



Professional Service Industries, Inc.
 6032 N. Cutter Circle, Suite 480
 Portland, OR 97217
 CCB No. 176269
 Phone: (503) 289-1778
 Fax: (503) 289-1918

Aggregate/Soil Test Report

Report No: MAT:07021022-1-S1

Issue No: 2

Client: ALDER GEOTECHNICAL SERVICES
 3610 NE 10TH AVE
 PORTLAND, OR 97212

CC: JOHN CUNNINGHAM

Project: ALDER GEOTECHNICAL LAB TESTING
 BEAVERTON, OR

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.

Approved Signatory: John Eakman (Project Manager)
 Date of Issue: 10/29/2012

Sample Details

Sample ID: 07021022-1-S1 **Lift:**

Client Sample ID:

Date Sampled: 10/03/12

Sampled By: Client

Specification: Information Only

Supplier: Client Supplied

Source: Facility

Material: 3/4"-0 and Organic Mix

Sampling Method: Stockpile/Trans - ASTM D 75 - 5.3.3

General Location: Tualatin Hills Parks and Recreation

Location: Sunset Swim Center

Particle Size Distribution

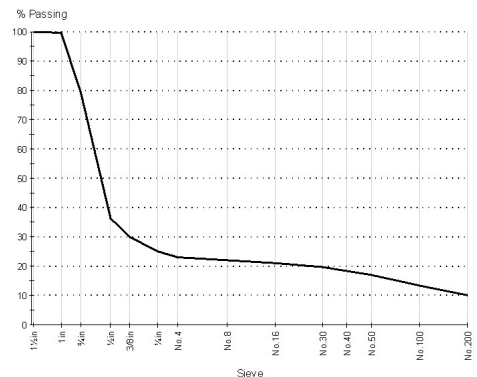
Method: ASTM C 136 - 06, ASTM C 117 - 04
Drying by: Oven
Date Tested: 10/15/2012

Sieve Size	% Passing	Limits
1 1/2 in (37.5mm)	100	
1 in (25.0mm)	100	
3/4 in (19.0mm)	79	
1/2 in (12.5mm)	36	
3/8 in (9.5mm)	30	
1/4 in (6.3mm)	25	
No.4 (4.75mm)	23	
No.8 (2.36mm)	22	
No.16 (1.18mm)	21	
No.30 (600µm)	20	
No.40 (425µm)	18	
No.50 (300µm)	17	
No.100 (150µm)	13	
No.200 (75µm)	10	
Finer No.200 (75µm)	9.3	

Other Test Results

Description	Method	Result	Limits
Maximum Dry Density (lb/ft³)	ASTM D 1557 - 07	110.1	
Corrected Maximum Dry Density (lb/ft³)		118.9	
Optimum Moisture Content (%)		14.4	
Corrected Optimum Moisture Content (%)		11.6	
Method		C	
Preparation Method		Moist	
Specific Gravity (Fines)		2.65	
Retained Sieve 3/8" (9.5mm) (%)		67	
Retained Sieve 3/4" (19mm) (%)		21	
Specific Gravity (Oversize)	ASTM D 1557 - 07	2.69	
Date Tested		10/12/2012	
Ash Content (%)	ASTM D 2974 - 07	97.7	
Organic Content (%)		2.3	
Furnace Temperature (°C)		440	
Moisture Content (%)		9.0	
Moisture contents are proportioned by	oven-dried mass		
Moisture Content Method (A or B)		A	
Ash Content Method (C or D)		C	
Date Tested		10/12/2012	

