

(444) (	British Geologica ATURAL ENVIRO			50)				Site  M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Boret Numb RC12	
Machine:				Diamete			<b>Level (mOD)</b> 103.70		Job Numb	oer
Core Dia: mm		140mm cased to 18.00m  Location  445345 E 365122 N				103.70	Highways Agency	WAL060099		
Method :					Dates 24/10/2006- 30/10/2006		Engineer Arup	Sheet 1/4		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legen	Water
0.00			0	0	Groundwater was not apparent during boring(1) at 0.00m.	(	(1.20)	Inspection Pit.	(	Ψ1
1.20						102.50	1.20	Open Hole. For likely material description, see CP1219.		_
			(0)					(Bas)		
5)						(¿			(	
	50	0	0	0						
35)		-				(	(12.80)			
Remarks								Scale (approx	) Logg	ed
								(approx	) By TL	
								Figure		=



( <b>992</b> ) G	ritish ieologica			IL.				Site  M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Boreh Number	er
Machine:			Casing	Diamete	r	Ground	Level (mOD)	Client	Job Numbe	er
Flush :			14	0mm cas	sed to 18.00m	1	03.70	Highways Agency	WAL060	
Core Dia: mm			Locatio	n		Dates 24/10/2006-		Engineer	Sheet	
inculou .			44	5345 E 3	65122 N	30	/10/2006	Arup	2/4	.
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
39)			(p)	36)			(12.80)	From 12.00m to 13.00m; driller notes wet void. No flush return.		
14.00	77	5	0	0		89.70	14.00	MADE GROUND. Grey very clayey angular to subangular fine to coarse gravel of mudstone and coal with frequent subangular mudstone cobbles and possibly boulders.		
16.00 16.00-16.17	80	11	11	0	/25,41,34 SPT 0'/0 100/168		(4.00)	(BGS)		******
17.50 17.50-17.62	75	17	17	0	/49,51 24/10/2006: 24/10/2006: SPT 0*/0 100/115 24/10/2006: 25/10/2006:	85.70	18.00	MADE GROUND. Light brown clayey angular to subangular fine to coarse gravel of mudstone and sandstone with occasional similar cobbles.		
19.00 19.00-19.18			0	0	/41,49,10 SPT 0°/0 100/180	13	(2.15)			
Remarks					1	1		Scale (approx	Logge	±d
								(арргох	By	
								1:50	TL	_
								Figure	No.	



	British Geologica ATURAL ENVIRO			ı				Site  M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Boreho Number RC121	
Machine:				Diamete			.evel (mOD)	Client	Job Number	
lush : ore Dia: m			14	0mm cas	sed to 18.00m	10	3.70	Highways Agency	WAL0600	
Method :			Locatio	n		Dates 24/10/2006-		Engineer	Sheet	
modiou .		445345 E 365122 N			30/10/2006		Arup	3/4		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	
0.15						83.55	(2.15) 20.15			
0.15-20.45	70	31	21	0	U1			Moderately weak to moderately strong light and dark grey thinly colour laminated SILTSTONE. Fractures: horizontal,	*******	
0.50 0.50-20.66			0	0	/37,50,13 SPT 0*/0 100/162			ci <del>8stycanu2nethim1sp2ic18tysin0ointaria</del> nar, moderately open to open; vertical, smooth, planar to irregular.	******	
40				-			- -	D. t	X X X X X X X X X X X X X X X X X X X	
.10							-	Between 21.10m and 22.00m; grading to mudstone.	******	
	100	72	46	0			- -		* * * * * * * * * * * * * * * * * * *	
2.00					/62,38		(3.50)		******	
:.00 :.00-22.15				S )	SPT 0*/0 100/150		- - -	(35)	X X X X X X X X X X X X X X X X X X X	
.06-22.38	100	63	39	0	U2		 - -		×××××× ×××××× ××××××	
	100	00	00	Ü					* * * * * * * * * * * * * * * * * * *	
							- - -		×××××× ××××××× ×××××××	
.50 .50-23.50					/100	80.05	- - - 23.65		******* ******	
50-23.50					SPT 0*/0 100/0	00.00		Generally weak (variably very weak to moderately weak) thinly laminated dark grey MUDSTONE with rare very thin		
	97	23	0	0				beds of moderately strong light brown ironstone. Fractures where evident: horizontal, closely spaced, smooth, planar; subvertical, smooth, planar; occasionally others irregular.		
30					P3			apparently random strike.		
.00					/100 25/10/2006:		_			
.00-25.00					25/10/2006: SPT 0*/0		= = =			
	100	14	0	0	100/0 25/10/2006:		(4.00)			
					27/10/2006:					
.40				.61	P4		- - -	(6)		
.50			10	7 ]			-	Between 26.50m and 27.20m; non-intact.		
							- -			
			0	0			- - -			
						76.05				
.05	87	53	39	0		75.75	- (0.30) - 27.95	Weak brittle black COAL. Fractures are horizontal and vertical, extremely closely spaced, planar.		
.95 .00-28.42 .00					U5			Moderately weak to moderately strong light grey locally thin colour laminated dark grey MUDSTONE with occasional		
			0	0			(0.95) 	subrounded medium to coarse gravel size ironstone nodule and occasional carbonised plant remains. Fractures:	s	
90						74.80	28.90	vertical, locally very closely spaced, smooth, planar, horizontal, medium spaced, smooth, undulating.		
15	100	86	0 67	0			(0.60)	Between 28,90m to 29,15m; non-intact. Weak to moderately weak thinly laminated dark grey MUDSTONE with occasional subrounded coarse gravel siz		
.50	100	00	01			74.20		ironstone nodules and rare thin laminations of weak black coal and black carbonaceous mudstone.	******	
							- - -	Generally moderately strong variably moderately weak to strong light to dark grey SILTSTONE with rare very thin bec	\$ ******	
emarks					•			Scale (approx	Logged By	
								1:50	TL	
								Figure	No.	



