



APPENDIX H EXPLORATORY HOLE RECORDS

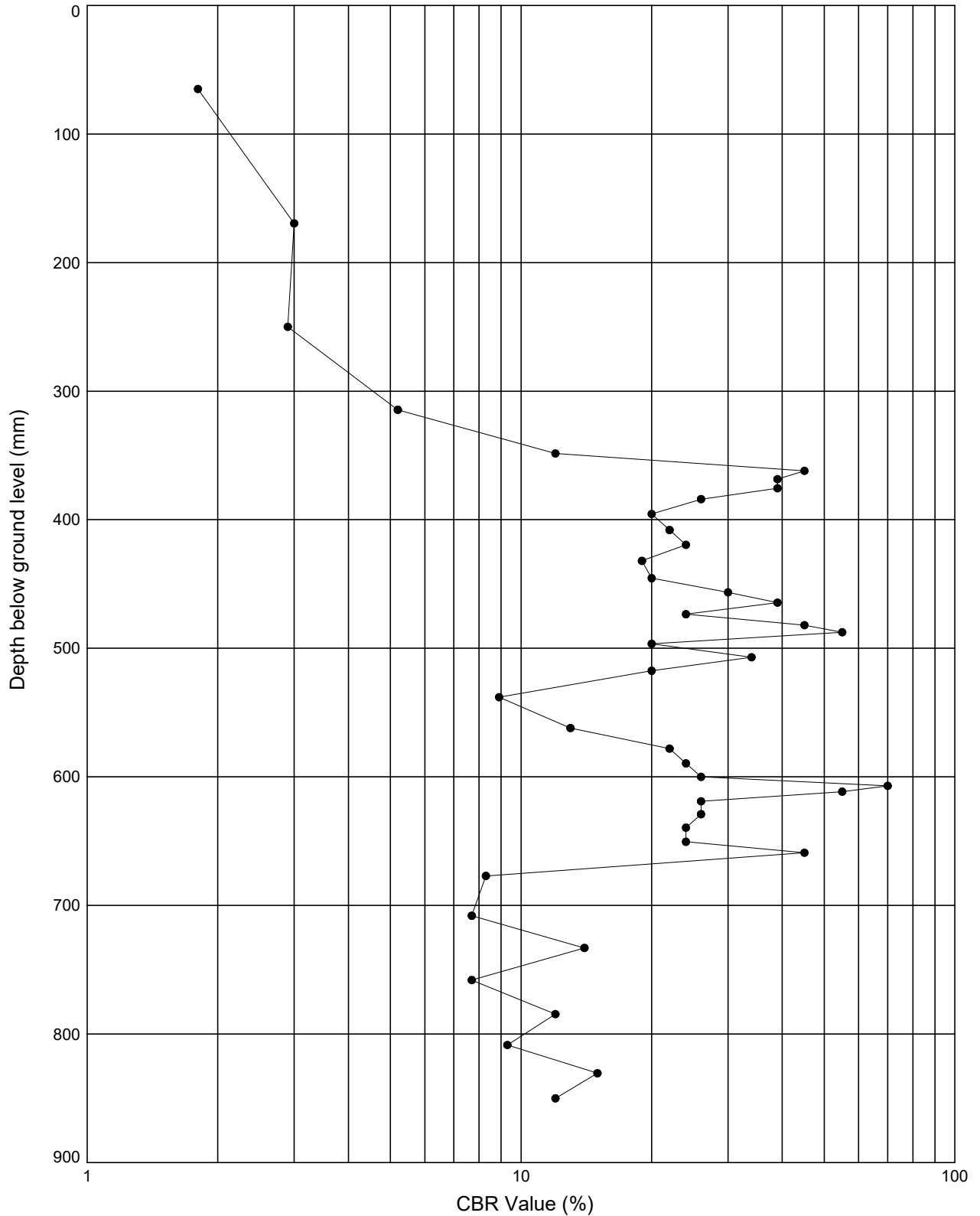
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP1**

Test Date : **17.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract		Contract Ref:	
	Ditton Edge, East Malling		52254	

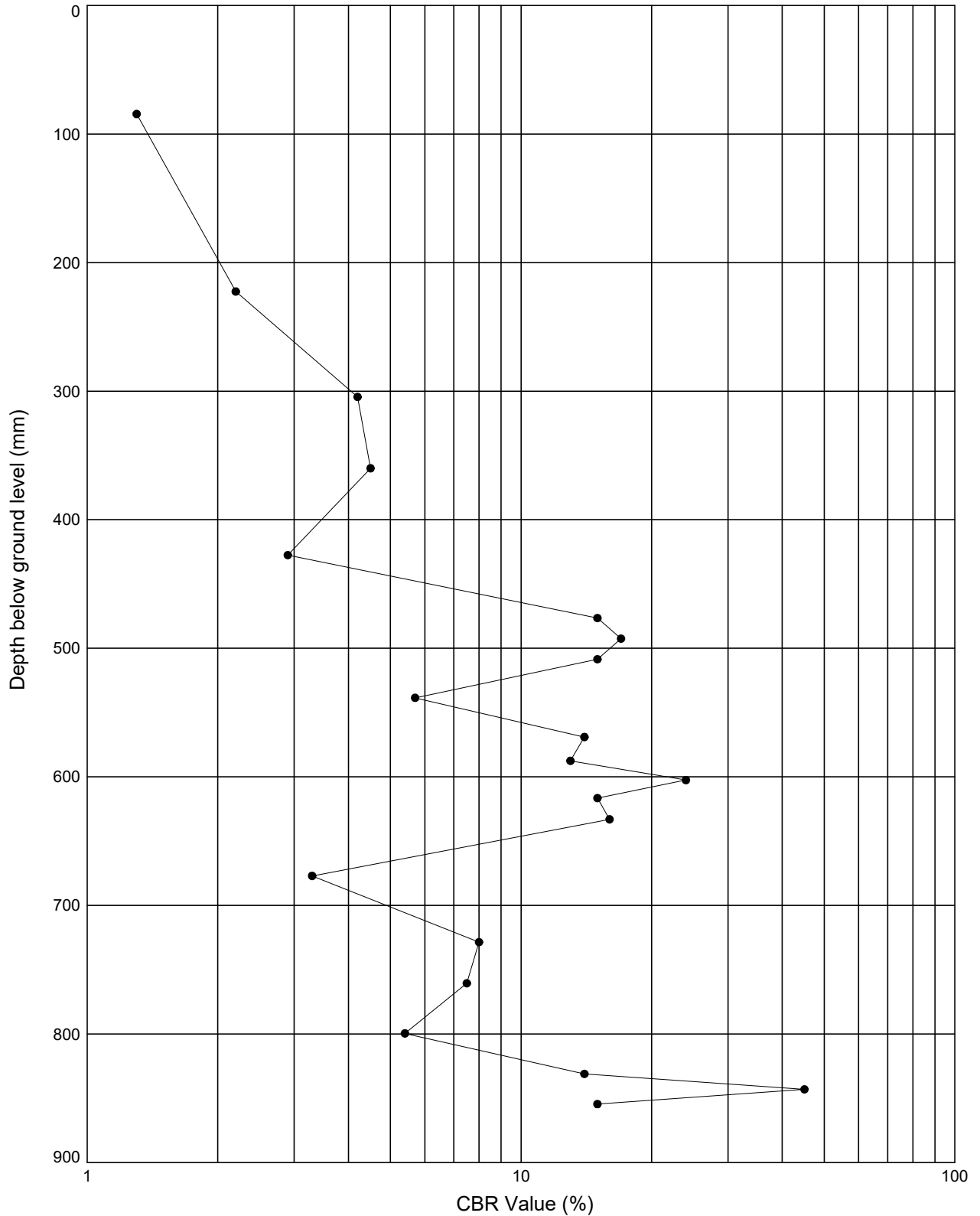
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP2**

Test Date : **17.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 | ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01. | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract		Contract Ref:	
Ditton Edge, East Malling		52254		

