

DROPWEIGHT CONE PENETROMETER (DCP) TEST

Site: Site	Client: Client	
Test No.: 99	Blows: 10	For engineered soils - maximum dry density: 1 925 kg/m³
Test Depth: mbgl	Deflect. at the top of rod >75mm: no	Required compaction: 93 %
Remarks: comb. results for Pit 99 with extrapol. penetrat.between tests if necessary		Chart depth - start: 0 end: 450
Average CBR over selected depth range of: 300 [mm] or enter required depths below.		Maximum dcp rod length (m): 1,0

Depth range [mm]:	300	600	900	1 200	1 500	1 800	2 100	2 400	2 700	3 000	3 300
Avg.CBR/300mm:	25 - 45	15 - 25	25 - 45	25 - 45	25 - 45	25 - 45	25 - 45				
Avg. Dn/300mm:	9,0	9,5	8,4	8,6	8,2	7,8	8,2				
Blows/300mm:	37 / {33}	37 / {32}	37 / {36}	37 / {35}	37 / {37}	37 / {38}	37 / {37}				
Depth errors ?	No = enter data. = formulae. = formulae. = formulae, but can be overwritten.										
Blows no.	Cumulative blows	Recorded penetration [mm]	Depth below ground level [mm]	Av. Penetr. Dn [mm/blow]	Consistency	Cohesive ? [(y)es / (n)o]	Estimate (SPT-N - enter [1] or [3] in the two columns - Inter. SPT-N - respectively as necessary).				
							E [MPa]	Cu [kPa]	Inter. SPT-N [3]	SPT-N [1]	CBR @ nat. moisture
0,0		2020	0								
10,0	10	2000	20	2,0	v/dense	n	>80	-	67		>80
10,0	20	1858	162	14,2	m/dense	n	28	-	28		10 - 15
10,0	30	1750	270	10,8	dense	n	37	-	35		15 - 25
10,0	40	1662	358	8,8	dense	n	45	-	40		25 - 45
10,0	50	1574	446	8,8	dense	n	45	-	40		25 - 45
10,0	60	1494	526	8,0	dense	n	50	-	42		25 - 45
10,0	70	1369	651	12,5	dense	n	32	-	30		15 - 25
10,0	80	1300	720	6,9	dense	n	58	-	45		25 - 45
10,0	90	1228	792	7,2	dense	n	56	-	44		25 - 45
10,0	100	1152	868	7,6	dense	n	53	-	43		25 - 45
10,0	110	1072	948	8,0	dense	n	50	-	42		25 - 45
10,0	120	986	1034	8,6	dense	n	47	-	40		25 - 45
10,0	130	904	1116	8,2	dense	n	49	-	41		25 - 45
10,0	140	810	1210	9,4	dense	n	43	-	38		15 - 25
10,0	150	724	1296	8,6	dense	n	47	-	40		25 - 45
10,0	160	638	1382	8,6	dense	n	47	-	40		25 - 45
10,0	170	566	1454	7,2	dense	n	56	-	44		25 - 45
10,0	180	494	1526	7,2	dense	n	56	-	44		25 - 45
10,0	190	414	1606	8,0	dense	n	50	-	42		25 - 45
10,0	200	328	1692	8,6	dense	n	47	-	40		25 - 45
10,0	210	248	1772	8,0	dense	n	50	-	42		25 - 45
10,0	220	174	1846	7,4	dense	n	54	-	44		25 - 45
10,0	230	96	1924	7,8	dense	n	51	-	43		25 - 45
10,0	240	1	2019	9,5	dense	n	42	-	38		15 - 25

Reference: 1] Deriving SPT N-Values from DCP Test Results: The Case of Foundation Design in a Tropical Environment, Ampadu, S., Fianko Ayeh, F.J. & Boadu, FK. Geotechnical & Engineering Geology DOI:10.1007/s10706-018-0480-4. Aug. 2018. 2] Paige-Green, P. & du Plessis, L 2009. The use & interpretation of the DCP test. CSIR, Build Environment, Pretoria. 3] In-house estimate based on consistencies for the same ranges.

Note: DCP comprises a 20mm diameter, 60 degree cone & 8kg hammer. 0000 (dcp_v7-03 & Qs-03a, 290724) with data.xlsx

