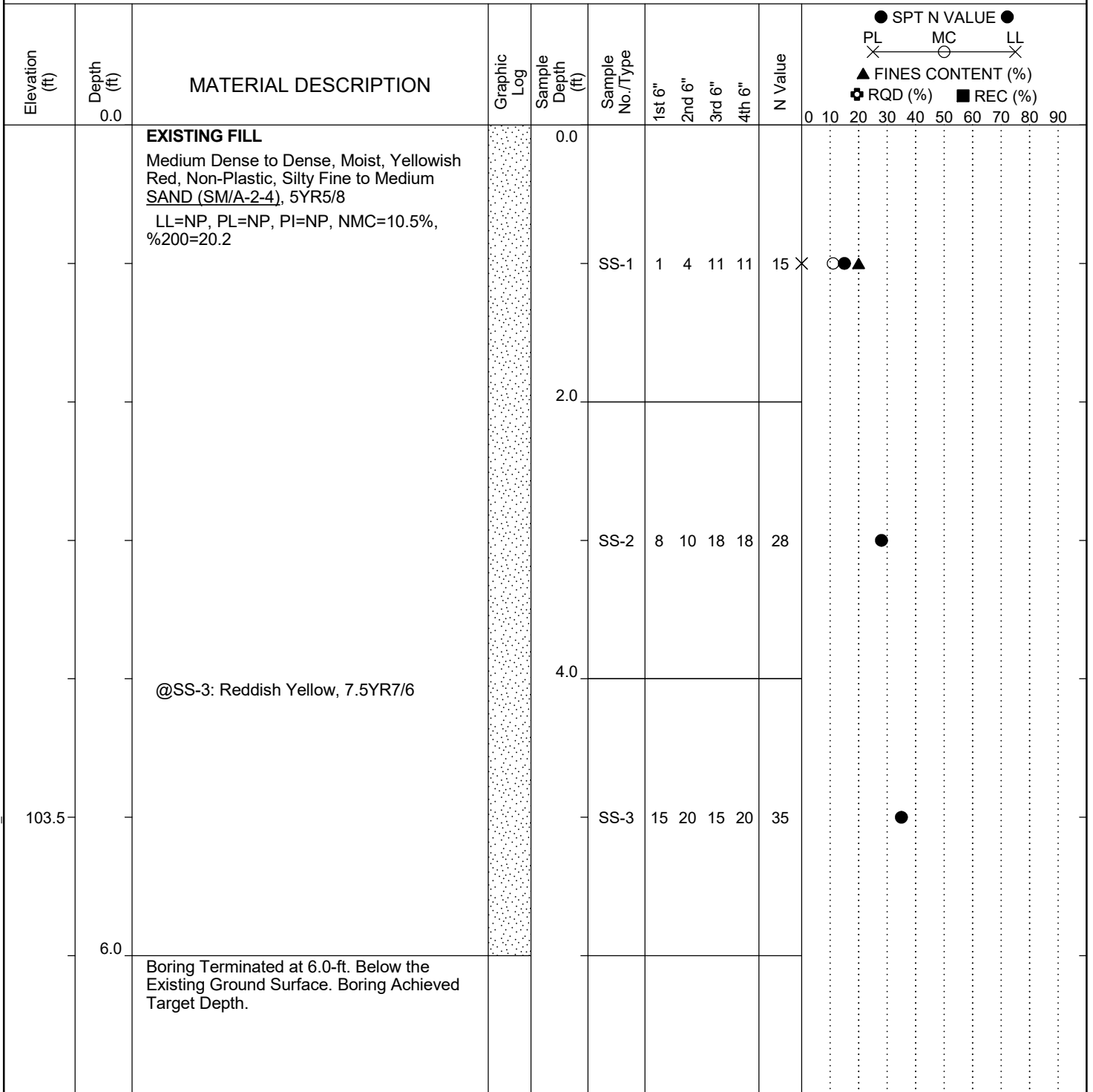
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5301+61	Offset: 26.0-L Alignment: I-95 Med. CL
Elev.: 108.5 ft	Latitude: 33.49452689	Longitude: -80.46597334 Date Started: 1/10/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



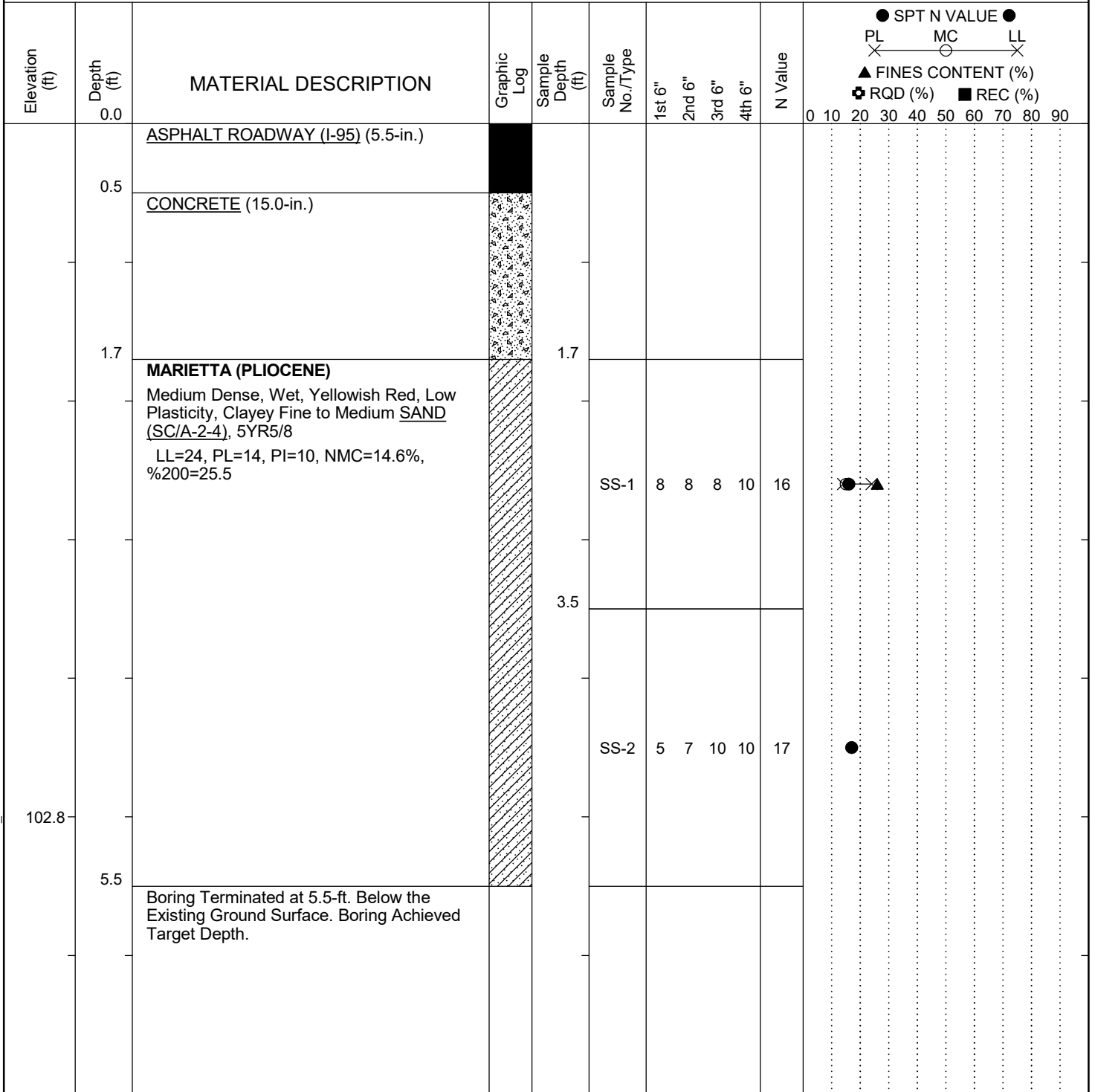
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-7
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5298+12	Offset: 37.9-R Alignment: I-95 Med. CL
Elev.: 107.8 ft	Latitude: 33.49537995	Longitude: -80.46540701 Date Started: 1/12/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-8
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5294+63	Offset: 28.1-R Alignment: I-95 Med. CL
Elev.: 105.4 ft	Latitude: 33.4960813	Longitude: -80.46461598 Date Started: 1/12/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value	SPT N VALUE										
											0	10	20	30	40	50	60	70	80	90	
	0.0	TOPSOIL (8.0-in.)		0.0																	
	0.6	EXISTING FILL Loose to Medium Dense, Moist, Yellowish Red, Non-Plastic, Silty Fine to Medium SAND (SM/A-2-4), 5YR5/3 LL=NP, PL=NP, PI=NP, NMC=9.1%, %200=16.0			SS-1	2	3	5	10	8	X	●	▲								
				2.0	SS-2	5	6	7	7	13		●									
				4.0	SS-3	3	3	3	8	6		●									
100.4	6.0	Boring Terminated at 6.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.																			

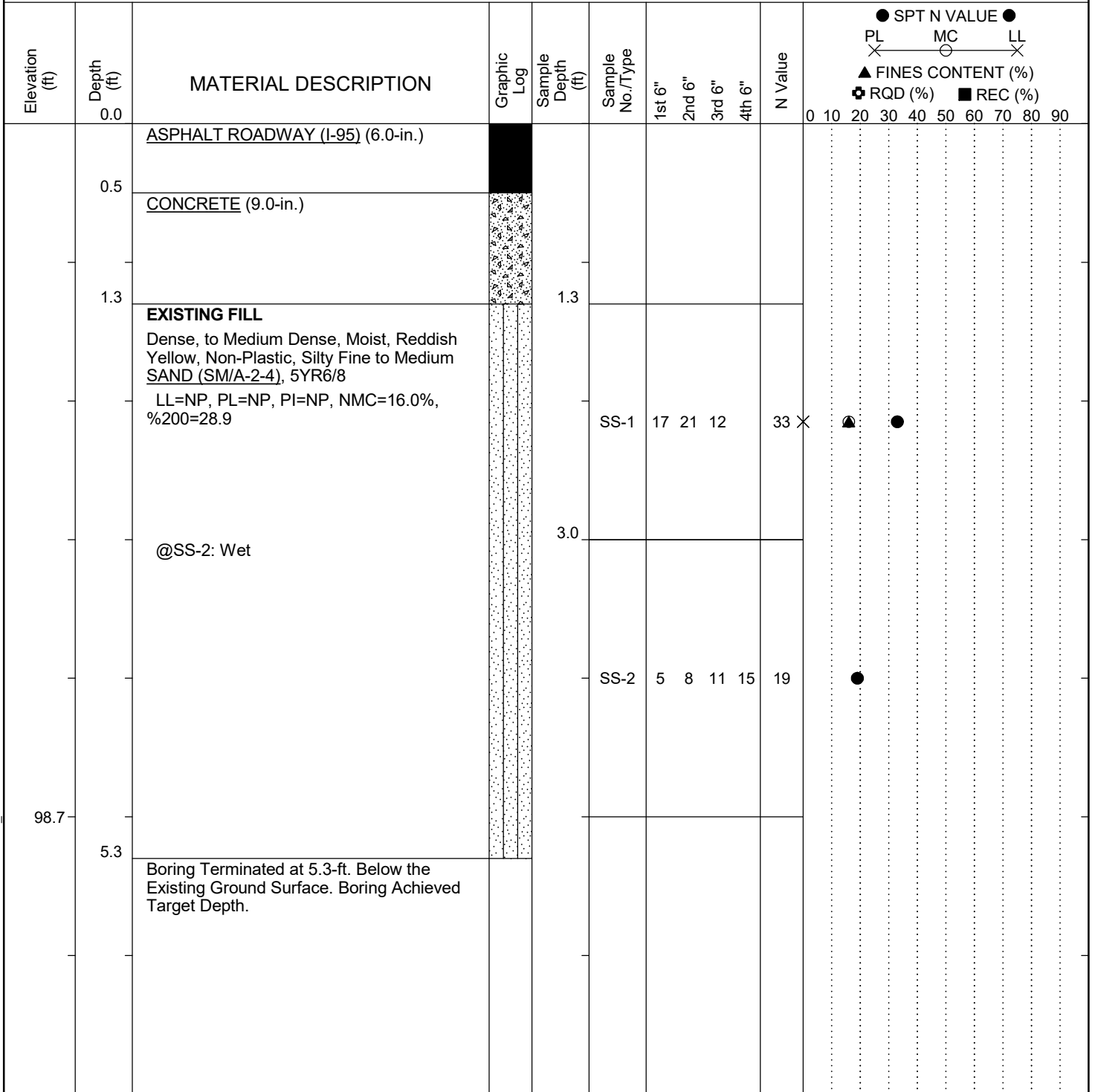
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-9
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5291+17	Offset: 38.2-L Alignment: I-95 Med. CL
Elev.: 103.7 ft	Latitude: 33.496637	Longitude: -80.46367089 Date Started: 1/10/2023
Total Depth: 5.3 ft	Soil Depth: 5.3 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



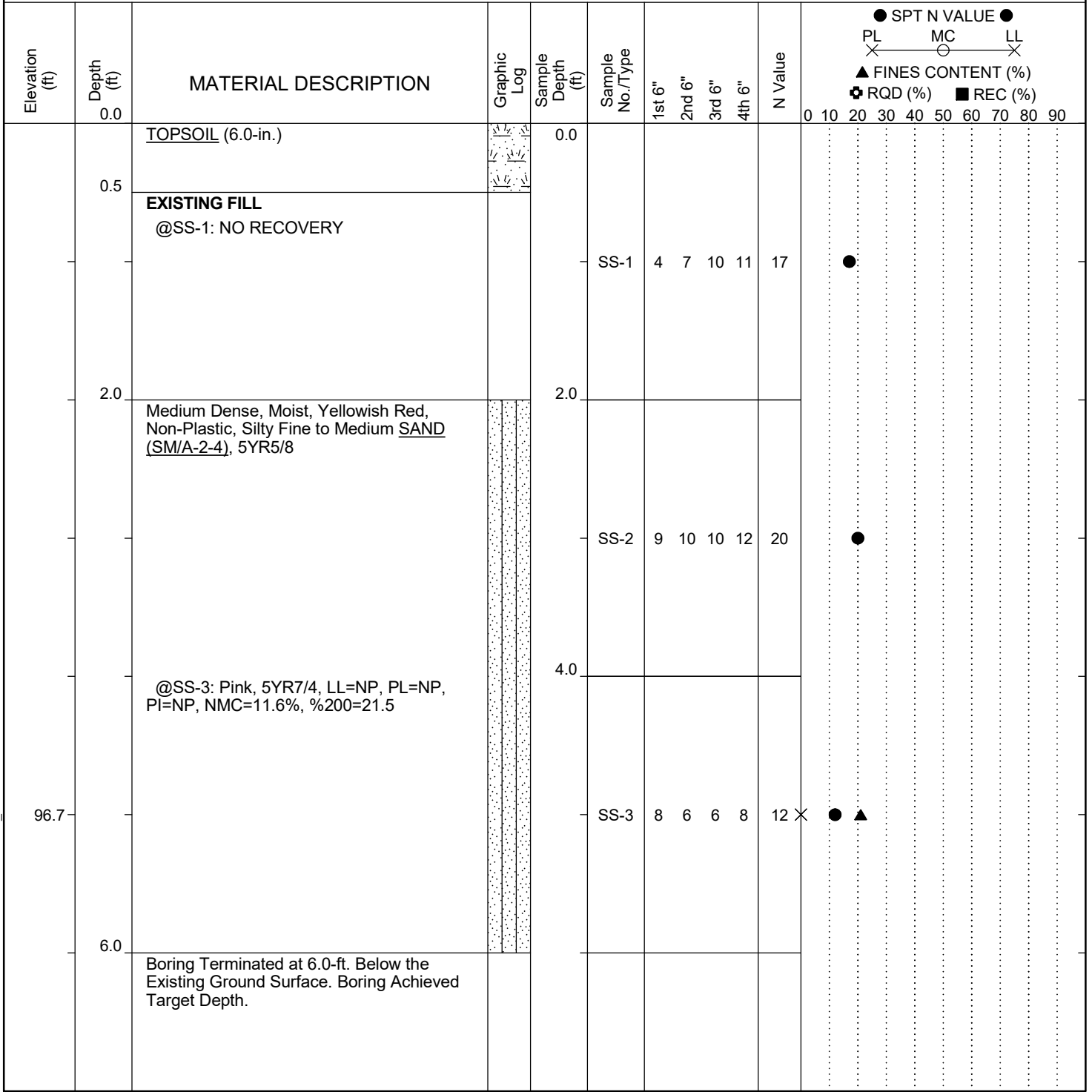
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-10
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5287+63	Offset: 25.7-L Alignment: I-95 Med. CL
Elev.: 101.7 ft	Latitude: 33.4973301	Longitude: -80.46286036 Date Started: 1/10/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



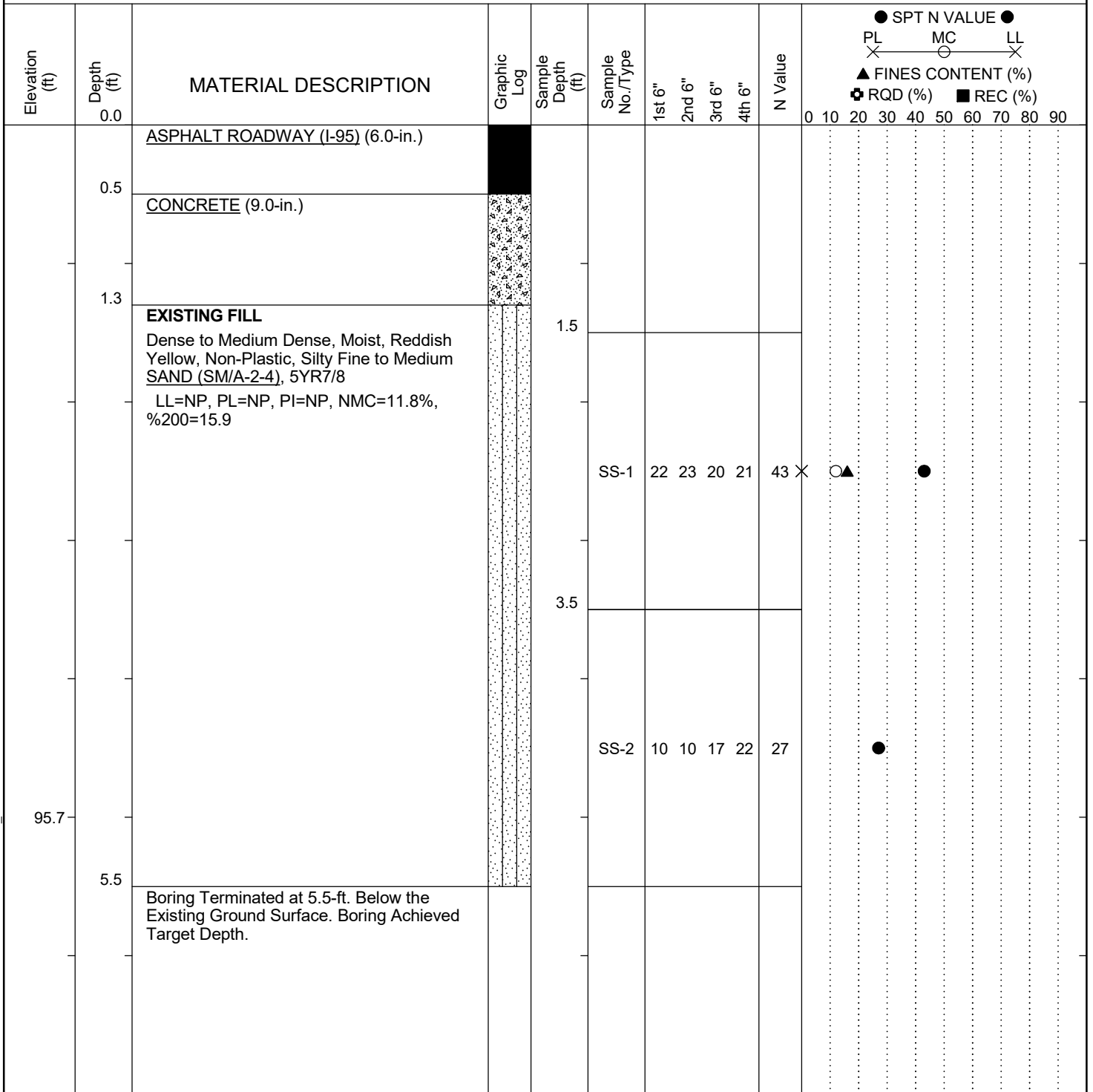
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-11
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5284+12	Offset: 38.4-R Alignment: I-95 Med. CL
Elev.: 100.7 ft	Latitude: 33.49811063	Longitude: -80.46215271 Date Started: 1/12/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



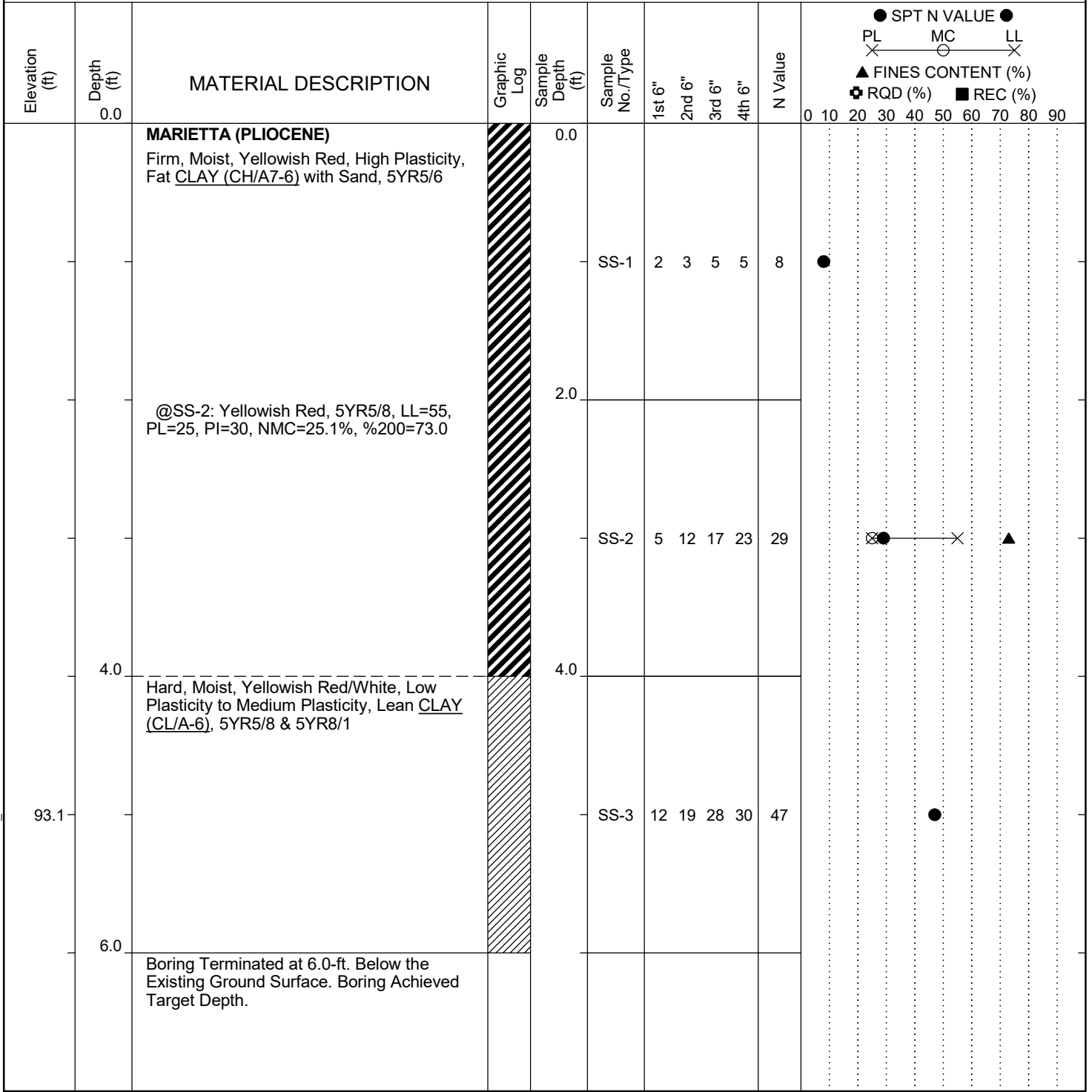
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-12
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5280+25	Offset: 28.2-R Alignment: I-95 Med. CL
Elev.: 98.1 ft	Latitude: 33.49880668	Longitude: -80.46119426 Date Started: 1/12/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



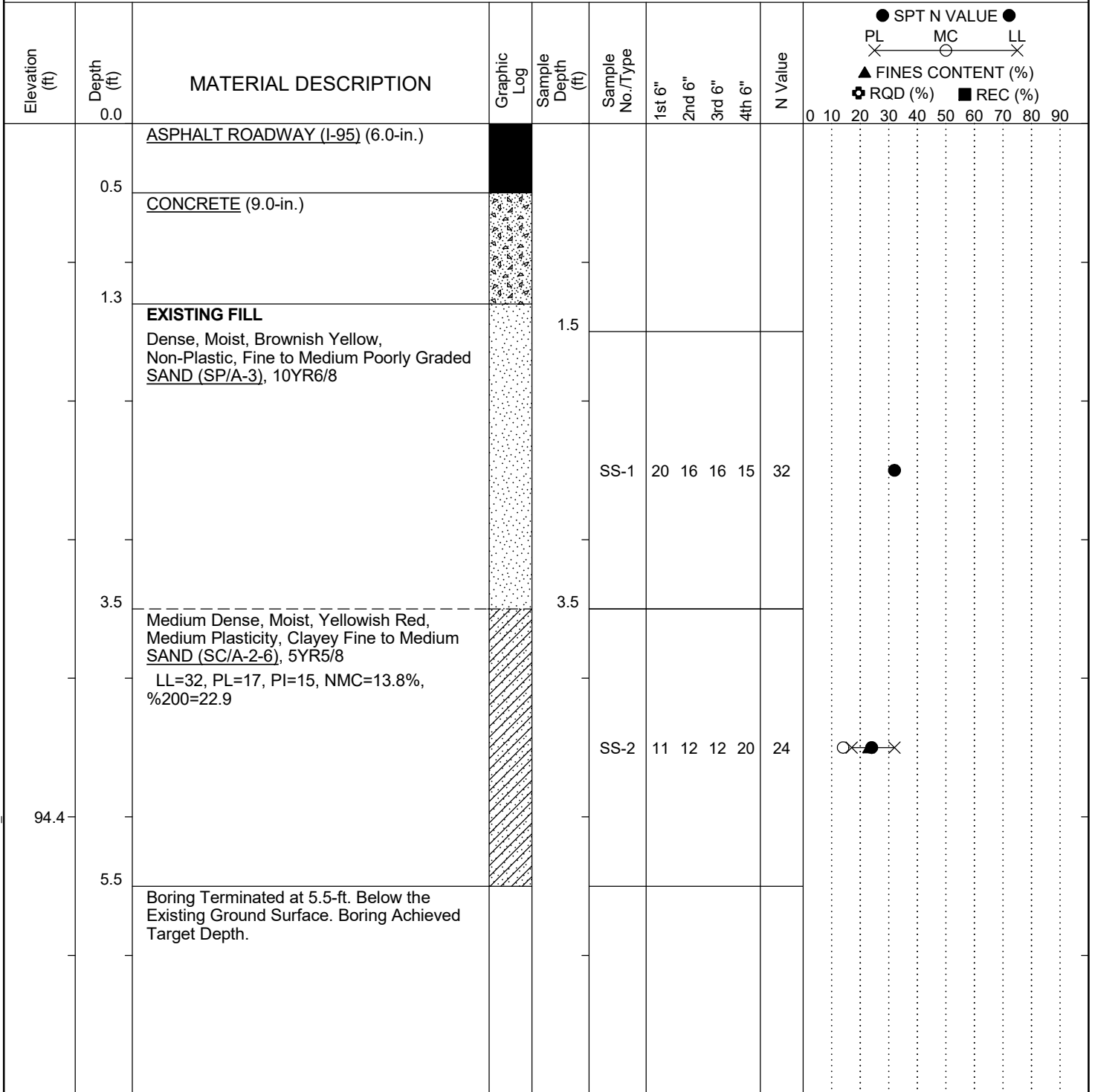
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-13
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5277+18	Offset: 38.2-L Alignment: I-95 Med. CL
Elev.: 99.4 ft	Latitude: 33.49924094	Longitude: -80.46030402 Date Started: 1/10/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



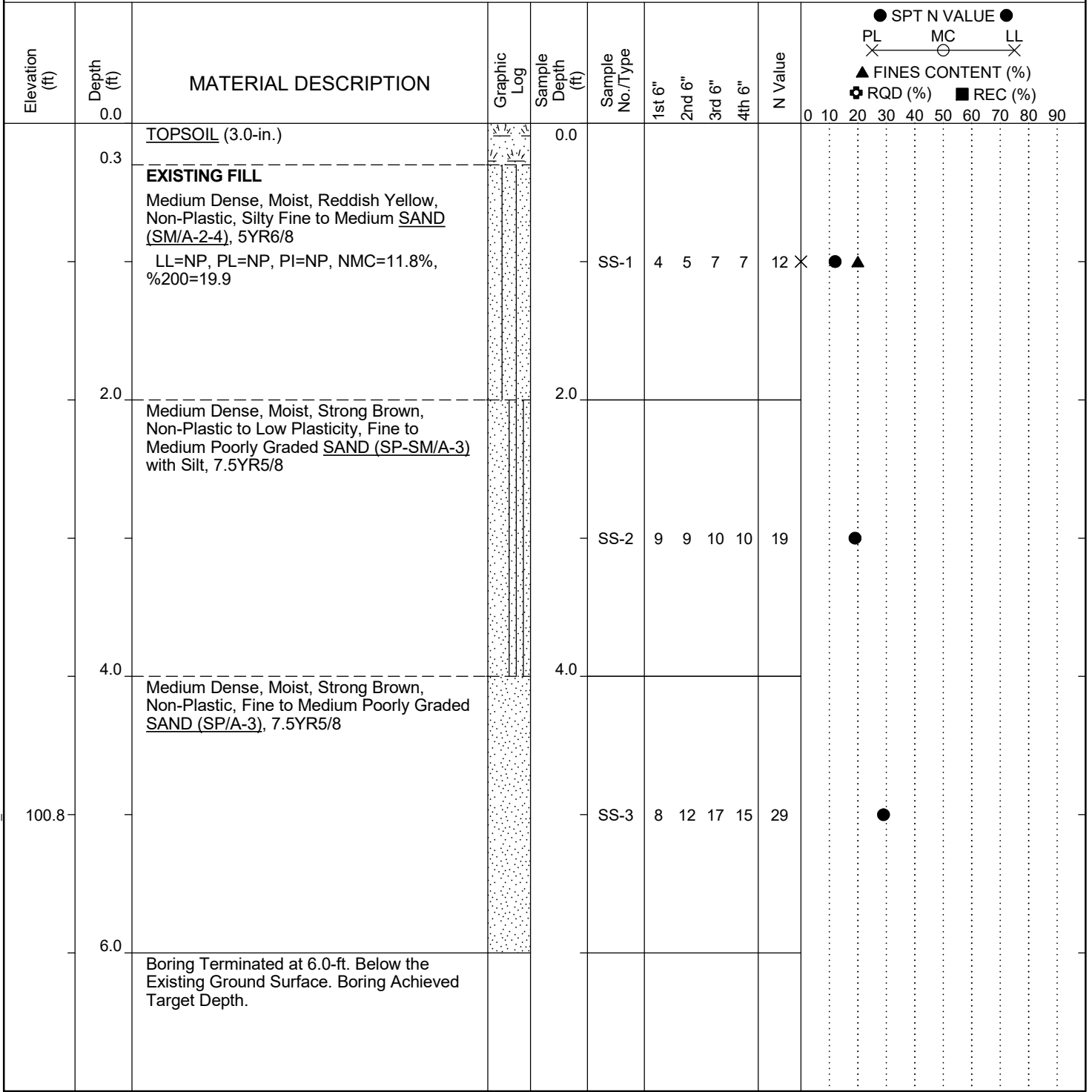
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-14
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5273+65	Offset: 24.4-L Alignment: I-95 Med. CL
Elev.: 105.8 ft	Latitude: 33.49992478	Longitude: -80.4594779 Date Started: 1/10/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



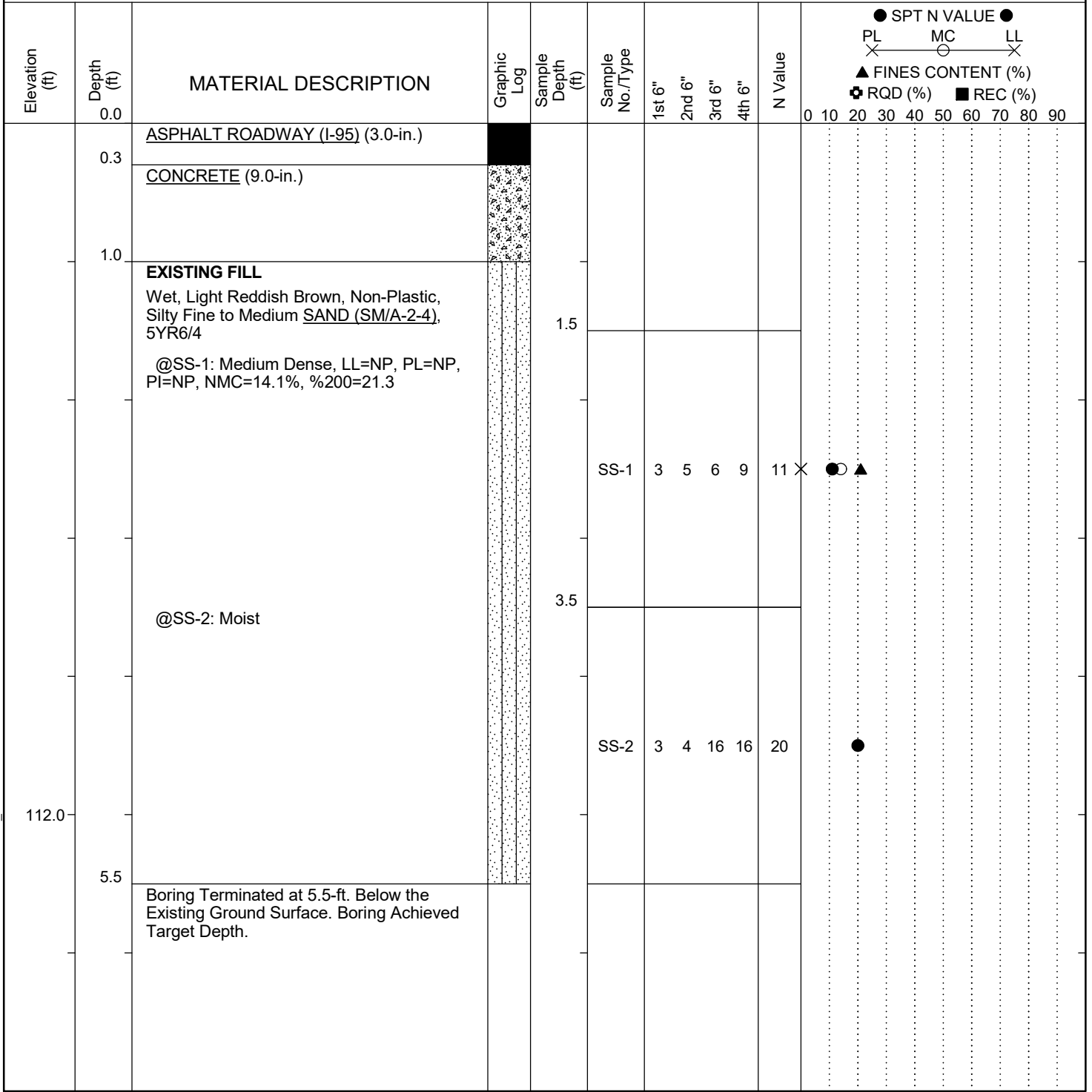
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-15
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5270+16	Offset: 37.0-R Alignment: I-95 Med. CL
Elev.: 117.0 ft	Latitude: 33.50069667	Longitude: -80.45876781 Date Started: 1/12/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/12/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



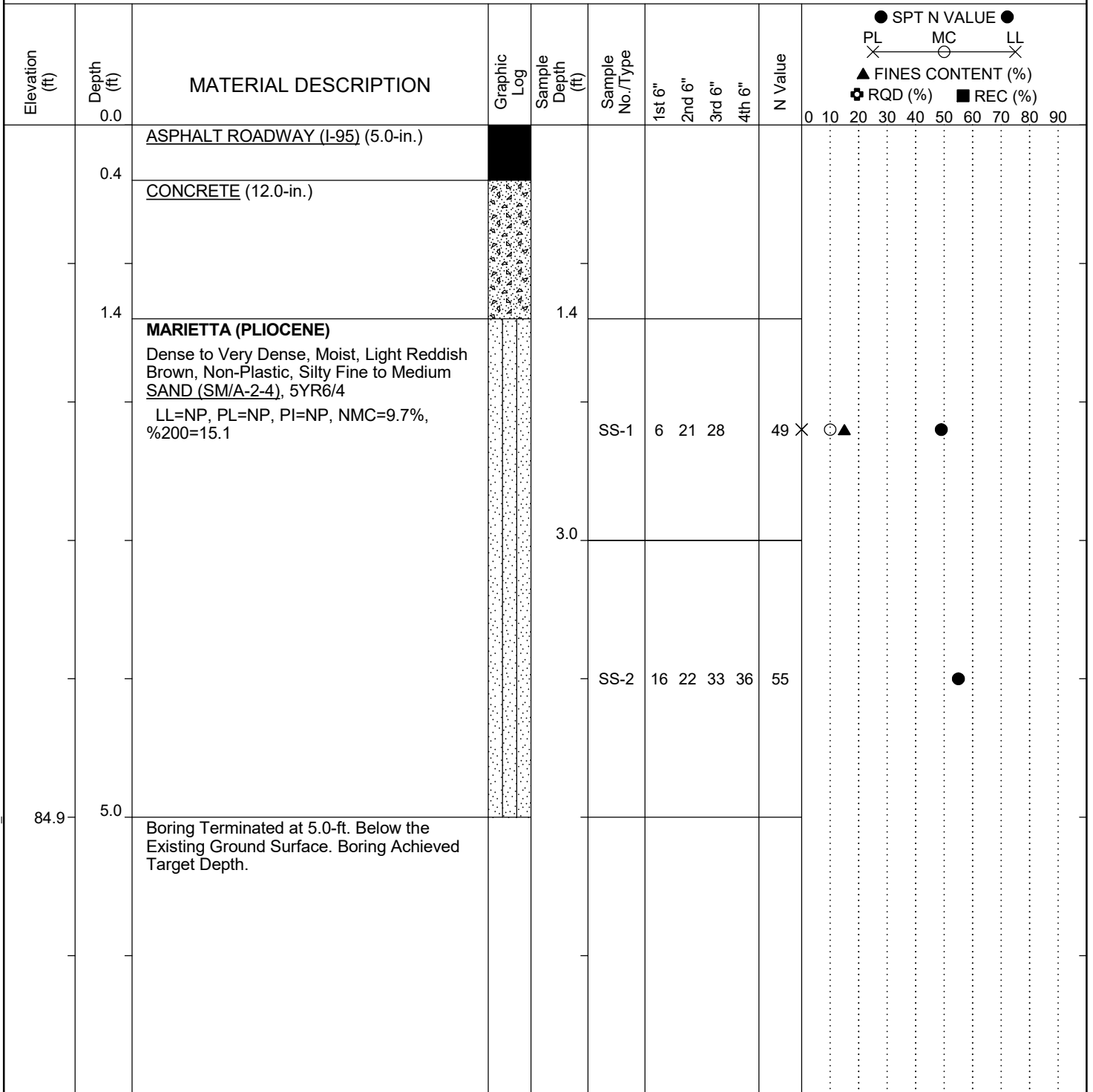
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-16
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5206+04	Offset: 36.6-L Alignment: I-95 Med. CL
Elev.: 89.9 ft	Latitude: 33.51243464	Longitude: -80.44307334 Date Started: 1/10/2023
Total Depth: 5 ft	Soil Depth: 5 ft	Core Depth: N/A ft Date Completed: 1/10/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



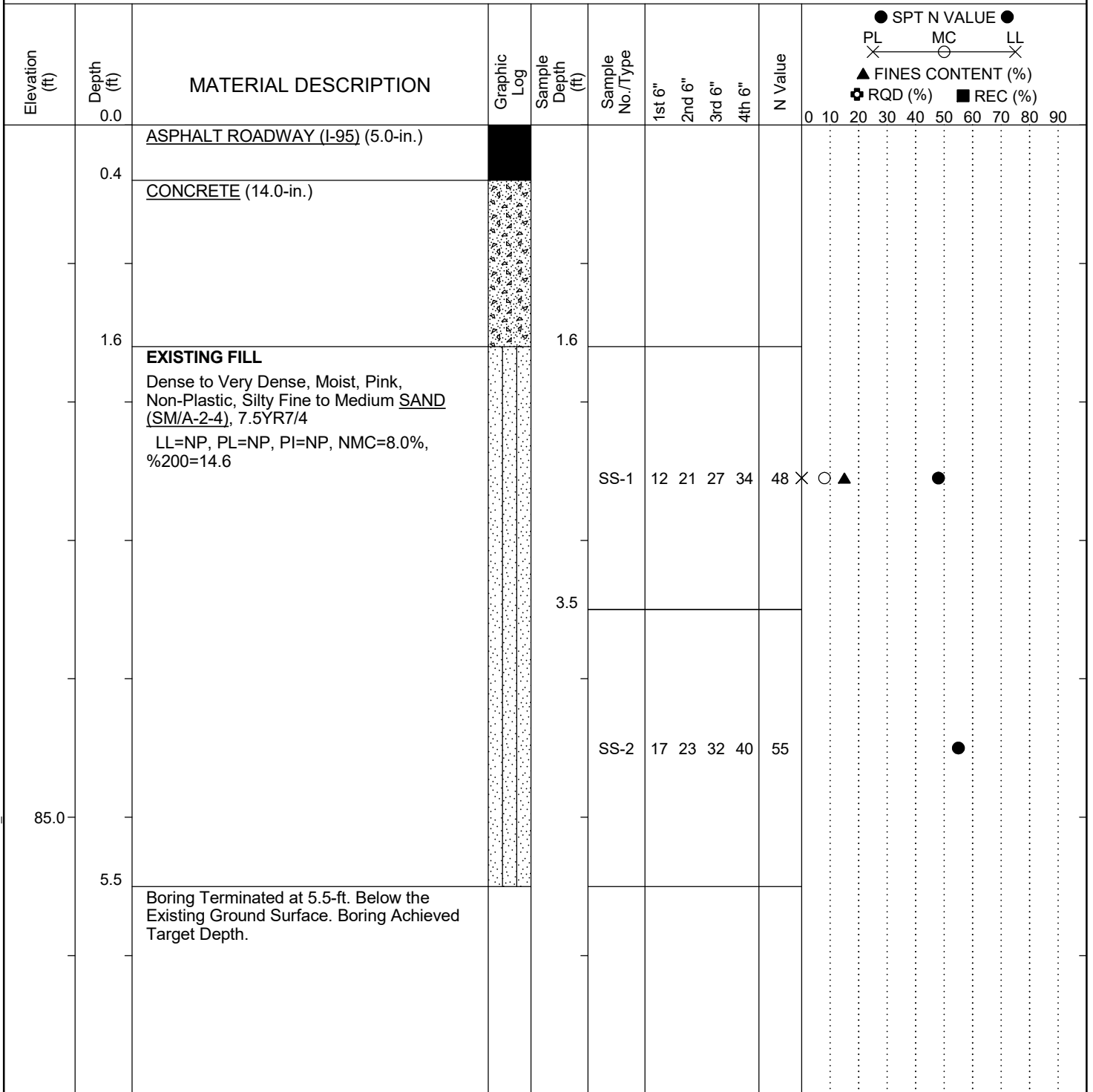
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-17
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5186+06	Offset: 37.9-R Alignment: I-95 Med. CL
Elev.: 90.0 ft	Latitude: 33.51628837	Longitude: -80.43839905 Date Started: 1/11/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



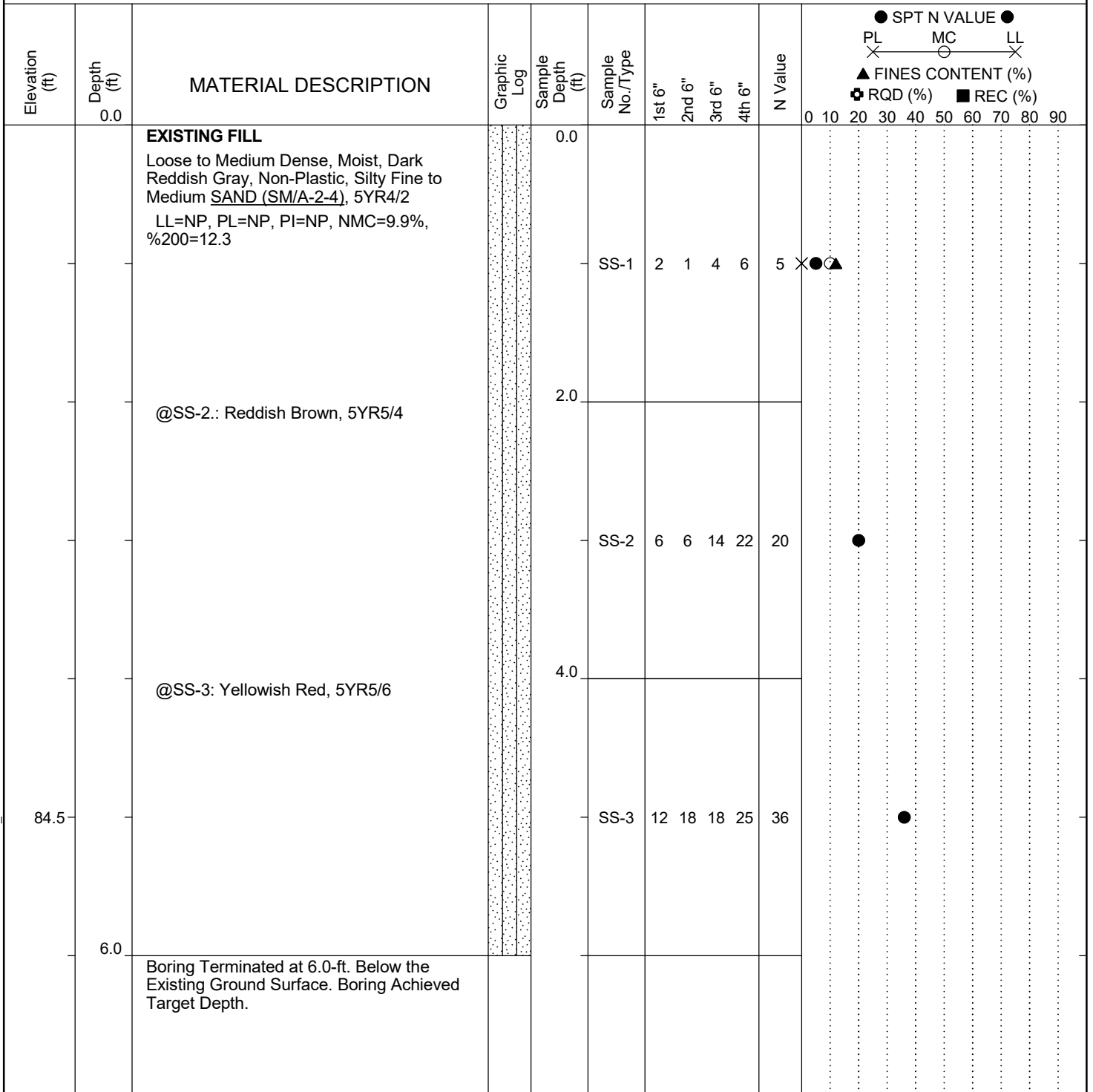
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-18
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5163+50	Offset: 37.8-R Alignment: I-95 Med. CL
Elev.: 89.5 ft	Latitude: 33.52047262	Longitude: -80.43293871 Date Started: 1/11/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



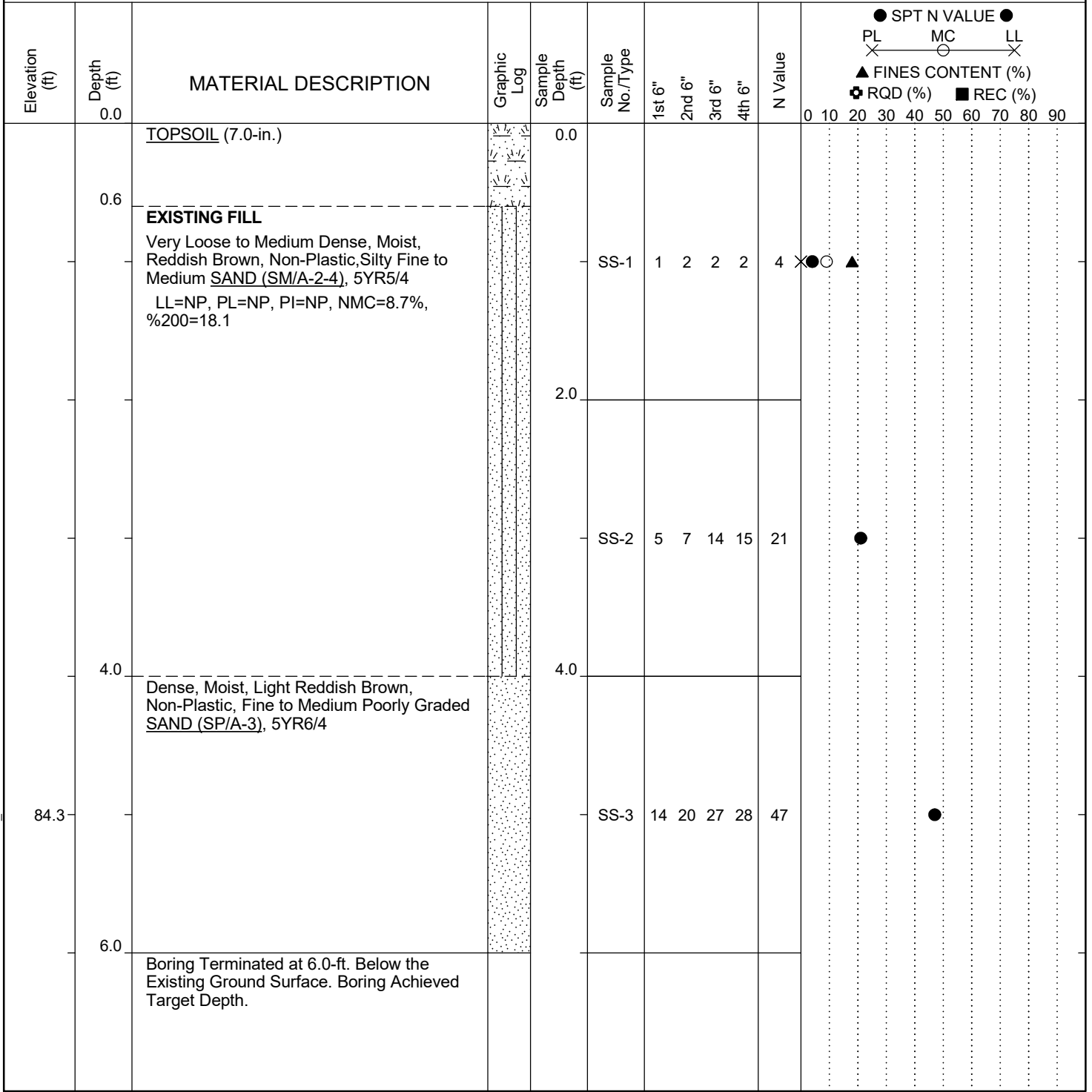
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-19
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5160+01	Offset: 29.8-R Alignment: I-95 Med. CL
Elev.: 89.3 ft	Latitude: 33.52112345	Longitude: -80.43209788 Date Started: 1/11/2023
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft Date Completed: 1/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



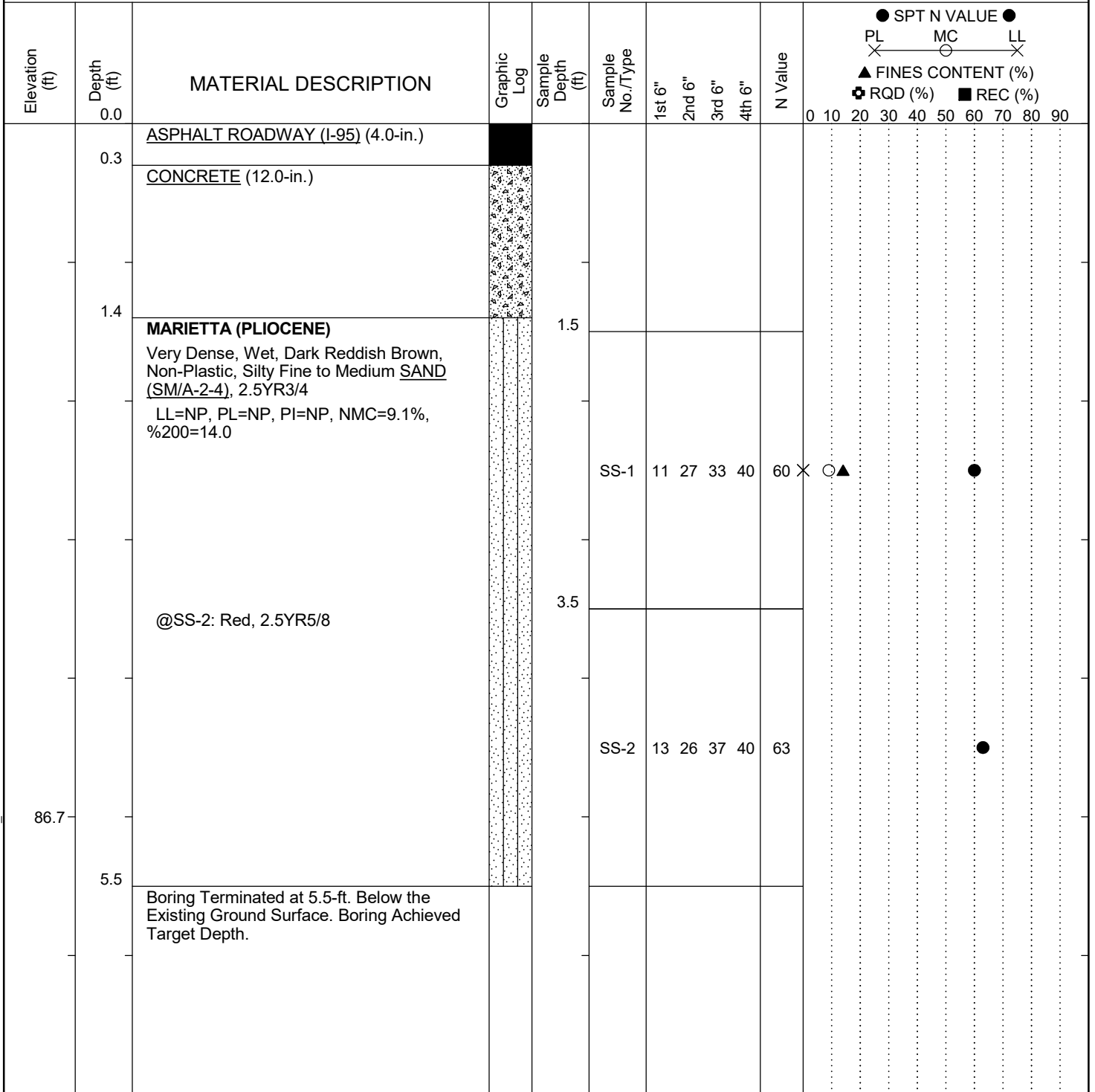
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-20
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5156+54	Offset: 37.2-L Alignment: I-95 Med. CL
Elev.: 91.7 ft	Latitude: 33.52167391	Longitude: -80.43114195 Date Started: 1/11/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



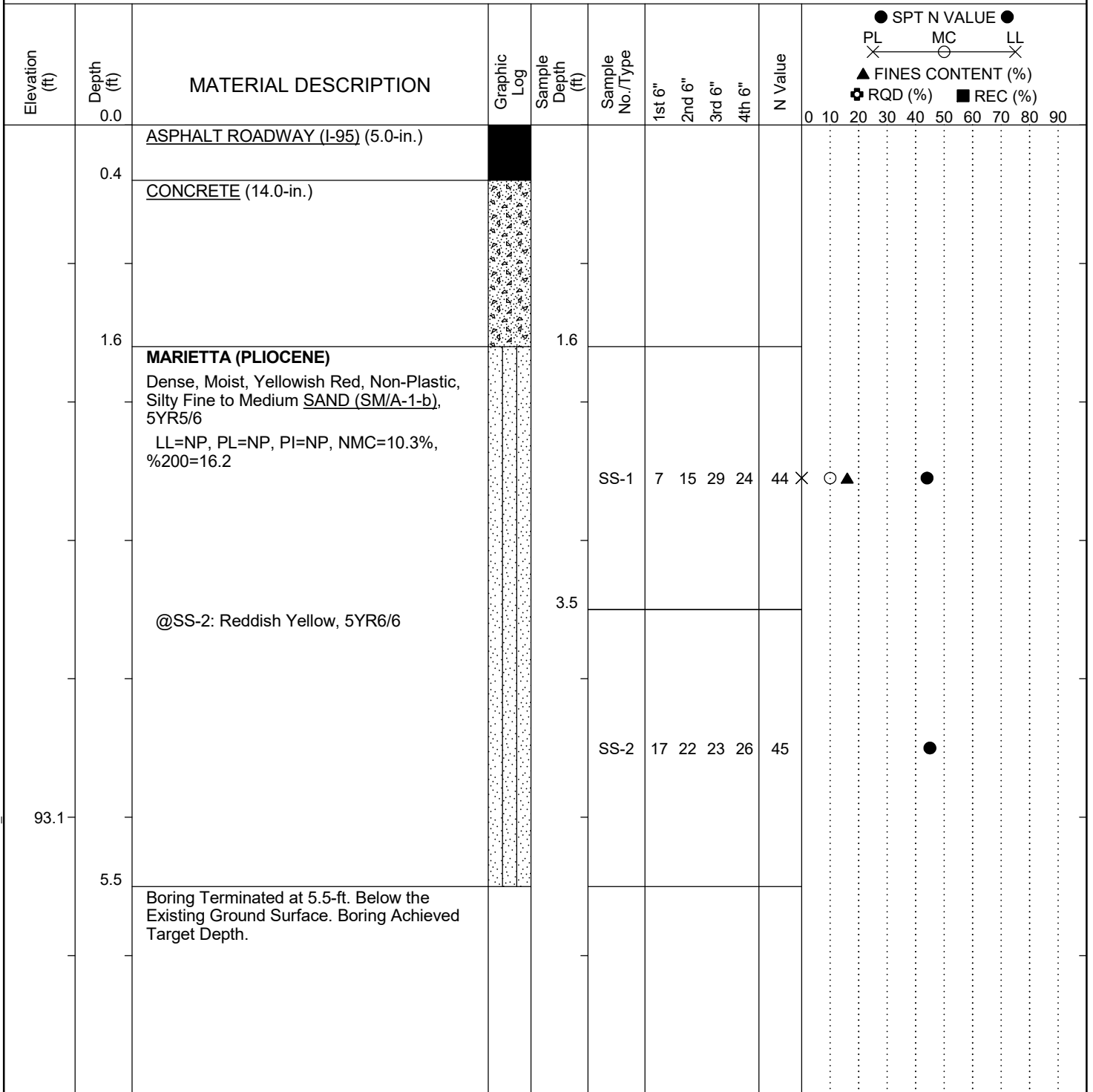
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-21
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5152+99	Offset: 27.7-L Alignment: I-95 Med. CL
Elev.: 98.1 ft	Latitude: 33.52240398	Longitude: -80.43036743 Date Started: 1/11/2023
Total Depth: 5.5 ft	Soil Depth: 5.5 ft	Core Depth: N/A ft Date Completed: 1/11/2023
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic Energy Ratio: 78%
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered 24HR N/A



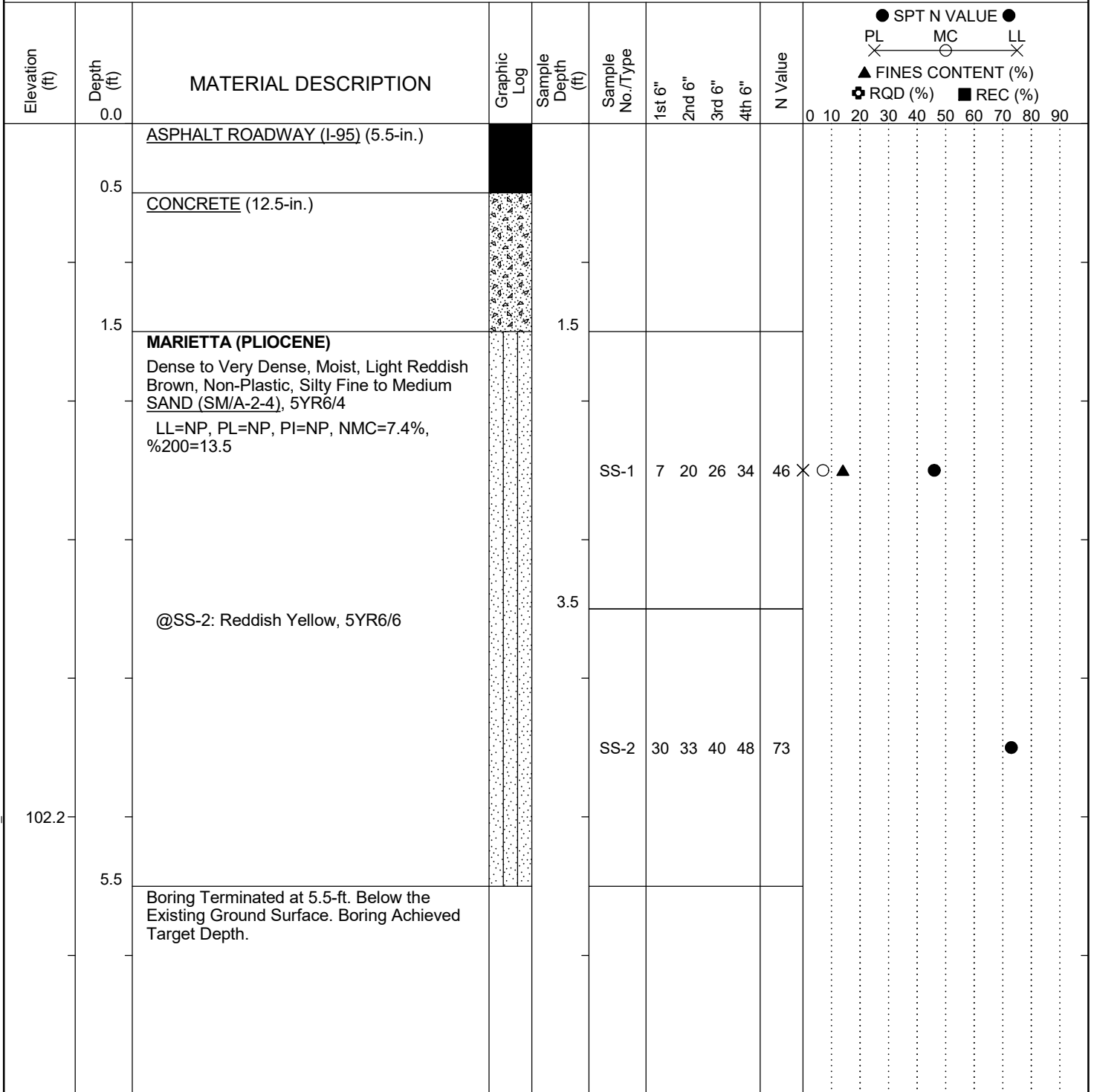
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID:	P041130			County:	Clarendon/Orangeburg		Boring No.:	P-22		
Site Description:	I-95 NB/SB over Lake Marion Bridge Replacement						Route:	I-95		
Eng./Geo.:	C. Thomas		Boring Location:	5149+53		Offset:	36.6-R		Alignment:	I-95 Med. CL
Elev.:	107.2 ft		Latitude:	33.52323093		Longitude:	-80.42976897		Date Started:	1/11/2023
Total Depth:	5.5 ft		Soil Depth:	5.5 ft		Core Depth:	N/A ft		Date Completed:	1/11/2023
Bore Hole Diameter (in):	4		Sampler Configuration			Liner Required:	Y (N)		Liner Used:	Y (N)
Drill Machine:	CME 550X		Drill Method:	RW		Hammer Type:	Automatic		Energy Ratio:	78%
Core Size:	N/A		Driller:	R. Huffstetler		Groundwater:	TOB Not Encountered		24HR	N/A



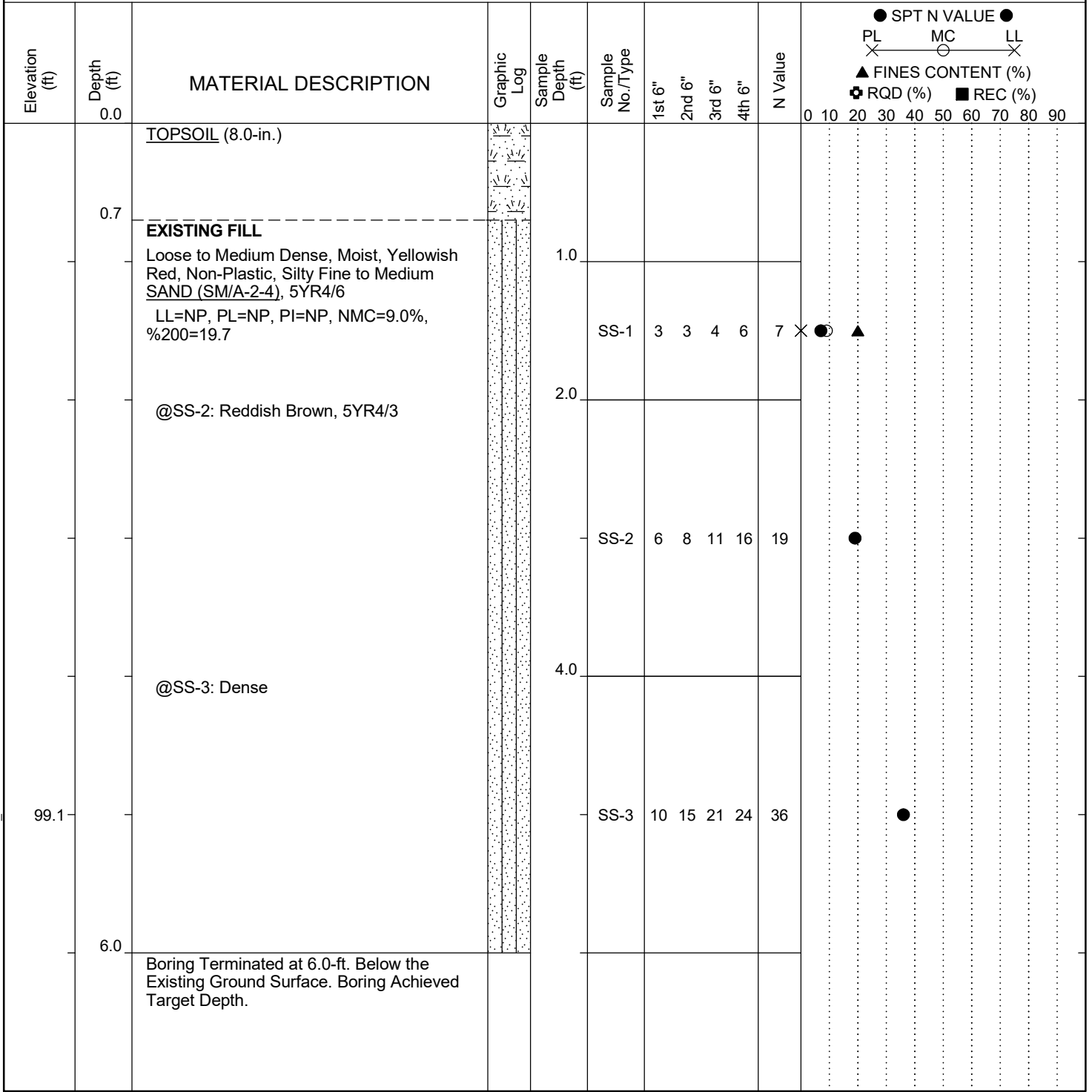
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-23
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5138+69	Offset: 11.0-L
Alignment: I-95 Med. CL	Date Started: 1/11/2023	
Elev.: 104.1 ft	Latitude: 33.52546645	Longitude: -80.42741469
Total Depth: 6 ft	Soil Depth: 6 ft	Core Depth: N/A ft
Date Completed: 1/11/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered
24HR: N/A		



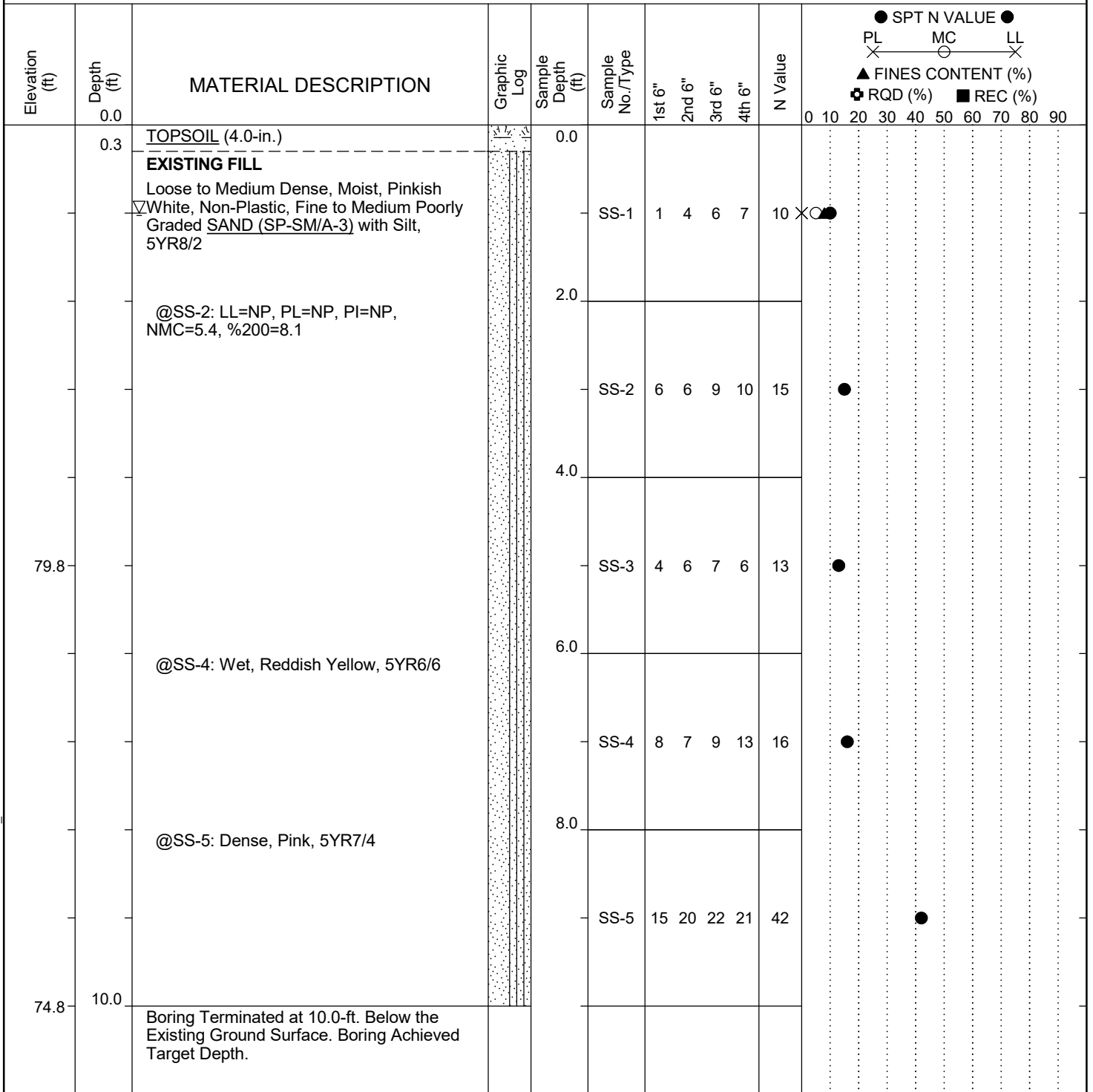
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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: P-24
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: C. Thomas	Boring Location: 5163+06	Offset: 114.2-L
Alignment: I-95 Med. CL	Date Started: 1/11/2023	Date Completed: 1/11/2023
Elev.: 84.8 ft	Latitude: 33.52025373	Longitude: -80.43248937
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: N/A ft
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 550X	Drill Method: RW
Hammer Type: Automatic	Energy Ratio: 78%	Groundwater: TOB Not Encountered
Core Size: N/A	Driller: R. Huffstetler	24HR: N/A



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G6744 - I-95 RBO LAKE MARION JFH PREP.GPJ SCDOT_DATA TEMPLATE.GDT 3/19/24

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

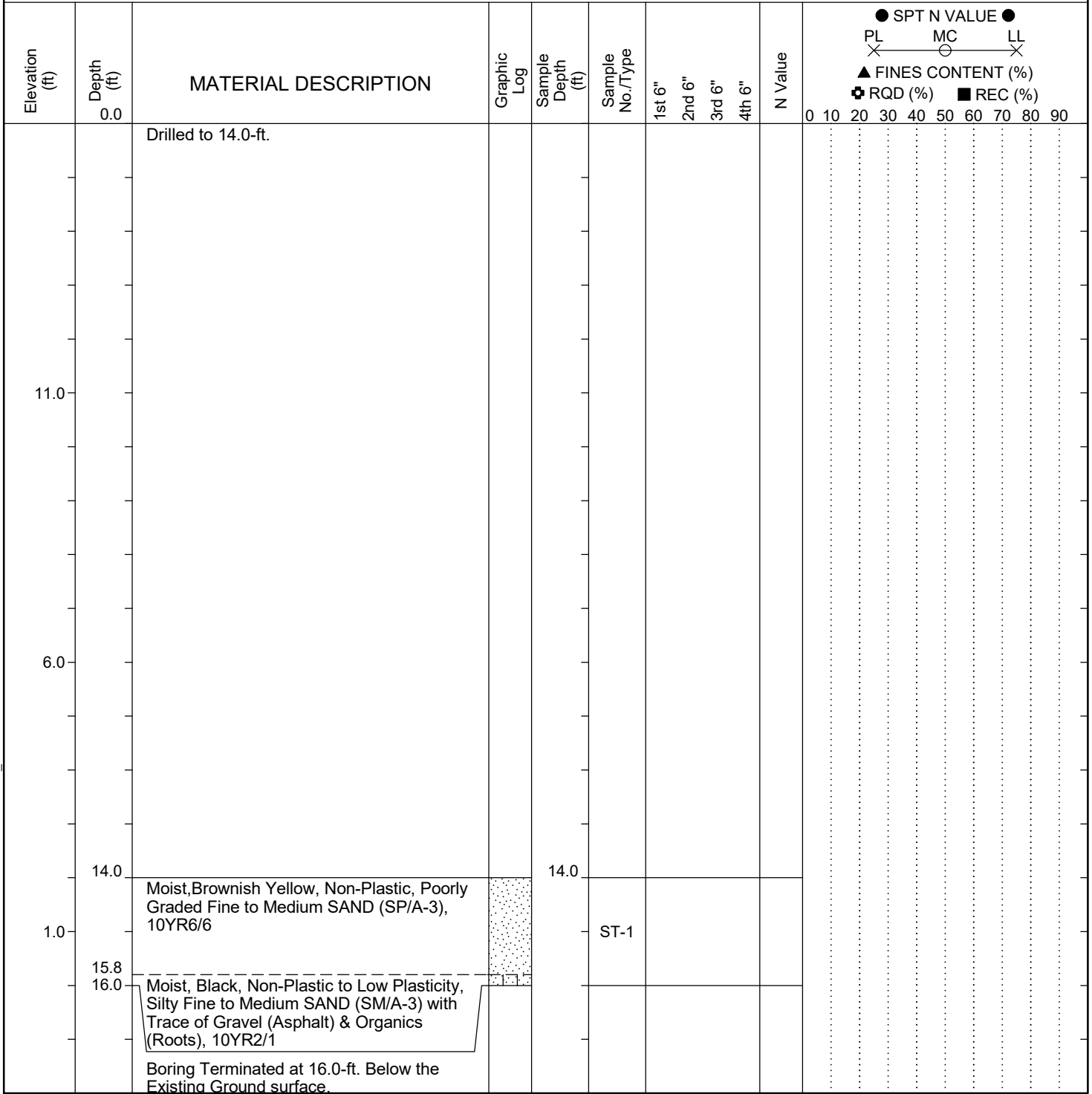
APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

SECTION 3B AUGER BORING LOGS

SCDOT Soil Test Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-52U
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Eng./Geo.: T. Peterson	Boring Location:	Offset:
Alignment: Existing		
Elev.: 88.1 ft	Latitude: 33.5187364	Longitude: -80.43495348
Date Started: 6/29/2023		
Total Depth: 16 ft	Soil Depth: 16 ft	Core Depth: N/A ft
Date Completed: 6/29/2023		
Bore Hole Diameter (in): 4	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)		
Drill Machine: CME 550X	Drill Method: RW	Hammer Type: Automatic
Energy Ratio: 78%		
Core Size: N/A	Driller: R. Huffstetler	Groundwater: TOB Not Encountered
24HR: N/A		



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATATEMPLATE.GDT 9/14/23

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report


APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

SECTION 3C BULK SOIL SAMPLE LOGS

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-1
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 120.5 ft	Latitude: 33.50093878
Longitude: -80.45839298	Date Started: 1/12/2023	
Total Depth: 5 ft	Groundwater: TOB	Date Completed: 1/12/2023
Dynamic Cone Penetrometer Test Procedure:	ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	● DCP-VALUE ●										
										PL	MC	LL	▲ FINES CONTENT (%)							
	0.0									0	10	20	30	40	50	60	70	80	90	
		EXISTING FILL Moist, Medium Plasticity, Clayey Fine to Medium SAND (SC/A-2-4) @BS-1: LL=26, PL=15, PI=11, NMC=14.9%, %200=24.0		0.0																
115.5	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-1															

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-2
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 90.5 ft	Latitude: 33.5093694
Longitude: -80.44738363	Date Started: 6/29/2023	
Total Depth: 5 ft	Groundwater: TOB	Date Completed: 6/29/2023
Dynamic Cone Penetrometer Test Procedure:	ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	DCP-VALUE ●										
										PL	MC	LL	▲ FINES CONTENT (%)							
	0.0									0	10	20	30	40	50	60	70	80	90	
		EXISTING FILL Moist, Non-Plastic, Silty Fine to Medium SAND (SM/A-2-4) @BS-2: LL=NP, PL=NP, PI=NP, NMC=5.5%, %200=30.3		0.0																
85.5	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-2					X	O									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-3
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 89.5 ft	Latitude: 33.51785255
Longitude: -80.43629182	Date Started: 2/7/2023	
Total Depth: 5 ft	Groundwater: TOB	Date Completed: 2/7/2023
Dynamic Cone Penetrometer Test Procedure:	ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	● DCP-VALUE ●										
										PL	MC	LL	▲ FINES CONTENT (%)							
	0.0									0	10	20	30	40	50	60	70	80	90	
		EXISTING FILL Moist, Non-Plastic, Fine to Medium Poorly Graded SAND (SP-SM/A-3) with Silt @BS-3: LL=NP, PL=NP, PI=NP, NMC=7.7%, %200=6.7		0.0																
84.5	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-3					X ●										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-4
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 90.3 ft	Latitude: 33.51864313
Longitude: -80.43525628	Date Started: 2/7/2023	
Total Depth: 5 ft	Groundwater: TOB	Date Completed: 2/7/2023
Dynamic Cone Penetrometer Test Procedure:	ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	● DCP-VALUE ●										
										PL	MC	LL	▲ FINES CONTENT (%)							
	0.0									0	10	20	30	40	50	60	70	80	90	
		EXISTING FILL Moist, Non-Plastic, Fine to Medium Poorly Graded SAND (SP-SM/A-3) with Silt @BS-4: LL=NP, PL=NP, PI=NP, NMC=10.4%, %200=8.5		0.0																
85.3	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-4					X										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-5
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 105.4 ft	Latitude: 33.49609347
Longitude: -80.46460128	Date Started: 1/12/2023	
Total Depth: 5 ft	Groundwater: TOB	Date Completed: 1/12/2023
Dynamic Cone Penetrometer Test Procedure:	ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	● DCP-VALUE ●										
										PL	MC	LL	▲ FINES CONTENT (%)							
	0.0									0	10	20	30	40	50	60	70	80	90	
		EXISTING FILL Moist, Low Plasticity, Silty Clayey Fine to Medium SAND (SC-SM/A-2-4) @BS-5: LL=22, PL=17, PI=5, NMC=13.0%, %200=19.8		0.0																
100.4	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-5															

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

SCDOT Manual Auger Log

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: BS-6
Site Description: I-95 NB/SB over Lake Marion Bridge Replacement		Route: I-95
Driller: R. Huffstetler	Boring Location:	Offset:
Alignment: Existing	Elev.: 89.3 ft	Latitude: 33.52111221
Longitude: -80.43211311	Date Started: 1/12/2023	
Total Depth: 5 ft	Groundwater: TOB	24 hr N/A
Date Completed: 1/12/2023	Dynamic Cone Penetrometer Test Procedure: ASTM D6951	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 1-3/4"	2nd 1-3/4"	3rd 1-3/4"	DCP-Value	● DCP-VALUE ● PL — MC — LL ▲ FINES CONTENT (%)											
										0	10	20	30	40	50	60	70	80	90		
	0.0	EXISTING FILL Moist, Non-Plastic, Fine to Medium Well-Graded SAND (SW-SM/A-1-b) with Silt @BS-6: LL=NP, PL=NP, PI=NP, NMC=6.3%, %200=10.6		0.0																	
84.3	5.0	Boring Terminated at 5.0-ft. Below the Existing Ground Surface. Boring Achieved Target Depth.			BS-6					X O ▲											

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 9/27/23

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

SECTION 3D ELECTRO-PIEZOCONE SOUNDING (CPT) LOGS

Cone Penetration Test



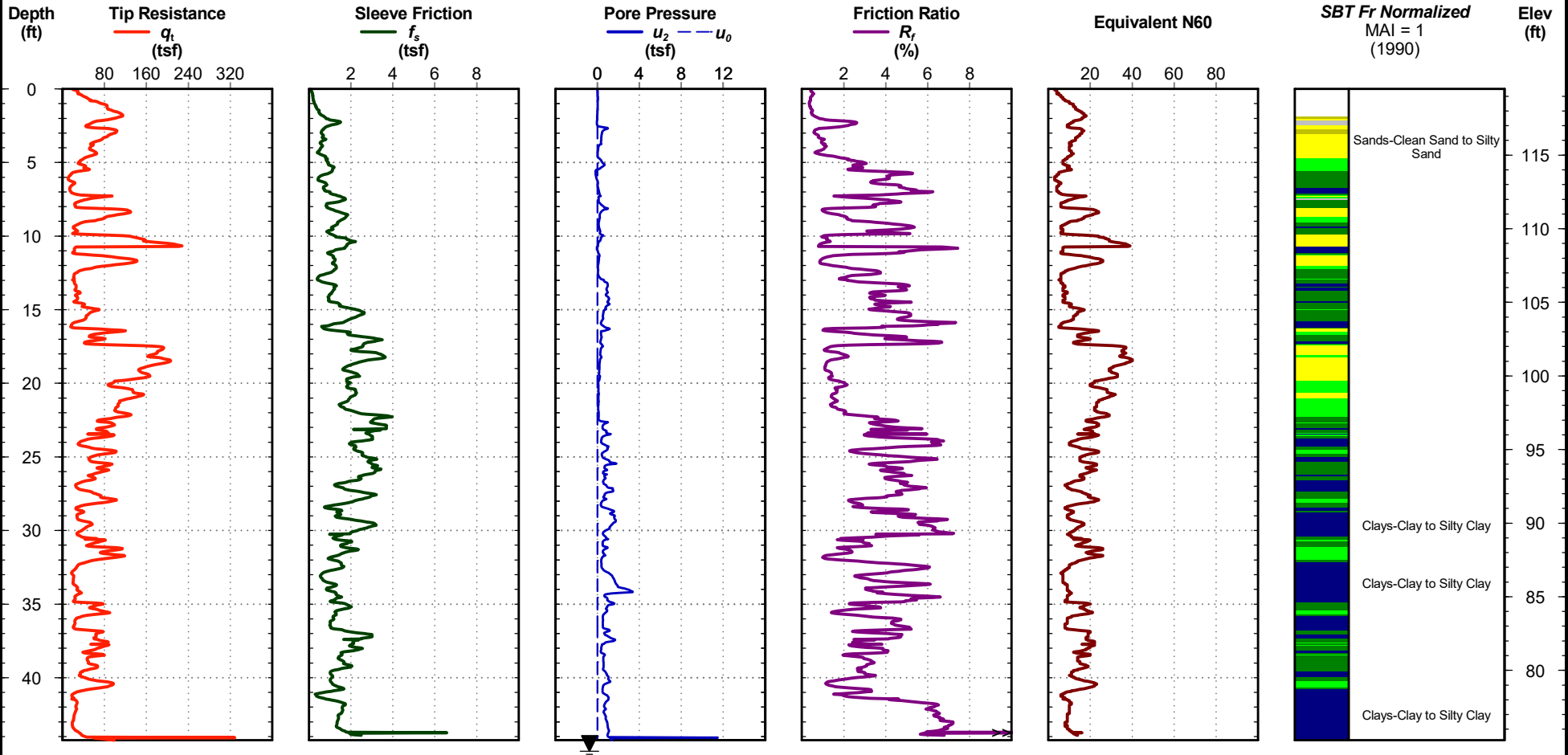
I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number : P041130

CPT-1

Date: Jun. 8, 2023
 Estimated Water Depth: 45 ft
 Rig/Operator: An. Chandler

Station: 5268+52
 Offset: 4.8-R
 Elevation: 119.5 ft-MSL

Total Depth: 44.3 ft
 Termination Criteria: Maximum Reaction Force
 CPT Probe ID: DDG1330



CPT REPORT - STANDARD G6744 - I-95 RBO LAKE MARION JFH GEOLOGY GPJ FME2017 GDT 11/10/23

CPT-1

Cone Penetration Test



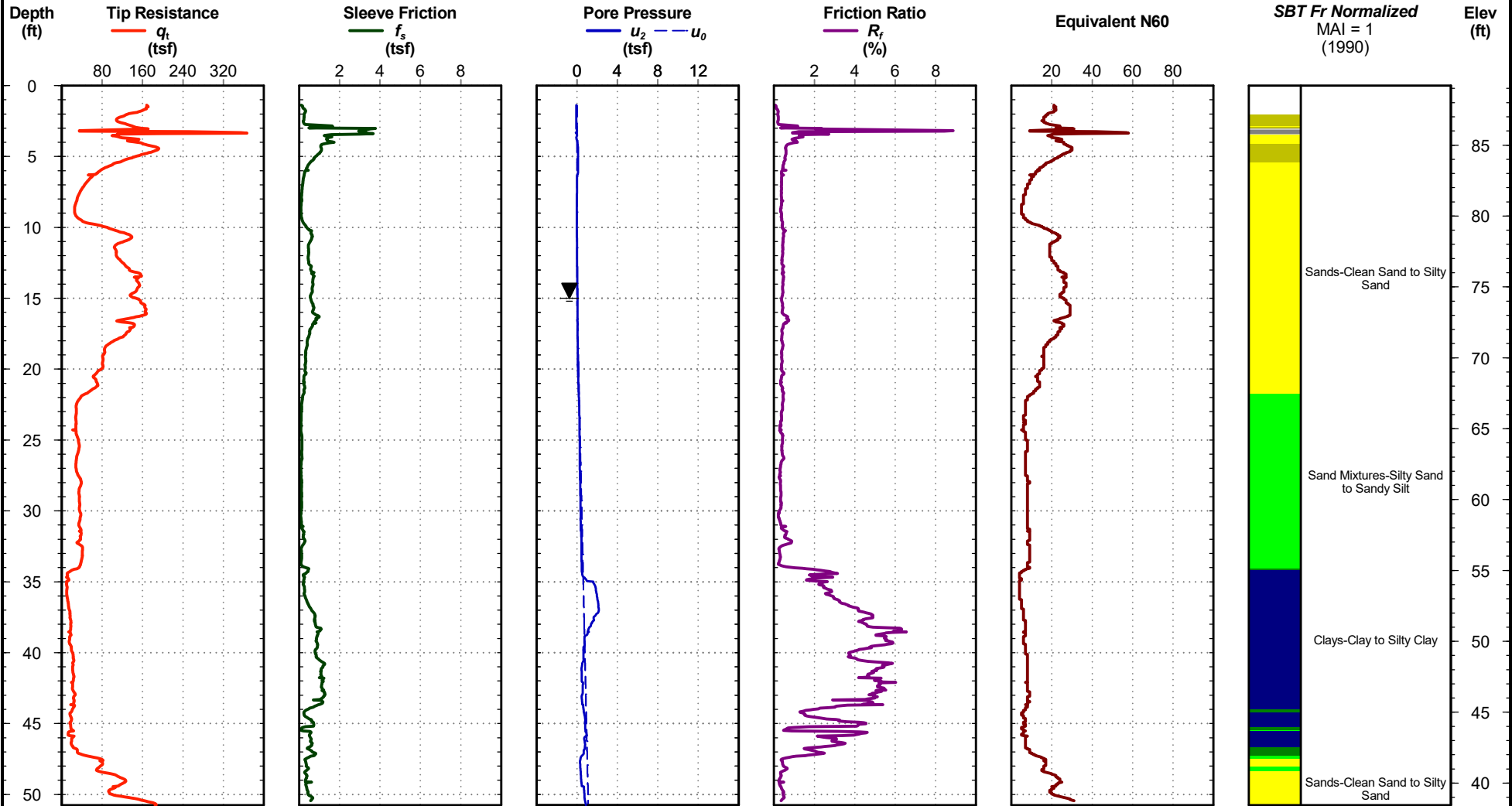
I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number :P041130

CPT-2

Date: Jun. 8, 2023
 Estimated Water Depth: 15 ft
 Rig/Operator: An. Chandler

Station: 5223+26
 Offset: 4.5-L
 Elevation: 89.2 ft-MSL

Total Depth: 50.8 ft
 Termination Criteria: Maximum Reaction Force
 CPT Probe ID: DDG1330



CPT REPORT - STANDARD G6744 - I-95 RBO LAKE MARION JFH GEOLOGY GPJ FME2017 GDT 11/10/23

CPT-2

Cone Penetration Test



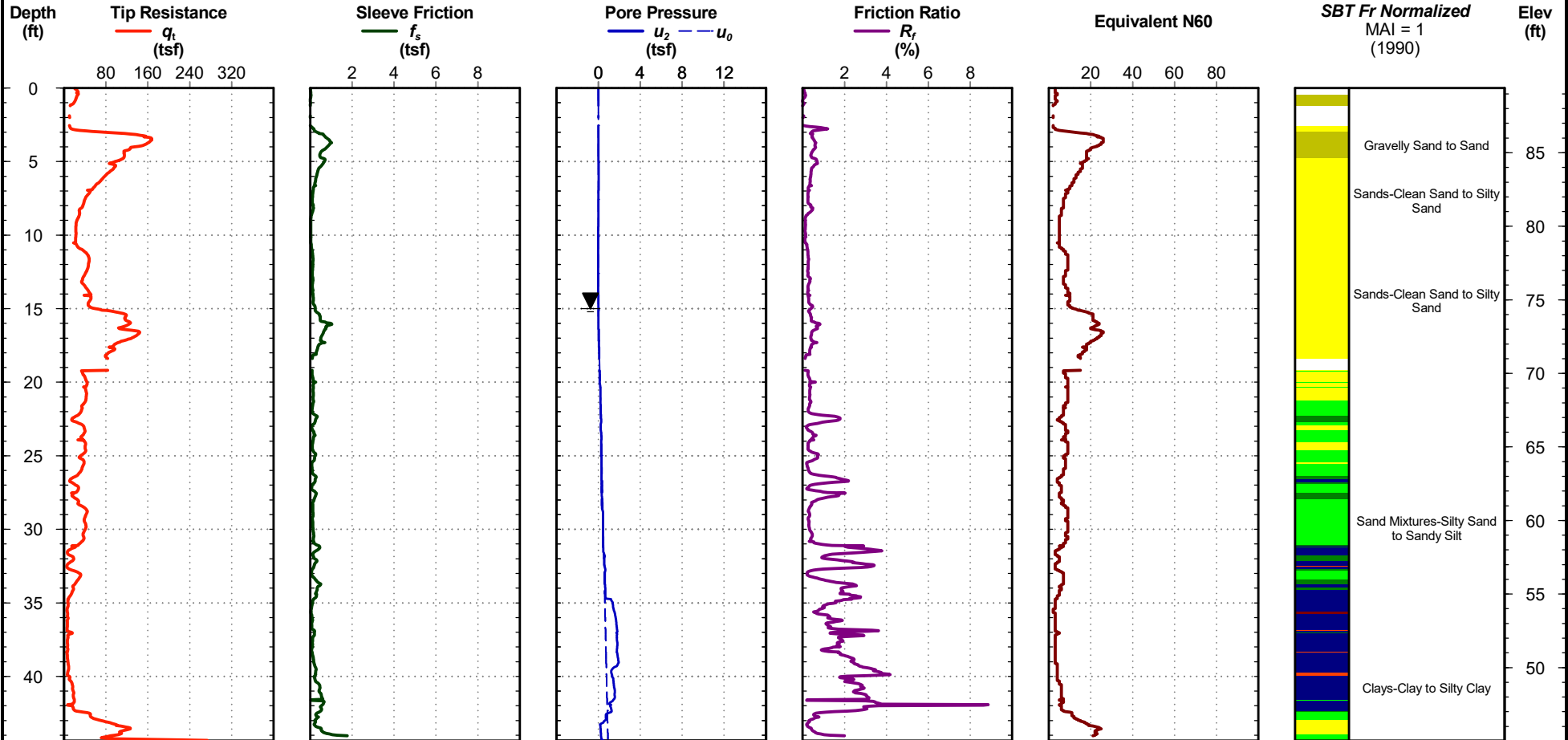
I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number :P041130

CPT-3

Date: Jun. 9, 2023
 Estimated Water Depth: 15 ft
 Rig/Operator: An. Chandler

Station: 5177+08
 Offset: 0.6-L
 Elevation: 89.4 ft-MSL

Total Depth: 44.4 ft
 Termination Criteria: Maximum Reaction Force
 CPT Probe ID: DDG1330



CPT REPORT - STANDARD_G6744 - I-95 RBO LAKE MARION JFH GEOLOGY.GPJ_FME2017.GDT_11/10/23

CPT-3

Cone Penetration Test



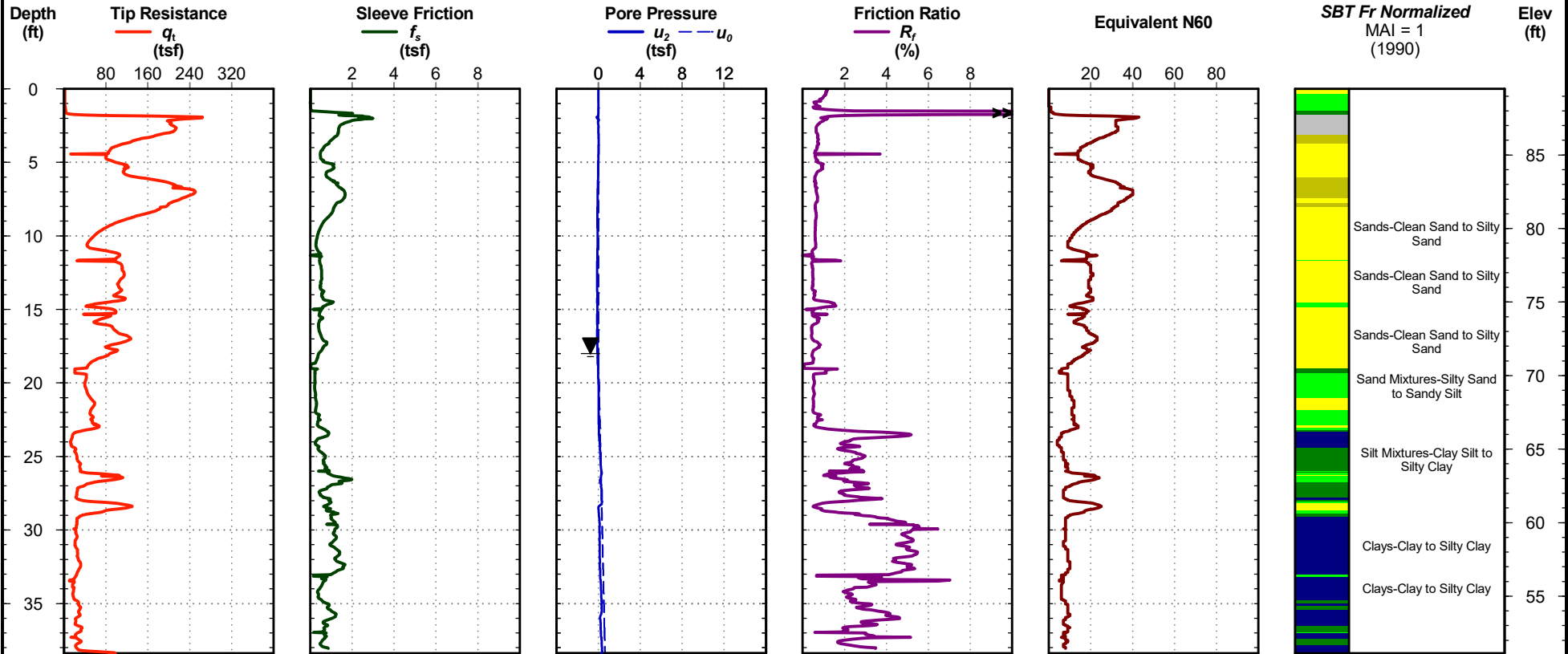
I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number :P041130

CPT-4

Date: Jun. 9, 2023
 Estimated Water Depth: 18 ft
 Rig/Operator: An. Chandler

Station: 5173+29
 Offset: 7.2-L
 Elevation: 89.5 ft-MSL

Total Depth: 38.4 ft
 Termination Criteria: Maximum Reaction Force
 CPT Probe ID: DDG1330



CPT REPORT - STANDARD_G6744 - I-95 RBO LAKE MARION JFH GEOLOGY.GPJ_FME2017.GDT_11/10/23

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 3 SUBSURFACE EXPLORATION LOGS

SECTION 3E DILATOMETER SOUNDING (DMT) LOGS



I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number :P041130

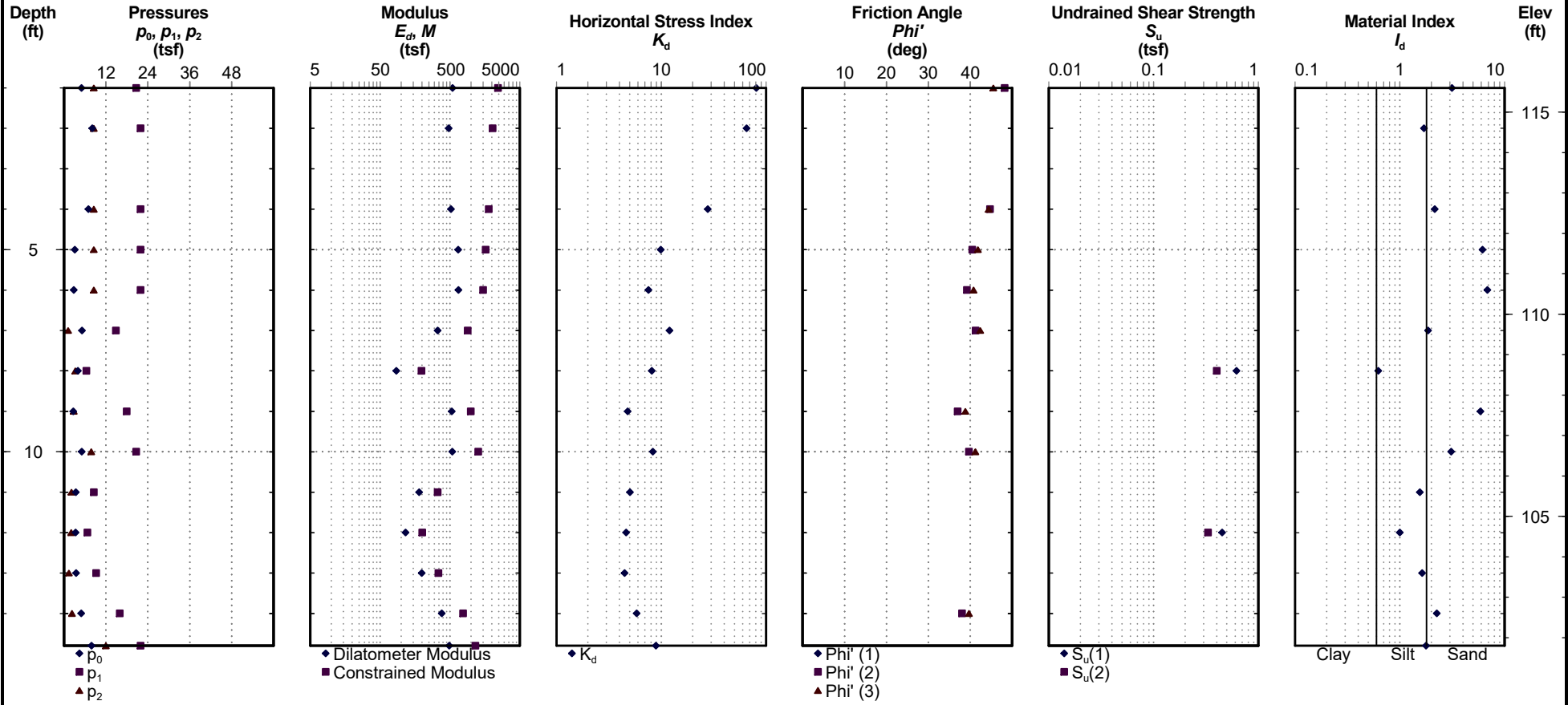
Dilatometer Test

DMT-1

Date: Jun. 8, 2023
 Estimated Water Depth: 24 ft
 Rig/Operator: R. Wessinger

Station: 5269+21
 Offset: 7.0-R
 Elevation: 116.6 ft-MSL

Total Depth: 14.8 ft
 Termination Criteria: Maximum Reaction Force
 Membrane Type: H-25 Steel



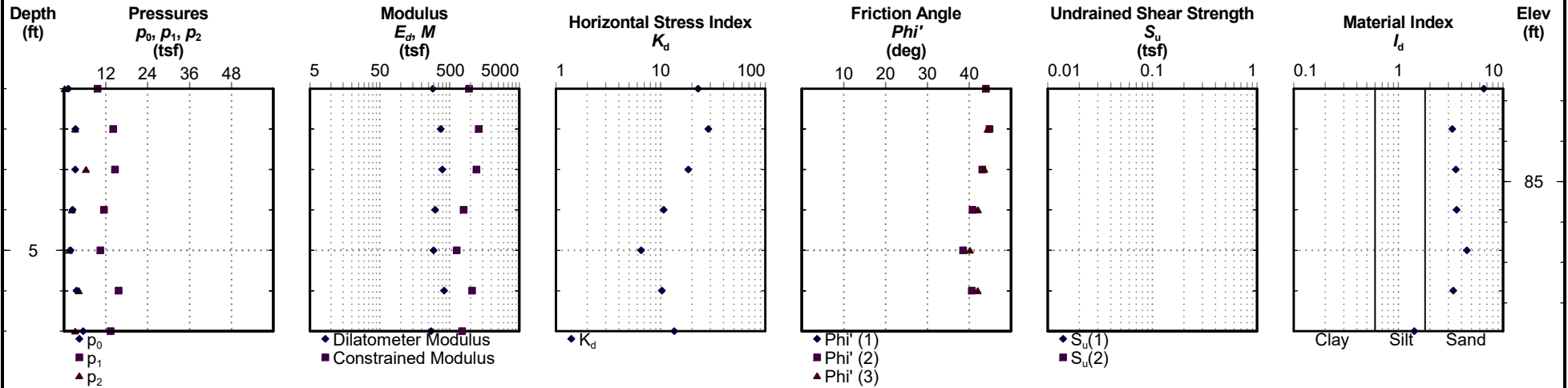
DMT REPORT - STANDARD_G6744 - I-95 RBO LAKE MARION JFH GEOLOGY.GPJ_FME2017.GDT_11/10/23

DMT-1

Date: Jun. 8, 2023
 Estimated Water Depth: 15 ft
 Rig/Operator: R. Wessinger

Station: 5222+35
 Offset: 4.1-R
 Elevation: 88.3 ft-MSL

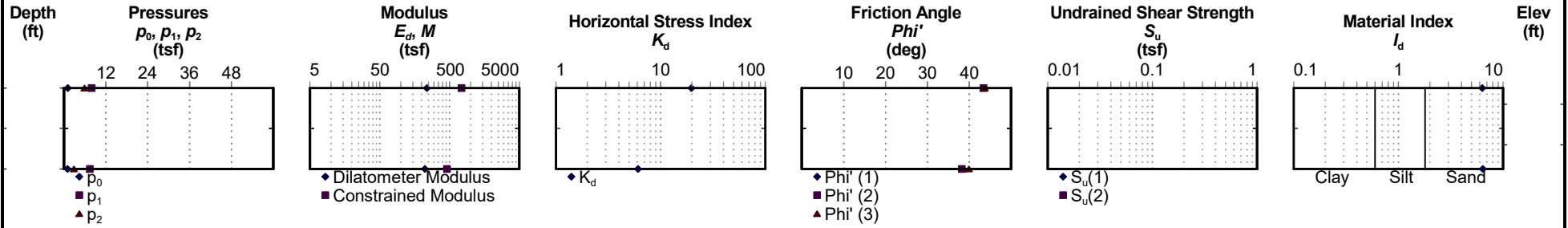
Total Depth: 7.0 ft
 Termination Criteria: Maximum Reaction Force
 Membrane Type: H-25 Steel



Date: Jun. 29, 2023
 Estimated Water Depth: 15 ft
 Rig/Operator: R. Wessinger

Station: 5178+10
 Offset: 14.5-R
 Elevation: 88.4 ft-MSL

Total Depth: 3.0 ft
 Termination Criteria: Maximum Reaction Force
 Membrane Type: H-25 Steel





I-95 NB/SB over Lake Marion Bridge Replacement
 Clarendon/Orangeburg County (South Carolina)
 Project Number :P041130

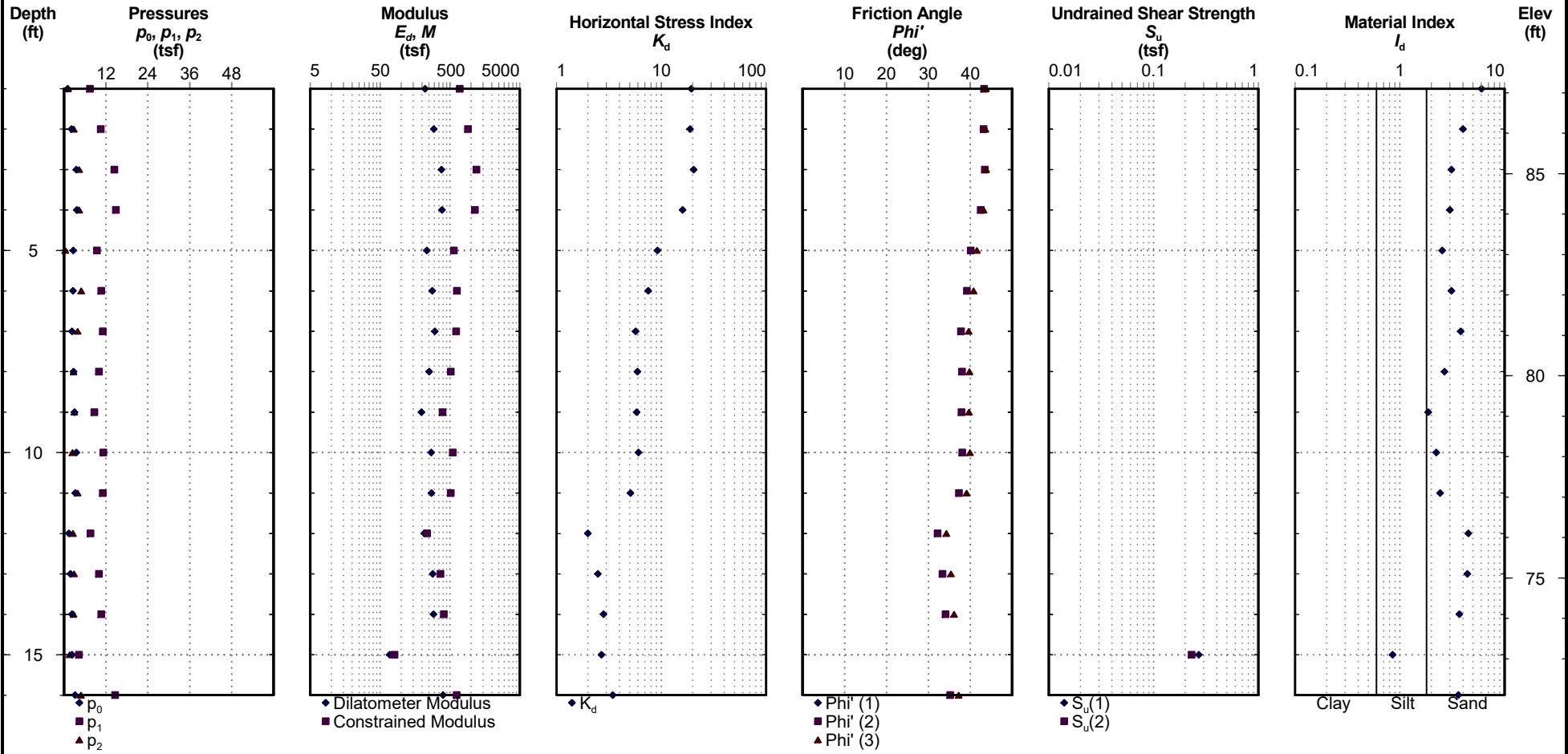
Dilatometer Test

DMT-4

Date: Jun. 29, 2023
 Estimated Water Depth: 17 ft
 Rig/Operator: R. Wessinger

Station: 5172+31
 Offset: 3.3-R
 Elevation: 88.1 ft-MSL

Total Depth: 16.0 ft
 Termination Criteria: Maximum Reaction Force
 Membrane Type: H-25 Steel



DMT REPORT - STANDARD_G6744 - I-95 RBO LAKE MARION JFH GEOLOGY.GPJ_FME2017.GDT_11/10/23

DMT-4

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 4 LABORATORY TEST RESULTS

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 4 LABORATORY TEST RESULTS

SECTION 4A SPLIT SPOON SAMPLES



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-1	10.0	36	18	18	4.76	19	SC	17.3			
B-1	20.0	34	22	12	9.51	25	SC	17.4			
B-1	25.0	61	29	32	19	26	SC	15.2			
B-1	30.0	46	25	21	9.51	57	CL	23.6			
B-1	35.0	60	25	35	9.51	71	CH	31.5			
B-1	50.0	31	22	9	9.51	16	SC	17.4			
B-1	60.0	NP	NP	NP	19	25	SM	29.0			
B-2	24.0	36	25	11	9.51	24	SM	16.5			
B-2	26.0	35	19	16	9.51	40	SC	17.7			
B-2	30.0	35	22	13	9.51	42	SC	19.6			
B-2	34.0	57	36	21	4.76	30	SM	16.7			
B-2	36.0	27	18	9	9.51	27	SC	15.6			
B-2	38.0	81	36	45	4.76	53	CH	22.3			
B-2	40.0	25	20	5	4.76	36	SC-SM	17.4			
B-2	42.0	38	17	21	9.51	48	SC	17.8			
B-2	44.0	52	29	23	4.76	30	SM	16.7			
B-2	46.0	48	25	23	4.76	41	SC	20.1			
B-2	48.0	46	23	23	9.51	47	SC	20.6			
B-2	50.0	NP	NP	NP	19	20	SM	16.9			
B-2	66.6	28	27	1	0.075	83	ML	5.7			
B-3	14.8	29	20	9	9.51	45	SC	32.1			
B-3	28.3	NP	NP	NP	19	37	SM	34.7			
B-3	32.3	25	24	1	9.51	57	ML	35.3			
B-3	40.3	29	28	1	19	56	ML	48.2			
B-3	52.3	NP	NP	NP	9.51	41	SM	28.6			
B-3	60.3	30	22	8	9.51	60	CL	30.7			
B-3	72.1	NP	NP	NP	9.51	41	SM	24.4			
B-3	84.3	73	21	52	9.51	87	CH	42.3			
B-3	93.8	83	36	47	4.76	92	CH	53.7			
B-3	108.8	108	45	63	4.76	98	MH	107.3			
B-4	21.5	NP	NP	NP	9.51	25	SM	18.6			
B-4	87.6	69	22	47	0.075	87	CH	52.6			
B-4	96.5	29	16	13	4.76	25	SC	28.0			
B-4	106.5	102	49	53	0.075	98	MH	66.3			
B-5	26.2	69	29	40	9.51	89	CH	55.6			
B-5	40.2	31	29	2	25	55	ML	38.6			
B-5	90.2	58	23	35	4.76	85	CH	57.5			
B-5	100.2	111	83	28	9.51	74	MH	68.6			
B-5	110.2	103	53	50	4.76	98	MH	66.7			
B-5	125.2	NP	NP	NP	9.51	45	SM	44.4			
B-5	145.2	97	41	56	4.76	98	MH	54.0			
B-6	30.7	29	18	11	4.76	53	CL	38.6			
B-6	85.7	NP	NP	NP	9.51	54	ML	24.1			

LAB SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ FME2017.GDT 8/30/23



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-6	90.7	37	20	17	4.76	23	SC	30.1			
B-6	100.7	120	54	66	0.075	83	MH	73.3			
B-6	105.7	90	49	41	0.075	93	MH	74.4			
B-7	27.3	39	22	17	4.76	93	CL	32.0			
B-7	39.3	34	31	3	9.51	70	ML	33.8			
B-7	47.7	25	24	1	9.51	46	SM	26.6			
B-7	59.3	31	28	3	9.51	54	ML	30.4			
B-7	67.8	25	21	4	19	42	SC-SM	24.0			
B-7	71.7	25	23	2	19	30	SM	24.6			
B-7	79.8	53	21	32	4.76	90	CH	45.3			
B-7	84.3	30	21	9	9.51	27	SC	25.7			
B-7	94.3	109	49	60	4.76	95	MH	80.8			
B-7	109.2	102	61	41	2	95	MH	68.2			
B-8	25.2	43	30	13	4.76	94	ML	39.7			
B-8	86.2	NP	NP	NP	9.51	25	SM	25.6			
B-8	106.2	101	67	34	9.51	87	MH	76.1			
B-8	131.2	NP	NP	NP	25	19	SM	24.1			
B-8	145.6	NP	NP	NP	9.51	13	SM	35.4			
B-8	161.2	68	25	43	9.51	76	CH	52.6			
B-9	87.7	NP	NP	NP	9.51	22	SM	35.8			
B-9	93.9	102	49	53	9.51	65	MH	74.1			
B-9	108.9	97	63	34	4.76	96	MH	76.2			
B-9	123.9	NP	NP	NP	19	22	SM	24.6			
B-9	148.9	NP	NP	NP	4.76	9	SP-SM	28.5			
B-9	153.9	106	52	54	4.76	91	MH	56.5			
B-9	163.9	NP	NP	NP	9.51	31	SM	47.9			
B-9	173.9	NP	NP	NP	9.51	6	SP-SM	25.5			
B-10	45.1	NP	NP	NP	2	72	ML	26.4			
B-10	84.1	33	22	11	4.76	14	SC	24.0			
B-10	94.1	83	48	35	2	95	MH	137.7			
B-10	109.1	106	54	52	4.76	80	MH	70.1			
B-10	134.1	NP	NP	NP	9.51	18	SM	48.8			
B-10	154.1	NP	NP	NP	4.76	12	SP-SM	31.8			
B-10	169.1	NP	NP	NP	9.51	18	SM	27.7			
B-10	184.1	35	21	14	4.76	25	SC	19.4			
B-11	38.9	NP	NP	NP	4.76	7	SP-SM	27.9			
B-11	92.9	95	51	44	4.76	84	MH	68.3			
B-11	112.9	103	54	49	4.76	99	MH	73.6			
B-11	122.9	NP	NP	NP	19	20	SM	16.1			
B-11	137.9	NP	NP	NP	4.76	54	ML	47.0			
B-11	157.9	NP	NP	NP	19	32	SM	29.1			
B-11	177.9	NP	NP	NP	9.51	7	SP-SM	24.1			
B-12	37.3	NP	NP	NP	25	92	ML	94.5			

LAB SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ FME2017.GDT 8/30/23



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-12	86.3	30	22	8	9.51	31	SC	22.6			
B-12	96.3	102	60	42	0.075	98	MH	75.7			
B-12	106.3	98	62	36	0.075	92	MH	68.1			
B-12	121.3	NP	NP	NP	0.075	27	SM	25.4			
B-13	24.8	44	23	21	2	95	CL	43.2			
B-13	33.8	NP	NP	NP	4.76	35	SM	31.8			
B-13	44.2	NP	NP	NP	19	44	SM	25.4			
B-13	56.3	NP	NP	NP	9.51	49	SM	37.6			
B-13	64.3	NP	NP	NP	25	38	SM	26.8			
B-13	80.3	48	30	18	4.76	45	SM	29.4			
B-13	88.8	86	50	36	4.76	91	MH	74.0			
B-13	103.8	96	39	57	19	90	CH	73.6			
B-13	118.8	61	25	36	4.76	87	CH	65.0			
B-14	27.0	48	25	23	2	39	SC	45.7			
B-14	84.0	98	43	55	0.075	92	MH	68.4			
B-14	104.0	118	59	59	0.075	96	MH	75.2			
B-14	119.0	NP	NP	NP	19	17	SM	16.6			
B-15	26.3	45	24	21	9.51	96	CL	71.5			
B-15	41.9	NP	NP	NP	19	50	ML	38.3			
B-15	87.3	106	71	35	4.76	96	MH	82.0			
B-15	97.3	61	30	31	19	79	CH	64.1			
B-15	112.3	96	51	45	4.76	97	MH	72.3			
B-15	127.3	NP	NP	NP	9.51	21	SM	30.1			
B-15	136.5	NP	NP	NP	19	19	SM	24.4			
B-15	147.3	31	27	4	4.76	70	ML	60.3			
B-15	162.3	NP	NP	NP	4.76	32	SM	43.6			
B-16	29.3	41	22	19	25	90	CL	51.5			
B-16	41.3	NP	NP	NP	4.76	44	SM	26.7			
B-16	86.3	87	62	25	0.075	93	MH	69.2			
B-16	111.3	98	50	48	0.075	95	MH	65.3			
B-17	39.7	NP	NP	NP	4.76	2	SP	17.9			
B-17	48.6	26	22	4	19	52	ML	26.9			
B-17	56.9	NP	NP	NP	9.51	61	ML	32.4			
B-17	64.1	NP	NP	NP	19	38	SM	25.4			
B-17	79.7	44	23	21	4.76	69	CL	32.1			
B-17	89.7	94	62	32	9.51	89	MH	71.2			
B-17	109.1	89	56	33	9.51	82	MH	67.6			
B-18	28.7	NP	NP	NP	2	27	SM	30.3			
B-18	38.7	NP	NP	NP	4.76	4	SP	25.4			
B-18	78.7	40	23	17	4.76	45	SC	30.1			
B-18	98.7	96	56	40	0.075	78	MH	63.2			
B-18	108.7	97	52	45	0.075	98	MH	72.0			
B-19	29.5	NP	NP	NP	2	15	SM	28.6			

LAB SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ FME2017.GDT 8/30/23



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-19	41.5	NP	NP	NP	9.51	3	SP	22.2			
B-19	81.5	38	18	20	4.76	40	SC	27.4			
B-19	96.5	67	37	30	19	86	MH	74.4			
B-19	101.5	91	50	41	9.51	83	MH	81.1			
B-19	116.5	98	63	35	4.76	91	MH	65.5			
B-20	30.6	NP	NP	NP	2	48	SM	35.2			
B-20	40.6	NP	NP	NP	4.76	10	SW-SM	22.4			
B-20	80.6	NP	NP	NP	4.76	7	SP-SM	18.6			
B-20	90.6	53	26	27	0.075	76	CH	65.4			
B-20	105.6	63	40	23	0.075	68	MH	54.5			
B-21	26.3	35	23	12	4.76	82	CL	38.5			
B-21	42.1	NP	NP	NP	9.51	19	SM	20.1			
B-21	53.9	NP	NP	NP	19	55	ML	34.1			
B-21	62.7	NP	NP	NP	19	56	ML	34.6			
B-21	74.8	34	28	6	9.51	38	SM	32.3			
B-21	87.3	NP	NP	NP	4.76	22	SM	31.5			
B-21	97.3	70	49	21	9.51	79	MH	65.8			
B-21	106.6	NP	NP	NP	4.76	58	ML	55.7			
B-21	117.2	94	71	23	9.51	93	MH	66.6			
B-22	26.9				25	65	ML	75.6			
B-22	45.9	NP	NP	NP	4.76	62	ML	31.9			
B-22	80.9	NP	NP	NP	4.76	11	SP-SM	29.5			
B-22	100.9	NP	NP	NP	4.76	62	ML	45.2			
B-22	110.9	82	47	35	4.76	94	MH	57.1			
B-23	31.6	NP	NP	NP	4.76	46	SM	32.9			
B-23	41.6	NP	NP	NP	4.76	3	SP	23.2			
B-23	81.6	NP	NP	NP	9.51	11	SP-SM	24.1			
B-23	91.6	77	38	39	4.76	75	MH	68.9			
B-23	106.6	97	49	48	9.51	81	MH	64.3			
B-24	24.7	47	21	26	19	90	CL	44.0			
B-24	30.7	NP	NP	NP	9.51	26	SM	33.6			
B-24	35.7	NP	NP	NP	9.51	36	SM	39.0			
B-24	67.9	25	24	1	19	40	SM	26.7			
B-24	80.7	74	51	23	0.075	87	MH	40.4			
B-24	110.7	87	64	23	0.075	90	MH	70.3			
B-25	27.3	25	22	3	4.76	91	ML	56.7			
B-25	36.3	NP	NP	NP	4.76	39	SM	34.9			
B-25	46.3	NP	NP	NP	9.51	53	ML	38.5			
B-25	54.8	NP	NP	NP	4.76	56	ML	33.3			
B-25	62.2	NP	NP	NP	25	17	SM	21.6			
B-25	70.8	40	18	22	9.51	14	SC	23.2			
B-25	81.3	95	21	74	4.76	12	SC	24.4			
B-25	91.3	48	36	12	4.76	59	ML	51.9			

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SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-26	25.4	36	19	17	25	65	CL	50.3			
B-26	37.4	NP	NP	NP	2	5	SP-SM	32.0			
B-26	72.4	34	21	13	9.51	12	SP-SC	22.7			
B-26	82.4	NP	NP	NP	4.76	11	SP-SM	23.4			
B-26	102.4	54	22	32	0.075	50	CH	50.6			
B-27	28.8	NP	NP	NP	2	34	SM	34.6			
B-27	35.8	NP	NP	NP	19	29	SM	33.8			
B-27	70.8	30	20	10	19	16	SC	21.9			
B-27	85.8	NP	NP	NP	9.51	51	ML	32.4			
B-27	100.8	69	37	32	9.51	80	MH	75.1			
B-28	22.7	32	26	6	2	70	ML	34.1			
B-28	26.7	NP	NP	NP	19	28	SM	37.3			
B-28	66.7	41	20	21	9.51	56	CL	33.0			
B-28	81.7	NP	NP	NP	4.76	9	SW-SM	24.5			
B-28	96.7	72	39	33	0.075	90	MH	71.5			
B-29	29.3	27	22	5	2	77	ML	53.4			
B-29	36.3				0.841	19	SM	28.6			
B-29	46.3	NP	NP	NP	25	46	SM	31.8			
B-29	50.8	NP	NP	NP	19	50	ML	27.0			
B-29	58.8	NP	NP	NP	19	43	SM	27.9			
B-29	70.8	29	21	8	19	39	SC	25.1			
B-29	81.3	NP	NP	NP	4.76	4	SP	21.0			
B-29	101.3	99	59	40	9.51	66	MH	72.5			
B-30	28.8	34	23	11	4.76	76	CL	37.0			
B-30	35.8	NP	NP	NP	4.76	11	SP-SM	33.9			
B-30	72.8	NP	NP	NP	4.76	31	SM	27.4			
B-30	87.8	29	21	8	4.76	52	CL	27.4			
B-30	102.8	73	43	30	0.075	72	MH	43.4			
B-30	117.8	NP	NP	NP	4.76	33	SM	44.1			
B-31	28.8	36	19	17	2	93	CL	32.7			
B-31	40.5	NP	NP	NP	19	15	SM	28.6			
B-31	85.8	NP	NP	NP	9.51	9	SW-SM	24.6			
B-31	100.8	28	24	4	9.51	8	SW-SM	21.5			
B-31	115.8	71	49	22	4.76	71	MH	58.2			
B-32	31.4	NP	NP	NP	4.76	47	SM	34.5			
B-32	41.4	NP	NP	NP	4.76	5	SP-SM	32.4			
B-32	46.4	NP	NP	NP	19	50	SM	32.4			
B-32	51.4	NP	NP	NP	19	51	ML	43.1			
B-32	86.4	NP	NP	NP	4.76	19	SM	20.9			
B-32	96.4	51	29	22	9.51	17	SM	23.9			
B-32	111.4	40	29	11	0.075	53	ML	44.7			
B-33	31.9	26	22	4	4.76	79	ML	67.6			
B-33	45.7	NP	NP	NP	19	45	SM	41.3			

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SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-33	54.4	NP	NP	NP	9.51	56	ML	31.8			
B-33	69.7	NP	NP	NP	25	29	SM	26.3			
B-33	78.4	37	21	16	9.51	26	SC	24.2			
B-33	86.9	40	20	20	4.76	37	SC	28.9			
B-33	116.9	87	36	51	9.51	92	CH	60.5			
B-34	30.8	50	23	27	9.51	88	CH	70.5			
B-34	35.8	43	23	20	0.075	84	CL	66.7			
B-34	45.8	NP	NP	NP	0.075	66	ML	33.5			
B-34	60.8	NP	NP	NP	0.075	72	ML	46.0			
B-34	65.8	NP	NP	NP	0.075	44	SM	27.6			
B-34	95.8	92	40	52	0.075	96	MH	76.0			
B-34	110.8	74	44	30	0.075	96	MH	36.9			
B-35	29.1	42	27	15	2	92	ML	26.1			
B-35	67.6	NP	NP	NP	19	44	SM	23.7			
B-35	76.1	37	22	15	4.76	22	SC	20.9			
B-35	86.0	58	34	24	19	19	SM	25.4			
B-35	106.1	NP	NP	NP	4.76	36	SM	41.3			
B-36	24.9	39	16	23	4.76	86	CL	29.5			
B-36	31.9	NP	NP	NP	0.075	6	SP-SM	26.0			
B-36	36.9	NP	NP	NP	0.075	56	ML	30.4			
B-36	85.9	43	21	22	0.075	21	SC	28.5			
B-36	95.9	NP	NP	NP	0.075	21	SM	45.1			
B-37	27.1	36	20	16	2	94	CL	29.9			
B-37	46.1	NP	NP	NP	9.51	42	SM	25.5			
B-37	54.5	NP	NP	NP	9.51	48	SM	37.7			
B-37	66.4	NP	NP	NP	9.51	62	ML	35.4			
B-37	82.6	34	24	10	4.76	14	SM	24.8			
B-37	95.7	NP	NP	NP	9.51	12	SM	43.9			
B-37	106.1	NP	NP	NP	19	14	SM	25.6			
B-38	24.0	37	19	18	2	84	CL	29.3			
B-38	28.0	NP	NP	NP	4.76	44	SM	22.3			
B-38	40.0	NP	NP	NP	0.075	3	SP	20.1			
B-38	55.0	NP	NP	NP	0.075	34	SM	41.4			
B-38	89.6	NP	NP	NP	0.075	30	SM	41.5			
B-38	90.2	NP	NP	NP	0.075	19	SM	16.8			
B-38	115.0	95	47	48	0.075	63	MH	68.4			
B-39	35.5	NP	NP	NP	4.76	25	SM	23.7			
B-39	85.5	29	27	2	4.76	64	ML	31.6			
B-39	90.5	NP	NP	NP	19	11	SP-SM	27.4			
B-39	100.5	NP	NP	NP	9.51	11	SP-SM	23.1			
B-39	105.5	73	32	41	9.51	85	CH	56.5			
B-40	27.0	28	13	15	2	60	CL	18.1			
B-40	36.0	NP	NP	NP	0.075	3	SP	25.7			

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SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-40	41.0	NP	NP	NP	0.075	3	SP	24.1			
B-40	80.7	NP	NP	NP	0.075	19	SM	24.0			
B-40	88.5	NP	NP	NP	0.075	1	SP	27.4			
B-40	108.5	69	35	34	0.075	61	MH	59.7			
B-41	32.7	28	16	12	4.76	22	SC	20.5			
B-41	47.7	NP	NP	NP	19	4	SW	14.9			
B-41	52.7	NP	NP	NP	9.51	52	ML	46.6			
B-41	56.5	NP	NP	NP	19	54	ML	27.7			
B-41	64.5	NP	NP	NP	9.51	47	SM	36.4			
B-41	68.6	27	22	5	9.51	43	SM	24.2			
B-41	80.7	26	23	3	9.51	15	SM	22.9			
B-41	87.7	NP	NP	NP	4.76	24	SM	37.1			
B-41	102.7	86	31	55	4.76	82	CH	54.8			
B-42	25.4	59	29	30	4.76	93	CH	30.0			
B-42	34.4	NP	NP	NP	0.075	22	SM	20.8			
B-42	44.4	NP	NP	NP	0.075	2	SP	17.0			
B-42	59.4	NP	NP	NP	0.075	47	SM	42.6			
B-42	72.7	NP	NP	NP	0.075	24	SM	26.6			
B-42	83.4	NP	NP	NP	0.075	30	SM	26.8			
B-42	100.4	76	58	18	0.075	59	MH	54.1			
B-42	102.9	NP	NP	NP	0.075	95	ML	32.2			
B-42	107.7	75	33	42	0.075	59	CH	36.2			
B-42	114.5	100	51	49	0.075	89	MH	40.4			
B-43	19.6	NP	NP	NP	25	5	SP	22.0			
B-43	26.6	40	22	18	2	90	CL	25.6			
B-43	36.6	NP	NP	NP	4.76	9	SP-SM	30.3			
B-43	91.6	80	41	39	0.075	85	MH	65.0			
B-43	100.9	86	55	31	0.075	89	MH	46.3			
B-43	101.3	79	54	25	0.075	30	SM	55.5			
B-43	103.8	81	50	31	0.075	99	MH	56.0			
B-43	104.1	77	50	27	0.075	43	SM	47.5			
B-43	111.0	90	45	45	0.075	89	MH	53.2			
B-43	112.0	106	67	39	0.075	48	SM	61.3			
B-44	15.0	NP	NP	NP	9.51	1	SP	16.7			
B-44	20.0	NP	NP	NP	4.76	6	SP-SM	23.3			
B-44	25.0	NP	NP	NP	9.51	3	SP	27.1			
B-44	30.0	NP	NP	NP	9.51	13	SM	25.8			
B-44	35.0	51	25	26	4.76	94	CH	34.4			
B-44	40.0	47	23	24	19	85	CL	32.0			
B-44	45.0	NP	NP	NP	4.76	8	SP-SM	25.8			
B-44	50.0	NP	NP	NP	19	4	SP	16.8			
B-44	55.0	NP	NP	NP	19	4	SP	14.0			
B-44	60.0	NP	NP	NP	19	5	SP-SM	20.9			

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PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-45	20.0	NP	NP	NP	9.51	4	SP	19.0			
B-45	30.0	NP	NP	NP	9.51	8	SW-SM	21.7			
B-45	35.0	52	28	24	19	92	CH	43.0			
B-45	40.0	41	20	21	19	56	CL	22.6			
B-45	45.0	NP	NP	NP	19	52	ML	33.6			
B-46	10.0	NP	NP	NP	4.76	6	SP-SM	22.0			
B-46	15.0	NP	NP	NP	9.51	18	SM	18.8			
B-46	20.0	NP	NP	NP	9.51	3	SP	23.9			
B-46	25.0	NP	NP	NP	4.76	3	SP	28.0			
B-46	30.0	43	22	21			CL				
B-46	35.0	49	25	24	9.51	97	CL	49.7			
B-46	40.0	37	18	19	19	63	CL	32.9			
B-46	45.0	NP	NP	NP	19	70	ML	36.7			
B-47	18.0	NP	NP	NP	9.51	5	SP-SM	19.5			
B-47	20.0	NP	NP	NP	4.76	1	SP	21.5			
B-47	22.0	NP	NP	NP	4.76	4	SP	23.0			
B-47	24.0	NP	NP	NP	4.76	6	SP-SM	22.9			
B-47	26.0	NP	NP	NP	9.51	5	SP-SM	24.3			
B-47	28.0	NP	NP	NP	4.76	12	SM	23.6			
B-47	30.0	NP	NP	NP	4.76	11	SP-SM	27.5			
B-47	32.0	NP	NP	NP	19	58	ML	32.8			
B-47	34.0	NP	NP	NP	9.51	88	ML	45.5			
B-47	36.0	47	29	18	4.76	98	ML	53.4			
B-47	38.0	56	28	28	9.51	95	CH	51.9			
B-47	40.0	61	26	35	19	83	CH	34.5			
B-47	42.0				0.075	63	SP-SC				
B-48	16.7	NP	NP	NP	9.51	20	SM	23.3			
B-48	22.7	NP	NP	NP	0.075	41	SM	35.4			
B-48	27.7	33	15	18	0.075	65	CL	32.4			
B-48	76.4	NP	NP	NP	0.075	61	ML	39.3			
B-48	82.2	NP	NP	NP	0.075	38	SM	34.7			
B-48	97.2	92	49	43	0.075	99	MH	65.1			
B-49	28.4	32	17	15	4.76	73	CL	29.0			
B-49	33.4	NP	NP	NP	0.075	46	SM	27.8			
B-49	38.4	NP	NP	NP	0.075	59	ML	35.4			
B-49	48.4	NP	NP	NP	0.075	78	ML	40.2			
B-49	68.4	NP	NP	NP	0.075	19	SM	29.0			
B-49	73.4	NP	NP	NP	0.075	14	SM	28.2			
B-49	83.4	93	44	49	0.075	95	MH	57.2			
B-49	93.4	86	55	31	0.075	97	MH	65.0			
B-50	10.8	NP	NP	NP	0.075	2	SP	25.8			
B-50	16.8	NP	NP	NP	4.76	2	SP				
B-50	31.8	NP	NP	NP	0.075	40	SM	27.4			

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PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Saturation (%)	Void Ratio
B-50	41.8	NP	NP	NP	0.075	80	ML	30.2			
B-50	56.8	NP	NP	NP	0.075	49	SM	26.5			
B-50	66.8	NP	NP	NP	0.075	23	SM	29.0			
B-50	81.8	75	38	37	0.075	94	MH	58.5			
B-50	101.8	93	53	40	0.075	97	MH	69.3			
B-51	10.0	NP	NP	NP	4.76	4	SP	18.2			
B-51	15.0	NP	NP	NP	4.76	4	SP	21.0			
B-51	20.0	NP	NP	NP	4.76	4	SP	26.1			
B-51	25.0	33	17	16	4.76	30	SC	15.2			
B-51	30.0	46	27	19	4.76	90	CL	24.7			
B-51	35.0	33	23	10	4.76	74	CL	25.1			
B-52	10.0	NP	NP	NP	9.51	5	SP-SM	15.8			
B-52	15.0	21	16	5	4.76	72	CL-ML	40.6			
B-52	20.0	32	18	14	4.76	84	CL	24.0			
B-52	25.0	36	24	12	2	92	CL	33.4			
B-52	30.0	28	22	6	2	54	CL-ML	27.3			
BS-1	5.0	26	15	11	19	24	SC	14.9	121.0		
BS-2	5.0	NP	NP	NP	19	30	SM	5.5	109.3		
BS-3	5.0	NP	NP	NP	9.51	7	SP-SM	7.7	104.4		
BS-4	5.0	NP	NP	NP	9.51	8	SP-SM	10.4	108.4		
BS-5	5.0	22	17	5	9.51	20	SC-SM	13.0	119.6		
BS-6	5.0	NP	NP	NP	19	11	SW-SM	6.3	110.8		
P-01	3.0	28	14	14	9.51	28	SC	14.2			
P-02	4.0	31	18	13	9.51	30	SC	13.7			
P-03	3.5	24	14	10	19	23	SC	12.2			
P-04	4.0	39	18	21	19	37	SC	17.1			
P-05	3.0	27	13	14	25	29	SC	17.9			
P-06	2.0	NP	NP	NP	9.51	20	SM	10.5			
P-07	3.5	24	14	10	9.51	26	SC	14.6			
P-08	2.0	NP	NP	NP	19	16	SM	9.1			
P-09	3.0	NP	NP	NP	9.51	29	SM	16.0			
P-10	6.0	NP	NP	NP	9.51	21	SM	11.6			
P-11	3.5	NP	NP	NP	4.76	16	SM	11.8			
P-12	4.0	55	25	30	4.76	73	CH	25.1			
P-13	5.5	32	17	15	9.51	23	SC	13.8			
P-14	2.0	NP	NP	NP	9.51	20	SM	11.8			
P-15	3.5	NP	NP	NP	9.51	21	SM	14.1			
P-16	3.0	NP	NP	NP	9.51	15	SM	9.7			
P-17	3.5	NP	NP	NP	9.51	15	SM	8.0			
P-18	3.5	NP	NP	NP	4.76	12	SM	9.9			
P-19	2.0	NP	NP	NP	19	18	SM	8.7			
P-20	3.5	NP	NP	NP	4.76	14	SM	9.1			
P-21	3.5	NP	NP	NP	25	16	SM	10.3			

LAB SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ FME2017.GDT 8/30/23



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
P-22	3.5	NP	NP	NP	4.76	14	SM	7.4			
P-23	2.0	NP	NP	NP	19	20	SM	9.0			
P-24	2.0	NP	NP	NP	9.51	8	SP-SM	5.4			

CORROSION SERIES SUMMARY

PAGE 1 OF 1



PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Sample No.	Sample Depth (ft.)	pH of Soil in Distilled Water	Electrical Resistivity (Ω -cm)	Chloride Content (mg/kg (ppm))	Sulfate Content (mg/kg (ppm))
B-2	SS-9 & SS-10	16.0 – 20.0	5.5	69,092	17	55
B-44	SS-4 & SS-5	6.0 – 10.0	8.4	27,324	10	55
B-47	SS-4 & SS-5	6.0 – 10.0	9.2	15,272	9	55
B-51	SS-3 & SS-4	4.0 – 8.0	8.4	36,248	9	52



INDEX PROPERTIES VERSUS DEPTH

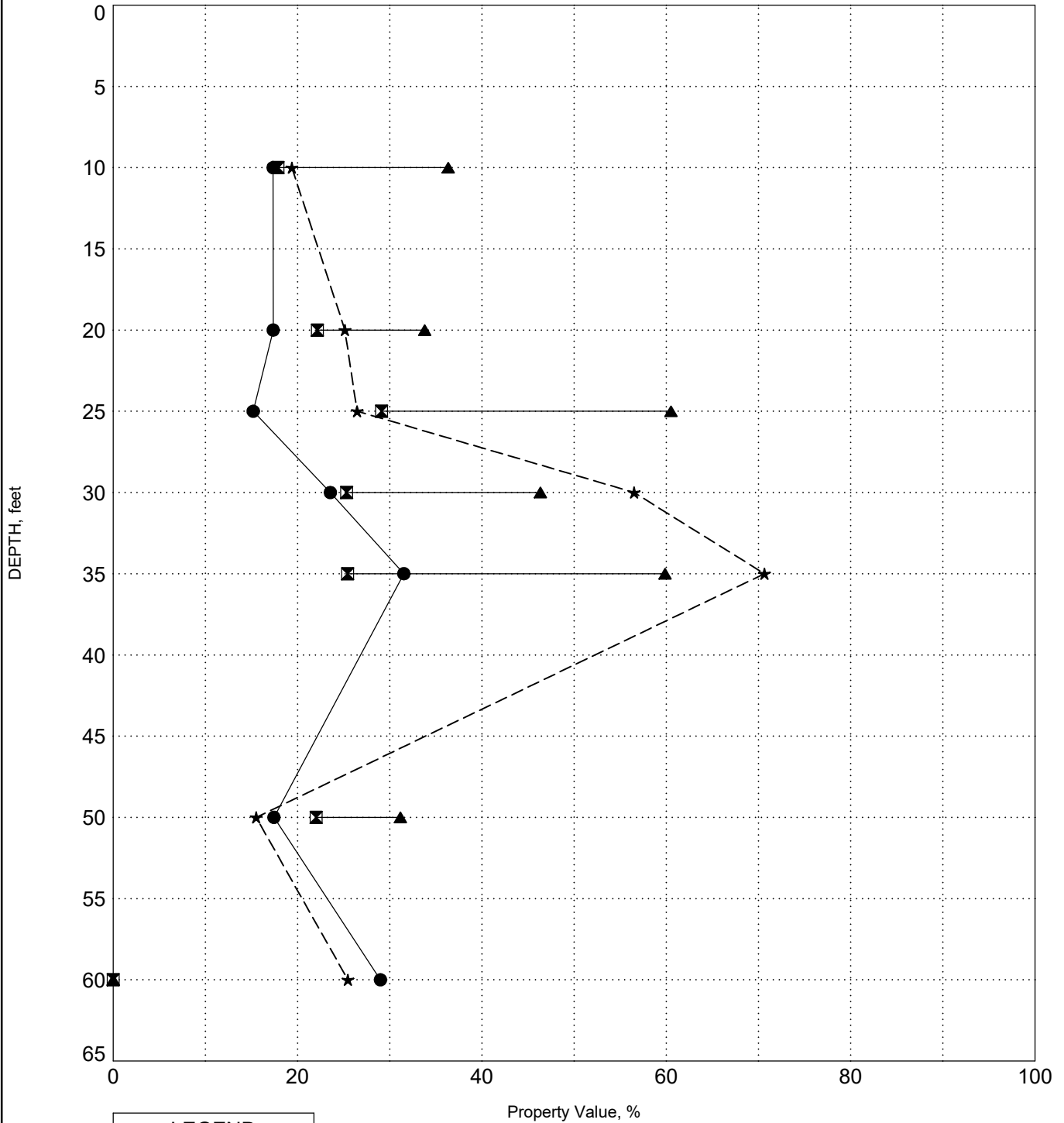
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-1

SURFACE ELEVATION: 116.6



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

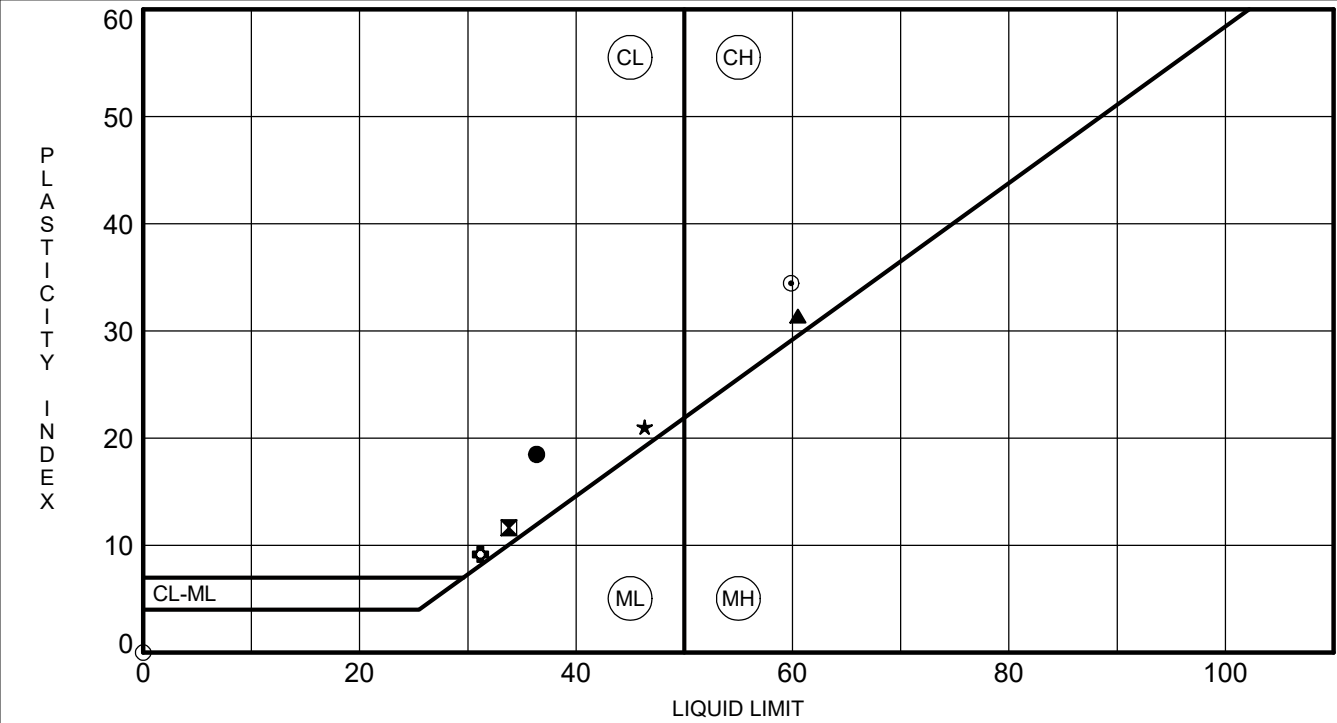


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-1	10.0	36	18	18	19	CLAYEY SAND (SC/A-2-6)
⊠	B-1	20.0	34	22	12	25	CLAYEY SAND (SC/A-2-6)
▲	B-1	25.0	61	29	32	26	CLAYEY SAND (SC/A-2-7)
★	B-1	30.0	46	25	21	57	SANDY LEAN CLAY (CL/A-7-6)
⊙	B-1	35.0	60	25	35	71	FAT CLAY with SAND (CH/A-7-6)
⊕	B-1	50.0	31	22	9	16	CLAYEY SAND (SC/A-2-4)
○	B-1	60.0	NP	NP	NP	25	SILTY SAND (SM/A-2-4)

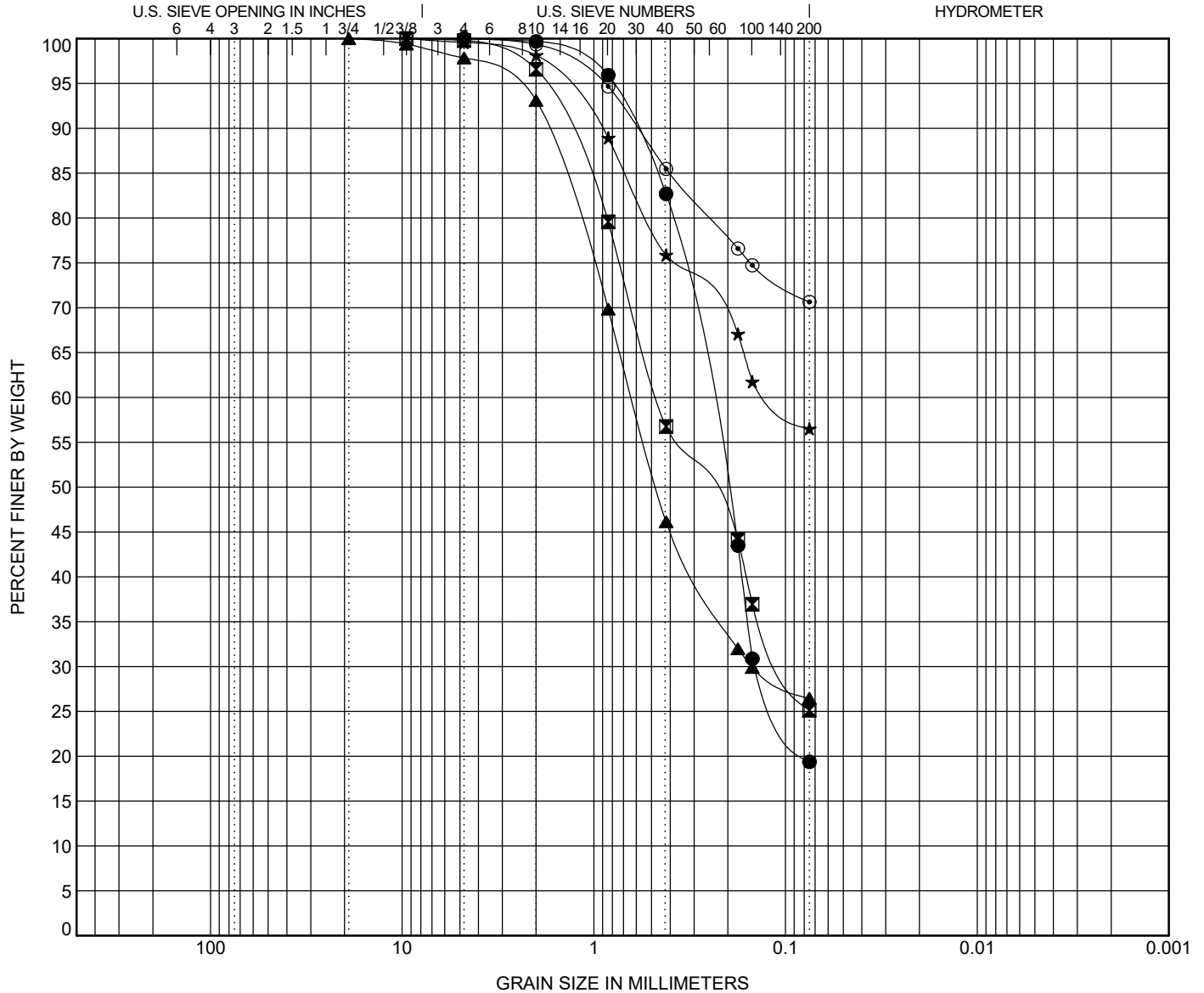


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-1	10.0	CLAYEY SAND (SC/A-2-6)	36	18	18		
☒ B-1	20.0	CLAYEY SAND (SC/A-2-6)	34	22	12		
▲ B-1	25.0	CLAYEY SAND (SC/A-2-7)	61	29	32		
★ B-1	30.0	SANDY LEAN CLAY (CL/A-7-6)	46	25	21		
◎ B-1	35.0	FAT CLAY with SAND (CH/A-7-6)	60	25	35		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-1	10.0	4.76	0.255	0.141		0.0	80.6		19.4
☒ B-1	20.0	9.51	0.464	0.1		0.2	74.7		25.1
▲ B-1	25.0	19	0.631	0.15		2.2	71.4		26.5
★ B-1	30.0	9.51	0.118			0.4	43.1		56.5
◎ B-1	35.0	9.51				0.0	29.3		70.6

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

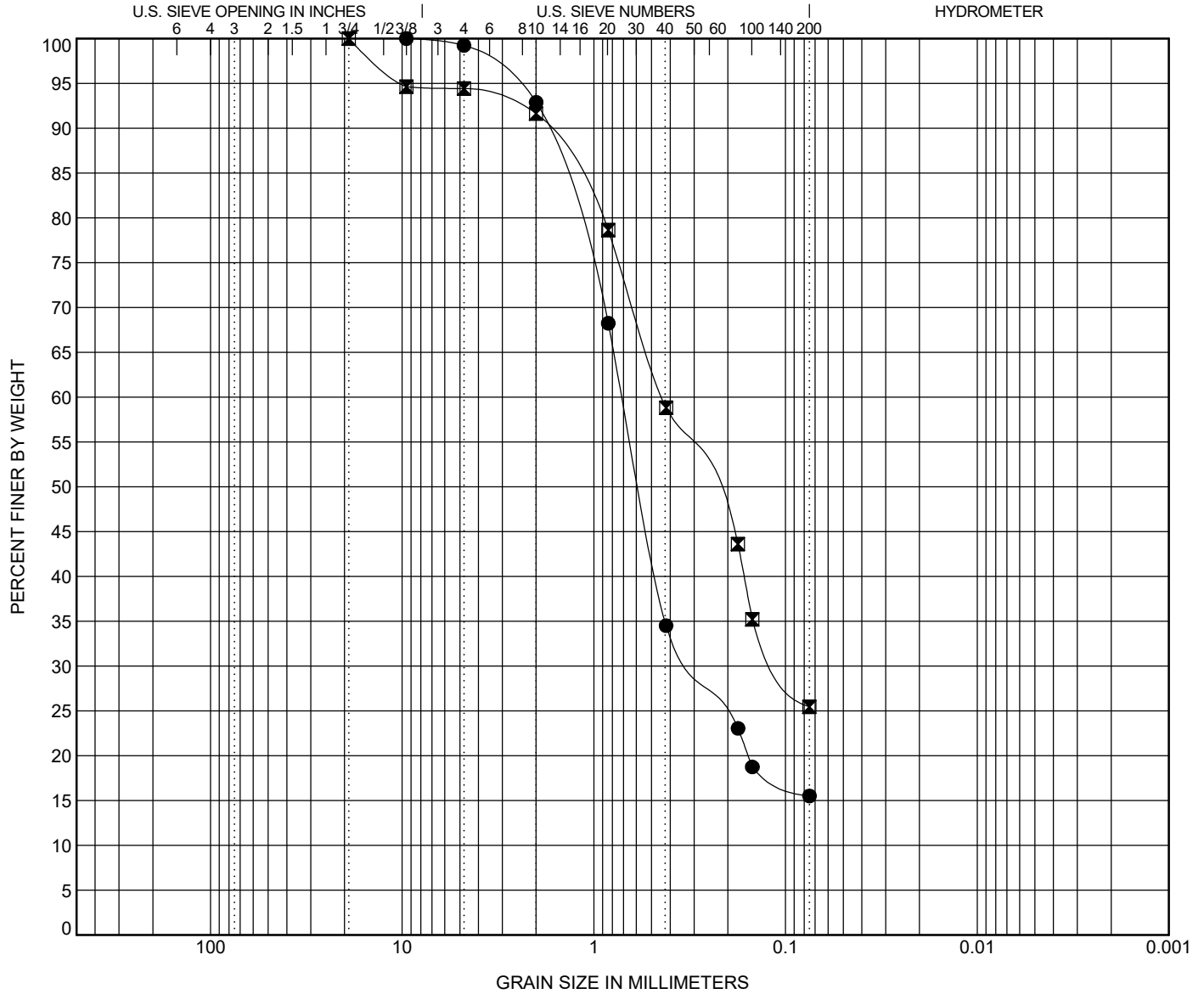


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-1	50.0	CLAYEY SAND (SC/A-2-4)					31	22	9		
☒ B-1	60.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-1	50.0	9.51	0.71	0.299		0.8	83.7	15.5			
☒ B-1	60.0	19	0.438	0.103		5.6	69.0	25.4			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0152	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	B-1	B-1	B-1	B-1	B-1
SAMPLE NO.	SS-5	SS-7	SS-8	SS-9	SS-10
SAMPLE DEPTH (FT.)	8.0 - 10.0	18.5 - 20.0	23.5 - 25.0	28.5 - 30.0	33.5 - 35.0
WATER CONTENT, W%	17.3	17.4	15.2	23.6	31.5

BORING NO.	B-1	B-1			
SAMPLE NO.	SS-13	SS-15			
SAMPLE DEPTH (FT.)	48.5 - 50.0	58.5 - 60.0			
WATER CONTENT, W%	17.4	29.0			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

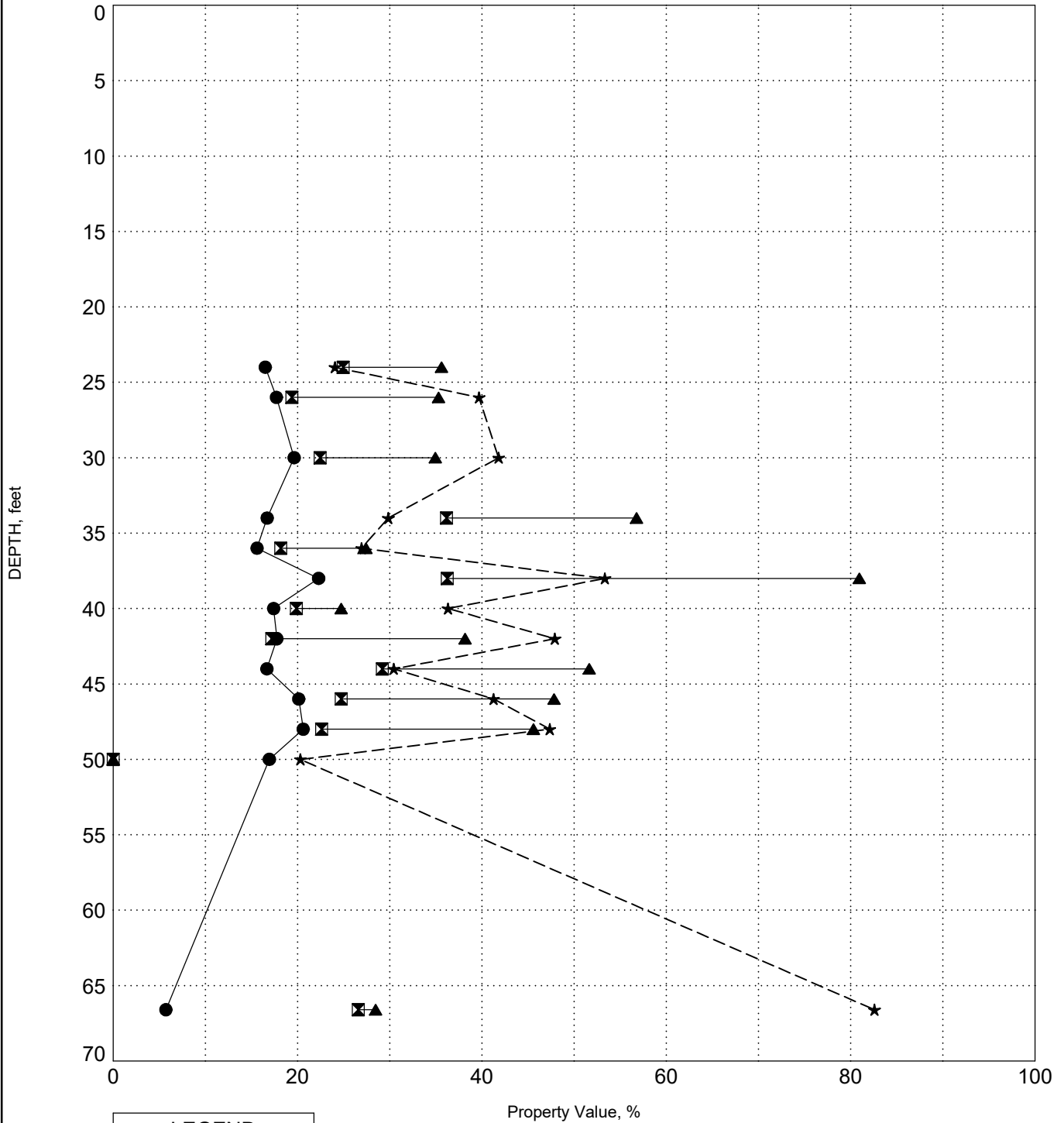
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-2

SURFACE ELEVATION: 119.5



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

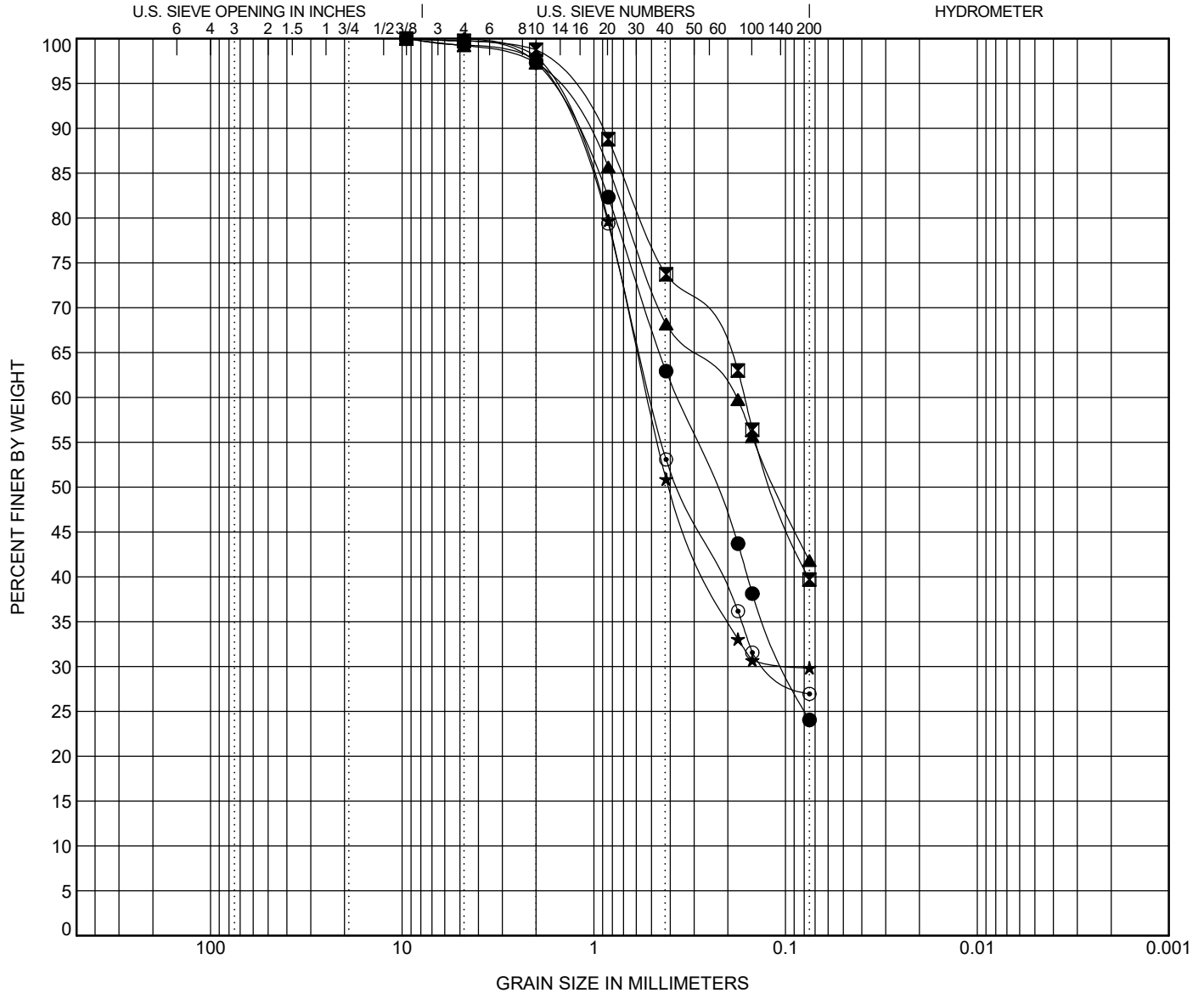


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu	
●	B-2	24.0	SILTY SAND (SM/A-2-6)		36	25	11	
☒	B-2	26.0	CLAYEY SAND (SC/A-6)		35	19	16	
▲	B-2	30.0	CLAYEY SAND (SC/A-6)		35	22	13	
★	B-2	34.0	SILTY SAND (SM/A-2-7)		57	36	21	
⊙	B-2	36.0	CLAYEY SAND (SC/A-2-4)		27	18	9	

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-2	24.0	9.51	0.368	0.1	0.3	75.7	24.0	
☒	B-2	26.0	9.51	0.164		0.3	60.1	39.7	
▲	B-2	30.0	9.51	0.181		0.8	57.4	41.8	
★	B-2	34.0	4.76	0.523	0.086	0.0	70.2	29.8	
⊙	B-2	36.0	9.51	0.504	0.118	0.7	72.4	26.9	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

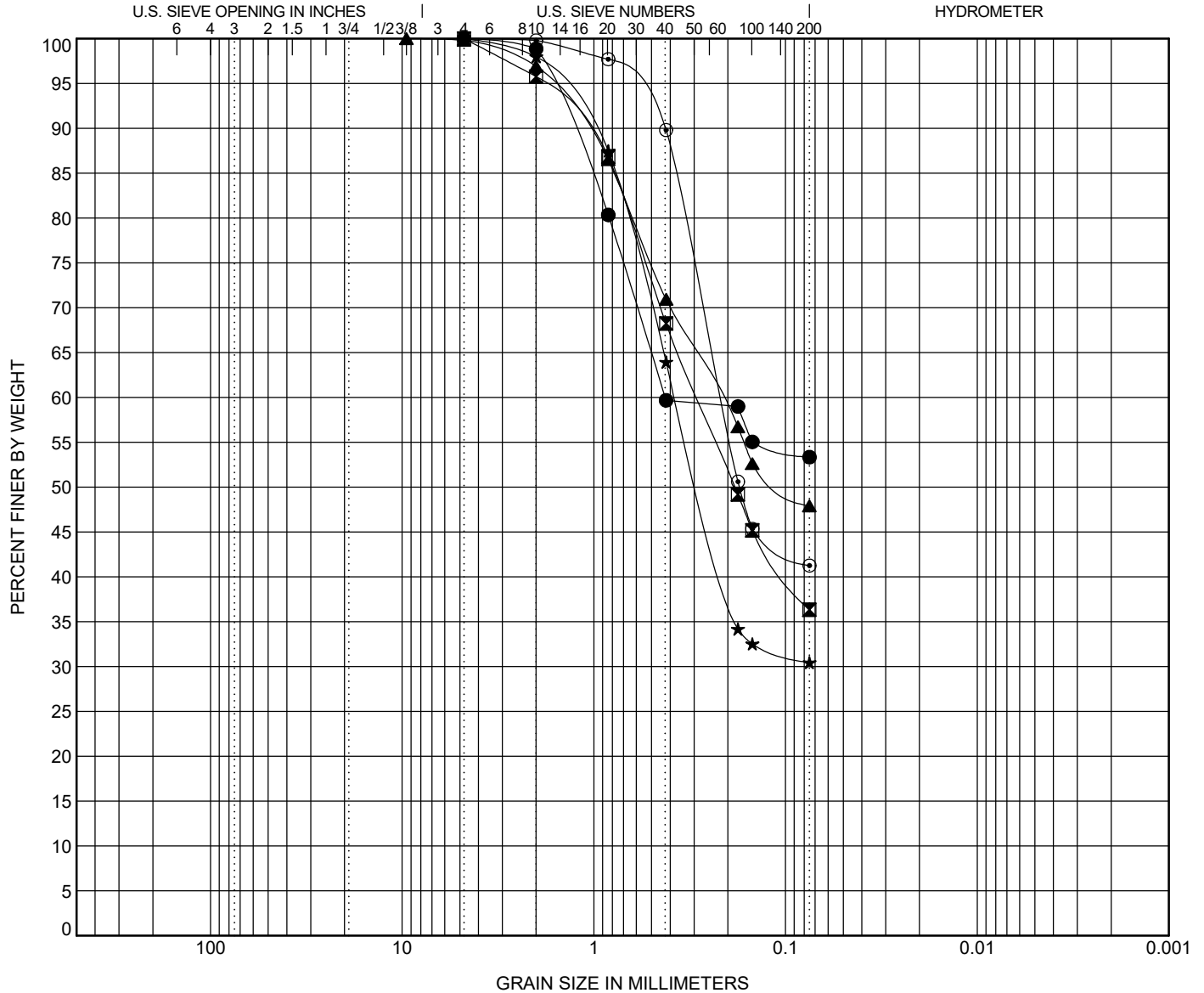


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu	
●	B-2	38.0	SANDY FAT CLAY (CH/A-7-5)		81	36	45	
☒	B-2	40.0	SILTY, CLAYEY SAND (SC-SM/A-4)		25	20	5	
▲	B-2	42.0	CLAYEY SAND (SC/A-6)		38	17	21	
★	B-2	44.0	SILTY SAND (SM/A-2-7)		52	29	23	
◎	B-2	46.0	CLAYEY SAND (SC/A-7-6)		48	25	23	

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-2	38.0	4.76	0.425		0.0	46.7	53.3	
☒	B-2	40.0	4.76	0.289		0.0	63.7	36.3	
▲	B-2	42.0	9.51	0.216		0.2	51.9	47.9	
★	B-2	44.0	4.76	0.375		0.0	69.6	30.4	
◎	B-2	46.0	4.76	0.218		0.0	58.7	41.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

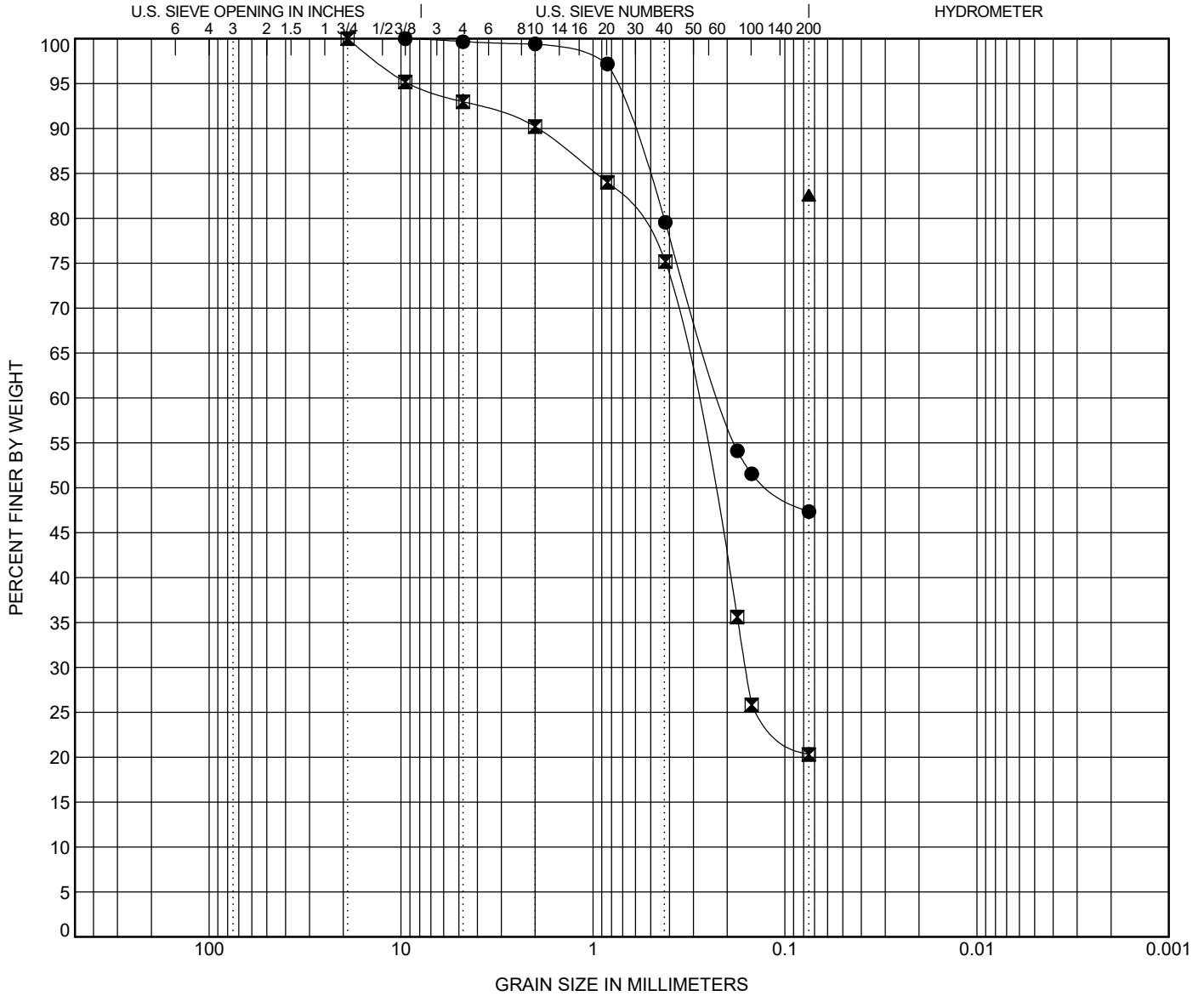


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-2	48.0	CLAYEY SAND (SC/A-7-6)	46	23	23		
☒ B-2	50.0	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-2	67.6	SILT with SAND (ML/A-4)	28	27	1		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-2	48.0	9.51	0.216			0.3	52.3		47.4
☒ B-2	50.0	19	0.302	0.16		7.0	72.7		20.3
▲ B-2	137.6	0.075							82.6

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0172	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	B-2	B-2	B-2	B-2	B-2
SAMPLE NO.	SS-12	SS-13	SS-15	SS-17	SS-18
SAMPLE DEPTH (FT.)	22.0 - 24.0	24.0 - 26.0	28.0 - 30.0	32.0 - 34.0	34.0 - 36.0
WATER CONTENT, W%	16.5	17.7	19.6	16.7	15.6

BORING NO.	B-2	B-2	B-2	B-2	B-2
SAMPLE NO.	SS-19	SS-20	SS-21	SS-22	SS-23
SAMPLE DEPTH (FT.)	36.0 - 38.0	38.0 - 40.0	40.0 - 42.0	42.0 - 44.0	44.0 - 46.0
WATER CONTENT, W%	22.3	17.4	17.8	16.7	20.1

BORING NO.	B-2	B-2	B-2		
SAMPLE NO.	SS-24	SS-25	NQ-3		
SAMPLE DEPTH (FT.)	46.0 - 48.0	48.0 - 50.0	67.3 - 67.6		
WATER CONTENT, W%	20.6	16.9	5.7		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

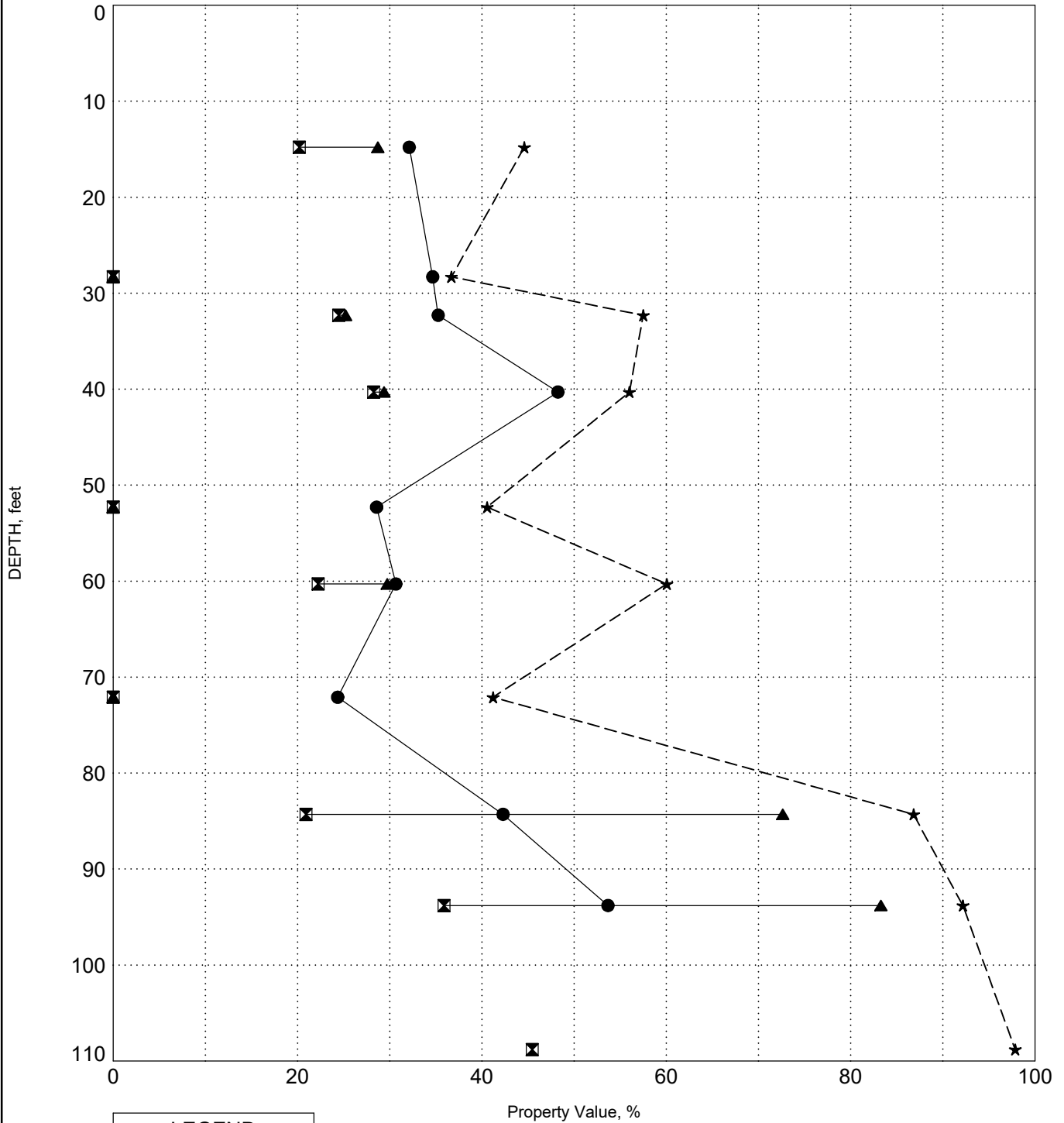
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 76.4

BORING B-3



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

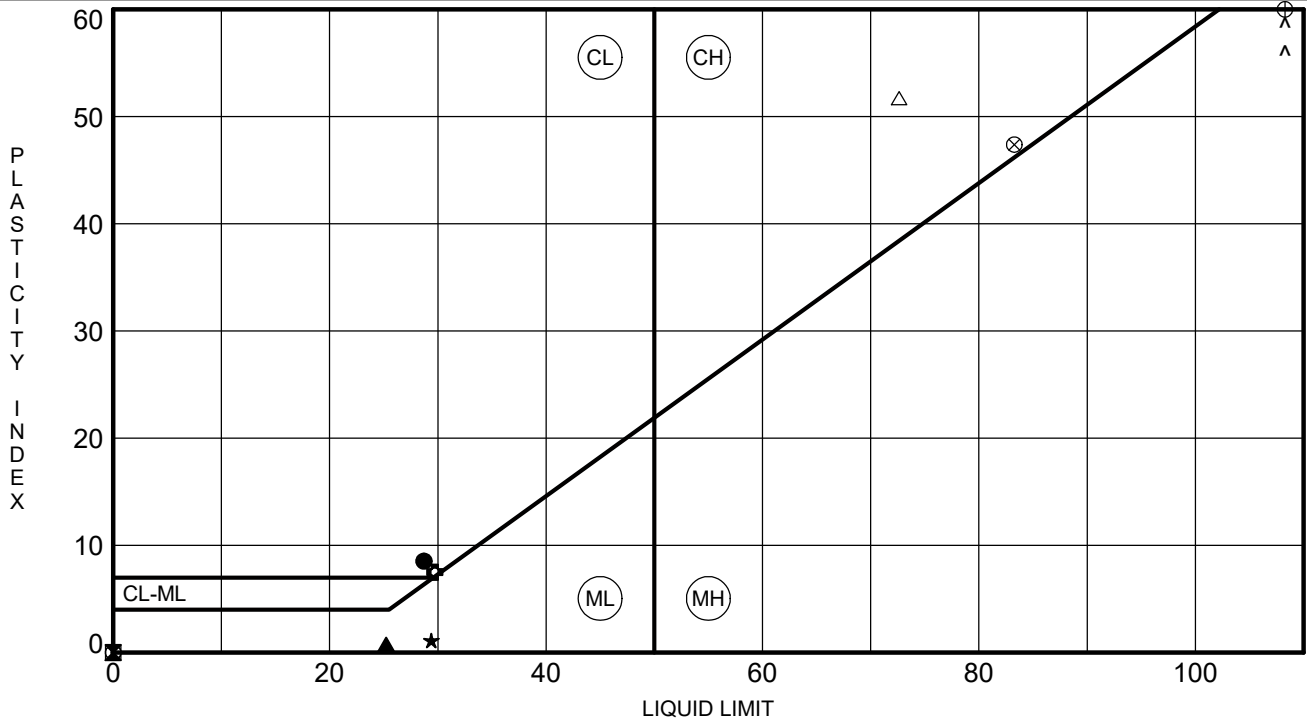


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-3	14.8	29	20	9	45	CLAYEY SAND (SC/A-4)
⊠ B-3	28.3	NP	NP	NP	37	SILTY SAND with GRAVEL (SM/A-4)
▲ B-3	32.3	25	24	1	57	SANDY SILT (ML/A-4)
★ B-3	40.3	29	28	1	56	SANDY SILT (ML/A-4)
⊙ B-3	52.3	NP	NP	NP	41	SILTY SAND (SM/A-4)
⊕ B-3	60.3	30	22	8	60	SANDY LEAN CLAY (CL/A-4)
○ B-3	72.1	NP	NP	NP	41	SILTY SAND (SM/A-4)
△ B-3	84.3	73	21	52	87	FAT CLAY (CH/A-7-6)
⊗ B-3	93.8	83	36	47	92	FAT CLAY (CH/A-7-5)
⊕ B-3	108.8	108	45	63	98	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

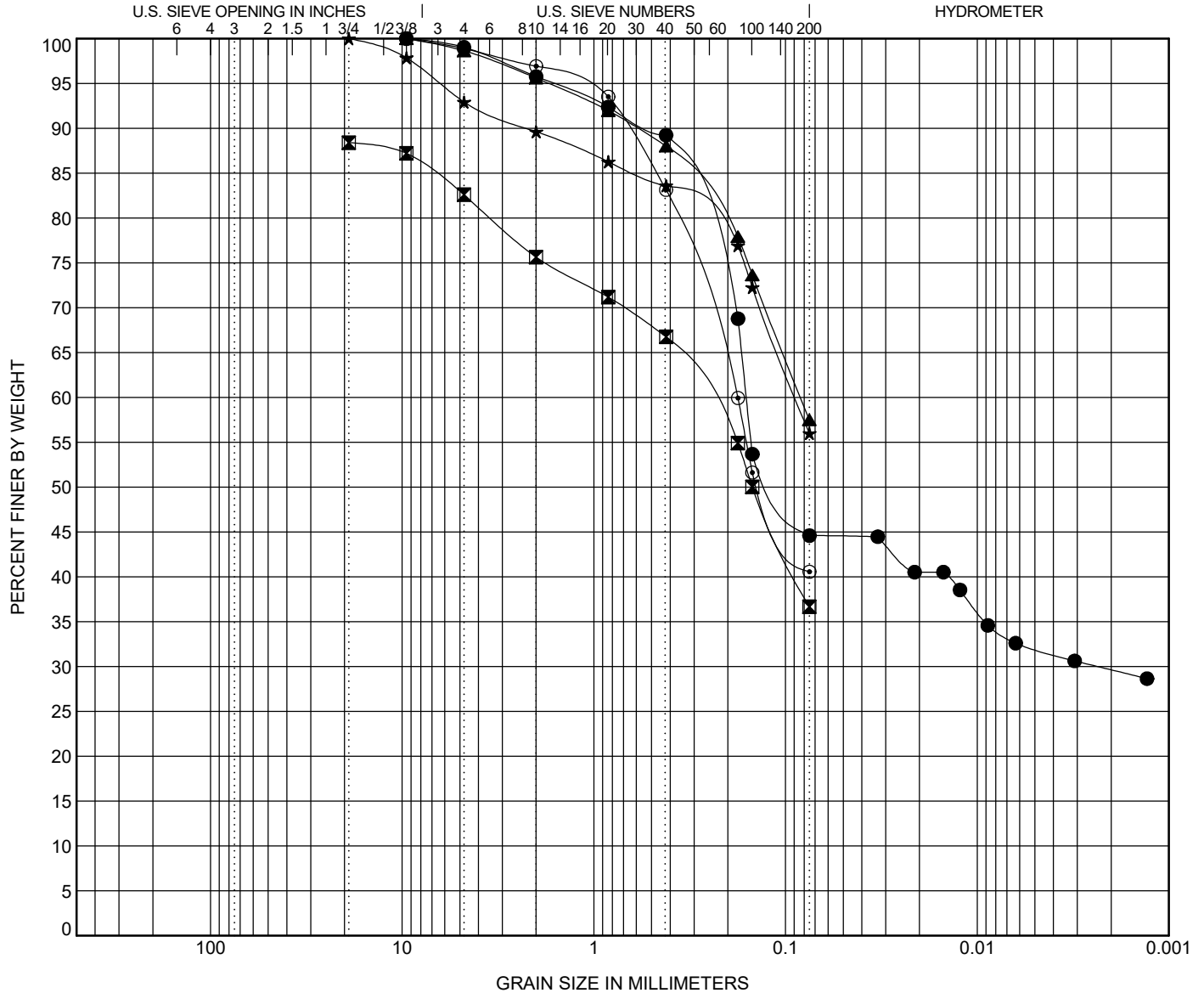


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-3	14.8	CLAYEY SAND (SC/A-4)			29	20	9		
☒	B-3	28.3	SILTY SAND with GRAVEL (SM/A-4)			NP	NP	NP		
▲	B-3	32.3	SANDY SILT (ML/A-4)			25	24	1		
★	B-3	40.3	SANDY SILT (ML/A-4)			29	28	1		
⊙	B-3	52.3	SILTY SAND (SM/A-4)			NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-3	14.8	9.51	0.16	0.002	1.0	54.4	12.6	32.0
☒	B-3	28.3	19	0.256		5.8	45.9	36.7	
▲	B-3	32.3	9.51	0.083		1.4	41.1	57.5	
★	B-3	40.3	19	0.089		7.1	36.9	56.0	
⊙	B-3	52.3	9.51	0.177		1.1	58.3	40.6	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

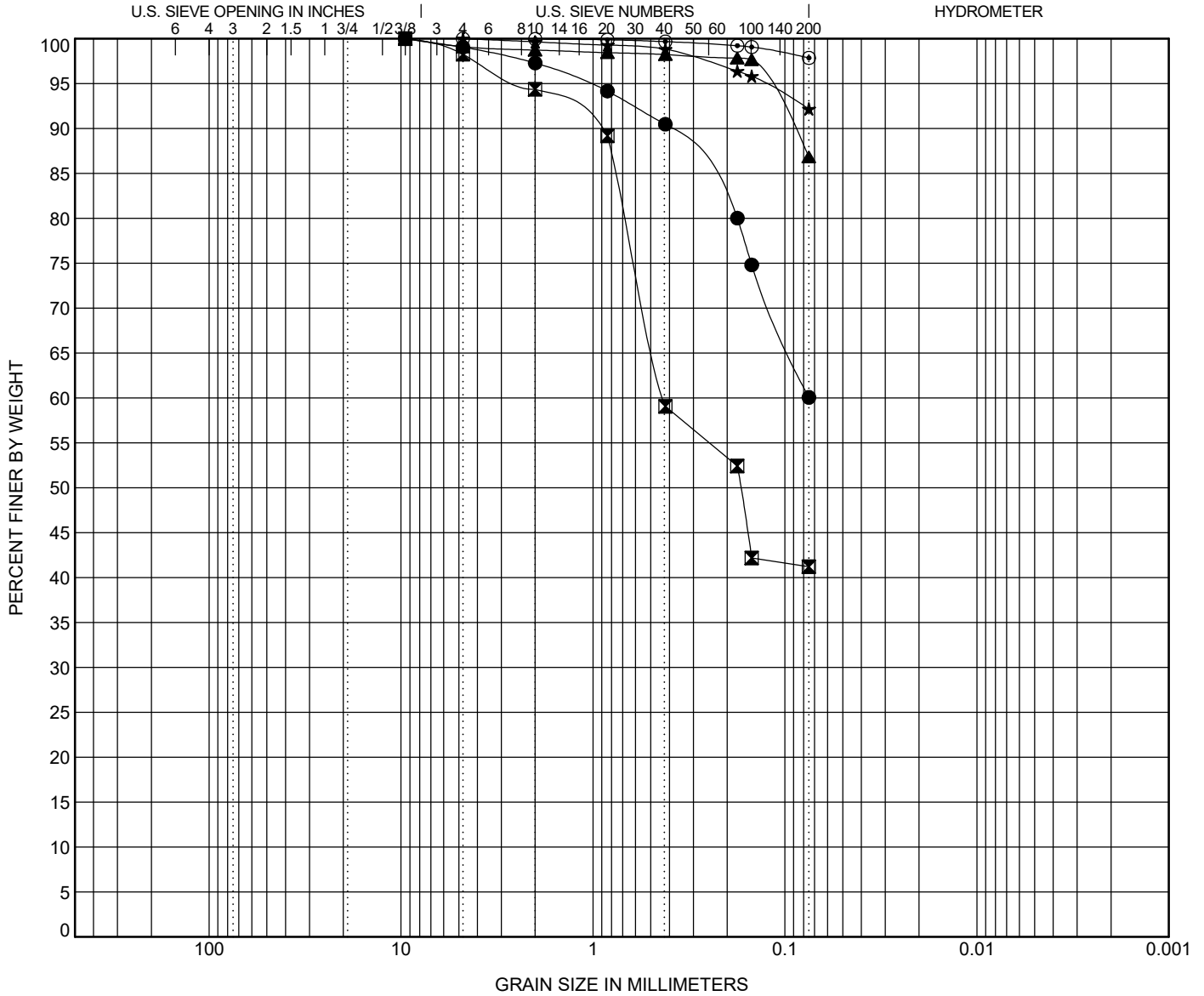


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification				LL	PL	PI	Cc	Cu	
●	B-3	60.3	SANDY LEAN CLAY (CL/A-4)				30	22	8		
☒	B-3	72.1	SILTY SAND (SM/A-4)				NP	NP	NP		
▲	B-3	84.3	FAT CLAY (CH/A-7-6)				73	21	52		
★	B-3	93.8	FAT CLAY (CH/A-7-5)				83	36	47		
◎	B-3	108.8	ELASTIC SILT (MH/A-7-5)				108	45	63		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-3	60.3	9.51			1.0	39.0		60.1
☒	B-3	72.1	9.51	0.429		1.7	57.0		41.2
▲	B-3	84.3	9.51			0.9	12.3		86.8
★	B-3	93.8	4.76			0.0	7.8		92.2
◎	B-3	108.8	4.76			0.0	2.1		97.9

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1875	DATE SAMPLE RECEIVED:	6/12/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW	DATE SETUP:	6/13/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/14/2023

BORING NO.	B-3	B-3	B-3	B-3	B-3
SAMPLE NO.	SS-3	SS-7	SS-8	SS-10	SS-13
SAMPLE DEPTH (FT.)	12.8 - 14.8	26.3 - 28.3	30.3 - 32.3	38.3 - 40.3	50.3 - 52.3
WATER CONTENT, W%	32.1	34.7	35.3	48.2	28.6

BORING NO.	B-3	B-3	B-3	B-3	B-3
SAMPLE NO.	SS-15	SS-18	SS-21	SS-23	SS-26
SAMPLE DEPTH (FT.)	58.3 - 60.3	70.3 - 72.1	82.3 - 84.3	92.3 - 93.8	107.3 - 108.8
WATER CONTENT, W%	30.7	24.4	42.3	53.7	107.3

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

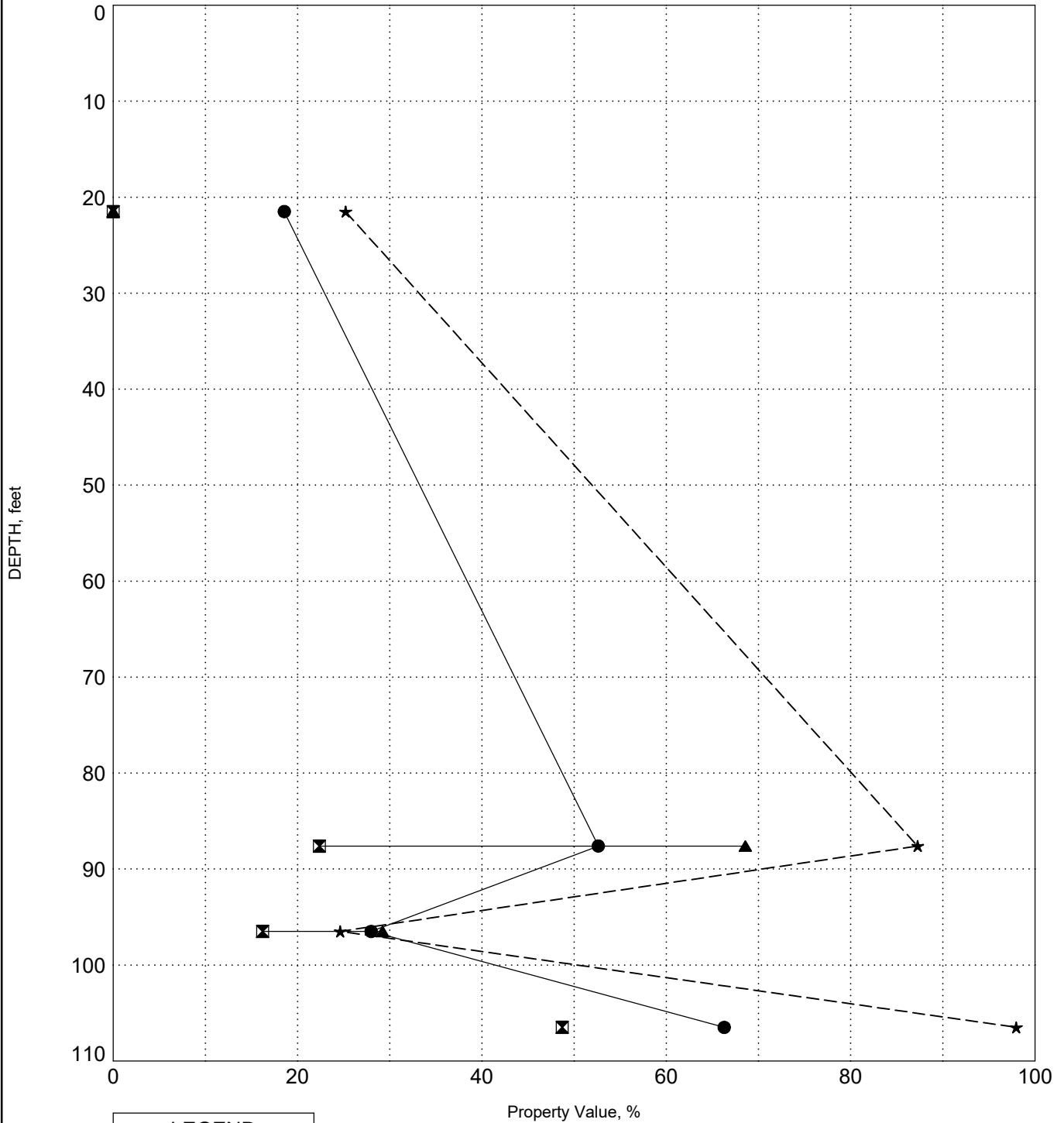
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.4

BORING B-4



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

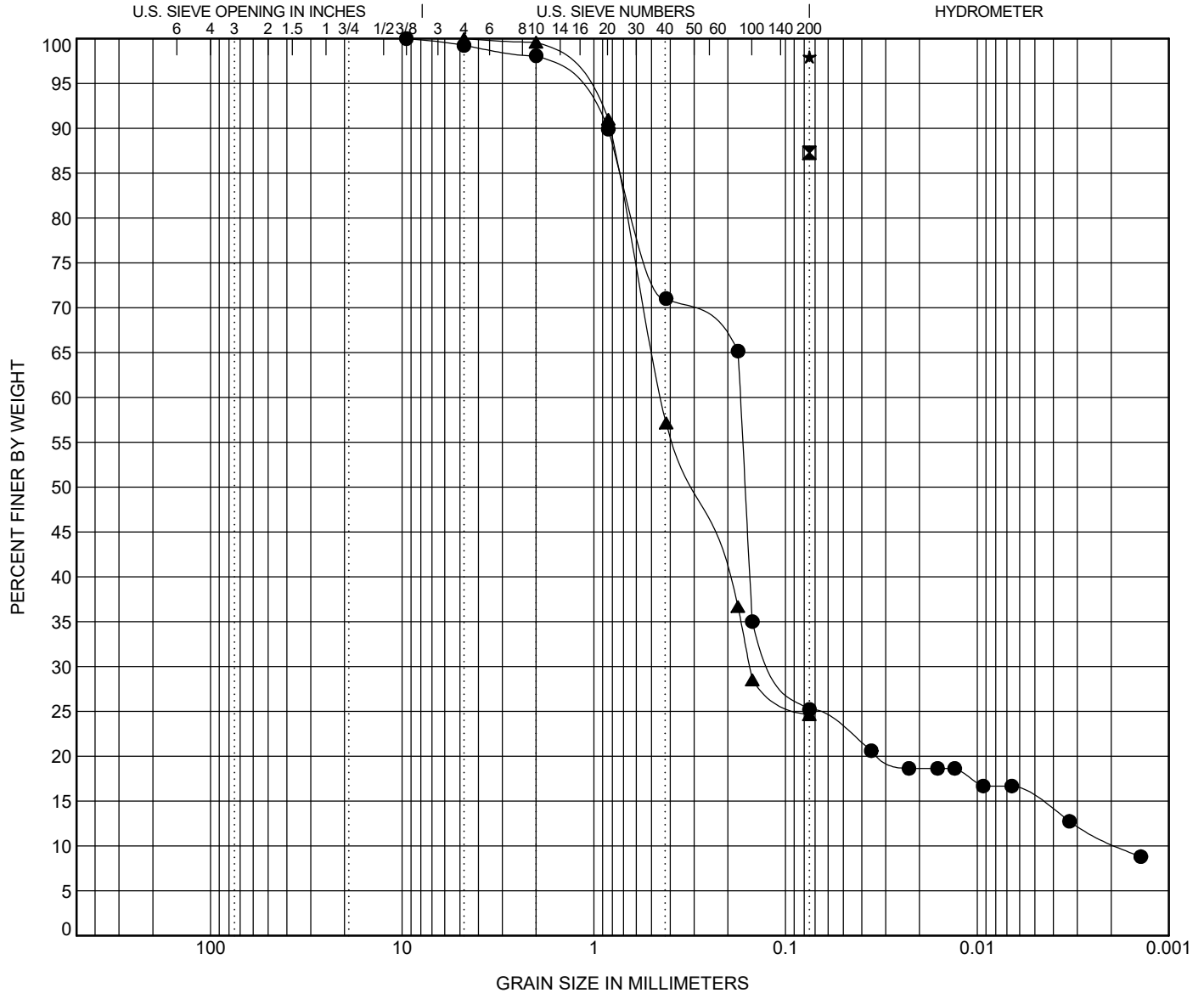


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-4	21.5	SILTY SAND (SM/A-2-4)					NP	NP	NP	35.26	94.69
☒ B-4	87.6	FAT CLAY (CH/A-7-6)					69	22	47		
▲ B-4	96.5	CLAYEY SAND (SC/A-2-6)					29	16	13		
★ B-4	106.5	ELASTIC SILT (MH/A-7-5)					102	49	53		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-4	21.5	9.51	0.172	0.105	0.002	0.8	74.0	10.1	15.1
☒ B-4	87.6	0.075						87.3	
▲ B-4	96.5	4.76	0.445	0.154		0.0	75.4	24.6	
★ B-4	106.5	0.075						98.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/2/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1093	DATE SAMPLE RECEIVED:	4/19/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/20/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	4/21/2023

BORING NO.	B-4	B-4	B-4	B-4	
SAMPLE NO.	SS-5	SS-8	SS-10	SS-12	
SAMPLE DEPTH (FT.)	19.5 - 21.5	86.1 - 87.6	95.0 - 96.5	105.0 - 106.5	
WATER CONTENT, W%	18.6	52.6	28.0	66.3	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

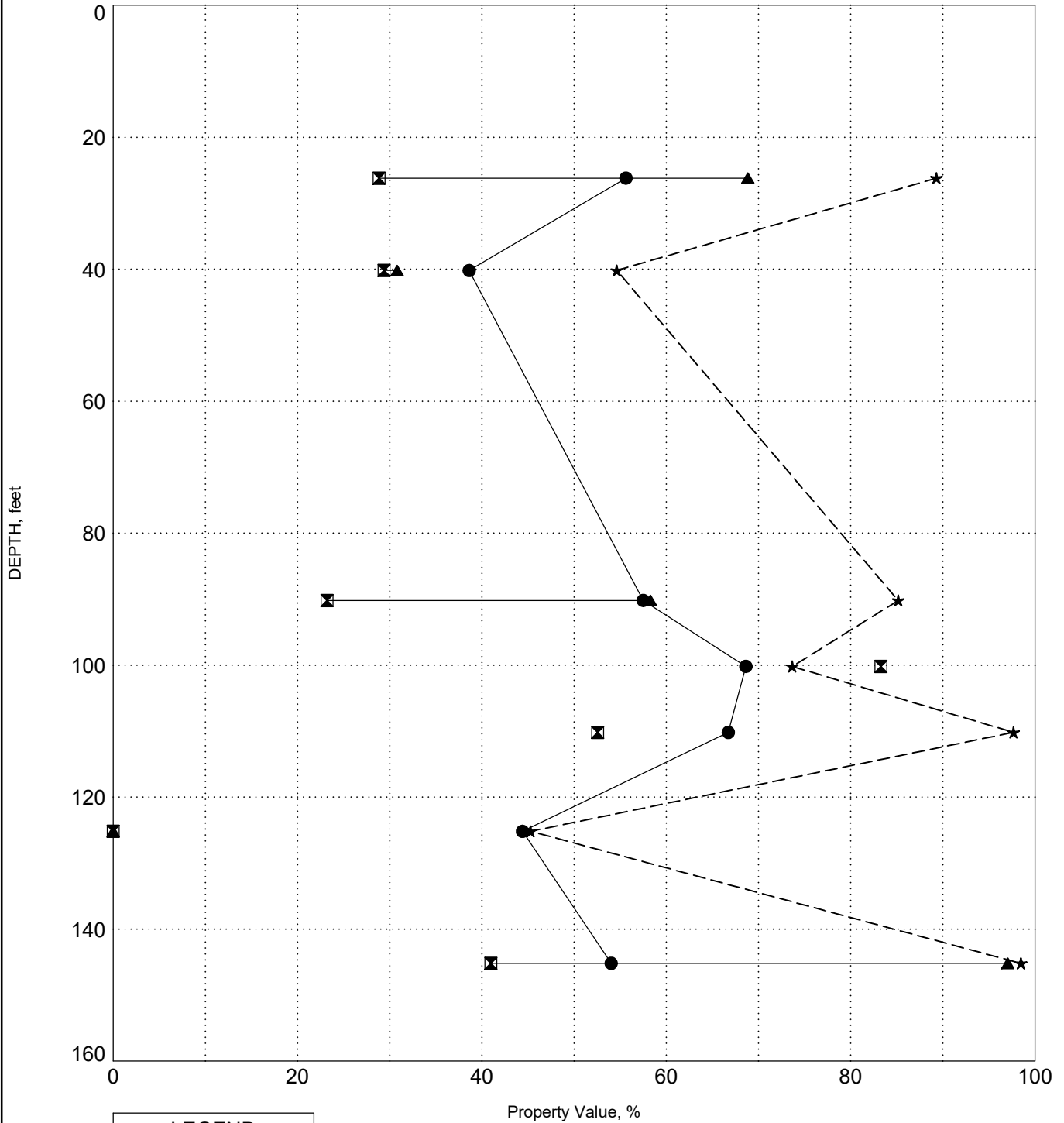
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.8

BORING B-5



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

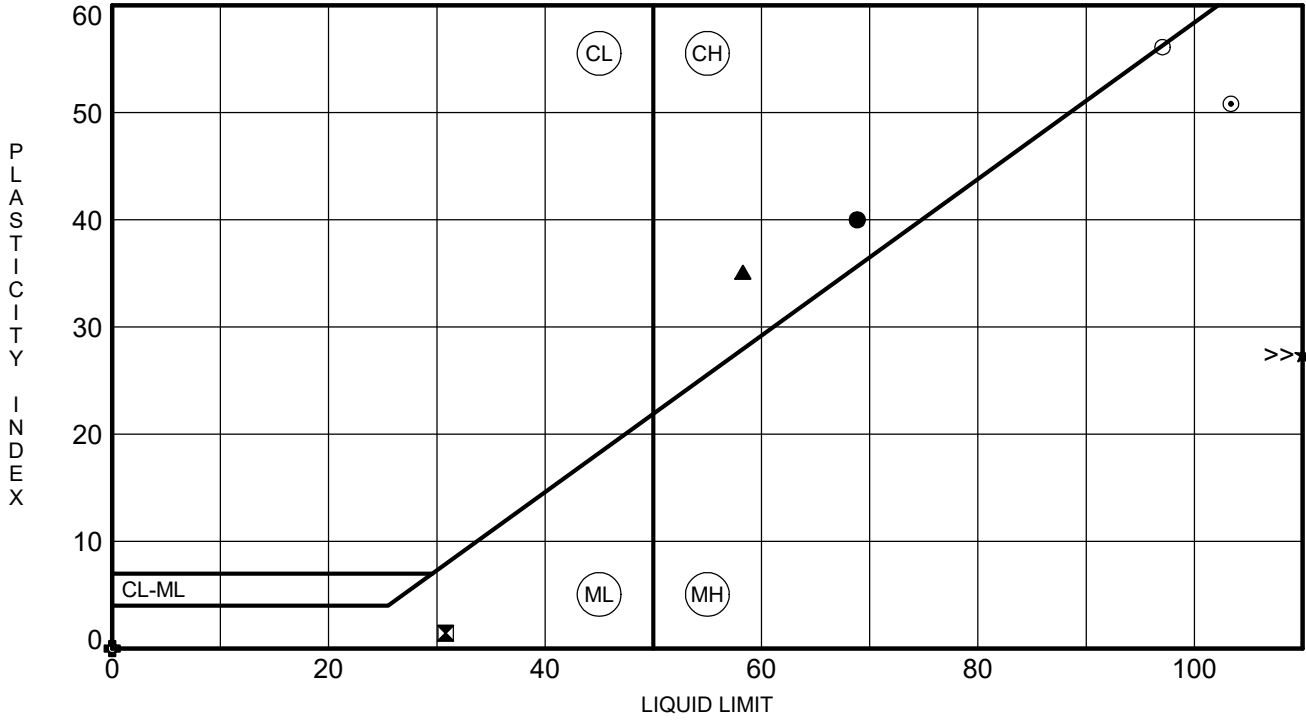


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-5	26.2	69	29	40	89	FAT CLAY (CH/A-7-6)
☒	B-5	40.2	31	29	2	55	SANDY SILT (ML/A-4)
▲	B-5	90.2	58	23	35	85	FAT CLAY (CH/A-7-6)
★	B-5	100.2	111	83	28	74	ELASTIC SILT with SAND (MH/A-7-5)
⊕	B-5	110.2	103	53	50	98	ELASTIC SILT (MH/A-7-5)
⊕	B-5	125.2	NP	NP	NP	45	SILTY SAND (SM/A-4)
○	B-5	145.2	97	41	56	98	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/28/23

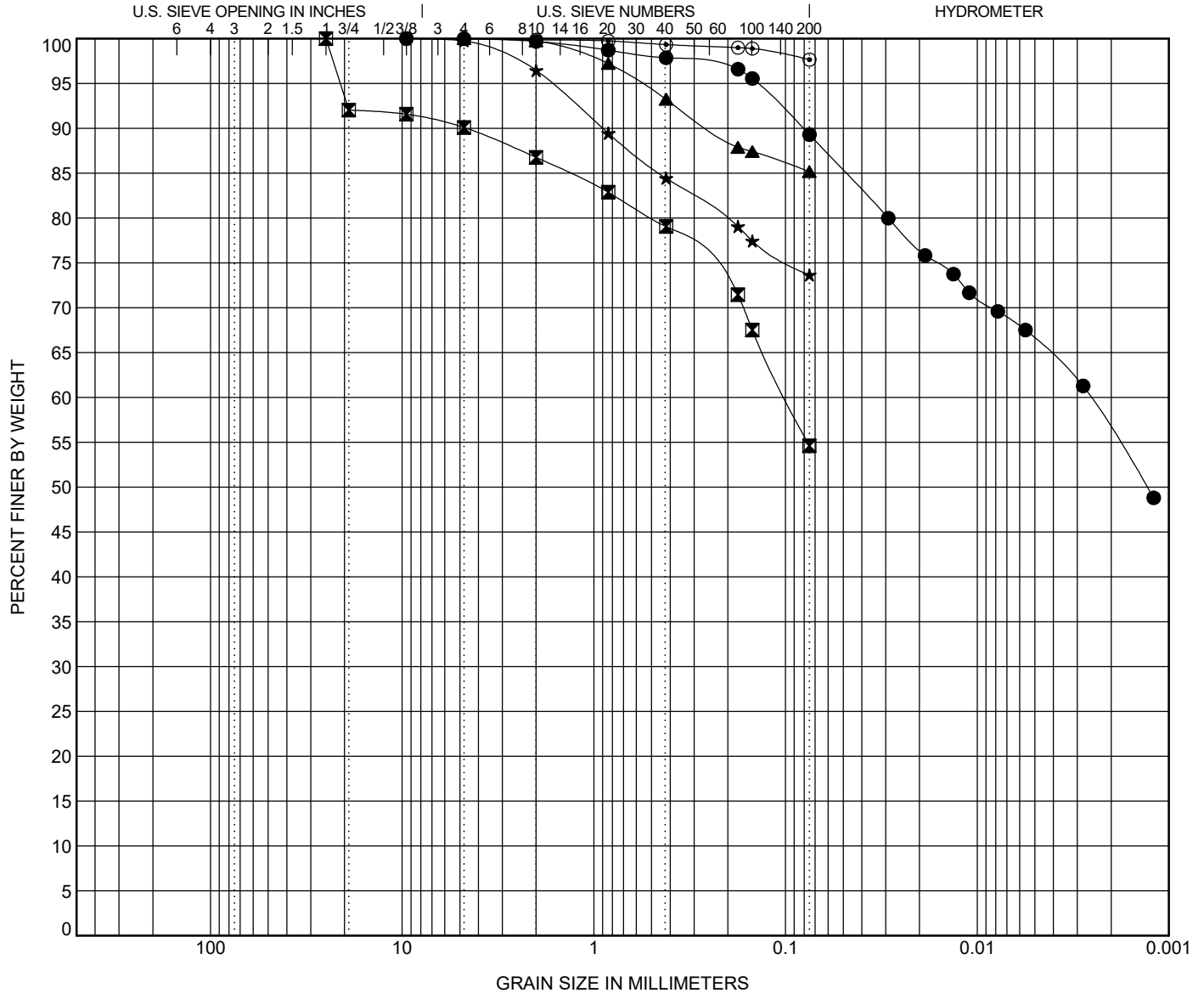


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-5	26.2	FAT CLAY (CH/A-7-6)	69	29	40		
☒ B-5	40.2	SANDY SILT (ML/A-4)	31	29	2		
▲ B-5	90.2	FAT CLAY (CH/A-7-6)	58	23	35		
★ B-5	100.2	ELASTIC SILT with SAND (MH/A-7-5)	111	83	28		
⊙ B-5	110.2	ELASTIC SILT (MH/A-7-5)	103	53	50		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-5	26.2	9.51	0.003			0.0	10.7	22.8	66.5
☒ B-5	40.2	25	0.1			9.9	35.5	54.6	
▲ B-5	90.2	4.76				0.0	14.8	85.2	
★ B-5	100.2	9.51				0.2	26.1	73.6	
⊙ B-5	110.2	4.76				0.0	2.3	97.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/28/23

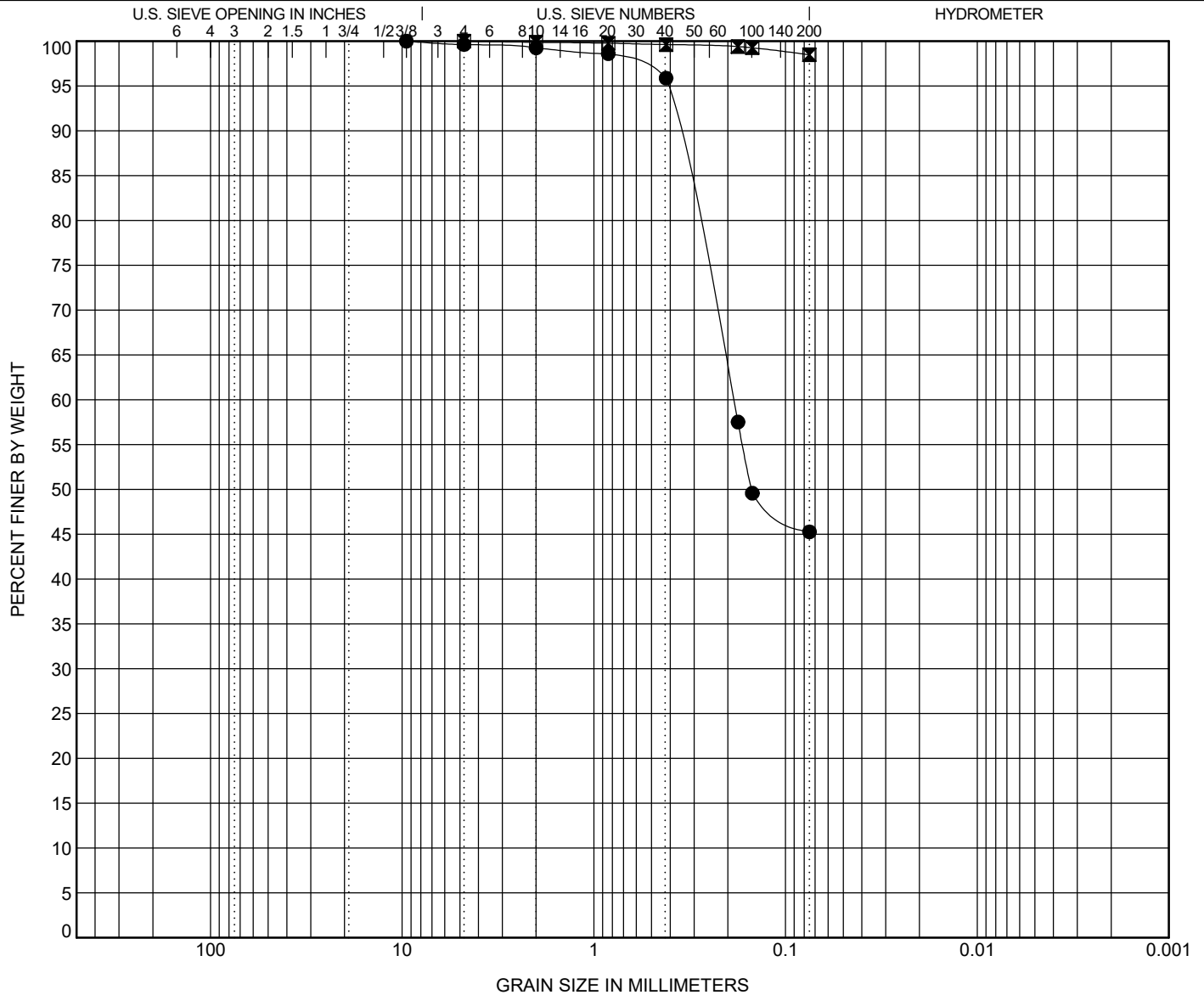


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-5	125.2	SILTY SAND (SM/A-4)					NP	NP	NP		
☒ B-5	145.2	ELASTIC SILT (MH/A-7-5)					97	41	56		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-5	125.2	9.51	0.187			0.4	54.3	45.3			
☒ B-5	145.2	4.76				0.0	1.5	98.5			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/28/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1868	DATE SAMPLE RECEIVED:	6/12/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW	DATE SETUP:	6/13/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/14/2023

BORING NO.	B-5	B-5	B-5	B-5	B-5
SAMPLE NO.	SS-3	SS-7	SS-9	SS-11	SS-13
SAMPLE DEPTH (FT.)	24.2 - 26.2	38.7 - 40.2	88.7 - 90.2	98.7 - 100.2	108.7 - 110.2
WATER CONTENT, W%	55.6	38.6	57.6	68.6	66.7

BORING NO.	B-5	B-5			
SAMPLE NO.	SS-16	SS-20			
SAMPLE DEPTH (FT.)	123.7 - 125.2	143.7 - 145.2			
WATER CONTENT, W%	44.4	54.0			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

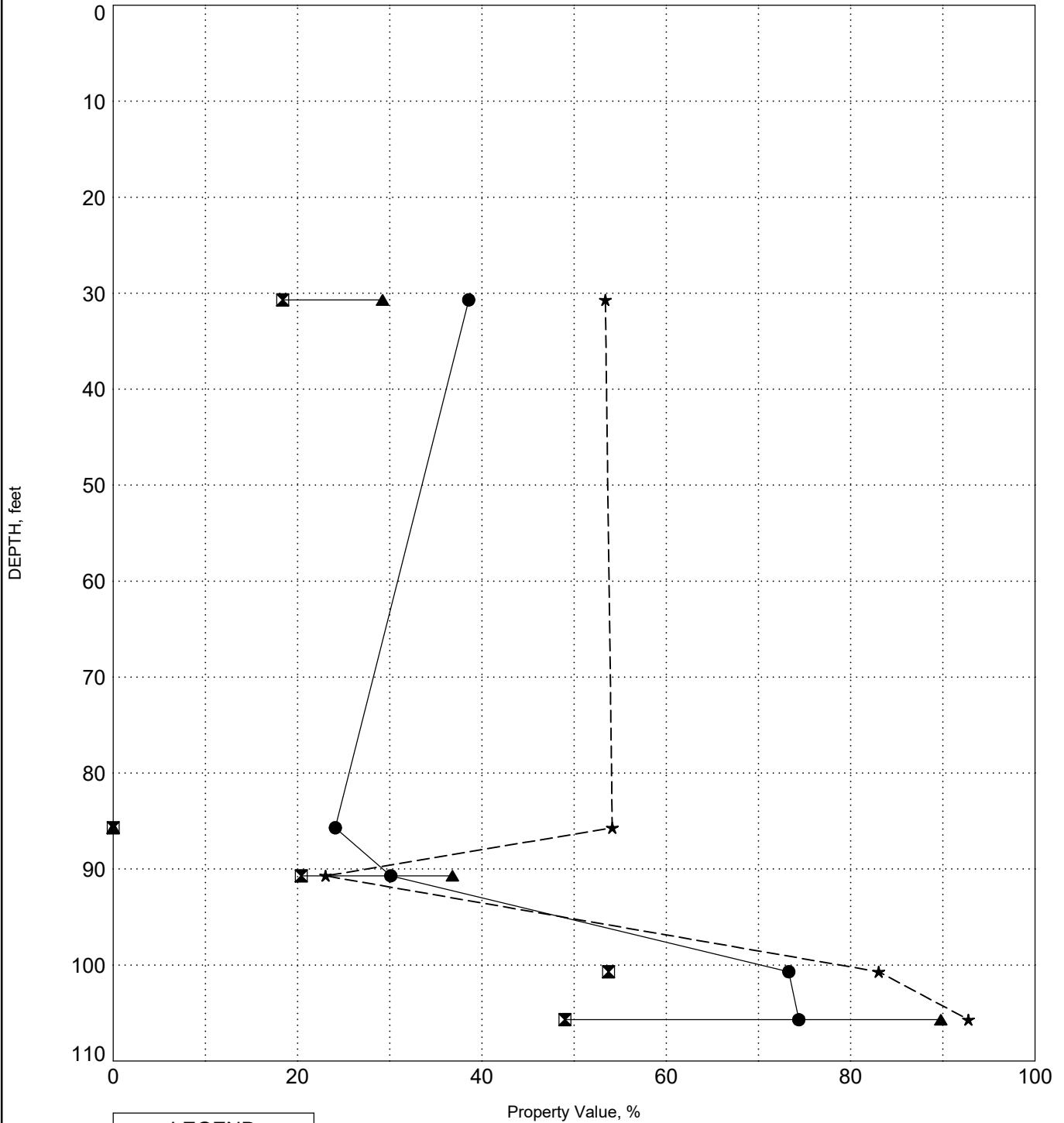
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.6

BORING B-6



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

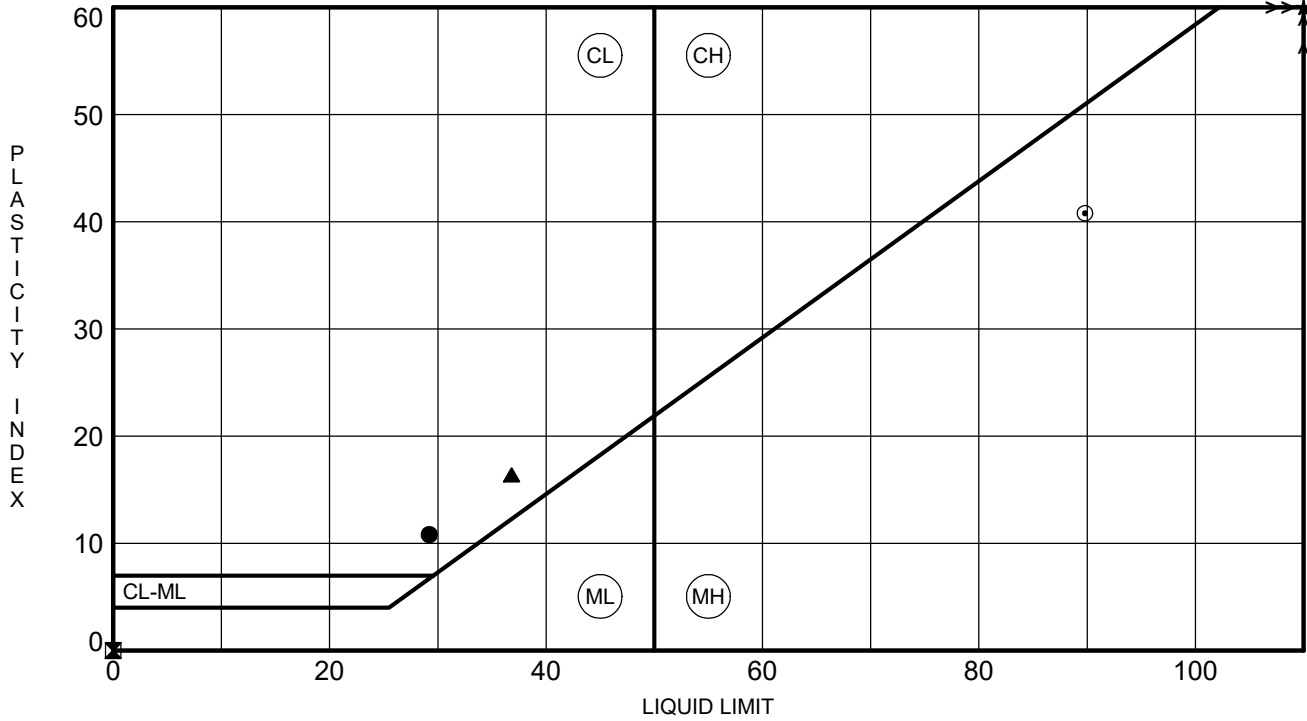


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-6	30.7	29	18	11	53	SANDY LEAN CLAY (CL/A-6)
■ B-6	85.7	NP	NP	NP	54	SANDY SILT (ML/A-4)
▲ B-6	90.7	37	20	17	23	CLAYEY SAND (SC/A-2-6)
★ B-6	100.7	120	54	66	83	ELASTIC SILT with SAND (MH/A-7-5)
⊙ B-6	105.7	90	49	41	93	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/2/23

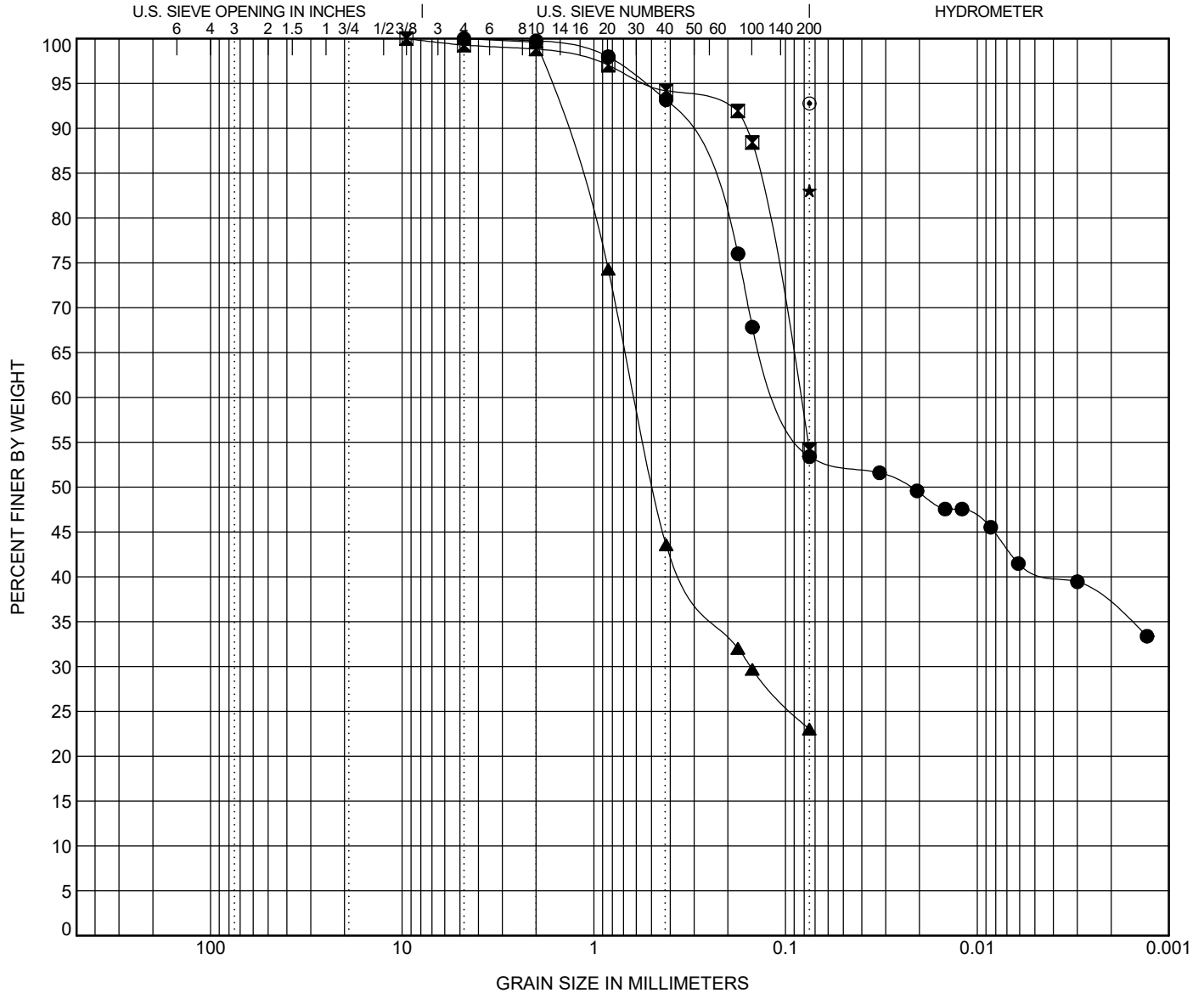


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-6	30.7	SANDY LEAN CLAY (CL/A-6)	29	18	11		
☒ B-6	85.7	SANDY SILT (ML/A-4)	NP	NP	NP		
▲ B-6	90.7	CLAYEY SAND (SC/A-2-6)	37	20	17		
★ B-6	100.7	ELASTIC SILT with SAND (MH/A-7-5)	120	54	66		
◎ B-6	105.7	ELASTIC SILT (MH/A-7-5)	90	49	41		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-6	30.7	4.76	0.103			0.0	46.6	12.5	40.9
☒ B-6	85.7	9.51	0.084			0.7	45.1	54.1	
▲ B-6	90.7	4.76	0.609	0.153		0.0	77.0	23.0	
★ B-6	100.7	0.075						83.0	
◎ B-6	105.7	0.075						92.8	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/2/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1094	DATE SAMPLE RECEIVED:	4/19/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/20/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	4/21/2023

BORING NO.	B-6	B-6	B-6	B-6	B-6
SAMPLE NO.	SS-5	SS-8	SS-9	SS-11	SS-12
SAMPLE DEPTH (FT.)	28.7 - 30.7	84.2 - 85.7	89.2 - 90.7	99.2 - 100.7	104.2 - 105.7
WATER CONTENT, W%	38.6	24.1	30.1	73.3	74.4

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

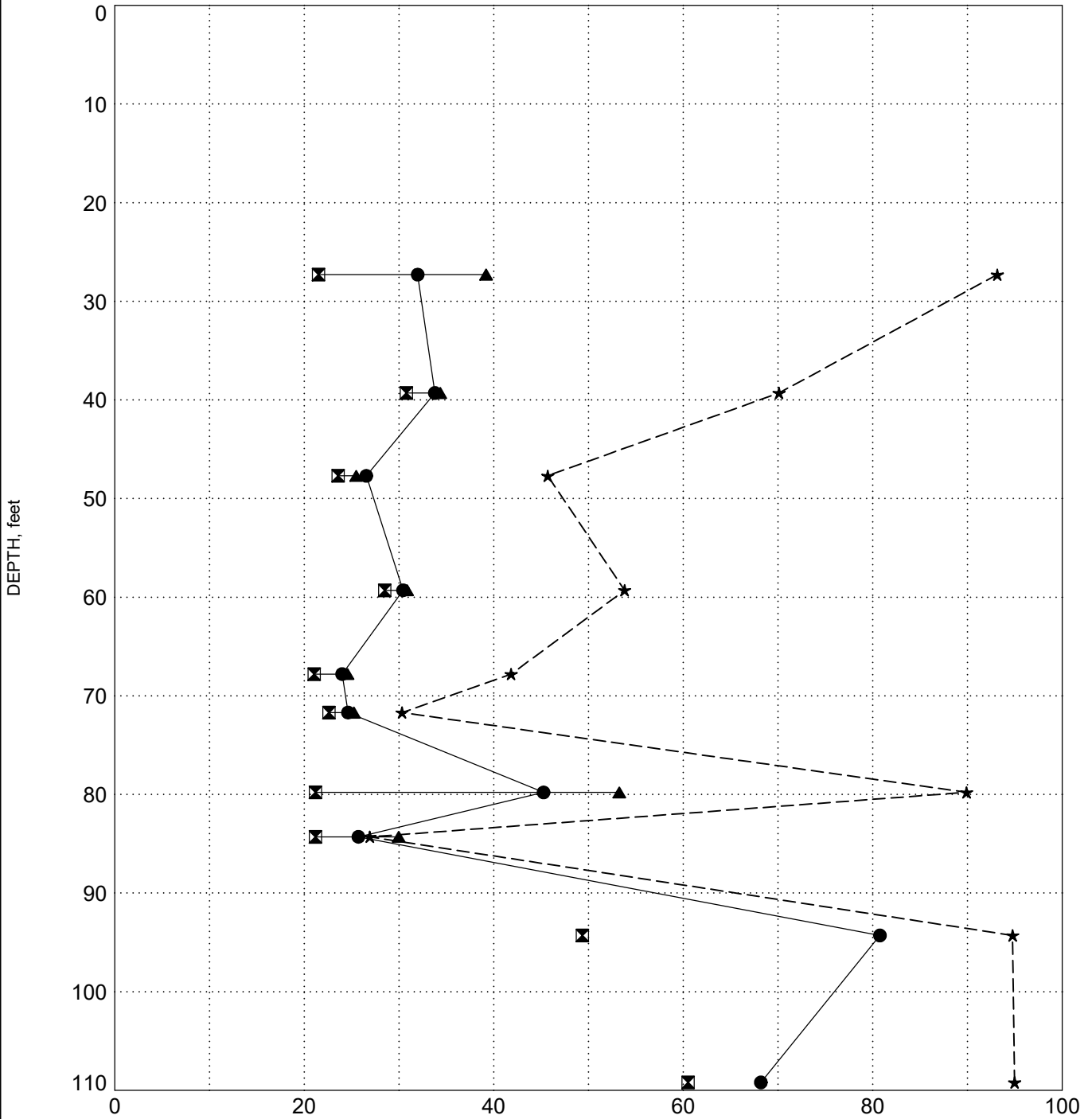
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.6

BORING B-7



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

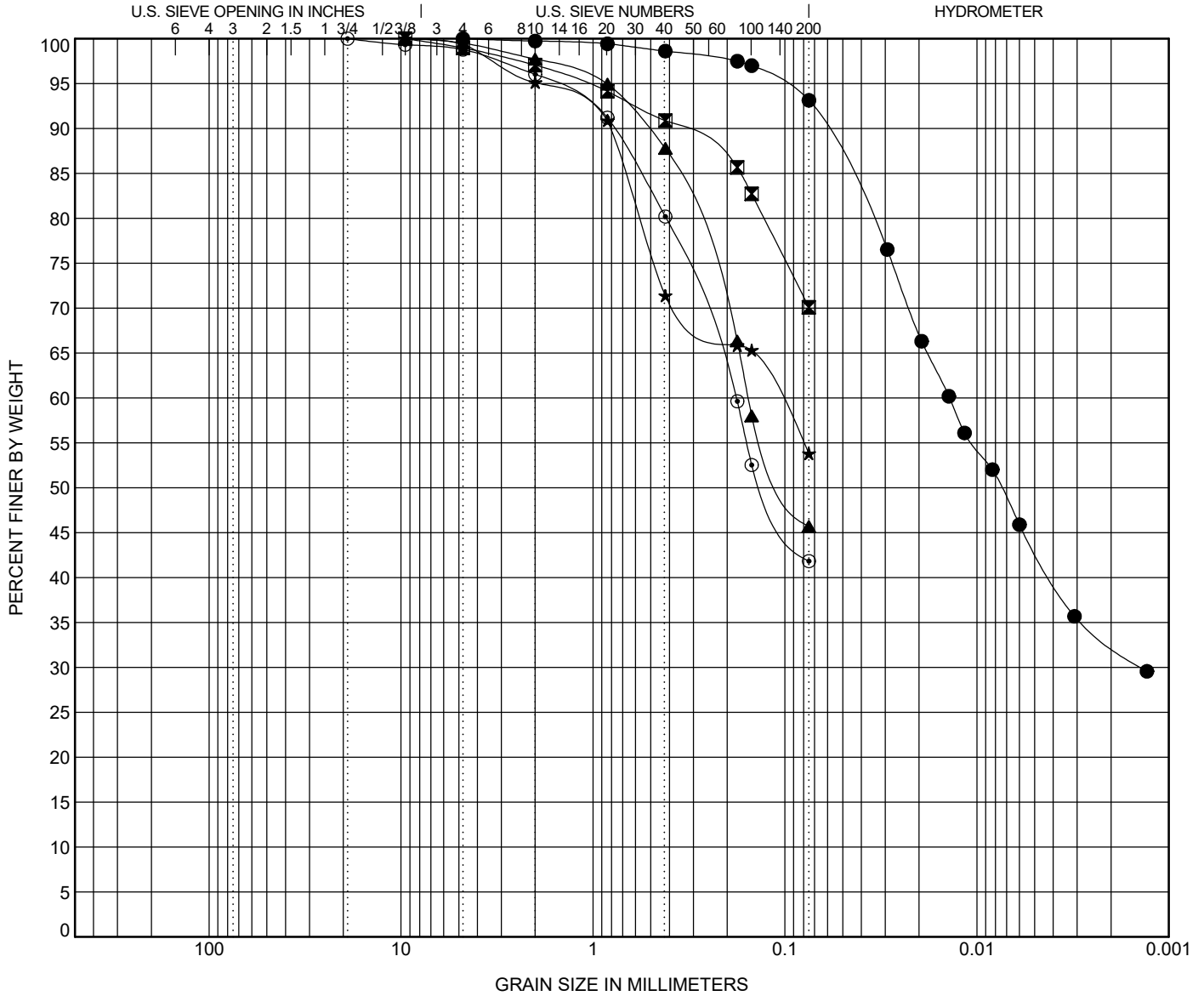


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-7	27.3	LEAN CLAY (CL/A-6)					39	22	17		
☒	B-7	39.3	SILT with SAND (ML/A-4)					34	31	3		
▲	B-7	47.7	SILTY SAND (SM/A-4)					25	24	1		
★	B-7	59.3	SANDY SILT (ML/A-4)					31	28	3		
◎	B-7	67.8	SILTY, CLAYEY SAND (SC-SM/A-4)					25	21	4		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-7	27.3	4.76	0.014	0.001	0.0	6.9	50.1	43.1
☒	B-7	39.3	9.51			1.0	28.9	70.1	
▲	B-7	47.7	9.51	0.155		0.5	53.8	45.7	
★	B-7	59.3	9.51	0.108		0.6	45.6	53.8	
◎	B-7	67.8	19	0.18		1.2	56.9	41.8	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/26/23

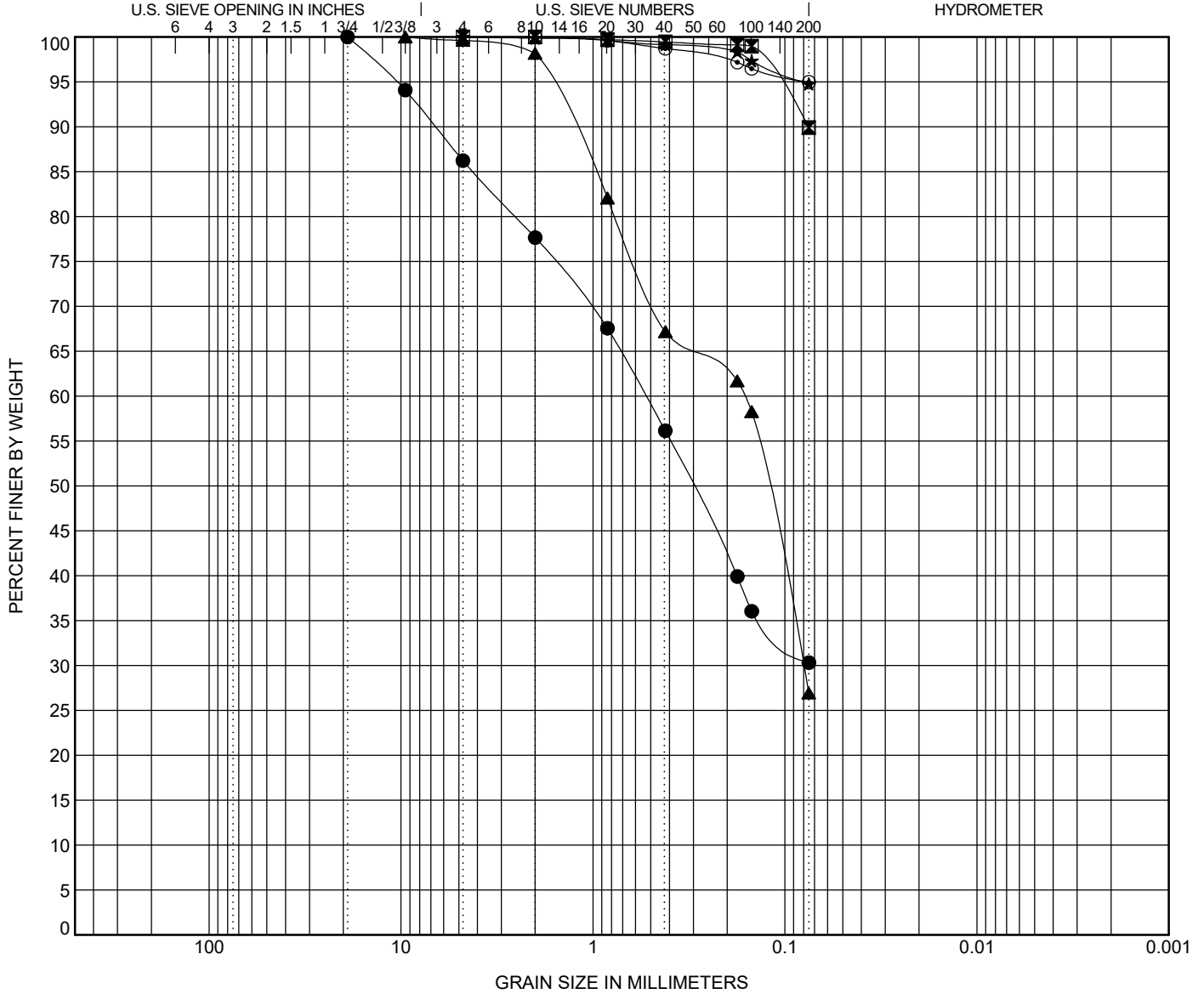


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-7	71.7	SILTY SAND (SM/A-2-4)	25	23	2		
☒ B-7	79.8	FAT CLAY (CH/A-7-6)	53	21	32		
▲ B-7	84.3	CLAYEY SAND (SC/A-2-4)	30	21	9		
★ B-7	94.3	ELASTIC SILT (MH/A-7-5)	109	49	60		
◎ B-7	109.2	ELASTIC SILT (MH/A-7-5)	102	61	41		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-7	71.7	19	0.531			13.8	55.9	30.3	
☒ B-7	79.8	4.76				0.0	10.1	89.9	
▲ B-7	84.3	9.51	0.163	0.08		0.4	72.7	26.9	
★ B-7	94.3	4.76				0.0	5.2	94.8	
◎ B-7	109.2	2				0.0	5.0	95.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/26/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1868	DATE SAMPLE RECEIVED:	6/12/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW	DATE SETUP:	6/13/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/14/2023

BORING NO.	B-7	B-7	B-7	B-7	B-7
SAMPLE NO.	SS-4	SS-7	SS-9	SS-12	SS-14
SAMPLE DEPTH (FT.)	25.3 - 27.3	37.8 - 39.3	45.8 - 47.7	57.8 - 59.3	65.8 - 67.8
WATER CONTENT, W%	32.0	33.8	26.6	30.4	24.0

BORING NO.	B-7	B-7	B-7	B-7	B-7
SAMPLE NO.	SS-15	SS-17	SS-18	SS-20	SS-23
SAMPLE DEPTH (FT.)	69.8 - 71.7	77.8 - 79.8	82.8 - 84.3	92.8 - 94.3	107.8 - 109.2
WATER CONTENT, W%	24.6	45.3	25.7	80.8	48.2

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

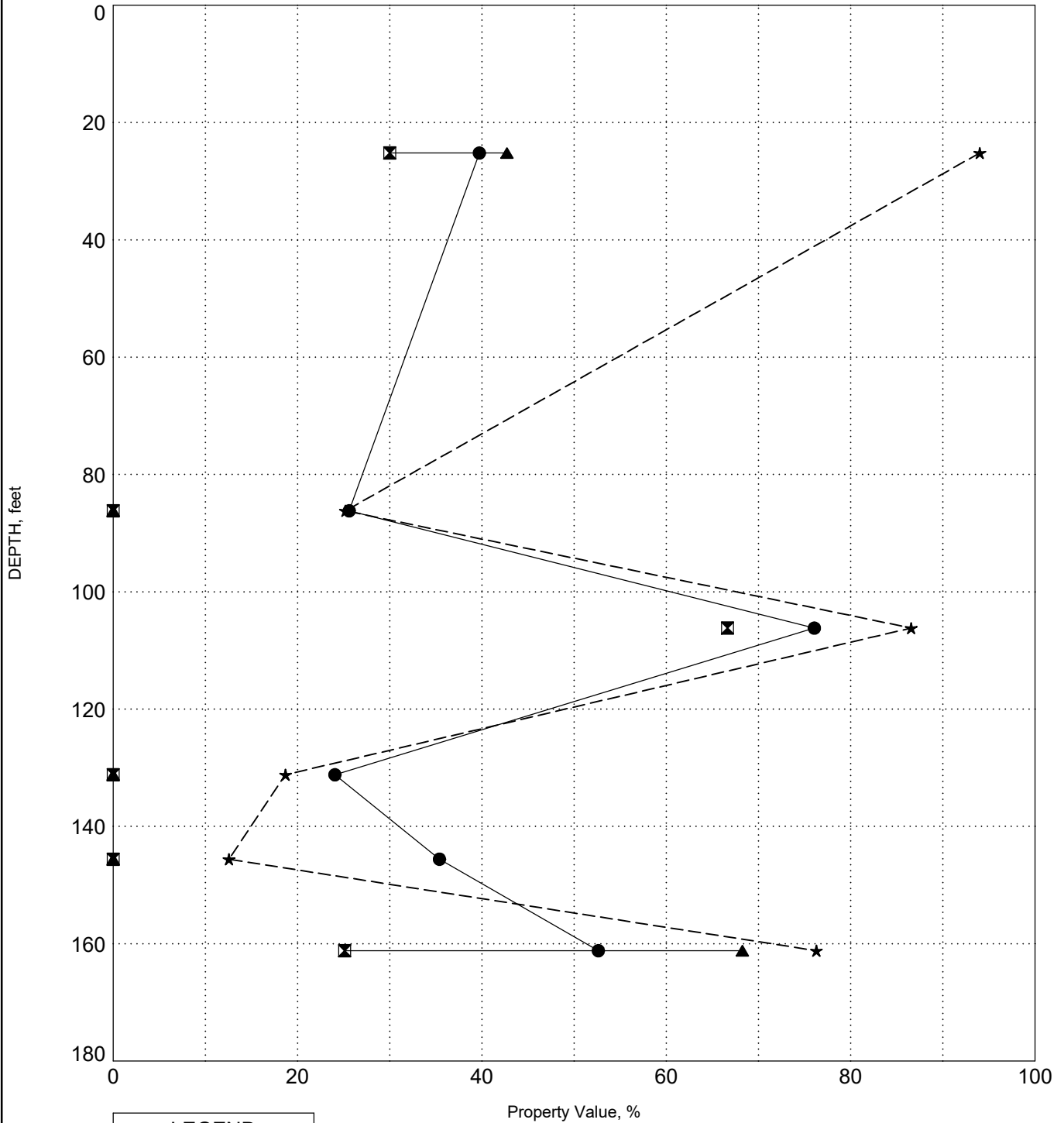
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.4

BORING B-8



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

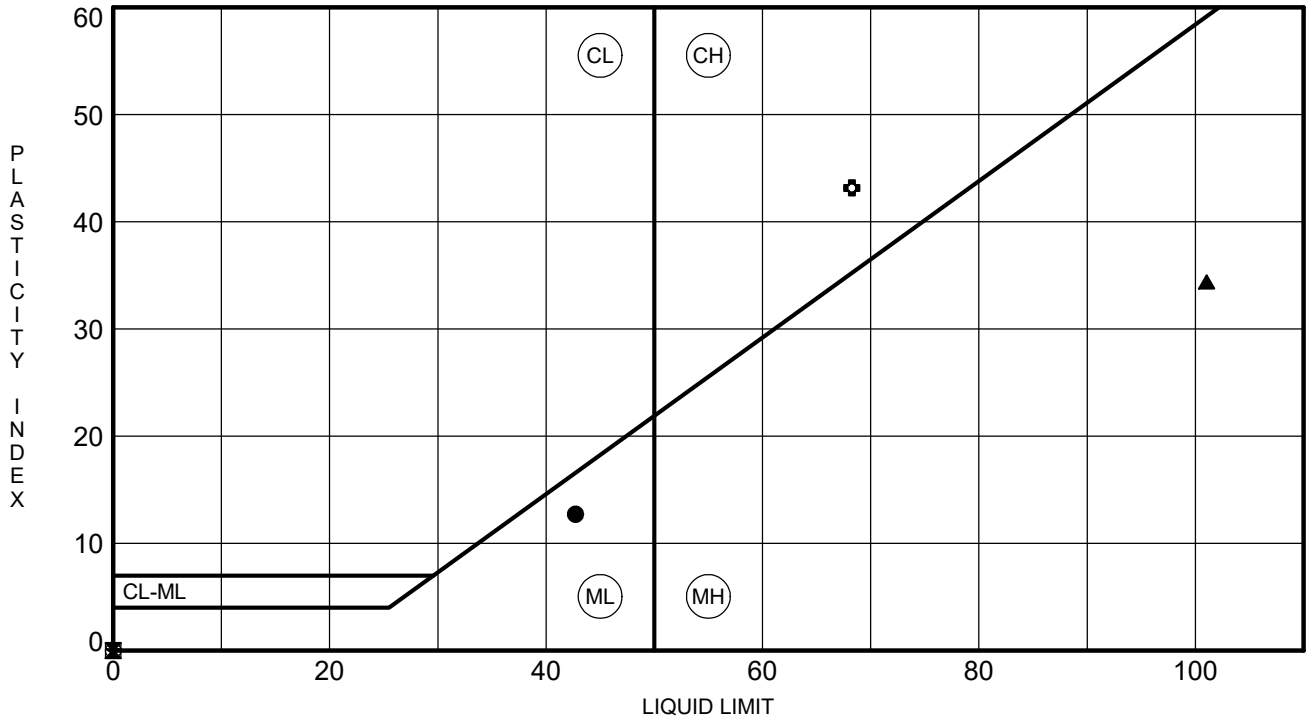


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-8	25.2	43	30	13	94	SILT (ML/A-7-5)
☒	B-8	86.2	NP	NP	NP	25	SILTY SAND (SM/A-2-4)
▲	B-8	106.2	101	67	34	87	ELASTIC SILT (MH/A-7-5)
★	B-8	131.2	NP	NP	NP	19	SILTY SAND with GRAVEL (SM/A-2-4)
◎	B-8	145.6	NP	NP	NP	13	SILTY SAND (SM/A-2-4)
⊕	B-8	161.2	68	25	43	76	FAT CLAY with SAND (CH/A-7-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/20/23

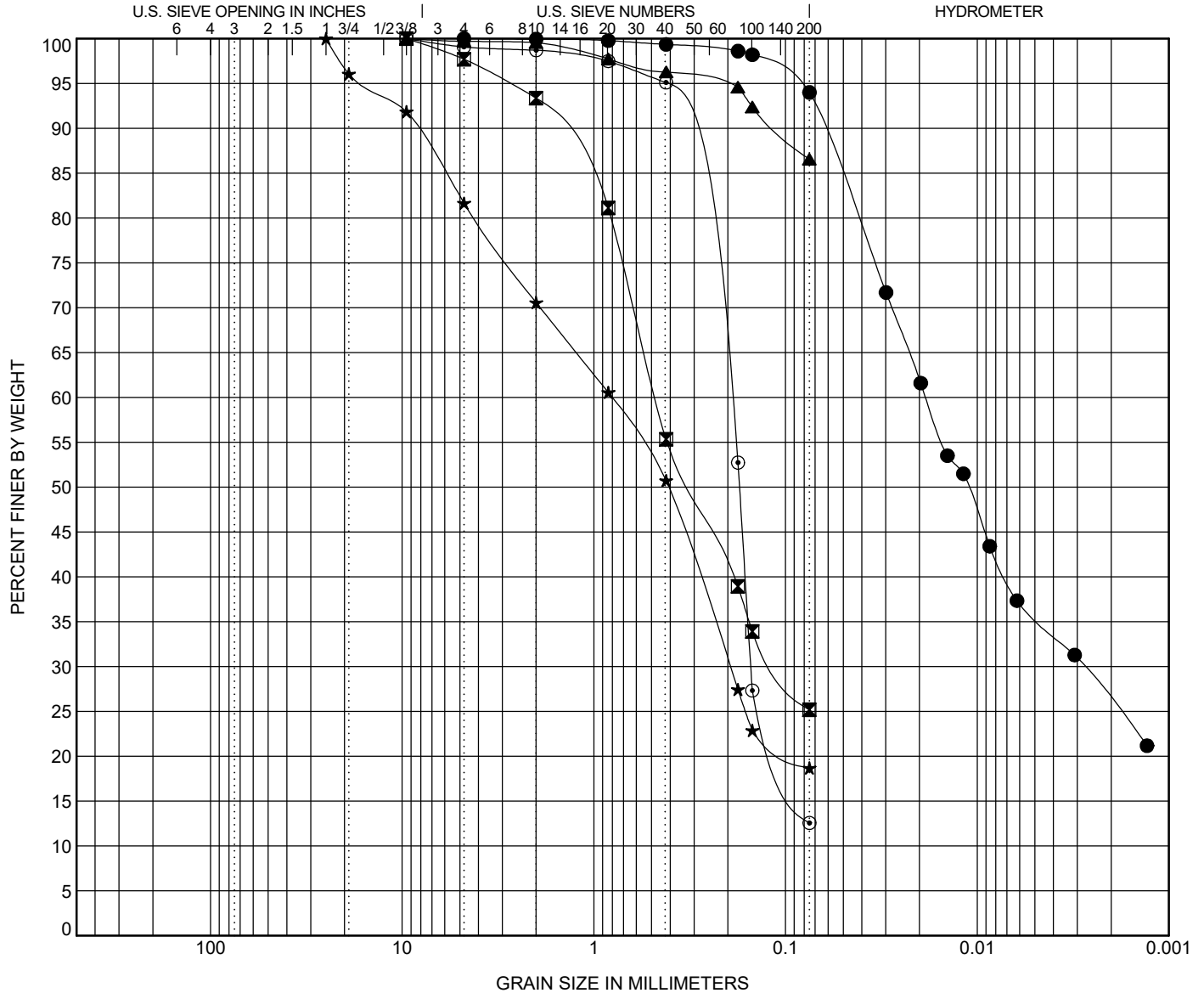


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-8	25.2	SILT (ML/A-7-5)	43	30	13		
☒ B-8	86.2	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-8	106.2	ELASTIC SILT (MH/A-7-5)	101	67	34		
★ B-8	131.2	SILTY SAND with GRAVEL (SM/A-2-4)	NP	NP	NP		
⊙ B-8	145.6	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-8	25.2	4.76	0.018	0.003		0.0	6.0	58.5	35.5
☒ B-8	86.2	9.51	0.476	0.11		2.3	72.5	25.2	
▲ B-8	106.2	9.51				0.3	13.1	86.6	
★ B-8	131.2	25	0.808	0.195		18.4	62.9	18.7	
⊙ B-8	145.6	9.51	0.205	0.152		0.9	86.5	12.6	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/20/23

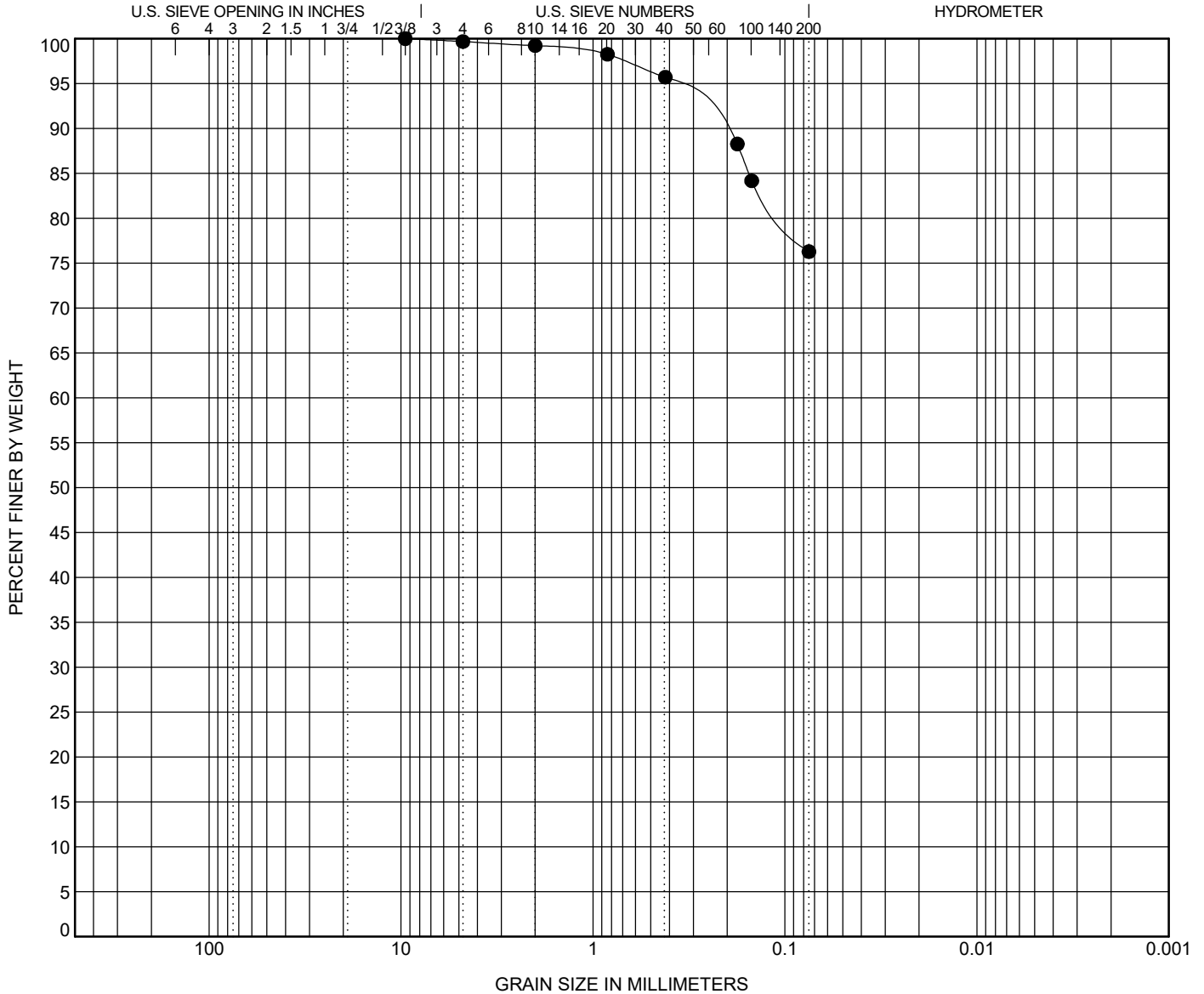


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-8	161.2	FAT CLAY with SAND (CH/A-7-6)	68	25	43		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-8	161.2	9.51				0.3	23.4	76.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/20/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0952	DATE SAMPLE RECEIVED:	4/7/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	4/11/2023

BORING NO.	B-8	B-8	B-8	B-8	B-8
SAMPLE NO.	SS-2	SS-9	SS-13	SS-18	SS-21
SAMPLE DEPTH (FT.)	23.2 - 25.2	84.7 - 86.2	104.7 - 106.2	129.7 - 131.2	144.7 - 145.6
WATER CONTENT, W%	39.7	25.6	76.1	24.1	35.4

BORING NO.	B-8				
SAMPLE NO.	SS-24				
SAMPLE DEPTH (FT.)	159.7 - 161.2				
WATER CONTENT, W%	52.6				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

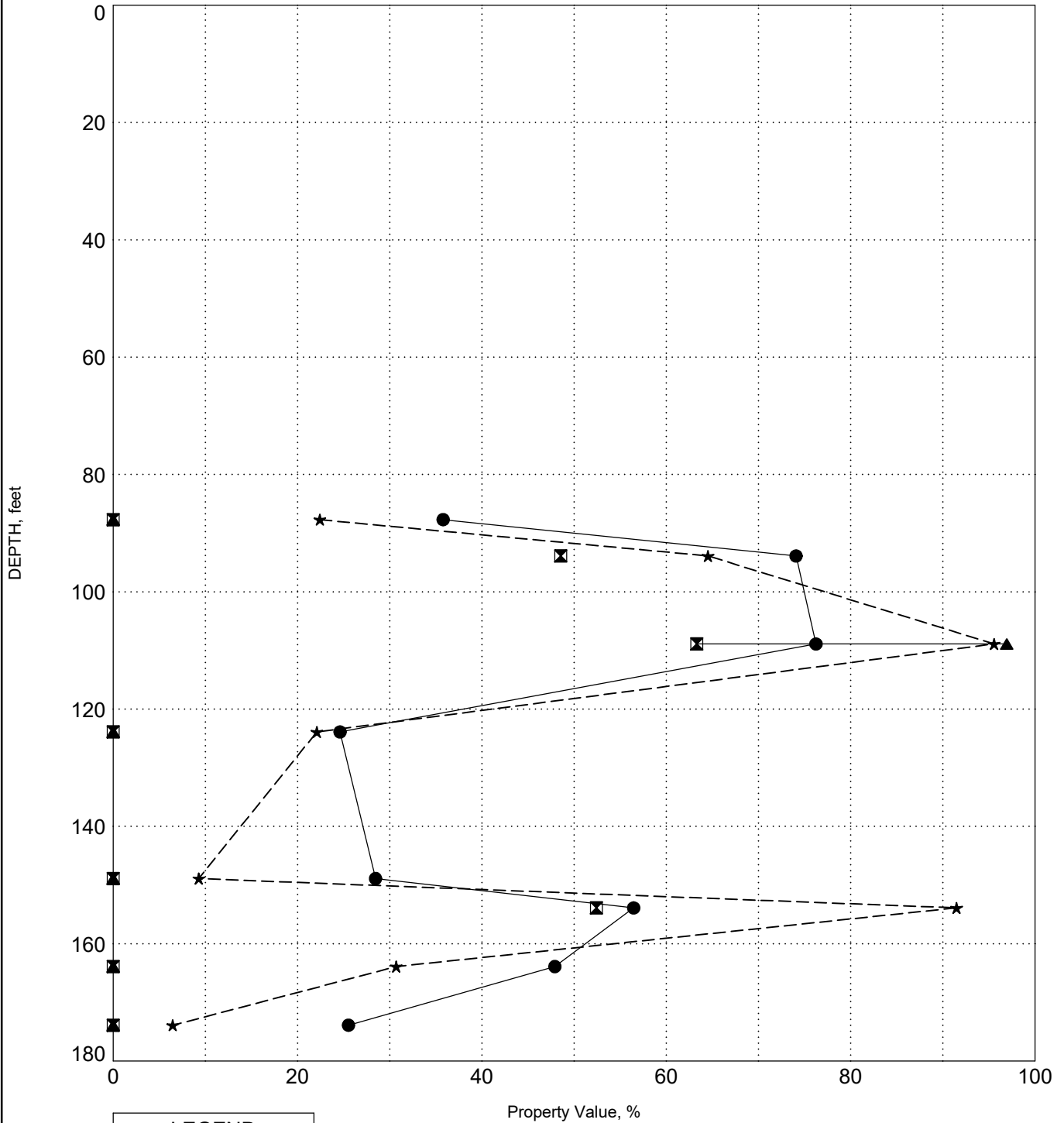
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-9

SURFACE ELEVATION: 78.3



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

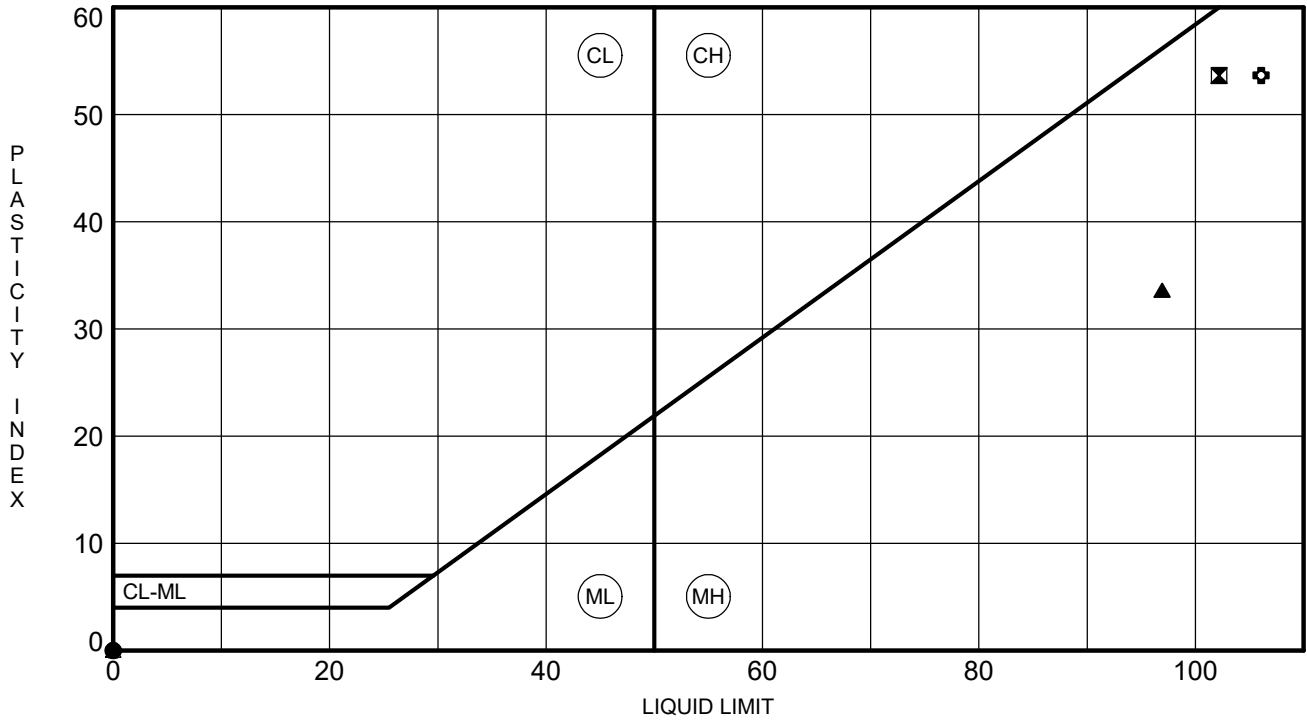


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-9	87.7	NP	NP	NP	22	SILTY SAND (SM/A-2-4)
☒ B-9	93.9	102	49	53	65	SANDY ELASTIC SILT (MH/A-7-5)
▲ B-9	108.9	97	63	34	96	ELASTIC SILT (MH/A-7-5)
★ B-9	123.9	NP	NP	NP	22	SILTY SAND (SM/A-2-4)
⊙ B-9	148.9	NP	NP	NP	9	POORLY GRADED SAND with SILT (SP-SM/A-3)
⊕ B-9	153.9	106	52	54	91	ELASTIC SILT (MH/A-7-5)
○ B-9	163.9	NP	NP	NP	31	SILTY SAND (SM/A-2-4)
△ B-9	173.9	NP	NP	NP	6	POORLY GRADED SAND with SILT (SP-SM/A-3)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

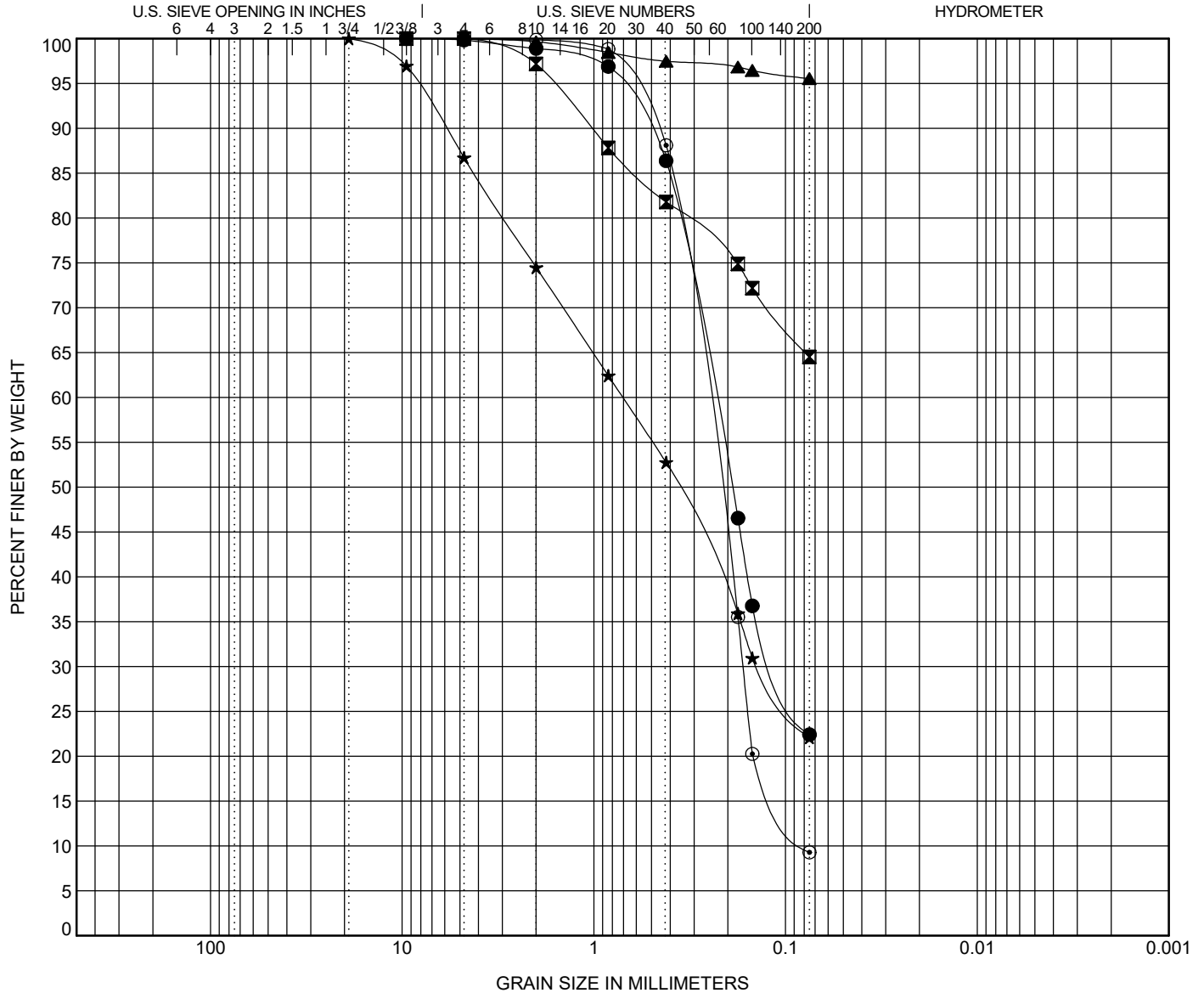


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-9	87.7	SILTY SAND (SM/A-2-4)					NP	NP	NP		
☒	B-9	93.9	SANDY ELASTIC SILT (MH/A-7-5)					102	49	53		
▲	B-9	108.9	ELASTIC SILT (MH/A-7-5)					97	63	34		
★	B-9	123.9	SILTY SAND (SM/A-2-4)					NP	NP	NP		
◎	B-9	148.9	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	1.33	3.37
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
●	B-9	87.7	9.51	0.237	0.108	0.2	77.4	22.4				
☒	B-9	93.9	9.51			0.0	35.5	64.5				
▲	B-9	108.9	4.76			0.0	4.4	95.6				
★	B-9	123.9	19	0.706	0.138	13.3	64.6	22.1				
◎	B-9	148.9	4.76	0.265	0.166	0.078	0.0	90.7	9.3			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

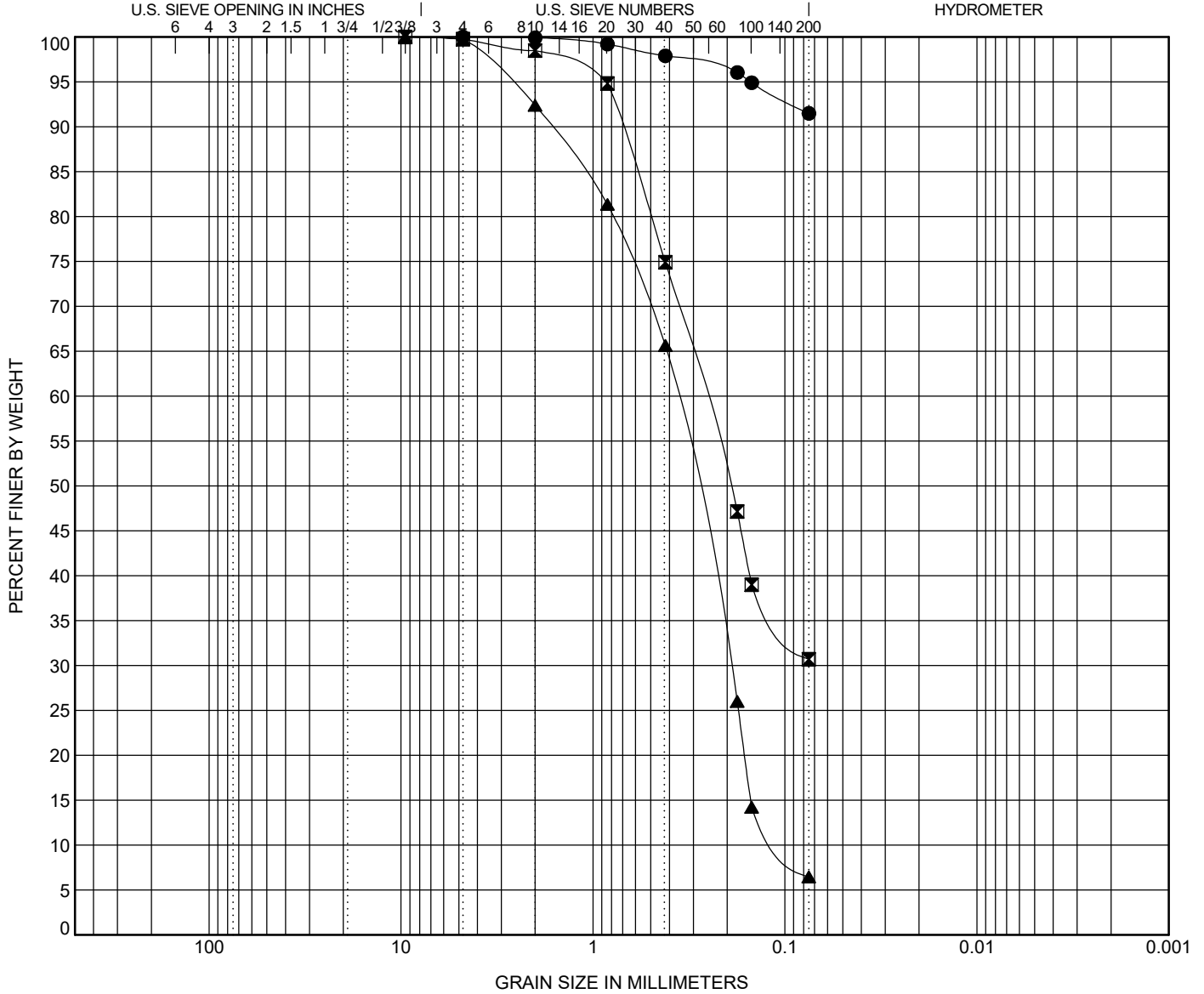


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-9	153.9	ELASTIC SILT (MH/A-7-5)	106	52	54		
☒ B-9	163.9	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-9	173.9	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	0.98	3.62

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-9	153.9	4.76				0.0	8.5	91.5	
☒ B-9	163.9	9.51	0.264			0.2	69.1	30.7	
▲ B-9	173.9	9.51	0.371	0.193	0.103	0.3	93.2	6.4	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1829	DATE SAMPLE RECEIVED:	6/12/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW	DATE SETUP:	6/13/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/14/2023

BORING NO.	B-9	B-9	B-9	B-9	B-9
SAMPLE NO.	SS-4	SS-5	SS-8	SS-11	SS-16
SAMPLE DEPTH (FT.)	86.3 - 87.7	92.4 - 93.9	107.4 - 108.9	122.4 - 123.9	147.4 - 148.9
WATER CONTENT, W%	35.8	74.1	76.2	24.6	28.5

BORING NO.	B-9	B-9	B-9		
SAMPLE NO.	SS-17	SS-19	SS-21		
SAMPLE DEPTH (FT.)	152.4 - 153.9	162.4 - 163.9	172.4 - 173.9		
WATER CONTENT, W%	56.5	47.9	25.5		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

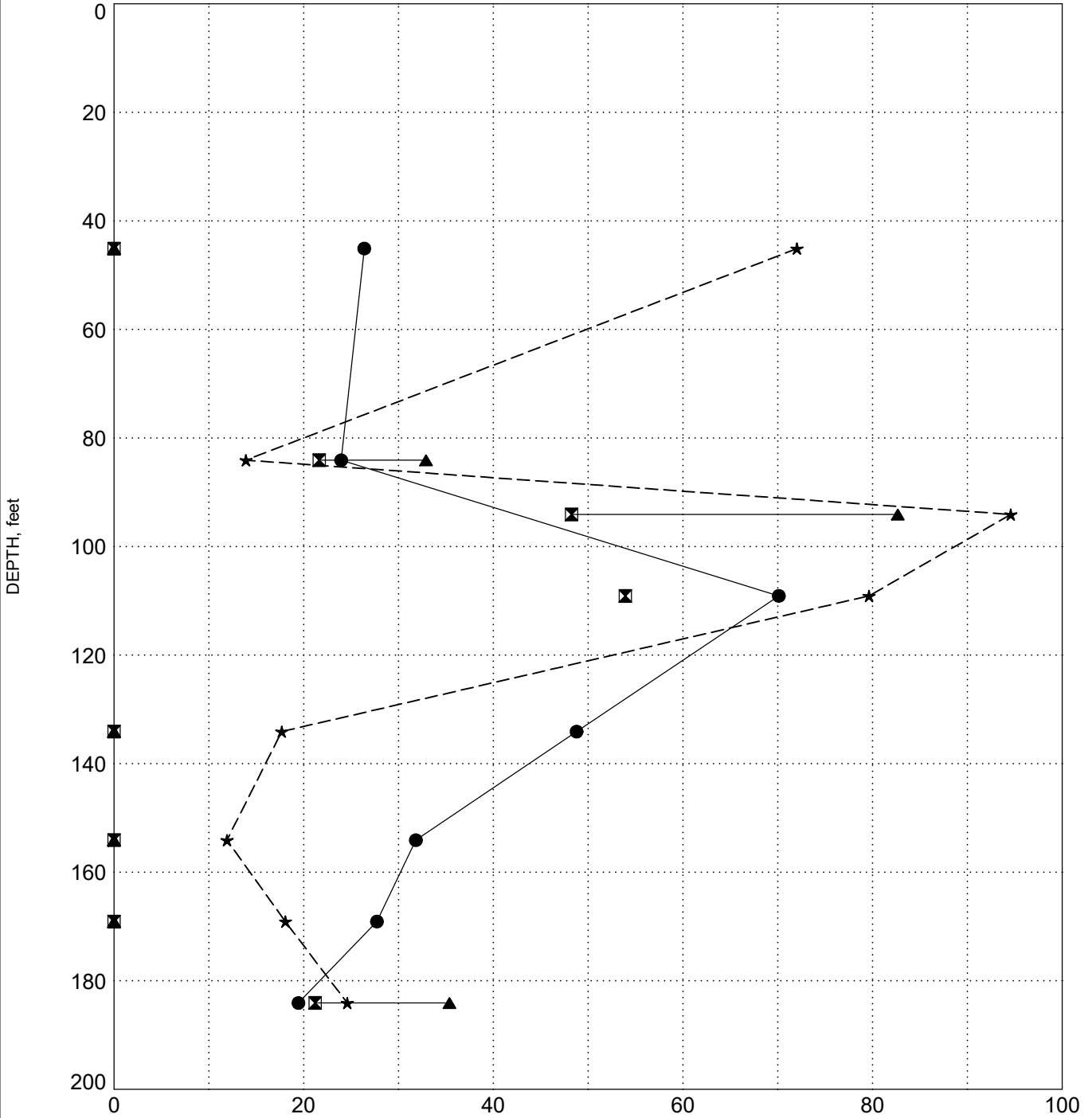
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.8

BORING B-10



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

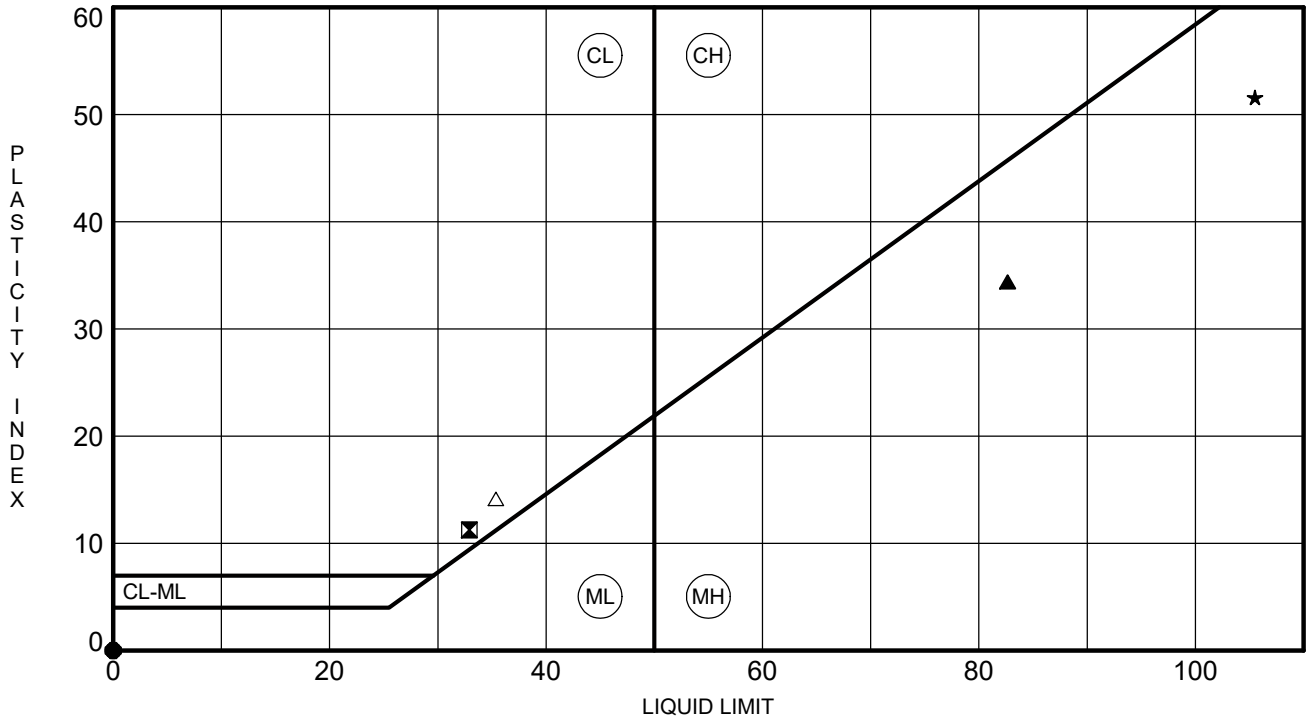


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-10	45.1	NP	NP	NP	72	SILT with SAND (ML/A-4)
⊠	B-10	84.1	33	22	11	14	CLAYEY SAND (SC/A-2-6)
▲	B-10	94.1	83	48	35	95	ELASTIC SILT (MH/A-7-5)
★	B-10	109.1	106	54	52	80	ELASTIC SILT with SAND (MH/A-7-5)
⊙	B-10	134.1	NP	NP	NP	18	SILTY SAND (SM/A-1-b)
⊕	B-10	154.1	NP	NP	NP	12	POORLY GRADED SAND with SILT (SP-SM/A-2-4)
○	B-10	169.1	NP	NP	NP	18	SILTY SAND (SM/A-1-b)
△	B-10	184.1	35	21	14	25	CLAYEY SAND (SC/A-2-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/18/23

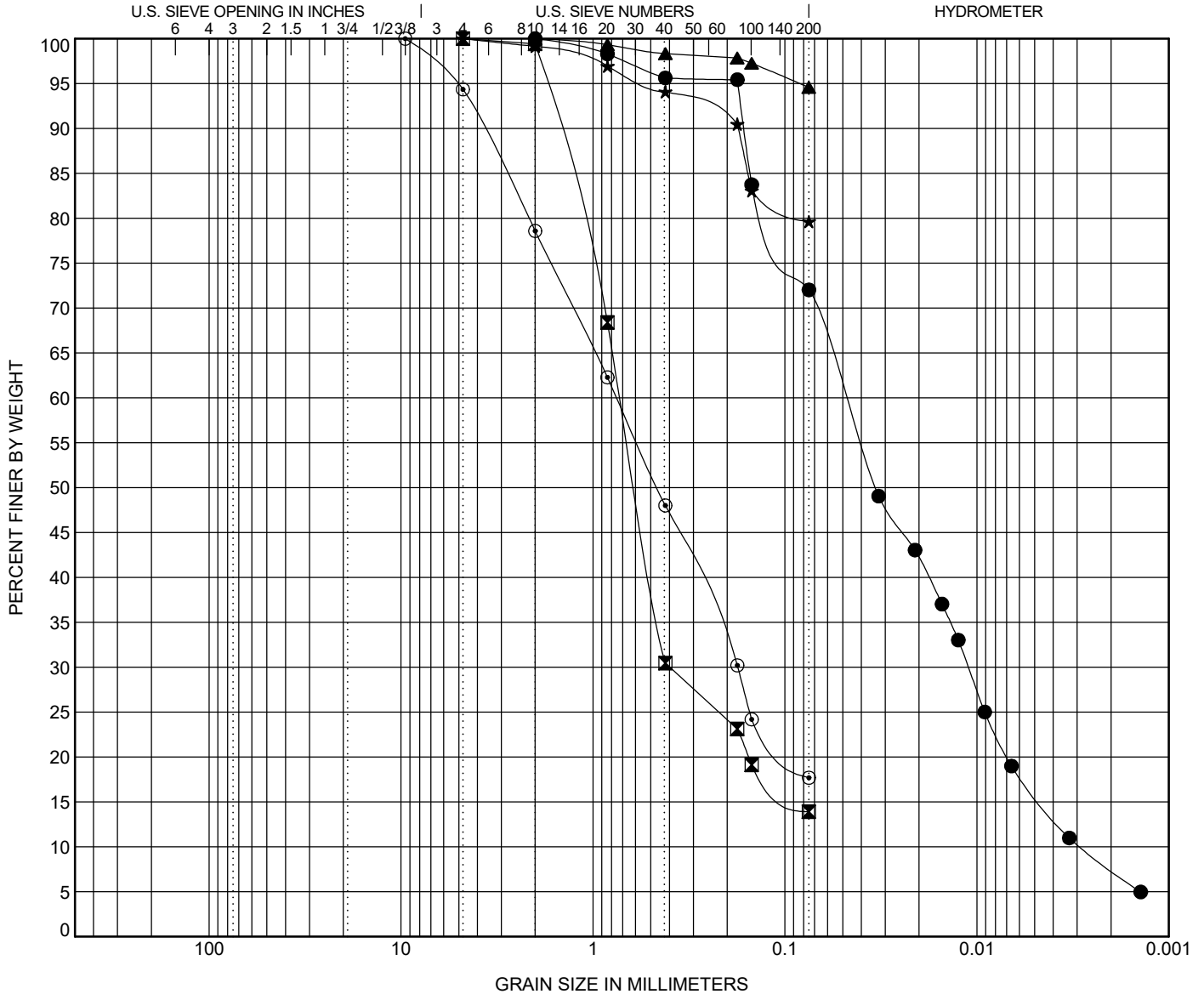


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-10	45.1	SILT with SAND (ML/A-4)			NP	NP	NP	0.89	16.87
☒	B-10	84.1	CLAYEY SAND (SC/A-2-6)			33	22	11		
▲	B-10	94.1	ELASTIC SILT (MH/A-7-5)			83	48	35		
★	B-10	109.1	ELASTIC SILT with SAND (MH/A-7-5)			106	54	52		
◎	B-10	134.1	SILTY SAND (SM/A-1-b)			NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
●	B-10	45.1	2	0.048	0.011	0.003	0.0	28.0	56.2	15.8
☒	B-10	84.1	4.76	0.721	0.398		0.0	86.1	13.9	
▲	B-10	94.1	2				0.0	5.4	94.6	
★	B-10	109.1	4.76				0.0	20.4	79.6	
◎	B-10	134.1	9.51	0.753	0.176		5.7	76.6	17.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/18/23

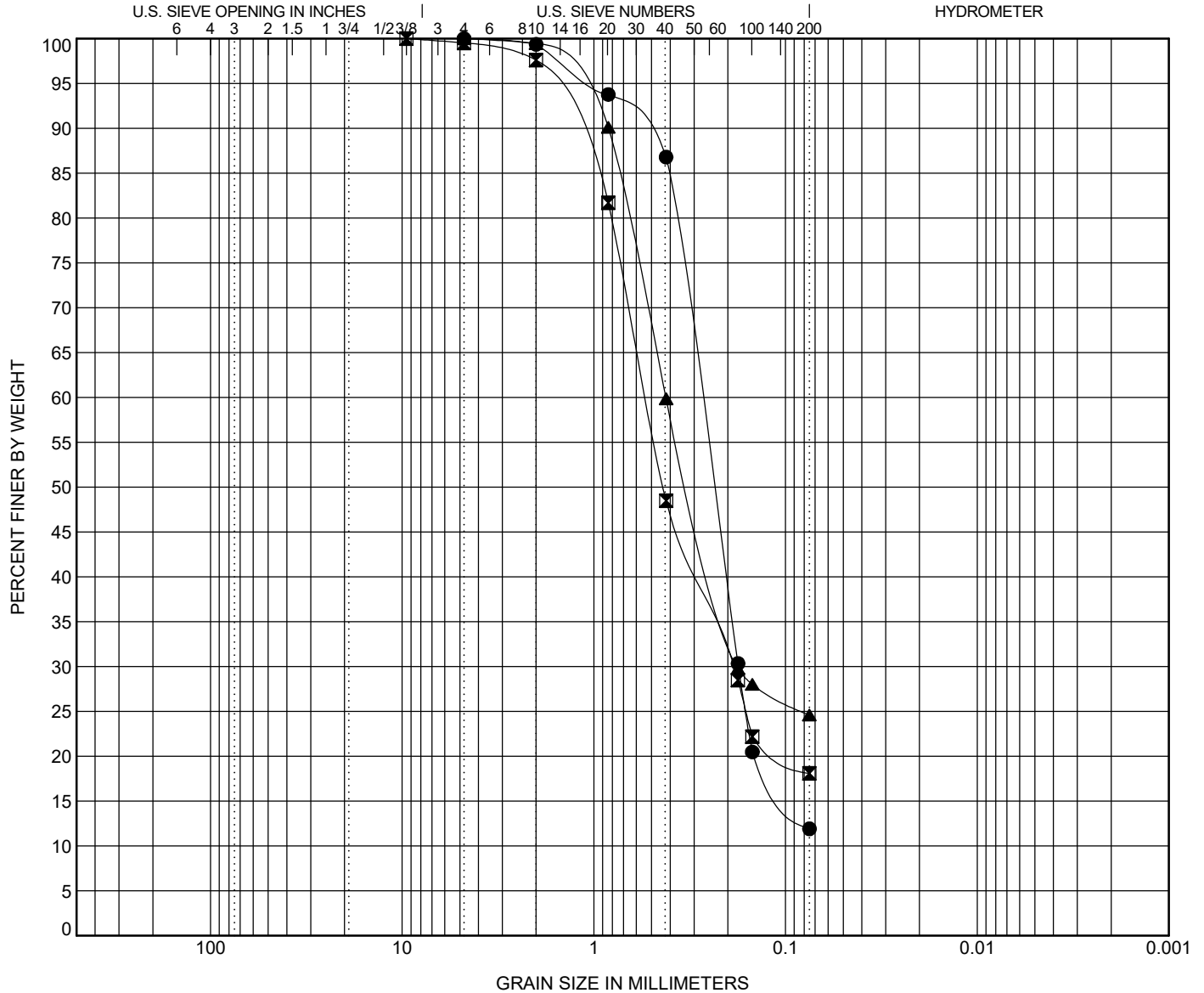


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-10	154.1	POORLY GRADED SAND with SILT (SP-SM/A-2-4)					NP	NP	NP	1.73	4.33
☒ B-10	169.1	SILTY SAND (SM/A-1-b)					NP	NP	NP		
▲ B-10	184.1	CLAYEY SAND (SC/A-2-6)					35	21	14		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-10	154.1	4.76	0.279	0.176		0.0	88.1	11.9			
☒ B-10	169.1	9.51	0.534	0.189		0.5	81.4	18.1			
▲ B-10	184.1	4.76	0.422	0.178		0.0	75.4	24.6			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/18/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0951	DATE SAMPLE RECEIVED:	4/7/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TP	DATE SETUP:	4/10/2023
WEIGHED BY:	TP	DATE OF WEIGHING:	4/11/2023

BORING NO.	B-10	B-10	B-10	B-10	B-10
SAMPLE NO.	SS-3	SS-6	SS-8	SS-11	SS-16
SAMPLE DEPTH (FT.)	43.1 - 45.1	82.6 - 84.1	92.6 - 94.1	107.6 - 109.1	132.6 - 134.1
WATER CONTENT, W%	26.4	24.0	137.7	70.1	48.8

BORING NO.	B-10	B-10	B-10		
SAMPLE NO.	SS-20	SS-23	SS-26		
SAMPLE DEPTH (FT.)	152.6 - 154.1	167.6 - 169.1	182.6 - 184.1		
WATER CONTENT, W%	31.8	27.7	19.4		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

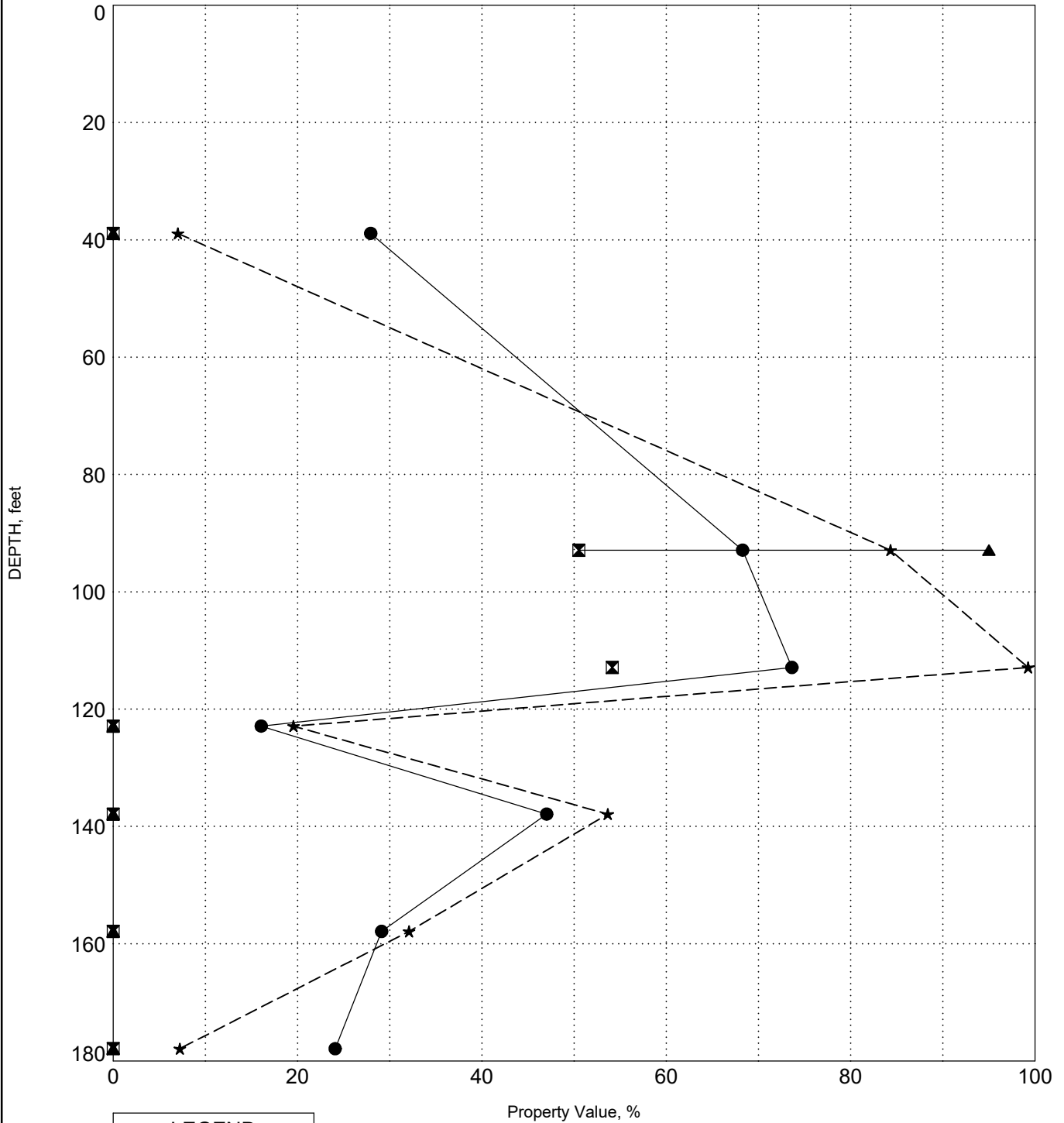
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.4

BORING B-11



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

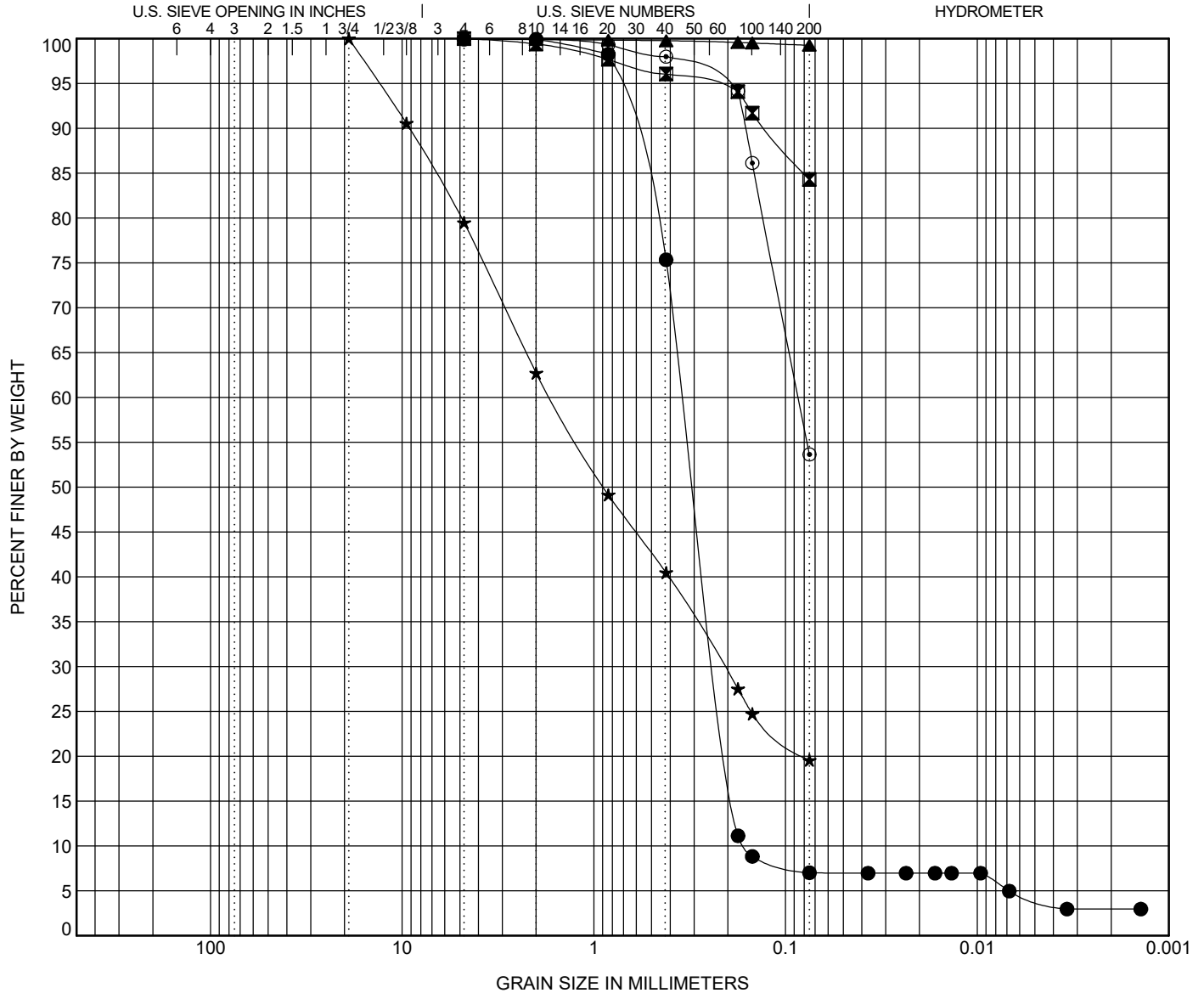


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-11	38.9	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	0.94	2.10
☒	B-11	92.9	ELASTIC SILT with SAND (MH/A-7-5)					95	51	44		
▲	B-11	112.9	ELASTIC SILT (MH/A-7-5)					103	54	49		
★	B-11	122.9	SILTY SAND with GRAVEL (SM/A-1-b)					NP	NP	NP		
◎	B-11	137.9	SANDY SILT (ML/A-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
●	B-11	38.9	4.76	0.342	0.228	0.163	0.0	92.9	2.9	4.1		
☒	B-11	92.9	4.76				0.0	15.7	84.3			
▲	B-11	112.9	4.76				0.0	0.7	99.3			
★	B-11	122.9	19	1.682	0.209		20.5	59.9	19.6			
◎	B-11	137.9	4.76	0.086			0.0	46.4	53.6			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

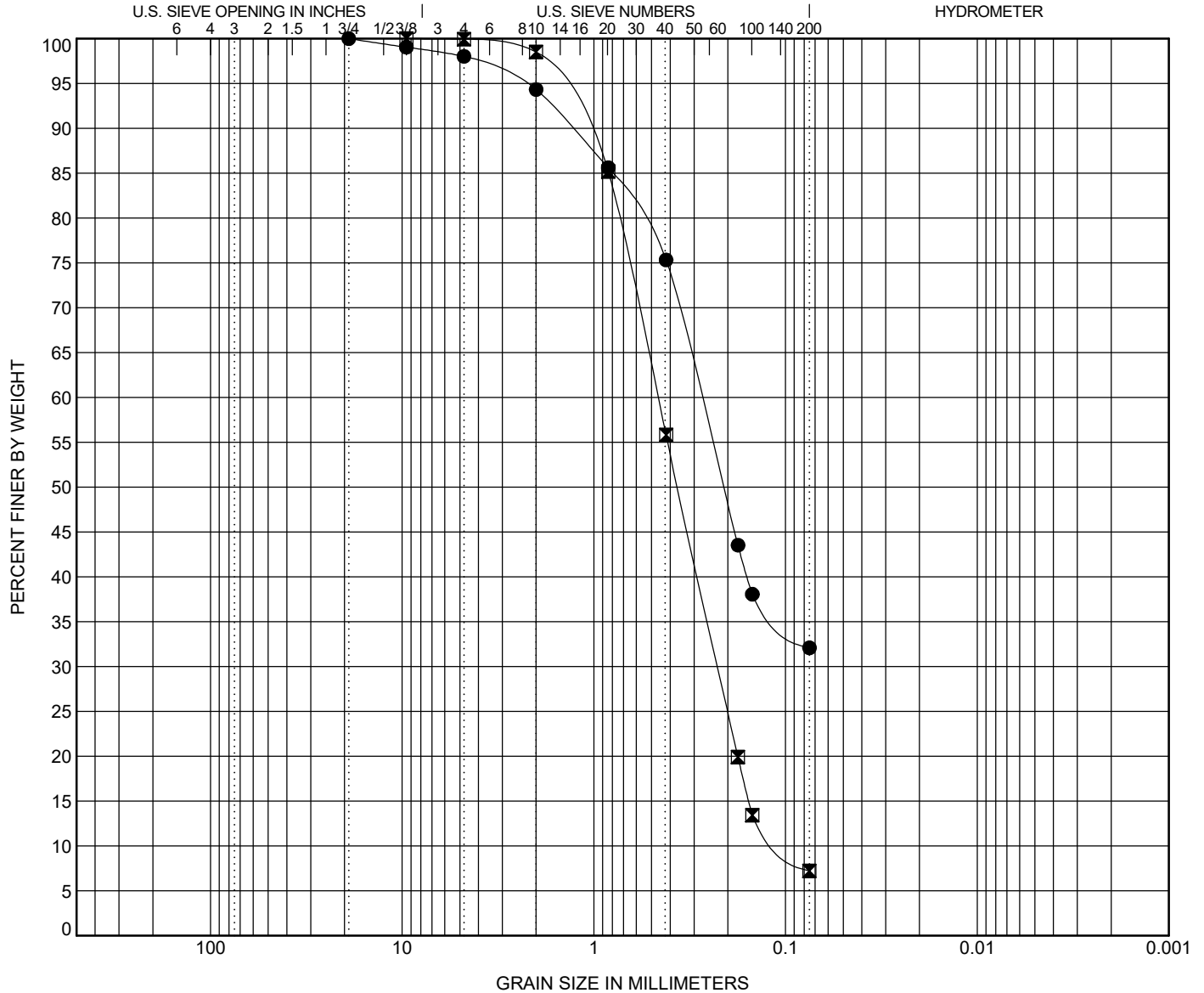


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-11	157.9	SILTY SAND (SM/A-2-4)	NP	NP	NP		
⊠ B-11	177.9	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	1.08	4.54

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-11	157.9	19	0.277			2.0	65.9		32.1
⊠ B-11	177.9	9.51	0.464	0.226	0.102	0.1	92.7		7.2

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1662	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-11	B-11	B-11	B-11	B-11
SAMPLE NO.	SS-3	SS-8	SS-12	SS-14	SS-17
SAMPLE DEPTH (FT.)	36.9 - 38.9	91.4 - 92.9	11.4 - 112.9	121.4 - 122.9	136.4 - 137.9
WATER CONTENT, W%	27.9	68.3	73.6	16.1	47.0

BORING NO.	B-11	B-11			
SAMPLE NO.	SS-21	SS-25			
SAMPLE DEPTH (FT.)	156.4 - 157.9	176.4 - 177.9			
WATER CONTENT, W%	29.1	24.1			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

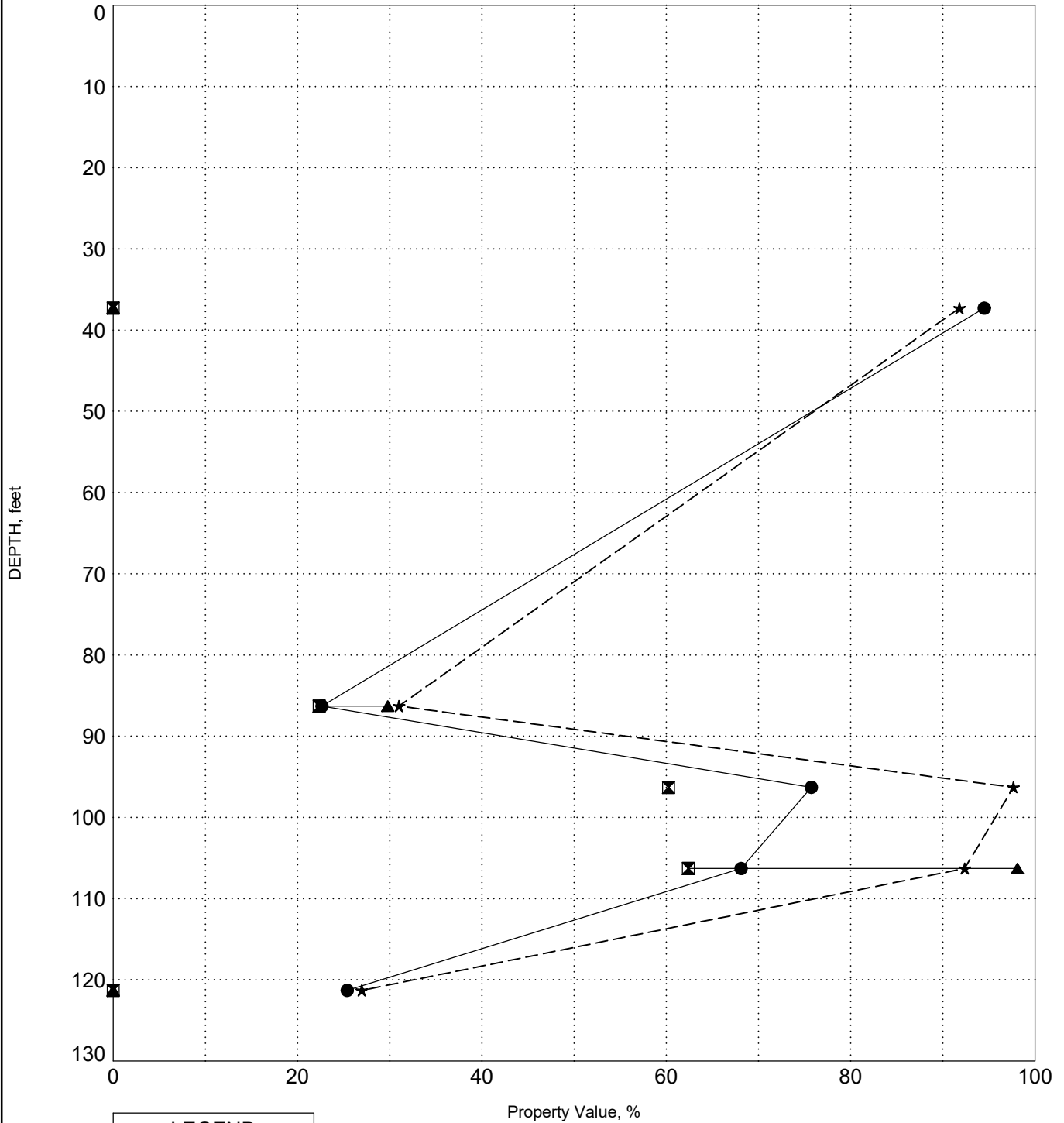
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-12



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

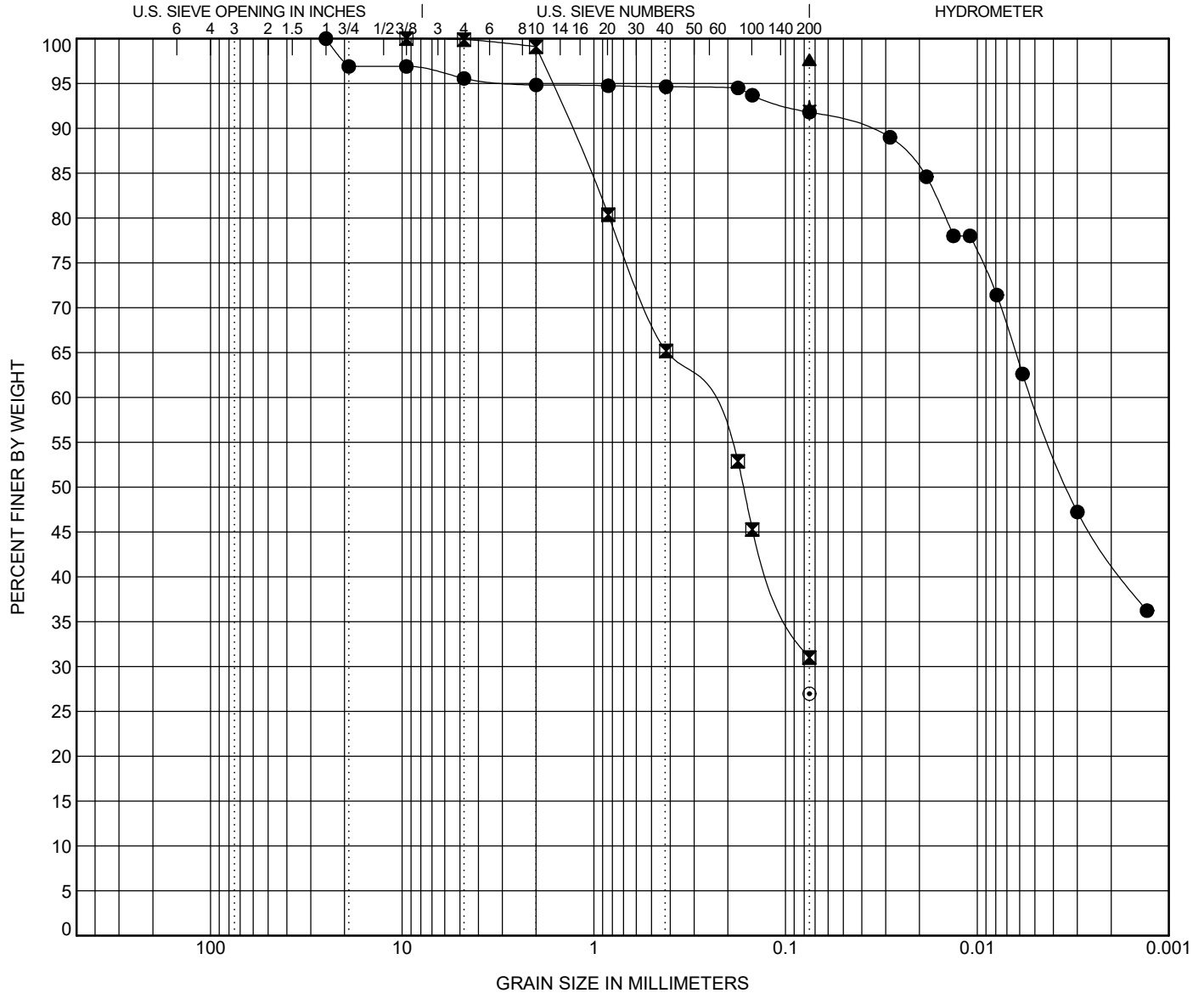


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-12	37.3	SILT (ML/A-4)	NP	NP	NP		
☒ B-12	86.3	CLAYEY SAND (SC/A-2-4)	30	22	8		
▲ B-12	96.3	ELASTIC SILT (MH/A-7-5)	102	60	42		
★ B-12	106.3	ELASTIC SILT (MH/A-7-5)	98	62	36		
◎ B-12	121.3	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-12	37.3	25	0.005			4.4	3.8	32.6	59.2
☒ B-12	86.3	9.51	0.292			0.1	68.9	31.0	
▲ B-12	96.3	0.075						97.6	
★ B-12	106.3	0.075						92.4	
◎ B-12	121.3	0.075						27.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/13/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0887	DATE SAMPLE RECEIVED:	3/28/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/4/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	4/5/2023

BORING NO.	B-12	B-22	B-22	B-22	B-22
SAMPLE NO.	SS-3	SS-6	SS-8	SS-10	SS-13
SAMPLE DEPTH (FT.)	35.3 - 37.3	84.8 - 86.3	94.8 - 96.3	104.8 - 106.3	119.8 - 121.3
WATER CONTENT, W%	94.5	22.6	75.7	68.1	25.4

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

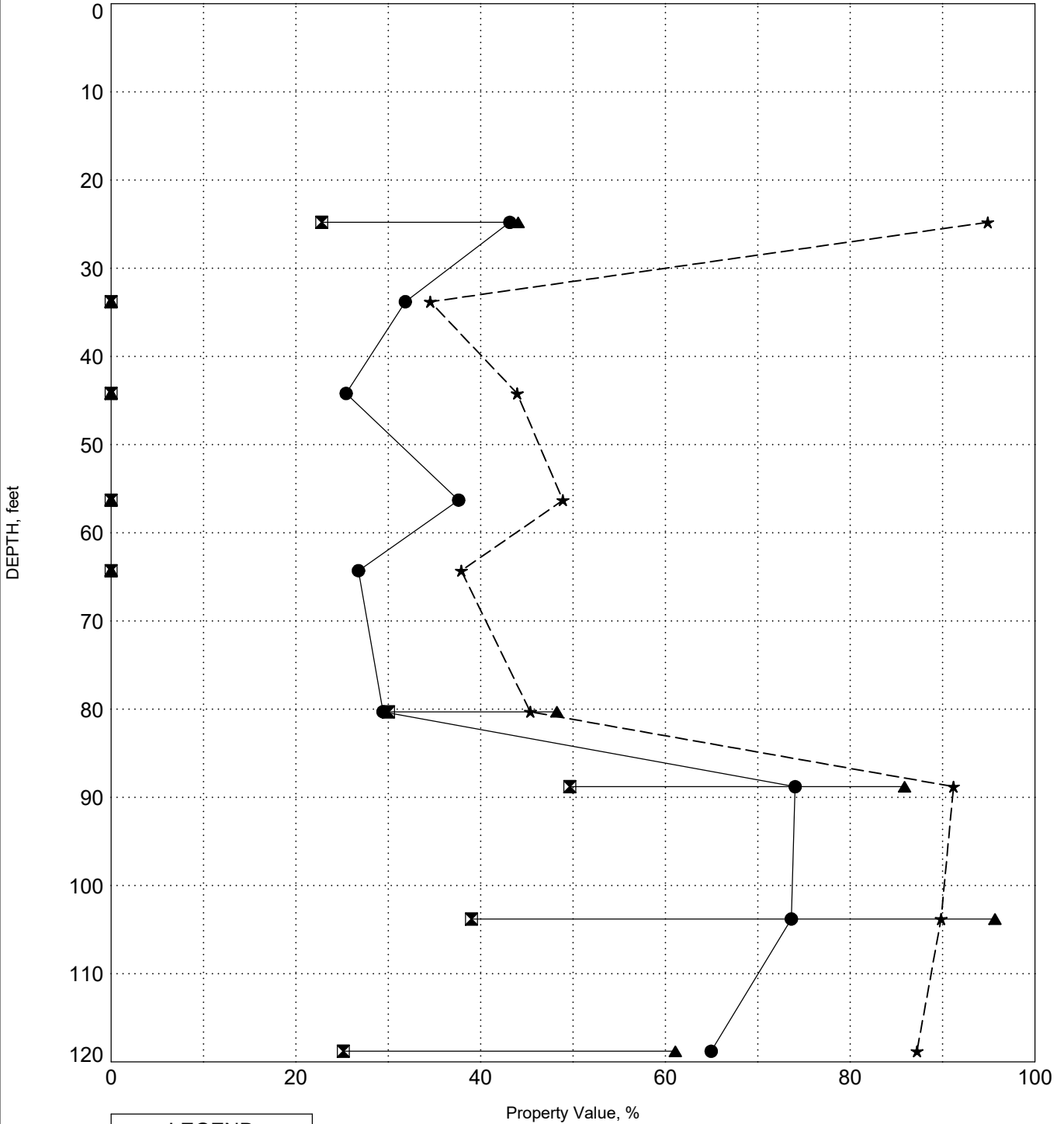
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.3

BORING B-13



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

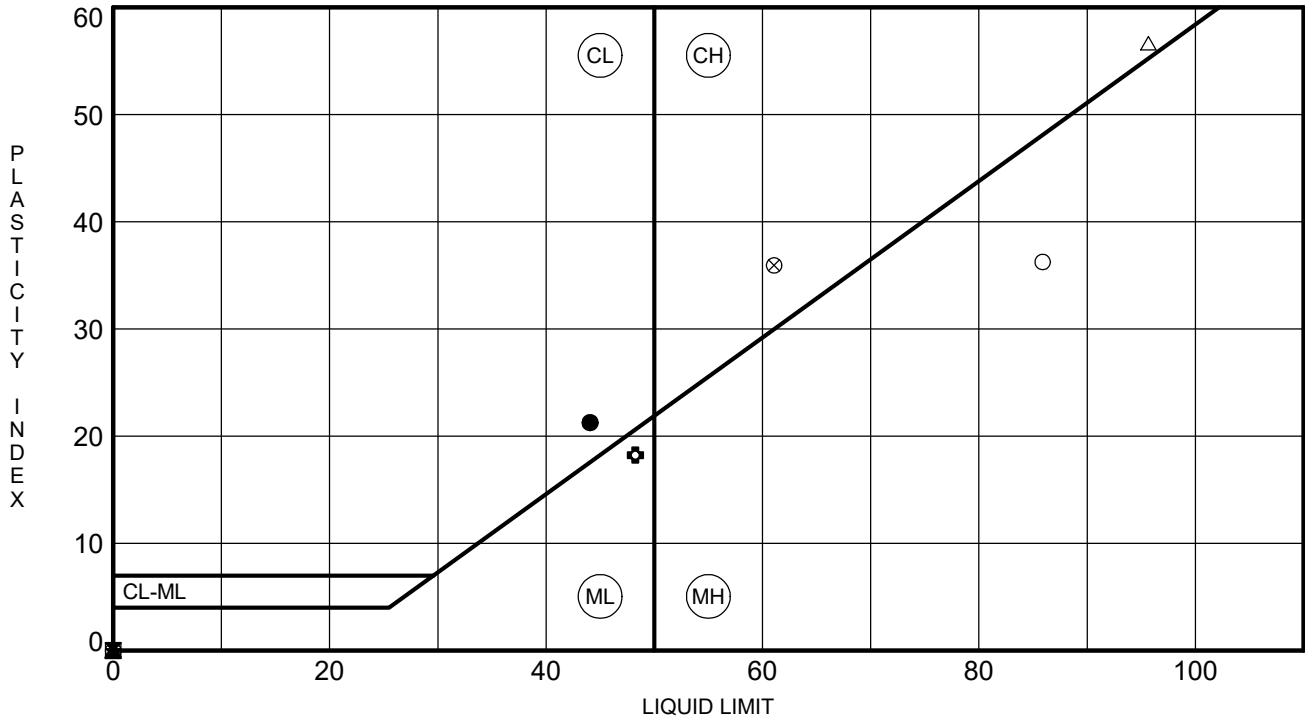


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-13	24.8	44	23	21	95	LEAN CLAY (CL/A-7-6)
⊠	B-13	33.8	NP	NP	NP	35	SILTY SAND (SM/A-2-4)
▲	B-13	44.2	NP	NP	NP	44	SILTY SAND (SM/A-4)
★	B-13	56.3	NP	NP	NP	49	SILTY SAND (SM/A-4)
⊙	B-13	64.3	NP	NP	NP	38	SILTY SAND (SM/A-4)
⊕	B-13	80.3	48	30	18	45	SILTY SAND (SM/A-7-5)
○	B-13	88.8	86	50	36	91	ELASTIC SILT (MH/A-7-5)
△	B-13	103.8	96	39	57	90	FAT CLAY (CH/A-7-5)
⊗	B-13	118.8	61	25	36	87	FAT CLAY (CH/A-7-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

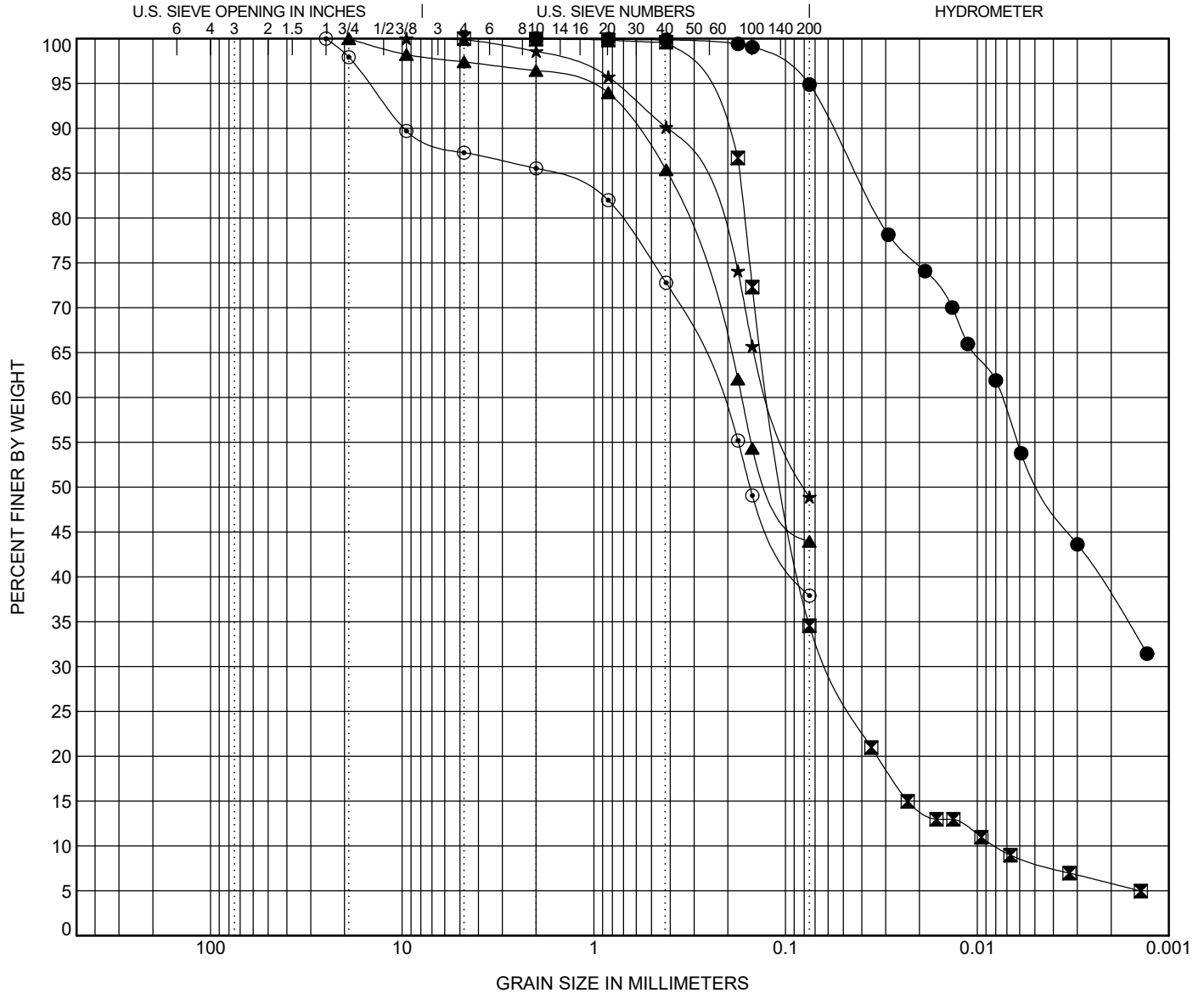


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-13	24.8	LEAN CLAY (CL/A-7-6)	44	23	21		
☒ B-13	33.8	SILTY SAND (SM/A-2-4)	NP	NP	NP	3.58	14.85
▲ B-13	44.2	SILTY SAND (SM/A-4)	NP	NP	NP		
★ B-13	56.3	SILTY SAND (SM/A-4)	NP	NP	NP		
⊙ B-13	64.3	SILTY SAND (SM/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-13	24.8	2	0.007			0.0	5.1	43.6	51.3
☒ B-13	33.8	4.76	0.119	0.058	0.008	0.0	65.5	26.4	8.1
▲ B-13	44.2	19	0.169			2.6	53.4	44.0	
★ B-13	56.3	9.51	0.118			0.1	51.0	48.9	
⊙ B-13	64.3	25	0.224			12.7	49.4	37.9	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

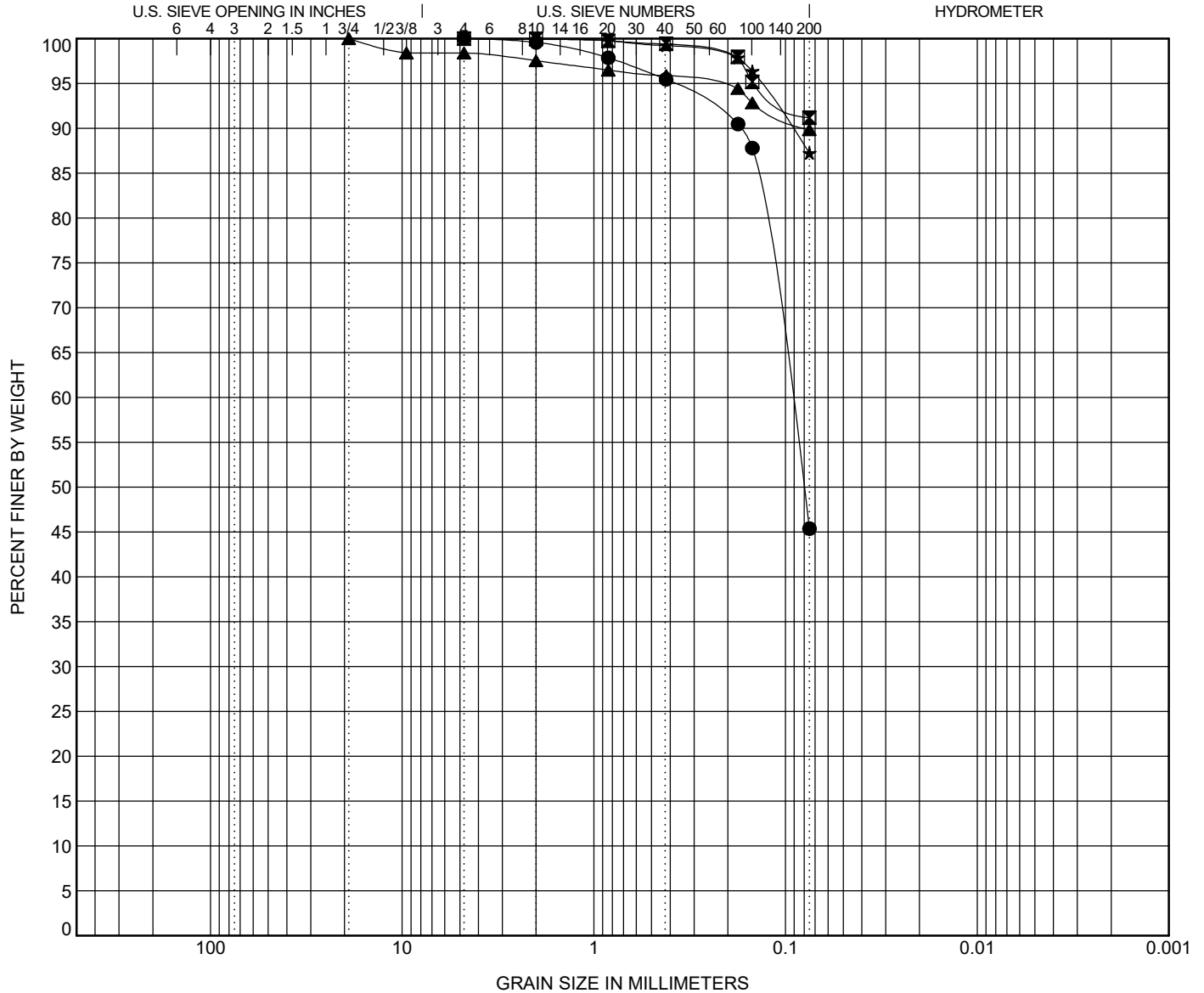


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-13	80.3	SILTY SAND (SM/A-7-5)					48	30	18		
■ B-13	88.8	ELASTIC SILT (MH/A-7-5)					86	50	36		
▲ B-13	103.8	FAT CLAY (CH/A-7-5)					96	39	57		
★ B-13	118.8	FAT CLAY (CH/A-7-6)					61	25	36		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-13	80.3	4.76	0.095			0.0	54.6		45.4
■ B-13	88.8	4.76				0.0	8.8		91.2
▲ B-13	103.8	19				1.6	8.6		89.8
★ B-13	118.8	4.76				0.0	12.8		87.2

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1660	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-13	B-13	B-13	B-13	B-13
SAMPLE NO.	SS-3	SS-6	SS-8	SS-11	SS-13
SAMPLE DEPTH (FT.)	22.8 - 24.8	32.3 - 33.8	42.3 - 44.2	54.3 - 56.3	62.3 - 64.3
WATER CONTENT, W%	43.2	31.8	25.4	37.6	26.8

BORING NO.	B-13	B-13	B-13	B-13	
SAMPLE NO.	SS-17	SS-19	SS-22	SS-25	
SAMPLE DEPTH (FT.)	78.3 - 80.3	83.7 - 88.8	102.3 - 103.8	117.3 - 118.8	
WATER CONTENT, W%	29.4	74.0	73.6	65.0	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

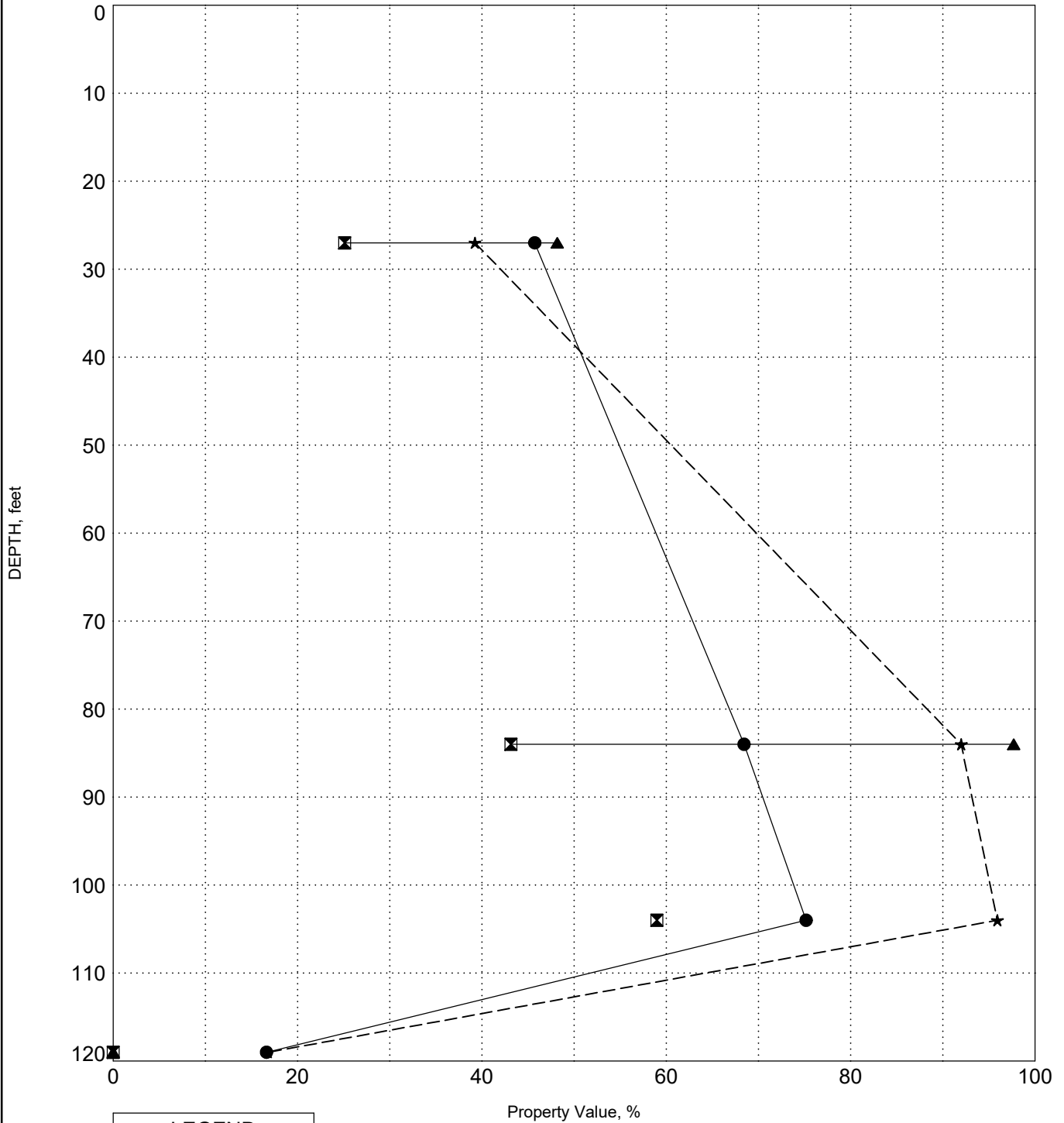
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.6

BORING B-14



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

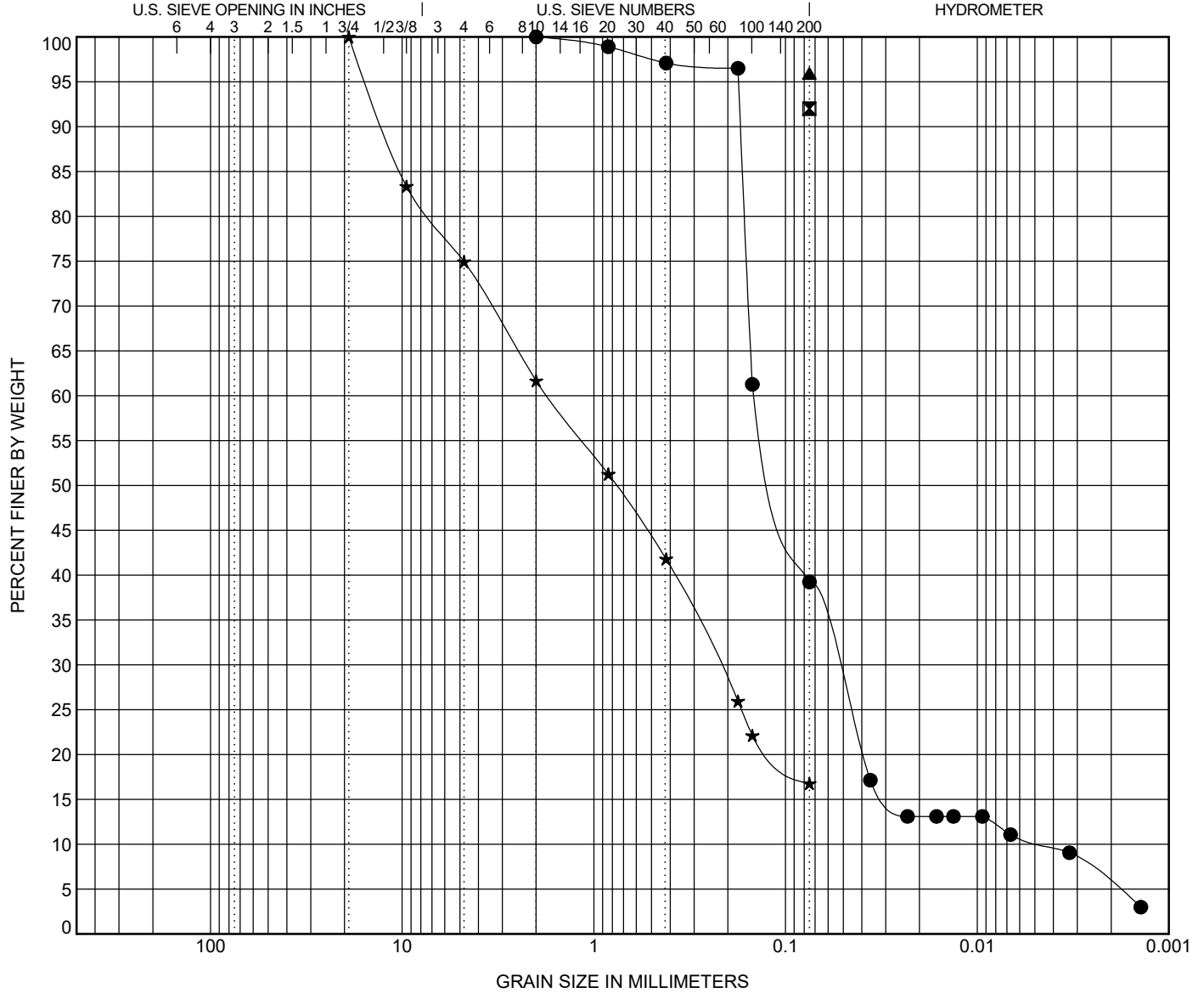


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-14	27.0	CLAYEY SAND (SC/A-7-6)	48	25	23	4.64	31.15
☒ B-14	84.0	ELASTIC SILT (MH/A-7-5)	98	43	55		
▲ B-14	104.0	ELASTIC SILT (MH/A-7-5)	118	59	59		
★ B-14	119.0	SILTY SAND with GRAVEL (SM/A-1-b)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-14	27.0	2	0.143	0.055	0.005	0.0	60.8	29.0	10.2
☒ B-14	84.0	0.075						92.0	
▲ B-14	104.0	0.075						95.9	
★ B-14	119.0	19	1.74	0.221		25.1	58.1	16.8	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/13/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0888	DATE SAMPLE RECEIVED:	3/28/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/4/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	4/5/2023

BORING NO.	B-14	B-14	B-14	B-14	
SAMPLE NO.	SS-4	SS-9	SS-13	SS-16	
SAMPLE DEPTH (FT.)	25.0 - 27.0	82.5 - 84.0	102.5 - 104.0	117.5 - 119.0	
WATER CONTENT, W%	45.7	68.4	75.2	16.6	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

