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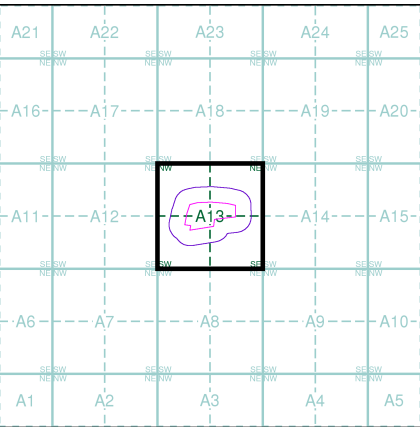


Geo-Environmental
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 156832749_1_1
Customer Ref: GE17077
National Grid Reference: 451410, 114320
Slice: A
Site Area (Ha): 4.05
Search Buffer (m): 100

Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley,
SOUTHAMPTON, SO32 2DG

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
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Web: www.envirocheck.co.uk



APPENDIX C

Exploratory Hole Logs





Geo-Environmental
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Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.

BH1

Sheet 1 of 3

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451452E - 114356N	Hole Type	CP
Location:	Boorley Green	Level:	18.34	Scale	1:50	Logged By	Driller
Client:	Bloor Homes	Dates:	14/05/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
					0.20	18.14		Grass over topsoil with brick TOPSOIL	1	
		0.50 - 1.00	B					Firm orangey brown silty CLAY RIVER TERRACE DEPOSITS		
		1.20	S	N=7 (2,/2,1,2,2)						
		1.50 - 2.00	B							2
		1.65	D							
					1.90	16.44		Firm orangey brown silty sandy CLAY RIVER TERRACE DEPOSITS		
		2.20	S	N=10 (3,/2,2,3,3)					3	
		2.50 - 3.00	B							
		2.65	D							
		3.10	S	N=20 (5,/4,5,6,5)	2.90	15.44		Firm brown gravelly CLAY RIVER TERRACE DEPOSITS	4	
		3.55	D		3.50	14.84		Brown SAND and GRAVEL with flints WITTERING FORMATION		
		4.00 - 4.45	B							
		4.00	C	N=16 (7,/5,4,3,4)	4.20	14.14		Stiff light grey silty CLAY WITTERING FORMATION	5	
		4.30	D		4.40	13.94		Brown SAND and GRAVEL with flints WITTERING FORMATION		
		5.00 - 5.45	B							
		5.00	C	N=26 (8,/6,7,6,7)					6	
		6.00	D		5.90	12.44		Firm to stiff light grey/brown silty CLAY WITTERING FORMATION		
6.50	S	N=16 (5,/4,4,4,4)								
6.95	D		6.90	11.44		Dense grey silty SAND with bands of CLAY WITTERING FORMATION	7			
7.50	D									
8.00	S	N=53 (12,/10,12,14,17)								
8.45	D						8			
9.00	D									
9.50	S	N=57 (13,/11,13,15,18)								
9.95	D						9			
							Continued on Next Sheet	10		

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
		3.90	2.50				



Geo-Environmental

Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL
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Borehole Log

Borehole No.

BH1

Sheet 2 of 3

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451452E - 114356N	Hole Type	CP
Location:	Boorley Green	Level:	18.34	Scale	1:50	Logged By	Driller
Client:	Bloor Homes	Dates:	14/05/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50	D						
		11.00	S	N=59 (12,/10,13,17,19)					11
		11.45	D						
		12.00	D						12
		12.50	S	N=63 (15,/12,14,17,20)					
		12.95	D						13
		13.50	D						
		14.00	S	N=49 (12,/10,11,13,15)					14
		14.45	D						
		15.00	D						15
		15.50	S	N=61 (14,/11,13,17,20)					
		15.95	D						16
		16.50	D						
		17.00	S	N=34 (10,/8,9,8,9)					17
		17.45	D						
		18.00	D						18
		18.50	S	N=35 (12,/9,8,9,9)					
		18.95	D						19
		19.50	D						
		20.00	S	N=38 (11,/9,10,9,10)					20
								Continued on Next Sheet	

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
		3.90	2.50				





Geo-Environmental

Unit 7, Danworth Farm
Hurstpierpoint
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Borehole Log

Borehole No.

BH1

Sheet 3 of 3

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451452E - 114356N	Hole Type	CP
Location:	Boorley Green	Level:	18.34	Scale	1:50	Logged By	Driller
Client:	Bloor Homes	Dates:	14/05/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		20.45	D						
		21.00	D						21
		21.50	S	N=40 (12,/10,9,10,11)					
		21.95	D						22
		22.50	D						
		23.00	S	N=51 (11,/9,12,14,16)					23
		23.45	D						
		24.00	D						24
		24.50	S	N=51 (12,/10,11,13,17)					
		24.95	D		25.00	-6.66			25
								End of Borehole at 25.00m	
									26
									27
									28
									29
									30

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
		3.90	2.50				





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP1

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451322.16 - 114388.72
Level: 19.97

Date
28/03/2018

Location: Boorley Green

Dimensions (m): 3.60

Depth
3.00

0.80

Scale
1:25

Logged
KOD

Client: Bloor Homes

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.30	19.67		Grass over dark brown silty sandy gravelly CLAY with abundant rootlets. Sand is fine. Gravel is fine to medium sub angular to sub rounded flint. TOPSOIL	
	0.50 0.50 0.50	B D PP	PP=1kg/cm2				Soft orange brown and grey mottled silty CLAY with some rootlets. RIVER TERRACE DEPOSITS	
	1.00 1.00	D PP	PP=0.1kg/cm2	1.30	18.67		Soft orange brown and grey mottled silty sandy CLAY. Sand is fine. RIVER TERRACE DEPOSITS	1
	1.50	D		1.80	18.17		Orange brown and grey mottled very clayey silty SAND. Sand is fine. WITTERING FORMATION	2
	2.00	D						
	2.50	D						
	3.00	D		3.00	16.97		End of Pit at 3.00m	3
								4
								5

Remarks Soakage test

Stability Sides stable





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No
TP3
Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451504.61 - 114393.83
Level: 15.70

Date
28/03/2018

Location: Boorley Green

Dimensions (m): 3.50
0.70
Depth 2.10

Scale
1:25

Logged
KOD

Client: Bloor Homes

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.30	15.40		Grass over dark brown sandy gravelly CLAY with abundant rootlets. Sand is fine. Gravel is fine to medium sub angular to rounded of flint. TOPSOIL
	0.40 0.50 0.50	ES B D	PP=0.7kg/cm2				Soft dark orange brown sandy gravelly CLAY. Sand is fine. Gravel is fine sub angular to rounded of flint. RIVER TERRACE DEPOSITS
	0.80	PP					
	1.00	D		1.10	14.60		Orange brown clayey gravelly cobbly SAND. Gravel is fine to coarse sub angular to rounded of flint. Cobbles are sub angular flint. RIVER TERRACE DEPOSITS
	1.50	D		1.60	14.10		Orange brown clayey sandy flint GRAVEL with cobbles. Sand is fine to medium. Gravel and cobbles are angular to sub angular flint. RIVER TERRACE DEPOSITS
	2.00	D		1.80	13.90		Orange slightly clayey slightly sandy flint GRAVEL with cobbles. Sand is fine. Gravel is and cobbles are fine to coarse angular to rounded of flint. RIVER TERRACE DEPOSITS
				2.10	13.60		End of Pit at 2.10m

Remarks Abandoned due to instability below water at 2.1

Stability Sides unstable below water table





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP4

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451551.58 - 114341.05
Level: 15.37

Date
28/03/2018

Location: Boorley Green

Dimensions (m): 3.20

Depth
3.00

0.80

Scale
1:25

Logged
KOD

Client: Bloor Homes

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES		0.40	14.97		Grass over dark brown sandy gravelly clay with abundant rootlets. Sand is fine. Gravel is fine to medium sub angular to sub rounded flint. TOPSOIL	
	0.50 0.50 0.50	B D PP	PP=0.3kg/cm2				Firm dark orange brown sandy gravelly CLAY with rootlets. Sand is fine. Gravel is fine to medium sub angular to sub rounded flint. RIVER TERRACE DEPOSITS	
	1.00	D		0.90	14.47		Soft orange brown very sandy gravelly CLAY with orange sand lenses. Sand is fine. Gravel is fine to medium sub angular to rounded of flint. RIVER TERRACE DEPOSITS	1
	1.50	D		1.40	13.97		Red brown clayey sandy flint GRAVEL with cobbles. Sand is fine to medium. Gravel is fine to coarse sub angular to rounded of flint. Cobbles are sub angular flint. RIVER TERRACE DEPOSITS	
	2.00	D					Becomes very cobbly and very sandy	2
	2.50	D					Green grey fine sand. WITTERING FORMATION	
	3.00	D		2.90 3.00	12.47 12.37		End of Pit at 3.00m	3
								4
								5

Remarks Soakage test

Stability Localised spalling





Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

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Trial Pit Log

Trial Pit No

TP5

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451479.82 - 114338.53
Level: 17.01

