
 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL							Site Nottinghamshire/ Derbyshire COA NMCS2 Upgrade		Borehole Number M24	
Machine: Flush : Core Dia: mm Method :			Casing Diameter		Ground Level (mOD) 158.90		Client Highways Agency		Job Number F11451	
			Location 444914.36 E 359017.54 N		Dates 06/09/1999-07/09/1999		Engineer WSP Environmental Ltd		Sheet 1/2	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.80					D01 0 blows	158.70	(0.20) 0.20	TOPSOIL.		
0.80-0.90	32	0	0	98	D02 0 blows			MADE GROUND: Orangish brown mottled grey very sandy clay with much fine to coarse angular and subangular gravel sized fragments of mudstone, siltstone, quartz and coal.		
0.90-1.00					D03 0 blows					
1.00										
1.60-2.05	54	0	0	98	1, 1/2, 4, 5, 4 SPT N=15					
2.05										
2.60-3.05	100	0	0	98	1, 2/2, 4, 4, 4 SPT N=14					
3.05										
3.70-4.15	100	0	0	98	2, 2/2, 4, 4, 4 SPT N=14					
4.15							(7.90)	---from 4.05m to 4.60m sandstone boulder		
4.60-5.05	100	0	0	98	1, 3/6, 5, 8, 11 SPT N=30			---from 4.60m becomes light brown mottled orange and black		
5.05										
5.60-6.05	100	0	0	98	1, 4/4, 6, 9, 10 SPT N=29					
6.05										
6.60-7.05	100	0	0	98	2, 2/4, 4, 4, 6 SPT N=18					
7.05					12, 8/4, 6, 7, 8 06/09/1999: 0.00m					
7.40-7.85	71	0	0	98	07/09/1999: SPT N=25			---from 7.40m with much sandstone cobbles		
7.85										
8.20-8.65	100	0	0	98	5, 12/11, 11, 9, 12 SPT N=43	150.80	8.10	Stiff brown mottled orange and grey indistinctly thinly laminated slightly sandy CLAY with occasional fine subangular lithorelicts of mudstone. (Completely Weathered Mudstone) (Coal Measures)		
8.65							(1.35)			
9.20-9.40	91	35	0	99	7, 18/50, 0, 0, 0 SPT 50/50					
9.40										
9.62			0	25		149.45	9.45	Grey and brown thickly interlaminated and very thinly interbedded moderately and highly weathered fine and medium grained SANDSTONE, weak and MUDSTONE, very weak with extremely closely spaced random fractures		
10.00			0	99						
Remarks 1. Inspection pit excavated to 1.00m. 2. Borehole complete at 15.00m. 3. 50mm diameter standpipe installed at 15.00m. 4. Marker Post Ref 220/6 N.								Scale (approx) 1:50	Logged By NBR	
								Figure No.		



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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20			0	25			(1.23)	tight smooth planar and very closely spaced subhorizontal fractures open rough planar. (Coal Measures) ---from 10.20m to 10.35m carbonaceous mudstone		
10.35	94	13	0	0						
10.50			0	8						
10.68						148.22	10.68	Light grey very thinly and thinly bedded subhorizontal moderately weathered fine grained SANDSTONE moderately weak with very closely spaced subhorizontal and subvertical fractures open rough irregular with some clay smearing. (Coal Measures)		
			0	25			(0.50)			
11.18			0	25		147.72	11.18	Light grey thinly laminated subhorizontal very thinly and thinly bedded subhorizontal highly weathered MUDSTONE, very weak with extremely closely spaced random fractures tight smooth irregular and very closely spaced subhorizontal fractures open smooth curvilinear. (Coal Measures)		
11.50	81	0	0	0						
12.00			0	25						
12.50							(2.32)			
	90	66	59	1						
13.50			0	25		145.40	13.50	Grey thinly cross laminated subhorizontal thinly and medium bedded subhorizontal slightly weathered SILTSTONE, moderately weak to moderately strong with medium and closely spaced subhorizontal fractures open smooth planar and widely spaced subvertical fractures open smooth curved with occasional orange iron staining. (Coal Measures)		
13.80			0	7			(1.50)	---from 13.80m to 14.06m light grey thinly laminated subhorizontal moderately weathered mudstone, very weak with extremely closely spaced random fractures open smooth irregular with clay smearing		
14.06										
					07/09/1999:14.10m 07/09/1999:	143.90	15.00	Complete at 15.00m		
Remarks								Scale (approx) 1:50	Logged By NBR	
								Figure No.		