



Angelo State University
David L. Hirschfeld Department of Engineering

Consolidation Test

Client: _____

Project #: _____

Project title: _____

Test performed by: _____

Test date: _____

Checked by: _____

Boring no. : _____ Sample/Specimen no. : _____

Sample depth: _____

Soil Classification: _____

	Before test				After test	
	Specimen		Trimming		Specimen	
	Specimen Ring				Specimen Ring	
Tare no.						
Mass of tare		g		g		g
Mass of soil+tare (wet)		g		g		g
Mass of soil+tare (dry)		g		g		g
Mass water (W_w)	W_{w0}	g		g	W_{wf}	g
Mass dry soil (W_s)		g		g		g
Moisture Content (w)	w_0	%	w_0	%	w_0	%

Consolidometer #		Specimen height (H)		in	Measured Assumed
Ring inside diameter		Sp gr of solids			
Specimen Area (A)					

Height of solids	$H_s = \frac{W_s}{A \times G_s \times \gamma_w} = \frac{\quad \times \quad}{\quad \times (2.54)^3} =$	in
Initial height of water	$H_{w0} = \frac{W_{w0}}{A \times \gamma_w} = \frac{\quad \times \quad}{\quad \times (2.54)^3} =$	in
Final height of water	$H_{wf} = \frac{W_{wf}}{A \times \gamma_w} = \frac{\quad \times \quad}{\quad \times (2.54)^3} =$	in
Total change in specimen height at end of test, $\Delta H =$		in
Specimen height at end of test, $H_f = H - \Delta H =$		in
Initial void ratio	$e_0 = \frac{H - H_s}{H_s} = \frac{\quad}{\quad} =$	
Final void ratio	$e_f = \frac{H_f - H_s}{H_s} = \frac{\quad}{\quad} =$	
Initial degree of saturation	$S_0 = \frac{H_{w0}}{H - H_s} = \frac{\quad}{\quad} =$	%
Final degree of saturation	$S_f = \frac{H_{wf}}{H - H_s} = \frac{\quad}{\quad} =$	%
Initial dry unit weight	$\gamma_d = \frac{W_s}{H \times A} = \frac{\quad \times 62.4}{\quad \times (2.54)^3} =$	lb/ft ³

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[illegible]

