

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 (<i>lb</i>)			7. HEIGHT OF DROP (<i>in</i>)	
		8. SPECIFIC GRAVITY OF SOLIDS, G_s			9. DIAMETER OF MOLD (<i>in</i>)			10. VOLUME OF SOIL SAMPLE (<i>cu ft</i>)	
		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 <i>(Signature)</i>			21. COMPUTED BY <i>(Signature)</i>			22. CHECKED BY <i>(Signature)</i>			