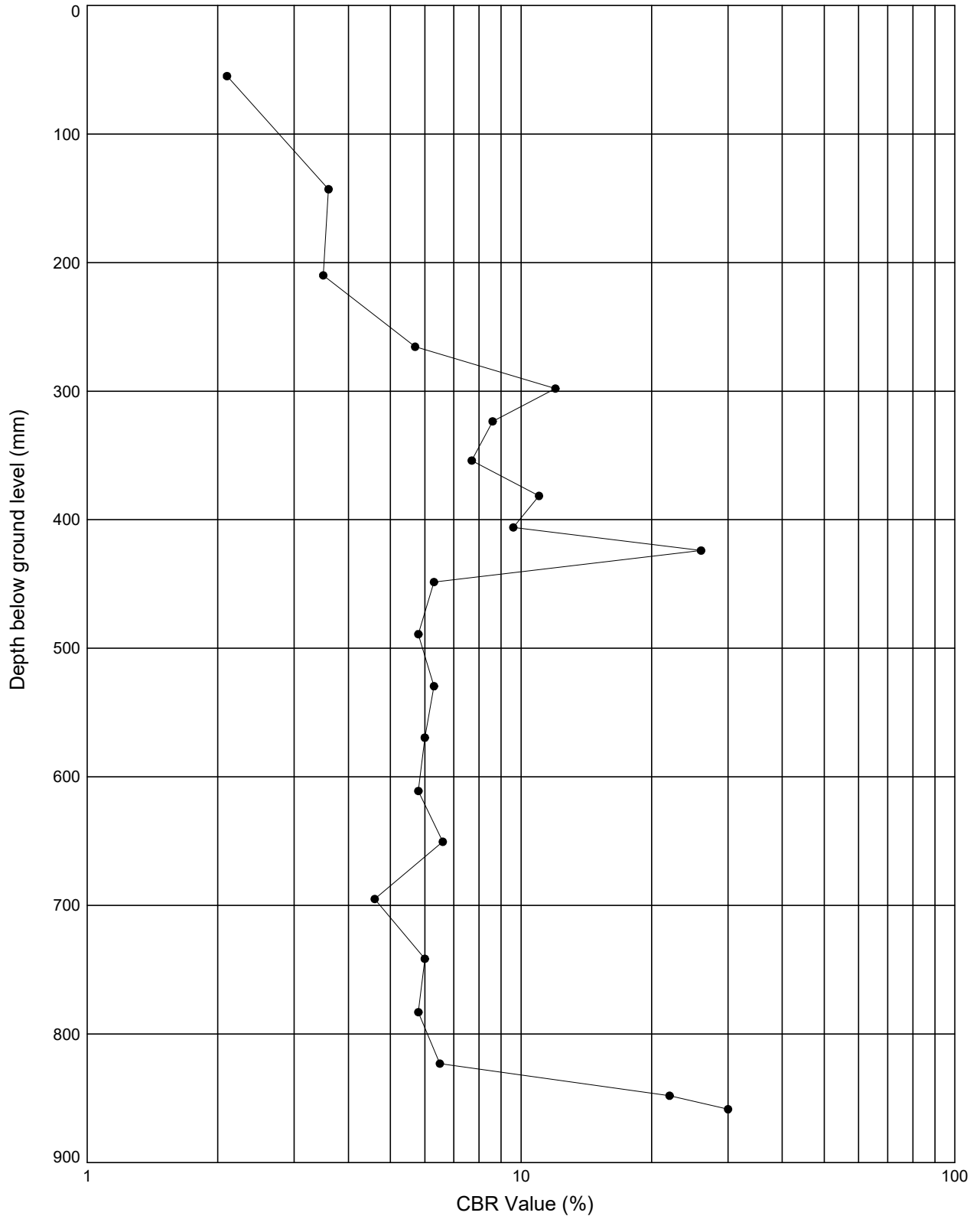
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP3**

Test Date : **17.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
		10/02/21		
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

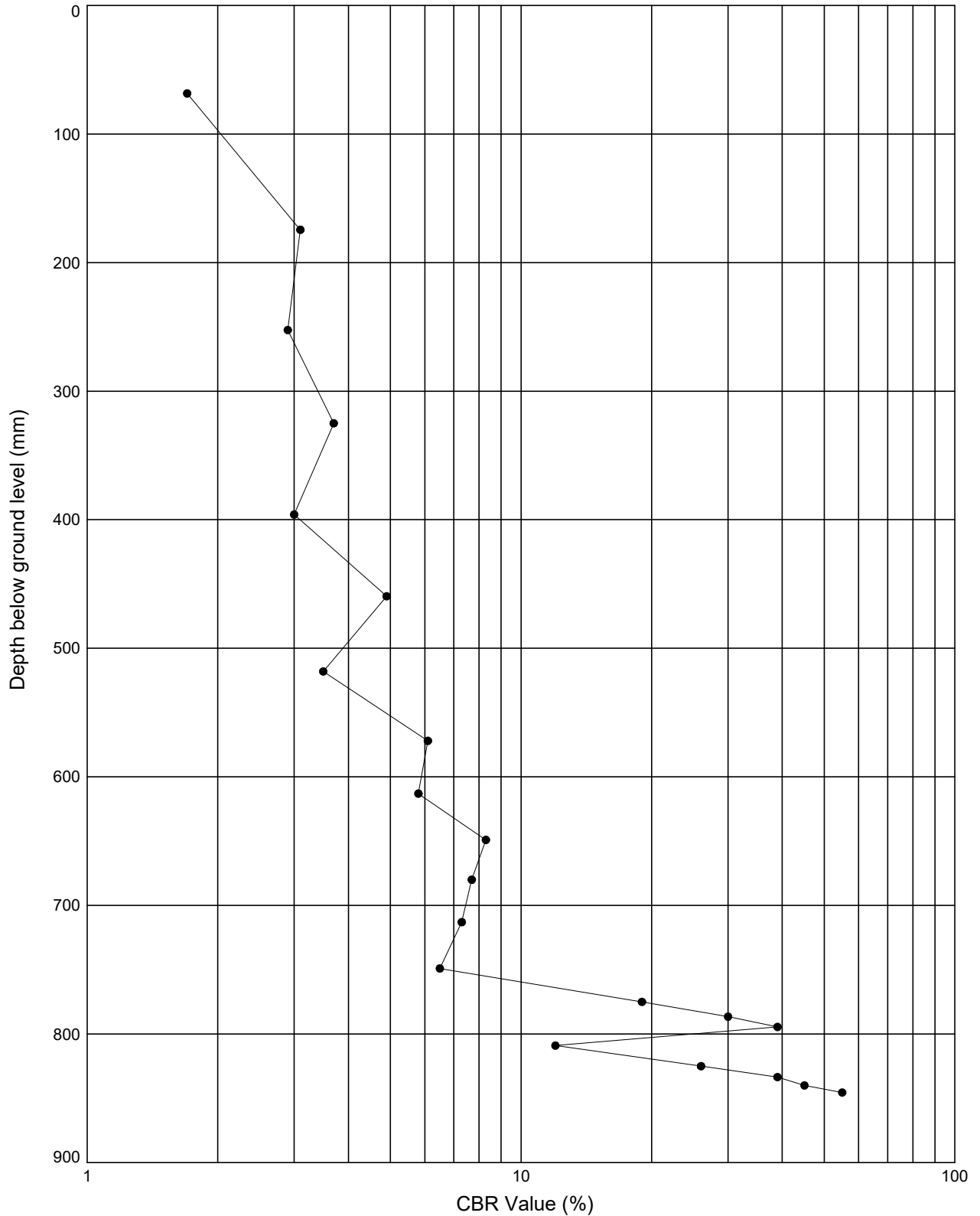
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP4**

Test Date : **11.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

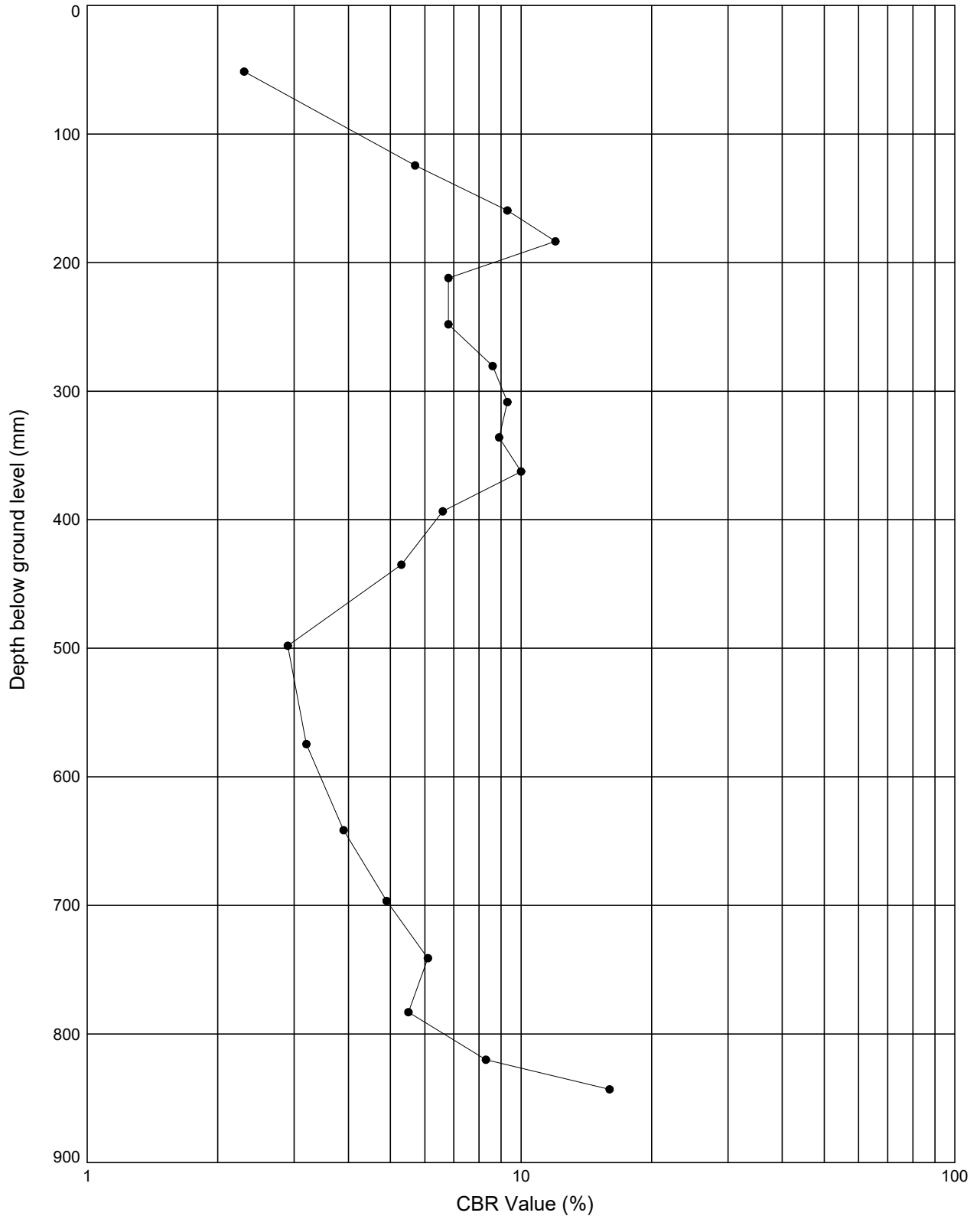
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP5**

