In-situ density test (sand replacement method)

Location		Job ref.	
		Borehole/Pit no.	
Soil description		Sample No.	
		Depth excavated	m
		Date	

Test method

BS1377: Part 8: 1990 **2.1** small pouring cylinder*

2.2 large pouring cylinder

Calibration

*Mean mass of sand in cone of pouring cylinder	(m_2)	g
Volume of calibration container	(V)	mL
*Mass of sand + cylinder before pouring	(m_1)	g
*Mean mass of sand + cylinder after pouring	(m_3)	g
*Mass of sand to fill calibrating container	($m_4 = m_1 - m_2 - m_3$)	g

Bulk density of sand $p_s = \frac{m_a}{V}$ Mg/m^3

Test no.							
Mass of wet soil from hole	g						
*Mass of sand + cylinder before pouring	g						
*Mass of sand + cylinder after pouring	g						
*Mass of sand in hole	g						
Ratio $\frac{m_w}{m_b}$							
Bulk density $p = \frac{m_w * p_s}{m_b}$	Mg/m^3						
Moisture content container no.							
Moisture content	%						
Dry density $p_d = \frac{100\ p}{100 + w}$	Mg/m^3						

* Delete as appropriate

Checked	Approved

Form 9A