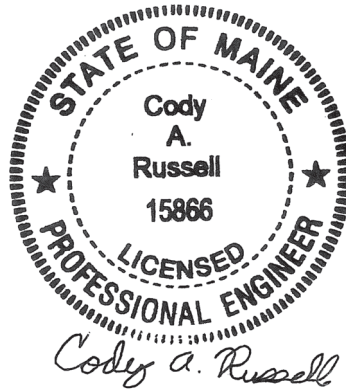


**MAINE DEPARTMENT OF TRANSPORTATION  
HIGHWAY PROGRAM  
GEOTECHNICAL SECTION  
AUGUSTA, MAINE**

**GEOTECHNICAL DATA REPORT**

*For Drainage and Safety Improvements on*  
**SOLDIER POND ROAD  
WALLAGRASS, MAINE**

*Prepared by:*  
Cody Russell, P.E.  
Geotechnical Engineer



*Reviewed by:*  
Kathleen Maguire, P.E.  
Senior Geotechnical Engineer

Aroostook County  
WIN 23785.00

Soils Report 2022-18  
June 24, 2022

## **INTRODUCTION**

The purpose of this data report is to document subsurface information collected for drainage and safety improvements on Soldier Pond Road in Wallagrass. The project begins 0.14 west of Bridge No. 3901 and extends east 0.12 miles as shown on the attached Location Map. The project is needed to address drainage issues resulting from the lack of defined ditching and to improve sight distance at the intersection of Soldier Pond Road and Pond View Road. This report presents the results of a limited geotechnical investigation performed along the proposed drainage improvements project. Soldier Pond Road is a Highway Corridor Priority 4 road.

## **SUBSURFACE INVESTIGATION**

Three (3) borings and nine (9) probes were drilled along the roadway by the MaineDOT drill crew using a trailer mounted drill rig. Exploration locations are presented in the attached Boring Location Plans. The details and sampling methods used, field data obtained, soil conditions encountered, and exploration locations are presented in the attached Boring Logs.

A Northeast Transportation Training and Certification Program (NETTCP) certified Subsurface Inspector logged the subsurface conditions encountered. The MaineDOT geotechnical engineer selected the boring and probe locations and drilling methods, designated type and depth of sampling techniques, reviewed boring and probe logs and identified field testing requirements. The boring and probe were located in the field by taping to surveyed site features after completion of the drilling program.

## **CLOSURE**

This Geotechnical Data Report has been prepared for the use of the MaineDOT Highway Program for specific application to the proposed Soldier Pond Road drainage and safety improvements in Wallagrass, Maine in accordance with generally accepted geotechnical and foundation engineering practices. No other intended use or warranty is expressed or implied.

MaineDOT conducted a limited number of soil explorations at discrete locations along the project alignment. No interpretations or conclusions have been derived from this geotechnical information. MaineDOT shall not be responsible for the Bidder's or Contractor's interpretations, estimates, or conclusions derived from the geotechnical information. Data provided may not be representative of the subsurface conditions between exploration locations.

In the event that any changes in the nature, design, or location of the proposed project are planned, this report should be reviewed by a geotechnical engineer to assess the appropriateness of the information presented and to modify the information as appropriate to reflect the changes in design. The information presented is based in part upon a limited subsurface investigation at discrete exploratory locations completed at the site. If variations from the conditions encountered during the investigation appear evident during construction, it may also become necessary to re-evaluate the information presented in this report.

