Project   Multiply Integrits   Project #1   100.71   101	SUMMIT						S	OIL BORI	NG LOG	Boring #:	B-1	
Control   Cont										13067.1		
Common Style			00111								1 of 1	
Deference												
Mark Start   R. Petersinin   P.F.   Date started: 970/2013   State Completed: 970/2013   State DRILLING STARTED   Canophr   SAMPLE   Date   Depth   Elevation   None Observed		o:			vices, Inc.		·					
DRILLING NETHOD	Driller:											
Methods   Foreback   Georghe   Geo							Date started:	9/26/2013				
Marthous   Problem   Description   Marthous   Problem   Description   Marthous   Marth								ı				
Seminary Style   Mammar   Ma								Depth	Elevation		eference	
						ID	9/26/2013			None Observed		
Depth (II)							<b>.</b>					
Mos		Style:	Auto	Methoa:	ASTM D15	86			_	0 1 1 1/		
### A ** Advix brown Sandy Sill*, trace Crawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly SAND, trace Grawel, humid, losse, SM   Fill.    ### A ** Advix brown Silly Sand,	-				1	L	1					
FILL	(ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	N <sub>60</sub>				Test Data		
FILL    Compared Soils   Compared Soils							4" dark brown S	andy SILT, trac	e rootlets, moist, ML		TOPSOIL	
GLACIAL TILL  GL	'-						Provin Cilty CANI	D. trace Cravel	humid loose SM		EIII	
Signature   Solit   Same   S	2						DIOWIT SILLY SAIN	D, trace Graver,	Humlu, loose, sivi		FILL	
GLACIAL TILL    S							†					
GLACIAL TILL    S	3						†					
Standard Clay   Standard Cla	I -											
Same as above   Firm   Same as above	4						Ι					
Gray Sandy SILT, trace Gravel and Clay, damp,  6	_						1				GLACIAL TILL	
Fig.	5_						1					
10	,	S-1	24/24	5 to 7				, trace Gravel a	and Clay, damp,			
The compact of the compact of the composition   South Mosture Condition   Compact of the compa	6_						Stiff, ML					
Same as above, firm	7				1		1					
Size	· -				3		†					
Size	8						†					
Same as above, firm    10	_						†					
See as above, firm    11	9						1					
See as above, firm    11	· <u>-</u> -						[					
11	10						<u> </u>					
12		S-2	24/24	10 to 12			Same as above,	firm				
12	11_						1					
13	10				1		1					
14	12 _						+					
14	13						†					
S-3	_						†					
Same as above   Same as above	14						†					
Same as above   Same as above	_						1					
16	15						<u> </u>					
17		S-3	24/24	15 to 17			Same as above					
17	16_						1					
18	17						1					
19	''-				4		†					
19	18						†					
19	I						Hard drilling			-1		
S-4	19						]					
S-4							]					
21	20						1_		_			
12	0.1	S-4	24/24	20 to 22			Same as above,	damp, very stif	t			
22	21_						1					
End of Boring at 22 ft  23	າາ			1			1					
23					10		+	End of Boring	at 22 ft			
24	23						†	o. boining				
Granular Soils Cohesive Soils % Composition Blows/ft. Density Blows/ft. Consistency ASTM D2487  0-4 V. Loose	I						1					
Granular Soils Cohesive Soils % Composition Blows/ft. Density Blows/ft. Consistency ASTM D2487  0-4 V. Loose	24						1					
Granular Soils         Cohesive Soils         % Composition         NOTES:         PP = Pocket Penetrometer, MC = Moisture Content         Soil Moisture Condition           Blows/ft.         Density         Blows/ft.         Consistency         ASTM D2487         LL = Liquid Limit, PI = Plastic Index         Dry: S = 0%           0-4         V. Loose         <2	_						]					
Blows/ft.         Density         Blows/ft.         Consistency         ASTM D2487         LL = Liquid Limit, PI = Plastic Index         Dry: S = 0%           0-4         V. Loose         <2	25						1					
Blows/ft.         Density         Blows/ft.         Consistency         ASTM D2487         LL = Liquid Limit, PI = Plastic Index         Dry: S = 0%           0-4         V. Loose         <2				<u> </u>	0:	<u> </u>	Notes	DD - : -		1		
0-4         V. Loose         <2         V. soft         Bedrock Joints         Humid: S = 1 to 25%           5-10         Loose         2-4         Soft         < 5% Trace					1		NOTES:			ontent		
