DATA REPORT Rev1

21-1242

January 11, 2023

Explorations and Geotechnical Services

Proposed Offshore Wind Terminal
Sears Island
Searsport, Maine

Prepared For:
Moffatt & Nichol
Attention: Justin Dominguez, P.E.
180 Wells Avenue, Suite 302
Newton, MA 02459

Prepared By:
S. W. Cole Engineering, Inc.
26 Coles Crossing Drive
Sidney, ME 04330
T: 207.626.0600

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January 11, 2023

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Attention: Justin Dominguez, P.E.
180 Wells Avenue, Suite 302
Newton, MA 02459

Subject: Data Report Rev1
Explorations and Geotechnical Services
Proposed Offshore Wind Terminal
Sears Island
Searsport, Maine

Dear Justin:

In accordance with our Revised Proposal, dated December 29, 2021, we have performed subsurface explorations and completed laboratory testing for the subject project. This report summarizes our findings, and its contents are subject to the limitations set forth in Appendix A. This report has been revised to incorporate supplemental laboratory testing.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information for use by others. Our scope of services included marine test borings, land test borings, and test pit explorations, soils laboratory testing, and preparation of this report.

1.2 Site and Proposed Construction

The site is located on the western side of Sears Island at the end of Sears Island Road in Searsport, Maine. We understand the site consists of about 50 acres of heavily wooded area and will extend offshore into Penobscot Bay.

Based on the provided conceptual plans and our discussions with you, we understand the proposed development will include an approximately 1,560-foot-long cellular cofferdam seawall located about 800 to 1,000 feet offshore with an earth infill between the cellular cofferdam and shoreline. We understand the existing inland area is being contemplated to be cut and reused as the earth infill between the shoreline and cofferdam. We understand site cut and fill slopes will be constructed at about 3H:1V or flatter.

Existing site features are shown on the “Exploration Location Plan” attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Fifteen marine test borings (MB-1 through MB-10, MB-3A, MB-4A, MB-6A, MB-9A, and MB-9B) were made at the site on June 23 through July 21, 2022, by New England Boring Contractors working under subcontract to S. W. Cole Engineering, Inc. (S.W.COLE). Nine land test borings (LB-1 through LB-9) and six road test borings (RB-1 through RB-6) were made at the site on August 15 through August 23, 2022, by S. W. Cole Explorations, LLC. Ten test pits (TP-1 through TP-10) were made at the site on August 23, 2022, by Comprehensive Land Technologies, Inc. working under subcontract to S.W.COLE.

The exploration locations were selected by Moffatt & Nichol and established in the field by S.W.COLE using mapping-grade GPS methods. The approximate exploration locations are shown on the “Exploration Location Plan” attached in Appendix B. Logs of the test boring and test pit explorations and a key to the notes and symbols used on these logs are attached in Appendix C.

Open standpipe piezometers were installed in borings LB-2, LB-6, and LB-7. Piezometer installation details are noted on the logs.

2.2 Field Testing

The test borings were drilled using a combination of hollow-stem auger and cased wash-boring techniques. The soils in the test borings were generally sampled at 2-to-5-foot intervals using a split-spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests (PPT) were performed where stiffer cohesive soils were encountered in the test boring. Vane Shear Testing (VST) was performed where softer cohesive soils were encountered in the boring locations. SPT blow counts, PPT, and VST results are shown on the boring logs.

2.3 Laboratory Testing

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Laboratory testing was completed on selected samples as requested:

- 31, Moisture Content Tests
- 13, Atterberg Limits Tests
- 34, Gradation Tests
- 12, Gradation Tests with Hydrometer
- 1, One-Dimensional Consolidation Tests
- 1, Modified Proctor Test
- 1, Specific Gravity Test
- 10, Unconfined Rock Core Compressive Strength Tests

As requested, we completed additional laboratory testing on recompacted composite samples of glacial till including 4 Atterberg Limits and 2, one-dimensional consolidation tests.

Moisture content, Atterberg Limits, and unconfined rock core compressive strength test results are noted on the logs. The results of the gradation, hydrometer, consolidation, moisture-density (proctor), and specific gravity testing are attached in Appendix D.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

3.1.1 Marine Borings

The marine test borings encountered a soil profile generally consisting of bay mud to depths varying from about 0.3 to 7 feet below mud-line, overlying a relatively softer marine deposit consisting of silts, clays, and sands to depths varying from about 10 to 40 feet, overlying dense to very dense glacial till generally consisting of sandy silt to silt and sand with varying amounts of gravel, cobbles and boulders, overlying bedrock at depths varying from about 28.5 to 67 feet below mud-line, where encountered.

Marine borings MB-3, MB-4, MB-6, MB-6A, MB-9, and MB-9A were terminated in the very dense glacial till at depths varying from about 22 to 56.5 feet below mud-line, and marine boring MB-8 was terminated in a hard, silty clay, trace sand, trace gravel (possible decomposed bedrock) at a depth of about 95 feet below mud-line. The remaining marine borings (MB-1, MB-2, MB-3A, MB-4A, MB-5, MB-7, MB-9B, and MB-10) were advanced into and terminated in bedrock. Where rock cores were obtained, the bedrock consisted of gray to dark gray, Schist of the Penobscot Formation.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.1.2 Land Borings and Test Pits

Below a layer of forest duff, the landside explorations generally encountered a soils profile consisting of marine deposits overlying glacial till except at borings LB-5, LB-7, LB-9, and test pit TP-8 where a surficial layer of fills were encountered overlying the marine deposits and glacial till.

Borings LB-5, LB-7, and LB-9 and test pit TP-8 encountered a surficial layer of granular fill or reworked native soils to a depth of about 2.5 to 7 feet. The fills and reworked soils generally consisted of medium dense to loose, sand with varying amounts of gravel and silt.

The marine deposits were encountered to a depth of about 2 to 15 feet, where penetrated, and generally consisted of silt and sand with varying amounts of gravel. However, in boring LB-1 and test pits TP-7 and TP-9, a layer of stiff to very stiff, silty clay was encountered below the forest duff and topsoil extending to depths of 7 to 11 feet.

Below the fills or marine deposit, the land borings encountered glacial till generally consisting of stiff to hard, silt and sand to sandy silt with varying amounts of gravel, and some to trace clay. The land borings were terminated in the glacial till at depths of about 40.5 to 42 feet.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.1.3 Road Borings

Six test borings (RB-1 to RB-6) were made along Sears Island Road and encountered a subsurface profile consisting of fill to depths of 6 to 8 feet where penetrated except at boring RB-5 which was terminated in the fill at a depth of 10 feet. The fills generally consisted of an upper medium dense to dense, sand and gravel with some silt (roadway gravels) overlying stiff to very stiff, silt and sand, with varying amounts of gravel (probable reworked native soils). The fills were underlain by native stiff to very stiff, silty clay at RB-1 or glacial till consisting of stiff to very stiff, silt and sand with varying amounts of gravels at RB-2, RB-3, RB-4, and RB-6. The road borings were terminated at a depth of 10 feet.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information. Interpretive subsurface cross-sections are provided in Appendix B.

3.2 Groundwater

The soils encountered in the landside test borings were generally damp to wet from the ground surface. Where encountered, groundwater was observed at depths generally ranging from about 10 to 15 feet below the ground surface. Follow-up groundwater measurements made at piezometer installed in land borings LB-2, LB-6, and LB-7 are noted on the boring logs attached in Appendix C.

4.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the design phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Digitally signed by Michael St. Pierre, P.E.
Date: 2023.01.11 10:08:02 -05'00'

Michael A. St. Pierre, P.E.
Senior Geotechnical Engineer

MAS:tjb

APPENDIX A

Limitations

This report has been prepared for the exclusive use of Moffatt & Nichol for specific application to the proposed Offshore Wind Terminal on Sears Island in Searsport, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and geotechnical practices. No warranty, expressed or implied, is made.

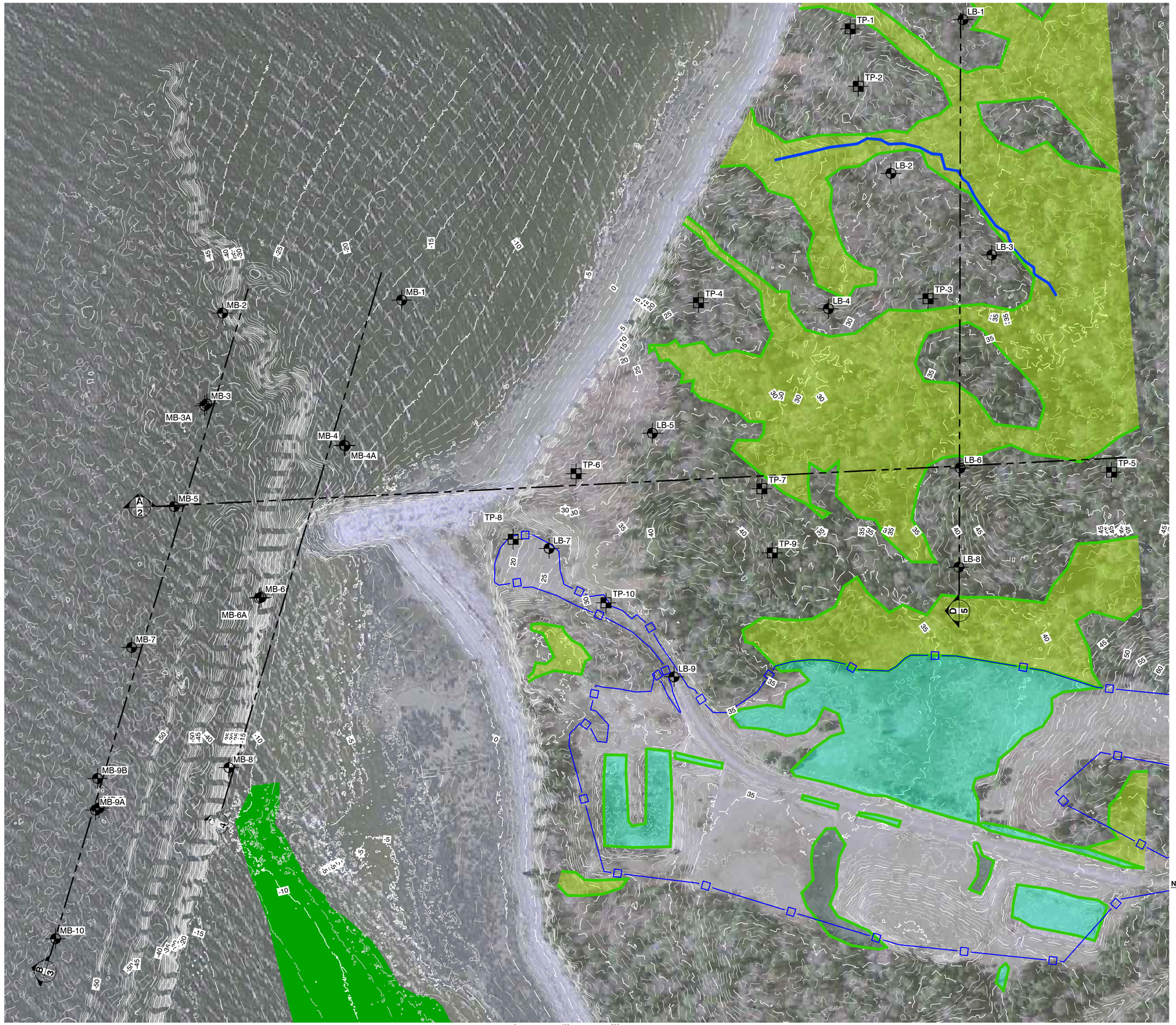
The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

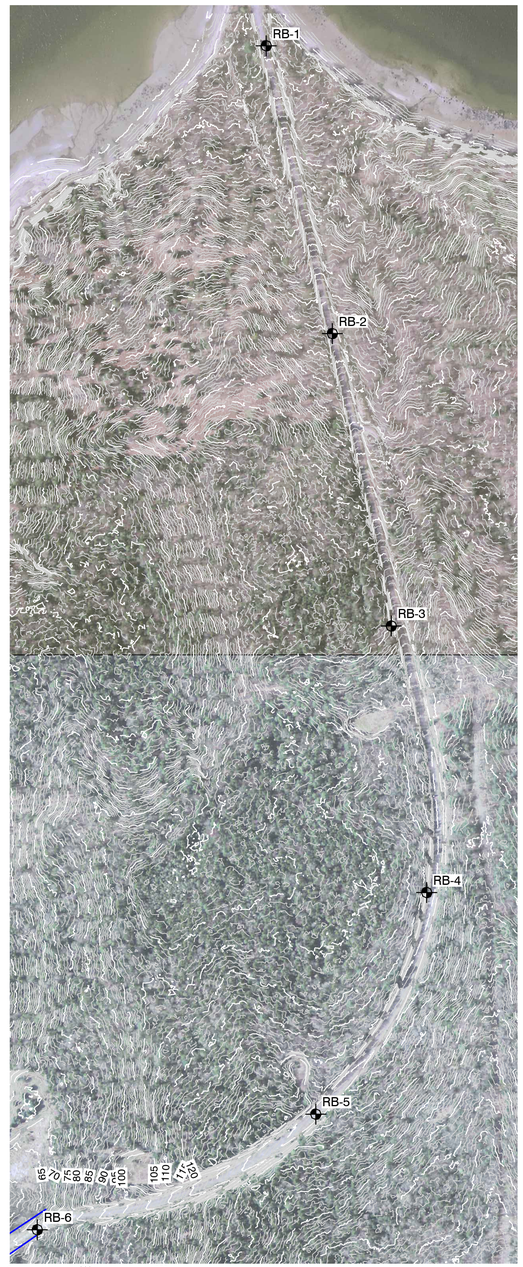
Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

APPENDIX B

Figures





NOTES:

1. EXPLORATION LOCATION PLAN WAS COMPILED FROM PLANS PROVIDED BY MOFFATT & NICHOL AND IMAGERY FROM THE MAINE GEOLIBRARY ENTITLED "ORTHOREGIONAL2015."
2. THE EXPLORATIONS WERE LOCATED IN THE FIELD BY S. W. COLE ENGINEERING, INC. USING A MAPPING GRADE GPS RECEIVER.
3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

LEGEND:

APPROXIMATE BORING LOCATION

APPROXIMATE TEST PIT LOCATION

S.W.COLE ENGINEERING, INC.

MOFFATT & NICHOL

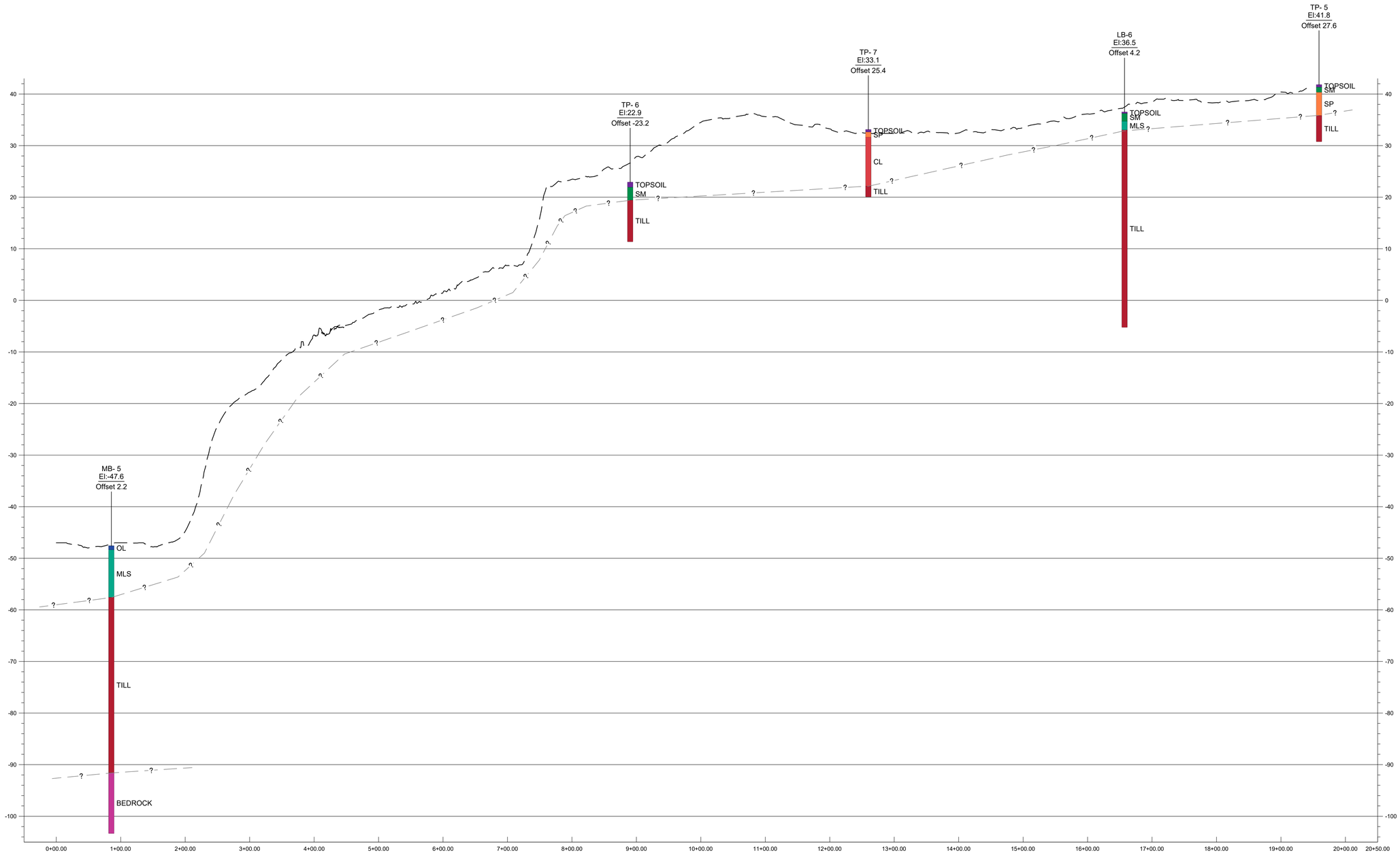
EXPLORATION LOCATION PLAN

PROPOSED OFFSHORE WIND TERMINAL
SEARS ISLAND
SEARSPORT, MAINE

Job No.:	21-1242	Scale:	As Noted
Date :	12/08/2022	Sheet:	1

NOTES:

1. THE DEPTH AND THICKNESS OF THE SUBSURFACE STRATA INDICATED ON THESE PROFILES WERE GENERALIZED FROM AND INTERPOLATED BETWEEN EXPLORATION LOCATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE MORE OR LESS GRADUAL THAN INDICATED. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE SPECIFIC LOCATIONS INDICATED AND AT THE TIME OF EXPLORATION.
2. SEE EXPLORATION LOGS FOR MORE DETAILED DESCRIPTION OF SUBSURFACE STRATA.
3. THESE PROFILES SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT AND ARE NOT TO BE USED FOR CONSTRUCTION.



INTERPRETIVE SECTION A

HORIZ. SCALE: 1" = 80'
VERT. SCALE: 1" = 10'

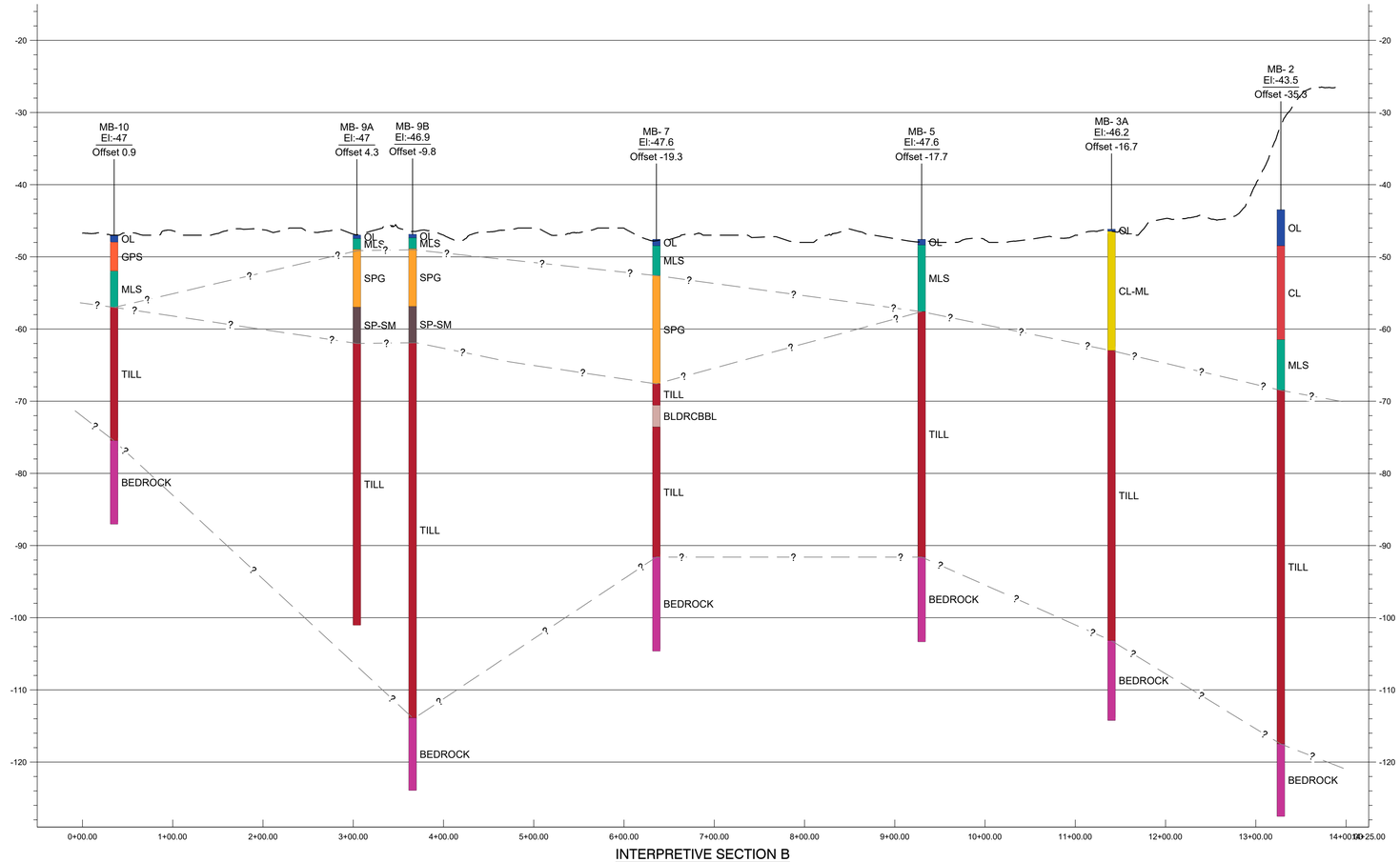
S.W.COLE ENGINEERING, INC.

MOFFATT & NICHOL

INTERPRETIVE BEDROCK PROFILES

PROPOSED OFFSHORE WIND TERMINAL
SEARS ISLAND
SEARSPORT, MAINE

Job No.:	21-1242	Scale:	AS NOTED
Date :	12/13/2022	Sheet:	2



INTERPRETIVE SECTION B

HORIZ. SCALE: 1" = 80'
VERT. SCALE: 1" = 10'

NOTES:

1. THE DEPTH AND THICKNESS OF THE SUBSURFACE STRATA INDICATED ON THESE PROFILES WERE GENERALIZED FROM AND INTERPOLATED BETWEEN EXPLORATION LOCATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE MORE OR LESS GRADUAL THAN INDICATED. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE SPECIFIC LOCATIONS INDICATED AND AT THE TIME OF EXPLORATION.
2. SEE EXPLORATION LOGS FOR MORE DETAILED DESCRIPTION OF SUBSURFACE STRATA.
3. THESE PROFILES SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT AND ARE NOT TO BE USED FOR CONSTRUCTION.

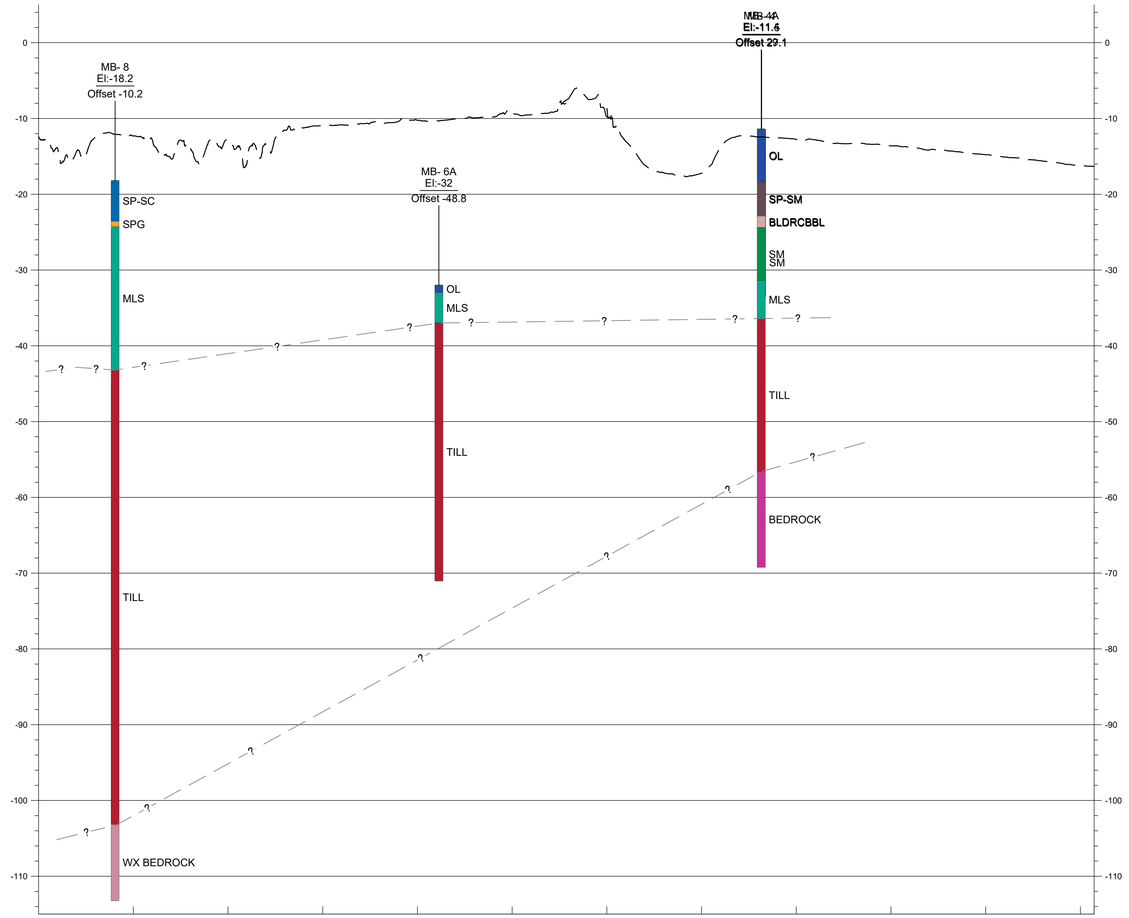
S.W.COLE ENGINEERING, INC.

MOFFATT & NICHOL

INTERPRETIVE BEDROCK PROFILES

PROPOSED OFFSHORE WIND TERMINAL
SEARS ISLAND
SEARSPORT, MAINE

Job No.:	21-1242	Scale:	AS NOTED
Date :	12/13/2022	Sheet:	3



INTERPRETIVE SECTION C

HORIZ. SCALE: 1" = 80'
VERT. SCALE: 1" = 10'

NOTES:

1. THE DEPTH AND THICKNESS OF THE SUBSURFACE STRATA INDICATED ON THESE PROFILES WERE GENERALIZED FROM AND INTERPOLATED BETWEEN EXPLORATION LOCATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE MORE OR LESS GRADUAL THAN INDICATED. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE SPECIFIC LOCATIONS INDICATED AND AT THE TIME OF EXPLORATION.
2. SEE EXPLORATION LOGS FOR MORE DETAILED DESCRIPTION OF SUBSURFACE STRATA.
3. THESE PROFILES SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT AND ARE NOT TO BE USED FOR CONSTRUCTION.

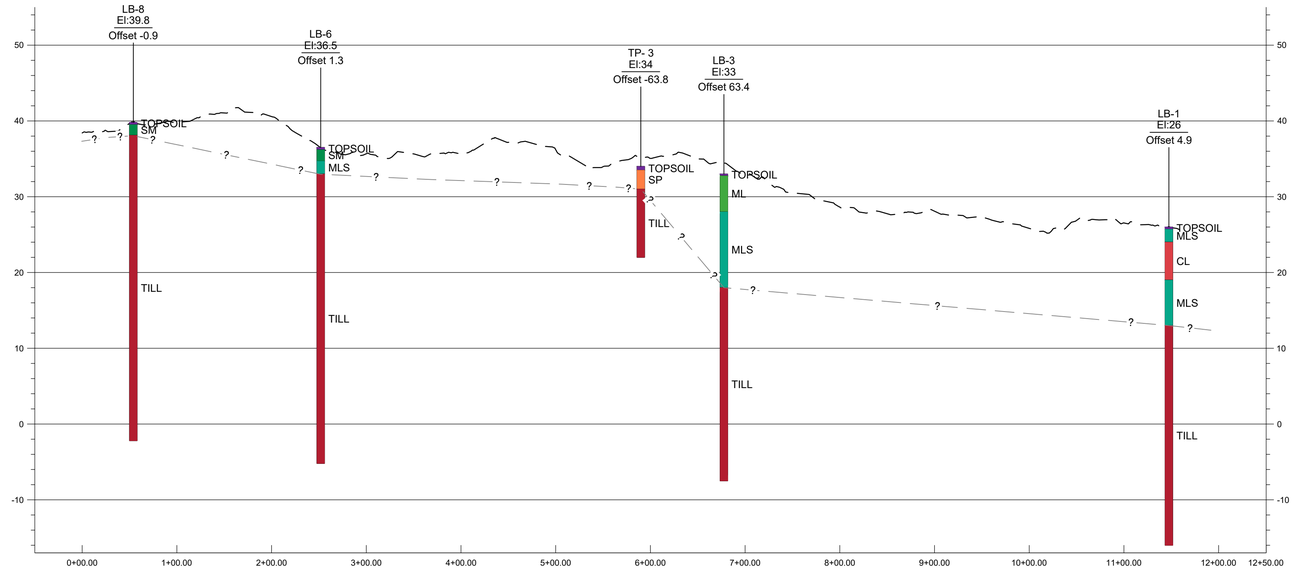
S.W.COLE ENGINEERING, INC.

MOFFATT & NICHOL

INTERPRETIVE BEDROCK PROFILES

PROPOSED OFFSHORE WIND TERMINAL
SEARS ISLAND
SEARSPORT, MAINE

Job No.:	21-1242	Scale:	AS NOTED
Date :	12/13/2022	Sheet:	4



INTERPRETIVE SECTION D

HORIZ. SCALE: 1" = 80'
VERT. SCALE: 1" = 10'

NOTES:

1. THE DEPTH AND THICKNESS OF THE SUBSURFACE STRATA INDICATED ON THESE PROFILES WERE GENERALIZED FROM AND INTERPOLATED BETWEEN EXPLORATION LOCATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE MORE OR LESS GRADUAL THAN INDICATED. INFORMATION ON ACTUAL SUBSURFACE CONDITIONS EXISTS ONLY AT THE SPECIFIC LOCATIONS INDICATED AND AT THE TIME OF EXPLORATION.
2. SEE EXPLORATION LOGS FOR MORE DETAILED DESCRIPTION OF SUBSURFACE STRATA.
3. THESE PROFILES SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT AND ARE NOT TO BE USED FOR CONSTRUCTION.

S.W.COLE ENGINEERING, INC.

MOFFATT & NICHOL

INTERPRETIVE BEDROCK PROFILES

PROPOSED OFFSHORE WIND TERMINAL
SEARS ISLAND
SEARSPORT, MAINE

Job No.:	21-1242	Scale:	AS NOTED
Date :	12/13/2022	Sheet:	5

APPENDIX C

Exploration Logs and Key

KEY TO NOTES & SYMBOLS
Test Boring and Test Pit Explorations

Stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	½" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: **Test Pit Explorations** - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

BORING LOG

BORING NO.:	**MB- 1**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	6/23/2022
DATE FINISH:	6/24/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284202.3106, E. 881785.6125 **ELEVATION (FT):** -14.1' +/- **TOTAL DEPTH (FT):** 80.5 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-15			1D		0-2	24/15	WOR/24"	ID 14064A w =48.3 % W_L=64 W_P=30		Very soft, dark gray, wet, sandy silty CLAY, organic odor (BAY MUD)		
-20	5		2D		5-7	24/8	WOR/24"			5.0 Very soft, gray, wet, SILT, some clay, trace sand		
-25	10		3D		10-12	24/22	WOR/24"	ID 14065A w =31.6 % W_L=74 W_P=42				
-30	15		4D		15-17	24/12	WOR/12"-W0H-1			16.0 Very loose, gray, wet, silty fine to medium SAND, trace clay		
-35	20		5D		20-22	24/8	WOH-1-1-1	ID 14066A w =33.5 %		Very loose, gray, wet, silty SAND, trace clay		
-40	25		6D		25-27	24/20	WOR/12"-WOH/12"	ID 14067A w =33.5 % W_L=38 W_P=18		25.0 Very soft, gray, wet, silty CLAY,		
-45	30		7D		30-32	24/13	1/24"			30.0 Very loose, gray, wet, silty SAND, some fine gravel, trace clay		
-50	35		8D		35-37	24	4-3-3-4			Loose, gray, wet, silty SAND, some gravel		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 1
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 6/23/2022
DATE FINISH: 6/24/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-55			9D		40-42	24/2	7-8-10-14			40.0 Medium dense, gray, wet, silty fine to coarse SAND, some gravel, trace clay		
-60	45		10D		45-47	24/3	12-16-18-18			45.0 Medium dense to dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-65	50		11D		50-52	24/19	5-6-9-13					
-70	55		12D		55-57	24/15	11-14-12-19					
-75	60		13D		60-62	24/12	20-30-25-52			Dense to very dense, gray, wet, gravely SILT and SAND (GLACIAL TILL)		
-80	65		14D		65-67	24/15	18-33-39-58					
-85	70		1R		70.5-75.5	60/58	81	Qu=20,360psi		68.5 Bedrock. Advanced by roller-cone from 68.5 to 70.5 ft. Gray, SCHIST, with some calcite veins, hard; fresh to very slightly weathered; joints vary from low angle (0-35°) to moderately steep (35-55°), occasionally steep (55-85°), very close (< 2") to moderately close (1'-3'), and tight to open, slight weathering on joint surfaces, (PENOBSCOT FORMATION)		
-90	75		2R		75.5-80.5	60/59	91					
	80									Bottom of Exploration at 80.5 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**MB- 2**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	6/29/2022
DATE FINISH:	6/30/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284176.3087, E. 881427.7661 **ELEVATION (FT):** -43.5' +/- **TOTAL DEPTH (FT):** 84.0 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ⧩ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
-45			1D		0-2	24/20	WOR/24"	ID 14069A w =57.9 % W_L=58 W_P=27		Very soft, gray, wet, sandy silty CLAY, organic odor (BAY MUD)		
	5		2D		5-7	24/24	1-3-2-3	q_P=2.5 ksf		5.0 Stiff to medium stiff, gray, wet, silty CLAY		
-50												
	10		3D		10-12	24/12	1-2-2-3	q_P=1.0 ksf				
-55			1U		12-14	24/0				No recovery		
	15		1V 2V 4D 2U		14-14.5 14.5-15 15-16 16-18	6 6 12/24 24/20	WOR/24"	S_V=0.58/0.20ksf S_V=0.60/0.13ksf ID 14070A w =31.4 % W_L=33 W_P=17		Medium stiff, gray, wet, silty CLAY, trace fine sand		
-60			5D		18-20	24/18	1/24"			18.0 Very soft, gray, wet, fine to medium sandy SILT, trace gravel, trace clay		
	20											
-65												
	25		6D		25-27	24/6	2-2-9-15			25.0 Medium dense to very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-70												
	30		7D		30-32	24/2	43-16-15-26					
-75												
	35		8D		35-37	24/9	16-30-16-40			Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-80												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 2
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 6/29/2022
DATE FINISH: 6/30/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-85			9D		40-42	24/7	18-30-27-23					
	45		10D		45-47	24/15	22-29-50-40					
-90												
	50		11D		50-52	24/7	10-18-21-27			Dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-95												
	55		12D		55-57	24/13	16-42-55-50			Very dense, gray, gravelly SAND and SILT (GLACIAL TILL)		
-100												
	60		13D		60-61.3	15/7	22-56-50/3"					
-105												
	65		14D		65-67	24/6	27-32-27-37					
-110												
	70		15D		70-70.3	3/3	50/3"			Very dense, dark gray, gravelly SAND and SILT, with bedrock fragments (GLACIAL TILL)		
-115												
	75		1R		74-79	60/60	65	Qu=5,090psi		74.0 Bedrock. Gray to dark gray, SCHIST, hard; very slightly weathered; joints generally low angle (0-35°) to moderately steep (35-55°), occasionally vertical (85-90°), very close (< 2") to moderately close (1'-3'), and tight to open, (PENOBSCOT FORMATION)		
-120												
	80		2R		79-84	60/60	35					
-125								Qu=4,840psi				

Bottom of Exploration at 84.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB- 3
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 6/30/2022
DATE FINISH: 7/1/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283995.1197, E. 881396.2632 **ELEVATION (FT):** -46.1' +/- **TOTAL DEPTH (FT):** 40.0 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/24	WOR/24"	q_P=0.6 ksf		0.3 Very soft, black, wet, sandy SILT, trace clay, organic odor (BAY MUD)		
										Medium stiff, gray, wet, SILT and CLAY		
-50												
	5		2D		5-7	24/24	WOR/24"	q_P=0.4 ksf ID 14073A w =27.5 % W_L=38 W_P=17		Soft, gray, wet, silty CLAY		
			1U		7-9	24/0				No recovery		
-55			1V		9-9.5	6		S_V=.68/.19ksf				
	10		2V		9.5-10	6	WOR-1	S_V=.64/.19ksf				
			3D		10-11	12/11						
-60												
	15		4D		15-17	24/17	1-4-5-7			Very soft, gray, wet, silty CLAY		
										16.8 Stiff, gray, wet, sandy SILT, some clay, trace gravel (GLACIAL TILL)		
-65												
	20		5D		20-22	24/8	6-7-11-12			Medium dense, gray, wet, sandy SILT, some gravel, trace clay (GLACIAL TILL)		
-70												
	25		6D		25-27	24/11	4-6-10-14					
-75												
	30		7D		30-32	24/12	4-2-9-7			Medium dense, gray, wet, sandy SILT, some gravel (GLACIAL TILL) Coarse gravel to cobbles encountered during drilling		
-80												
	35		8D		35-37	24/14	25-36-37-50/3"			Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Bottom of Exploration at 40.0 feet

BORING NO.: MB- 3

BORING / WELL 10-12-2022 21-1242.GPJ SWCE TEMPLATE.GDT 12/14/22

BORING LOG

BORING NO.:	**MB- 3A**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	7/5/2022
DATE FINISH:	7/5/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283991.2894, E. 881392.1799 **ELEVATION (FT):** -46.2' +/- **TOTAL DEPTH (FT):** 68.0 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
										See boring MB-3 for description of subsurface strata from 0 to 40 ft.		
-50	5											
-55	10											
-60	15											
-65	20											
-70	25											
-75	30											
-80	35											
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 3A
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/5/2022
DATE FINISH: 7/5/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		40-41.3	15/14	6-39-50/3"			40.0 Very dense, gray, wet, sandy SILT some gravel, occasional cobbles (GLACIAL TILL)		
-90	45		2D		45-46.3	16/14	30-48-83/4"					
-95	50		3D		50-52	24/24	19-16-21-32	ID 14074A w =8.1 %		Dense, gray, wet, SAND and GRAVEL, trace silt (GLACIAL TILL)		
-100	55											
			R1		58-63	60/58	77	Qu=4,070psi		57.0 Bedrock. Advanced by roller-cone to ±58 ft Gray, SCHIST, hard; fresh; joints generally low angle (0-35°), occasionally moderately steep (35-55°) to steep (55-85°), very close (< 2") to moderately close (1'-3'), and tight to open, very slight weathering on joint surfaces, (PENOBSCOT FORMATION)		
-105	60											
-110	65		R2		63-68	60/60	87	Qu=2,630psi				

