
SWELL/CONSOLIDATION TEST DATA

Client:
Project:
Project Number:

Sample Data

Source:
Sample No.: B1
Elev. or Depth: Sample Length(in./cm.):
Location:
Description:
Liquid Limit: Plasticity Index:
USCS: AASHTO: Figure No.:
Testing Remarks:

Test Specimen Data

TOTAL SAMPLE	BEFORE TEST	AFTER TEST
Wet w+t = 57.83 g.	Consolidometer # = 1	Wet w+t = 169.47 g.
Dry w+t = 50.24 g.		Dry w+t = 145.83 g.
Tare Wt. = 14.05 g.	Spec. Gravity = 2.8	Tare Wt. = 43.00 g.
Height = 2.00 cm.	Height = 2.00 cm.	
Diameter = 6.18 cm.	Diameter = 6.18 cm.	
Weight = 124.43 g.	Defl. Table = reference Set (mm/kPa)	
Moisture = 21.0 %	Ht. Solids = 1.2247 cm.	Moisture = 23.0 %
Wet Den. = 2074 kg/m ³	Dry Wt. = 102.86 g.*	Dry Wt. = 102.83 g.
Dry Den. = 1715 kg/m ³	Void Ratio = 0.633	Void Ratio = 0.618
	Saturation = 92.8 %	

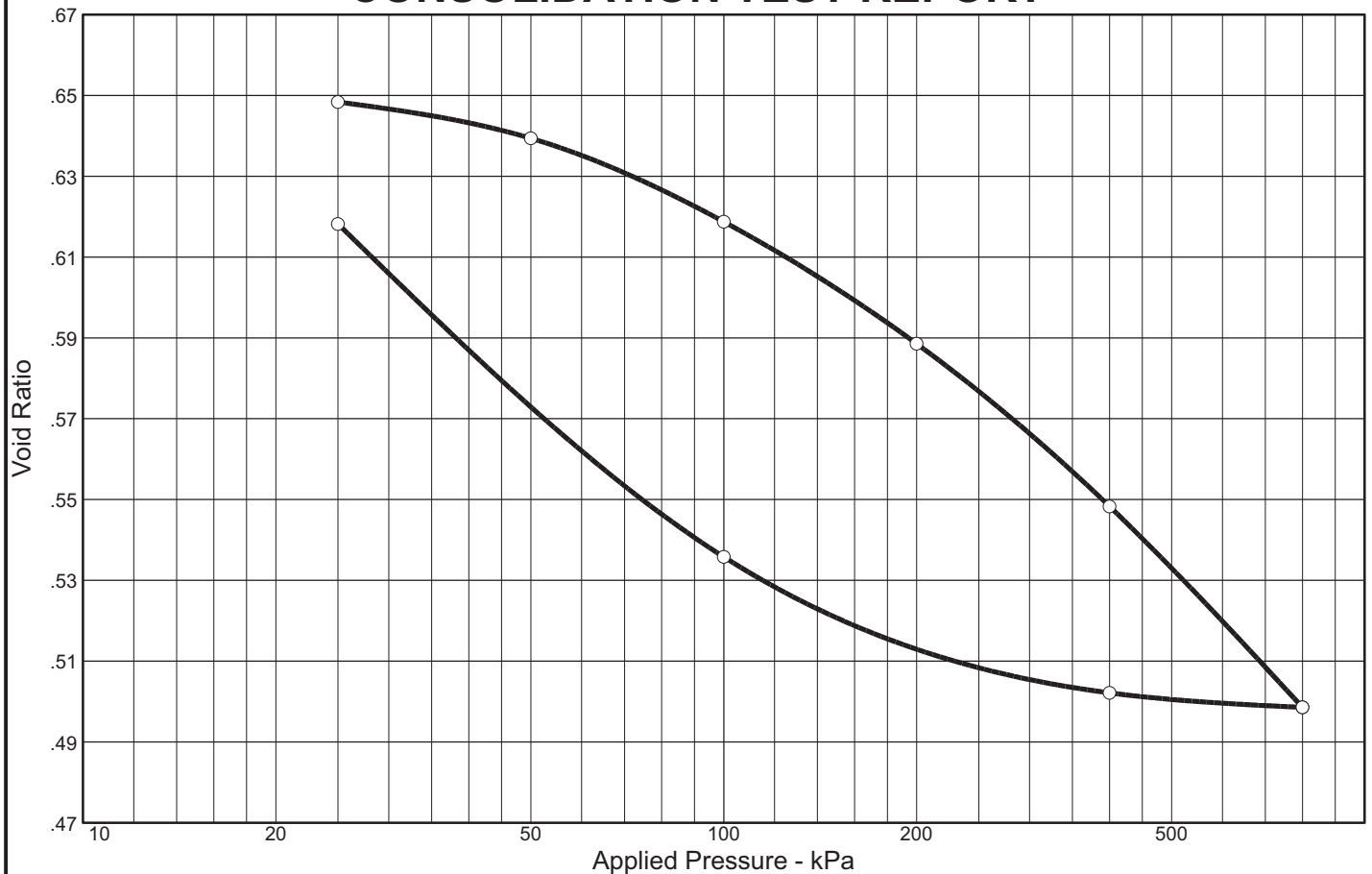
* Initial dry weight used in calculations

