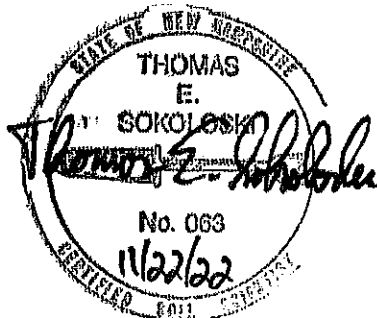


TES

TES ENVIRONMENTAL CONSULTANTS, L.L.C.

TEST PIT LOG SHEET

Date: 11/21/2022			Project No: 22-0059			Lot: Map 239, Lot 35	
CSS: Thomas E. Sokolowski			Project Name: Beals Assoc./Mallego Rd/Barrington			Test Pit No: D-20-1	
HOR	DEPTH	COLOR	TEXTURE	STRUCTURE	CONSISTENCY	REDOX FEATURES	NOTES
C	0-60"	10YR 5/6	Sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations @20"	No roots.
<p>ESHWT: 20"</p> <p>ROOTS: 12"</p> <p>OBSERVED WATER: 36"</p> <p>LEDGE: N/O</p> <p>RESTRICTIVE LAYER: N/O</p>				<p>NOTES: Old sand pit, topsoil and subsoil removed. Thin grass vegetation next to sweet fern/white pine sapling stand.</p> <p>Less than 5% gravel and stones to 4" diameter.</p> <p>Permeameter tests 1-3 unsuccessful; amoozemeter could not saturate the soil.</p>		 <p>CSS STAMP</p>	

JAN 18 2023

LAND USE CHANGES

Amoozometer Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22	PERMEAMETER NO.: 1523
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin	AIR TEMPERATURE:
	BEGIN 28°F FINAL 28°F
TEST BY: Tom Scholasti	
SOIL MAP UNIT: 350 A/dbaab	NOTES: Test # D20-1 * Amoozometer could not saturate soil - water level didn't rise in borehole.
HORIZON: C	
DISTURBED SITE: Yes	
SOIL LOG NUMBER: Yes	

SETUP CALCULATIONS			
HOLE DEPTH	d+	36	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM MIN. - 5.9")
CHT TUBE SETTING	H1=	20	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

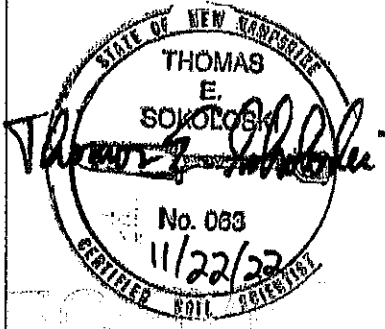
& associated Conversion Factor 2 on = 105cm² CF

FIELD TEST	3	OF 12				
DROP IN WATER LEVEL IN FLOW RES. (1) cm	ELAPSED TIME (2)		OUTFLOW CHAMBER(S) USED (3) (CF)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff	
					A) A = 0.001163 when H = 15cm	
	min	min/hr			(cm / hr)	(in / hr)
Mean K _{sat}						JAN 18, 2023
StDev K _{sat}						

TES

TES ENVIRONMENTAL CONSULTANTS, L.L.C.

TEST PIT LOG SHEET

Date: 11/21/2022			Project No: 22-0059			Lot: Map 239, Lot 35	
CSS: Thomas E. Sokolowski			Project Name: Beals Assoc./Mallego Rd/Barrington			Test Pit No: D-20-2	
HOR	DEPTH	COLOR	TEXTURE	STRUCTURE	CONSISTENCY	REDOX FEATURES	NOTES
C1	0-28"	10YR 5/6	Sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations @22"	
C2	28-60"	2.5Y 3/3	Coarse sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations	
<p>ESHWT: 22"</p> <p>ROOTS: 14"</p> <p>OBSERVED WATER: 40"</p> <p>LEDGE: N/O</p> <p>RESTRICTIVE LAYER: N/O</p>				<p>NOTES: Old sand pit, topsoil and subsoil removed. Sweet fern/white pine sapling stand next to thin grass vegetation.</p> <p>5% gravel and stones to 4" diameter.</p> <p>Permeameter tests 4 successful but may be too fast for reliability; Tests 5 and 6 unsuccessful: amoozemeter could not saturate the soil.</p>		 <p>CSS STAMP</p> <p>JAN 18 2023</p>	