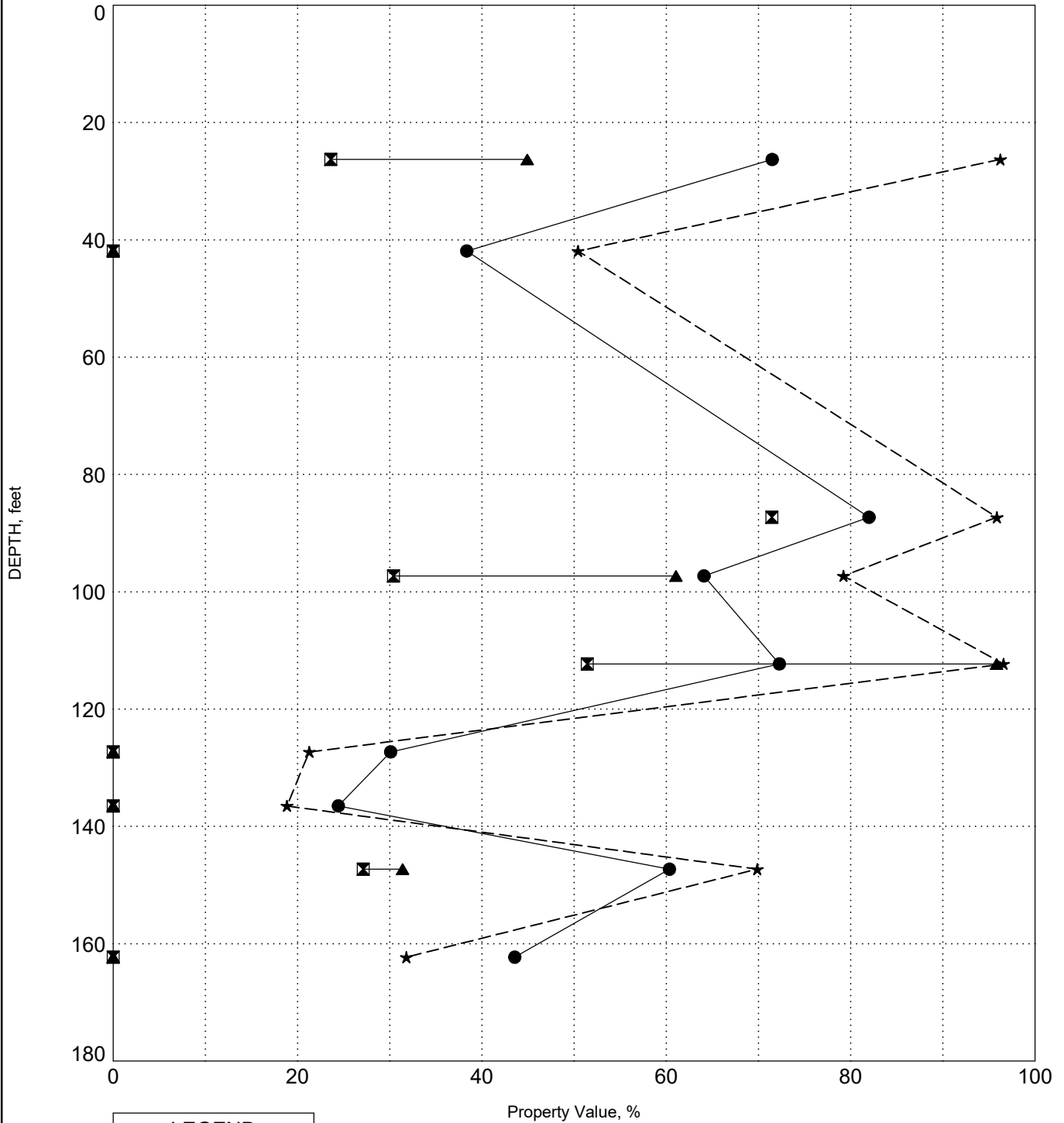
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.4

BORING B-15



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

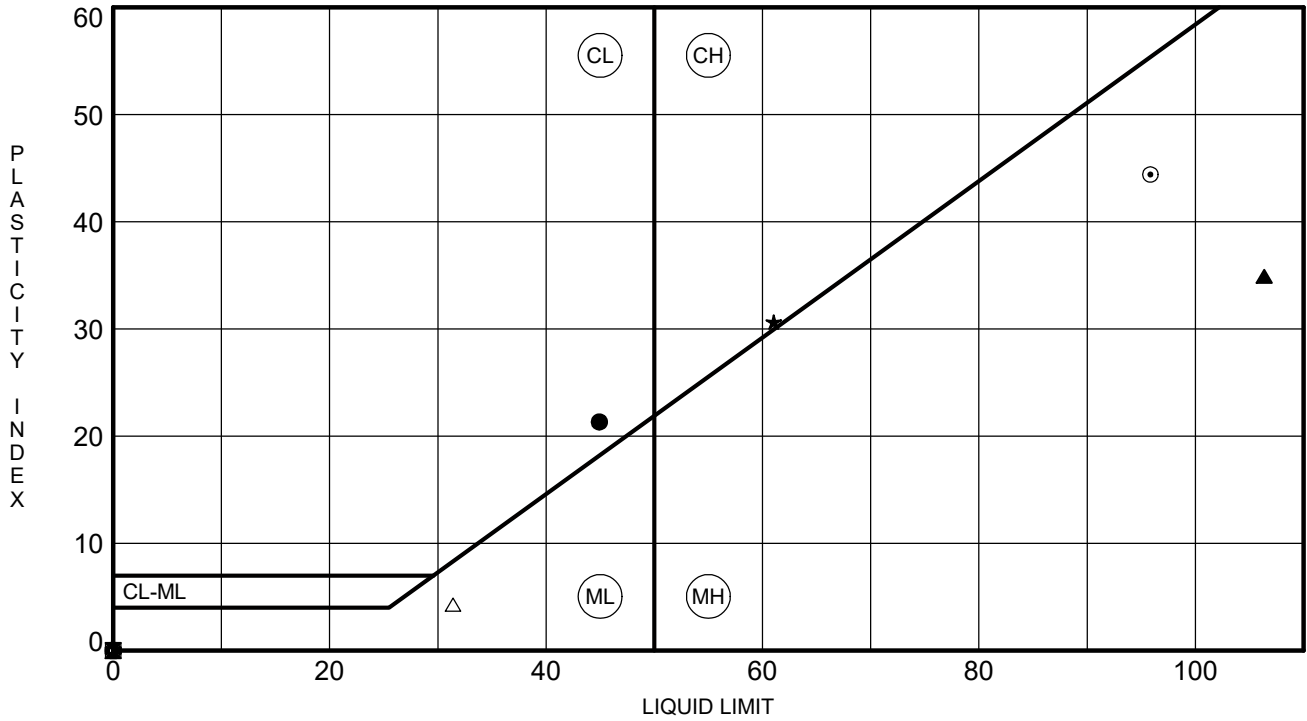


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-15	26.3	45	24	21	96	LEAN CLAY (CL/A-7-6)
⊠	B-15	41.9	NP	NP	NP	50	SANDY SILT (ML/A-4)
▲	B-15	87.3	106	71	35	96	ELASTIC SILT (MH/A-7-5)
★	B-15	97.3	61	30	31	79	FAT CLAY with SAND (CH/A-7-5)
⊙	B-15	112.3	96	51	45	97	ELASTIC SILT (MH/A-7-5)
⊕	B-15	127.3	NP	NP	NP	21	SILTY SAND (SM/A-2-4)
○	B-15	136.5	NP	NP	NP	19	SILTY SAND with GRAVEL (SM/A-1-b)
△	B-15	147.3	31	27	4	70	SANDY SILT (ML/A-4)
⊗	B-15	162.3	NP	NP	NP	32	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

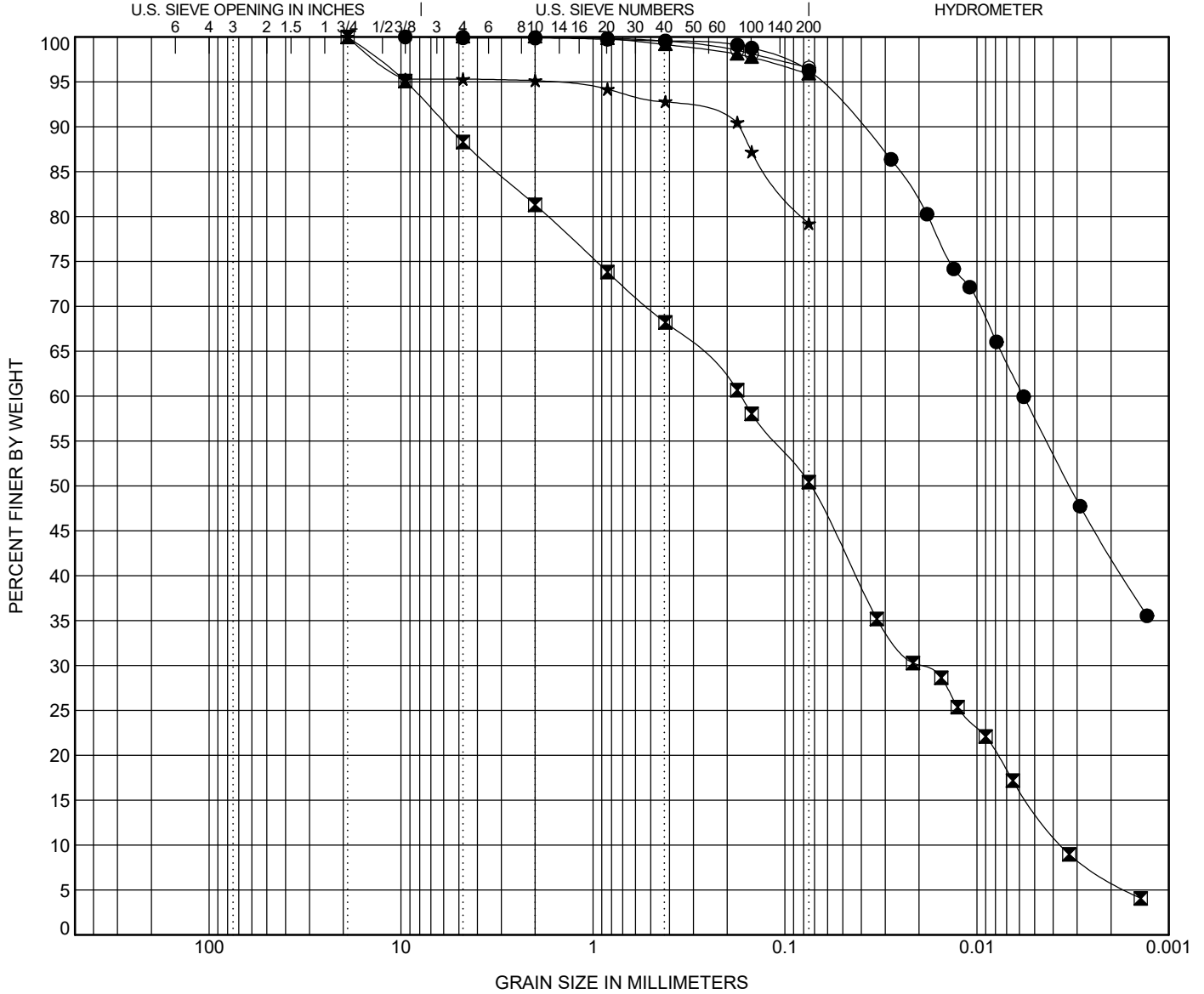


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-15	26.3	LEAN CLAY (CL/A-7-6)	45	24	21		
☒ B-15	41.9	SANDY SILT (ML/A-4)	NP	NP	NP	0.68	47.16
▲ B-15	87.3	ELASTIC SILT (MH/A-7-5)	106	71	35		
★ B-15	97.3	FAT CLAY with SAND (CH/A-7-5)	61	30	31		
◎ B-15	112.3	ELASTIC SILT (MH/A-7-5)	96	51	45		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-15	26.3	9.51	0.006			0.1	3.7	38.7	57.6
☒ B-15	41.9	19	0.169	0.02	0.004	11.7	37.9	36.4	14.0
▲ B-15	87.3	4.76				0.0	4.1		95.9
★ B-15	97.3	19				4.7	16.1		79.2
◎ B-15	112.3	4.76				0.0	3.4		96.6

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

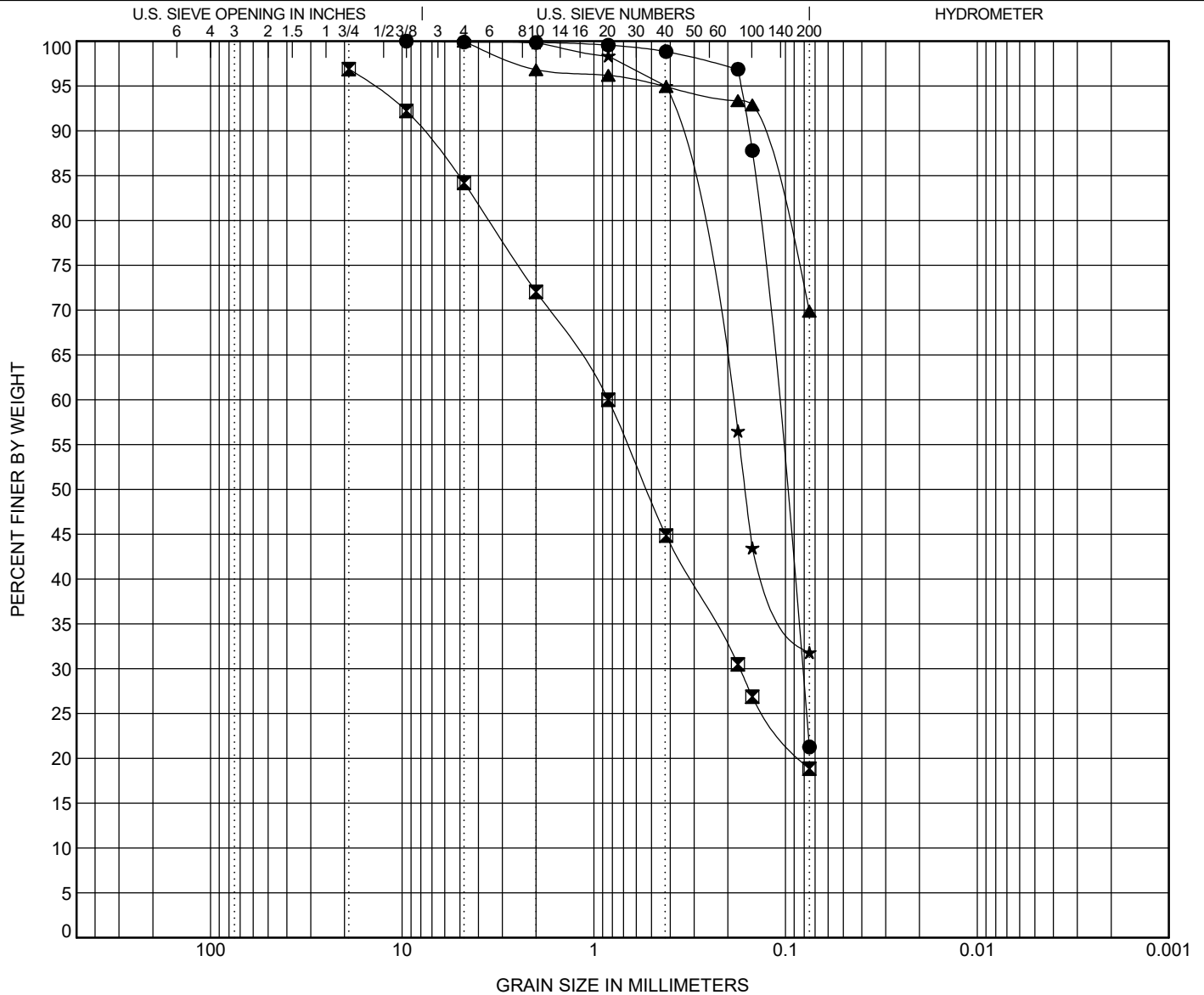


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-15	127.3	SILTY SAND (SM/A-2-4)	NP	NP	NP		
☒ B-15	136.5	SILTY SAND with GRAVEL (SM/A-1-b)	NP	NP	NP		
▲ B-15	147.3	SANDY SILT (ML/A-4)	31	27	4		
★ B-15	162.3	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-15	127.3	9.51	0.112	0.082		0.1	78.6		21.3
☒ B-15	136.5	19	0.841	0.173		12.7	65.3		18.8
▲ B-15	147.3	4.76				0.0	30.1		69.9
★ B-15	162.3	4.76	0.191			0.0	68.2		31.8

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1554	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-15	B-15	B-15	B-15	B-15
SAMPLE NO.	SS-2	SS-7	SS-9	SS-11	SS-14
SAMPLE DEPTH (FT.)	24.3 - 26.3	40.8 - 41.9	85.8 - 87.3	95.8 - 97.3	110.8 - 112.3
WATER CONTENT, W%	71.5	5.7	82.0	64.1	72.3

BORING NO.	B-15	B-15	B-15	B-15	
SAMPLE NO.	SS-17	SS-19	SS-21	SS-24	
SAMPLE DEPTH (FT.)	125.8 - 127.3	135.8 - 136.5	145.8 - 147.3	160.8 - 162.3	
WATER CONTENT, W%	30.1	24.4	60.3	43.6	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

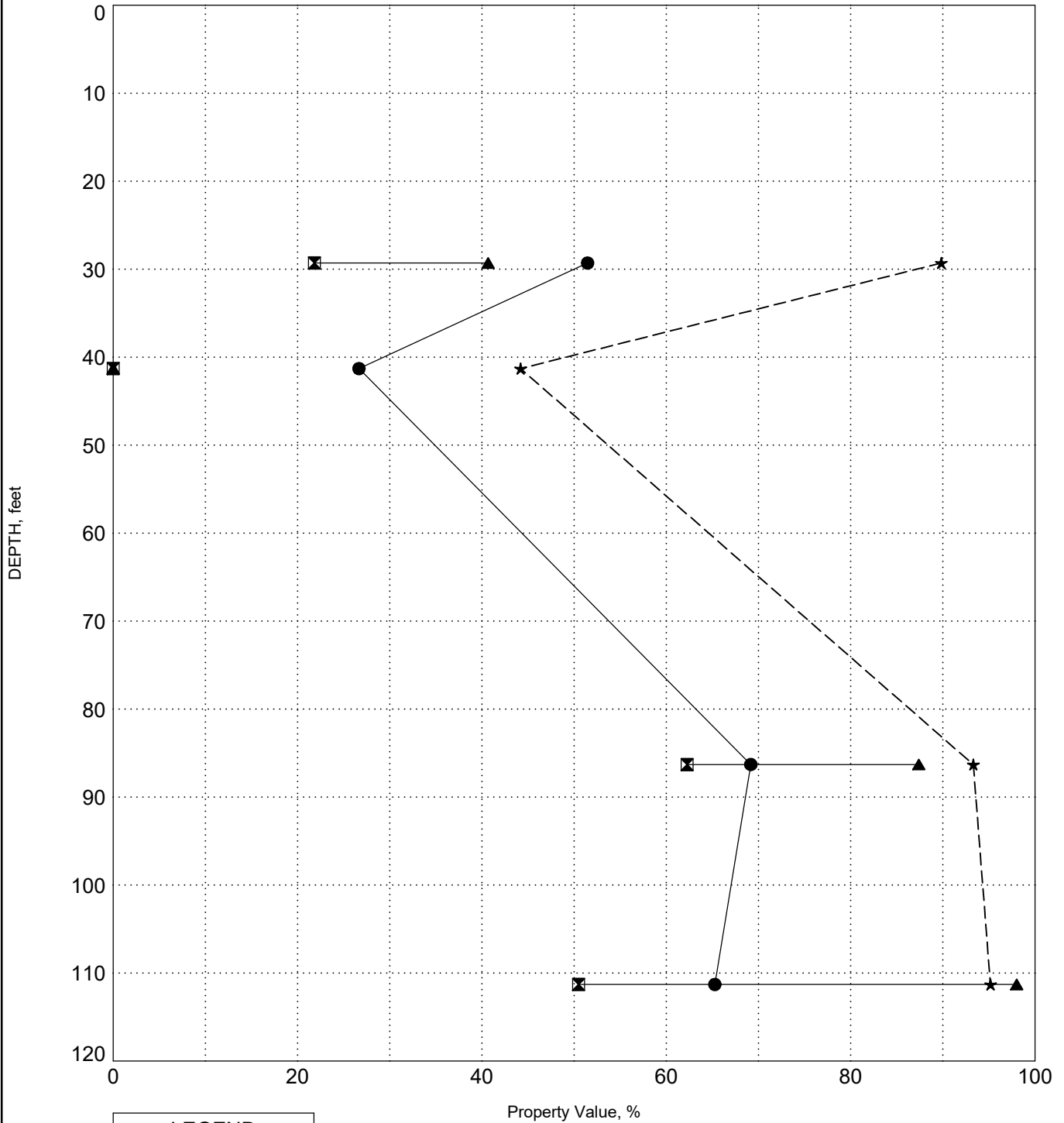
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.1

BORING B-16



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

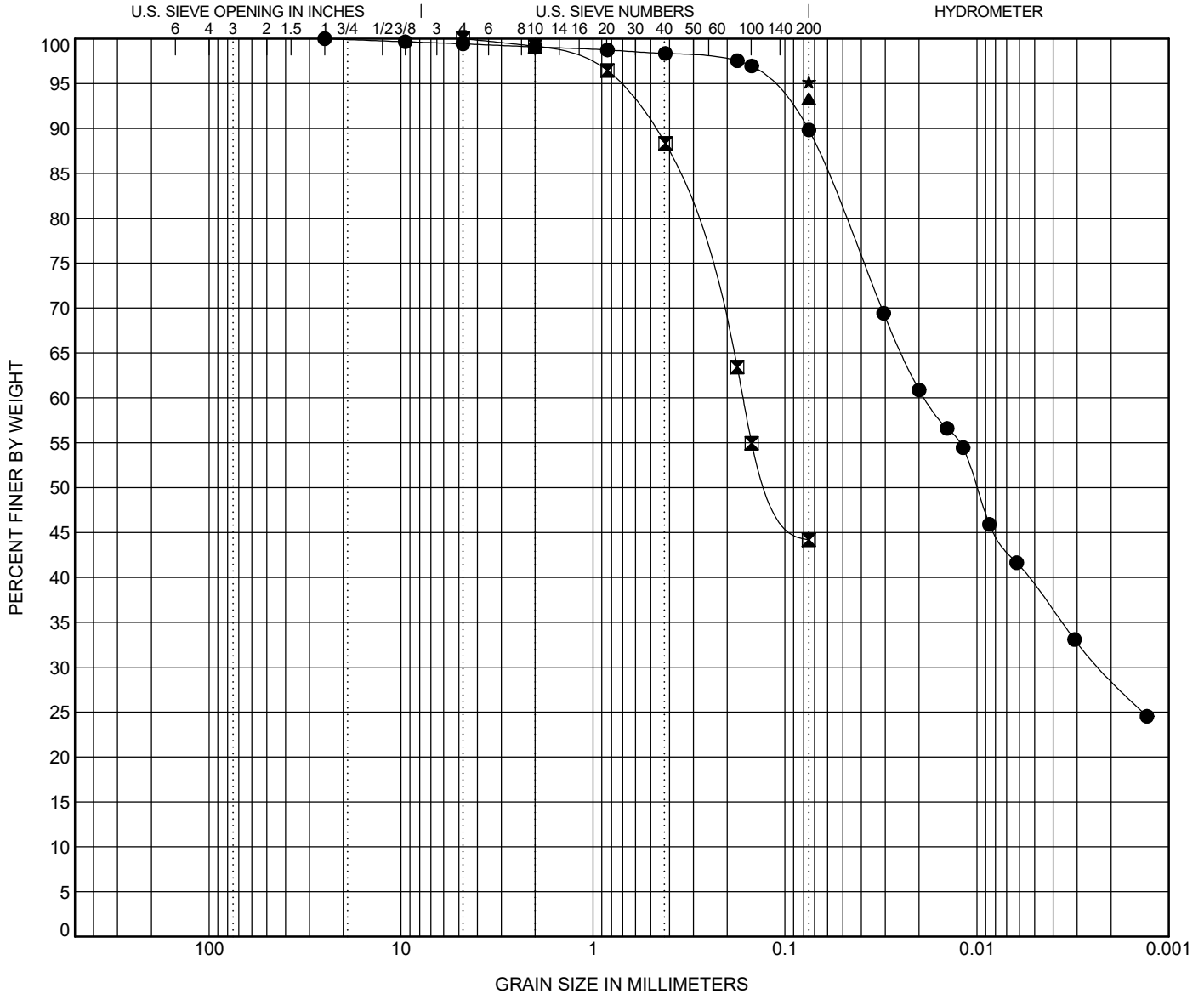


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-16	29.3	LEAN CLAY (CL/A-7-6)	41	22	19		
☒ B-16	41.3	SILTY SAND (SM/A-4)	NP	NP	NP		
▲ B-16	86.3	ELASTIC SILT (MH/A-7-5)	87	62	25		
★ B-16	111.3	ELASTIC SILT (MH/A-7-5)	98	50	48		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-16	29.3	25	0.019	0.002		0.6	9.6	50.8	39.0
☒ B-16	41.3	4.76	0.165			0.0	55.8	44.2	
▲ B-16	86.3	0.075						93.3	
★ B-16	111.3	0.075						95.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/6/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0852	DATE SAMPLE RECEIVED:	3/29/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/29/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/30/2023

BORING NO.	B-16	B-16	B-16	B-16	
SAMPLE NO.	SS-4	SS-7	SS-9	SS-14	
SAMPLE DEPTH (FT.)	27.3 - 29.3	39.8 - 41.3	84.8 - 86.3	109.8 - 111.3	
WATER CONTENT, W%	51.5	26.7	69.2	65.3	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

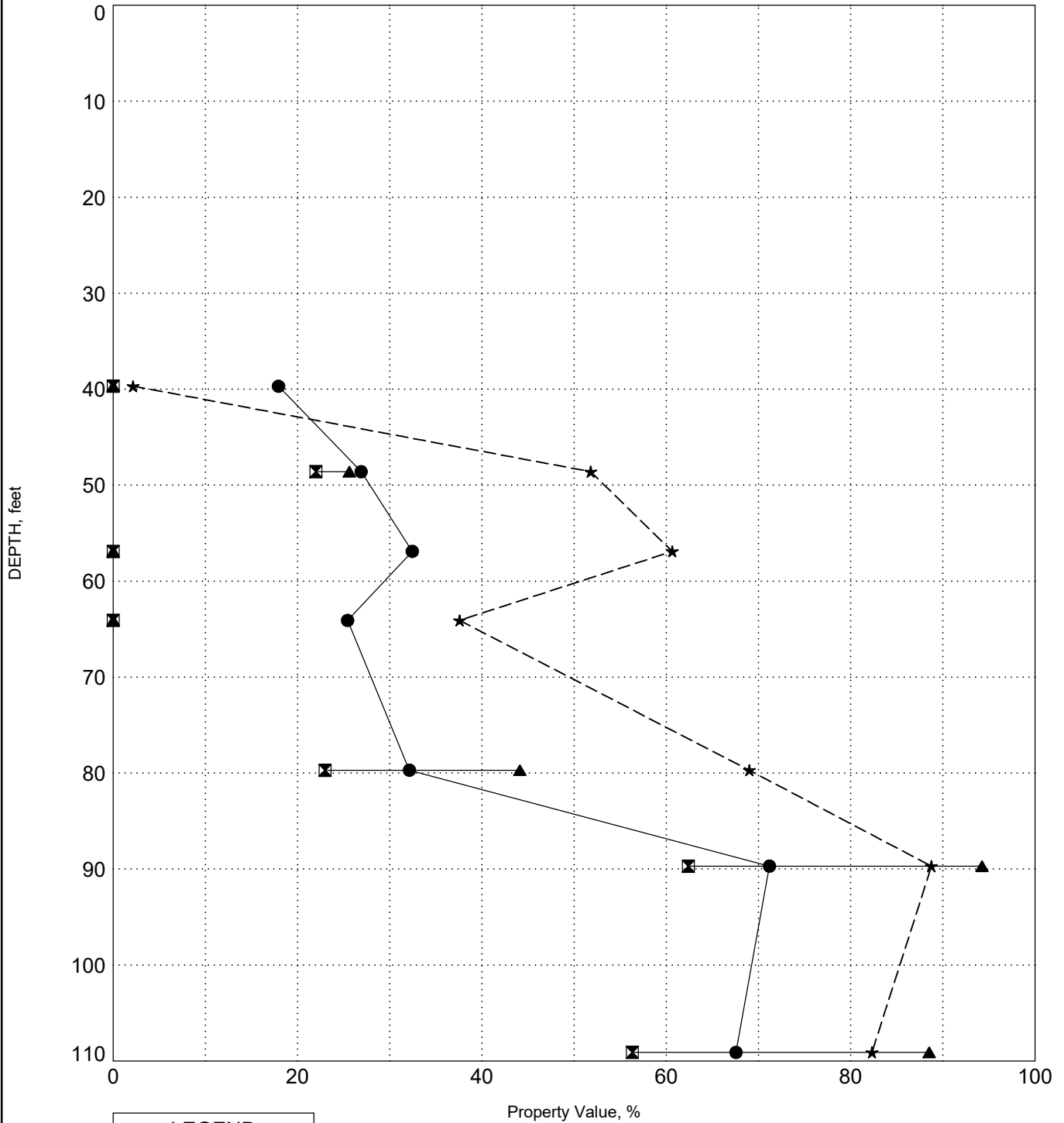
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.5

BORING B-17



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

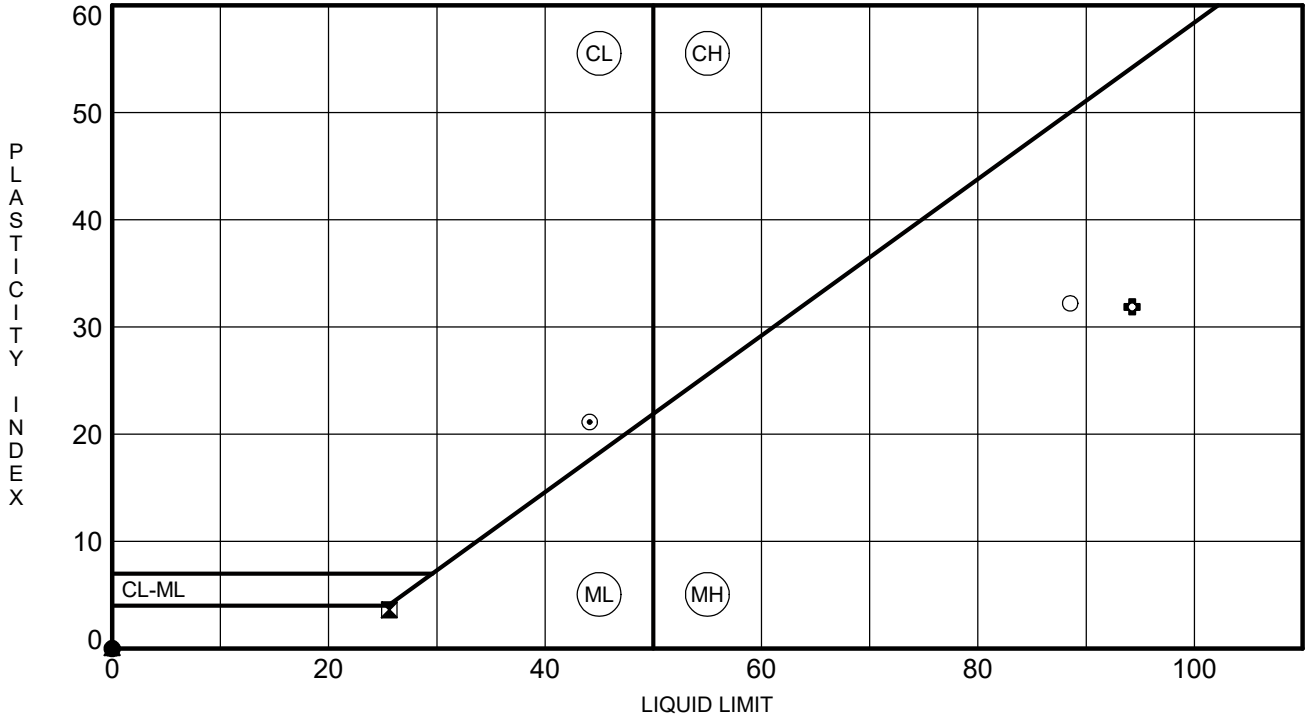


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-17	39.7	NP	NP	NP	2	POORLY GRADED SAND (SP/A-1-b)
▣ B-17	48.6	26	22	4	52	SANDY SILT (ML/A-4)
▲ B-17	56.9	NP	NP	NP	61	SANDY SILT (ML/A-4)
★ B-17	64.1	NP	NP	NP	38	SILTY SAND (SM/A-4)
⊙ B-17	79.7	44	23	21	69	SANDY LEAN CLAY (CL/A-7-6)
⊕ B-17	89.7	94	62	32	89	ELASTIC SILT (MH/A-7-5)
○ B-17	109.1	89	56	33	82	ELASTIC SILT with SAND (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

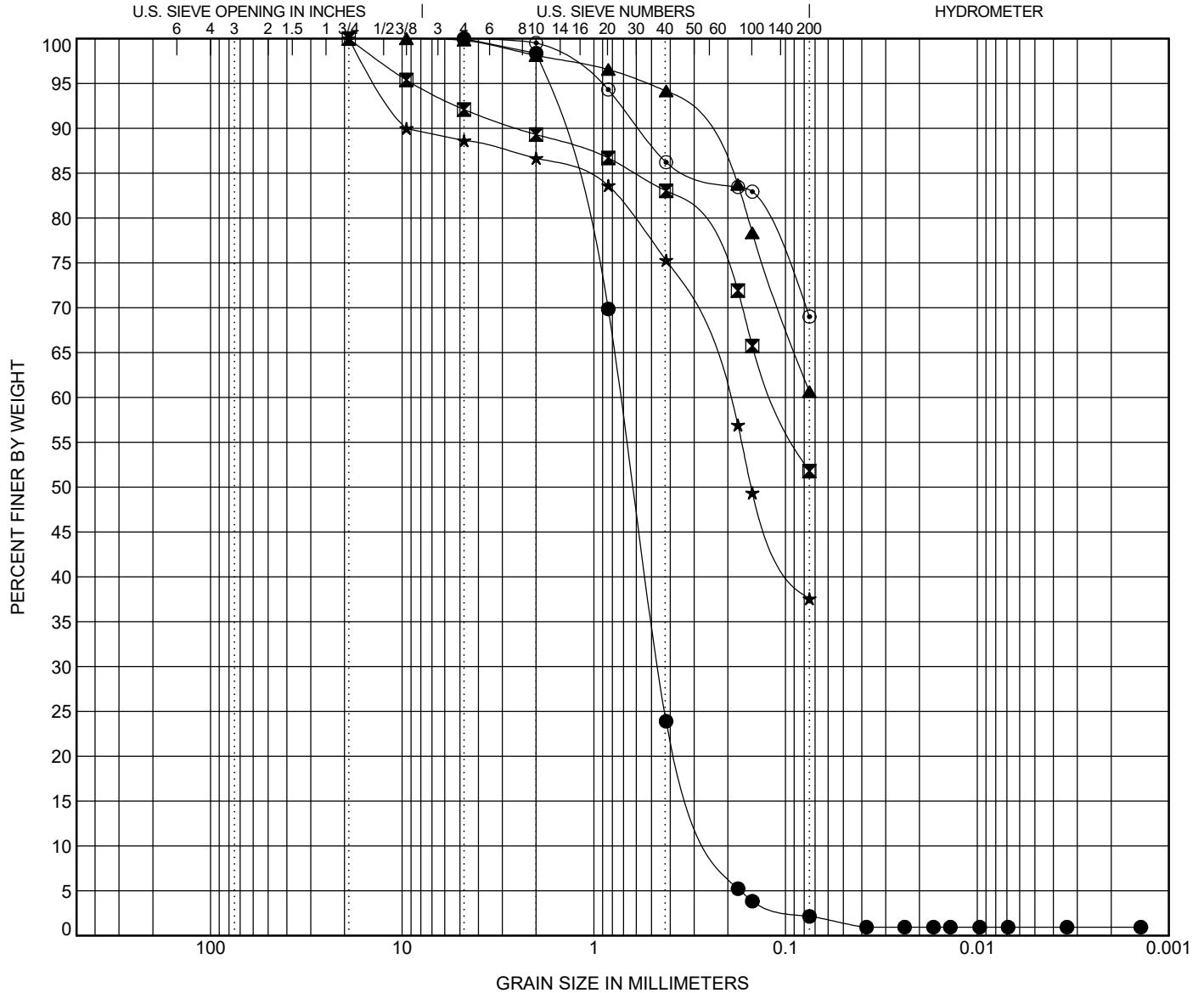


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-17	39.7	POORLY GRADED SAND (SP/A-1-b)					NP	NP	NP	1.33	3.28
☒	B-17	48.6	SANDY SILT (ML/A-4)					26	22	4		
▲	B-17	56.9	SANDY SILT (ML/A-4)					NP	NP	NP		
★	B-17	64.1	SILTY SAND (SM/A-4)					NP	NP	NP		
◎	B-17	79.7	SANDY LEAN CLAY (CL/A-7-6)					44	23	21		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
●	B-17	39.7	4.76	0.725	0.461	0.221	0.0	97.9	1.2	0.9		
☒	B-17	48.6	19	0.112			7.9	40.3	51.8			
▲	B-17	56.9	9.51				0.2	39.2	60.6			
★	B-17	64.1	19	0.205			11.4	51.1	37.6			
◎	B-17	79.7	4.76				0.0	31.0	69.0			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

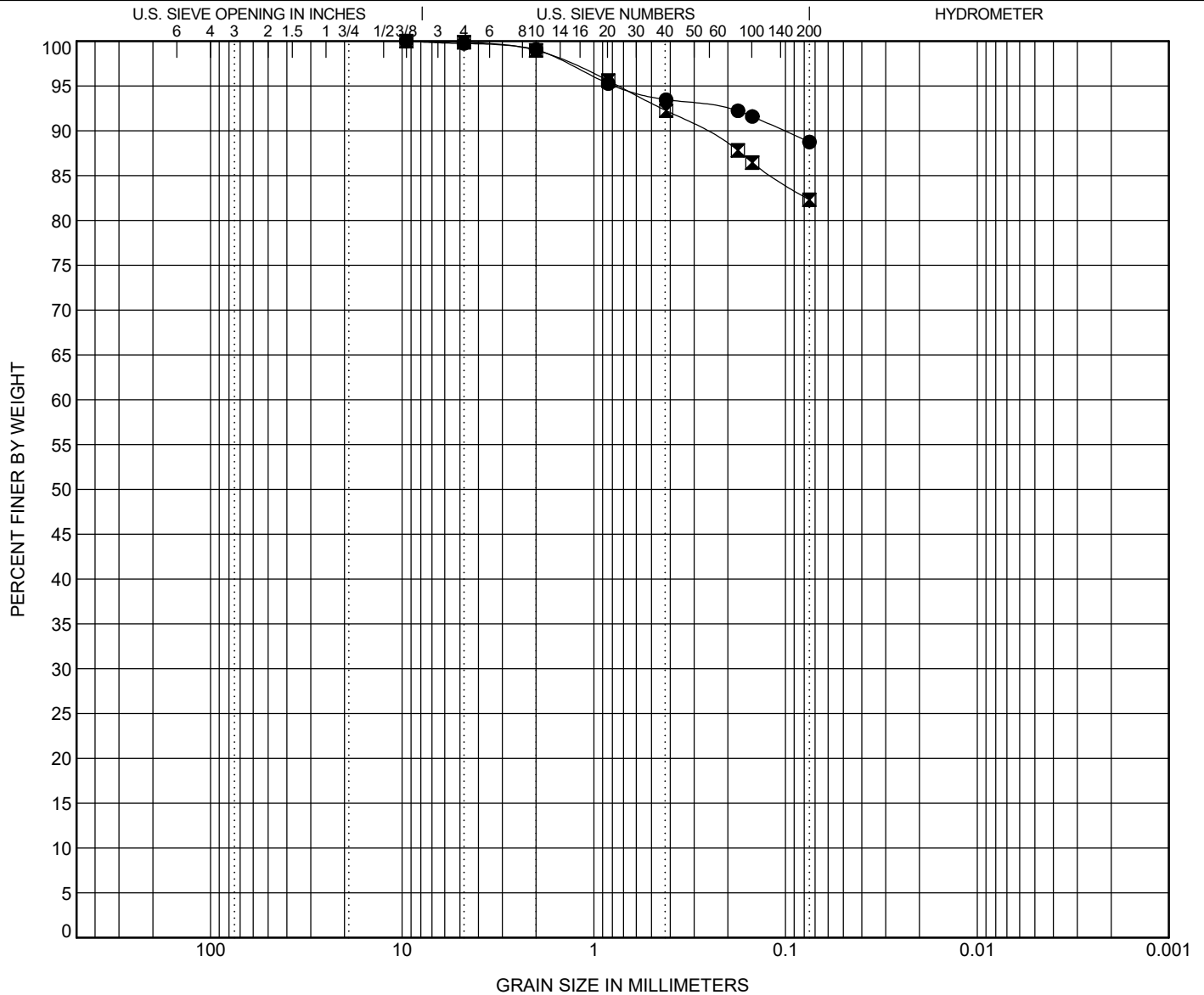


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-17	89.7	ELASTIC SILT (MH/A-7-5)					94	62	32		
■ B-17	109.1	ELASTIC SILT with SAND (MH/A-7-5)					89	56	33		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-17	89.7	9.51				0.3	11.0	88.8			
■ B-17	109.1	9.51				0.1	17.6	82.3			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1555	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-17	B-17	B-17	B-17	B-17
SAMPLE NO.	SS-7	SS-9	SS-11	SS-13	SS-16
SAMPLE DEPTH (FT.)	38.2 - 39.7	47.2 - 48.6	55.2 - 56.9	63.2 - 64.1	78.2 - 79.7
WATER CONTENT, W%	17.9	26.9	32.4	25.4	32.1

BORING NO.	B-17	B-17			
SAMPLE NO.	SS-18	SS-22			
SAMPLE DEPTH (FT.)	88.2 - 89.7	108.2 - 109.1			
WATER CONTENT, W%	5.7	67.6			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

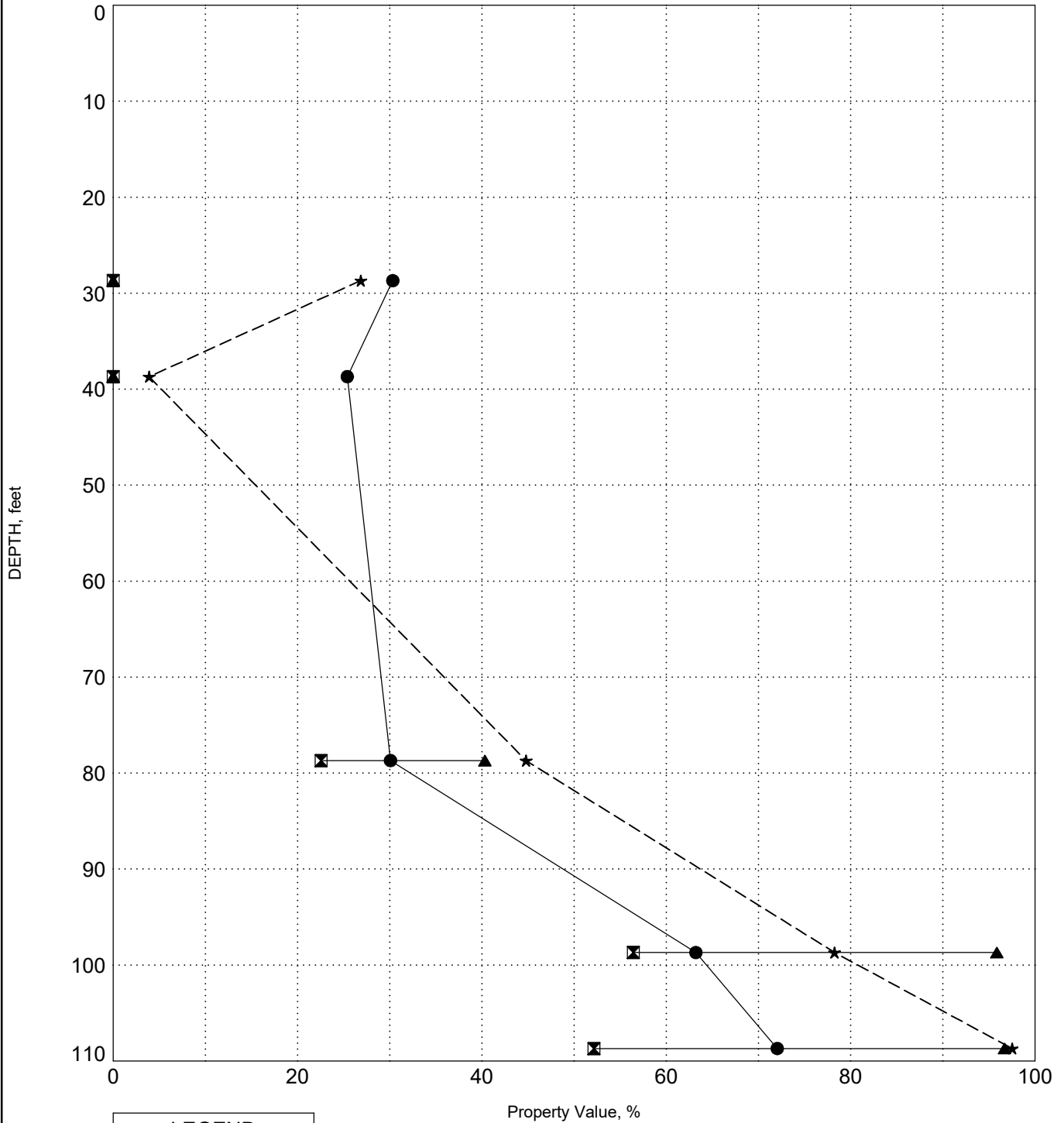
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.6

BORING B-18



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

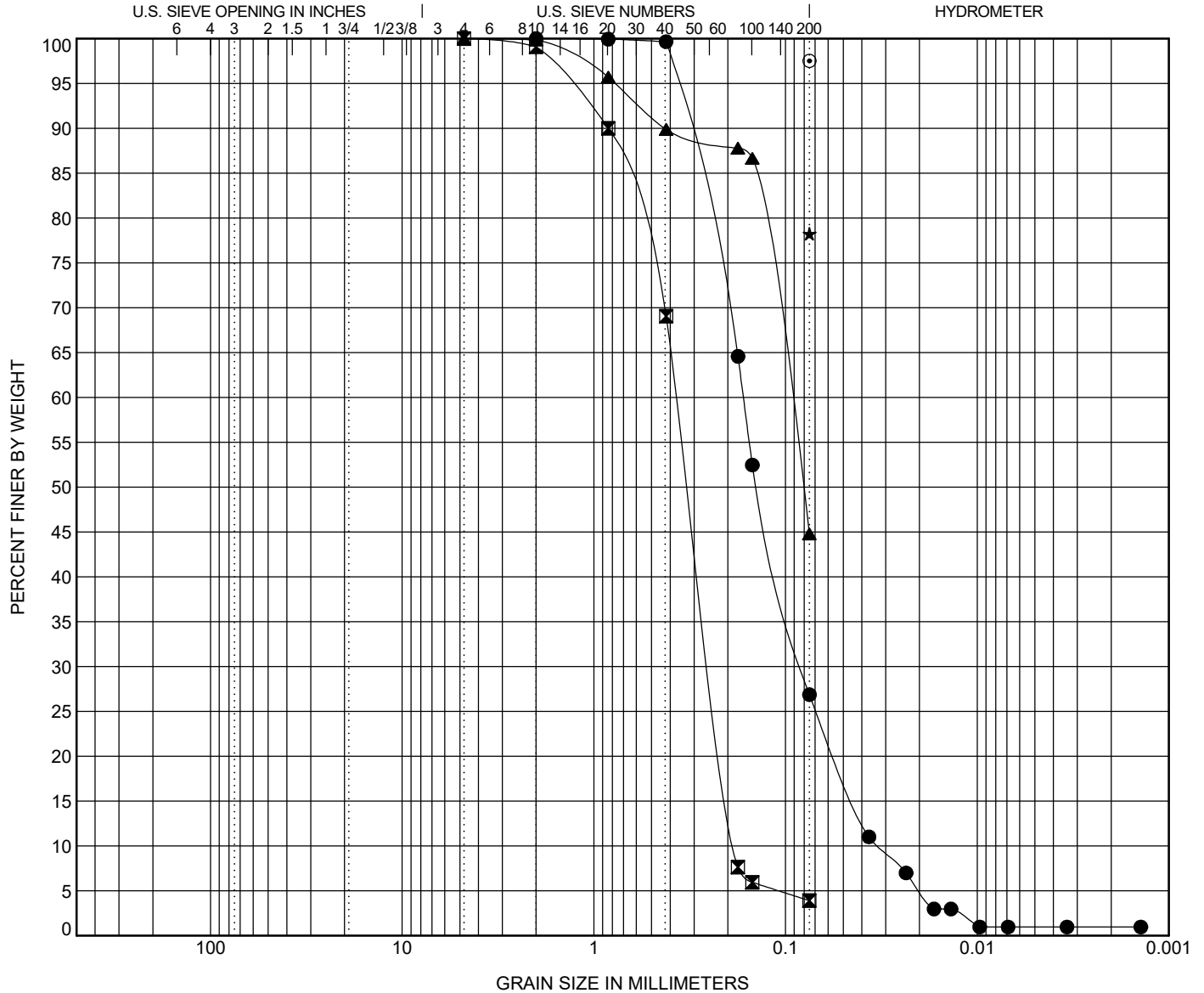


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-18	28.7	SILTY SAND (SM/A-2-4)	NP	NP	NP	1.22	5.05
■ B-18	38.7	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.87	2.02
▲ B-18	78.7	CLAYEY SAND (SC/A-6)	40	23	17		
★ B-18	98.7	ELASTIC SILT with SAND (MH/A-7-5)	96	56	40		
◎ B-18	108.7	ELASTIC SILT (MH/A-7-5)	97	52	45		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-18	28.7	2	0.166	0.082	0.033	0.0	73.1	25.9	1.0
■ B-18	38.7	4.76	0.37	0.242	0.183	0.0	96.1	3.9	
▲ B-18	78.7	4.76	0.096			0.0	55.2	44.8	
★ B-18	98.7	0.075						78.2	
◎ B-18	108.7	0.075						97.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/5/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0852	DATE SAMPLE RECEIVED:	3/29/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	3/29/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/30/2023

BORING NO.	B-18	B-18	B-18	B-18	B-18
SAMPLE NO.	SS-5	SS-7	SS-10	SS-14	SS-16
SAMPLE DEPTH (FT.)	26.7 - 28.7	37.2 - 38.7	77.2 - 78.7	97.2 - 98.7	107.2 - 108.7
WATER CONTENT, W%	30.3	25.4	30.1	63.2	72.0

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

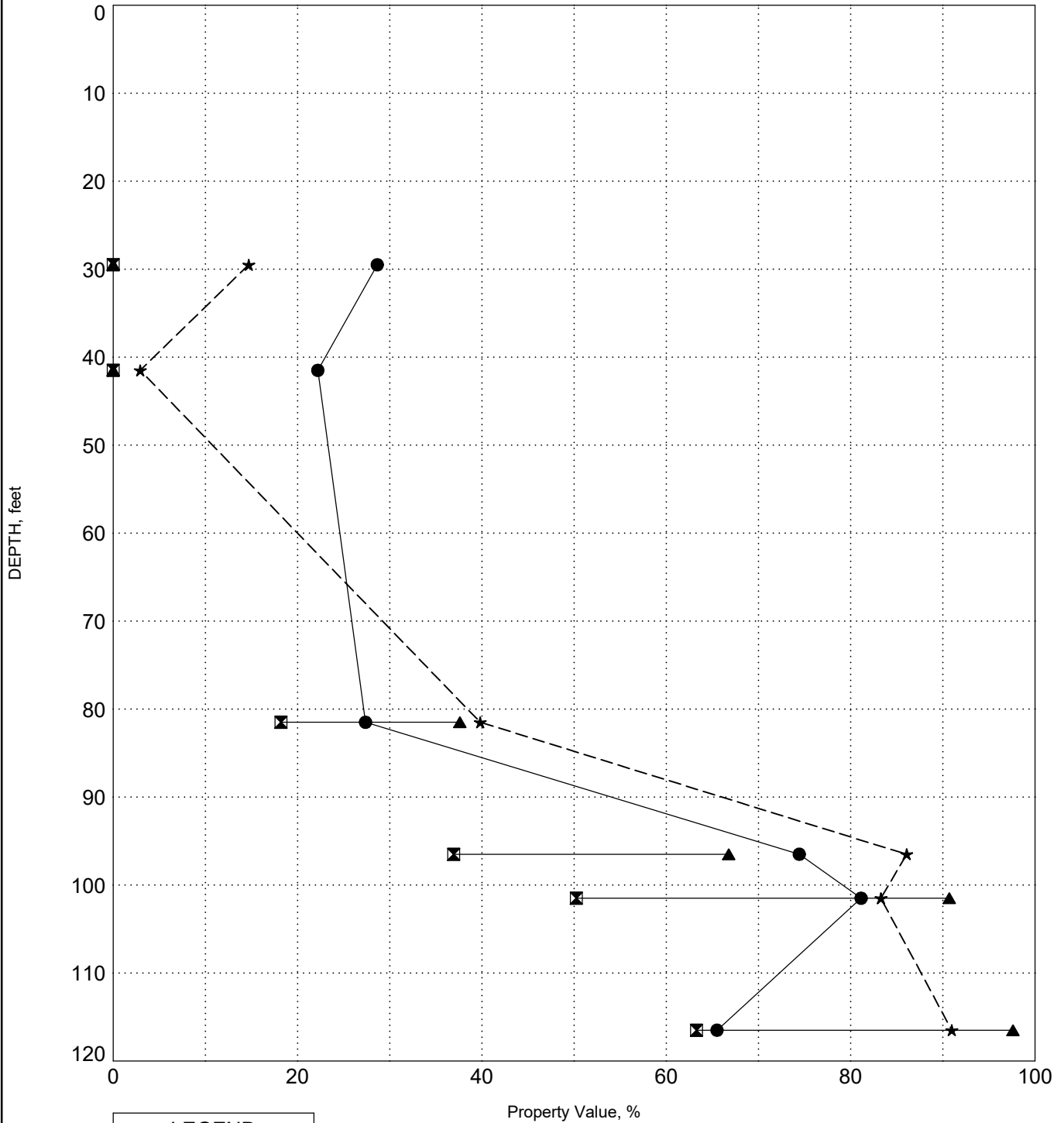
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-19



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

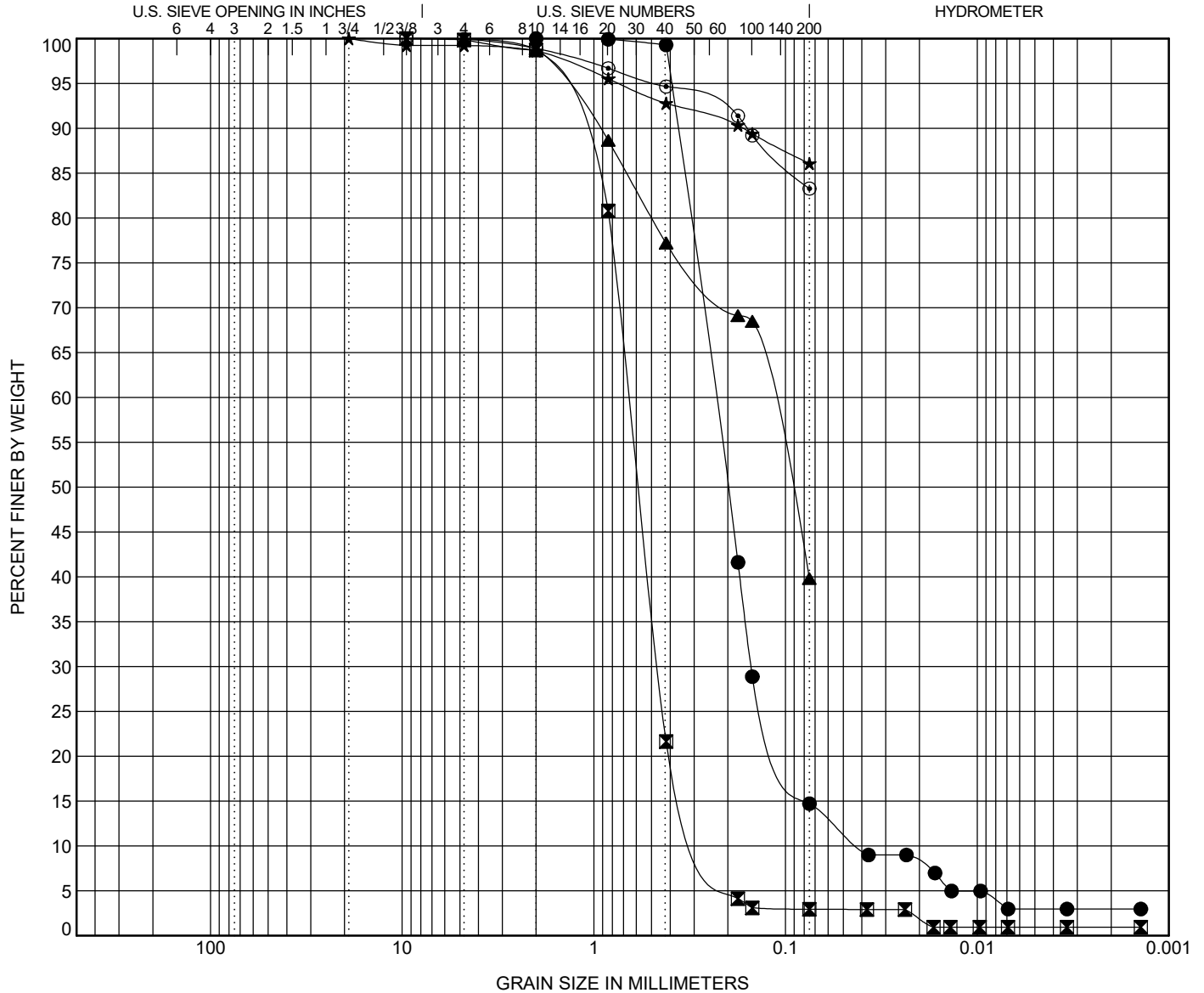


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-19	29.5	SILTY SAND (SM/A-2-4)	NP	NP	NP	2.35	5.57
■ B-19	41.5	POORLY GRADED SAND (SP/A-1-b)	NP	NP	NP	1.38	2.79
▲ B-19	81.5	CLAYEY SAND (SC/A-6)	38	18	20		
★ B-19	96.5	ELASTIC SILT (MH/A-7-5)	67	37	30		
◎ B-19	101.5	ELASTIC SILT with SAND (MH/A-7-5)	91	50	41		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-19	29.5	2	0.233	0.151	0.042	0.0	85.3	11.7	3.0
■ B-19	41.5	9.51	0.659	0.463	0.236	0.2	96.9	2.0	0.9
▲ B-19	81.5	4.76	0.122			0.0	60.2		39.8
★ B-19	96.5	19				0.8	13.1		86.1
◎ B-19	101.5	9.51				0.1	16.7		83.3

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

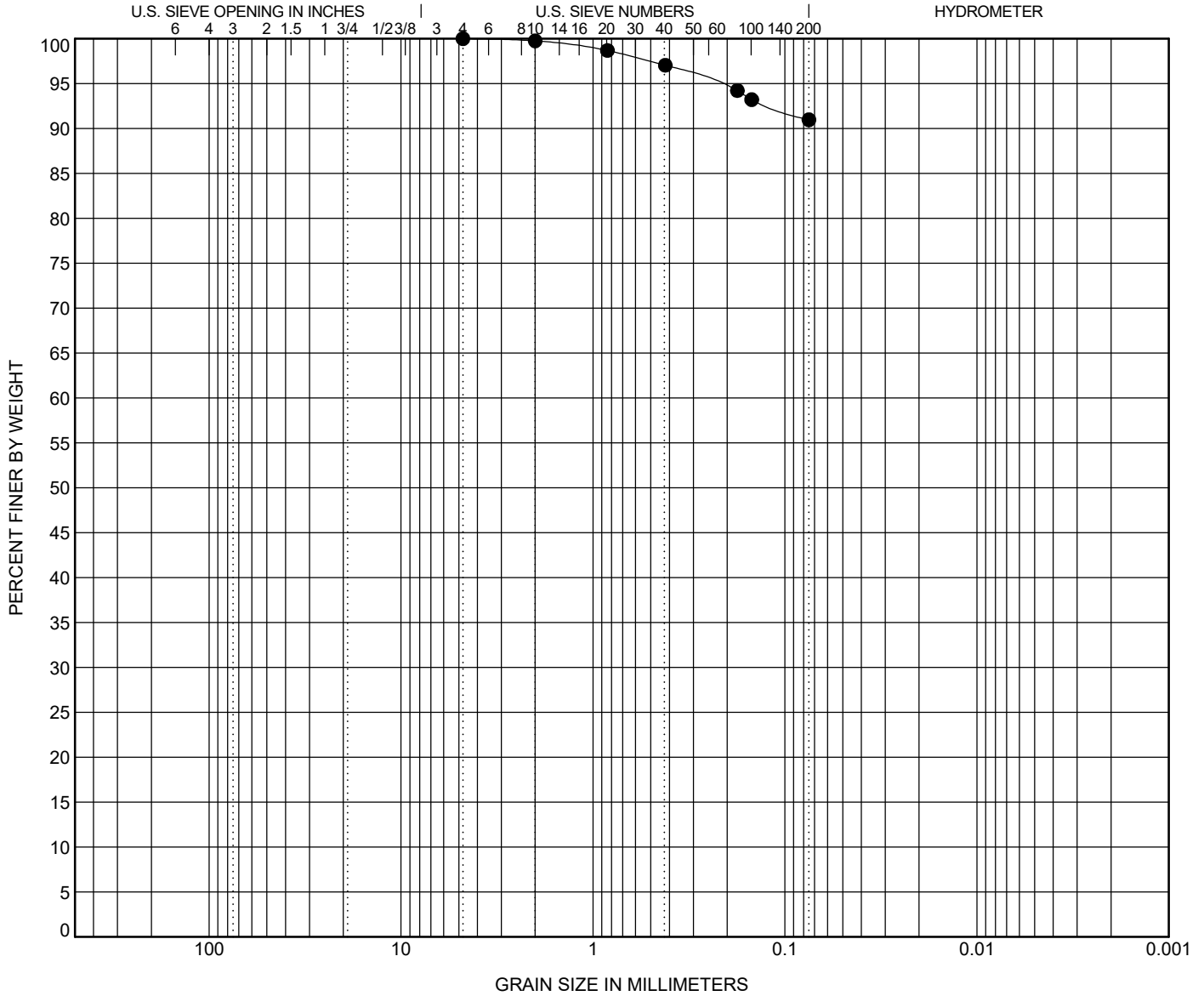


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-19	116.5	ELASTIC SILT (MH/A-7-5)					98	63	35		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-19	116.5	4.76				0.0	9.0	91.0			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1556	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-19	B-19	B-19	B-19	B-19
SAMPLE NO.	SS-4	SS-7	SS-9	SS-12	SS-13
SAMPLE DEPTH (FT.)	27.5 - 29.5	40.0 - 41.5	80.0 - 81.5	95.0 - 96.5	100.0 - 101.5
WATER CONTENT, W%	28.6	22.2	27.4	74.4	81.1

BORING NO.	B-19				
SAMPLE NO.	SS-16				
SAMPLE DEPTH (FT.)	115.0 - 116.5				
WATER CONTENT, W%	65.5				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

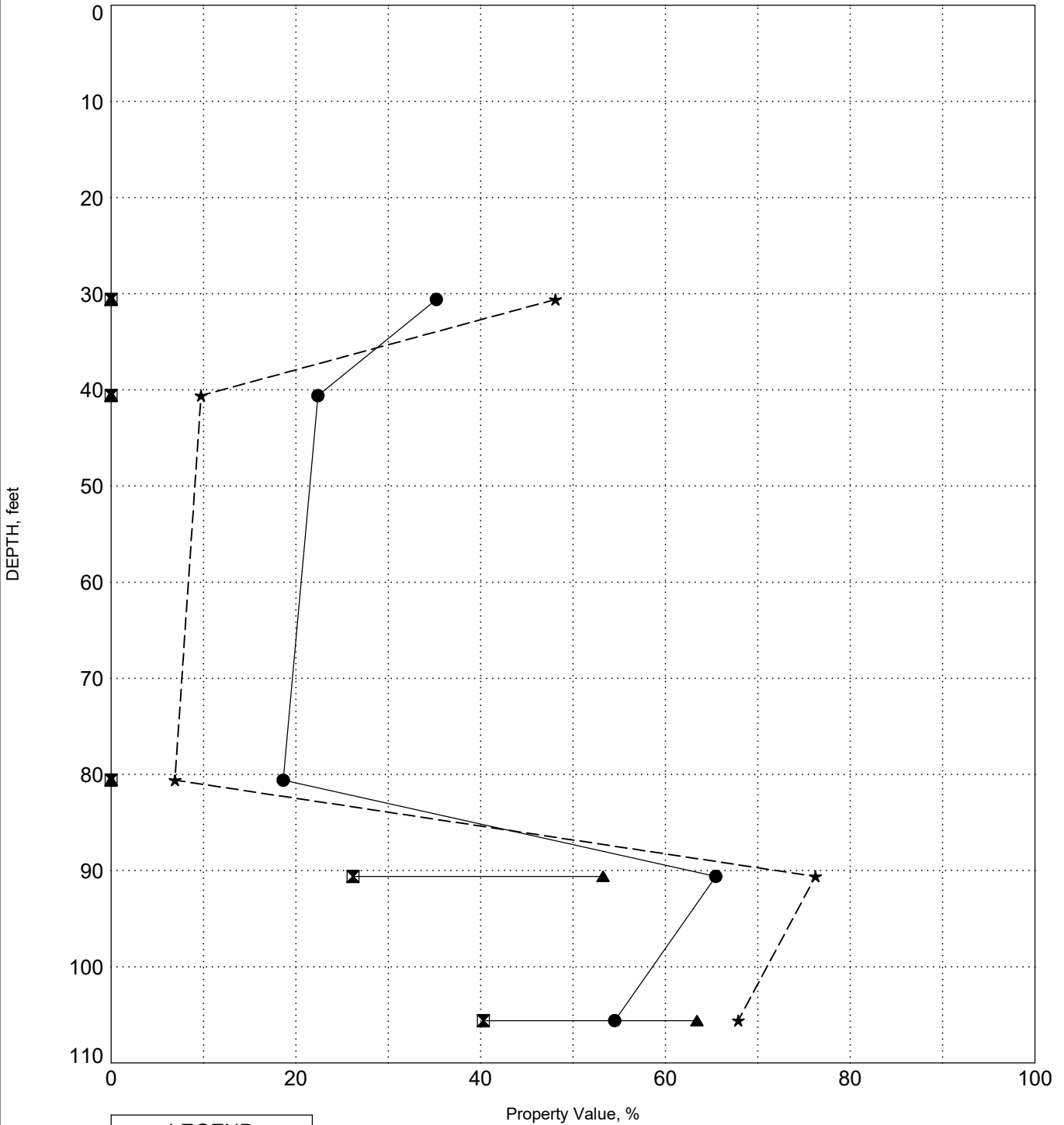
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.4

BORING B-20



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

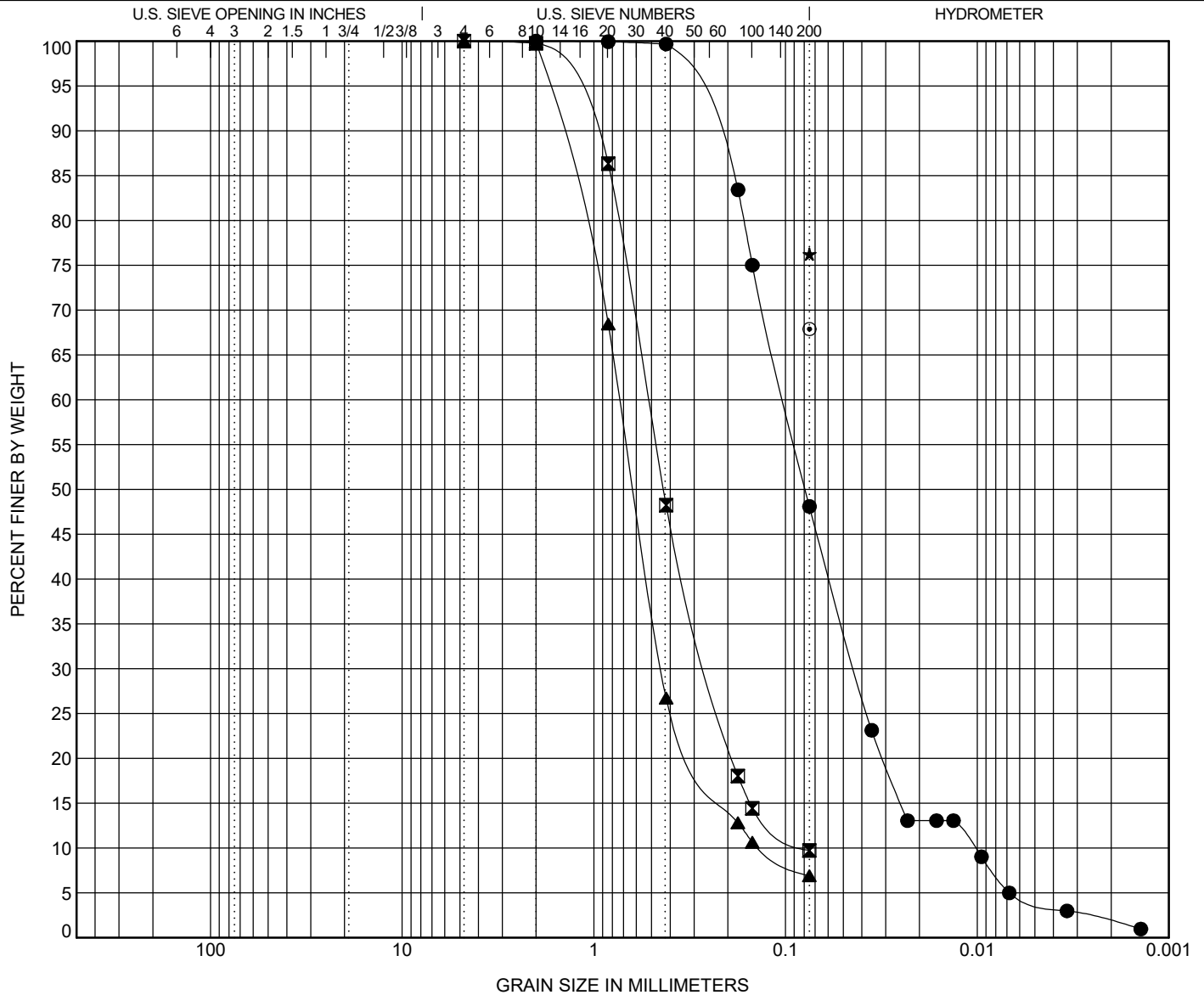


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-20	30.6	SILTY SAND (SM/A-4)	NP	NP	NP	1.82	9.86
⊠ B-20	40.6	WELL-GRADED SAND with SILT (SW-SM/A-1-b)	NP	NP	NP	1.53	6.67
▲ B-20	80.6	POORLY GRADED SAND with SILT (SP-SM/A-1-b)	NP	NP	NP	2.03	5.52
★ B-20	90.6	FAT CLAY with SAND (CH/A-7-6)	53	26	27		
⊙ B-20	105.6	SANDY ELASTIC SILT (MH/A-7-5)	63	40	23		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-20	30.6	2	0.102	0.044	0.01	0.0	51.9	44.0	4.1
⊠ B-20	40.6	4.76	0.52	0.249	0.078	0.0	90.3	9.7	
▲ B-20	80.6	4.76	0.731	0.444	0.132	0.0	93.1	6.9	
★ B-20	90.6	0.075						76.2	
⊙ B-20	105.6	0.075						67.9	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/5/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0850	DATE SAMPLE RECEIVED:	3/29/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	3/29/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/30/2023

BORING NO.	B-20	B-20	B-20	B-20	B-20
SAMPLE NO.	SS-5	SS-7	SS-10	SS-12	SS-15
SAMPLE DEPTH (FT.)	28.6 - 30.6	39.1 - 40.6	79.1 - 80.6	89.1 - 90.6	104.1 - 105.6
WATER CONTENT, W%	35.2	22.4	18.6	65.4	54.5

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

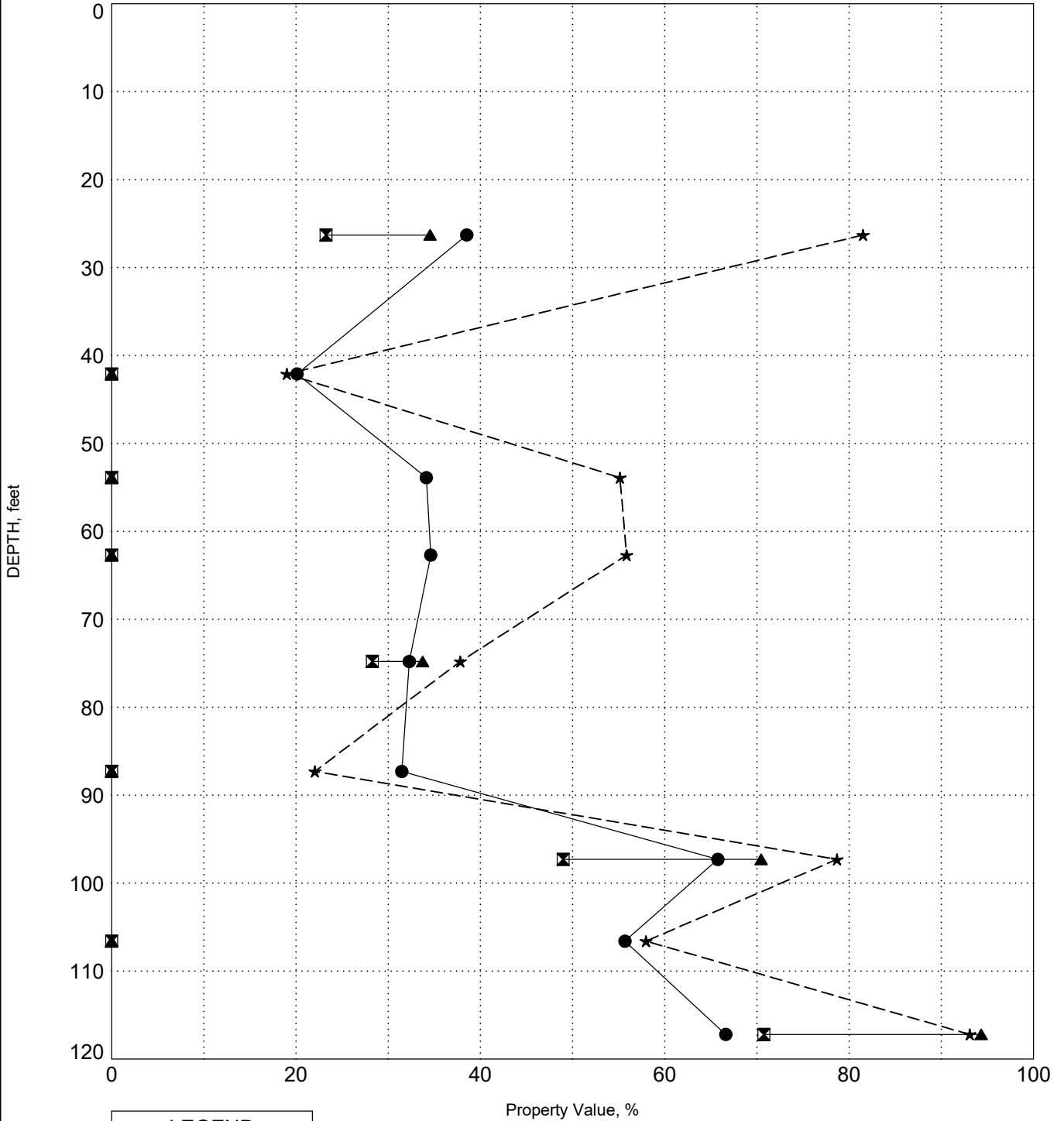
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.6

BORING B-21



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

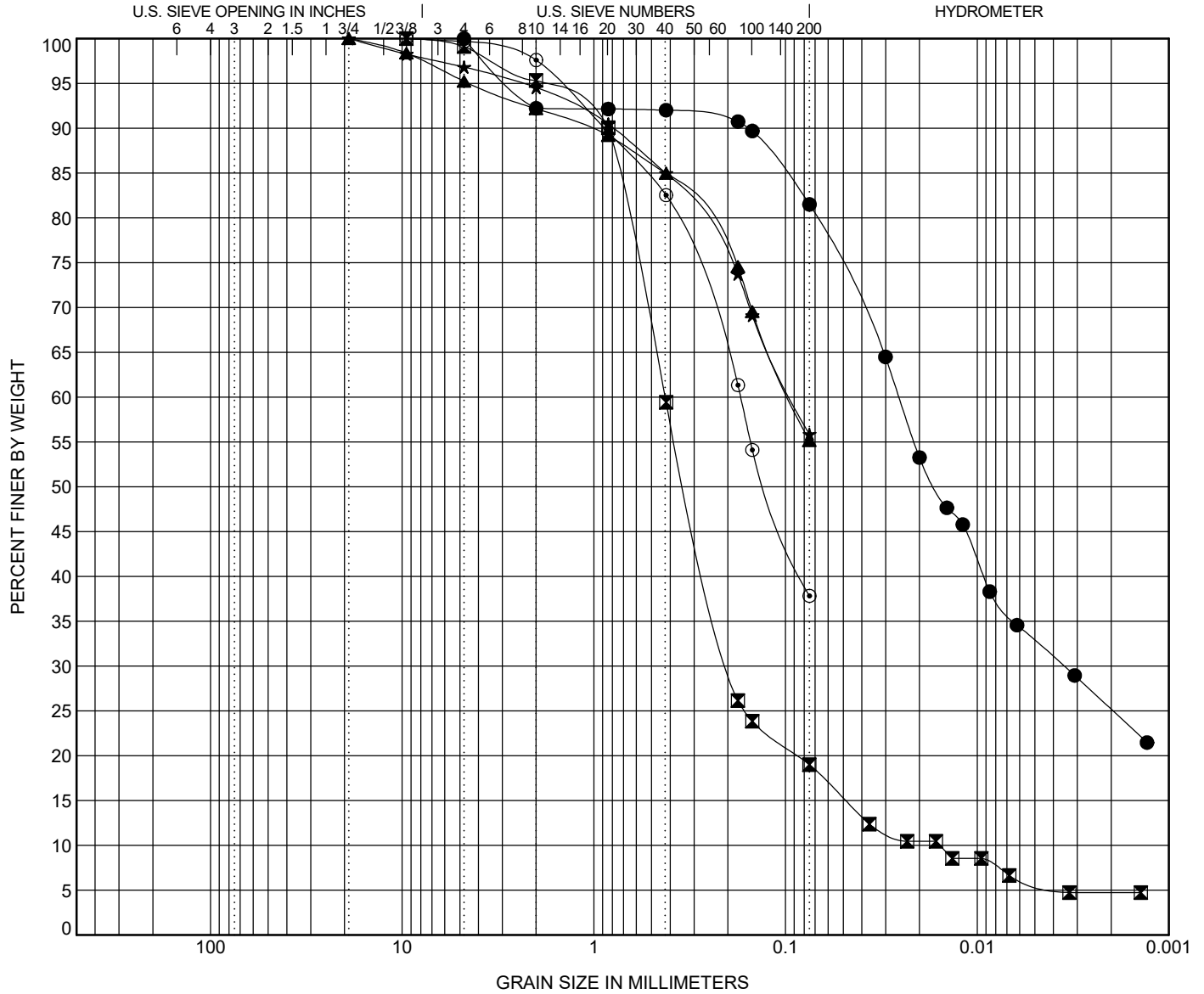


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-21	26.3	LEAN CLAY with SAND (CL/A-6)	35	23	12		
☒ B-21	42.1	SILTY SAND (SM/A-2-4)	NP	NP	NP	5.75	27.21
▲ B-21	53.9	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-21	62.7	SANDY SILT (ML/A-4)	NP	NP	NP		
⊙ B-21	74.8	SILTY SAND (SM/A-4)	34	28	6		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-21	26.3	4.76	0.026	0.004		0.0	18.5	48.7	32.8
☒ B-21	42.1	9.51	0.426	0.196	0.016	0.9	80.1	13.2	5.8
▲ B-21	53.9	19	0.095			4.8	40.1		55.1
★ B-21	62.7	19	0.093			3.2	40.9		55.9
⊙ B-21	74.8	9.51	0.171			0.3	61.8		37.8

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

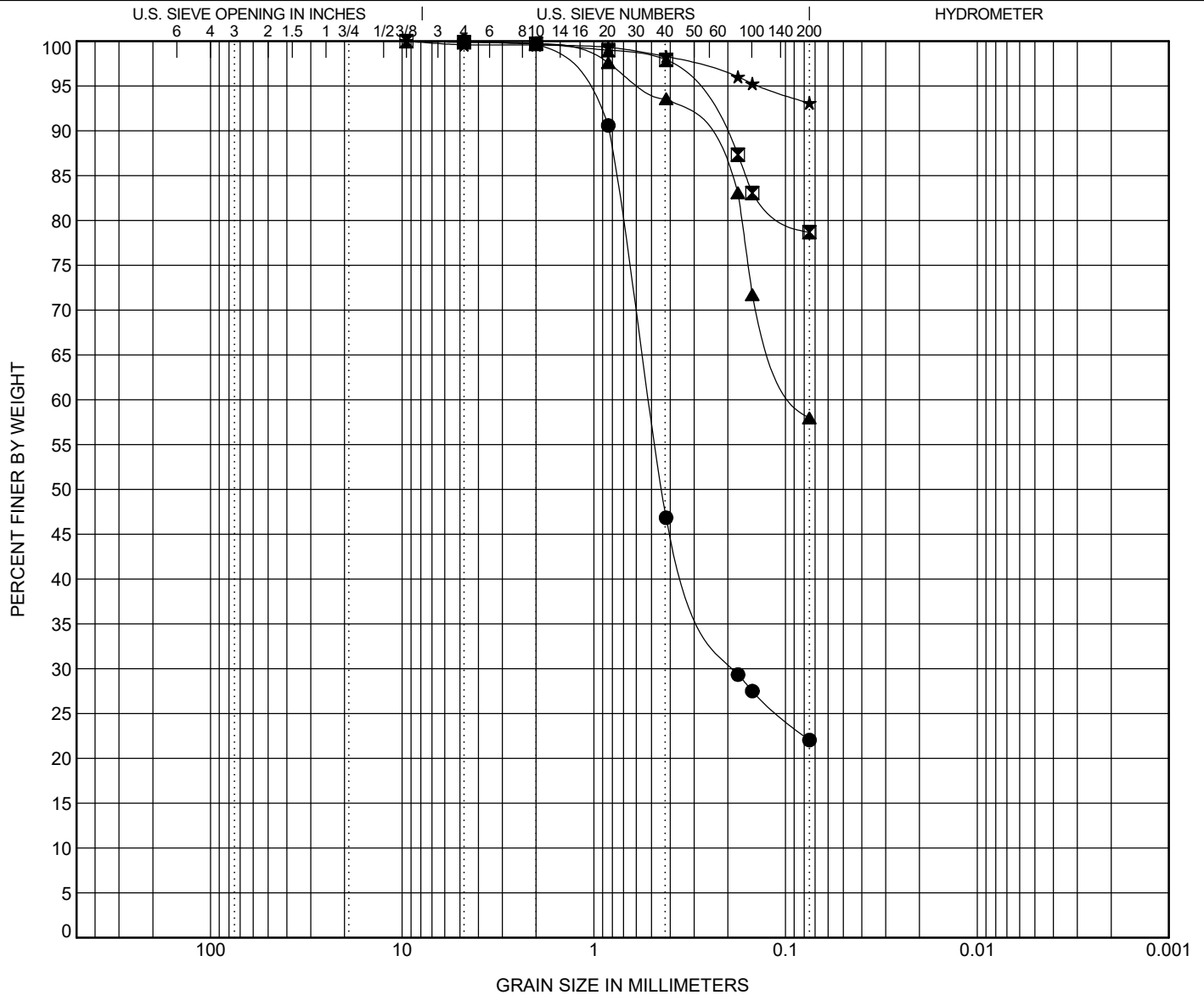


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-21	87.3	SILTY SAND (SM/A-1-b)	NP	NP	NP		
☒ B-21	97.3	ELASTIC SILT with SAND (MH/A-7-5)	70	49	21		
▲ B-21	106.6	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-21	117.2	ELASTIC SILT (MH/A-7-5)	94	71	23		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-21	87.3	4.76	0.518	0.183		0.0	78.0		22.0
☒ B-21	97.3	9.51				0.1	21.2		78.7
▲ B-21	106.6	4.76	0.083			0.0	42.0		58.0
★ B-21	117.2	9.51				0.4	6.5		93.1

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1557	DATE SAMPLE RECEIVED:	6/1/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & CJ	DATE SETUP:	6/2/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	6/6/2023

BORING NO.	B-21	B-21	B-21	B-21	B-21
SAMPLE NO.	SS-2	SS-7	SS-10	SS-12	SS-15
SAMPLE DEPTH (FT.)	24.3 - 26.3	40.8 - 42.1	52.8 - 53.9	60.8 - 62.7	72.8 - 74.8
WATER CONTENT, W%	38.5	20.1	34.1	34.6	33.3

BORING NO.	B-21	B-21	B-21	B-21	
SAMPLE NO.	SS-18	SS-20	SS-22	SS-24	
SAMPLE DEPTH (FT.)	85.8 - 87.3	95.8 - 97.3	105.8 - 106.6	115.8 - 117.2	
WATER CONTENT, W%	31.5	65.8	65.7	66.6	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

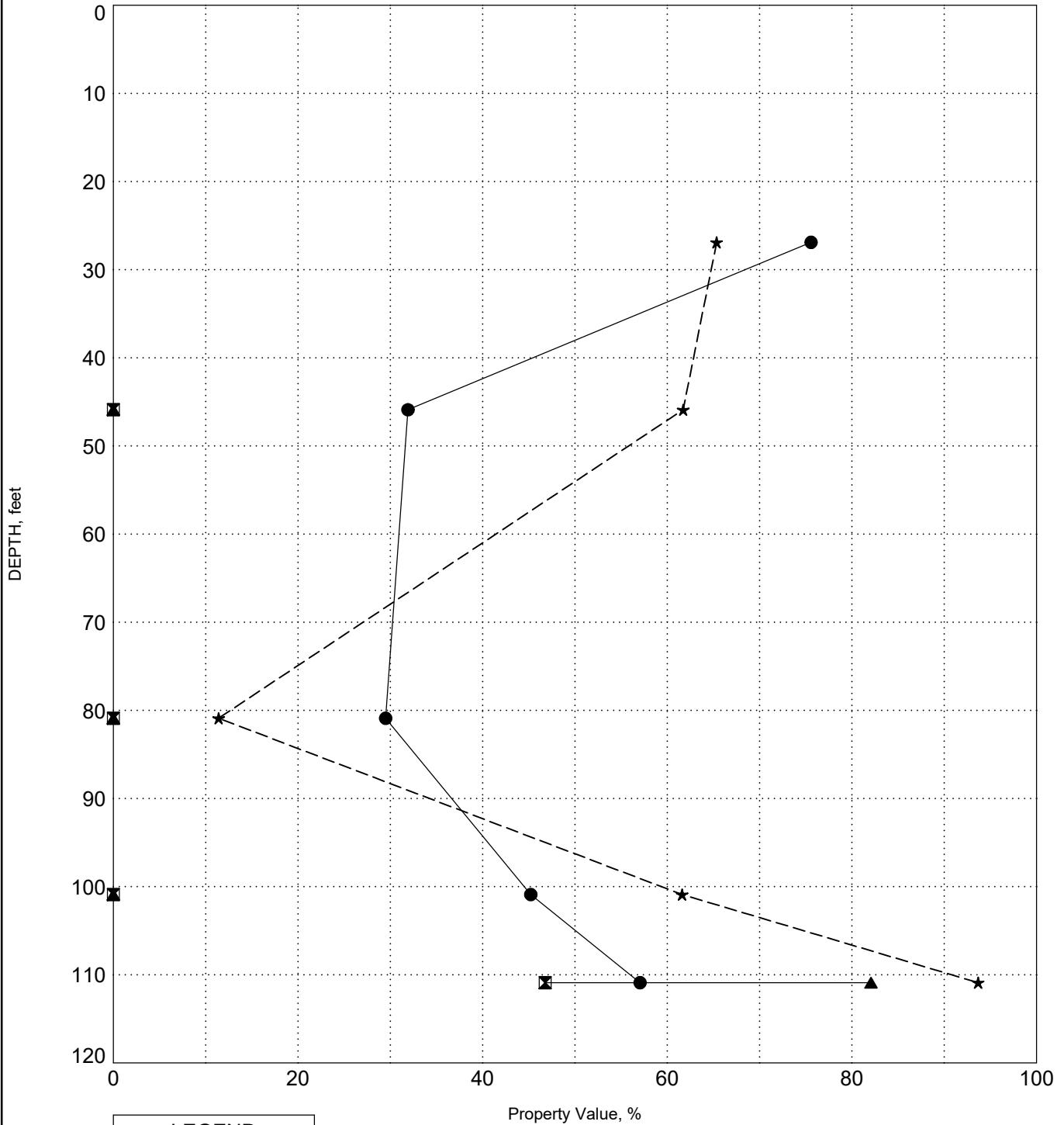
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-22

SURFACE ELEVATION: 77.8



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

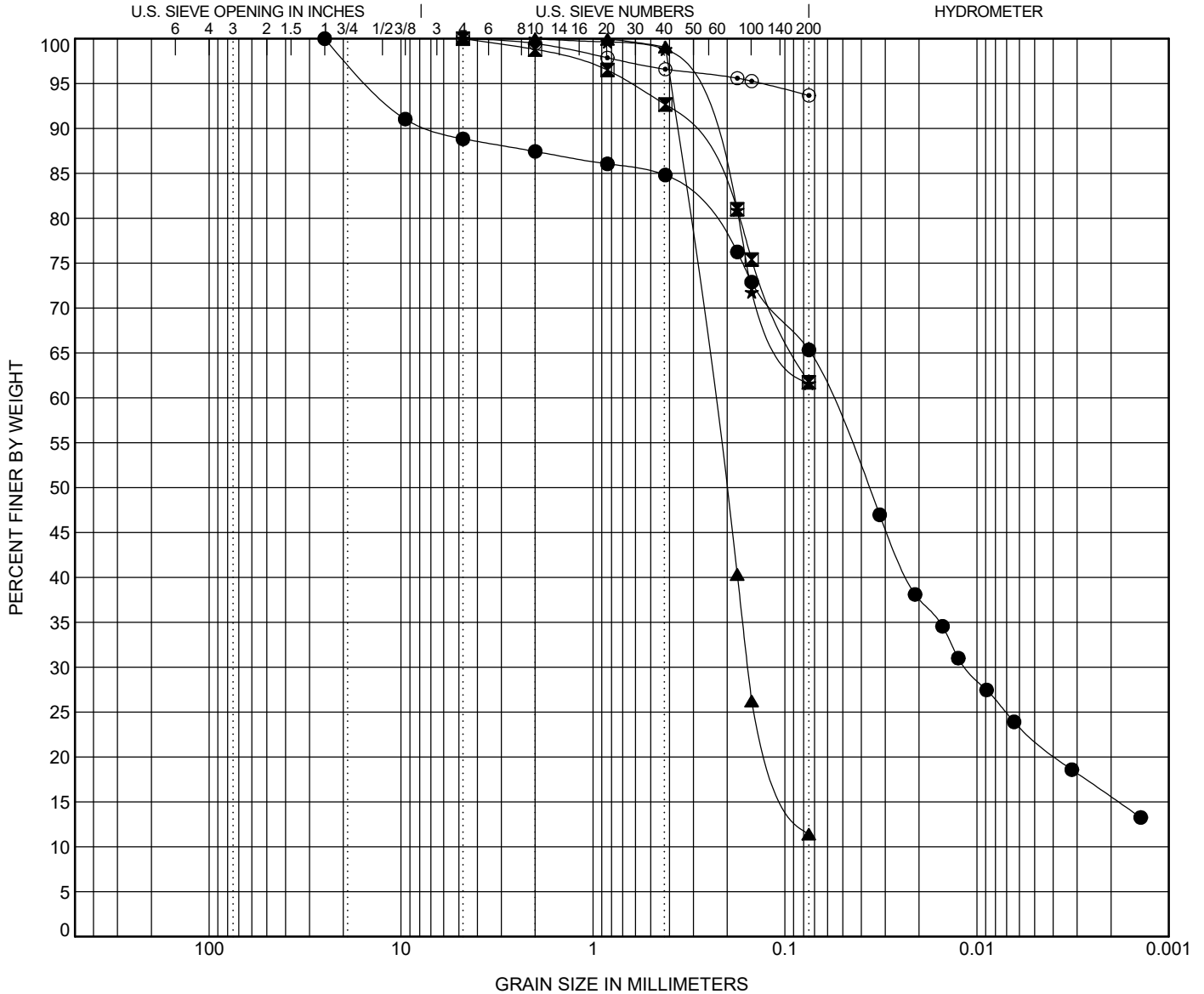


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-22	26.9	SANDY SILT (ML)					
⊠ B-22	45.9	SANDY SILT (ML/A-4)	NP	NP	NP		
▲ B-22	80.9	POORLY GRADED SAND with SILT (SP-SM/A-2-4)	NP	NP	NP	1.47	3.36
★ B-22	100.9	SANDY SILT (ML/A-4)	NP	NP	NP		
○ B-22	110.9	ELASTIC SILT (MH/A-7-5)	82	47	35		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-22	26.9	25	0.059	0.011		11.2	23.5	43.3	22.0
⊠ B-22	45.9	4.76				0.0	38.3	61.7	
▲ B-22	80.9	4.76	0.236	0.156		0.0	88.6	11.4	
★ B-22	100.9	4.76				0.0	38.4	61.6	
○ B-22	110.9	4.76				0.0	6.3	93.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/5/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0850	DATE SAMPLE RECEIVED:	3/29/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	3/29/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/30/2023

BORING NO.	B-22	B-22	B-22	B-22	B-22
SAMPLE NO.	SS-3	SS-8	SS-10	SS-14	SS-16
SAMPLE DEPTH (FT.)	24.9 - 26.9	44.4 - 45.9	79.4 - 80.9	99.4 - 100.9	109.4 - 110.9
WATER CONTENT, W%	75.6	31.9	29.5	45.2	57.1

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

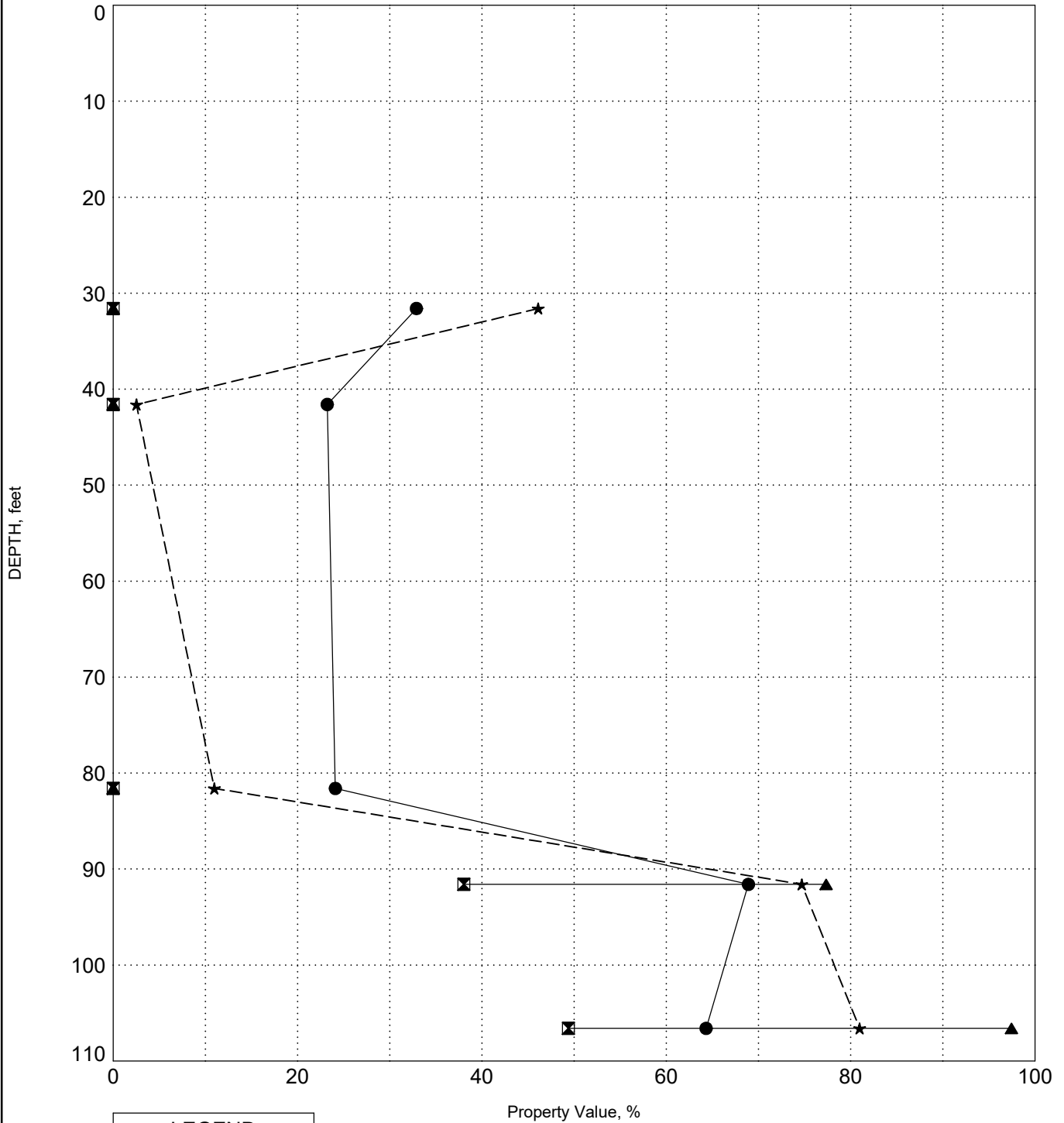
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.4

BORING B-23



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

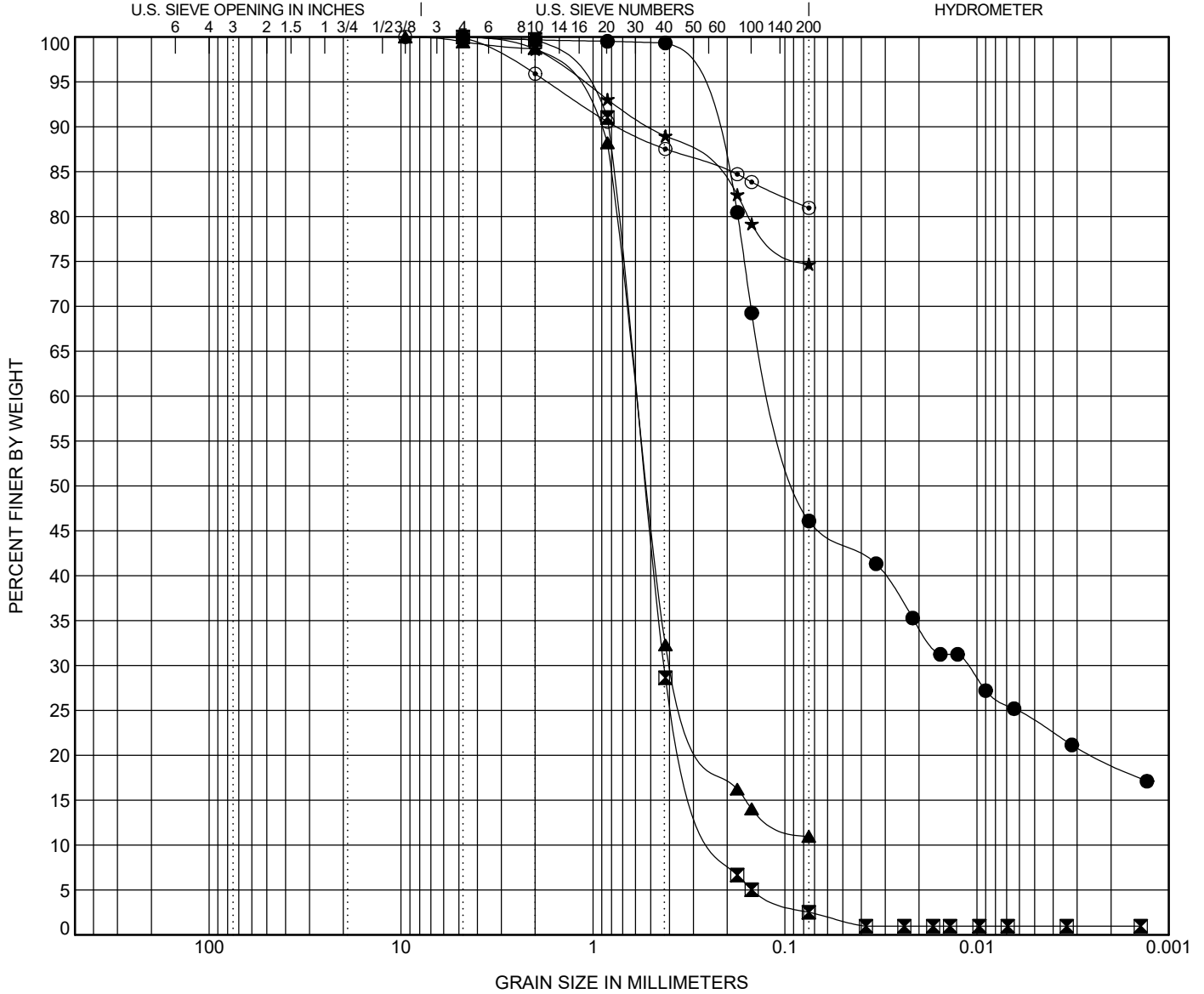


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-23	31.6	Silty SAND (SM/A-4)			NP	NP	NP		
☒	B-23	41.6	Poorly Graded SAND (SP/A-1-b)			NP	NP	NP	1.51	2.95
▲	B-23	81.6	Poorly Graded SAND with SILT (SP-SM/A-1-b)			NP	NP	NP	3.86	9.82
★	B-23	91.6	Elastic SILT with SAND (MH/A-7-5)			77	38	39		
○	B-23	106.6	Elastic SILT with SAND (MH/A-7-5)			97	49	48		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
●	B-23	31.6	4.76	0.113	0.011	0.0	53.9	22.3	23.7	
☒	B-23	41.6	4.76	0.595	0.426	0.202	0.0	97.5	1.6	1.0
▲	B-23	81.6	9.51	0.592	0.371	0.6	88.5		11.0	
★	B-23	91.6	4.76			0.0	25.3		74.7	
○	B-23	106.6	9.51			0.1	18.9		81.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1355	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-23	B-23	B-23	B-23	B-23
SAMPLE NO.	SS-5	SS-7	SS-10	SS-12	SS-15
SAMPLE DEPTH (FT.)	29.6 - 31.6	40.1 - 41.6	80.1 - 81.6	90.1 - 91.6	105.1 - 106.6
WATER CONTENT, W%	32.9	23.2	24.1	68.9	64.3

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

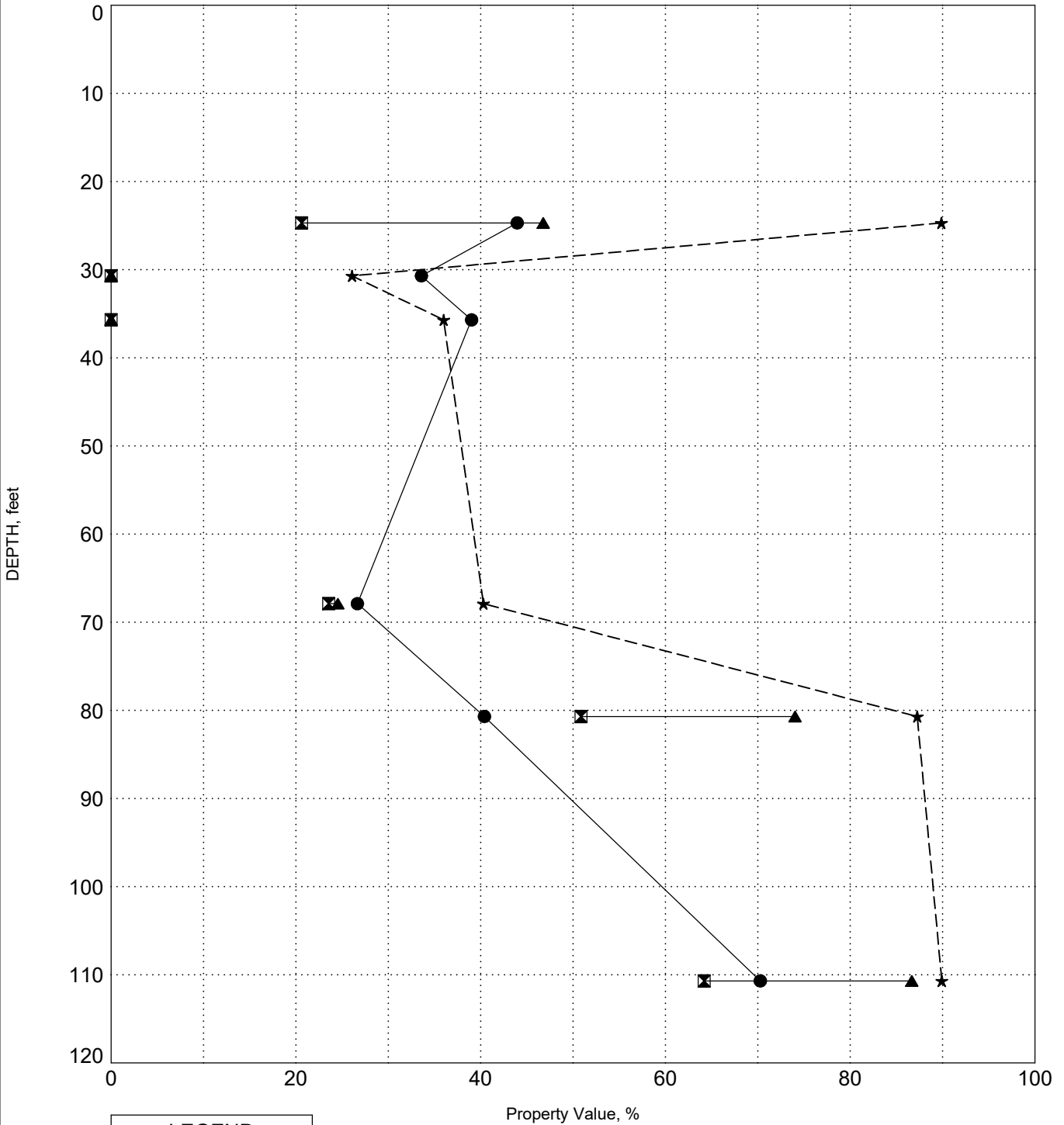
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.7

BORING B-24



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

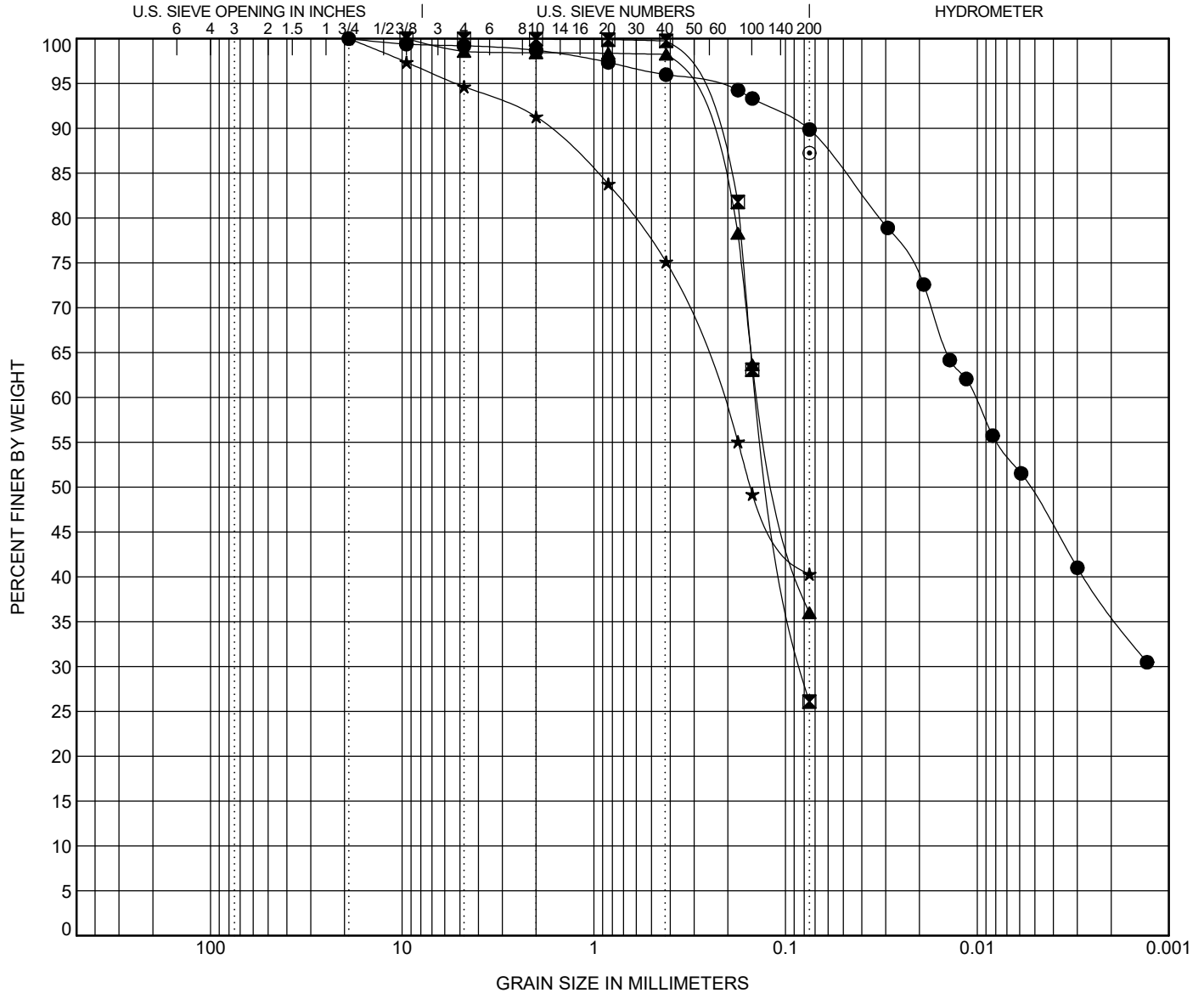


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-24	24.7	LEAN CLAY (CL/A-7-6)	47	21	26		
☒ B-24	30.7	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-24	35.7	SILTY SAND (SM/A-4)	NP	NP	NP		
★ B-24	67.9	SILTY SAND (SM/A-4)	25	24	1		
◎ B-24	80.7	ELASTIC SILT (MH/A-7-5)	74	51	23		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-24	24.7	19	0.01			0.8	9.3	40.9	49.0
☒ B-24	30.7	9.51	0.141	0.081		0.0	73.9	26.1	
▲ B-24	35.7	9.51	0.136			1.4	62.6	36.0	
★ B-24	67.9	19	0.219			5.4	54.3	40.3	
◎ B-24	80.7	0.075						87.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

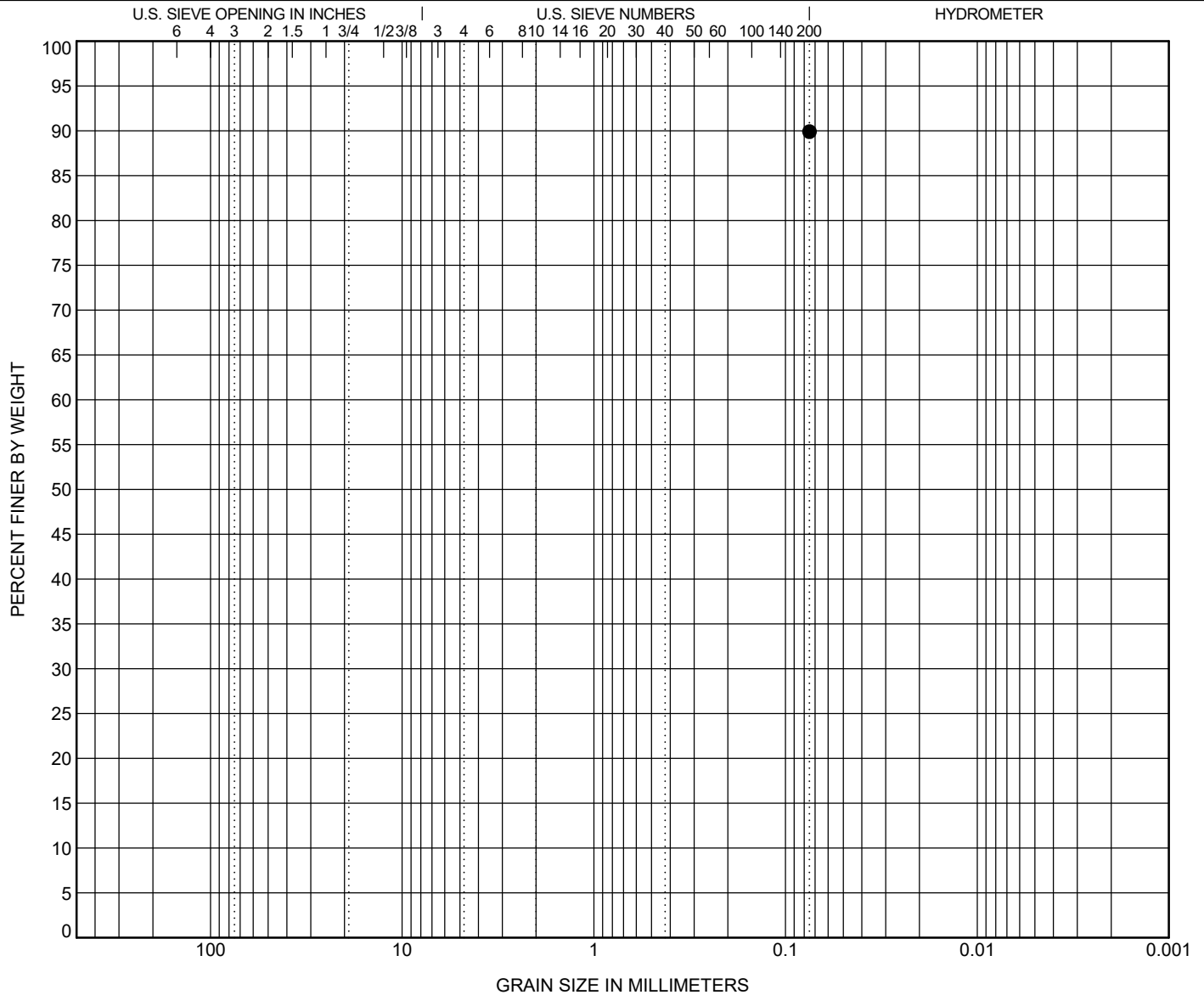


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-24	110.7	ELASTIC SILT (MH/A-7-5)					87	64	23		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-24	110.7	0.075						89.9			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0786	DATE SAMPLE RECEIVED:	3/23/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/23/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/24/2023

BORING NO.	B-24	B-24	B-24	B-24	B-24
SAMPLE NO.	SS-2	SS-5	SS-6	SS-9	SS-12
SAMPLE DEPTH (FT.)	22.7 - 24.7	28.7 - 30.7	34.2 - 35.7	66.4 - 67.9	79.2 - 80.7
WATER CONTENT, W%	44.0	33.6	39.0	26.7	40.4

BORING NO.	B-24				
SAMPLE NO.	SS-18				
SAMPLE DEPTH (FT.)	109.2 - 110.7				
WATER CONTENT, W%	70.3				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

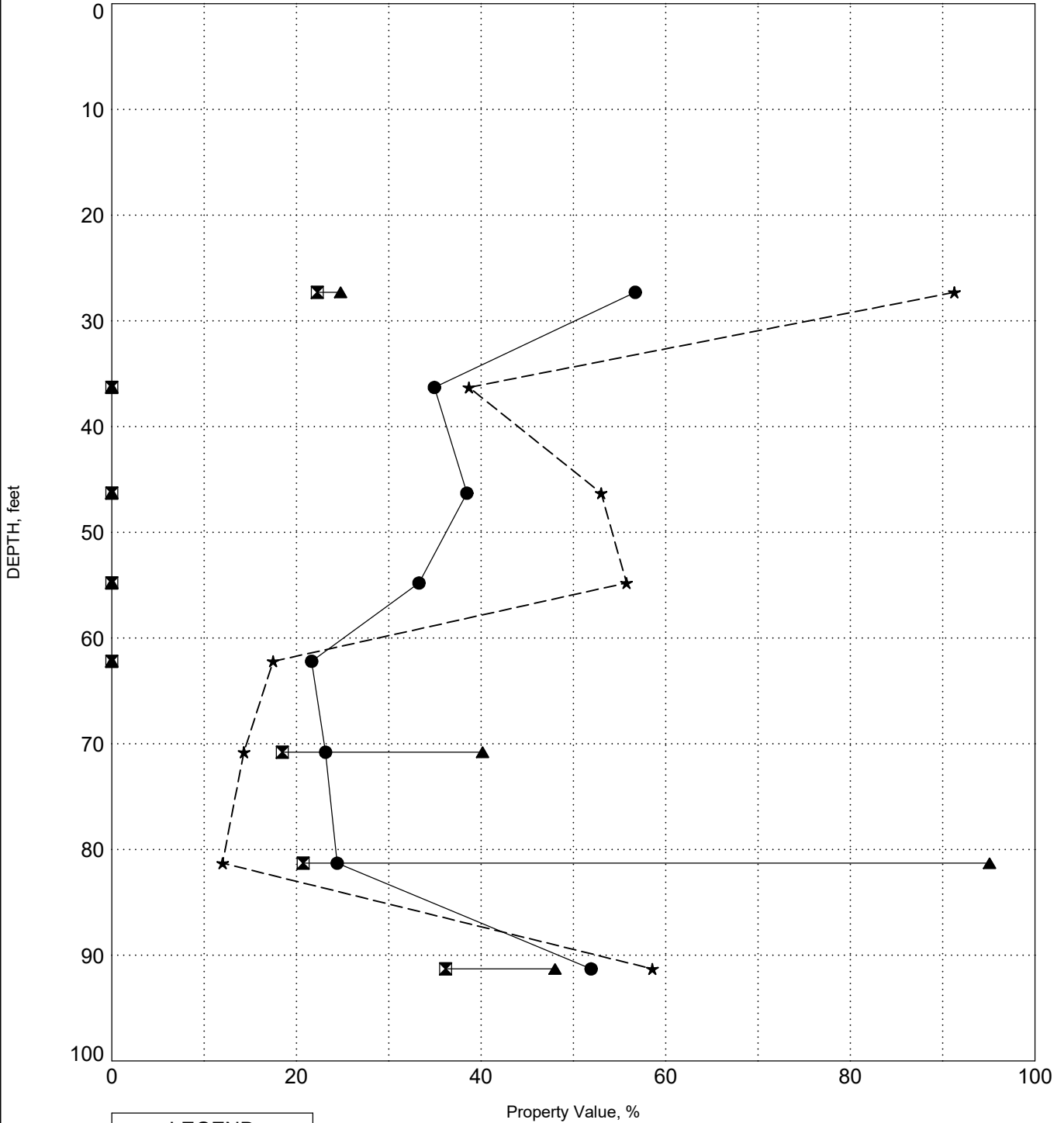
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-25



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

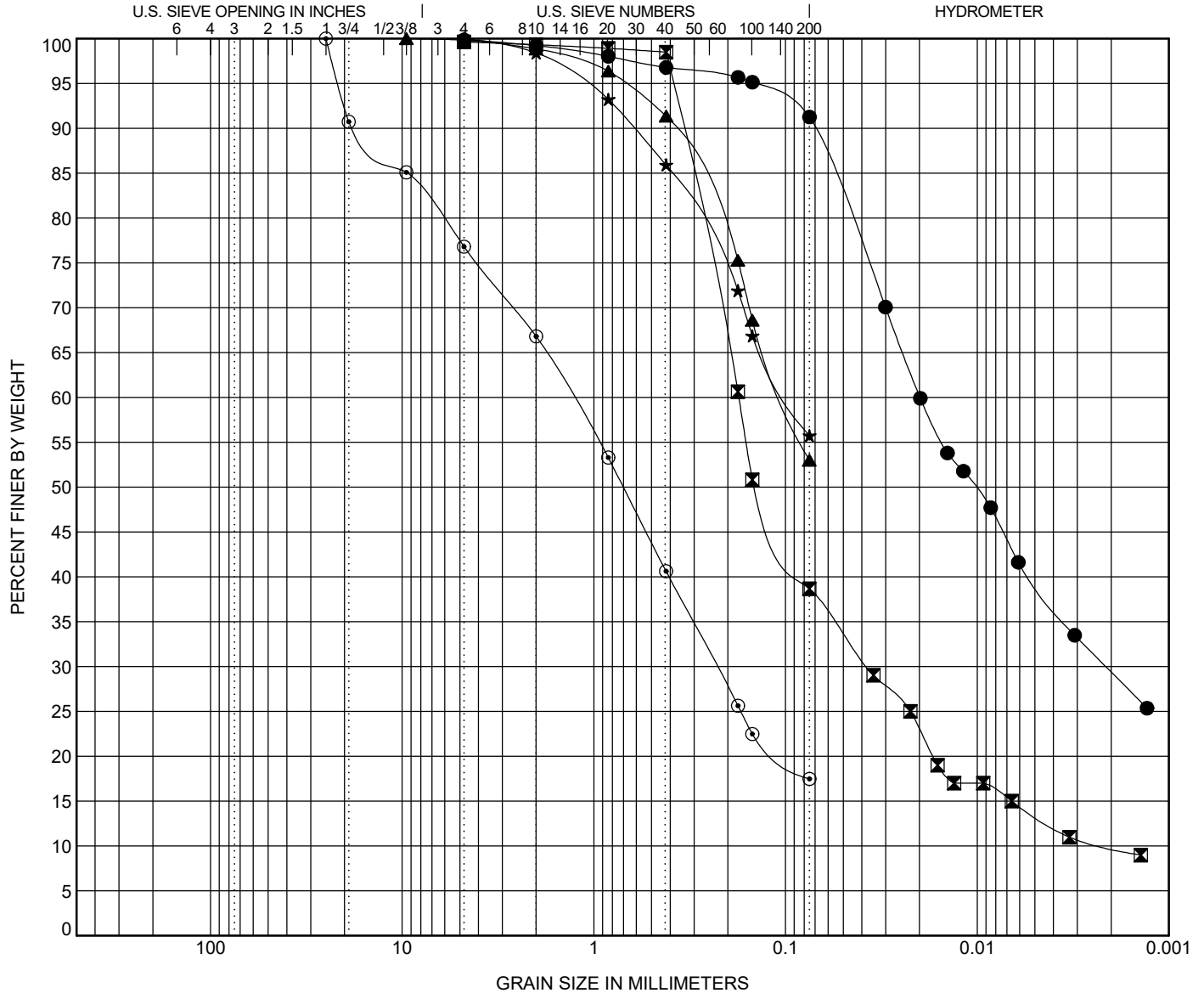


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-25	27.3	SILT (ML/A-4)			25	22	3		
☒	B-25	36.3	SILTY SAND (SM/A-4)			NP	NP	NP	3.73	80.68
▲	B-25	46.3	SANDY SILT (ML/A-4)			NP	NP	NP		
★	B-25	54.8	SANDY SILT (ML/A-4)			NP	NP	NP		
◎	B-25	62.2	SILTY SAND with GRAVEL (SM/A-1-b)			NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
●	B-25	27.3	4.76	0.02	0.002	0.0	8.6	52.0	39.2	
☒	B-25	36.3	4.76	0.175	0.038	0.002	0.0	61.0	25.3	13.4
▲	B-25	46.3	9.51	0.102		0.2	46.8		53.0	
★	B-25	54.8	4.76	0.098		0.0	44.3		55.7	
◎	B-25	62.2	25	1.293	0.228	23.2	59.3		17.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

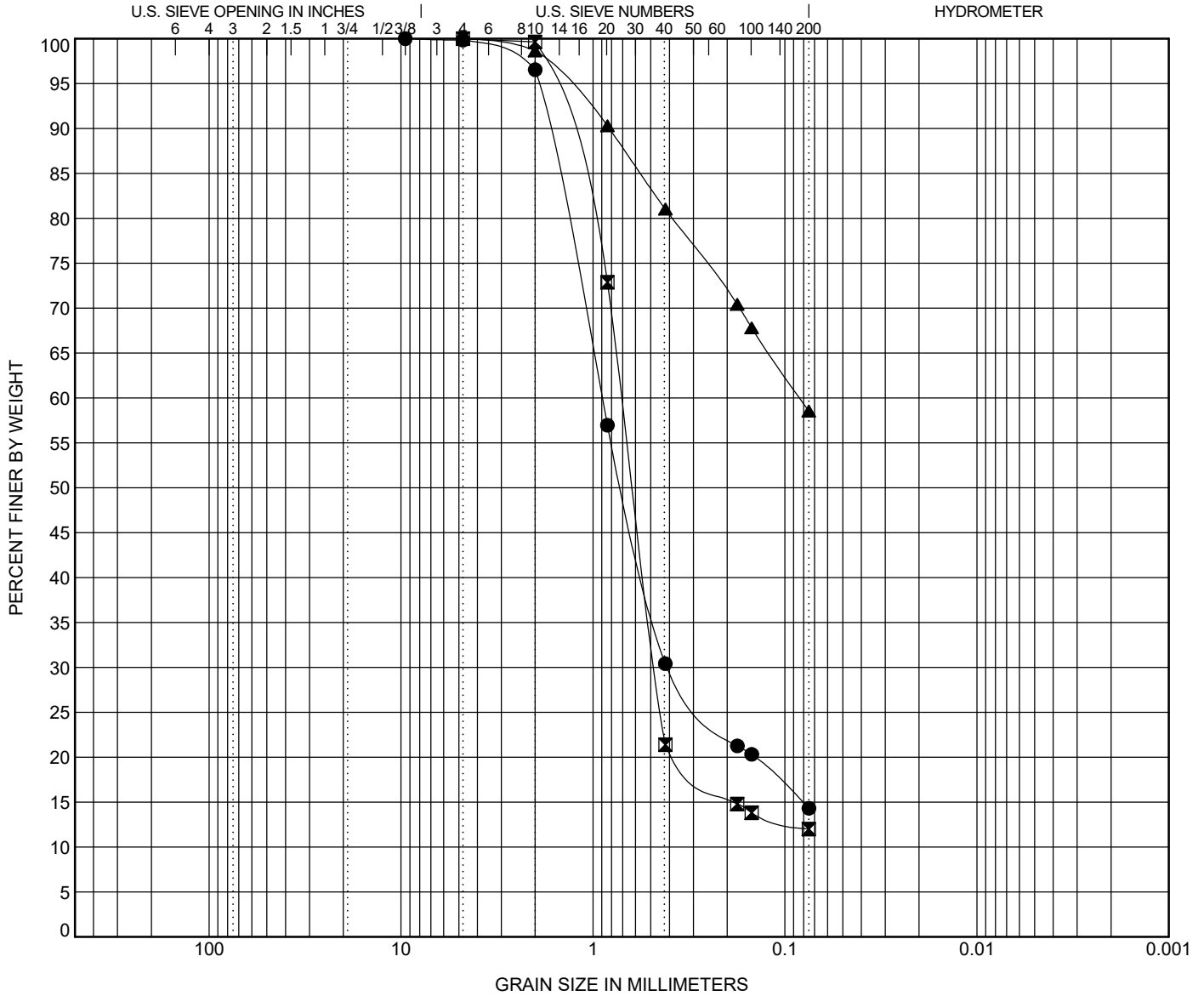


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-25	70.8	CLAYEY SAND (SC/A-2-6)					40	18	22		
☒ B-25	81.3	CLAYEY SAND (SC/A-2-7)					95	21	74	8.94	20.07
▲ B-25	91.3	SANDY SILT (ML/A-7-5)					48	36	12		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-25	70.8	9.51	0.899	0.404		0.2	85.5	14.3	
☒ B-25	81.3	4.76	0.707	0.472		0.0	88.0	12.0	
▲ B-25	91.3	4.76	0.084			0.0	41.5	58.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1356	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-25	B-25	B-25	B-25	B-25
SAMPLE NO.	SS-3	SS-6	SS-8	SS-10	SS-12
SAMPLE DEPTH (FT.)	25.3 - 27.3	34.8 - 36.3	44.8 - 46.3	52.8 - 54.8	60.8 - 62.2
WATER CONTENT, W%	56.7	34.9	38.5	33.3	21.6

BORING NO.	B-25	B-25	B-25		
SAMPLE NO.	SS-14	SS-16	SS-18		
SAMPLE DEPTH (FT.)	68.8 - 70.8	79.8 - 81.3	89.8 - 91.3		
WATER CONTENT, W%	23.2	24.4	51.9		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

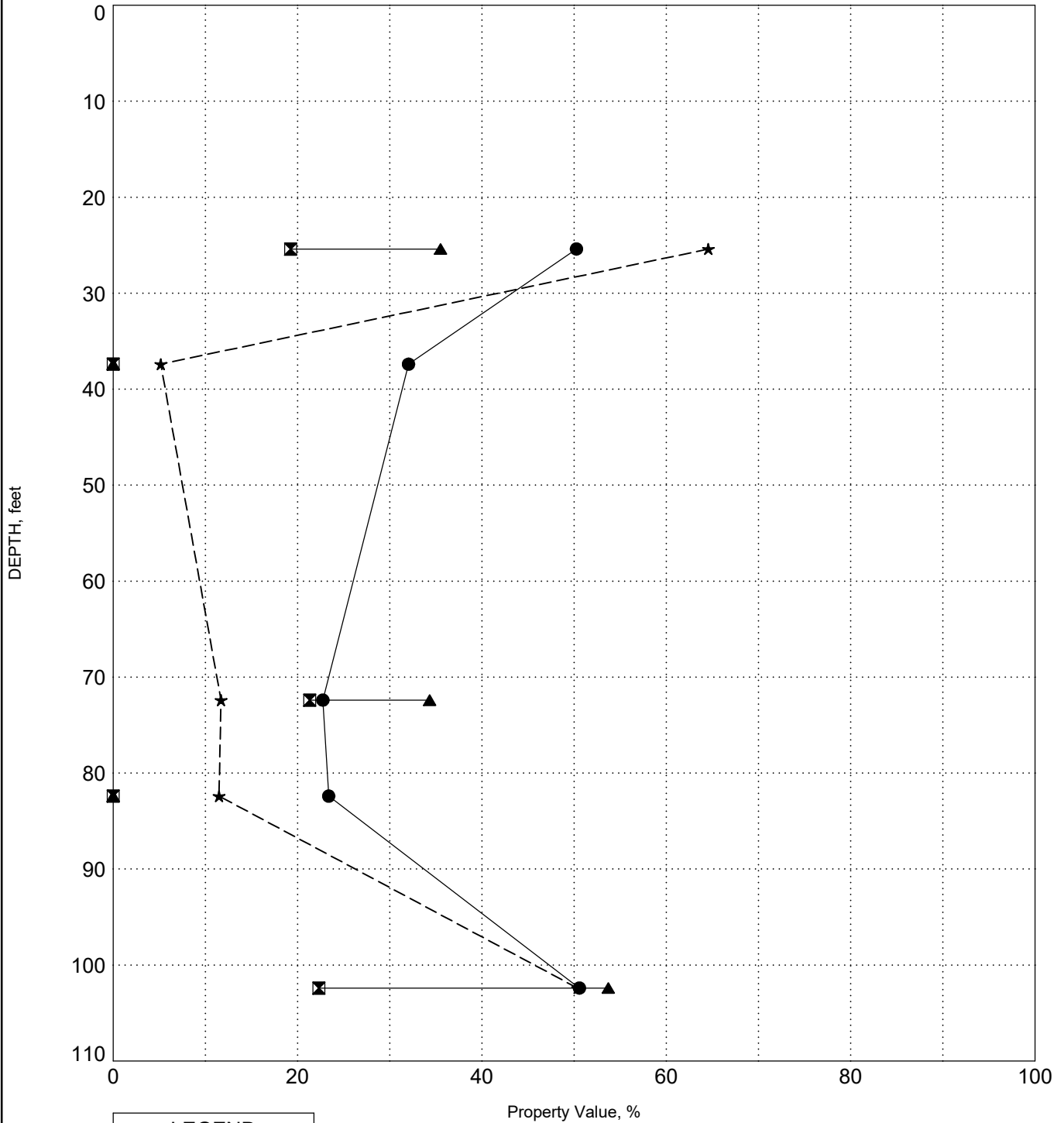
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.8

BORING B-26



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

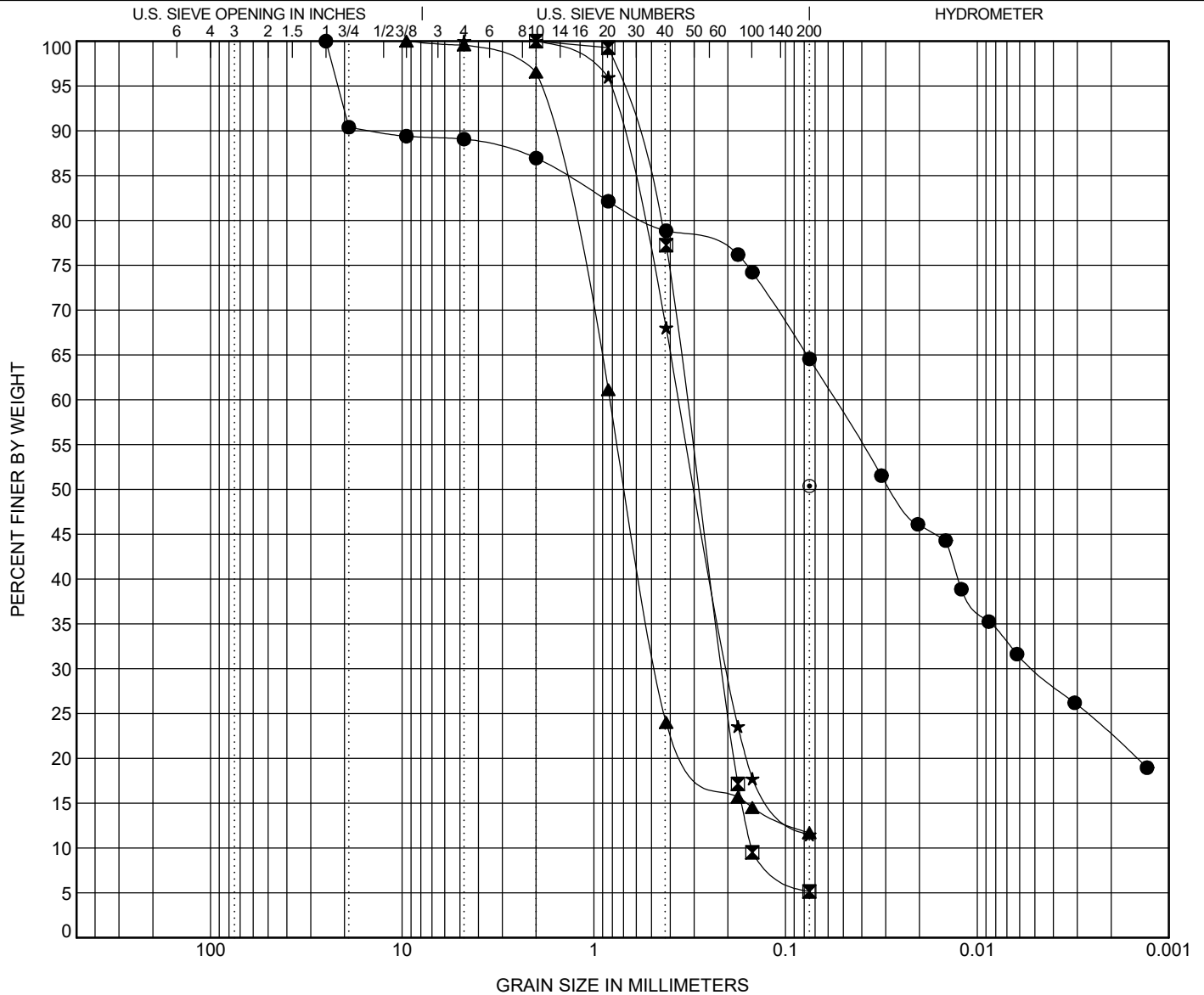


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-26	25.4	SANDY LEAN CLAY (CL/A-6)	36	19	17		
☒ B-26	37.4	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	0.92	2.18
▲ B-26	72.4	POORLY GRADED SAND with CLAY (SP-SC/A-2-6)	34	21	13	5.39	16.57
★ B-26	82.4	POORLY GRADED SAND with SILT (SP-SM/A-2-4)	NP	NP	NP	1.76	5.64
◎ B-26	102.4	SANDY FAT CLAY (CH/A-7-6)	54	22	32		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-26	25.4	25	0.055	0.005		10.9	24.5	34.6	29.9
☒ B-26	37.4	2	0.328	0.213	0.151	0.0	94.8	5.2	
▲ B-26	72.4	9.51	0.823	0.47		0.4	87.9	11.7	
★ B-26	82.4	4.76	0.359	0.201		0.0	88.5	11.5	
◎ B-26	102.4	0.075						50.4	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0785	DATE SAMPLE RECEIVED:	3/23/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/23/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/24/2023

BORING NO.	B-26	B-26	B-26	B-26	B-26
SAMPLE NO.	SS-2	SS-7	SS-10	SS-12	SS-16
SAMPLE DEPTH (FT.)	23.4 - 25.4	18.5 - 20.0	70.9 - 72.4	80.9 - 82.4	100.9 - 102.4
WATER CONTENT, W%	50.3	32.0	22.7	23.4	50.6

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

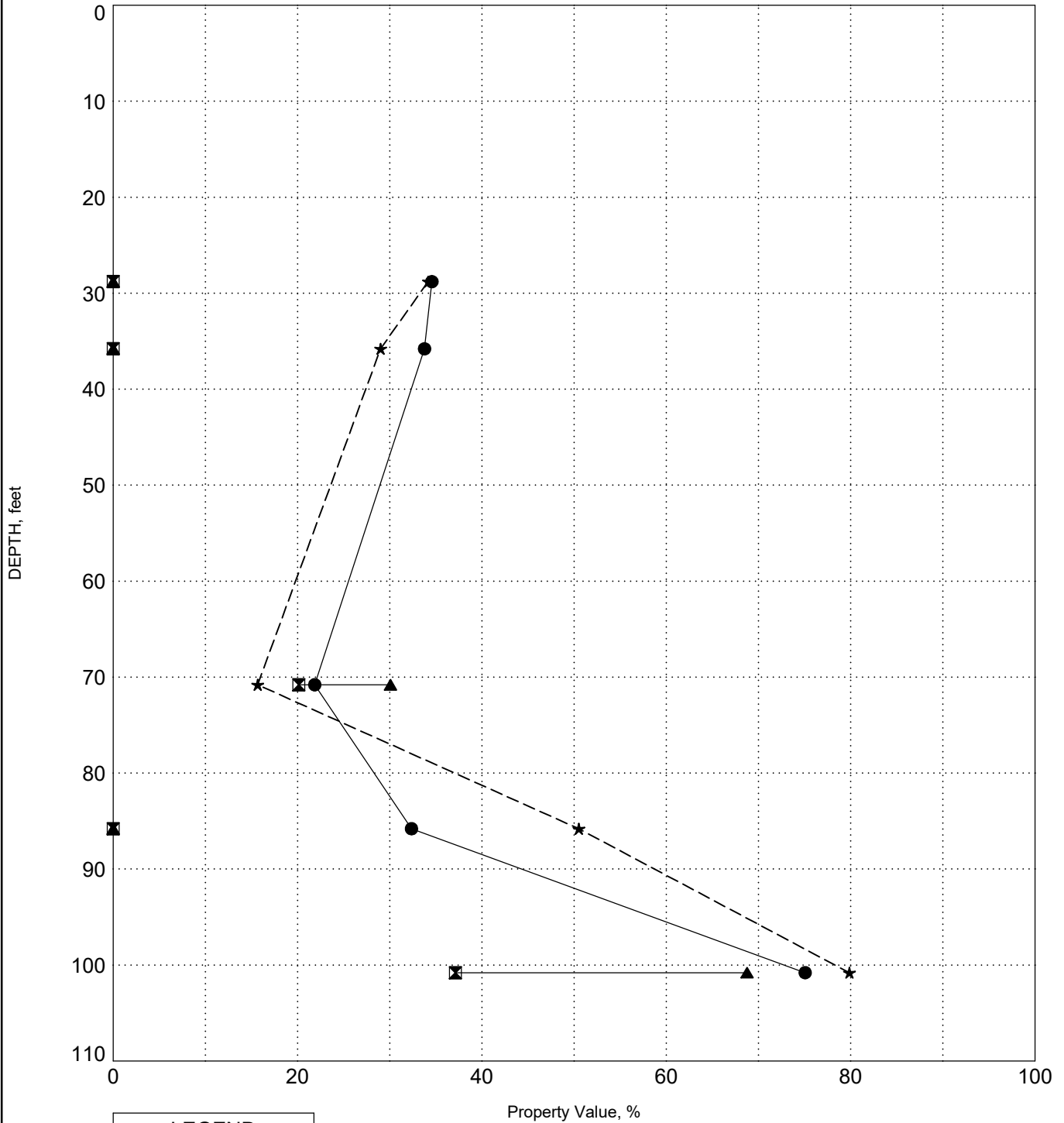
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.8

BORING B-27



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

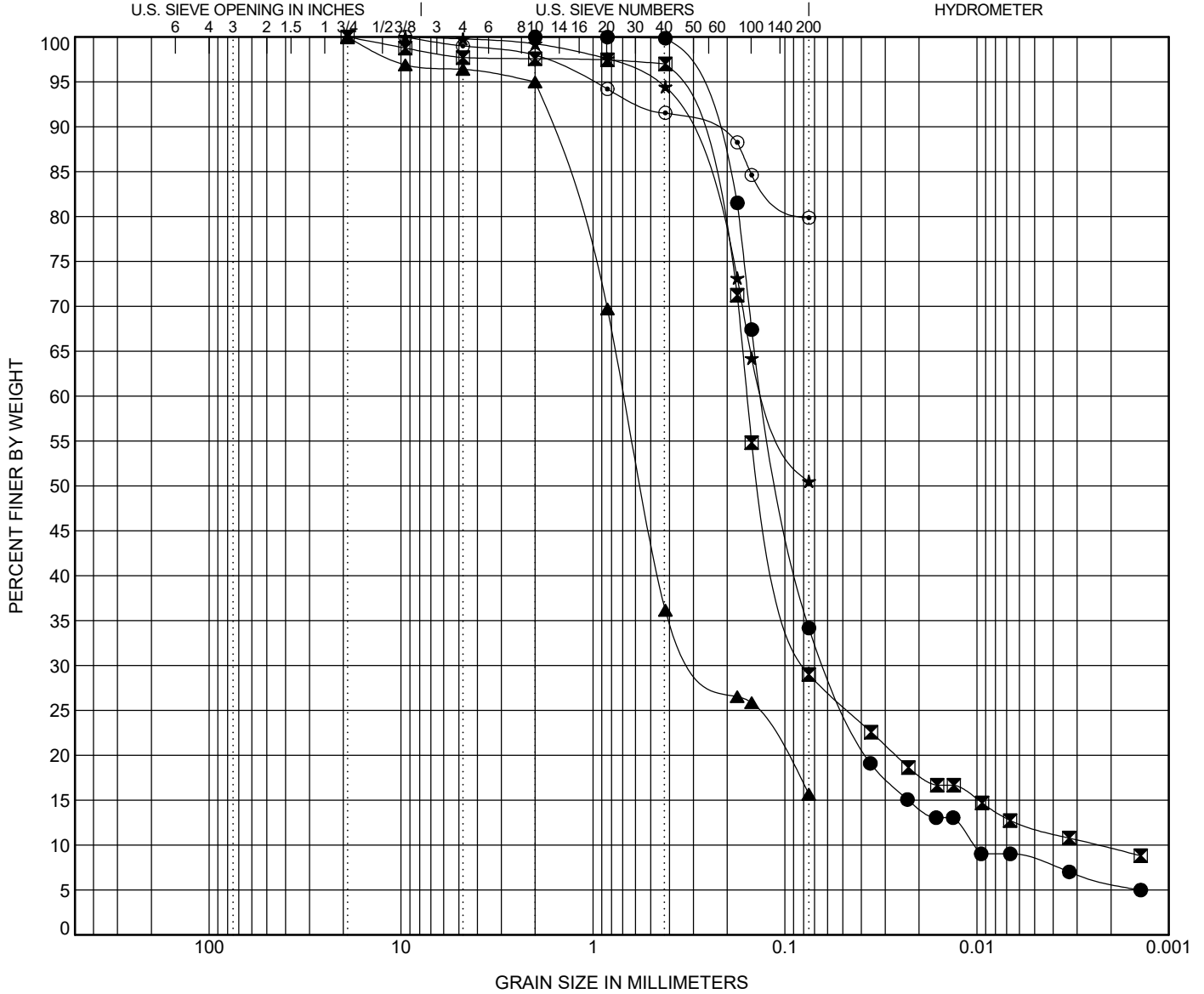


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-27	28.8	SILTY SAND (SM/A-2-4)					NP	NP	NP	2.84	12.41
■	B-27	35.8	SILTY SAND (SM/A-2-4)					NP	NP	NP	16.02	66.85
▲	B-27	70.8	CLAYEY SAND (SC/A-2-4)					30	20	10		
★	B-27	85.8	SANDY SILT (ML/A-4)					NP	NP	NP		
◎	B-27	100.8	ELASTIC SILT with SAND (MH/A-7-5)					69	37	32		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
●	B-27	28.8	2	0.128	0.061	0.01	0.0	65.8	26.0	8.2
■	B-27	35.8	19	0.157	0.077	0.002	2.3	68.7	17.1	11.9
▲	B-27	70.8	19	0.688	0.242		3.6	80.7		15.7
★	B-27	85.8	9.51	0.121			0.2	49.3		50.5
◎	B-27	100.8	9.51				1.0	19.1		79.9

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1357	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-27	B-27	B-27	B-27	B-27
SAMPLE NO.	SS-4	SS-6	SS-9	SS-12	SS-15
SAMPLE DEPTH (FT.)	26.8 - 28.8	34.3 - 35.8	69.3 - 70.8	84.3 - 85.8	99.3 - 100.8
WATER CONTENT, W%	34.6	33.8	21.9	32.4	75.1

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

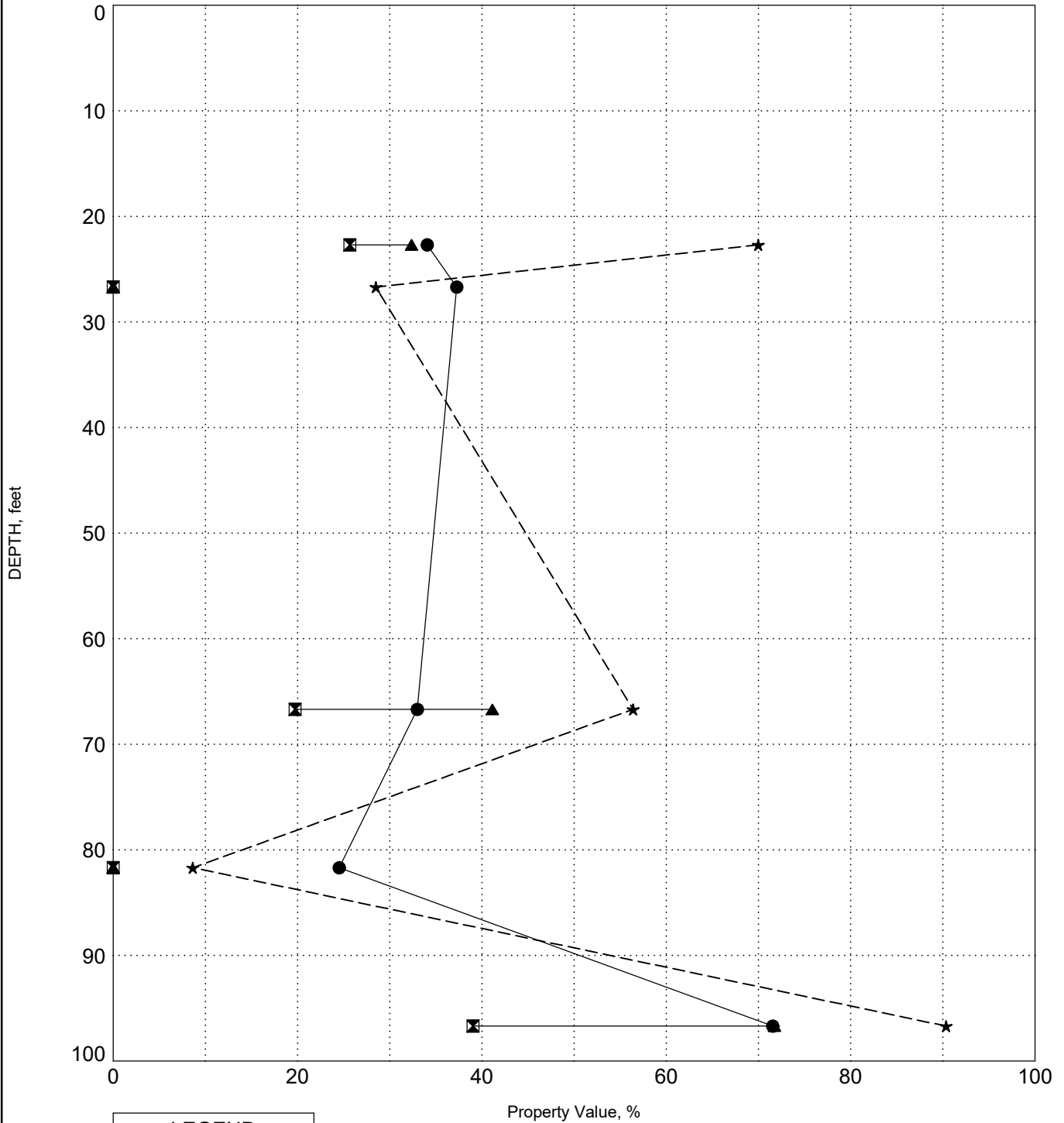
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.7

BORING B-28



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

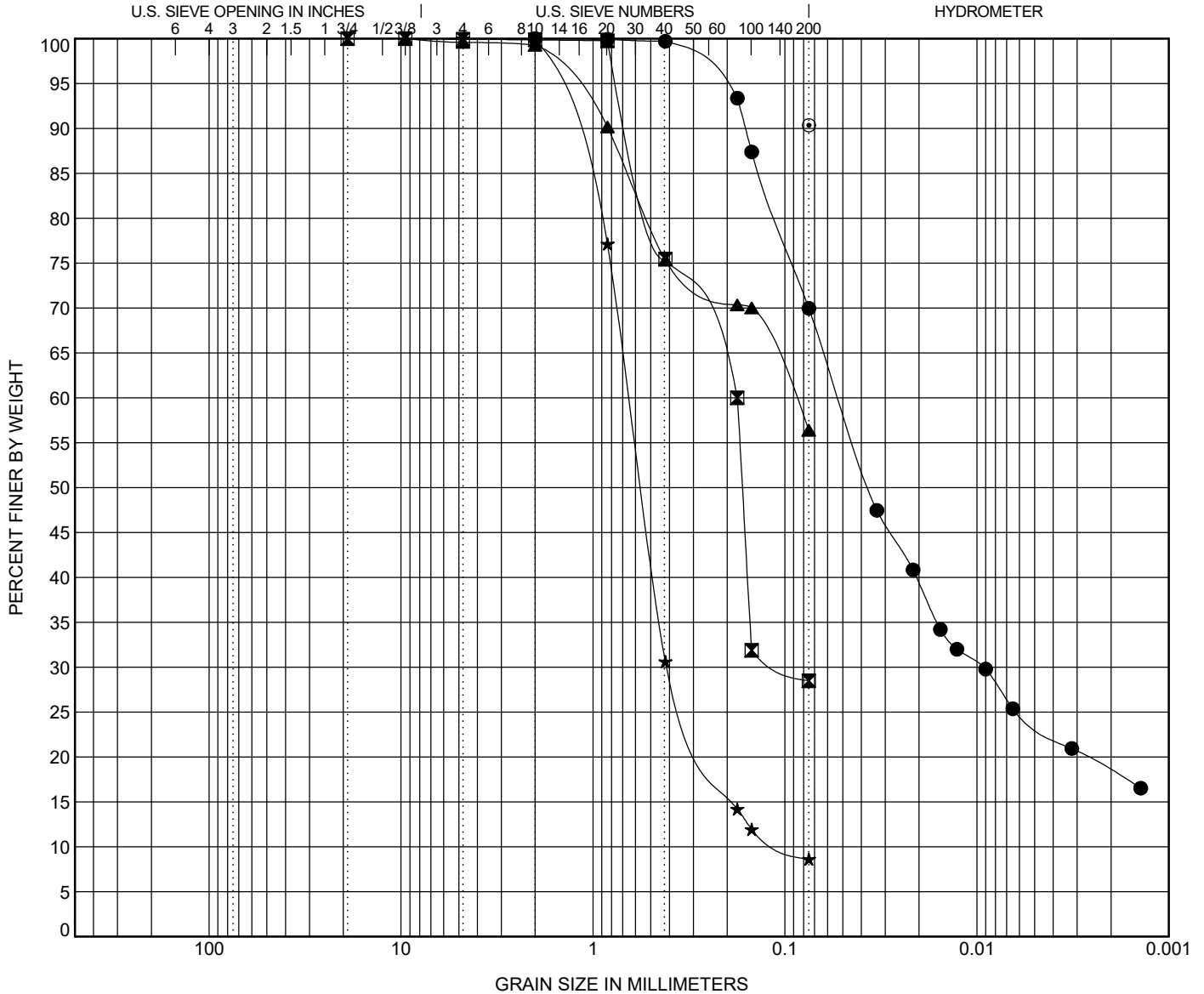


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-28	22.7	SANDY SILT (ML/A-4)	32	26	6		
☒ B-28	26.7	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-28	66.7	SANDY LEAN CLAY (CL/A-7-6)	41	20	21		
★ B-28	81.7	WELL-GRADED SAND with SILT (SW-SM/A-1-b)	NP	NP	NP	2.54	6.53
◎ B-28	96.7	ELASTIC SILT (MH/A-7-5)	72	39	33		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-28	22.7	2	0.052	0.009		0.0	30.0	46.2	23.7
☒ B-28	26.7	19	0.177	0.102		0.1	71.4	28.5	
▲ B-28	66.7	9.51	0.09			0.4	43.2	56.4	
★ B-28	81.7	4.76	0.651	0.406	0.1	0.0	91.4	8.6	
◎ B-28	96.7	0.075						90.4	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0784	DATE SAMPLE RECEIVED:	3/23/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/23/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/24/2023

BORING NO.	B-28	B-28	B-28	B-28	B-28
SAMPLE NO.	SS-3	SS-5	SS-9	SS-12	SS-15
SAMPLE DEPTH (FT.)	20.7 - 22.7	24.7 - 26.7	65.2 - 66.7	80.2 - 81.7	95.2 - 96.7
WATER CONTENT, W%	34.1	37.3	33.0	24.5	71.5

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

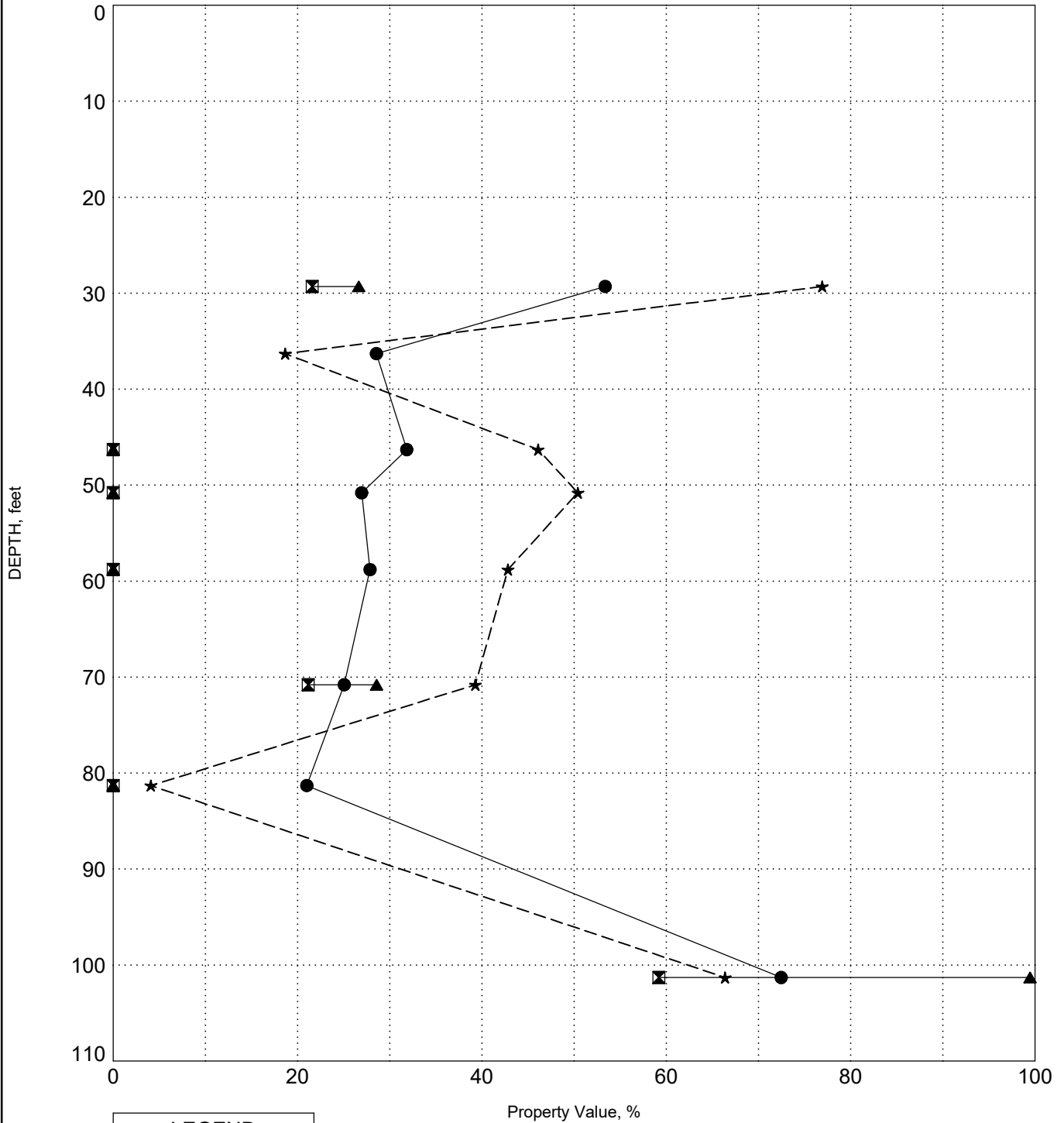
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-29

SURFACE ELEVATION: 77.9



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

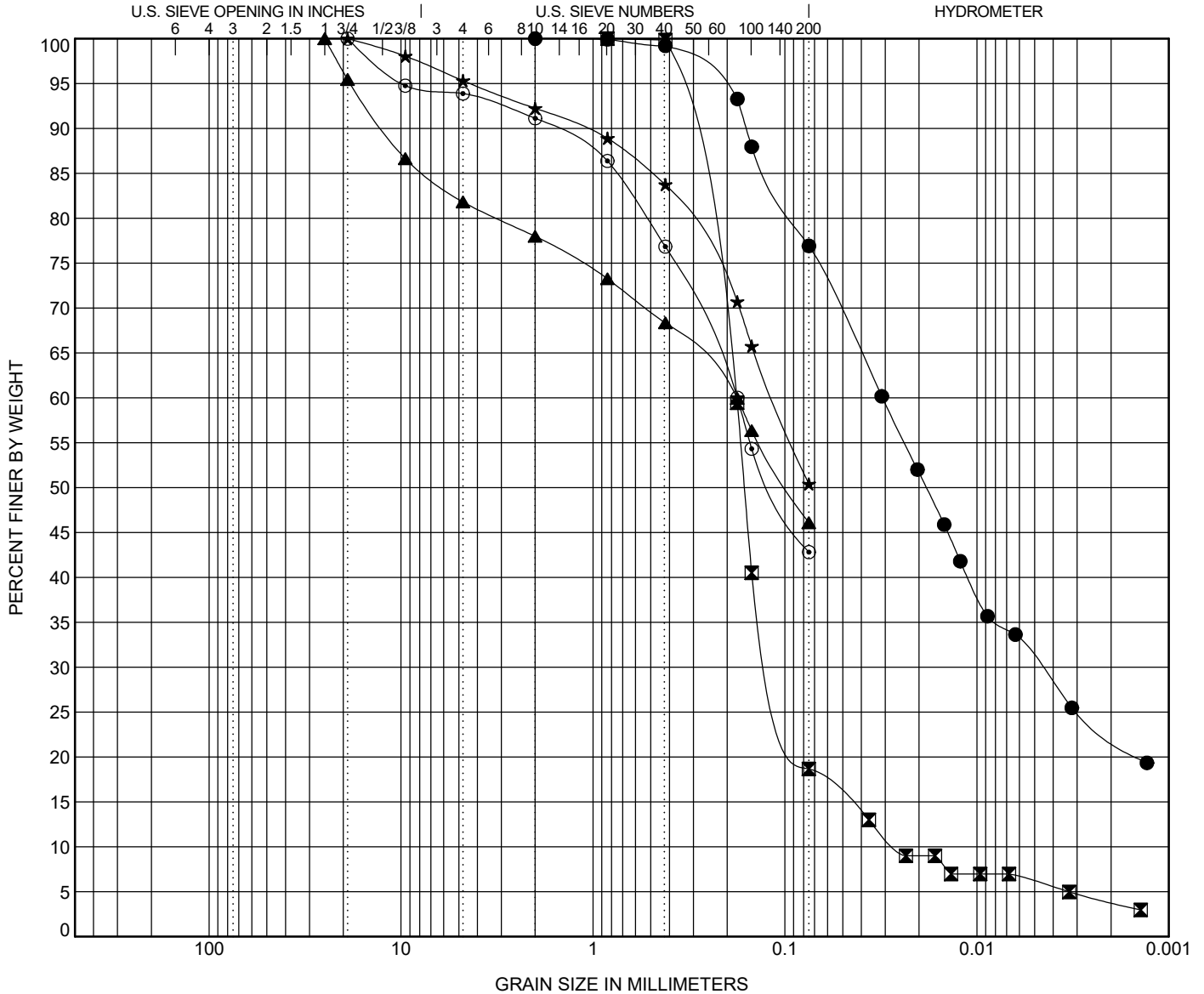


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification				LL	PL	PI	Cc	Cu	
●	B-29	29.3	SILT with SAND (ML/A-4)				27	22	5		
☒	B-29	36.3	SILTY SAND (SM)							2.45	6.84
▲	B-29	46.3	SILTY SAND with GRAVEL (SM/A-4)				NP	NP	NP		
★	B-29	50.8	SANDY SILT (ML/A-4)				NP	NP	NP		
◎	B-29	58.8	SILTY SAND (SM/A-4)				NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
●	B-29	29.3	2	0.031	0.005	0.0	23.1	46.1	30.9		
☒	B-29	36.3	0.841	0.179	0.107	0.0	81.3	12.5	6.1		
▲	B-29	46.3	25	0.178		18.2	35.7	46.1			
★	B-29	50.8	19	0.115		4.7	44.9	50.4			
◎	B-29	58.8	19	0.177		6.1	51.1	42.8			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/29/23

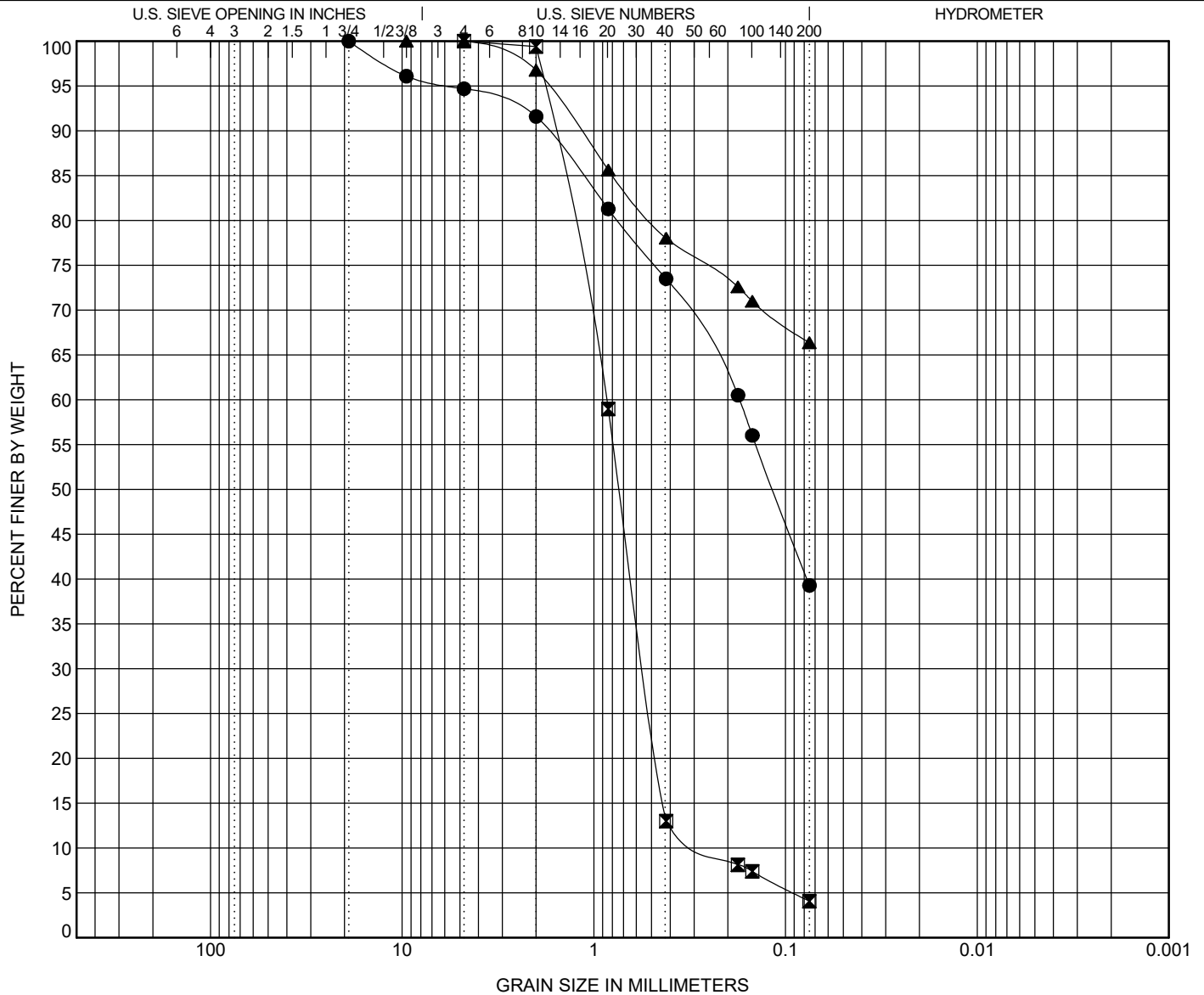


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-29	70.8	CLAYEY SAND (SC/A-4)					29	21	8		
☒ B-29	81.3	POORLY GRADED SAND (SP/A-1-b)					NP	NP	NP	1.39	3.49
▲ B-29	101.3	SANDY ELASTIC SILT (MH/A-7-5)					99	59	40		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-29	70.8	19	0.174			5.3	55.4		39.3		
☒ B-29	81.3	4.76	0.86	0.543	0.247	0.0	95.9		4.1		
▲ B-29	101.3	9.51				0.0	33.6		66.4		

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/29/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1358	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-29	B-29	B-29	B-29	B-29
SAMPLE NO.	SS-4	SS-6	SS-8	SS-9	SS-11
SAMPLE DEPTH (FT.)	27.3 - 29.3	34.8 - 36.3	44.8 - 46.3	48.8 - 50.8	56.8 - 58.8
WATER CONTENT, W%	53.4	28.6	31.8	27.0	27.9

BORING NO.	B-29	B-29	B-29		
SAMPLE NO.	SS-14	SS-16	SS-20		
SAMPLE DEPTH (FT.)	68.8 - 70.8	79.8 - 81.3	99.8 - 101.3		
WATER CONTENT, W%	25.1	21.0	72.5		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

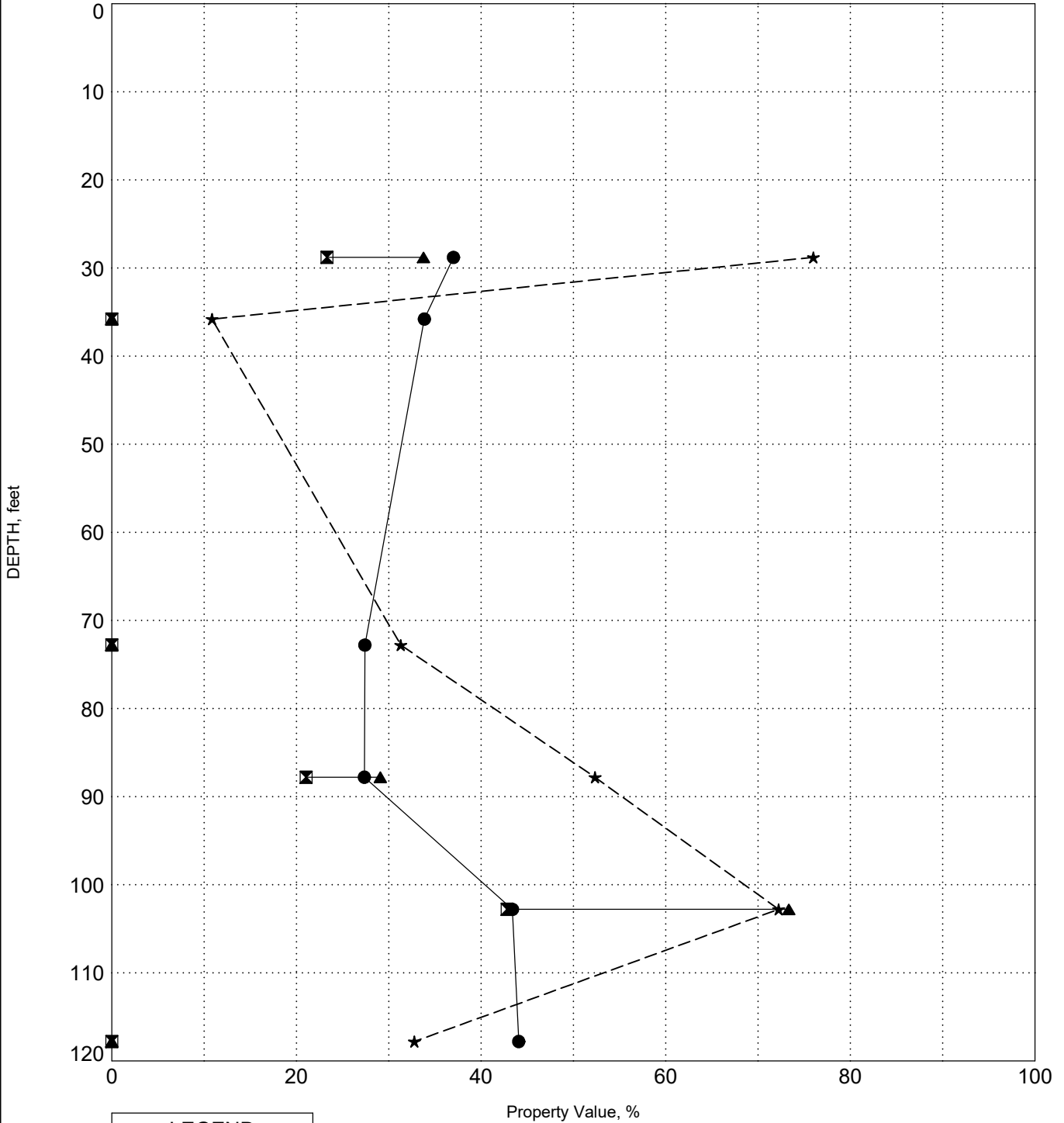
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-30

SURFACE ELEVATION: 77.9



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

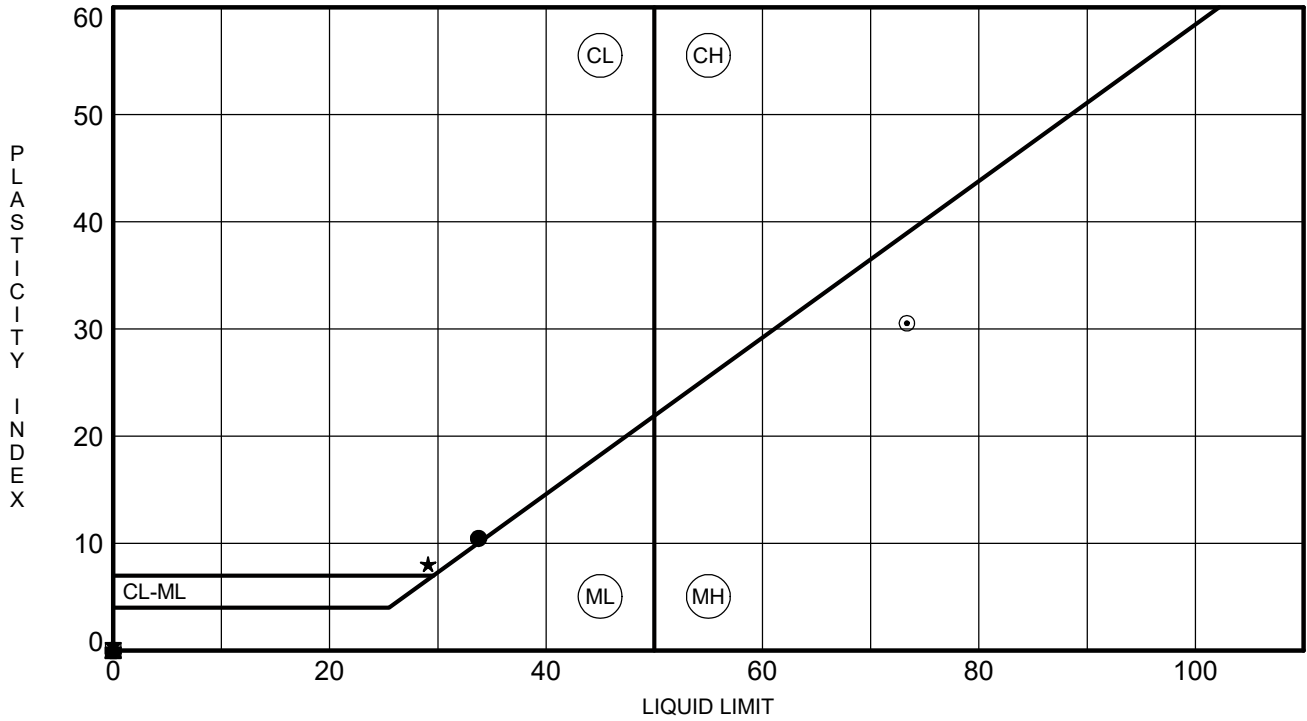


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-30	28.8	34	23	11	76	LEAN CLAY with SAND (CL/A-6)
☒ B-30	35.8	NP	NP	NP	11	POORLY GRADED SAND with SILT (SP-SM/A-2-4)
▲ B-30	72.8	NP	NP	NP	31	SILTY SAND (SM/A-2-4)
★ B-30	87.8	29	21	8	52	SANDY LEAN CLAY (CL/A-4)
⊙ B-30	102.8	73	43	30	72	ELASTIC SILT with SAND (MH/A-7-5)
⊕ B-30	117.8	NP	NP	NP	33	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

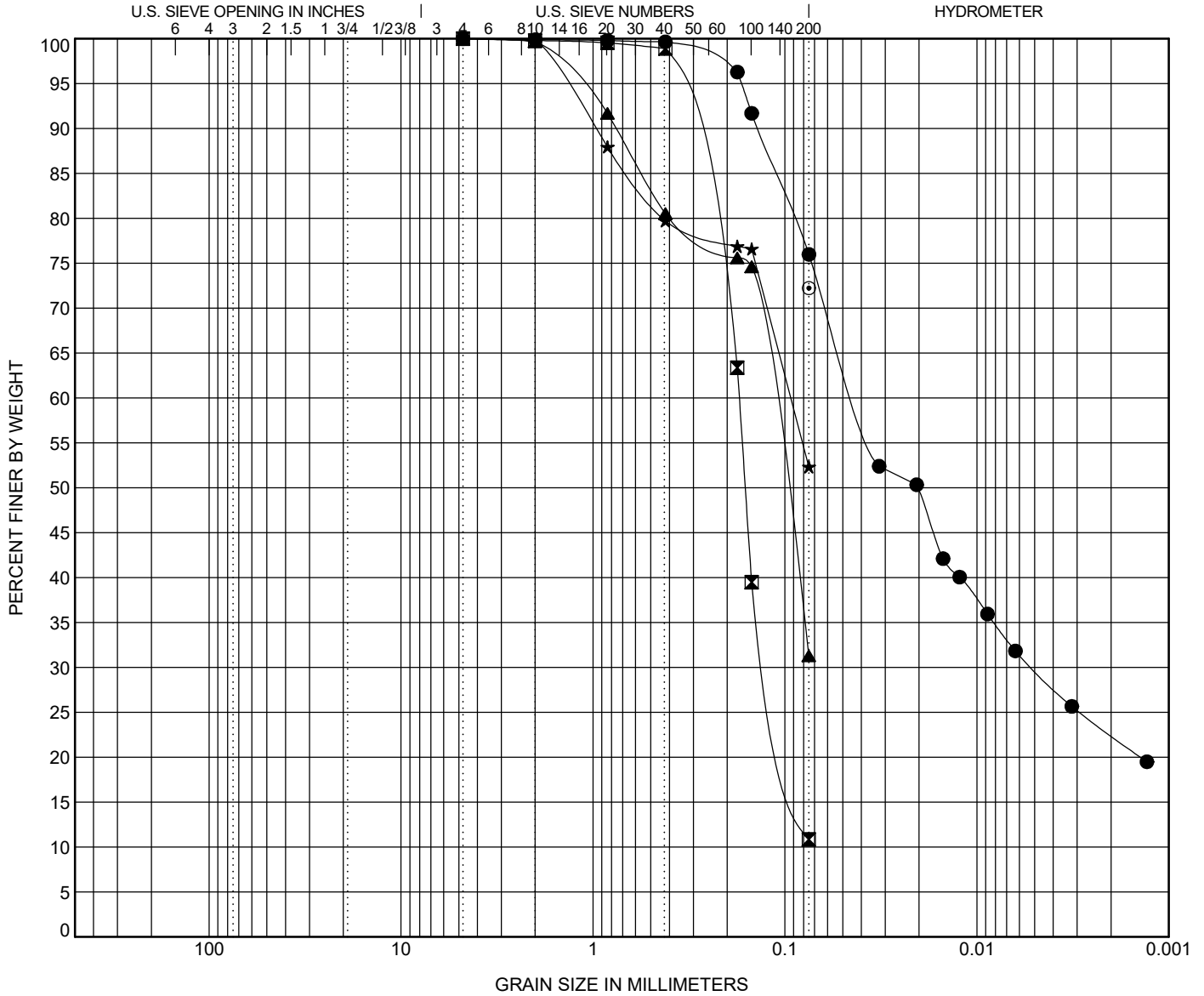


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-30	28.8	LEAN CLAY with SAND (CL/A-6)	34	23	11		
⊠ B-30	35.8	POORLY GRADED SAND with SILT (SP-SM/A-2-4)	NP	NP	NP	1.11	2.35
▲ B-30	72.8	SILTY SAND (SM/A-2-4)	NP	NP	NP		
★ B-30	87.8	SANDY LEAN CLAY (CL/A-4)	29	21	8		
◎ B-30	102.8	ELASTIC SILT with SAND (MH/A-7-5)	73	43	30		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-30	28.8	4.76	0.042	0.005		0.0	24.0	46.3	29.7
⊠ B-30	35.8	4.76	0.173	0.119		0.0	89.1	10.9	
▲ B-30	72.8	4.76	0.118			0.0	68.7	31.3	
★ B-30	87.8	4.76	0.093			0.0	47.7	52.3	
◎ B-30	102.8	0.075						72.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

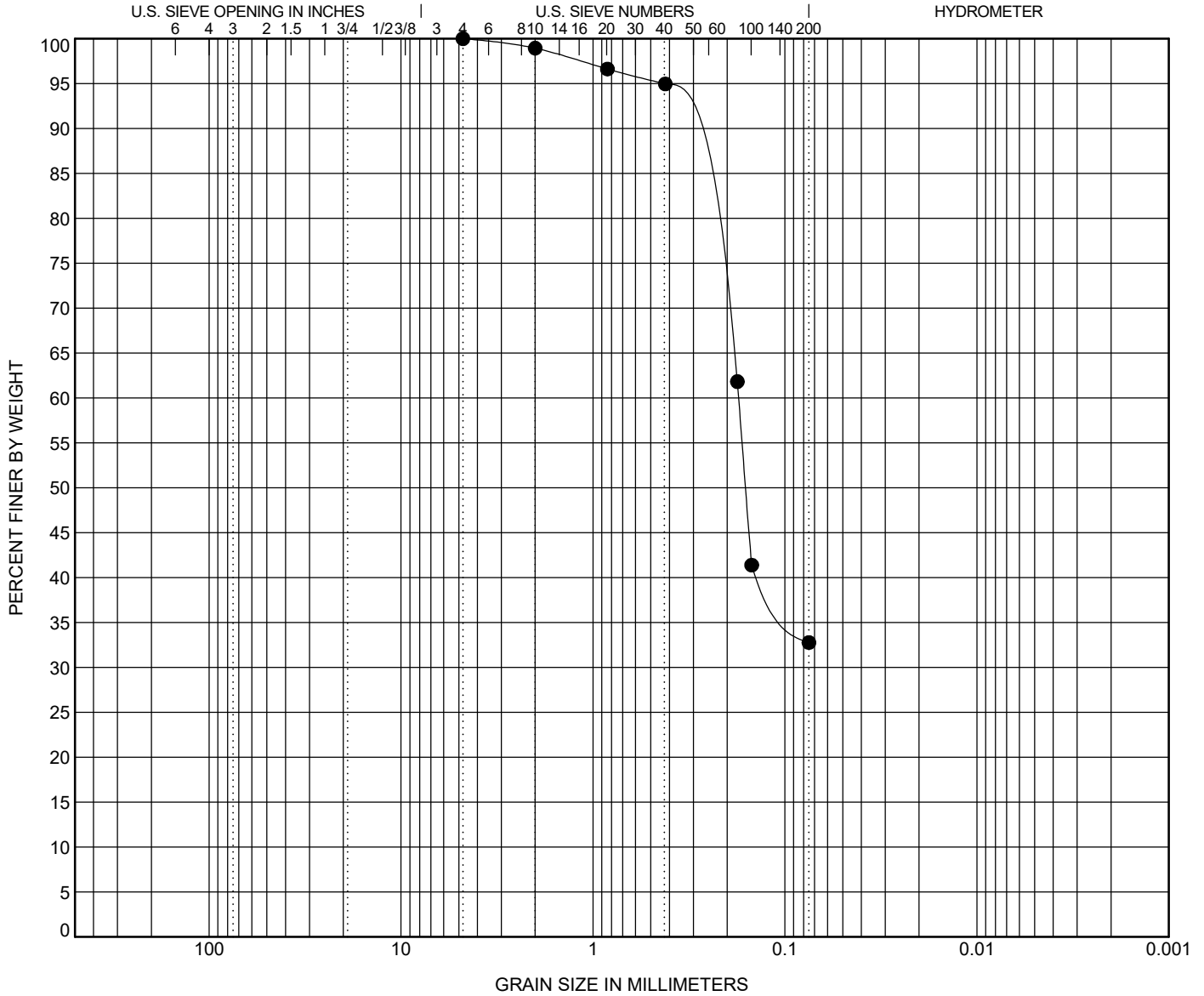


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-30	117.8	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-30	117.8	4.76	0.174			0.0	67.2	32.8			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0684	DATE SAMPLE RECEIVED:	3/23/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/23/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/24/2023

BORING NO.	B-30	B-30	B-30	B-30	B-30
SAMPLE NO.	SS-4	SS-6	SS-10	SS-13	SS-16
SAMPLE DEPTH (FT.)	26.8 - 28.8	34.3 - 35.8	71.3 - 72.8	86.3 - 87.8	101.3 - 102.8
WATER CONTENT, W%	37.0	33.9	27.4	27.4	43.4

BORING NO.	B-30				
SAMPLE NO.	SS-19				
SAMPLE DEPTH (FT.)	116.3 - 117.8				
WATER CONTENT, W%	44.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

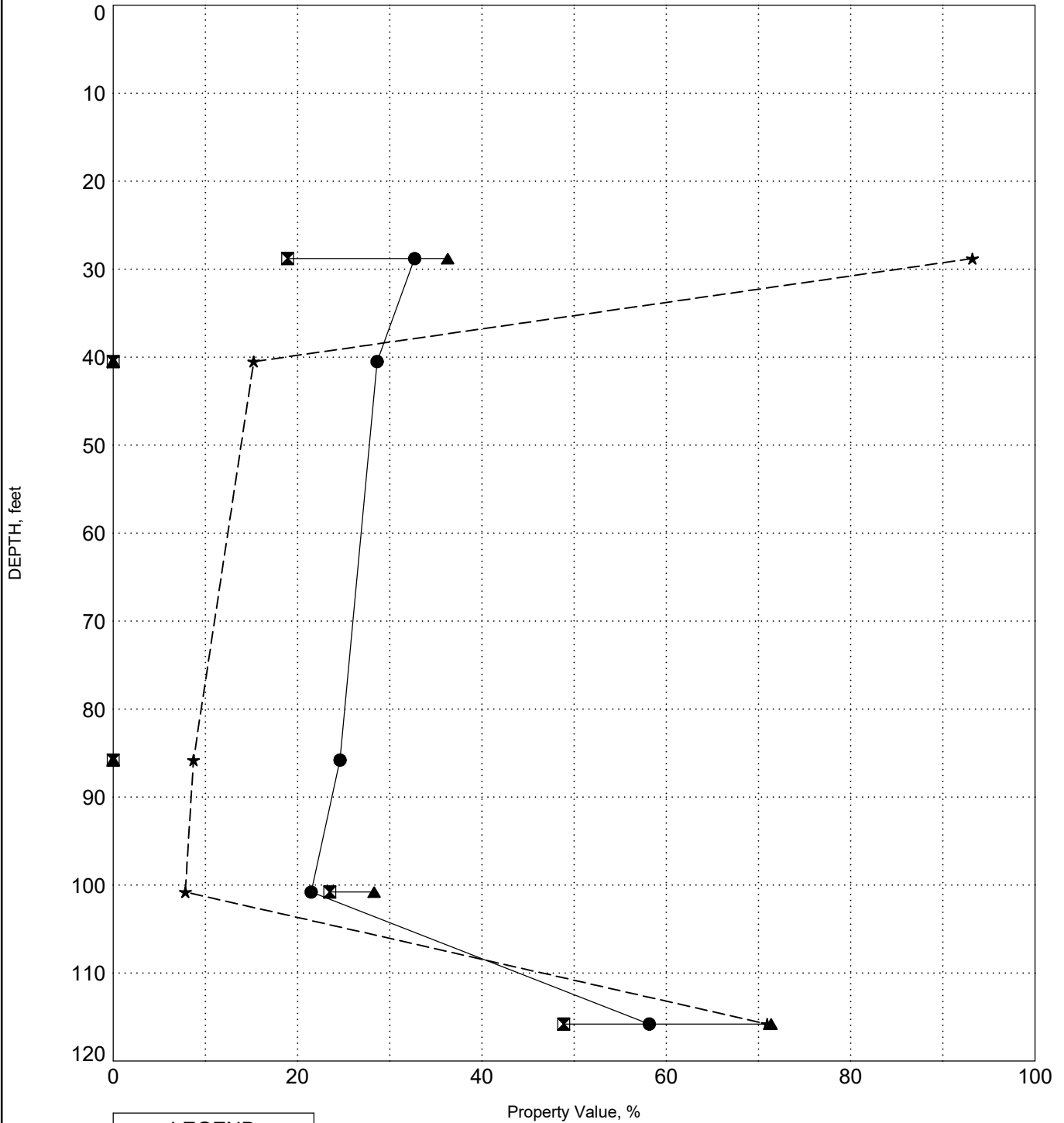
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.6

BORING B-31



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

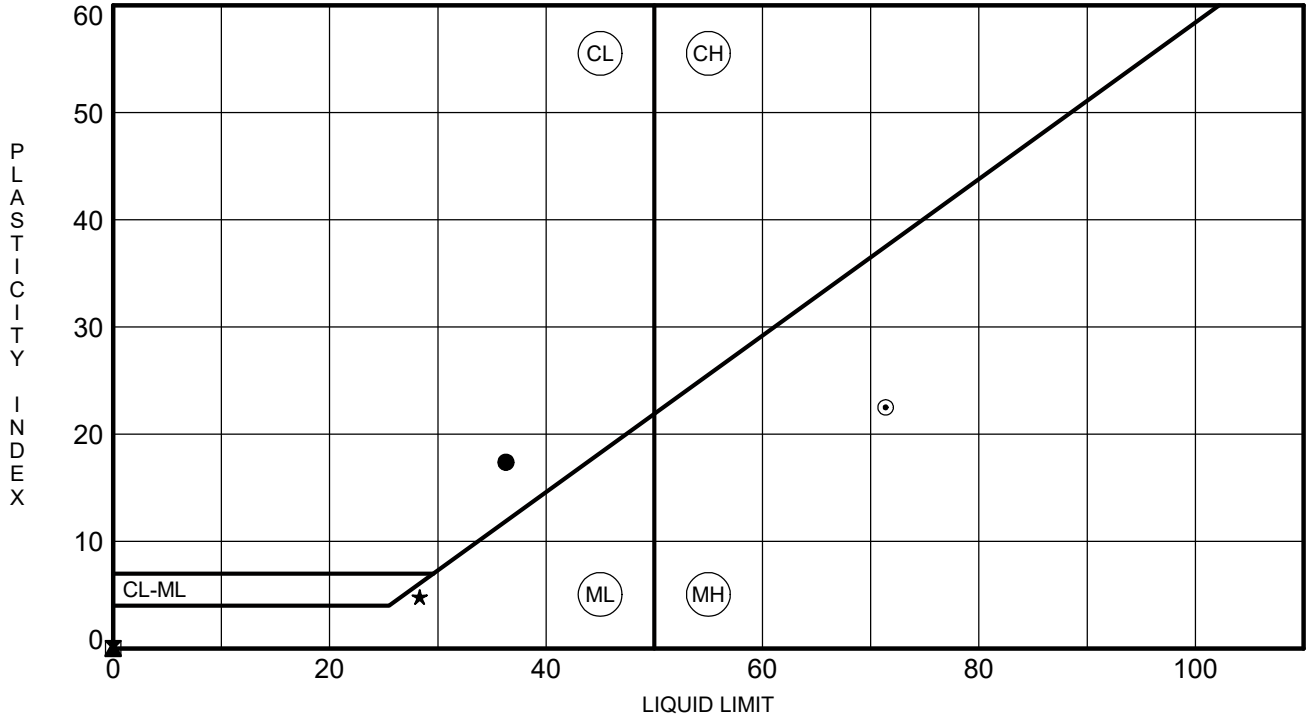


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-31	28.8	36	19	17	93	LEAN CLAY (CL/A-6)
☒ B-31	40.5	NP	NP	NP	15	SILTY SAND (SM/A-2-4)
▲ B-31	85.8	NP	NP	NP	9	WELL-GRADED SAND with SILT (SW-SM/A-1-b)
★ B-31	100.8	28	24	4	8	WELL-GRADED SAND with SILT (SW-SM/A-1-b)
⊙ B-31	115.8	71	49	22	71	ELASTIC SILT with SAND (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/17/23

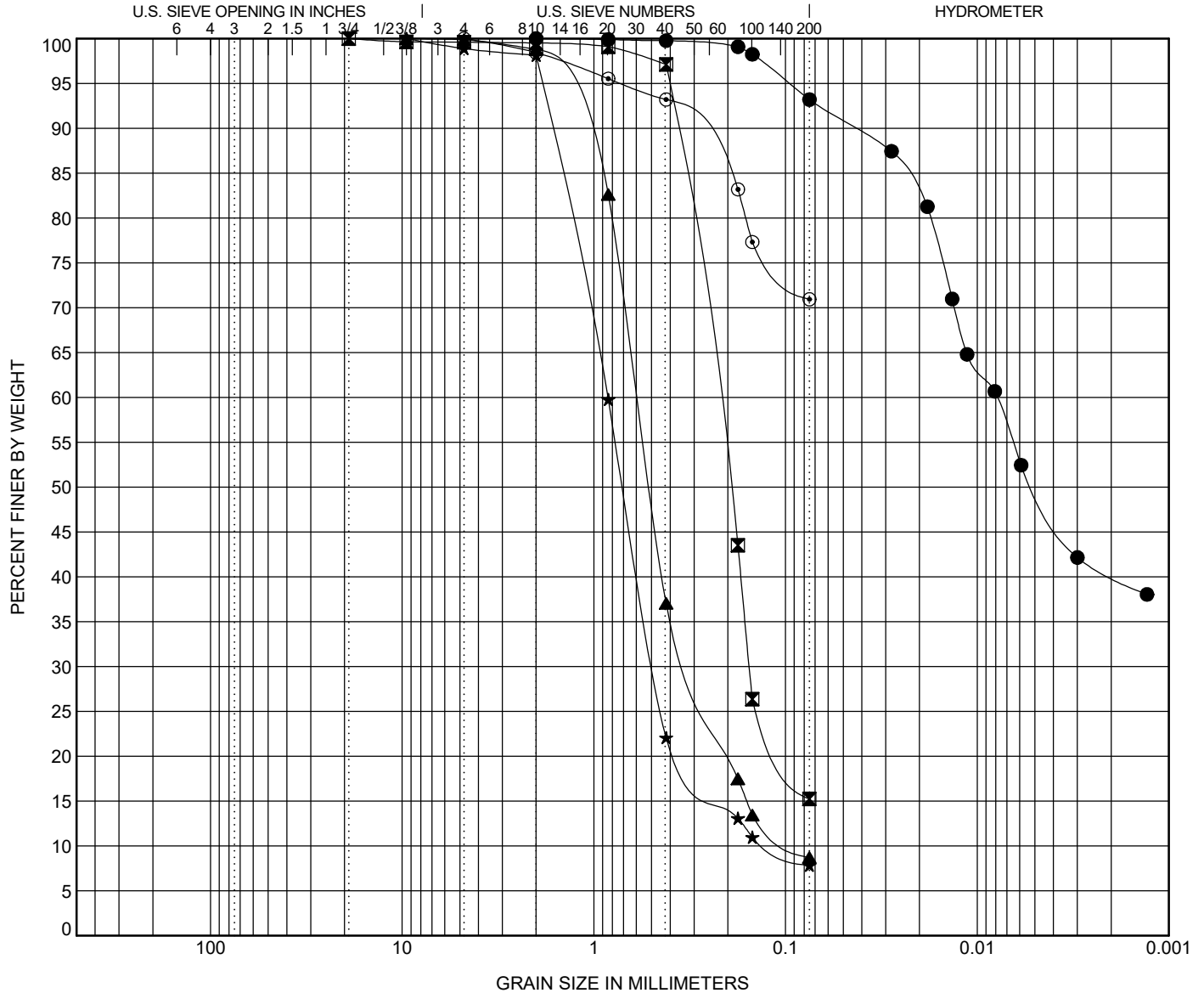


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-31	28.8	LEAN CLAY (CL/A-6)					36	19	17		
☒	B-31	40.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		
▲	B-31	85.8	WELL-GRADED SAND with SILT (SW-SM/A-1-b)					NP	NP	NP	1.76	6.59
★	B-31	100.8	WELL-GRADED SAND with SILT (SW-SM/A-1-b)					28	24	4	2.32	7.01
⊙	B-31	115.8	ELASTIC SILT with SAND (MH/A-7-5)					71	49	22		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
●	B-31	28.8	2	0.008		0.0	6.8	43.3	49.9			
☒	B-31	40.5	19	0.231	0.155	0.4	84.4	15.2				
▲	B-31	85.8	9.51	0.596	0.308	0.1	91.2	8.7				
★	B-31	100.8	9.51	0.845	0.486	0.121	91.1	7.8				
⊙	B-31	115.8	4.76			0.0	29.1	70.9				

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1262	DATE SAMPLE RECEIVED:	5/3/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	5/3/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	5/4/2023

BORING NO.	B-31	B-31	B-31	B-31	B-31
SAMPLE NO.	SS-4	SS-7	SS-11	SS-14	SS-17
SAMPLE DEPTH (FT.)	26.8 - 28.8	39.3 - 40.5	84.3 - 85.8	99.3 - 100.8	114.3 - 115.8
WATER CONTENT, W%	32.7	28.6	24.6	21.5	58.2

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

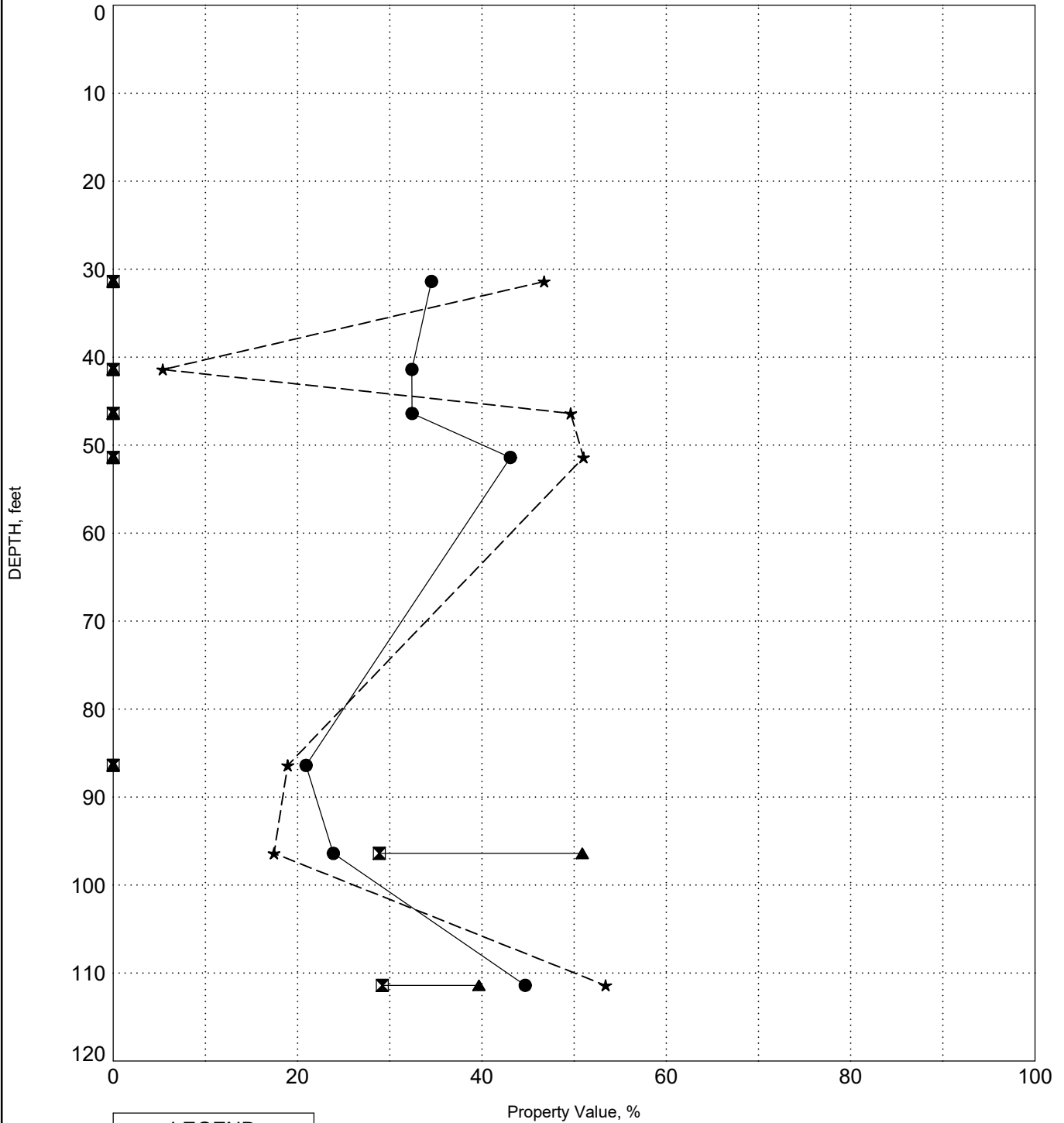
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-32



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

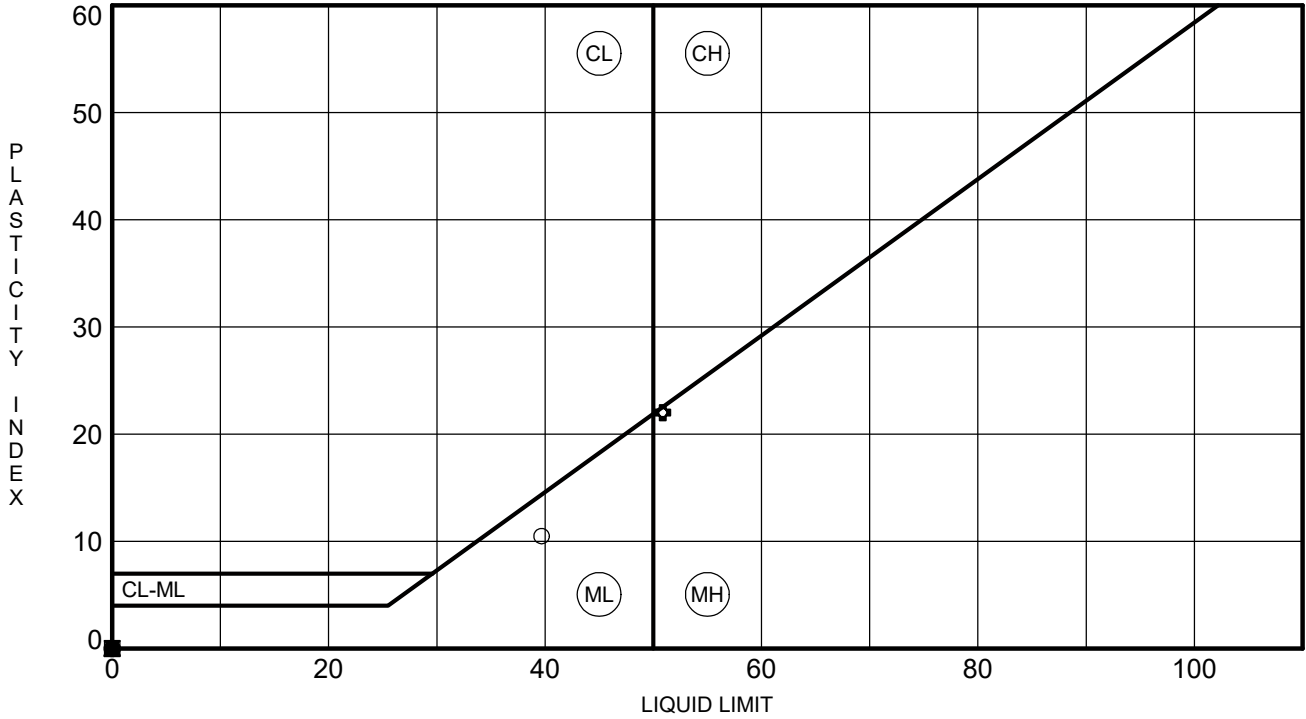


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-32	31.4	NP	NP	NP	47	SILTY SAND (SM/A-4)
☒	B-32	41.4	NP	NP	NP	5	POORLY GRADED SAND with SILT (SP-SM/A-3)
▲	B-32	46.4	NP	NP	NP	50	SILTY SAND (SM/A-4)
★	B-32	51.4	NP	NP	NP	51	SANDY SILT (ML/A-4)
⊙	B-32	86.4	NP	NP	NP	19	SILTY SAND (SM/A-1-b)
⊕	B-32	96.4	51	29	22	17	SILTY SAND (SM/A-2-7)
○	B-32	111.4	40	29	11	53	SANDY SILT (ML/A-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

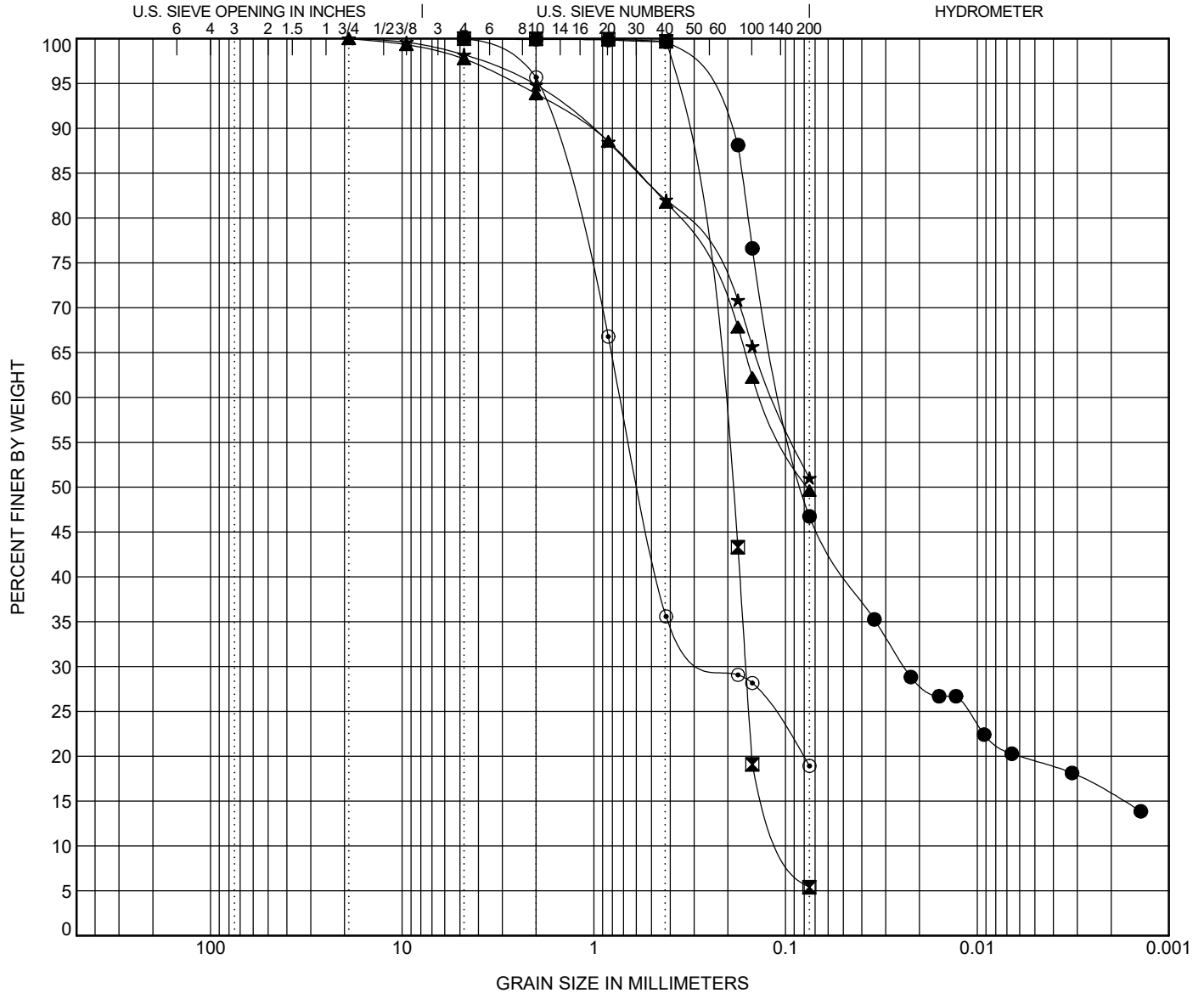


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu	
●	B-32	31.4	SILTY SAND (SM/A-4)		NP	NP	NP	
☒	B-32	41.4	POORLY GRADED SAND with SILT (SP-SM/A-3)		NP	NP	NP	1.20 2.42
▲	B-32	46.4	SILTY SAND (SM/A-4)		NP	NP	NP	
★	B-32	51.4	SANDY SILT (ML/A-4)		NP	NP	NP	
◎	B-32	86.4	SILTY SAND (SM/A-1-b)		NP	NP	NP	

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-32	31.4	4.76	0.102	0.024	0.0	53.3	27.3	19.5
☒	B-32	41.4	4.76	0.229	0.161	0.095	0.0	94.6	5.4
▲	B-32	46.4	19	0.132		2.3	48.1		49.6
★	B-32	51.4	19	0.114		1.8	47.2		51.0
◎	B-32	86.4	4.76	0.723	0.2	0.0	81.1		18.9

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

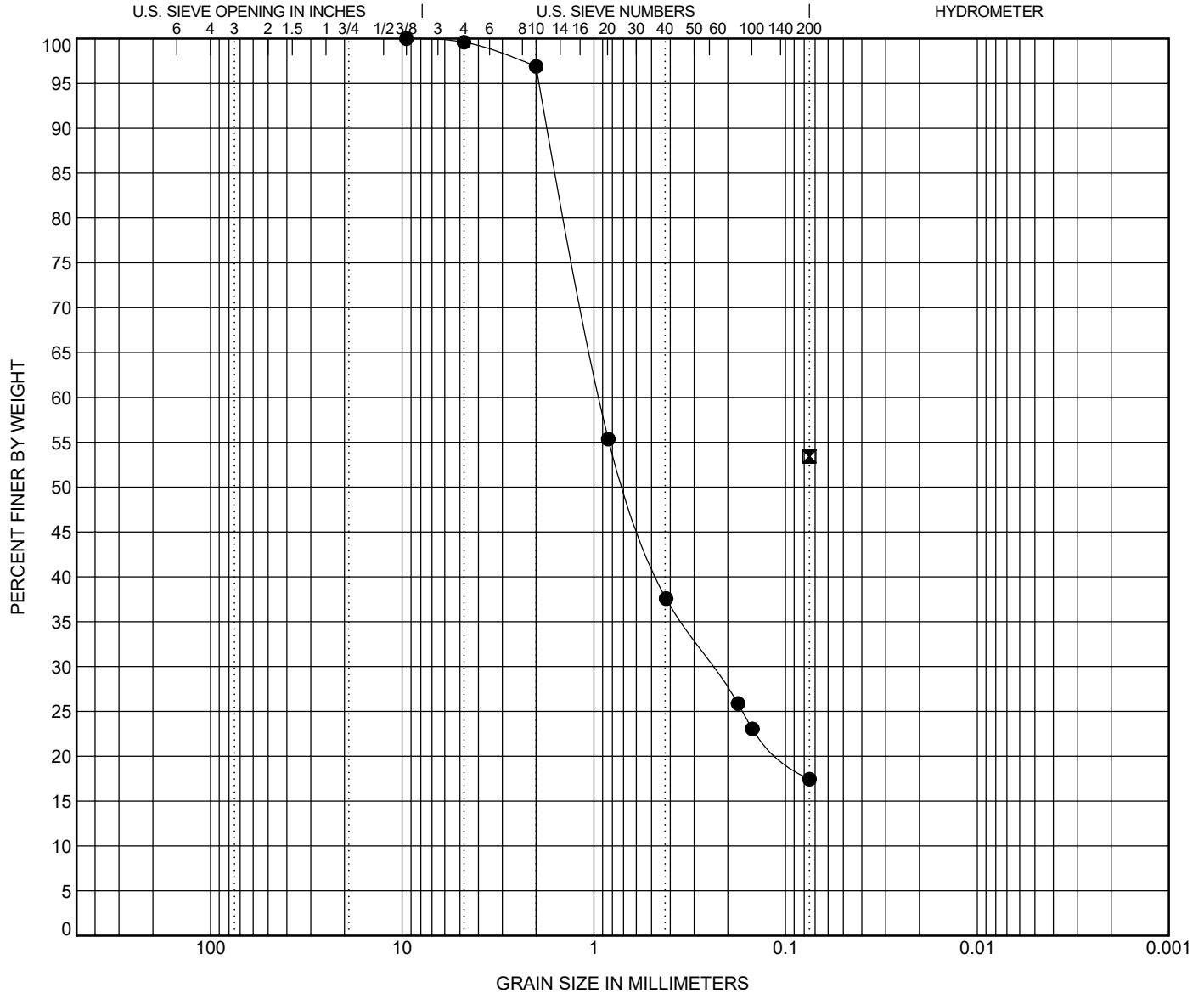


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-32	96.4	SILTY SAND (SM/A-2-7)					51	29	22		
☒ B-32	111.4	SANDY SILT (ML/A-6)					40	29	11		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-32	96.4	9.51	0.926	0.24		0.4	82.2		17.4		
☒ B-32	111.4	0.075							53.4		

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 4/4/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0685	DATE SAMPLE RECEIVED:	3/23/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/23/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/24/2023

BORING NO.	B-32	B-32	B-32	B-32	B-32
SAMPLE NO.	SS-5	SS-7	SS-8	SS-9	SS-12
SAMPLE DEPTH (FT.)	29.4 - 31.4	39.9 - 41.4	44.9 - 46.4	49.9 - 51.4	84.9 - 86.4
WATER CONTENT, W%	34.5	32.4	32.4	43.1	20.9

BORING NO.	B-32	B-32			
SAMPLE NO.	SS-14	SS-17			
SAMPLE DEPTH (FT.)	94.9 - 96.4	109.9 - 111.4			
WATER CONTENT, W%	23.9	44.7			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

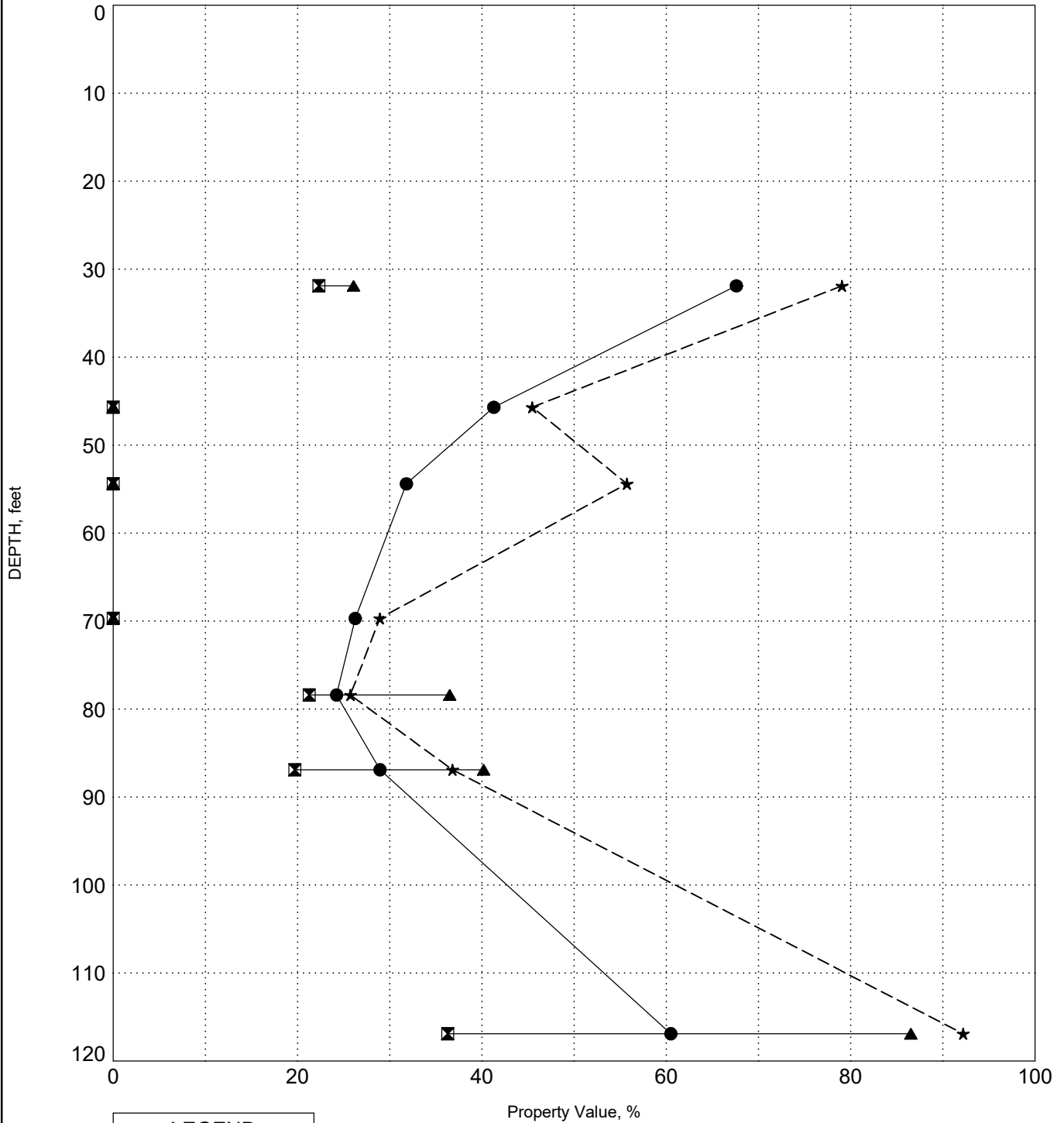
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.5

BORING B-33



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

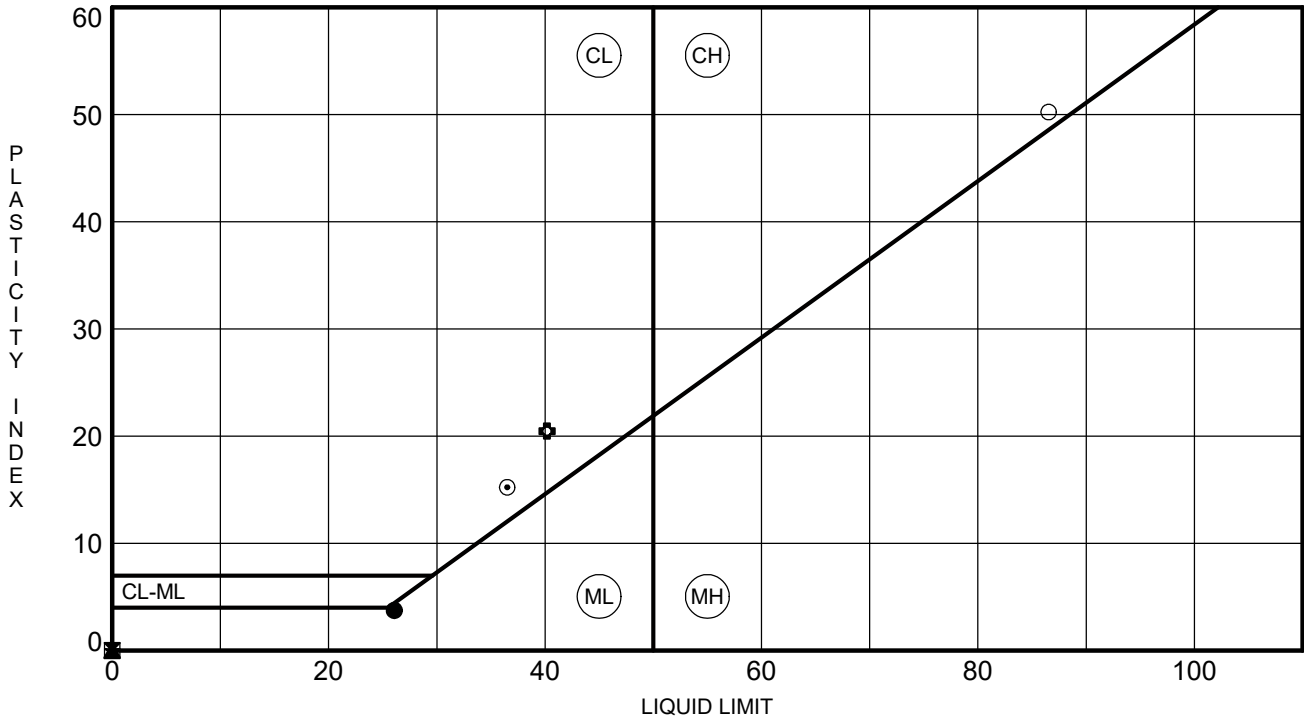


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-33	31.9	26	22	4	79	SILT with SAND (ML/A-4)
☒ B-33	45.7	NP	NP	NP	45	SILTY SAND (SM/A-4)
▲ B-33	54.4	NP	NP	NP	56	SANDY SILT (ML/A-4)
★ B-33	69.7	NP	NP	NP	29	SILTY SAND with GRAVEL (SM/A-2-4)
⊙ B-33	78.4	37	21	16	26	CLAYEY SAND (SC/A-2-6)
⊕ B-33	86.9	40	20	20	37	CLAYEY SAND (SC/A-6)
○ B-33	116.9	87	36	51	92	FAT CLAY (CH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/17/23

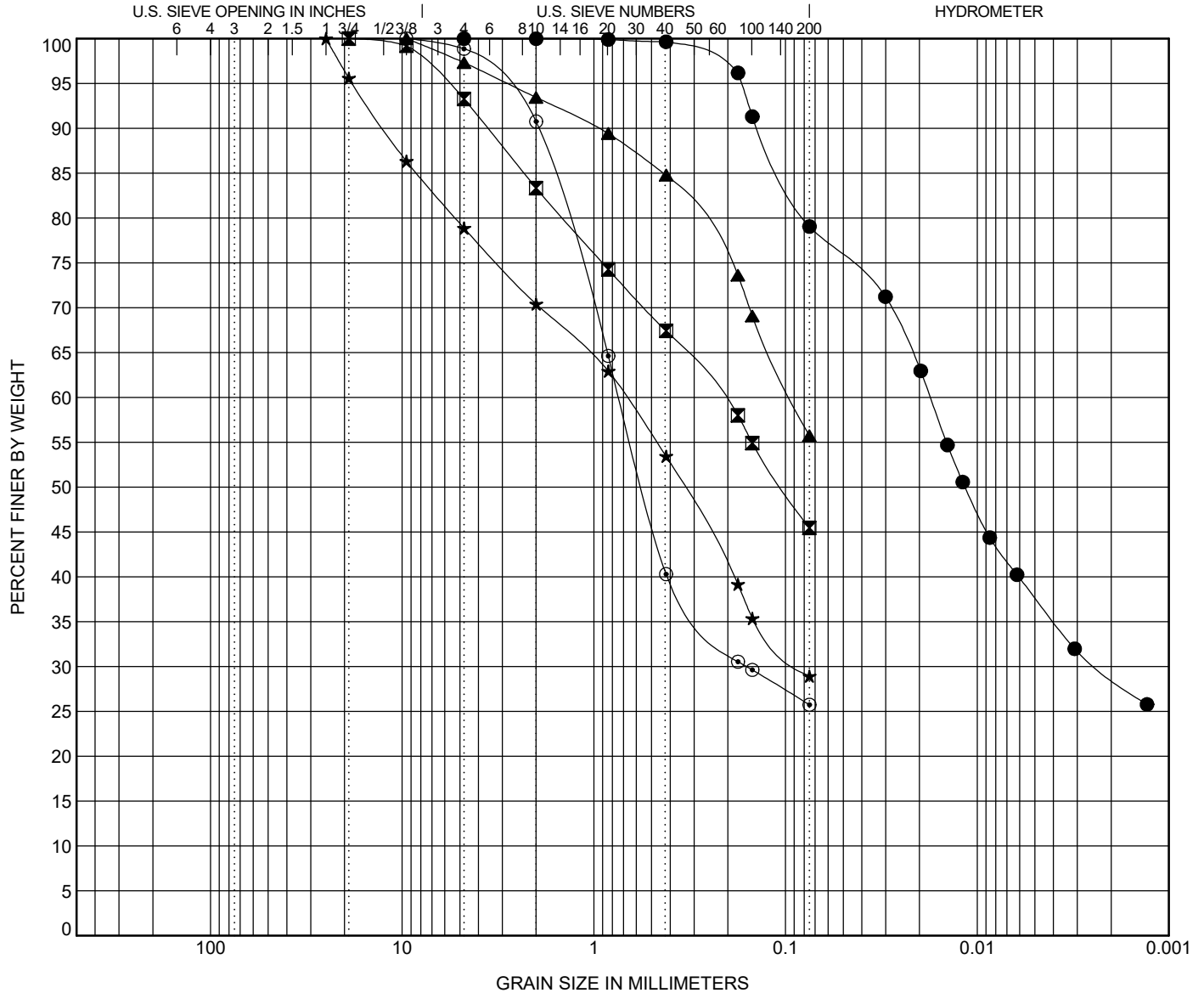


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-33	31.9	SILT with SAND (ML/A-4)	26	22	4		
■ B-33	45.7	SILTY SAND (SM/A-4)	NP	NP	NP		
▲ B-33	54.4	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-33	69.7	SILTY SAND with GRAVEL (SM/A-2-4)	NP	NP	NP		
⊙ B-33	78.4	CLAYEY SAND (SC/A-2-6)	37	21	16		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-33	31.9	4.76	0.018	0.002		0.0	20.9	41.4	37.7
■ B-33	45.7	19	0.213			6.8	47.8	45.5	
▲ B-33	54.4	9.51	0.093			2.7	41.6	55.7	
★ B-33	69.7	25	0.678	0.084		21.1	49.9	28.9	
⊙ B-33	78.4	9.51	0.737	0.16		1.2	73.1	25.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/17/23

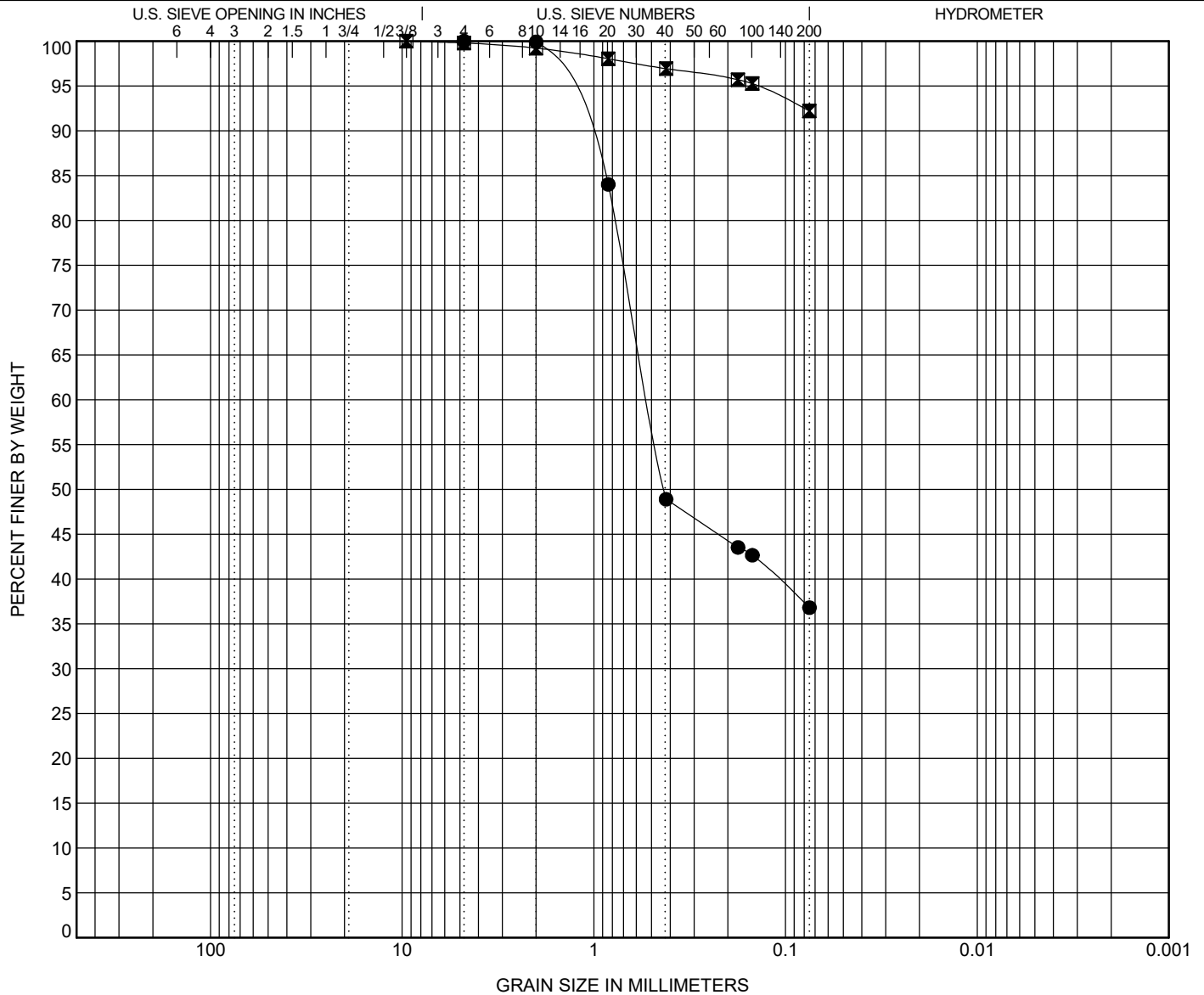


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-33	86.9	CLAYEY SAND (SC/A-6)					40	20	20		
■ B-33	116.9	FAT CLAY (CH/A-7-5)					87	36	51		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-33	86.9	4.76	0.523			0.0	63.2		36.8		
■ B-33	116.9	9.51				0.2	7.6		92.2		

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 5/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1261	DATE SAMPLE RECEIVED:	5/3/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	5/3/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	5/4/2023

BORING NO.	B-33	B-33	B-33	B-33	B-33
SAMPLE NO.	SS-5	SS-8	SS-10	SS-14	SS-16
SAMPLE DEPTH (FT.)	29.9 - 31.9	44.4 - 45.7	52.4 - 54.4	68.4 - 69.7	76.4 - 78.4
WATER CONTENT, W%	67.6	41.3	31.8	26.3	24.2

BORING NO.	B-33	B-33			
SAMPLE NO.	SS-18	SS-24			
SAMPLE DEPTH (FT.)	85.4 - 86.9	115.4 - 116.9			
WATER CONTENT, W%	28.9	60.5			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

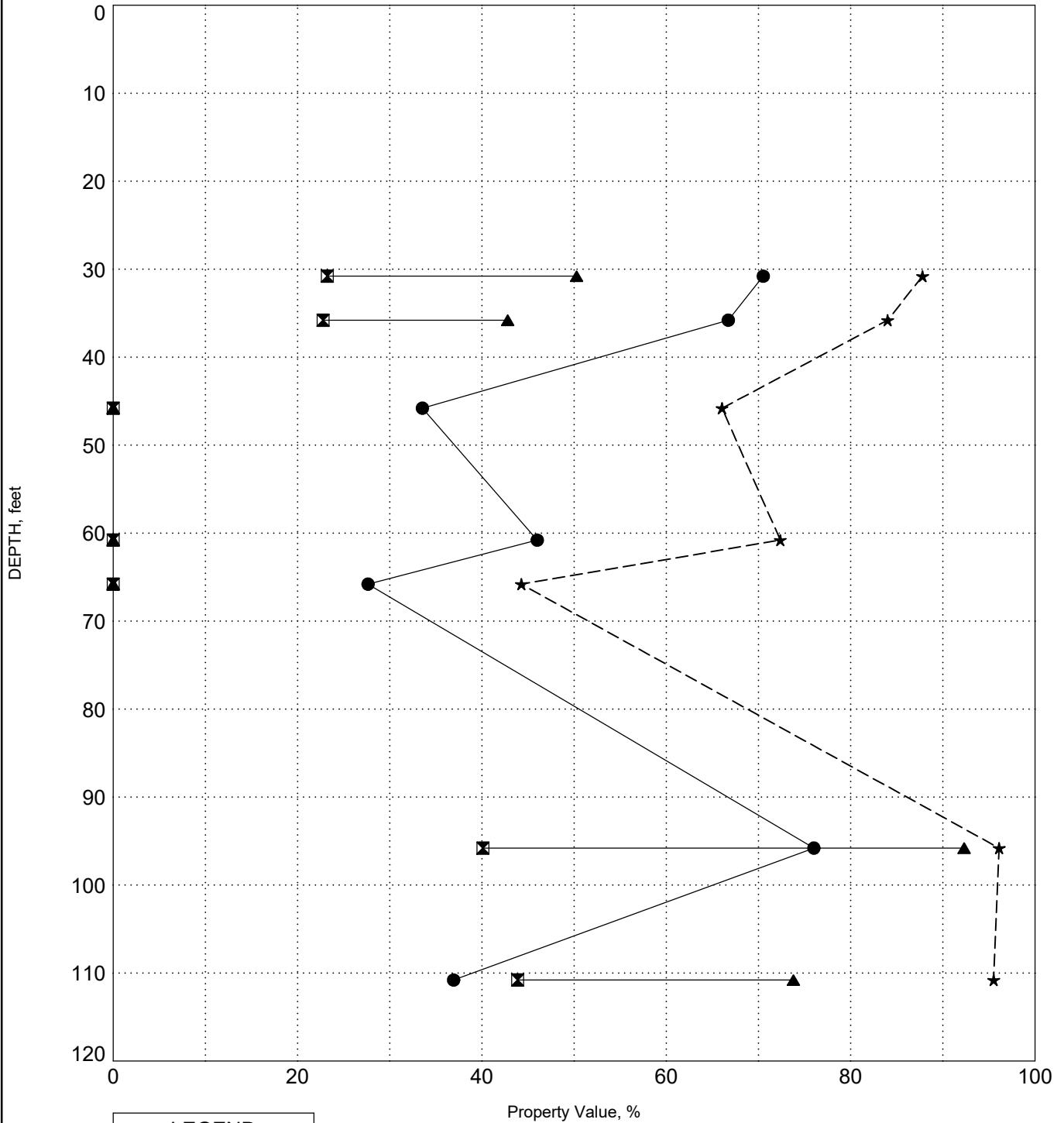
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.1

BORING B-34



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

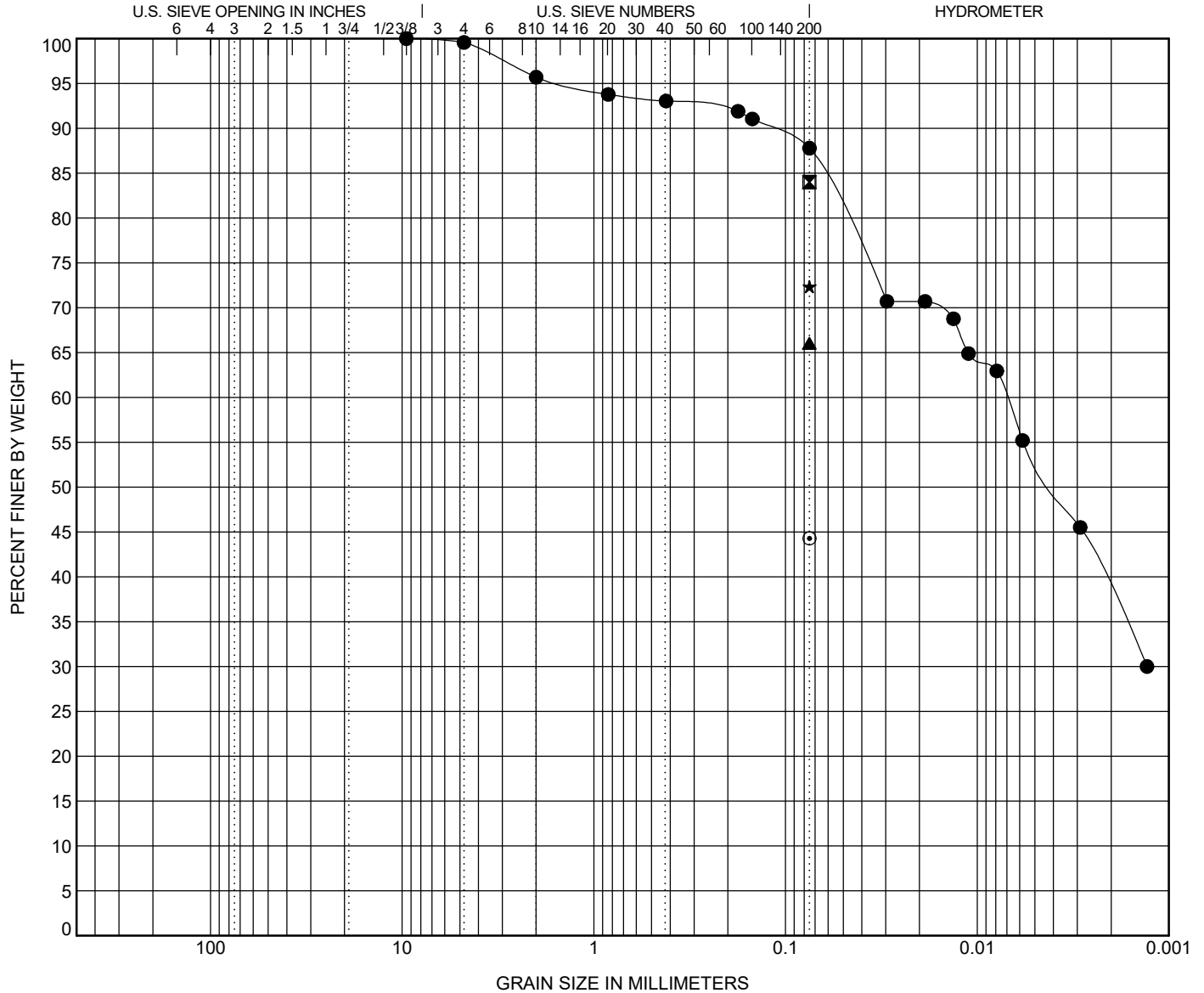


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-34	30.8	FAT CLAY (CH/A-7-6)	50	23	27		
■ B-34	35.8	LEAN CLAY with SAND (CL/A-7-6)	43	23	20		
▲ B-34	45.8	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-34	60.8	SILT with SAND (ML/A-4)	NP	NP	NP		
⊙ B-34	65.8	SILTY SAND (SM/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-34	30.8	9.51	0.007			0.4	11.8	34.7	53.1
■ B-34	35.8	0.075						84.0	
▲ B-34	45.8	0.075						66.0	
★ B-34	60.8	0.075						72.4	
⊙ B-34	65.8	0.075						44.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

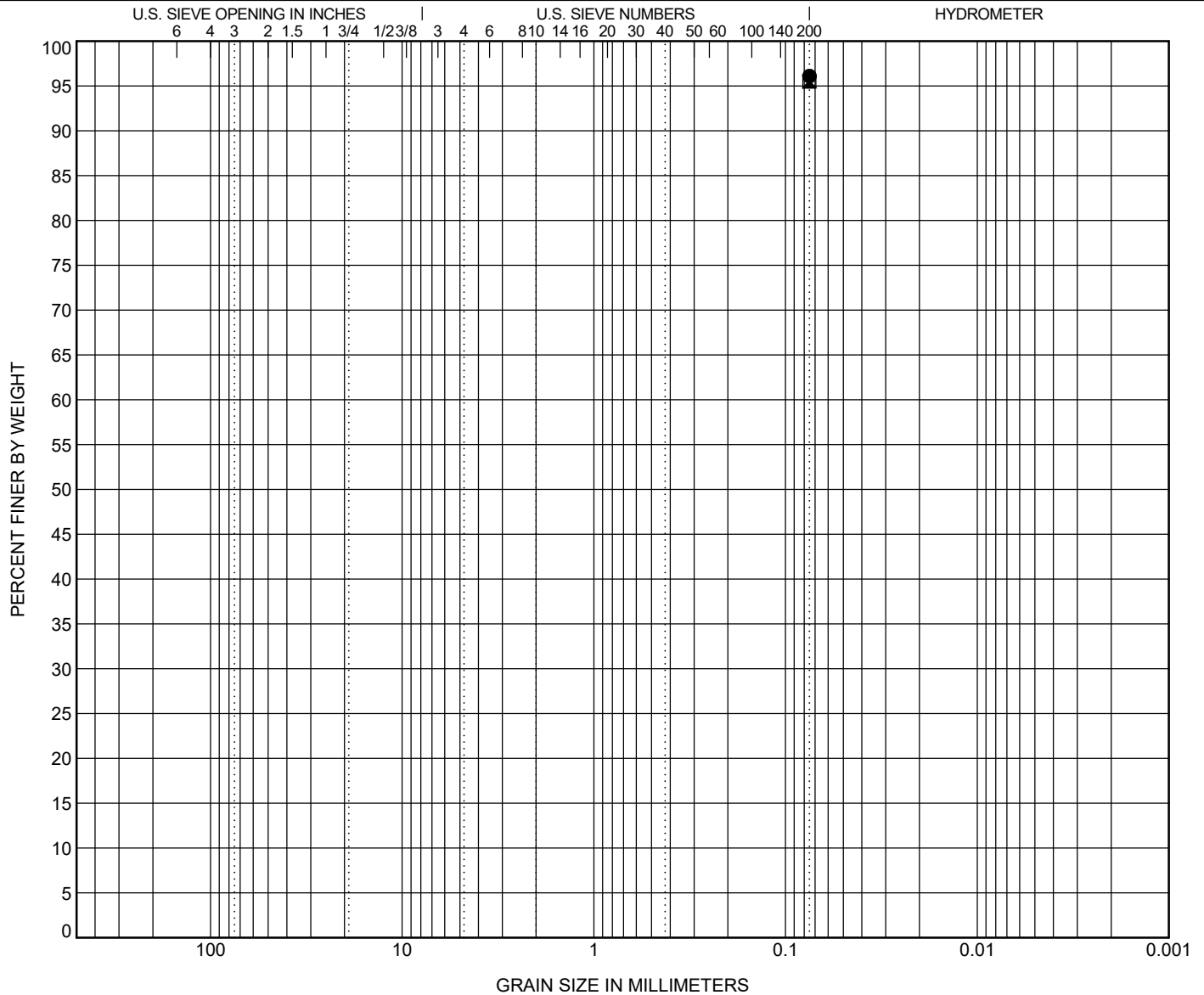


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-34	95.8	ELASTIC SILT (MH/A-7-5)					92	40	52		
☒ B-34	110.8	ELASTIC SILT (MH/A-7-5)					74	44	30		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-34	95.8	0.075						96.1			
☒ B-34	110.8	0.075						95.5			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0686	DATE SAMPLE RECEIVED:	3/8/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & TP	DATE SETUP:	3/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/11/2023

BORING NO.	B-34	B-34	B-34	B-34	B-34
SAMPLE NO.	SS-1	SS-6	SS-8	SS-11	SS-12
SAMPLE DEPTH (FT.)	20.8 - 30.8	34.5 - 35.8	44.3 - 45.8	59.3 - 60.8	64.3 - 65.8
WATER CONTENT, W%	70.5	66.7	33.5	46.0	27.6

BORING NO.	B-34	B-34			
SAMPLE NO.	SS-18	SS-21			
SAMPLE DEPTH (FT.)	94.3 - 95.8	109.3 - 110.8			
WATER CONTENT, W%	76.0	36.9			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

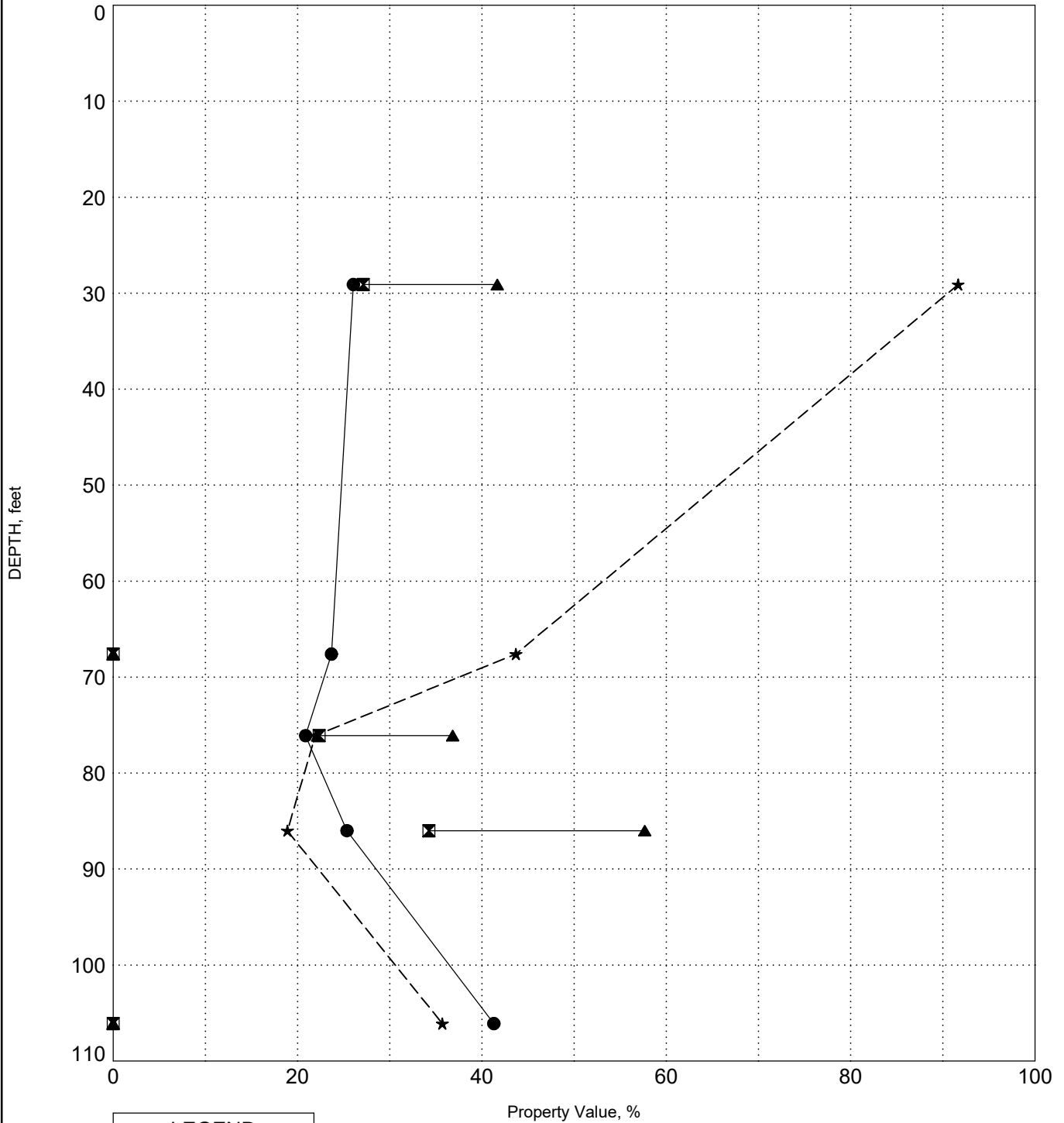
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.5

BORING B-35



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

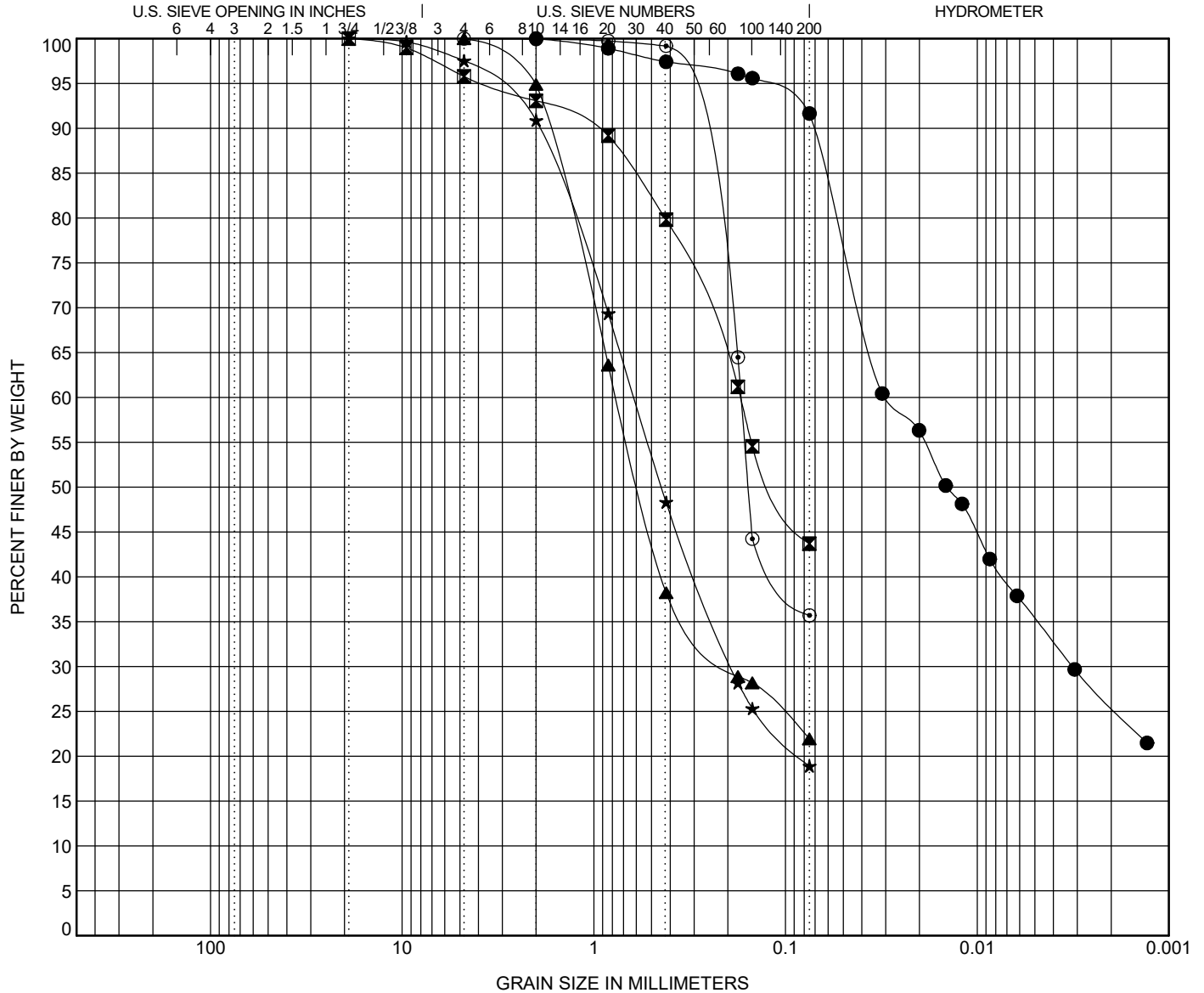


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-35	29.1	SILT (MH/A-7-6)	42	27	15		
☒ B-35	67.6	Silty SAND (SM/A-4)	NP	NP	NP		
▲ B-35	76.1	Clayey SAND (SC/A-2-6)	37	22	15		
★ B-35	86.0	Silty SAND (SM/A-2-7)	58	34	24		
⊙ B-35	106.1	Silty SAND (SM/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-35	29.1	2	0.03	0.003		0.0	8.3	56.3	35.3
☒ B-35	67.6	19	0.172			4.2	52.1	43.7	
▲ B-35	76.1	4.76	0.762	0.196		0.0	78.1	21.9	
★ B-35	86.0	19	0.617	0.191		2.5	78.6	18.9	
⊙ B-35	106.1	4.76	0.17			0.0	64.3	35.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1161	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-35	B-35	B-35	B-35	B-35
SAMPLE NO.	SS-4	SS-9	SS-11	SS-13	SS-17
SAMPLE DEPTH (FT.)	27.1 - 29.1	66.1 - 67.6	74.6 - 76.1	84.6 - 86.0	104.6 - 106.1
WATER CONTENT, W%	26.1	23.7	20.9	25.4	41.3

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

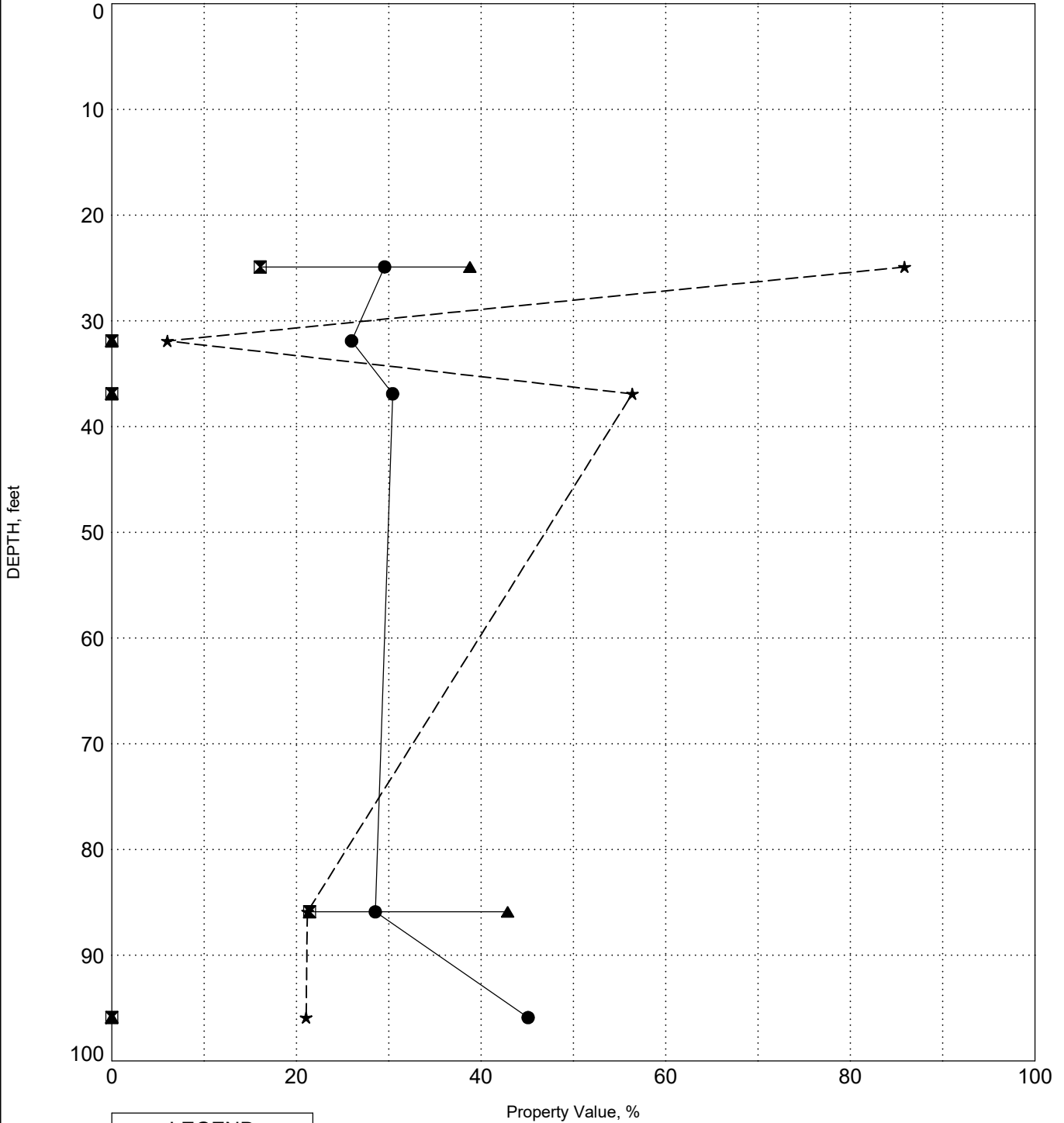
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.0

BORING B-36



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

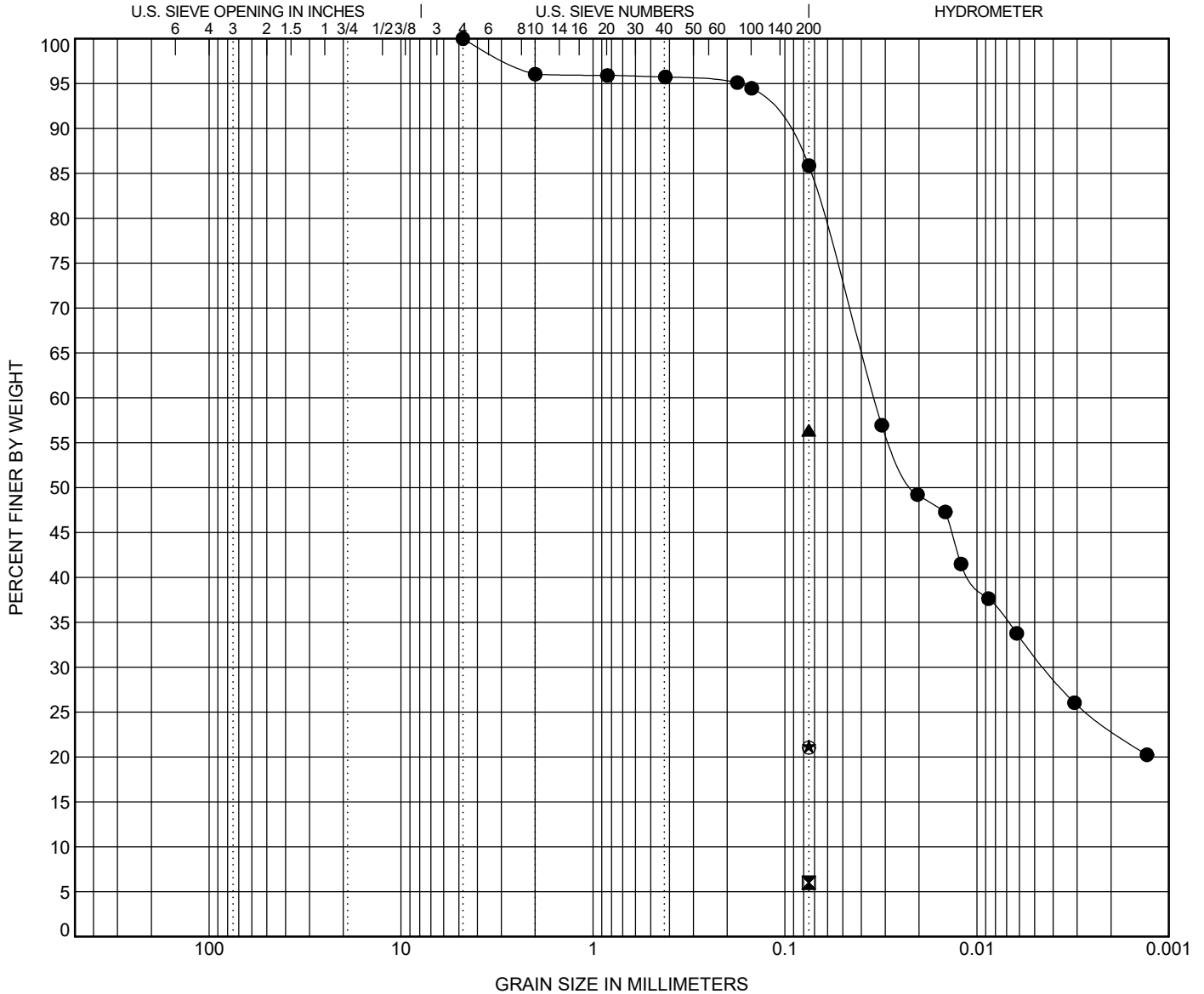


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-36	24.9	LEAN CLAY (CL/A-6)	39	16	23		
☒ B-36	31.9	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP		
▲ B-36	36.9	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-36	85.9	CLAYEY SAND (SC/A-2-7)	43	21	22		
◎ B-36	95.9	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-36	24.9	4.76	0.034	0.004		0.0	14.1	54.5	31.4
☒ B-36	31.9	0.075						6.0	
▲ B-36	36.9	0.075						56.4	
★ B-36	85.9	0.075						21.2	
◎ B-36	95.9	0.075						21.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0619	DATE SAMPLE RECEIVED:	3/8/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/9/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/10/2023

BORING NO.	B-36	B-36	B-36	B-36	B-36
SAMPLE NO.	SS-4	SS-6	SS-7	SS-10	SS-12
SAMPLE DEPTH (FT.)	22.9 - 24.9	30.4 - 31.9	35.4 - 36.9	84.4 - 85.9	94.4 - 95.9
WATER CONTENT, W%	29.5	26.0	30.4	28.5	45.1

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

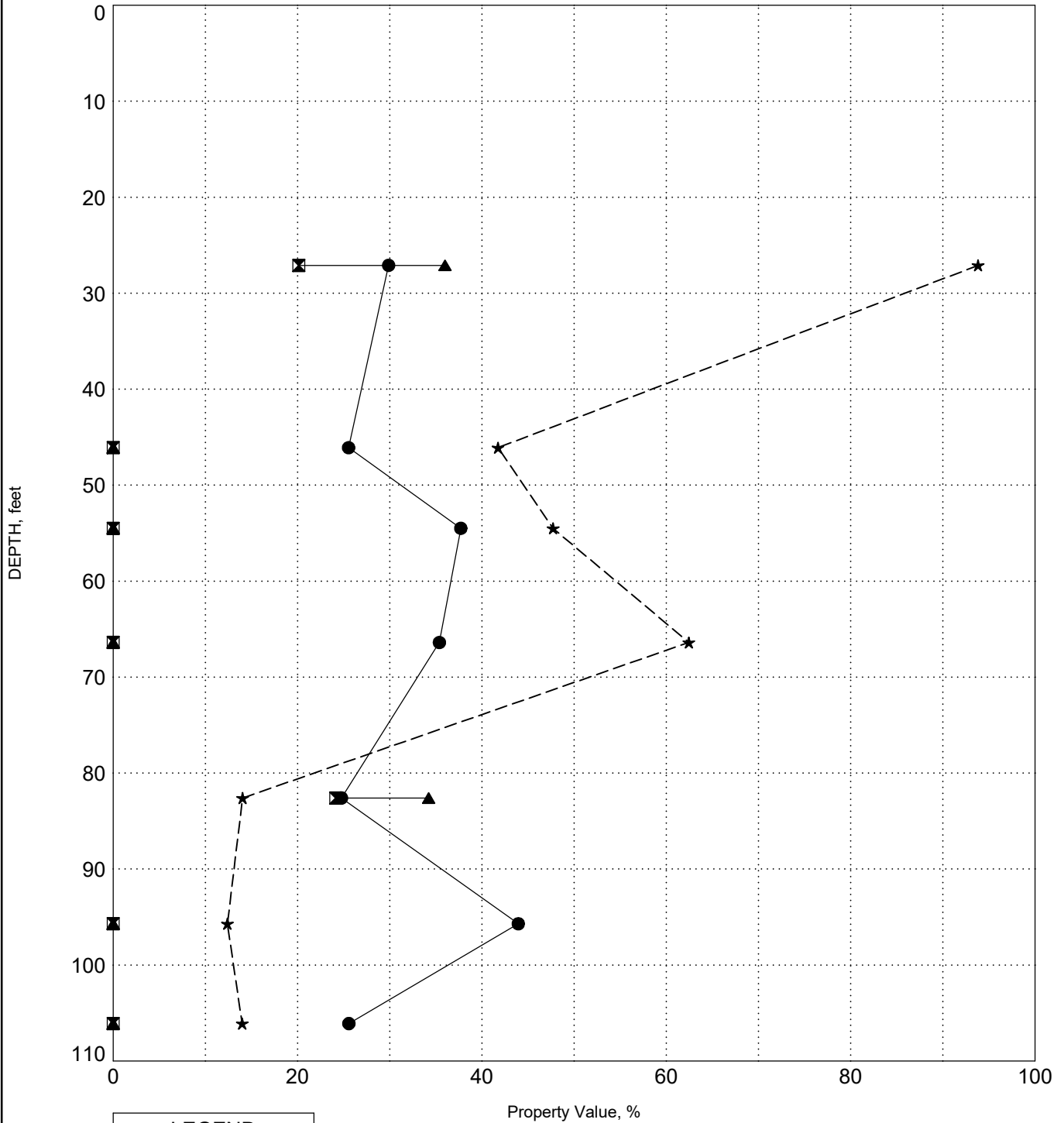
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 79.1

BORING B-37



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

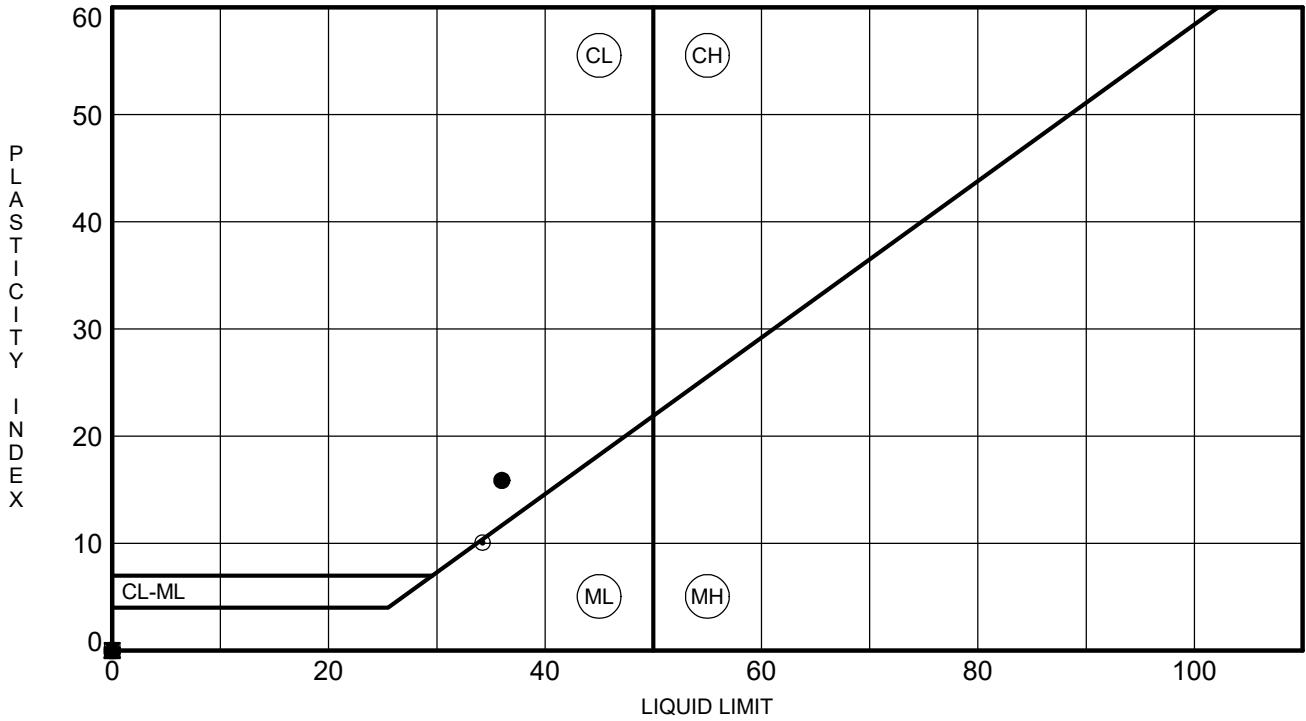


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-37	27.1	36	20	16	94	Lean CLAY (CL/A-6)
▣ B-37	46.1	NP	NP	NP	42	Silty SAND (SM/A-4)
▲ B-37	54.5	NP	NP	NP	48	Silty SAND (SM/A-4)
★ B-37	66.4	NP	NP	NP	62	Sandy SILT (ML/A-4)
⊙ B-37	82.6	34	24	10	14	Silty SAND (SM/A-2-4)
⊕ B-37	95.7	NP	NP	NP	12	Silty SAND (SM/A-2-4)
○ B-37	106.1	NP	NP	NP	14	Silty SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

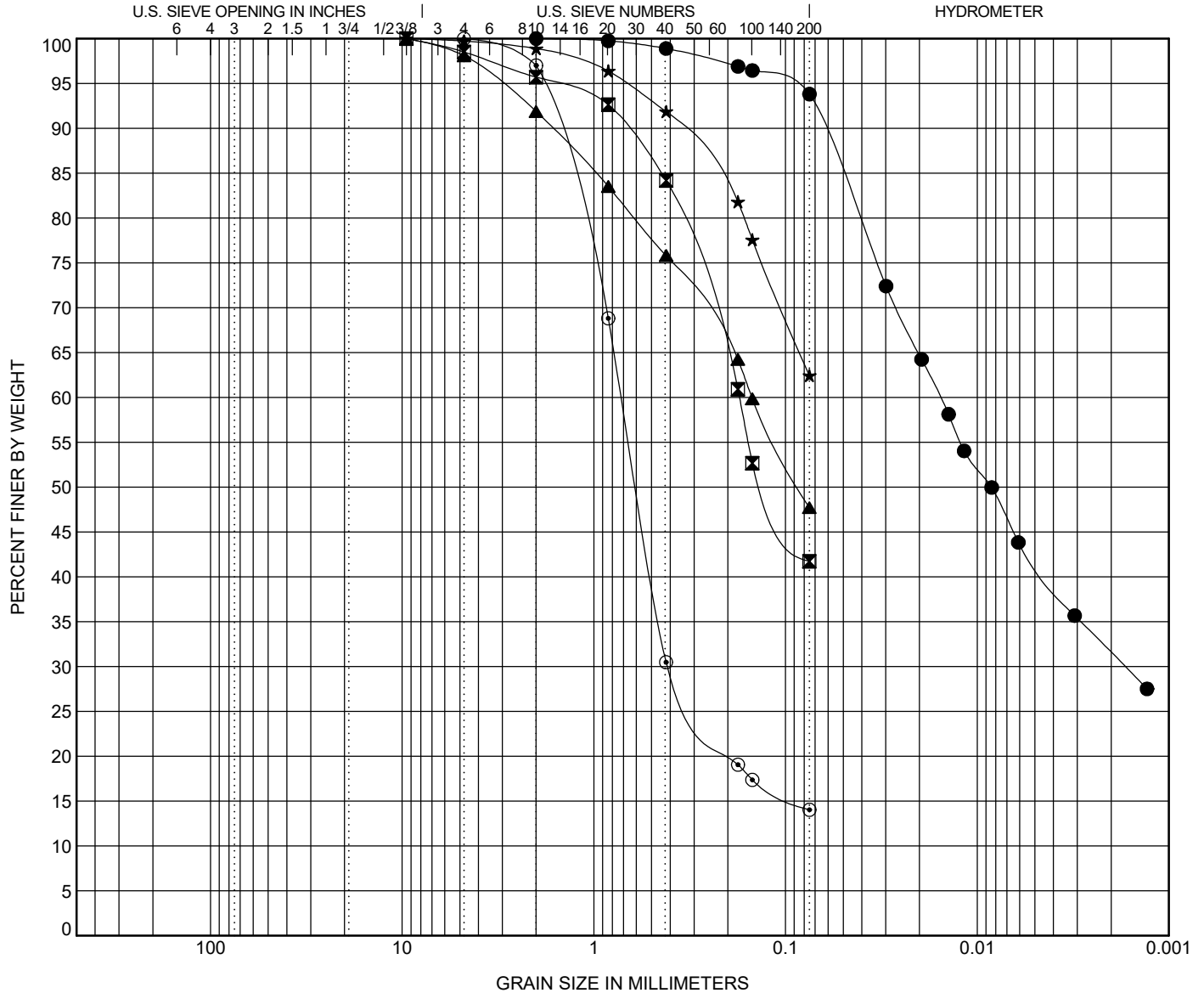


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-37	27.1	Lean CLAY (CL/A-6)	36	20	16		
☒ B-37	46.1	Silty SAND (SM/A-4)	NP	NP	NP		
▲ B-37	54.5	Silty SAND (SM/A-4)	NP	NP	NP		
★ B-37	66.4	Sandy SILT (ML/A-4)	NP	NP	NP		
◎ B-37	82.6	Silty SAND (SM/A-2-4)	34	24	10		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-37	27.1	2	0.016	0.002		0.0	6.2	52.4	41.4
☒ B-37	46.1	9.51	0.174			1.5	56.8	41.7	
▲ B-37	54.5	9.51	0.15			1.9	50.4	47.7	
★ B-37	66.4	9.51				0.3	37.3	62.4	
◎ B-37	82.6	4.76	0.717	0.405		0.0	86.0	14.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

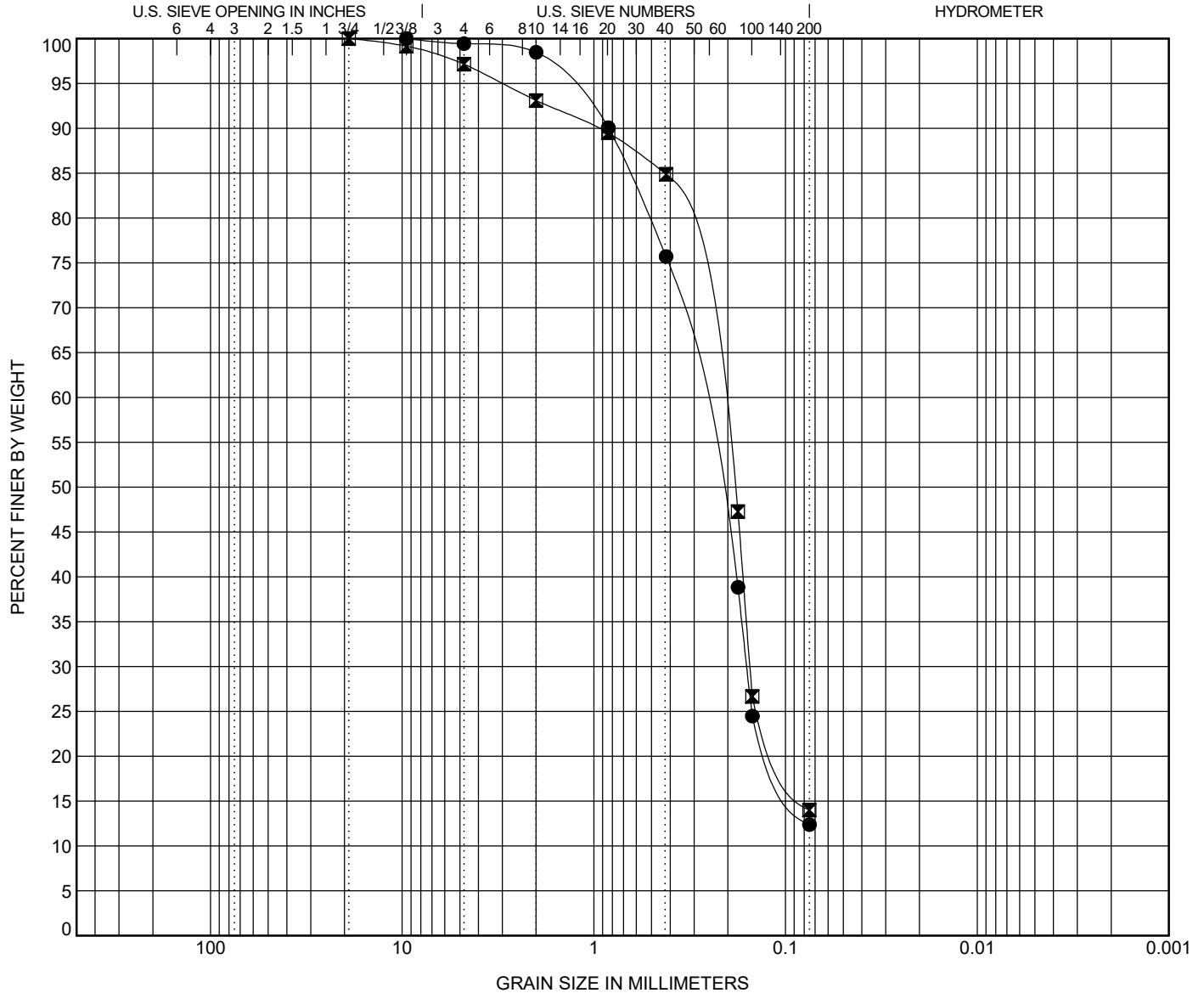


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-37	95.7	Silty SAND (SM/A-2-4)					NP	NP	NP	1.33	4.44
☒ B-37	106.1	Silty SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-37	95.7	9.51	0.291	0.159		0.6	87.1	12.4			
☒ B-37	106.1	19	0.237	0.153		2.9	83.1	14.0			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1160	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-37	B-37	B-37	B-37	B-37
SAMPLE NO.	SS-3	SS-8	SS-10	SS-13	SS-17
SAMPLE DEPTH (FT.)	25.1 - 27.1	44.6 - 46.1	52.6 - 54.5	64.6 - 66.4	80.6 - 82.6
WATER CONTENT, W%	29.9	25.5	37.7	35.4	24.8

BORING NO.	B-37	B-37			
SAMPLE NO.	SS-20	SS-22			
SAMPLE DEPTH (FT.)	94.6 - 95.7	104.6 - 106.1			
WATER CONTENT, W%	43.9	37.0			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

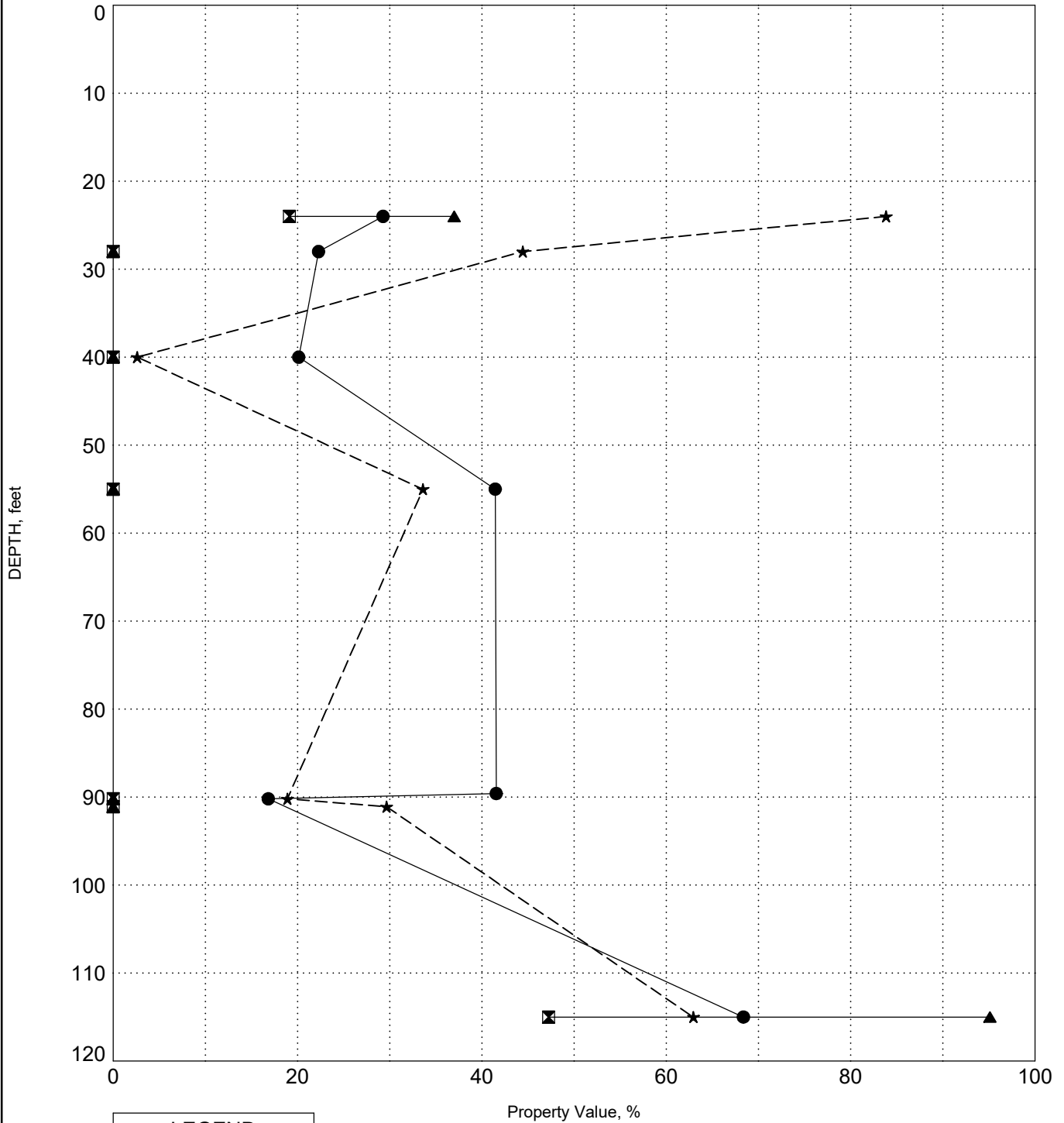
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.0

BORING B-38



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

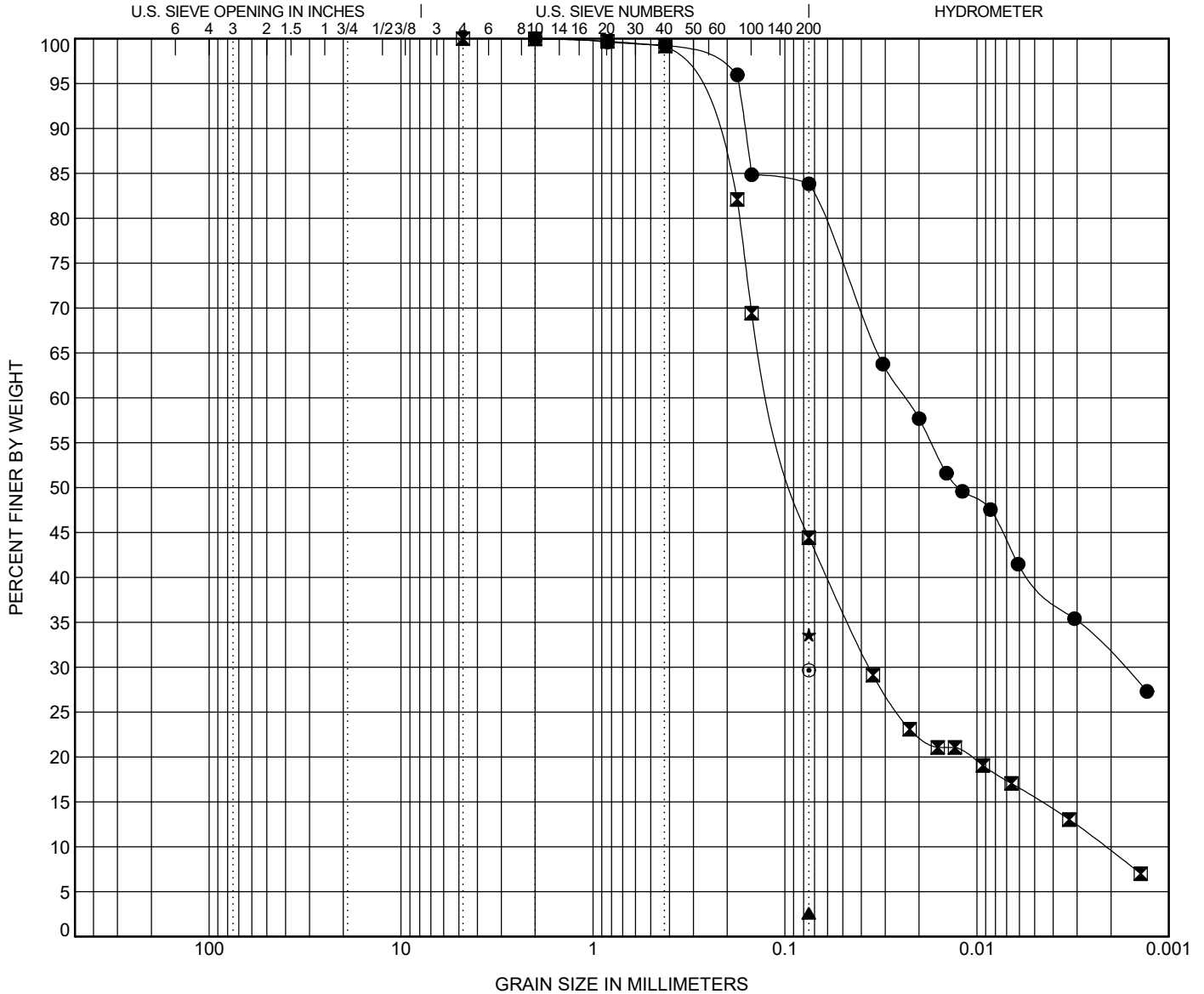


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-38	24.0	LEAN CLAY with SAND (CL/A-6)	37	19	18		
☒ B-38	28.0	SILTY SAND (SM/A-4)	NP	NP	NP	5.36	53.61
▲ B-38	40.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP		
★ B-38	55.0	SILTY SAND (SM/A-2-4)	NP	NP	NP		
◎ B-38	89.6	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-38	24.0	2	0.024	0.002		0.0	16.2	44.1	39.7
☒ B-38	28.0	4.76	0.115	0.036	0.002	0.0	55.6	29.0	15.4
▲ B-38	40.0	0.075						2.6	
★ B-38	55.0	0.075						33.6	
◎ B-38	89.6	0.075						29.7	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

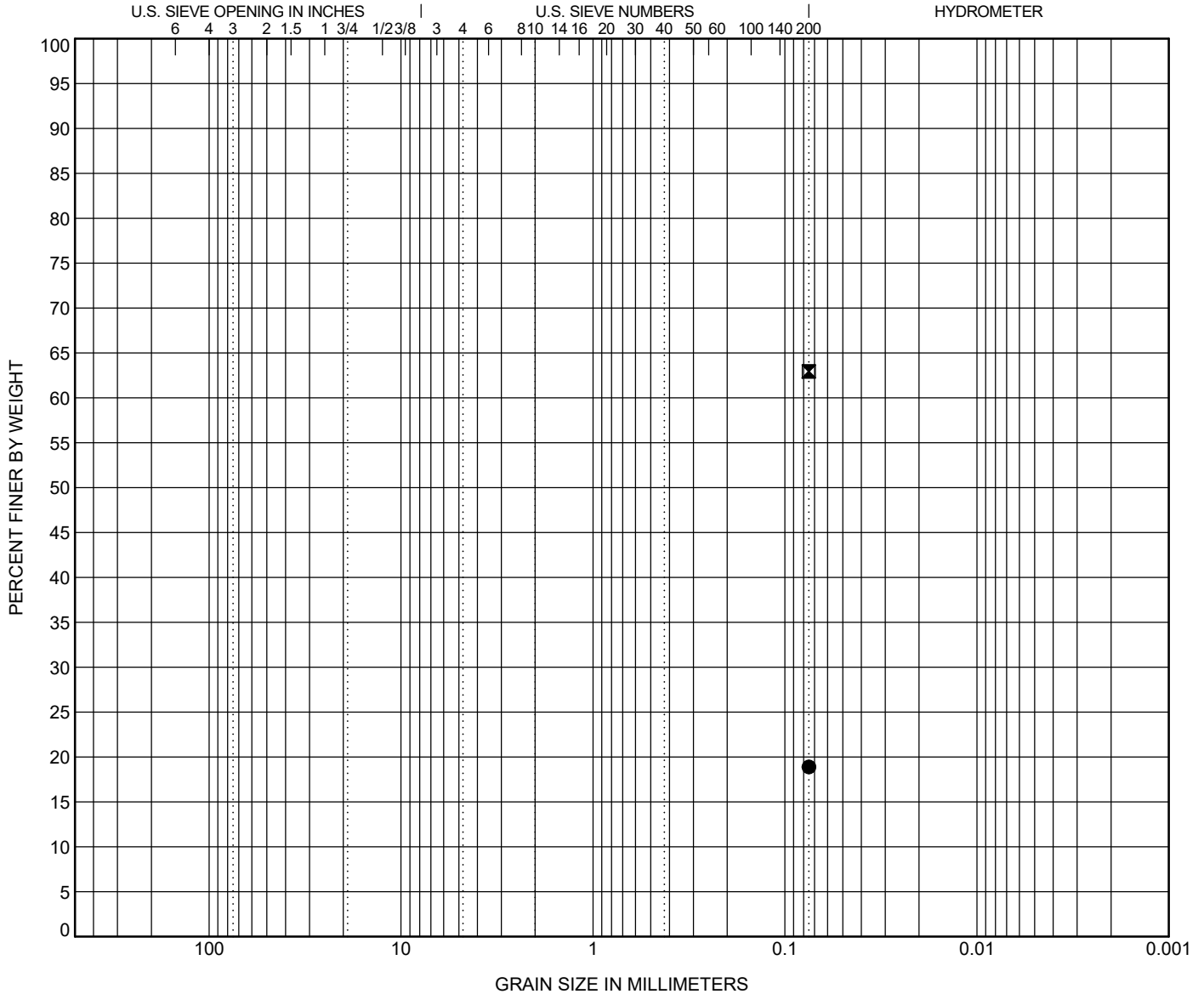


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-38	90.2	SILTY SAND (SM/A-2-4)					NP	NP	NP		
■ B-38	115.0	SANDY ELASTIC SILT (MH/A-7-5)					95	47	48		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-38	90.2	0.075						18.9			
■ B-38	115.0	0.075						62.9			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0564	DATE SAMPLE RECEIVED:	2/28/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW & GJ	DATE SETUP:	3/1/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	3/2/2023

BORING NO.	B-38	B-38	B-38	B-38	B-38
SAMPLE NO.	SS-1 & SS-2	SS-4	SS-7	SS-10	NQ-6.1
SAMPLE DEPTH (FT.)	20.0 - 24.0	26.0 - 28.0	38.5 - 40.0	53.5 - 55.0	86.1 - 90.2
WATER CONTENT, W%	29.3	22.3	20.1	41.5	41.5

BORING NO.	B-38	B-38			
SAMPLE NO.	NQ-6.2	SS-14			
SAMPLE DEPTH (FT.)	90.2- 91.1	113.5 - 115.0			
WATER CONTENT, W%	16.8	68.4			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

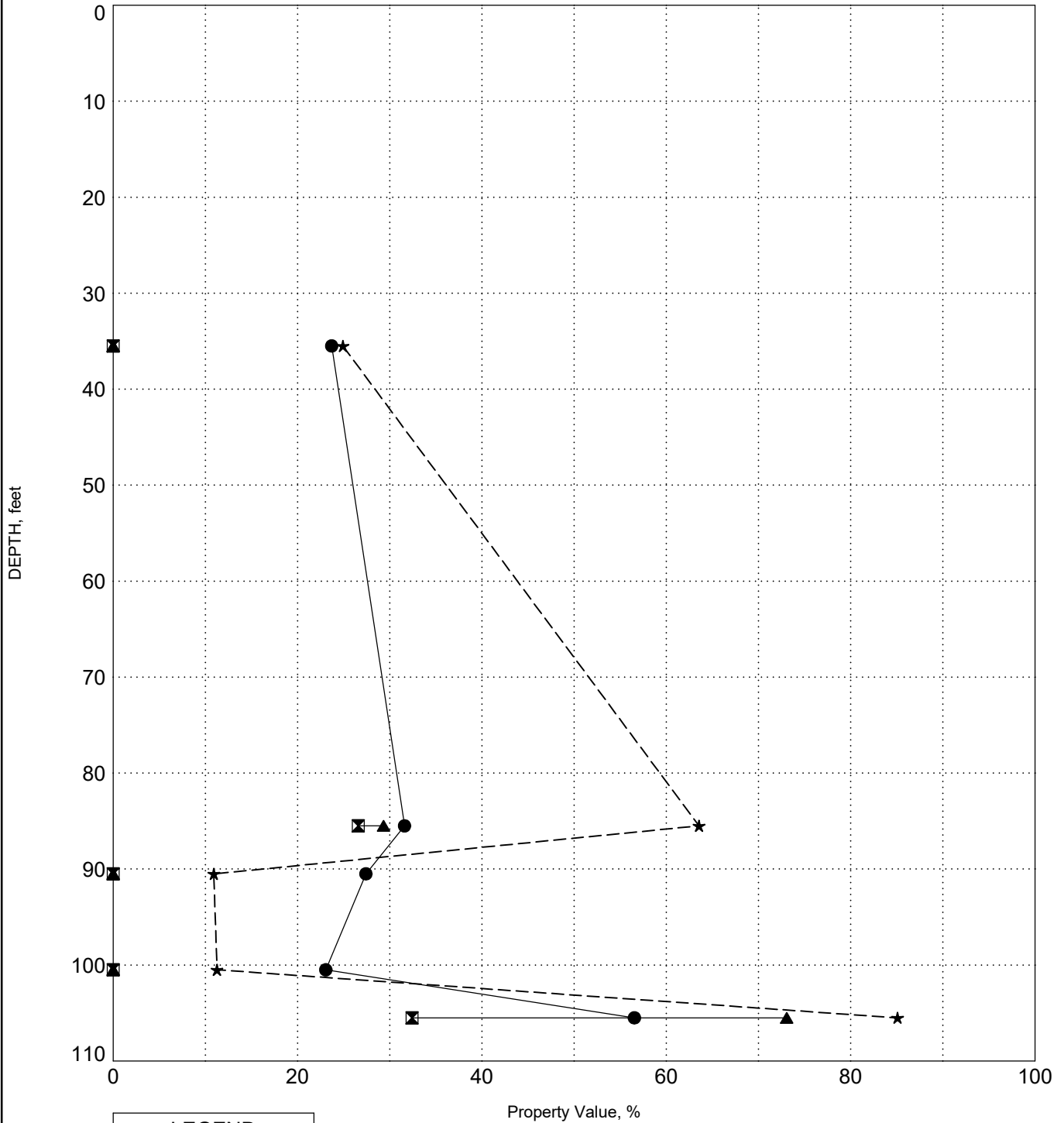
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.8

BORING B-39



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

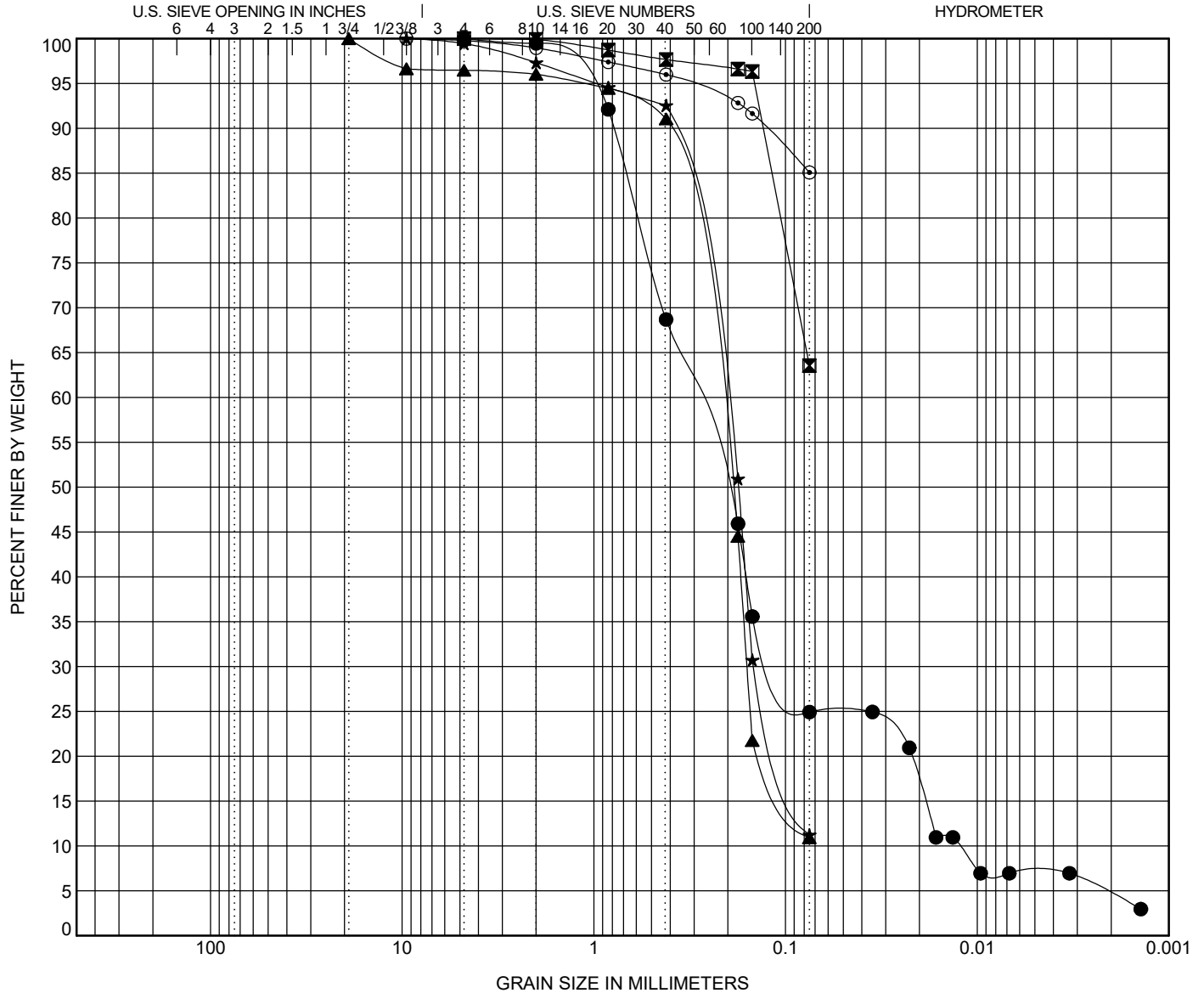


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu	
●	B-39	35.5	Silty SAND (SM/A-2-4)					NP	NP	NP	1.31	24.40
☒	B-39	85.5	Sandy SILT (ML/A-4)					29	27	2		
▲	B-39	90.5	Poorly Graded SAND with SILT (SP-SM/A-2-4)					NP	NP	NP	1.51	3.33
★	B-39	100.5	Poorly Graded SAND with SILT (SP-SM/A-2-4)					NP	NP	NP	1.38	2.98
◎	B-39	105.5	Fat CLAY (CH/A-7-5)					73	32	41		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay			
●	B-39	35.5	4.76	0.302	0.07	0.012	0.0	75.1	18.0	7.0		
☒	B-39	85.5	4.76				0.0	36.5	63.5			
▲	B-39	90.5	19	0.236	0.159		3.5	85.6	10.9			
★	B-39	100.5	9.51	0.214	0.145		0.5	88.2	11.3			
◎	B-39	105.5	9.51				0.2	14.7	85.1			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1159	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-39	B-39	B-39	B-39	B-39
SAMPLE NO.	SS-6	SS-9	SS-10	SS-12	SS-13
SAMPLE DEPTH (FT.)	34.0 - 35.5	84.0 - 85.5	89.0 - 90.5	99.0 - 100.5	104.0 - 105.5
WATER CONTENT, W%	23.7	31.6	27.4	23.1	56.5

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

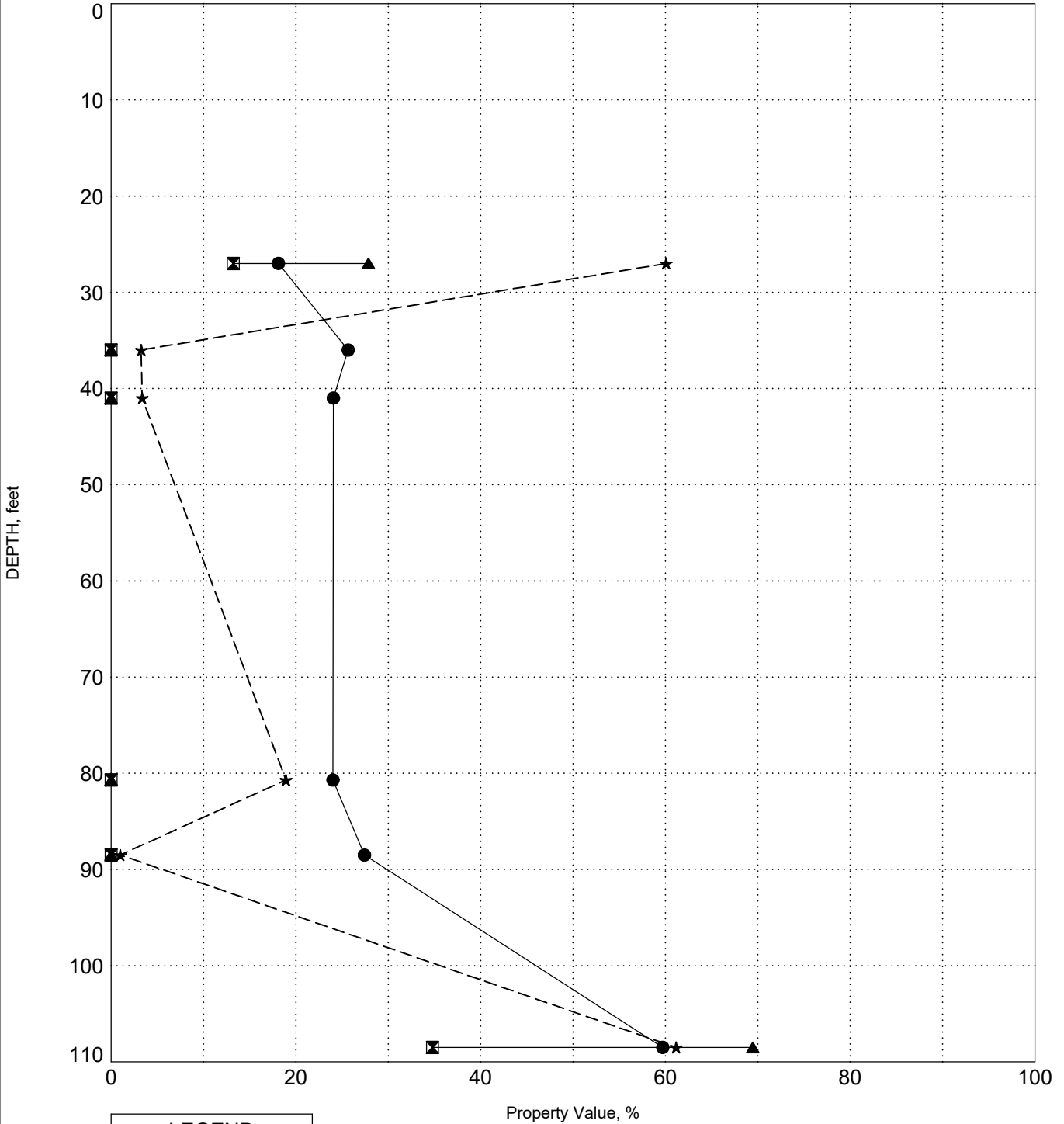
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-40



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

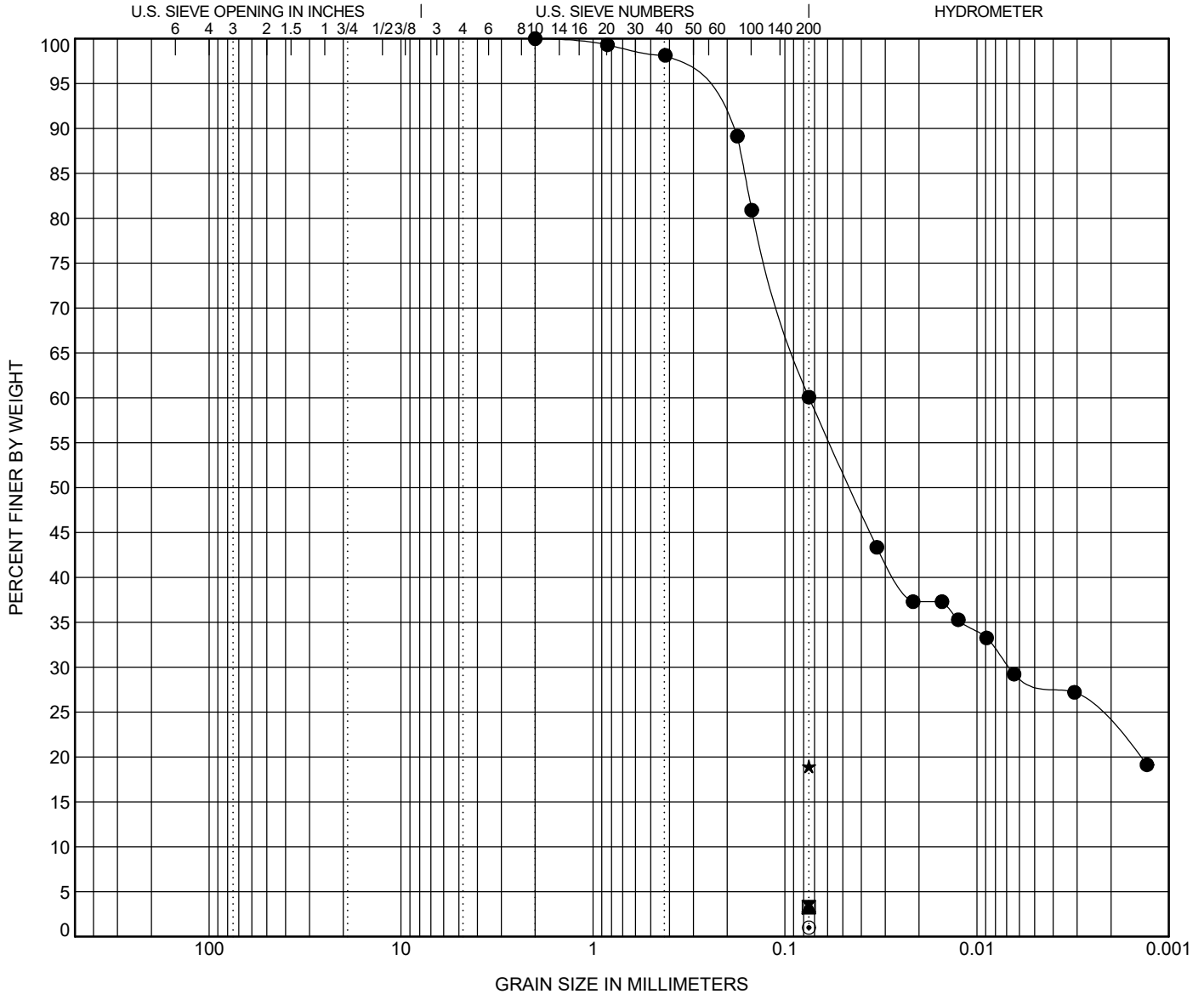


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-40	27.0	SANDY LEAN CLAY (CL/A-6)	28	13	15		
☒ B-40	36.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP		
▲ B-40	41.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP		
★ B-40	80.7	SILTY SAND (SM/A-2-4)	NP	NP	NP		
◎ B-40	88.5	POORLY GRADED SAND (SP/A-3)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-40	27.0	2	0.075	0.007		0.0	39.9	31.5	28.5
☒ B-40	36.0	0.075						3.3	
▲ B-40	41.0	0.075						3.4	
★ B-40	80.7	0.075						18.9	
◎ B-40	88.5	0.075						1.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

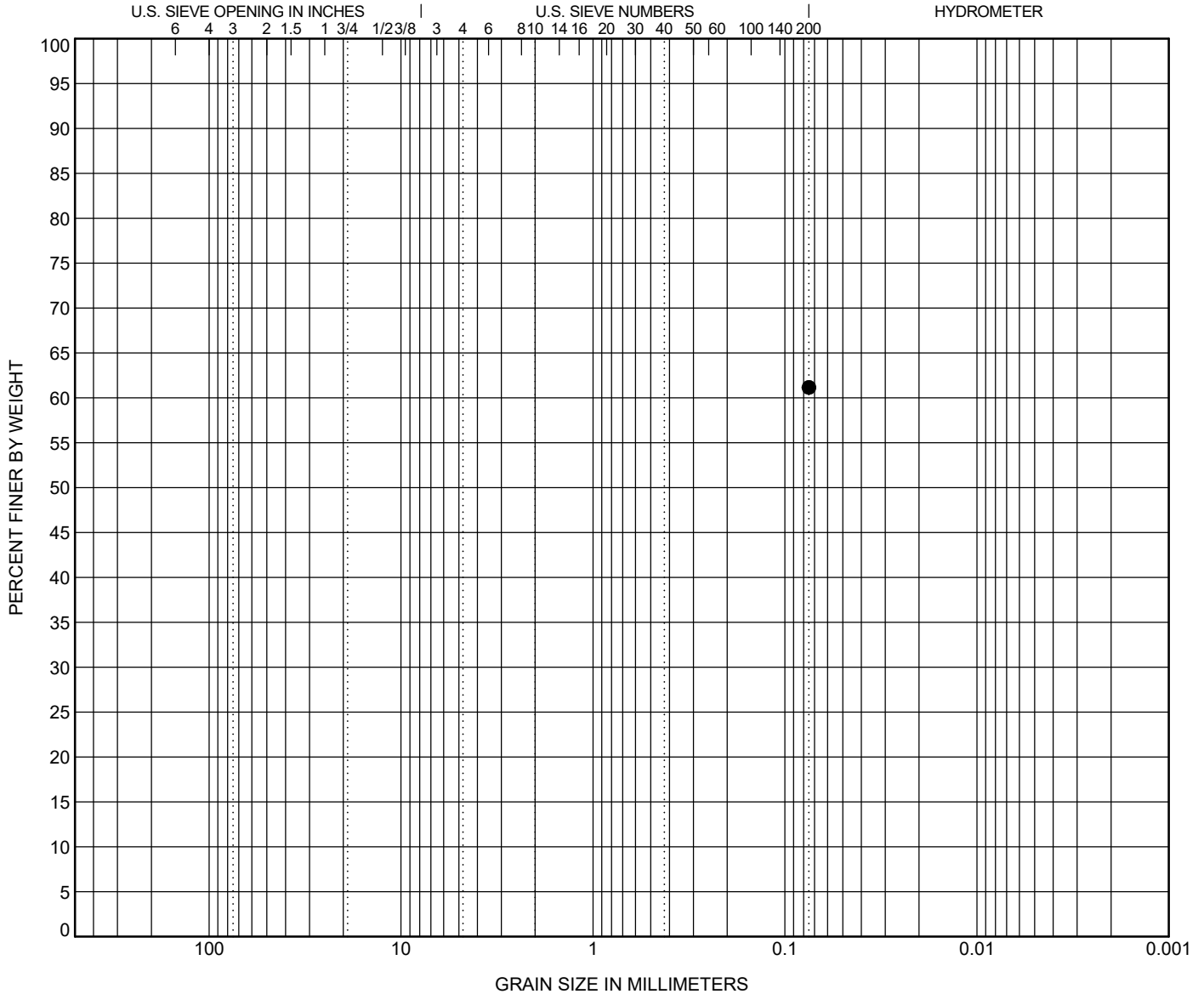


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-40	108.5	SANDY ELASTIC SILT (MH/A-7-5)					69	35	34		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-40	108.5	0.075						61.2			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/17/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0565	DATE SAMPLE RECEIVED:	2/28/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW & GJ	DATE SETUP:	3/1/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	3/2/2023

BORING NO.	B-40	B-40	B-40	B-40	B-40
SAMPLE NO.	SS-3	SS-6	SS-7	NQ-8	SS-10
SAMPLE DEPTH (FT.)	25.0 - 27.0	34.5 - 37.0	39.5 - 41.0	80.3 - 80.7	87.0 - 88.5
WATER CONTENT, W%	18.2	25.7	24.1	24.0	27.4

BORING NO.	B-40				
SAMPLE NO.	SS-14				
SAMPLE DEPTH (FT.)	107.0 - 108.5				
WATER CONTENT, W%	59.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



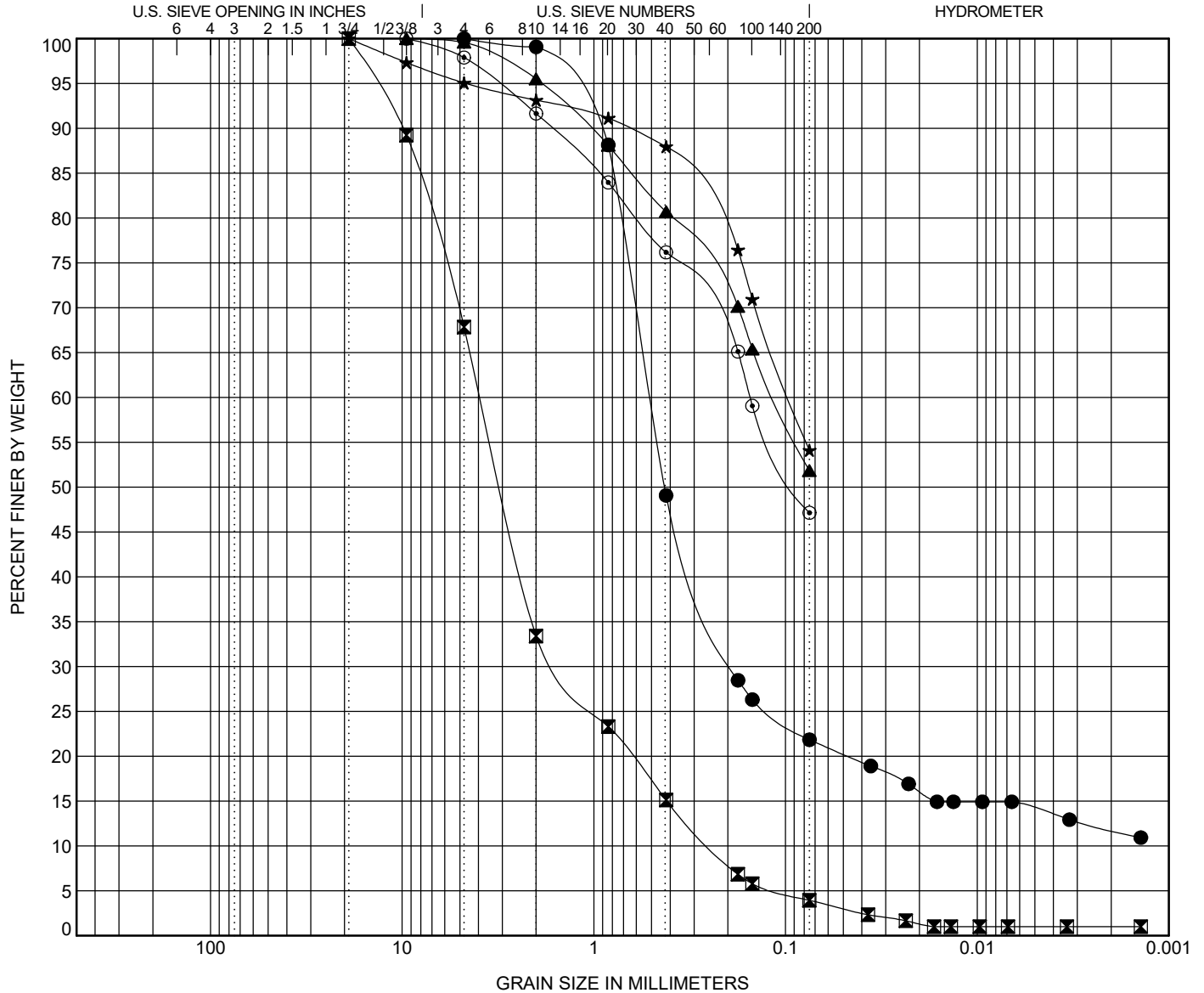


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-41	32.7	Clayey SAND (SC/A-2-6)	28	16	12		
☒ B-41	47.7	Well-Graded SAND with GRAVEL (SW/A-1-a)	NP	NP	NP	2.32	15.86
▲ B-41	52.7	Sandy SILT (ML/A-4)	NP	NP	NP		
★ B-41	56.5	Sandy SILT (ML/A-4)	NP	NP	NP		
◎ B-41	64.5	Silty SAND (SM/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-41	32.7	4.76	0.51	0.189		0.0	78.2	7.7	14.1
☒ B-41	47.7	19	3.907	1.494	0.246	32.2	63.8	2.9	1.0
▲ B-41	52.7	9.51	0.113			0.4	47.7		51.8
★ B-41	56.5	19	0.095			4.9	40.9		54.1
◎ B-41	64.5	9.51	0.153			2.1	50.7		47.1

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

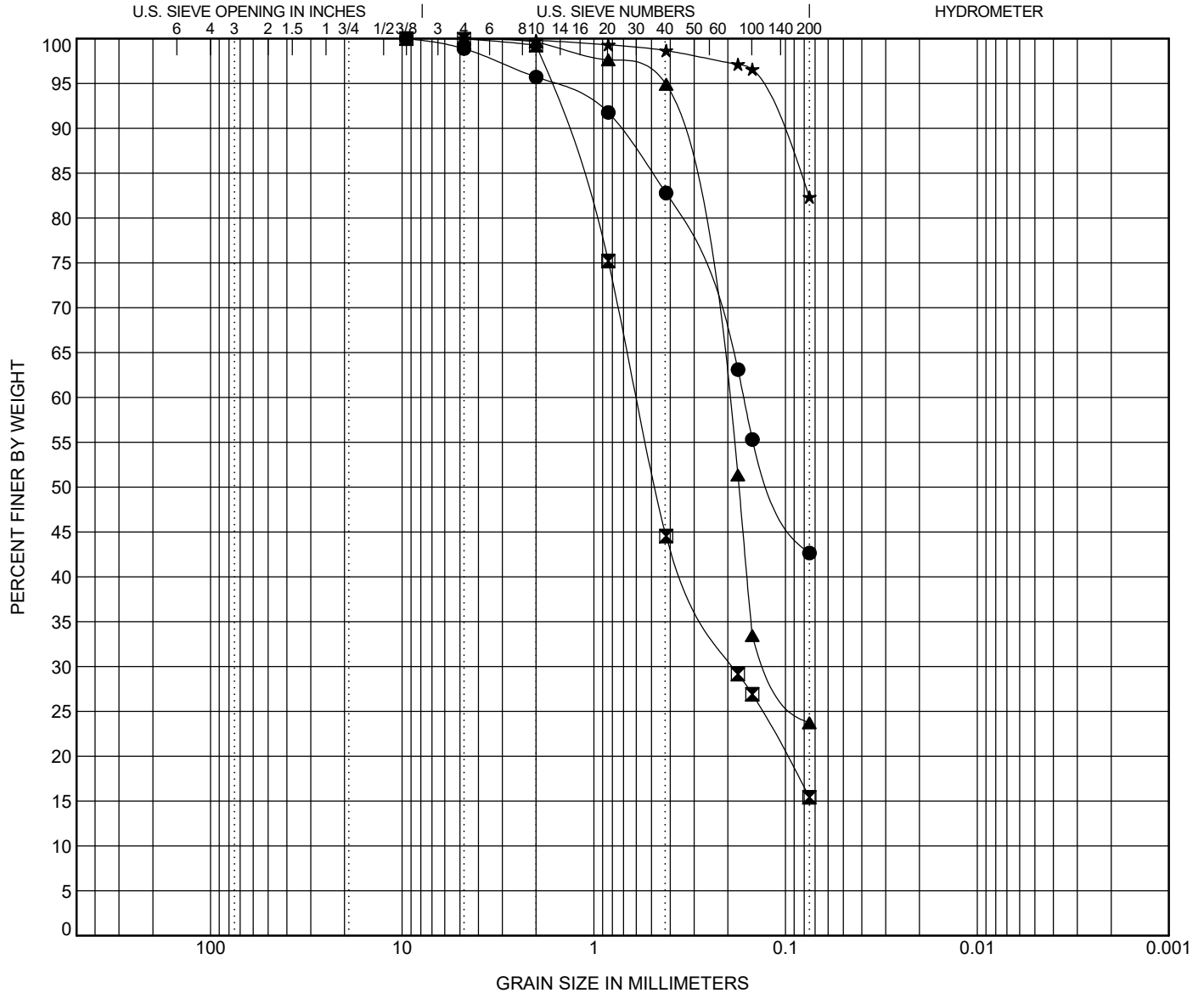


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-41	68.6	Silty SAND (SM/A-4)	27	22	5		
☒ B-41	80.7	Silty SAND (SM/A-1-b)	26	23	3		
▲ B-41	87.7	Silty SAND (SM/A-2-4)	NP	NP	NP		
★ B-41	102.7	Fat CLAY with SAND (CH/A-7-5)	86	31	55		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-41	68.6	9.51	0.165			1.1	56.2		42.7
☒ B-41	80.7	9.51	0.596	0.185		0.1	84.5		15.4
▲ B-41	87.7	4.76	0.21	0.117		0.0	76.3		23.7
★ B-41	102.7	4.76				0.0	17.7		82.3

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/27/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1158	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW/EJ	DATE SETUP:	5/10/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/11/2023

BORING NO.	B-41	B-41	B-41	B-41	B-41
SAMPLE NO.	SS-5	SS-8	SS-9	SS-10	SS-12
SAMPLE DEPTH (FT.)	30.7 - 32.7	46.2 - 47.7	51.2 - 52.7	54.7 - 56.5	62.7 - 64.5
WATER CONTENT, W%	20.5	14.9	46.6	27.7	56.5

BORING NO.	B-41	B-41	B-41	B-41	
SAMPLE NO.	SS-13	SS-16	SS-17	SS-20	
SAMPLE DEPTH (FT.)	66.7 - 68.6	78.7 - 80.7	86.2 - 87.7	101.2 - 102.7	
WATER CONTENT, W%	24.2	22.9	37.1	54.8	

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

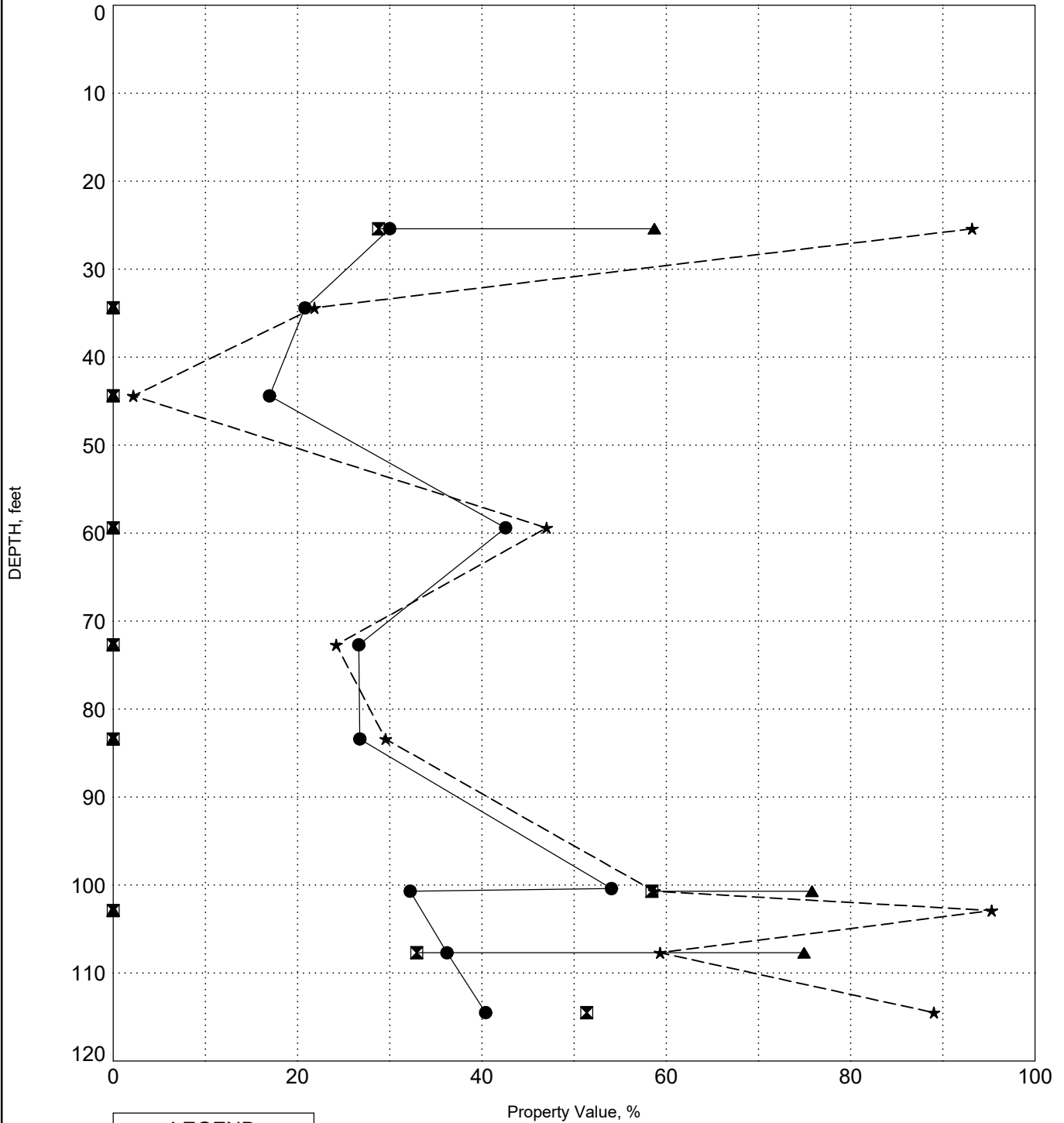
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.5

BORING B-42



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

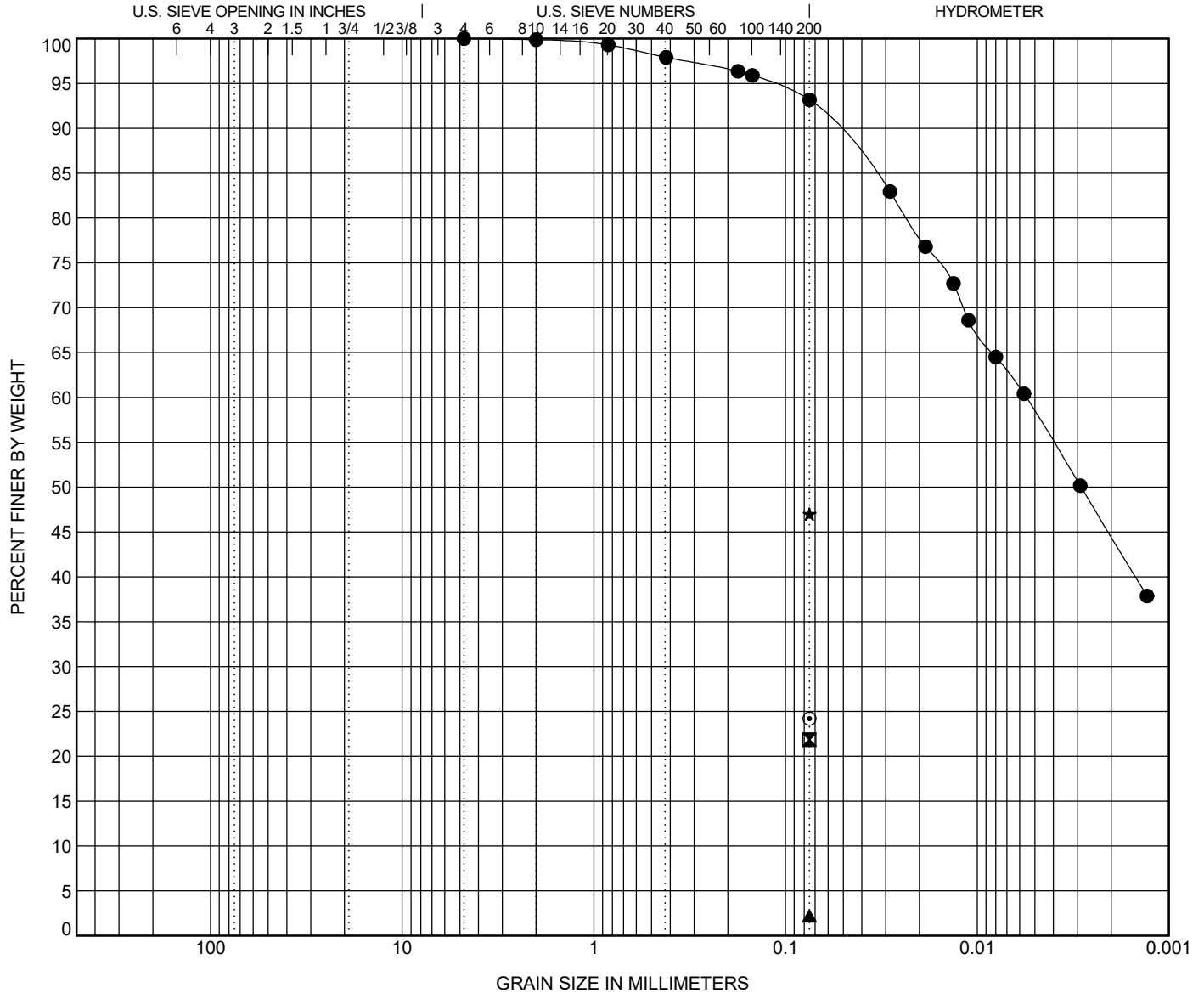


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-42	25.4	FAT CLAY (CH/A-7-6)	59	29	30		
☒ B-42	34.4	SILTY SAND (SM/A-2-4)	NP	NP	NP		
▲ B-42	44.4	POORLY GRADED SAND (SP/A-3)	NP	NP	NP		
★ B-42	59.4	SILTY SAND (SM/A-4)	NP	NP	NP		
◎ B-42	72.7	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-42	25.4	4.76	0.006			0.0	6.8	34.8	58.4
☒ B-42	34.4	0.075						21.8	
▲ B-42	44.4	0.075						2.2	
★ B-42	59.4	0.075						47.0	
◎ B-42	72.7	0.075						24.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/29/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0566	DATE SAMPLE RECEIVED:	2/28/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW & GJ	DATE SETUP:	3/1/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	3/2/2023

BORING NO.	B-42	B-40	B-40	B-40	B-40
SAMPLE NO.	SS-3	SS-6	SS-8	SS-11	SS-14
SAMPLE DEPTH (FT.)	23.4 - 25.4	32.9 - 34.4	42.9 - 44.4	57.9 - 59.4	71.4 - 72.9
WATER CONTENT, W%	30.0	20.8	17.0	42.6	26.6

BORING NO.	B-42	B-42	B-42	B-42	B-42
SAMPLE NO.	NQ-3	NQ-6.1	NQ-6.2	NQ-7	NQ-9
SAMPLE DEPTH (FT.)	83.1 - 83.4	97.9 - 100.4	100.4 - 100.7	107.3 - 107.7	114.2 - 114.5
WATER CONTENT, W%	26.8	54.1	32.2	36.2	40.4

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

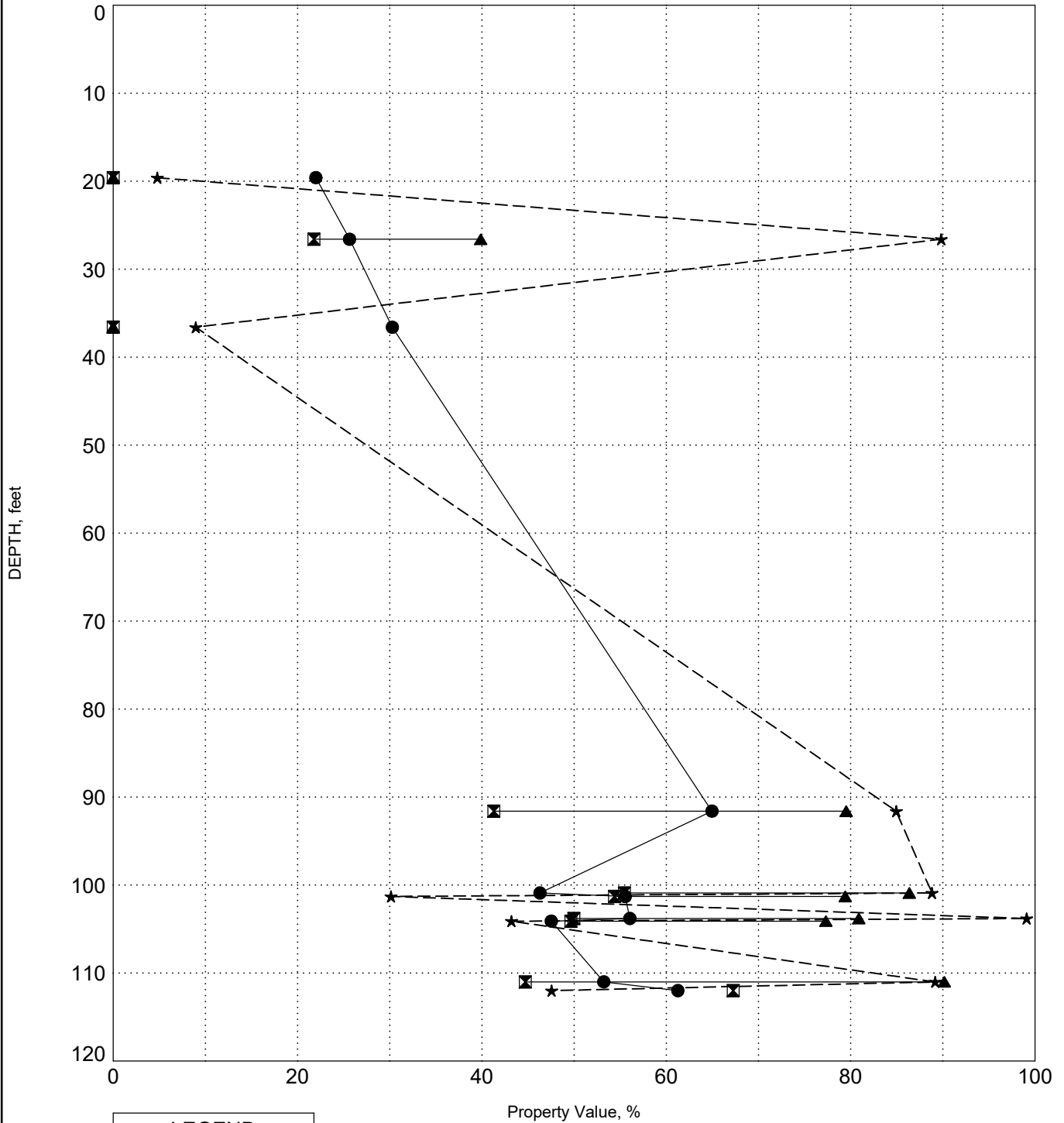
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.3

BORING B-43



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

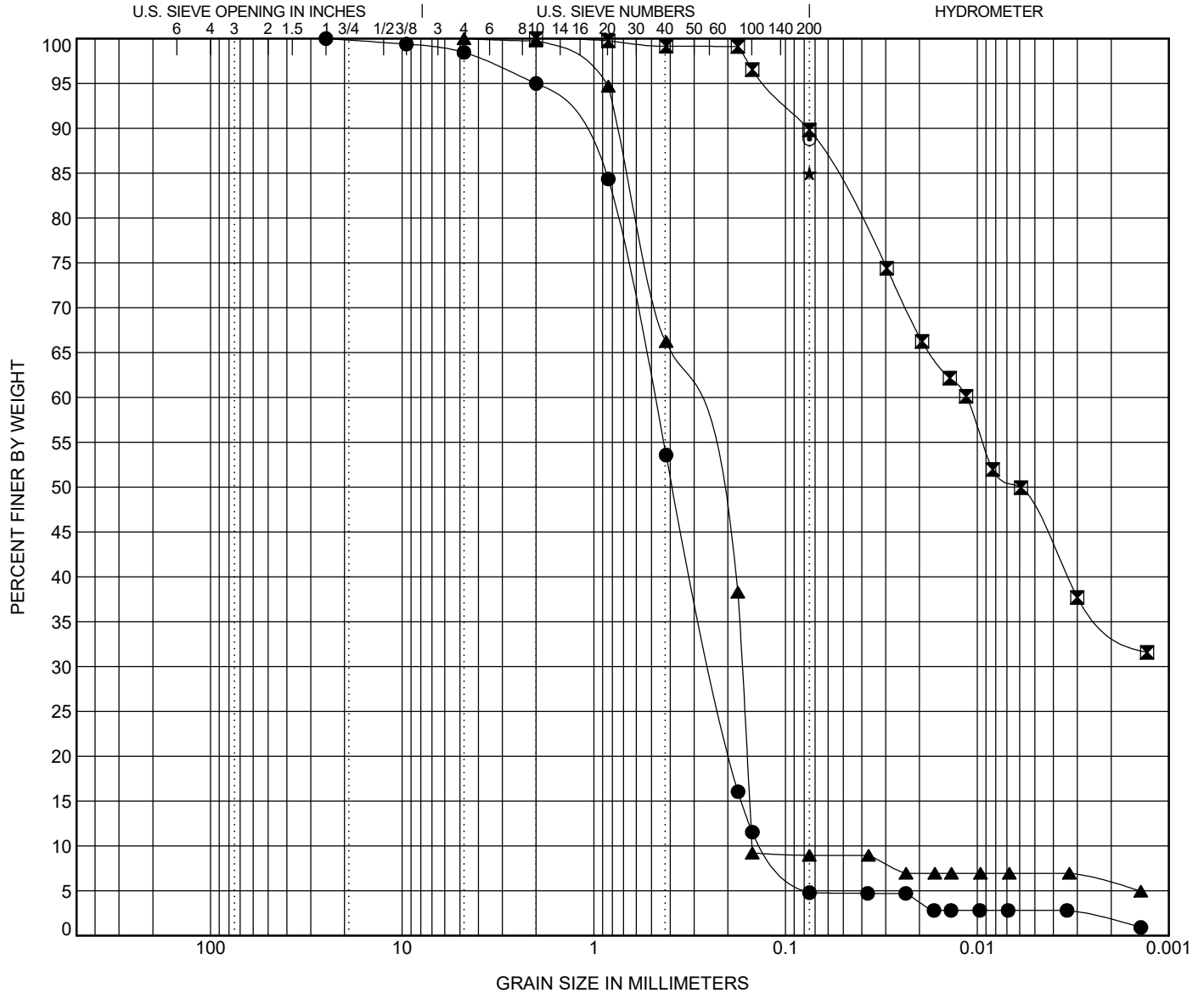


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-43	19.6	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.96	3.81
☒ B-43	26.6	LEAN CLAY (CL/A-6)	40	22	18		
▲ B-43	36.6	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	0.55	2.31
★ B-43	91.6	ELASTIC SILT with SAND (MH/A-7-5)	80	41	39		
◎ B-43	100.9	ELASTIC SILT (MH/A-7-5)	86	55	31		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-43	19.6	25	0.486	0.244	0.127	1.5	93.7	2.0	2.8
☒ B-43	26.6	2	0.011			0.0	10.2	42.9	46.9
▲ B-43	36.6	4.76	0.346	0.169	0.15	0.0	91.0	2.0	7.0
★ B-43	91.6	0.075							85.0
◎ B-43	100.9	0.075							88.8

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/18/23

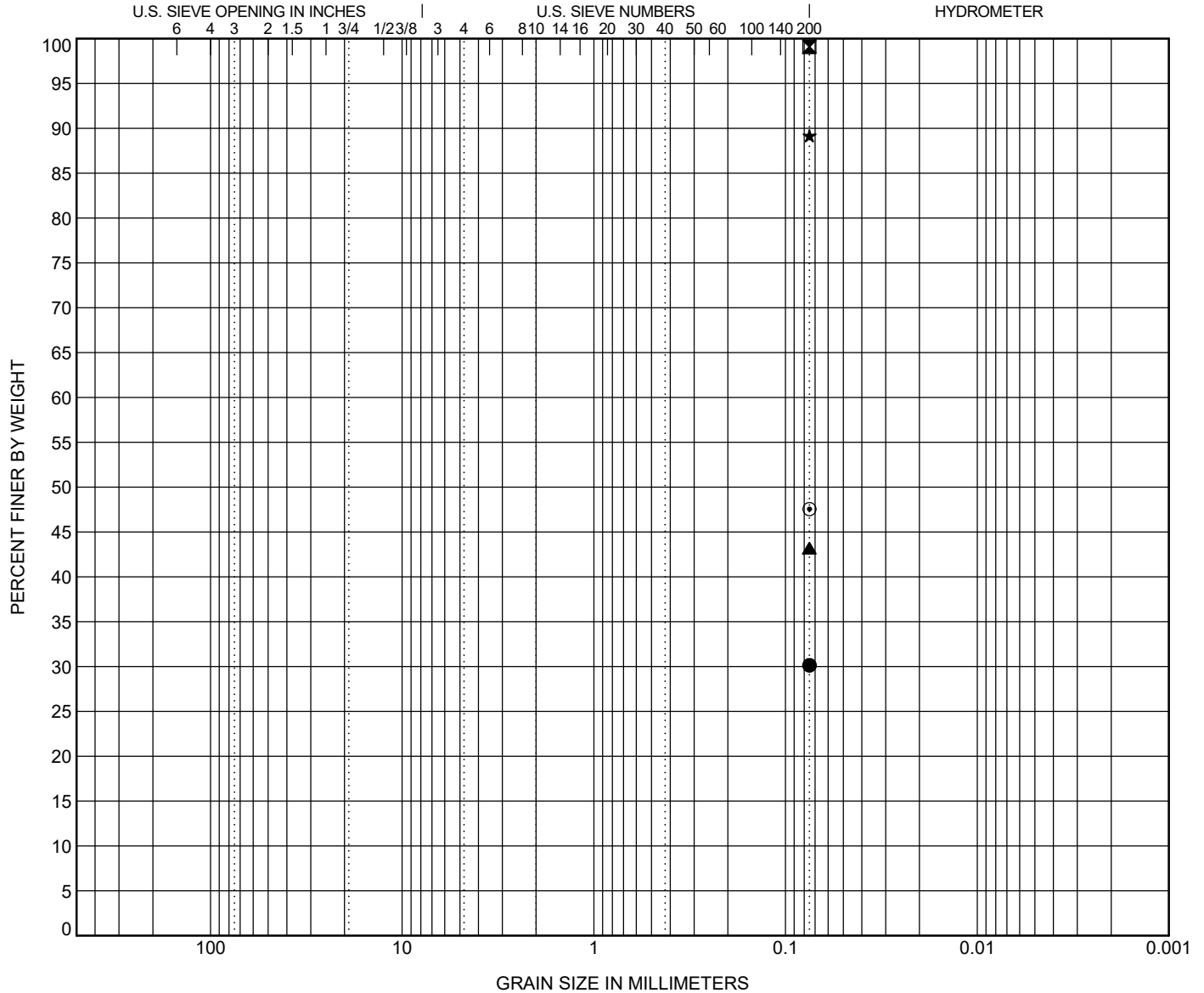


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-43	101.3	SILTY SAND (SM/A-2-7)	79	54	25		
☒ B-43	103.8	ELASTIC SILT (MH/A-7-5)	81	50	31		
▲ B-43	104.1	SILTY SAND (SM/A-7-5)	77	50	27		
★ B-43	111.0	ELASTIC SILT (MH/A-7-5)	90	45	45		
◎ B-43	112.0	SILTY SAND (SM/A-7-5)	106	67	39		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-43	101.3	0.075							30.1
☒ B-43	103.8	0.075							99.1
▲ B-43	104.1	0.075							43.2
★ B-43	111.0	0.075							89.2
◎ B-43	112.0	0.075							47.5