Bottom of Exploration at 68.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**MB- 4**
SHEET:	1 of 1
PROJECT NO.	21-1242
DATE START:	6/24/2022
DATE FINISH:	6/24/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283912.4487, E. 881670.7486 **ELEVATION (FT):** -11.5' +/- **TOTAL DEPTH (FT):** 22.0 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/24	WOR/24"	ID 14077A w =30.9 %		Very loose, dark gray, wet, silty fine to medium SAND, trace clay, trace gravel, with wood fragments (BAY MUD)		
-15	5		2D		5-7	24/11	WOH/12"-1-3			shell fragments in sample		
										7.0 Loose to medium dense, gray, wet, gravelly fine to coarse SAND, some silt		
-20	10		3D		10-11.5	18/8	5-3-6-25/0"			11.5 Boulder from ±11.5 to 13 ft		
										13.0 Medium dense, gray, wet, silty fine to medium SAND, some gravel		
-25	15		4D		15-17	24/11	30-10-7-9					
-30	20		5D		20-22	24/0	1-1-1-4			No recovery Very loose		

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB- 4A
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 6/27/2022
DATE FINISH: 6/27/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283911.4168, E. 881672.5485 **ELEVATION (FT):** -11.4' +/- **TOTAL DEPTH (FT):** 57.8 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
										See boring MB-4 for description of subsurface strata from 0 to 20 ft.		
-15	5											
-20	10											
-25	15											
-30	20		1D	▽	20-22	24/4	4-2-6-7			20.0 Loose, gray, wet, gravelly sandy SILT		
-35	25		2D	▽	25-27	24/8	8-6-9-13			25.0 Medium dense, gray, wet, gravelly sandy SILT, trace clay (GLACIAL TILL)		
-40	30		3D	▽	30-32	24/7	29-18-22-30	ID 14078A w =9.4 %		Dense, gray, wet, sandy SILT, some gravel, trace clay (GLACIAL TILL)		
-45	35									Boulder at 33 to 34.5 ft		
			4D	▽	36-38	24/5	13-16-23-27			Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-50												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 4A
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 6/27/2022
DATE FINISH: 6/27/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			5D		40-42	24/6	2-8-13-44			Dense, dark gray, wet, sandy SILT, some gravel, with weathered bedrock fragments (GLACIAL TILL)		
-55	45		6D		45-45.2	2/0	50/2"			45.2		
			1R		46-50	48/9	0			Bedrock. Dark gray, SCHIST, hard; very slightly weathered; joints generally low angle (0-35°) to vertical (85-90°), very close (< 2") to close (2" to 1'), and tight to open, (PENOBSCOT FORMATION)		
-60	50		2R		50-54	48/36	41					
-65	55		3R		54-57.8	46/38	55					

Bottom of Exploration at 57.8 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**MB- 5**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	7/6/2022
DATE FINISH:	7/6/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283789.815, E. 881331.2545 **ELEVATION (FT):** -47.6' +/- **TOTAL DEPTH (FT):** 55.7 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/24	WOR-1-2-3	ID 14079A w =15.9 % W_L=24 W_P=15		0.8 Very soft, dark brown, wet, clayey silty SAND, some gravel, with decomposed organics, (BAY MUD)		
-50										Soft, gray, wet, gravelly sandy SILT, trace clay		
	5		2D		5-7	24/8	6-8-12-13			Very stiff, gray, wet, gravelly SILT, some sand, trace clay		
-55												
	10		3D		10-12	24/5	22-29-23-16			10.0 Dense to very dense, gray, wet, gravelly SAND and SILT (GLACIAL TILL)		
-60												
	15		4D		15-17	24/10	15-16-21-29			Dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-65												
	20		5D		20-22	24/8	10-35-21-16			becomes very dense		
-70												
	25		6D		25-26.3	15/6	20-25-50/3"			Very dense, gray, wet, gravely sandy SILT (GLACIAL TILL)		
-75												
	30		7D		30-32	24/12	44-30-49-48					
-80												
	35		8D		35-35.8	10/8	45-50/4"					
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 5
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/6/2022
DATE FINISH: 7/6/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			9D		40-41.8	21/10	3-17-49-50/3"			weathered bedrock fragments below ±40 ft		
-90										44.0		
	45		R1		45-47.5	30/30	43			Bedrock. Advanced by roller-cone to ±45 ft Gray, SCHIST, hard; fresh to very slightly weathered; joints generally low angle (0-35°) to steep (55-85°), very close (< 2") to close (2" to 1'), and tight to slightly open, (PENOBSCOT FORMATION)		
-95			R2		47.5-52.2	56/54	25	Qu=3,940psi				
	50											
-100			R3		52.2-55.7	42/42	88	Qu=5,010psi				
	55											

Bottom of Exploration at 55.7 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB- 6
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 7/18/2022
DATE FINISH: 7/18/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283608.7757, E. 881504.6354 **ELEVATION (FT):** -29.6' +/- **TOTAL DEPTH (FT):** 35.8 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-30			1D		0-2	24/24	6-5-6-9	ID 14082A w =11.3 % W_L=23 W_P=12		Black, wet silty CLAY, some sand, organic odor, (BAY MUD)		
										1.0 Stiff, gray, moist, silty CLAY, some sand		
-35	5		2D		5-7	24/23	15-20-50-50	ID 14083A w =10.6 %		5.0 Very dense, gray, moist, clayey SILT and SAND, some fine gravel, trace clay (GLACIAL TILL)		
-40	10		3D		10-12	24/14	19-50-24-22			Very dense, gray, moist, gravelly sandy SILT (GLACIAL TILL)		
-45	15		4D		15-15.7	8/7	20-50/2"					
-50	20		5D		20-22	24/17	22-22-23-28			Very dense, gray, wet, sandy gravelly SILT (GLACIAL TILL)		
-55	25		6D		25-26.8	22/13	25-42-47-50/4"			Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-60	30		7D		30-31.5	18/15	27-50-50					Rig action indicates probable cobbles below 31.5 feet
-65	35		8D		35-35.8	10/4	37-50/4"			Bottom of Exploration at 35.8 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**MB- 6A**
SHEET:	1 of 1
PROJECT NO.	21-1242
DATE START:	7/19/2022
DATE FINISH:	7/19/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283607.3351, E. 881500.9658 **ELEVATION (FT):** -32' +/- **TOTAL DEPTH (FT):** 39.0 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
										See boring MB-6 for description of subsurface strata from 0 to 35.5 ft.		
-35	5											
-40	10											
-45	15											
-50	20											
-55	25											
-60	30											
-65	35											4" casing refusal at 32 ft. Advanced by roller cone to 39 ft
										35.8 Probable Glacial Till		Probable blow in below ±35 ft
-70										Bottom of Exploration at 39.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **MB- 6A**

BORING LOG

BORING NO.:	**MB- 7**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	7/7/2022
DATE FINISH:	7/7/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283508.6306, E. 881246.0181 **ELEVATION (FT):** -47.6' +/- **TOTAL DEPTH (FT):** 57.0 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/24	WOH-3-6-8			Soft, black, wet, sandy SILT, organic odor, (BAY MUD)		
-50										0.9 Medium dense, gray, wet, sandy SILT, some gravel trace clay		
	5		2D		5-7	24/12	2-4-8-14	ID 14084A w =7.6 %		5.0 Medium dense, gray, wet, silty sandy GRAVEL, some clay		
-55												
	10		3D		10-12	24/22	5-5-9-9					
-60												
	15		4D		15-17	24/17	5-6-7-8			Medium dense, gray, wet, sandy SILT, some gravel, trace clay		
-65												
	20		5D		20-21.3	15/14	43-59-50/3"			20.0 Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-70										23.0 cobbles/boulder from 23 to 26 ft		
	25		6D		26-26.2	2/2	50/2"			26.0 Very dense, gray, wet,gravelly sandy SILT (GLACIAL TILL)		
-75												
	30											
-80												
	35		7D		35-35.3	4/2	60/4"			Very dense, gray, wet, sand gravelly SILT (GLACIAL TILL)		
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 7
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/7/2022
DATE FINISH: 7/7/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-90	45		1R		45-47	24/18	0			44.0 Bedrock Advanced by roller cone to 45 ft. Gray, SCHIST, hard; fresh to very slightly weathered; joints generally low angle (0-35°) to moderately steep (35-55°), occasionally steep (55-85°), very close (< 2") to moderately close (1'-3'), and tight to open, (PENOBSCOT FORMATION)		
-95			2R		47-52	60/54	68					
	50							Qu=3,460psi				
-100			3R		52-57	60/60	88					
	55											

Bottom of Exploration at 57.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: MB- 7

BORING LOG

BORING NO.:	**MB- 8**
SHEET:	1 of 3
PROJECT NO.	21-1242
DATE START:	7/14/2022
DATE FINISH:	7/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283268.6622, E. 881440.5637 **ELEVATION (FT):** -18.2' +/- **TOTAL DEPTH (FT):** 95.0 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-20			1D		0-2	24/10	17-10-12-17	ID 14086A w =10.6 % W_L=23 W_P=14		Medium dense, gray-brown, moist, clayey silty SAND, trace fine gravel		
-25	5		2D		5-7	24/24	3-8-9-11			5.4 Loose, gray-brown, fine gravelly SAND, some silt 6.1 Medium dense, brown-gray, wet, gravelly SILT and SAND		
-30	10		3D		10-12	24/8	5-9-9-9			Medium dense, gray-brown, wet, gravelly sandy SILT		
-35	15		4D		15-17	24/9	8-10-14-13	ID 14087A w =13.4 %		Medium dense, gray, wet, sandy SILT, some fine gravel, some clay		
-40	20		5D		20-22	24/0	13-13-16-14			No recovery		
-45	25		6D		25-27	24/13	20-25-28-32			25.0 Very dense, gray, moist, gravelly SILT and SAND (GLACIAL TILL)		
-50	30		7D		30-30.2	2/0	50/2"			No recovery		
-55	35		8D		35-36.2	14/9	43-50-50/2"			Very dense, gray, damp, gravelly sandy SILT (GLACIAL TILL)		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 8
SHEET: 2 of 3
PROJECT NO. 21-1242
DATE START: 7/14/2022
DATE FINISH: 7/15/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-60	45		9D		45-47	24/10	14-32-36-41					
-65												
-70	50											
	55		10D		55-56.8	21/10	16-27-40-50/3"			Very dense, gray, damp, sandy gravelly SILT (GLACIAL TILL)		
-75												
-80	60											
	65		11D		65-67	24/10	15-35-45-45					
-85												
-90	70											
	75		12D		75-77	24/7	17-28-45-45			Very dense, gray-brown, moist, gravelly sandy SILT, trace clay (GLACIAL TILL)		
-95												
-100	80											
	85		13D		85-86.2	14/9	15-50-50/2"			85.0 hard, gray, moist, silty CLAY, trace sand, trace gravel		
-105												
	90									Advanced by roller cone to 95 ft		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 8
SHEET: 3 of 3
PROJECT NO. 21-1242
DATE START: 7/14/2022
DATE FINISH: 7/15/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
	95									Bottom of Exploration at 95.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: MB- 8

BORING LOG

BORING NO.:	**MB- 9**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	7/11/2022
DATE FINISH:	7/11/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283188.0361, E. 881181.1534 **ELEVATION (FT):** -46.7' +/- **TOTAL DEPTH (FT):** 56.5 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/18	3-37-25-9			0.5 Soft, dark gray, wet, SILT, trace sand, organic odor (BAY MUD)		
										2.0 Dense, gray, wet, sandy SILT, trace clay		
-50										Medium dense, gray-brown, moist, gravelly SAND, some silt, some clay		
	5		2D		5-7	24/10	6-11-9-10	ID 14088A w =10.3 %				
-55												
	10		3D		10-11.1	13/12	32-50-50/1"			10.0 Dense, gray, wet, silty SAND, some fine gravel		
-60												
	15		4D		15-15.8	9/9	19-50/3"			15.0 Very dense, gray, moist, sandy SILT and GRAVEL (GLACIAL TILL)		
-65												
	20		5D		20-20.1	1/0	50/1"			No recovery		
-70												
	25		6D		25-25.8	10/4	42-50/4"					
-75												
	30		7D		30-30.4	5/0	50/5"			No recovery		
-80												
	35		8D		35-36.3	15/6	29-40-50/3"			Dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 9
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/11/2022
DATE FINISH: 7/11/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-90	45		9D		45-45.9	11/4	16-50/5"					
-95	50											
-100	55		10D		55-56.4	17/16	21-25-50/5"			Very dense, gray, moist, sandy gravelly SILT, trace clay (GLACIAL TILL)		
										Bottom of Exploration at 56.5 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB- 9A
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 7/13/2022
DATE FINISH: 7/13/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283183.8986, E. 881174.1138 **ELEVATION (FT):** -47' +/- **TOTAL DEPTH (FT):** 54.0 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-50	5									See boring MB-9 for description of subsurface strata from 0 to 54 ft. (Bottom of exploration)		
-55	10											
-60	15											
-65	20											
-70	25											
-75	30											
-80	35											
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 9A
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/13/2022
DATE FINISH: 7/13/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-90												
	45											
-95												
	50											
-100												
										Bottom of Exploration at 54.0 feet		3" casing refusal at 53 ft, advanced by roller cone to 54 ft. Rig action indicates difficult drilling past 53 ft.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB- 9B
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 7/20/2022
DATE FINISH: 7/21/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283246.9497, E. 881178.1968 **ELEVATION (FT):** -46.9' +/- **TOTAL DEPTH (FT):** 77.0 **LOGGED BY:** Rick Seymour
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
-50	5									See boring MB-9 for description of subsurface strata from 0 to 56.5 ft.		
-55	10											
-60	15											
-65	20											Rig action indicates tough drilling, possible cobbles, advancing roller cone to 28'
-70	25											
-75	30											
-80	35											
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: MB- 9B
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 7/20/2022
DATE FINISH: 7/21/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
-90	45											
-95	50											
-100	55											
-105	60									56.5		3" Casing to 60' advancing by roller cone to 67'
-110	65											
-115	70									67.0 Probable Bedrock advanced roller cone to 77'		Rig action and wash water cuttings indicates probable bedrock
-120	75											

Bottom of Exploration at 77.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: MB-10
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 6/28/2022
DATE FINISH: 6/28/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 282927.0628, E. 881094.295 **ELEVATION (FT):** -47' +/- **TOTAL DEPTH (FT):** 40.0 **LOGGED BY:** John Cozens
DRILLING CO.: New England Boring Contractors **DRILLER:** Sam Cooley **DRILLING METHOD:** Cased Boring
RIG TYPE: Skid Mounted CME 45 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Safety **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** NQ2 / 2
HAMMER EFFICIENCY FACTOR: 0.688 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): Marine boring
GENERAL NOTES: Borehole logged from mudline.

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-1.8	22/20	17-30-56-50/4"			Soft, black to dark gray, wet, sandy SILT, trace clay, organic odor (BAY MUD)		
										1.0 Very dense, gray, wet, silty sandy GRAVEL some clay		
-50												
	5		2D		5-6.9	23/16	20-47-51-50/5"	ID 14089A w =11.9 %		5.0 Hard, gray, wet, SILT and SAND, some gravel		
-55												
	10		3D		10-12	24/18	16-29-31-33			10.0 Very dense, gray, wet, sandy SILT, some gravel (GLACIAL TILL)		
-60												
	15		4D		15-17	24/19	8-30-32-42			Very dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)		
-65												
	20		5D		20-22	24/5	15-39-39-55					
-70												
	25		6D		25-26.3	15/7	29-30-50/3"			bedrock fragments below ±25 ft		
-75			1R		28.5-32.5	48/48	54	Qu=18,580psi		28.5 Bedrock. Gray, SCHIST, hard; fresh to very slightly weathered; joints generally low angle (0-35°) to vertical (85-90°), very close (< 2") to close (2" to 1'), and tight to open, (PENOBSCOT FORMATION)		
	30											
-80			2R		32.5-36.5	48/36	0					
	35		3R		35-40	60/35	58	Qu=14,820psi				
-85												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Bottom of Exploration at 40.0 feet

BORING NO.: MB-10

BORING / WELL 10-12-2022 21-1242.GPJ SWCE TEMPLATE.GDT 12/14/22

BORING LOG

BORING NO.: LB-1
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 8/18/2022
DATE FINISH: 8/18/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284762.4, E. 882907.0801 **ELEVATION (FT):** 26' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** John Cozens
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Soils saturated below 10'
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
25			1D		0-2	24/18	2-2-7-11			0.3 Forest duff Medium stiff, light brown, sandy SILT, with rootlets 2.0 Very stiff, brown, silty CLAY, some sand		
20	5		2D		5-7	24/24	4-4-6-9	q_P=5.0-6.0 ksf ID 14228A w =24.4 % W_L=43 W_P=17		7.0 Medium stiff, light brown, SILT and SAND, trace gravel		
15	10		3D		10-12	24/16	4-2-3-3	ID 14229A w =14.2 %		13.0 Medium stiff to stiff, gray, SILT and SAND, trace fine gravel (GLACIAL TILL)		
10	15		4D		15-17	24/21	3-5-5-7					
5	20		5D		20-22	24/6	3-3-4-6					
0	25		6D		25-27	24/20	27-22-17-20			27.0 Very stiff to hard, gray, SILT and SAND, trace fine gravel, trace clay (GLACIAL TILL)		
-5	30		7D		30-30.9	11/6	18-50/5"					
-10	35		8D		35-37	24/18	13-20-31-31					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-1
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/18/2022
DATE FINISH: 8/18/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
-15			9D	X	40-42	24/19	17-21-24-24					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-2**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/18/2022
DATE FINISH:	8/18/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284455.1205, E. 882762.8458 **ELEVATION (FT):** 26.5' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** John Cozens
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Soils saturated below 15' ▼ 2.8 ft 8/26/2022 12:00 am ▼ 1.5 ft 11/08/2022 12:00 am
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Well Diagram
25			1D		0-2	24/6	2-7-7-13			0.1 Topsoil Stiff, brown, sandy silty CLAY, some gravel	▼ ▼	
20	5		2D		5-7	24/22	5-9-14-15	ID 14230A w =11.7 % W_L=23 W_P=12				Backfill
15	10		3D		10-12	24/24	15-42-22-16					
10	15		4D		15-17	24/12	6-6-14-9	ID 14231A w =11.4 %		15.0 Stiff to very stiff, gray, SILT and SAND, some fine gravel, trace clay (GLACIAL TILL)		Bentonite plug Well Sand Screen
5	20		5D		20-22	24/21	4-7-9-13					Backfill
0	25		6D		25-27	24/11	21-18-17-30					
-5	30		7D		30-32	24/24	7-8-11-15					
-10	35		8D		35-36	12/4	15-50			35.0 Hard, gray, silty GRAVEL, some sand, some clay (GLACIAL TILL)		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-2
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/18/2022
DATE FINISH: 8/18/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Well Diagram
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
-15			9D	X	40-42	24/15	17-49-35-44			Hard, gray, gravelly sandy SILT, some clay (GLACIAL TILL)		

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: LB-3
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 8/19/2022
DATE FINISH: 8/19/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284292.3317, E. 882964.3579 **ELEVATION (FT):** 33' +/- **TOTAL DEPTH (FT):** 40.4 **LOGGED BY:** John Cozens
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Soils saturated below 15'
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/10	1-2-6-8			0.3 Topsoil Medium stiff, gray, SILT, some sand		
30												
	5		2D		5-7	24/24	4-4-6-7	ID 14232A w =12.4 %		5.0 Stiff, gray, SILT and SAND, trace fine gravel, trace clay		
25												
	10		3D		10-12	24/20	2-4-5-7			10.0 Stiff, brown, SILT and SAND, trace clay, trace fine gravel, with occasional sand seams		
20												
	15		4D		15-17	24/10	3-6-6-8	ID 14233A w =11.7 %		15.0 Stiff, gray, SILT and SAND, some gravel, trace clay (GLACIAL TILL)		
15												
	20		5D		20-22	24/12	18-9-13-12	ID 14494A w =8.9 % W_L=21 W_P=14		becomes very stiff		Sample 14494A composite of 5D, 6D & 7D
10												
	25		6D		25-27	24/17	37-9-14-27					
5												
	30		7D		30-32	24/18	17-26-28-35			becomes hard		
0												
	35		8D		35-36.8	22/10	28-29-44-40/4"			35.0 Very dense, gray, sandy GRAVEL, some silt, trace clay, weathered black slate rock in sample (GLACIAL TILL)		
-5												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-3
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/19/2022
DATE FINISH: 8/19/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			9D		40-40.4	5/3	50/5"			Bottom of Exploration at 40.4 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-4**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/22/2022
DATE FINISH:	8/22/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284184.9317, E. 882638.1912 **ELEVATION (FT):** 27.8' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
25			1D		0-2	24/18	1-2-5-9			0.2 Forest duff Loose, orange-brown silty SAND, some gravel with roots 1.8 Stiff, brown, SILT and SAND, some gravel (GLACIAL TILL)		
	5		2D		5-7	24/16	4-5-4-5	ID 14234A w =11.7 %				
20										8.5 Very stiff to hard, gray, SILT and SAND, some gravel, some clay (GLACIAL TILL)		
	10		3D		10-12	24/18	5-6-8-14	ID 14495A w =9.2 % W_L=22 W_P=9				Sample 14495A composite of 3D, 4D & 5D
15												
	15		4D		15-17	24/18	11-18-24-21					
10												
	20		5D		20-22	24/20	7-15-19-30					
5												
	25		6D		25-27	24/23	8-11-15-16					
0												
	30		7D		31-33	24/20	8-12-15-20					
-5												
	35		8D		35-37	24/20	6-10-14-19					
-10												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-4
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/22/2022
DATE FINISH: 8/22/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
			9D	X	40-42	24/12	10-12-23-29					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-5**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/17/2022
DATE FINISH:	8/17/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283936.4673, E. 882286.3986 **ELEVATION (FT):** 29.1' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/12	4-5-7-9			0.3 Forest duff Medium dense, brown silty gravelly SAND with organics and brick (FILL) 2.5 Very stiff to hard, gray, SILT and SAND, some gravel (GLACIAL TILL)		
25	5		2D		5-7	24/20	8-11-13-15	ID 14235A w =11.7 %				
20	10		3D		10-12	24/20	6-18-31-10					
15	15		4D		15-17	24/0	6-5-9-11					
10	20		5D		20-22	24/20	6-11-13-19					
5	25		6D		25-27	24/20	13-21-25-27					
0	30		7D		30-32	24/24	10-15-16-22					
-5	35		8D		35-37	24/24	9-11-16-22					
-10												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-5
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/17/2022
DATE FINISH: 8/17/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
			9D	X	40-42	24/24	9-11-16-30					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-6**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/16/2022
DATE FINISH:	8/16/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283866.8123, E. 882901.1805 **ELEVATION (FT):** 36.5' +/- **TOTAL DEPTH (FT):** 41.7 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling ▼ 1.8 ft 8/26/2022 12:00 am ▼ 0 ft 11/08/2022 12:00 am
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_U = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Well Diagram
35			1D		0-2	24/16	4-5-7-7			0.3 Forest duff Medium dense, gray-brown silty SAND, trace gravel with rootlets	▼	
										1.8 Stiff, brown sandy SILT, trace clay		
	5		2D		4.5-6.5	24/20	6-7-7-7	ID 14236A w =13.7 %		3.5 Stiff, brown, SILT and SAND, some gravel (GLACIAL TILL)		
30												Spoils and gravel backfill
	10		3D		10-12	24/18	11-8-10-12			9.0 Very stiff, olive, SILT and SAND, some gravel, some clay (GLACIAL TILL)		
25												
	15		4D		15-17	24/16	10-9-10-13	ID 14237A w =11.4 %		13.0 Very stiff, gray, SILT and SAND, trace to some gravel, some clay (GLACIAL TILL)		Bentonite seal
20												Filter sand
	20		5D		20-22	24/15	9-12-17-14	ID 14496A w =10.4 % W_L=22 W_P=14				Slotted screen
15												
	25		6D		25-27	24/22	5-9-9-15					
10												
	30		7D		30-32	24/22	6-7-8-11					Gravel
5												
	35		8D		35-37	24/22	5-7-8-12					
0												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-6
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/16/2022
DATE FINISH: 8/16/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Well Diagram
-5			9D		40-41.7	20/11	14-20-13-50/2"			occasional cobbles below 40'		

Bottom of Exploration at 41.7 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-7**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/23/2022
DATE FINISH:	8/23/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283706.2995, E. 882080.0995 **ELEVATION (FT):** 23.8' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling ▼ 7.5 ft 8/26/2022 12:00 am ▼ 3.2 ft 11/08/2022 12:00 am
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Well Diagram
			1D		0-2	24/1	1-8-10-10	ID 14238A w =21.9 %		Medium dense to loose, brown, gravelly SAND. some silt (FILL)		
20											▼	
	5		2D		5-7	24/16	4-1-3-10					Spoils and gravel backfill
										6.5		
										7.0 Medium dense, gray SAND and SILT, some gravel (FILL)	▼	
15										Stiff, gray, sandy SILT, some gravel, some clay (GLACIAL TILL)		
	10		3D		10-12	24/18	3-5-5-7	ID 14239A w =13.5 %				Bentonite seal
10												
	15		4D		15-17	24/1	7-15-17-21			15.0 Very stiff to hard, gray SILT and SAND, some gravel, with cobbles (GLACIAL TILL)		Filter sand
5												Slotted screen
	20		5D		20-22	24/12	12-18-25-35					
0												
	25		6D		25-26.8	21/13	11-14-19-50/3"					
-5												
	30		7D		30-32	24/24	12-20-26-35					Gravel
-10												
	35		8D		35-35.3	3/2	50/3"					
-15												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-7
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/23/2022
DATE FINISH: 8/23/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Well Diagram
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
			9D		40-42	24/18	14-16-20-44					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: LB-8
SHEET: 1 of 2
PROJECT NO. 21-1242
DATE START: 8/16/2022
DATE FINISH: 8/16/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283668.9613, E. 882898.5125 **ELEVATION (FT):** 39.8' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/9	2-6-7-10			0.3 Forest duff Medium dense, rust brown-gray silty gravelly SAND with organics 1.7 Medium dense, brown, SAND and SILT, some gravel (GLACIAL TILL)		
35	5		2D		5-7	24/18	6-9-14-8	ID 14240A w =11.2 %				
										8.5 Stiff, brown, sandy SILT, some clay, some gravel with cobbles (GLACIAL TILL)		
30	10		3D		10-12	24/16	3-2-8-5					
25	15		4D		15-17	24/16	4-5-6-9					
										18.0 Medium dense, brown, silty sandy GRAVEL, with cobbles (GLACIAL TILL)		
20	20		5D		20-22	24/2	11-11-10-14	ID 14241A w =8.7 %				
15	25		6D		25-27	24/4	11-20-20-30			Very stiff to hard, gray, sandy gravelly SILT, with cobbles (GLACIAL TILL)		
10	30		7D		30-32	24/16	8-11-13-30					
5	35		8D		35-37	24/21	10-8-10-19					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-8
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/16/2022
DATE FINISH: 8/16/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
			9D	X	40-42	24/17	8-9-16-23					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**LB-9**
SHEET:	1 of 2
PROJECT NO.	21-1242
DATE START:	8/22/2022
DATE FINISH:	8/22/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283449.8941, E. 882329.6902 **ELEVATION (FT):** 34.1' +/- **TOTAL DEPTH (FT):** 42.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): Water introduced at 10' during drilling
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/12	10-10-10-10			Medium dense, brown sandy GRAVEL, some silt (FILL)		
30										3.5		
	5		2D		5-7	24/20	6-13-14-16	ID 14242A w =12 %		Very stiff, gray, sandy SILT, some gravel, trace clay with cobbles and boulders (FILL)		
25												
	10		3D		10-11.7	20/18	3-5-7-50/2"					
20										12.0		
	15		4D		15-17	24/0	22-19-17-25			Very stiff to hard, gray, SILT and SAND, some gravel, trace clay (GLACIAL TILL)		
15												
	20		5D		20-22	24/18	11-18-29-32	ID 14243A w =9.2 %				
10												
	25		6D		25-27	24/22	22-40-31-41	ID 14497A w =9 % W_L=20 W_P=12				
5												
	30		7D		30-32	24/18	16-22-27-34					
0												
	35		8D		35-35.3	3/3	50/3"					
-5												

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

BORING NO.: LB-9
SHEET: 2 of 2
PROJECT NO. 21-1242
DATE START: 8/22/2022
DATE FINISH: 8/22/2022

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
			9D	X	40-42	24/13	25-22-24-46					

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.: RB- 1
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 8/15/2022
DATE FINISH: 8/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 287890.9499, E. 884555.2701 **ELEVATION (FT):** 18.5' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): No free water observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0.5-2	18/9	15-15-14			0.4 5" Asphalt Medium dense, brown SAND and GRAVEL, some silt (FILL)		
			2D		2-4	24/10	13-11-11-10			2.3 Very stiff, brown, sandy SILT, some gravel (FILL)		
15			3D		4-6	24/15	8-9-15-20	ID 14285A		4.0 Very stiff, brown, gravelly SILT and SAND (FILL)		
	5		4D		6-6.4	5/4	50/5"					
10			5D		8-10	24/22	3-5-9-9	q_P=7.5-8.5 ksf		7.5 Stiff to very stiff, gray-brown, silty CLAY with trace rootlets Very stiff to hard, brown, silty CLAY		
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: RB- 1

BORING LOG

BORING NO.: RB- 2
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 8/15/2022
DATE FINISH: 8/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 286751.84, E. 884816.8499 **ELEVATION (FT):** 65.2' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): No free water observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level; ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0.5-2	18/14	5-16-15	ID 14286A		0.3 3.5" Asphalt		
			2D		2-4	24/18	12-10-10-11			Dense, brown, SAND and GRAVEL, some silt (FILL)		
			3D		4-6	24/18	7-7-9-9			1.8 Very stiff, brown, sandy SILT, some gravel (FILL)		
60	5		4D		6-8	24/20	12-15-21-14			5.6		
			5D		8-10	24/22	8-18-13-15			6.0 Stiff to very stiff, gray-brown, sandy SILT, some clay; Dense, brown gravelly SAND and SILT, trace clay (GLACIAL TILL)		
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: RB- 2

BORING LOG

BORING NO.: RB- 3
SHEET: 1 of 1
PROJECT NO. 21-1242
DATE START: 8/15/2022
DATE FINISH: 8/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 285594.0601, E. 885050.4 **ELEVATION (FT):** 102' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): No free water observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
100	0		1D		0.5-2	18/12	8-11-15			0.4 4.5" Asphalt		
			2D		2-4	24/20	8-8-12-12			Medium dense, brown, SAND and GRAVEL, some silt (FILL)		
										2.0 Very stiff, brown, SILT and SAND, trace gravel (FILL)		
	5		3D		4-6	24/18	9-10-12-12	ID 14287A				
95			4D		6-8	24/9	10-9-9-7					
			5D		8-10	24/2	3-9-14-15			8.0 Very stiff, brown, sandy SILT, some gravel, some clay		
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: RB- 3

BORING LOG

BORING NO.:	**RB- 4**
SHEET:	1 of 1
PROJECT NO.	21-1242
DATE START:	8/15/2022
DATE FINISH:	8/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 284538.99, E. 885190.5401 **ELEVATION (FT):** 116.2' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): No free water observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
115			1D		0.5-2	18/6	12-14-15			0.3 4" Asphalt		
			2D		2-4	24/1	7-12-14-15			Medium dense, brown, SAND and GRAVEL, some silt (FILL) 2.0		
			3D		4-6	24/18	5-11-18-12	ID 14288A		Very stiff, brown, SILT and SAND, trace gravel (FILL)		
	5											
110			4D		6-8	24/6	10-14-20-26					
			5D		8-10	24/18	6-15-12-17			8.0 Very stiff, brown, SILT and SAND, some gravel (GLACIAL TILL)		
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

BORING NO.:	**RB- 5**
SHEET:	1 of 1
PROJECT NO.	21-1242
DATE START:	8/15/2022
DATE FINISH:	8/15/2022

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

Drilling Information

LOCATION: N. 283661.3199, E. 884751.46 **ELEVATION (FT):** 126.6' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A
HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30
WATER LEVEL DEPTHS (ft): No free water observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
125	0		1D		0.5-2	18/8	9-13-22			0.3 4" Asphalt		
			2D		2-4	24/20	12-10-9-12	ID 14289A		Dense, brown, SAND and GRAVEL, some silt (FILL)		
			3D		4-6	24/16	4-11-18-14			2.2 Very stiff to hard, brown, SILT and SAND, some gravel, trace clay (FILL)		
	5											
120			4D		6-8	24/24	12-12-14-17					
			5D		8-10	24/24	8-14-17-21					
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG

CLIENT:	Moffatt & Nichol
PROJECT:	Sears Island Offshore Wind Terminal
LOCATION:	Sears Island, Searsport, Maine

BORING NO.:	**RB- 6**
SHEET:	1 of 1
PROJECT NO.	21-1242
DATE START:	8/15/2022
DATE FINISH:	8/15/2022

Drilling Information

LOCATION: N. 283203.81, E. 883649.0901 **ELEVATION (FT):** 72' +/- **TOTAL DEPTH (FT):** 10.0 **LOGGED BY:** Patrick Otto

DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Solid Stem Auger

RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / 4 1/2 in **SAMPLER:** Standard Split-Spoon

HAMMER TYPE: Automatic **HAMMER WEIGHT (lbs):** 140 **CASING ID/OD:** N/A /N/A **CORE BARREL:** N/A

HAMMER EFFICIENCY FACTOR: 0.852 **HAMMER DROP (inch):** 30

WATER LEVEL DEPTHS (ft): ▽ 8 ft Soils saturated below 8'

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/13	9-11-11-11			Medium dense brown, sandy GRAVEL, some silt (FILL)		
70			2D		2-4	24/20	10-9-12-11	ID 14290A		1.9 Medium dense, brown, SAND and SILT, some gravel (FILL)		
	5		3D		4-5.4	17/14	7-7-50/5/5"			5.0 Medium dense, gray, gravelly SAND and SILT, with cobbles (FILL)		
65			4D		8-10	24/18	3-5-7-11			7.5 Stiff, brown, SILT and SAND, some fine gravel, some clay	▽	
	10									Bottom of Exploration at 10.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

TEST PIT LOGS

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

PROJECT NO.: 21-1242
LOGGED BY: John Cozens
CONTRACTOR: Comprehensive Land Technologies, Inc
EQUIPMENT: Komatsu PC 170LC

TEST PIT TP- 1

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 19' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Duff					
		0.5 Brown, damp, gravelly silty SAND, frequent cobbles (±3 to 12" dia.), occasional boulders (±12 to 24" dia.)		1S		2-	ID 14291A
5							
		7.0 Light gray, moist, SAND, some gravel, trace silt, trace clay, frequent cobbles (±6 to 12" dia.), occasional boulders (±12 to 24" dia.)					
10				2S		12-	

Bottom of Exploration at 13.0 feet

TEST PIT TP- 2

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 23.4' +/- **COMPLETION DEPTH (FT):** 12.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat					
		1.0 Reddish-brown, damp, SAND, some gravel, organics and rootlets					
		3.0 Light gray, moist, silty SAND, some gravel, trace clay, occasional cobbles (±3 to 12" dia.)					
5		frequent cobbles (±6 to 10" dia.), occasional boulders (±12 to 24" dia.) below 6'					
		Frequent boulders (±18 to 36" dia.) below 8'					
10							

Bottom of Exploration at 12.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:
Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT 21-1242.GPJ SWCE TEMPLATE.GDT 12/14/22

TEST PIT LOGS

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

PROJECT NO.: 21-1242
LOGGED BY: John Cozens
CONTRACTOR: Comprehensive Land Technologies, Inc
EQUIPMENT: Komatsu PC 170LC

TEST PIT TP- 3

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 34' +/- **COMPLETION DEPTH (FT):** 12.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat					
		0.5 Light brown, moist, gravelly SAND, trace silt, frequent cobbles (±4 to 8" dia.), occasional boulders (±12 to 24" dia.)					
		3.0 Gray, moist, sandy SILT, some clay, some gravel, frequent cobbles (±4 to 12" dia.), occasional boulders (±12 to 24" dia.) (GLACIAL TILL)					
5				1S		6-	
10							

Bottom of Exploration at 12.0 feet

TEST PIT TP- 4

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 24' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat with surface boulders (±12 to 36" dia.)					
		1.0 Reddish brown, damp, SAND, some silt, organics and rootlet					
		2.0 Light gray, moist, silty SAND, some GRAVEL, trace clay, occasional cobbles (±4 to 8" dia.)					
5							
		6.0 Gray, moist, silty SAND, some gravel, trace clay, frequent cobbles, occasional boulders (±12 to 24" dia.) (GLACIAL TILL)		1S		8-	ID 14292A w =14.3 % SG = 2.68
		9.0 Gray, moist, sandy SILT, some clay, some gravel, frequent cobbles, frequent boulders (±12 to 36" dia.) (GLACIAL TILL)		2S		10-	
10							

Bottom of Exploration at 13.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:
Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

PROJECT NO.: 21-1242
LOGGED BY: John Cozens
CONTRACTOR: Comprehensive Land Technologies, Inc
EQUIPMENT: Komatsu PC 170LC

TEST PIT TP- 5

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 41.8' +/- **COMPLETION DEPTH (FT):** 11.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat					
		0.5 Reddish brown, damp, silty SAND, with organics and rootlet					
		1.5 Brown, moist, SAND, some silt, trace clay, frequent cobbles (±3 to 12" dia.), occasional boulders (±18 to 24" dia.)					
5							
		6.0 Light gray, moist, silty SAND, some clay, frequent cobbles (±3 to 12" dia.), occasional boulders (±12 to 24" dia.)					
10							

Bottom of Exploration at 11.0 feet

TEST PIT TP- 6

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 22.9' +/- **COMPLETION DEPTH (FT):** 11.5
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat, surface boulders (±24 to 48" dia.)					
		1.0 Brown, moist, gravelly silty SAND, frequent cobbles (±3 to 9" dia.)		1S		3-	ID 14293A w =9.4 %
		3.5 Gray, moist, sandy SILT, some clay, trace gravel, occasional cobbles (±4 to 9" dia.) (GLACIAL TILL)					
5				2S		7-	ID 14294A w =15.2 %
		9.0 Gray, moist, sandy SILT, some clay, trace gravel, frequent cobbles (±3 to 12" dia.), frequent boulders (±12 to 24" dia.) (GLACIAL TILL)					
10				3S		10-	ID 14295A w =13.1 %

Bottom of Exploration at 11.5 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:
Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

PROJECT NO.: 21-1242
LOGGED BY: John Cozens
CONTRACTOR: Comprehensive Land Technologies, Inc
EQUIPMENT: Komatsu PC 170LC

TEST PIT TP- 7

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 33.1' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.5 Forest Mat					
		Reddish brown, fine to medium SAND, trace silt, with organics and rootlet					
		1.5 Gray, moist, silty CLAY, trace sand				1.5-	q_P=5.5 ksf
5				1S		4-	ID 14296A w =28.9 % W_L=42 W_P=18
						6-	q_P=2.0 ksf
10							
		11.0 Gray, moist, sandy SILT, some gravel, trace clay, occasional cobbles (±3 to 12" dia.), occasional boulders (±12 to 18" dia.) (GLACIAL TILL)		2S		12-	ID 14297A w =12 %

Bottom of Exploration at 13.0 feet

TEST PIT TP- 8

DATE: 8/23/0222 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 18.8' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Topsoil/ grass					
		0.5 Brown, damp, sandy fine to coarse GRAVEL, trace silt (FILL)					
		4.0 Gray, moist, silty SAND, some clay, some gravel, frequent cobbles (±3 to 8" dia.), occasional boulders (±14" dia.) (GLACIAL TILL)					
5				1S		7-	ID 14298A w =12.8 %
10							

Bottom of Exploration at 13.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:
Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: Moffatt & Nichol
PROJECT: Sears Island Offshore Wind Terminal
LOCATION: Sears Island, Searsport, Maine

PROJECT NO.: 21-1242
LOGGED BY: John Cozens
CONTRACTOR: Comprehensive Land Technologies, Inc
EQUIPMENT: Komatsu PC 170LC

TEST PIT TP- 9

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 35.5' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Forest Mat					
		0.7 Light gray, SAND, some gravel, some silt, occasional cobbles (±3 to 6" dia.)					
		2.0 Gray, silty CLAY, trace fine sand					
5				1S		6-6.5-	q_P=1.0 ksf ID 14299A w =33 % W_L=37 W_P=17
10							
		Bottom of Exploration at 13.0 feet					

TEST PIT TP-10

DATE: 8/23/2022 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 31.9' +/- **COMPLETION DEPTH (FT):** 13.0
WATER LEVEL DEPTHS (FT): No free water observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.3 Topsoil with grass					
		Brown, damp, gravelly SAND, trace silt, occasional cobbles (±3 to 12" dia.)					
		3.0 Brown, moist, gravelly SAND and SILT, trace clay, frequent cobbles (±6 to 12" dia.), occasional boulders (±12 to 24" dia.)		1S		3-	ID 14300A w =9.7 %
5							
		6.0 Gray, moist, silty SAND, some clay, some gravel, frequent cobbles (±3 to 12" dia.), occasional boulders (±12 to 24" dia.)					
10				2S		10-	ID 14301A w =14.6 %
		Bottom of Exploration at 13.0 feet					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:
Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

MB-1 Runs 1 and 2
MB-4 Runs 1, 2, and 3

MB-10, Runs 1, 2, and 3
MB-2, Run 1

MB-2, Run 2
MB-3A, Runs 1 and 2
MB-5, Runs 1 and 2 (partial)

MB-5, Runs 2 (partial) and 3
MB-7, Runs 1, 2, and 3

APPENDIX D

Laboratory Test Results

S.W.COLE ENGINEERING, INC.

