
 <b>British Geological Survey</b> NATURAL ENVIRONMENT RESEARCH COUNCIL						<b>Site</b> M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2		<b>Borehole Number</b> <b>RC1190</b>		
<b>Machine:</b> <b>Flush :</b> <b>Core Dia: mm</b> <b>Method :</b>		<b>Casing Diameter</b> 140mm cased to 5.00m		<b>Ground Level (mOD)</b> 131.25		<b>Client</b> Highways Agency		<b>Job Number</b> WAL060099		
		<b>Location</b> 445154 E 356532 N		<b>Dates</b> 18/10/2006- 19/10/2006		<b>Engineer</b> Arup		<b>Sheet</b> 1/3		
<b>Depth (m)</b>	<b>TCR</b>	<b>SCR</b>	<b>RQD</b>	<b>FI</b>	<b>Field Records</b>	<b>Level (mOD)</b>	<b>Depth (m) (Thickness)</b>	<b>Description</b>	<b>Legend</b>	<b>Water</b>
0.00	PIT		0	0				Inspection Pit.		
	OH		0	0			(1.20)			
1.20						130.05	1.20	Open Hole.		
	61	0	0	0			(3.80)			
5.00-5.16 5.00					25/41.9 SPT 25'/75 50/80	126.25	5.00	Firm mottled grey and orange CLAY with fine sand and subangular fine to coarse lithorelics of mudstone. With occasional fibrous organic matter.		
	97	83	12	0			(0.90)			
5.90-6.01 5.90					25/50 SPT 25'/75 50/36	125.35	5.90	Moderately weak thinly laminated light and occasionally dark grey SILTSTONE. Fractures are horizontal very closely to medium spaced, generally tight, undulating and rough. With orange and dark red brown discolouration penetrating 10mm to 20mm.		
	100	100	65	0			(1.60)			
7.40						123.75	7.50	Moderately strong laminated to very thinly bedded light grey SILTSTONE. Fractures are horizontal, closely to medium spaced, open, undulating and rough with red orange discolouration and occasional black speckling of fracture surfaces, penetrating up to 5mm.		
7.85-8.10			0	0	U1					
8.20										
8.90-9.01 8.90	100	100	87	0	25/50 SPT 25'/75 50/30			Between 8.60m and 9.30m; slightly sandy. Sand is fine.		
8.90-9.35					U2					
	77	74	74	0			(4.50)			
<b>Remarks</b>								<b>Scale (approx)</b> 1:50	<b>Logged By</b> SM	
								<b>Figure No.</b>		

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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.40										
10.50-10.75			0	0	U3					
10.75							(4.50)			
11.15-11.40	100	100	39	0	U4			At 11.05m; horizontal fracture infilled up to 20mm with weak heavily iron stained siltstone gravel. At 11.20m; horizontal fracture infilled up to 20mm with weak heavily iron stained siltstone gravel. Below 11.50m; cross laminated.		
11.90			0	0	Water strike(1) at 11.70m, no rise after 20 mins.					
12.00						119.25	12.00	Moderately weak thickly laminated to thinly bedded grey At 12.10m; 20mm band of soft light grey slightly sandy clay. MUDSTONE with occasional thin laminae of light grey siltstone. Fractures are horizontal, very closely to closely spaced, generally tight, planar and smooth.		
13.40	97	97	37	0						
13.40			0	0	P5					
13.90							(3.90)			
	88	88	27	0						
14.90										
15.10			0	0	P6			Between 15.35m and 15.50m; with coarse gravel sized fragments of ironstone. Below 15.50m; weak to moderately weak.		
15.90	100	73	20	0		115.35	15.90	Weak thinly laminated dark grey carbonaceous MUDSTONE with occasional thin laminae up to 2mm of black coal. Fractures are horizontal, very closely to closely spaced, generally tight, planar and smooth.		
16.20			0	0			(1.80)			
16.85	100	66	18	0						
17.70	84	81	27	0	18/10/2006:11.70m 18/10/2006: 19/10/2006:	113.55	17.70	Weak thinly to thickly laminated dark grey carbonaceous MUDSTONE with closely to medium spaced thin and medium beds of stiff grey clay. With some carbonised plant remains up to 25mm. Fractures are horizontal, very closely to closely spaced, generally tight, planar and smooth. With occasional bands of coarse gravel sized fragments of ironstone.  Between 18.70m to 18.85m; stiff grey clay.		
19.10										
19.30			0	0	P7		(3.45)			
19.70								Between 19.60m and 19.85m; stiff grey clay.		

Remarks

Scale (approx)


1:50

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SM

Figure No.



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<b>Depth (m)</b>	<b>TCR</b>	<b>SCR</b>	<b>RQD</b>	<b>FI</b>	<b>Field Records</b>	<b>Level (mOD)</b>	<b>Depth (m) (Thickness)</b>	<b>Description</b>	<b>Legend</b>	<b>Water</b>
	93	89	26	0			(3.45)	Between 20.20m and 20.23m; stiff grey clay.		
20.90			0	0		110.10	21.15	At 20.80m; 25mm band of light brown ironstone. At 20.85m; 20mm band of light brown ironstone.		
21.15			0	0		109.90	(0.20) 21.35	Moderately weak thinly to thickly laminated black COAL. Fractures are horizontal, very closely to closely spaced, tight planar and smooth.		
21.35										
21.65	100	100	50	0	P8			Moderately weak laminated to very thinly bedded grey Between 21.90m and 22.30m; locally weak, fractures are very closely spaced. MUDSTONE with some carbonised plant remains up to 30mm. With occasional coarse gravel sized fragments of ironstone. Fractures are subhorizontal very closely to medium spaced, generally tight, planar and smooth. Between 22.60m and 22.72m; band of strong brown ironstone. Below 22.75m; moderately strong.		
22.30			0	0						
23.00										
23.00-23.25	100	100	66	0	U9		(3.65)	At 23.35m; ironstone cobble (70x70x80mm). Between 23.45m and 23.55m; moderately weak. Between 23.55m and 23.70m; stiff thinly laminated grey clay. At 23.80m; ironstone cobble (60x60x50mm).		
23.55	<b>Sample / Tests</b>		<b>Casing Depth (m)</b>	<b>Water Depth (m)</b>				At 24.20m; ironstone cobble (100x80x80mm). At 24.55m; ironstone cobble (150x100x80mm).		
24.45	P10									
					19/10/2006:	106.25	25.00			
					19/10/2006:			Complete at 25.00m		
<b>Remarks</b>								<b>Scale (approx)</b> 1:50	<b>Logged By</b> SM	
								<b>Figure No.</b>		