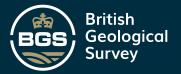


British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL								Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Borehole Number RC1226	
Machine: Casing Diameter						Ground Level (mOD)		Client	Job Number	
Flush : Core Dia: mm Method :			140mm cased to 6.00m  Location  445434 E 367296 N			107.35  Dates 04/12/2006- 05/12/2006		Highways Agency  Engineer  Arup	WAL06009	
									Sheet	
									1/2	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend 5	
0.00	PIT		0	0	Groundwater was not apparent during boring(1) at 0.00m.			MADE GROUND. Light to medium brown very sandy very gravelly clay with occasional rootlets. Gravel is angular to	ν ν	
0.50	O/H		0	0	В		(1.20)	subrounded of sandstone and mudstone.		
.20 .20					В	106.15	1.20	Open Hole.		
							<u>-</u>			
				61				(6)		
							<u>-</u> - - -			
							<u>-</u>			
							<u>-</u>			
	47	0	0	0			(4.80)			
51										
<b>'</b> )										
							E			
							- - - - -			
00						101.35	6.00	Poor recovery. Recovered as firm to stiff light grey mottled orange brown slightly gravelly CLAY. Gravel is subangular,		
							<u>-</u>	medium to coarse of mudstone and siltstone.		
	87	0	0	0			(1.50)			
50-7.76					/17,24,33,26 SPT 0*/0		<u> </u>			
50					100/255	99.85	7.50	From 7.50m to 7.70m; very weak carbonaceous	******* ******* *******	
			0	0			(1.40)	Very Weak to non-infact very SILTSTONE with rare thin black laminae. Frequent dark brown discolouration penetrating up to 6mm. Fractures: horizontal, extremely also but black longer and insulating and penetrating the control of the second discolutions and penetrations.	×××××× ×××××× ××××××	
5)					/27,43,30		(1.40)	closely to closely spaced, undulating and planar; subvertica and vertical, very closely and closely spaced, generally irregular.	X X X X X X X X X X X X X X X X X X X	
70 00-9.17 90	87	43	0	0	P1 SPT 0*/0 100/167	98.45	8.90		222222	
00							-	Generally weak to moderately weak (variably very weak) gre brown SILTSTONE with occasional thin black laminae. With frequent dark brown and black discolouration on fracture	*****	
45					P2		(1.65)	surfaces; orange brown discolouration penetrating up to 15mm. Fractures: subhorizontal (10 degrees to 20 degrees very closely to closely spaced, planar and undulating, rough	s), x x x x x x x x x x x x x x x x x x x	
0.05	65	39	0	0	P3		(1.03)	subvertical, rough, planar. Between 9.20m and 9.30m; very thin bed of firm grey	******	
Remarks								Scale (approx	) Logged By	
								1:50	TL	
								Figure	No.	



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL								Site  M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Borehole Number RC1226			
Machine: Casing Diam					Ground Level (mOD ased to 6.00m 107.35					Job Number		
Core Dia: mm Location					Dates 04/12/2006-		Engineer	WAL06				
				267206 N				Sheet				
		445434 E 367296 N			05/12/2006		Arup	2/2				
Depth (m)	TCR	SCR	RQD	FI	Field Records	(mOD)	Depth (m) (Thickness)	Description	Legen	Water		
9)							(1.65)	brown clay.	******	× × × × ×		
0.50 0.55			0	0	/39,50 04/12/2006:	96.80	10.55	Moderately weak to moderately strong light green grey	******			
0.50-10.59			0	0	04/12/2006: SPT 0*/0 89/91 04/12/2006:			SILTSTONE. With orange brown discolouration on fracture surfaces. Fractures: subhorizontal (5 degrees to 25 degrees), very closely spaced, planar and undulating; subvertical, undulating.	**************************************	×		
				-	05/12/2006:	-	(1.85)		**************************************	× × × × × × ×		
1.95 2.00-12.11 2.00 2.18	100	49	15 0	8	/30,50 SPT 0*/0 80/110	94.95	12.40	Between 11.95m and 12.18m; non-intact. Between 12.18m and 12.25m; very thin bed very strong brown ironstone. Between 12.25m and 13.40m; grading to mudstone.	******	× × × × × × × ×		
2.65			0	0	P4			Generally moderately weak to moderately strong (variably Between 12.80m and 13.10m; non-intact, weak) grey and dark grey thinly colour laminated SILTSTONE with widely spaced medium beds of strong ligi	t ******	× × × × × × × ×		
3.10 3.20 3.40 3.50 3.50-13.50	78	38	18 0 0	0	P5 /50 SPT 0*/0			grey fine grained sandstone with frequent thin black laminae Fractures: subhorizontal, very closely to medium spaced, Between 13.40m and 13.50m; sandstone. planar and undulating; subvertical (60 degrees to 70 Between 13.60m and 13.85m; non-intact. degrees), planar.	X X X X X X X X X X X X X X X X X X X	×		
3.60 3.85				-	50/0			degrees), planar. Between 13.85m and 14.20m; assumed zone of core loss.	**************************************	×		
4.35	89	61	41	o	P6		(3.80)	At 14.65m; very thin bed of strong brown ironstone.	X X X X X X X X X X X X X X X X X X X	×		
5.00 5.00-15.08 5.40-15.65			0	0	/47,50 SPT 0°/0 97/84 U7			Between 15.35m and 15.70m; sandstone.	X X X X X X X X X X X X X X X X X X X	× × × ×		
6.20	97	36	9	0	_	91.15	16.20	Weak to moderately weak dark grey MUDSTONE, with	*****	×××××××××××××××××××××××××××××××××××××××		
6.50 6.50-16.59 6.50			0	0	/39,50 SPT 0*/0 89/94 P8		(0.85)	occasional black cárbonised fossil plant remains. Fractures horizontal, extremely closely to closely spaced, smooth, planar; frequent others irregular, apparently random strike.				
7.05	99	47	15	0		90.30	17.05	Generally moderately weak to moderately strong (variably weak) grey and dark grey thinly colour laminated SILTSTONE. Fractures: subhorizontal, very closely to closely spaced, smooth, planar; subvertical, apparently medium spaced, planar, occasional others irregular.	******* ****** ****** ****** ****** ******	×		
8.00 8.00-18.00 8.40					/50 SPT 0*/0 50/0 P9		(2.45)	At 18.10m; frequent pyrite mineralisation on subvertical fracture.  Between 18.55m and 18.75m; moderately strong fine grained sandstone.		к к ж х х х х х х		
						13			×××××× ×××××× ××××××	× × × ×		
9.15					P10	87.85	19.50		×××××× ×××××× ××××××	×		
					05/12/2006: 05/12/2006:	-		Complete at 19.50m				
Remarks								Scale (approx	Logg	ed		
								1:50	TL			
									No.			