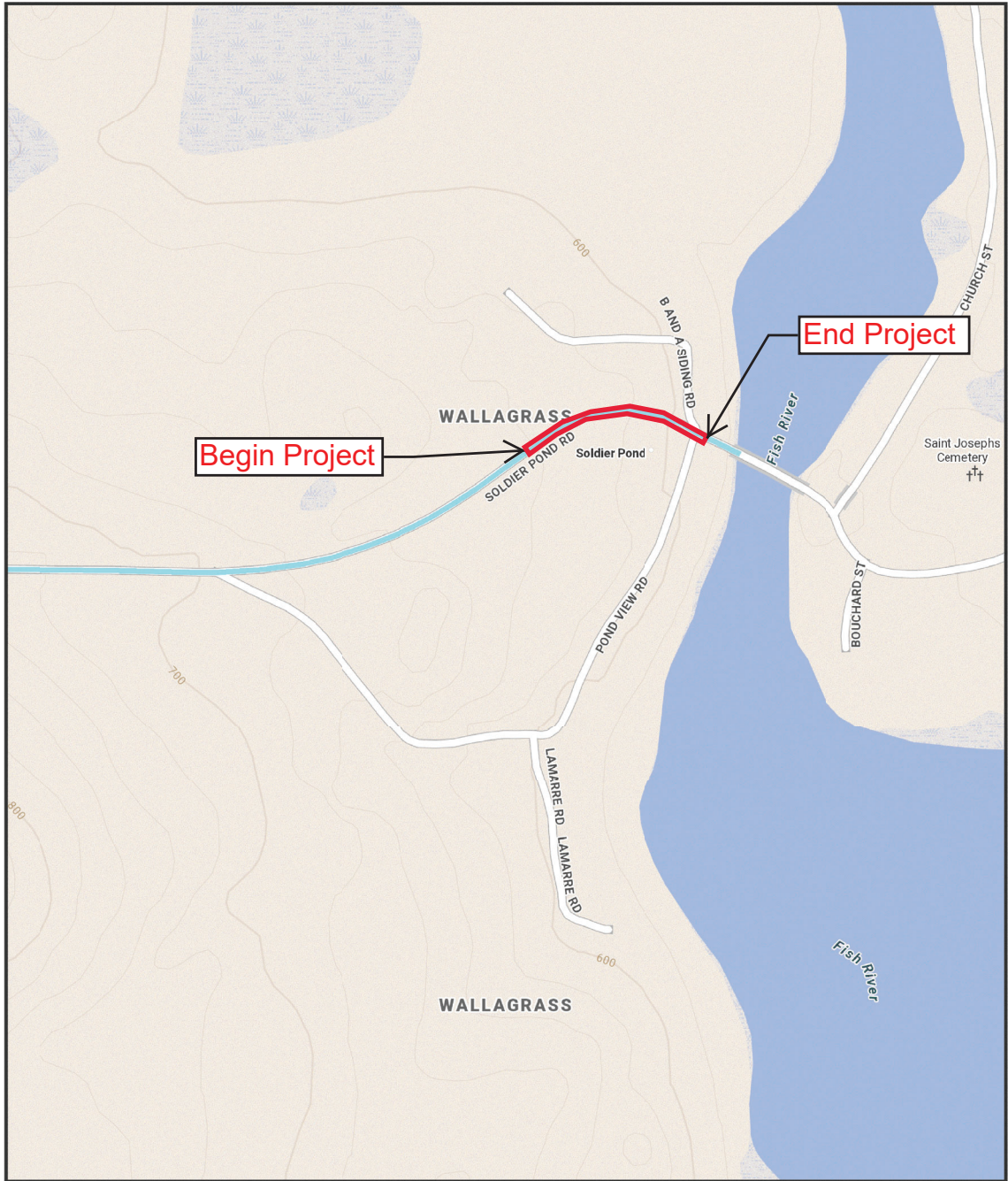
It is recommended that a geotechnical engineer be provided the opportunity for a review of the design and specifications in order that information presented in this report is properly implemented in the design and specifications.

**Attachments:**

Location Map  
Boring Location Plan  
Key to Soil and Rock Descriptions and Terms  
Boring Logs



# WALLAGRASS, MAINE



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

**0.1** Miles  
1 inch = 0.11 miles

Date: 6/13/2022  
Time: 10:38:28 AM

SHEET NUMBER

**1**

OF 2

## WALLAGRASS SOLDIER POND ROAD

### LOCATION MAP

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**23785.00**

**WIN**

**23785.00**

HIGHWAY PLANS





<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 586.9	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 22+37.7, 10.0 ft Rt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