Test Date : **11.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 | ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01. | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

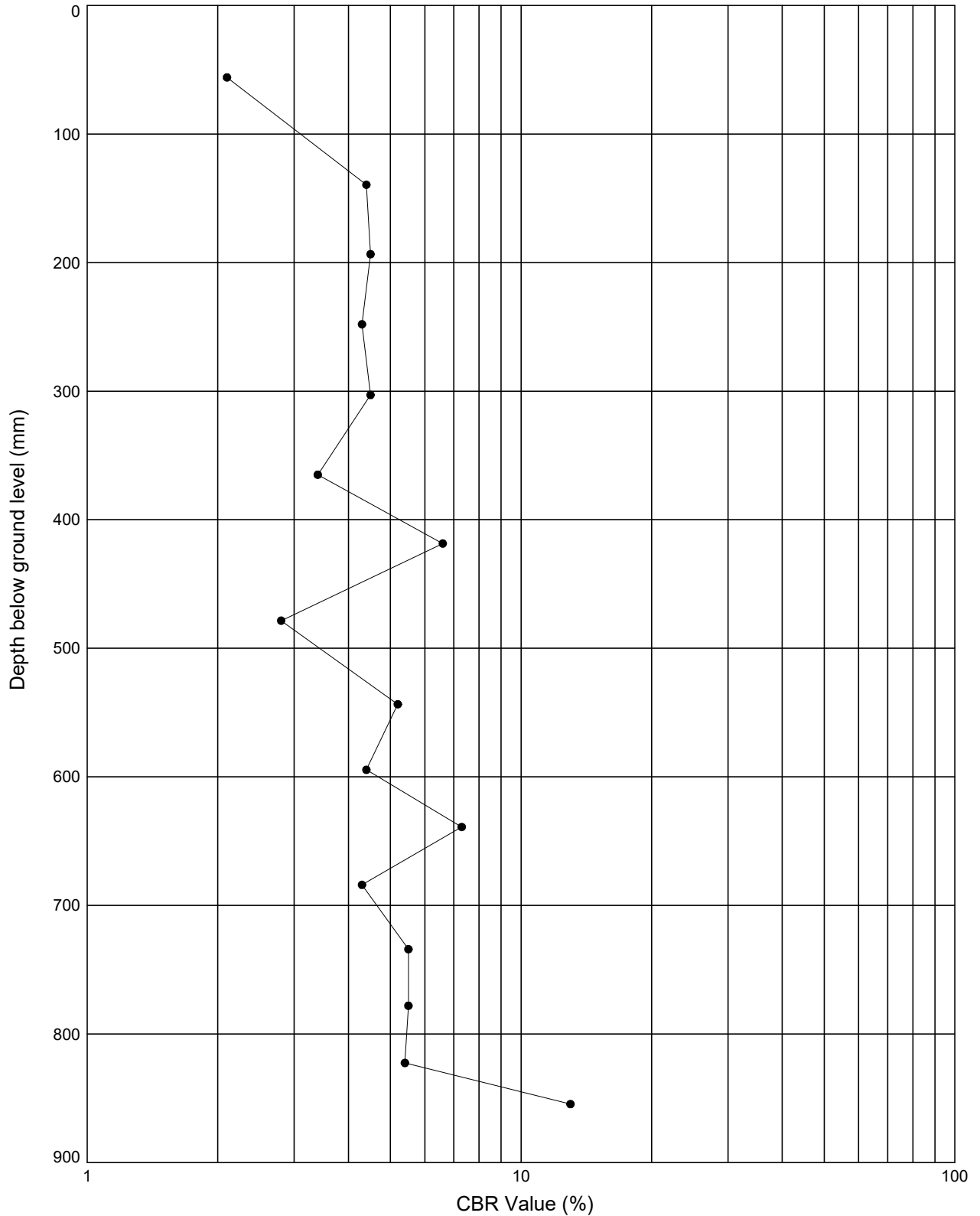
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP6**

Test Date : **11.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

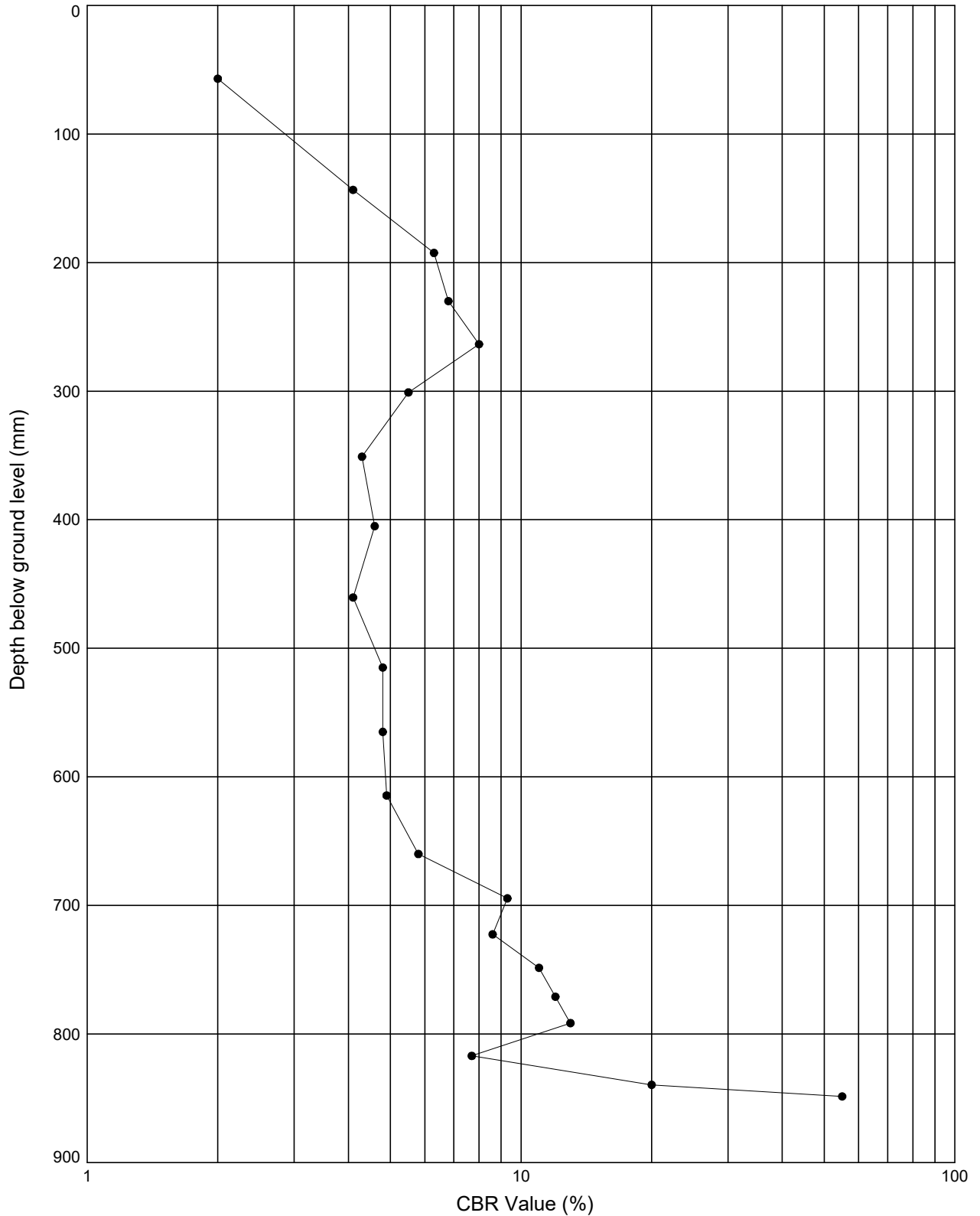
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP7**

