

APPENDIX K

Geotechnical Sampling Results

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Professional Service Industries, Inc.
3784 Commerce Court, Suite 300
North Tonawanda, NY 14120

Phone: (716) 694-8657
Fax: (716) 694-8638

Report No: MAT:08061128-7-S11

Issue No: 1

These test results apply only to the specific locations and materials noted and may not represent any other locations or elevations. This report may not be reproduced, except in full, without written permission by Professional Service Industries, Inc. If a non-compliance appears on this report, to the extent that the reported non-compliance impacts the project, the resolution is outside the PSI scope of engagement.

Material Test Report

Client: PLEXUS SCIENTIFIC
5510 CHEROKEE AVE, SUITE 350
ALEXANDRIA, VA 22312

CC: [REDACTED]

Project: TONAWANDA LANDFILL
TONAWANDA, NY

Date of Issue: 11/7/2019

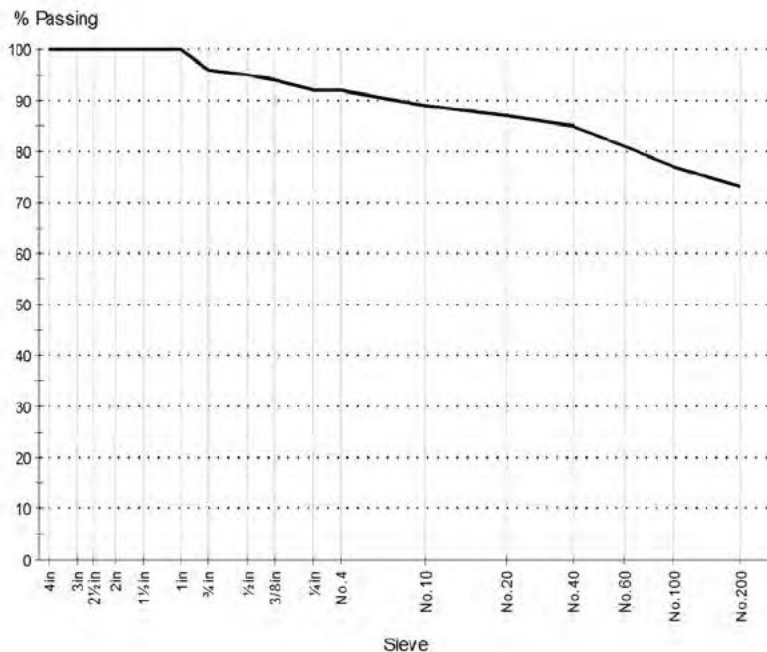
Sample Details

Sample ID: 08061128-7-S11
Client Sample ID:
Date Sampled: 10/30/19
Sampled By: [REDACTED]
Specification: ASTM D-422 & D-698
Supplier: Local Supplier
Source: TEVP-BF-4
Material: Silty Clay, little sand, trace gravel, brick, glass, organics
Sampling Method: Stockpile/Trans - ASTM D 75 - 5.3.3
Soil Description: Silty Clay (CL-ML), little coarse to fine sand, trace coarse to fine gravel, brick, glass, and organics, brown
General Location: Subgrade Fill - Soil Remediation Backfill

Sample Description:

Silty Clay (CL-ML), little coarse to fine sand, trace coarse to fine gravel, brick, glass, and organics, brown

Particle Size Distribution



Grading: ASTM C 136

Drying by: Oven
Date Tested: 10/31/2019
Tested By: Katherine Crater

Sieve Size	% Passing	Limits
4in (100mm)	100	
3in (75.0mm)	100	
2 1/2in (63.0mm)	100	
2in (50.0mm)	100	
1 1/2in (37.5mm)	100	
1in (25.0mm)	100	
3/4in (19.0mm)	96	
1/2in (12.5mm)	95	
3/8in (9.5mm)	94	
1/4in (6.3mm)	92	
No.4 (4.75mm)	92	
No.10 (2.0mm)	89	
No.20 (850µm)	87	
No.40 (425µm)	85	
No.60 (250µm)	81	
No.100 (150µm)	77	
No.200 (75µm)	73	

COBBLES		GRAVEL		SAND			FINES (73.1%)	
(0.0%)		Coarse (3.9%)	Fine (4.1%)	Coarse (2.5%)	Medium (4.2%)	Fine (12.1%)	Silt	Clay

D85: 0.4250 **D60:** N/A **D50:** N/A
D30: N/A **D15:** N/A **D10:** N/A



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Material Test Report

Client: PLEXUS SCIENTIFIC
5510 CHEROKEE AVE, SUITE 350
ALEXANDRIA, VA 22312

CC:

