DENSITY TEST WORKSHEET - SAND CONE METHOD

North Dakota Department of Transportation, Materials & Research
SFN 59725 (5-2019)

Project Number	PCN	Date	Tested By	Tech ID

TEST IDENTIFICATION		**Test Number**					
		Time					
		Lot					
		Station					
		Offset from centerline					
		Lane					
		Depth below finished grade ft.					
IN-PLACE DRY DENSITY DETERMINATION	a	Unit Weight of Sand (pcf) SFN 59724					
	b	Wt. material removed from test hole-lbs.					
	c	Initial sand weight - lbs.					
	d	Final sand weight - lbs.					
	e	Wt. sand in funnel and hole = c - d					
	f	Cone calibration factor- lbs. SFN 59724					
	g	Wt. sand in hole = e - f (lbs.)					
	h	Volume of test hole = g/a (cu. ft.)					
	l	Wet Density = b/h/(lbs./cu. ft.)					
	j	Dry Density = i/(100+p) x 100(lbs./cu.ft.)					
		Moisture Determination					
	k	Wet weight + container					
	l	Dry weight + container					
	m	Moisture loss = k - l					
	n	Tare weight of container					
	o	Dry weight of soil = l - n					
	p	Moisture Percentage = (m/o) x 100 (%)					
MOISTURE-DENSITY RELATIONSHIP TEST		ND Procedure					
		Test Number (Proctor Test)					
		Station					
		Offset from centerline					
		Depth below finished grade					
	q	Maximum Dry Density					
		Optimum Moisture					
REQUIRED MOIS-DENS.		Required % maximum Dry Density					
		% Maximum Dry Density = (j/q) x 100					
		Required Moisture					
		Moisture = p					

Remarks