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/18/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-1095	DATE SAMPLE RECEIVED:	4/19/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	TW	DATE SETUP:	4/20/2023
WEIGHED BY:	TW	DATE OF WEIGHING:	4/21/2023

BORING NO.	B-43	B-43	B-43	B-43	B-43
SAMPLE NO.	SS-4	SS-6	SS-8	SS-13	NQ-8.1
SAMPLE DEPTH (FT.)	17.6 - 19.6	25.1 - 26.6	35.1 - 36.6	90.1 - 91.6	100.1 - 100.9
WATER CONTENT, W%	22.0	25.6	30.3	65.0	46.3

BORING NO.	B-43	B-43	B-43	B-43	B-43
SAMPLE NO.	NQ-8.2	NQ-9.1	NQ-9.2	NQ-10.1	NQ-10.2
SAMPLE DEPTH (FT.)	100.9- 101.3	103.2 - 103.8	103.8 - 104.1	108.2 - 111.0	111.0 - 112.0
WATER CONTENT, W%	55.5	56.0	47.5	53.2	61.3

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

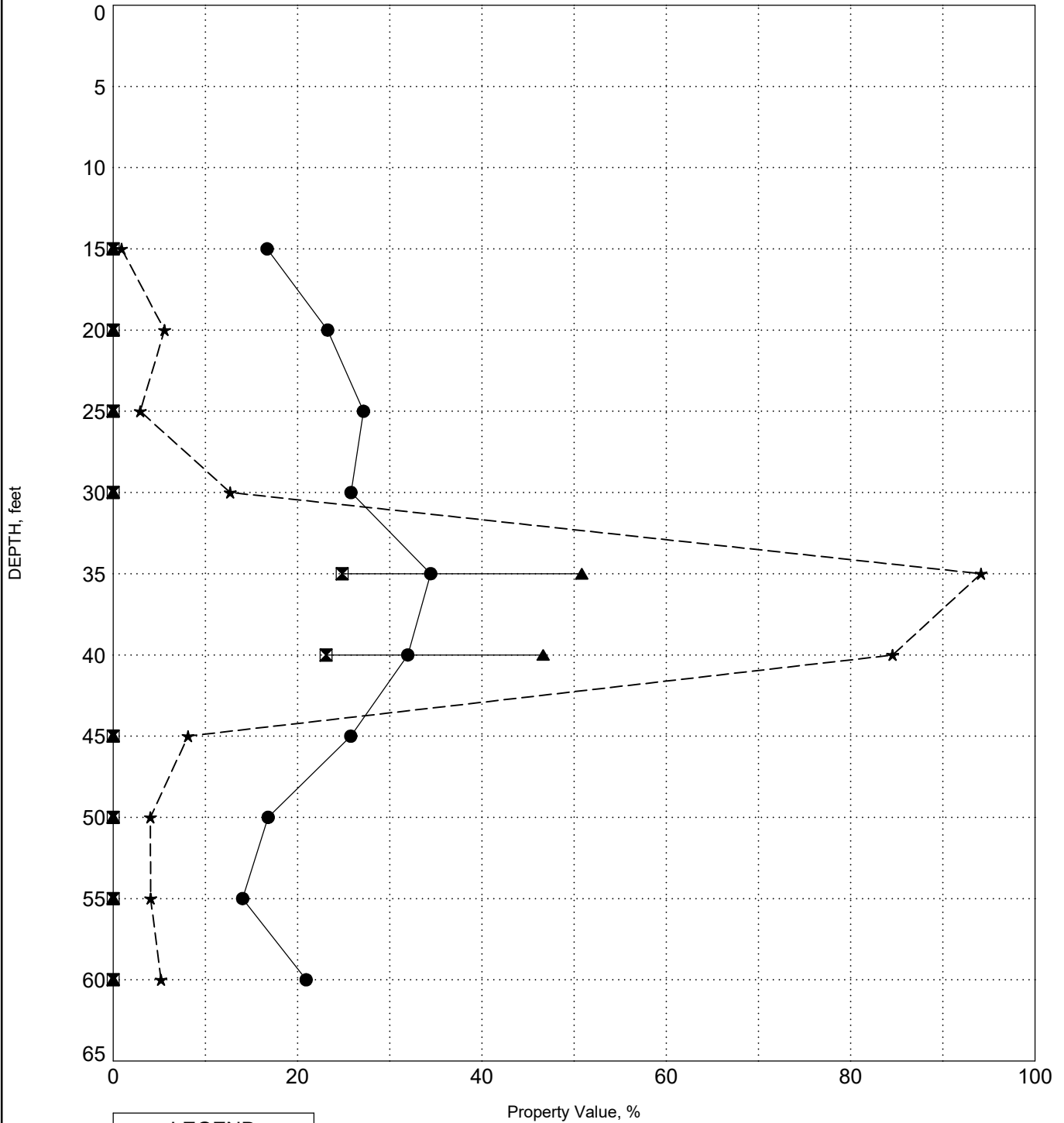
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-44

SURFACE ELEVATION: 89.2



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

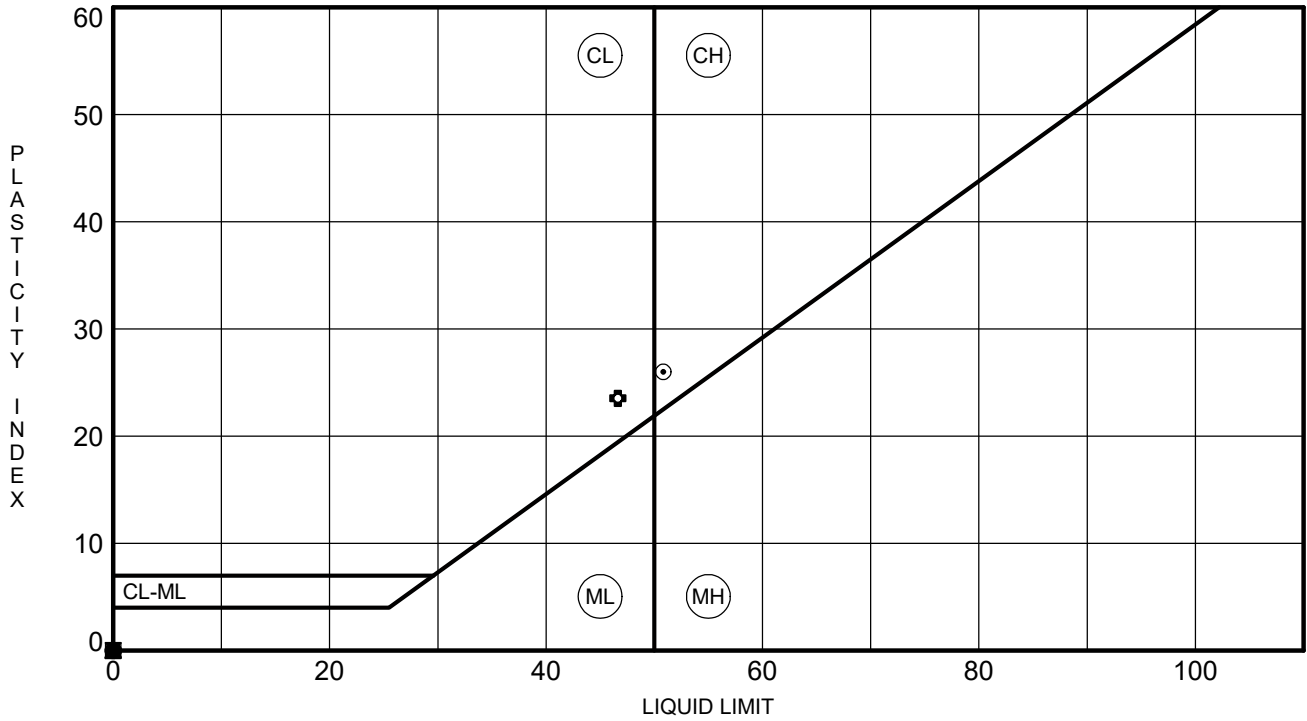


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-44	15.0	NP	NP	NP	1	POORLY GRADED SAND (SP/A-3)
☒	B-44	20.0	NP	NP	NP	6	POORLY GRADED SAND with SILT (SP-SM/A-3)
▲	B-44	25.0	NP	NP	NP	3	POORLY GRADED SAND (SP/A-3)
★	B-44	30.0	NP	NP	NP	13	SILTY SAND (SM/A-2-4)
⊙	B-44	35.0	51	25	26	94	FAT CLAY (CH/A-7-6)
⊕	B-44	40.0	47	23	24	85	LEAN CLAY with SAND (CL/A-7-6)
○	B-44	45.0	NP	NP	NP	8	POORLY GRADED SAND with SILT (SP-SM/A-3)
△	B-44	50.0	NP	NP	NP	4	POORLY GRADED SAND (SP/A-1-b)
⊗	B-44	55.0	NP	NP	NP	4	POORLY GRADED SAND with GRAVEL (SP/A-1-b)
⊕	B-44	60.0	NP	NP	NP	5	POORLY GRADED SAND with SILT (SP-SM/A-1-b)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

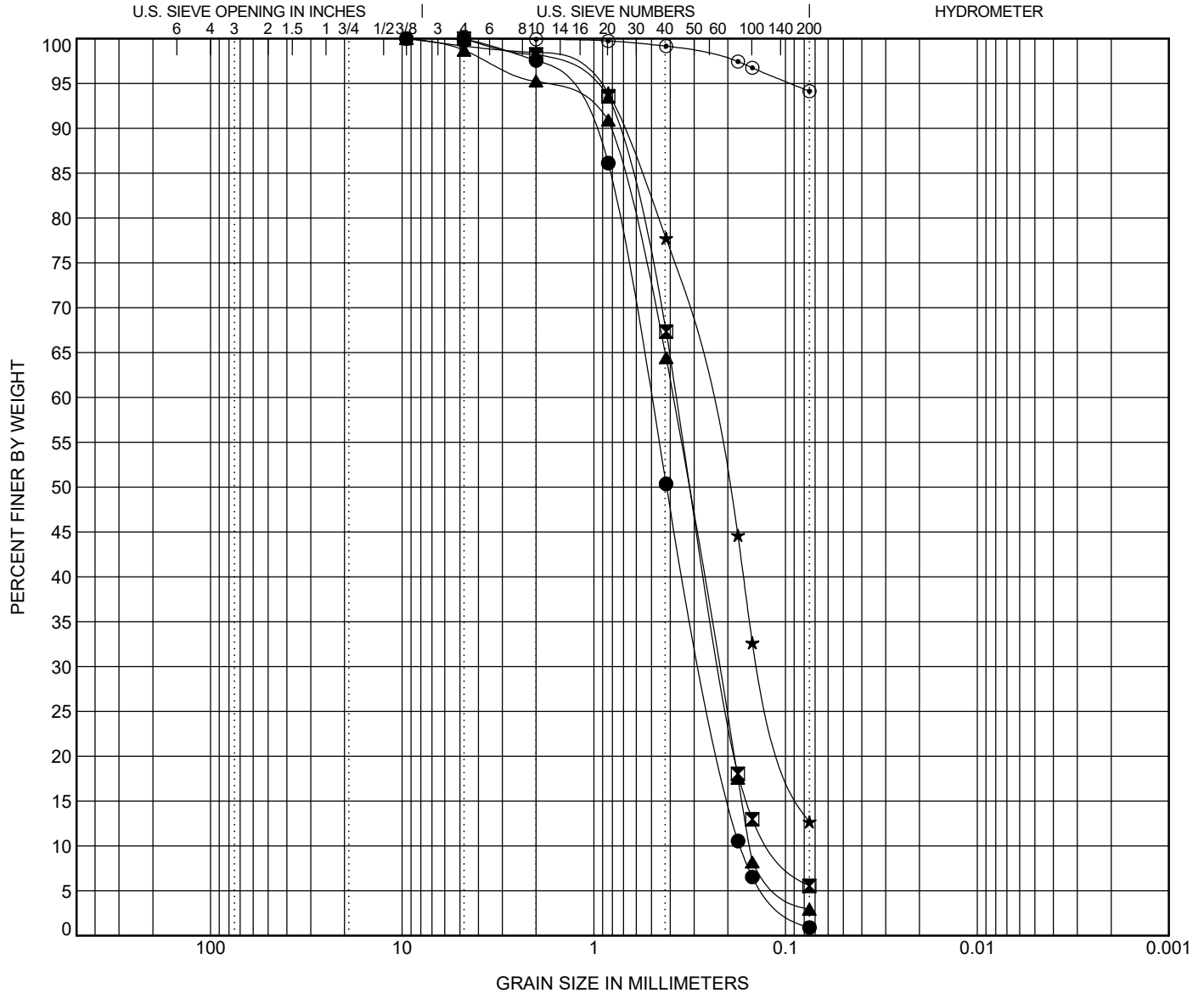


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-44	15.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.83	2.93
☒ B-44	20.0	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	1.14	3.27
▲ B-44	25.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.83	2.51
★ B-44	30.0	SILTY SAND (SM/A-2-4)	NP	NP	NP		
◎ B-44	35.0	FAT CLAY (CH/A-7-6)	51	25	26		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-44	15.0	9.51	0.506	0.27	0.173	0.1	99.0		0.9
☒ B-44	20.0	4.76	0.369	0.218	0.113	0.0	94.4	5.6	
▲ B-44	25.0	9.51	0.387	0.223	0.154	1.3	95.8	2.9	
★ B-44	30.0	9.51	0.264	0.136		0.8	86.5	12.7	
◎ B-44	35.0	4.76				0.0	5.9		94.1

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

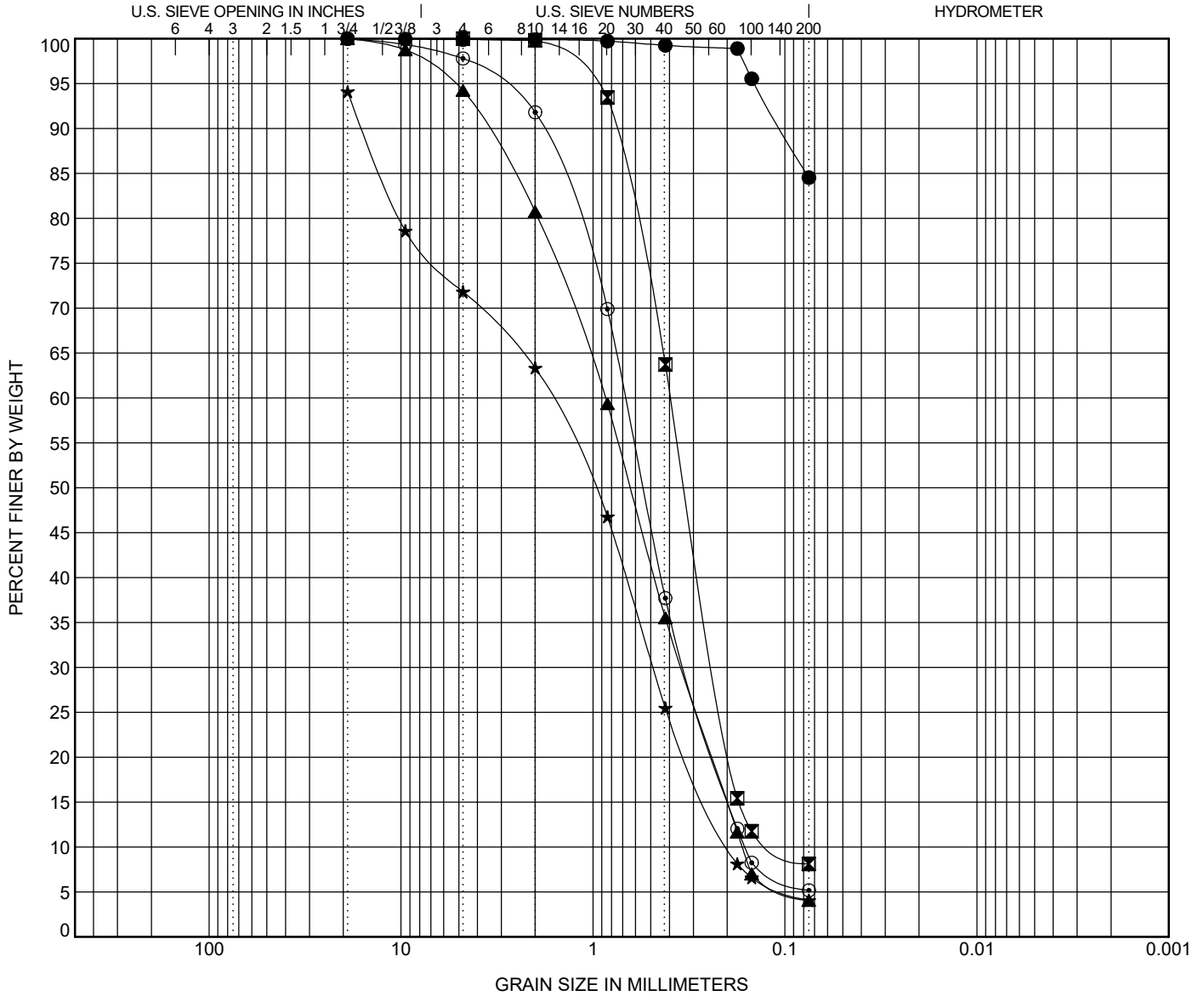


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-44	40.0	LEAN CLAY with SAND (CL/A-7-6)	47	23	24		
⊠ B-44	45.0	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	1.26	3.67
▲ B-44	50.0	POORLY GRADED SAND (SP/A-1-b)	NP	NP	NP	0.82	5.19
★ B-44	55.0	POORLY GRADED SAND with GRAVEL (SP/A-1-b)	NP	NP	NP	0.73	8.65
◎ B-44	60.0	POORLY GRADED SAND with SILT (SP-SM/A-1-b)	NP	NP	NP	0.96	4.21

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-44	40.0	19				0.1	15.4	84.5	
⊠ B-44	45.0	4.76	0.393	0.23	0.107	0.0	91.9	8.1	
▲ B-44	50.0	19	0.863	0.344	0.166	5.8	90.2	4.0	
★ B-44	55.0	19	1.679	0.487	0.194	22.3	67.7	4.1	
◎ B-44	60.0	19	0.679	0.324	0.161	2.2	92.6	5.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0194	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-44	B-44	B-44	B-44	B-44
SAMPLE NO.	SS-6	SS-7	SS-8	SS-9	SS-10
SAMPLE DEPTH (FT.)	13.5 - 15.0	18.5-20.0	23.5 - 25.0	28.5 - 30.0	33.5 - 35.0
WATER CONTENT, W%	16.7	23.3	27.1	25.8	34.4

BORING NO.	B-44	B-44	B-44	B-44	B-44
SAMPLE NO.	SS-11	SS-12	SS-13	SS-14	SS-15
SAMPLE DEPTH (FT.)	38.5 - 40.0	43.5 - 45.0	48.5 - 50.0	53.5 - 55.0	58.5 - 60.0
WATER CONTENT, W%	32.0	25.8	16.8	14.0	20.9

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

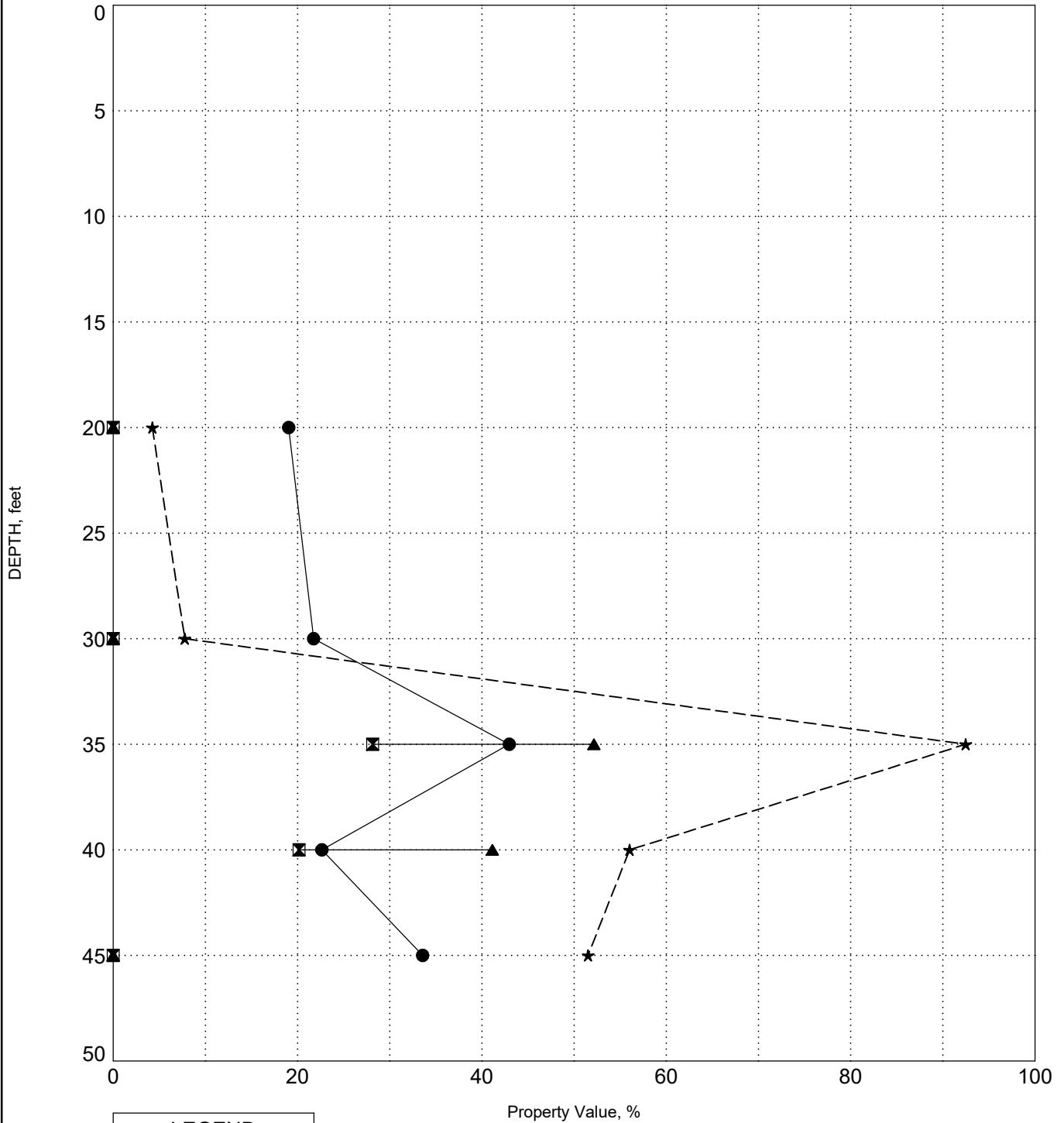
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 88.3

BORING B-45



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

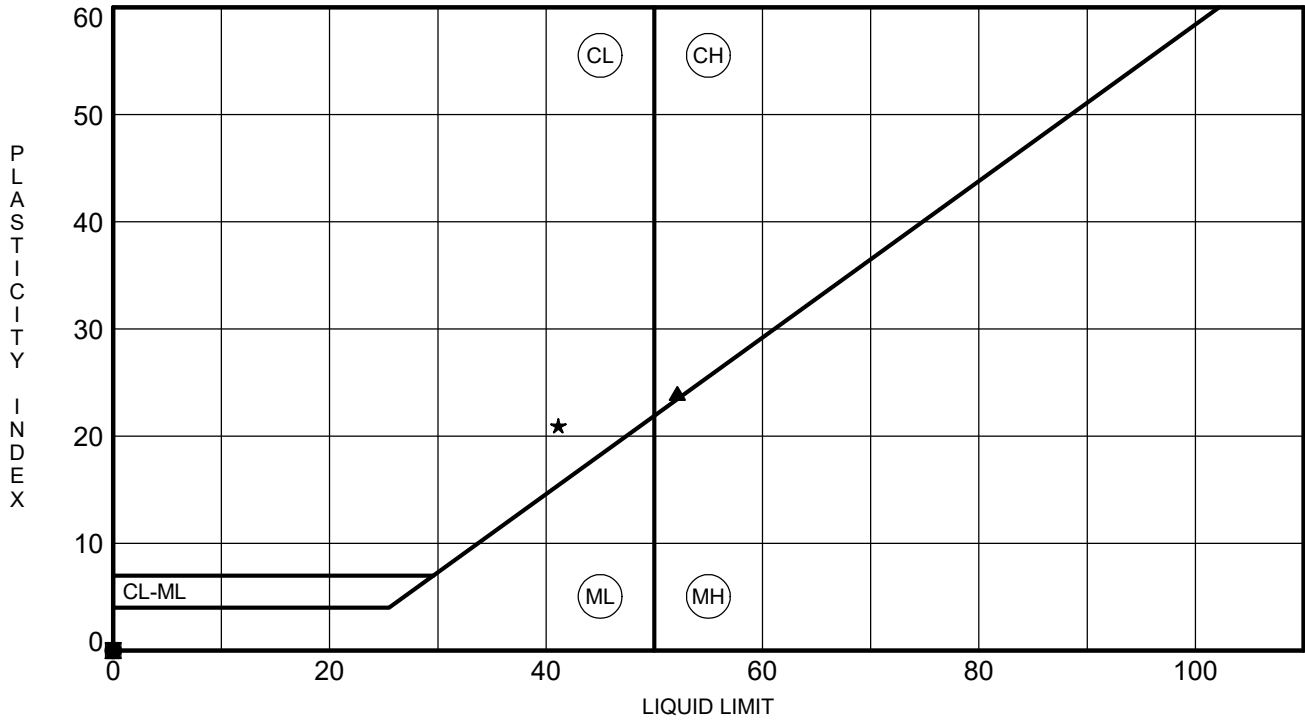


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● B-45	20.0	NP	NP	NP	4	POORLY GRADED SAND (SP/A-1-b)
☒ B-45	30.0	NP	NP	NP	8	WELL-GRADED SAND with SILT (SW-SM/A-1-b)
▲ B-45	35.0	52	28	24	92	FAT CLAY (CH/A-7-6)
★ B-45	40.0	41	20	21	56	SANDY LEAN CLAY (CL/A-7-6)
◎ B-45	45.0	NP	NP	NP	52	SANDY SILT (ML/A-4)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

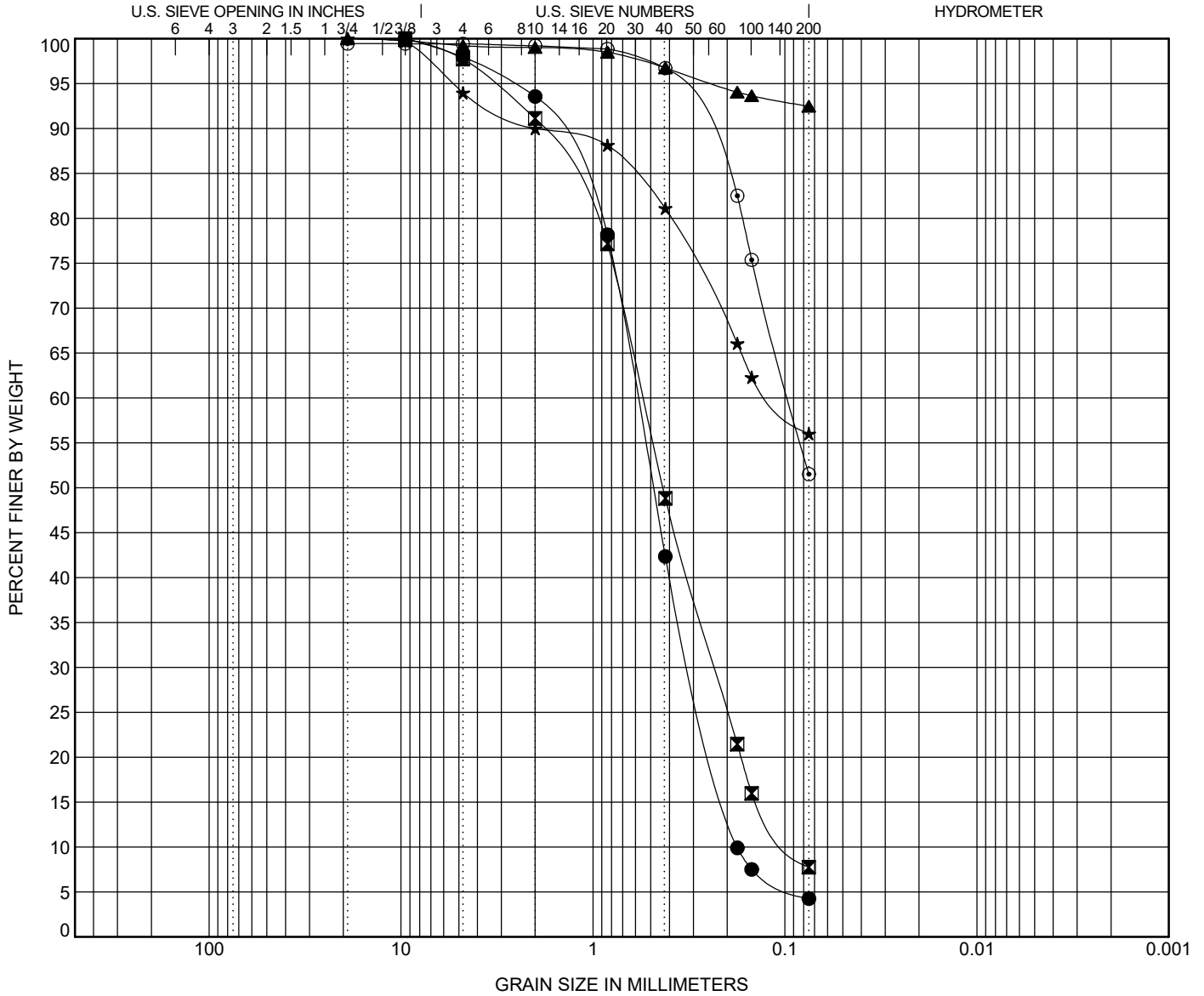


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-45	20.0	POORLY GRADED SAND (SP/A-1-b)			NP	NP	NP	0.87	3.33
☒	B-45	30.0	WELL-GRADED SAND with SILT (SW-SM/A-1-b)			NP	NP	NP	1.08	6.11
▲	B-45	35.0	FAT CLAY (CH/A-7-6)			52	28	24		
★	B-45	40.0	SANDY LEAN CLAY (CL/A-7-6)			41	20	21		
◎	B-45	45.0	SANDY SILT (ML/A-4)			NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-45	20.0	9.51	0.591	0.302	0.177	2.0	93.7	4.3
☒	B-45	30.0	9.51	0.552	0.232	0.09	2.3	90.0	7.8
▲	B-45	35.0	19				0.8	6.7	92.5
★	B-45	40.0	19	0.116			6.0	38.0	56.0
◎	B-45	45.0	19	0.096			0.0	47.9	51.5

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0193	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-45	B-45	B-45	B-45	B-45
SAMPLE NO.	SS-7	SS-9	SS-10	SS-11	SS-12
SAMPLE DEPTH (FT.)	18.5 - 20.0	28.5 - 30.0	33.5 - 35.0	38.5 - 40.0	43.5 - 45.0
WATER CONTENT, W%	19.0	21.7	43.0	22.6	33.6

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

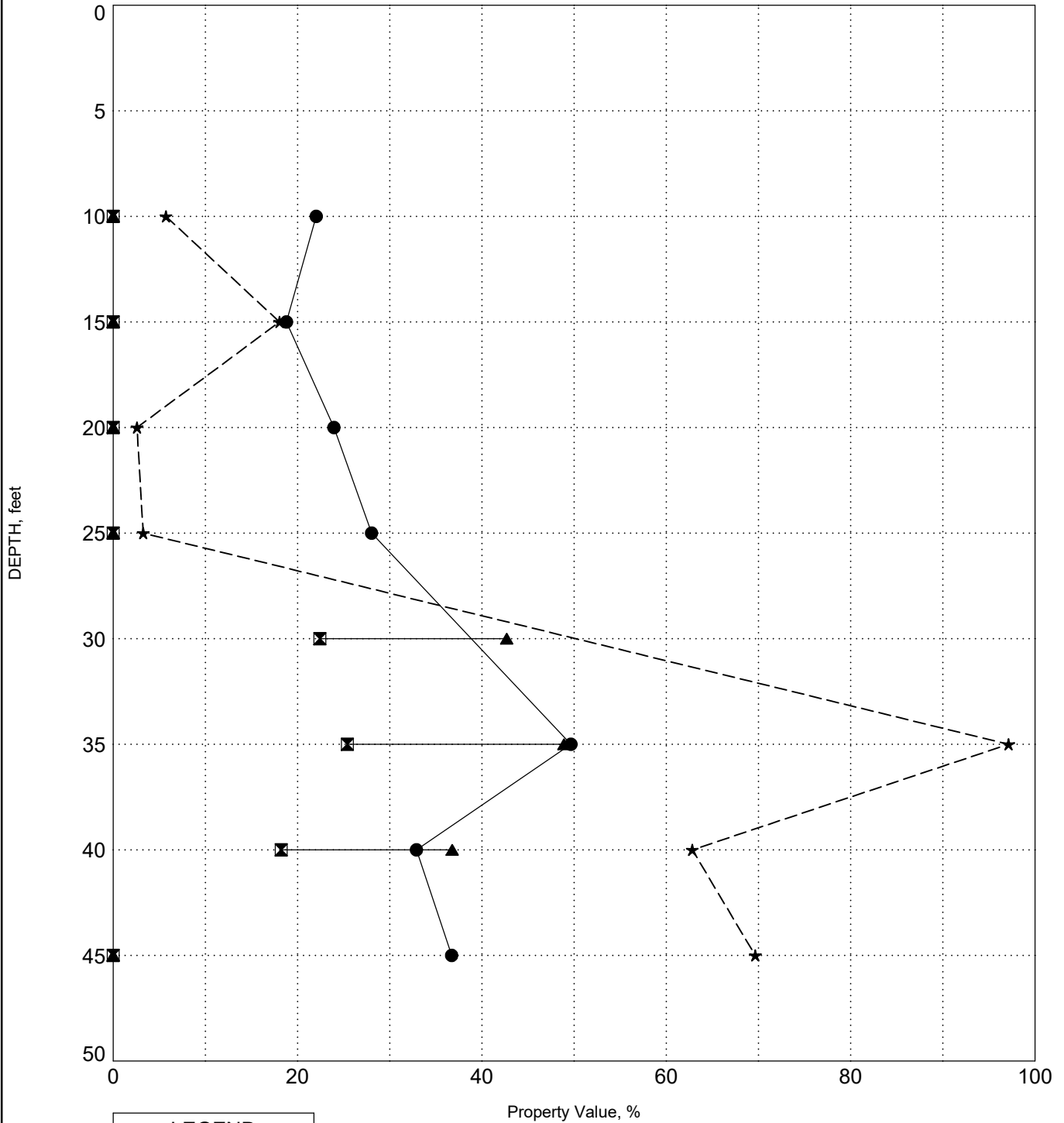
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 88.4

BORING B-46



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

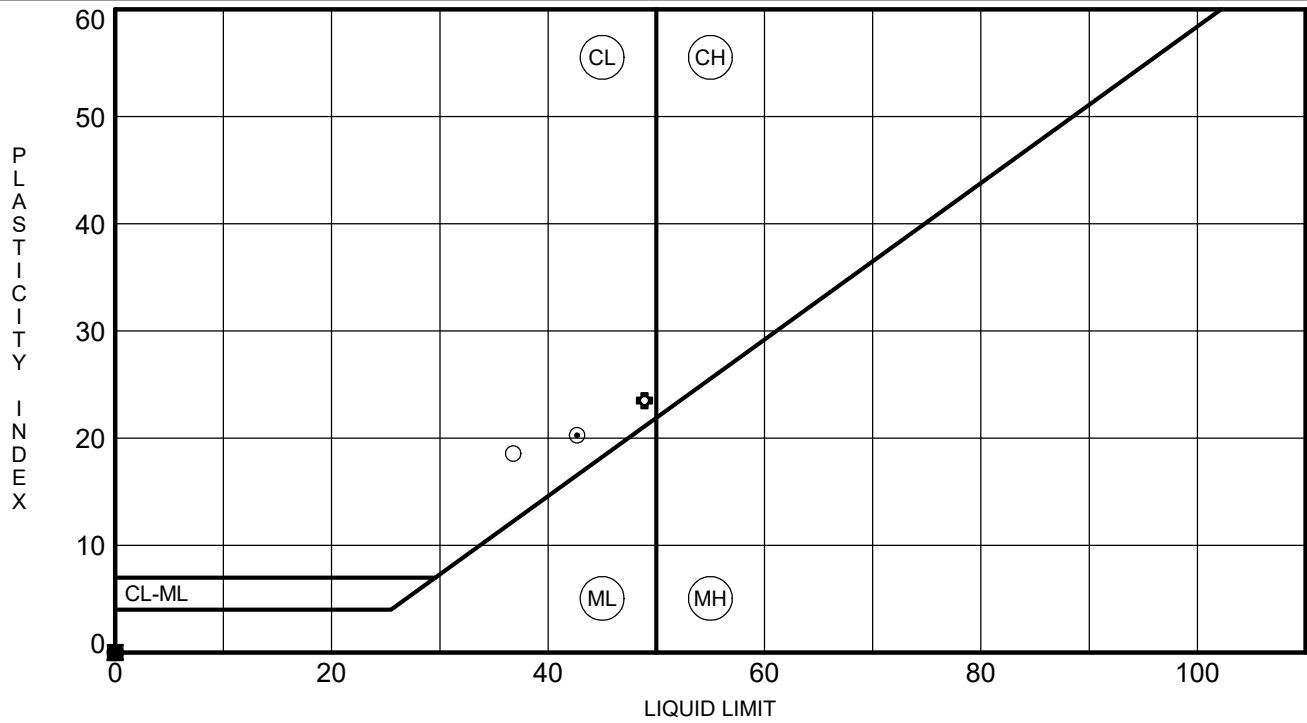


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-46	10.0	NP	NP	NP	6	POORLY GRADED SAND with SILT (SP-SM/A-3)
☒	B-46	15.0	NP	NP	NP	18	SILTY SAND (SM/A-2-4)
▲	B-46	20.0	NP	NP	NP	3	POORLY GRADED SAND (SP/A-3)
★	B-46	25.0	NP	NP	NP	3	POORLY GRADED SAND (SP/A-3)
⊙	B-46	30.0	43	22	21		LEAN CLAY (CL)
⊕	B-46	35.0	49	25	24	97	LEAN CLAY (CL/A-7-6)
○	B-46	40.0	37	18	19	63	SANDY LEAN CLAY (CL/A-6)
△	B-46	45.0	NP	NP	NP	70	SANDY SILT (ML/A-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

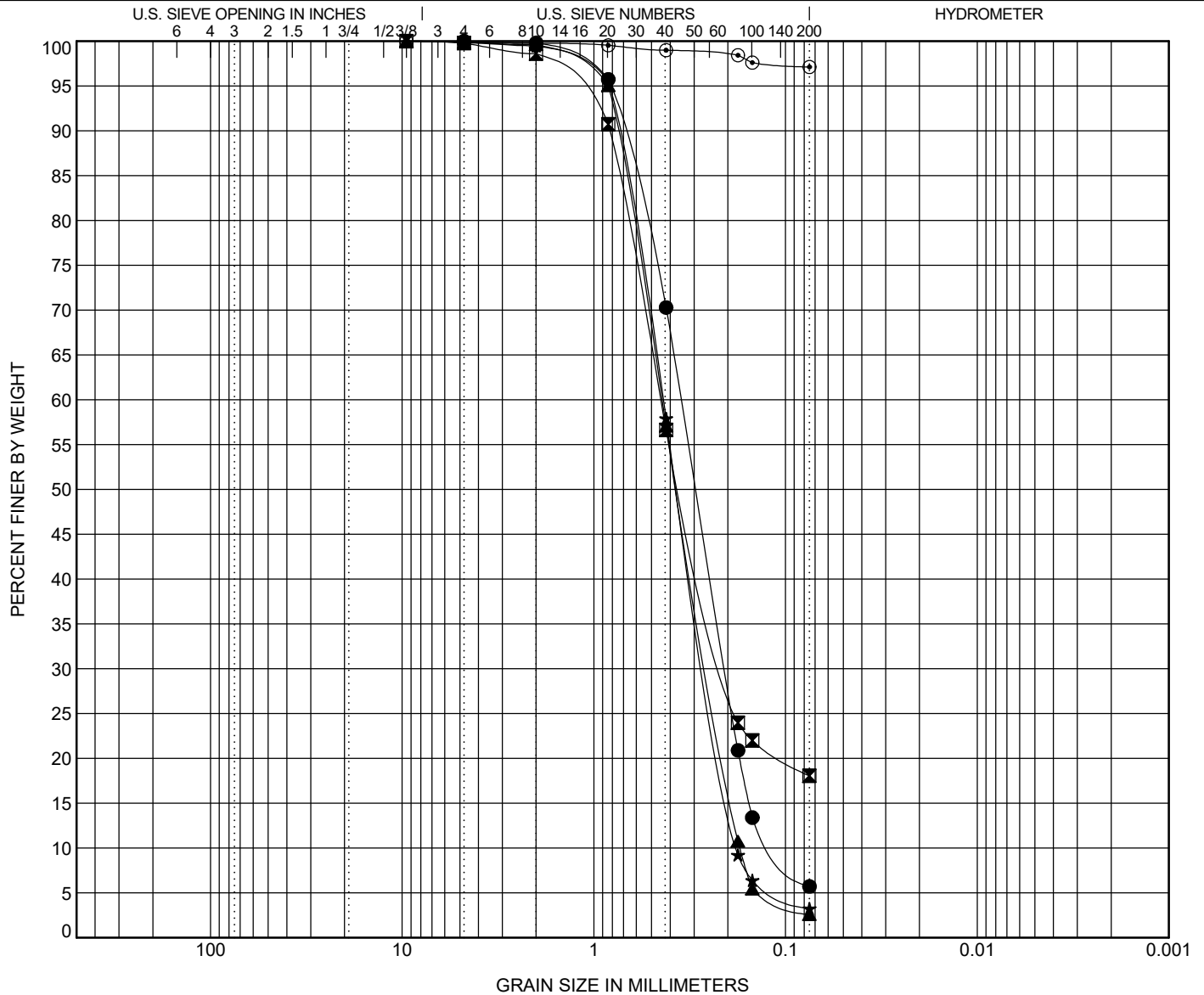


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-46	10.0	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	1.12	3.19
☒ B-46	15.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
▲ B-46	20.0	POORLY GRADED SAND (SP/A-3)					NP	NP	NP	0.84	2.57
★ B-46	25.0	POORLY GRADED SAND (SP/A-3)					NP	NP	NP	0.84	2.43
◎ B-46	35.0	LEAN CLAY (CL/A-7-6)					49	25	24		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-46	10.0	4.76	0.351	0.208	0.11	0.0	94.3		5.7		
☒ B-46	15.0	9.51	0.45	0.208		0.2	81.7		18.0		
▲ B-46	20.0	9.51	0.443	0.254	0.173	0.2	97.2		2.6		
★ B-46	25.0	4.76	0.436	0.256	0.179	0.0	96.8		3.2		
◎ B-46	35.0	9.51				0.1	2.7		97.1		

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

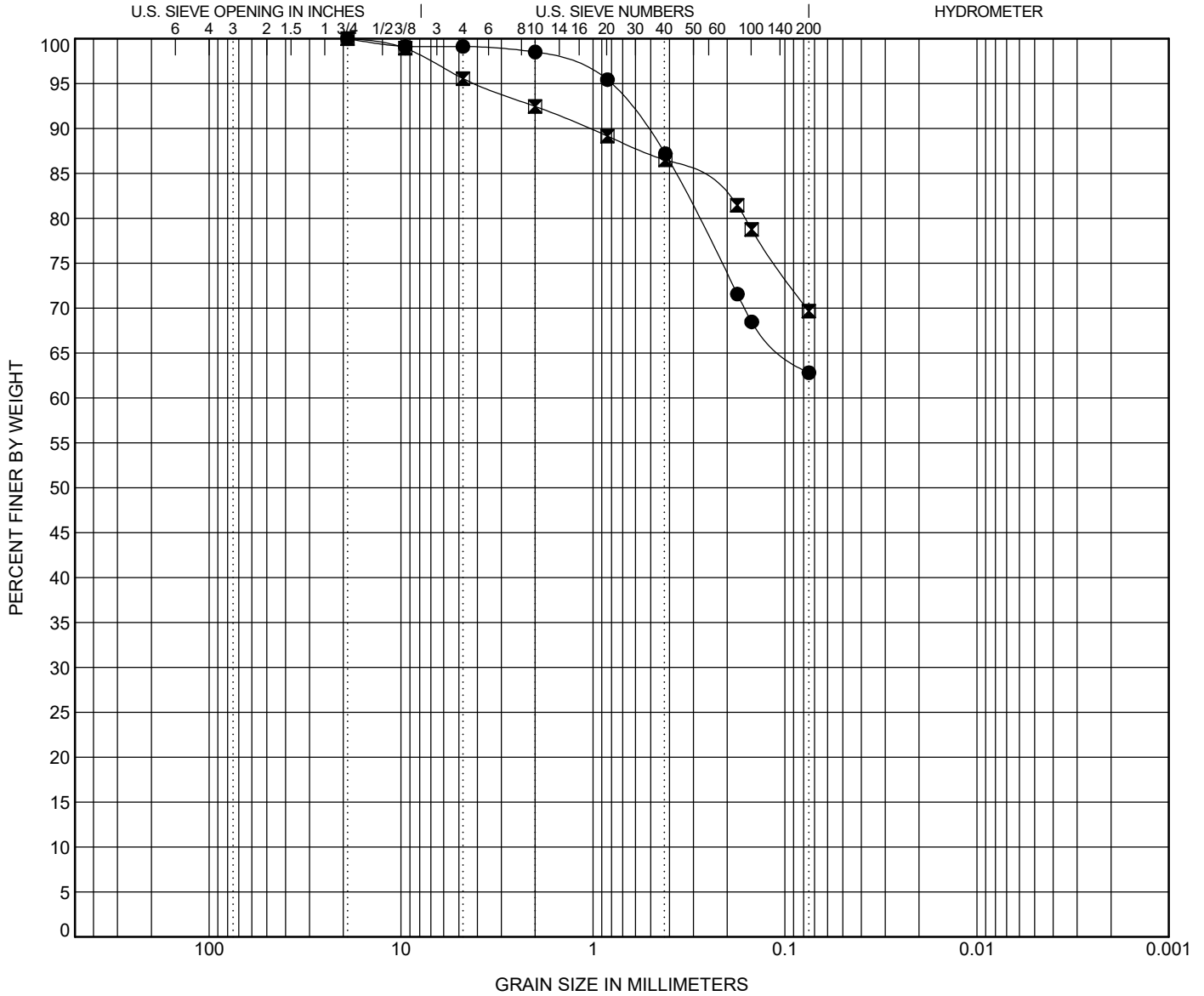


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-46	40.0	SANDY LEAN CLAY (CL/A-6)	37	18	19		
■ B-46	45.0	SANDY SILT (ML/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-46	40.0	19				0.9	36.3		62.8
■ B-46	45.0	19				4.4	25.9		69.7

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0311	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-46	B-46	B-46	B-46	B-46
SAMPLE NO.	SS-5	SS-6	SS-7	SS-8	SS-10
SAMPLE DEPTH (FT.)	8.0 - 10.0	13.5 - 15.0	18.5 - 20.0	23.5 - 25.0	33.5 - 35.0
WATER CONTENT, W%	22.0	18.8	23.9	28.0	49.7

BORING NO.	B-46	B-46			
SAMPLE NO.	SS-11	SS-12			
SAMPLE DEPTH (FT.)	38.5 - 40.0	43.5 - 45.0			
WATER CONTENT, W%	32.9	36.7			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

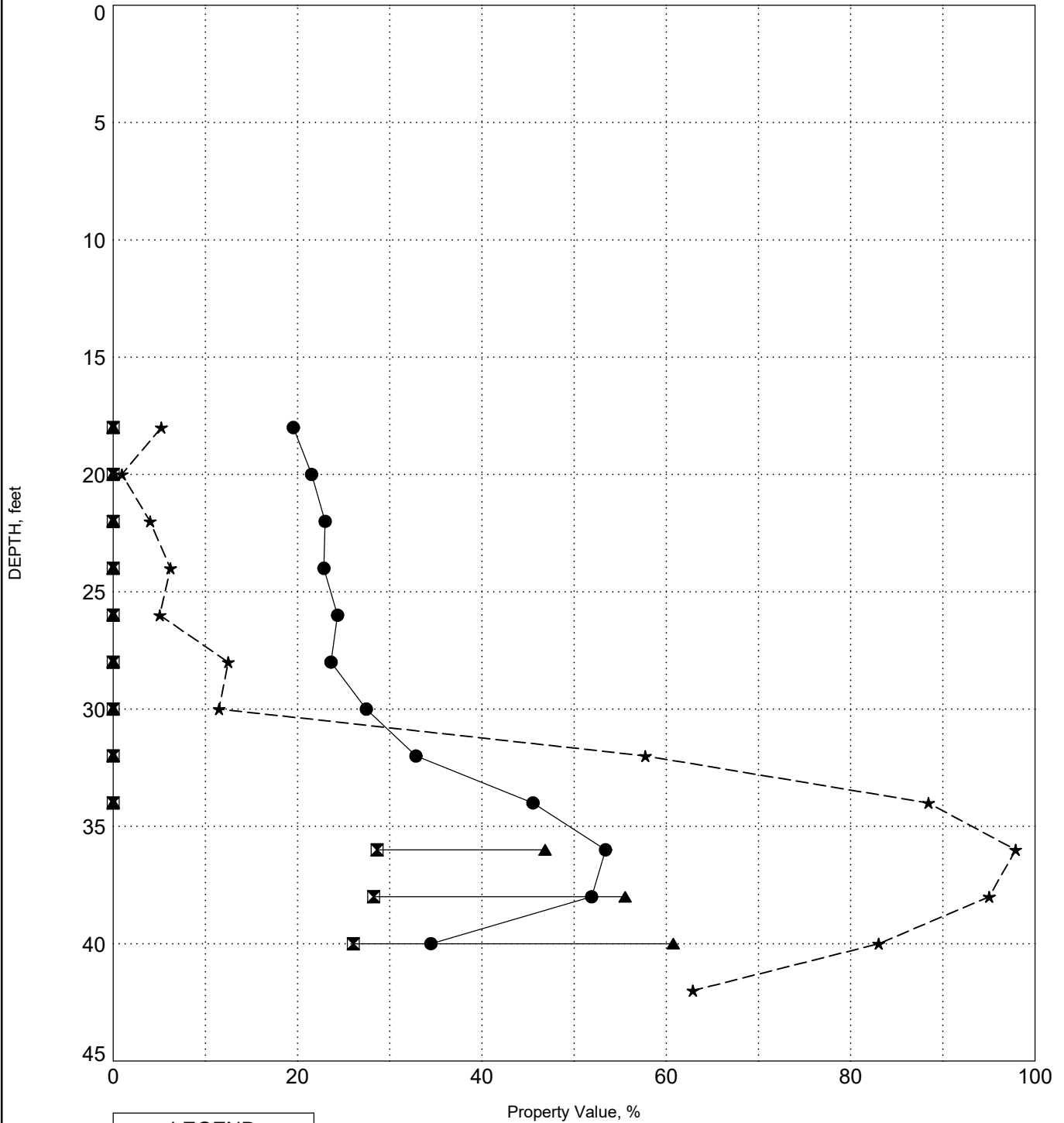
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 89.4

BORING B-47



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

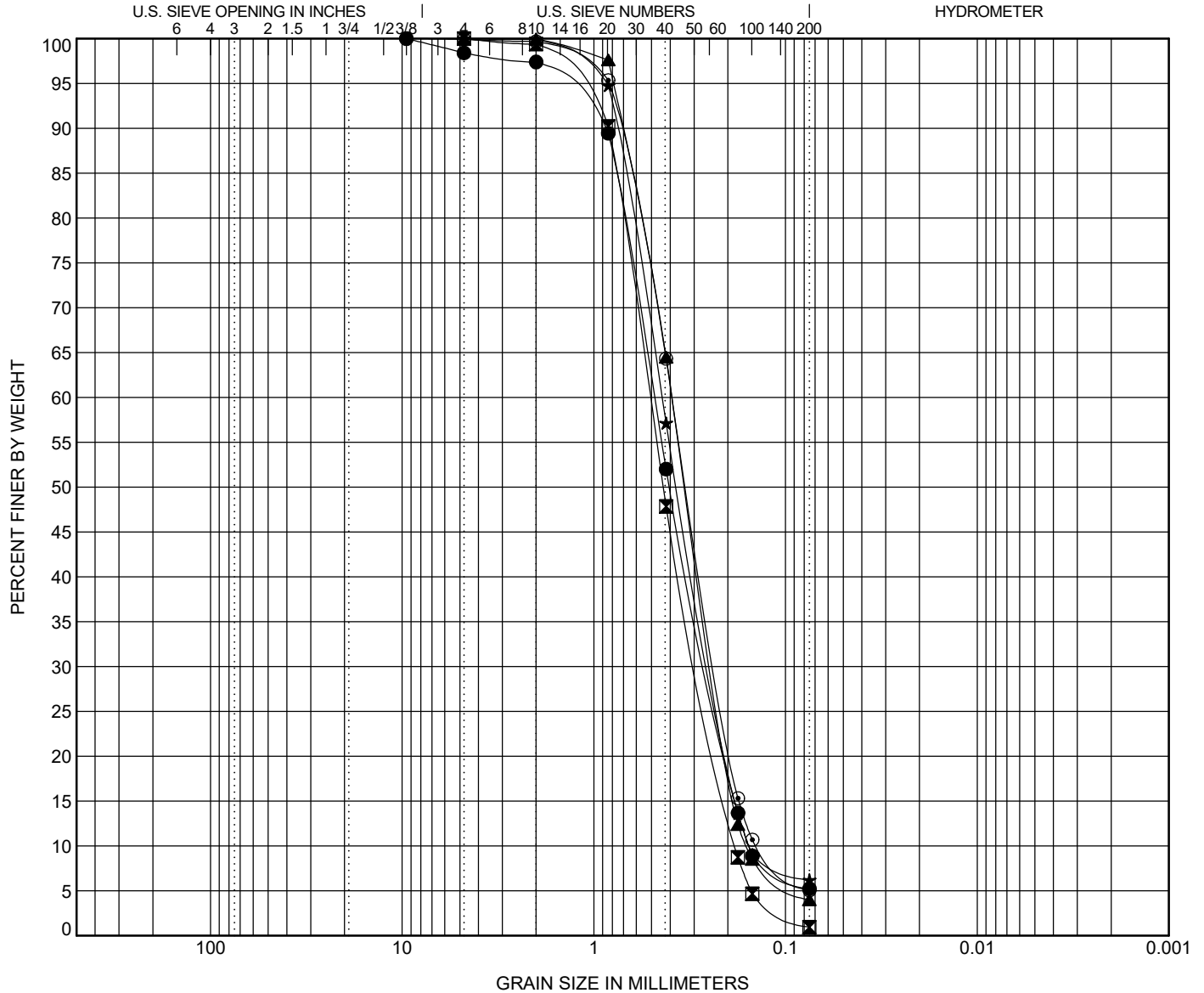


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-47	18.0	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	0.87	3.14
☒ B-47	20.0	POORLY GRADED SAND (SP/A-1-b)					NP	NP	NP	0.86	2.81
▲ B-47	22.0	POORLY GRADED SAND (SP/A-3)					NP	NP	NP	0.91	2.45
★ B-47	24.0	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	0.88	2.87
◎ B-47	26.0	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	0.99	2.84
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-47	18.0	9.51	0.487	0.256	0.155	1.6	93.2	5.2			
☒ B-47	20.0	4.76	0.513	0.283	0.182	0.0	99.1	0.9			
▲ B-47	22.0	4.76	0.39	0.237	0.159	0.0	96.0	4.0			
★ B-47	24.0	4.76	0.443	0.245	0.154	0.0	93.8	6.2			
◎ B-47	26.0	9.51	0.389	0.229	0.137	0.1	94.8	5.1			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

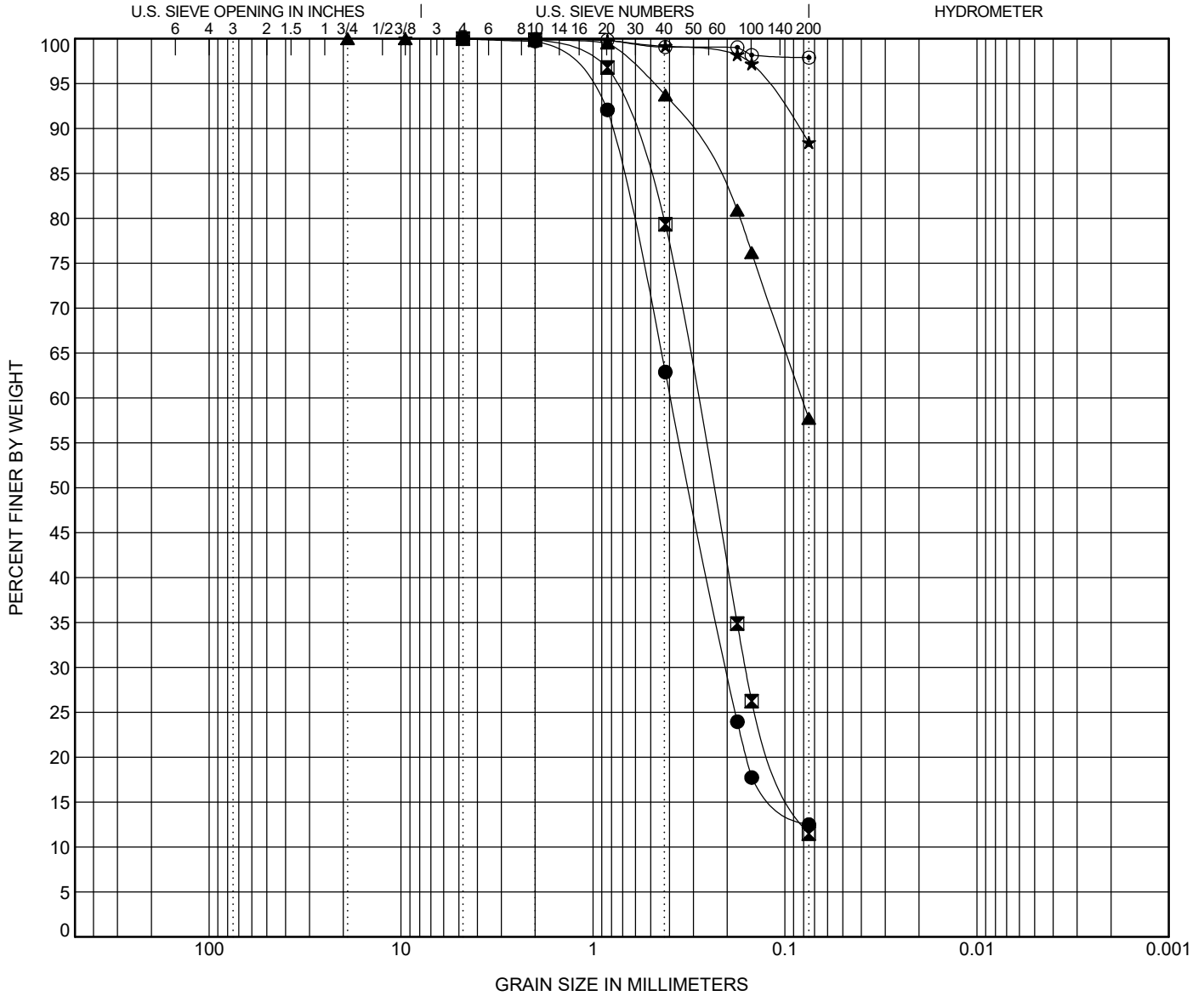


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-47	28.0	SILTY SAND (SM/A-2-4)			NP	NP	NP	1.92	7.27
☒	B-47	30.0	POORLY GRADED SAND with SILT (SP-SM/A-2-4)			NP	NP	NP	1.28	4.12
▲	B-47	32.0	SANDY SILT (ML/A-4)			NP	NP	NP		
★	B-47	34.0	SILT (ML/A-4)			NP	NP	NP		
◎	B-47	36.0	SILT (ML/A-7-6)			47	29	18		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-47	28.0	4.76	0.394	0.202	0.0	87.5		12.5
☒	B-47	30.0	4.76	0.288	0.161	0.0	88.5		11.5
▲	B-47	32.0	19	0.082		0.0	42.2		57.7
★	B-47	34.0	9.51			0.0	11.5		88.4
◎	B-47	36.0	4.76			0.0	2.1		97.9

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

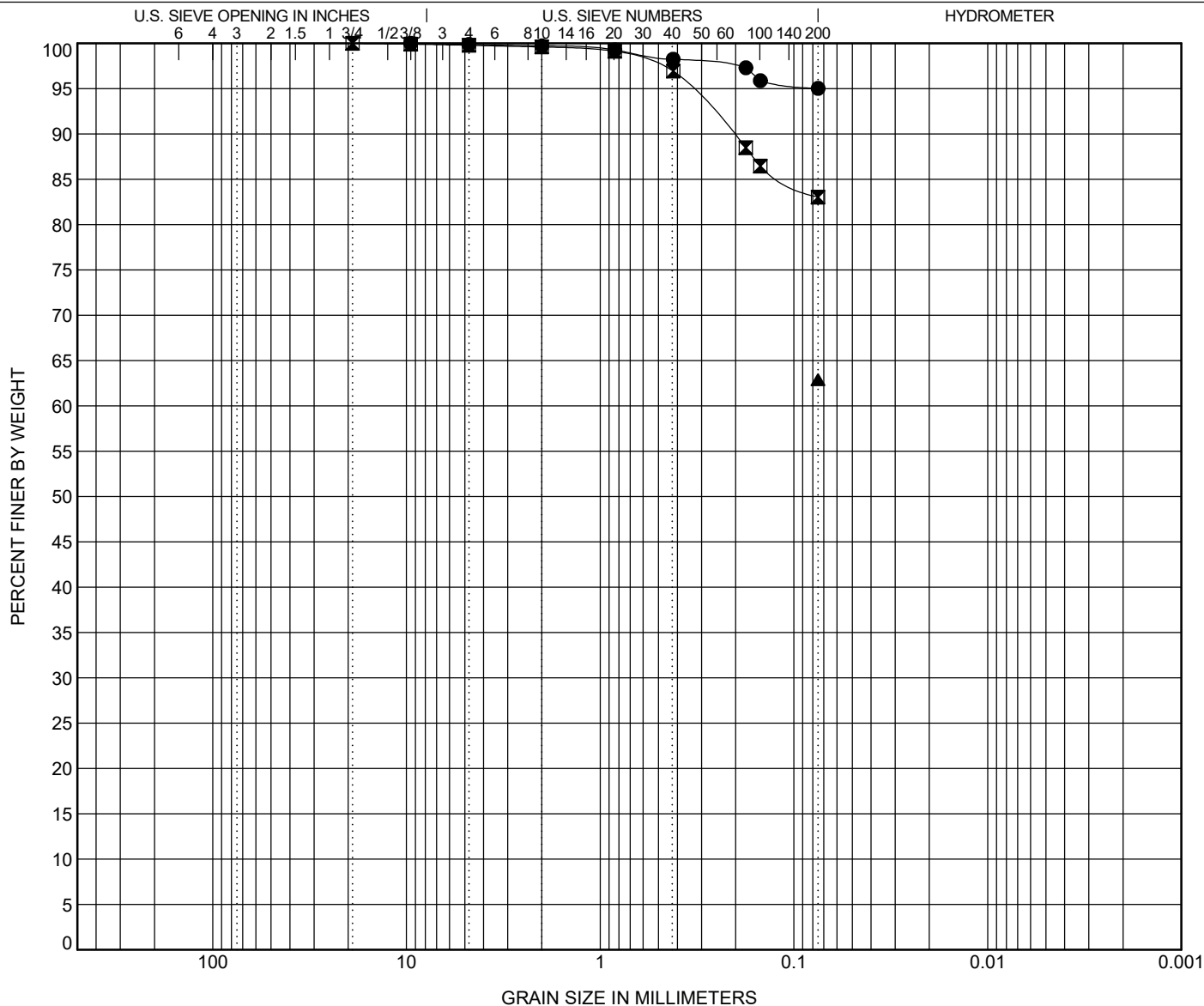


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-47	38.0	FAT CLAY (CH/A-7-6)					56	28	28		
■ B-47	40.0	FAT CLAY with SAND (CH/A-7-6)					61	26	35		
▲ B-47	42.0	POORLY GRADED SAND with CLAY (SP-SC)									
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-47	38.0	9.51				0.1	4.9	95.0			
■ B-47	40.0	19				0.2	16.7	83.0			
▲ B-47	42.0	0.075						62.9			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0312	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-47	B-47	B-47	B-47	B-47
SAMPLE NO.	SS-9	SS-10	SS-11	SS-12	SS-13
SAMPLE DEPTH (FT.)	16.0 - 18.0	18.0 - 20.0	20.0 - 22.0	22.0 - 24.0	24.0 - 26.0
WATER CONTENT, W%	19.5	21.5	23.0	22.9	24.3

BORING NO.	B-47	B-47	B-47	B-47	B-47
SAMPLE NO.	SS-14	SS-15	SS-16	SS-17	SS-18
SAMPLE DEPTH (FT.)	26.0 - 28.0	28.0 - 30.0	30.0 - 32.0	32.0 - 34.0	34.0 - 36.0
WATER CONTENT, W%	23.6	27.5	32.8	45.5	53.4

BORING NO.	B-47	B-47			
SAMPLE NO.	SS-19	SS-20			
SAMPLE DEPTH (FT.)	36.0 - 38.0	38.0 - 40.0			
WATER CONTENT, W%	51.9	34.5			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

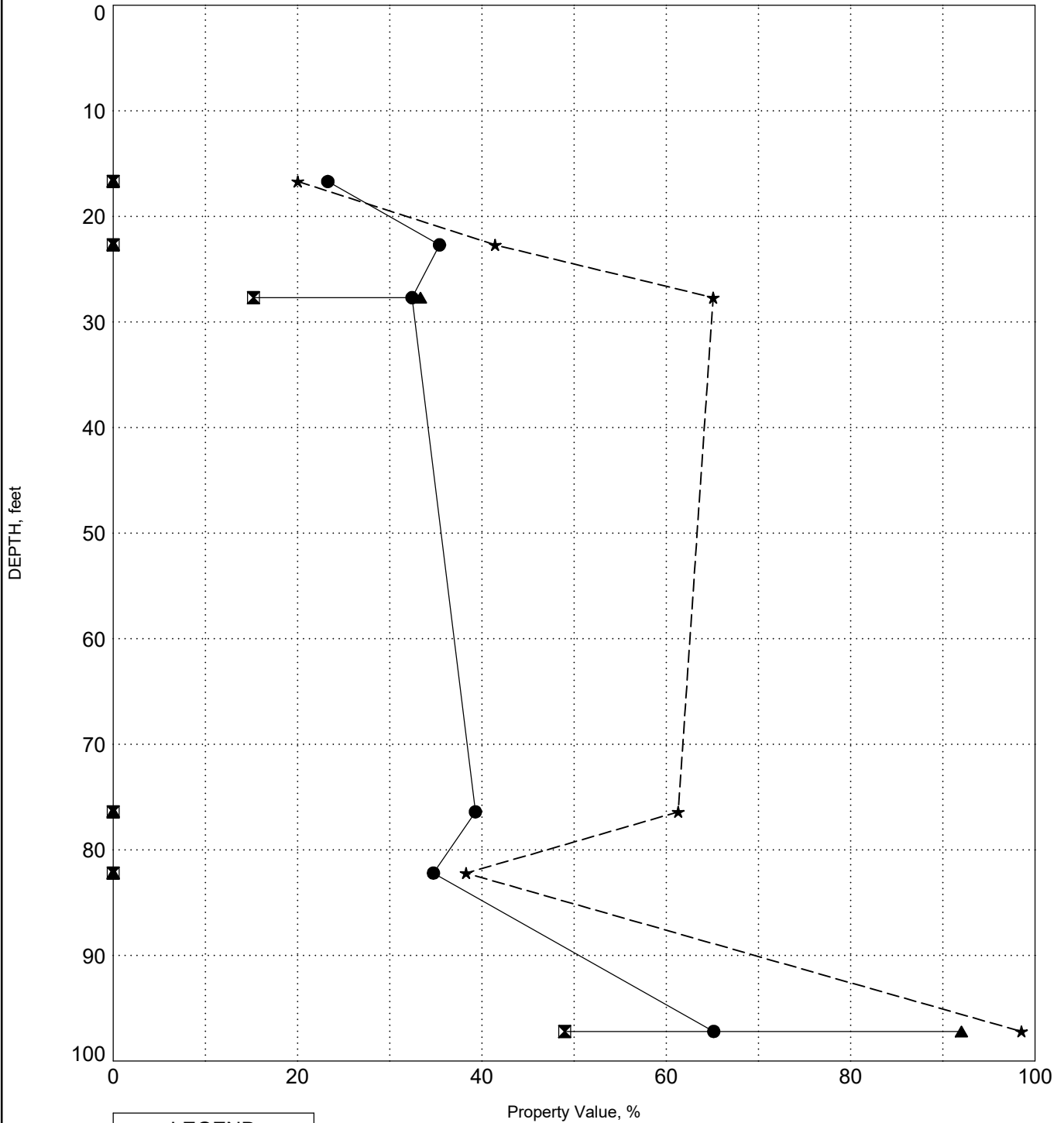
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 78.5

BORING B-48



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

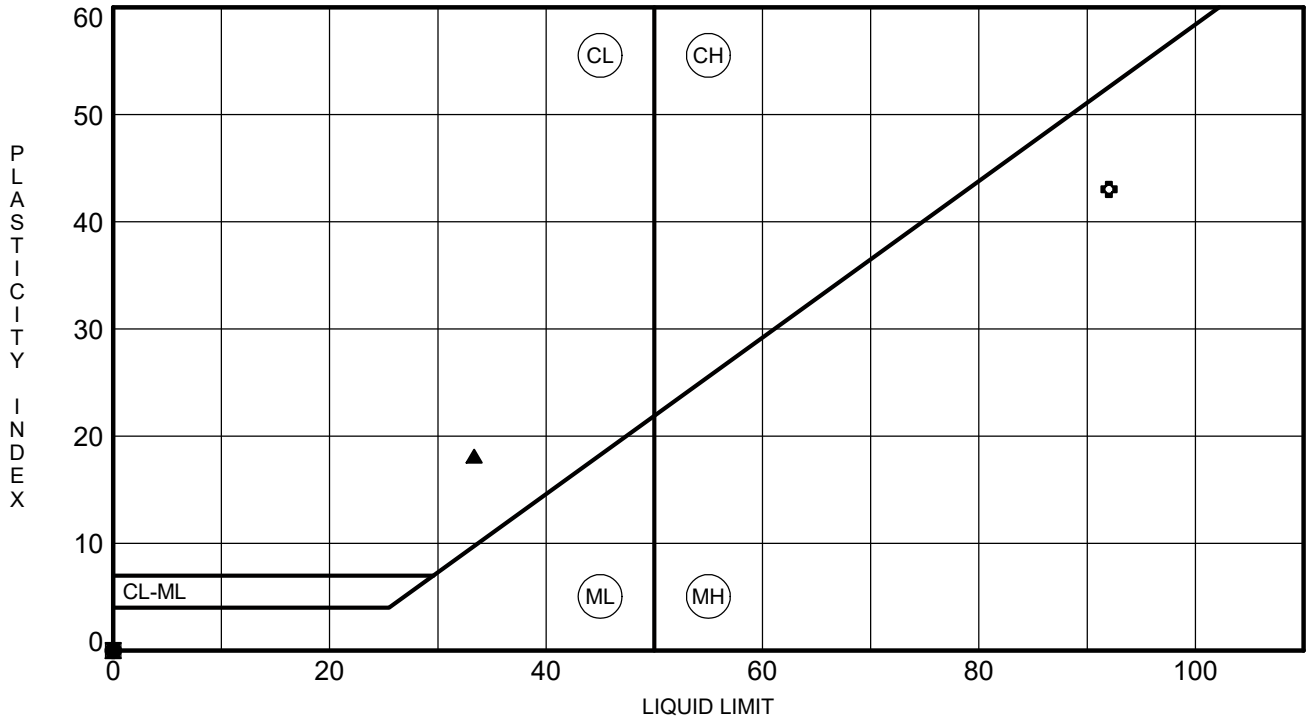


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-48	16.7	NP	NP	NP	20	SILTY SAND (SM/A-2-4)
⊠	B-48	22.7	NP	NP	NP	41	SILTY SAND (SM/A-4)
▲	B-48	27.7	33	15	18	65	SANDY LEAN CLAY (CL/A-6)
★	B-48	76.4	NP	NP	NP	61	SANDY SILT (ML/A-4)
⊙	B-48	82.2	NP	NP	NP	38	SILTY SAND (SM/A-4)
⊕	B-48	97.2	92	49	43	99	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

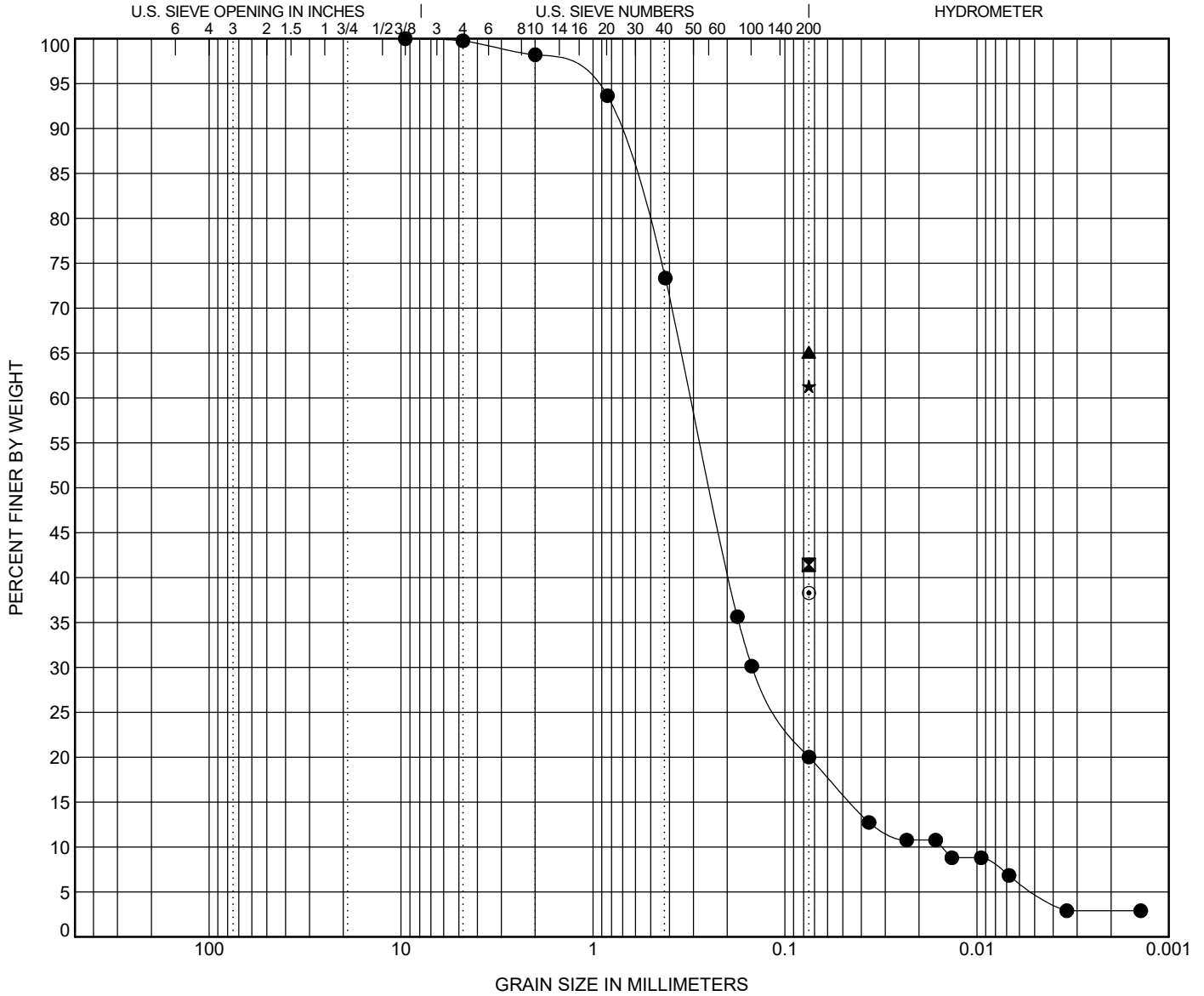


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-48	16.7	SILTY SAND (SM/A-2-4)	NP	NP	NP	4.63	20.36
▣ B-48	22.7	SILTY SAND (SM/A-4)	NP	NP	NP		
▲ B-48	27.7	SANDY LEAN CLAY (CL/A-6)	33	15	18		
★ B-48	76.4	SANDY SILT (ML/A-4)	NP	NP	NP		
◎ B-48	82.2	SILTY SAND (SM/A-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-48	16.7	9.51	0.309	0.148	0.015	0.2	79.7	14.9	5.1
▣ B-48	22.7	0.075						41.4	
▲ B-48	27.7	0.075						65.1	
★ B-48	76.4	0.075						61.3	
◎ B-48	82.2	0.075						38.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

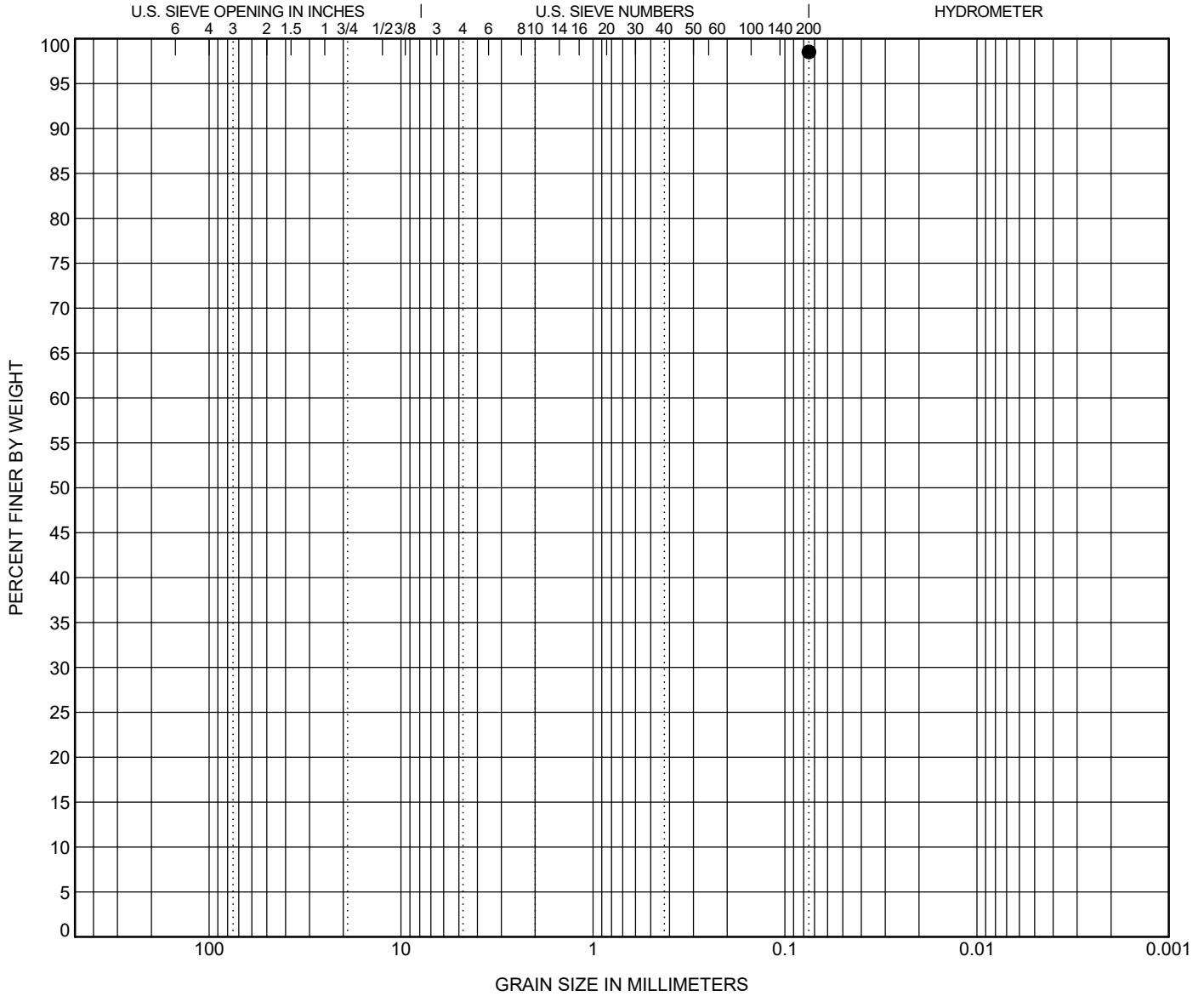


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-48	97.2	ELASTIC SILT (MH/A-7-5)					92	49	43		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-48	97.2	0.075						98.5			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0567	DATE SAMPLE RECEIVED:	3/2/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/2/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/3/2023

BORING NO.	B-48	B-48	B-48	B-48	B-48
SAMPLE NO.	SS-2	SS-5	SS-6	NQ-9	SS-9
SAMPLE DEPTH (FT.)	14.7 - 16.7	20.7 - 22.7	26.2 - 27.7	71.4 - 76.4	80.7 - 82.2
WATER CONTENT, W%	23.3	35.4	32.4	39.3	34.7

BORING NO.	B-48				
SAMPLE NO.	SS-12				
SAMPLE DEPTH (FT.)	95.7 - 97.2				
WATER CONTENT, W%	65.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

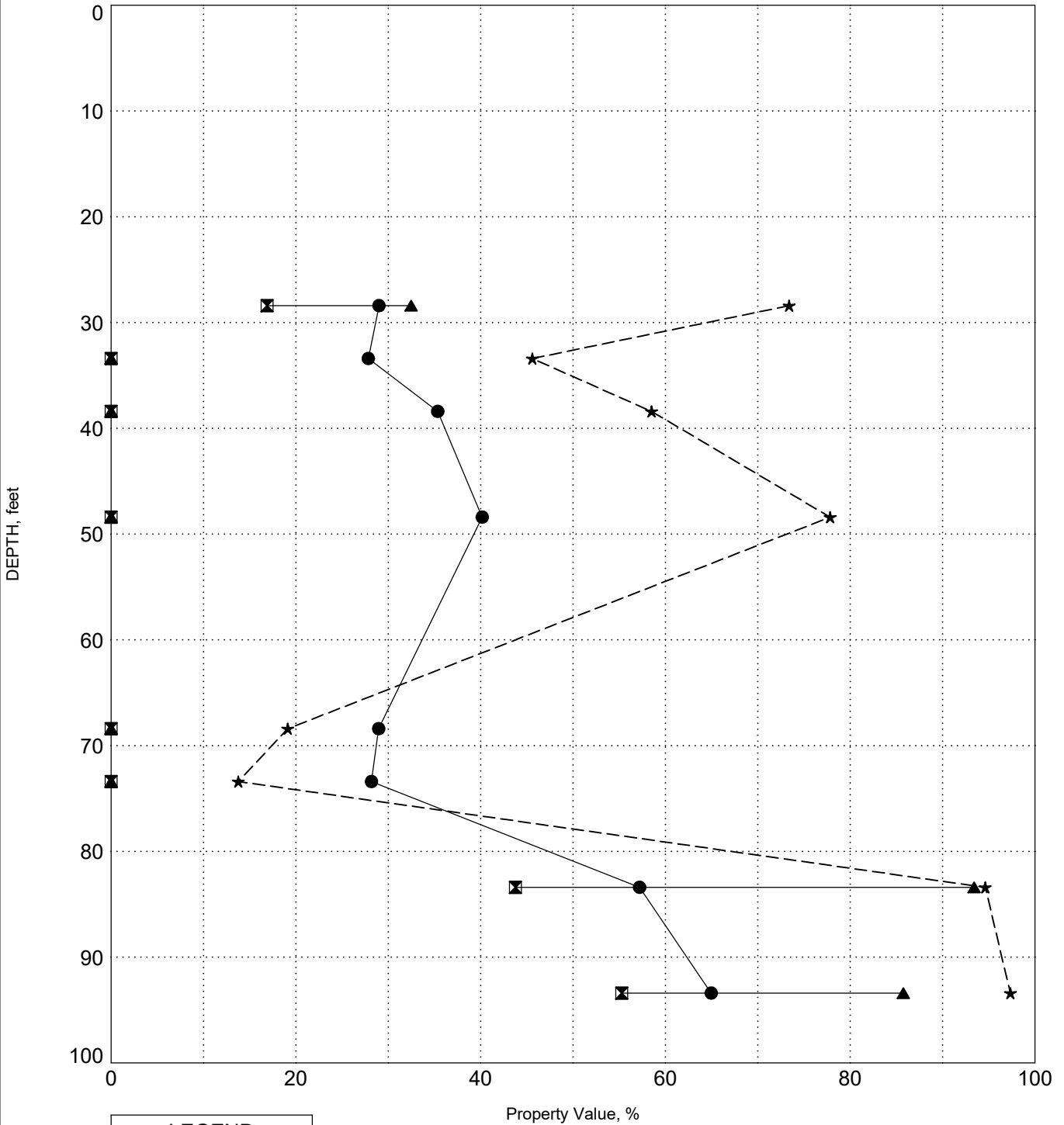
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.9

BORING B-49



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

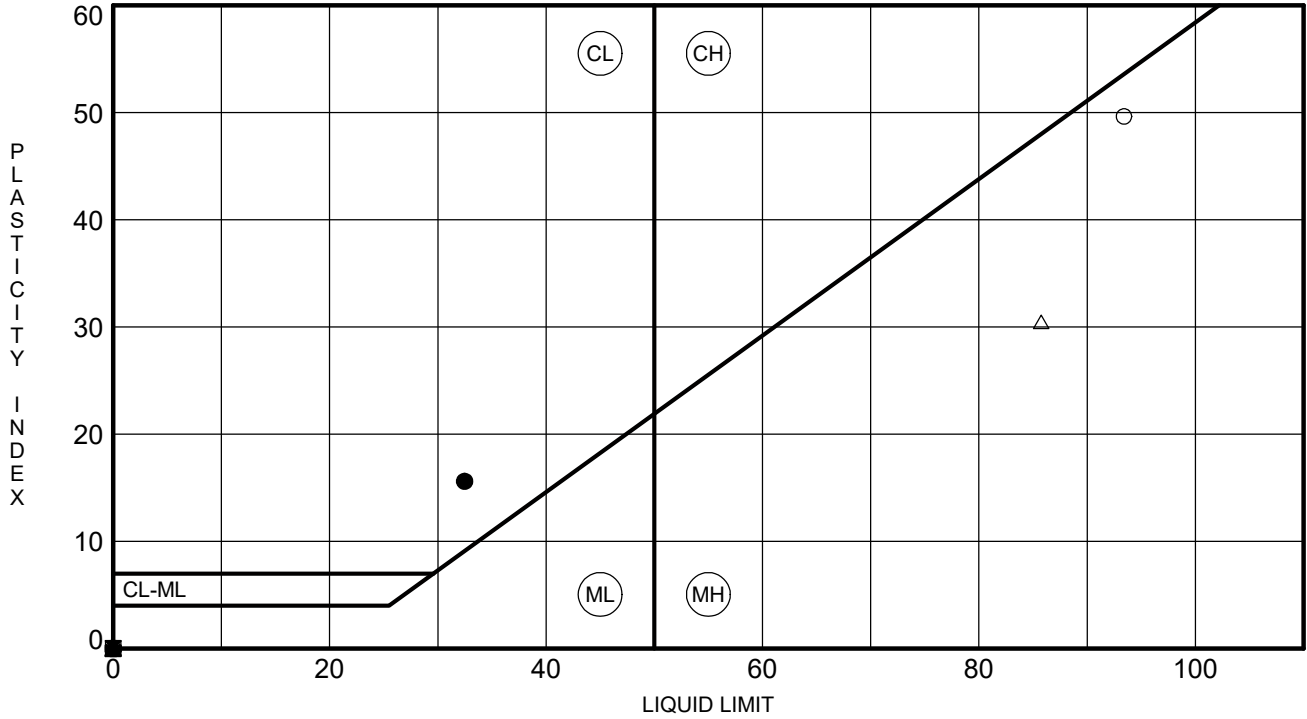


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-49	28.4	32	17	15	73	LEAN CLAY with SAND (CL/A-6)
☒	B-49	33.4	NP	NP	NP	46	SILTY SAND (SM/A-4)
▲	B-49	38.4	NP	NP	NP	59	SANDY SILT (ML/A-4)
★	B-49	48.4	NP	NP	NP	78	SILT with SAND (ML/A-4)
⊙	B-49	68.4	NP	NP	NP	19	SILTY SAND (SM/A-2-4)
⊕	B-49	73.4	NP	NP	NP	14	SILTY SAND (SM/A-2-4)
○	B-49	83.4	93	44	49	95	ELASTIC SILT (MH/A-7-5)
△	B-49	93.4	86	55	31	97	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

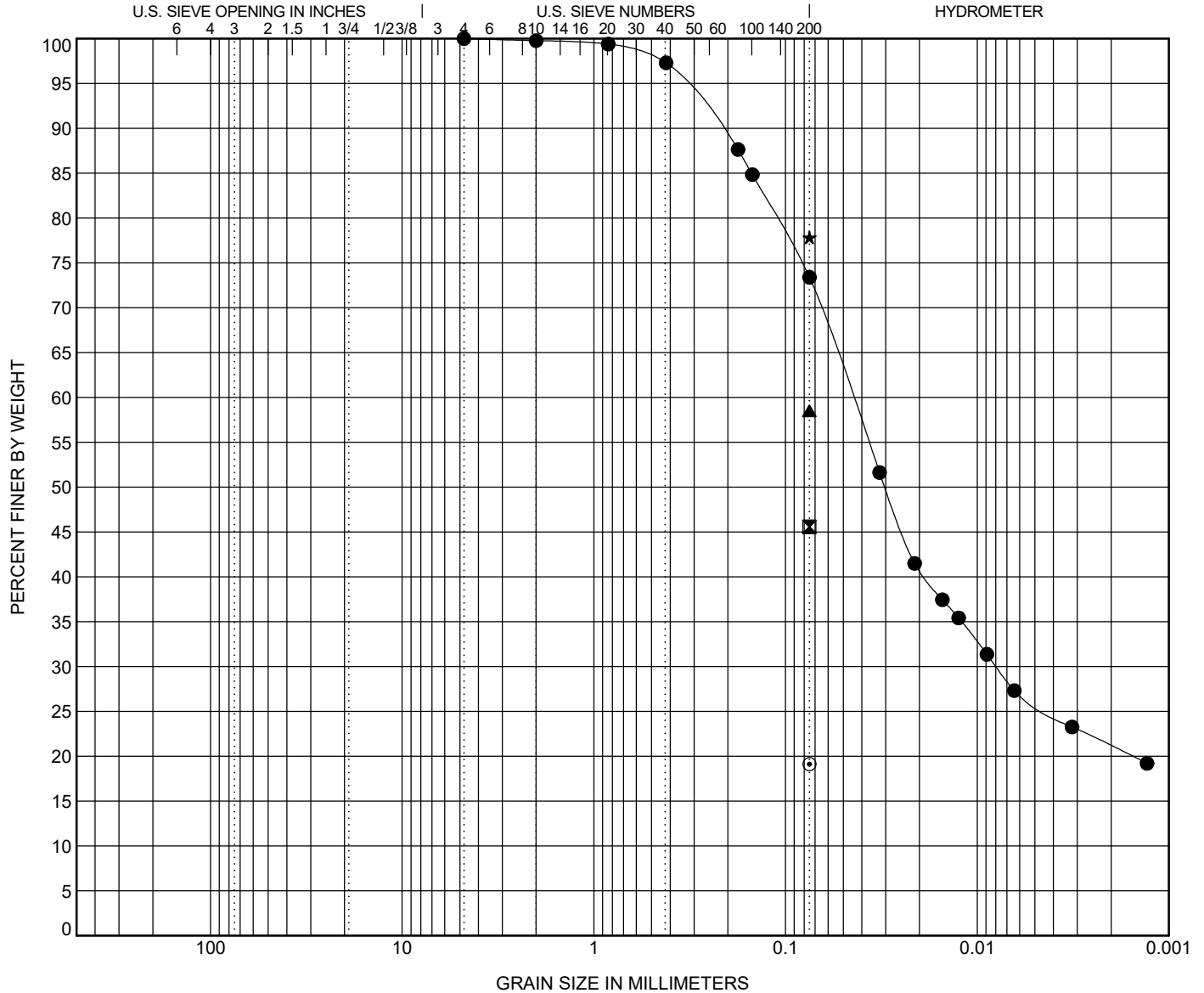


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-49	28.4	LEAN CLAY with SAND (CL/A-6)	32	17	15		
☒ B-49	33.4	SILTY SAND (SM/A-4)	NP	NP	NP		
▲ B-49	38.4	SANDY SILT (ML/A-4)	NP	NP	NP		
★ B-49	48.4	SILT with SAND (ML/A-4)	NP	NP	NP		
◎ B-49	68.4	SILTY SAND (SM/A-2-4)	NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-49	28.4	4.76	0.045	0.008		0.0	26.6	47.5	25.9
☒ B-49	33.4	0.075						45.6	
▲ B-49	38.4	0.075						58.5	
★ B-49	48.4	0.075						77.8	
◎ B-49	68.4	0.075						19.1	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

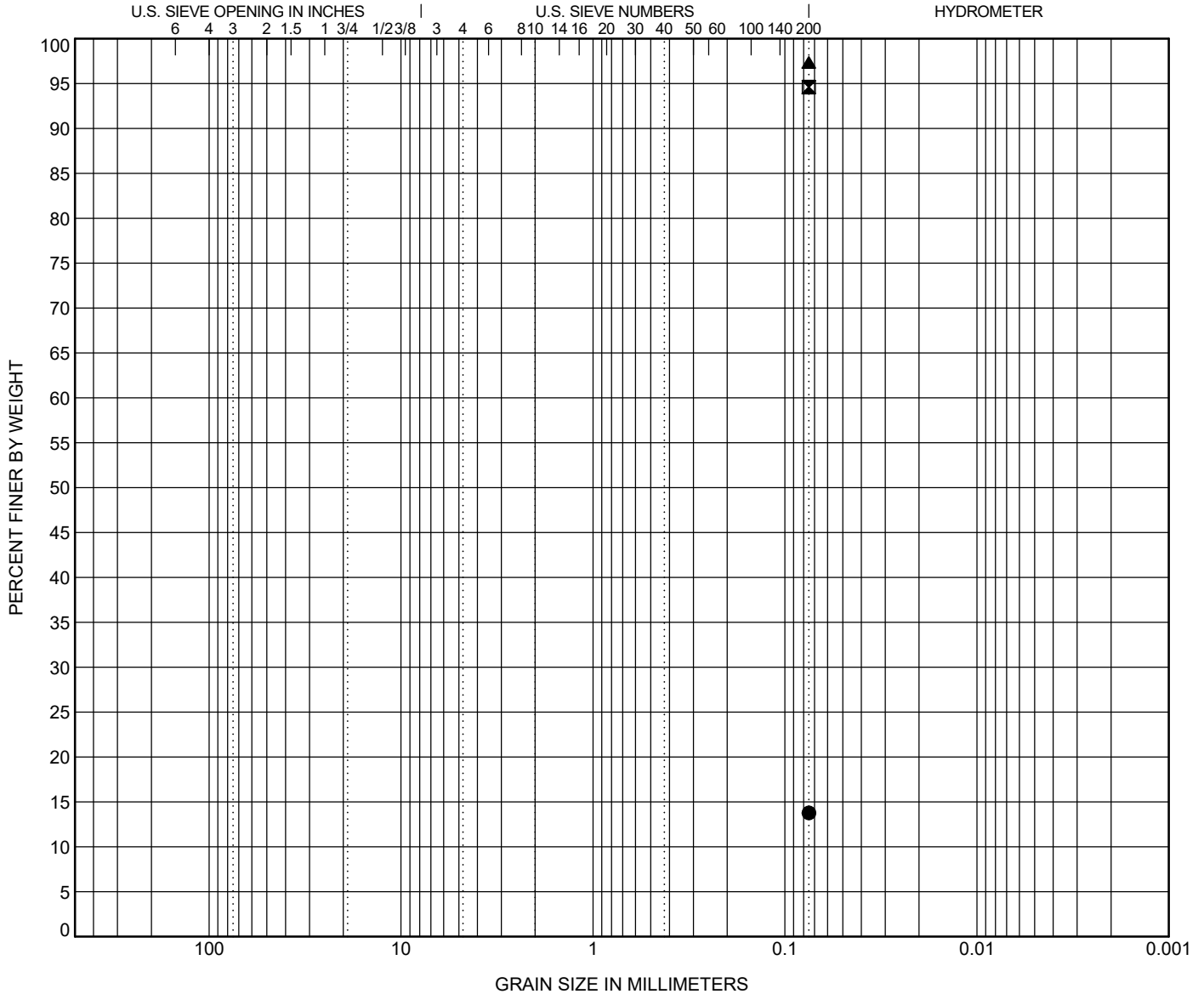


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-49	73.4	SILTY SAND (SM/A-2-4)	NP	NP	NP		
☒ B-49	83.4	ELASTIC SILT (MH/A-7-5)	93	44	49		
▲ B-49	93.4	ELASTIC SILT (MH/A-7-5)	86	55	31		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-49	73.4	0.075							13.8
☒ B-49	83.4	0.075							94.6
▲ B-49	93.4	0.075							97.3

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/24/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0617	DATE SAMPLE RECEIVED:	3/8/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	MW & DH	DATE SETUP:	3/9/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/10/2023

BORING NO.	B-49	B-49	B-49	B-49	B-49
SAMPLE NO.	SS-5	SS-6	SS-7	SS-9	SS-13
SAMPLE DEPTH (FT.)	26.4 - 28.4	31.9 - 33.4	36.1 - 38.4	46.9 - 48.4	66.9 - 68.4
WATER CONTENT, W%	29.0	27.8	35.4	40.2	29.0

BORING NO.	B-49	B-49	B-49		
SAMPLE NO.	SS-14	SS-16	SS-18		
SAMPLE DEPTH (FT.)	71.9 - 73.4	81.9 - 83.4	91.9 - 93.4		
WATER CONTENT, W%	28.2	57.2	65.0		

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

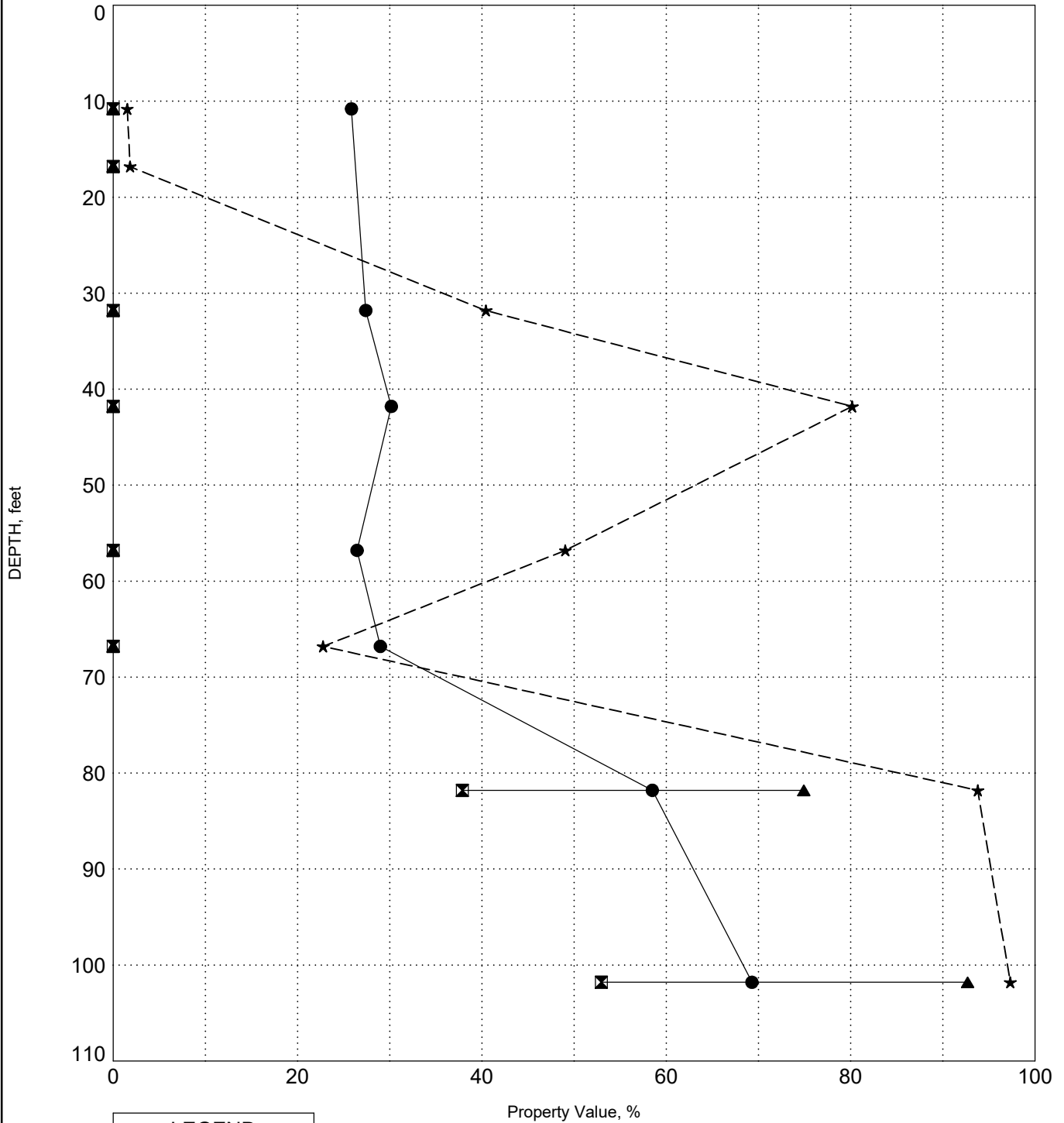
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 77.6

BORING B-50



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

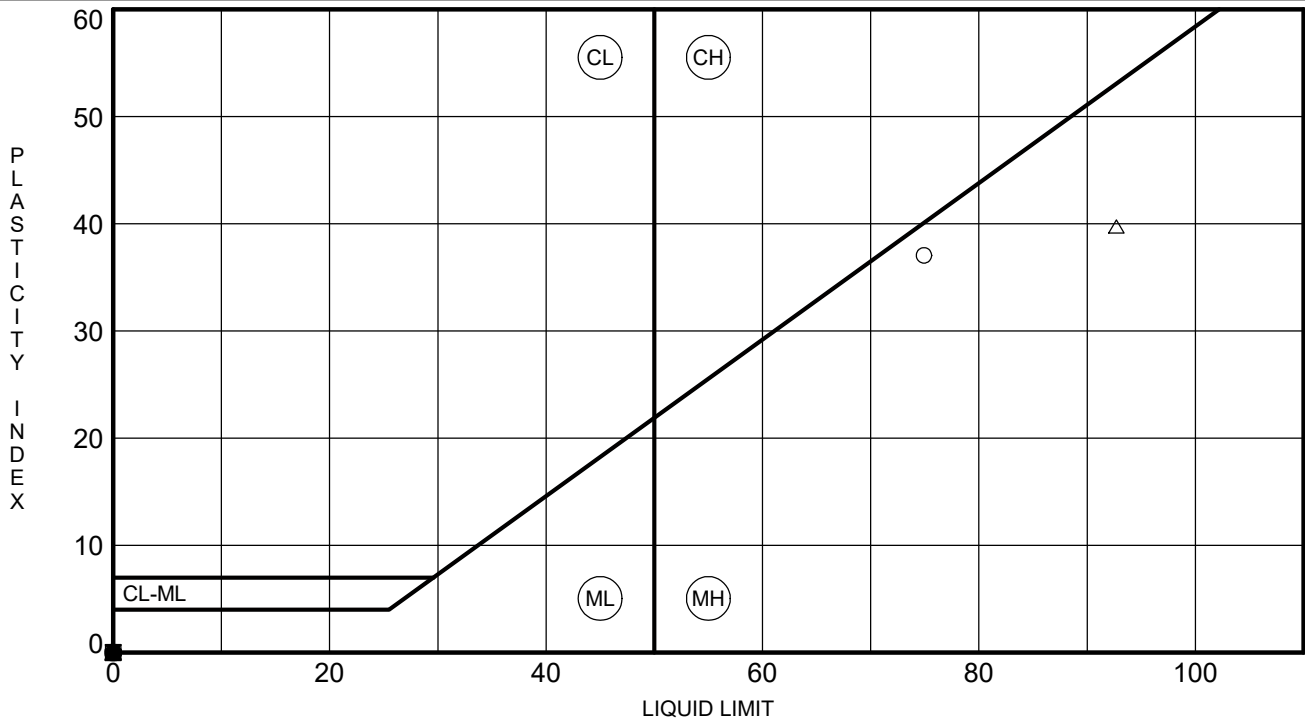


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-50	10.8	NP	NP	NP	2	POORLY GRADED SAND (SP/A-3)
■	B-50	16.8	NP	NP	NP	2	POORLY GRADED SAND (SP/A-1-b)
▲	B-50	31.8	NP	NP	NP	40	SILTY SAND (SM/A-4)
★	B-50	41.8	NP	NP	NP	80	SILT with SAND (ML/A-4)
⊙	B-50	56.8	NP	NP	NP	49	SILTY SAND (SM/A-4)
⊕	B-50	66.8	NP	NP	NP	23	SILTY SAND (SM/A-2-4)
○	B-50	81.8	75	38	37	94	ELASTIC SILT (MH/A-7-5)
△	B-50	101.8	93	53	40	97	ELASTIC SILT (MH/A-7-5)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

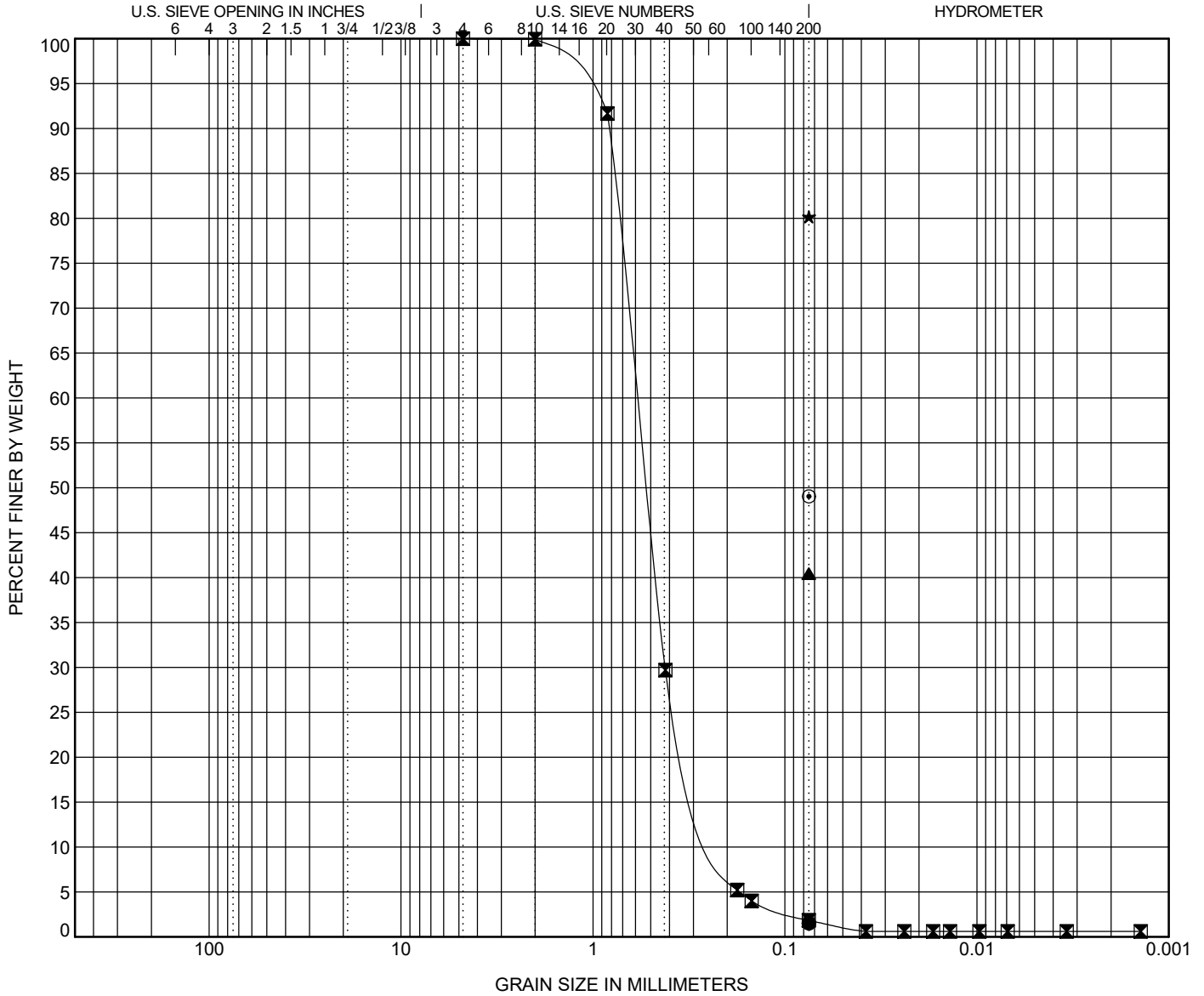


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-50	10.8	POORLY GRADED SAND (SP/A-3)					NP	NP	NP		
☒ B-50	16.8	POORLY GRADED SAND (SP/A-1-b)					NP	NP	NP	1.44	2.81
▲ B-50	31.8	SILTY SAND (SM/A-4)					NP	NP	NP		
★ B-50	41.8	SILT with SAND (ML/A-4)					NP	NP	NP		
◎ B-50	56.8	SILTY SAND (SM/A-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-50	10.8	0.075							1.5		
☒ B-50	16.8	4.76	0.59	0.421	0.21	0.0	98.2	1.2	0.6		
▲ B-50	31.8	0.075							40.4		
★ B-50	41.8	0.075							80.2		
◎ B-50	56.8	0.075							49.0		

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

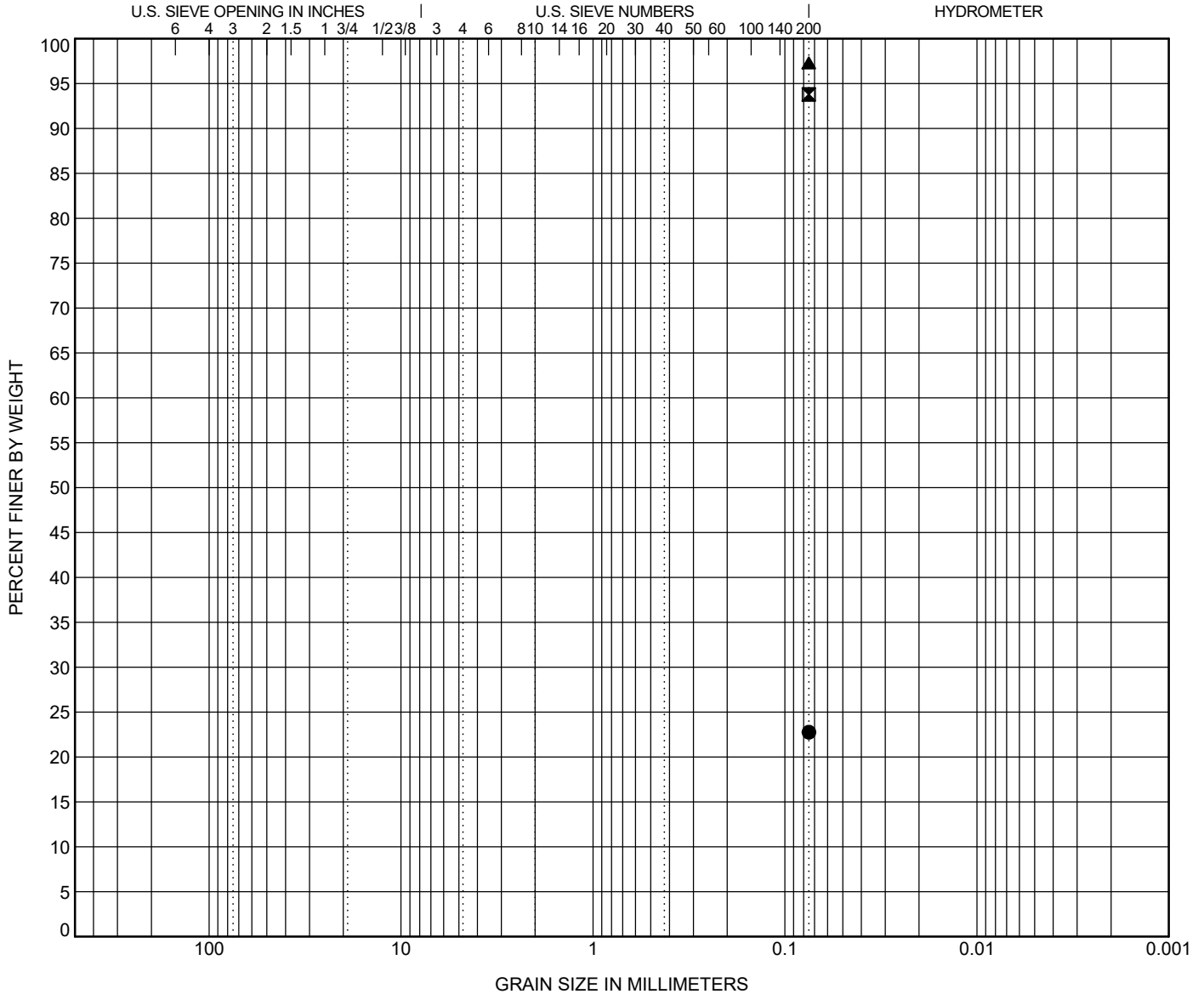


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-50	66.8	SILTY SAND (SM/A-2-4)	NP	NP	NP		
☒ B-50	81.8	ELASTIC SILT (MH/A-7-5)	75	38	37		
▲ B-50	101.8	ELASTIC SILT (MH/A-7-5)	93	53	40		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-50	66.8	0.075						22.8	
☒ B-50	81.8	0.075						93.8	
▲ B-50	101.8	0.075						97.3	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0618	DATE SAMPLE RECEIVED:	3/2/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	3/2/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	3/3/2023

BORING NO.	B-50	B-50	B-50	B-50	B-50
SAMPLE NO.	SS-2	SS-8	SS-10	SS-13	SS-15
SAMPLE DEPTH (FT.)	8.8 - 10.8	30.3 - 31.8	40.3 - 41.8	55.3 - 56.8	65.3 - 66.8
WATER CONTENT, W%	25.8	27.4	30.2	26.5	29.0

BORING NO.	B-50	B-50			
SAMPLE NO.	SS-18	SS-22			
SAMPLE DEPTH (FT.)	65.3 - 66.8	100.3 - 101.8			
WATER CONTENT, W%	58.5	69.3			

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

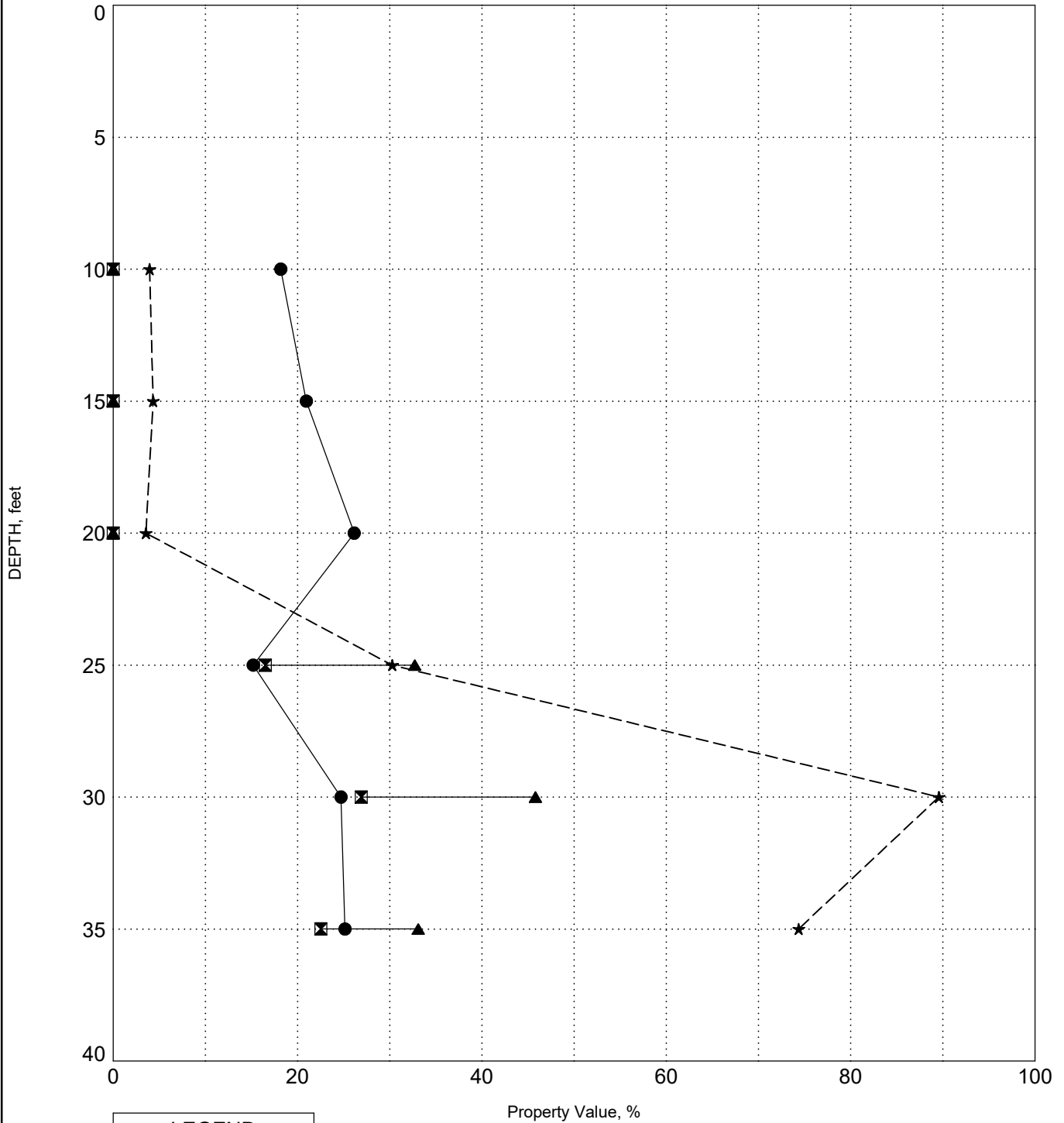
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 89.5

BORING B-51



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

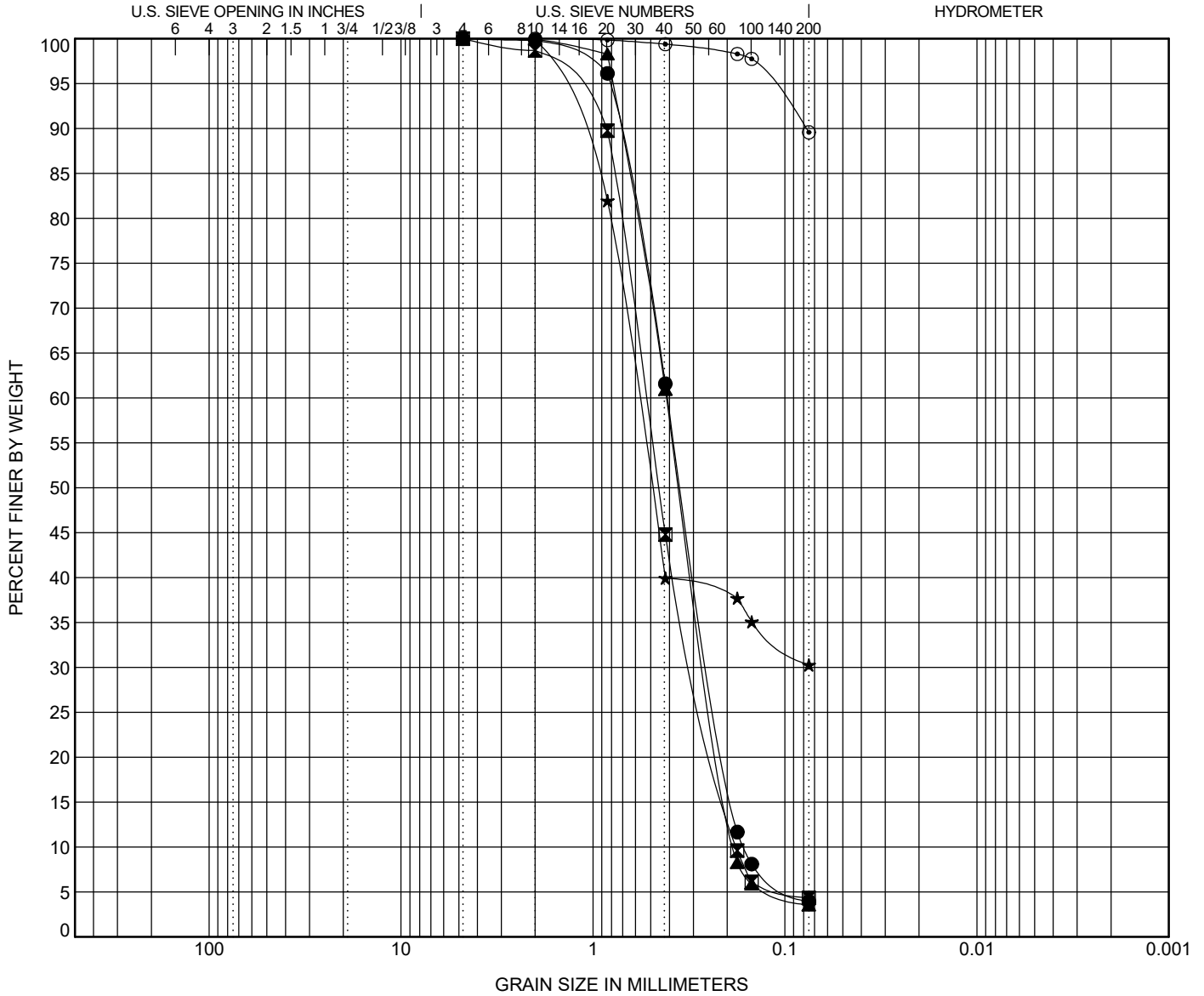


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● B-51	10.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.89	2.50
■ B-51	15.0	POORLY GRADED SAND (SP/A-1-b)	NP	NP	NP	0.90	2.97
▲ B-51	20.0	POORLY GRADED SAND (SP/A-3)	NP	NP	NP	0.85	2.27
★ B-51	25.0	CLAYEY SAND (SC/A-2-6)	33	17	16		
◎ B-51	30.0	LEAN CLAY (CL/A-7-6)	46	27	19		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-51	10.0	4.76	0.409	0.243	0.163	0.0	96.1		3.9
■ B-51	15.0	4.76	0.531	0.292	0.179	0.0	95.7		4.3
▲ B-51	20.0	4.76	0.414	0.253	0.182	0.0	96.5		3.5
★ B-51	25.0	4.76	0.585			0.0	69.7		30.3
◎ B-51	30.0	4.76				0.0	10.4		89.6

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

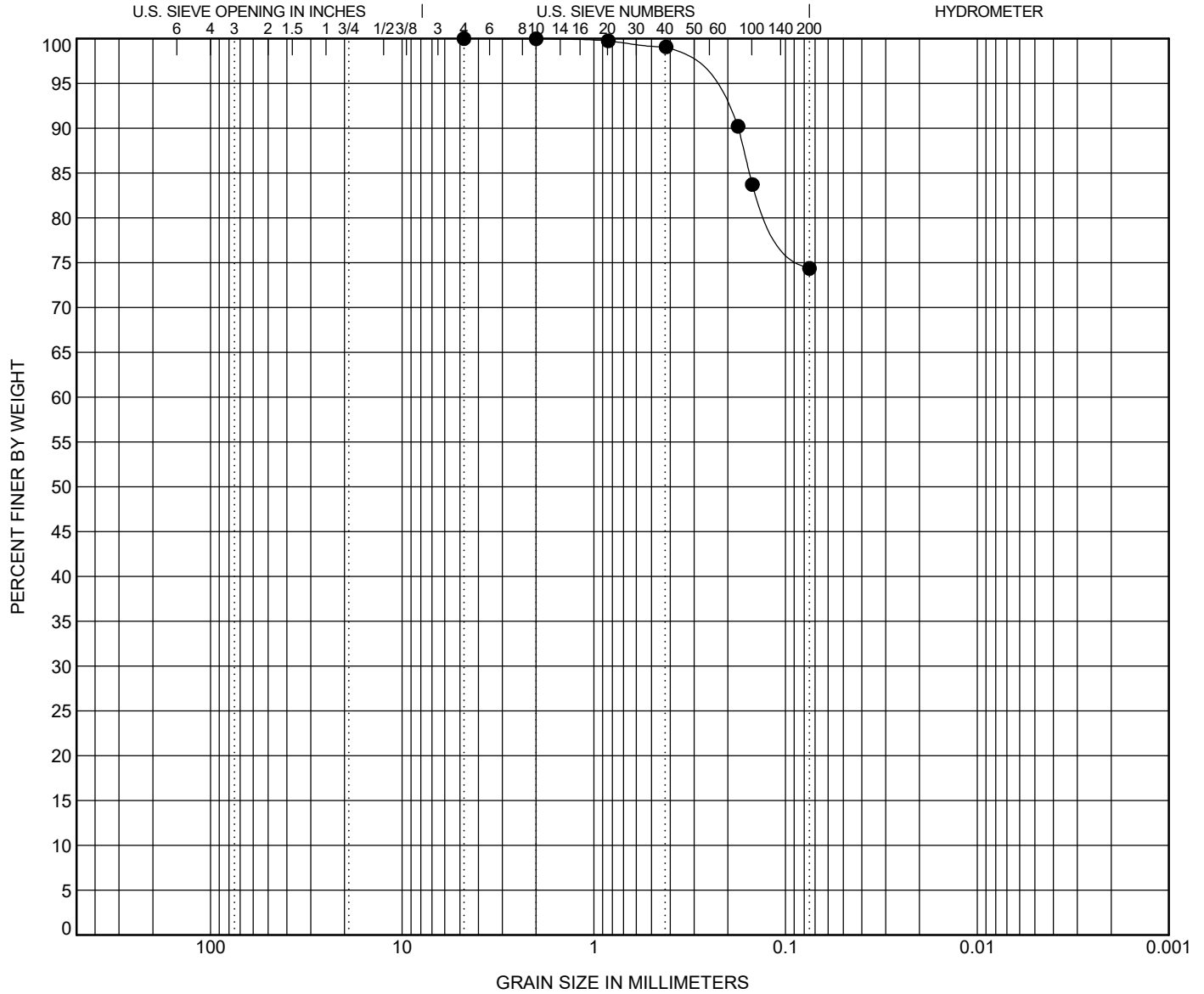


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● B-51	35.0	LEAN CLAY with SAND (CL/A-4)					33	23	10		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● B-51	35.0	4.76				0.0	25.6	74.4			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0312	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-51	B-51	B-51	B-51	B-51
SAMPLE NO.	SS-5	SS-6	SS-7	SS-8	SS-9
SAMPLE DEPTH (FT.)	8.0 - 10.0	13.5 - 15.0	18.5 - 20.0	23.5 - 25.0	28.5 - 30.0
WATER CONTENT, W%	18.2	21.0	26.1	15.2	24.7

BORING NO.	B-51				
SAMPLE NO.	SS-10				
SAMPLE DEPTH (FT.)	33.5 - 35.0				
WATER CONTENT, W%	25.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

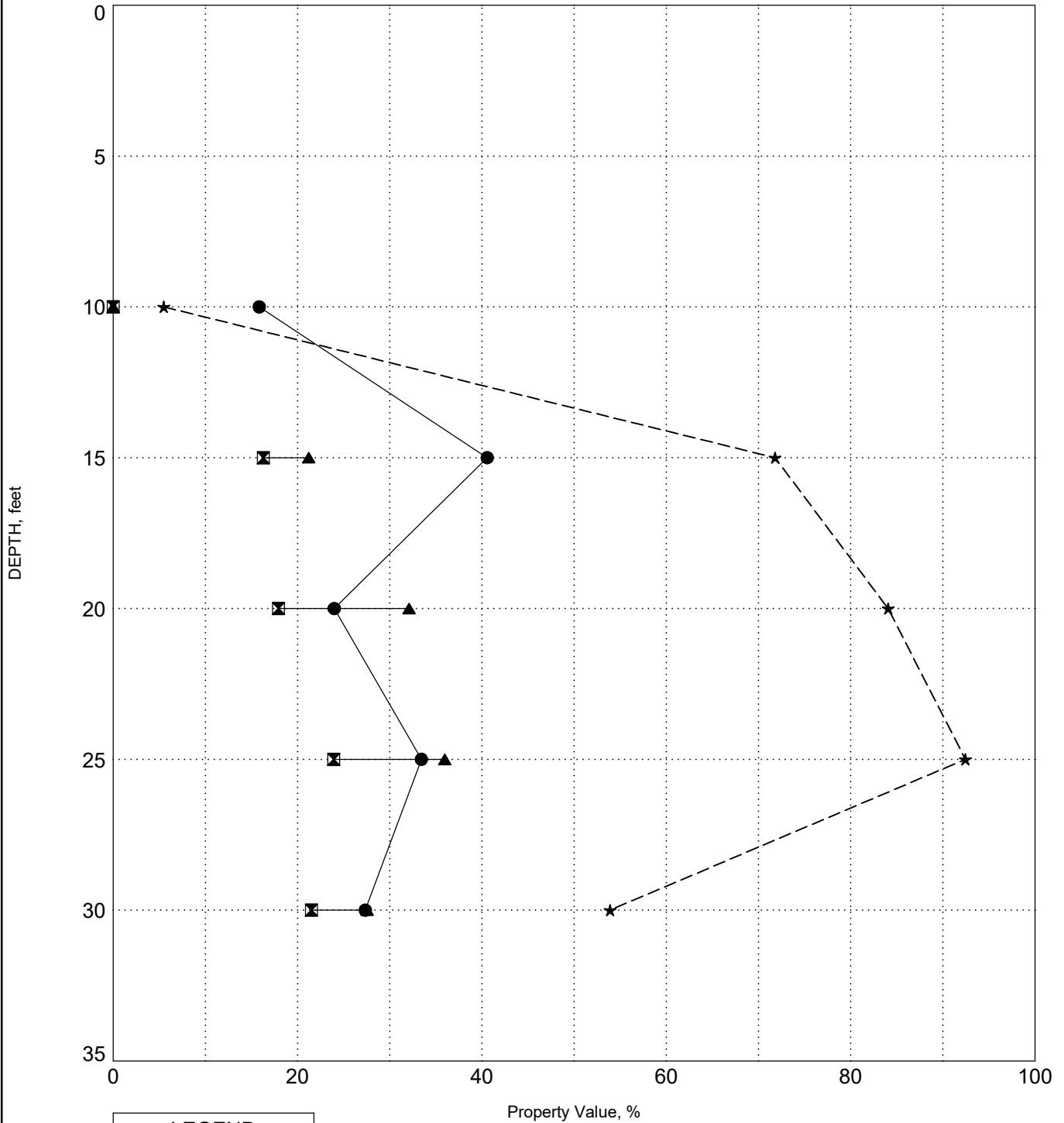
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING B-52

SURFACE ELEVATION: 88.1



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

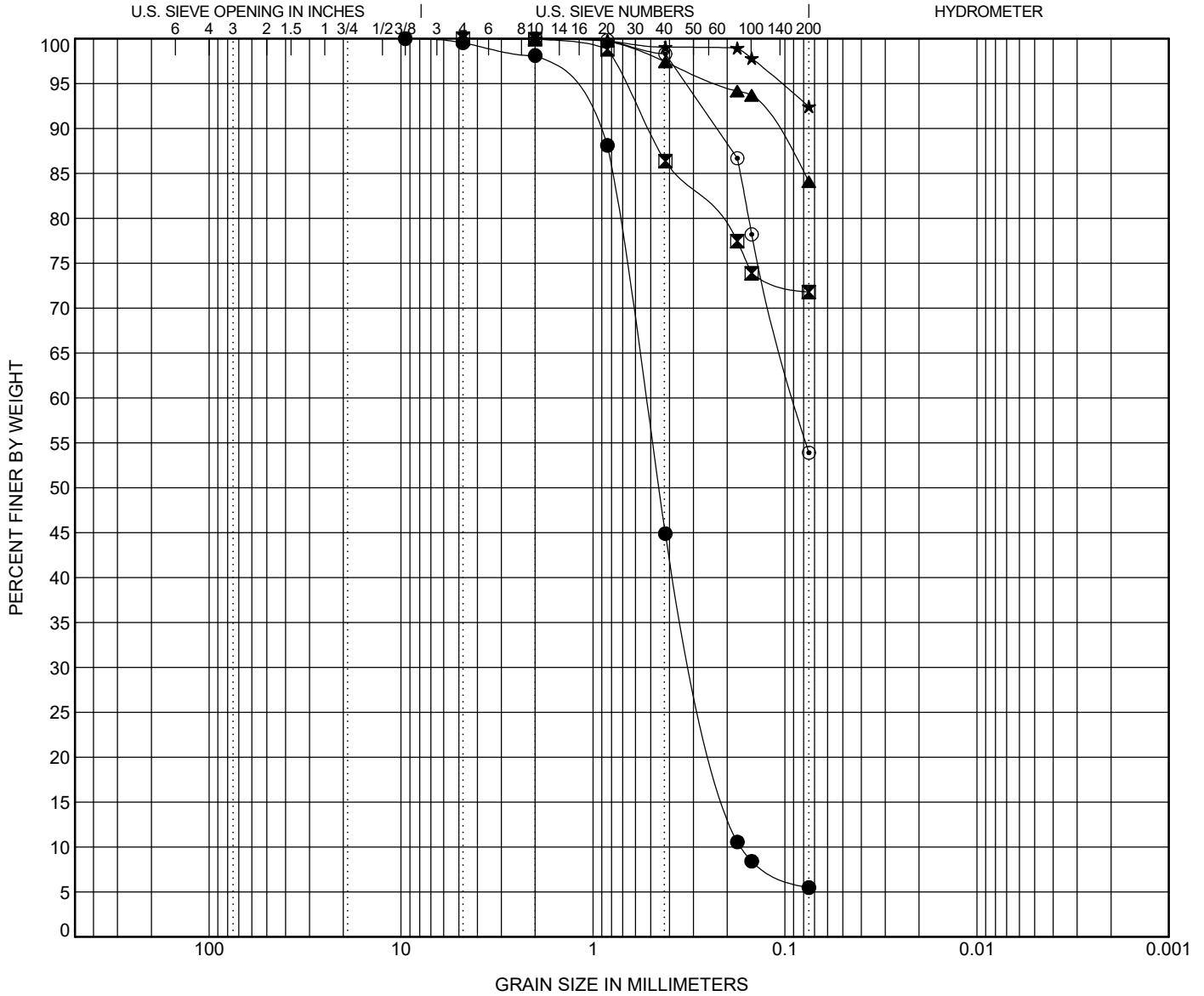


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu			
●	B-52	10.0	POORLY GRADED SAND with SILT (SP-SM/A-1-b)			NP	NP	NP	0.92	3.16
☒	B-52	15.0	SILTY CLAY with SAND (CL-ML/A-4)			21	16	5		
▲	B-52	20.0	LEAN CLAY with SAND (CL/A-6)			32	18	14		
★	B-52	25.0	LEAN CLAY (CL/A-6)			36	24	12		
◎	B-52	30.0	SANDY SILTY CLAY (CL-ML/A-4)			28	22	6		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-52	10.0	9.51	0.535	0.289	0.169	0.5	94.0	5.5
☒	B-52	15.0	4.76				0.0	28.2	71.8
▲	B-52	20.0	4.76				0.0	15.9	84.1
★	B-52	25.0	2				0.0	7.6	92.4
◎	B-52	30.0	2	0.089			0.0	46.1	53.9

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0313	DATE SAMPLE RECEIVED:	2/15/2023
DESCRIPTION OF SOIL:	Various		
TESTED BY:	EW	DATE SETUP:	2/15/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/16/2023

BORING NO.	B-52	B-52	B-52	B-52	B-52
SAMPLE NO.	SS-5	SS-6	SS-7	SS-8	SS-9
SAMPLE DEPTH (FT.)	8.0 - 10.0	13.5 - 15.0	18.5 - 20.0	23.5 - 25.0	28.5 - 30.0
WATER CONTENT, W%	15.8	40.6	24.0	33.4	27.3

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

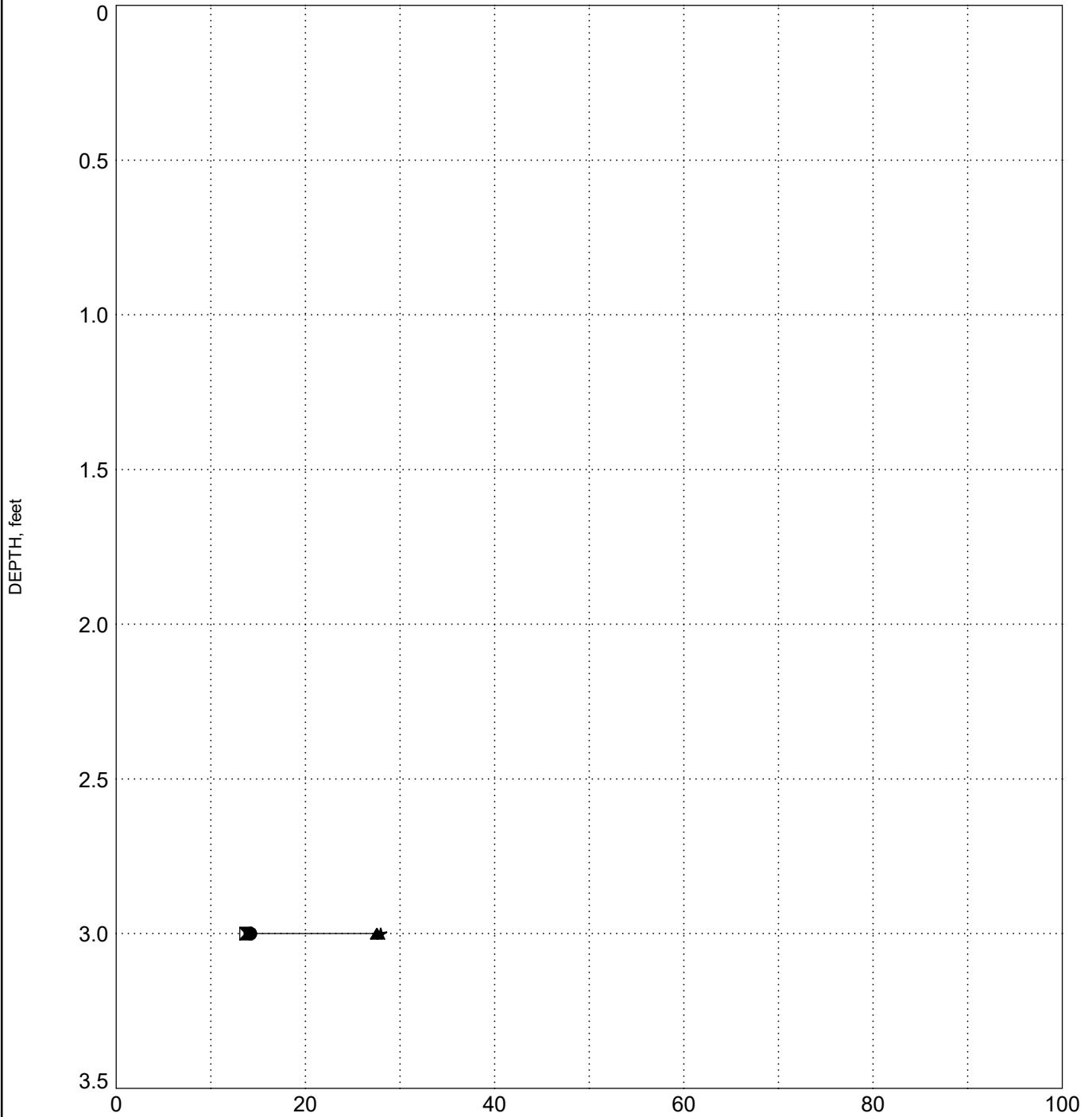
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-1

SURFACE ELEVATION: 113.9



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

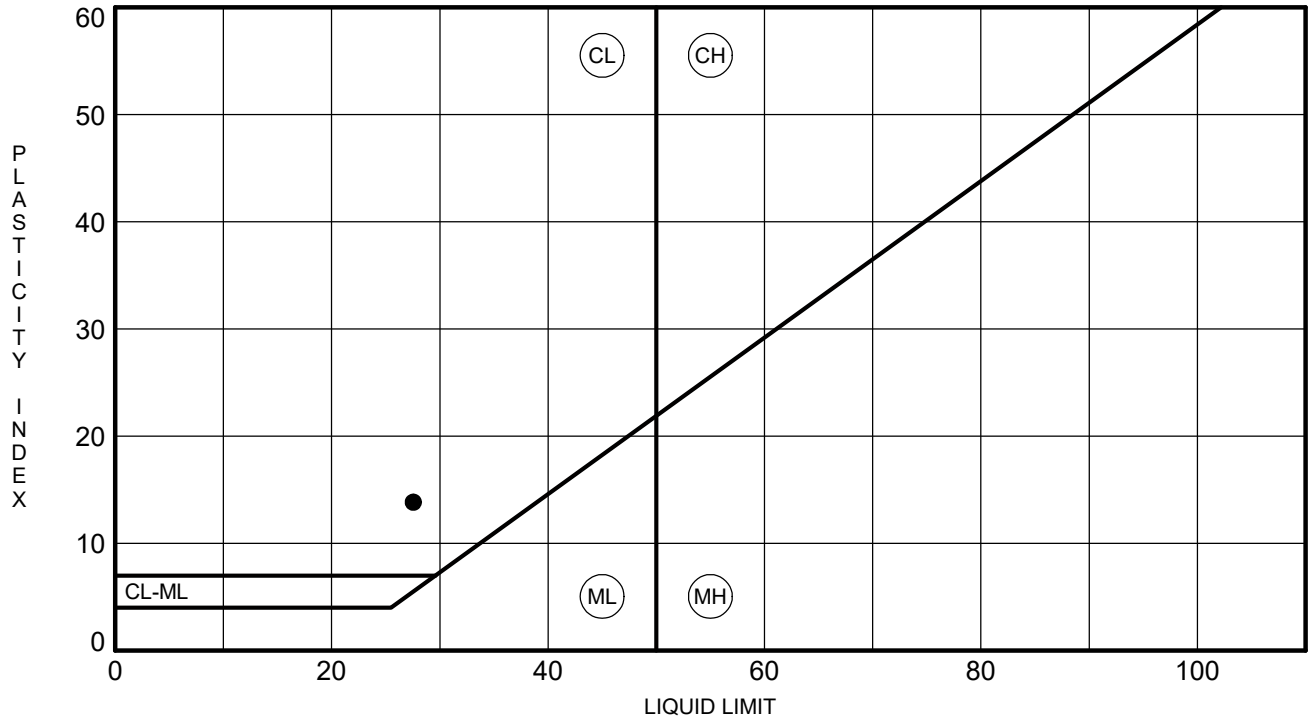


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-1	3.0	28	14	14	28	CLAYEY SAND (SC/A-2-6)

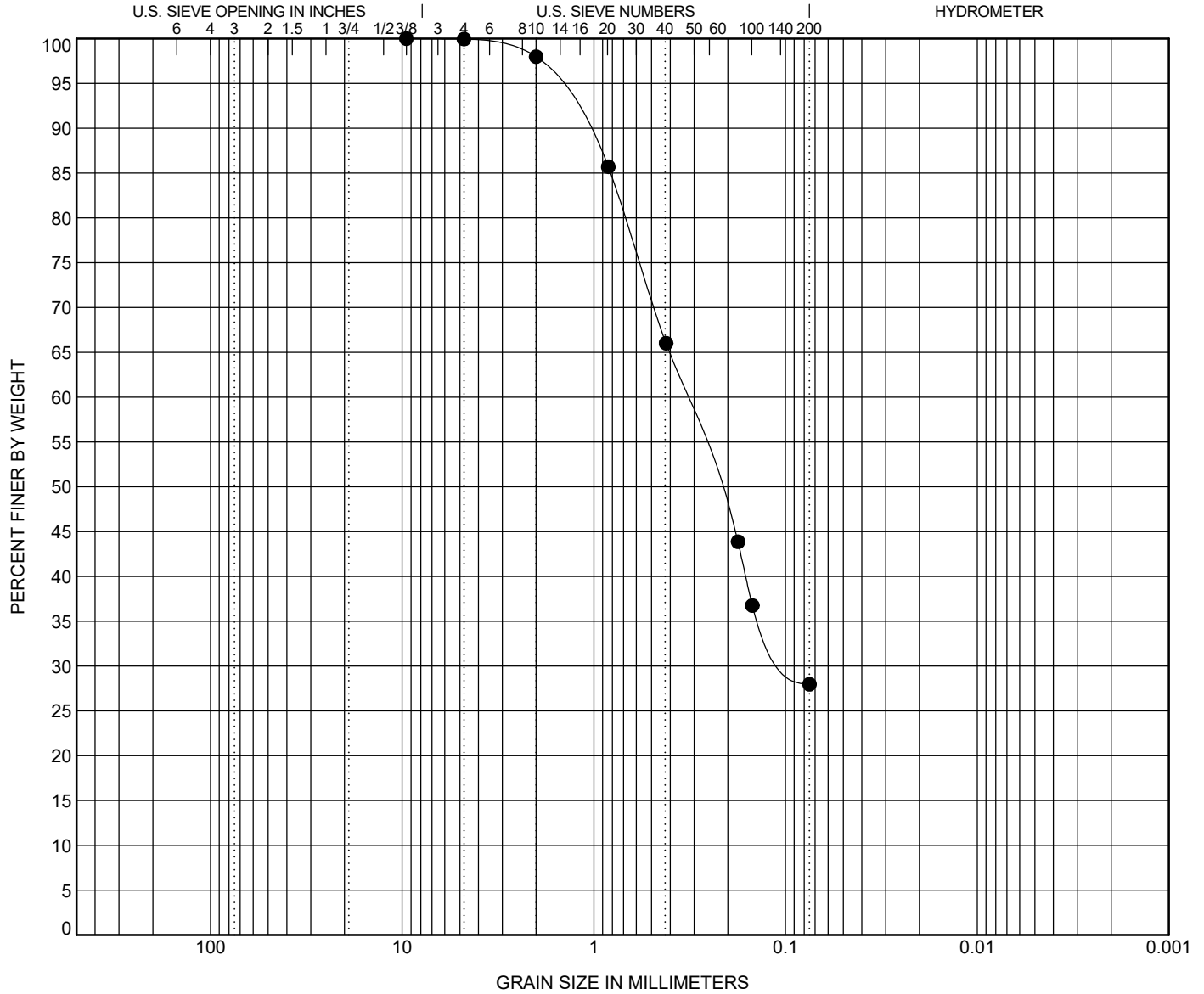


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-1	3.0	CLAYEY SAND (SC/A-2-6)					28	14	14		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-1	3.0	9.51	0.332	0.088		0.1	72.0	28.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0150	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-1				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.0 - 3.0				
WATER CONTENT, W%	14.2				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

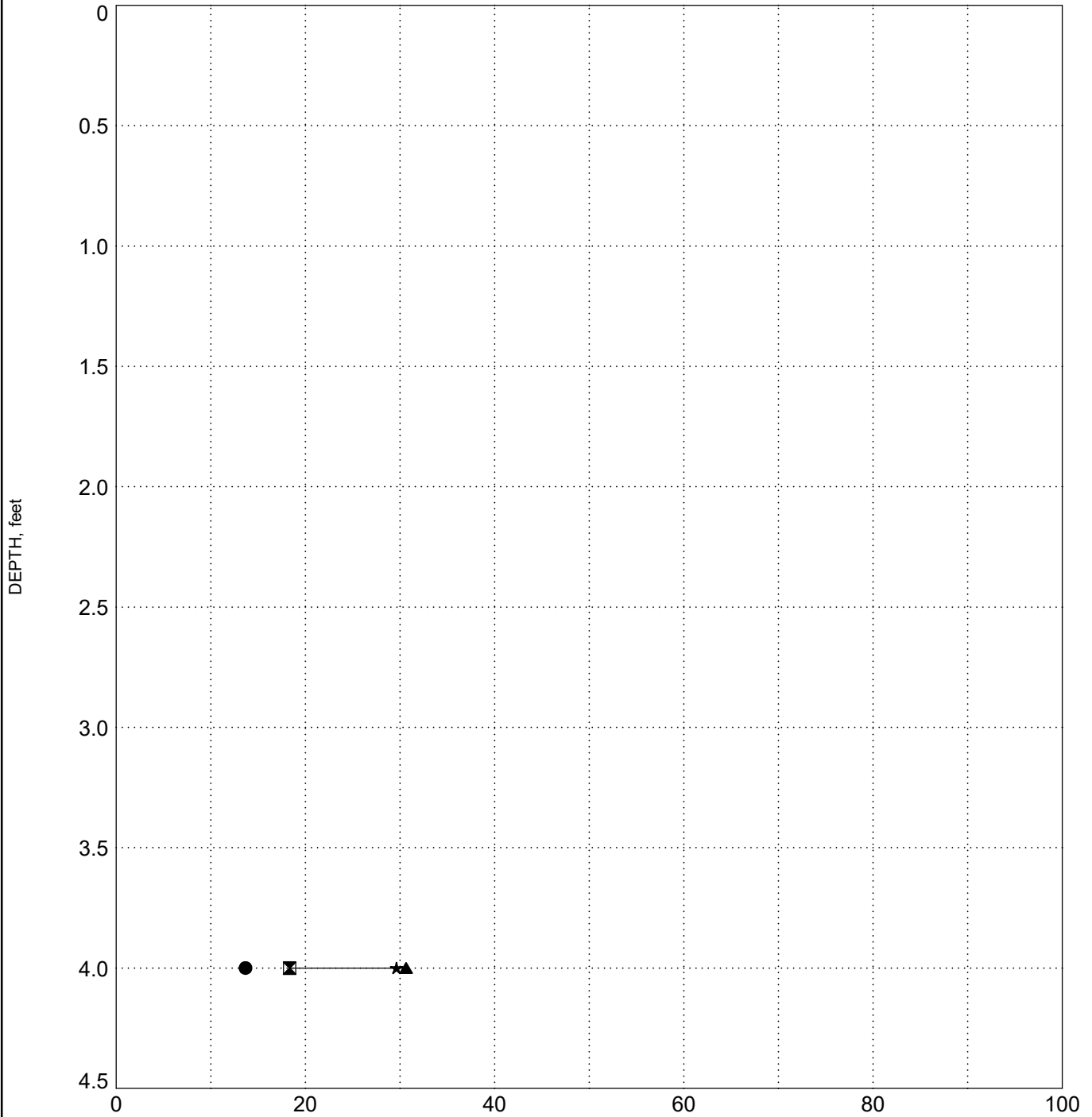
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-2

SURFACE ELEVATION: 114.9



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

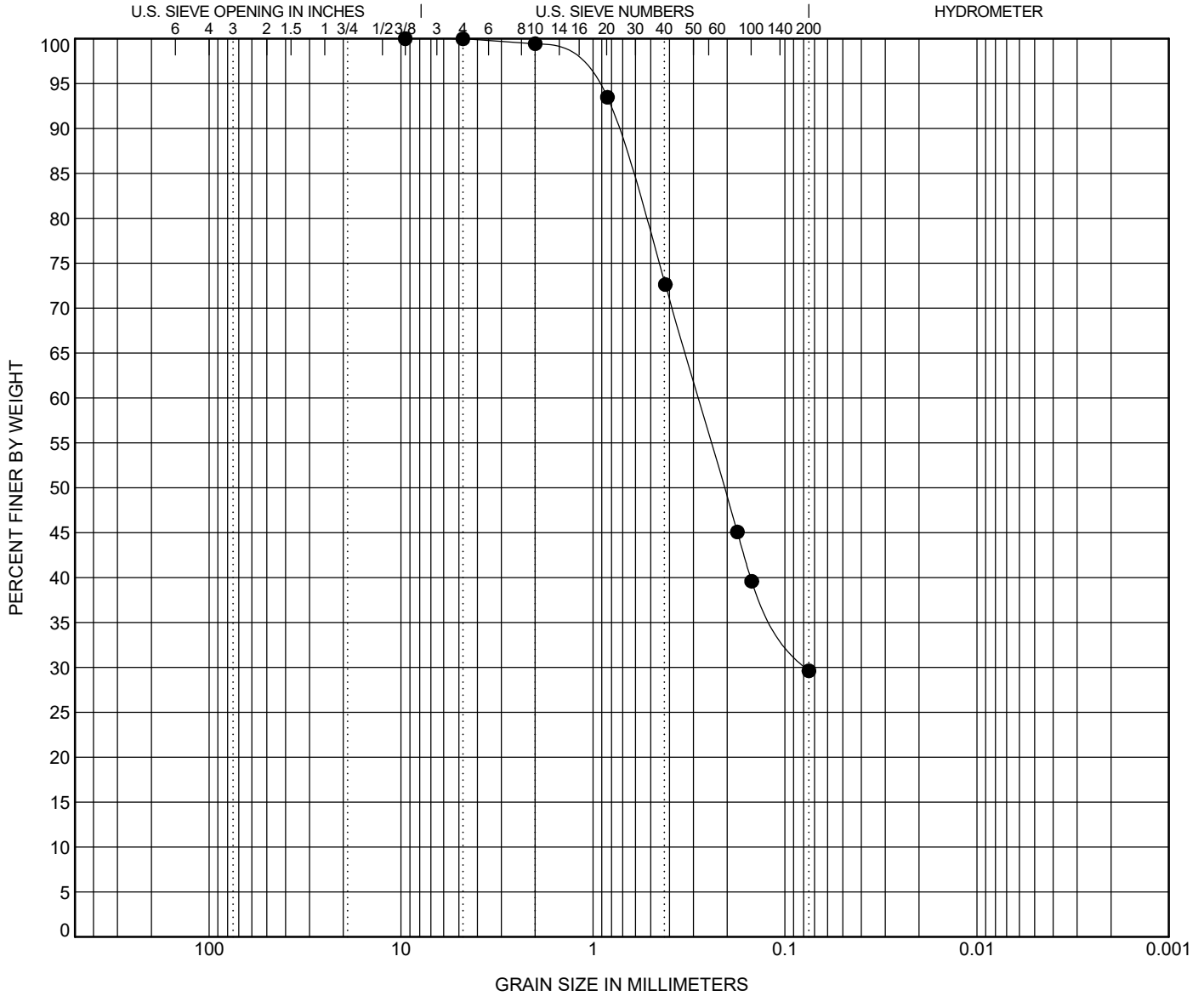


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-2	4.0	CLAYEY SAND (SC/A-2-6)					31	18	13		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-2	4.0	9.51	0.283	0.077		0.0	70.4	29.6			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0147	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-2				
SAMPLE NO.	SS-2				
SAMPLE DEPTH (FT.)	2.0 - 4.0				
WATER CONTENT, W%	13.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

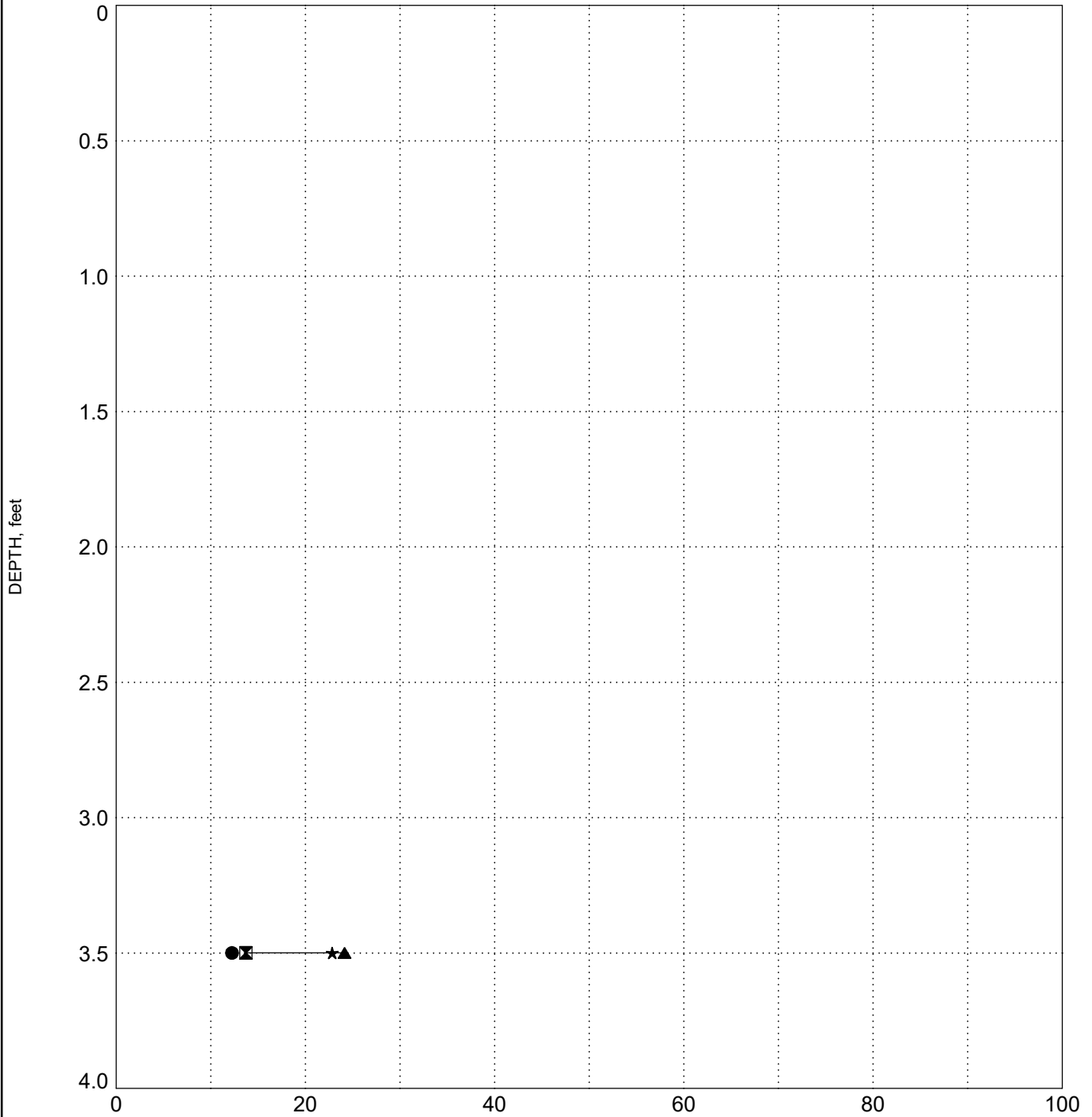
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-3

SURFACE ELEVATION: 115.4



LEGEND	
●	Water Content
⊠	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

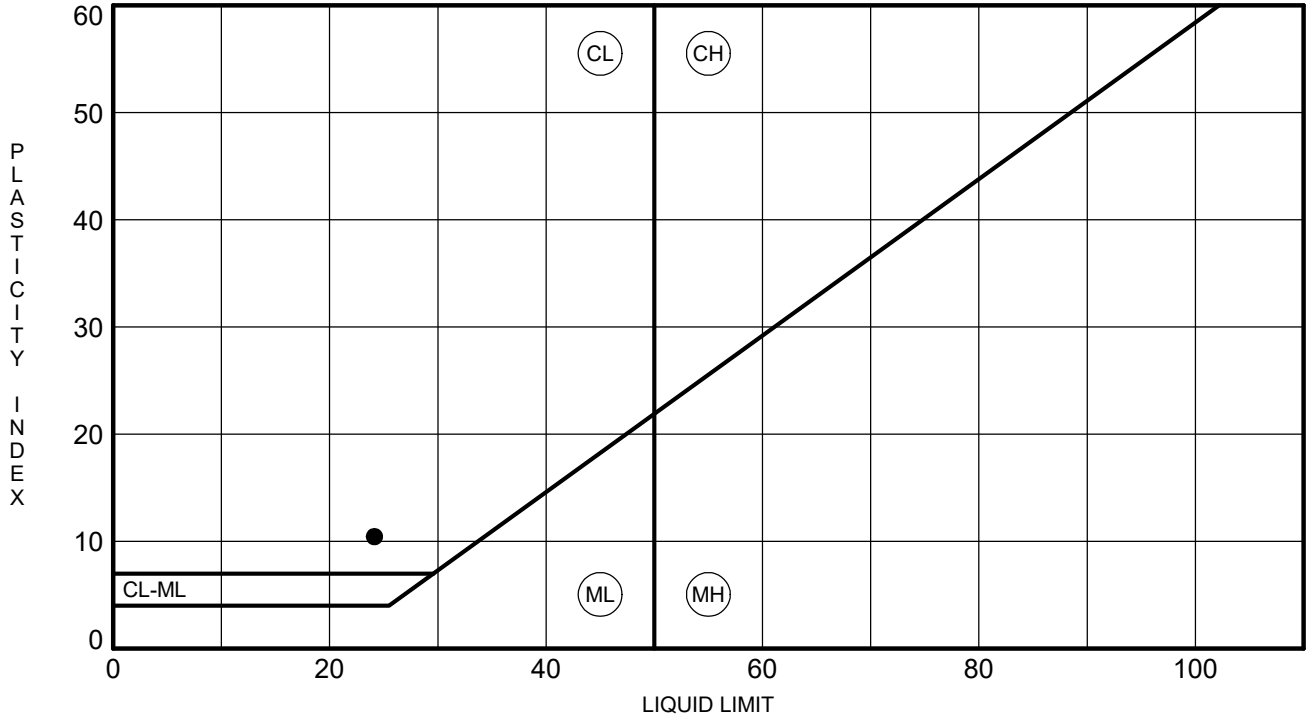


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-3	3.5	24	14	10	23	CLAYEY SAND (SC/A-2-4)

ATTERBERG LIMITS: G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

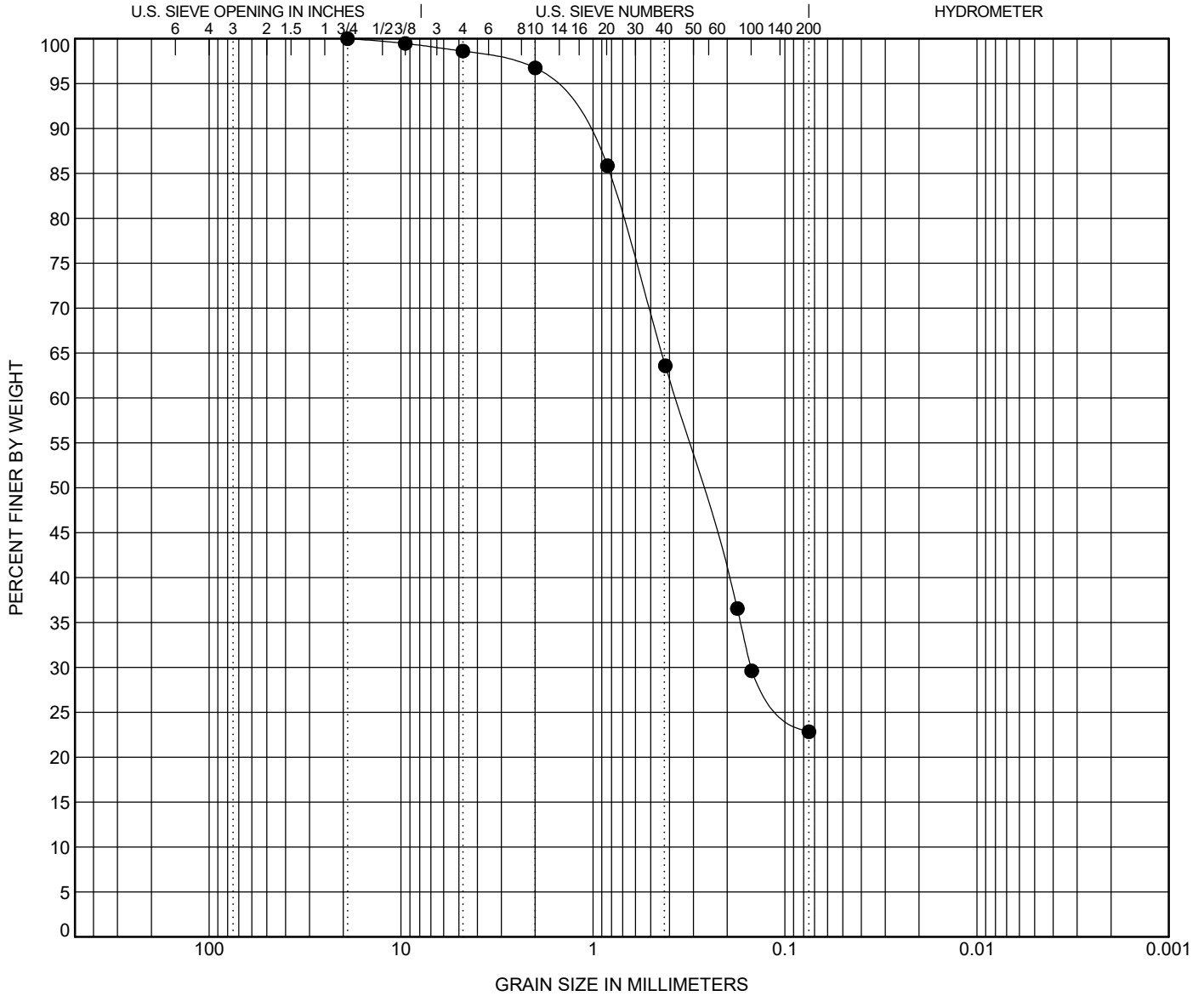


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-3	3.5	CLAYEY SAND (SC/A-2-4)					24	14	10		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-3	3.5	19	0.375	0.15		1.4	75.8	22.8	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0127	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-3				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	12.2				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

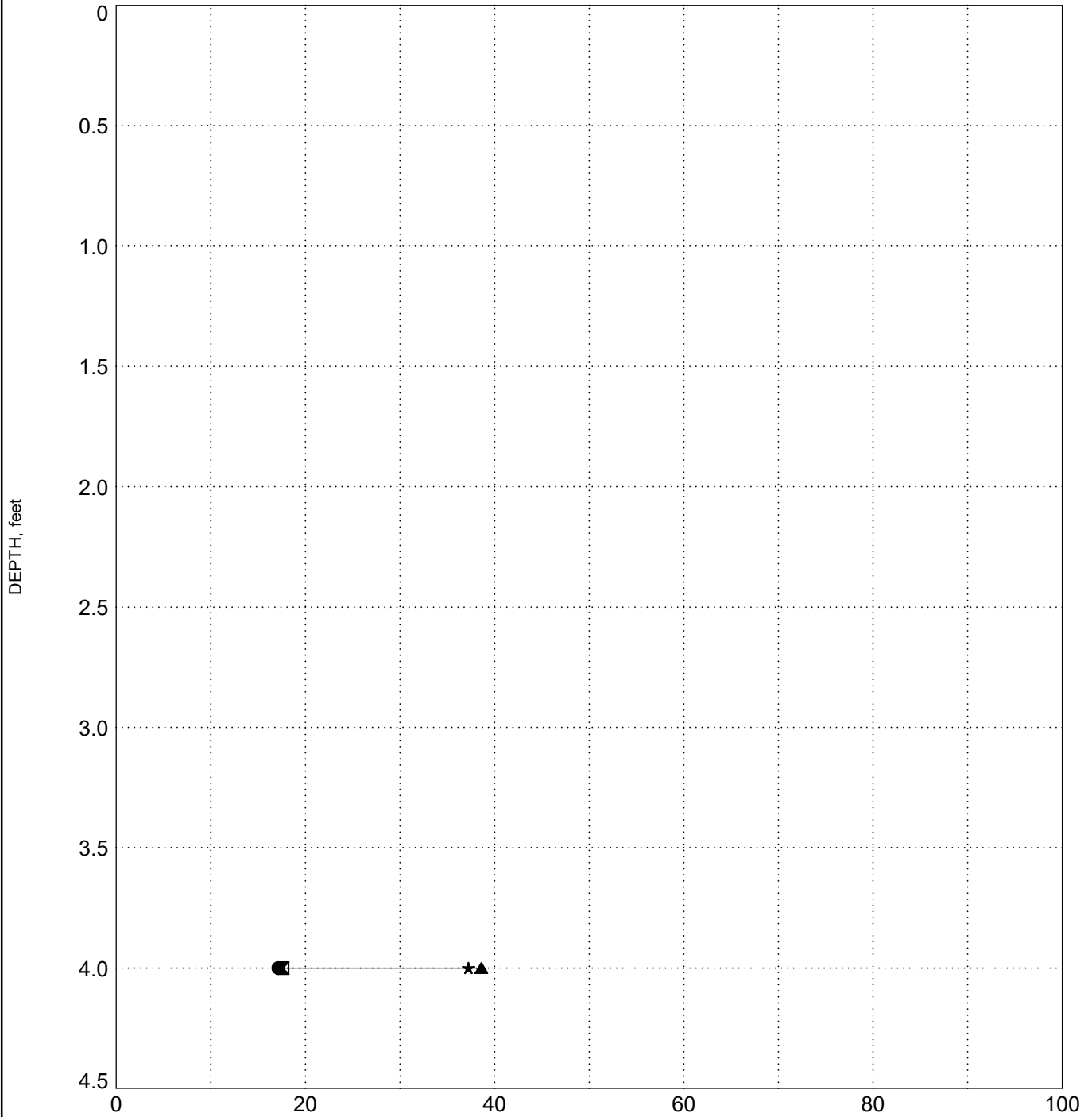
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 112.6

BORING P-4



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

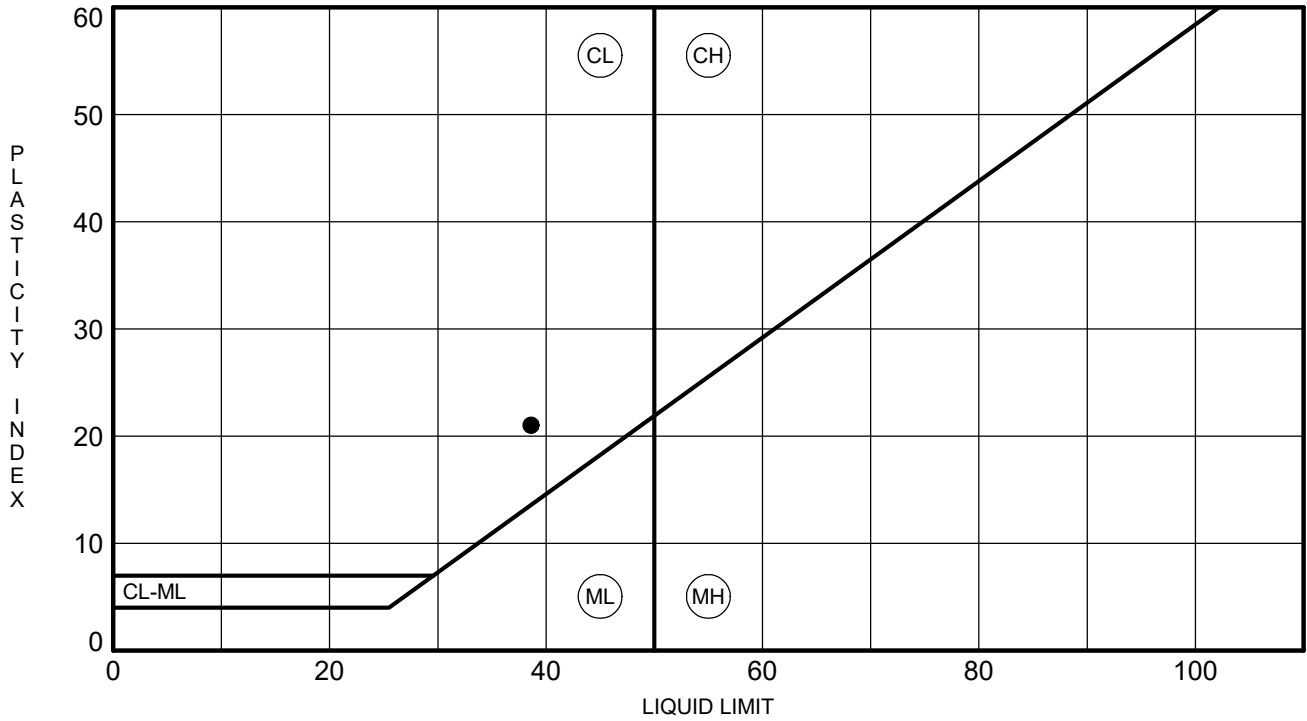


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-4	4.0	39	18	21	37	CLAYEY SAND (SC/A-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

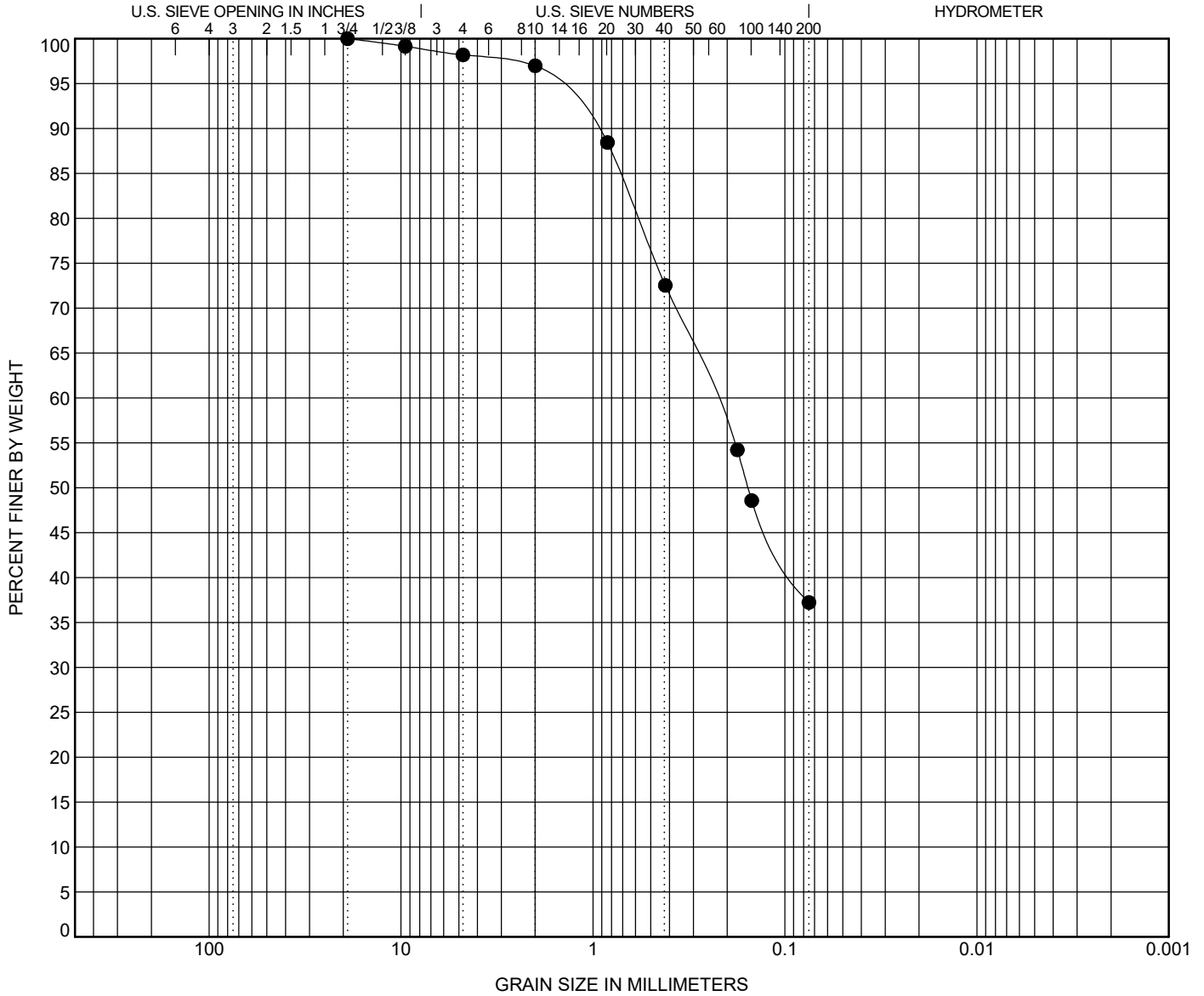


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● P-4	4.0	CLAYEY SAND (SC/A-6)	39	18	21		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-4	4.0	19	0.233			1.8	61.0	37.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0127	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-4				
SAMPLE NO.	SS-2				
SAMPLE DEPTH (FT.)	2.0 - 4.0				
WATER CONTENT, W%	17.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

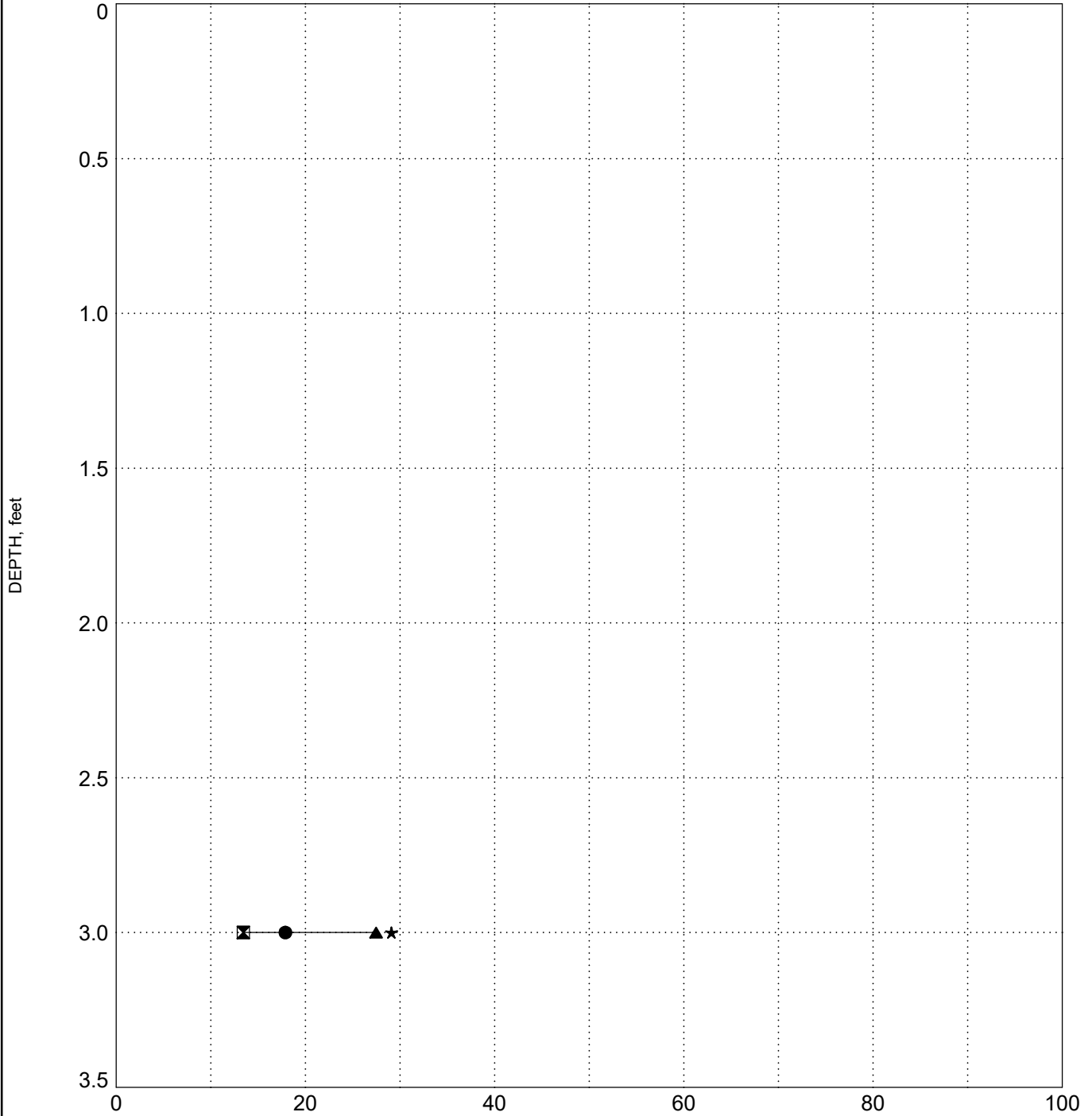
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-5

SURFACE ELEVATION: 110.6



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

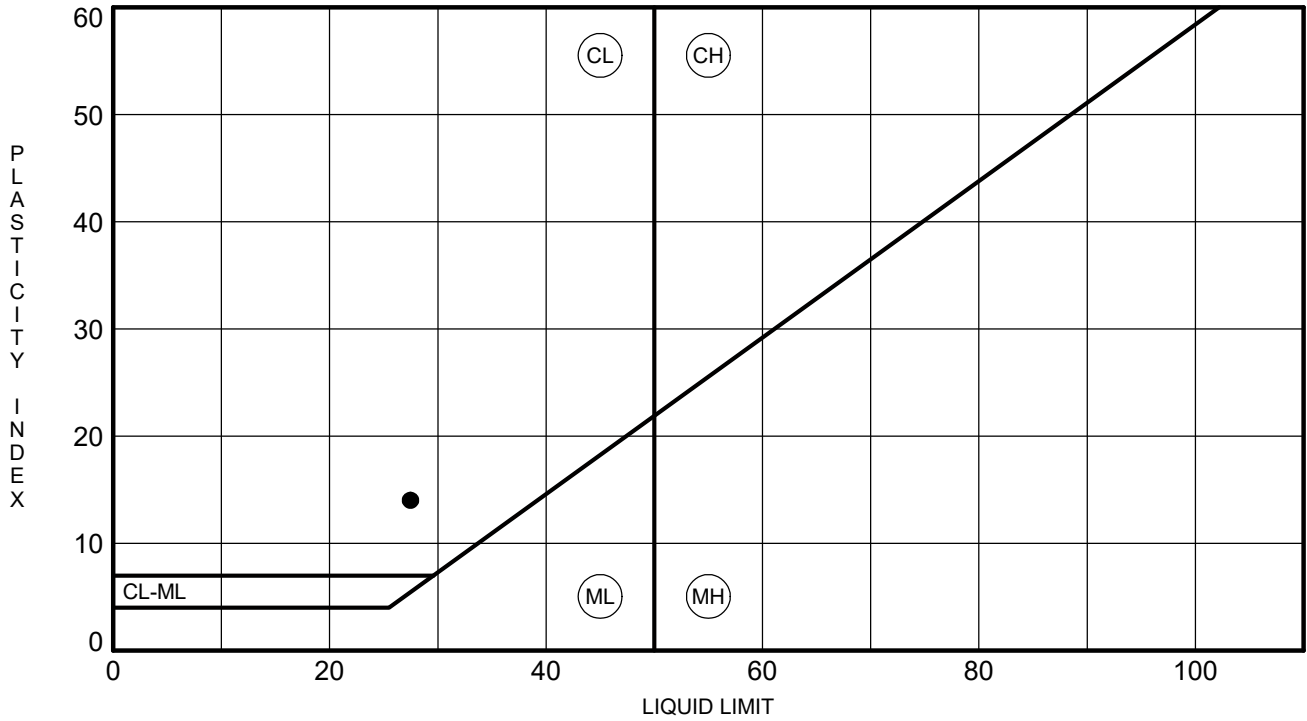


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-5	3.0	27	13	14	29	CLAYEY SAND (SC/A-2-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

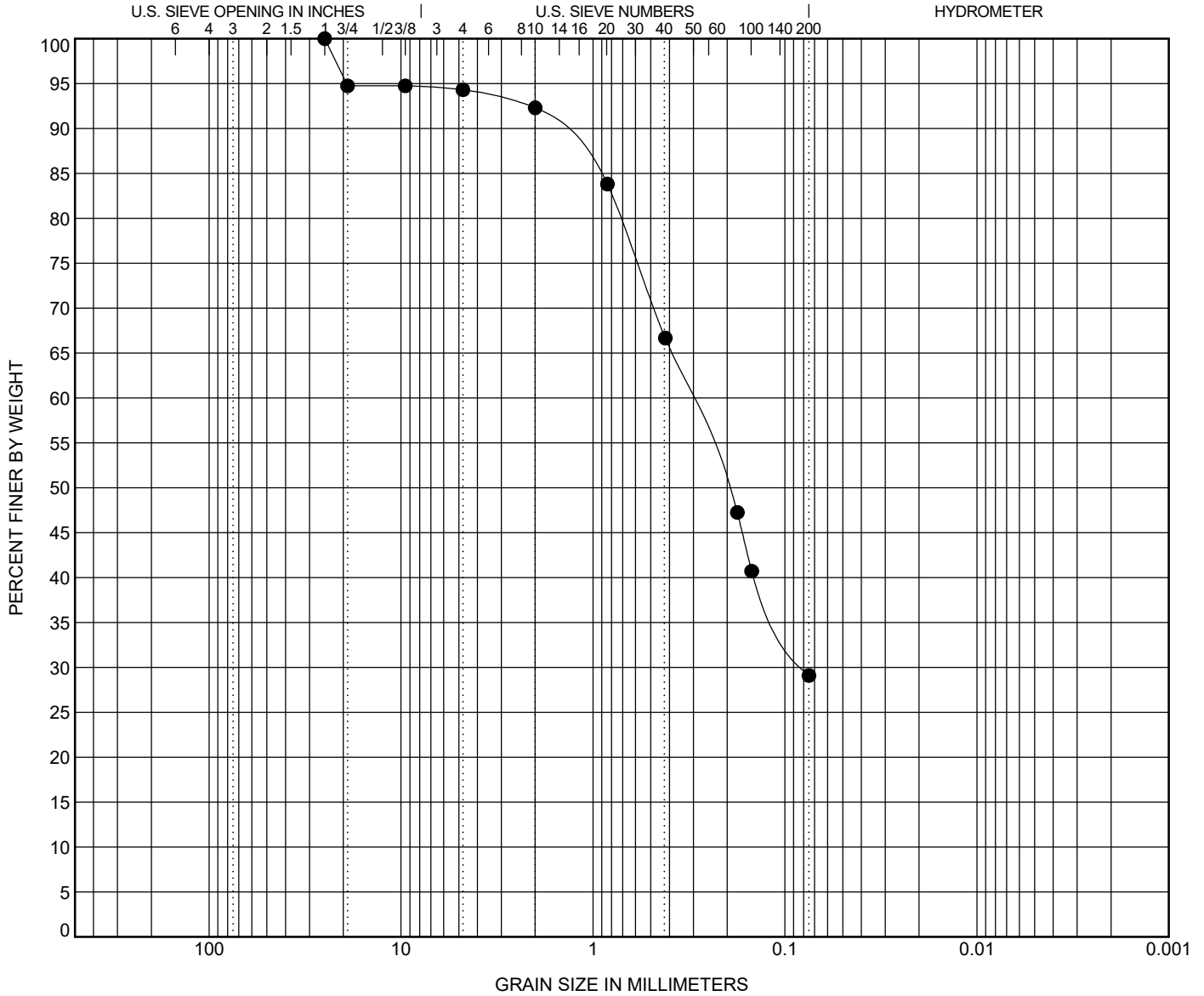


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-5	3.0	CLAYEY SAND (SC/A-2-6)					27	13	14		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-5	3.0	25	0.312	0.079		5.7	65.2	29.1	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 RBO Lake Marion	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0149	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-5				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.0 - 3.0				
WATER CONTENT, W%	17.9				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

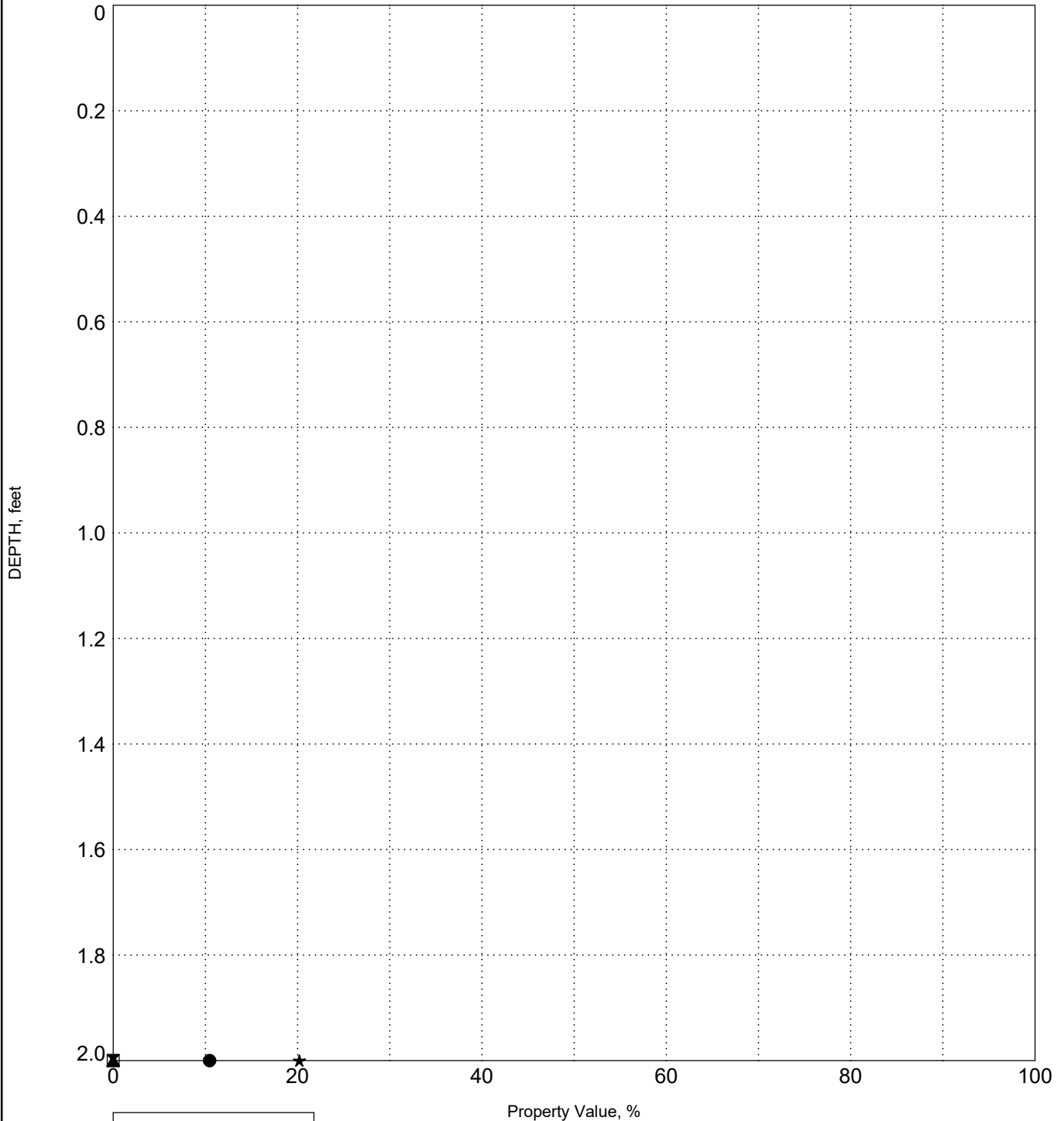
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-6

SURFACE ELEVATION: 108.5



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

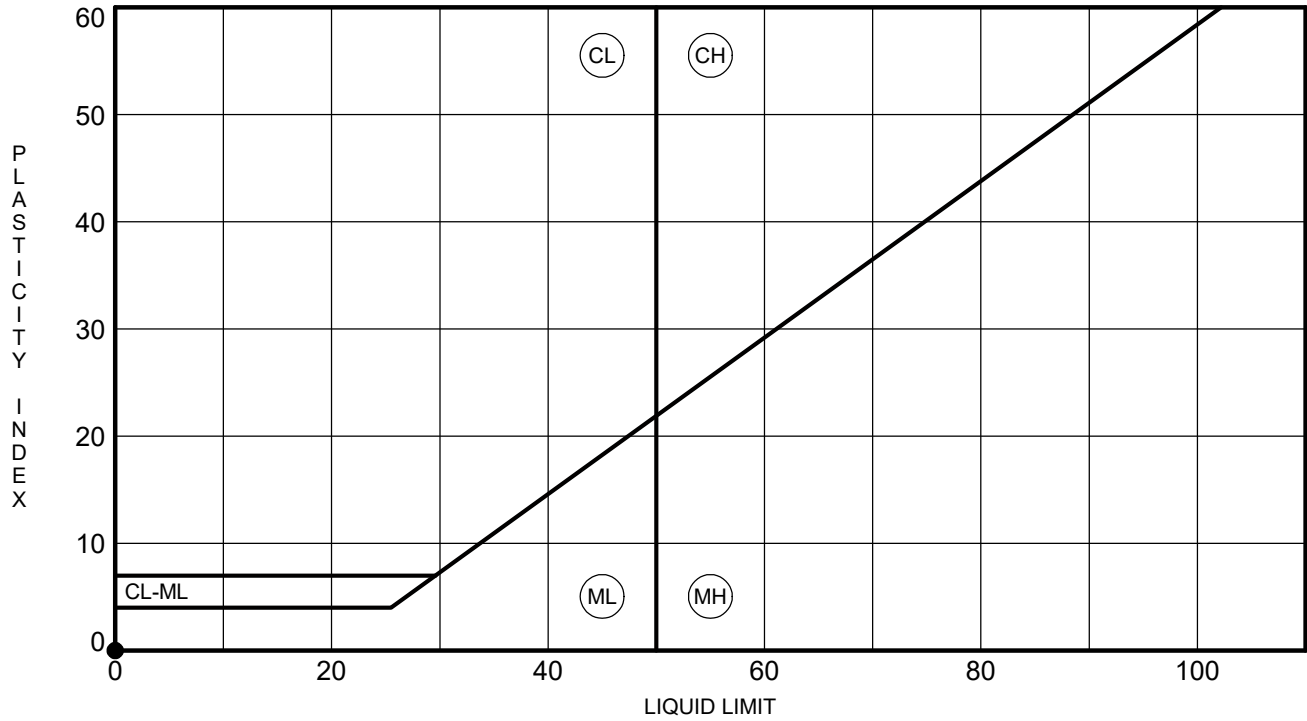


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-6	2.0	NP	NP	NP	20	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

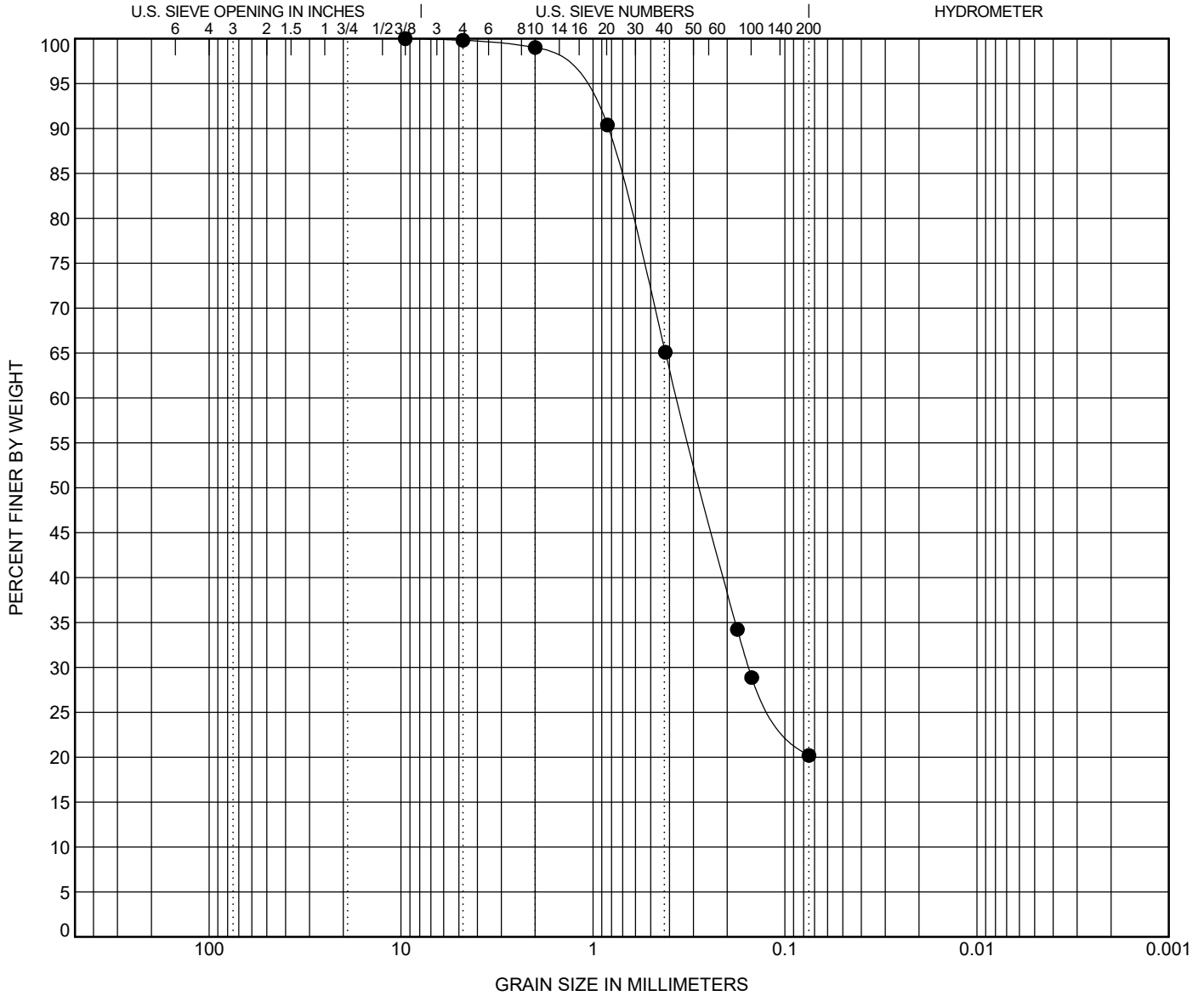


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-6	2.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-6	2.0	9.51	0.364	0.155		0.2	79.6	20.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0148	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-6				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	0.0 - 2.0				
WATER CONTENT, W%	10.5				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

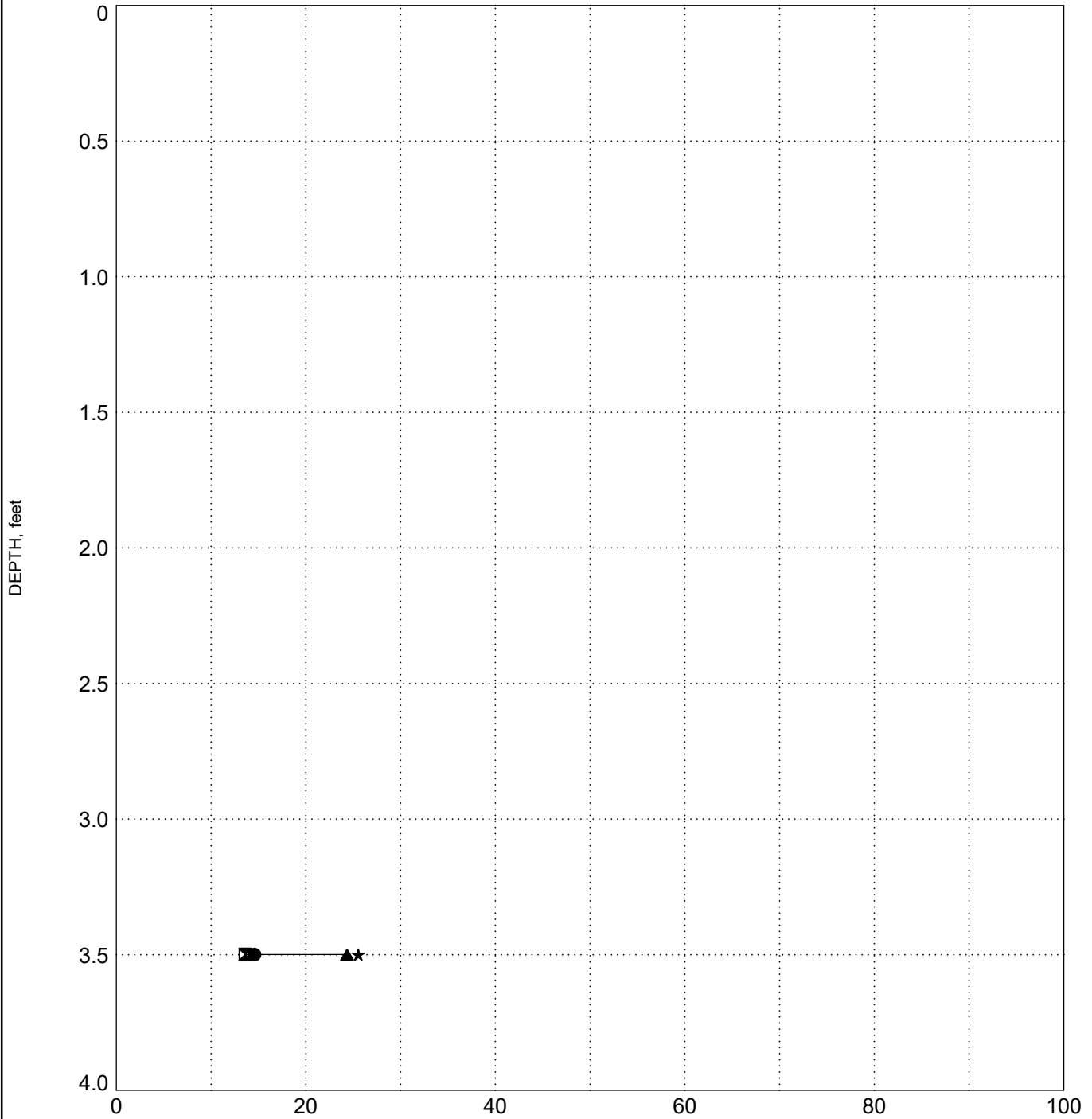
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 107.8

BORING P-7



LEGEND	
●	Water Content
■	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

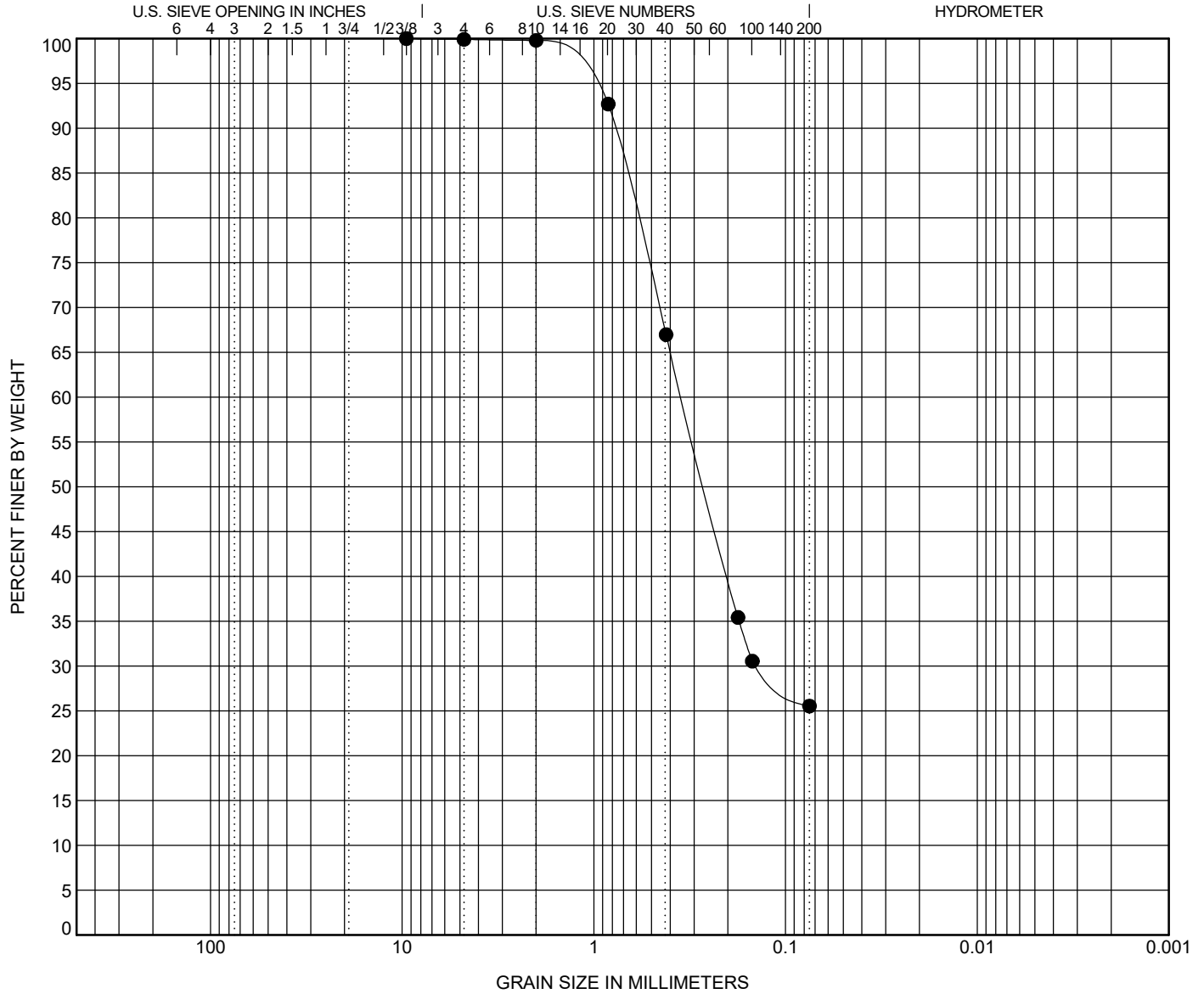


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-7	3.5	CLAYEY SAND (SC/A-2-4)					24	14	10		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-7	3.5	9.51	0.347	0.138		0.1	74.4	25.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0141	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-7				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	14.6				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



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INDEX PROPERTIES VERSUS DEPTH

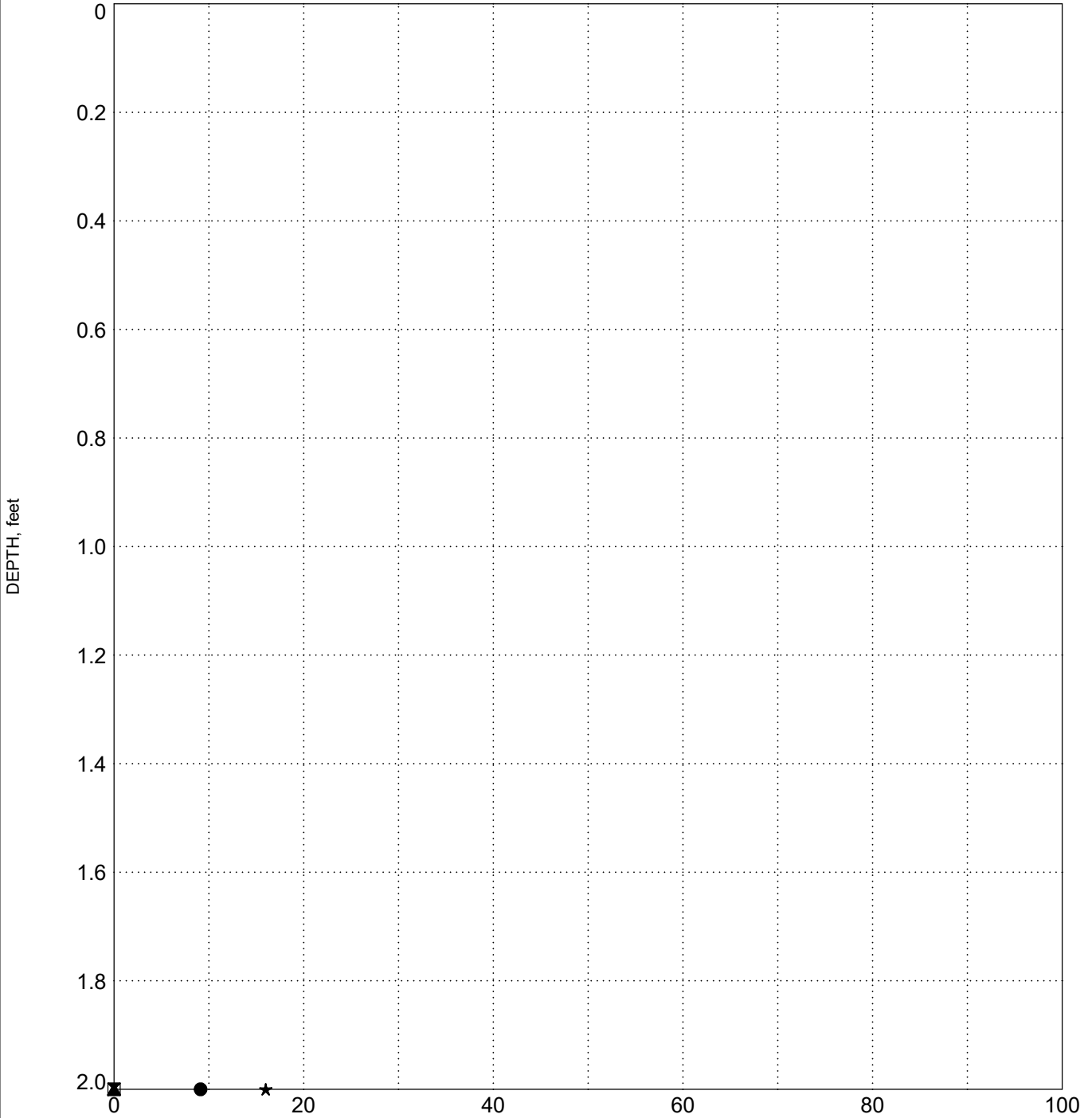
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-8

SURFACE ELEVATION: 105.4



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

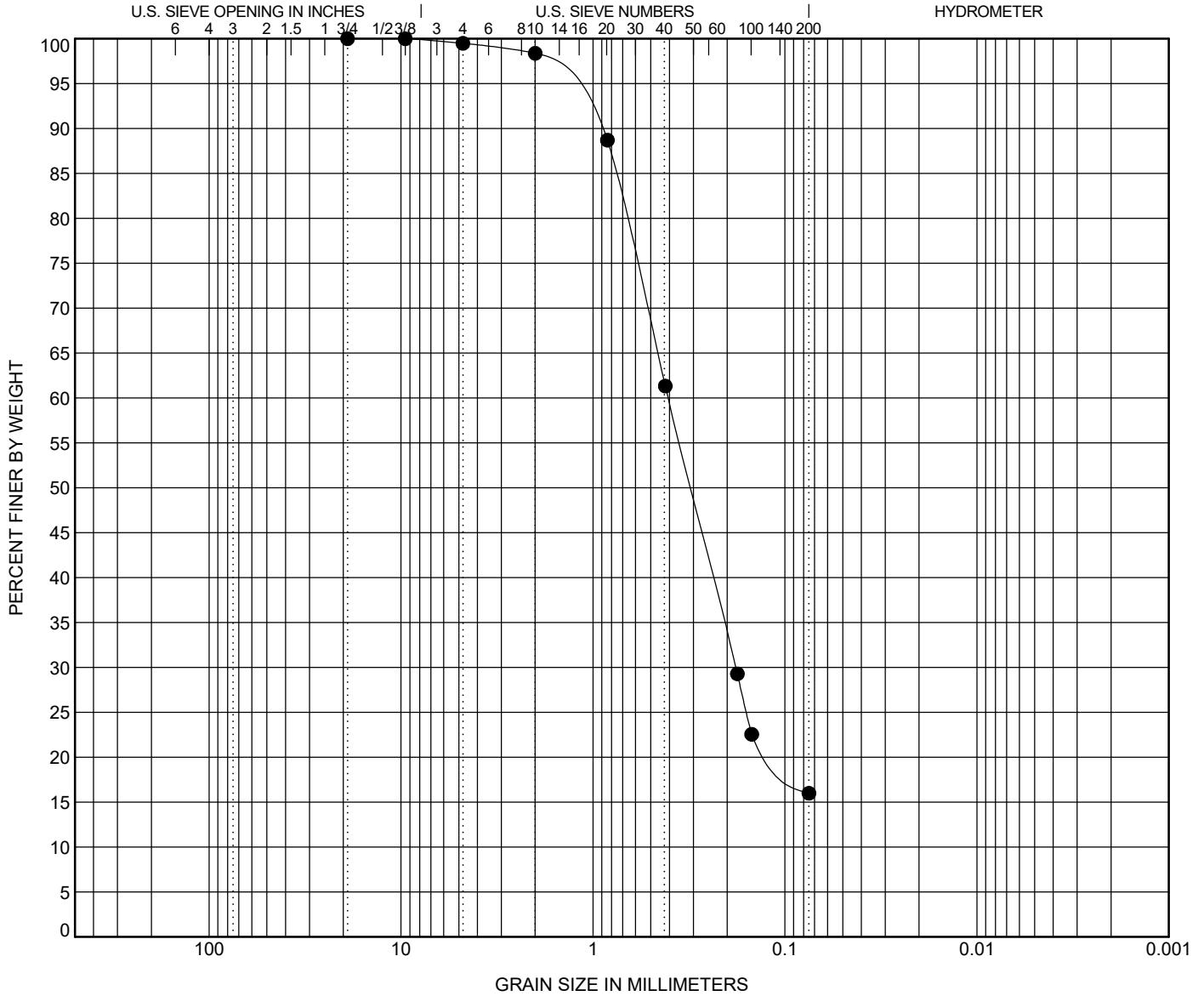


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-8	2.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-8	2.0	19	0.405	0.18		0.5	83.5	16.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0134	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-8				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	0.0 - 2.0				
WATER CONTENT, W%	9.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

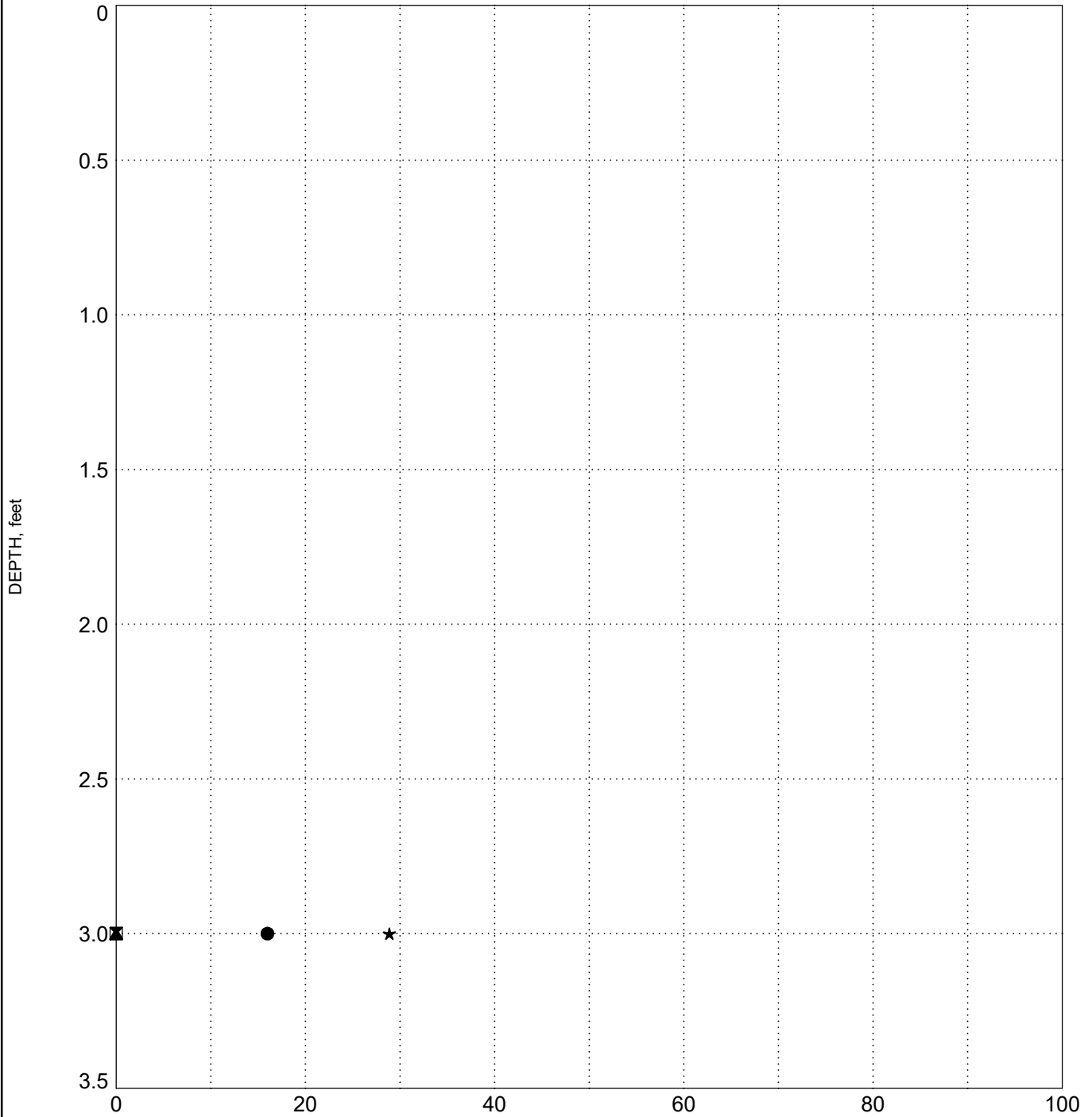
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-9

SURFACE ELEVATION: 103.7



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

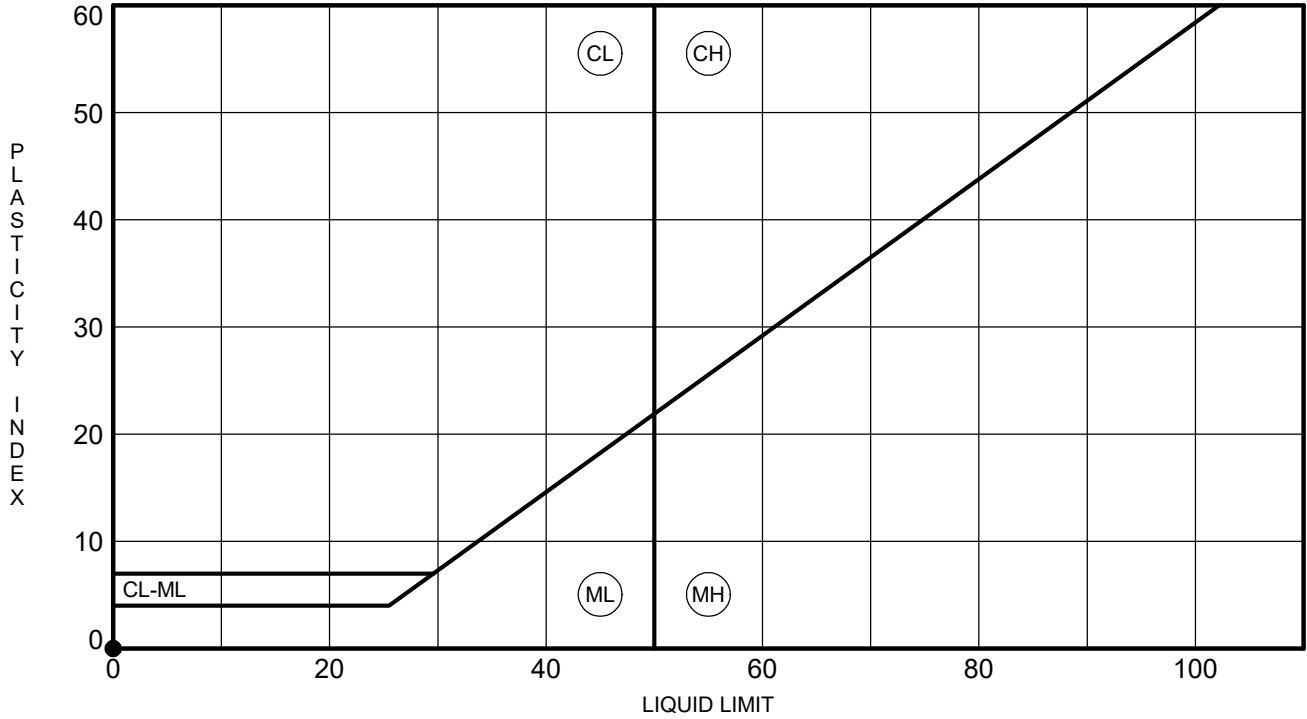


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-9	3.0	NP	NP	NP	29	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

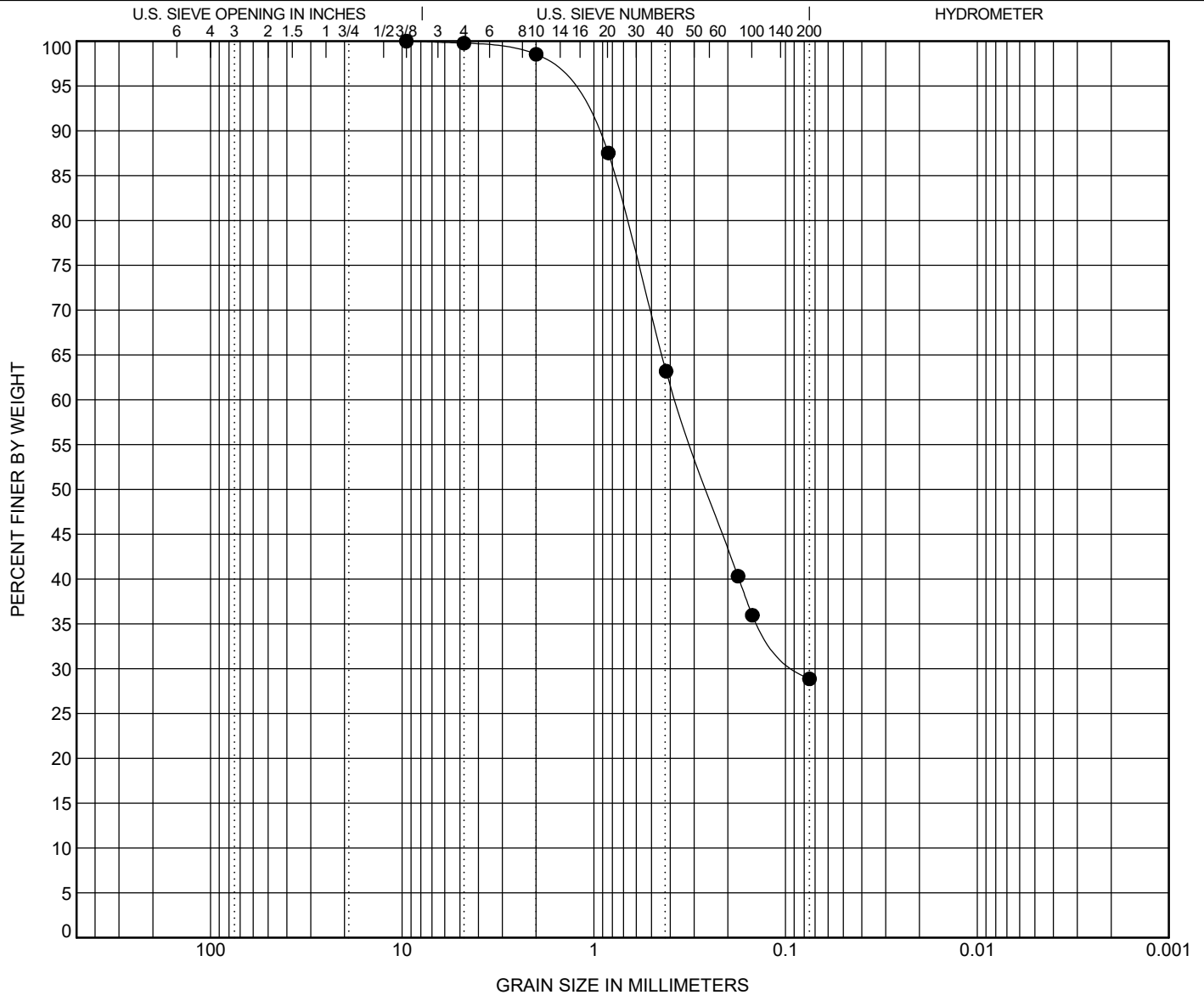


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-9	3.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-9	3.0	9.51	0.372	0.084		0.2	70.9	28.9	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0146	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-9				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.0 - 3.0				
WATER CONTENT, W%	16.0				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

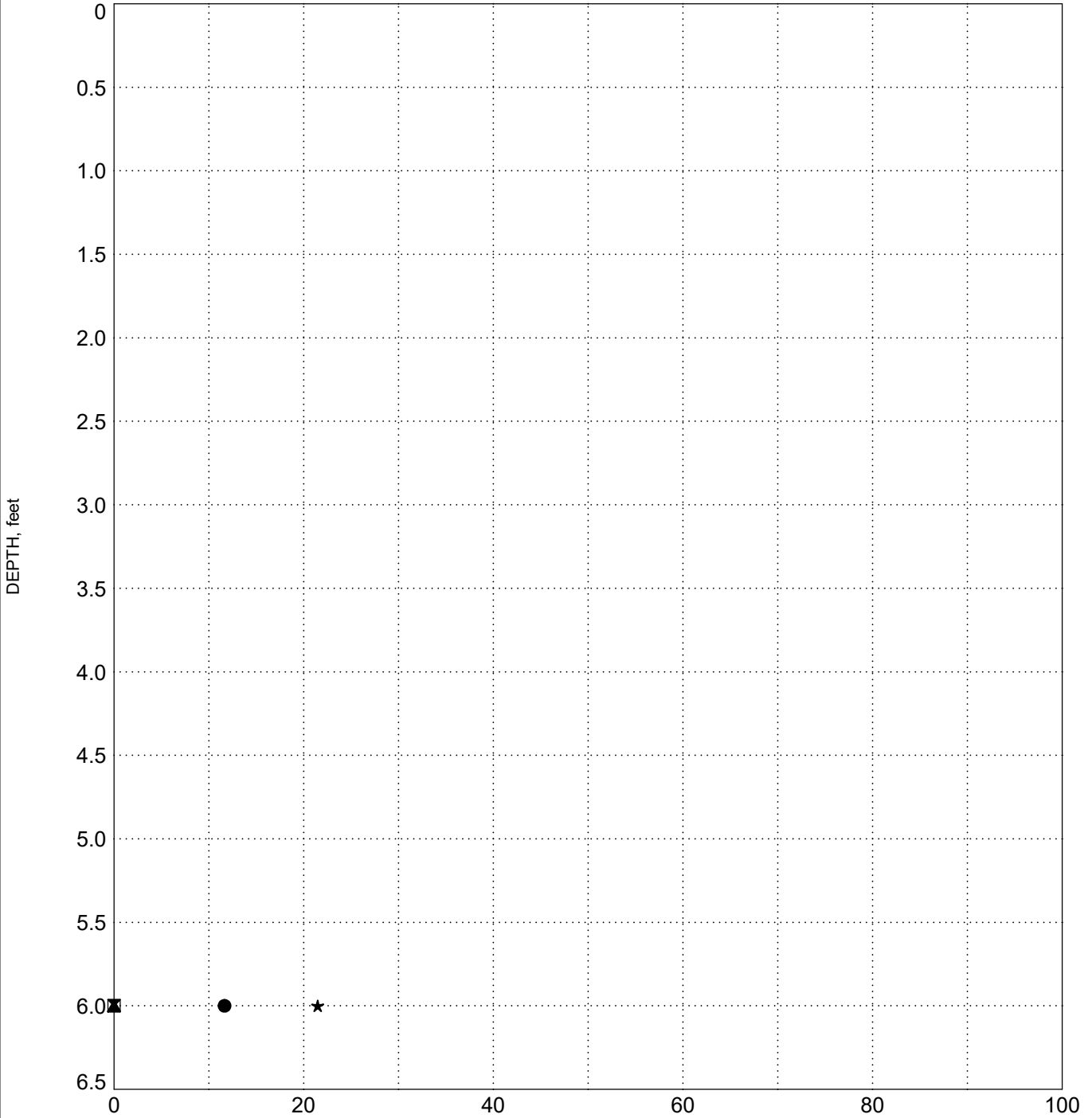
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-10

SURFACE ELEVATION: 101.7



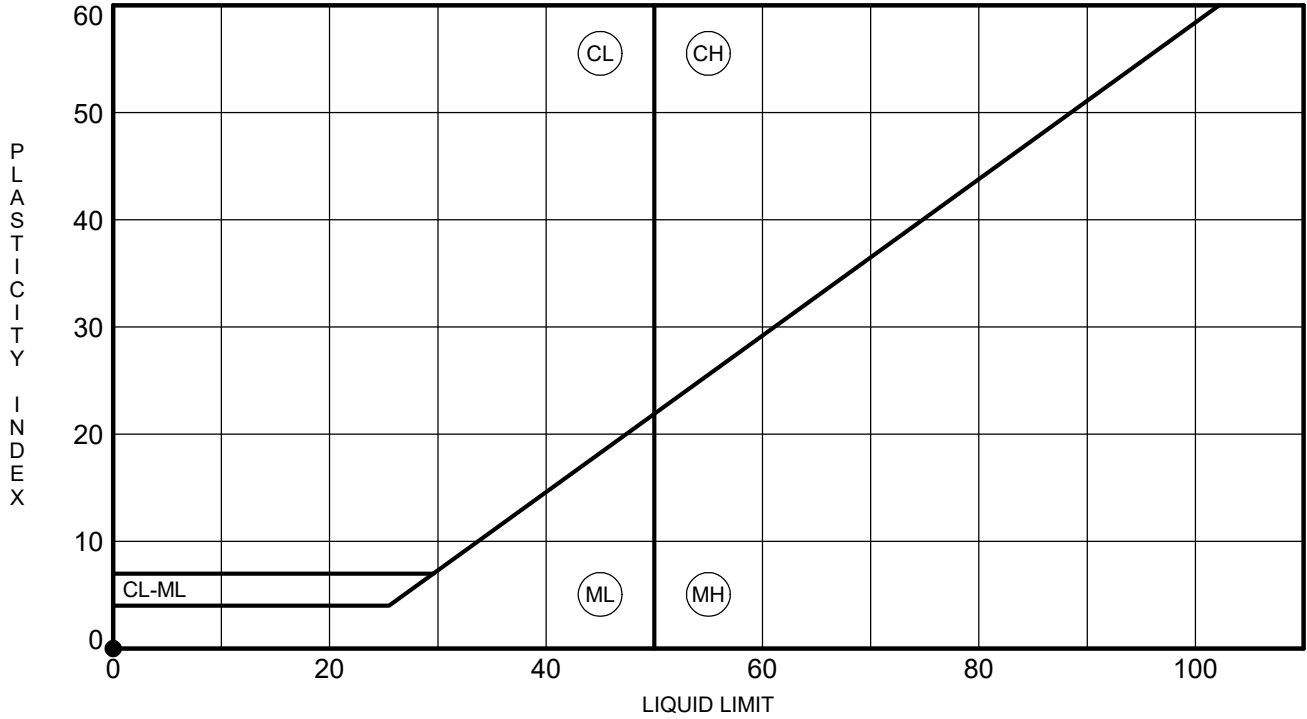
LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23



ATTERBERG LIMITS' RESULTS

PROJECT ID P041130 PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement
 PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-10	6.0	NP	NP	NP	21	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

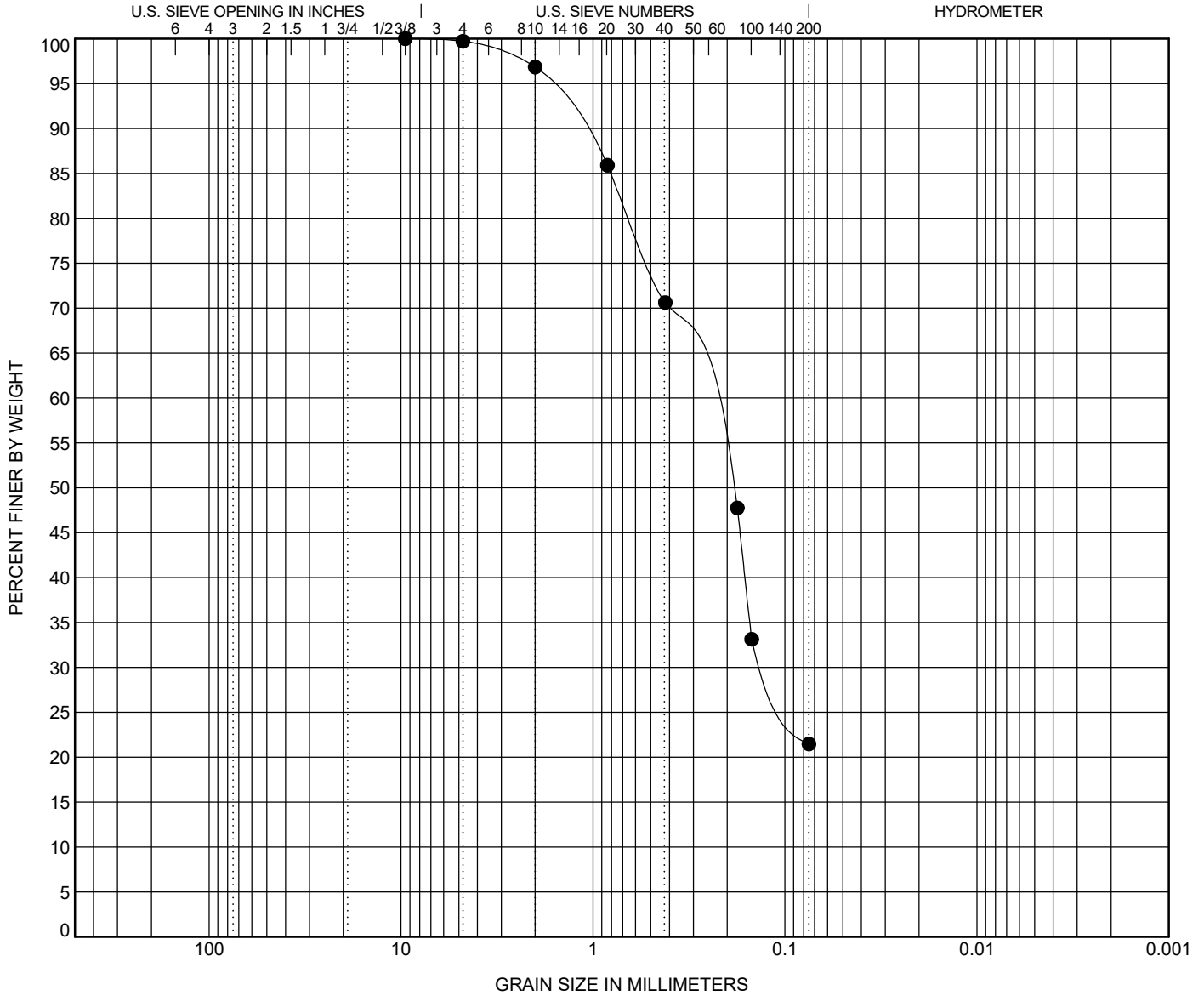


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-10	6.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-10	6.0	9.51	0.281	0.124		0.3	78.2	21.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0136	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/16/2023

BORING NO.	P-10				
SAMPLE NO.	SS-2 & SS-3				
SAMPLE DEPTH (FT.)	2.0 - 6.0				
WATER CONTENT, W%	11.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

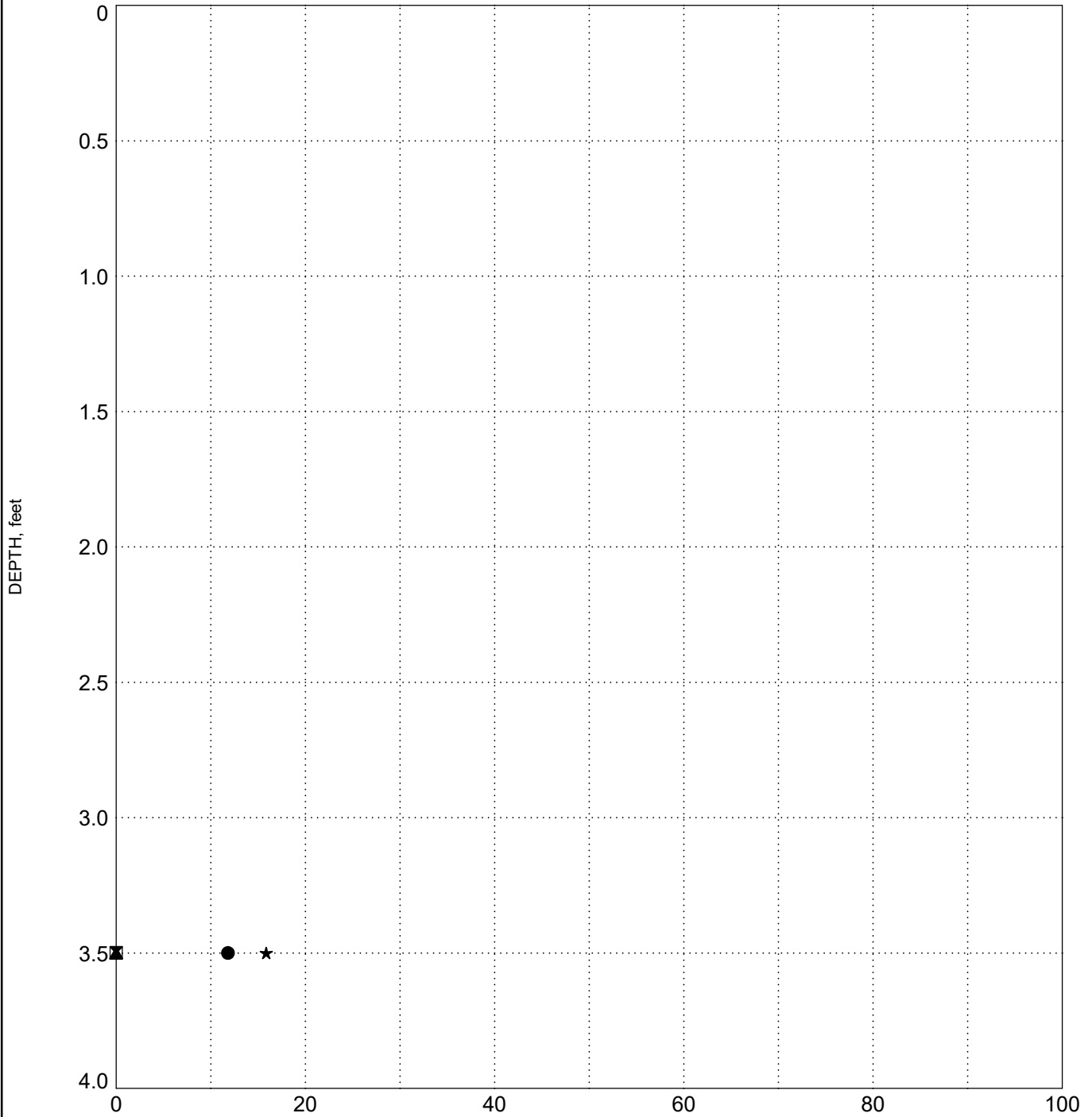
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-11

SURFACE ELEVATION: 100.7



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

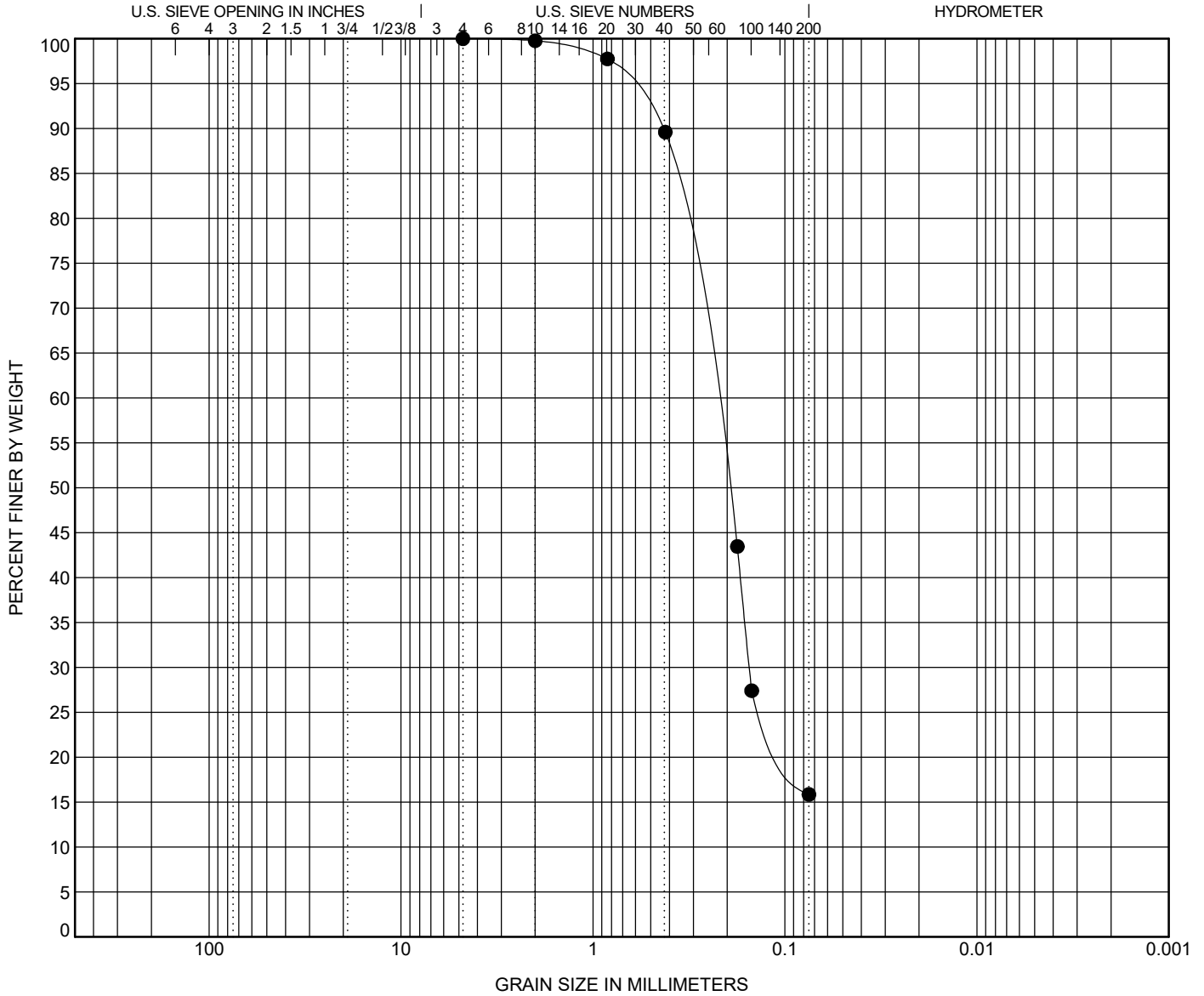


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-11	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-11	3.5	4.76	0.241	0.153		0.0	84.1	15.9			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0129	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Fat CLAY (CH/A-7-6) with Sand		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/16/2023

BORING NO.	P-11				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	11.8				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

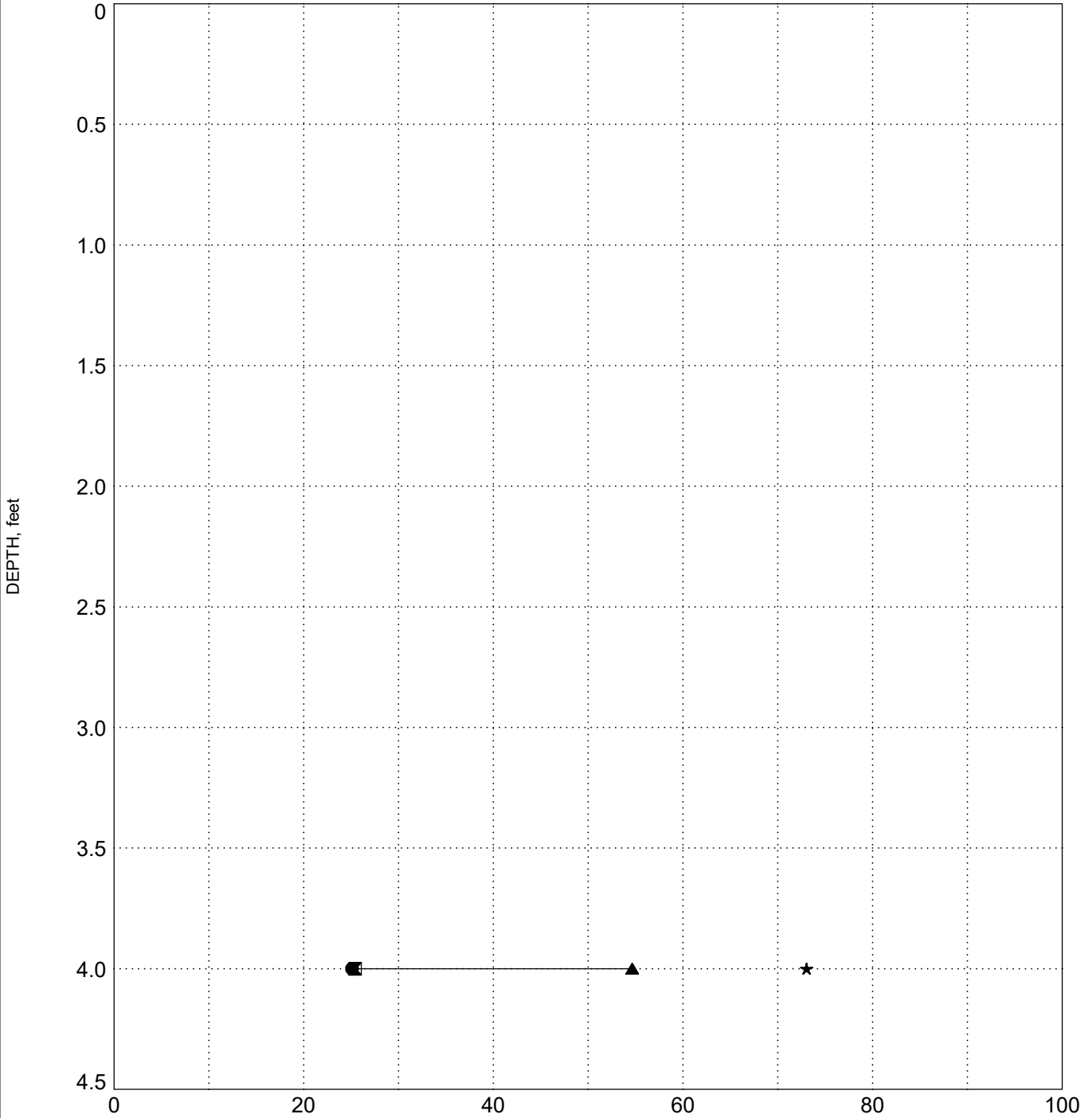
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-12

SURFACE ELEVATION: 98.1



LEGEND	
●	Water Content
■	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

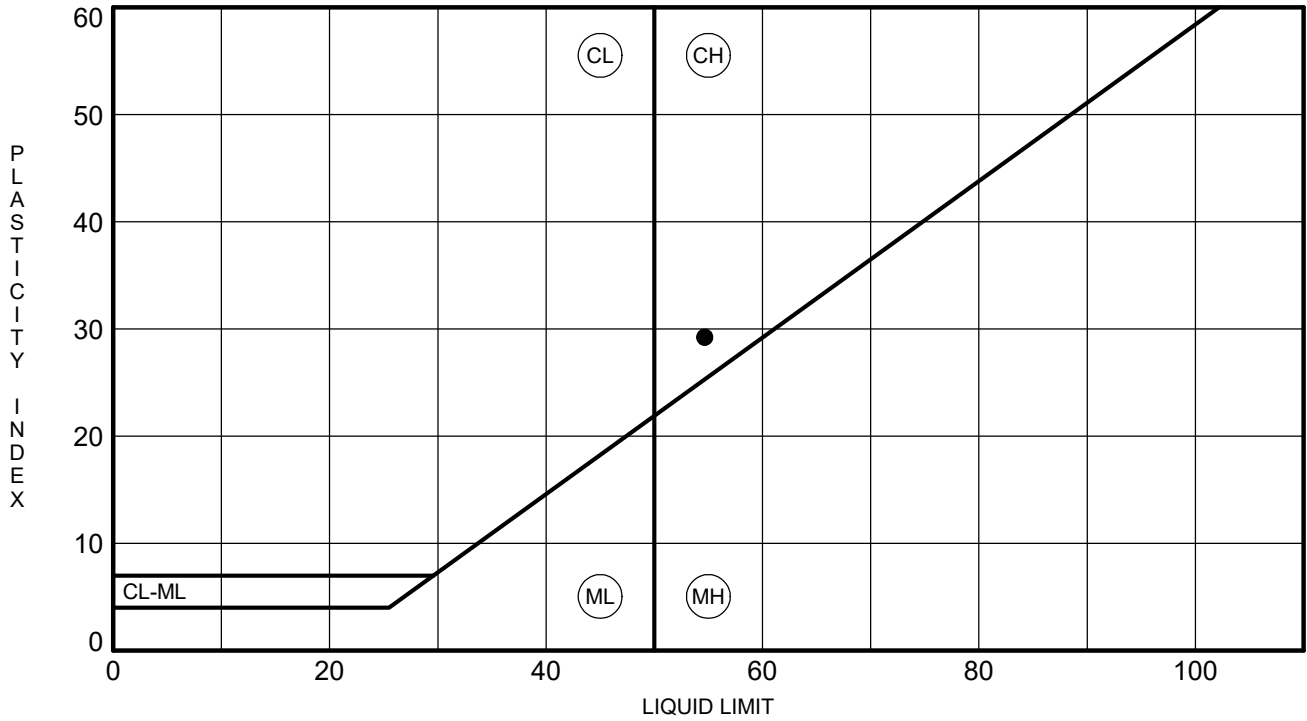


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-12	4.0	55	25	30	73	FAT CLAY with SAND (CH/A-7-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

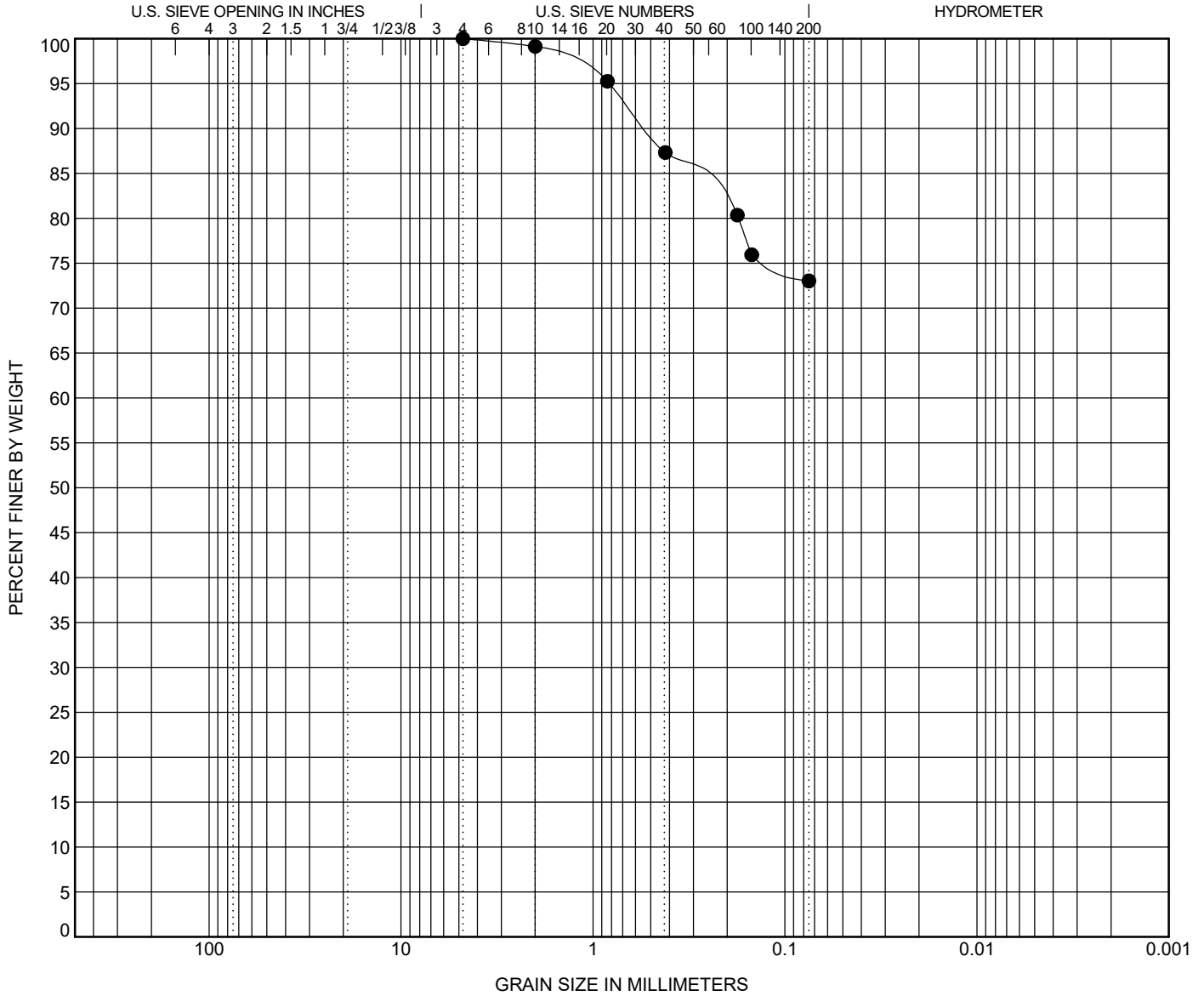


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-12	4.0	FAT CLAY with SAND (CH/A-7-6)					55	25	30		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-12	4.0	4.76				0.0	27.0	73.0			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0133	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Fat CLAY (CH/A-7-6) with Sand		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-12				
SAMPLE NO.	SS-2				
SAMPLE DEPTH (FT.)	2.0 - 4.0				
WATER CONTENT, W%	25.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

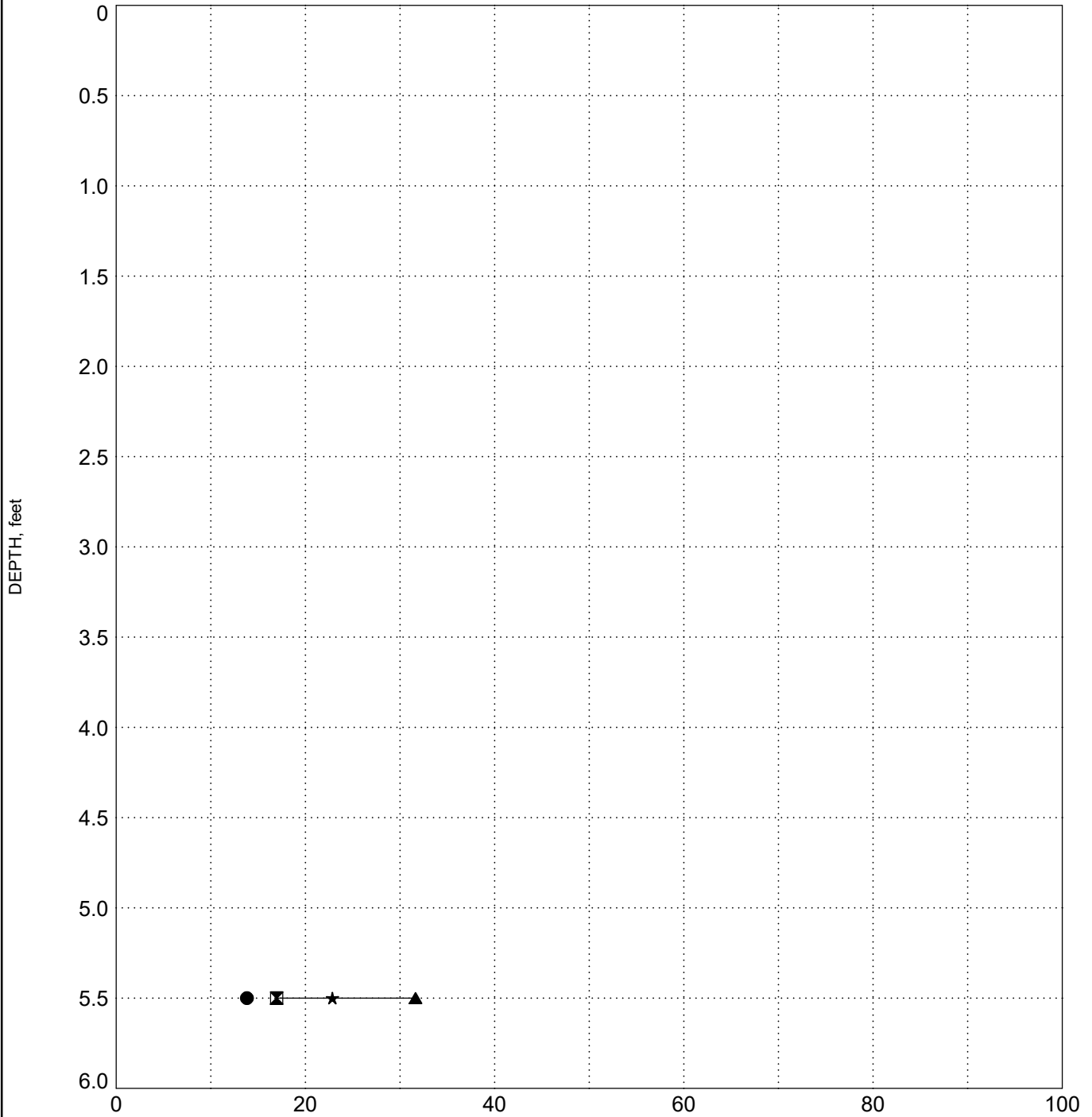
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-13

SURFACE ELEVATION: 99.4



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

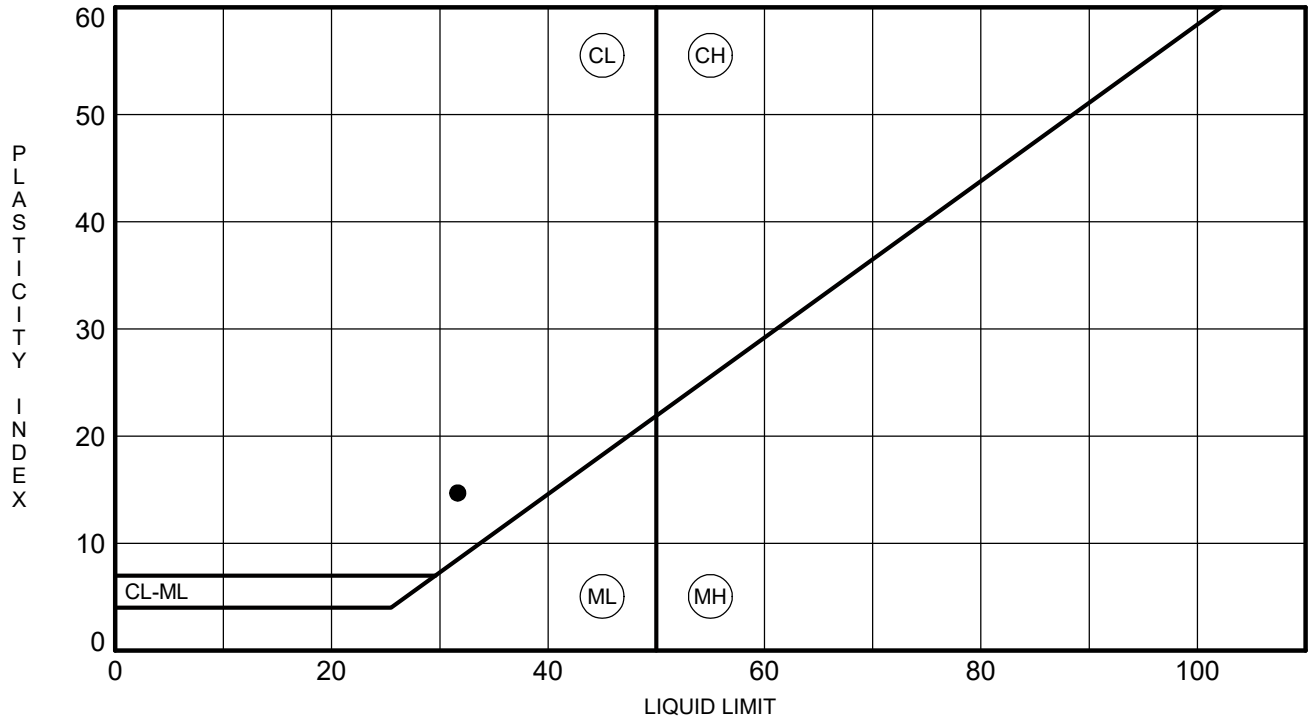


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-13	5.5	32	17	15	23	CLAYEY SAND (SC/A-2-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/23/23

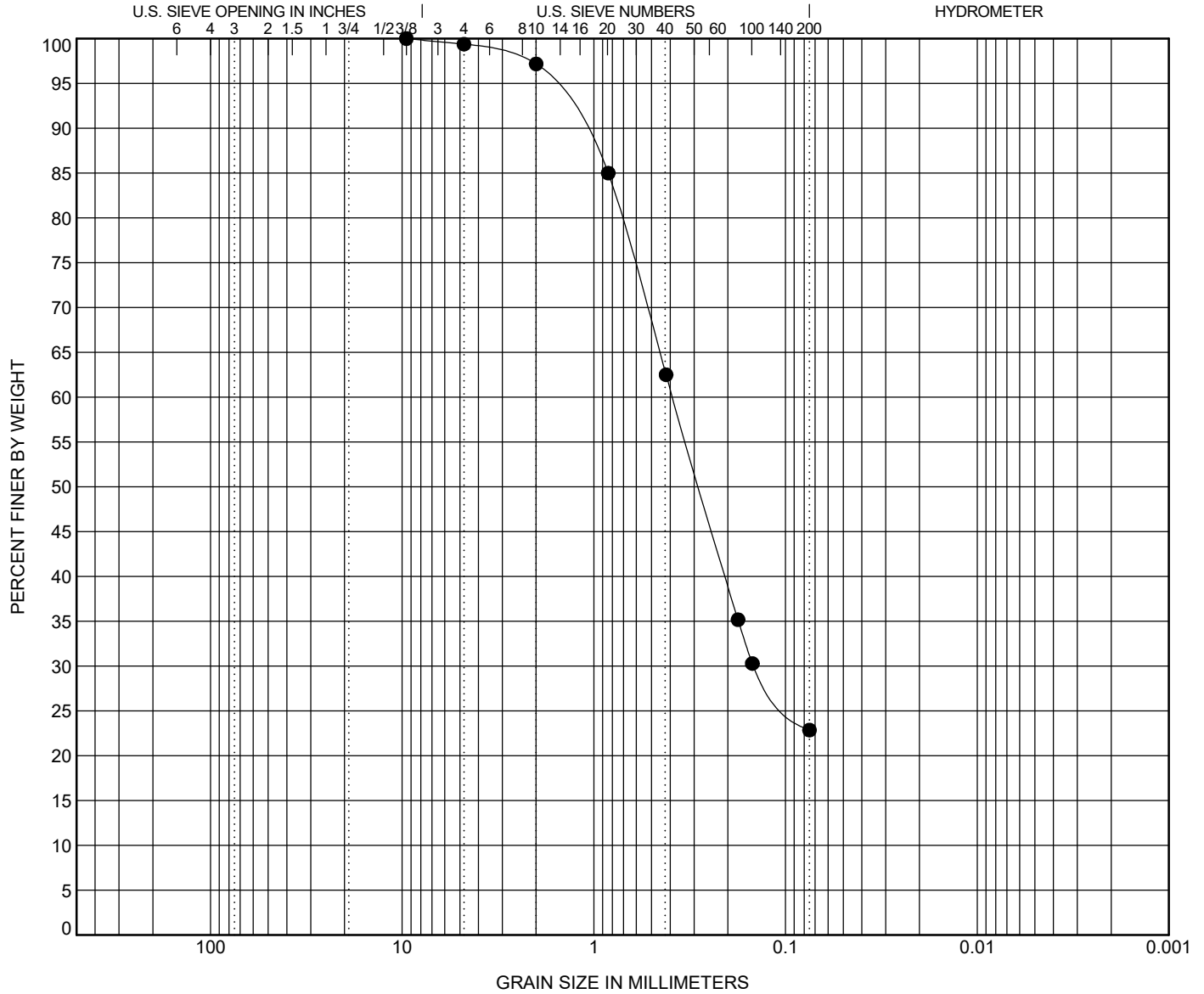


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-13	5.5	CLAYEY SAND (SC/A-2-6)					32	17	15		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-13	5.5	9.51	0.388	0.145		0.6	76.5	22.9	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0144	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-13				
SAMPLE NO.	SS-2				
SAMPLE DEPTH (FT.)	3.5 - 5.5				
WATER CONTENT, W%	13.8				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

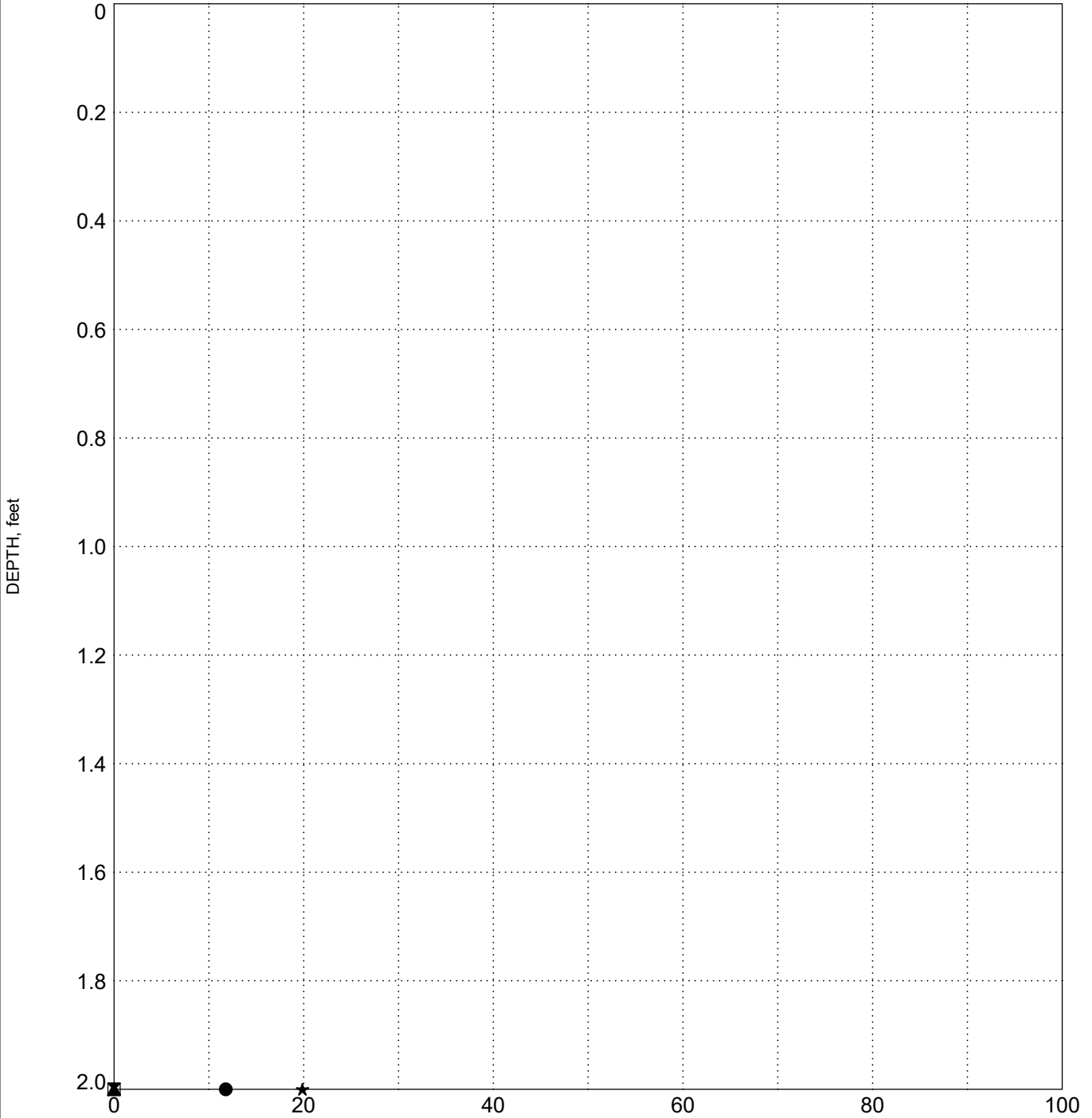
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-14

SURFACE ELEVATION: 105.8



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

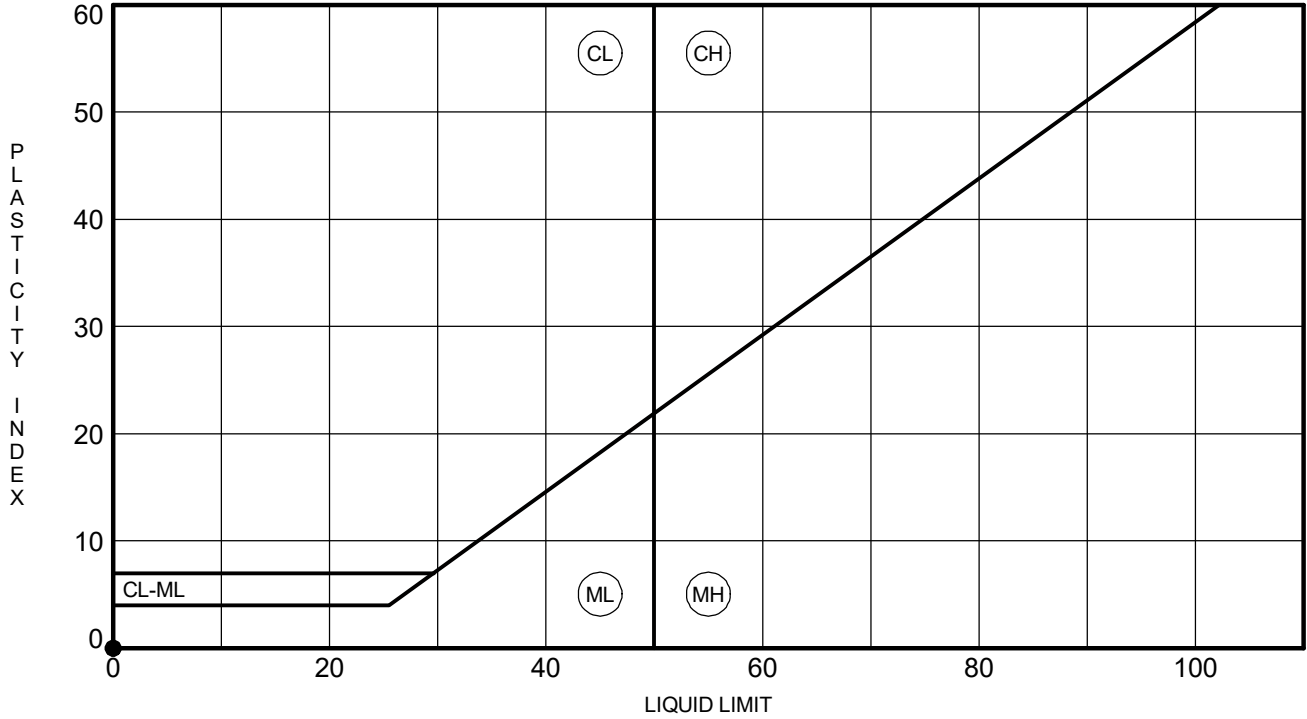


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 Bridge over Lake Marion DB Prep

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-14	2.0	NP	NP	NP	20	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE 01_30_2015.GDT 1/27/23

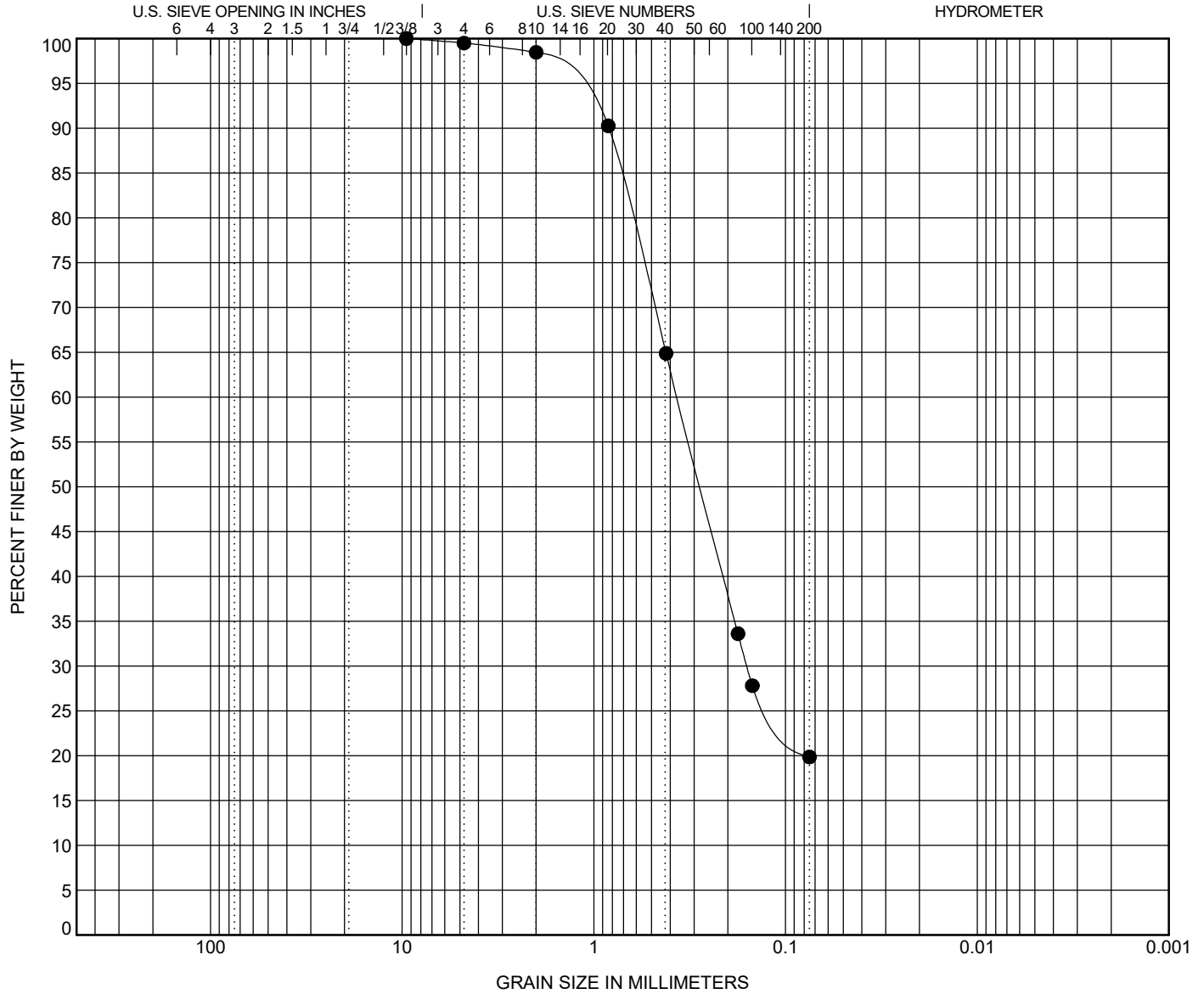


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-14	2.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-14	2.0	9.51	0.367	0.159		0.5	79.6	19.9			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0143	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-14				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	0.0 - 2.0				
WATER CONTENT, W%	11.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

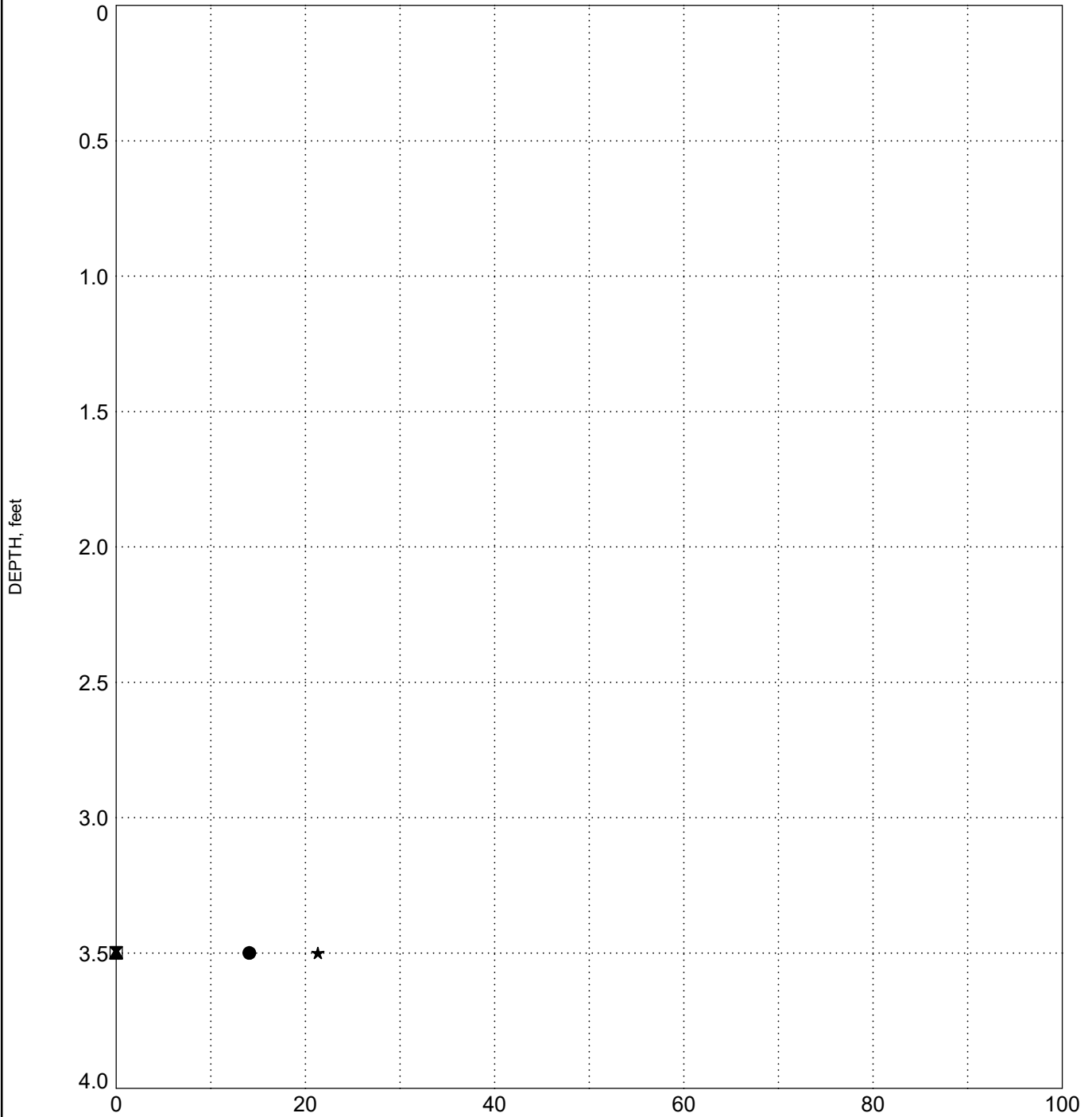
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 117.0

BORING P-15



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

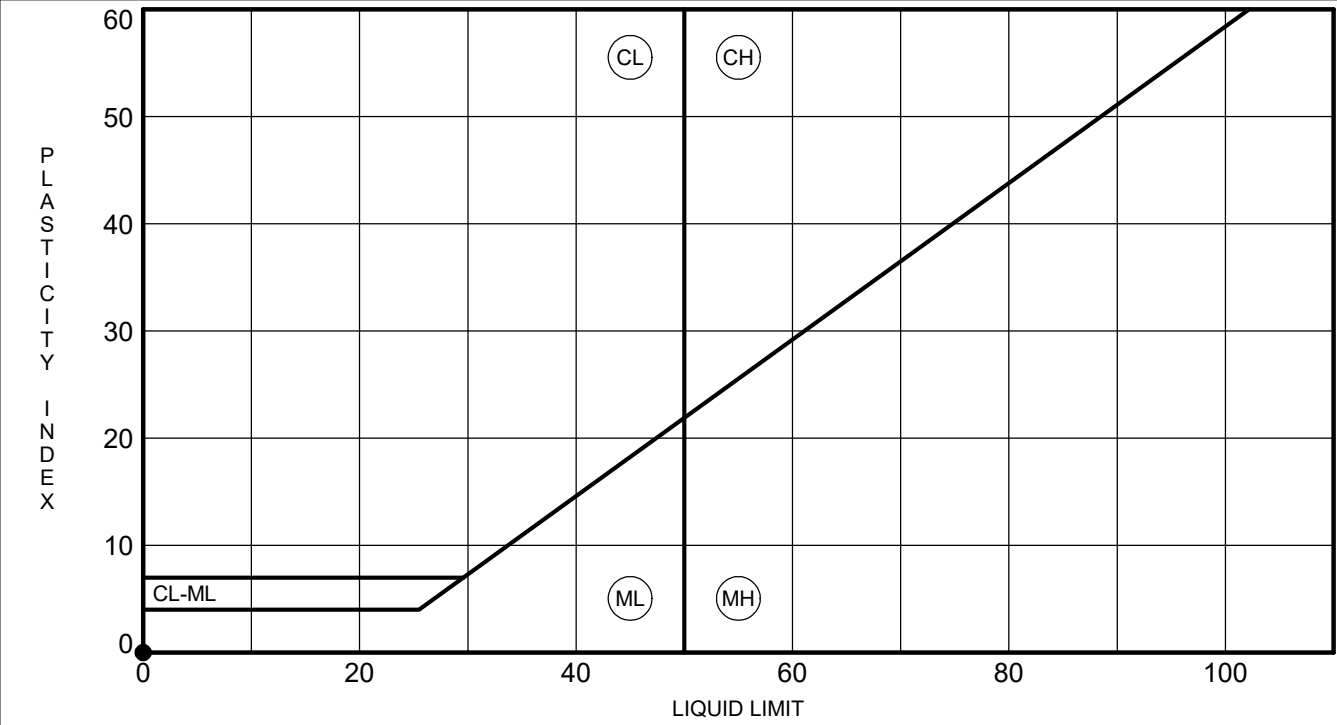


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
P-14	2.0	NP	NP	NP	20	SILTY SAND (SM/A-2-4)

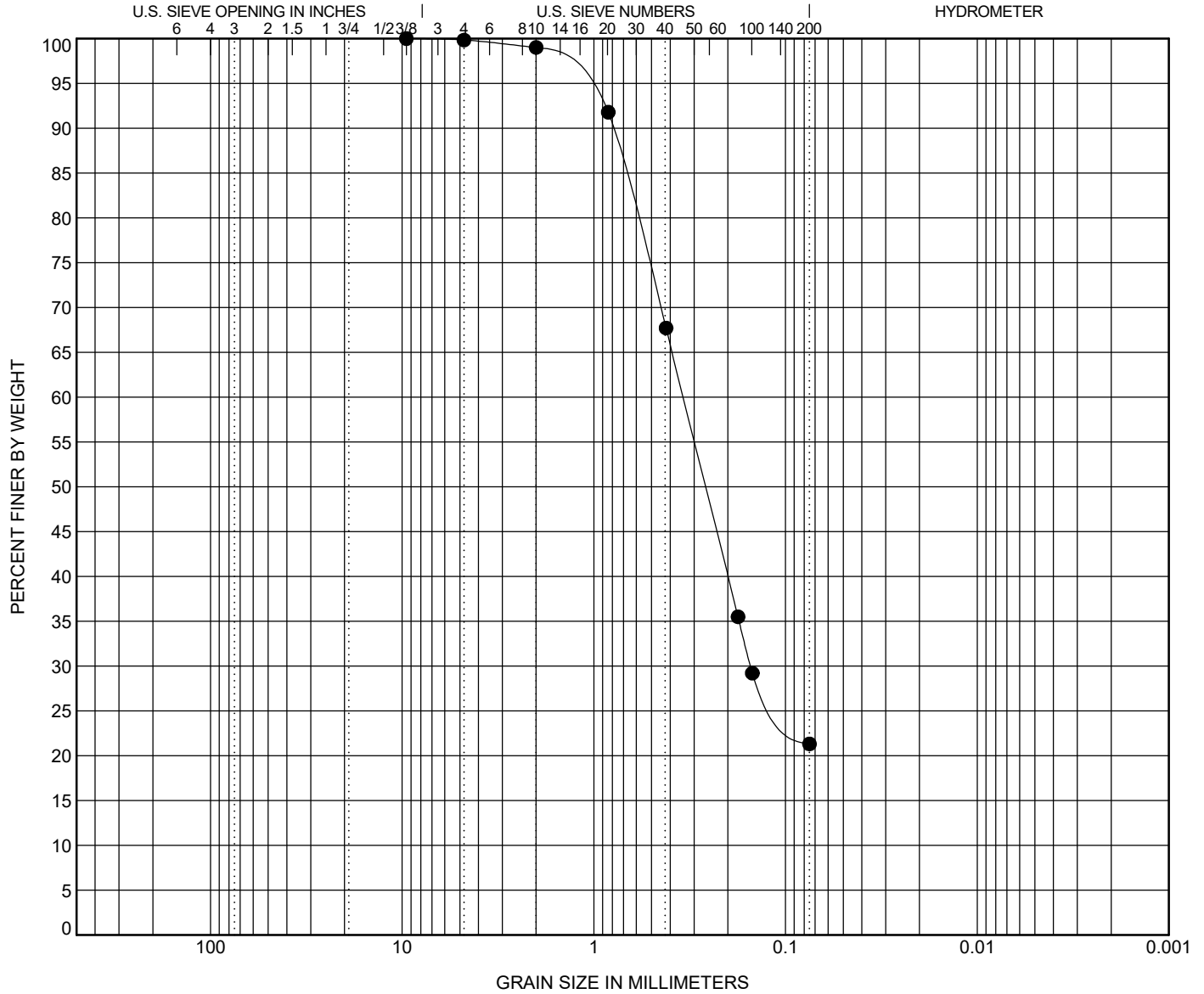


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-15	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-15	3.5	9.51	0.342	0.152		0.2	78.5	21.3			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0140	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-15				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	14.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

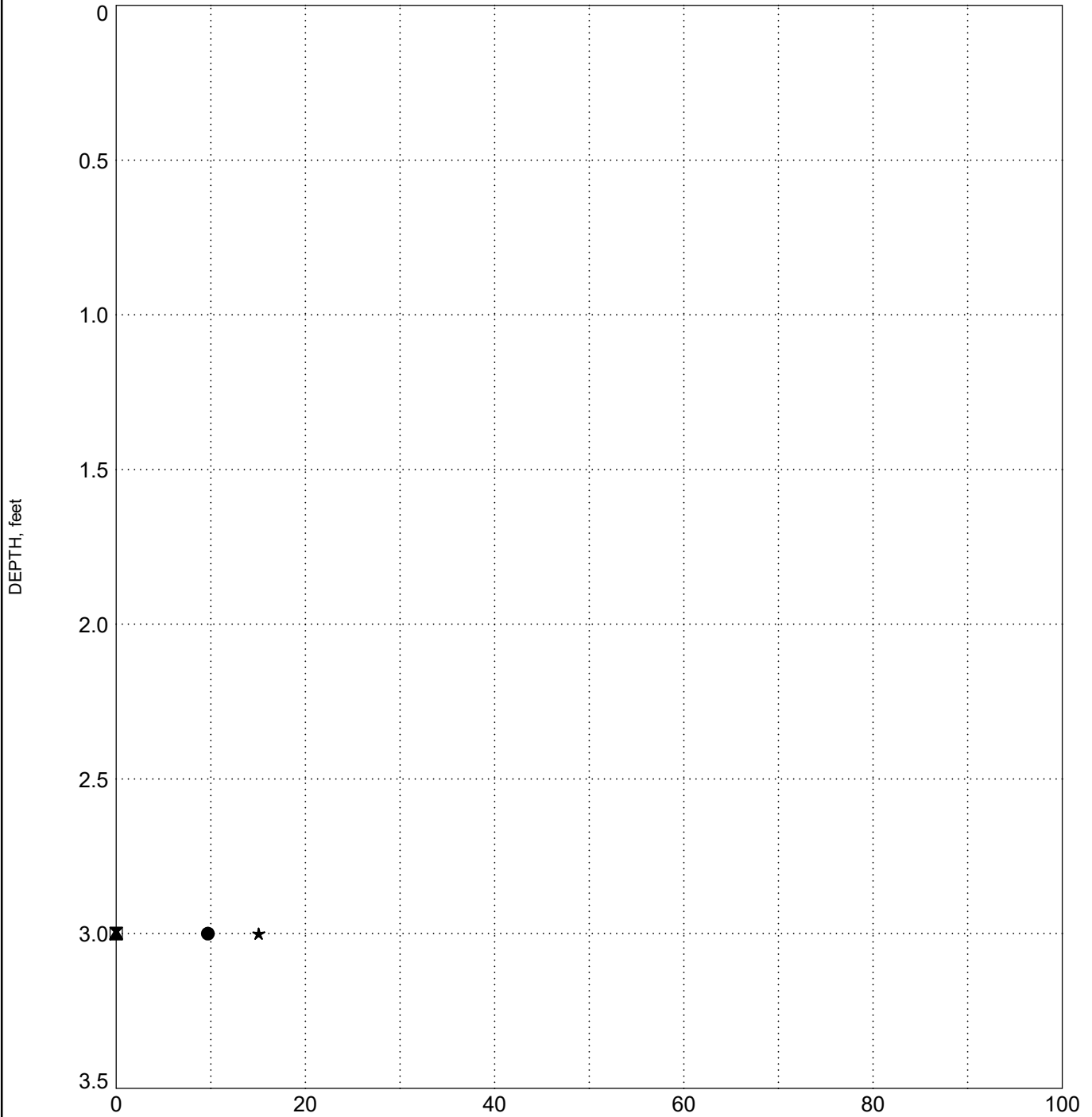
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-16

SURFACE ELEVATION: 89.9



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

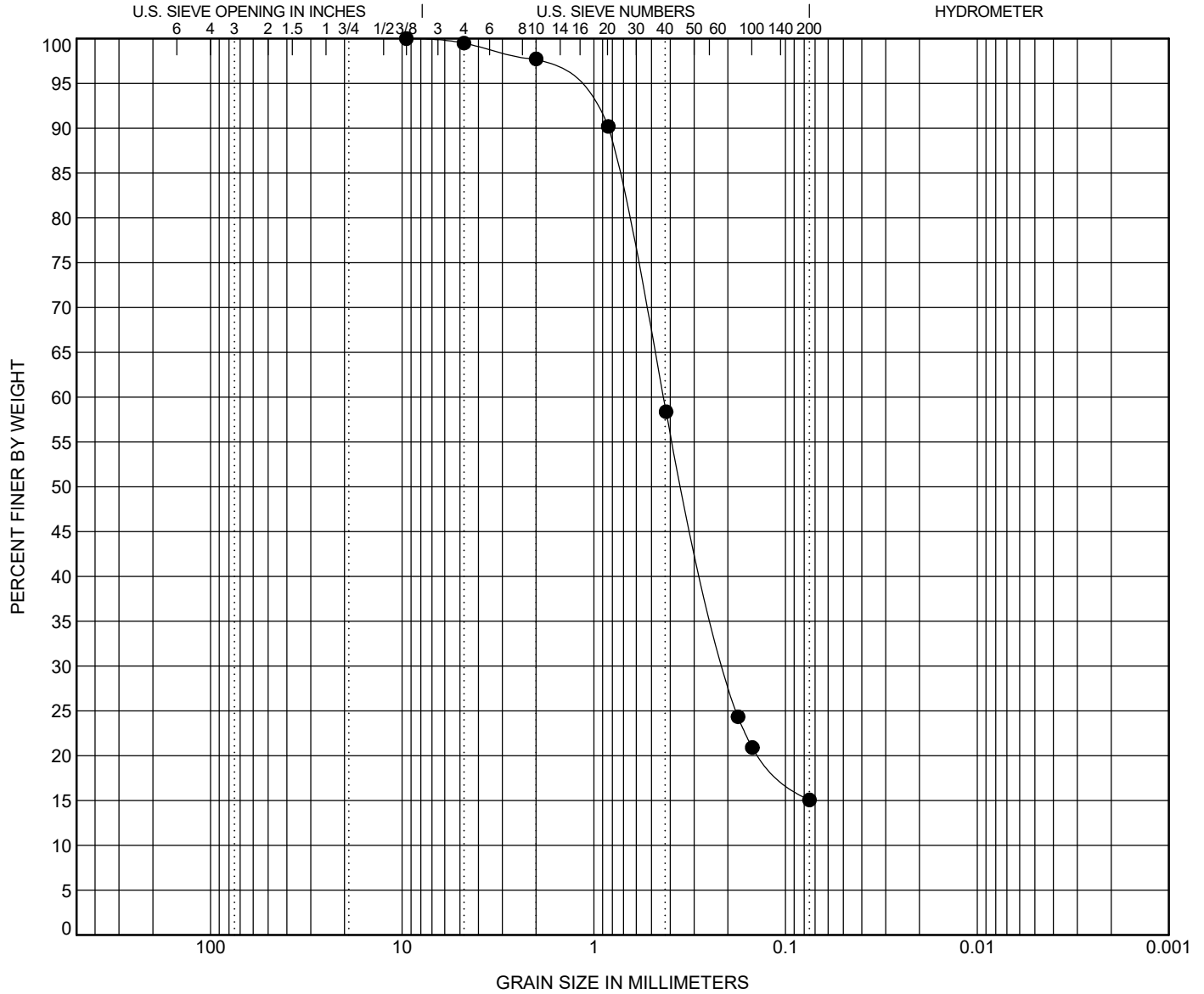


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-16	3.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-16	3.0	9.51	0.435	0.204		0.5	84.4	15.1			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0142	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-16				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.0 - 3.0				
WATER CONTENT, W%	9.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

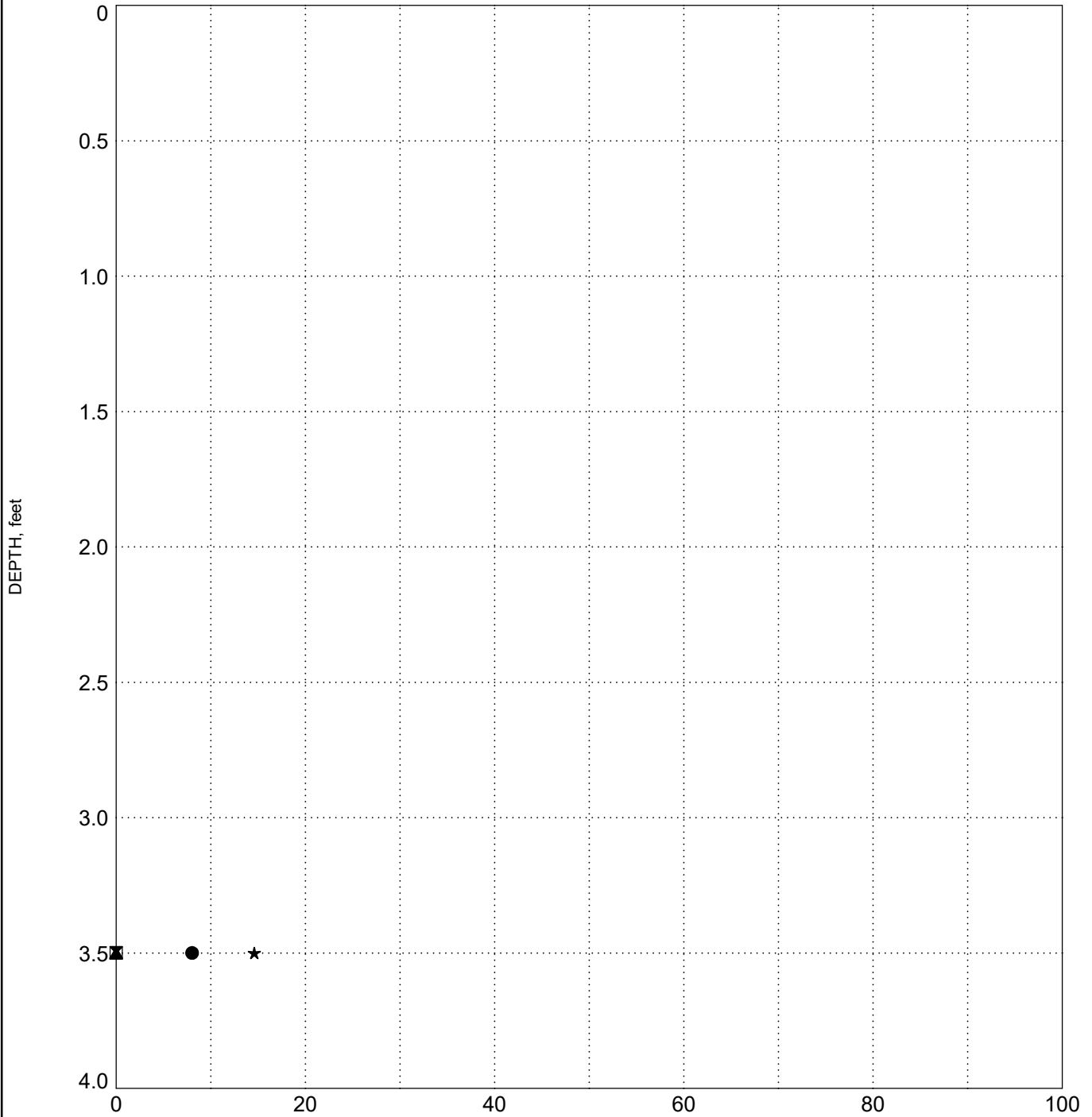
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 90.0

BORING P-17



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

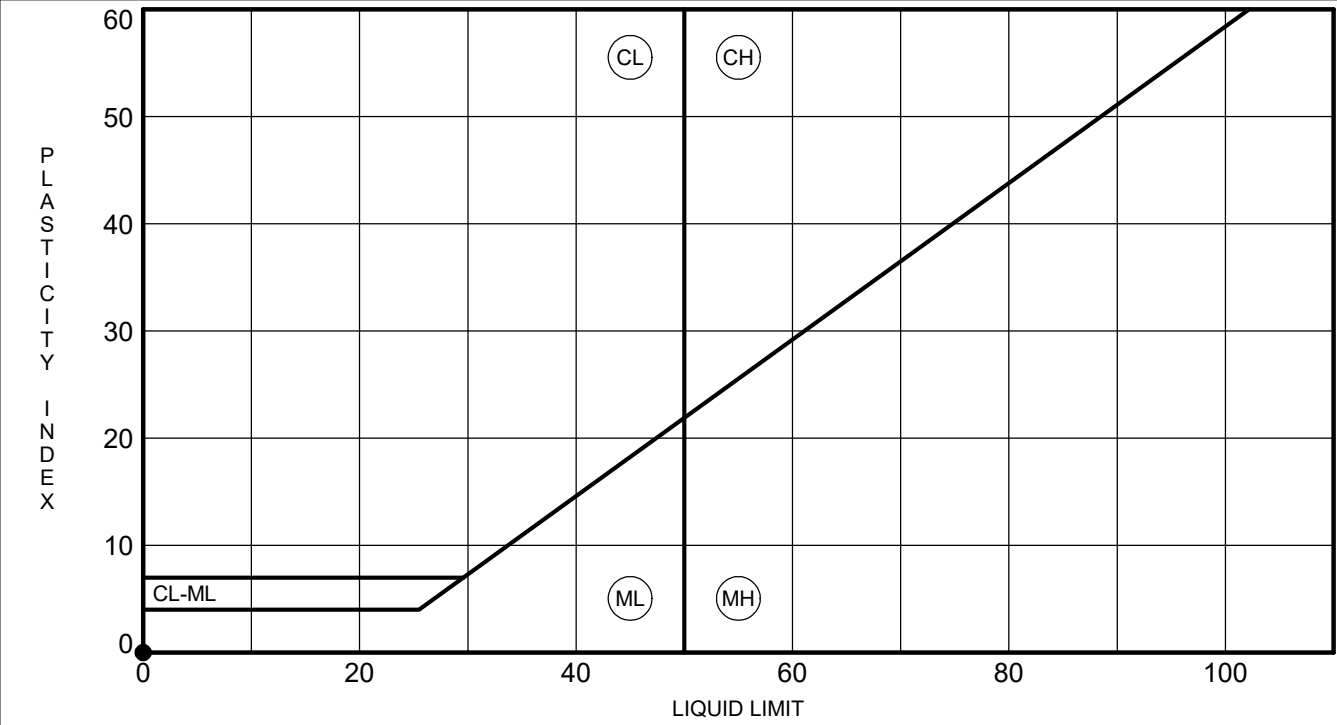


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	P-17	3.5	NP	NP	NP	15	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

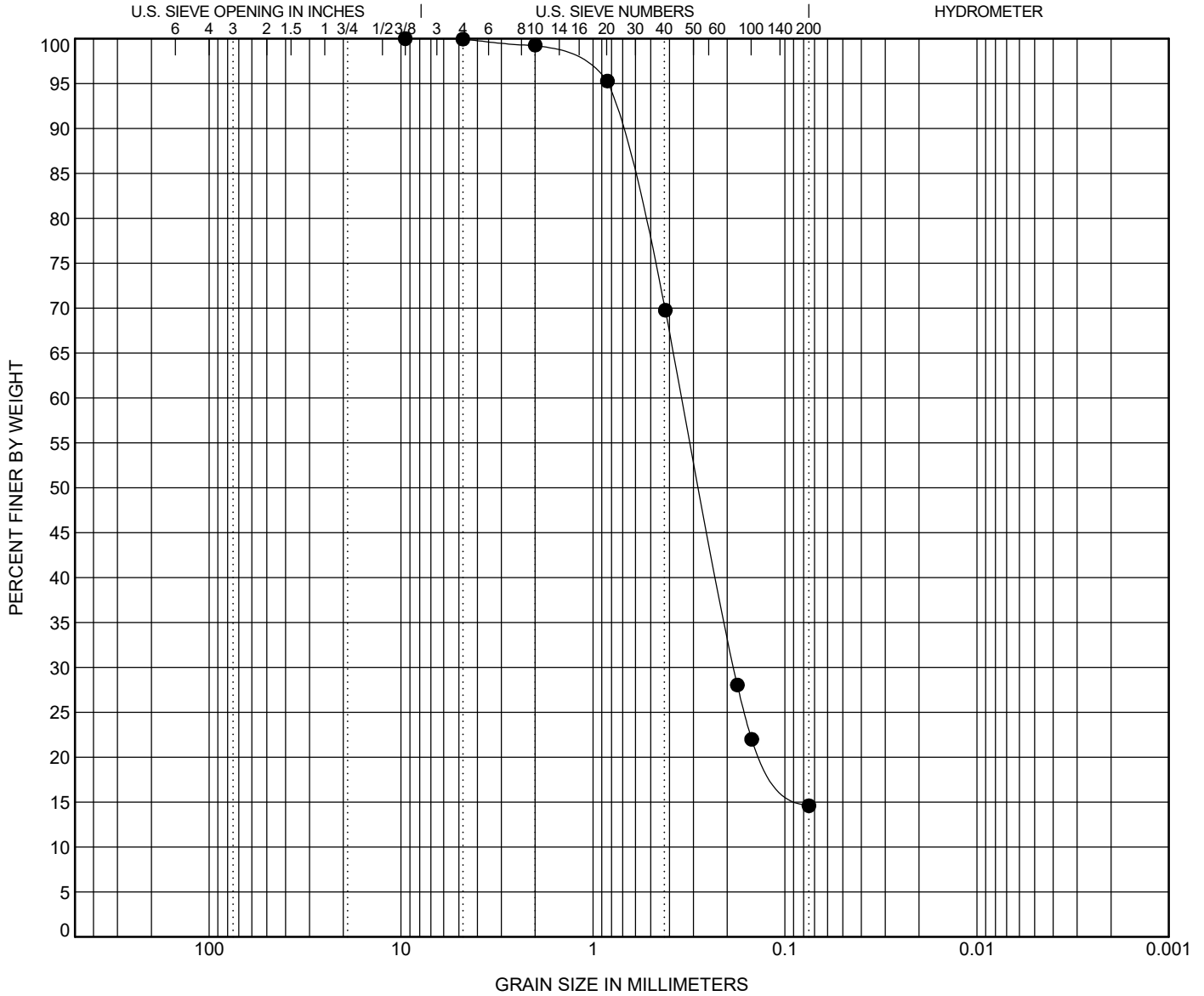


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-17	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-17	3.5	9.51	0.343	0.184		0.1	85.3	14.6	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0135	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-17				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	8.0				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

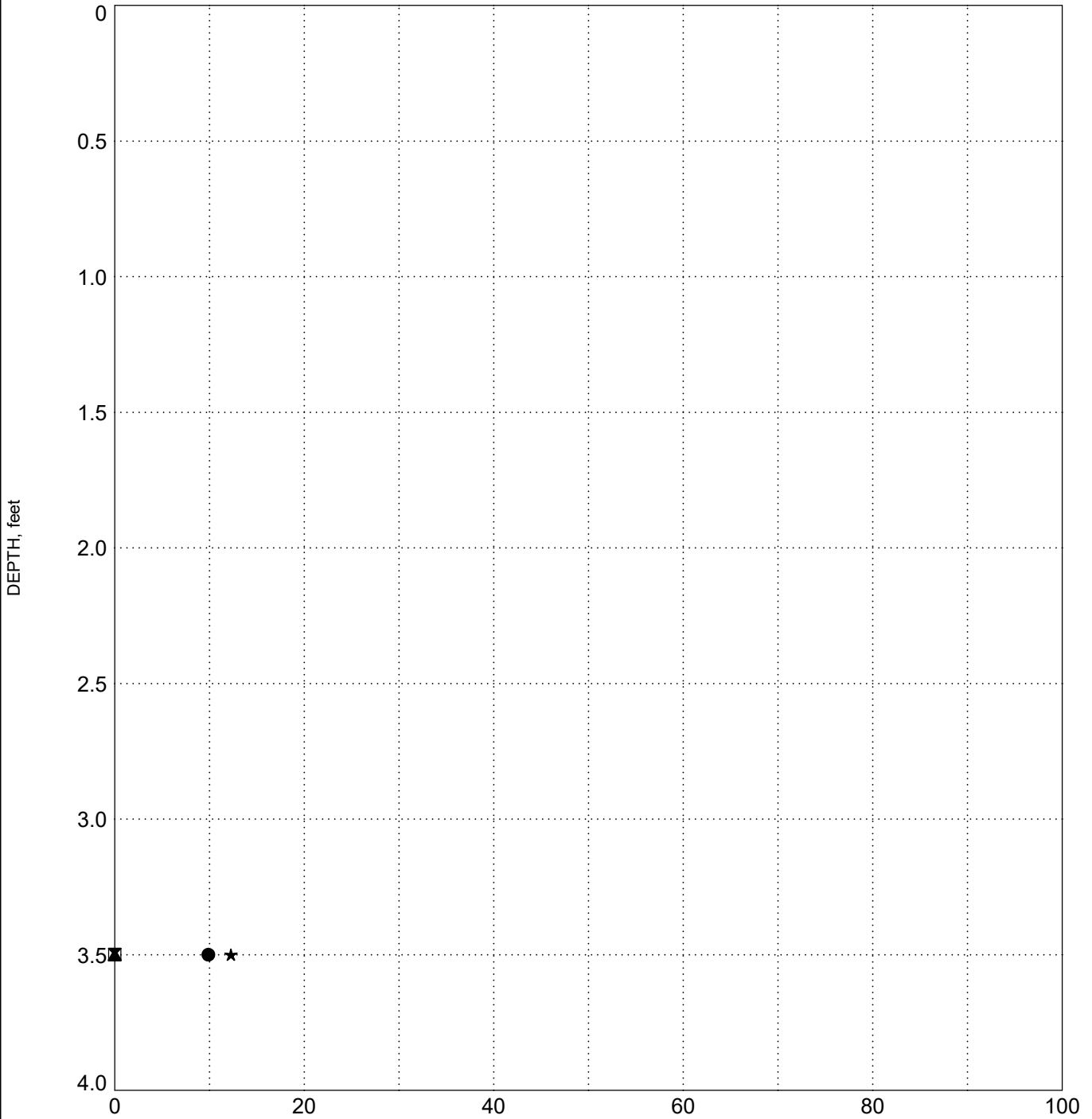
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-18

SURFACE ELEVATION: 89.5



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

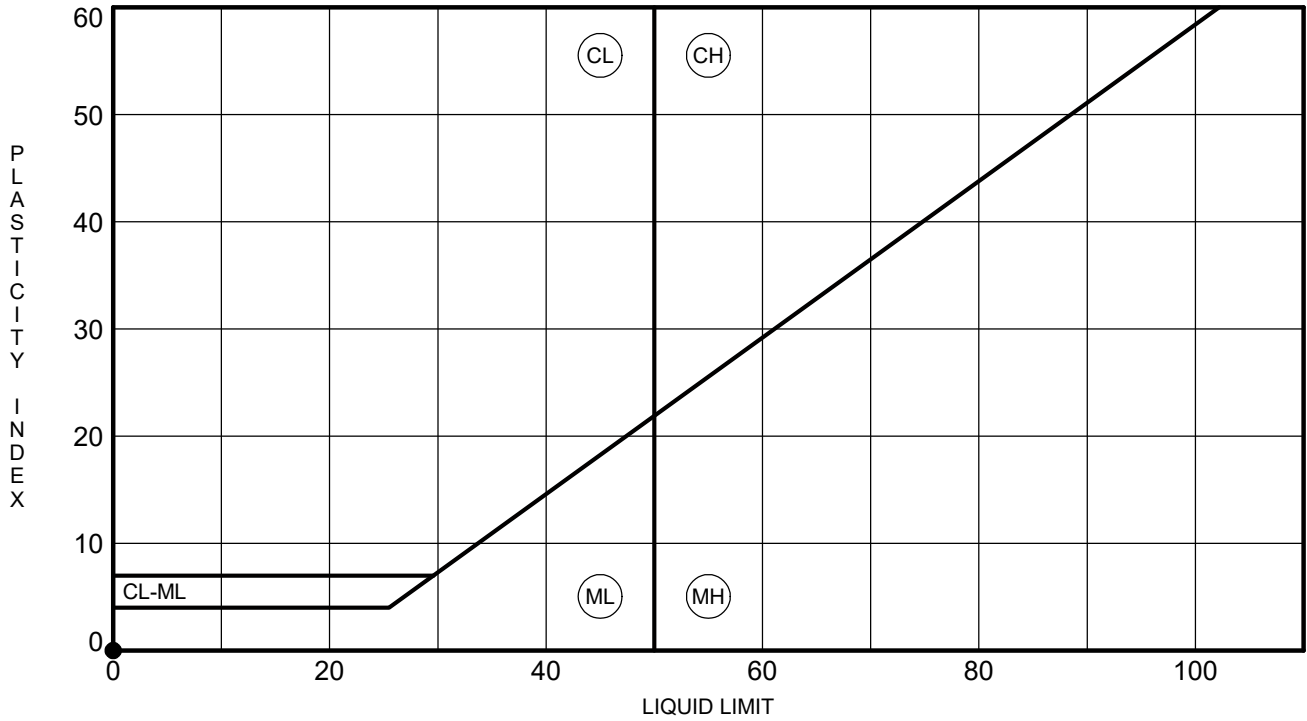


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	P-18	3.5	NP	NP	NP	12	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

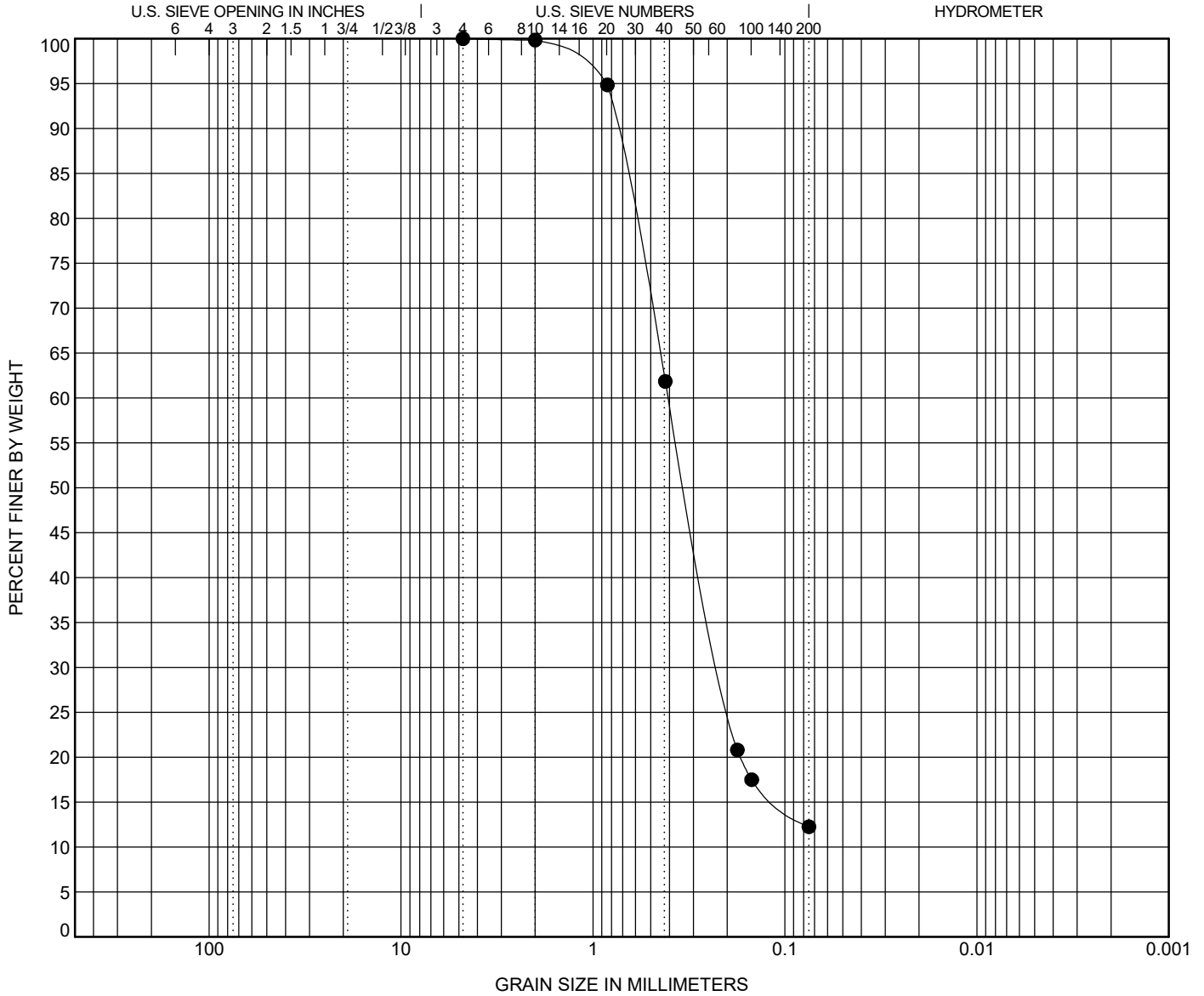


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-18	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP	2.05	7.24

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-18	3.5	4.76	0.404	0.215		0.0	87.7		12.3

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0128	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-18				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	9.9				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

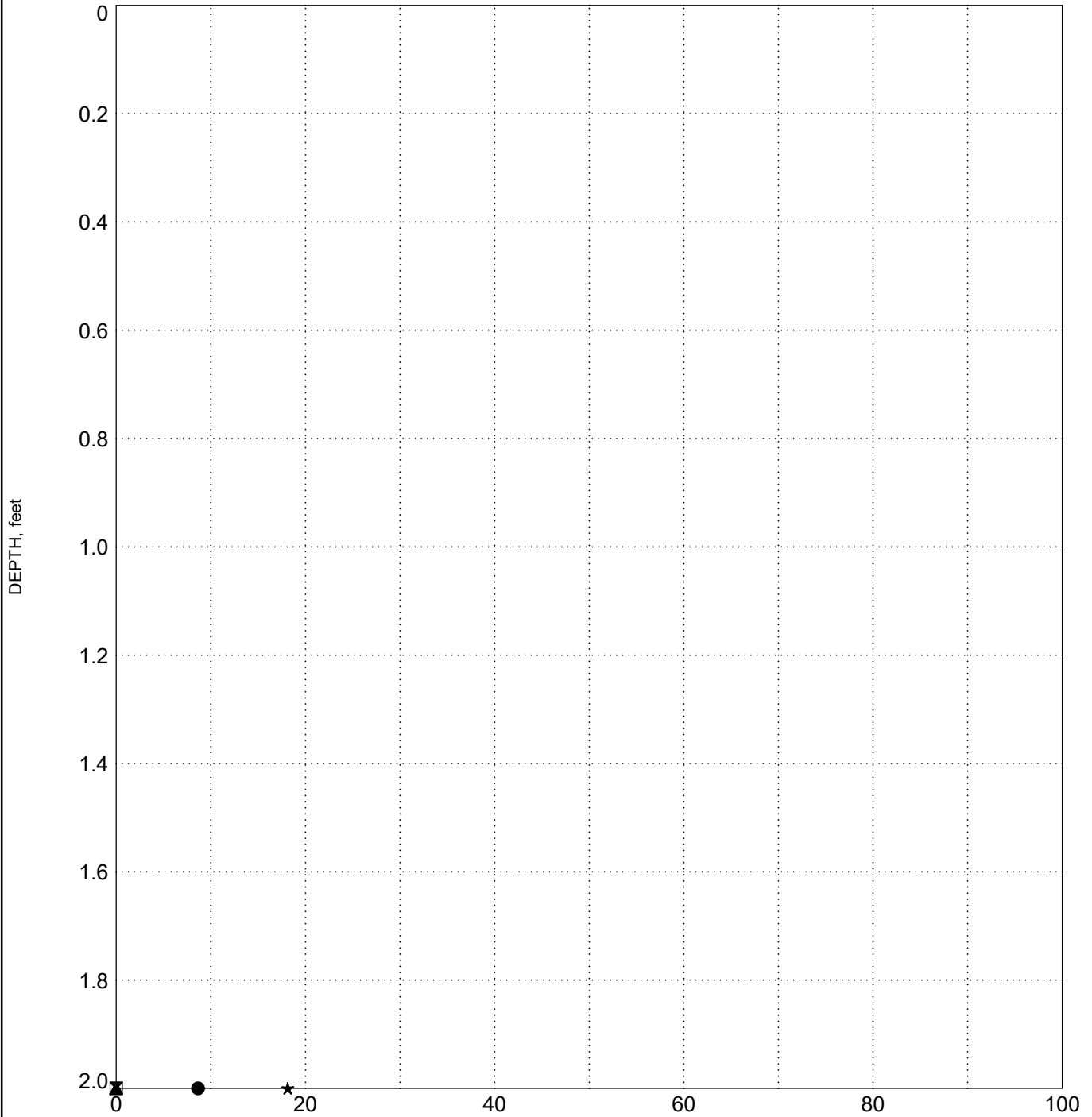
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-19

SURFACE ELEVATION: 89.3



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

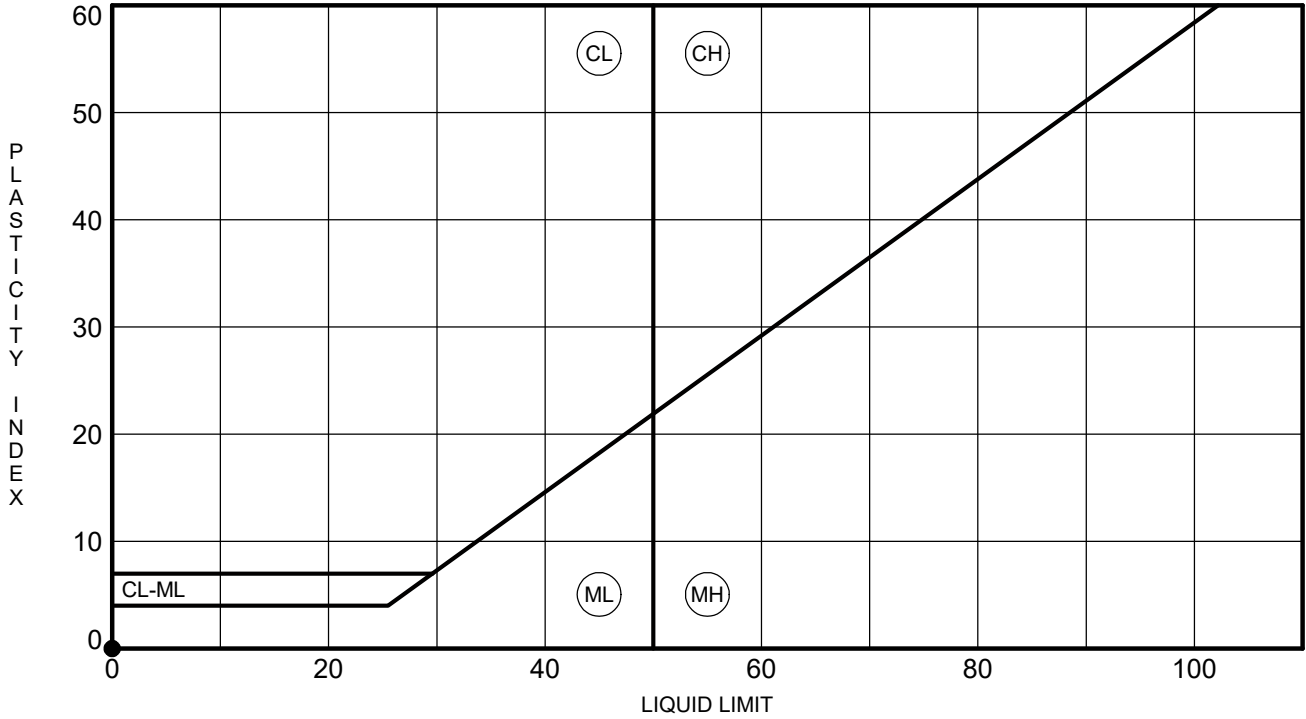


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-19	2.0	NP	NP	NP	18	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS: G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

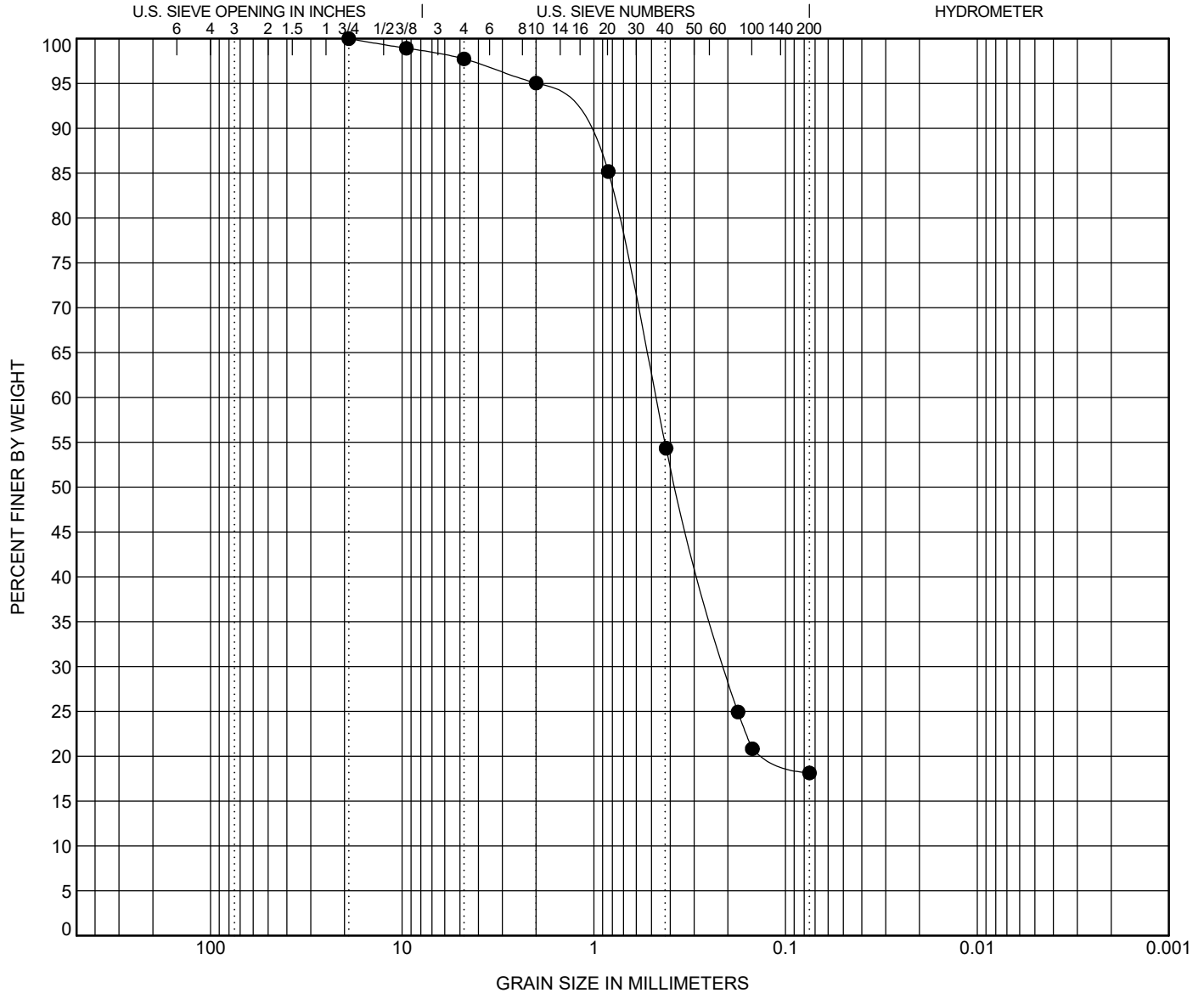


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-19	2.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-19	2.0	19	0.477	0.205		2.3	79.6	18.1	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0146	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-19				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	0.0 - 2.0				
WATER CONTENT, W%	8.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

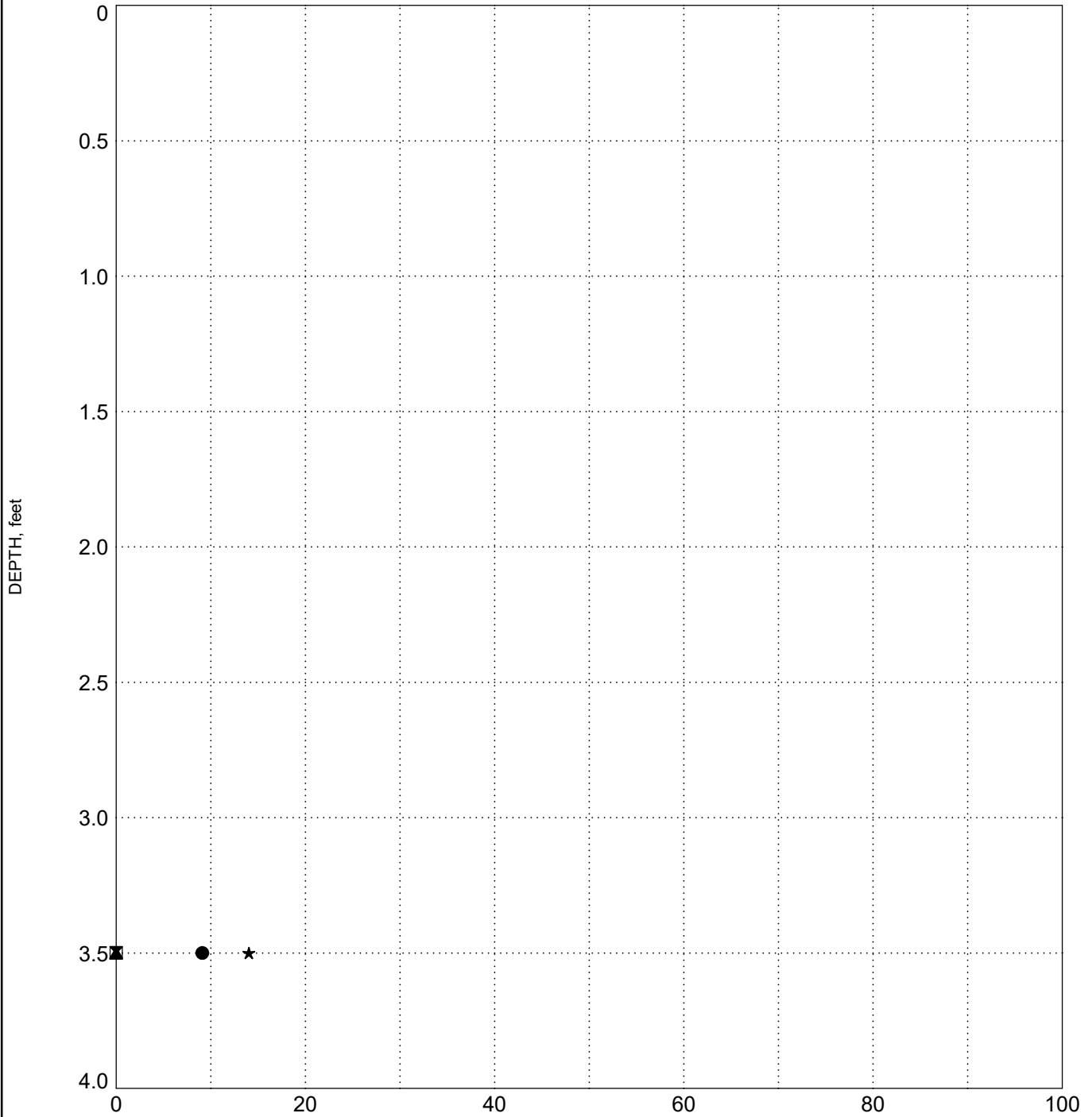
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-20

SURFACE ELEVATION: 91.7



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

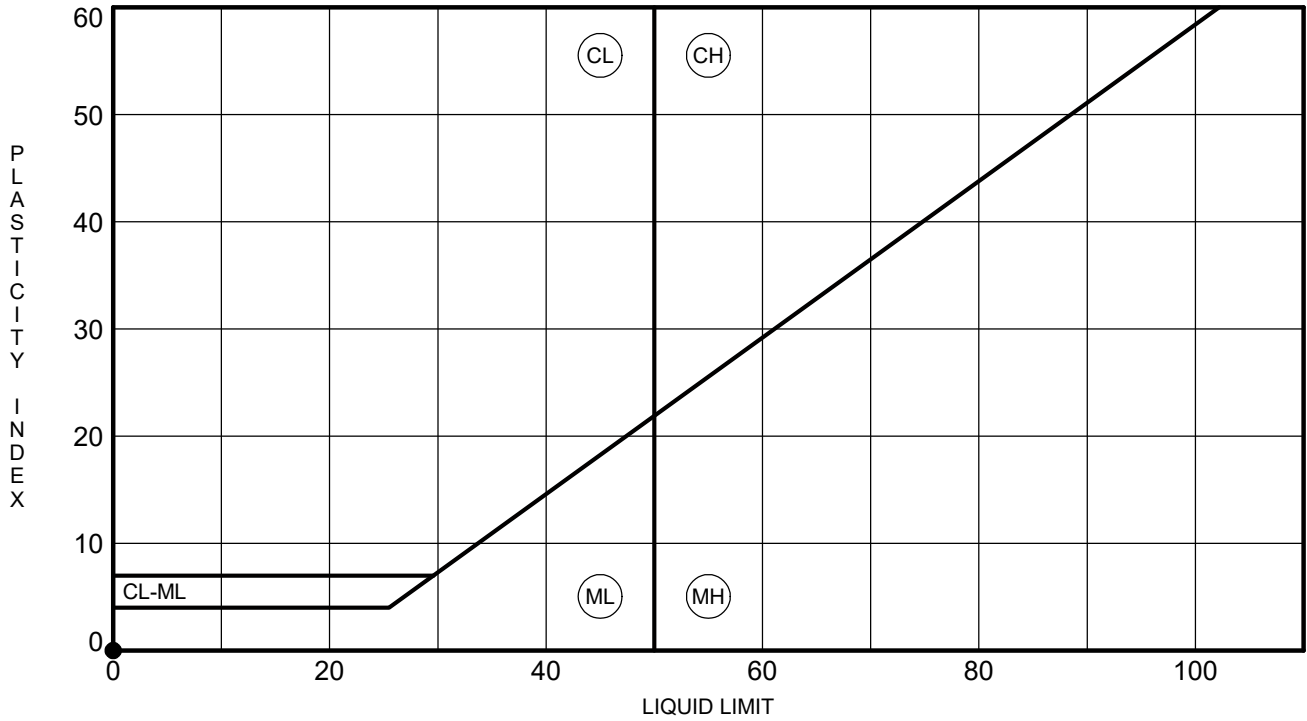


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-20	3.5	NP	NP	NP	14	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

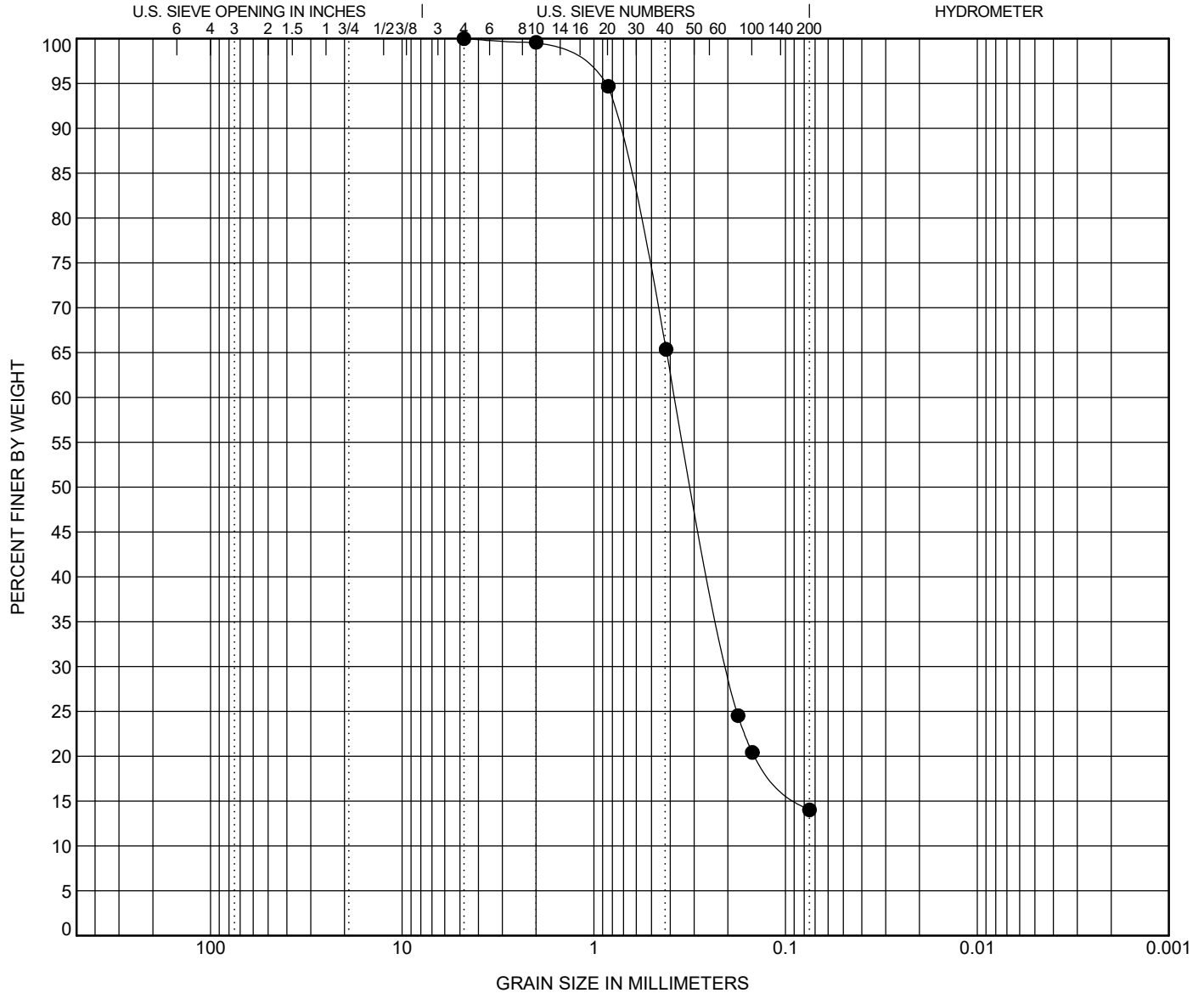


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-20	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt		%Clay	
● P-20	3.5	4.76	0.375	0.199		0.0	86.0	14.0			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0130	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-20				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	9.1				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

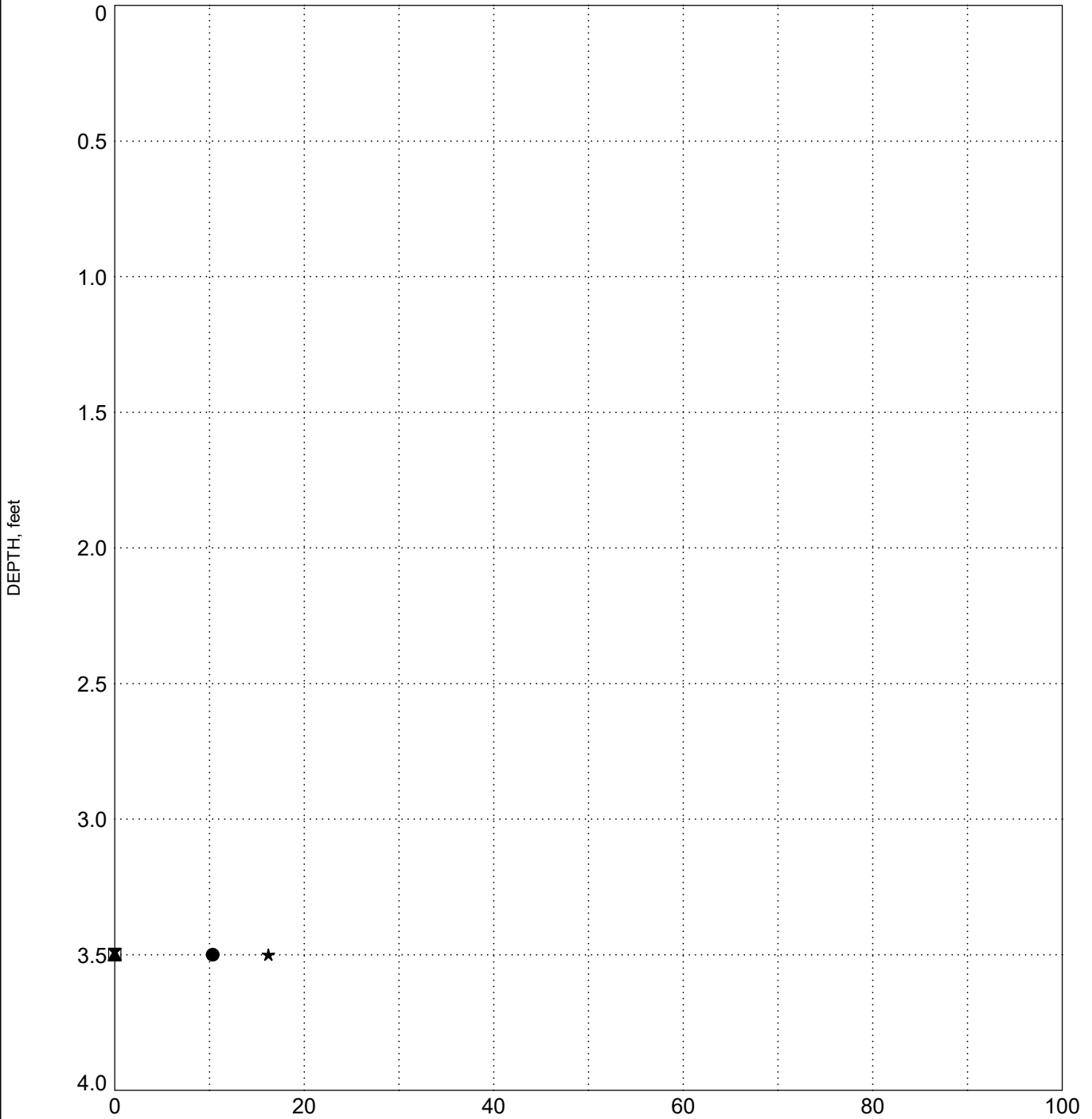
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

