



D. GEOFFREY BROWN, P.E., L.S. & P.P.
FRANK J. FALCONE, L.S. & P.P.
MARTIN D. KATZ, L.S.
KEVIN M. BRAKEL, P.E.

Soils Testing Data Sheet
Soil Log # One

NORTH POST ROAD
P.O. BOX 610
PRINCETON JUNCTION, NJ 08550
609.799.1906
FAX: 609.799.1524
EMAIL: PJEPC@PJEPC.COM

Client: Henry & Jane E. Landau
143 South Lane
West Windsor, New Jersey 08550

Municipality West Windsor Township
Block 34
Lot 21

1. **Log Number** One
Method (Check One): **Profile Pit** **Boring**

2. **Soil Log:**
Depth (inches) Munsell Color Name and Symbol; Estimated Textural Class;
Top-Bottom Estimated Volume % Coarse Fragment (if present);
Structure; Moist or Dry Consistency; Mottling-Abundance, Size & Contrast (if present)

DEPTH	MUNSELL COLOR	DESCRIPTION
0" - 10"	10 YR 5/4	Heavy Sandy Loam; Moderate Medium Subangular Blocky; Moist Friable; Many Fine Roots; Abrupt, Smooth Boundary.
10" - 31"	10 YR 5/8	Sandy Clay Loam to Sandy Clay; 2% Mixed Gravel & Rounded Shale; Moderate Strong Subangular Blocky; Moist Friable & Saturated; Few Fine Roots & Channels to 26"; Clear, Smooth Boundary.
31" - 92"	2.5 Y 7/2	Silty Clay, 2 % Mixed Gravel & Rounded Shale; Many, Medium, Prominent 7.5YR 5/8 & 2.5Y7/1 Mottles @ 31"; Moderate Strong Subangular Blocky; Moist Firm & Saturated; Clear Smooth Boundary. 10% Pockets of Sandy Loam.
92" - 138"	2.5 Y 5/4	Clay, 2 % Mixed Gravel & Rounded Shale, Many, Medium, Prominent 7.5YR 5/8 & 2.5Y7/1 Mottles @ 92"; Massive; Moist Very Firm.

3. **Ground Water Observation:**
 Seepage - Indicate Depth 42" Moderate, Fast.
 Pit / Boring Flooded - Depth After _____ Hours:

4. **Soil Limiting Zones (Check Appropriate Categories)**
- Fractured Rock Substratum - Depth to Top
 - Massive Rock Substratum - Depth to Top
 - Excessively Coarse Horizon - Depth Top to Bottom
 - Excessively Coarse Substratum - Depth to Top
 - Hydraulically Restrictive Horizon - Depth Top to Bottom
 - Hydraulically Restrictive Substratum - Depth to Top 31"
 - Perched Zone of Saturation - Depth Top to Bottom
 - Regional Zone of Saturation - Depth to Top 31" (Mottles)

5. **Soil Suitability Classification: III Sr**

6. I hereby certify that the information furnished on Form 2B of this application is true and accurate. I am aware of falsification of data is a violation of the Water Pollution Control Act (N.J.S.A.58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date 07/26/2021

Robin Rittenhouse

Signature of Prof. Engineer _____ License # 24327

D. GEOFFREY BROWN, PE & LS

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Soils Testing Data Sheet
Soil Log # Two

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143 South Lane
West Windsor, New Jersey 08550

Municipality West Windsor Township
Block 34
Lot 21

1. **Log Number Two**
Method (Check One): **Profile Pit** **Boring**

2. **Soil Log:**
Depth (inches) Munsell Color Name and Symbol; Estimated Textural Class;
Top-Bottom Estimated Volume % Coarse Fragment (if present);
Structure; Moist or Dry Consistency; Mottling-Abundance, Size & Contrast (if present)

DEPTH	MUNSELL COLOR	DESCRIPTION
0" - 11"	10 YR 5/4	Heavy Sandy Loam; Moderate Medium Subangular Blocky; Moist Friable; Many Fine Roots; Abrupt, Smooth Boundary.
11" - 26"	10 YR 5/4	Sandy Clay Loam; 2% Mixed Gravel & Rounded Shale; Moderate Strong Angular Blocky; Moist Firm; Common Fine Roots & Channels to 26"; Gradual, Smooth Boundary.
26" - 91"	10 Y 6/6	Fine Sandy Loam, 20 % Mixed Gravel & Rounded Shale; Many, Medium, Faint to Distinct 7.5YR 5/8 Mottles @ 26"; Weak Medium Subangular Blocky; Moist Very Friable & Saturated; Clear Smooth Boundary. Sample.
91" - 120"	2.5 Y 5/4	Clay, 2 % Mixed Gravel & Rounded Shale, Many, Medium, Distinct 7.5YR 5/8 Mottles @ 91"; Massive; Moist Very Firm.