Date
28/03/2018

Location: Boorley Green

Dimensions (m): 3.30

Depth
3.00

0.60

Scale
1:25

Logged
KOD

Client: Bloor Homes

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES		0.30	16.71		Grass over dark brown sandy gravelly clay with abundant rootlets. Sand is fine. Gravel is fine to medium sub angular to sub rounded flint. TOPSOIL	
	0.50 0.50 0.50	B D PP	PP=0.3kg/cm2				Soft orange brown very sandy gravelly CLAY. Sand is fine. Gravel is fine to medium sub angular flint RIVER TERRACE DEPOSITS	
	1.00	D		0.90	16.11		Firm orange brown sandy gravelly CLAY with orange stained sandy lenses. Sand is fine. Gravel is fine to medium sub angular to rounded of flint. RIVER TERRACE DEPOSITS	1
	1.50	D		1.40	15.61		Orange brown and green grey clayey slightly gravelly SAND with black flecking. Sand is fine. Gravel is fine sub rounded flint. RIVER TERRACE DEPOSITS	
	2.00	D		1.80	15.21			2
	2.50	D						
	2.70 2.70			2.70 2.70	14.31 14.31		Orange brown clayey gravelly SAND with clay lenses. Sand is fine. Gravel is fine to medium sub angular to rounded of flint. WITTERING FORMATION	
	3.00	D		3.00	14.01		Orange brown and green grey clayey slightly gravelly SAND with black flecking. Sand is fine. Gravel is fine sub rounded flint. WITTERING FORMATION Firm orange grey and brown mottled sandy gravelly CLAY with abundant rootlets black staining. Sand is fine to medium. Gravel is fine sub angular flint. WITTERING FORMATION End of Pit at 3.00m	3
								4
								5

Remarks Soakage test

Stability Localised spalling





Unit 7, Danworth Farm
Hurstpierpoint
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Trial Pit Log

Trial Pit No

TP7

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451278.80 - 114306.63
Level: 22.74

Date
28/03/2018

Location: Boorley Green

Dimensions (m): 3.60

Depth
3.10

0.80

Scale
1:25

Logged
KOD

Client: Bloor Homes

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	22.44		Grass over dark brown silty sandy gravelly CLAY with abundant rootlets. Sand is fine. Gravel is fine to coarse sub angular flint. TOPSOIL	
	0.40	ES					Soft orange brown and grey sandy gravelly CLAY with rootlets RIVER TERRACE DEPOSITS	
	0.50	B						
	0.50	D						
	0.50	PP	PP=0.3kg/cm2	0.60	22.14		Firm grey silty gravelly CLAY with orange staining in one half (northern half) of the pit. Gravel is fine to medium sub angular flint.	
	0.60	D						
	0.60	PP	PP=0.8kg/cm2				Soft orange and grey mottled very sandy gravelly CLAY with orange sand lenses. Sand is fine. Gravel is fine to coarse sub angular to rounded of flint. RIVER TERRACE DEPOSITS	1
	1.00	D						
				1.20	21.54		Soft orange red and grey mottled silty sandy CLAY with orange staining. Sand is fine. WITTERING FORMATION	
	1.50	D						
				1.80	20.94		Soft dark grey brown silty very sandy CLAY with some orange sand lenses and visible bedding planes. Sand is fine. WITTERING FORMATION	2
	2.00	D						
	2.50	D						
	3.00	D						
				3.10	19.64			3
							End of Pit at 3.10m	
								4
								5

Water Strikes

Depth Strike

Rose to (img)

Remarks

Stability

Sides stable



Trial Pit Log

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451401.14 - 114272.17
Level: 24.17

Date
28/03/2018

Location: Boorley Green

Dimensions (m):

Depth 3.00

0.60

3.40

Scale
1:25

Logged
KOD

Client: Bloor Homes

[illegible]



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Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.

WS1

Sheet 1 of 1

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451577E - 114375N	Hole Type	WLS
Location:	Boorley Green	Level:	14.41	Scale	1:25	Logged By	FG
Client:	Bloor Homes	Dates:	28/03/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.25			0.25	14.16		Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL	
		0.40	ES					Brown clayey fine to medium sub angular to sub rounded flint GRAVEL with occasional cobbles RIVER TERRACE DEPOSITS	
		0.50	D						
		1.00	D						1
		1.50	D						
		2.00	D		2.00	12.41		Yellow/grey fine SAND RIVER TERRACE DEPOSITS	2
		2.50	D						
		3.00	D						3
		3.50	D						
		4.00			4.00	10.41			
								End of Borehole at 4.00m	4
									5

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
						Refused at 4m bgl, borehole collapsed to 2.5m bgl	



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BN6 9GL

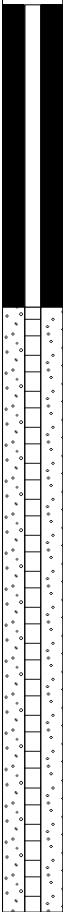
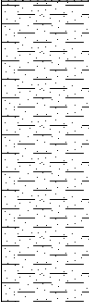
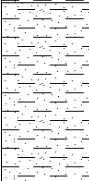
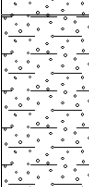
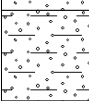
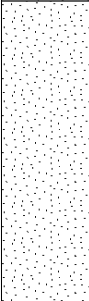
Borehole Log

Borehole No.

WS2

Sheet 1 of 1

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451567E - 114303N	Hole Type	WLS
Location:	Boorley Green	Level:	15.44	Scale	1:25	Logged By	FG
Client:	Bloor Homes	Dates:	28/03/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20	15.24		Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL	1
									
		0.50	D						
		0.50	PP	1.0kg/cm2					
		0.70	ES						
		1.00	D						
		1.00	PP	1.4kg/cm2	1.20	14.24		Soft brown very sandy CLAY. Sand is fine RIVER TERRACE DEPOSITS	
		1.50	D						
		1.50	PP	0.5kg/cm2	1.80	13.64		Brown very clayey fine to medium sub angular to sub rounded flint GRAVEL RIVER TERRACE DEPOSITS	2
		2.00	D		2.10	13.34		Brown slightly clayey fine to medium sub angular to sub rounded flint GRAVEL RIVER TERRACE DEPOSITS	
		2.50	D		2.70	12.74		Orange/brown slightly clayey fine to medium angular to sub angular flint GRAVEL RIVER TERRACE DEPOSITS	
		3.00	D		3.00	12.44		Orange and grey fine SAND WITTERING FORMATION	3
3.50	D								
4.00	D		4.00	11.44	End of Borehole at 4.00m			4	
									5

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
						Refused at 4m bgl, borehole collapsed to 3m bgl	



Geo-Environmental

Probe Log

Borehole No.

DP2

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451566.92 - 114303.39

Hole Type
DP

Location: Boorley Green

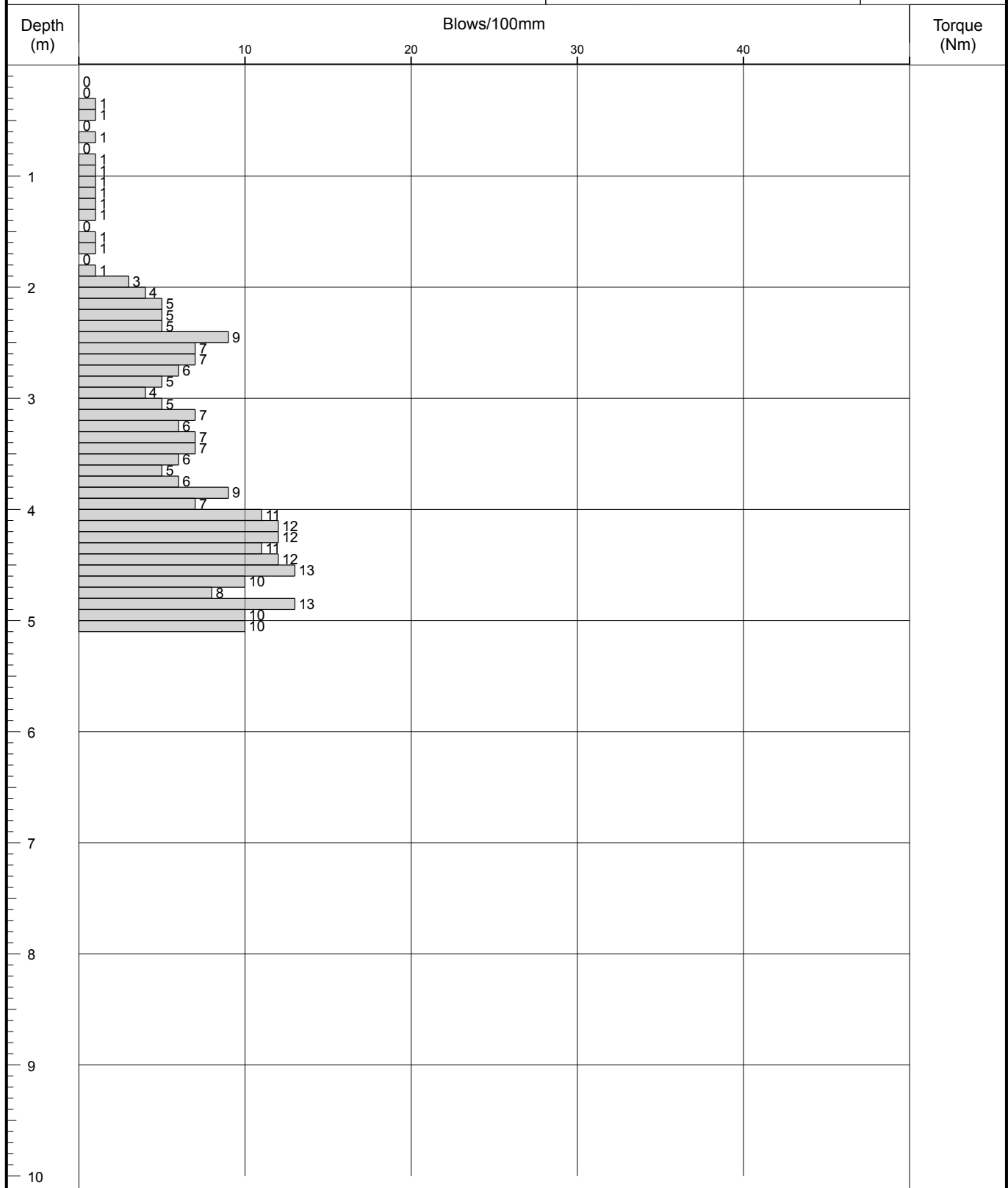
Level: 15.44

Scale
1:50

Client: Bloor Homes

Dates: 28/03/2018 -

Logged By



Remarks

Fall Height

Cone Base Diameter

Hammer Wt

Final Depth 5.00

Probe Type DPSH

Log Scale 1:50





Geo-Environmental

Unit 7, Danworth Farm
Hurstpierpoint
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Borehole Log

Borehole No.

