

APPENDIX 5



Plate 1: Tesco Superstore car parking and access road



Plate 2: The Meadow looking from Tesco Car Park

 Caversham Bridge House, Waterman Place, Reading, RG1 8DN Tel 0118 950 0761 Fax 0118 959 7498	Client  Reading Borough Council Working better with you	SITE WALKOVER PHOTOGRAPHS MRT, EAST READING	Date	July 2016
			A4 Scale	nts
			Drawn	az
			Checked	az
			Figure	a



Plate 3: The Meadow



Plate 4: View from the Thames Towing Path to The Meadow

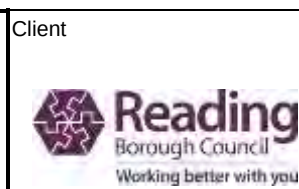
 Caversham Bridge House, Waterman Place, Reading, RG1 8DN Tel 0118 950 0761 Fax 0118 959 7498	Client  Reading Borough Council Working better with you	SITE WALKOVER PHOTOGRAPHS MRT, EAST READING	Date	July 2016
			A4 Scale	nts
			Drawn	az
			Checked	az
			Figure	b



Plate 5: The River Kennet looking from west to east



Plate 6: The pedestrian and railway bridge crossing over the River Kennet



Caversham Bridge House, Waterman Place, Reading, RG1 8DN
Tel 0118 950 0761 Fax 0118 959 7498

SITE WALKOVER PHOTOGRAPHS

MRT, EAST READING

Date	July 2016
A4 Scale	nts
Drawn	az
Checked	az
Figure	C



Plate 7: The land to the south of the River Thames with the railway embankment to the south



Plate 8: The land to the south of the River Thames looking to the east

	 Reading Borough Council Working better with you	SITE WALKOVER PHOTOGRAPHS MRT, EAST READING	Date	July 2016
			A4 Scale	nts
			Drawn	az
			Checked	az
			Figure	d
Caversham Bridge House, Waterman Place, Reading, RG1 8DN Tel 0118 950 0761 Fax 0118 959 7498				



Plate 9: Land at Broken Brow



Plate 10: Disused compound off the A3290 roundabout

 Caversham Bridge House, Waterman Place, Reading, RG1 8DN Tel 0118 950 0761 Fax 0118 959 7498	Client  Reading Borough Council Working better with you	SITE WALKOVER PHOTOGRAPHS MRT, EAST READING	Date	July 2016
			A4 Scale	nts
			Drawn	az
			Checked	az
			Figure	e

APPENDIX 6

BGS Reference: SU77SW308
British National Grid:

SU 77 SW 308 [7220 7386]

Contract: Reading Cross Town Stage II				Borehole No. 12				
Client: Berkshire County Council				Sheet No. 1 of 2 Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.40 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 2/10/89 3/10/89				
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B 372 J 373 B 274 J 375	0.00 0.40 1.10	36.00	MADE GROUND (very stiff dark brown silty CLAY with occasional gravel) Soft brown and grey silty CLAY with subangular gravel	
	2/10 3/10 2/10	Water level rose to 1.00m in 20 minutes	S 20	J 376	1.50 (0.50)	34.90	Medium dark brown slightly clayey coarse to fine SAND and GRAVEL	
			C 43	W 378	2.00	34.40	Dense to very dense brown coarse to fine sandy coarse to fine subangular to subrounded GRAVEL	
			C 35	B 379 J 380				
			C 42	B 381 J 382	(5.00)			
			C 52	W 383				
	2/10 2/10		C 47	B 385 J 386				
				B 387 J 388 U 389 J 390 J 391 B 392 J 393 J 394	7.00 (3.30)	29.40	Stiff white rubbly CHALK with some remoulded chalk becomes rubbly occasional flints (Grade IV becomes Grade III)	
	3/10		S 23	B 395 J 396 U 397	10.00			
			Continued					
Operator JC		General Remarks: Pit dug to avoid services					Appendix 1	
Scale 10m/sheet							Sheet No. 50	

[illegible]

BGS Reference: SU77SW309
British National Grid:

SU 77 SW 309 [7282 7383]

Contract: Reading Cross Town Stage II				Borehole No. 13				
Client: Berkshire County Council				Sheet No. 1 of 1 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 37.50 m.O.D. Coordinates :		Job Number : 539/655 Location : Dates : 25/9/89 26/9/89				
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (thick)	Reduced Level	Description	Legend
				B 773	0.00	G.L.	MADE GROUND (topsoil with ash and flints)	
			S 6	J 774	1.80			
				J 775	1.00	35.70		
				U 776	10.40		MADE GROUND (brown mottled silty clay with bricks and chalk)	
				J 777	2.20	35.30		
				J 778	10.60		Soft grey, green and brown mottled silty CLAY with shell fragments	
				J 779	2.80	34.70		
				U 780	10.40		Firm grey/blue and green/brown mottled very sandy silty CLAY with occasional gravel	
25/9			C 91	B 780	3.20	34.30		
25/9				J 781			Very dense brown fine to coarse SAND and fine to coarse subangular to subrounded GRAVEL	
			C 73	B 782				
				J 783	13.00			
			C 77	B 784				
				J 785				
				J 786	6.20	31.30	Firm light brown/grey laminated clayey sandy SILT with occasional flints	
				U 787	10.70			
			C129	B 788	6.90	30.60	Very dense fine to cobble subangular to subrounded GRAVEL and brown fine to coarse SAND	
				J 789				
			C 57	B 790	12.10			
				J 791				
			C 8	B 792	9.00	28.50	Loose brown fine to coarse SAND with gravel and numerous fine to medium gravel sized chalk fragments	
				J 793	1.00			
25/9		Low opt value probably due to adverse hydrostatic conditions			10.00	27.50	End of Borehole	
26/9								
Operator: IM		General Remarks: Pit dug to avoid services Piezometer installed to 9.0m Water added to assist drilling 3.20m to 7.00m					Appendix 1	
Scale 10m/sheet							Sheet No. 54	

SU 77 SW 310 [7290 7384]

Contract: Reading Cross Town Stage II					Borehole No. 14			
Client: Berkshire County Council					Sheet No. 1 of 1			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter					Depth 0 to 10 metres.			
Ground Level : (m.O.D.) 37.50					Job Number : 539/655			
Coordinates :					Location :			
Orientation : Vertical					Dates : 27/9/89			
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B 794	0.00	G.L.	MADE GROUND (Brown silty clay with traces of organic matter and zones of loose ash, chalk, brick, clinker and concrete)	
				U 795	(2.40)			
				J 796				
				U 797				
				J 798	2.40	35.10		
				J 798	(0.50)			
				J 798	2.90	34.60		
				B 799				
				J 800				
				B 801				
				J 802	(2.70)			
				B 803				
				J 804				
				B 805	5.60	31.90		
				U 806				
				B 807				
				J 808				
				B 809				
				U 810	(4.40)			
				B 810				
				J 810				
				B 811				
				J 811				
				B 812				
				J 812				
				B 813				
				J 813				
				B 814				
				J 814				
				B 815				
				J 815				
				B 816				
				J 816				
				B 817				
				J 817				
				B 818				
				J 818				
				B 819				
				J 819				
				B 820				
				J 820				
				B 821				
				J 821				
				B 822				
				J 822				
				B 823				
				J 823				
				B 824				
				J 824				
				B 825				
				J 825				
				B 826				
				J 826				
				B 827				
				J 827				
				B 828				
				J 828				
				B 829				
				J 829				
				B 830				
				J 830				
				B 831				
				J 831				
				B 832				

BGS Reference: SU77SW81
British National Grid:

Eastern L.S. Thames NRA

SU77SW 81 7294-7390

Kings Meadow Reading (Tesco site) Deep 268 SU 77/169 e SU77SW

3A

Owner	Licence No.	Nat. Grid Ref.	SU 7294 7390	
Occupier	IGS Ref. No.	Status		
Ground Level	m OD	ft. OD		
Level of Well Top	37.5 m OD	ft. OD	Aquifer <i>Chalk</i>	
Test Water Level	m bwt	ft. bwt	Summary of Geological Section	
Date	m OD	ft. OD	Thickness	Depth
Construction	18/06/80/28			
Depth bwt	Dis.	Linings (below well top)		
		From	To	Dis. Type
11.1		0	3.20 m	250 mm
		3.20 m	17.1 m	200 mm
Abstraction Rates				
Type of Pump				
gph	Chem./Bact. Anal.	YES	NO	
gpd	Well Driller			

Insufficient space has been allowed, continue in 'Notes' overleaf.

Site Plan

KINGS MEADOW, ELIZING, BEDFORDSHIRE.

BOREHOLE No: 3A
Continuation Bore No: 1

REPORT No: 4163/127/80

Depth (m)	S.P.T. (GN)	Scale: 1mm = 10m	Log	Depth	Approx.	Description
11.00						Off white chalk with flints.
12.00						
13.00						
14.00						
15.00						
16.00						
17.00						

Upper Chalk

18/1/93

CLIENT: TESCO SUPERSTORES LIMITED
Cone Meter: Eyle Stewart Limited
Method of Boring: Cable Percussion

BOREHOLE No: 3A
REPORT No: 4163/127/80
Boring Dated: 10/03/80
Boring Finished: 11/03/80

Water Sample	Rate of Inflow	Sealed off at	Sec. seal	10.05.80	11.05.80
1st: 3.30	Medium	Sec. seal		16.00	08.00
2nd: 3.30				7.50	7.50
3rd: 3.30				7.50	7.50
				4.50	3.20

Groundwater struck at 3.30m, 3.30m to 7.50m in twenty minutes. Water added to Special sealing and well casing installed at 17.50m.