Chart



Comments

N/A



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Proctor Test Report

Report No: PTR:07021022-1-S1

Issue No: 2

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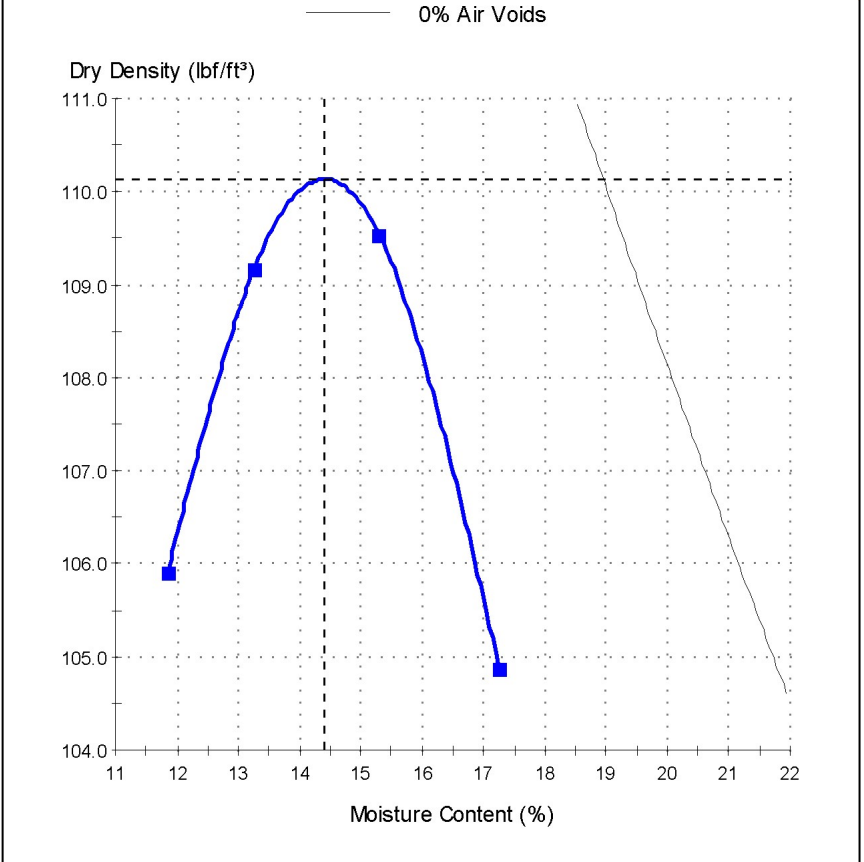
John Eakman

Approved Signatory: John Eakman (Project Manager)
 Date of Issue: 10/29/2012

Sample Details

Sample ID:	07021022-1-S1	Date Sampled:	10/3/2012
Date Received:	10/3/2012	Sampled By:	Client
Specification:	Information Only	Supplier:	Client Supplied
Source:	Facility	Material:	3/4"-0 and Organic Mix
Sampling Method:	Stockpile/Trans - ASTM D 75 - 5.3.3	General Location:	Tualatin Hills Parks and Recreation
Location:	Sunset Swim Center	Tested By:	Robin Goff
Date Tested:	10/12/2012		

Dry Density - Moisture Content Relationship



Test Results

ASTM D 1557 - 07

Maximum Dry Density (lb/ft³):	110.1
Corrected Maximum Dry Density (lb/ft³):	118.9
Optimum Moisture Content (%):	14.4
Corrected Optimum Moisture Content (%):	11.6
Method:	C
Preparation Method:	Moist
Specific Gravity (Fines):	2.65
Retained Sieve 3/8" (9.5mm) (%):	67
Retained Sieve 3/4" (19mm) (%):	21
Passing Sieve 3/8" (9.5mm) (%):	33
Passing Sieve 3/4" (19mm) (%):	79
Specific Gravity (Oversize):	2.69

Comments



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California Bearing Ratio Report