WS3

Sheet 1 of 1

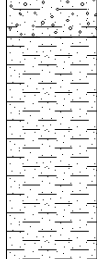
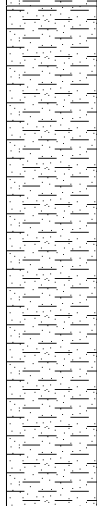
Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451445E - 114317N	Hole Type	WLS
Location:	Boorley Green	Level:	19.94	Scale	1:25	Logged By	FG
Client:	Bloor Homes	Dates:	28/03/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.25	19.69		Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL	
		0.50 0.50	D PP	1.5kg/cm2				Firm orange and brown mottled sandy CLAY with occasional flint gravel. Sand is fine RIVER TERRACE DEPOSITS	
		1.00 1.00	D PP	1.6kg/cm2					1
		1.50	D		1.40	18.54		Orange and grey slightly clayey fine SAND RIVER TERRACE DEPOSITS	
		2.00 2.00	D PP	1.5kg/cm2	1.90	18.04		Firm orange and grey mottled CLAY with occasional flint gravel RIVER TERRACE DEPOSITS	2
		2.50 2.50	D PP	1.9kg/cm2					
		3.00 3.00	D PP	2.0kg/cm2	3.20	16.74		Brown slightly clayey medium angular to sub angular flint GRAVEL RIVER TERRACE DEPOSITS	3
		3.50	D		3.70	16.24		Brown/orange very clayey fine SAND WITTERING FORMATION	
		4.00	D						4
		4.50 4.50	D PP	2.0kg/cm2	4.30	15.64		Stiff orange and grey slightly sandy CLAY with occasional flint gravel WITTERING FORMATION	
		5.00 5.00	D PP	2.2kg/cm2	5.00	14.94		End of Borehole at 5.00m	5

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		



 Unit 7, Danworth Farm Hurstpierpoint BN6 9GL www.gesl.net		Borehole Log			Borehole No. WS4 Sheet 1 of 1	
Project Name: Maddoxford Lane, Boorley Green		Project No. GE17077		Co-ords: 451333E - 114253N		Hole Type WLS
Location: Boorley Green				Level: 26.14		Scale 1:25
Client: Bloor Homes				Dates: 28/03/2018		Logged By FG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.15	25.99	 Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL		
					0.25	25.89			
		0.30	ES				 Dark brown silty very gravelly CLAY. Gravel is medium, sub angular of flint TOPSOIL		
		0.50 0.55	D PP	1.0kg/cm2	0.55	25.59			
							 Brown slightly sandy, clayey fine to medium sub angular to sub rounded flint GRAVEL. Sand is fine RIVER TERRACE DEPOSITS Firm orange/brown and grey mottled sandy CLAY. Sand is fine RIVER TERRACE DEPOSITS	1	
		1.00 1.00	D PP	1.0kg/cm2					
					1.30	24.84			
		1.50 1.50	D PP	1.5kg/cm2					
							 Stiff grey and slightly orange mottled slightly sandy CLAY. Sand is fine WITTERING FORMATION	2	
		2.00 2.00	D PP	1.6kg/cm2					
					2.50 2.50	D PP			1.8kg/cm2
							 Stiff dark grey CLAY WITTERING FORMATION	3	
		3.00 3.00	D PP	1.7kg/cm2	3.00	23.14			
						3.20	22.94	 Stiff grey CLAY WITTERING FORMATION	
		3.50 3.50	D PP	1.6kg/cm2					
					3.80	22.34	 Stiff dark grey CLAY WITTERING FORMATION	4	
	3.90 4.00	PP D	1.7kg/cm2	4.00	22.14				
					4.30	21.84	 Brown very sandy fine sub angular to sub rounded flint GRAVEL. Sand is medium WITTERING FORMATION		
	4.50	D							
							 Firm dark grey/black silty CLAY WITTERING FORMATION	5	
	5.00	D		5.00	21.14				
End of Borehole at 5.00m									

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to	





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Unit 7, Danworth Farm
Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.

WS5

Sheet 1 of 1

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451346E - 114348N	Hole Type	WLS
Location:	Boorley Green	Level:	22.24	Scale	1:25	Logged By	FG
Client:	Bloor Homes	Dates:	28/03/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20	ES		0.15	22.09		Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL	
		0.50 0.50	D PP	0.9kg/cm2				Firm orange, brown and grey mottled CLAY RIVER TERRACE DEPOSITS	
		1.00 1.00	D PP	1.0kg/cm2					1
		1.50 1.50	D PP	1.5kg/cm2					
					1.80	20.44			
		2.00	D		2.00	20.24		Firm orange and grey mottled interbedded sandy CLAY. Sand is fine WITTERING FORMATION	2
								Firm grey interbedded sandy CLAY. Sand is fine WITTERING FORMATION	
		2.50 2.50	D PP	1.0kg/cm2					
		3.00	D						3
					3.20	19.04		Firm grey and slightly orange slightly sandy CLAY. Sand is fine WITTERING FORMATION	
		3.50 3.50	D PP	1.1kg/cm2					
					3.80	18.44		Firm grey and orange interbedded sandy CLAY. Sand is fine WITTERING FORMATION	4
		4.00	D						
		4.50 4.50	D PP	1.2kg/cm2					
		5.00	D		5.00	17.24		End of Borehole at 5.00m	5

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		





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Hurstpierpoint
BN6 9GL

Borehole Log

Borehole No.

WS6

Sheet 1 of 2

Project Name:	Maddoxford Lane, Boorley Green	Project No.	GE17077	Co-ords:	451458E - 114389N	Hole Type	WLS
Location:	Boorley Green	Level:	17.38	Scale	1:25	Logged By	FG
Client:	Bloor Homes	Dates:	28/03/2018				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.25	17.13		Grass over dark brown slightly gravelly, silty CLAY with frequent rootlets TOPSOIL	
		0.50	D					Firm brown slightly sandy CLAY. Sand is fine RIVER TERRACE DEPOSITS	
		0.50	PP	1.5kg/cm2					
		0.60	ES						
					0.90	16.48		Firm brown and orange sandy CLAY. Sand is fine RIVER TERRACE DEPOSITS	1
		1.00	D						
		1.00	PP	1.1kg/cm2					
		1.50	D						
		1.50	PP	1.2kg/cm2					
					2.00	15.38		Orange/brown clayey fine SAND RIVER TERRACE DEPOSITS	2
					2.30	15.08		Soft brown sandy CLAY. Sand is fine RIVER TERRACE DEPOSITS	
		2.50	D		2.50	14.88		Red/brown clayey fine to medium sub angular to sub rounded flint GRAVEL RIVER TERRACE DEPOSITS	
		2.50	PP	0.9kg/cm2					
					3.00	14.28		Orange/brown very clayey medium angular to sub angular flint GRAVEL RIVER TERRACE DEPOSITS	3
			D		3.10				
					3.40	13.98		Firm orange/brown very gravelly CLAY. Gravel is medium angular to sub angular of flint RIVER TERRACE DEPOSITS	
		3.50	D						
					3.80	13.58		Orange/brown very clayey medium angular to sub angular flint GRAVEL RIVER TERRACE DEPOSITS	4
		4.00	D						
					4.30	13.08		Orange/brown sandy fine to medium angular to sub angular flint GRAVEL. Sand is medium RIVER TERRACE DEPOSITS	
		4.50	D						
					4.80	12.58		Orange/brown slightly clayey fine to medium angular to sub angular flint GRAVEL	
		5.00	D		5.00	12.38		Continued on Next Sheet	5

Casing		Water Strikes (mbgl)		Chiselling (mbgl)		Remarks	
Diameter	Depth (m)	Depth Strike	Rose to	Depth from	Depth to		
						Borehole collapsed to 4m bgl	



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Borehole Log

Borehole No.

WS6

Sheet 2 of 2

Project Name:

Maddoxford Lane, Boorley
Green

Project No.
GE17077

Co-ords:

451458E - 114389N

Hole Type	WLS
1	0.0000
2	0.0000
3	0.0000
4	0.0000
5	0.0000
6	0.0000
7	0.0000
8	0.0000
9	0.0000
10	0.0000
11	0.0000
12	0.0000
13	0.0000
14	0.0000
15	0.0000
16	0.0000
17	0.0000
18	0.0000
19	0.0000
20	0.0000
21	0.0000
22	0.0000
23	0.0000
24	0.0000
25	0.0000
26	0.0000
27	0.0000
28	0.0000
29	0.0000
30	0.0000
31	0.0000
32	0.0000
33	0.0000
34	0.0000
35	0.0000
36	0.0000
37	0.0000
38	0.0000
39	0.0000
40	0.0000
41	0.0000
42	0.0000
43	0.0000
44	0.0000
45	0.0000
46	0.0000
47	0.0000
48	0.0000
49	0.0000
50	0.0000
51	0.0000
52	0.0000
53	0.0000
54	0.0000
55	0.0000
56	0.0000
57	0.0000
58	0.0000
59	0.0000
60	0.0000
61	0.0000
62	0.0000
63	0.0000
64	0.0000
65	0.0000
66	0.0000
67	0.0000
68	0.0000
69	0.0000
70	0.0000
71	0.0000
72	0.0000
73	0.0000
74	0.0000
75	0.0000
76	0.0000
77	0.0000
78	0.0000
79	0.0000
80	0.0000
81	0.0000
82	0.0000
83	0.0000
84	0.0000
85	0.0000
86	0.0000
87	0.0000
88	0.0000
89	0.0000
90	0.0000
91	0.0000
92	0.0000
93	0.0000
94	0.0000
95	0.0000
96	0.0000
97	0.0000
98	0.0000
99	0.0000
100	0.0000

Location:

Boorley Green

Level:

17.38

Scale
1:25

Client:

Bloor Homes

Dates:

28/03/2018

Logged By
FG

[illegible]



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Probe Log

Borehole No.