Definitions: D = Split Spoon Sample MU = Unsuccessful Thin Wall Tube Sample Attempt WO1P = Weight of 1 Person  
 S = Sample off Auger Flights R = Rock Core Sample S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights SSA = Solid Stem Auger S<sub>u</sub>(lab) = Lab Vane Undrained Shear Strength (psf) LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q<sub>p</sub> = Unconfined Compressive Strength (ksf) PL = Plastic Limit  
 U = Thin Wall Tube Sample RC = Roller Cone N-value = Raw Field SPT N-value PI = Plasticity Index  
 MV = Unsuccessful Field Vane Shear Test Attempt WOH = Weight of 140lb. Hammer T<sub>v</sub> = Pocket Torvane Shear Strength (psf) G = Grain Size Analysis  
 V = Field Vane Shear Test, PP = Pocket Penetrometer WOR/C = Weight of Rods or Casing WC = Water Content, percent ≡ = Similar or Equal too C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5											
10								576.4			
10.5										Bottom of Exploration at 10.5 feet below ground surface. NO REFUSAL	
15											
20											
25											

**Remarks:**  
75' E Pole 45/1, 10.0 ft Rt., Offsets from Existing Roadway CL.

<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-102  <b>WIN:</b> 23785.00
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<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 593.6	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 21+57.7, 13.2 ft Lt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

Definitions: D = Split Spoon Sample      MU = Unsuccessful Thin Wall Tube Sample Attempt      WO1P = Weight of 1 Person  
 S = Sample off Auger Flights              R = Rock Core Sample                              S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights      SSA = Solid Stem Auger                            S<sub>u(lab)</sub> = Lab Vane Undrained Shear Strength (psf)      LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt      HSA = Hollow Stem Auger                        q<sub>p</sub> = Unconfined Compressive Strength (ksf)      PL = Plastic Limit  
 U = Thin Wall Tube Sample                      RC = Roller Cone                                    N-value = Raw Field SPT N-value                      PI = Plasticity Index  
 MV = Unsuccessful Field Vane Shear Test Attempt      WOH = Weight of 140lb. Hammer              T<sub>v</sub> = Pocket Torvane Shear Strength (psf)              G = Grain Size Analysis  
 V = Field Vane Shear Test, PP= Pocket Penetrometer      WOR/C = Weight of Rods or Casing              WC = Water Content, percent      ≡ = Similar or Equal too                      C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5											
10								583.6		Bottom of Exploration at 10.0 feet below ground surface. NO REFUSAL	
15											
20											
25											

**Remarks:**  
 5' W Pole 45/1, 13.5 ft Lt., Offsets from Existing Roadway CL.

<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-103  <b>WIN:</b> 23785.00
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<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 597.8	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 21+23.3, 11.9 ft Lt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> 6.0 ft bgs.

Definitions: D = Spilt Spoon Sample MU = Unsuccessful Thin Wall Tube Sample Attempt WO1P = Weight of 1 Person  
 S = Sample off Auger Flights R = Rock Core Sample S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights SSA = Solid Stem Auger S<sub>u(lab)</sub> = Lab Vane Undrained Shear Strength (psf) LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q<sub>p</sub> = Unconfined Compressive Strength (ksf) PL = Plastic Limit  
 U = Thin Wall Tube Sample RC = Roller Cone N-value = Raw Field SPT N-value PI = Plasticity Index  
 MV = Unsuccessful Field Vane Shear Test Attempt WOH = Weight of 140lb. Hammer T<sub>v</sub> = Pocket Torvane Shear Strength (psf) G = Grain Size Analysis  
 V = Field Vane Shear Test, PP = Pocket Penetrometer WOR/C = Weight of Rods or Casing WC = Water Content, percent ≡ = Similar or Equal too C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5						↓		591.4		6.4	
10										<b>Bottom of Exploration at 6.4 feet below ground surface.</b>	
15										REFUSAL	
20											
25											

**Remarks:**  
 40' W Pole 45/1, 11.5 ft Lt., Offsets from Existing Roadway CL.



<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-105  <b>WIN:</b> 23785.00
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<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 605.2	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 20+72, 8.1 ft Rt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> 6.0 ft bgs.