Test Date : **11.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01_ | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

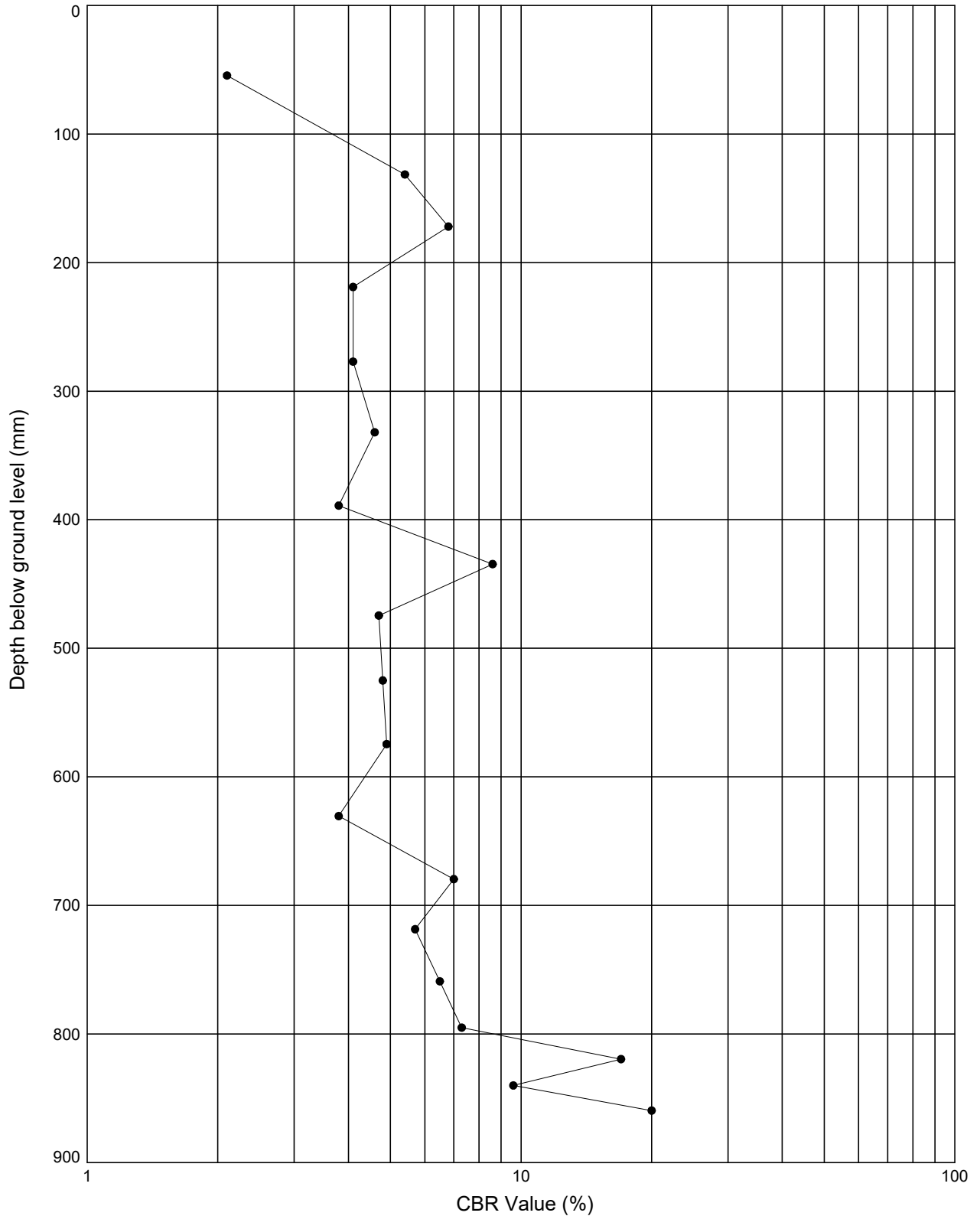
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP8**

Test Date : **17.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

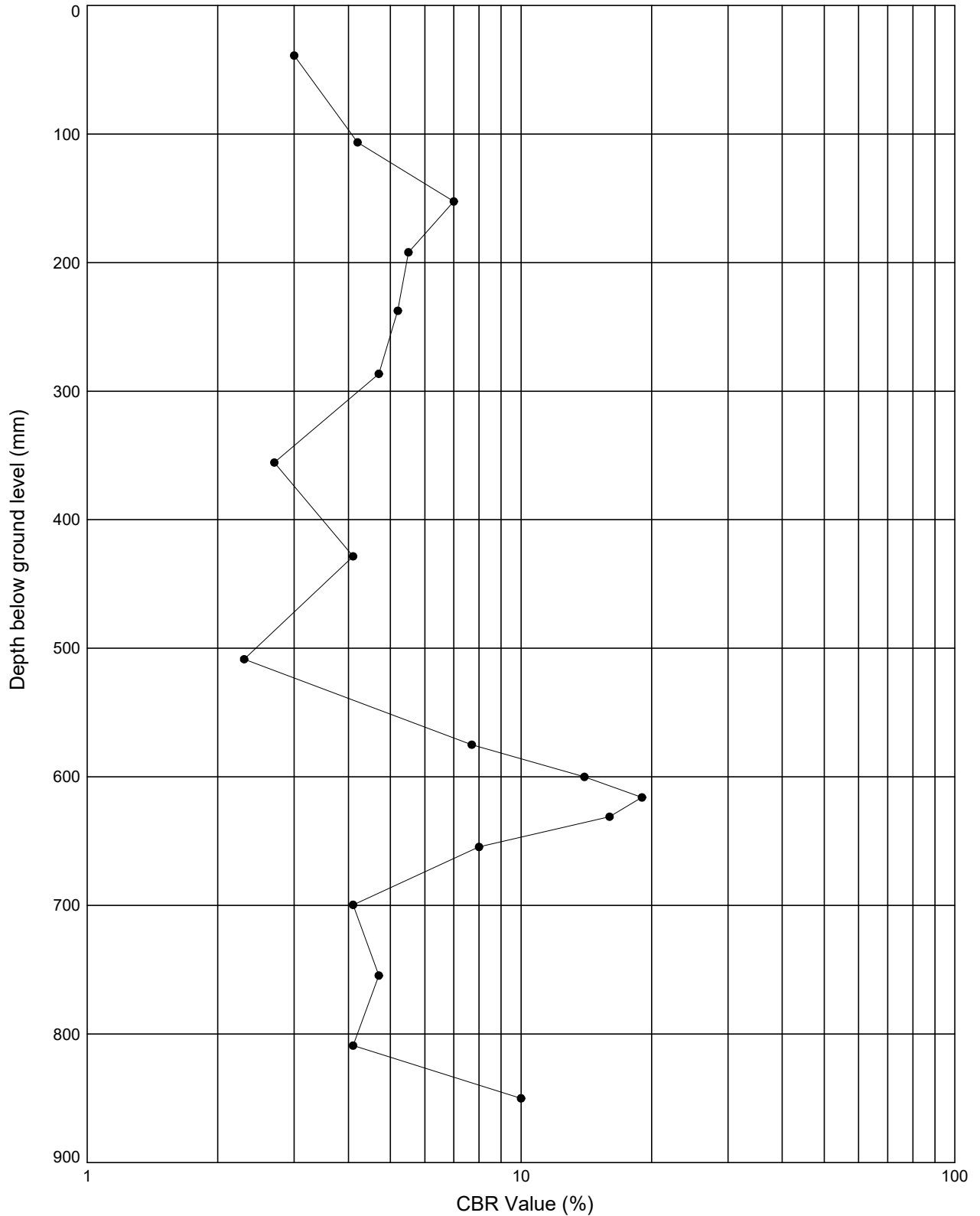
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP9**

Test Date : **17.11.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	Contract		Contract Ref:	
	Ditton Edge, East Malling		52254	