Report of Hydrometer

ASTM D422-63 (07)

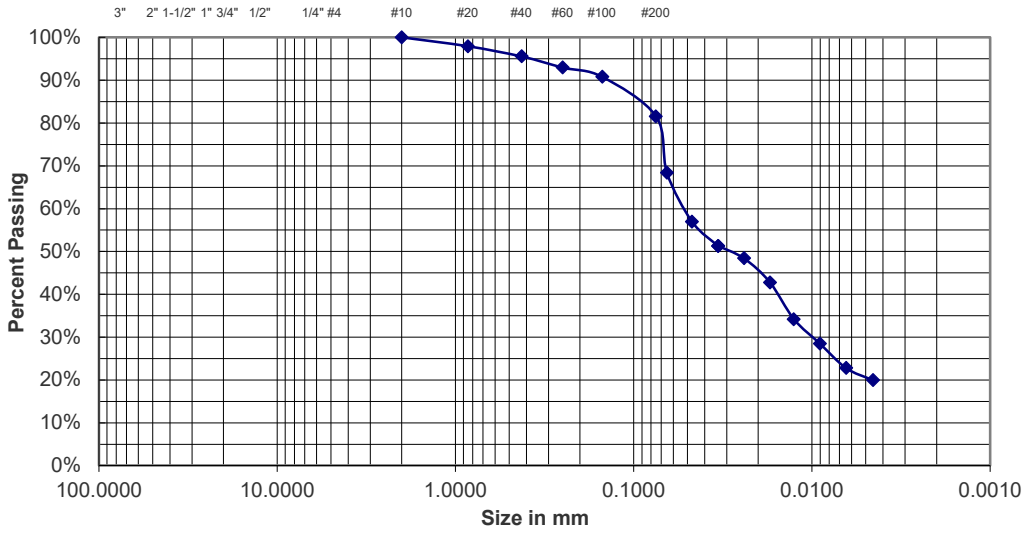
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14064A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-1, 1D, 0-2 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**100**	
No. 4	4.75	**100**	
No. 10	2	**100**	
No. 20	0.85	**98**	
No. 40	0.425	**96**	
No. 60	0.25	**93**	
No. 100	0.15	**91**	
No. 200	0.075	**81.6**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06507	**68.4**
0.04712	**57.0**
0.03358	**51.3**
0.03358	**51.3**
0.02401	**48.4**
0.01717	**42.7**
0.01263	**34.2**
0.00903	**28.5**
0.00643	**22.8**
0.00454	**19.9**
0.00321	**17.1**
0.00229	**14.2**
0.00132	**11.4**



Particle Distribution:

Gravel (3" - No. 4)	**0.0%**	Fines (0.074 -0.005)	**59.9%**
Sand (No. 4 - No. 200)	**18.4%**	Clay (<0.005)	**21.7%**

Comments:

Reviewed By

26 Coles Crossing Drive, Sidney, ME 04330 • P: (207) 626.0600 • F: (207) 626.0700 • E: infosidney@swcole.com

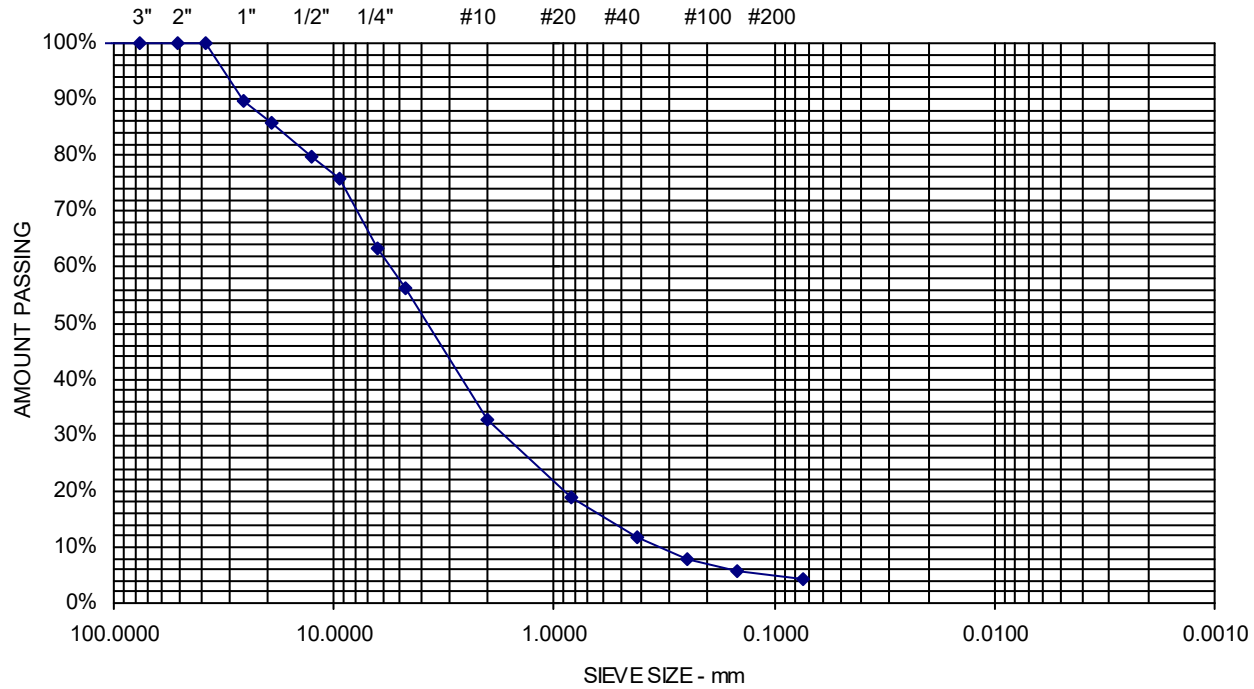
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14074A
		Date Received	7/29/2022
		Date Completed	8/1/2022
Material Source	**MB-3A, 3D, 50-52FT**	Tested By	ALEXANDREA ALLEN

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**90**	
19.0 mm	**3/4"**	**86**	
12.5 mm	**1/2"**	**80**	
9.5 mm	**3/8"**	**76**	
6.3 mm	**1/4"**	**64**	
4.75 mm	**No. 4**	**56**	43.7% Gravel
2.00 mm	**No. 10**	**33**	
850 um	**No. 20**	**19**	
425 um	**No. 40**	**12**	52% Sand
250 um	**No. 60**	**8**	
150 um	**No. 100**	**6**	
75 um	**No. 200**	**4.3**	4.3% Fines



Comments: As Delivered MC: 8.1%

Sheet

S.W.COLE ENGINEERING, INC.

Report of Hydrometer

ASTM D422-63 (07)

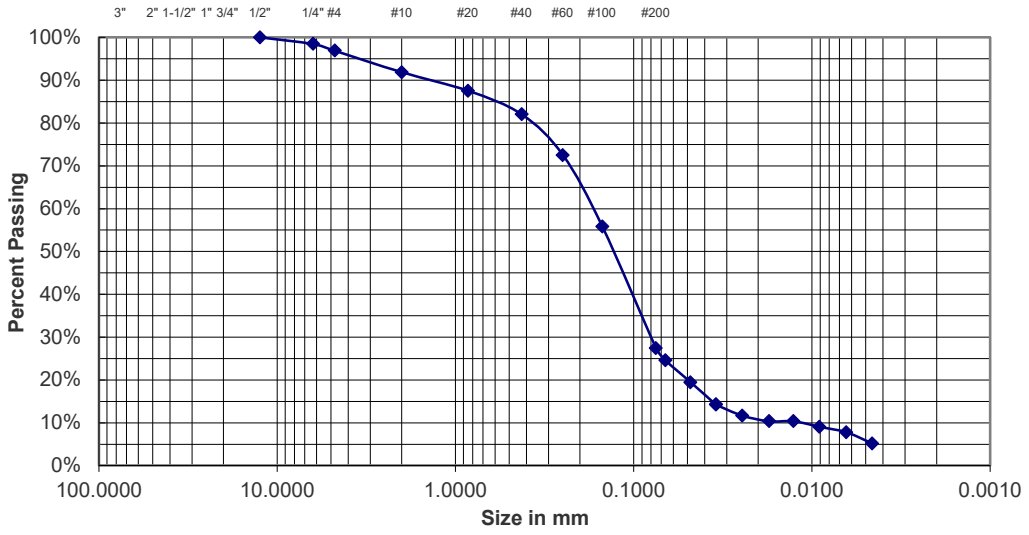
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14077A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-4, 1D, 0-2 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification (name)
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**98**	
No. 4	4.75	**97**	
No. 10	2	**92**	
No. 20	0.85	**88**	
No. 40	0.425	**82**	
No. 60	0.25	**73**	
No. 100	0.15	**56**	
No. 200	0.075	**27.5**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06639	**24.6**
0.04801	**19.4**
0.03456	**14.3**
0.03456	**14.3**
0.02461	**11.7**
0.01740	**10.4**
0.01271	**10.4**
0.00908	**9.1**
0.00642	**7.8**
0.00459	**5.2**
0.00324	**5.2**
0.00231	**2.6**
0.00133	**2.6**



Particle Distribution:

Gravel (3" - No. 4)	**3.1%**	Fines (0.074 -0.005)	**21.7%**
Sand (No. 4 - No. 200)	**69.5%**	Clay (<0.005)	**5.7%**

Comments:

Reviewed By

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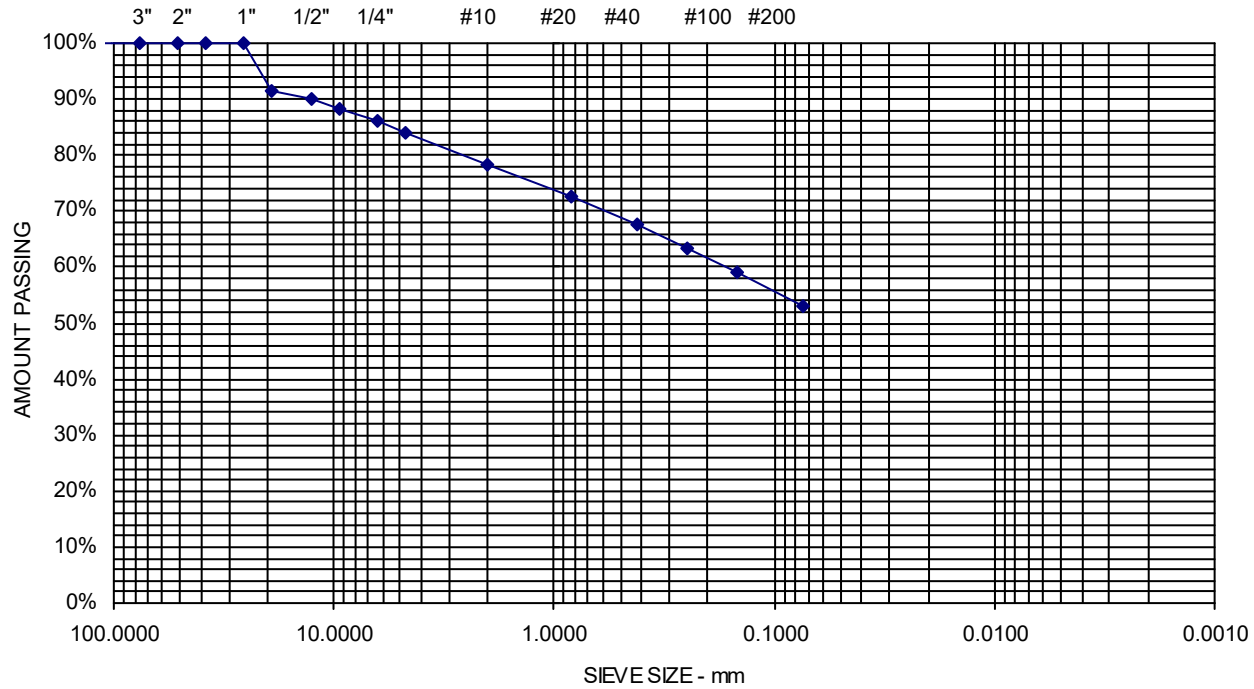
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14078A
		Date Received	7/29/2022
		Date Completed	8/2/2022
Material Source	**MB-4A, 3D, 30-32FT**	Tested By	ALEXANDREA ALLEN

STANDARD DESIGNATION (mm/μm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**92**	
12.5 mm	**1/2"**	**90**	
9.5 mm	**3/8"**	**88**	
6.3 mm	**1/4"**	**86**	
4.75 mm	**No. 4**	**84**	15.9% Gravel
2.00 mm	**No. 10**	**78**	
850 um	**No. 20**	**73**	
425 um	**No. 40**	**68**	31% Sand
250 um	**No. 60**	**63**	
150 um	**No. 100**	**59**	
75 um	**No. 200**	**53.1**	53.1% Fines



Comments: As Delivered MC: 9.36%

Sheet

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Report of Hydrometer

ASTM D422-63 (07)

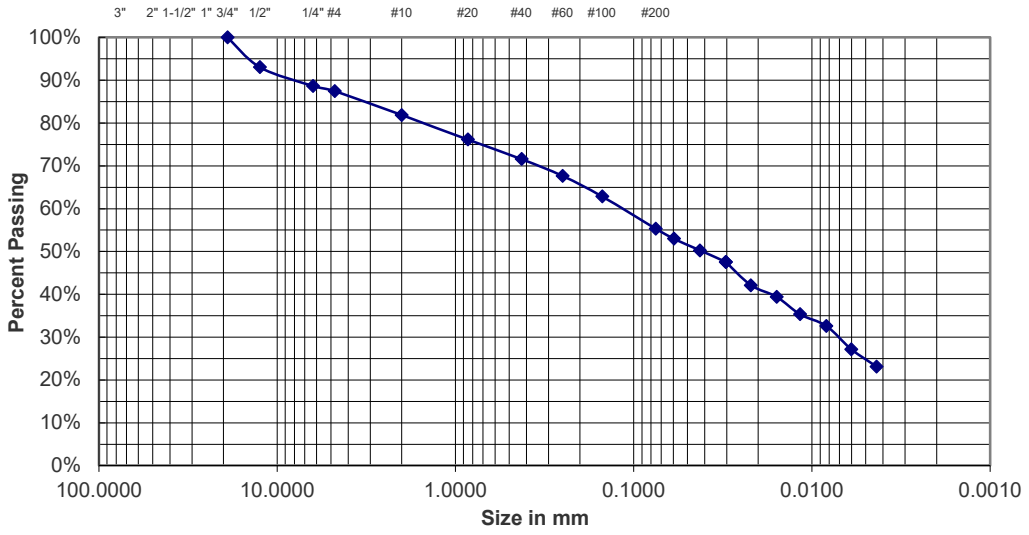
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14079A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-5, 1D, 0-2 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**93**	
¼"	6.3	**89**	
No. 4	4.75	**87**	
No. 10	2	**82**	
No. 20	0.85	**76**	
No. 40	0.425	**72**	
No. 60	0.25	**68**	
No. 100	0.15	**63**	
No. 200	0.075	**55.3**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.05944	**53.0**
0.04243	**50.3**
0.03042	**47.5**
0.03042	**47.5**
0.02199	**42.1**
0.01575	**39.4**
0.01165	**35.3**
0.00830	**32.6**
0.00601	**27.2**
0.00433	**23.1**
0.00306	**21.7**
0.00219	**19.0**
0.00129	**14.9**



Particle Distribution:

Gravel (3" - No. 4)	**12.6%**	Fines (0.074 -0.005)	**30.2%**
Sand (No. 4 - No. 200)	**32.2%**	Clay (<0.005)	**25.1%**

Comments:

Reviewed By

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Report of Hydrometer

ASTM D422-63 (07)

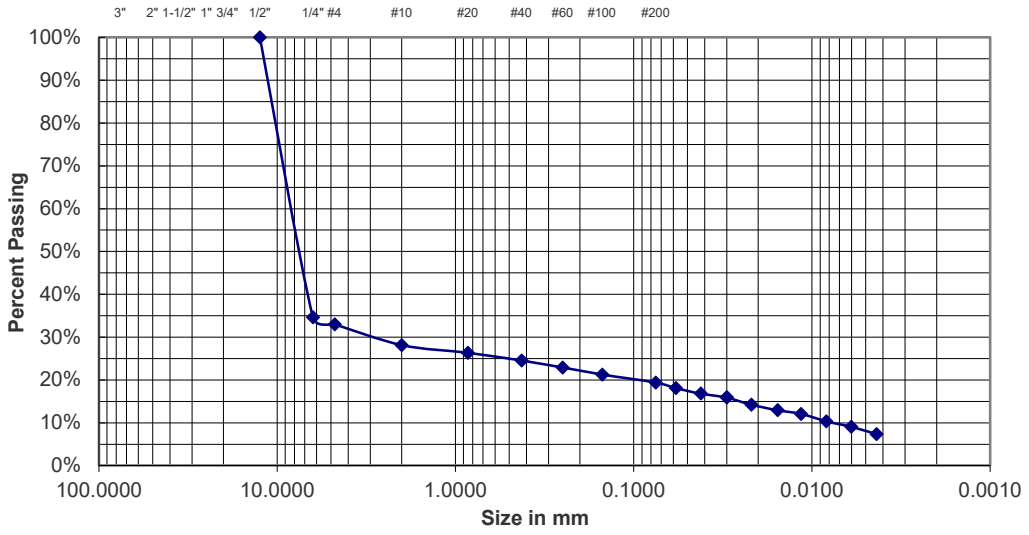
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14082A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-6, 1D, 0-2 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**35**	
No. 4	4.75	**33**	
No. 10	2	**28**	
No. 20	0.85	**26**	
No. 40	0.425	**25**	
No. 60	0.25	**23**	
No. 100	0.15	**21**	
No. 200	0.075	**19.4**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.05800	**18.1**
0.04203	**16.8**
0.03000	**15.9**
0.03000	**15.9**
0.02180	**14.2**
0.01555	**12.9**
0.01150	**12.1**
0.00830	**10.3**
0.00601	**9.0**
0.00433	**7.3**
0.00306	**6.9**
0.00219	**6.0**
0.00127	**5.2**



Particle Distribution:

Gravel (3" - No. 4)	**67.0%**	Fines (0.074 -0.005)	**11.2%**
Sand (No. 4 - No. 200)	**13.6%**	Clay (<0.005)	**8.2%**

Comments:

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Report of Hydrometer

ASTM D422-63 (07)

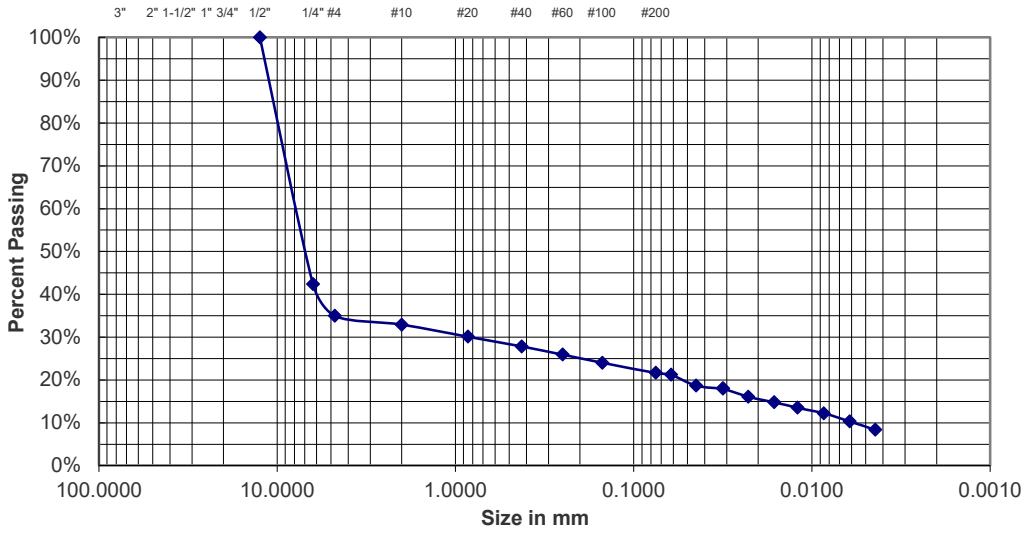
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14083A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-6, 2D, 5-7 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**42**	
No. 4	4.75	**35**	
No. 10	2	**33**	
No. 20	0.85	**30**	
No. 40	0.425	**28**	
No. 60	0.25	**26**	
No. 100	0.15	**24**	
No. 200	0.075	**21.6**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06166	**21.2**
0.04455	**18.6**
0.03150	**18.0**
0.03150	**18.0**
0.02274	**16.1**
0.01628	**14.8**
0.01203	**13.5**
0.00857	**12.2**
0.00613	**10.3**
0.00441	**8.4**
0.00312	**8.4**
0.00223	**6.4**
0.00130	**5.8**



Particle Distribution:

Gravel (3" - No. 4)	**65.1%**	Fines (0.074 -0.005)	**12.3%**
Sand (No. 4 - No. 200)	**13.3%**	Clay (<0.005)	**9.4%**

Comments:

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Report of Hydrometer

ASTM D422-63 (07)

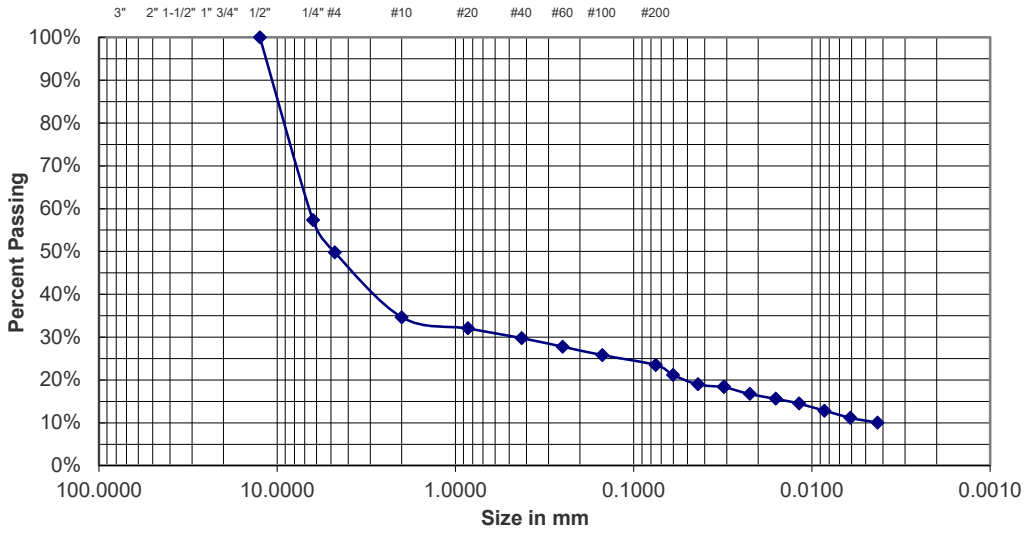
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14084A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-7, 2D, 5-7 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**57**	
No. 4	4.75	**50**	
No. 10	2	**35**	
No. 20	0.85	**32**	
No. 40	0.425	**30**	
No. 60	0.25	**28**	
No. 100	0.15	**26**	
No. 200	0.075	**23.5**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06012	**21.2**
0.04351	**18.9**
0.03119	**18.4**
0.03119	**18.4**
0.02225	**16.7**
0.01593	**15.6**
0.01178	**14.5**
0.00850	**12.8**
0.00608	**11.1**
0.00429	**10.0**
0.00306	**8.9**
0.00219	**8.4**
0.00127	**6.7**



Particle Distribution:	Gravel (3" - No. 4)	**50.2%**	Fines (0.074 -0.005)	**13.0%**
	Sand (No. 4 - No. 200)	**26.3%**	Clay (<0.005)	**10.5%**

Comments:

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Report of Hydrometer

ASTM D422-63 (07)

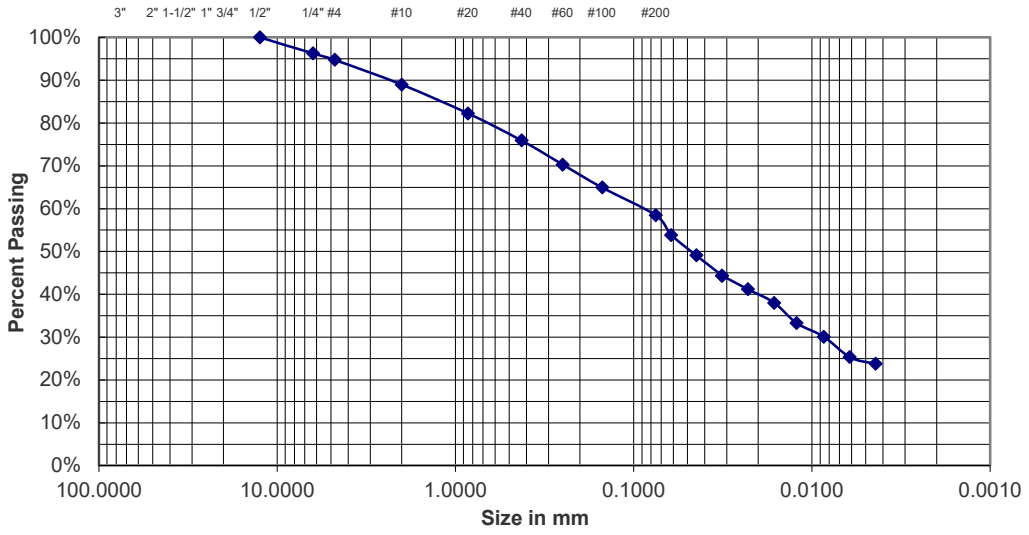
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14086A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-8, 1D, 0-2 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**96**	
No. 4	4.75	**95**	
No. 10	2	**89**	
No. 20	0.85	**82**	
No. 40	0.425	**76**	
No. 60	0.25	**70**	
No. 100	0.15	**65**	
No. 200	0.075	**58.4**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06154	**53.8**
0.04449	**49.1**
0.03187	**44.3**
0.03187	**44.3**
0.02282	**41.2**
0.01627	**38.0**
0.01217	**33.2**
0.00857	**30.1**
0.00613	**25.3**
0.00438	**23.7**
0.00310	**23.7**
0.00223	**17.4**
0.00129	**15.8**



Particle Distribution:	Gravel (3" - No. 4)	**5.2%**	Fines (0.074 -0.005)	**34.0%**
	Sand (No. 4 - No. 200)	**36.3%**	Clay (<0.005)	**24.4%**

Comments:

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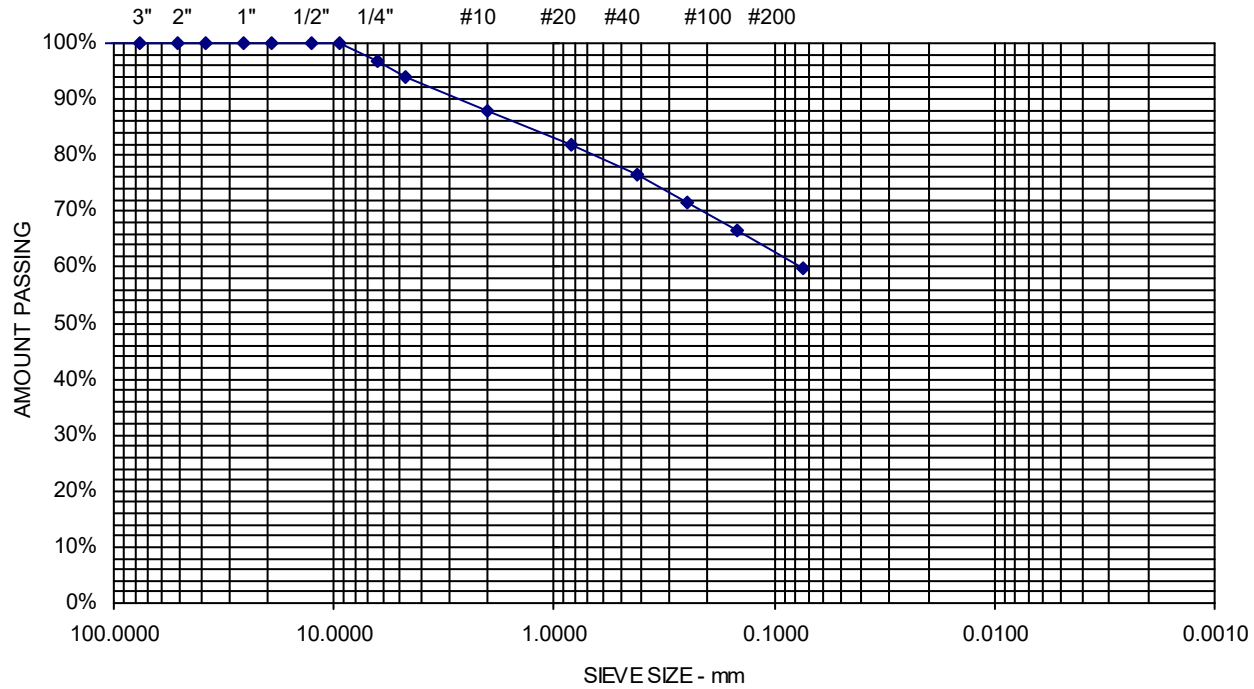
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14087A
		Date Received	7/29/2022
		Date Completed	8/2/2022
Material Source	**MB-8, 4D, 15-17FT**	Tested By	ALEXANDREA ALLEN

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**100**	
6.3 mm	**1/4"**	**97**	
4.75 mm	**No. 4**	**94**	6.1% Gravel
2.00 mm	**No. 10**	**88**	
850 um	**No. 20**	**82**	
425 um	**No. 40**	**77**	34% Sand
250 um	**No. 60**	**72**	
150 um	**No. 100**	**67**	
75 um	**No. 200**	**59.9**	59.9% Fines



Comments: As Delivered MC: 13.36%

Sheet

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Report of Hydrometer

ASTM D422-63 (07)

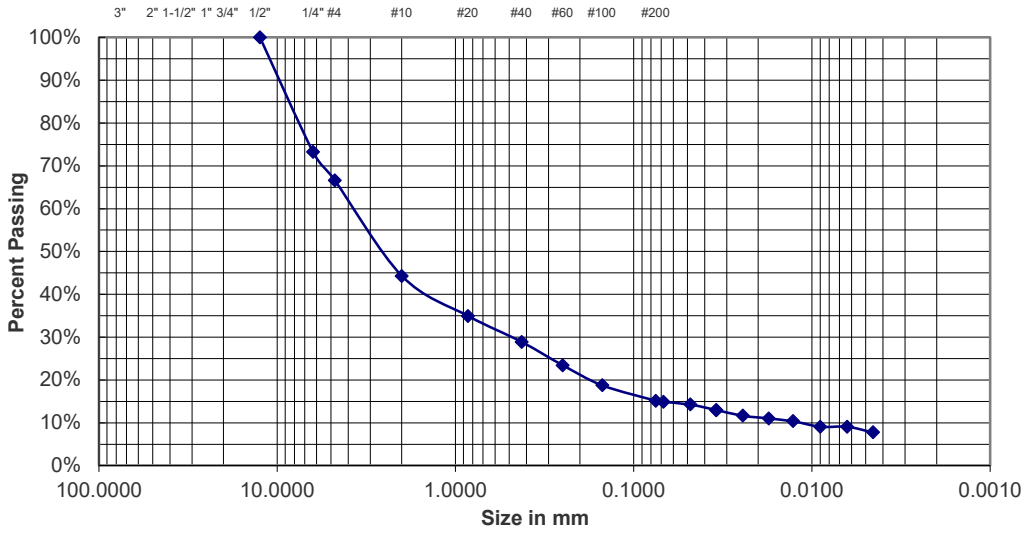
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14088A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-9, 2D, 5-7 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification (name)
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**73**	
No. 4	4.75	**67**	
No. 10	2	**44**	
No. 20	0.85	**35**	
No. 40	0.425	**29**	
No. 60	0.25	**23**	
No. 100	0.15	**19**	
No. 200	0.075	**15.1**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06792	**14.9**
0.04803	**14.2**
0.03434	**13.0**
0.03434	**13.0**
0.02446	**11.7**
0.01748	**11.0**
0.01277	**10.4**
0.00899	**9.1**
0.00635	**9.1**
0.00454	**7.8**
0.00324	**7.1**
0.00229	**6.8**
0.00132	**6.5**



Particle Distribution:

Gravel (3" - No. 4)	**33.4%**	Fines (0.074 -0.005)	**7.1%**
Sand (No. 4 - No. 200)	**51.5%**	Clay (<0.005)	**8.1%**

Comments:

Reviewed By

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Report of Hydrometer

ASTM D422-63 (07)

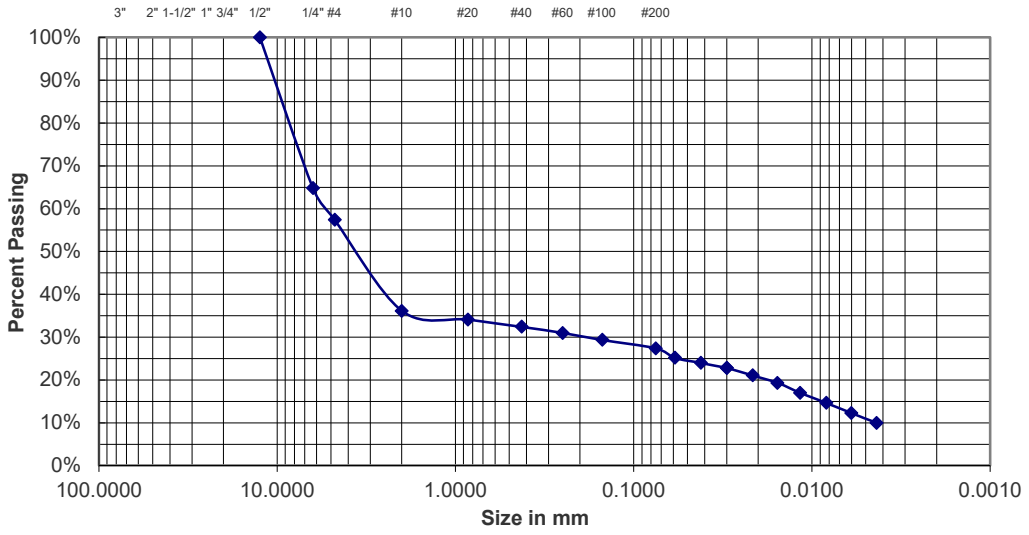
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14089A
Client:	Moffatt & Nichol	**Date Received:**	7/29/2022
Material Description:	Exploration	**Date Completed:**	8/24/2022
Material Source:	MB-10, 2D, 5-7 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**65**	
No. 4	4.75	**57**	
No. 10	2	**36**	
No. 20	0.85	**34**	
No. 40	0.425	**32**	
No. 60	0.25	**31**	
No. 100	0.15	**29**	
No. 200	0.075	**27.4**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.05867	**25.2**
0.04190	**24.0**
0.03006	**22.8**
0.03006	**22.8**
0.02146	**21.1**
0.01559	**19.3**
0.01164	**17.0**
0.00830	**14.6**
0.00601	**12.3**
0.00433	**9.9**
0.00310	**8.8**
0.00221	**7.6**
0.00129	**5.8**



Particle Distribution:

Gravel (3" - No. 4)	**42.6%**	Fines (0.074 -0.005)	**16.3%**
Sand (No. 4 - No. 200)	**30.0%**	Clay (<0.005)	**11.1%**

Comments:

Reviewed By

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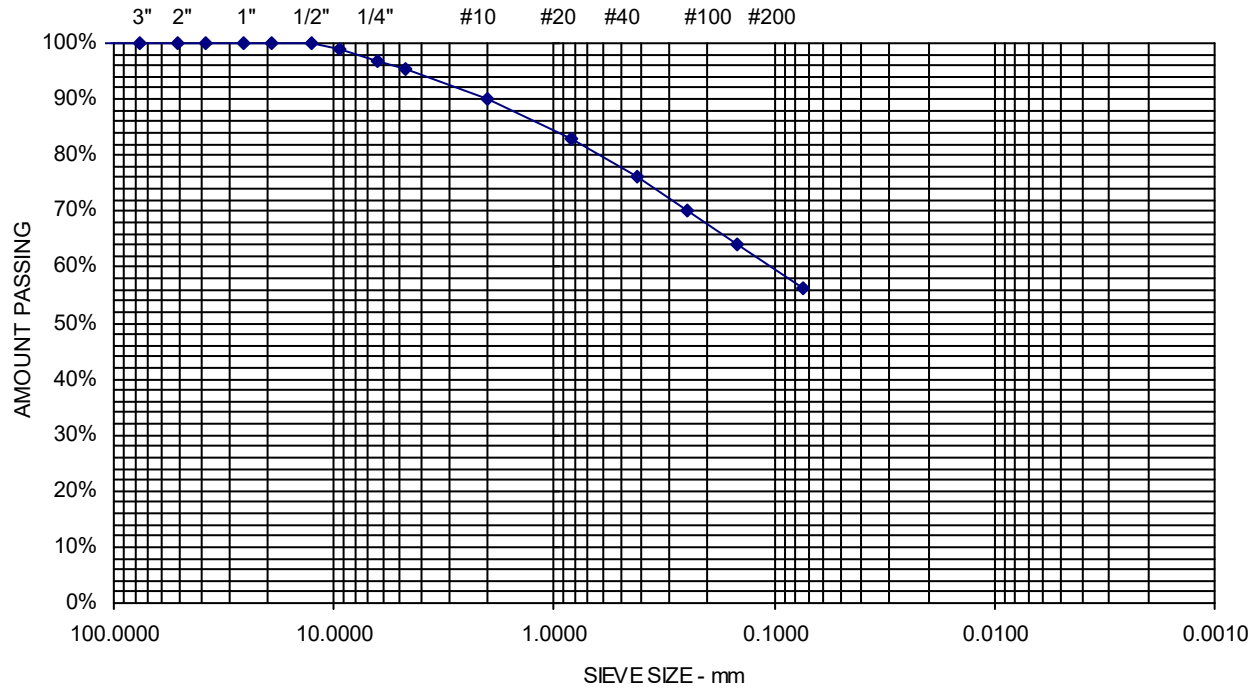
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14229A
Exploration	**LB-1**	Date Received	9/21/2022
Material Source	**LB-1, 3D, 10-12 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**97**	
4.75 mm	**No. 4**	**95**	4.7% Gravel
2.00 mm	**No. 10**	**90**	
850 um	**No. 20**	**83**	
425 um	**No. 40**	**76**	39% Sand
250 um	**No. 60**	**70**	
150 um	**No. 100**	**64**	
75 um	**No. 200**	**56.3**	56.3% Fines