Amoozemeter Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22		PERMEAMETER NO.: 1523	
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin		AIR TEMPERATURE:	
		BEGIN	30°F
TEST BY: Tom Scheibel		FINAL	30°F
SOIL MAP UNIT: 350 A/dbaab		NOTES: Test Pit D-20-2 Test successful but considered marginal - fast infiltration - and subsequent 2 tests unsuccessful	
HORIZON: C1			
DISTURBED SITE: Yes			
SOIL LOG NUMBER: Yes			

SETUP CALCULATIONS			
HOLE DEPTH	+	50	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM H2O = 5.9")
CHT TUBE SETTINGS	H1=	40	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

& associated Conversion Factor 2 on = 105cm² CF

FIELD TEST	4 OF 12		2 OUTFLOW CHAMBER(S) USED (CF)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff A) A = 0.001168 when H = 15cm	
	DROP IN WATER LEVEL IN FLOW RES. (1) cm	ELAPSED TIME (2) min min/hr			(cm/hr)	(in/hr)
1.7	0.5	0.0083	105	21420	24.91	9.81
1.7	0.5	0.0083	105	21420	24.91	9.81
1.9	0.5	0.0083	105	23940	27.84	10.96
1.9	0.5	0.0083	105	23940	27.84	10.96
Mean K _{sat}				26.38	10.38	
SD Dev K _{sat}				1.69	0.67	

Test near limit of accuracy for amoozemeter.

JAN 18 2023

Amoozemeter Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22	PERMEAMETER NO.: 1523
LOCATION: Tax Map 239, Lot 35 Mellego Road, Barrington Proposed stormwater basin	AIR TEMPERATURE: BEGIN 31°F FINAL 31°F
TEST BY: Tom Schmitt	
SOIL MAP UNIT: 350A/d baal	NOTES: Test Pit D-70-2 * Could not saturate soil with amoozemeter - water level didn't rise in borehole.
HORIZON: C ₁	
DISTURBED SITE: Yes	
SOIL LOG REQUIRED: Yes	

SETUP CALCULATIONS			
HOLE DEPTH	d+	59	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM MIN. - 5.9")
CHT TUBE SETTINGS	H2=	49	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

& associated Conversion factor 2 on = 105cm² CF

FIELD TEST DROP IN WATER LEVEL IN FLOW RES. (1) cm	ELAPSED TIME (2)		OUTFLOW CHAMBER(S) USED (3) (CF)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff A) A = 0.001168 when H = 15cm (cm / hr) (in / hr)	
	min	min/hr			(cm / hr)	(in / hr)
Mean K _{sat}						
StDev K _{sat}						

IAN 18 2023

Ammometer Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22		PERMEAMETER NO.: 1523	
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin		AIR TEMPERATURE:	
		BEGIN	31°F
TEST BY: Tom Salvucci		FINAL	31°F
SOIL MAP UNIT: 350A/dbaab		NOTES: Test Pit D-20-2 * Could not saturate soil with ammeter - water level did not rise in borehole.	
HORIZON: C ₁			
DISTURBED SITE: Yes			
SOIL LOG NUMBER: Yes			

SETUP CALCULATIONS			
HOLE DEPTH	+	56	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMMETER)
DEPTH OF HOE IN HOLE	H-	15	(15 CM MIN. - 5.9")
CH TUBE SETTING	H2-	46	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED

1 cm = 20cm² CF

& associated Conversion Factor

2 cm = 105cm² CF

FIELD TEST	6 OF 12		OUTFLOW CHAMBERS(S) USED (3)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff	
	ELAPSED TIME (2)				A) A = 0.001168 when H=0.5cm	
DROP IN WATER LEVEL IN FLOW NES. (1)	min	min/hr	(CF)		(cm / hr)	(in / hr)
Mean K _{sat}						
StdDev K _{sat}						