Definitions: D = Spilt Spoon Sample MU = Unsuccessful Thin Wall Tube Sample Attempt WO1P = Weight of 1 Person  
 S = Sample off Auger Flights R = Rock Core Sample S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights SSA = Solid Stem Auger S<sub>u</sub>(lab) = Lab Vane Undrained Shear Strength (psf) LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q<sub>p</sub> = Unconfined Compressive Strength (ksf) PL = Plastic Limit  
 U = Thin Wall Tube Sample RC = Roller Cone N-value = Raw Field SPT N-value G = Grain Size Analysis  
 MV = Unsuccessful Field Vane Shear Test Attempt WOH = Weight of 140lb. Hammer T<sub>v</sub> = Pocket Torvane Shear Strength (psf)  
 V = Field Vane Shear Test, PP = Pocket Penetrometer WOR/C = Weight of Rods or Casing WC = Water Content, percent ≡ = Similar or Equal too C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5						↓					
							598.7			Bottom of Exploration at 6.5 feet below ground surface. REFUSAL	6.5
10											
15											
20											
25											

**Remarks:**  
 90' W Pole 45/1, 8.0 ft Rt., Offsets from Existing Roadway CL.

<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-106  <b>WIN:</b> 23785.00
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<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 615.1	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 19+98.9, 10.2 ft Rt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

Definitions: D = Split Spoon Sample MU = Unsuccessful Thin Wall Tube Sample Attempt WO1P = Weight of 1 Person  
 S = Sample off Auger Flights R = Rock Core Sample S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights SSA = Solid Stem Auger S<sub>u(lab)</sub> = Lab Vane Undrained Shear Strength (psf) LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q<sub>p</sub> = Unconfined Compressive Strength (ksf) PL = Plastic Limit  
 U = Thin Wall Tube Sample RC = Roller Cone N-value = Raw Field SPT N-value G = Grain Size Analysis  
 MV = Unsuccessful Field Vane Shear Test Attempt WOH = Weight of 140lb. Hammer T<sub>v</sub> = Pocket Torvane Shear Strength (psf) PI = Plasticity Index  
 V = Field Vane Shear Test, PP = Pocket Penetrometer WOR/C = Weight of Rods or Casing WC = Water Content, percent ≡ = Similar or Equal too C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5						↘	610.1			Bottom of Exploration at 5.0 feet below ground surface. REFUSAL	5.0
10											
15											
20											
25											

**Remarks:**  
 11.5' E Pole 48565, 10.5 ft Rt., Offsets from Existing Roadway CL.

<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 617.8	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 19+87.3, 10.2 ft Lt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> 5.0 ft bgs.

Definitions: D = Spilt Spoon Sample MU = Unsuccessful Thin Wall Tube Sample Attempt WO1P = Weight of 1 Person  
 S = Sample off Auger Flights R = Rock Core Sample S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights SSA = Solid Stem Auger S<sub>u</sub>(lab) = Lab Vane Undrained Shear Strength (psf) LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q<sub>p</sub> = Unconfined Compressive Strength (ksf) PL = Plastic Limit  
 U = Thin Wall Tube Sample RC = Roller Cone N-value = Raw Field SPT N-value PI = Plasticity Index  
 MV = Unsuccessful Field Vane Shear Test Attempt WOH = Weight of 140lb. Hammer T<sub>v</sub> = Pocket Torvane Shear Strength (psf) G = Grain Size Analysis  
 V = Field Vane Shear Test, PP = Pocket Penetrometer WOR/C = Weight of Rods or Casing WC = Water Content, percent ≡ = Similar or Equal too C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
5						↓		612.0		5.8'	
										Bottom of Exploration at 5.8 feet below ground surface. REFUSAL	
10											
15											
20											
25											

**Remarks:**  
 At Pole 48565, 10.0 ft Lt., Offsets from Existing Roadway CL.

<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-108  <b>WIN:</b> 23785.00
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<b>Drilling Contractor:</b> MaineDOT	<b>Elevation (ft.):</b> 631.8	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Daggett/Westrack	<b>Datum:</b> NAVD88	<b>Sampler:</b> N/A
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 11/9/2019-11/9/2019	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 17+89.4, 11.7 ft Rt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