Comments: As Delivered MC: 14.21%

Sheet

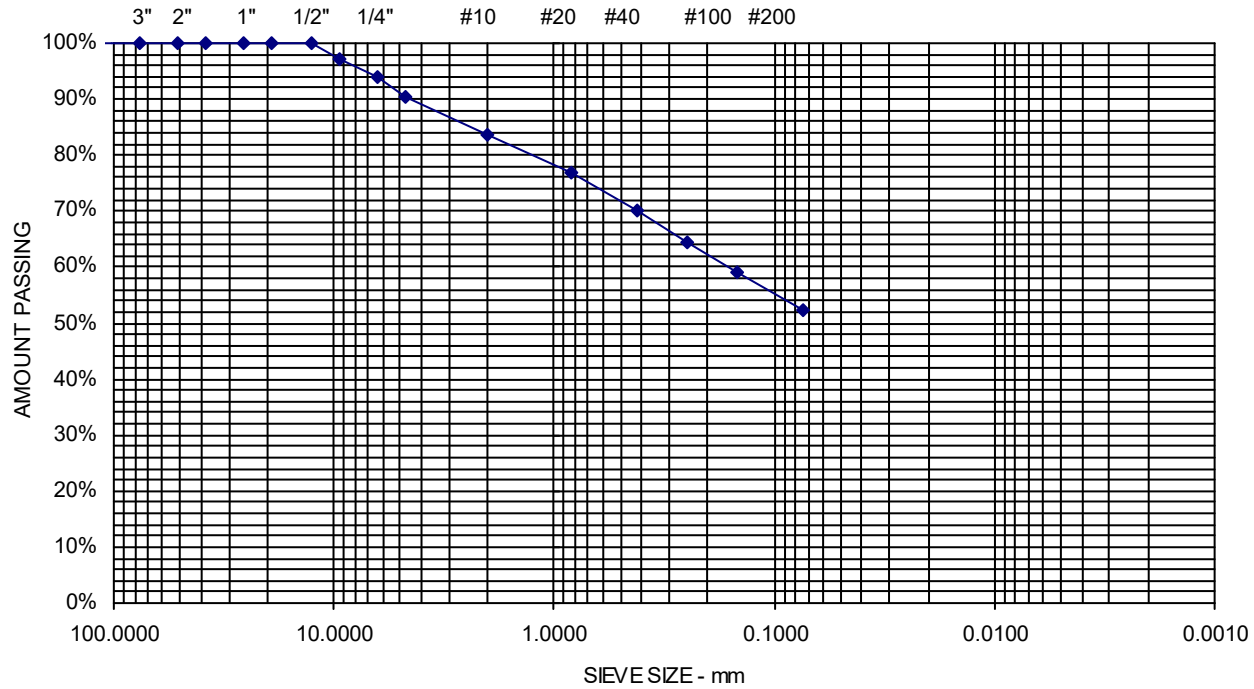
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14230A
Exploration	**LB-2**	Date Received	9/21/2022
Material Source	**LB-2, 2D, 5-7 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**97**	
6.3 mm	**1/4"**	**94**	
4.75 mm	**No. 4**	**91**	9.5% Gravel
2.00 mm	**No. 10**	**84**	
850 um	**No. 20**	**77**	
425 um	**No. 40**	**70**	38.1% Sand
250 um	**No. 60**	**64**	
150 um	**No. 100**	**59**	
75 um	**No. 200**	**52.5**	52.5% Fines



Comments: As Delivered MC: 11.68%

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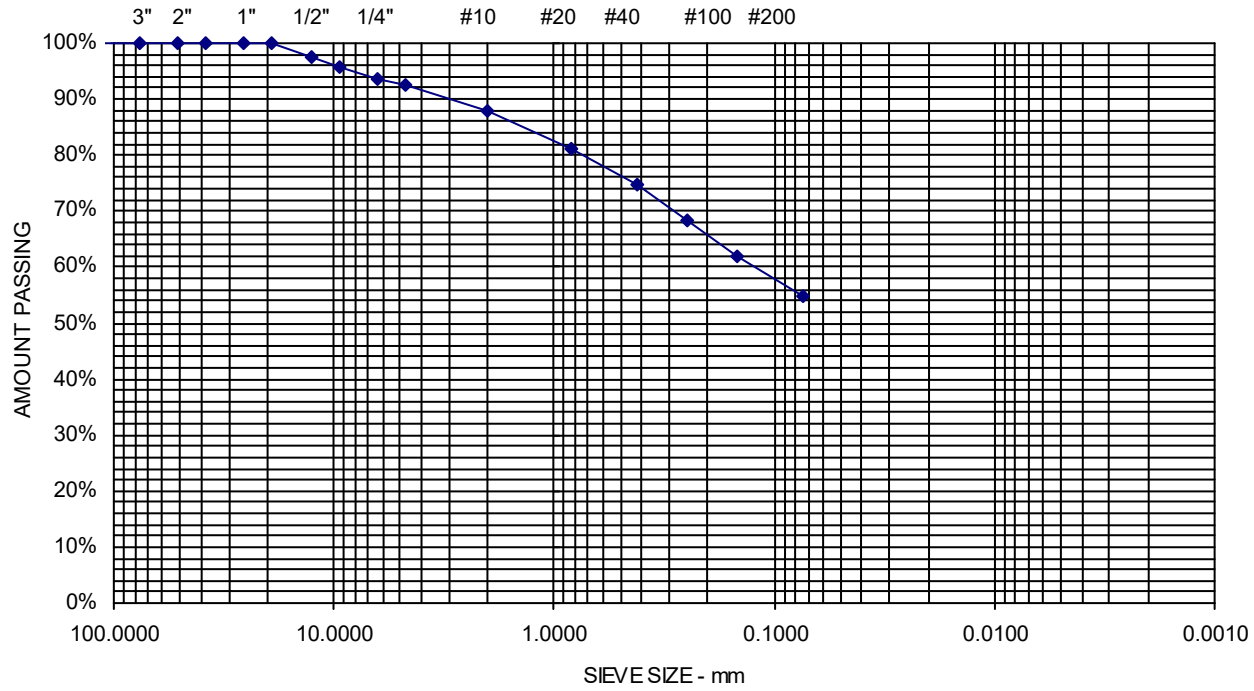
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14231A
Exploration	**LB-2**	Date Received	9/21/2022
Material Source	**LB-2, 4D, 15-17 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**97**	
9.5 mm	**3/8"**	**96**	
6.3 mm	**1/4"**	**94**	
4.75 mm	**No. 4**	**93**	7.5% Gravel
2.00 mm	**No. 10**	**88**	
850 um	**No. 20**	**81**	
425 um	**No. 40**	**75**	37.7% Sand
250 um	**No. 60**	**68**	
150 um	**No. 100**	**62**	
75 um	**No. 200**	**54.8**	54.8% Fines



Comments: As Delivered MC: 11.35%

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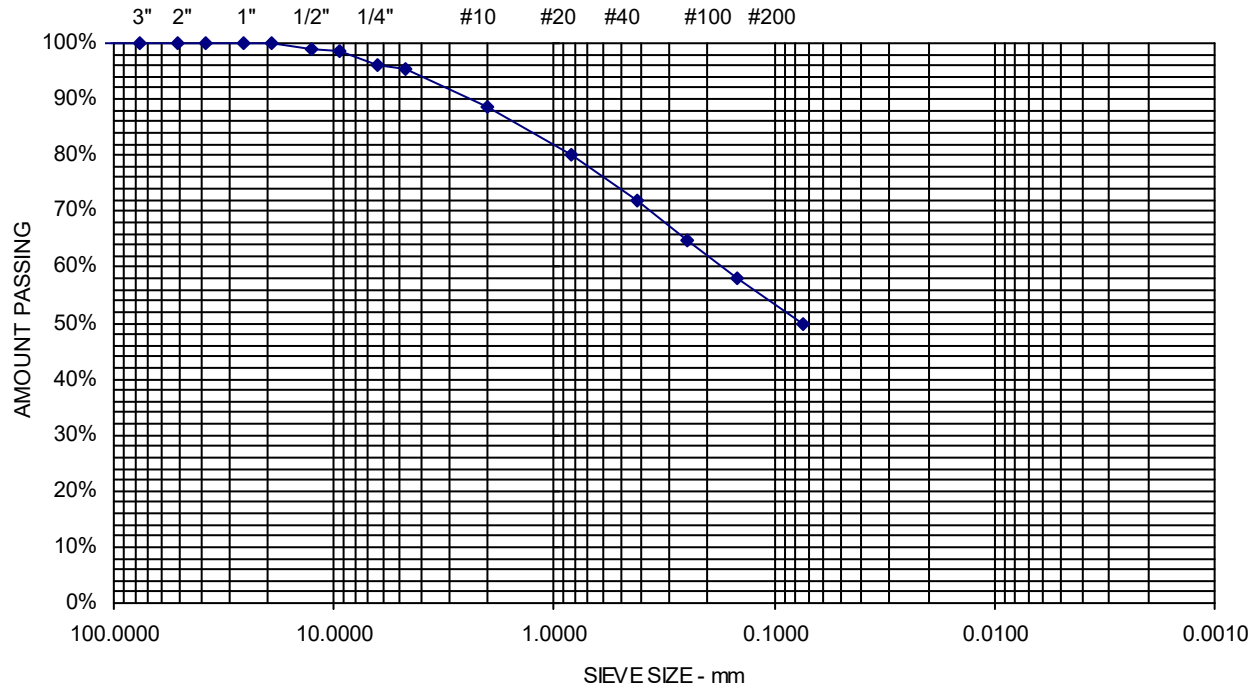
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14232A
Exploration	**LB-3**	Date Received	9/21/2022
Material Source	**LB-3, 2D, 5-7 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**99**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**96**	
4.75 mm	**No. 4**	**95**	4.6% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**80**	
425 um	**No. 40**	**72**	45.4% Sand
250 um	**No. 60**	**65**	
150 um	**No. 100**	**58**	
75 um	**No. 200**	**50.0**	50% Fines



Comments: As Delivered MC: 12.36%

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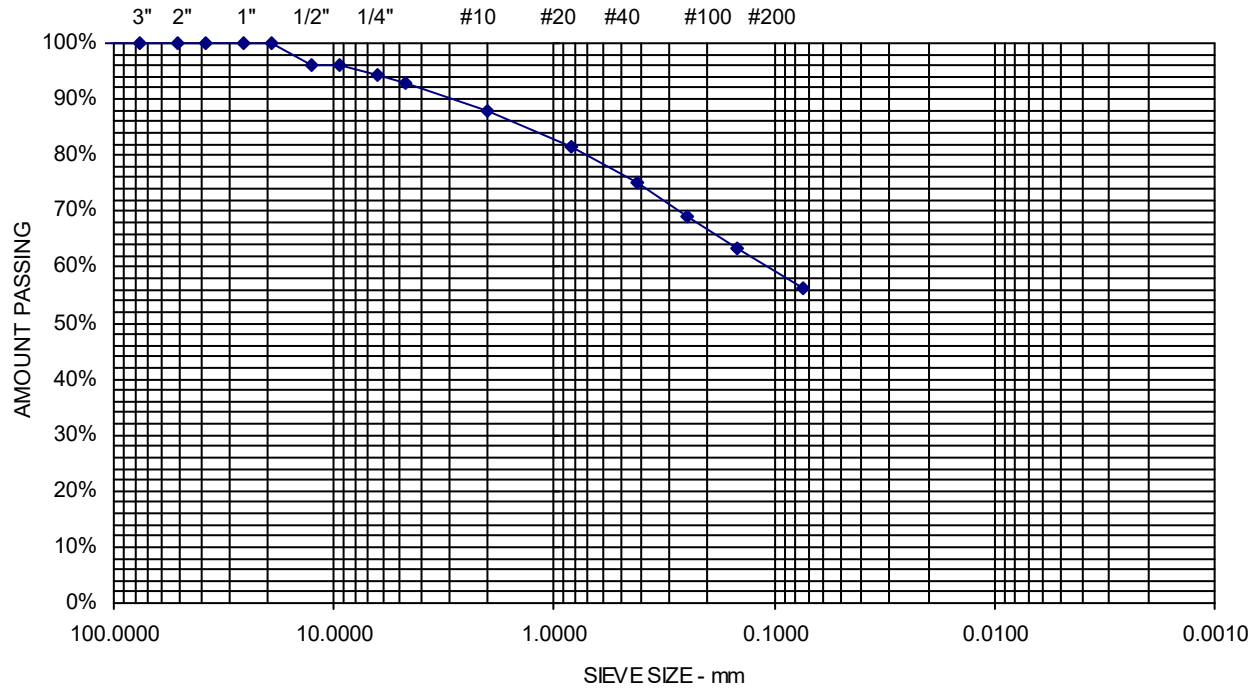
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14233A
Exploration	**LB-3**	Date Received	9/21/2022
Material Source	**LB-3. 4D, 15-17 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**96**	
9.5 mm	**3/8"**	**96**	
6.3 mm	**1/4"**	**94**	
4.75 mm	**No. 4**	**93**	7.2% Gravel
2.00 mm	**No. 10**	**88**	
850 um	**No. 20**	**82**	
425 um	**No. 40**	**75**	36.6% Sand
250 um	**No. 60**	**69**	
150 um	**No. 100**	**63**	
75 um	**No. 200**	**56.2**	56.2% Fines



Comments: As Delivered MC: 11.65%

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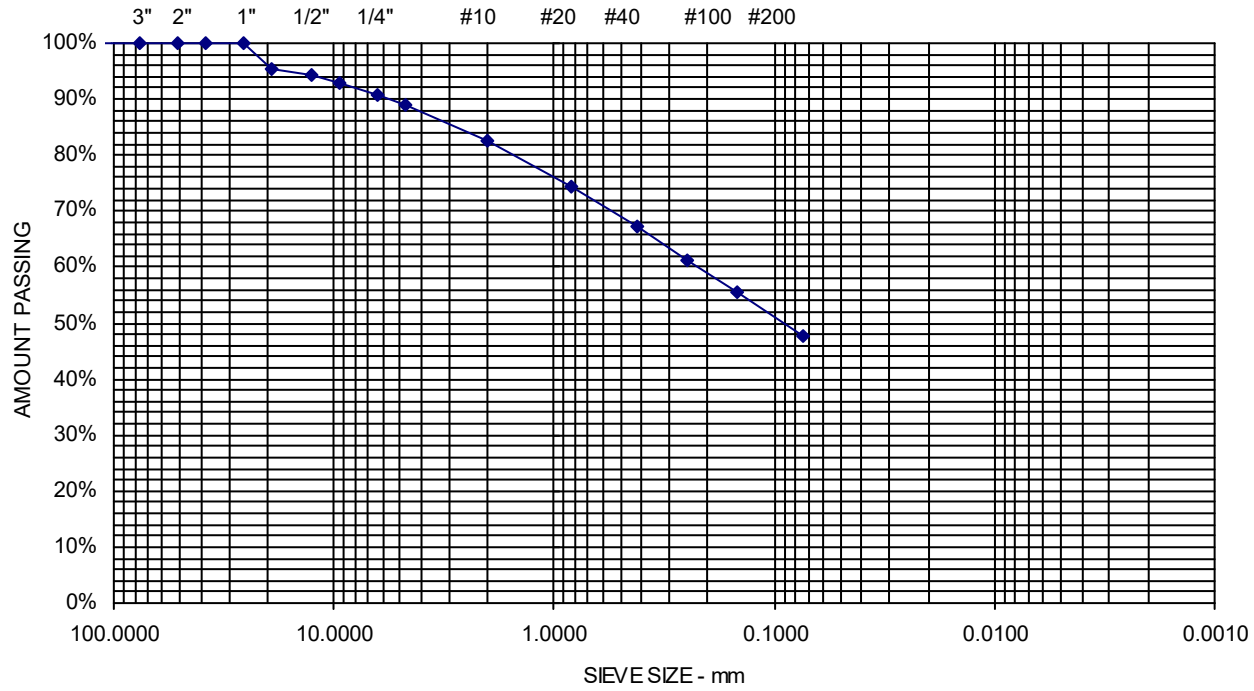
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14234A
Exploration	**LB-4**	Date Received	9/21/2022
Material Source	**LB-4, 2D, 5-7 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**96**	
12.5 mm	**1/2"**	**94**	
9.5 mm	**3/8"**	**93**	
6.3 mm	**1/4"**	**91**	
4.75 mm	**No. 4**	**89**	10.9% Gravel
2.00 mm	**No. 10**	**83**	
850 um	**No. 20**	**75**	
425 um	**No. 40**	**67**	41.6% Sand
250 um	**No. 60**	**61**	
150 um	**No. 100**	**55**	
75 um	**No. 200**	**47.6**	47.6% Fines



Comments: As Delivered MC: 11.74%

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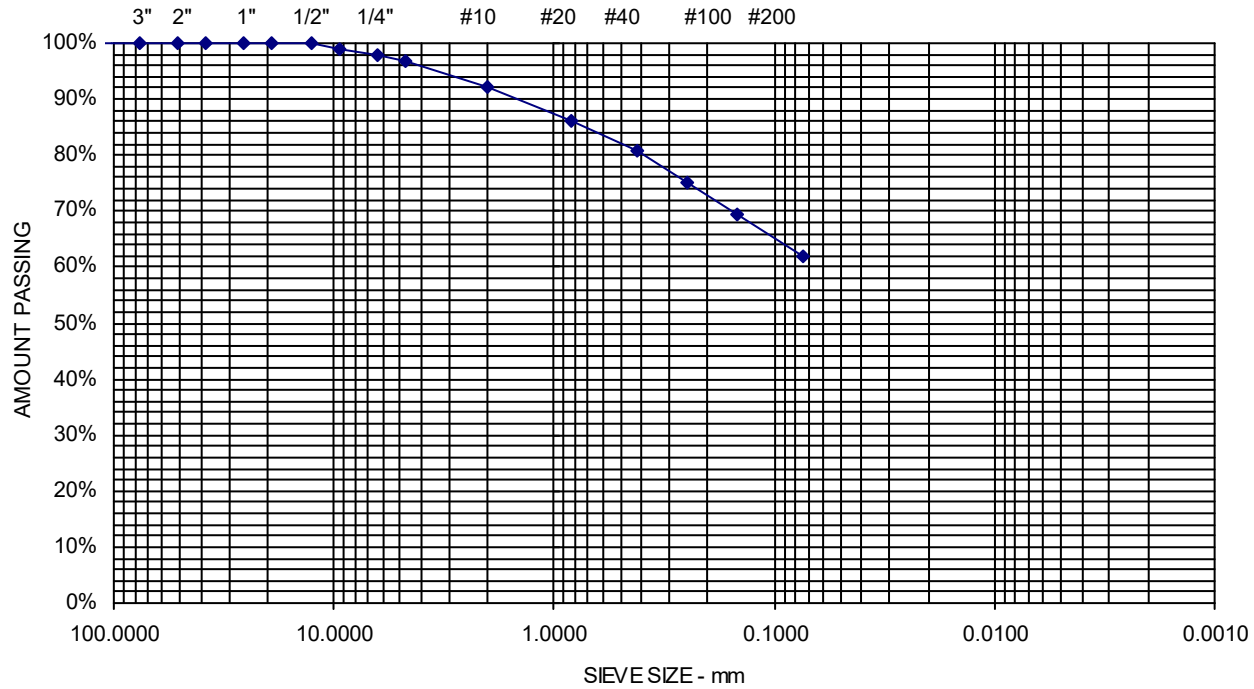
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14235A
Exploration	**LB-5**	Date Received	9/21/2022
Material Source	**LB-5, 2D, 5-7 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**98**	
4.75 mm	**No. 4**	**97**	3% Gravel
2.00 mm	**No. 10**	**92**	
850 um	**No. 20**	**86**	
425 um	**No. 40**	**81**	34.9% Sand
250 um	**No. 60**	**75**	
150 um	**No. 100**	**69**	
75 um	**No. 200**	**62.0**	62% Fines



Comments: As Delivered MC: 11.71%

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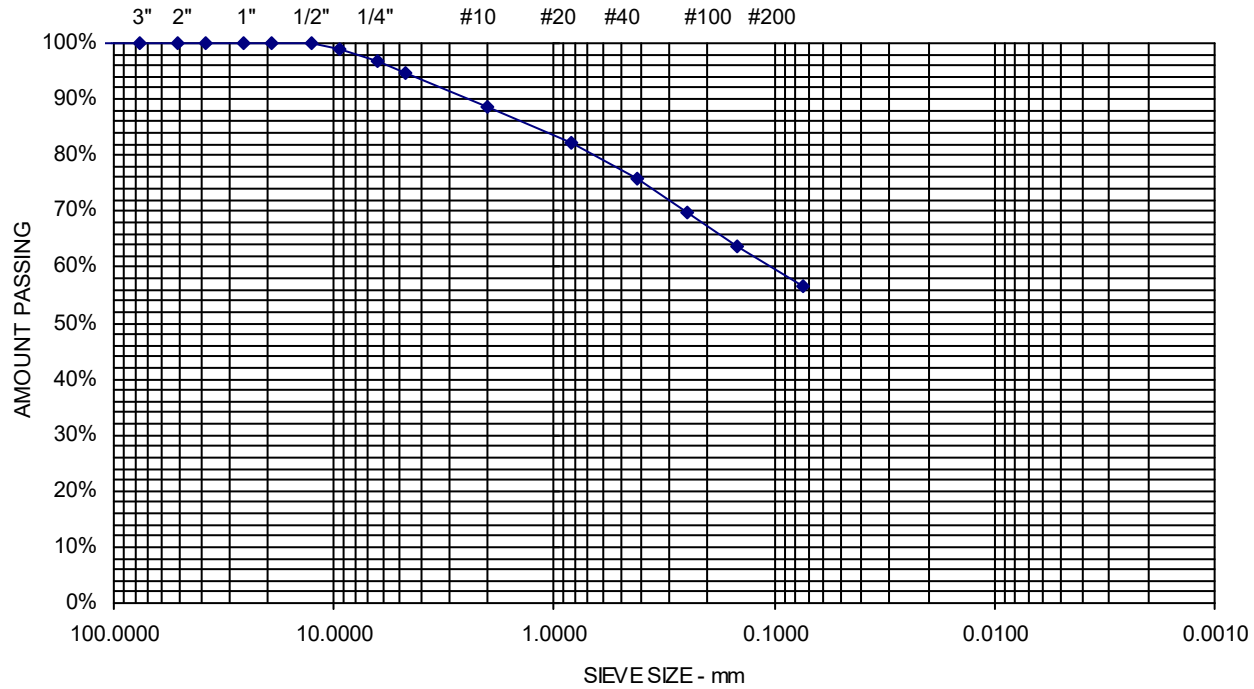
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14236A
Exploration	**LB-6**	Date Received	9/21/2022
Material Source	**LB-6, 2D, 5-7 FT**	Date Completed	9/26/2022
		Tested By	ERNEST FORGIONE JR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**97**	
4.75 mm	**No. 4**	**95**	5.4% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**82**	
425 um	**No. 40**	**76**	38% Sand
250 um	**No. 60**	**70**	
150 um	**No. 100**	**64**	
75 um	**No. 200**	**56.6**	56.6% Fines



Comments: As Delivered MC: 13.66%

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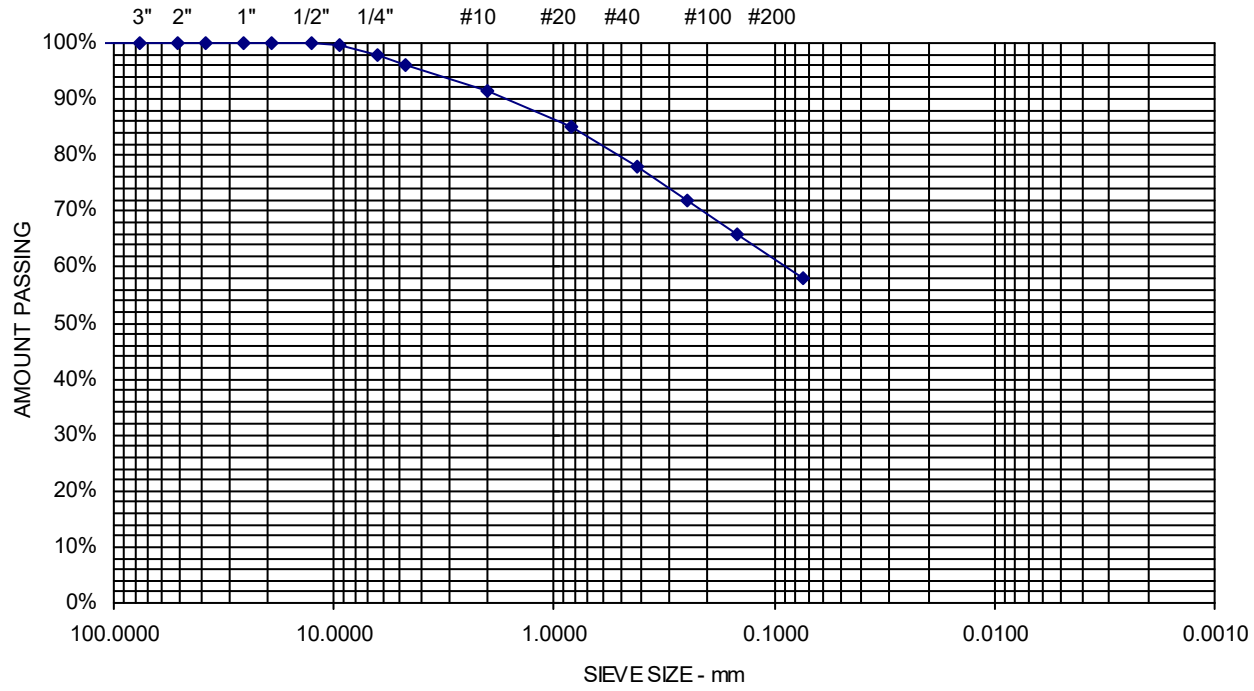
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14237A
Exploration	**LB-6**	Date Received	9/21/2022
Material Source	**LB-6, 4D, 15-17 FT**	Date Completed	9/30/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
125 mm	**5"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**100**	
6.3 mm	**1/4"**	**98**	
4.75 mm	**No. 4**	**96**	4% Gravel
2.00 mm	**No. 10**	**92**	
850 um	**No. 20**	**85**	
425 um	**No. 40**	**78**	38.1% Sand
250 um	**No. 60**	**72**	
150 um	**No. 100**	**66**	
75 um	**No. 200**	**57.9**	57.9% Fines



Comments: As Delivered MC: 11.38%

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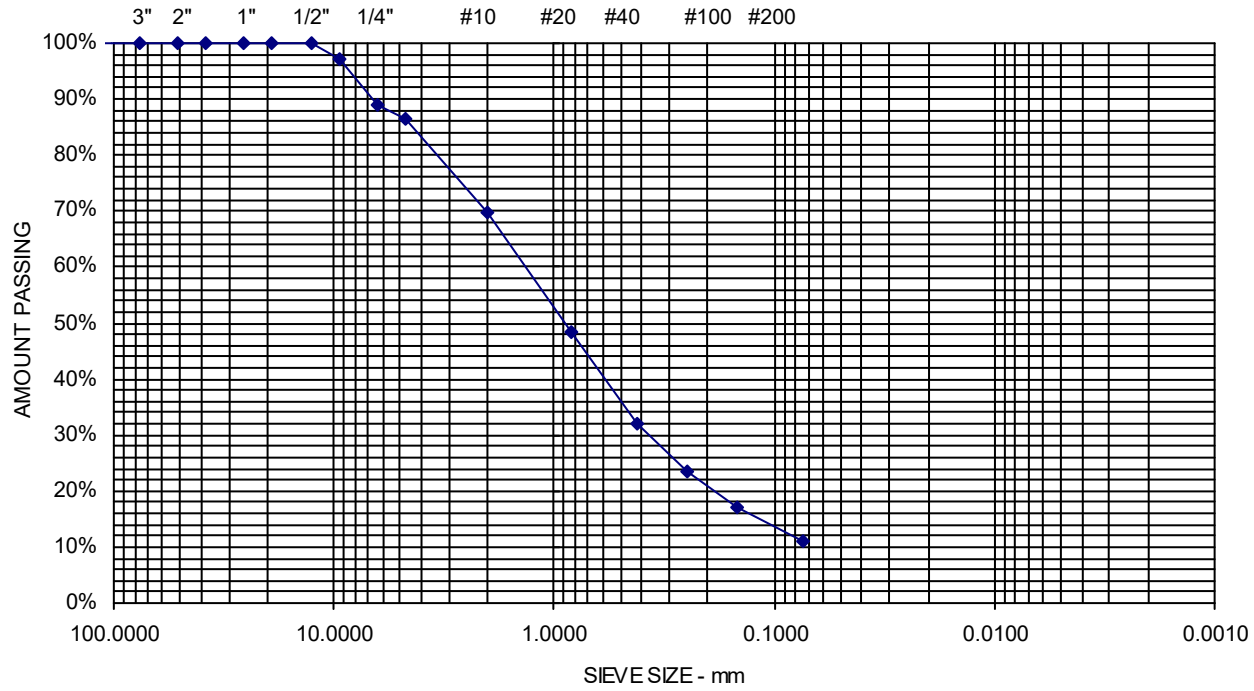
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14238A
Exploration	**LB-7**	Date Received	9/21/2022
Material Source	**LB-7, 1D, 0-2 FT**	Date Completed	9/30/2022
		Tested By	BRANDON CHAPUT

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**97**	
6.3 mm	**1/4"**	**89**	
4.75 mm	**No. 4**	**87**	13.4% Gravel
2.00 mm	**No. 10**	**70**	
850 um	**No. 20**	**48**	
425 um	**No. 40**	**32**	75.5% Sand
250 um	**No. 60**	**23**	
150 um	**No. 100**	**17**	
75 um	**No. 200**	**11.0**	11% Fines



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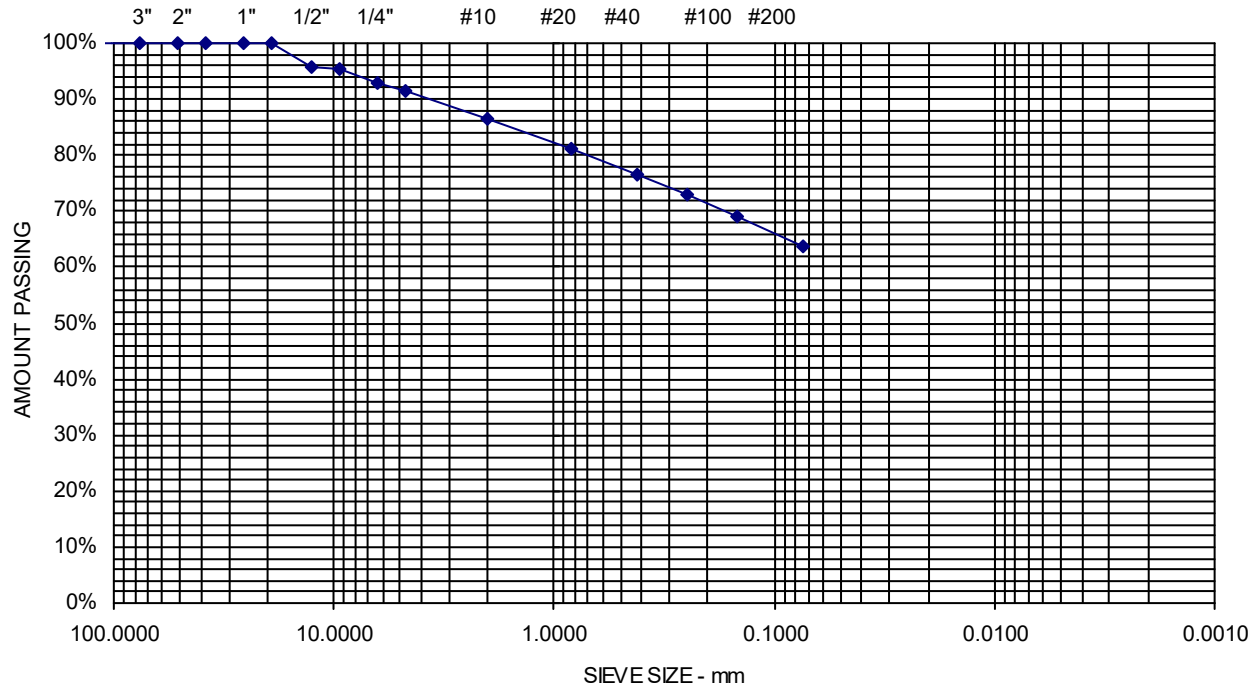
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14239A
Exploration	**LB-7**	Date Received	9/21/2022
Material Source	**LB-7, 3D, 10-12 FT**	Date Completed	9/30/2022
		Tested By	BRANDON CHAPUT

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**96**	
9.5 mm	**3/8"**	**95**	
6.3 mm	**1/4"**	**93**	
4.75 mm	**No. 4**	**92**	8.4% Gravel
2.00 mm	**No. 10**	**86**	
850 um	**No. 20**	**81**	
425 um	**No. 40**	**77**	27.9% Sand
250 um	**No. 60**	**73**	
150 um	**No. 100**	**69**	
75 um	**No. 200**	**63.6**	63.6% Fines



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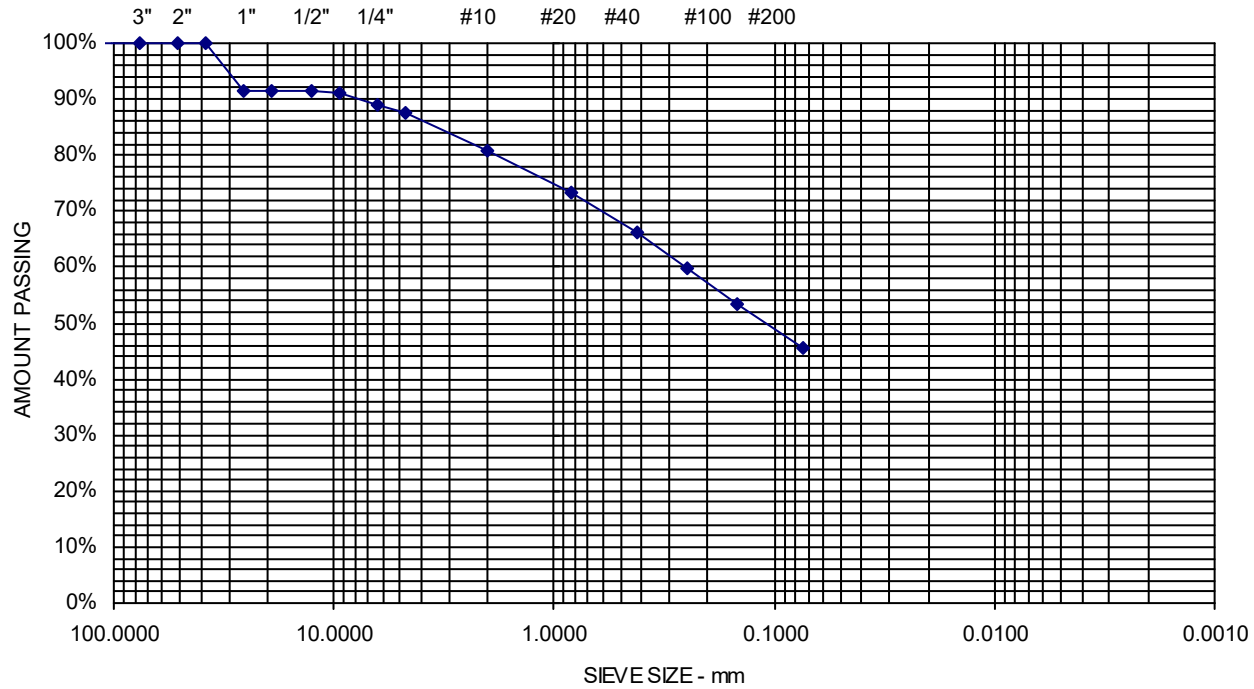
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14240A
Exploration	**LB-8**	Date Received	9/21/2022
Material Source	**LB-8, 2D, 5-7 FT**	Date Completed	9/30/2022
		Tested By	BRANDON CHAPUT

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**92**	
19.0 mm	**3/4"**	**92**	
12.5 mm	**1/2"**	**92**	
9.5 mm	**3/8"**	**91**	
6.3 mm	**1/4"**	**89**	
4.75 mm	**No. 4**	**87**	12.5% Gravel
2.00 mm	**No. 10**	**81**	
850 um	**No. 20**	**73**	
425 um	**No. 40**	**66**	42% Sand
250 um	**No. 60**	**60**	
150 um	**No. 100**	**54**	
75 um	**No. 200**	**45.5**	45.5% Fines



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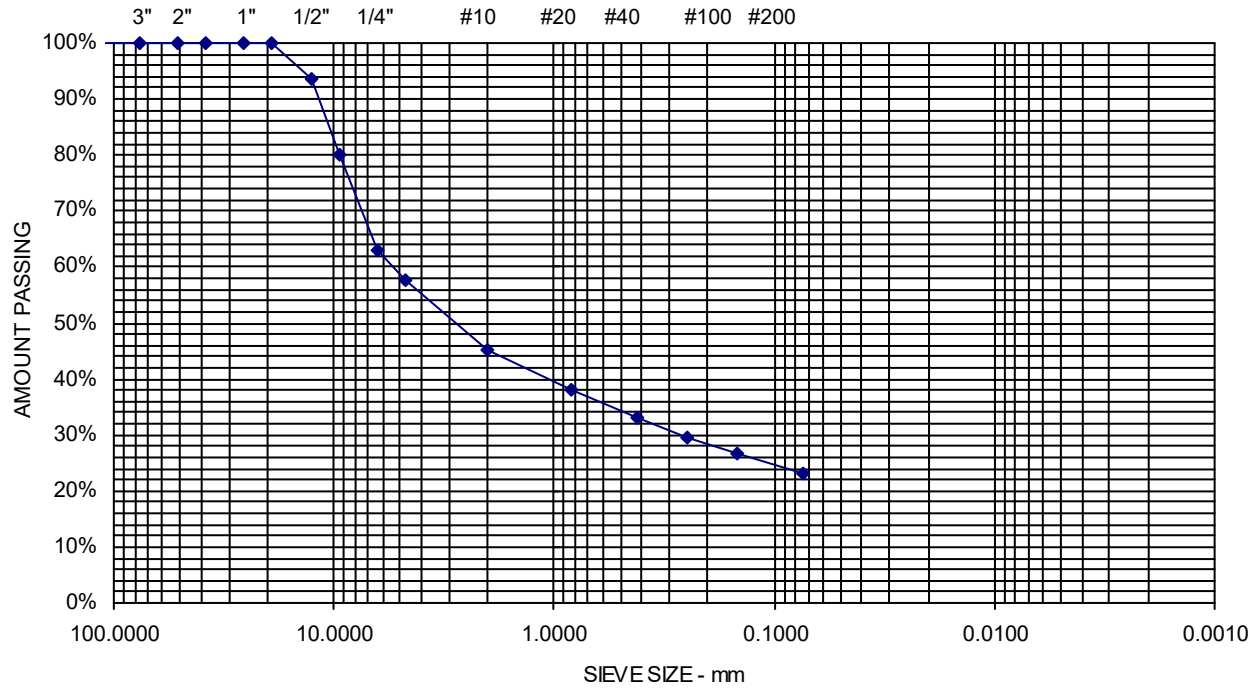
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14241A
Exploration	**LB-8**	Date Received	9/21/2022
Material Source	**LB-8, 5D, 20-22 FT**	Date Completed	9/27/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
125 mm	**5"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**94**	
9.5 mm	**3/8"**	**80**	
6.3 mm	**1/4"**	**63**	
4.75 mm	**No. 4**	**58**	42.3% Gravel
2.00 mm	**No. 10**	**45**	
850 um	**No. 20**	**38**	
425 um	**No. 40**	**33**	34.5% Sand
250 um	**No. 60**	**30**	
150 um	**No. 100**	**27**	
75 um	**No. 200**	**23.2**	23.2% Fines