Sample No.	Depth (m)	S.P.T. (GN)	Scale: 1mm = 10m	Log	Depth	Description
639	1.00					Made Ground (black coarse sand with shunder web, clinker, brick fragments, pieces of wood fine, medium and coarse sub-angular gravel).
640	2.00					Green (medium) sand
641	3.00					Stiff brown and orange-brown sandy CLAY w/ rootlets.
642	4.00					Orange-brown very sandy fine medium and coarse sub-angular gravel with chalk and flint fragments.
643	5.00					
644	6.00					
645	7.00					
646	8.00					

Made Ground
Green sand
Clay
Gravel
(Quartz)

BGS Reference: SU77SW311
British National Grid:

SU 77 SW 311 [7295 7384]

Contract: Reading Cross Town Stage II				Borehole No. 15				
Client: Berkshire County Council				Sheet No. 1 of 2, in Borehole Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 37.40 m.O.D.		Job Number : 539/655		Location :		
Orientation : Vertical		Coordinates :		Dates : 28/9/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B 817	0.00	37.40	MADE GROUND (brown silty clay and grey silty clay with gravel, chalk and traces of brick)	
				U 818	1.20			
				J 819				
				B 820	2.00	35.40	Soft grey and brown mottled silty CLAY with traces of decaying organic matter	
				U 821				
				J 822	1.20			
				J 823				
	28/9	Water rose to 2.90m after 20 mins		W 825	3.20	34.20	Medium dense to dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				W 841				
				W 842				
			C 20	W 827				
			C 44	W 829	13.80			
			C 14	B 831				
				J 832	7.00	30.40	Stiff to weak white rubbly becomes blocky CHALK with occasional flints	
				U 833				
				U 834				
			C 24	J 835				
				B 836	13.10			
			S 30	J 837				
	28/9			B 838				
				U 839	10.00			
							Continued	
Operator IM		General Remarks:						Appendix 1
Scale 10m/sheet								Sheet No. 60

SU 77SW/311

Contract: Reading Cross Town Stage II				Borehole No. 15				
Client: Berkshire County Council				Sheet No. 2 of 2 Depth 10 to 20 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter			Ground Level : 37.40 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 28/9/89			
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
28/9				U 839 J 840	18.00 10.10	27.30	Stiff to weak white rubbly becomes blocky CHALK with occasional flints. End of Borehole	
General Remarks:								
Operator IM							Appendix 1	
Scale 10m/sheet							Sheet No. 61	

BGS Reference: SU77SW312
British National Grid:

SU 77 SW 312 [7300 7384]

Contract: Reading Cross Town Stage II				Borehole No. 16				
Client: Berkshire County Council				Sheet No. 1 of 2 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.00 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
Dates : 2/1/89								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B 843	0.00	36.00	MADE GROUND (brown silty sandy clay with gravel chalk fragments with ash and brick)	
				J 844	1.00	35.00	Soft grey sandy very silty CLAY with traces of fine gravel and chalk	
	3/10			U 845	1.30			
				J 846				
	2/10			J 847	2.30	33.70	Soft brown clayey SILT with pockets of fine gravel and sand, traces of decaying organic matter	
				U 848				
	2/10	Water rose to 2.60m after 20mins		U 849	1.20			
				M 875				
				M 876				
			C 13	B 850	3.50	32.50	Medium dense becoming dense brown coarse to fine sandy coarse to fine subangular GRAVEL	
				J 851				
			C 28	B 852				
				J 853	12.60			
			C 61	B 854				
				J 855				
				U 856	6.10	29.90	Stiff rubbly CHALK becomes blocky with depth, occasional flints, (Grade IV becomes III)	
				J 857				
				B 858				
			S 9	B 859				
				J 860				
				U 861	6.00			
				J 862				
				B 863				
	2/10		S 40	J 864				
				J 865				
					10.00		Continued	
Operator IM		General Remarks: Chiselling flint 12.01 to 12.60m (1 hour)						Appendix 1
Scale 10m/sheet								Sheet No 64

Contract: Reading Cross Town Stage II						Borehole No. 16		
Client: Berkshire County Council						Sheet No. B12 01-2 Depth 10 to 20 metres.		
Equipment and Methods Light Cable Percussion Boring 150mm Diameter			Ground Level : 36.00 m.O.D. Coordinates :			Job Number : S39/655 Location : Dates : 2/1/89		
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				U 866 J 867 B 868	10.00		Stiff rubbly CHALK becomes blocky with depth, occasional flints. (Grade IV becomes IIII)	
				J 869	16.00			
		Flints bend 12.10 to 12.60m	S 44	B 870	12.10	23.90	Weak white blocky CHALK with occasional flints. (Grade IIII)	
				U 871 J 872 B 873	12.90			
			S 53	J 874	15.00	21.00	End of Borehole	
Operator IM			General Remarks: Chiselling flint 12.01 to 12.60m (1 hour)					Appendix 1
Scale 10m/sheet								Sheet No. 61

BGS Reference: SU77SW313
British National Grid:

SU 77 SW 313 [7301 7384]

Contract: Reading Cross Town Stage II				Borehole No. 17				
Client: Berkshire County Council				Sheet No. 1 of 2 of Borehole Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter			Ground Level : 35.90 m.O.D.		Job Number : S39/655			
Orientation : Vertical			Coordinates :		Location :			
					Dates : 24/10/89 27/10/89			
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B-1035	0.00	G.L.	MADE GROUND (brown silty sandy clay with gravel and bricks)	
				J-1036	0.50	35.40	Firm brown friable silty CLAY with traces of fine gravel and shells	
				J-1037	1.10	34.80	Soft grey sandy very silty CLAY with fragments of decaying wood and plant remains and occasional pockets of silt and sand. becomes peaty with depth	
				U-1038				
				U-1039				
					12.20			
				J-1040				
				U-1061				
				W-1062				
				W-1063	3.30	32.60	Medium dense becoming dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 12	J-1043				
			C 20	J-1044	12.50			
				J-1045				
			C 35	B-1046				
				J-1047				
					5.80	30.10	Stiff becoming weak white rubbly to blocky CHALK with occasional flints (Grade IV becomes grade III)	
				U-1048				
				U-1049				
				B-1050				
			S 29	J-1051				
				B-1052	14.20			
				U-1053				
				J-1054				
				B-1055				
			S 44	J-1056				
					10.00	25.90		
							Continued	
Operator NF			General Remarks: Chiselling flint bend 8.0 to 8.3m (1/2 hour)					Appendix 1
Scale 10m/sheet								Sheet No. 68

SU 77 SW / 313

Contract: Reading Cross Town Stage II				Borehole No. 17			
Client: Berkshire County Council				Sheet No. 2 of 2 Depth 10 to 20 metres.			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.90 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 24/10/89 27/10/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
10/10 10/10 11/10				B 1057	10.00	25.90	Weak to moderately weak white blocky CHALK joints from 60 to >100mm apart frequent flints (Grade III to II)
				U 1058			
				J 1059			
				B 1060			
			S 55	J 1061			
				B 1079			
				B 1064			
				U 1065			
				J 1066			
				J 1067			
			S 55	J 1068			
				B 1069			
				U 1070			
				J 1071	10.00		
				J 1072			
			S 53	J 1073			
				B 1074			
				U 1075			
				J 1076			
				J 1077			
			S107	J 1078			
				U 1080			
				J 1081			
				B 1082			
			S134	J 1083			
11/10					20.00	15.90	End of Borehole
Operator NF		General Remarks: Chiselling flint bend 8.0 to 8.3m (1/2 hour)					
Scale 10m/sheet		Appendix 1 Sheet No. 69					

BGS Reference: SU77SW314
British National Grid:

SU 77 SW 314 [7303 7386]

Contract: Reading Cross Town Stage II				Borehole No. 18				
Client: Berkshire County Council				Sheet No. 1 of 2 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 200mm		Ground Level : 37.50 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 24/10/89 27/10/89				
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				U	0.00		MADE GROUND (dark brown silty clay with ash, flints, clinker and bricks)	
				J 244	0.85			
				J 245	0.85	36.65	MADE GROUND (light brown silty clay with bricks, flints and chalk)	
	24/10			J 246	1.50	36.00		
	25/10			J 247	1.10		MADE GROUND (dark brown silty clay with wood, shells, ash clinker and bricks)	
	27/10		S 10	J 248	2.60	34.90		
				J 249	2.60			
				W 254	0.80		Loose to medium dense dark grey very clayey silty fine SAND with decaying vegetation and shell fragments	
				U 250	3.40	34.10		
	24/10	Water level rose to 2.80m after 20 minutes		J 251	0.85		Soft to firm dark brown silty CLAY with shells and black organic material	
	25/10			U 252	4.25	33.25		
			C 13	W 254	1.25		Medium dense brown fine to coarse SAND and fine to coarse subangular GRAVEL	
				B 253	5.50	32.00		
	25/10			J 255	1.50		Medium dense brown fine to coarse SAND and fine to coarse subangular GRAVEL with hard chalk nodules	
			C 15	B 256	7.00	30.50		
	24/10			J 257	17.00		Stiff to weak to off white rubbly to blocky CHALK with orange staining and orange speckling. (Grade IV to III)	
	24/10		S 10	B 258				
				J 259				
		Flint sand		U 260				
				J 261				
			S 12	B 262				
				J 263				
					10.00			
							Continued	
Operator NF		General Remarks: Permeability test made at 15.0m Piezometer installed at 7.0m					Appendix 1	
Scale 10m/sheet							Sheet No. 72	

SU 77SW/314

Contract: Reading Cross Town Stage II				Borehole No. 18				
Client: Berkshire County Council				Sheet No. 10 of 20 Depth 10 to 20 metres.				
Equipment and Methods Light Cable Percussion Boring 200mm				Ground Level : 37.50 m.O.D.		Job Number : S39/655		
Orientation : Vertical				Coordinates :		Location :		
				Dates : 24/10/89		27/10/89		
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				U 264	16.00		Stiff to weak to off white rubbly to blocky CHALK with orange staining and orange speckling. (Grade IV to III)	
				J 265				
			S 27	B 266				
				J 267				
				U 268	17.00			
				J 269				
			S 35	B 270				
				J 271				
25/10				U 272	14.00	23.50		
25/10		Flint band		J 273			Weak to moderately weak white blocky CHALK occasional flints (Grade III to II)	
			S126 /295	B 274				
				J 275				
26/10				U 276				
26/10				J 277				
27/10			S135	B 278	16.00			
				J 279				
				U 280				
				J 281				
			S132	B 282	20.00	17.50	End of Borehole	
Operator NF		General Remarks: Permeability test made at 15.0m Piezometer installed at 7.0m						Appendix 1
Scale 10m/sheet								Sheet No 73

BGS Reference: SU77SW315
British National Grid:

SU 77 SW 315 [7305 7389]

Contract: Reading Cross Town Stage II				Borehole No. 19				
Client: Berkshire County Council				Sheet No. 1 of 1 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.75 M.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 4/10/89 5/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				B 1011	0.00	35.75	Brown silty CLAY with occasional gravel and shells	⊗
				J 1012	0.80	34.95	Soft to firm grey silty CLAY with traces of decaying organic matter	⊗
	5/10			M 1033 M 1034 U 1013	1.70	34.05	Soft black grey very silty CLAY with occasional fine gravel, traces of decaying organic material and shells	⊗
				J 1014 J 1015	(1.30)			⊗
				U 1016				⊗
			C 16	B 1017 J 1018	3.00	32.75	Medium dense to dense brown coarse to fine sandy coarse to fine subangular GRAVEL	0 0 0 0 0 0 0 0
			C 49	B 1019 J 1020	(2.70)			0 0 0 0 0 0 0 0
		Some remoulded chalk from 5.30m	C 10	B 1021 J 1022				0 0 0 0 0 0 0 0
				U 1023	5.70	30.05	Stiff becoming weak white rubbly CHALK some orange staining along block surfaces and zones of remoulded chalk occasional flints	
				U 1024				
				J 1025 B 1026	(2.10)			
			S 25	J 1027				
		Flint band 7.80 to 8.30m		B 1028	7.80	27.95	Weak white blocky CHALK occasional flints (Grade III)	
				U 1029				
				J 1030 B 1031	(2.20)			
			S 37	J 1032				
	5/10 5/10				10.00	25.75	End of Borehole	
Operator IM		General Remarks: Chiselling flints 7.8 to 8.30m (1 hour) Pit dug to avoid services					Appendix 1	
Scale 10m/sheet							Sheet No. 77	

SU77SW 316 [7305 7384]