DP6

Sheet 1 of 1

Project Name: Maddoxford Lane, Boorley Green

Project No.
GE17077

Co-ords: 451457.78 - 114389.40

Hole Type
DP

Location: Boorley Green

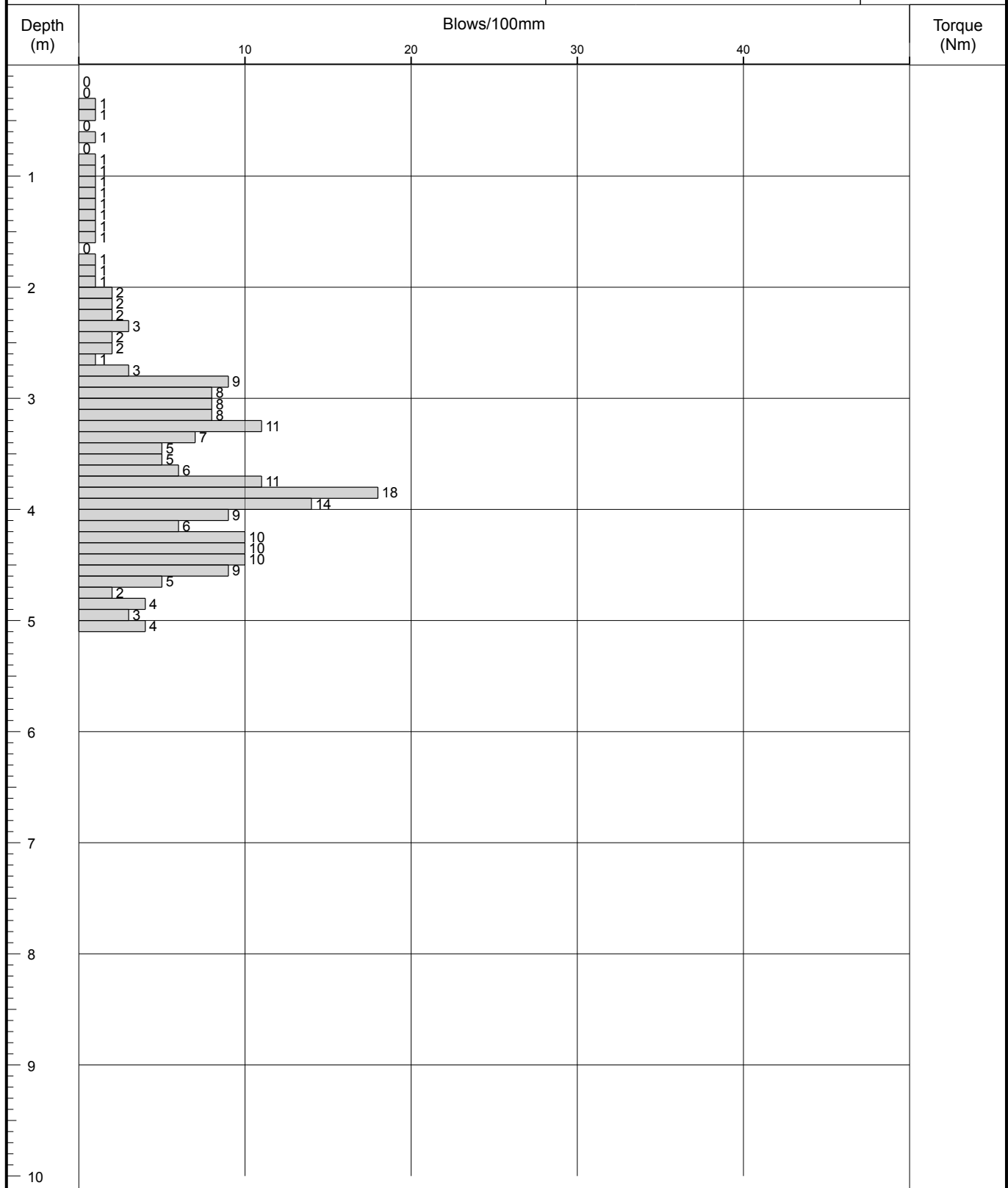
Level: 17.38

Scale
1:50

Client: Bloor Homes

Dates: 28/03/2018 -

Logged By



Remarks

Fall Height

Cone Base Diameter

Hammer Wt

Final Depth 5.00

Probe Type DPSH

Log Scale 1:50





APPENDIX D

Geotechnical Laboratory Results



					Summary of Natural Moisture Content, Liquid Limit and Plastic Limit Results						
Job No.		Project Name					Programme				
24294		Maddoxford Lane, Boorley Green					Samples received		03/04/2018		
Project No.		Client					Schedule received		04/04/2018		
GE17077		GESL					Project started		05/04/2018		
							Testing Started		16/04/2018		
Hole No.	Sample				Soil Description	NMC %	Passing 425µm %	LL %	PL %	PI %	Remarks
	Ref	Top m	Base m	Type							
TP1	5	1.50	-	D	Grey slightly mottled orangish brown silty CLAY	34	100	75	26	49	
TP2	3	0.50	-	B	Orangish brown slightly mottled grey slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	34	90	66	20	46	
TP3	4	1.00	-	D	Orangish brown slightly mottled dark grey slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	24	97	42	21	21	
TP4	3	0.50	-	B	Orangish brown slightly mottled dark grey slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	21	90	41	16	25	
TP5	2	0.50	-	D	Brown slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	21	95	30	15	15	
TP7	3	0.50	-	B	Light orangish brown slightly mottled grey and brown slightly gravelly silty CLAY with traces of fine rootlets (gravel is fmc and sub-angular to angular)	35	90	77	23	54	
TP7	6	2.00	-	D	Grey slightly mottled orangish brown silty CLAY	40	100	79	33	46	
TP8	5	1.50	-	D	Green slightly mottled orangish brown slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	22	98	40	14	26	
WS1	2	0.50	-	D	Orangish brown sandy clayey GRAVEL (gravel is fmc and angular to sub-angular)	12	13	34	18	16	Sample washed to obtain test fraction
WS2	3	1.00	-	D	Orangish brown slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	21	95	40	14	26	
WS3	2	0.50	-	D	Orangish brown slightly mottled grey slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to rounded)	34					
WS3	3	1.00	-	D	Orangish brown slightly mottled grey and light reddish brown slightly gravelly silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	23					

	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3 and 5.0	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	Checked and Approved Initials J.P Date: 18/04/2018
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)		MSF-5-R1(b)

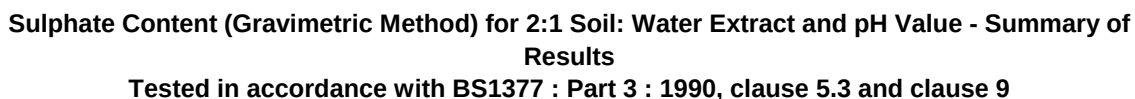


Summary of Natural Moisture Content, Liquid Limit and Plastic Limit Results

Job No. 24294	Project Name Maddoxford Lane, Boorley Green	Programme	
		Samples received	03/04/2018
		Schedule received	04/04/2018
Project No. GE17077	Client GESL	Project started	05/04/2018
		Testing Started	16/04/2018

Hole No.	Sample				Soil Description	NMC %	Passing 425µm %	LL %	PL %	PI %	Remarks
	Ref	Top m	Base m	Type							
WS3	4	1.50	-	D	Orangish brown slightly mottled grey sandy silty CLAY	17					
WS3	5	2.00	-	D	Orangish brown slightly mottled grey sandy silty CLAY	21					
WS3	6	2.50	-	D	Orangish brown slightly mottled light grey silty CLAY	34					
WS5	2	0.50	-	D	Orangish brown slightly mottled light grey silty CLAY with traces of fine rootlets	44					
WS5	3	1.00	-	D	Grey slightly mottled orangish brown silty CLAY with traces of fine rootlets	52					
WS5	4	1.50	-	D	Grey slightly mottled orangish brown silty CLAY	43					
WS5	5	2.00	-	D	Light orangish brown slightly mottled grey slightly sandy silty CLAY	53	100	74	31	43	
WS5	6	2.50	-	D	Grey slightly mottled orangish brown sandy silty CLAY	40					
WS6	3	1.00	-	D	Orangish brown slightly mottled grey slightly gravelly sandy silty CLAY with traces of fine rootlets (gravel is fm and sub-angular to angular)	24	97	38	14	24	

 2519	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3 and 5.0	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	Checked and Approved Initials J.P Date: 18/04/2018
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)		MSF-5-R1(b)

[illegible]

Checked and Approved	
Initials	J.P
Date:	18/04/2018



 UKAS TESTING 2519	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3 and 5.0	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	Checked and Approved Initials J.P Date: 08/06/2011
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr) MSF-5-R1(b)		



Sulphate Content (Gravimetric Method) for 2:1 Soil: Water Extract and pH Value - Summary of Results
Tested in accordance with BS1377 : Part 3 : 1990, clause 5.3 and clause 9

Job No. 24552	Project Name Maddoxford Lane, Boorley Green	Programme	
		Samples received	18/05/2018
		Schedule received	21/05/2018
Project No. GE17077	Client GESL	Project started	22/05/2018
		Testing Started	01/06/2018