SURFACE ELEVATION: 98.1

BORING P-21



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

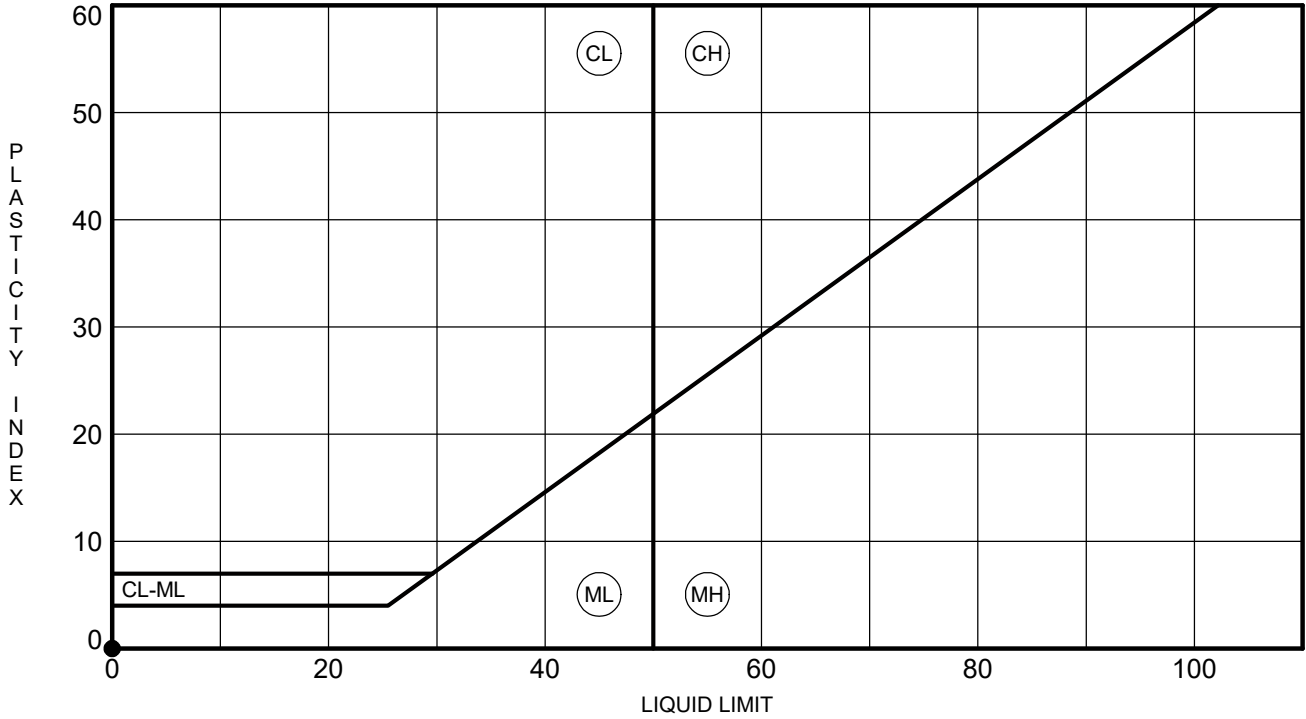


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-21	3.5	NP	NP	NP	16	SILTY SAND (SM/A-1-b)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/23/23

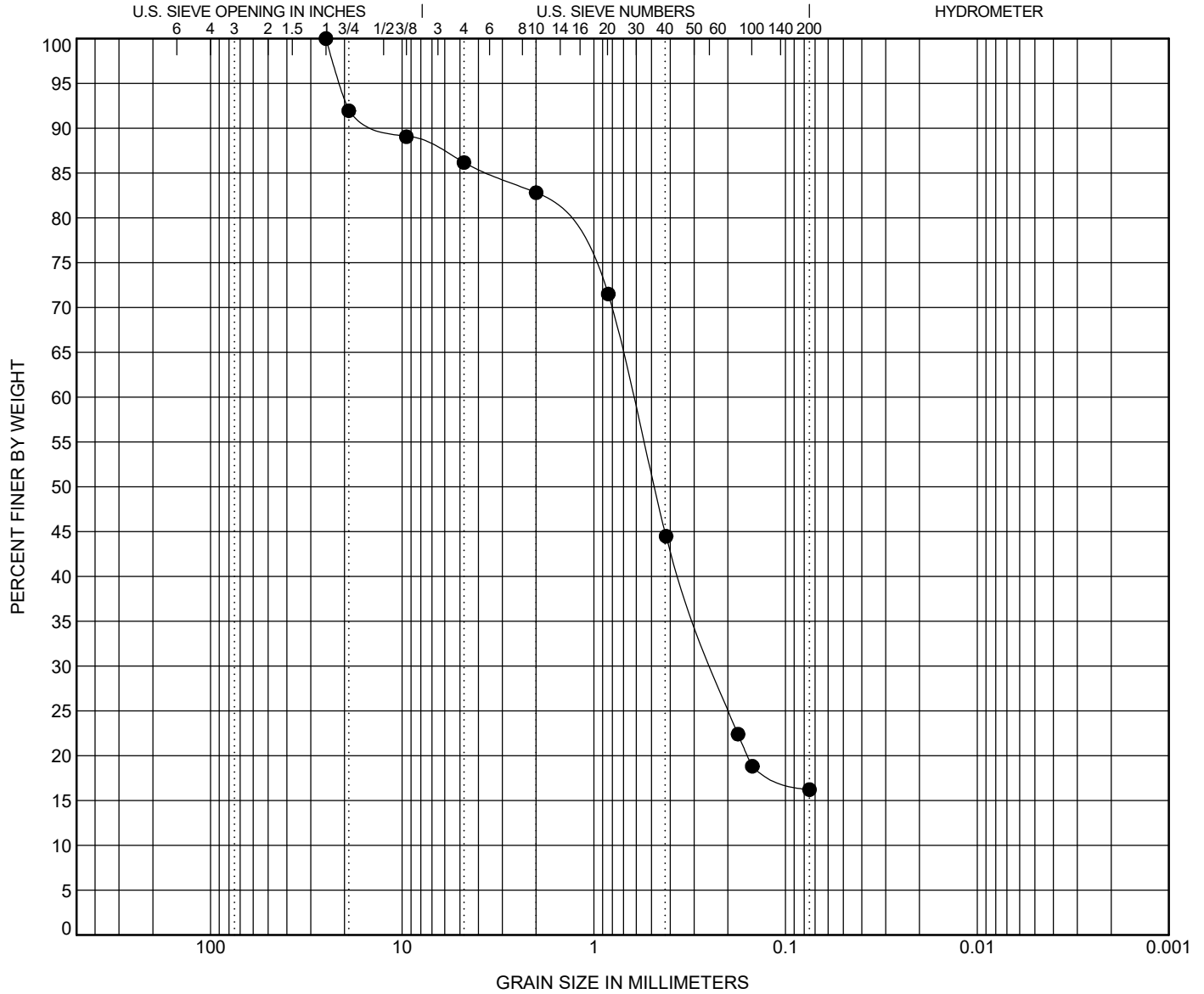


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-21	3.5	SILTY SAND (SM/A-1-b)					NP	NP	NP		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-21	3.5	25	0.626	0.238		13.8	70.0	16.2	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/23/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0132	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-1-b)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-21				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.6 - 3.5				
WATER CONTENT, W%	10.3				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

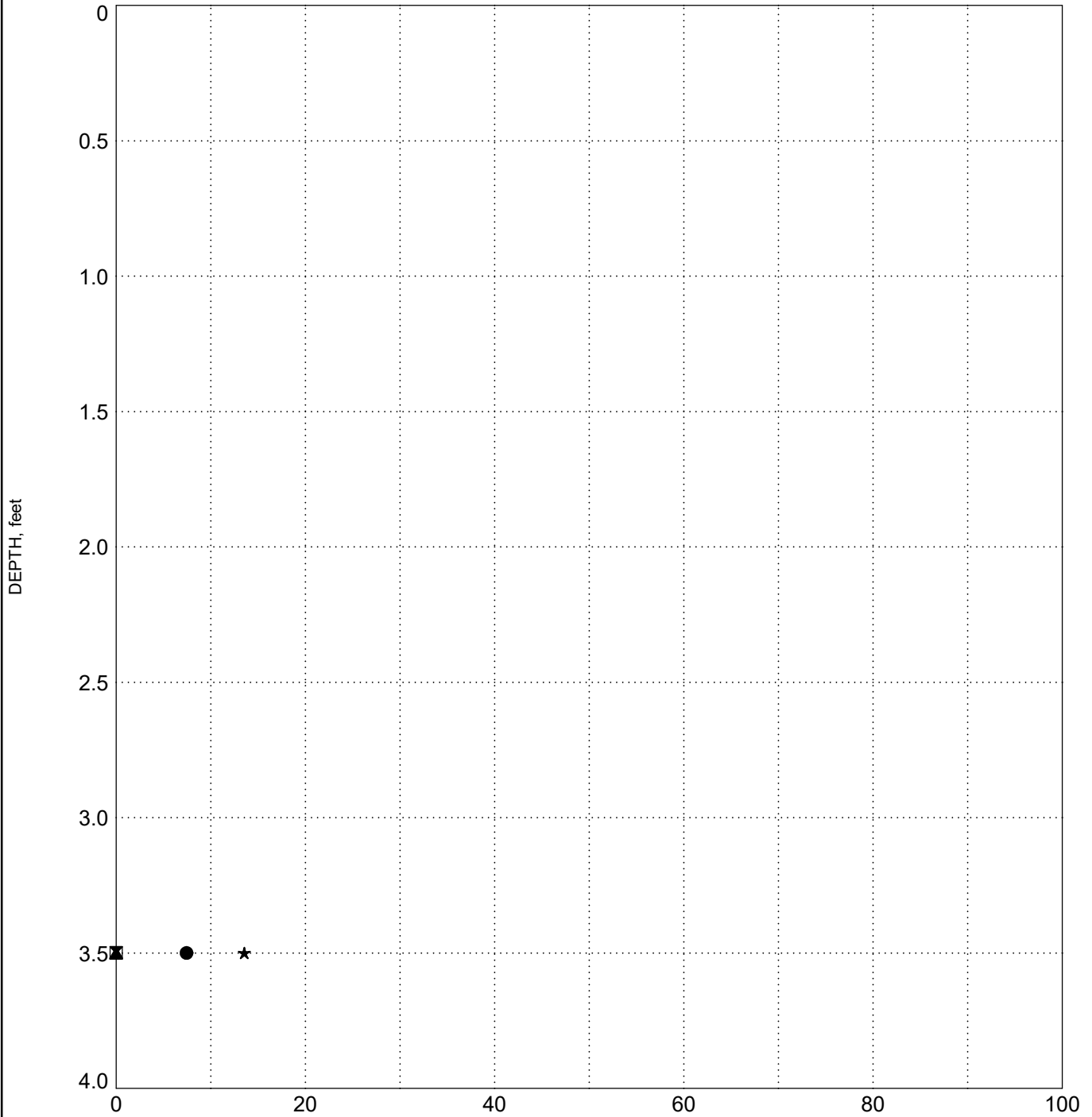
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-22

SURFACE ELEVATION: 107.2



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

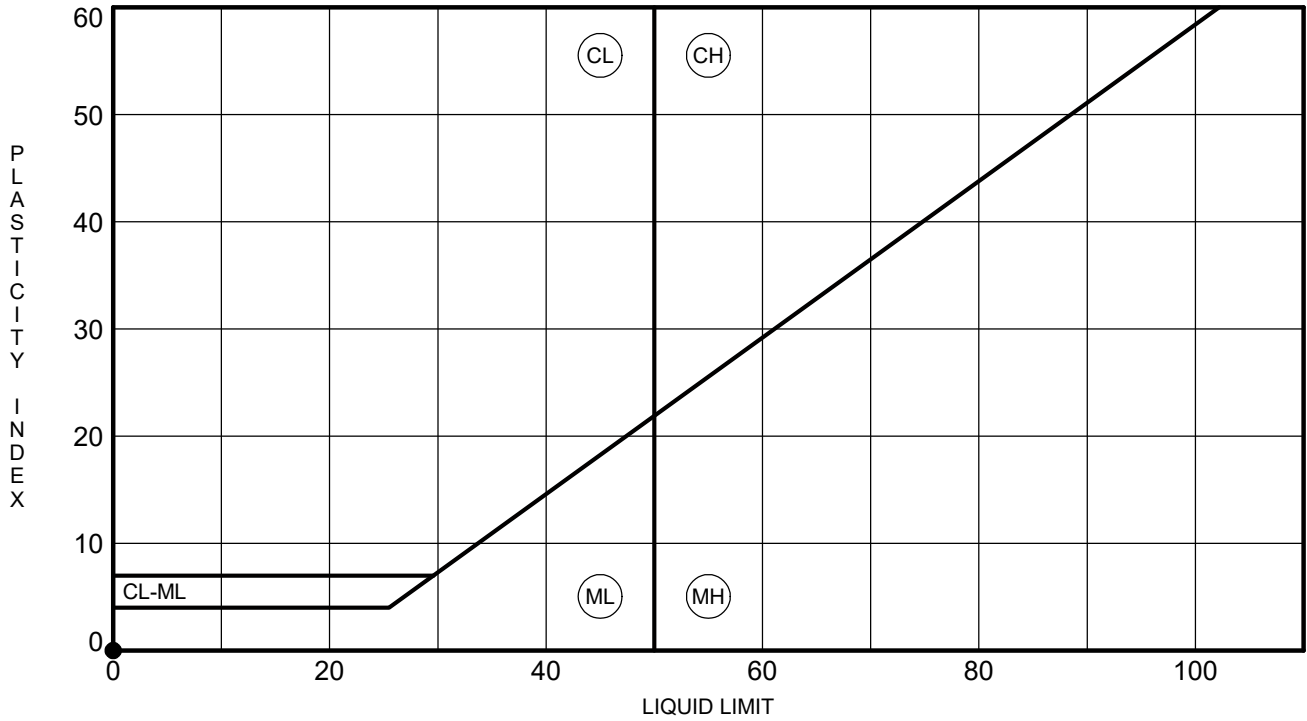


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-22	3.5	NP	NP	NP	14	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

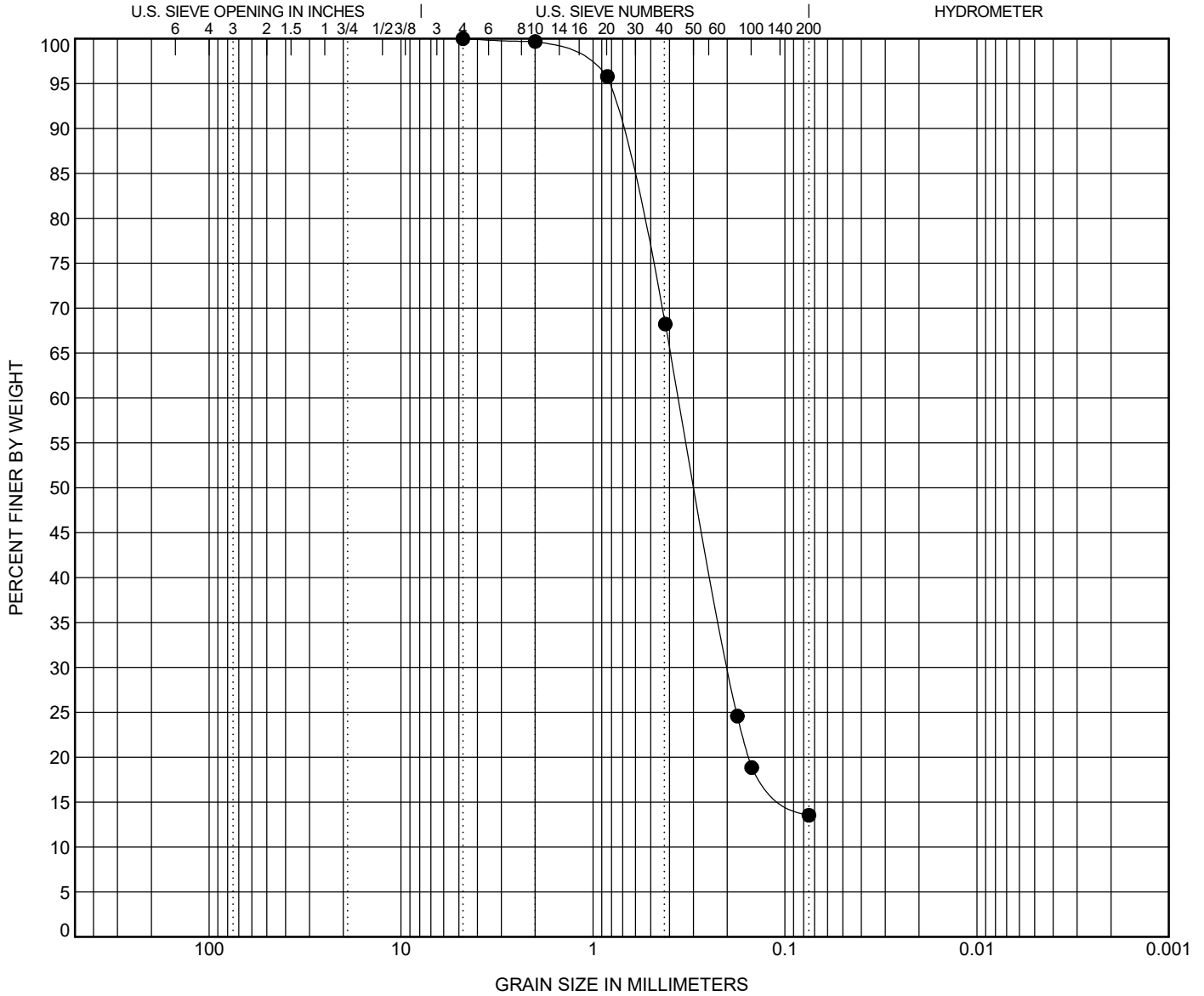


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-22	3.5	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-22	3.5	4.76	0.357	0.197		0.0	86.5	13.5			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0131	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-22				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.5 - 3.5				
WATER CONTENT, W%	7.4				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

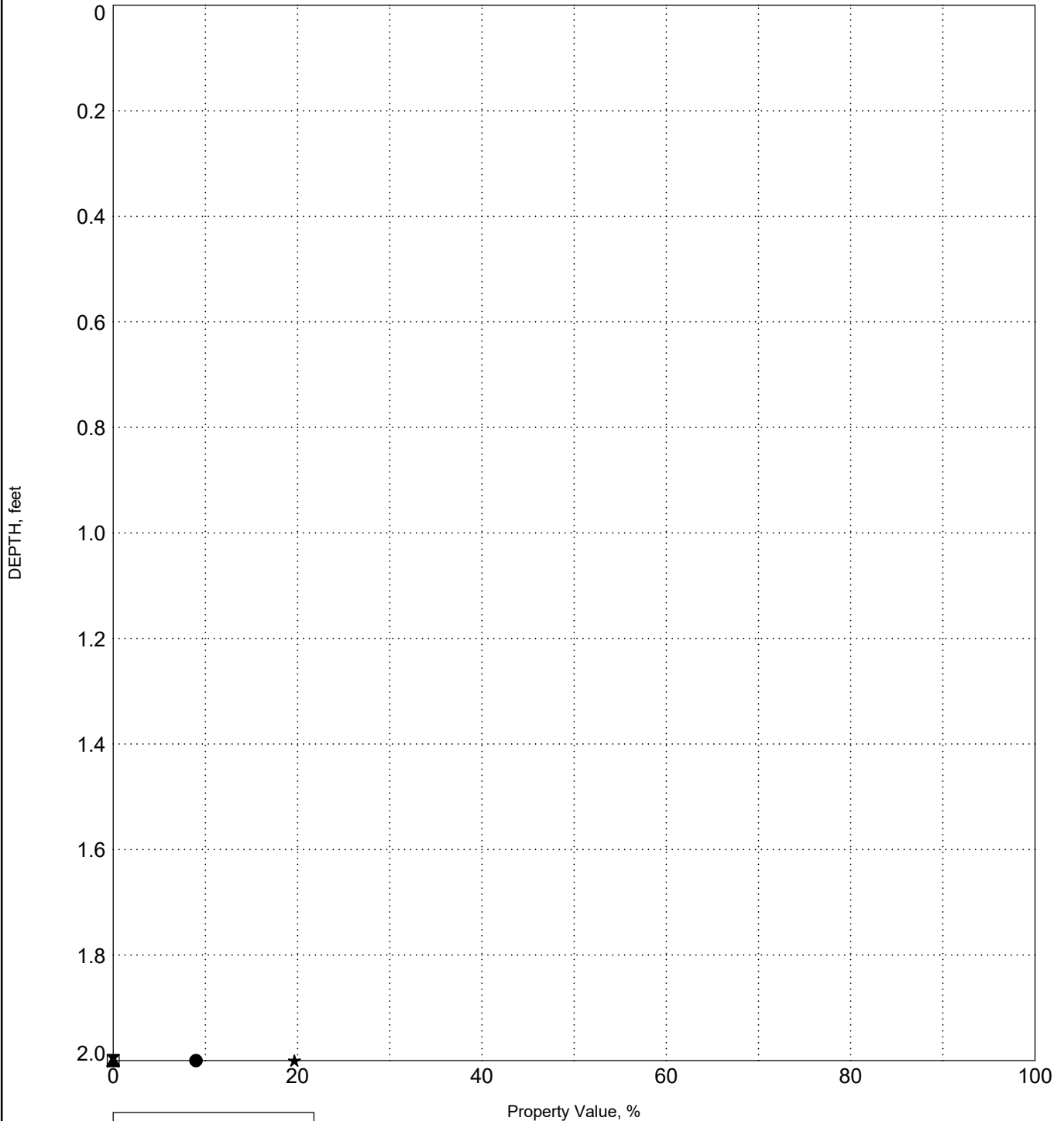
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-23

SURFACE ELEVATION: 104.1



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

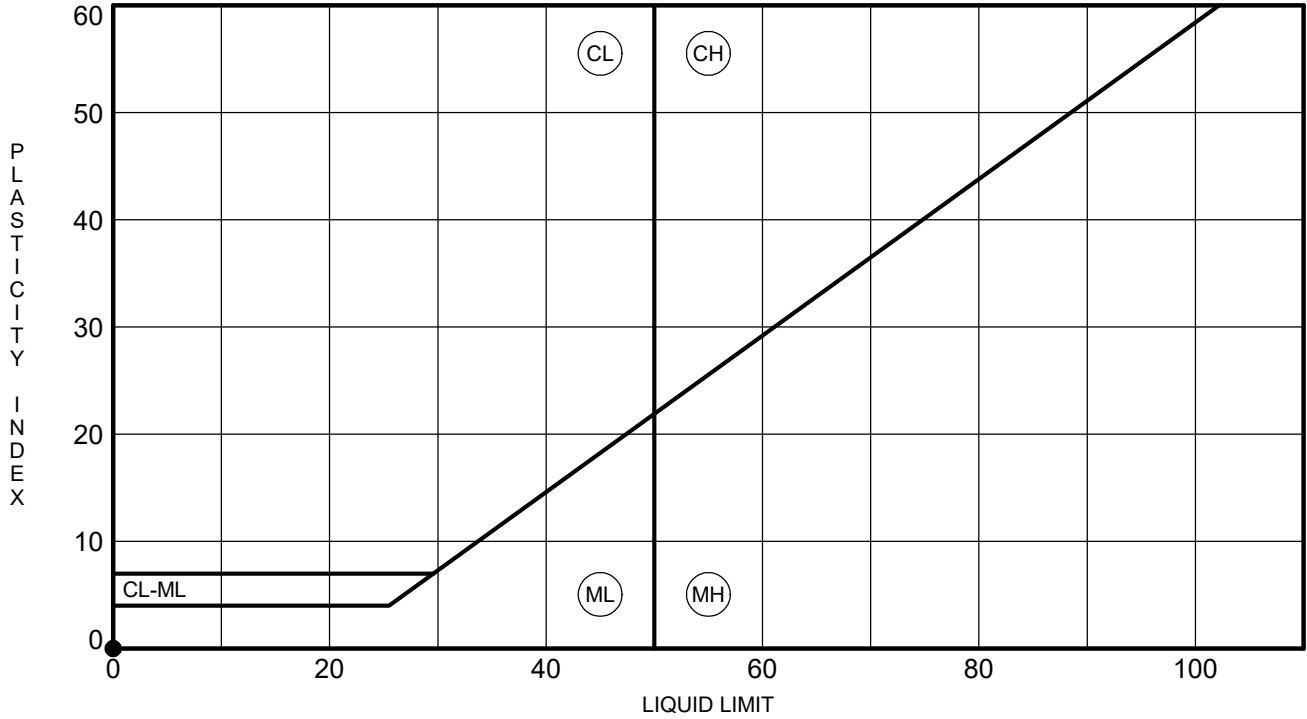


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-23	2.0	NP	NP	NP	20	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

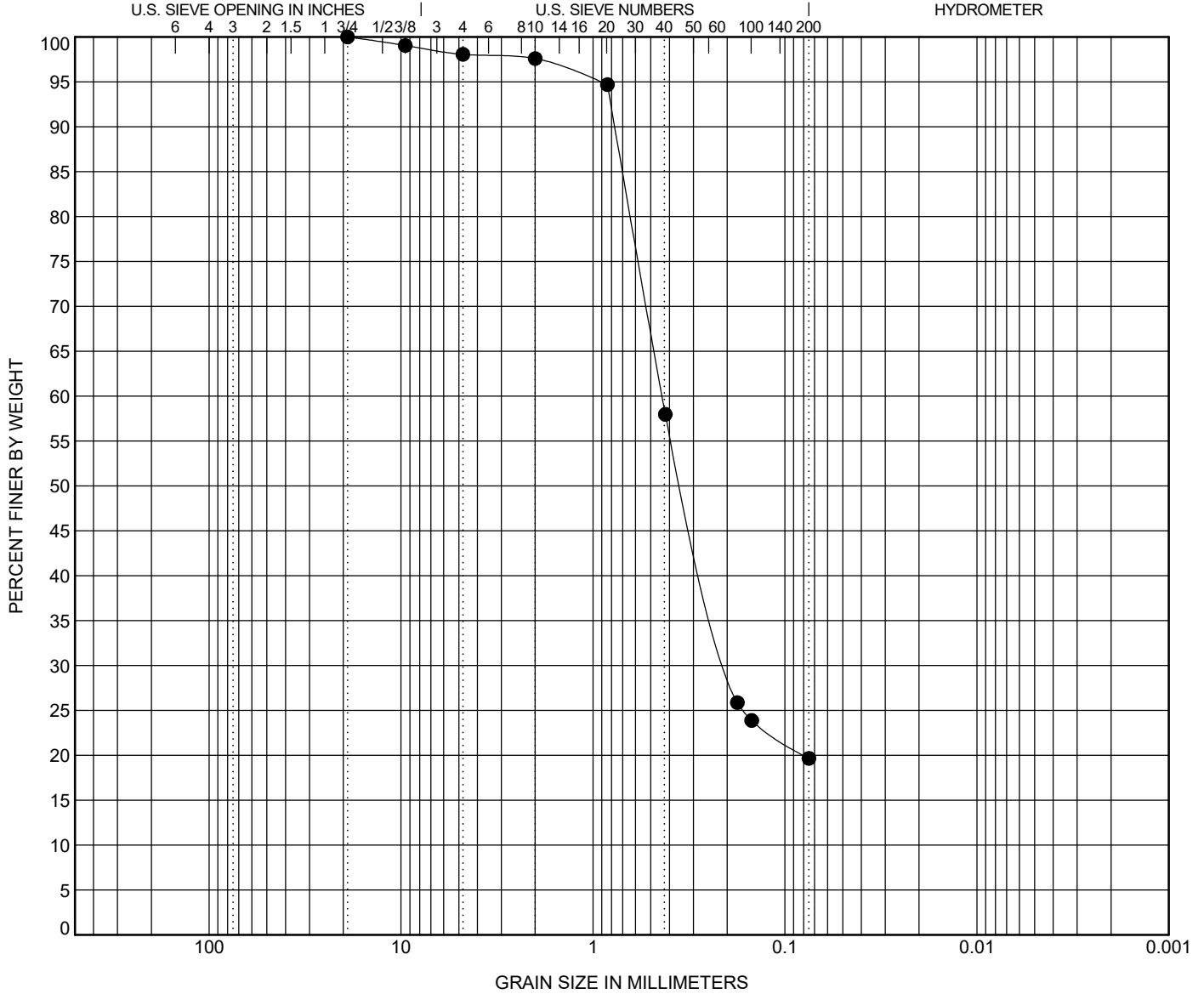


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● P-23	2.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● P-23	2.0	19	0.436	0.198		1.9	78.4	19.7			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0137	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-23				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	1.0 - 2.0				
WATER CONTENT, W%	9.0				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					





INDEX PROPERTIES VERSUS DEPTH

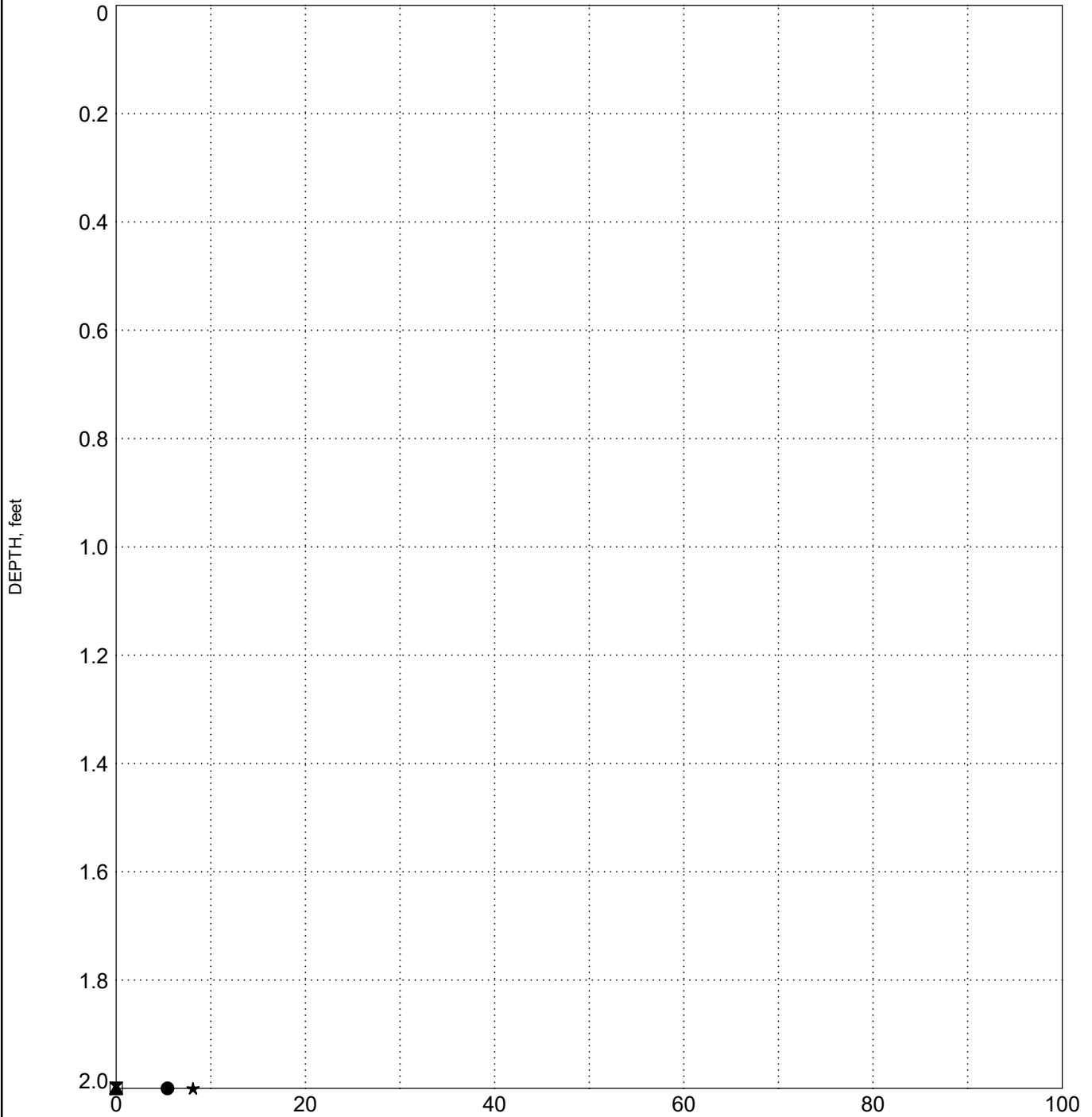
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING P-24

SURFACE ELEVATION: 84.8



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

INDEX PROPS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

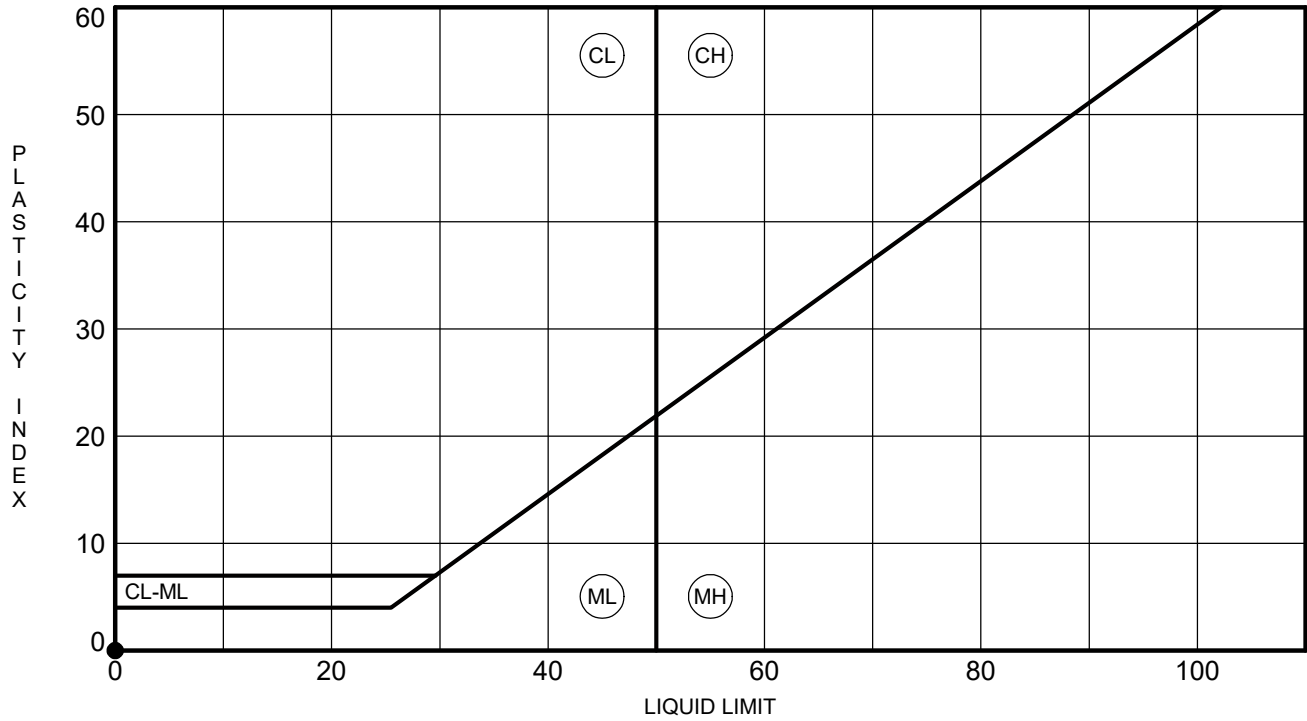


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● P-24	2.0	NP	NP	NP	8	POORLY GRADED SAND with SILT (SP-SM/A-3)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

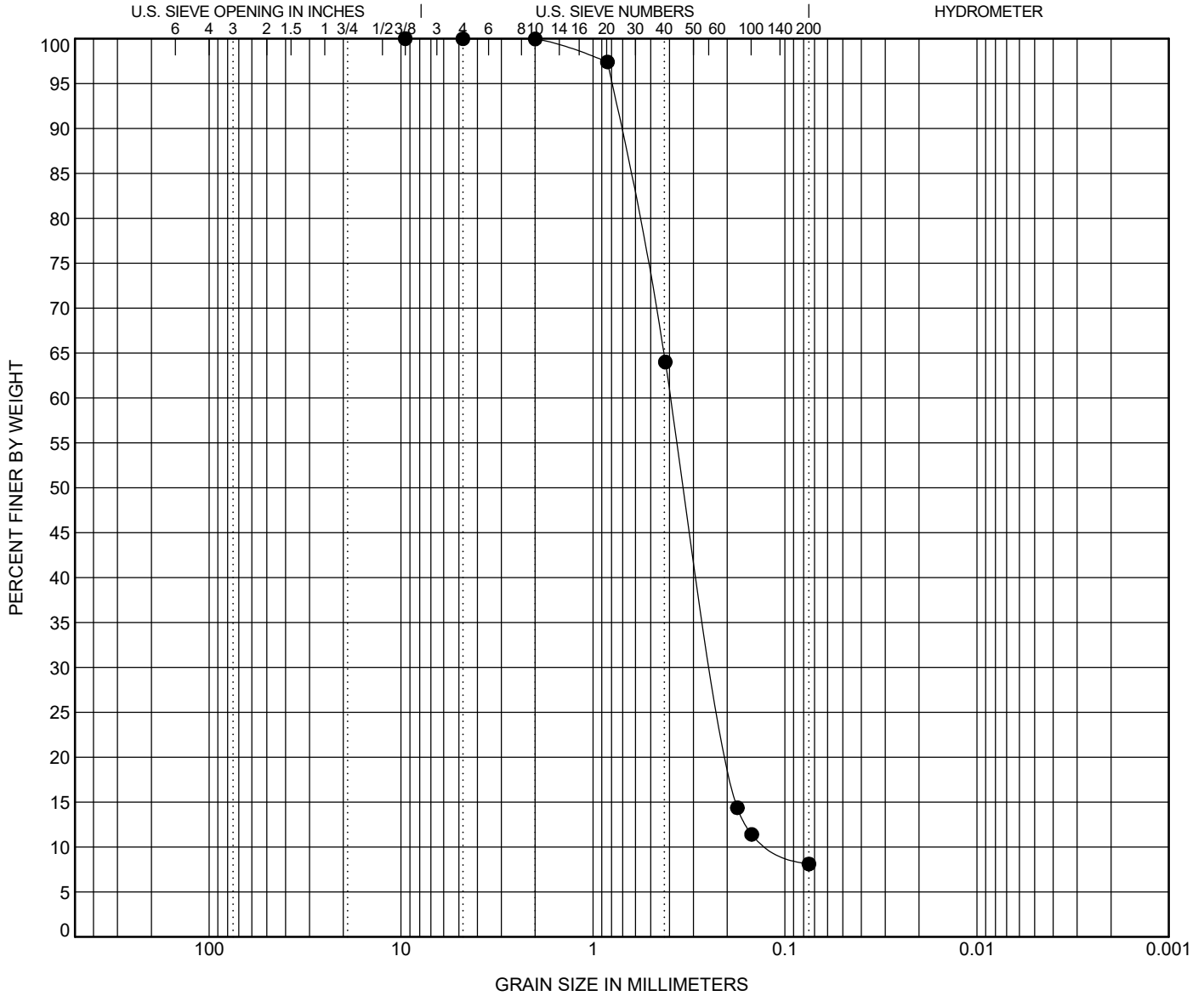


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● P-24	2.0	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	1.24	3.53

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● P-24	2.0	9.51	0.392	0.232	0.111	0.0	91.9	8.1	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0145	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Poorly Graded SAND (SP-SM/A-3) with Silt		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	P-24				
SAMPLE NO.	SS-1				
SAMPLE DEPTH (FT.)	0.0 - 2.0				
WATER CONTENT, W%	5.4				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



F&ME CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205

**pH Determination
 (AASHTO T289)**

Project Name:	<u>I-95 Lake Marion DB Prep</u>	SCDOT Project No.:	<u>P041130</u>
Sample Location:	<u>B-2</u>	Sample Elevation/Depth:	<u>86.0' - 90.0'</u>
Description of Sample:	<u>Silty SAND (SM/A-2-6)</u>	Date Sampled:	<u>1/16/2023</u>
Tested By:	<u>R. Coldiron</u>	Date Tested:	<u>2/22/2023</u>

FME Lab ID No.	23-0172			
Sample ID	B-2			
Depth (ft.)	86.0 - 90.0			
pH Value	5.46			
Temperature (°C)	20.1			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	B-2	FME Lab ID No.:	23-0172
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Silty SAND (SM/A-2-6)	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
B-2	86.0 - 90.0	69,092

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client: F&ME Consultants, Inc.
 Client Reference: I-95 RBO Lake Marion G6744
 Project No.: 2023-147-001
 Lab ID: 2023-147-001-001

Boring No.: B-2
 Depth (ft): 16.0-20.0'
 Sample No.: SS-9/10
 Description: Orange Sand
 (- # 10 Sieve material)

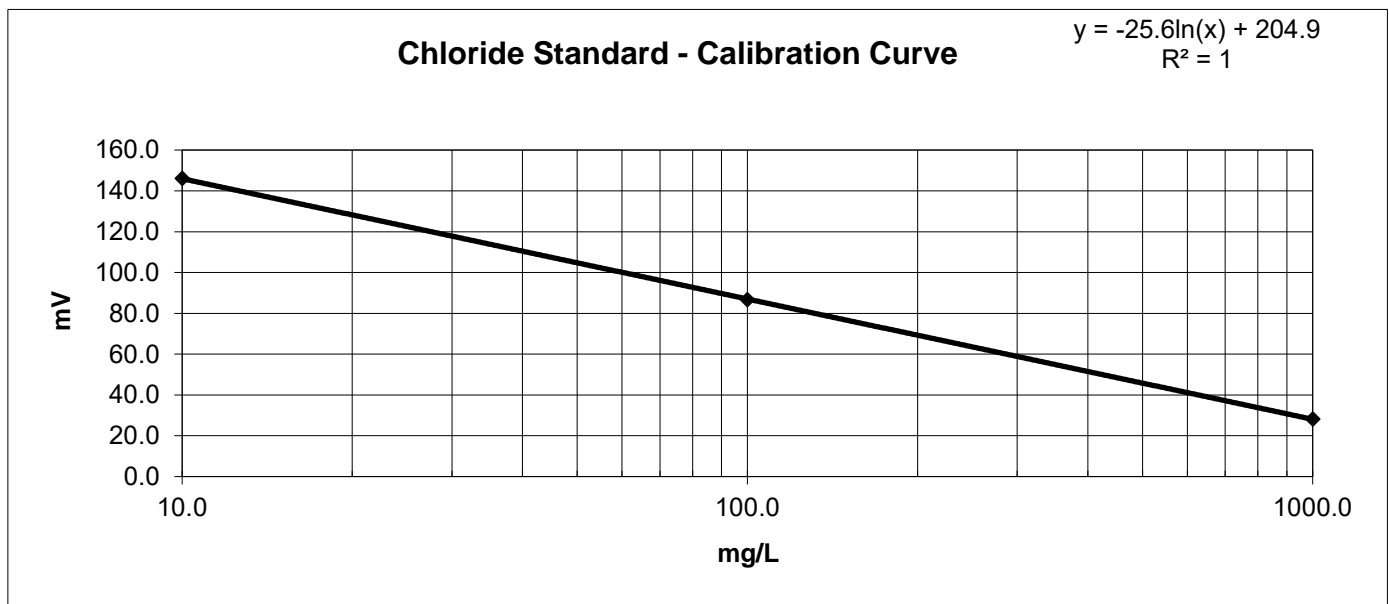
CHLORIDE STANDARD: CALIBRATION CURVE

STANDARD	MILLIVOLTS (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>133.0</u>	16.58	16.58

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
 2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By JAM Date 3/7/23 Checked By BRB Date 3/9/23

Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.: B-2
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft): 16.0-20.0'
Project No.:	2023-147-001	Sample No.: SS-9/10
Lab ID:	2023-147-001-001	Soil Description: Orange Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0
Water added to Sample (mL): 300.0
Size of Sample Aliquot (mL): 50.0
Sample Reading (FAU): 15

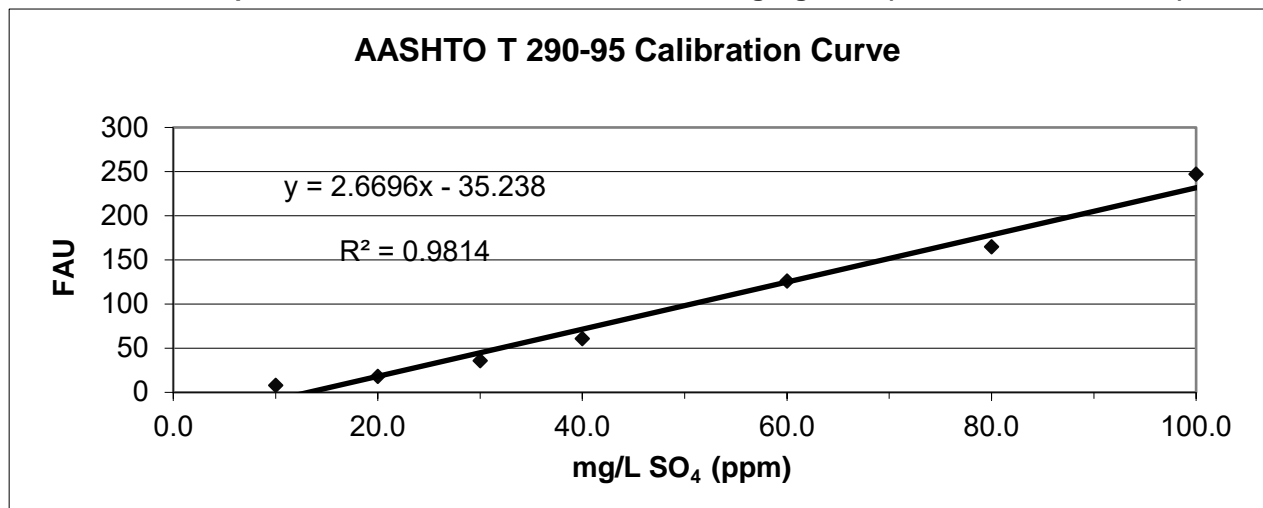
Sample Diluted: No

Sulfate Solution Added (ml): 5

Sample Moisture Content

Tare Number: 894
Weight of Tare & Wet Sample (g): 369.47
Weight of Tare & Dry Sample (g): 368.15
Weight of Tare (g): 109.79
Weight of Water (g): 1.32
Weight of Dry Sample (g): 258.36
Moisture Content (%): 0.51

Sample Sulfate Ion Concentration:	18.32	mg/L SO₄ (ppm)
Sample Sulfate Ion Content:	55.0	mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content:	55.2	mg/Kg SO₄ (corrected for moisture)



Tested by: JAM Date: 3/8/23 Checked by: BRB Date: 3/9/2023

F&ME CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205

**pH Determination
 (AASHTO T289)**

Project Name:	<u>I-95 Lake Marion DB Prep</u>	SCDOT Project No.:	<u>P041130</u>
Sample Location:	<u>B-44</u>	Sample Elevation/Depth:	<u>6.0' - 10.0'</u>
Description of Sample:	<u>Poorly Graded SAND (SP/A-3)</u>	Date Sampled:	<u>1/16/2023</u>
Tested By:	<u>R. Coldiron</u>	Date Tested:	<u>2/22/2023</u>

FME Lab ID No.	23-0194			
Sample ID	B-44			
Depth (ft.)	6.0 - 10.0			
pH Value	8.39			
Temperature (°C)	20.6			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	B-44	FME Lab ID No.:	23-0194
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Poorly Graded SAND (SP/A-3)	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
B-44	6.0 - 10.0	27,324

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client: F&ME Consultants, Inc.
 Client Reference: I-95 RBO Lake Marion G6744
 Project No.: 2023-147-001
 Lab ID: 2023-147-001-002

Boring No.: B-44
 Depth (ft): 6.0-10.0'
 Sample No.: SS-4/5
 Description: Brown Sand
 (- # 10 Sieve material)

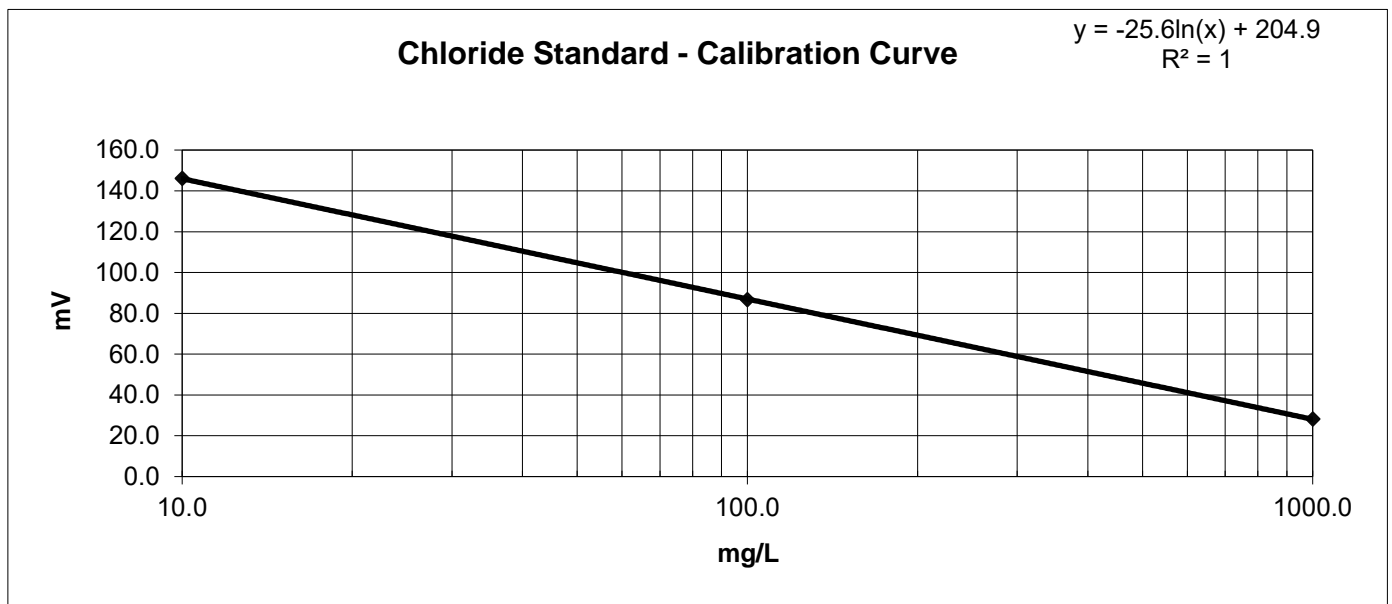
CHLORIDE STANDARD: CALIBRATION CURVE

STANDARD	MILLIVOLTS (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>147.1</u>	9.56	9.56

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
 2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By JAM Date 3/7/23 Checked By BRB Date 3/9/23

Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.: B-44
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft): 6.0-10.0'
Project No.:	2023-147-001	Sample No.: SS-4/5
Lab ID:	2023-147-001-002	Soil Description: Brown Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0
Water added to Sample (mL): 300.0
Size of Sample Aliquot (mL): 50.0
Sample Reading (FAU): 14

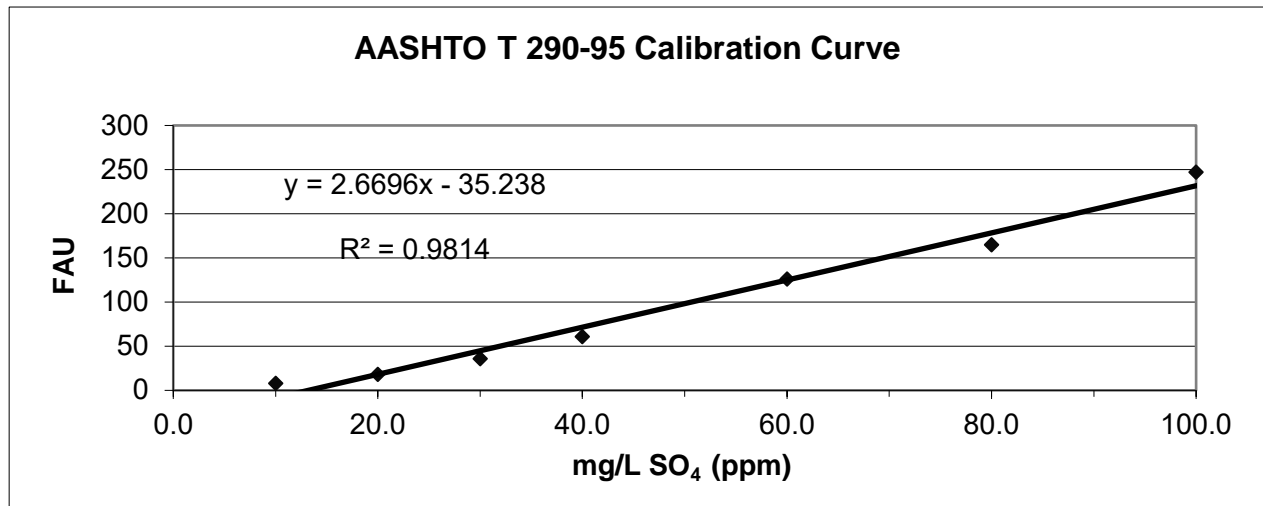
Sample Diluted: No

Sulfate Solution Added (ml): 0

Sample Moisture Content

Tare Number: 898
Weight of Tare & Wet Sample (g): 218.77
Weight of Tare & Dry Sample (g): 218.70
Weight of Tare (g): 109.43
Weight of Water (g): 0.07
Weight of Dry Sample (g): 109.27
Moisture Content (%): 0.06

Sample Sulfate Ion Concentration:	18.44	mg/L SO₄ (ppm)
Sample Sulfate Ion Content:	55.3	mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content:	55.4	mg/Kg SO₄ (corrected for moisture)



Tested by: JAM Date: 3/8/23 Checked by: BRB Date: 3/9/2023

F&ME CONSULTANTS
3112 Devine Street
Columbia, South Carolina 29205

**pH Determination
(AASHTO T289)**

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project No.:	P041130
Sample Location:	B-47	Sample Elevation/Depth:	6.0' - 10.0'
Description of Sample:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Sampled:	1/16/2023
Tested By:	R. Coldiron	Date Tested:	2/22/2023

FME Lab ID No.	23-0312			
Sample ID	B-47			
Depth (ft.)	6.0 - 10.0			
pH Value	9.17			
Temperature (°C)	20.1			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	B-47	FME Lab ID No.:	23-0312
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
B-47	6.0 - 10.0	15,272

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client: F&ME Consultants, Inc.
 Client Reference: I-95 RBO Lake Marion G6744
 Project No.: 2023-147-001
 Lab ID: 2023-147-001-003

Boring No.: B-47
 Depth (ft): 6.0-10.0'
 Sample No.: SS-4/5
 Description: Brown Sand
 (- # 10 Sieve material)

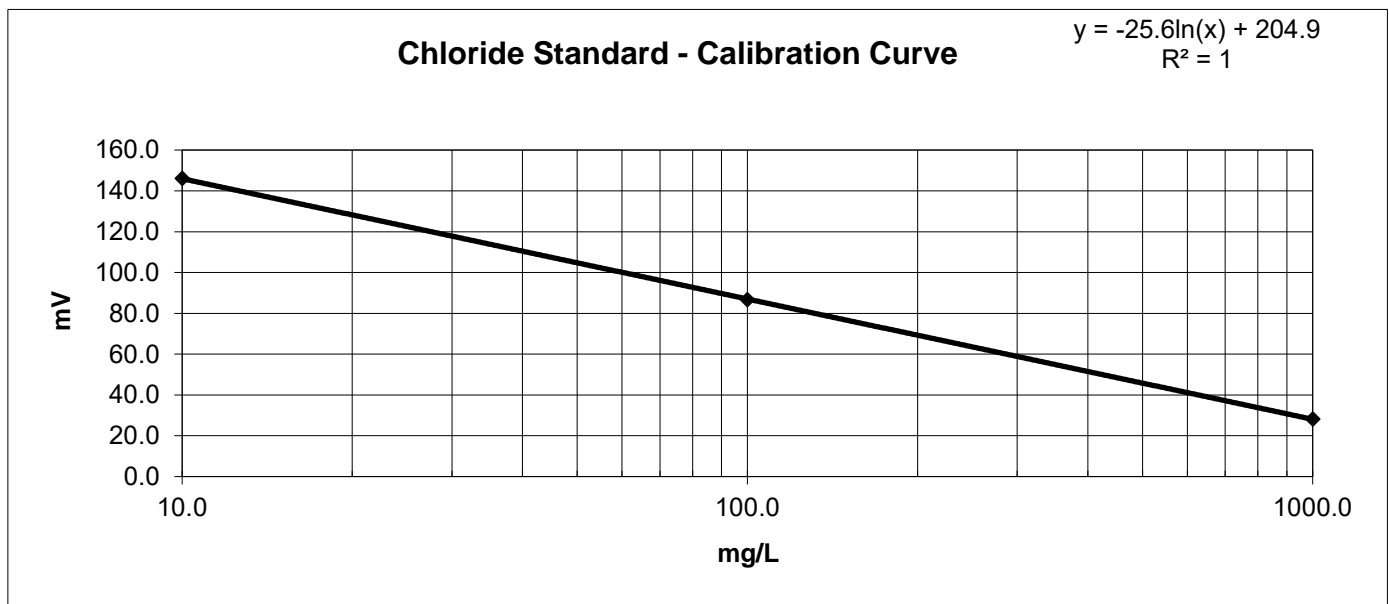
CHLORIDE STANDARD: CALIBRATION CURVE

STANDARD	MILLIVOLTS (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>147.4</u>	9.45	9.45

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
 2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By JAM Date 3/7/23 Checked By BRB Date 3/9/23

Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.: B-47
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft): 6.0-10.0'
Project No.:	2023-147-001	Sample No.: SS-4/5
Lab ID:	2023-147-001-003	Soil Description: Brown Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

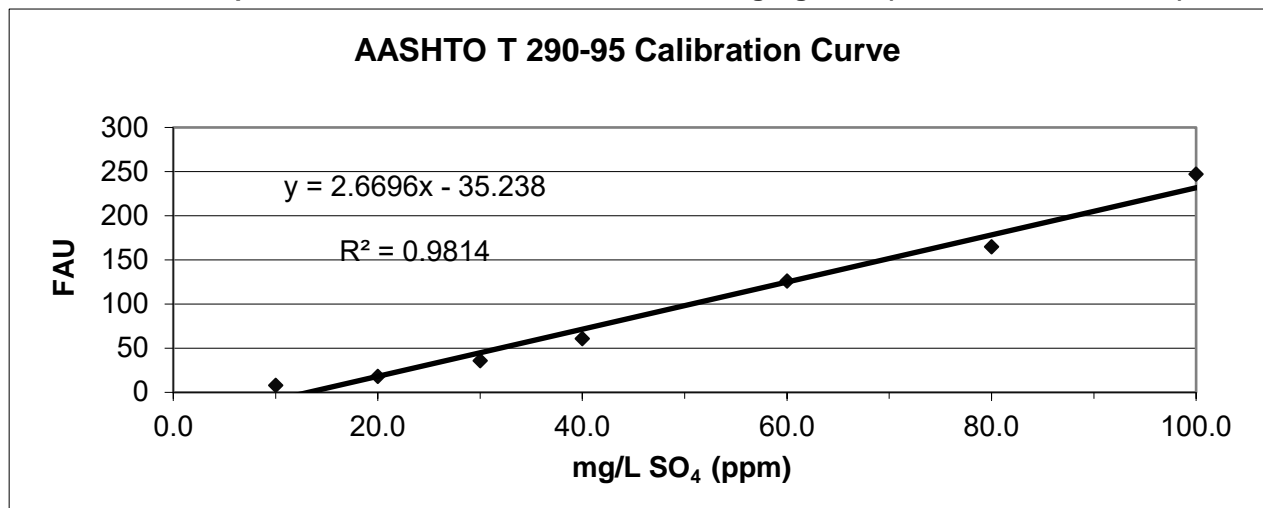
<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0	<u>Sample Moisture Content</u>
Water added to Sample (mL): 300.0	Tare Number: 578
Size of Sample Aliquot (mL): 50.0	Weight of Tare & Wet Sample (g): 243.13
Sample Reading (FAU): 14	Weight of Tare & Dry Sample (g): 243.03
Sample Diluted: No	Weight of Tare (g): 83.78
	Weight of Water (g): 0.10
	Weight of Dry Sample (g): 159.25
	Moisture Content (%): 0.06
Sulfate Solution Added (ml): 0	

Sample Sulfate Ion Concentration: 18.44		mg/L SO₄ (ppm)
Sample Sulfate Ion Content: 55.3		mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content: 55.4		mg/Kg SO₄ (corrected for moisture)



Tested by: JAM	Date: 3/8/23	Checked by: BRB	Date: 3/9/2023
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F&ME CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205

**pH Determination
 (AASHTO T289)**

Project Name:	<u>I-95 Lake Marion DB Prep</u>	SCDOT Project No.:	<u>P041130</u>
Sample Location:	<u>B-51</u>	Sample Elevation/Depth:	<u>4.0' - 8.0'</u>
Description of Sample:	<u>Poorly Graded SAND (SP/A-3)</u>	Date Sampled:	<u>1/16/2023</u>
Tested By:	<u>R. Coldiron</u>	Date Tested:	<u>2/22/2023</u>

FME Lab ID No.	23-0312			
Sample ID	B-51			
Depth (ft.)	4.0 - 8.0			
pH Value	8.43			
Temperature (°C)	20.5			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	B-51	FME Lab ID No.:	23-0312
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Poorly Graded SAND (SP/A-3)	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
B-51	4.0 - 8.0	36,248

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client: F&ME Consultants, Inc.
Client Reference: I-95 RBO Lake Marion G6744
Project No.: 2023-147-001
Lab ID: 2023-147-001-004

Boring No.: B-51
Depth (ft): 4.0-8.0'
Sample No.: SS-3/4
Description: Brown Sand
(- # 10 Sieve material)

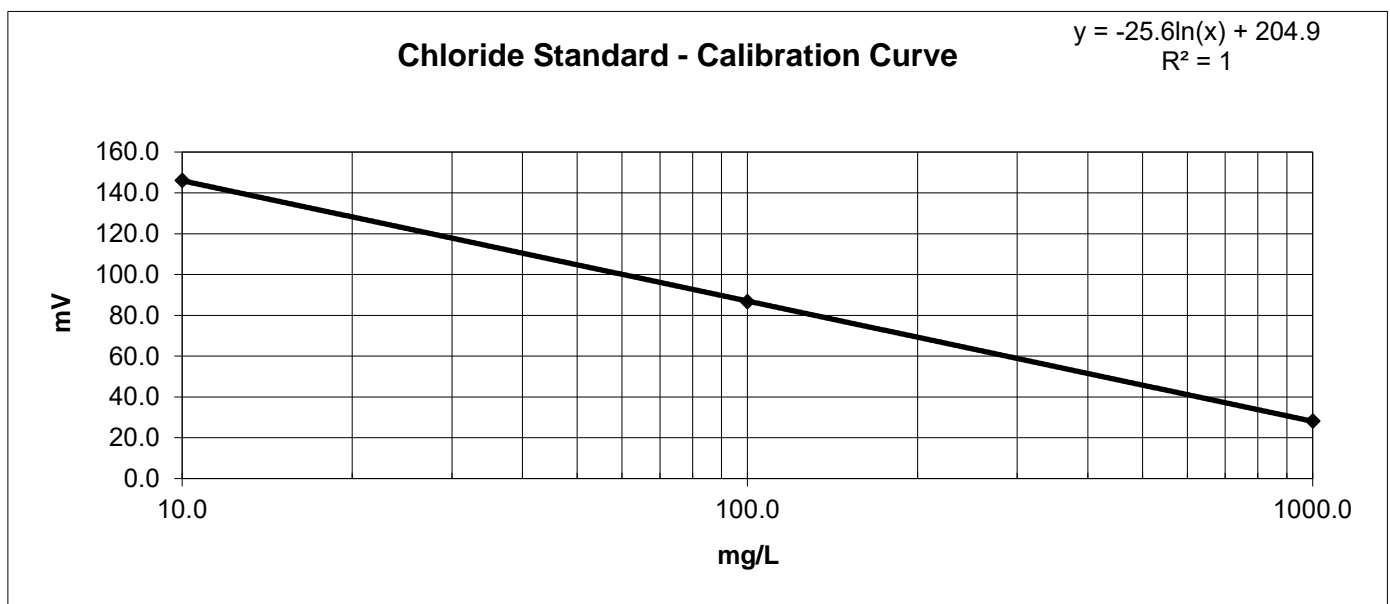
CHLORIDE STANDARD: CALIBRATION CURVE

STANDARD	MILLIVOLTS (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>148.6</u>	9.02	9.02

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By JAM Date 3/7/23 Checked By BRB Date 3/9/23

Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.: B-51
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft): 4.0-8.0'
Project No.:	2023-147-001	Sample No.: SS-3/4
Lab ID:	2023-147-001-004	Soil Description: Brown Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0
Water added to Sample (mL): 300.0
Size of Sample Aliquot (mL): 50.0
Sample Reading (FAU): 11

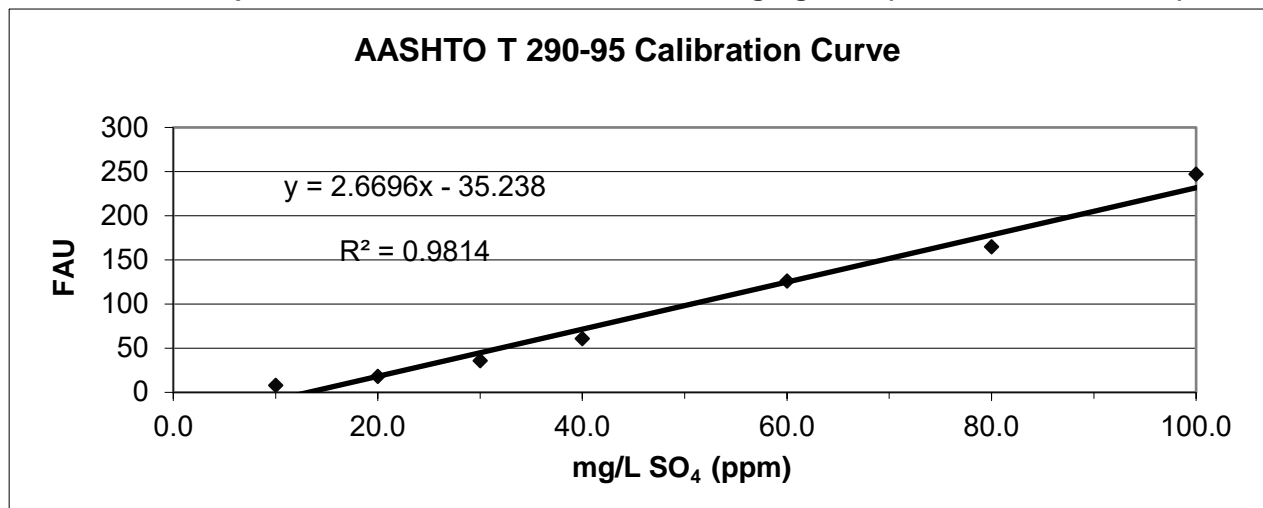
Sample Diluted: No

Sulfate Solution Added (ml): 0

Sample Moisture Content

Tare Number: 881
Weight of Tare & Wet Sample (g): 245.24
Weight of Tare & Dry Sample (g): 245.17
Weight of Tare (g): 110.04
Weight of Water (g): 0.07
Weight of Dry Sample (g): 135.13
Moisture Content (%): 0.05

Sample Sulfate Ion Concentration:	17.32	mg/L SO₄ (ppm)
Sample Sulfate Ion Content:	52.0	mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content:	52.0	mg/Kg SO₄ (corrected for moisture)



Tested by: JAM Date: 3/8/23 Checked by: BRB Date: 3/9/2023

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

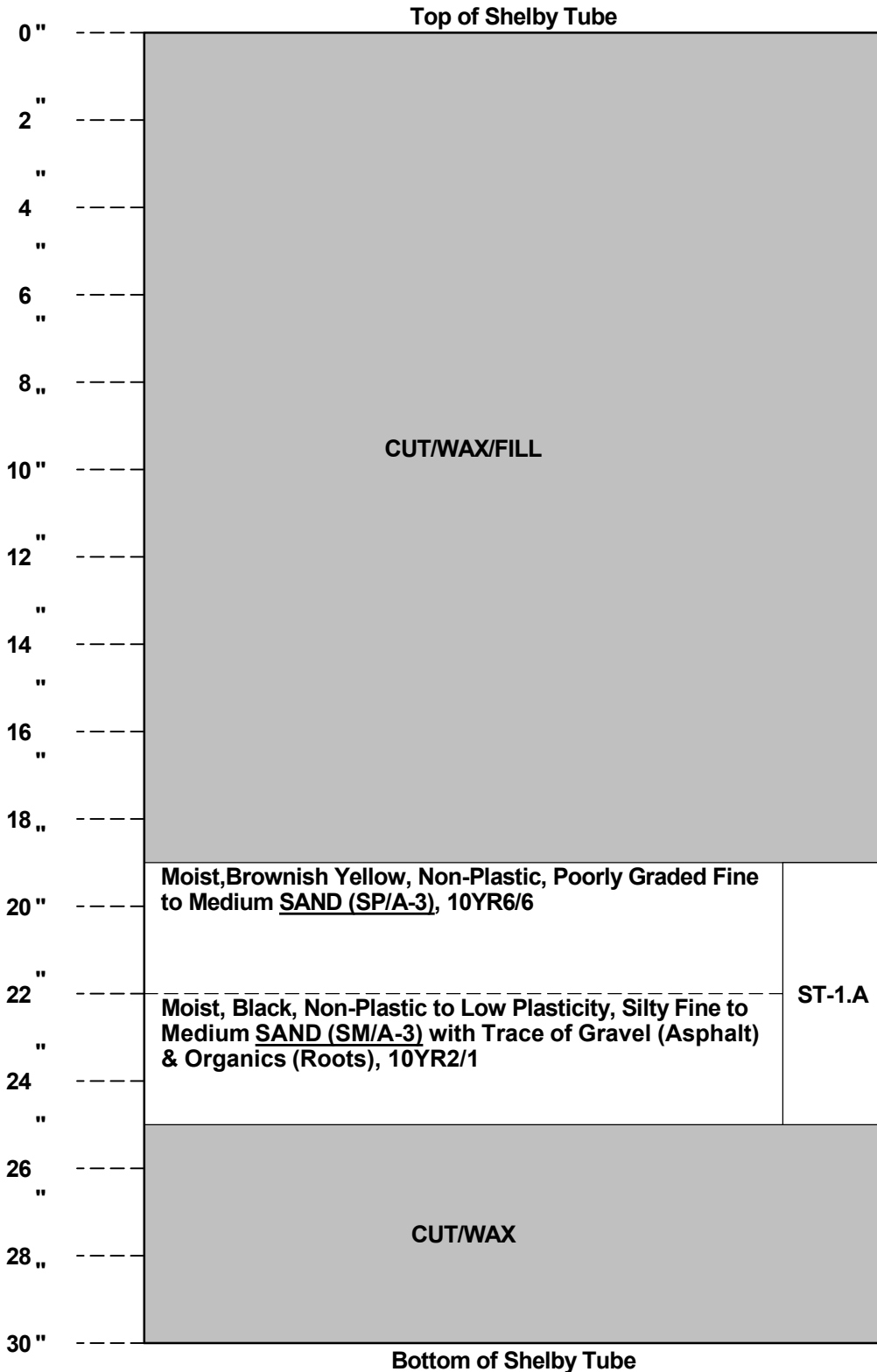
APPENDIX

SECTION 4 LABORATORY TEST RESULTS

SECTION 4B UNDISTURBED SAMPLES

SCDOT Shelby Tube Log

Project ID:	P041130	County:	Clarendon/Orangeburg	Boring No.:	B-52U
Project Description:	I-95 NB/SB over Lake Marion Bridge Replacement			Route:	I-95
UD Sample No.:	ST-1	Depth:	14' - 16'		
Date Sampled:	6/29/2023	Date Extracted:	7/28/2023		
Extracted By:	R. Coldiron	Eng. Firm:			



SCDOT Undisturbed Sample Pictures

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-52U
Project Description: I-95 NB/SB over Lake Marion Bridge Replacement	Route: I-95	
UD Sample No.: ST-1	Depth: 14' - 16'	
Date Sampled: 6/29/2023	Date Extracted: 7/28/2023	
Extracted By: R. Coldiron	Eng. Firm:	



Specimen No. ST-1.A



Specimen No. ST-1.A

SCDOT Undisturbed Sample Pictures

Project ID:	P041130	County:	Clarendon/Orangeburg	Boring No.:	B-52U
Project Description:	I-95 NB/SB over Lake Marion Bridge Replacement			Route:	I-95
UD Sample No.:	ST-1	Depth:	14' - 16'		
Date Sampled:	6/29/2023	Date Extracted:	7/28/2023		
Extracted By:	R. Coldiron	Eng. Firm:			



Specimen No. ST-1.A



Specimen No. ST-1.A

SCDOT Undisturbed Sample Pictures

Project ID: P041130	County: Clarendon/Orangeburg	Boring No.: B-52U
Project Description: I-95 NB/SB over Lake Marion Bridge Replacement	Route: I-95	
UD Sample No.: ST-1	Depth: 14' - 16'	
Date Sampled: 6/29/2023	Date Extracted: 7/28/2023	
Extracted By: R. Coldiron	Eng. Firm:	



Specimen No. ST-1.A

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 4 LABORATORY TEST RESULTS

SECTION 4C BULK SOIL SAMPLES



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Boring No.	Sample Depth (ft.)	Liquid Limit	Plastic Limit	Plasticity Index	%<#200 Sieve	Soil Classification	Moisture Content (%)	Max Dry Density (PCF)	Optimum Moisture Content (%)	C (psi)	ϕ (Degrees)	C' (psi)	ϕ' (Degrees)
BS-1	0.0 – 5.0	26	15	11	24	SC	14.9	121.0	11.2	1.4	9.2	0.4	33.7
BS-2	0.0 – 5.0	NP	NP	NP	30	SM	5.5	109.3	12.6	3.0	33.0	N/A	N/A
BS-3	0.0 – 5.0	NP	NP	NP	6.7	SP-SM	7.7	104.4	15.5	0.6	42.8	N/A	N/A
BS-4	0.0 – 5.0	NP	NP	NP	8.5	SP-SM	10.4	108.4	13.8	2.3	39.6	N/A	N/A



INDEX PROPERTIES VERSUS DEPTH

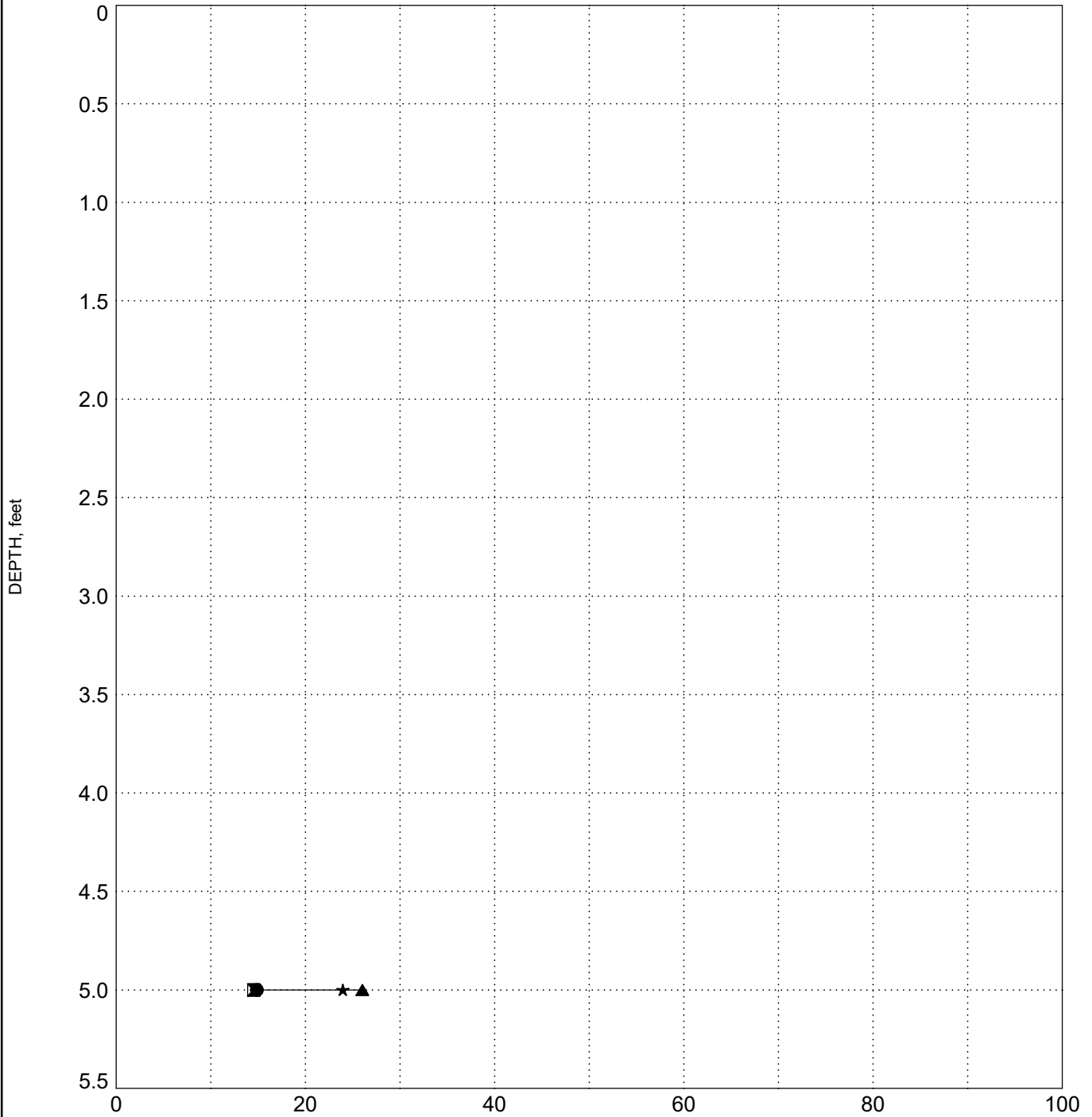
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-1

SURFACE ELEVATION: 120.5



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

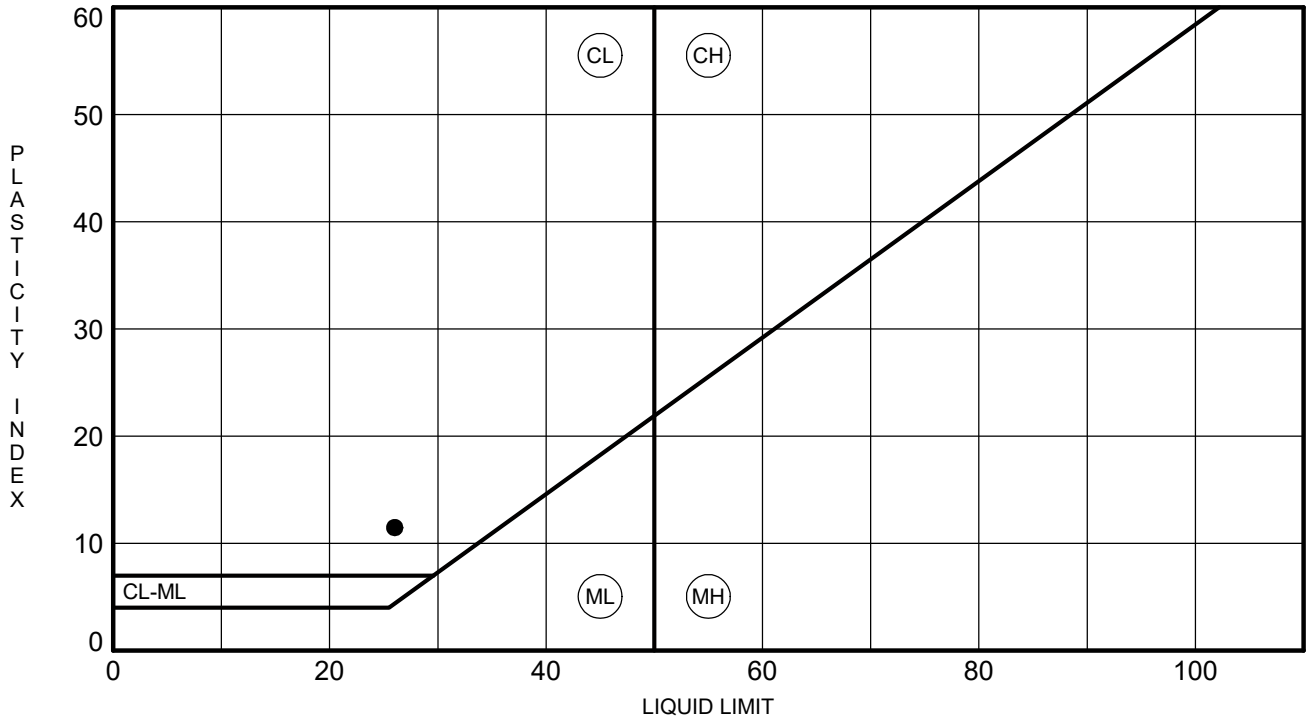


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● BS-1	5.0	26	15	11	24	CLAYEY SAND (SC/A-2-6)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

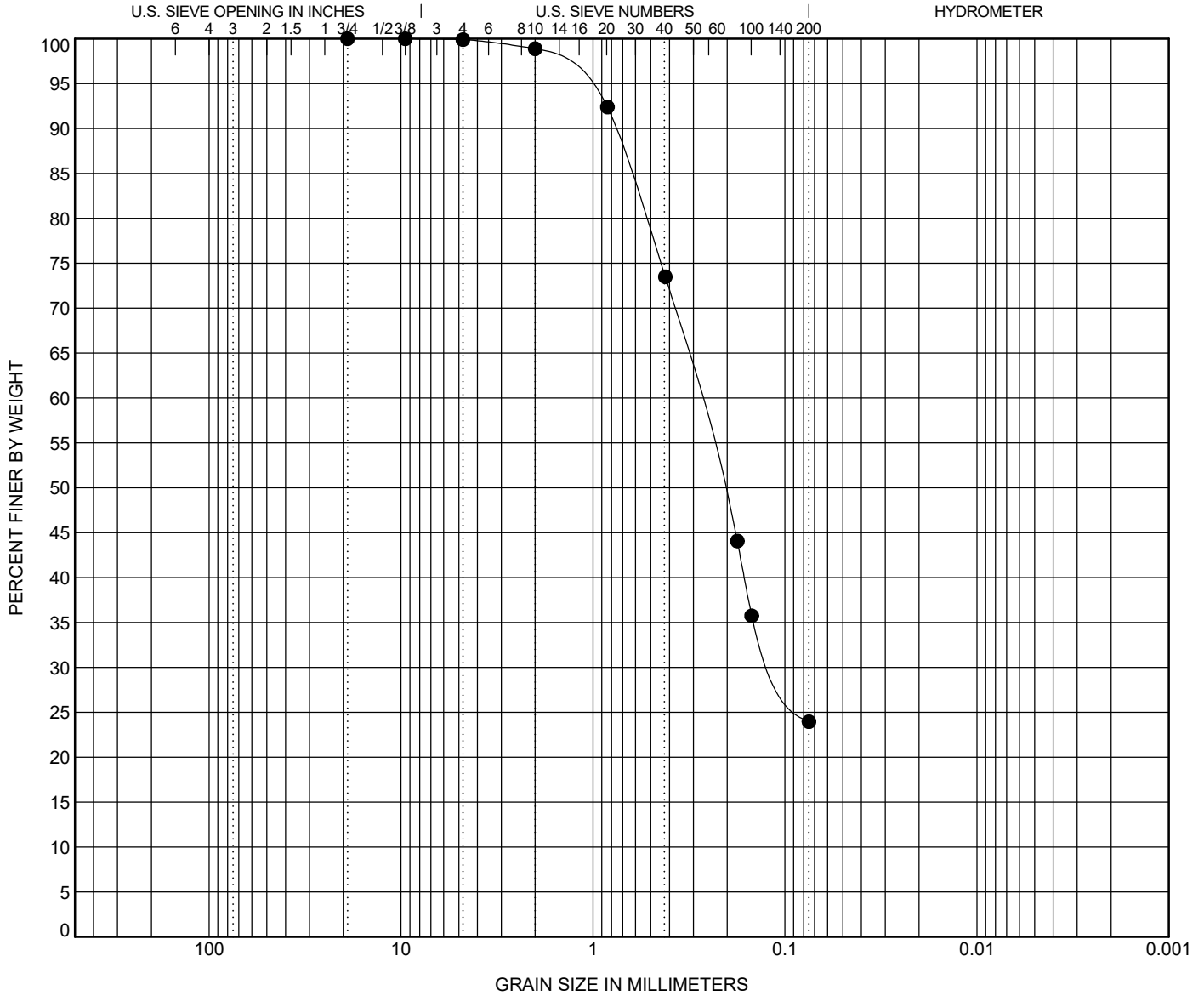


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● BS-1	5.0	CLAYEY SAND (SC/A-2-6)					26	15	11		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● BS-1	5.0	19	0.283	0.107		0.1	75.9	24.0	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0153	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Clayey SAND (SC/A-2-6)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	BS-1		
SAMPLE NO.	--		
SAMPLE DEPTH (FT.)	0.0 - 5.0		
WATER CONTENT, W%	14.9		

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			



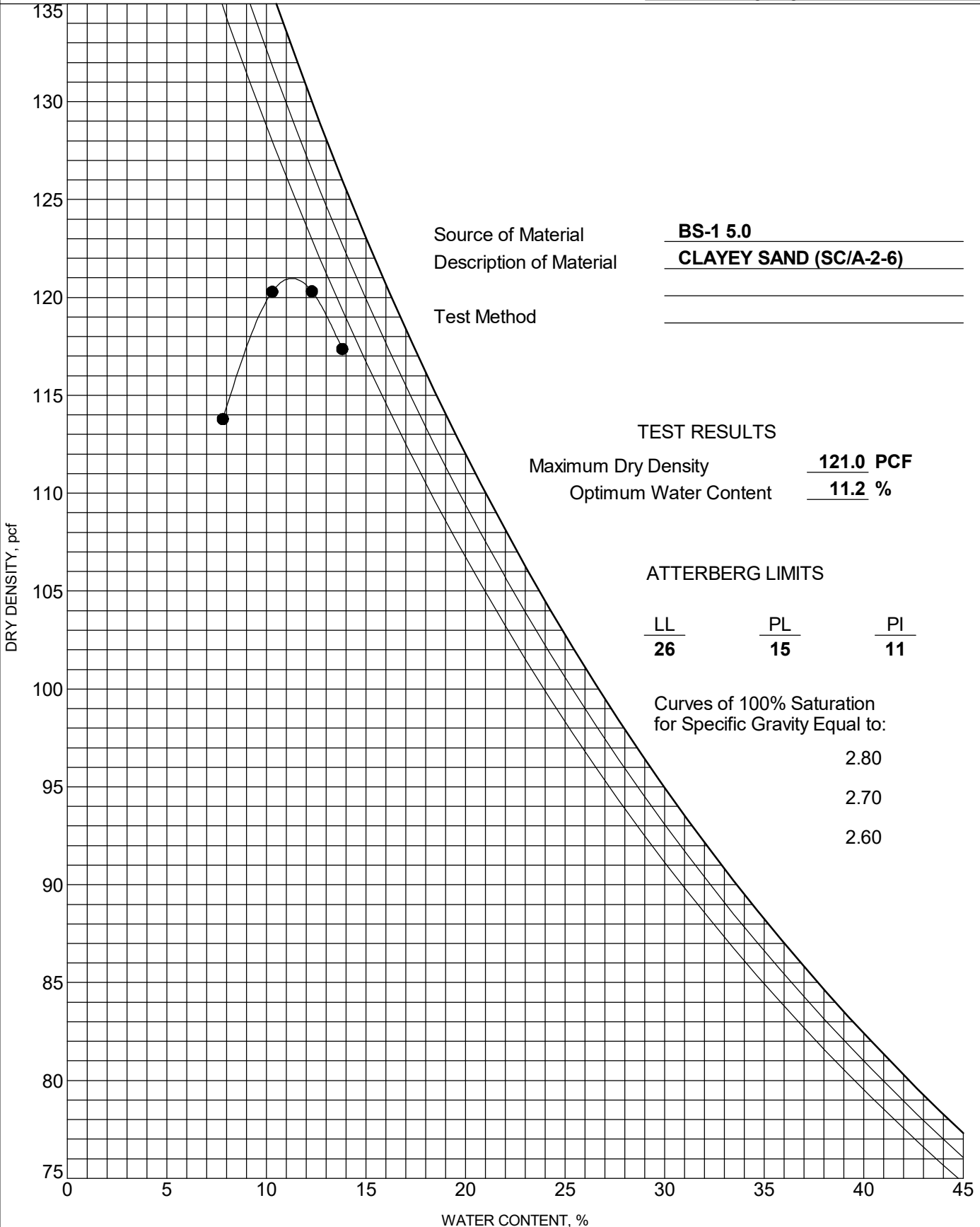


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 Bridge over Lake Marion DB Prep

PROJECT COUNTY Clarendon/Orangeburg



Source of Material BS-1 5.0
 Description of Material CLAYEY SAND (SC/A-2-6)
 Test Method _____

TEST RESULTS

Maximum Dry Density 121.0 PCF
 Optimum Water Content 11.2 %

ATTERBERG LIMITS

LL	PL	PI
<u>26</u>	<u>15</u>	<u>11</u>

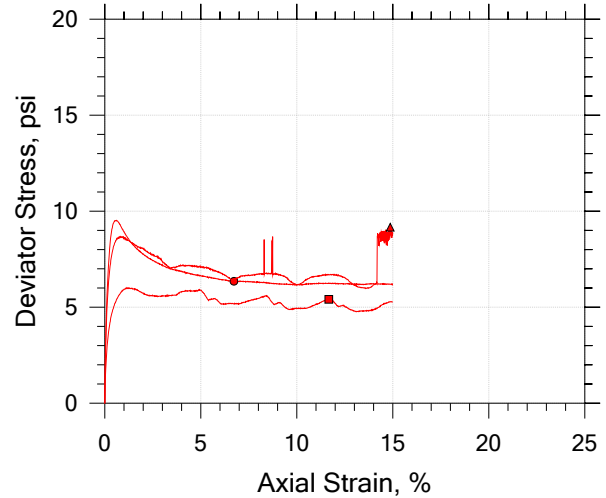
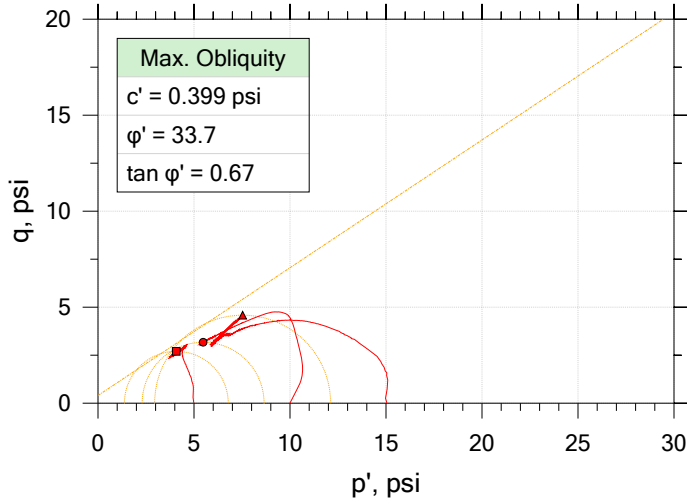
Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

Consolidated Undrained by AASHTO T297

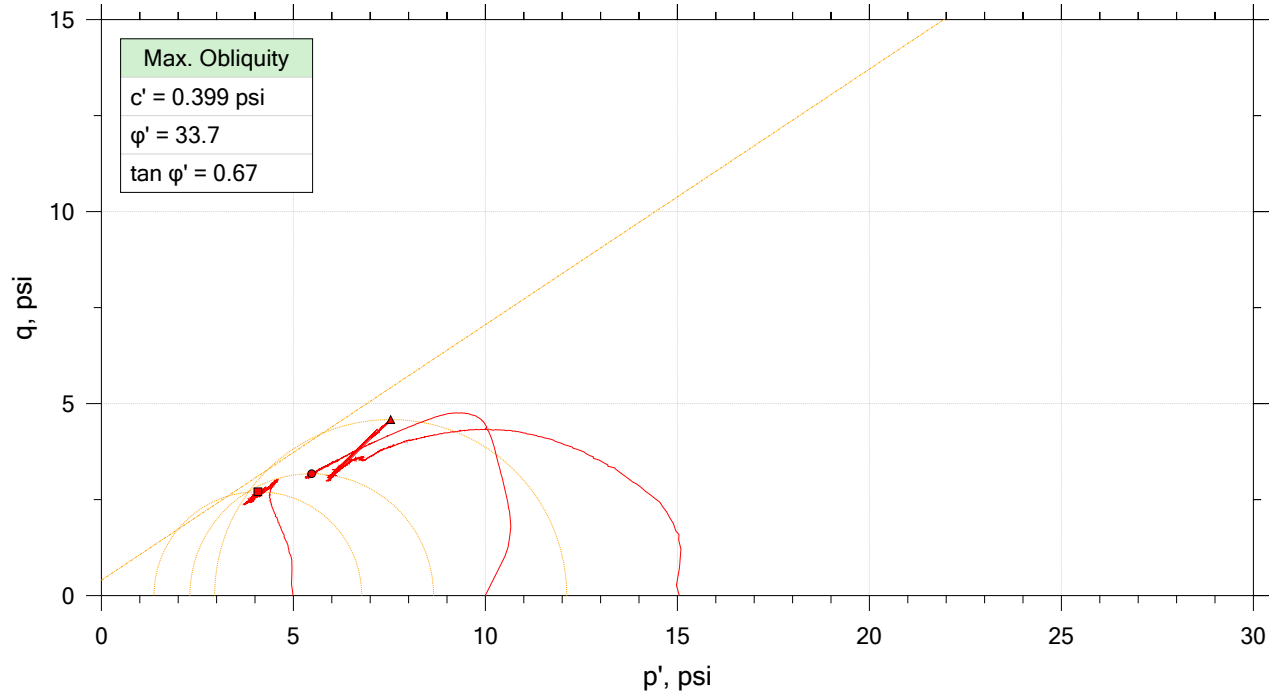
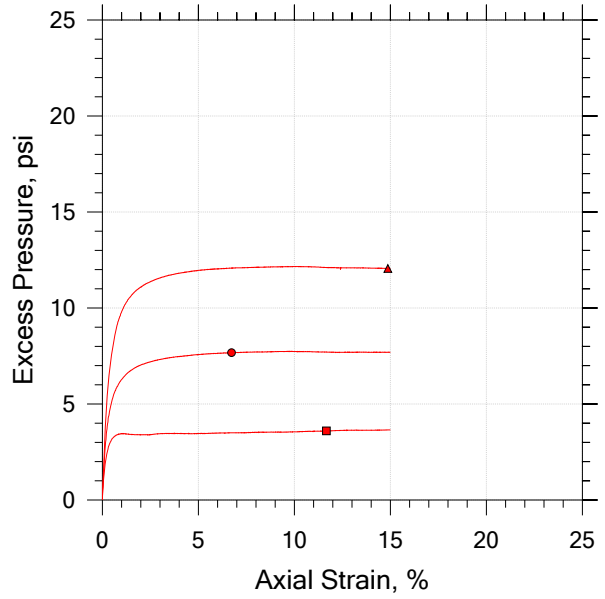
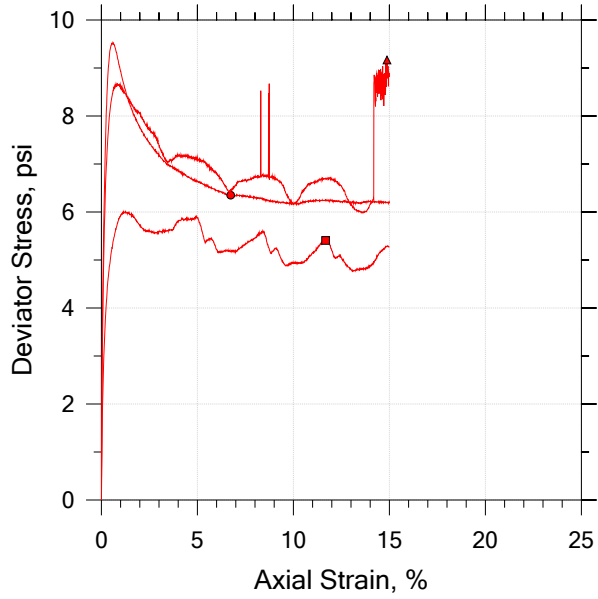


Symbol	■	●	▲	
Sample ID	23-0153	23-0153	23-0153	
Depth	0.0' - 5.0'	0.0' - 5.0'	0.0' - 5.0'	
Test Number	A	B	C	
Initial				
Height, in	6.000	6.000	6.000	
Diameter, in	2.800	2.800	2.800	
Moisture Content (from Cuttings), %	10.9	10.9	11.1	
Dry Density, pcf	115.	115.	118.	
Saturation (Wet Method), %	64.7	64.7	72.1	
Void Ratio	0.451	0.451	0.413	
Final				
Moisture Content, %	15.7	15.9	13.7	
Dry Density, pcf	118.	117.	122.	
Cross-Sectional Area (Method A), in ²	6.065	6.075	5.993	
Saturation, %	100.0	100.0	100.0	
Void Ratio	0.421	0.426	0.367	
Back Pressure, psi	101.0	101.0	98.00	
Vertical Effective Consolidation Stress, psi	4.978	9.966	15.03	
Horizontal Effective Consolidation Stress, psi	4.999	10.00	15.05	
Vertical Strain after Consolidation, %	0.1468	0.2966	0.3797	
Volumetric Strain after Consolidation, %	0.8081	1.487	2.573	
Time to 50% Consolidation, min	0.2300	0.2300	0.2800	
Shear Strength, psi	2.705	3.175	4.584	
Strain at Failure, %	11.7	6.73	14.9	
Strain Rate, %/min	0.0005000	0.0005000	0.0005000	
Deviator Stress at Failure, psi	5.409	6.350	9.168	
Effective Minor Principal Stress at Failure, psi	1.372	2.302	2.949	
Effective Major Principal Stress at Failure, psi	6.781	8.651	12.12	
B-Value	0.94	0.95	0.93	


Notes:
 - Before Shear Saturation set to 100% for phase calculation.
 - Moisture Content determined by ASTM D2216.
 - Atterberg Limits determined by ASTM D4318.
 - Deviator Stress includes membrane correction.
 - Values for c and ϕ determined from best-fit straight line for the specific test conditions.
 Actual strength parameters may vary and should be determined by an engineer for site conditions.

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		

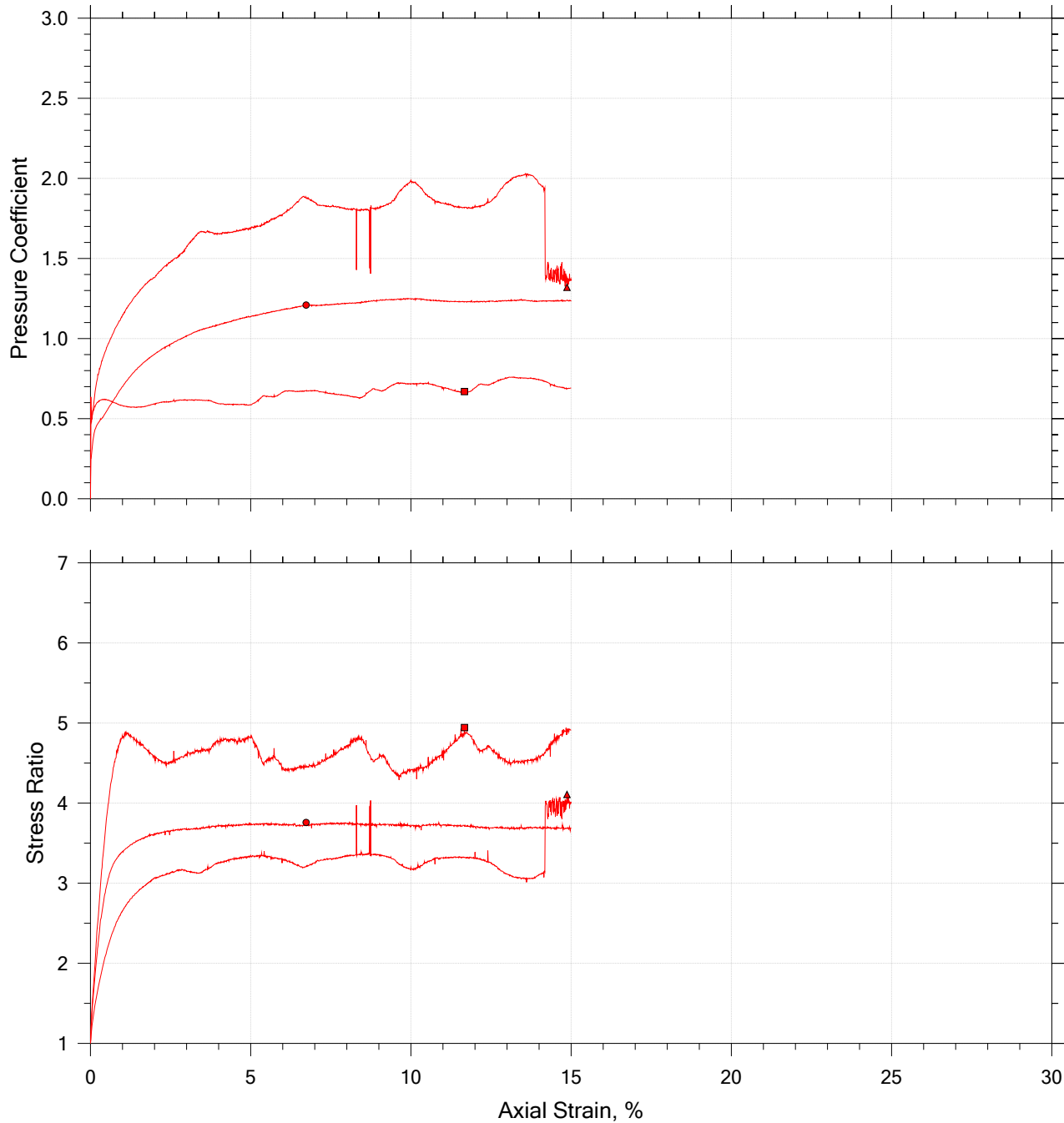
Consolidated Undrained by AASHTO T297



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
■	23-0153	A	0.0' - 5.0'	RMC	2/6/2023	WAP/ WJG	2/15/2023	G6744_BS-1.A.dat
●	23-0153	B	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.B.dat
▲	23-0153	C	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.C.dat

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		

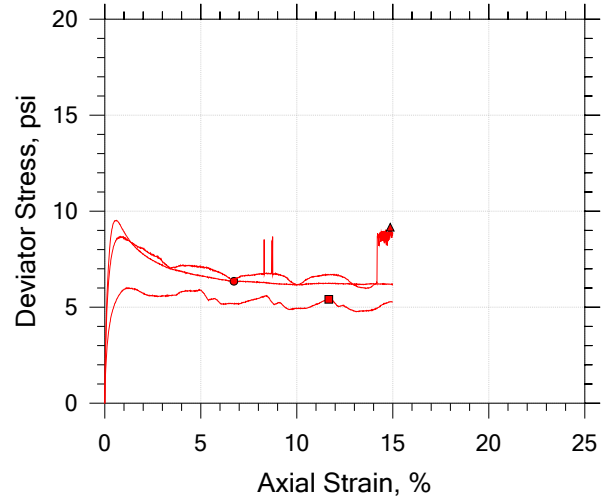
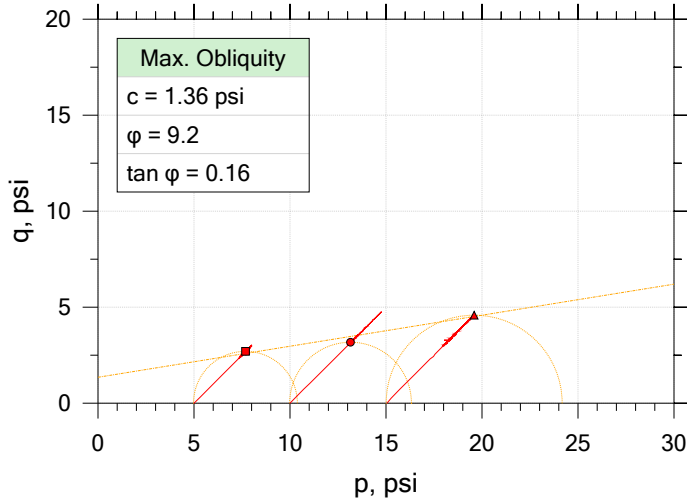
Consolidated Undrained by AASHTO T297



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
■	23-0153	A	0.0' - 5.0'	RMC	2/6/2023	WAP/ WJG	2/15/2023	G6744_BS-1.A.dat
●	23-0153	B	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.B.dat
▲	23-0153	C	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.C.dat

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		

Consolidated Undrained by AASHTO T297

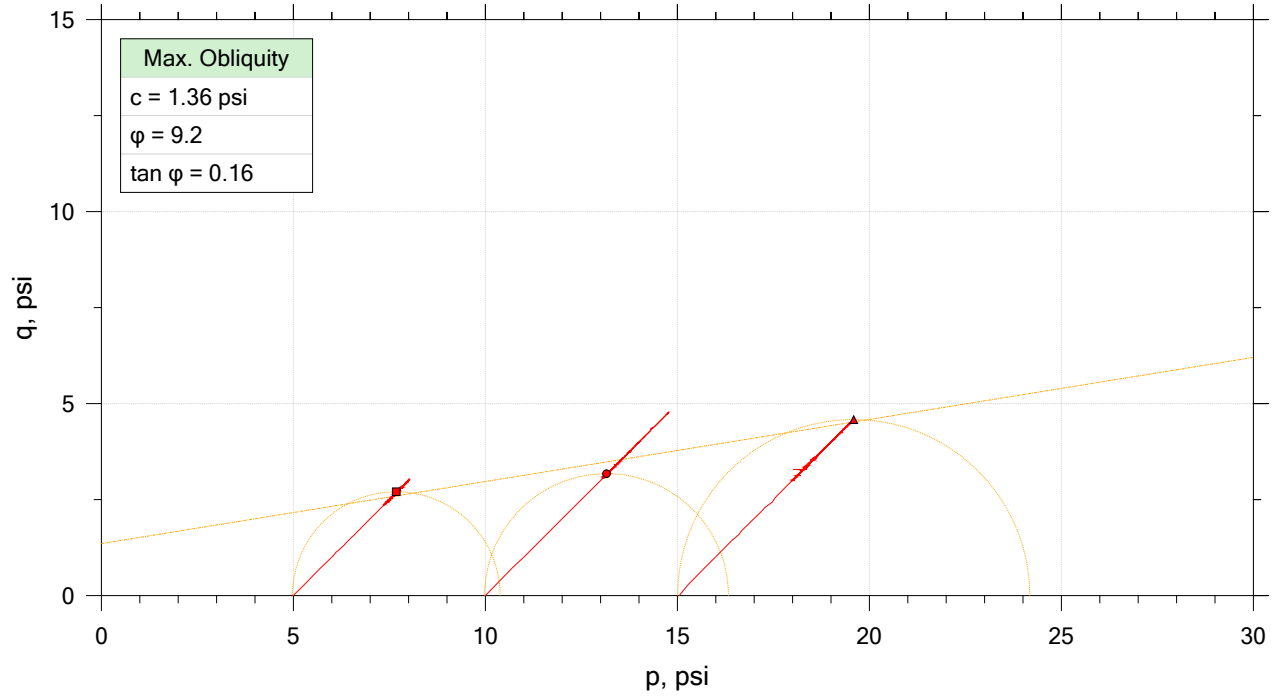
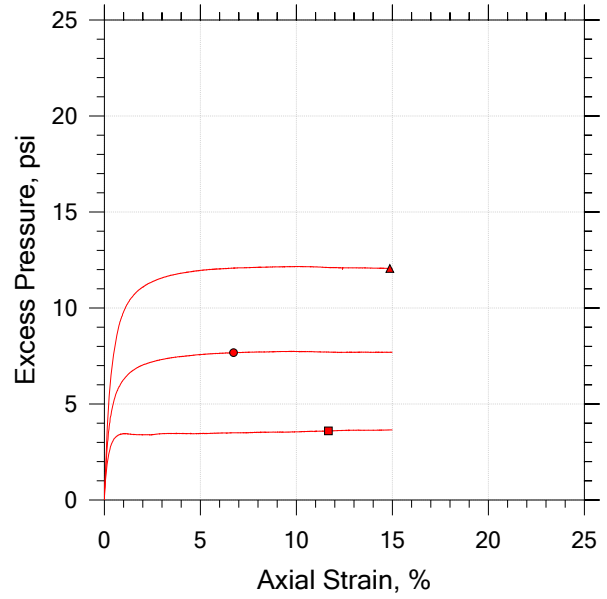
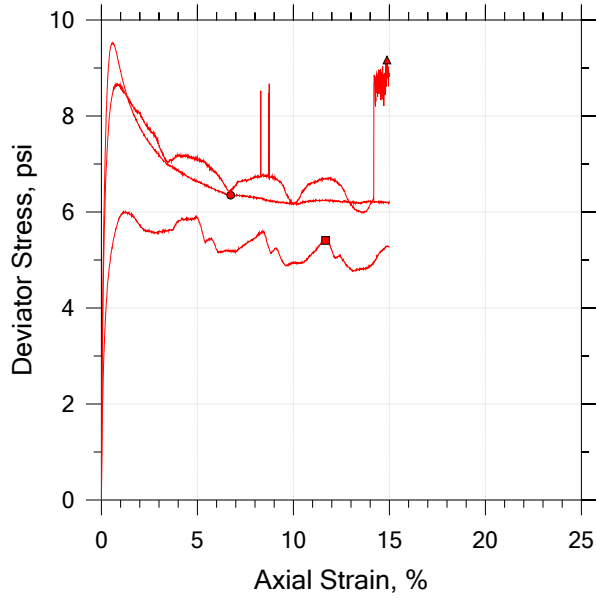


Symbol	■	●	▲	
Sample ID	23-0153	23-0153	23-0153	
Depth	0.0' - 5.0'	0.0' - 5.0'	0.0' - 5.0'	
Test Number	A	B	C	
Initial				
Height, in	6.000	6.000	6.000	
Diameter, in	2.800	2.800	2.800	
Moisture Content (from Cuttings), %	10.9	10.9	11.1	
Dry Density, pcf	115.	115.	118.	
Saturation (Wet Method), %	64.7	64.7	72.1	
Void Ratio	0.451	0.451	0.413	
Final				
Moisture Content, %	15.7	15.9	13.7	
Dry Density, pcf	118.	117.	122.	
Cross-Sectional Area (Method A), in ²	6.065	6.075	5.993	
Saturation, %	100.0	100.0	100.0	
Void Ratio	0.421	0.426	0.367	
Back Pressure, psi	101.0	101.0	98.00	
Vertical Effective Consolidation Stress, psi	4.978	9.966	15.03	
Horizontal Effective Consolidation Stress, psi	4.999	10.00	15.05	
Vertical Strain after Consolidation, %	0.1468	0.2966	0.3797	
Volumetric Strain after Consolidation, %	0.8081	1.487	2.573	
Time to 50% Consolidation, min	0.2300	0.2300	0.2800	
Shear Strength, psi	2.705	3.175	4.584	
Strain at Failure, %	11.7	6.73	14.9	
Strain Rate, %/min	0.0005000	0.0005000	0.0005000	
Deviator Stress at Failure, psi	5.409	6.350	9.168	
Effective Minor Principal Stress at Failure, psi	1.372	2.302	2.949	
Effective Major Principal Stress at Failure, psi	6.781	8.651	12.12	
B-Value	0.94	0.95	0.93	

Notes:
 - Before Shear Saturation set to 100% for phase calculation.
 - Moisture Content determined by ASTM D2216.
 - Atterberg Limits determined by ASTM D4318.
 - Deviator Stress includes membrane correction.
 - Values for c and ϕ determined from best-fit straight line for the specific test conditions.
 Actual strength parameters may vary and should be determined by an engineer for site conditions.

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		

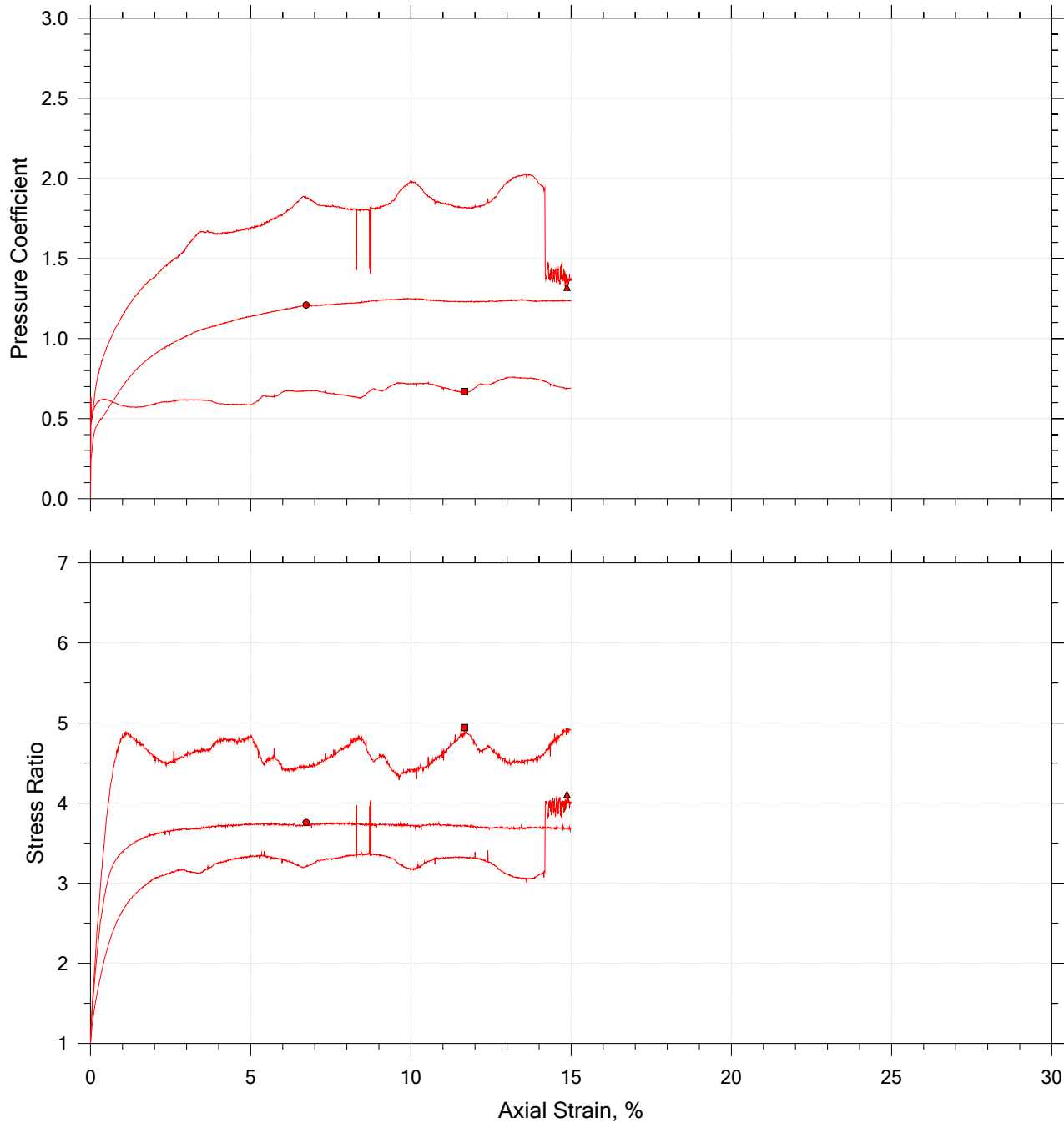
Consolidated Undrained by AASHTO T297



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
■	23-0153	A	0.0' - 5.0'	RMC	2/6/2023	WAP/ WJG	2/15/2023	G6744_BS-1.A.dat
●	23-0153	B	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.B.dat
▲	23-0153	C	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.C.dat

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		

Consolidated Undrained by AASHTO T297



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
■	23-0153	A	0.0' - 5.0'	RMC	2/6/2023	WAP/ WJG	2/15/2023	G6744_BS-1.A.dat
●	23-0153	B	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.B.dat
▲	23-0153	C	0.0' - 5.0'	RMC	2/2/2023	WAP/ WJG	2/15/2023	G6744_BS-1.C.dat

	Project Name: I-95 Bridge over Lake Marion	Location: Clarendon/Orangeburg County	Project Number: G6744
	Boring Number: BS-1	Tester: RMC	Checker: WAP/ WJG
	Sample Number: 23-0153	Test Date: 2/6/2023	Depth: 0.0' - 5.0'
	Test Number: ABC	Preparation: Remolded	Elevation:
	Description: Clayey SAND (SC/A-2-6) LL=26, PL=15, PI=11, %200=24.0		
	Remarks: Max Dry Density=121.0 pcf, OMC=11.2%, Samples Molded at 95%		



INDEX PROPERTIES VERSUS DEPTH

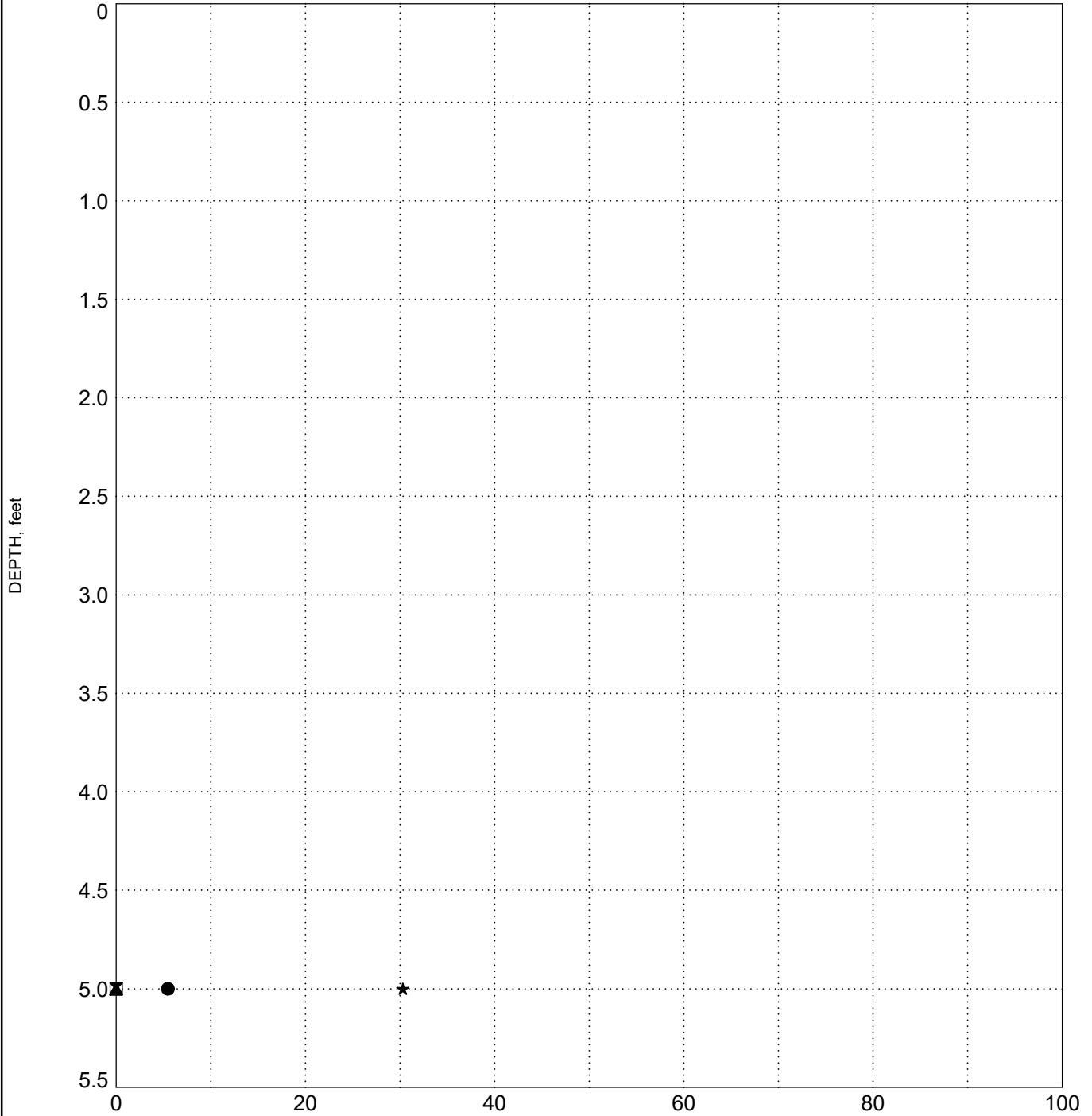
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-2

SURFACE ELEVATION: 90.5



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

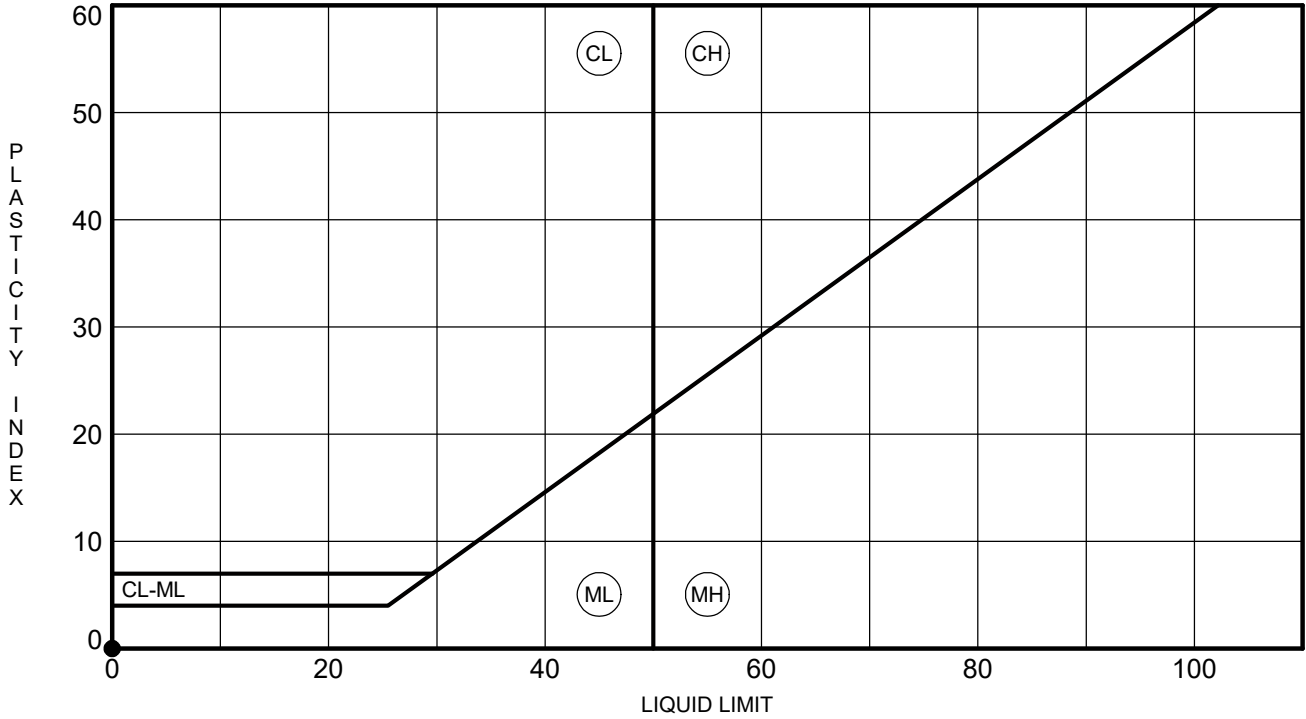


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



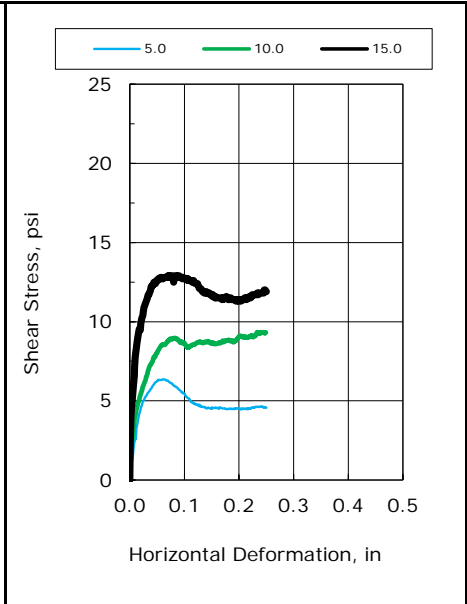
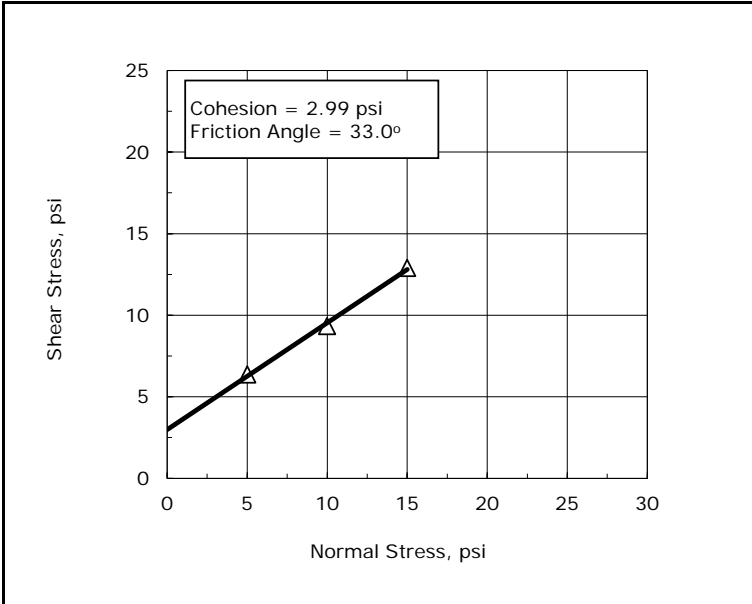
BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● BS-2	5.0	NP	NP	NP	30	SILTY SAND (SM/A-2-4)

ATTERBERG LIMITS G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/11/23

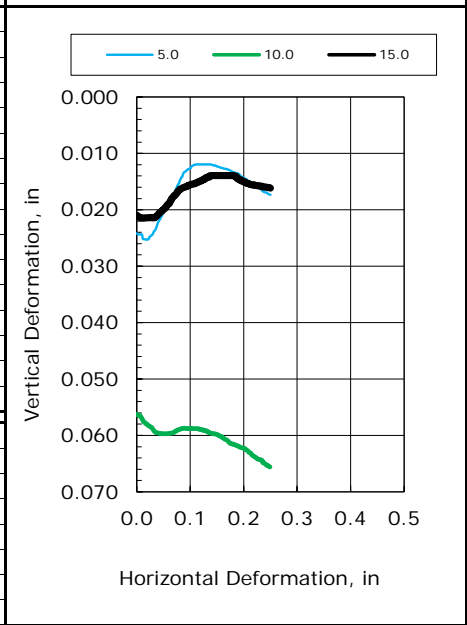


Client:	F&ME Consultants
Project Name:	I-95 NB/SB over Lake Marion Bridge Replacement
Project Location:	Clarendon/Orangeburg County, South Carolina
GTX #:	317398
Test Date:	07/25/23
Tested By:	jbh
Checked By:	mcm
Boring ID:	BS-2
Sample ID:	---
Depth, ft:	0-5
Visual Description:	Moist, silty sand

Direct Shear Test of Soils Under Consolidated Drained Conditions by AASHTO T236



Test No.:	DS-3-1	DS-3-2	DS-3-3
Initial Diameter, in:	2.5	2.5	2.5
Initial Height, in:	1.0	1.0	1.0
Initial Mass, grams:	150.7	150.7	150.7
Initial Dry Density, pcf:	104.4	104.4	104.2
Initial Moisture Content, %:	12.0	12.0	12.2
Initial Bulk Density, pcf:	117.0	116.9	116.9
Initial Degree of Saturation:	54.5	54.5	55.0
Initial Void Ratio:	0.59	0.59	0.59
Final Dry Density, pcf:	106.2	111.7	106.0
Final Moisture Content, %:	18.3	19.4	18.1
Final Bulk Density, pcf:	125.6	133.4	125.2
Normal Stress, psi:	5.0	10.0	15.0
Maximum Shear Stress, psi:	6.4	9.3	12.9
Shear Rate, in/min:	0.002	0.002	0.002
Sample Type:	reconstituted		
Estimated Specific Gravity:	2.65		
Liquid Limit:	---		
Plastic Limit:	---		
Plasticity Index:	---		
% Passing #200 sieve:	---		
Soil Classification:	---		
Group Symbol:	---		



Notes: Material greater than #5 sieve screened out of sample prior to testing
 Moisture content obtained before shear from sample trimmings
 Moisture Content determined by ASTM D2216
 Target Compaction: 95% of (109.3 pcf) at optimum moisture content (12.6%), values provided by client.

Values for cohesion and friction angle determined from best-fit straight line to the data for the specific test conditions. Actual strength parameters may vary and should be determined by an engineer for site-specific conditions.

"---" indicates testing required to determine these values was not requested.

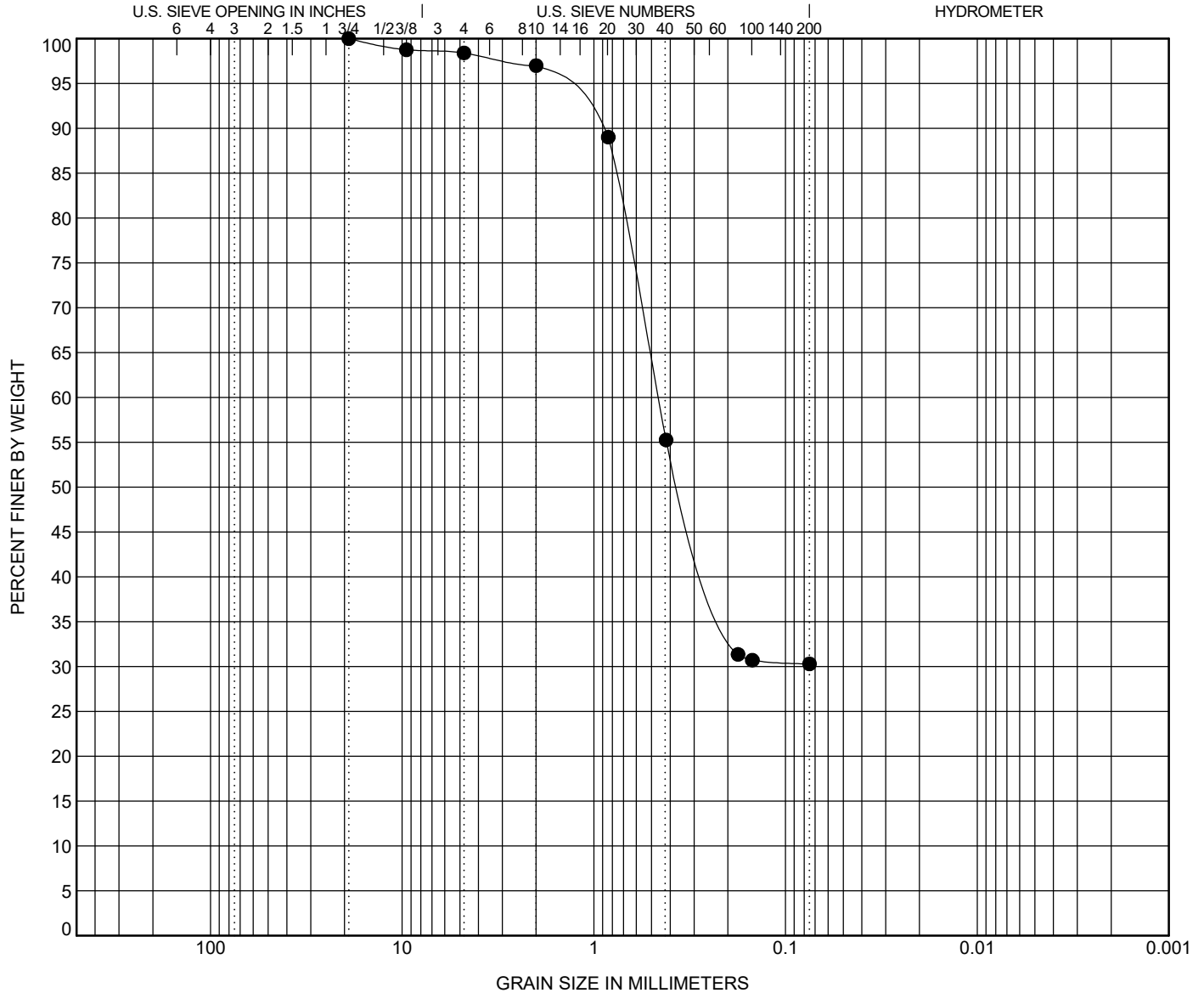


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● BS-2	5.0	SILTY SAND (SM/A-2-4)					NP	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● BS-2	5.0	19	0.463			1.6	68.1	30.3			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/11/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-2285	DATE SAMPLE RECEIVED:	6/29/2023
DESCRIPTION OF SOIL:	Silty SAND (SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	6/30/2023
WEIGHED BY:	LH	DATE OF WEIGHING:	7/11/2023

BORING NO.	BS-2				
SAMPLE NO.	--				
SAMPLE DEPTH (FT.)	0.0 - 5.0				
WATER CONTENT, W%	5.5				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



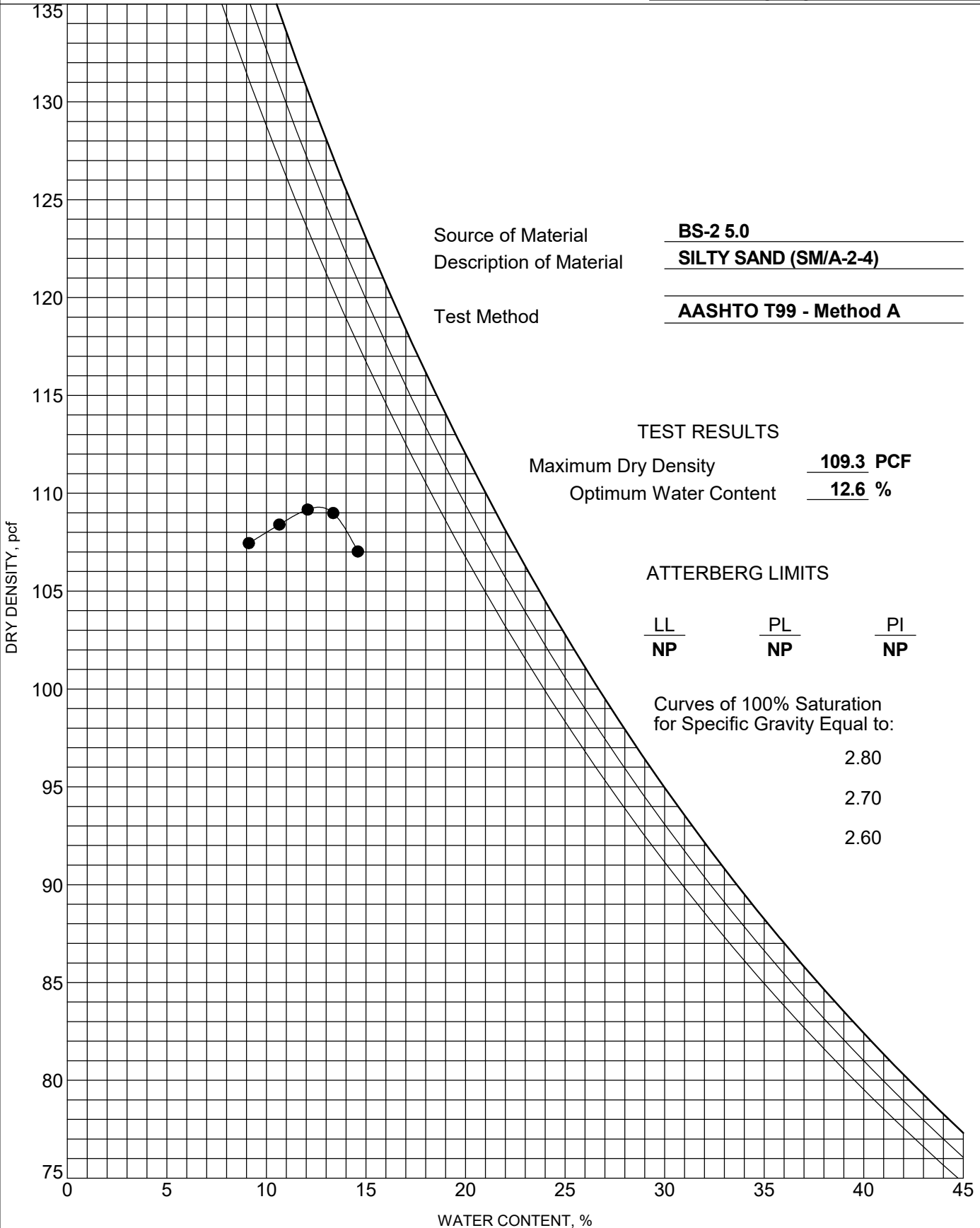


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



Source of Material BS-2 5.0
 Description of Material SILTY SAND (SM/A-2-4)
 Test Method AASHTO T99 - Method A

TEST RESULTS

Maximum Dry Density 109.3 PCF
 Optimum Water Content 12.6 %

ATTERBERG LIMITS

LL	PL	PI
<u>NP</u>	<u>NP</u>	<u>NP</u>

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 7/11/23



INDEX PROPERTIES VERSUS DEPTH

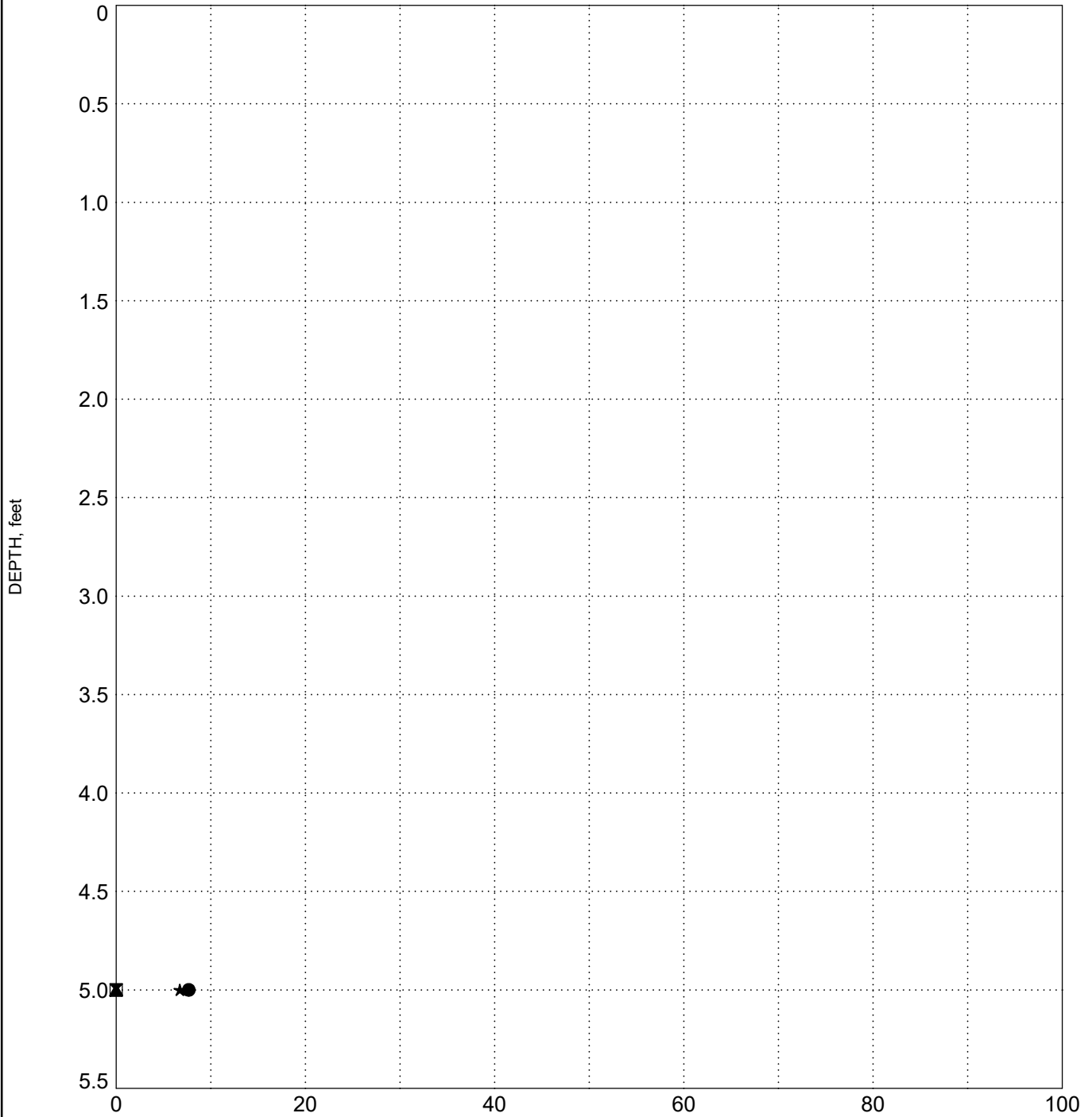
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-3

SURFACE ELEVATION: 89.5

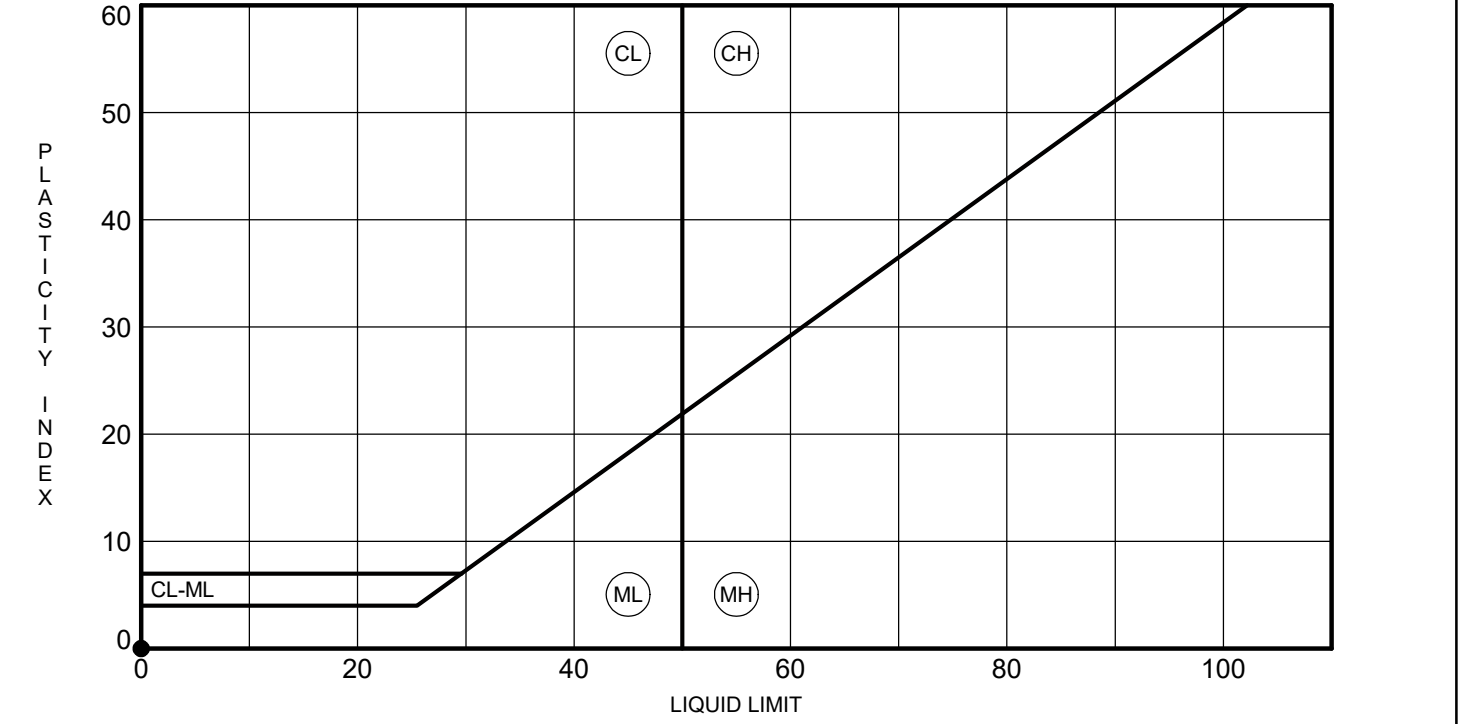


LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines



ATTERBERG LIMITS' RESULTS

PROJECT ID P041130 PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement
 PROJECT COUNTY Clarendon/Orangeburg

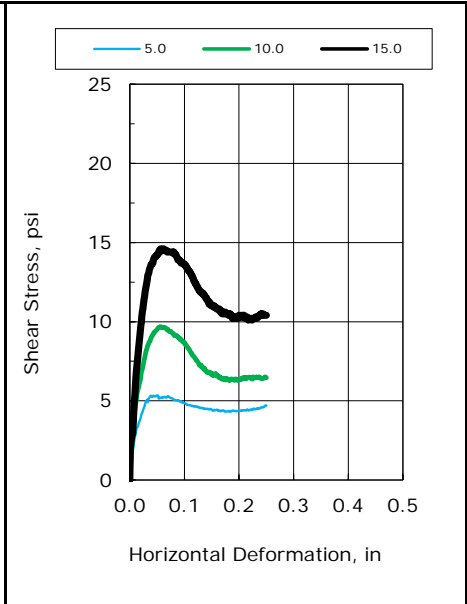
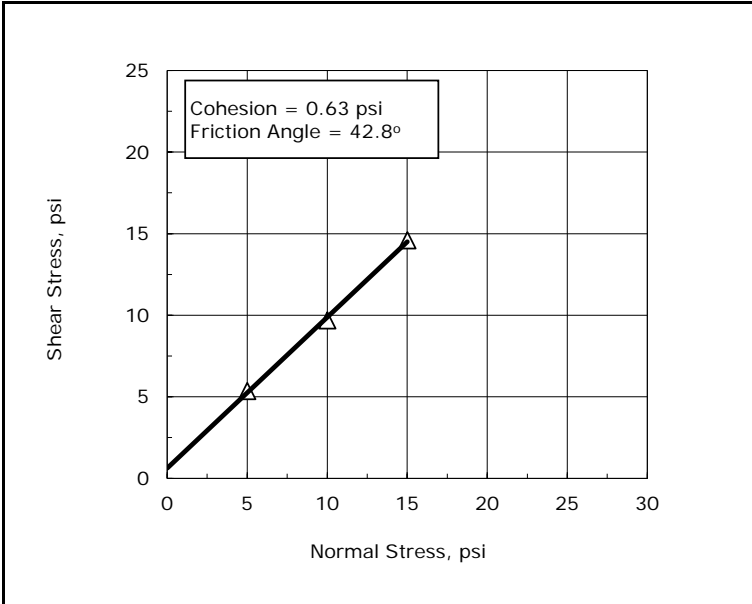


BOREHOLE	DEPTH	LL	PL	PI Fines	Classification
● BS-3	5.0	NP	NP	NP 7	POORLY GRADED SAND with SILT (SP-SM/A-3)

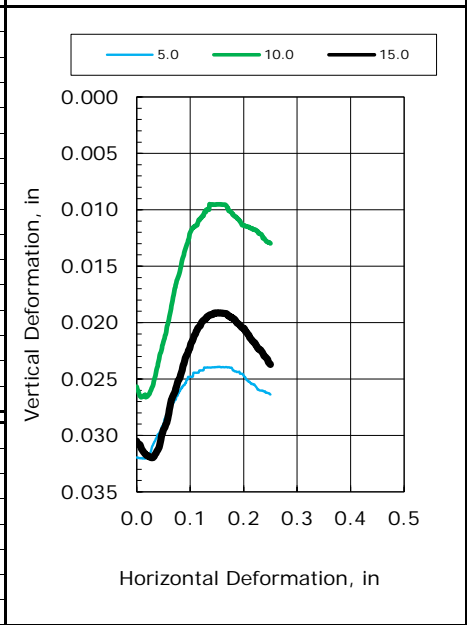


Client:	F&ME Consultants
Project Name:	I-95 NB/SB over Lake Marion Bridge Replacement
Project Location:	Clarendon/Orangeburg County, South Carolina
GTX #:	317398
Test Date:	06/26/23
Tested By:	twh
Checked By:	mcm
Boring ID:	BS-3
Sample ID:	---
Depth, ft:	0-5
Visual Description:	Moist, brown sand with silt

Direct Shear Test of Soils Under Consolidated Drained Conditions by AASHTO T236



Test No.:	DS-1-1	DS-1-2	DS-1-3
Initial Diameter, in:	2.5	2.5	2.5
Initial Height, in:	1.0	1.0	1.0
Initial Mass, grams:	147.6	147.6	147.6
Initial Dry Density, pcf:	99.2	99.2	99.2
Initial Moisture Content, %:	15.5	15.5	15.5
Initial Bulk Density, pcf:	114.6	114.6	114.6
Initial Degree of Saturation:	61.5	61.5	61.5
Initial Void Ratio:	0.67	0.67	0.67
Final Dry Density, pcf:	101.9	100.5	101.6
Final Moisture Content, %:	23.7	18.3	20.8
Final Bulk Density, pcf:	126.1	118.9	122.8
Normal Stress, psi:	5.0	10.0	15.0
Maximum Shear Stress, psi:	5.4	9.7	14.6
Shear Rate, in/min:	0.002	0.002	0.002
Sample Type:	reconstituted		
Estimated Specific Gravity:	2.65		
Liquid Limit:	---		
Plastic Limit:	---		
Plasticity Index:	---		
% Passing #200 sieve:	---		
Soil Classification:	---		
Group Symbol:	---		



Notes: Material greater than #5 sieve screened out of sample prior to testing
 Moisture content obtained before shear from sample trimmings
 Moisture Content determined by ASTM D2216
 Target Compaction: 95% of (104.4 pcf) at optimum moisture content (15.5%), values provided by client.

Values for cohesion and friction angle determined from best-fit straight line to the data for the specific test conditions. Actual strength parameters may vary and should be determined by an engineer for site-specific conditions.

"---" indicates testing required to determine these values was not requested.

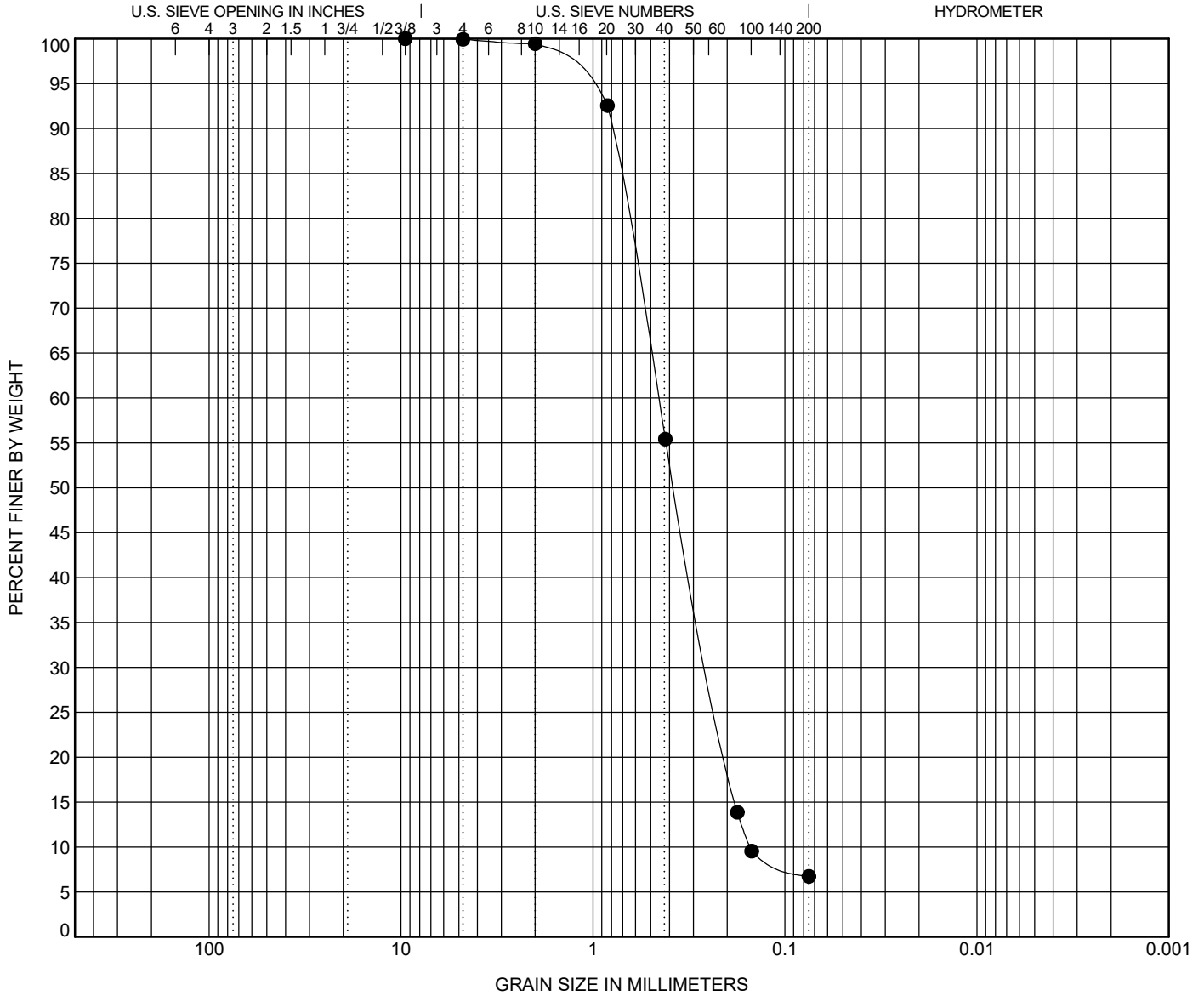


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● BS-3	5.0	POORLY GRADED SAND with SILT (SP-SM/A-3)					NP	NP	NP	0.88	3.02
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● BS-3	5.0	9.51	0.458	0.248	0.152	0.1	93.2	6.7			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0366	DATE SAMPLE RECEIVED:	2/16/2023
DESCRIPTION OF SOIL:	Poorly Graded SAND (SP-SM/A-3) with Silt		
TESTED BY:	EW	DATE SETUP:	2/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/17/2023

BORING NO.	BS-3				
SAMPLE NO.	--				
SAMPLE DEPTH (FT.)	0.0 - 5.0				
WATER CONTENT, W%	7.7				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



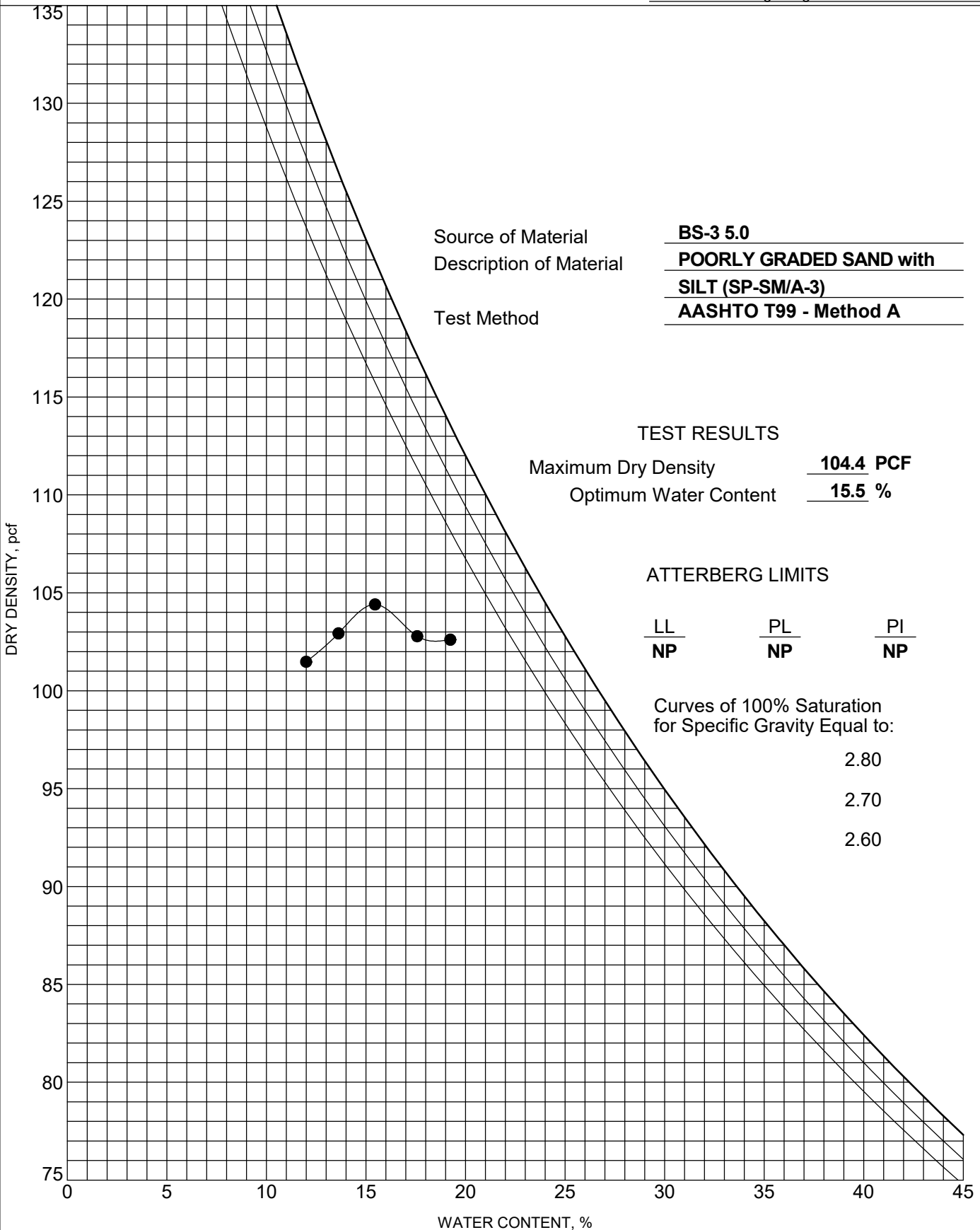


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COMPACTION G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/14/23



INDEX PROPERTIES VERSUS DEPTH

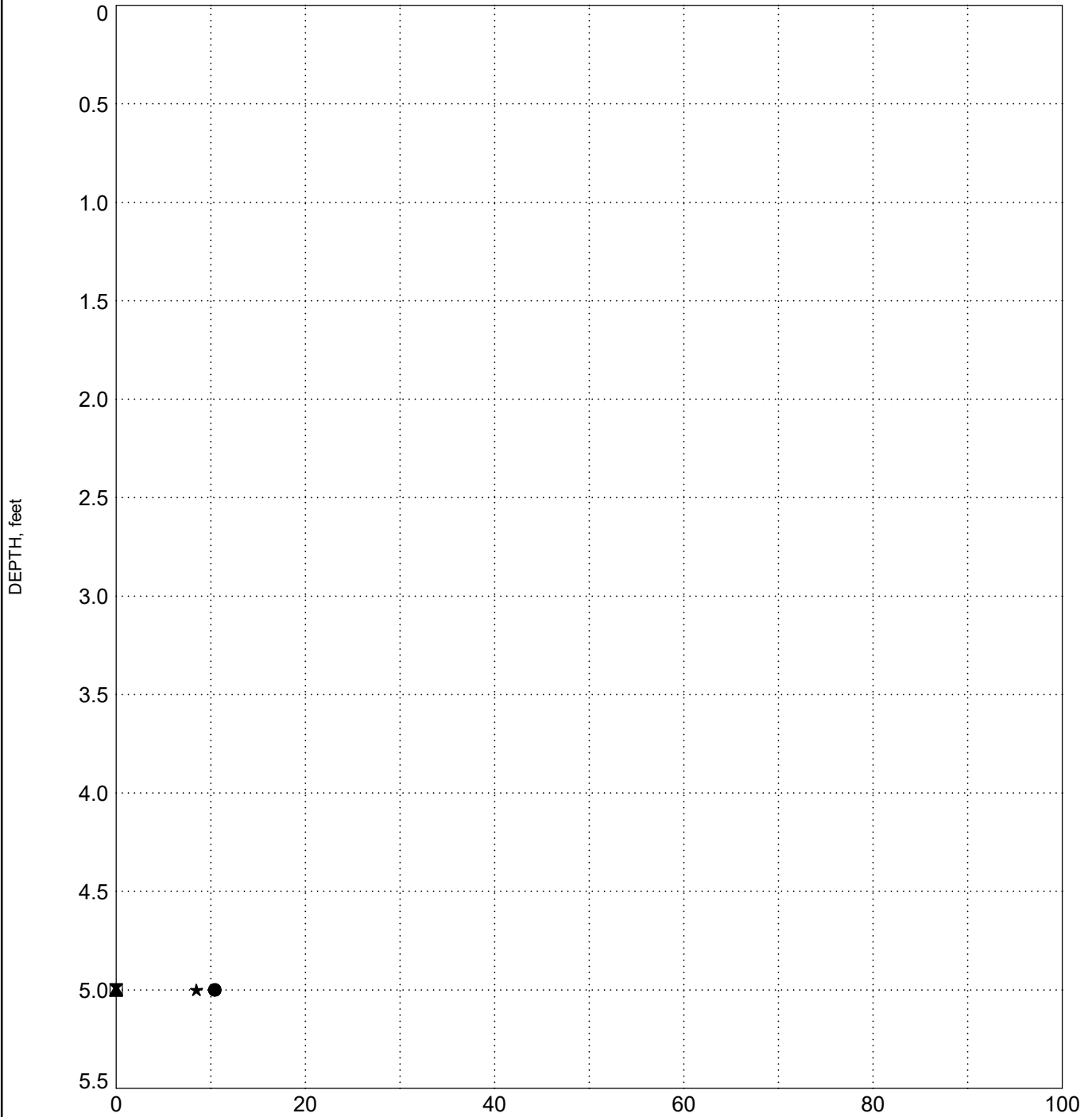
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-4

SURFACE ELEVATION: 90.3

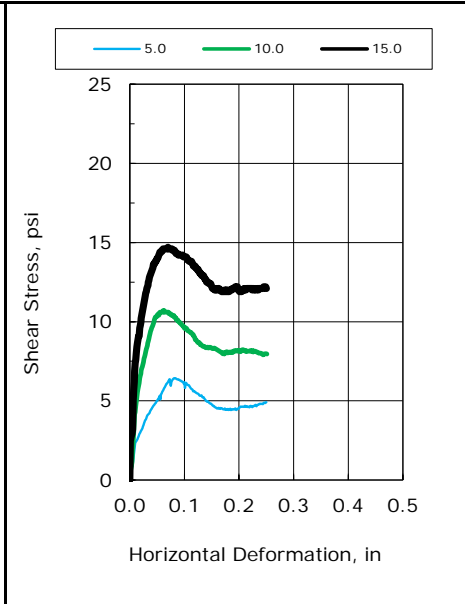
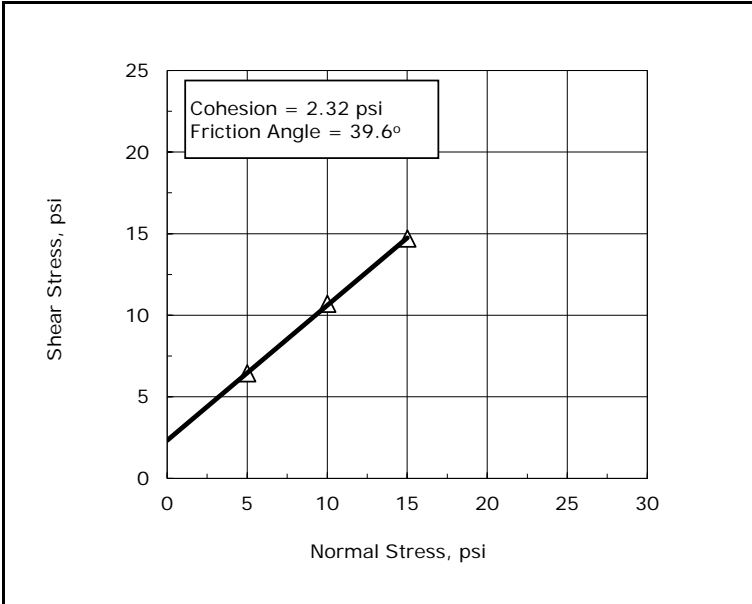


LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

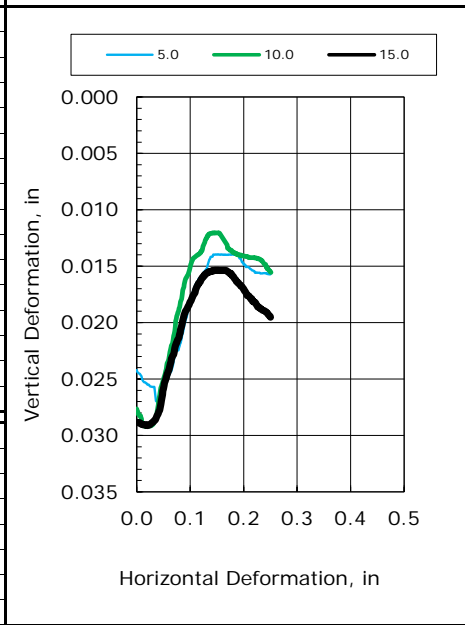


Client:	F&ME Consultants
Project Name:	I-95 NB/SB over Lake Marion Bridge Replacement
Project Location:	Clarendon/Orangeburg County, South Carolina
GTX #:	317398
Test Date:	06/27/23
Tested By:	twh
Checked By:	mcm
Boring ID:	BS-4
Sample ID:	---
Depth, ft:	0-5
Visual Description:	Moist, brown sand with silt

Direct Shear Test of Soils Under Consolidated Drained Conditions by AASHTO T236



Test No.:	DS-2-1	DS-2-2	DS-2-3
Initial Diameter, in:	2.5	2.5	2.5
Initial Height, in:	1.0	1.0	1.0
Initial Mass, grams:	151.1	151.1	151.0
Initial Dry Density, pcf:	103.5	103.5	103.5
Initial Moisture Content, %:	13.3	13.3	13.3
Initial Bulk Density, pcf:	117.3	117.3	117.3
Initial Degree of Saturation:	58.8	58.8	58.8
Initial Void Ratio:	0.60	0.60	0.60
Final Dry Density, pcf:	105.1	105.1	105.5
Final Moisture Content, %:	17.7	18.5	18.6
Final Bulk Density, pcf:	123.7	124.5	125.1
Normal Stress, psi:	5.0	10.0	15.0
Maximum Shear Stress, psi:	6.4	10.7	14.7
Shear Rate, in/min:	0.002	0.002	0.002
Sample Type:	reconstituted		
Estimated Specific Gravity:	2.65		
Liquid Limit:	---		
Plastic Limit:	---		
Plasticity Index:	---		
% Passing #200 sieve:	---		
Soil Classification:	---		
Group Symbol:	---		



Notes: Material greater than #5 sieve screened out of sample prior to testing
 Moisture content obtained before shear from sample trimmings
 Moisture Content determined by ASTM D2216
 Target Compaction: 95% of (108.4 pcf) at optimum moisture content (13.8%), values provided by client.

Values for cohesion and friction angle determined from best-fit straight line to the data for the specific test conditions. Actual strength parameters may vary and should be determined by an engineer for site-specific conditions.

"---" indicates testing required to determine these values was not requested.

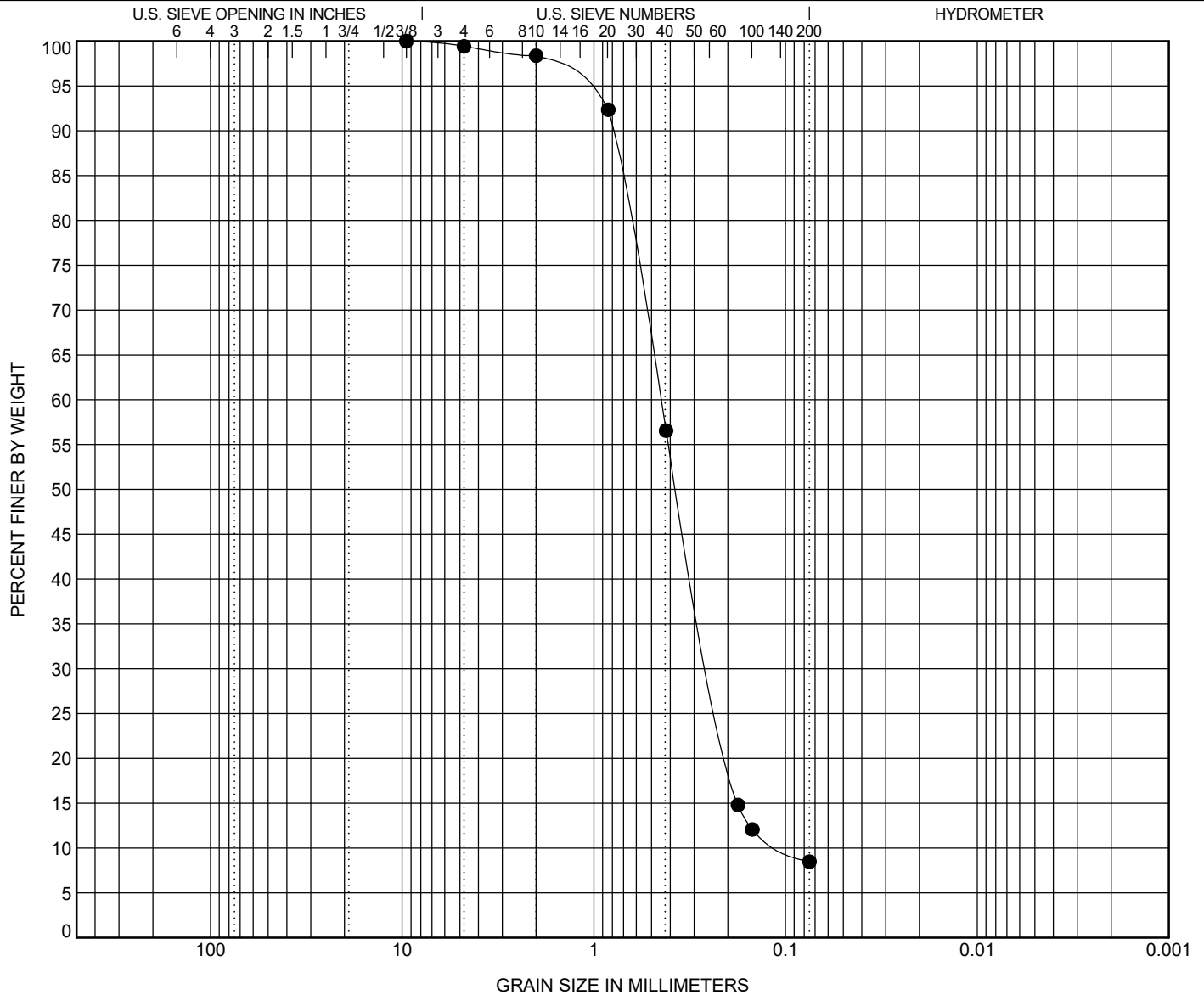


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● BS-4	5.0	POORLY GRADED SAND with SILT (SP-SM/A-3)	NP	NP	NP	1.30	4.48

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● BS-4	5.0	9.51	0.449	0.242	0.1	0.6	90.9	8.5	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0453	DATE SAMPLE RECEIVED:	2/16/2023
DESCRIPTION OF SOIL:	Poorly Graded SAND (SP-SM/A-3) with Silt		
TESTED BY:	EW	DATE SETUP:	2/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	2/17/2023

BORING NO.	BS-4		
SAMPLE NO.	--		
SAMPLE DEPTH (FT.)	0.0 - 5.0		
WATER CONTENT, W%	10.4		

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			



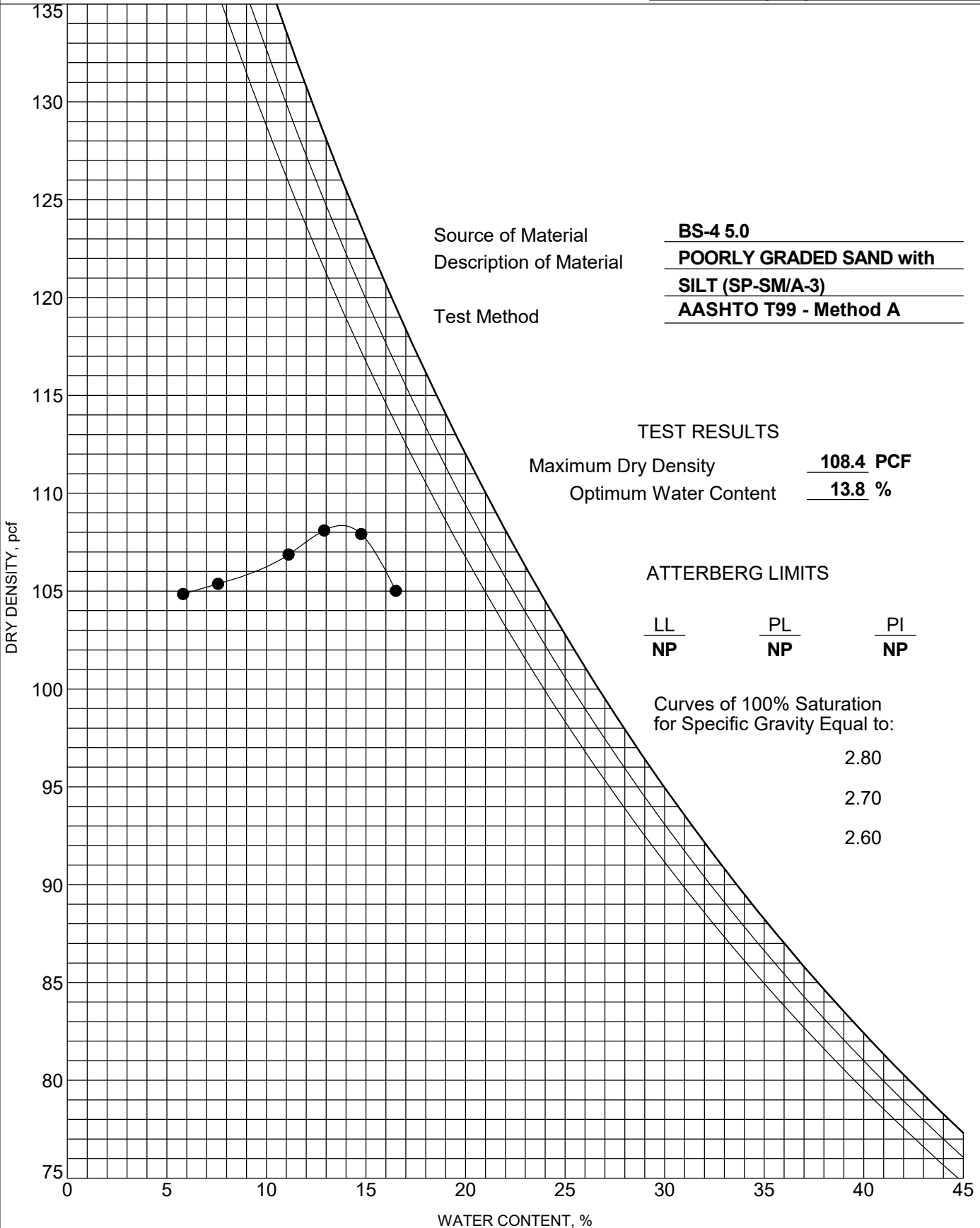


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



Source of Material BS-4 5.0
 Description of Material POORLY GRADED SAND with SILT (SP-SM/A-3)
 Test Method AASHTO T99 - Method A

TEST RESULTS

Maximum Dry Density 108.4 PCF
 Optimum Water Content 13.8 %

ATTERBERG LIMITS

LL	PL	PI
<u>NP</u>	<u>NP</u>	<u>NP</u>

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/14/23

CORROSION SERIES SUMMARY

PAGE 1 OF 1



PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Sample No.	Sample Depth (ft.)	pH of Soil in Distilled Water	Electrical Resistivity (Ω -cm)	Chloride Content (mg/kg (ppm))	Sulfate Content (mg/kg (ppm))
BS-3	--	0.0 – 5.0	7.7	27,876	6	60
BS-4	--	0.0 – 5.0	20.4	17,848	7	58

F&ME CONSULTANTS
3112 Devine Street
Columbia, South Carolina 29205

**pH Determination
(AASHTO T289)**

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project No.:	P041130
Sample Location:	BS-3	Sample Elevation/Depth:	0.0' - 5.0'
Description of Sample:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Sampled:	1/16/2023
Tested By:	R. Coldiron	Date Tested:	2/22/2023

FME Lab ID No.	23-0366			
Sample ID	BS-3			
Depth (ft.)	0.0 - 5.0			
pH Value	7.74			
Temperature (°C)	19.7			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	BS-3	FME Lab ID No.:	23-0366
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
BS-3	0.0 - 5.0	27,876

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client: F&ME Consultants, Inc.
 Client Reference: I-95 RBO Lake Marion G6744
 Project No.: 2023-147-001
 Lab ID: 2023-147-001-005

Boring No.: BS-3
 Depth (ft): 0.0-5.0'
 Sample No.: NA
 Description: Brown Sand
 (- # 10 Sieve material)

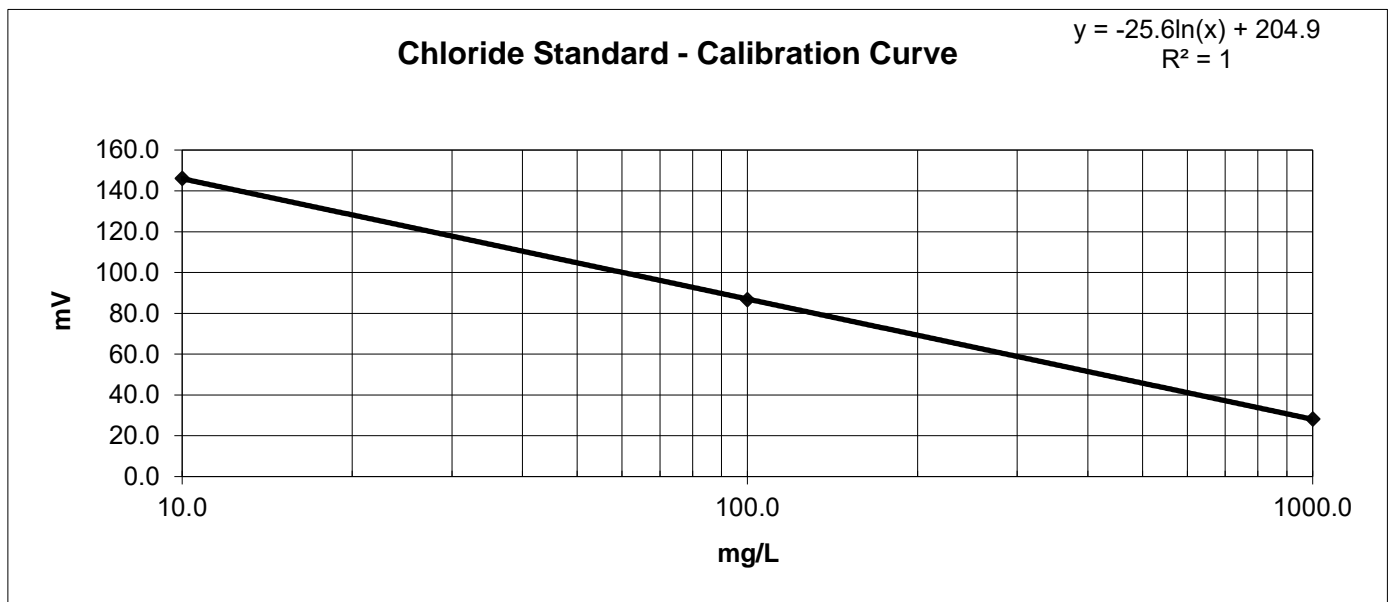
CHLORIDE STANDARD: CALIBRATION CURVE

STANDARD	MILLIVOLTS (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>159.8</u>	5.82	5.82

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
 2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By JAM Date 3/7/23 Checked By BRB Date 3/9/23

Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.:	BS-3
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft):	0.0-5.0'
Project No.:	2023-147-001	Sample No.:	NA
Lab ID:	2023-147-001-005	Soil Description:	Brown Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0
Water added to Sample (mL): 300.0
Size of Sample Aliquot (mL): 50.0
Sample Reading (FAU): 18

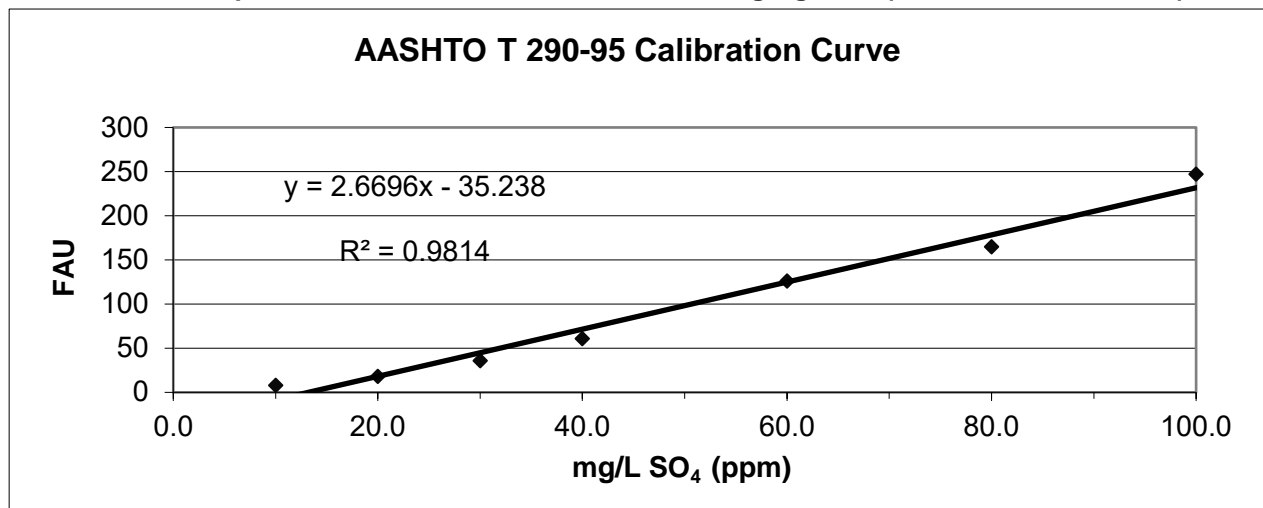
Sample Diluted: No

Sulfate Solution Added (ml): 0

Sample Moisture Content

Tare Number: 883
Weight of Tare & Wet Sample (g): 329.81
Weight of Tare & Dry Sample (g): 329.63
Weight of Tare (g): 109.79
Weight of Water (g): 0.18
Weight of Dry Sample (g): 219.84
Moisture Content (%): 0.08

Sample Sulfate Ion Concentration:	19.94	mg/L SO₄ (ppm)
Sample Sulfate Ion Content:	59.8	mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content:	59.9	mg/Kg SO₄ (corrected for moisture)



Tested by: JAM Date: 3/8/23 Checked by: BRB Date: 3/9/2023

F&ME CONSULTANTS
3112 Devine Street
Columbia, South Carolina 29205

**pH Determination
(AASHTO T289)**

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project No.:	P041130
Sample Location:	BS-4	Sample Elevation/Depth:	0.0' - 5.0'
Description of Sample:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Sampled:	1/16/2023
Tested By:	R. Coldiron	Date Tested:	2/22/2023

FME Lab ID No.	23-0453			
Sample ID	BS-4			
Depth (ft.)	0.0 - 5.0			
pH Value	8.36			
Temperature (°C)	20.4			

Date Reviewed: 2/28/2023

Reviewed By: J. Hiers



SOIL RESISTIVITY (AASHTO T288)

Project Name:	I-95 Lake Marion DB Prep	SCDOT Project ID:	G6744.00
Location:	BS-4	FME Lab ID No.:	23-0453
Sampled By:	TP	Date Sampled:	1/16/2023
Soil Description:	Poorly Graded SAND (SP-SM/A-3) with Silt	Date Received:	1/16/2023
Tested By:	CM	Date Tested:	2/22/2023

Boring No.	Sample Depth (ft.)	Minimum Soil Resistivity, Ω -cm
BS-4	0.0 - 5.0	17,848

Date Reviewed: 2/28/2023 Reviewed By: J. Hiers



CHLORIDE ION CONTENT IN SOILS
AASHTO T 291 - 94 (2018) (Method B)

Client:	F&ME Consultants, Inc.	Boring No.:	BS-4
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft):	0.0-5.0'
Project No.:	2023-147-001	Sample No.:	NA
Lab ID:	2023-147-001-006	Description:	Dark Brown Sand
			(- # 10 Sieve material)

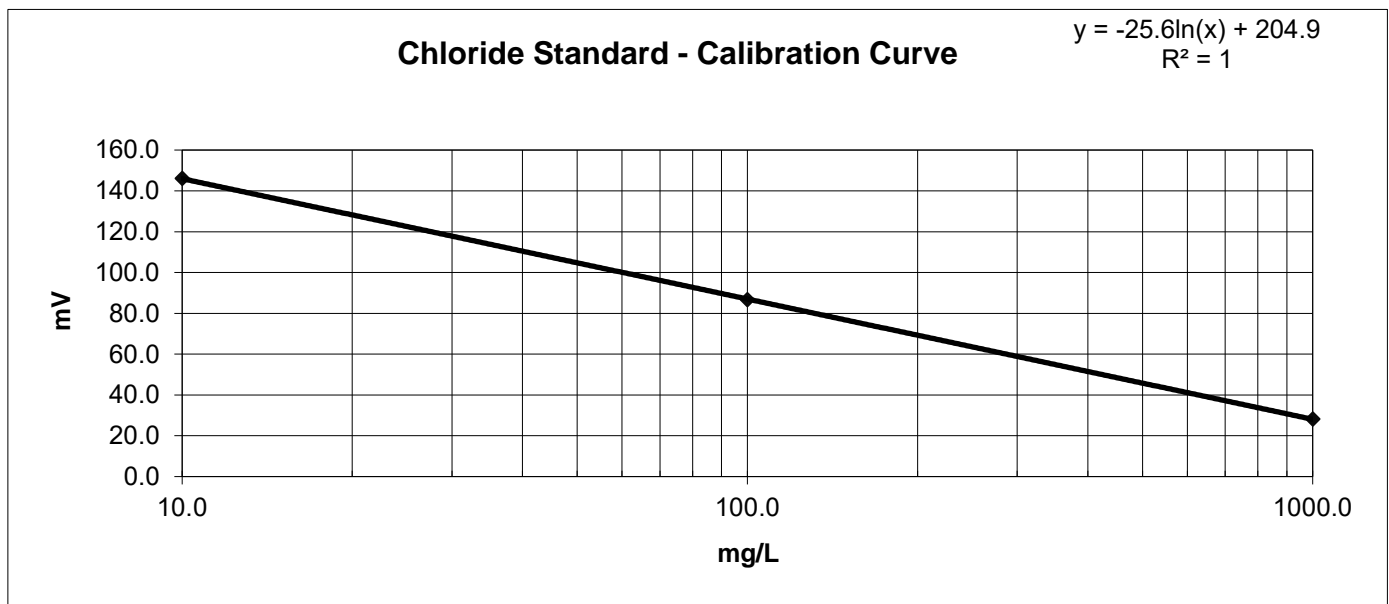
CHLORIDE STANDARD: CALIBRATION CURVE

<u>STANDARD</u>	<u>MILLIVOLTS</u> (mV)
10.0 mg/L	146.1
100.0 mg/L	86.7
1000.0 mg/L	28.2

MEASUREMENT OF CHLORIDES

Sample Weight (g):	<u>100.0</u>	CONCENTRATION	CONCENTRATION
Water added to Sample (ml):	<u>100.0</u>	(mg/L)	(mg/kg)
Size of Sample Aliquot (ml):	<u>25.0</u>		
Sample Reading (mV):	<u>154.0</u>	7.30	7.30

Notes: 1) Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO₃ solution (1:1 volume).
2) Samples were dried for a minimum of 12 hours at 110 ± 5°C.



Notes:

Tested By	JAM	Date	3/7/23	Checked By	BRB	Date	3/9/23
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Water-Soluble Sulfate Ion Content in Soil AASHTO T 290-95 (2020)

Client:	F&ME Consultants, Inc.	Boring No.: BS-4
Client Reference:	I-95 RBO Lake Marion G6744	Depth (ft): 0.0-5.0'
Project No.:	2023-147-001	Sample No.: NA
Lab ID:	2023-147-001-006	Soil Description: Dark Brown Sand

Sulfate Standard - Calibration Curve Spectrophotometer Readings

<u>Sulfate Ion Concentrations (mg/L)</u>									
0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0	
<u>Spectrophotometer Readings (FAU)</u>									
Underrange	Underrange	8	18	36	61	126	165	247	

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 mL NaCl solution and 0.3 g BaCl₂·2H₂O)

Sample Weight (g): 100.0
Water added to Sample (mL): 300.0
Size of Sample Aliquot (mL): 50.0
Sample Reading (FAU): 16

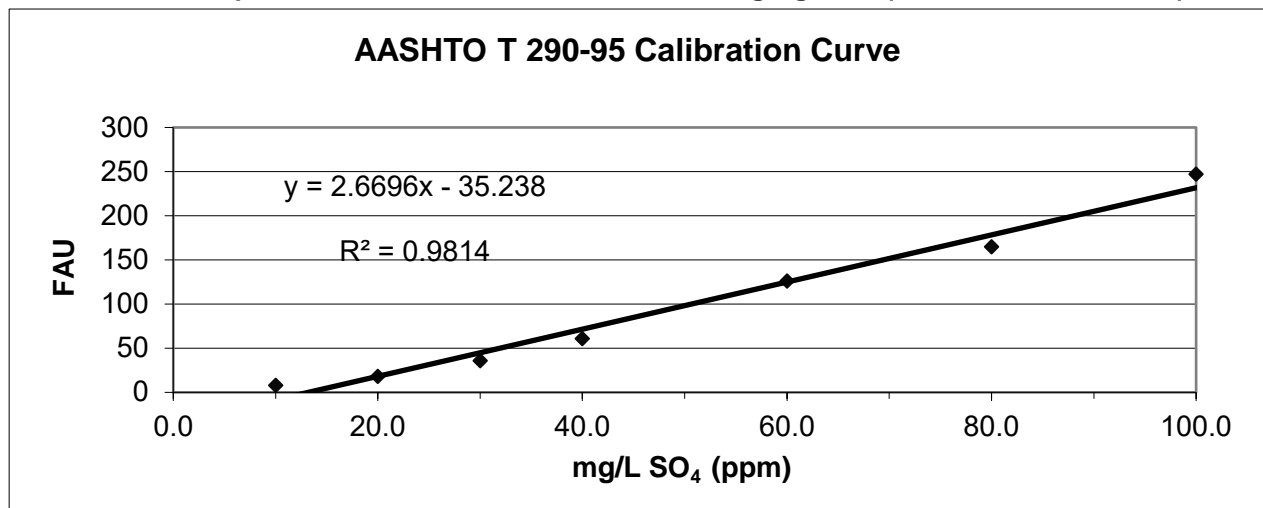
Sample Diluted: No

Sulfate Solution Added (ml): 0

Sample Moisture Content

Tare Number: 606
Weight of Tare & Wet Sample (g): 339.82
Weight of Tare & Dry Sample (g): 339.37
Weight of Tare (g): 84.94
Weight of Water (g): 0.45
Weight of Dry Sample (g): 254.43
Moisture Content (%): 0.18

Sample Sulfate Ion Concentration:	19.19	mg/L SO₄ (ppm)
Sample Sulfate Ion Content:	57.6	mg/Kg SO₄ (not corrected for moisture)
Sample Sulfate Ion Content:	57.7	mg/Kg SO₄ (corrected for moisture)



Tested by: JAM Date: 3/8/23 Checked by: BRB Date: 3/9/2023



SUMMARY OF LABORATORY RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Boring No.	Sample Depth (ft.)	Liquid Limit	Plastic Limit	Plasticity Index	%<#200 Sieve	Soil Classification	Desired % Compaction	% Compaction	Shrink/Swell %	0.1-in. CBR	0.2-in. CBR
BS-5	0.0 – 5.0	22	17	5	20	SC-SM	90.0	90.2	0.0	5.2	5.2
BS-5	0.0 – 5.0	22	17	5	20	SC-SM	95.0	94.9	0.0	9.7	11.6
BS-5	0.0 – 5.0	22	17	5	20	SC-SM	100.0	100.3	0.0	27.5	37.3
BS-6	0.0 – 5.0	NP	NP	NP	10.6	SW-SM	90.0	90.1	-0.1	9.0	8.6
BS-6	0.0 – 5.0	NP	NP	NP	10.6	SW-SM	95.0	95.1	0.0	13.5	17.1
BS-6	0.0 – 5.0	NP	NP	NP	10.6	SW-SM	100.0	100.4	0.0	18.0	19.2



INDEX PROPERTIES VERSUS DEPTH

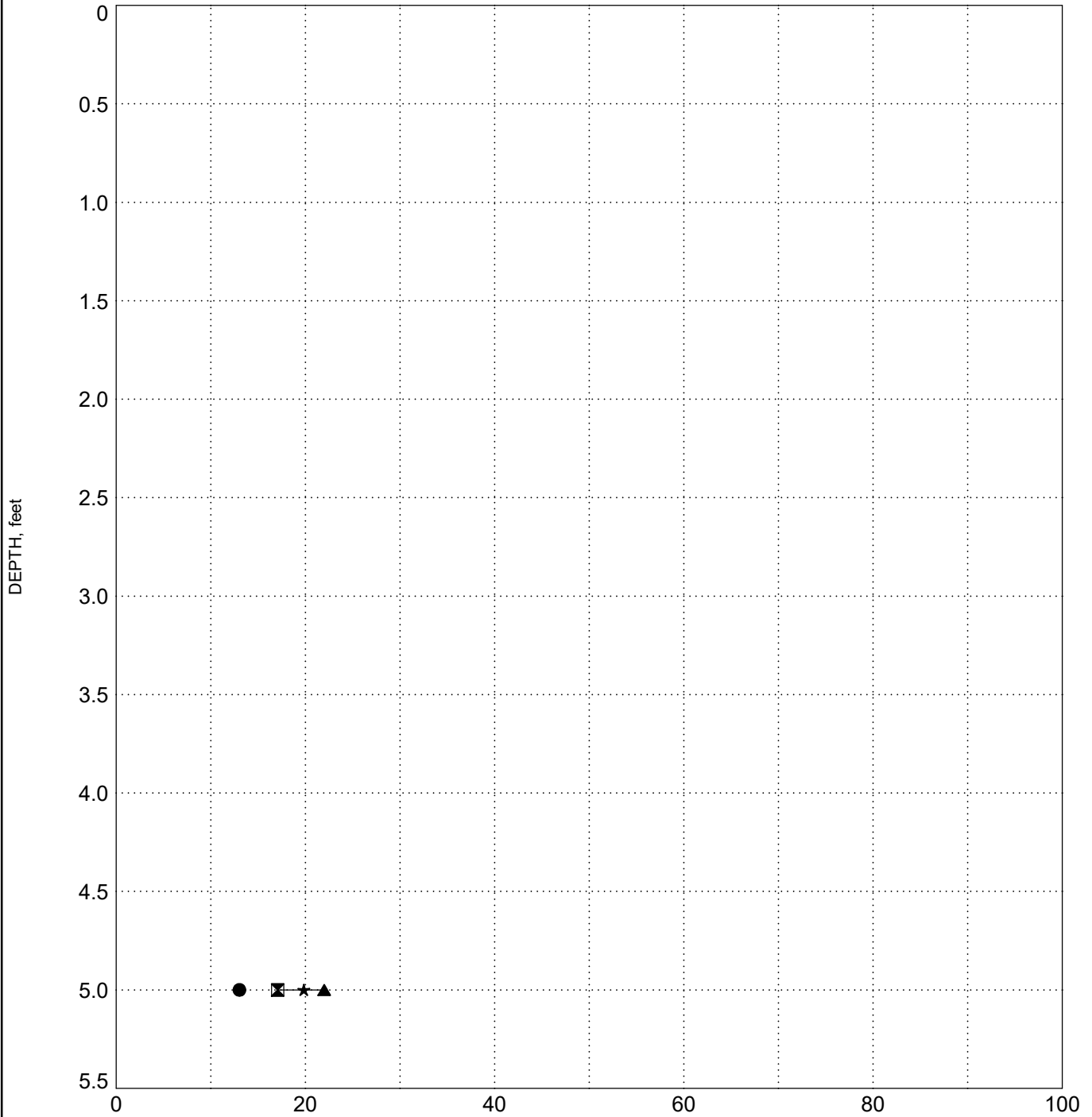
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-5

SURFACE ELEVATION: 105.4



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

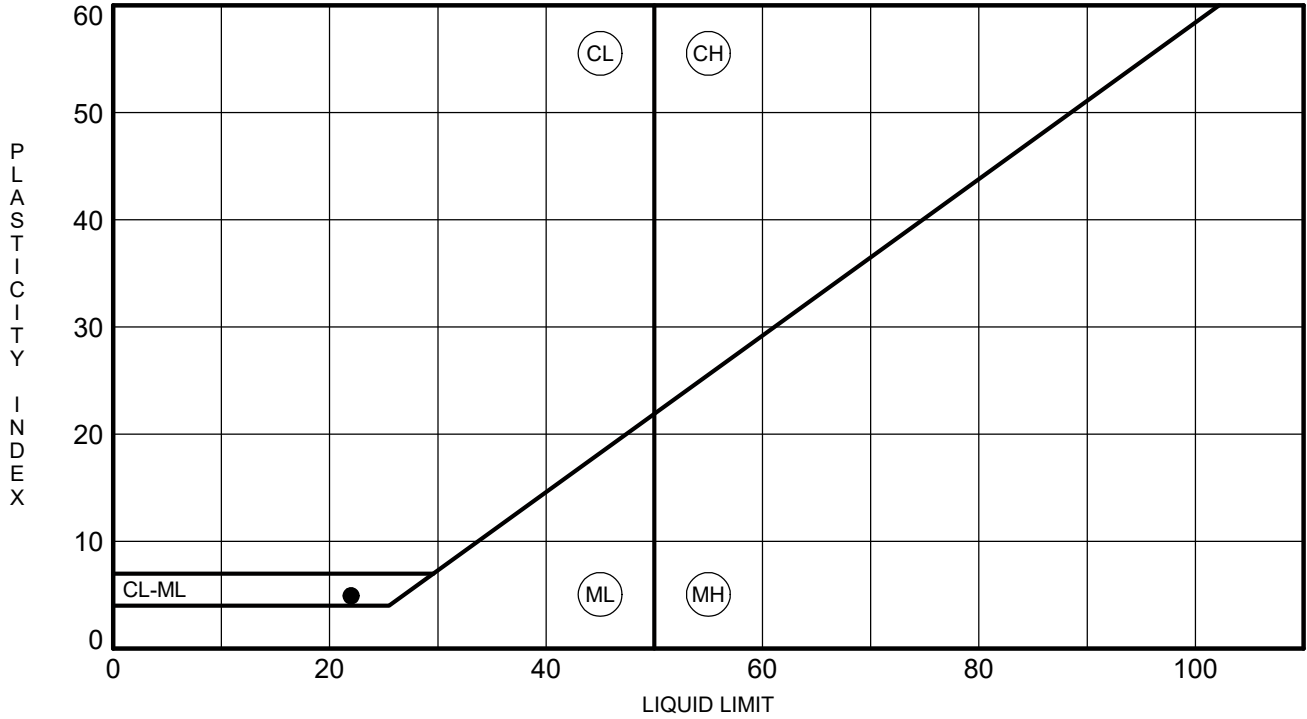


ATTERBERG LIMITS' RESULTS

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
● BS-5	5.0	22	17	5	20	SILTY, CLAYEY SAND (SC-SM/A-2-4)

ATTERBERG LIMITS 66744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

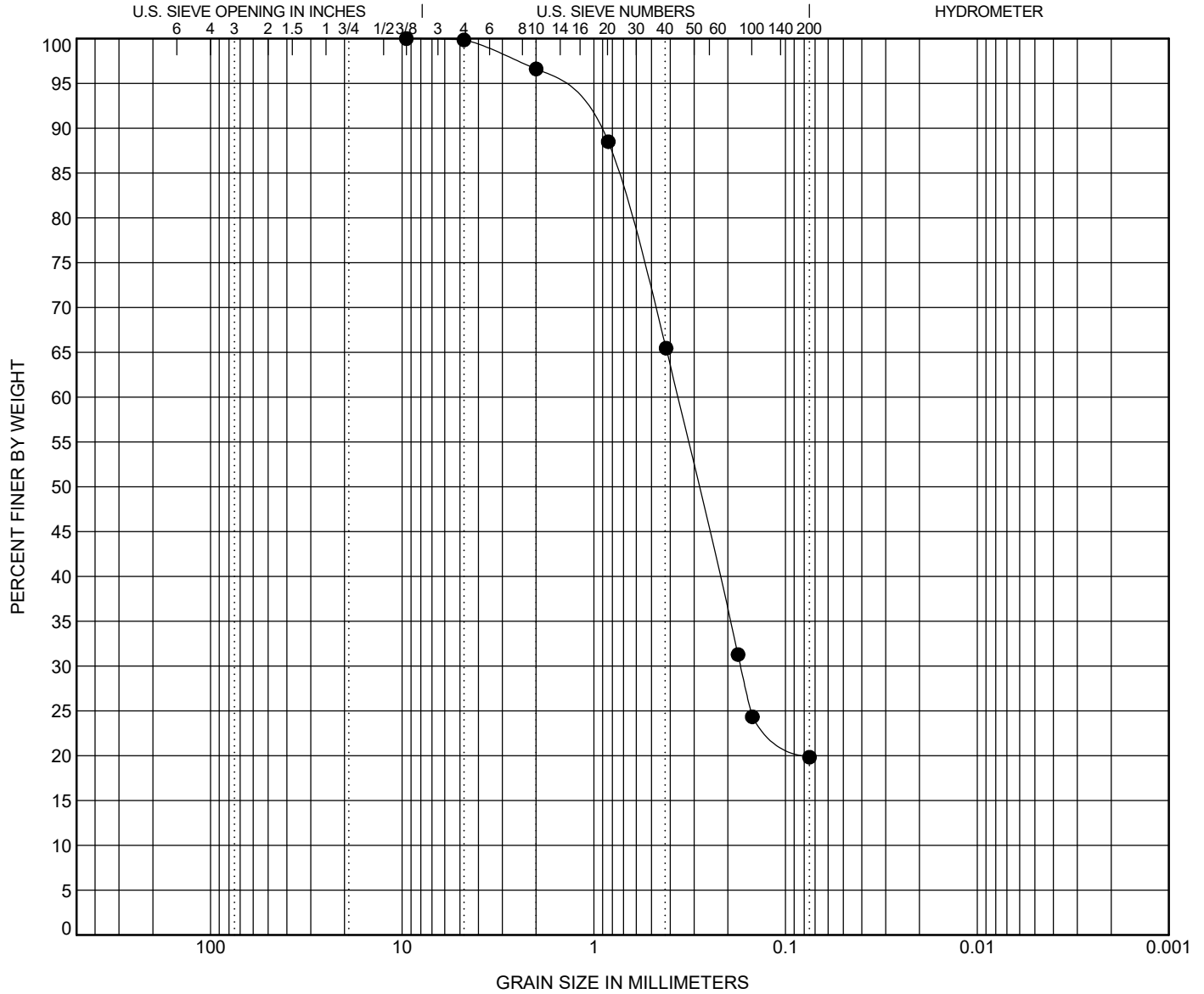


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					LL	PL	PI	Cc	Cu
● BS-5	5.0	SILTY, CLAYEY SAND (SC-SM/A-2-4)					22	17	5		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
● BS-5	5.0	9.51	0.366	0.171		0.2	80.0	19.8			

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 3/22/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0151	DATE SAMPLE RECEIVED:	1/16/2023
DESCRIPTION OF SOIL:	Silty, Clayey SAND (SC-SM/A-2-4)		
TESTED BY:	EW	DATE SETUP:	1/16/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	1/17/2023

BORING NO.	BS-5				
SAMPLE NO.	--				
SAMPLE DEPTH (FT.)	0.0 - 5.0				
WATER CONTENT, W%	13.0				

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



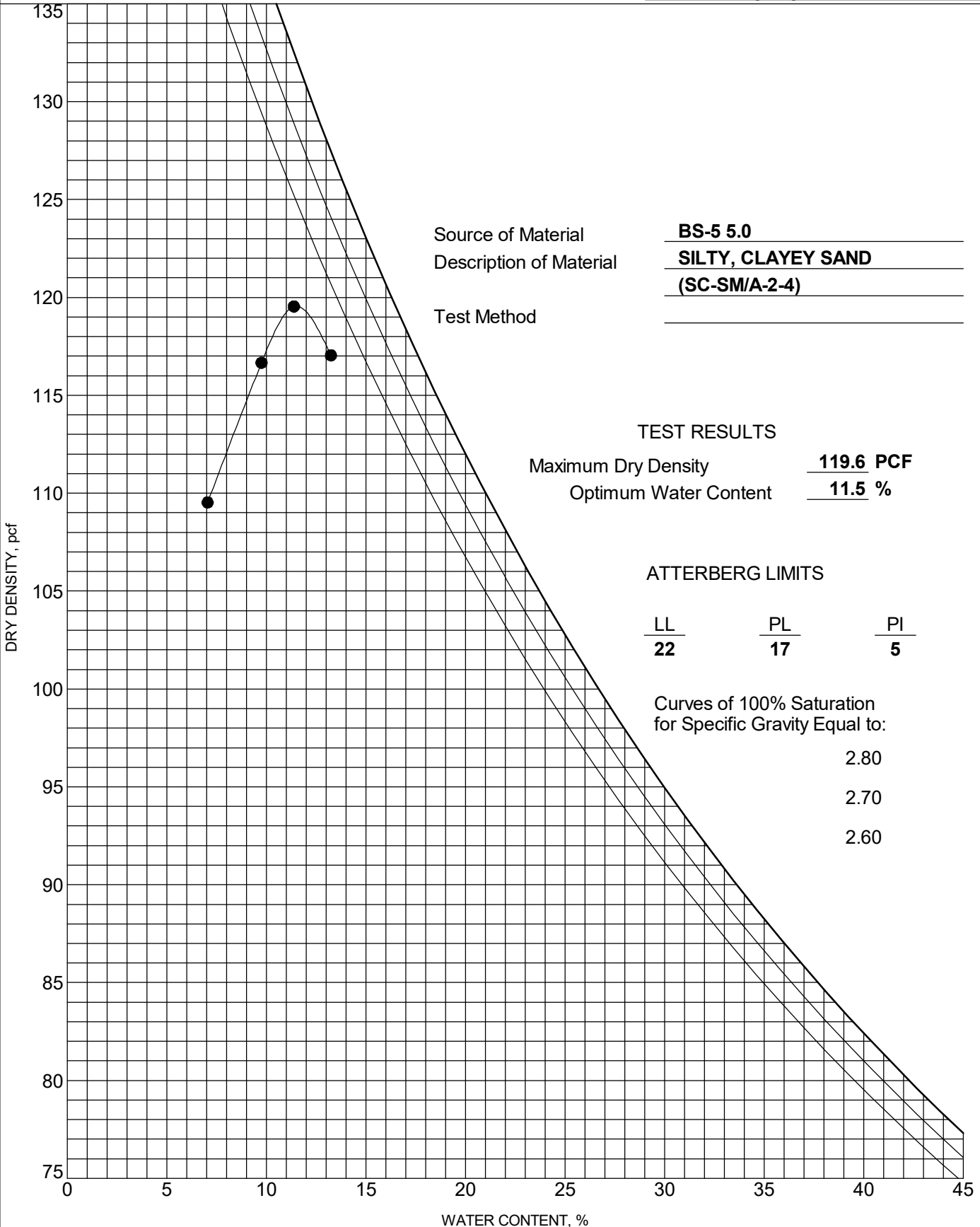


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 Bridge over Lake Marion DB Prep

PROJECT COUNTY Clarendon/Orangeburg



COMPACTION G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 1/25/23

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

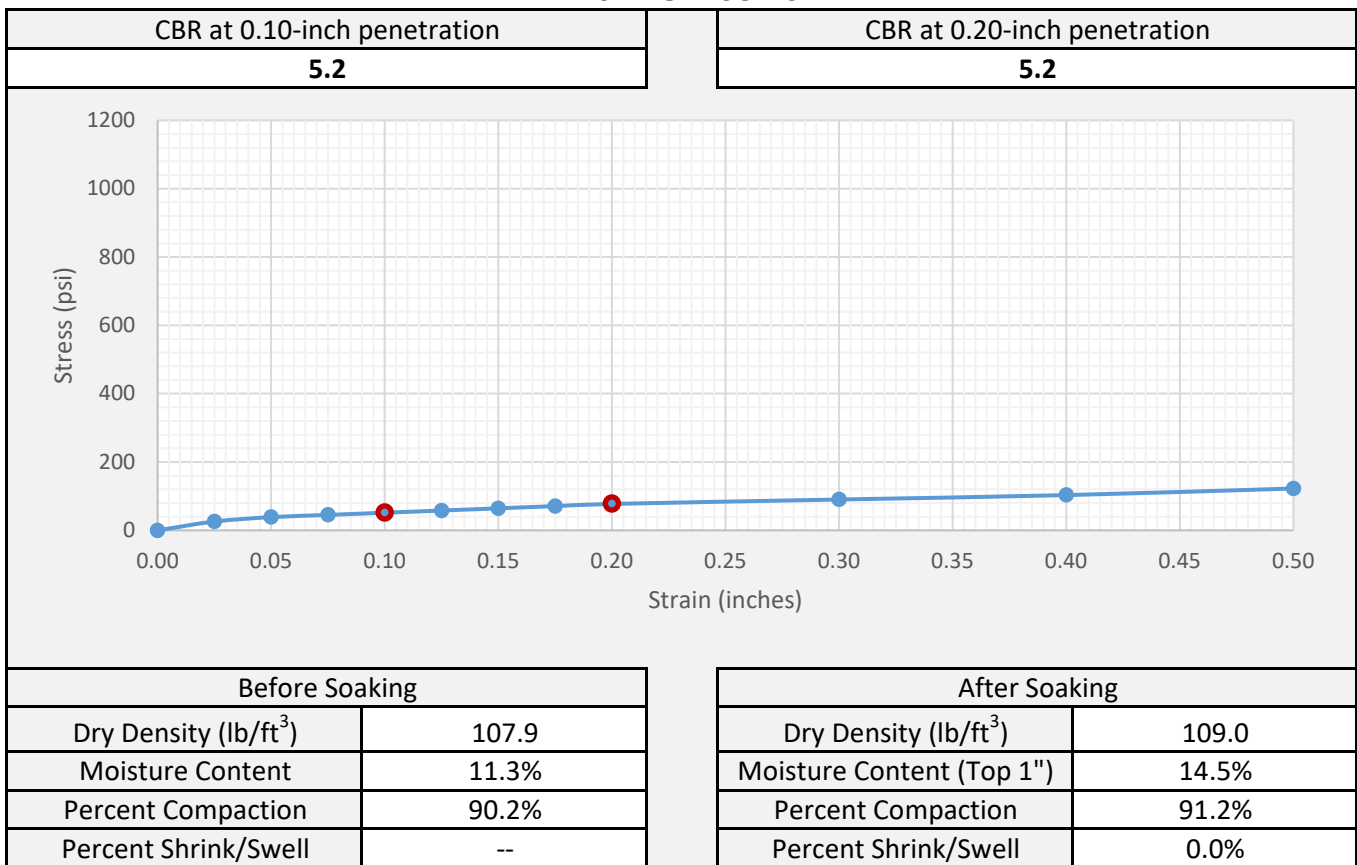
SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744
Sample Location	BS-5	FME Lab ID	23-0151
Soil Description	SILTY, CLAYEY SAND (SC-SM/A-2-4)	Depth/Elev.	0.0 - 5.0
Date Sampled	1/11/23	Sampled By:	FME
Date Test Began	2/16/23	Date Received	1/12/23
	Date Completed	2/20/23	Tested By
			NR & DH

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	119.6	Optimum Moisture Content (%)	11.5
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS



ADDITIONAL COMMENTS

Desired Percent Compaction = 90%

	<p style="text-align: center;">F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203</p>		<p style="font-size: 1.2em; font-weight: bold;">6/12/23</p>
		Reviewed By	Date

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

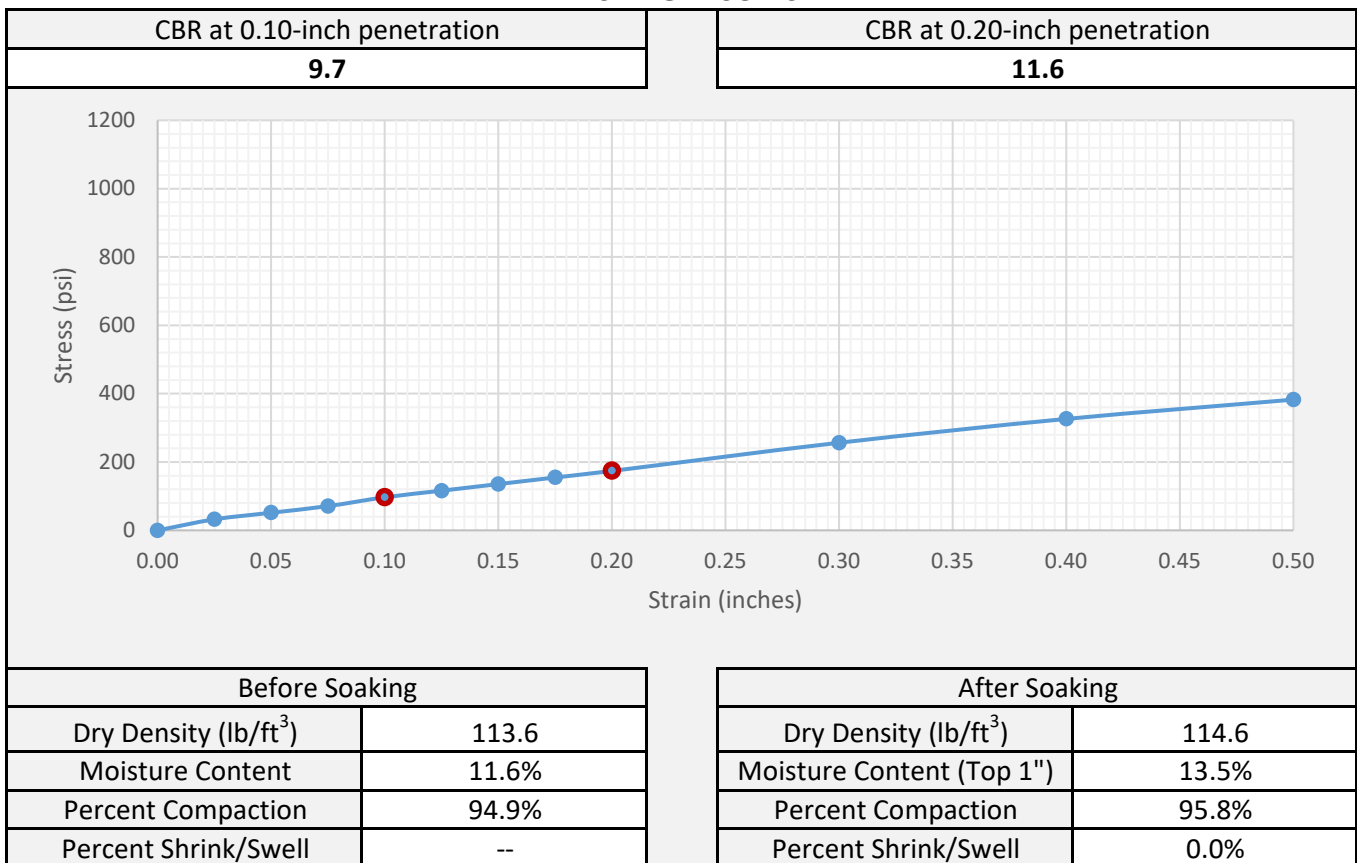
SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744
Sample Location	BS-5	FME Lab ID	23-0151
Soil Description	SILTY, CLAYEY SAND (SC-SM/A-2-4)	Depth/Elev.	0.0 - 5.0
Date Sampled	1/11/23	Sampled By:	FME
Date Test Began	2/16/23	Date Received	1/12/23
	Date Completed	2/20/23	Tested By
			NR & DH

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	119.6	Optimum Moisture Content (%)	11.5
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS



ADDITIONAL COMMENTS

Desired Percent Compaction = 95%

	F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203	 Reviewed By	6/12/23 Date
--	--	-----------------	-----------------

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

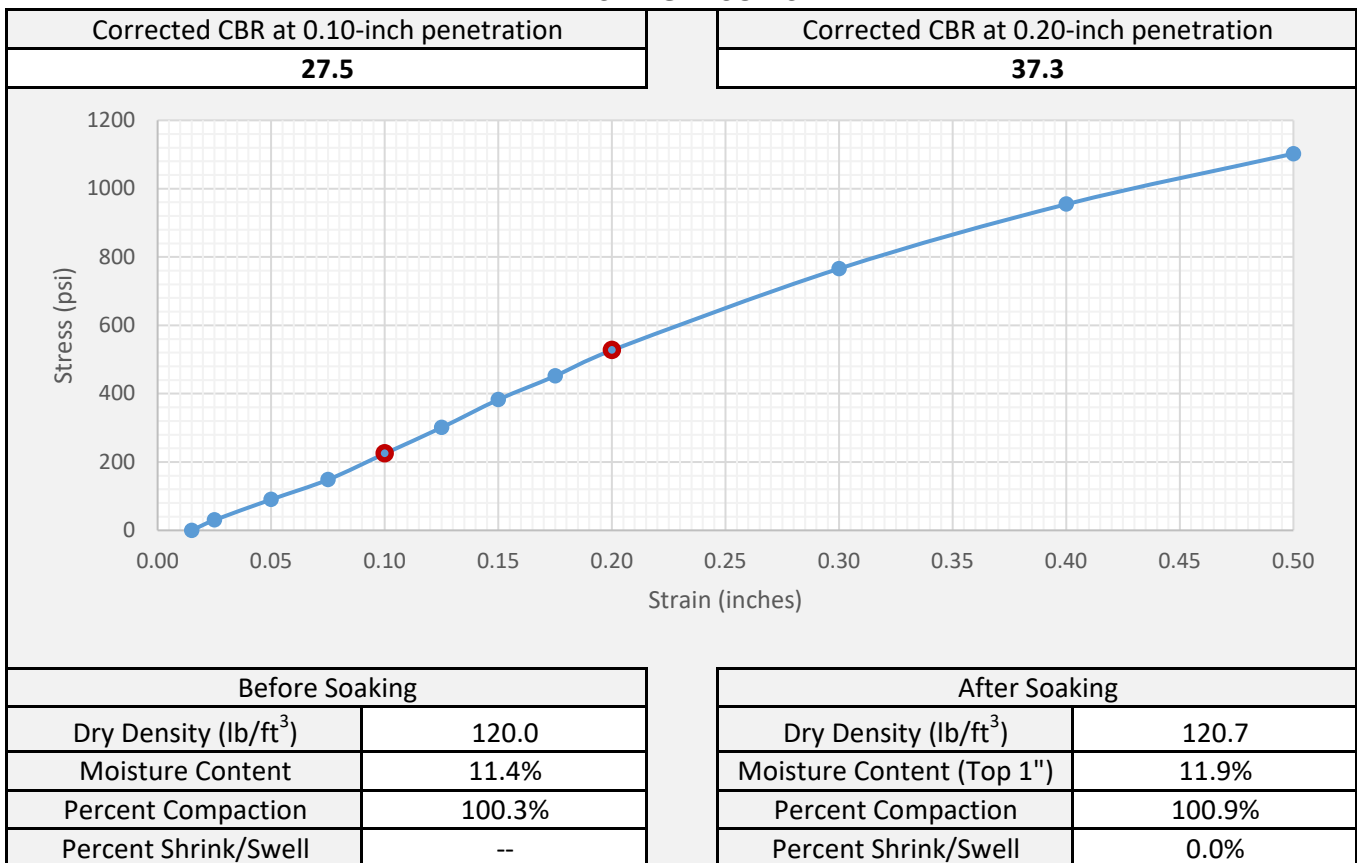
SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744
Sample Location	BS-5	FME Lab ID	23-0151
Soil Description	SILTY, CLAYEY SAND (SC-SM/A-2-4)	Depth/Elev.	0.0 - 5.0
Date Sampled	1/11/23	Sampled By:	FME
Date Test Began	2/16/23	Date Received	1/12/23
	Date Completed	2/20/23	Tested By
			NR & DH

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	119.6	Optimum Moisture Content (%)	11.5
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS



ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

	F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203	 _____ Reviewed By	_____ Date
			6/12/23



INDEX PROPERTIES VERSUS DEPTH

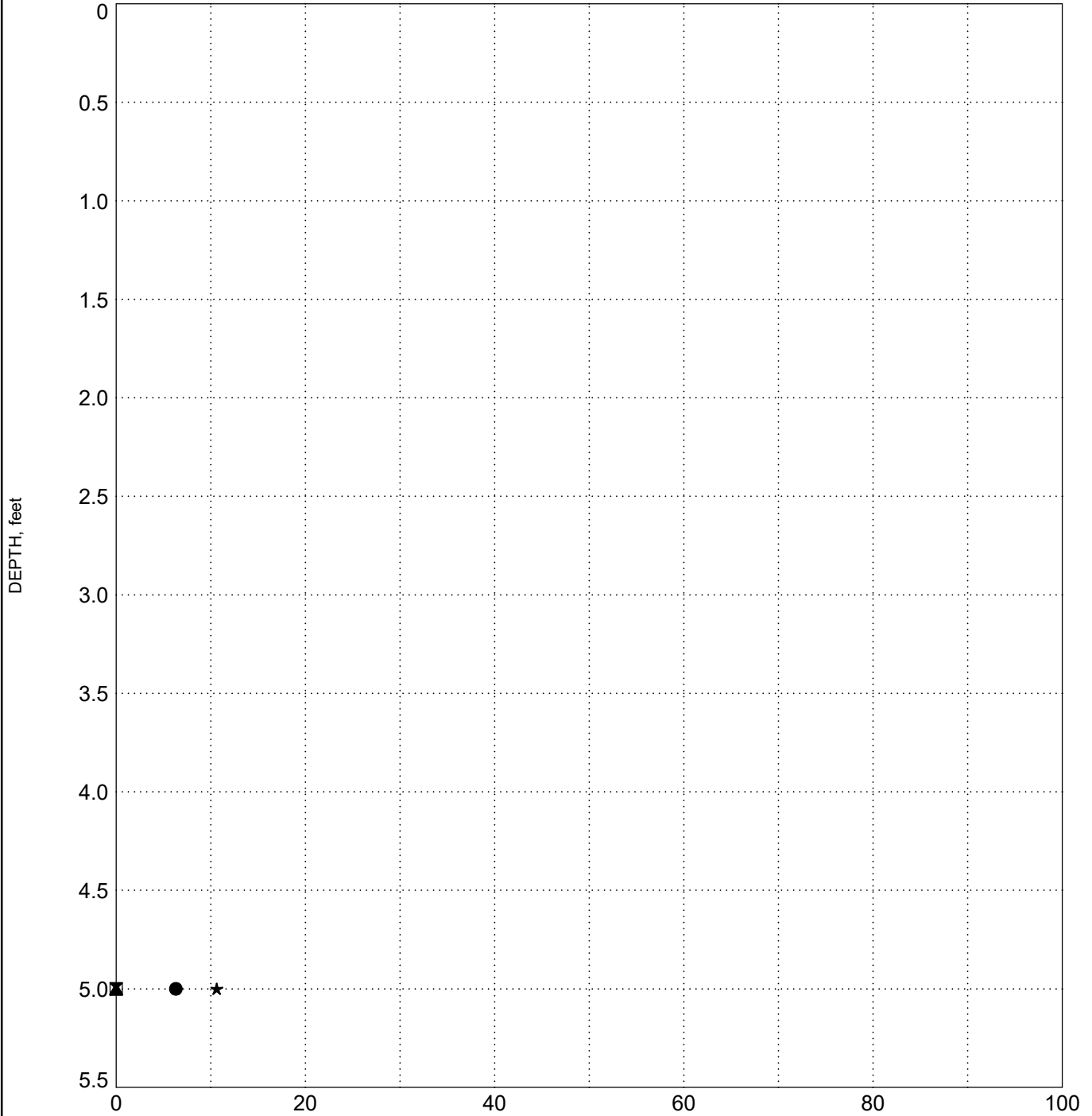
PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

BORING BS-6

SURFACE ELEVATION: 89.3



LEGEND	
●	Water Content
☒	Plastic Limit
▲	Liquid Limit
★	Fines

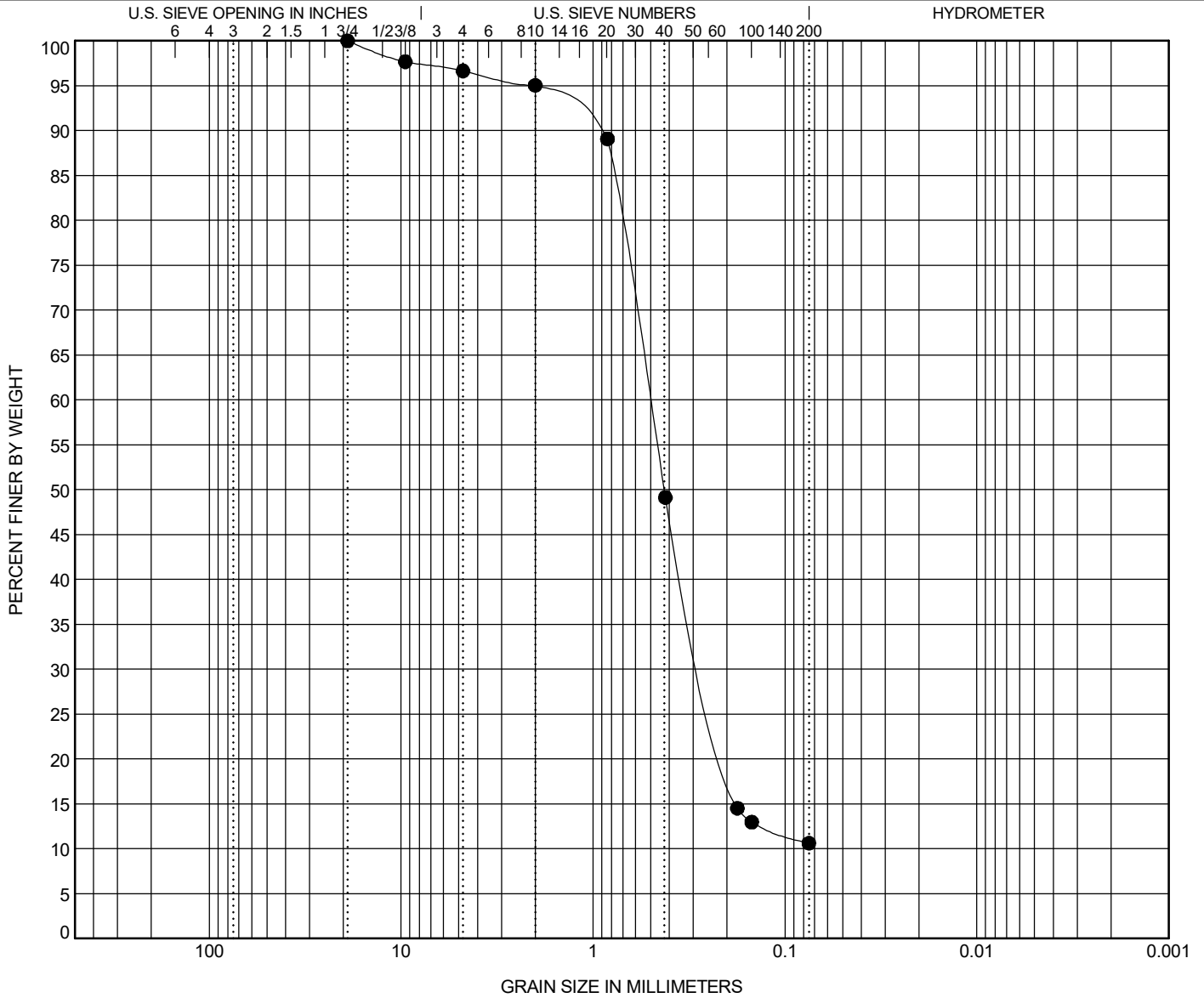


GRAIN SIZE DISTRIBUTION

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● BS-6	5.0	WELL-GRADED SAND with SILT (SW-SM/A-1-b)	NP	NP	NP	2.14	8.12

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● BS-6	5.0	19	0.507	0.26		3.4	86.0	10.6	

GRAIN SIZE G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/12/23

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT:	I-95 NB/SB over Lake Marion Bridge Replacement	SCDOT PROJECT ID:	P041130
SAMPLE NUMBER:	23-0154	DATE SAMPLE RECEIVED:	5/9/2023
DESCRIPTION OF SOIL:	Well-Graded SAND (SW-SM/A-1-b) with Silt		
TESTED BY:	EW	DATE SETUP:	5/11/2023
WEIGHED BY:	DH	DATE OF WEIGHING:	5/12/2023

BORING NO.	BS-6		
SAMPLE NO.	--		
SAMPLE DEPTH (FT.)	0.0 - 5.0		
WATER CONTENT, W%	6.3		

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			

BORING NO.			
SAMPLE NO.			
SAMPLE DEPTH (FT.)			
WATER CONTENT, W%			



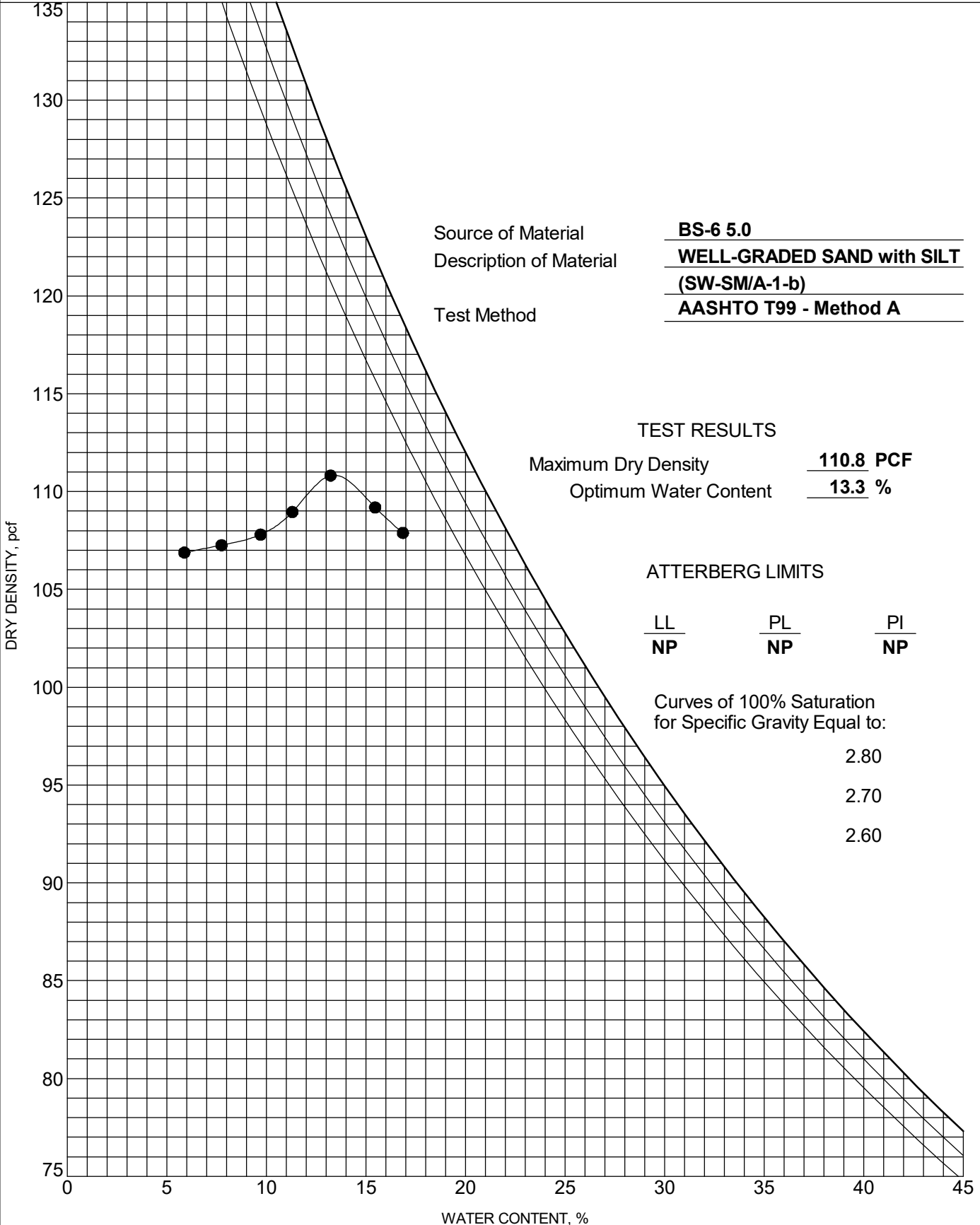


MOISTURE-DENSITY RELATIONSHIP

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg



COMPACTION G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 6/12/23

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

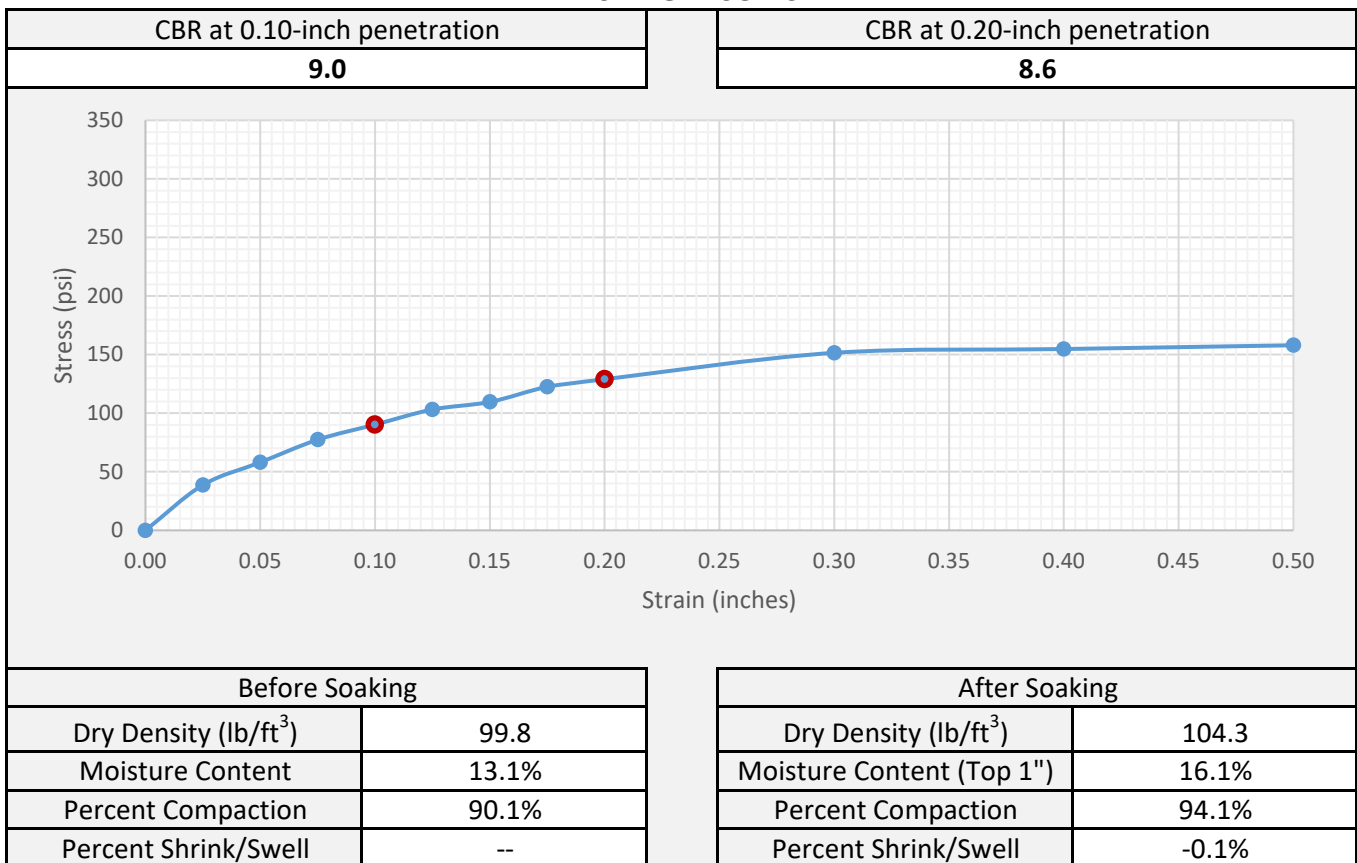
SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744	
Sample Location	BS-6	FME Lab ID	23-1361	
Soil Description	Well-Graded Sand (SW-SM/A-1-b) with Silt	Depth/Elev.	0.0 - 5.0	
Date Sampled	5/5/23	Sampled By:	FME	
Date Test Began	6/2/23	Date Received	5/5/23	
	Date Completed	6/6/23	Tested By	TW

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	110.8	Optimum Moisture Content (%)	13.3
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS



ADDITIONAL COMMENTS

Desired Percent Compaction = 90%

	<p style="text-align: center;">F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203</p>		<p style="font-size: 1.2em;">6/12/23</p>
		Reviewed By	Date

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

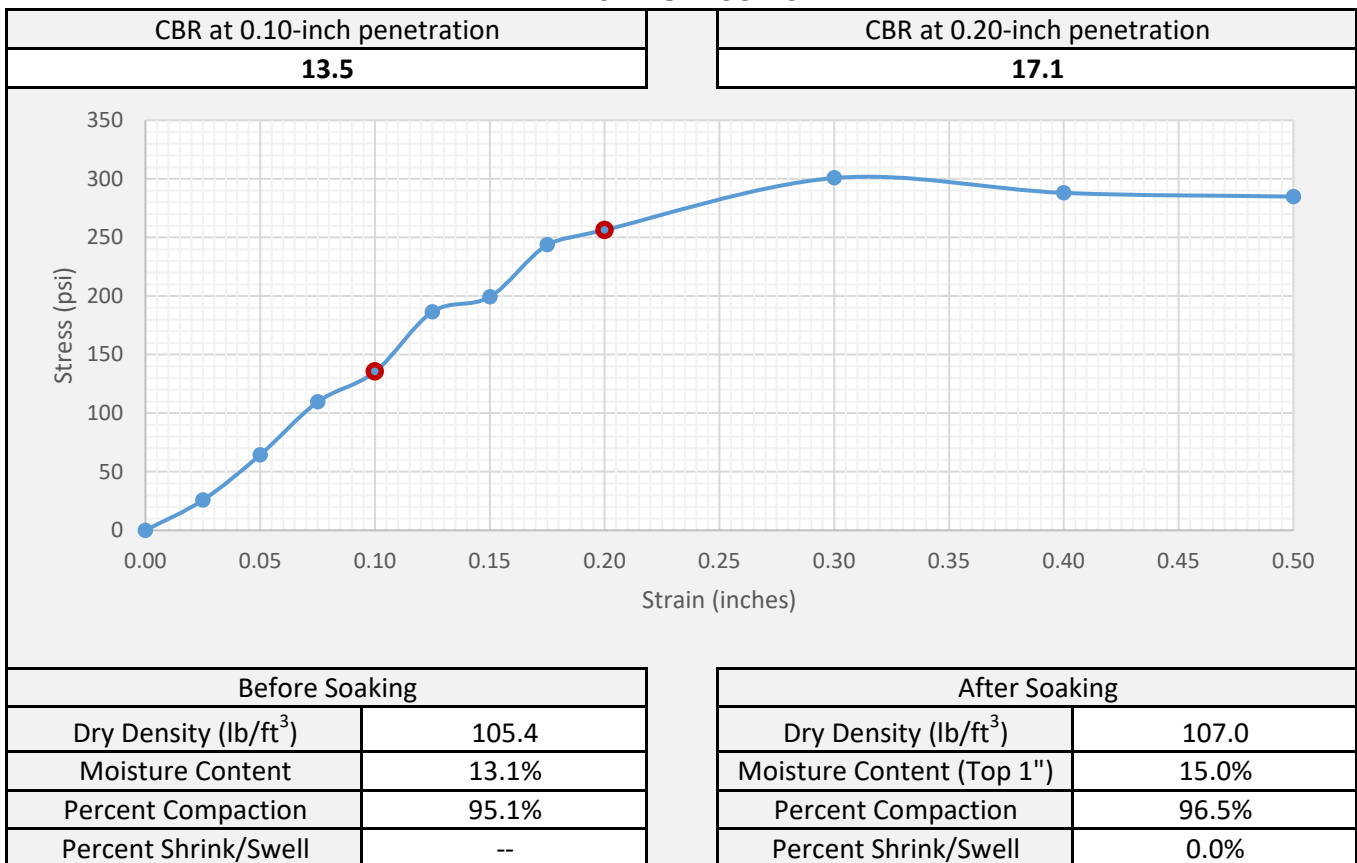
SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744
Sample Location	BS-6	FME Lab ID	23-1361
Soil Description	Well-Graded Sand (SW-SM/A-1-b) with Silt	Depth/Elev.	0.0 - 5.0
Date Sampled	5/5/23	Sampled By:	FME
Date Test Began	6/2/23	Date Received	5/5/23
	Date Completed	6/6/23	Tested By
			TW

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	110.8	Optimum Moisture Content (%)	13.3
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS



ADDITIONAL COMMENTS

Desired Percent Compaction = 95%

	F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203	 _____ Reviewed By	_____ Date
			6/12/23

CALIFORNIA BEARING RATIO (CBR) AASHTO T193

SAMPLE INFORMATION

Project Name	I-95 RBO LAKE MARION	Project No.	G6744
Sample Location	BS-6	FME Lab ID	23-1361
Soil Description	Well-Graded Sand (SW-SM/A-1-b) with Silt	Depth/Elev.	0.0 - 5.0
Date Sampled	5/5/23	Sampled By:	FME
Date Test Began	6/2/23	Date Received	5/5/23
	Date Completed	6/6/23	Tested By
			TW

MOLDING CHARACTERISTICS

Method	AASHTO T99 - Method A	% Retained on 3/4" Sieve	0%
Max Dry Density (lb/ft ³)	110.8	Optimum Moisture Content (%)	13.3
Soak Time (hr)	96	Surcharge Weight (lb)	10.0

TESTING RESULTS

CBR at 0.10-inch penetration	CBR at 0.20-inch penetration
18.0	19.2

Before Soaking		After Soaking	
Dry Density (lb/ft ³)	111.2	Dry Density (lb/ft ³)	110.9
Moisture Content	13.1%	Moisture Content (Top 1")	14.8%
Percent Compaction	100.4%	Percent Compaction	100.1%
Percent Shrink/Swell	--	Percent Shrink/Swell	0.0%

ADDITIONAL COMMENTS

Desired Percent Compaction = 100%

	<p style="text-align: center;">F&ME Consultants, Inc. 211 Business Park Blvd., Columbia, SC 29203</p>		<p style="text-align: right;">6/12/23</p>
		Reviewed By	Date

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 4 LABORATORY TEST RESULTS

SECTION 4D SOIL CORE SAMPLES



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-2	NQ-1	59.5	76	23						
B-2	NQ-2	61.6	68	23						
B-2	NQ-3	66.6	43	25	7			120		
B-2	NQ-4	71.6	60	23						
B-4	NQ-1	27.8	10	0						
B-4	NQ-2	31.1	80	61	550			116		
B-4	NQ-3	36.1	100	68						
B-4	NQ-4	41.1	70	31						
B-4	NQ-5	46.1	100	80	310			121		
B-4	NQ-6	51.1	100	95	340			122		
B-4	NQ-7	56.1	96	63						
B-4	NQ-8	61.1	31	6						
B-4	NQ-9	66.1	98	71	1150			138		
B-4	NQ-10	71.1	61	30						
B-4	NQ-11	76.1	58	40	1365			141		
B-4	NQ-12	81.1	95	30	160			115		
B-5	NQ-1	40.2	88	56						
B-5	NQ-2	41.5	17	0						
B-5	NQ-3	46.5	90	50	555			126		
B-5	NQ-4	51.5	100	68	440			126		
B-5	NQ-5	56.5	92	48	390			123		
B-5	NQ-6	61.5	98	75						
B-5	NQ-7	66.5	82	40	575			130		
B-5	NQ-8	71.5	60	20						
B-5	NQ-9	76.5	92	53	605			141		
B-5	NQ-10	81.5	63	20						
B-6	NQ-1	38.2	85	16						
B-6	NQ-2	43.2	98	56	395			123		
B-6	NQ-3	48.2	96	23						
B-6	NQ-4	53.2	88	43	560			124		
B-6	NQ-5	58.2	85	43						
B-6	NQ-6	63.2	100	85	410			121		
B-6	NQ-7	68.2	48	48						
B-6	NQ-8	73.2	85	55	2790	0.26	3050	149		
B-6	NQ-9	78.2	90	61	135			110		
B-8	NQ-1	44.7	91	61	350			114		
B-8	NQ-2	49.7	96	83	3310	0.26	2170	148		
B-8	NQ-3	54.7	100	70	360			119		
B-8	NQ-4	59.7	93	71						
B-8	NQ-5	64.7	68	51						
B-8	NQ-6	69.7	86	60	300			116		
B-8	NQ-7	74.7	83	53						
B-8	NQ-8	79.7	86	40	360			139		

ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA\TEMPLATE.GDT 9/20/23



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-9	NQ-1	41.7	75	38	310			119		
B-9	NQ-2	46.3	92	60						
B-9	NQ-3	51.3	98	57	480			121		
B-9	NQ-4	56.3	90	63	305			122		
B-9	NQ-5	61.3	87	58	370			122		
B-9	NQ-6	66.3	80	18						
B-9	NQ-7	71.3	73	43	2020	N/A	2,650	146		
B-9	NQ-8	76.3	98	68	1100	0.10	345	146		
B-9	NQ-9	81.3	50	7						
B-10	NQ-1	47.1	76	73						
B-10	NQ-2	52.1	65	15	195			121		
B-10	NQ-3	57.1	63	40	220			117		
B-10	NQ-4	62.1	36	8						
B-10	NQ-5	67.1	98	86	570			131		
B-10	NQ-6	72.1	88	55	3120	0.17	4070	147		
B-10	NQ-7	77.1	86	71	400			140		
B-11	NQ-1	46.4	46	38						
B-11	NQ-2	51.1	52	27	380			124		
B-11	NQ-3	56.1	90	63	290			126		
B-11	NQ-4	61.1	90	68	380			122		
B-11	NQ-5	66.1	73	55	390			121		
B-11	NQ-6	71.1	40	20						
B-11	NQ-7	76.1	87	63	195			134		
B-12	NQ-1	40.1	98	98	835			125		
B-12	NQ-2	44.6	100	98						
B-12	NQ-3	49.6	56	53	330			109		
B-12	NQ-4	54.6	73	68						
B-12	NQ-5	59.6	70	40						
B-12	NQ-6	64.6	86	65						
B-12	NQ-7	69.6	51	43	3010	0.13	2310	150		
B-12	NQ-8	74.6	95	83	925			144		
B-14	NQ-1	39.0	96	78						
B-14	NQ-2	43.8	100	96						
B-14	NQ-3	48.8	100	91						
B-14	NQ-4	53.8	90	85						
B-14	NQ-5	58.8	76	61						
B-14	NQ-6	63.8	98	78						
B-14	NQ-7	68.8	96	85						
B-14	NQ-8	73.8	91	91						
B-15	NQ-1	41.9	91	67						
B-15	NQ-2	46.4	95	38	4630	0.39	2840	149		
B-15	NQ-3	51.4	98	35	530			124		
B-15	NQ-4	56.4	90	7						

ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA\TEMPLATE.GDT 9/20/23



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-15	NQ-5	61.4	60	47	460			120		
B-15	NQ-6	66.4	93	50	380			119		
B-15	NQ-7	71.4	87	67	1770	N/A	N/A	147		
B-15	NQ-8	76.4	88	85	120			122		
B-16	NQ-1	41.3	93	75	355			121		
B-16	NQ-2	46.1	100	85						
B-16	NQ-3	51.1	100	95	555			117		
B-16	NQ-4	56.1	90	43						
B-16	NQ-5	61.1	98	95	495			123		
B-16	NQ-6	66.1	90	72	340			131		
B-16	NQ-7	71.1	97	85	90			121		
B-16	NQ-8	76.1	53	35						
B-18	NQ-1	38.7	87	67						
B-18	NQ-2	43.7	100	90	285			119		
B-18	NQ-3	48.7	100	75						
B-18	NQ-4	53.7	98	93	345			119		
B-18	NQ-5	58.7	98	82	335			114		
B-18	NQ-6	63.7	93	83	340			118		
B-18	NQ-7	68.7	38	22						
B-19	NQ-1	45.0	98	36						
B-19	NQ-2	49.7	98	46	965			134		
B-19	NQ-3	54.7	98	23	555			111		
B-19	NQ-4	59.7	90	38						
B-19	NQ-5	64.7	100	63	350			120		
B-19	NQ-6	69.7	93	53	1430	0.03	166	140		
B-19	NQ-7	74.7	55	41	725			143		
B-20	NQ-1	43.8	100	94						
B-20	NQ-2	46.6	98	77	275			121		
B-20	NQ-3	51.6	100	95						
B-20	NQ-4	56.6	97	85	440			124		
B-20	NQ-5	61.6	87	82						
B-20	NQ-6	66.6	78	42	1800			150		
B-20	NQ-7	71.6	72	43	1320			148		
B-22	NQ-1	46.0	50	0						
B-22	NQ-2	46.5	100	78	595			121		
B-22	NQ-3	51.5	100	86	340			121		
B-22	NQ-4	56.5	96	90	270			120		
B-22	NQ-5	61.5	98	95						
B-22	NQ-6	66.5	100	83	1430			148		
B-22	NQ-7	71.5	65	33	65			122		
B-23	NQ-1	44.6	83	68	360			112		
B-23	NQ-2	49.6	100	67	575			127		
B-23	NQ-3	54.6	95	73						

ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA_TEMPLATE.GDT 9/20/23



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-23	NQ-4	59.6	100	68	570			123		
B-23	NQ-5	64.6	67	7						
B-23	NQ-6	69.6	50	0						
B-24	NQ-1	43.5	100	100	1,510			126		
B-24	NQ-2	46.4	97	75	460			119		
B-24	NQ-3	51.4	100	95						
B-24	NQ-4	56.4	100	80	880	0.24	1450	141		
B-24	NQ-5	61.4	90	70	890	0.09	1590	145		
B-26	NQ-1	38.4	96	96	475			112		
B-26	NQ-2	42.8	100	75						
B-26	NQ-3	47.8	98	87	580			123		
B-26	NQ-4	52.8	98	87	410	N/A	N/A	119		
B-26	NQ-5	57.8	57	43	1,250	N/A	N/A	146		
B-27	NQ-1	42.6	13	0						
B-27	NQ-2	47.6	88	55	385			120		
B-27	NQ-3	52.6	91	80	510			122		
B-27	NQ-4	57.6	88	48	6,330	0.19	5430	155		
B-27	NQ-5	62.6	83	53	730	0.14	209	149		
B-28	NQ-1	38.7	89	89	300			111		
B-28	NQ-2	42.0	99	93	475			125		
B-28	NQ-3	47.0	97	93	420			119		
B-28	NQ-4	52.0	92	63	340			122		
B-28	NQ-5	57.0	95	90	3,690	0.26	4490	151		
B-28	NQ-6	62.0	8	0						
B-30	NQ-1	46.3	95	67						
B-30	NQ-2	51.3	100	87	480			116		
B-30	NQ-3	56.3	100	95	565			116		
B-30	NQ-4	61.3	95	53	2,320	0.25	1840	144		
B-30	NQ-5	66.3	73	43						
B-31	NQ-1	45.8	92	28						
B-31	NQ-2	50.7	95	51	410			122		
B-31	NQ-3	55.7	76	18	300			119		
B-31	NQ-4	60.7	85	48	1,785			137		
B-31	NQ-5	65.7	93	71	2,270	0.46	5230	151		
B-31	NQ-6	70.7	36	18						
B-31	NQ-7	75.7	0	0						
B-32	NQ-1	55.0	83	69						
B-32	NQ-2	56.5	100	100	515			109		
B-32	NQ-3	61.5	95	98	770	0.19	799	132		
B-32	NQ-4	66.5	68	35	550	N/A	N/A	127		
B-32	NQ-5	71.5	43	32						
B-35	NQ-1	41.1	100	90	430			118		
B-35	NQ-2	46.1	100	88	595			118		

ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA TEMPLATE.GDT 9/20/23



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-35	NQ-3	51.1	0	0						
B-35	NQ-4	56.1	0	0						
B-35	NQ-5	61.1	0	0						
B-36	NQ-1	45.5	97	97	390			117		
B-36	NQ-2	48.2	100	80	375			122		
B-36	NQ-3	53.2	100	78						
B-36	NQ-4	58.2	97	62	450			121		
B-36	NQ-5	63.2	100	82						
B-36	NQ-6	68.2	95	82	220			125		
B-36	NQ-7	73.2	33	27	510			130		
B-36	NQ-8	78.2	0	0						
B-38	NQ-1	63.8	89	89	600			104		
B-38	NQ-2	66.1	98	82	460			127		
B-38	NQ-3	71.1	97	68	1250	0.15	1560	139		
B-38	NQ-4	76.1	80	42	830	0.21	70	144		
B-38	NQ-5	81.1	42	0						
B-38	NQ-6.1	86.1	40	8						
B-38	NQ-7	91.1	3	3						
B-38	NQ-8	96.1	37	8						
B-38	NQ-9	101.1	0	0						
B-39	NQ-1	43.5	98	91	420			121		
B-39	NQ-2	48.3	95	83						
B-39	NQ-3	53.3	95	36	325			116		
B-39	NQ-4	58.3	98	70						
B-39	NQ-5	63.3	100	61	510			119		
B-39	NQ-6	68.3	93	48						
B-39	NQ-7	73.3	88	38	890	0.67	445	143		
B-39	NQ-8	78.3	43	16	80			120		
B-40	NQ-1	45.5	67	0						
B-40	NQ-2	47.0	98	27	270			121		
B-40	NQ-3	52.0	85	8						
B-40	NQ-4	57.0	90	23	270			118		
B-40	NQ-5	62.0	93	15						
B-40	NQ-6	67.0	93	36	1390	0.78	828	140		
B-40	NQ-7	72.0	68	45	1370	0.49	831	144		
B-40	NQ-8	77.0	85	43	145			115		
B-40	NQ-9	82.0	5	0						
B-42	NQ-1	72.9	18	0						
B-42	NQ-2	77.9	38	18						
B-42	NQ-3	82.9	82	73	265			114		
B-42	NQ-4	87.9	65	18						
B-42	NQ-5	92.9	63	17	8040	0.06	2680	150		
B-42	NQ-6.1	97.9	82	65	120			101		

ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA\TEMPLATE.GDT 9/20/23



Rock Coring Summary

PROJECT ID P041130

PROJECT NAME I-95 NB/SB over Lake Marion Bridge Replacement

PROJECT COUNTY Clarendon/Orangeburg

Borehole	Core Run Number	Core Run Top Depth	REC (%)	RQD (%)	q _u (psi)	Poisson's Ratio	Elastic Modulus (ksi)	Unit Weight (pcf)	RMR	GSI
B-42	NQ-7	102.9	100	63	185			102		
B-42	NQ-8	107.9	53	0						
B-42	NQ-9	112.9	65	15	150			101		
B-42	NQ-10	117.9	54	21						
B-43	NQ-1	51.6	91	80	490			119		
B-43	NQ-2	56.5	95	88						
B-43	NQ-3	61.5	100	43	450			122		
B-43	NQ-4	66.5	93	65	915			138		
B-43	NQ-5	71.5	20	0						
B-43	NQ-6	76.5	26	11	2640	0.36	2540	153		
B-43	NQ-7	81.5	0	0						
B-43	NQ-8.1	100.1	86	69	315			100		
B-43	NQ-9.1	103.2	95	73	260			102		
B-43	NQ-10.1	108.2	100	65						
B-44	NQ-1	64.0	54	14						
B-44	NQ-2	66.3	53	0						
B-44	NQ-3	71.3	93	43	410			122		
B-44	NQ-4	76.3	88	78						
B-44	NQ-5	81.3	98	52	2420	0.24	1420	146		
B-44	NQ-6	86.3	0	0						
B-47	NQ-1	43.0	99	40	470			121		
B-47	NQ-2	46.6	77	42						
B-47	NQ-3	51.6	77	31						
B-47	NQ-4	56.6	80	80	580			108		
B-47	NQ-5	61.6	97	97						
B-47	NQ-6	66.6	98	78						
B-47	NQ-7	71.6	36	14						
B-48	NQ-1	35.3	92	35	315			133		
B-48	NQ-2	36.4	98	85	410			121		
B-48	NQ-3	41.4	100	97						
B-48	NQ-4	46.4	98	85						
B-48	NQ-5	51.4	100	97	610			121		
B-48	NQ-6	56.4	93	83						
B-48	NQ-7	61.4	90	65	1690	0.09	900	146		
B-48	NQ-8	66.4	73	58	2100	0.19	2840	156		
B-48	NQ-9	71.4	28	0						
B-51	NQ-1	41.5	87	62	460			118		
B-51	NQ-2	46.1	83	48						
B-51	NQ-3	51.1	88	47						
B-51	NQ-4	56.1	97	75	580			125		
B-51	NQ-5	61.1	98	92						
B-51	NQ-6	66.1	88	60						

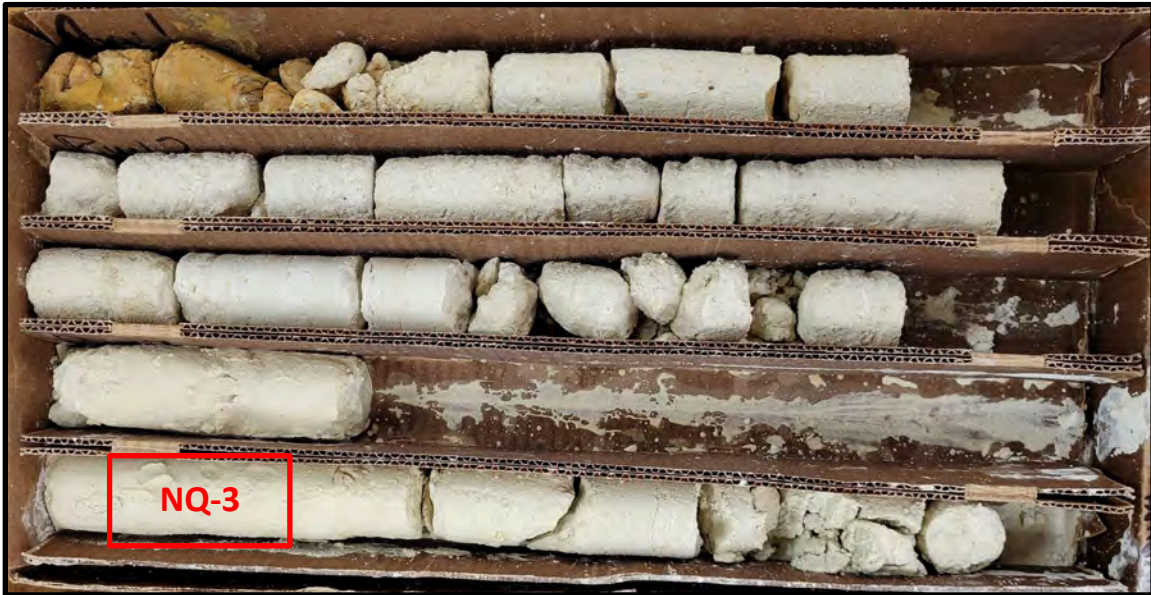
ROCK CORING SUMMARY G6744 - I-95 BRIDGE OVER LAKE MARION DB PREP.GPJ_SCDOT_DATA\TEMPLATE.GDT 9/20/23

I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-2

Begin Run 1
60.0 Feet

Begin Run 2
62.1 Feet

Begin Run 3
67.1 Feet

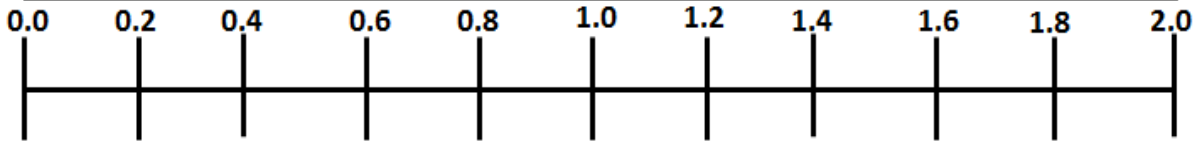


End Run 3
72.1 Feet

Begin Run 4
72.1 Feet



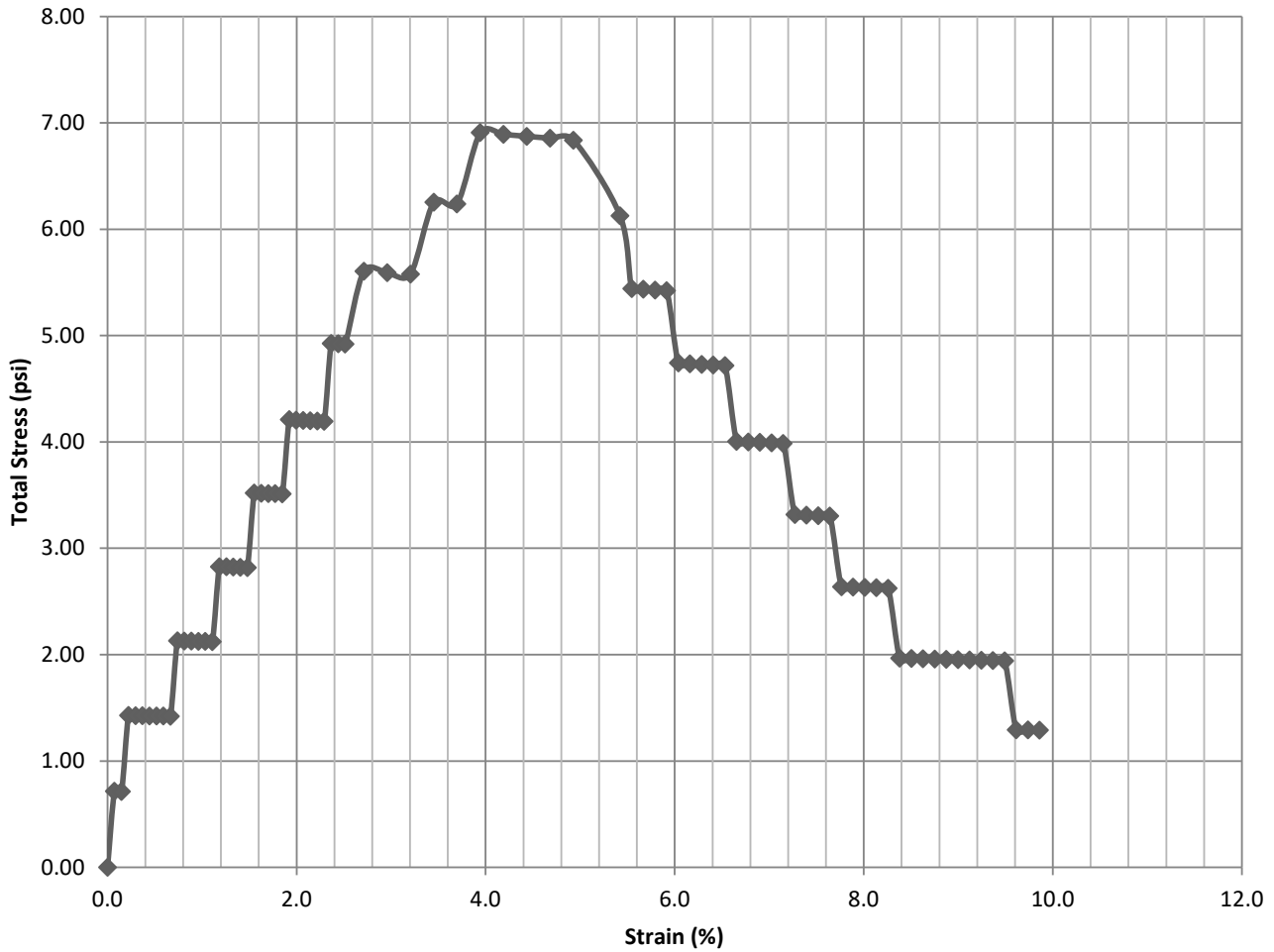
End Run 4
77.1 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0364



Average Initial Diameter (Do): 1.790 in.
 Average Initial Height (Lo): 4.057 in.
 Average Initial Area (Ao): 2.516 in²
 In-Situ Unit Weight: 120.2 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.21 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.710 lbs.
 L/D Ratio: 2.266

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-2 / NQ-3
 Depth/Elevation 67.8' - 68.1'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: SILT with Sand (ML/A-4)
 $\sigma_{c-ULT} = 6.9 \text{ psi}$ $\epsilon_{ULT} = 4.0\%$

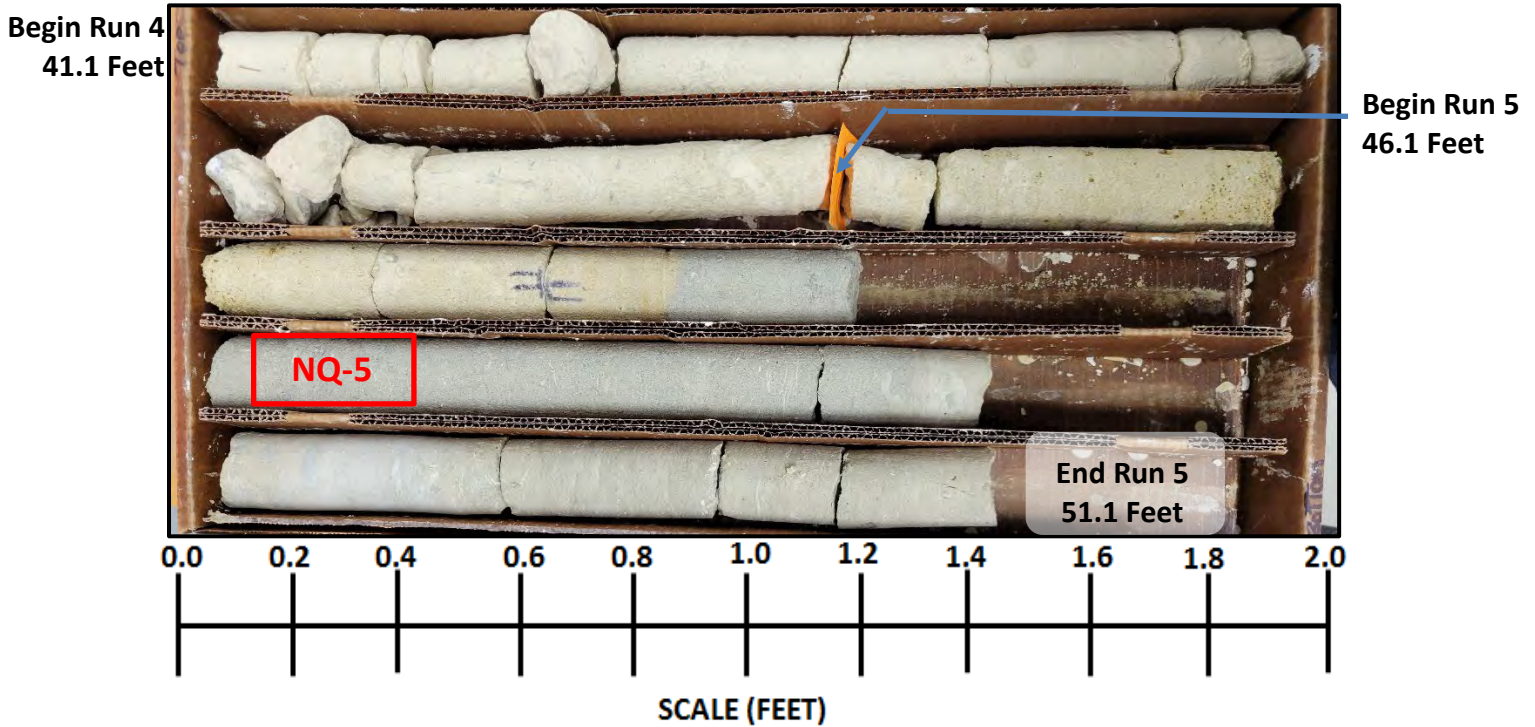


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0172
Sample Location:	B-2 / NQ-3	Depth of Sample:	67.8' - 68.1"
Tested By:	W. Pitts	Date Tested:	3/3/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-4



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-4

Begin Run 6
51.1 Feet



Begin Run 7
56.1 Feet

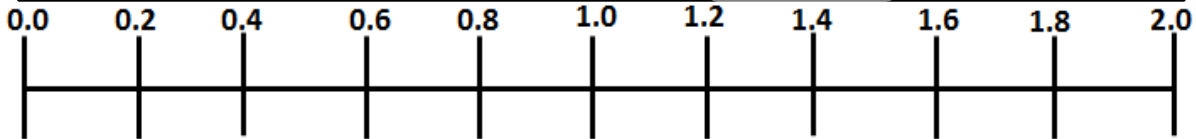
End Run 7
61.1 Feet

Begin Run 8
61.1 Feet

Begin Run 9
66.1 Feet



End Run 9
71.1 Feet



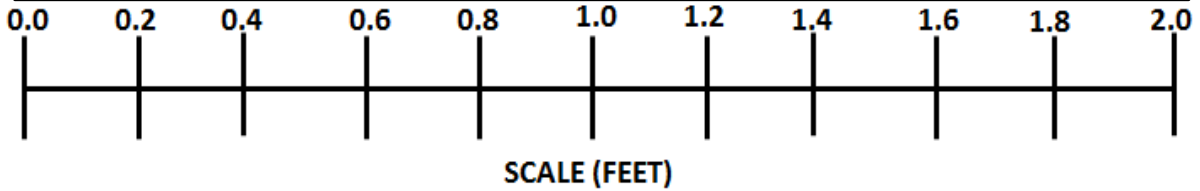
SCALE (FEET)

I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-4

Begin Run 10
71.1 Feet

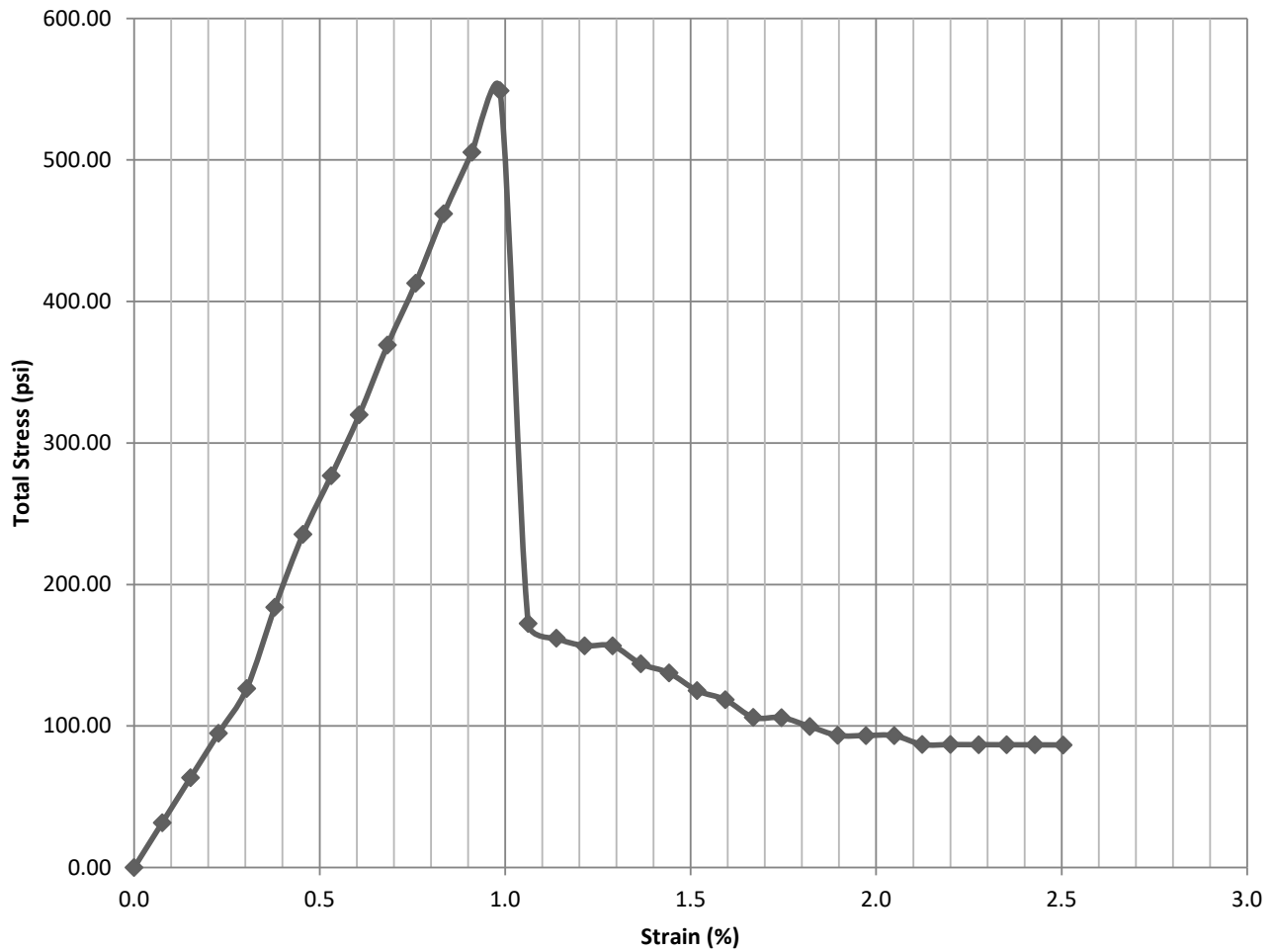


Begin Run 12
81.1 Feet



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.954 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 115.7 pcf
 Failure Mode: Plastic Failure

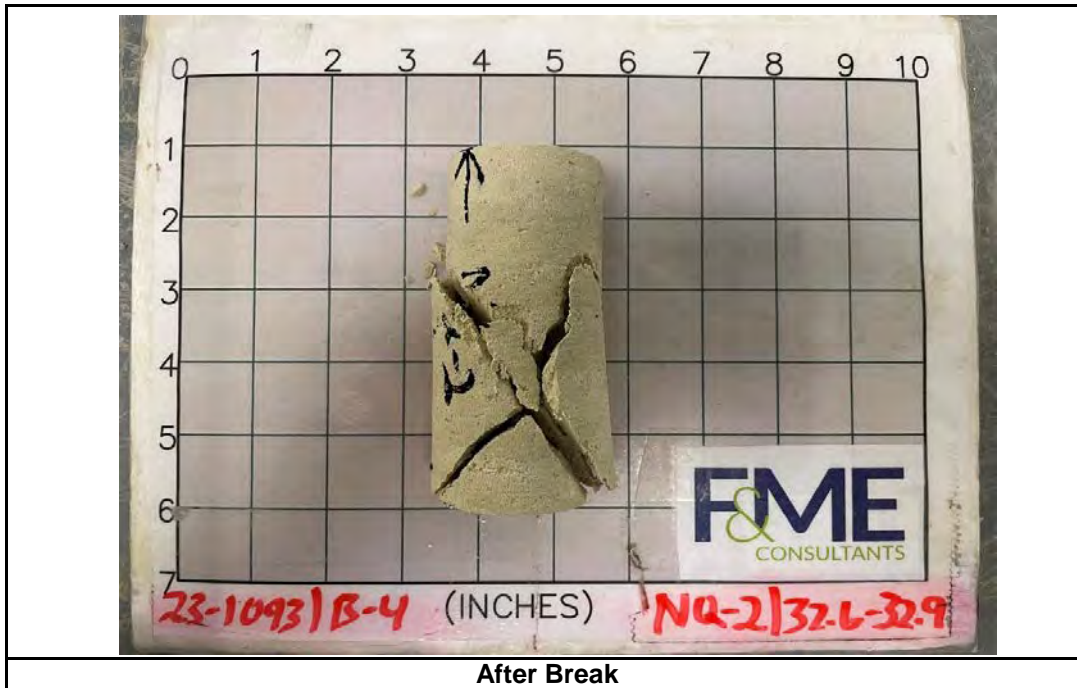
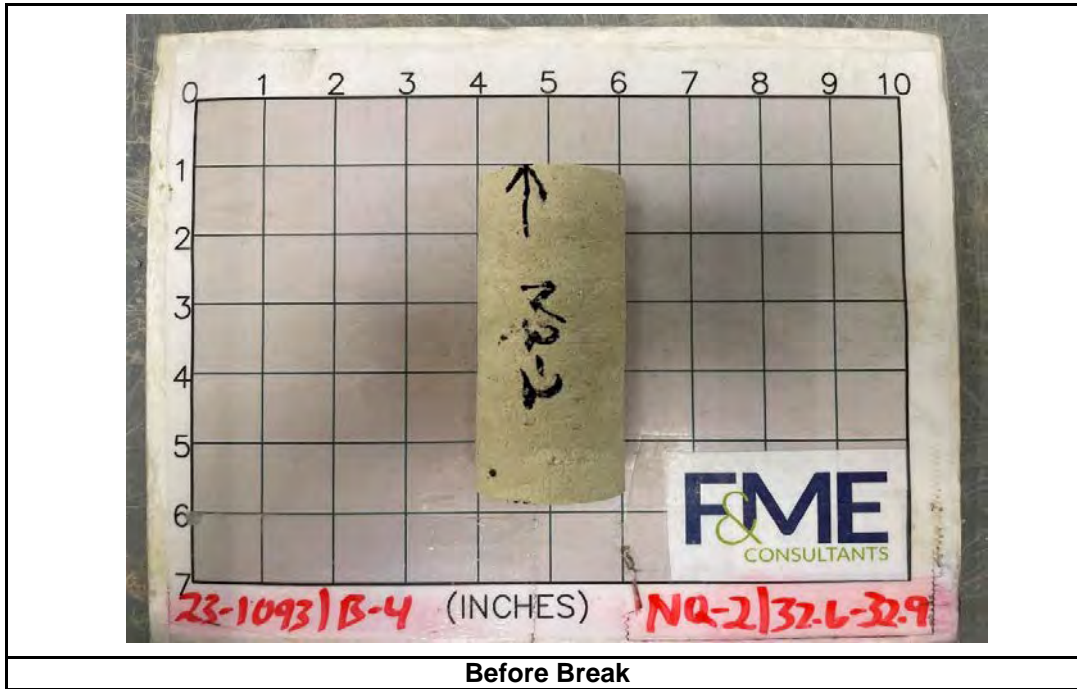
Sample Volume: 10.67 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.715 lbs.
 L/D Ratio: 2.133

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-2
 Depth/Elevation 32.6' - 32.9'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 550 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



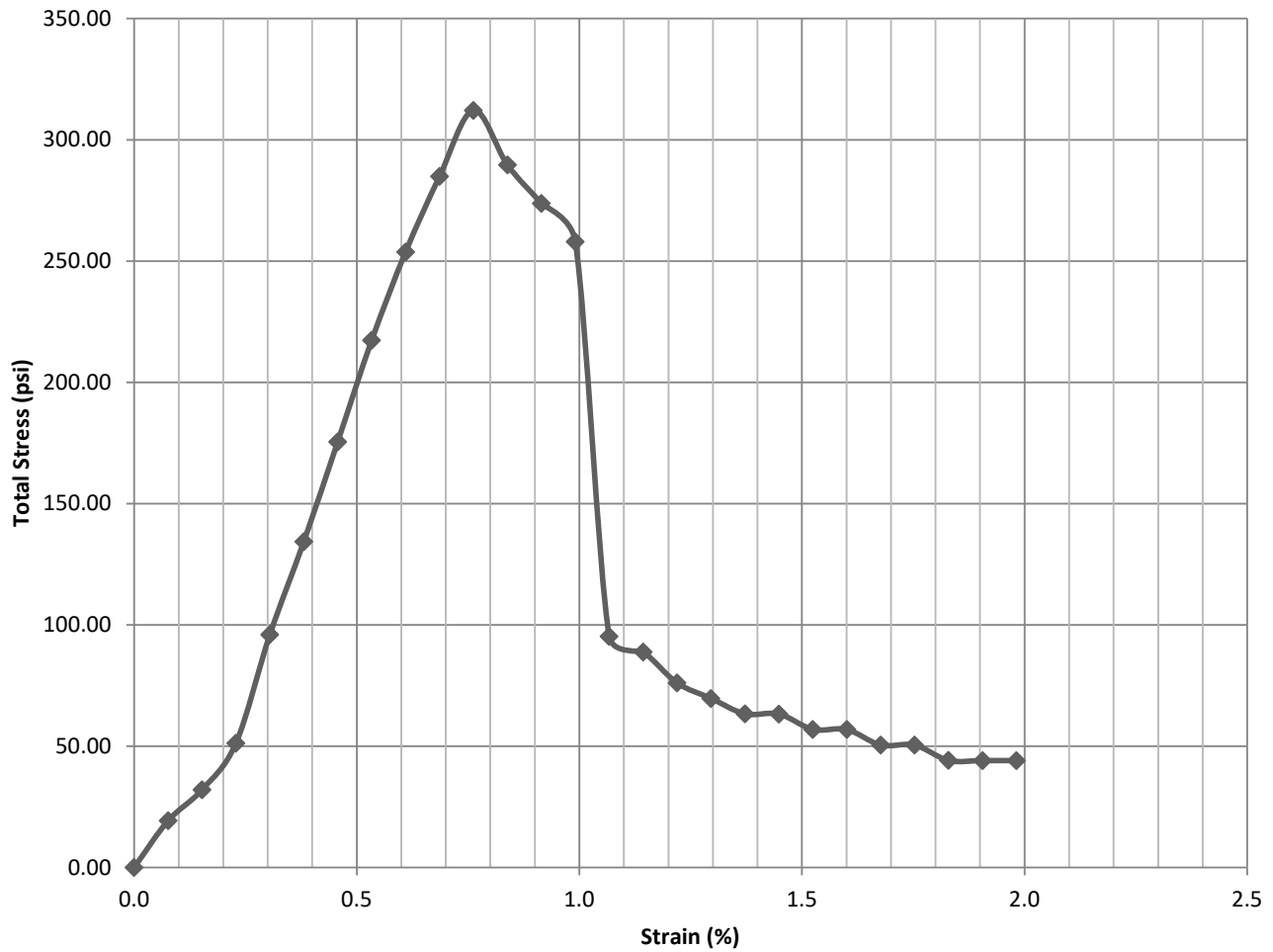
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-2	Depth of Sample:	32.6' - 32.9'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.843 in.
 Average Initial Height (Lo): 3.936 in.
 Average Initial Area (Ao): 2.668 in²
 In-Situ Unit Weight: 121.4 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.50 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.738 lbs.
 L/D Ratio: 2.136

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-5
 Depth/Elevation 48.2' - 48.5'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 310 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



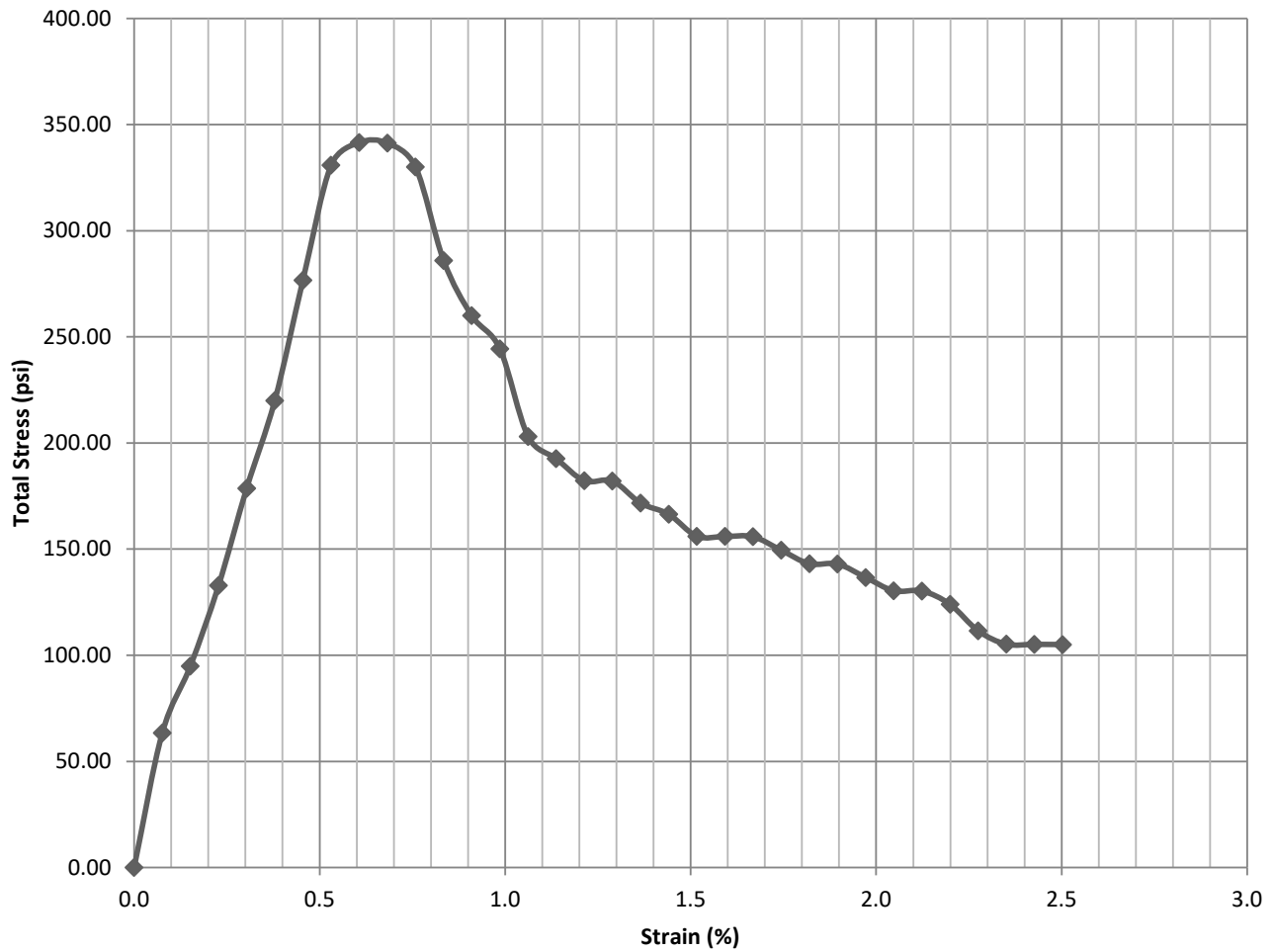
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-5	Depth of Sample:	48.2' - 48.5'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.855 in.
 Average Initial Height (Lo): 3.956 in.
 Average Initial Area (Ao): 2.703 in²
 In-Situ Unit Weight: 121.5 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.69 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.752 lbs.
 L/D Ratio: 2.133

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-6
 Depth/Elevation 51.9' - 52.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 340 \text{ psi}$ $\epsilon_{ULT} = 0.6\%$



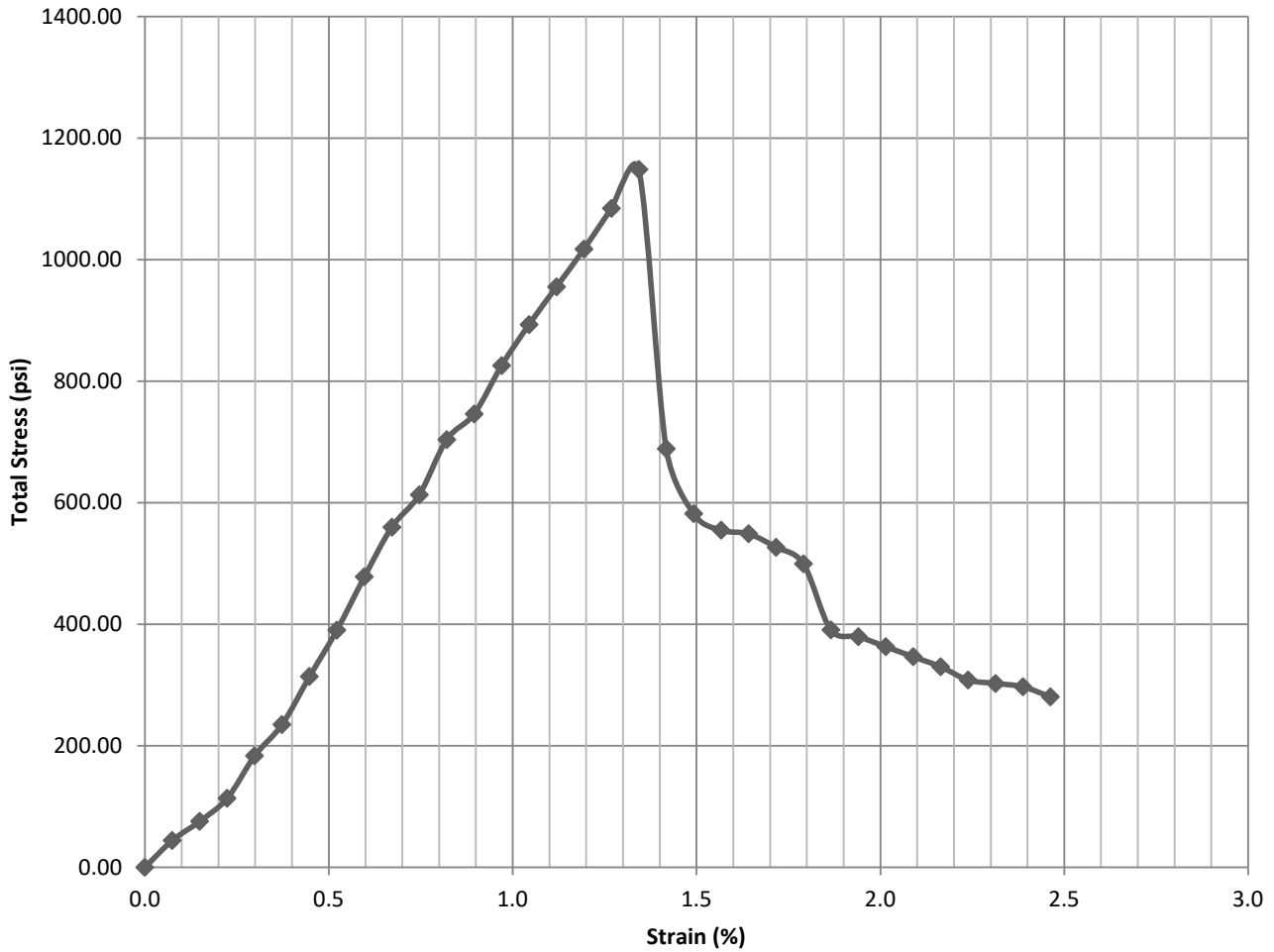
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-6	Depth of Sample:	51.9' - 52.3'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.857 in.
 Average Initial Height (Lo): 4.021 in.
 Average Initial Area (Ao): 2.708 in²
 In-Situ Unit Weight: 138.0 pcf
 Failure Mode: Plastic Failure

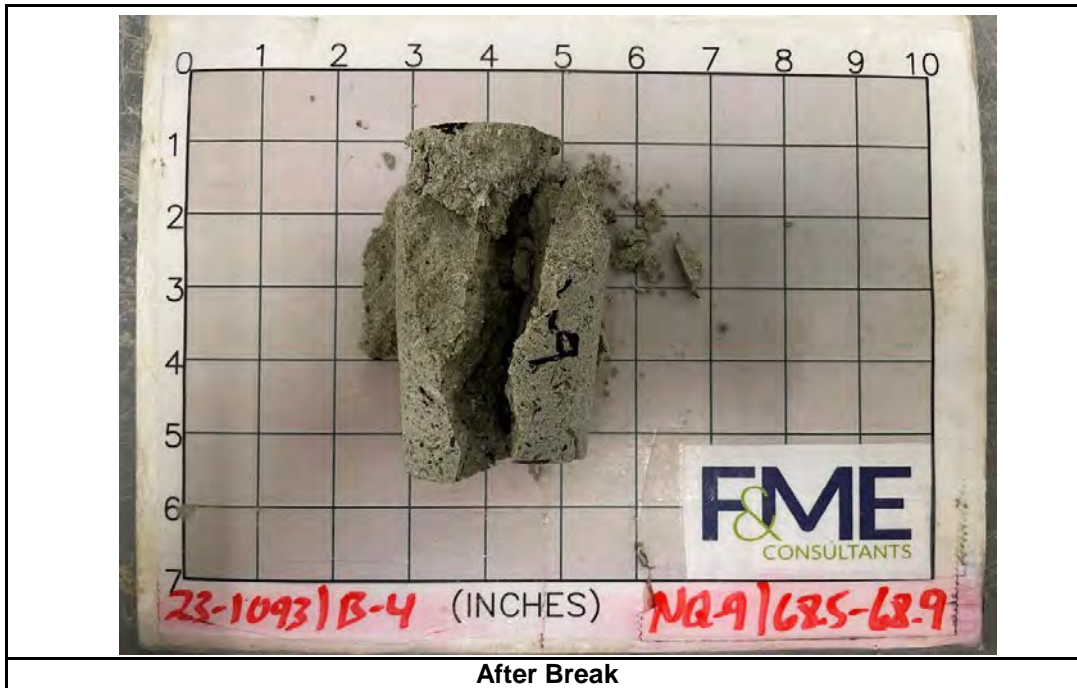
Sample Volume: 10.89 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.870 lbs.
 L/D Ratio: 2.165

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-9
 Depth/Elevation 68.5' - 68.9'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1150 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$



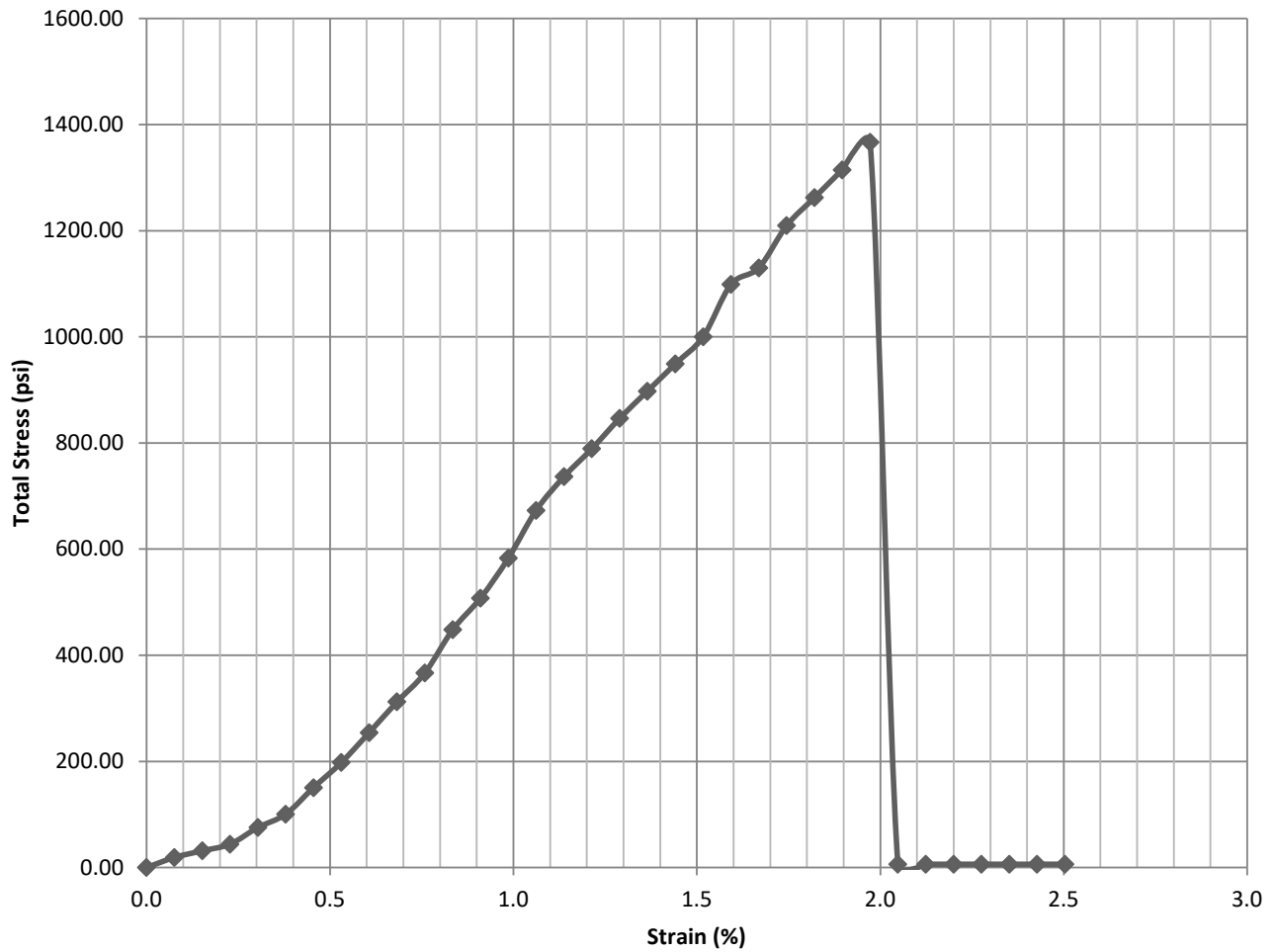
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-9	Depth of Sample:	68.5' - 68.9'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.860 in.
 Average Initial Height (Lo): 3.955 in.
 Average Initial Area (Ao): 2.717 in²
 In-Situ Unit Weight: 140.7 pcf
 Failure Mode: Plastic Failure

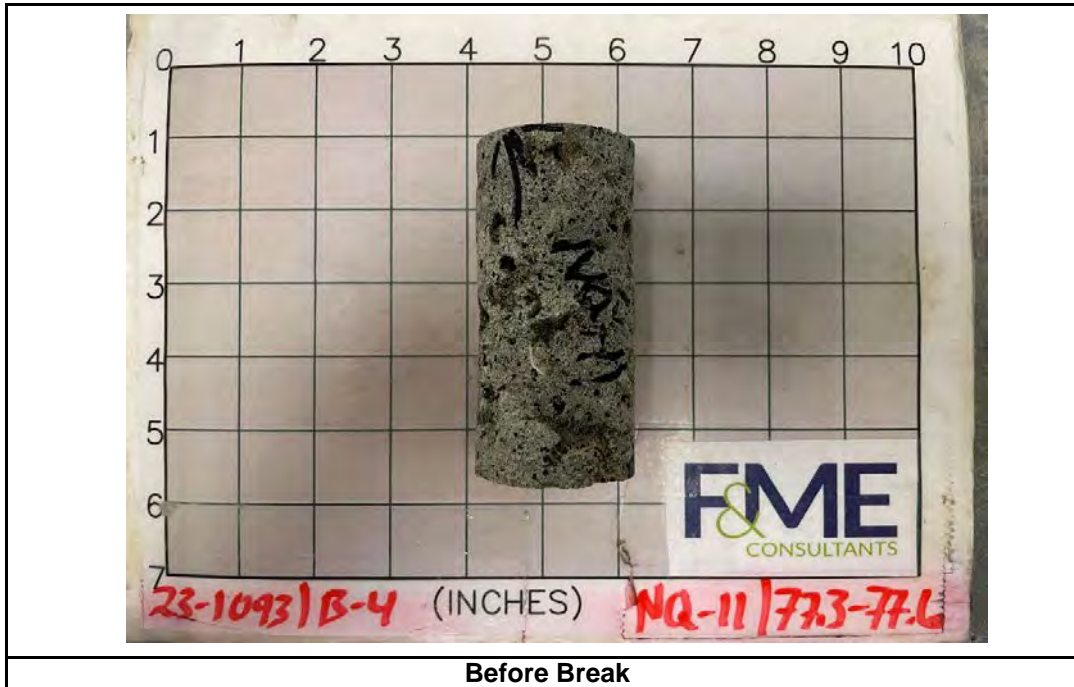
Sample Volume: 10.75 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.875 lbs.
 L/D Ratio: 2.126

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-11
 Depth/Elevation 77.3' - 77.6'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1365 \text{ psi}$ $\epsilon_{ULT} = 2.0\%$



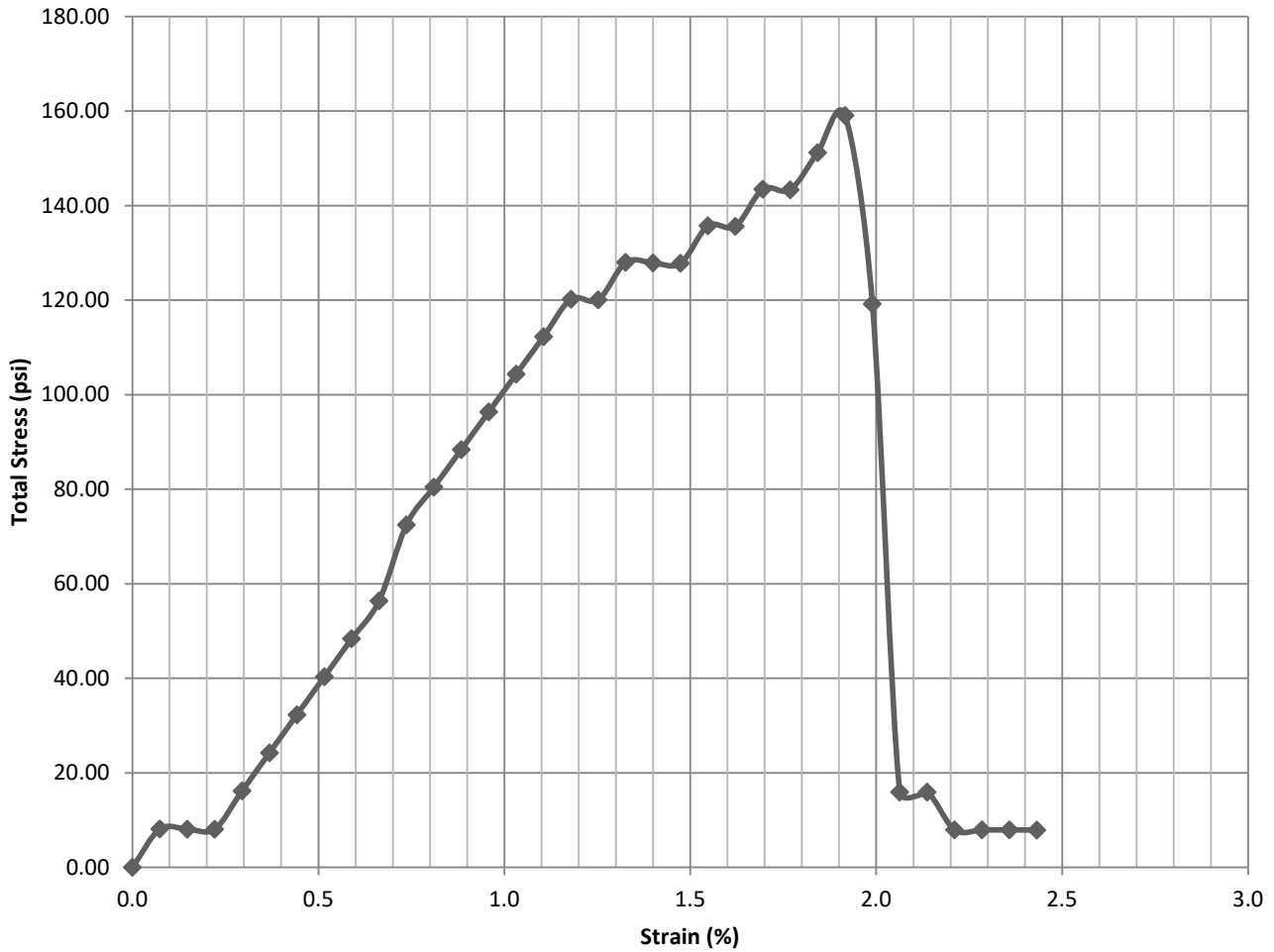
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-11	Depth of Sample:	77.3' - 77.6'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1093



Average Initial Diameter (Do): 1.640 in.
 Average Initial Height (Lo): 4.071 in.
 Average Initial Area (Ao): 2.112 in²
 In-Situ Unit Weight: 114.9 pcf
 Failure Mode: Plastic Failure

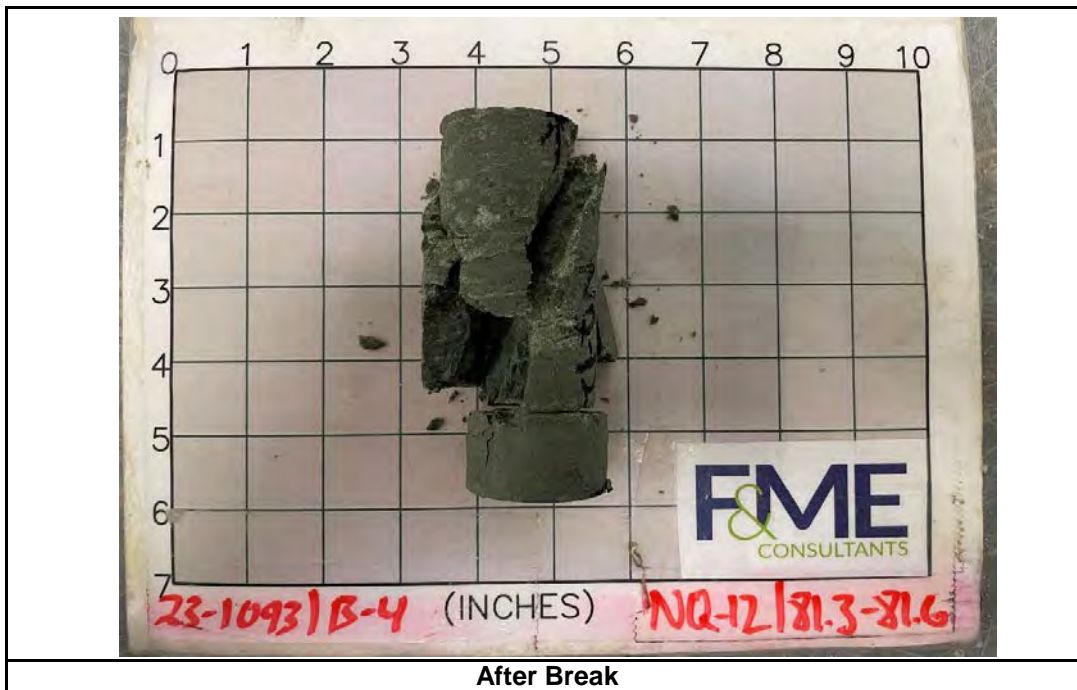
Sample Volume: 8.60 in³
 Sample Volume: 0.005 ft³
 Sample Weight: 0.572 lbs.
 L/D Ratio: 2.482

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-4 / NQ-12
 Depth/Elevation 81.3' - 81.6'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 160 \text{ psi}$ $\epsilon_{ULT} = 1.9\%$

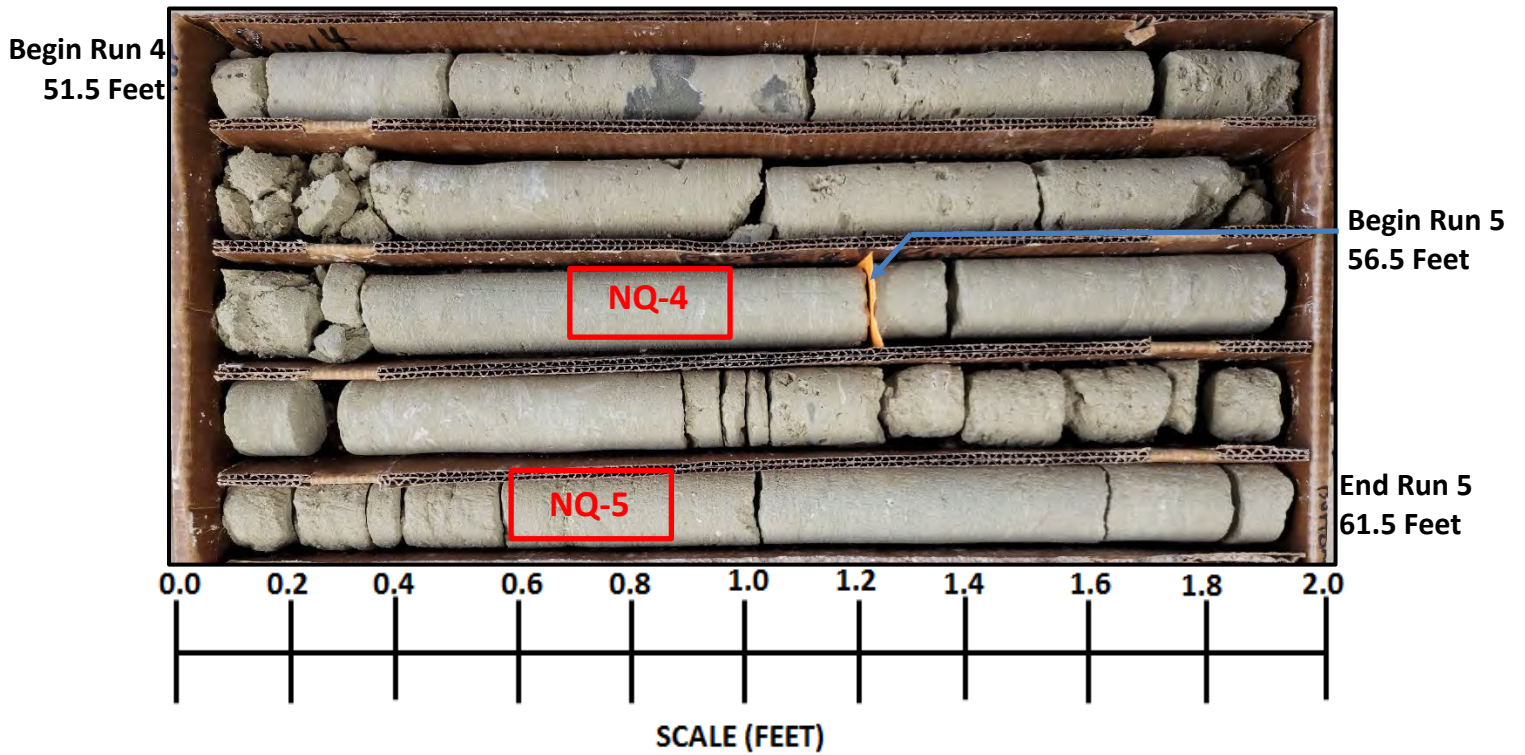
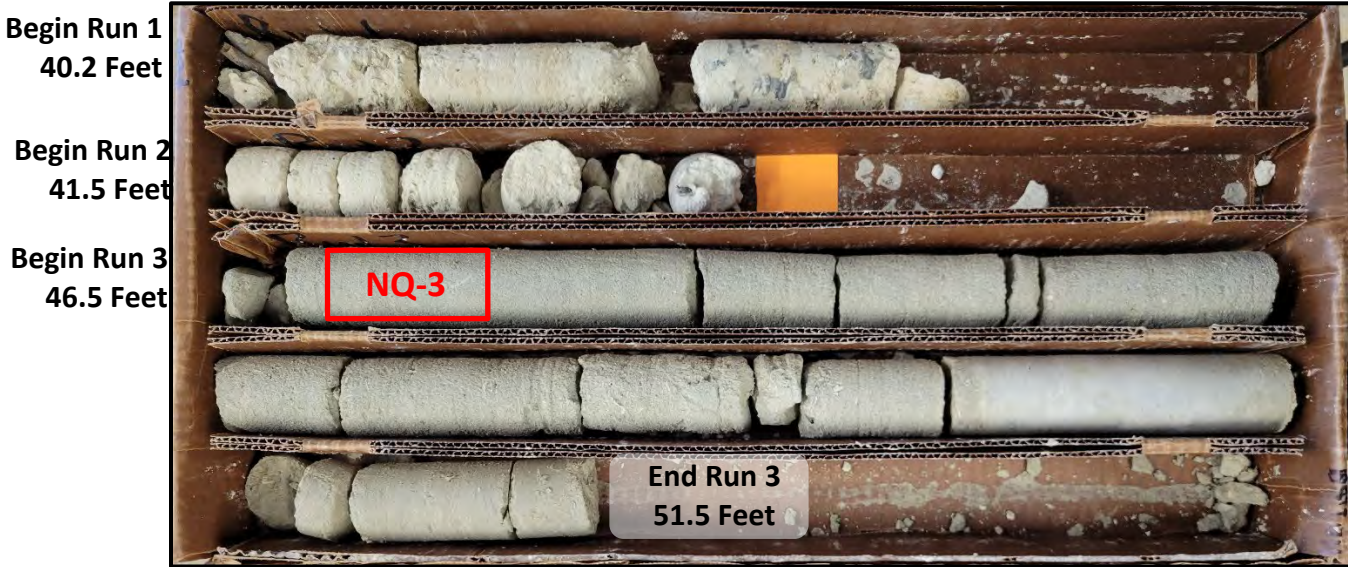


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1093
Sample Location:	B-4 / NQ-12	Depth of Sample:	81.3' - 81.6'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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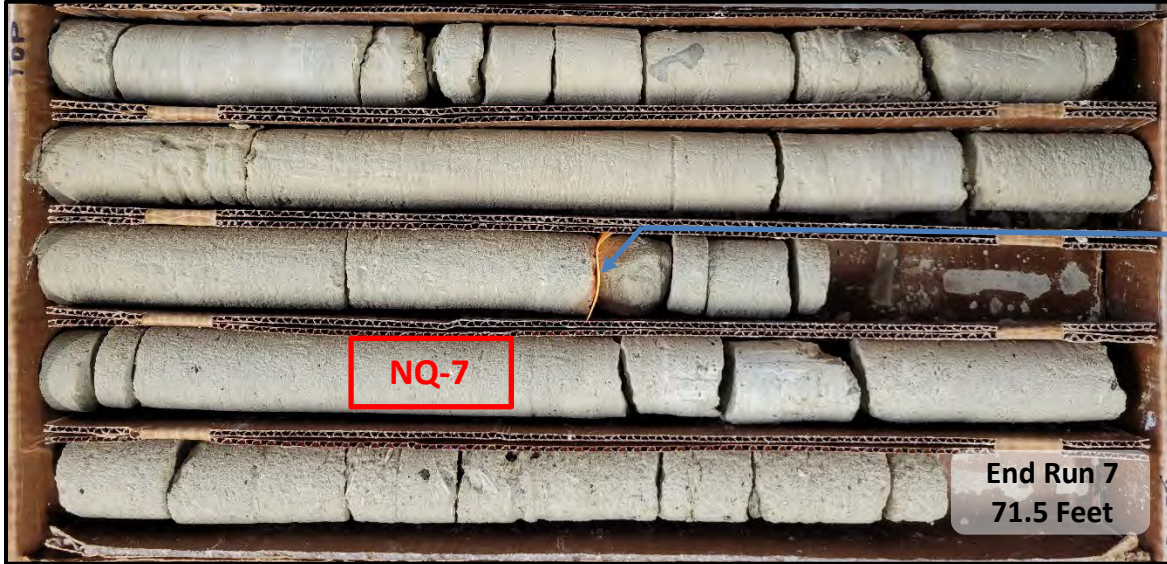
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-5



I-95 Bridge over Lake Marion DB Prep

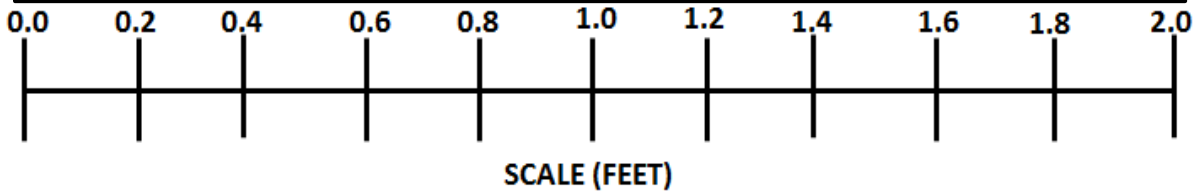
CORE PHOTOGRAPHS: B-5

Begin Run 6
61.5 Feet



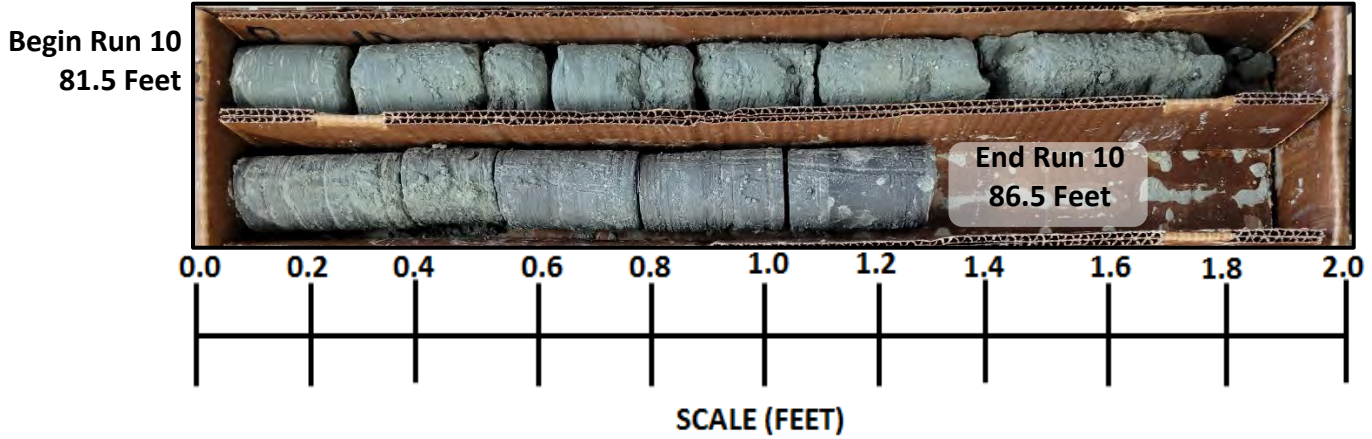
Begin Run 8
71.5 Feet

Begin Run 9
76.5 Feet



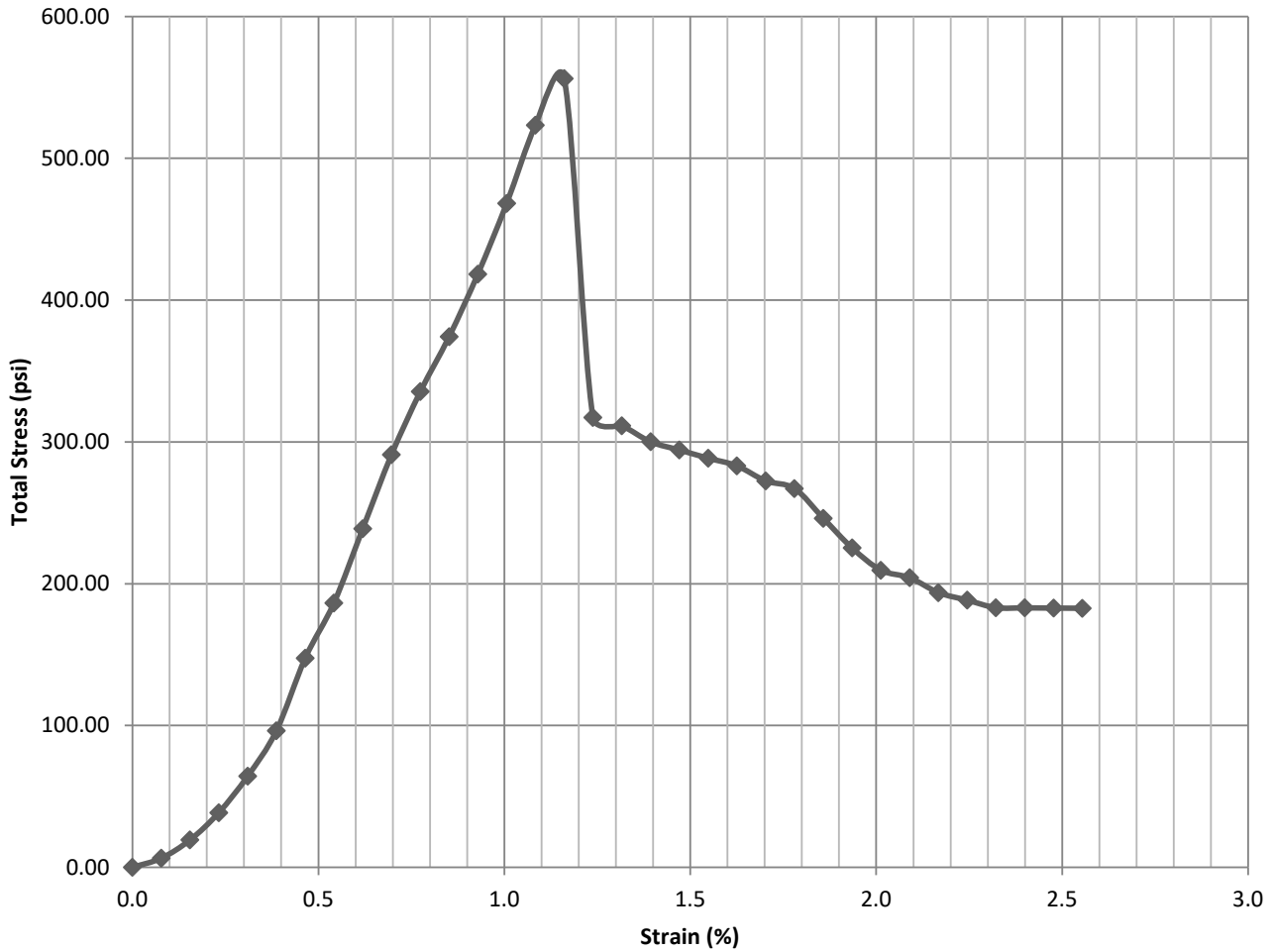
I-95 Bridge over Lake Marion DB Prep

CORE PHOTOGRAPHS: B-5



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1870



Average Initial Diameter (Do): 1.840 in.
 Average Initial Height (Lo): 3.876 in.
 Average Initial Area (Ao): 2.659 in²
 In-Situ Unit Weight: 126.0 pcf
 Failure Mode: Plastic Failure

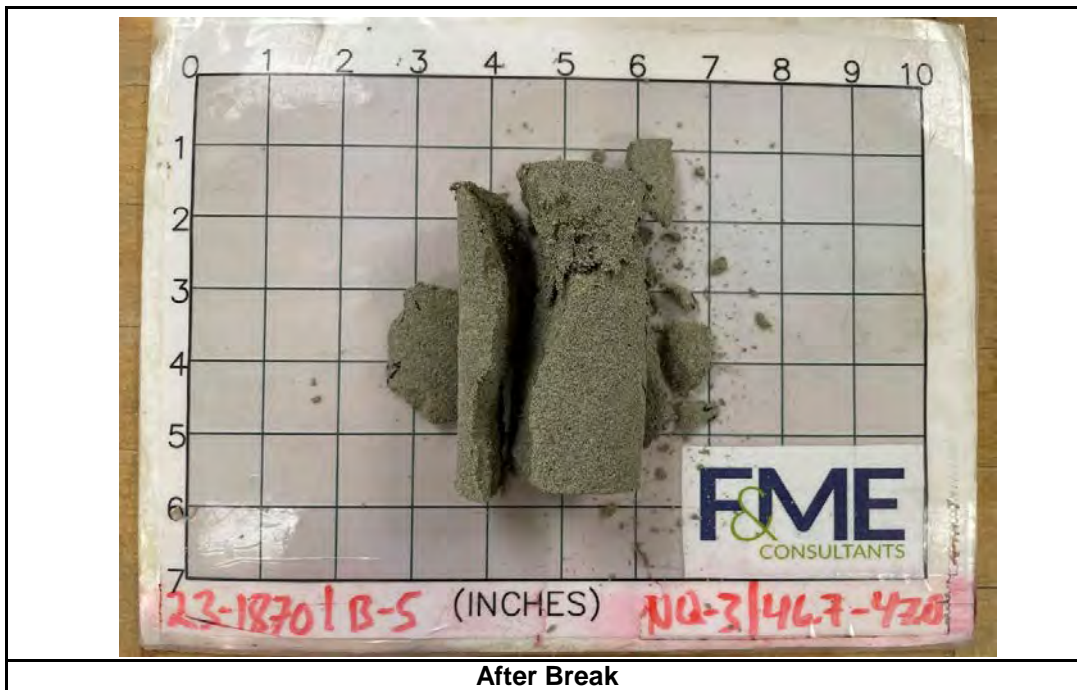
Sample Volume: 10.31 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.752 lbs.
 L/D Ratio: 2.107

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/30/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-5 / NQ-3
 Depth/Elevation 46.7' - 47.0'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 555 \text{ psi}$ $\epsilon_{ULT} = 1.2\%$



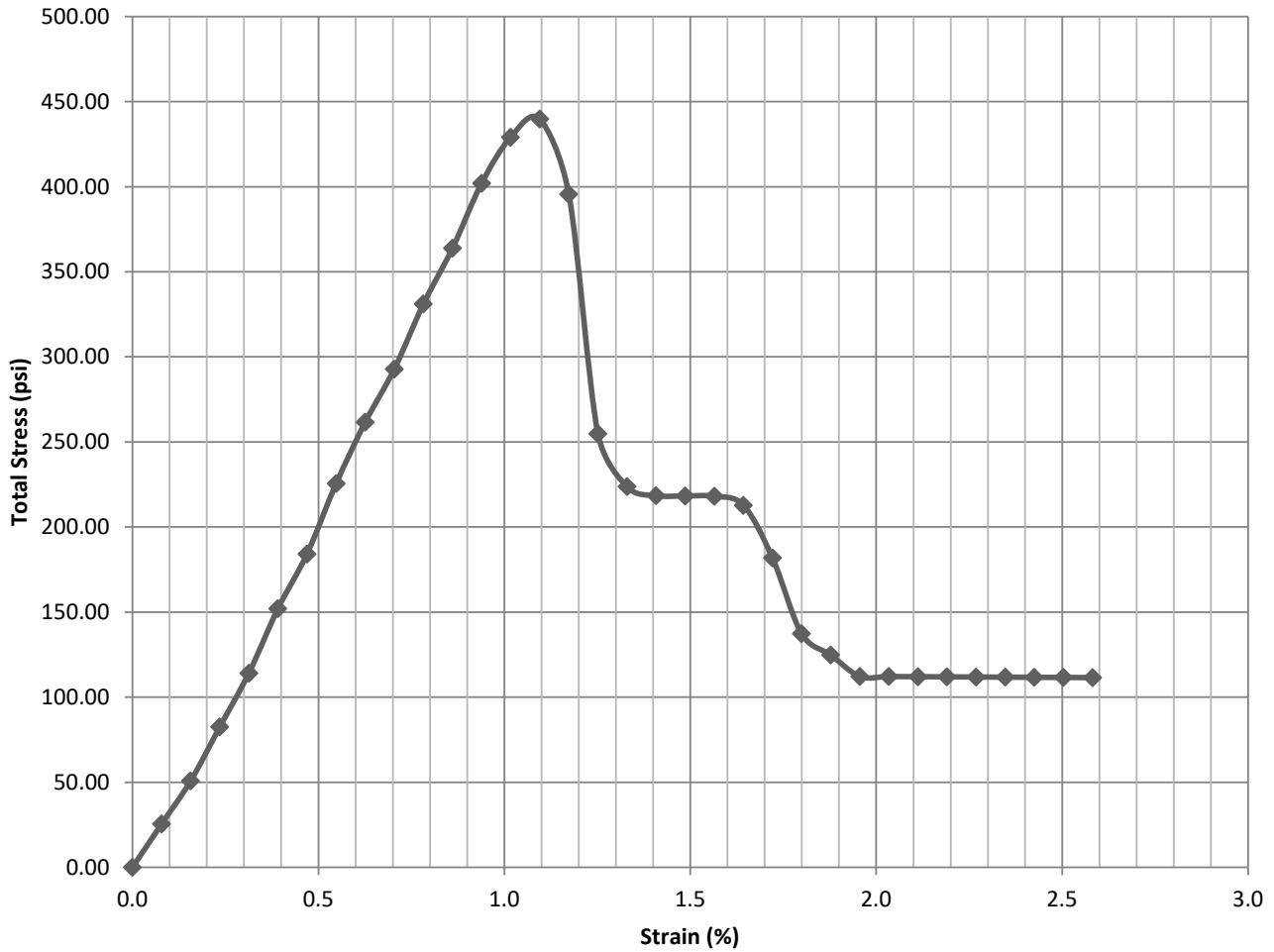
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1870
Sample Location:	B-5 / NQ-3	Depth of Sample:	46.7' - 47.0'
Tested By:	W. Pitts	Date Tested:	6/30/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1870



Average Initial Diameter (Do): 1.852 in.
 Average Initial Height (Lo): 3.835 in.
 Average Initial Area (Ao): 2.694 in²
 In-Situ Unit Weight: 125.8 pcf
 Failure Mode: Plastic Failure

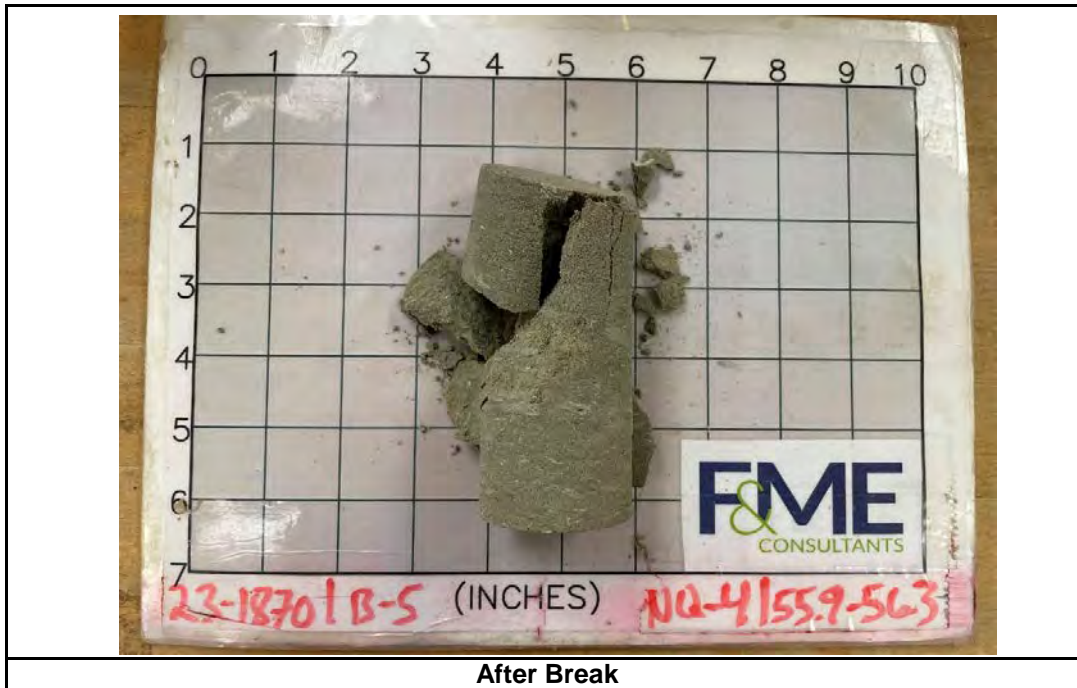
Sample Volume: 10.33 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.752 lbs.
 L/D Ratio: 2.071

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/30/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-5 / NQ-4
 Depth/Elevation 55.9' - 56.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 440 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



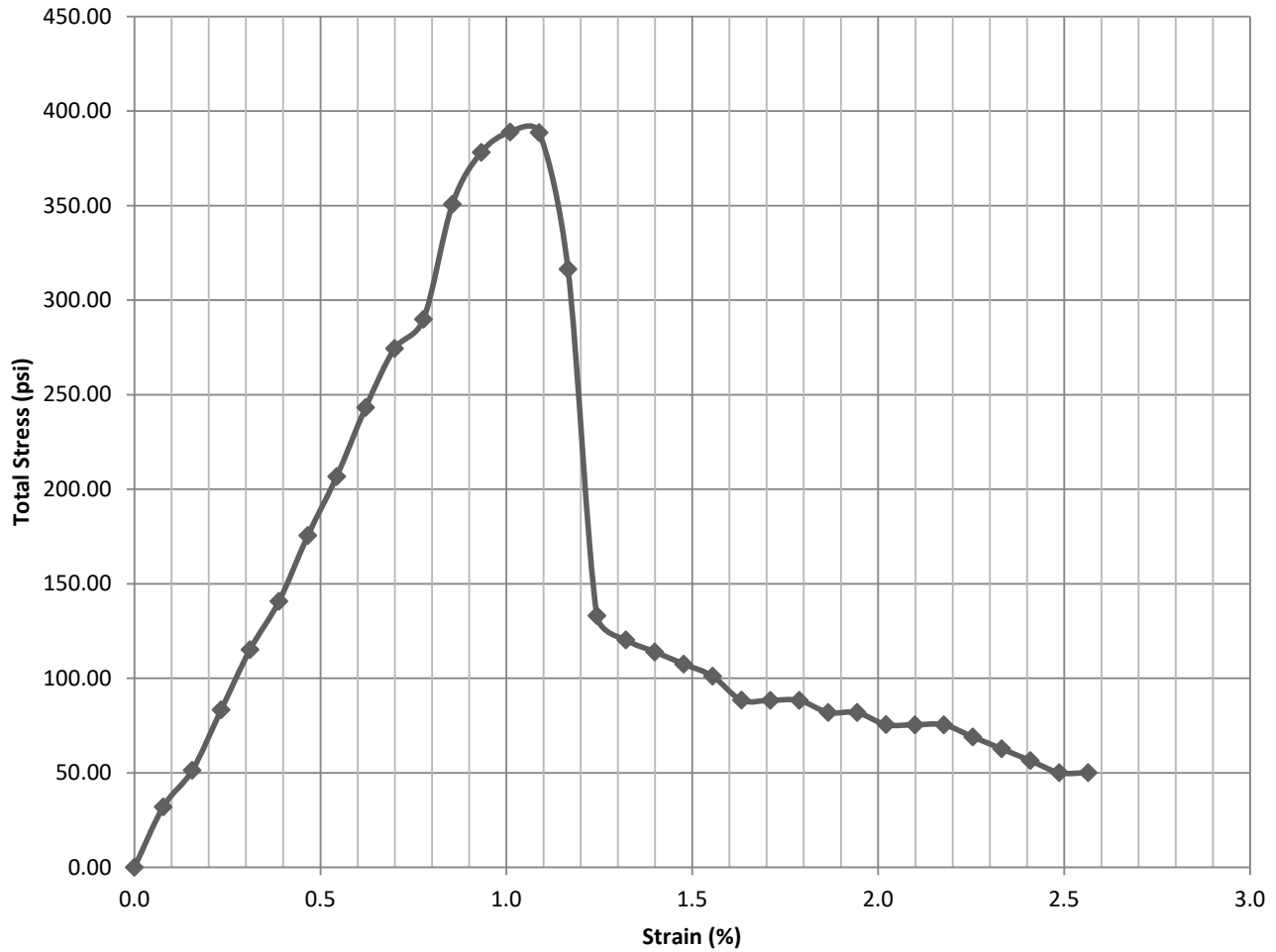
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1870
Sample Location:	B-5 / NQ-4	Depth of Sample:	55.9' - 56.3'
Tested By:	W. Pitts	Date Tested:	6/30/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1870



Average Initial Diameter (Do): 1.843 in.
 Average Initial Height (Lo): 3.860 in.
 Average Initial Area (Ao): 2.668 in²
 In-Situ Unit Weight: 122.9 pcf
 Failure Mode: Plastic Failure

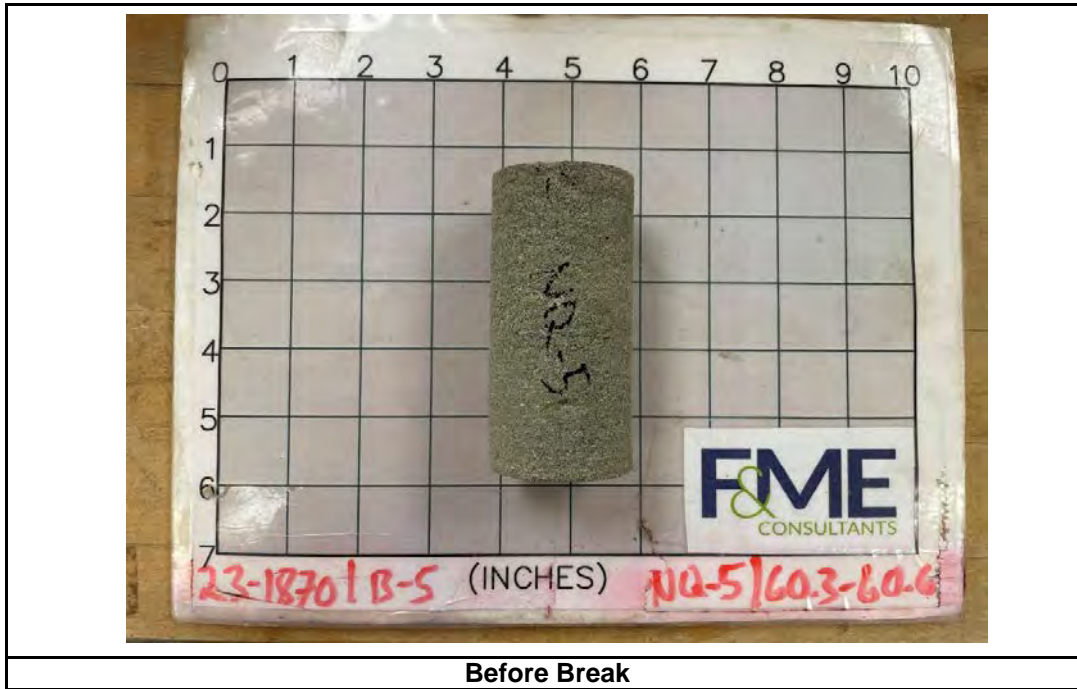
Sample Volume: 10.30 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.732 lbs.
 L/D Ratio: 2.094

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/30/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-5 / NQ-5
 Depth/Elevation 60.3' - 60.6'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 390 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