Contract: Reading Cross Town Stage II				Borehole No. 20				
Client: Berkshire County Council				Sheet No. 1 of 3 Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.70 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 12/12/89 17/10/89				
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples taken	Depth (Thick)	Reduced Level	Description	Legend
				B 1084	0.00	34.90	MADE GROUND (brown silty clay with chalk gravel traces of brick)	
				J 1085	0.80	34.90	Soft dark brown silty CLAY with traces of decay organic matter and shells	
				J 1086	0.80	34.90	Soft dark brown silty CLAY with traces of decay organic matter and shells	
				U 1087	1.10	34.90	Soft dark brown silty CLAY with traces of decay organic matter and shells	
				W 1123	1.90	33.80	Soft Black/grey very silty CLAY with pockets of sand and fine gravel small pockets of decaying organic matter	
				W 1124	1.90	33.80	Soft Black/grey very silty CLAY with pockets of sand and fine gravel small pockets of decaying organic matter	
				B 1088	1.90	33.80	Soft Black/grey very silty CLAY with pockets of sand and fine gravel small pockets of decaying organic matter	
				B 1089	1.90	33.80	Soft Black/grey very silty CLAY with pockets of sand and fine gravel small pockets of decaying organic matter	
				B 1090	2.50	33.20	Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 19	J 1092			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				B 1091			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				J 1094			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 50	B 1093			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
					(4.30)		Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 30	B 1095			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				J 1096			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
							Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 19	B 1097			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				J 1098			Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
							Dense to medium dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				J 1099	6.80	28.90	Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				U 1100			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				U 1101			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				J 1102			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				B 1103			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
			S 33	J 1104	(4.20)		Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				B 1105			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
			S 40	U 1106			Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
				J 1107	10.00		Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
							Continued	
Operator IM		General Remarks: Piezometer installed to 6.0m Pit dug to avoid services Permeability test made at 4.5m Chiselling flints 11.50m to 15.00m					Appendix 1	
Scale 10m/sheet							Sheet No. 80	

SU 77SW/316

Contract: Reading Cross Town Stage II

Borehole No. 20

Client: Berkshire County Council

Sheet No. 00152 of 0152
Depth 10 to 20 metres.Equipment and Methods
Light Cable Percussion Boring
150mm Diameter

Ground Level : 35.70 m.O.D.

Job Number : S39/655

Coordinates :

Location :

Orientation : Vertical

Dates : 12/12/89
17/10/89

Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
17/10				B 1108	10.00		Weak locally stiff white to yellowish white rubbly to blocky CHALK frequent flints. (Grade IV to III)	
13/10				J 1109	14.20			
				B 1110	11.00	24.70	Weak to moderately weak white blocky CHALK with flints. Frequent large flints below 16.50m (Grade III becomes grade II)	
				U 1111				
				J 1112				
				B 1113				
			S 86	J 1114				
				B 1115				
				U 1116				
				J 1117				
				B 1118				
			S 84	J 1119				
				B 1120				
				U 1121	14.00			
15/10				J 1122				
				B 1123				
			S 92	J 1126				
				B 1127				
				U 1128				
				J 1129				
				B 1130				
			S109	J 1131				
				B 1132				
				U 1133				
				J 1134	20.00			
							Continued	

Operator
IMGeneral Remarks:
Piezometer installed to 6.0m
Pit dug to avoid services
Permeability test made at 4.52m
Chiselling flints 11.50m to 15.00mAppendix
1Scale
10m/sheet

Sheet No. 81

54 77 SW / 316

Contract: Reading Cross Town Stage II				Borehole No. 20			
Client: Berkshire County Council				Sheet No. 3 of 3 Depth 20 to 30 metres.			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.70 m.O.D. Coordinates :		Job Number : 539/655 Location : Dates : 12/12/89 17/10/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description Legend
				B 1135	20.00		Weak to moderately weak white blocky CHALK with flints. Frequent large flints below 15.50m (Grade III becomes grade III)
			S109	J 1136			
				B 1137			
				U 1138			
				B 1139			
			S 76	J 1140	14.00		
				B 1141			
				U 1142			
				U 1143			
				J 1144	25.00	10.70	
17/10							End of Borehole
Operator IM		General Remarks: Piezometer installed to 6.0m Pit dug to avoid services Permeability test made at 4.52m Chiselling flints 11.50m to 15.00m					Appendix 1
Scale 10m/sheet							Sheet No 82

BGS Reference: SU77SW317
British National Grid:

SU 77 SW 317 [7309 7383]

Contract: Reading Cross Town Stage II				Borehole No. 21				
Client: Berkshire County Council				Sheet No. 1 of 3 Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.25 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 26/9/89 27/9/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
					0.00	36.25	MADE GROUND (brick, rubble and silty sand)	
				B 885	0.40	35.85	Soft to firm brown silty CLAY with traces of decaying organic matter	
				J 886	1.20			
				U 887	1.60	34.65	Soft to firm brown mottled grey silty CLAY with traces of decaying organic matter	
				J 888	1.90			
				J 889	2.50	33.75	Soft orange and grey mottled brown silty sandy CLAY	
				U 890	2.90	33.35	Soft to very soft orange white sandy SILT	
	26/9 27/9	Water level rose to 1.7m in 20 minutes		J 891	3.50	32.75	Medium dense becoming dense coarse to fine SAND and coarse to fine subangular GRAVEL	
			C 13	B 893 W 894 W 895				
	26/9		C 71 / 150	J 896 B 897				
			C 41	B 899	5.10	30.15	Soft remoulded CHALK with harder chalk nodules and abundant flint GRAVEL	
				B 899 J 900 U 901 J 901	5.80	29.45	Stiff white remoulded CHALK with occasional lithorelics of hard chalk frequents flints (Grade V to IV)	
			S 36	J 902 B 903	1.70			
					8.50	27.75	Stiff to weak white rubbly to blocky CHALK with frequent flints (Grade IV)	
			S 22	J 904 B 905	12.50			
					10.00			
Continued								
Operator RM		General Remarks: Pit dug to avoid services Piezometer installed to 5.50m Chiselling flints various levels (4hours)					Appendix 1	
Scale 10m/sheet							Sheet No 86	

SU77SW 317 [7309 7383]

Contract: Reading Cross Town Stage II				Borehole No. 21			
Client: Berkshire County Council				Sheet No. 2 of 3 Depth 10 to 20 metres.			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.25 m.O.D. Coordinates :		Job Number : S39/555 Location : Dates : 26/9/89 27/9/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
26/9				U 906	10.90		Stiff to weak white rubble to blocky CHALK with frequent flints (Grade IV)
26/9				J 907	(2.50)		
				J 908	11.00	25.25	Stiff becoming moderately weak white blocky CHALK with frequent flints occasionally cobble size (Grade IV to III possible Grade II below 15m)
27/9				U 909			
				J 910			
				J 911			
			S 72	J 912			
				B 913			
				U 914			
				J 915			
				J 916			
			S 53 /150	J 917		(9.30)	
				B 918			
				U 919			
				J 920			
				J 921			
				B 922			
			S 65 /150	J 923			
				B 924			
				UL			
					20.00		Continued
Operator RM		General Remarks: Pit dug to avoid services Piezometer installed to 5.50m Chiselling flints various levels (4hours)				Appendix 1	
Scale 10m/sheet						Sheet No. 87	

SU77SW/317

Contract: Reading Cross Town Stage II				Borehole No. 21			
Client: Berkshire County Council				Sheet No. 3 of 3 Depth 20 to 30 metres.			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter				Ground Level : 36.25 m.O.D.		Job Number : 539/655	
Orientation : Vertical				Coordinates :		Location :	
						Dates : 26/9/89 27/9/89	
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
27/9			S 65 /150	J 925	20.00		
					20.30	15.95	Stiff becoming moderately weak white blocky CHALK with frequent flints occasionally cobble size (Grade IV to III possible Grade II below 15m) -- -- End of Borehole
			S 35 /150				
Operator RM			General Remarks: Pit dug to avoid services Piezometer installed to 5.50m Chiselling flints various levels (4hours)				Appendix 1
Scale 10m/sheet							Sheet No. 88

BGS Reference: SU77SW318
British National Grid:
3.4

SU 77 SW 318 [7311 7386]

Contract: Reading Cross Town Stage II				Borehole No. 22				
Client: Berkshire County Council				Sheet No. 1 of 2 Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.10 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 2/10/89 3/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
					0.00		MADE GROUND (fill rubble gravels to 0.2 from 0.2 old wall foundations blockwork on a concrete base from 0.5 soft to firm brown clay)	
				B-972	(1.40)			
				B-973				
				U-974	1.40	34.70		
				J-975	(1.60)		Soft grey orange and brown mottled silty CLAY becomes dark greenish grey with depth, traces of decaying organic matter and shells	
				U-976				
	2/10	Water level rose to 1.80m		J-977	3.00	33.10		
	3/10			B-978	3.40	32.70	Soft dark brown amorphous PEAT with occasional gravel	
	2/10		C 19	B-979			Medium dense becoming dense brown coarse to fine SAND and coarse to fine subangular GRAVEL occasional cobbles	
				B-980				
			C 47	J-981	(2.40)			
				B-982				
				J-983				
			C 37	B-984	5.80	30.30	Medium dense to dense coarse to fine subangular GRAVEL and cobbles in a matrix of soft remoulded chalk	
				B-985	6.40	29.70		
			C 22	B-986			Stiff to weak white rubbly to blocky CHALK flints often orange stained occasional flints	
				U-987	(1.60)			
	2/10			B-988	8.00	28.10	Weak to moderately weak white blocky CHALK with frequent flints	
	2/10							
			S 32	J-989	(5.70)			
				B-990				
					10.00		Continued	
Operator RM		General Remarks: Pit dug to avoid services Chiselling cobbles 5.80m to 6.40m (1 1/2 hours) Chiselling flints 13.7m to 13.9m (1 hour) Piezometer installed to 6.00m						Appendix 1
Scale 10m/sheet								Sheet No. 92

SU77SW/318

Contract: Reading Cross Town Stage II				Borehole No. 22			
Client: Berkshire County Council				Sheet No. 2 of 2 Depth 10 to 20 metres			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.10 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 2/10/89 3/10/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
					10.00		Weak to moderately weak white blocky CHALK with frequent flints
				U 991			
				J 992			
				U 993			
3/10			S 34	J 994 B 995	(5.70)		
				B 995			
				U 997 B 998			
3/10			C 69		13.70 13.80	22.40 22.20	Large FLINT obstruction End of Borehole
Operator RM			General Remarks: Pit dug to avoid services Chiselling cobbles 5.80m to 6.40m (1 1/2 hours) Chiselling flints 13.7m to 13.9m (1 hour) Piezometer installed to 6.00m				Appendix 1
Scale 10m/sheet							Sheet No. 93

BGS Reference: SU77SW319
British National Grid:

SU 77 SW 319 [7311 7384]