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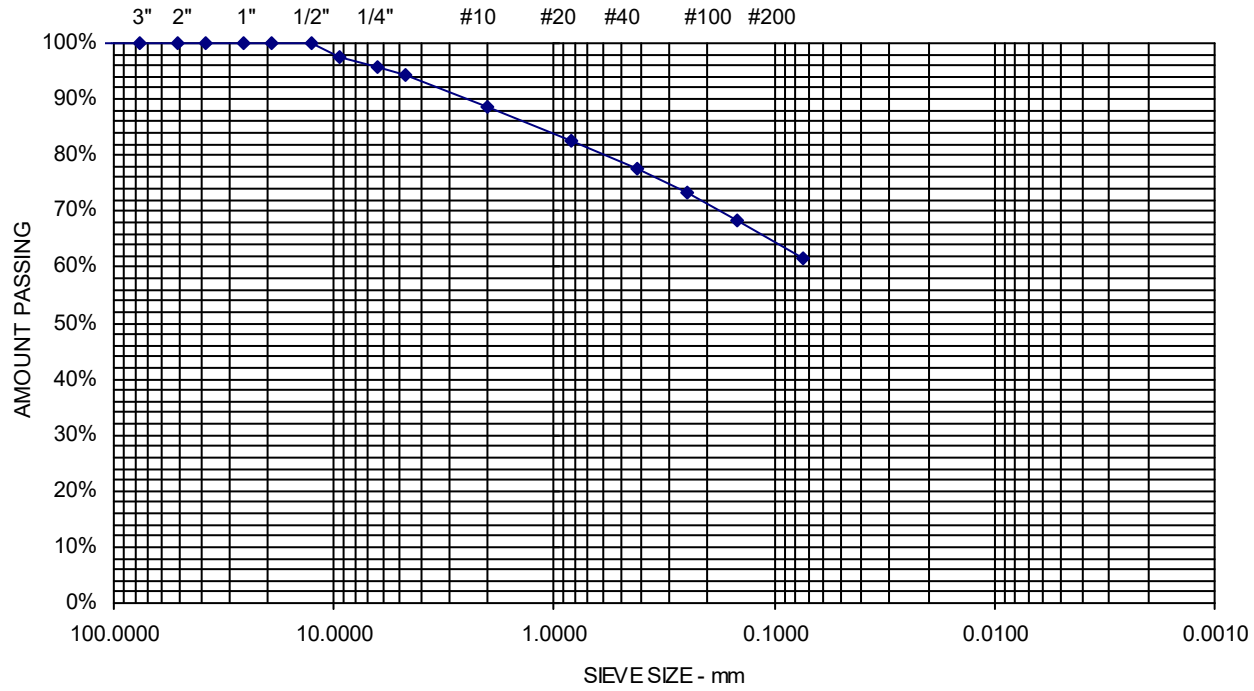
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14242A
Exploration	**LB-9**	Date Received	9/21/2022
Material Source	**LB-9, 2D, 5-7 FT**	Date Completed	9/27/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**97**	
6.3 mm	**1/4"**	**96**	
4.75 mm	**No. 4**	**94**	5.8% Gravel
2.00 mm	**No. 10**	**88**	
850 um	**No. 20**	**83**	
425 um	**No. 40**	**78**	32.5% Sand
250 um	**No. 60**	**73**	
150 um	**No. 100**	**68**	
75 um	**No. 200**	**61.7**	61.7% Fines



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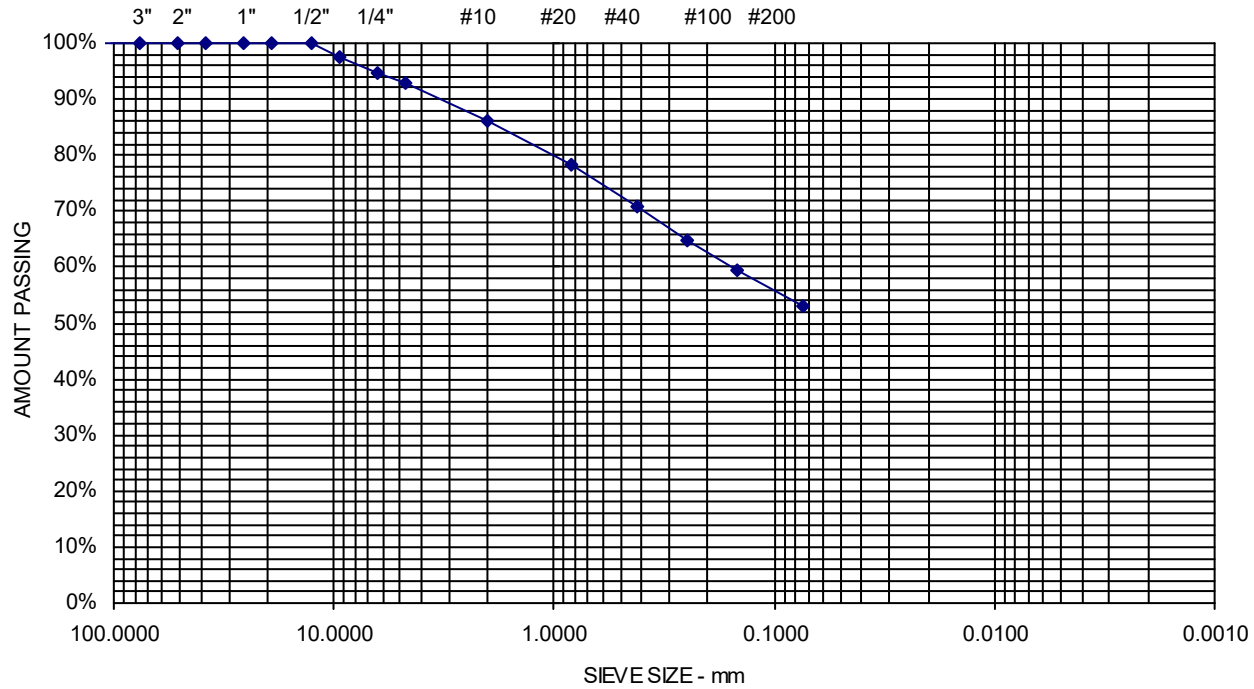
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14243A
Exploration	**LB-9**	Date Received	9/21/2022
Material Source	**LB-9, 5D, 20-22 FT**	Date Completed	9/27/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**97**	
6.3 mm	**1/4"**	**95**	
4.75 mm	**No. 4**	**93**	7.1% Gravel
2.00 mm	**No. 10**	**86**	
850 um	**No. 20**	**78**	
425 um	**No. 40**	**71**	39.9% Sand
250 um	**No. 60**	**65**	
150 um	**No. 100**	**59**	
75 um	**No. 200**	**53.1**	53.1% Fines



Comments: As Delivered MC: 9.24%

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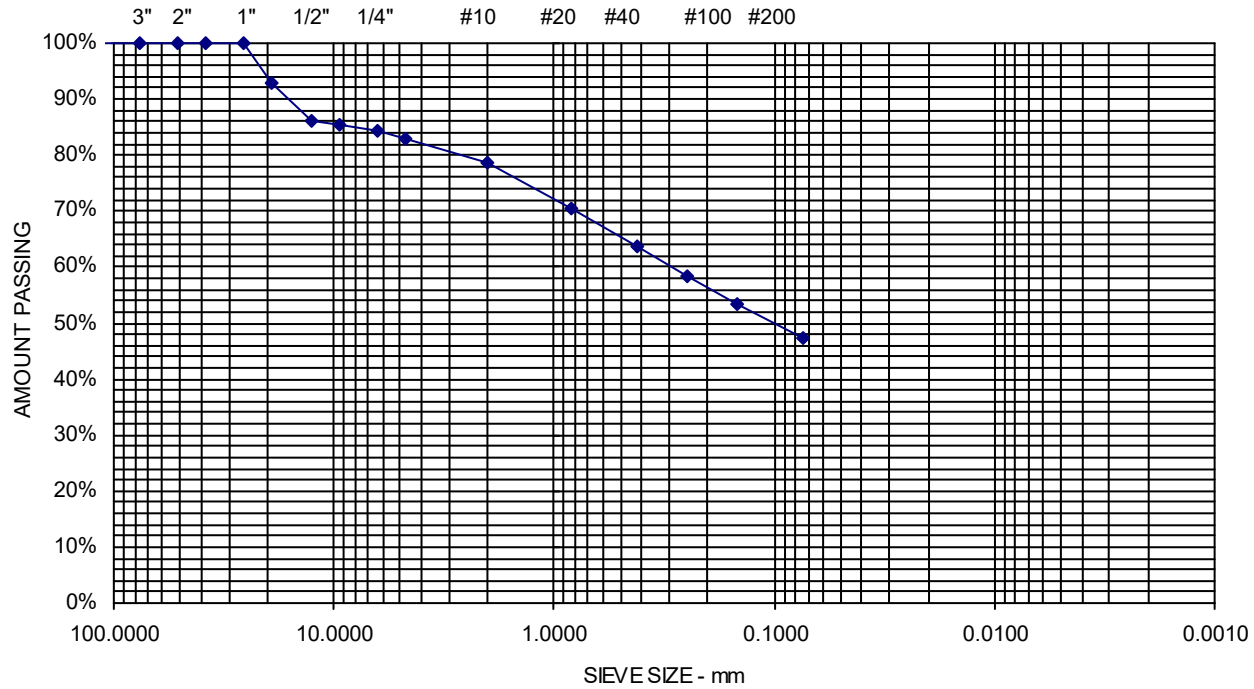
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14285A
Exploration	**RB-1**	Date Received	10/3/2022
Material Source	**RB-1, 3D, 4.0-6.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**93**	
12.5 mm	**1/2"**	**86**	
9.5 mm	**3/8"**	**85**	
6.3 mm	**1/4"**	**84**	
4.75 mm	**No. 4**	**83**	16.9% Gravel
2.00 mm	**No. 10**	**79**	
850 um	**No. 20**	**70**	
425 um	**No. 40**	**64**	35.9% Sand
250 um	**No. 60**	**58**	
150 um	**No. 100**	**53**	
75 um	**No. 200**	**47.2**	47.2% Fines



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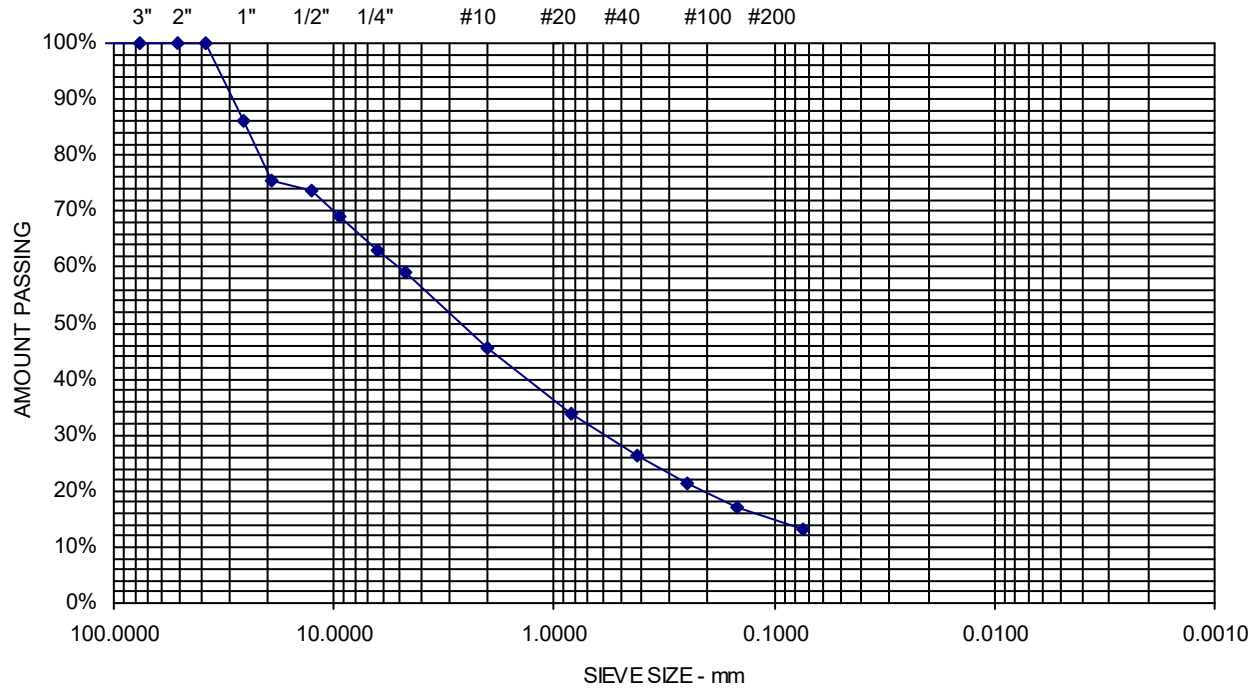
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14286A
Exploration	**RB-2**	Date Received	10/3/2022
Material Source	**RB-2, 1D, 0.5-1.8 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**86**	
19.0 mm	**3/4"**	**75**	
12.5 mm	**1/2"**	**74**	
9.5 mm	**3/8"**	**69**	
6.3 mm	**1/4"**	**63**	
4.75 mm	**No. 4**	**59**	41.1% Gravel
2.00 mm	**No. 10**	**46**	
850 um	**No. 20**	**34**	
425 um	**No. 40**	**26**	45.8% Sand
250 um	**No. 60**	**21**	
150 um	**No. 100**	**17**	
75 um	**No. 200**	**13.2**	13.2% Fines



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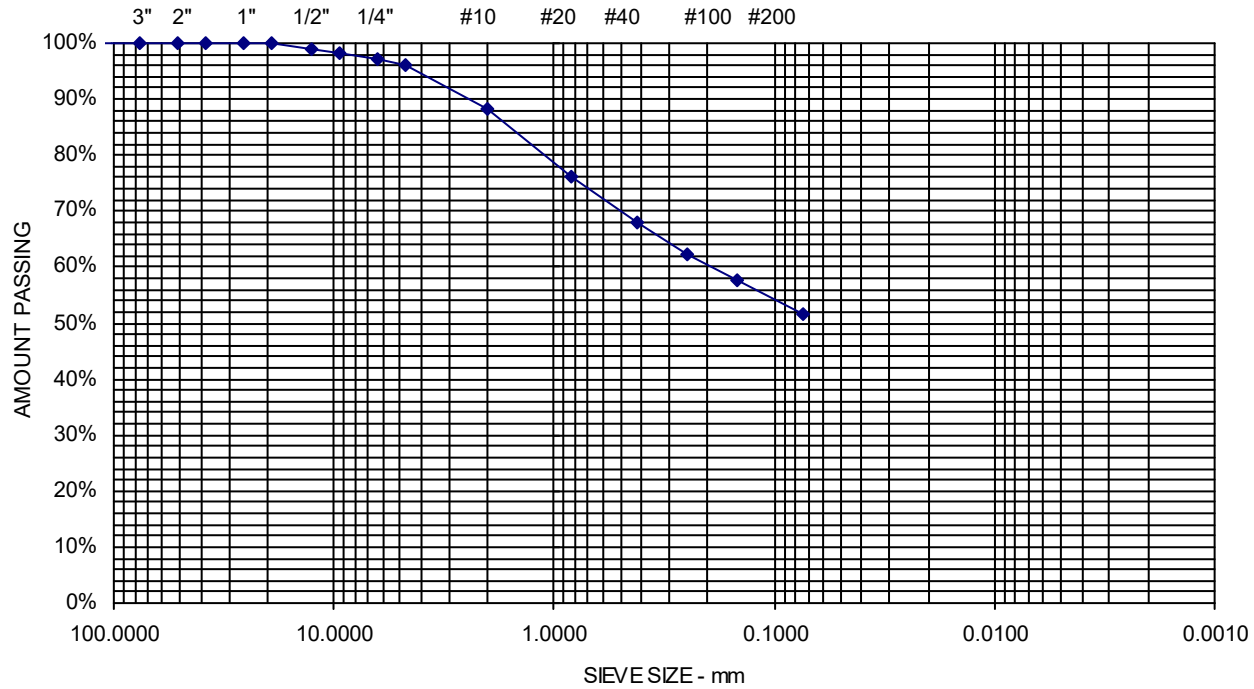
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14287A
Exploration	**RB-3**	Date Received	10/3/2022
Material Source	**RB-3, 3D, 4.0-6.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**99**	
9.5 mm	**3/8"**	**98**	
6.3 mm	**1/4"**	**97**	
4.75 mm	**No. 4**	**96**	3.9% Gravel
2.00 mm	**No. 10**	**88**	
850 um	**No. 20**	**76**	
425 um	**No. 40**	**68**	44.5% Sand
250 um	**No. 60**	**62**	
150 um	**No. 100**	**58**	
75 um	**No. 200**	**51.7**	51.7% Fines



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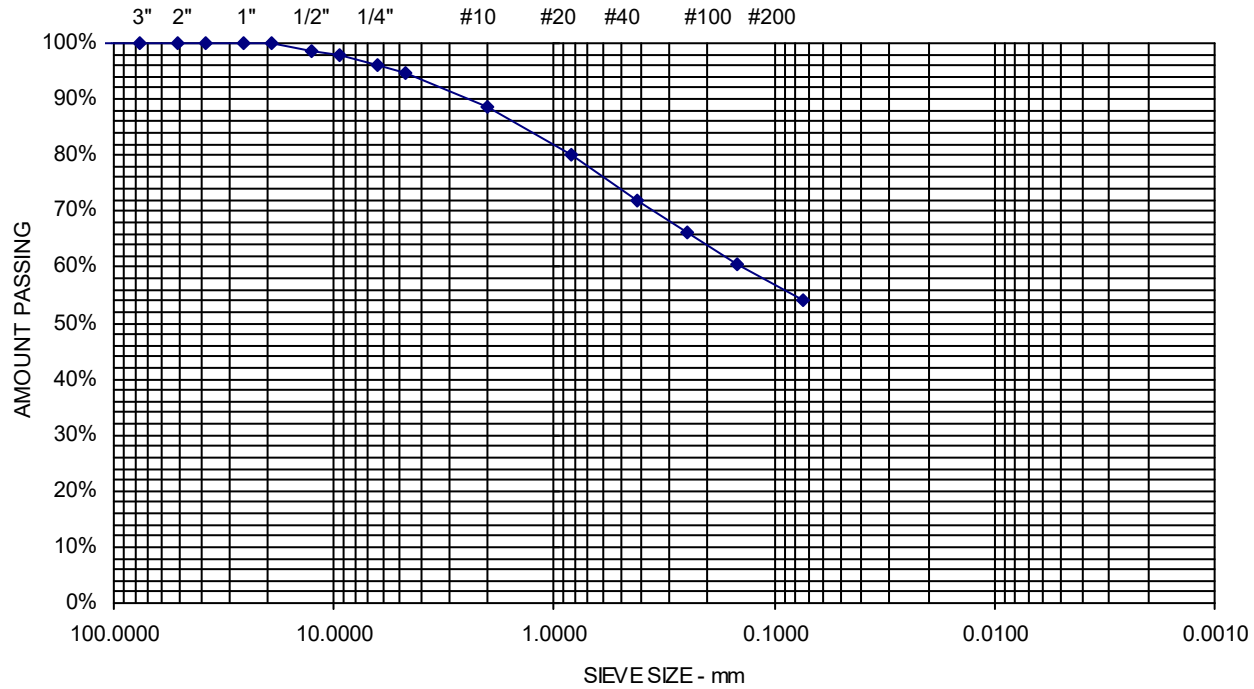
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14288A
Exploration	**RB-4**	Date Received	10/3/2022
Material Source	**RB-4, 3D, 4.0-6.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**99**	
9.5 mm	**3/8"**	**98**	
6.3 mm	**1/4"**	**96**	
4.75 mm	**No. 4**	**95**	5.3% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**80**	
425 um	**No. 40**	**72**	40.6% Sand
250 um	**No. 60**	**66**	
150 um	**No. 100**	**61**	
75 um	**No. 200**	**54.1**	54.1% Fines



Comments:

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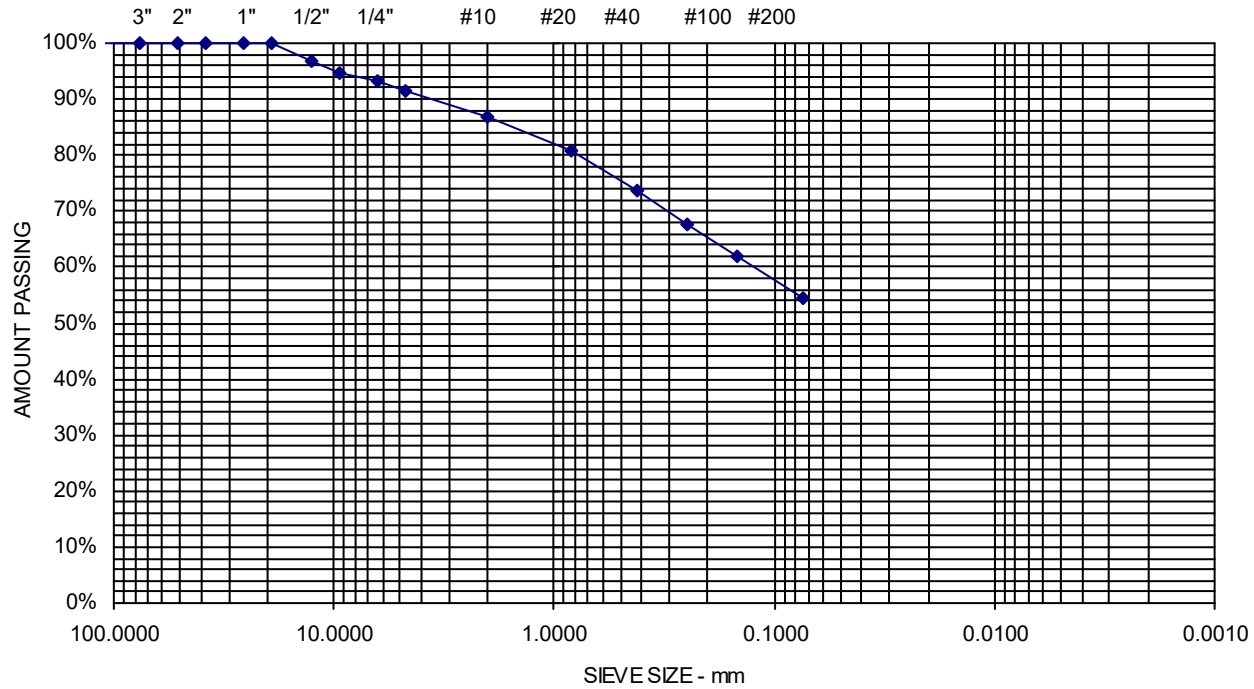
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14289A
Exploration	**RB-5**	Date Received	10/3/2022
Material Source	**RB-5, 2D, 2.2-4.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**97**	
9.5 mm	**3/8"**	**95**	
6.3 mm	**1/4"**	**93**	
4.75 mm	**No. 4**	**91**	8.7% Gravel
2.00 mm	**No. 10**	**87**	
850 um	**No. 20**	**81**	
425 um	**No. 40**	**74**	37% Sand
250 um	**No. 60**	**68**	
150 um	**No. 100**	**62**	
75 um	**No. 200**	**54.3**	54.3% Fines



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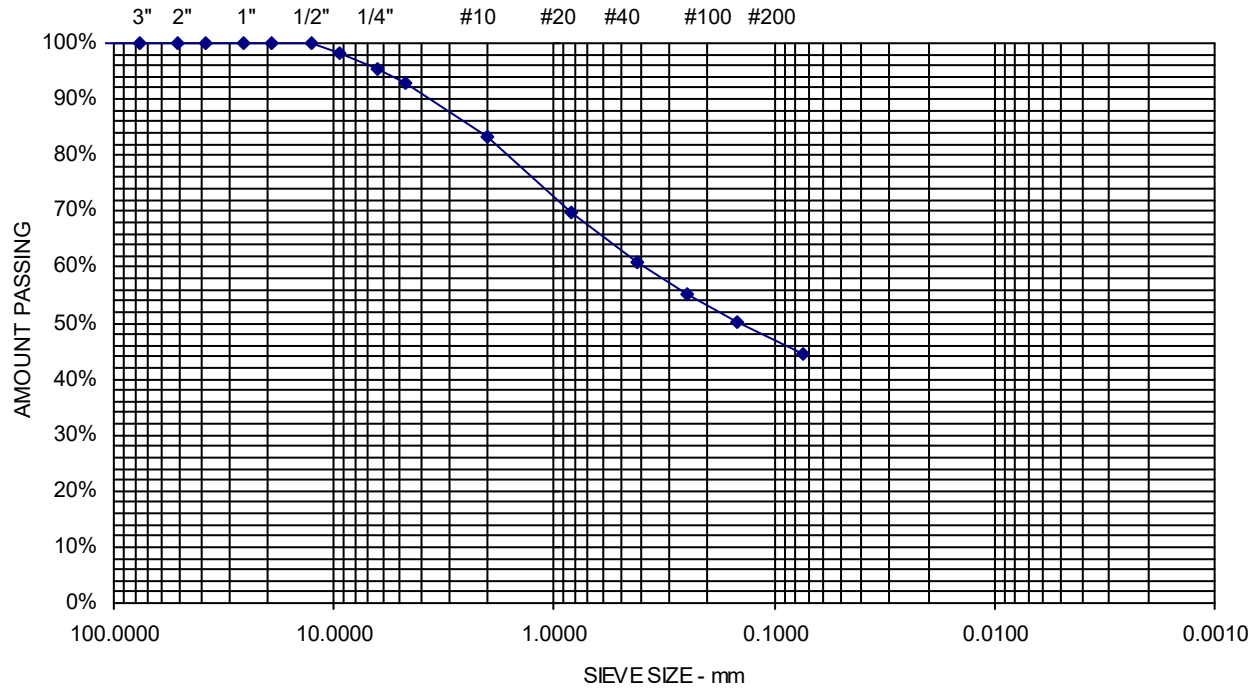
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14290A
Exploration	**RB-6**	Date Received	10/3/2022
Material Source	**RB-6, 2D, 2.0-4.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**98**	
6.3 mm	**1/4"**	**96**	
4.75 mm	**No. 4**	**93**	7.1% Gravel
2.00 mm	**No. 10**	**83**	
850 um	**No. 20**	**70**	
425 um	**No. 40**	**61**	48.6% Sand
250 um	**No. 60**	**55**	
150 um	**No. 100**	**50**	
75 um	**No. 200**	**44.3**	44.3% Fines



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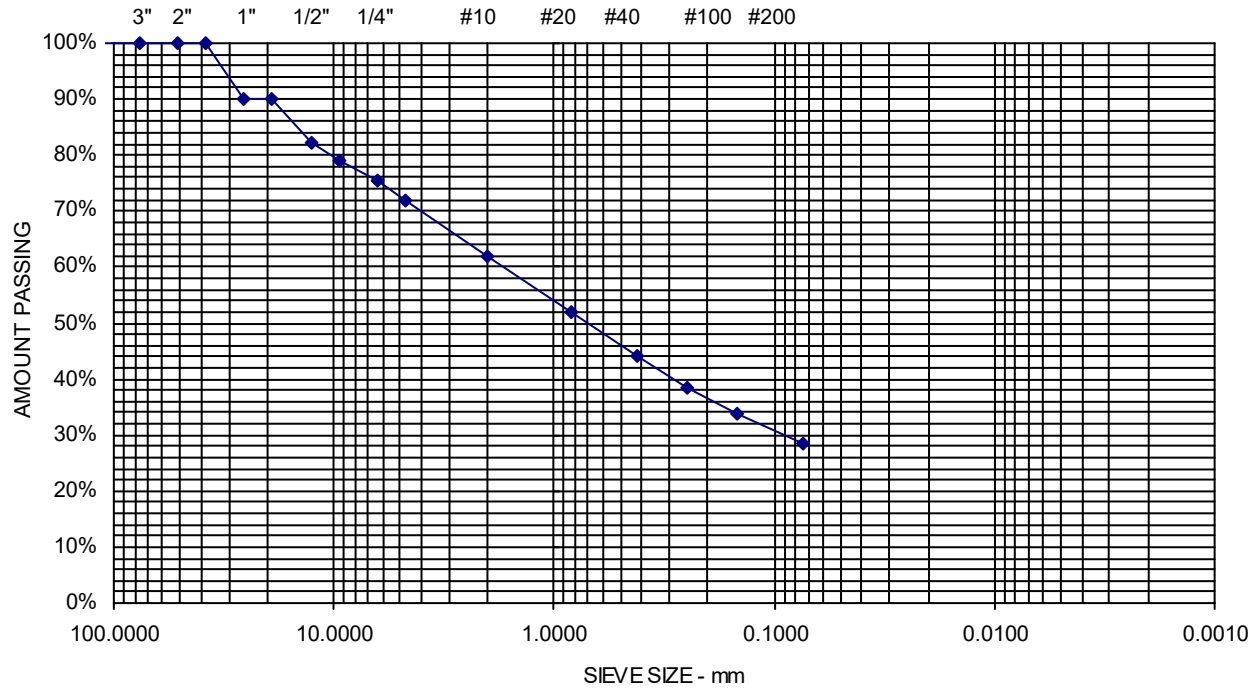
Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14291A
Exploration	**TP-1**	Date Received	10/3/2022
Material Source	**TP-1, S1, 2 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**90**	
19.0 mm	**3/4"**	**90**	
12.5 mm	**1/2"**	**82**	
9.5 mm	**3/8"**	**79**	
6.3 mm	**1/4"**	**75**	
4.75 mm	**No. 4**	**72**	27.9% Gravel
2.00 mm	**No. 10**	**62**	
850 um	**No. 20**	**52**	
425 um	**No. 40**	**44**	43.8% Sand
250 um	**No. 60**	**39**	
150 um	**No. 100**	**34**	
75 um	**No. 200**	**28.3**	28.3% Fines



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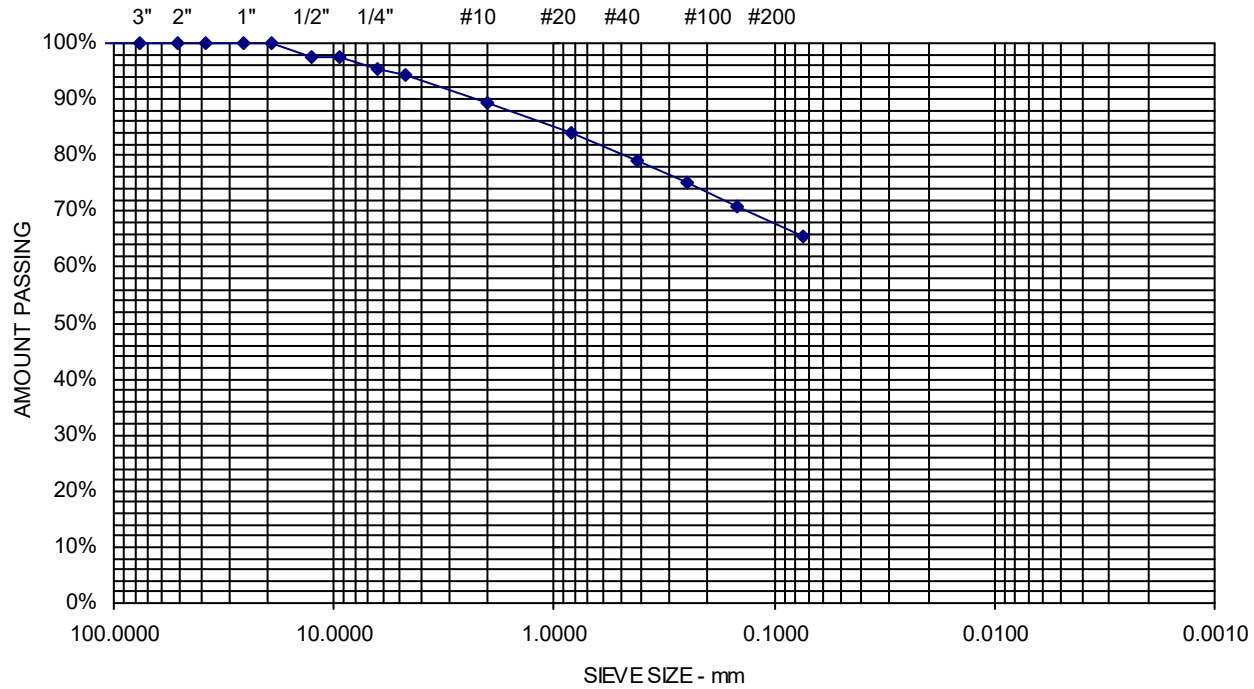
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14292A
Exploration	**TP-4**	Date Received	10/3/2022
Material Source	**TP-4, S1, 8.0-10.0 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**98**	
9.5 mm	**3/8"**	**98**	
6.3 mm	**1/4"**	**95**	
4.75 mm	**No. 4**	**94**	5.7% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**84**	
425 um	**No. 40**	**79**	28.8% Sand
250 um	**No. 60**	**75**	
150 um	**No. 100**	**71**	
75 um	**No. 200**	**65.5**	65.5% Fines



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S.W.COLE ENGINEERING, INC.

Report of Specific Gravity of Soil Solids

ASTM D854

Project Name:	21-1242	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14292A
Client:	Project No.	**Date Received:**	10/03/22
Material Description:	Test Pit	**Date Completed:**	10/14/22
Material Source:	TP-4, S1, 8.0-10.0 ft	**Tested By:**	N. Davis

Specific Gravity of Soil Solids	**2.683**	(@ 20°C)
% Passing the #4 Sieve	100%	
Visual Soil Classification	Clay-Silt	
Soil Moisture Condition (Method)	As Recieved (A)	
Test Temperature	22.7	°C
Material excluded from test	0	

Comments:

Reviewed By: _____

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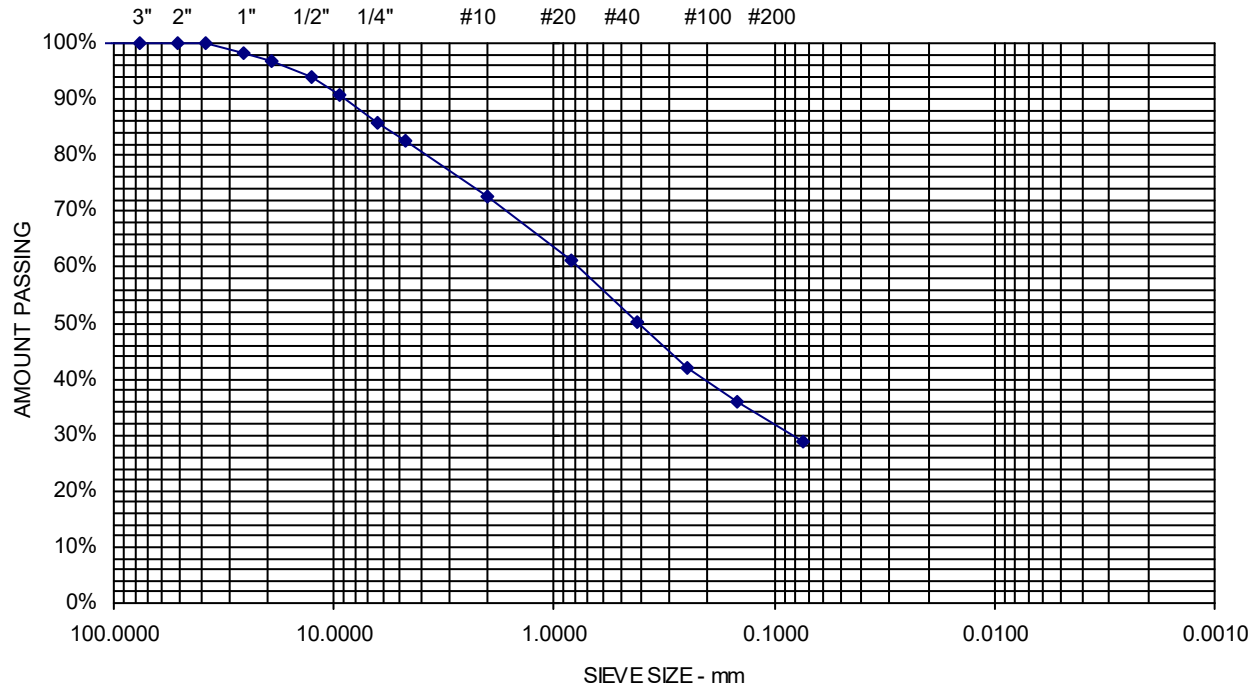
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14293A
Exploration	**TP-6**	Date Received	10/3/2022
Material Source	**TP-6, S1, 3 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**98**	
19.0 mm	**3/4"**	**97**	
12.5 mm	**1/2"**	**94**	
9.5 mm	**3/8"**	**91**	
6.3 mm	**1/4"**	**86**	
4.75 mm	**No. 4**	**83**	17.4% Gravel
2.00 mm	**No. 10**	**73**	
850 um	**No. 20**	**61**	
425 um	**No. 40**	**50**	53.9% Sand
250 um	**No. 60**	**42**	
150 um	**No. 100**	**36**	
75 um	**No. 200**	**28.7**	28.7% Fines



Comments: As Delivered MC: 9.40%

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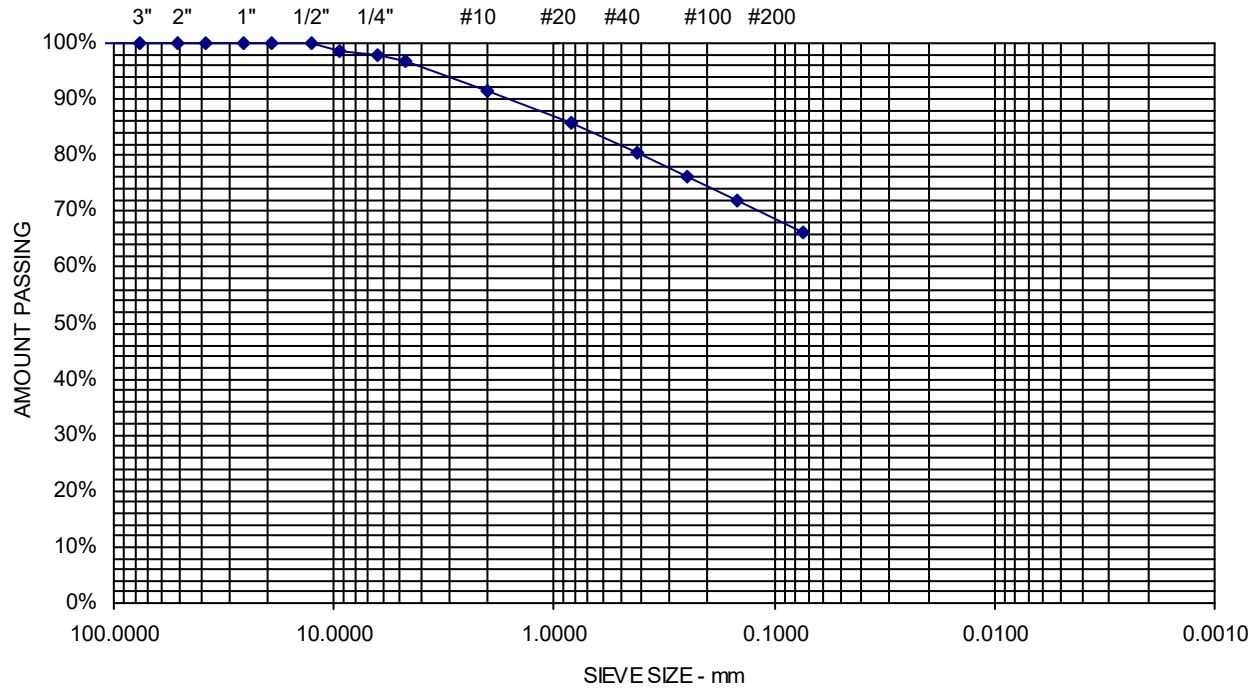
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14294A
Exploration	**TP-6**	Date Received	10/3/2022
Material Source	**TP-6, S2, 7 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**98**	
6.3 mm	**1/4"**	**98**	
4.75 mm	**No. 4**	**97**	3.2% Gravel
2.00 mm	**No. 10**	**91**	
850 um	**No. 20**	**86**	
425 um	**No. 40**	**81**	30.5% Sand
250 um	**No. 60**	**76**	
150 um	**No. 100**	**72**	
75 um	**No. 200**	**66.2**	66.2% Fines



Comments: As Delivered MC: 15.20%

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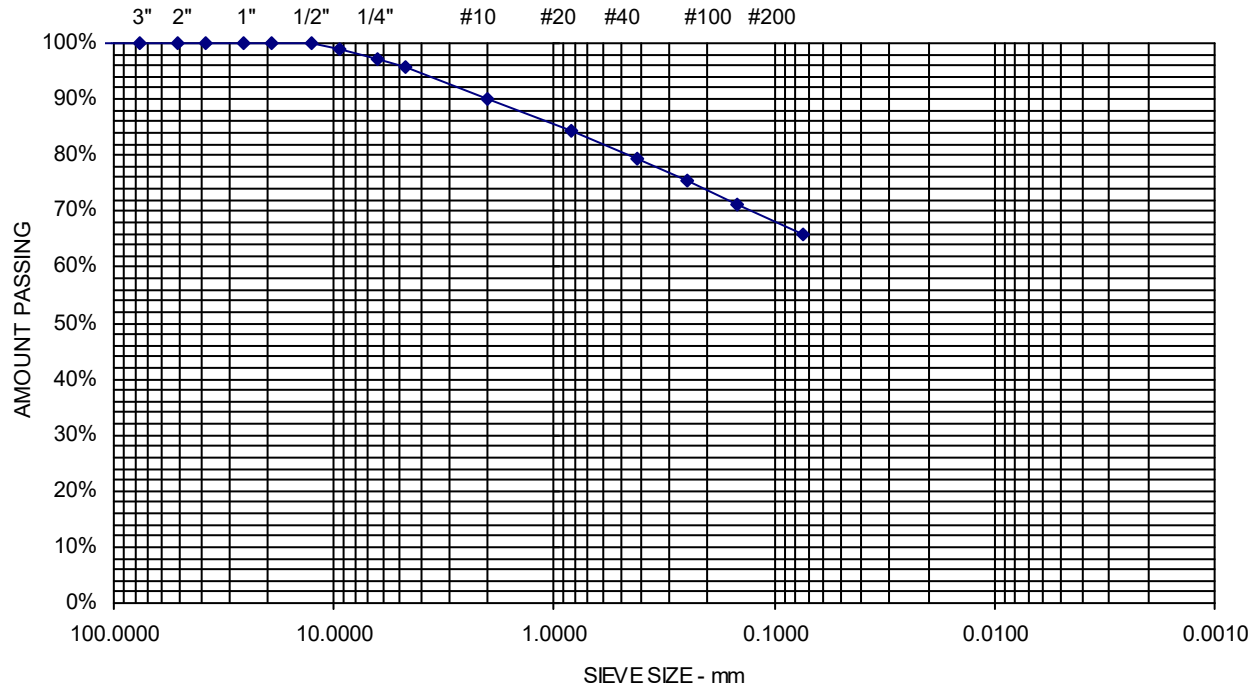
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14295A
Exploration	**TP-6**	Date Received	10/3/2022
Material Source	**TP-6, S3, 10 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**100**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**97**	
4.75 mm	**No. 4**	**96**	4.4% Gravel
2.00 mm	**No. 10**	**90**	
850 um	**No. 20**	**84**	
425 um	**No. 40**	**79**	29.7% Sand
250 um	**No. 60**	**75**	
150 um	**No. 100**	**71**	
75 um	**No. 200**	**65.9**	65.9% Fines



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S.W.COLE ENGINEERING, INC.