End-of-Load Summary

Pressure (kPa)	Final Dial (cm.)	Machine Defl. (cm.)	Corrected (cm.)	Void Ratio	% Compression /Swell
start	-0.01200			0.633	
25.00	0.00660	0.00010	0.00670	0.648	0.9 Swell
50.00	-0.00480	0.00050	-0.00430	0.639	0.4 Swell
100.00	-0.03040	0.00080	-0.02960	0.619	0.9 Compr.
200.00	-0.06840	0.00180	-0.06660	0.589	2.7 Compr.
400.00	-0.11860	0.00270	-0.11590	0.548	5.2 Compr.
800.00	-0.18020	0.00340	-0.17680	0.499	8.2 Compr.
400.00	-0.17540	0.00300	-0.17240	0.502	8.0 Compr.
100.00	-0.13320	0.00200	-0.13120	0.536	6.0 Compr.
25.00	-0.03040	0.00010	-0.03030	0.618	0.9 Compr.

$C_c = 0.17$ $P_c = 132.17$ kPa $C_r = 0.07$

CONSOLIDATION TEST REPORT



Coefficients of Consolidation and Secondary Consolidation

No.	Load (kPa)	C_v (cm.2/sec.)	C_α	No.	Load (kPa)	C_v (cm.2/sec.)	C_α	No.	Load (kPa)	C_v (cm.2/sec.)	C_α
2	50.00	0.0050									
3	100.00	0.0017									
4	200.00	0.0001									
5	400.00	0.0000									
6	800.00	0.0000									
7	400.00	0.0002									
8	100.00	0.0000									
9	25.00	0.0000									

Natural		Dry Dens. (kg/m ³)	LL	PI	Sp. Gr.	Overburden (kPa)	P_c (kPa)	C_c	C_r	Initial Void Ratio
Saturation	Moisture									
92.8 %	21.0 %	1715			2.8		132.17	0.17	0.07	0.633

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. Project: Source:	Client: Sample No.: B1 Elev./Depth:	Remarks:
 SOLUM CONSULTANTS LTD GEOTECHNICAL & MATERIAL TESTING LABORATORY		

