
 <b>British Geological Survey</b> NATURAL ENVIRONMENT RESEARCH COUNCIL						<b>Site</b> Nottinghamshire/ Derbyshire COA NMCS2 Upgrade		<b>Borehole Number</b> <b>M46</b>			
<b>Machine:</b> <b>Flush :</b> <b>Core Dia: mm</b> <b>Method :</b>			<b>Casing Diameter</b>			<b>Ground Level (mOD)</b> 124.41		<b>Client</b> Highways Agency		<b>Job Number</b> F11451	
			<b>Location</b> 445298.54 E 363331.45 N			<b>Dates</b> 16/09/1999- 18/09/1999		<b>Engineer</b> WSP Environmental Ltd		<b>Sheet</b> 1/2	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.15-0.70	58	29	10	97	D01 0 blows	124.26	(0.15) 0.15	TOPSOIL.			
							(0.55)	MADE GROUND: Light grey slightly sandy medium and coarse angular gravel sized fragments of limestone.			
0.70-0.80 0.80-0.90 0.90			0	98	D02 0 blows D03 0 blows	123.71	0.70	Firm brown very sandy CLAY with occasional to some fine and medium mudstone gravel. (Completely Weathered Mudstone) (Coal Measures)			
			0				(0.70)				
1.36 1.40 1.60			0	99		123.01	1.40	Grey indistinctly thinly laminated very thinly bedded subhorizontal moderately to highly weathered MUDSTONE, weak and moderately weak with extremely closely and very closely spaced random and subhorizontal fractures open and tight smooth planar and irregular clay smeared with occasional ironstone nodules. (Coal Measures)			
	87	0	0	25			(1.60)				
2.00	89	28	0	25							
3.00			0	98	16/09/1999:0.00m	121.41	3.00	Light grey thinly and thickly laminated subhorizontal slightly weathered SILTSTONE, moderately weak with very closely spaced subhorizontal and random fractures open smooth planar and irregular. (Coal Measures)			
3.28 3.40			0	25	18/09/1999:	121.13 121.01	(0.28) 3.28 3.40	Stiff grey CLAY with some fine and medium angular mudstone lithorelicts. (Completely Weathered Mudstone) (Coal Measures)			
			0	99			(1.40)	Grey thinly laminated very thinly and thinly bedded subhorizontal slightly weathered MUDSTONE, weak and moderately weak with very closely spaced subhorizontal and subvertical fractures open and tight smooth planar and irregular. (Coal Measures)			
4.45 4.60 4.80	100 0	60 0	0 0	6 97		119.61	4.80	---from 4.45m to 4.60m non intact			
	0	0	0	97			(1.70)	No recovery. Possible workings. Driller records coal fragments and borehole collapsing.			
5.80	93	52	0	99							
			0	4		117.91	6.50	Grey very thinly and thinly bedded subhorizontal slightly weathered MUDSTONE, weak and moderately weak with occasional coarse gravel sized ironstone nodules and very closely and closely spaced subhorizontal fractures and medium spaced subvertical fractures open smooth planar and irregular with occasional clay smearing. (Coal Measures)			
6.50 6.80 6.97 7.25			0 0	99			(2.30)				
	98	80	32	13							
	85	67	17	13							
8.00			0	25				---from 8.30m fractures become very closely sand extremely closely spaced subhorizontal and inclined			
			0	5		115.61	8.80	Grey thinly cross laminated subhorizontal medium bedded fine and medium grained SANDSTONE, moderately strong locally moderately weak with medium spaced subhorizontal fractures open rough planar and medium spaced subvertical fractures open rough irregular. (Coal Measures)			
8.75 8.80	85	75	38	10				---from 9.30m to 9.50m non intact			
9.50								---from 9.50m fractures become closely and medium spaced			
<b>Remarks</b> 1. Inspection pit excavated to 0.90m. 2. Borehole complete at 12.30m. 3. 50mm slotted standpipe installed at 12.00m. 3. Marker Post Ref 225/0-70S.									<b>Scale (approx)</b> 1:50	<b>Logged By</b> NBR	
									<b>Figure No.</b>		



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		Location 445298.54 E 363331.45 N		Dates 16/09/1999- 18/09/1999		Engineer WSP Environmental Ltd			Sheet 2/2	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50			0	13			(3.15)			
10.80	97	71	29	0				---from 11.00m fractures become iron stained		
11.50			0	4				---from 11.60m to 11.80m inclined fracture open rough planar iron stained		
					18/09/1999:0.00m	112.46	11.95 (0.35)	Light pinkish grey thinly laminated inclined medium bedded subhorizontal slightly weathered fine and medium grained SANDSTONE, moderately strong with medium spaced subhorizontal and subvertical fractures open rough planar iron stained. (Coal Measures)		
					18/09/1999: 18/09/1999:0.00m	112.11	12.30	Complete at 12.30m		
Remarks								Scale (approx) 1:50	Logged By NBR	
								Figure No.		