Report of Hydrometer

ASTM D422-63 (07)

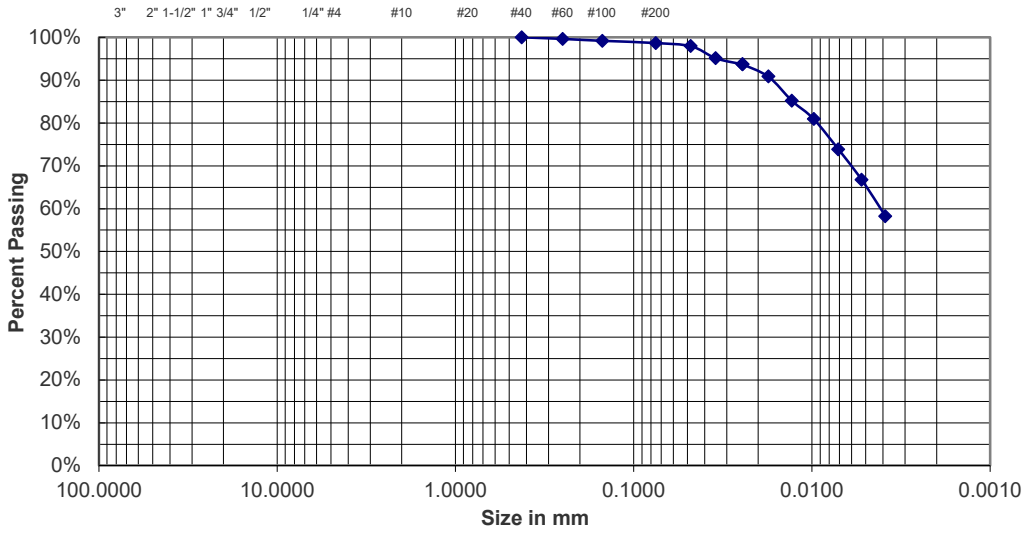
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14296A
Client:	Moffatt & Nichol	**Date Received:**	10/3/2022
Material Description:	Test Pit	**Date Completed:**	10/12/2022
Material Source:	TP-7, S1, 4 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**100**	
No. 4	4.75	**100**	
No. 10	2	**100**	
No. 20	0.85	**100**	
No. 40	0.425	**100**	
No. 60	0.25	**100**	
No. 100	0.15	**99**	
No. 200	0.075	**98.7**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.04788	**98.0**
0.03463	**95.1**
0.02449	**93.7**
0.02449	**93.7**
0.01757	**90.9**
0.01294	**85.2**
0.00976	**80.9**
0.00711	**73.8**
0.00526	**66.7**
0.00387	**58.2**
0.00277	**51.1**
0.00203	**44.0**
0.00122	**36.9**



Particle Distribution:				
	Gravel (3" - No. 4)	**0.0%**	Fines (0.074 -0.005)	**38.0%**
	Sand (No. 4 - No. 200)	**1.3%**	Clay (<0.005)	**60.6%**

Comments:

Reviewed By

26 Coles Crossing Drive, Sidney, ME 04330 • P: (207) 626.0600 • F: (207) 626.0700 • E: infosidney@swcole.com

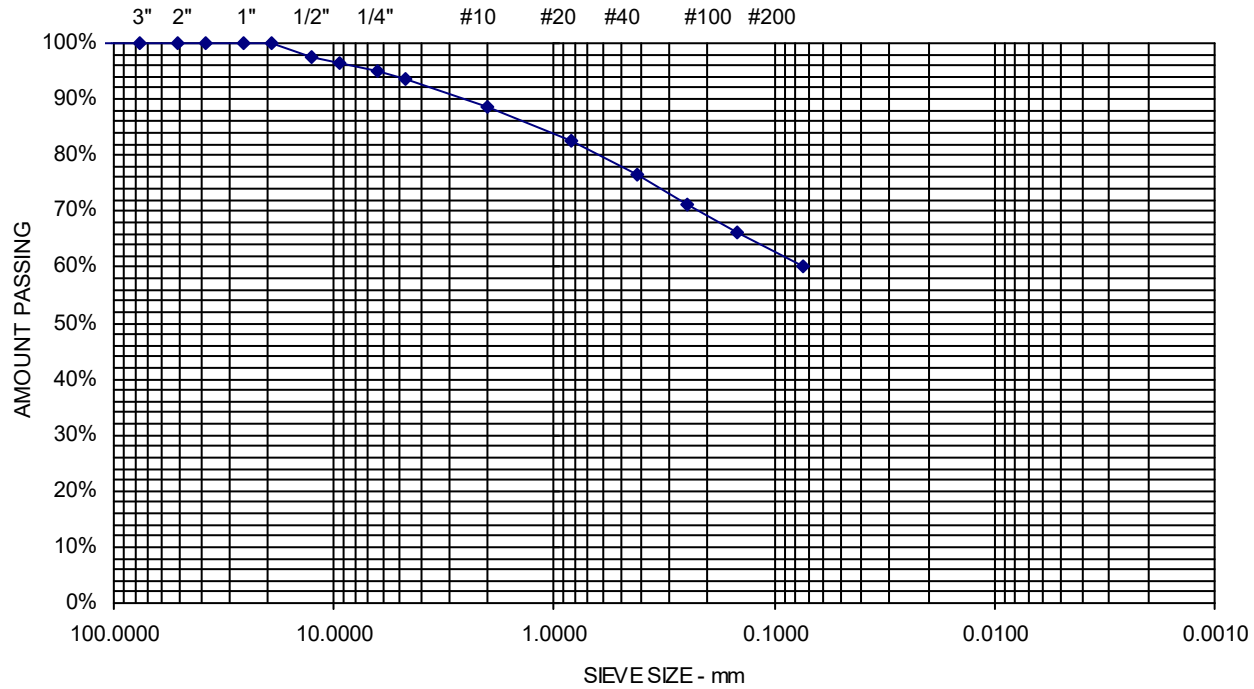
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14297A
Exploration	**TP-7**	Date Received	10/3/2022
Material Source	**TP-7, S2, 12 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**98**	
9.5 mm	**3/8"**	**96**	
6.3 mm	**1/4"**	**95**	
4.75 mm	**No. 4**	**94**	6.3% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**83**	
425 um	**No. 40**	**77**	33.5% Sand
250 um	**No. 60**	**71**	
150 um	**No. 100**	**66**	
75 um	**No. 200**	**60.2**	60.2% Fines



Comments: As Delivered MC: 12.03%

Sheet

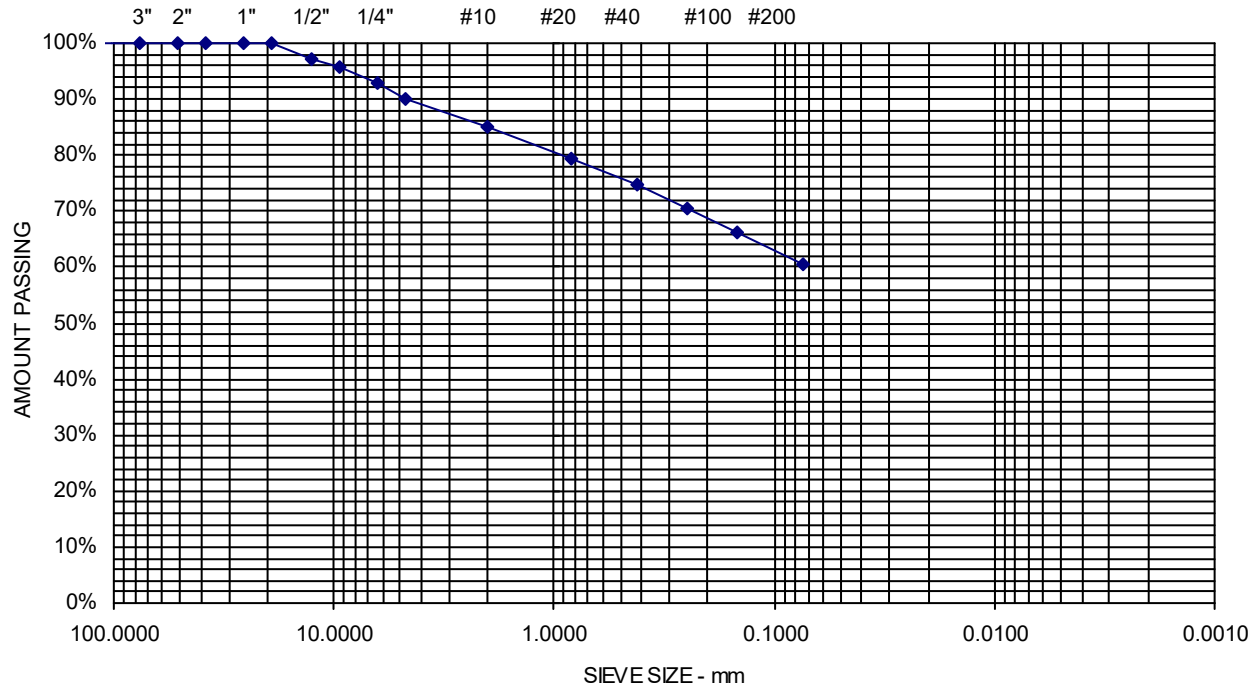
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14298A
Exploration	**TP-8**	Date Received	10/3/2022
Material Source	**TP-8, S1, 7FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**97**	
9.5 mm	**3/8"**	**96**	
6.3 mm	**1/4"**	**93**	
4.75 mm	**No. 4**	**90**	9.8% Gravel
2.00 mm	**No. 10**	**85**	
850 um	**No. 20**	**79**	
425 um	**No. 40**	**75**	29.6% Sand
250 um	**No. 60**	**70**	
150 um	**No. 100**	**66**	
75 um	**No. 200**	**60.6**	60.6% Fines



Comments: As Delivered MC: 12.78%

Sheet

S.W.COLE ENGINEERING, INC.

Report of Hydrometer

ASTM D422-63 (07)

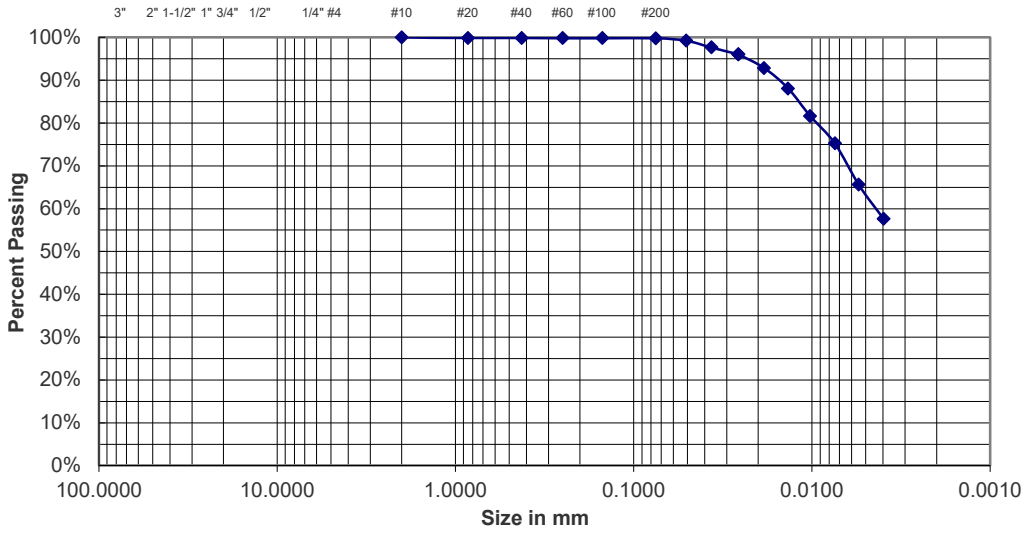
Project Name:	Sears Island Offshore Wind Terminal	**Project Number:**	21-1242
Project Location:	Searsport, ME	**Lab ID:**	14299A
Client:	Moffatt & Nichol	**Date Received:**	10/3/2022
Material Description:	Test Pit	**Date Completed:**	10/12/2022
Material Source:	TP-9, S1, 6.5 ft	**Tested By:**	N. Davis

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification
3"	76	**100**	
2"	50	**100**	
1½"	38.1	**100**	
1"	25	**100**	
¾"	19	**100**	
½"	12.5	**100**	
¼"	6.3	**100**	
No. 4	4.75	**100**	
No. 10	2	**100**	
No. 20	0.85	**100**	
No. 40	0.425	**100**	
No. 60	0.25	**100**	
No. 100	0.15	**100**	
No. 200	0.075	**99.8**	

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.05074	**99.2**
0.03661	**97.6**
0.02589	**96.0**
0.02589	**96.0**
0.01854	**92.8**
0.01361	**88.0**
0.01023	**81.6**
0.00743	**75.2**
0.00548	**65.6**
0.00397	**57.6**
0.00285	**51.2**
0.00203	**48.0**
0.00124	**35.2**



Particle Distribution:

Gravel (3" - No. 4)	**0.0%**	Fines (0.074 -0.005)	**38.9%**
Sand (No. 4 - No. 200)	**0.2%**	Clay (<0.005)	**60.9%**

Comments:

Reviewed By

26 Coles Crossing Drive, Sidney, ME 04330 • P: (207) 626.0600 • F: (207) 626.0700 • E: infosidney@swcole.com

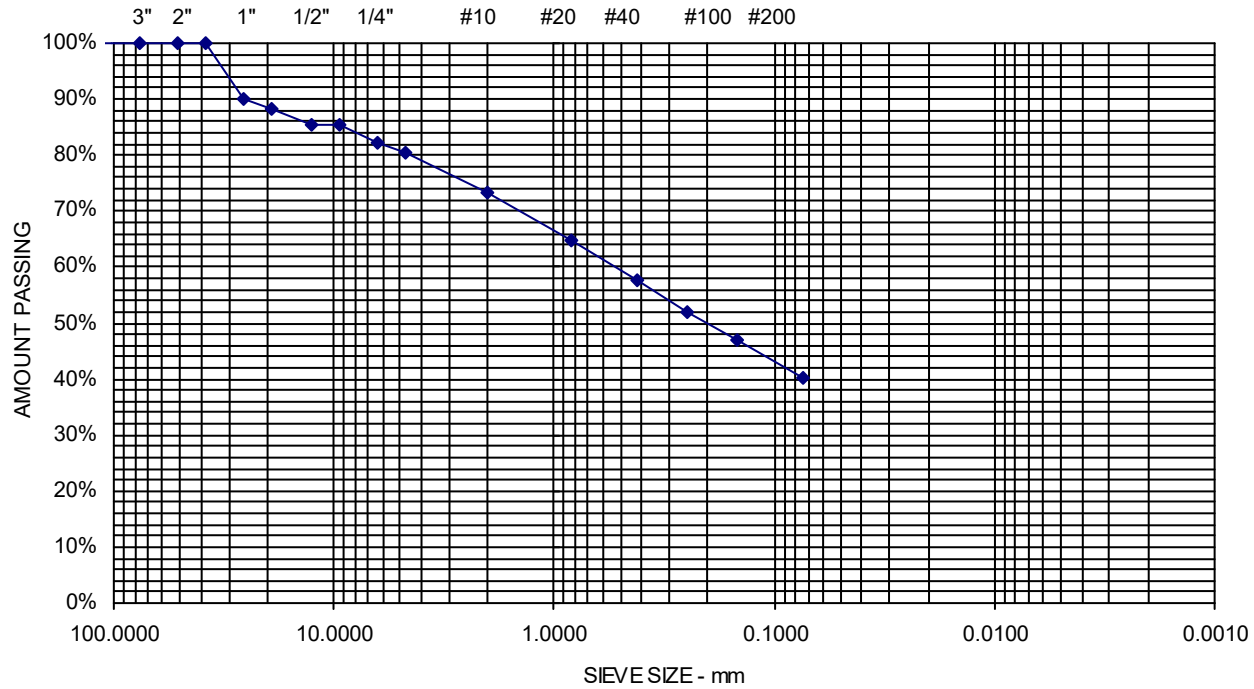
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14300A
Exploration	**TP-10**	Date Received	10/3/2022
Material Source	**TP-10, S1, 3 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**90**	
19.0 mm	**3/4"**	**88**	
12.5 mm	**1/2"**	**85**	
9.5 mm	**3/8"**	**86**	
6.3 mm	**1/4"**	**82**	
4.75 mm	**No. 4**	**80**	19.5% Gravel
2.00 mm	**No. 10**	**73**	
850 um	**No. 20**	**65**	
425 um	**No. 40**	**58**	40.1% Sand
250 um	**No. 60**	**52**	
150 um	**No. 100**	**47**	
75 um	**No. 200**	**40.4**	40.4% Fines



Comments: As Delivered MC: 9.66%

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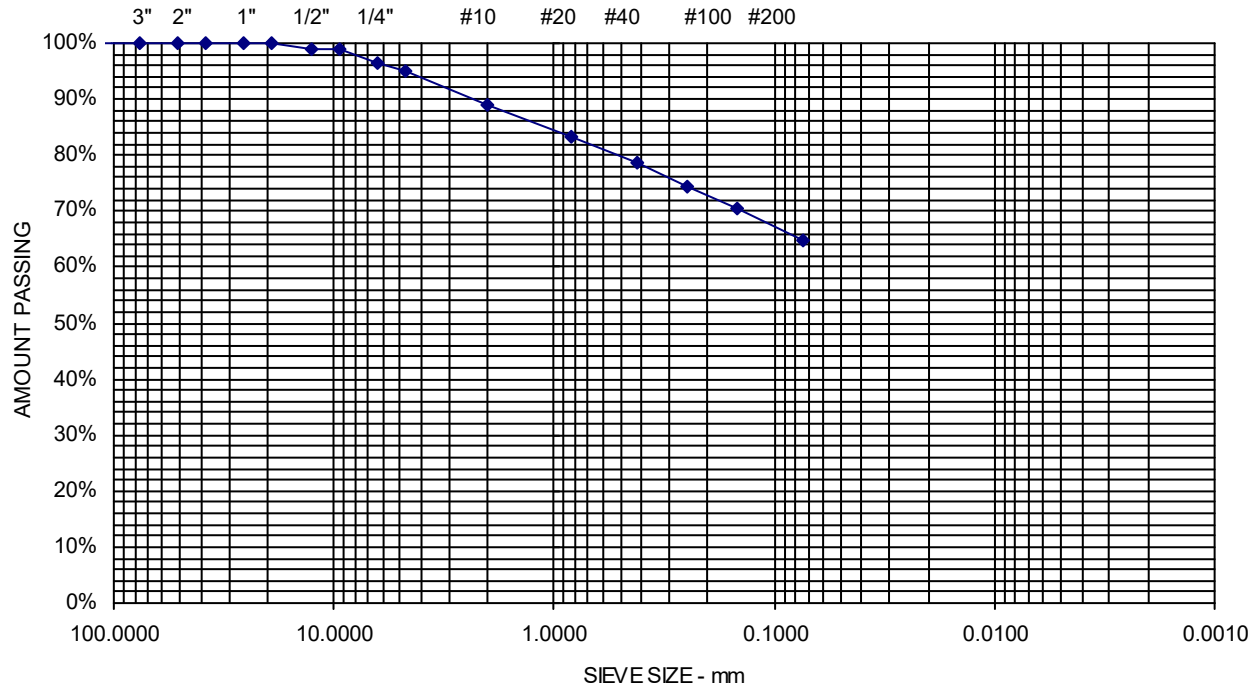
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14301A
Exploration	**TP-10**	Date Received	10/3/2022
Material Source	**TP-10, S2, 10 FT**	Date Completed	10/4/2022
		Tested By	RICHARD SEYMOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	**6"**	**100**	
100 mm	**4"**	**100**	
75 mm	**3"**	**100**	
50 mm	**2"**	**100**	
38.1 mm	**1-1/2"**	**100**	
25.0 mm	**1"**	**100**	
19.0 mm	**3/4"**	**100**	
12.5 mm	**1/2"**	**99**	
9.5 mm	**3/8"**	**99**	
6.3 mm	**1/4"**	**96**	
4.75 mm	**No. 4**	**95**	5.1% Gravel
2.00 mm	**No. 10**	**89**	
850 um	**No. 20**	**83**	
425 um	**No. 40**	**79**	30.1% Sand
250 um	**No. 60**	**75**	
150 um	**No. 100**	**70**	
75 um	**No. 200**	**64.9**	64.9% Fines



Comments: As Delivered MC: 14.63%

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Consolidation Test

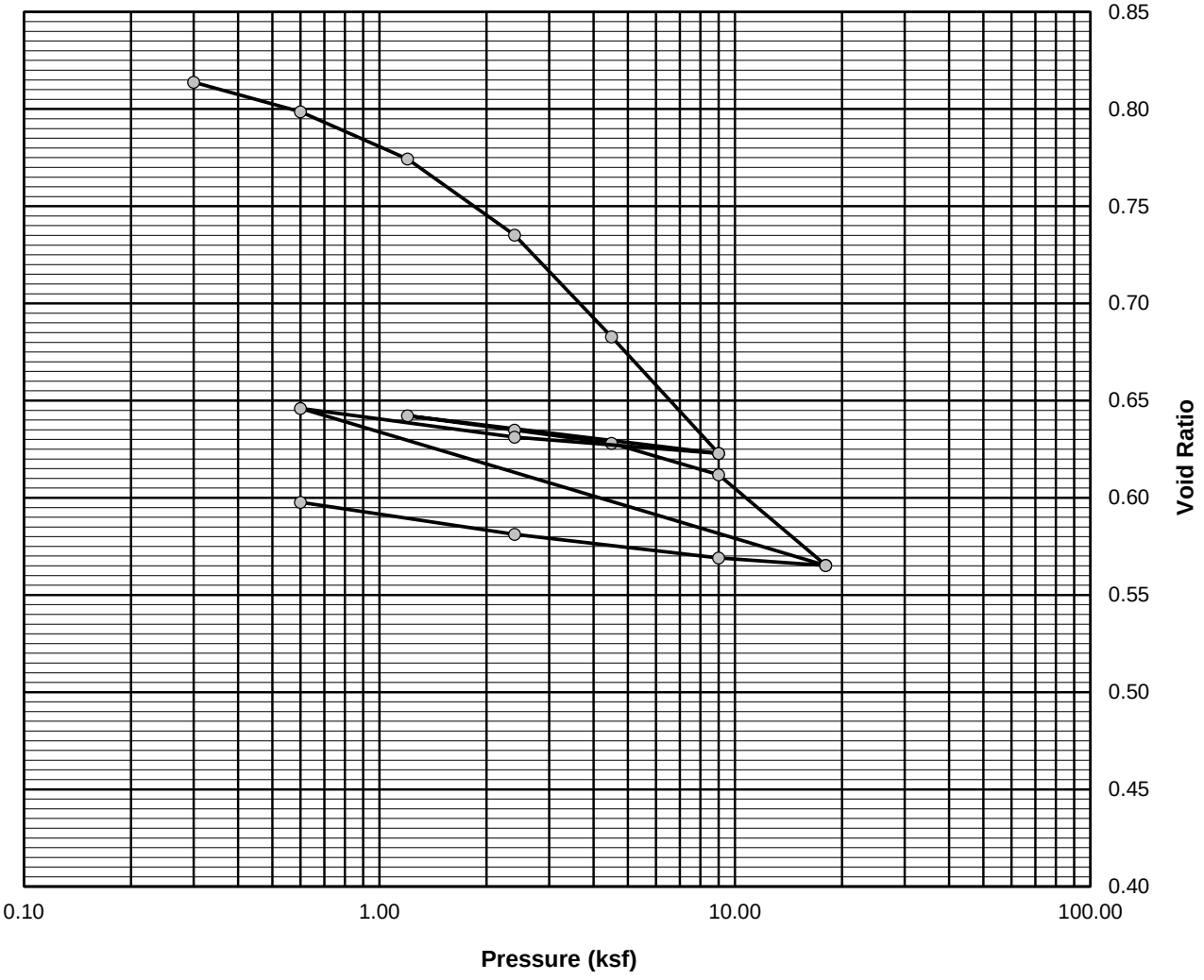
ASTM D-4767

Project Name: Searsport Island
Client: Moffatt & Nichol

Project Number: 21-1242
Lab ID: 14070A
Date: 8/2/2022

Boring: MB-2
Sample: 1U
Depth: 16-18

P_C =	1.7
C_C =	0.195
C_R =	0.021
w =	31.4%
W_L =	33
W_P =	17



Comments:

Reviewed By

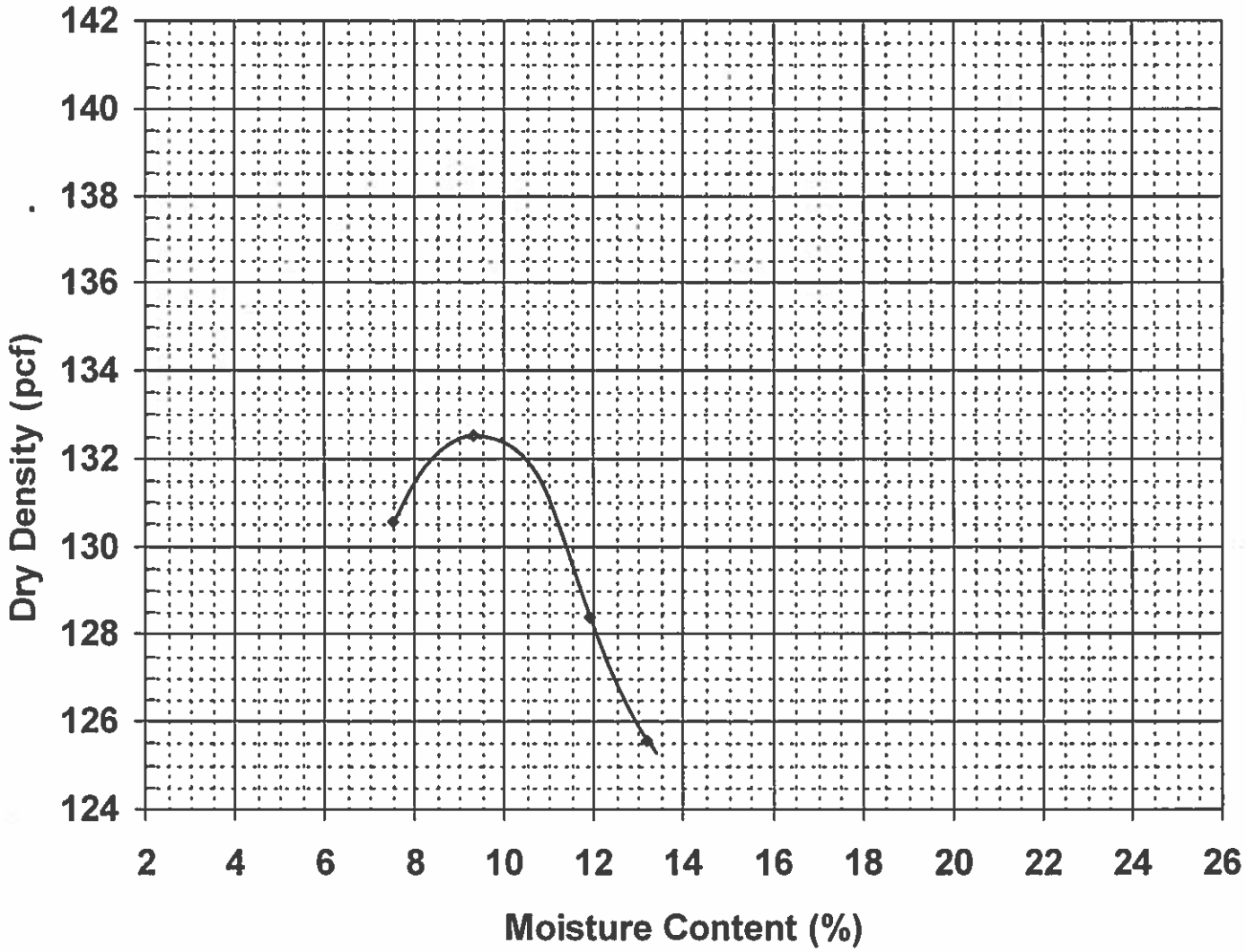
S.W.COLE ENGINEERING, INC.

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL - EXPLORATIONS AND GEOTECHNICAL	Project Number	21-1242
Client	MOFFATT & NICHOL	Lab ID	14292A
Material Type	TEST PIT	Date Received	10/3/2022
Material Source	TP-4, S1, 8.0-10.0 FT	Date Completed	10/12/2022
		Tested By	BRANDON CHAPUT

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	132.6
Optimum Moisture Content (%)	9.5
Percent Oversized	5.7%

Corrected Dry Density (pcf)	**133.8**
Corrected Moisture Content (%)	**9.1**

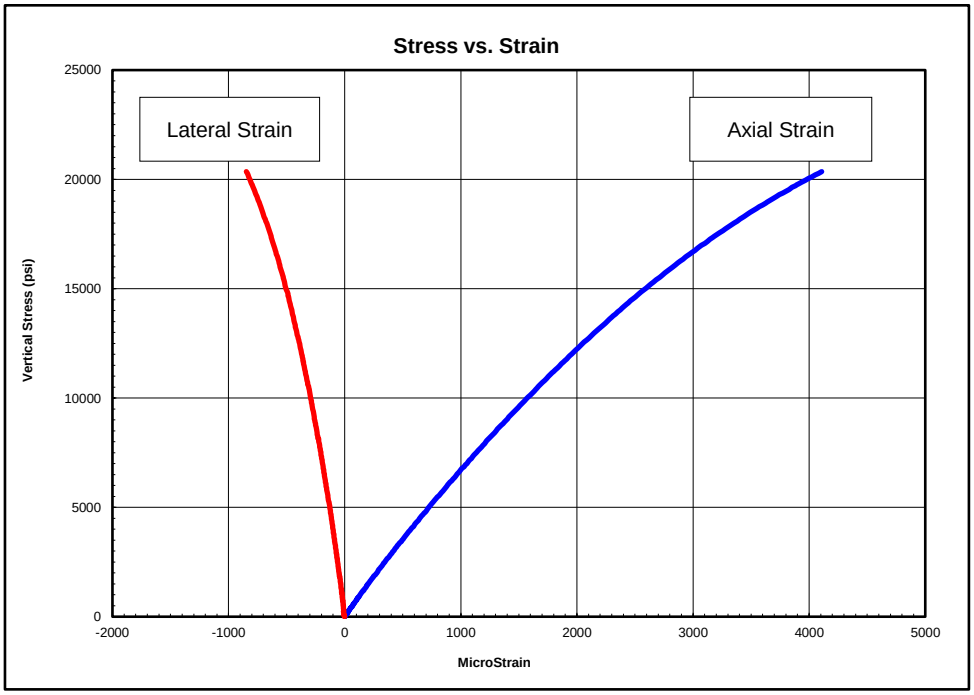
Darrell A. Gilman

Comments

26 Coles Crossing Drive, Sidney, ME 04330-2573 • Tel (207) 626-0600 • Fax (207) 626-0700 • www.swcole.com

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-1
Sample ID:	R1
Depth, ft:	72.5
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 20,355 psi

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
2000-7500	6,410,000	0.19
7500-12900	5,420,000	0.20
12900-18300	4,160,000	0.22

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-1		
Sample ID:	R1		
Depth:	72.5 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.40	4.40	4.40
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	612.53		
Bulk Density, lb/ft^3	170	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

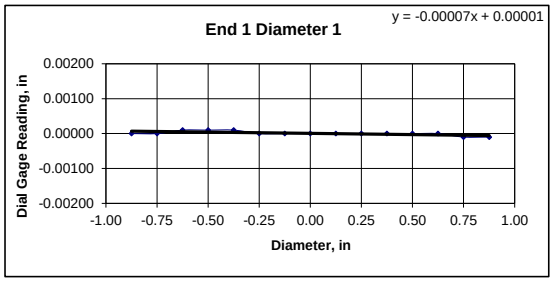
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010
Diameter 2, in (rotated 90°)	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00020

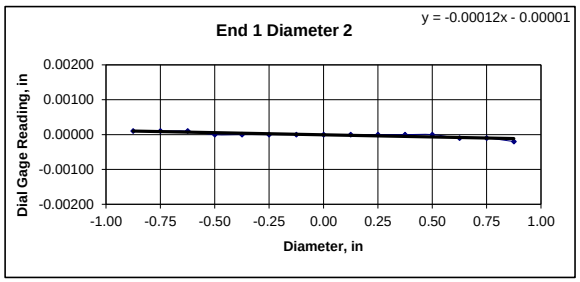
Difference between max and min readings, in:
0° = 0.00020 90° = 0.00030

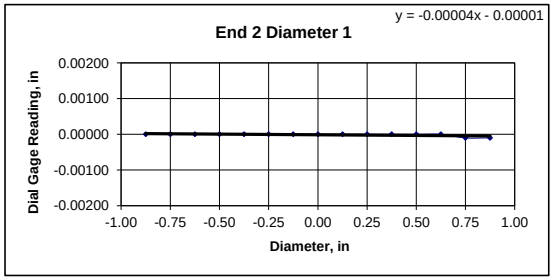
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010
Diameter 2, in (rotated 90°)	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

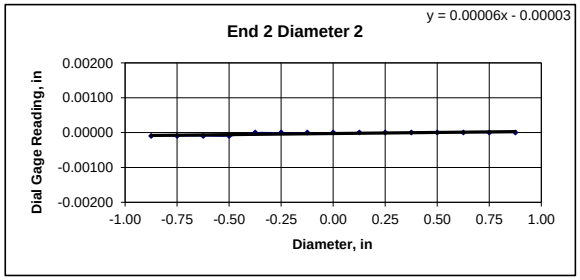
Difference between max and min readings, in:
0° = 0.0001 90° = 0.0001

Maximum difference must be < 0.0020 in. Difference = ± 0.00015
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00007
Angle of Best Fit Line: 0.00409

End 2:
Slope of Best Fit Line 0.00004
Angle of Best Fit Line: 0.00213

Maximum Angular Difference: 0.00196

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00012
Angle of Best Fit Line: 0.00704

End 2:
Slope of Best Fit Line 0.00006
Angle of Best Fit Line: 0.00360

Maximum Angular Difference: 0.00344

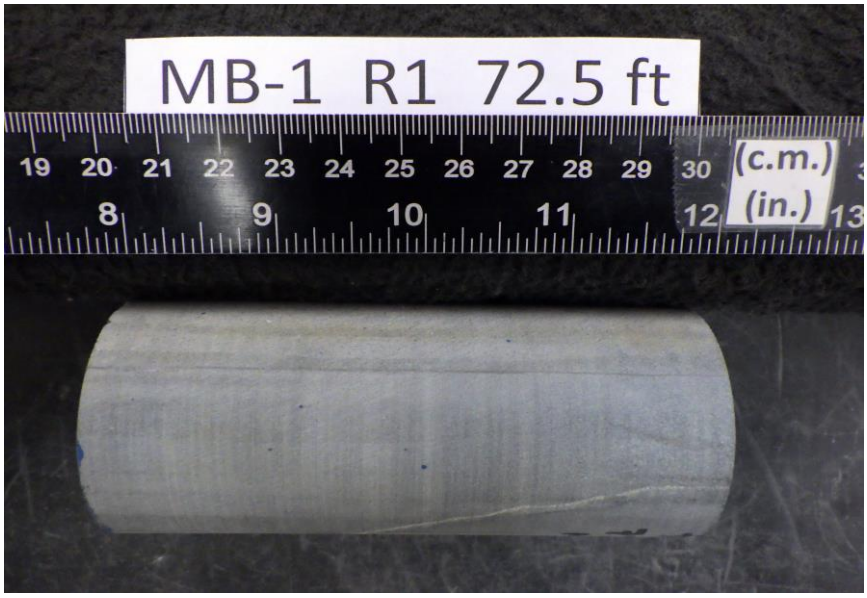
Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