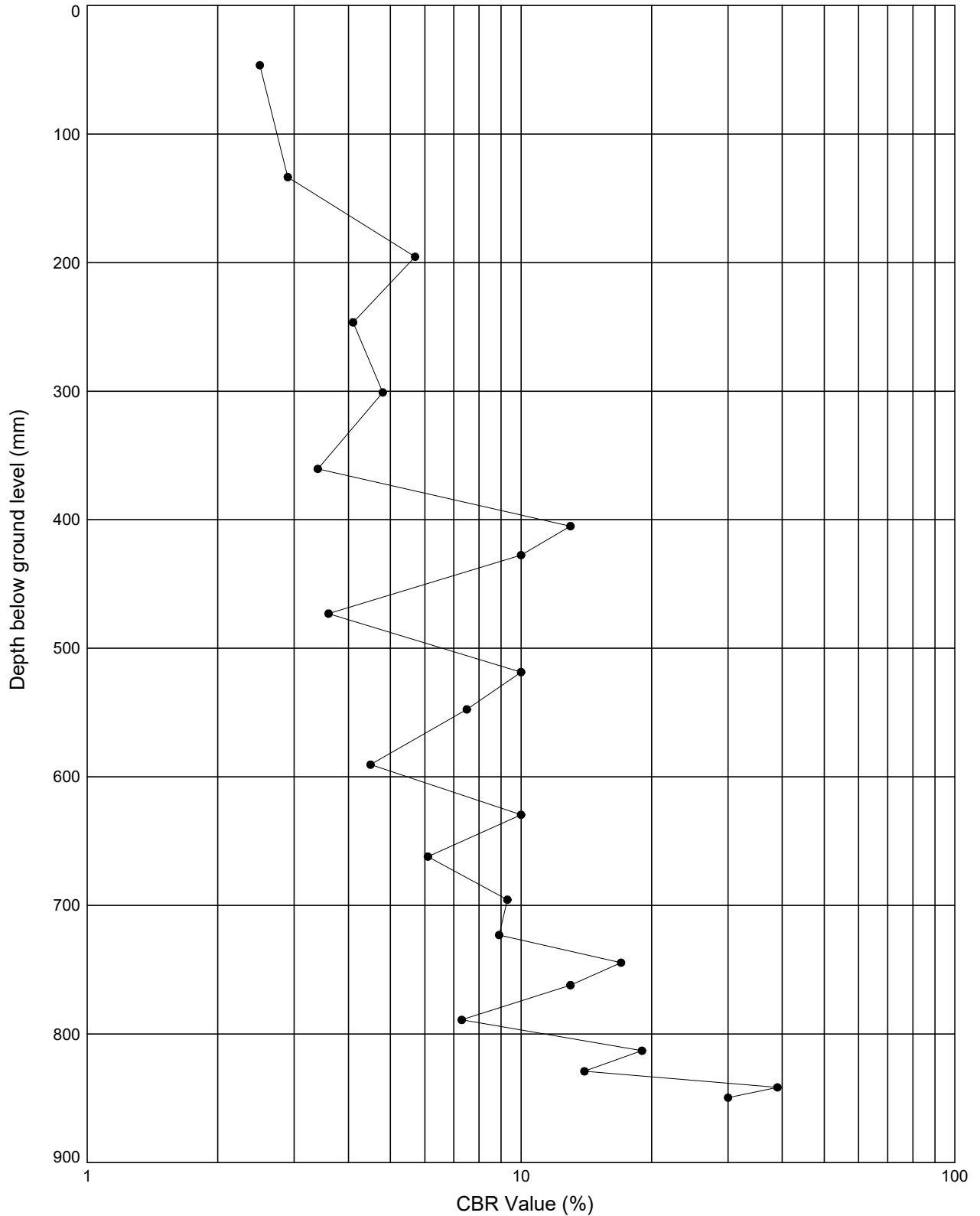
DCP TEST RESULTS - DEPTH vs CBR VALUE

Position Ref : **DCP10**

Test Date : **17.12.20**

Ground Level (m AOD): ---

National Grid Co-ordinates: ---



Notes: CBR values calculated after TRRL Road Note 8 method. Values over 100% are plotted on the 100% line.

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07 | ProjVersion: v8_07 | Graph 1 - DCP - 2 - CBR VALUE VS DEPTH - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01 | 10/02/21 - 16:27 | GT1 |

RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
			10/02/21	
	Contract Ditton Edge, East Malling		Contract Ref: 52254	

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP1	
Contract Ref: 52254	Start: 11.12.20 End: 11.12.20	Ground Level (m AOD): 19.03	National Grid Co-ordinate: E:570867.7 N:157820.8	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown sandy CLAY with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	[Dotted pattern]
0.30		PID	0.2ppm			Light brown, orange slightly slightly sandy gravelly CLAY. Gravel is fine to medium subrounded to subangular flints. Sand is fine. (HYTHE FORMATION)	0.30	[Horizontal line pattern]
0.50-0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]	.....from 0.80m becoming gravelly sandy CLAY. Gravel is subangular cobble size of flint.	(1.60)	[Horizontal line pattern]
0.80-1.10	1	B				.....from 1.30m becoming gravelly very sandy CLAY. Gravel is fine to coarse subrounded to subangular flints. Sand is fine to medium.	1.90	[Horizontal line pattern]
1.40-1.70	2	B				Light brown mottled slightly sandy CLAY. Sand is fine. (HYTHE FORMATION)	(1.00)	[Horizontal line pattern]
2.00-2.40	3	D				..... from 2.40m to 2.60m ragstone band.	2.90	[Horizontal line pattern]
2.70-2.90	4	D				Trial pit terminated at 2.90m		

GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
 RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:01 | GT1 |

Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.90m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale:	1:25
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP2	
Contract Ref: 52254	Start: 11.12.20 End: 11.12.20	Ground Level (m AOD): 19.67	National Grid Co-ordinate: E:570805.0 N:157802.5	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.35	1	ES				Grass over dark brown clayey fine to medium SAND with rootlets present. (TOPSOIL)	(0.35)	
0.35		PID	0.1ppm			Loose to medium dense light brown, orange gravelly clayey SAND. Gravel is medium to coarse subrounded to subangular flints. Sand is fine to medium. (HYTHE FORMATION)	0.35	
0.50-0.50	2	ES PID	0.1ppm					
0.80-1.10	1	B				.....from 1.10m becoming light brown, greenish sandy CLAY occasional subangular cobble size flints.	(1.45)	
1.30-1.60	2	D						
2.20-2.50	3	D				Light brown, greenish very clayey fine to medium SAND. (HYTHE FORMATION)	(1.20)	
2.80-3.00	4	D				.....from 2.70m becoming mottled very sandy CLAY. Sand is fine.	3.00	
						Trial pit completed at 3.00m		

GINT LIBRARY_V10_01.GLB LibVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> 1. Position checked with Ground Penetrating Radar, CAT and Genny. 2. UXO engineer checks during excavation. 3. No groundwater encountered. 4. Trial pit remained stable during excavation. 5. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used:	Inspection pit + Machine dug	Plant Used:	Mini tracked excavator	Logged By:	GTsoutsis
		Checked By:	ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP3	
Contract Ref: 52254	Start: 11.12.20 End: 11.12.20	Ground Level (m AOD): 18.85	National Grid Co-ordinate: E:570860.7 N:157768.4	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown very sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	[Graphic Legend]
0.30		PID	0.2ppm			Light brown, orange slightly gravelly clayey fine to medium SAND. Gravel is fine to coarse subrounded to subangular flints. (HYTHE FORMATION)	0.30	[Graphic Legend]
0.50-0.50 0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]	.....from 1.00m becoming very gravelly clayey fine to medium SAND. Gravel is fine to coarse subrounded to subangular flints.	(1.80)	[Graphic Legend]
1.10-1.40	1	B				..... ragstone bands at 1.90m.	2.10	[Graphic Legend]
1.80-2.00	2	B				Light brown, orange gravelly fine SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(0.80)	[Graphic Legend]
2.20-2.60	3	B					2.90	[Graphic Legend]
2.90-2.90	4	D				Trial pit terminated at 2.90m.		

GINT LIBRARY_V10_01.GLB LibVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.90m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale:	1:25
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP4	
Contract Ref: 52254	Start: 11.12.20 End: 11.12.20	Ground Level (m AOD): 19.46	National Grid Co-ordinate: E:570775.7 N:157691.6	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES	0.3ppm	Water	Backfill	Grass over dark brown slightly gravelly slightly sandy CLAY with rootlets present. Gravel is fine subrounded to subangular flints and fine brick fragments. Sand is fine to medium. (TOPSOIL)	(0.30)	
0.30		PID				Light brown, orange very sandy CLAY occasional subangular cobble size ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.30	
0.80-1.10	1	B	.....from 0.80m becoming slightly gravelly clayey SAND. Gravel is fine to coarse subangular to angular ragstone fragments.			(1.10)		
1.40-1.70	2	B	Light brown clayey fine to medium SAND with numerous subangular cobble size ragstone fragments. (HYTHE FORMATION)			1.40		
2.10-2.50	3	B	.....from 2.20m becoming gravelly fine to medium SAND. Gravel is subangular cobble size ragstone fragments.			(1.20)		
				2.60		Trial pit terminated at 2.60m.		

GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07_001 Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:01 | GT1 |

Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.60m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP5	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 19.75	National Grid Co-ordinate: E:570782.5 N:157657.2	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown slightly gravelly fine to medium SAND with rootlets present. Gravel is fine to medium subrounded to subangular flints and fine brick fragments. (TOPSOIL)	(0.40)	[Dotted pattern]
0.30		PID	0.1ppm			0.40		
0.50-0.50 0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]	Light brown, orange slightly gravelly sandy CLAY. Gravel is subangular cobble size of ragstone fragments. Sand is fine. (HYTHE FORMATION)		[Pattern with circles]
0.80-1.20	1	D				..... ragstone bands at 1.00m	(1.00)	[Pattern with circles]
							1.40	[Pattern with circles]
1.50-1.70	2	B				Light brown, cream clayey gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone frgments. (HYTHE FORMATION)	(0.30)	[Pattern with circles]
						Trial pit terminated at 1.70m	1.70	[Pattern with circles]

GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 1.70m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP6	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 21.09	National Grid Co-ordinate: E:570843.6 N:157610.1	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium subrounded to subangular flints and fine brick fragments. Sand is fine. (TOPSOIL)	(0.50)	[Graphic Legend]
0.30		PID	0.3ppm				Light brown, orange gravelly slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to angular ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.50	[Graphic Legend]
0.50-0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]	..... at 1.00m ragstone bands	(0.60)	[Graphic Legend]
0.80-1.10	1	D					Light brown, cream gravelly SAND. Gravel is subangular cobble size of ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	1.10	[Graphic Legend]
1.50-1.80	2	B				Trial pit terminated at 1.80m.	(0.70)	[Graphic Legend]
							1.80	[Graphic Legend]

GINT LIBRARY_V10_01.GLB LibVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
 RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:01 | GT1 |

Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> 1. Position checked with Ground Penetrating Radar, CAT and Genny. 2. UXO engineer checks during excavation. 3. No groundwater encountered. 4. Trial pit refused at 1.80m depth due to the presence of ragstone cobbles. 5. Trial pit remained stable during excavation. 6. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP7	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 19.51	National Grid Co-ordinate: E:570850.4 N:157700.8	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown slightly gravelly sandy CLAY with rootlets present. Gravel is fine to medium subrounded to subangular flints and fine brick fragments. Sand is fine. (TOPSOIL)	(0.35)	[Dotted pattern]
0.30		PID	0.2ppm			Light brown, orange slightly sandy CLAY with rare subangular cobbles size of ragstone fragments. Sand is fine.	0.35	[Circular pattern]
0.50-0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]			
0.80-1.10	1	D					(1.15)	[Circular pattern]
1.50-1.80	2	D				Light brown, orange slightly gravelly clayey SAND. Gravel is fine to medium subrounded to subangular flints and cobble size of ragstone fragments. Sand is fine to medium.	1.50	[Circular pattern]
2.20-2.50	3	B			from 2.00m becoming slightly clayey fine to medium SAND.	(1.50)	[Circular pattern]
2.80-3.00	4	D					3.00	[Circular pattern]
Trial pit completed at 3.00m.								

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP8	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 19.57	National Grid Co-ordinate: E:570927.1 N:157681.5	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend	
Depth	No	Type	Results						
0.00-0.30	1	ES			Backfill	Grass over dark brown slightly gravelly sandy CLAY with rootlets present. Gravel is fine to medium subrounded to subangular flints. Sand is fine. (TOPSOIL)	(0.30)		
0.30		PID	0.1ppm			Light brown, orange slightly sandy CLAY occasional subangular cobble size of flint and ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.30		
0.60-0.60	2	ES PID	0.1ppm					(0.90)	
0.80-1.10	1	D						1.20	
1.50-1.90	2	B					Light brown, cream gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(1.30)	
2.20-2.50	3	D					2.50		
Trial pit terminated at 2.50m.									

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Plan (Not to Scale)		<h2>General Remarks</h2>			
		<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.50m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
All dimensions in metres			Scale: 1:25		
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP9	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 18.50	National Grid Co-ordinate: E:570941.4 N:157759.9	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			Backfill	Grass over dark brown slightly gravelly slightly sandy CLAY. Gravel is fine subrounded to subangular flints. Sand is fine. (TOPSOIL)	(0.30)	
0.30		PID	0.4ppm	Light brown, orange slightly gravelly sandy CLAY. Gravel is subangular cobble size of ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)		0.30		
0.50-0.50	2	ES PID	0.5ppm		 ragstone bands at 0.80m	(0.90)	
0.80-0.80	1	D					1.20	
						Trial pit terminated at 1.20m.		

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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 1.20m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP10	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 18.91	National Grid Co-ordinate: E:570968.3 N:157716.3	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatch pattern]	Grass over dark brown slightly sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	[Clay pattern]
0.30		PID	0.1ppm			Light brown slightly orange clayey fine to medium SAND. (HYTHE FORMATION)	0.30	[Sand pattern]
0.50-0.50 0.50	2	ES PID	0.1ppm		[Cross-hatch pattern]	.....from 1.10m becoming slightly clayey fine SAND		
0.80-1.10	1	D					(1.50)	[Sand pattern]
1.50-1.50	2	D					1.80	[Sand pattern]
1.80-2.20	3	B				Cream gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(0.50)	[Gravel pattern]
						Trial pit terminated at 2.30m.	2.30	

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.30m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP11	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 19.04	National Grid Co-ordinate: E:571070.2 N:157723.5	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown slightly gravelly sandy CLAY with rootlets present. Gravel is fine to medium subrounded to subangular fints. Sand is fine. (TOPSOIL)	(0.35)	[Dotted pattern]
0.30		PID	0.2ppm			Light brown, orange slightly gravelly clayey fine to medium SAND. Gravel is subangular cobble size ragstone fragments. (HYTHE FORMATION)	0.35	[Circular pattern]
0.50-0.50	2	ES PID	0.1ppm		[Cross-hatched pattern]		(0.85)	[Circular pattern]
0.80-1.10	1	D					1.20	[Circular pattern]
1.40-1.80	2	B				Cream gravelly fine to medium SAND. Gravel is subangular cobble size ragstone fragments. (HYTHE FORMATION)	(1.30)	[Circular pattern]
						..... from 1.50m becoming very gravelly fine to coarse subangular to angular ragstone.		[Circular pattern]
2.00-2.30	3	B						[Circular pattern]
2.50-2.50	4	D				Trial pit terminated at 2.50m.	2.50	[Circular pattern]

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.50m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP12	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 20.37	National Grid Co-ordinate: E:571177.0 N:157691.5	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES				Grass over dark brown sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	
0.30		PID	0.3ppm			Light brown, orange sandy CLAY with rare fine to medium subrounded to subangular flint. Sand is fine. (HYTHE FORMATION)	0.30	
0.60-0.60	2	ES PID	0.1ppm					
0.80-1.10	1	D				.....from 0.80 becoming occasional subangular cobble size of ragstone fragments.	(1.50)	
1.30-1.50	2	B				.....from 1.20m becoming very gravelly slightly sandy CLAY. Gravel is medium to coarse subrounded to subangular ragstone fragments.	1.80	
1.80-2.00	3	B				Dark brown slightly sandy CLAY occasional subangular cobble size of ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	(1.20)	
2.50-2.80	4	B				..... at 2.20m ragstone interbedded with dark brown very sandy CLAY. Sand is fine to medium.	3.00	
					from 2.90m becoming cream gravelly fine to medium SAND. Gravel is cobble size of ragstone fragments. Trial pit completed at 3.00m.		

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Plan (Not to Scale) 		General Remarks 1. Position checked with Ground Penetrating Radar, CAT and Genny. 2. UXO engineer checks during excavation. 3. No groundwater encountered. 4. Trial pit remained stable during excavation. 5. Trial pit backfilled with arisings upon completion.	
All dimensions in metres		Scale:	1:25
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP13	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 20.37	National Grid Co-ordinate: E:571100.7 N:157624.2	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.35)	[Dotted pattern]
0.30		PID	0.2ppm			Light brown, orange slightly gravelly clayey SAND. Gravel is subangular cobbles size of ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.35	[Pattern with circles]
0.50-0.50 0.50	2	ES PID	0.1ppm					
0.80-1.10	1	D				..... from 1.00m becoming fine to medium sandy CLAY.	(1.15)	[Pattern with circles]
1.40-1.40	2	D					1.50	[Pattern with circles]
1.50-1.80	3	B				Cream gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(0.30)	[Pattern with circles]
						Trial pit terminated at 1.80m.		