Hole No.	Sample				Soil description	Dry Mass passing 2mm %	SO3 Content g/l	SO4 Content g/l	pH	Remarks
	Ref	Top m	Base m	Type						
BH1	16	10.50	-	D	Grey clayey SAND	100	0.39	0.47	7.82	
BH1	26	18.00	-	D	Dark greenish grey clayey SAND	100	0.29	0.35	7.68	
BH1	32	22.50	-	D	Dark greenish grey clayey SAND	100	0.23	0.27	7.62	

	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com								Checked and Approved
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)								Initials J.P Date: 08/06/2018



APPENDIX E

Geochemical Laboratory Results





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THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 18-16884

Issue: 1

Date of Issue: 06/04/2018

Contact: Fiona Goode

Customer Details: GESL
Unit 7
Danworth Farm
Hurstpierpoint
West Sussex
BN6 9GL

Quotation No: Q14-00021

Order No: PO-0157

Customer Reference: GE17077

Date Received: 29/03/2018

Date Approved: 06/04/2018

Details: Maddoxford Lane

Approved by: 

Mike Varley, Technical Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 18-16884

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
131248	TP1 0.20	28/03/2018	03/04/2018	Silty loam	
131249	TP2 0.40	28/03/2018	03/04/2018	Silty loam	
131250	TP3 0.40	28/03/2018	03/04/2018	Silty loam	
131251	TP4 0.30	28/03/2018	03/04/2018	Silty loam	
131252	TP5 0.20	28/03/2018	03/04/2018	Silty loam	
131253	TP7 0.40	28/03/2018	03/04/2018	Silty loam	
131254	TP8 0.40	28/03/2018	03/04/2018	Silty loam	
131255	WS1 0.40	28/03/2018	03/04/2018	Sandy silty loam & stones	
131256	WS2 0.70	28/03/2018	03/04/2018	Silty loam	
131257	WS3 0.15	28/03/2018	03/04/2018	Silty loam	
131258	WS4 0.30	28/03/2018	03/04/2018	Sandy silty loam & stones	
131259	WS5 0.20	28/03/2018	03/04/2018	Silty loam	
131260	WS6 0.60	28/03/2018	03/04/2018	Silty loam	

Results Summary

Report No.: 18-16884

ELAB Reference	131248	131249	131250	131251	131252	131253
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP2	TP3	TP4	TP5	TP7
Sample Depth (m)	0.20	0.40	0.40	0.30	0.20	0.40
Sampling Date	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018

Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	10.6	9.2	10.8	8.5	n/t	7.2
Barium	U	mg/kg	10	49.4	52.8	63.9	58.6	n/t	47.7
Beryllium	U	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	n/t	< 0.5
Chromium	M	mg/kg	5	29.5	34.5	38.9	24.6	n/t	26.1
Copper	M	mg/kg	5	14.3	10.7	13.5	24.4	n/t	8.0
Lead	M	mg/kg	5	38.5	21.8	16.7	24.4	n/t	20.0
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	n/t	< 0.5
Nickel	M	mg/kg	5	8.0	6.0	17.7	10.4	n/t	< 5.0
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
Vanadium	M	mg/kg	5	47.8	50.2	55.7	38.8	n/t	41.3
Zinc	M	mg/kg	5	61.9	42.6	70.0	59.1	n/t	28.5
Anions									
Water Soluble Chloride	M	mg/kg	40	< 40	< 40	< 40	< 40	n/t	< 40
Water Soluble Sulphate	M	g/l	0.02	< 0.02	< 0.02	< 0.02	< 0.02	n/t	< 0.02
Inorganics									
Elemental Sulphur	M	mg/kg	20	< 20	< 20	< 20	< 20	n/t	< 20
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	n/t	< 0.8
Total Sulphide	N	mg/kg	2	< 2	< 2	< 2	< 2	n/t	< 2
Total Cyanide	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
Acid Soluble Sulphate (SO4)	U	%	0.02	0.06	0.04	0.04	0.04	n/t	0.04
Water Soluble Boron	N	mg/kg	0.5	0.7	0.5	< 0.5	< 0.5	n/t	< 0.5
Miscellaneous									
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t	< 0.1	n/t	n/t	< 0.1	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t	3.80	n/t	n/t	2.32	n/t
pH	M	pH units	0.1	6.5	6.8	6.9	6.8	6.9	7.0
Total Organic Carbon	N	%	0.01	2.2	1.1	0.42	0.91	0.69	0.91
Phenols									
Total Phenols	N	mg/kg	6	< 6	< 6	< 6	< 6	n/t	< 6
Polyaromatic hydrocarbons									
Naphthalene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Phenanthrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Fluoranthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Benzo(a)anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Chrysene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Benzo (b) fluoranthene	M	mg/kg	0.1	0.2	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Benzo(k)fluoranthene	M	mg/kg	0.1	0.2	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Benzo (a) pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Benzo(g,h,i)perylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	n/t	< 0.1
Total PAH(16)	M	mg/kg	0.4	0.6	< 0.4	< 0.4	< 0.4	n/t	< 0.4
Total PAH (Including Coronene)	N	mg/kg	2	n/t	< 2	n/t	n/t	< 2	n/t

Results Summary

Report No.: 18-16884

ELAB Reference	131248	131249	131250	131251	131252	131253
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP2	TP3	TP4	TP5	TP7
Sample Depth (m)	0.20	0.40	0.40	0.30	0.20	0.40
Sampling Date	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018

Determinand	Codes	Units	LOD						
BTEX									
Benzene	M	ug/kg	10	< 10.0	< 10.0	< 10.0	< 10.0	n/t	< 10.0
Toluene	M	ug/kg	10	< 10.0	< 10.0	< 10.0	< 10.0	n/t	< 10.0
Ethylbenzene	M	ug/kg	10	< 10.0	< 10.0	< 10.0	< 10.0	n/t	< 10.0
Xylenes	M	ug/kg	10	< 10.0	< 10.0	< 10.0	< 10.0	n/t	< 10.0
Total BTEX	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	< 0.01	n/t
TPH CWG									
>C5-C6 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	n/t	< 0.01
>C6-C8 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	n/t	< 0.01
>C8-C10 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C10-C12 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C12-C16 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C16-C21 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C21-C35 Aliphatic	N	mg/kg	1	< 1.0	2.5	1.4	< 1.0	n/t	< 1.0
>C35-C40 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C5-C7 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	n/t	< 0.01
>C7-C8 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	n/t	< 0.01
>C8-C10 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C10-C12 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C12-C16 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C16-C21 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	n/t	< 1.0
>C21-C35 Aromatic	N	mg/kg	1	1.5	4.8	2.3	1.3	n/t	< 1.0
>C35-C40 Aromatic	N	mg/kg	1	1.3	3.6	2.0	1.3	n/t	< 1.0
Total (>C5-C40) Ali/Aro	N	mg/kg	1	2.8	10.9	5.6	2.6	n/t	< 1.0
Total Petroleum Hydrocarbons									
Mineral Oil	U	mg/kg	5	n/t	< 5	n/t	n/t	< 5	n/t
PCB (ICES 7 congeners)									
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t	< 0.03	n/t	n/t	< 0.03	n/t
OrganoChlorine Pesticides									
alpha-HCH	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
beta_HCH	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
gamma-HCH	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
delta-HCH	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Heptachlor	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Aldrin	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Heptachlor epoxide	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
trans-Chlordane	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
alpha cis-Chlordane	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
p,p-DDE	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Dieldrin	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Endrin	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
p,p-DDD	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Endosulfan II	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Endrin aldehyde	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
p,p-DDT	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Endosulphan sulphate	M	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Methoxychlor	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t
Endrin ketone	N	ug/kg	10	< 10	n/t	< 10	n/t	n/t	n/t

Results Summary

Report No.: 18-16884

ELAB Reference	131254	131255	131256	131257	131258	131259	131260
Customer Reference							
Sample ID							
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP8	WS1	WS2	WS3	WS4	WS5	WS6
Sample Depth (m)	0.40	0.40	0.70	0.15	0.30	0.20	0.60
Sampling Date	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018

