

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: LANG DEVELOPMENT
 C/O PASCO EXCAVATING LLC,
 18744 COUNTYLINE RD
 SPRING HILL, FL 34610

CC: BRENDA
 NEWBERRY
 MARA HUNT
 THERESA
 MCLAUGHLIN
 THOMAS LANG

Project: PASCO MINE
 SPRING HILL, FL

Approved Signatory: James Kenney (Branch Manager)
 Date of Issue: 3/22/2018

Sample Details

Sample ID: 0390975-21-S1 **Lift:**

Client Sample ID:

Date Sampled: 12/13/17

Sampled By: John Stahl

Specification: AGSO Sec. 548 - Retaining Wall

Supplier:

Source:

Material: Gray SAND

Sampling Method:

Soil Description:

General Location: US 41 MINE

Location: LEVEL 2 PHASE 2

Particle Size Distribution

Method: AASHTO T 27, AASHTO T 11

Date Tested: 1/15/2018

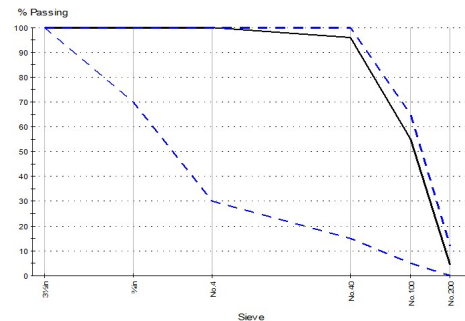
Tested By: Lab

Sieve Size	% Passing	Limits
3/4in (90.0mm)	100	100
1/2in (19.0mm)	100	70 to 100
No.4 (4.75mm)	100	30 to 100
No.40 (425µm)	96	15 to 100
No.100 (150µm)	55	5 to 65
No.200 (75µm)	4.2	≤12

Other Test Results

Description	Method	Result	Limits
	AASHTO M 145		
General Classification		Granular Materials	
Group Classification		A-3(0)	
Tested By		William McGinn	
Date Tested		1/15/2018	
Maximum Dry Unit Weight (lb/ft³)	ASTM D 1557	111.9	
Corrected Maximum Dry Unit Weight (lb/ft³)		111.9	
Optimum Water Content (%)		9.2	
Corrected Optimum Water Content (%)		9.2	
Tested By		Lab	
Date Tested		1/15/2018	
Approximate maximum grain size	ASTM D 4318		
Material retained on 425µm (No. 40) (%)			
Method of Removal			
Grooving Tool Type			
Specimen preparation method			
Drying Method			
Special selection process			
Rolling Method for PL			
As Received Water Content (%)			
Liquid Limit Device Type			
Liquid Limit		N/A	≤15
Plastic Limit		NP	
Plasticity Index		NP	≤6
Liquid Limit Procedure			
Tested By		Lab	
Date Tested		1/8/2018	

Chart



Comments

NP = Non Plastic

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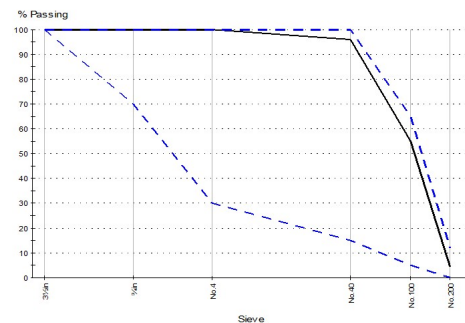
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Other Test Results

Description	Method	Result	Limits
Organic Content 1	FM 1-T267	1.09	
Organic Content 2		1.07	
Organic Content 3		1.08	
Average Organic Content		1.1	≤2.0
pH	FM 5-550	6.95	5 to 9
Reading 1	FM 5-551	88.0	
Multiplier 1		1000	
Resistivity 1 (ohm-cm)		88000	
Reading 2		56.0	
Multiplier 2		1000	
Resistivity 2 (ohm-cm)		56000	
Reading 3		45.0	
Multiplier 3		1000	
Resistivity 3 (ohm-cm)		45000	
Reading 4		46.0	
Multiplier 4		1000	
Resistivity 4 (ohm-cm)		46000	
Min Resistivity (ohm-cm)		45000	>3000
Drops	FM 5-552	1	
Chloride Ion (ppm)		45	<100
Meter	FM 5-553	134.0	<200
Sulfate Ion (ppm)		34.0	

Chart



Comments

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