5-10         Loose         2-4         Soft         < 5% Trace         Shallow = 0 to 35 degrees         Damp: S = 26 to 50%           11-30         Compact         5-8         Firm         5-15% Little         Dipping = 35 to 55 degrees         Moist: S = 51 to 75%           31-50         Dense         9-15         Stiff         15-30% Some         Steep = 55 to 90 degrees         Wet: S = 76 to 99%           >50         V. Dense         16-30         V. Stiff         > 30% With         Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches         Saturated: S = 100%					ASIM D	1248/	Podroek leists	LL = Liquid Limit	I, PI = Plastic Index		•	
11-30 Compact         5-8         Firm         5-15% Little         Dipping = 35 to 55 degrees         Moist: S = 51 to 75%           31-50 Dense         9-15         Stiff         15-30% Some         Steep = 55 to 90 degrees         Wet: S = 76 to 99%           >50 V. Dense         16-30         V. Stiff         > 30% With         Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches         Saturated: S = 100%					. 50/ 3	Franc		dogrado				
31-50 Dense								-			·	
>50 V. Dense 16-30 V. Stiff > 30% With Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches								_				
>30 Hard Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches							31eeh = 33 10 40 0	iegiees				
	>50	v. Dense			> 30%	VVILII	Roulders - diamet	er > 10 inches C	ohhles = diameter < 12 inch	es and > 3 inches	Saturateu: S = 100%	
			>30	пагu								

						S	OIL BORII	Boring #:	B-2	
		SUM	MAIT				Munjoy Height		Project #:	13067.1
						Location:	Sheet:	1 of 1		
		GEOENGINEERI	NG SERVICES			City, State:	Sheridan St Ex Portland, Main		Chkd by:	
Drilling C	o:	Summit Geoer	igineering Ser	vices, Inc.		Boring Elevation:		86 ft +/-	<u> </u>	
Driller:	<u> </u>							osion Control Plan by A		
Summit :	Summit Staff: B. Peterlein, P.E.							Date Completed:	9/26/2013	
DR	DRILLING METHOD SAMPLER							ESTIMATED GROUND	WATER DEPTH	
Vehicle:			Length:	24" SS		Date	Depth	Elevation	Re	eference
Model:	AMS Pov	ver Probe	Diameter:	2"OD/1.5"	ID	9/26/2013	15 ft	71 ft +/-	Observed in sample	S
Method:		' H.S.A.	Hammer:	140 lb						
Hammer	Style:	Auto	Method:	ASTM D15	86					
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	N <sub>60</sub>	<u> </u>	SAMPL DESCRIP		Geological/ Test Data	Geological Stratum
						4" dark brown Sa	andy SILT, trace	e rootlets, moist, ML		TOPSOIL
1										
_						Brown Gravelly S	SAND, trace Silt	, humid, loose, SP		FILL
2						[				
3_						1				
						1				14451115 11545
4_						1				MARINE NEAR
_										SHORE
5_	S-1	24/20	5 to 7	4		Brown Gravelly S	SAND traco Silt	dry compact		
6	J-1	Z4/ZU	3 (0 /	7		SP	AND, HAVE SIII,	, ury, compact,		
<u>-</u>				7		31				
7				7		†				
-						†				
8						1				
_						1				
9_						]				
						<u> </u>				
10_	S-2	24/12	10 to 12	4		Same as above				
				6		1				
11_				5		1				
12				3		+				
12_						+				
13						1				
- 10						†				
14						†				
_						†				
15										
_	S-3	24/16	15 to 17	8		Brown Gravelly S	SAND, little Silt,	wet, compact, SM		
16_				4		<u> </u>				
				6		1				
17 _				9		1				
10				1		1				
18_						+				+
19						†				GLACIAL TILL
' -				<b>†</b>		†				SENSINE TILL
20						1				
-	S-4	24/24	20 to 22	10		Gray Sandy SILT	, trace Gravel a	nd Clay, wet,		
21				16		hard, ML		-		
_				17		]				
22_				18						
_						1	End of Boring	at 22 ft		
23 _				1		4				
2.4				<del>                                     </del>		1				
24_						1				
25				<del>                                     </del>		†				
23_						†				
Granula	r Soils	Cohesiv	e Soils	% Comp	osition	NOTES:	PP = Pocket Pen	etrometer, MC = Moisture	Content	Soil Moisture Condition
Blows/ft. Density Blows/ft. Consistency ASTM D2487  0-4 V. Loose <2 V. soft						, PI = Plastic Index		Dry: S = 0%		
				Bedrock Joints				Humid: S = 1 to 25%		
5-10	Loose	2-4	Soft	< 5% 1	race	Shallow = 0 to 35	degrees			Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	5-15%		Dipping = 35 to 55	•			Moist: S = 51 to 75%
	Dense	9-15	Stiff	15-30%		Steep = 55 to 90 d	-			Wet: S = 76 to 99%
31-50	Delibe					1	•			i .