Determinand	Codes	Units	LOD							
Metals										
Arsenic	M	mg/kg	1	7.0	^ 6.1	12.7	8.6	^ 7.9	11.7	14.3
Barium	U	mg/kg	10	37.0	21.2	38.8	40.0	19.8	41.4	49.3
Beryllium	U	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1
Cadmium	M	mg/kg	0.5	< 0.5	^ < 0.5	< 0.5	< 0.5	^ < 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	15.4	^ 14.6	38.9	26.8	^ 14.0	27.9	46.5
Copper	M	mg/kg	5	11.2	^ 7.9	12.6	14.8	^ 7.1	13.2	15.3
Lead	M	mg/kg	5	22.8	^ 6.8	11.7	37.7	^ 9.7	30.7	13.9
Mercury	M	mg/kg	0.5	< 0.5	^ < 0.5	< 0.5	< 0.5	^ < 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	6.2	^ 14.7	16.0	9.1	^ 7.7	6.8	17.3
Selenium	M	mg/kg	1	< 1.0	^ < 1.0	< 1.0	< 1.0	^ < 1.0	< 1.0	< 1.0
Vanadium	M	mg/kg	5	24.1	^ 20.2	58.6	42.1	^ 12.6	46.3	66.1
Zinc	M	mg/kg	5	38.2	^ 30.7	52.3	47.0	^ 31.3	41.1	64.0
Anions										
Water Soluble Chloride	M	mg/kg	40	< 40	^ < 40	< 40	< 40	^ < 40	< 40	< 40
Water Soluble Sulphate	M	g/l	0.02	< 0.02	^ < 0.02	< 0.02	< 0.02	^ < 0.02	< 0.02	< 0.02
Inorganics										
Elemental Sulphur	M	mg/kg	20	< 20	^ < 20	< 20	< 20	^ < 20	< 20	< 20
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Total Sulphide	N	mg/kg	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Total Cyanide	M	mg/kg	1	< 1.0	^ < 1.0	< 1.0	< 1.0	^ < 1.0	< 1.0	< 1.0
Acid Soluble Sulphate (SO4)	U	%	0.02	0.03	0.02	0.03	0.03	0.02	0.04	0.03
Water Soluble Boron	N	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Miscellaneous										
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t	n/t	n/t	n/t	n/t	n/t	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t	n/t	n/t	n/t	n/t	n/t	n/t
pH	M	pH units	0.1	6.6	^ 7.0	7.1	6.7	^ 7.1	7.0	6.9
Total Organic Carbon	N	%	0.01	0.55	0.32	0.76	0.14	0.06	1.8	0.20
Phenols										
Total Phenols	N	mg/kg	6	< 6	< 6	< 6	< 6	< 6	< 6	< 6
Polyaromatic hydrocarbons										
Naphthalene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	< 0.1	^ < 0.1	< 0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	0.1	^ < 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	< 0.1	^ < 0.1	< 0.1	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	< 0.1	^ < 0.1	< 0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	0.3	^ < 0.1	< 0.1	< 0.1
Anthracene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	0.1	^ < 0.1	< 0.1	< 0.1
Fluoranthene	M	mg/kg	0.1	0.2	^ < 0.1	< 0.1	1.0	^ < 0.1	0.1	< 0.1
Pyrene	M	mg/kg	0.1	0.2	^ < 0.1	< 0.1	0.8	^ < 0.1	< 0.1	< 0.1
Benzo(a)anthracene	M	mg/kg	0.1	0.1	^ < 0.1	< 0.1	0.8	^ < 0.1	< 0.1	< 0.1
Chrysene	M	mg/kg	0.1	0.2	^ < 0.1	< 0.1	0.7	^ < 0.1	< 0.1	< 0.1
Benzo (b) fluoranthene	M	mg/kg	0.1	0.1	^ < 0.1	< 0.1	0.8	^ < 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	M	mg/kg	0.1	0.3	^ < 0.1	< 0.1	1.0	^ < 0.1	< 0.1	< 0.1
Benzo (a) pyrene	M	mg/kg	0.1	0.1	^ < 0.1	< 0.1	0.7	^ < 0.1	< 0.1	< 0.1
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	0.5	^ < 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	^ < 0.1	< 0.1	0.2	^ < 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	M	mg/kg	0.1	0.1	^ < 0.1	< 0.1	0.5	^ < 0.1	0.1	< 0.1
Total PAH(16)	M	mg/kg	0.4	1.0	^ < 0.4	< 0.4	7.6	^ < 0.4	< 0.4	< 0.4
Total PAH (Including Coronene)	N	mg/kg	2	n/t	n/t	n/t	n/t	n/t	n/t	n/t

Results Summary

Report No.: 18-16884

ELAB Reference	131254	131255	131256	131257	131258	131259	131260
Customer Reference							
Sample ID							
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP8	WS1	WS2	WS3	WS4	WS5	WS6
Sample Depth (m)	0.40	0.40	0.70	0.15	0.30	0.20	0.60
Sampling Date	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018	28/03/2018

Determinand	Codes	Units	LOD							
BTEX										
Benzene	M	ug/kg	10	< 10.0	^ < 10.0	< 10.0	< 10.0	^ < 10.0	< 10.0	< 10.0
Toluene	M	ug/kg	10	< 10.0	^ < 10.0	< 10.0	< 10.0	^ < 10.0	< 10.0	< 10.0
Ethylbenzene	M	ug/kg	10	< 10.0	^ < 10.0	< 10.0	< 10.0	^ < 10.0	< 10.0	< 10.0
Xylenes	M	ug/kg	10	< 10.0	^ < 10.0	< 10.0	< 10.0	^ < 10.0	< 10.0	< 10.0
Total BTEX	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t	n/t
TPH CWG										
>C5-C6 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
>C6-C8 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
>C8-C10 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C10-C12 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C12-C16 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C16-C21 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C21-C35 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C35-C40 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C5-C7 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
>C7-C8 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
>C8-C10 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C10-C12 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C12-C16 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C16-C21 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C21-C35 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C35-C40 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total (>C5-C40) Ali/Aro	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Petroleum Hydrocarbons										
Mineral Oil	U	mg/kg	5	n/t	n/t	n/t	n/t	n/t	n/t	n/t
PCB (ICES 7 congeners)										
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t	n/t	n/t	n/t	n/t	n/t	n/t
OrganoChlorine Pesticides										
alpha-HCH	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
beta_HCH	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
gamma-HCH	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
delta-HCH	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
Heptachlor	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
Aldrin	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Heptachlor epoxide	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
trans-Chlordane	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
alpha cis-Chlordane	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
p,p-DDE	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Dieldrin	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Endrin	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
p,p-DDD	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Endosulfan II	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
Endrin aldehyde	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
p,p-DDT	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Endosulphan sulphate	M	ug/kg	10	n/t	n/t	n/t	n/t	^ < 10	n/t	n/t
Methoxychlor	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t
Endrin ketone	N	ug/kg	10	n/t	n/t	n/t	n/t	< 10	n/t	n/t

Results Summary

Report No.: 18-16884

2683

WAC Analysis

Elab Ref:	131252					Landfill Waste Acceptance Criteria Limits		
Sample Date:	28/03/2018					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	TP5							
Depth (m)	0.2							
Site:	Maddoxford Lane							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.69	3	5	6
Loss on Ignition		M	%		2.3	--	--	10
Total BTEX		M	mg/kg		< 0.01	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		< 5	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			6.9	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

		10:1	10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
		mg/l	mg/kg			
Arsenic	N	< 0.005	< 0.05	0.5	2	25
Barium	N	< 0.005	< 0.05	20	100	300
Cadmium	N	< 0.001	< 0.01	0.04	1	5
Chromium	N	< 0.005	< 0.05	0.5	10	70
Copper	N	< 0.005	< 0.05	2	50	100
Mercury	N	< 0.005	< 0.01	0.01	0.2	2
Molybdenum	N	< 0.005	< 0.05	0.5	10	30
Nickel	N	< 0.001	< 0.05	0.4	10	40
Lead	N	< 0.001	< 0.05	0.5	10	50
Antimony	N	< 0.005	< 0.05	0.06	0.7	5
Selenium	N	< 0.005	< 0.05	0.1	0.5	7
Zinc	N	< 0.005	< 0.05	4	50	200
Chloride	N	< 5	< 50	800	15000	25000
Fluoride	N	< 5	< 10	10	150	500
Sulphate	N	1	10.50	1000	20000	50000
Total Dissolved Solids	N	< 10	< 100	4000	60000	100000
Phenol Index	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon	N	7.820	78.00	500	800	1000

Leach Test Information

pH	N	6.8				
Conductivity (uS/cm)	N	20				
Dry mass of test portion (g)		102.000				
Dry Matter (%)		83				
Moisture (%)		20				
Eluent Volume (ml)		963				

Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 18-16884

2683

WAC Analysis

Elab Ref:	131249					Landfill Waste Acceptance Criteria Limits		
Sample Date:	28/03/2018					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	TP2							
Depth (m)	0.4							
Site:	Maddoxford Lane							
Determinand		Code	Units					
Total Organic Carbon		N	%		1.10	3	5	6
Loss on Ignition		M	%		3.8	--	--	10
Total BTEX		M	mg/kg		< 0.01	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		< 5	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			6.8	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			10:1	10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
			mg/l	mg/kg			
Arsenic		N	< 0.005	< 0.05	0.5	2	25
Barium		N	< 0.005	< 0.05	20	100	300
Cadmium		N	< 0.001	< 0.01	0.04	1	5
Chromium		N	< 0.005	< 0.05	0.5	10	70
Copper		N	< 0.005	< 0.05	2	50	100
Mercury		N	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	< 0.005	< 0.05	0.5	10	30
Nickel		N	< 0.001	< 0.05	0.4	10	40
Lead		N	< 0.001	< 0.05	0.5	10	50
Antimony		N	< 0.005	< 0.05	0.06	0.7	5
Selenium		N	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	< 0.005	< 0.05	4	50	200
Chloride		N	< 5	< 50	800	15000	25000
Fluoride		N	< 5	< 10	10	150	500
Sulphate		N	2	16.00	1000	20000	50000
Total Dissolved Solids		N	< 10	< 100	4000	60000	100000
Phenol Index		N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	8.210	82.00	500	800	1000

Leach Test Information

pH		N	7.8				
Conductivity (uS/cm)		N	37				
Dry mass of test portion (g)			102.000				
Dry Matter (%)			82				
Moisture (%)			22				
Eluent Volume (ml)			958				

Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 18-16884

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
131248	0.20	TP1	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131249	0.40	TP2	Brown soil	No asbestos detected	n/t	n/t	n/t	n/t
131250	0.40	TP3	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131251	0.30	TP4	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131253	0.40	TP7	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131254	0.40	TP8	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131255	0.40	WS1	Brown sandy soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131256	0.70	WS2	Brown sandy soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131257	0.15	WS3	Brown soil,Stomnes	No asbestos detected	n/t	n/t	n/t	n/t
131258	0.30	WS4	Brown sandy soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131259	0.20	WS5	Brown soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
131260	0.60	WS6	Brown soil	No asbestos detected	n/t	n/t	n/t	n/t

