

LIMEROCK BEARING RATIO TESTING RESULTS

Client: Berthoud County

Project: Berthoud County Landfill Expansion.

Project Number: P2318-2015

Location: B-3

Depth: 0-5'

Sample Number: S-1

Material Description: Dark Brown Sandy Lean Clay w/ Organics & Rubble

Testing Remarks: Received 10/30/2015

Tested by: ERK

Checked by: ALV

Figure No: FM-2A

Test Results

Optimum Moisture, % =

Max. Dry Density, pcf =

Max. LBR, % = 30.9

Specimen 1

Water Content

Wt. Wet Soil+Tare, gms. 102.7

Wt. Soil+Tare, gms. 95

Wt. Tare, gms. 0

Moisture, % 8.1

Unit Weight

Wt. Mold+Soil, gms. 8132.4

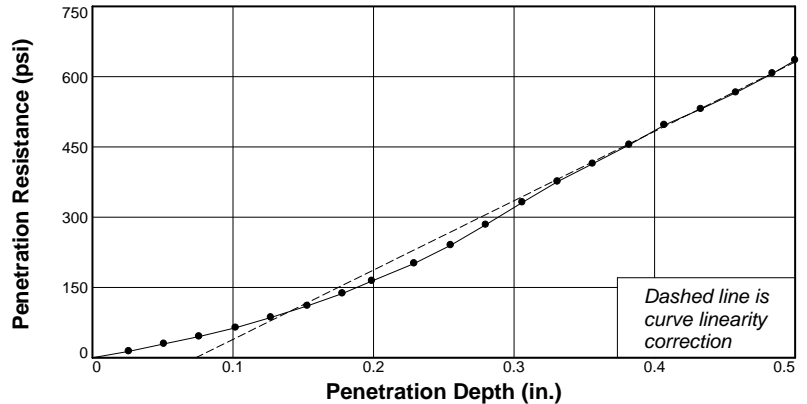
Wt. Mold, gms. 3848

Mold Vol., ft³ 0.0751

Density, pcf 116.3

Penetration Test Data

Pen. in.	Dial Reading	Stress psi	LBR %
0.0	58	0.0	
0.026	99	13.7	7.8
0.051	147	29.7	10.5
0.076	194	45.3	13.4
0.102	250	64.0	16.8
0.127	316	86.0	20.7
0.153	390	110.7	24.8
0.178	470	137.3	29.4
0.199	550	164.0	33.9
0.229	662	201.3	40.7
0.255	779	240.3	46.4
0.28	910	284.0	51.3
0.306	1053	331.7	56.3
0.331	1186	376.0	61.6
0.356	1301	414.3	65.8
0.382	1422	454.7	70.3
0.407	1548	496.7	75.2
0.433	1651	531.0	79.4
0.458	1757	566.3	79.4
0.484	1879	607.0	79.4
0.5	1963	635.0	79.4



Specimen 2

Water Content

Wt. Wet Soil+Tare, gms. 108

Wt. Soil+Tare, gms. 98.6

Wt. Tare, gms. 0

Moisture, % 9.5

Unit Weight

Wt. Mold+Soil, gms. 8202.6

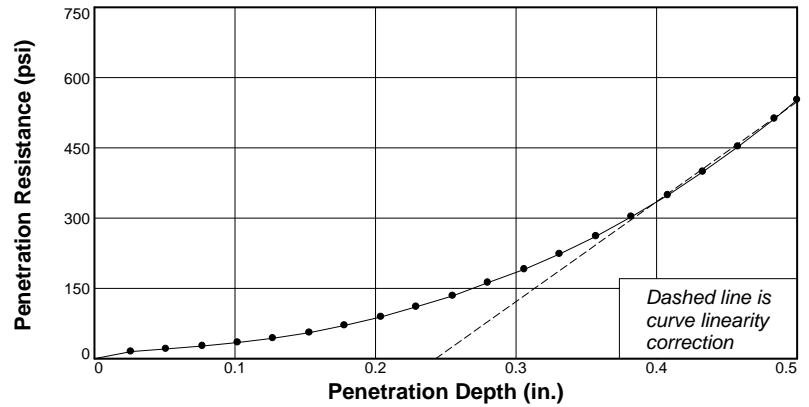
Wt. Mold, gms. 3817.2

Mold Vol., ft³ 0.0751

Density, pcf 117.5

Penetration Test Data

Pen. in.	Dial Reading	Stress psi	LBR %
0.0	7	0.0	
0.026	52	15.0	18.7
0.051	69	20.7	22.2
0.077	88	27.0	26.1
0.102	110	34.3	30.4
0.127	138	43.7	35.3
0.153	174	55.7	40.9
0.178	220	71.0	46.8
0.204	274	89.0	53.6
0.229	339	110.7	60.5
0.255	409	134.0	68.4
0.28	494	162.3	69.1
0.306	579	190.7	69.1
0.331	677	223.3	69.1
0.357	791	261.3	69.1
0.382	916	303.0	69.1
0.408	1054	349.0	69.1
0.433	1204	399.0	69.1
0.458	1365	452.7	69.1
0.484	1544	512.3	69.1
0.5	1665	552.7	69.1



Specimen 3

Water Content

Wt. Wet Soil+Tare, gms. 109.2 Wt. Soil+Tare, gms. 97.1 Wt. Tare, gms. 0 Moisture, % 12.5

Unit Weight

Wt. Mold+Soil, gms. 8255.4 Wt. Mold, gms. 3817.2 Mold Vol., ft³ 0.0751 Density, pcf 115.9

Penetration Test Data

Pen. in.	Dial Reading	Stress psi	LBR %
0.0	2	0.0	
0.026	15	4.3	0.5
0.051	34	10.7	1.3
0.077	63	20.3	2.5
0.102	108	35.3	4.4
0.128	171	56.3	7.0
0.153	247	81.7	10.2
0.179	340	112.7	14.1
0.204	447	148.3	18.5
0.229	562	186.7	23.3
0.255	683	227.0	28.4
0.28	818	272.0	34.0
0.306	963	320.3	40.0
0.331	1111	369.7	46.2
0.357	1267	421.7	52.7
0.382	1432	476.7	59.6
0.408	1611	536.3	67.0
0.433	1800	599.3	74.9
0.459	2001	666.3	83.3
0.484	2202	733.3	91.7
0.5	2323	773.7	96.7