Contract: Reading Cross Town Stage II				Borehole No. 23				
Client: Berkshire County Council				Sheet No. 1 of 3 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.30 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 28/9/89 29/9/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (thick)	Reduced Level	Description	Legend
					0.00	G.L.		
				B 926	0.30	36.00	MADE GROUND (brown silty sandy clay ash and brick)	
				J 927	1.20		MADE GROUND (brown silty sandy clay with ash, bricks and gravel)	
				U 928	1.50	34.80		
				J 929	10.60		Soft grey and brown mottled silty CLAY	
	28/9	Seepage		U 930	2.30	34.00		
				J 931	11.30		Soft grey and brown mottled silty CLAY with occasional shells and traces of decaying organic matter	
				J 932				
	29/9			U 933	3.60	32.70		
	28/9	Waterlevel rose to 1.90m in 20 minutes		J 934			Medium dense to dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
			S 21	J 935				
				B 936				
				B 937				
				J 938				
				B 939	12.20			
			C 41	J 940				
				B 941				
				J 942				
				B 943				
				B 944	5.80	30.50		
			S 32	J 945	10.40		Coarse to fine GRAVEL in a matrix of remoulded chalk	
				B 946	6.20	30.10		
							Stiff white rubly to blocky CHALK with orange staining on joints frequent flints (Grade IV to III)	
	28/9			U 947				
				J 948	14.50			
				U 949				
				J 950				
					10.00			
							Continued	
Operator RM		General Remarks: Pit dug to avoid services Chiselling flints 10m to 24m various levels (1 1/2 hours) Chiselling flint at 24.3m (1 hour)					Appendix 1	
Scale 10m/sheet							Sheet No. 97	

SU 77SW/319

Contract: Reading Cross Town Stage II				Borehole No. 23			
Client: Berkshire County Council				Sheet No. 2 of 3 Depth 10 to 20 metres.			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.30 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 28/9/89 29/9/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
28/9			S 37	J 951 B 952	10.00 (4.30) 10.50	25.80	Stiff white rubly to blocky CHALK with orange staining on joints frequent flints (Grade IV to III)
28/9							Weak to moderately weak white blocky CHALK frequent flints (Grade III becomes grade II)
29/9				U 953 J 954			
			S 43	J 955 B 956			
				U 957 J 958		113.80	
				J 959			
			S 67 /225	J 960 B 961			
				U 962 J 963			
			S 62 /150	J 964 B 965		20.00	
Continued							
Operator RM		General Remarks: Pit dug to avoid services Chiselling flints 10m to 24m various levels (1 1/2 hours) Chiselling flint at 24.3m (1 hour)					Appendix 1
Scale 10m/sheet							Sheet No.98

Contract: Reading Cross Town Stage II						Borehole No. 23		
Client: Berkshire County Council						Sheet No. 3 Of 3 Depth 20 to 30 metres.		
Equipment and Methods Light Cable Percussion Boring 150mm Diameter			Ground Level : 36.30 m.O.D. Coordinates :			Job Number : S39/655 Location : Dates : 28/9/89 29/9/89		
Orientation : Vertical								
Daily Prog.	Meter Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
					20.00		Weak to moderately weak white blocky CHALK frequent flints (Grade III becomes grade III)	
				U-966 B-967				
					(13.80)			
			S 78 /225	J-968 B-969				
29/9			S 61 /150	J-970 B-971		24.30	End of Borehole	
Operator RM		General Remarks: Pit dug to avoid services Chiselling flints 10m to 24m various levels (1 1/2 hours) Chiselling flint at 24.3m (1 hour)						Appendix 1
Scale 10m/sheet								Sheet No 99

BGS Reference: SU77SW320
British National Grid:

SU 77 SW 320 [7313 7384]

Contract: Reading Cross Town Stage II				Borehole No. 24				
Client: Berkshire County Council				Sheet No. 1 of 2 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : (m.O.D.) 36.50		Job Number : 539/655		Location :		
Orientation : Vertical		Coordinates :		Dates : 5/10/89 10/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (mick)	Reduced Level	Description	Legend
					0.00	G.L.		
					(0.40)		TOPSOIL (fill material)	
				B-218	0.40	36.10	MADE GROUND (firm brown clay)	
				J-219	(1.10)			
5/10				U-220	1.50	35.00	Soft grey and brown mottled silty CLAY with traces of decaying organic material	
	7 9/10			J-221	(1.30)			
				U-222	2.80	33.70	Soft grey/orange silty sandy CLAY with abundant fine chalk particles	
	9 9/10			J-223	(0.50)			
				J-224	3.40	33.10	Medium dense to dense brown coarse to fine SAND and coarse to fine subangular GRAVEL. traces of chalk below 5.00m	
	2 5/10	Standing at 1.90m after 20 mins	C 15	B-225				
	4 5/10							
				J-226				
			C 29	B-227	(2.90)			
				B-228				
			C 67	B-229				
				B-230				
				B-231				
				U-232	6.30	30.20	Stiff white rubblely to blocky CHALK with some remoulded chalk and occasional flints (grade IV)	
				J-233				
			S 30	J-234	(2.70)			
				B-235				
				U-236				
				J-237				
6/10			S 37	J-238	9.00	27.50	Weak white blocky CHALK occasional manganese staining along joints occasional flints (grade IV to III)	
				B-239				
				B-398	(6.50)			
5/10				J-399	10.00			
							Continued	
Operator RM		General Remarks:						Appendix 1
Scale 10m/sheet								Sheet No 102

Contract: Reading Cross Town Stage II				Borehole No. 24				
Client: Berkshire County Council				Sheet No. 2 of 2 Depth 10 to 20 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter				Ground Level : (m.O.D.) 36.50		Job Number : 539/655		
Orientation : Vertical				Coordinates :		Location :		
						Dates : 5/10/89 10/10/89		
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
9/10				U 400	10.00		Weak white blocky CHALK occasional manganese staining along joints occasional flints (grade IV to III)	
10/10			S 67	J 401 J 402 B 403 J 404				
				B 405 J 406 U 407				
9/10				J 408 J 409 U 410 J 411 B 412	16.50			
			S 75					
				J 414 U 415				
				J 416 J 417				
10/10			S 68	J 418				
					15.50	21.00	End of Borehole	
General Remarks:								
Operator AM								Appendix 1
Scale 10m/sheet								Sheet No. 1 4849

BGS Reference: SU77SW622
British National Grid:

Date		10th September 1986		SUTTSW 622		D 0.60 x 1.50m		Bearing → 052°	
Level		36.75m.O.D.		7314 73853					

GL	A	B	C	D	GL
		(1)			
		(2)			
10					10
		(3)			
20					20
		(4)			
30					30
40					40
	End of Trial Pit				

Samples		Strata		Test Depth m.	Cu kNm ²	Remarks
Depth	Type	No.	Description			
0.20	D	1	MADE GROUND: Light brown fine sandy silty clay.			
		2	MADE GROUND: Dark brown slightly clayey fine to coarse sand with rope, glass, wood, iron, wire, plastic, brick and bottles.			
1.50	BD	3	Very soft light grey brown slightly sandy silty CLAY with orange brown staining and carbonaceous inclusions. (Alluvium)			
		4	Light brown very coarse sandy fine to medium sub-rounded GRAVEL. (Valley Gravel)			

Plant	JCB 3CY	Water	1.00m stroke - very rusty muddy water 3.50m Extremely fast ingress 0.5m/1 minute	Cu - Approximate value of undrained shear strength from hand vane
Shored to		Stability	Instability in gravels	

Trial Pit Record exploration associates	Project	Contract	E6043
	A329(M) Broken Brow and North Earley Link Royal County of Berkshire	Trial Pit	15

SU 77 SW 321 [7316 7385]

Contract: Reading Cross Town Stage II Client: Berkshire County Council				Borehole No. 25 Sheet No. 105 of 106 Depth 0 to 10 metres			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.00 m.O.D. Coordinates :		Job Number : S39/655 Location : Dates : 10/10/89 12/10/89			
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick) Reduced Level	Description	Legend
					0.00 35.00	MADE GROUND (firm brown silty sandy clay with gravel ash brick and chalk fragments)	
					1.70 34.30	Soft greenish grey silty CLAY with traces of decaying organic matter and occasional pockets of grey sandy silt below 2.4m	
					3.25 32.75	Dense brown coarse to fine SAND and coarse to fine subangular GRAVEL occasional cobbles	
					3.25 32.75		
					6.50 29.50	Stiff white rubbly to blocky CHALK with orange staining on block surfaces (Grade V)	
					10.00 25.00		
						Continued	
Operator JC		General Remarks: Permeability test made at 9.0m					Appendix 1
Scale 10m/sheet							Sheet No.106

5477SW/321

Contract: Reading Cross Town Stage II				Borehole No. 25				
Client: Berkshire County Council				Sheet No. 2 of 2 Depth 10 to 20 metres.				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.00 m.O.D.		Job Number : 539/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 10/10/89 12/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				U 32	18.00	26.00	Weak white blocky CHALK with occasional orange staining on joint surfaces occasional flints (Grade IV to III)	
				J 33				
				J 34				
				B 35				
			S 70	J 36				
11/10				J 37				
				U 38				
				J 39				
				J 40	(5.50)			
			S 68	J 41				
				J 42				
				J 43				
				U 44				
				J 45				
				J 46				
				J 47				
			S 82 / 150	J 48				
12/10					15.50	20.50	End of Borehole	
Operator JC		General Remarks: Permeability test made at 9.0m					Appendix 1	
Scale 10m/sheet							Sheet No. 107	

BGS Reference: SU77SW604
British National Grid:

Logging		Properties			Strata		SUTSW 604				
Type	Cu kPa	W%	SPT N	Description	73175	73854	Depth	Level	Legend		
				TOPSOIL			G.L.	36.28			
D/W				Loose light brown mottled greyish brown very clayey slightly sandy SILT with organic inclusions fine chalk fragments and thin beds of coarse sand and fine gravel			0.40	35.88			
D											
0.50-1.95	CB	46	2								
1.20	D										
1.50-2.95	CB		2								
3.00-3.45	M(5)	(B)	89	Soft black clayey PEAT			2.80	33.48			
3.60	D						3.60	32.68			
4.00-4.45	CB	11	22	Medium dense light brown white and grey very sandy fine medium and coarse rounded flint and chalk GRAVEL							
4.70	D										
5.00-5.45	CB		21								
5.70	D										
6.00-6.45	CB	10	22								
6.80	D	22					6.70	29.58			
7.00-7.45	CB		23	Rubby white mottled light yellowish brown CHALK with silty chalk matrix and flints (Grade III)							
7.70	D	28									
8.00-8.45	CB		27								
8.70	D										
9.00-9.45	CB		33								
10.00	D			Continued over from 10.00m							
Drilling					Ground Water						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger	G.L.	20.05	0.15	-	3.60	Rose to 0.3m in 15 minutes	7.00	10.9.86	10.00	10.00	9.30
								11.9.86	10.00	10.00	8.70
								11.9.86	20.05	18.00	15.90
Remarks											
Inspection Pit dug to 1.0m Piezometer installed; Tip at 6.3m; sand filter 5.5m - 6.5m											
Borehole Record					Project			Contract			
					A329(M) Broken Brow and North Earley Link Royal County of Berkshire			E6043			
exploration associates								Borehole 13 Sheet 1 of 2			

