

	British Geologica ATURAL ENVIRO							Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Borehole Number RC1225
Core Dia: mm Location				er sed to 1.50m	Ground Level (mOD) 118.00		Client Highways Agency	Job Number WAL060099	
			Location 445301 E 367033 N			Dates 25/10/2006- 26/10/2006		Engineer Arup	Sheet 1/3
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend ja
0.00	PIT		0	0	Groundwater was not apparent during boring(1) at 0.00m.	(s	(1.20)	Inspection Pit	ν1
1.20 1.50 1.80	71	48	32	0		116.80 116.50 116.20	(0.30) 1.50 (0.30)	Open Hole Recovered as grey CLAY with subangular to subrounded fine and medium lithorelics of very weak mudstone. Weak thinly to thickly laminated black carbonaceous MUDSTONE Fractures are horizontal, closely spaced, tight,	
2.90-2.98 2.90 3.25	100	100	63	0	25/50 SPT 25*/75 50/5 P1	115.65	F ` '	planar and smooth Weak to moderately weak, thinly to thickly laminated light and dark grey MUDSTONE with occasional thin laminae of grey siltstone. Fractures are horizontal, very closely to closely spaced, open undulating and rough with occasional iron staining on surface. Subvertical fractures are incipient, tight, planar and rough with iron staining on surface.	
	90	67	46	0				Between 3.50 and 3.80m; becoming weak.	
4.50-4.59 4.50 4.95-5.19 4.85			0	0	25/50 SPT 25*/75 50/12	(<	(5.25)		
	90	48	35	0	25/37,50_				
3.00-6.16 3.00	100	100	55	0	SPT 25'/75 87/89			(BCE)	
7.50			0	0	-	110.40	7.60	Between 7.50 and 7.60m; moderately weak thinly to thickly laminated black carbonaceous mudstone Moderately weak thinly to thickly laminated grey SILTSTONE with occasional bands of subangular, medium to coarse	******
9.00-9.11	93	77	44	0	25/50 SPT 25*/75			gravel sized fragments of ironstone. Fractures are horizontal very closely to closely spaced, generally tight, planar and smooth. At 7.90m; 45 degree fracture, open, planar and slightly rough At 8.80m 45 degree fracture, open, planar and slightly rough, heavily iron stained	X X X X X X X X X X X X X X X X X X X
9.00 9.20	87	0.8	60	0	50/35 P4		(4.40)	Between 9.50 and 9.70m; recovered not intact	X X X X X X X X X X X X X X X X X X X
Remarks				361				Scale (approx)	
								Figure	No.



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL							Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Borehole Number RC1225			
Machine: Casing Diameter Flush: 140mm cased to 1.50m						Ground Level (mOD) 118.00		Client Highways Agency	Job Number		
Core Dia: mm Location				n	Dates		140/2006	Engineer		Sheet	
neurou .			445301 E 367033 N			25/10/2006- 26/10/2006		Arup		2/3	
Depth (m)	TCR	SCR	RQD	FI	Field Records	(mOD)	Depth (m) (Thickness)	Description	Legend	Motor	
0.50							100	SILTSTONE (as previous page)	****** ****** ****** ****** ****** ******		
1.00			0	0			(4.40)		X X X X X X X X X X X X X X X X X X X		
.50-11.76	92	96	25	0	U5				X X X X X X X X X X X X X X X X X X X		
.00 .00-12.31			(0)	55)	25/18,21,40,50 SPT 25*/75 129/231	106.00	12.00	Weak, thinly to thickly laminated grey MUDSTONE with occasional angular medium and coarse gravel sized fragments of ironstone. Fractures are subhorizontal very closely to closely spaced, generally tight, planar and smooth	*****		
	87	58	27	0							
30			0	0	25/10/2006: 25/10/2006: 25/10/2006: 26/10/2006:	_		Between 13.65 and 13.75m; becoming weak.			
50-14.74	80	60	28	0	25/14,27,50 SPT 25*/75 91/168		(4.90)				
10	100	77	50	0	P6						
05								Between 15.60 and 16.05m; pockets of black friable carbonaceous mudstone.			
	100	100	57	0		101.10	16.90	Madayatah ratrang thinh to this like lawing to delay a gas	******		
55 -					-			Moderately strong thinly to thickly laminated, locally cross laminated, light and dark grey SILTSTONE. Fractures are subhorizontal closely spaced, open, undulating and rough with iron staining on surface. 75 degrees fractures are medium spaced, open, undulating and rough with iron staining on surfaces.	X X X X X X X		
	100	91	55	0				Between 18.10 and 18.50m; vertical fracture, tight irregular and rough.	X X X X X X X X X X X X X X X X X X X		
60-18.80 05					U7		(3.25)				
									X X X X X X X X X X X X X X X X X X X		
emarks							<u> </u>	Scale (approx	Logge	·d	
								1:50 Figure	SM No.		



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL							Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2			Borehole Number RC1225
Boring Method Casing Diameter Cable Percussion 140mm cased to 1.50m			Ground Level (mOD)		Client Highways Agency			Job Number NAL060099		
	Location 44!		67033 N	Dates 25/10/2006- 26/10/2006		Engineer Arup			Sheet 3/3	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness		Description		Legend Mater
55)				26/10/2006:	97.88	(3.25)			5	*****
19.15-19.43	U8	(d)		26/10/2006: 26/10/2006:	- \		Complete at 20.15m Complete at 20.15m			
36)		(b)								00
35)					(ě					(00
Remarks		B) (S)					(26)	Scale oprox) 1:50 igure N	Logged By