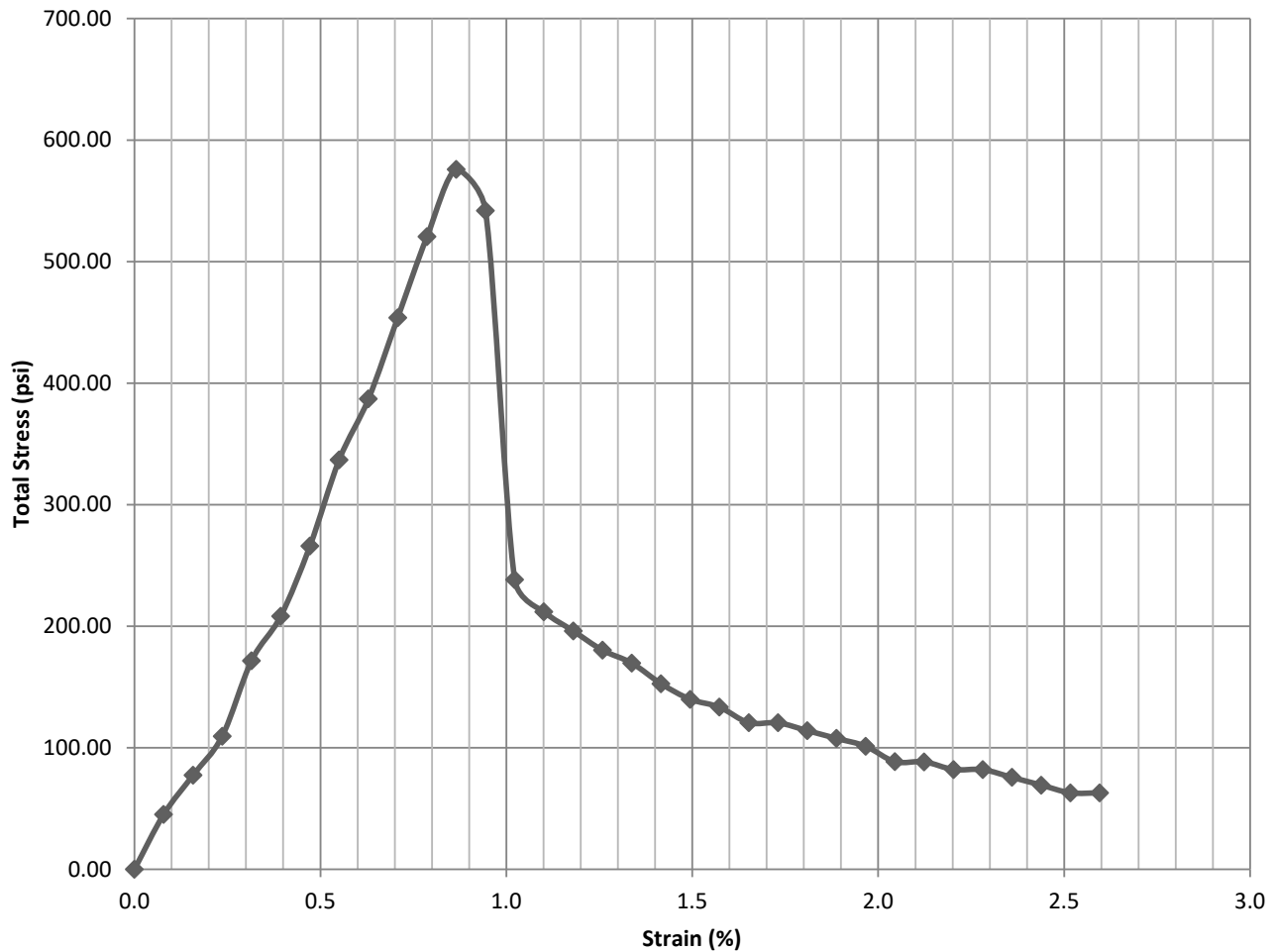
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1870
Sample Location:	B-5 / NQ-5	Depth of Sample:	60.3' - 60.6'
Tested By:	W. Pitts	Date Tested:	6/30/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1870



Average Initial Diameter (Do): 1.838 in.
 Average Initial Height (Lo): 3.814 in.
 Average Initial Area (Ao): 2.653 in²
 In-Situ Unit Weight: 130.1 pcf
 Failure Mode: Plastic Failure

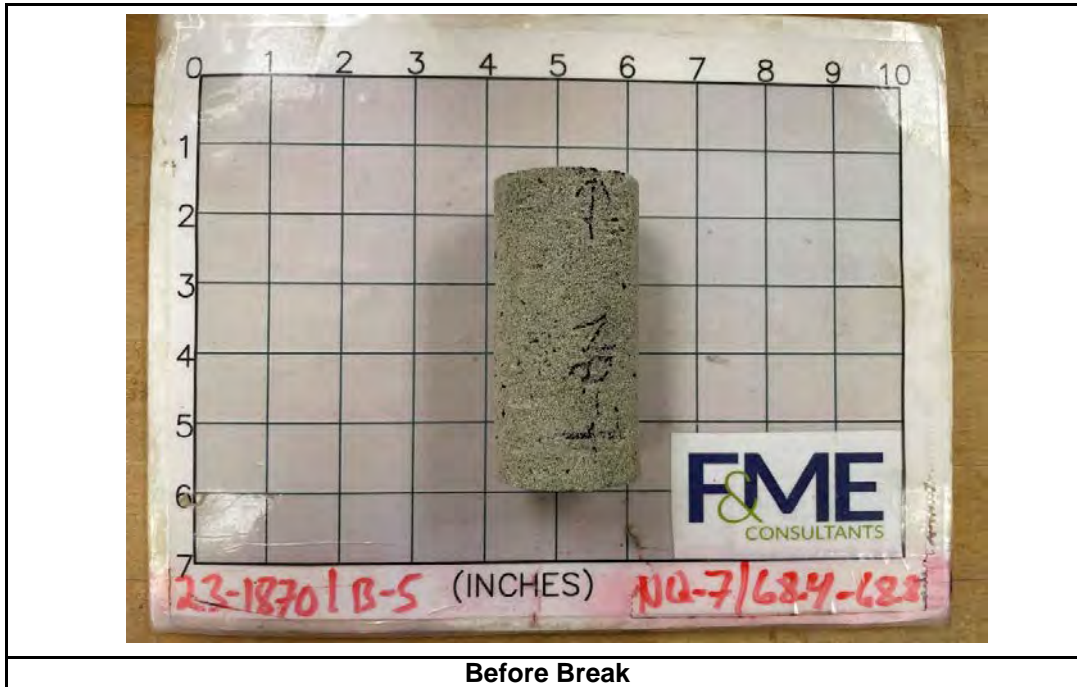
Sample Volume: 10.12 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.762 lbs.
 L/D Ratio: 2.075

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/30/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-5 / NQ-7
 Depth/Elevation 68.4' - 68.8'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 575 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



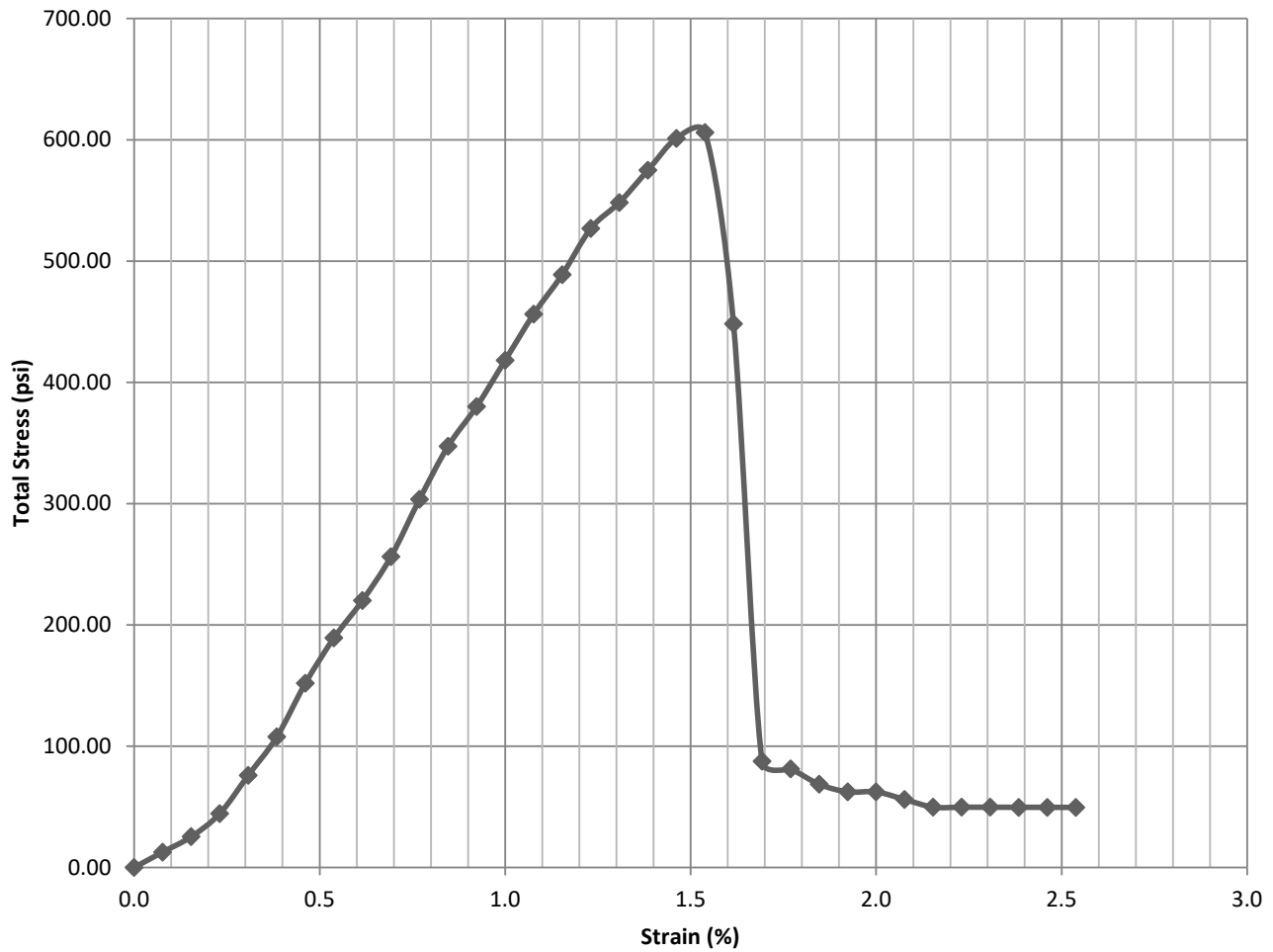
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1870
Sample Location:	B-5 / NQ-7	Depth of Sample:	68.4' - 68.8'
Tested By:	W. Pitts	Date Tested:	6/30/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1870



Average Initial Diameter (Do): 1.852 in.
 Average Initial Height (Lo): 3.900 in.
 Average Initial Area (Ao): 2.694 in²
 In-Situ Unit Weight: 141.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.51 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.859 lbs.
 L/D Ratio: 2.106

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/30/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-5 / NQ-9
 Depth/Elevation 79.0' - 79.3'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 605 \text{ psi}$ $\epsilon_{ULT} = 1.5\%$

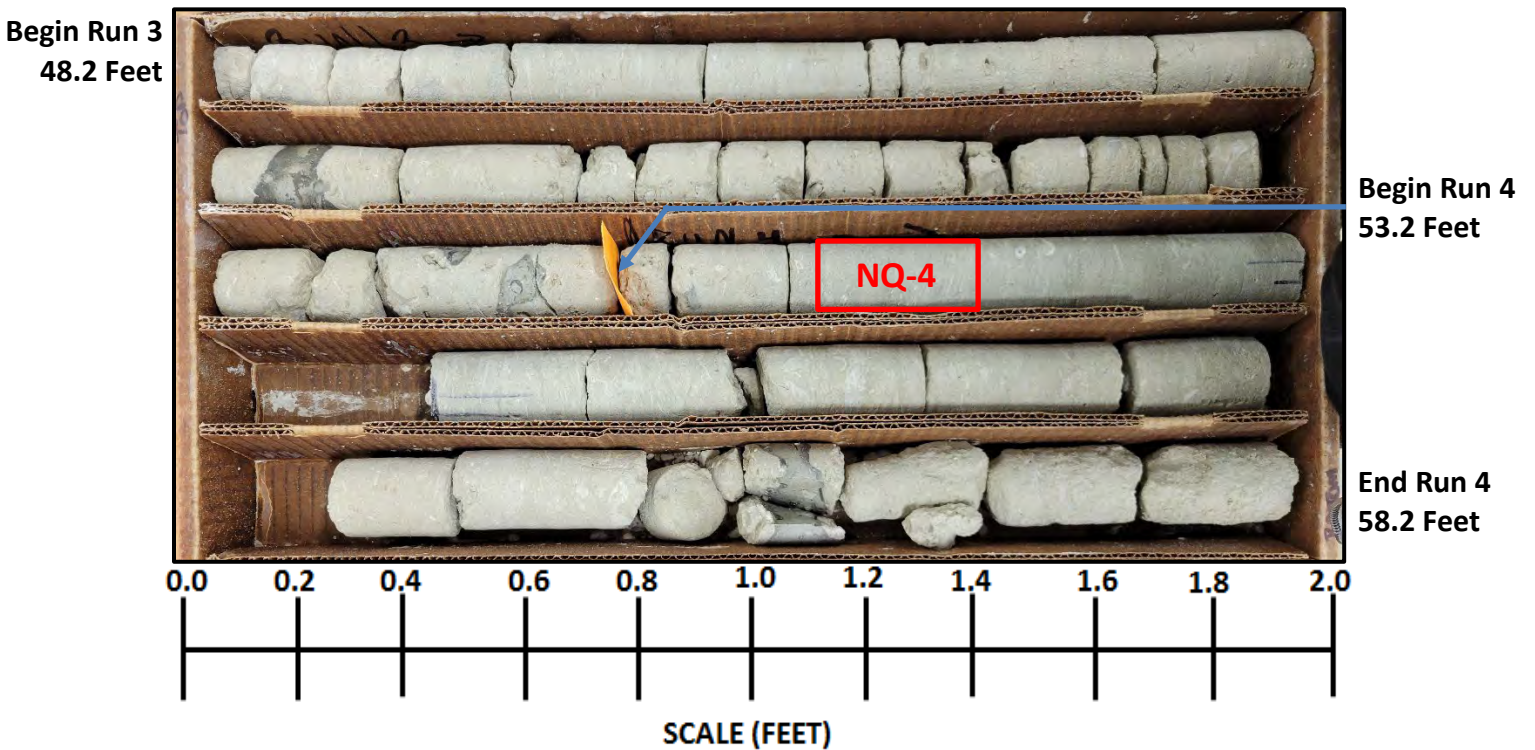


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1870
Sample Location:	B-5 / NQ-9	Depth of Sample:	79.0' - 79.3'
Tested By:	W. Pitts	Date Tested:	6/30/2023

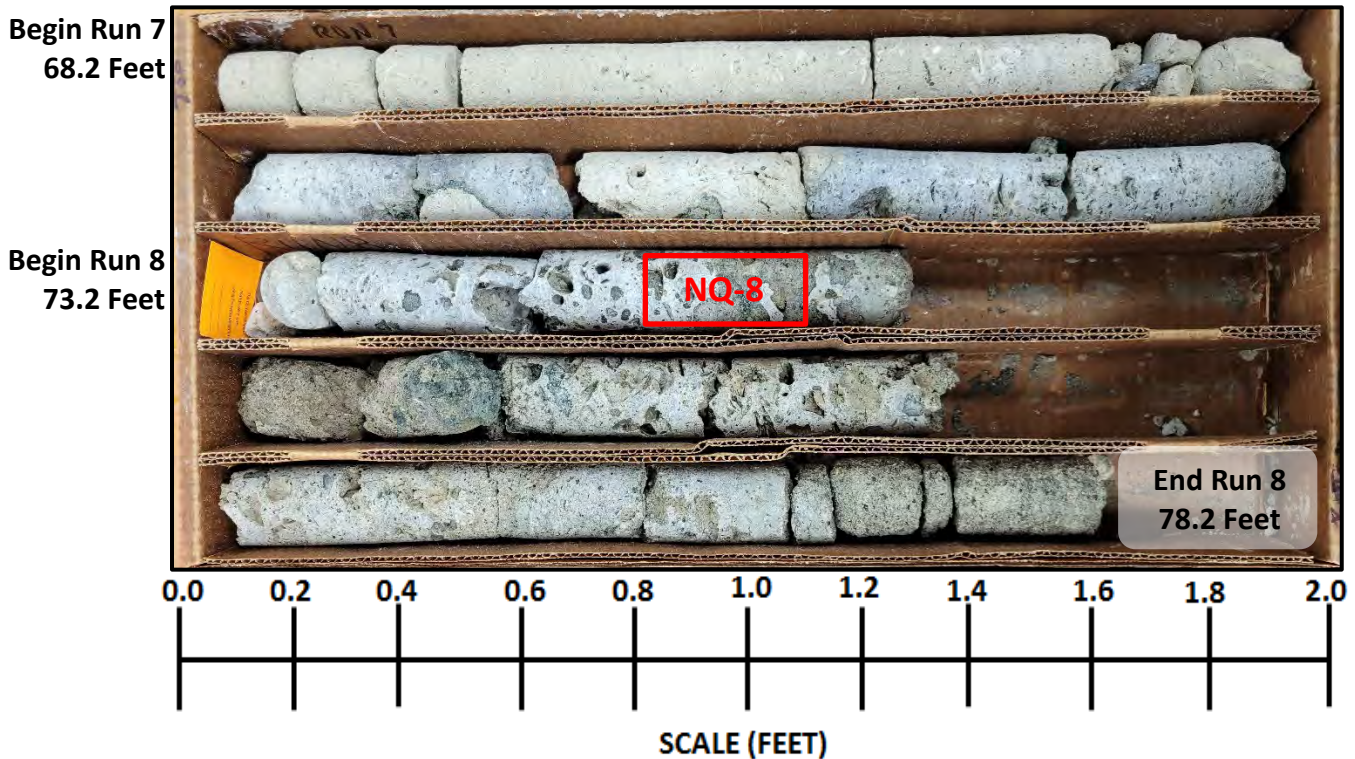


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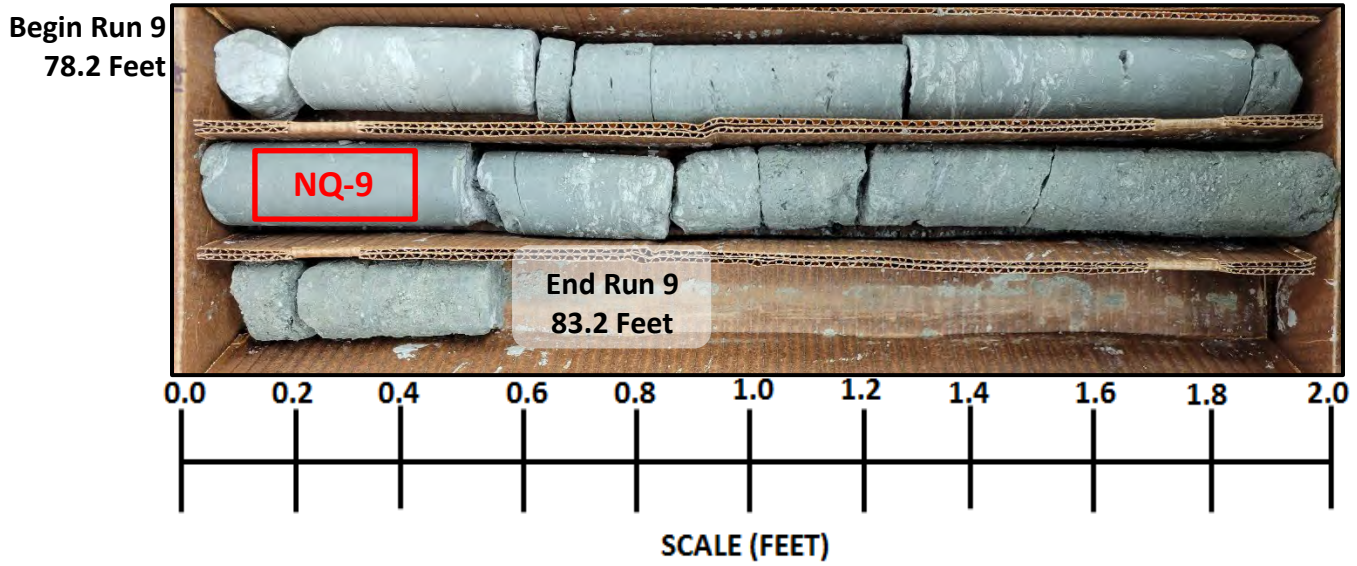
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-6



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-6

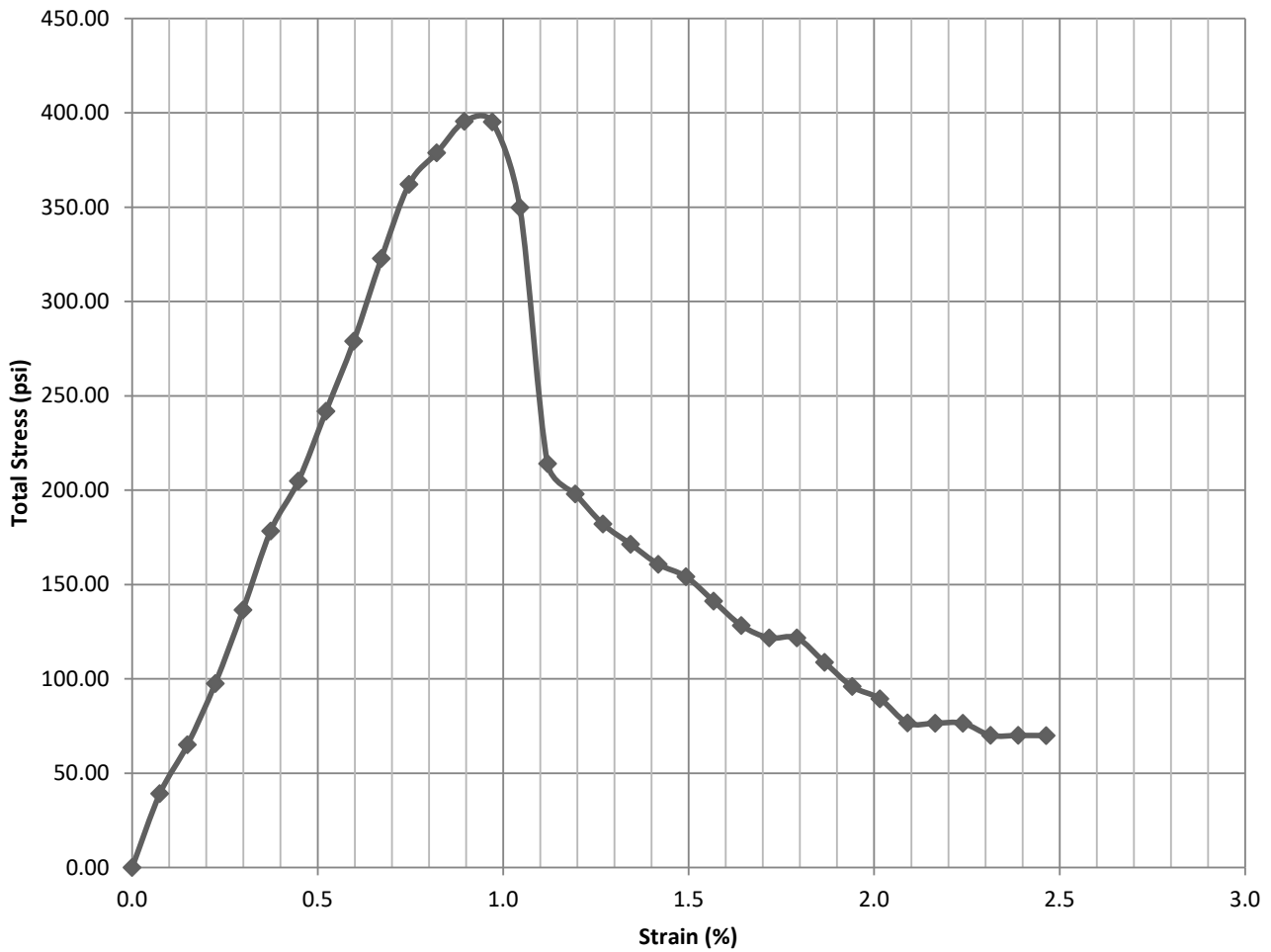


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-6



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1094



Average Initial Diameter (Do): 1.829 in.
 Average Initial Height (Lo): 4.019 in.
 Average Initial Area (Ao): 2.627 in²
 In-Situ Unit Weight: 122.8 pcf
 Failure Mode: Plastic Failure

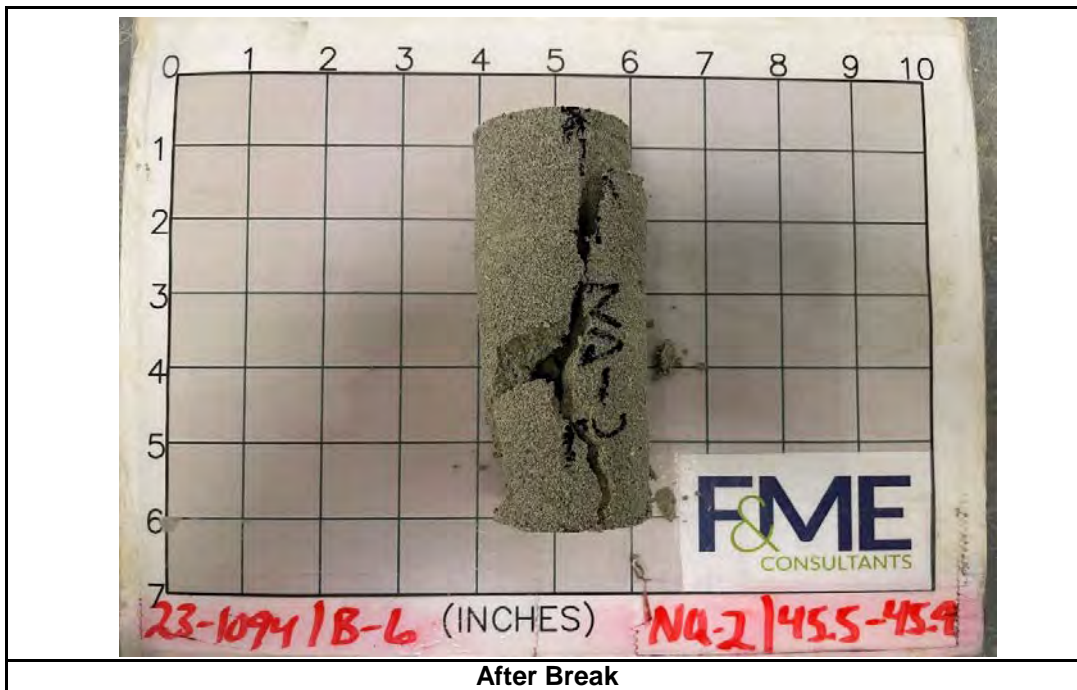
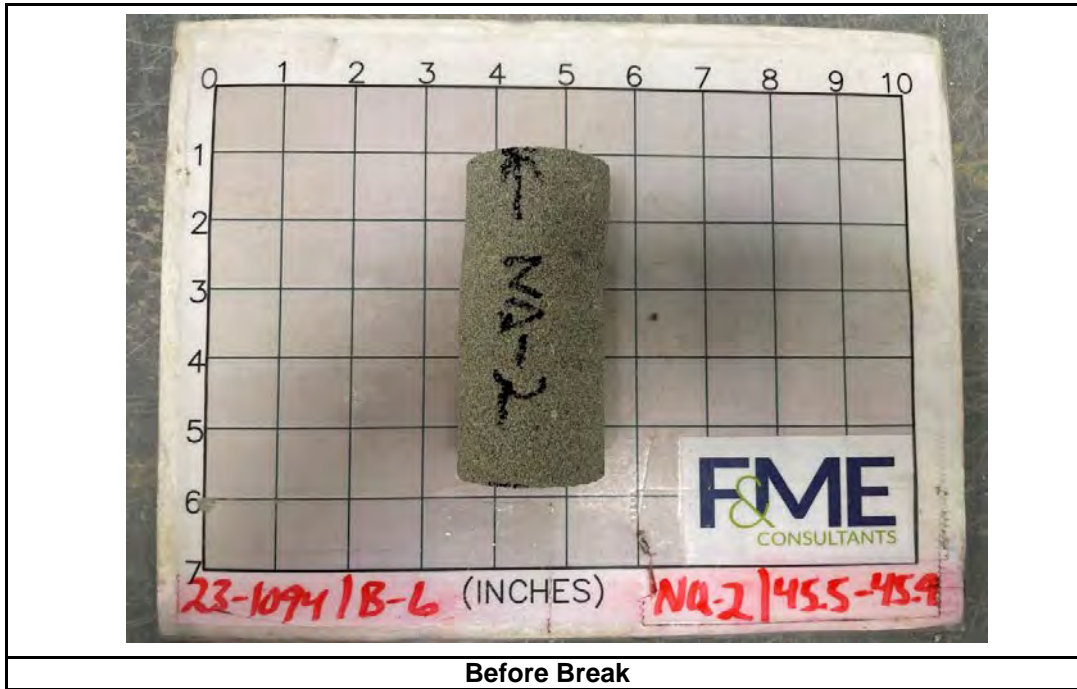
Sample Volume: 10.56 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.750 lbs.
 L/D Ratio: 2.197

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/3/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-6 / NQ-2
 Depth/Elevation 45.5' - 45.9'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 395 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



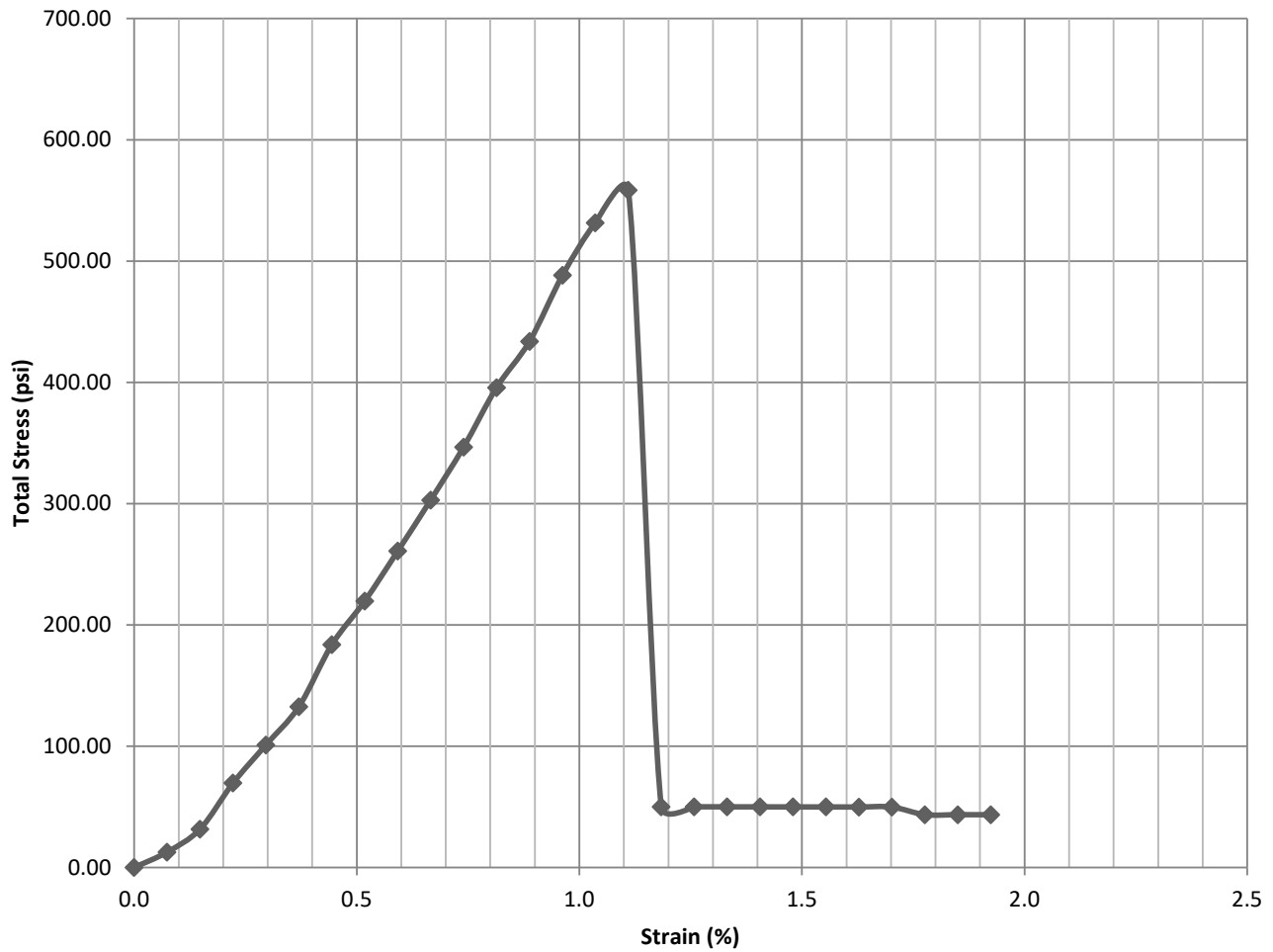
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1094
Sample Location:	B-6 / NQ-2	Depth of Sample:	45.5' - 45.9'
Tested By:	W. Pitts	Date Tested:	5/3/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1094



Average Initial Diameter (Do): 1.855 in.
 Average Initial Height (Lo): 4.054 in.
 Average Initial Area (Ao): 2.703 in²
 In-Situ Unit Weight: 124.0 pcf
 Failure Mode: Plastic Failure

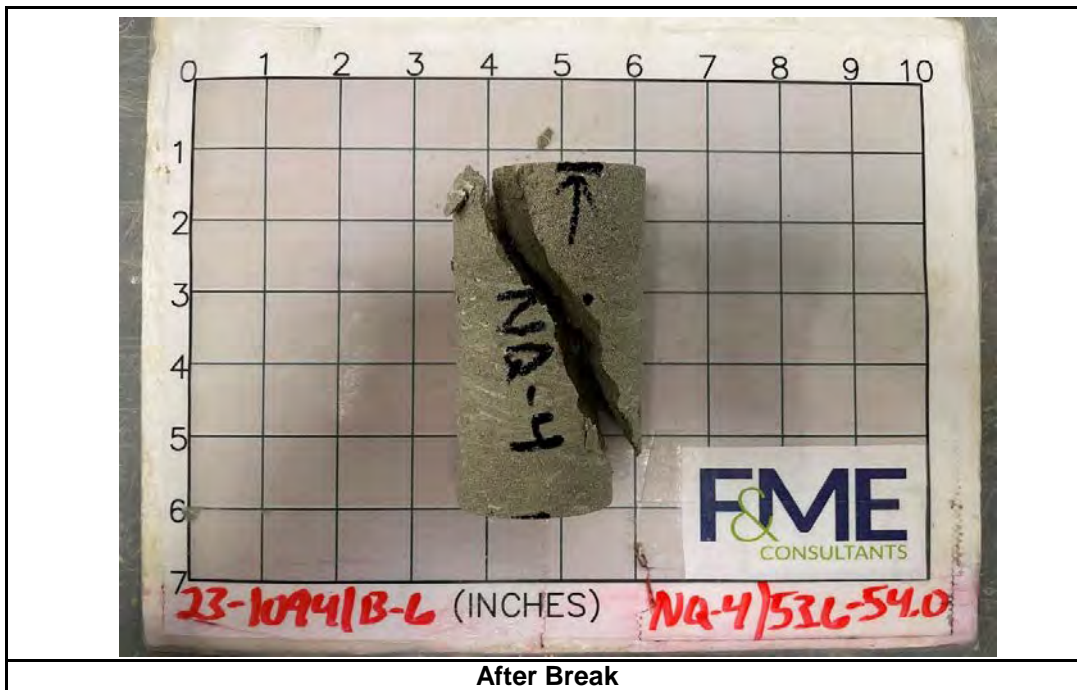
Sample Volume: 10.96 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.786 lbs.
 L/D Ratio: 2.185

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-6 / NQ-4
 Depth/Elevation 53.6' - 54.0'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 560 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



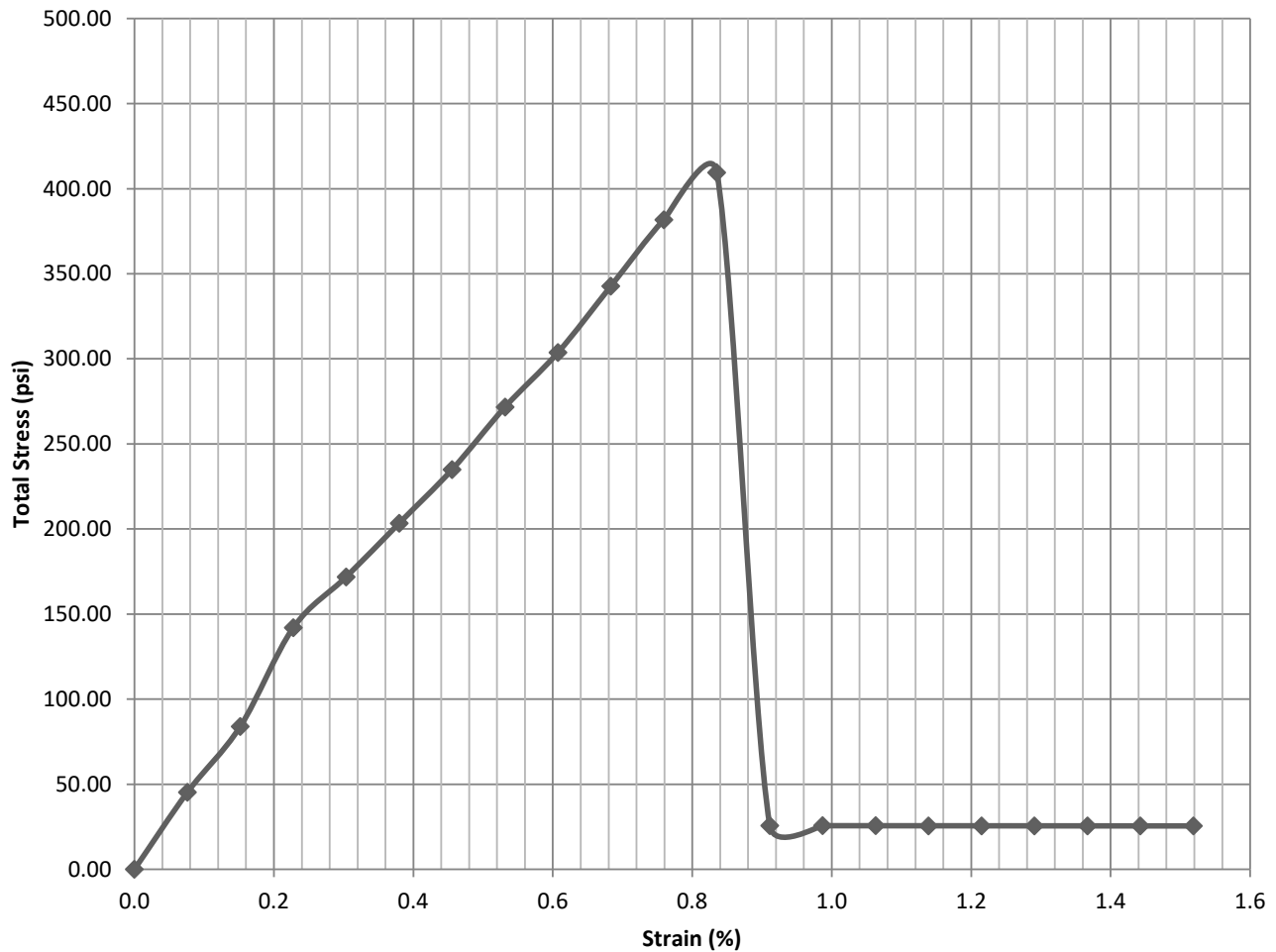
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1094
Sample Location:	B-6 / NQ-4	Depth of Sample:	53.6' - 54.0'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1094



Average Initial Diameter (Do): 1.836 in.
 Average Initial Height (Lo): 3.951 in.
 Average Initial Area (Ao): 2.647 in²
 In-Situ Unit Weight: 121.2 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.46 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.734 lbs.
 L/D Ratio: 2.152

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-6 / NQ-6
 Depth/Elevation 64.8' - 65.1'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 410 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



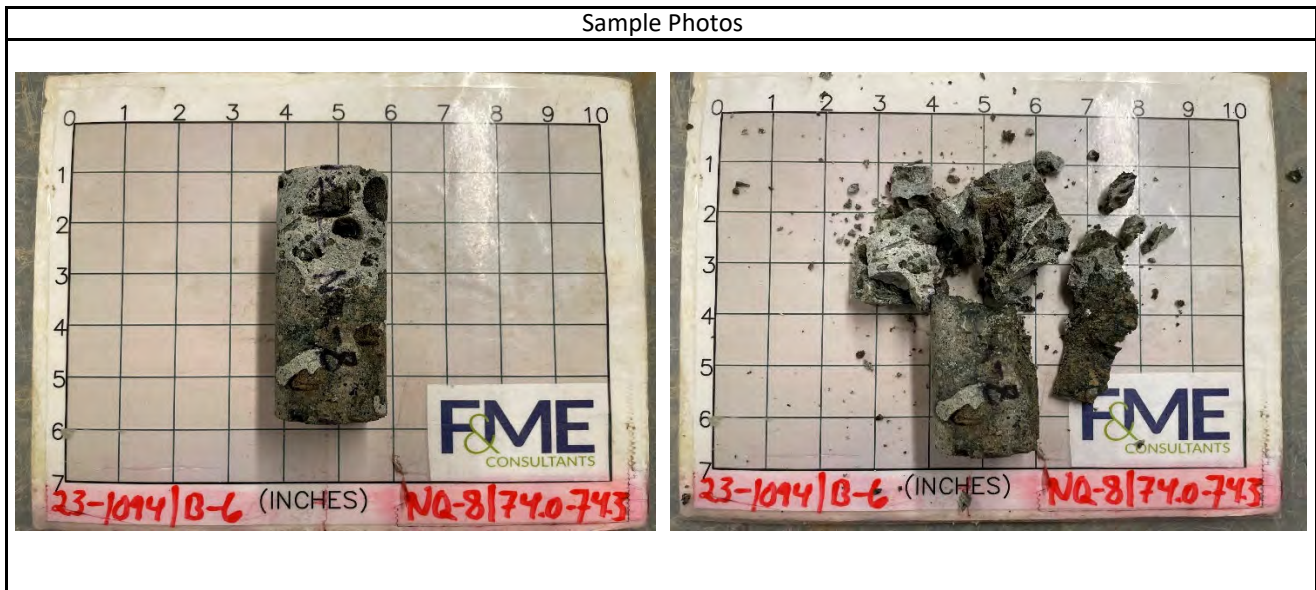
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1094
Sample Location:	B-6 / NQ-6	Depth of Sample:	64.8' - 65.1'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.85	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.071	Reviewed By	WJG
Boring	B-6	Unit Weight (pcf)	149.3	Core Size	NQ
Sample No.	NQ-8 / 23-1094	L/D Ratio	2.20	Recovery	85%
Depth	74.0' - 74.3'	Load Rate (psi/sec)	10	RQD	55%
Description	Gray/Black/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-596	86	1,515	564	1.89	0.15
30%	-669	114	2,279	848	2.53	0.17
40%	-816	179	3,015	1,122	2.75	0.22
50%	-933	232	3,748	1,394	2.99	0.25
60%	-1057	297	4,492	1,671	3.16	0.28
70%	-1185	374	5,252	1,954	3.30	0.32
80%	-1316	489	6,023	2,241	3.40	0.37
90%	-1473	734	6,717	2,499	3.39	0.50
100%	-1780	1676	7,503	2,791		

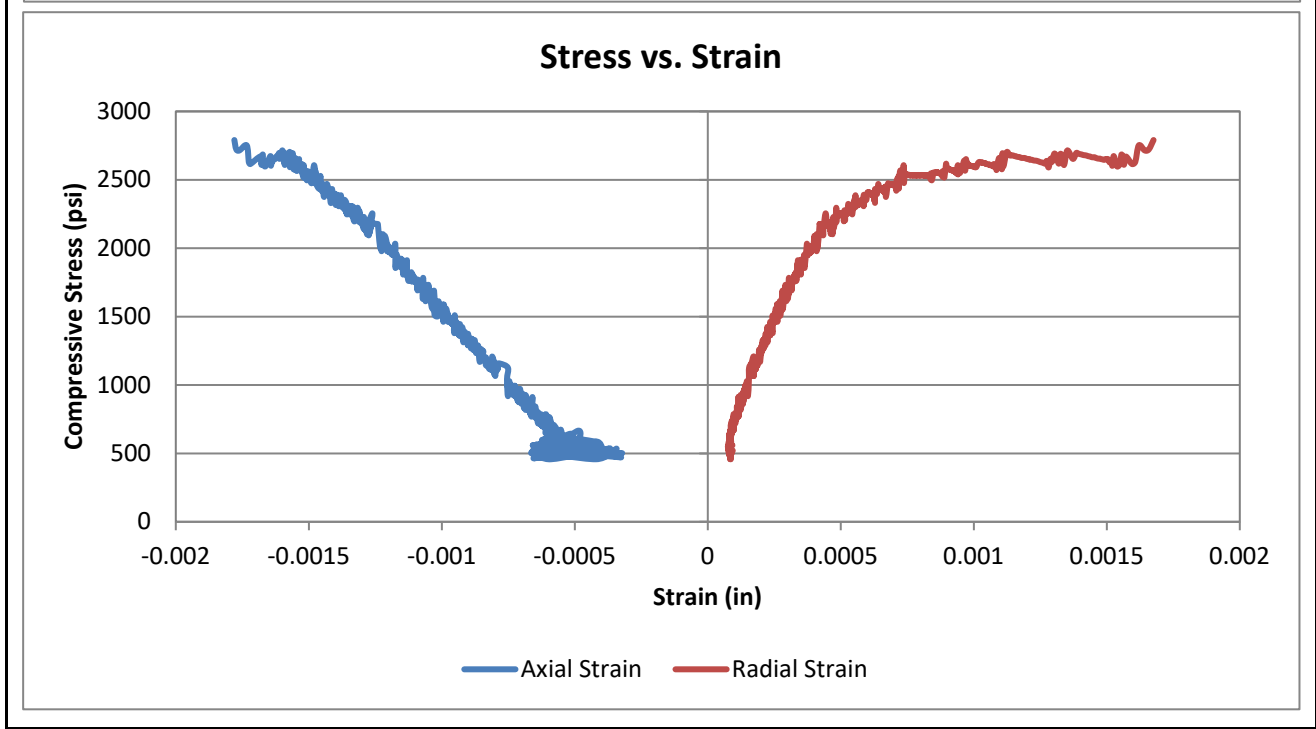
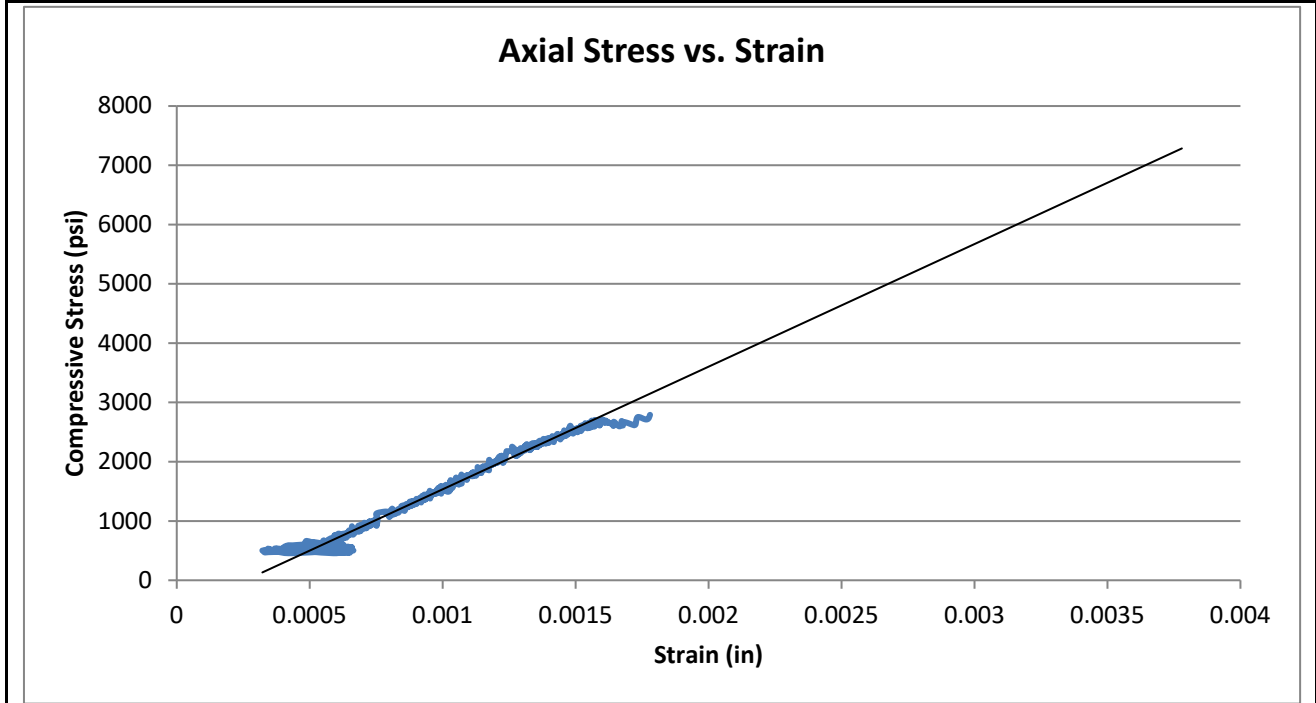


Test Results			
Unconfined Compressive Strength (psi)	2,790	Elastic Modulus (psi)	3.05E+06
		Poisson's Ratio in Elastic Range	0.26
Comments	Elastic range was taken as between 0.0008 and 0.0012 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



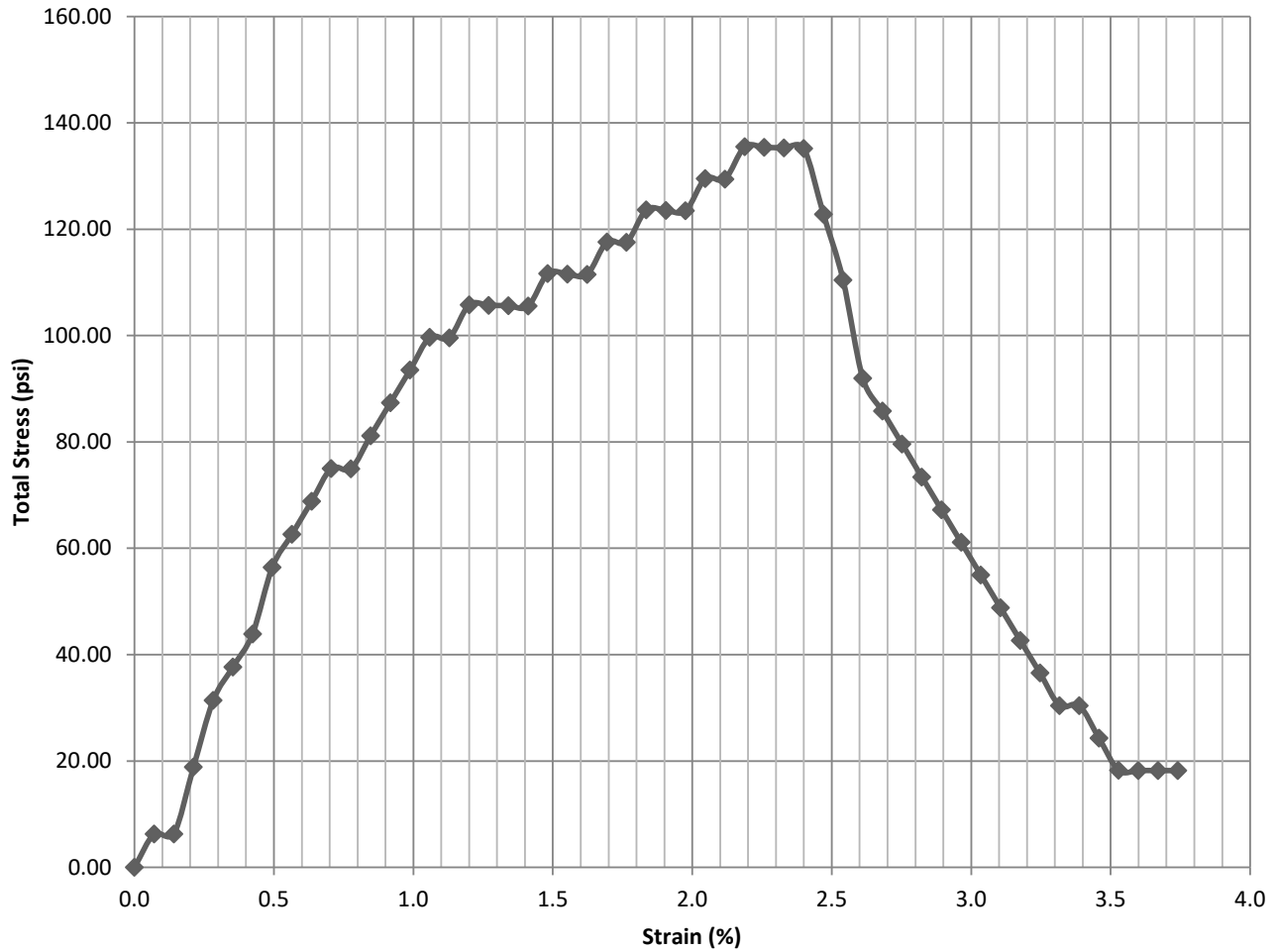
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.85	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.071	Reviewed By	WJG
Boring	B-6	Unit Weight (pcf)	149.3	Core Size	NQ
Sample No.	NQ-8 / 23-1094	L/D Ratio	2.20	Recovery	85%
Depth	74.0' - 74.3'	Load Rate (psi/sec)	10	RQD	55%
Description	Gray/Black/White Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1094



Average Initial Diameter (Do): 1.861 in.
 Average Initial Height (Lo): 4.251 in.
 Average Initial Area (Ao): 2.720 in²
 In-Situ Unit Weight: 109.5 pcf
 Failure Mode: Plastic Failure

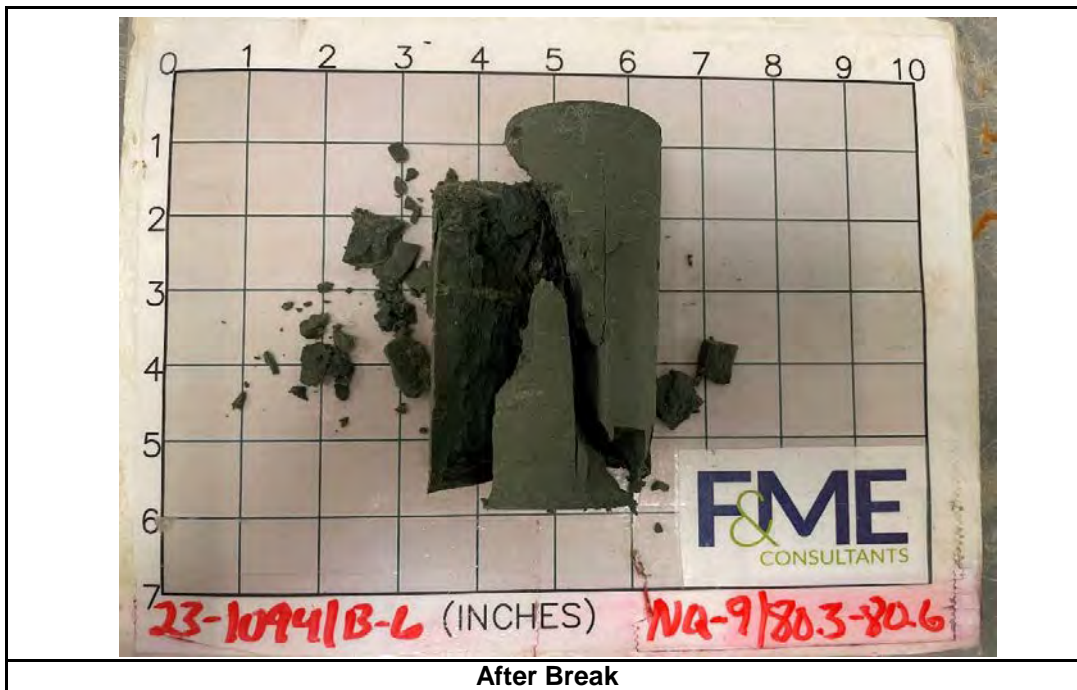
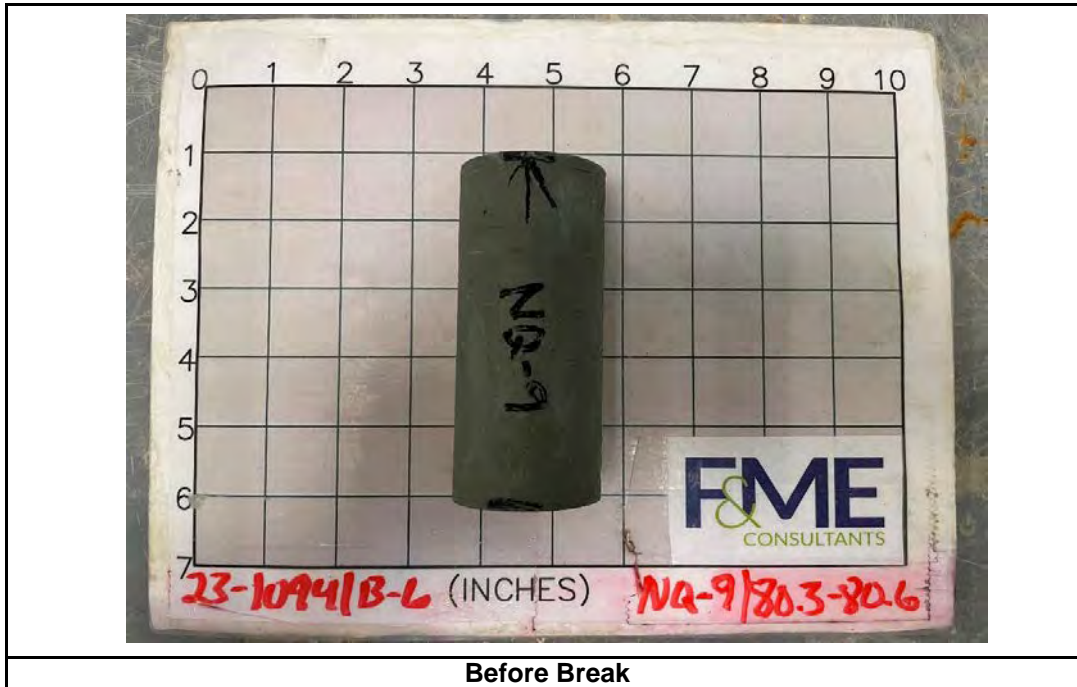
Sample Volume: 11.56 in³
 Sample Volume: 0.007 ft³
 Sample Weight: 0.733 lbs.
 L/D Ratio: 2.284

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN #
 Sample/Location B-6 / NQ-9
 Depth/Elevation 80.3' - 80.6'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 135 \text{ psi}$ $\epsilon_{ULT} = 2.2\%$

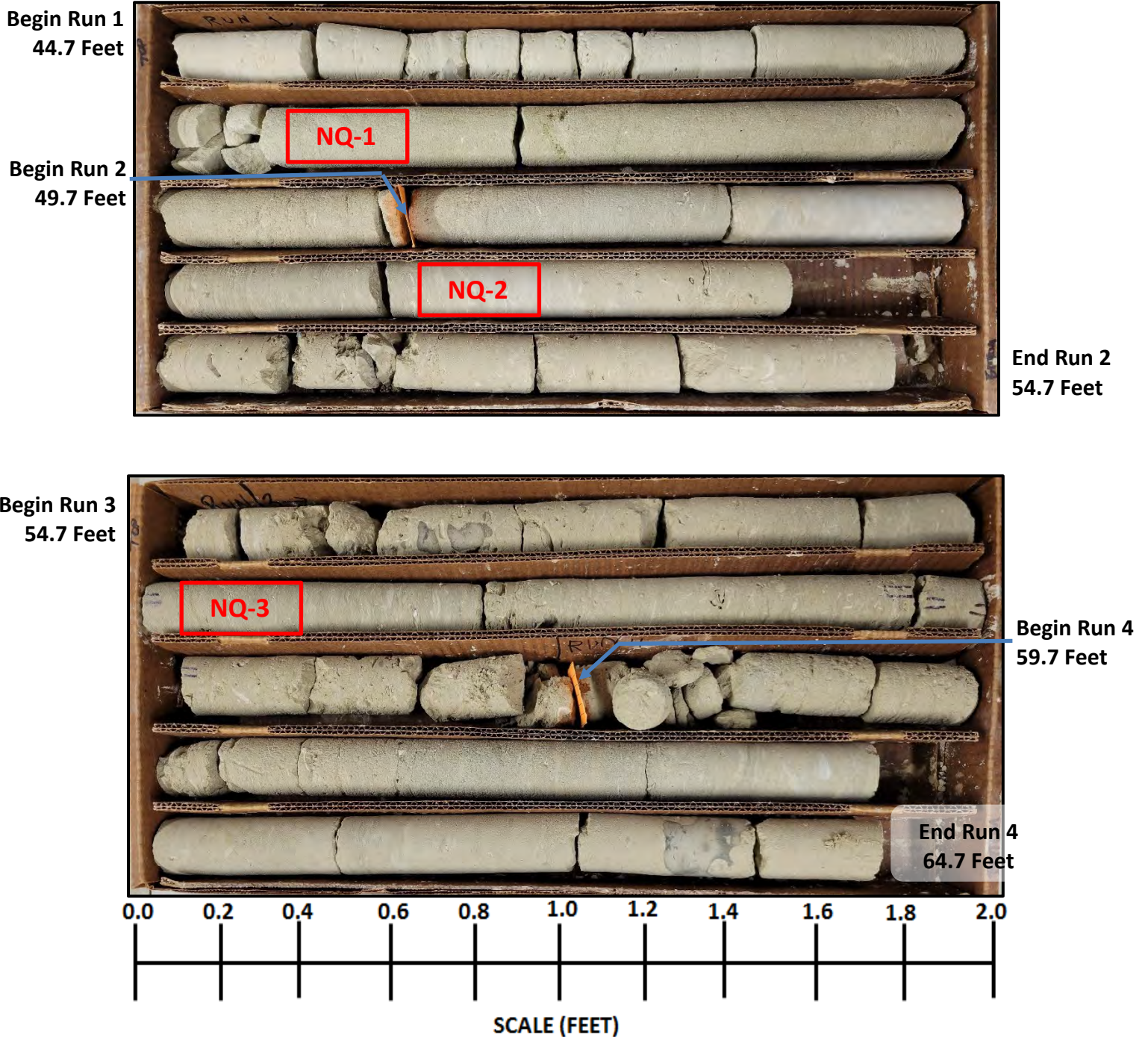


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1094
Sample Location:	B-6 / NQ-9	Depth of Sample:	80.3' - 80.6'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-8



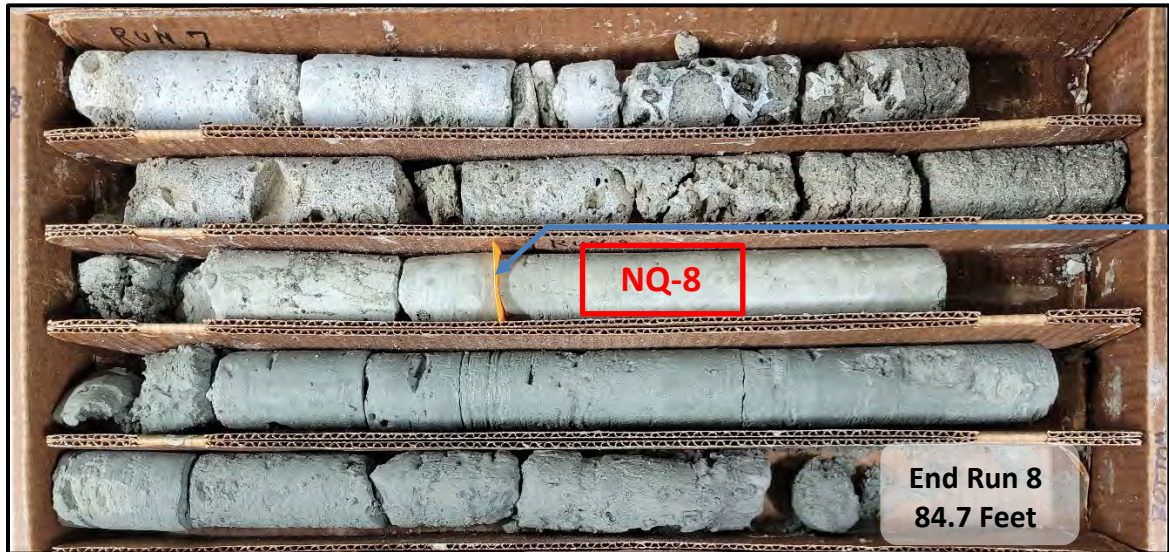
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-8

Begin Run 5
64.7 Feet

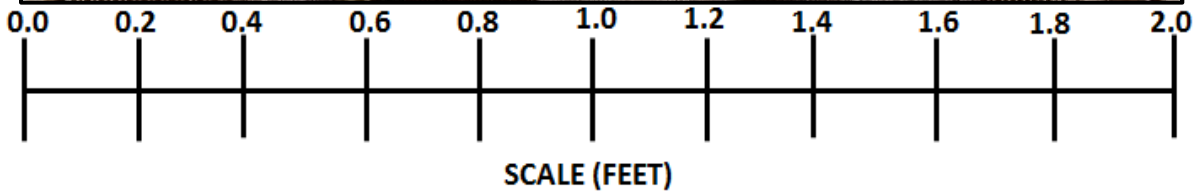


Begin Run 6
69.7 Feet

Begin Run 7
74.7 Feet

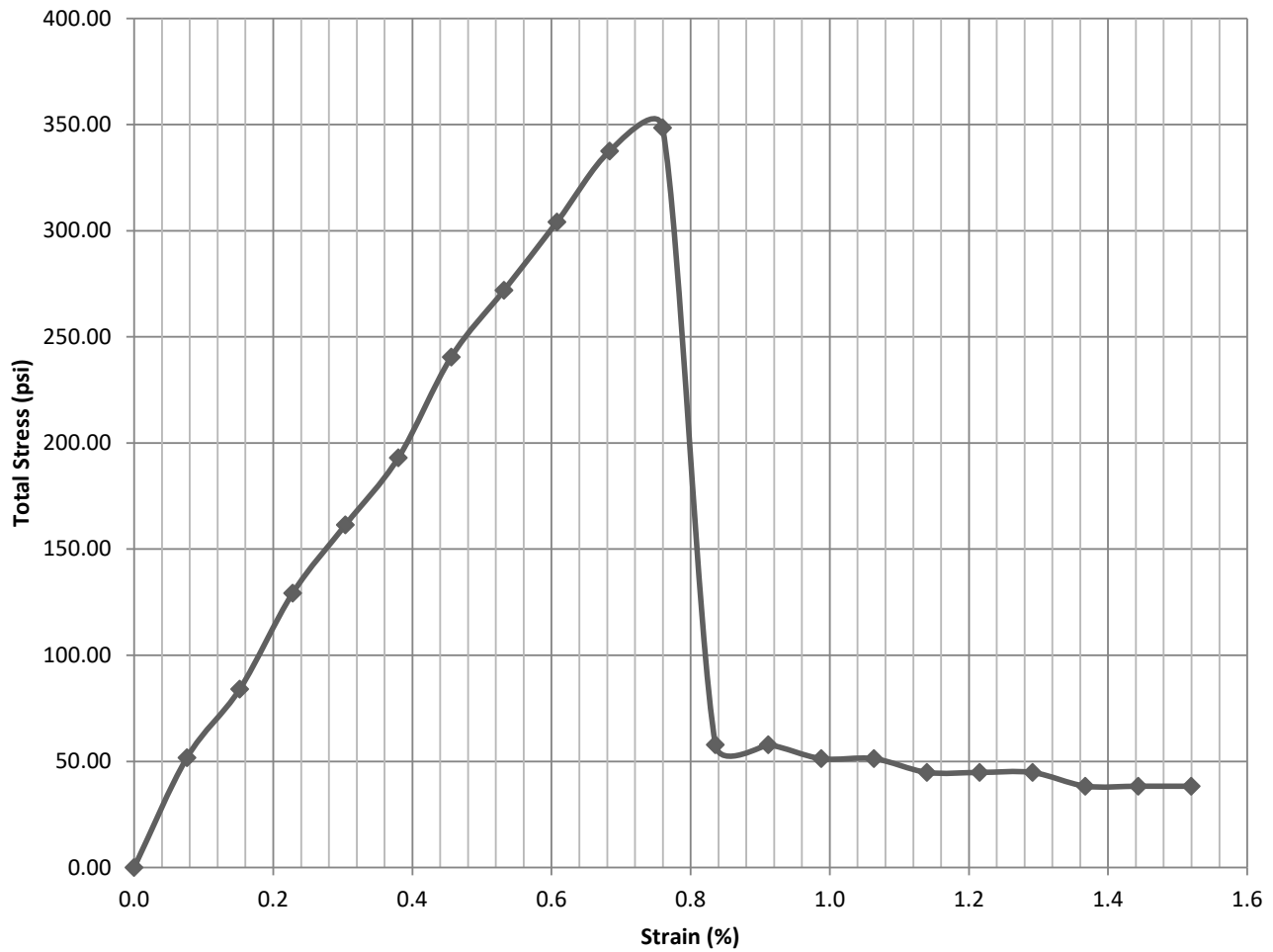


Begin Run 8
79.7 Feet



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0952



Average Initial Diameter (Do): 1.835 in.
 Average Initial Height (Lo): 3.949 in.
 Average Initial Area (Ao): 2.645 in²
 In-Situ Unit Weight: 114.2 pcf
 Failure Mode: Plastic Failure

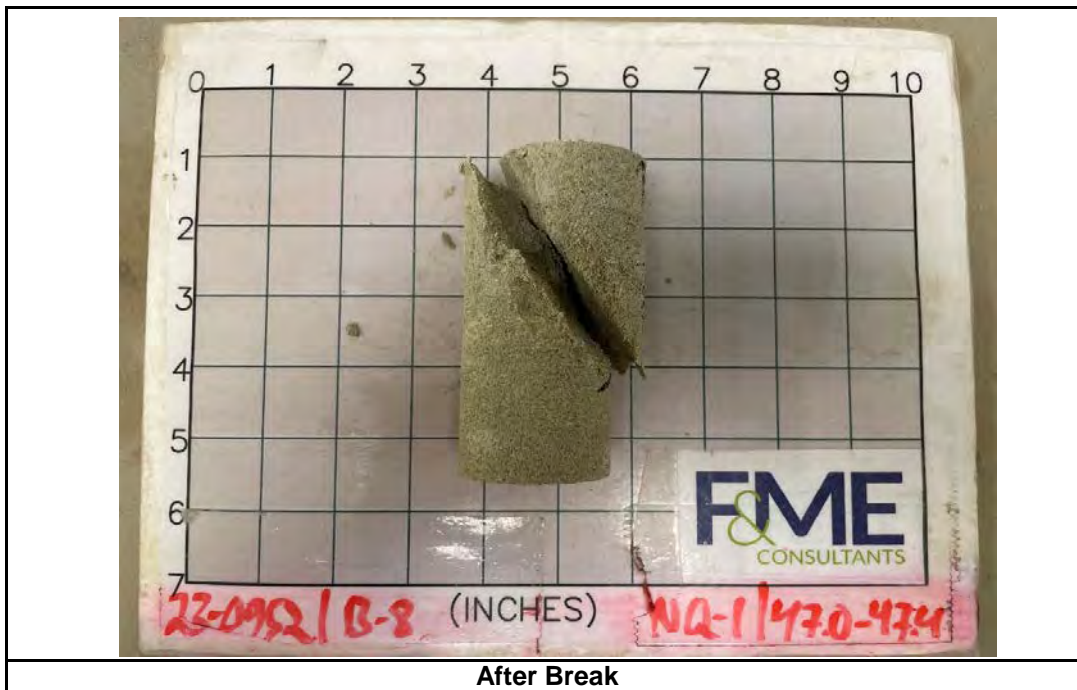
Sample Volume: 10.44 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.690 lbs.
 L/D Ratio: 2.152

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/9/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-8 / NQ-1
 Depth/Elevation 47.0' - 47.4'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 350 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



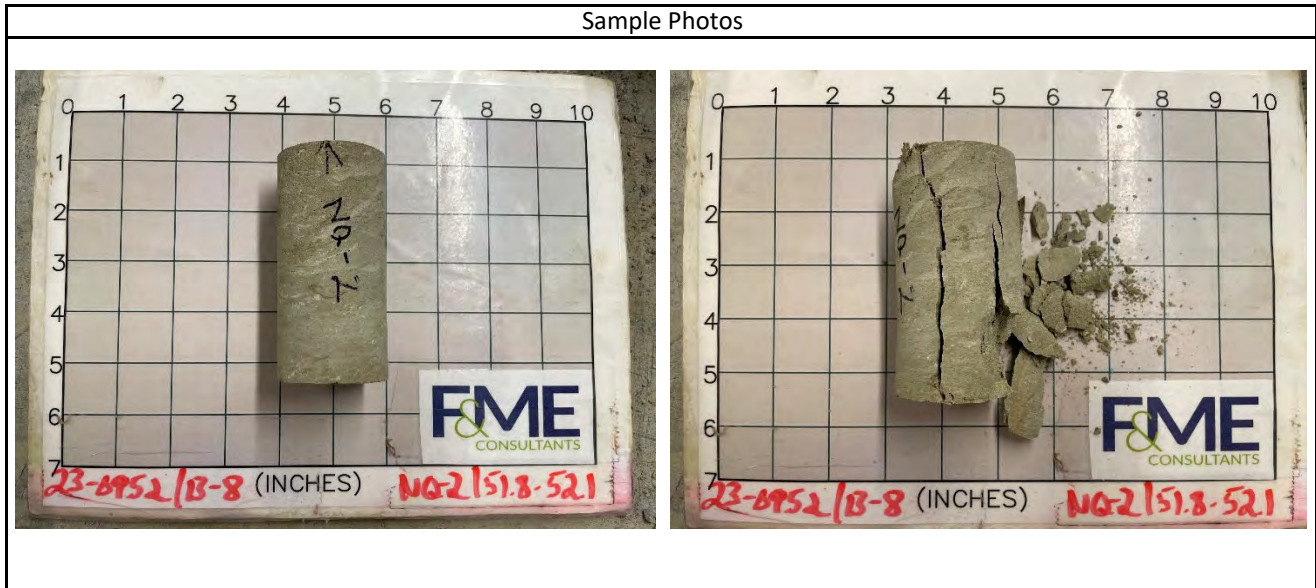
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0952
Sample Location:	B-8 / NQ-1	Depth of Sample:	47.0' - 47.4'
Tested By:	W. Pitts	Date Tested:	5/9/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.853	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.967	Reviewed By	WJG
Boring	B-8	Unit Weight (pcf)	147.5	Core Size	NQ
Sample No.	NQ-2 / 23-0952	L/D Ratio	2.14	Recovery	96%
Depth	51.8' - 52.1'	Load Rate (psi/sec)	10	RQD	83%
Description	Gray/Brown/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-568	118	1,725	640	2.25	0.21
30%	-889	208	2,674	992	2.23	0.23
40%	-1203	305	3,591	1,332	2.21	0.25
50%	-1553	418	4,472	1,658	2.13	0.27
60%	-1859	515	5,384	1,996	2.15	0.28
70%	-2201	639	6,259	2,321	2.11	0.29
80%	-2640	840	7,171	2,659	2.01	0.32
90%	-3191	1108	8,050	2,985	1.87	0.35
100%	-3667	1335	8,926	3,310		

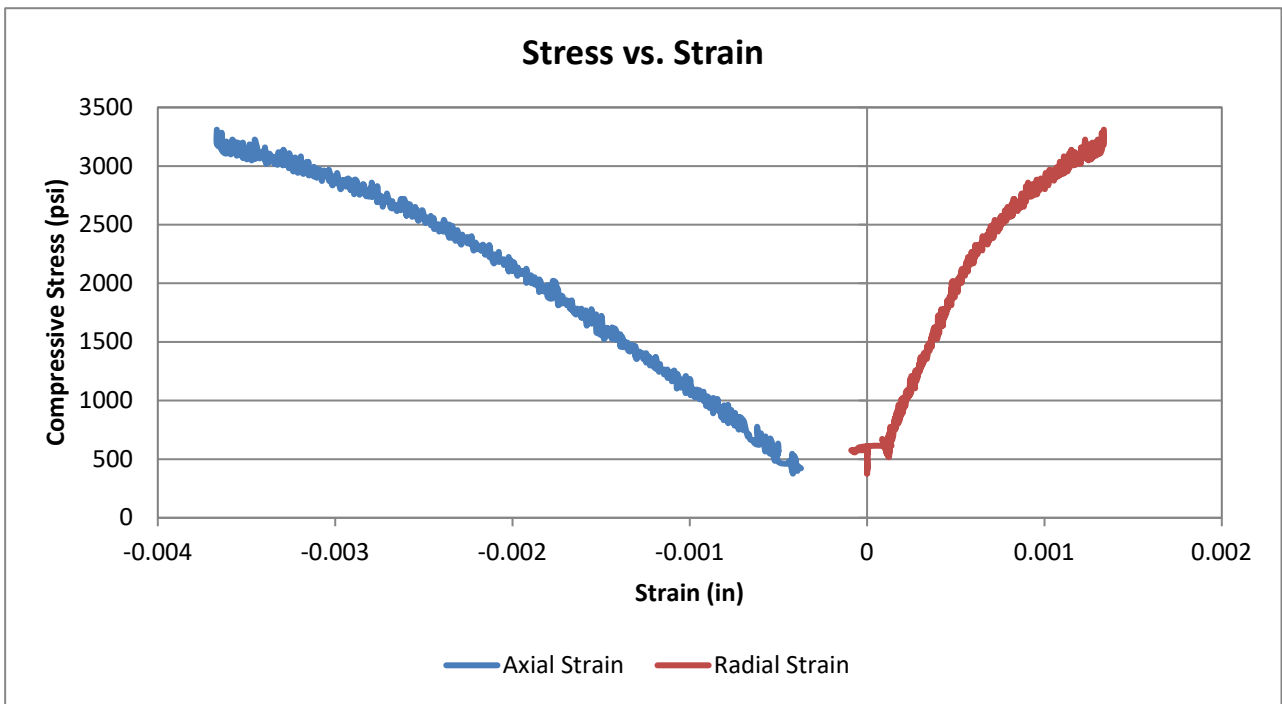
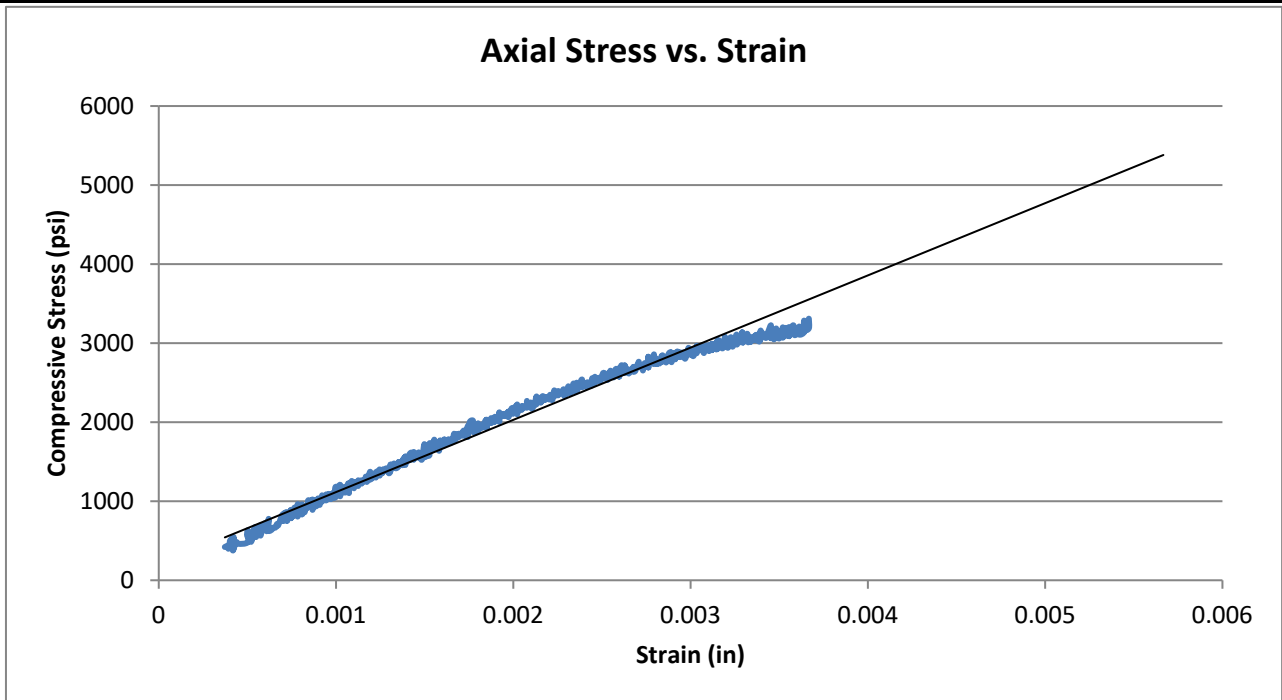


Test Results			
Unconfined Compressive Strength (psi)	3,310	Elastic Modulus (psi)	2.17E+06
		Poisson's Ratio in Elastic Range	0.26
Comments	Elastic range was taken as between 0.001 and 0.002 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



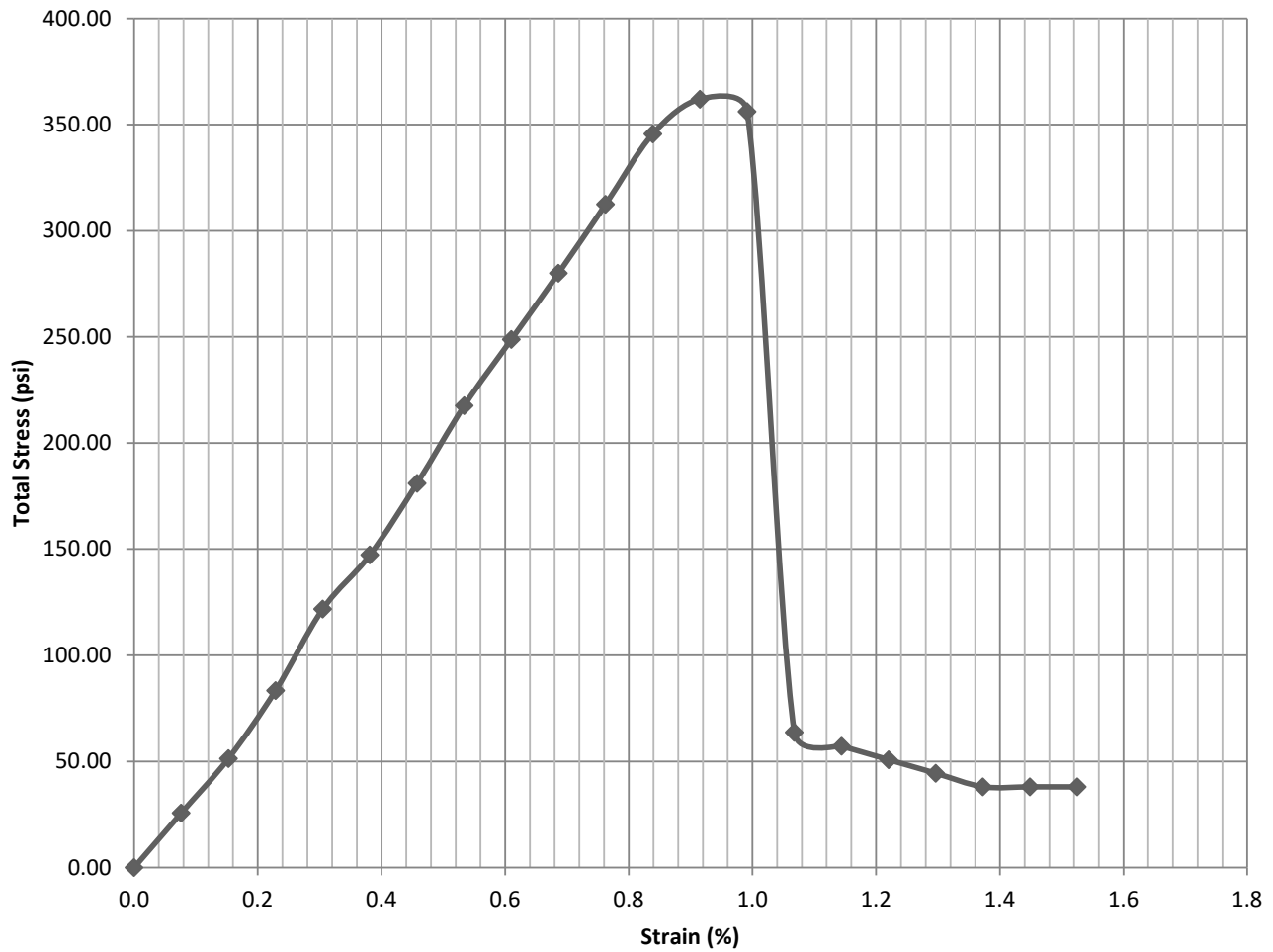
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.853	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.967	Reviewed By	WJG
Boring	B-8	Unit Weight (pcf)	147.5	Core Size	NQ
Sample No.	NQ-2 / 23-0952	L/D Ratio	2.14	Recovery	96%
Depth	51.8' - 52.1'	Load Rate (psi/sec)	10	RQD	83%
Description	Gray/Brown/White Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0952



Average Initial Diameter (Do): 1.842 in.
 Average Initial Height (Lo): 3.934 in.
 Average Initial Area (Ao): 2.665 in²
 In-Situ Unit Weight: 118.6 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.48 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.720 lbs.
 L/D Ratio: 2.136

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/9/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-8 / NQ-3
 Depth/Elevation 56.8' - 57.1'

Sample Type : Soil Core
 Target Strain Rate : 0.60% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 360 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



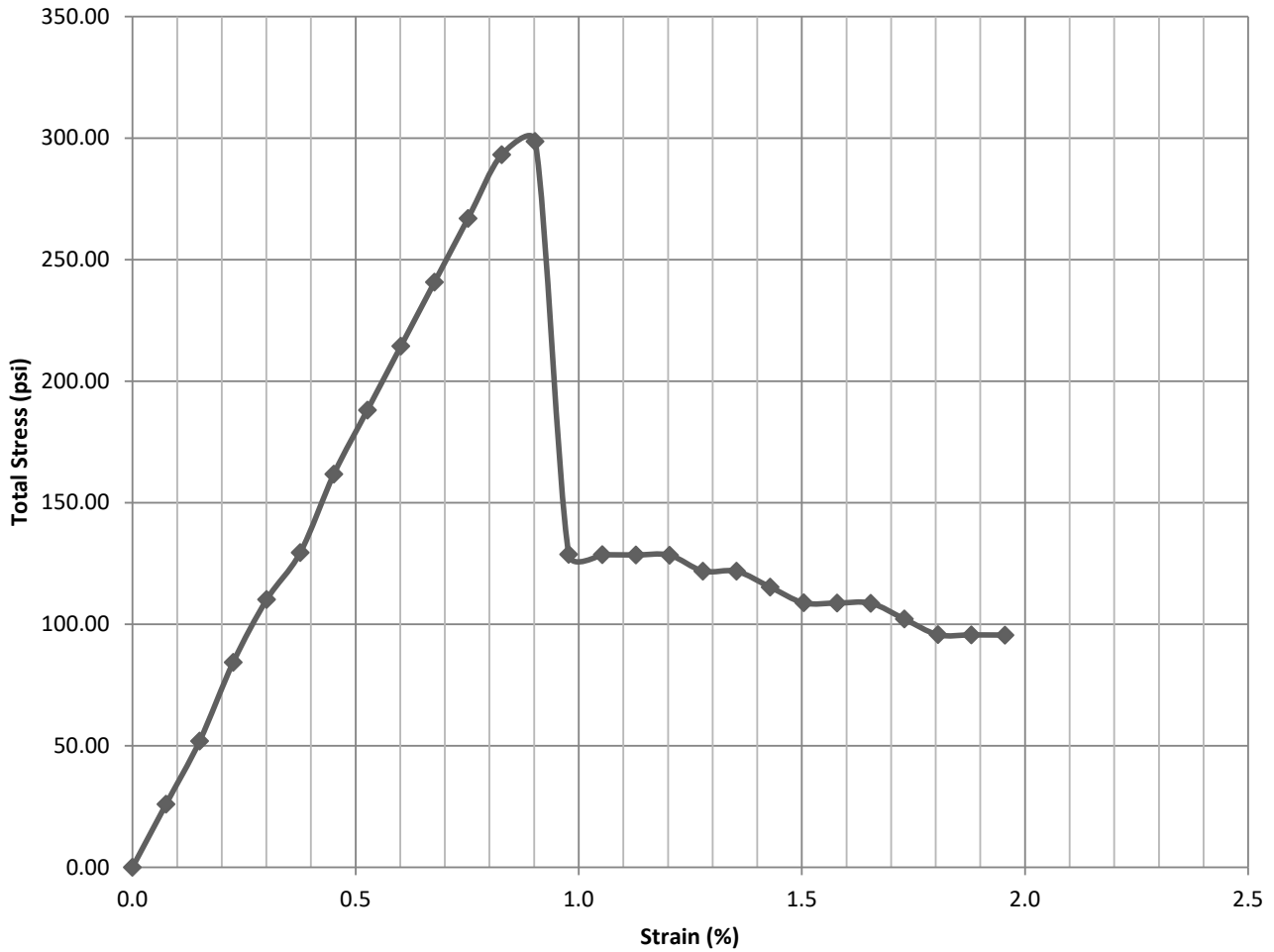
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0952
Sample Location:	B-8 / NQ-3	Depth of Sample:	56.8' - 57.1'
Tested By:	W. Pitts	Date Tested:	5/9/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0952



Average Initial Diameter (Do): 1.832 in.
 Average Initial Height (Lo): 3.989 in.
 Average Initial Area (Ao): 2.636 in²
 In-Situ Unit Weight: 116.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.51 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.708 lbs.
 L/D Ratio: 2.177

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/9/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-8 / NQ-6
 Depth/Elevation 70.2' - 70.5'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 300 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



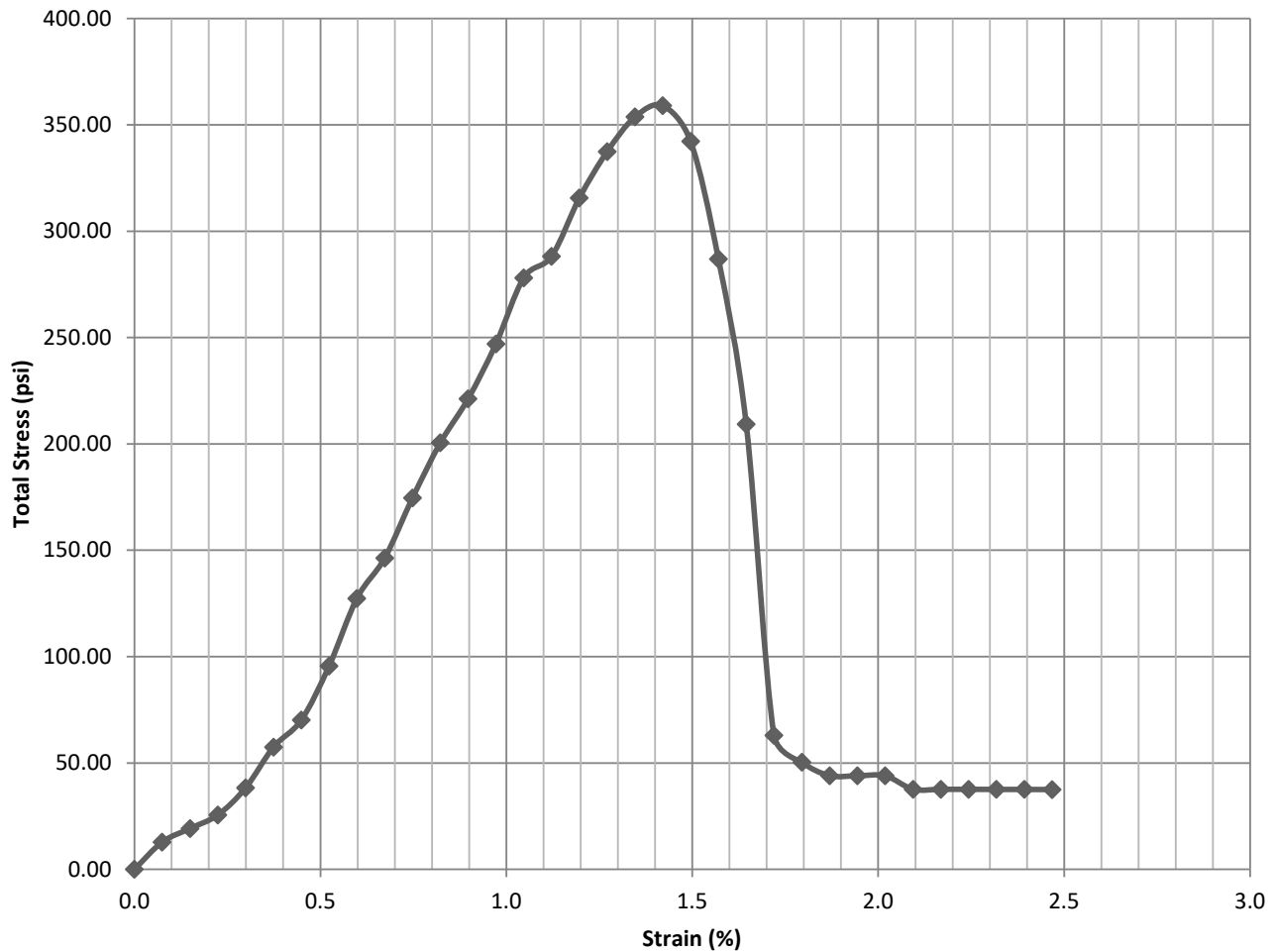
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0952
Sample Location:	B-8 / NQ-6	Depth of Sample:	70.2' - 70.5'
Tested By:	W. Pitts	Date Tested:	5/9/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0952



Average Initial Diameter (Do): 1.845 in.
 Average Initial Height (Lo): 4.012 in.
 Average Initial Area (Ao): 2.674 in²
 In-Situ Unit Weight: 138.7 pcf
 Failure Mode: Plastic Failure

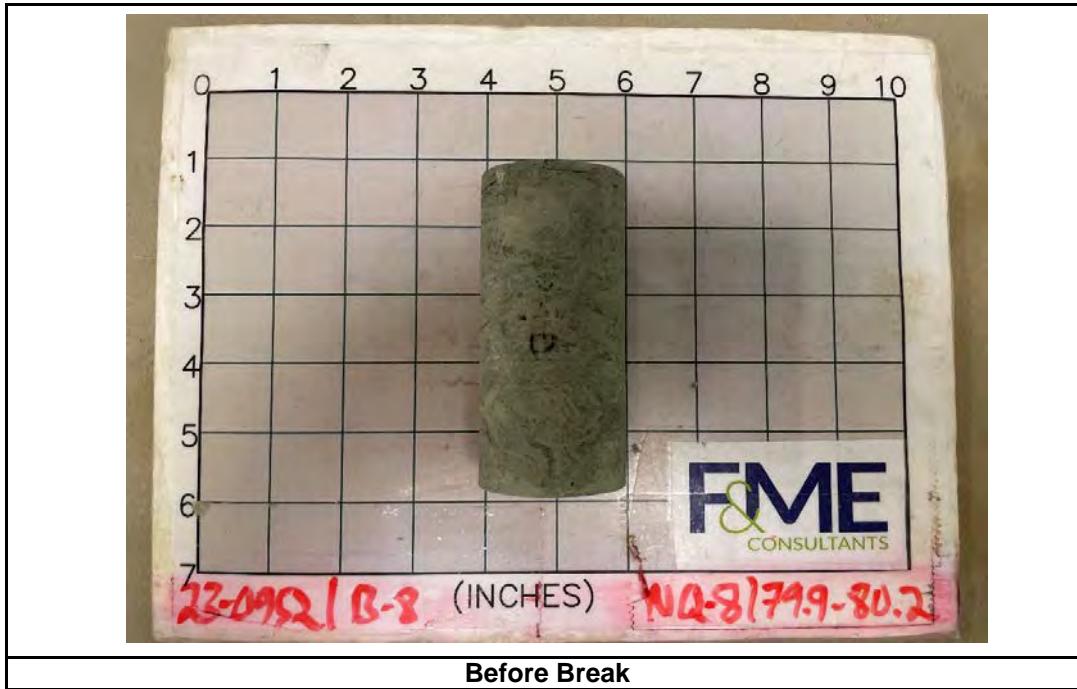
Sample Volume: 10.73 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.861 lbs.
 L/D Ratio: 2.175

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/9/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-8 / NQ-8
 Depth/Elevation 79.9' - 80.2'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 360 \text{ psi}$ $\epsilon_{ULT} = 1.4\%$

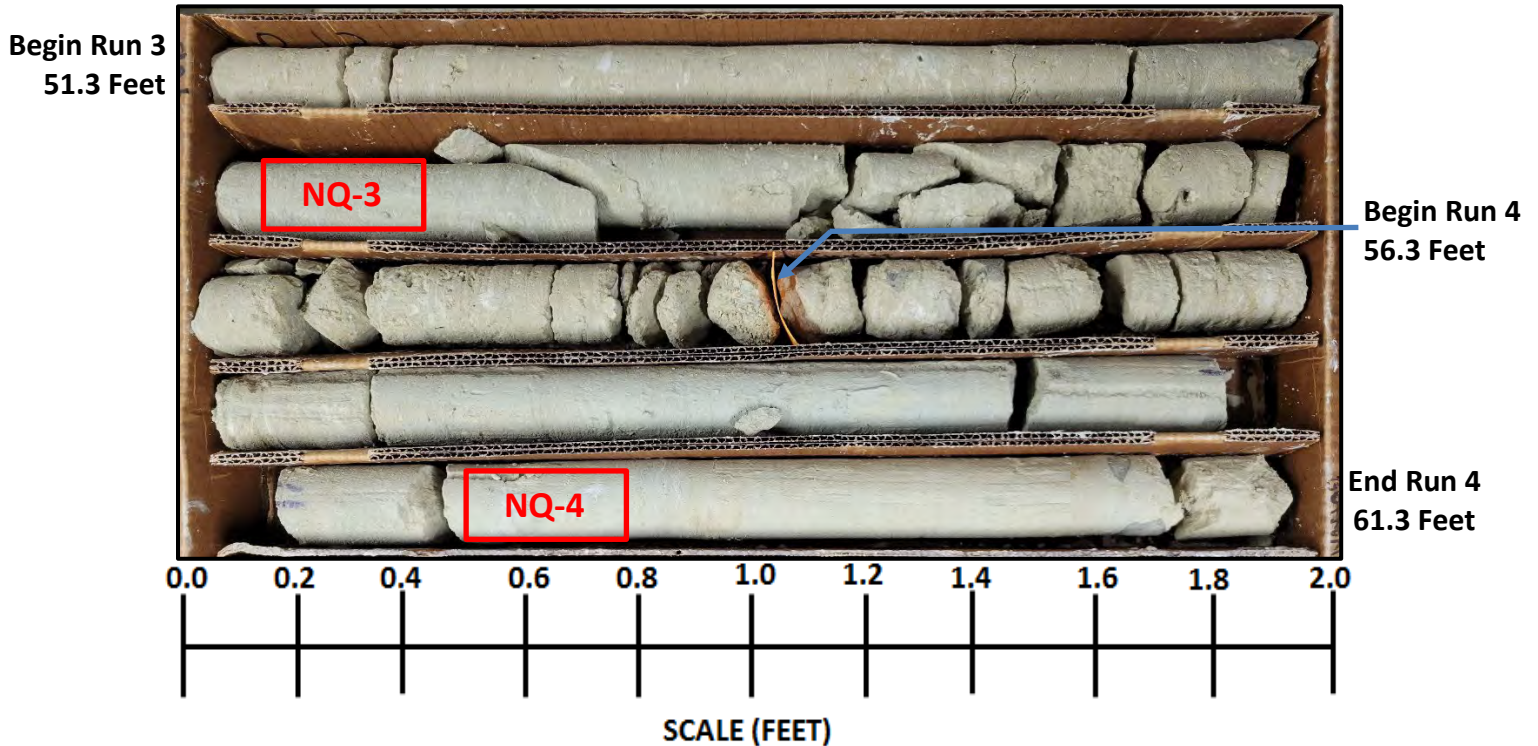


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0952
Sample Location:	B-8 / NQ-8	Depth of Sample:	79.9' - 80.2'
Tested By:	W. Pitts	Date Tested:	5/9/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-9



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-9

Begin Run 5
61.3 Feet



Begin Run 6
66.3 Feet

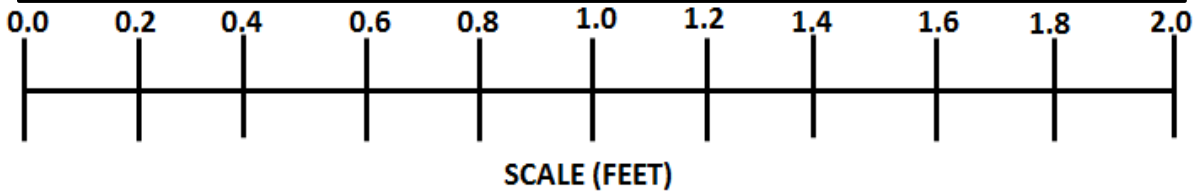
End Run 6
71.3 Feet

Begin Run 7
71.3 Feet

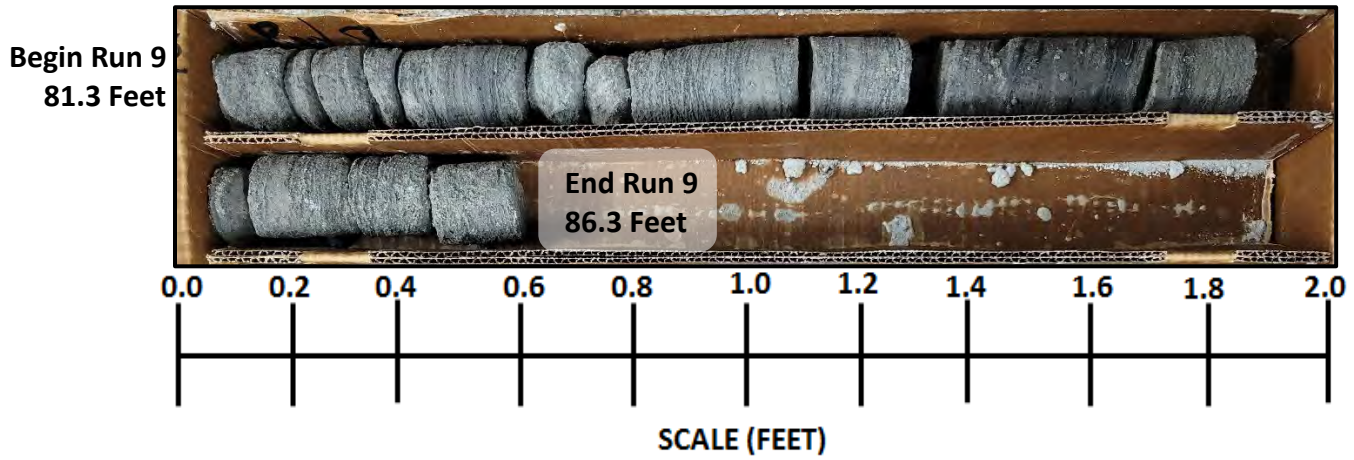
Begin Run 8
76.3 Feet



End Run 8
81.3 Feet

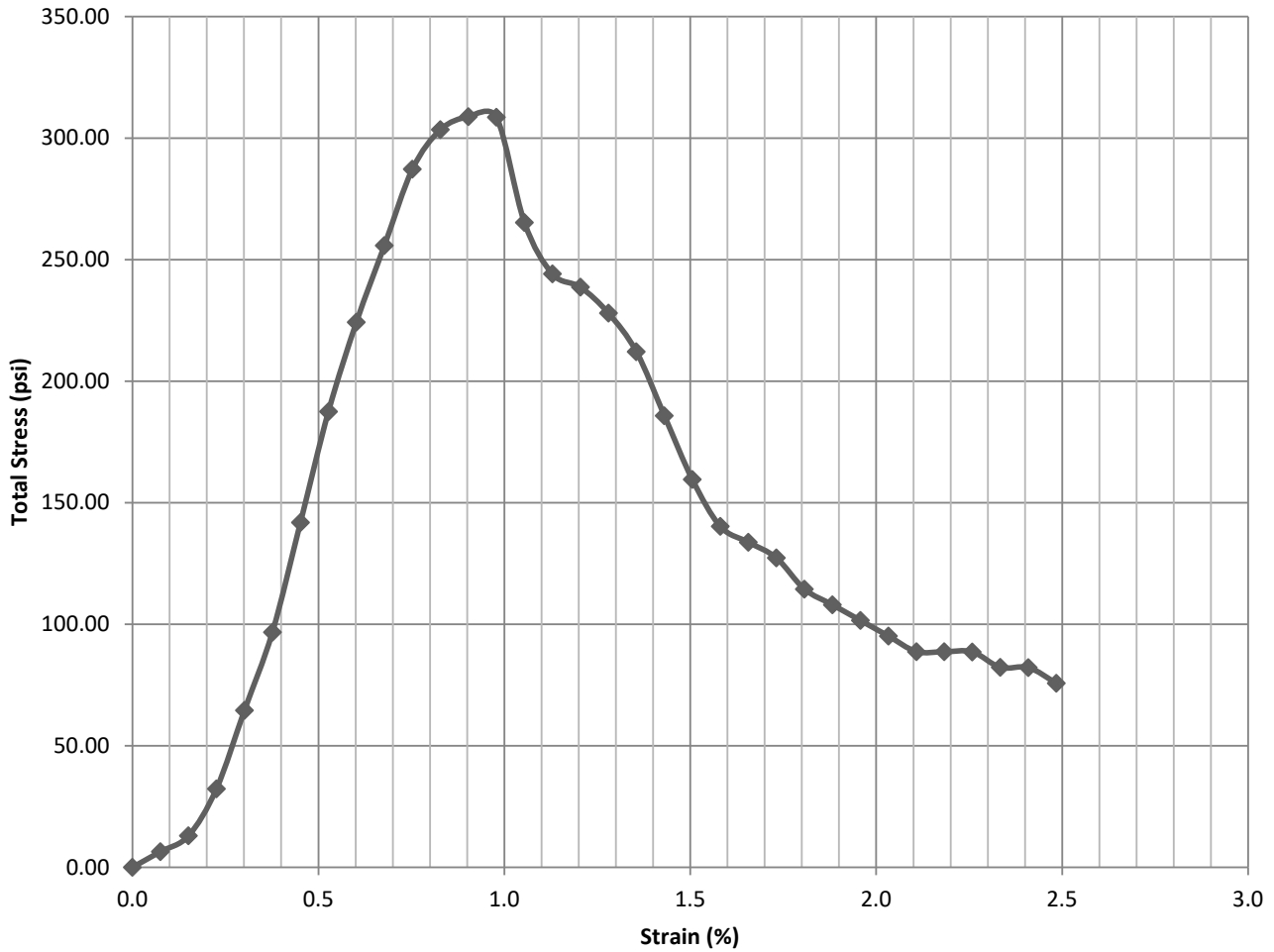


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-9



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1831



Average Initial Diameter (Do): 1.835 in.
 Average Initial Height (Lo): 3.985 in.
 Average Initial Area (Ao): 2.645 in²
 In-Situ Unit Weight: 119.1 pcf
 Failure Mode: Plastic Failure

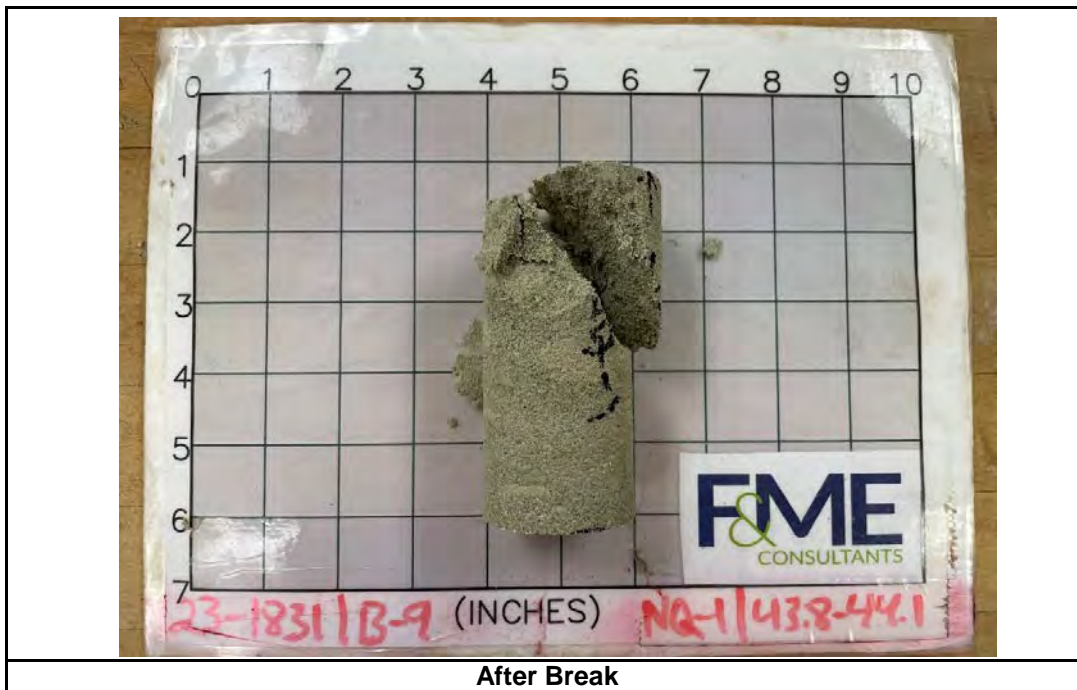
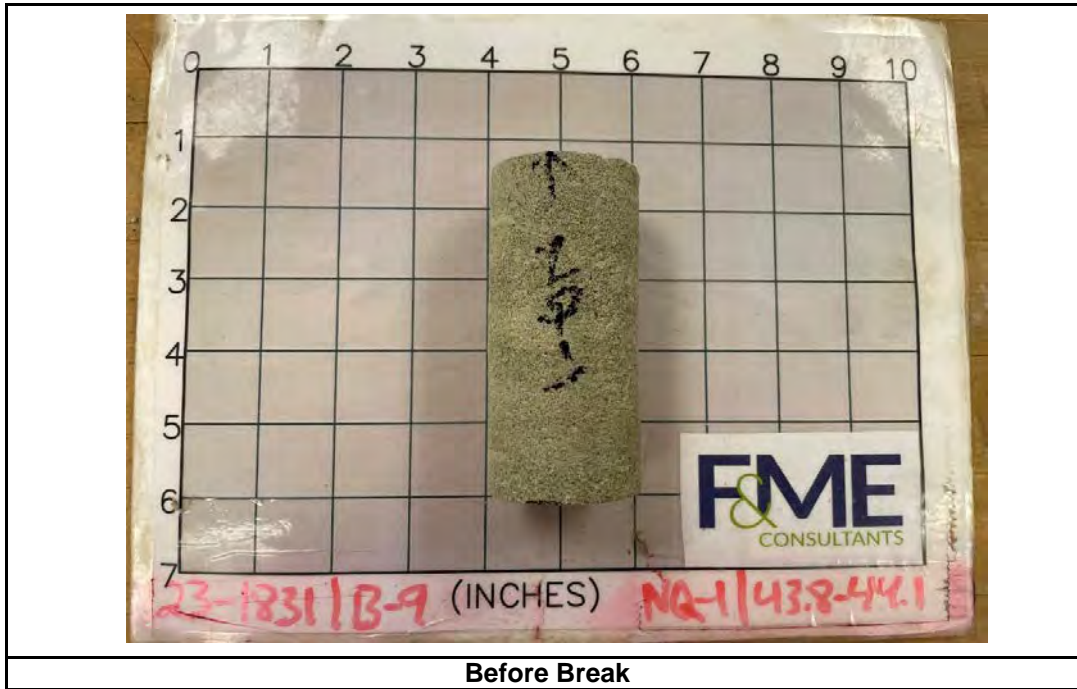
Sample Volume: 10.54 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.726 lbs.
 L/D Ratio: 2.172

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-9 / NQ-1
 Depth/Elevation 43.8' - 44.1'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 310 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



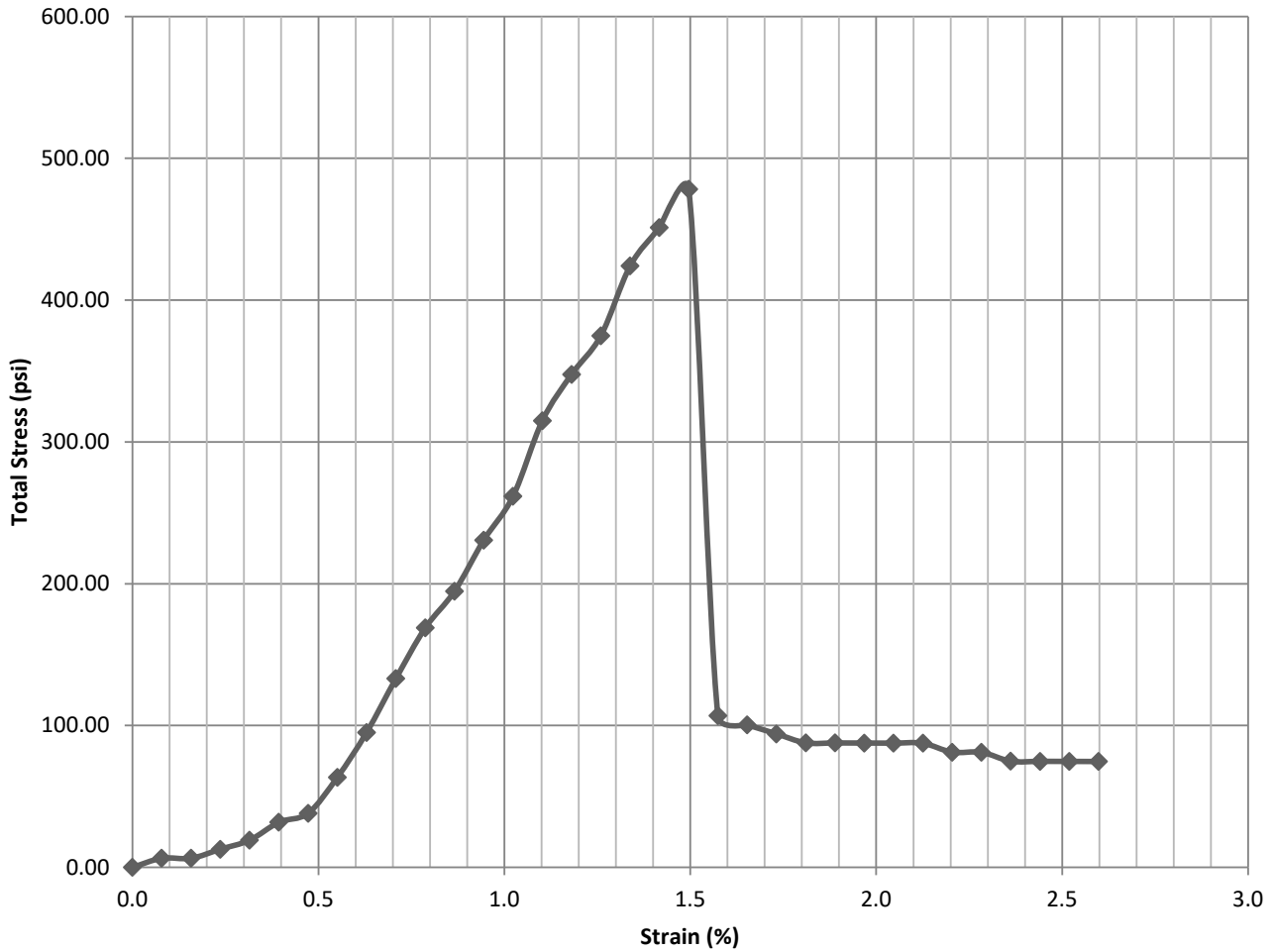
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1831
Sample Location:	B-9 / NQ-1	Depth of Sample:	43.8' - 44.1'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1831



Average Initial Diameter (Do): 1.848 in.
 Average Initial Height (Lo): 3.811 in.
 Average Initial Area (Ao): 2.682 in²
 In-Situ Unit Weight: 120.5 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.22 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.713 lbs.
 L/D Ratio: 2.062

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN #
 Sample/Location B-9 / NQ-3
 Depth/Elevation 53.4' - 53.7'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 480 \text{ psi}$ $\epsilon_{ULT} = 1.5\%$



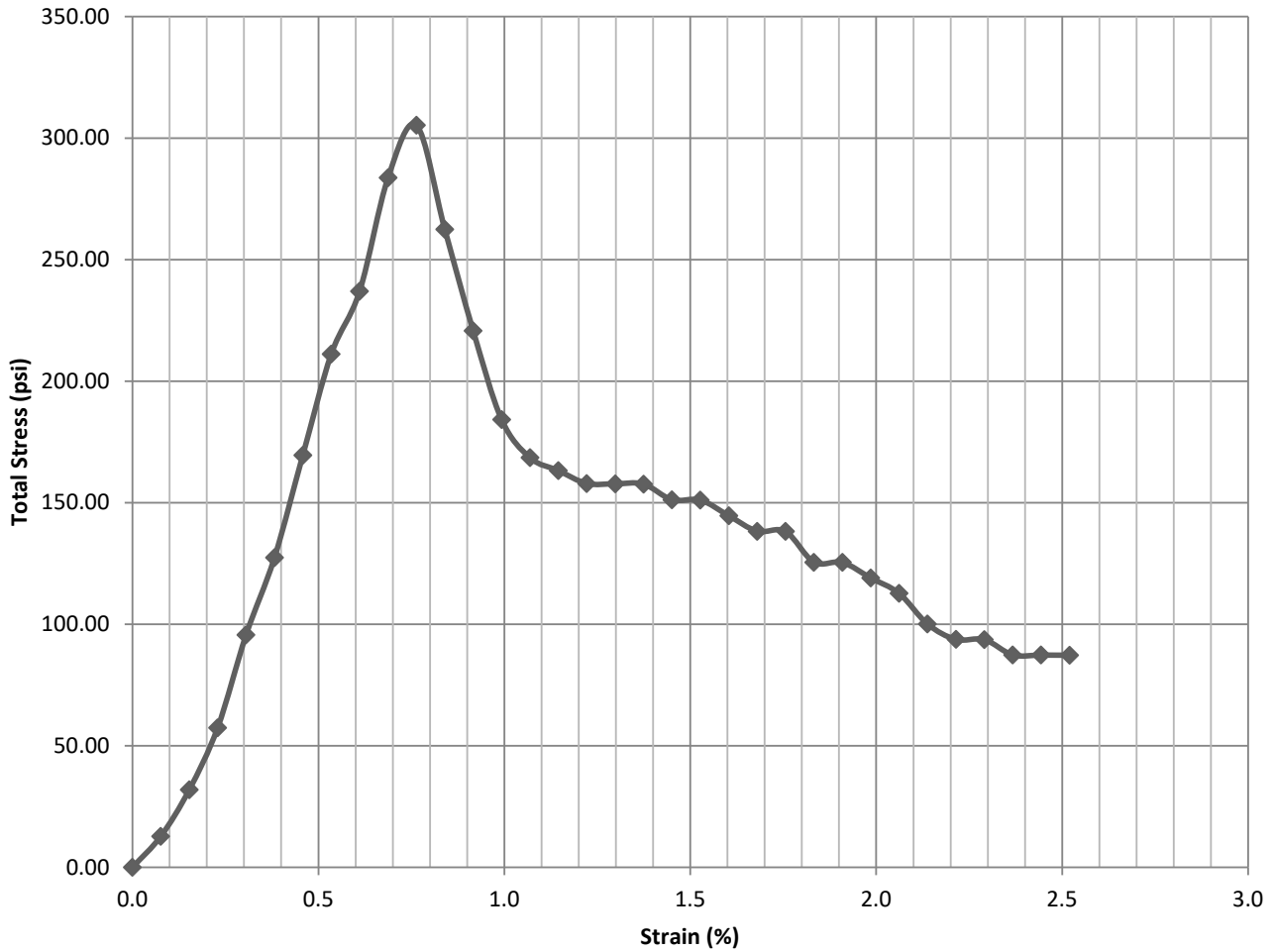
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1831
Sample Location:	B-9 / NQ-3	Depth of Sample:	53.4' - 53.7'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1831



Average Initial Diameter (Do): 1.847 in.
 Average Initial Height (Lo): 3.929 in.
 Average Initial Area (Ao): 2.679 in²
 In-Situ Unit Weight: 121.7 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.53 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.741 lbs.
 L/D Ratio: 2.127

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-9 / NQ-4
 Depth/Elevation 59.7' - 60.1'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 305 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



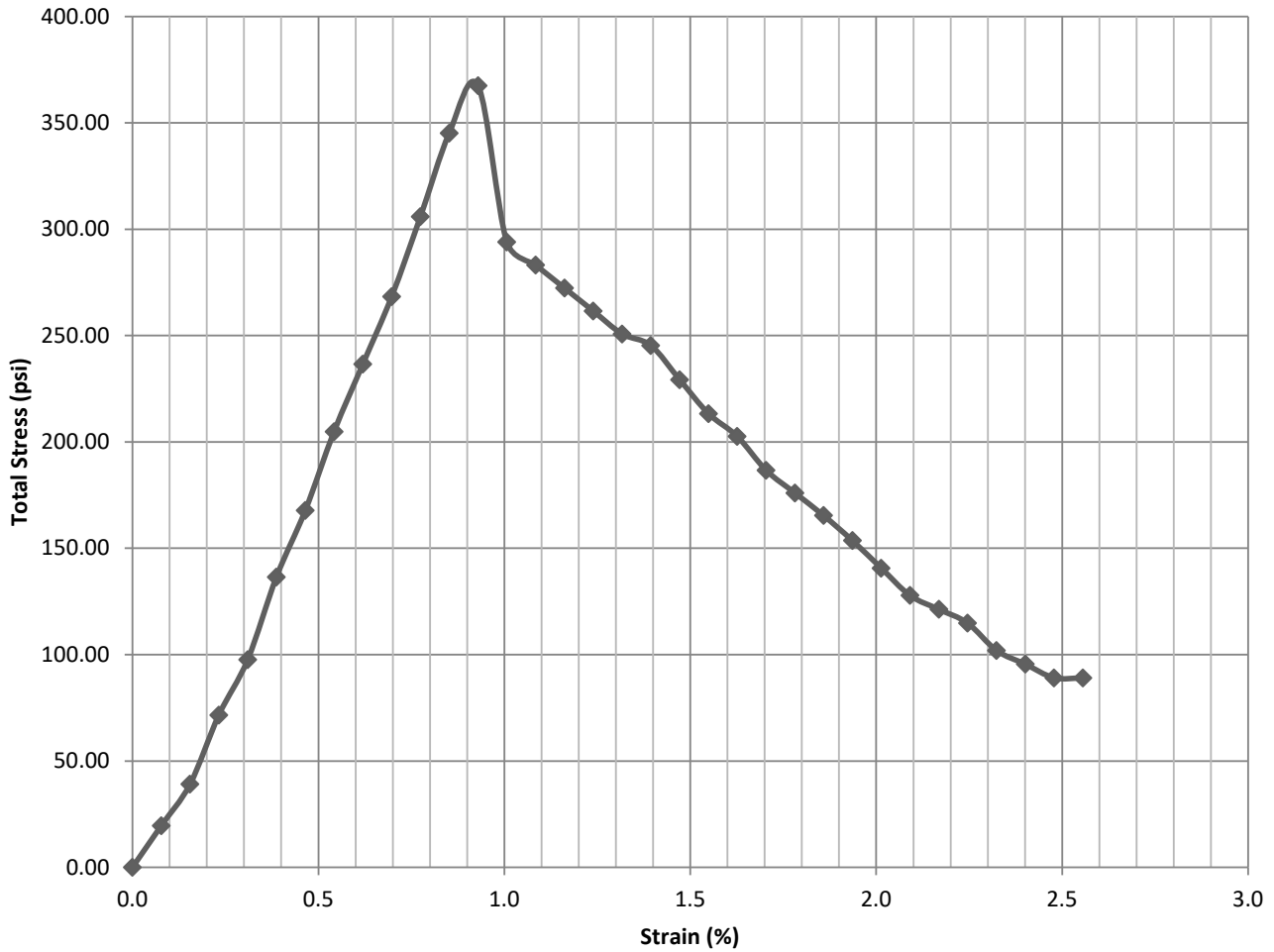
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1831
Sample Location:	B-9 / NQ-4	Depth of Sample:	59.7' - 60.1'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1831



Average Initial Diameter (Do): 1.828 in.
 Average Initial Height (Lo): 3.874 in.
 Average Initial Area (Ao): 2.624 in²
 In-Situ Unit Weight: 121.9 pcf
 Failure Mode: Plastic Failure

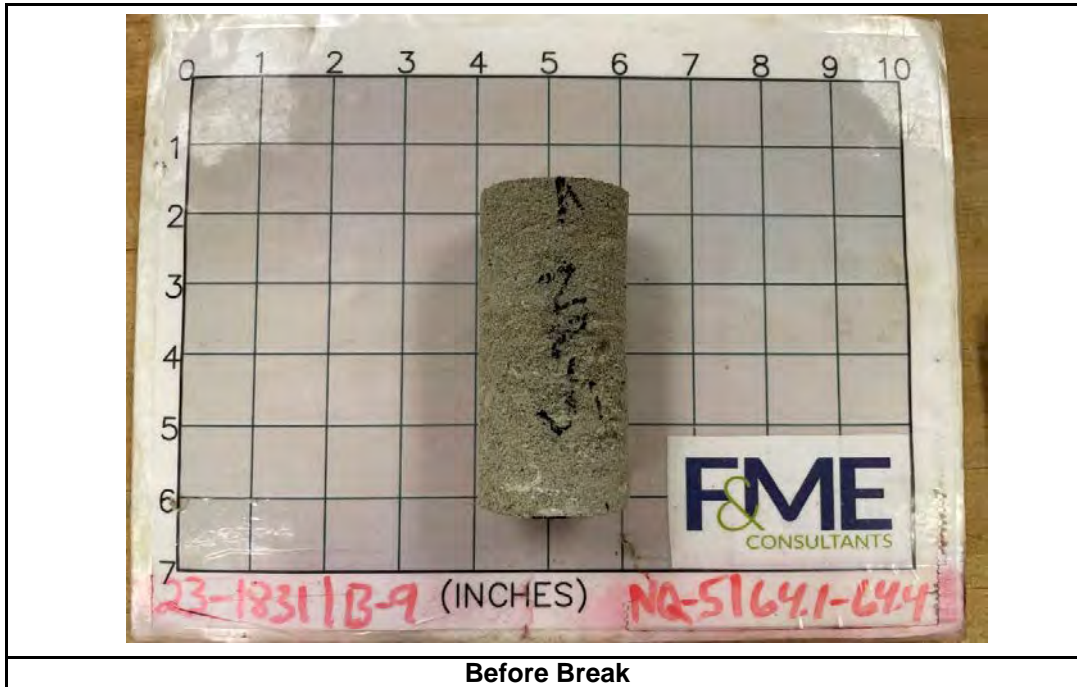
Sample Volume: 10.17 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.717 lbs.
 L/D Ratio: 2.119

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-9 / NQ-5
 Depth/Elevation 64.1' - 64.4'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 370 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



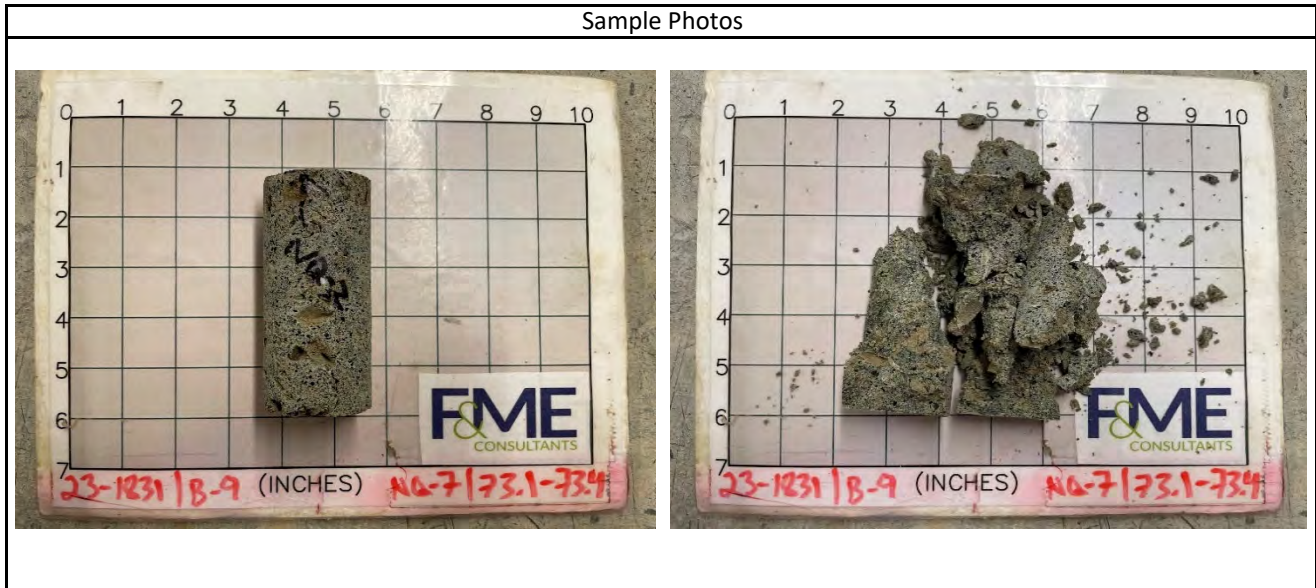
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1831
Sample Location:	B-9 / NQ-5	Depth of Sample:	64.1' - 64.4'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.858	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.056	Reviewed By	WJG
Boring	B-9	Unit Weight (pcf)	145.5	Core Size	NQ
Sample No.	NQ-7 / 23-1831A	L/D Ratio	2.18	Recovery	73%
Depth	73.1' - 73.4'	Load Rate (psi/sec)	10	RQD	43%
Description	Gray/Black/Brown Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-234	9	1,099	405	3.47	-0.04
30%	-330	32	1,655	610	3.70	-0.10
40%	-535	47	2,186	806	3.01	-0.09
50%	-710	54	2,733	1,008	2.84	-0.08
60%	-922	25	3,291	1,214	2.63	-0.03
70%	-1142	22	3,833	1,414	2.47	-0.02
80%	-1391	-10	4,358	1,607	2.31	0.01
90%	-1807	-239	4,925	1,816	2.01	0.13
100%	-2119	-467	5,472	2,018		

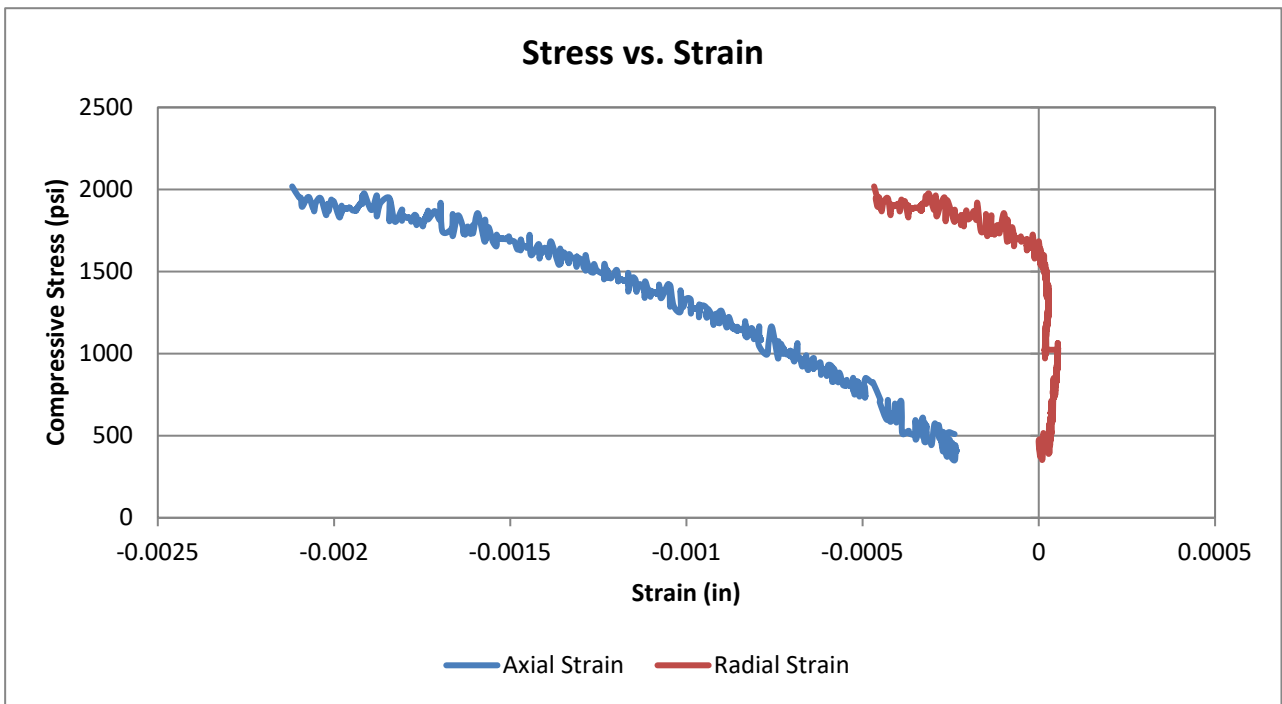
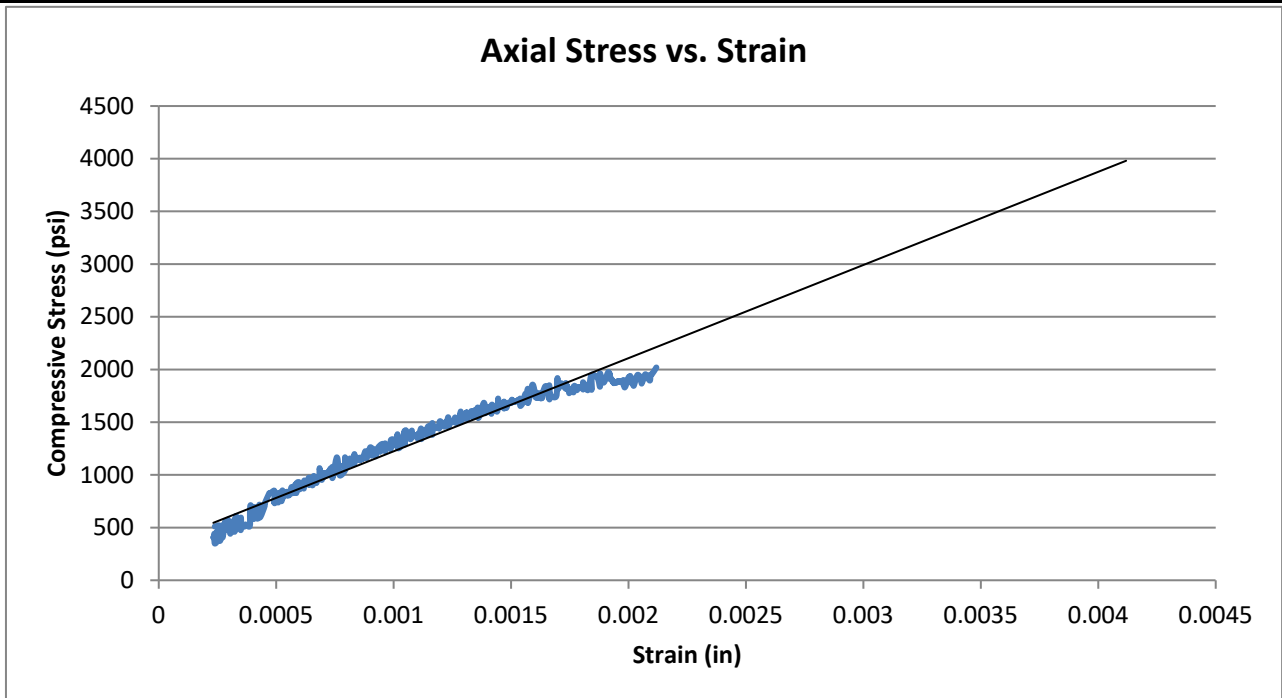


Test Results			
Unconfined Compressive Strength (psi)	2,020	Elastic Modulus (psi)	2.65E+06
		Poisson's Ratio in Elastic Range	N/A
Comments	Elastic range was taken as between 0.0005 and 0.0015 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range. Lateral strain data does not appear reasonable. As such, Poisson's Ratio data is not presented.		



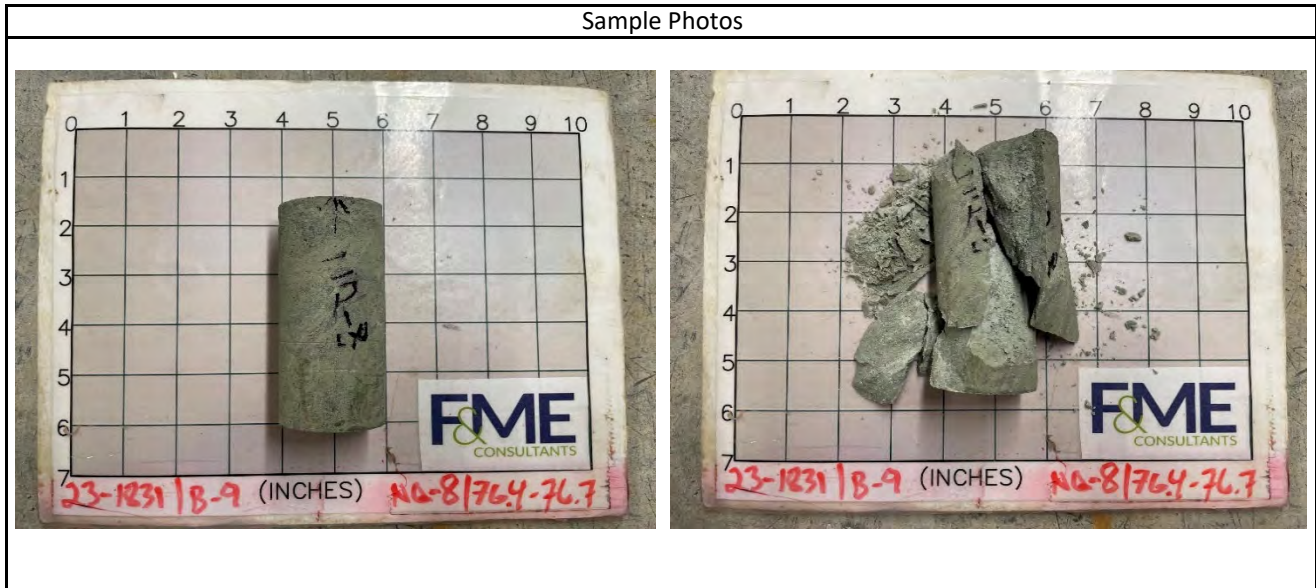
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.858	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.056	Reviewed By	WJG
Boring	B-9	Unit Weight (pcf)	145.5	Core Size	NQ
Sample No.	NQ-7 / 23-1831A	L/D Ratio	2.18	Recovery	73%
Depth	73.1' - 73.4'	Load Rate (psi/sec)	10	RQD	43%
Description	Gray/Black/Brown Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.861	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.914	Reviewed By	WJG
Boring	B-9	Unit Weight (pcf)	145.9	Core Size	NQ
Sample No.	NQ-8 / 23-1831B	L/D Ratio	2.10	Recovery	98%
Depth	76.4' - 76.7'	Load Rate (psi/sec)	10	RQD	68%
Description	Brown/Gray/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%	-1471	218	887	326	0.44	0.15
40%	-2016	318	1,158	426	0.42	0.16
50%	-2482	372	1,445	531	0.43	0.15
60%	-3623	391	1,774	652	0.36	0.11
70%	-4203	421	2,104	774	0.37	0.10
80%	-4935	390	2,370	871	0.35	0.08
90%	-6516	398	2,682	986	0.30	0.06
100%	-8431	640	2,996	1,101		

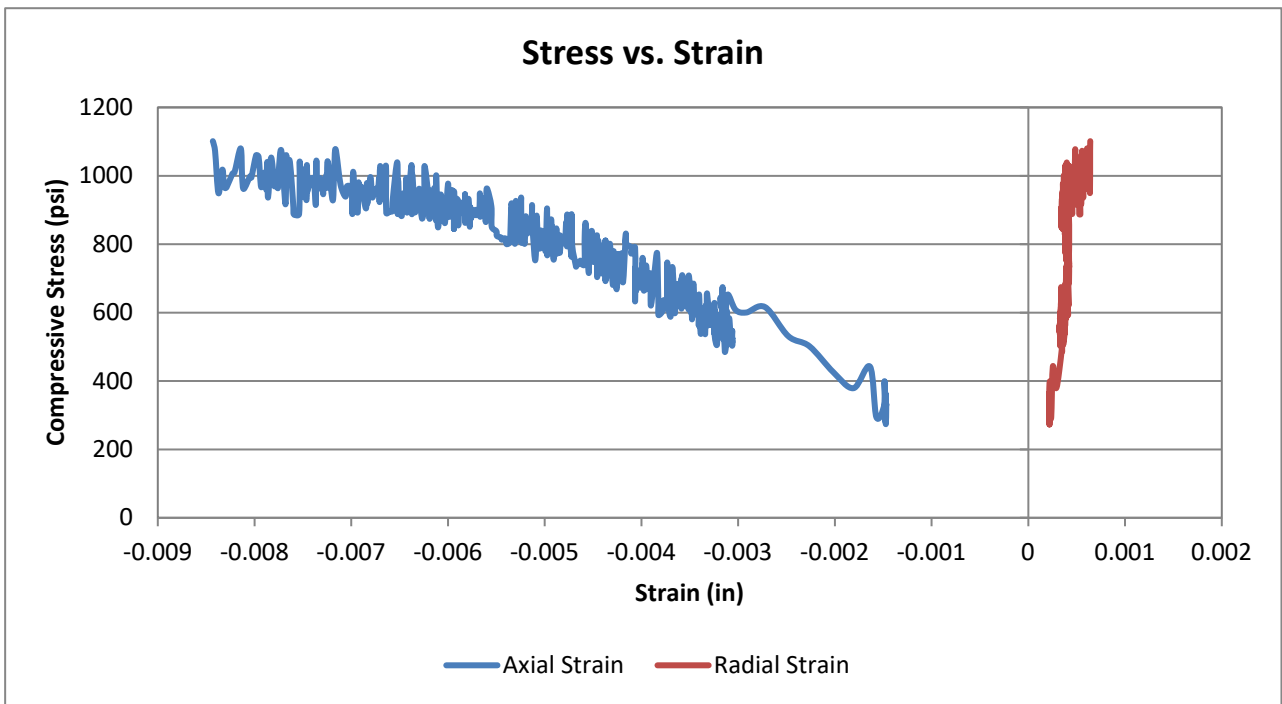
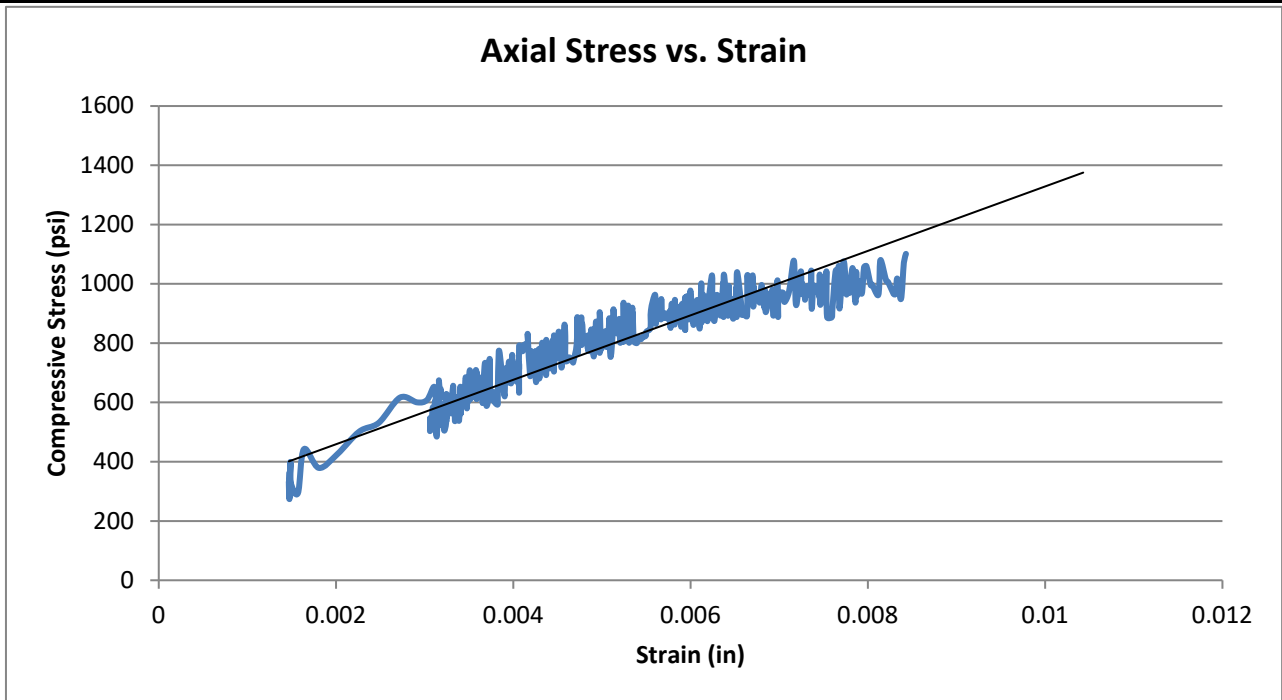


Test Results			
Unconfined Compressive Strength (psi)	1,100	Elastic Modulus (psi)	3.45E+05
		Poisson's Ratio in Elastic Range	0.10
Comments	Elastic range was taken as between 0.003 and 0.006 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

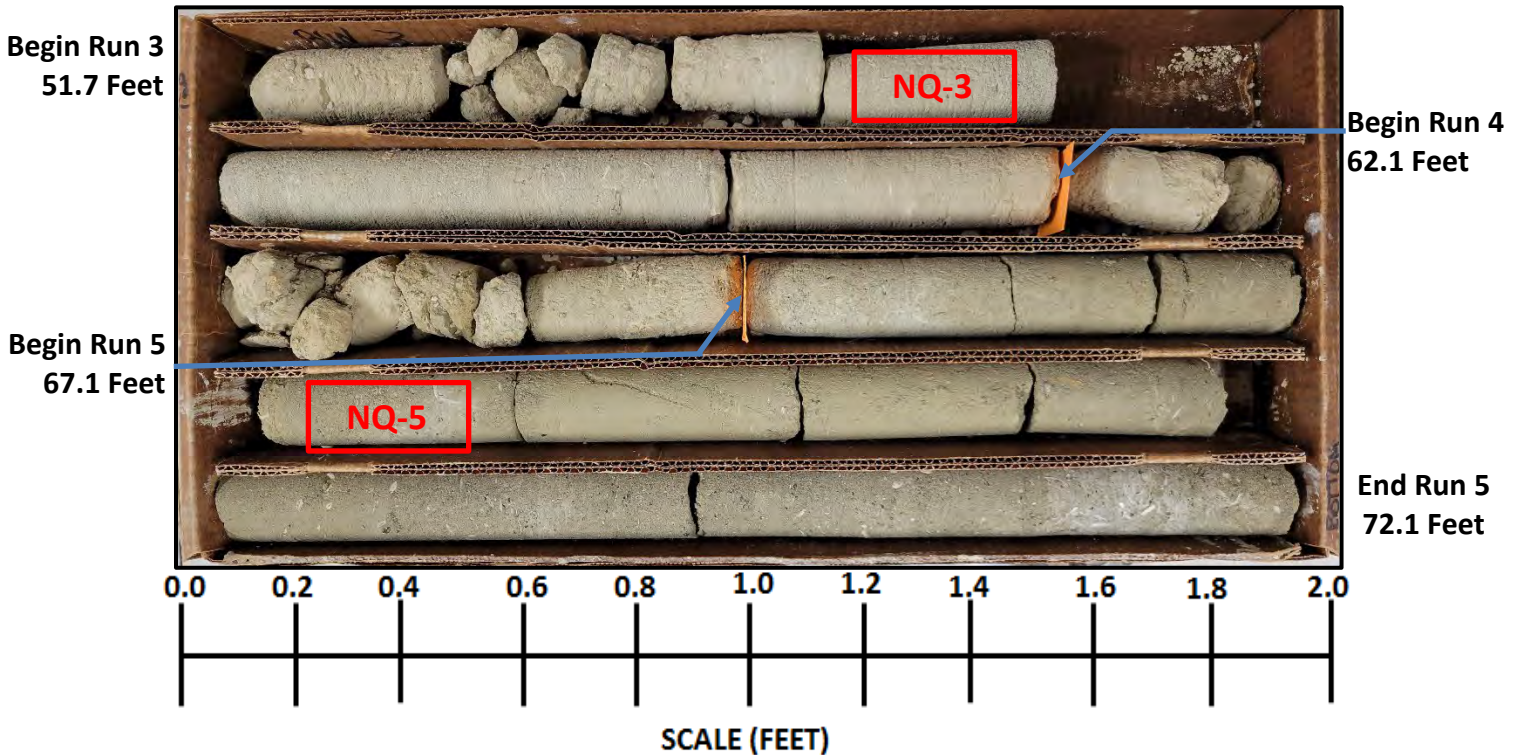


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

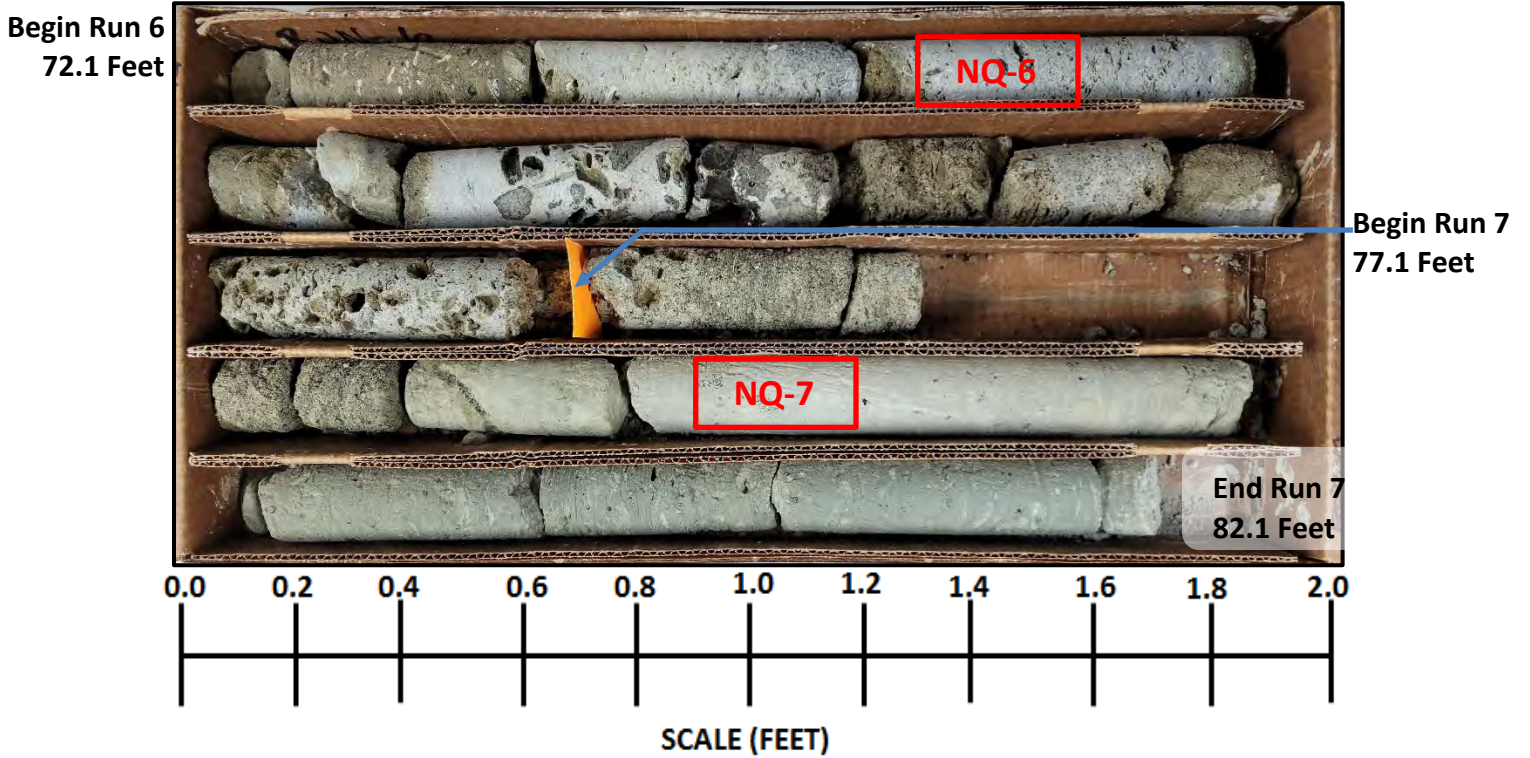
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.861	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.914	Reviewed By	WJG
Boring	B-9	Unit Weight (pcf)	145.9	Core Size	NQ
Sample No.	NQ-8 / 23-1831B	L/D Ratio	2.10	Recovery	98%
Depth	76.4' - 76.7'	Load Rate (psi/sec)	10	RQD	68%
Description	Brown/Gray/Black Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-10

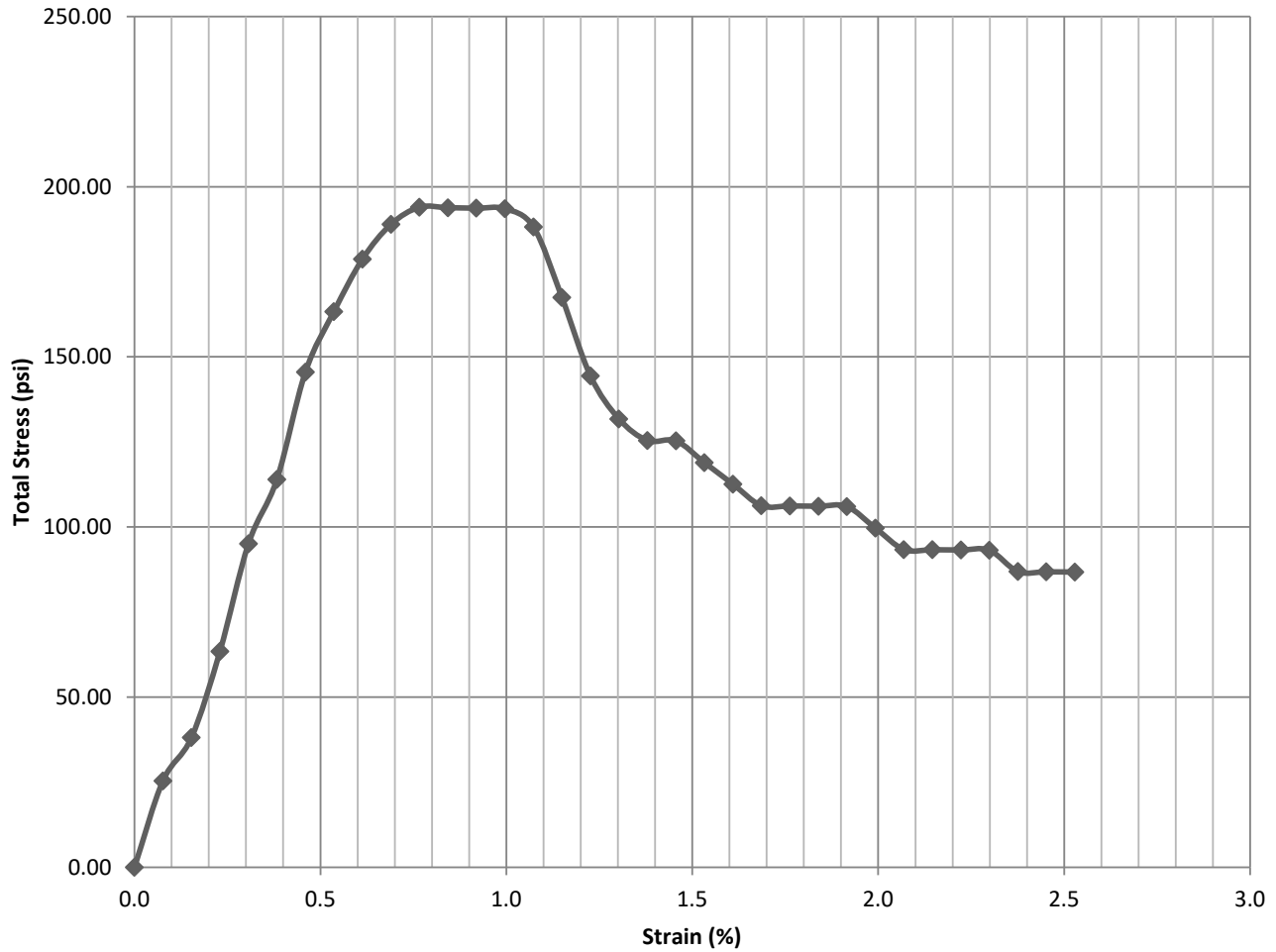


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-10



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0951



Average Initial Diameter (Do): 1.852 in.
 Average Initial Height (Lo): 3.915 in.
 Average Initial Area (Ao): 2.694 in²
 In-Situ Unit Weight: 121.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.55 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.739 lbs.
 L/D Ratio: 2.114

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-10 / NQ-2
 Depth/Elevation 54.8' - 55.1'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 195 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



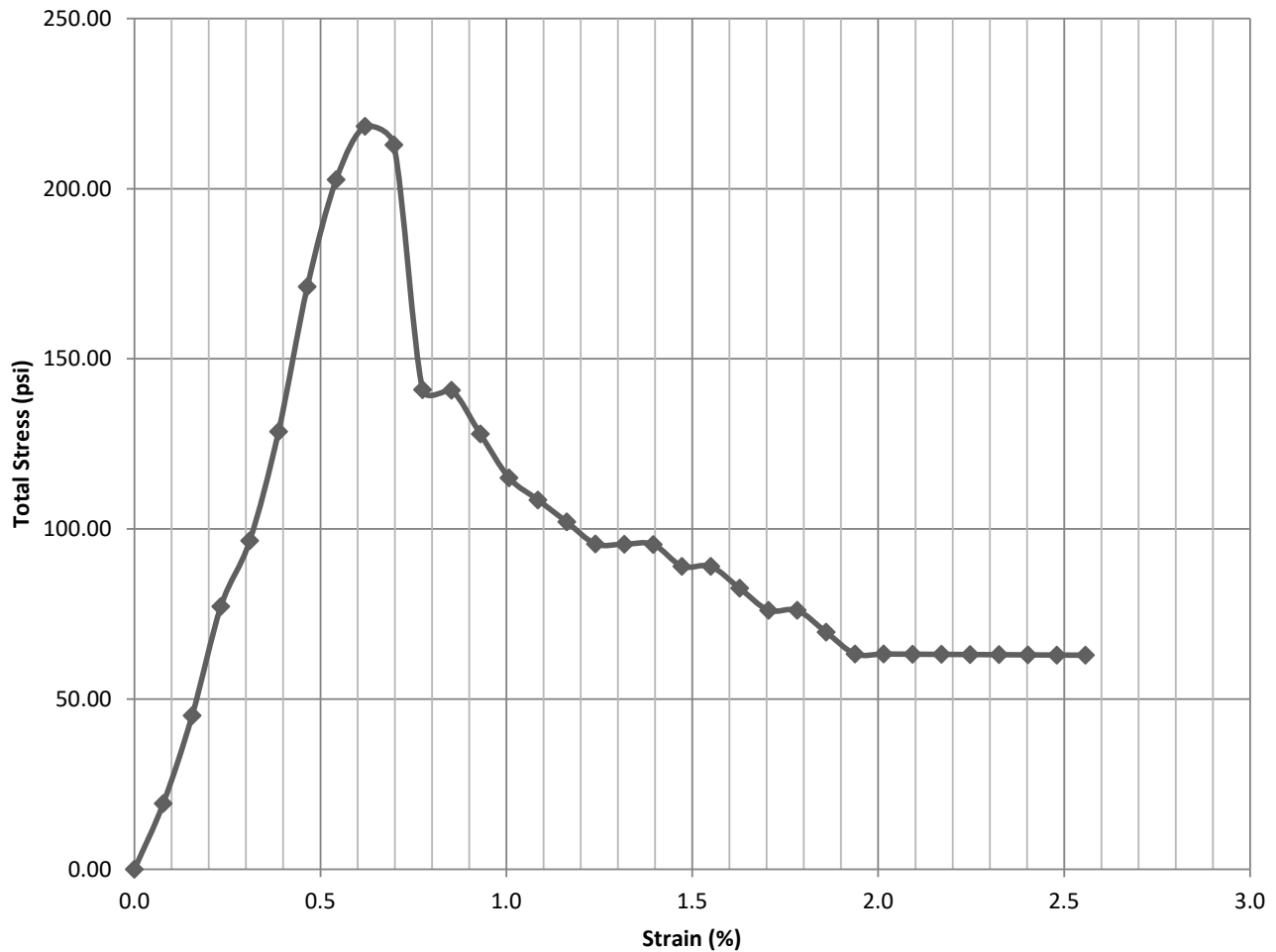
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0951
Sample Location:	B-10 / NQ-2	Depth of Sample:	54.8' - 55.1'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0951



Average Initial Diameter (Do): 1.838 in.
 Average Initial Height (Lo): 3.871 in.
 Average Initial Area (Ao): 2.653 in²
 In-Situ Unit Weight: 117.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.27 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.696 lbs.
 L/D Ratio: 2.106

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-10 / NQ-3
 Depth/Elevation 58.3' - 58.6'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 220 \text{ psi}$ $\epsilon_{ULT} = 0.6\%$



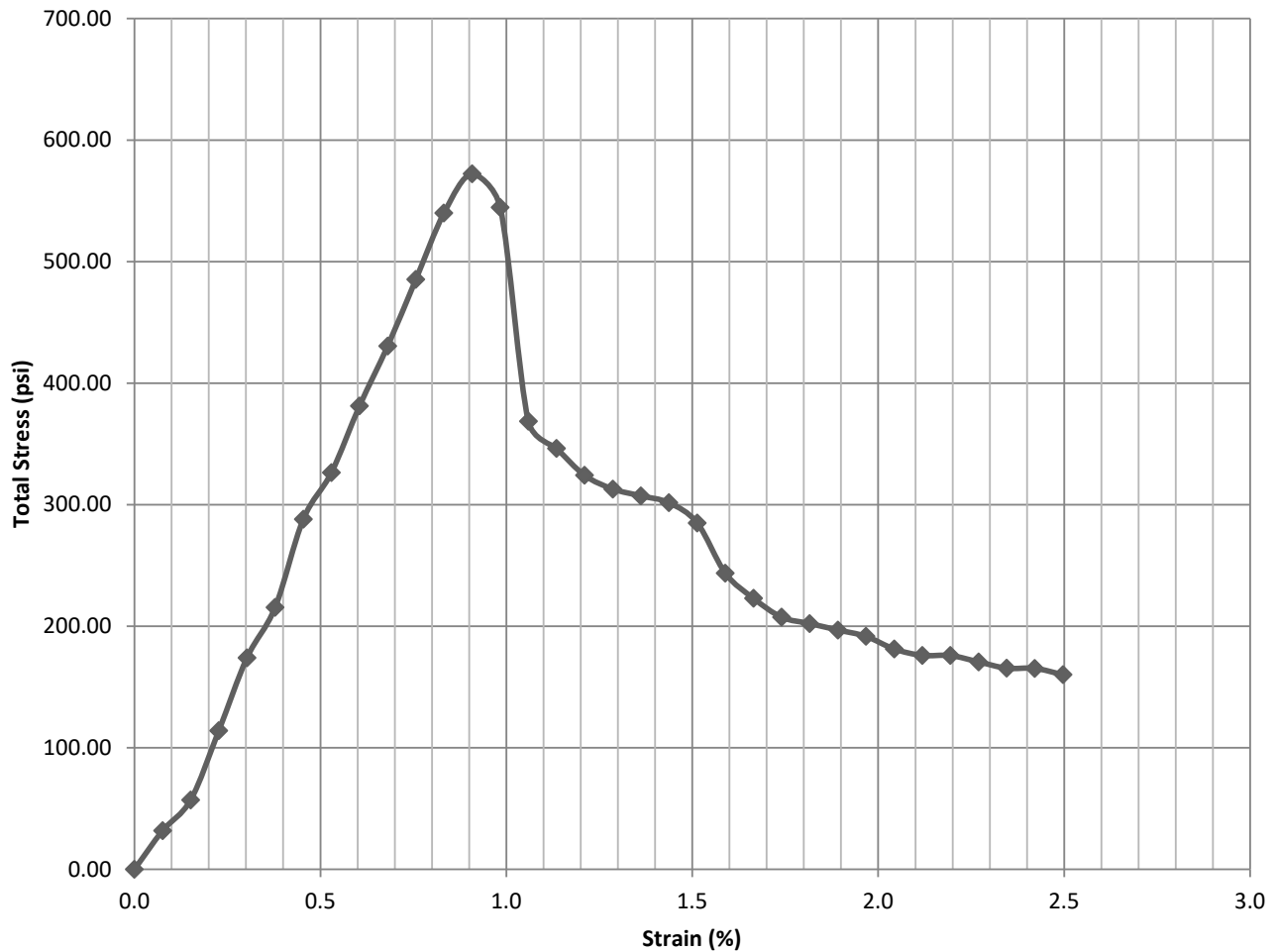
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0951
Sample Location:	B-10 / NQ-3	Depth of Sample:	58.3' - 58.6'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0951



Average Initial Diameter (Do): 1.852 in.
 Average Initial Height (Lo): 3.965 in.
 Average Initial Area (Ao): 2.694 in²
 In-Situ Unit Weight: 130.6 pcf
 Failure Mode: Plastic Failure

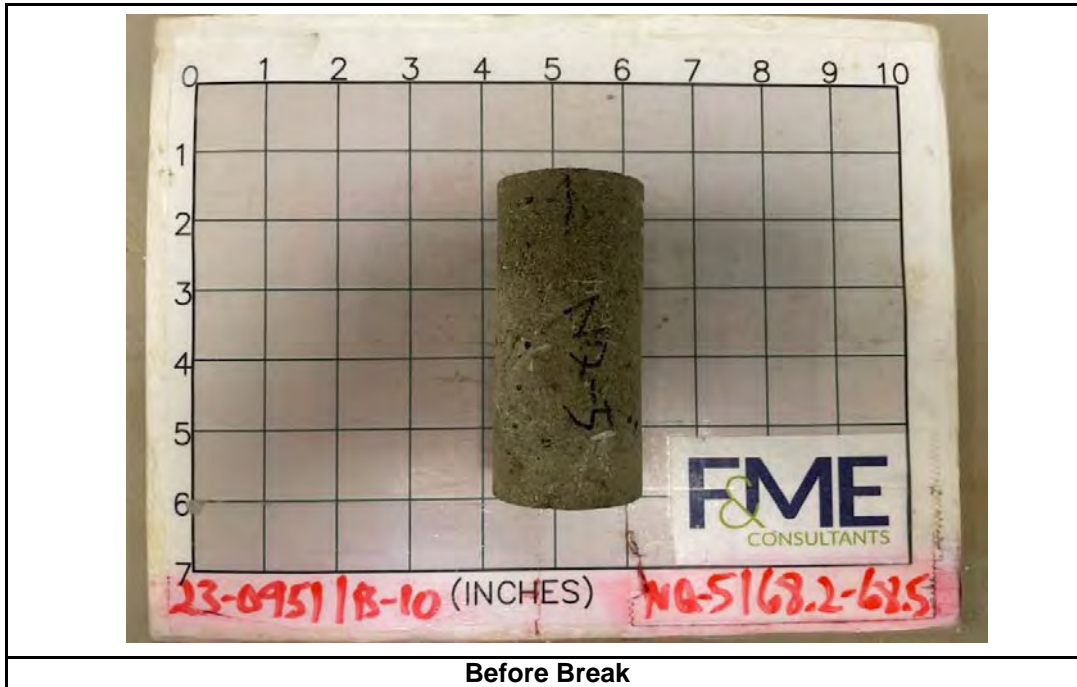
Sample Volume: 10.68 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.807 lbs.
 L/D Ratio: 2.141

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-10 / NQ-5
 Depth/Elevation 68.2' - 68.5'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 570 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



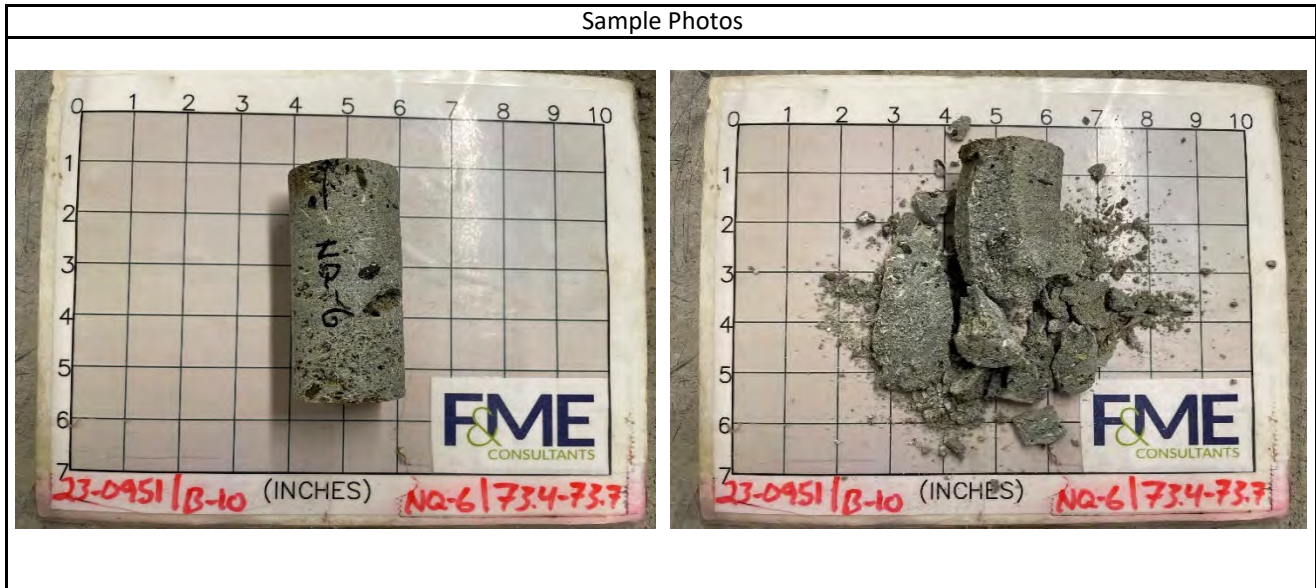
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0951
Sample Location:	B-10 / NQ-5	Depth of Sample:	68.2' - 68.5'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.884	Reviewed By	WJG
Boring	B-10	Unit Weight (pcf)	146.8	Core Size	NQ
Sample No.	NQ-6 /23-0951	L/D Ratio	2.08	Recovery	88%
Depth	73.4' - 73.7'	Load Rate (psi/sec)	10	RQD	55%
Description	Gray/White/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-313	48	1,731	633	4.04	0.15
30%	-473	77	2,594	950	4.02	0.16
40%	-617	103	3,418	1,251	4.06	0.17
50%	-771	133	4,259	1,559	4.04	0.17
60%	-924	161	5,086	1,862	4.03	0.17
70%	-1045	184	5,904	2,161	4.14	0.18
80%	-1239	221	6,848	2,507	4.05	0.18
90%	-1422	257	7,621	2,790	3.92	0.18
100%	-1403	407	8,515	3,117		

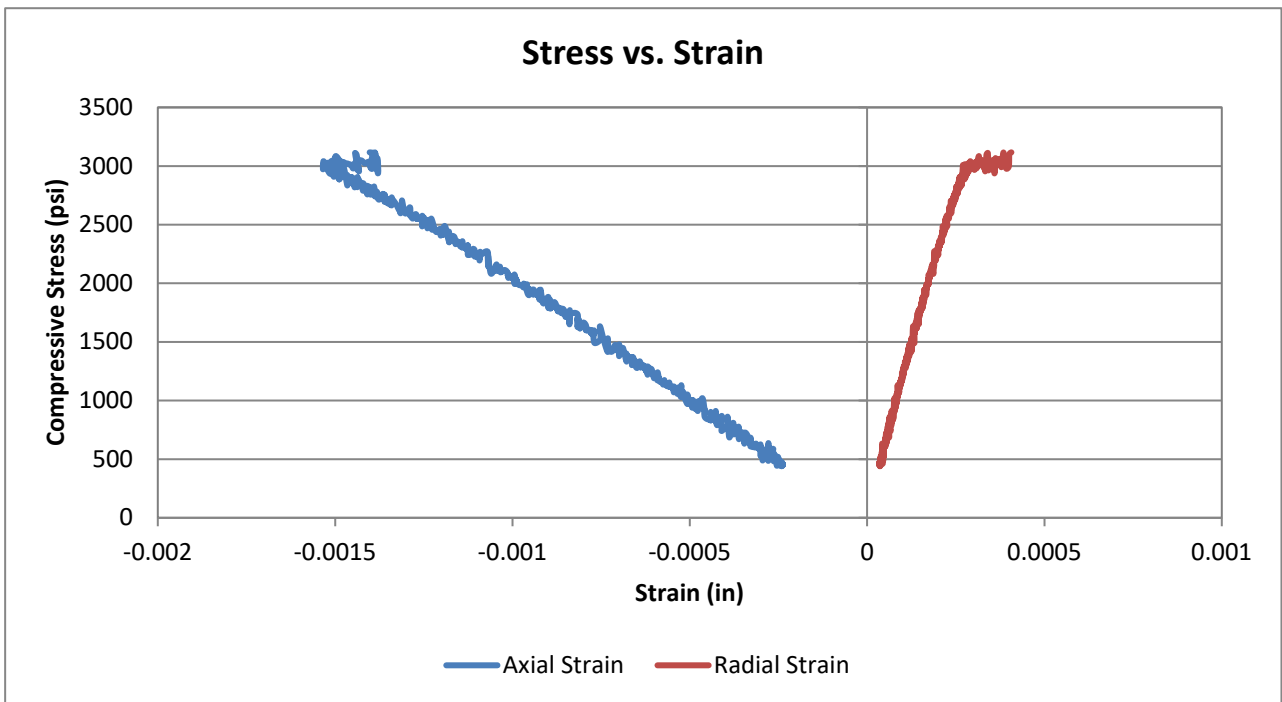
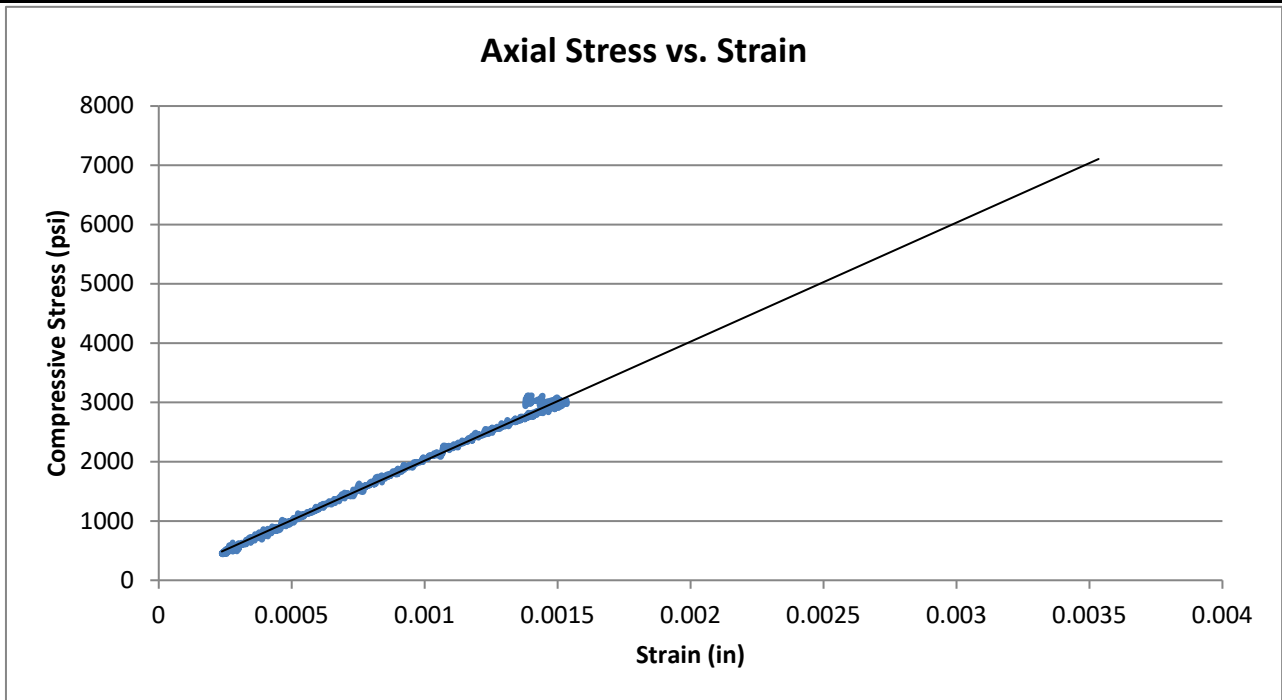


Test Results			
Unconfined Compressive Strength (psi)	3,120	Elastic Modulus (psi)	4.07E+06
		Poisson's Ratio in Elastic Range	0.17
Comments	Elastic range was taken as between 0.0005 and 0.0012 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



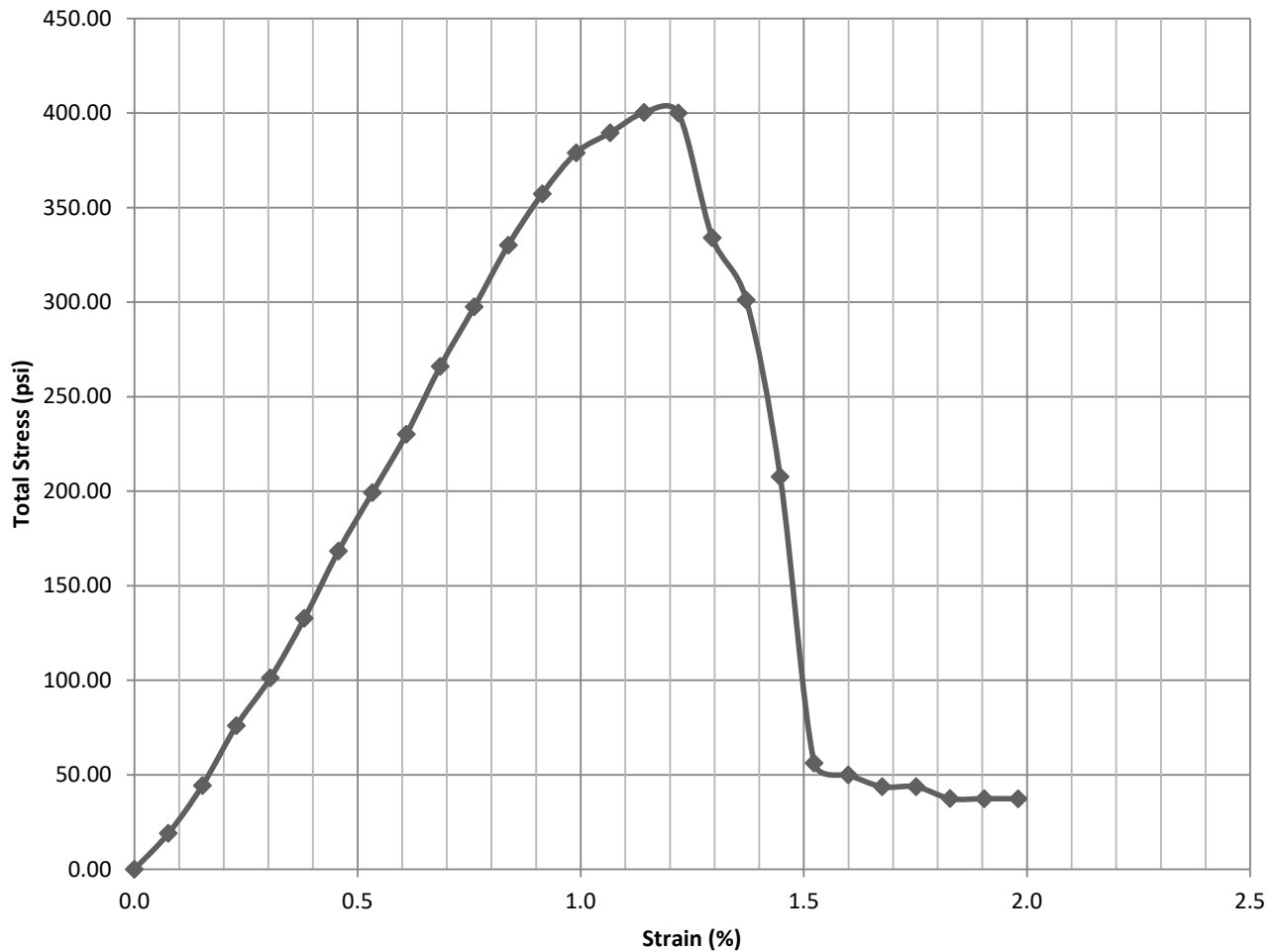
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.884	Reviewed By	WJG
Boring	B-10	Unit Weight (pcf)	146.8	Core Size	NQ
Sample No.	NQ-6 /23-0951	L/D Ratio	2.08	Recovery	88%
Depth	73.4' - 73.7'	Load Rate (psi/sec)	10	RQD	55%
Description	Gray/White/Black Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0951



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.939 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 140.2 pcf
 Failure Mode: Plastic Failure

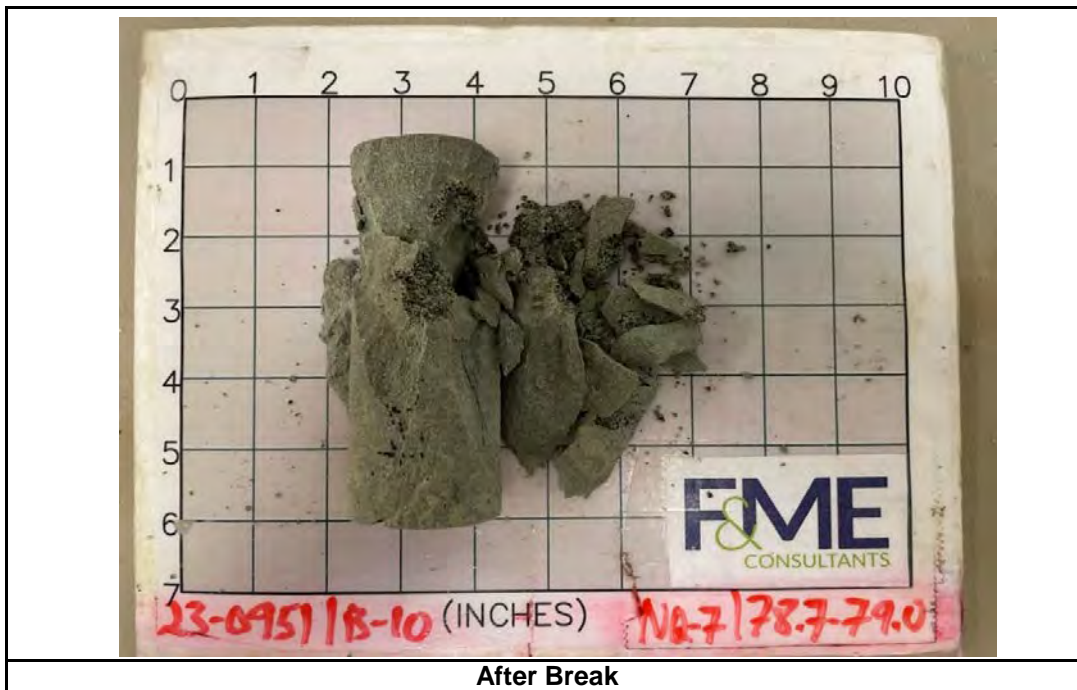
Sample Volume: 10.63 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.863 lbs.
 L/D Ratio: 2.125

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-10 / NQ-7
 Depth/Elevation 78.7' - 79.0'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 400 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$

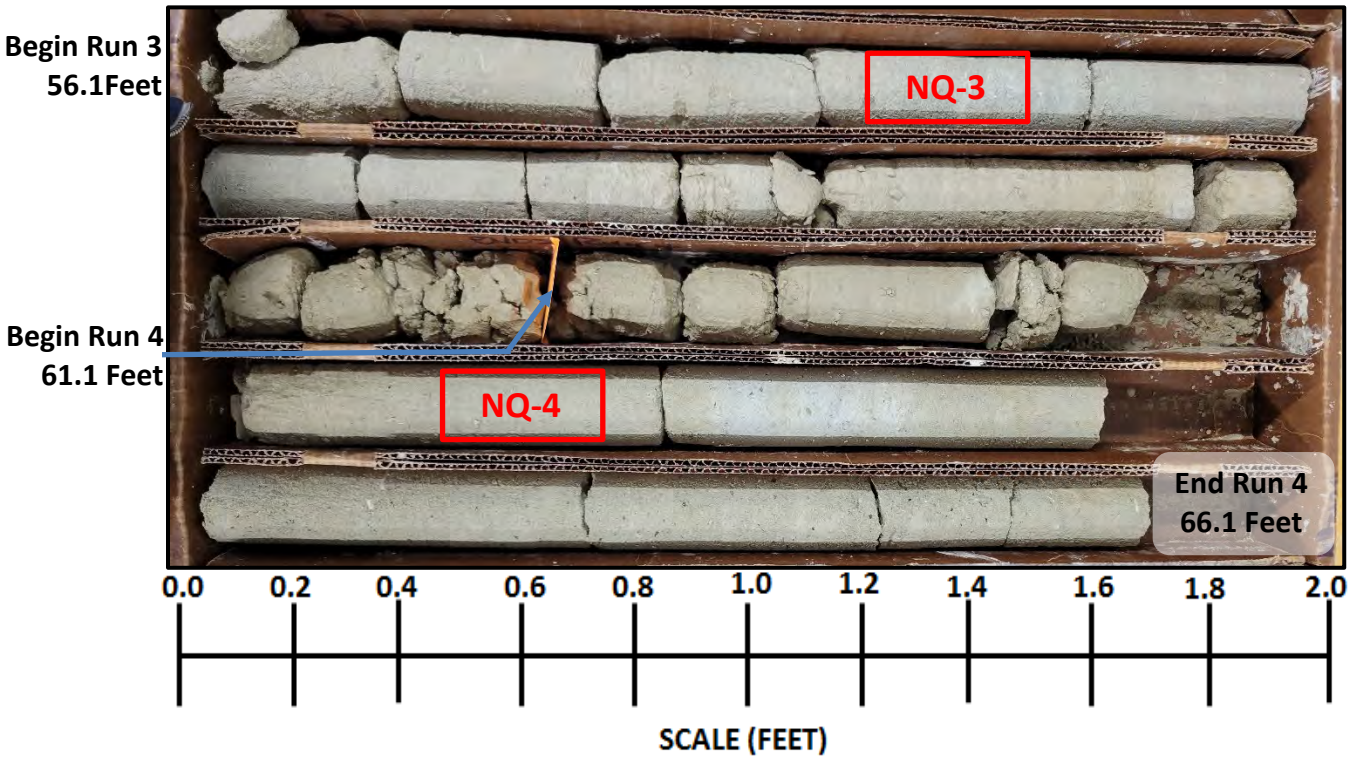


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0951
Sample Location:	B-10 / NQ-7	Depth of Sample:	78.7' - 79.0'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-11



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-11

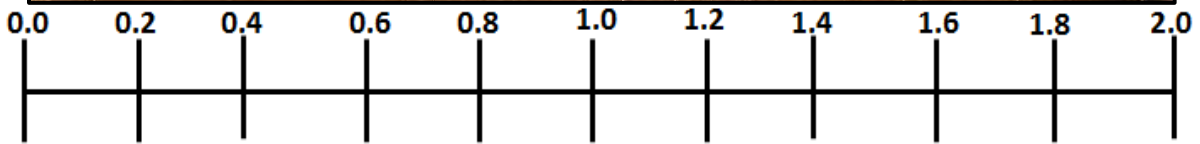
Begin Run 5
66.1 Feet



Begin Run 6
71.1 Feet

End Run 6
76.1 Feet

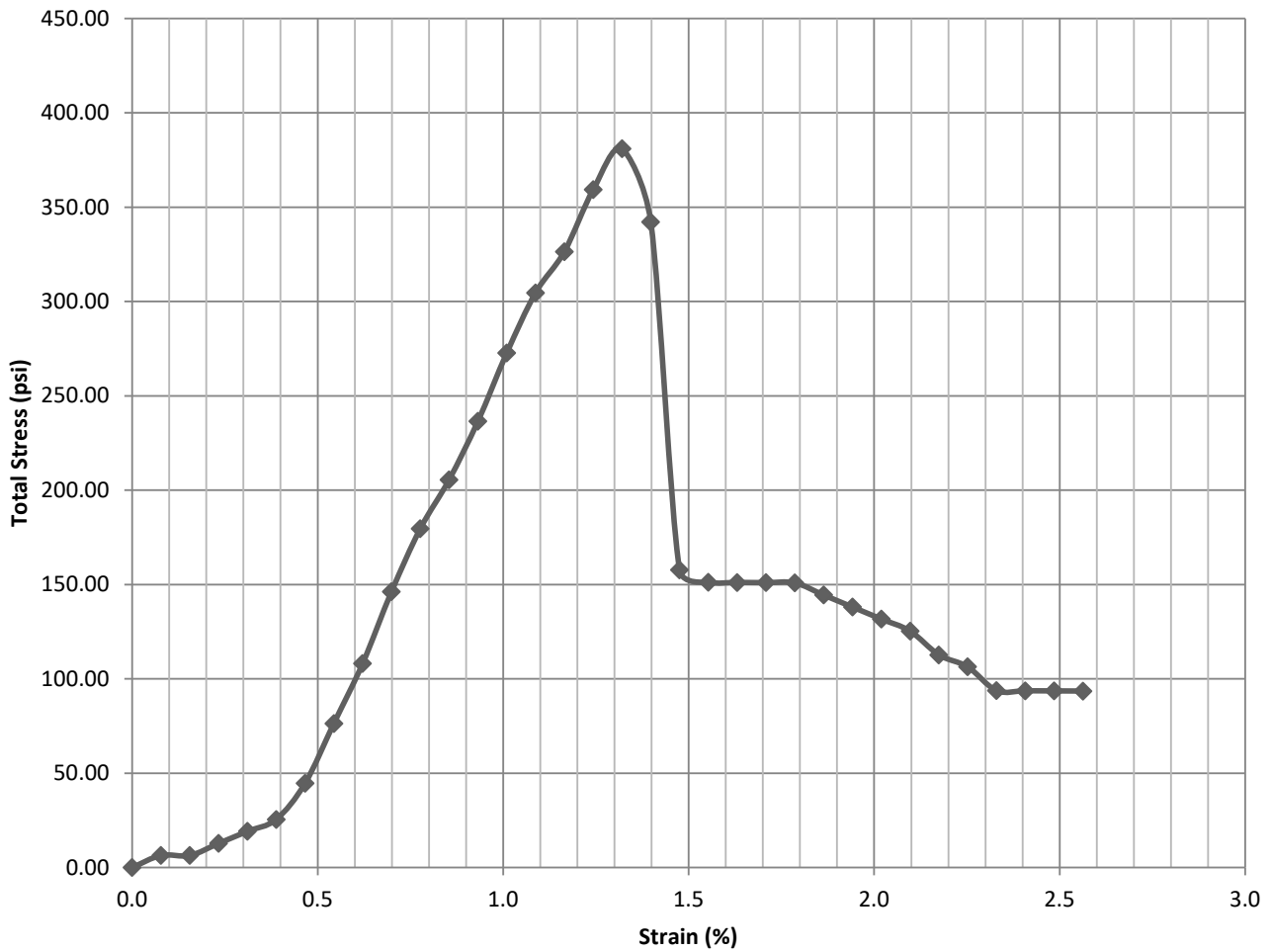
Begin Run 7
76.1 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1662



Average Initial Diameter (Do): 1.846 in.
 Average Initial Height (Lo): 3.863 in.
 Average Initial Area (Ao): 2.676 in²
 In-Situ Unit Weight: 123.9 pcf
 Failure Mode: Plastic Failure

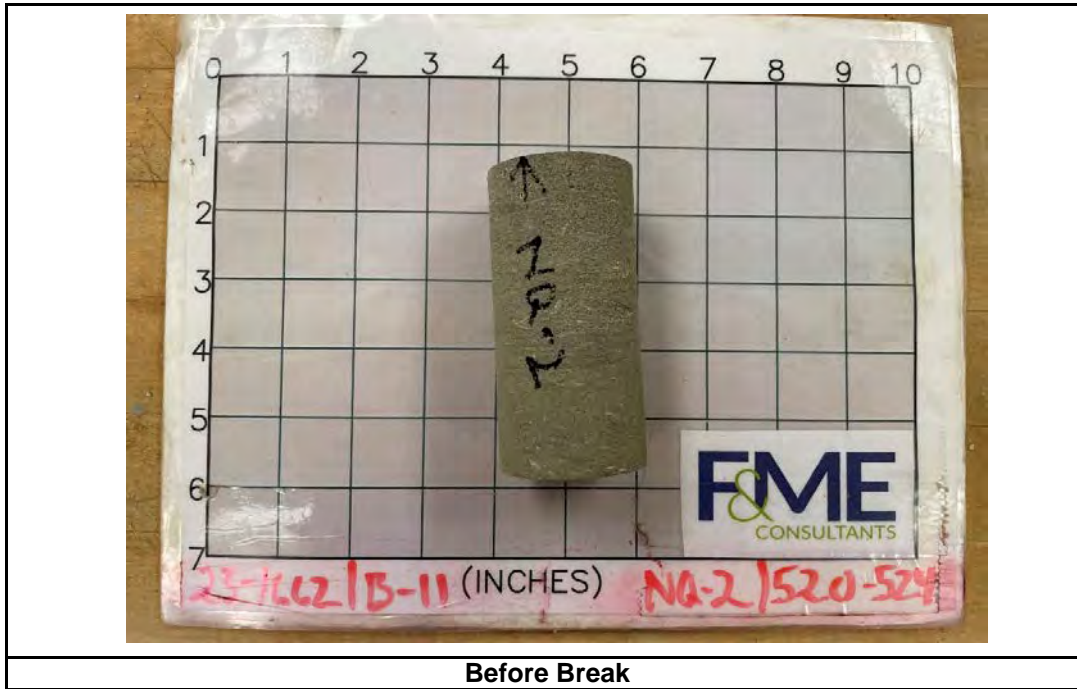
Sample Volume: 10.34 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.742 lbs.
 L/D Ratio: 2.093

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-11 / NQ-2
 Depth/Elevation 52.0' - 52.4'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 380 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$



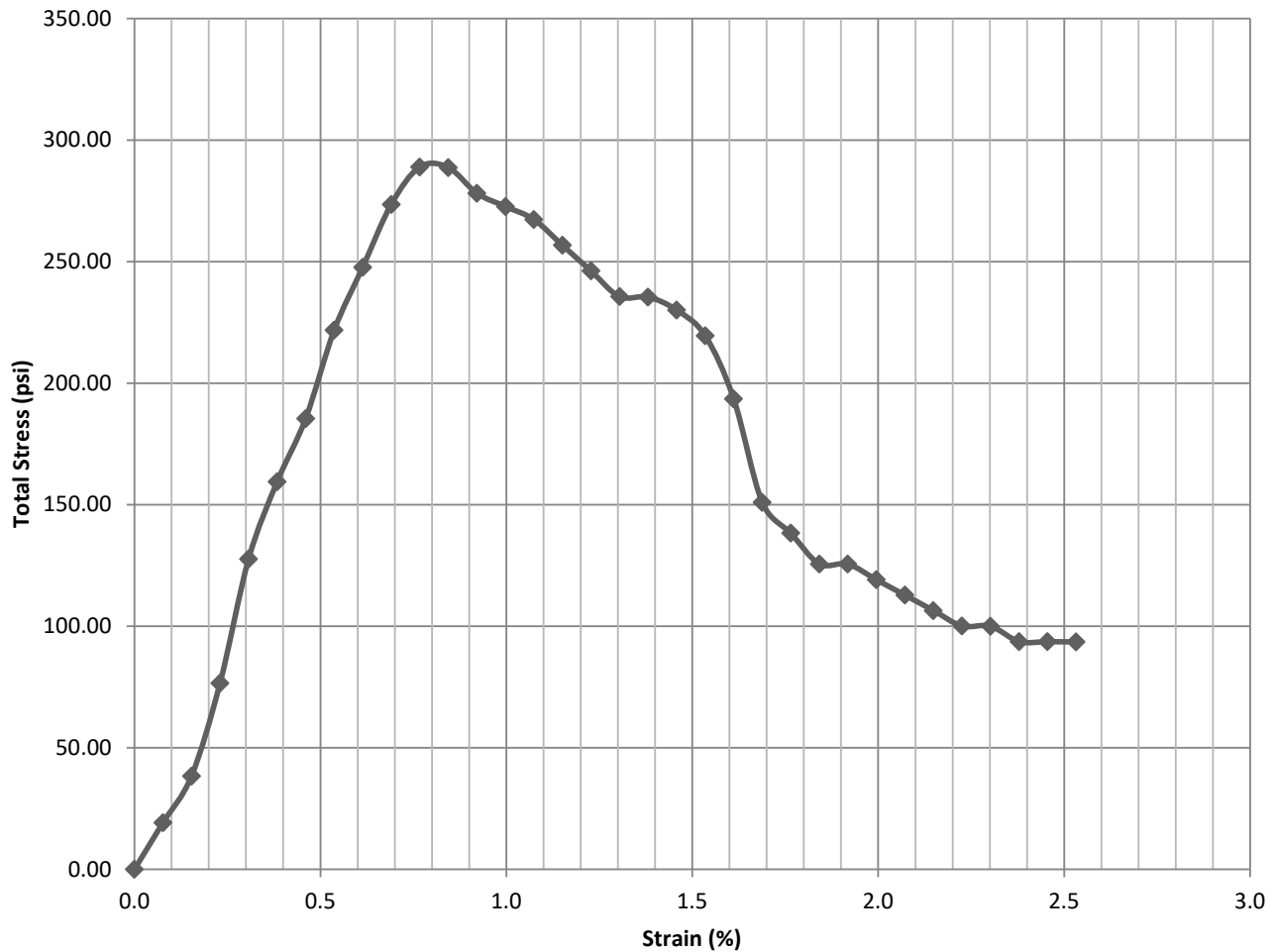
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1662
Sample Location:	B-11 / NQ-2	Depth of Sample:	52.0' - 52.4'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1662



Average Initial Diameter (Do): 1.846 in.
 Average Initial Height (Lo): 3.910 in.
 Average Initial Area (Ao): 2.676 in²
 In-Situ Unit Weight: 125.8 pcf
 Failure Mode: Plastic Failure

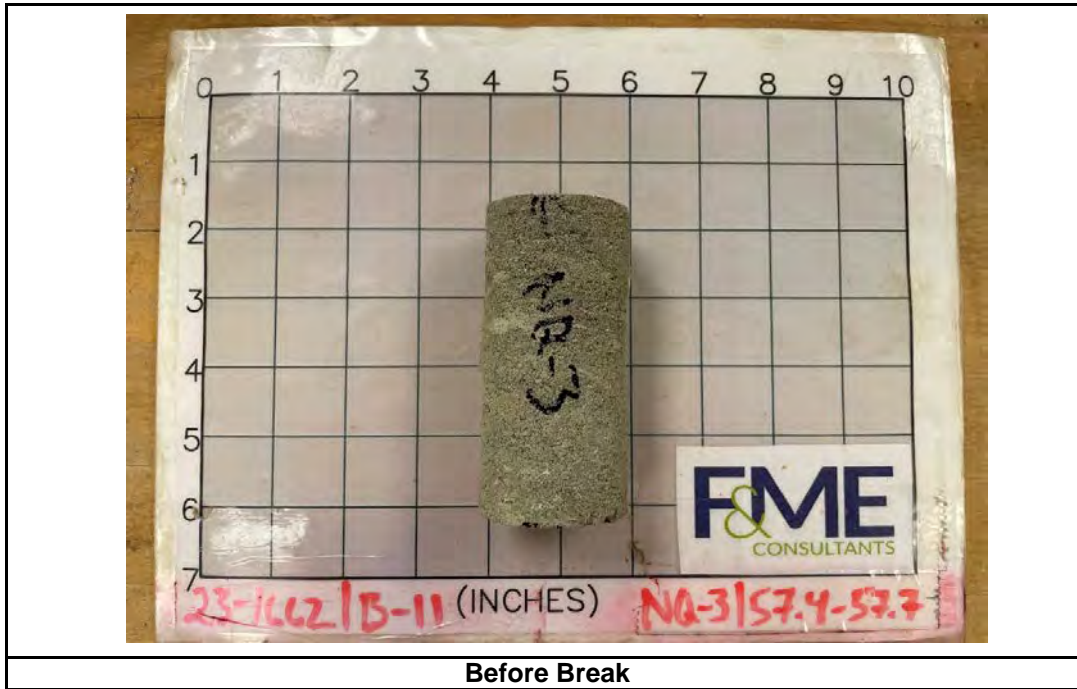
Sample Volume: 10.46 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.762 lbs.
 L/D Ratio: 2.118

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-11 / NQ-3
 Depth/Elevation 57.4' - 57.7'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 290 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



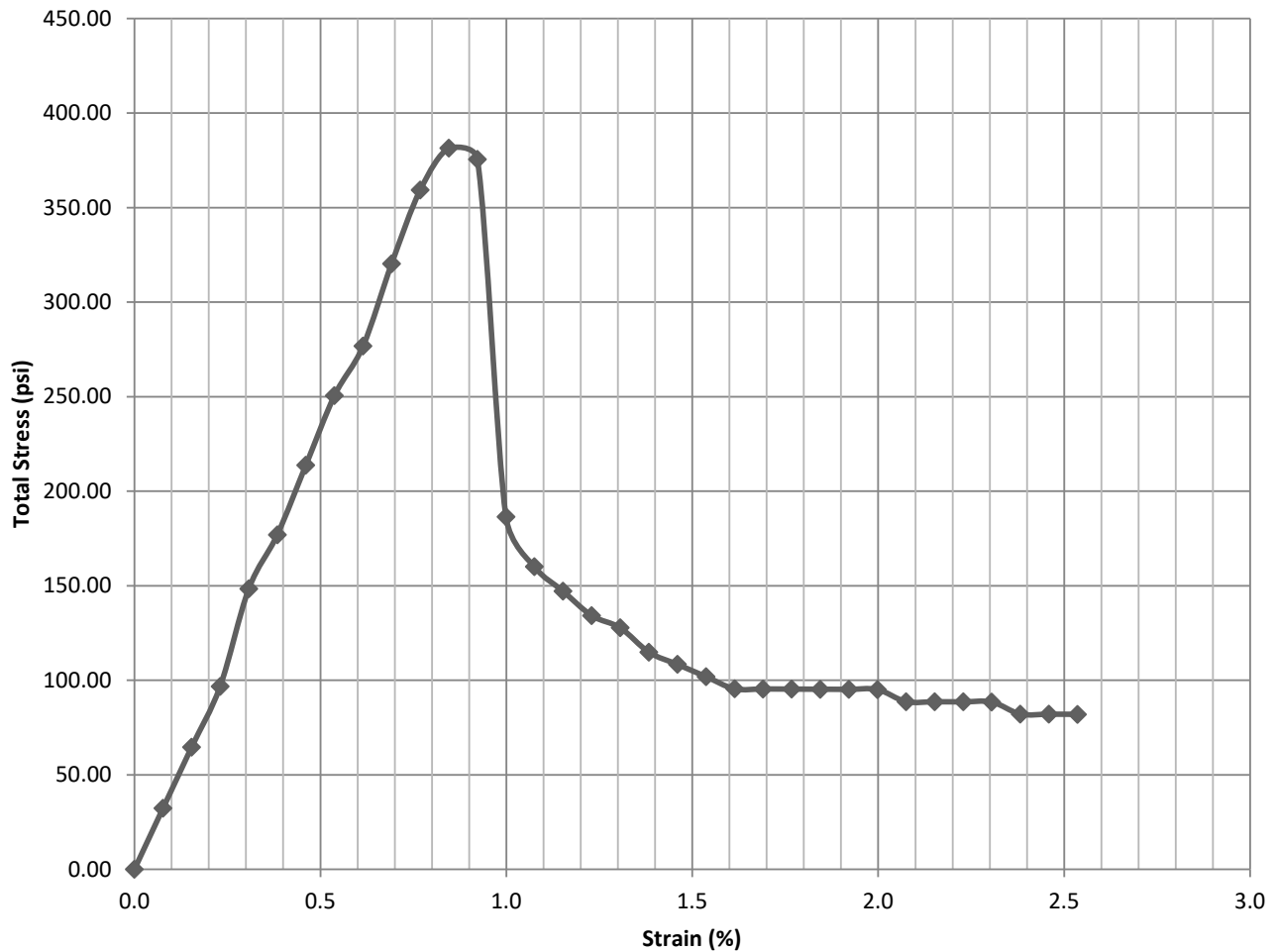
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1662
Sample Location:	B-11 / NQ-3	Depth of Sample:	57.4' - 57.7'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1662



Average Initial Diameter (Do): 1.836 in.
 Average Initial Height (Lo): 3.904 in.
 Average Initial Area (Ao): 2.647 in²
 In-Situ Unit Weight: 122.4 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.34 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.732 lbs.
 L/D Ratio: 2.126

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-11 / NQ-4
 Depth/Elevation 62.4' - 62.8'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 380 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



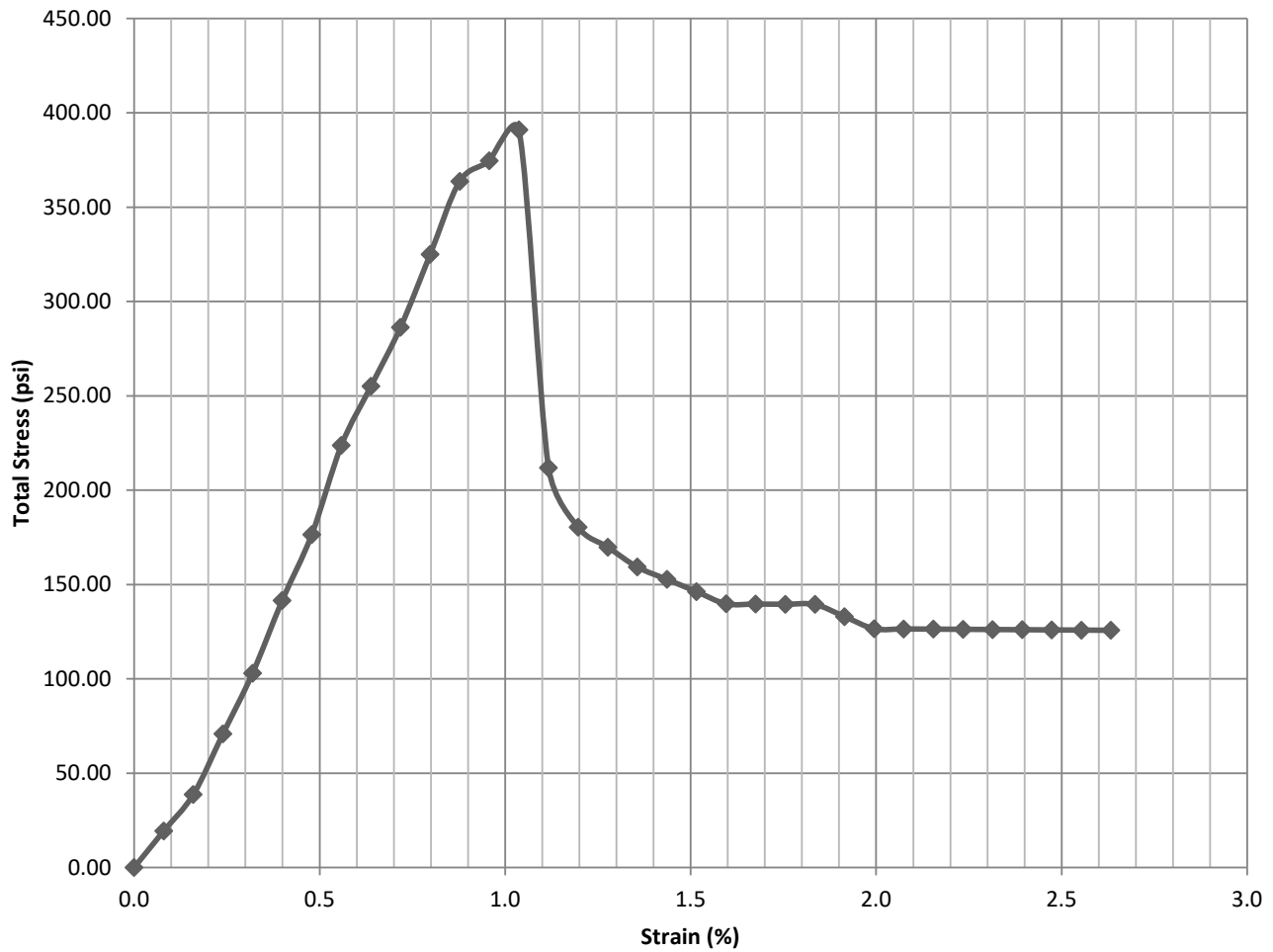
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1662
Sample Location:	B-11 / NQ-4	Depth of Sample:	62.4' - 62.8'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1662



Average Initial Diameter (Do): 1.838 in.
 Average Initial Height (Lo): 3.760 in.
 Average Initial Area (Ao): 2.653 in²
 In-Situ Unit Weight: 120.8 pcf
 Failure Mode: Plastic Failure

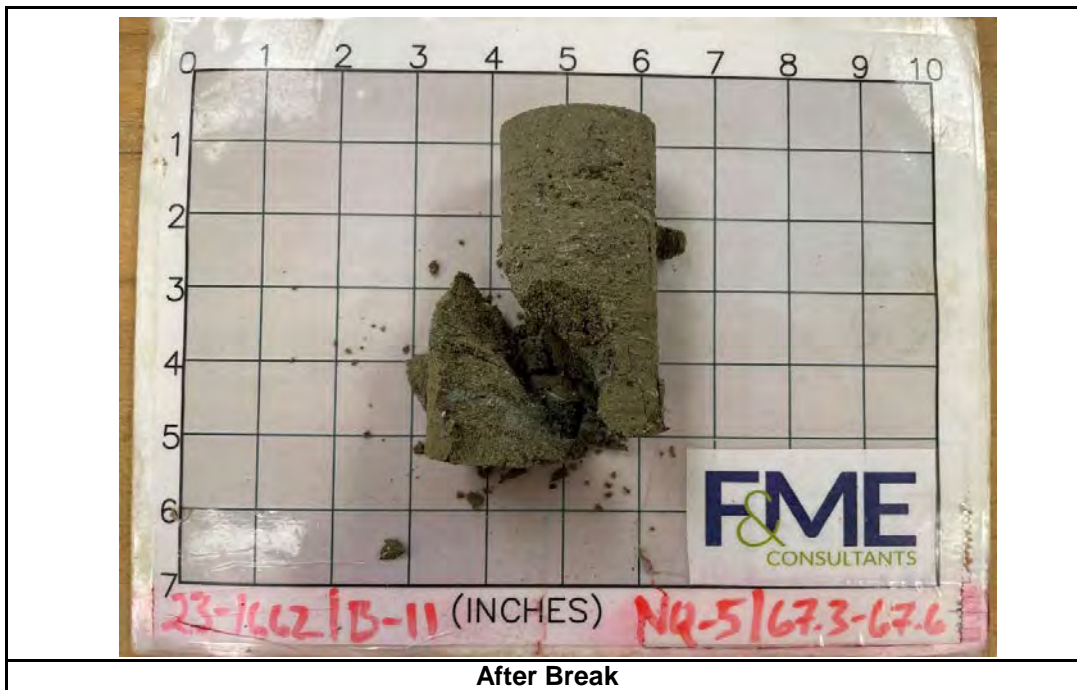
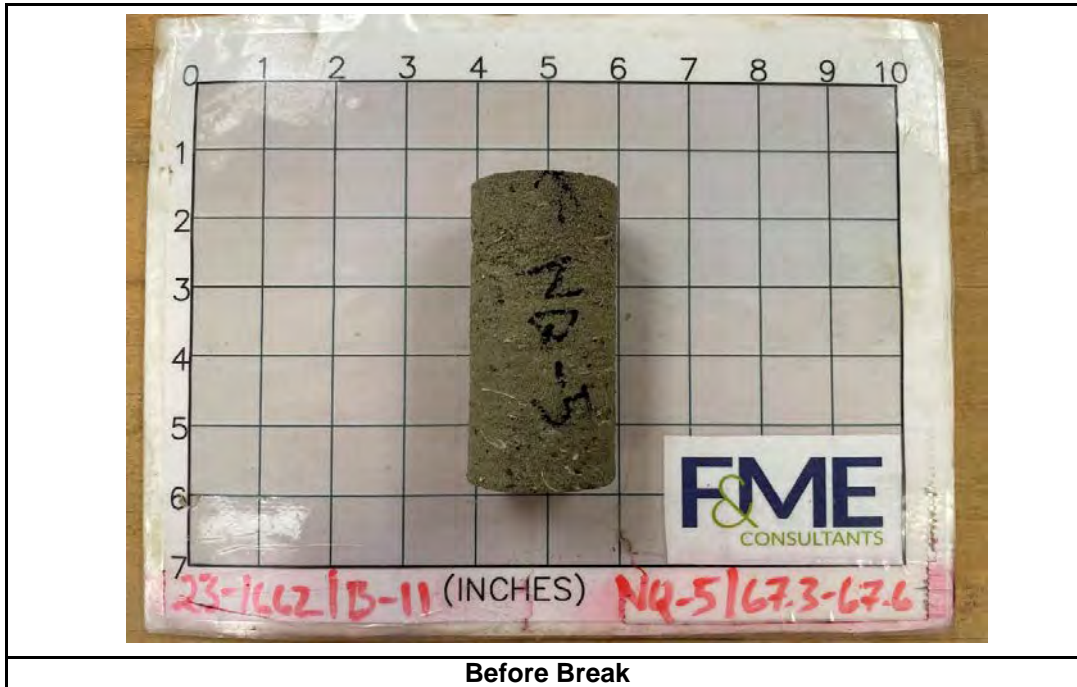
Sample Volume: 9.98 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.697 lbs.
 L/D Ratio: 2.046

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-11 / NQ-5
 Depth/Elevation 67.3' - 67.6'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 390 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



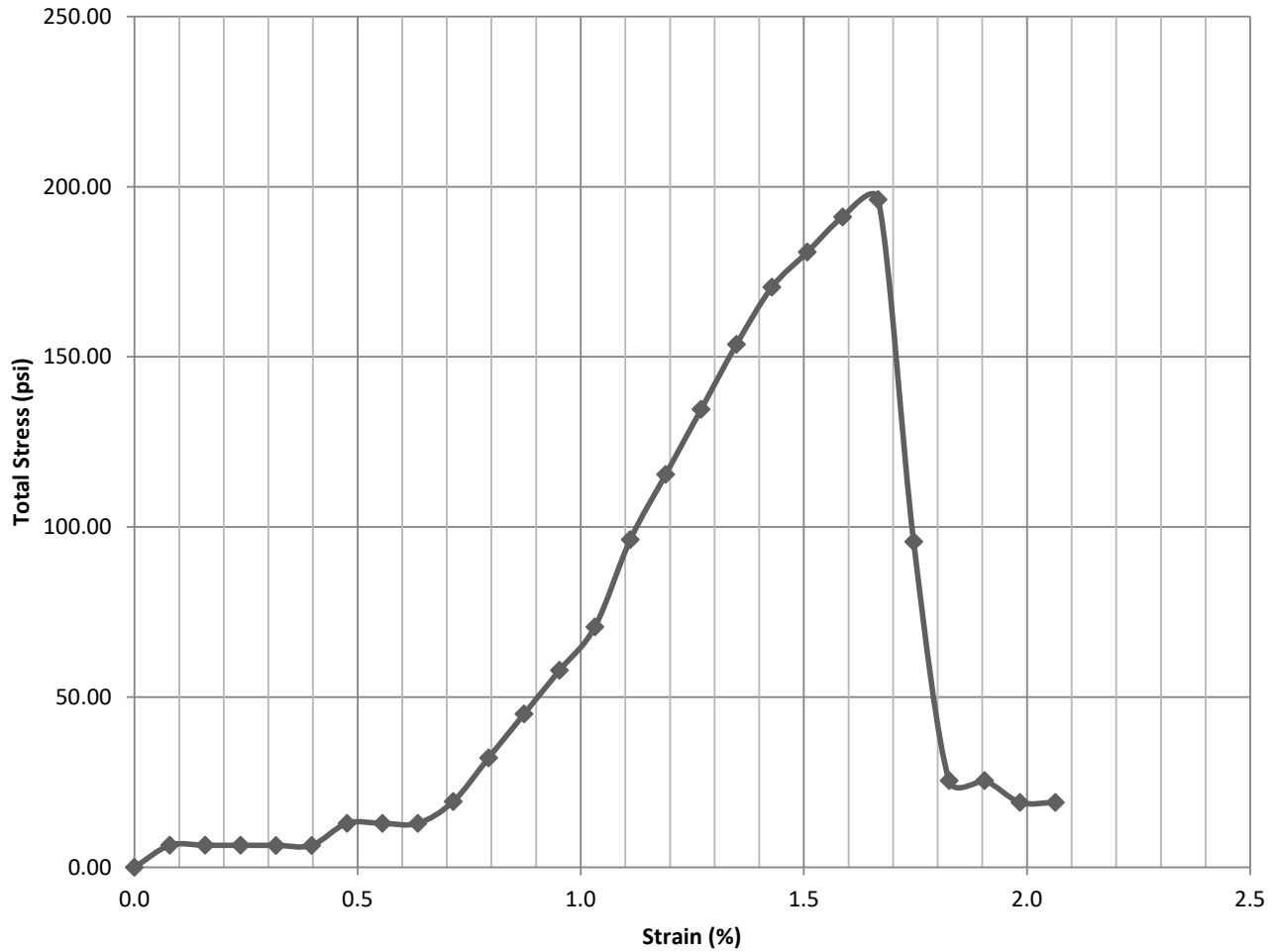
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1662
Sample Location:	B-11 / NQ-5	Depth of Sample:	67.3' - 67.6'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1662



Average Initial Diameter (Do): 1.833 in.
 Average Initial Height (Lo): 3.780 in.
 Average Initial Area (Ao): 2.639 in²
 In-Situ Unit Weight: 134.3 pcf
 Failure Mode: Plastic Failure

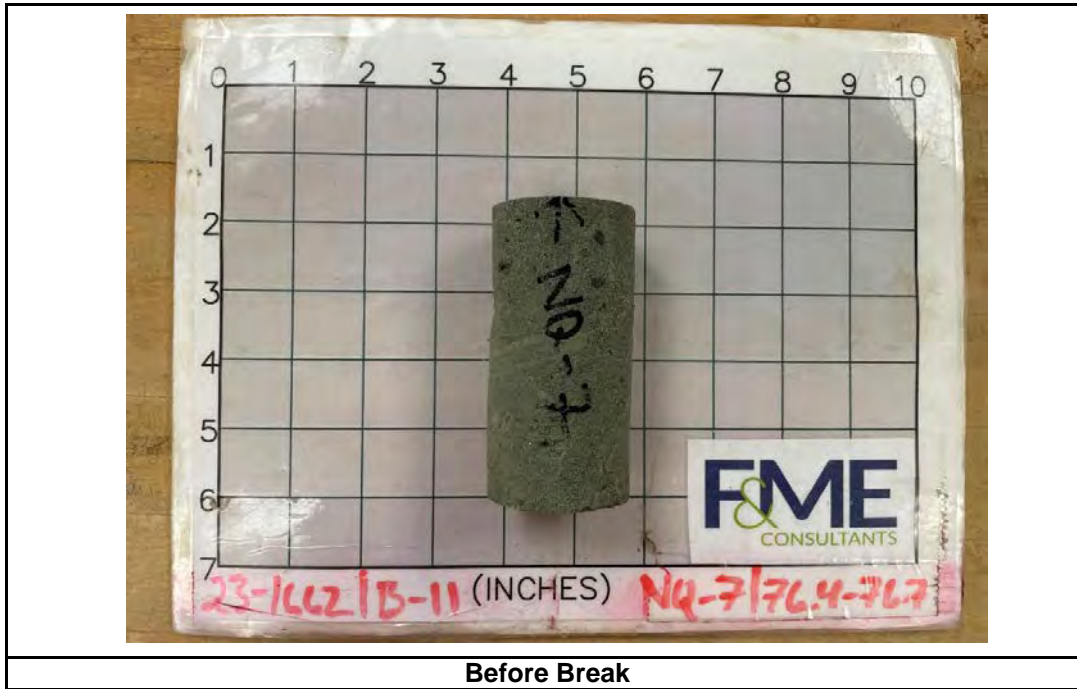
Sample Volume: 9.97 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.775 lbs.
 L/D Ratio: 2.062

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/15/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-11 / NQ-7
 Depth/Elevation 76.4' - 76.7'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 195 \text{ psi}$ $\epsilon_{ULT} = 1.7\%$

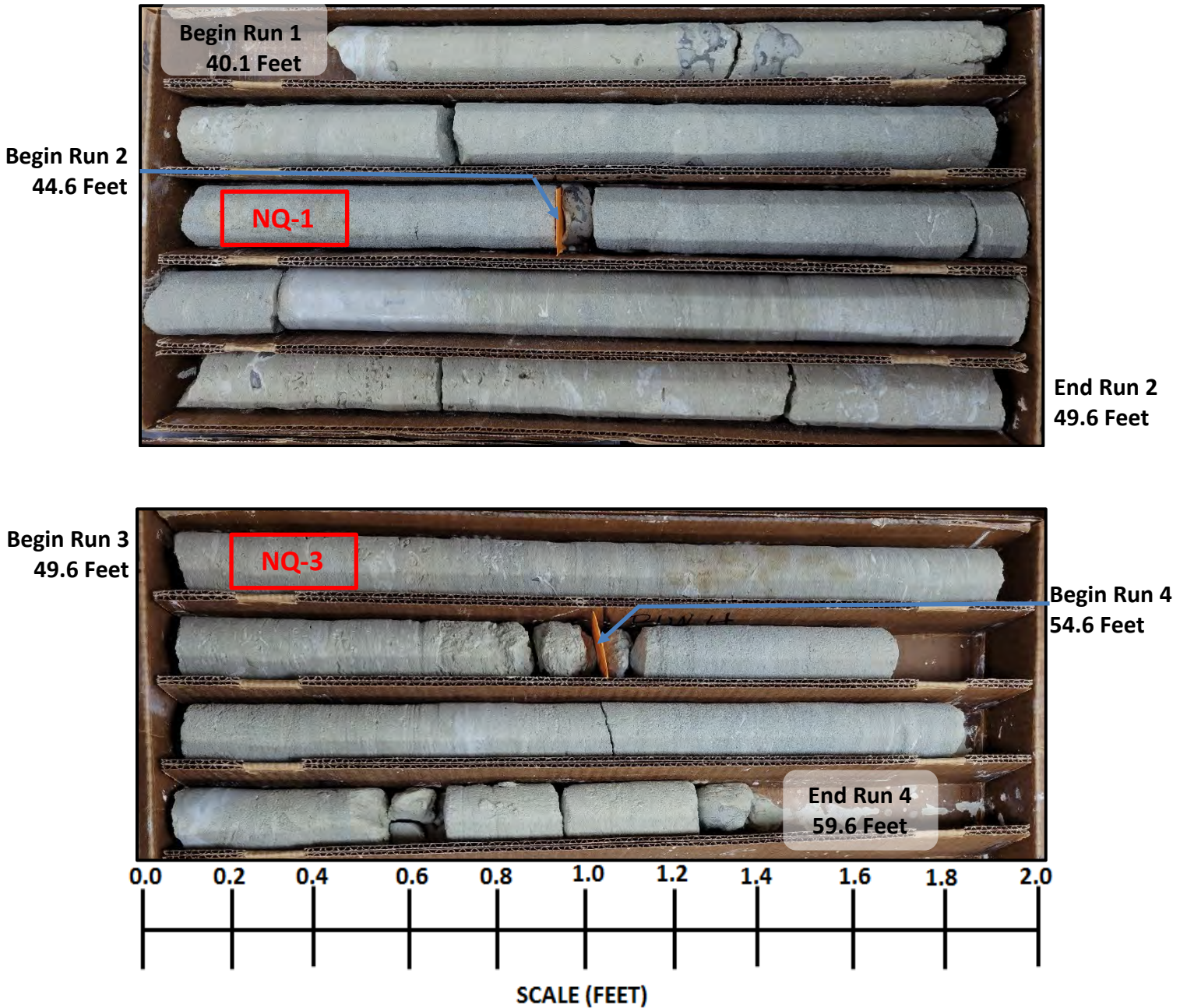


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1662
Sample Location:	B-11 / NQ-7	Depth of Sample:	76.4' - 76.7'
Tested By:	W. Pitts	Date Tested:	6/15/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-12



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-12

Begin Run 5
59.6 Feet



Begin Run 6
64.6 Feet

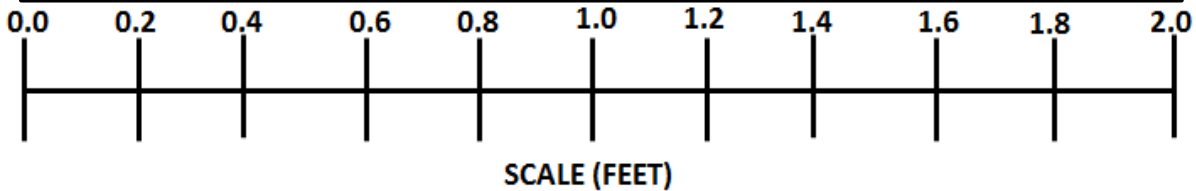
End Run 6
69.6 Feet

Begin Run 7
69.6 Feet



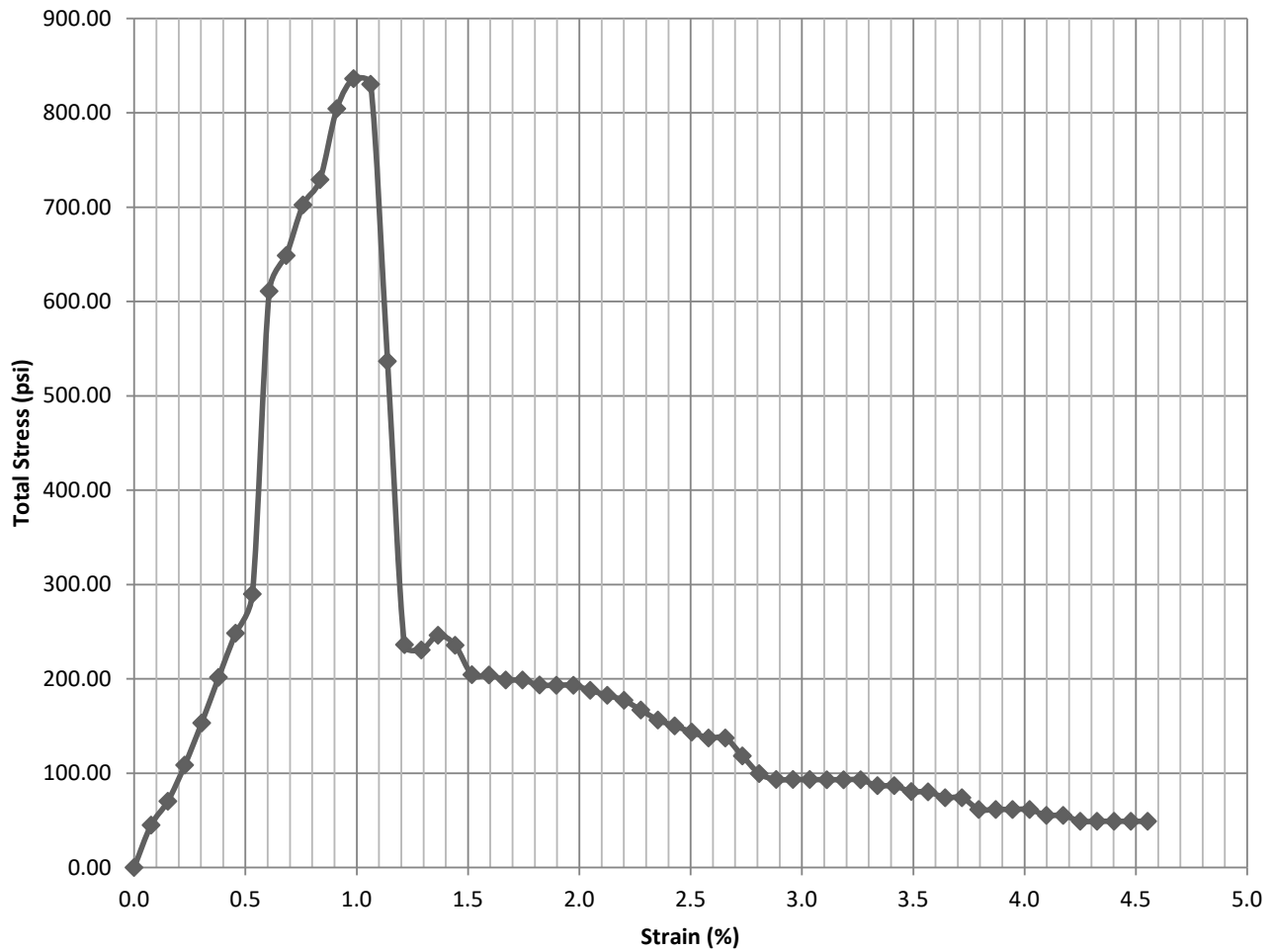
Begin Run 8
74.6 Feet

End Run 8
59.6 Feet



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0887



Average Initial Diameter (Do): 1.845 in.
 Average Initial Height (Lo): 3.953 in.
 Average Initial Area (Ao): 2.674 in²
 In-Situ Unit Weight: 124.9 pcf
 Failure Mode: Plastic Failure

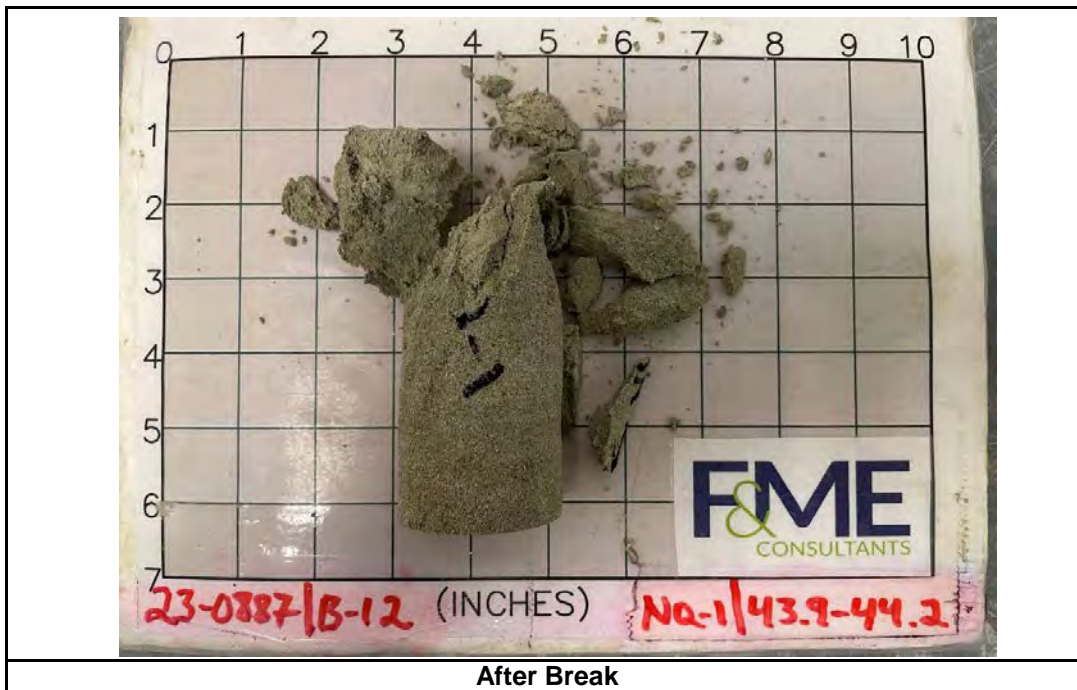
Sample Volume: 10.57 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.764 lbs.
 L/D Ratio: 2.143

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/12/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-12 / NQ-1
 Depth/Elevation 43.9' - 44.2'

Sample Type : Soil Core
 Target Strain Rate : 0.7% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 835 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



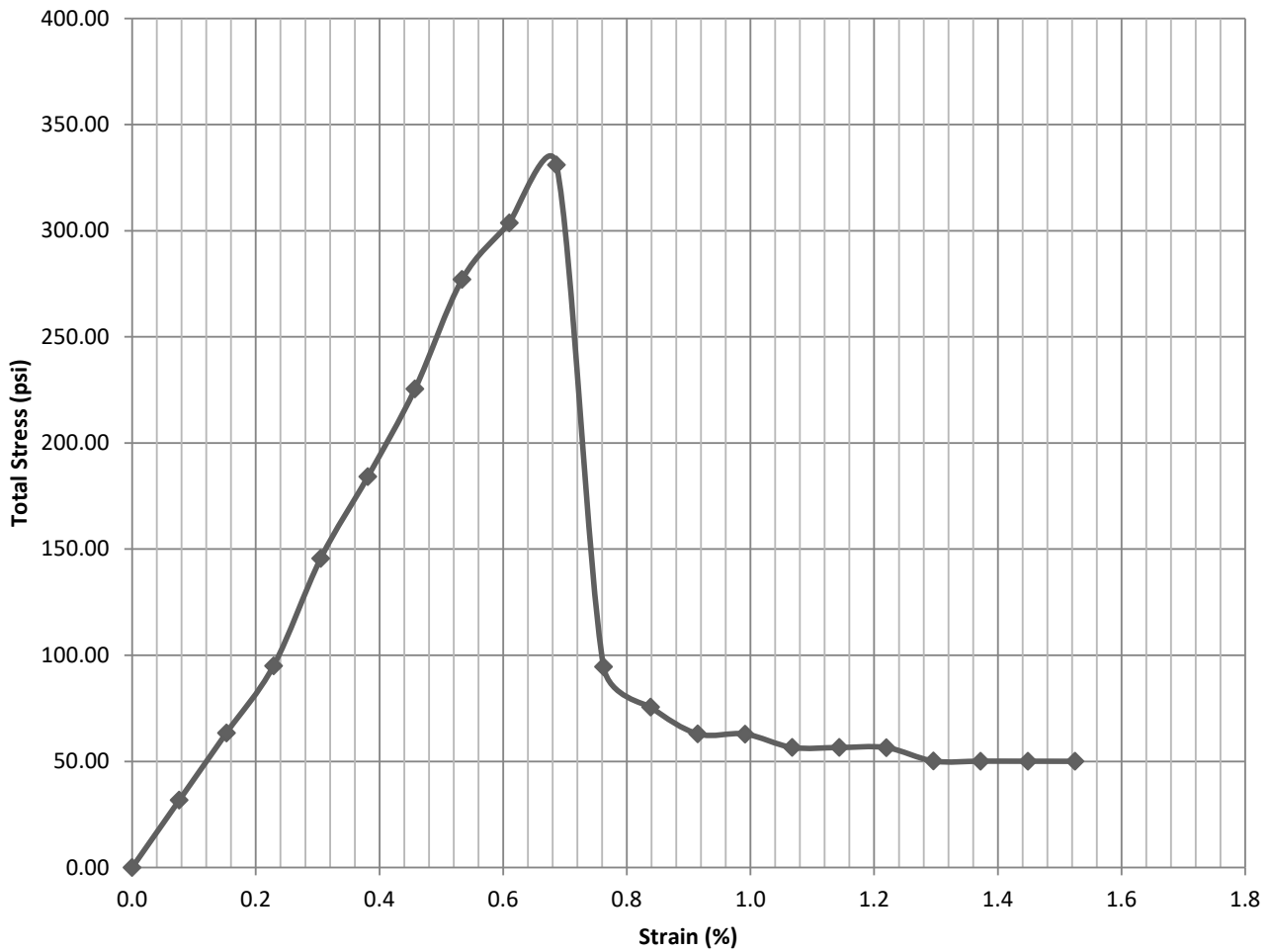
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0887
Sample Location:	B-12 / NQ-1	Depth of Sample:	43.9' - 44.2'
Tested By:	W. Pitts	Date Tested:	4/12/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0887



Average Initial Diameter (Do): 1.853 in.
 Average Initial Height (Lo): 3.935 in.
 Average Initial Area (Ao): 2.697 in²
 In-Situ Unit Weight: 108.6 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.61 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.667 lbs.
 L/D Ratio: 2.124

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/12/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-12 / NQ-3
 Depth/Elevation 49.7' - 50.0'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 330 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



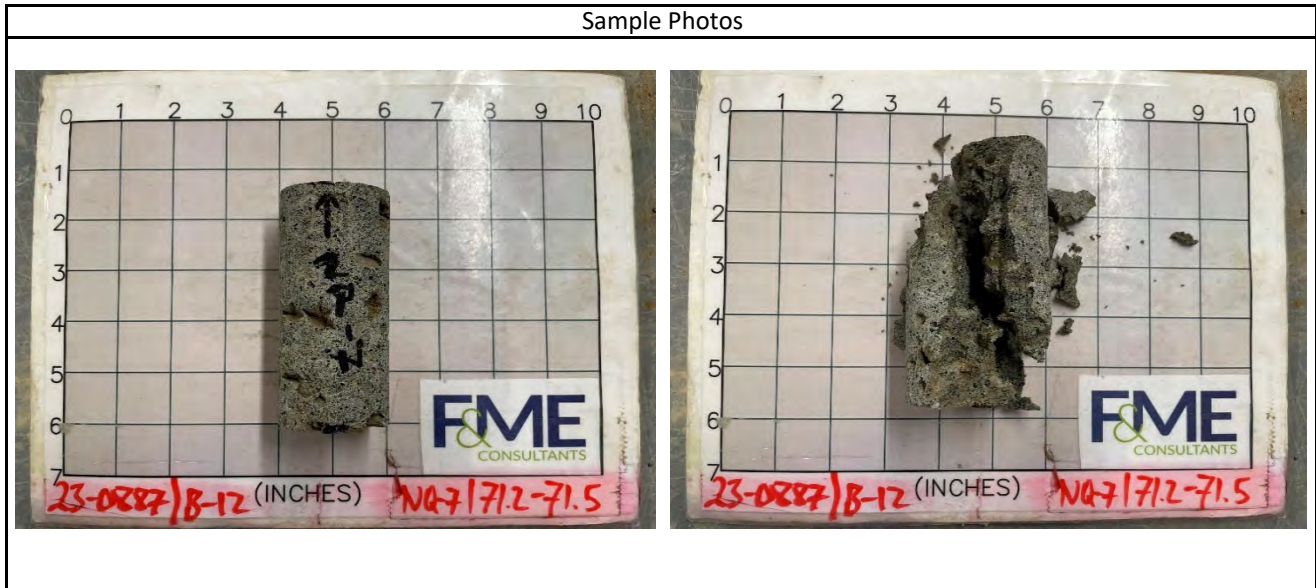
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0887
Sample Location:	B-12 / NQ-3	Depth of Sample:	49.7' - 50.0'
Tested By:	W. Pitts	Date Tested:	4/12/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.85	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.995	Reviewed By	WJG
Boring	B-12	Unit Weight (pcf)	150.1	Core Size	NQ
Sample No.	NQ-7 / 23-0887	L/D Ratio	2.16	Recovery	51%
Depth	71.2' - 71.5'	Load Rate (psi/sec)	10	RQD	43%
Description	Gray/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-562	52	1,642	611	2.17	0.09
30%	-853	89	2,459	915	2.14	0.10
40%	-1083	128	3,251	1,209	2.23	0.12
50%	-1321	173	4,042	1,504	2.28	0.13
60%	-1558	217	4,870	1,812	2.33	0.14
70%	-1768	251	5,641	2,099	2.37	0.14
80%	-2014	294	6,434	2,394	2.38	0.15
90%	-2370	342	7,243	2,695	2.27	0.14
100%	-3002	519	8,090	3,010		

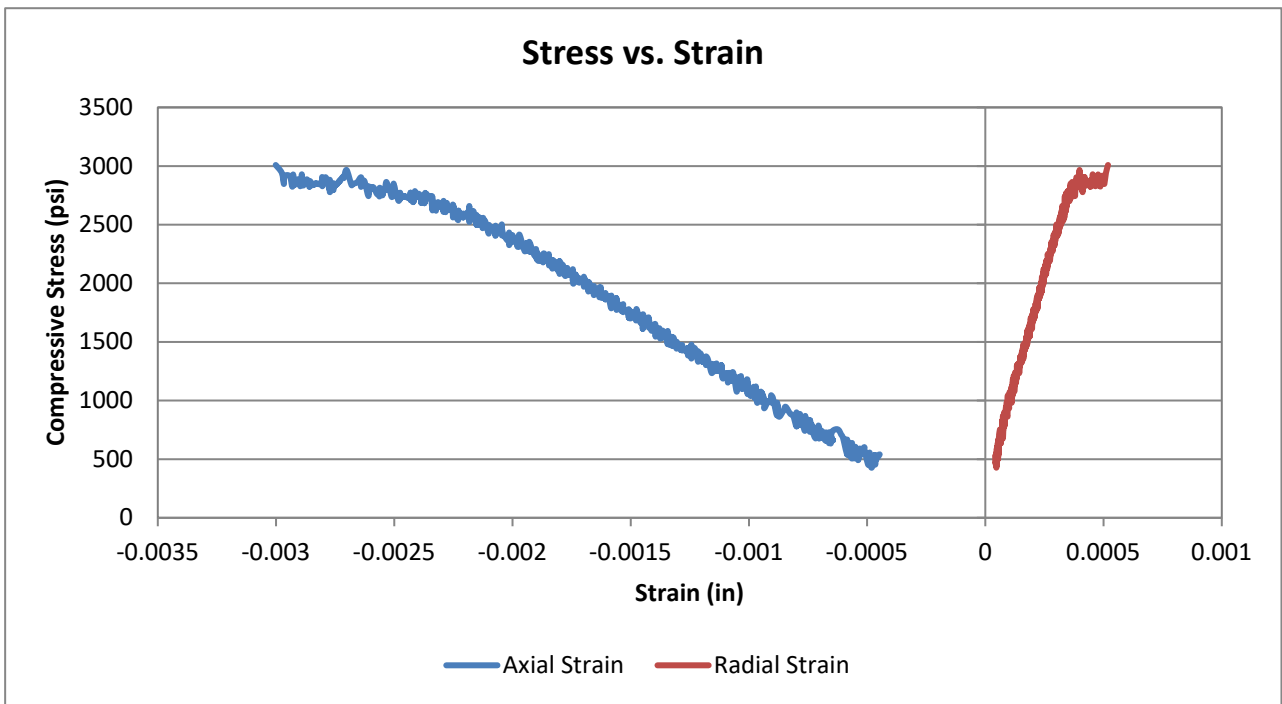
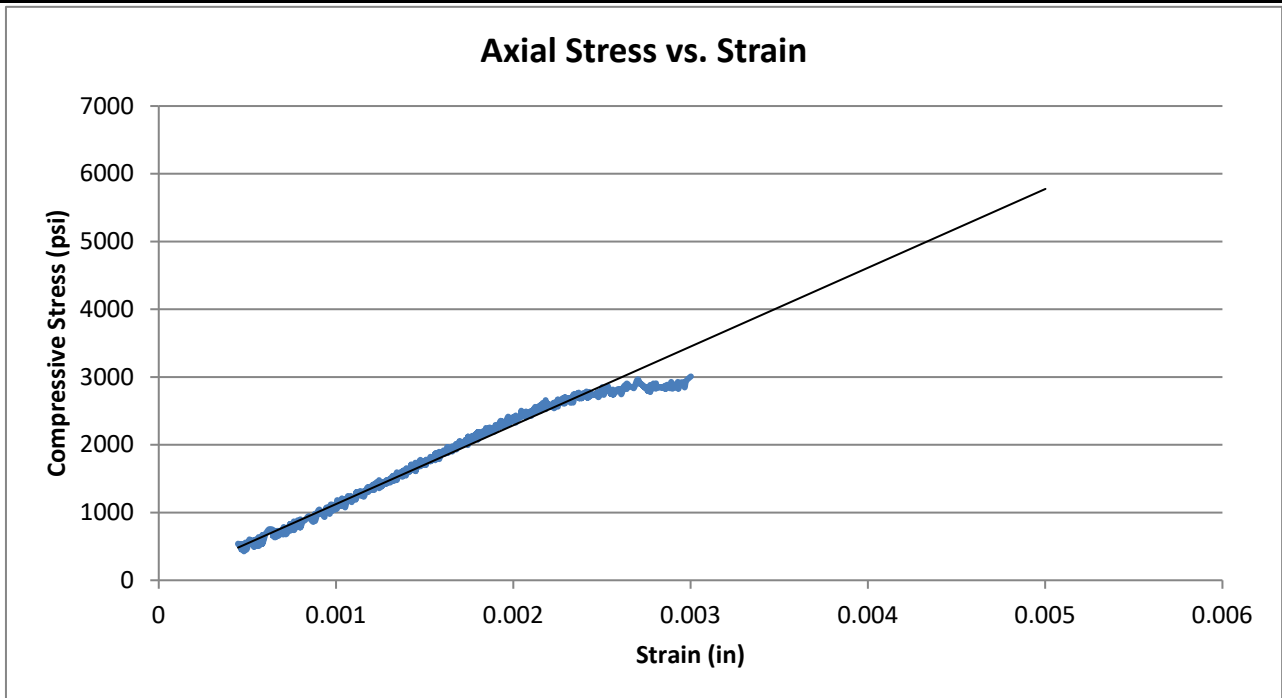


Test Results			
Unconfined Compressive Strength (psi)	3,010	Elastic Modulus (psi)	2.31E+06
		Poisson's Ratio in Elastic Range	0.13
Comments	Elastic range was taken as between 0.001 and 0.002 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



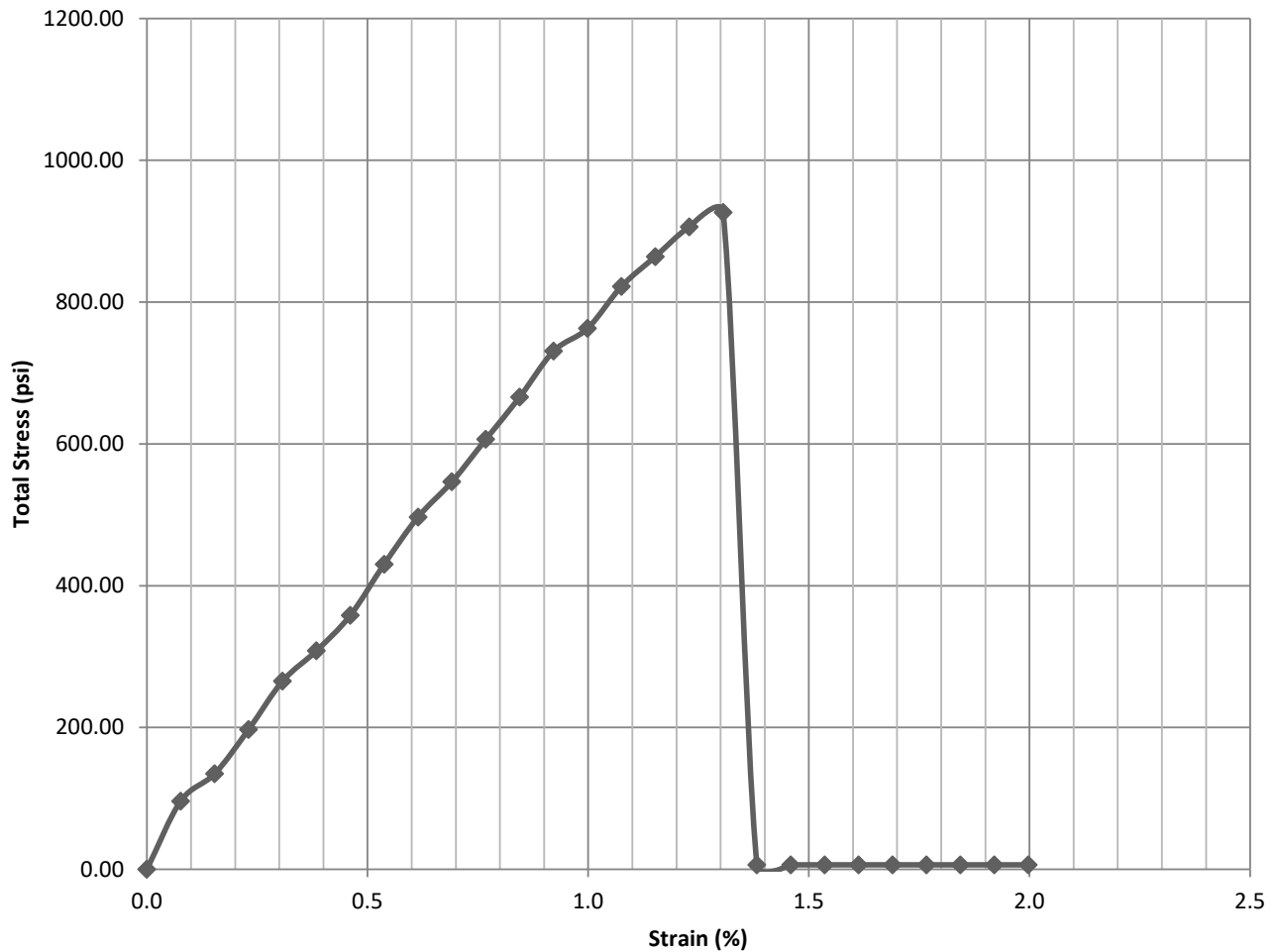
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.85	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.995	Reviewed By	WJG
Boring	B-12	Unit Weight (pcf)	150.1	Core Size	NQ
Sample No.	NQ-7 / 23-0887	L/D Ratio	2.16	Recovery	51%
Depth	71.2' - 71.5'	Load Rate (psi/sec)	10	RQD	43%
Description	Gray/Black Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0887



Average Initial Diameter (Do): 1.842 in.
 Average Initial Height (Lo): 3.906 in.
 Average Initial Area (Ao): 2.665 in²
 In-Situ Unit Weight: 144.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.41 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.868 lbs.
 L/D Ratio: 2.121

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/12/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-12 / NQ-8
 Depth/Elevation 75.2' - 75.5'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 925$ psi $\epsilon_{ULT} = 1.3\%$

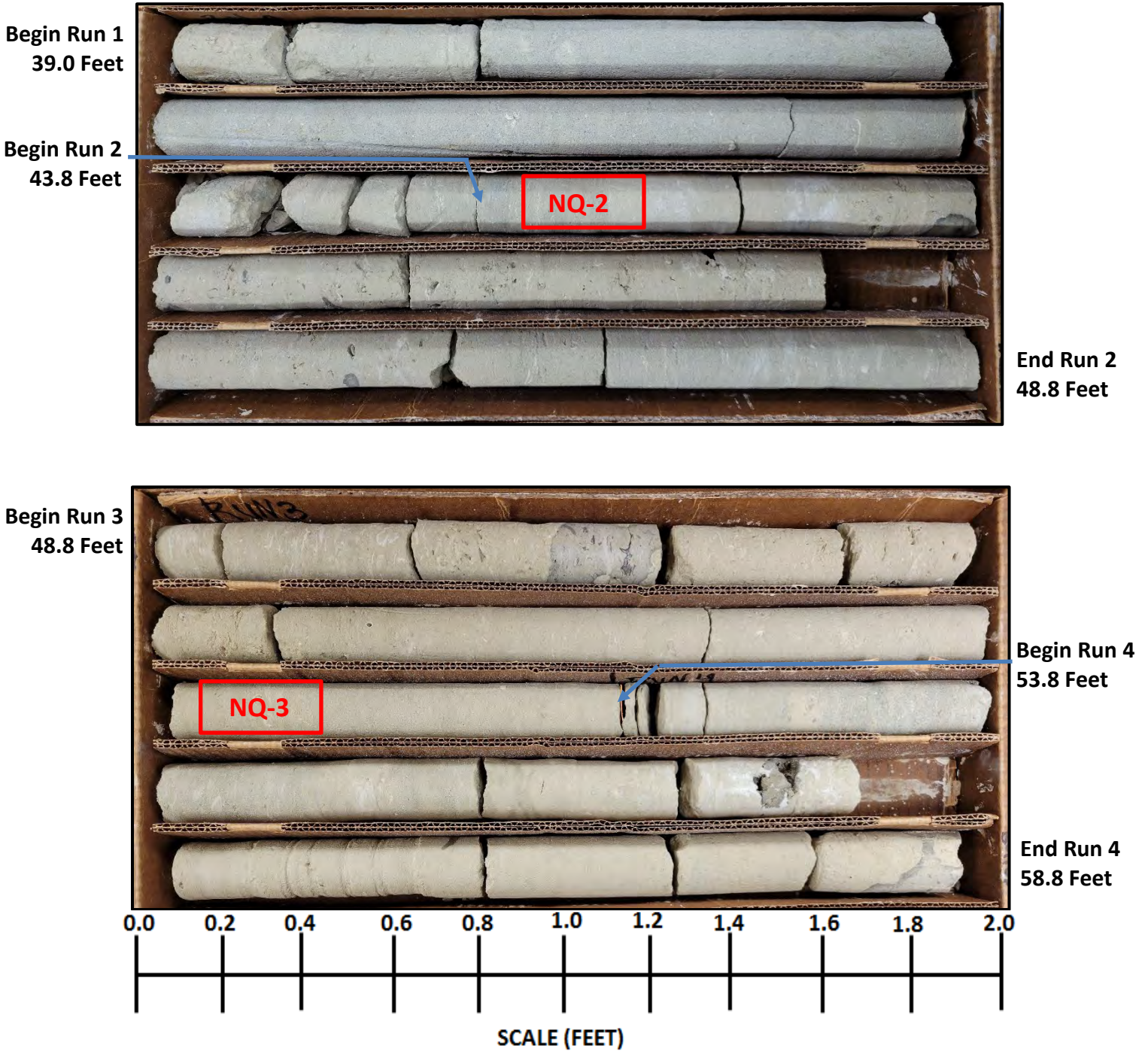


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0887
Sample Location:	B-12 / NQ-8	Depth of Sample:	75.2' - 75.5'
Tested By:	W. Pitts	Date Tested:	4/12/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-14



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-14

Begin Run 5
58.8 Feet



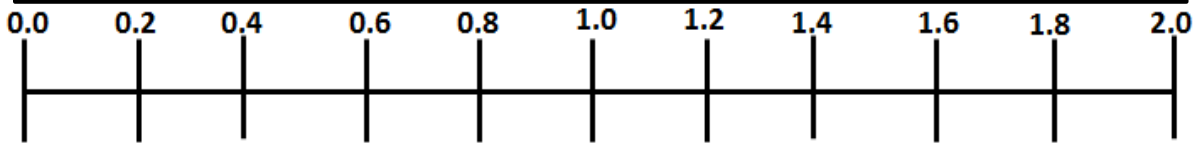
End Run 6
68.8 Feet

Begin Run 7
68.8 Feet



Begin Run 8
73.8 Feet

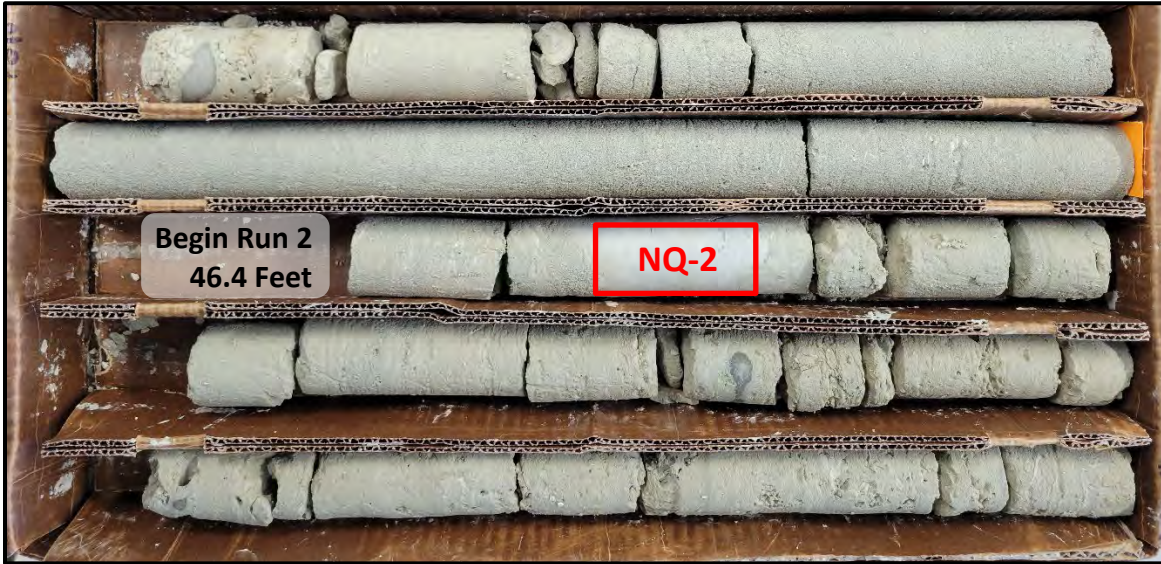
End Run 8
78.8 Feet



SCALE (FEET)

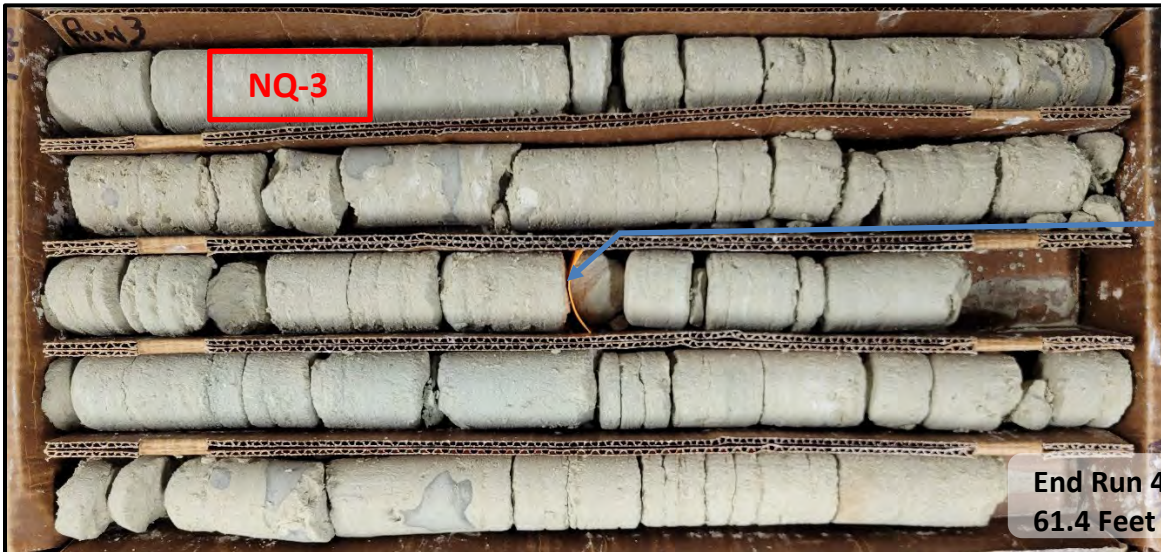
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-15

Begin Run 1
41.9 Feet

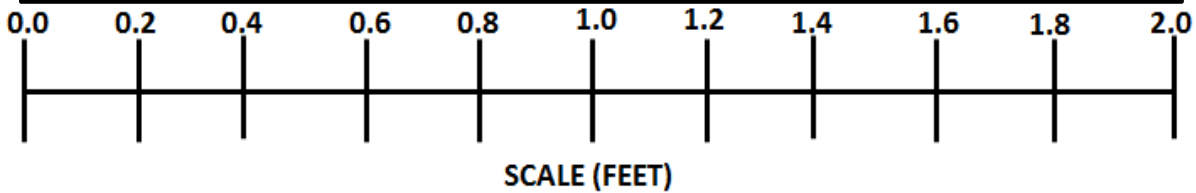


End Run 2
51.4 Feet

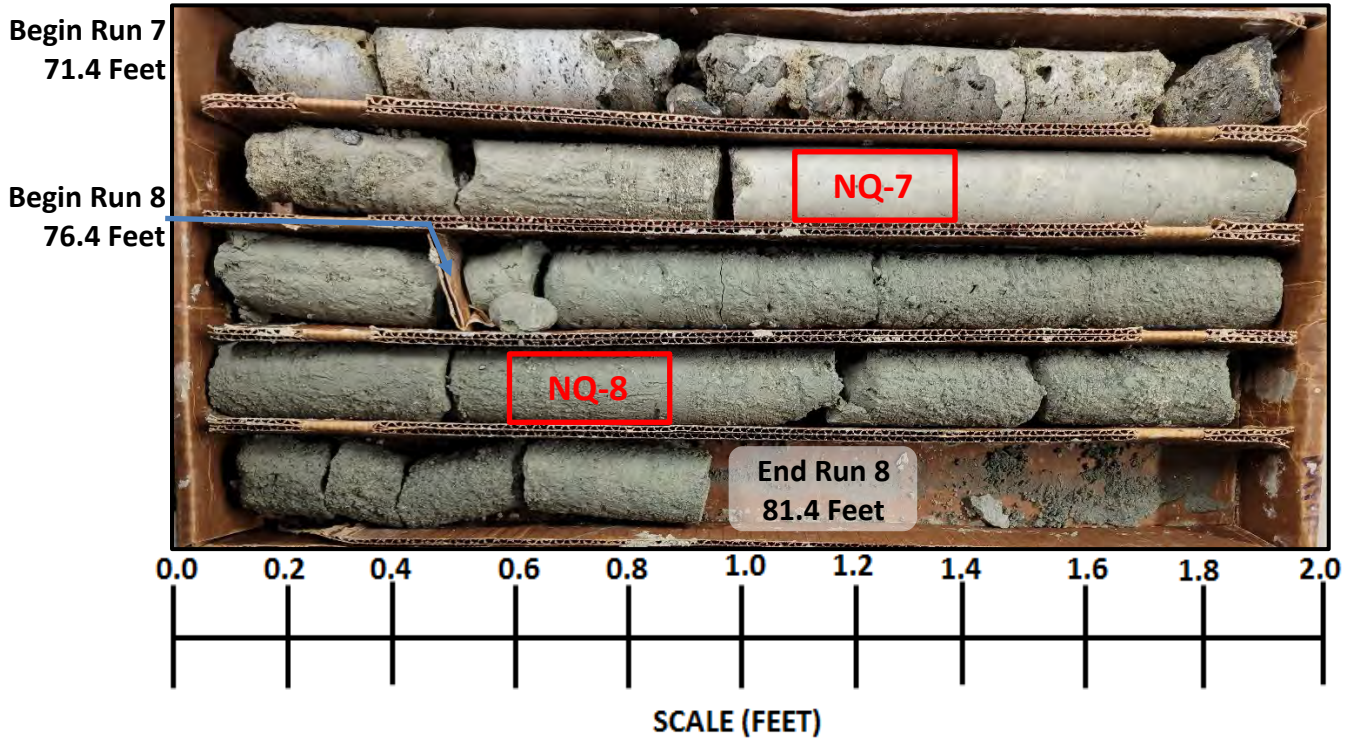
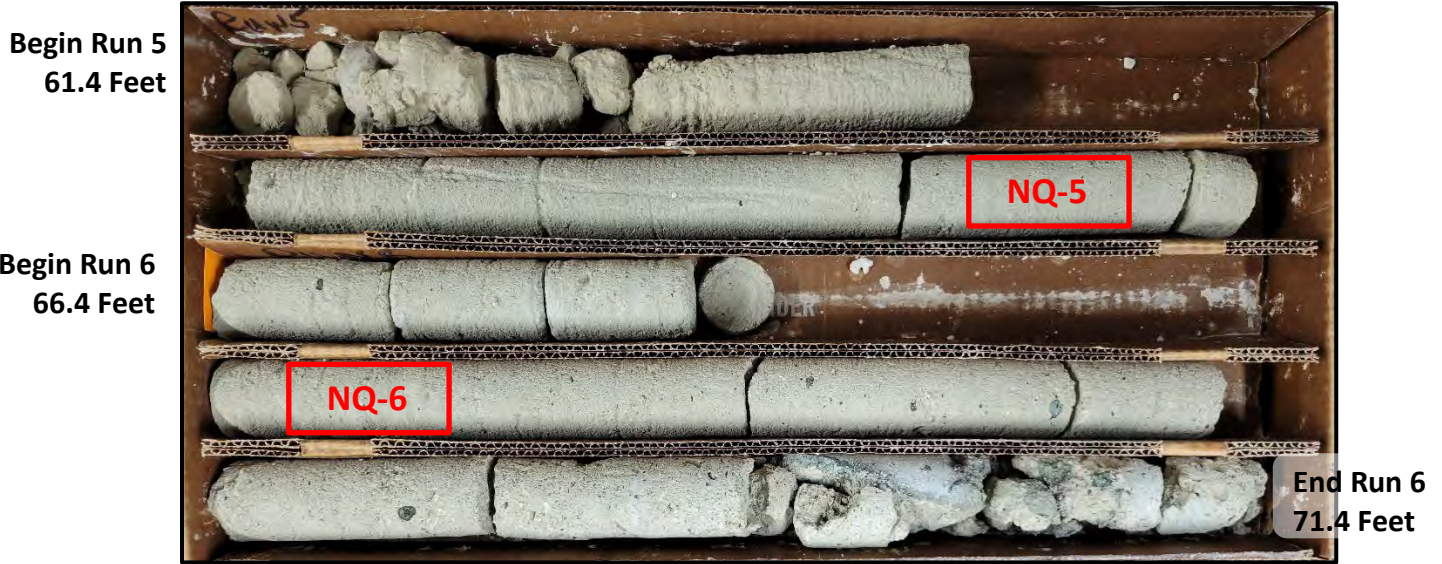
Begin Run 3
51.4 Feet



Begin Run 4
56.4 Feet

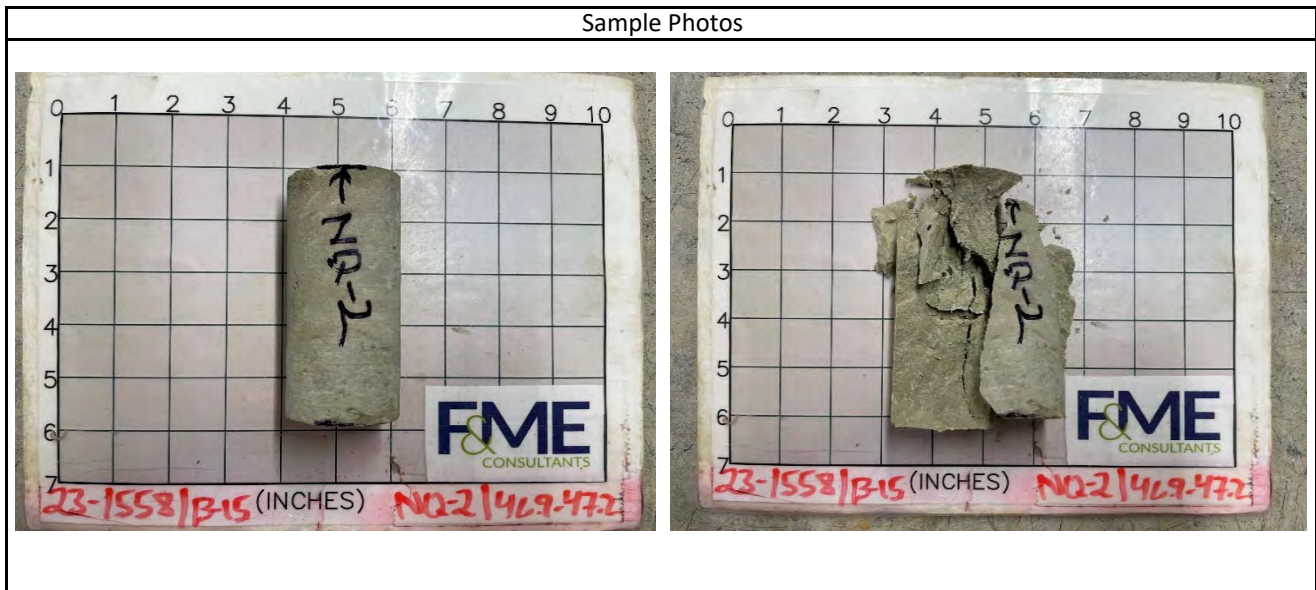


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-15



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.861	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.027	Reviewed By	WJG
Boring	B-15	Unit Weight (pcf)	149.3	Core Size	NQ
Sample No.	NQ-2 / 23-1558A	L/D Ratio	2.16	Recovery	95%
Depth	46.9' - 47.2'	Load Rate (psi/sec)	10	RQD	38%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	-204	55	1,258	462	4.54	0.27
20%	-487	135	2,512	924	3.79	0.28
30%	-783	237	3,781	1,390	3.55	0.30
40%	-1147	378	5,038	1,852	3.23	0.33
50%	-1592	593	6,298	2,315	2.91	0.37
60%	-2005	807	7,552	2,776	2.77	0.40
70%	-2515	1077	8,882	3,265	2.60	0.43
80%	-3084	1498	10,079	3,705	2.40	0.49
90%	-3816	2170	11,365	4,178	2.19	0.57
100%	-5360	3199	12,599	4,632		

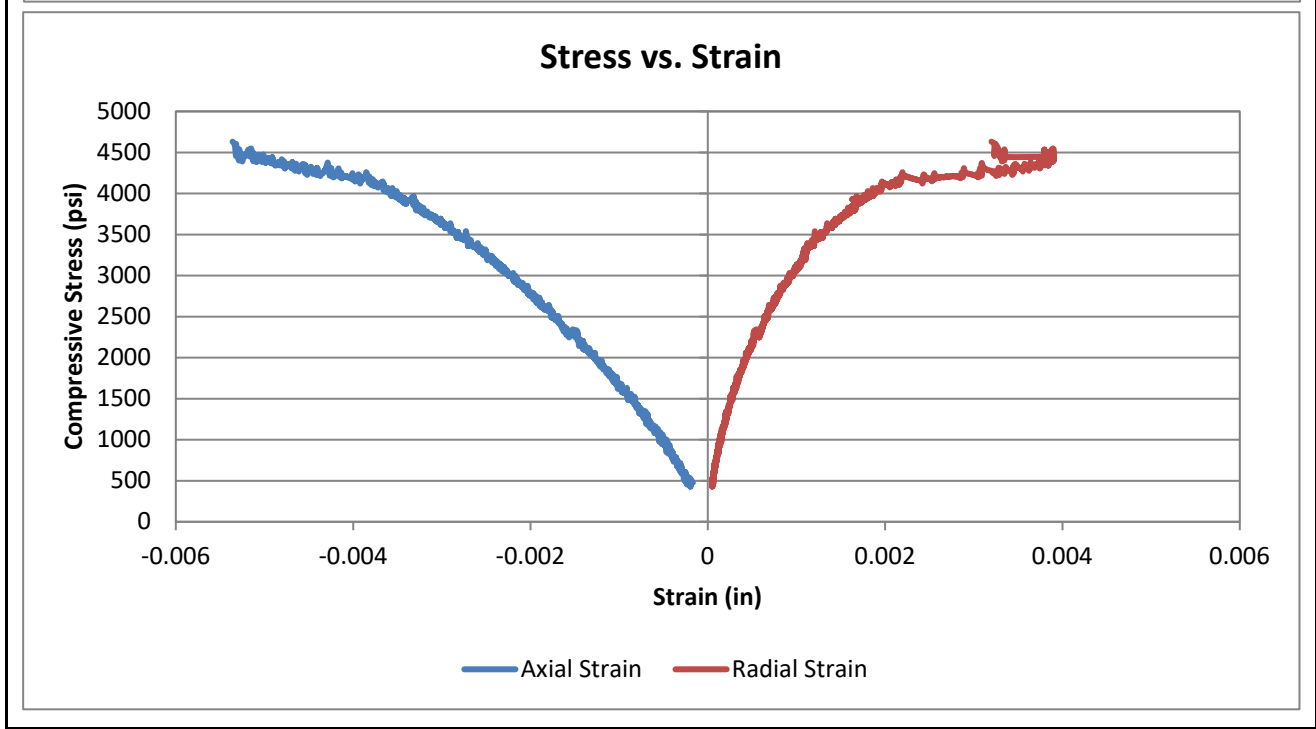
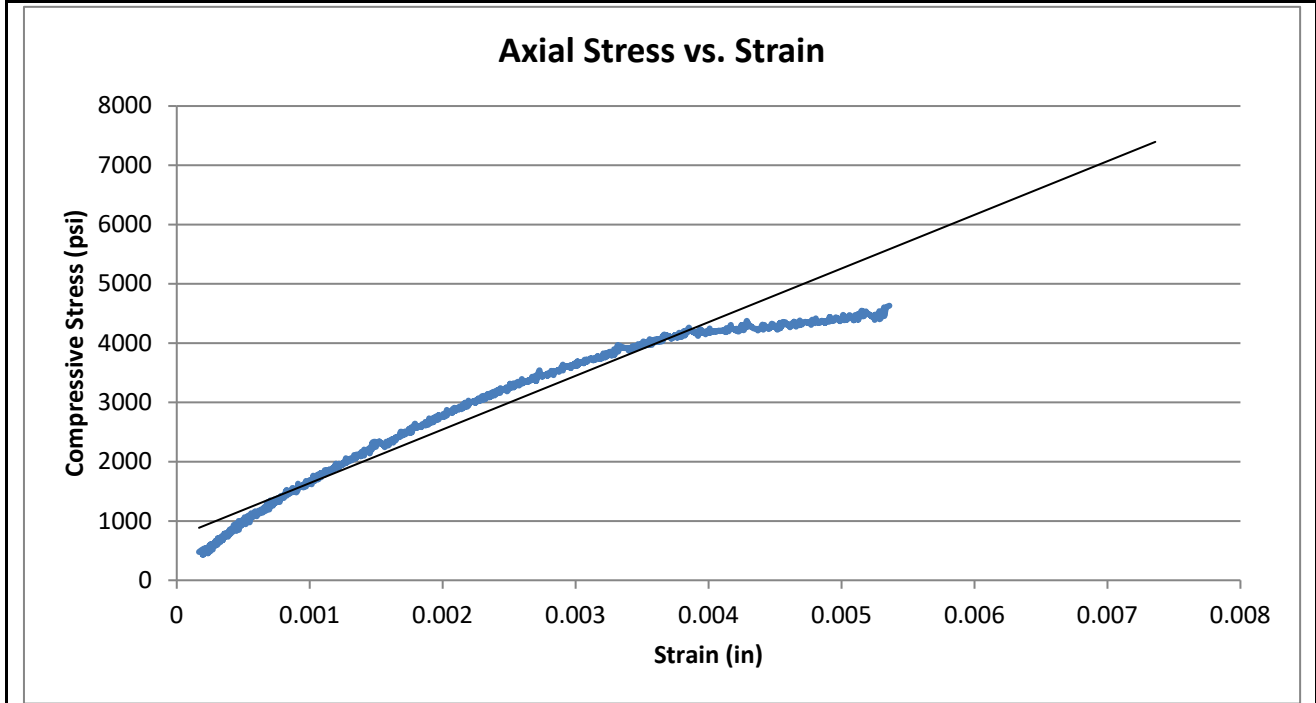


Test Results			
Unconfined Compressive Strength (psi)	4,630	Elastic Modulus (psi)	2.84E+06
		Poisson's Ratio in Elastic Range	0.39
Comments	Elastic range was taken as between 0.001 and 0.003 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



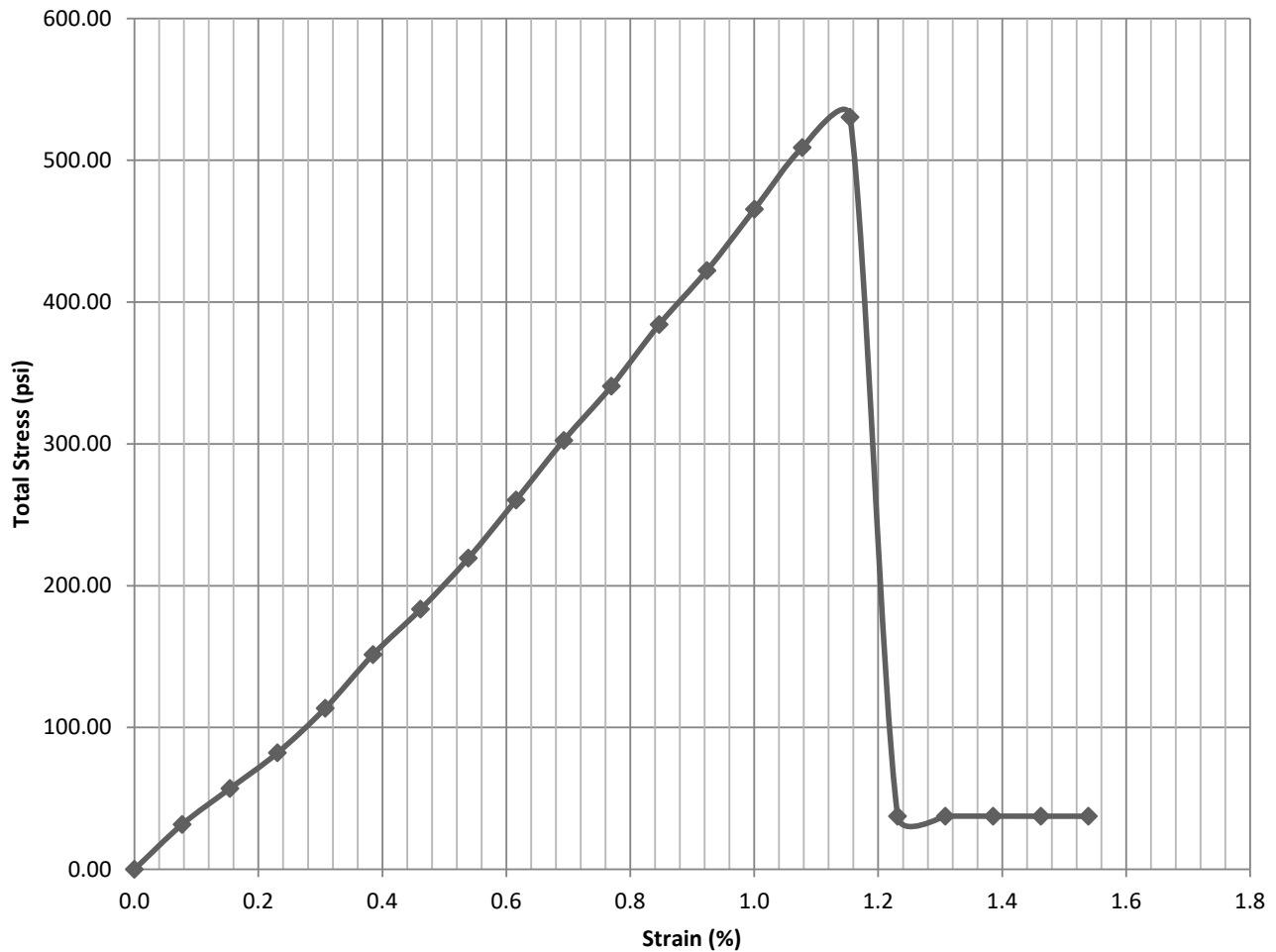
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.861	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.027	Reviewed By	WJG
Boring	B-15	Unit Weight (pcf)	149.3	Core Size	NQ
Sample No.	NQ-2 / 23-1558A	L/D Ratio	2.16	Recovery	95%
Depth	46.9' - 47.2'	Load Rate (psi/sec)	10	RQD	38%
Description	Brown/Gray Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1558



Average Initial Diameter (Do): 1.856 in.
 Average Initial Height (Lo): 3.898 in.
 Average Initial Area (Ao): 2.705 in²
 In-Situ Unit Weight: 123.7 pcf
 Failure Mode: Plastic Failure

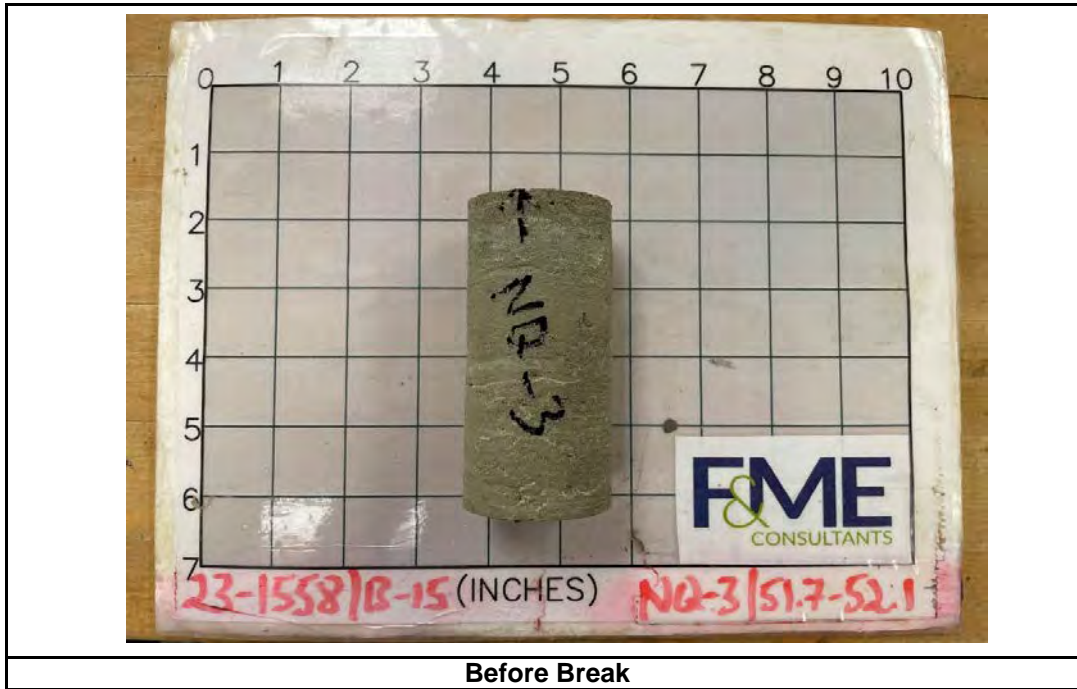
Sample Volume: 10.55 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.755 lbs.
 L/D Ratio: 2.100

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/19/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-15 / NQ-3
 Depth/Elevation 51.7' - 52.1'

Sample Type : Soil Core
 Target Strain Rate : 0.60% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 530 \text{ psi}$ $\epsilon_{ULT} = 1.2\%$



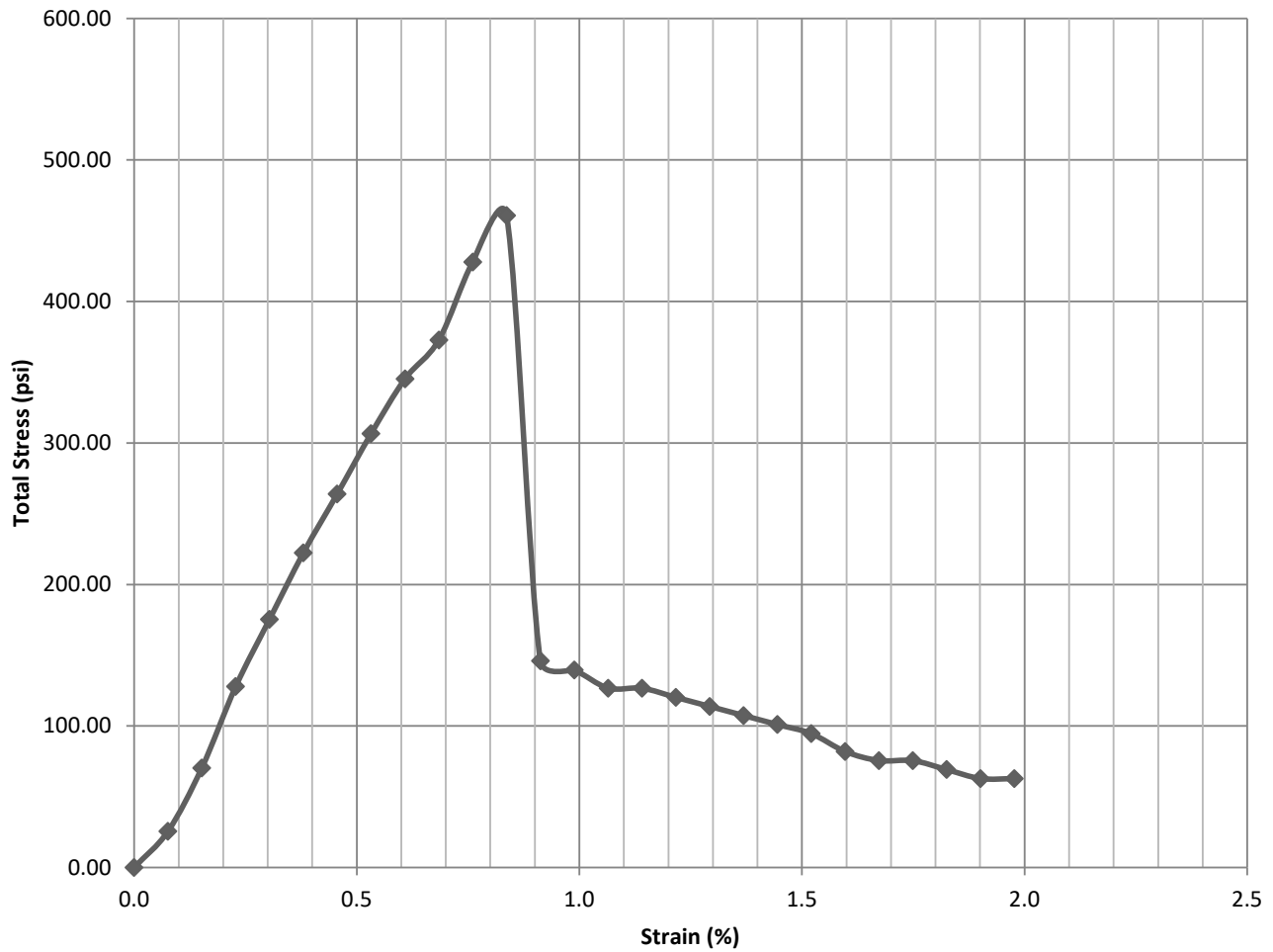
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1558
Sample Location:	B-15 / NQ-3	Depth of Sample:	51.7' - 52.1'
Tested By:	W. Pitts	Date Tested:	6/19/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1558



Average Initial Diameter (Do): 1.845 in.
 Average Initial Height (Lo): 3.945 in.
 Average Initial Area (Ao): 2.674 in²
 In-Situ Unit Weight: 120.4 pcf
 Failure Mode: Plastic Failure

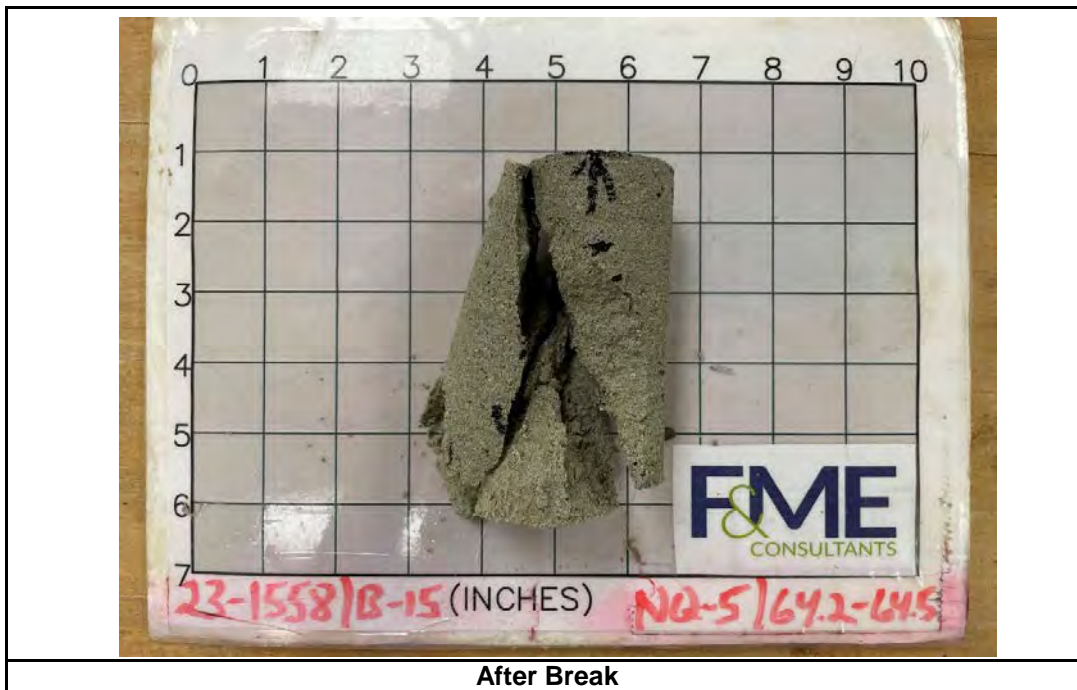
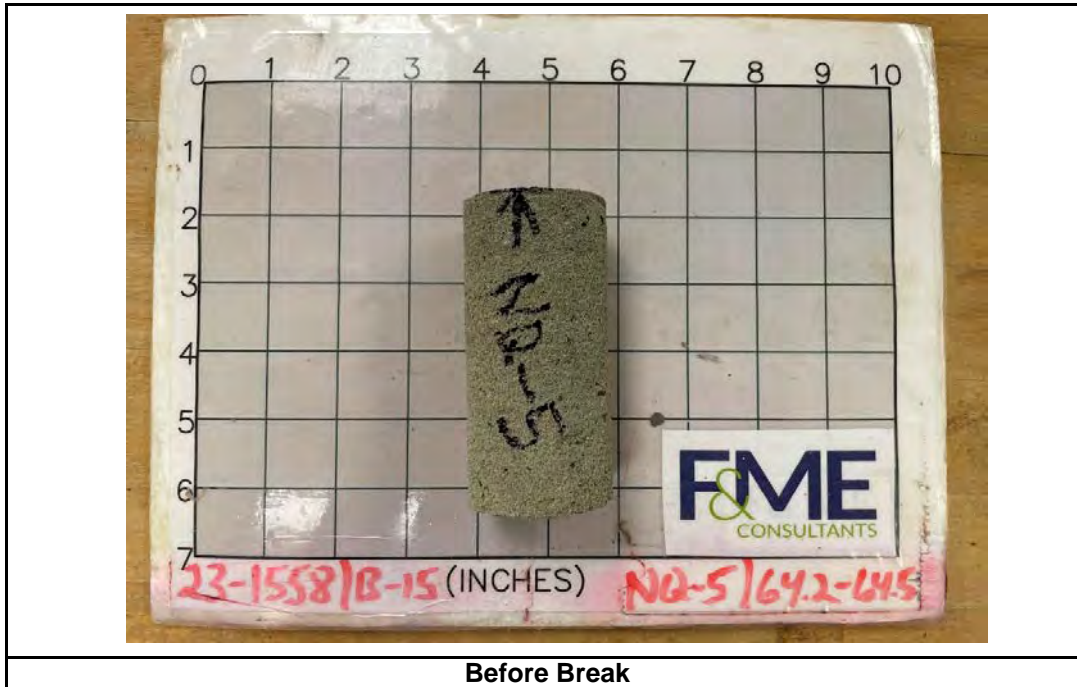
Sample Volume: 10.55 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.735 lbs.
 L/D Ratio: 2.138

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/19/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-15 / NQ-5
 Depth/Elevation 64.2' - 64.5'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 460 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



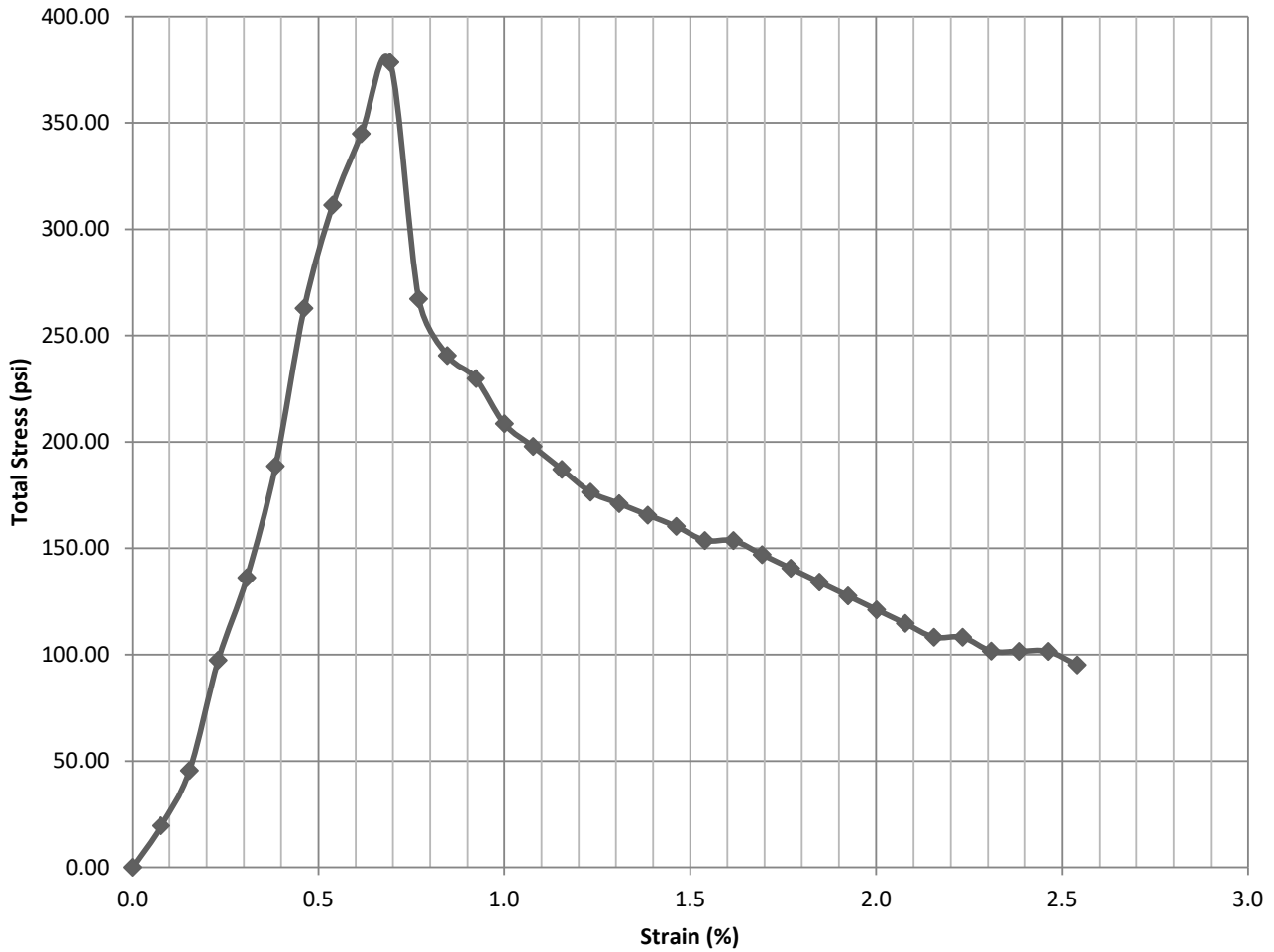
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1558
Sample Location:	B-15 / NQ-5	Depth of Sample:	64.2' - 64.5'
Tested By:	W. Pitts	Date Tested:	6/19/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1558



Average Initial Diameter (Do): 1.831 in.
 Average Initial Height (Lo): 3.898 in.
 Average Initial Area (Ao): 2.633 in²
 In-Situ Unit Weight: 118.8 pcf
 Failure Mode: Plastic Failure

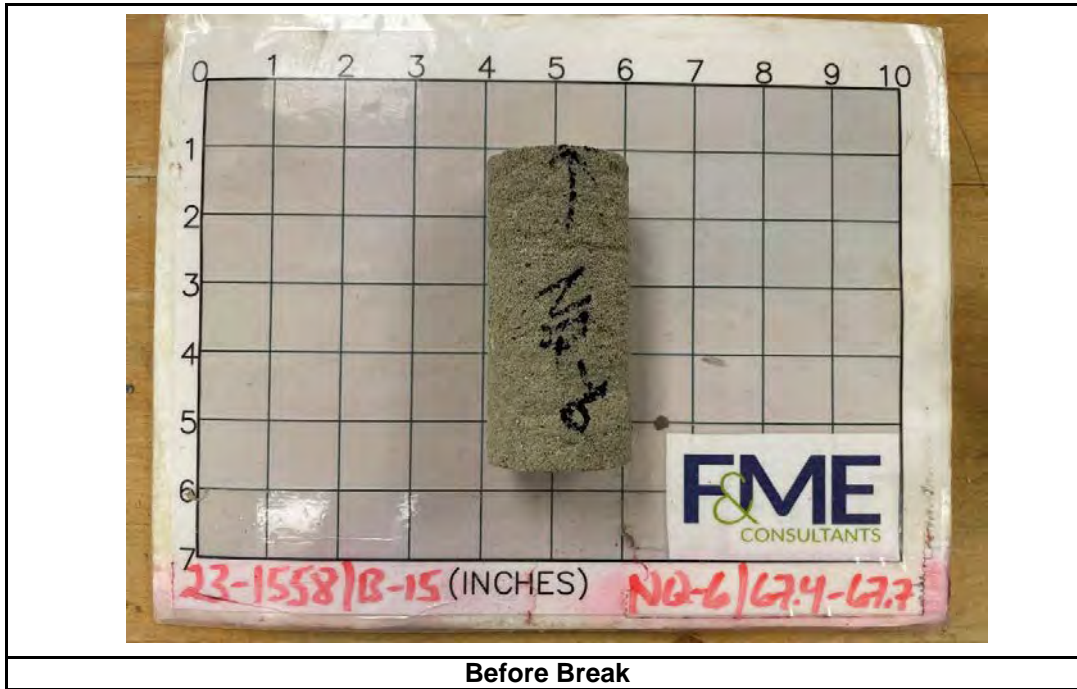
Sample Volume: 10.26 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.706 lbs.
 L/D Ratio: 2.129

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/19/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-15 / NQ-6
 Depth/Elevation 67.4' - 67.7'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 380 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



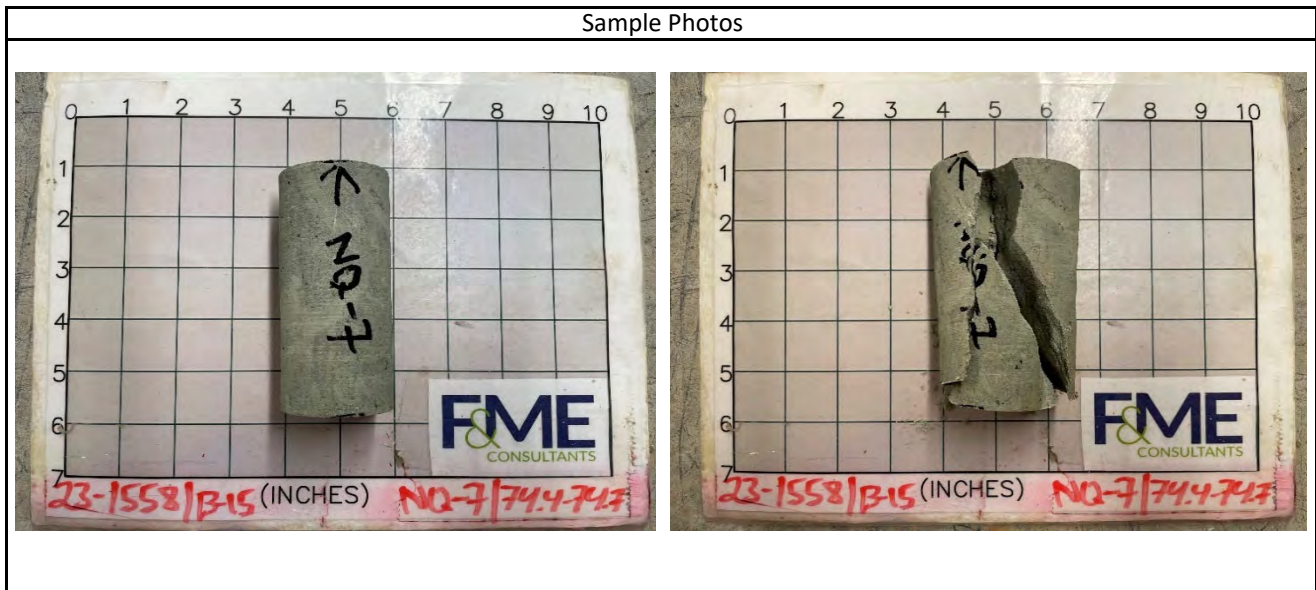
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1558
Sample Location:	B-15 / NQ-6	Depth of Sample:	67.4' - 67.7'
Tested By:	W. Pitts	Date Tested:	6/19/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.856	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.029	Reviewed By	WJG
Boring	B-15	Unit Weight (pcf)	146.8	Core Size	NQ
Sample No.	NQ-7 / 23-1558B	L/D Ratio	2.17	Recovery	87%
Depth	74.4' - 74.7'	Load Rate (psi/sec)	10	RQD	67%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-500	1187	913	337	1.35	2.38
30%	-1007	1757	1,437	531	1.06	1.75
40%	-1344	2211	1,941	717	1.07	1.64
50%	-1830	2697	2,365	874	0.96	1.47
60%	-2458	3396	2,875	1,063	0.86	1.38
70%	-2929	3974	3,369	1,245	0.85	1.36
80%	-3938	5355	3,816	1,411	0.72	1.36
90%	-5023	7289	4,372	1,616	0.64	1.45
100%	-5989	8917	4,798	1,774		

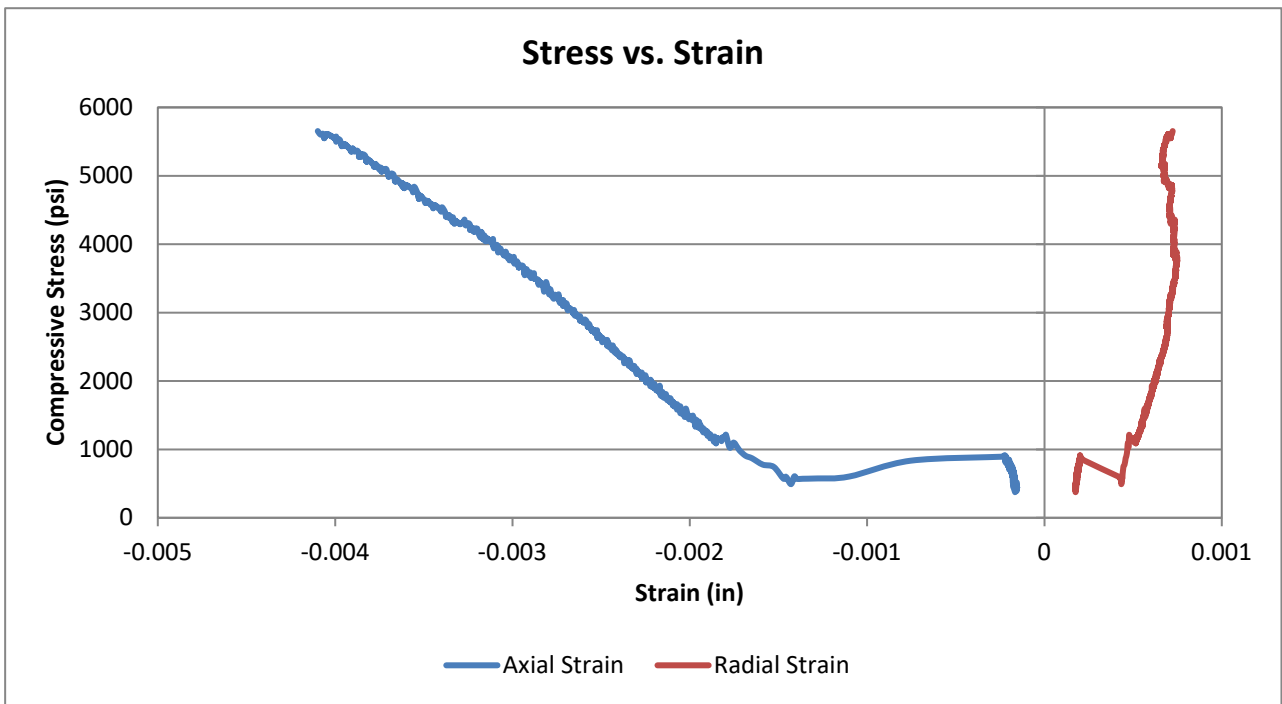
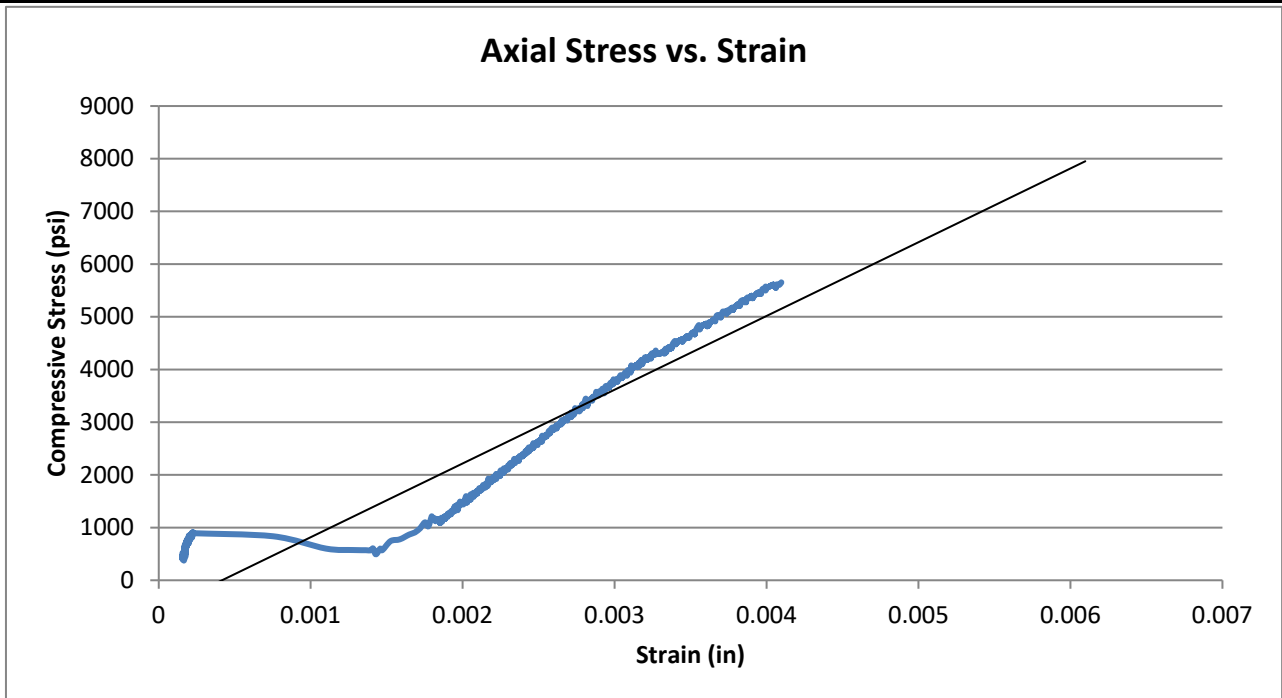


Test Results			
Unconfined Compressive Strength (psi)	1,770	Elastic Modulus (psi)	N/A
		Poisson's Ratio in Elastic Range	N/A
Comments	Based on the stress-strain data for this sample, a reasonable elastic modulus and Poisson's Ratio cannot be determined.		