Project: TONAWANDA LANDFILL
TONAWANDA, NY

Approved Signatory: Steven Pump (Branch Manager)
Date of Issue: 11/7/2019

Sample Details

Sample ID: 08061128-7-S11
Client Sample ID:
Date Sampled: 10/30/19
Sampled By:
Specification: ASTM D-422 & D-698
Supplier: Local Supplier
Source: TEVP-BF-4
Material: Silty Clay, little sand, trace gravel, brick, glass,
Sampling Method: Stockpile/Trans - ASTM D 75 - 5.3.3
Soil Description: Silty Clay (CL-ML), little coarse to fine sand, trace
General Location: Subgrade Fill - Soil Remediation Backfill

Other Test Results

Description	Method	Result	Limits
Fineness Modulus	ASTM C 136	N/A	
Curvature Coefficient		N/A	
Uniformity Coefficient		N/A	
Maximum Dry Unit Weight (lb/ft ³)	ASTM D 698	103.3	
Corrected Maximum Dry Unit Weight (lb/ft ³)		106.1	
Optimum Water Content (%)		17.5	
Corrected Optimum Water Content (%)		16.1	
Method		A	
Preparation Method		Dry	
Rammer Type		Manual	
Retained Sieve No 4 (4.75mm) (%)		8	
Specific Gravity (Oversize)		2.45	
Specific Gravity (Fines)	Estimated	2.45	
Tested By	ASTM D 698	Katherine Crater	
Date Tested		10/31/2019	

Comments

N/A



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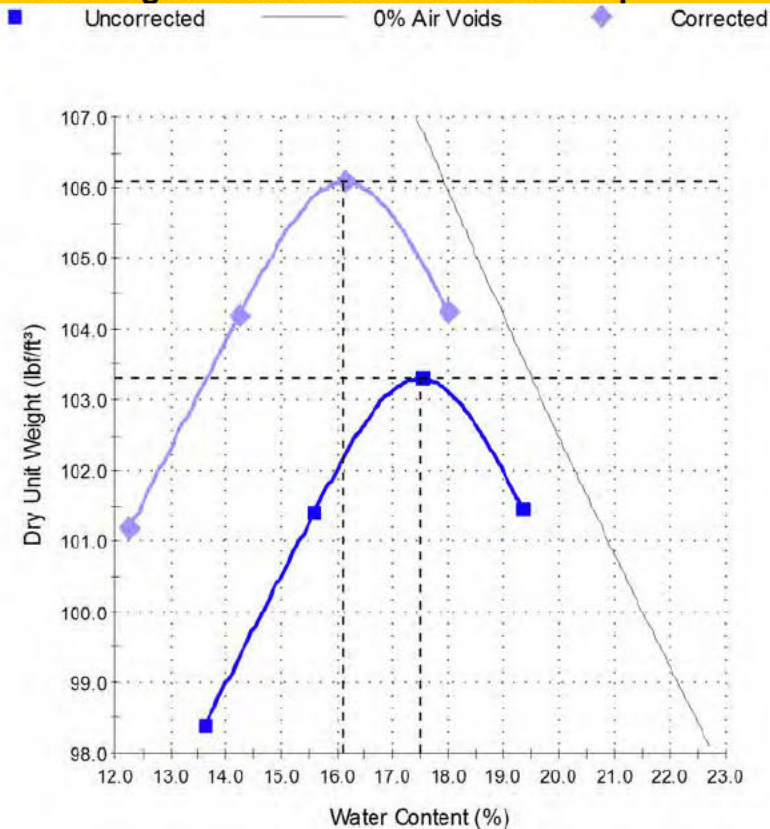
Project: TONAWANDA LANDFILL
TONAWANDA, NY

Date of Issue: 11/7/2019

Sample Details

Sample ID:	08061128-7-S11	Date Sampled:	10/30/2019
Sampled By:		Specification:	ASTM D-422 & D-698
Supplier:	Local Supplier	Source:	TEVP-BF-4
Material:	Silty Clay, little sand, trace gravel, brick, glass, organics		
General Location:	Subgrade Fill - Soil Remediation Backfill	Location:	Various Remediation Areas
Tested By:	Katherine Crater	Date Tested:	10/31/2019
Sampling Method:	Stockpile/Trans - ASTM D 75 - 5.3.3		

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 698	
Maximum Dry Unit Weight (lb/ft³):	103.3
Optimum Water Content (%):	17.5
Method:	A
Preparation Method:	Dry
Rammer Type:	Manual
Specific Gravity (Fines):	2.45
Specific Gravity Method:	Estimated
Retained Sieve No 4 (4.75mm) (%):	8
Passing Sieve No 4 (4.75mm) (%):	92
Tested By:	Katherine Crater
Date Tested:	10/31/2019
ASTM D 4718	
Corrected Maximum Dry Unit Weight (lb/ft³):	106.1
Corrected Optimum Water Content (%):	16.1
Specific Gravity (Oversize):	2.45
Sieve Size (Oversize):	No 4
Oversize Particles (%):	8

Comments