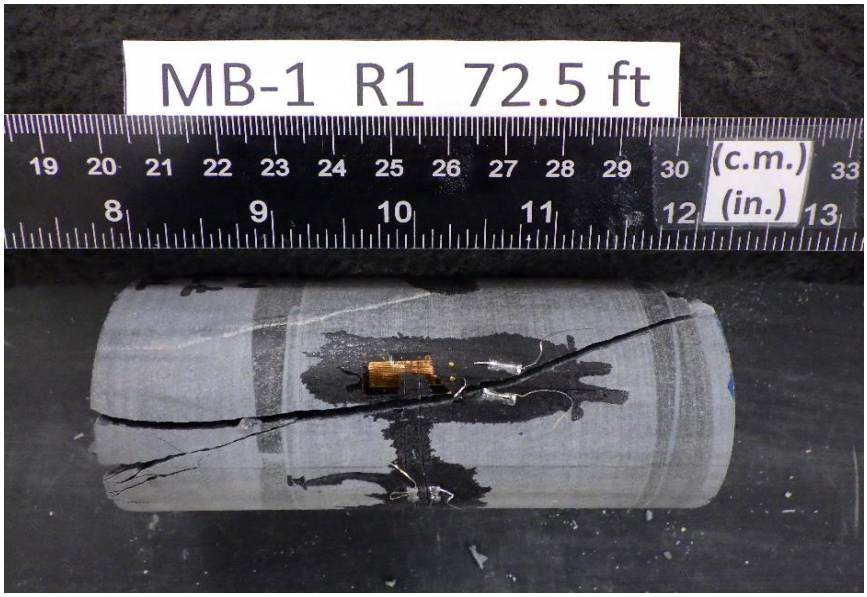
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00020	1.990	0.00010	0.006	YES
Diameter 2, in (rotated 90°)	0.00030	1.990	0.00015	0.009	YES
END 2					
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00010	1.990	0.00005	0.003	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-1
Sample ID:	R1
Depth, ft:	72.5



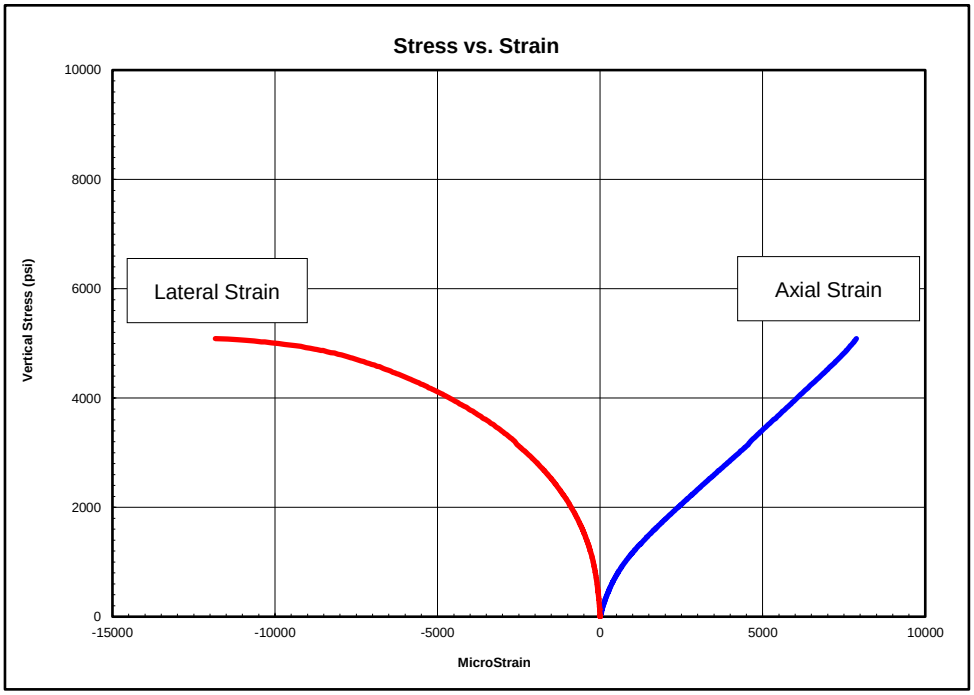
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-2
Sample ID:	R2
Depth, ft:	74.5
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 5,087 psi

The strain values recorded within the second and third stress ranges for this test produce values of Poisson's Ratio that exceed maximum values found in rocks.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
500-1900	709,000	0.37
1900-3200	533,000	---
3200-4600	555,000	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

GeoTesting EXPRESS

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-2		
Sample ID:	R2		
Depth:	74.5 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.45	4.45	4.45
Specimen Diameter, in:	2.00	2.00	2.00
Specimen Mass, g:	587.17		
Bulk Density, lb/ft^3	160	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

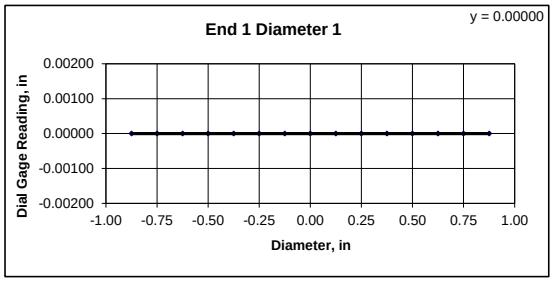
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

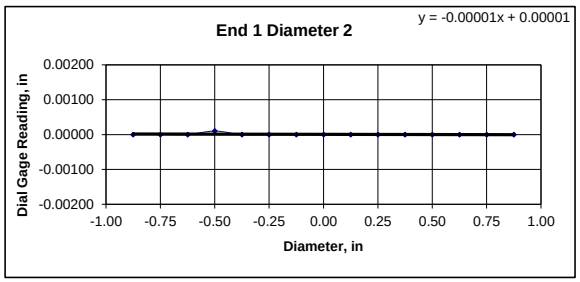
Difference between max and min readings, in:
0° = 0.00000 90° = 0.00010

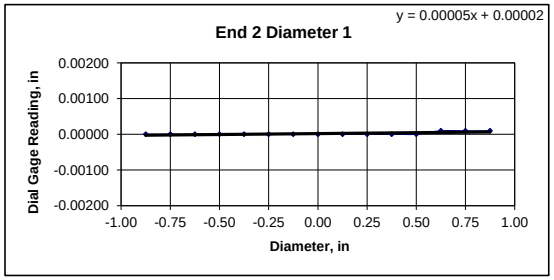
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00010	0.00010
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

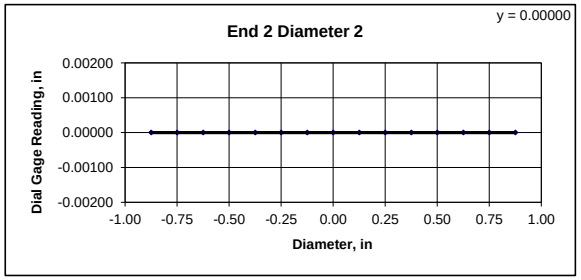
Difference between max and min readings, in:
0° = 0.0001 90° = 0

Maximum difference must be < 0.0020 in. Difference = ± 0.00005
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

End 2:
Slope of Best Fit Line 0.00005
Angle of Best Fit Line: 0.00295

Maximum Angular Difference: 0.00295

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00001
Angle of Best Fit Line: 0.00065

End 2:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

Maximum Angular Difference: 0.00065

Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00000	2.000	0.00000	0.000	YES
Diameter 2, in (rotated 90°)	0.00010	2.000	0.00005	0.003	YES
END 2					
Diameter 1, in	0.00010	2.000	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00000	2.000	0.00000	0.000	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

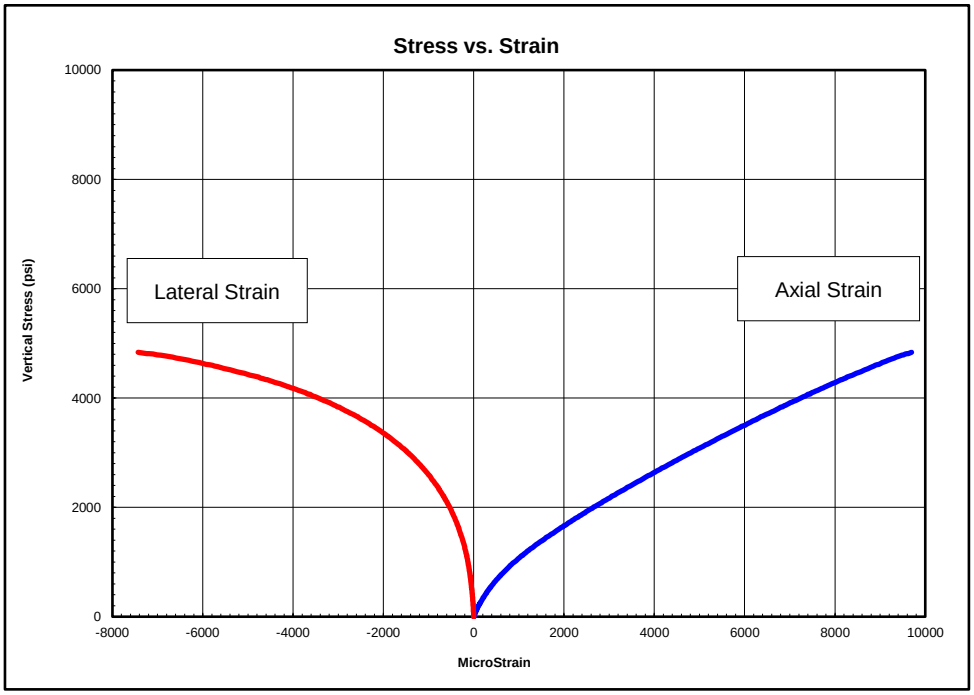
Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-2
Sample ID:	R2
Depth, ft:	74.5

After cutting and grinding

After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-2
Sample ID:	R3
Depth, ft:	83.2
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 4,837 psi

The strain values recorded within the third stress range for this test produce values of Poisson's Ratio that exceed maximum values found in rocks.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
500-1800	665,000	0.19
1800-3100	467,000	0.42
3100-4400	396,000	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-2		
Sample ID:	R3		
Depth:	83.2 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.44	4.44	4.44
Specimen Diameter, in:	2.00	2.00	2.00
Specimen Mass, g:	583.13		
Bulk Density, lb/ft^3	159	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:

Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.

Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00020

Difference between max and min readings, in:

0° = 0.00010 90° = 0.00020

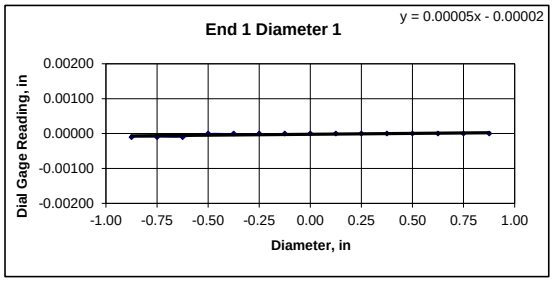
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00010

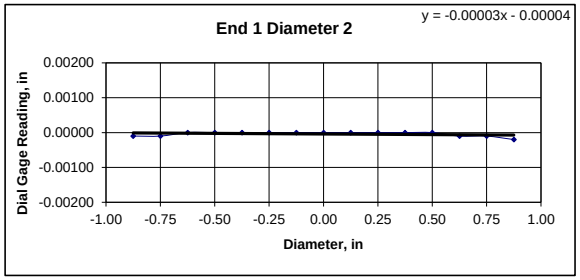
Difference between max and min readings, in:

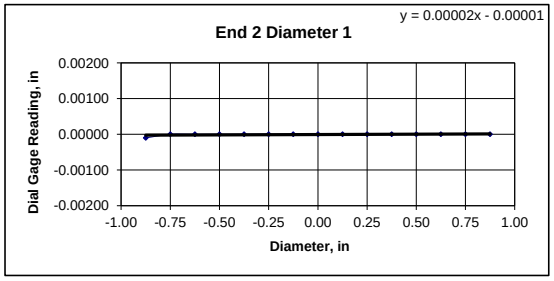
0° = 0.0001 90° = 0.0002

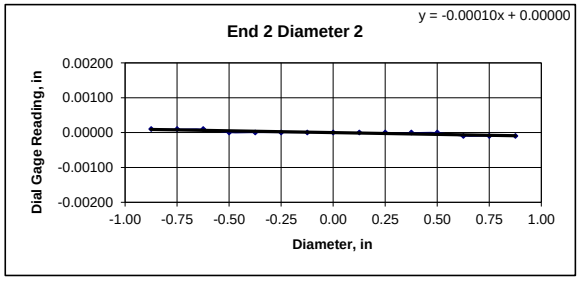
Maximum difference must be < 0.0020 in. Difference = ± 0.00010

Flatness Tolerance Met? YES









DIAMETER 1

End 1:
- Slope of Best Fit Line: 0.00005
- Angle of Best Fit Line: 0.00295

End 2:
- Slope of Best Fit Line: 0.00002
- Angle of Best Fit Line: 0.00115

Maximum Angular Difference: 0.00180

Parallelism Tolerance Met? YES

Spherically Seated

DIAMETER 2

End 1:
- Slope of Best Fit Line: 0.00003
- Angle of Best Fit Line: 0.00196

End 2:
- Slope of Best Fit Line: 0.00010
- Angle of Best Fit Line: 0.00589

Maximum Angular Difference: 0.00393

Parallelism Tolerance Met? YES

Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00010	2.000	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00020	2.000	0.00010	0.006	YES
END 2					
Diameter 1, in	0.00010	2.000	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00020	2.000	0.00010	0.006	YES

Maximum angle of departure must be ≤ 0.25°

Perpendicularity Tolerance Met? YES

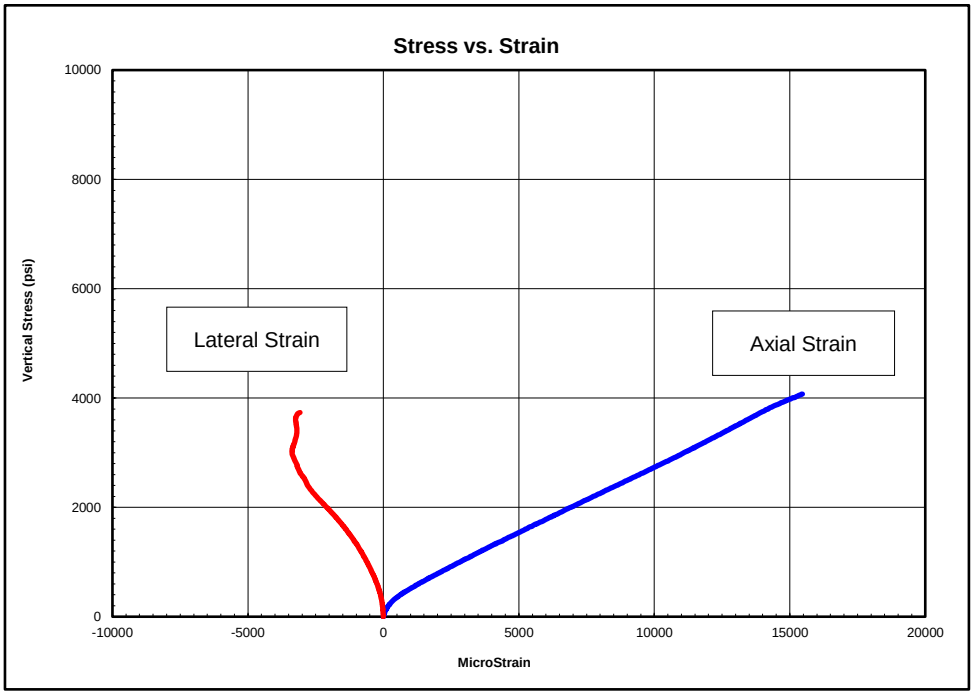
Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-2
Sample ID:	R3
Depth, ft:	83.2

After cutting and grinding

After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-3A
Sample ID:	R1
Depth, ft:	59
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 4,073 psi

The strain values recorded within the third stress range for this test produce values of Poisson's Ratio that exceed maximum values found in rocks.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
400-1500	259,000	0.27
1500-2600	238,000	0.41
2600-3700	253,000	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Devolpment	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-3A		
Sample ID:	R1		
Depth:	59 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.45	4.45	4.45
Specimen Diameter, in:	1.98	1.98	1.98
Specimen Mass, g:	572.97		
Bulk Density, lb/ft^3	159	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

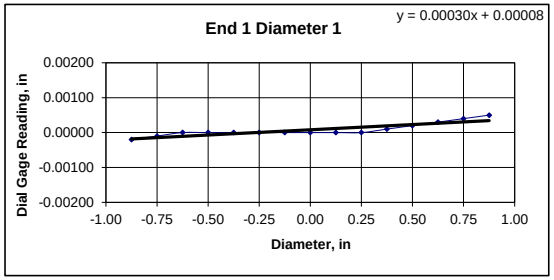
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00020	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00020	0.00030	0.00040	0.00050
Diameter 2, in (rotated 90°)	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00020	0.00020	0.00030	0.00030

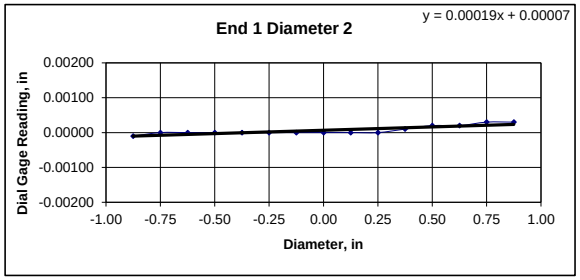
Difference between max and min readings, in:
0° = 0.00070 90° = 0.00040

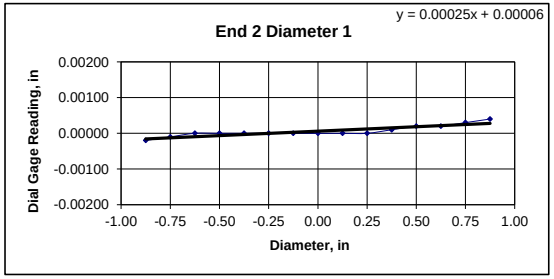
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00020	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00020	0.00020	0.00030	0.00040
Diameter 2, in (rotated 90°)	0.00020	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00020	-0.00030	-0.00030

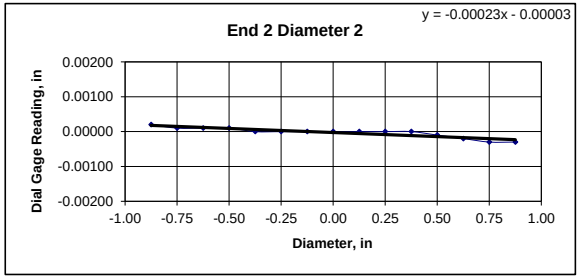
Difference between max and min readings, in:
0° = 0.0006 90° = 0.0005

Maximum difference must be < 0.0020 in. Difference = ± 0.00035
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00030
Angle of Best Fit Line: 0.01719

End 2:
Slope of Best Fit Line 0.00025
Angle of Best Fit Line: 0.01424

Maximum Angular Difference: 0.00295

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00019
Angle of Best Fit Line: 0.01097

End 2:
Slope of Best Fit Line 0.00023
Angle of Best Fit Line: 0.01342

Maximum Angular Difference: 0.00246

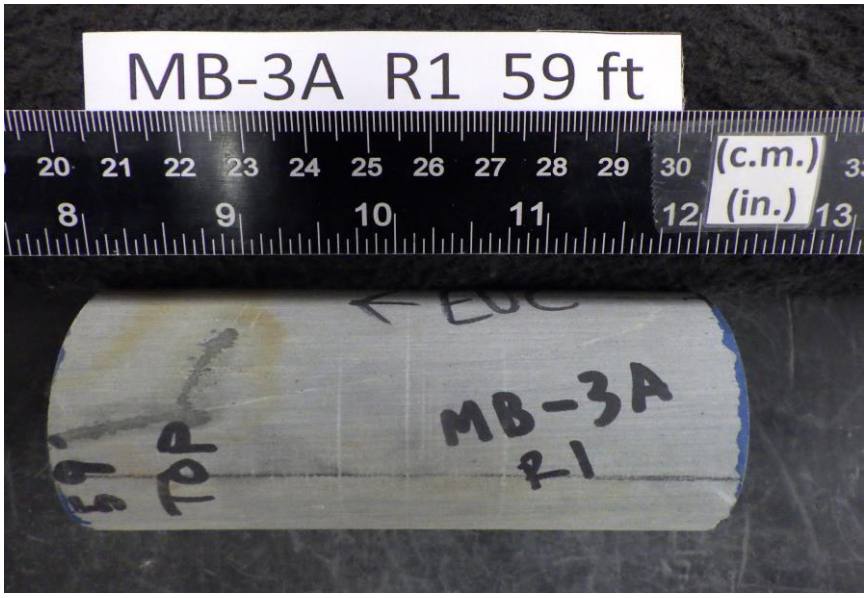
Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

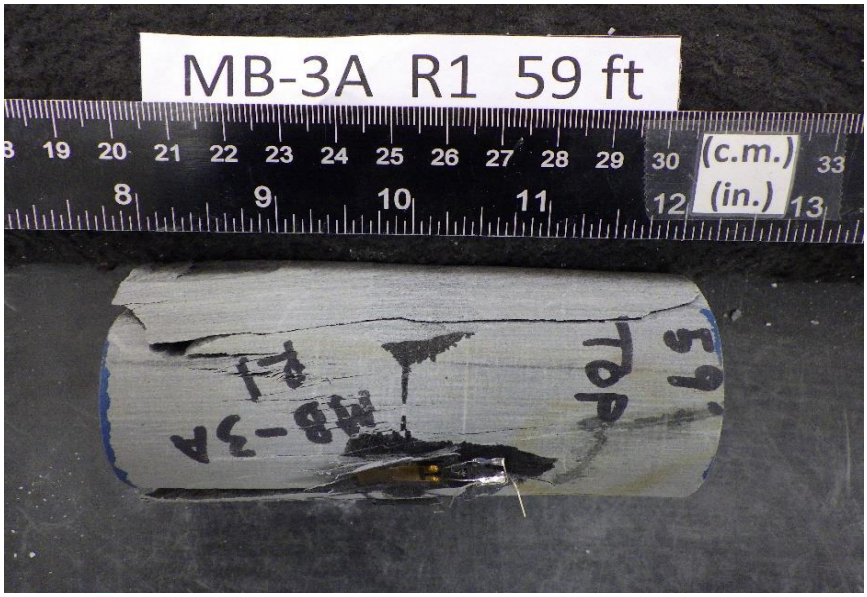
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00070	1.980	0.00035	0.020	YES
Diameter 2, in (rotated 90°)	0.00040	1.980	0.00020	0.012	YES
END 2					
Diameter 1, in	0.00060	1.980	0.00030	0.017	YES
Diameter 2, in (rotated 90°)	0.00050	1.980	0.00025	0.014	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-3A
Sample ID:	R1
Depth, ft:	59



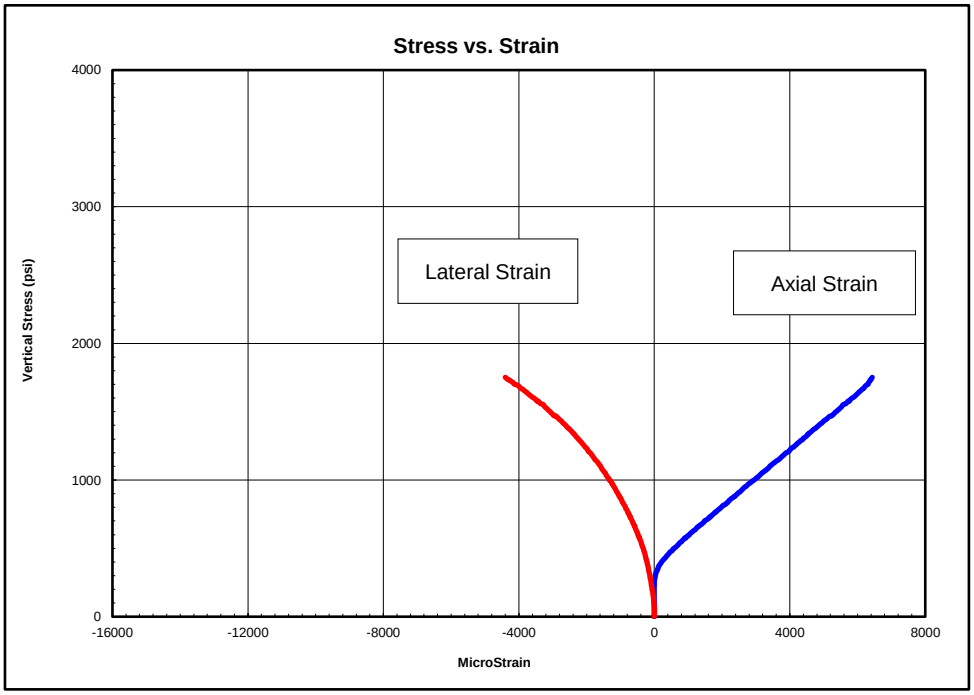
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-3A
Sample ID:	R2
Depth, ft:	65.5
Sample Type:	rock core
Sample Description:	See photographs Discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 2,632 psi

The strain values recorded within the second stress range for this test produce values of Poisson's Ratio that exceed maximum values found in rocks. Young's Modulus and Poisson's Ratio could not be determined within the third stress range.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
300-1000	225,000	0.39
1000-1700	207,000	---
1700-2400	---	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-3A		
Sample ID:	R2		
Depth:	65.5 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.33	4.33	4.33
Specimen Diameter, in:	1.98	1.98	1.98
Specimen Mass, g:	543.4		
Bulk Density, lb/ft^3	155	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

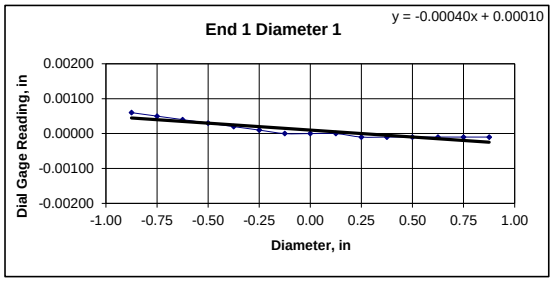
END FLATNESS AND PARALLELISM (Procedure FP1)

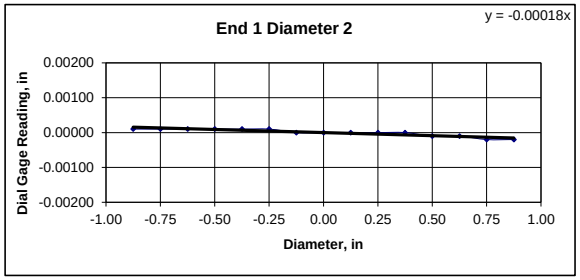
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00060	0.00050	0.00040	0.00030	0.00020	0.00010	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010
Diameter 2, in (rotated 90°)	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00020	-0.00020

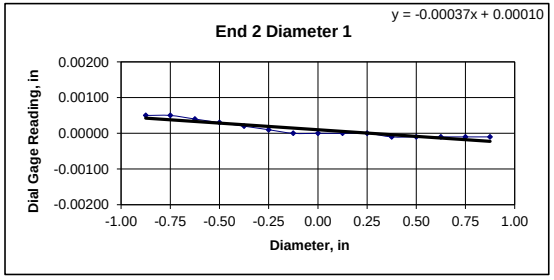
Difference between max and min readings, in:
0° = 0.00070 90° = 0.00030

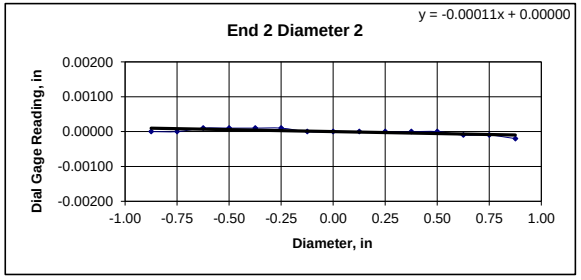
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00050	0.00050	0.00040	0.00030	0.00020	0.00010	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00020

Difference between max and min readings, in:
0° = 0.0006 90° = 0.0003
Maximum difference must be < 0.0020 in. Difference = ± 0.00035
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00040
Angle of Best Fit Line: 0.02275

End 2:
Slope of Best Fit Line 0.00037
Angle of Best Fit Line: 0.02128

Maximum Angular Difference: 0.00147

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00018
Angle of Best Fit Line: 0.01015

End 2:
Slope of Best Fit Line 0.00011
Angle of Best Fit Line: 0.00638

Maximum Angular Difference: 0.00377

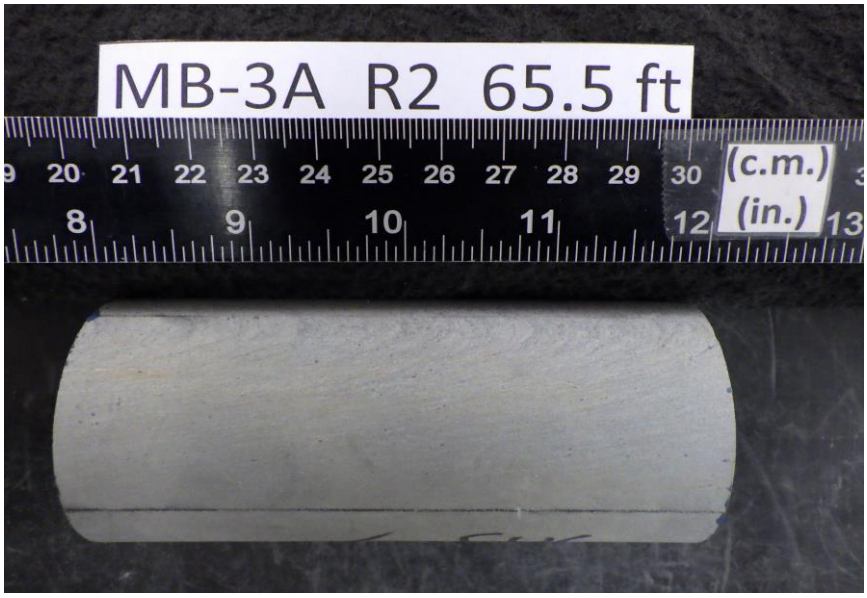
Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

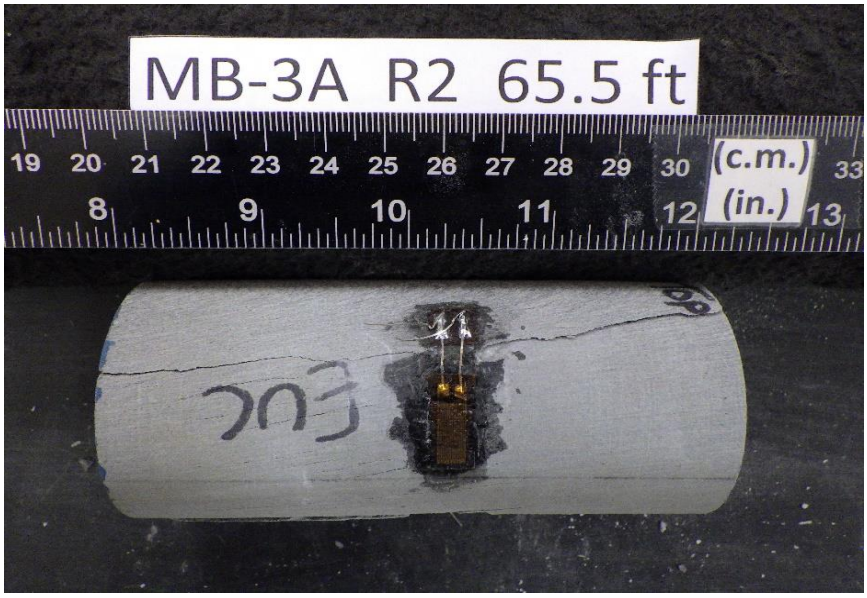
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00070	1.980	0.00035	0.020	YES
Diameter 2, in (rotated 90°)	0.00030	1.980	0.00015	0.009	YES
END 2					
Diameter 1, in	0.00060	1.980	0.00030	0.017	YES
Diameter 2, in (rotated 90°)	0.00030	1.980	0.00015	0.009	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-3A
Sample ID:	R2
Depth, ft:	65.5



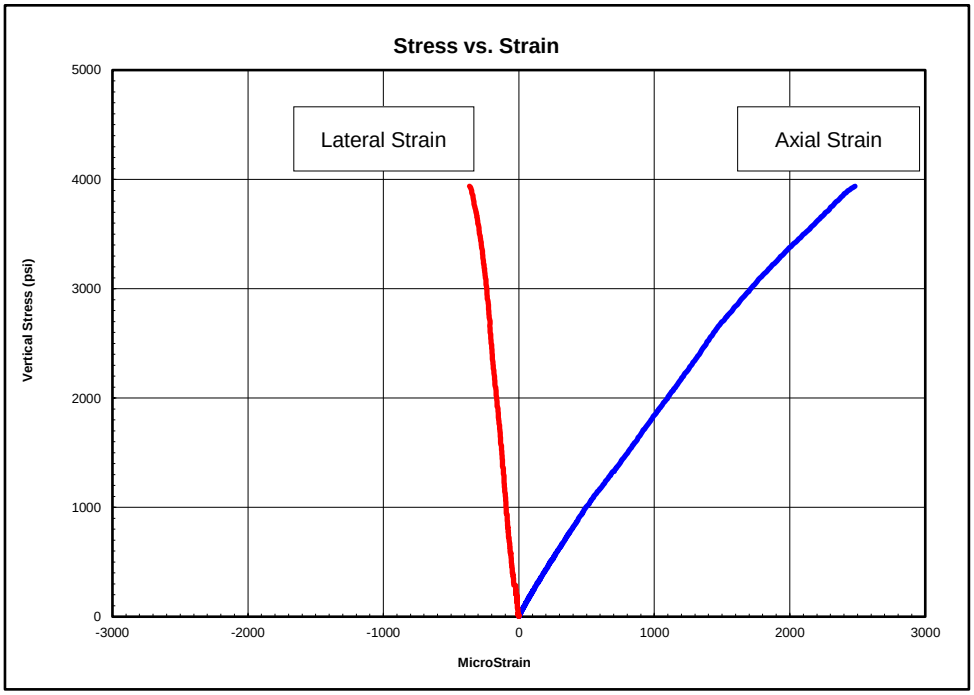
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-5
Sample ID:	R2
Depth, ft:	49
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 3,937 psi

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
400-1400	1,820,000	0.14
1400-2500	1,700,000	0.14
2500-3500	1,380,000	0.12

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/24/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-5		
Sample ID:	R2		
Depth:	49 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.03	4.03	4.03
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	547.8		
Bulk Density, lb/ft^3	166	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.0	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

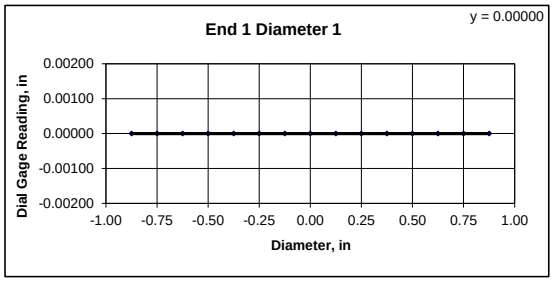
END FLATNESS AND PARALLELISM (Procedure FP1)

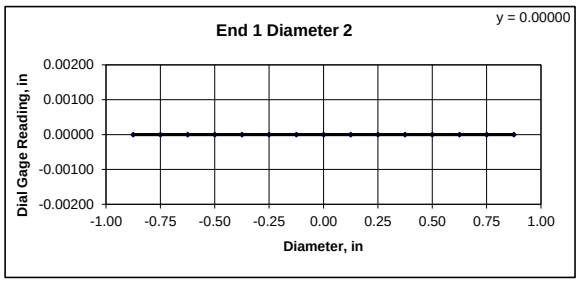
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

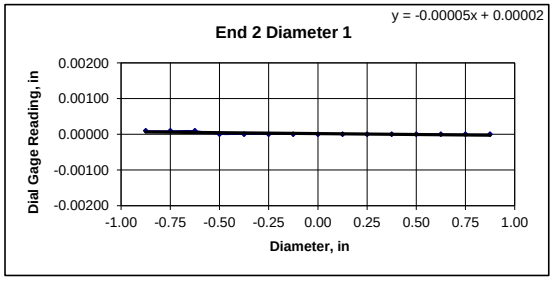
Difference between max and min readings, in:
0° = 0.00000 90° = 0.00000

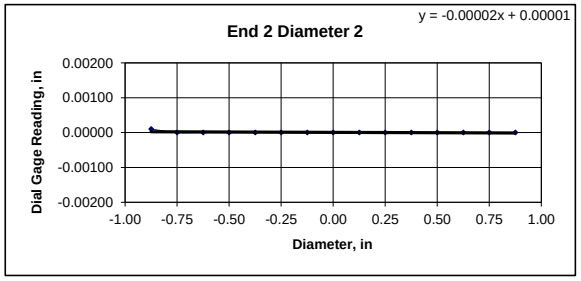
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Difference between max and min readings, in:
0° = 0.0001 90° = 0.0001
Maximum difference must be < 0.0020 in. Difference = ± 0.00005
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

End 2:
Slope of Best Fit Line 0.00005
Angle of Best Fit Line: 0.00295

Maximum Angular Difference: 0.00295

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

End 2:
Slope of Best Fit Line 0.00002
Angle of Best Fit Line: 0.00115

Maximum Angular Difference: 0.00115

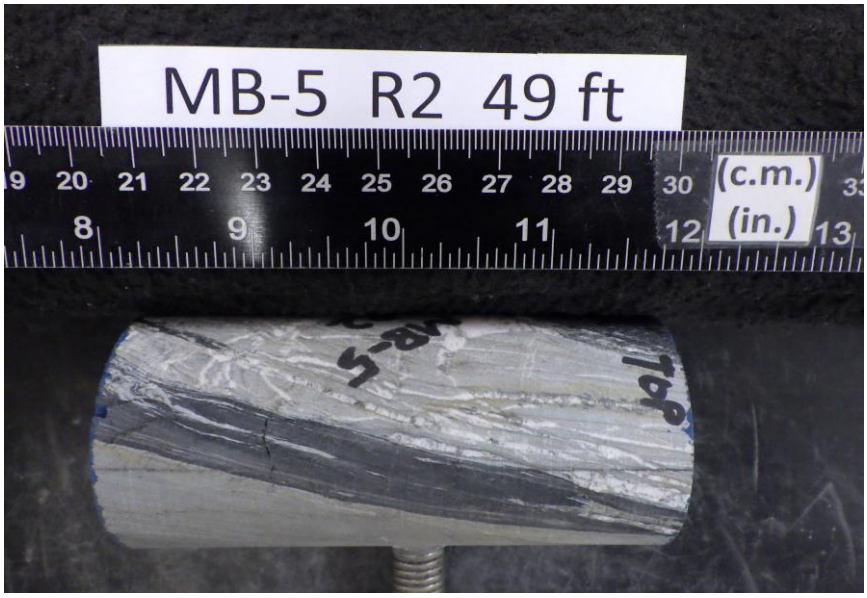
Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

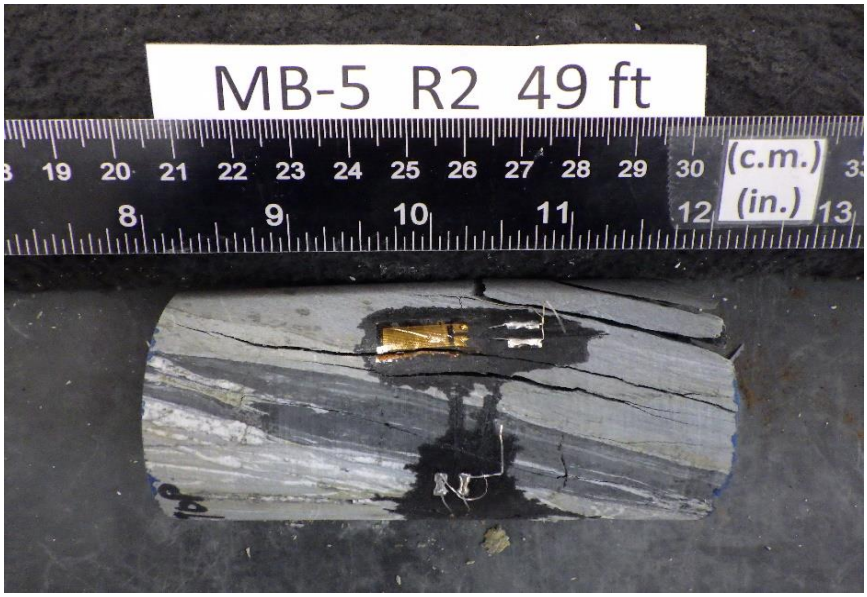
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00000	1.990	0.00000	0.000	YES
Diameter 2, in (rotated 90°)	0.00000	1.990	0.00000	0.000	YES
END 2					
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00010	1.990	0.00005	0.003	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-5
Sample ID:	R2
Depth, ft:	49