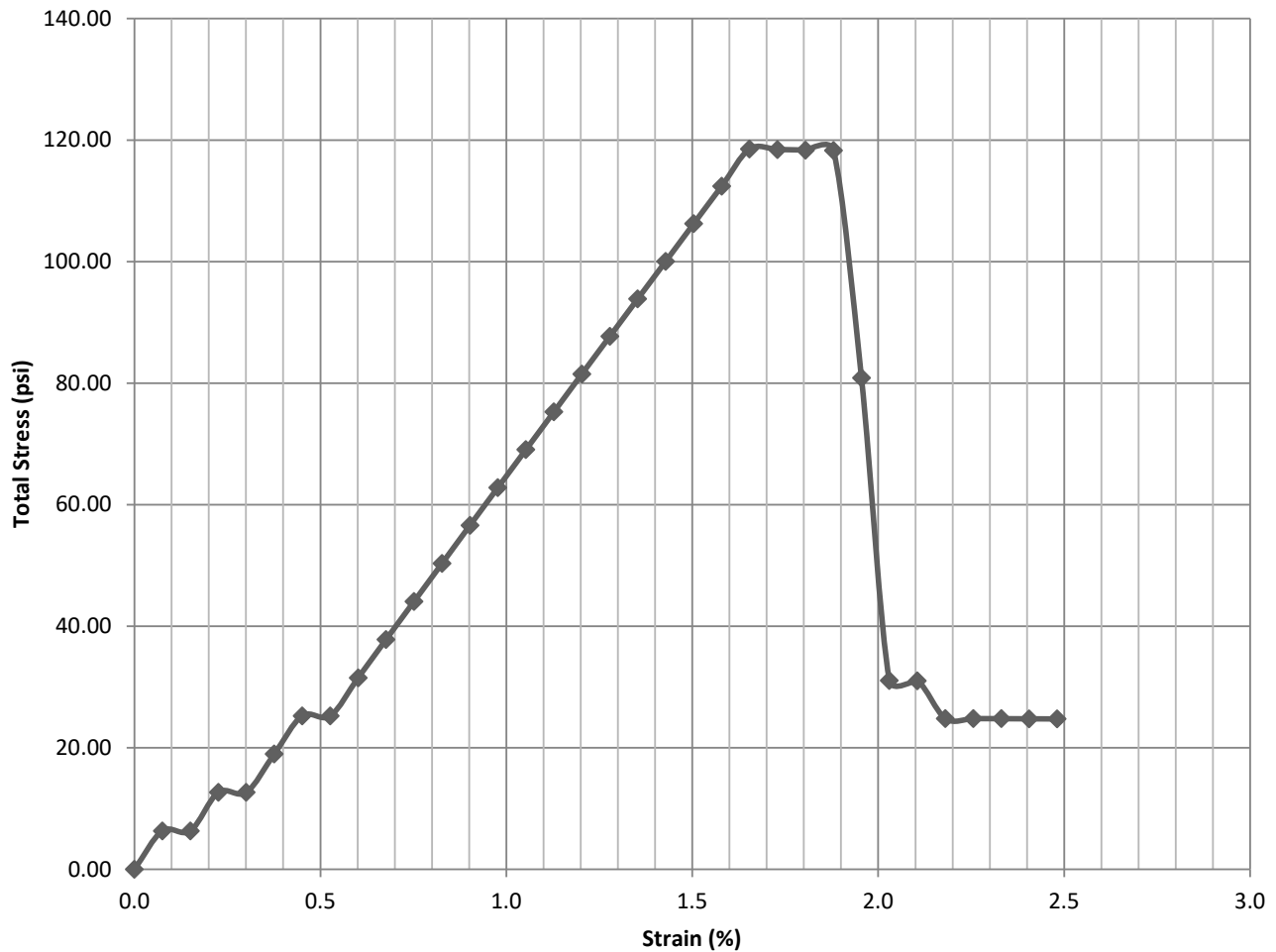
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.856	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.029	Reviewed By	WJG
Boring	B-15	Unit Weight (pcf)	146.8	Core Size	NQ
Sample No.	NQ-7 / 23-1558B	L/D Ratio	2.17	Recovery	87%
Depth	74.4' - 74.7'	Load Rate (psi/sec)	10	RQD	67%
Description	Brown/Gray Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1558



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.990 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 121.8 pcf
 Failure Mode: Plastic Failure

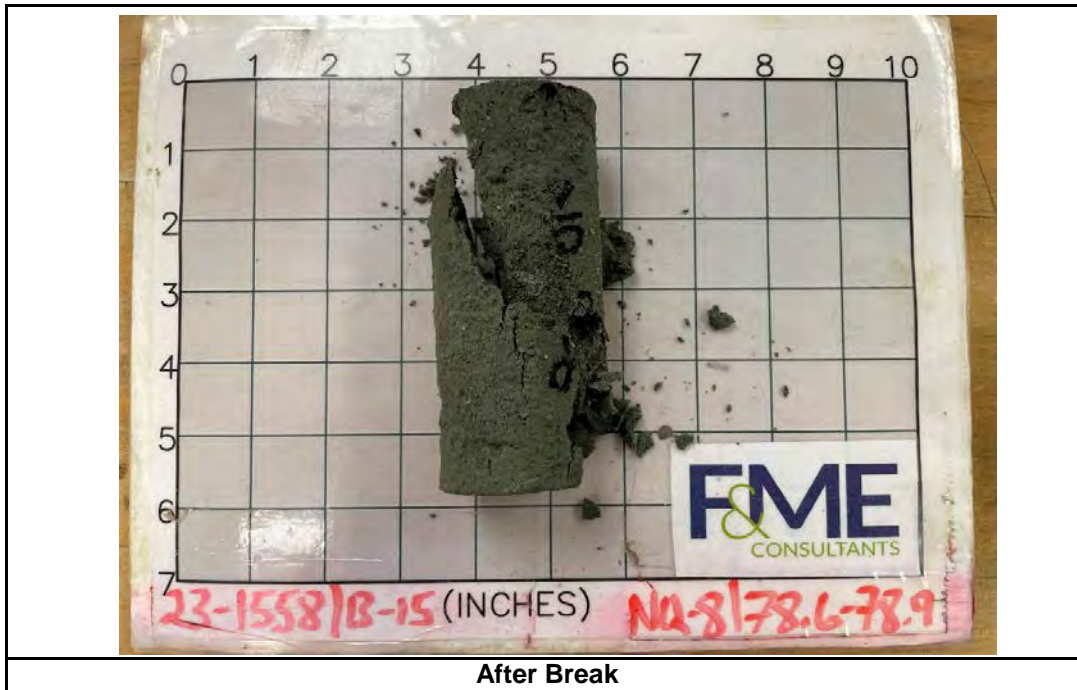
Sample Volume: 10.77 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.759 lbs.
 L/D Ratio: 2.152

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/19/2023
 SCDOT File # P041130 PIN #
 Sample/Location B-15 / NQ-8
 Depth/Elevation 78.6' - 78.9'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 120 \text{ psi}$ $\epsilon_{ULT} = 1.7\%$

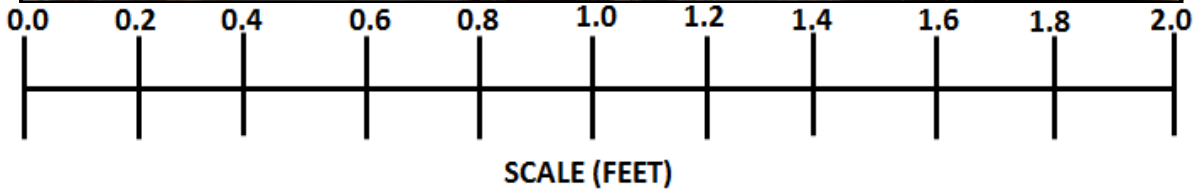
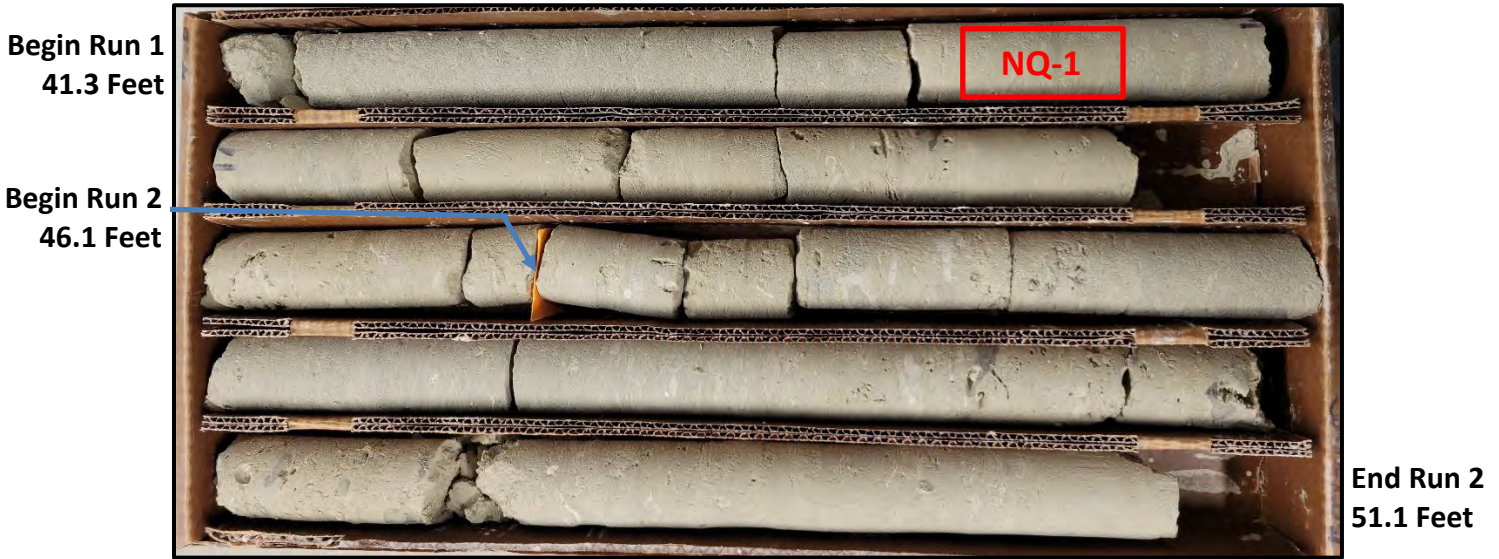


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1558
Sample Location:	B-15 / NQ-8	Depth of Sample:	78.6' - 78.9'
Tested By:	W. Pitts	Date Tested:	6/19/2023

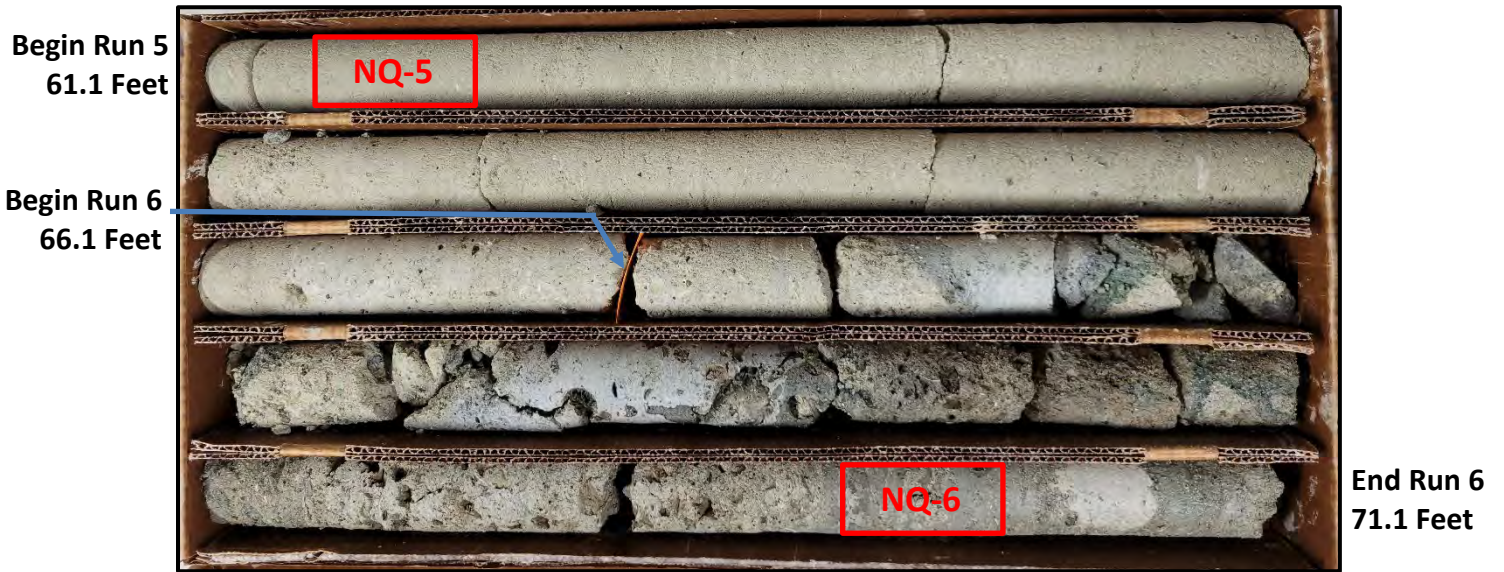


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-16

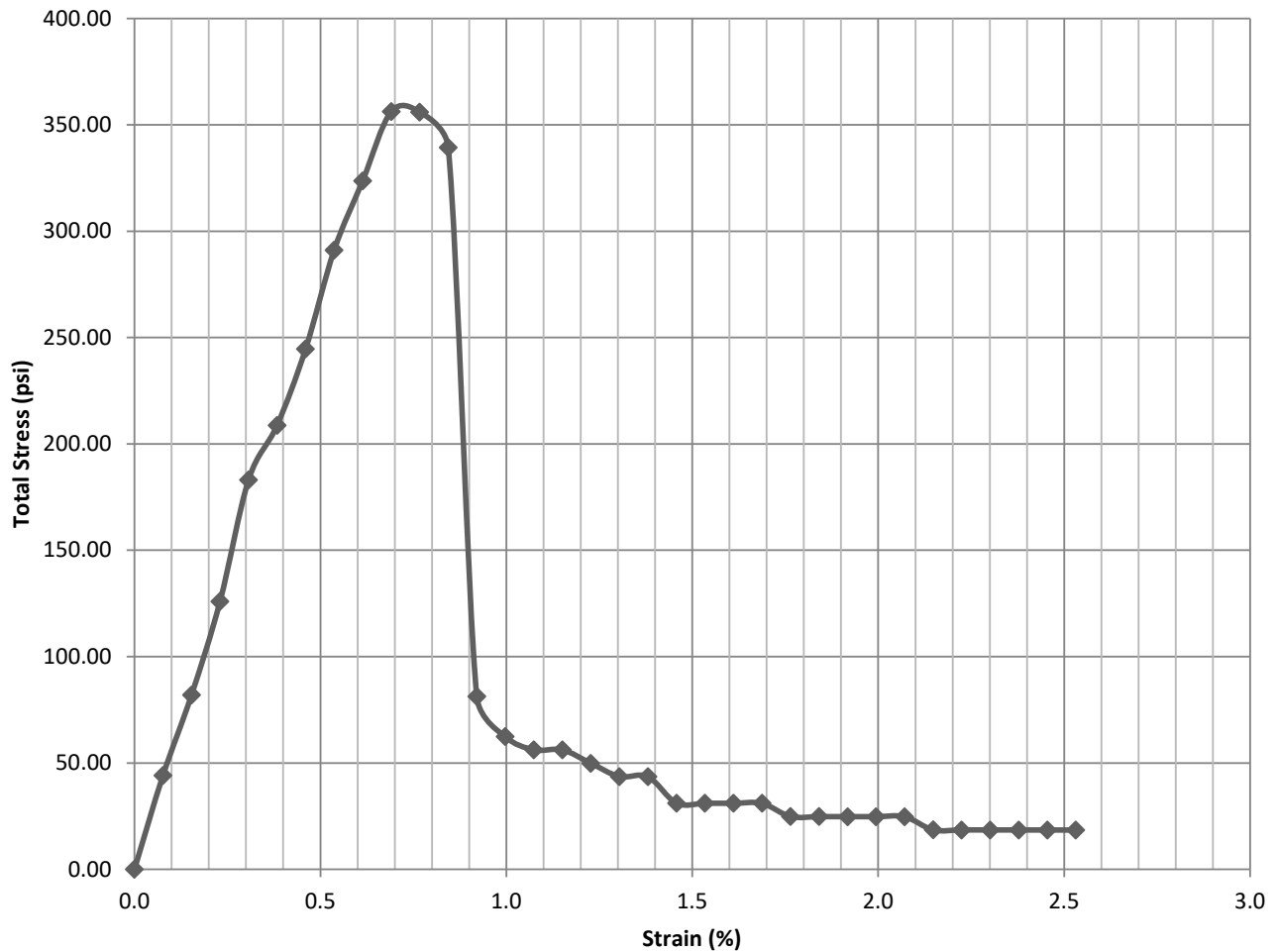


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-16



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0852



Average Initial Diameter (Do): 1.859 in.
 Average Initial Height (Lo): 3.911 in.
 Average Initial Area (Ao): 2.714 in²
 In-Situ Unit Weight: 120.8 pcf
 Failure Mode: Plastic Failure

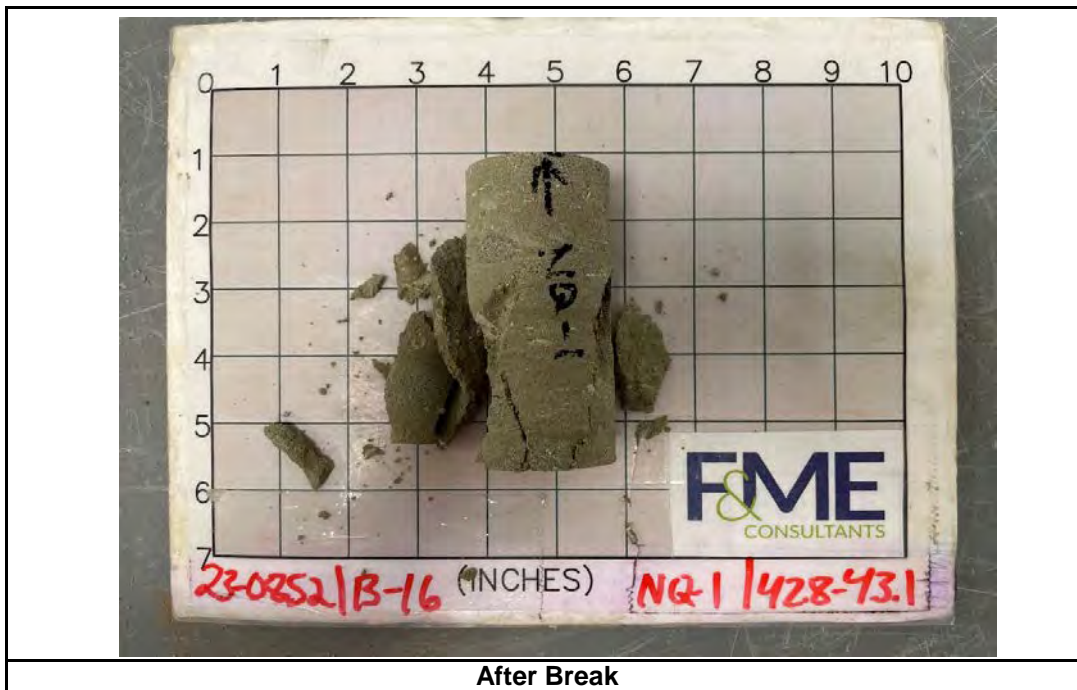
Sample Volume: 10.62 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.742 lbs.
 L/D Ratio: 2.104

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-16 / NQ-1
 Depth/Elevation 42.8' - 43.1'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 355 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



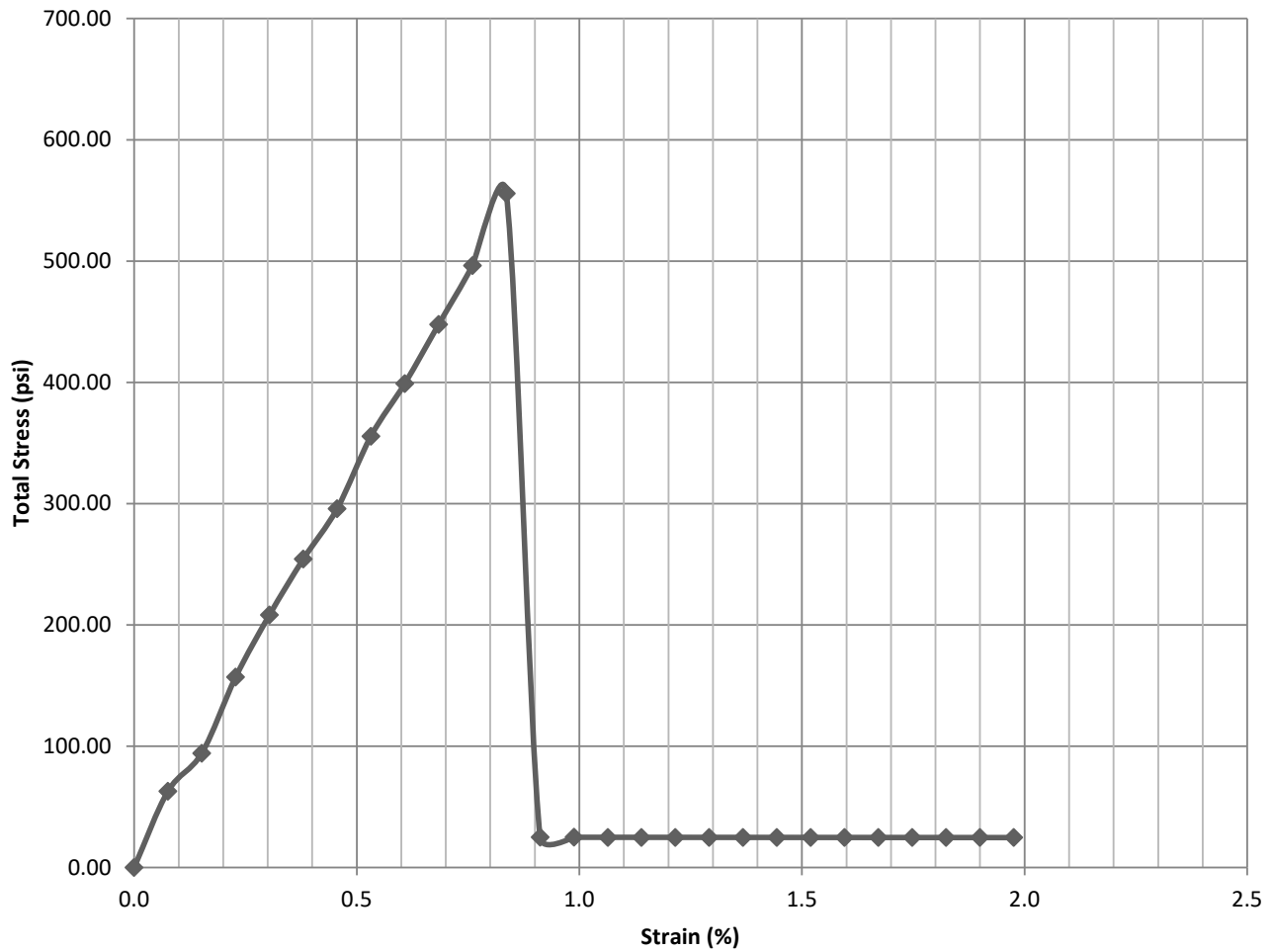
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0852
Sample Location:	B-16 / NQ-1	Depth of Sample:	42.8' - 43.1'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0852



Average Initial Diameter (Do): 1.862 in.
 Average Initial Height (Lo): 3.948 in.
 Average Initial Area (Ao): 2.723 in²
 In-Situ Unit Weight: 116.8 pcf
 Failure Mode: Plastic Failure

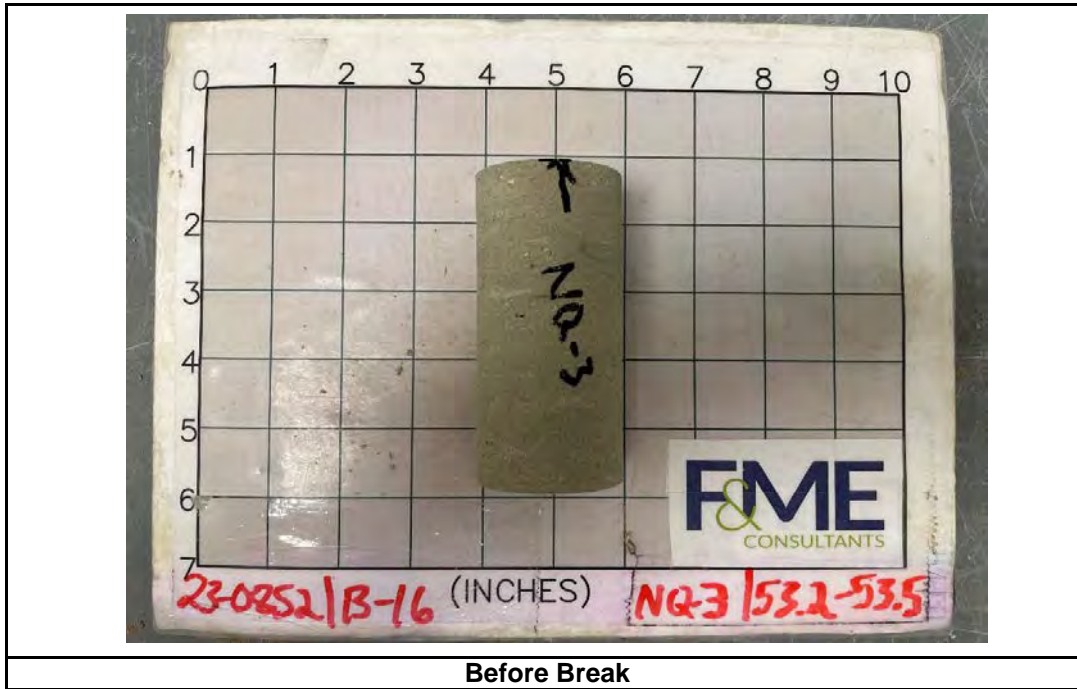
Sample Volume: 10.75 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.727 lbs.
 L/D Ratio: 2.120

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN #
 Sample/Location B-16 / NQ-3
 Depth/Elevation 53.2' - 53.5'

Sample Type : Soil Core
 Target Strain Rate : 0.7% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 555 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



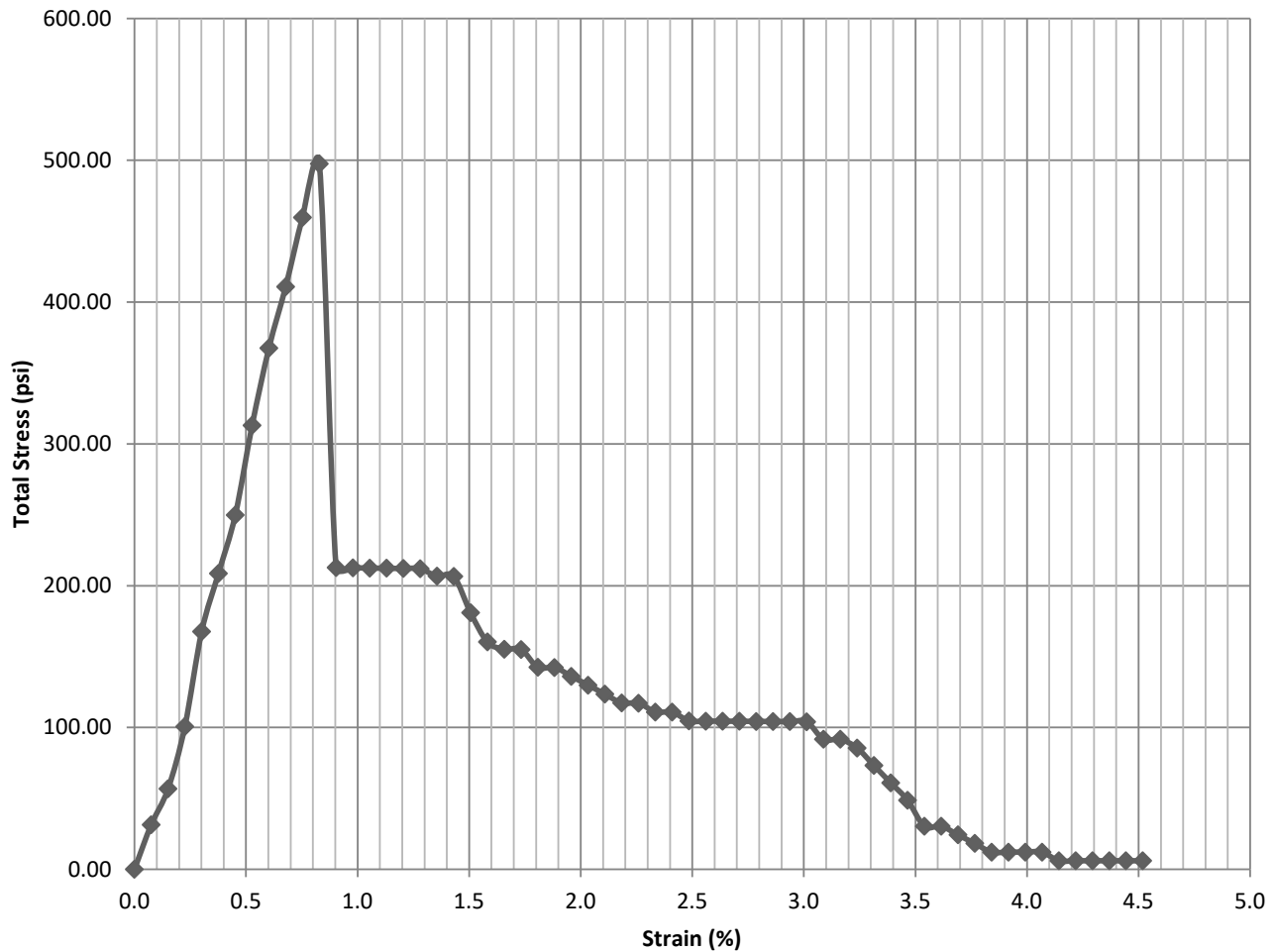
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0852
Sample Location:	B-16 / NQ-3	Depth of Sample:	53.2' - 53.5'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0852



Average Initial Diameter (Do): 1.859 in.
 Average Initial Height (Lo): 3.983 in.
 Average Initial Area (Ao): 2.714 in²
 In-Situ Unit Weight: 122.7 pcf
 Failure Mode: Plastic Failure

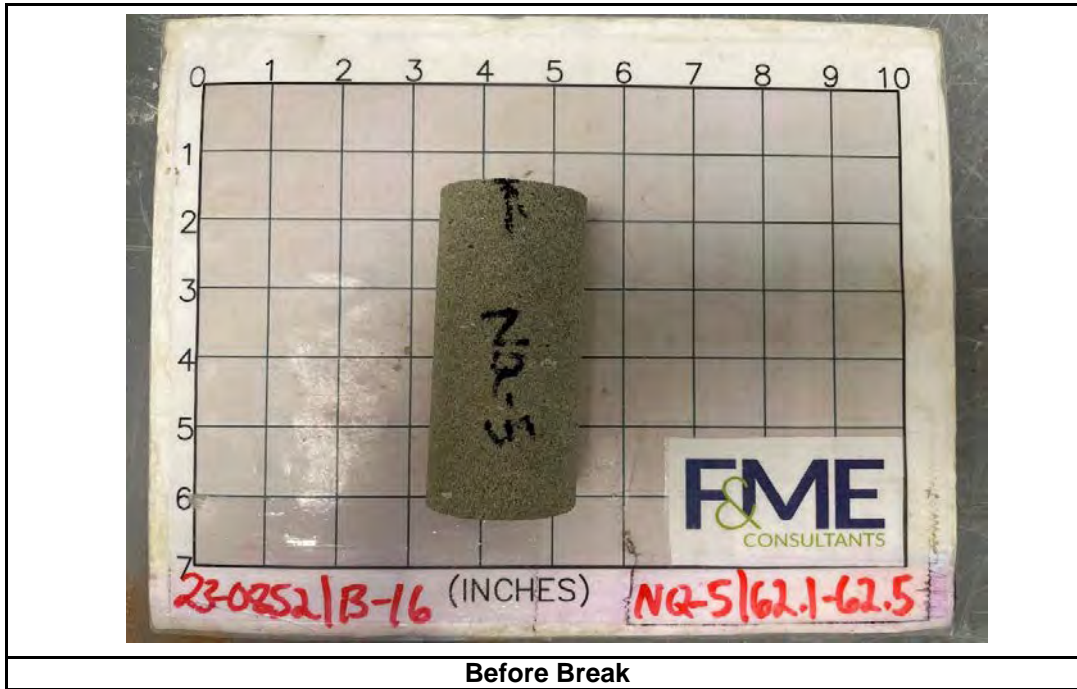
Sample Volume: 10.81 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.767 lbs.
 L/D Ratio: 2.143

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-16 / NQ-5
 Depth/Elevation 62.1' - 62.5'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 495 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



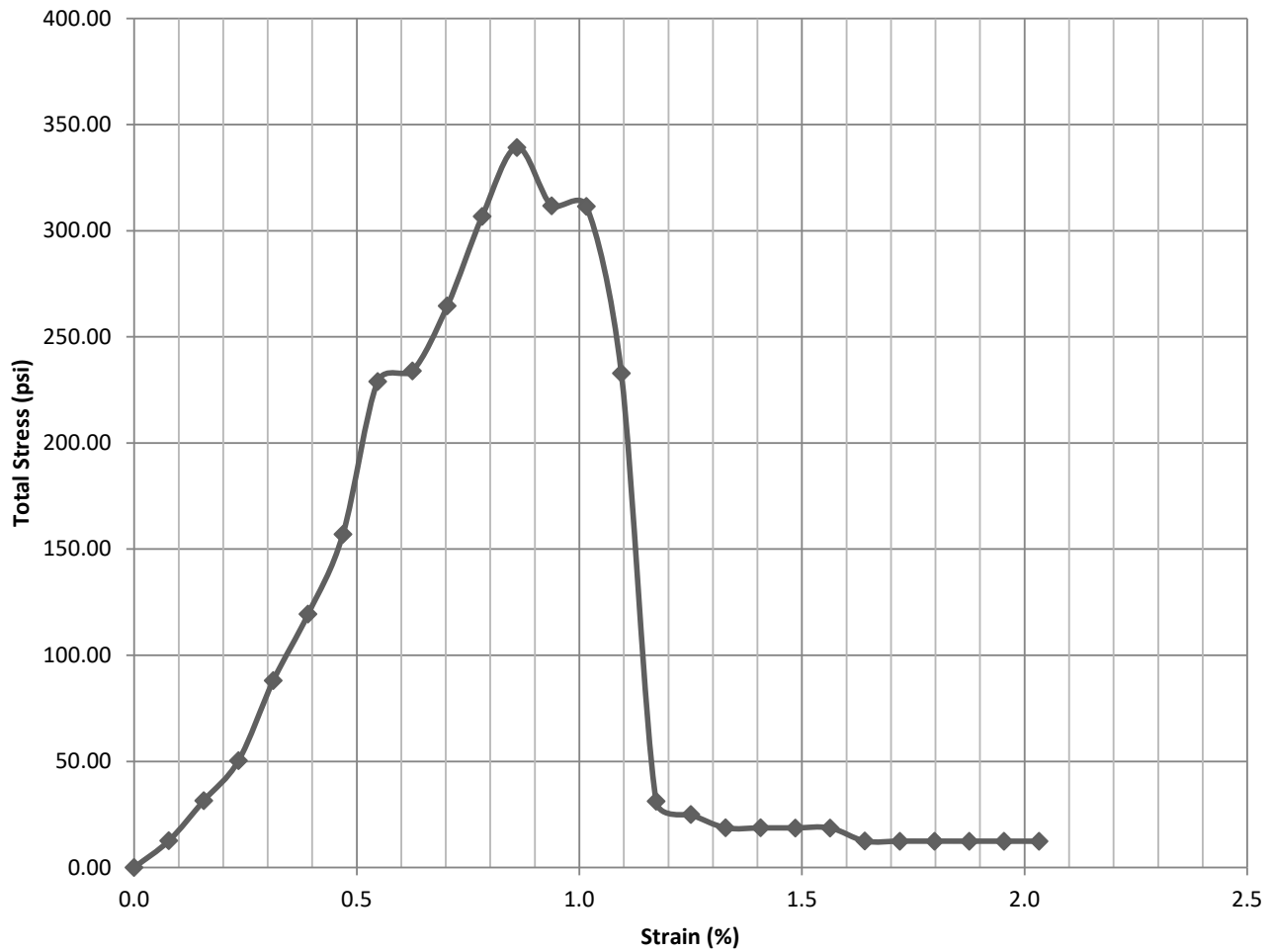
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0852
Sample Location:	B-16 / NQ-5	Depth of Sample:	62.1' - 62.5'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0852



Average Initial Diameter (Do): 1.859 in.
 Average Initial Height (Lo): 3.838 in.
 Average Initial Area (Ao): 2.714 in²
 In-Situ Unit Weight: 131.4 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.42 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.792 lbs.
 L/D Ratio: 2.065

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-16 / NQ-6
 Depth/Elevation 70.4' - 70.8'

Sample Type : Soil Core
 Target Strain Rate : 0.76% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 340 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



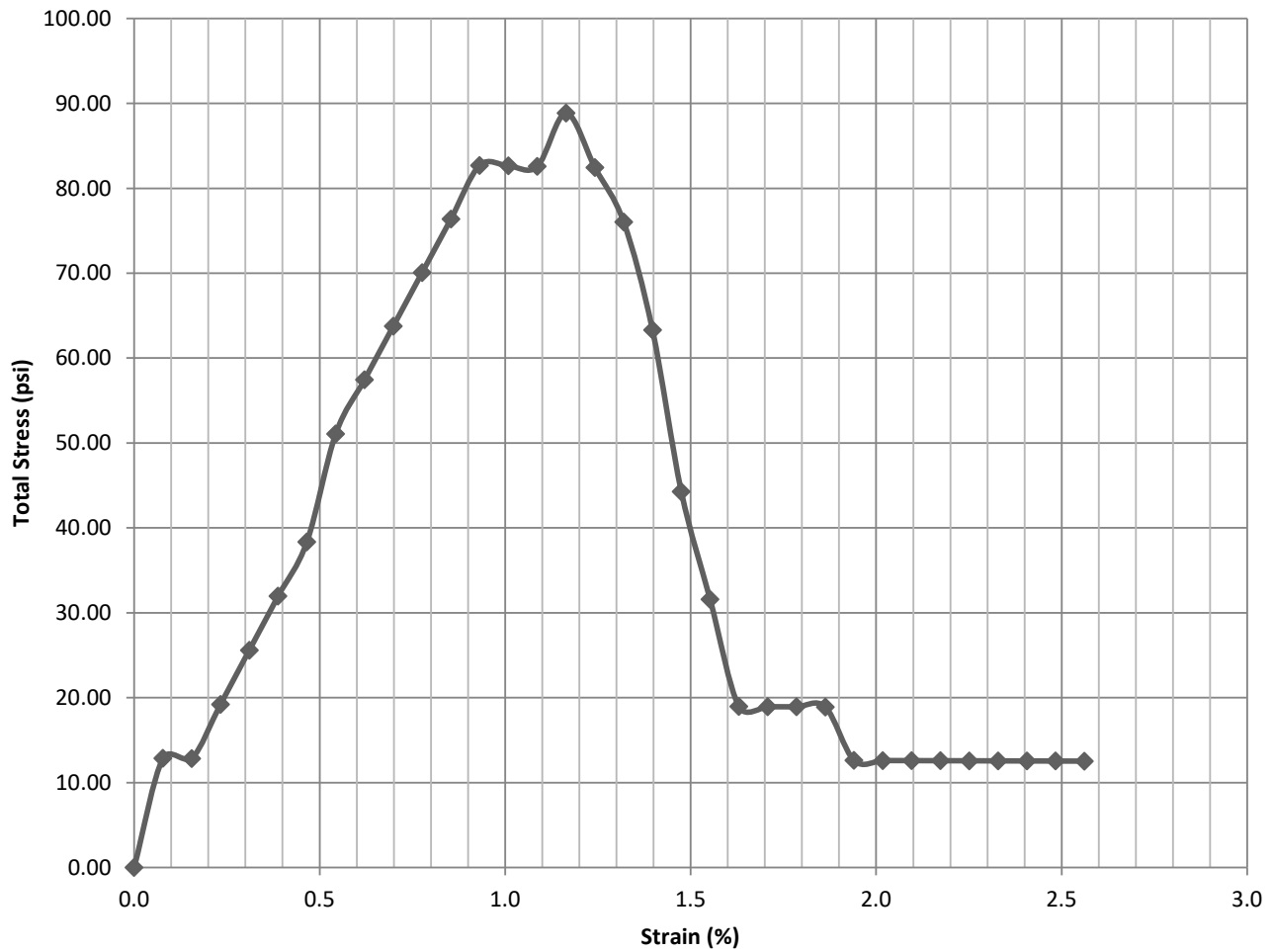
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0852
Sample Location:	B-16 / NQ-6	Depth of Sample:	70.4' - 70.8'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0852



Average Initial Diameter (Do): 1.843 in.
 Average Initial Height (Lo): 3.865 in.
 Average Initial Area (Ao): 2.668 in²
 In-Situ Unit Weight: 121.3 pcf
 Failure Mode: Plastic Failure

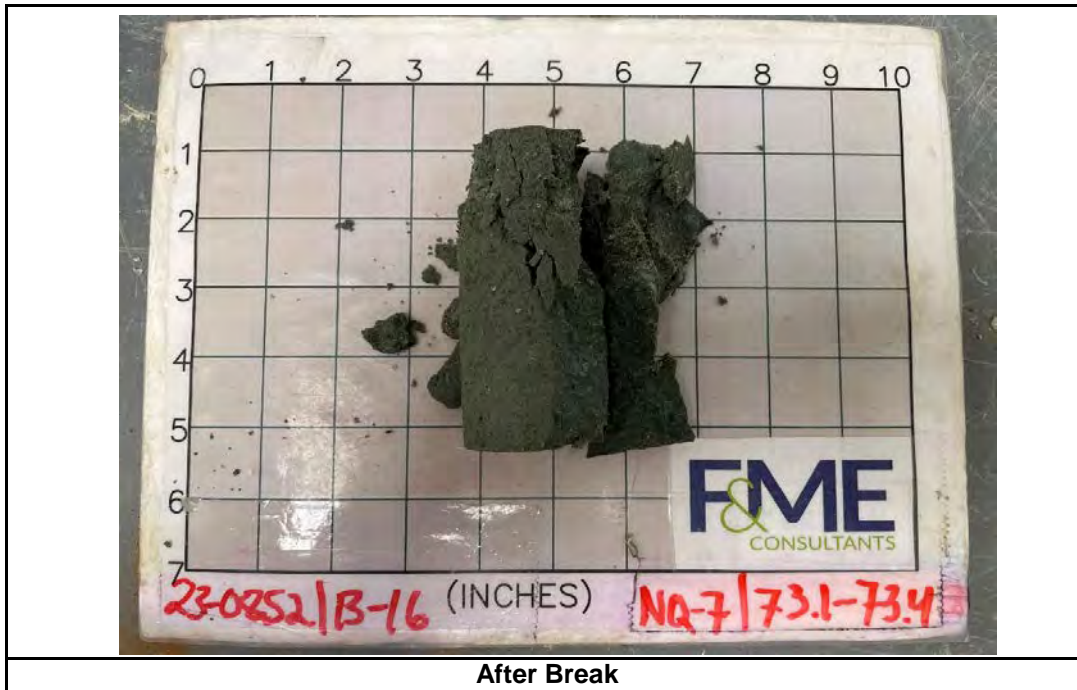
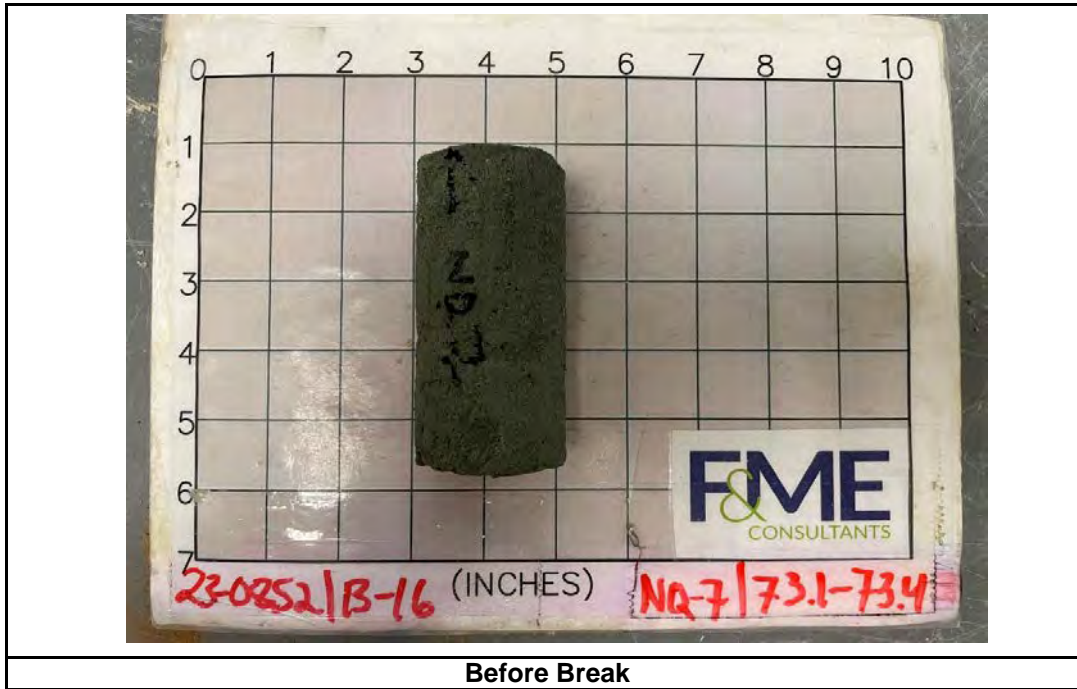
Sample Volume: 10.31 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.724 lbs.
 L/D Ratio: 2.097

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 23-0852
 SCDOT File # P041130 PIN # _____
 Sample/Location B-16 / NQ-7
 Depth/Elevation 73.1 - 73.4

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 90 \text{ psi}$ $\epsilon_{ULT} = 1.2\%$

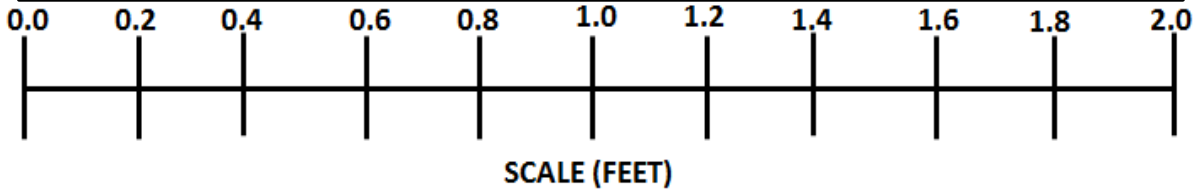
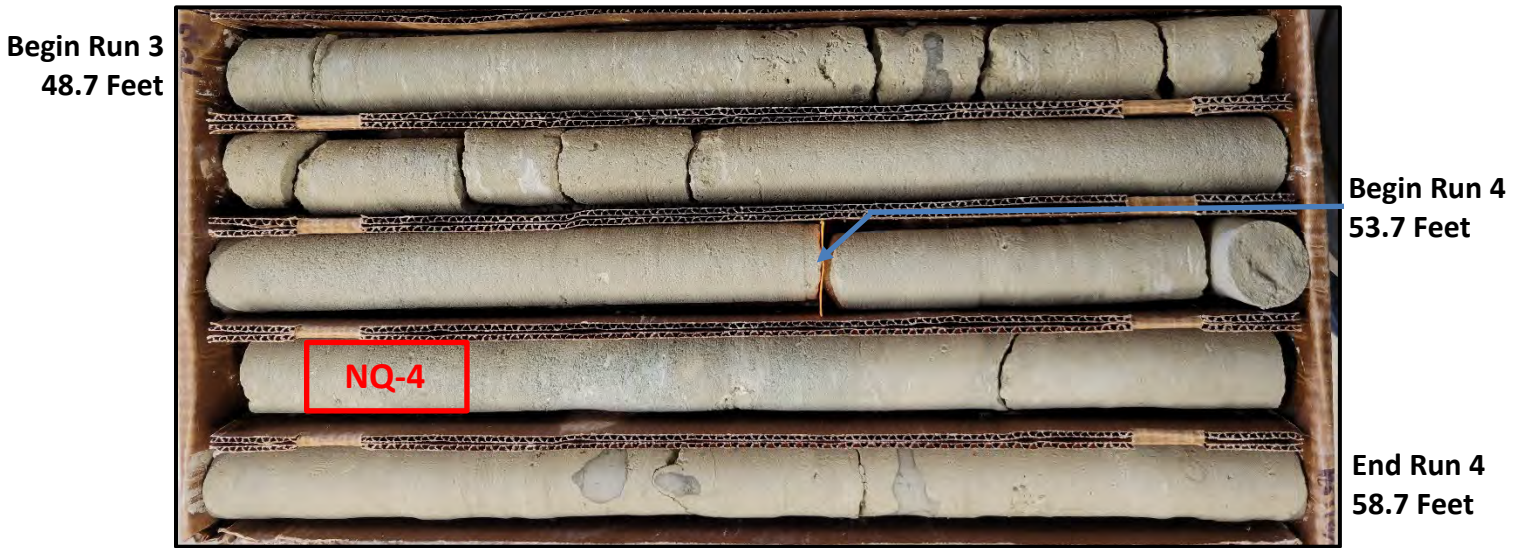
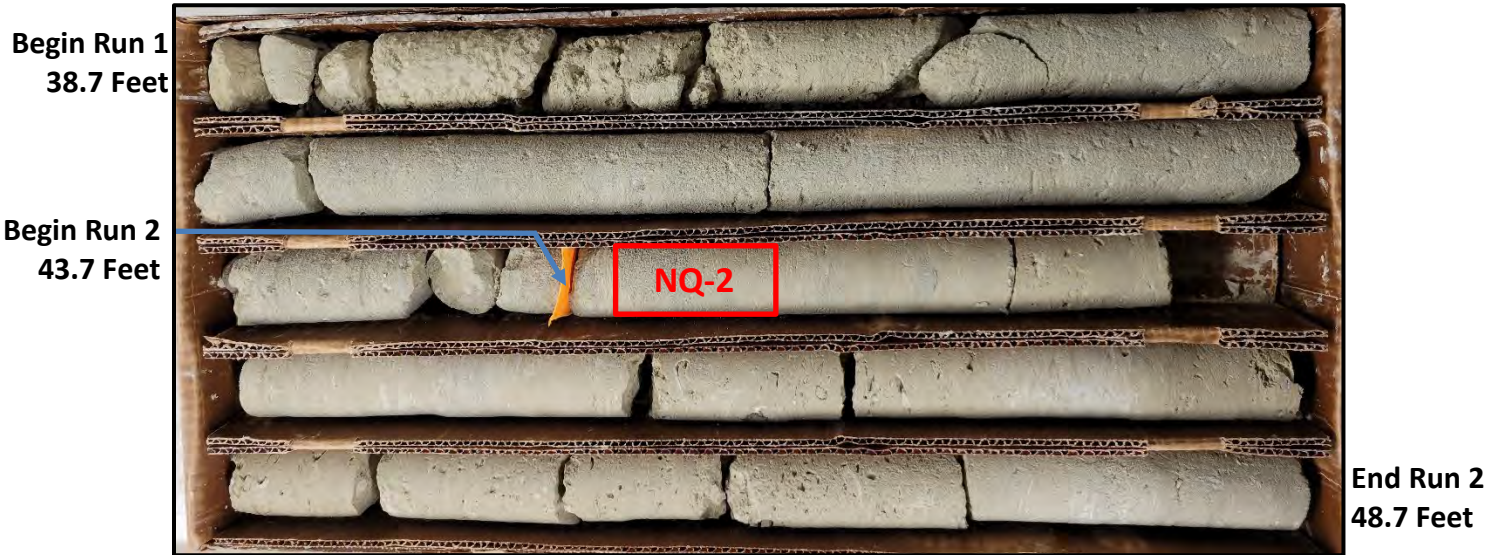


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0852
Sample Location:	B-16 / NQ-7	Depth of Sample:	73.1 - 73.4
Tested By:	W. Pitts	Date Tested:	23-0852



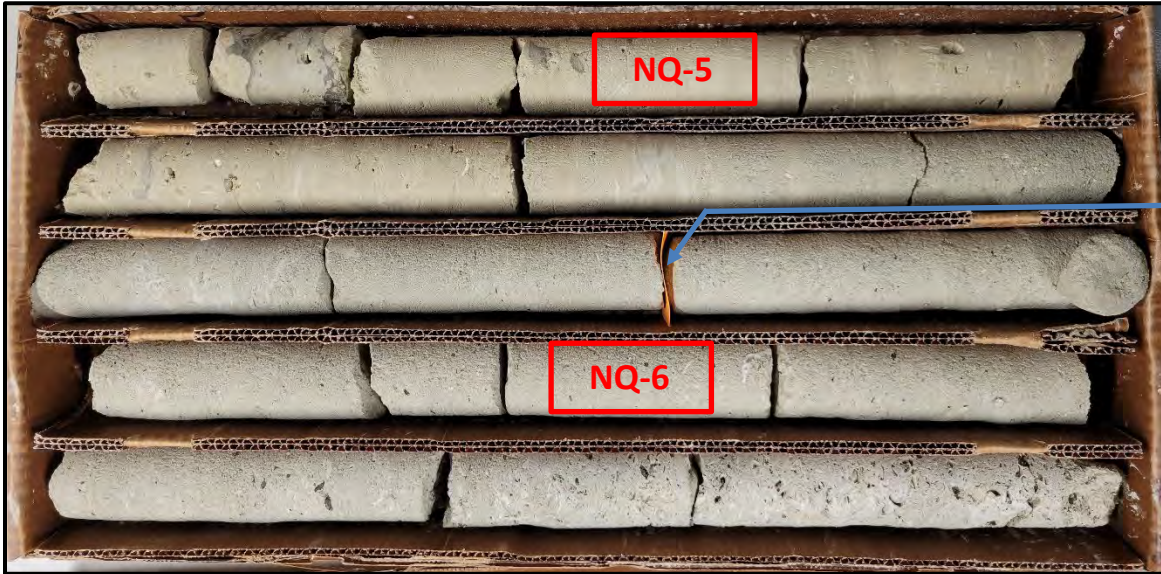
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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-18



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-18

Begin Run 5
58.7 Feet



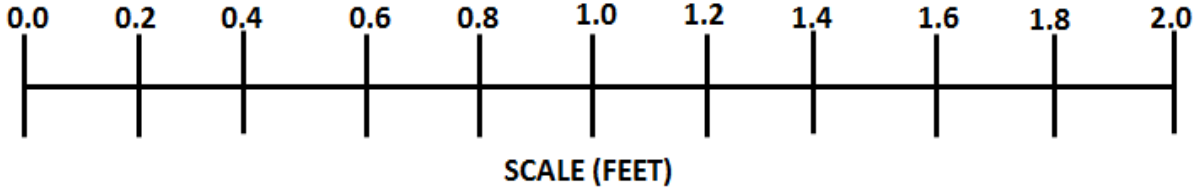
Begin Run 6
63.7 Feet

End Run 6
68.7 Feet

Begin Run 7
68.7 Feet

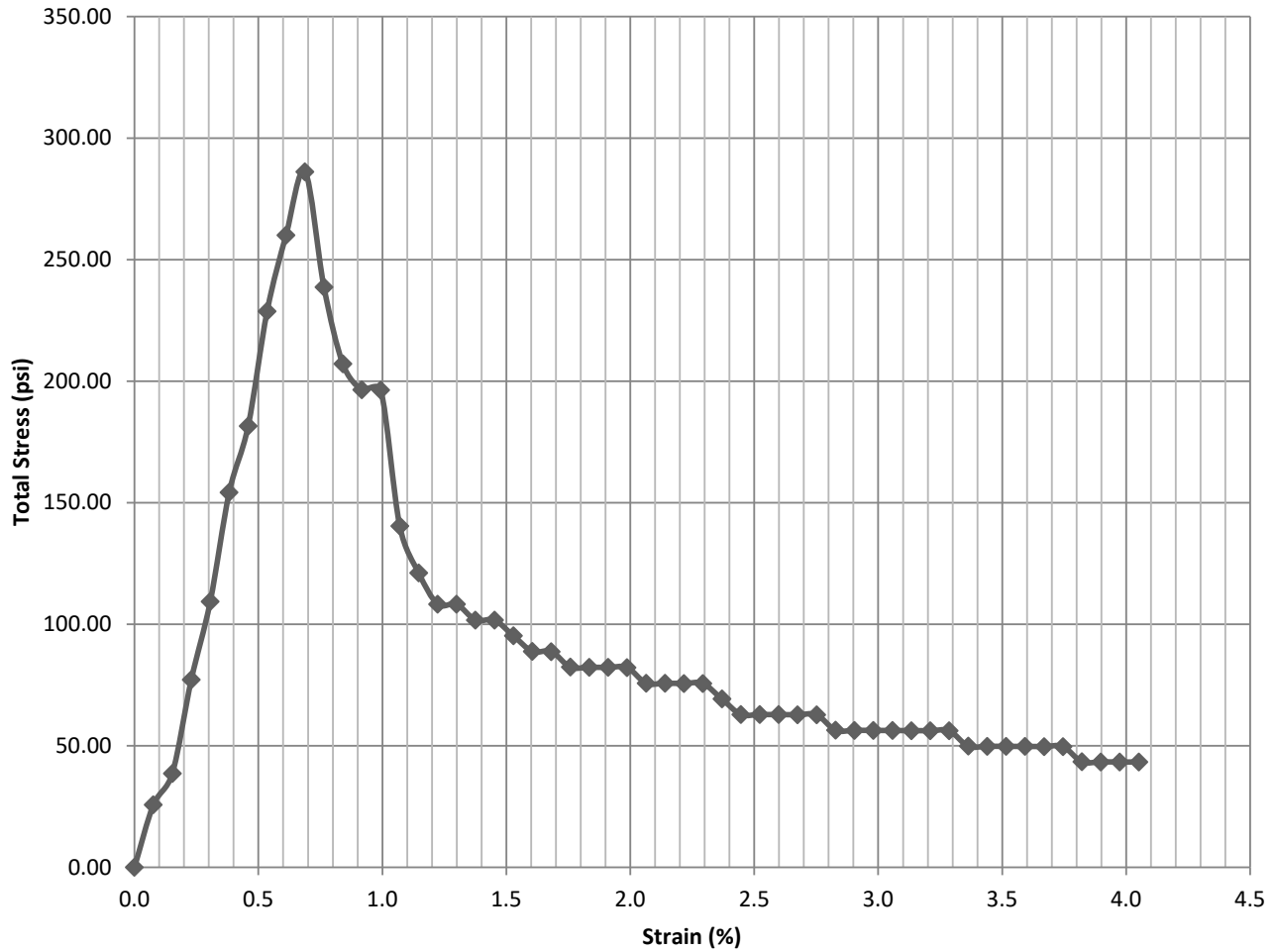


End Run 7
71.7 Feet



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0851



Average Initial Diameter (Do): 1.839 in.
 Average Initial Height (Lo): 3.925 in.
 Average Initial Area (Ao): 2.656 in²
 In-Situ Unit Weight: 118.8 pcf
 Failure Mode: Plastic Failure

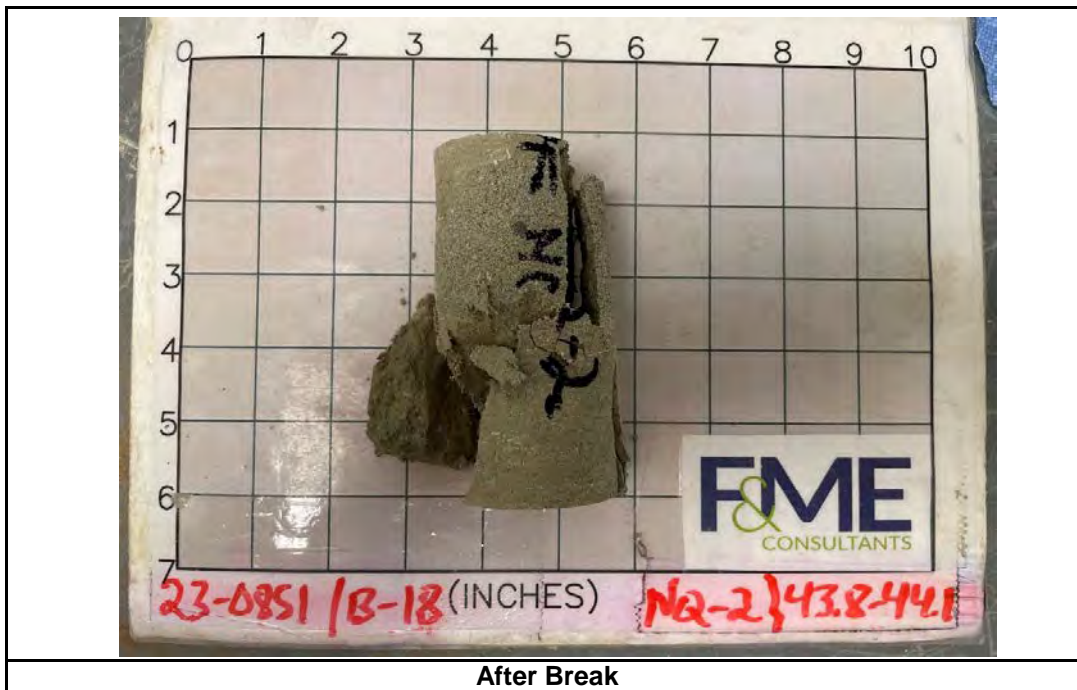
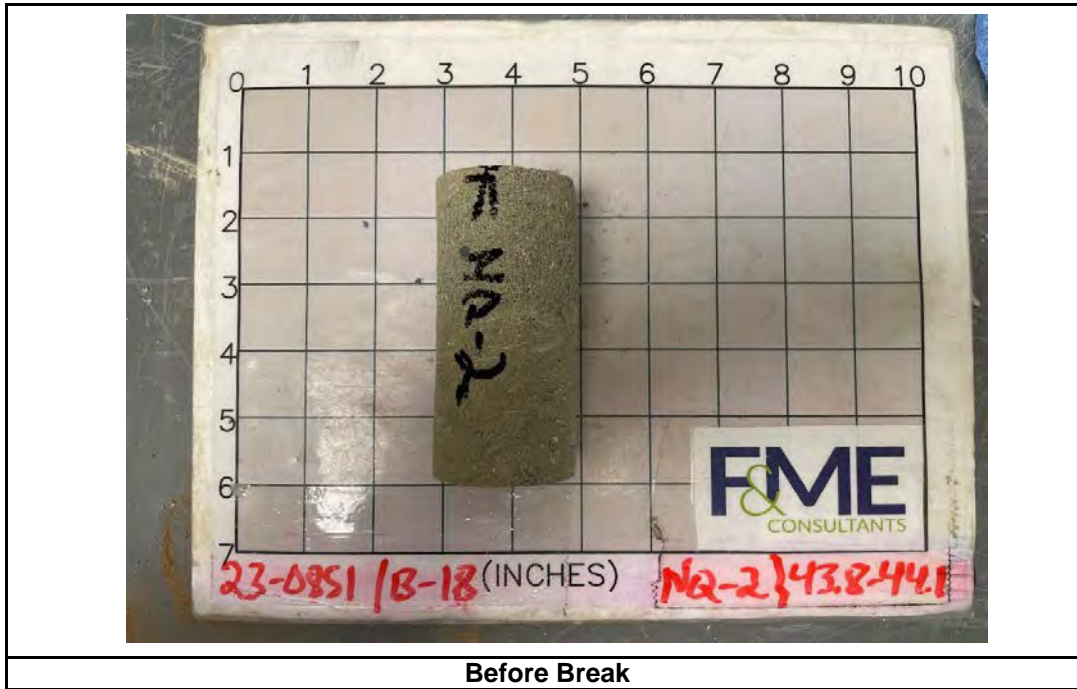
Sample Volume: 10.43 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.717 lbs.
 L/D Ratio: 2.134

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-18 / NQ-2
 Depth/Elevation 43.8' - 44.1'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 285 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



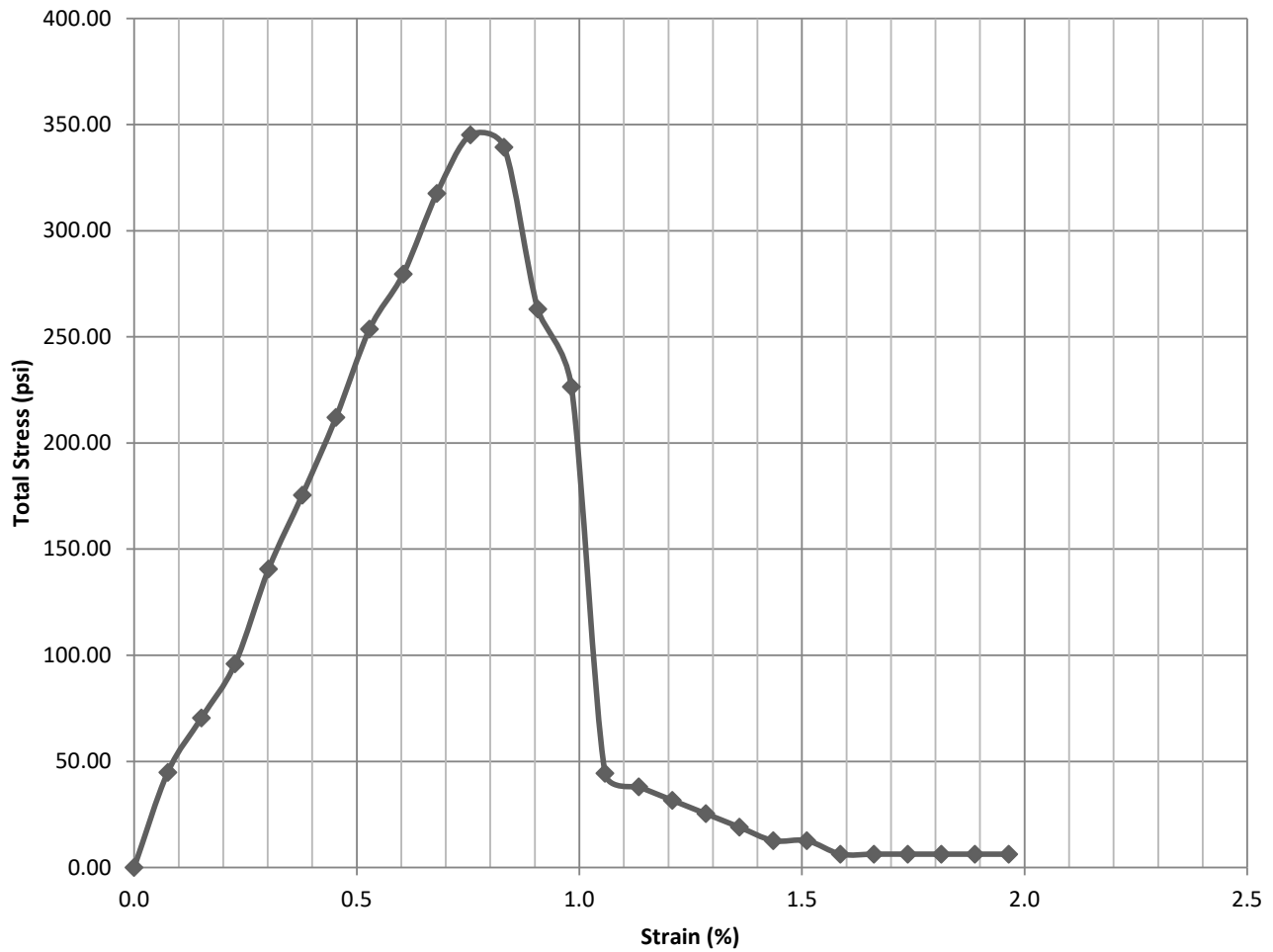
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0851
Sample Location:	B-18 / NQ-2	Depth of Sample:	43.8' - 44.1'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0851



Average Initial Diameter (Do): 1.844 in.
 Average Initial Height (Lo): 3.971 in.
 Average Initial Area (Ao): 2.671 in²
 In-Situ Unit Weight: 118.7 pcf
 Failure Mode: Plastic Failure

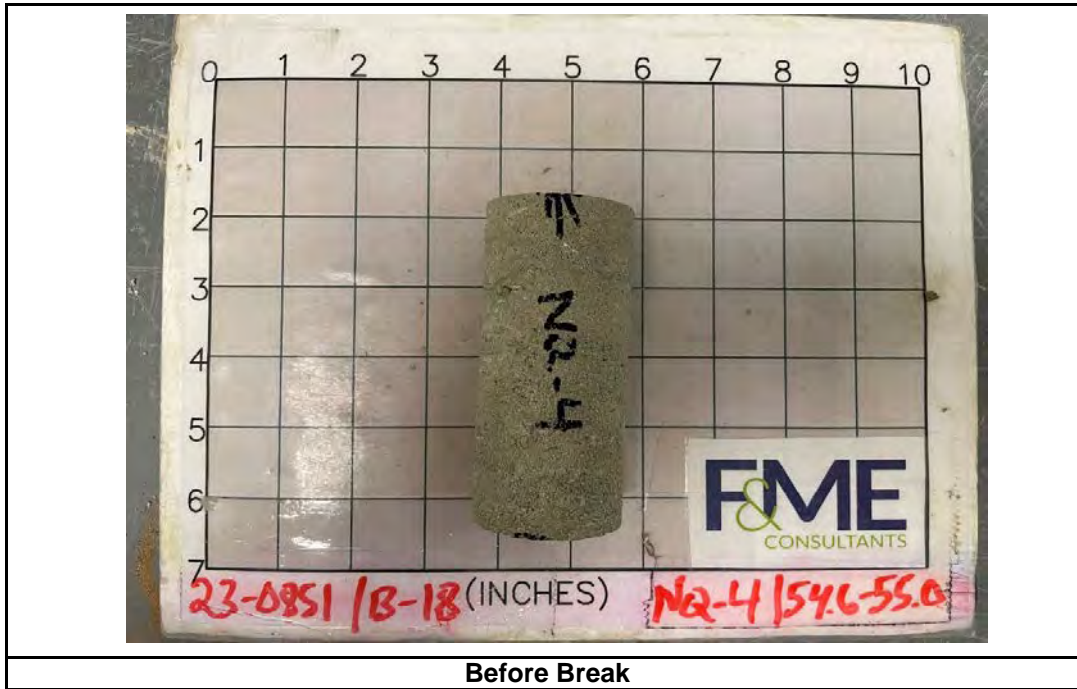
Sample Volume: 10.61 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.728 lbs.
 L/D Ratio: 2.153

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-18 / NQ-4
 Depth/Elevation 54.6' - 55.0'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 345 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



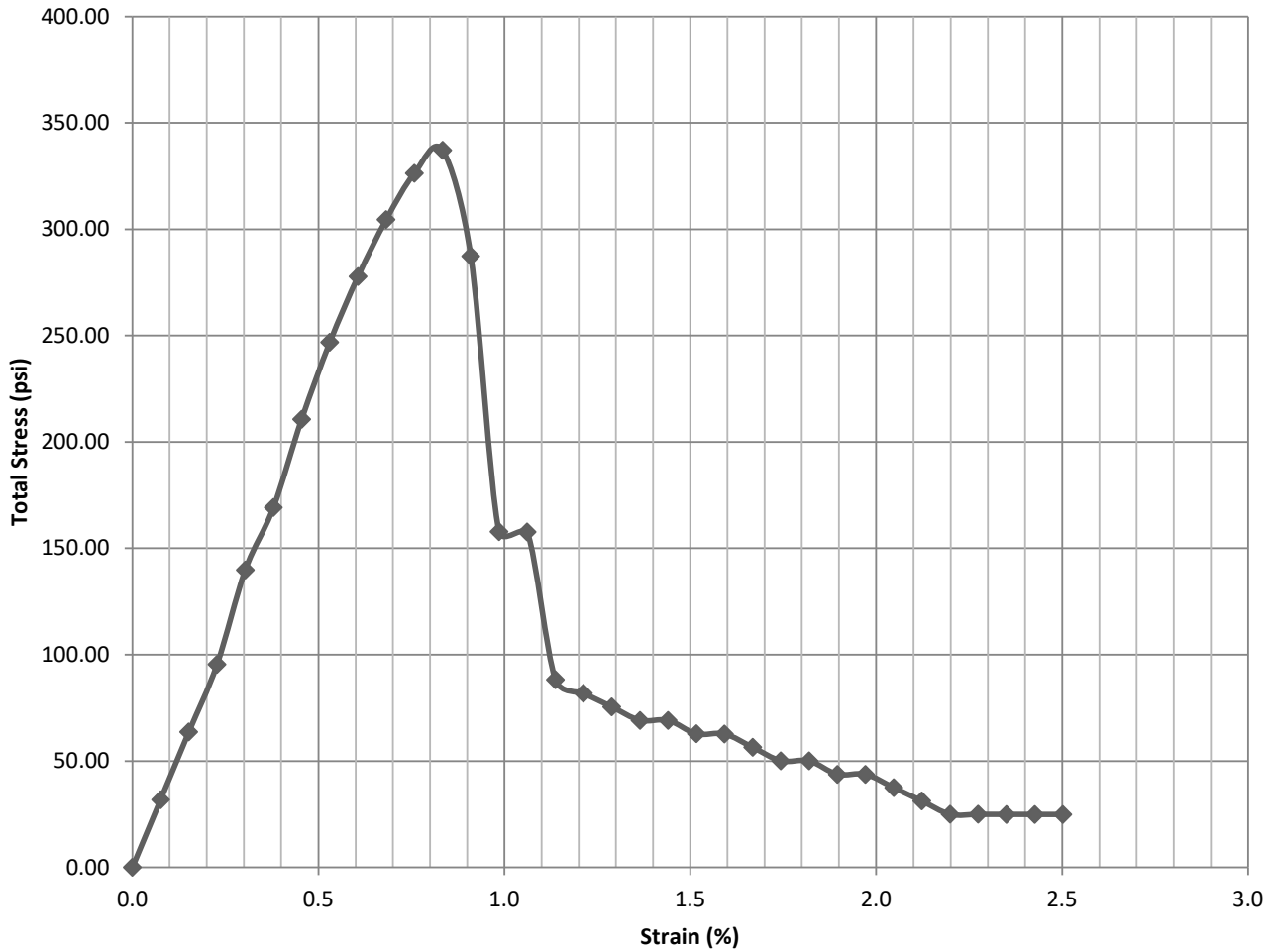
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0851
Sample Location:	B-18 / NQ-4	Depth of Sample:	54.6' - 55.0'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0851



Average Initial Diameter (Do): 1.850 in.
 Average Initial Height (Lo): 3.957 in.
 Average Initial Area (Ao): 2.688 in²
 In-Situ Unit Weight: 114.4 pcf
 Failure Mode: Plastic Failure

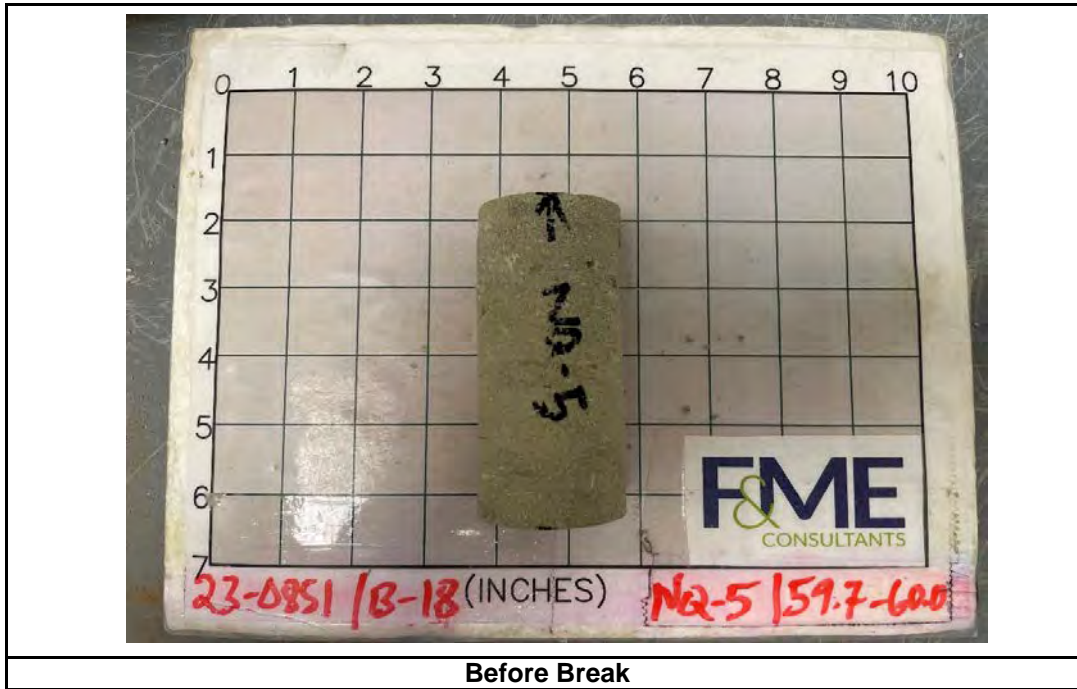
Sample Volume: 10.64 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.704 lbs.
 L/D Ratio: 2.139

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-18 / NQ-5
 Depth/Elevation 59.7' - 60.0'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 335 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



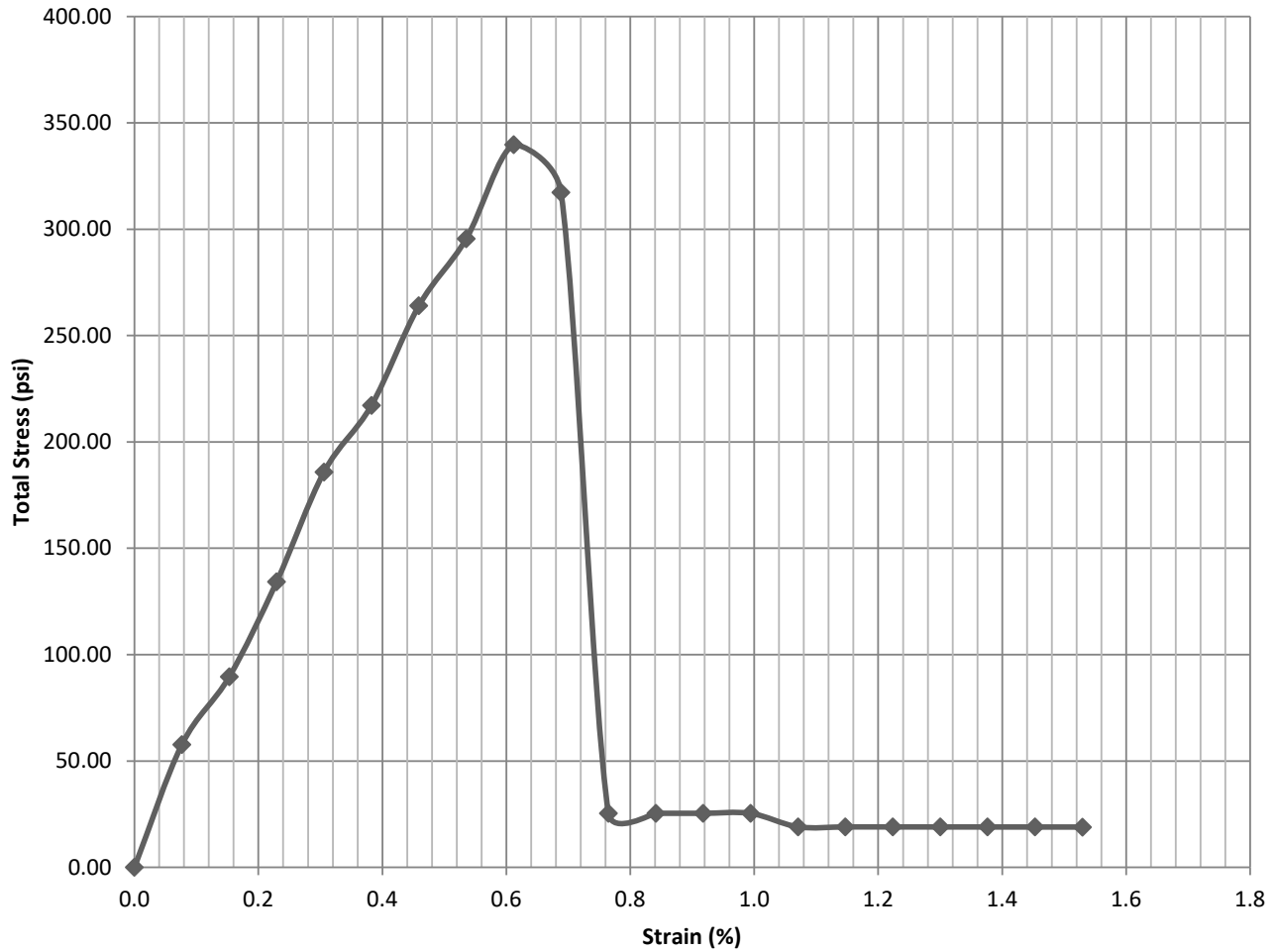
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0851
Sample Location:	B-18 / NQ-5	Depth of Sample:	59.7' - 60.0'
Tested By:	W. Pitts	Date Tested:	4/7/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0851



Average Initial Diameter (Do): 1.845 in.
 Average Initial Height (Lo): 3.923 in.
 Average Initial Area (Ao): 2.674 in²
 In-Situ Unit Weight: 118.4 pcf
 Failure Mode: Plastic Failure

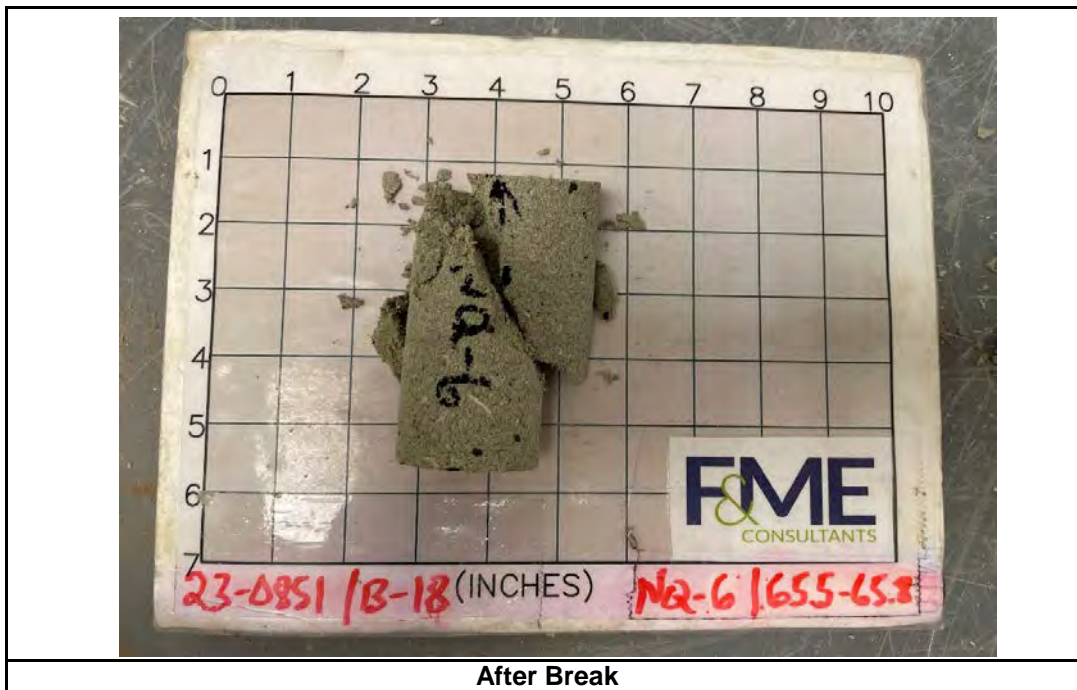
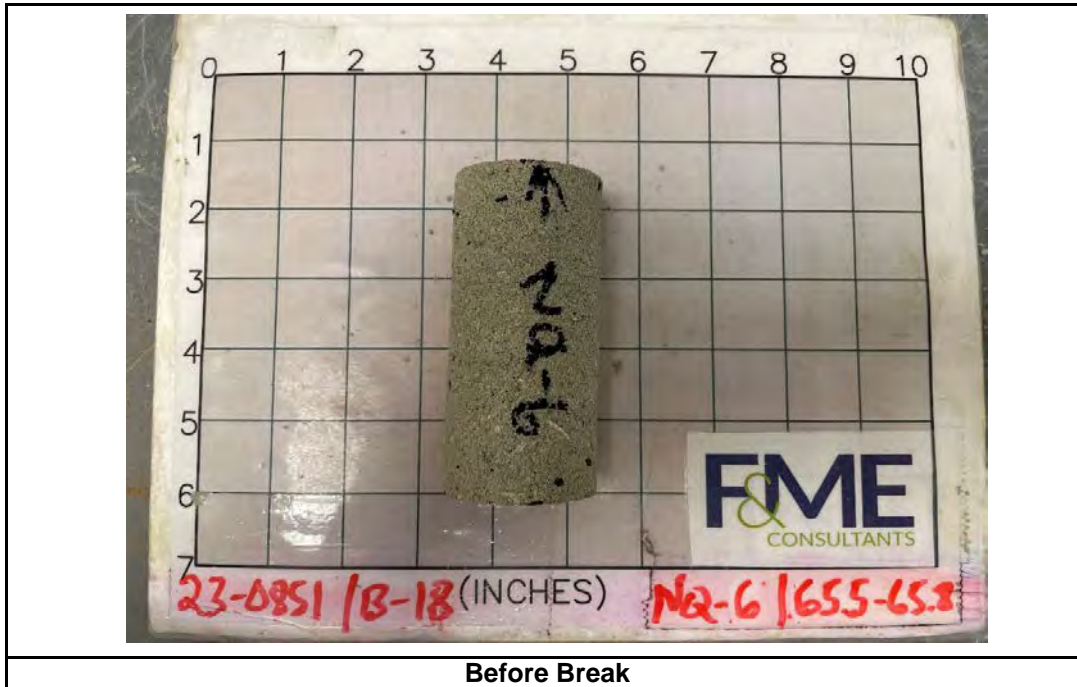
Sample Volume: 10.49 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.719 lbs.
 L/D Ratio: 2.126

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/7/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-18 / NQ-6
 Depth/Elevation 65.5' - 65.8'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 340 \text{ psi}$ $\epsilon_{ULT} = 0.6\%$

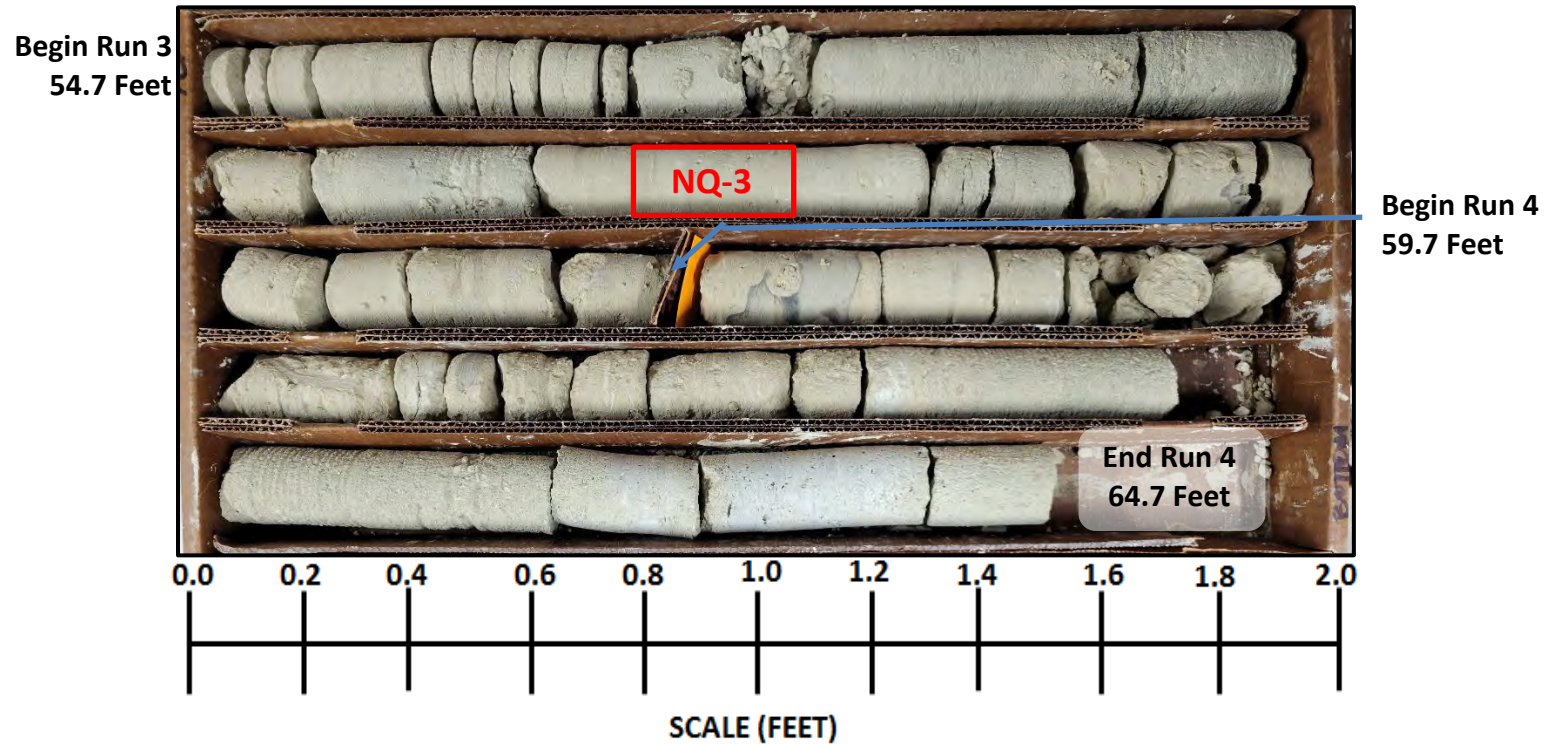
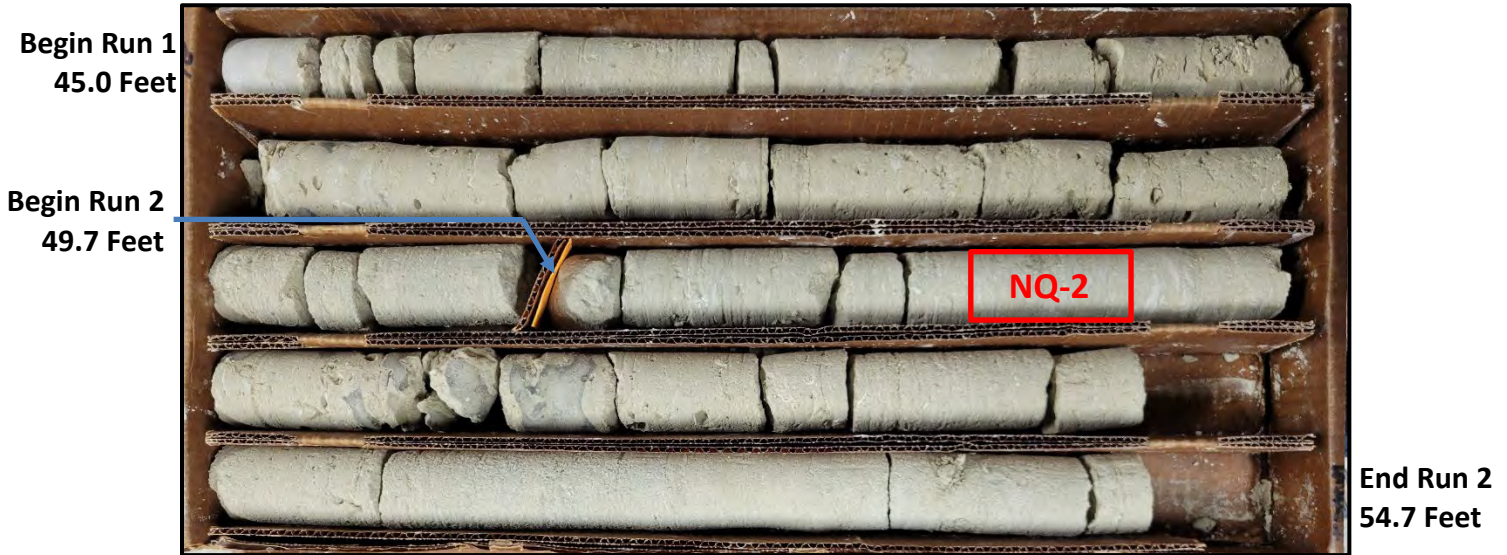


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0851
Sample Location:	B-18 / NQ-6	Depth of Sample:	65.5' - 65.8'
Tested By:	W. Pitts	Date Tested:	4/7/2023

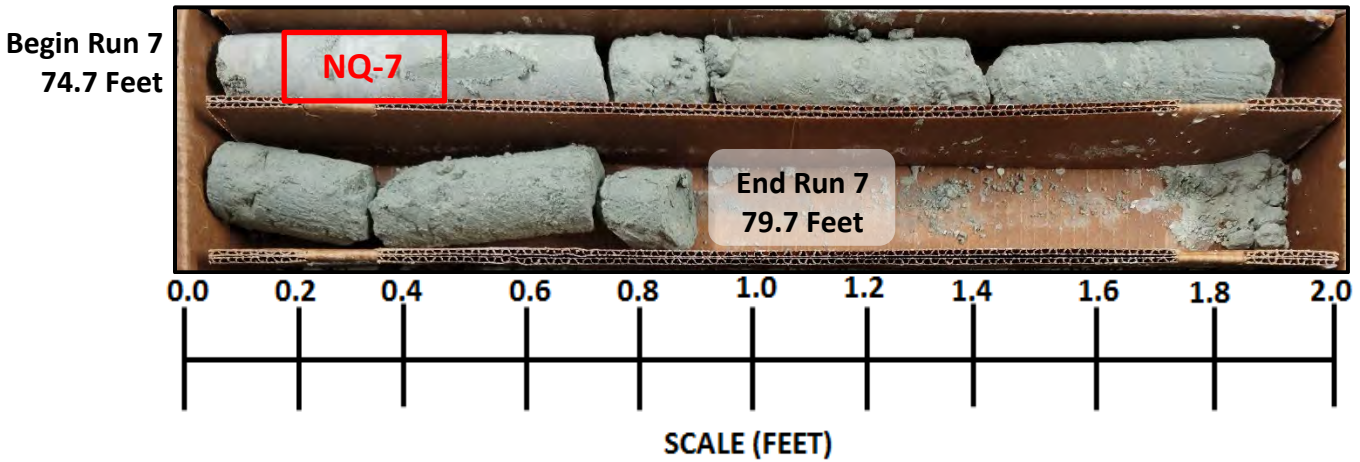
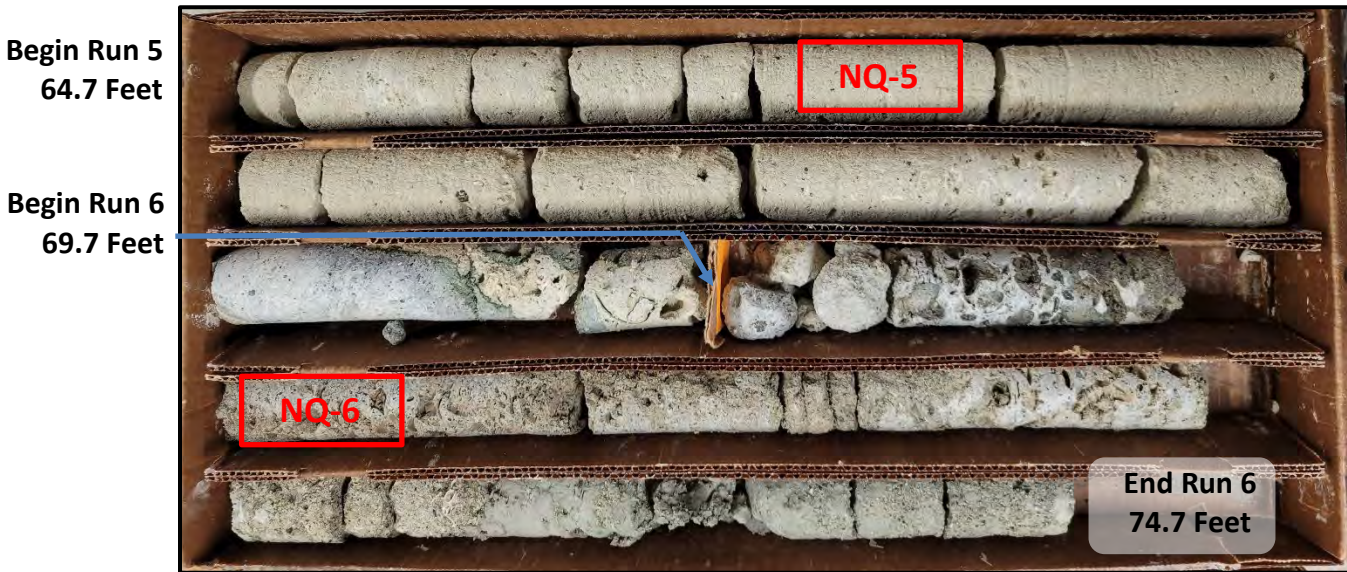


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-19

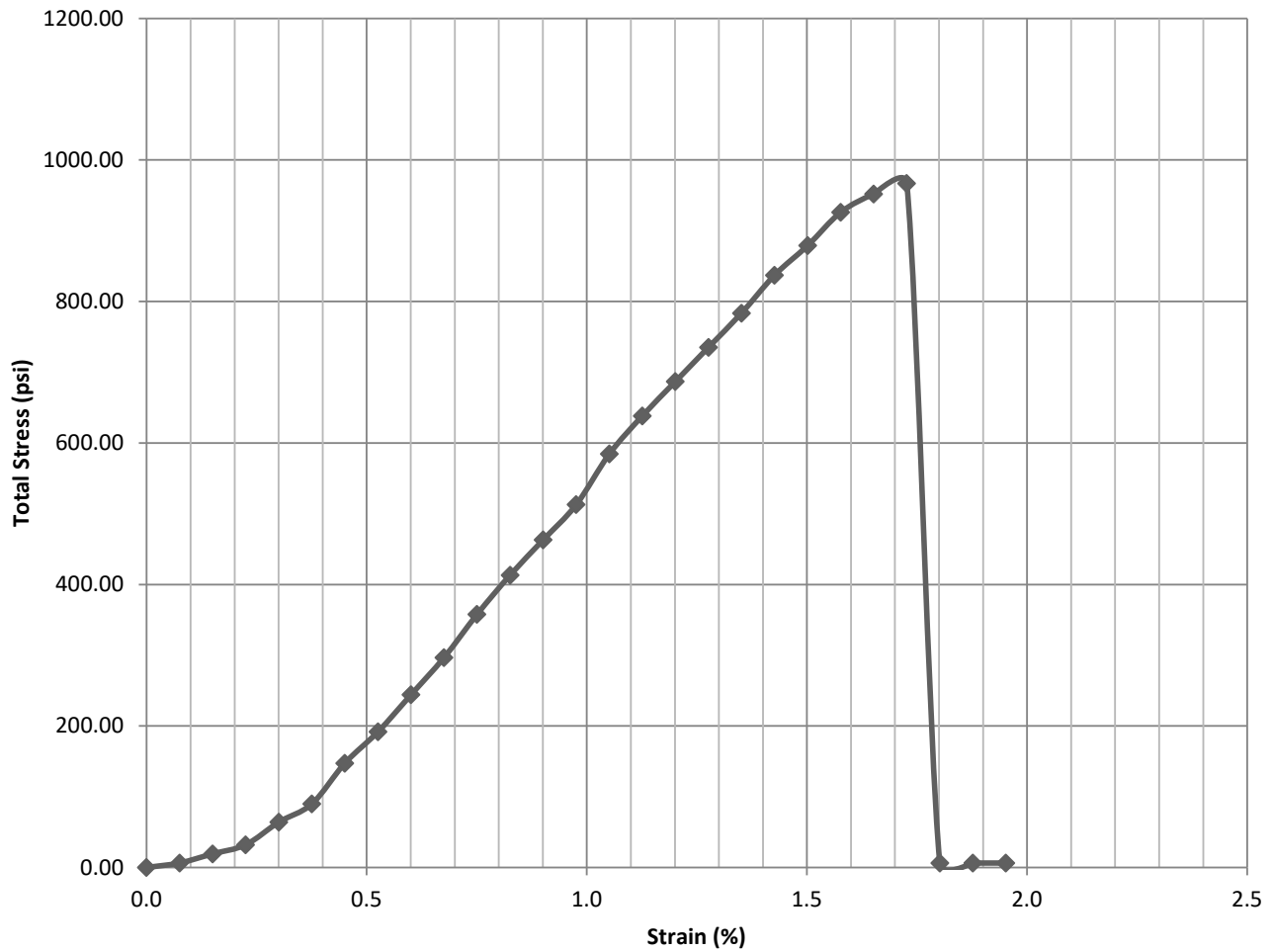


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-19



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1559



Average Initial Diameter (Do): 1.840 in.
 Average Initial Height (Lo): 3.996 in.
 Average Initial Area (Ao): 2.659 in²
 In-Situ Unit Weight: 134.2 pcf
 Failure Mode: Plastic Failure

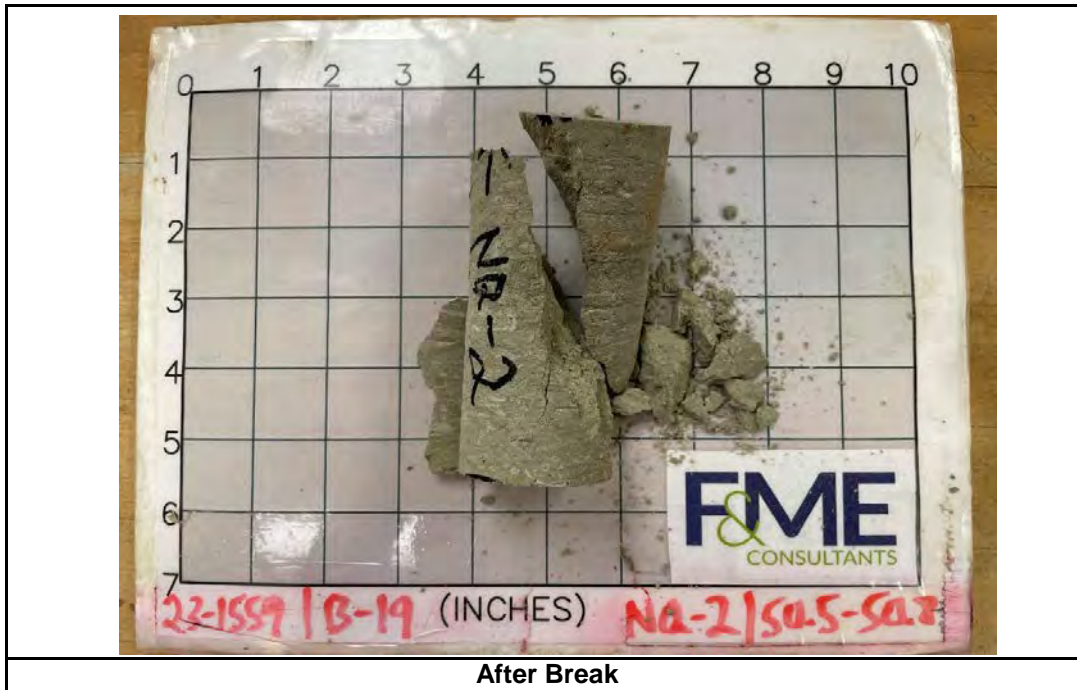
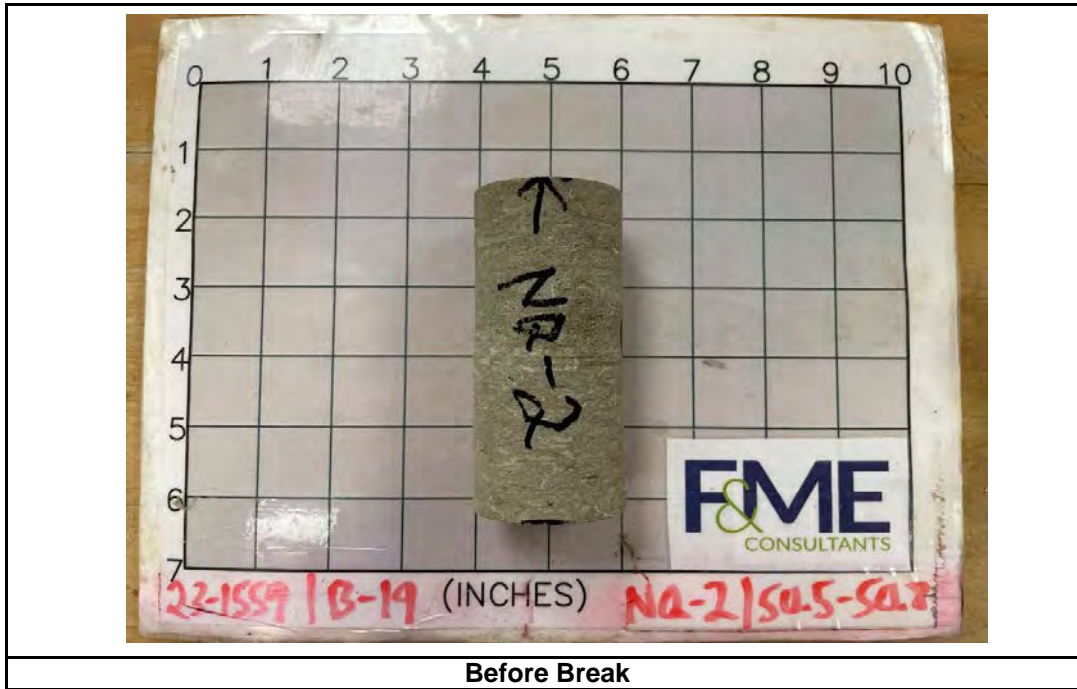
Sample Volume: 10.63 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.825 lbs.
 L/D Ratio: 2.172

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/20/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-19 / NQ-2
 Depth/Elevation 50.5' - 50.8'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 965 \text{ psi}$ $\epsilon_{ULT} = 1.7\%$



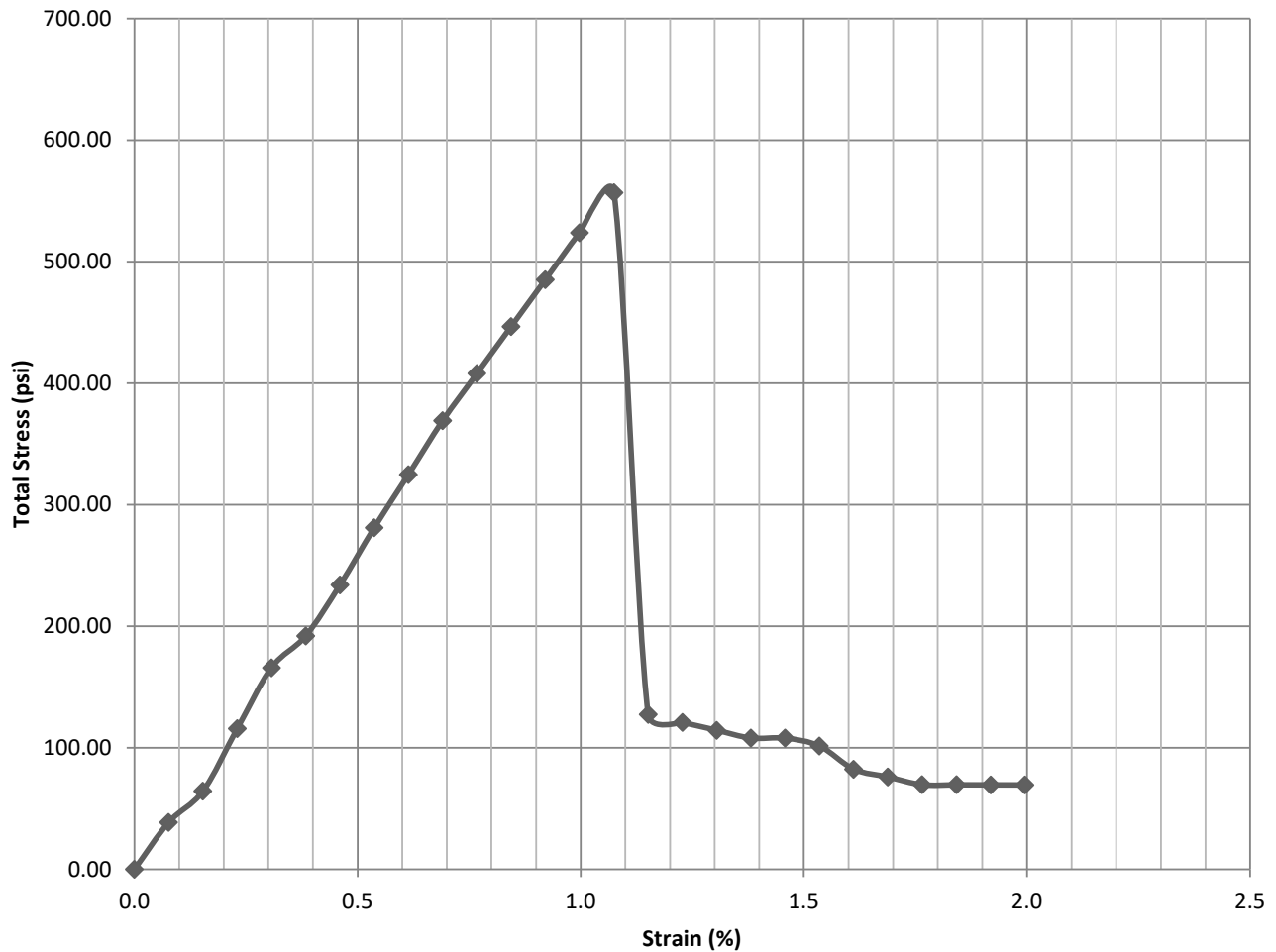
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1559
Sample Location:	B-19 / NQ-2	Depth of Sample:	50.5' - 50.8'
Tested By:	W. Pitts	Date Tested:	6/20/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1559



Average Initial Diameter (Do): 1.840 in.
 Average Initial Height (Lo): 3.909 in.
 Average Initial Area (Ao): 2.659 in²
 In-Situ Unit Weight: 111.0 pcf
 Failure Mode: Plastic Failure

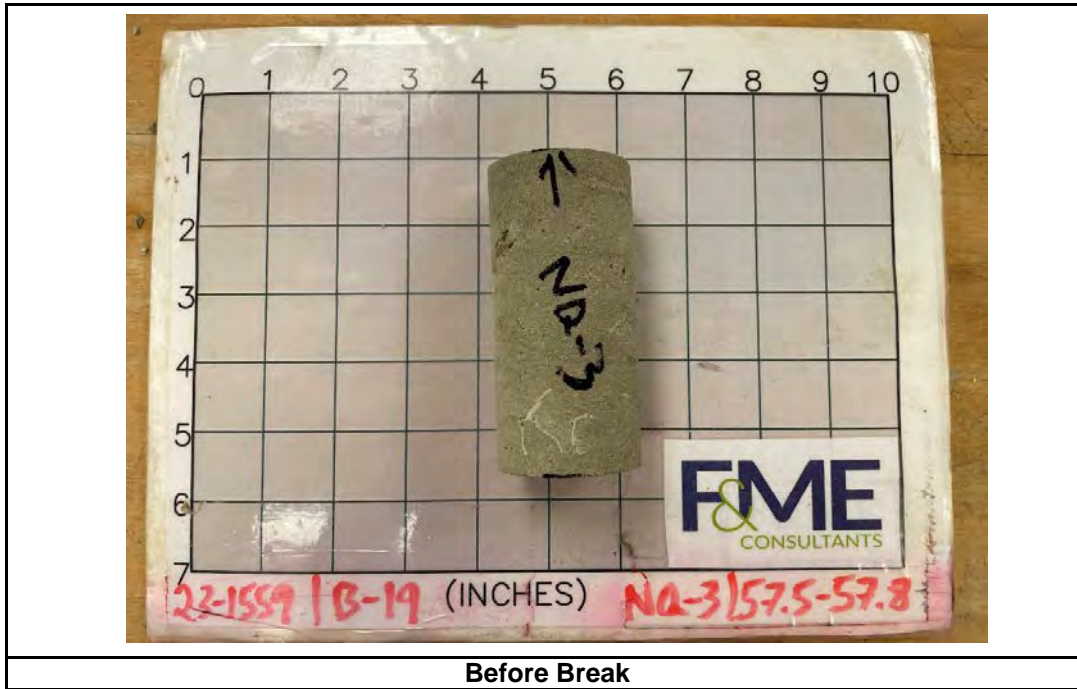
Sample Volume: 10.39 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.668 lbs.
 L/D Ratio: 2.124

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/20/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-19 / NQ-3
 Depth/Elevation 57.5' - 57.8'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 555 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



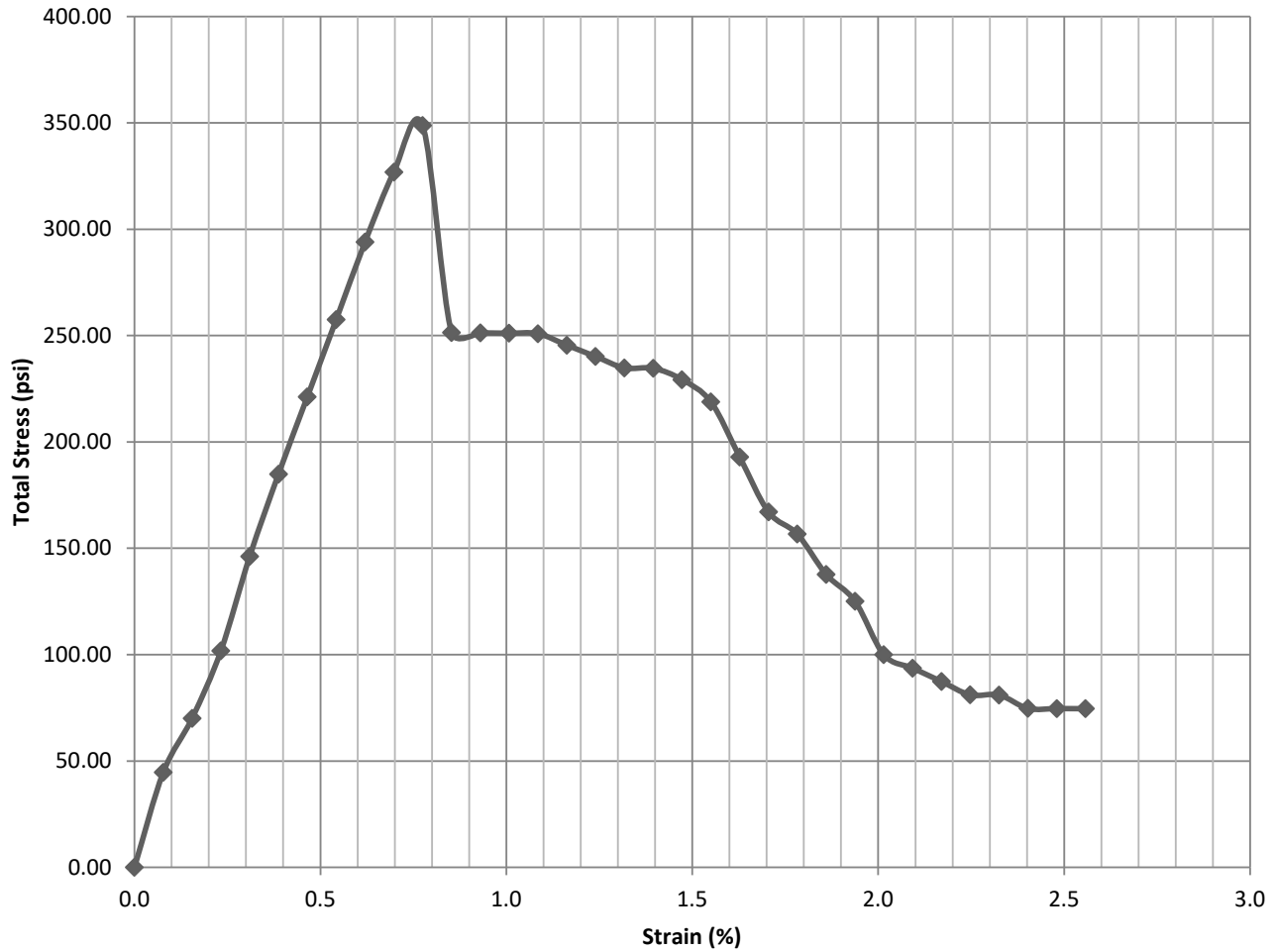
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1559
Sample Location:	B-19 / NQ-3	Depth of Sample:	57.5' - 57.8'
Tested By:	W. Pitts	Date Tested:	6/20/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1559



Average Initial Diameter (Do): 1.849 in.
 Average Initial Height (Lo): 3.871 in.
 Average Initial Area (Ao): 2.685 in²
 In-Situ Unit Weight: 119.9 pcf
 Failure Mode: Plastic Failure

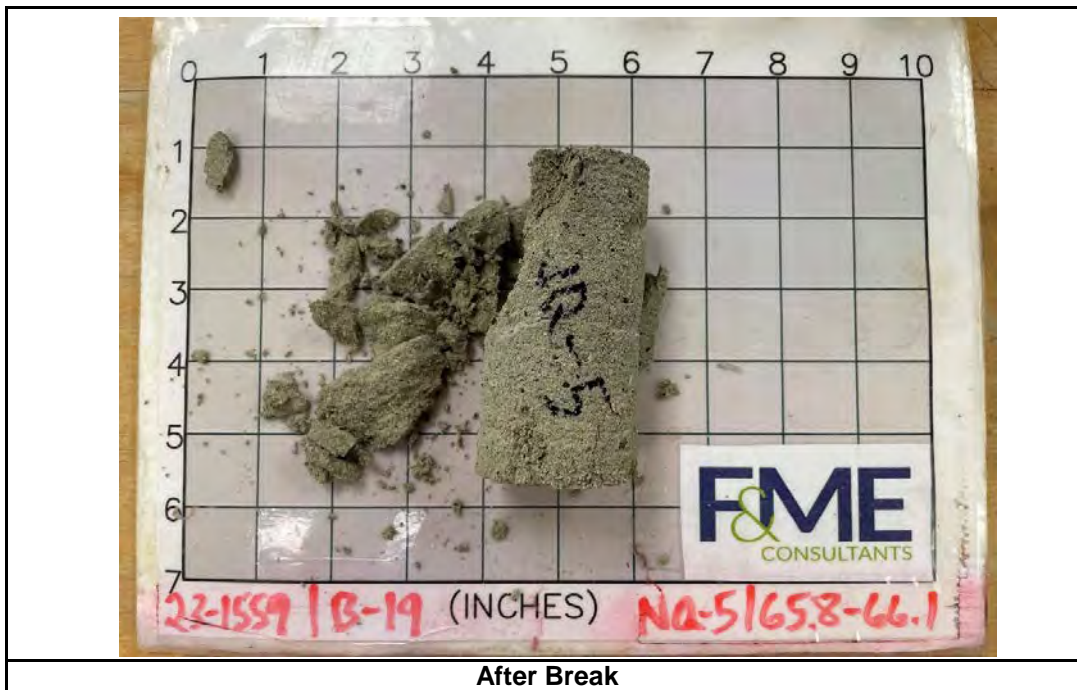
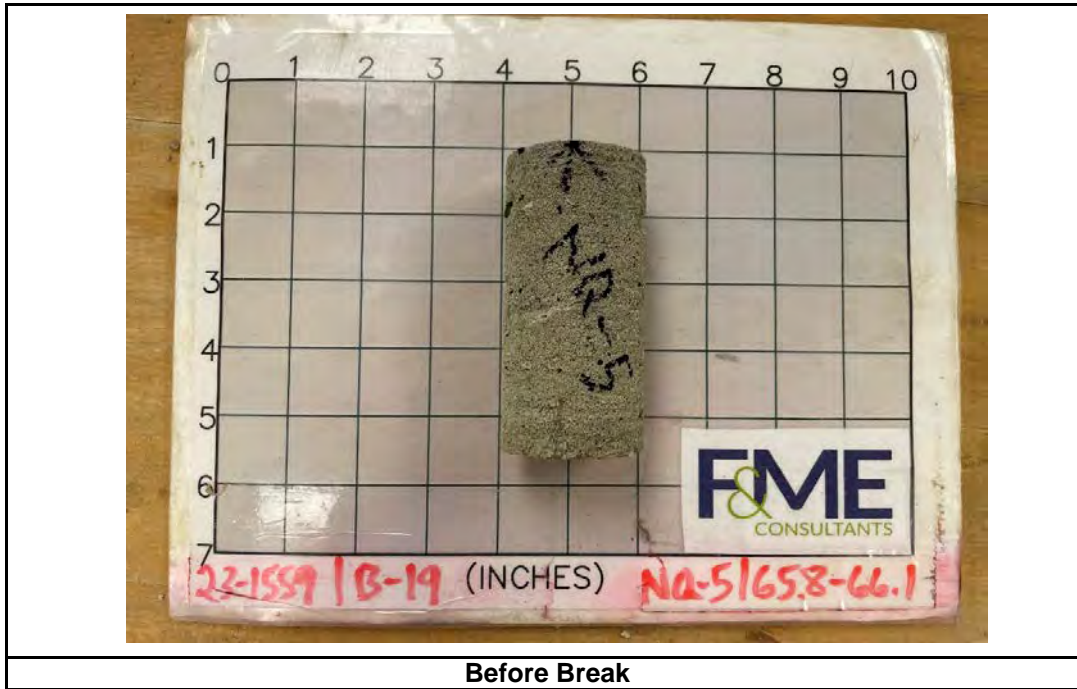
Sample Volume: 10.39 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.721 lbs.
 L/D Ratio: 2.094

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/20/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-19 / NQ-5
 Depth/Elevation 65.8' - 66.1'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 350 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



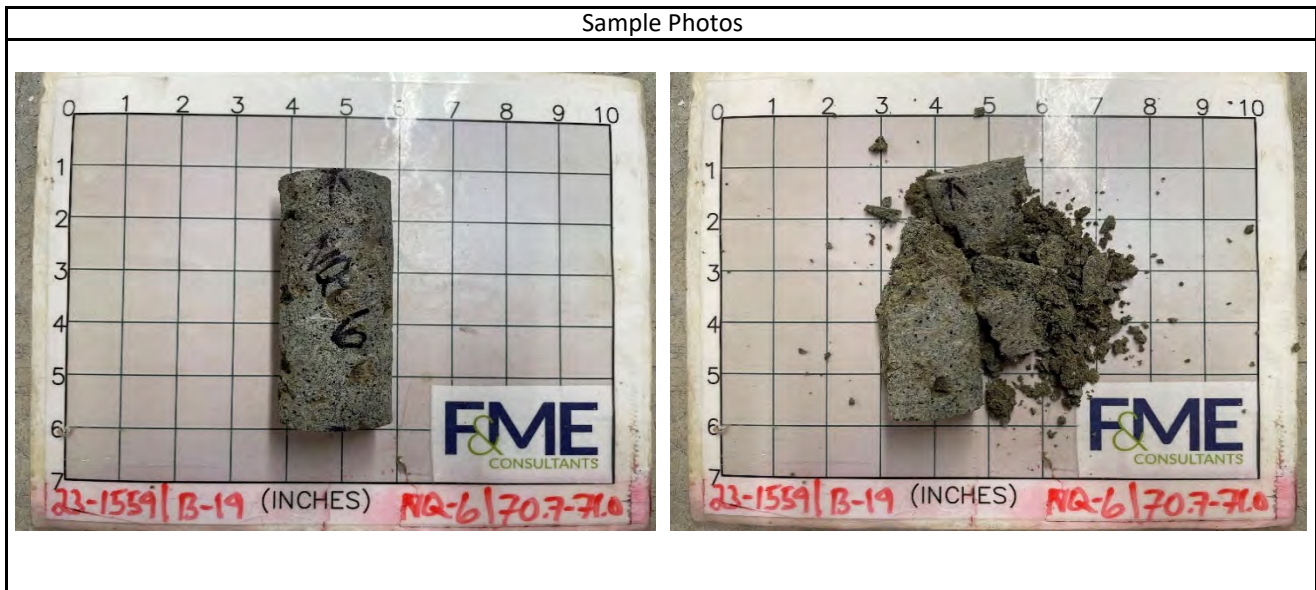
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1559
Sample Location:	B-19 / NQ-5	Depth of Sample:	65.8' - 66.1'
Tested By:	W. Pitts	Date Tested:	6/20/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.064	Reviewed By	WJG
Boring	B-19	Unit Weight (pcf)	139.6	Core Size	NQ
Sample No.	NQ-6 / 23-1559	L/D Ratio	2.19	Recovery	93%
Depth	70.7' - 71.0'	Load Rate (psi/sec)	10	RQD	53%
Description	Gray/Black/Brown Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-3806	180	751	278	0.15	0.05
30%	-4912	194	1,152	427	0.17	0.04
40%	-7205	267	1,550	574	0.16	0.04
50%	-11586	188	1,948	722	0.12	0.02
60%	-17744	417	2,308	855	0.10	0.02
70%	-18394	462	2,737	1,014	0.11	0.03
80%	-19315	552	3,089	1,144	0.12	0.03
90%	-20319	839	3,494	1,294	0.13	0.04
100%	-20820	1107	3,871	1,434		

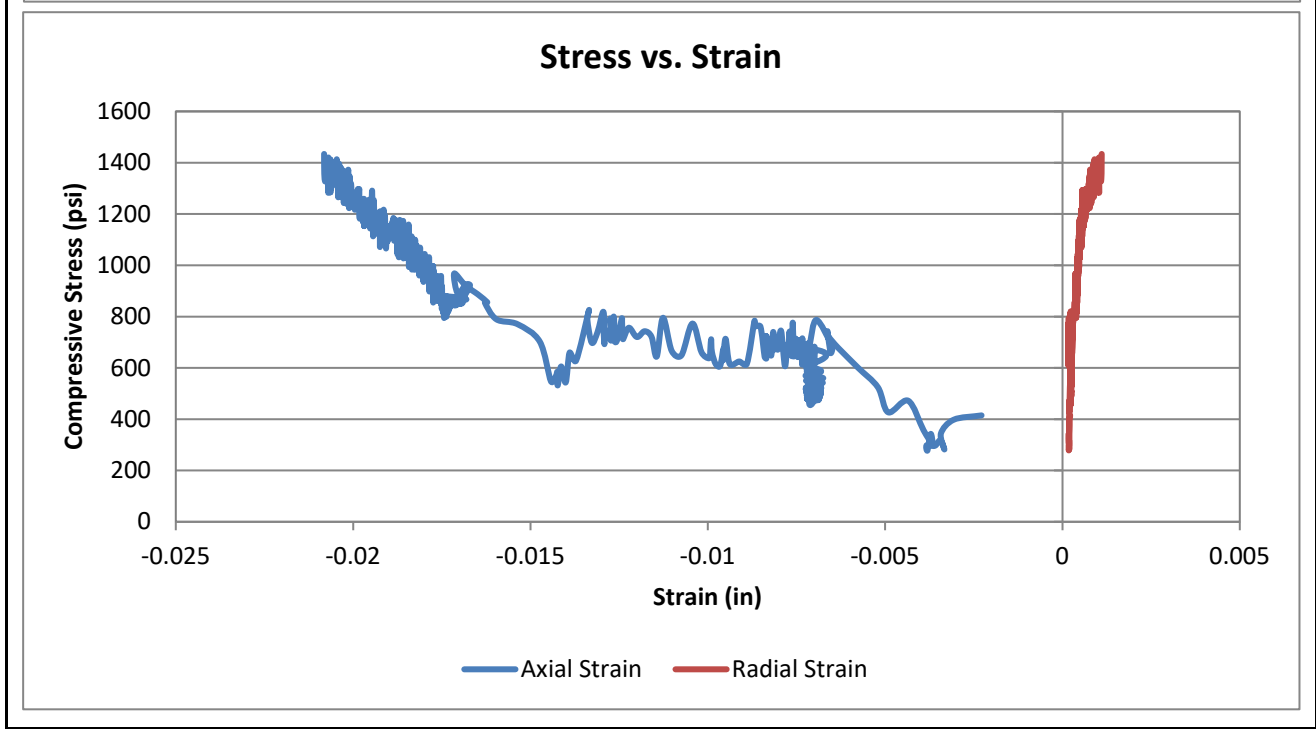
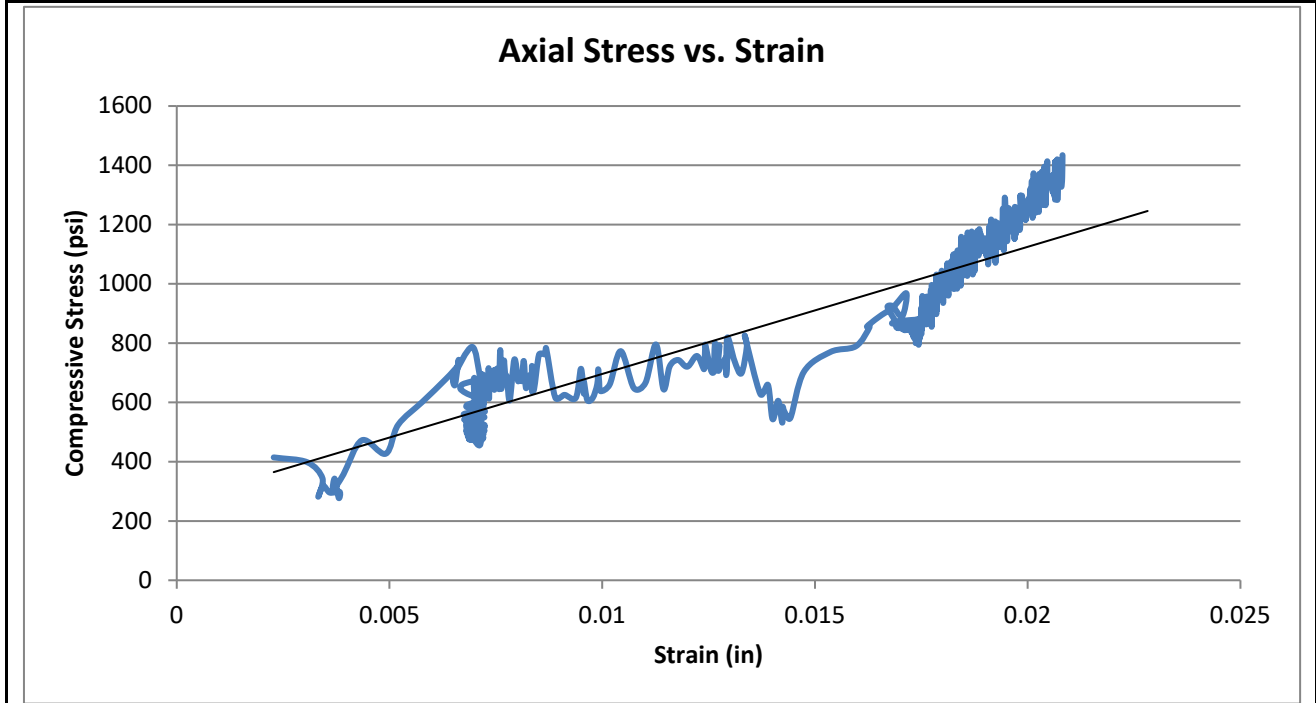


Test Results			
Unconfined Compressive Strength (psi)	1,430	Elastic Modulus (psi)	1.66E+05
		Poisson's Ratio in Elastic Range	0.03
Comments	Elastic range was taken as between 0.007 and 0.013 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



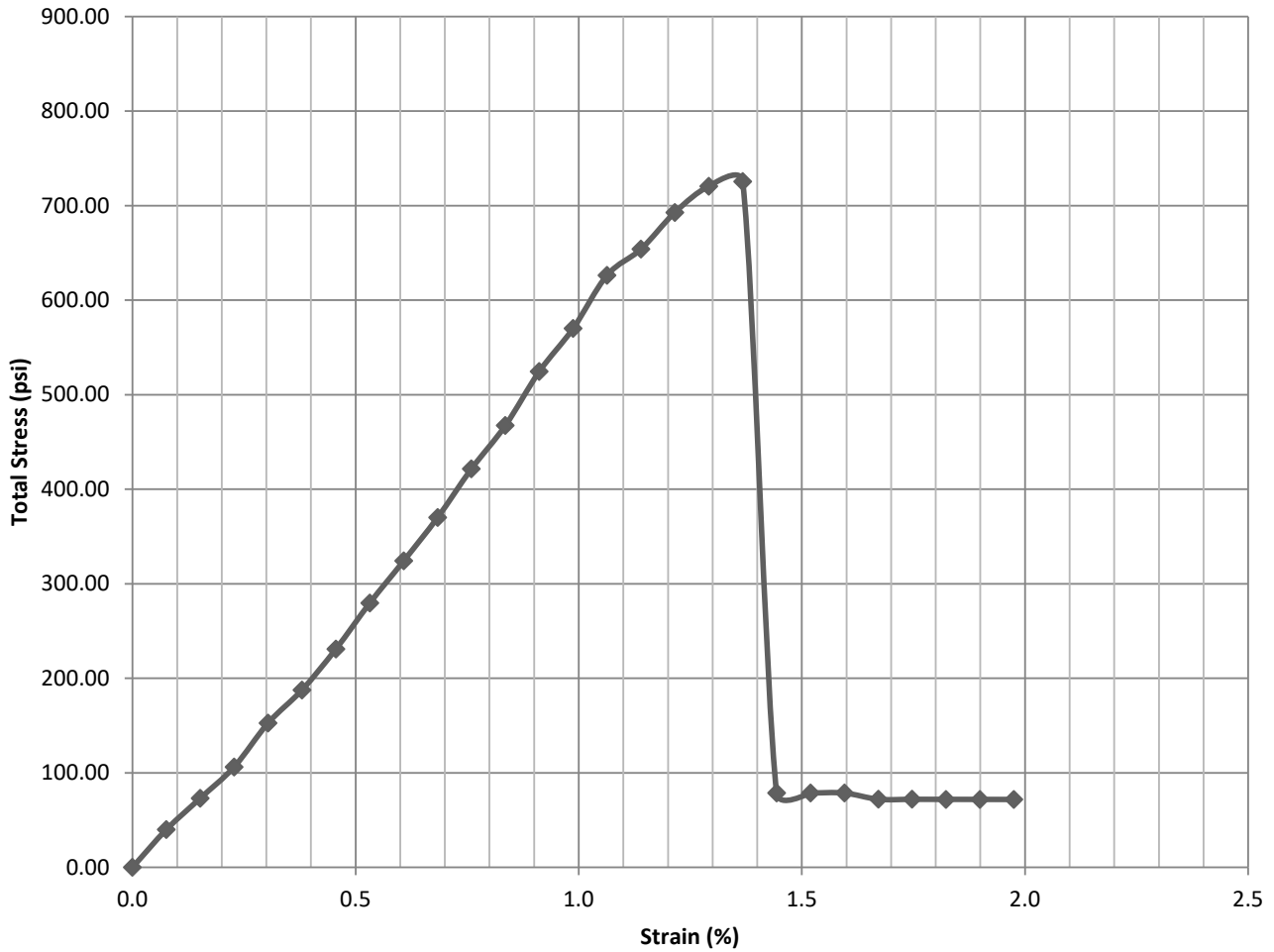
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.064	Reviewed By	WJG
Boring	B-19	Unit Weight (pcf)	139.6	Core Size	NQ
Sample No.	NQ-6 / 23-1559	L/D Ratio	2.19	Recovery	93%
Depth	70.7' - 71.0'	Load Rate (psi/sec)	10	RQD	53%
Description	Gray/Black/Brown Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1559



Average Initial Diameter (Do): 1.810 in.
 Average Initial Height (Lo): 3.949 in.
 Average Initial Area (Ao): 2.573 in²
 In-Situ Unit Weight: 143.1 pcf
 Failure Mode: Plastic Failure

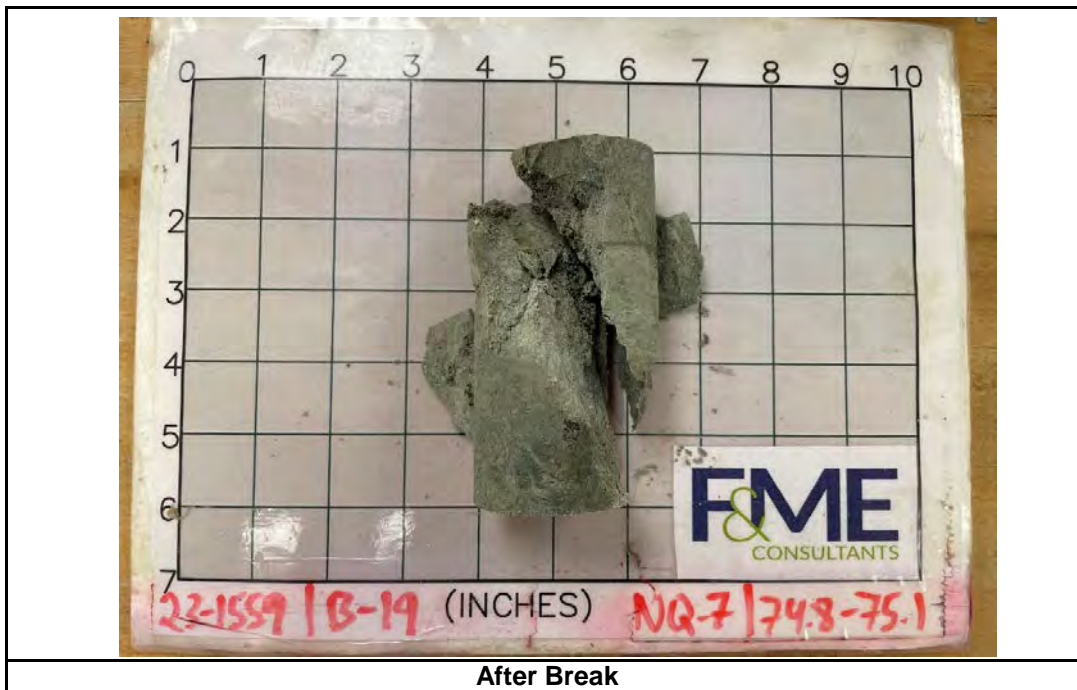
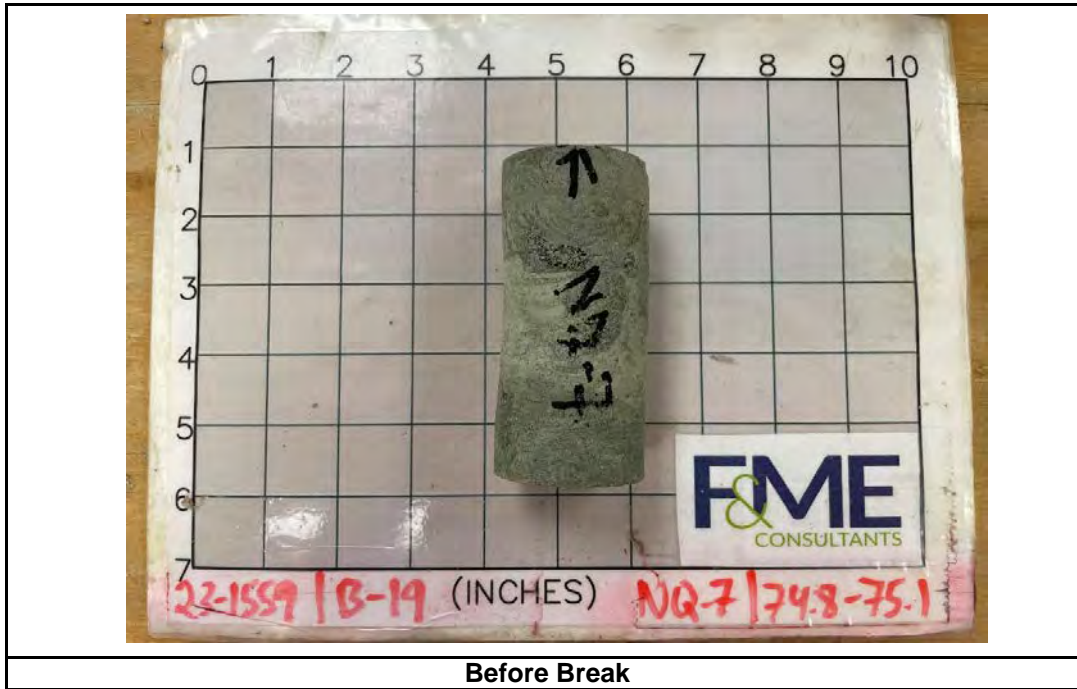
Sample Volume: 10.16 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.842 lbs.
 L/D Ratio: 2.182

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/20/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-19 / NQ-7
 Depth/Elevation 74.8' - 75.1'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 725 \text{ psi}$ $\epsilon_{ULT} = 1.4\%$



Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1559
Sample Location:	B-19 / NQ-7	Depth of Sample:	74.8' - 75.1'
Tested By:	W. Pitts	Date Tested:	6/20/2023



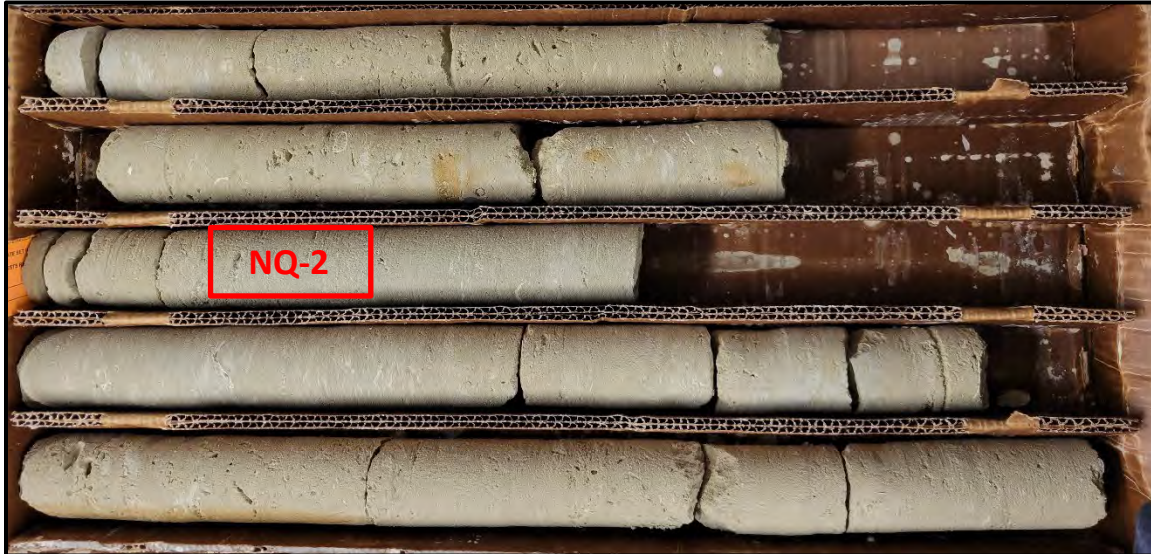
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I-95 Bridge over Lake Marion DB Prep

CORE PHOTOGRAPHS: B-20

Begin Run 1
43.8 Feet

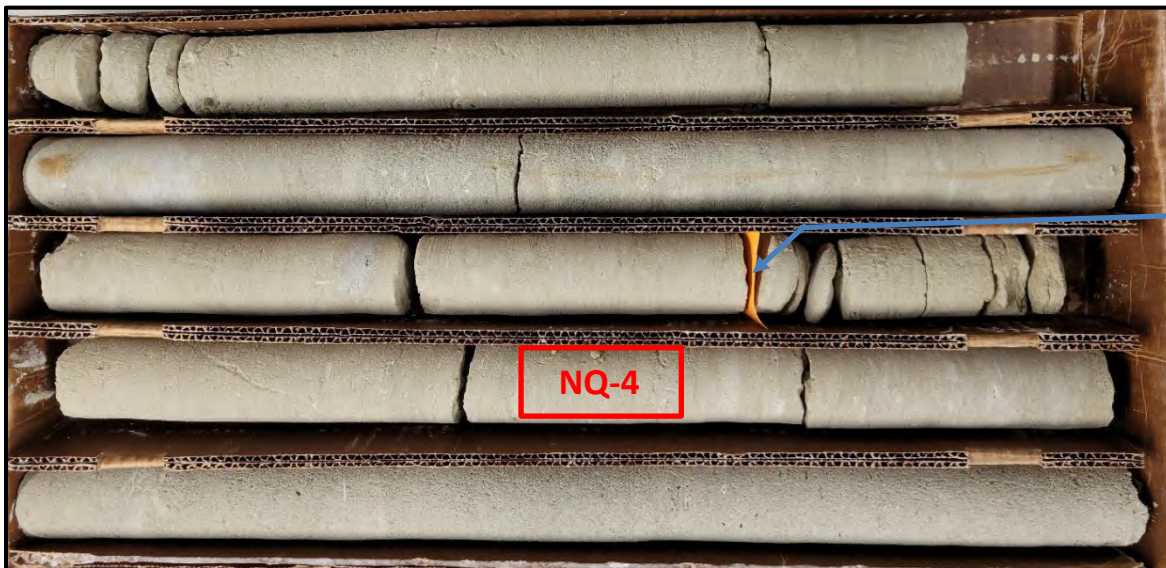
Begin Run 2
46.6 Feet



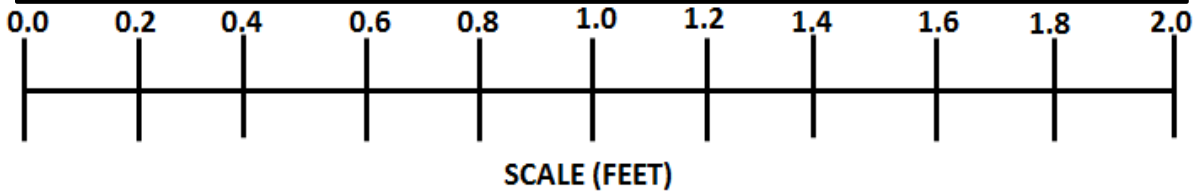
End Run 2
51.6 Feet

Begin Run 3
51.6 Feet

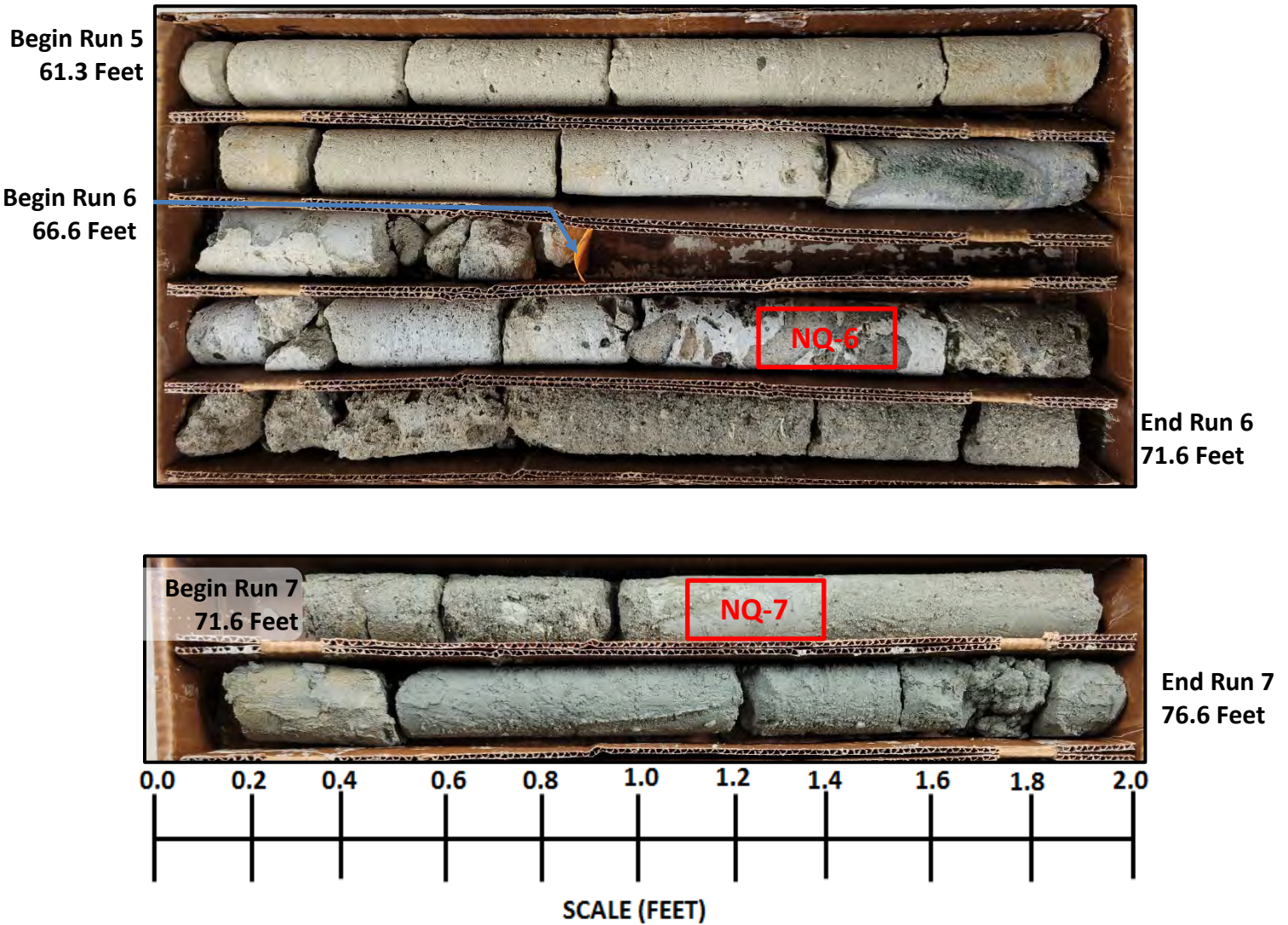
Begin Run 4
56.6 Feet



End Run 4
61.6 Feet

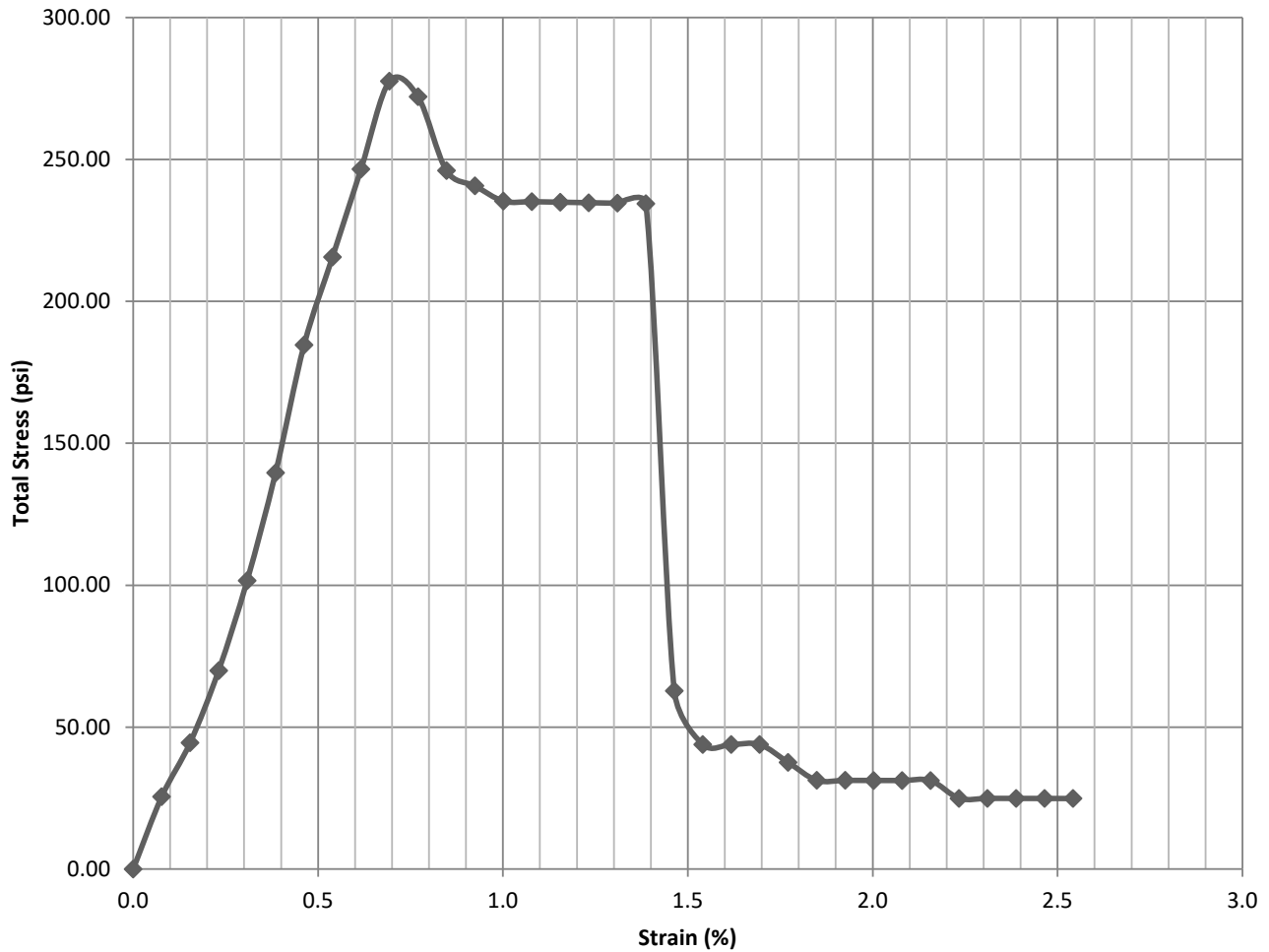


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-20



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0850



Average Initial Diameter (Do): 1.850 in.
 Average Initial Height (Lo): 3.895 in.
 Average Initial Area (Ao): 2.688 in²
 In-Situ Unit Weight: 121.0 pcf
 Failure Mode: Plastic Failure

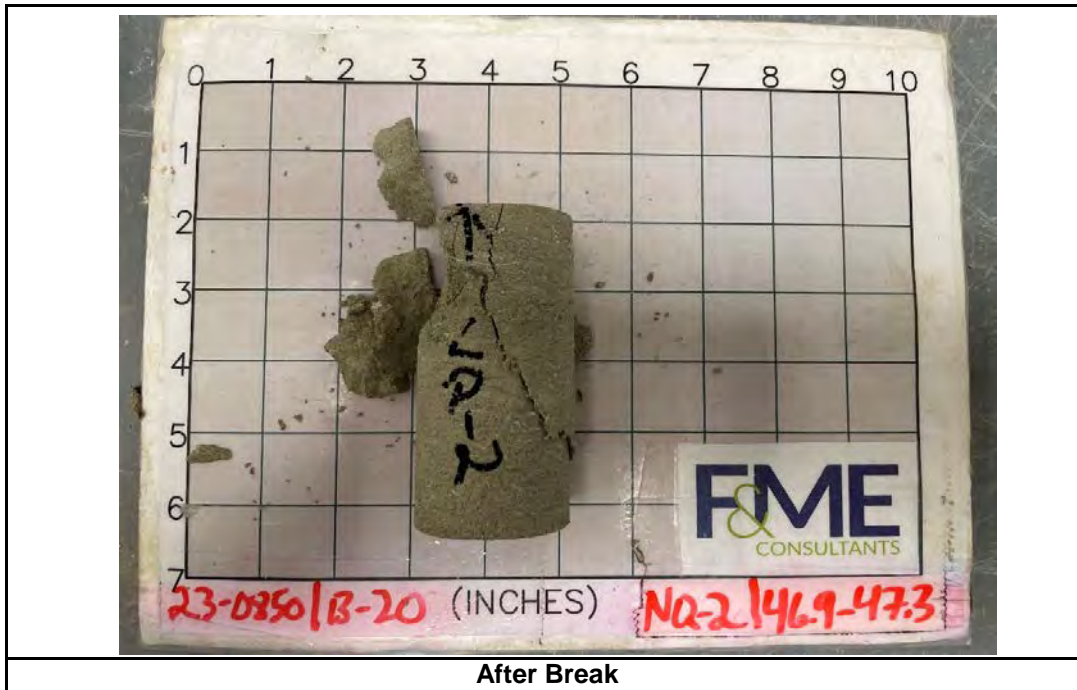
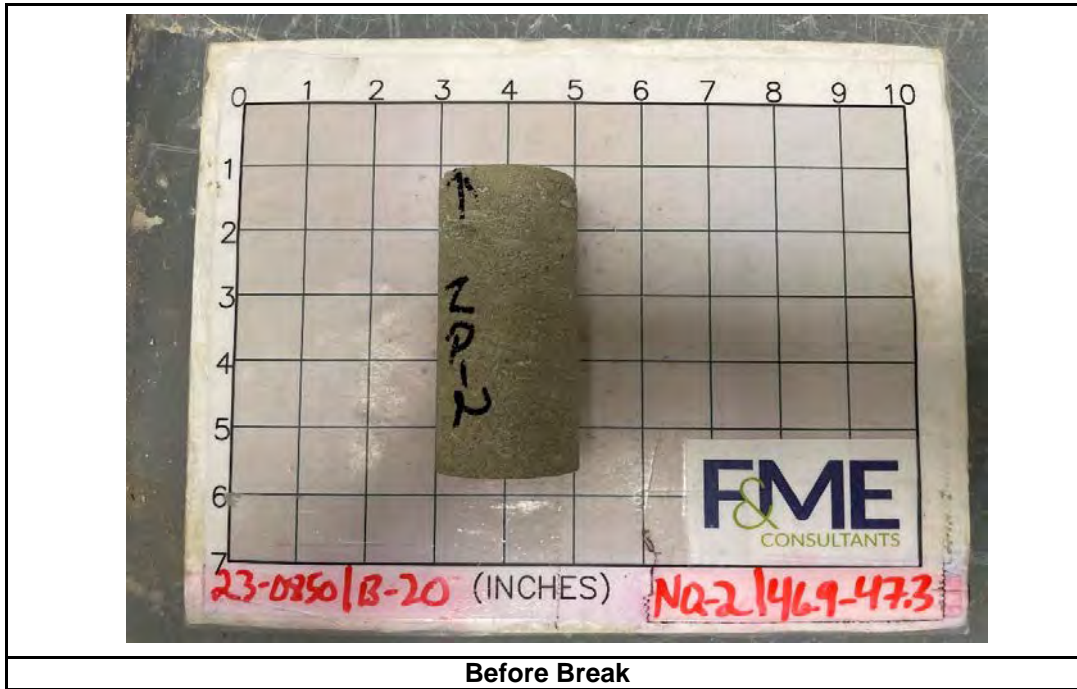
Sample Volume: 10.47 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.733 lbs.
 L/D Ratio: 2.105

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-20 / NQ-2
 Depth/Elevation 46.9' - 47.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 275 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



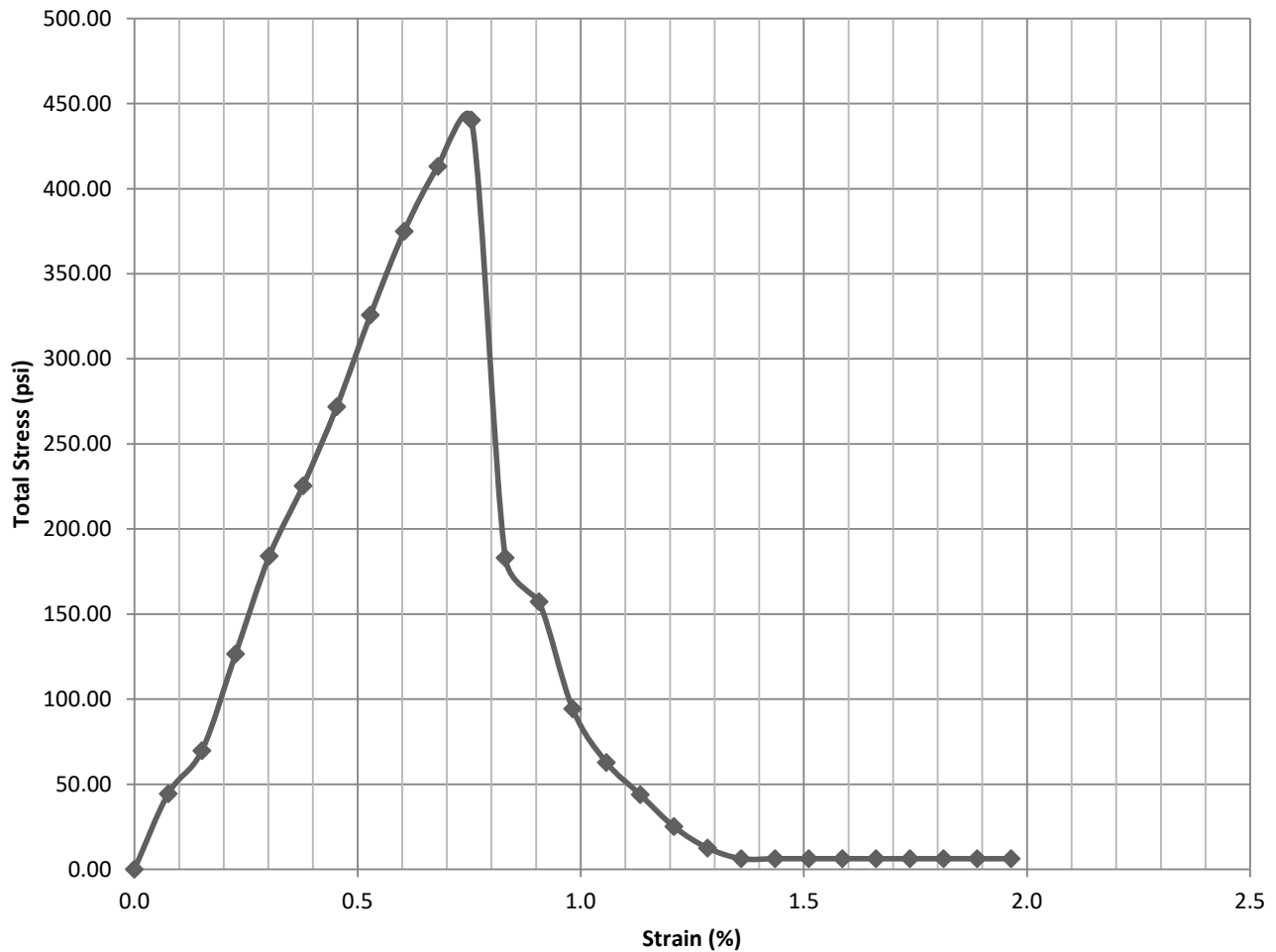
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0850
Sample Location:	B-20 / NQ-2	Depth of Sample:	46.9' - 47.3'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0850



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.971 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 124.0 pcf
 Failure Mode: Plastic Failure

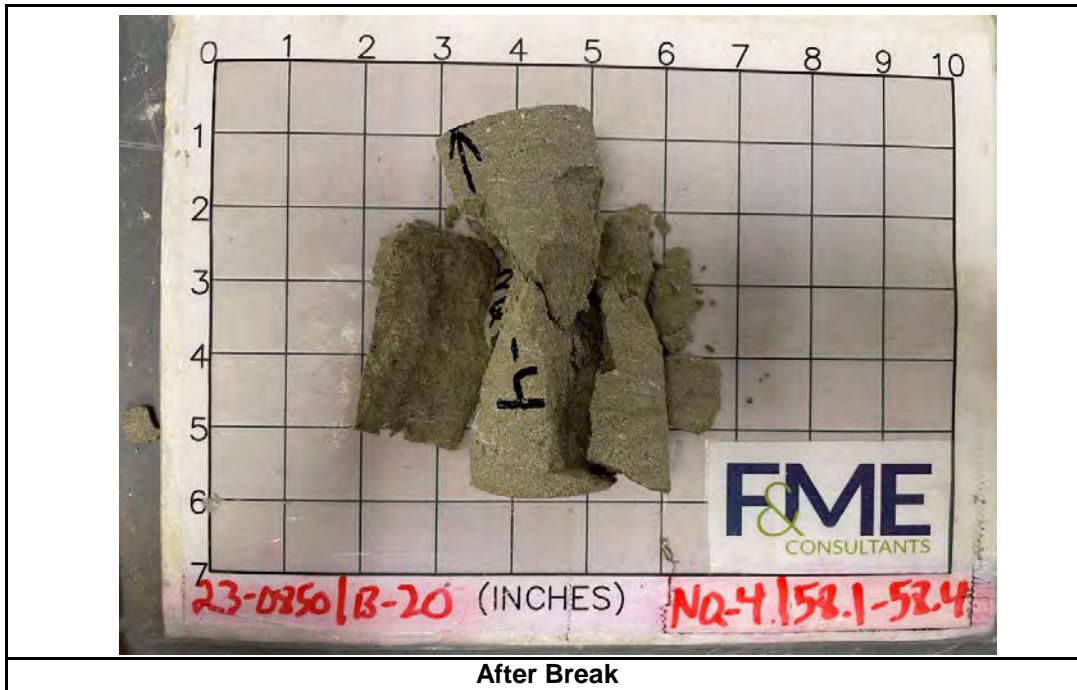
Sample Volume: 10.72 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.770 lbs.
 L/D Ratio: 2.142

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-20 / NQ-4
 Depth/Elevation 58.1' - 58.4'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 440 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



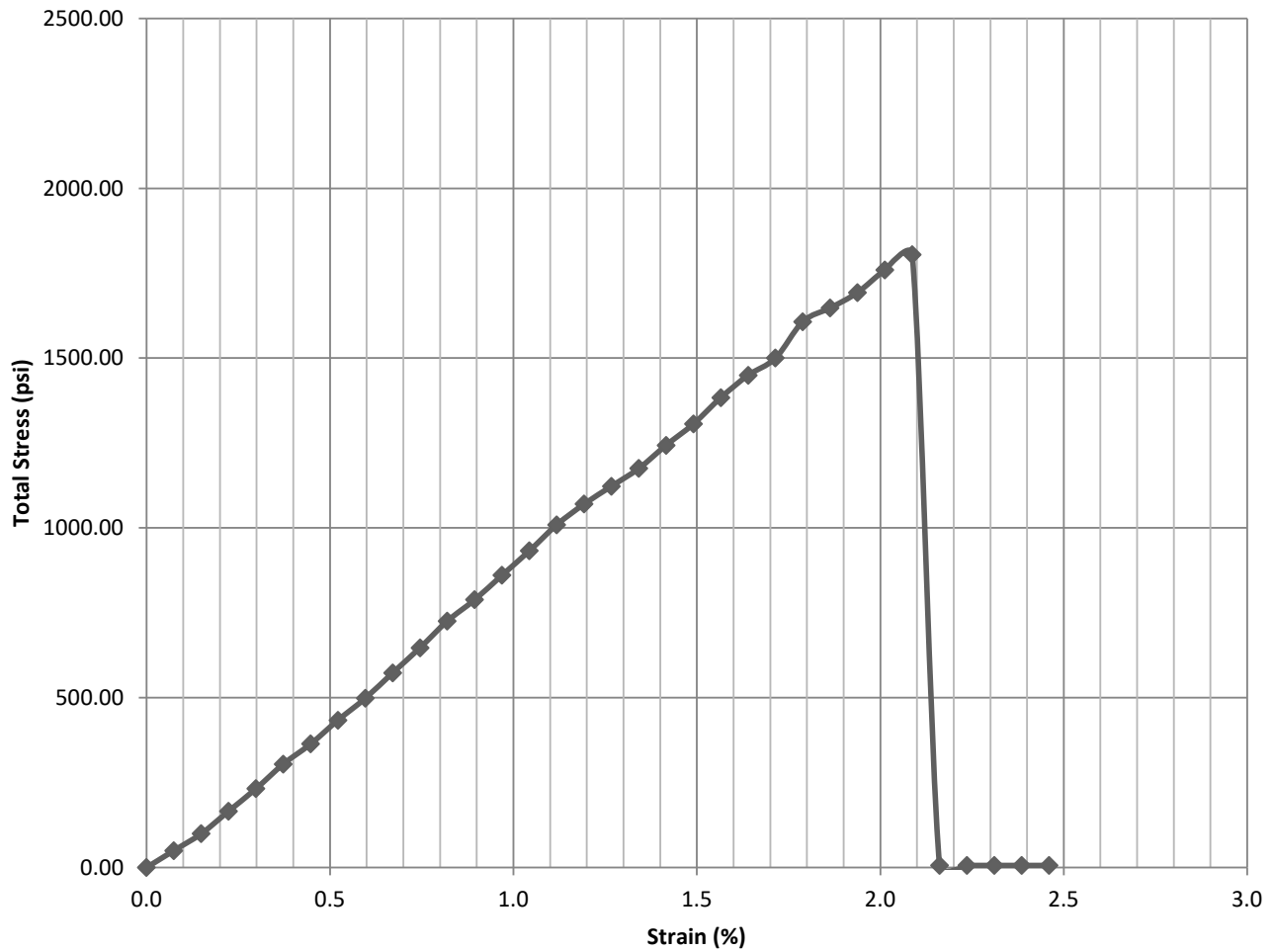
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0850
Sample Location:	B-20 / NQ-4	Depth of Sample:	58.1' - 58.4'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0850



Average Initial Diameter (Do): 1.870 in.
 Average Initial Height (Lo): 4.025 in.
 Average Initial Area (Ao): 2.746 in²
 In-Situ Unit Weight: 149.9 pcf
 Failure Mode: Plastic Failure

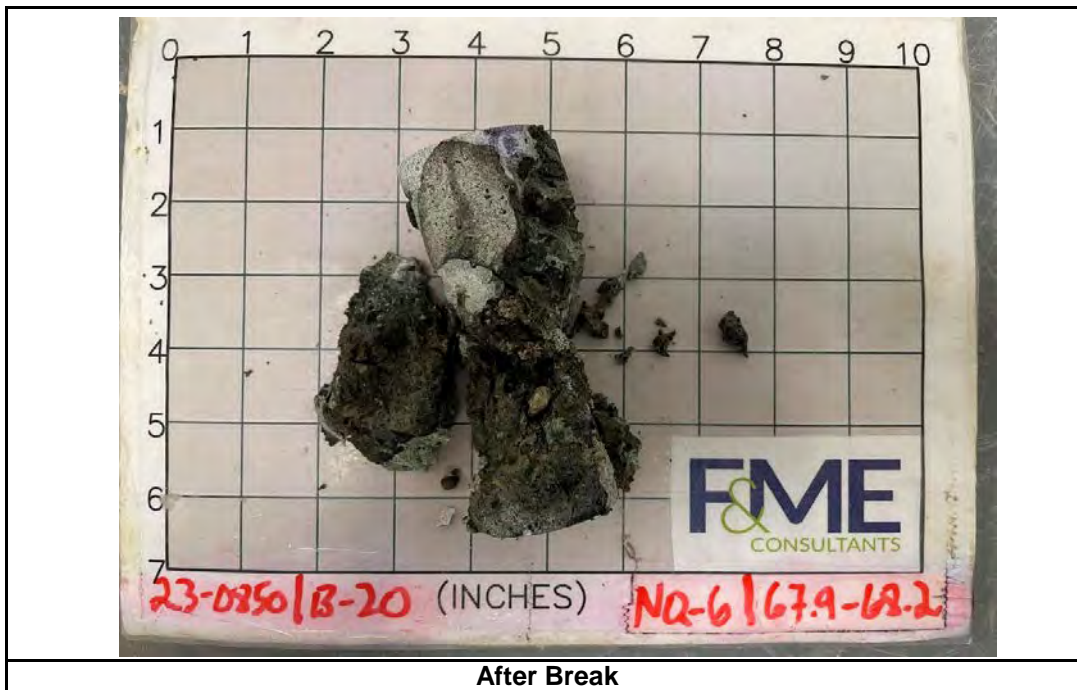
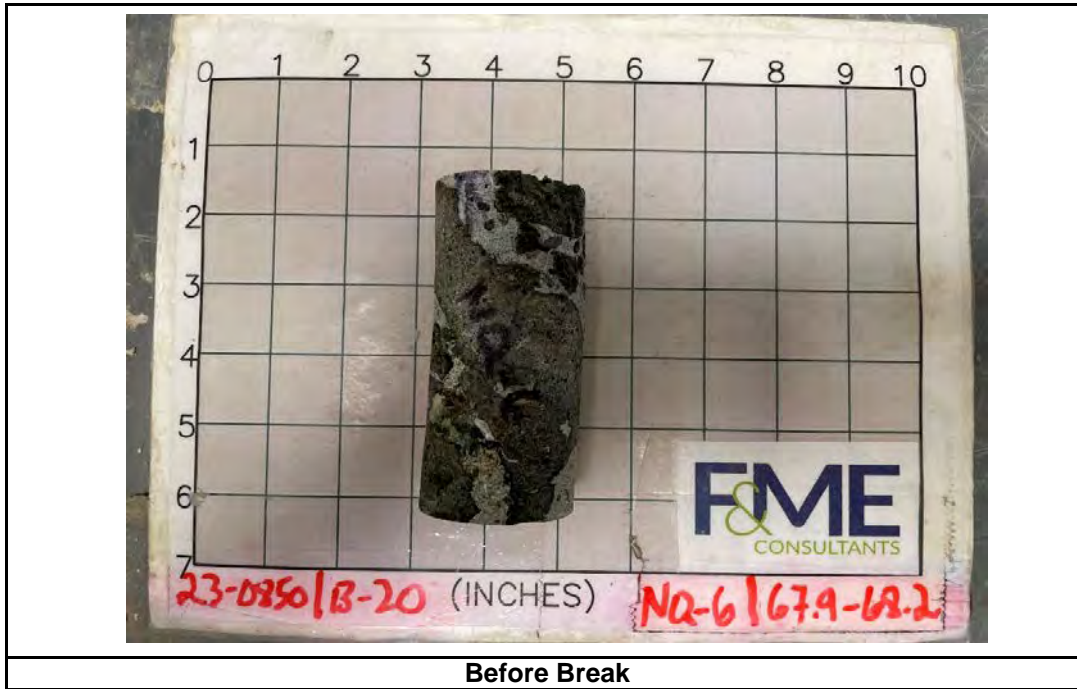
Sample Volume: 11.05 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.959 lbs.
 L/D Ratio: 2.152

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-20 - NQ-6
 Depth/Elevation 67.9' - 68.2'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1800 \text{ psi}$ $\epsilon_{ULT} = 2.1\%$



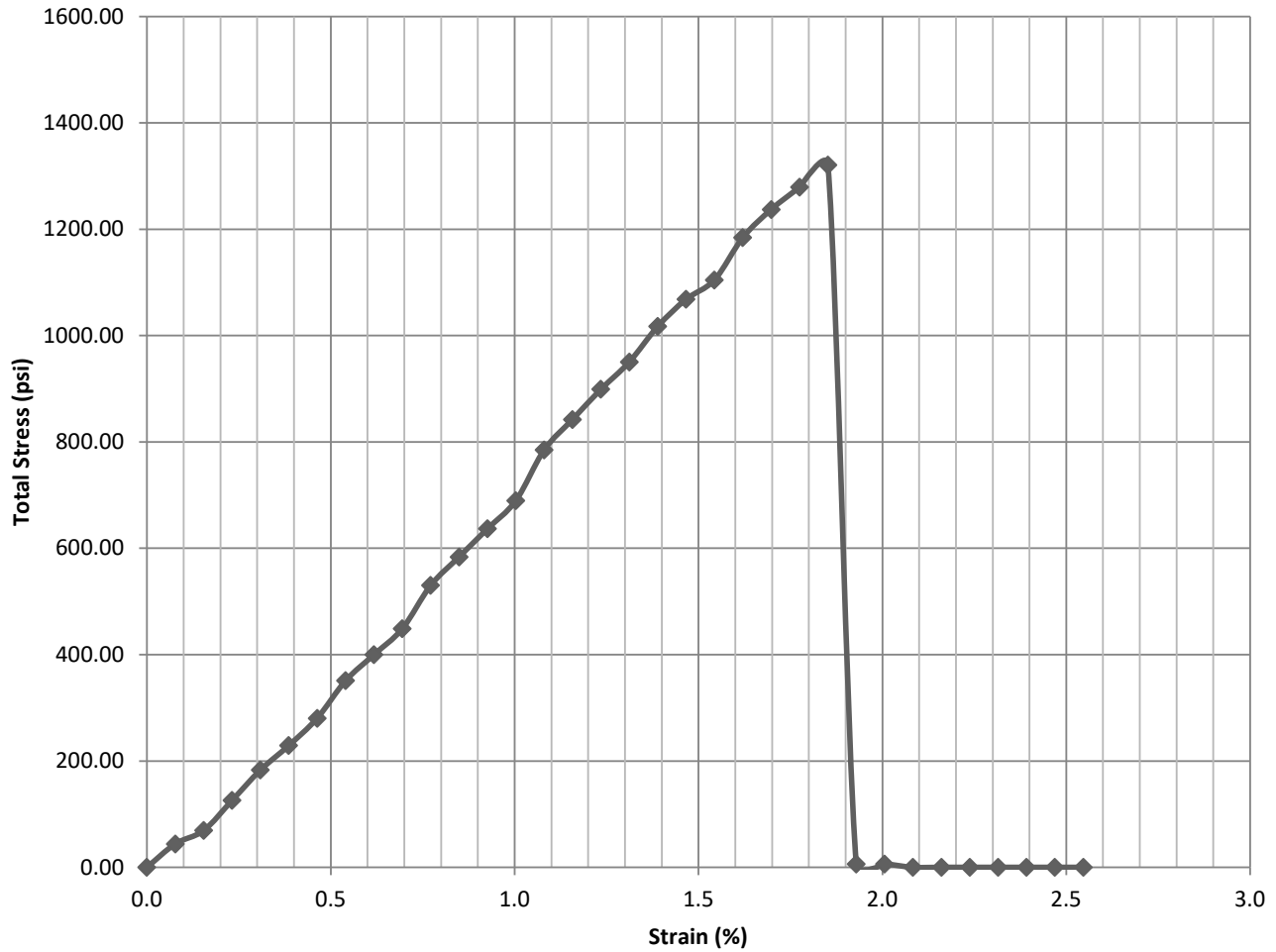
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0850
Sample Location:	B-20 - NQ-6	Depth of Sample:	67.9' - 68.2'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0850



Average Initial Diameter (Do): 1.860 in.
 Average Initial Height (Lo): 3.888 in.
 Average Initial Area (Ao): 2.717 in²
 In-Situ Unit Weight: 147.5 pcf
 Failure Mode: Plastic Failure

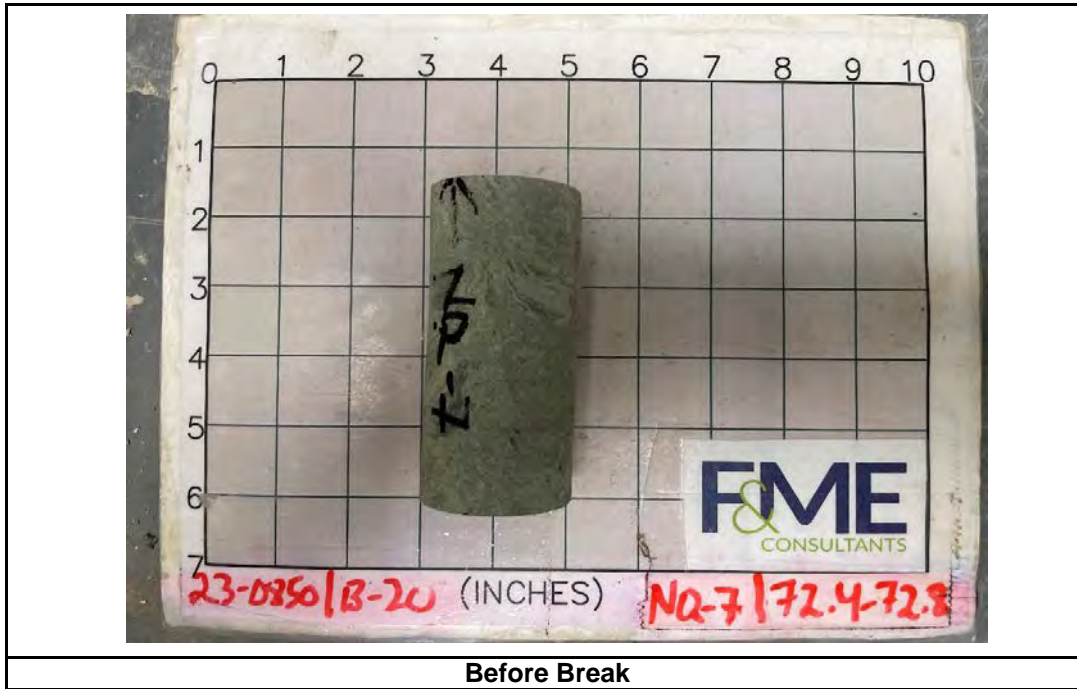
Sample Volume: 10.56 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.902 lbs.
 L/D Ratio: 2.090

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-20 / NQ-7
 Depth/Elevation 72.4' - 72.8'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1320 \text{ psi}$ $\epsilon_{ULT} = 1.9\%$

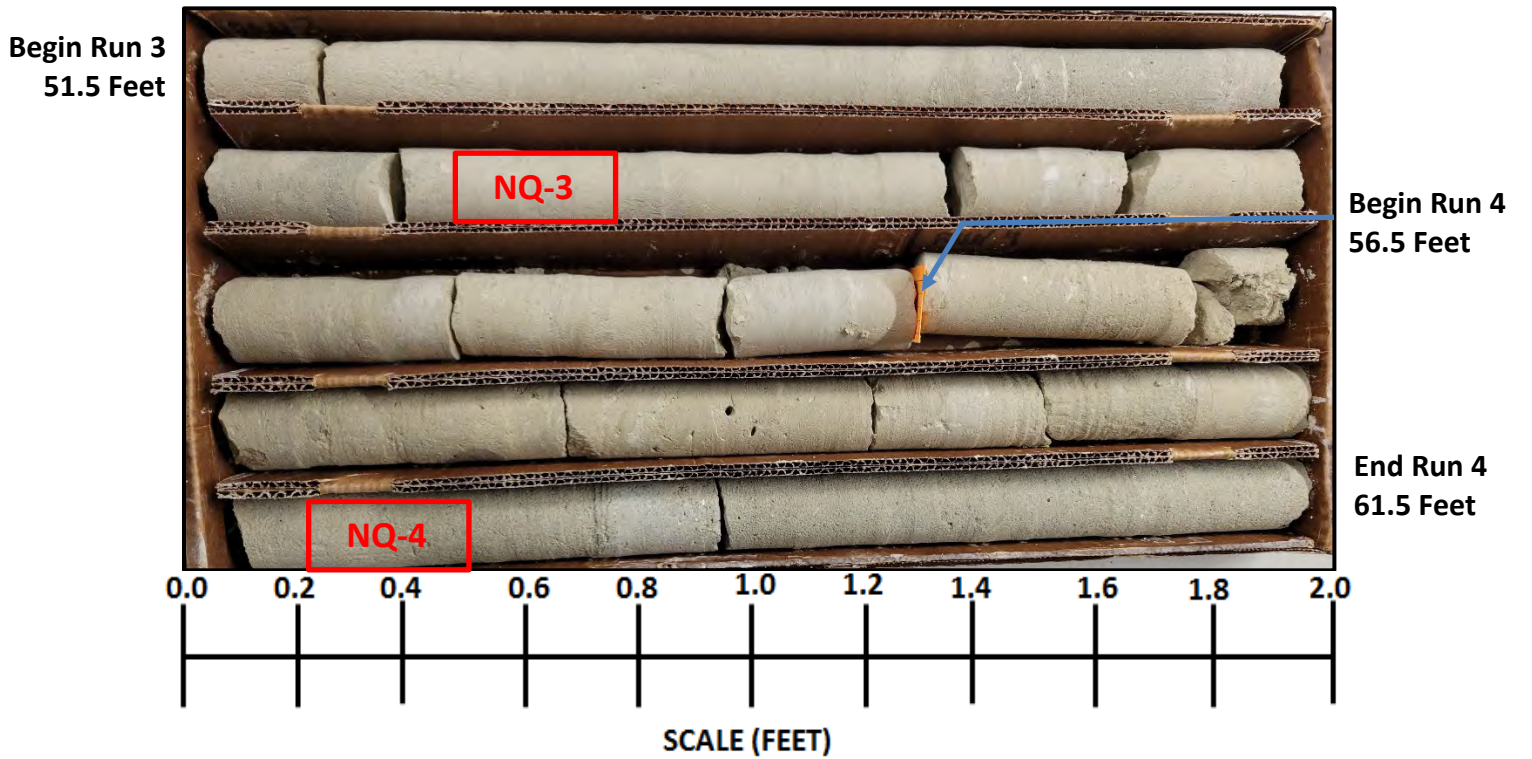
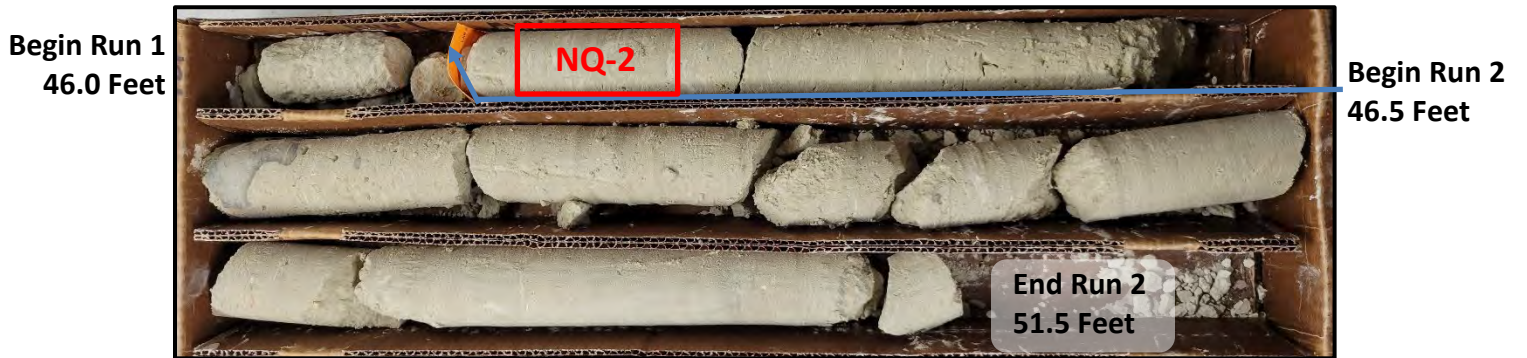


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0850
Sample Location:	B-20 / NQ-7	Depth of Sample:	72.4' - 72.8'
Tested By:	W. Pitts	Date Tested:	4/10/2023



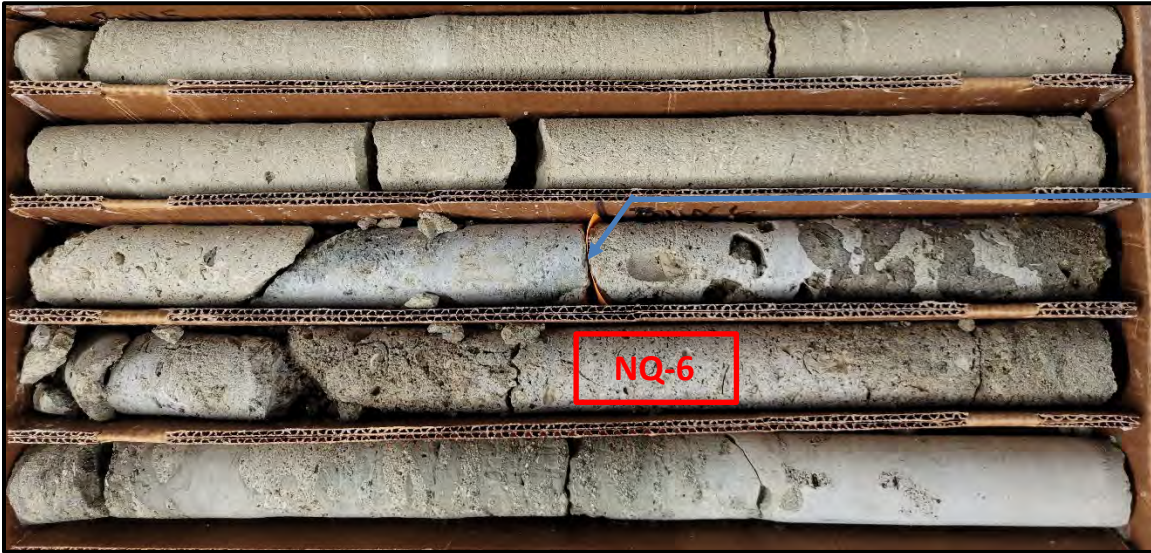
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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-22



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-22

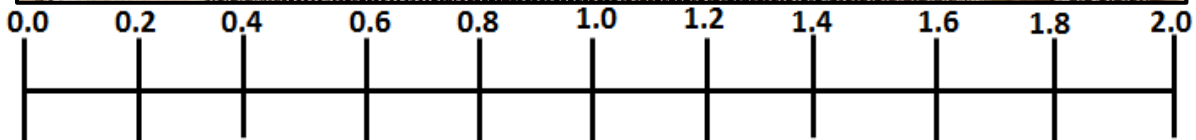
Begin Run 5
61.5 Feet



Begin Run 6
66.5 Feet

End Run 6
71.5 Feet

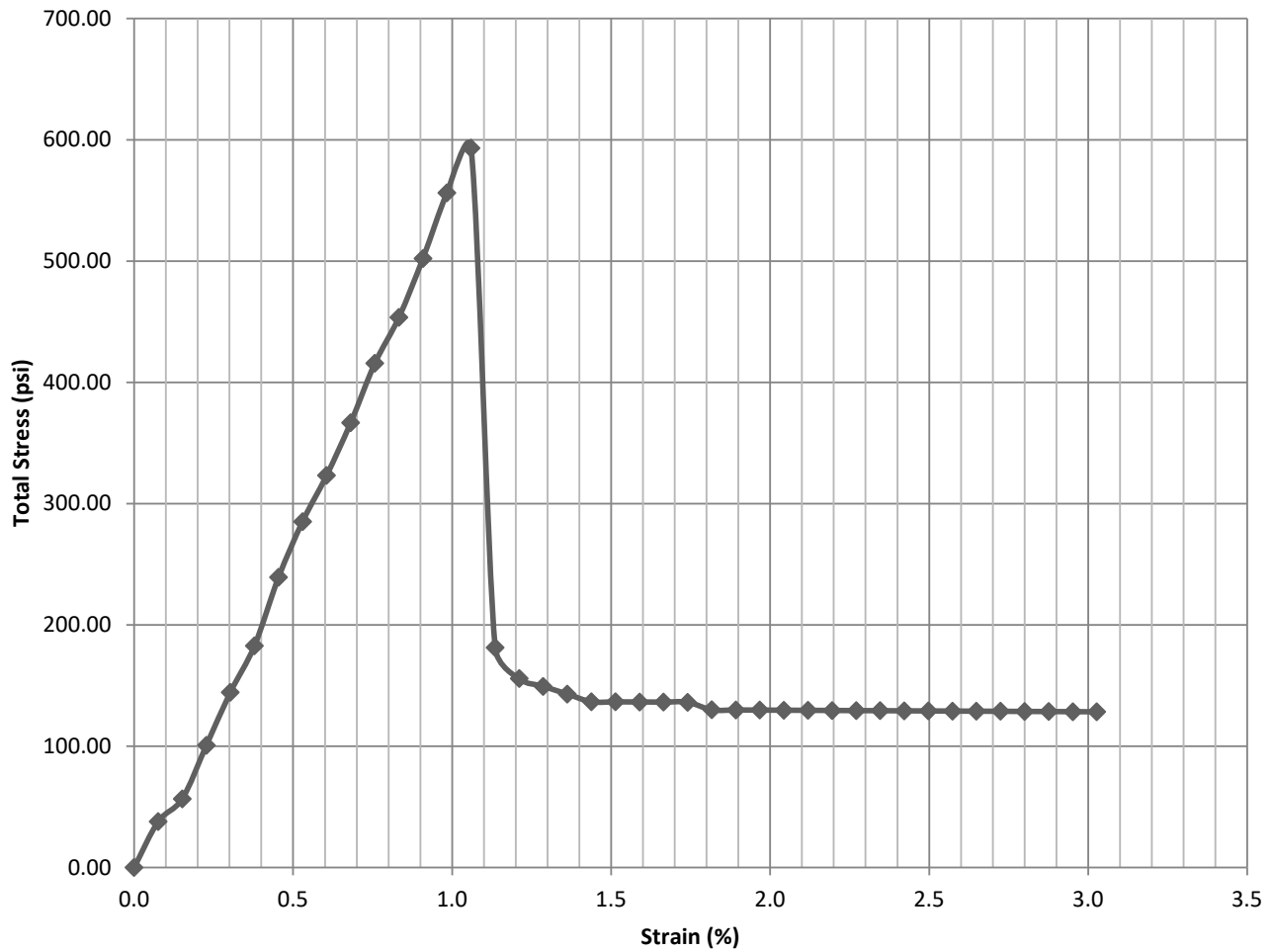
Begin Run 7
71.5 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0849



Average Initial Diameter (Do): 1.860 in.
 Average Initial Height (Lo): 3.964 in.
 Average Initial Area (Ao): 2.717 in²
 In-Situ Unit Weight: 120.8 pcf
 Failure Mode: Plastic Failure

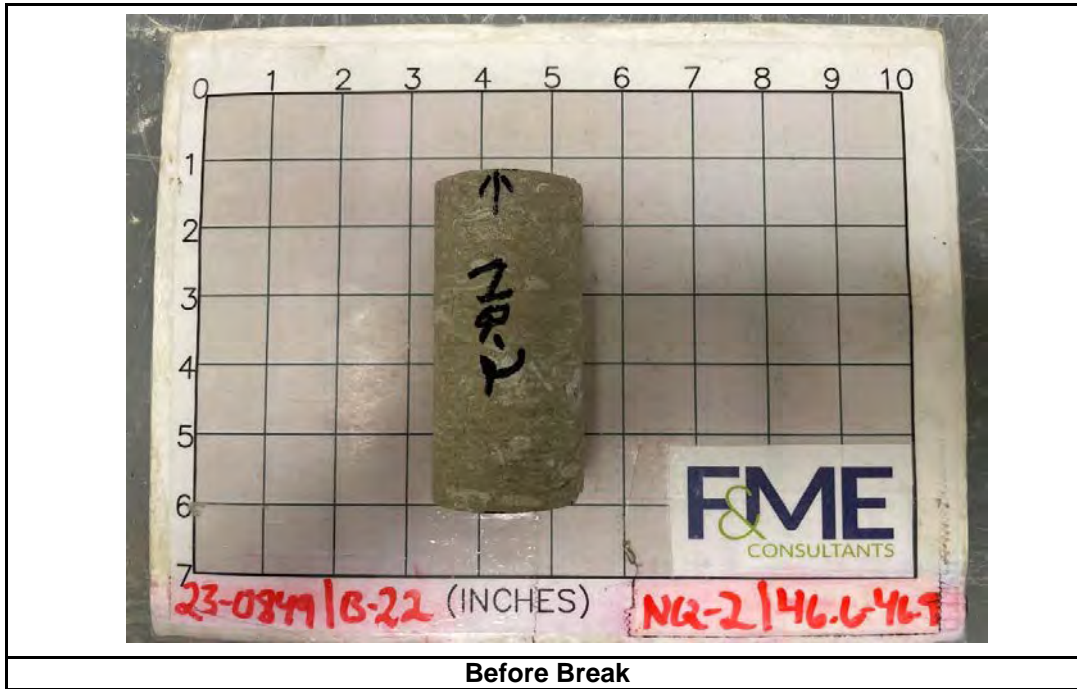
Sample Volume: 10.77 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.753 lbs.
 L/D Ratio: 2.131

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-22 / NQ-2
 Depth/Elevation 46.6' - 46.9'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 595 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



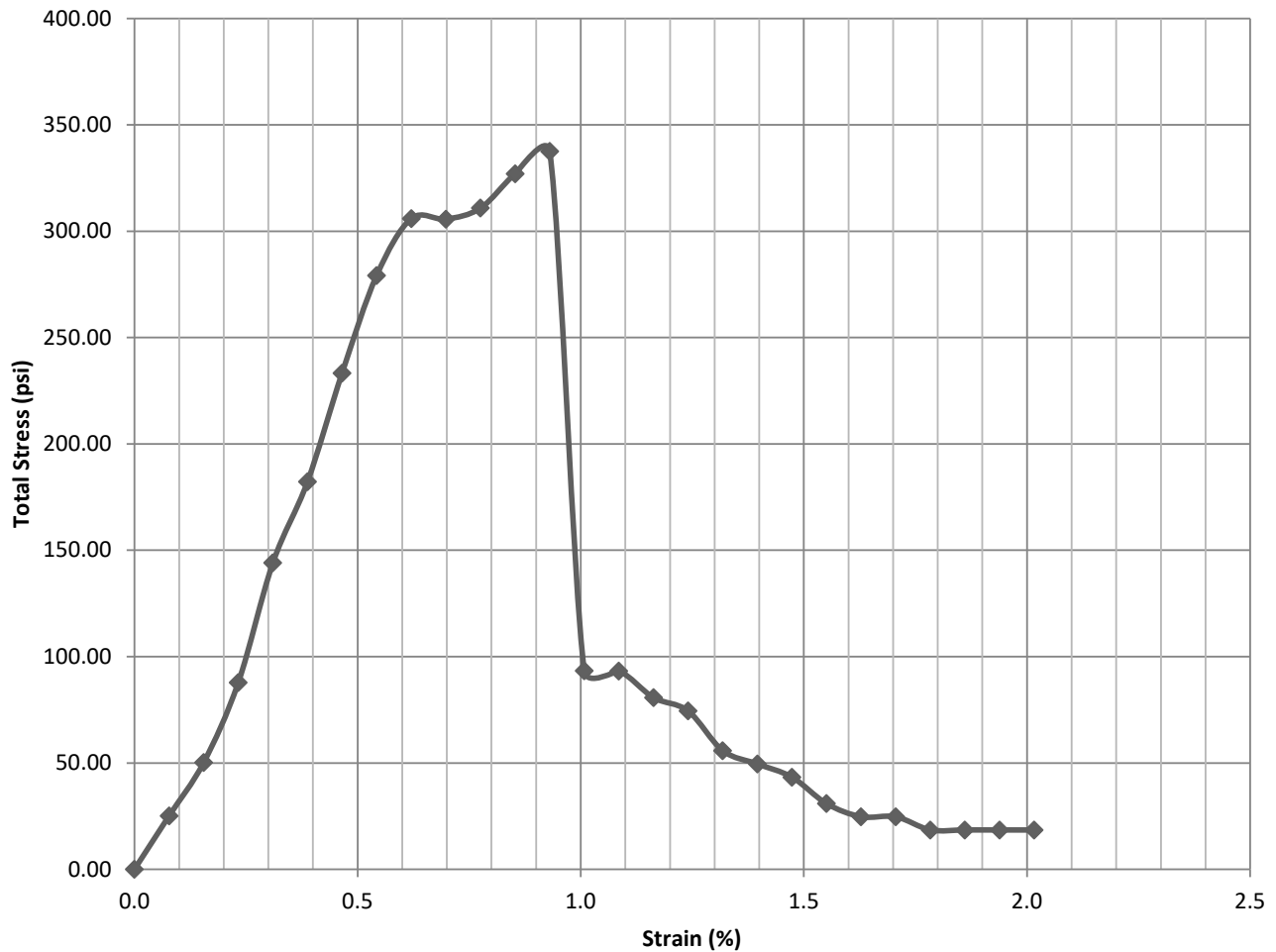
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0849
Sample Location:	B-22 / NQ-2	Depth of Sample:	46.6' - 46.9'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0849



Average Initial Diameter (Do): 1.863 in.
 Average Initial Height (Lo): 3.869 in.
 Average Initial Area (Ao): 2.726 in²
 In-Situ Unit Weight: 120.6 pcf
 Failure Mode: Plastic Failure

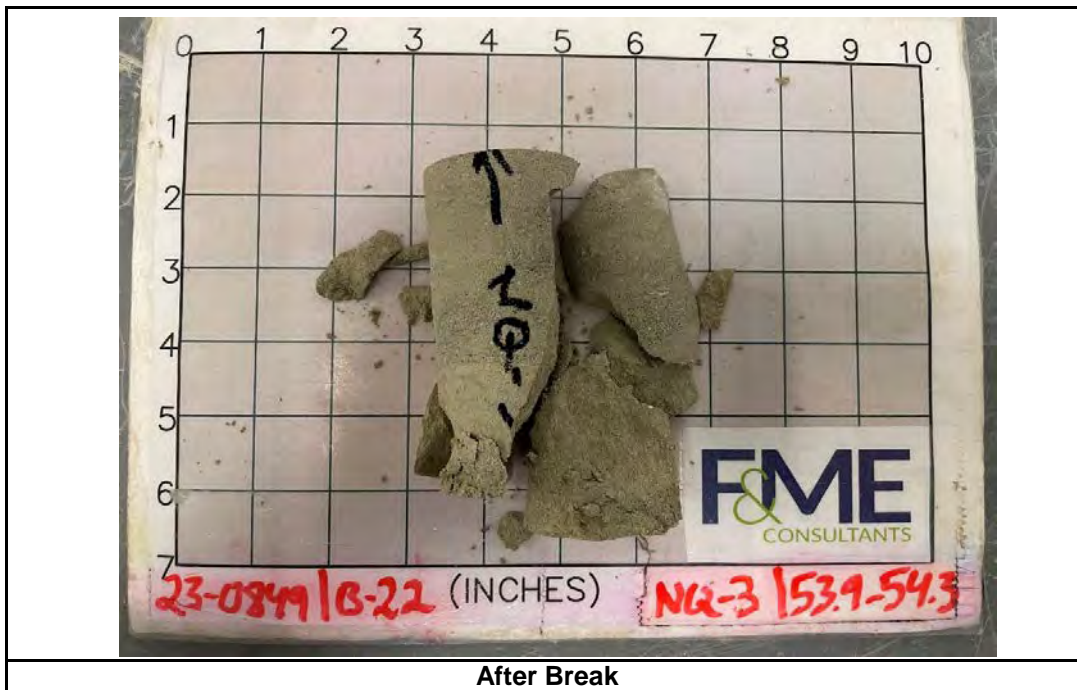
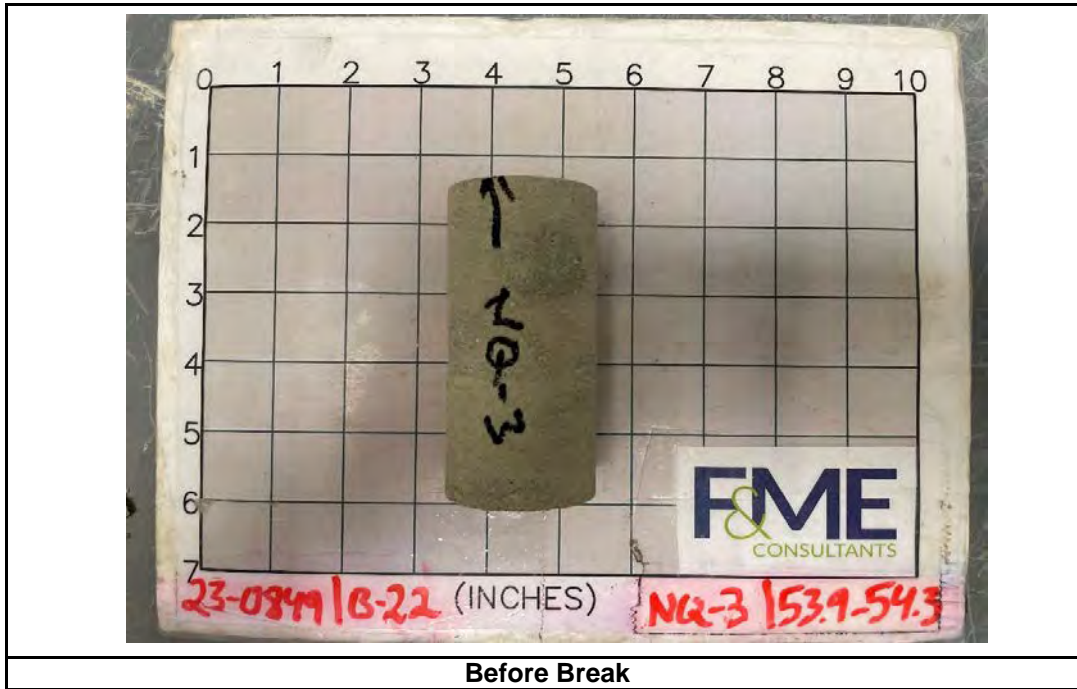
Sample Volume: 10.55 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.736 lbs.
 L/D Ratio: 2.077

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-22 / NQ-3
 Depth/Elevation 53.9' - 54.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 340 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



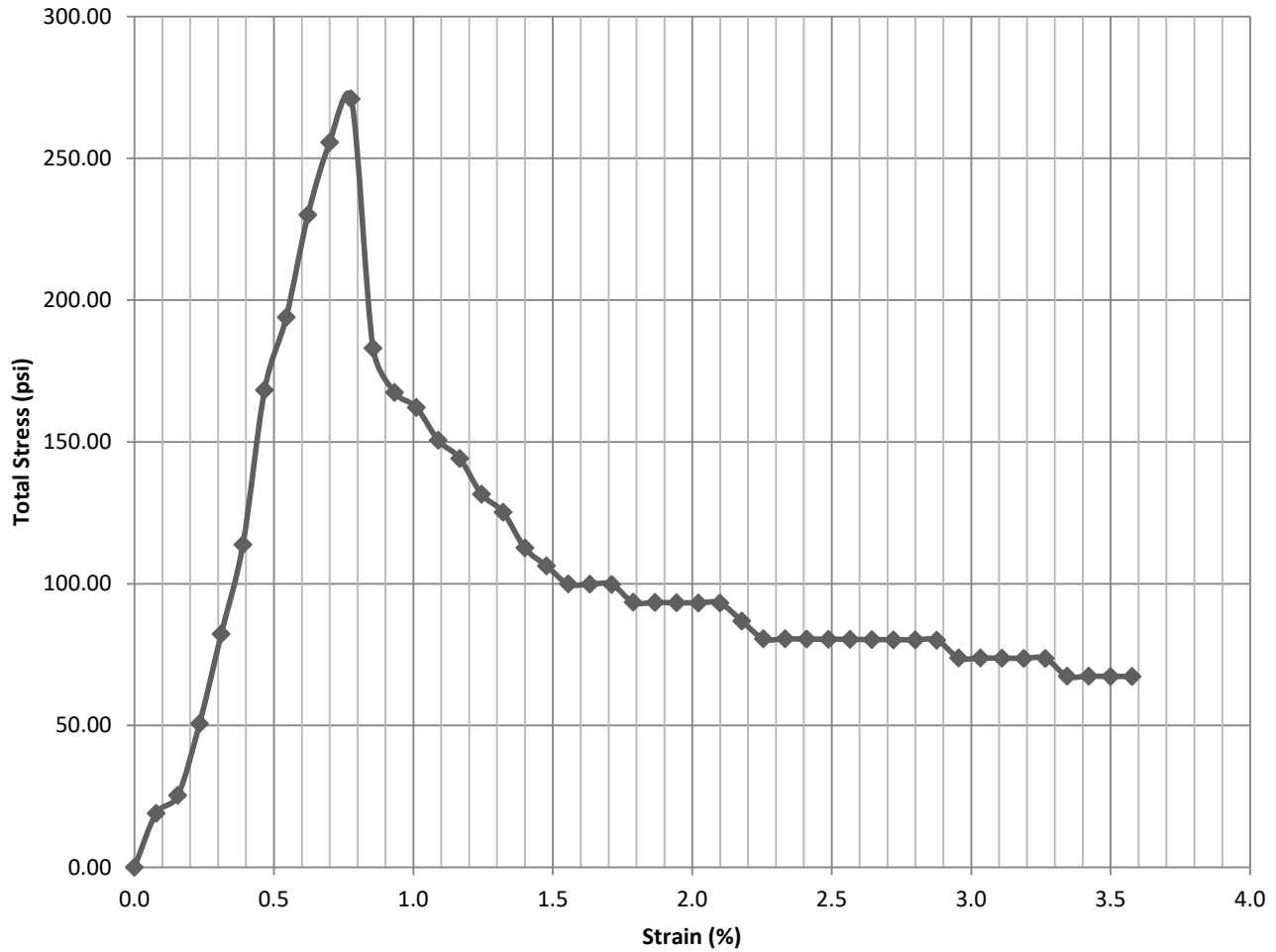
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0849
Sample Location:	B-22 / NQ-3	Depth of Sample:	53.9' - 54.3'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0849



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.858 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 120.2 pcf
 Failure Mode: Plastic Failure

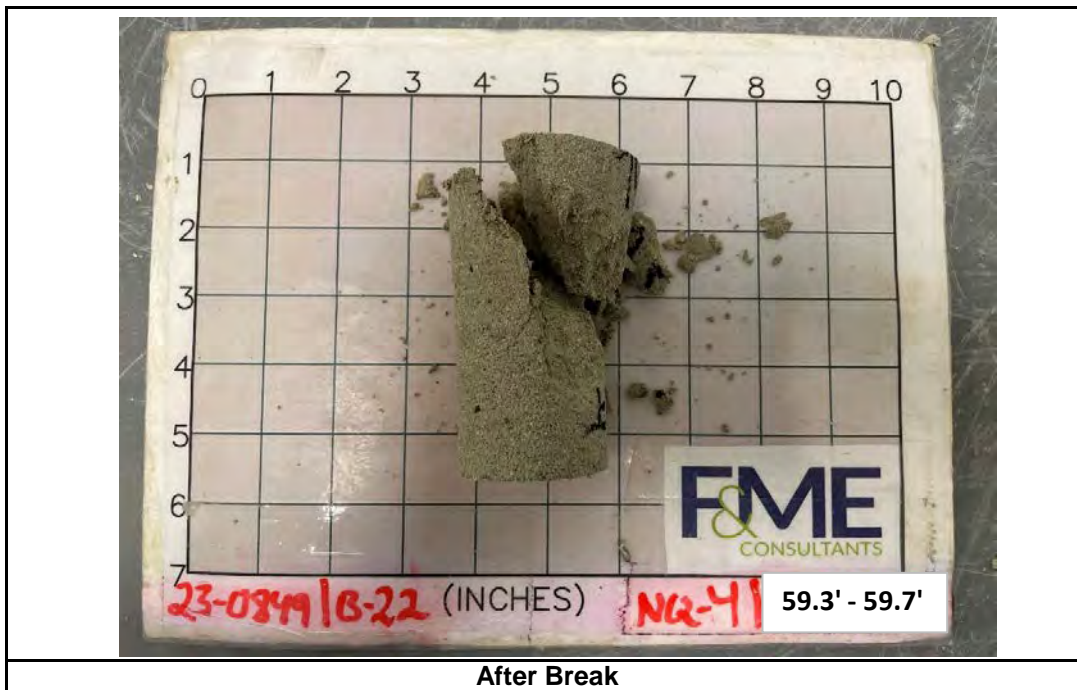
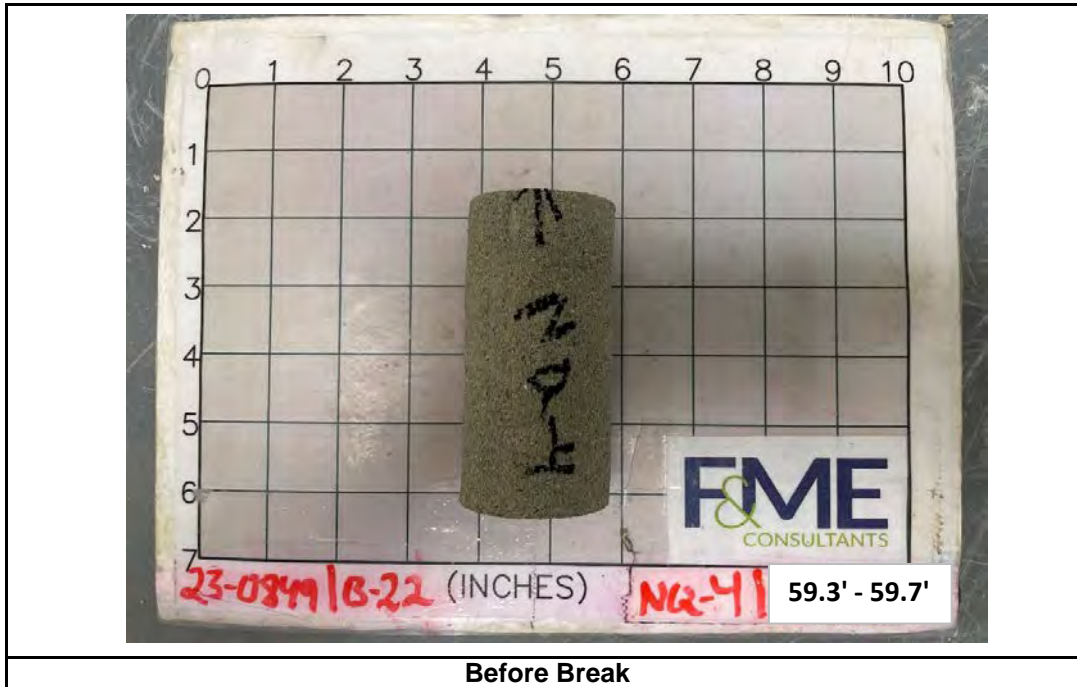
Sample Volume: 10.42 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.725 lbs.
 L/D Ratio: 2.081

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-22 / NQ-4
 Depth/Elevation 59.3' - 59.7'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 270 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



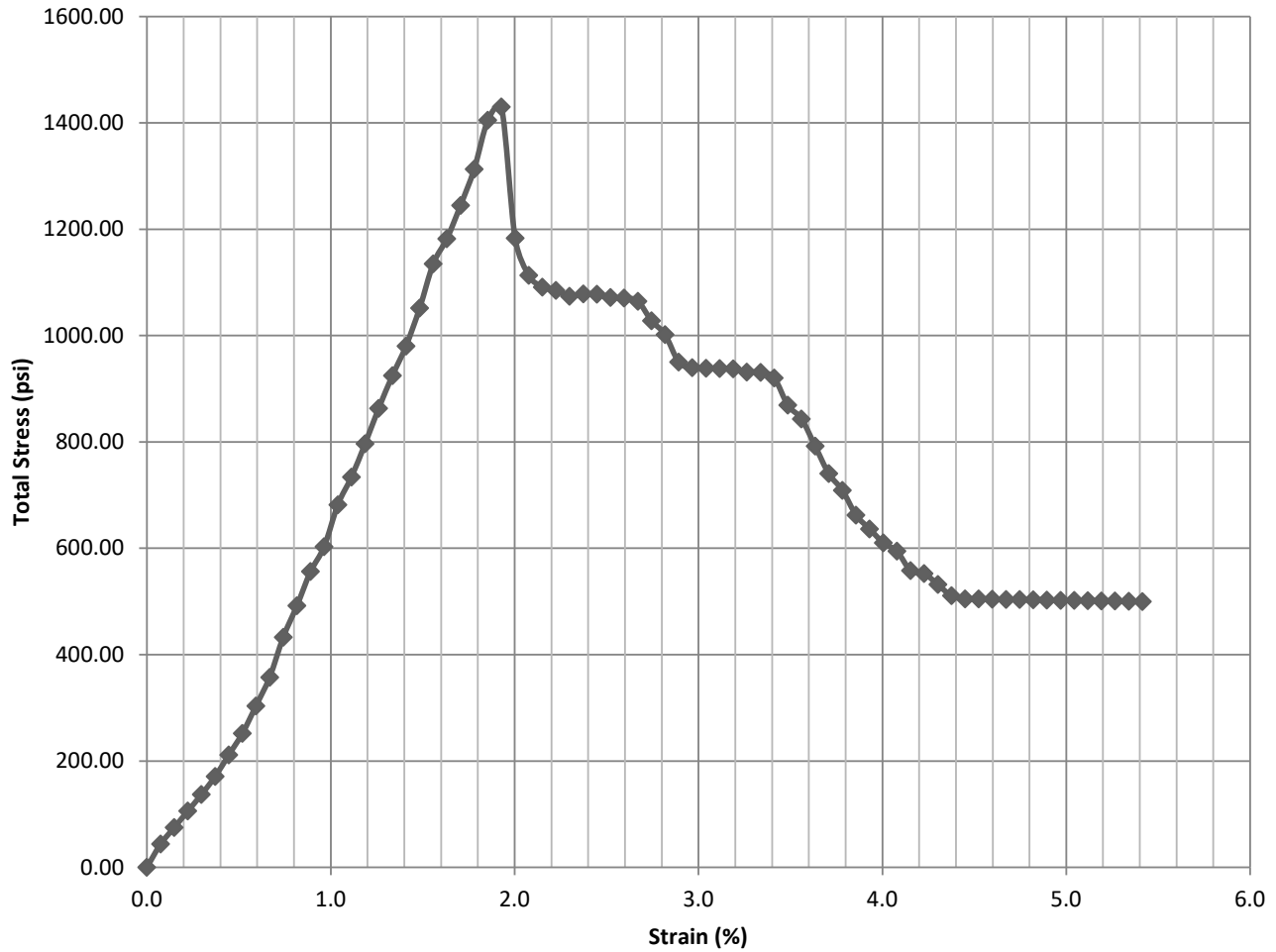
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0849
Sample Location:	B-22 / NQ-4	Depth of Sample:	59.3' - 59.7'
Tested By:	W. Pitts	Date Tested:	4/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0849



Average Initial Diameter (Do): 1.870 in.
 Average Initial Height (Lo): 4.045 in.
 Average Initial Area (Ao): 2.746 in²
 In-Situ Unit Weight: 147.5 pcf
 Failure Mode: Plastic Failure

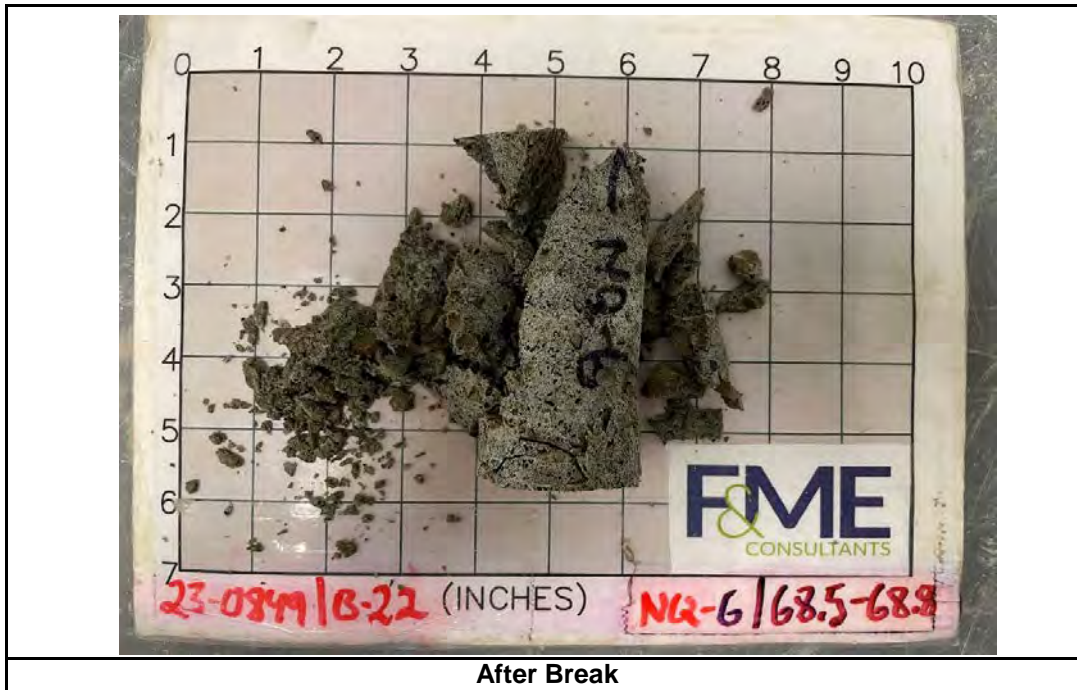
Sample Volume: 11.11 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.948 lbs.
 L/D Ratio: 2.163

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/12/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-22 / NQ-6
 Depth/Elevation 68.5' - 68.8'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1430 \text{ psi}$ $\epsilon_{ULT} = 1.9\%$



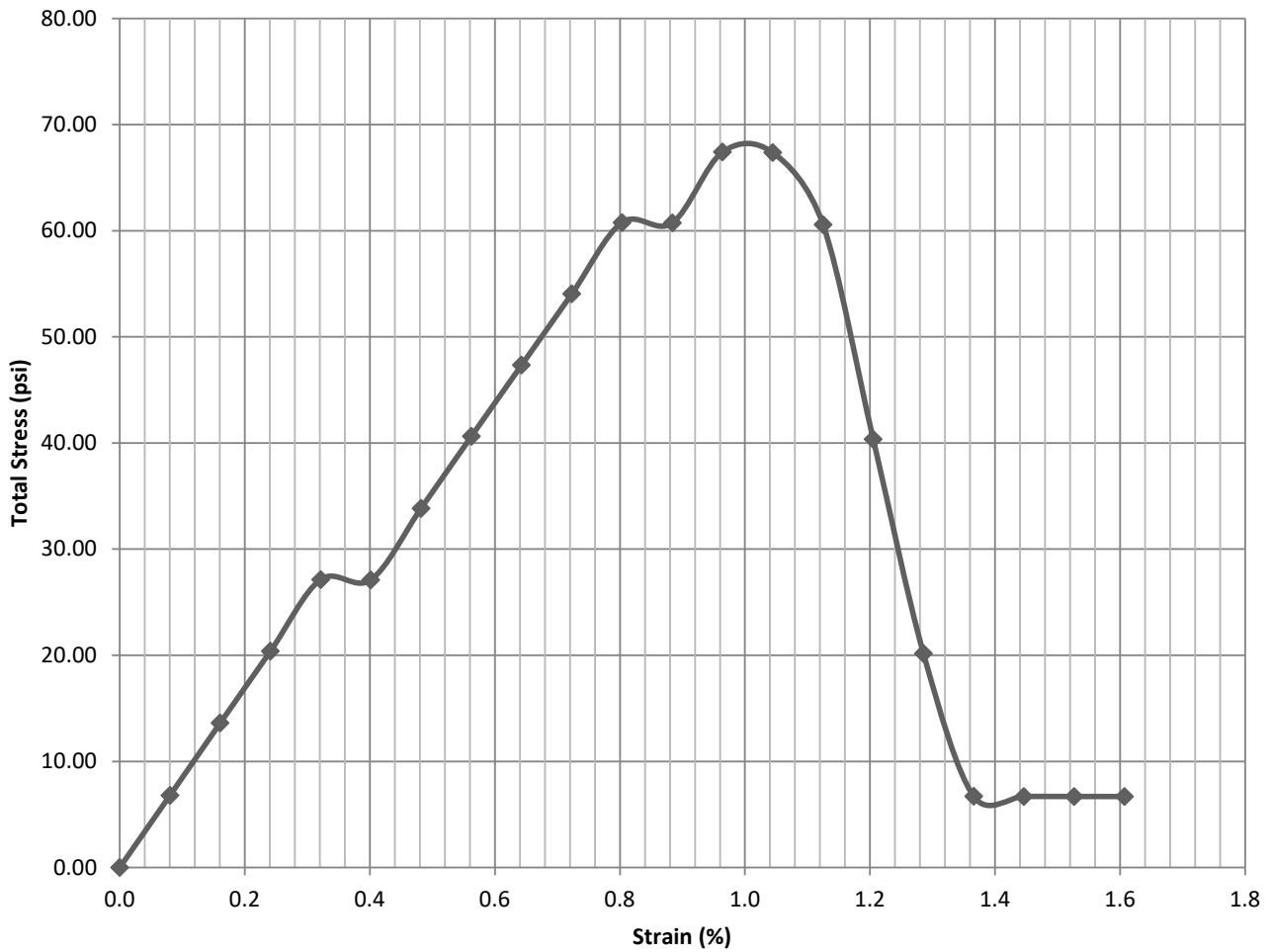
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0849
Sample Location:	B-22 / NQ-6	Depth of Sample:	68.5' - 68.8'
Tested By:	W. Pitts	Date Tested:	4/12/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0849



Average Initial Diameter (Do): 1.790 in.
 Average Initial Height (Lo): 3.734 in.
 Average Initial Area (Ao): 2.516 in²
 In-Situ Unit Weight: 121.8 pcf
 Failure Mode: Plastic Failure

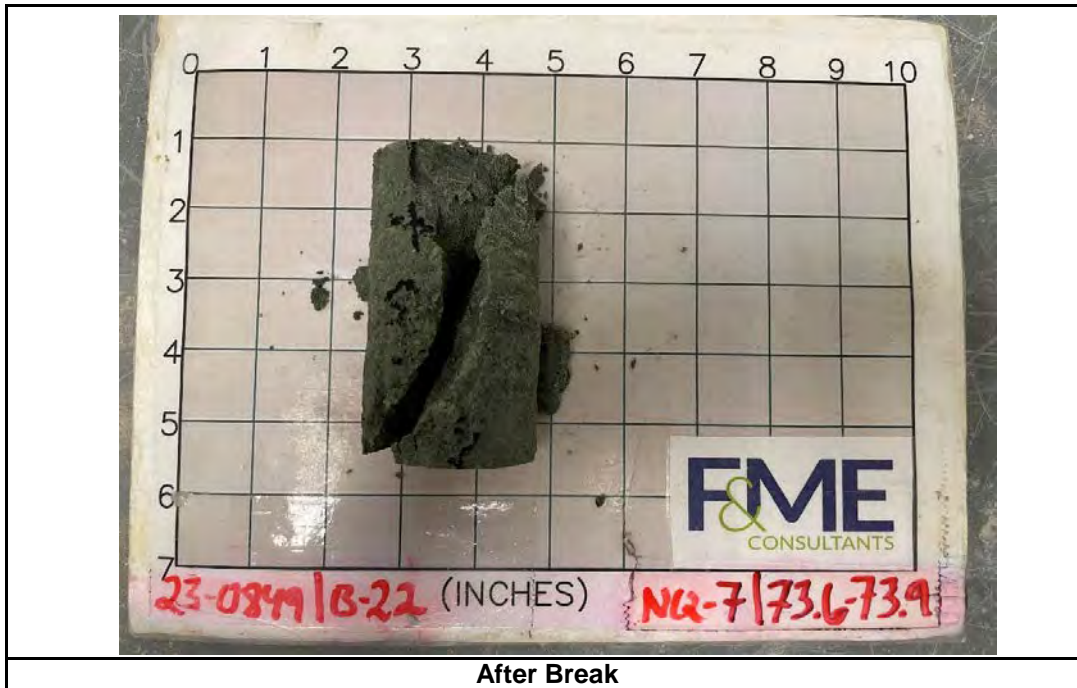
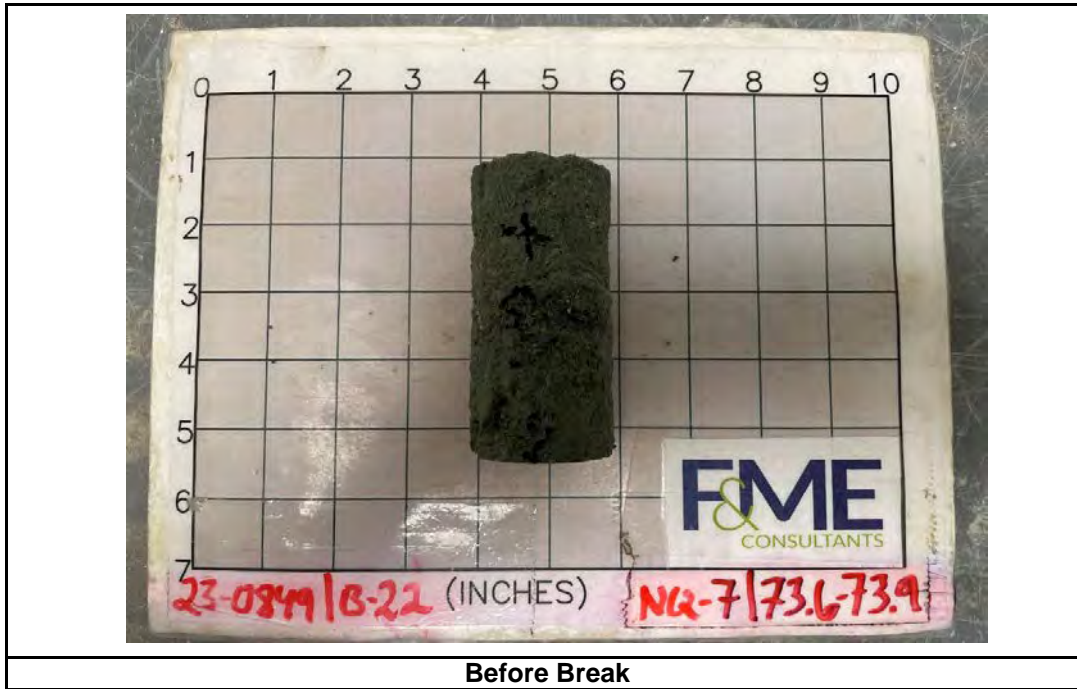
Sample Volume: 9.40 in³
 Sample Volume: 0.005 ft³
 Sample Weight: 0.663 lbs.
 L/D Ratio: 2.086

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 4/12/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-22 / NQ-7
 Depth/Elevation 73.6' - 73.9'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 65 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$

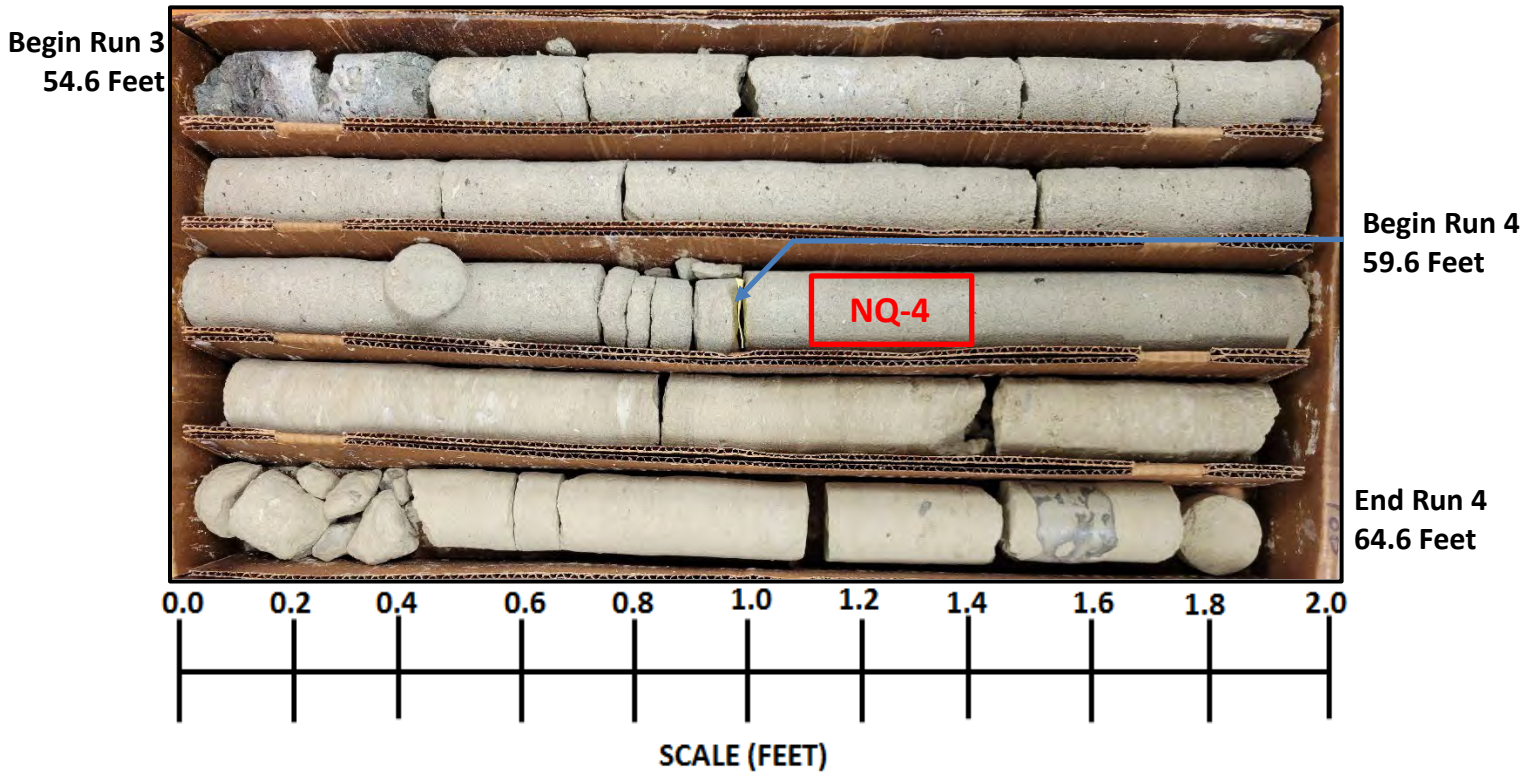


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0849
Sample Location:	B-22 / NQ-7	Depth of Sample:	73.6' - 73.9'
Tested By:	W. Pitts	Date Tested:	4/12/2023

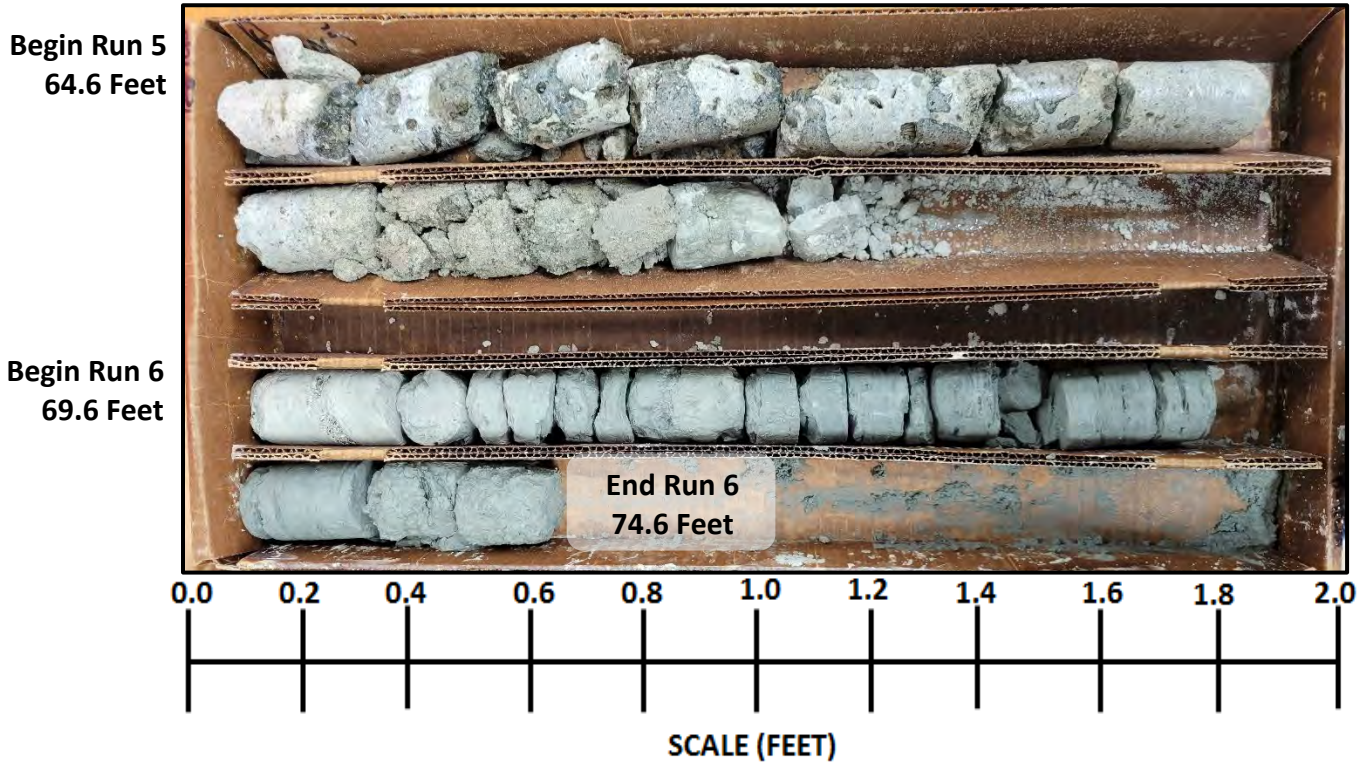


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-23

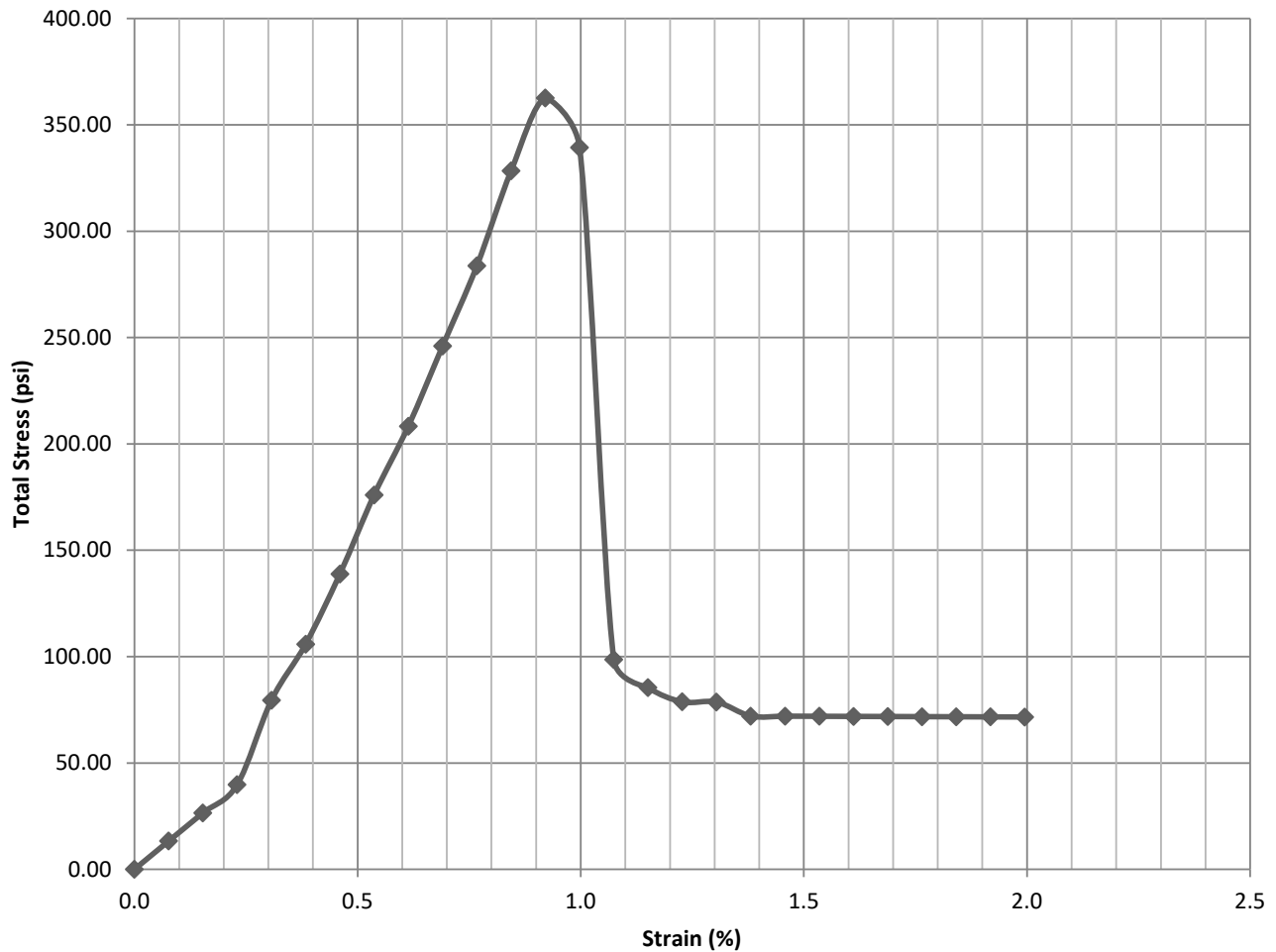


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-23



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1360



Average Initial Diameter (Do): 1.812 in.
 Average Initial Height (Lo): 3.910 in.
 Average Initial Area (Ao): 2.579 in²
 In-Situ Unit Weight: 111.8 pcf
 Failure Mode: Plastic Failure

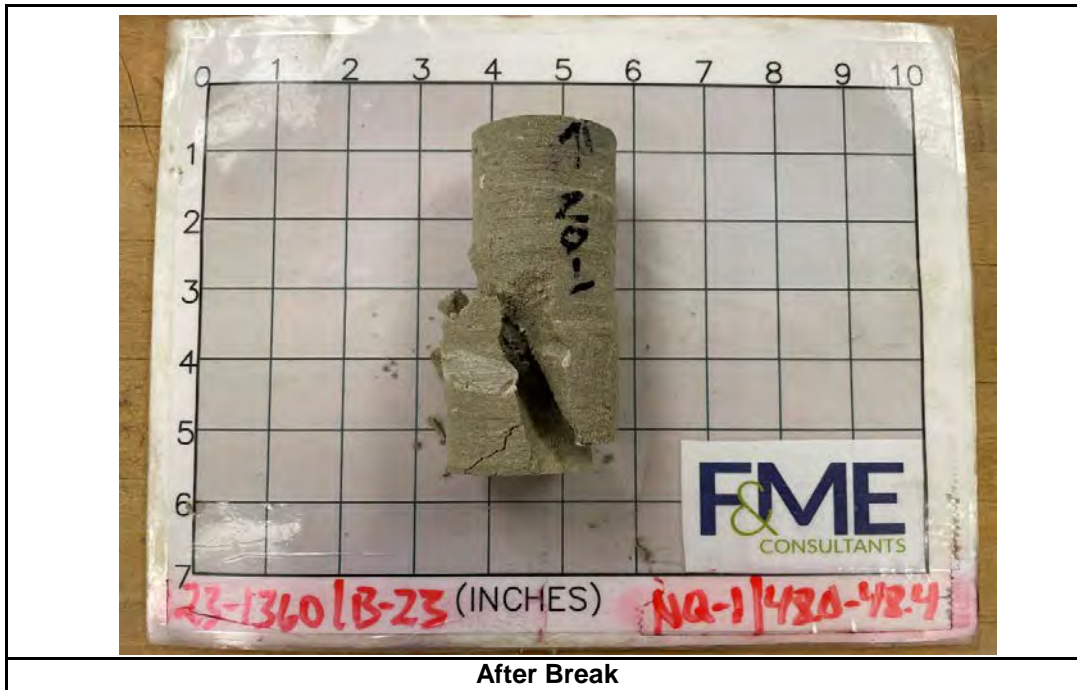
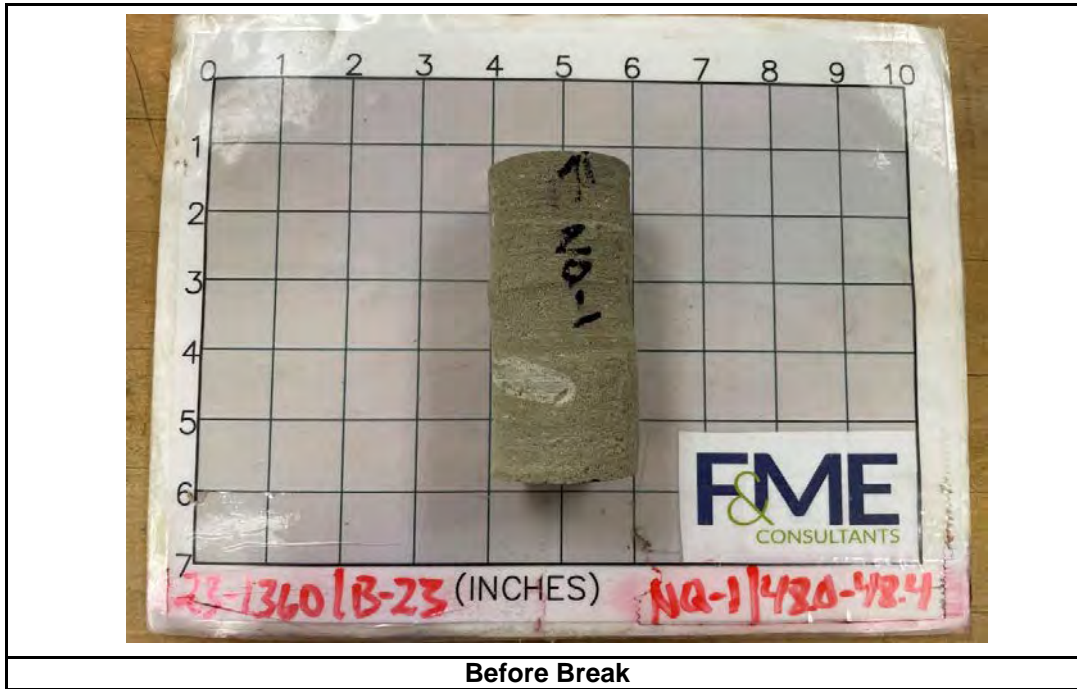
Sample Volume: 10.08 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.652 lbs.
 L/D Ratio: 2.158

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-23 / NQ-1
 Depth/Elevation 48.0' - 48.4'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 360 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



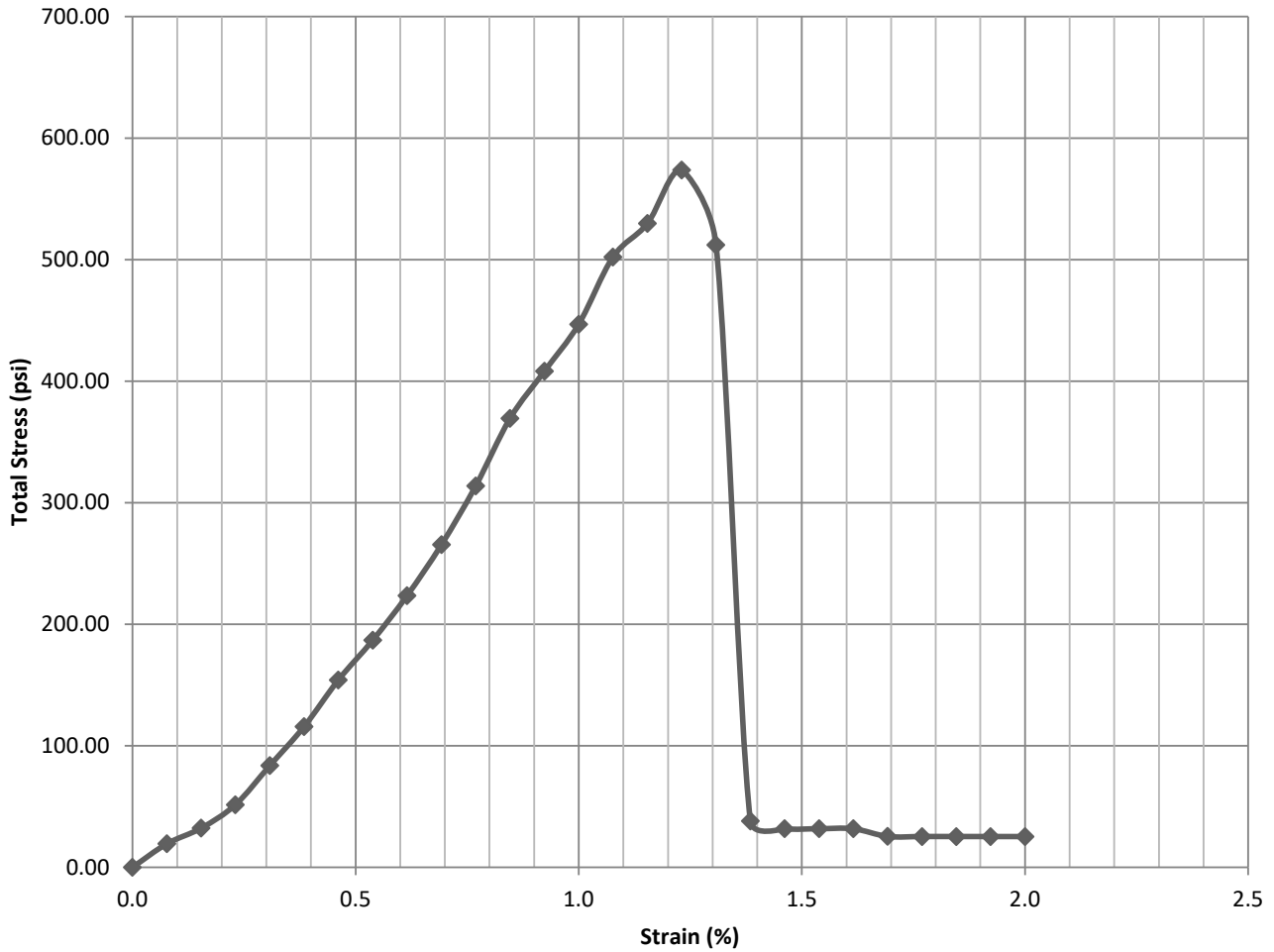
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1360
Sample Location:	B-23 / NQ-1	Depth of Sample:	48.0' - 48.4'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1360



Average Initial Diameter (Do): 1.838 in.
 Average Initial Height (Lo): 3.900 in.
 Average Initial Area (Ao): 2.653 in²
 In-Situ Unit Weight: 127.1 pcf
 Failure Mode: Plastic Failure

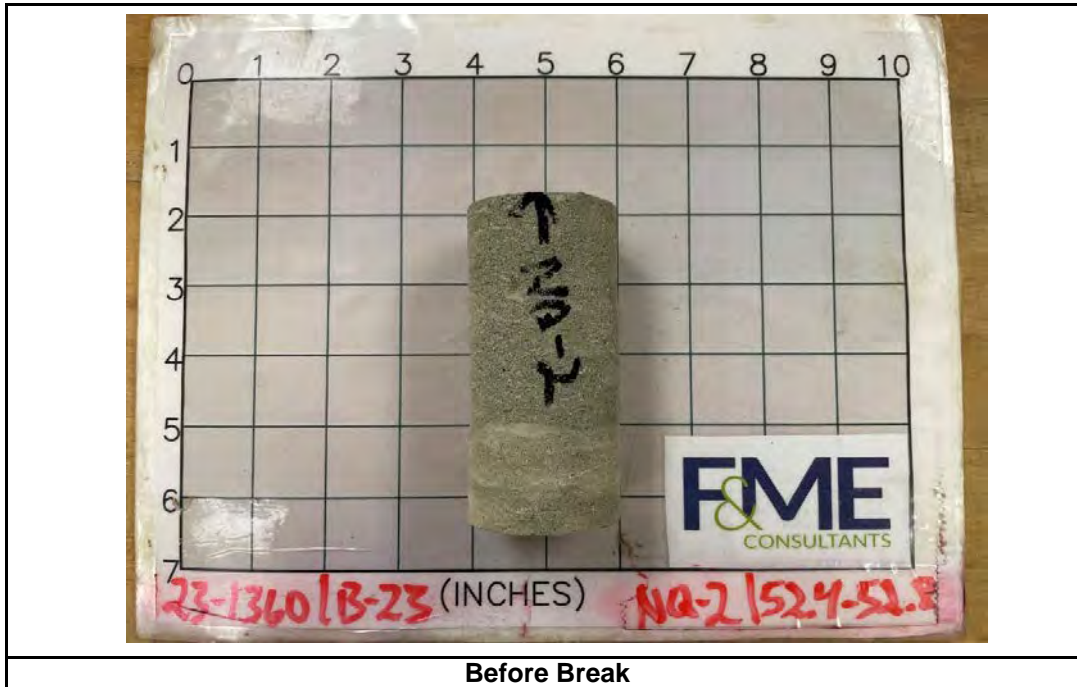
Sample Volume: 10.35 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.761 lbs.
 L/D Ratio: 2.122

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-23 / NQ-2
 Depth/Elevation 52.4' - 52.8'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 575 \text{ psi}$ $\epsilon_{ULT} = 1.2\%$



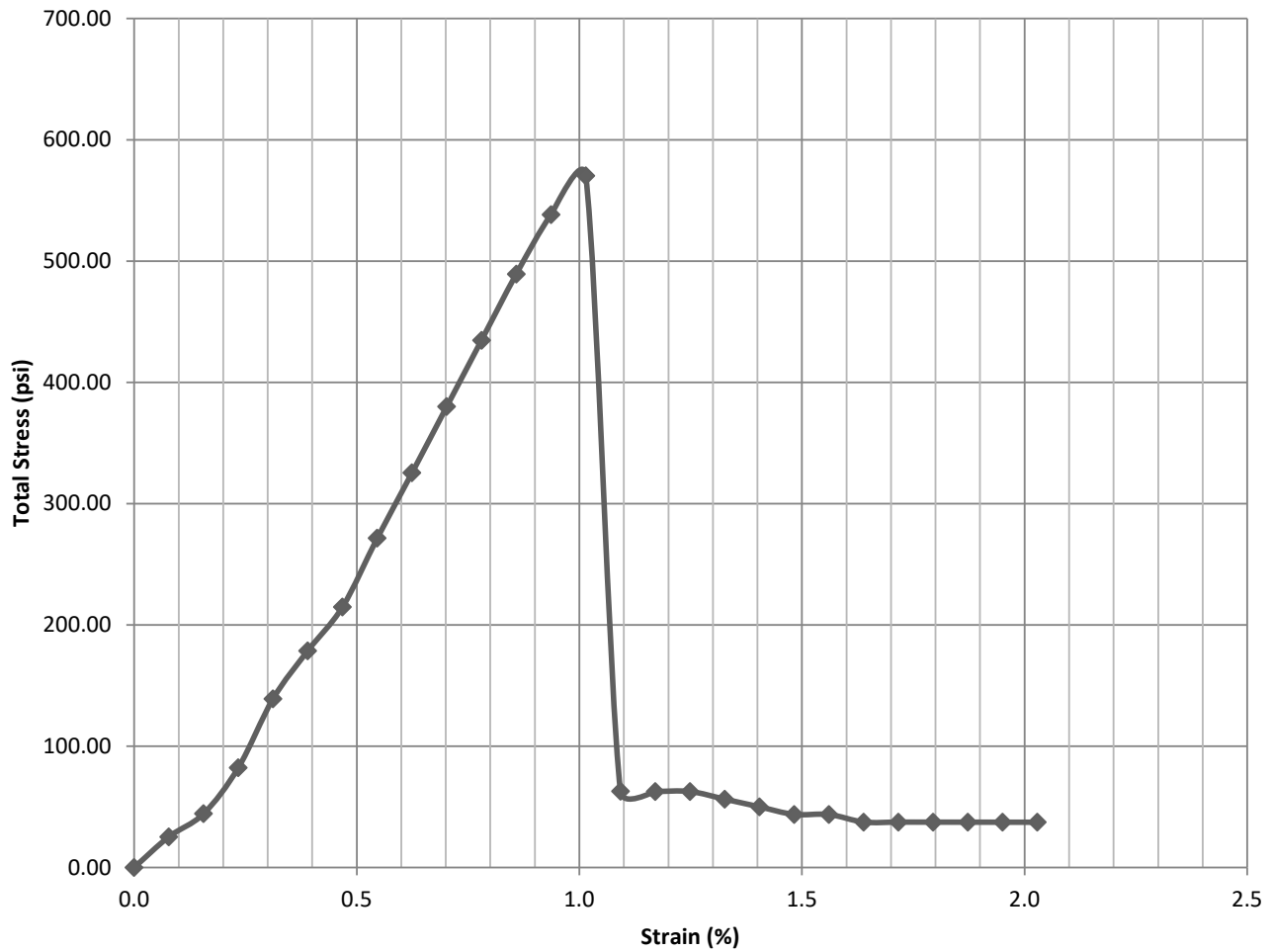
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1360
Sample Location:	B-23 / NQ-2	Depth of Sample:	52.4' - 52.8'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1360



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 3.845 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 123.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.38 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.740 lbs.
 L/D Ratio: 2.074

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-23 / NQ-4
 Depth/Elevation 59.7' - 60.0'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 570 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1360
Sample Location:	B-23 / NQ-4	Depth of Sample:	59.7' - 60.0'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-24

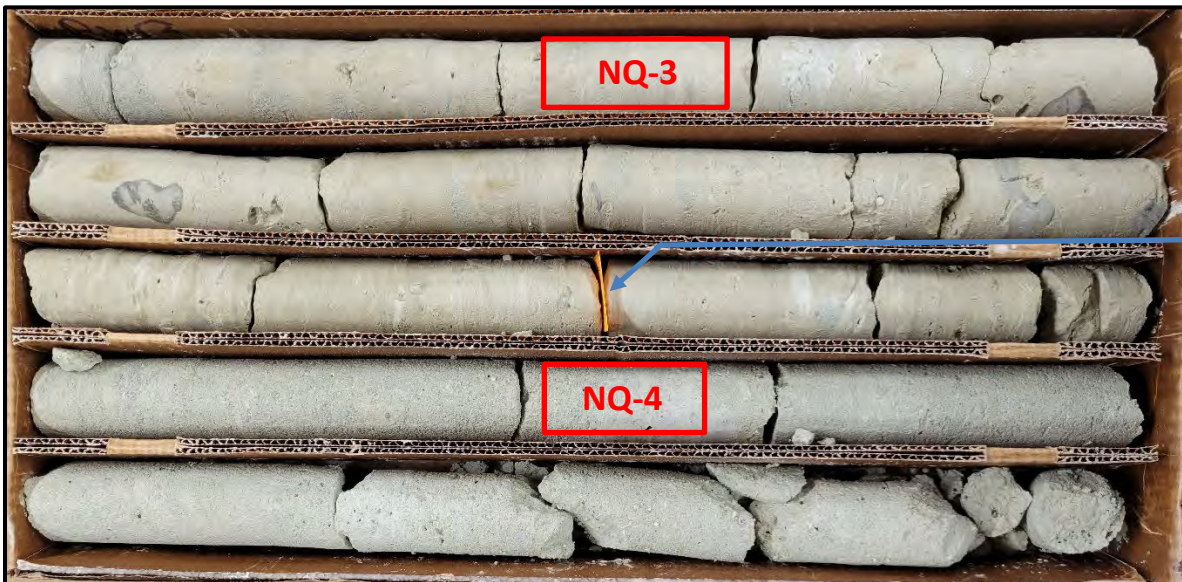
Begin Run 1
43.5 Feet



Begin Run 2
46.4 Feet

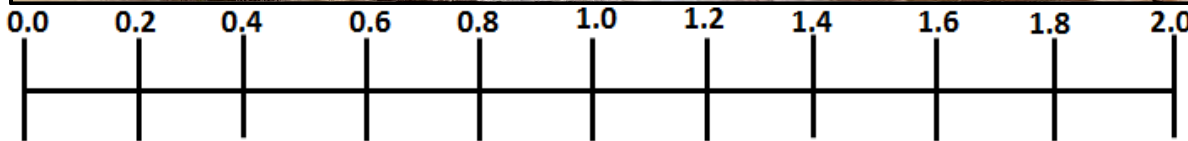
End Run 2
51.4 Feet

Begin Run 3
51.4 Feet



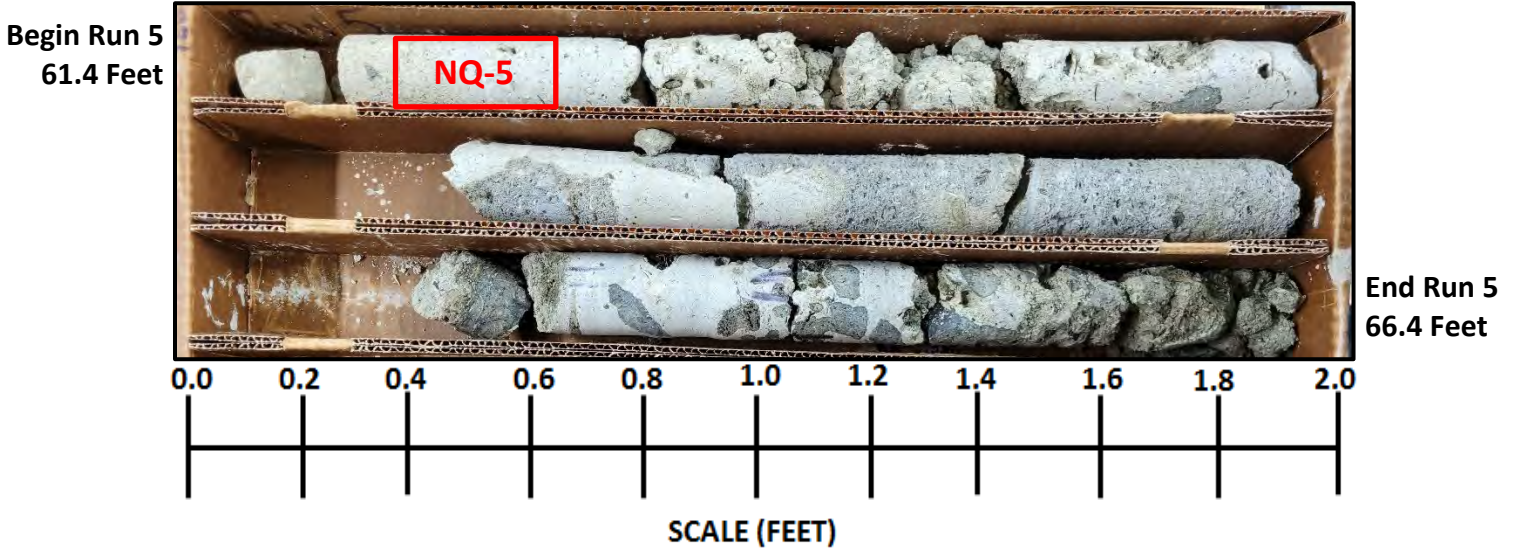
Begin Run 4
56.4 Feet

End Run 4
61.4 Feet



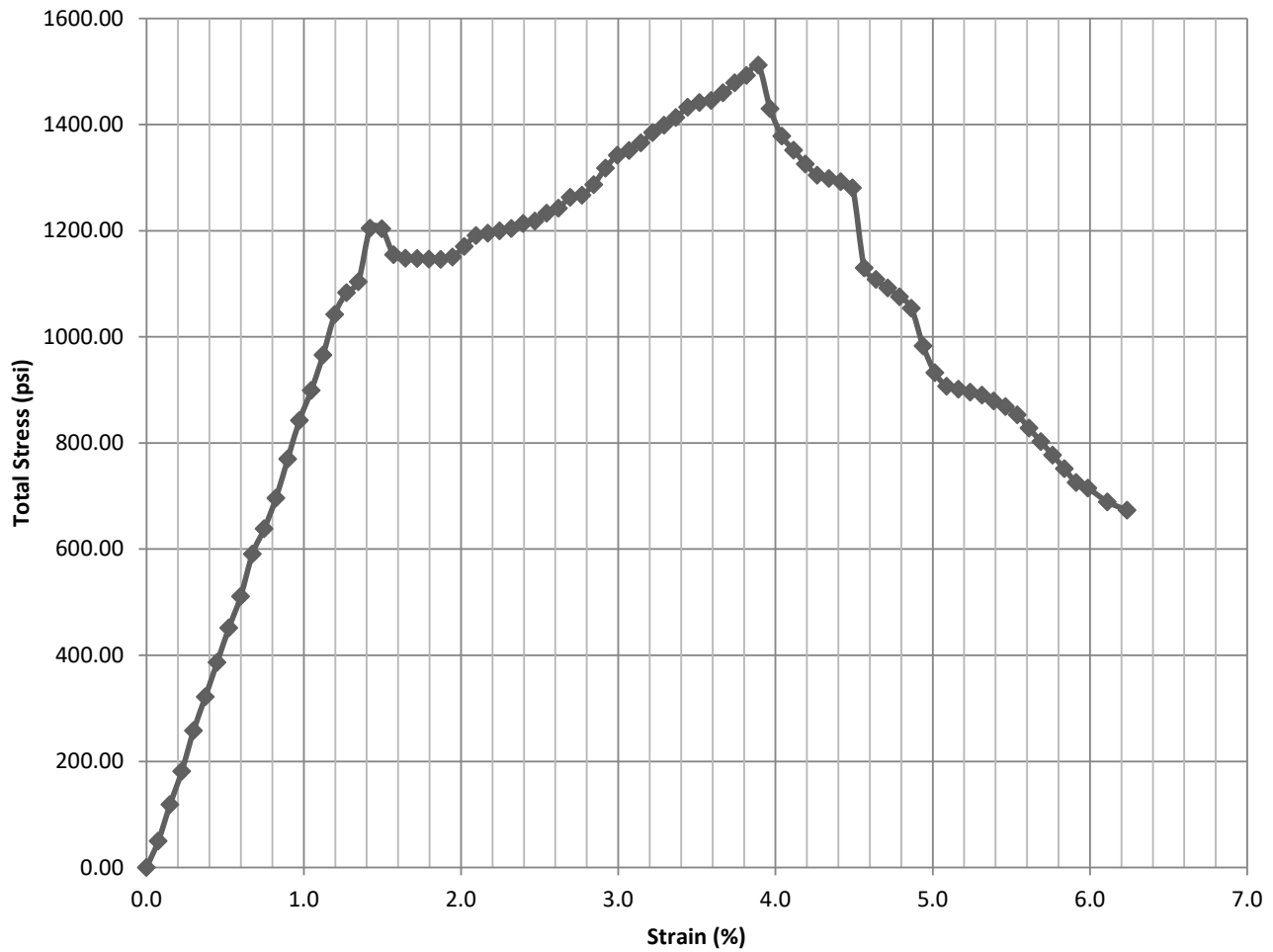
SCALE (FEET)

I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-24



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0786



Average Initial Diameter (Do): 1.867 in.
 Average Initial Height (Lo): 4.009 in.
 Average Initial Area (Ao): 2.738 in²
 In-Situ Unit Weight: 125.8 pcf
 Failure Mode: Plastic Failure

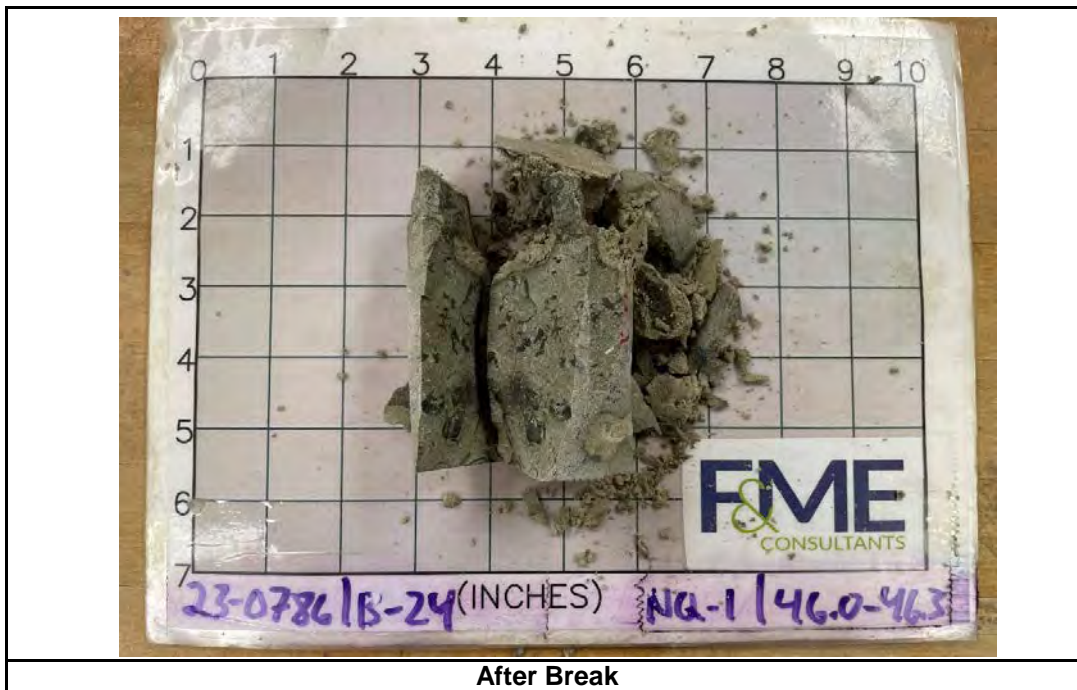
Sample Volume: 10.98 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.799 lbs.
 L/D Ratio: 2.147

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/28/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-24 / NQ-1
 Depth/Elevation 46.0' - 46.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1510 \text{ psi}$ $\epsilon_{ULT} = 3.9\%$



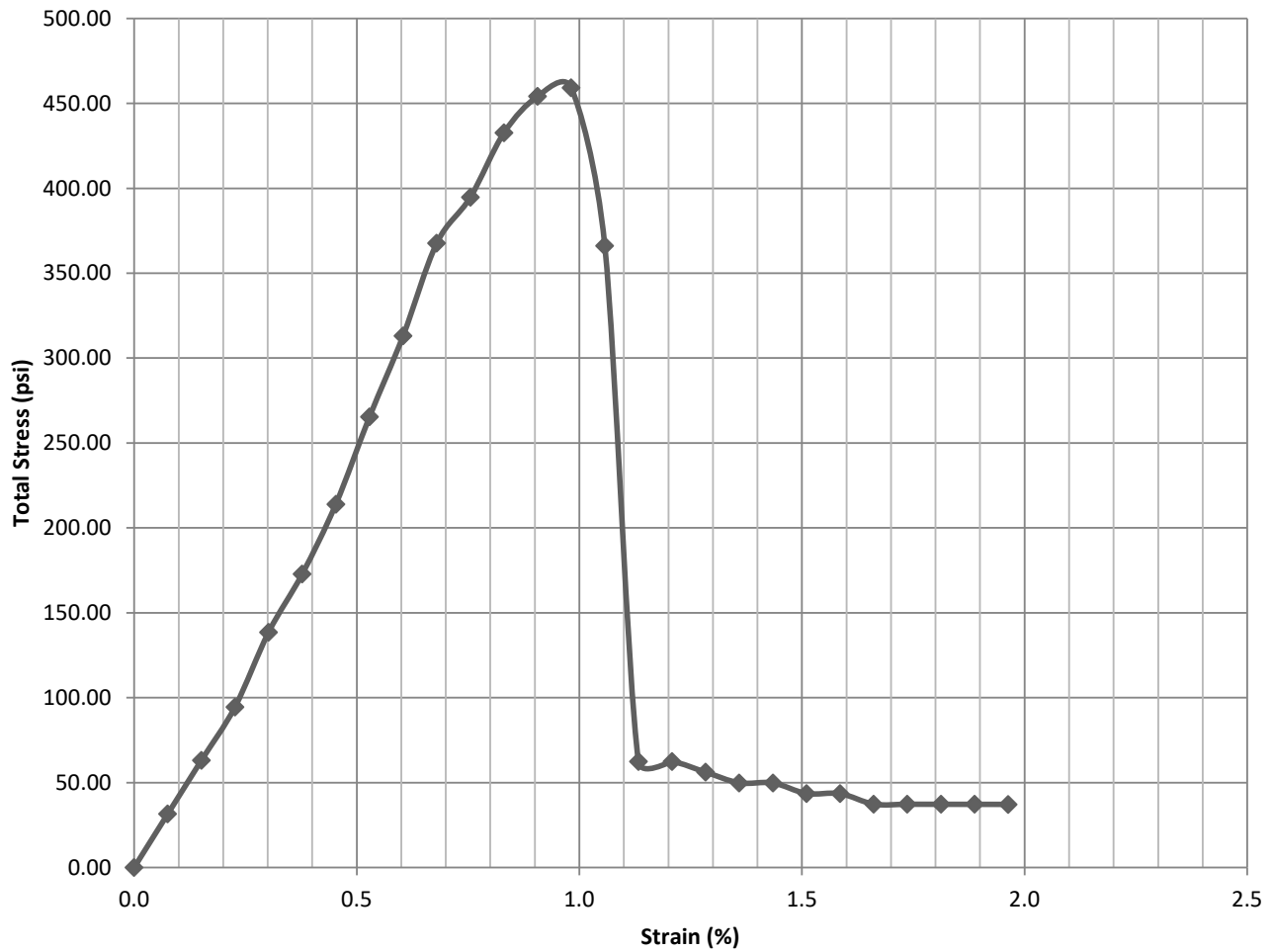
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0786
Sample Location:	B-24 / NQ-1	Depth of Sample:	46.0' - 46.3'
Tested By:	W. Pitts	Date Tested:	3/28/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0786



Average Initial Diameter (Do): 1.858 in.
 Average Initial Height (Lo): 3.973 in.
 Average Initial Area (Ao): 2.711 in²
 In-Situ Unit Weight: 119.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.77 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.742 lbs.
 L/D Ratio: 2.138

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/28/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-24 / NQ-2
 Depth/Elevation 48.9' - 49.2'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 460 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



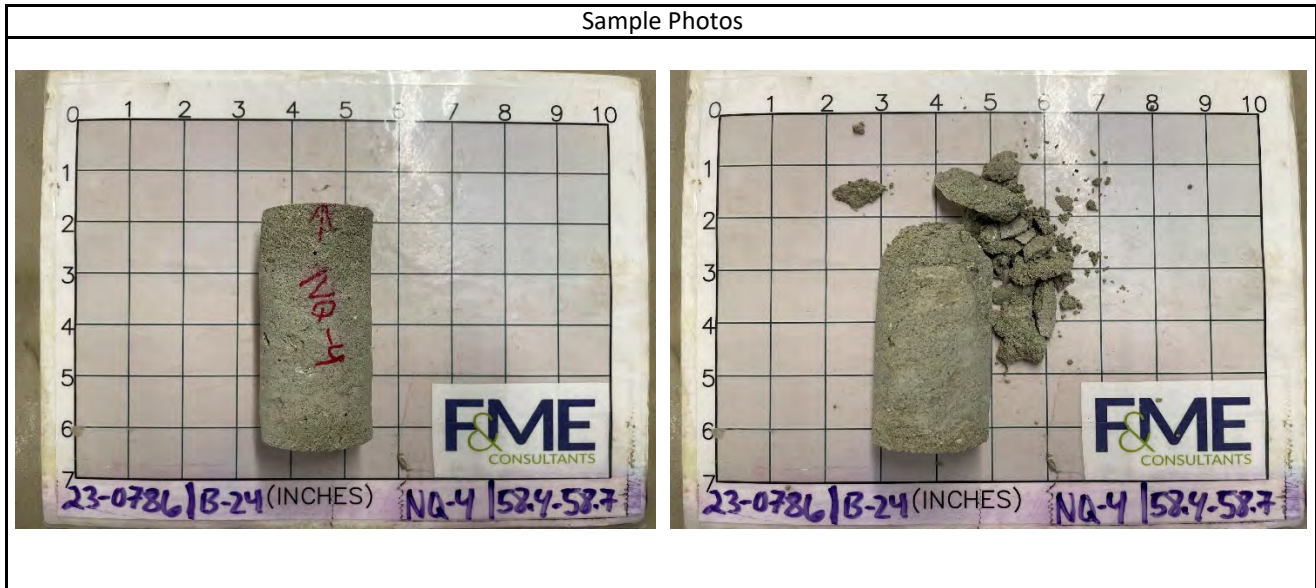
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0786
Sample Location:	B-24 / NQ-2	Depth of Sample:	48.9' - 49.2'
Tested By:	W. Pitts	Date Tested:	3/28/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.9	Reviewed By	WJG
Boring	B-24	Unit Weight (pcf)	140.9	Core Size	NQ
Sample No.	NQ-4 / 23-0786A	L/D Ratio	2.09	Recovery	100%
Depth	58.4' - 58.7'	Load Rate (psi/sec)	10	RQD	80%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%	-511	112	1,255	459	1.79	0.22
60%	-616	135	1,478	540	1.75	0.22
70%	-814	195	1,686	616	1.51	0.24
80%	-1009	251	1,934	707	1.40	0.25
90%	-1052	263	2,152	786	1.49	0.25
100%	-1441	323	2,407	879		

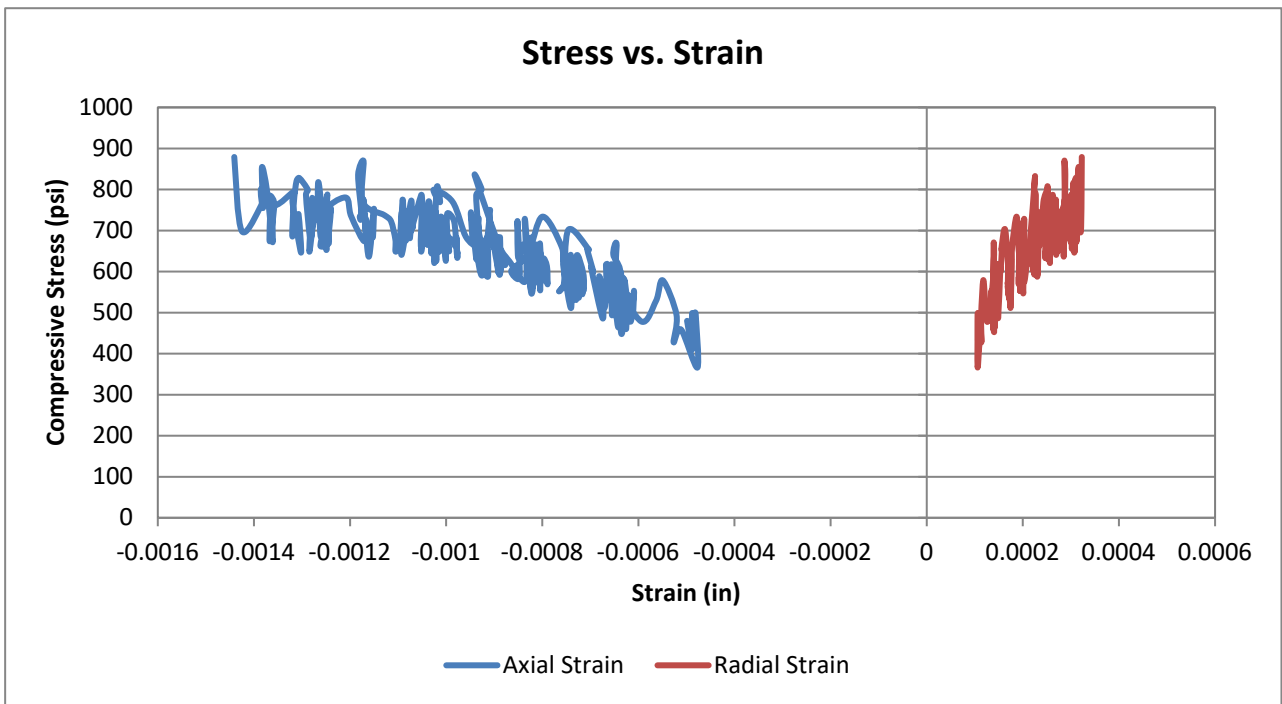
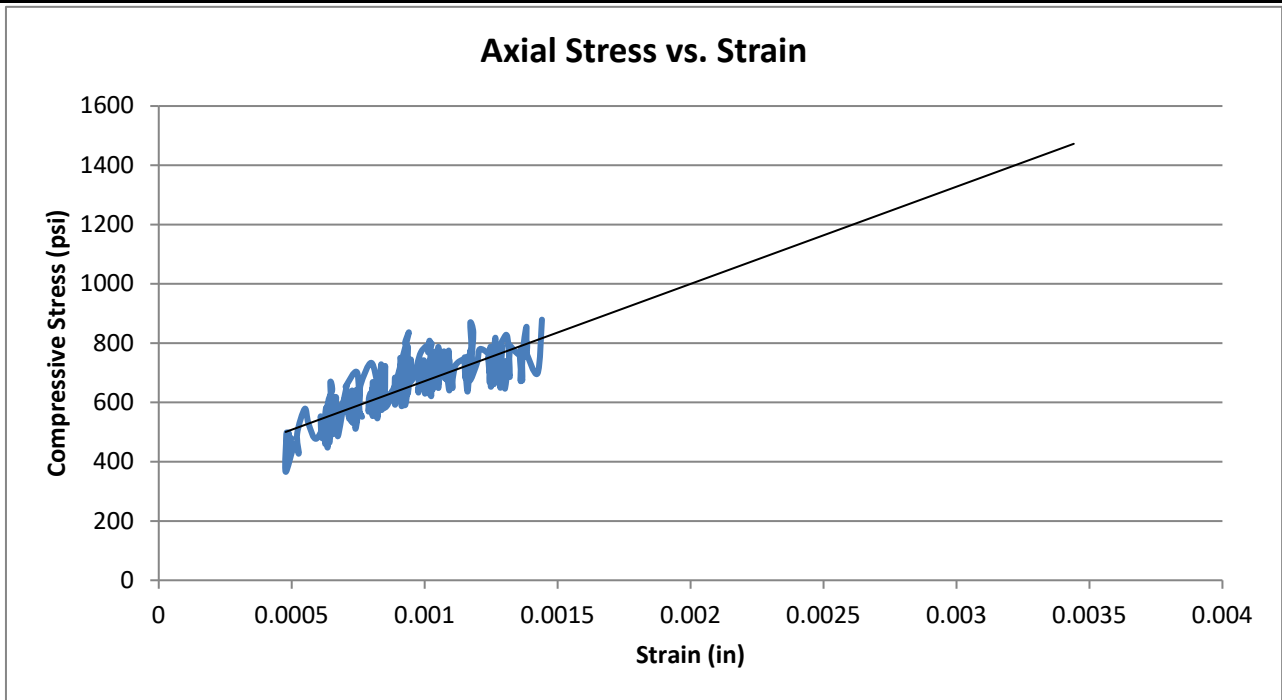


Test Results			
Unconfined Compressive Strength (psi)	880	Elastic Modulus (psi)	1.45E+06
		Poisson's Ratio in Elastic Range	0.24
Comments	Elastic range was taken as between 0.0007 and 0.0012 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



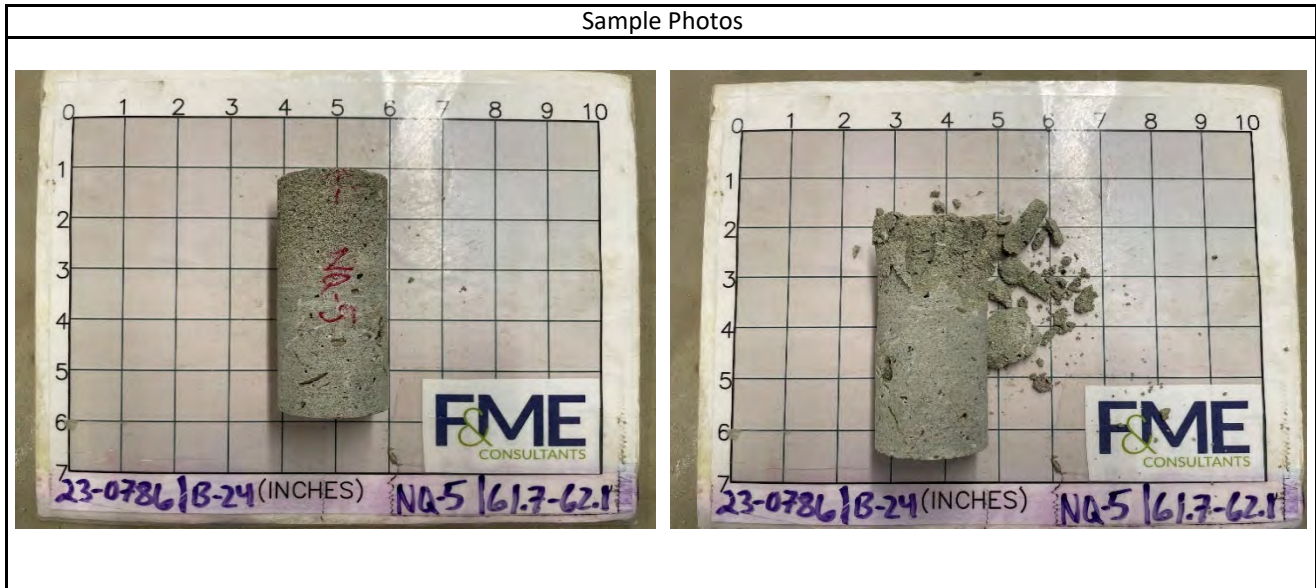
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.9	Reviewed By	WJG
Boring	B-24	Unit Weight (pcf)	140.9	Core Size	NQ
Sample No.	NQ-4 / 23-0786A	L/D Ratio	2.09	Recovery	100%
Depth	58.4' - 58.7'	Load Rate (psi/sec)	10	RQD	80%
Description	Brown/Gray Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.859	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.954	Reviewed By	WJG
Boring	B-24	Unit Weight (pcf)	144.6	Core Size	NQ
Sample No.	NQ-5 / 23-0786B	L/D Ratio	2.13	Recovery	90%
Depth	61.7' - 62.1'	Load Rate (psi/sec)	10	RQD	70%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%	-491	43	1,250	461	1.88	0.09
60%	-673	56	1,484	547	1.62	0.08
70%	-749	64	1,746	643	1.72	0.09
80%	-969	88	1,972	727	1.50	0.09
90%	-1340	123	2,200	811	1.21	0.09
100%	-1554	141	2,414	890		

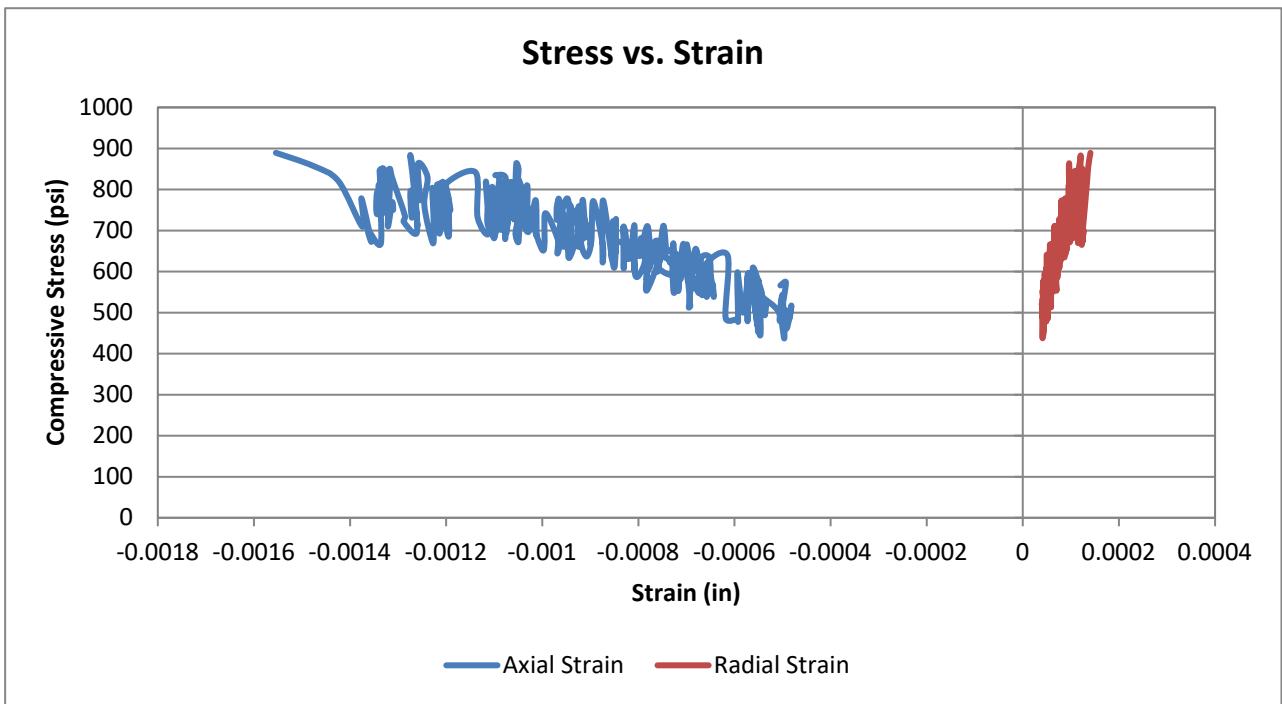
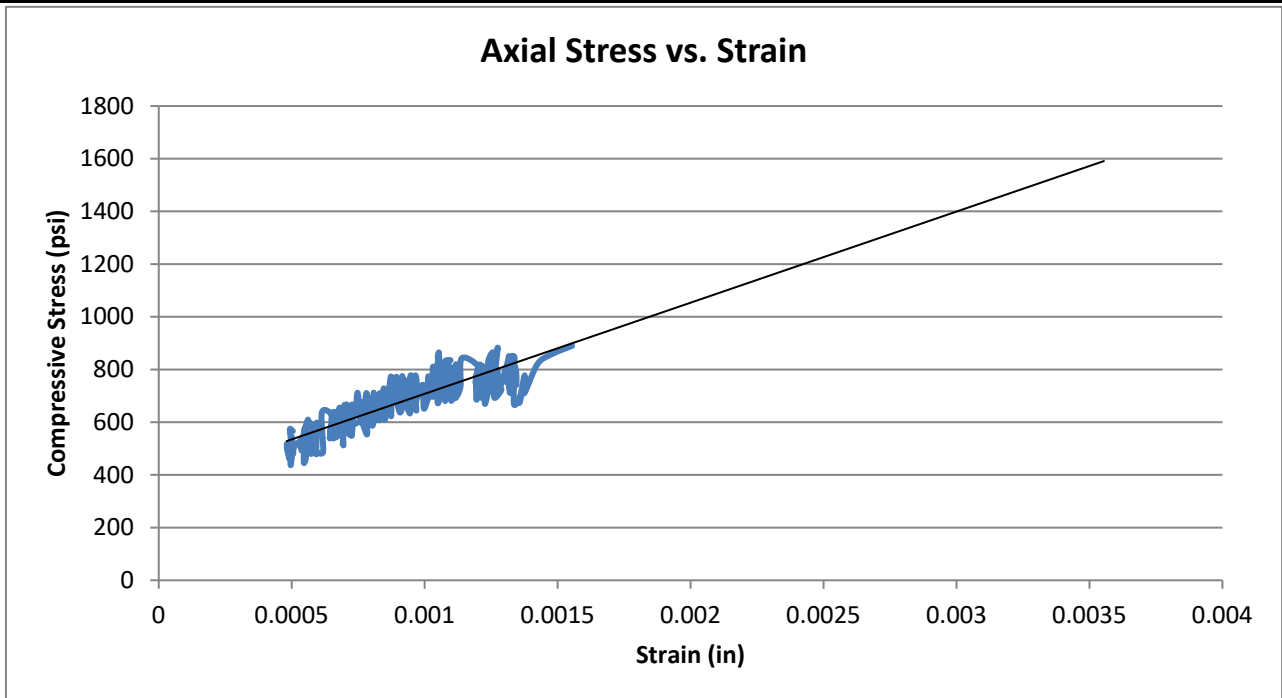


Test Results			
Unconfined Compressive Strength (psi)	890	Elastic Modulus (psi)	1.59E+06
		Poisson's Ratio in Elastic Range	0.09
Comments	Elastic range was taken as between 0.0006 and 0.0012 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

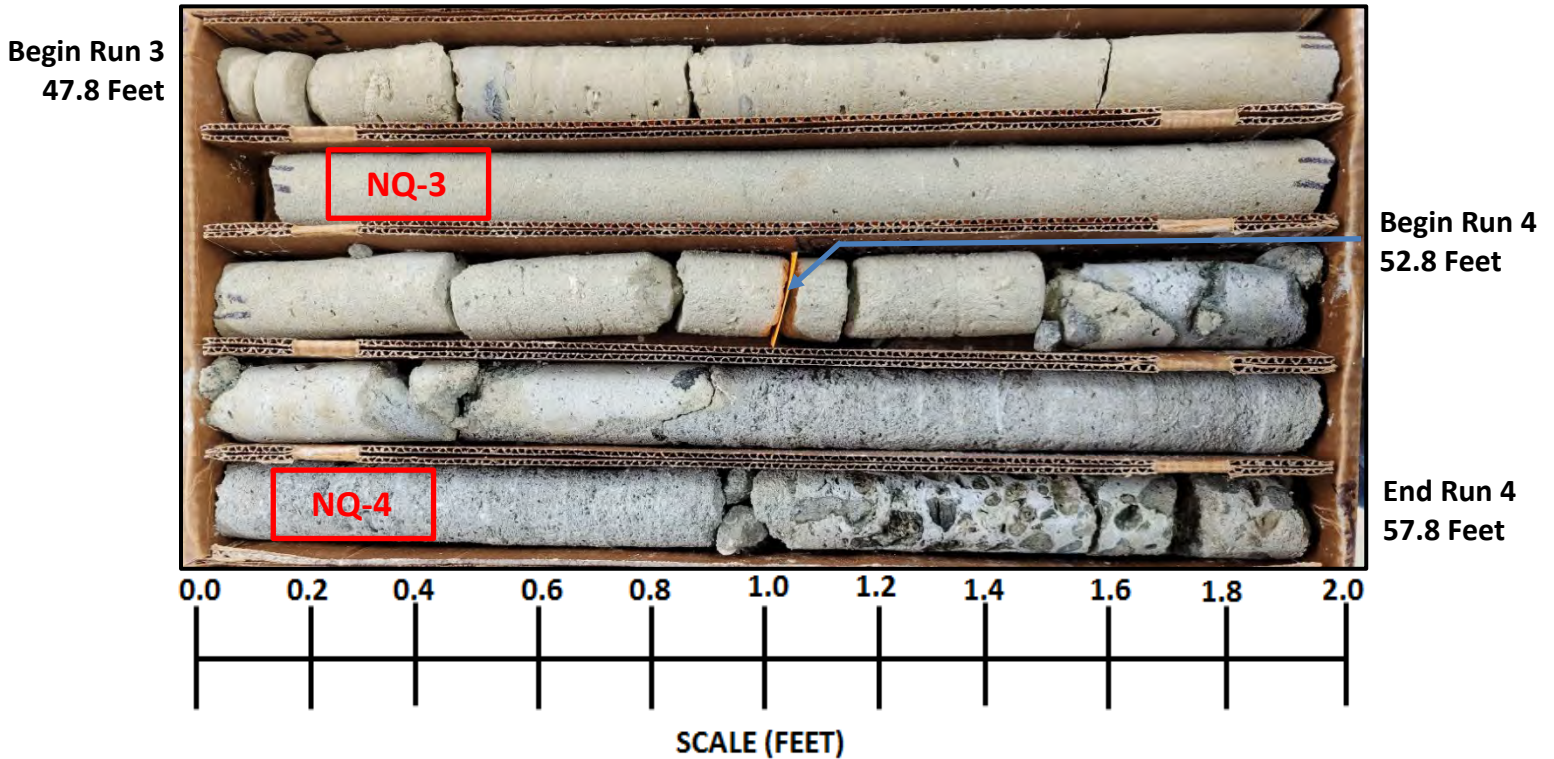
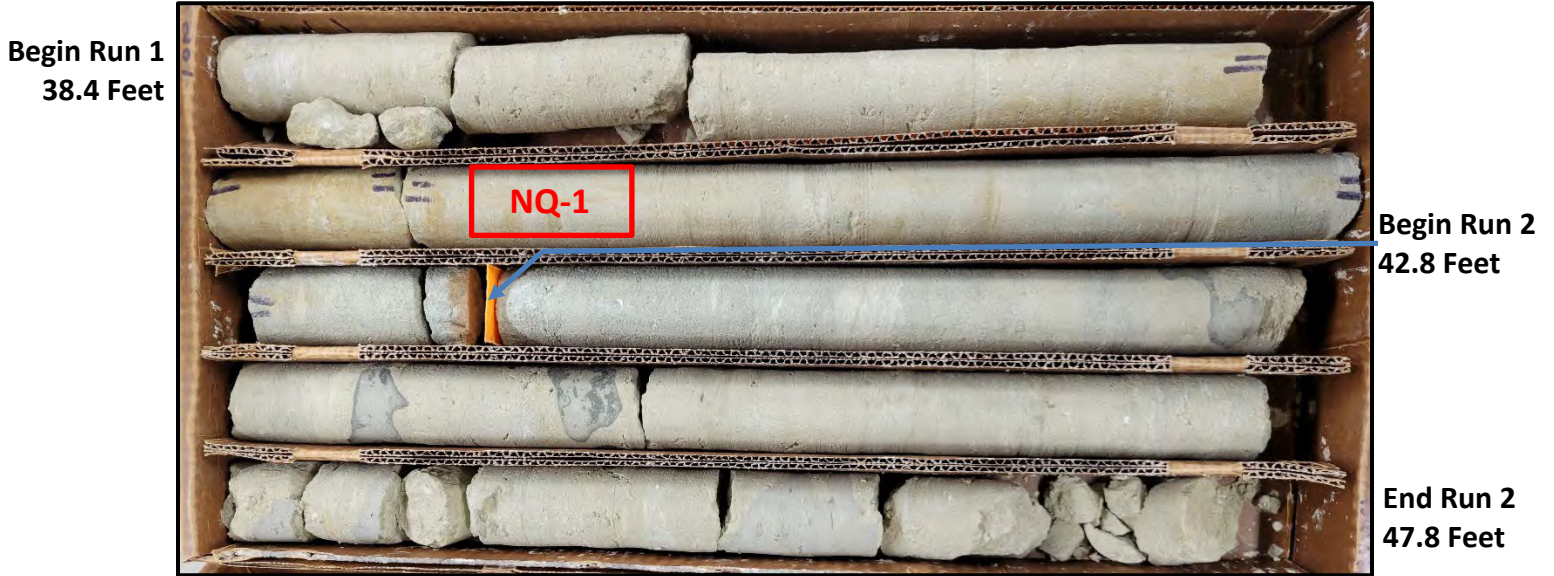


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

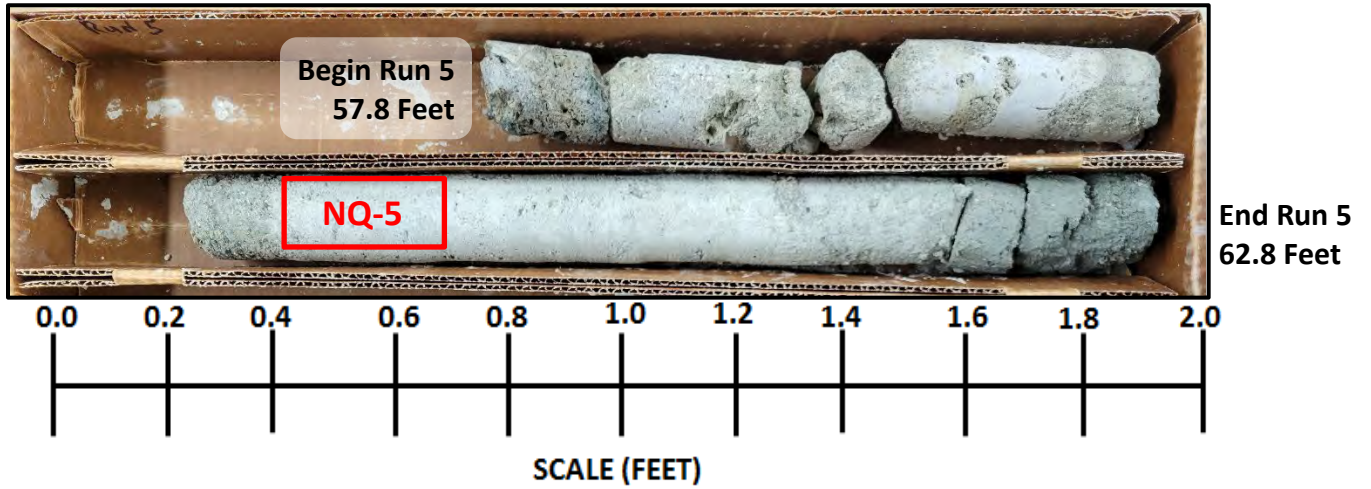
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.859	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.954	Reviewed By	WJG
Boring	B-24	Unit Weight (pcf)	144.6	Core Size	NQ
Sample No.	NQ-5 / 23-0786B	L/D Ratio	2.13	Recovery	90%
Depth	61.7' - 62.1'	Load Rate (psi/sec)	10	RQD	70%
Description	Brown/Gray Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-26

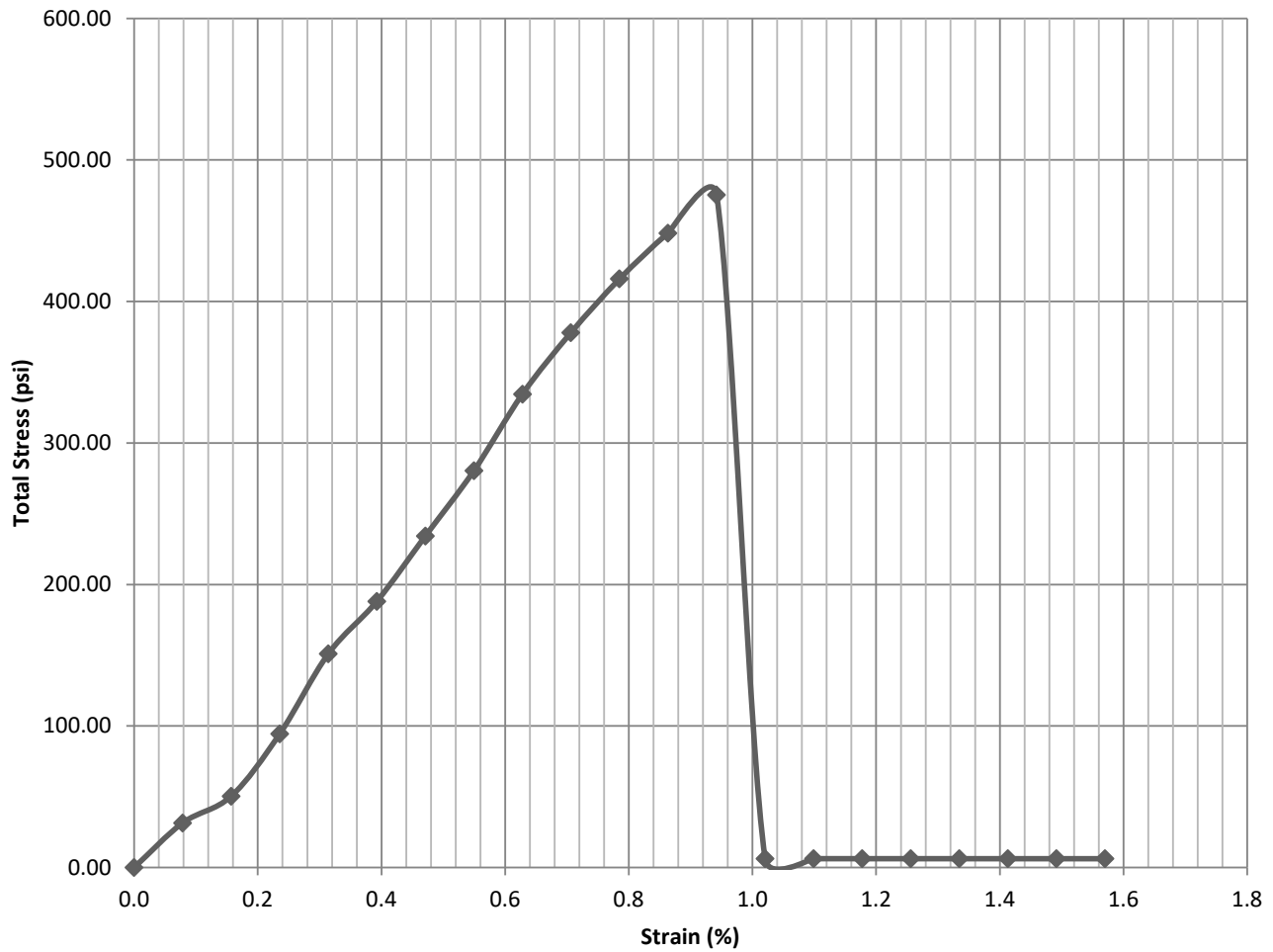


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-26



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0785



Average Initial Diameter (Do): 1.859 in.
 Average Initial Height (Lo): 3.822 in.
 Average Initial Area (Ao): 2.714 in²
 In-Situ Unit Weight: 112.3 pcf
 Failure Mode: Plastic Failure

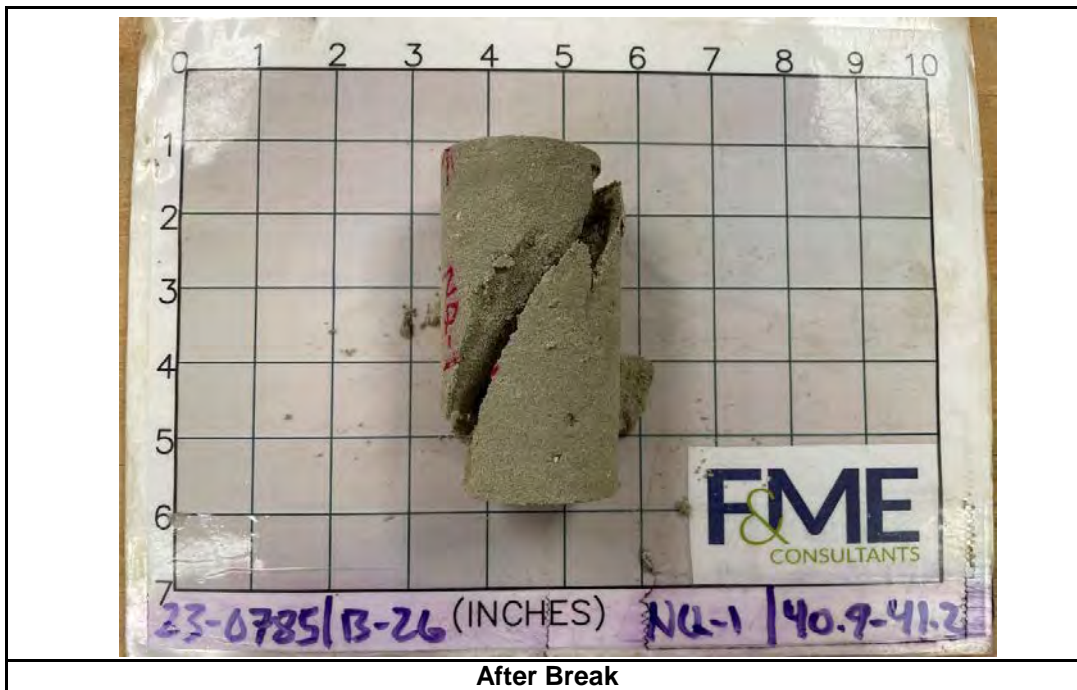
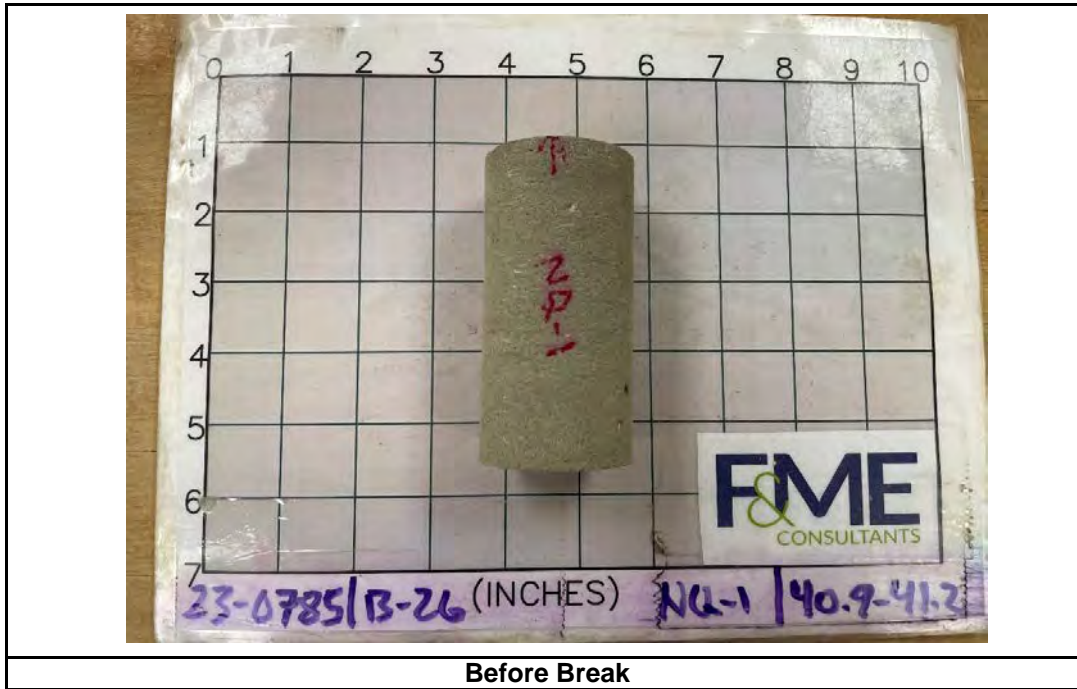
Sample Volume: 10.37 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.674 lbs.
 L/D Ratio: 2.056

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/28/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-26 / NQ-1
 Depth/Elevation 40.9' - 41.2'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 475 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



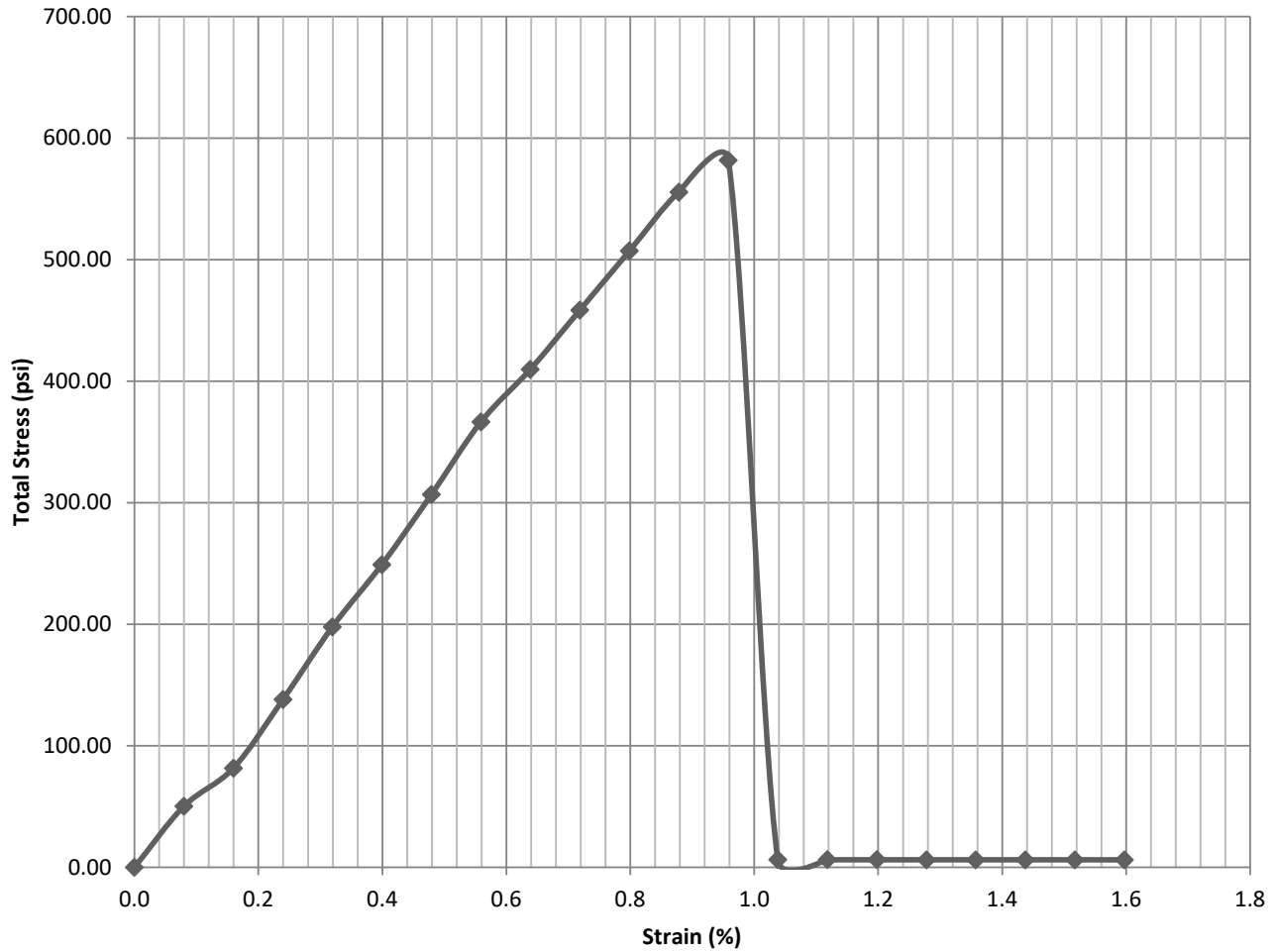
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0758
Sample Location:	B-26 / NQ-1	Depth of Sample:	40.9' - 41.2'
Tested By:	W. Pitts	Date Tested:	3/28/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0785



Average Initial Diameter (Do): 1.862 in.
 Average Initial Height (Lo): 3.757 in.
 Average Initial Area (Ao): 2.723 in²
 In-Situ Unit Weight: 122.6 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.23 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.726 lbs.
 L/D Ratio: 2.018

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-26 / NQ-3
 Depth/Elevation 51.0' - 51.3'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 580 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



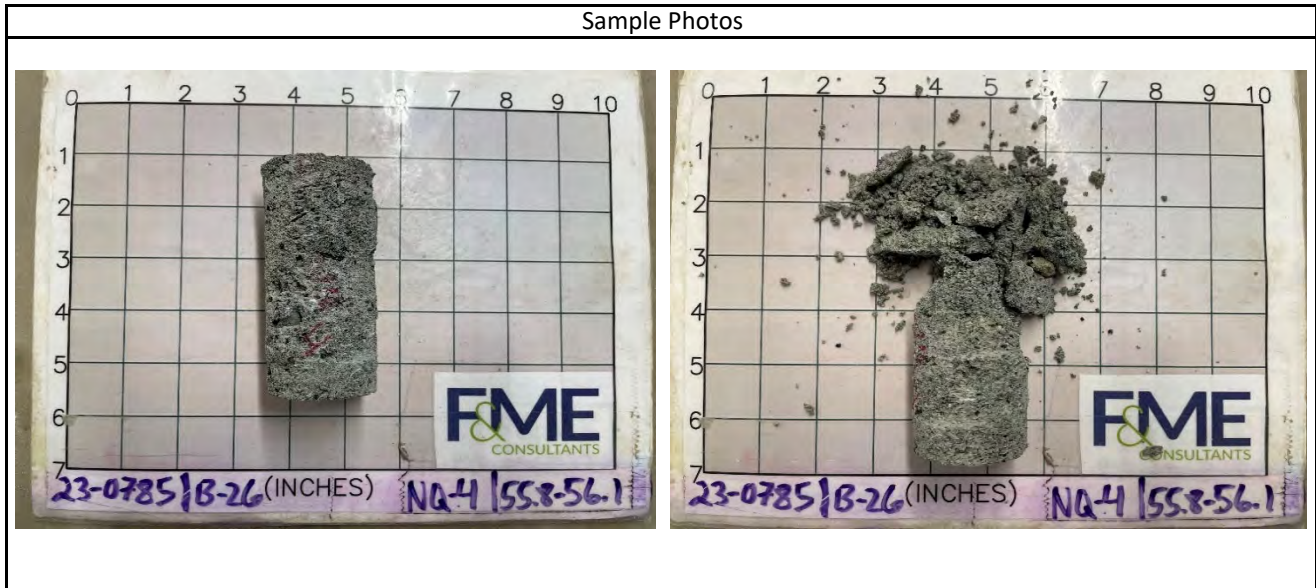
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0785
Sample Location:	B-26 / NQ-3	Depth of Sample:	51.0' - 51.3'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.849	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.791	Reviewed By	WJG
Boring	B-26	Unit Weight (pcf)	119.3	Core Size	NQ
Sample No.	NQ-5 / 23-0785A	L/D Ratio	2.05	Recovery	98%
Depth	55.8' - 56.1'	Load Rate (psi/sec)	10	RQD	87%
Description	Gray/Black/White Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Broke in Sample Preload					
20%						
30%						
40%						
50%						
60%						
70%						
80%						
90%						
100%						

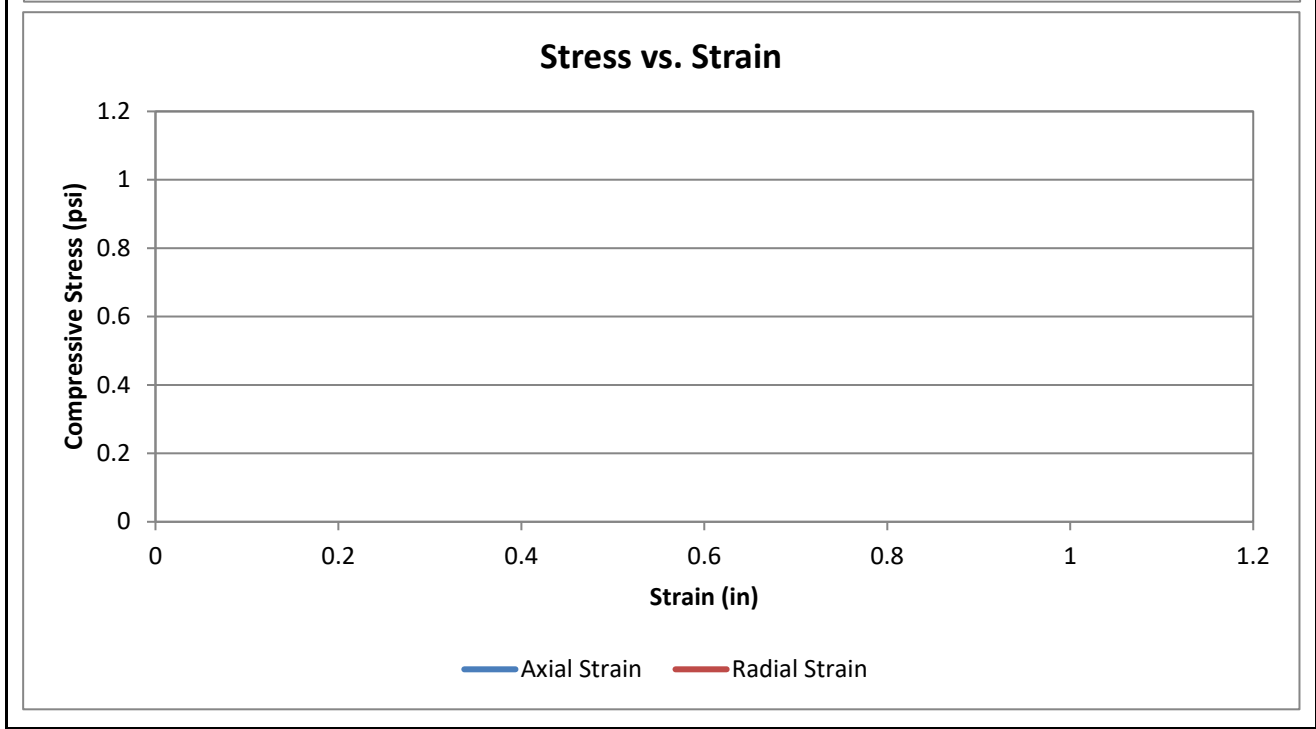
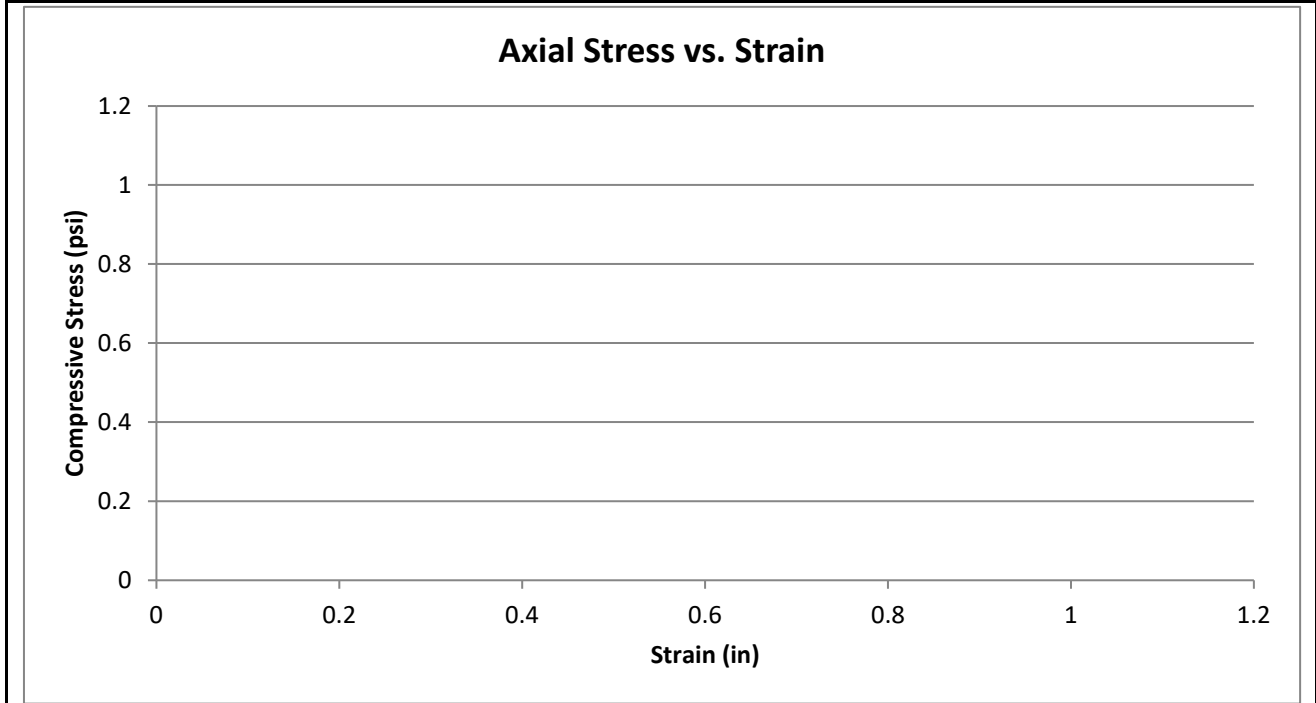


Test Results			
Unconfined Compressive Strength (psi)	410	Elastic Modulus (psi)	N/A
		Poisson's Ratio in Elastic Range	N/A
Comments	Sample broke during initial sample loading. As such, value for elastic modulus and Poisson's Ratio could not be measured.		



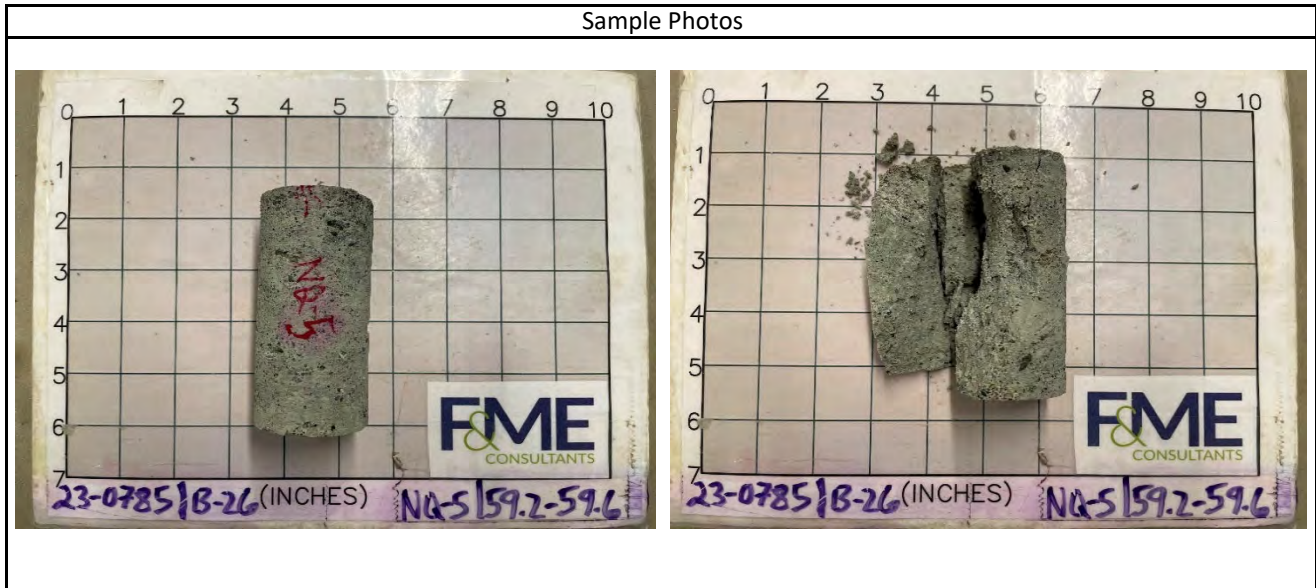
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.849	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.791	Reviewed By	WJG
Boring	B-26	Unit Weight (pcf)	119.3	Core Size	NQ
Sample No.	NQ-5 / 23-0785A	L/D Ratio	2.05	Recovery	98%
Depth	55.8' - 56.1'	Load Rate (psi/sec)	10	RQD	87%
Description	Gray/Black/White Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.863	Reviewed By	WJG
Boring	B-26	Unit Weight (pcf)	146.3	Core Size	NQ
Sample No.	NQ-5 / 23-0785B	L/D Ratio	2.08	Recovery	57%
Depth	59.2' - 59.6'	Load Rate (psi/sec)	10	RQD	43%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%	-1588	217	1,038	384	0.48	0.14
40%	325	426	1,350	500	3.08	1.31
50%	115	535	1,699	629	10.94	4.65
60%	118	1060	2,036	754	12.81	9.00
70%	-234	1420	2,364	876	7.48	6.07
80%	-623	2854	2,682	993	3.19	4.58
90%	-1155	5286	3,042	1,127	1.95	4.58
100%	-1267	5830	3,371	1,249		

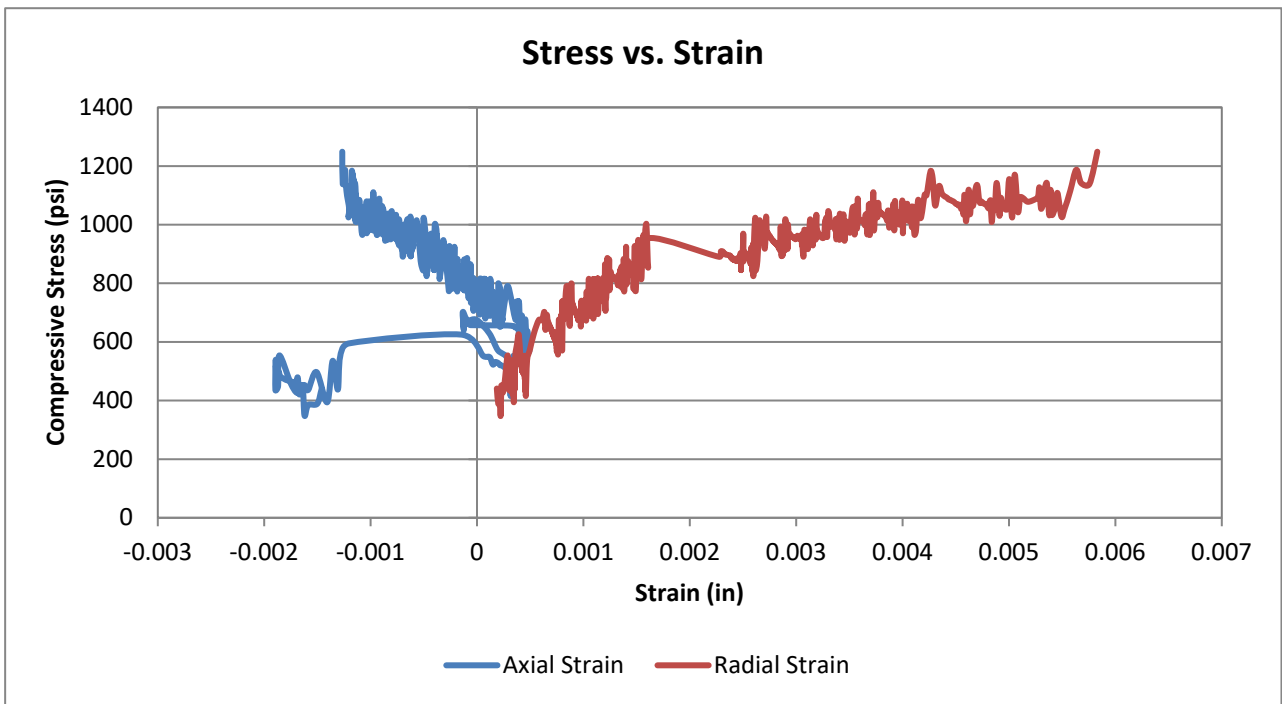
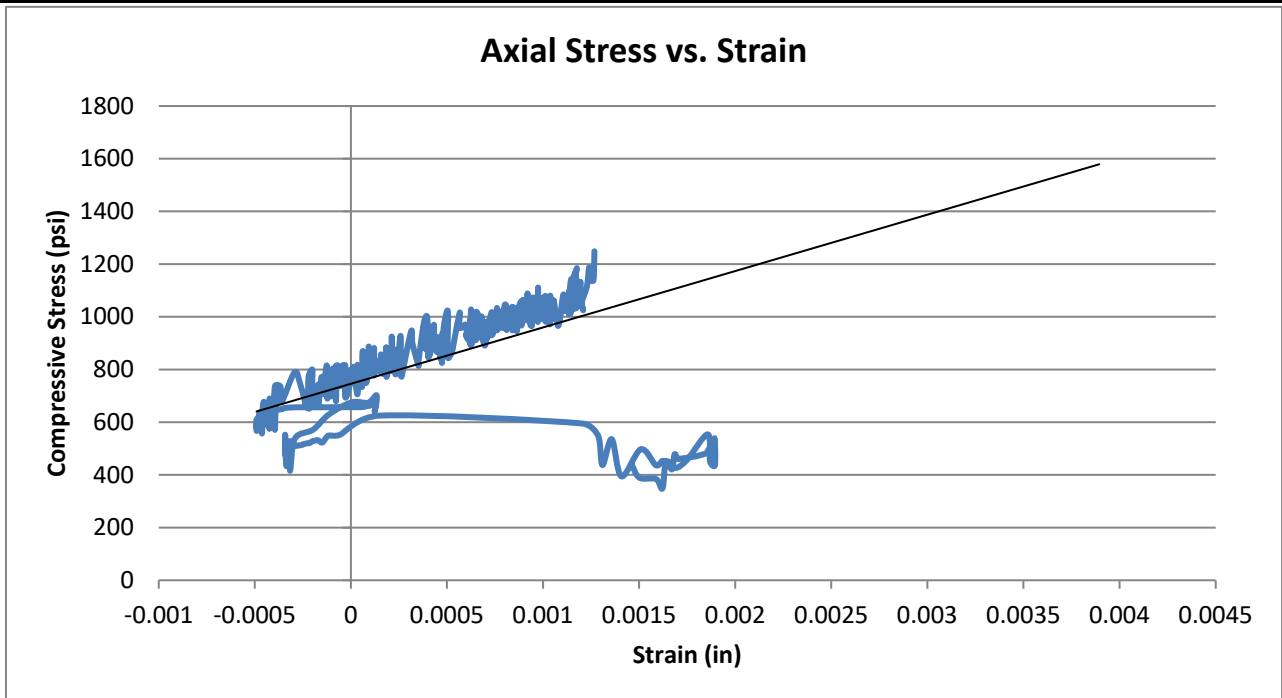


Test Results			
Unconfined Compressive Strength (psi)	1,250	Elastic Modulus (psi)	0.00E+00
		Poisson's Ratio in Elastic Range	0.00
Comments	Stress-strain behavior for this sample does not appear reasonable. As such, values for elastic modulus and Poisson's Ratio are not provided. Data indicates a partial sample failure around 450 psi.		