	V. Dense	16-30	V. Stiff	> 30%	With					Saturated: S = 100%
		16-30 >30	V. Stiff Hard	> 30%	With	Boulders = diamete	er > 12 inches, C	obbles = diameter < 12 ir	nches and > 3 inches	Saturated: S = 100%

						S	OIL BORI	Boring #:	B-3	
		CILA	AALT			Project:	Munjoy Height		Project #:	13067.1
		SUIVI	VIIV			Location:	Sheridan St Ex		Sheet:	1 of 2
		GÉOENGINEERI	NG SERVICES			City, State:	Portland, Main		Chkd by:	1 01 2
Drilling C	o:	Summit Gener	ngineerina Sei	vices. Inc		Boring Elevation:		138 ft +/-	<i>,</i> .	
Drilling Co: Summit Geoengineering Services, Inc.  Driller: C. Coolidge, P.E.						Reference:		osion Control Plan by Ac	orn Engineerina	
Summit Staff: B. Peterlein, P.E.						Date started:	9/26/2013	Date Completed:	9/26/2013	
DRILLING METHOD SAMPLER								ESTIMATED GROUND		
Vehicle:	Tracked	i	Length:	24" SS		Date	Depth	Elevation		eference
Model:	AMS Pov	wer Probe	Diameter:	2"OD/1.5"	'ID	9/26/2013	24 ft	114 ft +/-	Observed on drill ro	ds
Method:		" H.S.A.	Hammer:	140 lb						
Hammer	Style:	Auto	Method:	ASTM D15	86					
Depth						1	SAMPI		Geological/	Geological
(ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	N <sub>60</sub>		DESCRIP		Test Data	Stratum
						7	dy SILT, trace r	ootlets, moist, loose,		TOPSOIL
1_						ML				
2						Drown Crovelly	Cilty CAND mai	at Jacob CM		FILL
2_						Brown Gravelly S	SIILY SAIND, MOI	St, loose, Sivi		FILL
3						+				
Ŭ_						1				
4						1				
_						]				
5_						1_				
	S-1	24/12	5 to 7	3		Brown Silty SANI	D, little Gravel,	moist, loose, SM		
6_				3		+				
7				2		+				
′ –						†				
8						†				
_										
9_										
						1				
10_	S-2	24/10	10 to 12	1		Crayleh ash min	ad with a trans	of Silt, dry, loose,		
11	5-2	24/10	10 10 12	2		Grayish ash mixe	ed with a trace	or Siit, ary, loose,		
''-				3						
12				2		Brown SAND, tra	ace to little Grav	vel and Silt,		MARINE NEAR
_						dry, loose, SP				SHORE
13_						<u> </u>				
	-					1				
14_						-				
15						1				
	S-3	24/18	15 to 17	6		Same as above				
16				17						
' <u>-</u>				14		<u>.</u>	dy SILT, little G	Gravel, moist, very,		GLACIAL TILL
17_				17		stiff, ML				
10						1				
18_						+				
19						†				
						1				
20		_				T		. —	1	
_	S-4	24/20	20 to 22	7		-	Clay and fine Sa	and, trace Gravel,		
21 _				12		stiff, ML				
າາ				23 24		Olive brown Son	dy SILT little C	Gravel, trace Clay,		
22 _				24		humid, hard, ML		oraver, trace Clay,		
23						,a, mara, ME				
_						1				
24_						1				
· <u> </u>						1				
25 _						1				
Crossil	r Colle	C-F	ro Soile	0/ 0	ocition	NOTES:	DD = Dools = + D	notromotor MC M-:-t-	Content	Soil Moisture Caraditi
Granular Soils Cohesive Soils % Composition  Rlows/ft Donsity Rlows/ft Consistency ASTM D2487				NOTES:		netrometer, MC = Moisture	Content	Soil Moisture Condition  Dry: S = 0%		
Blows/ft. Density Blows/ft. Consistency ASTM D2487  0-4 V. Loose <2 V. soft			· 40 /	Bedrock Joints	LL – LIQUIU LIMI	t, PI = Plastic Index		Dry: S = 0%  Humid: S = 1 to 25%		
5-10	Loose	2-4	Soft	< 5% 1	Ггасе	Shallow = 0 to 35	dearees			Damp: S = 26 to 50%
	Compact	5-8	Firm	5-15%		Dipping = 35 to 55	•			Moist: $S = 51 \text{ to } 75\%$