Sampling		Properties			Strata		SU77SW 604					
Depth	Type	Cu kPa	W%	SPT N	Description	Depth	Level	Legend				
9.50-10.95	CB		29	32	Continued from 10.00m Rubby white occasionally mottled yellowish brown CHALK with some silty matrix and flints (Grade III)							
10.50	D		24									
11.00-12.45	CB			30								
13.00	D											
13.50-13.95	CB			31								
14.50	D		29									
15.00-15.45	CB			30								
16.00	D											
16.50-16.95	CB			29								
17.50	D		29									
18.00-18.45	CB			46	Becoming Grade II							
19.30	D		31									
19.60-20.05	CB			49								
					End of Borehole	20.00	16.28					
Drilling					Ground Water							
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water	
Remarks												
Borehole Record					Project			Contract E6043				
exploration associates					A329(M) Broken Brow and North Earley Link Royal County of Berkshire			Borehole 13 Sheet 2 of 2				

BGS Reference: SU77SW322
British National Grid:

SU 77 SW 322 [7320 7386]

Contract: Reading Cross Town Stage II				Borehole No. 26				
Client: Berkshire County Council				Sheet No. 1 of 1 Depth 0 to 10 metres				
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 35.75 m.O.D. Coordinates :		Job Number : S39/655 Location :		Dates : 3/10/89 4/10/89		
Orientation : Vertical								
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
					0.00	35.75	MADE GROUND (brown silty sandy clay with brick ash and gravel)	
				B 999	0.30	35.45	Soft brown and grey mottled silty CLAY	
					(1.10)			
				J 1000	1.40	34.35	Very soft grey silty CLAY	
				U 1001	1.70	34.05	Soft brown and black amorphous clayey PEAT interbedded with soft grey silty CLAY	
				J 1002				
				U 1003				
				J 1004				
				U 1005	(2.10)			
				J 1006				
				U 1007				
				J 1008	3.80	31.95	Coarse to fine sandy GRAVEL in a matrix of soft silty CLAY	
				B 1009	4.00	31.75	Medium Dense brown coarse to fine SAND and coarse to fine subangular GRAVEL	
				C 21	4.60	31.15	Sandy gravel in a matrix of soft remoulded CHALK	
				B 188	4.90	30.85	Stiff becoming weak white rubbly becoming blocky CHALK with frequent flints. Some orange staining on flint surfaces at upper levels (Grade IV becomes III)	
				U 189				
				J 190				
				S 31	(5.10)			
				J 191				
				B 192				
				U 193				
				J 194				
				U 195				
				S 52	10.00	25.75	End of Borehole	
				J 196				
Operator RM		General Remarks: Pit dug to avoid services					Appendix 1	
Scale 10m/sheet							Sheet No. 110	

BGS Reference: SU77SW323
British National Grid:

SU77 SW 323 [7320 7385]

Contract: Reading Cross Town Stage II				Borehole No. 27			
Client: Berkshire County Council				Sheet No. 27 of 27 Depth 0 to 10 metres			
Equipment and Methods Light Cable Percussion Boring 150mm Diameter		Ground Level : 36.60 m.O.D. Coordinates :		Job Number : S39/555 Location :		Dates : 4/10/89 5/10/89	
Orientation : Vertical							
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description
					0.00	G.L.	MADE GROUND (soft brown silty clay ash gravel brick occasional chalk. Becomes clay with traces of ash and brick)
				B 197			
				J 198	1.70		
				U 199		34.90	
				J 200	1.70		
				U 201	1.10		Very soft greenish grey silty CLAY with traces of decaying organic matter
				J 202	2.80	33.80	
				U 203	10.90		Very soft to soft brown and black amorphous clayey PEAT interbedded with silty clay
				B 204	3.70	32.90	
				J 205			Medium dense brown coarse to fine SAND and cobbles, coarse to fine subangular GRAVEL occasional traces of chalk
				B 206	1.70		
				B 207			
				B 208	5.40	31.20	
				U 209			Stiff becoming weak white robbly to blocky CHALK with frequent flints (Grade IV becomes III)
				J 210			
				J 211			
				J 212			
				B 213	4.60		
				U 214			
				J 215			
				J 216			
				S 36			
				J 217			
					10.00	26.60	End of Borehole
Operator RM		General Remarks: Pit dug to avoid services				Appendix 1	
Scale 10m/sheet						Sheet No 113	

BGS Reference: SU77SW621
British National Grid:

SU77SW 621

Date 10th September 1986		British Geological Survey		0.60 x 1.50m A B C D Bearing → 116°	
Level 36.40m.O.D.		73229 73854			

	A	B	C	D	
GL		(1)			GL
10		(2)			10
20		(3)			20
30		(4)			30
40		(5)			40
	End of Trial Pit				

Samples		Strata		Test Depth m	Cu kN/m ²	Remarks
Depth	Type	No.	Description			
0.40	D	1	MADE GROUND: Firm light brown and greyish black very sandy silty clay with topsoil.			
0.80	BD	2	Soft light brown silty CLAY occasionally dessicated in parts with many shells. (Alluvium)			
1.50	BD	2	Very soft light greenish grey very silty CLAY iron stained with carbonaceous inclusions and shells. (Alluvium)			
2.20	D	4	Very soft brown slightly sandy SILT with shells and occasional gravel. (Alluvium)			
3.00	B	5	Light brown fine to coarse gravelly silty chalky fine to coarse SAND. (Alluvium)			

Plant	JCB 3CX	Water	0.70m slight seepage 3.5m moderate ingress	Cu-Approximate value of undrained shear strength from hand vane
Shored to		Stability	Collapsing in sands on all sides	

Trial Pit Record	Project	Contract	E6043
exploration associates	A329(M) Broken Brow and North Earley Link Royal County of Berkshire	Trial Pit	14

BGS Reference: SU77SW324
British National Grid:

SU 77 SW 324 [7325 7385]

Contract: Reading Cross Town Stage II				Borehole No. 28				
Client: Berkshire County Council				Sheet No. 01 of 2 Depth 0 to 10 metres.				
Equipment and Methods Light Cable Percussion Boring		Ground Level : 35.95 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 12/10/89 13/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
				J 49	0.00	35.95	MADE GROUND (black dark brown soft clayey fill)	
				J 50	0.40	35.55	Soft brown silty CLAY (possibly made ground)	
				U 51	1.40			
				J 52				
				J 53				
	13/10			J 54	1.80	34.15	Very soft grey silty CLAY with traces of decaying organic matter	
				U 55				
	12/10			J 57	1.20			
				J 58				
				J 59	3.00	32.95	Coarse GRAVEL and cobbles in a matrix of chalk and soft silty CLAY	
		Waterlevel rose to 2.40m in 20 minutes		U 60				
				J 61	10.80			
				B 62	3.80	32.15	Stiff becoming weak white rubbly becomes blocky CHALK with frequent flints. orange staining at upper levels.	
				J 63				
				U 64				
				J 65				
				B 66				
				J 67				
				B 68				
				U 69				
				J 70				
				J 71				
				B 72				
			S 36	J 73				
				J 74				
				B 75				
				U 77	16.70			
				J 78				
	12/10		S 55	J 76				
				J 79				
				J 80				
				U 81				
				J 82				
				J 83				
					10.00			
Continued								
Operator JC		General Remarks: Permeability test made at 5.00m Piezometer installed at 5.0m					Appendix 1	
Scale 10m/sheet							Sheet No. 116	

S477SW/324

Contract: Reading Cross Town Stage II				Borehole No. 28				
Client: Berkshire County Council				Sheet No. 28 of 28 Depth 10 to 20 metres.				
Equipment and Methods Light Cable Percussion Boring		Ground Level : 35.95 m.O.D.		Job Number : S39/655				
Orientation : Vertical		Coordinates :		Location :				
				Dates : 12/10/89 13/10/89				
Daily Prog.	Water Levels	Remarks	In Situ Tests	Samples Taken	Depth (Thick)	Reduced Level	Description	Legend
13/10			S 92	J 84	10.00 (6.70) 10.50	25.45	Stiff becoming weak white rubbley becomes blocky CHALK with frequent flints, orange staining at upper levels. End of Borehole	
Operator JC			General Remarks: Permeability test made at 5.00m Piezometer installed at 5.0m				Appendix 1	
Scale 10m/sheet							Sheet No 117	

BGS Reference: SU77SW620
British National Grid:

Date		10th September 1986		0.60 x 1.50m		Bearing		256°	
Level		36.48m.O.D.		SU77SW 620 73281 73857					

	A	B	C	D	
GL		(1)			GL
		(2)			
1.0		(3)			1.0
		(4)			
2.0		(5)			2.0
3.0					3.0
		(6)			
4.0					4.0
	End of Trial Pit				

Samples		Strata		Test Depth m.	Cu kN/m ²	Remarks
Depth	Type	No.	Description			
		1	TOPSOIL.			
0.50	D	2	Firm brown slightly sandy silty CLAY. (Alluvium)			
1.00	BD	3	Soft to firm light brown slightly sandy silty CLAY with occasional fine chalk gravel. (Alluvium)			
1.50	D	4	Soft blue green slightly sandy silty CLAY with occasional gravel and intact shells. (Alluvium)			
2.00	BD	5	Soft light brown very sandy very organic SILT with some fine to coarse sub-rounded to sub-angular gravel. (Alluvium)			
		6	Grade VI putty CHALK (200mm) overlying white mottled yellow brown rubbly CHALK (Grade IV). (Upper Chalk)			

Plant	JCB 3CX	Water	1.50m slight seepage 3.20m moderate ingress	Cu-Approximate value of un-drained shear strength from hand vane
Shored to	4.00m	Stability	Unstable in face A in silt and all four sides in basal silt	

Trial Pit Record exploration associates	Project A329(M) Broken Brow and North Earley Link Royal County of Berkshire
	Contract E6043 Trial Pit 13

BGS Reference: SU77SW619
British National Grid:

Date 10th September 1986		SU77SW 619 73319 73863		A 0.60 x 1.50m C	Bearing B → 349°
Level 37.83m.O.D.					

A	B	C	D
GL	(1)		GL
	(2)		
10			10
	(3)		
20			20
30			30
40			40

End of Trial Pit
(Unable to continue due to large collapses in gravels)

Samples		Strata		Test Depth m.	Cu kN/m ²	Remarks
Depth	Type	No.	Description			
		1	TOPSOIL.			
0.50	D	3	MADE GROUND: Dark brown and brown slightly clayey fine to coarse sand with much fine to coarse sub-angular flint and sub-rounded chalk gravel.			
1.00	BD	3	MADE GROUND: Light brown fine to coarse gravelly coarse sand with occasional cobble flints tending towards gravel with depth with some weathered chalk bands.			