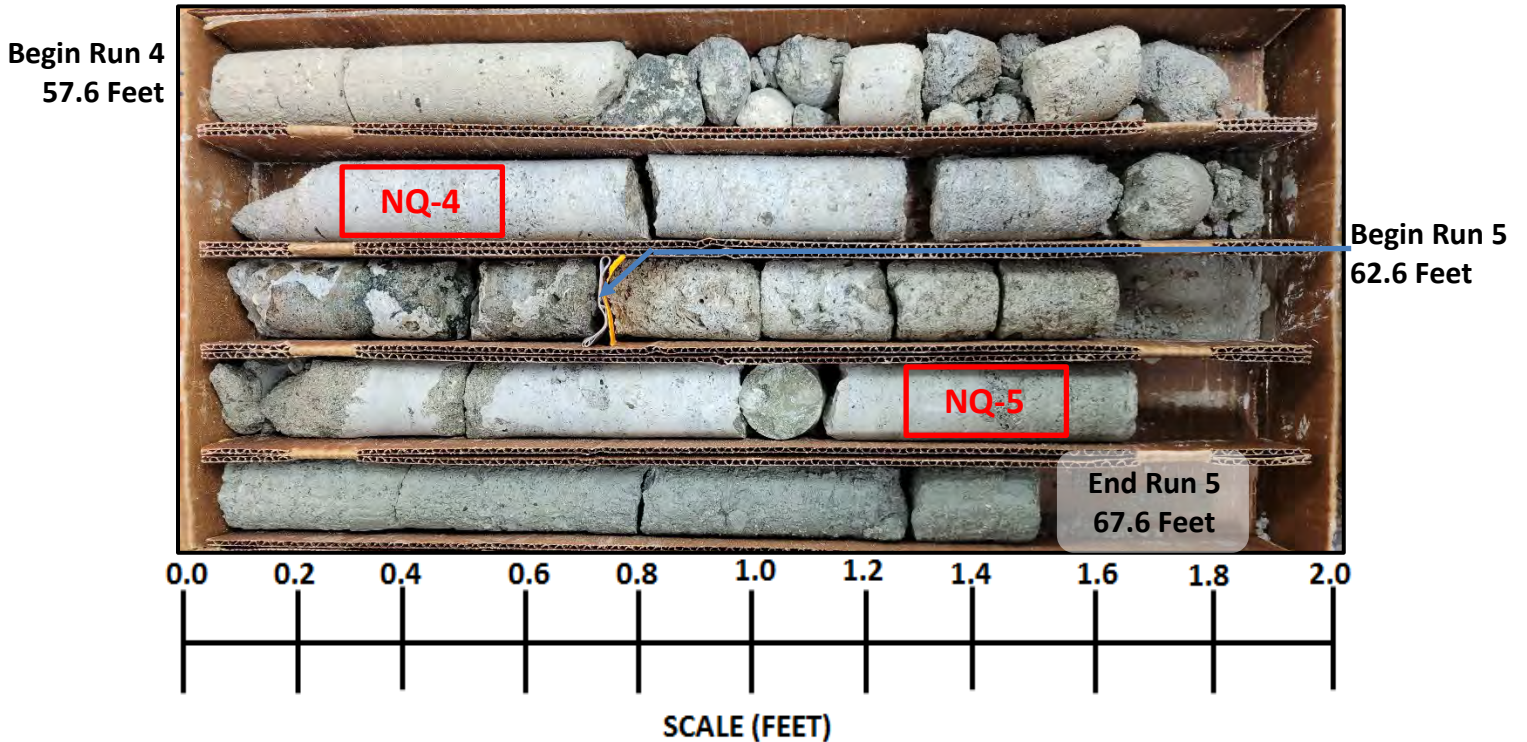


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.863	Reviewed By	WJG
Boring	B-26	Unit Weight (pcf)	146.3	Core Size	NQ
Sample No.	NQ-5 / 23-0785B	L/D Ratio	2.08	Recovery	57%
Depth	59.2' - 59.6'	Load Rate (psi/sec)	10	RQD	43%
Description	Brown/Gray Limestone				

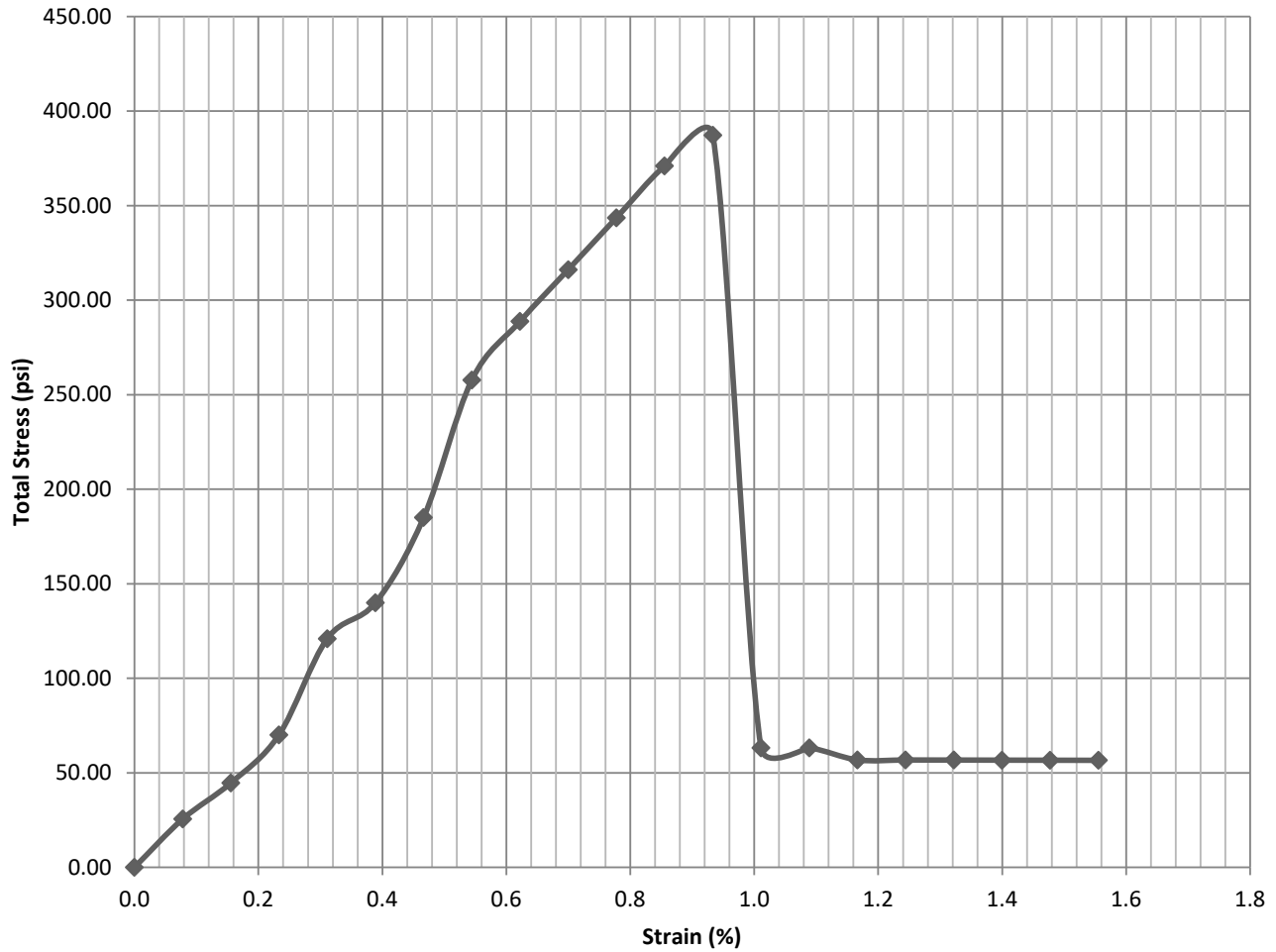


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-27



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1359



Average Initial Diameter (Do): 1.848 in.
 Average Initial Height (Lo): 3.858 in.
 Average Initial Area (Ao): 2.682 in²
 In-Situ Unit Weight: 120.3 pcf
 Failure Mode: Plastic Failure

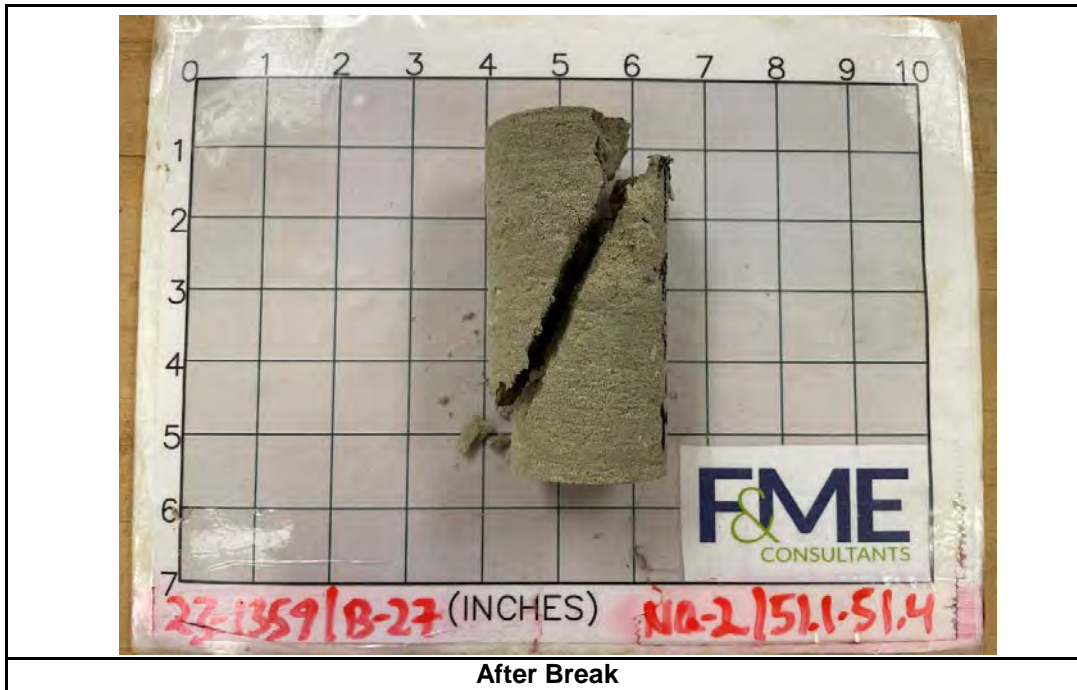
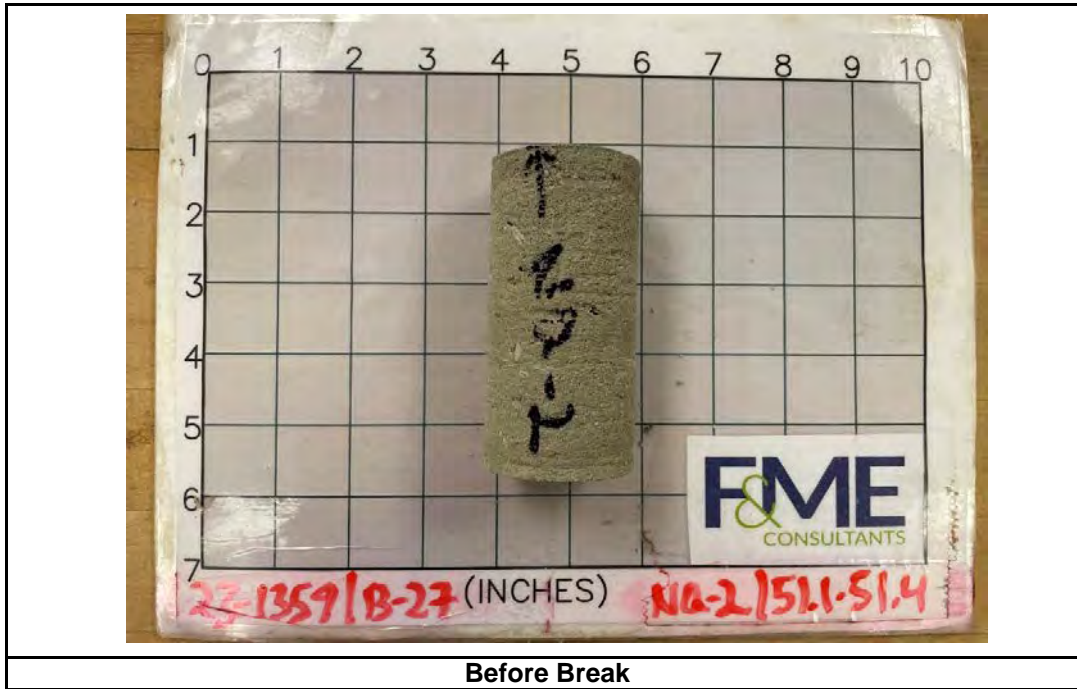
Sample Volume: 10.35 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.720 lbs.
 L/D Ratio: 2.088

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-27 / NQ-2
 Depth/Elevation 51.1' - 51.4'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 385 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



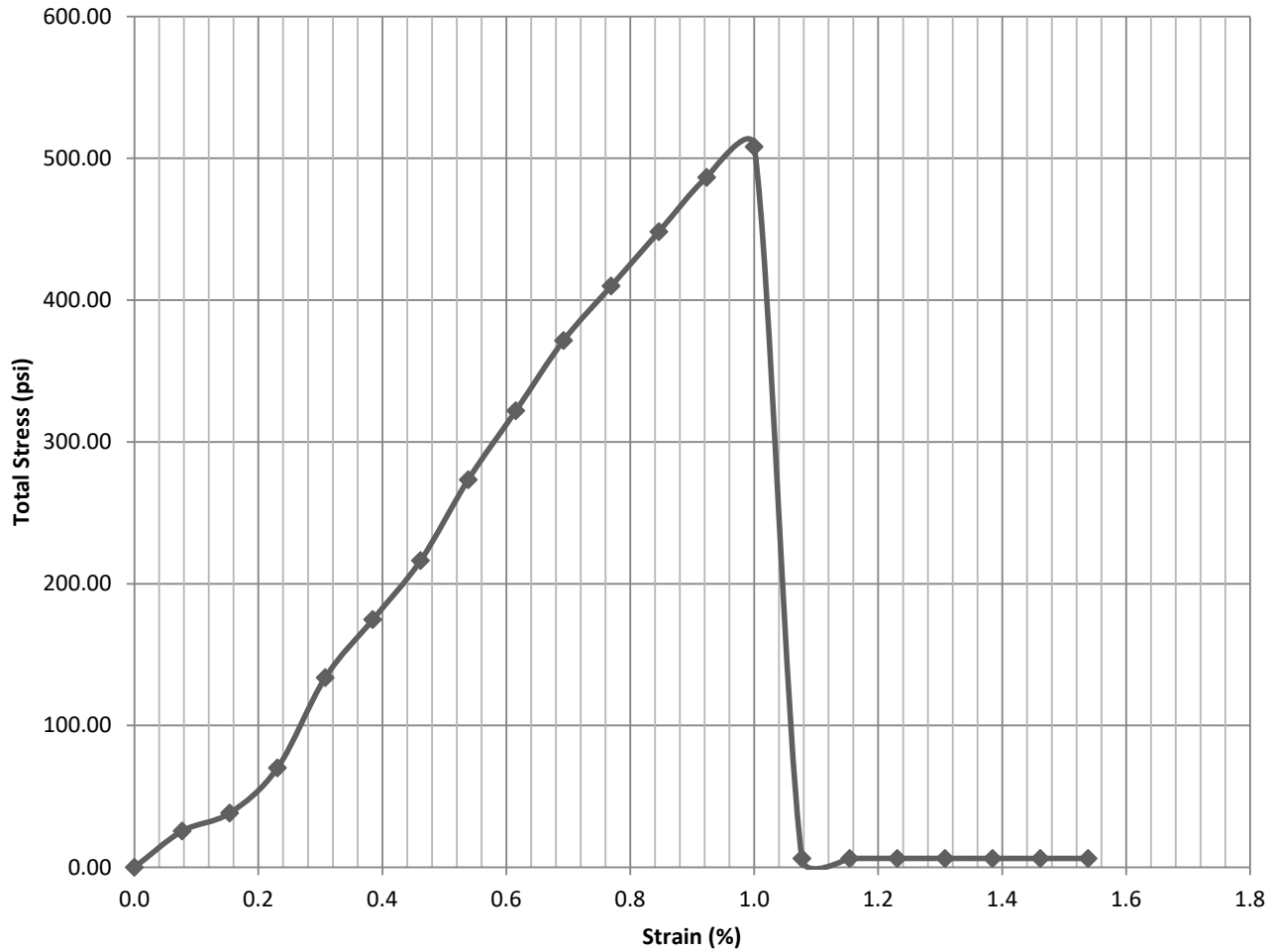
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1359
Sample Location:	B-27 / NQ-2	Depth of Sample:	51.1' - 51.4'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1359



Average Initial Diameter (Do): 1.848 in.
 Average Initial Height (Lo): 3.900 in.
 Average Initial Area (Ao): 2.682 in²
 In-Situ Unit Weight: 122.2 pcf
 Failure Mode: Plastic Failure

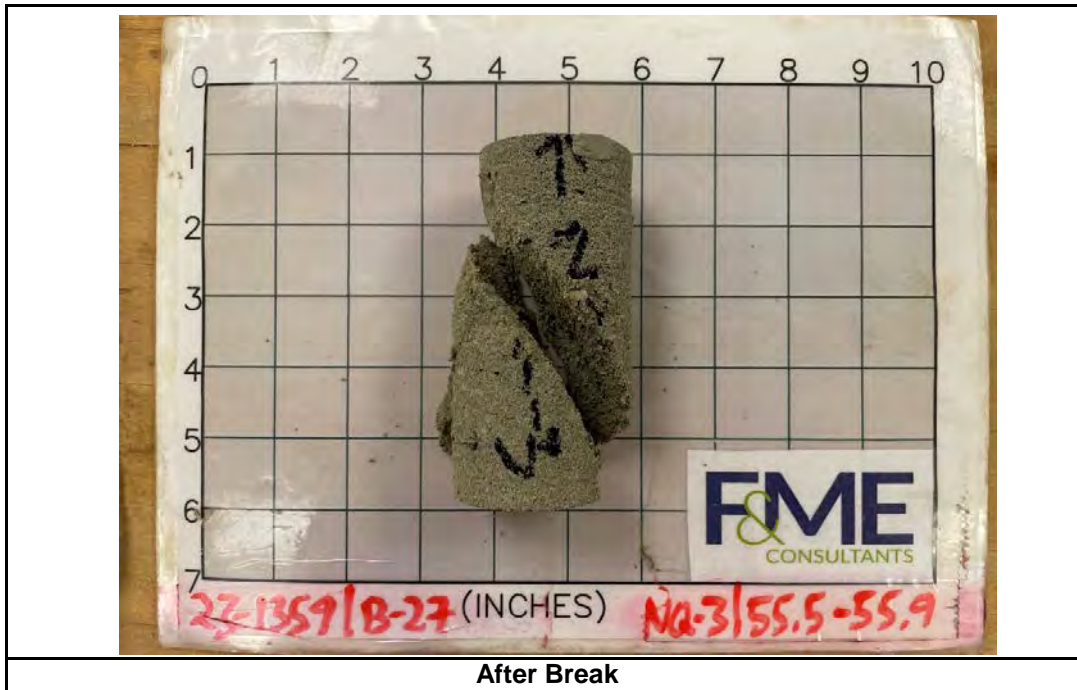
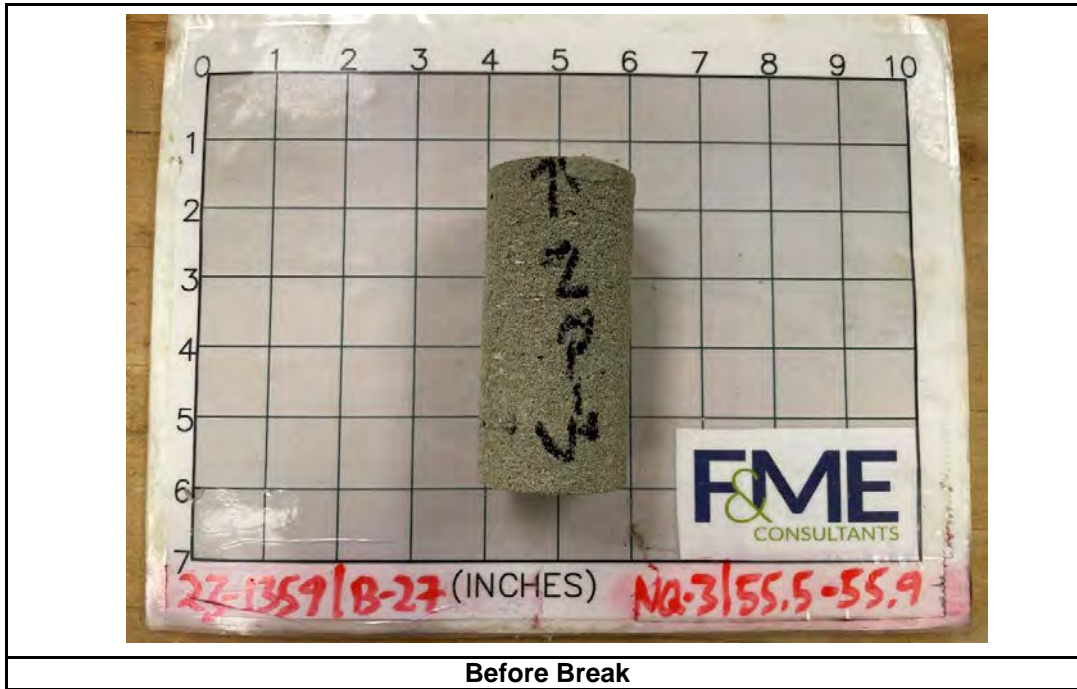
Sample Volume: 10.46 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.740 lbs.
 L/D Ratio: 2.110

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-27 / NQ-3
 Depth/Elevation 55.5' - 55.9'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 510 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



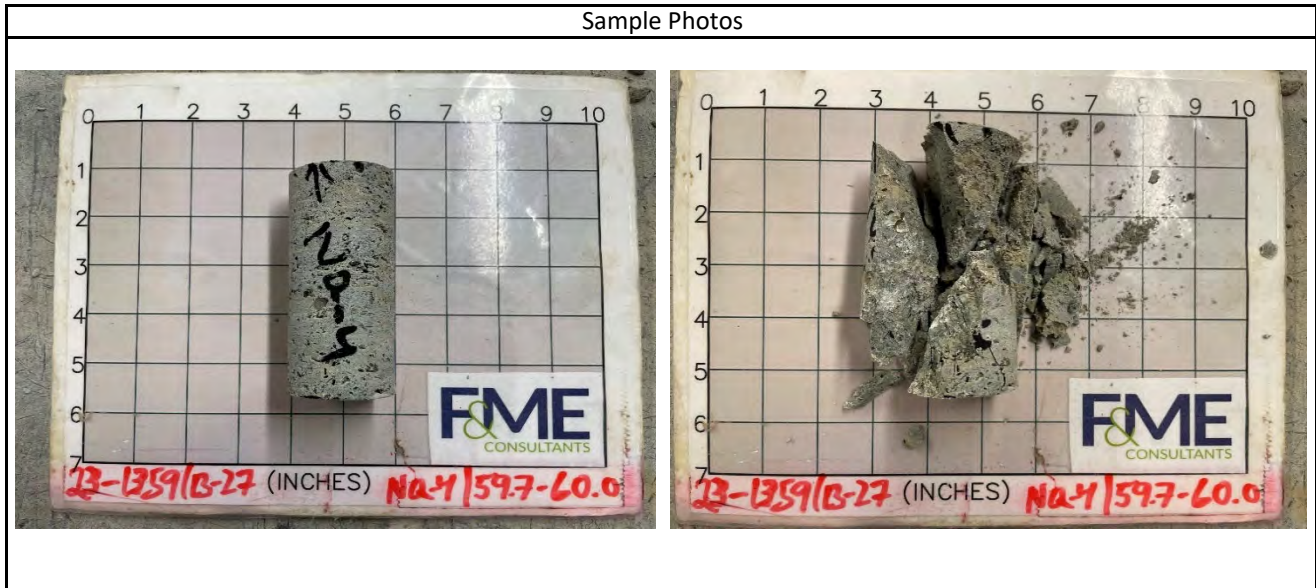
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1359
Sample Location:	B-27 / NQ-3	Depth of Sample:	55.5' - 55.9'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.86	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.995	Reviewed By	WJG
Boring	B-27	Unit Weight (pcf)	155.1	Core Size	NQ
Sample No.	NQ-4 / 23-1359A	L/D Ratio	2.15	Recovery	88%
Depth	59.7' - 60.0'	Load Rate (psi/sec)	10	RQD	48%
Description	Gray/Black/White Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	-219	65	1,708	629	5.73	0.30
20%	-415	98	3,452	1,270	6.11	0.24
30%	-638	124	5,172	1,904	5.97	0.19
40%	-872	156	6,892	2,537	5.82	0.18
50%	-1125	199	8,655	3,185	5.66	0.18
60%	-1385	251	10,345	3,807	5.50	0.18
70%	-1659	326	12,035	4,429	5.34	0.20
80%	-1969	458	13,729	5,053	5.13	0.23
90%	-2329	755	15,488	5,700	4.89	0.32
100%	-2813	2349	17,208	6,333		

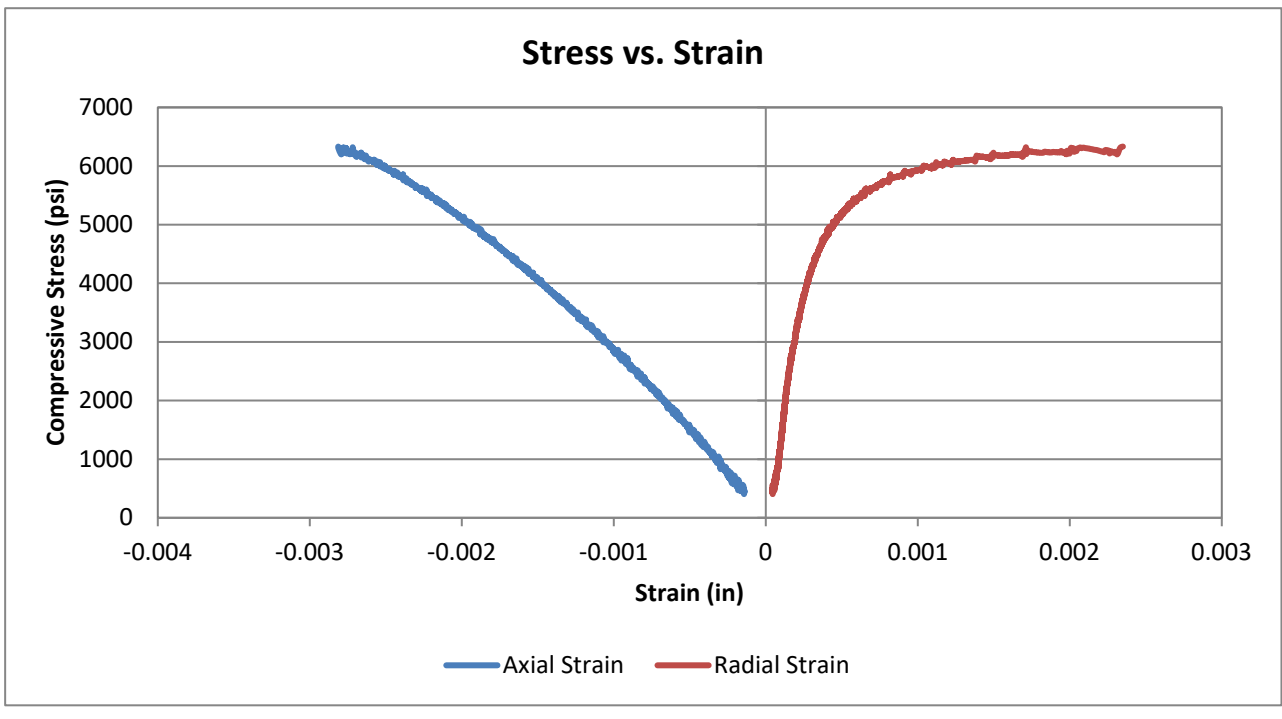
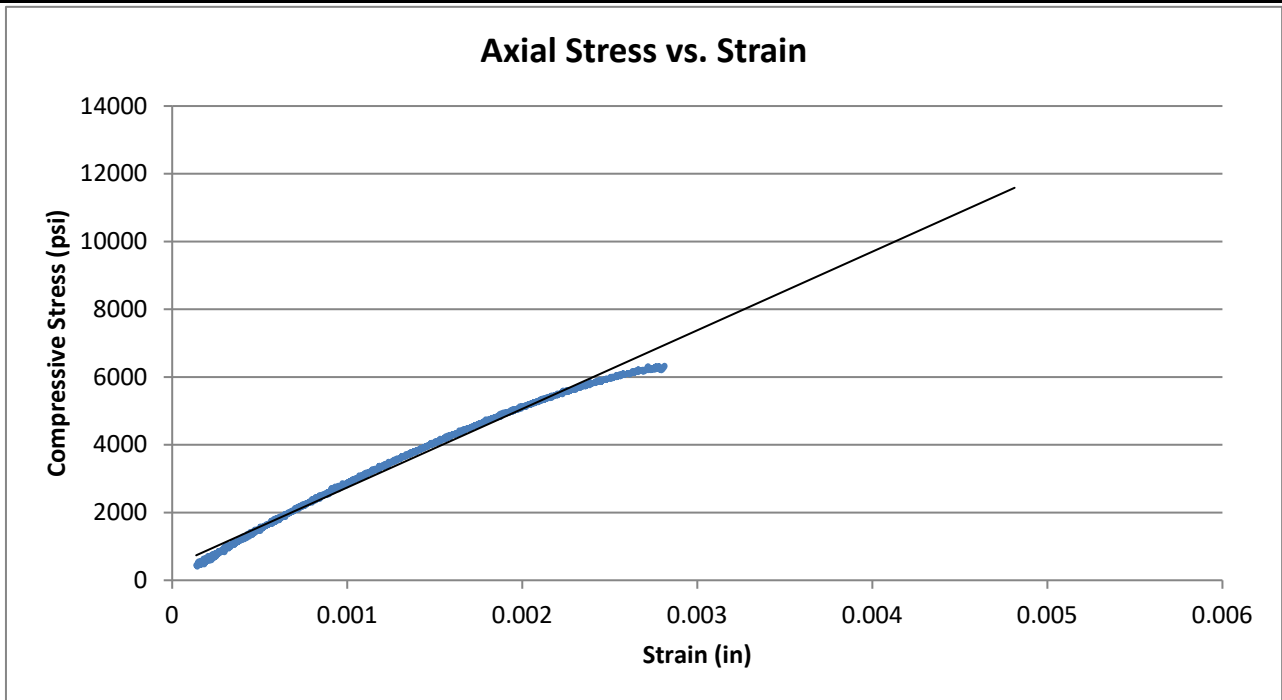


Test Results			
Unconfined Compressive Strength (psi)	6,330	Elastic Modulus (psi)	5.43E+06
		Poisson's Ratio in Elastic Range	0.19
Comments	Elastic range was taken as between 0.001 and 0.002 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



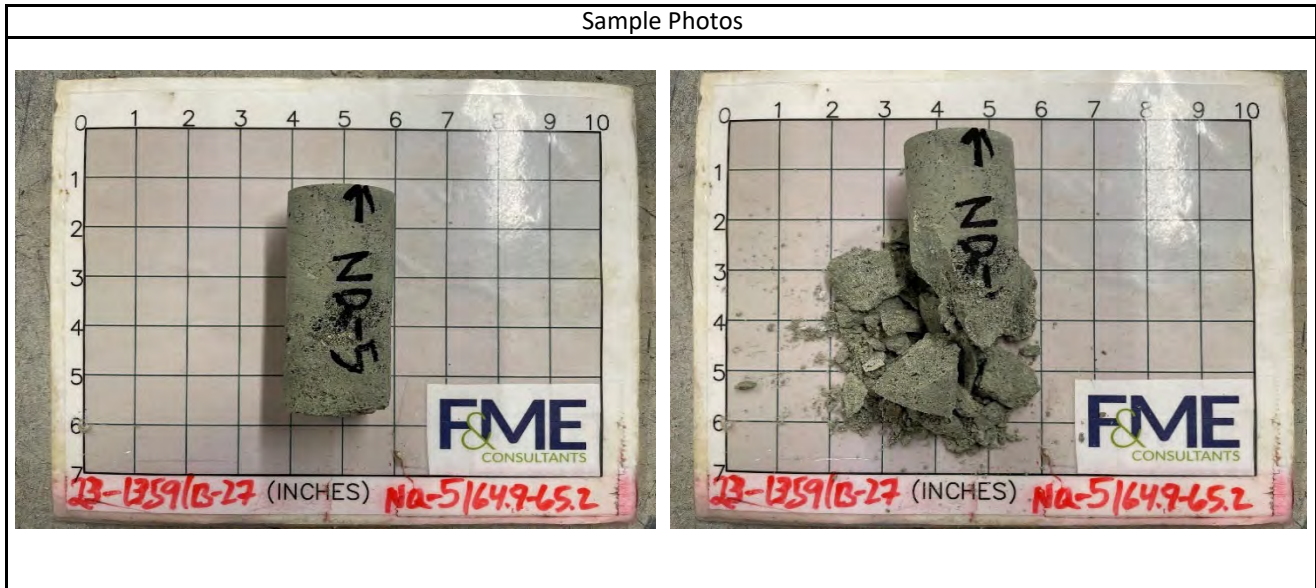
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.86	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.995	Reviewed By	WJG
Boring	B-27	Unit Weight (pcf)	155.1	Core Size	NQ
Sample No.	NQ-4 / 23-1359A	L/D Ratio	2.15	Recovery	88%
Depth	59.7' - 60.0'	Load Rate (psi/sec)	10	RQD	48%
Description	Gray/Black/White Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.866	Reviewed By	WJG
Boring	B-27	Unit Weight (pcf)	148.6	Core Size	NQ
Sample No.	NQ-5 / 23-1359B	L/D Ratio	2.09	Recovery	83%
Depth	64.9' - 65.2'	Load Rate (psi/sec)	10	RQD	53%
Description	Brown/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%	-3752	467	988	366	0.20	0.12
60%	-4589	664	1,172	434	0.19	0.14
70%	-5170	624	1,324	490	0.19	0.12
80%	-5179	580	1,566	580	0.22	0.11
90%	-5295	951	1,792	664	0.25	0.18
100%	-6714	540	1,969	729		

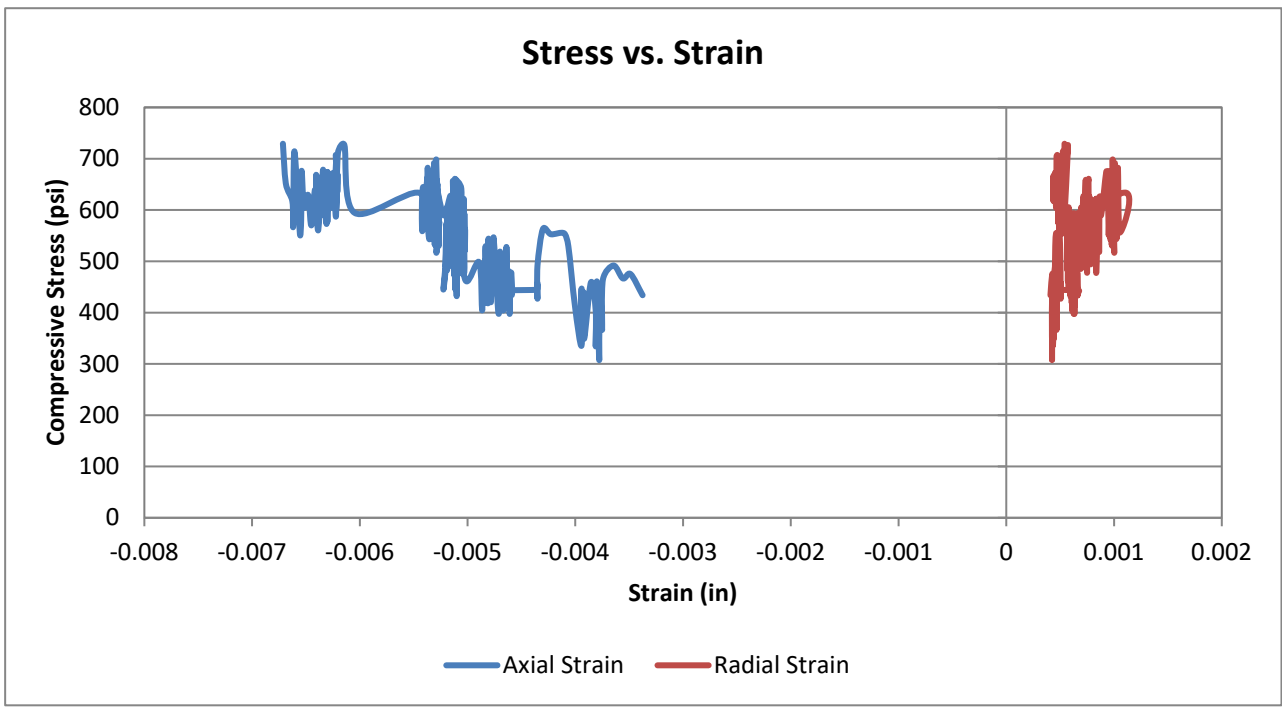
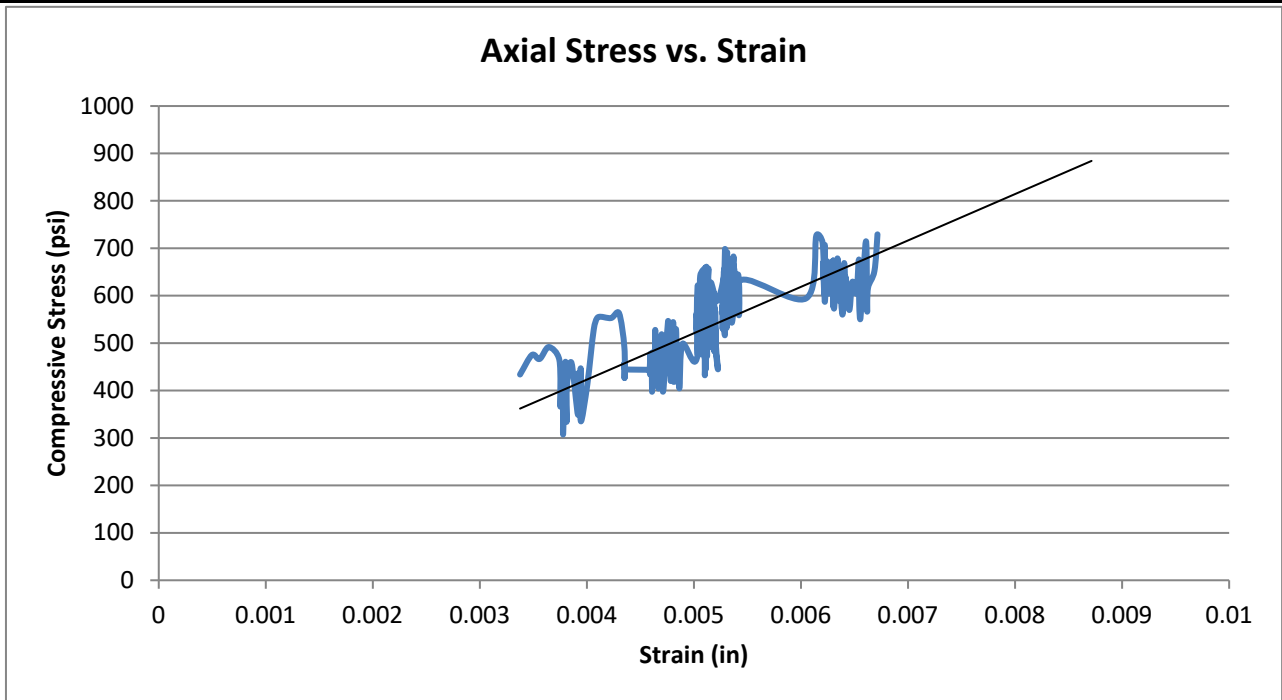


Test Results			
Unconfined Compressive Strength (psi)	730	Elastic Modulus (psi)	2.09E+05
		Poisson's Ratio in Elastic Range	0.14
Comments	Elastic range was taken as between 0.004 and 0.006 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

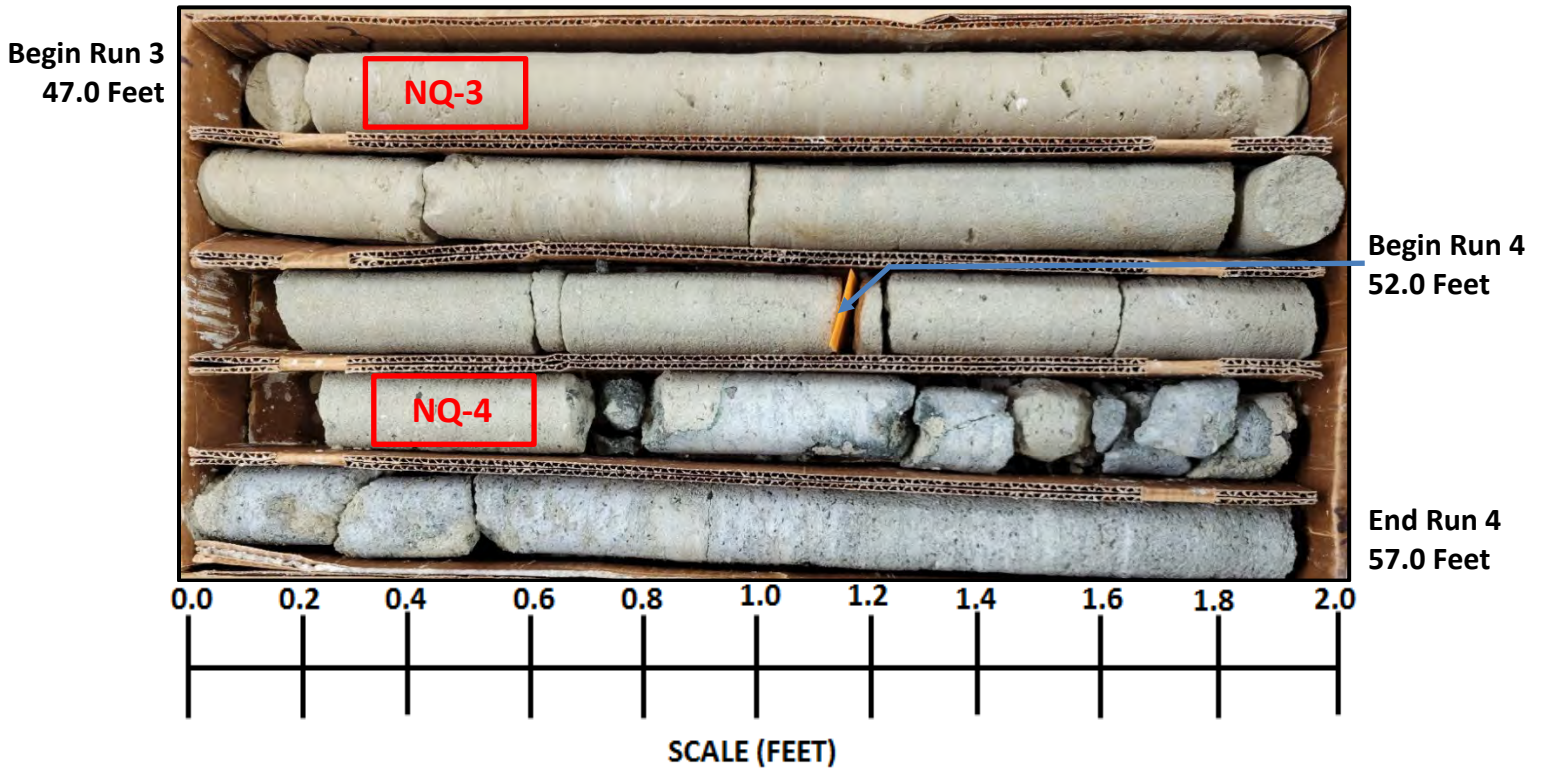
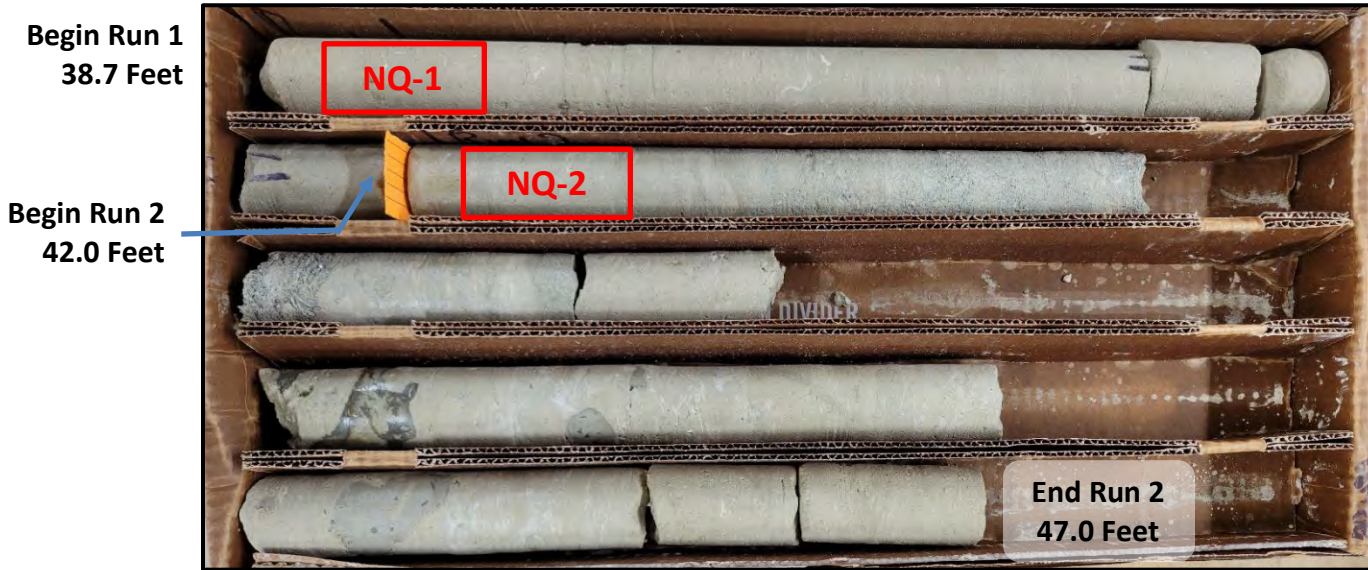


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

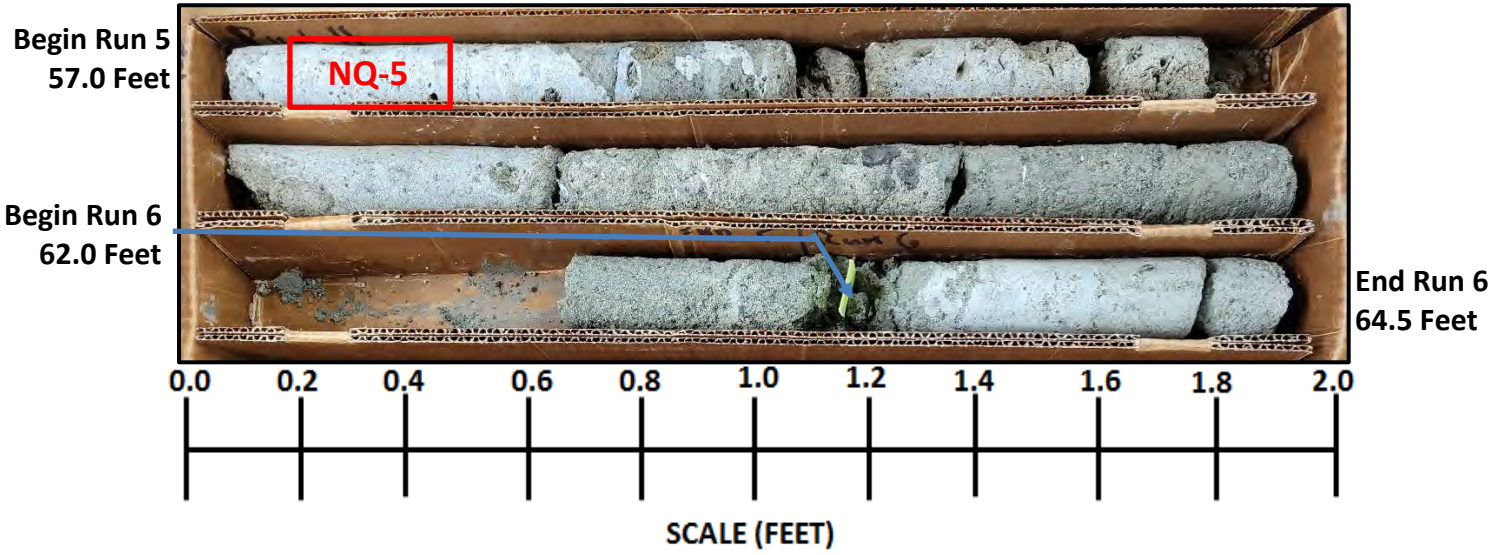
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.854	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.866	Reviewed By	WJG
Boring	B-27	Unit Weight (pcf)	148.6	Core Size	NQ
Sample No.	NQ-5 / 23-1359B	L/D Ratio	2.09	Recovery	83%
Depth	64.9' - 65.2'	Load Rate (psi/sec)	10	RQD	53%
Description	Brown/Gray/White Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-28

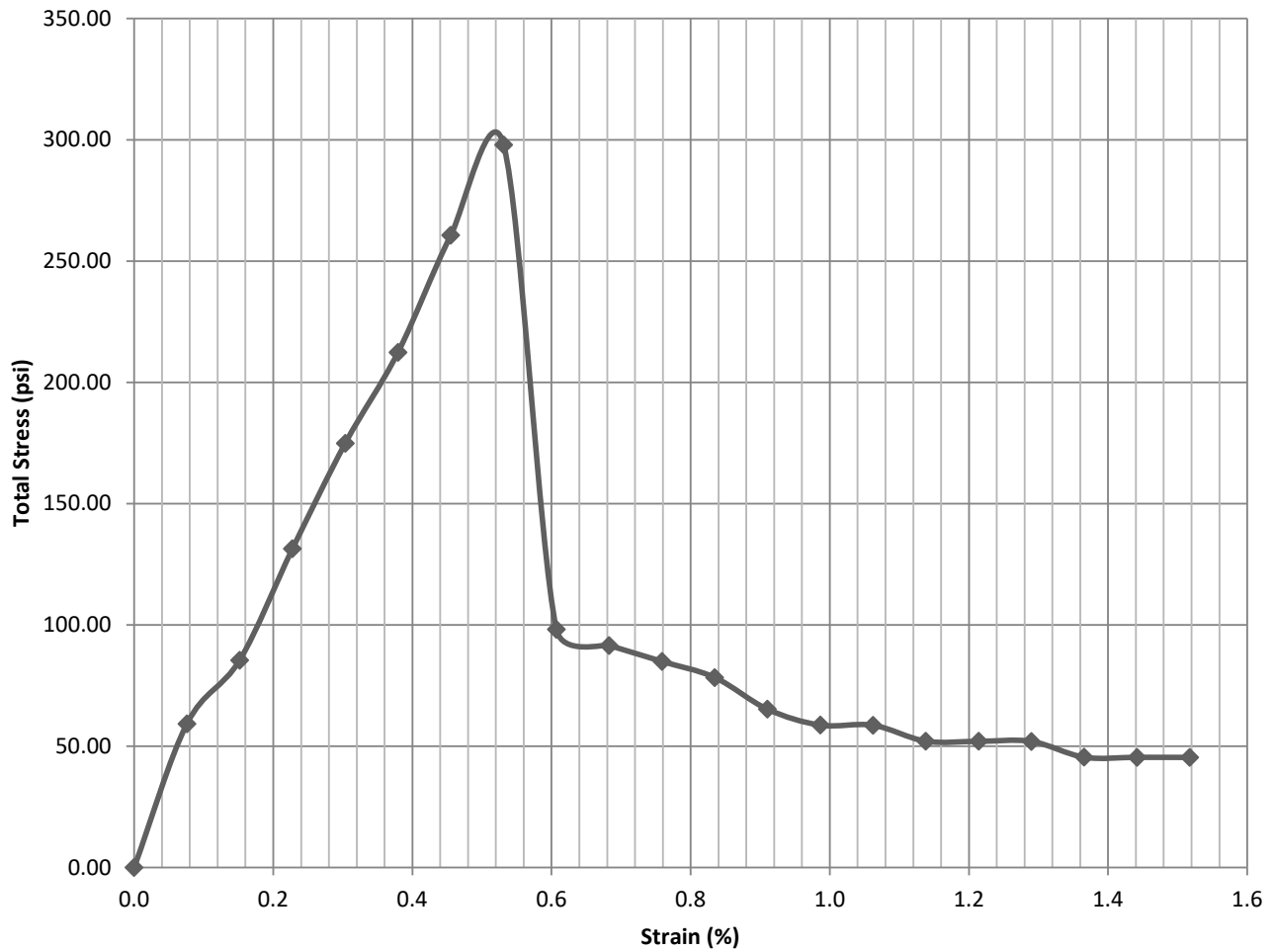


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-28



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0784



Average Initial Diameter (Do): 1.820 in.
 Average Initial Height (Lo): 3.954 in.
 Average Initial Area (Ao): 2.602 in²
 In-Situ Unit Weight: 110.9 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.29 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.660 lbs.
 L/D Ratio: 2.173

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-28 / NQ-1
 Depth/Elevation 38.8' - 39.1'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 300 \text{ psi}$ $\epsilon_{ULT} = 0.5\%$



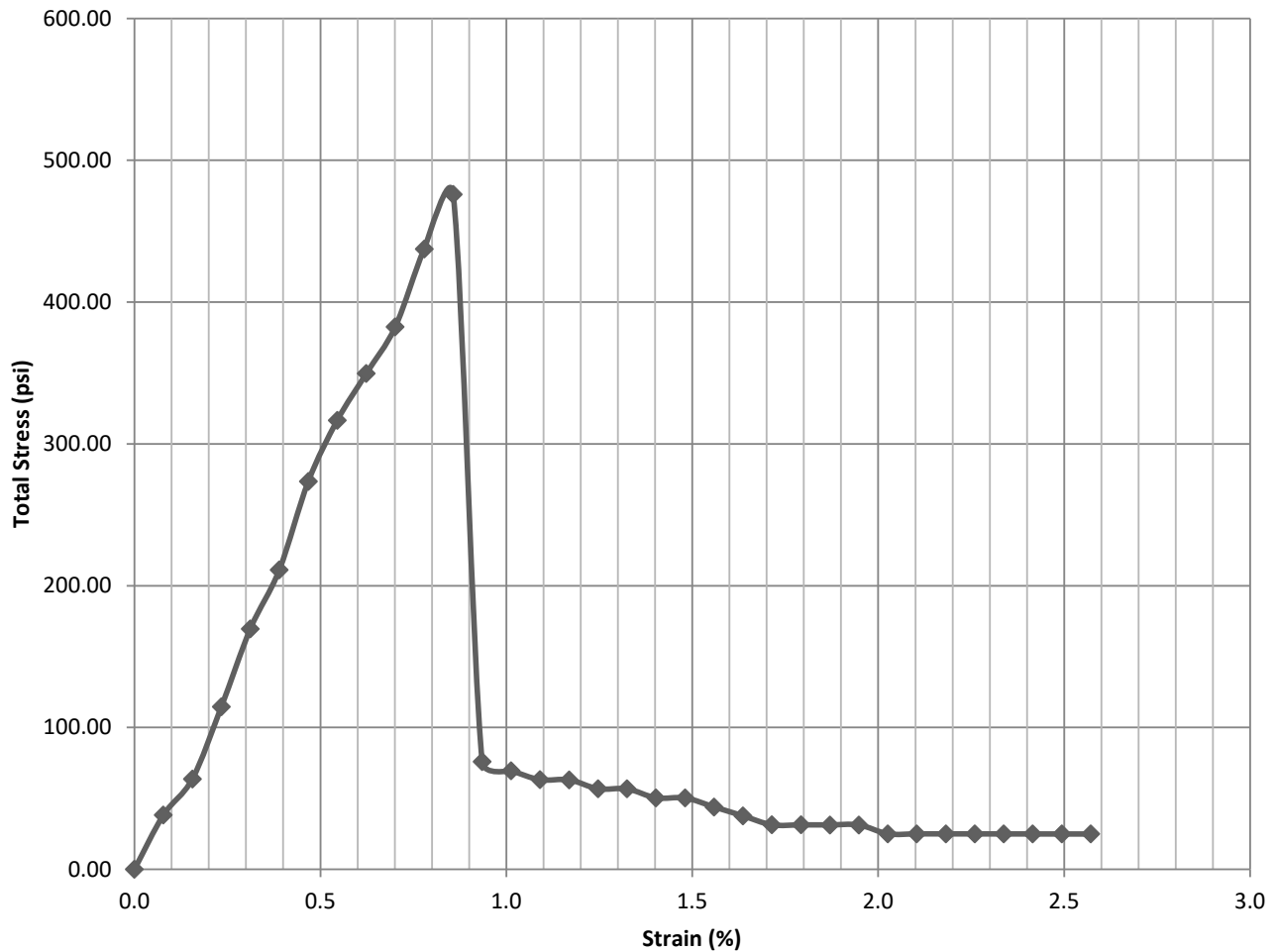
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0784
Sample Location:	B-28 / NQ-1	Depth of Sample:	38.8' - 39.1'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0784



Average Initial Diameter (Do): 1.848 in.
 Average Initial Height (Lo): 3.850 in.
 Average Initial Area (Ao): 2.682 in²
 In-Situ Unit Weight: 124.6 pcf
 Failure Mode: Plastic Failure

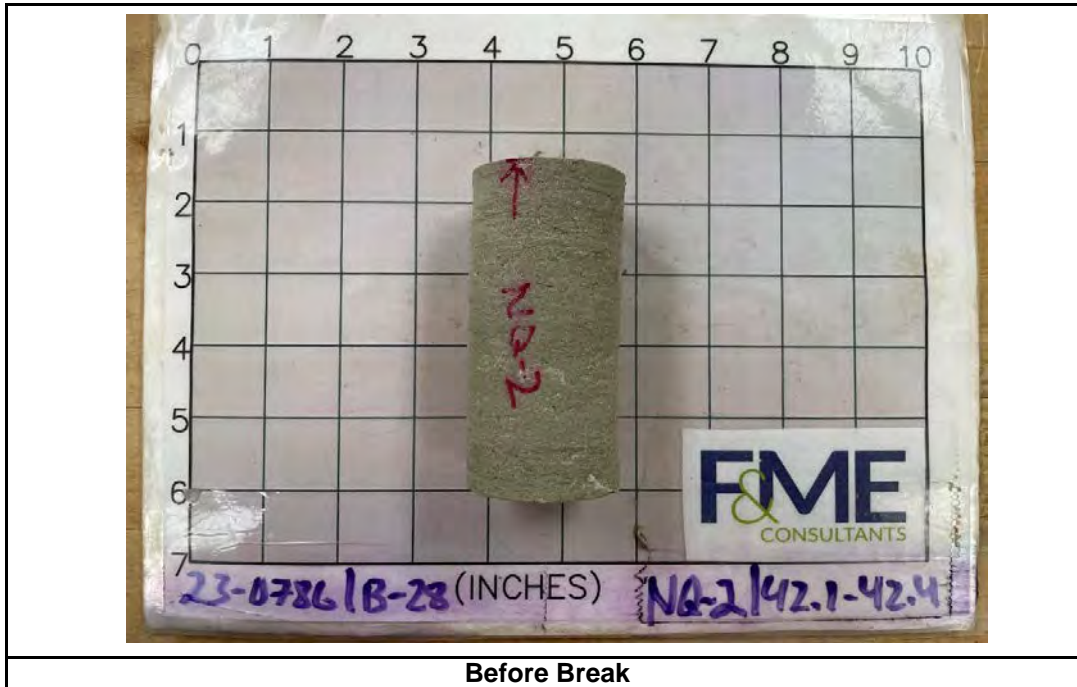
Sample Volume: 10.33 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.744 lbs.
 L/D Ratio: 2.083

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-28 / NQ-2
 Depth/Elevation 42.1' - 42.4'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 475 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



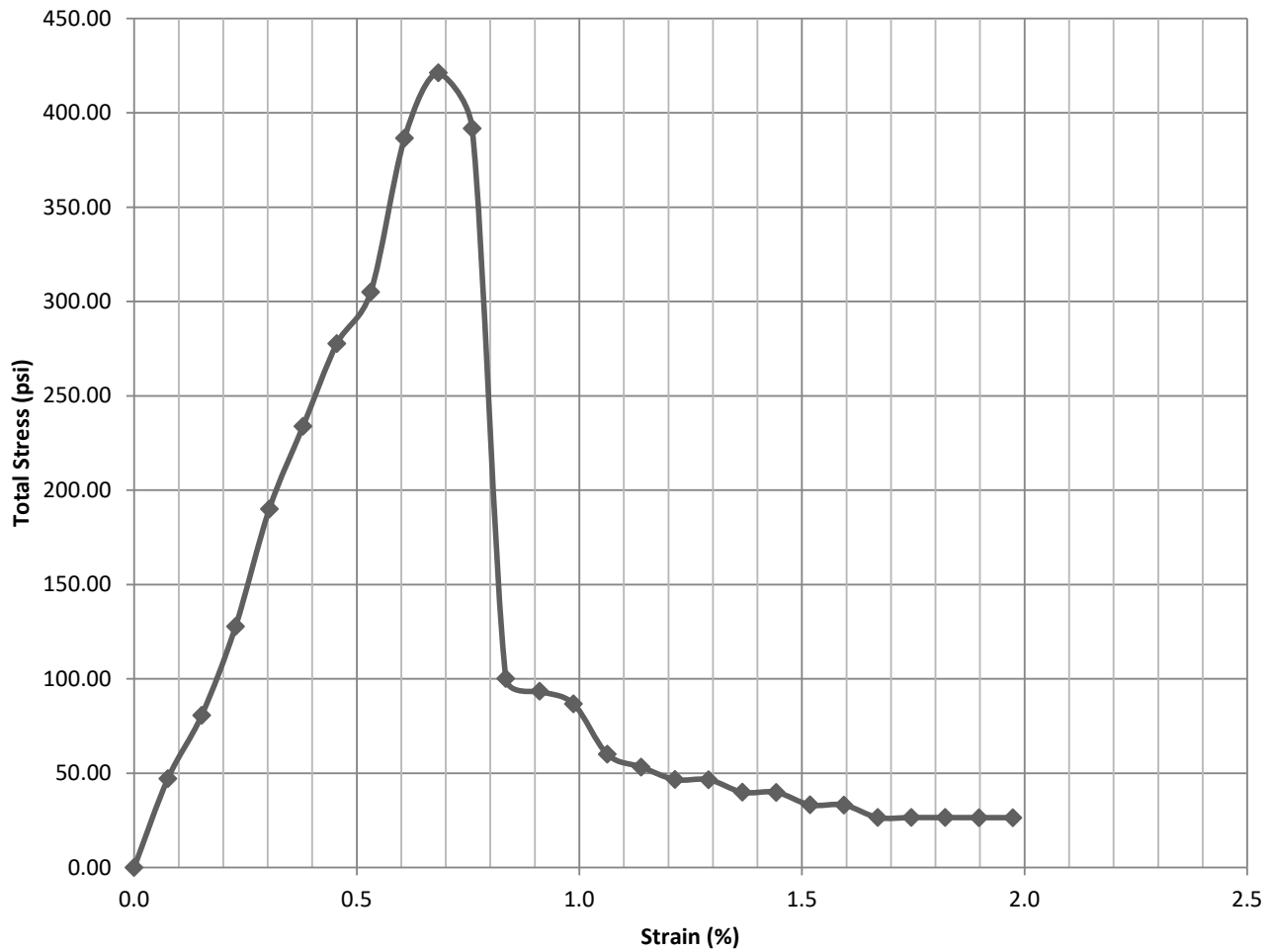
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0784
Sample Location:	B-28 / NQ-2	Depth of Sample:	42.1' - 42.4'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0784



Average Initial Diameter (Do): 1.799 in.
 Average Initial Height (Lo): 3.952 in.
 Average Initial Area (Ao): 2.542 in²
 In-Situ Unit Weight: 119.2 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.05 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.693 lbs.
 L/D Ratio: 2.197

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-28 / NQ-3
 Depth/Elevation 47.3' - 47.6'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 420 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



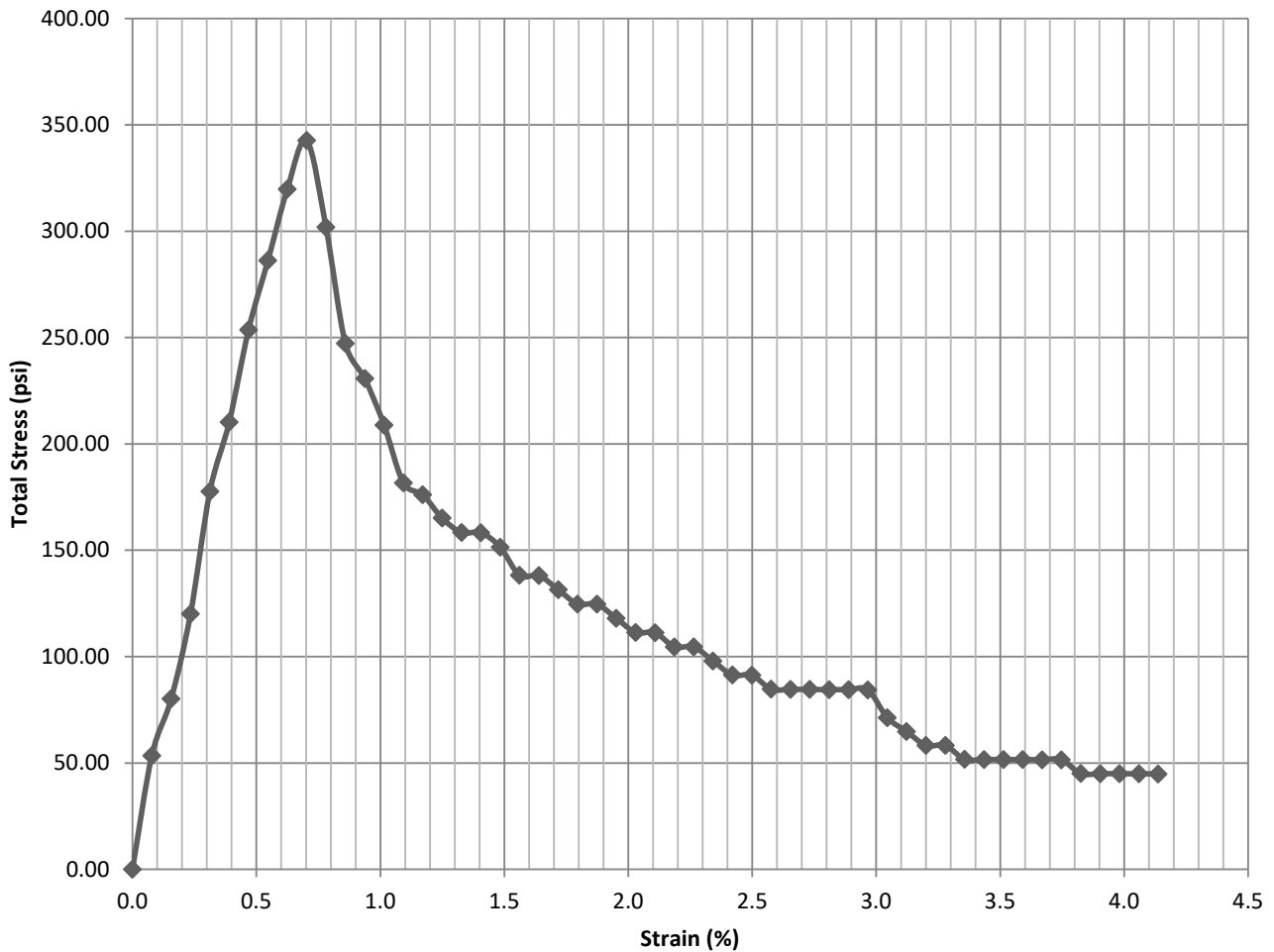
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0784
Sample Location:	B-28 / NQ-3	Depth of Sample:	47.3' - 47.6'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0784



Average Initial Diameter (Do): 1.806 in.
 Average Initial Height (Lo): 3.843 in.
 Average Initial Area (Ao): 2.562 in²
 In-Situ Unit Weight: 121.6 pcf
 Failure Mode: Plastic Failure

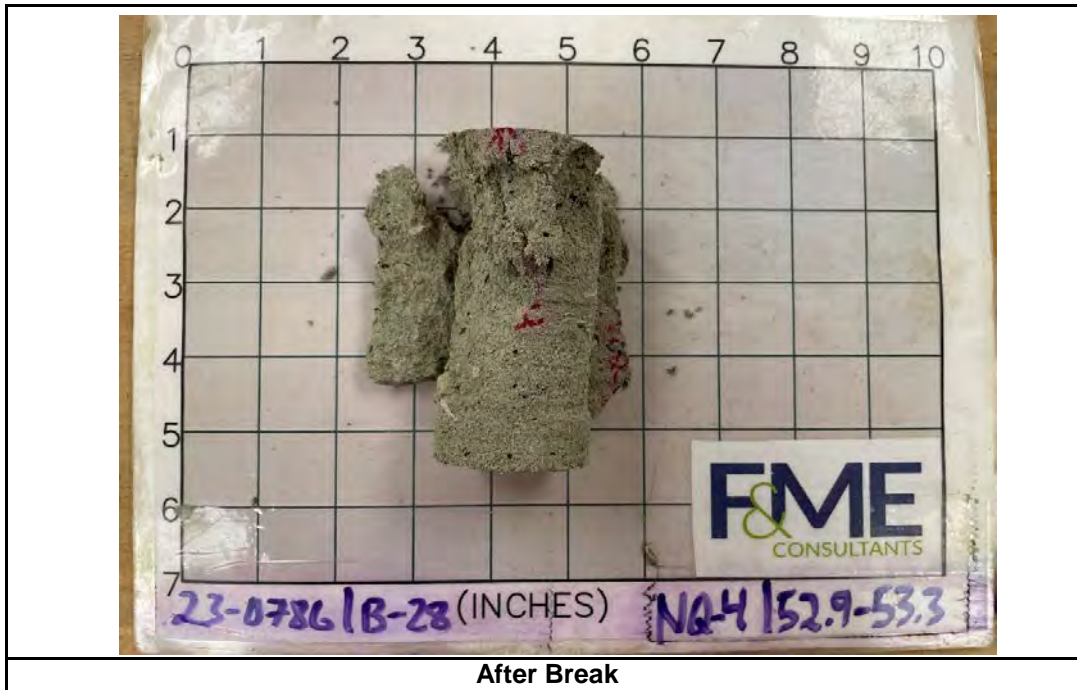
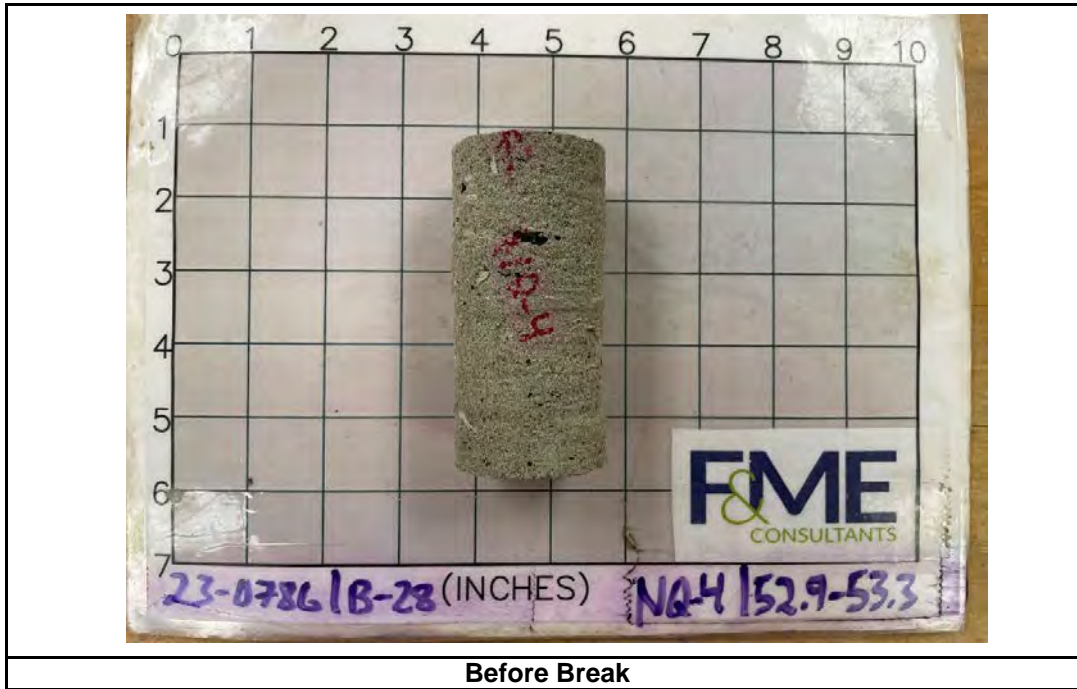
Sample Volume: 9.84 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.693 lbs.
 L/D Ratio: 2.128

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-28 / NQ-4
 Depth/Elevation 52.9' - 53.3'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 340 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



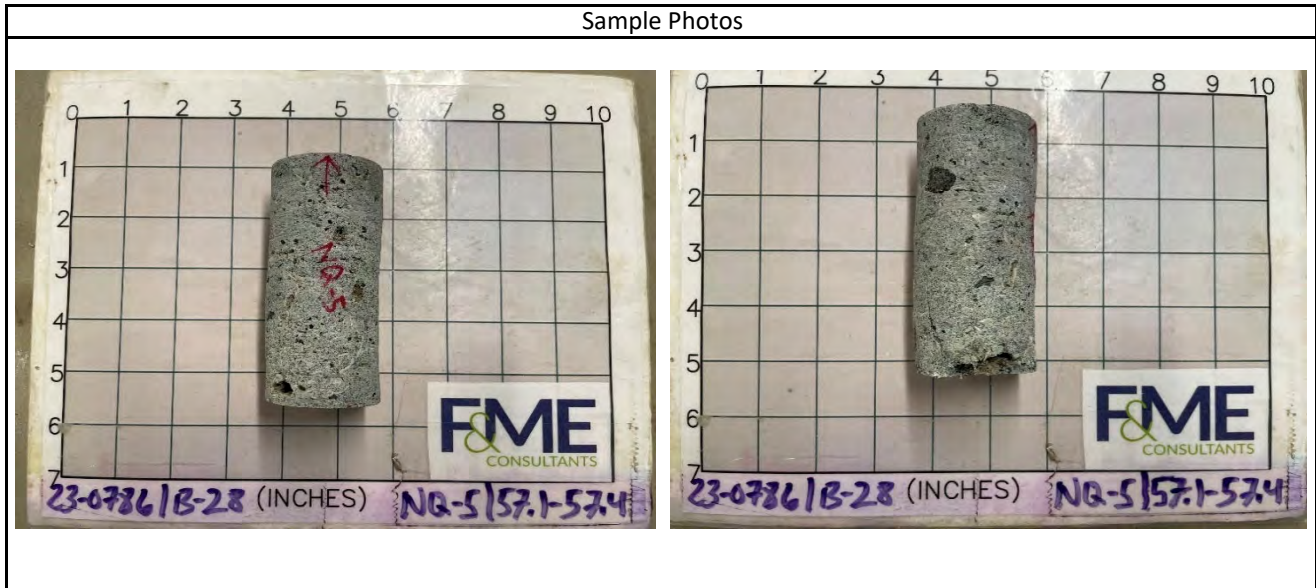
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0784
Sample Location:	B-28 / NQ-4	Depth of Sample:	52.9' - 53.3'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.983	Reviewed By	WJG
Boring	B-28	Unit Weight (pcf)	151.1	Core Size	NQ
Sample No.	NQ-5 / 23-0784	L/D Ratio	2.13	Recovery	95%
Depth	57.1' - 57.4'	Load Rate (psi/sec)	10	RQD	90%
Description	Gray/Black/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-289	75	2,005	732	5.06	0.26
30%	-456	119	3,043	1,112	4.87	0.26
40%	-641	165	4,040	1,476	4.60	0.26
50%	-810	207	5,084	1,857	4.58	0.26
60%	-964	247	6,073	2,218	4.60	0.26
70%	-1187	305	7,027	2,567	4.32	0.26
80%	-1406	365	8,089	2,955	4.20	0.26
90%	-1675	461	9,065	3,311	3.95	0.28
100%	-2127	654	10,111	3,693		

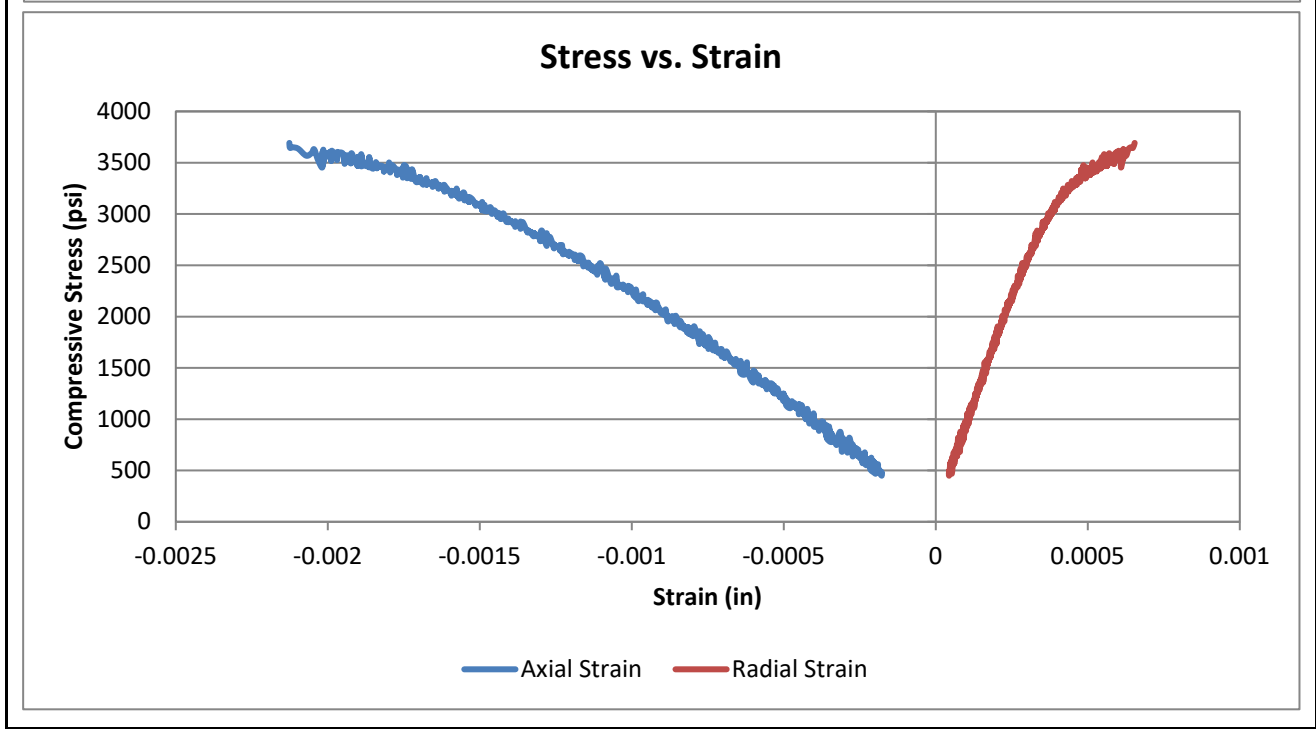
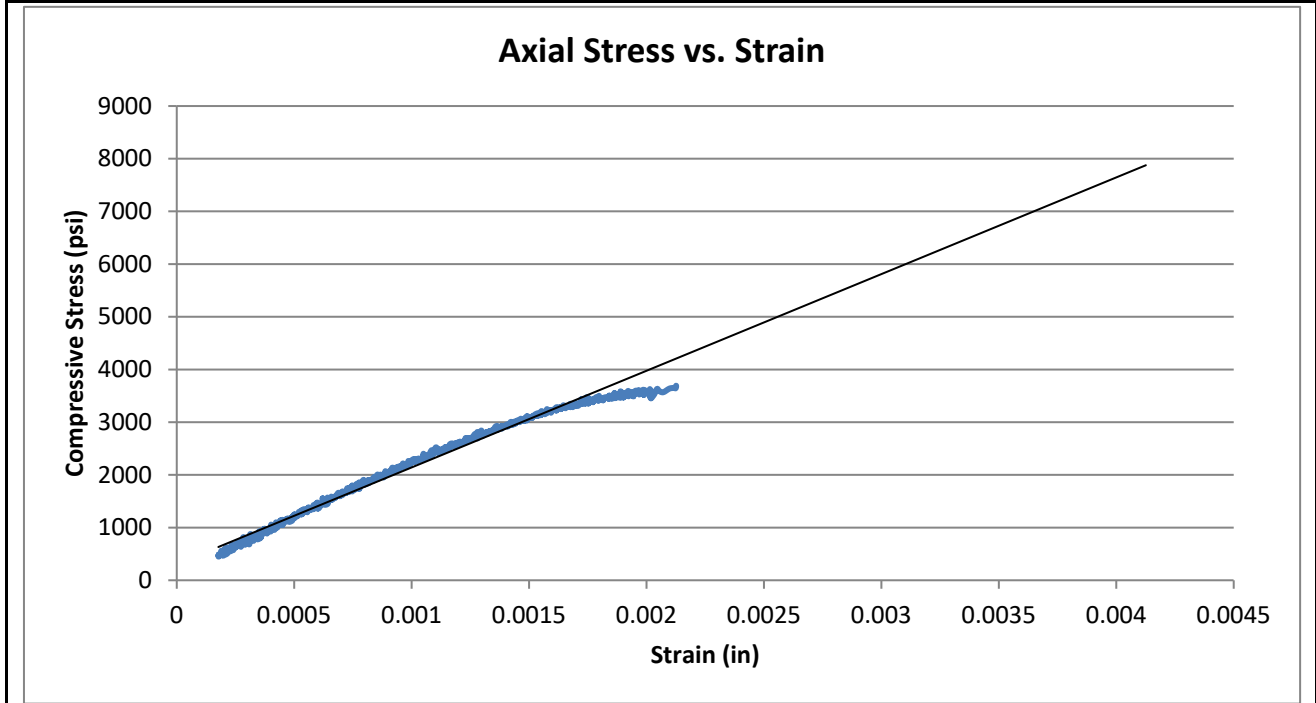


Test Results			
Unconfined Compressive Strength (psi)	3,690	Elastic Modulus (psi)	4.49E+06
		Poisson's Ratio in Elastic Range	0.26
Comments	Elastic range was taken as between 0.0005 and 0.0015 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.983	Reviewed By	WJG
Boring	B-28	Unit Weight (pcf)	151.1	Core Size	NQ
Sample No.	NQ-5 / 23-0784	L/D Ratio	2.13	Recovery	95%
Depth	57.1' - 57.4'	Load Rate (psi/sec)	10	RQD	90%
Description	Gray/Black/White Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-30

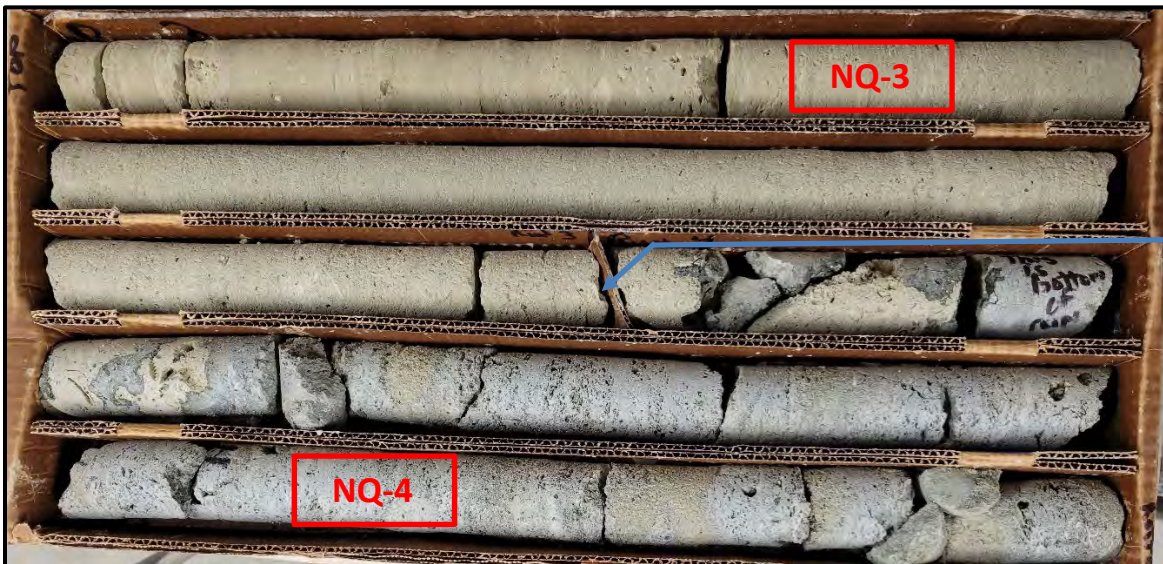
Begin Run 1
46.3 Feet

Begin Run 2
51.3 Feet



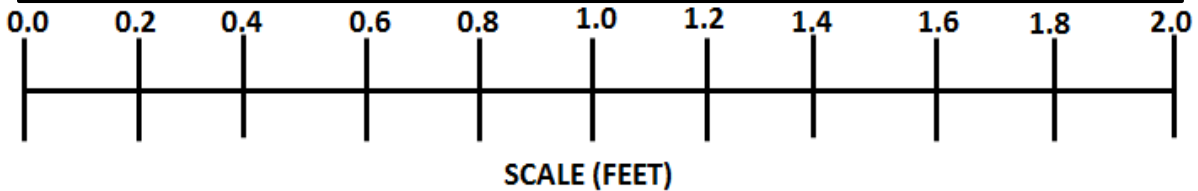
End Run 2
56.3 Feet

Begin Run 3
56.3 Feet



Begin Run 4
61.3 Feet

End Run 4
66.3 Feet

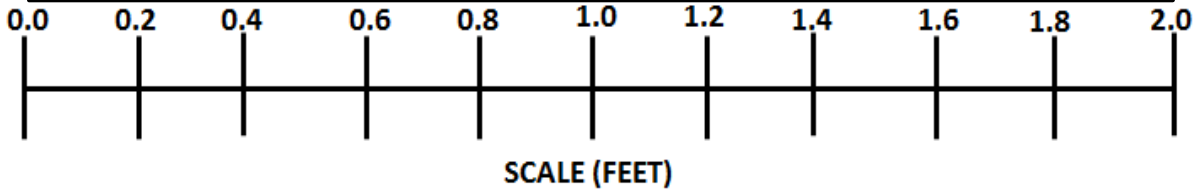


I-95 Bridge over Lake Marion DB Prep
CORE PHOTOGRAPHS: B-30

Begin Run 5
66.3 Feet

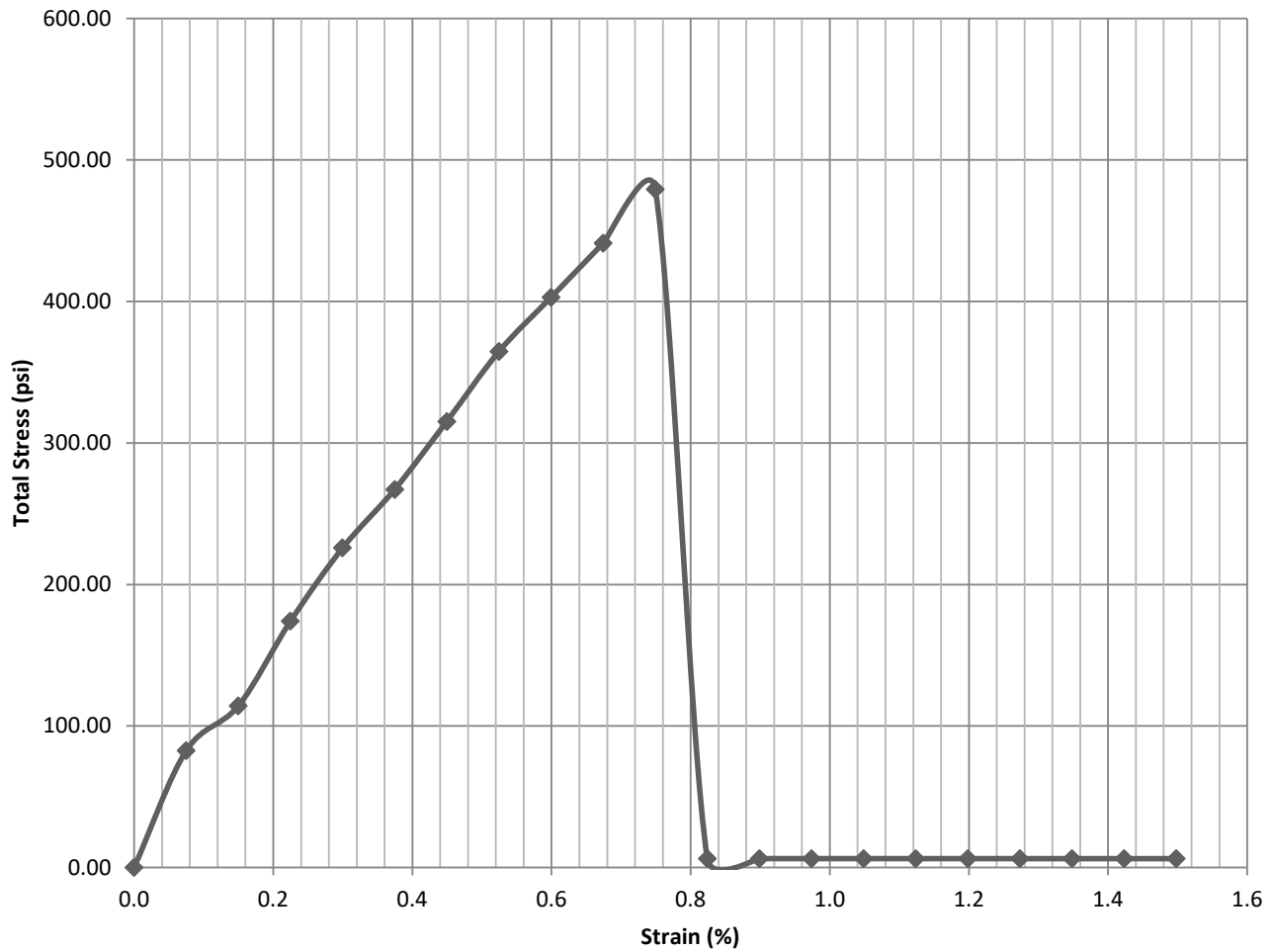


End Run 5
71.3 Feet



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0684



Average Initial Diameter (Do): 1.853 in.
 Average Initial Height (Lo): 4.005 in.
 Average Initial Area (Ao): 2.697 in²
 In-Situ Unit Weight: 116.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.80 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.725 lbs.
 L/D Ratio: 2.161

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-30 / NQ-2
 Depth/Elevation 54.5' - 54.8'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 480 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



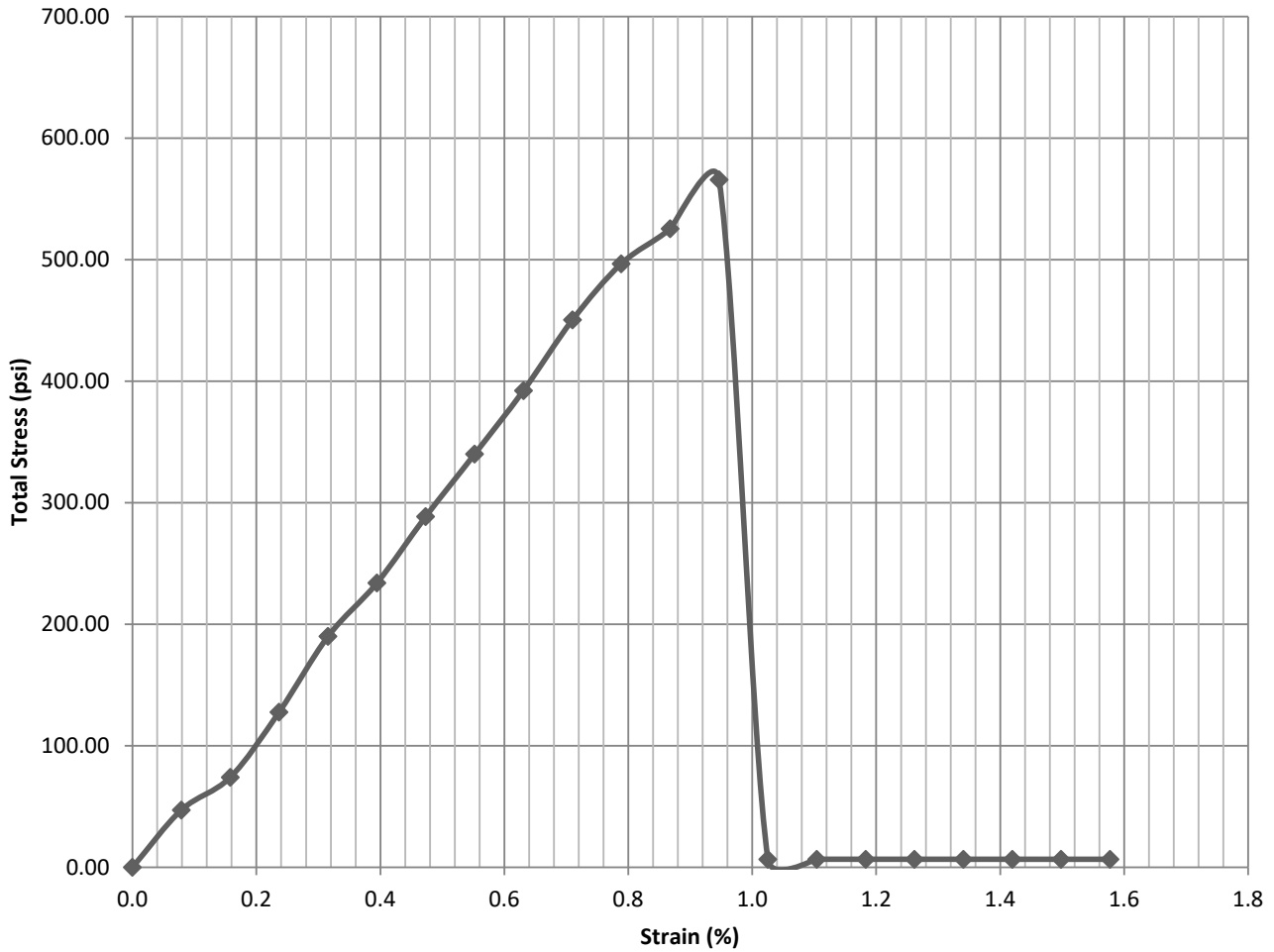
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0684
Sample Location:	B-30 / NQ-2	Depth of Sample:	54.5' - 54.8'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0684



Average Initial Diameter (Do): 1.799 in.
 Average Initial Height (Lo): 3.804 in.
 Average Initial Area (Ao): 2.542 in²
 In-Situ Unit Weight: 116.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 9.67 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.651 lbs.
 L/D Ratio: 2.115

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-30 / NQ-3
 Depth/Elevation 57.7' - 58.1'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 565 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



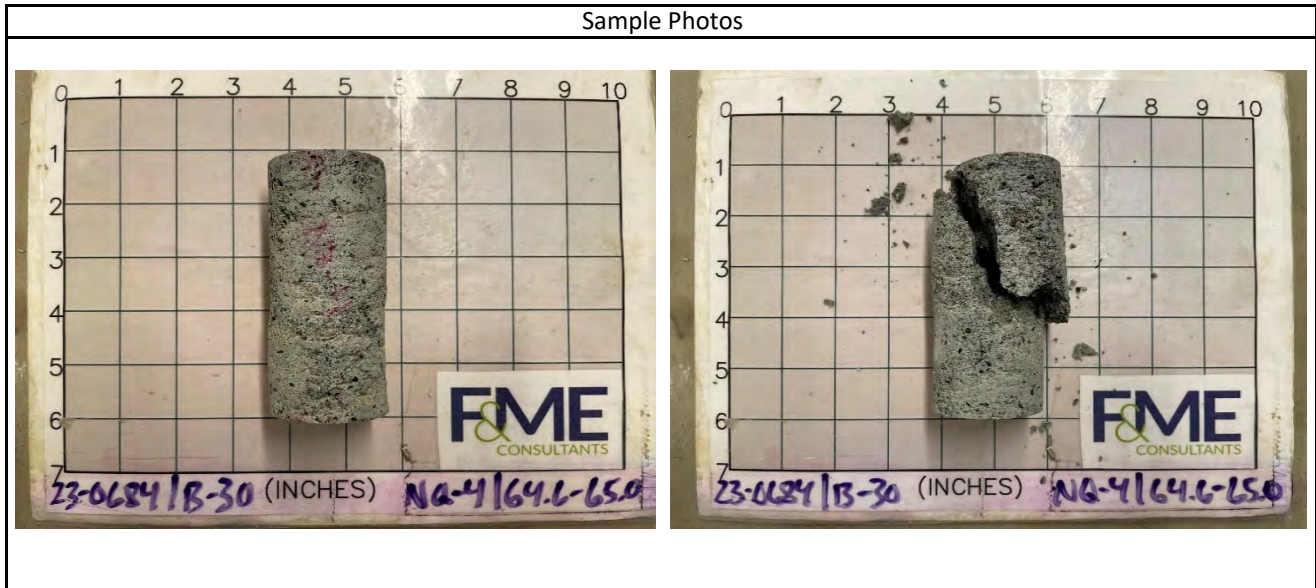
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0684
Sample Location:	B-30 / NQ-3	Depth of Sample:	57.7' - 58.1'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.06	Reviewed By	WJG
Boring	B-30	Unit Weight (pcf)	144.3	Core Size	NQ
Sample No.	NQ-4 / 23-0684	L/D Ratio	2.18	Recovery	95%
Depth	64.6' - 65.0'	Load Rate (psi/sec)	10	RQD	53%
Description	Gray/White/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	Sample Preload Range					
30%	-770	115	1,913	700	1.82	0.15
40%	-1004	171	2,544	931	1.85	0.17
50%	-1258	242	3,197	1,170	1.86	0.19
60%	-1557	414	3,849	1,409	1.81	0.27
70%	-1812	611	4,483	1,641	1.81	0.34
80%	-2129	880	5,065	1,854	1.74	0.41
90%	-2573	1185	5,705	2,088	1.62	0.46
100%	-3508	2311	6,336	2,319		

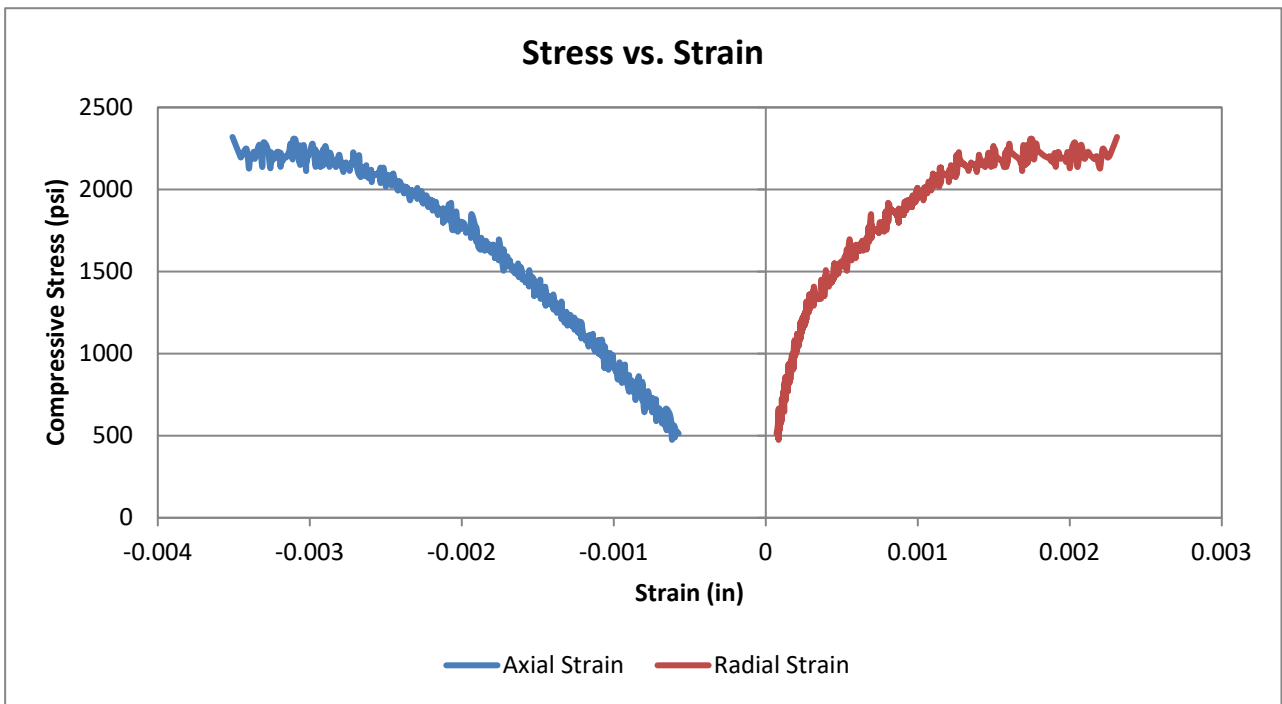
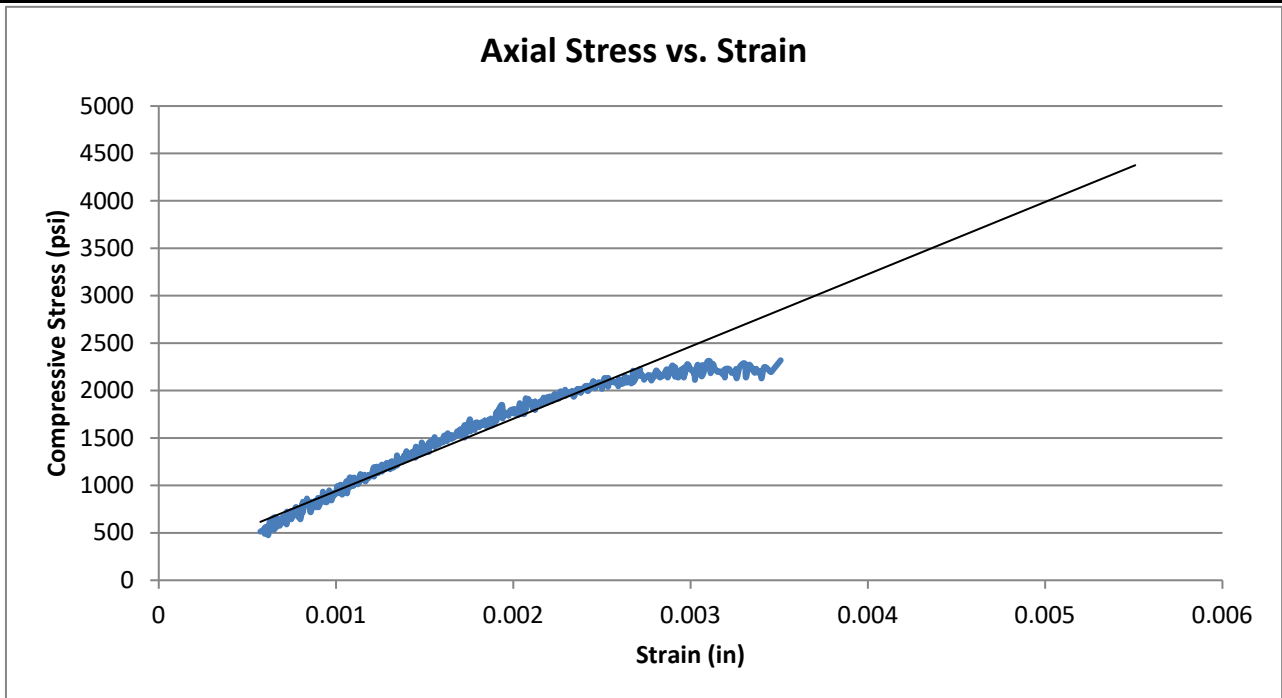


Test Results			
Unconfined Compressive Strength (psi)	2,320	Elastic Modulus (psi)	1.84E+06
		Poisson's Ratio in Elastic Range	0.25
Comments	Elastic range was taken as between 0.001 and 0.002 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

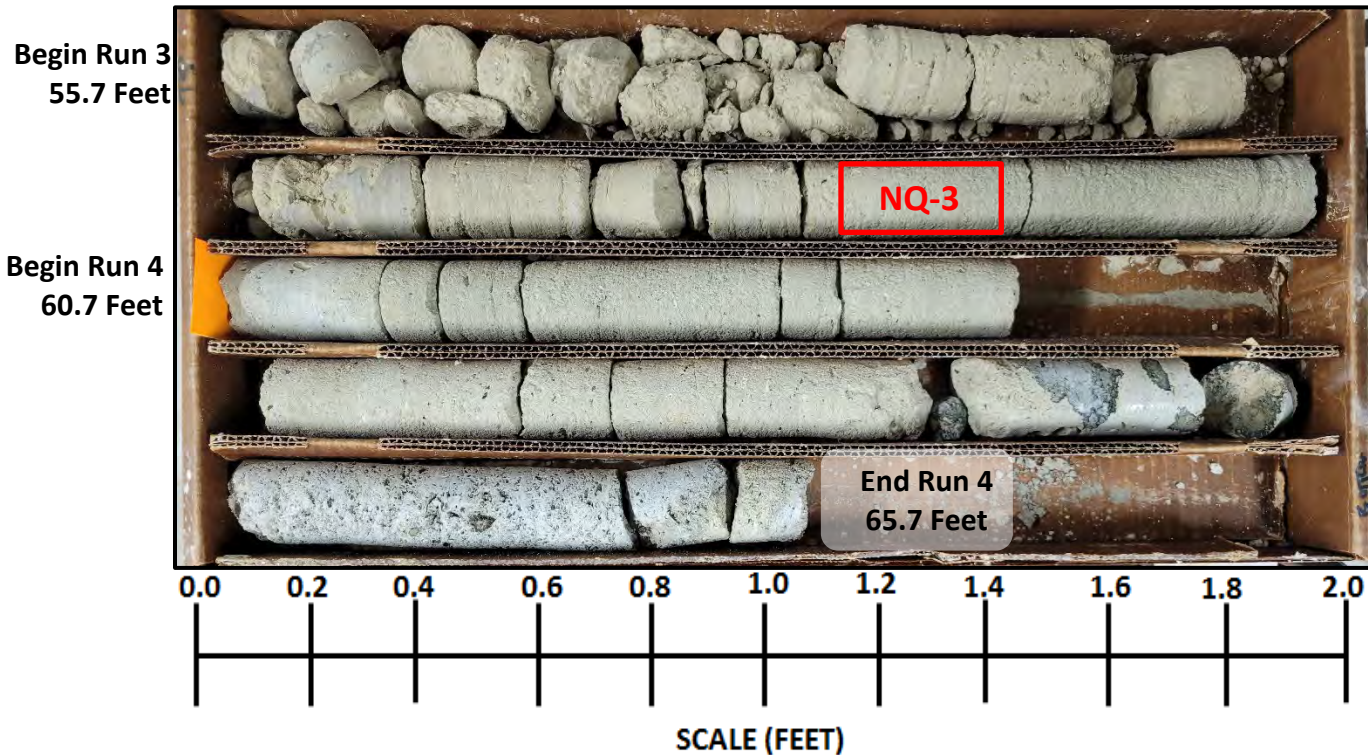


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

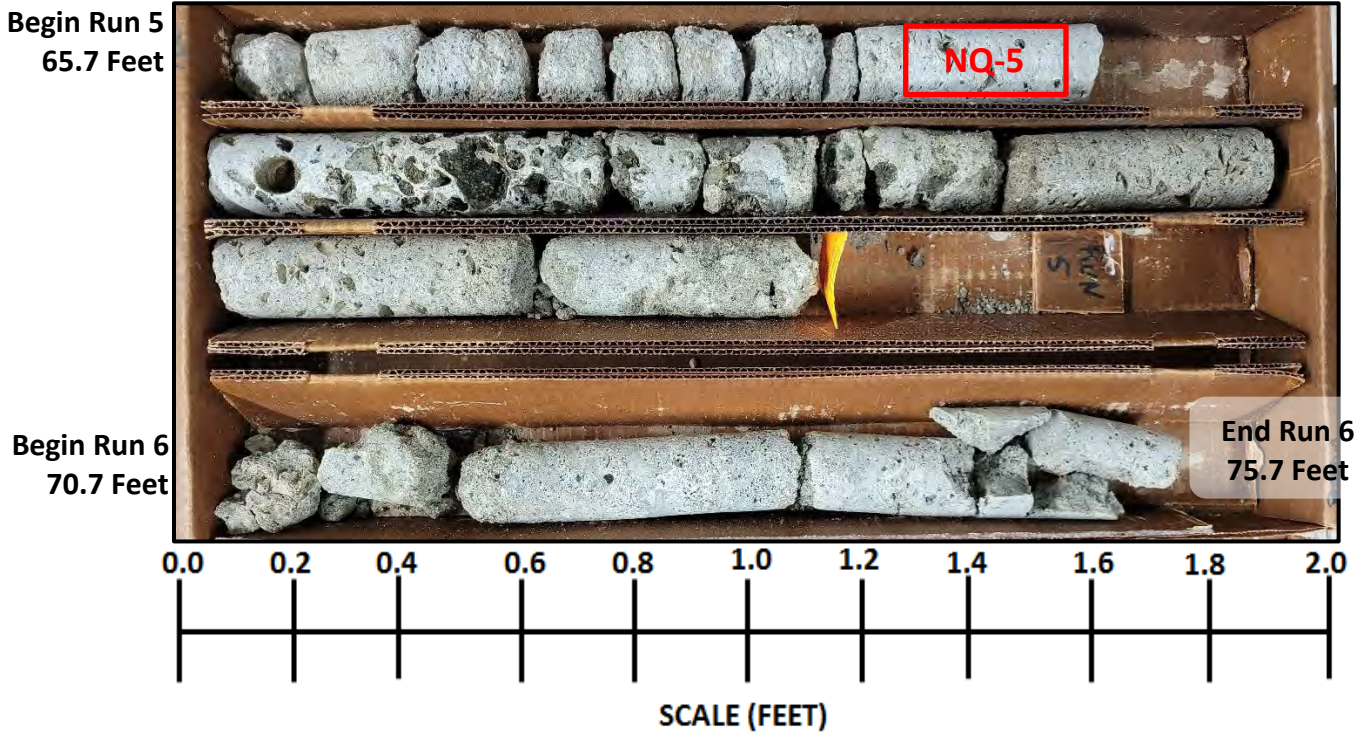
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.06	Reviewed By	WJG
Boring	B-30	Unit Weight (pcf)	144.3	Core Size	NQ
Sample No.	NQ-4 / 23-0684	L/D Ratio	2.18	Recovery	95%
Depth	64.6' - 65.0'	Load Rate (psi/sec)	10	RQD	53%
Description	Gray/White/Black Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-31



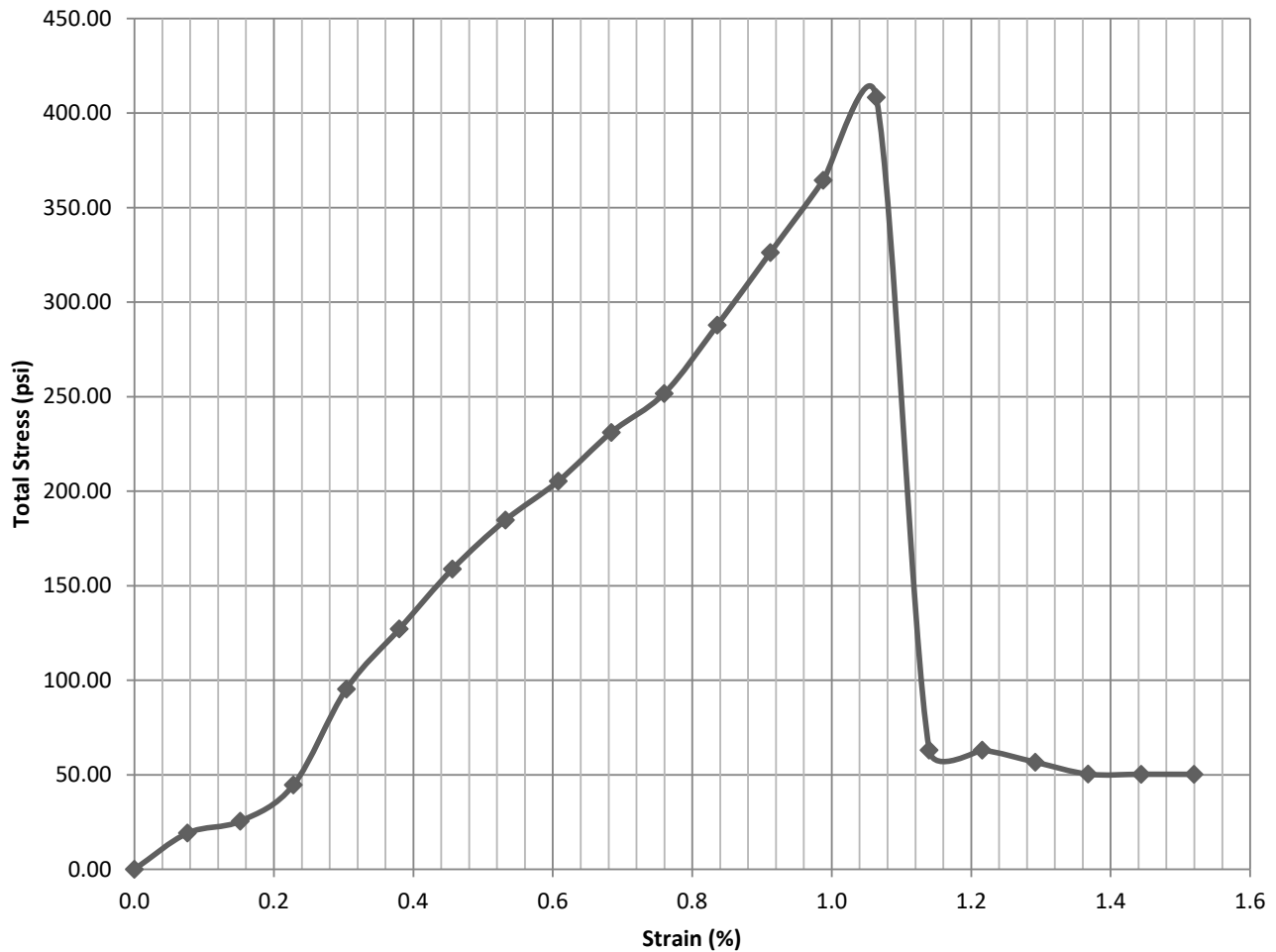
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-31



Run 7: %REC=0, %RQD=0

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1262



Average Initial Diameter (Do): 1.849 in.
 Average Initial Height (Lo): 3.948 in.
 Average Initial Area (Ao): 2.685 in²
 In-Situ Unit Weight: 122.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.60 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.748 lbs.
 L/D Ratio: 2.135

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-31 / NQ-2
 Depth/Elevation 51.9' - 52.2'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 410 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



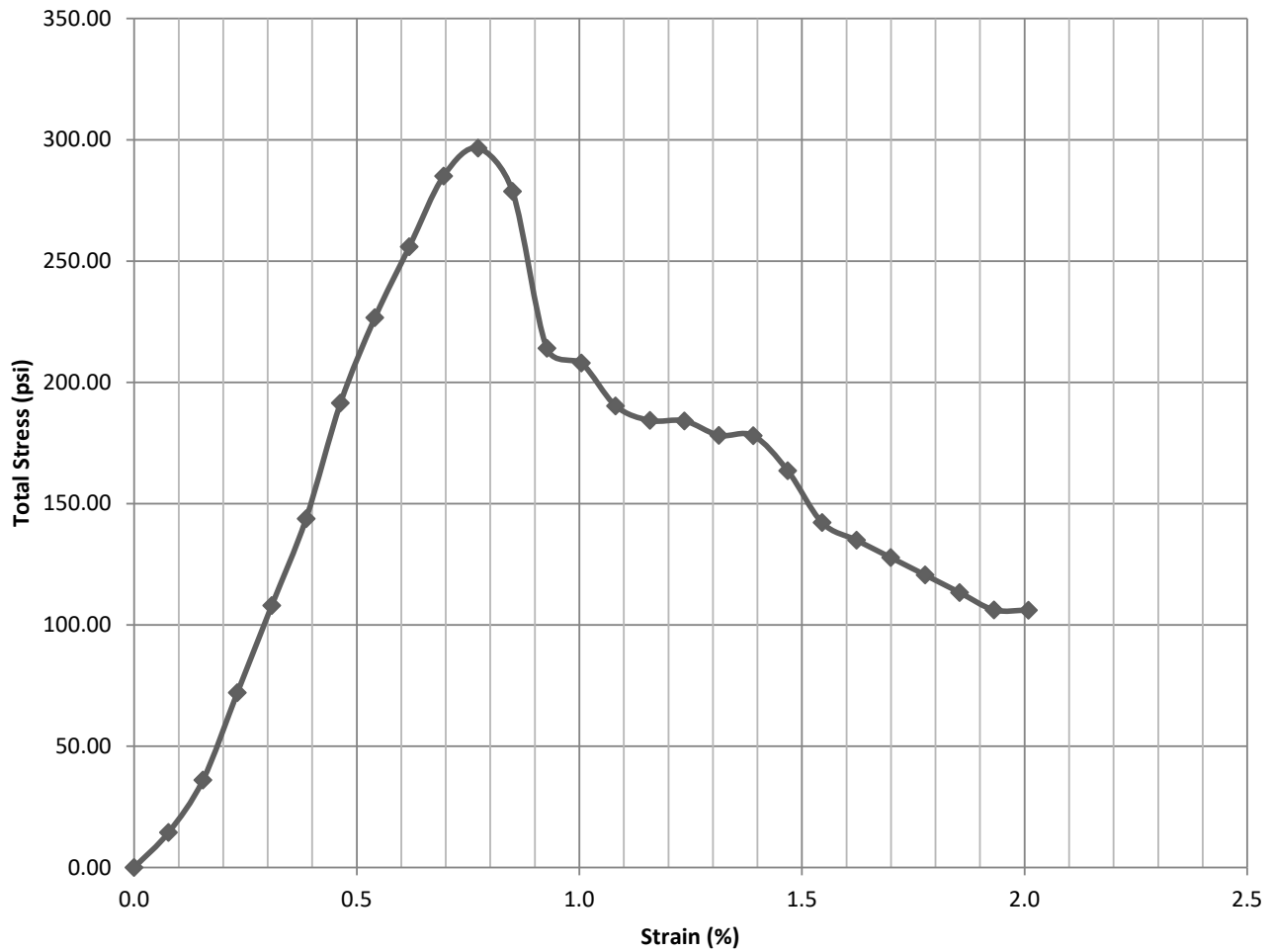
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1262
Sample Location:	B-31 / NQ-2	Depth of Sample:	51.9' - 52.2'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1262



Average Initial Diameter (Do): 1.738 in.
 Average Initial Height (Lo): 3.883 in.
 Average Initial Area (Ao): 2.372 in²
 In-Situ Unit Weight: 119.1 pcf
 Failure Mode: Plastic Failure

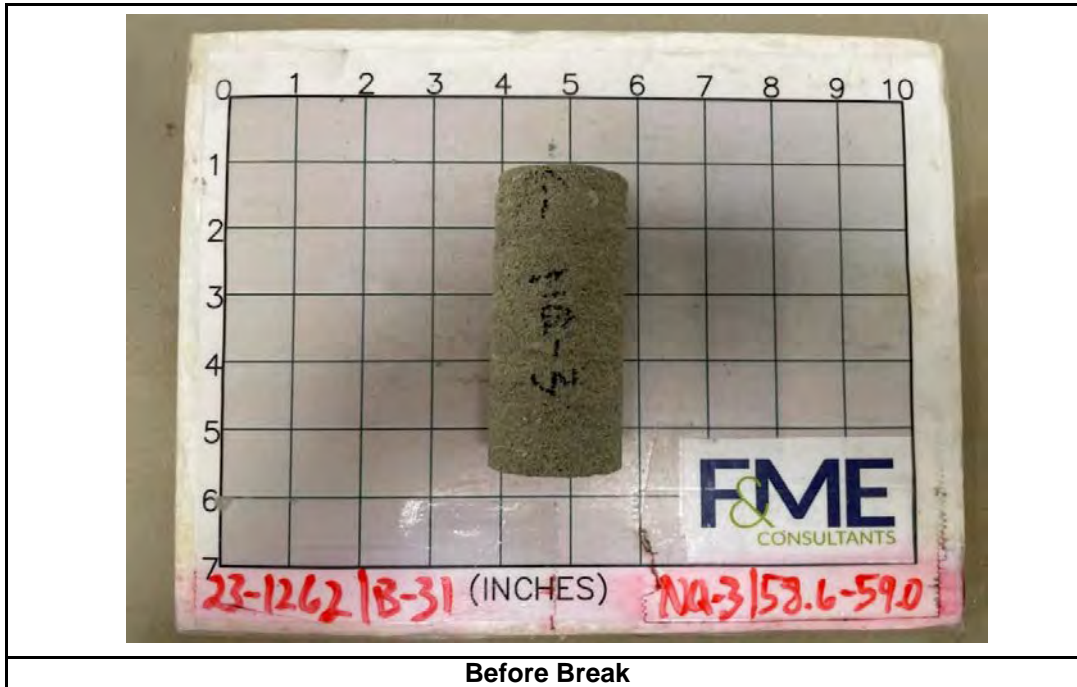
Sample Volume: 9.21 in³
 Sample Volume: 0.005 ft³
 Sample Weight: 0.635 lbs.
 L/D Ratio: 2.234

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-31 / NQ-3
 Depth/Elevation 58.6' - 59.0'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 300 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



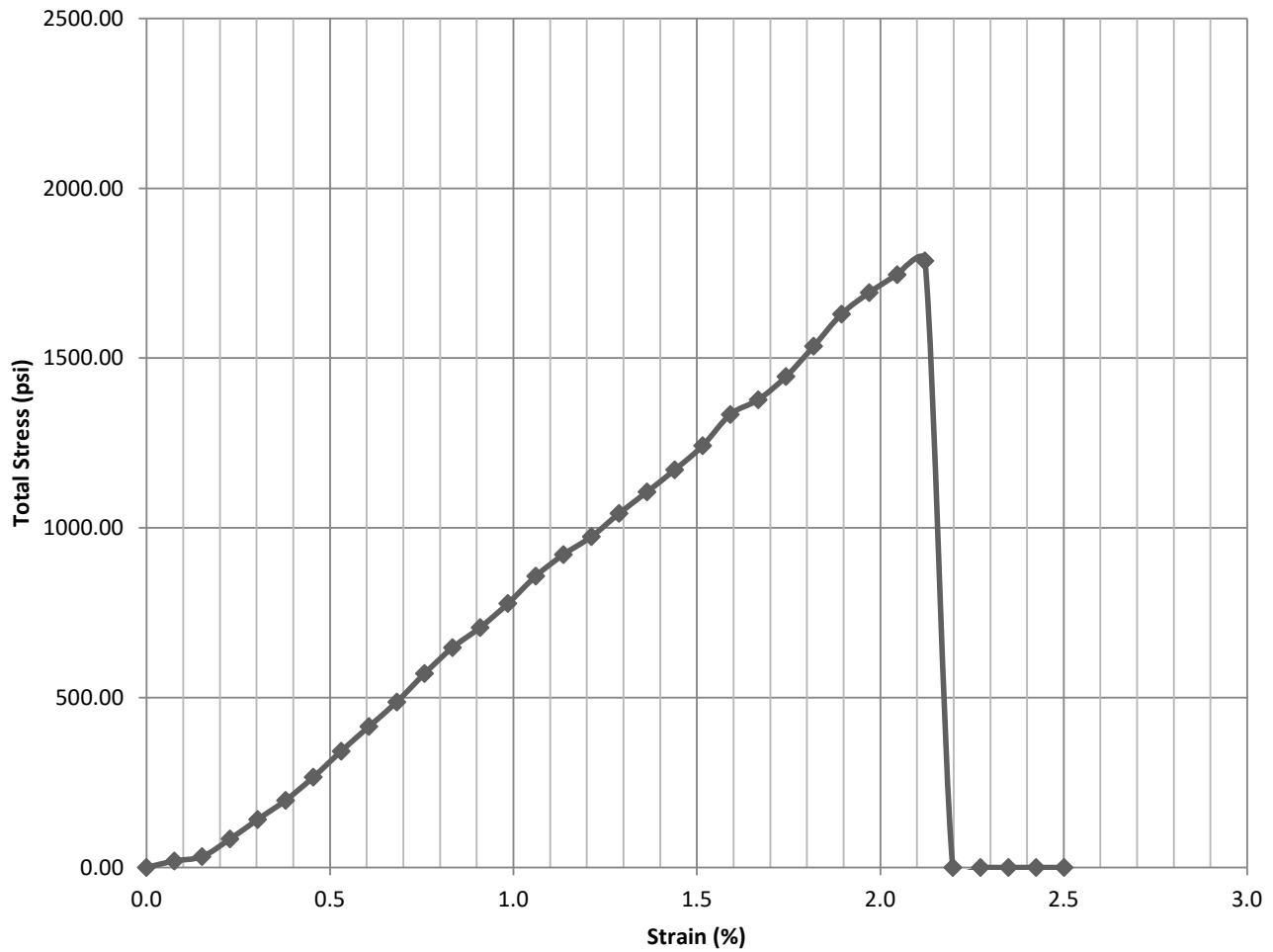
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1262
Sample Location:	B-31 / NQ-3	Depth of Sample:	58.6' - 59.0'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1262



Average Initial Diameter (Do): 1.838 in.
 Average Initial Height (Lo): 3.959 in.
 Average Initial Area (Ao): 2.653 in²
 In-Situ Unit Weight: 136.5 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.50 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.830 lbs.
 L/D Ratio: 2.154

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/10/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-31 / NQ-4
 Depth/Elevation 64.2' - 64.5'

Sample Type : Soil Core
 Target Strain Rate : 0.60% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 1785 \text{ psi}$ $\epsilon_{ULT} = 2.1\%$



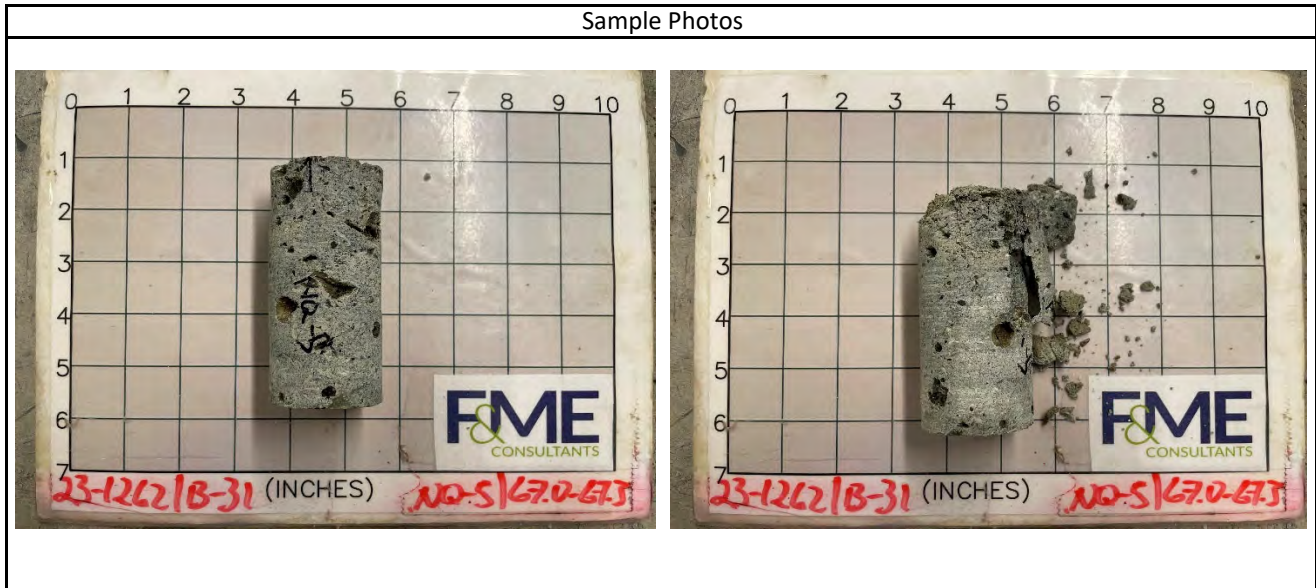
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1262
Sample Location:	B-31 / NQ-4	Depth of Sample:	64.2' - 64.5'
Tested By:	W. Pitts	Date Tested:	5/10/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.86	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.916	Reviewed By	WJG
Boring	B-31	Unit Weight (pcf)	150.8	Core Size	NQ
Sample No.	NQ-5 / 23-1262	L/D Ratio	2.11	Recovery	93%
Depth	67.0' - 67.3'	Load Rate (psi/sec)	10	RQD	71%
Description	Gray/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-181	50	1,221	449	4.97	0.28
30%	-242	95	1,848	680	5.63	0.39
40%	-318	142	2,484	914	5.75	0.45
50%	-412	198	3,073	1,131	5.49	0.48
60%	-510	248	3,695	1,360	5.33	0.49
70%	-619	284	4,307	1,585	5.12	0.46
80%	-709	307	4,930	1,814	5.12	0.43
90%	-840	337	5,536	2,037	4.85	0.40
100%	-962	535	6,158	2,266		

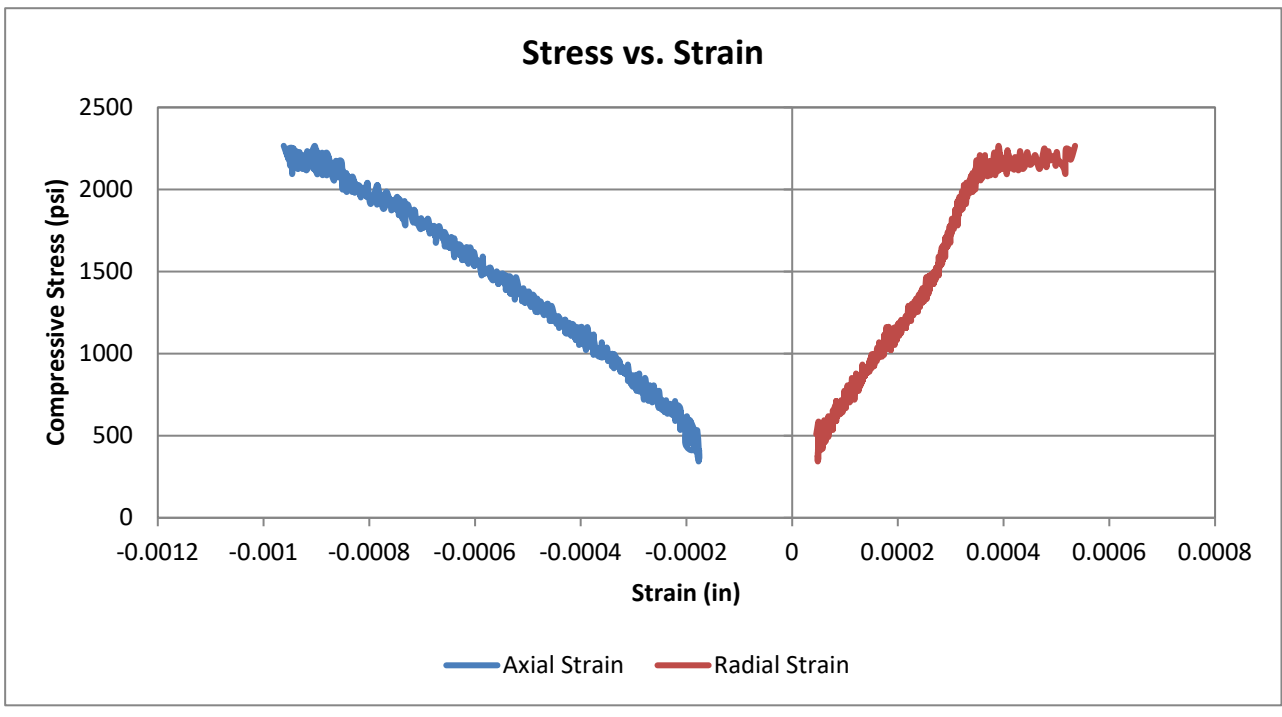
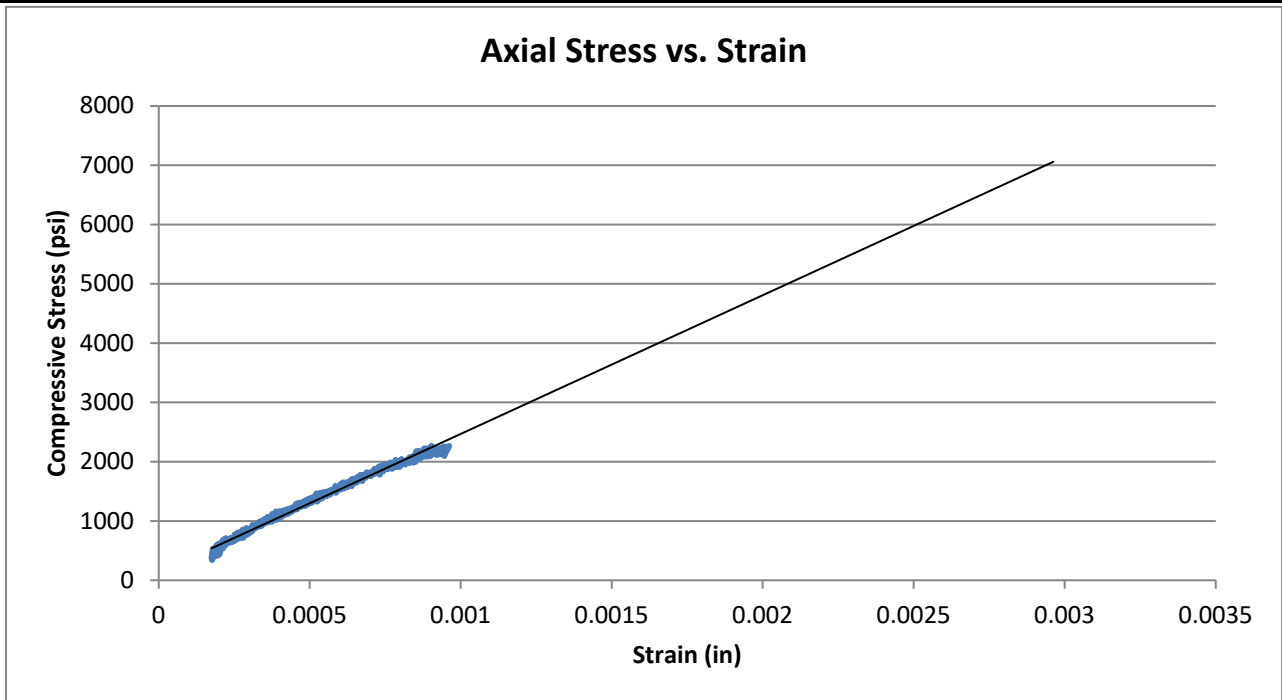


Test Results			
Unconfined Compressive Strength (psi)	2,270	Elastic Modulus (psi)	5.23E+06
		Poisson's Ratio in Elastic Range	0.46
Comments	Elastic range was taken as between 0.0004 and 0.0008 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range. The measured Poisson's Ratio is higher than typically observed values and should be used with care.		

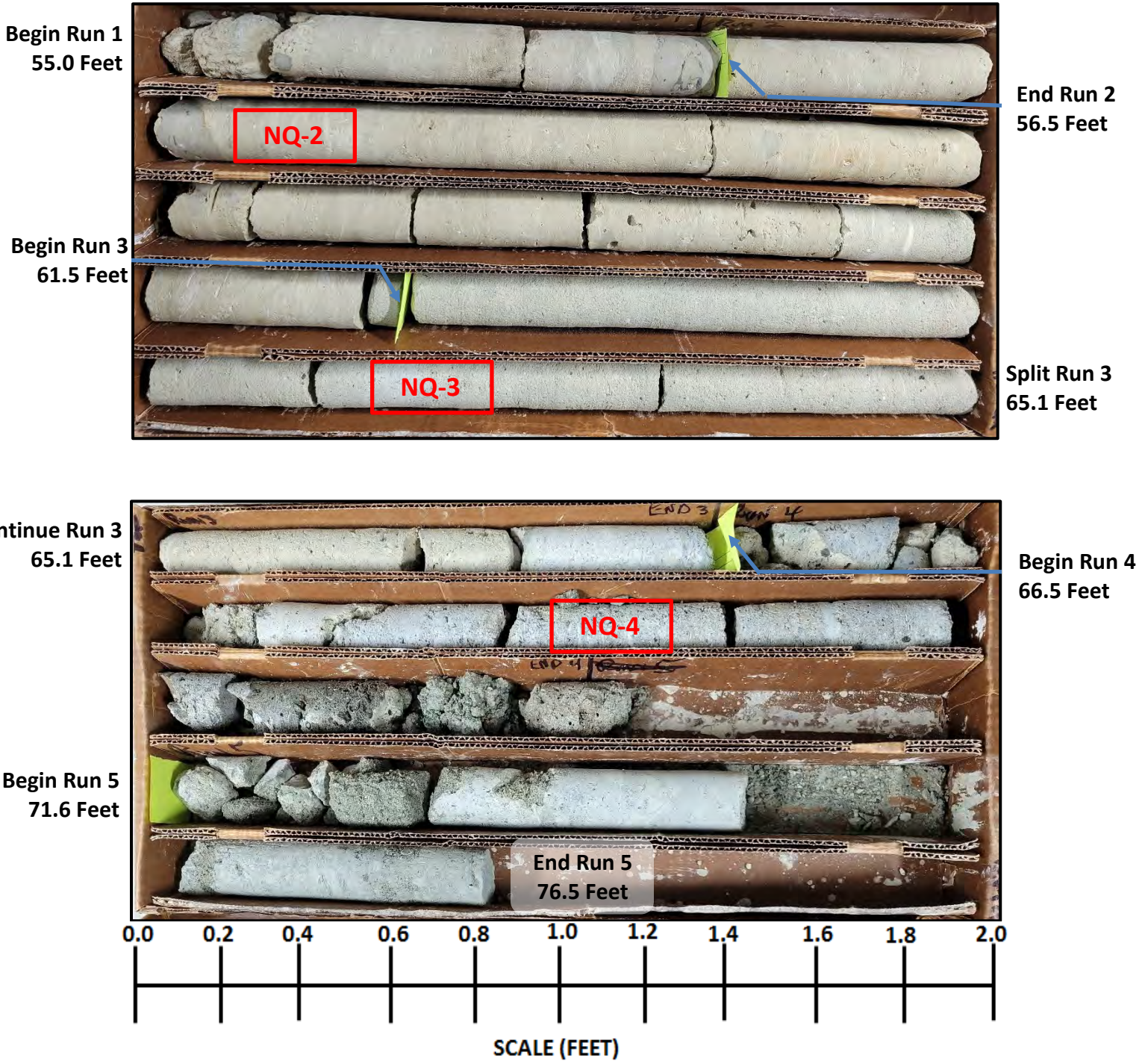


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.86	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.916	Reviewed By	WJG
Boring	B-31	Unit Weight (pcf)	150.8	Core Size	NQ
Sample No.	NQ-5 / 23-1262	L/D Ratio	2.11	Recovery	93%
Depth	67.0' - 67.3'	Load Rate (psi/sec)	10	RQD	71%
Description	Gray/Black Limestone				

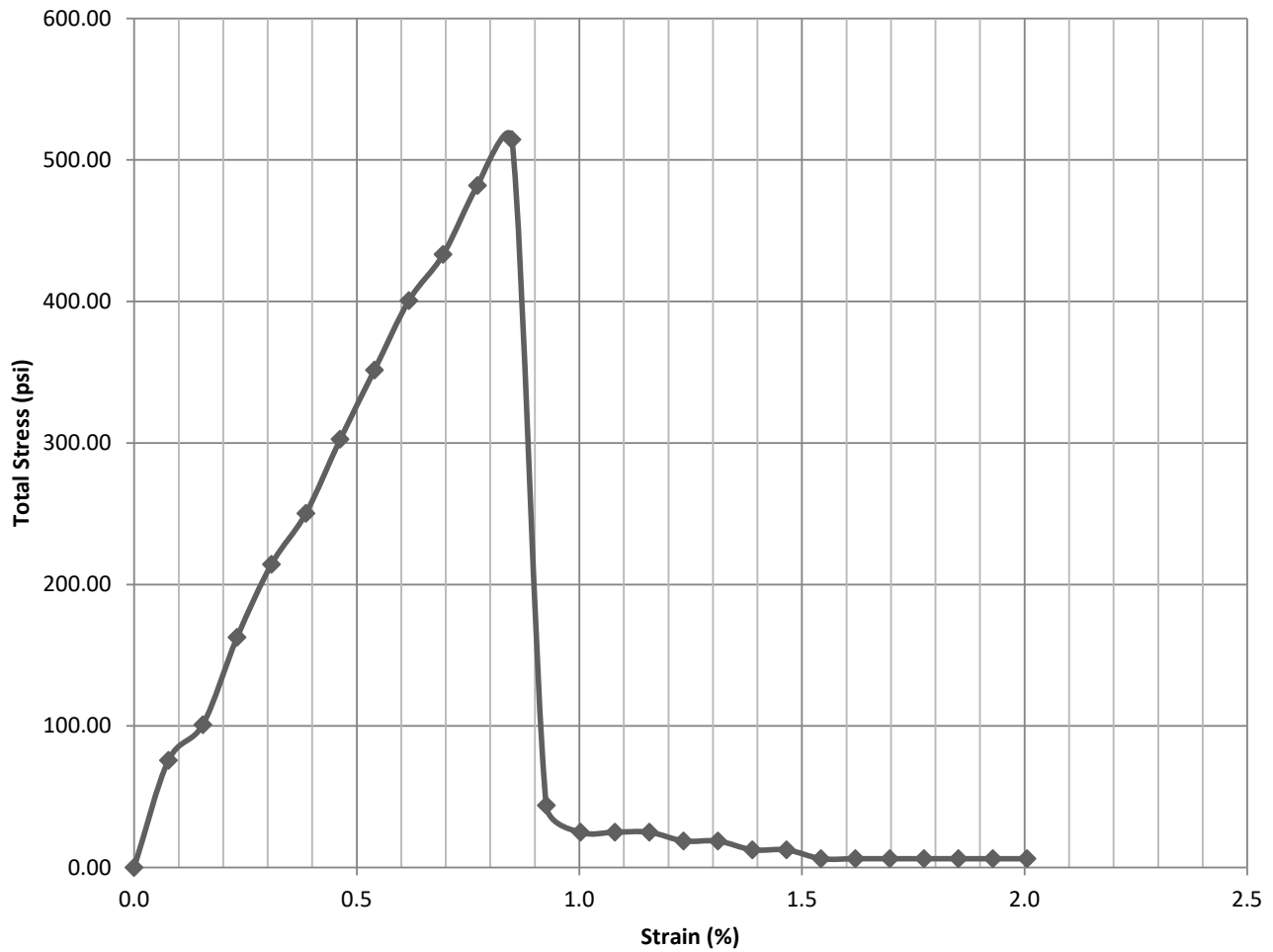


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-32



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0685



Average Initial Diameter (Do): 1.858 in.
 Average Initial Height (Lo): 3.889 in.
 Average Initial Area (Ao): 2.711 in²
 In-Situ Unit Weight: 109.4 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.54 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.668 lbs.
 L/D Ratio: 2.093

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/29/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-32 / NQ-2
 Depth/Elevation 57.3' - 57.7'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 515 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



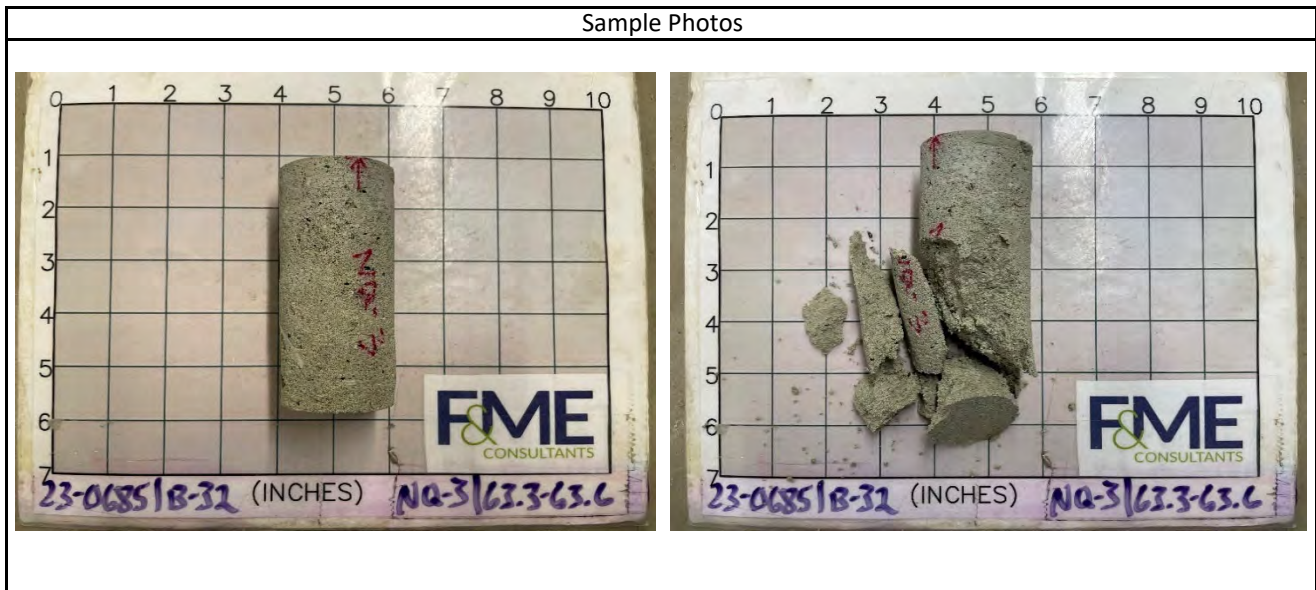
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0685
Sample Location:	B-32 / NQ-2	Depth of Sample:	57.3' - 57.7'
Tested By:	W. Pitts	Date Tested:	3/29/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.846	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.905	Reviewed By	WJG
Boring	B-32	Unit Weight (pcf)	132.4	Core Size	NQ
Sample No.	NQ-3 / 23-0685A	L/D Ratio	2.12	Recovery	95%
Depth	63.3' - 63.6'	Load Rate (psi/sec)	10	RQD	90%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%	-939	136	1,062	397	0.85	0.14
60%	-1059	167	1,237	462	0.87	0.16
70%	-1256	218	1,432	535	0.85	0.17
80%	-1611	330	1,648	616	0.76	0.20
90%	-1720	387	1,873	700	0.81	0.23
100%	-1945	463	2,063	771		

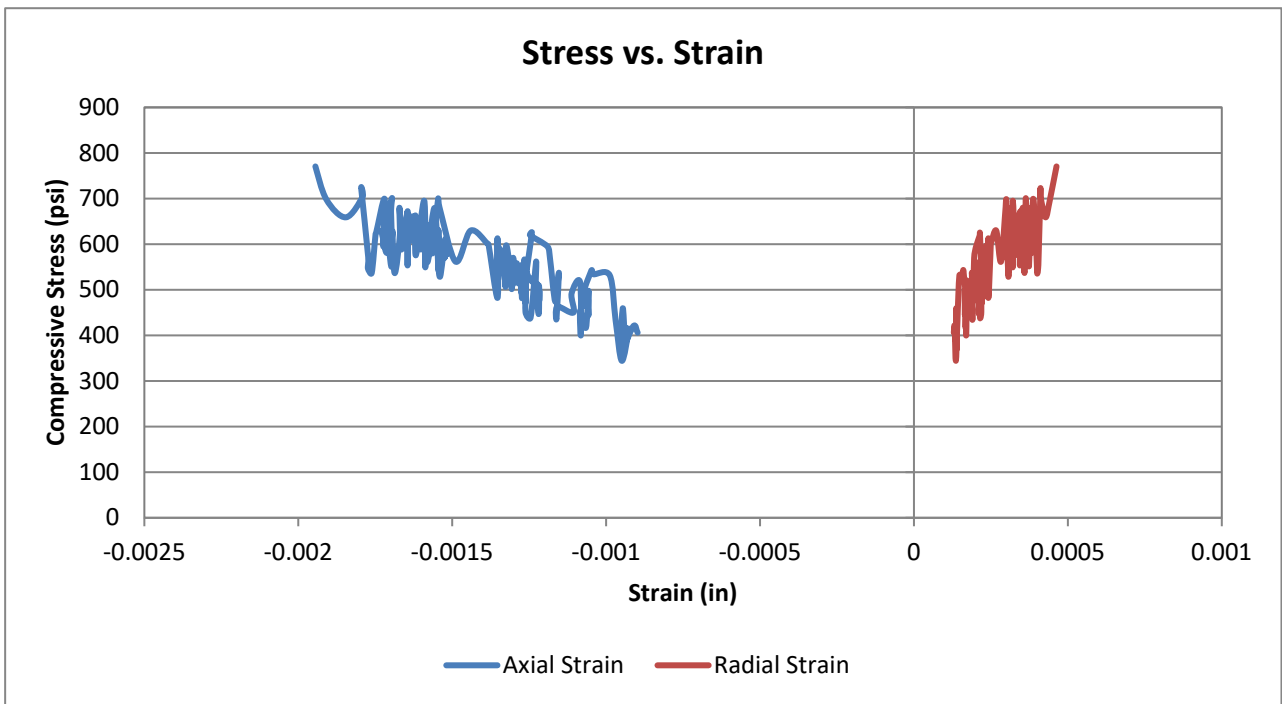
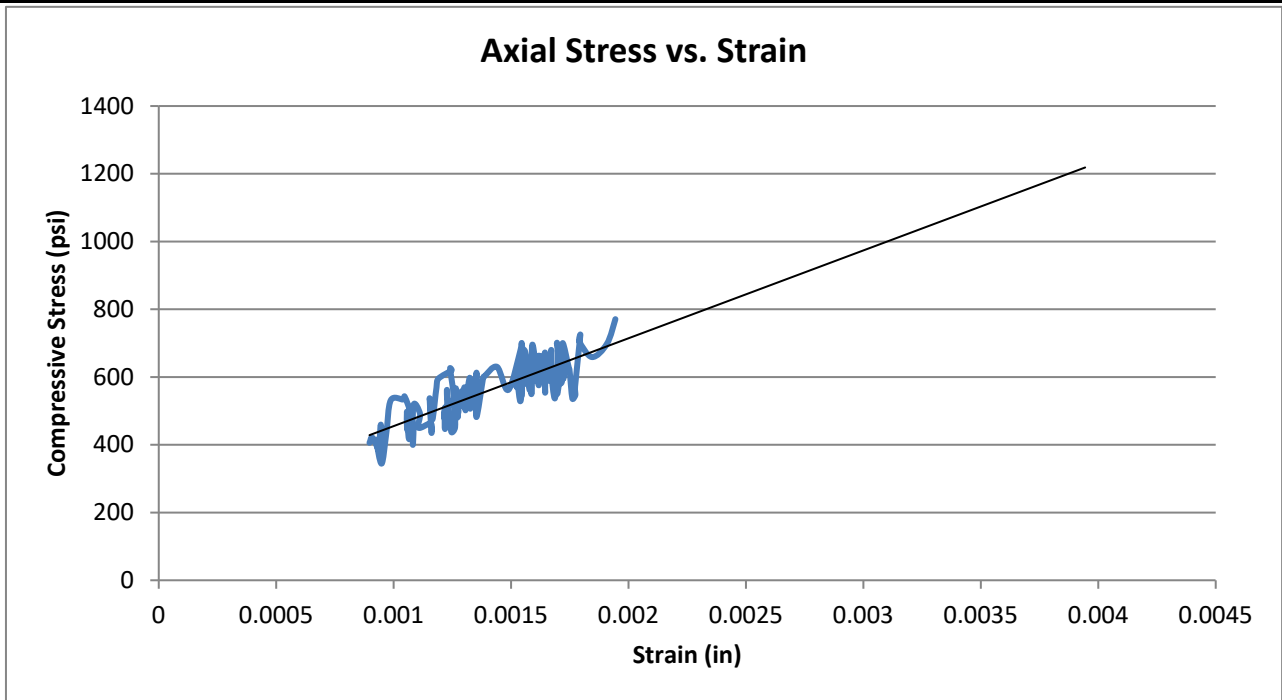


Test Results			
Unconfined Compressive Strength (psi)	770	Elastic Modulus (psi)	7.99E+05
		Poisson's Ratio in Elastic Range	0.19
Comments	Elastic range was taken as between 0.001 and 0.0018 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



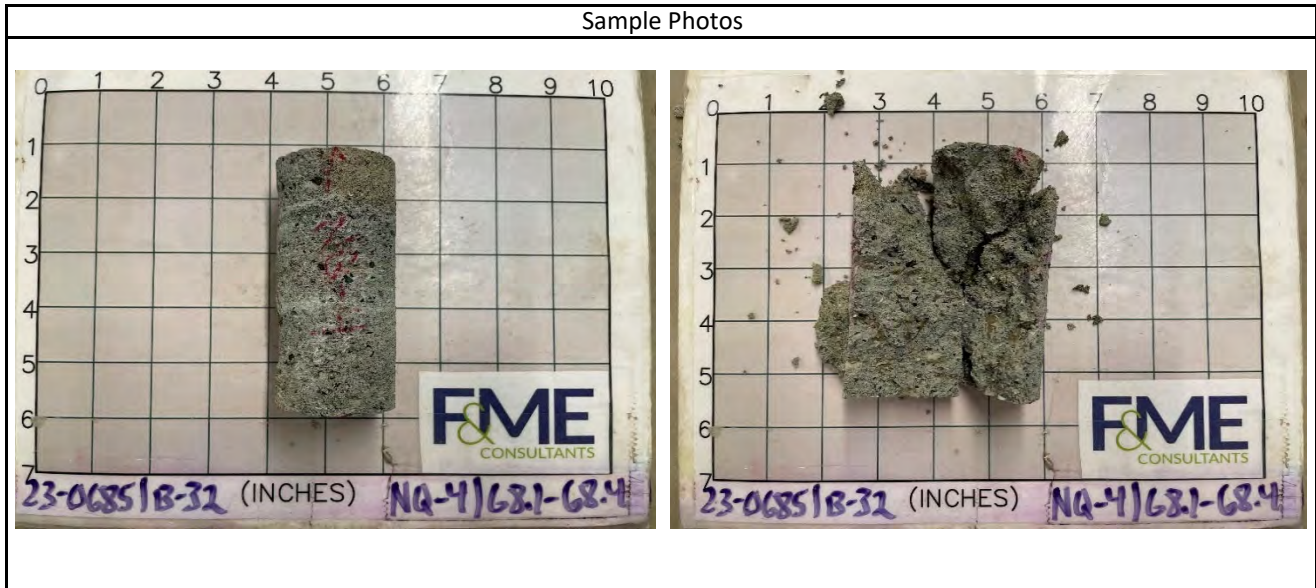
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.846	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.905	Reviewed By	WJG
Boring	B-32	Unit Weight (pcf)	132.4	Core Size	NQ
Sample No.	NQ-3 / 23-0685A	L/D Ratio	2.12	Recovery	95%
Depth	63.3' - 63.6'	Load Rate (psi/sec)	10	RQD	90%
Description	Brown/Gray Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.844	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.907	Reviewed By	WJG
Boring	B-32	Unit Weight (pcf)	126.5	Core Size	NQ
Sample No.	NQ-4 / 23-0685	L/D Ratio	2.12	Recovery	68%
Depth	68.1' - 68.4'	Load Rate (psi/sec)	10	RQD	35%
Description	Brown/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%						
60%	-499	467	875	328	1.31	0.94
70%	-438	687	1,047	392	1.79	1.57
80%	952	1956	1,169	438	0.92	2.06
90%	442	3460	1,344	503	2.28	7.82
100%	168	4538	1,457	546		

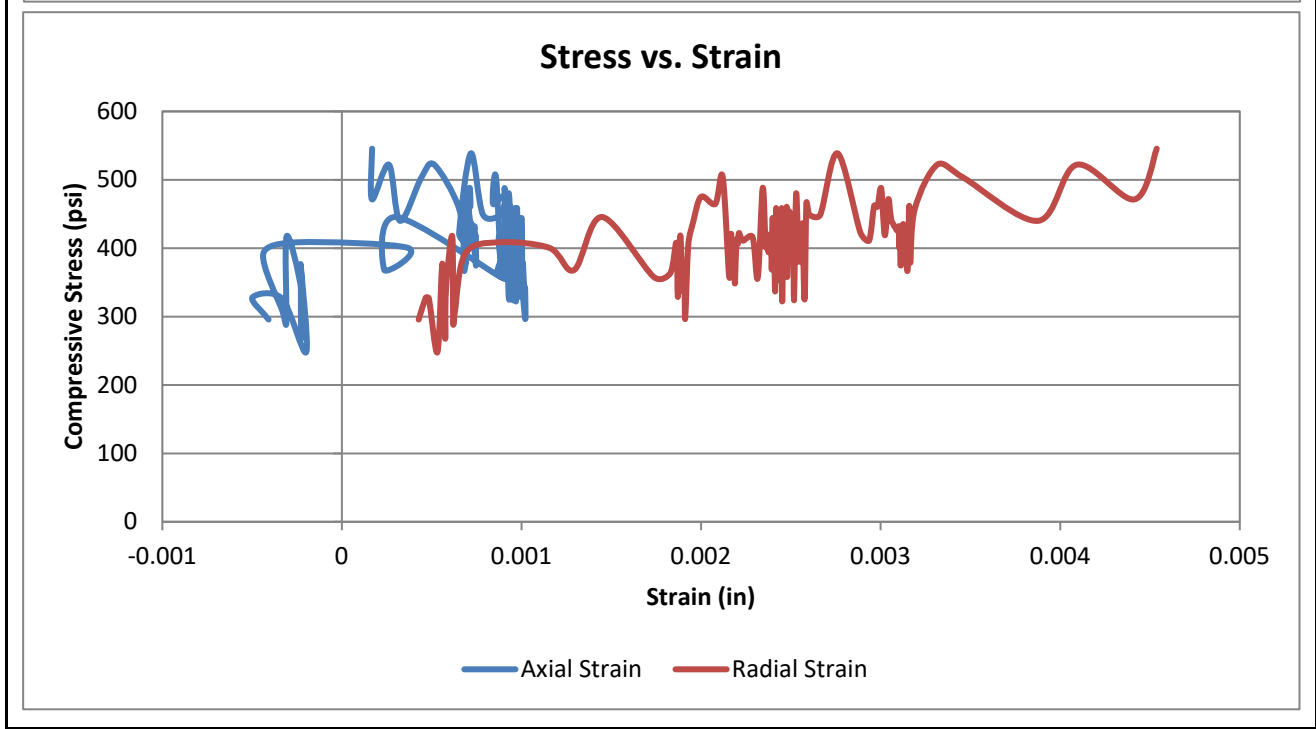
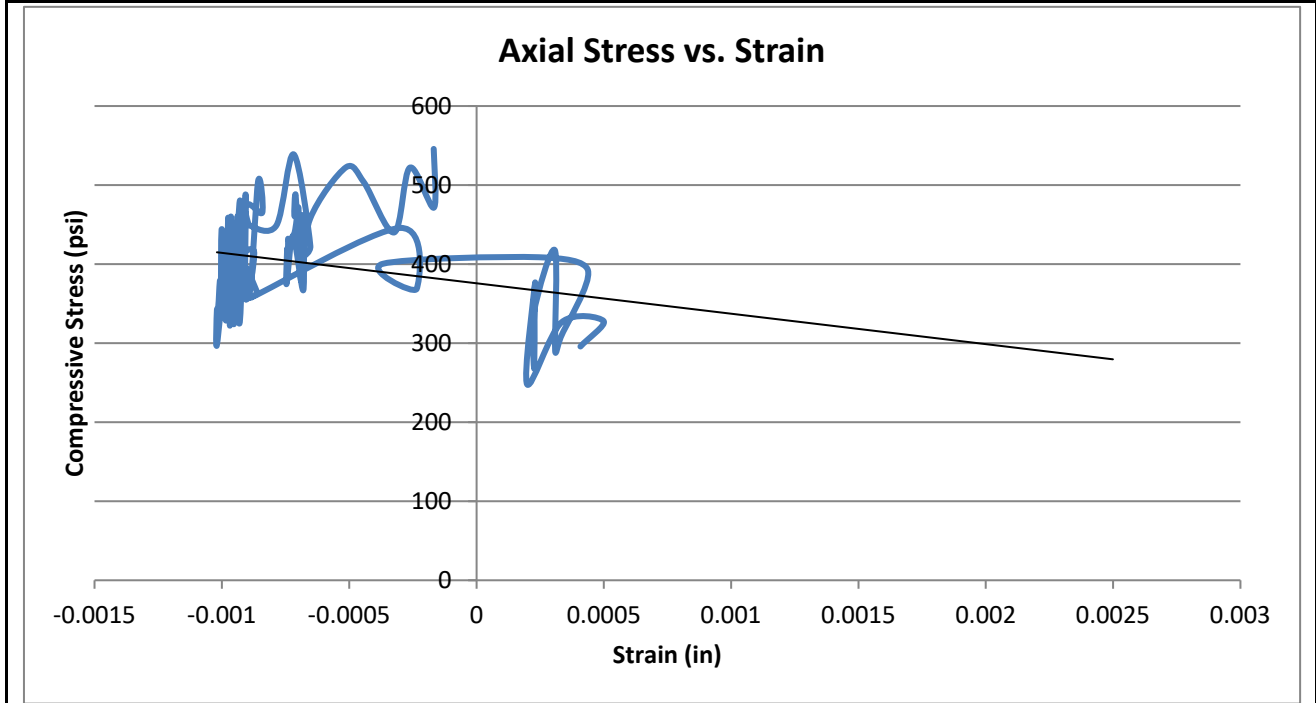


Test Results			
Unconfined Compressive Strength (psi)	550	Elastic Modulus (psi)	N/A
		Poisson's Ratio in Elastic Range	N/A
Comments	Stress-Strain behavior for this sample is not reasonable. As such, the test results could not be used to determine an elastic modulus or Poisson's Ratio.		

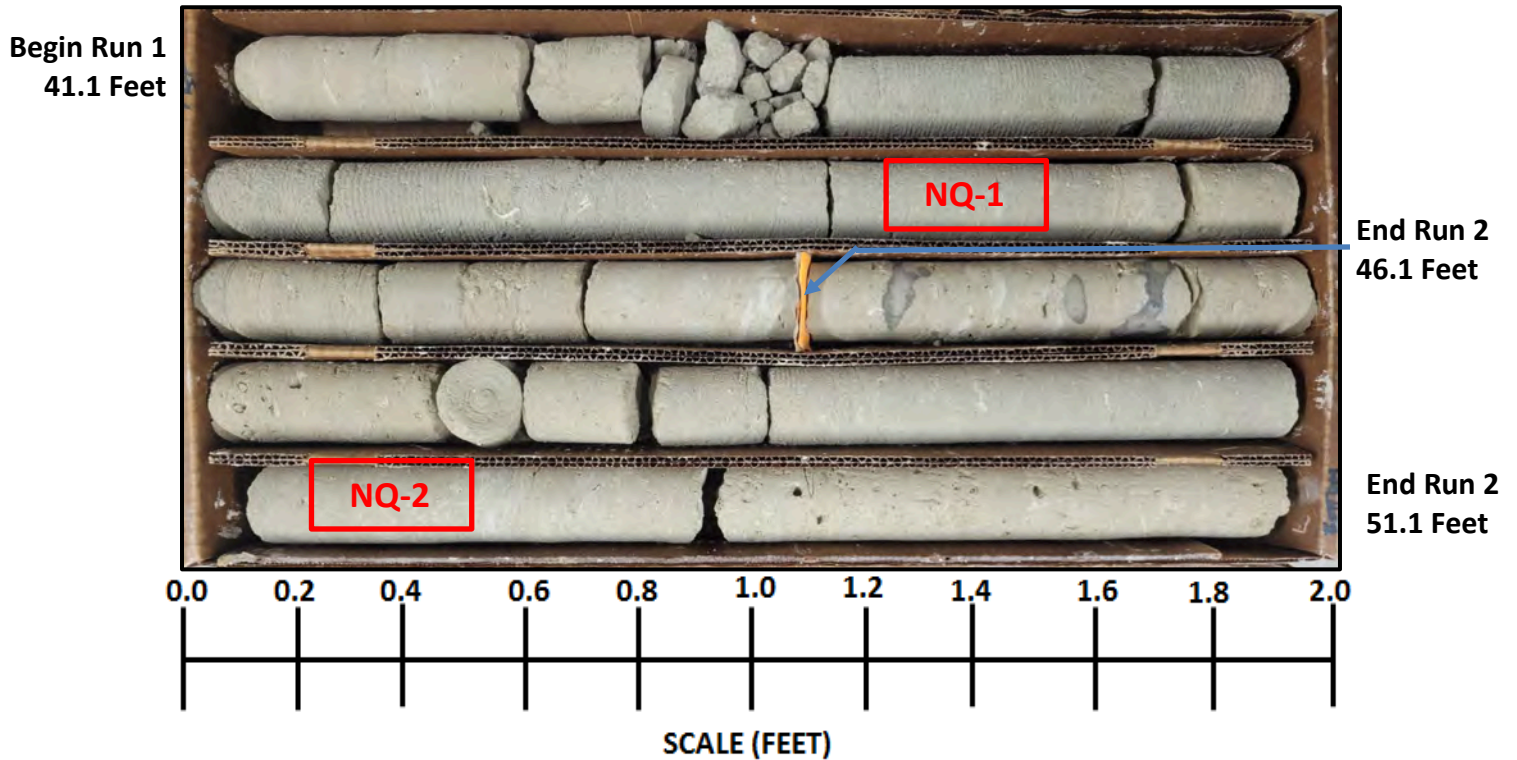


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.844	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.907	Reviewed By	WJG
Boring	B-32	Unit Weight (pcf)	126.5	Core Size	NQ
Sample No.	NQ-4 / 23-0685	L/D Ratio	2.12	Recovery	68%
Depth	68.1' - 68.4'	Load Rate (psi/sec)	10	RQD	35%
Description	Brown/Gray/White Limestone				



I-95 Bridge over Lake Marion DB Prep
CORE PHOTOGRAPHS: B-35



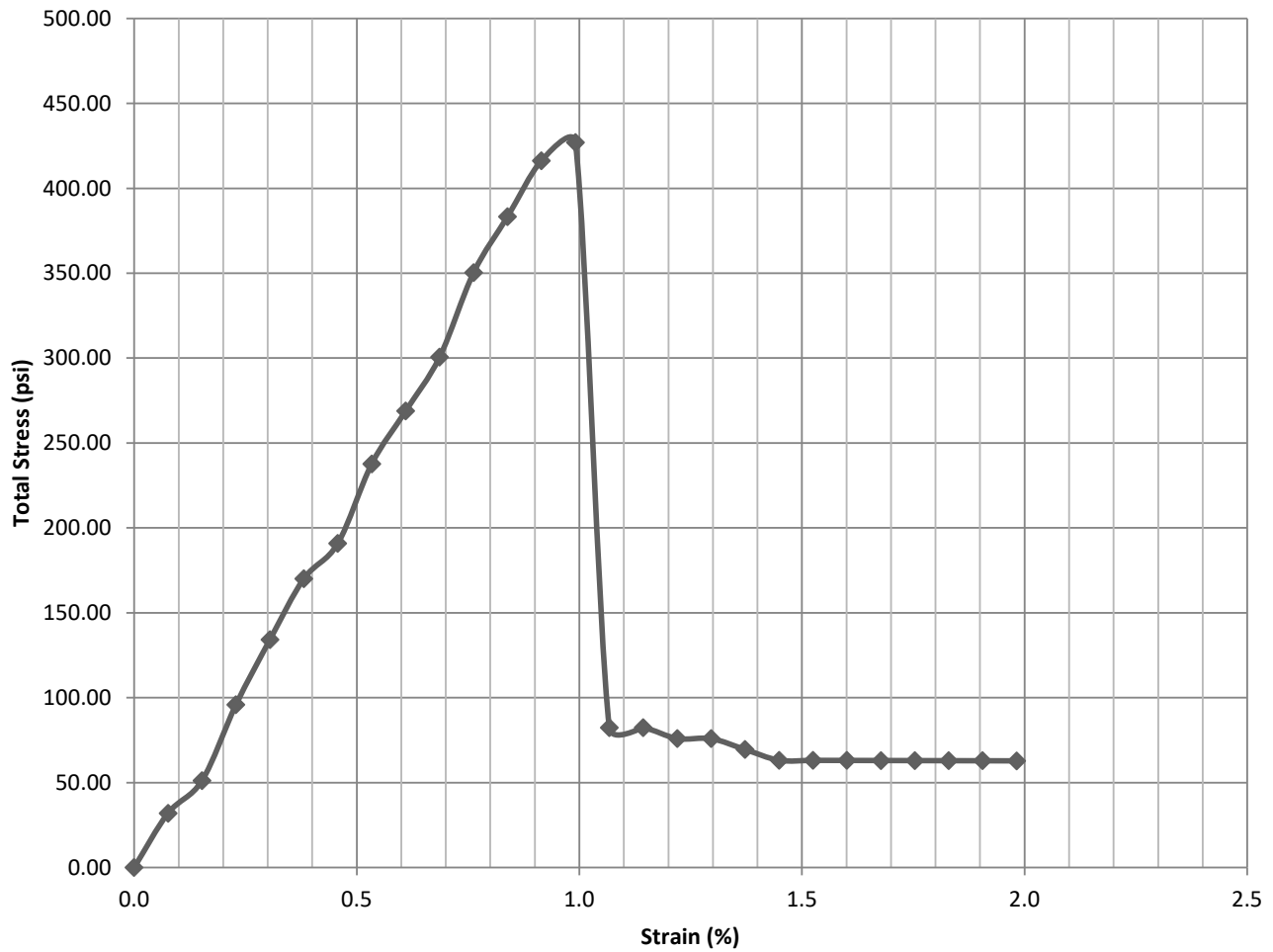
Run 3: %REC=0, %RQD=0

Run 4: %REC=0, %RQD=0

Run 5: %REC=0, %RQD=0

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1162



Average Initial Diameter (Do): 1.845 in.
 Average Initial Height (Lo): 3.935 in.
 Average Initial Area (Ao): 2.674 in²
 In-Situ Unit Weight: 117.6 pcf
 Failure Mode: Plastic Failure

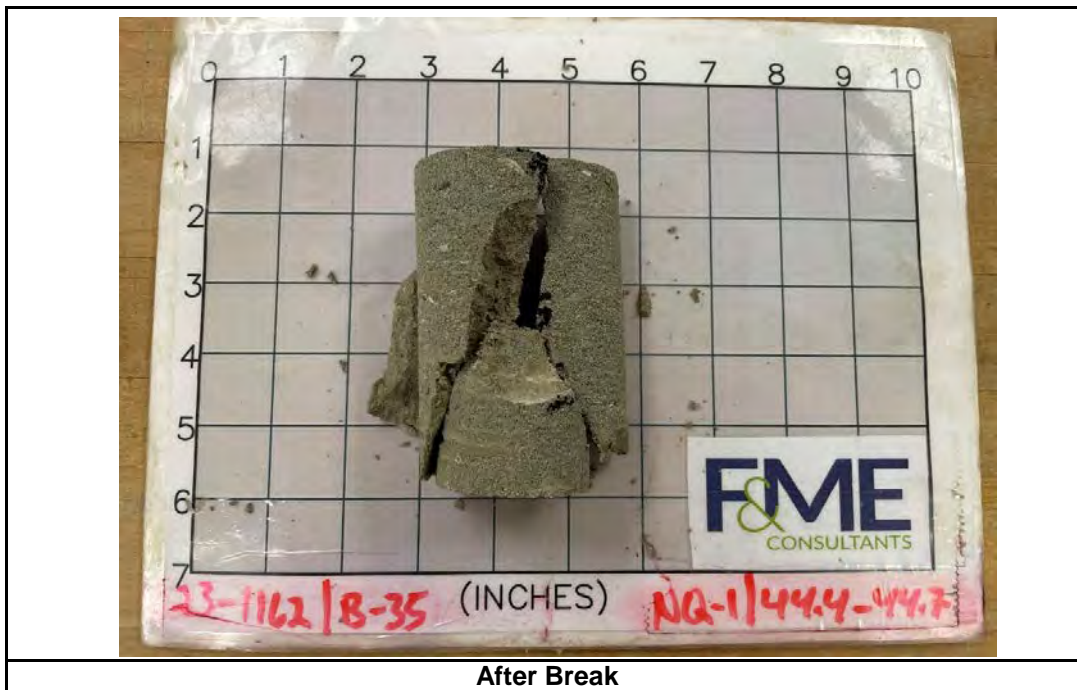
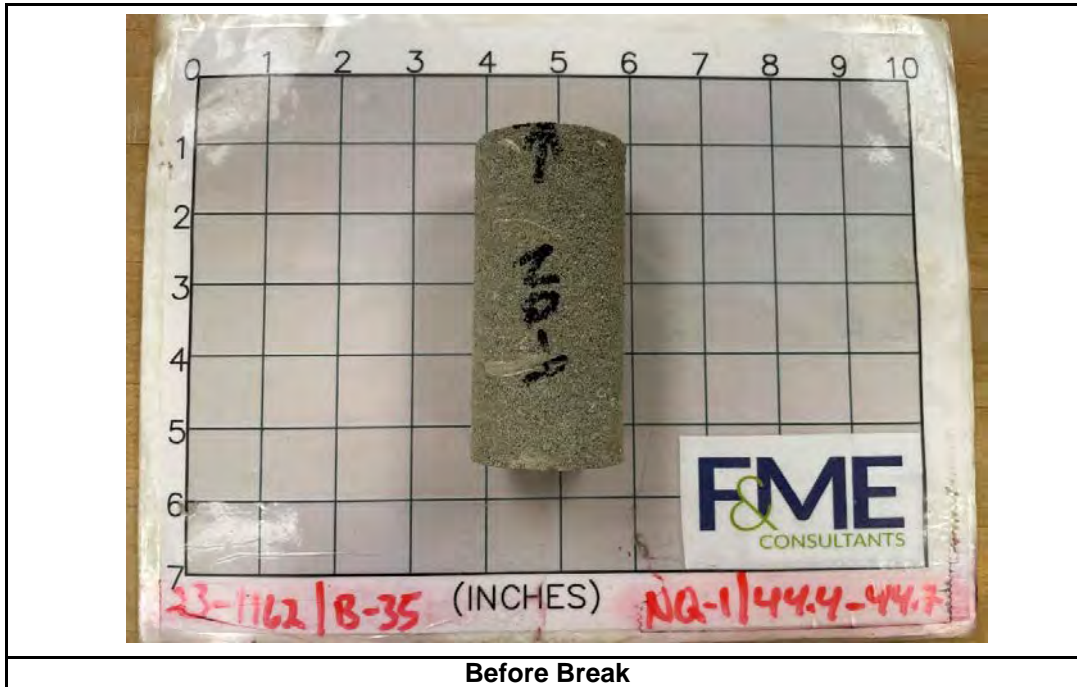
Sample Volume: 10.52 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.716 lbs.
 L/D Ratio: 2.133

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/25/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-35 / NQ-1
 Depth/Elevation 44.4' - 44.7'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 430 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



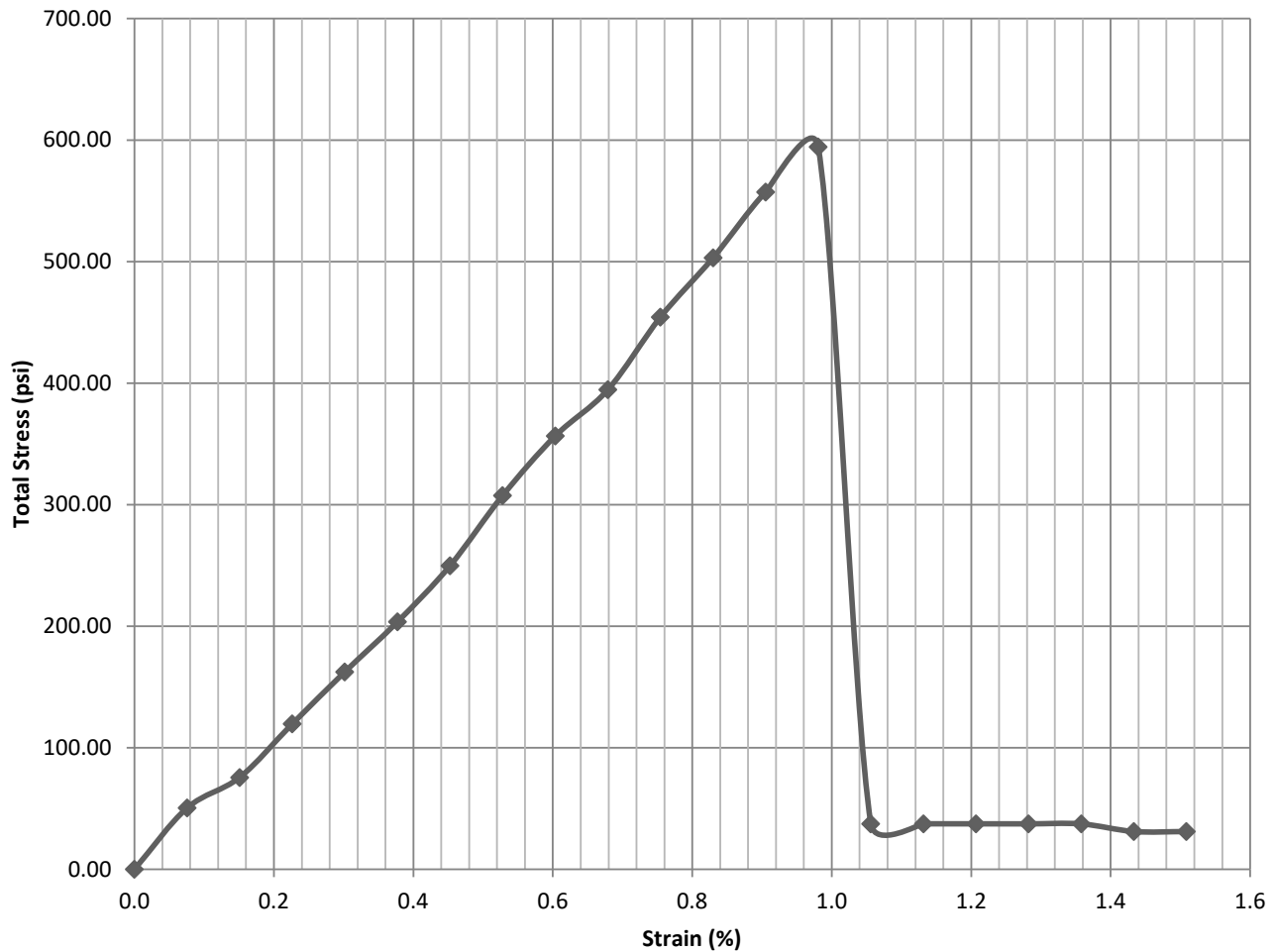
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1162
Sample Location:	B-35 / NQ-1	Depth of Sample:	44.4' - 44.7'
Tested By:	W. Pitts	Date Tested:	5/25/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1162



Average Initial Diameter (Do): 1.859 in.
 Average Initial Height (Lo): 3.977 in.
 Average Initial Area (Ao): 2.714 in²
 In-Situ Unit Weight: 118.4 pcf
 Failure Mode: Plastic Failure

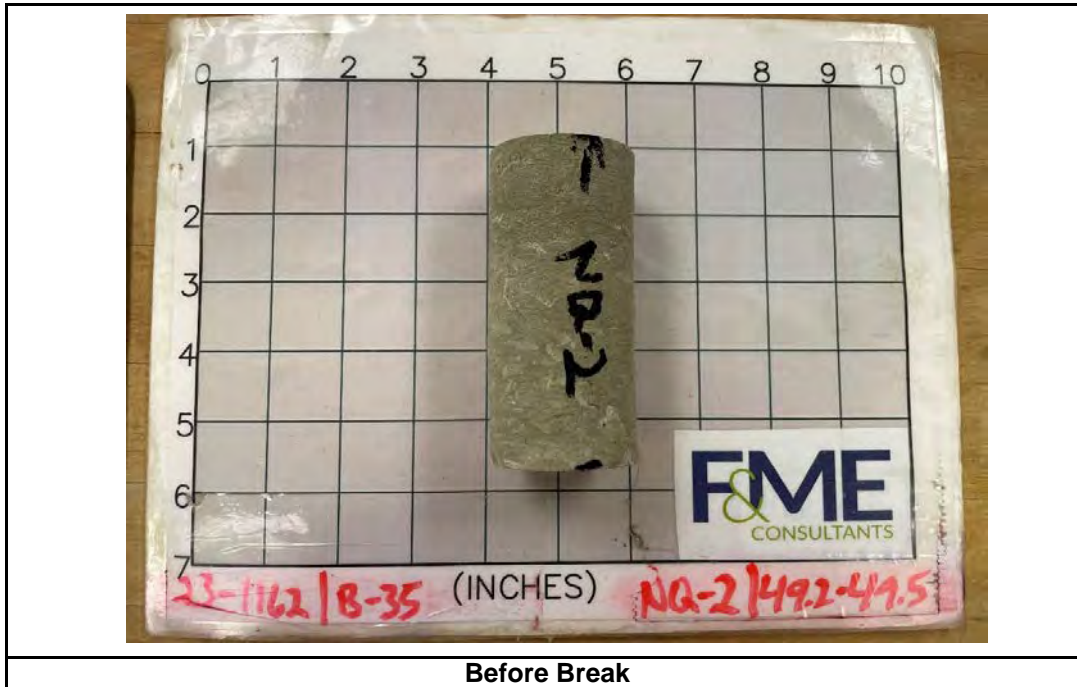
Sample Volume: 10.79 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.740 lbs.
 L/D Ratio: 2.139

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/25/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-35 / NQ-2
 Depth/Elevation 49.2' -49.5'

Sample Type : Soil Core
 Target Strain Rate : 0.60% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 595 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$

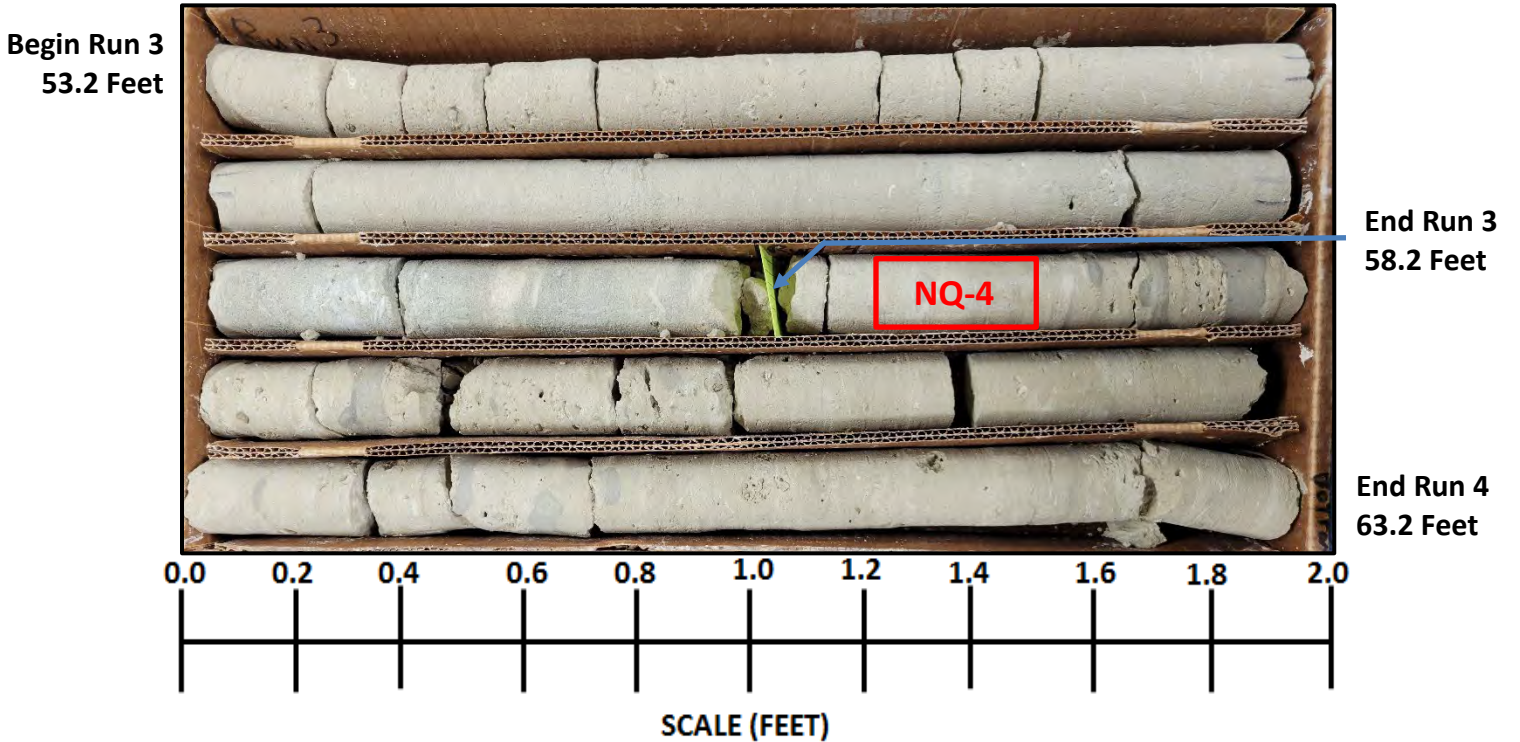


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1162
Sample Location:	B-35 / NQ-2	Depth of Sample:	49.2' -49.5'
Tested By:	W. Pitts	Date Tested:	5/25/2023

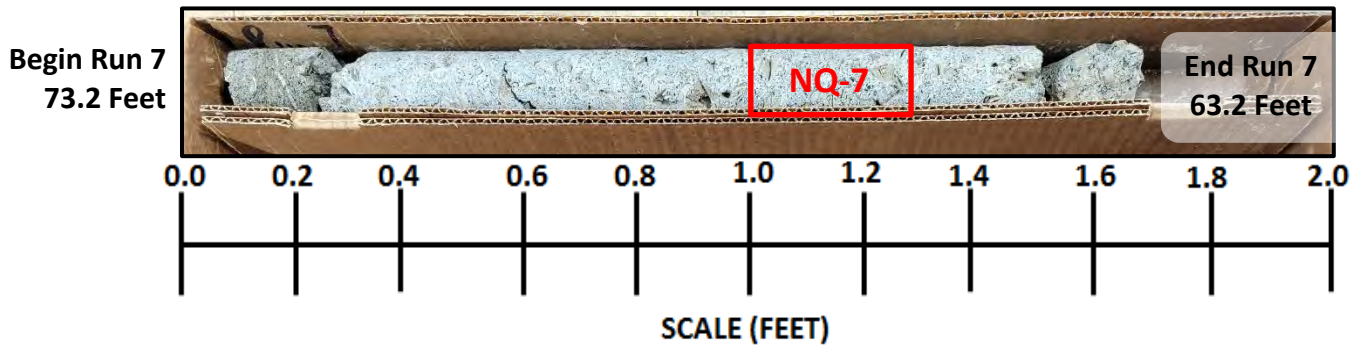
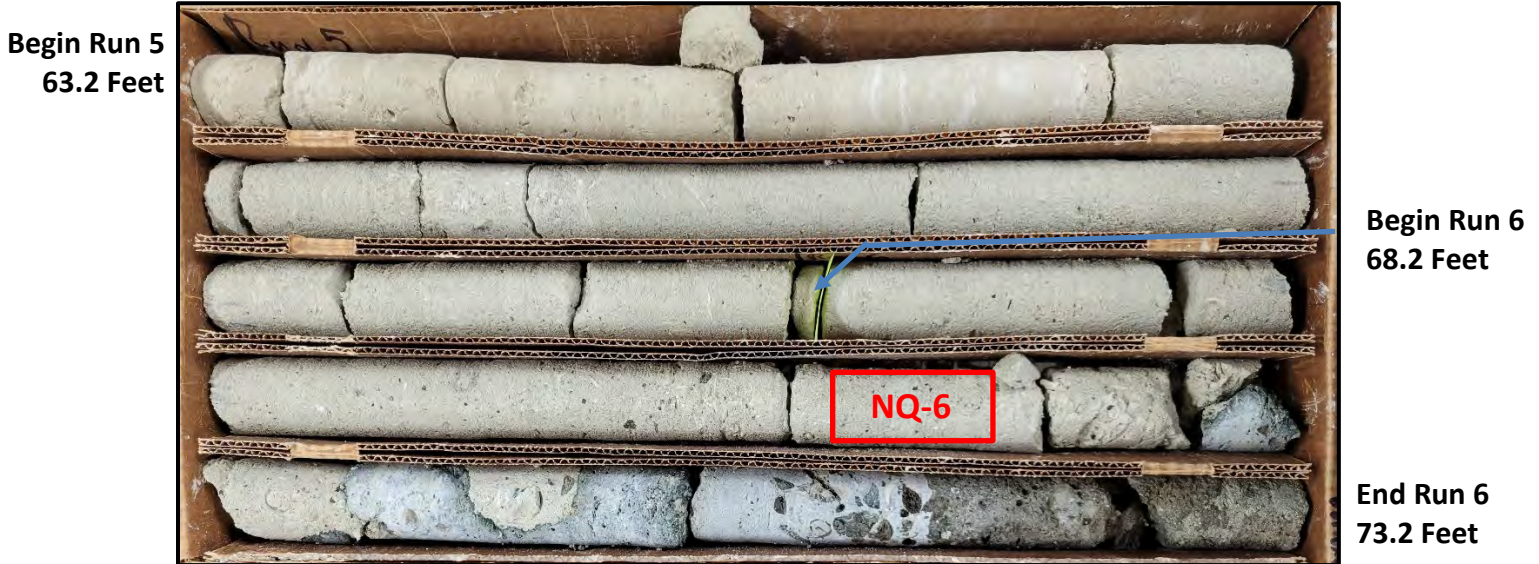


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-36



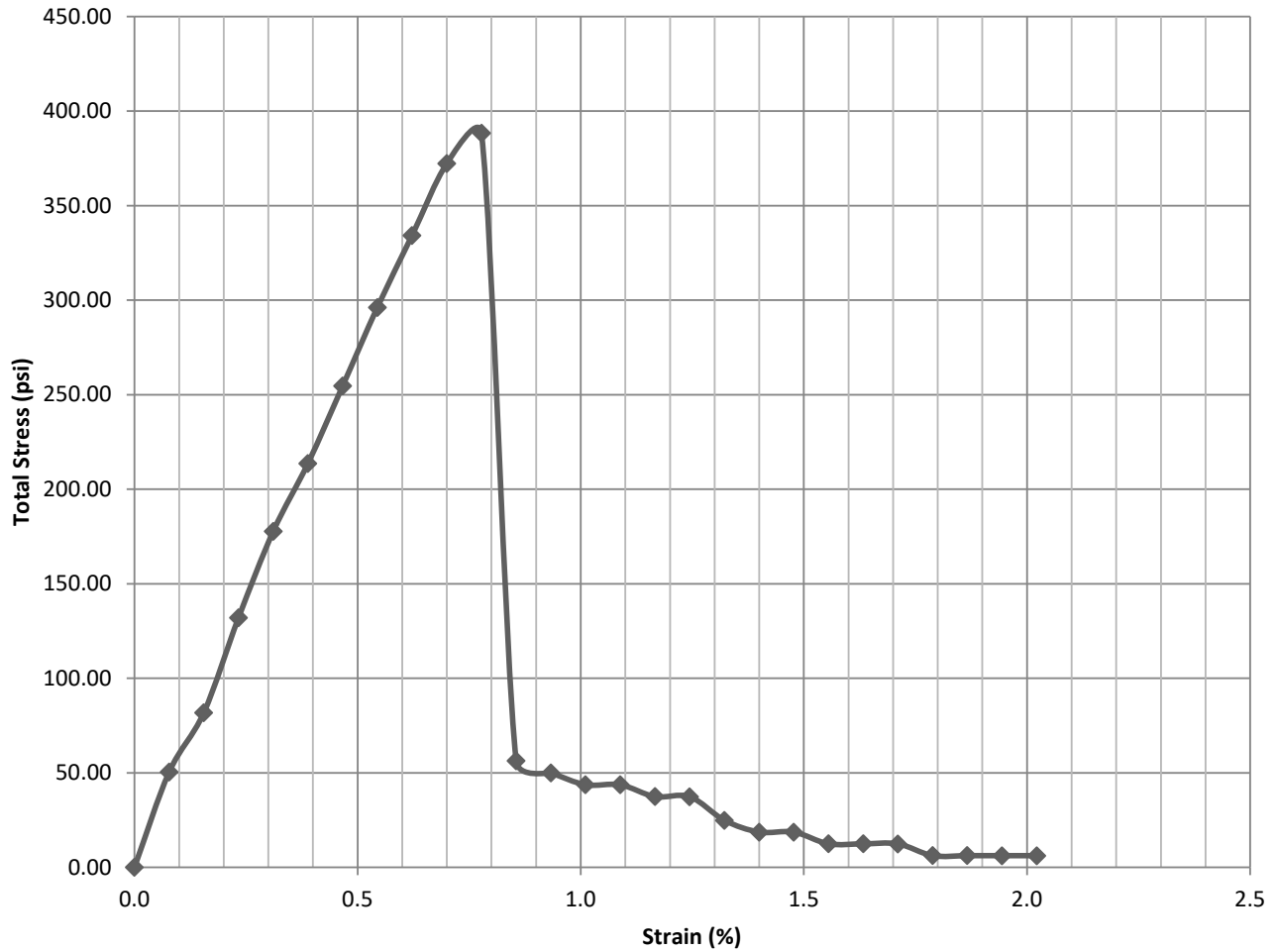
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-36



Run 8: %REC=0, %RQD=0

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0619



Average Initial Diameter (Do): 1.860 in.
 Average Initial Height (Lo): 3.858 in.
 Average Initial Area (Ao): 2.717 in²
 In-Situ Unit Weight: 117.0 pcf
 Failure Mode: Plastic Failure

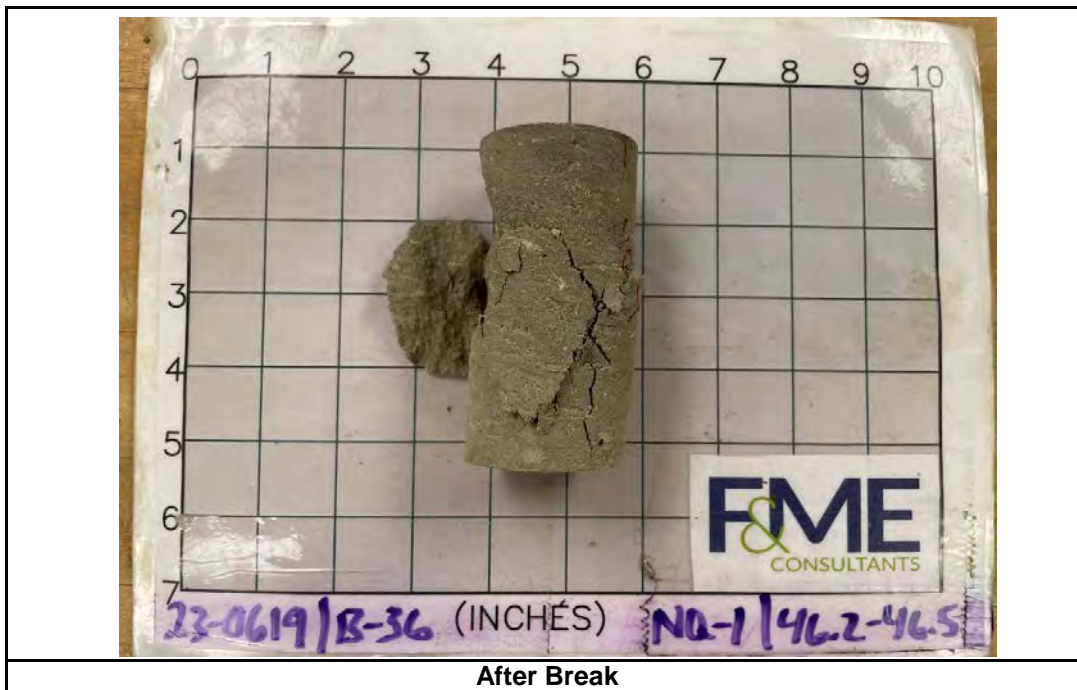
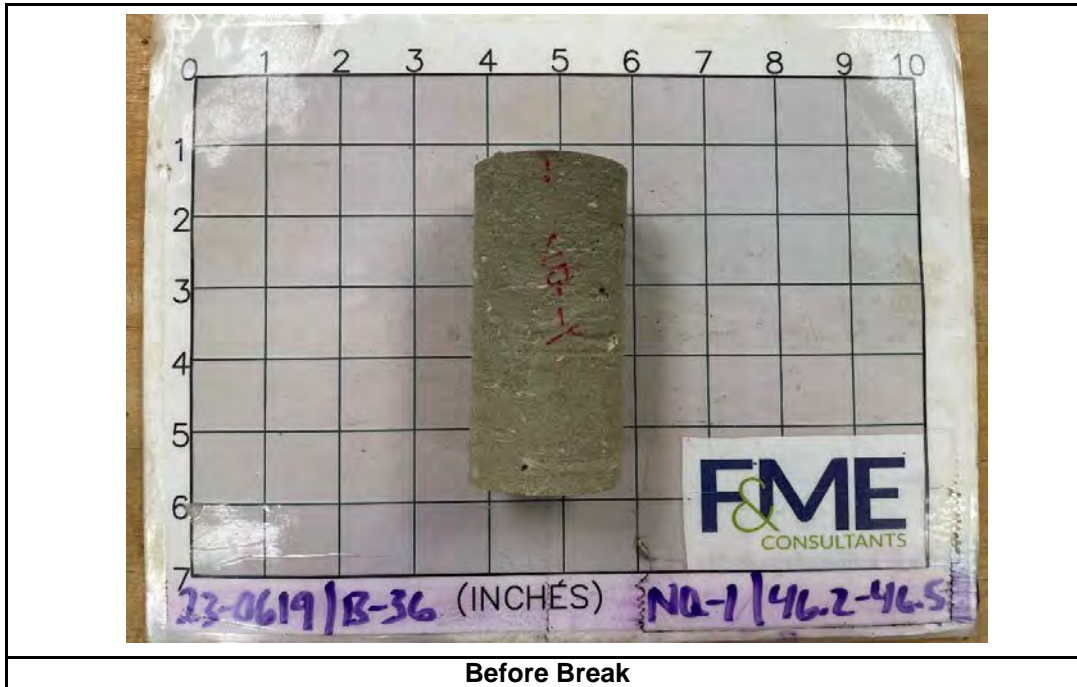
Sample Volume: 10.48 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.710 lbs.
 L/D Ratio: 2.074

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/24/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-36 / NQ-1
 Depth/Elevation 46.2' - 4.5'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 390$ psi $\epsilon_{ULT} = 0.8\%$



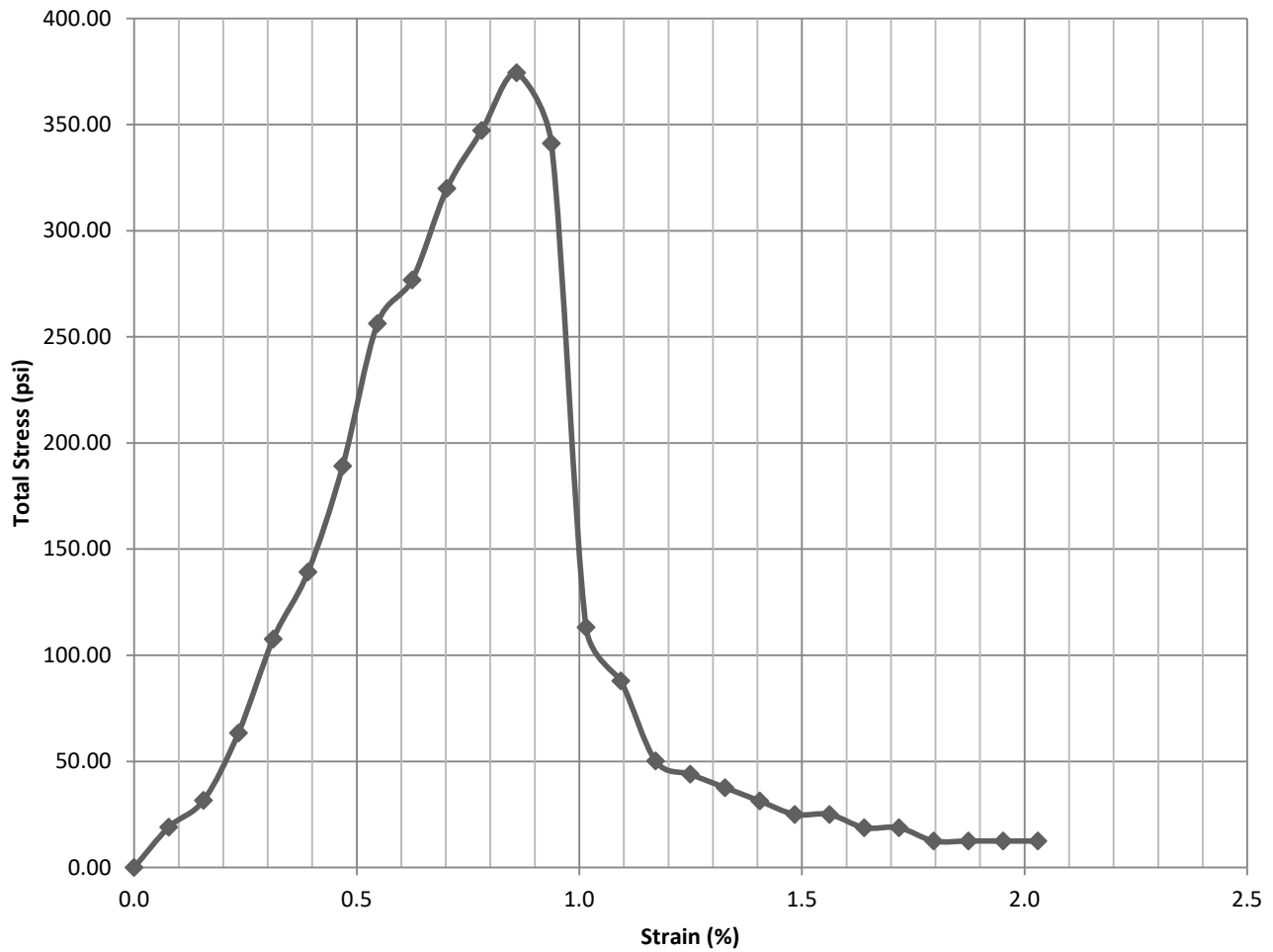
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0619
Sample Location:	B-36 / NQ-1	Depth of Sample:	46.2' - 4.5'
Tested By:	W. Pitts	Date Tested:	3/24/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0619



Average Initial Diameter (Do): 1.853 in.
 Average Initial Height (Lo): 3.842 in.
 Average Initial Area (Ao): 2.697 in²
 In-Situ Unit Weight: 121.7 pcf
 Failure Mode: Plastic Failure

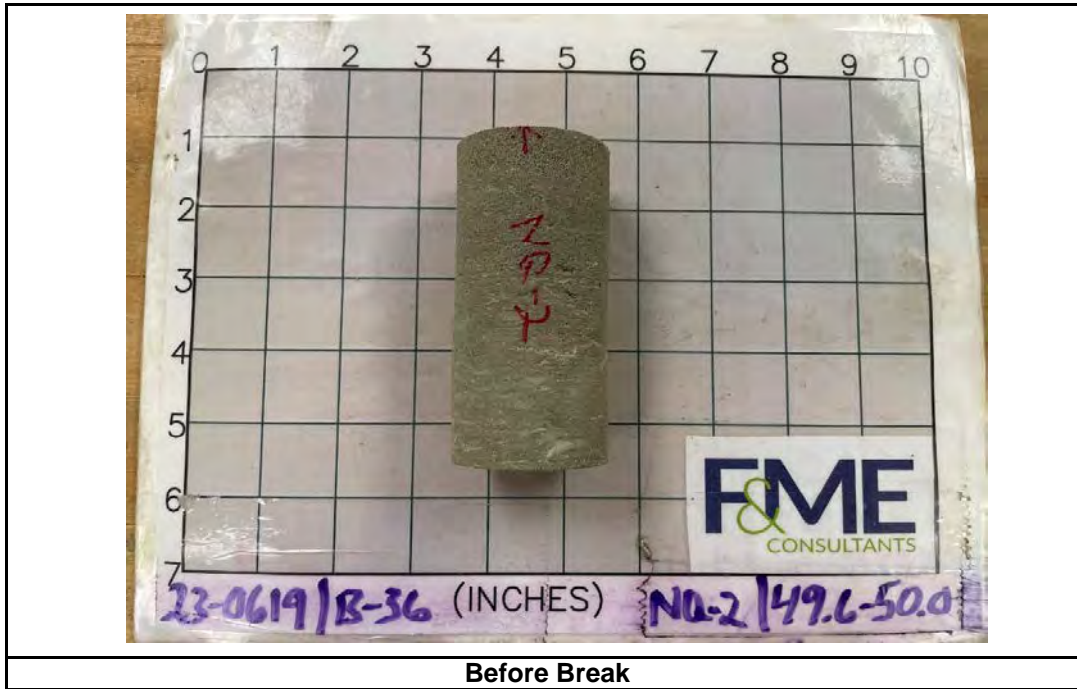
Sample Volume: 10.36 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.730 lbs.
 L/D Ratio: 2.073

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/24/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-36 / NQ-2
 Depth/Elevation 49.6' - 50.0'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 375 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



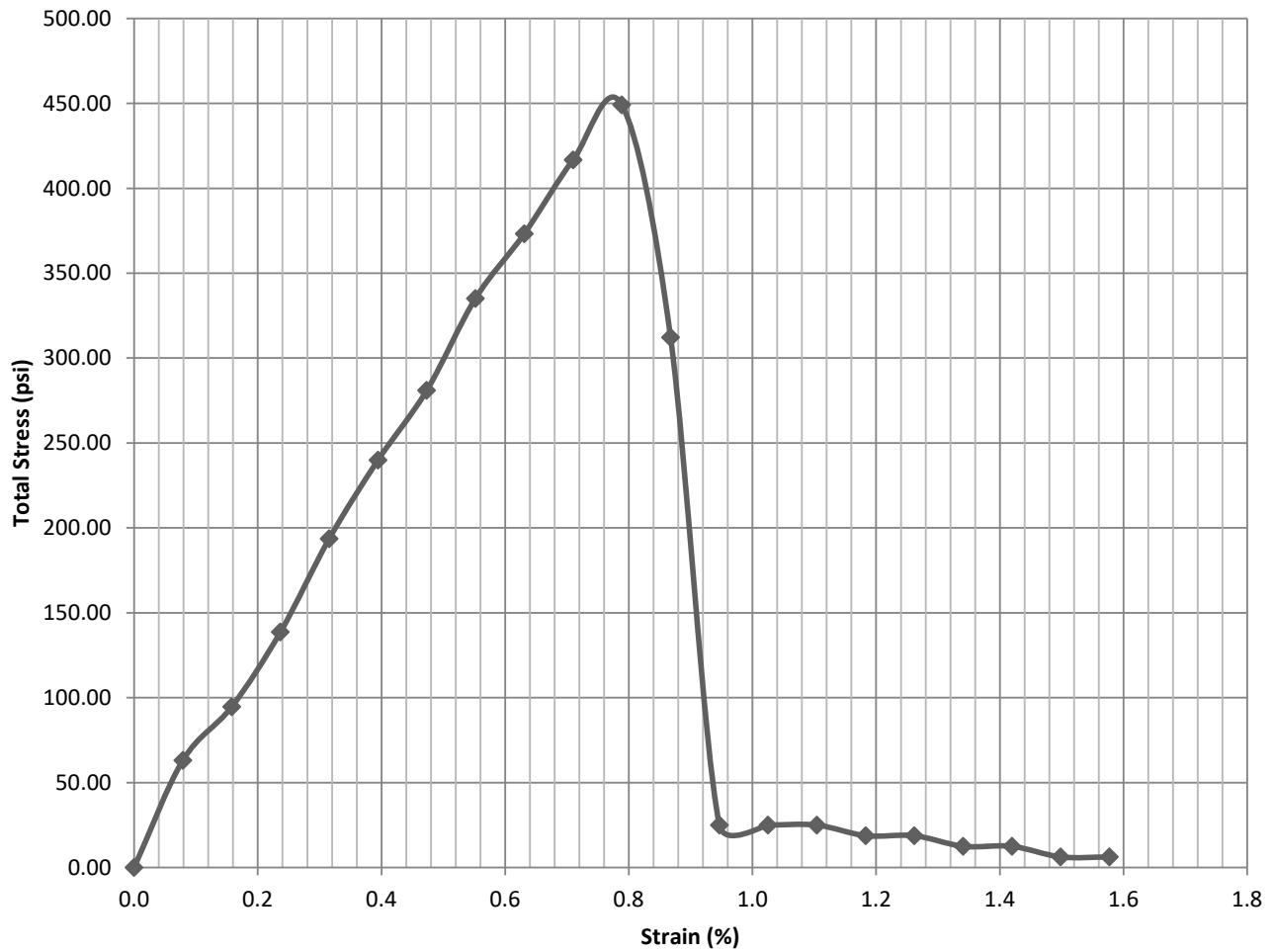
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0619
Sample Location:	B-36 / NQ-2	Depth of Sample:	49.6' - 50.0'
Tested By:	W. Pitts	Date Tested:	3/24/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0619



Average Initial Diameter (Do): 1.858 in.
 Average Initial Height (Lo): 3.804 in.
 Average Initial Area (Ao): 2.711 in²
 In-Situ Unit Weight: 120.9 pcf
 Failure Mode: Plastic Failure

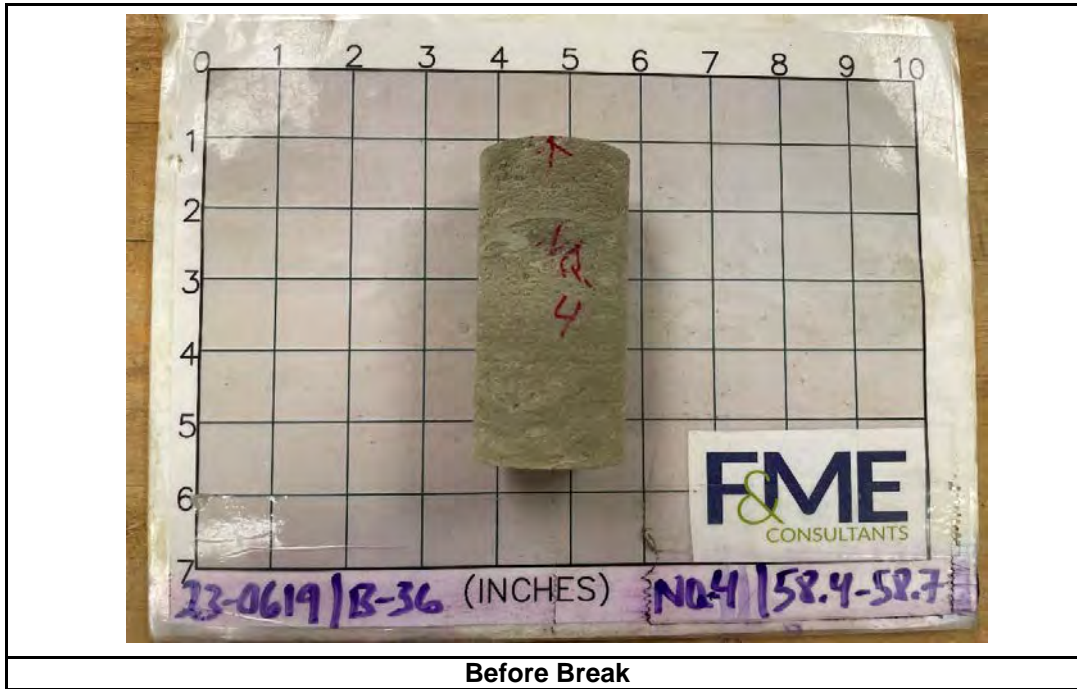
Sample Volume: 10.31 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.721 lbs.
 L/D Ratio: 2.047

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/24/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-36 / NQ-4
 Depth/Elevation 58.4' - 58.7'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 450 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



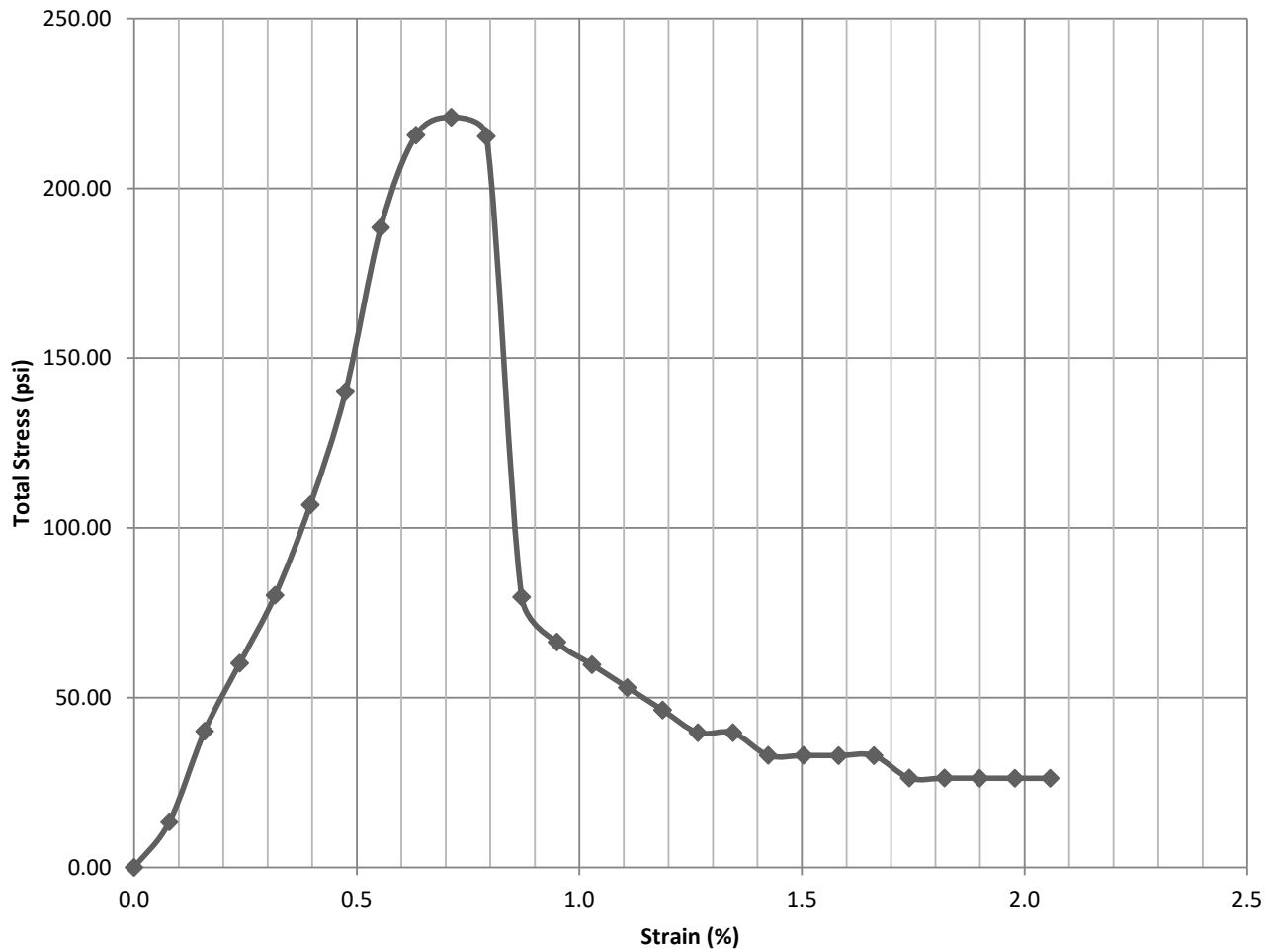
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0619
Sample Location:	B-36 / NQ-4	Depth of Sample:	58.4' - 58.7'
Tested By:	W. Pitts	Date Tested:	3/24/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0619



Average Initial Diameter (Do): 1.804 in.
 Average Initial Height (Lo): 3.791 in.
 Average Initial Area (Ao): 2.556 in²
 In-Situ Unit Weight: 124.9 pcf
 Failure Mode: Plastic Failure

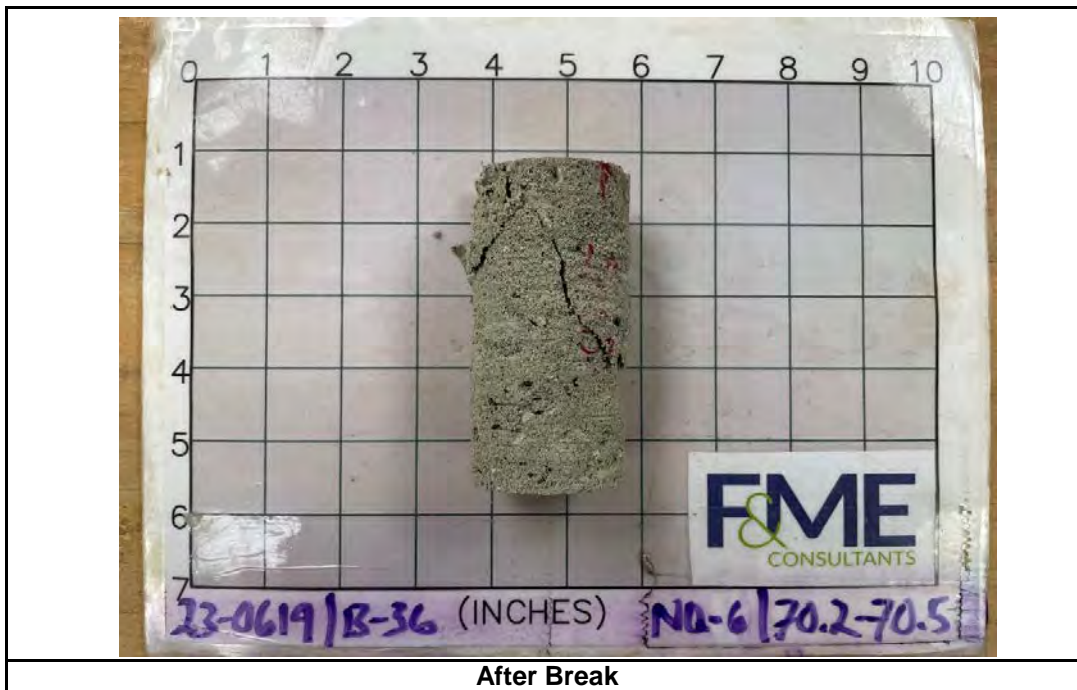
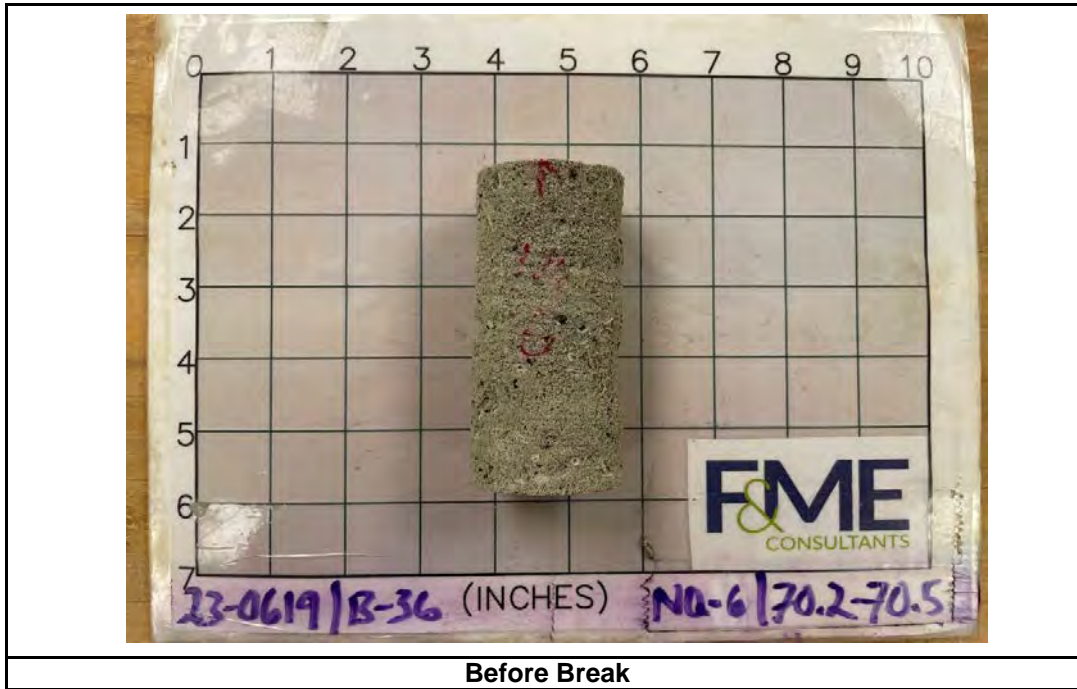
Sample Volume: 9.69 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.700 lbs.
 L/D Ratio: 2.101

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/24/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-36 / NQ-6
 Depth/Elevation 70.2' - 70.5'

Sample Type : Soil Core
 Target Strain Rate : 0.80% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 220 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



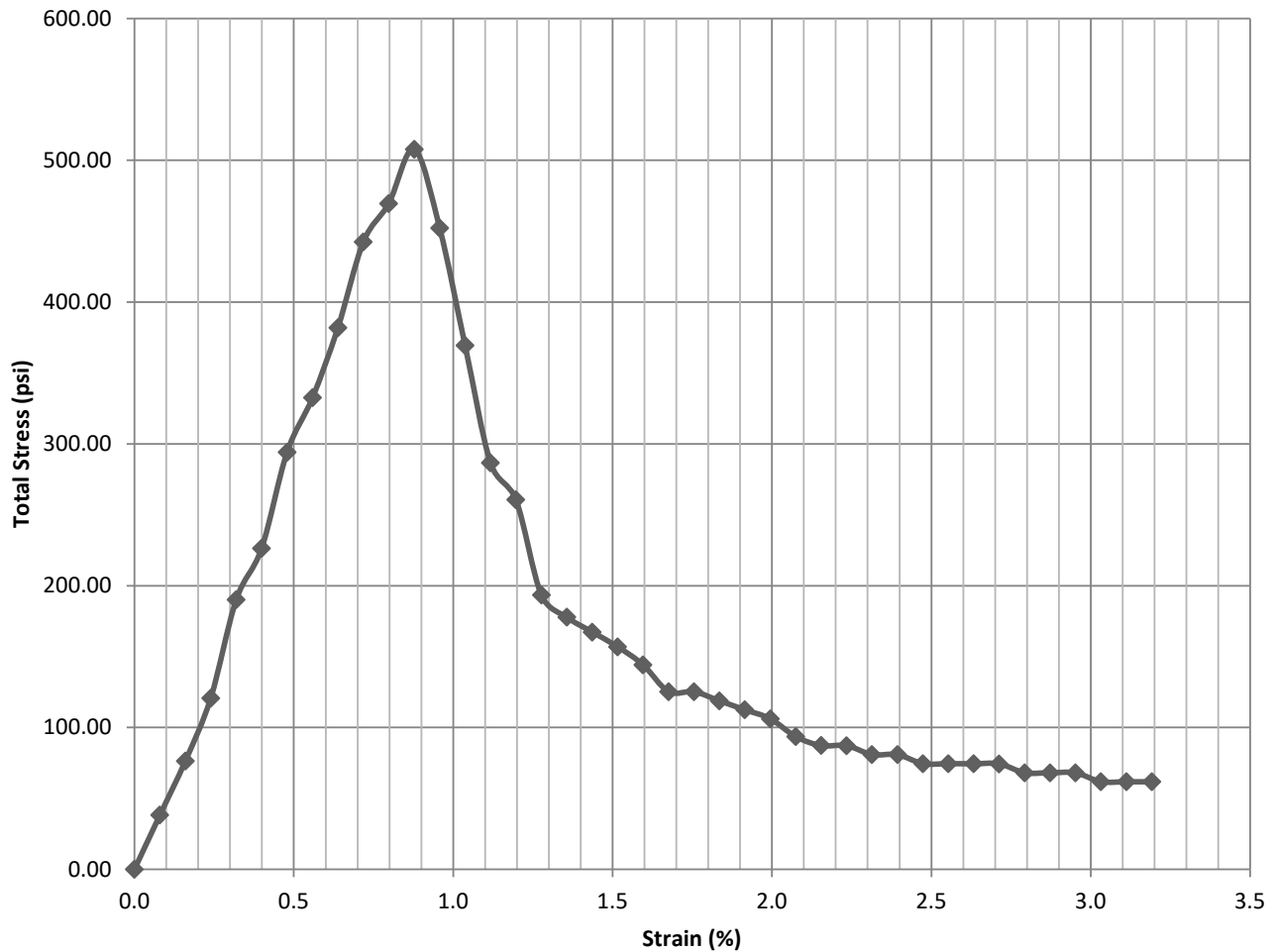
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0619
Sample Location:	B-36 / NQ-6	Depth of Sample:	70.2' - 70.5'
Tested By:	W. Pitts	Date Tested:	3/24/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0619



Average Initial Diameter (Do): 1.850 in.
 Average Initial Height (Lo): 3.760 in.
 Average Initial Area (Ao): 2.688 in²
 In-Situ Unit Weight: 130.3 pcf
 Failure Mode: Plastic Failure

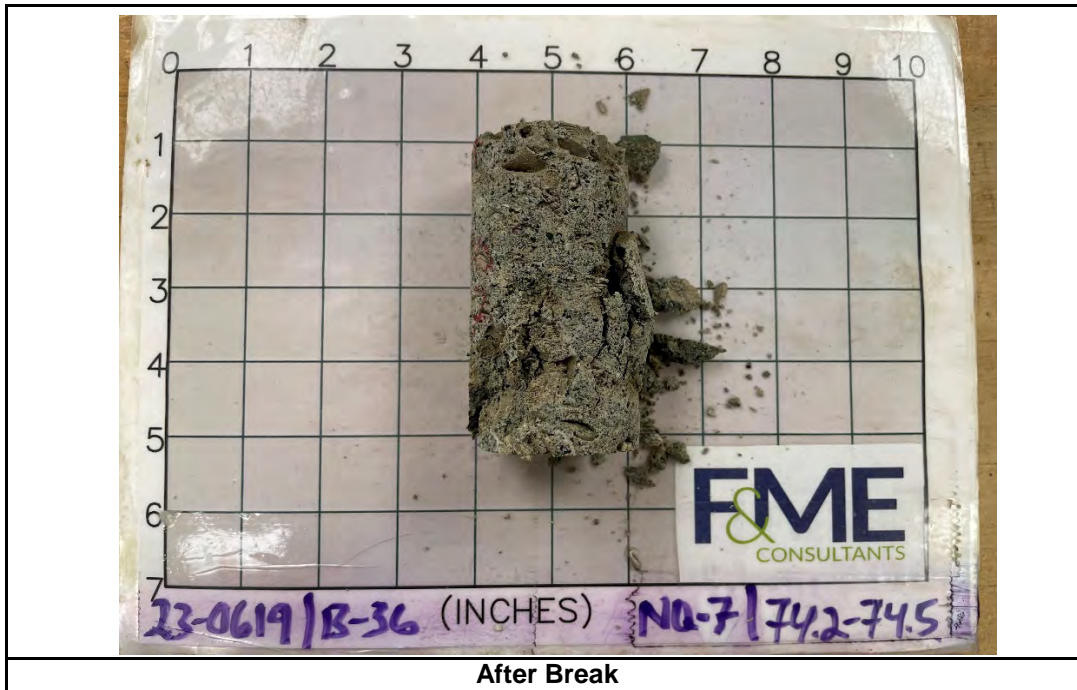
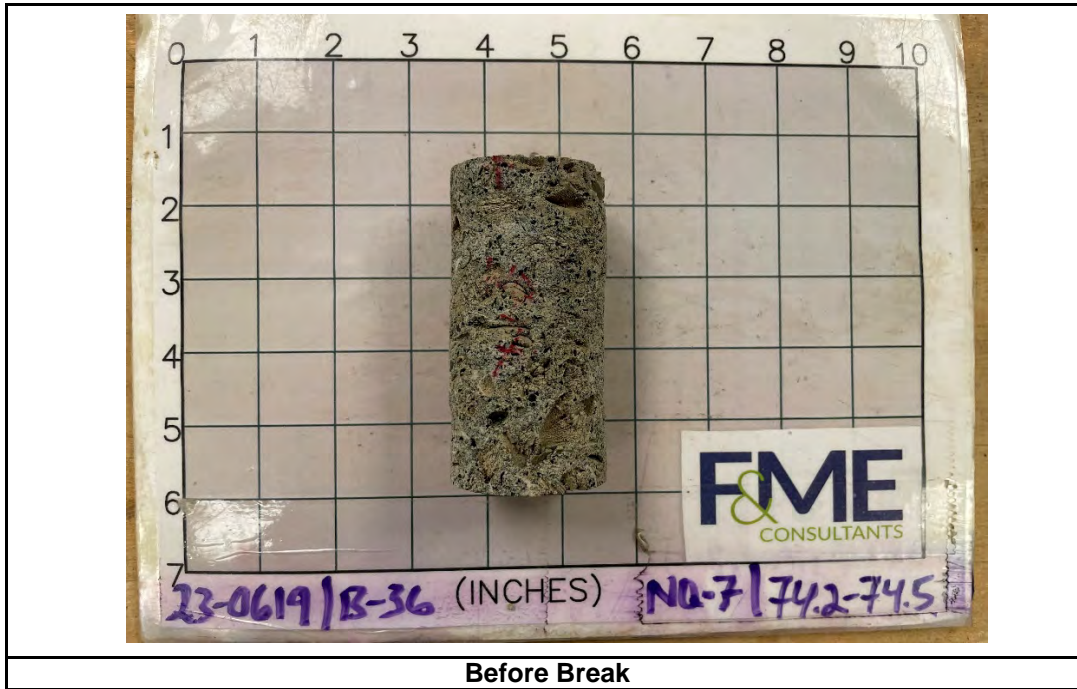
Sample Volume: 10.11 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.762 lbs.
 L/D Ratio: 2.032

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/24/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-36 / NQ-7
 Depth/Elevation 74.2' - 74.5'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 510 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$

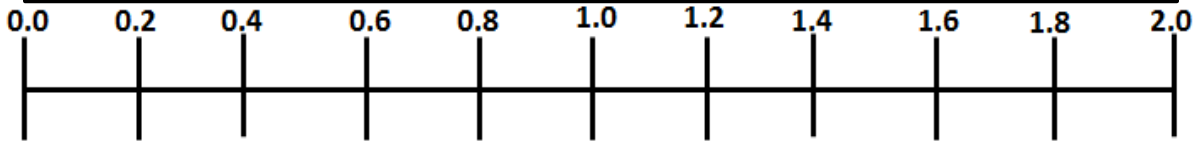
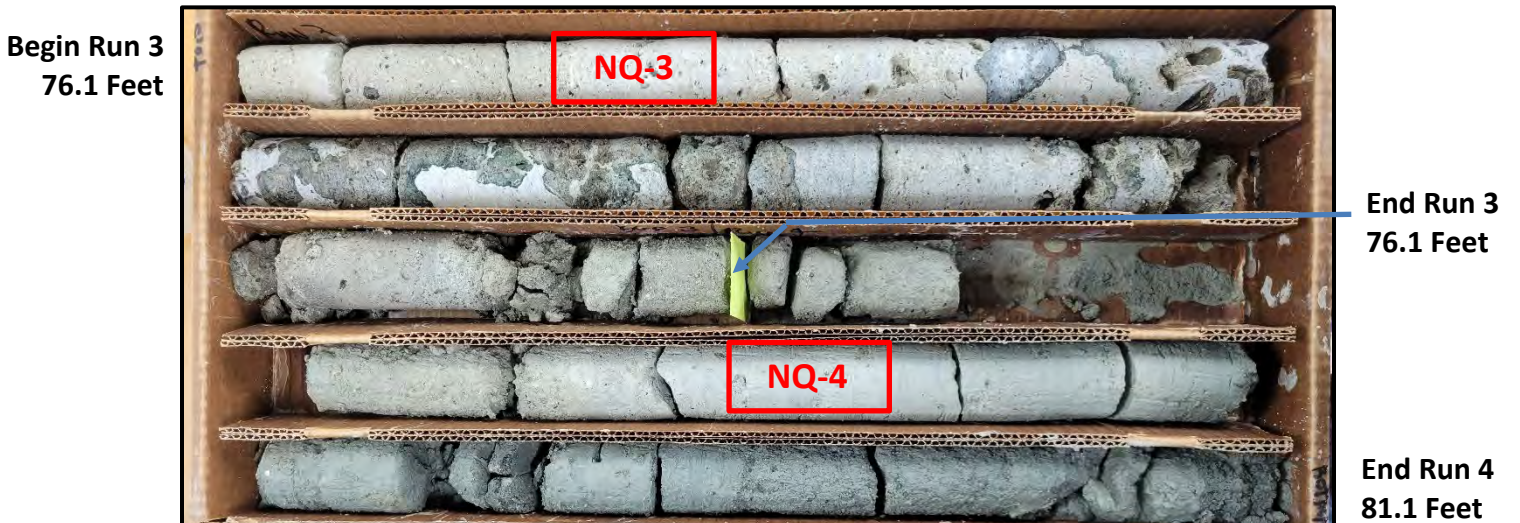
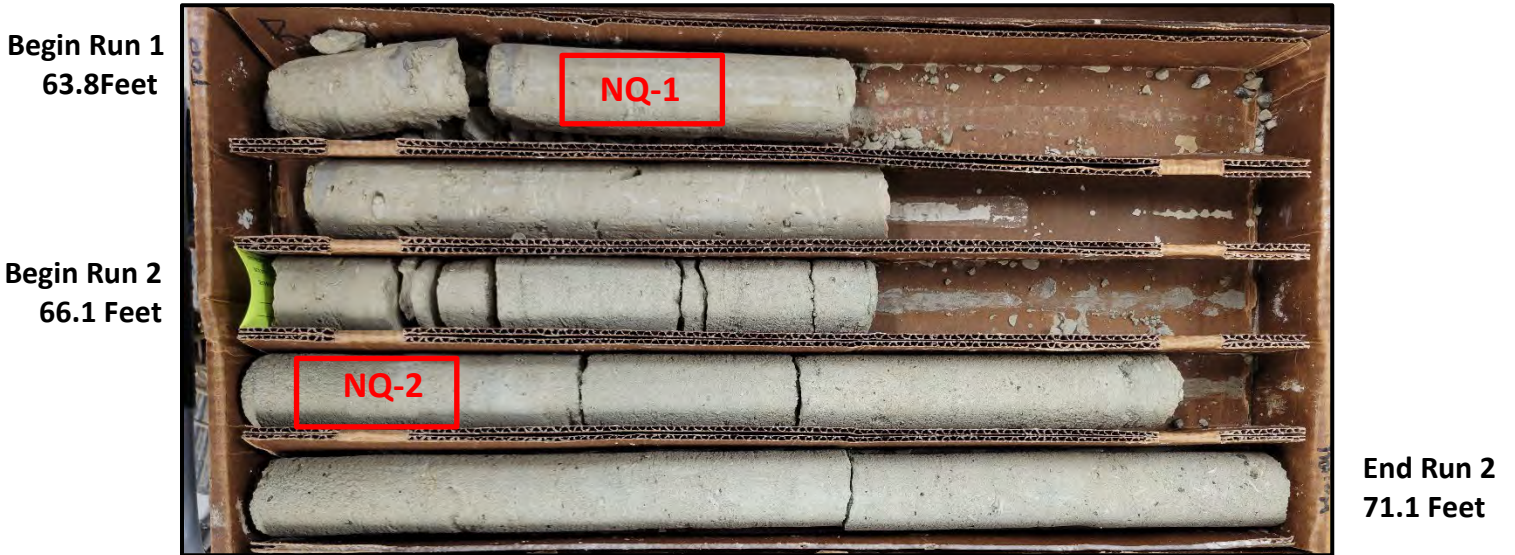


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0619
Sample Location:	B-36 / NQ-7	Depth of Sample:	74.2' - 74.5'
Tested By:	W. Pitts	Date Tested:	3/24/2023



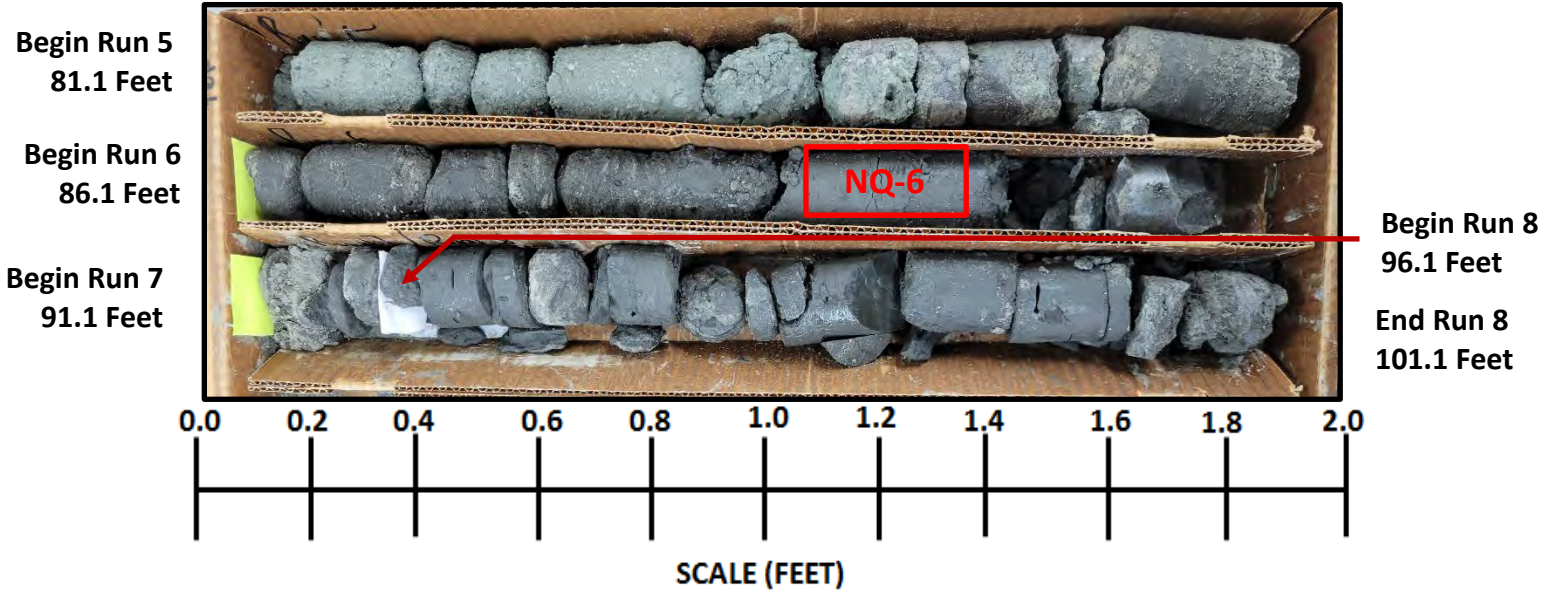
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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-38



SCALE (FEET)

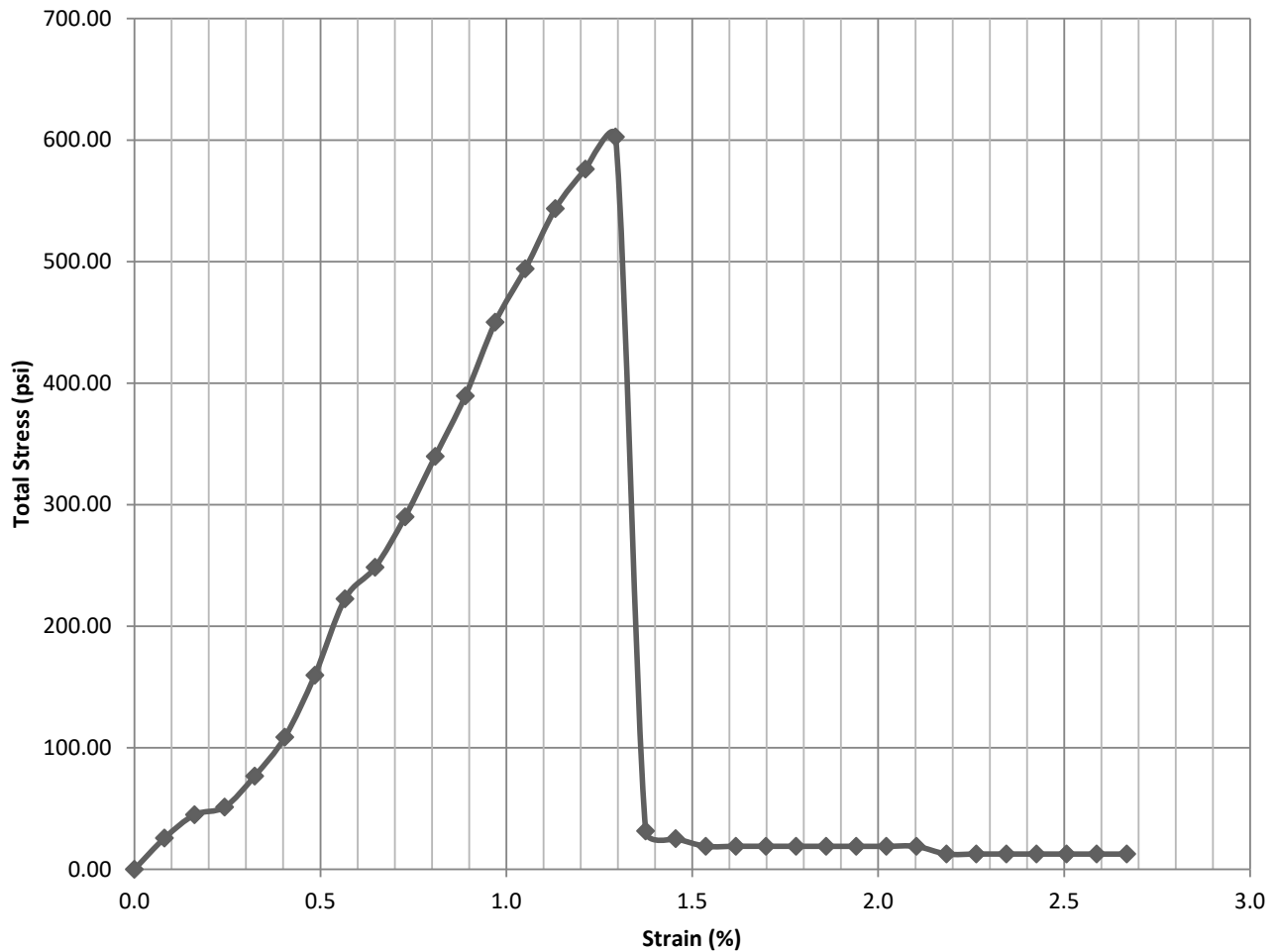
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-38



Run 9: %REC=0, %RQD=0

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0564



Average Initial Diameter (Do): 1.843 in.
 Average Initial Height (Lo): 3.710 in.
 Average Initial Area (Ao): 2.668 in²
 In-Situ Unit Weight: 103.9 pcf
 Failure Mode: Plastic Failure

Sample Volume: 9.897 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.595 lbs.
 L/D Ratio: 2.013

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/8/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-38 / NQ-1
 Depth/Elevation 67.8 - 68.1

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 600 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$



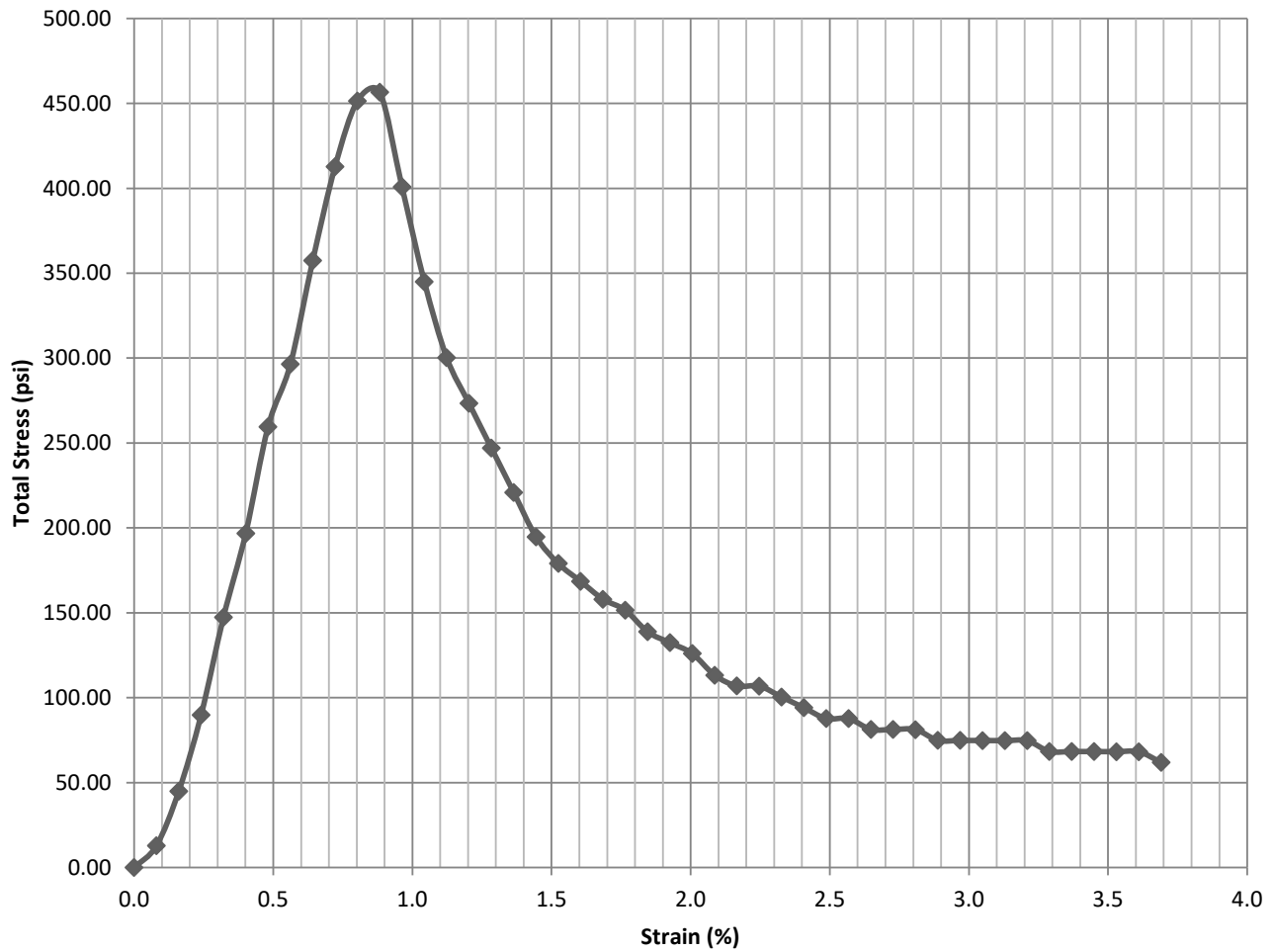
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0564
Sample Location:	B-38 / NQ-1	Depth of Sample:	67.8 - 68.1
Tested By:	W. Pitts	Date Tested:	3/8/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0564



Average Initial Diameter (Do): 1.842 in.
 Average Initial Height (Lo): 3.739 in.
 Average Initial Area (Ao): 2.665 in²
 In-Situ Unit Weight: 127.2 pcf
 Failure Mode: Plastic Failure

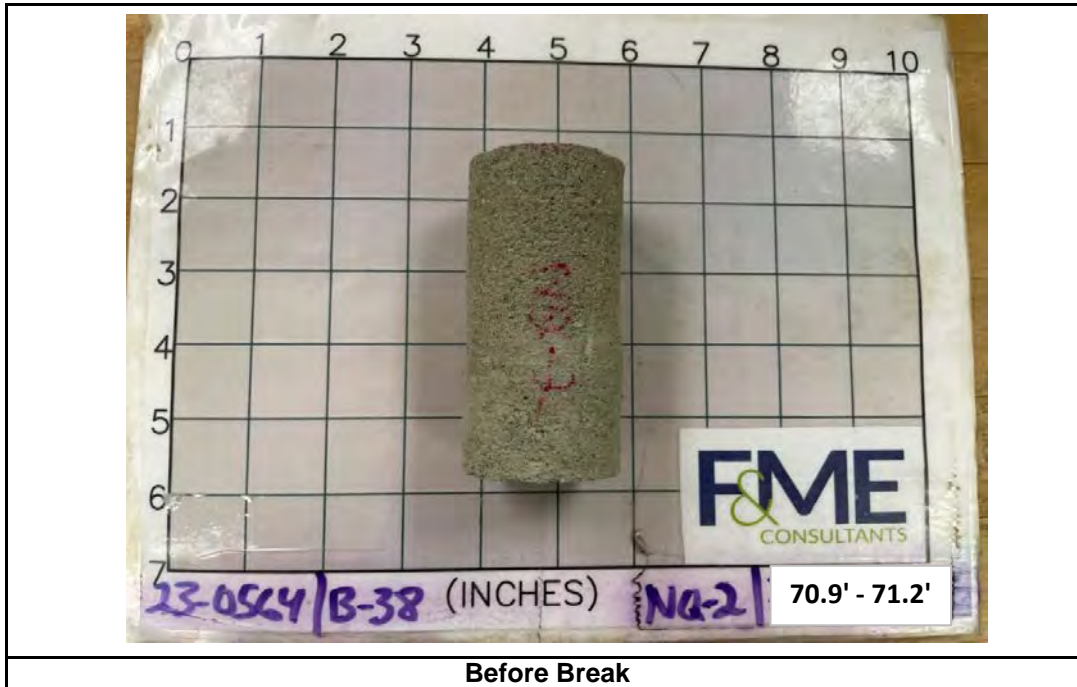
Sample Volume: 9.964 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.734 lbs.
 L/D Ratio: 2.030

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/8/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-38 / NQ-2
 Depth/Elevation 70.9 - 71.2

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 460 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



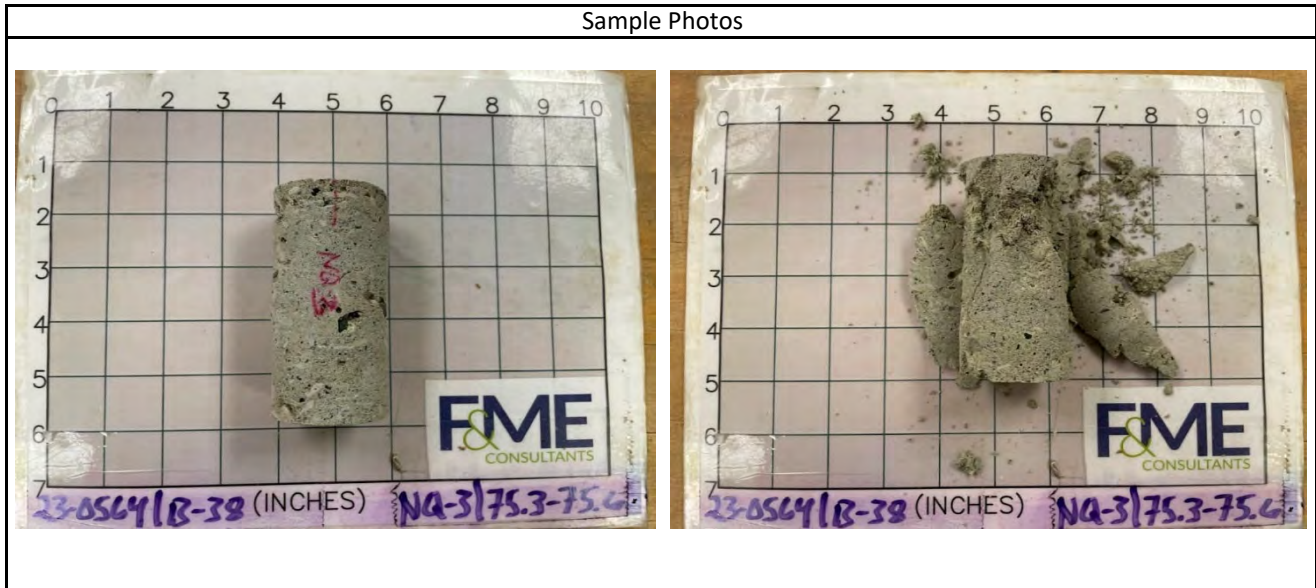
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0564
Sample Location:	B-38 / NQ-2	Depth of Sample:	70.9 - 71.2
Tested By:	W. Pitts	Date Tested:	3/8/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.856	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.754	Reviewed By	WJG
Boring	B-38	Unit Weight (pcf)	138.8	Core Size	NQ
Sample No.	NQ-3 / 23-0564A	L/D Ratio	2.02	Recovery	97%
Depth	75.3' - 75.6'	Load Rate (psi/sec)	10	RQD	68%
Description	Brown/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%	-705	23	1,401	518	1.47	0.03
50%	-778	98	1,695	626	1.61	0.13
60%	-885	119	2,032	751	1.70	0.13
70%	-1087	158	2,361	873	1.61	0.15
80%	-1336	211	2,734	1,011	1.51	0.16
90%	-1714	292	3,058	1,130	1.32	0.17
100%	-1845	317	3,382	1,250		

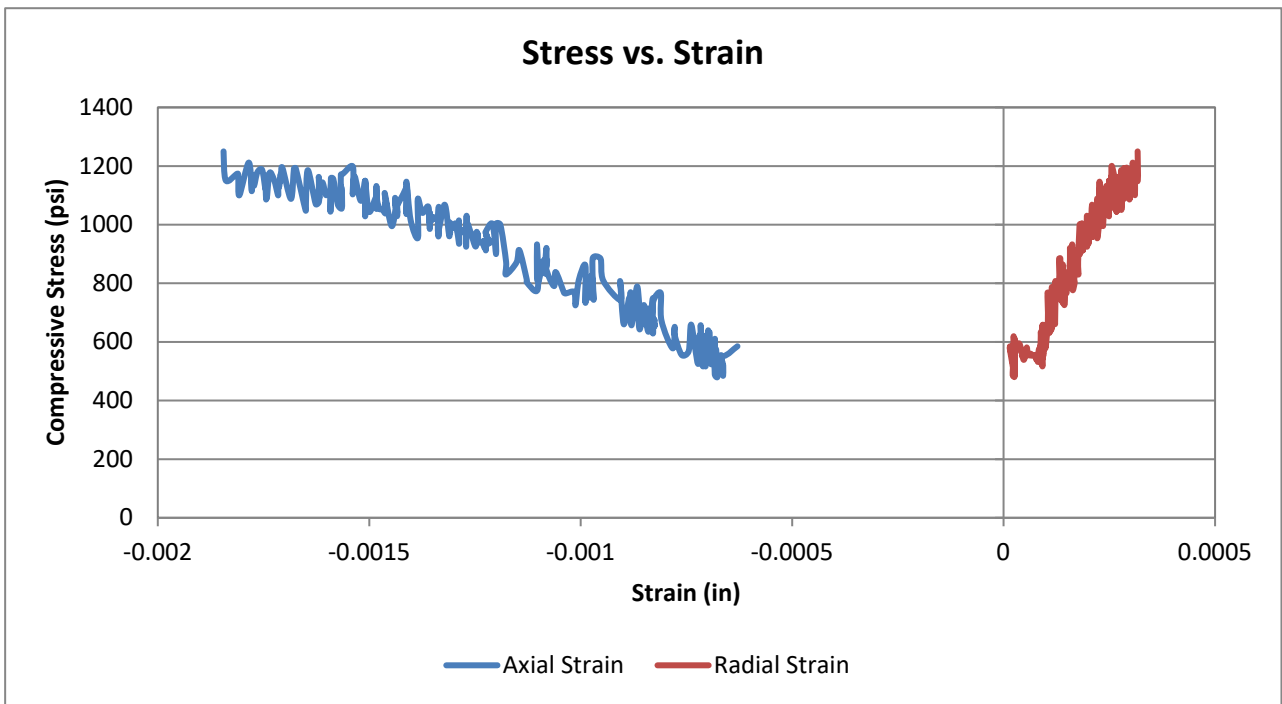
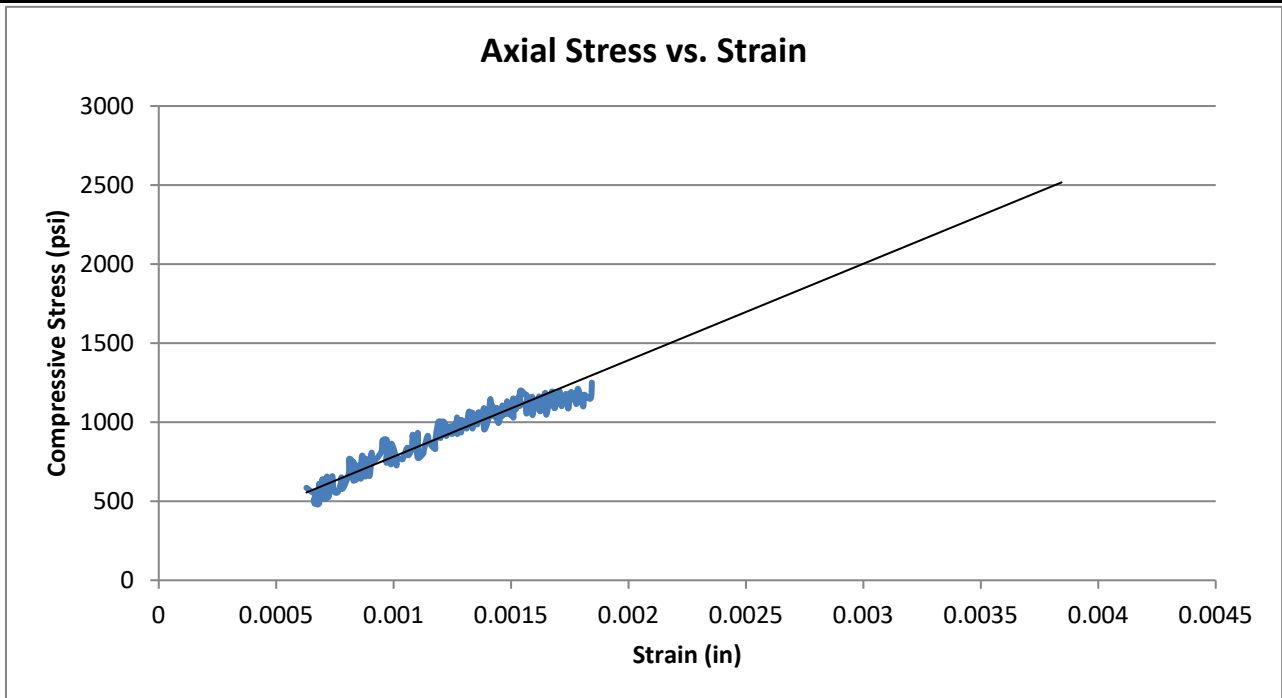


Test Results			
Unconfined Compressive Strength (psi)	1,250	Elastic Modulus (psi)	1.56E+06
		Poisson's Ratio in Elastic Range	0.15
Comments	Elastic range was taken as between 0.0008 and 0.0015 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



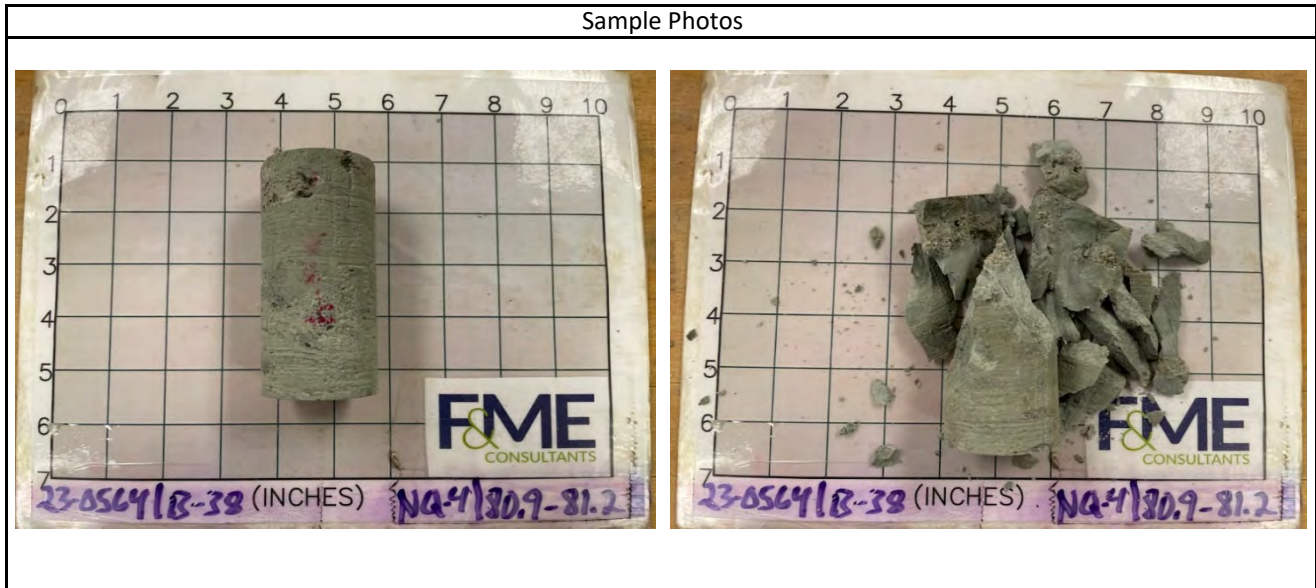
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.856	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.754	Reviewed By	WJG
Boring	B-38	Unit Weight (pcf)	138.8	Core Size	NQ
Sample No.	NQ-3 / 23-0564A	L/D Ratio	2.02	Recovery	97%
Depth	75.3' - 75.6'	Load Rate (psi/sec)	10	RQD	68%
Description	Brown/Gray/White Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.858	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.841	Reviewed By	WJG
Boring	B-38	Unit Weight (pcf)	143.5	Core Size	NQ
Sample No.	NQ-4 / 23-0564B	L/D Ratio	2.07	Recovery	80%
Depth	80.9' - 82.1'	Load Rate (psi/sec)	10	RQD	42%
Description	Brown/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%						
50%	-11682	1380	1,052	388	0.07	0.12
60%	-13172	1896	1,347	497	0.08	0.14
70%	-14026	2285	1,575	581	0.08	0.16
80%	-17373	3514	1,761	649	0.07	0.20
90%	-21516	6069	2,012	742	0.07	0.28
100%	-23876	6843	2,247	829		

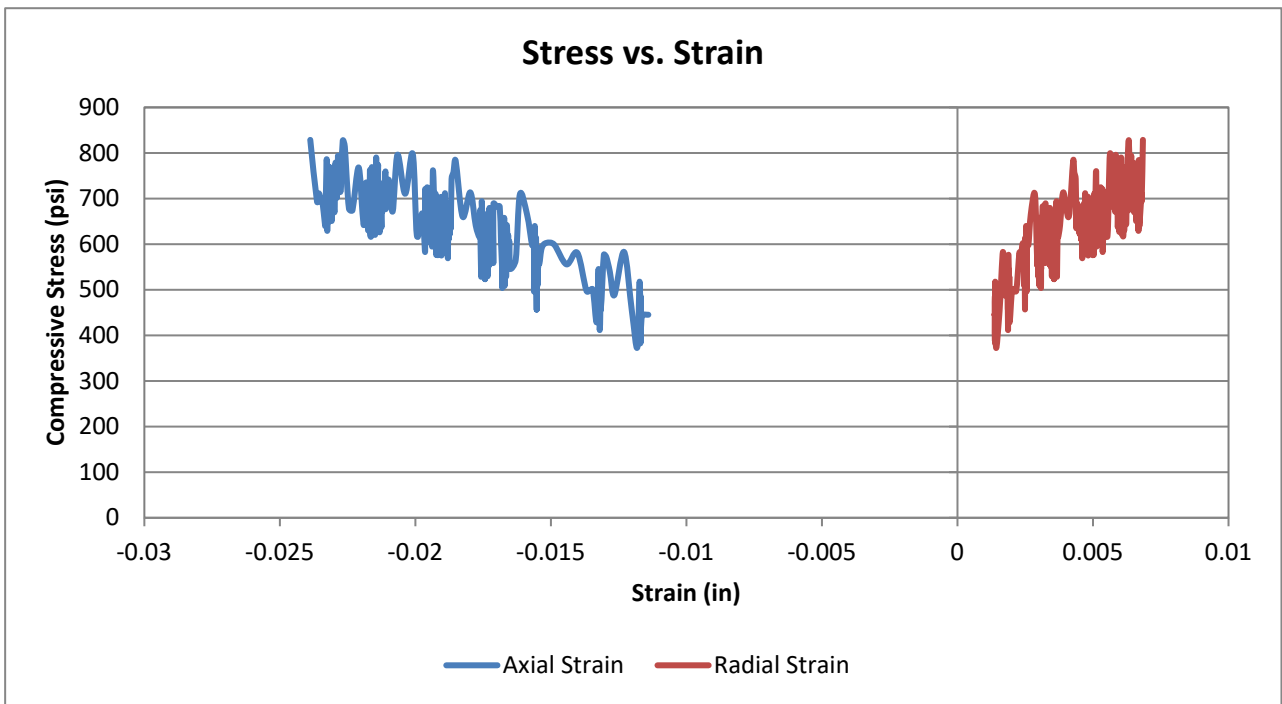
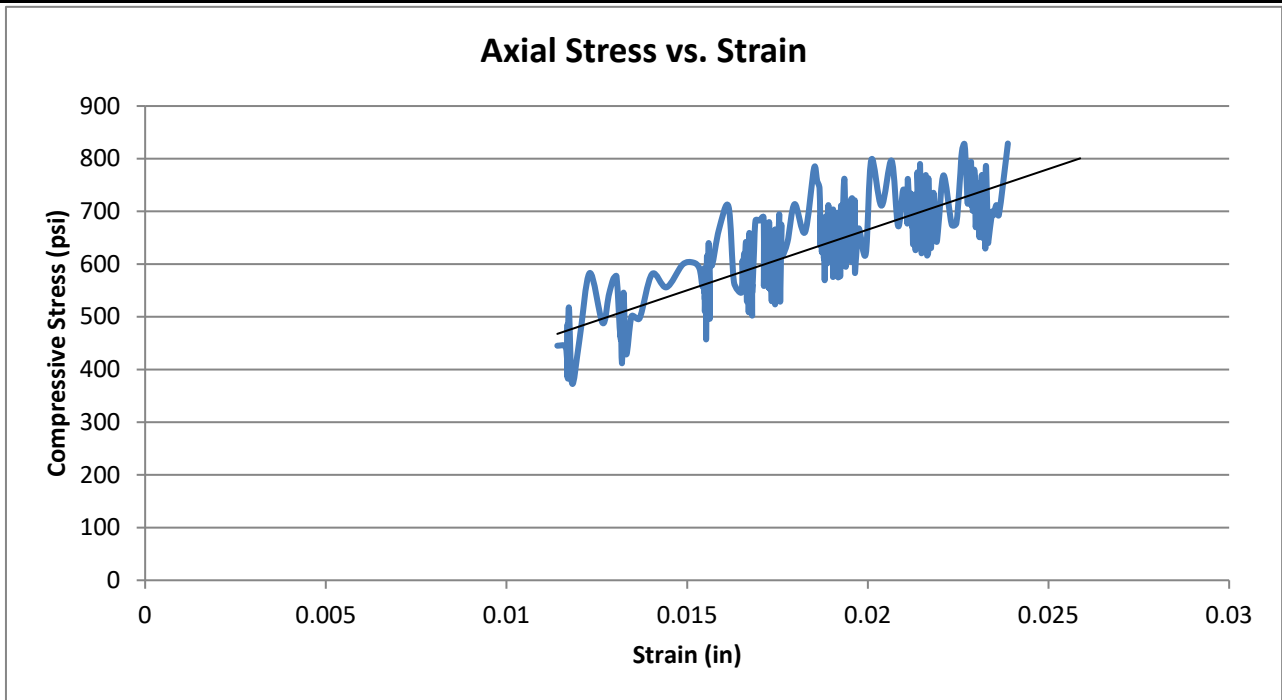


Test Results			
Unconfined Compressive Strength (psi)	830	Elastic Modulus (psi)	7.03E+04
		Poisson's Ratio in Elastic Range	0.21
Comments	Elastic range was taken as between 0.012 and 0.021 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

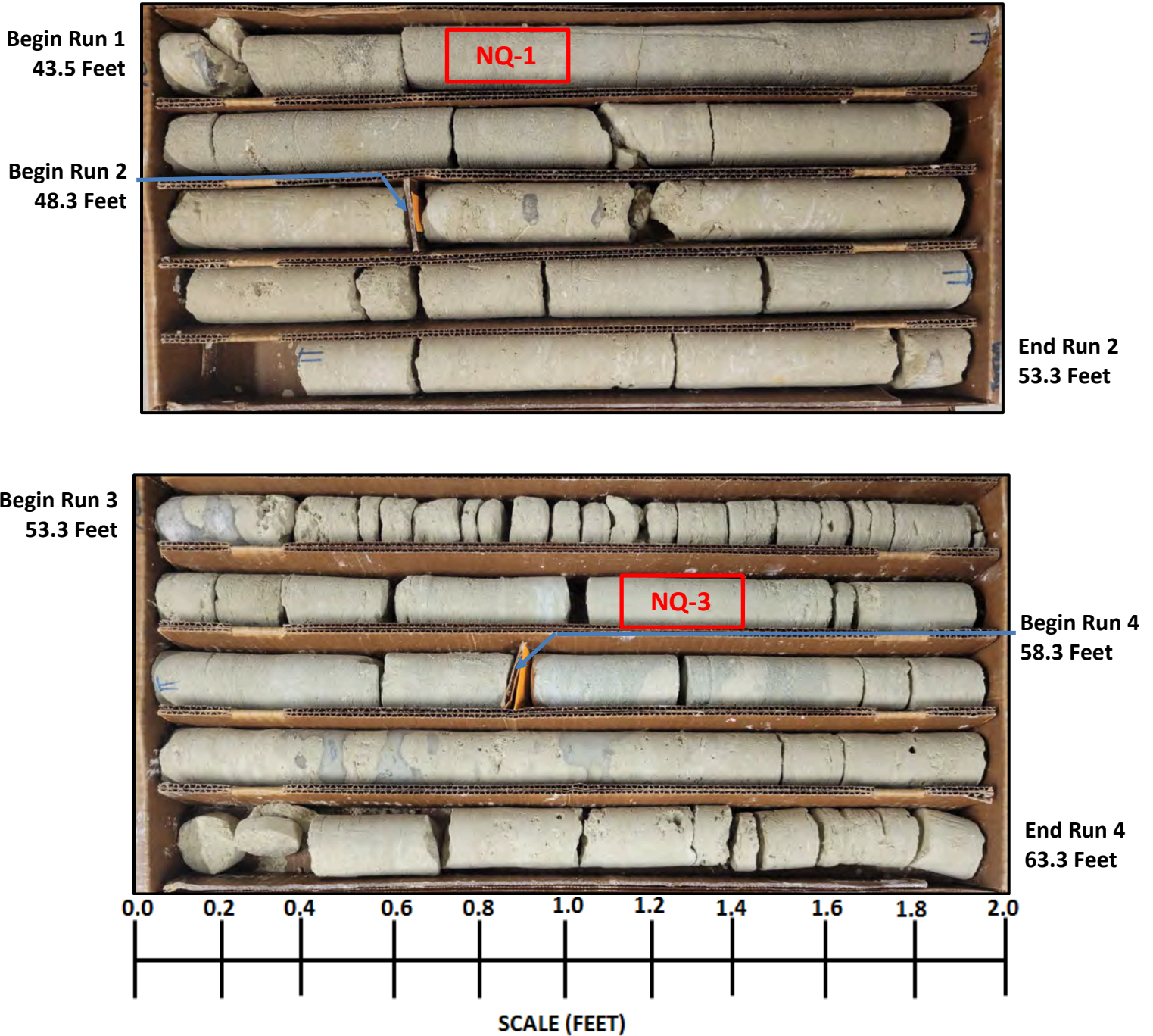


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
 ASTM D7012 - Method D / SC-T-39

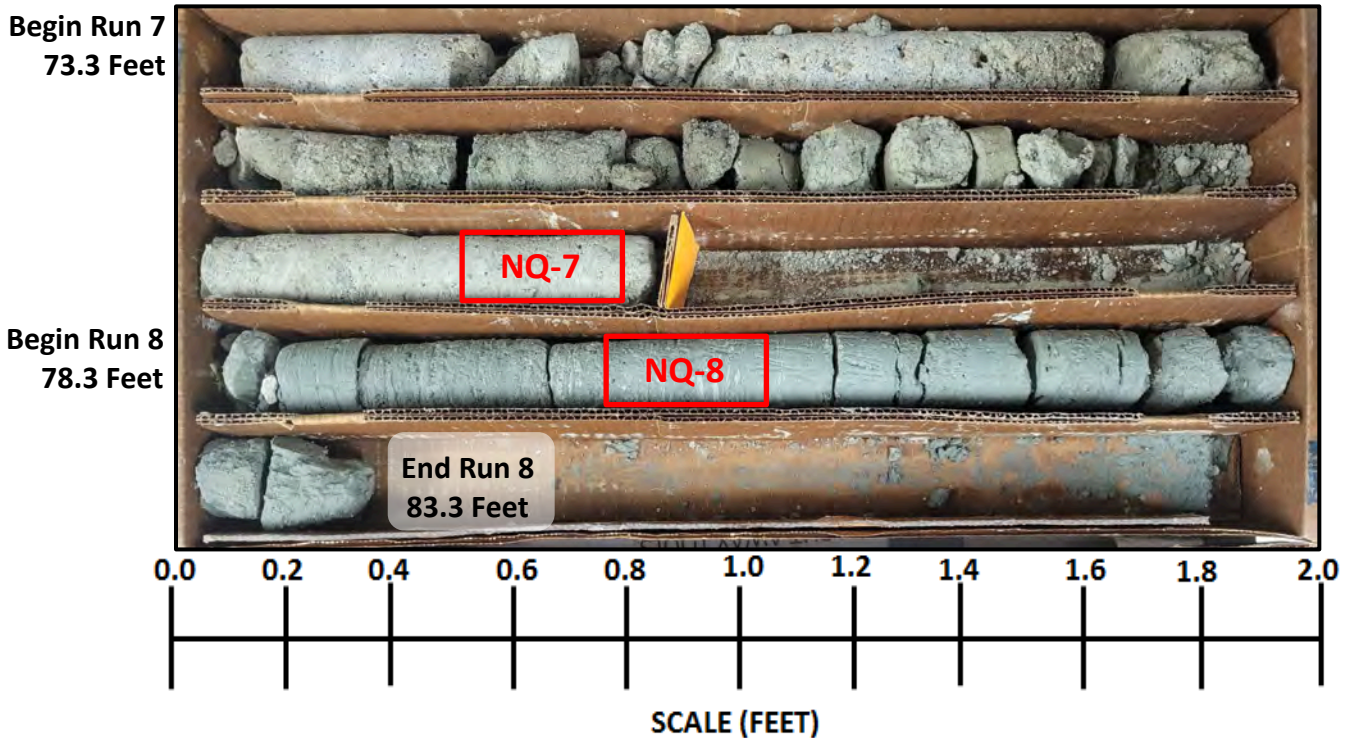
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.858	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.841	Reviewed By	WJG
Boring	B-38	Unit Weight (pcf)	143.5	Core Size	NQ
Sample No.	NQ-4 / 23-0564B	L/D Ratio	2.07	Recovery	80%
Depth	80.9' - 82.1'	Load Rate (psi/sec)	10	RQD	42%
Description	Brown/Gray Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-39

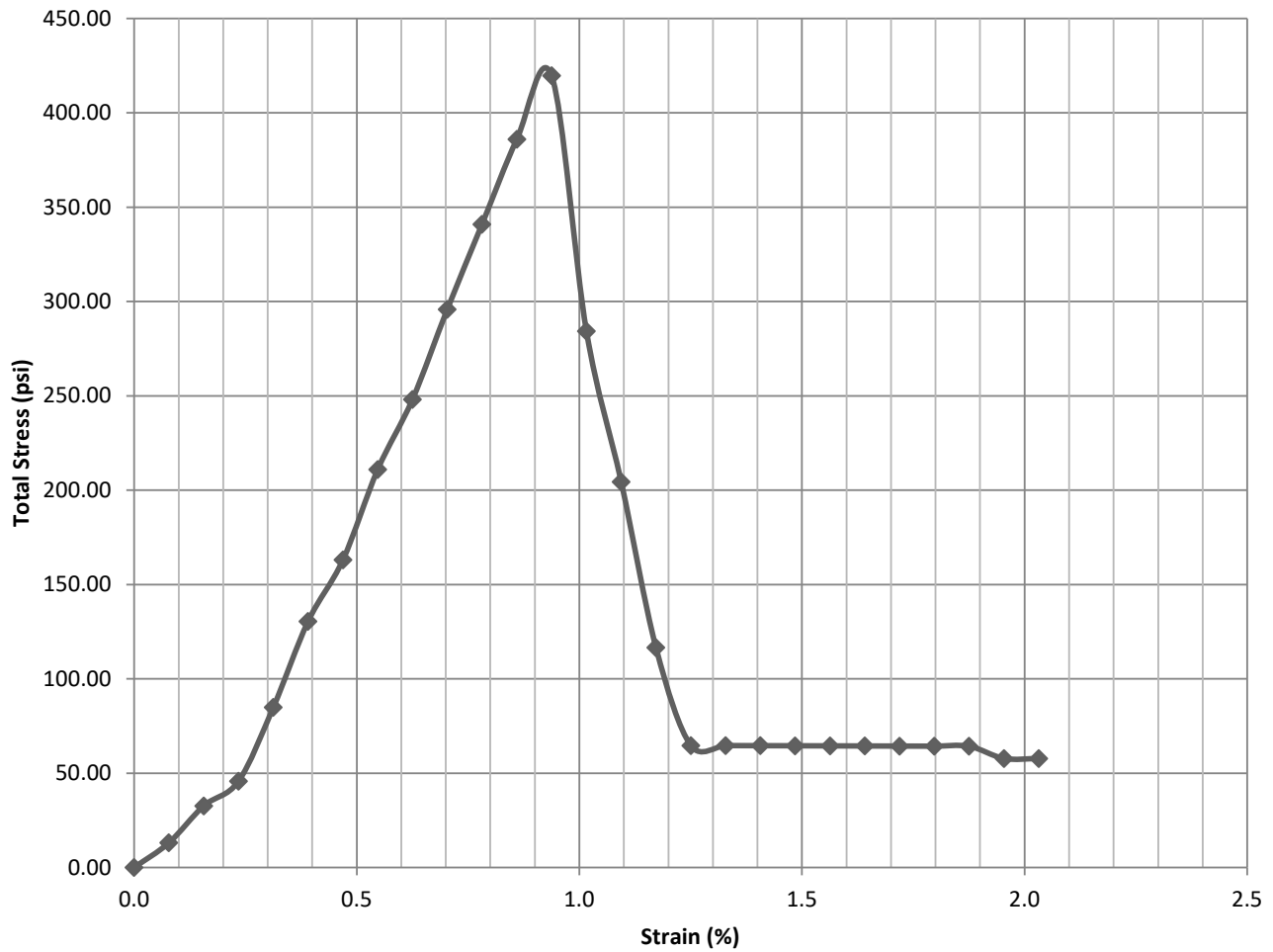


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-39



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1160



Average Initial Diameter (Do): 1.825 in.
 Average Initial Height (Lo): 3.839 in.
 Average Initial Area (Ao): 2.616 in²
 In-Situ Unit Weight: 120.5 pcf
 Failure Mode: Plastic Failure

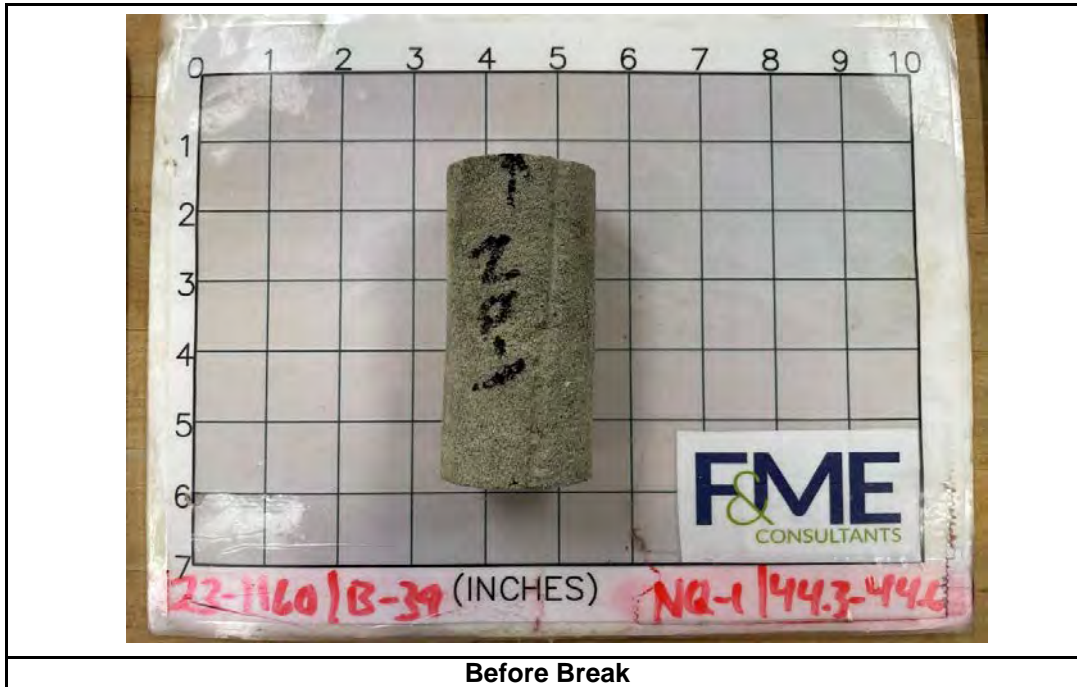
Sample Volume: 10.04 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.701 lbs.
 L/D Ratio: 2.104

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-39 / NQ-1
 Depth/Elevation 44.3' - 44.6'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 420 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



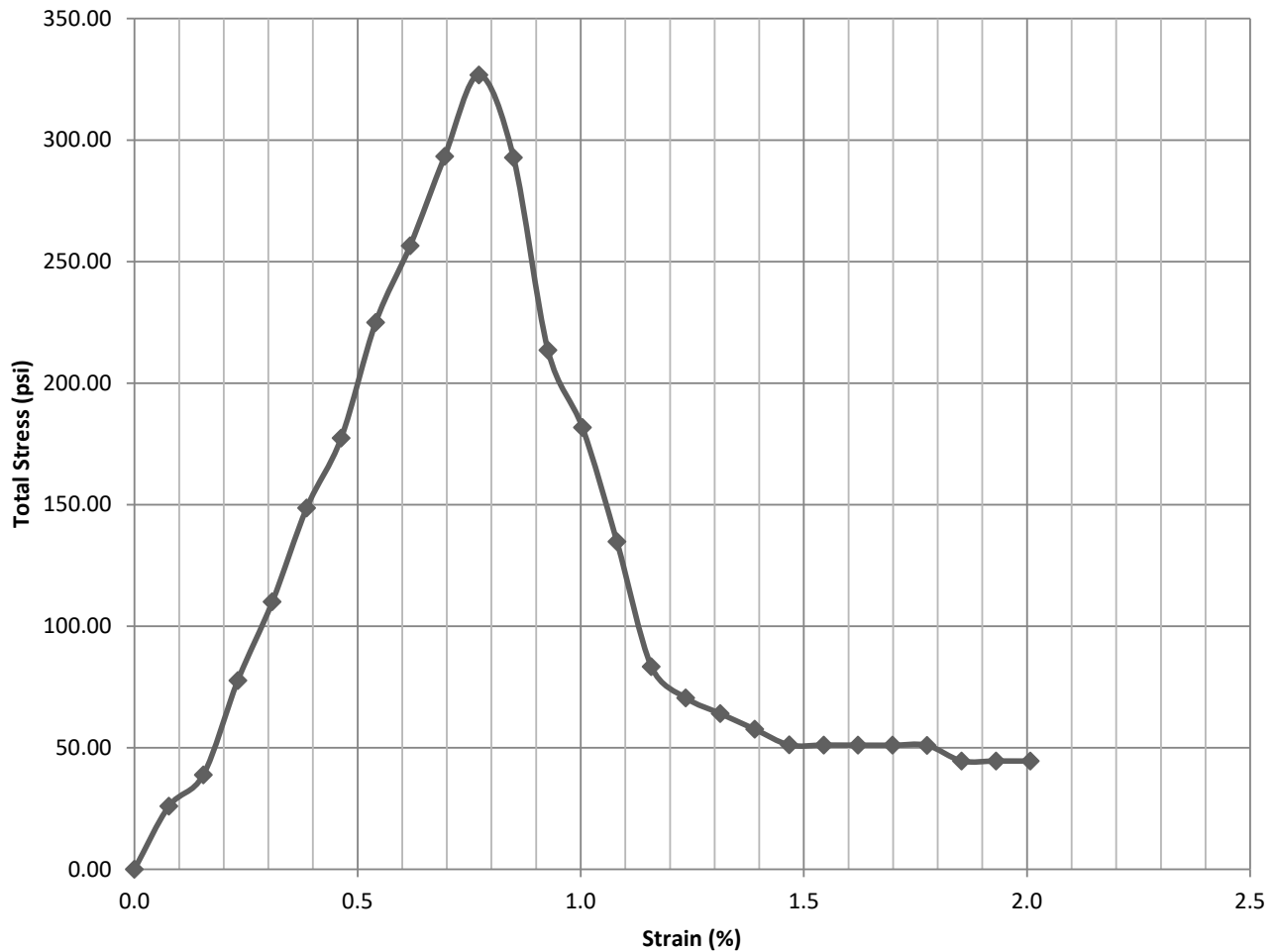
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1160
Sample Location:	B-39 / NQ-1	Depth of Sample:	44.3' - 44.6'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1160



Average Initial Diameter (Do): 1.833 in.
 Average Initial Height (Lo): 3.885 in.
 Average Initial Area (Ao): 2.639 in²
 In-Situ Unit Weight: 115.6 pcf
 Failure Mode: Plastic Failure

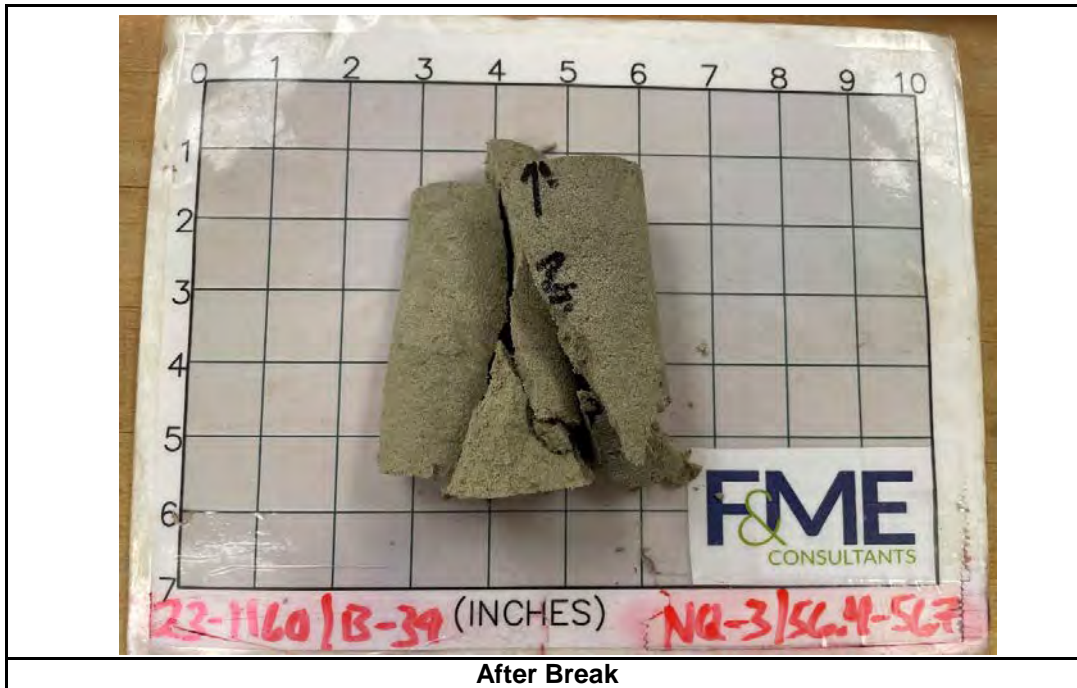
Sample Volume: 10.25 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.686 lbs.
 L/D Ratio: 2.119

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-39 / NQ-3
 Depth/Elevation 56.4' - 56.7'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 325 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



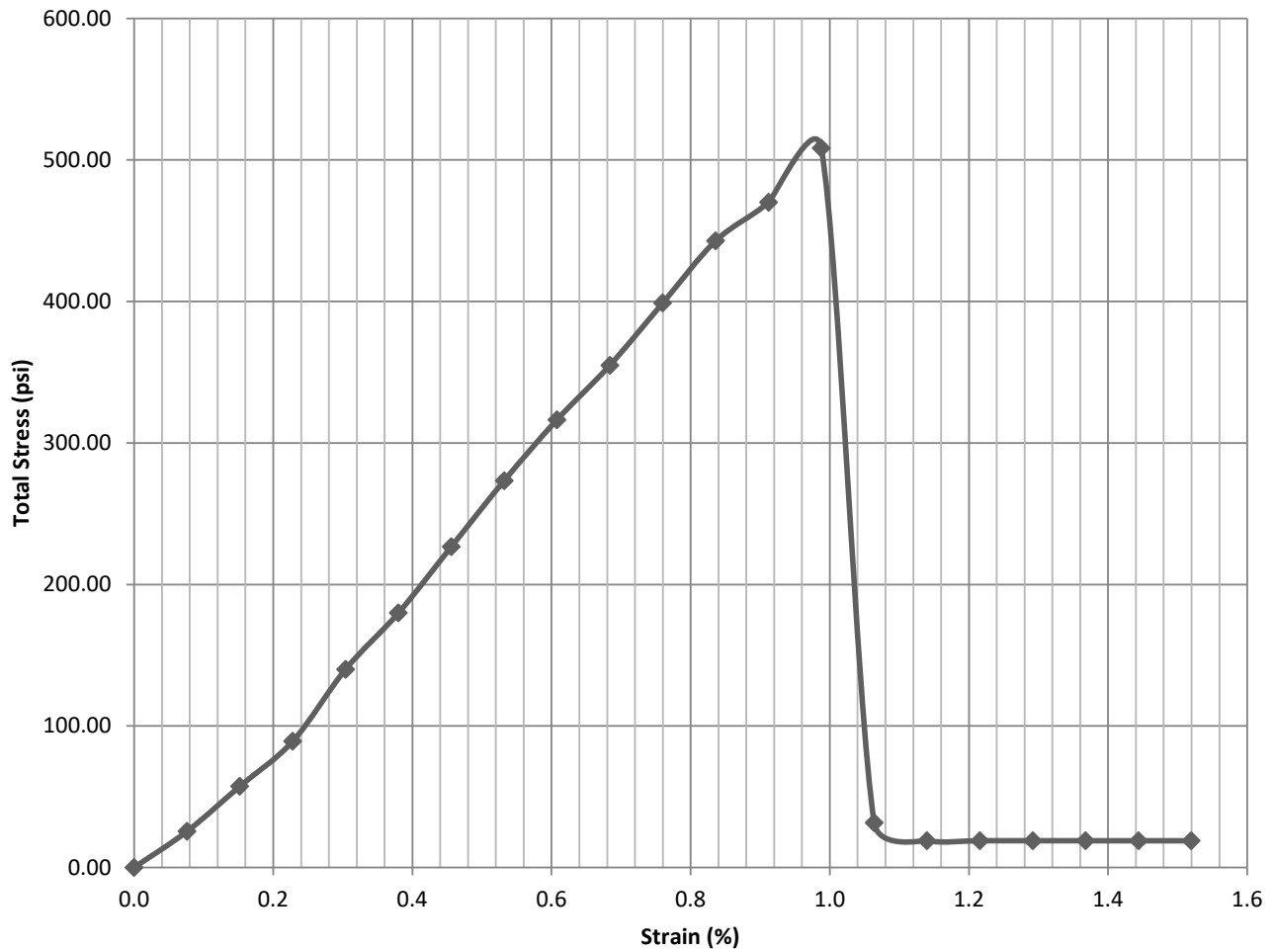
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1160
Sample Location:	B-39 / NQ-3	Depth of Sample:	56.4' - 56.7'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1160



Average Initial Diameter (Do): 1.848 in.
 Average Initial Height (Lo): 3.948 in.
 Average Initial Area (Ao): 2.682 in²
 In-Situ Unit Weight: 118.9 pcf
 Failure Mode: Plastic Failure

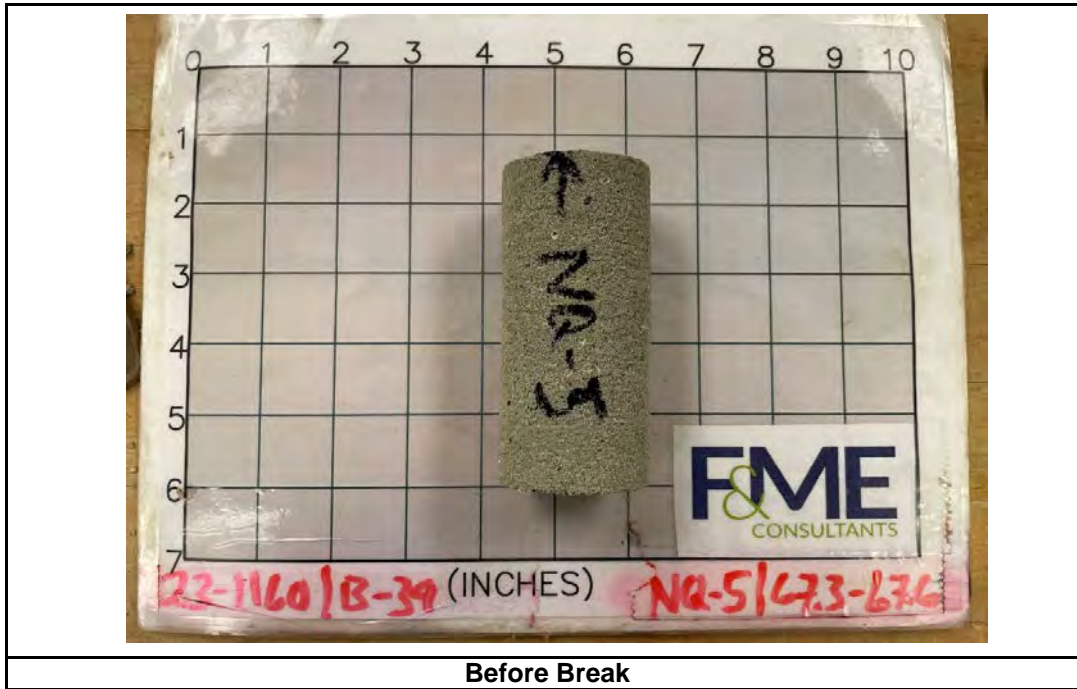
Sample Volume: 10.59 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.729 lbs.
 L/D Ratio: 2.136

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-39 / NQ-5
 Depth/Elevation 67.3' - 67.6'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 510 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



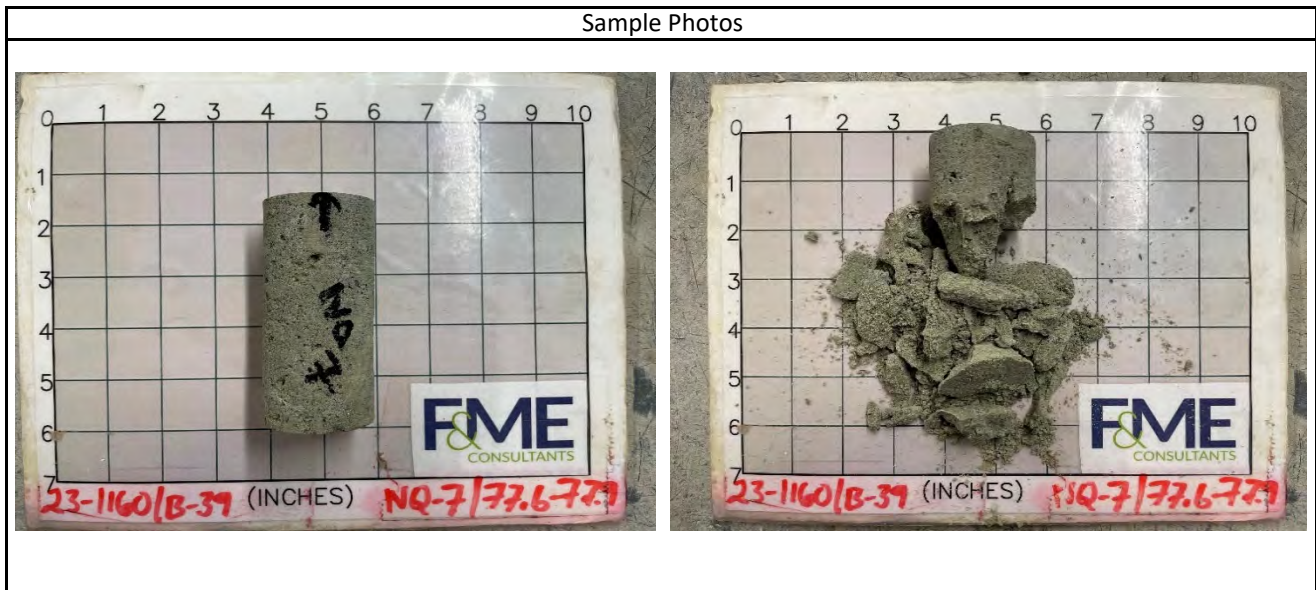
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1160
Sample Location:	B-39 / NQ-5	Depth of Sample:	67.3' - 67.6'
Tested By:	W. Pitts	Date Tested:	6/2/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.853	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.811	Reviewed By	WJG
Boring	B-39	Unit Weight (pcf)	143.2	Core Size	NQ
Sample No.	NQ-7 / 23-1160	L/D Ratio	2.06	Recovery	88%
Depth	77.6' - 77.9'	Load Rate (psi/sec)	10	RQD	38%
Description	Gray/Brown Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	0	0	0	0	#DIV/0!	#DIV/0!
20%	0	0	0	0	#DIV/0!	#DIV/0!
30%	0	0	0	0	#DIV/0!	#DIV/0!
40%	-1394	332	947	351	0.50	0.24
50%	-1862	634	1,202	446	0.48	0.34
60%	-2293	1112	1,438	533	0.47	0.48
70%	-2540	1565	1,683	624	0.49	0.62
80%	-3289	3435	1,947	722	0.44	1.04
90%	-3614	4532	2,157	800	0.44	1.25
100%	-3875	5169	2,400	890		

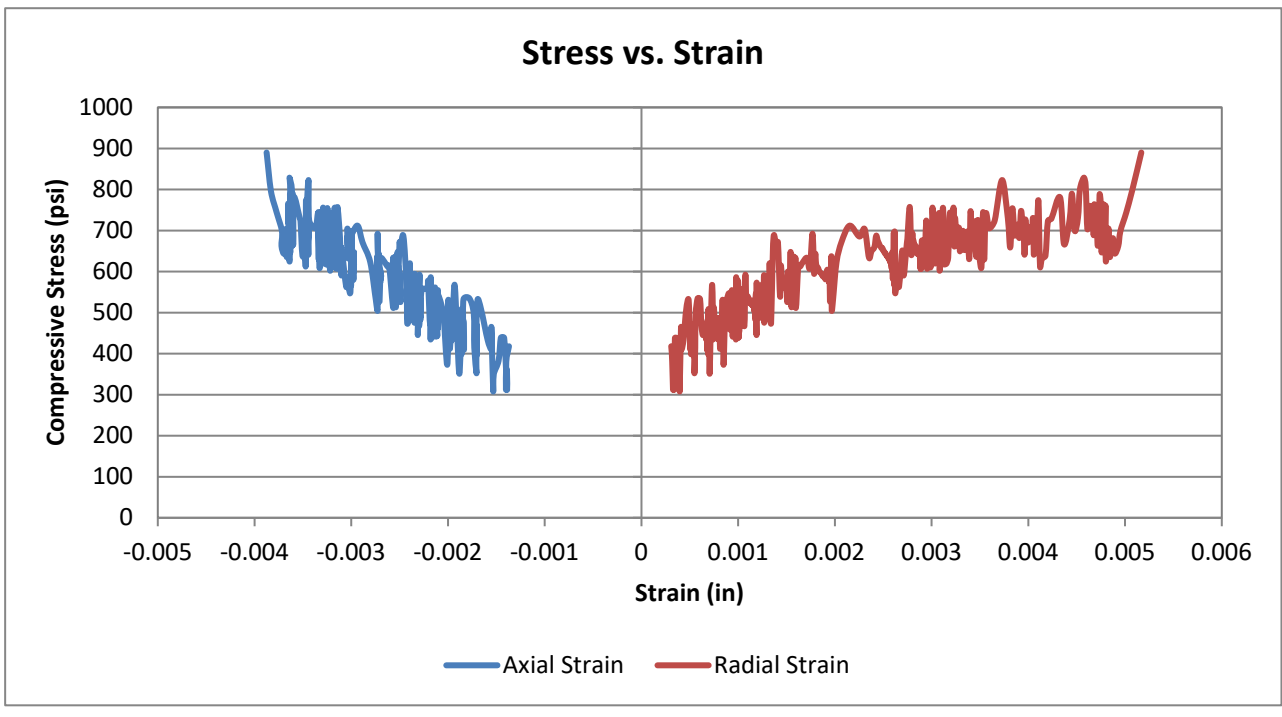
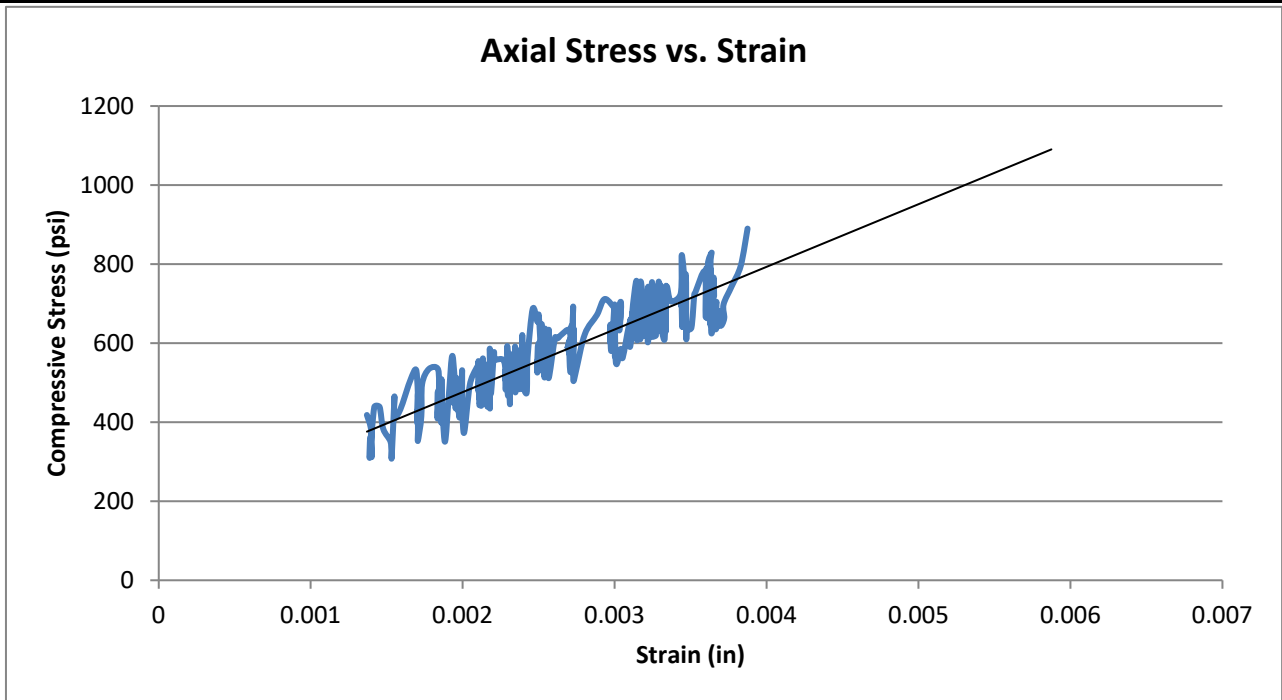


Test Results			
Unconfined Compressive Strength (psi)	890	Elastic Modulus (psi)	4.45E+05
		Poisson's Ratio in Elastic Range	0.67
Comments	Elastic range was taken as between 0.0015 and 0.0035 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range. The Poisson's Ratio for this sample is outside of the expected range and should be used with care.		



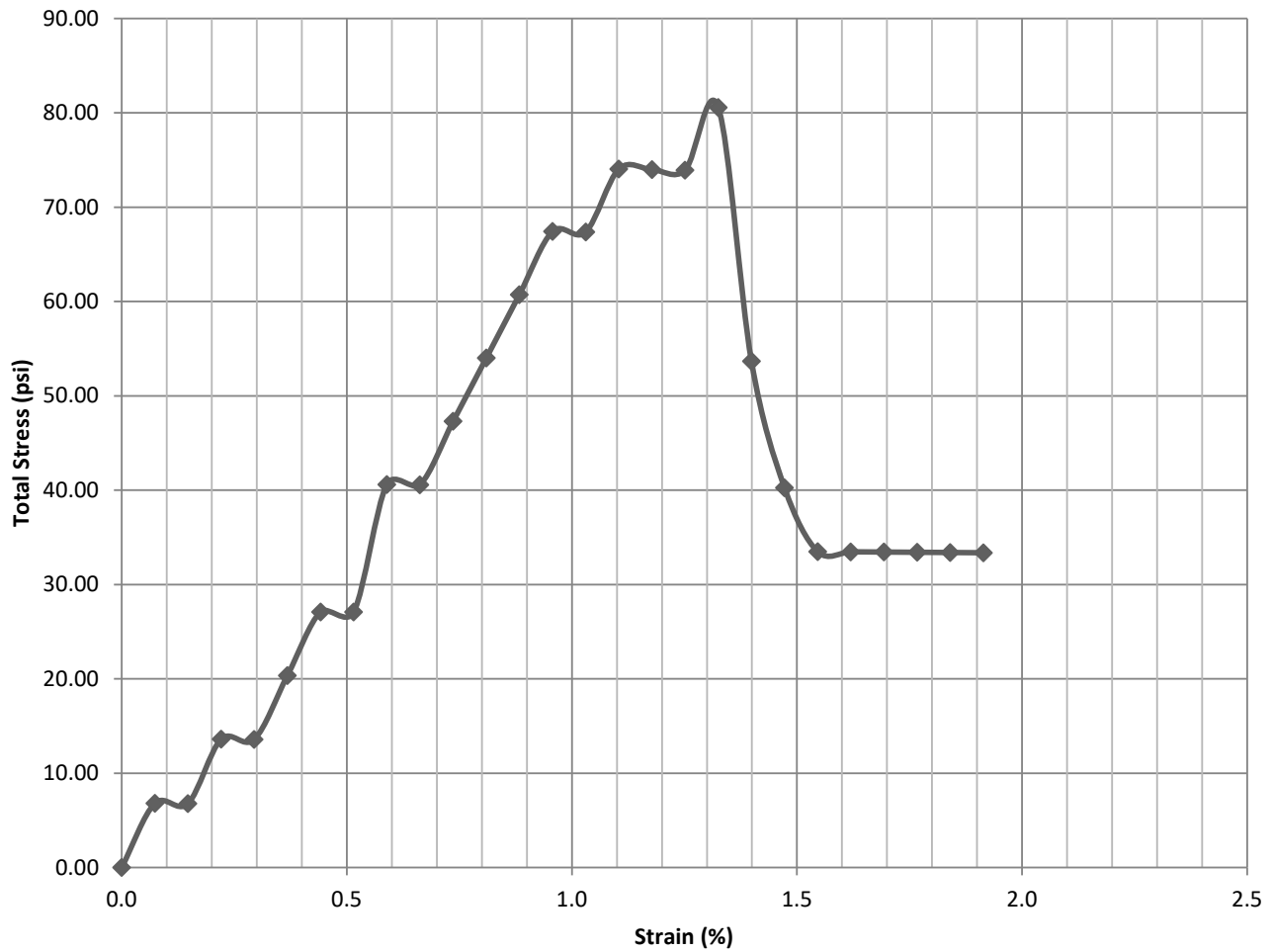
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
 ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.853	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.811	Reviewed By	WJG
Boring	B-39	Unit Weight (pcf)	143.2	Core Size	NQ
Sample No.	NQ-7 / 23-1160	L/D Ratio	2.06	Recovery	88%
Depth	77.6' - 77.9'	Load Rate (psi/sec)	10	RQD	38%
Description	Gray/Brown Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1160



Average Initial Diameter (Do): 1.790 in.
 Average Initial Height (Lo): 4.075 in.
 Average Initial Area (Ao): 2.516 in²
 In-Situ Unit Weight: 119.9 pcf
 Failure Mode: Plastic Failure

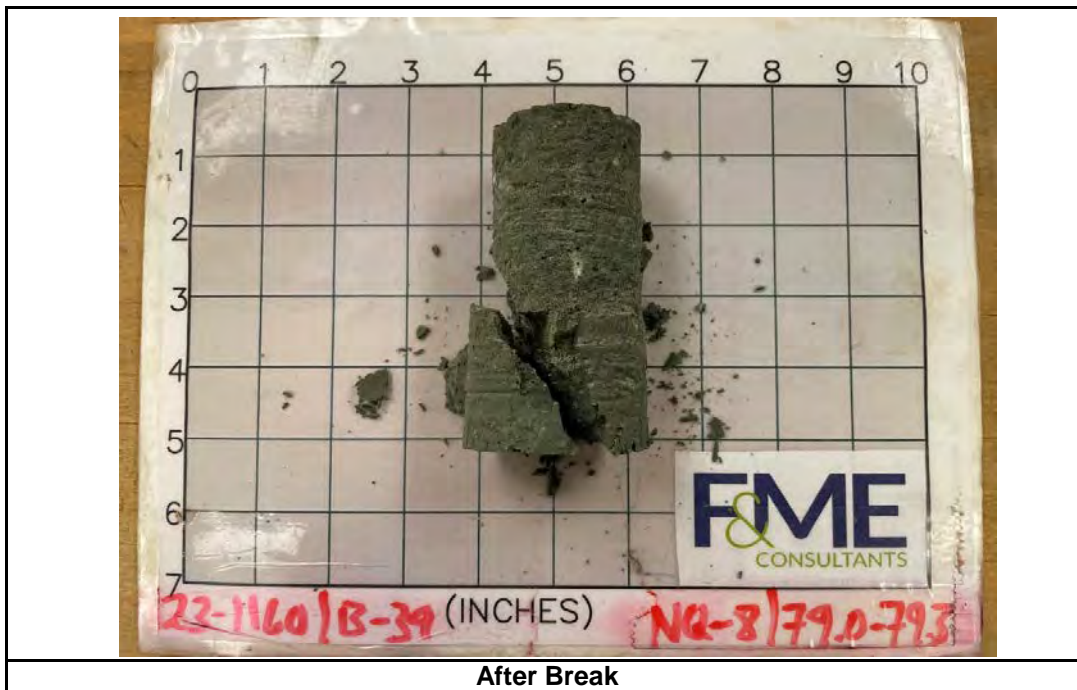
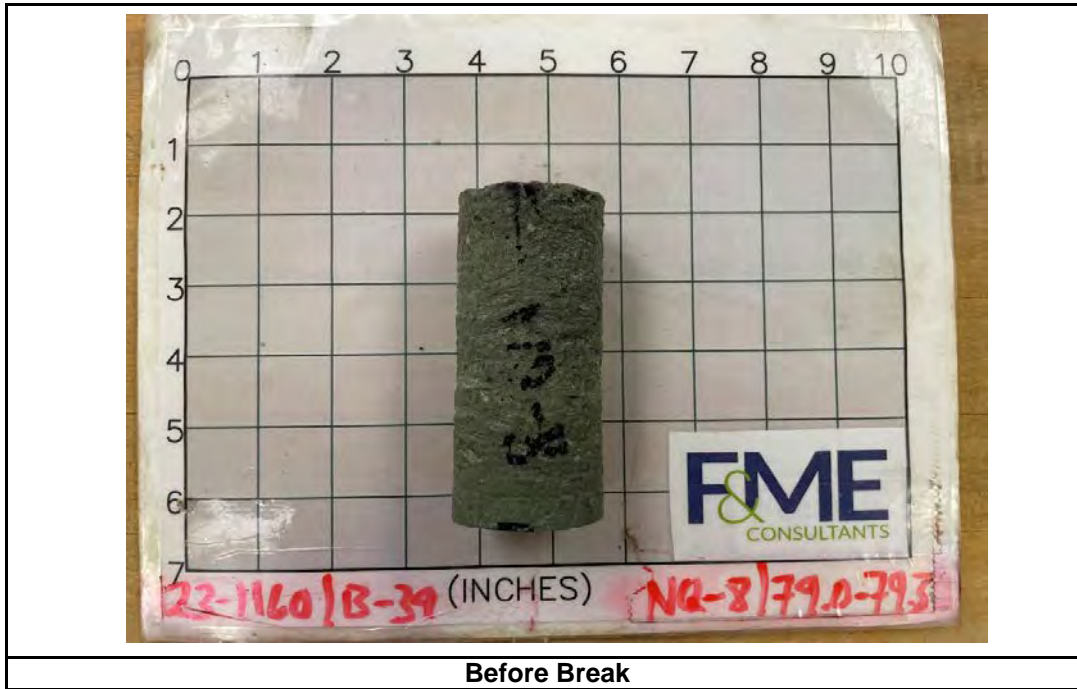
Sample Volume: 10.25 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.712 lbs.
 L/D Ratio: 2.277

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 6/2/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-39 / NQ-8
 Depth/Elevation 79.0' - 79.3'

Sample Type : Soil Core
 Target Strain Rate : 0.60% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 80 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$

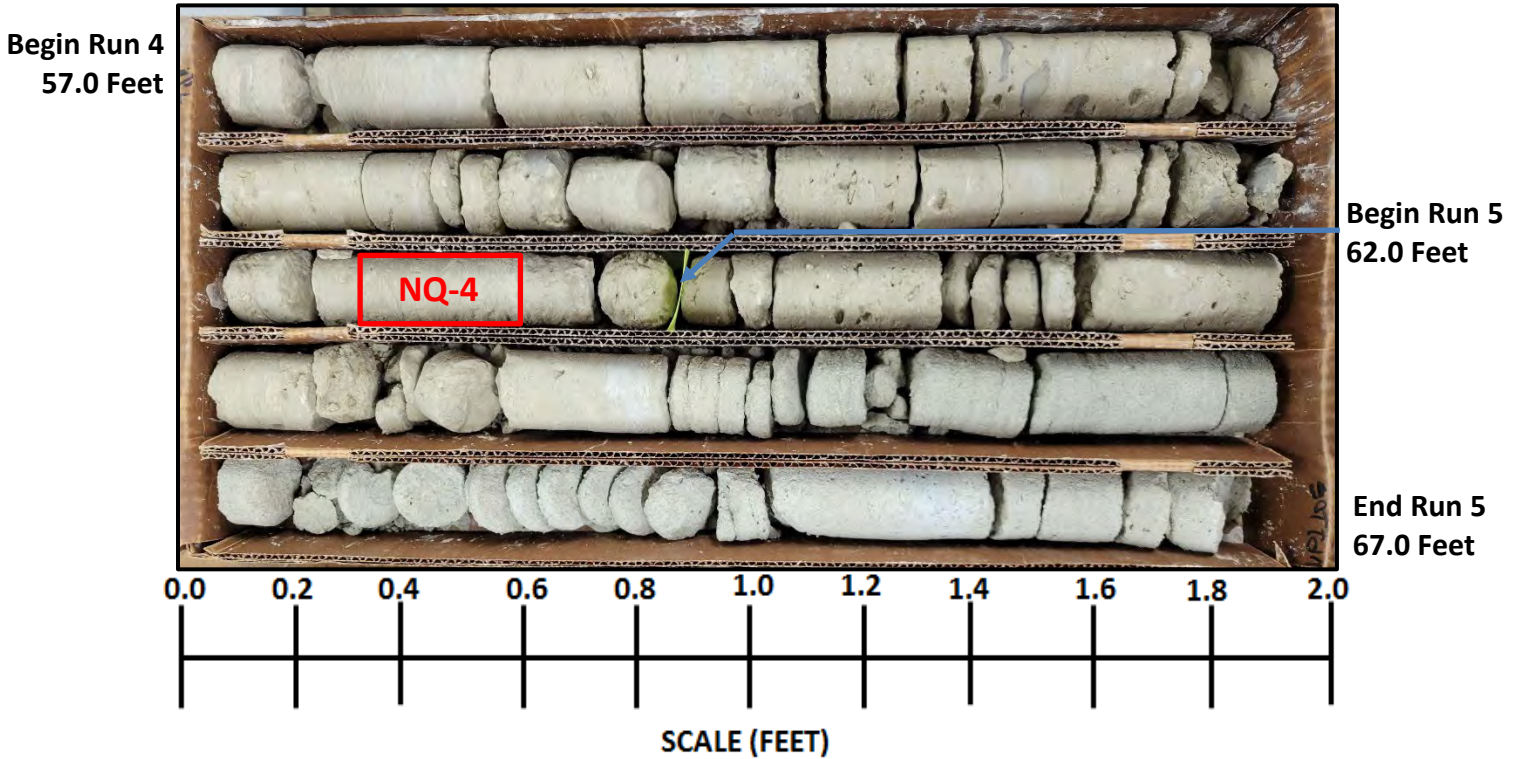


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1160
Sample Location:	B-39 / NQ-8	Depth of Sample:	79.0' - 79.3'
Tested By:	W. Pitts	Date Tested:	6/2/2023

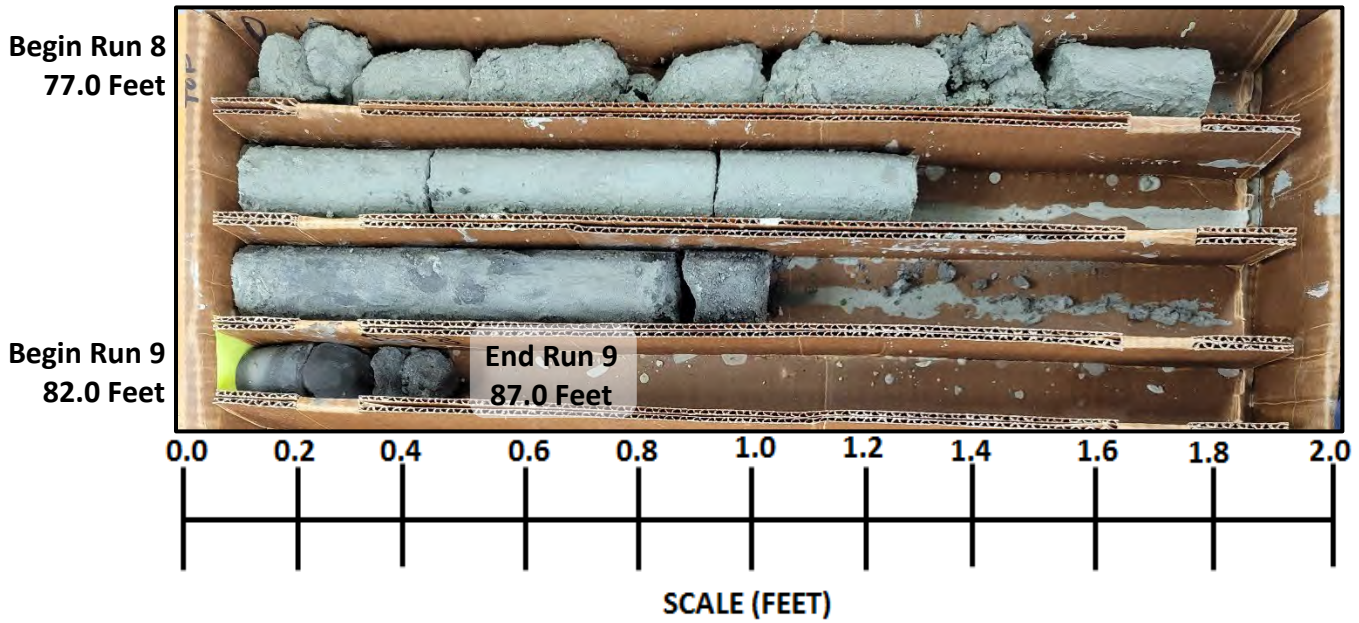


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-40

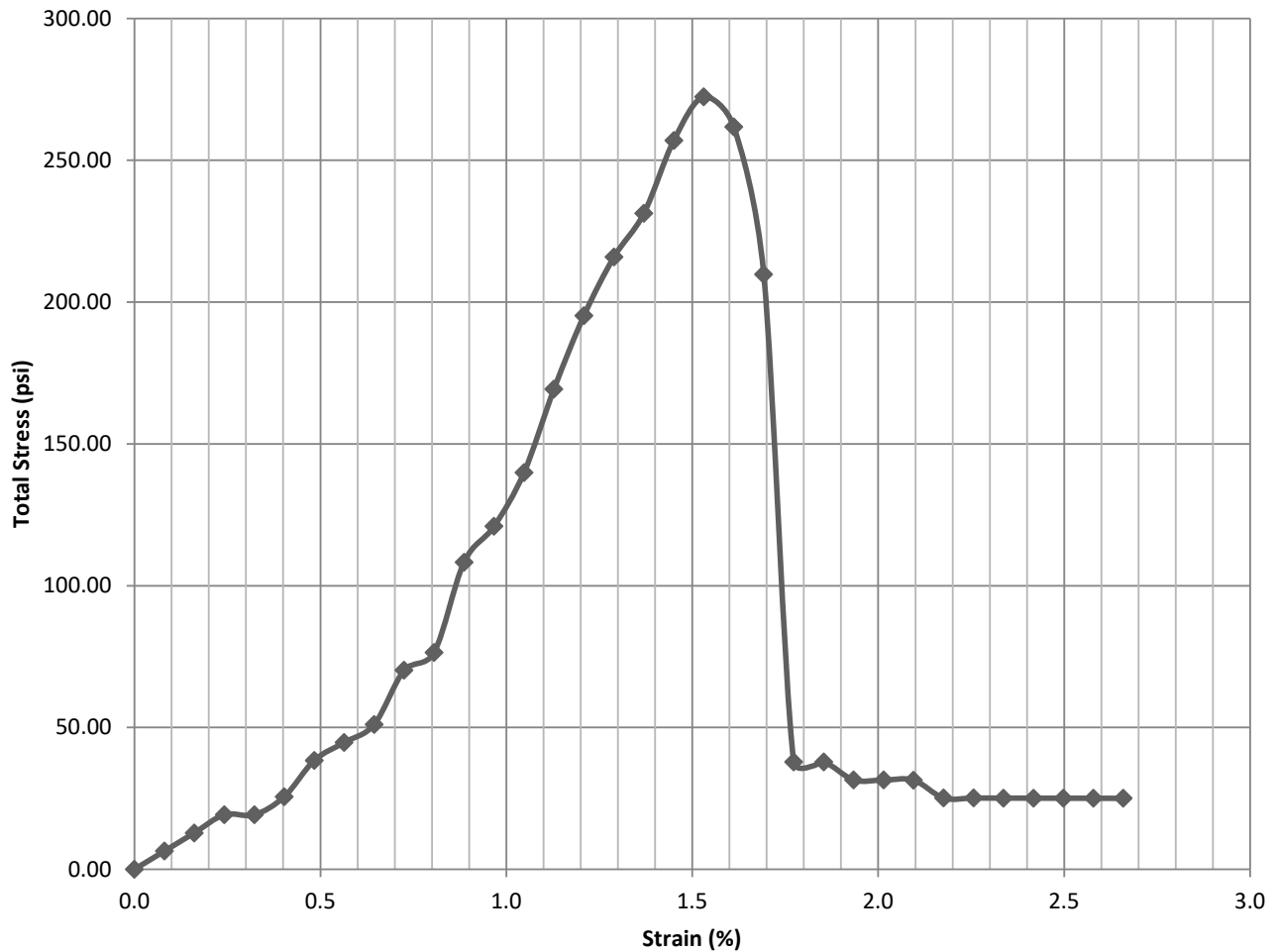


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-40



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0565



Average Initial Diameter (Do): 1.842 in.
 Average Initial Height (Lo): 3.723 in.
 Average Initial Area (Ao): 2.665 in²
 In-Situ Unit Weight: 121.1 pcf
 Failure Mode: Plastic Failure

Sample Volume: 9.921 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.695 lbs.
 L/D Ratio: 2.021

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/8/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-40 / NQ-2
 Depth/Elevation 48.4' - 48.8'

Sample Type : Soil Core
 Target Strain Rate : 0.8% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 270 \text{ psi}$ $\epsilon_{ULT} = 1.5\%$



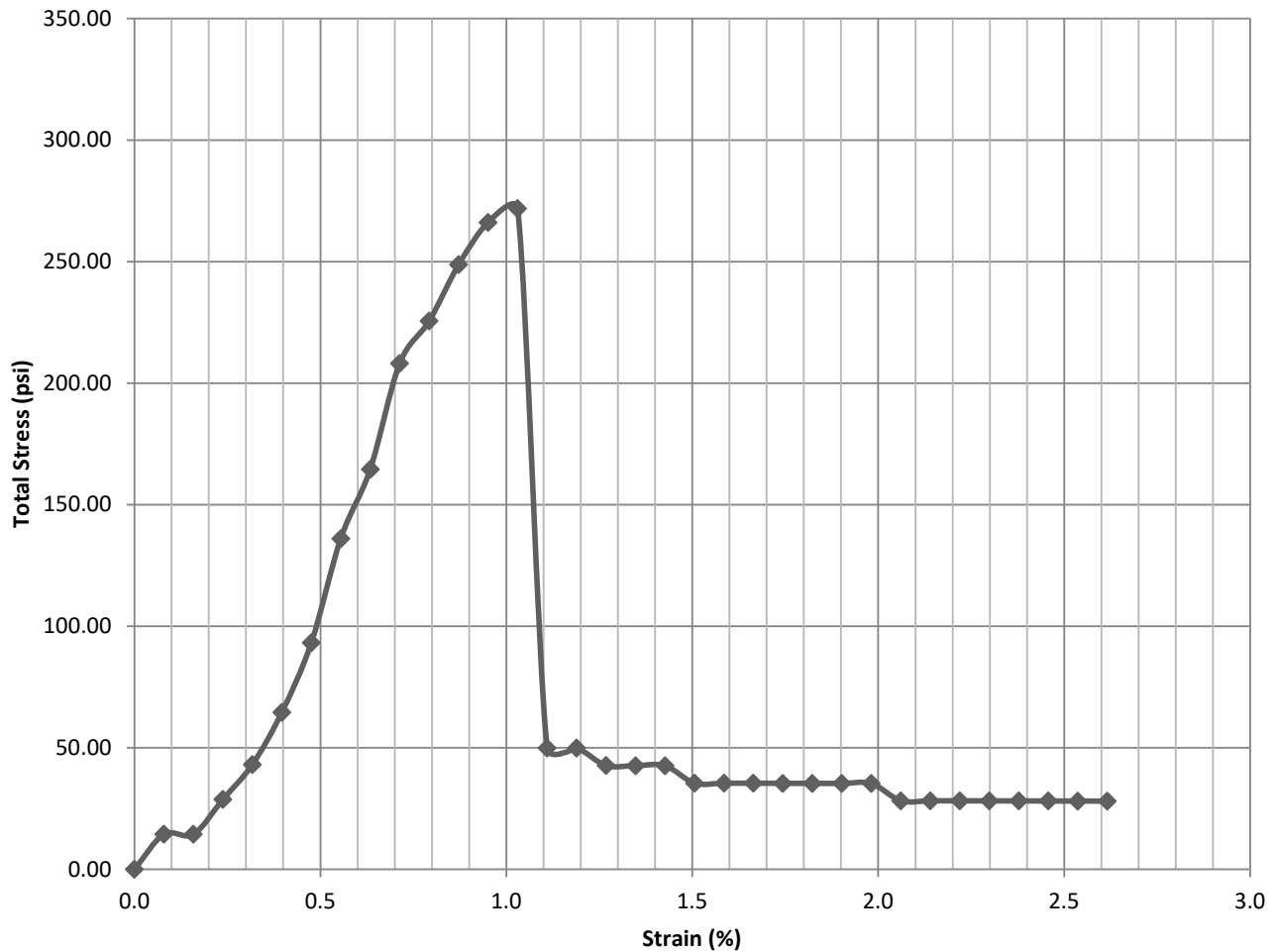
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0565
Sample Location:	B-40 / NQ-2	Depth of Sample:	48.4' - 48.8'
Tested By:	W. Pitts	Date Tested:	3/8/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0565



Average Initial Diameter (Do): 1.740 in.
 Average Initial Height (Lo): 3.785 in.
 Average Initial Area (Ao): 2.378 in²
 In-Situ Unit Weight: 117.7 pcf
 Failure Mode: Plastic Failure

Sample Volume: 9.000 in³
 Sample Volume: 0.005 ft³
 Sample Weight: 0.613 lbs.
 L/D Ratio: 2.175

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/8/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-40 / NQ-4
 Depth/Elevation 61.3' - 61.7'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 270 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



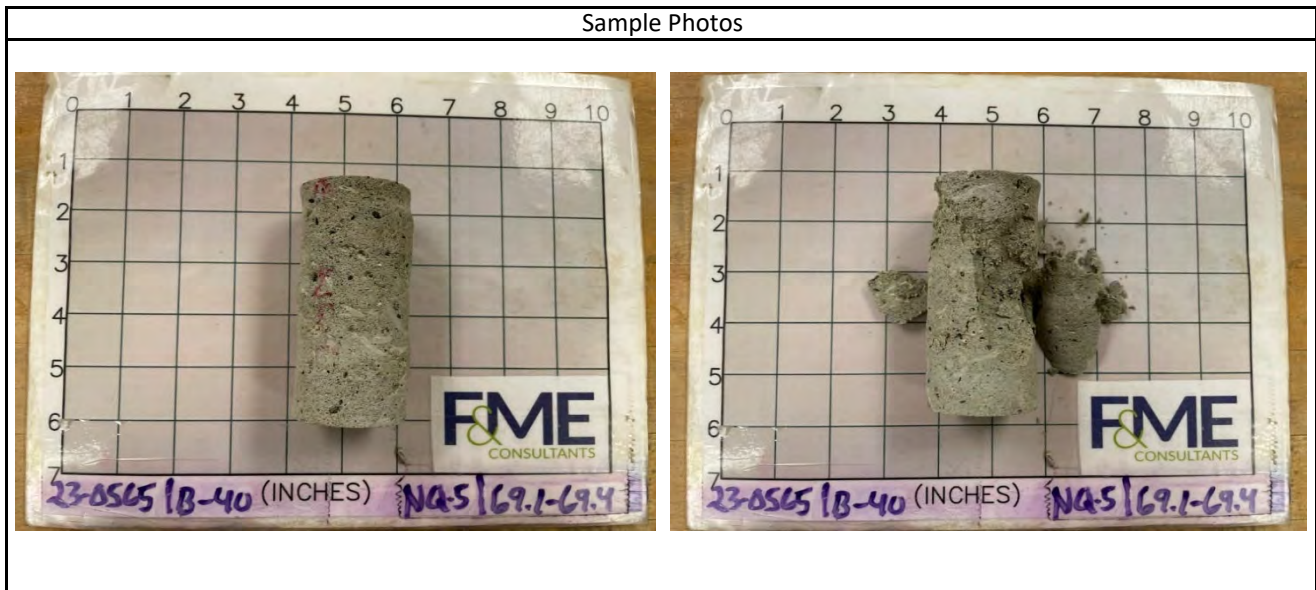
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0565
Sample Location:	B-40 / NQ-4	Depth of Sample:	61.3' - 61.7'
Tested By:	W. Pitts	Date Tested:	3/8/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.91	Reviewed By	WJG
Boring	B-40	Unit Weight (pcf)	139.5	Core Size	NQ
Sample No.	NQ-6 / 23-0565A	L/D Ratio	2.09	Recovery	93%
Depth	69.1' - 69.4'	Load Rate (psi/sec)	10	RQD	36%
Description	Bworn/White/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%	-834	-308	1,547	565	1.35	0.37
50%	-981	449	1,868	682	1.39	0.46
60%	-1599	1529	2,222	812	1.02	0.96
70%	-2089	1731	2,669	975	0.93	0.83
80%	-2887	2193	3,042	1,111	0.77	0.76
90%	-4336	3098	3,417	1,248	0.58	0.71
100%	-4541	3203	3,795	1,386		

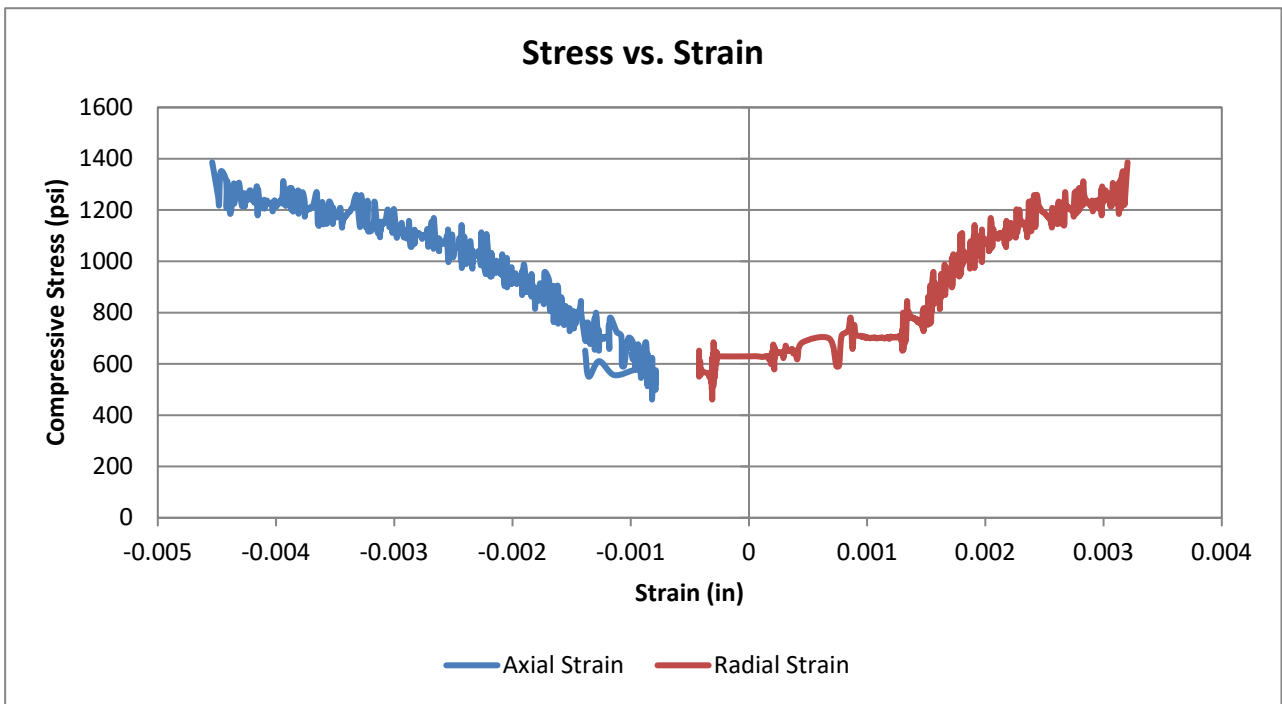
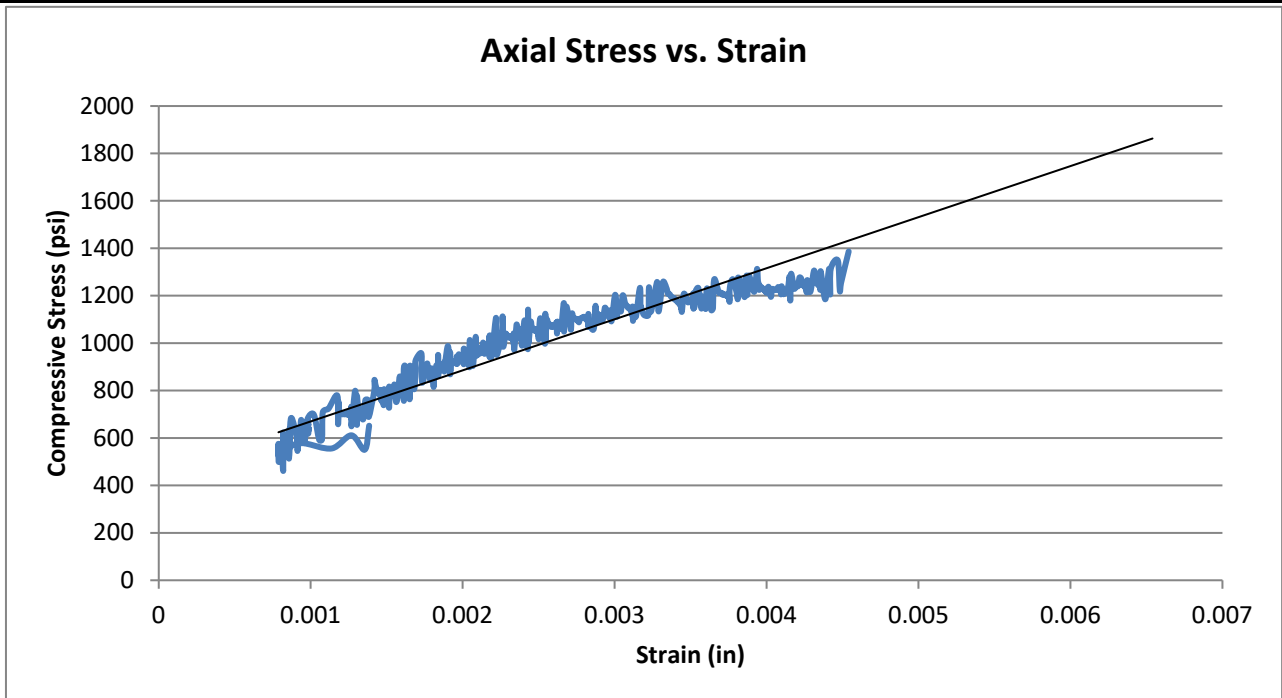


Test Results			
Unconfined Compressive Strength (psi)	1,390	Elastic Modulus (psi)	8.28E+05
		Poisson's Ratio in Elastic Range	0.78
Comments	Elastic range was taken as between 0.002 and 0.0035 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range. The Poisson's Ratio for this sample is outside of the expected range and should be used with care.		



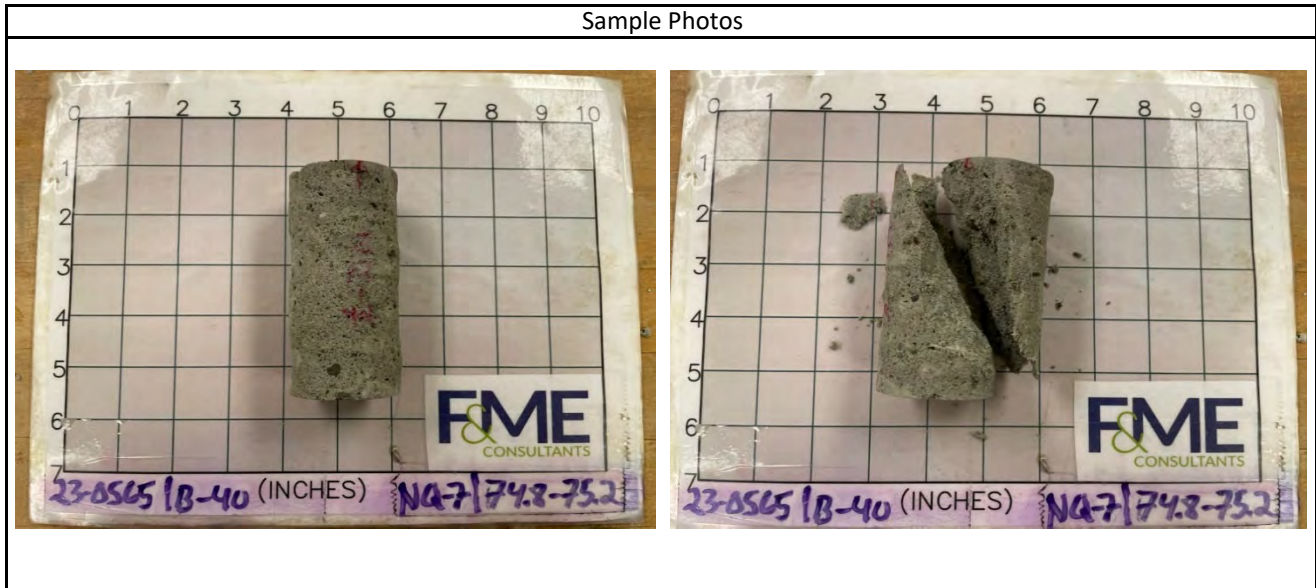
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.867	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.91	Reviewed By	WJG
Boring	B-40	Unit Weight (pcf)	139.5	Core Size	NQ
Sample No.	NQ-6 / 23-0565A	L/D Ratio	2.09	Recovery	93%
Depth	69.1' - 69.4'	Load Rate (psi/sec)	10	RQD	36%
Description	Bworn/White/Gray Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.842	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.838	Reviewed By	WJG
Boring	B-40	Unit Weight (pcf)	144.0	Core Size	NQ
Sample No.	NQ-7 / 23-0565B	L/D Ratio	2.08	Recovery	68%
Depth	74.8' - 75.2'	Load Rate (psi/sec)	10	RQD	45%
Description	Brown/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%						
40%	-1222	238	1,496	561	0.92	0.19
50%	-1544	428	1,834	688	0.89	0.28
60%	-1730	560	2,178	817	0.94	0.32
70%	-2290	1098	2,574	966	0.84	0.48
80%	-2828	1749	2,927	1,098	0.78	0.62
90%	-3581	2865	3,287	1,233	0.69	0.80
100%	-4395	3703	3,661	1,374		

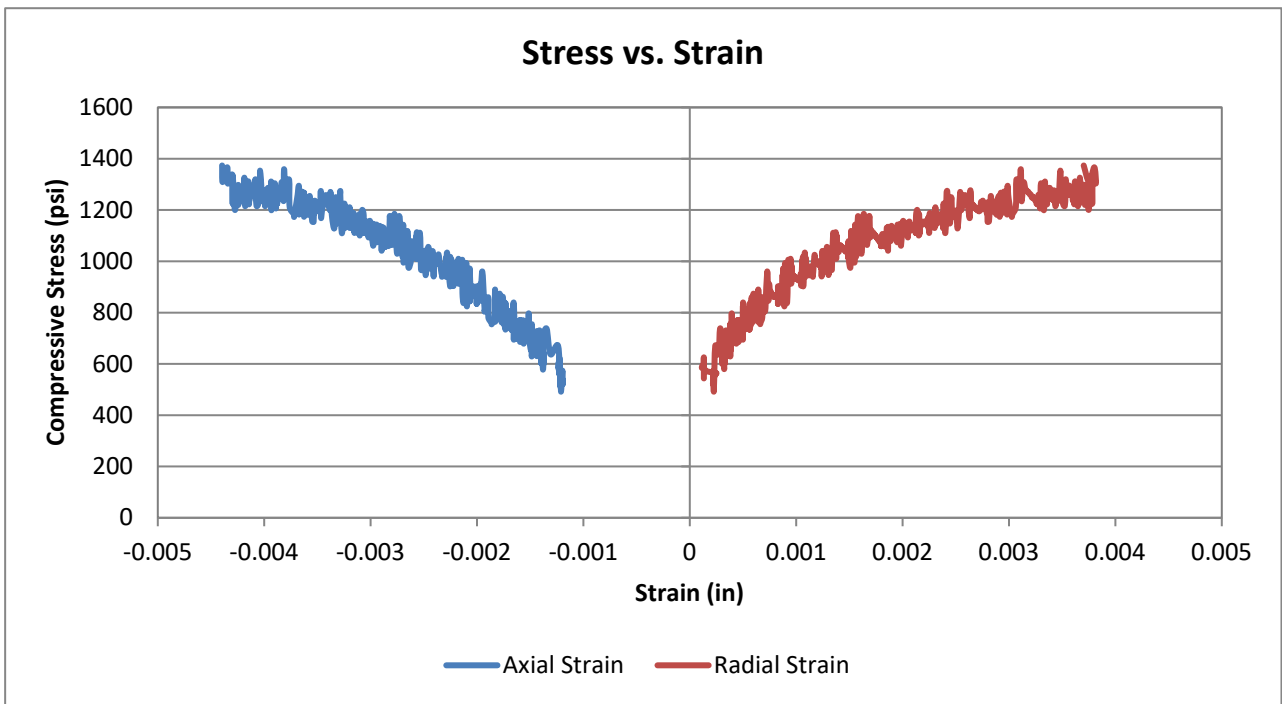
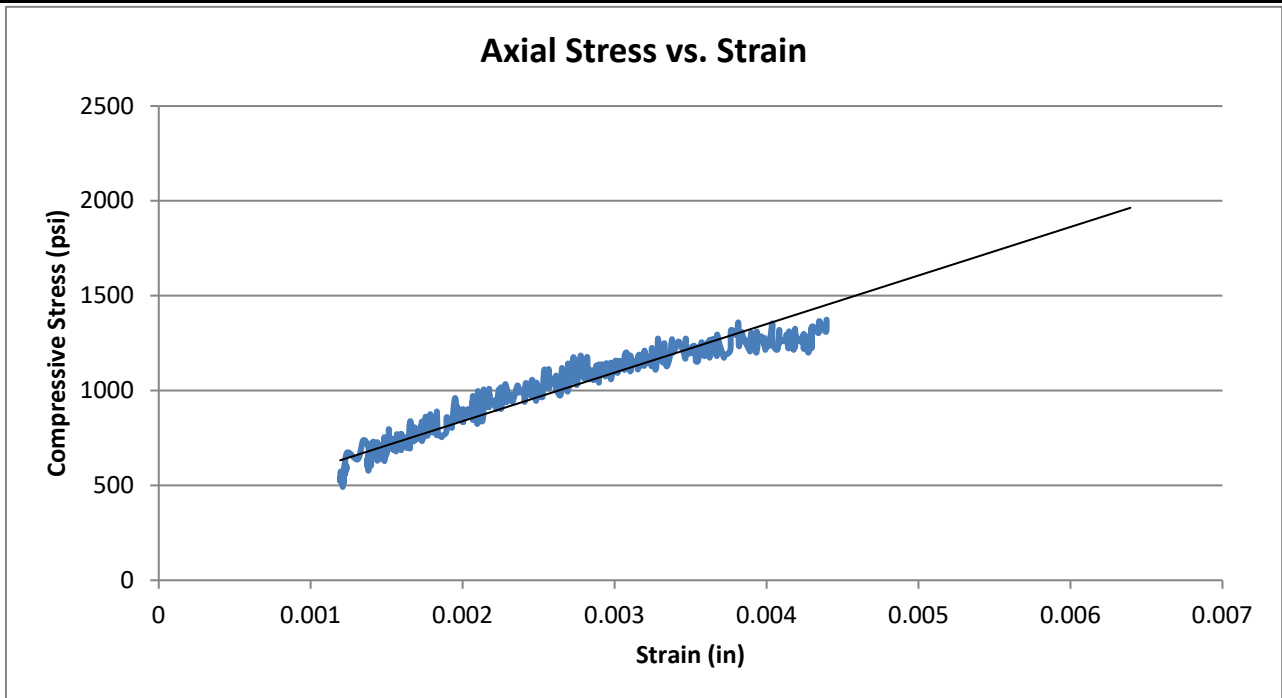


Test Results			
Unconfined Compressive Strength (psi)	1,370	Elastic Modulus (psi)	8.31E+05
		Poisson's Ratio in Elastic Range	0.49
Comments	Elastic range was taken as between 0.0015 and 0.0035 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range. The Poisson's Ratio for this sample is outside of the expected range and should be used with care.		



