


 <b>British Geological Survey</b> NATURAL ENVIRONMENT RESEARCH COUNCIL						W101		Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI-CONTRACT 2		Borehole Number <b>RC1192</b>	
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 1.30m			Ground Level (mOD) 115.40		Client Highways Agency		Job Number WAL060099	
			Location 444814 E 357423 N			Dates 09/11/2006-10/11/2006		Engineer Arup		Sheet 1/3	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.00 0.20 0.50 1.00 1.20	72	0	0	0	C201 C202 C203	114.20	(1.20) 1.20 (0.42)	Brown gravelly slightly sandy gravelly CLAY with occasional rootlets. Gravel is angular to subangular of sandstone and mudstone.  No recovery.			
2.70-3.08 2.70 2.70	37	0	0	0	25/7,11,18,21 SPT 25'/75 N=57 D101	113.78 113.60	1.62 (0.18) 1.80	Recovered as soft grey gravelly CLAY. Gravel is angular to subangular medium to coarse of mudstone and ironstone.  Stiff to very stiff extremely closely fissured orange brown mottled grey slightly gravelly CLAY. Gravel is angular fine to coarse of siltstone.			
4.20-4.58 4.20 4.20	88	50	0	0	25/6,8,14,11 SPT 25'/75 N=39 D102 25/5,14,15,18 P1 W401 SPT 25'/75 N=52 D103	112.15	3.25 (0.95)	Between 2.90m and 3.20m; with thick interlaminae of very weak and weak weathered siltstone.  Assumed zone of core loss. Possible			
4.70 4.72 5.00-5.38 5.00 5.00	78	56	0	0	D104 25/37,50 SPT 25'/75 87/109	111.20	4.20 (0.80)	Generally very weak variably stiff to very stiff thinly to thickly laminated grey MUDSTONE. Structure generally not visible.			
5.55 6.00	100	36	0	0	P2 25/23,28,27,22 SPT 25'/75 100/275	110.40	5.00 (0.55)	Weak to moderately weak thinly laminated black carbonaceous MUDSTONE. Fractures: horizontal, extremely closely to very closely spaced, smooth, planar; 1			
6.00-6.18 6.00	88	28	0	0	D105	109.85	5.55 (1.55)	At 5.60m, thick interlamination of weak coal.  Generally very weak to weak variably very stiff clay light grey MUDSTONE with occasional locally frequent carbonised fossil plant remains. Fractures: where evident subhorizontal to vertical very closely spaced, irregular apparently random strike.			
6.90 7.25-7.60 7.10 7.25 7.25	95	55	12	0	Water strike(1) at 25/21,24,29,26 SPT 25'/75 100/244 D106 9.00m, no rise after 20 mins. W107 P3	108.30	7.10 (3.10)	Very weak to weak thinly laminated grey MUDSTONE with rare carbonised fossil plant remains and occasional very thin beds of moderately weak brown ironstone. Fractures: where evident horizontal (0 - 10 degrees), closely spaced, smooth, planar, tight to open; subvertical, apparently medium spaced, smooth, planar.			
8.85-9.17 8.85 8.85											
9.00 9.40											
Remarks									Scale (approx) 1:50	Logged By TL	
									Figure No.		



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<b>Machine:</b> <b>Flush :</b> <b>Core Dia: mm</b> <b>Method :</b>		<b>Casing Diameter</b> 140mm cased to 1.30m		<b>Ground Level (mOD)</b> 115.40		<b>Client</b> Highways Agency		<b>Job Number</b> WAL060099			
		<b>Location</b> 444814 E 357423 N		<b>Dates</b> 09/11/2006- 10/11/2006		<b>Engineer</b> Arup		<b>Sheet</b> 2/3			
<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>	
10.20							(3.10)				
10.40	95	81	53	0	25/50 SPT 25'/75	105.20	10.20	Moderately weak to moderately strong light and dark grey thinly and thickly colour laminated MUDSTONE occasional grading to moderately strong to strong siltstone in thin to thick beds. Fractures: subhorizontal, closely to medium spaced, smooth, undulating and planar, occasionally with soft slightly sandy angular fine gravelly clay infill up to 16mm; vertical, smooth, planar.			
10.40-10.49					50/10 P4						
10.80	100	74	63	0							
11.75-12.00					U5						
12.00								Between 12.00m and 12.50m; siltstone.			
	97	88	85	0			(5.55)				
13.55					25/50 SPT 25'/75			Between 13.55m and 13.90m; strong siltstone.			
13.55-13.65			0	0	50/21						
13.90					U6						
14.15-14.40			0	0				Between 14.55m and 15.00m; moderately strong grey siltstone with frequent dark grey black wispy interlaminae.			
14.55			0	0							
15.00	99	75	67	0	25/50 09/11/2006:8.91m						
15.05					09/11/2006: SPT 25'/75						
15.05-15.15			0	0	50/21 09/11/2006:						
15.75					10/11/2006:	99.65	15.75	Moderately strong to strong light and dark grey thinly colour laminated locally light grey with frequent dark grey wispy interlaminae SILTSTONE occasionally grading to moderately weak to moderately strong mudstone in thin to medium beds; with occasional very thin and thin beds of strong light brown ironstone. Fractures: horizontal, closely and medium spaced, smooth, planar and undulating; vertical to subvertical, planar to irregular.	*****		
	99	75	36	0				Between 16.35m and 16.85m; non-intact.	*****		
16.55					25/50 SPT 25'/75						
16.55-16.66			0	0	50/35						
16.85											
17.40-17.76	95	83	69	0	U7			Between 17.80m and 17.89m; strong brown ironstone.			
18.00											
							(5.25)	Between 18.40m and 19.00m; generally irregular vertical fractures.			
19.00-19.25	98	94	76	0	U8						
19.50											
<b>Remarks</b>							<b>Scale (approx)</b> 1:50		<b>Logged By</b> TL		
							<b>Figure No.</b>				



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<b>Boring Method</b> Cable Percussion		<b>Casing Diameter</b> 140mm cased to 1.30m		<b>Ground Level (mOD)</b> 115.40		<b>Client</b> Highways Agency			<b>Job Number</b> WAL060099		
		<b>Location</b> 444814 E 357423 N		<b>Dates</b> 09/11/2006- 10/11/2006		<b>Engineer</b> Arup			<b>Sheet</b> 3/3		
<b>Depth (m)</b>	<b>Sample / Tests</b>	<b>Casing Depth (m)</b>	<b>Water Depth (m)</b>	<b>Field Records</b>	<b>Level (mOD)</b>	<b>Depth (m) (Thickness)</b>	<b>Description</b>	<b>Legend</b>	<b>Water</b>		
20.62-21.00	U9			10/11/2006:4.34m	94.40	(5.25)	Between 20.05m and 20.15m; strong brown ironstone. SILTSTONE (as previous sheet)				
				10/11/2006:		21.00					Complete at 21.00m Complete at 21.00m
				10/11/2006:							
<b>Remarks</b>											
								<b>Scale (approx)</b> 1:50	<b>Logged By</b> TL		
								<b>Figure No.</b>			