Plant	JCB 3CX	Water	2.60m Fast ingress	Cu - Approximate value of un-drained shear strength from hand vane
Shored to		Stability	Major collapses in gravels	

Trial Pit Record exploration associates	Project A329(M) Broken Brow and North Earley Link Royal County of Berkshire	Contract E6043 Trial Pit 12
--	--	--

BGS Reference: SU77SW603
British National Grid:

Sampling		Properties			Strata		Depth	Level	Legend		
Type	Cu kPa	W%	SPT N	Description							
				TOPSOIL			G.L.	39.17			
0.0-0.95	CB	26	19	Friable white mottled brown CHALK fragments in a silty matrix with flints (Grade IV)			0.40	38.77			
1.20	D	24									
1.50-1.95	CB	24	22								
2.20	D										
2.50-2.95	CB		17								
3.20	D										
3.50-3.95	CB	26	18								
4.20	D	28									
4.50-4.95	CB		17								
5.20	D										
5.50-5.95	CB		21								
6.20	D										
6.50-6.95	CB		21								
7.20	D	19									
7.50-7.95	CB		22	Becoming rubbly and slightly weathered with silty chalk matrix with flints (Grade III)							
8.20	D										
8.50-8.95	CB	30	25								
9.20	D	29									
9.50-9.95	CB		28								
					Continued over from 10.00m						
Drilling					Ground Water						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger	G.L.	20.25	0.15	-	4.50	Steady seepage		10.9.86	20.25	18.00	11.80
Remarks											
Borehole Record					Project			Contract			
					A329(M) Broken Brow and North Earley Link Royal County of Berkshire			E6043			
exploration associates								Borehole 12 Sheet 1 of 2			

Drilling		Properties			Strata		British Geological Survey					
Type	Cu kPa	W%	SPT N	Description	Depth	Level	Legend					
10.00	D			Continued from 10.00m								
11.00-11.45	CB	33	23	Rubbly slightly weathered CHALK in silty matrix with flints (Grade III)								
12.00	D	26										
12.50-12.95	CB		33									
13.50	D											
14.00-14.45	CB		24									
15.00	D	35										
15.50-15.95	CB		33	Becoming medium hard and block (Grade II)								
16.50	D											
17.00-17.45	CB		36									
18.00	D											
18.50-18.95	CB	16	40									
19.40	D	11										
19.80-20.25	CB		57									
				End of Borehole	20.00	19.17						
Drilling				Ground Water								
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water	
Remarks												
Borehole Record					Project				Contract			
					A329(M) Broken Brow and North Earley Link Royal County of Berkshire				E6043			
									Borehole			
									12			

BGS Reference: SU77SW655
British National Grid:

SU77/186

D STRATA LOG			
Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
	Topsoil pebbles + clay	5.6	2.50
	Brown sand + gravel	2.50	4.00
	chalk + flints	4.00	30.00
(continue on separate page if necessary)			
Other comments (e.g. gas encountered, saline water intercepted, etc.)			

FOR OFFICIAL USE ONLY		
FILE	CONSENT NO.	NGS REF NO.
LIC NO.	PURPOSE	NRA REF NO.
DATE REC:	COPY TO:	ENTERED BY:

SOUTHERN L5 THAMES EA.

268

Waterside Centre, Oracle Business
Park

SU 77/186 SU 77 SW

Owner: <u>Wokingham District Council</u>		Licence No.		Nat. Grid Ref. <u>SU 73565 73943</u>	
Occupier: <u>Waterside Centre</u>		IGS Ref. No.		Status: <u>Licensed (in Future)</u>	
Ground Level: <u>40</u> m OD		ft. OD		Aquifer: <u>Chalk</u>	
Level of Well Top: <u>40</u> m OD		ft. OD			
Rise Water Level: <u>6.52</u> m bar		ft. bar		Summary of Geological Section	
(Date <u>8/8/2000</u>) m OD		ft. OD		Thickness	
Construction				Depth	
Depth bar	Dia.	Lithology (below well top)			
		From	To	Dia.	Type
		<u>0</u>	<u>16</u>	<u>150mm</u>	<u>Solid</u>
		<u>16</u>	<u>30</u>	<u>150mm</u>	<u>Open</u>
Abstraction Rate					
Type of Pump					
Chem./Bact. Anal. YES NO					
Well Driller <u>Smith and Webb</u>					
If insufficient space has been allowed, continue in 'Notes' overleaf					

BGS Reference: SU77SW601
British National Grid: 473610, 173920

SU77SW 601
73610 73920

Sampling		Properties			Strata		Depth	Level	Legend
Type	Cu kPa	W%	SPT N	Description					
				TOPSOIL			G.L.	42.35	
0.30 0.50-0.95	D CB		14 36	Stiff brown very silty sandy gravelly CLAY with flints			0.20	42.15	
1.20 1.50-1.95	D CB		10 31	Medium dense brown slightly silty very sandy fine and medium flint GRAVEL with some thin clay lenses			1.20	41.15	
2.20 2.50-2.95	D CB		10 30						
3.20 3.50-3.95	D CB		6 32						
4.20 4.50-4.95	D CB		20 23	Rubbly occasionally friable white mottled brown silty CHALK with flints (Grade III)			4.40	37.95	
5.20 5.50-5.95	D CB		23 27						
6.20 6.50-6.95	D CB		22 30	Becoming Grade II with depth					
7.20 7.70-8.15	D CB		23 32						
				End of Borehole			8.15	34.20	

Drilling					Ground Water						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger	G.L.	8.15	0.15	-	DRY			9.9.86	8.15	4.50	DRY

Remarks		
Borehole Record	Project	Contract
exploration associates	A329(M) Broken Brow and North Earley Link Royal County of Berkshire	E6043
		Borehole 10 Sheet 1 of 1

APPENDIX 7

Mr Arie Zamler
Peter Brett
Caversham Bridge House
Waterman Place
Reading
RG1 8DN

22 June 2016

Your contact is: **Ross Jarvis - Environmental Protection & Nuisance**

Dear Mr Zamler

ENVIRONMENTAL INFORMATION REGULATIONS 2004
RE: Environmental Information Request: East Reading

I write with reference to your recent request for environmental information in an area of East Reading covering land for a proposed MRT scheme. A search of records held at Reading Borough Council has found the following:

We would be grateful if you could carry out a search of your records for any environmental information relating to the site, or within 250m of the site. We are particularly interested in any issues concerning:

- The below table shows all the sites within 250m of the proposed development that have been identified as being potentially contaminated due to their former uses. There have been no intrusive investigations made under Part IIA EPA at these sites.

easting	northing	site_name	start_date	end_date	complete_yn	notes
473240	173755	Gas Works	1912-1958	2005	y	
472840	173680	Gas Works	1879-1899	2005	y	
473100	173690	Steam Laundry	1879-1899	?	y	
473140	173665	Gravel Pit	pre 1879	1879-1899	y	
472215	173580	Biscuit Factory			y	boundaries unclear
472350	173560	Extensive Sidings To Biscuit Factory	pre 1879	1931-1973	y	
472450	173900	Warehouse	1931-1973	2005	y	
473470	173910	Scar/pit	pre 1879	1958-1974	y	

The gasworks on Kenavon Drive (472695, 173614) was remediated via the planning process between 2005-2009. Site investigations carried out during this

process can be made available if deemed relevant to the proposed development.

2. The below landfill site is within 250m of the proposed development.

site_name	geology	ngr	area	perimeter	hectares	geology_pe	gaspotent	gaspot	level_1	level_2	level_3	level_4	level_5
NAPIER ROAD READING	Upper Chalk	SU 72 8 73 9	24835.16	739.871	2.484	High	Limit-Low	Limit	<25	25-50	50-250	n/a	n/a

The Council do not hold any ground gas monitoring records from the landfill.

3. Should you require information on pollution incidents please direct your enquiries to the Environment Agency at:

Environment Agency
Isis House,
Wallingford,
Oxfordshire,
OX10 8BD
Tel: 01491 832801

4. The below installations are permitted by the Council under part B of the Environmental Permitting Regulations 2015 within 250m of the proposed development.

Unloading of Petrol into Storage at Petrol Stations (PVRI&II)	Tesco Stores Limited	Tesco Service Station, Napier Road, Reading, Berkshire, RG1 8DF
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The Environment Agency hold records of larger part A installations that may be in the vicinity. The Environment Agency can be contacted using the above details.

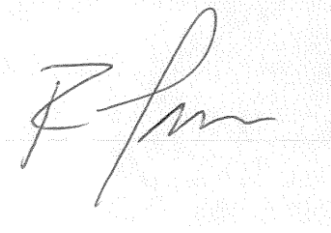
5. The Council do not hold any records of any private water supplies within 250m of the proposed development.

The information in this letter is given on the understanding that the Council accepts no liability for the use to which it is put and gives no guarantee as to the state of the land in question.

The information given represents the position within the Environmental Health database at the date of this letter and the Council can give no guarantee as to the impact of any future events in relation to the site in question.

If you would like to discuss the contents of this letter further, I can be contacted on 0118 9372314.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'R Jarvis', is positioned over a rectangular area with a light grey dot grid pattern.

Ross Jarvis
Senior Technical Officer
Environmental Protection

APPENDIX 8

Arie Zamler

From: WT Enquiries <WTenquiries@environment-agency.gov.uk>
Sent: 27 June 2016 11:54
To: Arie Zamler
Subject: RE: Ref: WT14985 - Proposed MRT Scheme, East Reading
Attachments: Discharge consents within 1 km radius of SU 730 738.xlsx; Surface WQ 1990 to 1999.xlsx; Surface WQ 2000 to 2005.xlsx; Surface WQ 2006 to 2016.xlsx; Discharge consents map.pdf; Historic Landfill Sites.pdf; Deans Farm Permit Surrender.pdf; TP0266-pr.pdf; Pollution incidents within 250 m radius of SU 730 738.xlsx

Dear Arie

Thank you for your request for environmental information for a site in East Reading.

We are not aware of any contamination issues associated with this site. However, where potentially contaminating activities have previously been conducted at a site, such as chemical or fuel storage, manufacturing or other industrial processes, the applicant is advised to seek professional advice from an appropriately experienced environmental consultant.

I have searched our records and mapping systems for the information requested although you can find some environment information on our website including water abstractions: http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&y=355134&scale=1&layerGroups=default&ep=map&textonly=off&lang=e&topic=water_abstractions

Please find attached information on discharge consents within a kilometre of the site.

Please find attached water quality monitoring data.

There are two historic landfill sites within a 250 metre radius and I have attached a map to show the location of the sites. Deans Farm was licensed under reference WML 86148 and the license was surrendered in April 2010. Napier Road Landfill was not licensed and I have attached the information we hold on this site.

Our records show that we hold no information on waste transfer and waste treatment sites other than the waste management license for Deans Farm.

There have been no pollution incidents above a category 3 minor incident and I have attached a list of recorded incidents.

There are two permits for radiological sources but they are at the Reading University Campus at Whiteknights Road, approximately 1.5 km to the south of the site.

We are not aware of any historical ground investigation, geoenvironmental studies or remediation reports affecting the site.

I hope that we have correctly interpreted your request. Please refer to our Open Government Licence to see how you may use the supplied data: <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Did you know that many of our datasets are available online? Simply visit environment.data.gov.uk

We respond to requests for recorded information that we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

We are committed to providing a professional customer service. Please help us understand more about what is important to you by completing on line survey:

<http://www.smartsurvey.co.uk/s/EnvironmentAgencyCustomerSurvey/?a=WT>

Please get in touch if you have any further queries or contact us within two months if you would like us to review the information we have sent.