3. **Ground Water Observation:**
 Seepage - Indicate Depth 35" **Fast**.
 Pit / Boring Flooded - Depth After _____ Hours:

4. **Soil Limiting Zones (Check Appropriate Categories)**

<input type="checkbox"/>	Fractured Rock Substratum	- Depth to Top
<input type="checkbox"/>	Massive Rock Substratum	- Depth to Top
<input type="checkbox"/>	Excessively Coarse Horizon	- Depth Top to Bottom
<input type="checkbox"/>	Excessively Coarse Substratum	- Depth to Top
<input type="checkbox"/>	Hydraulically Restrictive Horizon	- Depth Top to Bottom
<input checked="" type="checkbox"/>	Hydraulically Restrictive Substratum	- Depth to Top <u>91"</u>
<input type="checkbox"/>	Perched Zone of Saturation	- Depth Top to Bottom
<input checked="" type="checkbox"/>	Regional Zone of Saturation	- Depth to Top <u>26" (Mottles)</u>

5. **Soil Suitability Classification: II Wr, Sr**

6. I hereby certify that the information furnished on Form 2B of this application is true and accurate. I am aware of falsification of data is a violation of the Water Pollution Control Act (N.J.S.A.58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date 07/26/2021
Robin Rittenhouse

Signature of Prof. Engineer _____ License # 24327
D. GEOFFREY BROWN, PE & LS

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SoilLog2.doc



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Soils Testing Data Sheet
Soil Log # Three

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143 South Lane
West Windsor, New Jersey 08550

Municipality West Windsor Township
Block 34
Lot 21

1. Log Number Three
Method (Check One): Profile Pit Boring

2. Soil Log:
Depth (inches) Munsell Color Name and Symbol; Estimated Textural Class;
Top-Bottom Estimated Volume % Coarse Fragment (if present);
Structure; Moist or Dry Consistency; Mottling-Abundance, Size & Contrast (if present)

DEPTH	MUNSELL COLOR	DESCRIPTION
0" - 9"	10 YR 5/4	Heavy Sandy Loam; Moderate Medium Subangular Blocky; Moist Friable; Many Fine Roots; Abrupt, Smooth Boundary.
9" - 26"	10 YR 5/6	Sandy Clay Loam; 5% Mixed Gravel & Rounded Shale; Moderate Medium Subangular Blocky; Moist Firm to Friable; Few Fine Roots & Channels to 26"; Gradual, Smooth Boundary.
26" - 57"	10 YR 6/6	Fine/Medium Sandy Loam, 20 % Mixed Gravel & Rounded Shale; Common, Medium, Faint to Distinct 7.5YR 5/8 Mottles @ 26"; Weak Medium Subangular Blocky; Moist Friable & Saturated; Gradual, Smooth Boundary. Sample.
57" - 99"	2.5 Y 6/6	Sandy Clay to Sandy Clay Loam, 2 % Mixed Gravel & Rounded Shale, Many, Medium, Faint to Distinct 7.5YR 5/8 Mottles @ 57"; Moderate, Medium Subangular Blocky; Saturated; Gradual, Smooth Boundary. Sample.
99" - 123"	2.5 Y 5/4	Clay, 2 % Mixed Gravel & Rounded Shale, Many, Medium, Prominent 7.5YR 5/8 Mottles @ 99"; Massive; Moist Very Firm.