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Plan (Not to Scale) 	<h2>General Remarks</h2>	
	<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Tria pit refused at 1.80m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis Checked By: ST



Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP14	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 21.70	National Grid Co-ordinate: E:571214.5 N:157614.8	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			[Cross-hatched pattern]	Grass over dark brown slightly sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	[Dotted pattern]
0.30		PID	0.3ppm			Light brown, orange slightly sandy slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to angular flints and ragstone. Sand is fine. (HYTHE FORMATION)	0.30	[Horizontal line pattern]
0.50-0.50 0.50	2	ES PID	0.1ppm					
0.80-1.10	1	D					(1.30)	[Horizontal line pattern]
1.30-1.60	2	B				.....from 1.25m ragstone bands interbedded with fine sandy CLAY.	1.60	[Horizontal line pattern]
1.70-2.00	3	B				Cream gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(0.50)	[Circular pattern]
						Trial pit terminated at 2.10m.	2.10	

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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.10m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP15	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 20.09	National Grid Co-ordinate: E:571050.6 N:157596.3	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES			Backfill	Grass over dark brown very clayey fine to medium SAND with rootlets present. (TOPSOIL)	(0.30)	
0.30		PID	0.1ppm			Light brown, orange slightly sandy CLAY occasional subangular cobble size ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.30	
0.50-0.50 0.50	2	ES PID	0.1ppm				(1.10)	
1.00-1.30	1	D			at 1.30m ragstone bands Trial pit terminated at 1.40m.	1.40	

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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> 1. Position checked with Ground Penetrating Radar, CAT and Genny. 2. UXO engineer checks during excavation. 3. No groundwater encountered. 4. Trial pit refused at 1.40m depth due to the presence of ragstone cobbles. 5. Trial pit remained stable during excavation. 6. Trial pit backfilled with arisings upon completion. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST		

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP16	
Contract Ref: 52254	Start: 10.12.20 End: 10.12.20	Ground Level (m AOD): 21.72	National Grid Co-ordinate: E:571141.9 N:157591.9	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.20	1	ES			[Cross-hatch pattern]	Grass over dark brown sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	0.20	[Dotted pattern]
0.20		PID	0.1ppm			Slightly light brown, orange slightly gravelly clayey fine to medium SAND. Gravel is fine to coarse subrounded to subangular flint and ragstone fragments. (HYTHE FORMATION)	(1.40)	[Horizontal line pattern]
0.50-0.50 0.50	2	ES PID	0.1ppm		from 1.20m becoming very gravelly very sandy CLAY. Gravel is fine to coarse subangular flints. Sand is fine to medium.			1.60	[Circular pattern]
0.80-1.10	1	D						
1.40-1.40	2	B						
1.70-2.00	3	B				Cream very gravelly fine to medium SAND. Gravel is subangular cobble size of ragstone fragments. (HYTHE FORMATION)	(0.90)	
2.30-2.50	4	B					2.50	
Trial pit terminated at 2.50m.								

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Trial pit refused at 2.50m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Trial Pit: TP17	
Contract Ref: 52254	Start: 09.12.20 End: 09.12.20	Ground Level (m AOD): 19.67	National Grid Co-ordinate: E:570998.8 N:157663.1	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.30	1	ES				Grass over dark brown slightly sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	
0.30		PID	0.2ppm			Light brown, orange slightly sandy gravelly CLAY. Gravel is subangular cobble size ragstone fragments. Sand is fine. (HYTHE FORMATION)	0.30	
0.60-0.60	2	ES PID	0.1ppm				(0.90)	
0.80-1.10	1	D						1.20
1.50-1.90	2	D				Light brown, cream fine to medium SAND with abundant subangular cobble size ragstone fragments. (HYTHE FORMATION)	(1.00)	
2.00-2.20	3	D					2.20	
Trial pit terminated at 2.20m								

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Position checked with Ground Penetrating Radar, CAT and Genny. UXO engineer checks during excavation. No groundwater encountered. Tril pit refused at 2.20m depth due to the presence of ragstone cobbles. Trial pit remained stable during excavation. Trial pit backfilled with arisings upon completion. 	
All dimensions in metres		Scale: 1:25	
Method Used: Inspection pit + Machine dug	Plant Used: Mini tracked excavator	Logged By: GTsoutsis	Checked By: ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS1
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 19.05	National Grid Co-ordinate: E:570825.2 N:157851.9	Sheet: 1 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend	
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV		Grass over dark brown sandy CLAY occasional fine to medium subrounded to subangular flints with rootlets present. Sand is fine. (TOPSOIL)	(0.30)		
	0.30		PID	0.2ppm		Firm light brown orange slightly sandy CLAY. Sand is fine to medium. (HYTHE FORMATION)	0.30		
	0.50 0.50	2	ES PID	TJV 0.1ppm					
	0.80-1.10	3	D						
	1.00-1.45	1	SPT	N=11				(1.70)	
	1.50-2.00	4	D		 from 1.30m becoming slightly gravelly sandy CLAY. Gravel is cobble size of ragstone. Sand is fine to medium.		2.00	
	2.00-2.45 2.00-3.00	2 5	SPT D	N=11		Firm light brown orange, mottled slightly sandy CLAY. Sand is fine to medium. (HYTHE FORMATION)		(1.60)	
	3.00-3.45 3.00-3.50	3 6	SPT D	N=4	from 3.50m becoming dark brown very sandy with ragstone cobbles present. Sand is fine to medium. Borehole terminated at 3.60m	3.60		

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 3.60m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 3.50m	
Method Used: Inspection pit + Tracked window						All dimensions in metres	
Plant Used: Premier 110						Scale: 1:25	
Drilled By: KDS						Logged By: GTsoutsis	
						Checked By: ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS1
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 19.05	National Grid Co-ordinate: E:570825.2 N:157851.9	Sheet: 2 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				

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Drilling Progress and Water Observations						General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
						bgl.						
All dimensions in metres						Scale:	1:25					
Method Used:	Inspection pit + Tracked window sampling		Plant Used:	Premier 110		Drilled By:	KDS	Logged By:	GTsoutsis	Checked By:	ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS2	
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 18.22	National Grid Co-ordinate: E:570913.8 N:157798.4	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV		Backfill	Grass over dark brown slightly gravelly sandy CLAY. Gravel is fine to medium subrounded to subangular flints with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.30		PID	0.1ppm			Firm light brown, orange sandy CLAY occasional fine to medium subangular flints. Sand is fine to medium. (HYTHE FORMATION)	0.30	
	0.50	2	ES PID	TJV 0.1ppm					
	0.80-1.10	3	D				.....from 0.70m becoming very clayey SAND with rare coarse flints fragments.		
	1.00-1.45 1.00-2.00	1 4	SPT D	N=8				(1.70)	
	2.00-2.38	2	SPT	2,10/13,14,22 for 75mm			Very dense light brown, orange very clayey fine to medium SAND occasional cobble size ragstone fragments. (HYTHE FORMATION)	2.00	
	2.00-2.50	5	D			 from 2.30m becoming mottled SAND occasional cobble size ragstone.	(0.50)	
							Borehole terminated at 2.50m.	2.50	

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 2.50m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
Method Used: Inspection pit + Tracked window						All dimensions in metres	
Plant Used: Premier 110						Scale: 1:25	
Drilled By: KDS						Logged By: GTsoutsis	
Checked By: ST						Checked By: AGS	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS3
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 19.20	National Grid Co-ordinate: E:570796.3 N:157723.8	Sheet: 1 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.00-0.30	1	ES	TJV		Grass over dark brown slightly gravelly sandy CLAY. Gravel is fine to medium subrounded to subangular flints with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm		Firm light brown, orange slightly gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular flints. Sand is fine to medium. (HYTHE FORMATION)	0.30	
	0.50	2	ES PID	TJV 0.2ppm				
	0.80-1.10	3	D					
	1.00-1.45	1	SPT	N=7			(1.70)	
	1.50-2.00	4	D			.....from 1.50m becoming very gravelly very sandy CLAY. Gravel is fine to coarse subangular ragstone. Sand is fine to medium.		
	2.00-2.45	2	SPT	N=10				
	2.00-2.50	5	D			Stiff light brown, orange very gravelly very sandy CLAY. Gravel is cobble size ragstone. Sand is medium. (HYTHE FORMATION)	(0.70)	
	2.70					Borehole terminated at 2.70m.		

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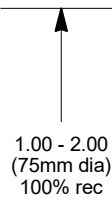
Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 2.70m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 2.50m	
Method Used: Inspection pit + Tracked window						All dimensions in metres	
Plant Used: Premier 110						Scale: 1:25	
Drilled By: KDS						Logged By: GTsoutsis	
Checked By: ST							



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS4
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 20.72	National Grid Co-ordinate: E:570787.5 N:157625.1	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
0.00-0.30	0.00-0.30	1	ES	TJV			Grass over dark brown slightly gravelly sandy CLAY. Gravel is fine to medium subangular to angular ragstone with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.30		PID	0.1ppm				0.30	
0.50-0.50	0.50	2	ES PID	TJV 0.1ppm			Firm light brown, orange slightly gravelly sandy CLAY. Gravel is rare cobble size subangular ragstone fragments. (HYTHE FORMATION)		
	0.80-1.10	3	D						
1.00-1.45	1.00-1.45	1	SPT	N=12				(1.93)	
	1.50-2.00	4	D						
2.00-2.23	2.00-2.23	2	SPT	5,5/10 for 75mm		from 1.90m becoming gravelly slightly sandy CLAY. Gravel is fine to medium subangular ragstone fragments. Sand is fine to medium. from 2.10m becoming medium dense SAND occasionally cobble size ragstone fragments. Borehole terminated at 2.23m.	2.23	