Definitions: D = Spilt Spoon Sample      MU = Unsuccessful Thin Wall Tube Sample Attempt      WO1P = Weight of 1 Person  
 S = Sample off Auger Flights              R = Rock Core Sample                              S<sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf)  
 B = Bucket Sample off Auger Flights      SSA = Solid Stem Auger                            S<sub>u(lab)</sub> = Lab Vane Undrained Shear Strength (psf)      LL = Liquid Limit  
 MD = Unsuccessful Split Spoon Sample Attempt      HSA = Hollow Stem Auger                        q<sub>p</sub> = Unconfined Compressive Strength (ksf)      PL = Plastic Limit  
 U = Thin Wall Tube Sample                      RC = Roller Cone                                    N-value = Raw Field SPT N-value                      PI = Plasticity Index  
 MV = Unsuccessful Field Vane Shear Test Attempt      WOH = Weight of 140lb. Hammer              T<sub>v</sub> = Pocket Torvane Shear Strength (psf)              G = Grain Size Analysis  
 V = Field Vane Shear Test, PP= Pocket Penetrometer      WOR/C = Weight of Rods or Casing              WC = Water Content, percent      ≡ = Similar or Equal too                      C = Consolidation Test

Depth (ft.)	Sample Information									Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log			
0						SSA				Probe, no material descriptions given.	
						↓		628.4			
5										Bottom of Exploration at 3.4 feet below ground surface. REFUSAL	3.4
10											
15											
20											
25											

**Remarks:**  
 25.0' W Pole 1-2 05179, 11.5 ft Rt., Offsets from Existing Roadway CL.





<b>Driller:</b> MaineDOT	<b>Elevation (ft.):</b> 616.6	<b>Auger ID/OD:</b> 5" Solid Stem
<b>Operator:</b> Daggett	<b>Datum:</b> NAVD88	<b>Sampler:</b> Standard Split Spoon
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> 140#/30"
<b>Date Start/Finish:</b> 6/15/2020; 09:30-11:30	<b>Drilling Method:</b> Cased Wash Boring	<b>Core Barrel:</b> NQ-2"
<b>Boring Location:</b> 19+96.5, 8.1 ft Lt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

**Hammer Efficiency Factor:** 0.886      **Hammer Type:** Automatic     Hydraulic     Rope & Cathead

Definitions:      R = Rock Core Sample       $S_u$  = Peak/Remolded Field Vane Undrained Shear Strength (psf)       $T_v$  = Pocket Torvane Shear Strength (psf)  
 D = Split Spoon Sample      SSA = Solid Stem Auger       $S_{u(lab)}$  = Lab Vane Undrained Shear Strength (psf)      WC = Water Content, percent  
 MD = Unsuccessful Split Spoon Sample Attempt      HSA = Hollow Stem Auger       $q_p$  = Unconfined Compressive Strength (ksf)      LL = Liquid Limit  
 U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw Field SPT N-value      PL = Plastic Limit  
 MU = Unsuccessful Thin Wall Tube Sample Attempt      WOH = Weight of 140lb. Hammer      Hammer Efficiency Factor = Rig Specific Annual Calibration Value      PI = Plasticity Index  
 V = Field Vane Shear Test, PP = Pocket Penetrometer      WOR/C = Weight of Rods or Casing       $N_{60}$  = SPT N-uncorrected Corrected for Hammer Efficiency      G = Grain Size Analysis  
 MV = Unsuccessful Field Vane Shear Test Attempt      WO1P = Weight of One Person       $N_{60}$  = (Hammer Efficiency Factor/60%)\*N-uncorrected      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	$N_{60}$	Casing Blows					
0								616.1		6" HMA.		
	1D	24/15	1.00 - 3.00	14/17/22/16	39	58		613.1		Brown, dry, very dense, fine to coarse SAND, some gravel, some silt (Fill).		
5								610.0		Brown, wet, dense, Silty, fine to coarse SAND, some gravel, with rock fragments, (Till). a35 blows for 0.6'.		
	2D	19.2/18	5.00 - 6.60	9/16/17/40(1.2")	33	49	13	610.0		Top of Bedrock at Elev. 610.0 ft. R1: Bedrock: Dark grey, fine grained, SANDSTONE and SILTSTONE, with traces of iron pyrite, hard, fresh. Rock Quality=Poor R1: Core Times (min:sec) 6.6-7.6 ft (1:36) 7.6-8.6 ft (1:38) 8.6-9.6 ft (1:49) 9.6-10.6 ft (1:52) 10.6-11.6 ft (1:56) 97% Recovery		
	R1	60/58	6.60 - 11.60	RQD = 33%			a35 NQ-2	605.0		<b>Bottom of Exploration at 11.6 feet below ground surface.</b>		
10												
15												
20												
25												