3. Ground Water Observation:
 Seepage - Indicate Depth 55" Fast
 Pit / Boring Flooded - Depth After _____ Hours:
4. Soil Limiting Zones (Check Appropriate Categories)
- | | |
|--|-------------------------------------|
| <input type="checkbox"/> Fractured Rock Substratum | - Depth to Top |
| <input type="checkbox"/> Massive Rock Substratum | - Depth to Top |
| <input type="checkbox"/> Excessively Coarse Horizon | - Depth Top to Bottom |
| <input type="checkbox"/> Excessively Coarse Substratum | - Depth to Top |
| <input type="checkbox"/> Hydraulically Restrictive Horizon | - Depth Top to Bottom |
| <input checked="" type="checkbox"/> Hydraulically Restrictive Substratum | - Depth to Top <u>99"</u> |
| <input type="checkbox"/> Perched Zone of Saturation | - Depth Top to Bottom |
| <input checked="" type="checkbox"/> Regional Zone of Saturation | - Depth to Top <u>26"</u> (Mottles) |

5. Soil Suitability Classification: **II Wr, Sr**

6. I hereby certify that the information furnished on Form 2B of this application is true and accurate. I am aware of falsification of data is a violation of the Water Pollution Control Act (N.J.S.A.58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date 07/26/2021
Robin Rittenhouse

Signature of Prof. Engineer _____ License # 24327
D. GEOFFREY BROWN, PE & LS



**Princeton Junction Engineering, P.C.
Professional Engineers and Land Surveyors**



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Soil Permeability Class Rating Test Data for Existing Soil

Client: Henry & Jane E. Landau
Location: 143 South Lane
Test No.: Two-26
Date Collected: 7/26/2021

Lot: 21 Block: 34
Township: West Windsor
Replicate (letter): A and B
Date Tested: 8/2/2021

1.	Coarse Fragment Content:			
	Sample Depth	26"		
	Total Weight of Sample, W.T., grams:	700.0		
	Weight of Material Retained on 2mm sieve, W.C.F., grams:	104.0		
	Wt.% Coarse Fragments (W.C.F./W.T.) x 100:	14.9%		
2.	Oven Dry Weight:			
	40 gram Air Dry Sample (24 hrs at 105°C), grams, Wt.:	39.2		
3.	Hydrometer Calibration, Rc:		3.5	
4.	Hydrometer Reading:		A B	
	40 Seconds, Grams, R1:	10.5	10.5	
	Temperature of Suspension, °F:	74.0	74.0	
	Corrected Hydrometer Reading, grams, R1':	8.2	8.2	
5.	Hydrometer Reading:		A B	
	2 Hours, Grams, R2:	9.0	9.0	
	Temperature of Suspension, °F:	72.0	72.0	
	Corrected Hydrometer Reading, grams, R2':	6.3	6.3	
6.	A. % Sand =	$39.2 - 8.2 / 39.2 \times 100 =$		
	B. % Sand =	$39.2 - 8.2 / 39.2 \times 100 =$		
7.	A. % Clay =	$6.3 / 39.2 \times 100 =$		
	B. % Clay =	$6.3 / 39.2 \times 100 =$		
8.	Sieve Analysis:		A B	
	A.	Oven Dry Weight (2Hrs., 105°C) Total Sand Fraction (Soil Retained in 0.045 mm sieve, grams:	31.0	30.7
	B.	Weight of Fine plus Very Fine Sand Fraction (Sand Passing 0.25mm sieve), grams:	2.7	3.1
	C.	Percent Fine plus Very Fine Sand (B / A)	8.7%	10.1%
Soil Morphology		Moist Very Friable, Saturated		
9.	Soil Permeability Class Rating:	K3 Sandy Loam		
10.	I hereby certify that the information furnished on this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.			
Signature of Site Evaluator:		 Michael Camera	Date: 8/2/2021	
Signature of Professional Engineer:		 D. Geoffrey Brown	NJPE&LS#:24327	

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Soil Permeability Class Rating Test Data for Existing Soil

Client: Henry & Jane E. Landau
Location: 143 South Lane
Test No.: Three-26
Date Collected: 7/26/2021

Lot: 21 Block: 34
Township: West Windsor
Replicate (letter): A and B
Date Tested: 8/2/2021