Method Summary

Report No.: 18-16884

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Sulphide	N	As submitted sample	04/04/2018	109	Colorimetry
Hexavalent chromium	N	As submitted sample	04/04/2018	110	Colorimetry
Acid Soluble Sulphate	U	Air dried sample	05/04/2018	115	Ion Chromatography
Aqua regia extractable metals	M	Air dried sample	04/04/2018	118	ICPMS
Phenols in solids	N	As submitted sample	04/04/2018	121	HPLC
Elemental Sulphur	M	Air dried sample	04/04/2018	122	HPLC
PAH (GC-FID)	M	As submitted sample	04/04/2018	133	GC-FID
Water soluble anions	M	Air dried sample	04/04/2018	172	Ion Chromatography
Organochlorine Pesticides in solids	M	As submitted sample	04/04/2018	173	GC-MS
Low range Aliphatic hydrocarbons soil	N	As submitted sample	04/04/2018	181	GC-MS
Low range Aromatic hydrocarbons soil	N	As submitted sample	04/04/2018	181	GC-MS
Water soluble boron	N	Air dried sample	04/04/2018	202	Colorimetry
Total cyanide	M	As submitted sample	04/04/2018	204	Colorimetry
Aliphatic hydrocarbons in soil	N	As submitted sample	04/04/2018	214	GC-FID
Aliphatic/Aromatic hydrocarbons in soil	N	As submitted sample	05/04/2018	214	GC-FID
Aromatic hydrocarbons in soil	N	As submitted sample	04/04/2018	214	GC-FID
Asbestos identification	U	Air dried sample	04/04/2018	PMAN	Microscopy
Leachate					
Arsenic*	N		06/04/2018	101	ICPMS
Cadmium*	N		06/04/2018	101	ICPMS
Chromium*	N		06/04/2018	101	ICPMS
Lead*	N		06/04/2018	101	ICPMS
Nickel*	N		06/04/2018	101	ICPMS
Copper*	N		06/04/2018	101	ICPMS
Zinc*	N		06/04/2018	101	ICPMS
Mercury*	N		06/04/2018	101	ICPMS
Selenium*	N		06/04/2018	101	ICPMS
Antimony	N		06/04/2018	101	ICPMS
Barium*	N		06/04/2018	101	ICPMS
Molybdenum*	N		06/04/2018	101	ICPMS
pH Value*	N		06/04/2018	113	Electrometric
Electrical Conductivity*	N		06/04/2018	136	Probe
Dissolved Organic Carbon	N		06/04/2018	102	TOC analyser
Chloride*	N		06/04/2018	131	Ion Chromatography
Fluoride*	N		06/04/2018	131	Ion Chromatography
Sulphate*	N		06/04/2018	131	Ion Chromatography
Total Dissolved Solids	N		06/04/2018	144	Gravimetric
Phenol index	N		06/04/2018	121	HPLC
WAC Solids analysis	N				
pH Value**	M	Air dried sample	05/04/2018	113	Electrometric
Total Organic Carbon	N	Air dried sample	05/04/2018	210	IR
Loss on Ignition**	M	Air dried sample	05/04/2018	129	Gravimetric
Acid Neutralization Capacity to pH 7	N	Air dried sample	05/04/2018	NEN 737	Electrometric
Total BTEX**	M	As submitted sample	04/04/2018	181	GCMS
Mineral Oil**	U	As submitted sample	04/04/2018	117	GCFID
Total PCBs (7 congeners)	M	Air dried sample	04/04/2018	120	GCMS
Total PAH (17)**	N	As submitted sample	05/04/2018	133	GCFID

Tests marked N are not UKAS accredited

Report Information

Report No.: 18-16884

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
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I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis (dried at < 30°C)

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

-
- | | |
|---|--|
| a | No date of sampling supplied |
| b | No time of sampling supplied (Waters Only) |
| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618
Facsimile: (01424) 729911
info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 18-17075

Issue: 1

Date of Issue: 19/04/2018

Contact: Tobias Smith

Customer Details: GESL
Unit 7
Danworth Farm
Hurstpierpoint
West Sussex
BN6 9GL

Quotation No: Q14-00021

Order No: Not Supplied

Customer Reference: GE17077

Date Received: 13/04/2018

Date Approved: 19/04/2018

Details: Maddoxford Lane, Boorley Green

Approved by:



Mike Varley, Technical M

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 18-17075

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
132559	WS04 0.34	12/04/2018	13/04/2018		
132560	WS06 0.30	12/04/2018	13/04/2018		



Results Summary

Report No.: 18-17075

ELAB Reference	132559	132560
Customer Reference		
Sample ID		
Sample Type	WATER	WATER
Sample Location	WS04	WS06
Sample Depth (m)	0.34	0.30
Sampling Date	12/04/2018	12/04/2018

Determinand	Codes	Units	LOD		
Dissolved Metals					
Arsenic	U	ug/l	5	< 5	< 5
Boron	N	ug/l	5	471	73
Barium	U	ug/l	5	62	17
Beryllium	U	ug/l	5	< 5	< 5
Cadmium	U	ug/l	1	< 1	< 1
Chromium	U	ug/l	5	< 5	< 5
Copper	U	ug/l	5	< 5	< 5
Mercury	U	ug/l	0.1	< 0.1	< 0.1
Nickel	U	ug/l	5	12	< 5
Lead	U	ug/l	1	< 1	< 1
Selenium	U	ug/l	5	< 5	< 5
Vanadium	N	ug/l	5	< 5	< 5
Zinc	U	ug/l	5	18	< 5
Anions					
Chloride	N	mg/l	0.5	315	9.8
Sulphate	N	mg/l	0.5	177	17.3
Inorganics					
Elemental Sulphur	N	mg/l	0.1	< 0.1	< 0.1
Hexavalent Chromium	U	ug/l	100	< 100	< 100
Sulphide	N	mg/l	0.1	< 0.1	< 0.1
Miscellaneous					
Dissolved organic carbon	U	mg/l	1.5	< 1.5	< 1.5
pH	U	pH units	0.1	6.9	7.4
Phenols					
Phenol	N	ug/l	1	< 1	< 1
M,P-Cresol	N	ug/l	1	< 1	< 1
O-Cresol	N	ug/l	1	< 1	< 1
3,4-Dimethylphenol	N	ug/l	1	< 1	< 1
2,3-Dimethylphenol	N	ug/l	1	< 1	< 1
2,3,5-trimethylphenol	N	ug/l	1	< 1	< 1
Total Monohydric Phenols	N	ug/l	1	< 1	< 1
Polyaromatic hydrocarbons					
Naphthalene GCMS	N	ug/l	0.01	0.06	0.13
Acenaphthylene GCMS	N	ug/l	0.01	0.02	0.03
Acenaphthene GCMS	N	ug/l	0.01	< 0.01	< 0.01
Fluorene GCMS	N	ug/l	0.01	0.01	0.02
Phenanthrene GCMS	N	ug/l	0.01	0.06	0.12
Anthracene GCMS	N	ug/l	0.01	0.03	0.05
Fluoranthene GCMS	N	ug/l	0.01	0.15	0.29
Pyrene GCMS	N	ug/l	0.01	0.14	0.25
Benzo (a) anthracene GCMS	N	ug/l	0.01	0.16	0.25
Chrysene GCMS	N	ug/l	0.01	0.11	0.31
Benzo (b) fluoranthene GCMS	N	ug/l	0.01	0.18	0.44
Benzo (k) fluoranthene GCMS	N	ug/l	0.01	0.10	0.23
Benzo (a) pyrene GCMS	N	ug/l	0.01	0.19	0.36
Indeno (1,2,3-cd) pyrene GCMS	N	ug/l	0.01	0.13	0.28
Dibenzo(a,h)anthracene GCMS	N	ug/l	0.01	0.08	0.14
Benzo(ghi)perylene GCMS	N	ug/l	0.01	0.11	0.25
Total PAH(16) GCMS	N	ug/l	0.01	1.53	3.15



Results Summary

Report No.: 18-17075

ELAB Reference	132559	132560
Customer Reference		
Sample ID		
Sample Type	WATER	WATER
Sample Location	WS04	WS06
Sample Depth (m)	0.34	0.30
Sampling Date	12/04/2018	12/04/2018

Determinand	Codes	Units	LOD		
TPH CWG					
>C5-C6 Aliphatic	N	ug/l	1	< 1.0	< 1.0
>C6-C8 Aliphatic	N	ug/l	1	< 1.0	< 1.0
>C8-C10 Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C10-C12 Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C12-C16 Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C16-C21 Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C21-C35 Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C35-C40 Aliphatic	N	ug/l	5	< 5.0	< 5.0
Total (>C5-C40) Aliphatic	N	ug/l	5	< 5.0	< 5.0
>C5-C7 Aromatic	N	ug/l	1	< 1.0	< 1.0
>C7-C8 Aromatic	N	ug/l	1	< 1.0	< 1.0
>C8-C10 Aromatic	N	ug/l	5	< 5.0	< 5.0
>C10-C12 Aromatic	N	ug/l	5	< 5.0	< 5.0
>C12-C16 Aromatic	N	ug/l	5	< 5.0	< 5.0
>C16-C21 Aromatic	N	ug/l	5	< 5.0	< 5.0
>C21-C35 Aromatic	N	ug/l	5	14.8	< 5.0
>C35-C40 Aromatic	N	ug/l	5	< 5.0	< 5.0
Total (>C5-C40) Aromatic	N	ug/l	5	14.8	< 5.0
Total (>C5-C40) Ali/Aro	N	ug/l	5	14.8	< 5.0