**Remarks:**

10' E Pole 48565, 8.0 ft Lt., Offsets from Existing Roadway CL.

<b>Maine Department of Transportation</b> Soil/Rock Exploration Log US CUSTOMARY UNITS	<b>Project:</b> Soldier Pond Road Drainage and Safety Improvements. <b>Location:</b> Wallagrass, Maine	<b>Boring No.:</b> HB-WAL-203  <b>WIN:</b> 23785.00
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<b>Driller:</b> MaineDOT	<b>Elevation (ft.):</b> 638.3	<b>Auger ID/OD:</b> 5" Solid Stem
<b>Operator:</b> Daggett	<b>Datum:</b> NAVD88	<b>Sampler:</b> Standard Split Spoon
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> 140#/30"
<b>Date Start/Finish:</b> 6/15/2020; 12:00-14:00	<b>Drilling Method:</b> Cased Wash Boring	<b>Core Barrel:</b> NQ-2"
<b>Boring Location:</b> 16+33.1, 6.9 ft Rt.	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

<b>Hammer Efficiency Factor:</b> 0.886	<b>Hammer Type:</b> Automatic <input checked="" type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/>	
Definitions: D = Split Spoon Sample MD = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt V = Field Vane Shear Test, PP = Pocket Penetrometer MV = Unsuccessful Field Vane Shear Test Attempt	R = Rock Core Sample SSA = Solid Stem Auger HSA = Hollow Stem Auger RC = Roller Cone WOH = Weight of 140lb. Hammer WOR/C = Weight of Rods or Casing WO1P = Weight of One Person	S <sub>u</sub> = Peak/Remolded Field Vane Undrained Shear Strength (psf) S <sub>u(lab)</sub> = Lab Vane Undrained Shear Strength (psf) q <sub>p</sub> = Unconfined Compressive Strength (ksf) N-uncorrected = Raw Field SPT N-value Hammer Efficiency Factor = Rig Specific Annual Calibration Value N <sub>60</sub> = SPT N-uncorrected Corrected for Hammer Efficiency N <sub>60</sub> = (Hammer Efficiency Factor/60%)*N-uncorrected
T <sub>v</sub> = Pocket Torvane Shear Strength (psf) WC = Water Content, percent LL = Liquid Limit PL = Plastic Limit PI = Plasticity Index G = Grain Size Analysis C = Consolidation Test		

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0									637.7	7" HMA.		
	1D	24/19	1.00 - 3.00	7/6/9/7	15	22				Brown, damp, medium dense, Gravelly, fine to coarse SAND, some silt, (Fill).		
5	2D R1	4.8/3 60/58	5.00 - 5.40 5.40 - 10.40	40(4.8") RQD = 20%	---				632.9	Similar to above, weathered rock in tip of spoon. Top of Bedrock at Elev. 632.9 ft. R1: Bedrock: Dark grey, fine grained, SANDSTONE and SILTSTONE, with traces of iron pyrite, hard, fresh. Rock Quality=Very Poor R1: Core Time (min:sec) 5.4-6.4 ft (1:28) 6.4-7.4 ft (1:46) 7.4-8.4 ft (2:00) 8.4-9.4 ft (1:34) 9.4-10.4 ft (1:42) 97% Recovery		
10									627.9			
											Bottom of Exploration at 10.4 feet below ground surface.	
15												
20												
25												

**Remarks:**  
 5' E Pole 1-3/53470, 7.5 ft Rt., Offsets from Existing Roadway CL.