JAN 18 2023

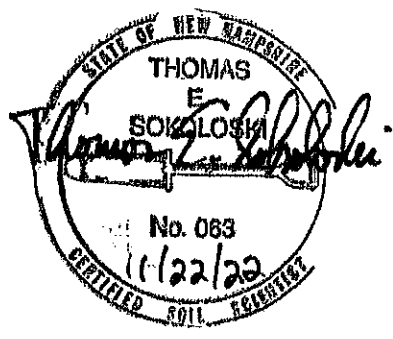
TES

TES ENVIRONMENTAL CONSULTANTS, L.L.C.

TEST PIT LOG SHEET

Date: 11/21/2022	Project No: 22-0059	Lot: Map 239, Lot 35
CSS: Thomas E. Sokoloski	Project Name: Beals Assoc./Mallego Rd/Barrington	Test Pit No: D-20-3

HOR	DEPTH	COLOR	TEXTURE	STRUCTURE	CONSISTENCY	REDOX FEATURES	NOTES
C1	0-60"	10YR 5/4	Sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations @20"	

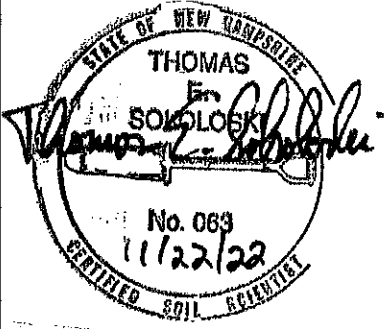
<p>ESHWT: 20"</p> <p>ROOTS: 12"</p> <p>OBSERVED WATER: 23"</p> <p>LEDGE: N/O</p> <p>RESTRICTIVE LAYER: N/O</p>	<p>NOTES: Old sand pit, topsoil and subsoil removed. Sweet fern/white pine sapling stand next to thin grass vegetation.</p> <p>Less than 5% gravel and stones to 6" diameter.</p> <p>Permeameter tests 4 successful but may be too fast for reliability; Tests 5 and 6 unsuccessful: amoozemeter could not saturate the soil.</p>	 <p>CSS STAMP</p>
--	---	--

JAN 18 2023

TES

TES ENVIRONMENTAL CONSULTANTS, L.L.C.

TEST PIT LOG SHEET

Date: 11/21/2022			Project No: 22-0059				Lot: Map 239, Lot 35	
CSS: Thomas E. Sokoloski			Project Name: Beals Assoc./Mallego Rd/Barrington				Test Pit No: D-20-4	
HOR	DEPTH	COLOR	TEXTURE	STRUCTURE	CONSISTENCY	REDOX FEATURES	NOTES	
C1	0-24"	10YR 5/4	Sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations		
C2	24-60"	7.5YR 5/8	Coarse sand	Single grain	Loose	Many, coarse, distinct 7.5YR 5/8 concentrations @24"		
<p>ESHWT: 24"</p> <p>ROOTS: 12"</p> <p>OBSERVED WATER: 30"</p> <p>LEDGE: N/O</p> <p>RESTRICTIVE LAYER: N/O</p>				<p>NOTES: Old sand pit, topsoil and subsoil removed. Sweet fern/white pine sapling stand next to thin grass vegetation.</p> <p>Less than 5% gravel and stones to 8" diameter.</p> <p>Permeameter tests 10-12 successful.</p>			 <p>CSS STAMP</p>	

JAN 18 2023

Amoozemeter Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22	PERMEAMETER NO.: 1523	
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin	AIR TEMPERATURE:	
	BEGIN	32°F
	FINAL	32°F
TEST BY: Tom Scholokki		
SOIL MAP UNIT: 350 A/dbaab	NOTES: Test Pit D-20-4	
HORIZON: C1		
DISTURBED SITE: Yes		
SOIL LOG RECORDED: Yes		

SETUP CALCULATIONS			
HOLE DEPTH	d+	41	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM MIN. - 5.9")
CHT TUBE SETTING	H1=	3	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