31-50	Dense	9-15	Stiff	15-30%		Steep = 55 to 90 d	-			Wet: S = 76 to 99%
	V. Dense	16-30	V. Stiff	> 30%			-			Saturated: S = 100%
		>30	Hard			Boulders = diamet	er > 12 inches, C	obbles = diameter < 12 inc	ches and > 3 inches	
						Gravel = < 3 inch	and > No 4, Sand	d = < No 4 and >No 200, S	Silt/Clay = < No 200	

Project   Munipy Helphts   Project #: Location: Shertan St Extension   Sheet   Carly   Helphts   Project #: Location: Shertan St Extension   Sheet   Carly   State: Portland, Maine   Child by: Port	Reference rill rods  I/ Geological
Cocontinuestring Services	Reference rill rods  // Geological a Stratum
City   State   Portland, Maine   Chkd by:	Reference rill rods  I/ Geological a Stratum
Defiling   Co: Summit Geoengineering Services, Inc.   Boring Elevation:	Reference rill rods  I/ Geological a Stratum
Driller:   C. Coolidge, P.E.   Reference:   Drainage & Erosion Control Plan by Acorn Engineering	Reference rill rods  I/ Geological a Stratum
Depth   Company   Compan	Reference rill rods  I/ Geological a Stratum
Vehicle:   Tracked   Length:   24" SS   Date   Depth   Elevation   Model: AMS Power Probe   Diameter:   2"OD/1.5"ID   9/26/2013   24 ft   114 ft +/- Observed on d   Method:   2.1/2" H.S.A.   Hammer:   140 ib	rill rods  I/ Geological a Stratum
Model:         AMS Power Probe         Diameter:         2"OD/15"ID         9/26/2013         24 ft         114 ft +/-         Observed on diameter           Method:         2-1/2" H.S.A.         Hammer:         140 lb         — <t< td=""><td>rill rods  I/ Geological a Stratum</td></t<>	rill rods  I/ Geological a Stratum
Method: 2-1/2" H.S.A. Hammers Style: Auto Method: ASTM D1586 Geologica Test Dat:    Mathod: ASTM D1586   SAMPLE Geologica Test Dat:   Section 1	I/ Geological a Stratum
Hammer Style   Auto	a Stratum
Depth (ft.)   No.   Pen/Rec (in)   Depth (ft)   blows/6"   N <sub>80</sub>   SAMPLE   DESCRIPTION   Test Date   Test Date   Description   Test Date   Test Date   Description   Test Date   Test Dat	a Stratum
(ft.) No. Pen/Rec (in) Depth (ft) blows/6" No.  S-5 24/24 25 to 27 4 Gray Sandy SILT, little Gravel, trace Clay, very wet, stiff, ML  27	a Stratum
S-5   24/24   25 to 27   4   Gray Sandy SILT, little Gravel, trace Clay, very   13   wet, stiff, ML	
26	GLACIAL TILL
27	
28	
29	
29	
30	
S-6   24/24   30 to 32   14   Same as above	
S-6   24/24   30 to 32   14   Same as above	
31	
32	
32	
33	
34       35       36       37       38       39       40       41       42       43       44	
35	
35	
36	
37	
37	
38	
38	
39 40 41 42 43 44 44 44 44 44 44 44 44 44 44 44 44	
40	
40	
41 42 43 44 44 44 44 44 44 44 44 44 44 44 44	
42 43 44 44	
42 43 44 44	
43 44 4	
43 44 4	
44	
45	
46	
47	
48	
49	
F0 //	
50 V End of Boring at 50 ft	
Granular Soils Cohesive Soils % Composition NOTES: PP = Pocket Penetrometer, MC = Moisture Content	Soil Moisture Condition
Blows/ft. Density Blows/ft. Consistency ASTM D2487 LL = Liquid Limit, PI = Plastic Index	Dry: S = 0%
0-4 V. Loose <2 V. soft <u>Bedrock Joints</u>	Humid: S = 1 to 25%
5-10 Loose 2-4 Soft < 5% Trace Shallow = 0 to 35 degrees	1
11-30 Compact 5-8 Firm 5-15% Little Dipping = 35 to 55 degrees	Damp: S = 26 to 50%
