

# NorthEast Transportation Training & Certification Program

## Density by Sand Cone Test Report (T 191)

Date/Time:		Lab/Location:	
Weather:		Date Rec'd #:	Random Sample: Yes No
Project:		Lab Login #:	Lot #:
Contract #:		Material ID:	Sublot #:
Contractor:		Material #:	Sample Location:
Pay Item #:		Sample #:	Station:
Source:		Sample Type: QC A-V IA DR Other	Offset:
Plant Type:		Sampled By/Cert. #:	

### Calibration and Reference Information

Sand Bulk Density		Sand Mass to Fill Cone	
Volume of Container, ft <sup>3</sup> (A):		Mass Jar, cone & Sand, lb (D):	
Sand Mass to Fill Container, lb (B):		Mass Jar, Cone & Sand after filling cone, lb (E):	
Bulk Density of Sand, lb/ft <sup>3</sup> (C): (B/A)		Mass Sand to Fill Cone, lb (F):	

### Density of Soil in Place by the Sand-Cone Method (T 191)

Field Density Test Station:					
Offset:					
Orig. Mass Jar, Cone & Sand, lb (G):					
Final Mass Jar, Cone & Sand, lb (H):					
Mass of Sand Used, lb (I): (G - H)					
Moist Mass, Container & total Material from hole, lb (J):					
Mass Container, lb (K):					
Moist Mass, total material from hole, lb (L): (J - K)					
Wet Mass, Moisture Sample & tin, g (M):					
Mass of tin, g (N):					
Wet Mass Moisture Sample, g (O): (M - N)					
Dry Mass Moisture Sample & Tin, g (P):					
Dry Mass Moisture Sample, g (Q): (P - N)					
Moisture Content, % (R): ((O - Q)/Q)					
Dry Mass of Materials from test hole, lb (S): (L / (1 + R))					
Vol. of Hole, ft <sup>3</sup> (T): (I - F) / C					
Dry Density of Tested Material, kg/m <sup>3</sup> (U): (1000*(S / T))					
Lab Dry Compacted Density, kg/m <sup>3</sup> (V):					
% Compaction: (100 * U/V)					

Comments:

Tested by:	Reviewed by:
Certification #:	Certification #:
Date:	Date:

Results Within Specification Limits: ☐

Results Outside Specification Limits: ☐