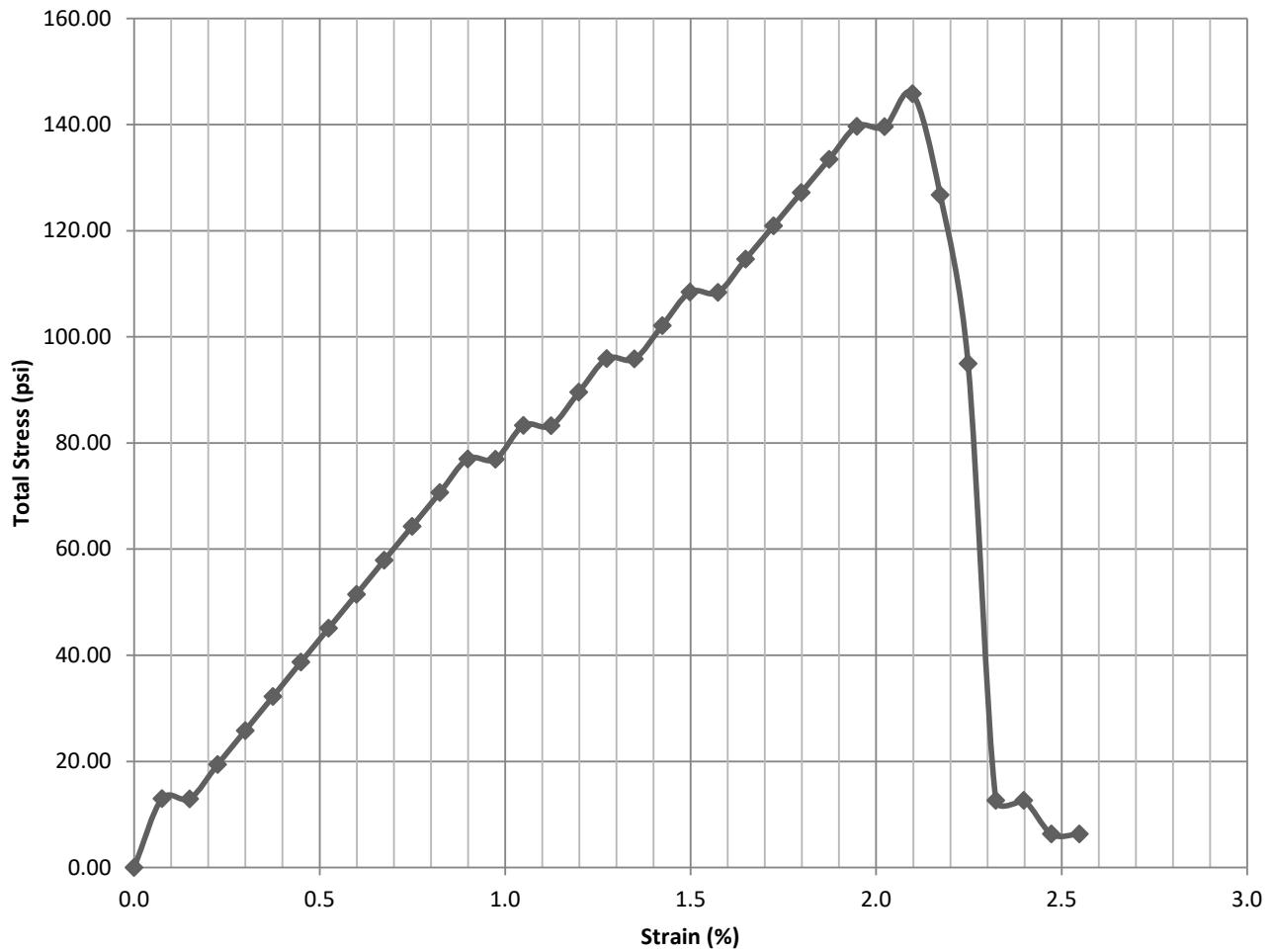
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
 ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.842	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.838	Reviewed By	WJG
Boring	B-40	Unit Weight (pcf)	144.0	Core Size	NQ
Sample No.	NQ-7 / 23-0565B	L/D Ratio	2.08	Recovery	68%
Depth	74.8' - 75.2'	Load Rate (psi/sec)	10	RQD	45%
Description	Brown/Gray/White Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0565



Average Initial Diameter (Do): 1.835 in.
 Average Initial Height (Lo): 4.004 in.
 Average Initial Area (Ao): 2.645 in²
 In-Situ Unit Weight: 115.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.59 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.707 lbs.
 L/D Ratio: 2.182

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/20/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-40 / NQ-8
 Depth/Elevation 80.3' - 80.7'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Silty SAND (SM/A-2-4)
 $\sigma_{c-ULT} = 145$ psi $\epsilon_{ULT} = 2.1\%$

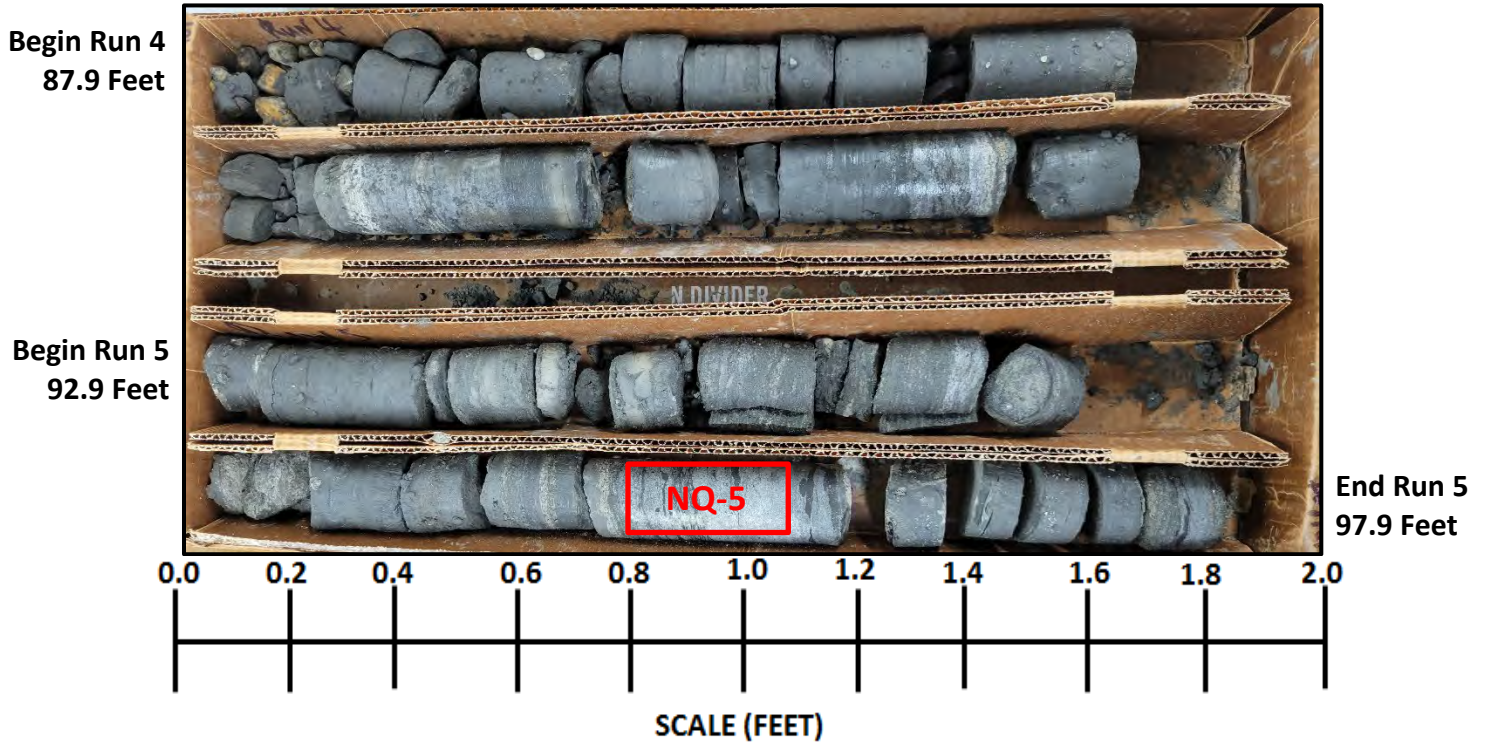


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0565
Sample Location:	B-40 / NQ-8	Depth of Sample:	80.3' - 80.7'
Tested By:	W. Pitts	Date Tested:	3/20/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-42



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-42

Begin Run 6
97.9 Feet



Begin Run 7
102.9 Feet

End Run 7
107.9 Feet

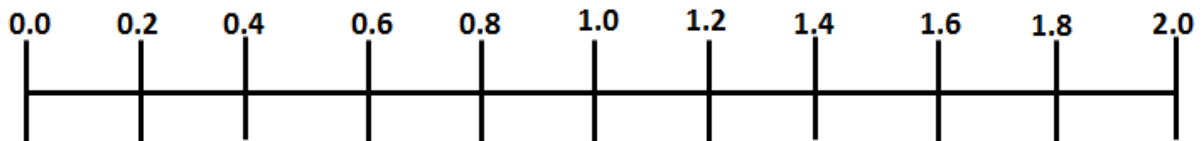
Begin Run 8
107.9 Feet



Begin Run 9
112.9 Feet

Begin Run 10
117.9 Feet

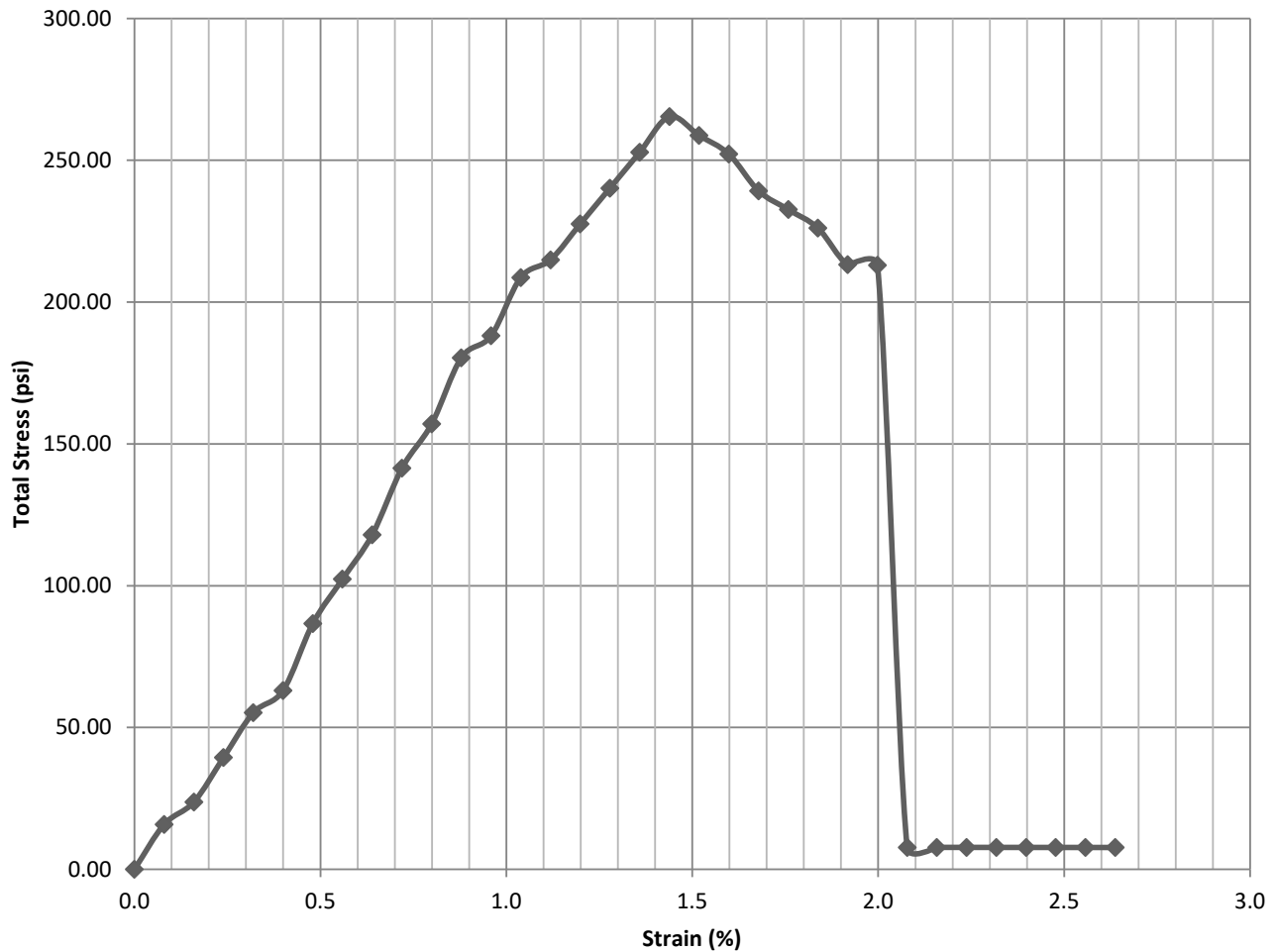
End Run 10
119.9 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0566



Average Initial Diameter (Do): 1.660 in.
 Average Initial Height (Lo): 3.754 in.
 Average Initial Area (Ao): 2.164 in²
 In-Situ Unit Weight: 114.2 pcf
 Failure Mode: Plastic Failure

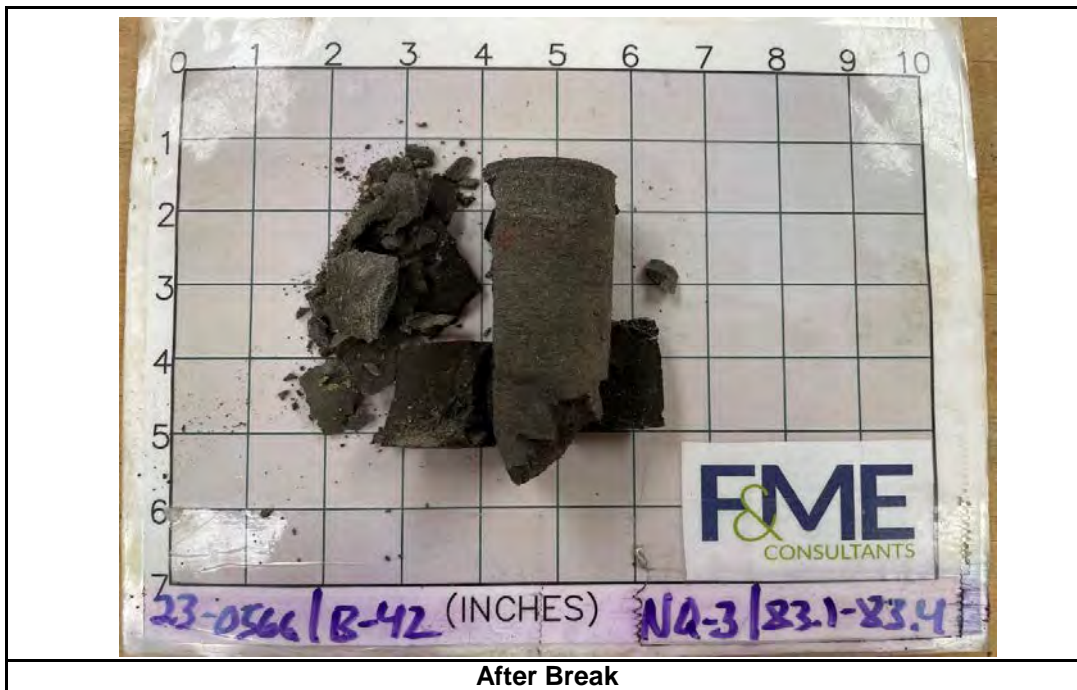
Sample Volume: 8.12 in³
 Sample Volume: 0.005 ft³
 Sample Weight: 0.537 lbs.
 L/D Ratio: 2.261

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/21/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-42 / NQ-3
 Depth/Elevation 83.1' - 83.4'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Silty SAND (SM/A-2-4)
 $\sigma_{c-ULT} = 265 \text{ psi}$ $\epsilon_{ULT} = 1.4\%$



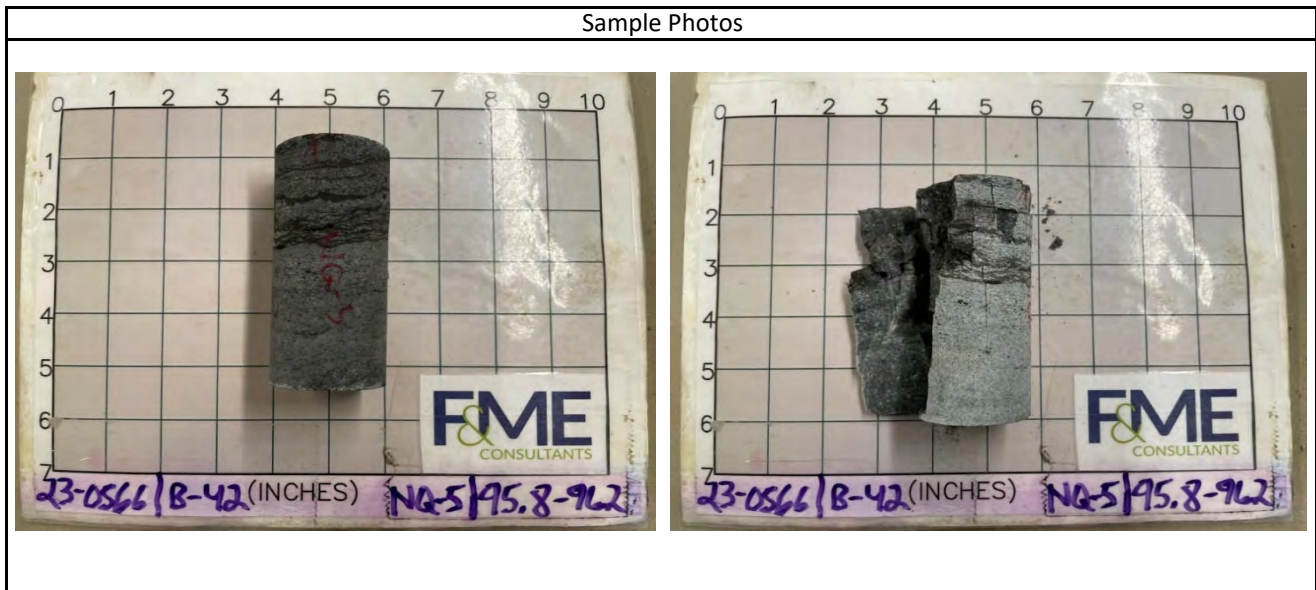
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0566
Sample Location:	B-42 / NQ-3	Depth of Sample:	83.1' - 83.4'
Tested By:	W. Pitts	Date Tested:	3/21/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.871	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.908	Reviewed By	WJG
Boring	B-42	Unit Weight (pcf)	149.8	Core Size	NQ
Sample No.	NQ-5 / 23-0566	L/D Ratio	2.09	Recovery	63%
Depth	95.8' - 96.2'	Load Rate (psi/sec)	10	RQD	17%
Description	Black/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	-566	29	2,224	809	2.86	0.05
20%	-1143	76	4,419	1,607	2.81	0.07
30%	-1727	112	6,627	2,410	2.79	0.06
40%	-2341	140	8,847	3,218	2.75	0.06
50%	-2986	173	11,054	4,020	2.69	0.06
60%	-3693	206	13,290	4,834	2.62	0.06
70%	-4471	238	15,438	5,615	2.51	0.05
80%	-5348	275	17,671	6,427	2.40	0.05
90%	-6430	341	19,883	7,232	2.25	0.05
100%	-13986	3087	22,118	8,045		

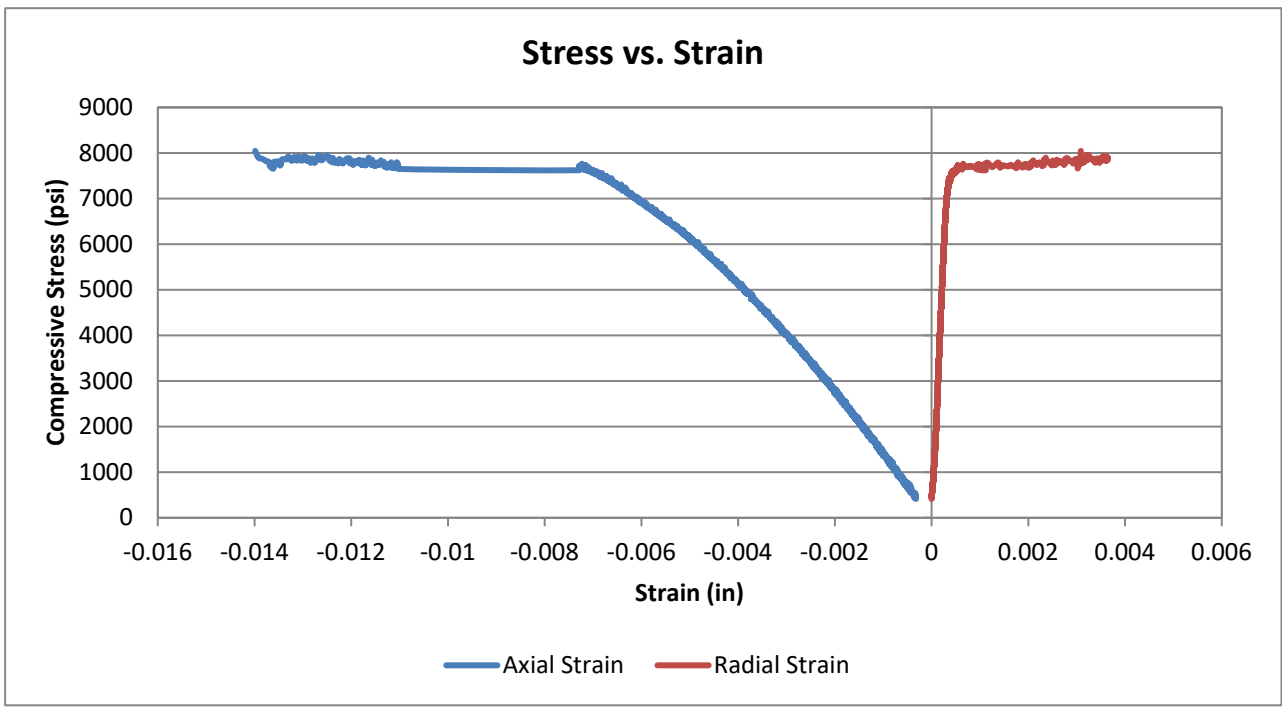
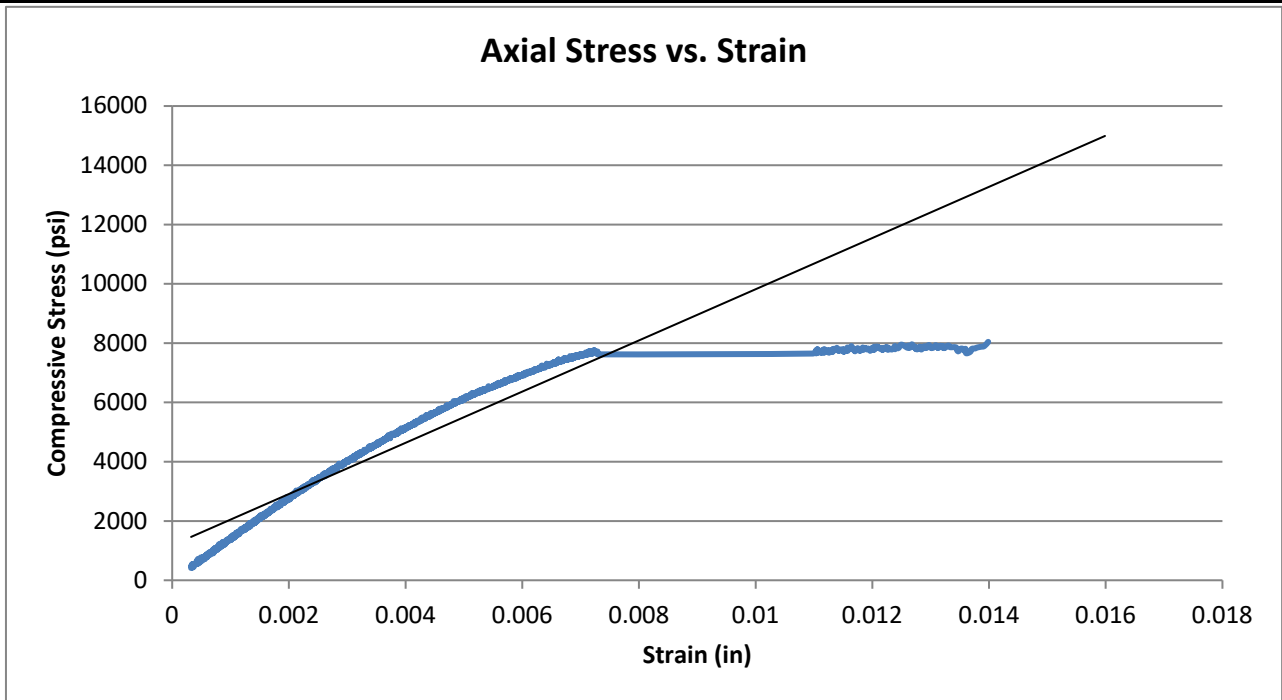


Test Results			
Unconfined Compressive Strength (psi)	8,040	Elastic Modulus (psi)	2.68E+06
		Poisson's Ratio in Elastic Range	0.06
Comments	Elastic range was taken as between 0.001 and 0.005 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



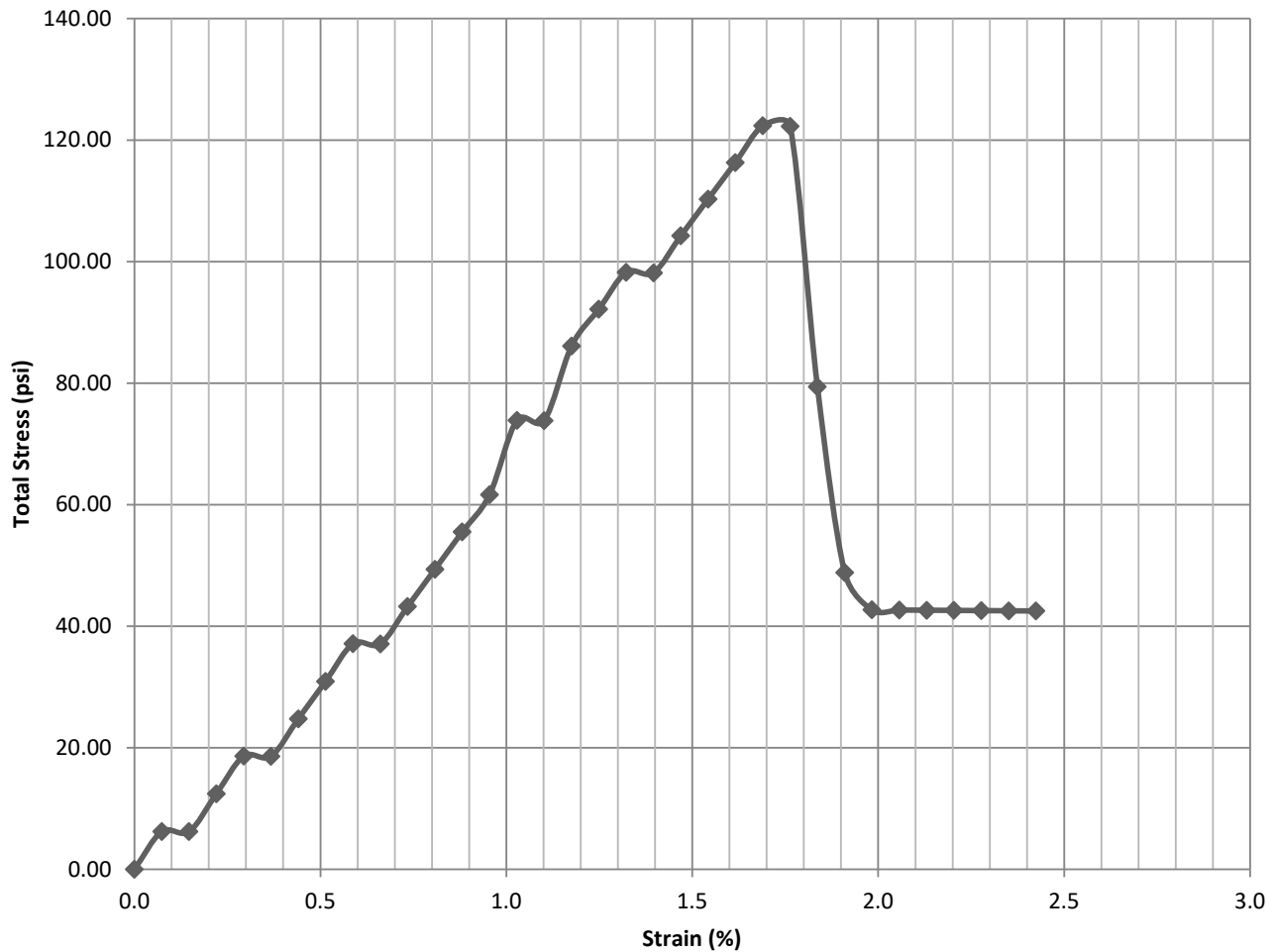
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.871	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.908	Reviewed By	WJG
Boring	B-42	Unit Weight (pcf)	149.8	Core Size	NQ
Sample No.	NQ-5 / 23-0566	L/D Ratio	2.09	Recovery	63%
Depth	95.8' - 96.2'	Load Rate (psi/sec)	10	RQD	17%
Description	Black/Gray/White Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0566



Average Initial Diameter (Do): 1.872 in.
 Average Initial Height (Lo): 4.084 in.
 Average Initial Area (Ao): 2.752 in²
 In-Situ Unit Weight: 101.2 pcf
 Failure Mode: Plastic Failure

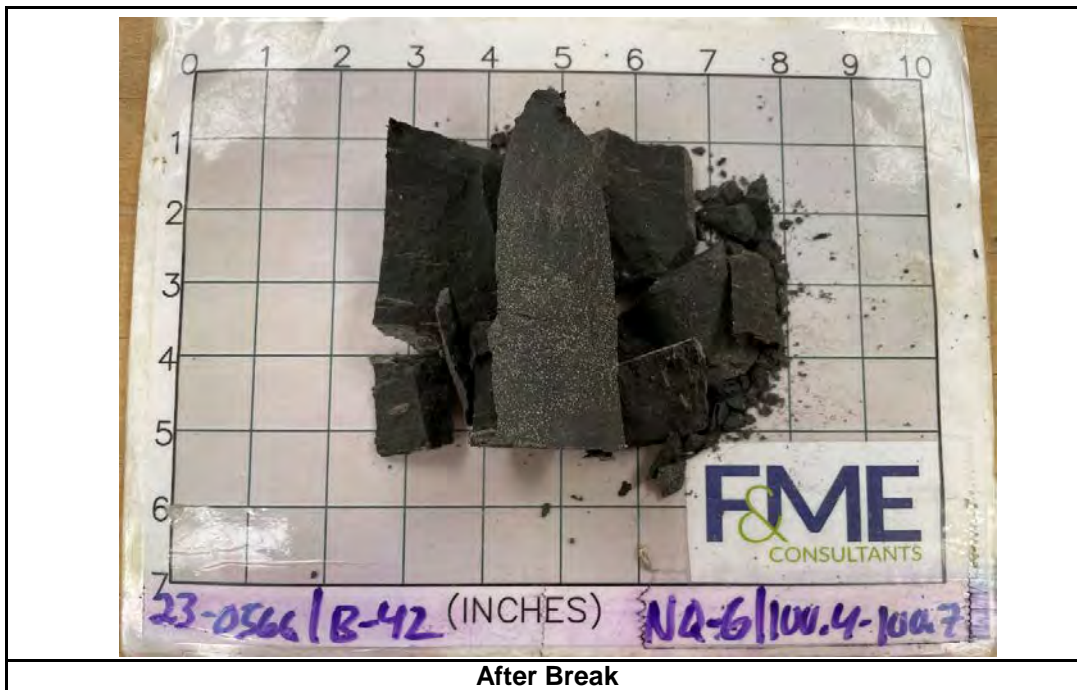
Sample Volume: 11.24 in³
 Sample Volume: 0.007 ft³
 Sample Weight: 0.658 lbs.
 L/D Ratio: 2.182

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/21/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-42 / NQ-6
 Depth/Elevation 100.4' - 100.7'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Sandy Elastic SILT (MH/A-7-5)
 $\sigma_{c-ULT} = 120$ psi $\epsilon_{ULT} = 1.7\%$



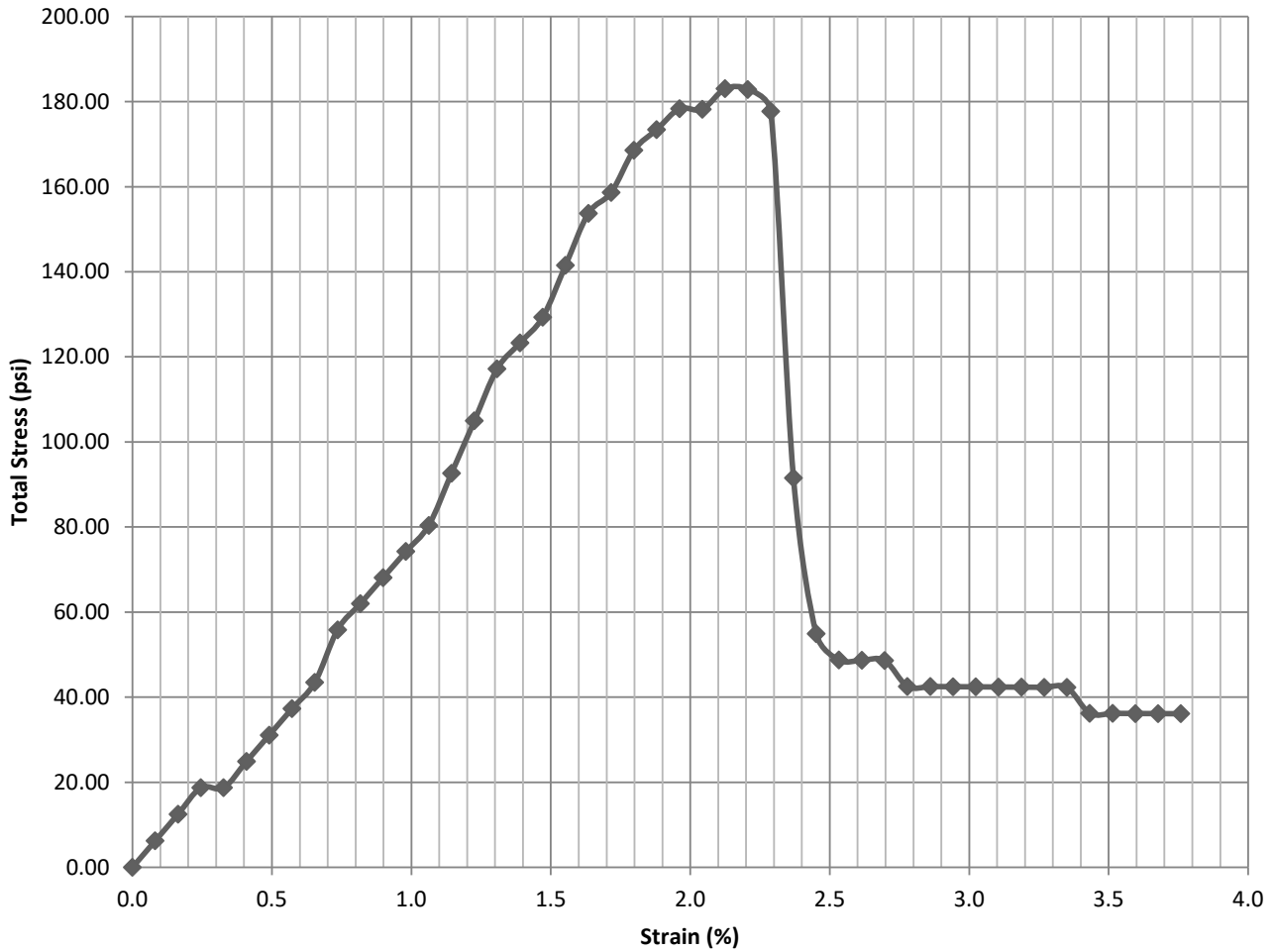
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0566
Sample Location:	B-42 / NQ-6	Depth of Sample:	100.4' - 100.7'
Tested By:	W. Pitts	Date Tested:	3/21/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0566



Average Initial Diameter (Do): 1.868 in.
 Average Initial Height (Lo): 3.671 in.
 Average Initial Area (Ao): 2.741 in²
 In-Situ Unit Weight: 102.0 pcf
 Failure Mode: Plastic Failure

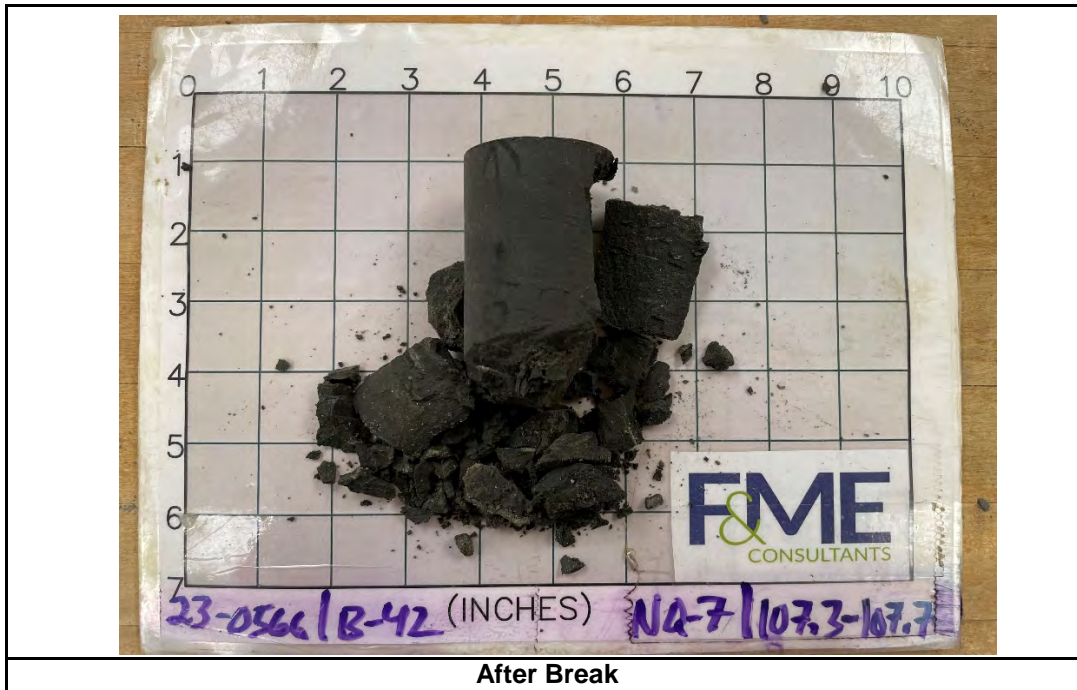
Sample Volume: 10.06 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.594 lbs.
 L/D Ratio: 1.965

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/21/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-42 / NQ-7
 Depth/Elevation 107.3' - 107.7'

Sample Type : Soil Core
 Target Strain Rate : 0.85% per minute
 Description: Sandy Fat CLAY (CH/A-7-5)
 $\sigma_{c-ULT} = 185 \text{ psi}$ $\epsilon_{ULT} = 2.1\%$



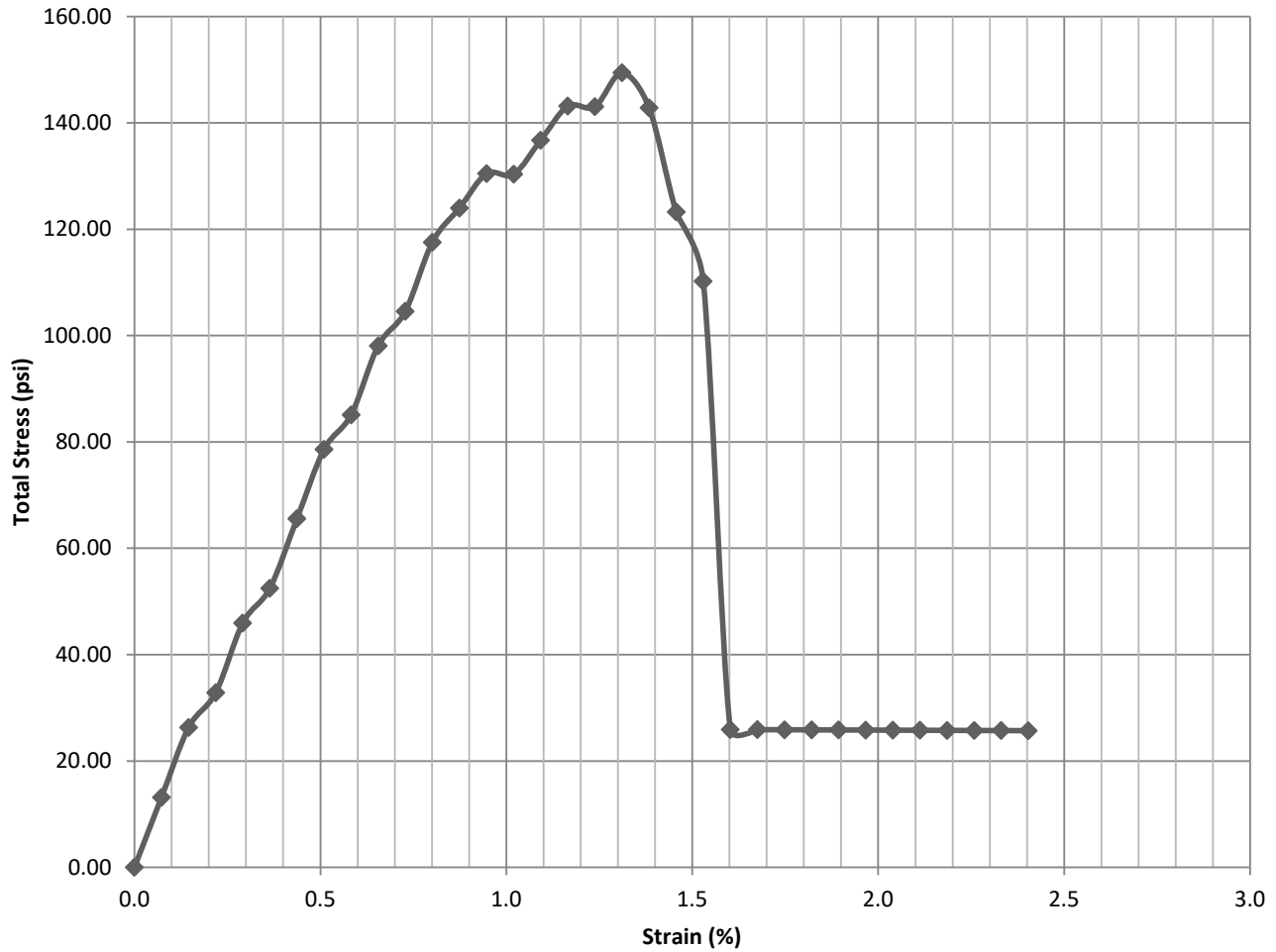
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0566
Sample Location:	B-42 / NQ-7	Depth of Sample:	107.3' - 107.7'
Tested By:	W. Pitts	Date Tested:	3/21/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0566



Average Initial Diameter (Do): 1.820 in.
 Average Initial Height (Lo): 4.119 in.
 Average Initial Area (Ao): 2.602 in²
 In-Situ Unit Weight: 101.2 pcf
 Failure Mode: Plastic Failure

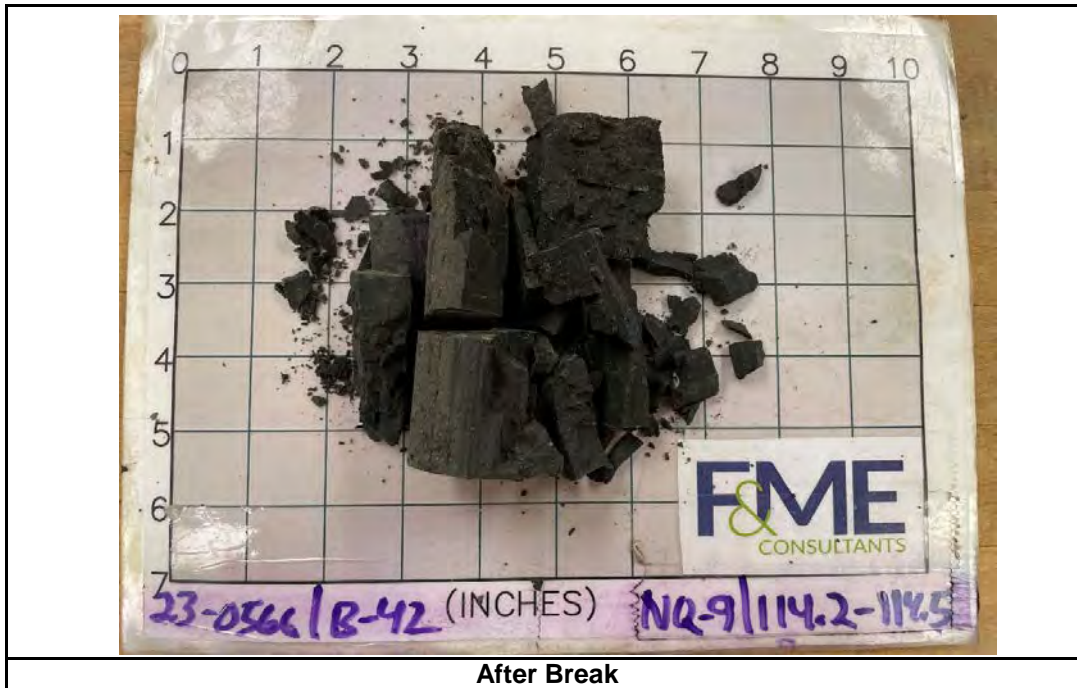
Sample Volume: 10.72 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.628 lbs.
 L/D Ratio: 2.263

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/21/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-42 / NQ-9
 Depth/Elevation 114.2' - 114.5'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Elastic SILT (MH/A-7-5)
 $\sigma_{c-ULT} = 150 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$

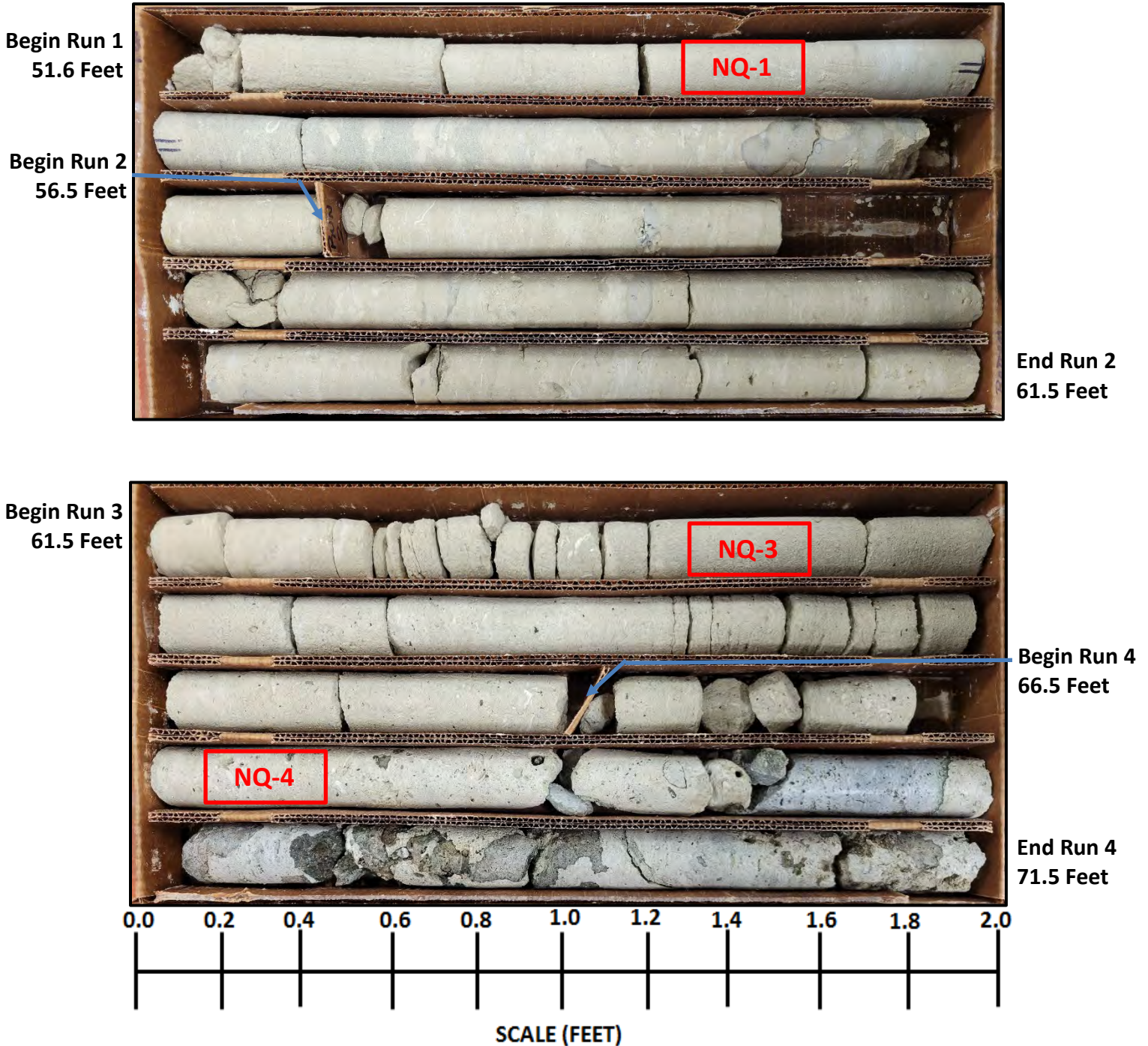


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0566
Sample Location:	B-42 / NQ-9	Depth of Sample:	114.2' - 114.5'
Tested By:	W. Pitts	Date Tested:	3/21/2023



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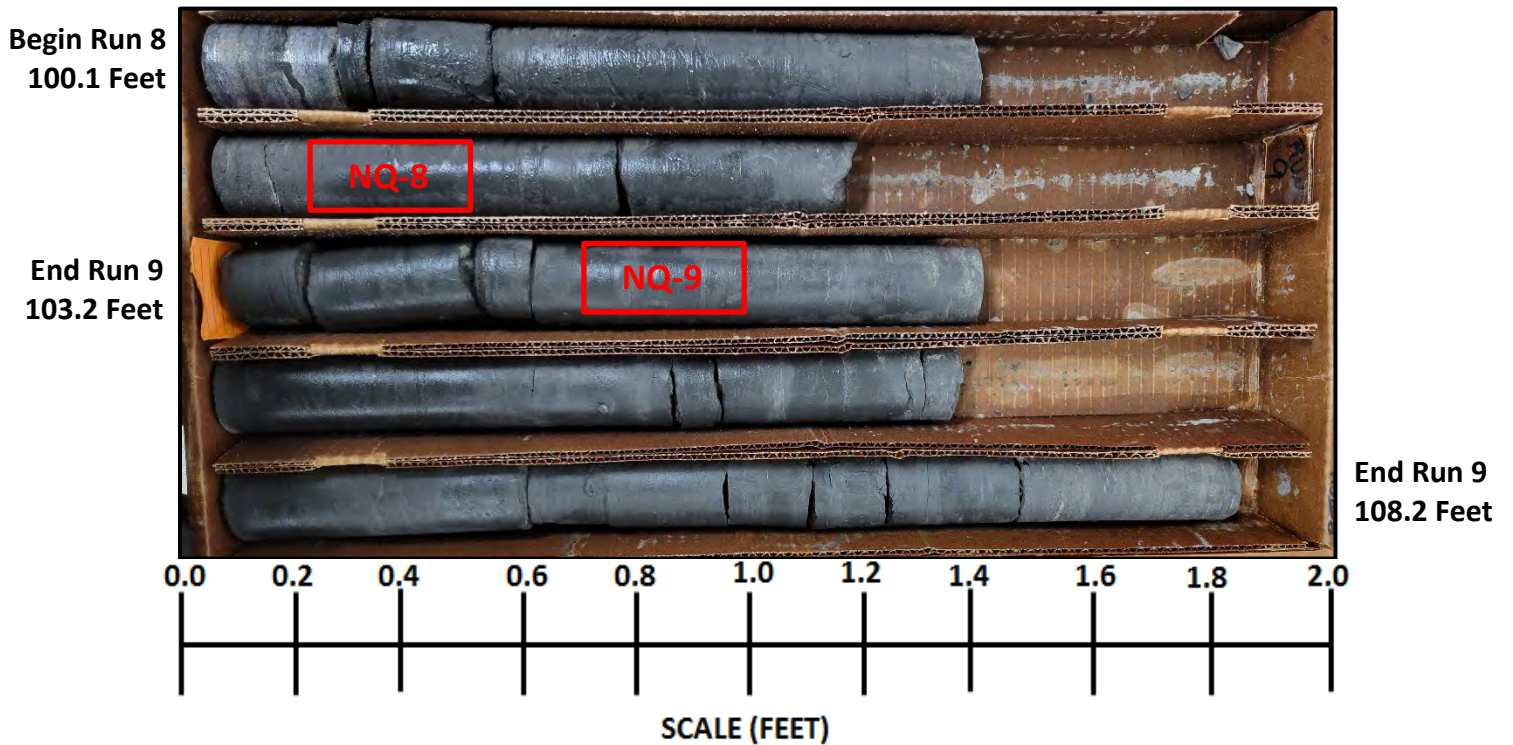
I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-43



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-43

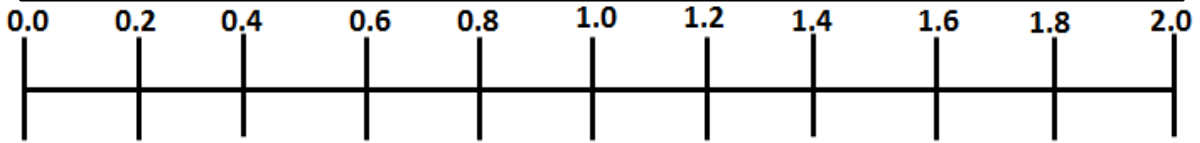


Run 7: %REC=0, %RQD=0



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-43

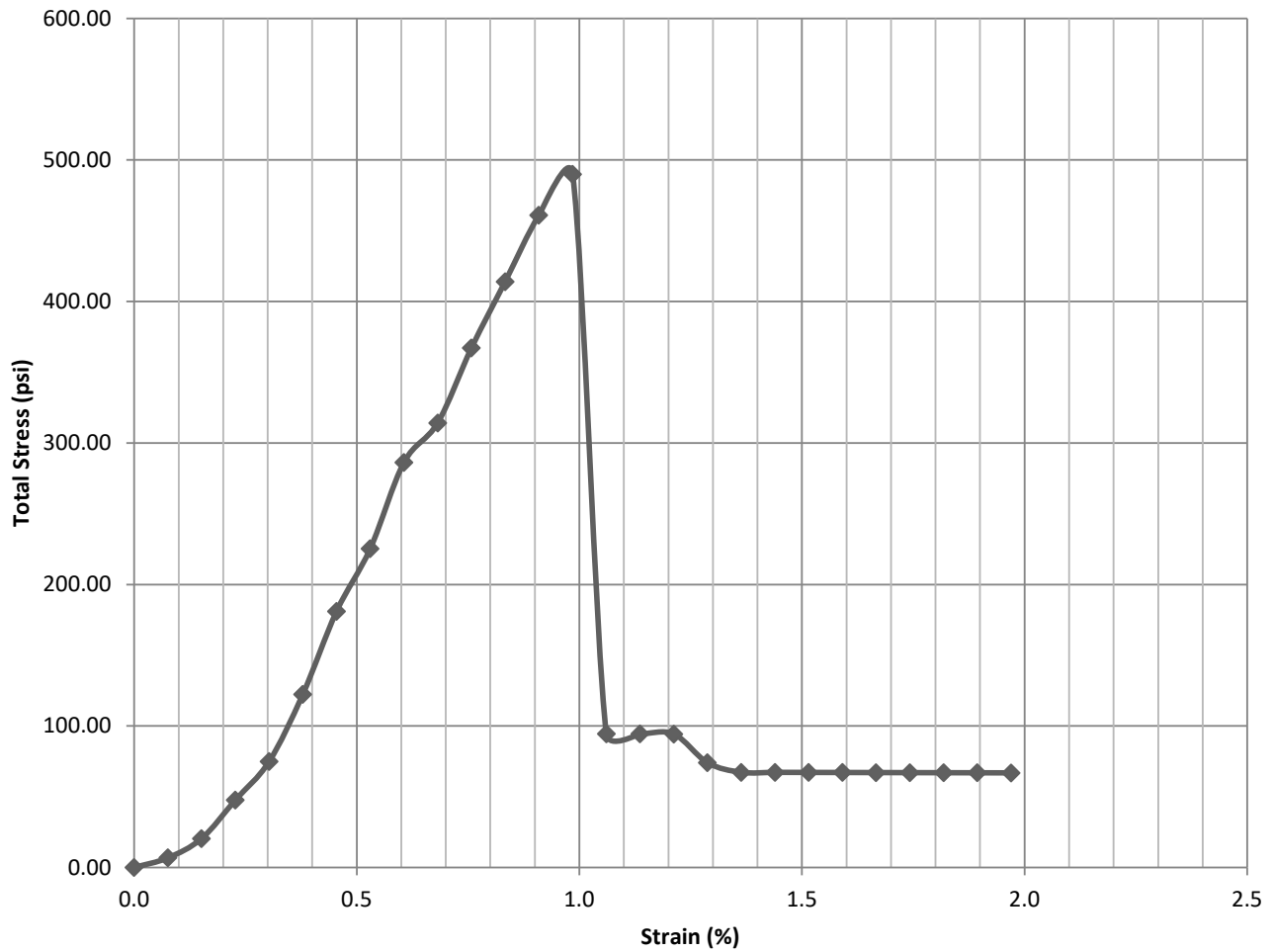
Begin Run 10
108.2 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1095



Average Initial Diameter (Do): 1.788 in.
 Average Initial Height (Lo): 3.960 in.
 Average Initial Area (Ao): 2.511 in²
 In-Situ Unit Weight: 119.0 pcf
 Failure Mode: Plastic Failure

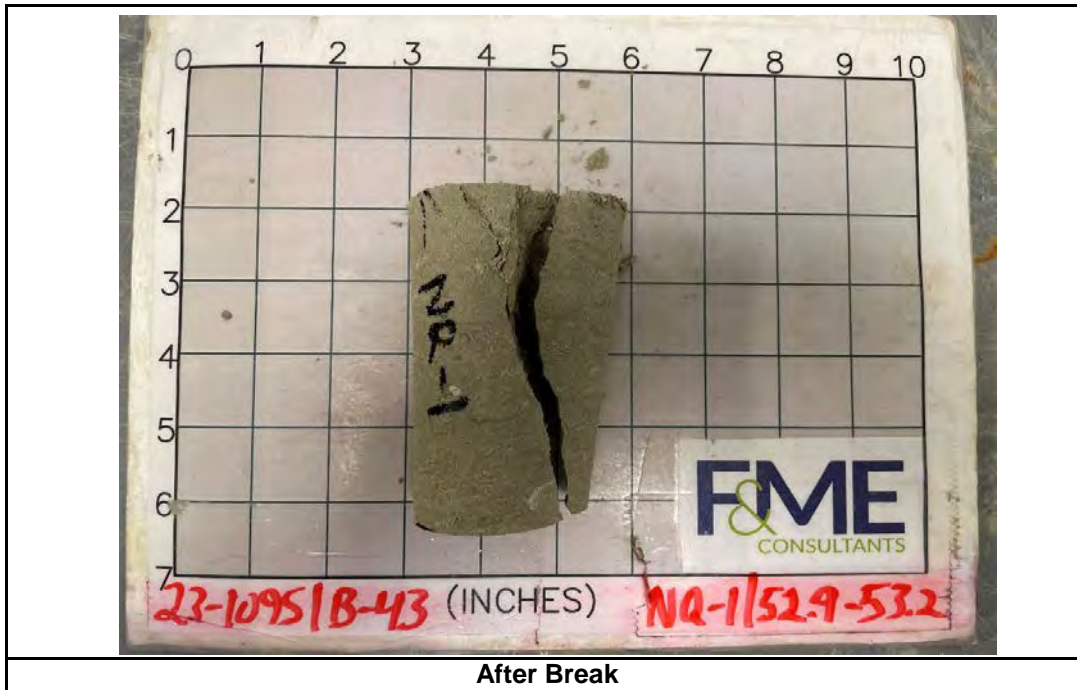
Sample Volume: 9.94 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.685 lbs.
 L/D Ratio: 2.215

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-43 / NQ-1
 Depth/Elevation 52.9' - 53.2'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 490 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



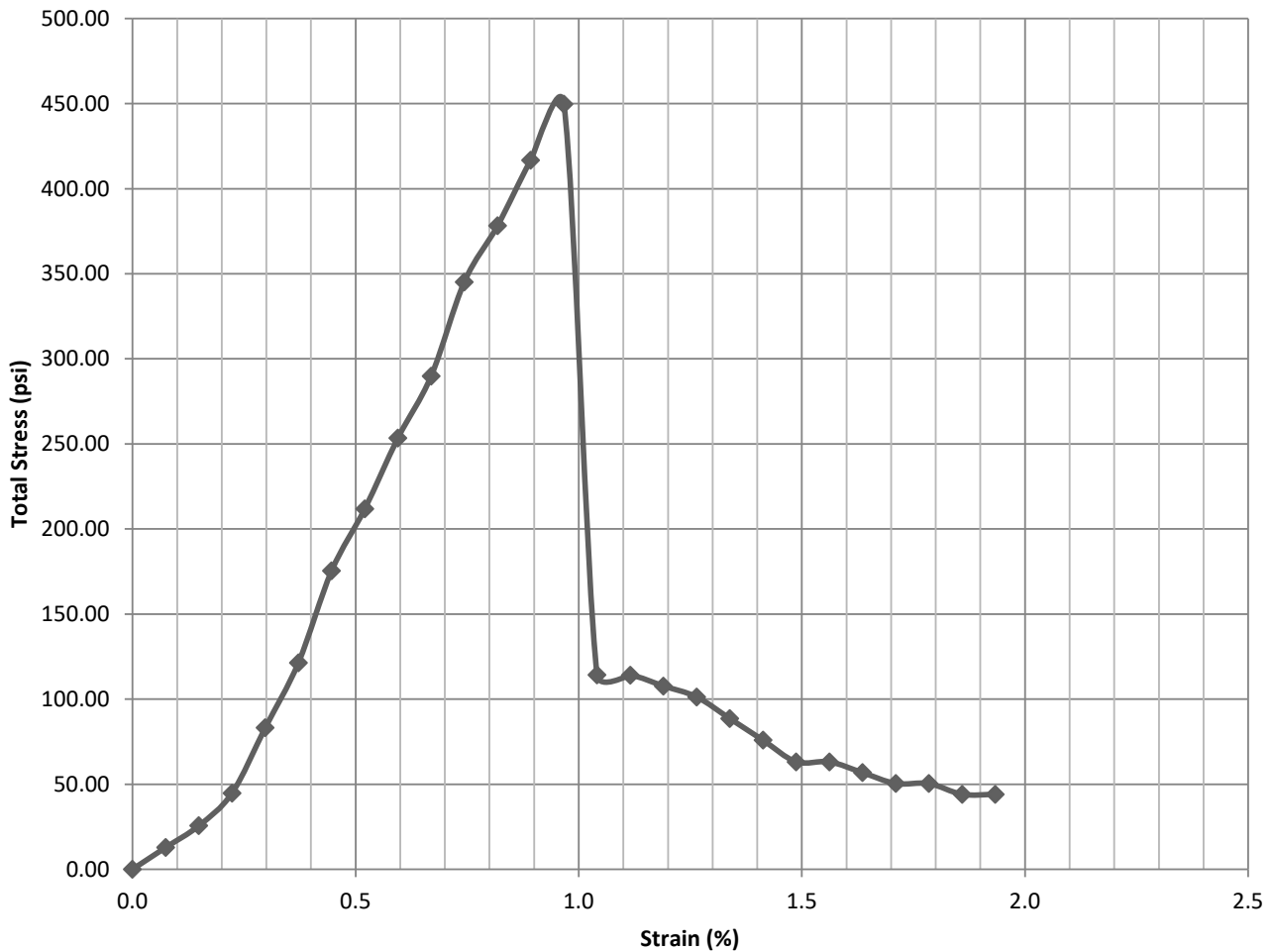
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1095
Sample Location:	B-43 / NQ-1	Depth of Sample:	52.9' - 53.2'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1095



Average Initial Diameter (Do): 1.844 in.
 Average Initial Height (Lo): 4.034 in.
 Average Initial Area (Ao): 2.671 in²
 In-Situ Unit Weight: 121.7 pcf
 Failure Mode: Plastic Failure

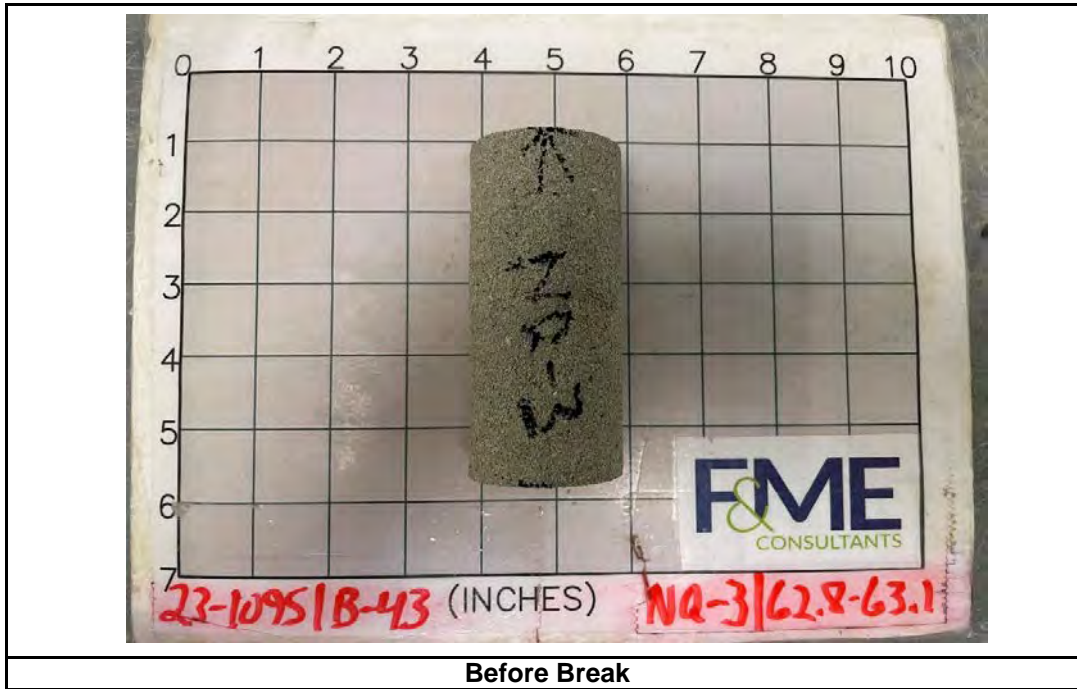
Sample Volume: 10.77 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.759 lbs.
 L/D Ratio: 2.188

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-43 / NQ-3
 Depth/Elevation 62.8' - 63.1'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 450 \text{ psi}$ $\epsilon_{ULT} = 1.0\%$



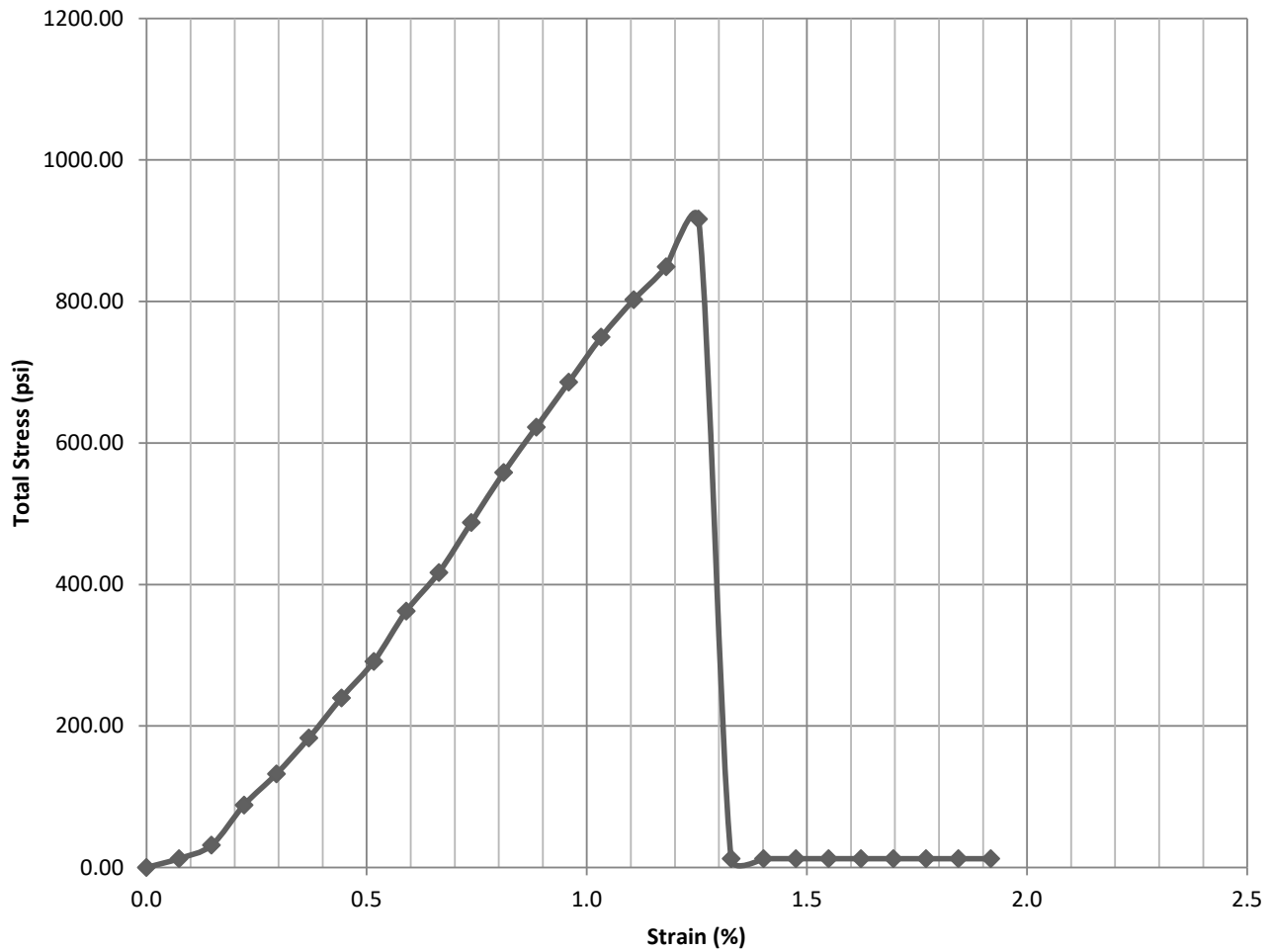
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1095
Sample Location:	B-43 / NQ-3	Depth of Sample:	62.8' - 63.1'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1095



Average Initial Diameter (Do): 1.858 in.
 Average Initial Height (Lo): 4.067 in.
 Average Initial Area (Ao): 2.711 in²
 In-Situ Unit Weight: 138.0 pcf
 Failure Mode: Plastic Failure

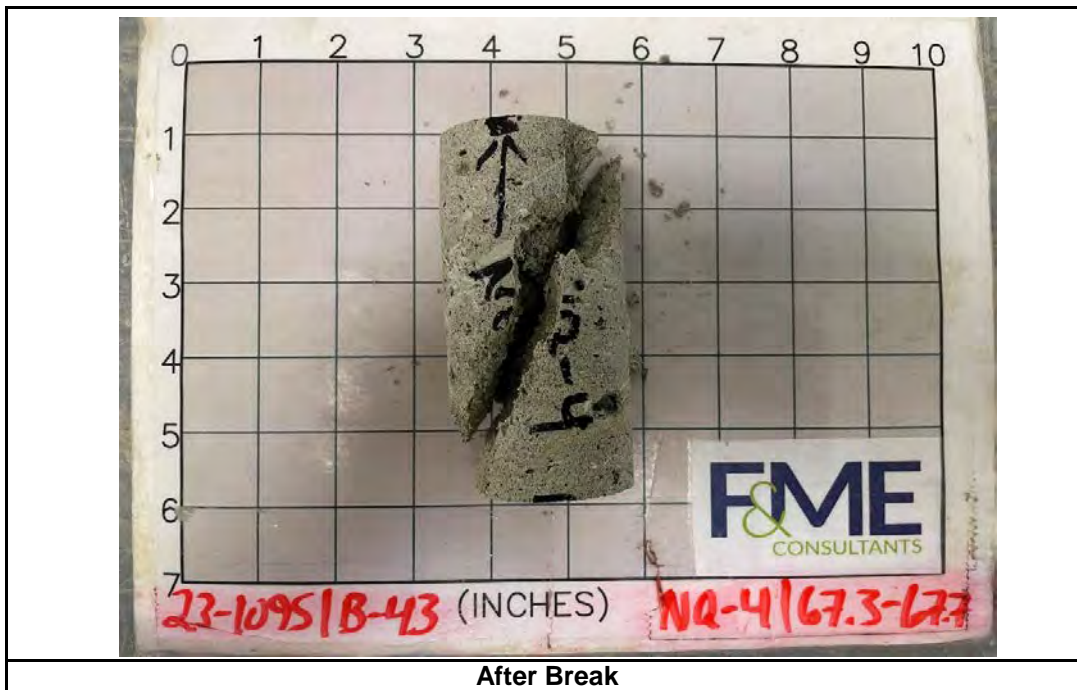
Sample Volume: 11.03 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.881 lbs.
 L/D Ratio: 2.189

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-43 / NQ-4
 Depth/Elevation 67.3' - 67.7'

Sample Type : Soil Core
 Target Strain Rate : 0.65% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 915 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$



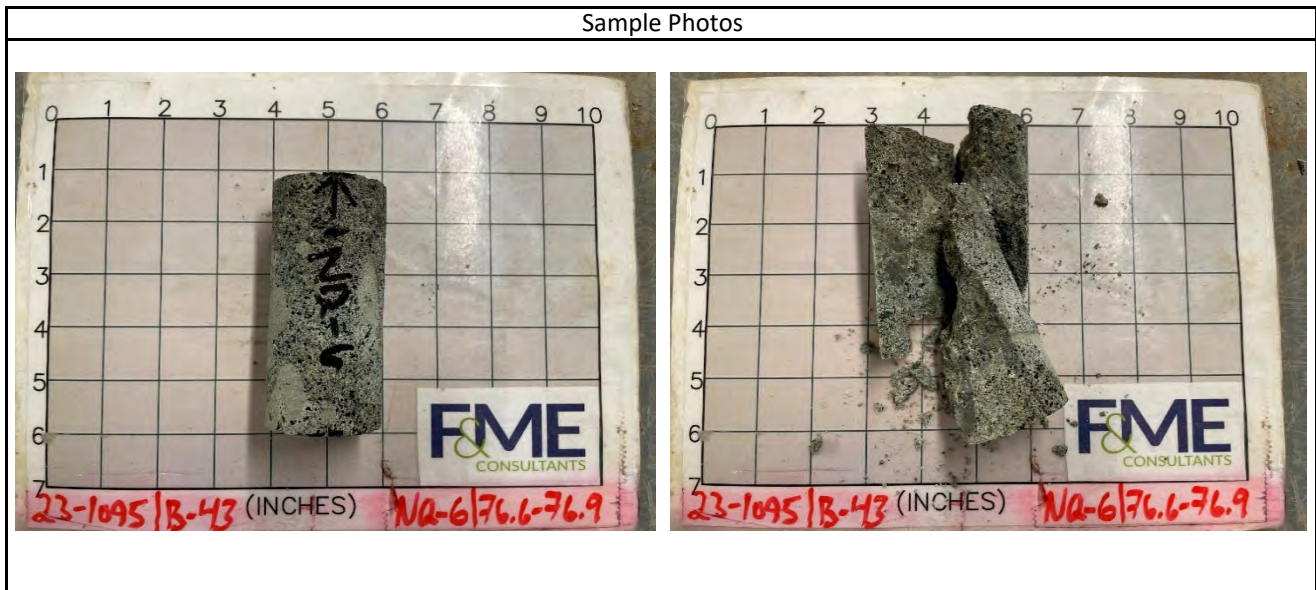
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1095
Sample Location:	B-43 / NQ-4	Depth of Sample:	67.3' - 67.7'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.859	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.038	Reviewed By	WJG
Boring	B-43	Unit Weight (pcf)	152.7	Core Size	NQ
Sample No.	NQ-6 / 23-1095	L/D Ratio	2.17	Recovery	26%
Depth	76.6' - 76.9'	Load Rate (psi/sec)	10	RQD	11%
Description	Black/Gray/White Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%	-272	45	1,449	534	3.93	0.17
30%	-496	106	2,146	791	3.19	0.21
40%	-704	174	2,980	1,098	3.12	0.25
50%	-931	256	3,572	1,316	2.83	0.28
60%	-1174	352	4,268	1,572	2.68	0.30
70%	-1451	521	5,019	1,849	2.55	0.36
80%	-1842	800	5,787	2,132	2.31	0.43
90%	-2261	1090	6,429	2,368	2.10	0.48
100%	-2819	1443	7,153	2,635		

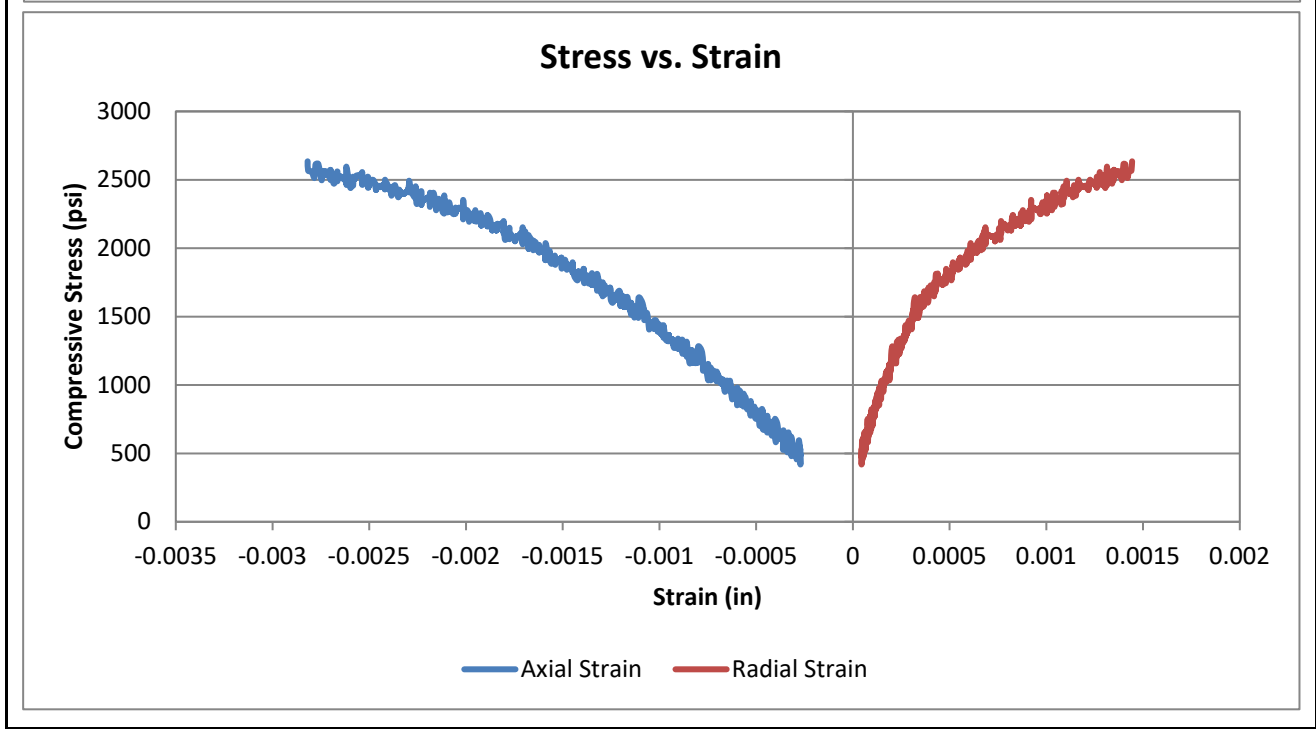
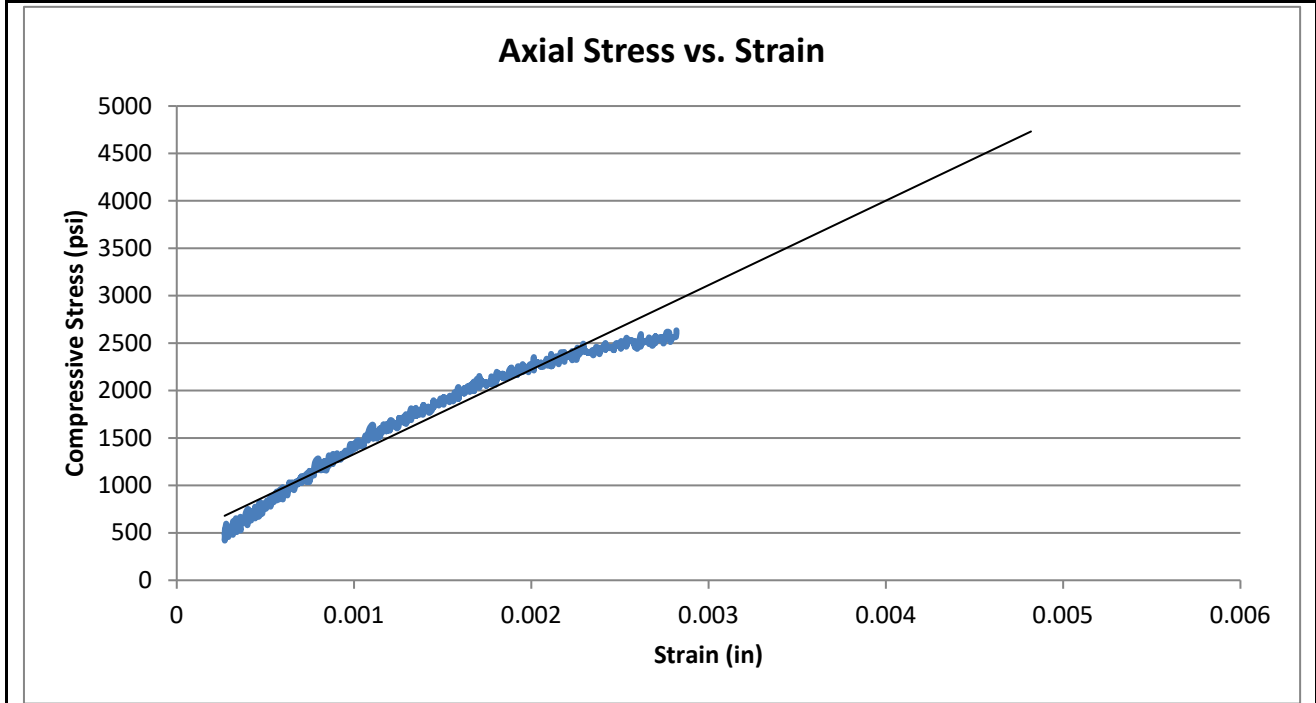


Test Results			
Unconfined Compressive Strength (psi)	2,640	Elastic Modulus (psi)	2.54E+06
		Poisson's Ratio in Elastic Range	0.36
Comments	Elastic range was taken as between 0.001 and 0.002 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



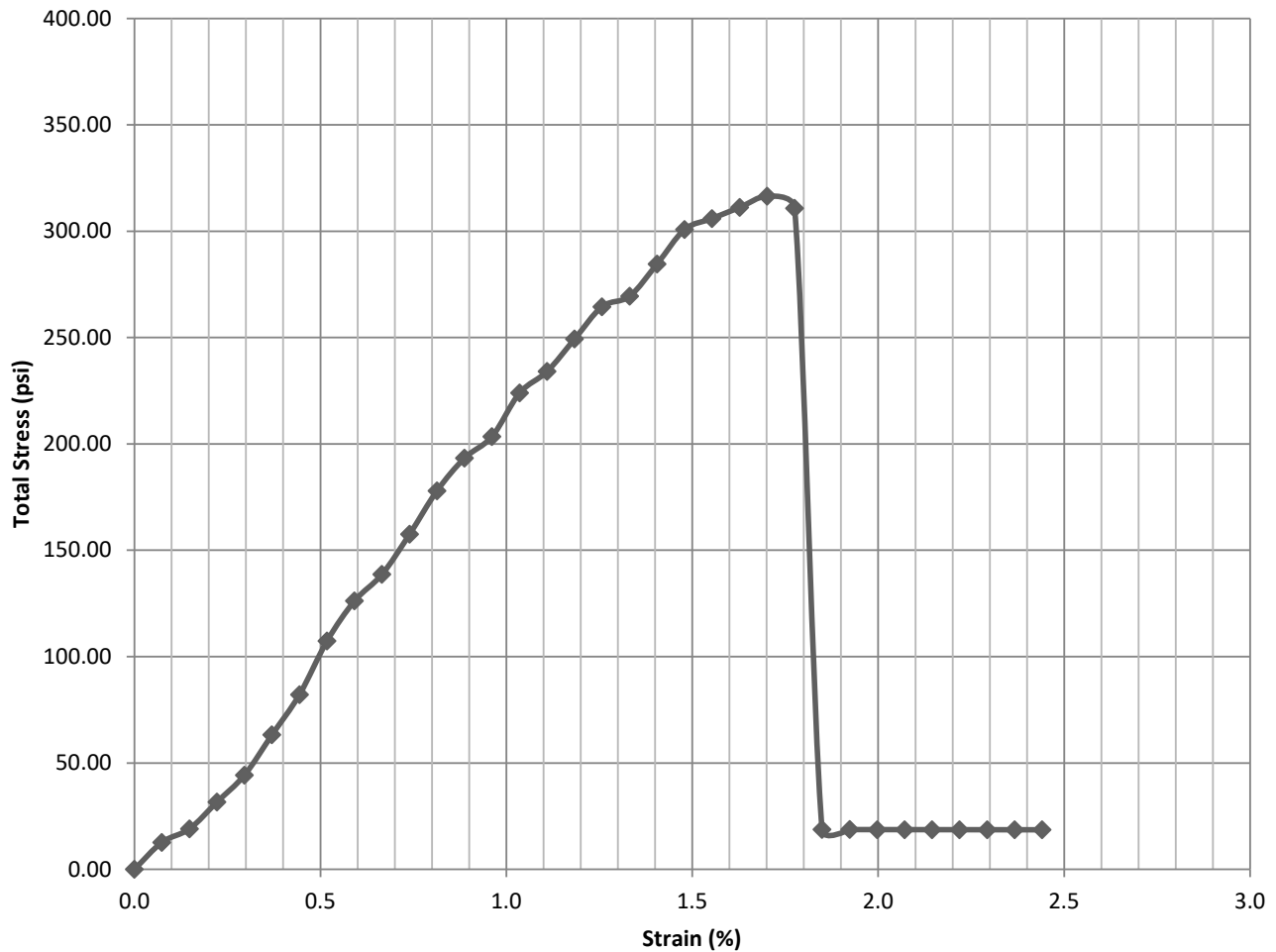
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.859	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	4.038	Reviewed By	WJG
Boring	B-43	Unit Weight (pcf)	152.7	Core Size	NQ
Sample No.	NQ-6 / 23-1095	L/D Ratio	2.17	Recovery	26%
Depth	76.6' - 76.9'	Load Rate (psi/sec)	10	RQD	11%
Description	Black/Gray/White Limestone				



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1095



Average Initial Diameter (Do): 1.854 in.
 Average Initial Height (Lo): 4.056 in.
 Average Initial Area (Ao): 2.700 in²
 In-Situ Unit Weight: 100.1 pcf
 Failure Mode: Plastic Failure

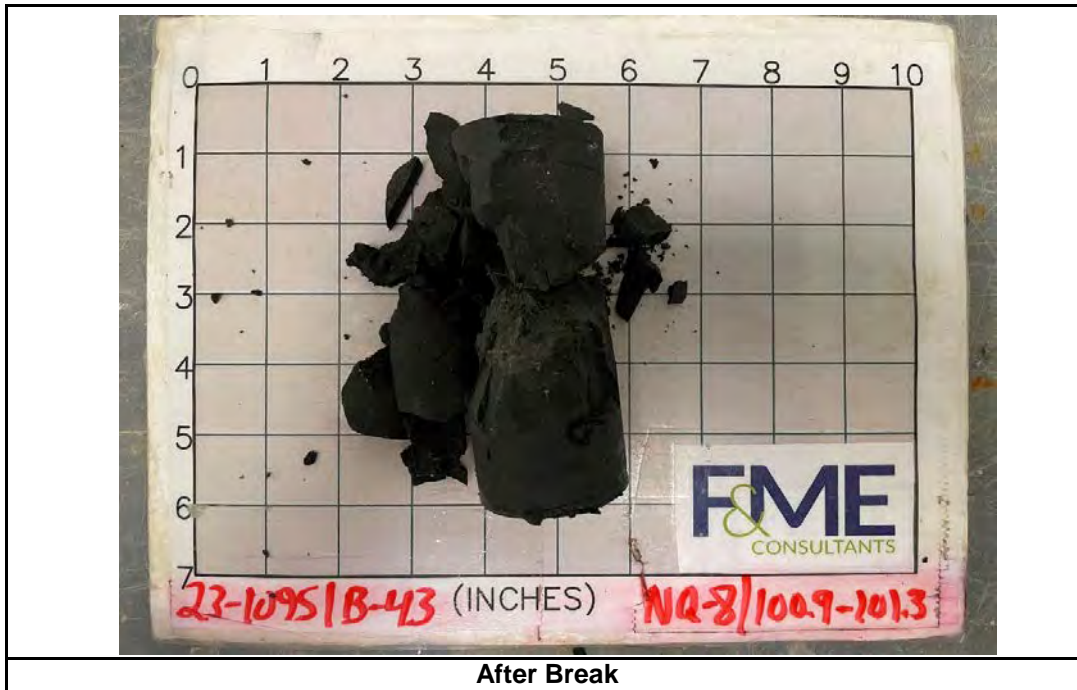
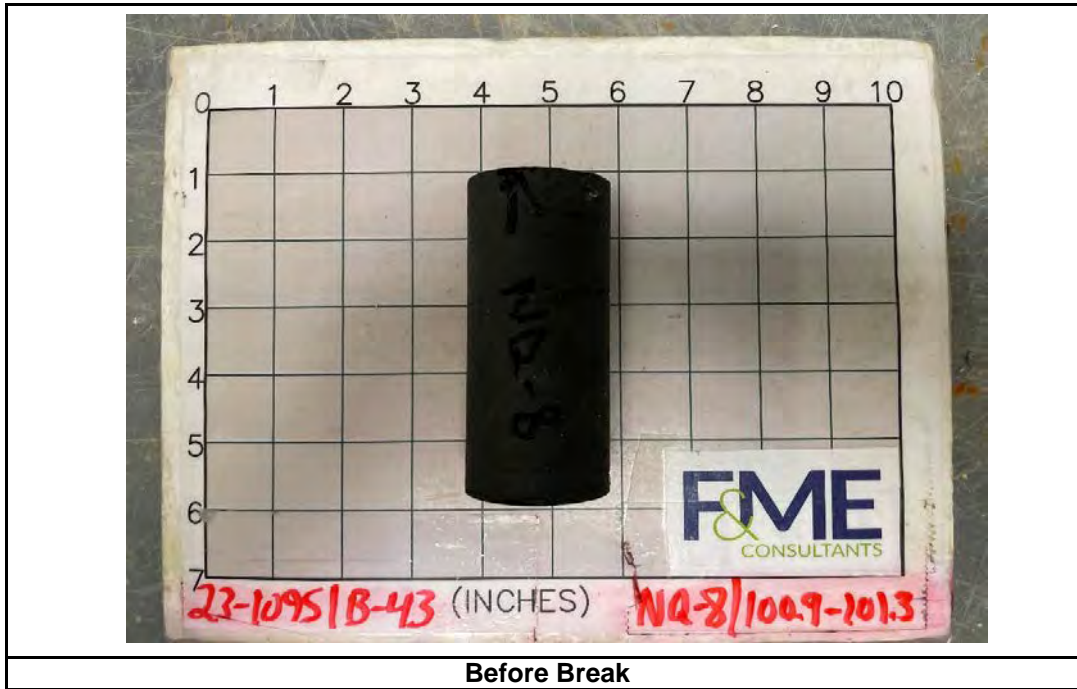
Sample Volume: 10.95 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.634 lbs.
 L/D Ratio: 2.188

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-43 / NQ-8
 Depth/Elevation 100.9' - 101.3'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Elastic SILT (MH/A-7-5)
 $\sigma_{c-ULT} = 315 \text{ psi}$ $\epsilon_{ULT} = 1.7\%$



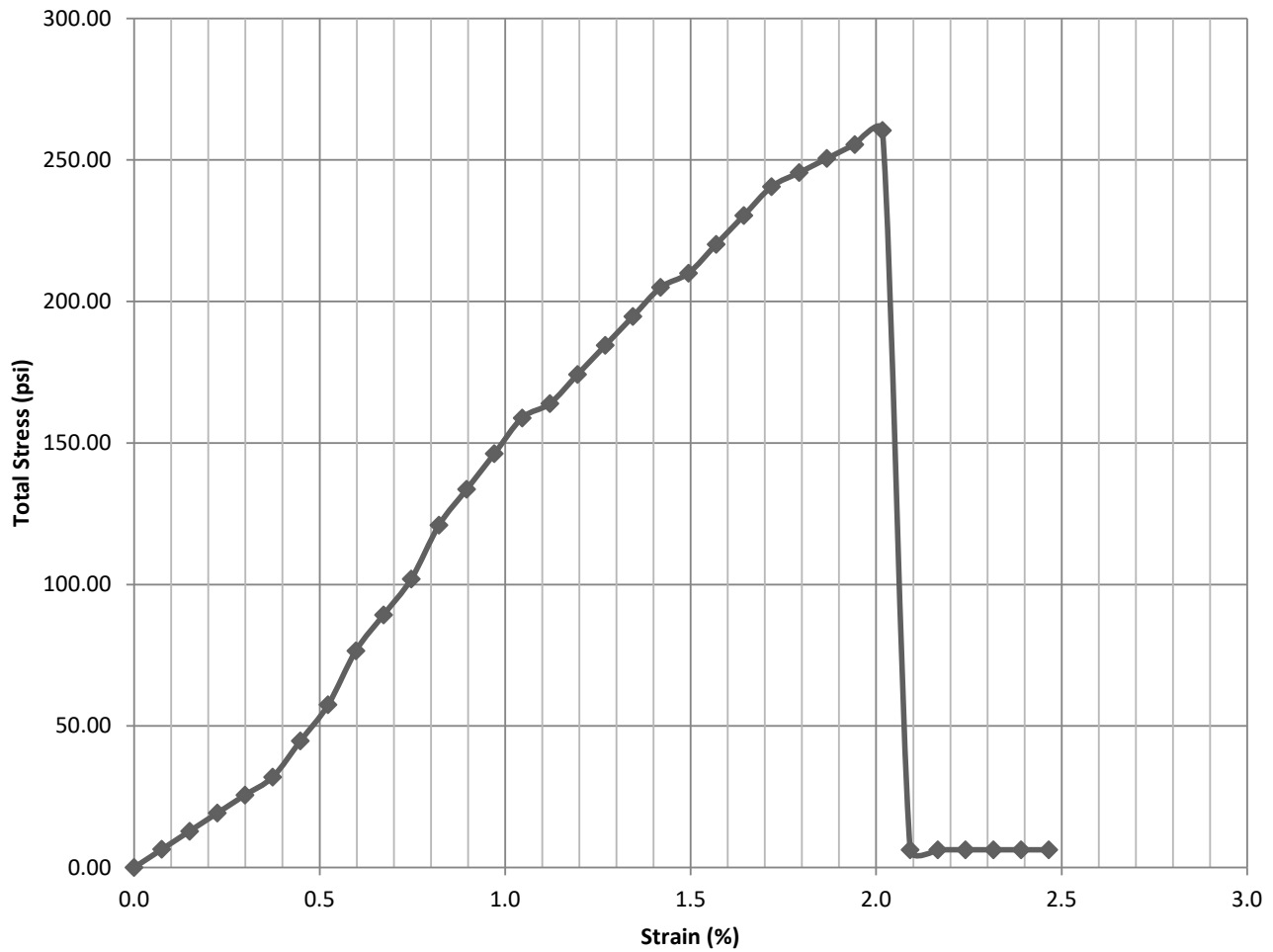
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1095
Sample Location:	B-43 / NQ-8	Depth of Sample:	100.9' - 101.3'
Tested By:	W. Pitts	Date Tested:	5/4/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-1095



Average Initial Diameter (Do): 1.843 in.
 Average Initial Height (Lo): 4.016 in.
 Average Initial Area (Ao): 2.668 in²
 In-Situ Unit Weight: 101.9 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.71 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.632 lbs.
 L/D Ratio: 2.179

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 5/4/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-43 / NQ-9
 Depth/Elevation 103.8' - 104.1'

Sample Type : Soil Core
 Target Strain Rate : 0.70% per minute
 Description: Elastic SILT (MH/A-7-5)
 $\sigma_{c-ULT} = 260 \text{ psi}$ $\epsilon_{ULT} = 2.0\%$

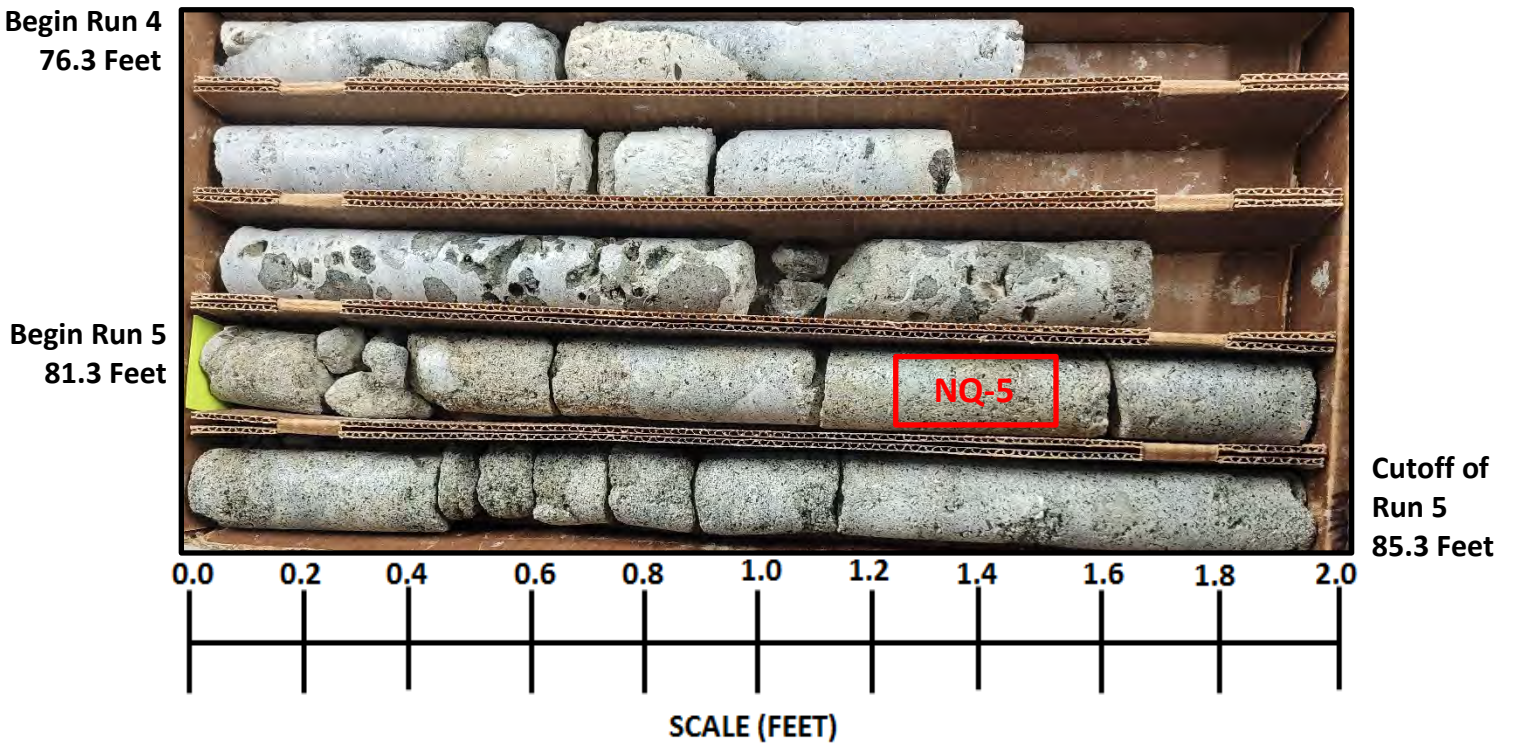


Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-1095
Sample Location:	B-43 / NQ-9	Depth of Sample:	103.8' - 104.1'
Tested By:	W. Pitts	Date Tested:	5/4/2023

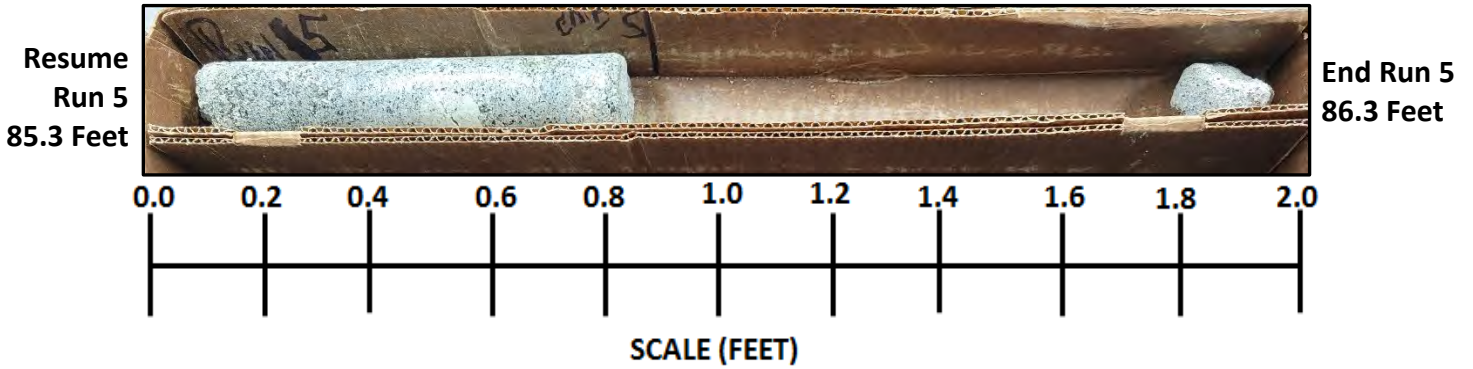


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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-44



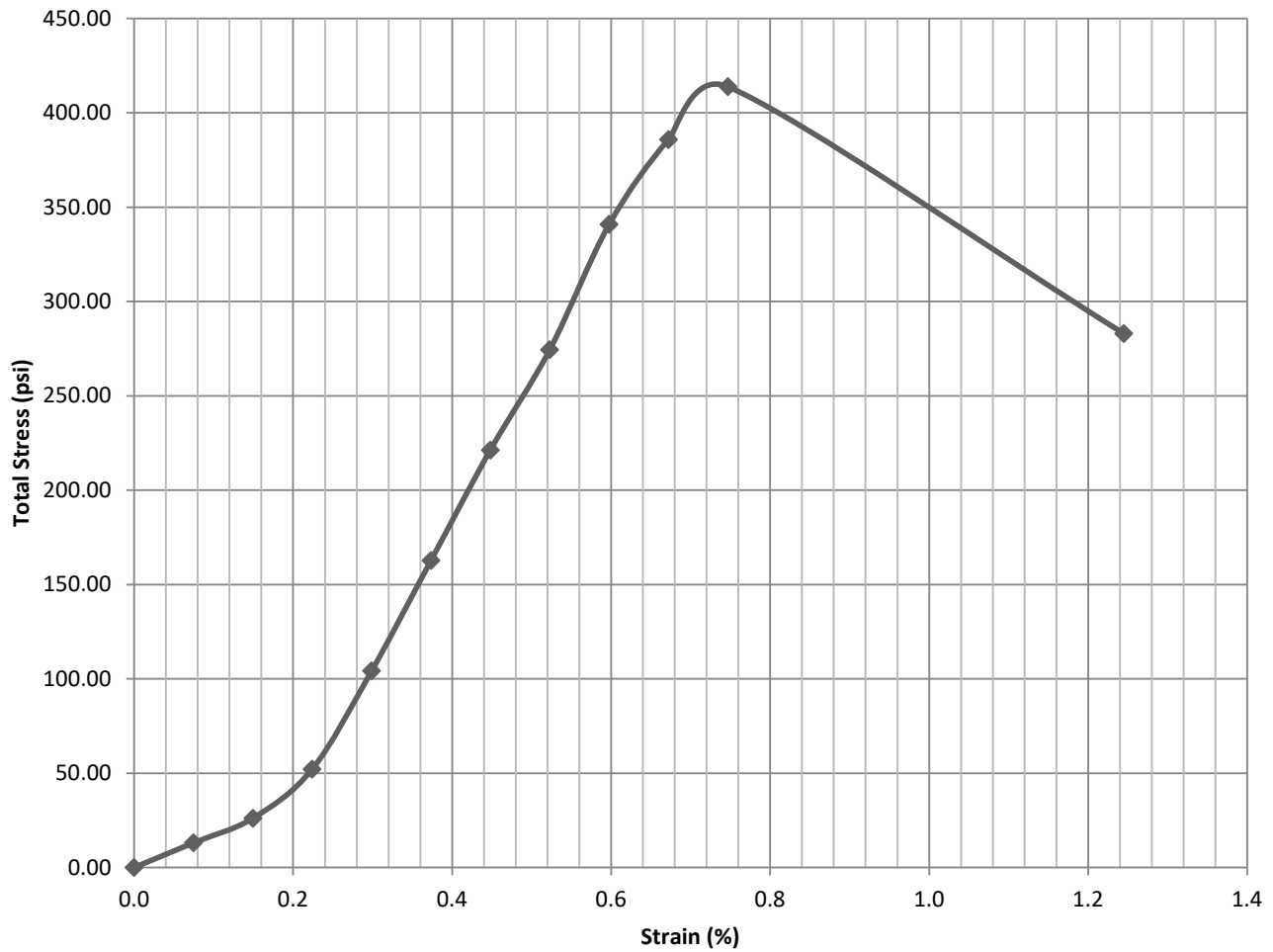
I-95 Bridge over Lake Marion DB Prep
CORE PHOTOGRAPHS: B-44



Run 6: %REC=0, %RQD=0

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0195



Average Initial Diameter (Do): 1.827 in.
 Average Initial Height (Lo): 4.017 in.
 Average Initial Area (Ao): 2.622 in²
 In-Situ Unit Weight: 122.2 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.53 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.745 lbs.
 L/D Ratio: 2.199

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/1/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-44 / NQ-3
 Depth/Elevation 72.8' - 73.1'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 410 \text{ psi}$ $\epsilon_{ULT} = 0.7\%$



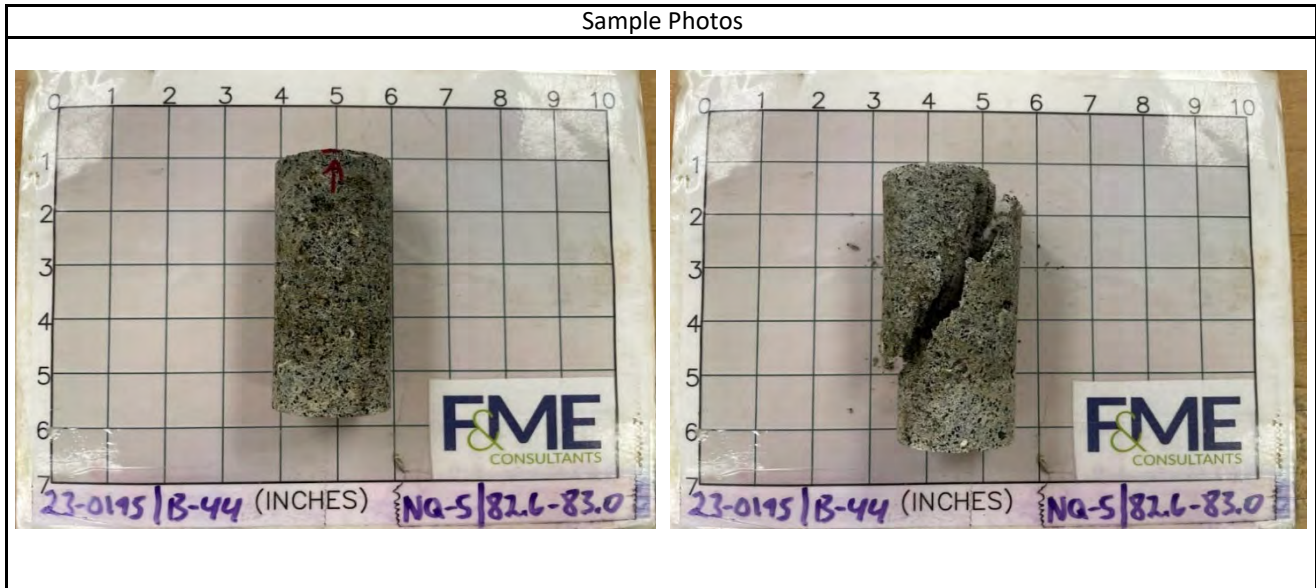
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0195
Sample Location:	B-44 / NQ-3	Depth of Sample:	72.8' - 73.1'
Tested By:	W. Pitts	Date Tested:	3/1/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.987	Reviewed By	WJG
Boring	B-44	Unit Weight (pcf)	146.4	Core Size	NQ
Sample No.	NQ-5 / 23-0195	L/D Ratio	2.14	Recovery	98%
Depth	82.6' - 83.0'	Load Rate (psi/sec)	10	RQD	52%
Description	Black/White/Gray Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	-402	-9	647	237	1.18	0.02
20%	-811	70	1,365	500	1.23	0.09
30%	-982	119	1,969	721	1.47	0.12
40%	-1416	259	2,663	975	1.38	0.18
50%	-1683	370	3,366	1,232	1.46	0.22
60%	-2022	566	3,977	1,456	1.44	0.28
70%	-2350	769	4,639	1,698	1.45	0.33
80%	-2884	1227	5,287	1,935	1.34	0.43
90%	-3398	1870	5,973	2,186	1.29	0.55
100%	-3820	2422	6,624	2,425		

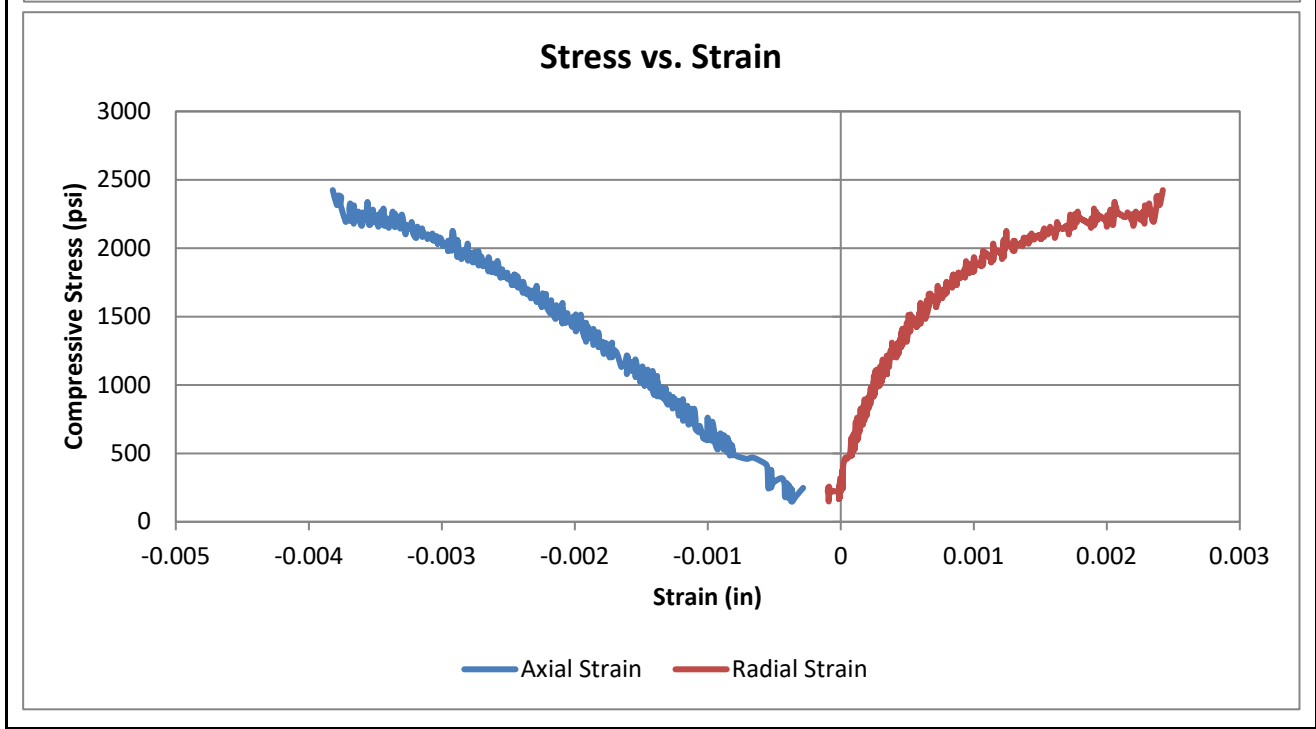
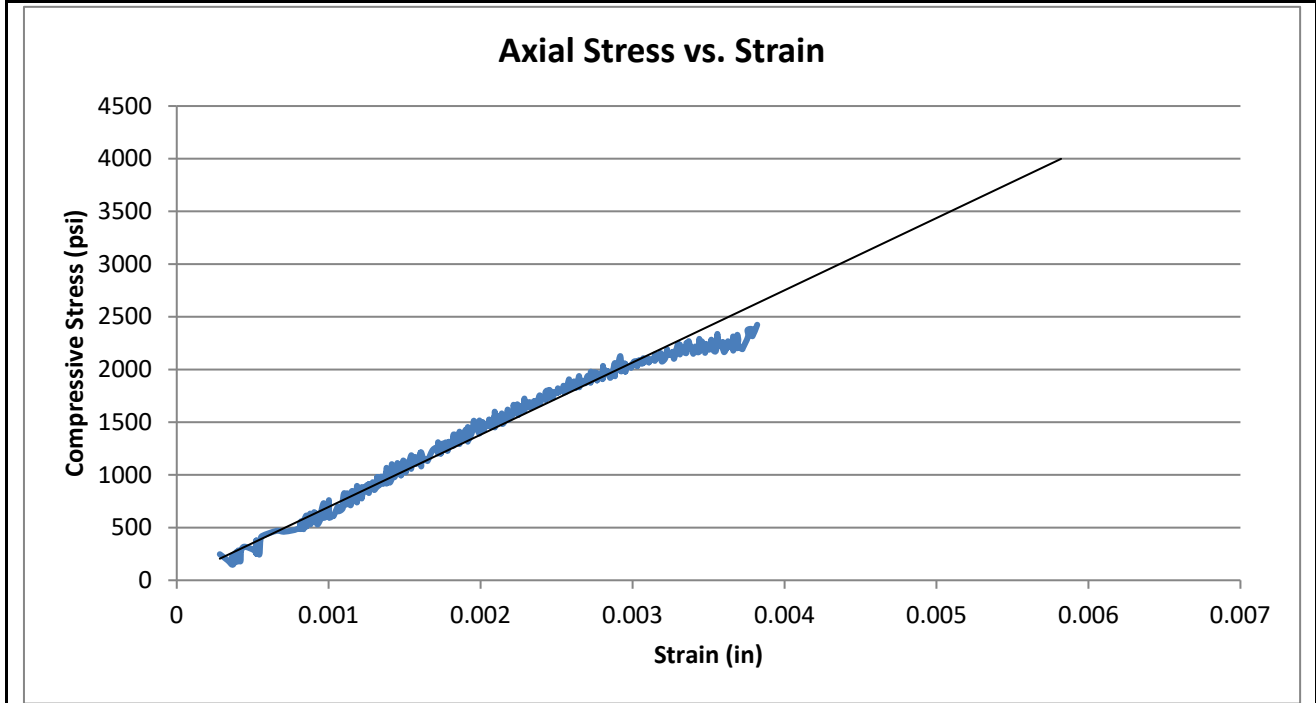


Test Results			
Unconfined Compressive Strength (psi)	2,420	Elastic Modulus (psi)	1.42E+06
		Poisson's Ratio in Elastic Range	0.24
Comments	Elastic range was taken as between 0.001 and 0.0025 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.987	Reviewed By	WJG
Boring	B-44	Unit Weight (pcf)	146.4	Core Size	NQ
Sample No.	NQ-5 / 23-0195	L/D Ratio	2.14	Recovery	98%
Depth	82.6' - 83.0'	Load Rate (psi/sec)	10	RQD	52%
Description	Black/White/Gray Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-47

Begin Run 1
43.0 Feet



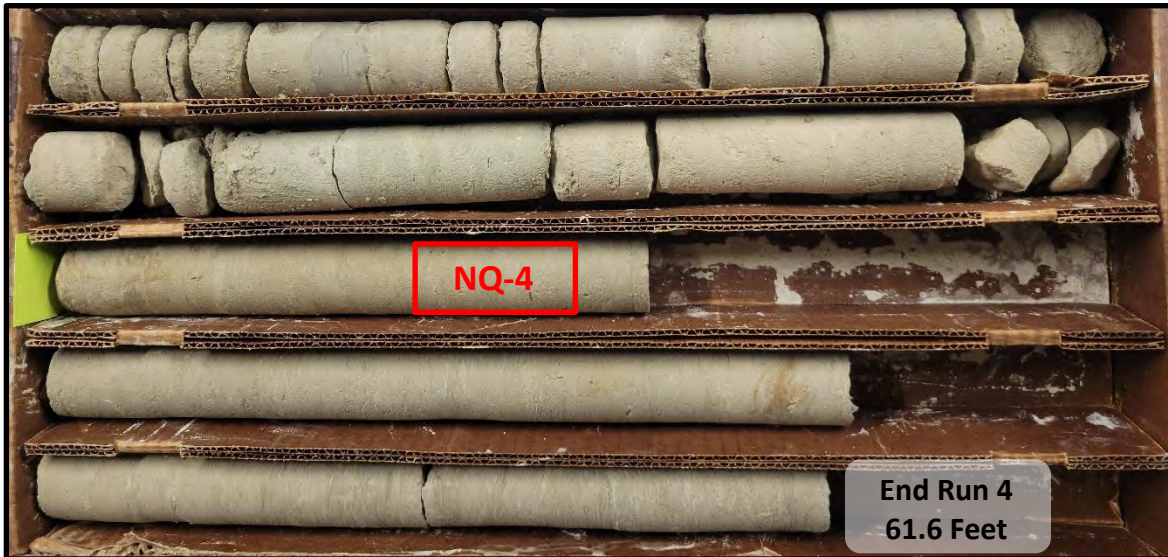
End Run 1
46.6 Feet

Begin Run 2
46.6 Feet

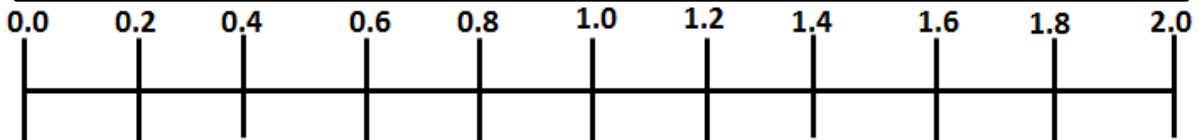
End Run 2
51.6 Feet

Begin Run 3
51.6 Feet

Begin Run 4
56.6 Feet



End Run 4
61.6 Feet



SCALE (FEET)

I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-47

Begin Run 5
61.6 Feet



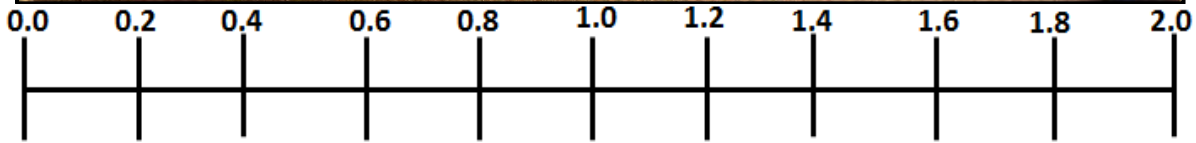
Begin Run 6
66.6 Feet

End Run 6
71.6 Feet

Begin Run 7
71.6 Feet



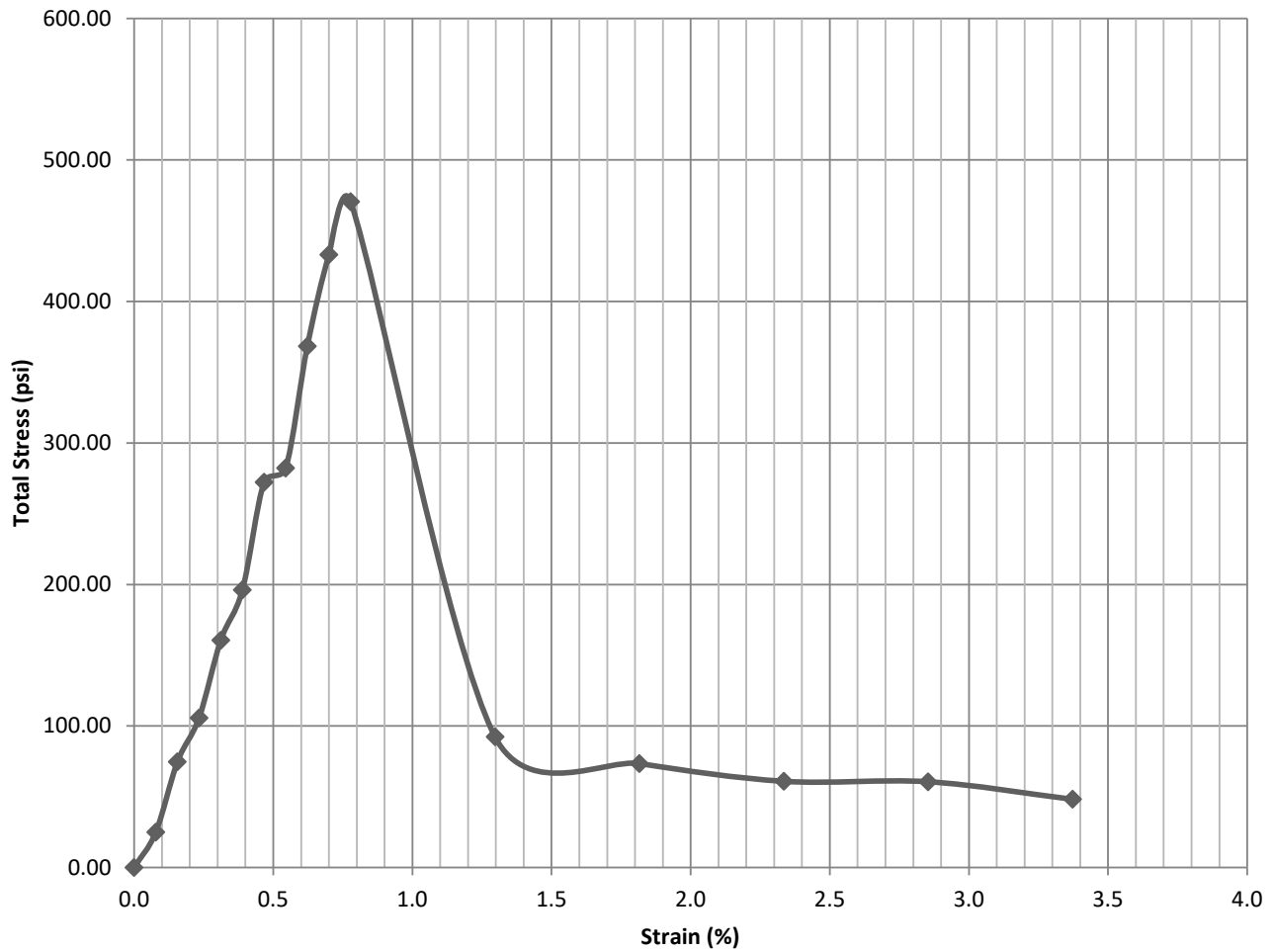
End Run 7
74.6 Feet



SCALE (FEET)

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0312



Average Initial Diameter (Do): 1.870 in.
 Average Initial Height (Lo): 3.855 in.
 Average Initial Area (Ao): 2.746 in²
 In-Situ Unit Weight: 121.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.59 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.741 lbs.
 L/D Ratio: 2.061

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/1/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-47 / NQ-1
 Depth/Elevation 46.3' - 46.6'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 470 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



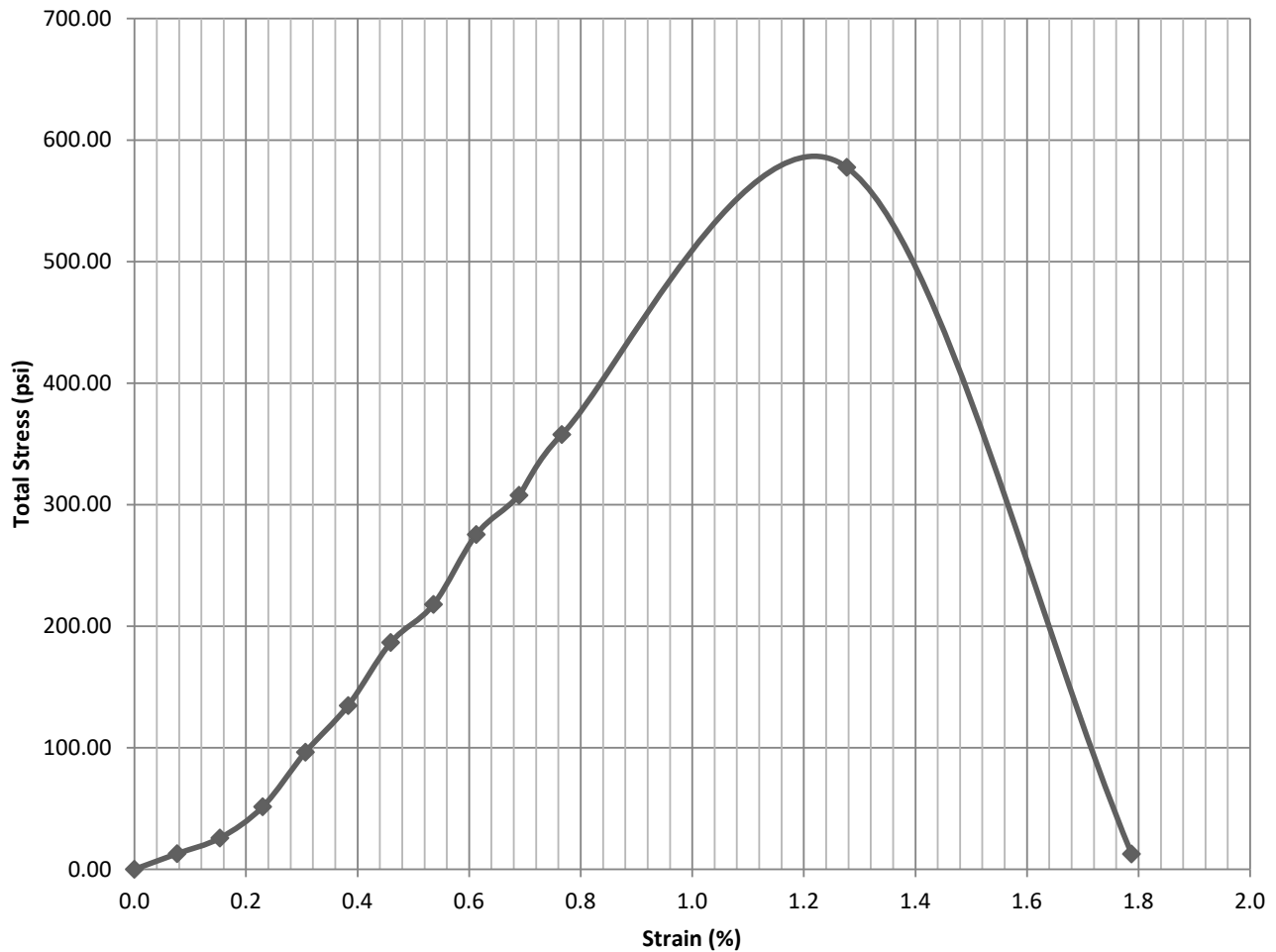
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0312
Sample Location:	B-47 / NQ-1	Depth of Sample:	46.3' - 46.6'
Tested By:	W. Pitts	Date Tested:	3/1/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0312



Average Initial Diameter (Do): 1.840 in.
 Average Initial Height (Lo): 3.916 in.
 Average Initial Area (Ao): 2.659 in²
 In-Situ Unit Weight: 107.8 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.41 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.650 lbs.
 L/D Ratio: 2.128

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/1/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-47 / NQ-4
 Depth/Elevation 57.3' - 57.6'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 580 \text{ psi}$ $\epsilon_{ULT} = 1.3\%$



Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0312
Sample Location:	B-47 / NQ-4	Depth of Sample:	57.3' - 57.6'
Tested By:	W. Pitts	Date Tested:	3/1/2023



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I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-48

Begin Run 1
35.3 Feet



Begin Run 2
36.4 Feet

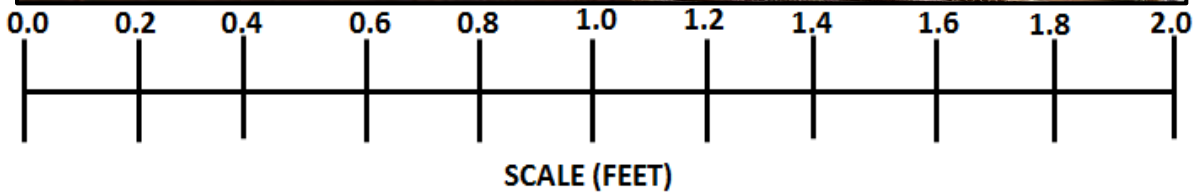
End Run 2
41.4 Feet

Begin Run 3
41.4 Feet



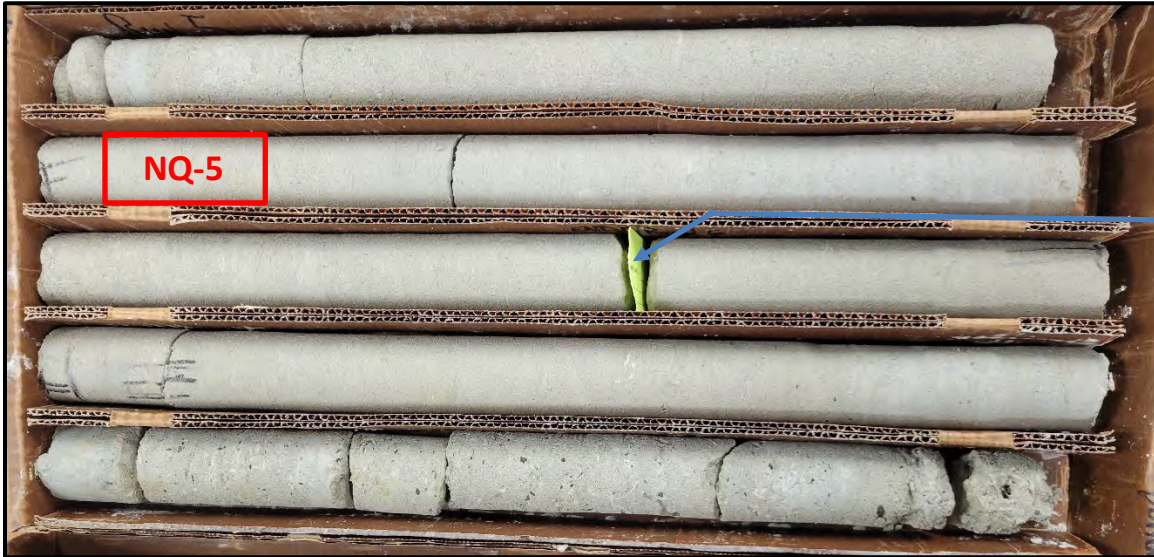
Begin Run 4
46.4 Feet

End Run 4
51.4 Feet



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-48

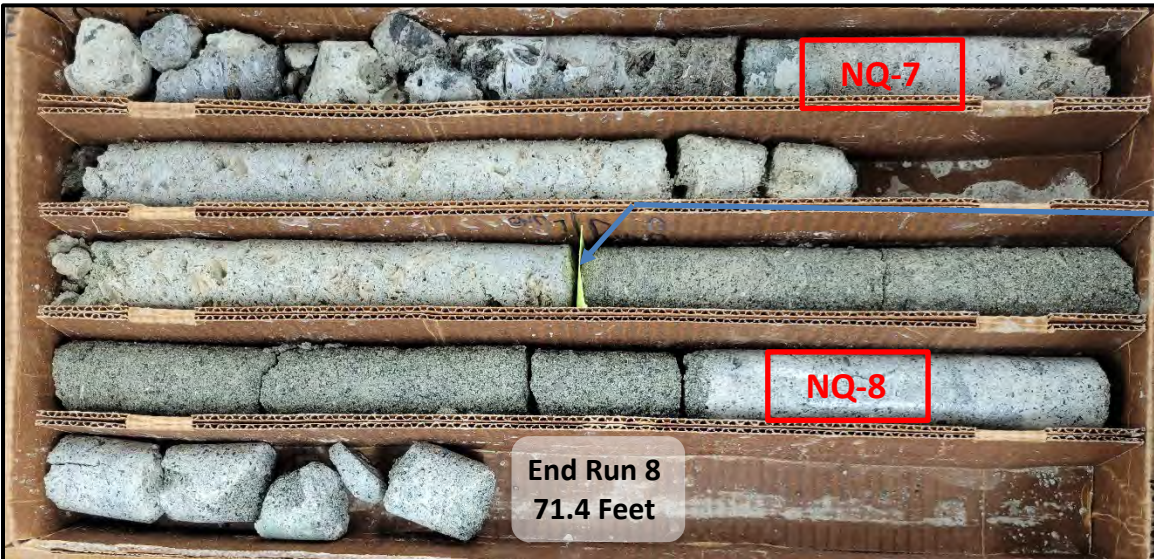
Begin Run 5
51.4 Feet



Begin Run 6
56.4 Feet

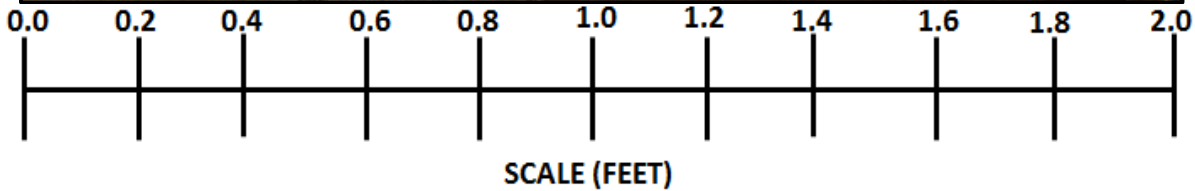
End Run 6
61.4 Feet

Begin Run 7
61.4 Feet

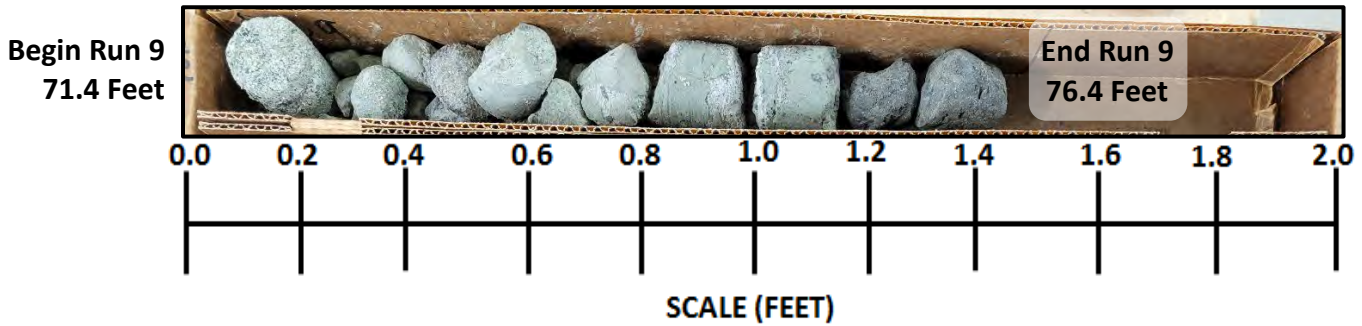


Begin Run 8
66.4 Feet

End Run 8
71.4 Feet

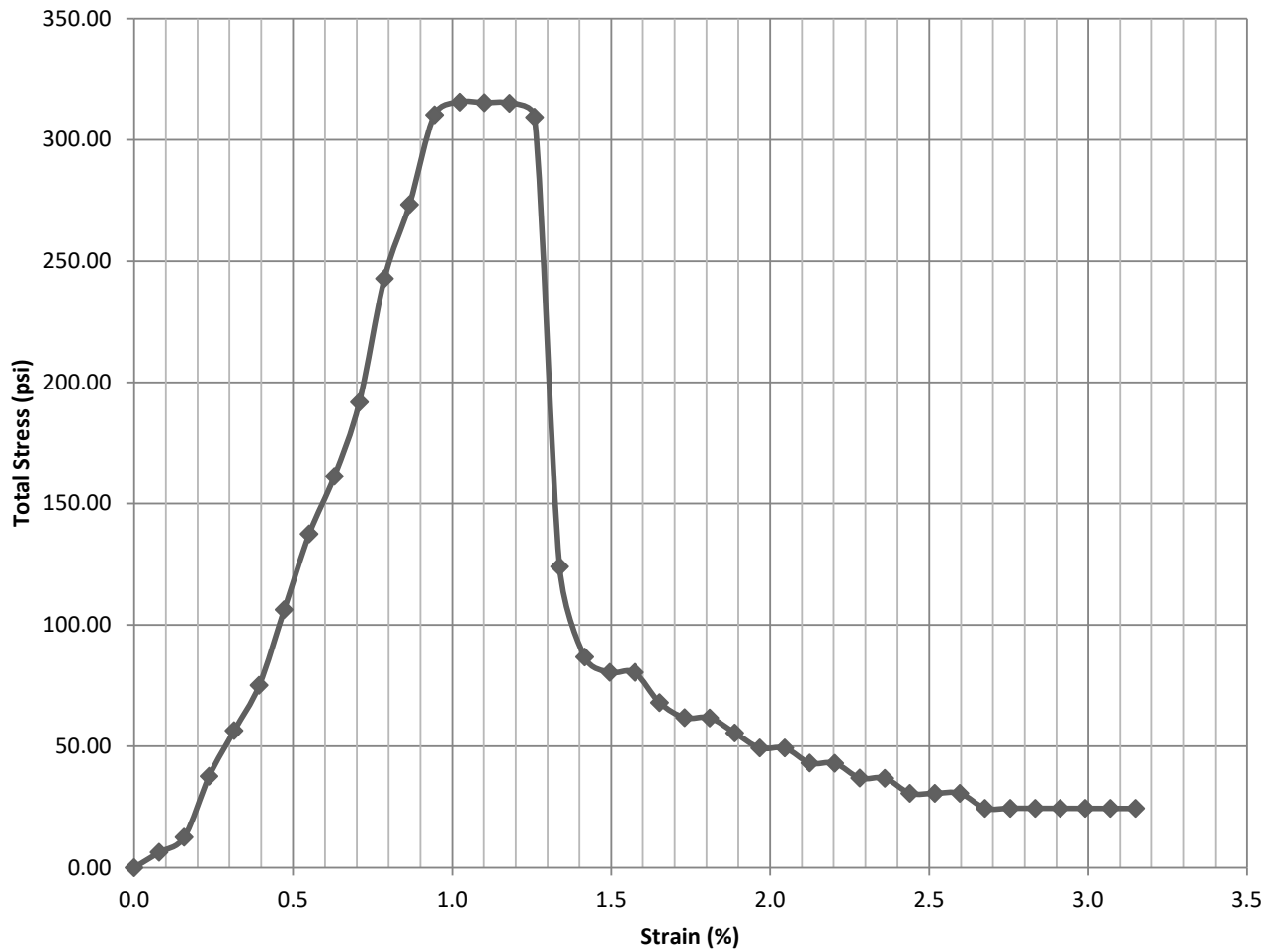


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-48



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0567



Average Initial Diameter (Do): 1.863 in.
 Average Initial Height (Lo): 3.812 in.
 Average Initial Area (Ao): 2.726 in²
 In-Situ Unit Weight: 132.6 pcf
 Failure Mode: Plastic Failure

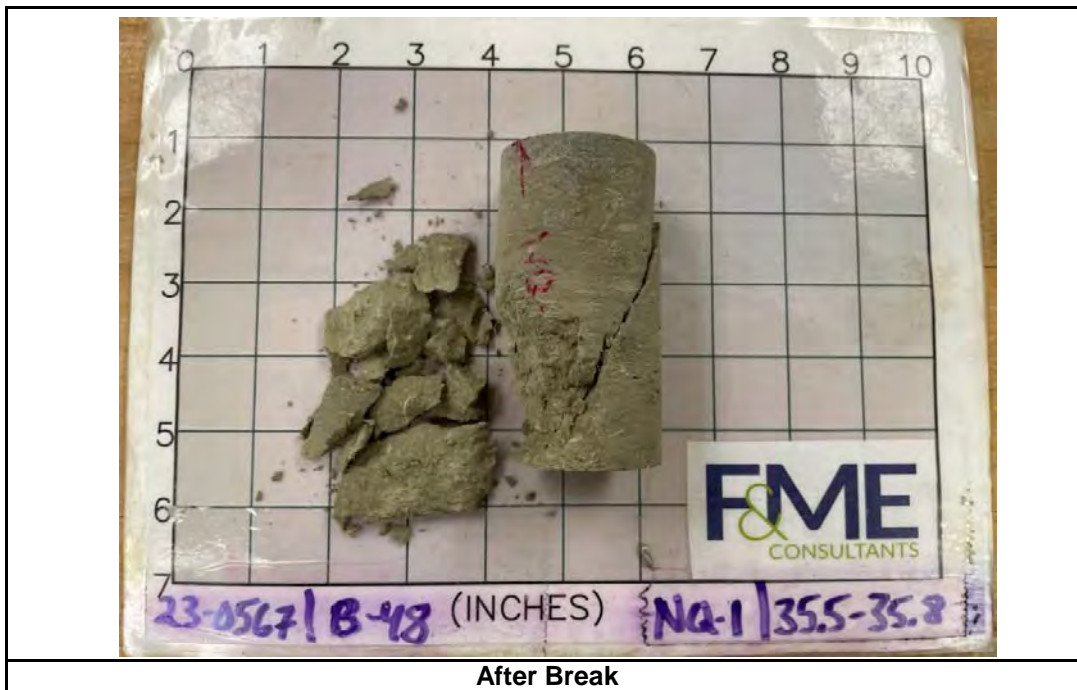
Sample Volume: 10.391 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.797 lbs.
 L/D Ratio: 2.046

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/13/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-48 / NQ-1
 Depth/Elevation 35.5' - 35.8'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 315 \text{ psi}$ $\epsilon_{ULT} = 1.1\%$



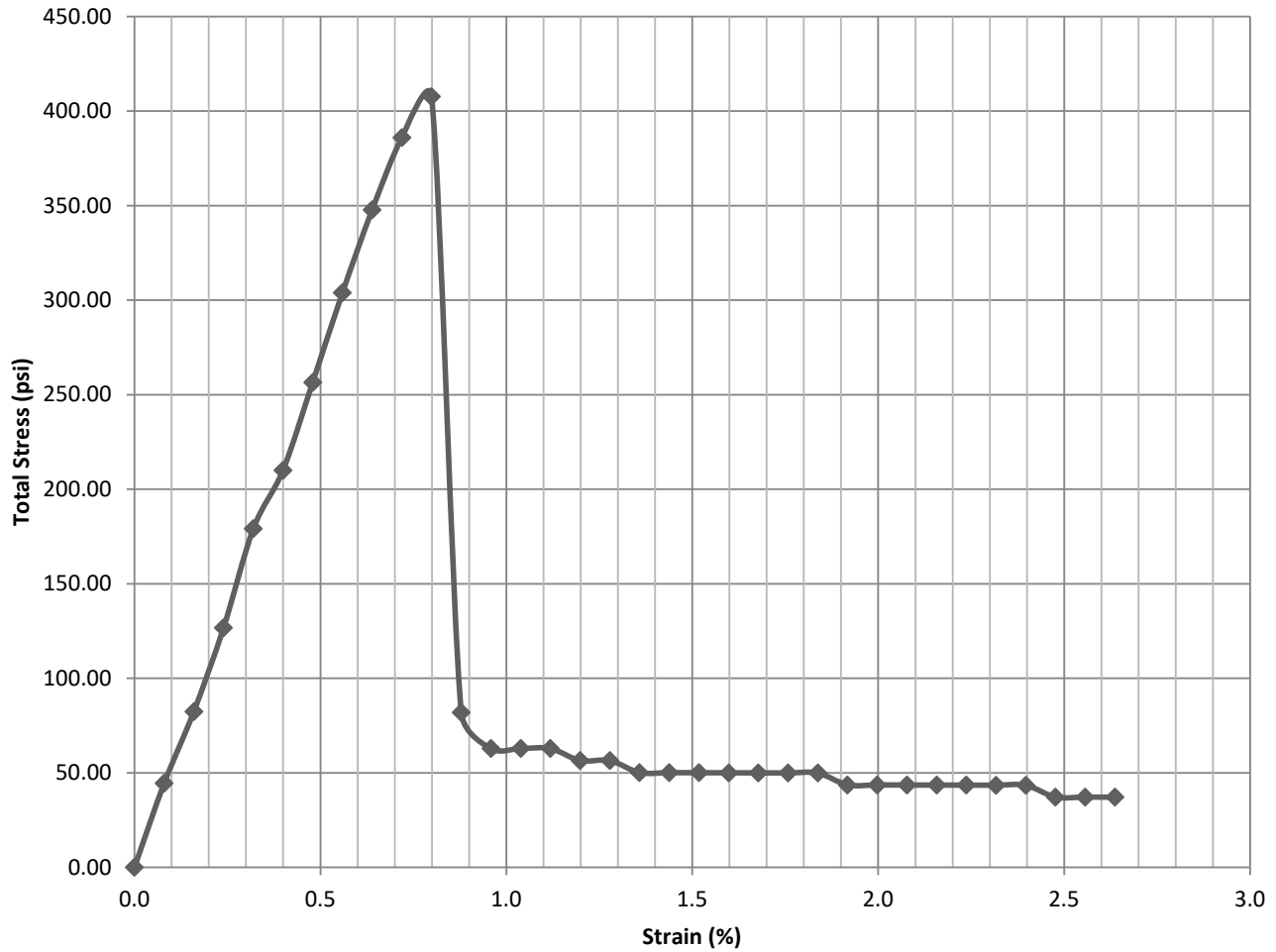
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0567
Sample Location:	B-48 / NQ-1	Depth of Sample:	35.5' - 35.8'
Tested By:	W. Pitts	Date Tested:	3/13/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0567



Average Initial Diameter (Do): 1.853 in.
 Average Initial Height (Lo): 3.755 in.
 Average Initial Area (Ao): 2.697 in²
 In-Situ Unit Weight: 121.0 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.126 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.709 lbs.
 L/D Ratio: 2.026

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/13/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-48 / NQ-2
 Depth/Elevation 38.7' - 39.0'

Sample Type : Soil Core
 Target Strain Rate : 0.75% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 410 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



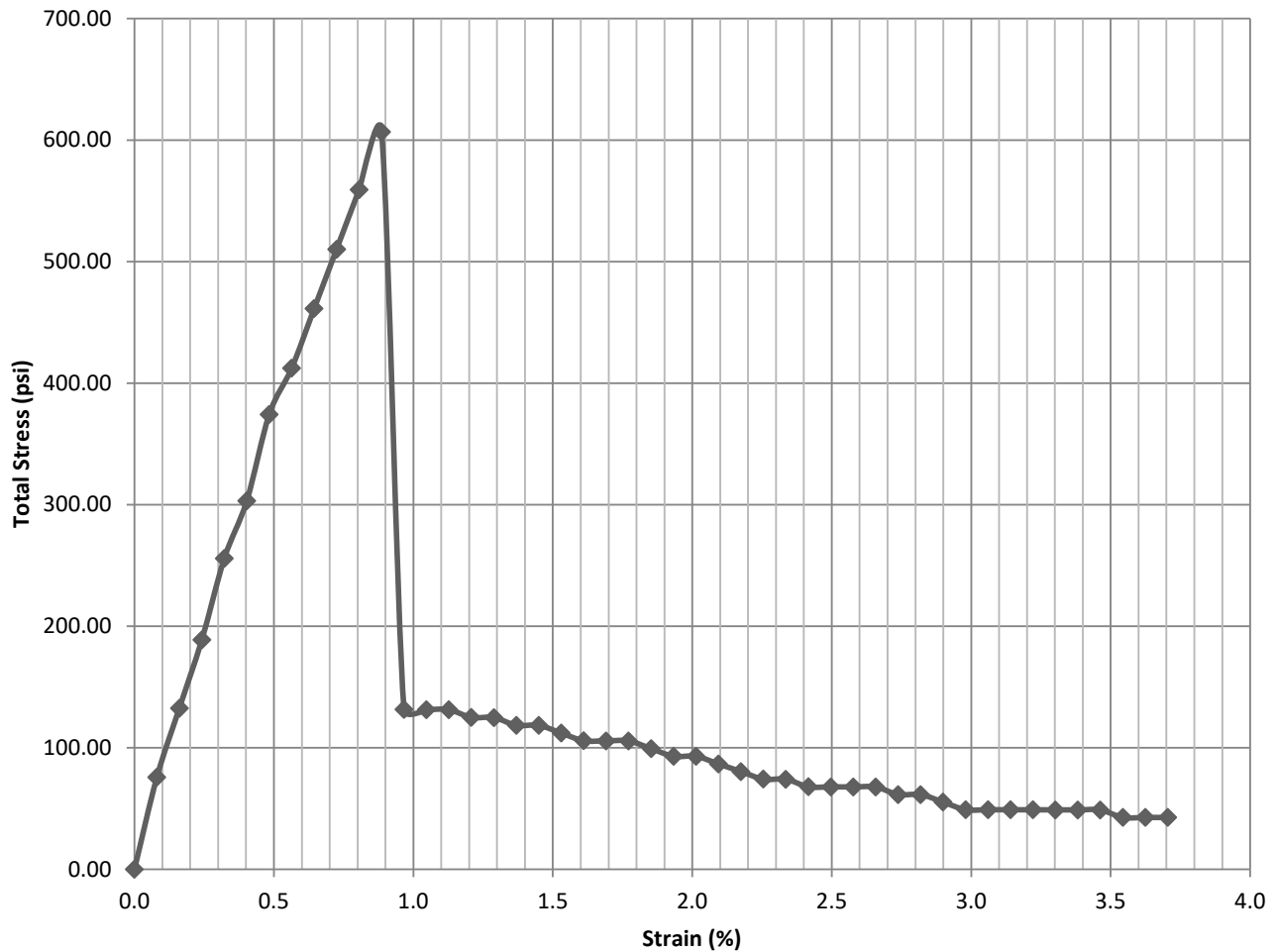
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0567
Sample Location:	B-48 / NQ-2	Depth of Sample:	38.7' - 39.0'
Tested By:	W. Pitts	Date Tested:	3/13/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0567



Average Initial Diameter (Do): 1.857 in.
 Average Initial Height (Lo): 3.725 in.
 Average Initial Area (Ao): 2.708 in²
 In-Situ Unit Weight: 120.6 pcf
 Failure Mode: Plastic Failure

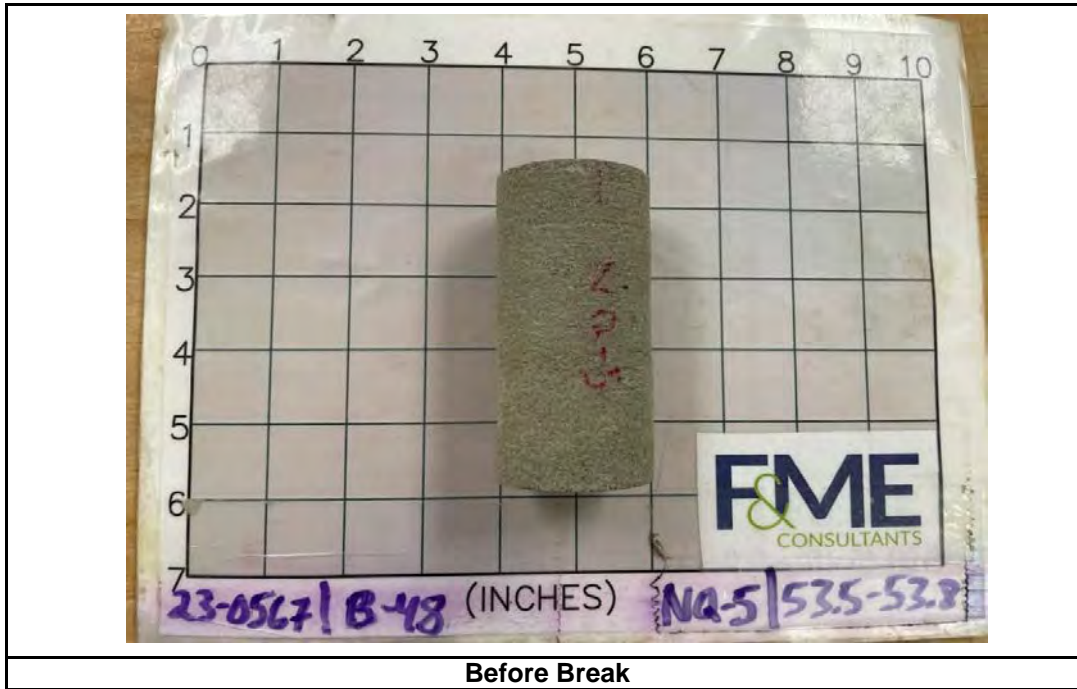
Sample Volume: 10.089 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.704 lbs.
 L/D Ratio: 2.006

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/13/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-48 / NQ-5
 Depth/Elevation 53.5' - 53.8'

Sample Type : Soil Core
 Target Strain Rate : 0.8% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 610 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



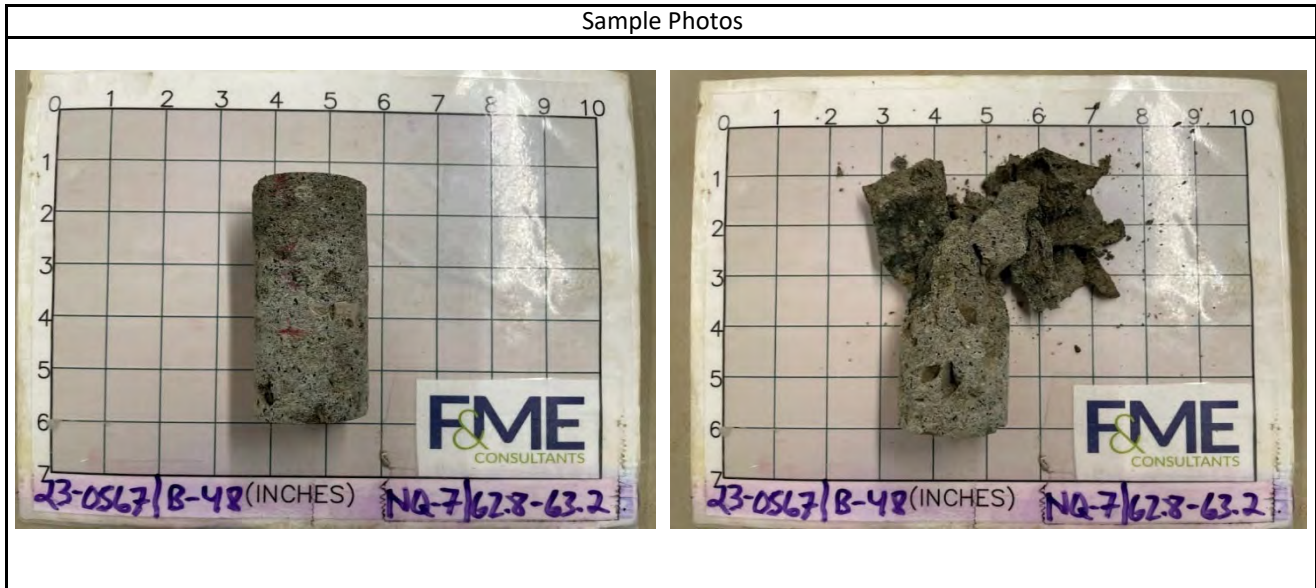
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0567
Sample Location:	B-48 / NQ-5	Depth of Sample:	53.5' - 53.8'
Tested By:	W. Pitts	Date Tested:	3/13/2023



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Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.844	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.853	Reviewed By	WJG
Boring	B-48	Unit Weight (pcf)	146.2	Core Size	NQ
Sample No.	NQ-7 / 23-0567A	L/D Ratio	2.09	Recovery	90%
Depth	62.8' - 63.2'	Load Rate (psi/sec)	10	RQD	65%
Description	Gray/Brown/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10^{-6})		Load (lbs)	Compressive Stress (psi)	Secant Modulus $\times 10^6$ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%	-1246	65	1,330	498	0.80	0.05
40%	-1596	113	1,856	695	0.87	0.07
50%	-1864	138	2,255	845	0.91	0.07
60%	-2173	204	2,700	1,011	0.93	0.09
70%	-2462	320	3,155	1,182	0.96	0.13
80%	-2750	642	3,608	1,351	0.98	0.23
90%	-2989	1419	4,049	1,516	1.01	0.47
100%	-3097	1842	4,502	1,686		

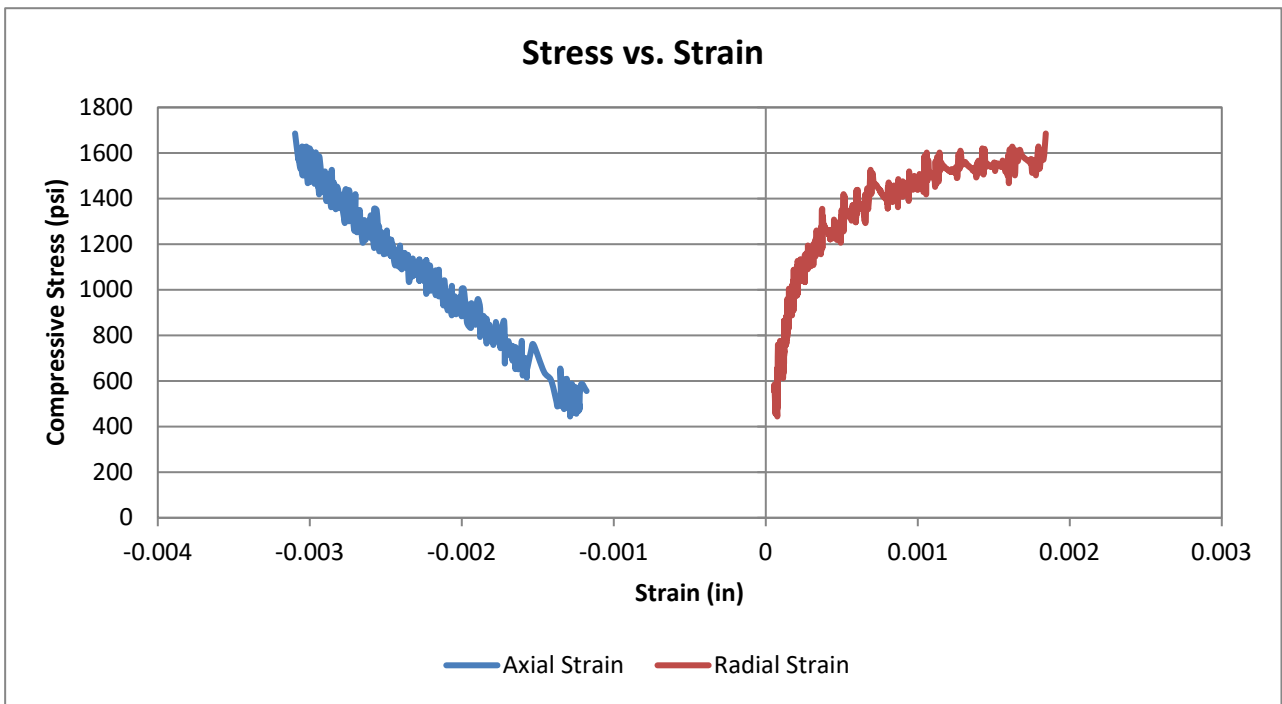
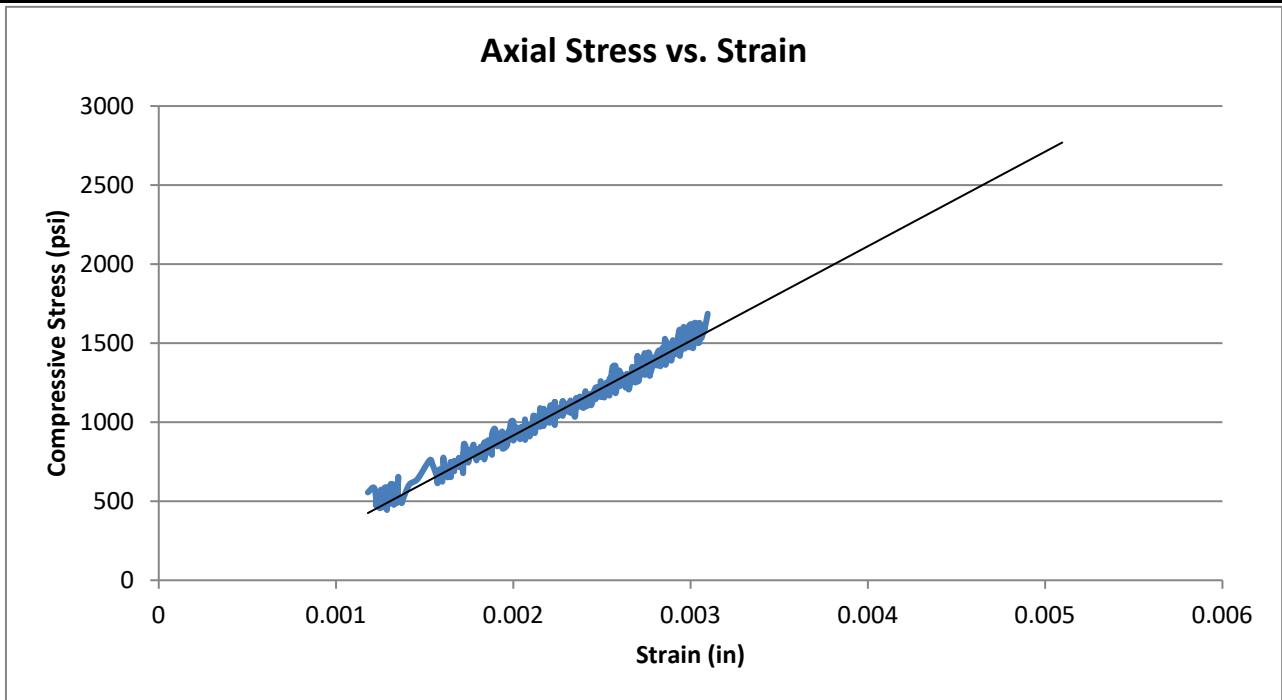


Test Results			
Unconfined Compressive Strength (psi)	1,690	Elastic Modulus (psi)	9.00E+05
		Poisson's Ratio in Elastic Range	0.09
Comments	Elastic range was taken as between 0.0015 and 0.0025 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		



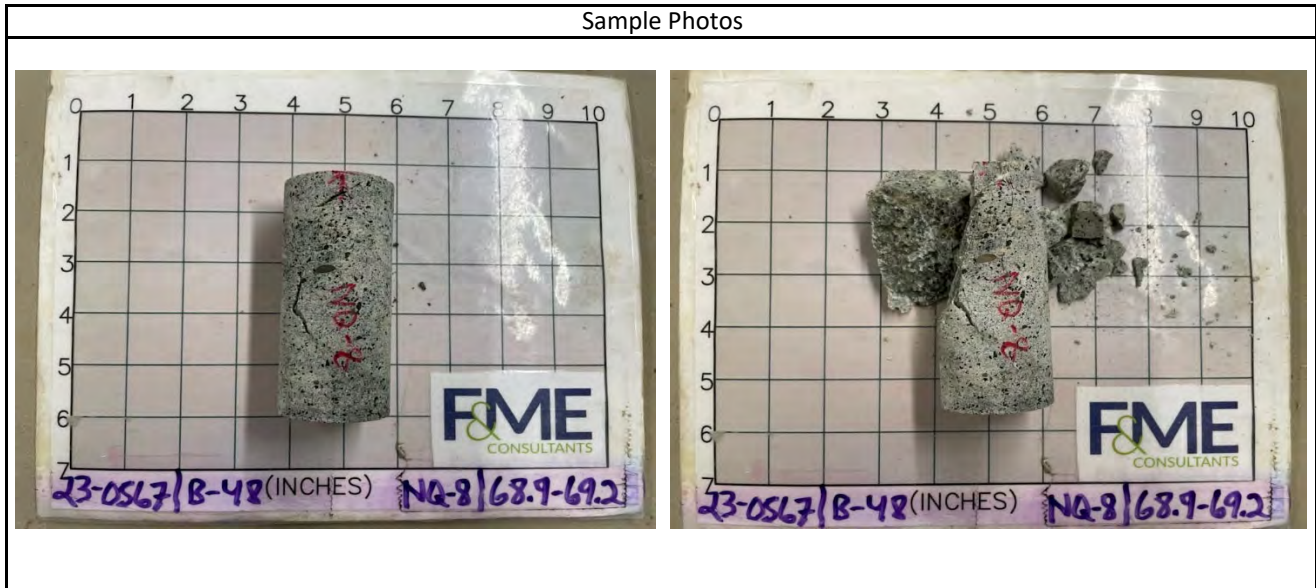
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.844	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.853	Reviewed By	WJG
Boring	B-48	Unit Weight (pcf)	146.2	Core Size	NQ
Sample No.	NQ-7 / 23-0567A	L/D Ratio	2.09	Recovery	90%
Depth	62.8' - 63.2'	Load Rate (psi/sec)	10	RQD	65%
Description	Gray/Brown/Black Limestone				



Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.979	Reviewed By	WJG
Boring	B-48	Unit Weight (pcf)	155.6	Core Size	NQ
Sample No.	NQ-8 / 23-0567B	L/D Ratio	2.13	Recovery	73%
Depth	68.9' - 69.2'	Load Rate (psi/sec)	10	RQD	58%
Description	Gray/White/Black Limestone				

Test Data						
Percent of Failure Load	Strain (10 ⁻⁶)		Load (lbs)	Compressive Stress (psi)	Secant Modulus x10 ⁶ (psi)	Poisson's Ratio
	Axial	Radial				
10%	Sample Preload Range					
20%						
30%	-463	5	1,722	631	2.72	0.01
40%	-603	34	2,300	842	2.79	0.06
50%	-767	119	2,824	1,034	2.70	0.15
60%	-867	252	3,438	1,258	2.90	0.29
70%	-1037	676	4,025	1,473	2.84	0.65
80%	-1365	826	4,560	1,669	2.45	0.61
90%	-1687	1744	5,147	1,884	2.23	1.03
100%	-1803	2200	5,746	2,103		

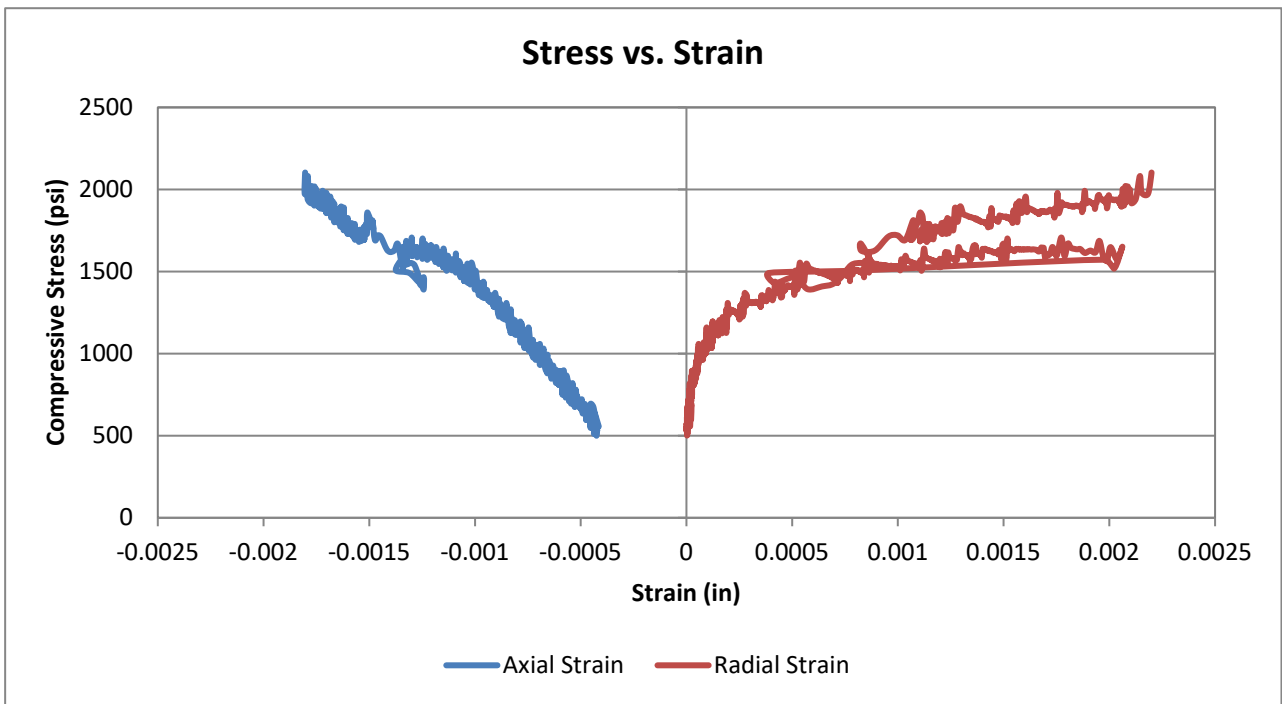
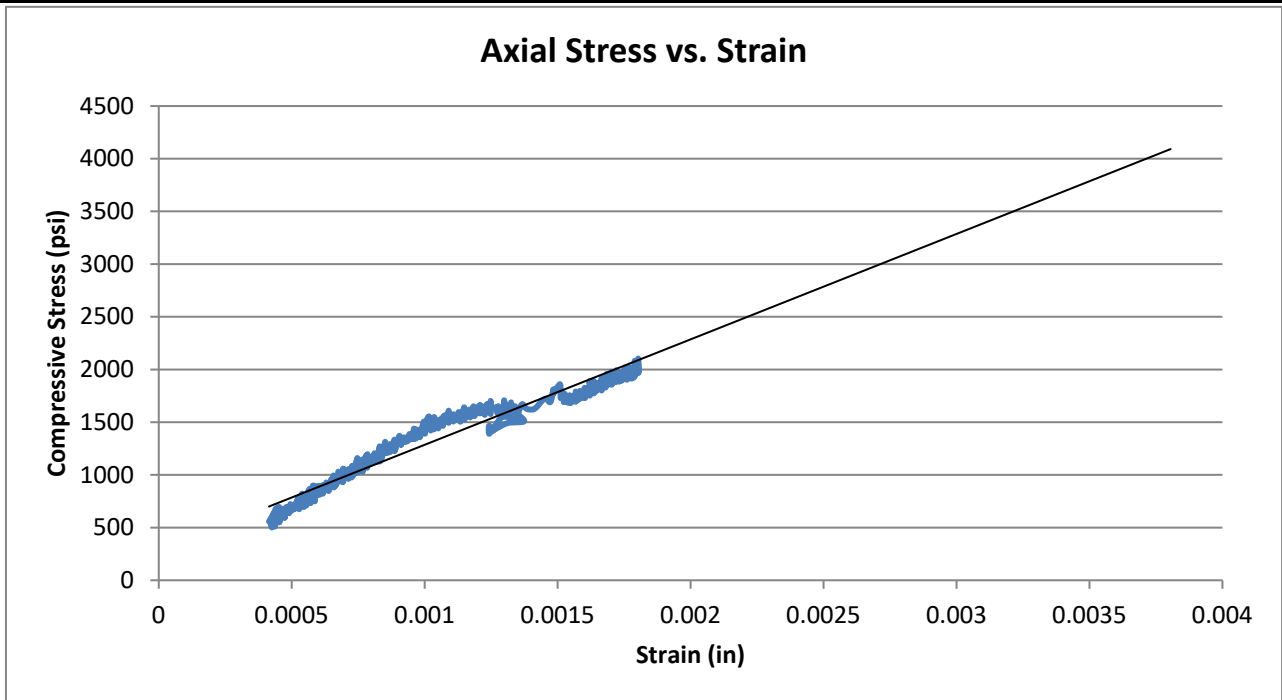


Test Results			
Unconfined Compressive Strength (psi)	2,100	Elastic Modulus (psi)	2.84E+06
		Poisson's Ratio in Elastic Range	0.19
Comments	Elastic range was taken as between 0.0005 and 0.001 inches of axial strain. This range was chosen to avoid any non-linear behavior from the initial loading and the inflection point at the end of the elastic range.		

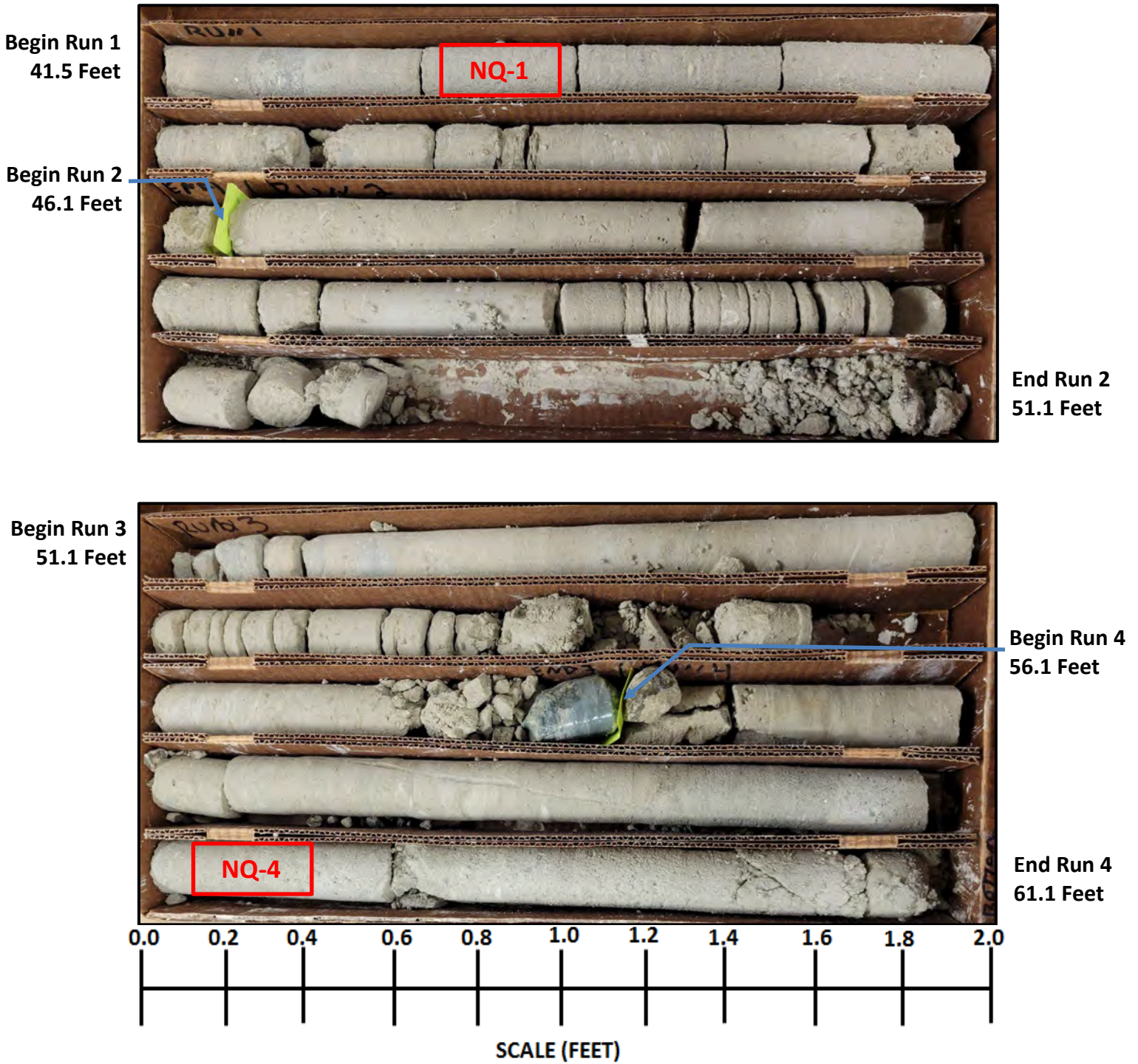


Compressive Strength and Elastic Moduli of Intact Rock Core Specimens
ASTM D7012 - Method D / SC-T-39

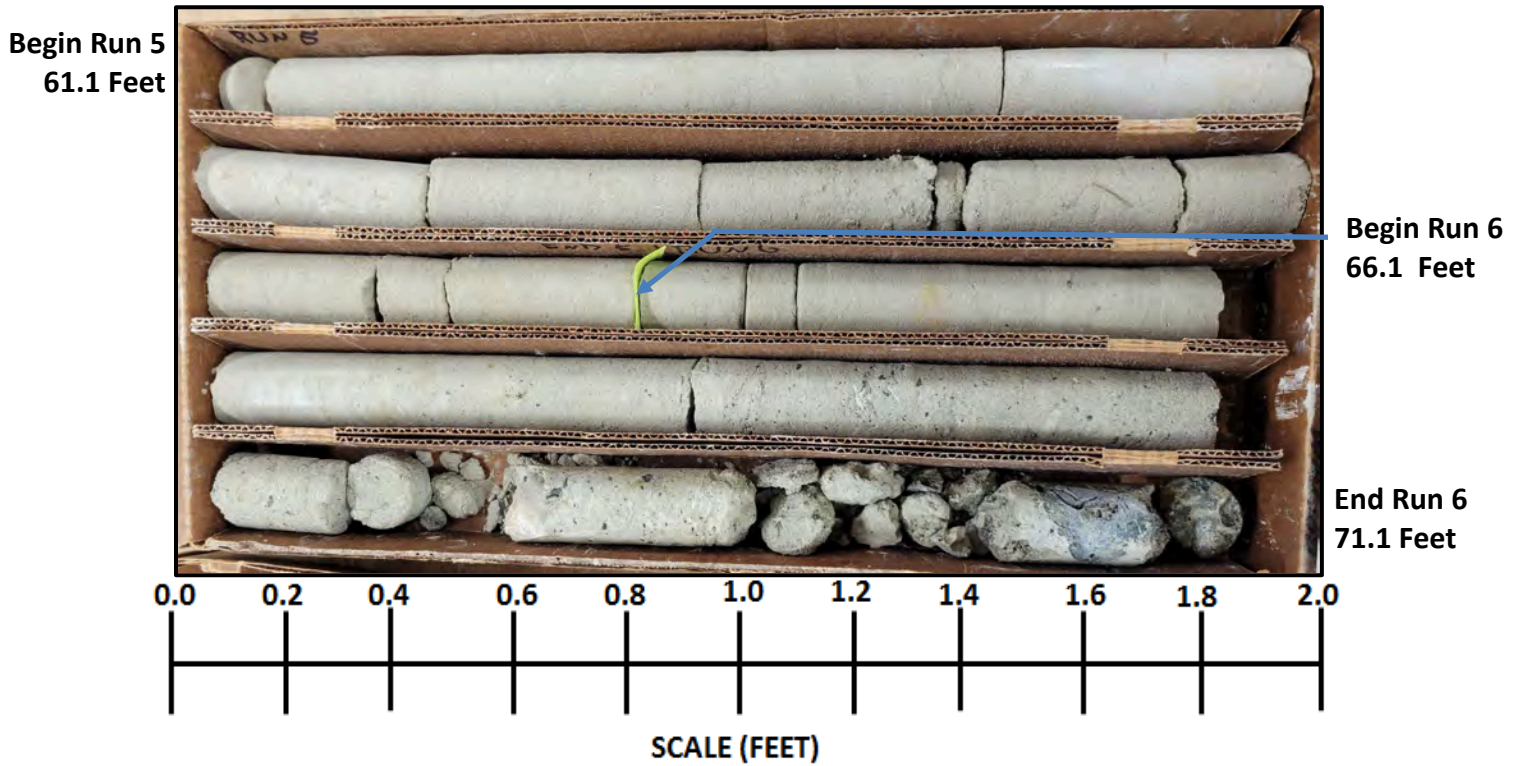
Project	I-95 NB/SB Bridges over Lake Marion			Date	7/25/2023
Project No.	G6744	Sample Diameter (in.)	1.865	Tested By	WAP
SCDOT ID	P041130	Sample Length (in.)	3.979	Reviewed By	WJG
Boring	B-48	Unit Weight (pcf)	155.6	Core Size	NQ
Sample No.	NQ-8 / 23-0567B	L/D Ratio	2.13	Recovery	73%
Depth	68.9' - 69.2'	Load Rate (psi/sec)	10	RQD	58%
Description	Gray/White/Black Limestone				



I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-51

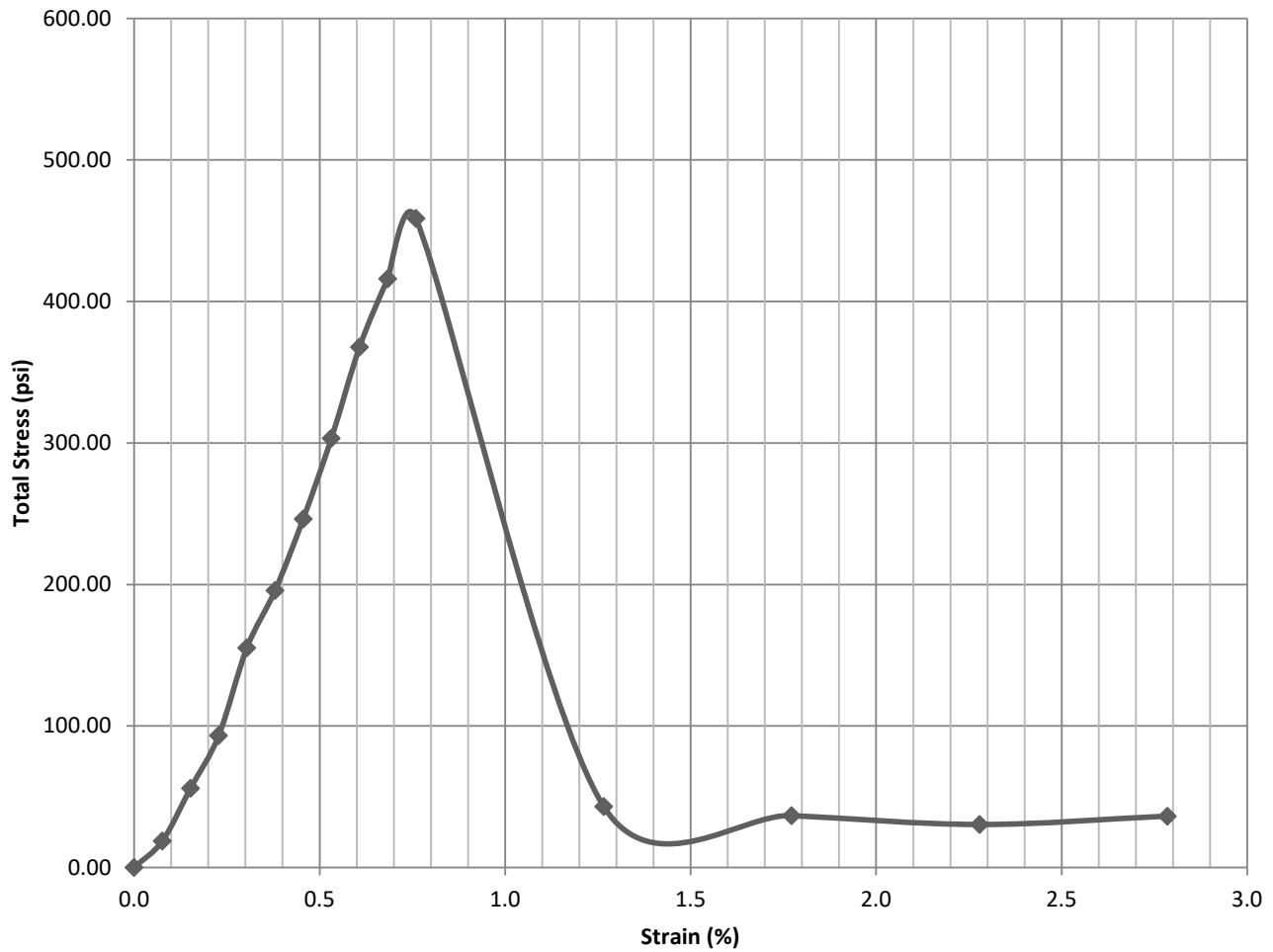


I-95 Bridge over Lake Marion DB Prep CORE PHOTOGRAPHS: B-51



UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0364



Average Initial Diameter (Do): 1.872 in.
 Average Initial Height (Lo): 3.950 in.
 Average Initial Area (Ao): 2.752 in²
 In-Situ Unit Weight: 118.4 pcf
 Failure Mode: Plastic Failure

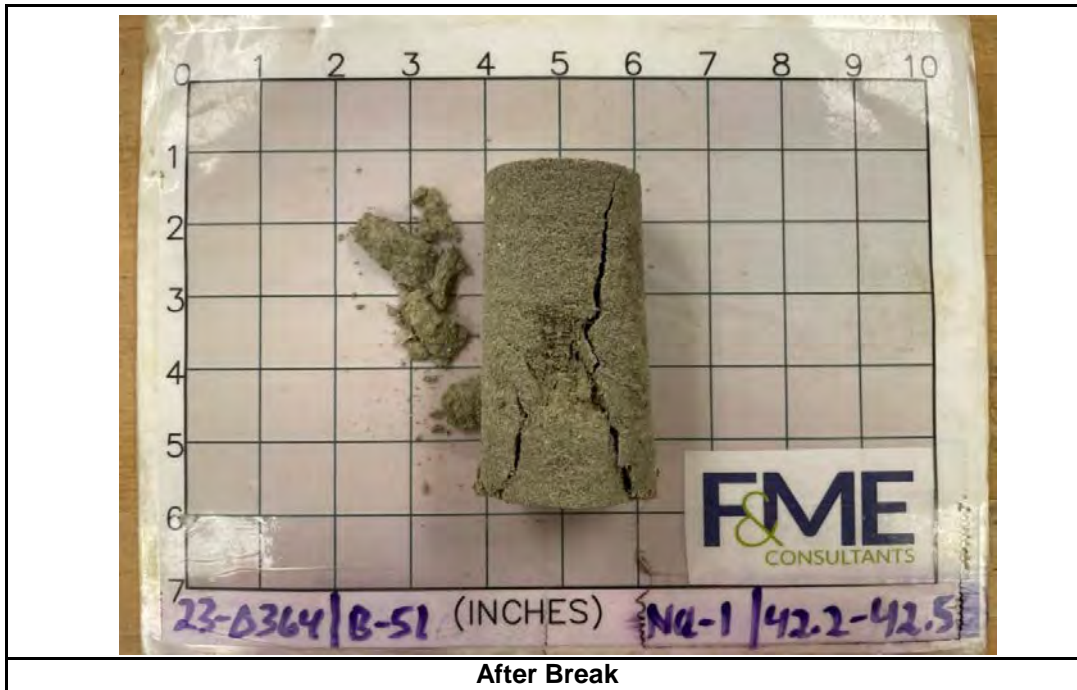
Sample Volume: 10.87 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.745 lbs.
 L/D Ratio: 2.110

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/1/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-51 / NQ-1
 Depth/Elevation 42.2' - 42.5'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 460 \text{ psi}$ $\epsilon_{ULT} = 0.8\%$



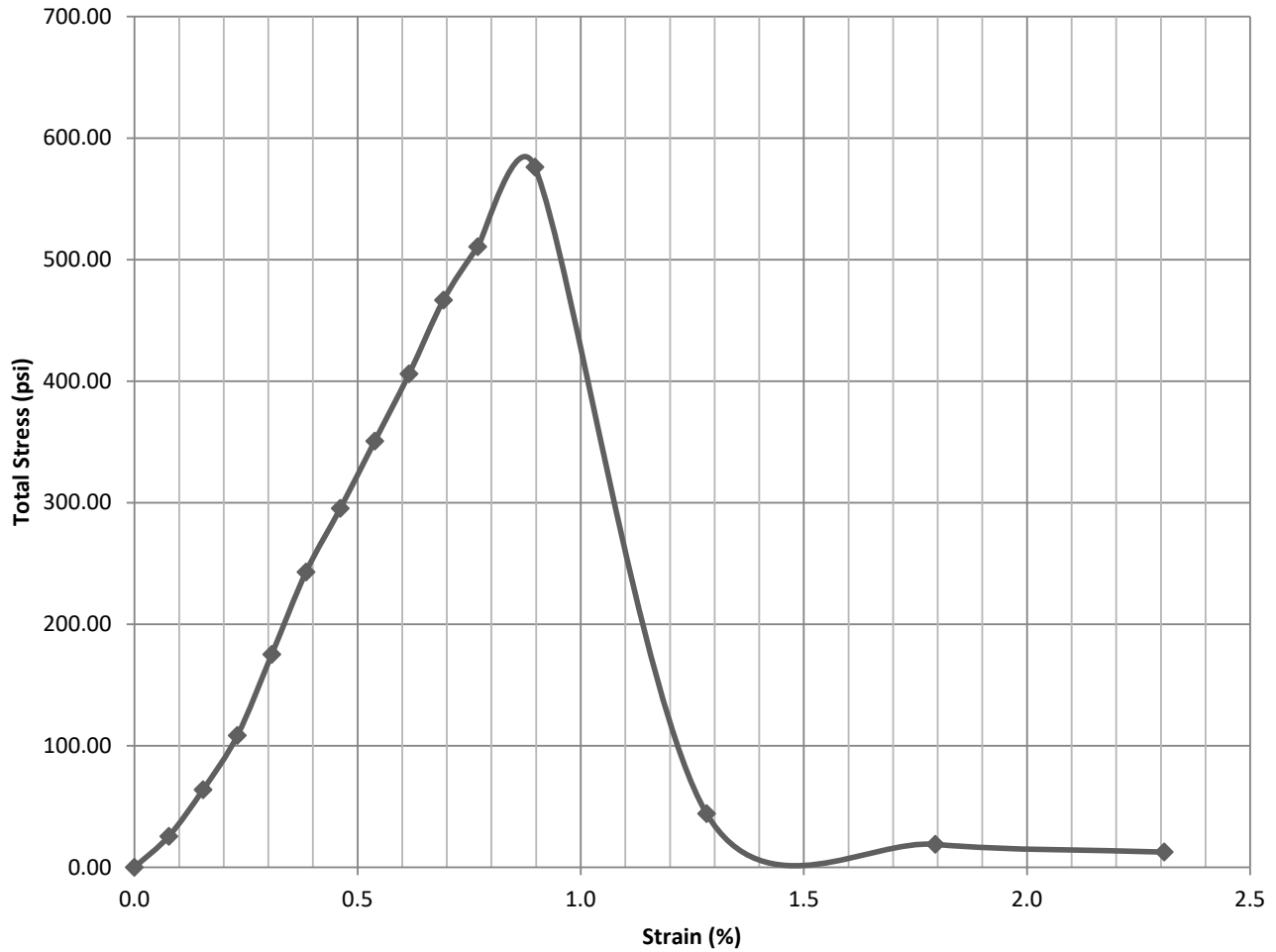
Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0364
Sample Location:	B-51 / NQ-1	Depth of Sample:	42.2' - 42.5'
Tested By:	W. Pitts	Date Tested:	3/1/2023



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UNCONFINED COMPRESSIVE STRENGTH TEST REPORT
ASTM D2166 / AASHTO T208

Stress/Strain Curve - Sample 23-0364



Average Initial Diameter (Do): 1.846 in.
 Average Initial Height (Lo): 3.900 in.
 Average Initial Area (Ao): 2.676 in²
 In-Situ Unit Weight: 125.3 pcf
 Failure Mode: Plastic Failure

Sample Volume: 10.44 in³
 Sample Volume: 0.006 ft³
 Sample Weight: 0.757 lbs.
 L/D Ratio: 2.113

Project Name I-95 NB/SB Bridges over Lake Marion
 Project Number G6744.000 Date 3/1/2023
 SCDOT File # P041130 PIN # _____
 Sample/Location B-51 / NQ-4
 Depth/Elevation 58.9' - 59.2'

Sample Type : Soil Core
 Target Strain Rate : 0.5% per minute
 Description: Limestone
 $\sigma_{c-ULT} = 580 \text{ psi}$ $\epsilon_{ULT} = 0.9\%$



Project Name:	I-95 NB/SB Bridges over Lake Marion	Project #:	G6744.000
SCDOT File #:	P041130	F&ME Sample #:	23-0364
Sample Location:	B-51 / NQ-4	Depth of Sample:	58.9' - 59.2'
Tested By:	W. Pitts	Date Tested:	3/1/2023



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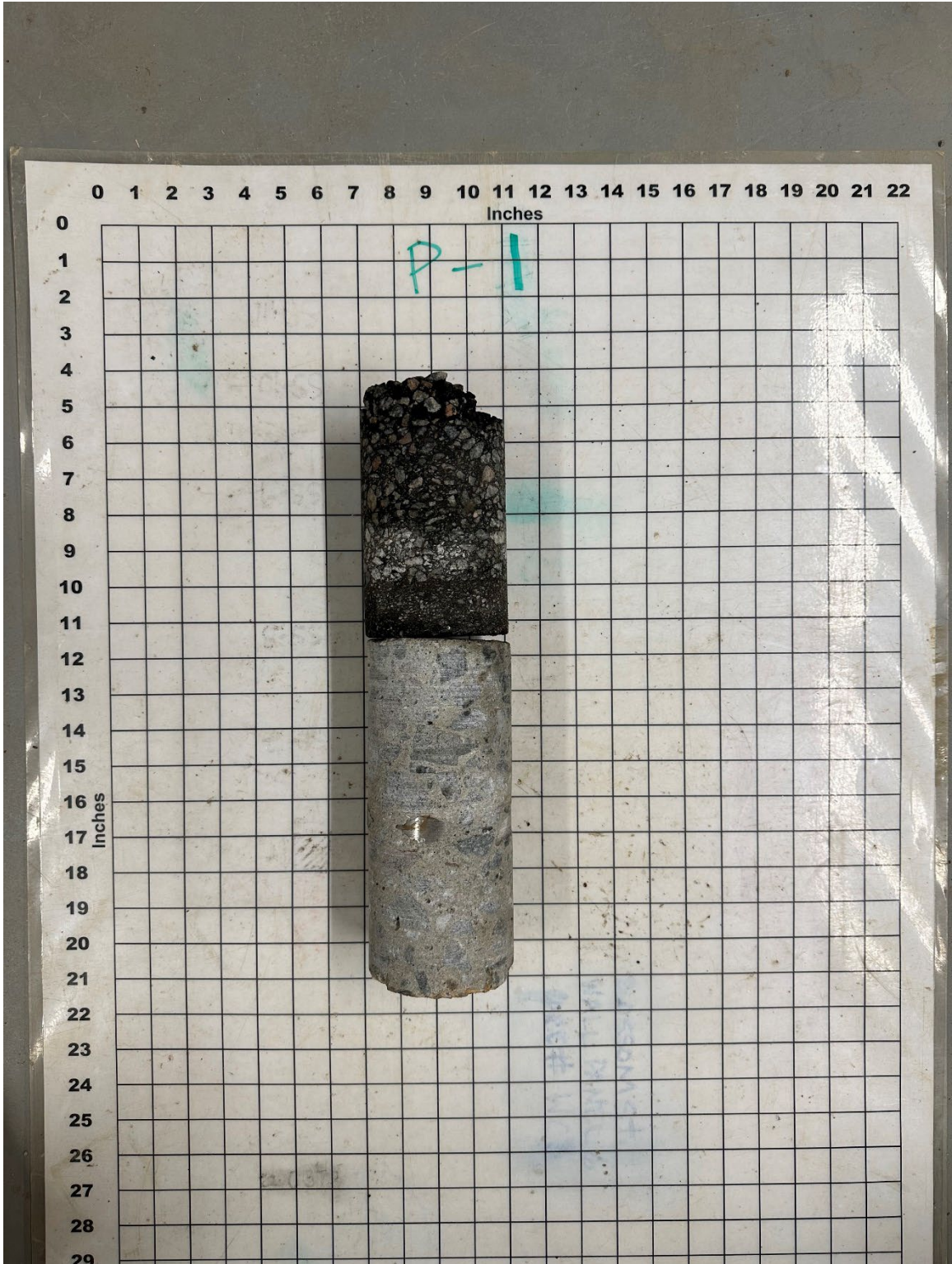
I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

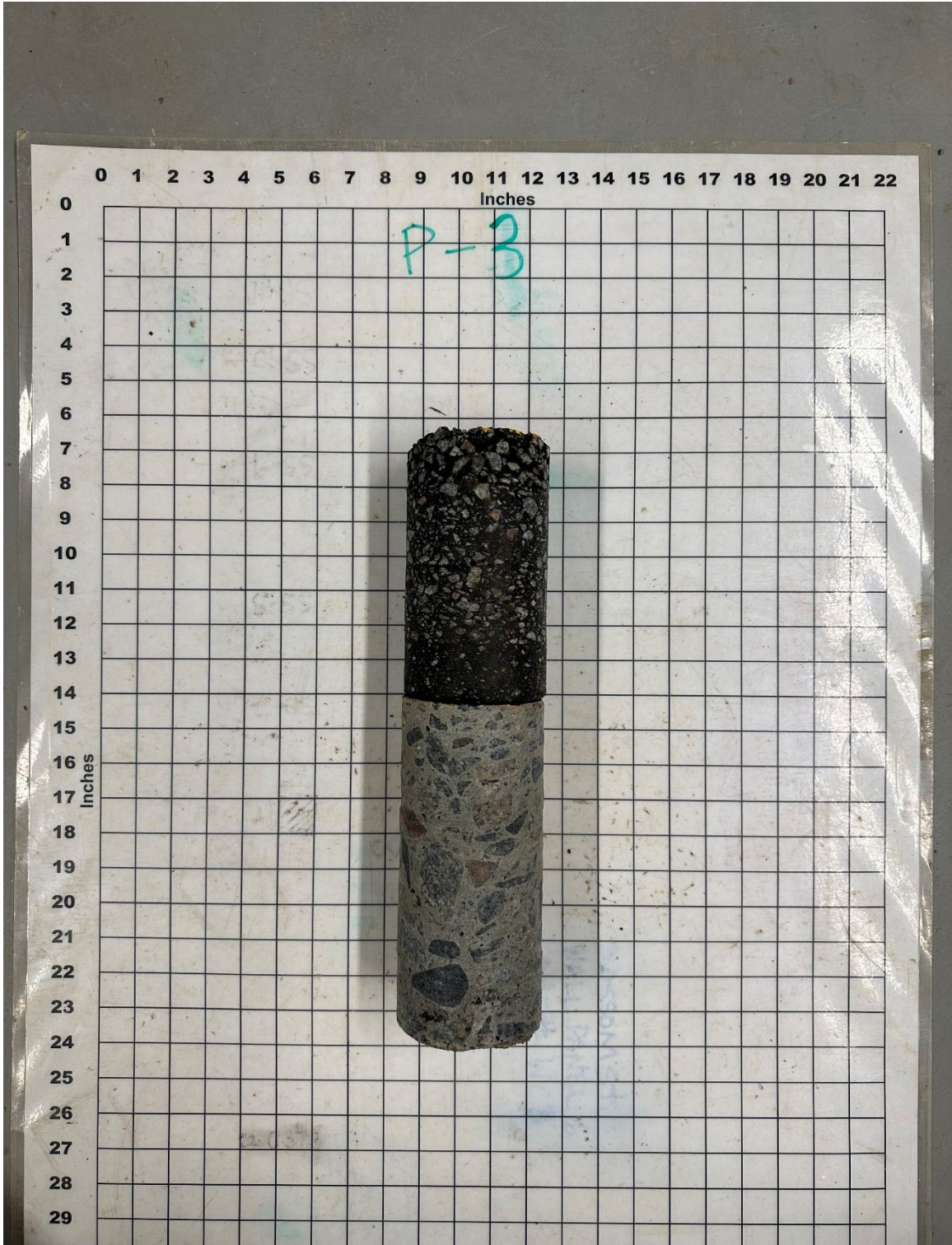
SECTION 5 EXISTING ASPHALT CORE PHOTOS

Pavement Core Photographs



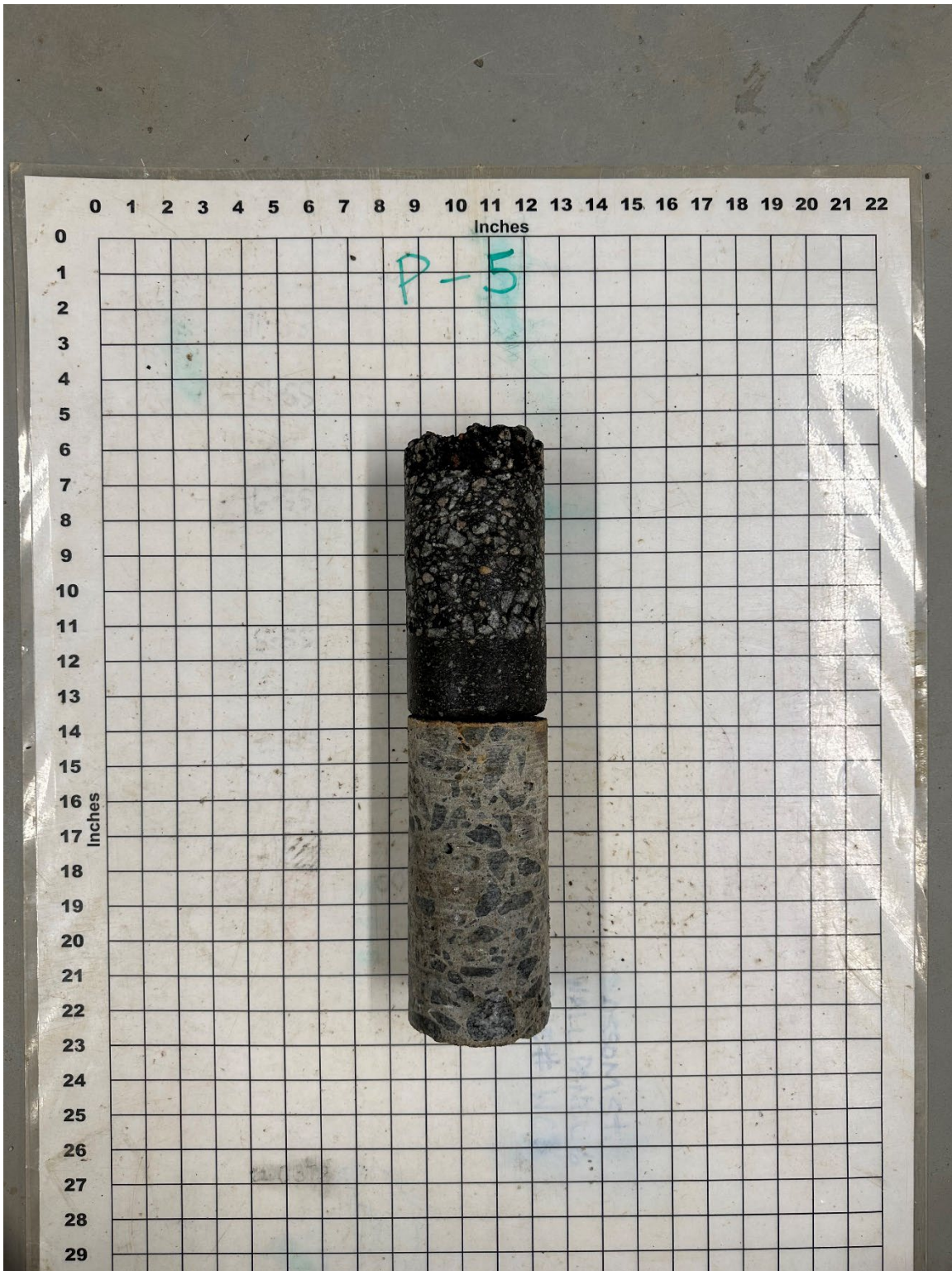
P-1

Pavement Core Photographs



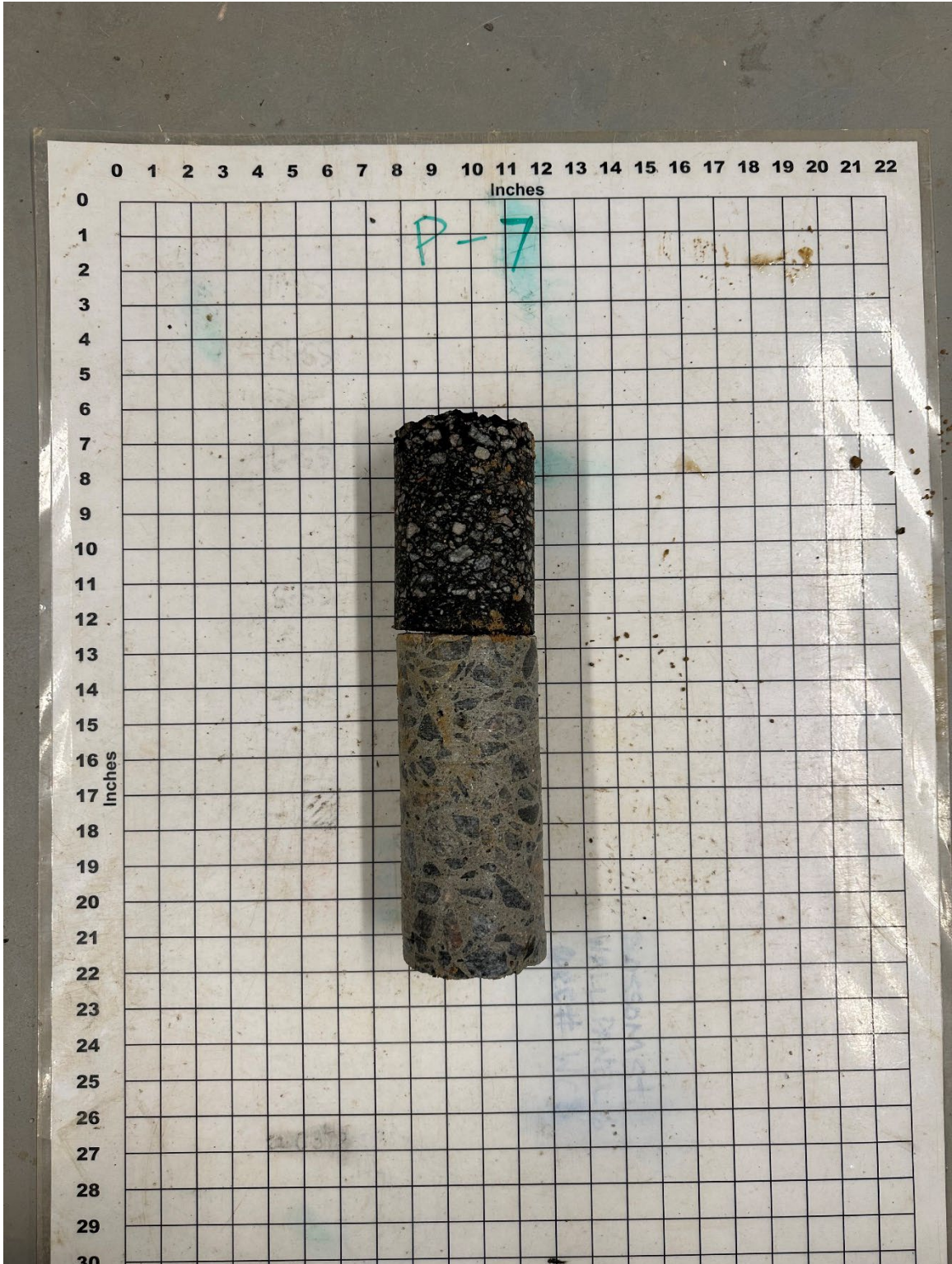
P-3

Pavement Core Photographs



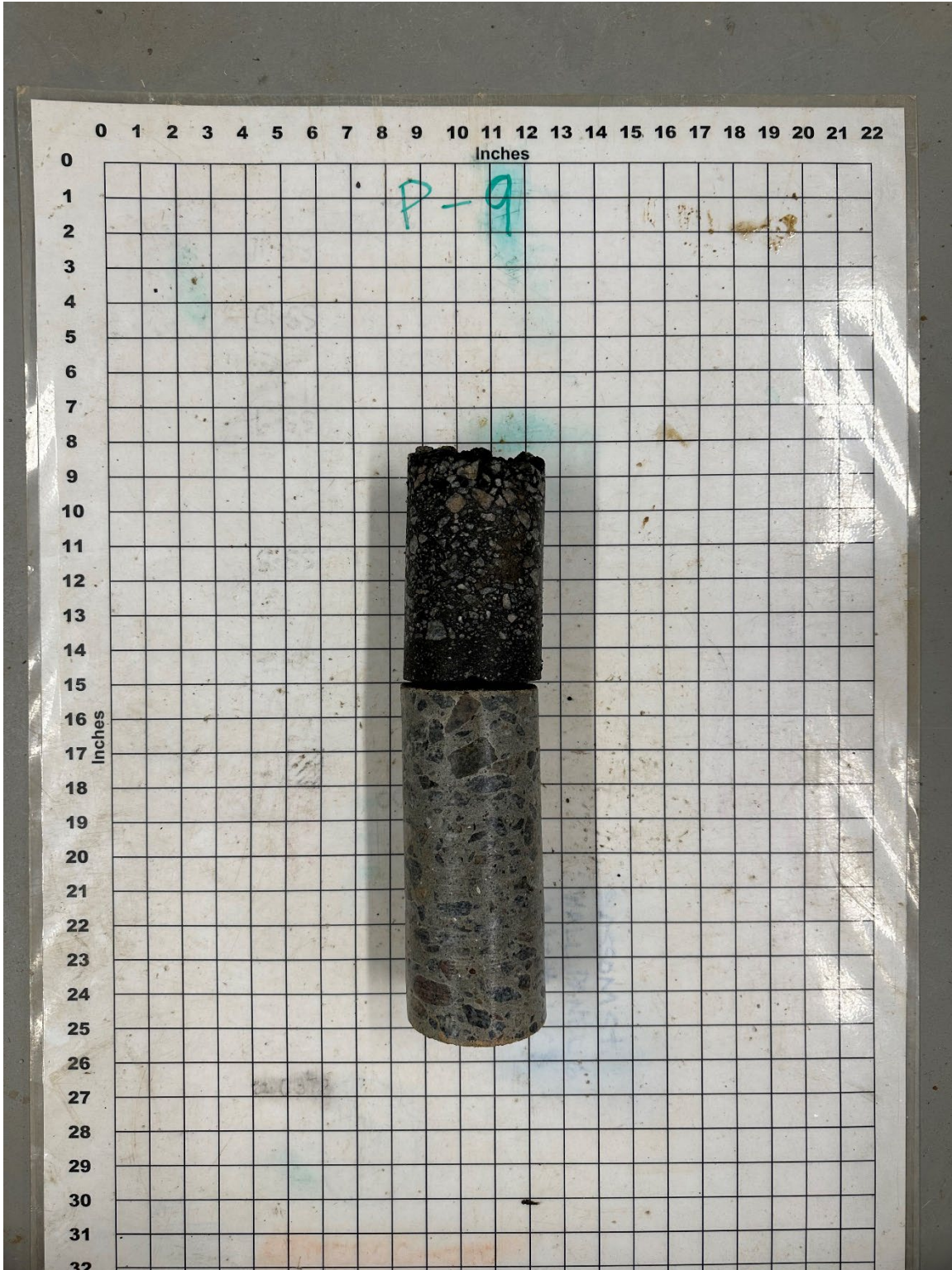
P-5

Pavement Core Photographs



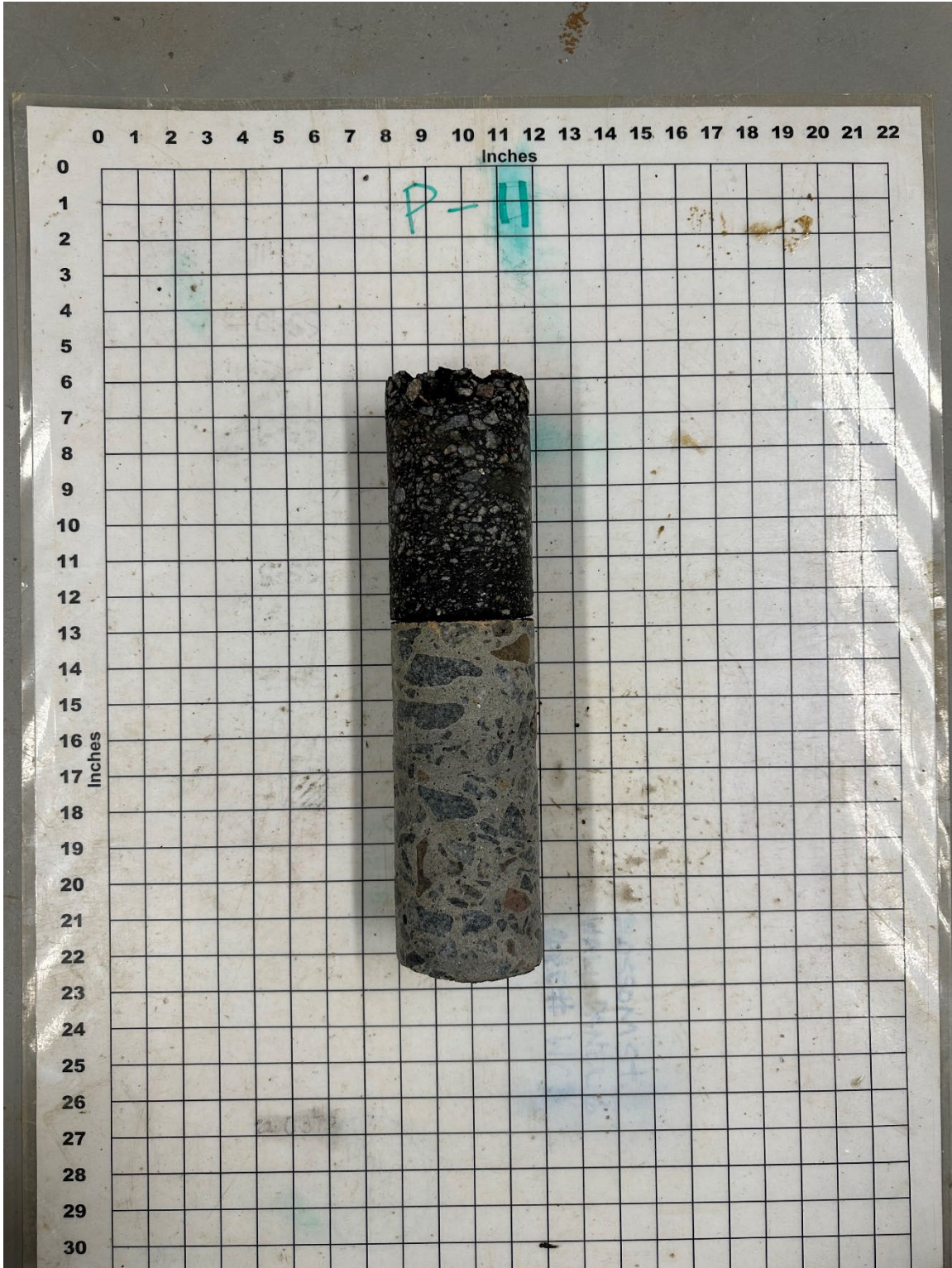
P-7

Pavement Core Photographs



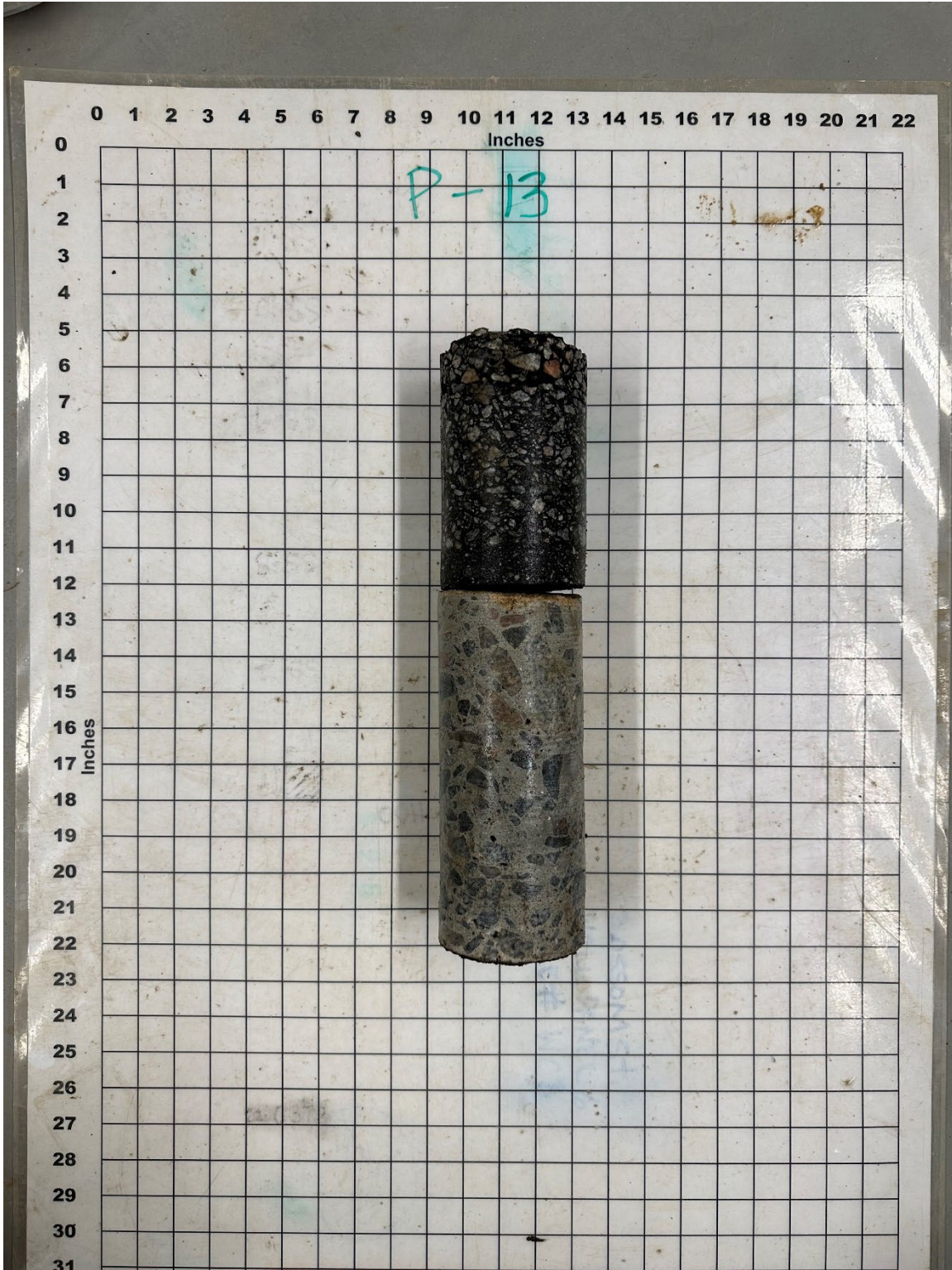
P-9

Pavement Core Photographs



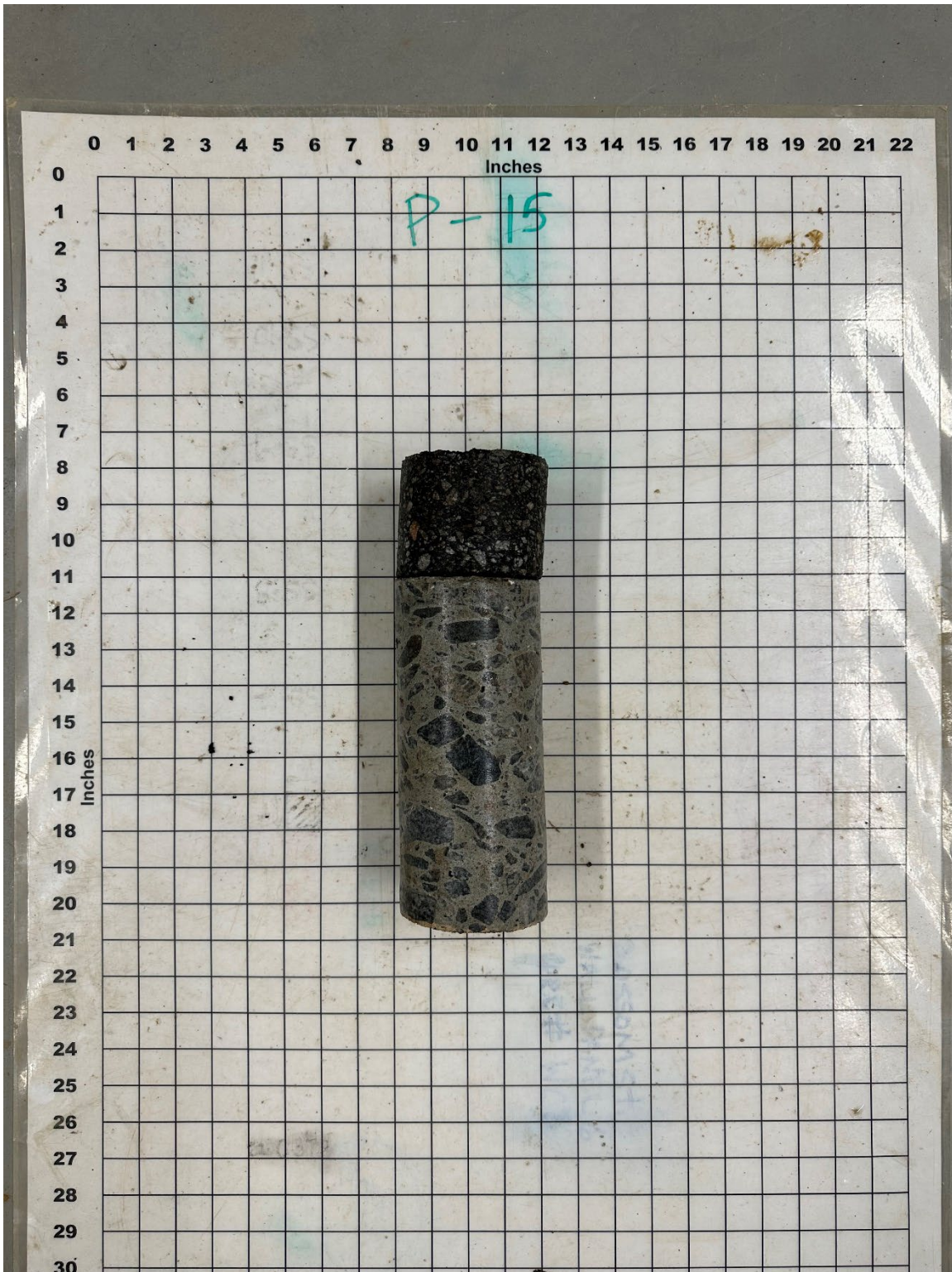
P-11

Pavement Core Photographs



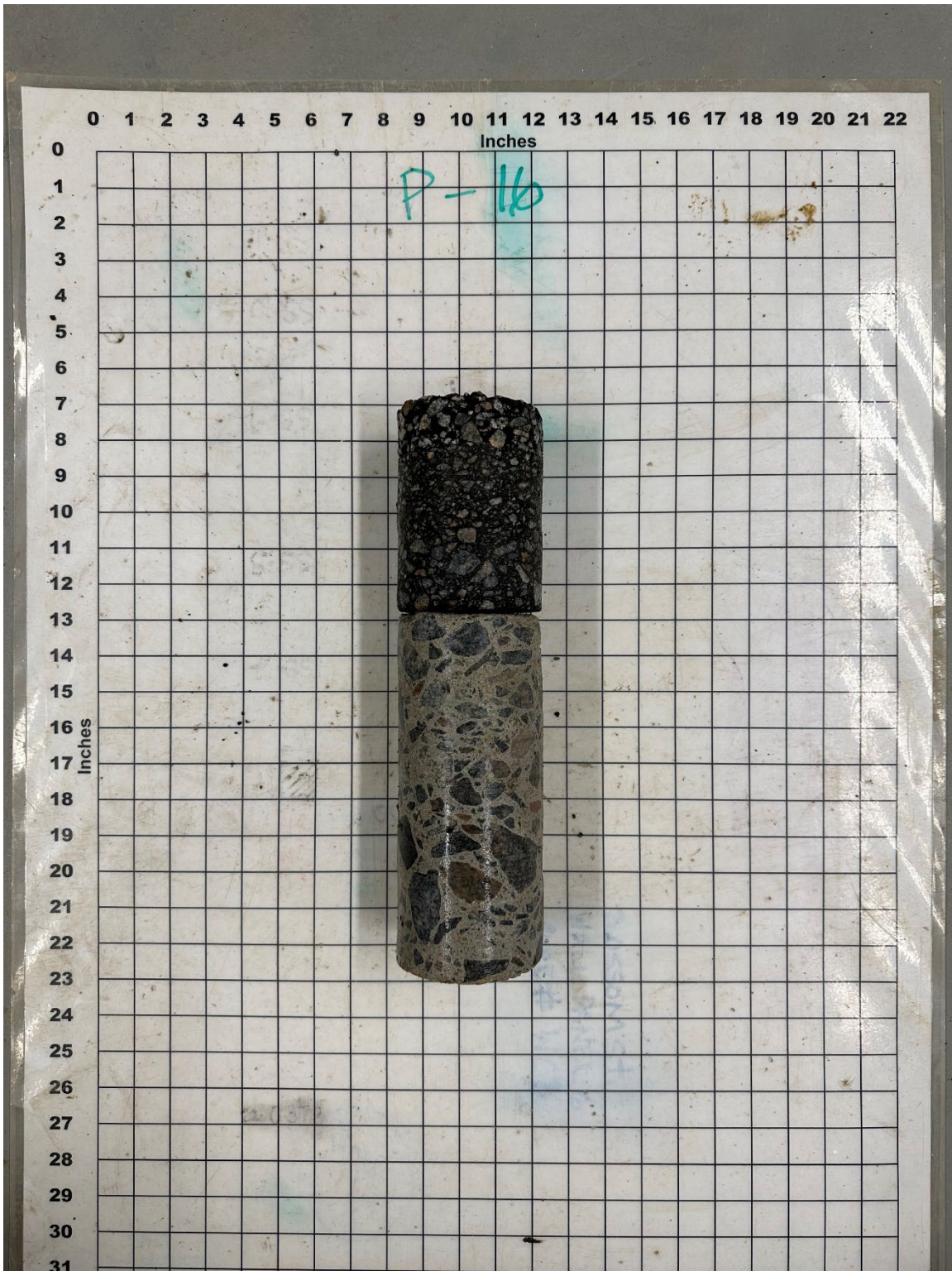
P-13

Pavement Core Photographs



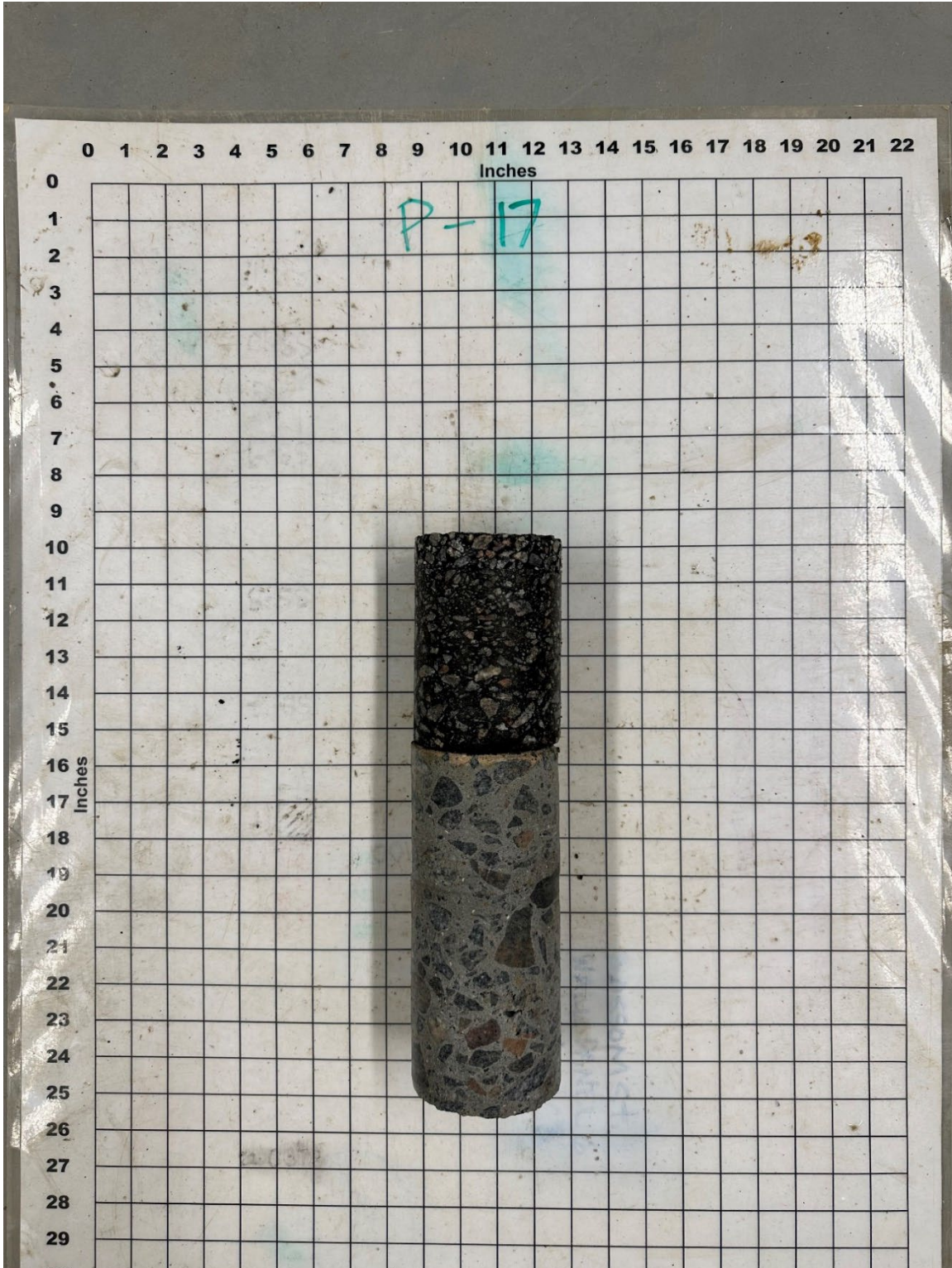
P-15

Pavement Core Photographs



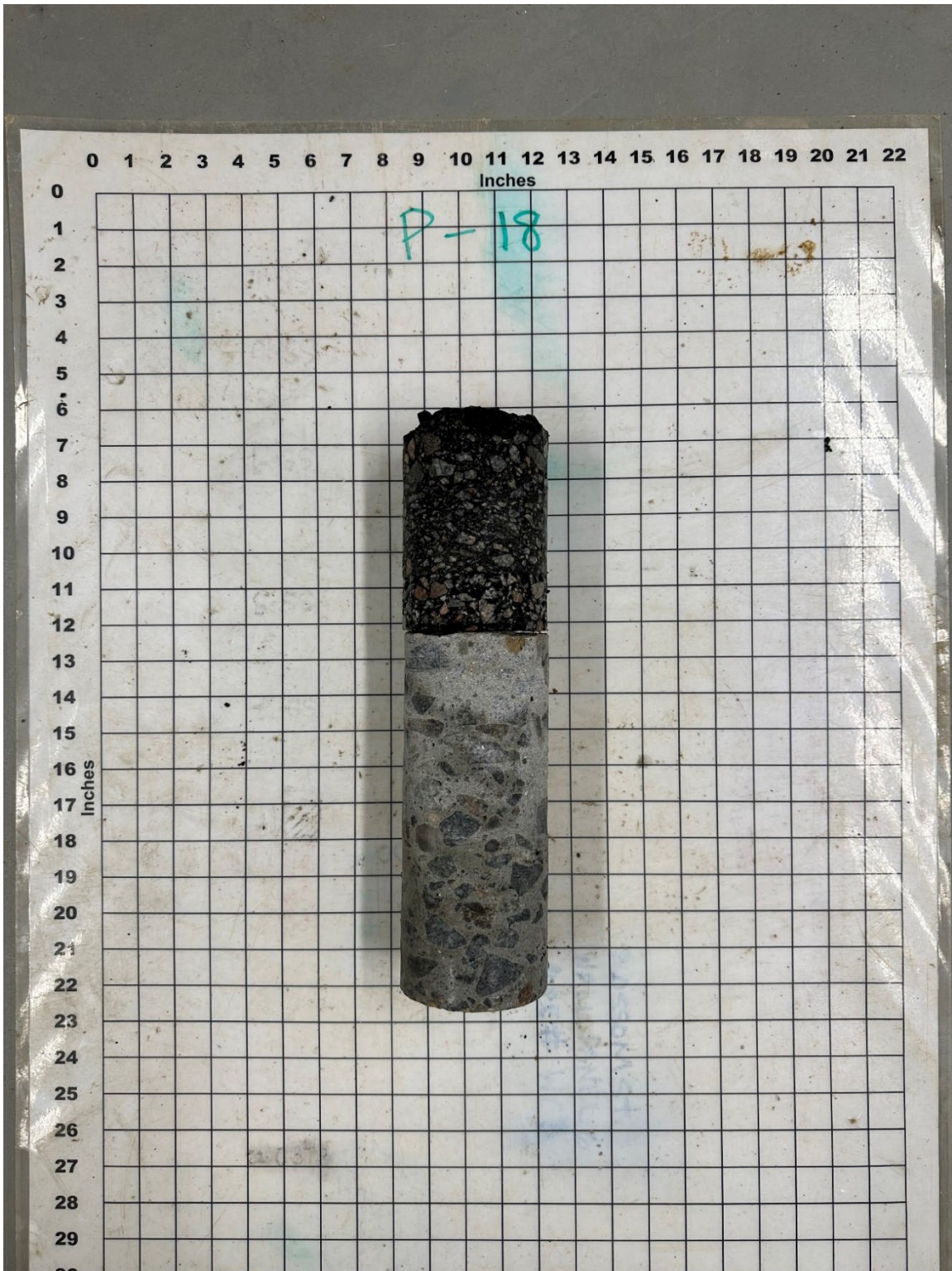
P-16

Pavement Core Photographs



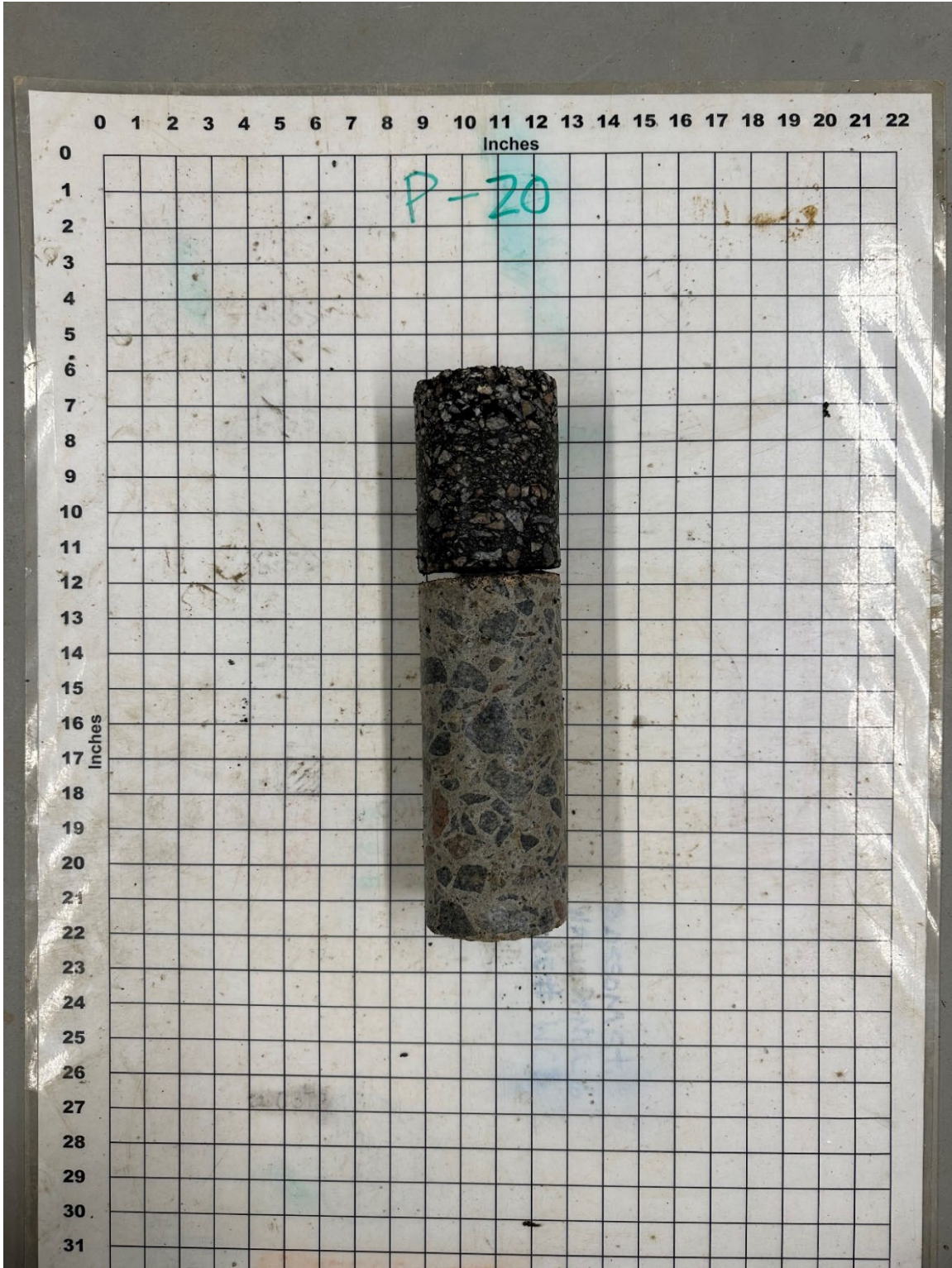
P-17

Pavement Core Photographs



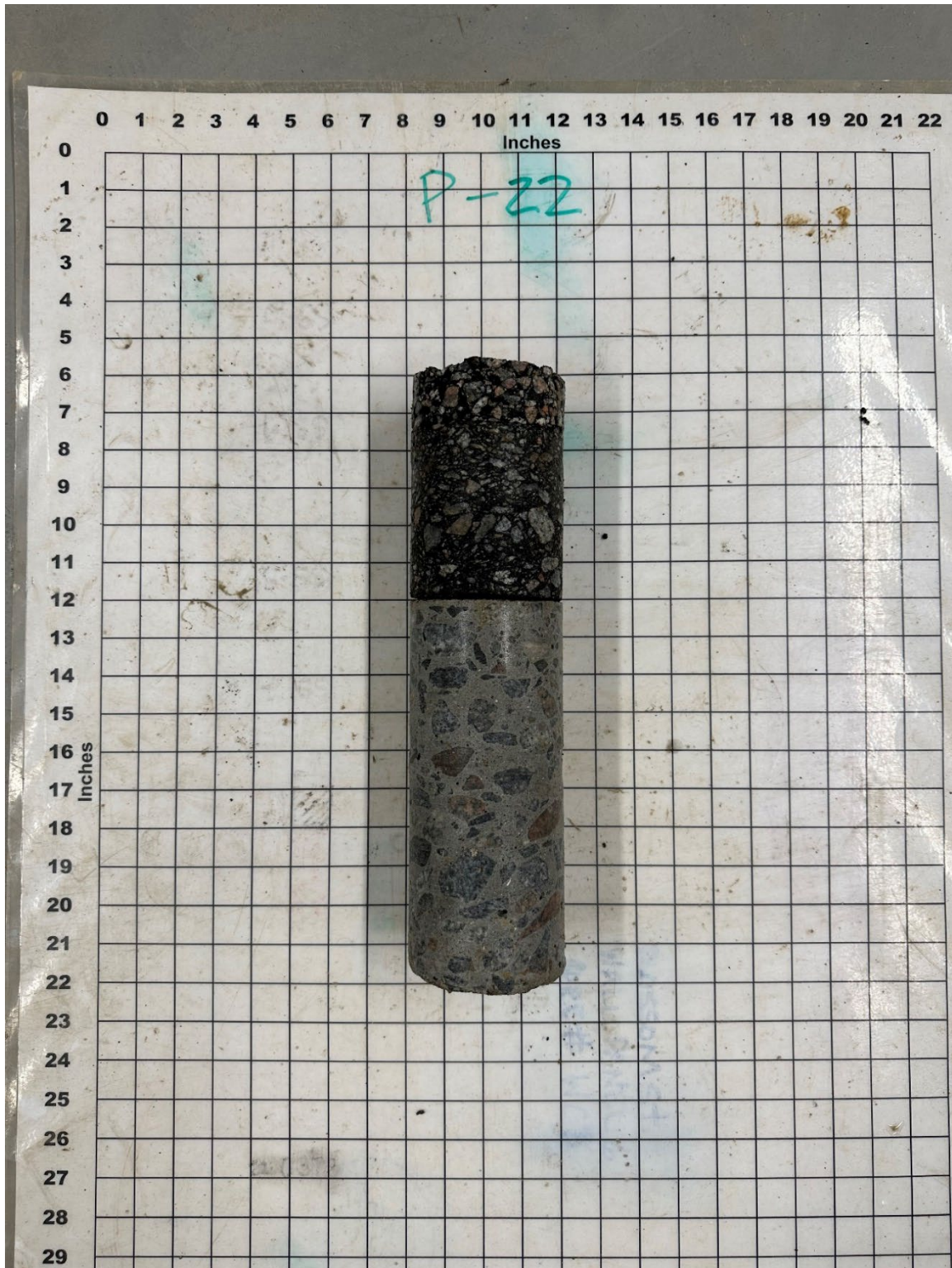
P-18

Pavement Core Photographs



P-20

Pavement Core Photographs



P-22

I-95 Bridge Replacement over Lake Marion

Geotechnical Subsurface Data Report

APPENDIX

SECTION 6 SPT HAMMER CALIBRATION REPORT

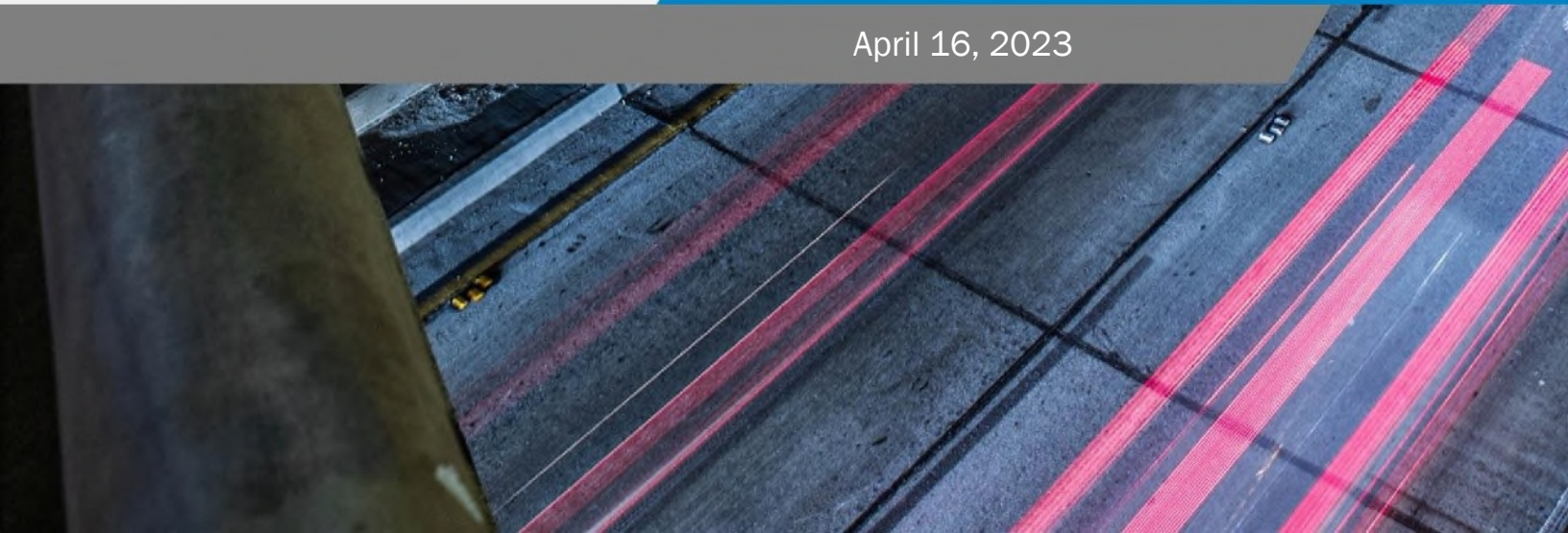


**CAROLINAS
GEOTECHNICAL
GROUP**

Report of SPT Hammer Energy

Prepared for:
Breccia Construction, LLC
620-B Industrial Way
Chester, South Carolina 29706

April 16, 2023





2400 Crownpoint Executive Drive
Suite 800
Charlotte, NC 28227



(980) 339-8684



contact@carolinasgeotech.com



www.carolinasgeotech.com

April 16, 2023

Mr. Adam J. Shannon
Breccia Construction, LLC
620-B Industrial Way
Chester, South Carolina 29706

SUBJECT: Report of SPT Hammer Energy
Breccia Construction, LLC CME 550X ATV Rig (SN 249533)
Chester, South Carolina
CG2 Project No.: 240021095

Dear Mr. Shannon:

Carolinas Geotechnical Group, PLLC (CG2) has completed the Standard Penetration Test (SPT) energy measurements on the automatic hammer mounted on a Breccia Construction, LLC (Breccia) CME 550X ATV-mounted drill rig with a serial number of 249533, see attached Drill Rig Photo Log. This service was performed by Mr. Robert E. Kral, PE on April 7, 2023. SPT energy testing was performed in general accordance with ASTM D4633 and the most recent revision of the North Carolina Department of Transportation (NCDOT), Geotechnical Engineering Unit's requirements. The testing procedures, equipment used during testing, and detailed results are presented in this report.

CG2 recommends Breccia submit this Report of SPT Hammer Energy to the NCDOT Geotechnical Engineering Unit for review and approval no later than May 5, 2023.

DYNAMIC TESTING METHODOLOGY

Testing was performed using a model SPT (Serial No. 4549 TB) Pile Driving Analyzer™ (PDA) manufactured by Pile Dynamics, Inc. The PDA was used to record and interpret data from two piezoresistive accelerometers (Serial Nos. K10959 and K10960) bolted to a 2-foot long AWJ drill rod (SN 528AWJ) internally instrumented with two strain transducers. The instrumented AWJ drill rod has a cross-sectional area of 1.19 square inches, an outside diameter of approximately 1.75 inches, and an inside diameter of 1.25 inches at the gauge location. The accelerometers and strain gauges, which are mounted on opposing axis near the middle of the instrumented rod, monitor acceleration and strain for each hammer blow. The analyzer converts the data to velocities and forces and computes the maximum transferred hammer energies with the "EFV" method described in ASTM D4633. Preliminary results are recorded and displayed in real-time for each blow. Calibration sheets for the PDA, accelerometers, and the instrumented rod are included in the Appendix III.

Report of SPT Hammer Energy
 Chester, South Carolina
 CG2 Project No.: 240021095

TESTING AND OBSERVATIONS

CG2 personnel was on site April 7, 2023 to observe and perform high-strain dynamic testing during SPT sampling on the CME 550X ATV-mounted drill rig operated by R. Huffstetler of Breccia. The measurements were taken during drilling operations at 1817 Lowrys Highway in Chester, South Carolina (Chester County). The approximate coordinates (not professionally surveyed) for the test location are 34.7704618, -81.2453211. No Soil Test Boring Log was maintained. SPT energy measurements were recorded during three intervals at depths of approximately 28½, 33½, and 38½ feet below the existing ground surface. The information presented in the table below summarizes the equipment tested and tooling used during the SPT energy measurements.

Table 1: SPT Field Data

Drill Rig Information	
Manufacturer	CME
Model	550X
Serial Number	249533
Operator	R. Huffstetler
Carrier	ATV
Hammer Information	
Model / Type	CME / Auto
Serial Number	249533
Anvil Height (inches)	11.5
Anvil Diameter (inches)	2.5
Drop Height (inches)	30
Ram Weight (pounds)	140
Ram Serial Number	N/A
Drilling and Instrumented Rod Information	
Drill Rod Type	AWJ
OD (inches)	1.75
ID (inches)	1.25
Cross-Sectional Area (in ²)	1.19
Typical Lengths (feet)	5
Instrumented Rod Type	AWJ (SN 528)
OD (inches)	1.75
ID (inches)	1.25
Cross-Sectional Area (in ²)	1.19
Total Instrumented Rod Length (feet)	2.00
Length Below Gages (feet)	0.70
Split-Spoon Length (feet)	2.85

Report of SPT Hammer Energy
 Chester, South Carolina
 CG2 Project No.: 240021095

DYNAMIC TESTING RESULTS

The total rod length from the instrumentation to the tip of the split-spoon sampler was determined by adding 3.6 feet to the required drill rod length at each sample depth. Based on the test data, the automatic hammer on the CME 550X ATV-mounted drill rig operated at a rate of about 50.4 to 54.0 blows per minute (BPM) during dynamic testing. The measured transferred hammer energy (EFV) ranged from 246.9 to 272.9 foot-pounds, which corresponds to Energy Transfer Ratio (ETR) values of 70.6 to 78.0%, respectively. These data ranges are based on the overall minimum and maximum values for the last 12 inches of each sample interval.

The SPT Energy Measurement Data Summary tables in the Appendix present the test data from every hammer blow at each sampling interval along with representative force and velocity traces for each test interval. The reported blow counts, obtained by the drill rig personnel, a summary of the test data, and average computed BPM, EFV, and ETR values are provided in Table 2. The BPM, EFV, and ETR values presented in Table 2 were computed by averaging data from the last 12 inches of each sample interval. Plots and tables of the following are also included in the Appendix and present the test data with depth for each test interval:

- Penetration vs. BLC
- Penetration vs. CSX
- Average ETR vs. Rod Length
- Penetration vs. FMX
- Penetration vs. VMX
- ETR vs. Rod Length
- Penetration vs. EFV
- Penetration vs. ETR

Table 2: Summary of Dynamic Testing Results

Data Set ID	Sample Depth (ft)	Drill Rod Length (ft)	Instrumentation to Sampler Tip Length (ft)	Blows per 6" Increment / N-value	Soil Sample Description (Piedmont Residual)	Avg. BPM	Avg. EFV (ft-lbs)	Avg. ETR (%)
1	28½ - 30	30	33.6	5-8-9 / 17	SA SILT	50.7	256.2	73.2
2	33½ - 35	35	38.6	7-7-11 / 18	SA SILT	53.5	265.0	75.7
3	38½ - 40	40	43.6	6-7-9 / 16	SA SILT	53.4	261.5	74.7
Overall Average						52.5	261.0	74.6

The average hammer rate, transferred energy, and transfer ratio were calculated for each depth interval. Per ASTM D4633, only the blows from the final foot of each sample interval (i.e., the blows that determine the N-value) were included when computing the average values shown in Table 2. The overall average transferred hammer energy for the automatic hammer on the CME 550X ATV-mounted drill rig (for the depth intervals presented in Table 2) was 261.0 foot-pounds, with an average ETR of 74.6%.

Report of SPT Hammer Energy
Chester, South Carolina
CG2 Project No.: 240021095

LIMITATIONS OF REPORT

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The information contained in this report were based on the applicable standards of our profession in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.

CLOSING

CG2 is pleased to have the opportunity to provide these services to you. If you have questions concerning the content of this report, or if CG2 can be of further service, please contact CG2 at (980) 339-8684.

Sincerely,
Carolinas Geotechnical Group, PLLC

DocuSigned by:

D. Matthew Brewer

386129C0A4C1462...

D. Matthew Brewer, PE
Senior Project Engineer

DocuSigned by:

Robert E. Kral

8AD703B2A8484F4...

Robert E. Kral, PE
Senior Project Engineer
NC Registration No. 042642



Appendices:

- Appendix I - CME 550X ATV Rig (SN 249533) SPT Energy Measurements Summary Plots and Tables
- Appendix II - SPT Hammer Energy Field Form (Field Log) and Drill Rig Photo Log
- Appendix III - Instrumented Rod and Accelerometer Calibration Sheets
- Appendix IV - Certificate of Proficiency



APPENDIX I

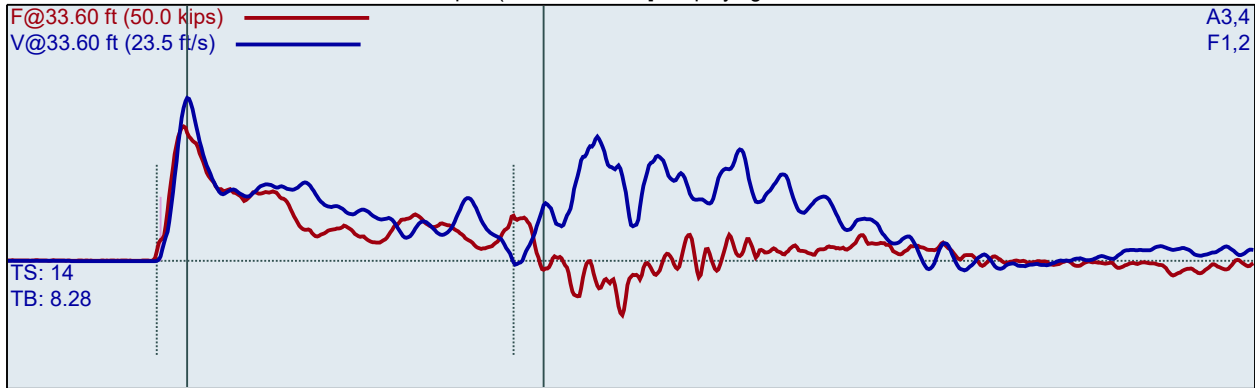
CME 550X (SN 249533)
REK
B-3

B-3
Interval start: 4/7/2023

AR: 1.19 in²
LE: 33.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (28.50 - 30.00 ft), displaying BN: 20



F1 : [528AWJ-1] 203.51 PDICAL (1) FF1
F2 : [528AWJ-2] 203.28 PDICAL (1) FF1

A3 (PR): [K10960] 419.894 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 413.827 mv/6.4v/5000g (1) VF1

BPM: Blows/Minute

FMX: Maximum Force

VMX: Maximum Velocity

DMX: Maximum Displacement

CSX: Compression Stress Maximum

DFN: Final Displacement

EFV: Maximum Energy

ETR: Energy Transfer Ratio - Rated

LP	BL#	BC	BPM	FMX	VMX	DMX	CSX	DFN	EFV	ETR
ft		/6"	bpm	kips	ft/s	in	ksi	in	ft-lb	%
28.60	1	5	60.8	25.3	14.1	1.7	21.2	1.2	251.6	71.9
28.70	2	5	51.5	25.8	14.7	1.5	21.7	1.2	249.4	71.2
28.80	3	5	50.7	26.7	15.9	1.4	22.5	1.2	252.5	72.1
28.90	4	5	50.6	26.4	15.8	1.4	22.2	1.2	255.5	73.0
29.00	5	5	50.5	26.7	16.5	1.2	22.5	1.2	257.4	73.5
29.06	6	8	51.0	26.7	16.4	1.2	22.4	0.7	254.1	72.6
29.13	7	8	50.4	26.1	15.7	1.1	21.9	0.7	250.4	71.5
29.19	8	8	50.7	25.0	14.0	1.0	21.0	0.7	246.9	70.6
29.25	9	8	50.9	26.3	15.1	1.0	22.1	0.7	253.2	72.3
29.31	10	8	50.5	26.9	16.3	0.9	22.6	0.7	257.4	73.5
29.38	11	8	50.7	26.7	15.7	0.9	22.4	0.7	260.0	74.3
29.44	12	8	50.7	26.6	16.8	0.9	22.4	0.7	260.7	74.5
29.50	13	8	50.6	25.2	14.1	0.8	21.1	0.7	252.7	72.2
29.56	14	9	50.8	26.3	15.2	0.8	22.1	0.7	255.8	73.1
29.61	15	9	50.9	25.9	14.7	0.8	21.8	0.7	248.1	70.9
29.67	16	9	50.4	27.2	16.2	0.7	22.9	0.7	262.3	75.0
29.72	17	9	50.6	26.9	16.1	0.7	22.6	0.7	259.2	74.1
29.78	18	9	50.6	26.7	16.1	0.7	22.4	0.7	260.6	74.5
29.83	19	9	50.8	26.9	16.5	0.7	22.6	0.7	262.6	75.0
29.89	20	9	50.6	26.2	15.0	0.8	22.0	0.7	255.0	72.8
29.94	21	9	50.5	26.3	15.9	0.7	22.1	0.7	257.0	73.4
30.00	22	9	50.7	26.1	15.8	0.7	21.9	0.7	259.6	74.2

Average	50.7	26.4	15.6	0.8	22.1	0.7	256.2	73.2
Std Dev	0.2	0.6	0.8	0.1	0.5	0.0	4.7	1.3
Maximum	51.0	27.2	16.8	1.2	22.9	0.7	262.6	75.0
Minimum	50.4	25.0	14.0	0.7	21.0	0.7	246.9	70.6

N-value: 17

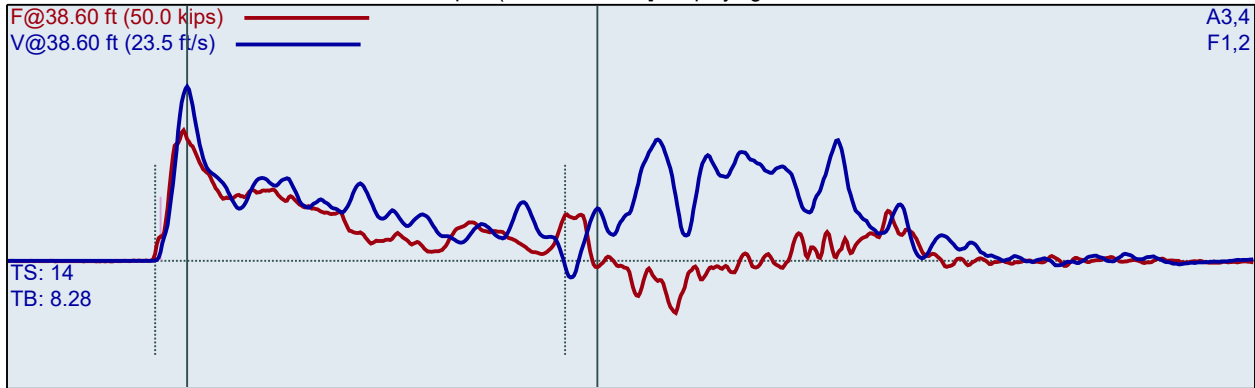
CME 550X (SN 249533)
REK
B-3

B-3
Interval start: 4/7/2023

AR: 1.19 in²
LE: 38.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (33.50 - 35.00 ft), displaying BN: 23



F1 : [528AWJ-1] 203.51 PDICAL (1) FF1
F2 : [528AWJ-2] 203.28 PDICAL (1) FF1

A3 (PR): [K10960] 419.894 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 413.827 mv/6.4v/5000g (1) VF1

LP ft	BL#	BC /6"	BPM bpm	FMX kips	VMX ft/s	DMX in	CSX ksi	DFN in	EFV ft-lb	ETR %
33.57	1	7	1.9	22.0	17.4	1.4	18.5	0.9	261.7	74.8
33.64	2	7	50.8	25.5	15.7	1.4	21.5	0.9	264.8	75.7
33.71	3	7	52.5	25.9	15.9	1.1	21.8	0.9	266.6	76.2
33.79	4	7	53.8	25.1	16.5	1.1	21.1	0.9	275.4	78.7
33.86	5	7	53.6	25.9	15.9	1.2	21.8	0.9	270.2	77.2
33.93	6	7	53.6	25.8	16.2	1.2	21.7	0.9	268.5	76.7
34.00	7	7	53.4	25.4	16.3	1.0	21.3	0.9	268.8	76.8
34.07	8	7	53.6	25.5	16.0	1.0	21.4	0.9	270.2	77.2
34.14	9	7	53.3	25.1	16.3	1.0	21.1	0.9	272.9	78.0
34.21	10	7	53.5	24.8	15.6	1.0	20.8	0.9	264.9	75.7
34.29	11	7	53.5	24.9	15.7	1.0	20.9	0.9	267.9	76.6
34.36	12	7	53.3	25.2	16.5	0.9	21.2	0.9	272.1	77.8
34.43	13	7	53.6	25.0	15.8	0.9	21.1	0.9	269.1	76.9
34.50	14	7	53.7	24.8	16.3	0.9	20.8	0.9	269.8	77.1
34.55	15	11	53.0	24.5	15.7	0.8	20.6	0.5	264.0	75.4
34.59	16	11	54.0	24.6	16.7	0.8	20.6	0.5	272.3	77.8
34.64	17	11	53.1	24.6	15.2	0.8	20.7	0.5	260.3	74.4
34.68	18	11	53.4	24.4	14.6	0.8	20.5	0.5	259.2	74.1
34.73	19	11	53.7	24.7	15.1	0.8	20.7	0.5	258.7	73.9
34.77	20	11	53.3	23.4	13.6	0.7	19.6	0.5	255.8	73.1
34.82	21	11	53.4	25.0	14.6	0.7	21.0	0.5	257.8	73.7
34.86	22	11	53.7	25.6	15.3	0.8	21.5	0.5	263.5	75.3
34.91	23	11	53.4	25.5	16.0	0.7	21.4	0.5	265.9	76.0
34.95	24	11	53.5	25.2	15.1	0.8	21.2	0.5	262.8	75.1
35.00	25	11	53.4	24.7	14.7	0.7	20.7	0.5	262.6	75.0
Average			53.5	24.9	15.5	0.8	20.9	0.7	265.0	75.7
Std Dev			0.2	0.5	0.8	0.1	0.4	0.2	5.2	1.5
Maximum			54.0	25.6	16.7	1.0	21.5	0.9	272.9	78.0
Minimum			53.0	23.4	13.6	0.7	19.6	0.5	255.8	73.1

N-value: 18

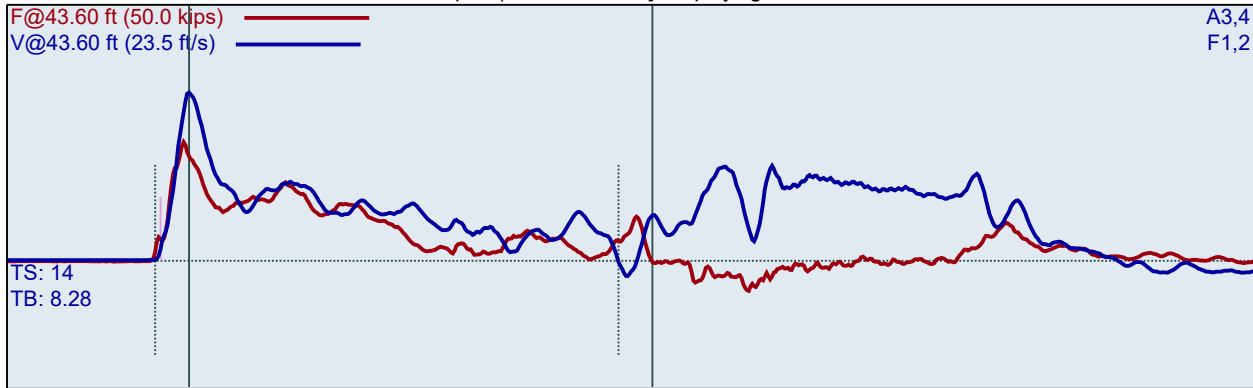
CME 550X (SN 249533)
REK
B-3

B-3
Interval start: 4/7/2023

AR: 1.19 in²
LE: 43.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (38.50 - 40.00 ft), displaying BN: 20



F1 : [528AWJ-1] 203.51 PDICAL (1) FF1
F2 : [528AWJ-2] 203.28 PDICAL (1) FF1

A3 (PR): [K10960] 419.894 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 413.827 mv/6.4v/5000g (1) VF1

LP ft	BL#	BC /6"	BPM bpm	FMX kips	VMX ft/s	DMX in	CSX ksi	DFN in	EFV ft-lb	ETR %
38.58	1	6	58.5	23.1	17.2	1.9	19.4	1.0	264.9	75.7
38.67	2	6	53.8	23.3	17.0	1.2	19.6	1.0	261.1	74.6
38.75	3	6	53.4	23.3	16.9	1.2	19.6	1.0	264.5	75.6
38.83	4	6	53.2	22.5	17.5	1.1	18.9	1.0	265.6	75.9
38.92	5	6	53.4	22.8	17.3	1.1	19.1	1.0	267.2	76.3
39.00	6	6	53.6	22.4	17.6	1.1	18.8	1.0	266.4	76.1
39.07	7	7	53.3	22.7	17.7	1.0	19.1	0.9	265.0	75.7
39.14	8	7	53.5	23.0	17.2	1.1	19.3	0.9	265.7	75.9
39.21	9	7	53.4	23.1	17.6	1.0	19.4	0.9	264.5	75.6
39.29	10	7	53.6	23.3	17.3	0.9	19.6	0.9	265.6	75.9
39.36	11	7	53.1	23.1	16.8	1.0	19.4	0.9	261.9	74.8
39.43	12	7	53.4	23.1	17.7	0.9	19.4	0.9	267.5	76.4
39.50	13	7	53.8	23.4	17.0	0.9	19.7	0.9	259.1	74.0
39.56	14	9	53.4	23.4	17.0	0.8	19.7	0.7	262.6	75.0
39.61	15	9	53.5	23.4	16.7	0.9	19.7	0.7	261.0	74.6
39.67	16	9	53.5	23.5	17.1	0.8	19.7	0.7	259.5	74.2
39.72	17	9	53.3	21.7	14.8	0.9	18.2	0.7	253.9	72.5
39.78	18	9	53.5	22.8	15.3	0.9	19.1	0.7	250.6	71.6
39.83	19	9	53.4	23.6	17.1	0.8	19.8	0.7	266.9	76.3
39.89	20	9	53.5	23.2	15.5	0.9	19.5	0.7	254.6	72.7
39.94	21	9	53.6	23.7	16.2	0.8	19.9	0.7	260.5	74.4
40.00	22	9	53.2	23.0	16.8	0.8	19.3	0.7	265.2	75.8
Average			53.4	23.1	16.7	0.9	19.4	0.7	261.5	74.7
Std Dev			0.2	0.5	0.8	0.1	0.4	0.1	4.8	1.4
Maximum			53.8	23.7	17.7	1.1	19.9	0.9	267.5	76.4
Minimum			53.1	21.7	14.8	0.8	18.2	0.7	250.6	71.6

N-value: 16

Summary of SPT Test Results

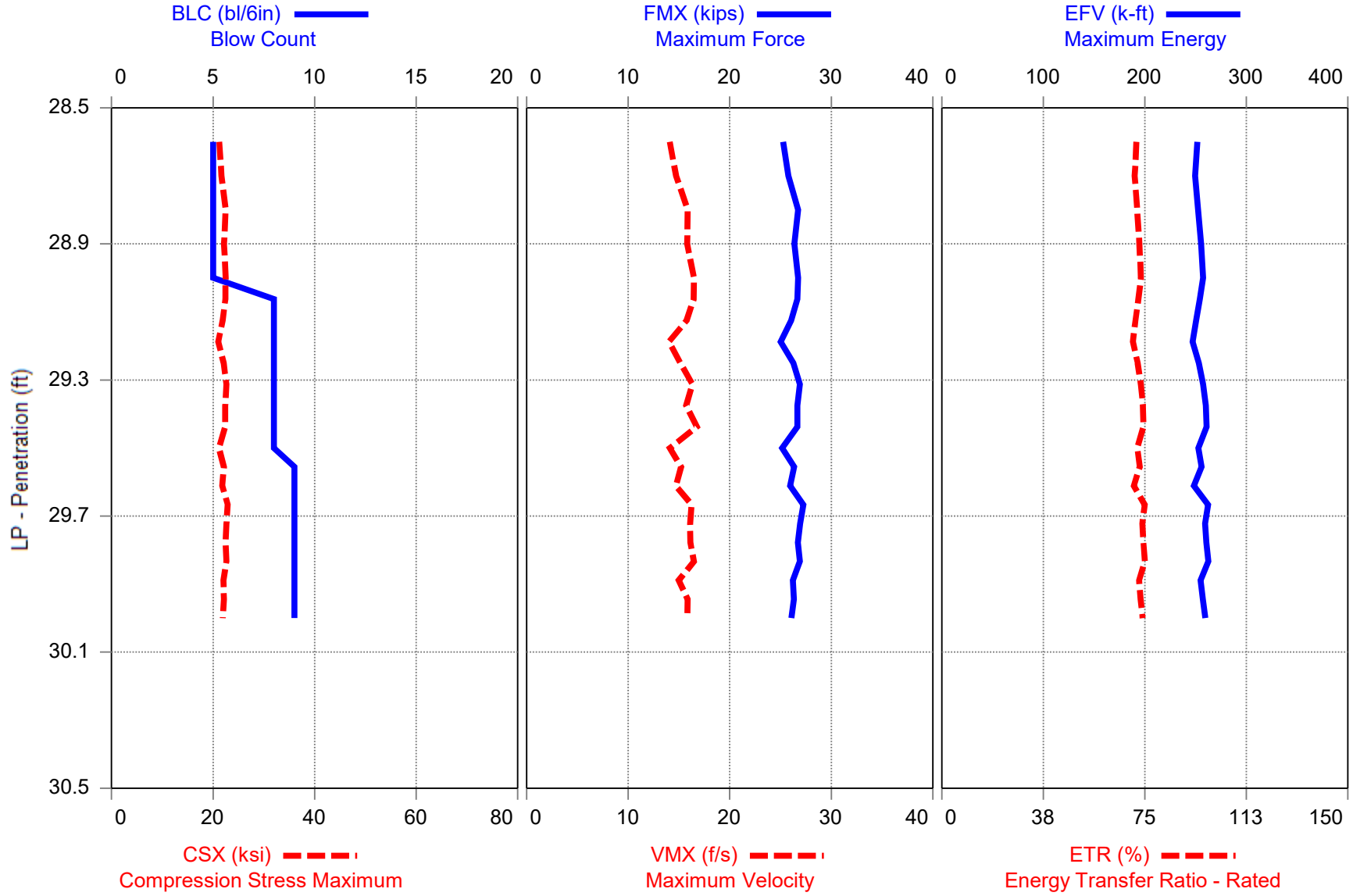
Project: CME 550X (SN 249533), Test Date: 4/7/2023

Instr. Length ft	Start Depth ft	Final Depth ft	Blows Applied /6"	N Value	N60 Value	Average BPM bpm	Average FMX kips	Average VMX ft/s	Average DMX in	Average CSX ksi	Average DFN in	Average EFV ft-lb	Average ETR %
33.60	28.50	30.00	5-8-9	17	21	50.7	26.4	15.6	0.8	22.1	0.7	256.2	73.2
38.60	33.50	35.00	7-7-11	18	22	53.5	24.9	15.5	0.8	20.9	0.7	265.0	75.7
43.60	38.50	40.00	6-7-9	16	19	53.4	23.1	16.7	0.9	19.4	0.7	261.5	74.7
Overall Average Values:						52.5	24.8	15.9	0.9	20.9	0.7	261.0	74.6
Standard Deviation:						1.3	1.4	1.0	0.1	1.2	0.1	6.1	1.7
Overall Maximum Value:						54.0	27.2	17.7	1.2	22.9	0.9	272.9	78.0
Overall Minimum Value:						50.4	21.7	13.6	0.7	18.2	0.5	246.9	70.6

CSX: Compression Stress Maximum
DFN: Final Displacement
EFV: Maximum Energy
ETR: Energy Transfer Ratio - Rated

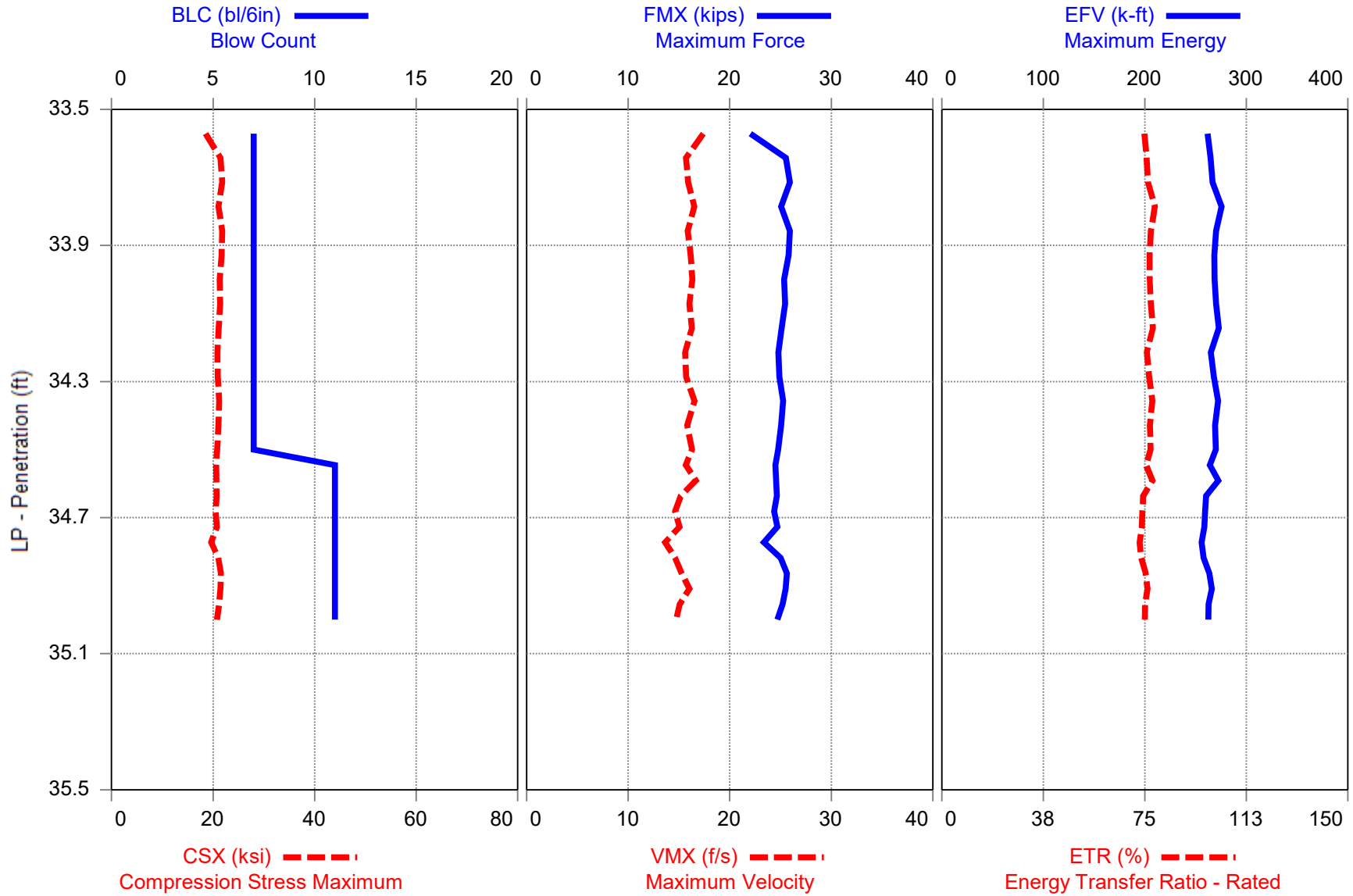


CME 550X (SN 249533) - 28.5 TO 30.0



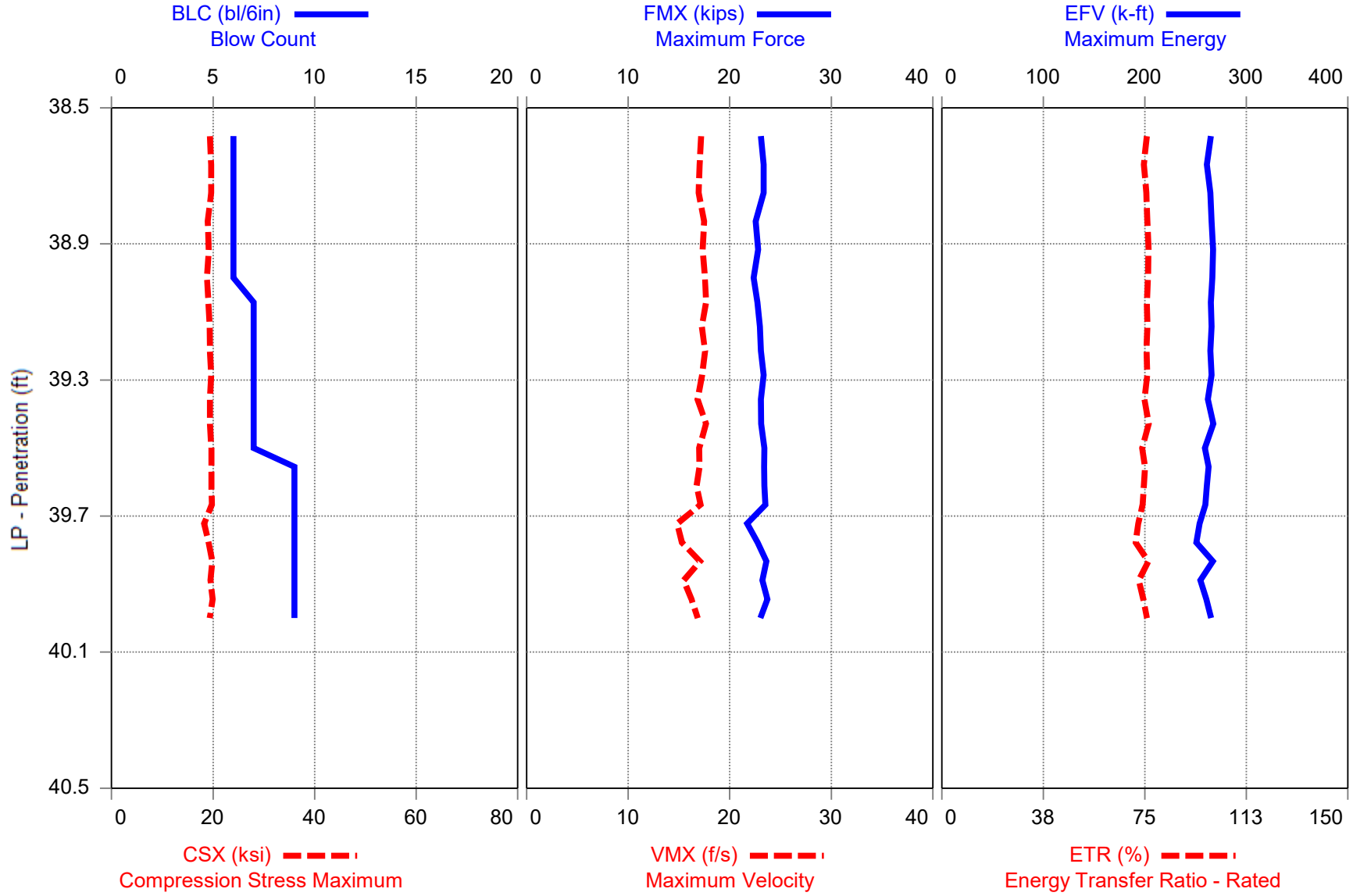


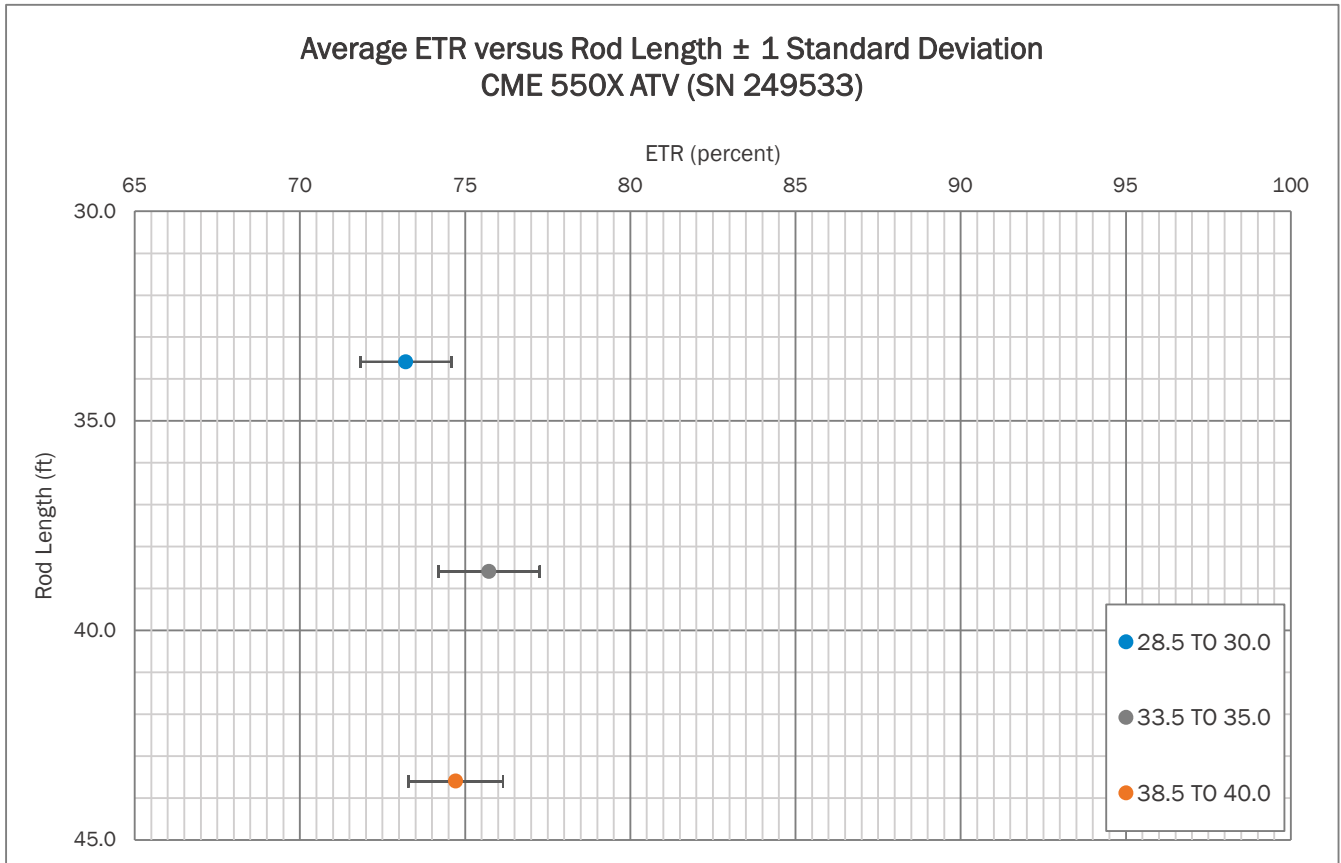
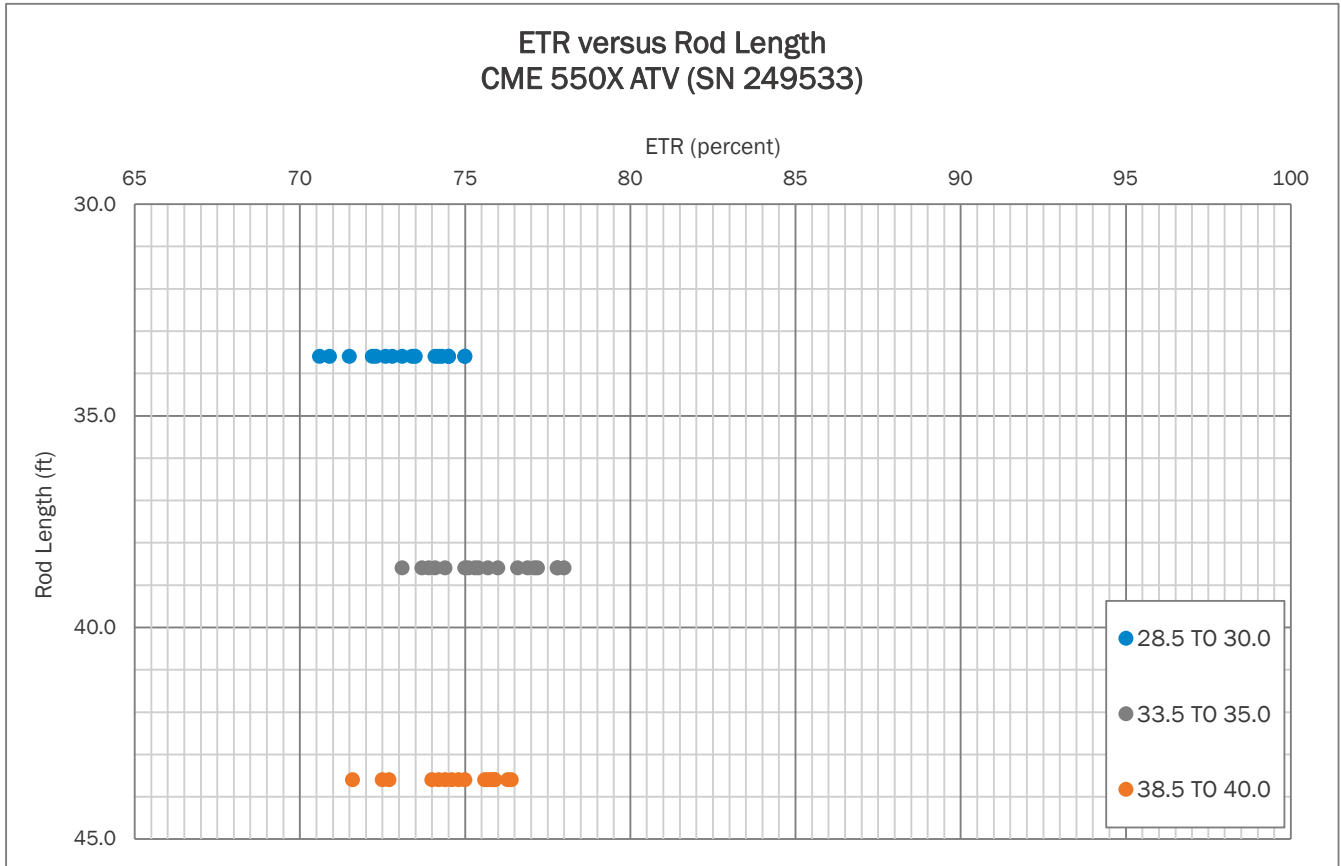
CME 550X (SN 249533) - 33.5 TO 35.0





CME 550X (SN 249533) - 38.5 TO 40.0







APPENDIX II

SPT Hammer Energy Field Form

Project: SPT HAMMER ENERGY
Project No.: 240021095
Boring No.: B-3

Date: 4/7/2023
Weather: 50's CLOUDY
Drill Rod Type: AWJ

On-site Personnel

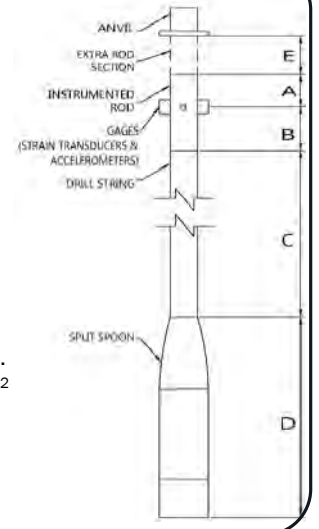
Drilling Company: BRECCIA CONSTRUCTION, LLC
 Rig Operator: R. HUFFSTETLER
 Engr/Geologist: N/A
 Client Rep.: N/A
 Analyzer Oper.: R. KRAL

Rig/Hammer Info

Drill Rig Make/Model: CME 550X
 Carrier Type: ATV
 Rig Serial No.: 249533 (DR-2)
 Hammer Type/Model: CME
 Hammer Serial No.: N/A
 Hammer Drop System: AUTO
 Lubrication Condition: PER MANUFACTURER
 Manufacturer Recommended
 Operation Rate (bpm): 55
 Drop Height (in.): 30
 Hammer Weight (lbs): 140
 Anvil Dimension (in.): 11.5
 Drilling Method: 3.25 HSA

Rod Info

(A + E) Impact Surface to Gages Length: 1.36 ft
(B) Instr. Rod Length below Gages: 0.70 ft
(A) + (B) Instr. Rod Length: 2.00 ft
(D) Spoon Length: 2.85 ft
(E) Rod Length Above Instr. Rod (if applicable): 0.06 ft
 Instr. Rod S/N: 528AWJ
 Instr. Rod Outside Dia.: 1.75 in.
 Instr. Rod Area: 1.19 in²
 PDA Make/Model: SPT
 PDA Serial No.: 4549 TB
 Calib. Pulse Test (y/n): Y



Gage Info

Gage		Serial No.	Calibration No.
Accel.	A3	K10959	413.83
	A4	K10960	419.89
Strain	F3	528AWJ-1	205.26
	F4	528AWJ-2	205.86

Date of Test	Test Depth Increment (ft to ft)	Test Time Start / Stop (military)	Length of Drill String (ft) (C)	(LE) Length below Gages (ft) (B) + (C) + (D)	Avg. Meas. Hammer Rate (BPM)	SPT Blow Counts				Drop Height in Tolerance (y/n)	Soil Class.
						6"	12"	18"	N-Value		
7-Apr	28.5 TO 30.0	0841/0841	30	33.6	50	5	8	9	17	Y	SA SI
7-Apr	33.5 TO 35.0	0850/0851	35	38.6	53	7	7	11	18	Y	SA SI
7-Apr	38.5 TO 40.0	0857/0857	40	43.6	53	6	7	9	16	Y	SA SI

Notes:
 TESTING PERFORMED AT 1817 LOWRYS HIGHWAY IN CHESTER, SOUTH CAROLINA (CHESTER COUNTY). THE APPROXIMATE COORDINATES ARE 34.7704618, -81.2453211.

 NOTE: (1) Note any unusual hammer operating conditions that affect the hammer performance, or changes in operating conditions (e.g. verticality, weather, or lubrication between trials). (2) Note any changes in rod diameter along drill string and record locations of short rod sections.

Prepared by (print/signature)  Date 4/7/2023



Figure No. 1: Rear View of Drill Rig



Figure No. 2: Side View of Drill Rig



Figure No. 3: Serial Number Plate



Figure No. 4: Automatic Hammer



APPENDIX III

Certificate of Calibration

Pile Dynamics, Inc. certifies that the

Pile Driving Analyzer®, Model SPT

Serial Number: 4549 TB

was calibrated on 14 July 2022

using a PDA Calibration Box whose output was calibrated with test equipment traceable to NIST.

This certificate is valid for 2 years from above date.



Tested by

MCJ

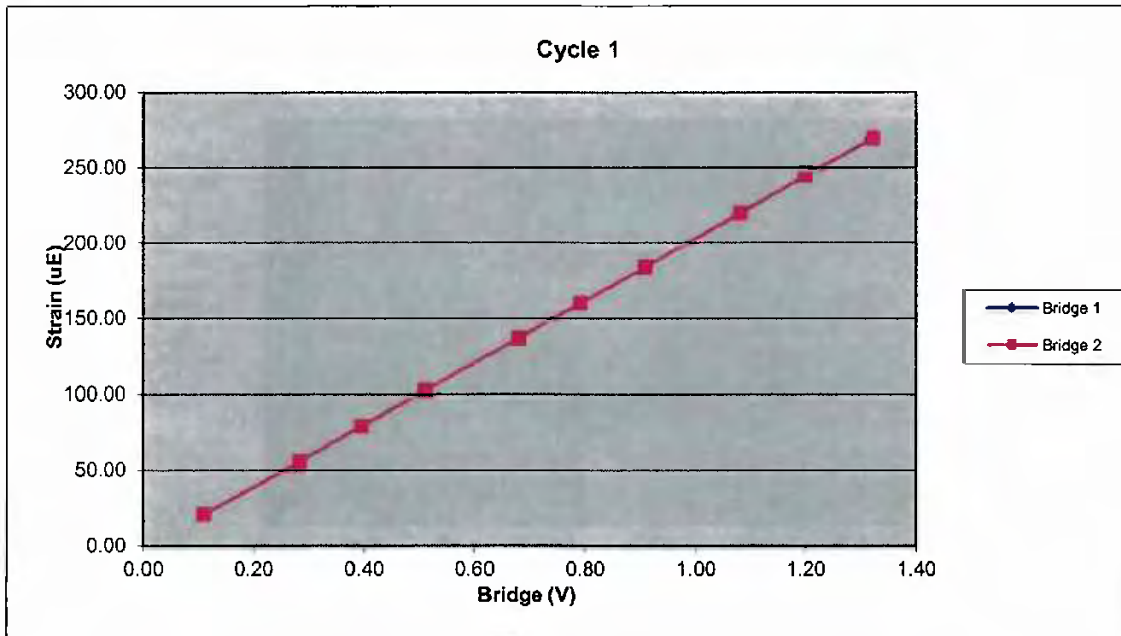


Pile Dynamics, Inc.
30725 Aurora Road
Cleveland, Ohio 44139 USA

528AWJ		Cycle 1		
Sample	Force (lb)	Strain (μE)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	803.20	21.15	0.11	0.11
3	2080.73	56.33	0.28	0.28
4	2904.01	79.79	0.39	0.39
5	3765.89	103.49	0.51	0.51
6	5005.11	138.03	0.68	0.68
7	5828.59	161.56	0.79	0.79
8	6692.71	185.68	0.91	0.91
9	7962.93	221.03	1.08	1.08
10	8831.54	245.89	1.20	1.20
11	9736.80	270.68	1.32	1.32

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7358.13	Force Calibration (lb/V)	7351.82
Offset	3.52	Offset	6.26
Correlation	0.999999	Correlation	0.999999
Strain Calibration ($\mu\text{E}/\text{V}$)	205.90	Strain Calibration ($\mu\text{E}/\text{V}$)	205.73
Offset	-1.56	Offset	-1.48
Correlation	0.999995	Correlation	0.999996

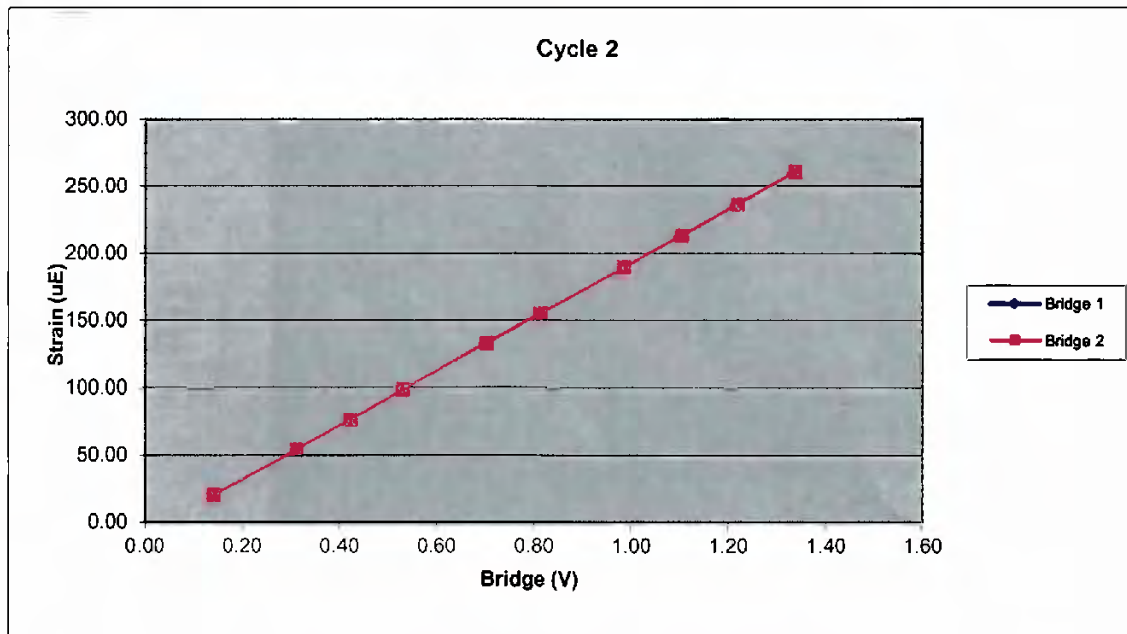
Force Strain Calibration	
EA (Kips)	35735.87
Offset	59.29
Correlation	0.999995



528AWJ		Cycle 2		
Sample	Force (lb)	Strain (μ E)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	1038.71	19.60	0.14	0.14
3	2288.25	53.30	0.31	0.31
4	3093.11	75.49	0.42	0.42
5	3893.00	97.84	0.53	0.53
6	5167.50	132.26	0.70	0.70
7	5988.25	154.39	0.81	0.81
8	7248.72	188.87	0.98	0.98
9	8125.71	212.29	1.10	1.10
10	8976.19	235.45	1.22	1.22
11	9854.85	259.50	1.33	1.34

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7381.92	Force Calibration (lb/V)	7365.94
Offset	-0.76	Offset	4.69
Correlation	0.999998	Correlation	0.999999
Strain Calibration (μ E/V)	200.83	Strain Calibration (μ E/V)	200.40
Offset	-8.59	Offset	-8.44
Correlation	0.999997	Correlation	0.999996

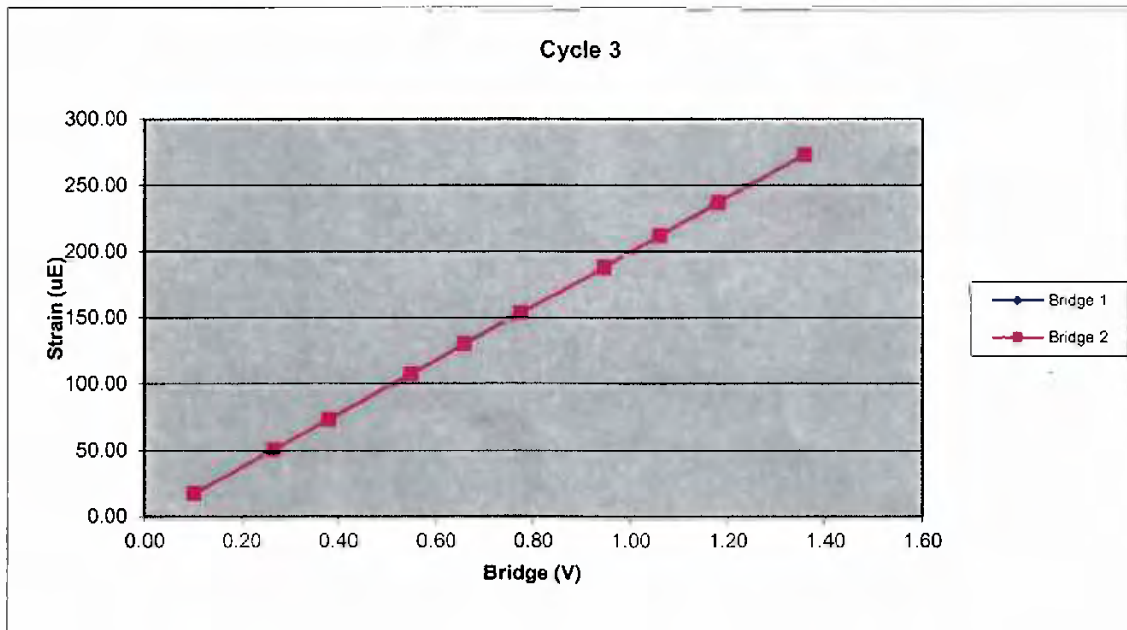
Force Strain Calibration	
EA (Kips)	36756.34
Offset	315.07
Correlation	0.999995



528AWJ		Cycle 3		
Sample	Force (lb)	Strain (μE)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	734.68	18.74	0.10	0.10
3	1943.58	51.94	0.26	0.26
4	2781.29	75.07	0.38	0.38
5	4027.81	108.88	0.55	0.55
6	4829.55	131.78	0.66	0.66
7	5689.29	155.36	0.77	0.77
8	6956.49	190.12	0.95	0.95
9	7799.46	214.09	1.06	1.06
10	8693.90	238.78	1.18	1.18
11	10007.88	275.06	1.36	1.36

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7366.71	Force Calibration (lb/V)	7364.49
Offset	-6.17	Offset	-9.40
Correlation	0.999998	Correlation	0.999999
Strain Calibration ($\mu\text{E}/\text{V}$)	203.78	Strain Calibration ($\mu\text{E}/\text{V}$)	203.72
Offset	-2.08	Offset	-2.17
Correlation	0.999989	Correlation	0.999993

Force Strain Calibration	
EA (Kips)	36149.33
Offset	69.26
Correlation	0.999994



Bridge Excitation (V) 5
Shunt Resistor (ohm) 60.4k

Calibration Factors	528AWJ		
Bridge 1 ($\mu E/V$)	203.51	Bridge 2 ($\mu E/V$)	203.28
EA Factor (Kips)	36213.85	Area (in²)	1.21

Calibrated by: 
Calibrated Date: 7/18/2022

Pile Dynamics Inc
30725 Aurora Rd
Solon, OH 44139

Traceable to N.I.S.T.

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on 14Jun2022

Serial No: K10959 Temperature: 79.0 °F
 Model: PR Humidity: 50%
 Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

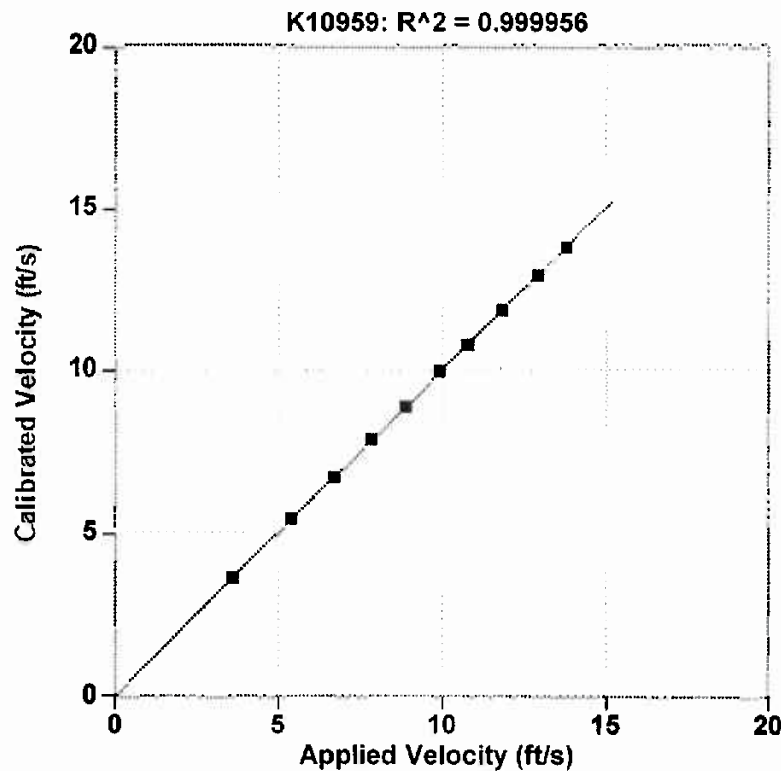
413.8 mv/5000g
 (82.8 μ v/g)
 R²: 0.999956 [Chip programmed]

Ref Acc 1: 72517! Cal on: 24Mar2022
 1049 g's/volt
 Ref Acc 2: 72505! Cal on: 24Mar2022
 1035 g's/volt

Operator: William Johnson

William Johnson
 Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K10959 Velocity
ft/s	ft/s
3.605	3.589
5.397	5.412
6.705	6.699
7.841	7.862
8.877	8.913
9.904	9.929
10.746	10.721
11.807	11.815
12.910	12.889
13.783	13.762

Maximum Acceleration: 935 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on 14Jun2022

Serial No: K10960 Temperature: 79.0 °F
 Model: PR Humidity: 50%
 Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

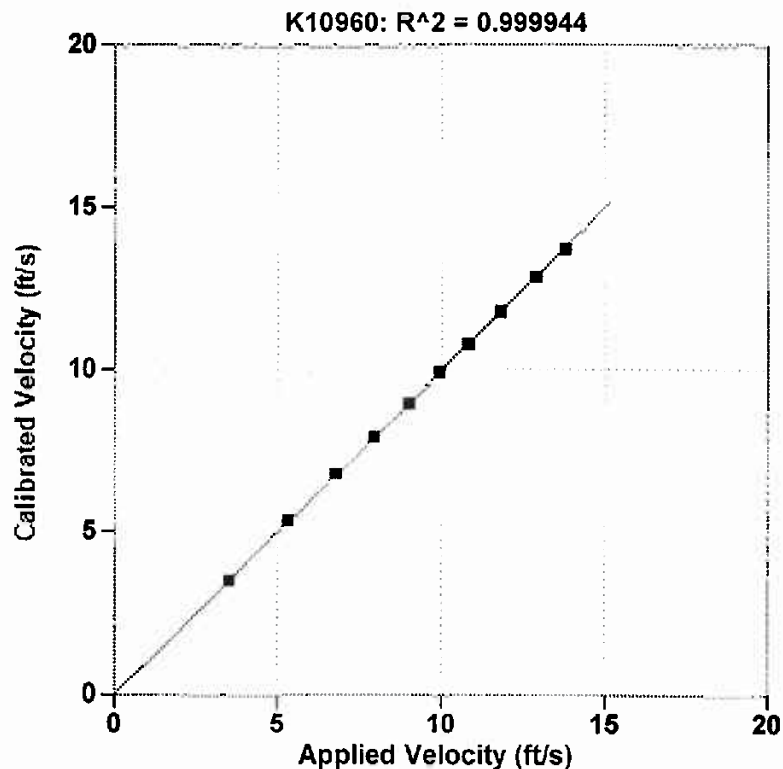
419.9 mv/5000g
 (84.0 μ v/g)
 R²: 0.999944 [Chip programmed]

Operator: William Johnson

Ref Acc 1: 72517! Cal on: 24Mar2022
 1049 g's/volt
 Ref Acc 2: 72505! Cal on: 24Mar2022
 1035 g's/volt

Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity ft/s	S/N K10960 Velocity ft/s
3.513	3.540
5.322	5.345
6.769	6.796
7.933	7.937
8.998	9.037
9.912	9.923
10.788	10.775
11.781	11.779
12.877	12.863
13.771	13.732

Maximum Acceleration: 934 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on 14Jun2022

Serial No: K11957 Temperature: 79.0 °F
 Model: PR Humidity: 50%
 Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

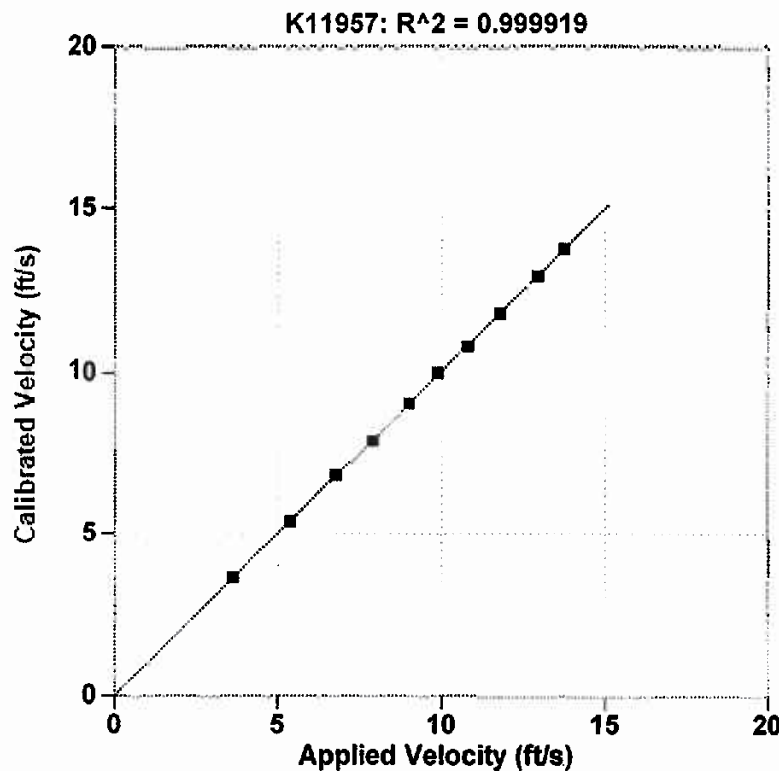
409.6 mv/5000g
 (81.9 μ v/g)
 R²: 0.999919 [Chip programmed]

Ref Acc 1: 72517! Cal on: 24Mar2022
 1049 g's/volt
 Ref Acc 2: 72505! Cal on: 24Mar2022
 1035 g's/volt

Operator: William Johnson

William Johnson
 Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity ft/s	S/N K11957 Velocity ft/s
3.643	3.661
5.377	5.363
6.761	6.783
7.895	7.905
8.973	8.989
9.864	9.918
10.780	10.730
11.763	11.749
12.920	12.894
13.735	13.746

Maximum Acceleration: 931 g's



APPENDIX IV



This documents that
Robert E. Kral
Carolinas Geotechnical Group

has on May 20, 2016 achieved the rank of

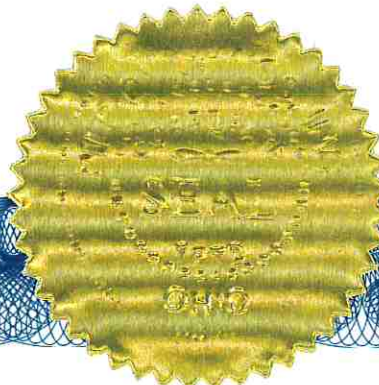
ADVANCED


on the Dynamic Measurement and Analysis Proficiency Test.

The individual identified on this document demonstrated to the degree granted above an understanding of theory, data quality evaluation, interpretation and signal matching for high strain dynamic testing of deep foundations. ***It is recommended that individuals at the Advanced level seek Master or Expert levels through additional study within six years of the date of this document.***

The ability of the individual named to provide appropriate knowledge and advice on a specific project is not implied or warranted by the Pile Driving Contractors Association or Pile Dynamics, Inc. **This certificate can be verified at www.PDAproficiencytest.com.** The Pile Driving Contractors Association or Pile Dynamics, Inc. assumes no liability for foundation testing and analysis work performed by the bearer of this certificate.


Steven A. Hall, Executive Director
Pile Driving Contractors Association




Garland Likins, Senior Partner
Pile Dynamics, Inc.

No. 2072

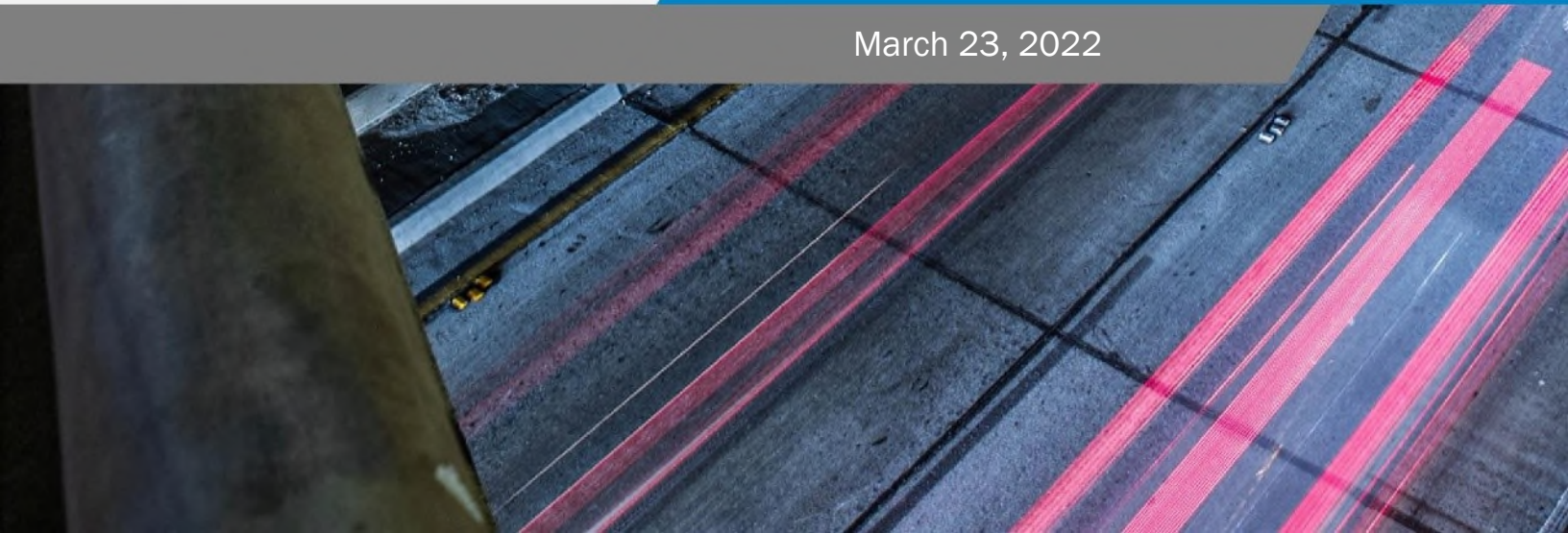


**CAROLINAS
GEOTECHNICAL
GROUP**

Report of SPT Hammer Energy

Prepared for:
Breccia Construction, LLC
620-B Industrial Way
Chester, South Carolina 29706

March 23, 2022





2400 Crownpoint Executive Drive
Suite 800
Charlotte, NC 28227



(980) 339-8684



contact@carolinasgeotech.com



www.carolinasgeotech.com

March 23, 2022

Mr. Jarod S. Ford
Breccia Construction, LLC
620-B Industrial Way
Chester, South Carolina 29706

SUBJECT: Report of SPT Hammer Energy
Breccia Construction, LLC CME 45B Trailer Rig (SN 303304)
Chester, South Carolina
CG2 Project No.: 240021095

Dear Mr. Ford:

Carolinas Geotechnical Group, PLLC (CG2) has completed the Standard Penetration Test (SPT) energy measurements on the automatic hammer mounted on a Breccia Construction, LLC (Breccia) CME 45B trailer-mounted drill rig with a serial number of 303304, see attached Drill Rig Photo Log. This service was performed by Mr. Robert E. Kral, PE on March 11, 2022. SPT energy testing was performed in general accordance with ASTM D4633 and the most recent revision of the North Carolina Department of Transportation (NCDOT), Geotechnical Engineering Unit's requirements. The testing procedures, equipment used during testing, and detailed results are presented in this report.

CG2 recommends Breccia submit this Report of SPT Hammer Energy to the NCDOT Geotechnical Engineering Unit for review and approval no later than April 8, 2022.

DYNAMIC TESTING METHODOLOGY

Testing was performed using a model SPT (Serial No. 4549 TB) Pile Driving Analyzer™ (PDA) manufactured by Pile Dynamics, Inc. The PDA was used to record and interpret data from two piezoresistive accelerometers (Serial Nos. K11957 and K10959) bolted to a 2-foot long AWJ drill rod (SN 528AWJ) internally instrumented with two strain transducers. The instrumented AWJ drill rod has a cross-sectional area of 1.19 square inches, an outside diameter of approximately 1.75 inches, and an inside diameter of 1.25 inches at the gauge location. The accelerometers and strain gauges, which are mounted on opposing axis near the middle of the instrumented rod, monitor acceleration and strain for each hammer blow. The analyzer converts the data to velocities and forces and computes the maximum transferred hammer energies with the "EFV" method described in ASTM D4633. Preliminary results are recorded and displayed in real-time for each blow. Calibration sheets for the PDA, accelerometers, and the instrumented rod are included in the Appendix III.

Report of SPT Hammer Energy
 Chester, South Carolina
 CG2 Project No.: 240021095

TESTING AND OBSERVATIONS

CG2 personnel was on site March 11, 2022 to observe and perform high-strain dynamic testing during SPT sampling on the CME 45B trailer-mounted drill rig operated by D. Harris of Breccia. The measurements were taken during drilling operations at 1817 Lowrys Highway in Chester, South Carolina (Chester County). The approximate coordinates (not professionally surveyed) for the test location are 34.770585, -81.245517. No Soil Test Boring Log was maintained. SPT energy measurements were recorded during three intervals at depths of approximately 28½, 33½, and 38½ feet below the existing ground surface. The information presented in the table below summarizes the equipment tested and tooling used during the SPT energy measurements.

Table 1: SPT Field Data

Drill Rig Information	
Manufacturer	CME
Model	45B
Serial Number	303304
Operator	D. Harris
Carrier	Trailer
Hammer Information	
Model / Type	CME / Auto
Serial Number	N/A
Anvil Height (inches)	11.5
Anvil Diameter (inches)	2.5
Drop Height (inches)	30
Ram Weight (pounds)	140
Ram Serial Number	N/A
Drilling and Instrumented Rod Information	
Drill Rod Type	AWJ
OD (inches)	1.75
ID (inches)	1.25
Cross-Sectional Area (in ²)	1.19
Typical Lengths (feet)	5
Instrumented Rod Type	AWJ (SN 528)
OD (inches)	1.75
ID (inches)	1.25
Cross-Sectional Area (in ²)	1.19
Total Instrumented Rod Length (feet)	2.00
Length Below Gages (feet)	0.70
Split-Spoon Length (feet)	2.85

Report of SPT Hammer Energy
 Chester, South Carolina
 CG2 Project No.: 240021095

DYNAMIC TESTING RESULTS

The total rod length from the instrumentation to the tip of the split-spoon sampler was determined by adding 3.6 feet to the required drill rod length at each sample depth. Based on the test data, the automatic hammer on the CME 45B Trailer-mounted drill rig operated at a rate of about 53.2 to 61.4 blows per minute (BPM) during dynamic testing. The measured transferred hammer energy (EFV) ranged from 273.5 to 298.0 foot-pounds, which corresponds to Energy Transfer Ratio (ETR) values of 78.2 to 85.1%, respectively.

The SPT Energy Measurement Data Summary tables in the Appendix present the test data from every hammer blow at each sampling interval along with representative force and velocity traces for each test interval. The reported blow counts, obtained by the drill rig personnel, and a summary of the test data and average computed hammer energy and transfer ratio values are provided in Table 2. Plots and tables of the following are also included in the Appendix and present the test data with depth for each test interval:

- Penetration vs. BLC
- Penetration vs. CSX
- Average ETR vs. Rod Length
- Penetration vs. FMX
- Penetration vs. VMX
- ETR vs. Rod Length
- Penetration vs. EFV
- Penetration vs. ETR

Table 2: Summary of Dynamic Testing Results

Data Set ID	Sample Depth (ft)	Drill Rod Length (ft)	Instrumentation to Sampler Tip Length (ft)	Blows per 6" Increment / N-value	Soil Sample Description (Piedmont Residual)	Avg. BPM	Avg. EFV (ft-lbs)	Avg. ETR (%)
1	28½ - 30	30	33.6	4-6-7 / 13	SA SILT	53.4	277.5	79.3
2	33½ - 35	35	38.6	3-5-6 / 11	SA SILT	58.3	291.4	83.3
3	38½ - 40	40	43.6	4-6-9 / 15	SA SILT	55.5	286.8	81.9
Overall Average						55.6	285.0	81.4

The average hammer rate, transferred energy, and transfer ratio were calculated for each depth interval. Per ASTM D4633, only the blows from the final foot of each sample interval (i.e., the blows that determine the N-value) were included when computing the average values shown in Table 2. The overall average transferred hammer energy for the automatic hammer on the CME 45B trailer-mounted drill rig (for all the depth intervals tested) was 285.0 foot-pounds, with an average ETR of 81.4%.

Report of SPT Hammer Energy
Chester, South Carolina
CG2 Project No.: 240021095

LIMITATIONS OF REPORT

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The information contained in this report were based on the applicable standards of our profession in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.

CLOSING

CG2 is pleased to have the opportunity to provide these services to you. If you have questions concerning the content of this report, or if CG2 can be of further service, please contact CG2 at (980) 339-8684.

Sincerely,
Carolinas Geotechnical Group, PLLC

DocuSigned by:
D. Matthew Brewer
386129C0A4C1462...
D. Matthew Brewer, PE
Senior Project Engineer

DocuSigned by:
Robert E. Kral
8AD703B2A8484F4...
Robert E. Kral, PE
Senior Project Engineer
NC Registration No. 042642



Appendices:

- Appendix I - CME 45B Trailer Rig (SN 303304) SPT Energy Measurements Summary Plots and Tables
- Appendix II - SPT Hammer Energy Field Form (Field Log) and Drill Rig Photo Log
- Appendix III - Instrumented Rod and Accelerometer Calibration Sheets
- Appendix IV - Certificate of Proficiency



APPENDIX I

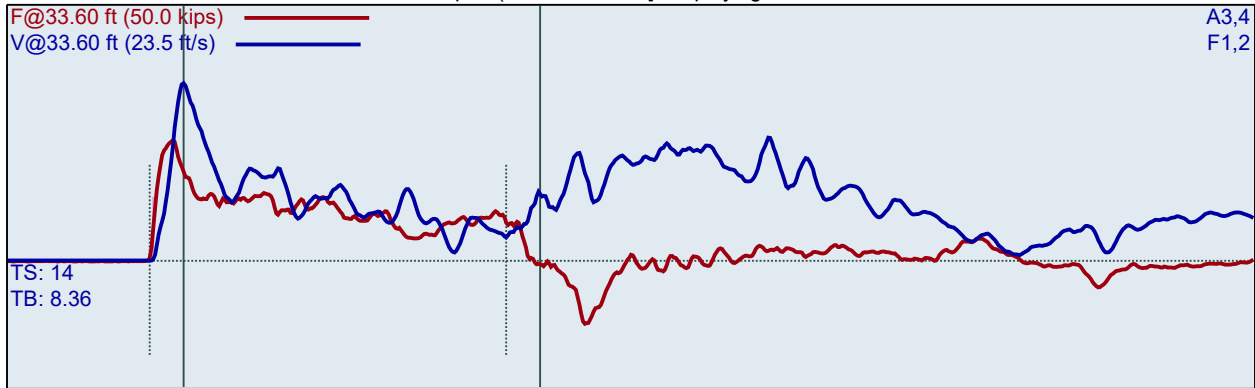
CME 45B (SN 303304)
REK
B-1

B-1
Interval start: 3/11/2022

AR: 1.19 in²
LE: 33.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (28.50 - 30.00 ft), displaying BN: 15



F1 : [528AWJ1] 205.26 PDICAL (1) FF1
F2 : [528AWJ2] 205.86 PDICAL (1) FF1

A3 (PR): [K11957] 407.045 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 417.27 mv/6.4v/5000g (1) VF1

BPM: Blows/Minute

FMX: Maximum Force

VMX: Maximum Velocity

DMX: Maximum Displacement

CSX: Compression Stress Maximum

DFN: Final Displacement

EFV: Maximum Energy

ETR: Energy Transfer Ratio - Rated

LP	BL#	BC	BPM	FMX	VMX	DMX	CSX	DFN	EFV	ETR
ft		/6"	bpm	kips	ft/s	in	ksi	in	ft-lb	%
28.63	1	4	1.9	23.8	15.1	2.0	20.0	1.5	258.9	74.0
28.75	2	4	52.7	25.1	15.4	1.6	21.1	1.5	269.5	77.0
28.88	3	4	53.1	25.1	15.7	1.6	21.1	1.5	272.5	77.8
29.00	4	4	53.5	24.6	15.4	1.5	20.7	1.5	269.5	77.0
29.08	5	6	53.4	25.0	15.6	1.2	21.0	1.0	273.5	78.2
29.17	6	6	53.3	24.8	15.7	1.1	20.8	1.0	274.5	78.4
29.25	7	6	53.4	24.6	15.7	1.1	20.7	1.0	277.2	79.2
29.33	8	6	53.3	24.7	16.0	1.1	20.8	1.0	274.8	78.5
29.42	9	6	53.4	24.6	16.0	1.1	20.6	1.0	275.4	78.7
29.50	10	6	53.7	24.3	15.9	1.1	20.4	1.0	276.7	79.1
29.57	11	7	53.3	24.6	16.3	1.0	20.7	0.9	281.6	80.4
29.64	12	7	53.3	24.1	16.2	1.1	20.2	0.9	279.6	79.9
29.71	13	7	53.5	23.8	16.1	1.1	20.0	0.9	280.2	80.0
29.79	14	7	53.7	23.7	16.5	1.0	19.9	0.9	278.2	79.5
29.86	15	7	53.2	23.6	16.3	1.0	19.8	0.9	277.1	79.2
29.93	16	7	53.4	23.3	15.7	0.9	19.6	0.9	278.7	79.6
30.00	17	7	53.5	23.2	17.1	0.9	19.5	0.9	280.6	80.2
		Average	53.4	24.2	16.1	1.1	20.3	0.9	277.5	79.3
		Std Dev	0.1	0.6	0.4	0.1	0.5	0.1	2.4	0.7
		Maximum	53.7	25.0	17.1	1.2	21.0	1.0	281.6	80.4
		Minimum	53.2	23.2	15.6	0.9	19.5	0.9	273.5	78.2

N-value: 13

Sample Interval Time: 17.92 seconds.

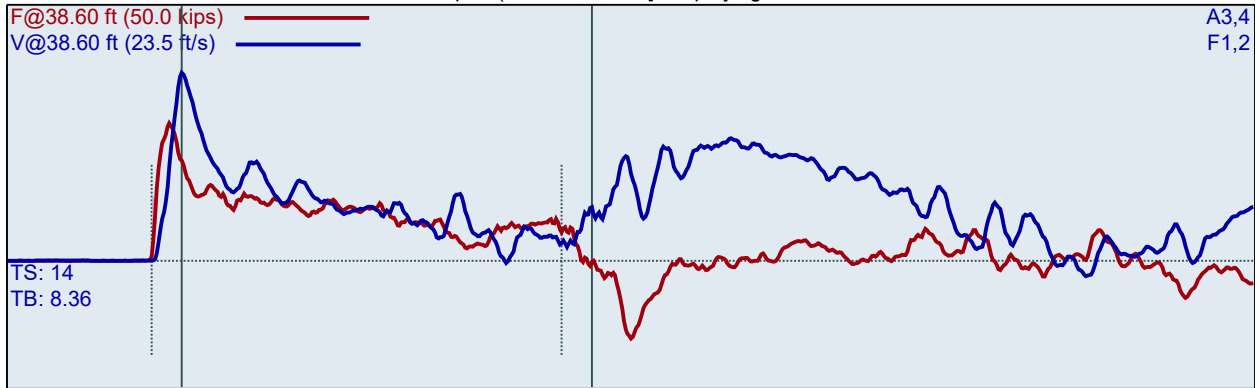
CME 45B (SN 303304)
REK
B-1

B-1
Interval start: 3/11/2022

AR: 1.19 in²
LE: 38.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (33.50 - 35.00 ft), displaying BN: 12



F1 : [528AWJ1] 205.26 PDICAL (1) FF1
F2 : [528AWJ2] 205.86 PDICAL (1) FF1

A3 (PR): [K11957] 407.045 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 417.27 mv/6.4v/5000g (1) VF1

LP ft	BL#	BC /6"	BPM bpm	FMX kips	VMX ft/s	DMX in	CSX ksi	DFN in	EFV ft-lb	ETR %
33.67	1	3	1.9	27.2	16.3	2.3	22.8	2.0	290.7	83.0
33.83	2	3	60.1	27.7	17.1	2.0	23.2	2.0	300.3	85.8
34.00	3	3	60.9	27.7	17.1	2.0	23.3	2.0	302.3	86.4
34.10	4	5	61.4	27.6	16.8	1.3	23.2	1.2	293.7	83.9
34.20	5	5	58.8	27.3	16.7	1.3	22.9	1.2	286.9	82.0
34.30	6	5	57.9	27.1	16.9	1.2	22.8	1.2	288.5	82.4
34.40	7	5	57.7	27.5	17.0	1.2	23.2	1.2	288.2	82.3
34.50	8	5	57.9	26.7	16.8	1.2	22.5	1.2	292.5	83.6
34.58	9	6	57.8	26.6	17.0	1.1	22.4	1.0	290.0	82.9
34.67	10	6	58.1	26.9	17.0	1.0	22.6	1.0	287.6	82.2
34.75	11	6	58.1	26.6	17.1	1.0	22.4	1.0	288.5	82.4
34.83	12	6	57.8	26.9	17.3	1.0	22.6	1.0	298.0	85.1
34.92	13	6	58.1	26.5	17.2	1.0	22.3	1.0	295.9	84.6
35.00	14	6	58.2	26.2	17.0	1.0	22.0	1.0	295.4	84.4
Average			58.3	26.9	17.0	1.1	22.6	1.1	291.4	83.3
Std Dev			1.0	0.4	0.2	0.1	0.4	0.1	3.7	1.1
Maximum			61.4	27.6	17.3	1.3	23.2	1.2	298.0	85.1
Minimum			57.7	26.2	16.7	1.0	22.0	1.0	286.9	82.0

N-value: 11

Sample Interval Time: 13.30 seconds.

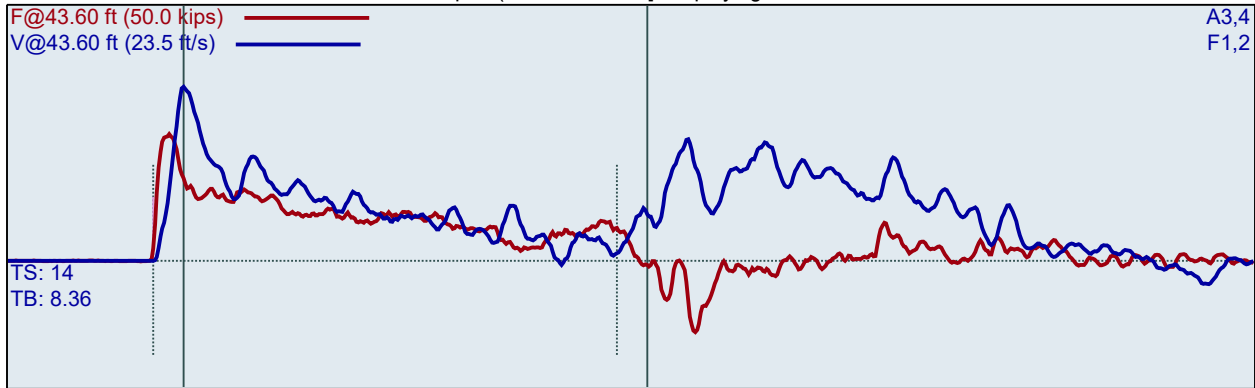
CME 45B (SN 303304)
REK
B-1

B-1
Interval start: 3/11/2022

AR: 1.19 in²
LE: 43.60 ft
WS: 16807.9 ft/s

SP: 0.492 k/ft³
EM: 30000 ksi

Depth: (38.50 - 40.00 ft), displaying BN: 17



F1 : [528AWJ1] 205.26 PDICAL (1) FF1
F2 : [528AWJ2] 205.86 PDICAL (1) FF1

A3 (PR): [K11957] 407.045 mv/6.4v/5000g (1) VF1
A4 (PR): [K10959] 417.27 mv/6.4v/5000g (1) VF1

LP ft	BL#	BC /6"	BPM bpm	FMX kips	VMX ft/s	DMX in	CSX ksi	DFN in	EFV ft-lb	ETR %
38.63	1	4	1.9	26.6	16.9	2.2	22.3	1.5	303.5	86.7
38.75	2	4	59.6	25.2	16.8	1.8	21.2	1.5	301.7	86.2
38.88	3	4	59.9	25.2	16.3	1.5	21.2	1.5	295.2	84.3
39.00	4	4	56.8	24.6	16.3	1.5	20.7	1.5	291.6	83.3
39.08	5	6	55.7	24.9	16.0	1.2	20.9	1.0	290.3	82.9
39.17	6	6	55.5	24.9	16.0	1.2	21.0	1.0	290.4	83.0
39.25	7	6	56.0	24.7	16.2	1.2	20.8	1.0	288.0	82.3
39.33	8	6	55.4	25.2	16.2	1.1	21.2	1.0	287.7	82.2
39.42	9	6	55.7	25.1	15.8	1.0	21.1	1.0	283.1	80.9
39.50	10	6	55.3	24.9	15.8	1.0	21.0	1.0	288.5	82.4
39.56	11	9	55.5	24.5	16.0	0.8	20.6	0.7	286.8	82.0
39.61	12	9	55.7	24.6	16.0	0.8	20.7	0.7	284.4	81.3
39.67	13	9	55.4	24.4	16.2	0.8	20.5	0.7	289.2	82.6
39.72	14	9	55.4	24.4	15.9	0.8	20.5	0.7	283.6	81.0
39.78	15	9	55.3	24.7	15.9	0.8	20.7	0.7	287.0	82.0
39.83	16	9	55.5	24.0	15.6	0.8	20.2	0.7	284.1	81.2
39.89	17	9	55.6	24.8	16.0	0.7	20.8	0.7	283.9	81.1
39.94	18	9	55.6	24.4	15.7	0.7	20.5	0.7	284.9	81.4
40.00	19	9	55.4	24.2	16.2	0.8	20.3	0.7	289.6	82.7
Average			55.5	24.7	16.0	0.9	20.7	0.8	286.8	81.9
Std Dev			0.2	0.3	0.2	0.2	0.3	0.2	2.5	0.7
Maximum			56.0	25.2	16.2	1.2	21.2	1.0	290.4	83.0
Minimum			55.3	24.0	15.6	0.7	20.2	0.7	283.1	80.9

N-value: 15

Sample Interval Time: 19.28 seconds.

Summary of SPT Test Results

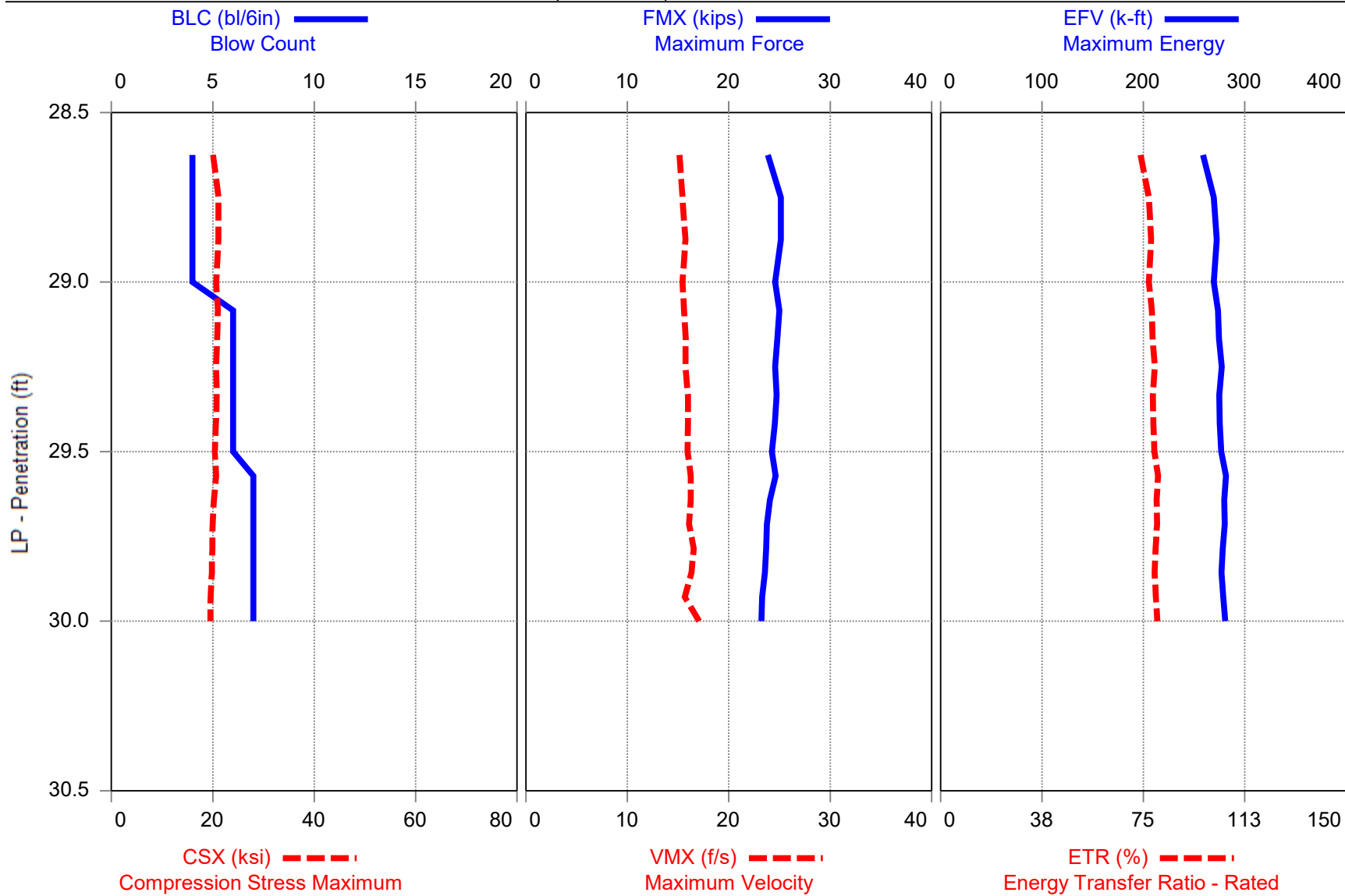
Project: CME 45B (SN 303304), Test Date: 3/11/2022

Instr. Length ft	Start Depth ft	Final Depth ft	Blows Applied /6"	N Value	N60 Value	Average BPM bpm	Average FMX kips	Average VMX ft/s	Average DMX in	Average CSX ksi	Average DFN in	Average EFV ft-lb	Average ETR %
33.60	28.50	30.00	4-6-7	13	17	53.4	24.2	16.1	1.1	20.3	0.9	277.5	79.3
38.60	33.50	35.00	3-5-6	11	14	58.3	26.9	17.0	1.1	22.6	1.1	291.4	83.3
43.60	38.50	40.00	4-6-9	15	20	55.5	24.7	16.0	0.9	20.7	0.8	286.8	81.9
Overall Average Values:						55.6	25.1	16.3	1.0	21.1	0.9	285.0	81.4
Standard Deviation:						2.0	1.2	0.5	0.2	1.0	0.2	6.3	1.8
Overall Maximum Value:						61.4	27.6	17.3	1.3	23.2	1.2	298.0	85.1
Overall Minimum Value:						53.2	23.2	15.6	0.7	19.5	0.7	273.5	78.2

CSX: Compression Stress Maximum
DFN: Final Displacement
EFV: Maximum Energy
ETR: Energy Transfer Ratio - Rated

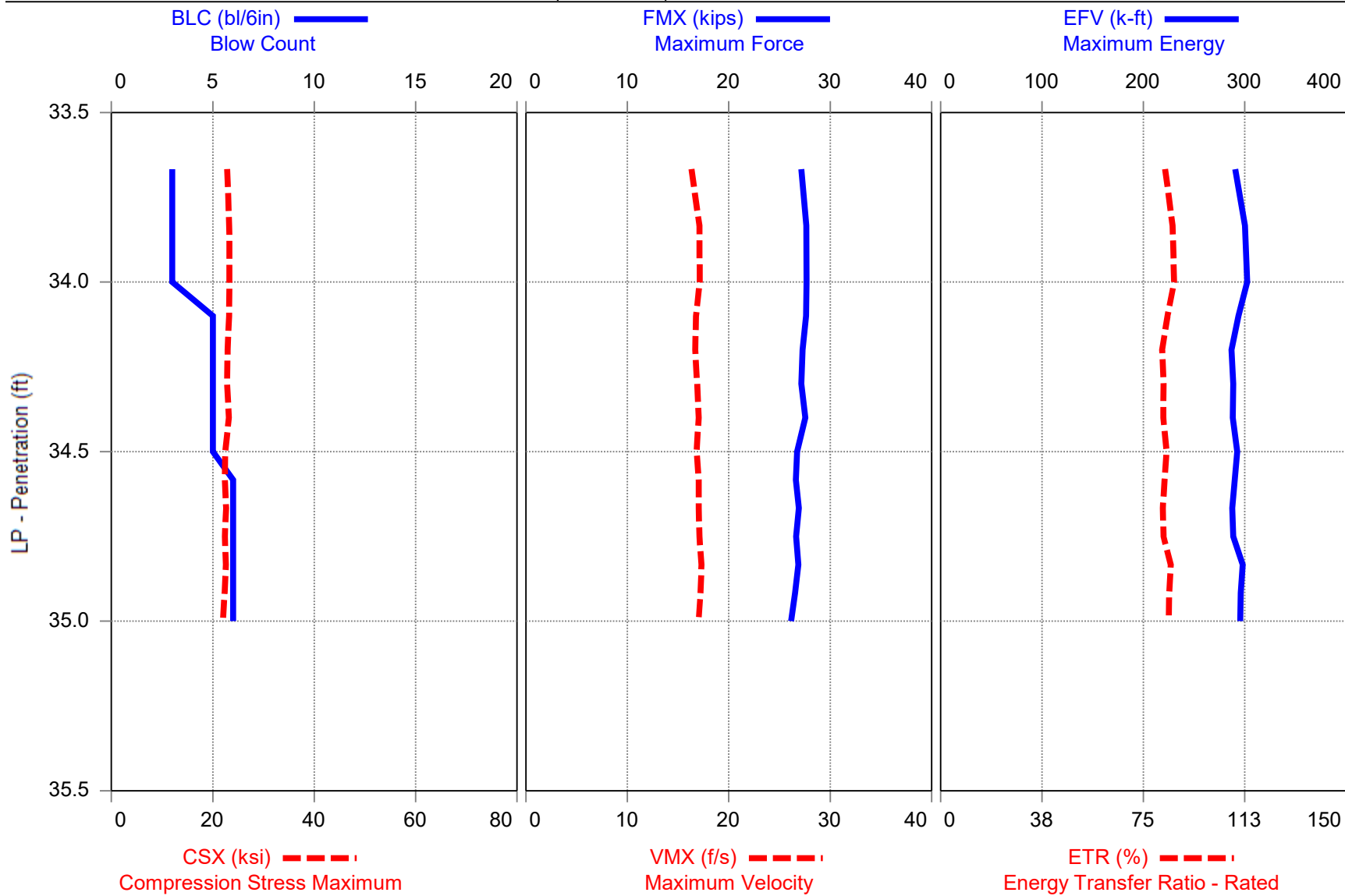


CME 45B (SN 303304) - 28.5 TO 30.0



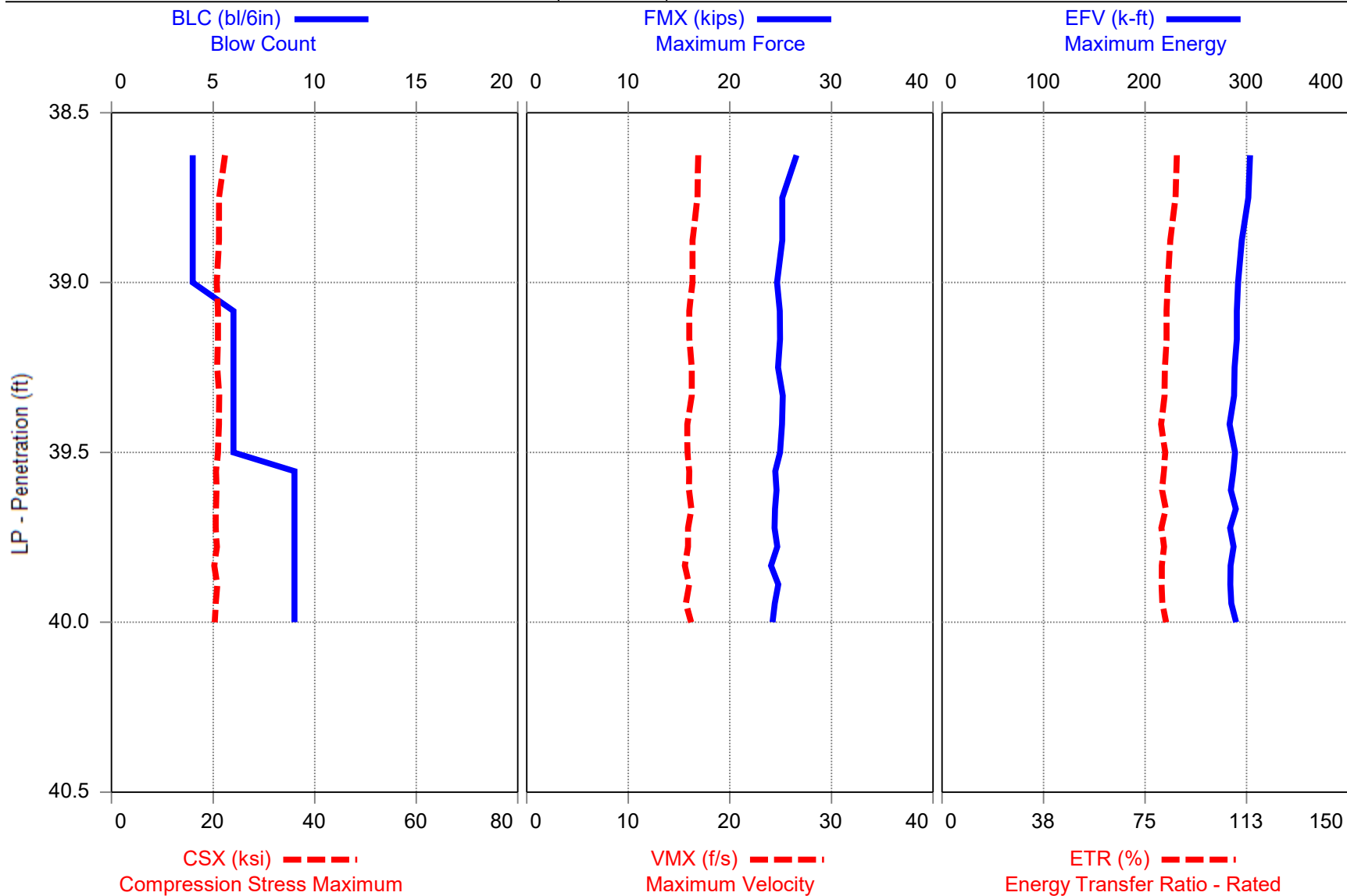


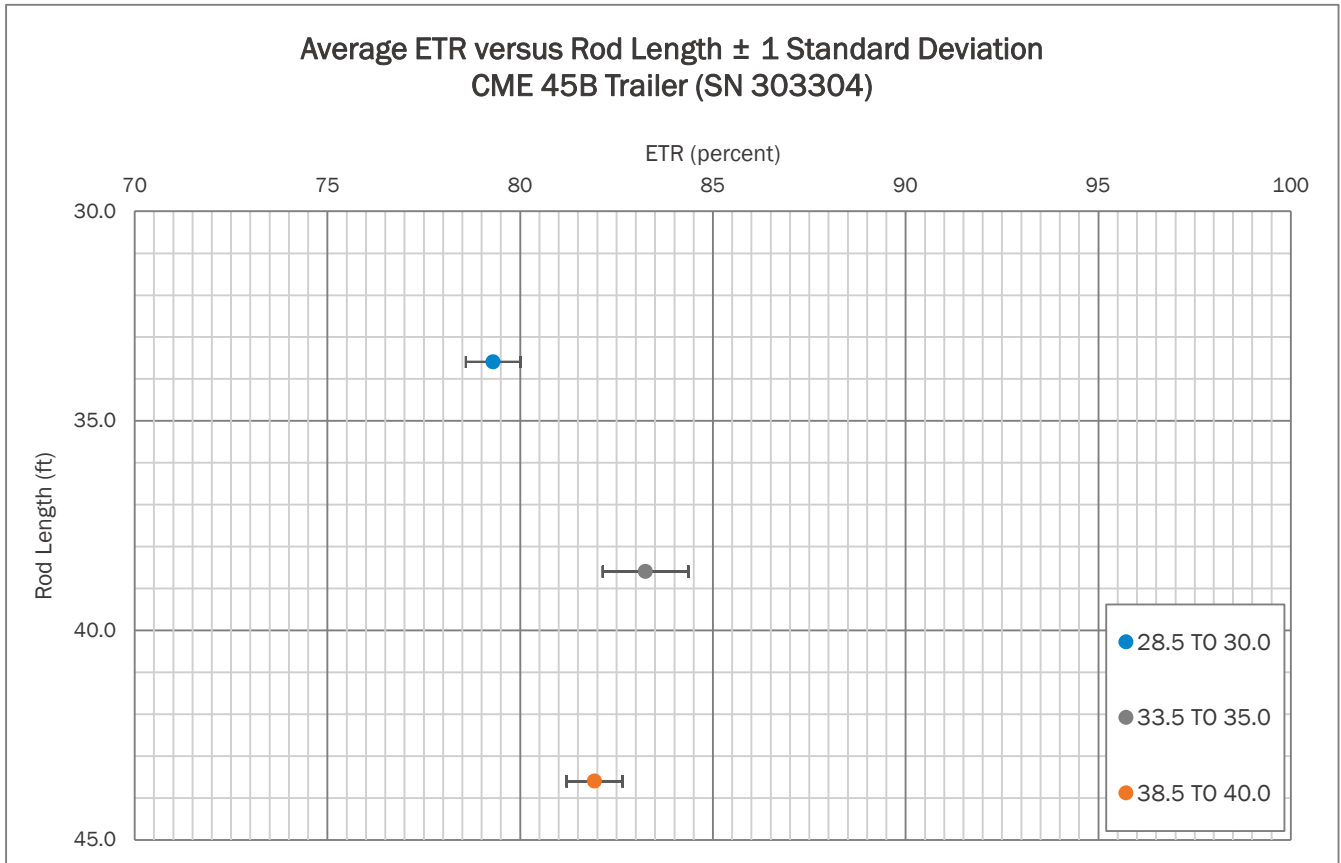
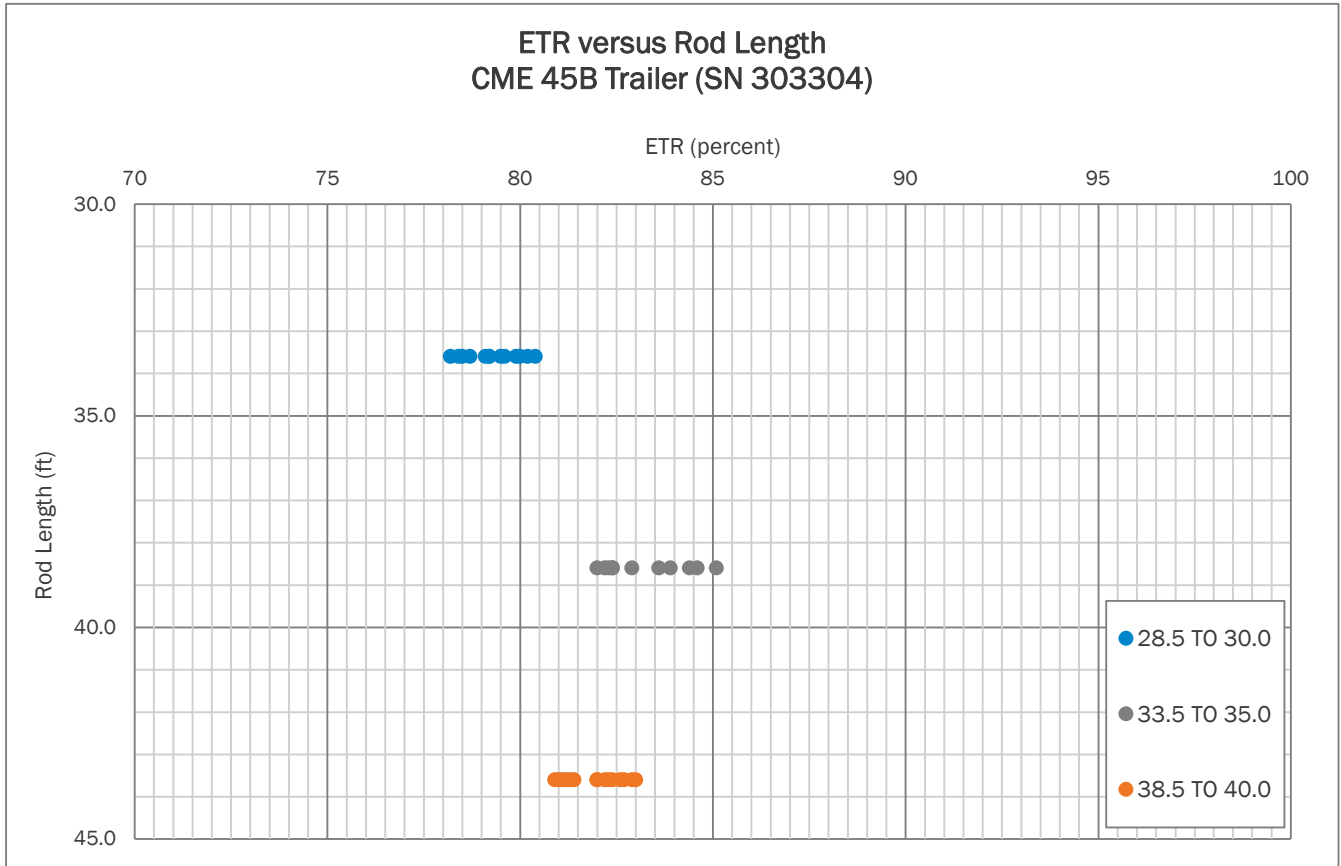
CME 45B (SN 303304) - 33.5 TO 35.0





CME 45B (SN 303304) - 38.5 TO 40.0







APPENDIX II

Project: SPT HAMMER ENERGY
Project No.: 240021095
Boring No.: B-1

Date: 3/11/2022
Weather: 50's CLOUDY
Drill Rod Type: AWJ

On-site Personnel

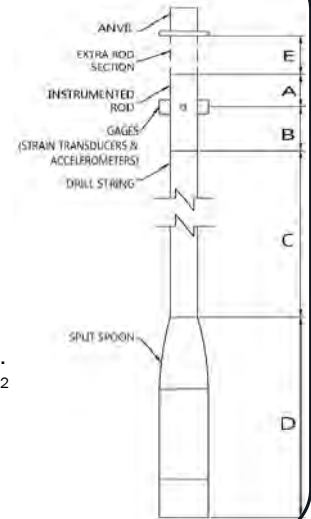
Drilling Company: BRECCIA CONSTRUCTION, LLC
 Rig Operator: D. HARRIS
 Engr/Geologist: N/A
 Client Rep.: N/A
 Analyzer Oper.: R. KRAL

Rig/Hammer Info

Drill Rig Make/Model: CME 45B
 Carrier Type: TRAILER
 Rig Serial No.: 303304 (DR-1)
 Hammer Type/Model: CME
 Hammer Serial No.: N/A
 Hammer Drop System: AUTO
 Lubrication Condition: PER MANUFACTURER
 Manufacturer Recommended
 Operation Rate (bpm): 55
 Drop Height (in.): 30
 Hammer Weight (lbs): 140
 Anvil Dimension (in.): 11.5
 Drilling Method: 2.25 HSA

Rod Info

(A + E) Impact Surface to Gages Length: 1.36 ft
(B) Instr. Rod Length below Gages: 0.70 ft
(A) + (B) Instr. Rod Length: 2.00 ft
(D) Spoon Length: 2.85 ft
(E) Rod Length Above Instr. Rod (if applicable): 0.06 ft
 Instr. Rod S/N: 528AWJ
 Instr. Rod Outside Dia.: 1.75 in.
 Instr. Rod Area: 1.19 in²
 PDA Make/Model: SPT
 PDA Serial No.: 4549 TB
 Calib. Pulse Test (y/n): Y



Gage Info

Gage		Serial No.	Calibration No.
Accel.	A3	K11957	407.00
	A4	K10959	417.30
Strain	F3	528AWJ-1	205.26
	F4	528AWJ-2	205.86

Date of Test	Test Depth Increment (ft to ft)	Test Time Start / Stop (military)	Length of Drill String (ft) (C)	(LE) Length below Gages (ft) (B) + (C) + (D)	Avg. Meas. Hammer Rate (BPM)	SPT Blow Counts				Drop Height in Tolerance (y/n)	Soil Class.
						6"	12"	18"	N-Value		
11-Mar	28.5 TO 30.0	0830/0830	30	33.6	53	4	6	7	13	Y	SA SI
11-Mar	33.5 TO 35.0	0837/0837	35	38.6	57	3	5	6	11	Y	SA SI
11-Mar	38.5 TO 40.0	0842/0843	40	43.6	56	4	6	9	15	Y	SA SI

Notes:
 TESTING PERFORMED AT 1817 LOWRYS HIGHWAY IN CHESTER, SOUTH CAROLINA (CHESTER COUNTY). THE APPROXIMATE COORDINATES ARE 34.770585, - 81.245517.

 NOTE: (1) Note any unusual hammer operating conditions that affect the hammer performance, or changes in operating conditions (e.g. verticality, weather, or lubrication between trials). (2) Note any changes in rod diameter along drill string and record locations of short rod sections.


 Prepared By (print/signature) _____ Date 3/11/2022



Figure No. 1: Rear View of Drill Rig



Figure No. 2: Side View of Drill Rig



Figure No. 3: Serial Number Plate



Figure No. 4: Automatic Hammer

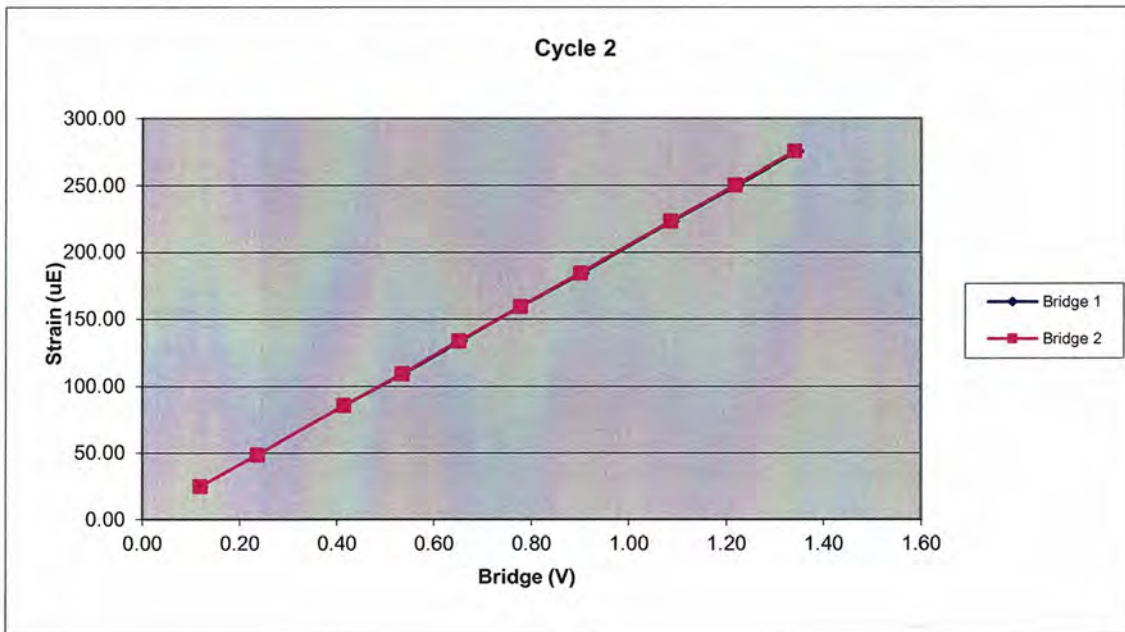


APPENDIX III

528AWJ		Cycle 2		
Sample	Force (lb)	Strain (μE)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	905.16	24.61	0.12	0.12
3	1753.20	48.18	0.24	0.24
4	3064.74	84.99	0.42	0.41
5	3947.87	108.99	0.54	0.53
6	4813.36	133.40	0.65	0.65
7	5727.49	159.02	0.78	0.78
8	6643.67	184.17	0.90	0.90
9	8004.82	222.89	1.09	1.09
10	8980.07	249.70	1.22	1.22
11	9885.91	275.04	1.35	1.34

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7340.27	Force Calibration (lb/V)	7362.32
Offset	12.98	Offset	13.21
Correlation	1.000000	Correlation	0.999999
Strain Calibration ($\mu\text{E}/\text{V}$)	204.74	Strain Calibration ($\mu\text{E}/\text{V}$)	205.35
Offset	-0.39	Offset	-0.39
Correlation	0.999993	Correlation	0.999995

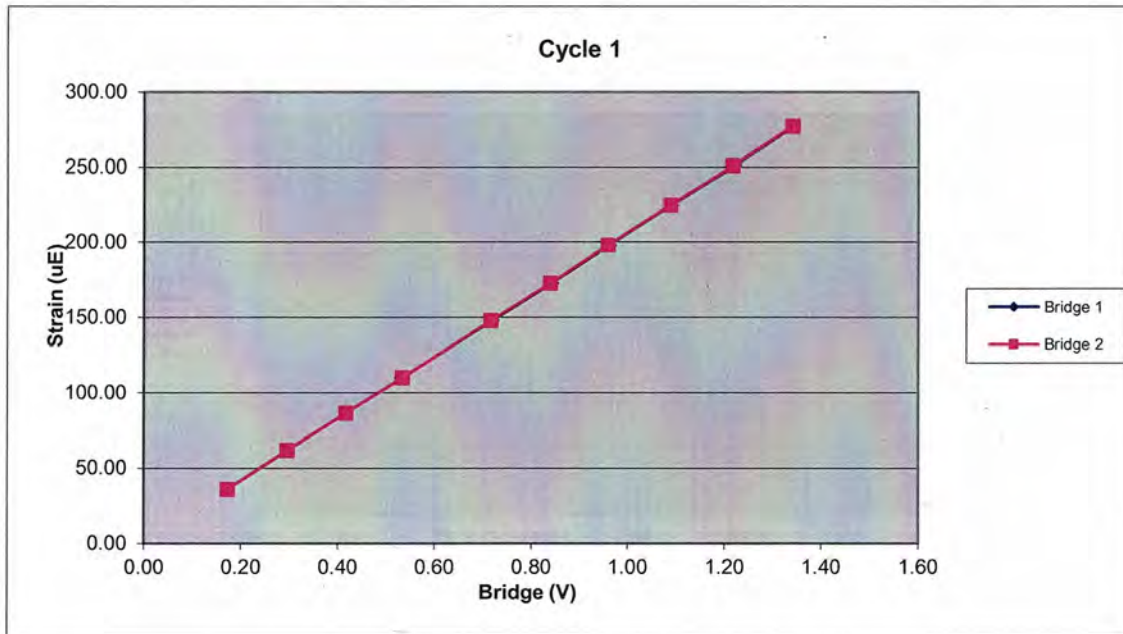
Force Strain Calibration	
EA (Kips)	35851.72
Offset	27.08
Correlation	0.999996



528AWJ		Cycle 1		
Sample	Force (lb)	Strain (μE)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	1278.49	35.63	0.17	0.17
3	2188.92	61.59	0.30	0.30
4	3085.11	86.16	0.42	0.42
5	3944.56	110.01	0.53	0.54
6	5284.17	147.69	0.72	0.72
7	6199.57	172.59	0.84	0.84
8	7071.20	197.80	0.96	0.96
9	8023.54	224.47	1.09	1.09
10	8958.62	250.45	1.22	1.22
11	9876.55	276.81	1.34	1.34

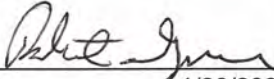
Bridge 1		Bridge 2	
Force Calibration (lb/V)	7346.16	Force Calibration (lb/V)	7359.87
Offset	9.71	Offset	6.72
Correlation	0.999998	Correlation	0.999999
Strain Calibration ($\mu\text{E}/\text{V}$)	205.65	Strain Calibration ($\mu\text{E}/\text{V}$)	206.03
Offset	0.08	Offset	-0.01
Correlation	0.999990	Correlation	0.999993

Force Strain Calibration	
EA (Kips)	35721.25
Offset	7.11
Correlation	0.999990



Bridge Excitation (V) 5
Shunt Resistor (ohm) 60.4k

Calibration Factors	528AWJ		
Bridge 1 ($\mu\text{E/V}$)	205.26	Bridge 2 ($\mu\text{E/V}$)	205.86
EA Factor (Kips)	35777.05	Area (in²)	1.19

Calibrated by: 
Calibrated Date: 1/28/2021

Pile Dynamics Inc
30725 Aurora Rd
Solon, OH 44139

Traceable to N.I.S.T.

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on 19Apr2021

Serial No: K10959 Temperature: 21.0 °C
 Model: PR Humidity: 38%
 Calibrated on: Channel 3 on 8G 5161 LE

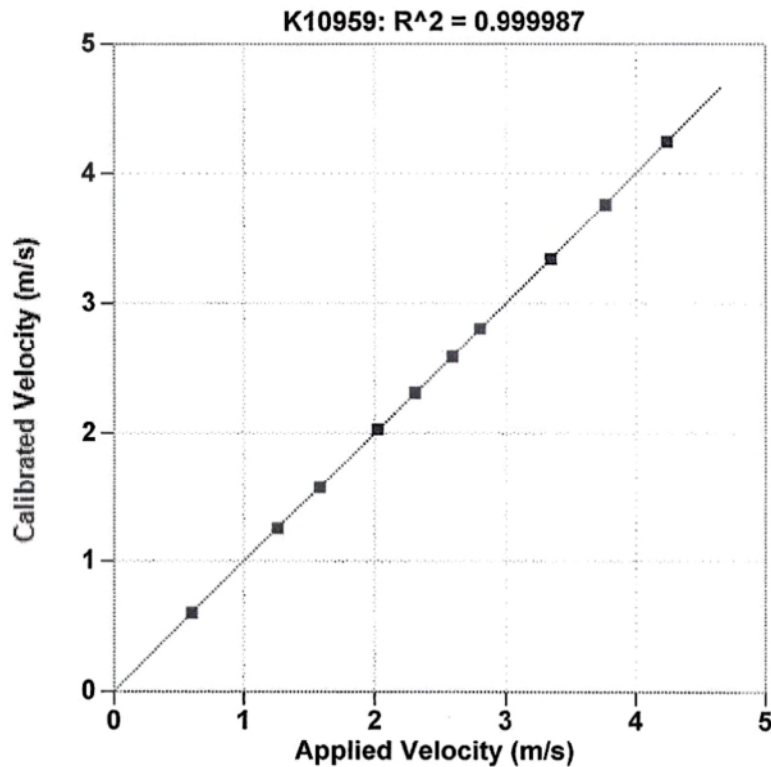
PDA CALIBRATION FACTOR
417.3 mv/5000g
 (83.5 μ v/g)
 R²: 0.999987 [Chip programmed]

Ref Acc 1: 69096! Cal on: 27Jan2021
 978 g's/volt
 Ref Acc 2: 69132! Cal on: 09Feb2021
 960 g's/volt

Operator: William Johnson

Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity m/s	S/N K10959 Velocity m/s
0.600	0.600
1.260	1.255
1.578	1.577
2.021	2.028
2.306	2.311
2.590	2.590
2.801	2.806
3.346	3.344
3.767	3.762
4.241	4.241

Maximum Acceleration: 938 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on 22Jan2021

Serial No: K10960 Temperature: 20.0 °C

Model: PR Humidity: 28%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

425.7 mv/5000g
 (85.1 $\mu\text{v/g}$)
 R²: 0.999987 [Chip programmed]

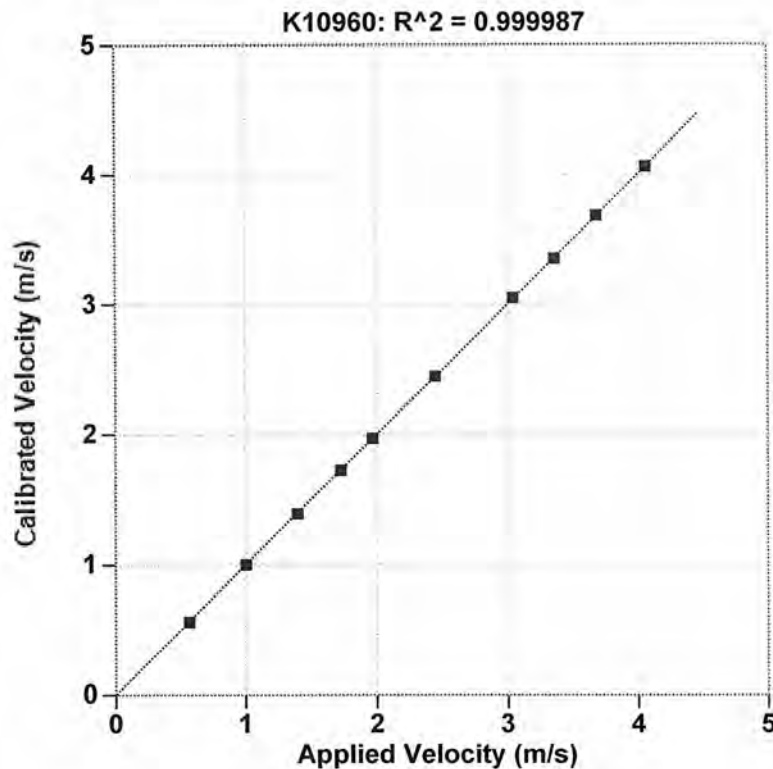
Operator: William Johnson

Ref Acc 1: 63479! Cal on: 09Sep2020
 1080 g's/volt

Ref Acc 2: 65538! Cal on: 27Jan2020
 1040 g's/volt


 Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K10960 Velocity
m/s	m/s
0.568	0.564
1.006	1.001
1.400	1.393
1.728	1.726
1.969	1.970
2.447	2.448
3.043	3.051
3.359	3.356
3.683	3.684
4.063	4.062

Maximum Acceleration: 889 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on

MAR 2 2021

Serial No: K11957 Temperature: 20.0 °C

Model: PR Humidity: 27%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

407.0 mv/5000g

(81.4 μ v/g)

R²: 0.999989 [Chip programmed]

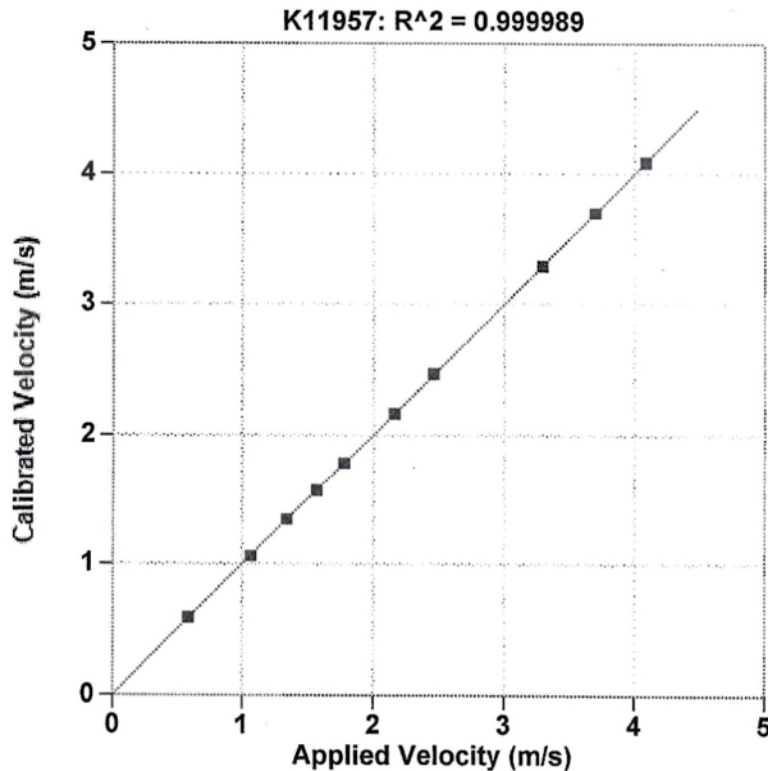
Operator: William Johnson

Ref Acc 1: 63479! Cal on: 22Jan2021
1079 g's/volt

Ref Acc 2: 65538! Cal on: 22Jan2021
1043 g's/volt

Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K11957 Velocity
m/s	m/s
0.588	0.589
1.066	1.061
1.344	1.345
1.571	1.570
1.779	1.783
2.161	2.164
2.458	2.465
3.294	3.291
3.701	3.700
4.089	4.086

Maximum Acceleration: 894 g's



APPENDIX IV



This documents that
Robert E. Kral
Carolinas Geotechnical Group

has on May 20, 2016 achieved the rank of

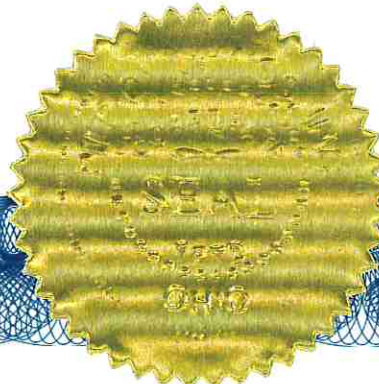
ADVANCED


on the Dynamic Measurement and Analysis Proficiency Test.

The individual identified on this document demonstrated to the degree granted above an understanding of theory, data quality evaluation, interpretation and signal matching for high strain dynamic testing of deep foundations. ***It is recommended that individuals at the Advanced level seek Master or Expert levels through additional study within six years of the date of this document.***

The ability of the individual named to provide appropriate knowledge and advice on a specific project is not implied or warranted by the Pile Driving Contractors Association or Pile Dynamics, Inc. **This certificate can be verified at www.PDAproficiencytest.com.** The Pile Driving Contractors Association or Pile Dynamics, Inc. assumes no liability for foundation testing and analysis work performed by the bearer of this certificate.


Steven A. Hall, Executive Director
Pile Driving Contractors Association




Garland Likins, Senior Partner
Pile Dynamics, Inc.

No. 2072