31-50 Dense 9-15 Stiff 15-30% Some Steep = 55 to 90 degrees	Damp: S = 26 to 50% Moist: S = 51 to 75%
>50 V. Dense 16-30 V. Stiff > 30% With Solution	Damp: S = 26 to 50% Moist: S = 51 to 75% Wet: S = 76 to 99%
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200	Damp: S = 26 to 50% Moist: S = 51 to 75%

$\sim$					9	OIL BORII	NG LOG	Roring #:	B-4			
		China					Boring #:					
		SUM	IVII		Project:Munjoy HeightsProject #:13067.1Location:Sheridan St ExtensionSheet:1 of 2							
		GEOENGINEERI	NG SERVICES			Portland, Main		Chkd by:	1 01 2			
Drilling C	:o:	Summit Geoer	aineerina Ser	vices. Inc.	Boring Elevation:		140 ft +/-					
Driller:		C. Coolidge, P.	5									
Summit :	Staff:	B. Peterlein, P.			Date started:		Date Completed:	9/26/2013				
DR	ILLING	METHOD	Si	AMPLER			ESTIMATED GROUND W	ATER DEPTH				
Vehicle:			Length:	24" SS	Date	Depth	Elevation		ference			
		wer Probe	Diameter:	2"OD/1.5"ID	9/26/2013			Caved at 22.6 ft (11	7 ft +/-) Dry			
Method: Hammer		" H.S.A.	Hammer: Method:	140 lb ASTM D1586								
Depth	Style.	Auto	wethou.	A31W D1300		SAMPL	F	Geological/	Geological			
(ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6" N <sub>60</sub>	_	DESCRIP		Test Data	Stratum			
()		1 011/1100 (111)	Doptii (it)	2.0110, 0	Grass and leaf lit			. oot Bata	ou atain.			
1					loose, SM		, . , . , ,		FILL			
2_												
3					_							
) -					_							
4					†							
_												
5_		0.1/4.5	F : -		David C		N 1 . A					
6	S-1	24/12	5 to 7	3 3	Dark brown Sand rootlets, dry, loo		ravel, trace					
0-				2	Tootiets, dry, loo	se, IVIL						
7				3								
_												
8_												
9					_							
7_					_							
10												
	S-2	24/18	10 to 12	5	Brown Gravelly S	SAND, trace Silt	, dry, compact, SP		MARINE NEAR			
11_				11					SHORE			
12				17 17	_							
12 -				17	_							
13												
14_					Llordor drilling of	1 T ft						
15					Harder drilling at	1 15 11						
	S-3	8/8	15 to 15.6	29	Brown Gravelly S	SAND, little Silt,	dry, dense, SM					
16_				50 for 2"								
47									CLACIAL TILL			
17_					+				GLACIAL TILL			
18					+							
_												
19_												
20					4							
20_	S-4	24/24	20 to 22	25	Gray Sandy SILT	, little Gravel h	umid, very dense,					
21				14	ML ML	, 5.4.01,11	. 2, 12., 20.00,					
-				13								
22_				14	4							
23					+							
23_					+							
24					<u> </u>							
_												
25 _					4							
Granula	r Soils	Cohesiv	e Soils	% Composition	NOTES:	PP = Pocket Pen	etrometer, MC = Moisture Co	ntent	Soil Moisture Condition			
Blows/ft.		Blows/ft.	Consistency	ASTM D2487			r, PI = Plastic Index		Dry: S = 0%			
0-4	V. Loose		V. soft		Bedrock Joints				Humid: $S = 1 \text{ to } 25\%$			
5-10	Loose	2-4	Soft	< 5% Trace	Shallow = 0 to 35	degrees			Damp: S = 26 to 50%			
11-30	Compact	5-8	Firm	5-15% Little	Dipping = 35 to 55	_			Moist: S = 51 to 75%			
31-50	Dense	9-15	Stiff	15-30% Some	Steep = $55$ to $90$ d	legrees			Wet: S = 76 to 99%			
>50	V. Dense		V. Stiff	> 30% With	Pauldors dies d	or . 10 : 0	obbles dismeter 12 to the	on and a 2 in-t	Saturated: S = 100%			
		>30	Hard				obbles = diameter $< 12$ inches $1 = < No 4$ and $> No 200$ , Silt.					