1.	Coarse Fragment Content:		
	Sample Depth	26"	
	Total Weight of Sample, W.T., grams:	600.0	
	Weight of Material Retained on 2mm sieve, W.C.F., grams:	95.0	
	Wt.% Coarse Fragments (W.C.F./W.T.) x 100:	15.8%	
2.	Oven Dry Weight:		
	40 gram Air Dry Sample (24 hrs at 105°C), grams, Wt.:	39.4	
3.	Hydrometer Calibration, Rc:		3.5
4.	Hydrometer Reading:		A B
	40 Seconds, Grams, R1:	12.0	12.0
	Temperature of Suspension, °F:	74.0	74.0
	Corrected Hydrometer Reading, grams, R1':	9.7	9.7
5.	Hydrometer Reading:		A B
	2 Hours, Grams, R2:	11.5	11.5
	Temperature of Suspension, °F:	72.0	72.0
	Corrected Hydrometer Reading, grams, R2':	8.8	8.8
6.	A. % Sand =	$39.4 - 9.7 / 39.4 \times 100 =$	75.4
	B. % Sand =	$39.4 - 9.7 / 39.4 \times 100 =$	75.4
7.	A. % Clay =	$8.8 / 39.4 \times 100 =$	22.3
	B. % Clay =	$8.8 / 39.4 \times 100 =$	22.3
8.	Sieve Analysis:		A B
	A.	Oven Dry Weight (2Hrs., 105°C) Total Sand Fraction (Soil Retained in 0.045 mm sieve, grams:	31.5 31.7
	B.	Weight of Fine plus Very Fine Sand Fraction (Sand Passing 0.25mm sieve), grams:	2.4 2.0
	C.	Percent Fine plus Very Fine Sand (B / A)	7.6% 6.3%
	Soil Morphology		Moist Friable, Saturated
9.	Soil Permeability Class Rating:		K3 Sandy Loam
10.	I hereby certify that the information furnished on this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.		
Signature of Site Evaluator:		 Michael Camera	Date: 8/2/2021
Signature of Professional Engineer:		 D. Geoffrey Brown	NJPE&LS#:24327

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Soil Permeability Class Rating Test Data for Existing Soil

Client: Henry & Jane E. Landau
Location: 143 South Lane
Test No.: Three-57
Date Collected: 7/26/2021

Lot: 21 Block: 34
Township: West Windsor
Replicate (letter): A and B
Date Tested: 8/2/2021

1.	Coarse Fragment Content:			
	Sample Depth	57"		
	Total Weight of Sample, W.T., grams:	900.0		
	Weight of Material Retained on 2mm sieve, W.C.F., grams:	166.0		
	Wt.% Coarse Fragments (W.C.F./W.T.) x 100:	18.4%		
2.	Oven Dry Weight:			
	40 gram Air Dry Sample (24 hrs at 105°C), grams, Wt.:	39.2		
3.	Hydrometer Calibration, Rc: 3.5			
4.	Hydrometer Reading:			
	40 Seconds, Grams, R1:	A	B	
	40 Seconds, Grams, R1:	13.0	13.0	
	Temperature of Suspension, °F:	74.0	74.0	
5.	Hydrometer Reading:			
	2 Hours, Grams, R2:	A	B	
	2 Hours, Grams, R2:	12.0	11.0	
	Temperature of Suspension, °F:	72.0	72.0	
6.	Corrected Hydrometer Reading, grams, R1 ¹ :			
	Corrected Hydrometer Reading, grams, R2 ¹ :			
	Corrected Hydrometer Reading, grams, R2 ¹ :			
	Corrected Hydrometer Reading, grams, R2 ¹ :			
7.	A. % Sand =	$39.2 - 10.7 / 39.2 \times 100 = 72.7$		
	B. % Sand =	$39.2 - 10.7 / 39.2 \times 100 = 72.7$		
8.	A. % Clay =	$9.3 / 39.2 \times 100 = 23.7$		
	B. % Clay =	$8.3 / 39.2 \times 100 = 21.2$		
8.	Sieve Analysis:			
	A.	Oven Dry Weight (2Hrs., 105°C) Total Sand Fraction (Soil Retained in 0.045 mm sieve, grams:	A	B
			30.7	30.8
	B.	Weight of Fine plus Very Fine Sand Fraction (Sand Passing 0.25mm sieve), grams:	8.0	7.3
	C.	Percent Fine plus Very Fine Sand (B / A)	26.1%	23.7%
Soil Morphology		Saturated		
9.	Soil Permeability Class Rating: K3 Sandy Loam			
10.	I hereby certify that the information furnished on this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.			
Signature of Site Evaluator:			Date: 8/2/2021	
Signature of Professional Engineer:			NJPE&LS#:24327	

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