Report No: CBR:07021022-1-S1
 Issue No: 1

Client: ALDER GEOTECHNICAL SERVICES
 3610 NE 10TH AVE
 PORTLAND, OR 97212

CC: JOHN CUNNINGHAM

Project: ALDER GEOTECHNICAL LAB TESTING
 BEAVERTON, OR

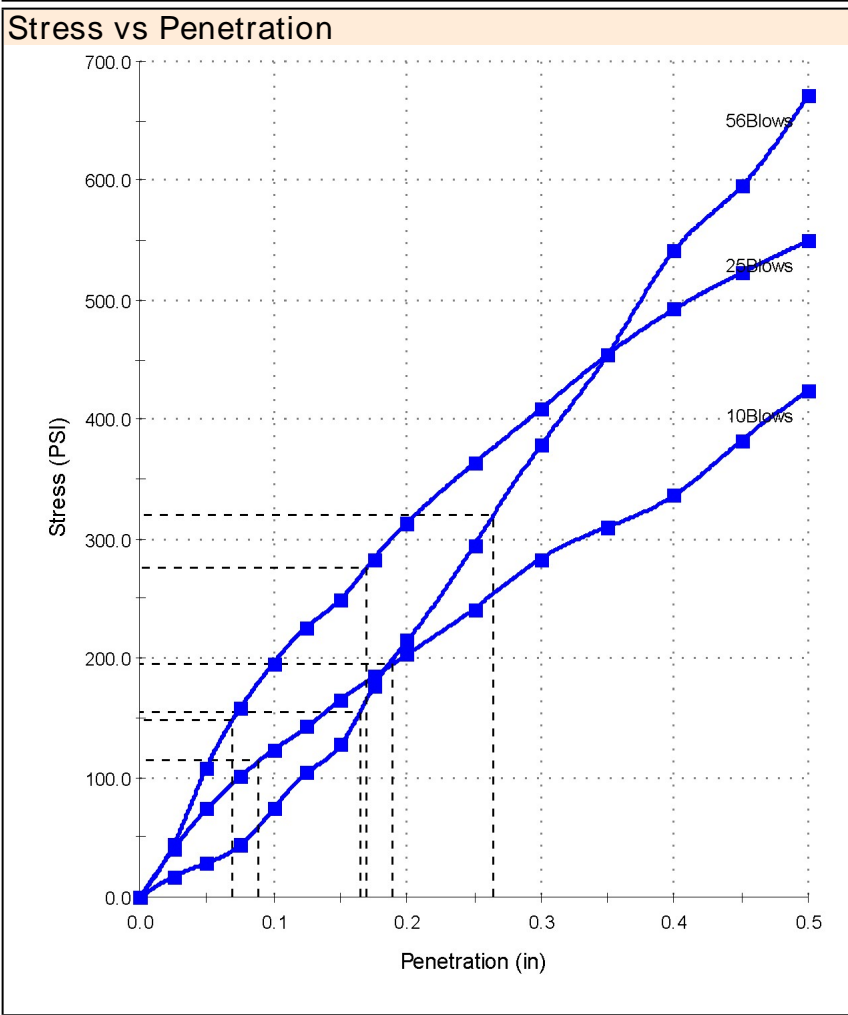
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John Eakman

Approved Signatory: John Eakman (Project Manager)
 Date of Issue: 10/29/2012

Sample Details

Sample ID: 07021022-1-S1 Date Sampled: 10/3/2012
 Sampling Method: Stockpile/Trans - ASTM D 75 - 5.3.3 Source: Facility
 Material: 3/4"-0 and Organic Mix Specification: Information Only
 Location: Sunset Swim Center Tested By: Michael Rinne
 Date Tested: 10/22/2012

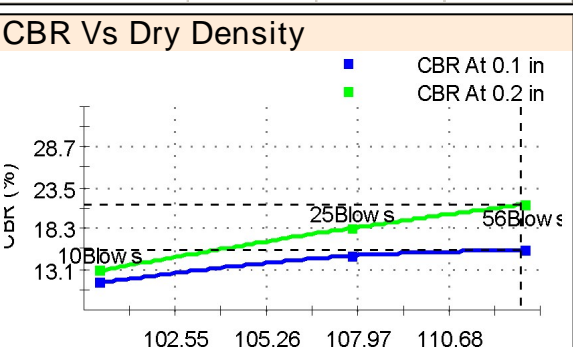


Overall Results
 ASTM D 1883 - 07

CBR At 0.1in (%): 16
 CBR At 0.2in (%): 21
 At Dry Density (lb/ft³): 112.8

Test Results

Blows	56	10	25
Comp. Eff.	ASTM D 1557	ASTM D 1557	ASTM D 1557
Initial MC (%)	10.8	10.8	10.8
MC of Top 1in (%)	16.3	15.9	17.9
MC After (%)	16.0	19.3	18.7
DD Before (lb/ft³)	112.89	100.34	107.82
DD After (lb/ft³)	113.36	101.17	108.01
CBR (%)	21.3	13.0	18.4
% MDD	102.5	91.1	97.9
Sample Condition	soaked	soaked	soaked
Surcharge (lb)	10.00	10.00	10.00
Swell (%)	-0.02	0.04	0.07
Oversize (%)	21.2	21.2	21.2



Comments