					_	T				-	
		$\wedge$				l s	OIL BORI	NG LOG	Boring #:	B-4	
		CILAR	TARAL			Project:	Munjoy Height		Project #:	13067.1	
		SUM	IVITY			Location:	Sheridan St Ex		Sheet:	2 of 2	
		GÉOENGINEERI	NG SERVICES			City, State:	Portland, Main		Chkd by:	2 0. 2	
Drilling (	<u>`</u> 0.	Summit Geoer	ngineering Se	rvices Inc	$\neg$	Boring Elevation:		140 ft +/-	J 2.j.		
Driller:		C. Coolidge, P.		VICCO, ITIC.	$\neg$	Reference:		osion Control Plan by A	corn Engineering		
Summit		B. Peterlein, P.				Date started:	9/26/2013	Date Completed:	9/26/2013		
		METHOD		AMPLER	$\neg$			ESTIMATED GROUND			
	Tracked		Length:	24" SS		Date	Depth	Elevation		eference	
		wer Probe	Diameter:	2"OD/1.5"ID		9/26/2013	- 1		Caved at 22.6 ft (11		
Method:		" H.S.A.	Hammer:	140 lb					· ·	, ,	
Hammei	Style:		Method:	ASTM D1586							
Depth							SAMPI	.E	Geological/	Geological	
(ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6" N	N <sub>60</sub>	Ī	DESCRIP.	TION	Test Data	Stratum	
	S-5	24/24	25 to 27	8	$\neg$	Gray fine Sandy	SILT, little Grav	el, trace Clay, humid,			
26				14		hard, ML				GLACIAL TILL	
				17							
27				15							
20	<u> </u>	<u> </u>		<b>↓</b>		ļ					
28	+	<del> </del>	<del>                                     </del>	<del>├</del>	$\dashv$	}					
29	<del></del>					<del> </del>					
	+			+ +	$\dashv$	†					
30				†	$\neg$	†					
_	S-6	24/24	30 to 32	6		Same as above					
31				8		I					
22	<u> </u>			18		ļ					
32	+		<u> </u>	20	$\dashv$	Auger probe to 4	10.6				
33		<del> </del>	<del> </del>	+ +	$\dashv$	Auger probe to 4	12 II				
55	+		<del> </del>	+	$\dashv$	<del> </del>					
34					$\neg$	†					
-	<u> </u>			<u> </u>		†					
35						]					
2.4			ļ			<u> </u>					
36	+		<del>                                     </del>	<del>                                     </del>							
37			-	+	$\dashv$	<del> </del>					
٠, -	+			<del>                                     </del>	$\dashv$	<del> </del>					
38					$\neg$	†					
-						<u> </u>					
39	<u> </u>		<u> </u>	<del>I  </del>		<u> </u>					
40	<u> </u>		<del>                                     </del>	<del>                                     </del>	$\dashv$						
40_	+		<del> </del>	1	$\dashv$	<del> </del>					
41	-			+ +	-+	<del> </del>					
-	<del>                                     </del>				$\neg$	†					
42						₩					
40				<del>                                     </del>			End of Boring	at 42 ft			
43	+		<del>                                     </del>	<del>                                     </del>							
44	$\vdash$		<del> </del>	1	$\dashv$	ł					
···-	+			<del>                                     </del>	$\dashv$	†					
45			<u> </u>	<u> </u>		†					
						]					
46	<u> </u>					ļ					
17	<u> </u>		<u> </u>	<del>                                     </del>	$\dashv$						
47_	+					<del> </del>					
48	<del>                                     </del>				$\neg$	ł					
-						İ					
49											
				<u> </u>		ļ					
50_				<u> </u>							
Granul	ar Soils	Cohesiv	o Soils	% Compositi	ion	NOTES:	DD - Docket Don	etrometer, MC = Moisture	Contont	Soil Moisture Condition	
	Density	Blows/ft.	Consistency	ASTM D248		NOTES.		;, PI = Plastic Index	Content	Dry: S = 0%	