(55)	British Geologica			91				Site  M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2	Borehol Number RC121	
Machine: Flush :				Diamete Omm cas	r ed to 18.00m		<b>Level (mOD)</b> 103.70	Client Highways Agency	Job Number WAL0600	
Core Dia: n Method :	nm		Location 445345 E 365122 N			Dates 24/10/2006- 30/10/2006		Engineer Arup	Sheet 4/4	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	
30.80 31.00	84	65	41	0	P6	(e		of strong light brown ironstone. Fractures: horizontal, medium spaced, smooth, planar; subvertical to vertical, smooth, planar.	* * * * * * * * * * * * * * * * * * *	
2.40	94	68	29	0	<b>P</b> 7		(3.15)	(3GS)		
2.50 2.65	89	49	26	0		71.05	32.65	Moderately weak to moderately strong thinly laminated dark grey MUDSTONE with rare subrounded ironstone nodules. Fractures: horizontal, closely spaced, smooth, planar; subvertical, smooth, planar.	*****	
1.00 1.20 1.45	95	48	11	0	27/10/2006: 27/10/2006: 27/10/2006: 30/10/2006: P8	- 69.50 -	34.20	Between 34.00m to 34.20m; non-intact.  Moderately strong to strong thinly laminated grey SILTSTONE thinly interbedded with moderately weak to moderately strong thinly laminated dark grey mudstone with occasional very thin beds of strong brown ironstone. Fractures: horizontal, closely spaced, smooth, planar; subvertical, smooth, planar to irregular; occasional others irregular, apparently random strike.	X X X X X X X X X X X X X X X X X X X	
5.50 5.80 7.00	100	10	0	0	P9		(3.45)	Between 35.88m to 35.95m; ironstone. Between 36.40m and 36.55m; ironstone.		
	59	7	0	0		66.05	37.65	Between 37.40m and 37.45m; ironstone.  Weak brittle black COAL. Fractures are horizontal and vertical, closely spaced, planar.	× × × × × × × × × × × × × × × × × × ×	
8.50			0	0		65.20 64.60	(0.60)	No recovery - possible workings.  Very weak to weak light grey MUDSTONE with occasional	(s	
9.30					30/10/2006: 30/10/2006:	63.70	(0.90)	From 39.10m to 39.30m; moderately weak black carbonaceous MUDSTONE with thick interlaminations of weak black coal. carbonised plant remains. Fractures: subhorizontal and subvertical, irregular, apparently random strike.		
Remarks			B	36)			, 40. <u>00</u>	Scale (approx 1:50 Figure	TL	