& associated Conversion Factor 2 on = 105cm² CF

FIELD TEST	10		OF 12				
DROP IN WATER LEVEL IN FLOW RES. (1)	ELAPSED TIME (2)		OUTFLOW CHAMBER(S) USED (3)	OUTFLOW (Q) (1*3)/2 = (Q) (cm ³ /hr.)	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff		
	cm	min			min/hr	A) A=0.001163 when H=15cm (cm/hr)	(in/hr)
1.0	1	0.016	2 105	6300	7.33	2.88	
0.9	1	0.016	105	5670	6.59	2.60	
1.1	1	0.016	105	6930	8.06	3.17	
1.3	1	0.016	105	8190	9.52	3.75	
					JAN 18 2023		
					Mean K _{sat}	7.88	3.10
					StDev K _{sat}	1.25	0.49

Amoozemeter Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/21/22	PERMEAMETER NO.: 1523
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin	AIR TEMPERATURE:
	BEGIN 32°F
TEST BY: Tom Scholokoff	FINAL 32°F
SOIL MAP UNIT: 350A/dbaab	NOTES: Test pit D-20-4
HORIZON: C1	
DISTURBED SITE: Yes	
SOIL LOG RECORDED: Yes	

SETUP CALCULATIONS			
HOLE DEPTH	d+	41	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM MIN. - 5.9")
CHT TUBE SETTING	H1=	31	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

& associated Conversion Factor 2 on = 105cm² CF

FIELD TEST		11		OF 12		OUTFLOW CHAMBER(S) USED (CF)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff	
DROP IN WATER LEVEL IN FLOW RES. (1) cm	ELAPSED TIME (2)				A) A = 0.001163 when H = 15cm				
	min	min/hr					(cm/hr)	(in/hr)	
1.4		0.016	105		8820		10.26	4.04	
1.3		0.016	105		8190		9.52	3.75	
1.3		0.016	105		8190		9.52	3.75	
1.4		0.016	105		8820		10.26	4.04	
Mean K _{sat}							9.89	3.89	
StDev K _{sat}							0.42	0.17	

JAN 18 2023

Amoozemeter Field Data Sheet

TES Environmental Consultants, LLC

DATE: 11/6/22	PERMEAMETER NO.: 1523
LOCATION: Tax Map 239, Lot 35 Mallego Road, Barrington Proposed stormwater basin	AIR TEMPERATURE:
	BEGIN: 32°F
	FINAL: 32°F
TEST BY: Tom Scholasti	
SOIL MAP UNIT: 350 A/dbaa-b	NOTES: Test Pit D-20-H
HORIZON: C1	
DISTURBED SITE: Yes	
SOIL LOG RECORDED: Yes	

SETUP CALCULATIONS			
HOLE DEPTH	d+	42	(BOTTOM OF HOLE TO SURFACE)
SURFACE TO REF. LINE	+	5	(ON AMOOZEMETER)
DEPTH OF H2O IN HOLE	H-	15	(15 CM MIN. - 5.9")
CHT TUBE SETTING	H1=	32	(SET TUBE FROM WATER LEVEL DOWN)

OUTFLOW CHAMBERS USED 1 on = 20cm² CF

& associated Conversion Factor 2 on = 106cm² CF

FIELD TEST		12 OF 12		2 OUTFLOW CHAMBER(S) USED (CF)	OUTFLOW (Q) (1*3)/2 = (Q) cm ³ /hr.	SATURATED HYDRAULIC CONDUCTIVITY (K _{sat}) = Q * Coeff A) A = 0.001163 when H = 15cm	
DROP IN WATER LEVEL IN FLOW RES. (1) cm	ELAPSED TIME (2) min min/hr		(cm / hr)			(in / hr)	
0.9	1	0.016	105	5670	6.59	2.60	
0.9	1	0.016	105	5670	6.59	2.60	
0.8	1	0.016	105	5040	5.86	2.31	
0.9	1	0.016	105	5040	5.86	2.31	
Mean K _{sat}		6.23		2.45			
StDev K _{sat}		0.42		0.17			

JAN 18 2023

$\bar{X} (10-12) = 3.15 \text{ in./hr.}$