Figure

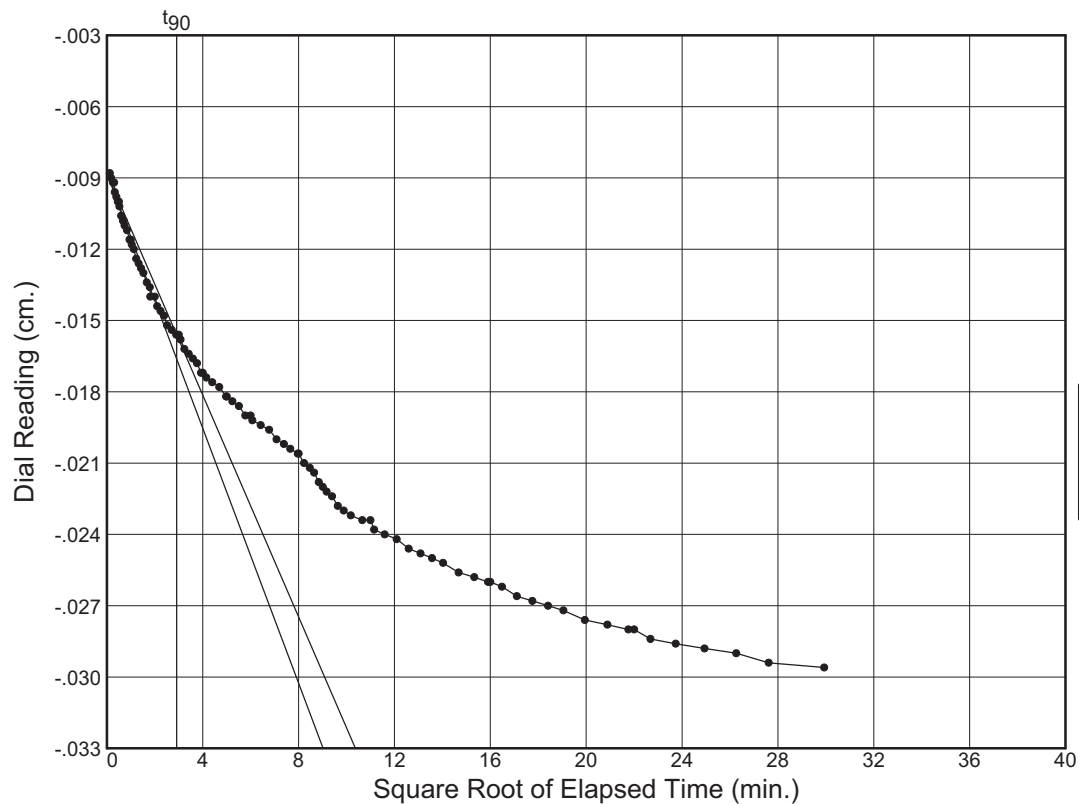
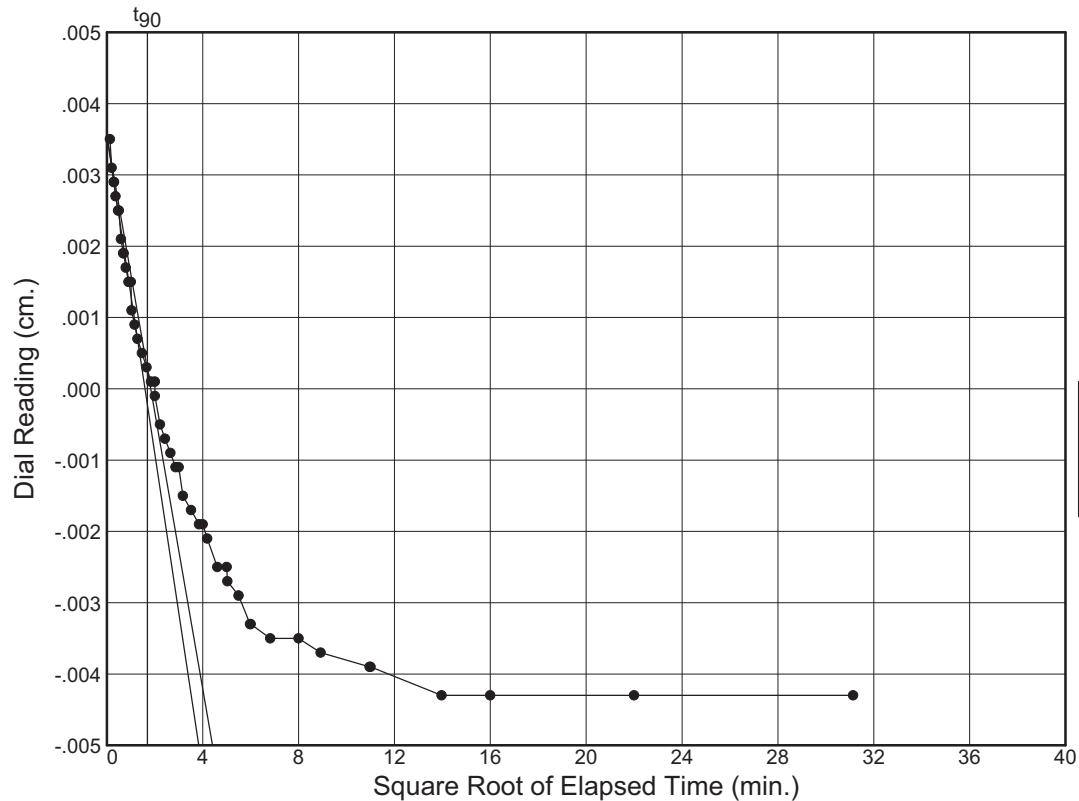
Dial Reading vs. Time

Project No.:
Project:

Source:

Sample No.: B1

Elev./Depth:



Figure