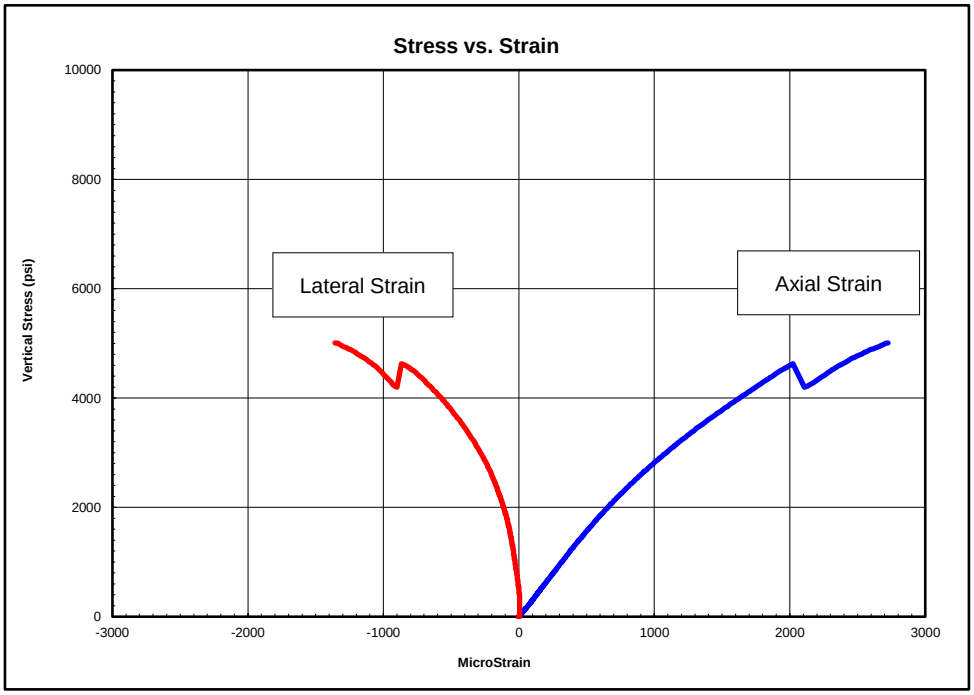
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-5
Sample ID:	R3
Depth, ft:	53
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 5,007 psi

The strain values recorded within the third stress range for this test produce values of Poisson's Ratio that exceed maximum values found in rocks.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
500-1800	3,110,000	0.21
1800-3200	2,330,000	0.40
3200-4500	1,730,000	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-5		
Sample ID:	R3		
Depth:	52.9 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.40	4.40	4.40
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	596.02		
Bulk Density, lb/ft^3	166	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

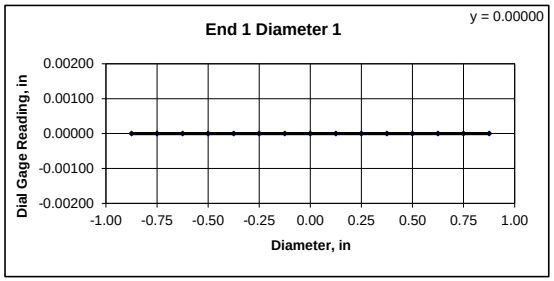
END FLATNESS AND PARALLELISM (Procedure FP1)

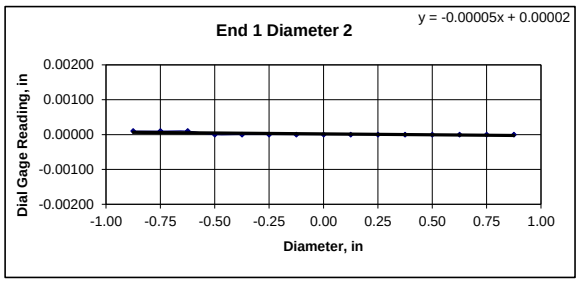
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

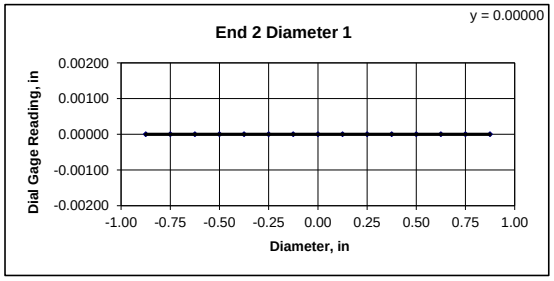
Difference between max and min readings, in:
0° = 0.00000 90° = 0.00010

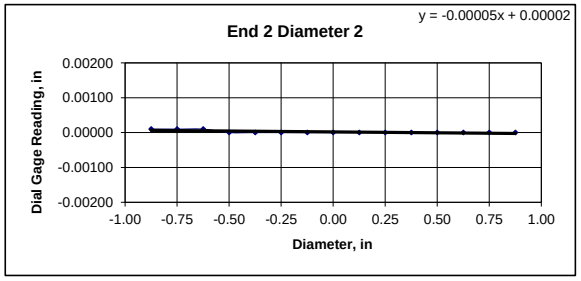
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Difference between max and min readings, in:
0° = 0 90° = 0.0001
Maximum difference must be < 0.0020 in. Difference = ± 0.00005
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

End 2:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

Maximum Angular Difference: 0.00000

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00005
Angle of Best Fit Line: 0.00295

End 2:
Slope of Best Fit Line 0.00005
Angle of Best Fit Line: 0.00295

Maximum Angular Difference: 0.00000

Parallelism Tolerance Met? YES
Spherically Seated

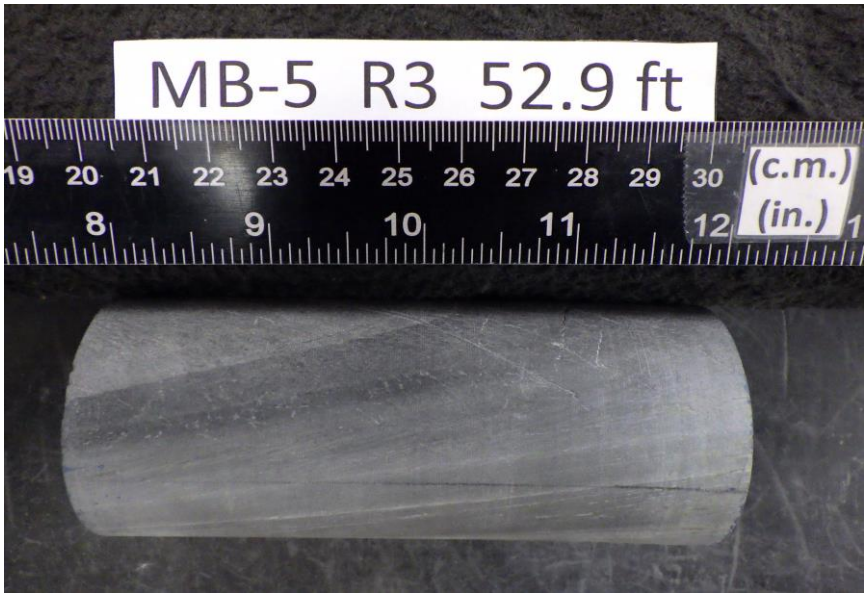
PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00000	1.990	0.00000	0.000	YES
Diameter 2, in (rotated 90°)	0.00010	1.990	0.00005	0.003	YES

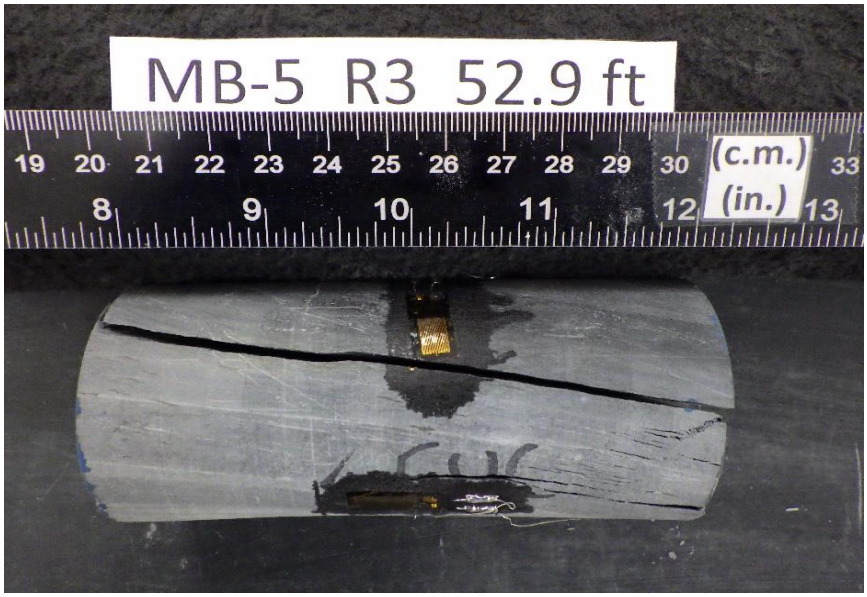
Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

END 2					
Diameter 1, in	0.00000	1.990	0.00000	0.000	YES
Diameter 2, in (rotated 90°)	0.00010	1.990	0.00005	0.003	YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-5
Sample ID:	R3
Depth, ft:	52.9



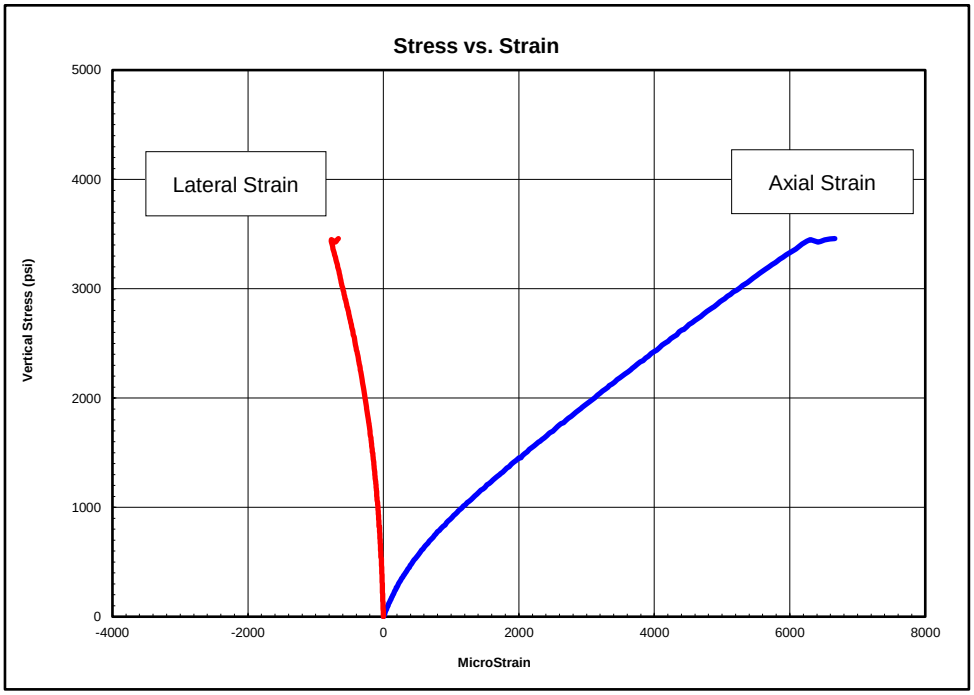
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-7
Sample ID:	R2
Depth, ft:	51
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 3,459 psi

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
300-1300	667,000	0.07
1300-2200	497,000	0.11
2200-3100	464,000	0.16

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/31/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-7		
Sample ID:	R2		
Depth:	51 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.44	4.44	4.44
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	564.19		
Bulk Density, lb/ft^3	155	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

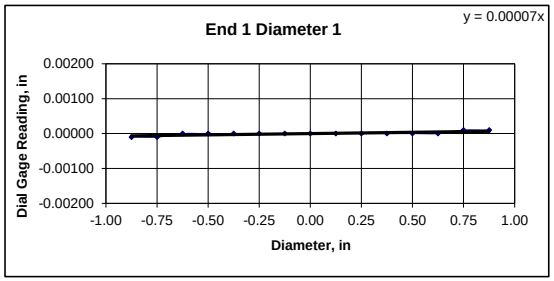
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00010
Diameter 2, in (rotated 90°)	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00010	0.00010

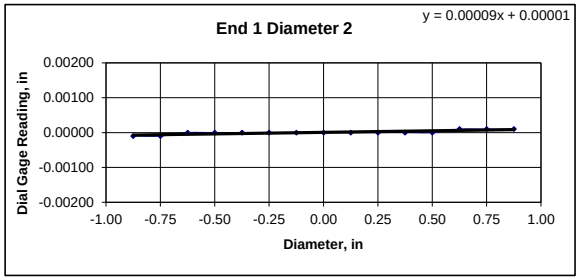
Difference between max and min readings, in:
0° = 0.00020 90° = 0.00020

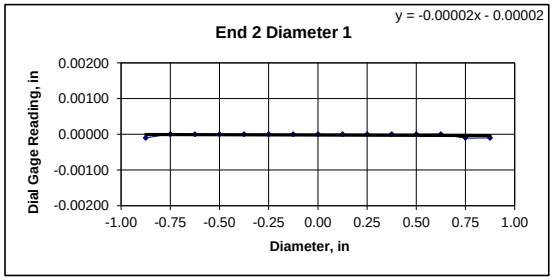
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00010
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010

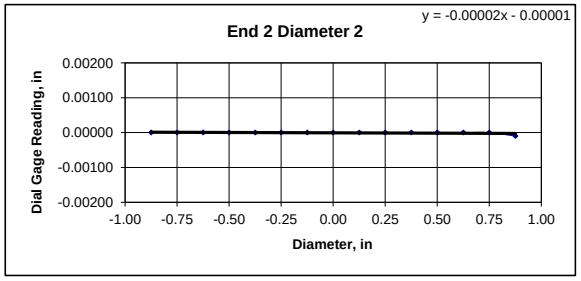
Difference between max and min readings, in:
0° = 0.0001 90° = 0.0001

Maximum difference must be < 0.0020 in. Difference = ± 0.00010
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00007
Angle of Best Fit Line: 0.00426

End 2:
Slope of Best Fit Line 0.00002
Angle of Best Fit Line: 0.00098

Maximum Angular Difference: 0.00327

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00009
Angle of Best Fit Line: 0.00507

End 2:
Slope of Best Fit Line 0.00002
Angle of Best Fit Line: 0.00115

Maximum Angular Difference: 0.00393

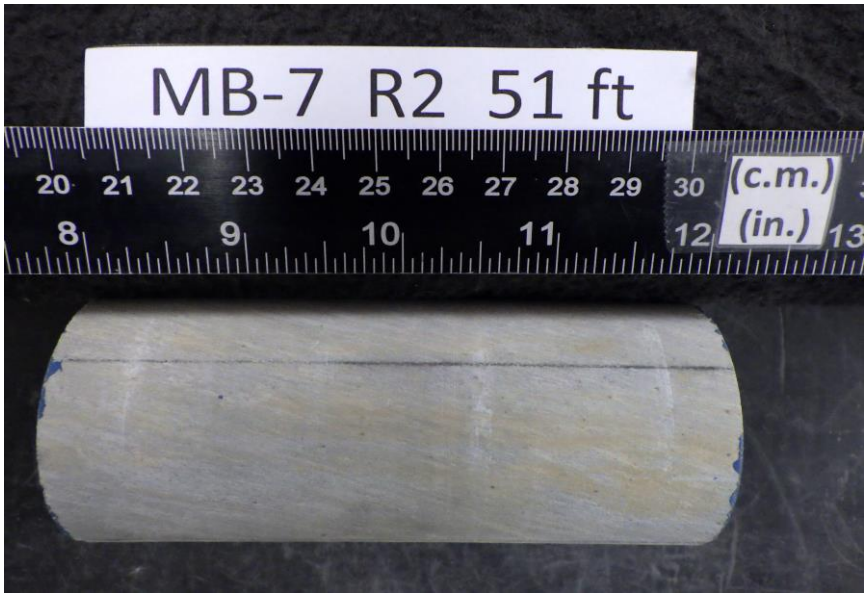
Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

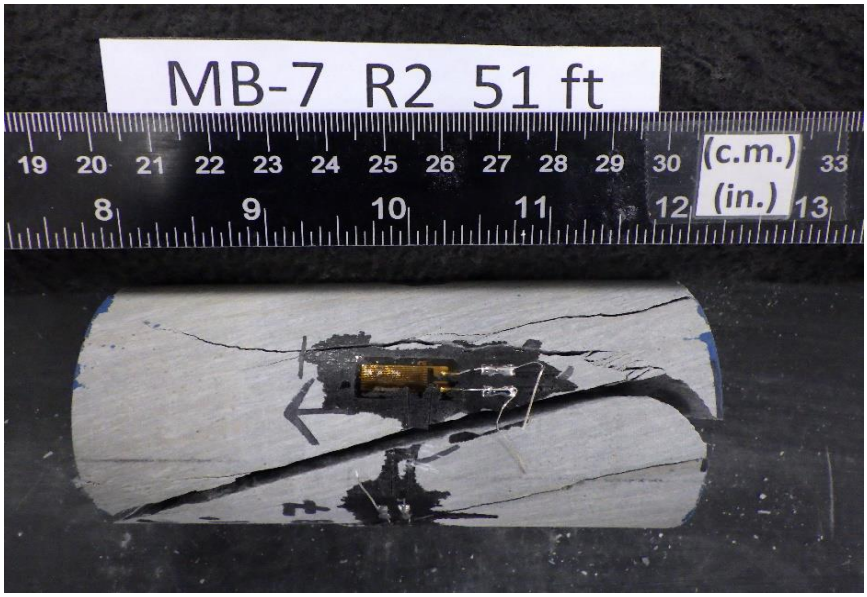
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00020	1.990	0.00010	0.006	YES
Diameter 2, in (rotated 90°)	0.00020	1.990	0.00010	0.006	YES
END 2					
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00010	1.990	0.00005	0.003	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-7
Sample ID:	R2
Depth, ft:	51



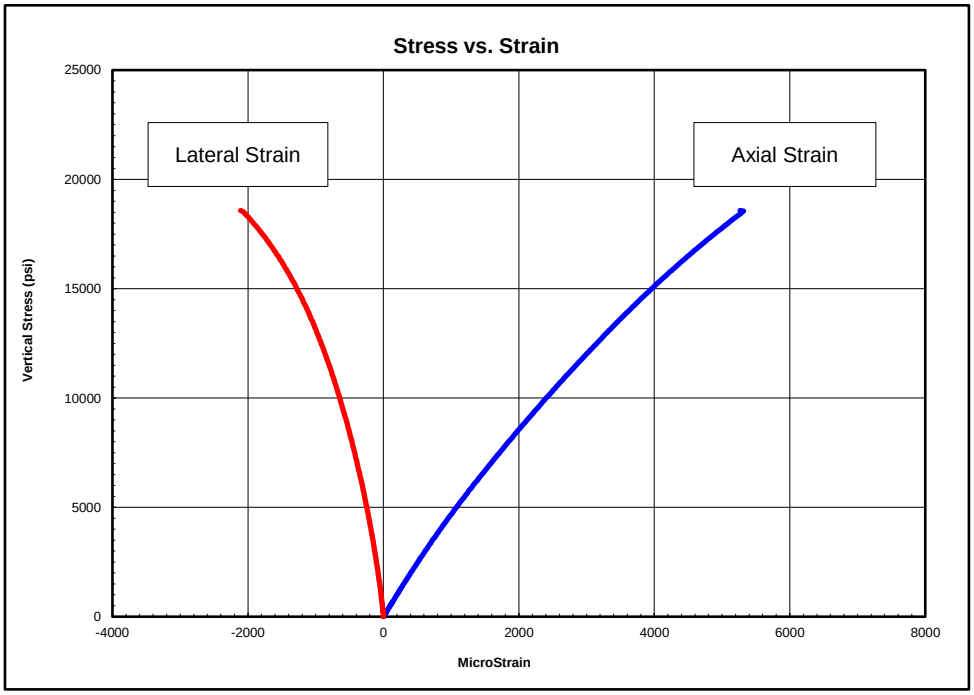
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-10
Sample ID:	R1
Depth, ft:	30
Sample Type:	rock core
Sample Description:	See photographs Intact material failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 18,576 psi

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
1900-6800	4,280,000	0.26
6800-11800	3,570,000	0.33
11800-16700	3,000,000	0.46

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/31/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-10		
Sample ID:	R1		
Depth:	30 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.37	4.37	4.37
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	605.02		
Bulk Density, lb/ft^3	169	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:

Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.

Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010

Difference between max and min readings, in:

0° = 0.00010 90° = 0.00020

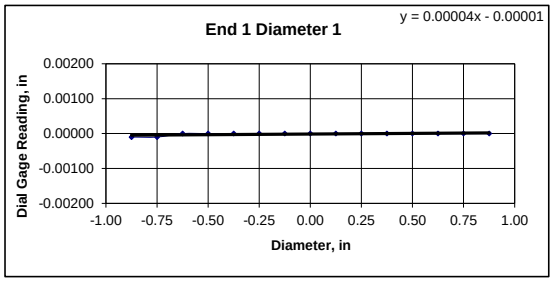
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

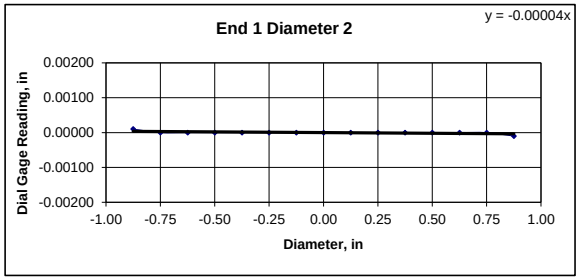
Difference between max and min readings, in:

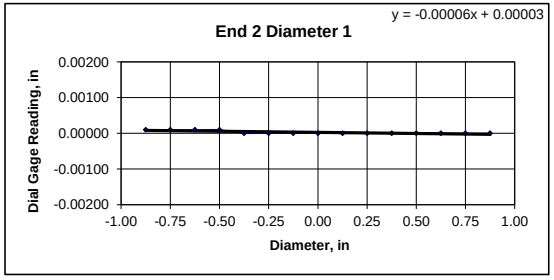
0° = 0.0001 90° = 0

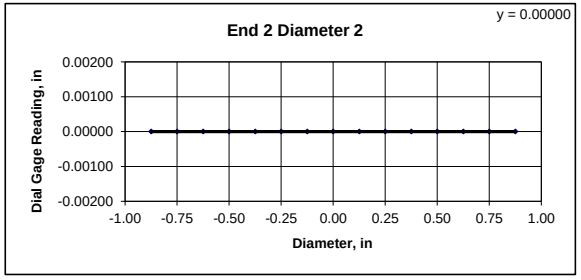
Maximum difference must be < 0.0020 in. Difference = ± 0.00010

Flatness Tolerance Met? YES









DIAMETER 1

End 1:

Slope of Best Fit Line 0.00004

Angle of Best Fit Line: 0.00213

End 2:

Slope of Best Fit Line 0.00006

Angle of Best Fit Line: 0.00360

Maximum Angular Difference: 0.00147

Parallelism Tolerance Met? YES

Spherically Seated

DIAMETER 2

End 1:

Slope of Best Fit Line 0.00004

Angle of Best Fit Line: 0.00229

End 2:

Slope of Best Fit Line 0.00000

Angle of Best Fit Line: 0.00000

Maximum Angular Difference: 0.00229

Parallelism Tolerance Met? YES

Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

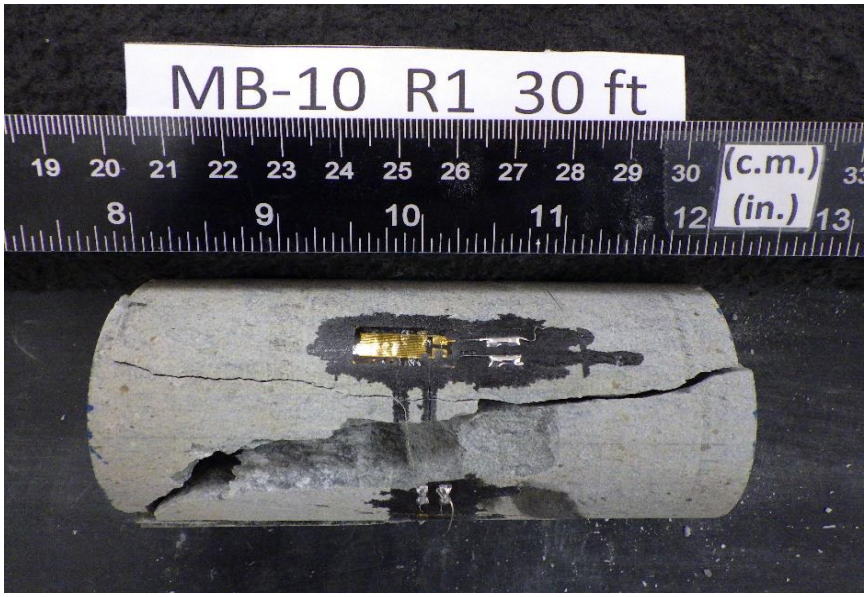
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00020	1.990	0.00010	0.006	YES
END 2					
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00000	1.990	0.00000	0.000	YES

Maximum angle of departure must be ≤ 0.25°

Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-10
Sample ID:	R1
Depth, ft:	30

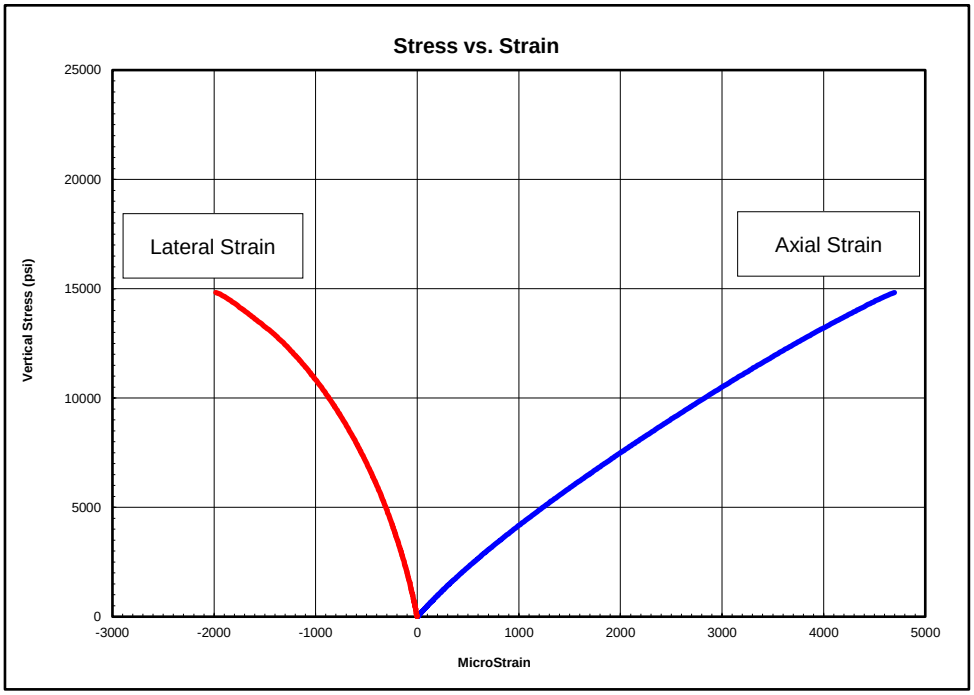
After cutting and grinding



After break

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	jsc
Boring ID:	MB-10
Sample ID:	R3
Depth, ft:	36.5
Sample Type:	rock core
Sample Description:	See photographs Intact material failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



Peak Compressive Stress: 14,824 psi

The strain values recorded within the third stress range for this test produce values of Poisson's Ratio that exceed maximum values found in rocks.

Stress Range, psi	Young's Modulus, psi	Poisson's Ratio
1500-5400	3,770,000	0.26
5400-9400	3,150,000	0.35
9400-13300	2,770,000	---

Notes:
Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature.
The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed.
Calculations assume samples are isotropic, which is not necessarily the case.

Client:	S.W. Cole Engineering, Inc.	Test Date:	8/30/2022
Project Name:	Sears Island Development	Tested By:	kdp/te
Project Location:	Searsport, ME	Checked By:	smd
GTX #:	315943		
Boring ID:	MB-10		
Sample ID:	R3		
Depth:	36.5 ft		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.37	4.37	4.37
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	589.14		
Bulk Density, lb/ft^3	165	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.2	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

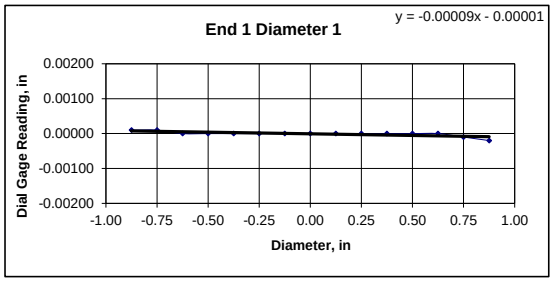
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00020
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

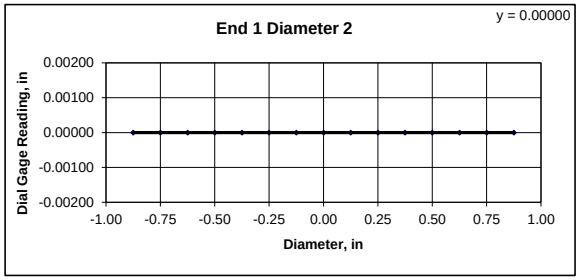
Difference between max and min readings, in:
0° = 0.00030 90° = 0.00000

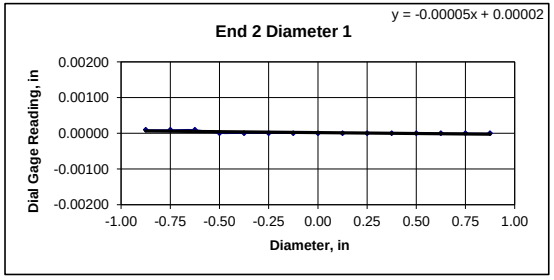
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Diameter 2, in (rotated 90°)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

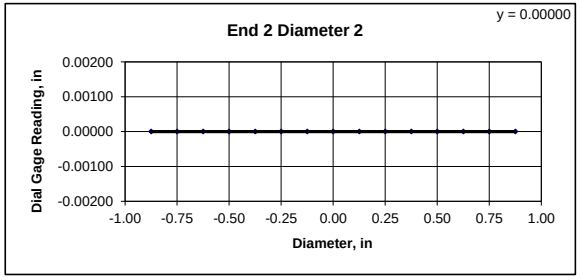
Difference between max and min readings, in:
0° = 0.0001 90° = 0

Maximum difference must be < 0.0020 in. Difference = ± 0.00015
Flatness Tolerance Met? YES









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00009
Angle of Best Fit Line: 0.00540

End 2:
Slope of Best Fit Line 0.00005
Angle of Best Fit Line: 0.00295

Maximum Angular Difference: 0.00246

Parallelism Tolerance Met? YES
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

End 2:
Slope of Best Fit Line 0.00000
Angle of Best Fit Line: 0.00000

Maximum Angular Difference: 0.00000

Parallelism Tolerance Met? YES
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00030	1.990	0.00015	0.009	YES
Diameter 2, in (rotated 90°)	0.00000	1.990	0.00000	0.000	YES
END 2					
Diameter 1, in	0.00010	1.990	0.00005	0.003	YES
Diameter 2, in (rotated 90°)	0.00000	1.990	0.00000	0.000	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

Client:	S.W. Cole Engineering, Inc.
Project Name:	Sears Island Development
Project Location:	Searsport, ME
GTX #:	315943
Test Date:	9/13/2022
Tested By:	bp
Checked By:	smd
Boring ID:	MB-10
Sample ID:	R3
Depth, ft:	36.5

After cutting and grinding

After break

S.W.COLE ENGINEERING, INC.

Consolidation Test

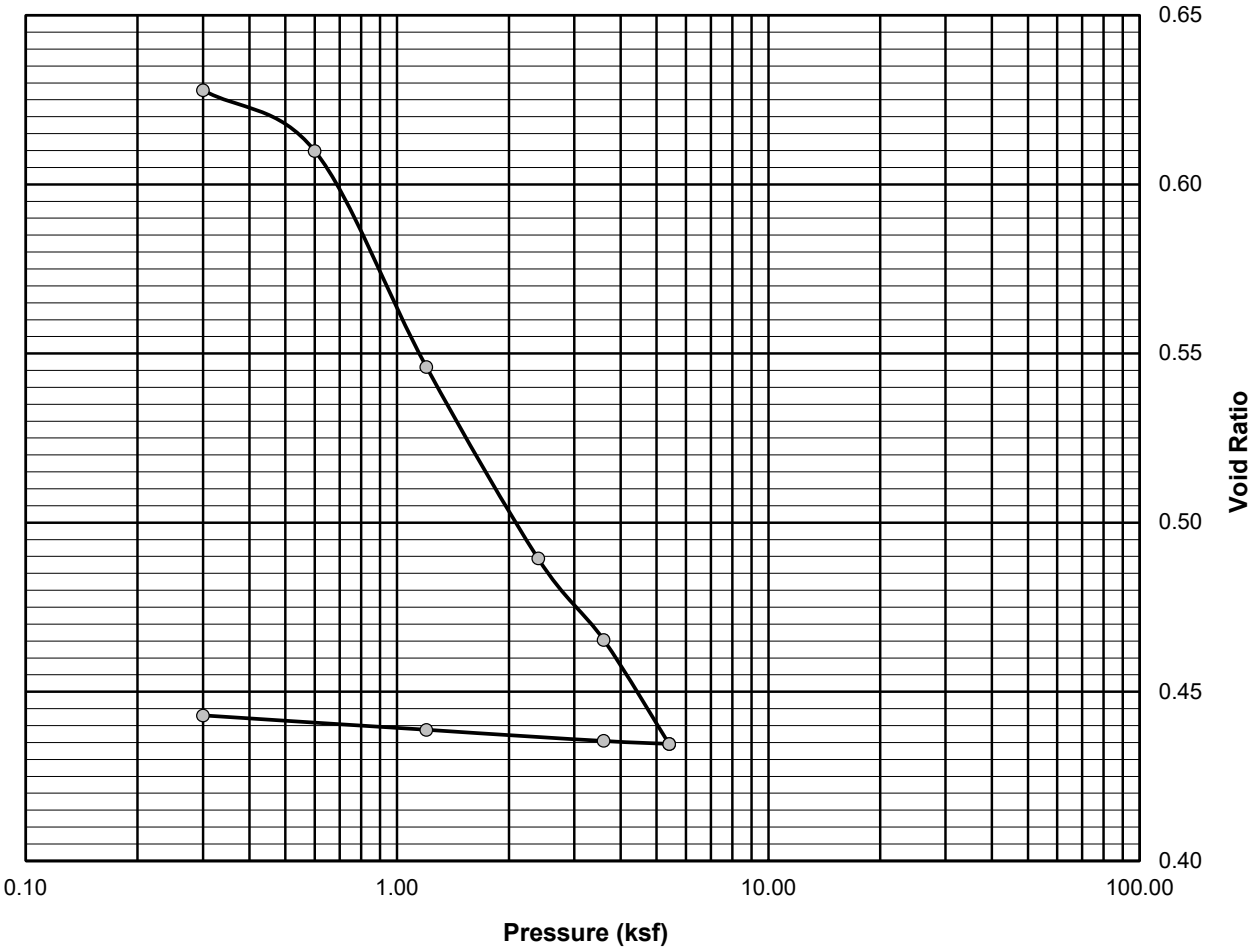
ASTM D-4767

Project Name: Searsport, ME Sears Island Offshore Wind Teriminal
Client: Moffatt & Nichol

Project Number: 21-1242
Lab ID: 14494A
Date: 12/19/2022

Boring: LB-3
Sample: 5D-7D
Depth: Recompacted SS samples

P_C =	N/A
C_C =	0.19
C_R =	0.008
w =	8.9%
W_L =	21
W_P =	14



Comments:

Reviewed By

S.W.COLE ENGINEERING, INC.

Consolidation Test

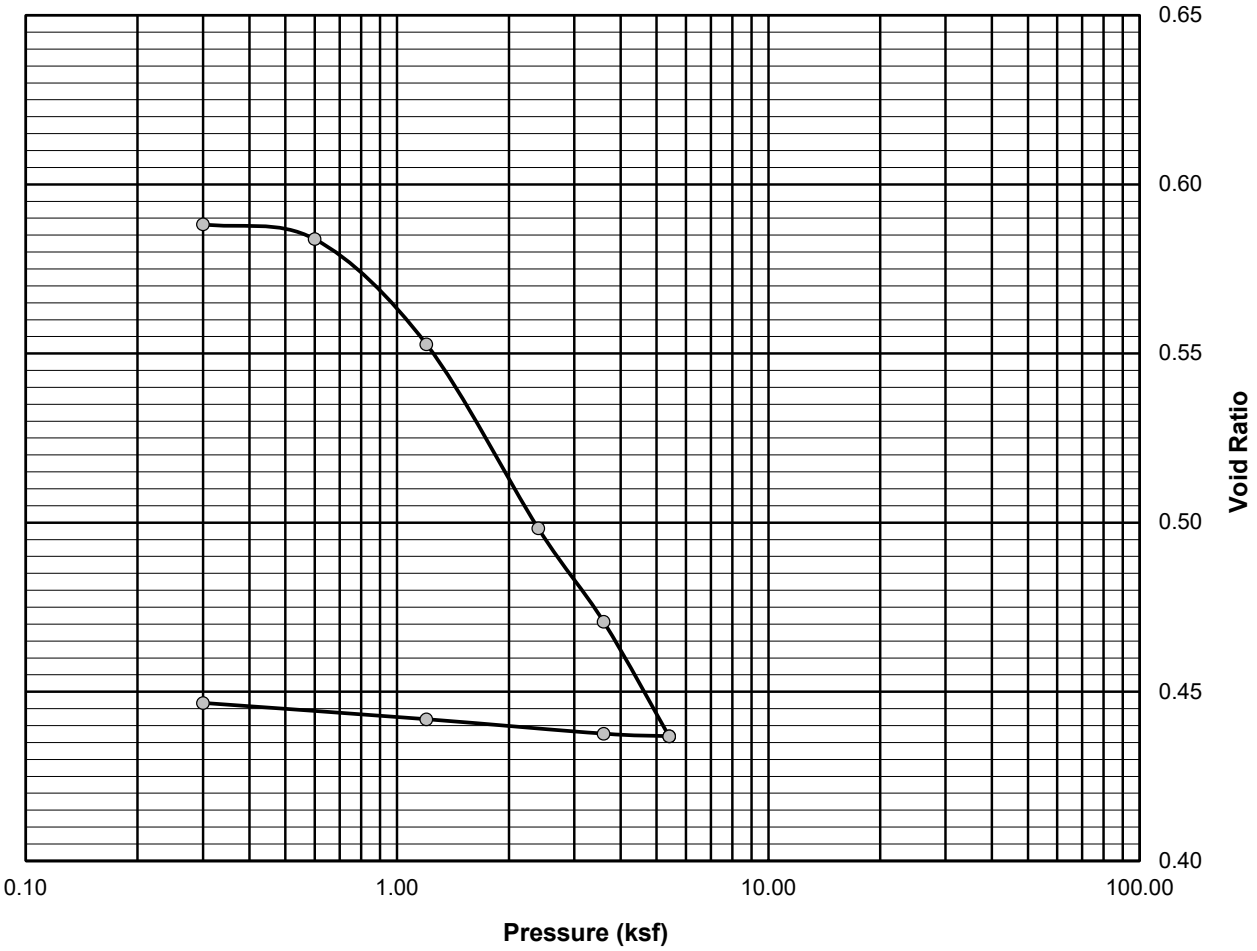
ASTM D-4767

Project Name: Searsport, ME Sears Island Offshore Wind Teriminal
Client: Moffatt & Nichol

Project Number: 21-1242
Lab ID: 14496A
Date: 12/19/2022

Boring: LB-6
Sample: 5D-7D
Depth: Recompacted SS samples

P_C =	N/A
C_C =	0.18
C_R =	0.008
w =	10.4%
W_L =	22
W_P =	14



Comments:

Reviewed By