Method Summary

Report No.: 18-17075

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Water					
Aliphatic/Aromatic hydrocarbons in water	N		18/04/2018		GC-FID
Aromatic hydrocarbons in water	N		18/04/2018		GC-FID
Phenols in waters	N		17/04/2018		HPLC
Dissolved metals by ICP in waters	U		17/04/2018	101	ICPMS
Dissolved organic carbon	U		18/04/2018	102	IR
pH of waters	U		17/04/2018	113	Electromeric
Chromium Hexavalent in waters	U		19/04/2018	123	Colorimetry
PAHs and/or PCBs in waters	N		17/04/2018	135	GC-MS
Low range Aliphatic hydrocarbons water	N		18/04/2018	200	GC-MS
Low range Aromatic hydrocarbons water	N		18/04/2018	200	GC-MS
Elemental Sulphur by HPLC in waters	N	As submitted sample	17/04/2018	206	HPLC
Aliphatic hydrocarbons in water	N		17/04/2018	215	GC-FID
Aromatic hydrocarbons in water	N		17/04/2018	215	GC-FID
Anions	N		19/04/2018	270	Ion Chromatography

Tests marked N are not UKAS accredited

Report Information

Report No.: 18-17075

Key

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Soil sample results are expressed on an air dried basis (dried at < 30°C)

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The results relate only to the items tested

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Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

-
- | | |
|---|--|
| a | No date of sampling supplied |
| b | No time of sampling supplied (Waters Only) |
| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



APPENDIX F

Groundwater Monitoring

Results



Project: Maddoxord Lane, Boorley Green
Ref: GE17077
Client:

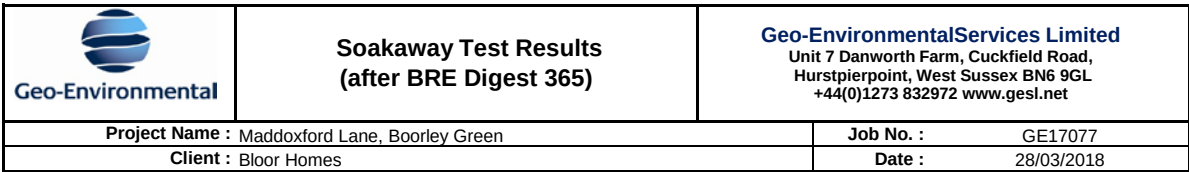
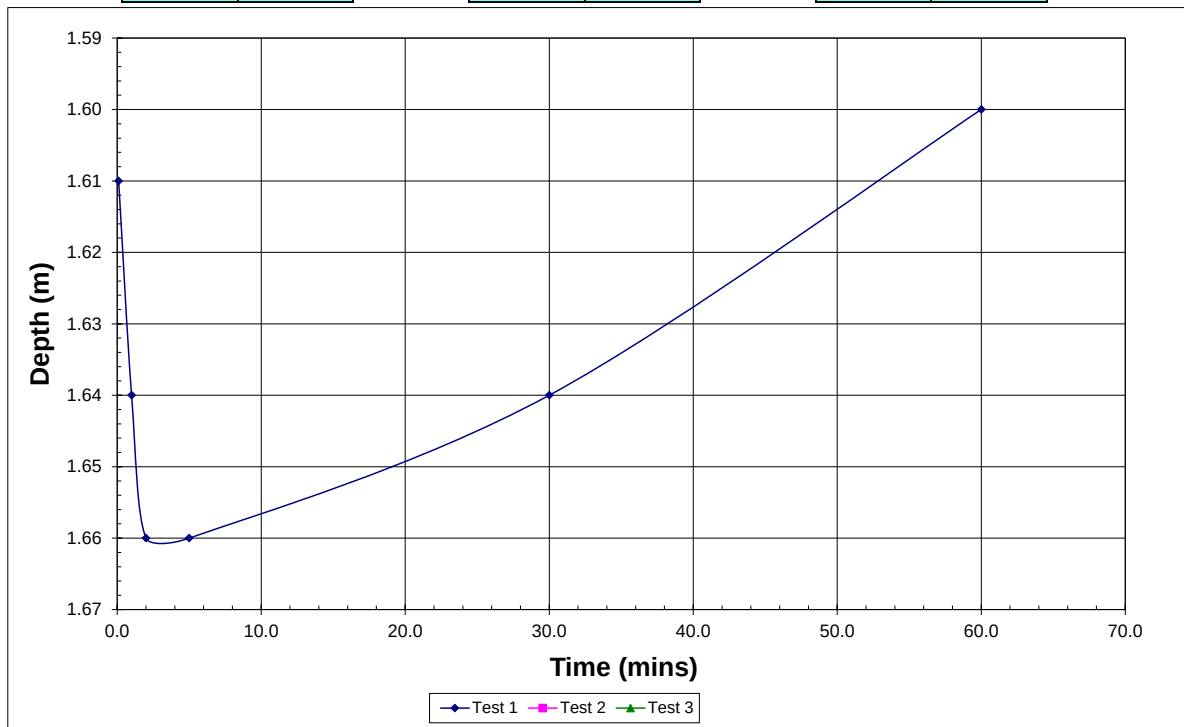
Location	Date	Time (sec)	GWL (m bgl)
WS02	12/04/18	10	DRY
WS02	12/04/18	20	DRY
WS02	12/04/18	30	DRY
WS02	12/04/18	60	DRY
WS02	12/04/18	120	DRY
WS04	12/04/18	10	0.34
WS04	12/04/18	20	0.34
WS04	12/04/18	30	0.34
WS04	12/04/18	60	0.34
WS04	12/04/18	120	0.34
WS06	12/04/18	10	0.30
WS06	12/04/18	20	0.30
WS06	12/04/18	30	0.30
WS06	12/04/18	60	0.30
WS06	12/04/18	120	0.30



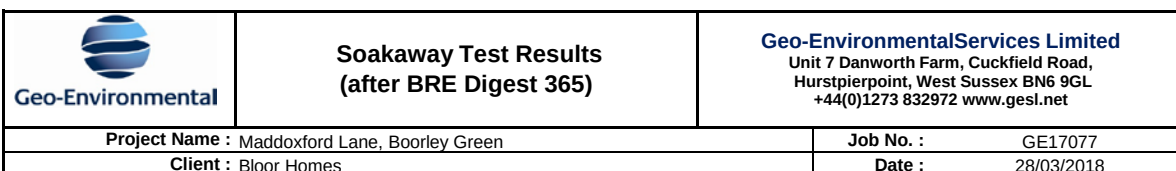
APPENDIX G

Soakage Testing Results



[illegible][illegible][illegible]

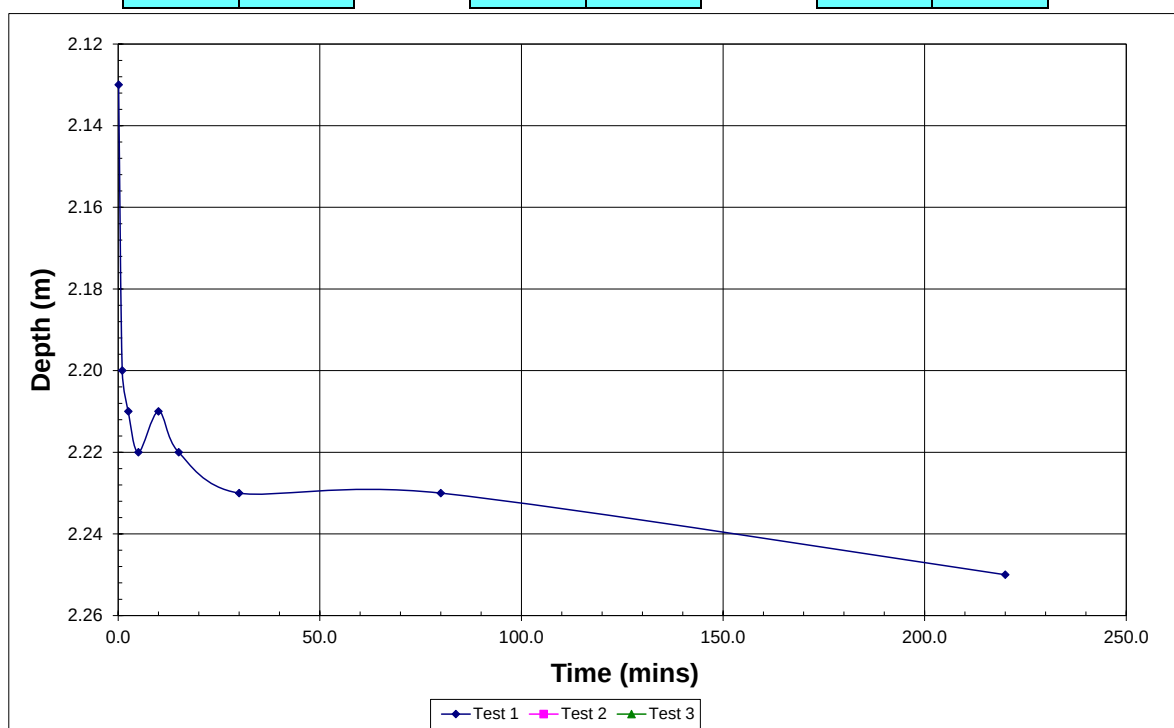
Soil infiltration rate (m/s)	#DIV/0!	#DIV/0!	#DIV/0!
Soil infiltration rate (mm/hr)	#DIV/0!	#DIV/0!	#DIV/0!



Geo-Environmental Services Limited
Unit 7 Danworth Farm, Cuckfield Road,
Hurstpierpoint, West Sussex BN6 9GL
+44(0)1273 832972 www.qesi.net

Job No. : GE17077

Date : 28/03/2018



Max. depth (m)	3.00	3.00	3.00
Effective depth (m)	0.87	3.00	3.00
75% effective depth (m)	2.35	0.75	0.75
50% effective depth (m)	2.57	1.50	1.50
25% effective depth (m)	2.78	2.25	2.25
t75 (min)			
t50 (min)			
t25 (min)			
Vp 75-25	1.11	3.84	3.84
ap 50	6.04	14.56	14.56
tp 75-25	0.00	0.00	0.00