0-4	V. Loose		V. soft	ASTIVI DZ40	17	Bedrock Joints	LL – Liquid Lillin	., FT = Flastic Hidex		Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	< 5% Trace	.e	Shallow = 0 to 35	dearees			Damp: S = 26 to 50%	
11-30	Compact	5-8	Firm	5-15% Little		Dipping = $35 \text{ to } 55$	-			Moist: S = 51 to 75%	
31-50	Dense	9-15	Stiff	15-30% Son		Steep = 55 to 90 d	_			Wet: S = 76 to 99%	
>50	V. Dense		V. Stiff	> 30% With		'				Saturated: S = 100%	
	ļ	>30	Hard			Boulders = diamete	er > 12 inches, C	obbles = diameter < 12 in	iches and > 3 inches		
		i		1		Gravel - < 3 inch	and \ No.4 Sand	I = < No 4 and >No 200.	Silt/Clay = < No 200		

<u> </u>					9	OIL BORII	NG LOG	Boring #: <b>B-5</b>		
		CILLA	AALT			13067.1				
		SUM	IVIII			Munjoy Heights Sheridan St Ex		Project #: Sheet:	1 of 1	
		GEOENGINEERI	NG SERVICES			Portland, Maine		Chkd by:	1 01 1	
Drilling C	o:	Summit Geoer	gineering Ser	vices, Inc.	Boring Elevation:		119 ft +/-	,	=	
Driller:		C. Coolidge, P.	.E.				osion Control Plan by Acorr			
Summit :	Staff:	B. Peterlein, P.	.E.		Date started:	9/26/2013	Date Completed:	9/26/2013		
DR	ILLING	METHOD	Si	AMPLER			ESTIMATED GROUND W	ATER DEPTH		
Vehicle:			Length:	24" SS	Date	Depth	Elevation	Re	ference	
		wer Probe	Diameter:	2"OD/1.5"ID	9/26/2013					
Method:		" H.S.A.	Hammer:	140 lb						
Hammer	Style:	Auto	Method:	ASTM D1586		SAMPL		Geological/	Coological	
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6" N <sub>60</sub>	+	DESCRIPT		Test Data	Geological Stratum	
(11.)	NO.	Tell/Rec (III)	Deptii (it)	DIOW370 1460	4" dark brown Sa		e rootlets, moist, ML	TCSt Data	TOPSOIL	
1					, dank brown of	and orzer and	o roomoto, moiot, me		10.0012	
_					Olive-brown Clay	ey SILT, little fi	ine SAND, moist,		FILL	
2_					firm, ML					
2					1					
3_					+					
4					†					
_					1					
5_			_		1_					
,	S-1	22/22	5 to 6.9	8		, trace Gravel a	nd Clay, moist to			
6_				7	damp, stiff, ML					
7				8 for 4" then REF	†					
· -				10.101.1121	†					
8					Boulder at 7 ft, r	efusal, move 5	feet and re-drill			
					<u> </u>				GLACIAL TILL	
9_					1					
10					+					
	S-2	24/24	10 to 12	7	Gray Sandy SILT	, little Gravel, ti	race Clay, damp,			
11				23	hard, ML		3			
				14	<u> </u>					
12_				14	1					
13					+					
					†					
14					1					
					<u> </u>					
15_	S-3	24/10	15 to 17	14	Como ao abaya	domn				
16	3-3	24/18	15 (0 17	31	Same as above,	uamp				
				35	†					
17				26	1					
					4					
18_				<del>                                     </del>	+					
19				<del>                                     </del>	†					
' -					1					
20					]					
0.1	S-4	24/24	20 to 22	8	Same as above,	wet				
21_				18 21	+					
22				24	†					
						End of Boring	at 22 ft			
23					]	J				
<u>.</u> .					4					
24_				<del>                                     </del>	+					
25					†					
					<u> </u>					
Granula		Cohesiv	e Soils	% Composition	NOTES:	PP = Pocket Pen	etrometer, MC = Moisture Cor	ntent	Soil Moisture Condition	
Blows/ft.		Blows/ft.	Consistency	ASTM D2487		LL = Liquid Limit	, PI = Plastic Index		Dry: S = 0%	