Kind regards

Julia Hewitt
Customers and Engagement Officer

Customers and Engagement
Environment Planning and Engagement
Environment Agency
West Thames Area
Red Kite House, Howbery Park, Wallingford, OX10 8BD

Telephone: 020302 59673



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From: Arie Zamler [
Sent: 07 June 2016 10:14
To: Enquiries, Unit
Subject: Ref: 160610/RD11 Proposed MRT Scheme, East Reading - Request for Environmental Information
Importance: High

Dear Sir / Madam,

**RE: Proposed MRT Scheme, East Reading
Request for Environmental Information**

We are a company of geo-environmental and geotechnical engineers engaged to prepare a Phase 1 Desk Study for Proposed MRT Scheme, East Reading; centred on NGR SU 730 738 and shown redline boundary on the enclosed plans.

We require further environmental details for our study and kindly request that you carry out a search of your records and provide us with the locations and available details of any of the following within 250m of the sites boundaries:-

- Water abstractions
- Discharge consents
- Groundwater and surface water quality monitoring data
- Landfill sites (licensed or otherwise)
- Waste transfer & Waste treatment sites
- Recorded pollution incidents

Details of all current licenses including radiological sources in force for Part A processes
Any historical ground investigation, geoenvironmental studies and remediation reports
Any other information relating to the environmental susceptibility of the site.

We look forward to hear back from you in your earliest convenience.

Regards,

Arie Zamler
Senior Engineer

For and on behalf of Peter Brett Associates LLP
Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN

w www.peterbrett.com



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Surrender notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Deans Farm

Environment Agency
Redlands Pit
Caversham
Reading
Berkshire
RG4 5JZ

Surrender notice number
EPR/CP3494LR/S001

Permit number
EPR/CP3494LR

**Deans Farm,
Permit number EPR/CP3494LR**

Introductory note

This introductory note does not form a part of the permit

The following notice is issued in accordance with regulation 25 and Part 1 of Schedule 5 of The Environmental Permitting (England and Wales) Regulations 2010 (S.I.2010 No. 675) (the Regulations) to surrender a permit issued under the Regulations to operate the regulated facility.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	Date	Response Date
Application OCC/106 (EAWML 86148)	03/10/91	
Permit determined	01/06/92	
Surrender application EPR/CP3494LR/S001	30/07/08	
Surrender notice issued	13/04/10	

End of Introductory Note

Surrender

Environmental Permitting (England and Wales) Regulations 2010

Surrender notice

Permit number

EPR/CP3494LR

Surrender number

EPR/CP3494LR/S001

Operator

Environment Agency

Red Kite House

Howbery Park

Wallingford

OX10 8BD

Regulated Facility

Deans Farm

Redlands Pit

Caversham

Reading

Berkshire

RG4 5JZ

The Environment Agency in exercise of its powers under Regulation 25 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2007 No 675) accepts the surrender of this permit

This notice shall take effect from 13 April 2010

Name	Date
	13/th April 2010

Jane McNamara

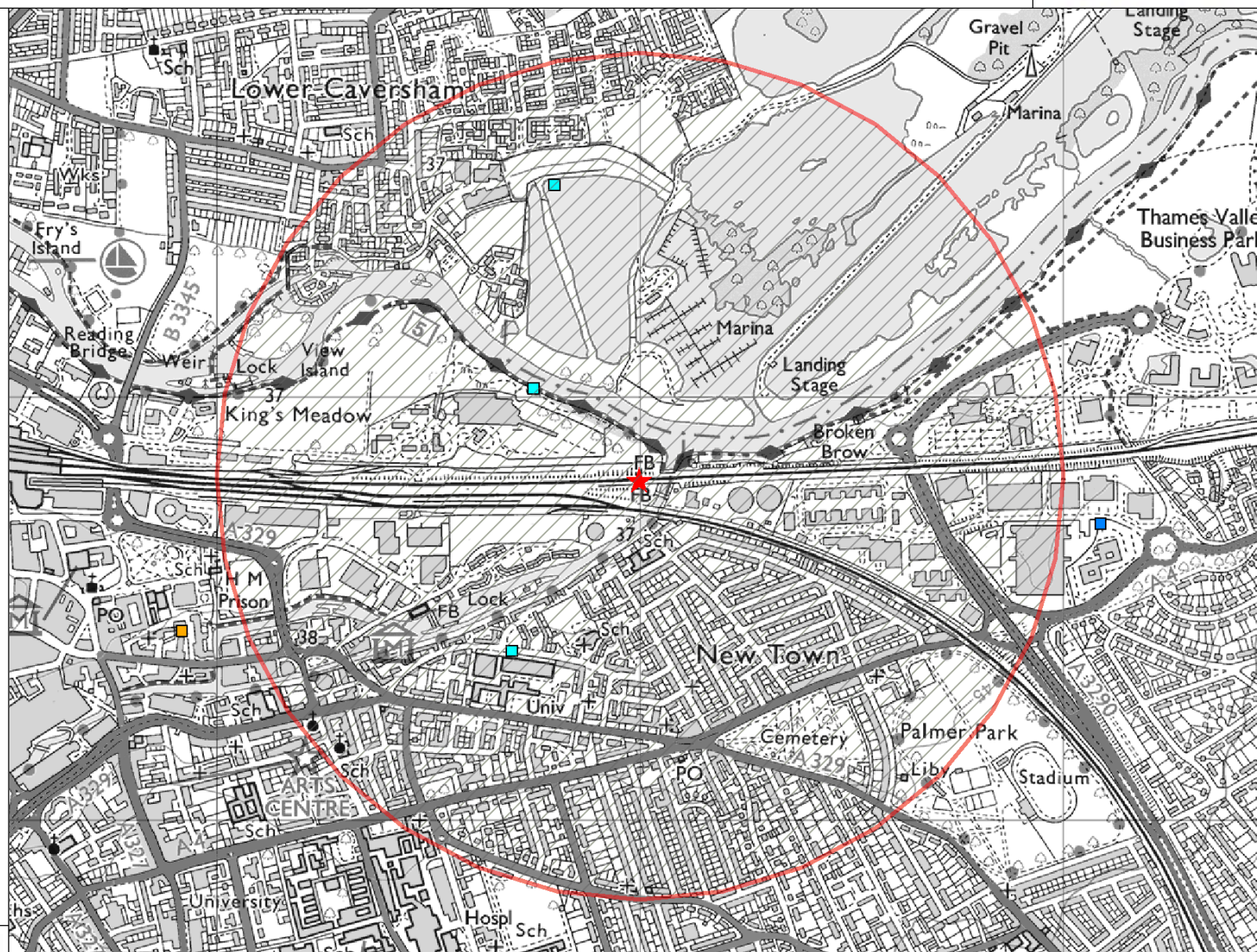
Authorised on behalf of the Environment Agency

Discharge consents locations Reading

Legend

WIMS Active Discharge Consents Outlets

- Agriculture
- Miscellaneous
- Sewage Outlet - not from Water Companies
- Sewage Outlet - from Water Companies
- Sewage and Trade combined
- Trade
- Waste Site



0 130 260 390 m.



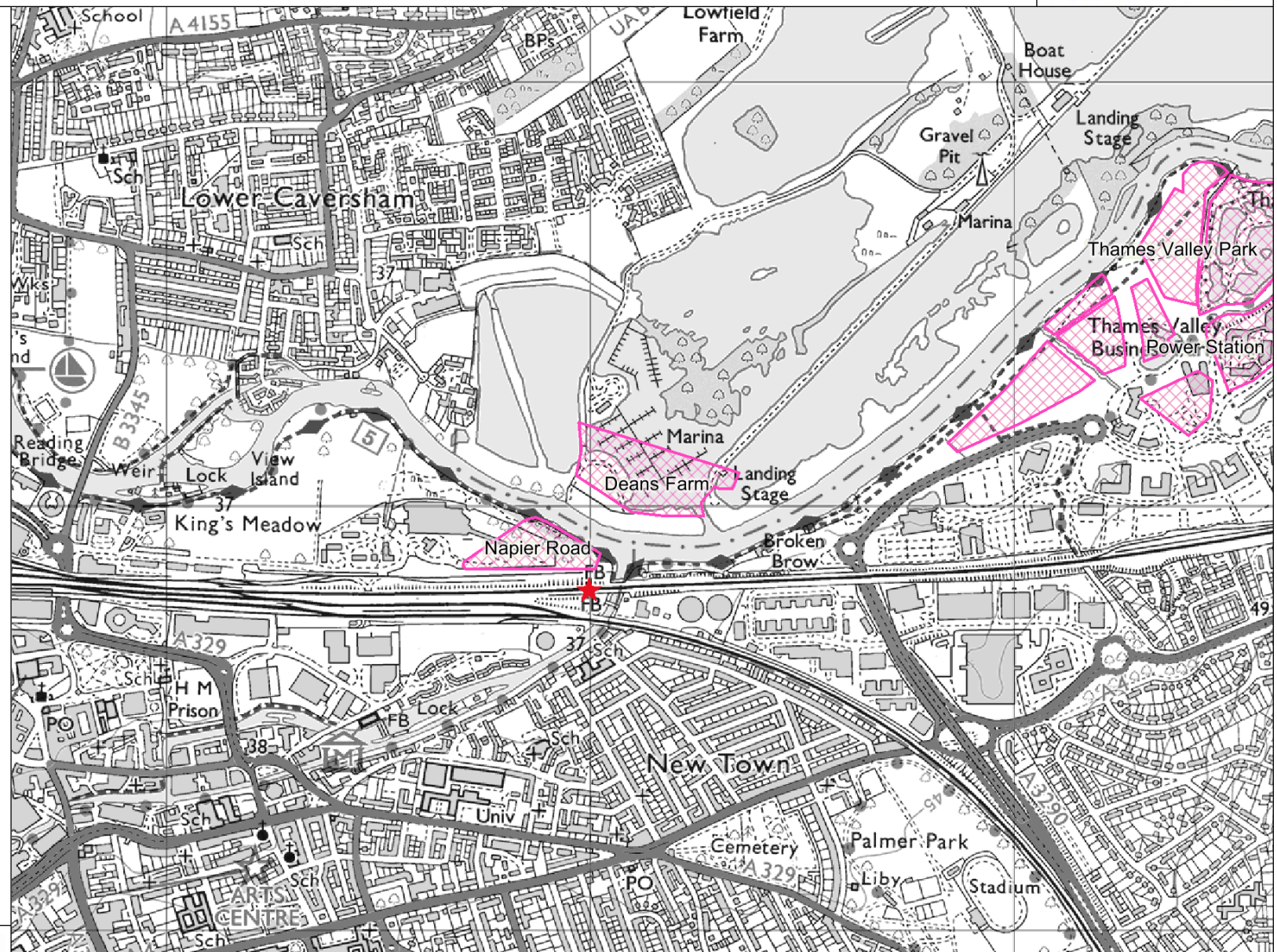
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Permit Number	Permit Version	Outlet Reference Number	Site Name	Address Line 1	Address Line 2	Address Line 3	Address Line 4	Post Code	Receiving Watercourse	Organisation Name	Discharge National Grid Reference	Outlet National Grid Reference	Date Issued	Date Effective	Date Revoked	Outlet Code	Outlet Description	Outlet Receiving Code	Outlet Receiving Description	
TEMP.1768	2	1	Reading, Blakes Lock	Reading	Blakes Lock	-	-		Holly Brook	THAMES WATER UTILITIES LTD	SU7270073400	SU7270073400	03-Sep-10	03-Sep-10		S	Sewage - water company		1 Freshwater river	
CNTW.0610	1	1	TESCO SUPERSTORE, KINGS MEADOW, REA	TESCO SUPERSTORE, KINGS MEADOW,	READING, BERKSHIRE	-	-		RIVER THAMES	TESCO STORES LIMITED	SU7275074020	SU7275074020	19-Jul-90	19-Jul-90		D	Miscellaneous		1 Freshwater river	
TEMP.1769	2	1	Reading, Caversham	Reading	Caversham	-	-		Thames	THAMES WATER UTILITIES LTD	SU7280074500	SU7280074500	03-Sep-10	03-Sep-10		S	Sewage - water company		1 Freshwater river	
Remove																				

Historic Landfill Reading

Legend

 Historic Landfill Sites



0 130 260 390 m.



