

LABORATORY COMPACTION CHARACTERISTICS OF SOIL (COMPACTION TEST)

1. PROJECT		2. EXCAVATION NUMBER			3. SAMPLE NUMBER			4. DATE		
		5. LAYERS/BLOWS PER LAYER /			6. WEIGHT OF TAMPER (lb)			7. HEIGHT OF DROP (in)		
		8. SPECIFIC GRAVITY OF SOLIDS, G_s			9. DIAMETER OF MOLD (in)			10. VOLUME OF SOIL SAMPLE (cu ft)		
				0.0333 cu ft				0.0750 cu ft		
11. RUN NUMBER	UNITS									
12. WEIGHT OF MOLD + WET SOIL	Grams									
13. WEIGHT OF MOLD	Grams									
14. WEIGHT OF WET SOIL (12 - 13)	Grams									
15. WET UNIT WEIGHT, γ_{wet} ((14/453.6)/10)*	Pcf									
16. TARE NUMBER										
a. WEIGHT OF TARE + WET SOIL	Grams									
b. WEIGHT OF TARE + DRY SOIL	Grams									
c. WEIGHT OF WATER, W_w (a - b)	Grams									
d. WEIGHT OF TARE	Grams									
e. WEIGHT OF DRY SOIL, W_s (b - d)	Grams									
f. WATER CONTENT, $w = \frac{W_w}{W_s} \times 100$ (c / e x 100)	Percent									
17. AVERAGE WATER CONTENT	Percent									
18. DRY UNIT WEIGHT, $\gamma_d = \frac{\gamma_{wet}}{1+(w/100)}$	Pcf									
19. REMARKS		* This formula contains the conversion from grams to pounds. Omit the conversion factor if the unit weight used is not grams.								
20. TECHNICIAN (Signature)		21. COMPUTED BY (Signature)				22. CHECKED BY (Signature)				