0-4	V. Loose		V. soft	F0	Bedrock Joints				Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	< 5% Trace	Shallow = 0 to 35 to	•			Damp: S = 26 to 50%	
11-30 31-50	Compact	5-8 9-15	Firm Stiff	5-15% Little 15-30% Some	Dipping = $35$ to $55$ Steep = $55$ to $90$ d	-			Moist: S = 51 to 75% Wet: S = 76 to 99%	
	V. Dense		V. Stiff	> 30% With	00 to 70 u	.091003			Saturated: S = 100%	
	_ 3.130	>30	Hard		Boulders = diamete	er > 12 inches, Co	obbles = diameter < 12 inche	s and > 3 inches		
							= < No 4 and >No 200, Silt/			

						S	OIL BORI	NG LOG	Boring #:	B-6
		CILA	TALA			Project:	Munjoy Height	Project #:	13067.1	
		SUIVI	IVIII			Location:	Sheet:	1 of 1		
		GEOENGINEERI	NG SERVICES			City, State:	Portland, Main	е	Chkd by:	
Drilling C		Summit Geoer		rvices, Inc.		Boring Elevation		117 ft +/-		
Driller:		C. Coolidge, P				Reference:		osion Control Plan by A		
	Summit Staff: B. Peterlein, P.E.  DRILLING METHOD SAMPLER					Date started:	9/26/2013	Date Completed:	9/26/2013	
Vehicle:			Length:	AMPLER 24" SS		Date	Depth	ESTIMATED GROUND Elevation		eference
		wer Probe	Diameter:	2"OD/1.5"	'ID	9/26/2013	Берит	Lievation	N.C	referice
Method:			Hammer:	140 lb		772072010				
Hammer			Method:	ASTM D15	586					
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	N <sub>60</sub>		SAMPI DESCRIP		Geological/ Test Data	Geological Stratum
1						Dark brown Sandrootlets, humid,		Gravel, trace		TOPSOIL
_										
2_						Brown Gravelly S	SAND, trace Sil	, dry, compact, SP		MARINE NEAR SHORE
3						+				SHUKE
_						1				
4 _										
5				-		ĺ				
ິ_	S-1	24/24	5 to 7	11		Brown Gravelly S	SAND, trace Sil	, dry, compact, SP		
6_				14		]				
7				12		4				
7_				13		1				
8_					L	1				
_						1				
9_	-			<del> </del>	-	-				
10						†				
	S-2	24/24	10 to 12	2		Brown Gravelly S	SAND, trace Sil	, trace Gravel and		
11_				3		Clay, damp, firm	ı, SM			GLACIAL TILL
12				3 2		_				
12_						-				
13										
1.4						_				
14_						+				
15						1				
_	S-3	24/24	15 to 17	3		Same as above,	stiff			
16_				10		1				
17				5		-				
_										
18_						4				
19	<u> </u>					Becomes harder	at 19 ft			
''-										
20_		0.1/0:	00:							
21	S-4	24/24	20 to 22	4 15		Same as above,	very stiff			
_ ا _				13		†				
22_				14		]				
00						4				
23_				1		1				
24						1				
-						1				
25_	S-5	24/24	25 to 27	10		Same as above,	very stiff			
26	3-0	27/24	23 10 21	15		Jame as above,	vory suit			
_				14		]				
27_				17			End of Poring	1 2† 22 ft		
Granula	ar Soile	Cohesiv	l e Snils	% Comp	nsition	NOTES:	End of Boring	etrometer, MC = Moisture	Content	Soil Moisture Condition
Blows/ft.		Blows/ft.	Consistency	ASTM D				t, PI = Plastic Index	CORTOR	Dry: S = 0%
0-4	V. Loose		V. soft	7.01101 E		Bedrock Joints	- Esquite Eilli			Humid: S = 1 to 25%
5-10	Loose	2-4	Soft	< 5%	Trace	Shallow = 0 to 35	degrees			Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	5-15%	Little	Dipping = 35 to 55	degrees			Moist: S = 51 to 75%
31-50	Dense	9-15	Stiff	15-30%		Steep = 55 to 90 c				Wet: S = 76 to 99%
>50	V. Dense		V. Stiff	> 30%	With			obbles = diameter < 12 in		Saturated: S = 100%
		>30	Hard			Gravel = < 3 inch	and > No 4, San	$d = \langle No 4 \text{ and } \rangle No 200,$	Silt/Clay = < No 200	