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Notification Identifier	Notification Date	EA Water Management Region	EA Water Management Region	EA Public Fae Region	EA Public Fae Area	Location	County	Unitary Auth ority	District Auth ority	National Grid Reference	Easting	Northing	Environment al Protection Incident	Substantiated	Incident Status	Air - Incident Category	Land - Incident Category	Water - Incident Category	Type of cause	Cause of incident	Type of premises	Premises	Type of Agricultural premises	Category of pollutant	Pollutant
87630	26-Jun-06	Thames Region	West - Thames	Thames Region	West	Cholmeley Road, Reading		READING		SU 73026 73673	473026	173673	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 3 (Minor)	Cause Not Identified	Not Identified				Sewage Materials	Crude Sewage
337431	11-Aug-06	Thames Region	West - Thames	Thames Region	South East	Reading (Berkshire)		WOKINGHAM		SU 73136 73871	473136	173871	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 3 (Minor)	Cause Not Identified	Not Identified				Oils and Fuel	Unidentified Oil
71997	16-Apr-06	Thames Region	West - Thames	Thames Region	West	Cholmeley Road, Reading		READING		SU 73012 73677	473012	173677	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 3 (Minor)	Cause Not Identified	Not Identified				Oils and Fuel	Gas and Fuel Oils
123096	26-Nov-06	Thames Region	West - Thames	Thames Region	West	Cholmeley Road, Reading		READING		SU 73015 73684	473015	173684	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 3 (Minor)	Containment Failure or Overflow	Sewer Failure or Overflow				Sewage Materials	Grey Water
1406924	29-Jan-16	South East Region	West Thames			New Town, Reading		READING		SU 72997 73676	472997	173676	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 4 (No Impact)	Containment Failure or Overflow	Sewer Failure or Overflow	Water Industry	Foul Sewer		Sewage Materials	Crude Sewage
513893	16-Jul-06	Thames Region	West - Thames	Thames Region	West	New Town		READING		SU 73014 73699	473014	173699	Yes	Yes	Closed	Category 4 (No Impact)	Category 4 (No Impact)	Category 3 (Minor)	Unauthorised Activity	Unauthorised Discharge or Disposal				Oils and Fuel	Other Oil or Fuel

Environment Agency - Thames West Area
Database Extract

SiteName: NAPIER ROAD

District: READING

GridRef: SU 728 739

Status: CLOSED

Landowner:

Operator:

WasteCategories: B

Licence: NO LICENCE

Monitoring:

General:

FileNumber:

Geology: GRAVEL

Waste Categories

A: Inert materials (soil, brick, concrete, glass, clay, sand etc.)

B: Semi-inert materials (wood, paper, cardboard, plasterboard, plastic, etc.)

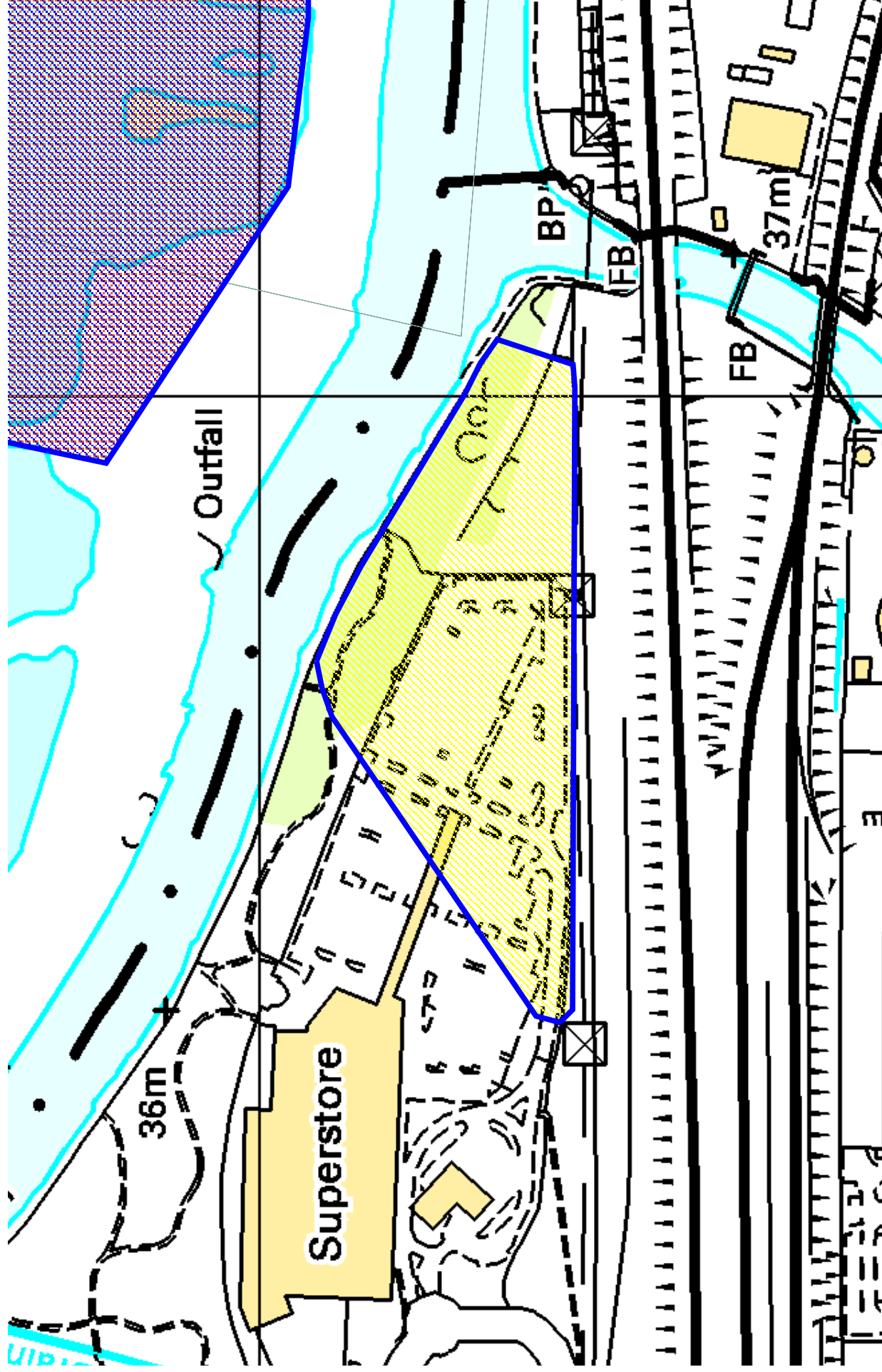
C: Biodegradable wastes (food, sewage sludge, household, garden etc.)

D: Difficult wastes (e.g. tyres, sludges)

E: Special wastes (hazardous chemical wastes, asbestos)

Napier Road, Reading

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SURVEY OF LANDFILL SITES

Site NAPIER ROAD READING

Grid Ref 501 728 730

Weather & Ground Conditions DRY

Topography LEVEL

Slumping NO

Winter Waterlogging NO

Surface Cracks NO

Visible Waste NO

Impermeable Cap NO

Soil Cover YES

Vegetation MINIMAL

Vegetation Stress NO

Odour NO

Gas Bubbles NO

Buildings BUILDING WORK IN PROGRESS

Barometric Pressure Start

Finish

Notes

UNABLE TO SURVEY SITE BECAUSE OF BUILDING
WORK SURVEY TO BE CARRIED OUT WHENEVER ABLE.

NAPIER ROAD

SU 728 739

TP0266



APPENDIX 9

Receptor	Sensitivity Value or 0 if not present	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Metals	Asbestos	Biocides	Permanent Gases	Consequence (Hazard Classification x Sensitivity)	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours/gases – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours/gases - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health On-Site Future User	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Construction/ Maintenance Workers*	4	Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Likely	Moderate
		Inhalation of particles (dust / soil) outdoor	1	√	√	√	√	√	x	Medium	Likely	Moderate
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Likely	Moderate
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Likely	Moderate
Groundwater (Shallow)	3	Leaching	1	√	√	√	√	√	x	Mild	Low	Low
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Mild	Low	Low
Groundwater (Deep)	5	Leaching	1	√	√	√	√	√	x	Medium	Low	Moderate
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Medium	Low	Moderate
Surface Water	5	Direct runoff or discharges from pipes	1	√	√	√	√	√	x	Medium	Low	Moderate
		Indirect via recharge from groundwater (hydraulic flow)	1	√	√	√	√	√	x	Medium	Low	Moderate
		Deposition of wind blown dust	1	√	√	√	√	√	x	Medium	Unlikely	Low
Property - Buildings	2	Direct contact	1	√	√	x	x	x	x	Mild	Low	Low
		Explosion due to gas migration via natural / anthropogenic	0	√	x	x	x	x	√	N/A	N/A	N/A
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
		Indirect - through watering	1	√	√	√	x	x	x	Mild	Unlikely	Very Low
		Inhalation of gases/vapours or particulates/dust by animals	1	√	√	√	x	x	√	Mild	Unlikely	Very Low
		Ingestion of of vegetation / water / soil by animals	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
Property - Animal/Crop	1	Direct (including deposition via wind or flood)	1	√	√	√	√	√	x	Minor	Unlikely	Very Low
		Indirect (through watering)	1	√	√	√	x	x	x	Minor	Unlikely	Very Low
		Inhalation of gas / vapour / particulates / dust by animals	1	√	x	x	x	x	√	Minor	Unlikely	Very Low
		Ingestion of vegetation / water / soil by animals	1	√	√	√	√	√	x	Minor	Unlikely	Very Low

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely).
The criteria for classifying probability and consequence are set out in Tables 3 and 4 of the PBA methodology.
Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

EPH = Extractable hydrocarbons
PAHs = Poly Aromatic Hydrocarbons

 Offices throughout the UK and continental Europe www.peterbrett.com	 Reading Borough Council Working better with you	TABLE SUMMARISING POLLUTANT LINKAGES AND RISK ESTIMATION		Date	15/06/2017
		PROPOSED MRT SCHEME, EAST READING		A3 Scale	nts
				Drawn	az
				Checked	rht
				Table	1