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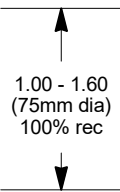
Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 2.20m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS5
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 19.93	National Grid Co-ordinate: E:570831.1 N:157662.5	Sheet: 1 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.00-0.30	1	ES	TJV		Grass over dark brown sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm		Firm to stiff light brown, orange sandy slightly gravelly CLAY. Gravel is fine to medium subangular to angular ragstone fragments. Sand is fine to medium.	0.30	
	0.50 0.50	2	ES PID	TJV 0.3ppm			(1.35)	
	0.80-1.10	3	D					
	1.00-1.45	1	SPT	N=58				
	1.20-1.60	4	D					
					at 1.60m ragstone cobbles present. Borehole terminated at 1.60m.	1.65	



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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 1.65m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 1.50m	
Method Used: Inspection pit + Tracked window						All dimensions in metres	
Plant Used: Premier 110						Scale: 1:25	
Drilled By: KDS						Logged GTsoutsis	
						Checked By: ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS6
Contract Ref: 52254	Start: 17.12.20 End: 17.12.20	Ground Level (m AOD): 19.23	National Grid Co-ordinate: E:570913.3 N:157715.4	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV		Backfill	Grass over dark brown slightly gravelly sandy CLAY. Gravel is fine to medium subangular flints with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm			Firm light brown, orange sandy CLAY with rare cobble size ragstone. Sand is fine. (HYTHE FORMATION)	0.30	
	0.50 0.50	2	ES PID	TJV 0.1ppm					
	0.80-1.10	3	D					(1.30)	
	1.00-1.45	1	SPT	N=47					
	1.20-1.50	4	D						
1.00 - 1.50 (75mm dia) 100% rec									
						ragstone fragments and pockets of sand at 1.50m		
							Borehole terminated at 1.60m.	1.60	

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 1.60m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS7
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 18.81	National Grid Co-ordinate: E:571017.4 N:157736.4	Sheet: 1 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.00-0.30	1	ES	TJV		Grass over dark brown sandy CLAY with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm		Firm to stiff light brown, orange fine to medium sandy CLAY occasional fine to coarse subangular ragstone fragments. (HYTHE FORMATION)	0.30	
	0.50	2	ES PID	TJV 0.2ppm			(1.20)	
	0.80-1.10	3	D					
1.00-1.30	1	SPT	1,5/5,5 for 75mm	from 1.20m becoming gravelly sandy CLAY. Gravel is fine to coarse subangular of ragstone. Sand is fine to medium.	1.50		
1.20-1.40	4	D			Borehole terminated at 1.50m.			

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.20m depth. 4. No groundwater encountered. 5. Borehole refused at 1.50m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 1.50m	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS7
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 18.81	National Grid Co-ordinate: E:571017.4 N:157736.4	Sheet: 2 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				

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Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						bgl.
All dimensions in metres						Scale: 1:25
Method Used:	Inspection pit + Tracked window sampling		Plant Used:	Premier 110		Drilled By: KDS
				Logged By:	GTsoutsis	
				Checked By:	ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS8	
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 20.20	National Grid Co-ordinate: E:570971.4 N:157613.1	Sheet: 1 of 2	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend	
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV		Grass over dark brown slightly gravelly very clayey SAND with rootlets present. Gravel is fine to coarse subangular ragstone fragments. Sand is fine to medium. (TOPSOIL) Firm light brown, orange very sandy CLAY occasionally fine to coarse subangular ragstone fragments. (HYTHE FORMATION) .....from 1.20m becoming stiff slightly sandy CLAY with ragstone fragments. .....at 1.50m ragstone cobbles present. Borehole terminated at 1.60m.	(0.30)		
	0.30		PID	0.1ppm			0.30		
	0.50 0.50	2	ES PID	TJV 0.2ppm					
	0.80-1.10	3	D				(1.30)		
	1.00-1.45	1	SPT	N=54					
	1.20-1.60	4	D						

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 1.60m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 1.50m	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS8
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 20.20	National Grid Co-ordinate: E:570971.4 N:157613.1	Sheet: 2 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				

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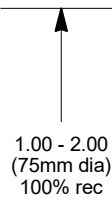
Drilling Progress and Water Observations						General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
						bgl.						
All dimensions in metres						Scale:	1:25					
Method Used:	Inspection pit + Tracked window sampling		Plant Used:	Premier 110		Drilled By:	KDS	Logged By:	GTsoutsis	Checked By:	ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS9
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 19.79	National Grid Co-ordinate: E:571065.6 N:157654.3	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV			Grass over dark brown slightly gravelly sandy CLAY with rootlets present. Gravel is fine to coarse subangular ragstone fragments. Sand is fine. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm			Loose light brown, orange very clayey SAND frequent cobble size ragstone fragments. (HYTHE FORMATION)	0.30	
	0.50 0.50	2	ES PID	TJV 0.2ppm					
	1.00-1.45 1.00	1 3	SPT B	N=6					
	2.00-2.08	2	SPT	NP			.....from 1.50m becoming stiff slightly sandy gravelly CLAY. Gravel is cobble size of ragstone fragments. Sand is fine.	(1.80)	
						at 2.00m becoming medium dense to dense cream fine to medium SAND abundant cobble size ragstone. Borehole terminated at 2.10m.	2.10	



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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 2.10m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
Method Used: Inspection pit + Tracked window						All dimensions in metres	
Plant Used: Premier 110			Drilled By: KDS		Scale: 1:25		
				Logged By: GTsoutsis		Checked By: ST	





WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS10
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 20.98	National Grid Co-ordinate: E:571168.1 N:157638.3	Sheet: 1 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.00-0.40	1	ES	TJV		Grass over dark brown slightly gravelly sandy CLAY with rootlets present. Gravel is fine to medium subrounded to subangular flint. Sand is fine. (TOPSOIL)	0.25	
	0.40		PID	0.3ppm		Firm light brown, orange slightly gravelly sandy CLAY. Gravel is fine to coarse subrounded to subangular flints. Sand is fine to medium. (HYTHE FORMATION)	(0.85)	
	0.80-1.10	2	D					
	1.00-1.45	1	SPT	N=17			1.10	
	1.20-2.00	3	D			Medium dense to very dense light brown, orange slightly gravelly clayey SAND. Gravel is fine to coarse subrounded to subangular ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	(1.35)	
	2.00-2.45	2	SPT	N=66	at 2.00m ragstone cobbles present.	2.45	
Borehole terminated at 2.45m.								

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 2.45m depth due to the presence of ragstone cobbles. 6. Installed with gas and groundwater standpipe, response zone 0.50m to 2.00m	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS10
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 20.98	National Grid Co-ordinate: E:571168.1 N:157638.3	Sheet: 2 of 2

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				

GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4F | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01.
 RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:13 | GT1 |

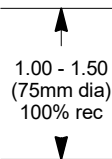
Drilling Progress and Water Observations						General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
						bgl.						
All dimensions in metres						Scale:	1:25					
Method Used:	Inspection pit + Tracked window sampling		Plant Used:	Premier 110		Drilled By:	KDS	Logged By:	GTsoutsis	Checked By:	ST	



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS11	
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 20.86	National Grid Co-ordinate: E:571221.8 N:157663.6	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
0.00-0.30	1	ES	TJV		[Cross-hatched pattern]	Grass over dark brown sandy CLAY with rootlets present. Sand is fine to medium. (TOPSOIL)	(0.30)	[Dotted pattern]	
	0.30		PID	0.4ppm		Firm to stiff light brown, orange very gravelly sandy CLAY. Gravel is fine to coarse subangular flints and ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	0.30	[Horizontal line pattern]	
0.50-0.50	2	ES PID	TJV 0.2ppm		[Cross-hatched pattern]	Firm to stiff light brown, orange very gravelly sandy CLAY. Gravel is fine to coarse subangular flints and ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	(1.43)	[Horizontal line pattern]	
	0.80-1.20	3	D						
1.00-1.38	1	SPT	4,13,18,18,16 for 75mm		[Cross-hatched pattern]	.....at 1.30m becoming slightly sandy with cobble size ragstone.	1.73	[Horizontal line pattern]
1.50-1.73	2	SPT	22,24/32 for 75mm						
Borehole terminated at 1.73m.									



GINT LIBRARY_V10_01.GLB LibVersion: v8_07 | Log WINDOW SAMPLE LOG - A4F | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:13 | GT1 |

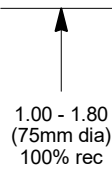
Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 1.73m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



WINDOW SAMPLE LOG

Contract: Ditton Edge, East Malling		Client: The East Malling Trust		Window Sample: WS12	
Contract Ref: 52254	Start: 16.12.20 End: 16.12.20	Ground Level (m AOD): 22.36	National Grid Co-ordinate: E:571207.5 N:157568.2	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
	0.00-0.30	1	ES	TJV			Grass over dark brown slightly sandy CLAY with rootlets present. Sand is fine. (TOPSOIL)	(0.30)	
	0.30		PID	0.2ppm			Firm light brown, orange gravelly sandy CLAY. Gravel is cobble size ragstone fragments. Sand is fine to medium. (HYTHE FORMATION)	0.30	
	0.50 0.50	2	ES PID	TJV 0.2ppm					
	0.80-1.10	3	D				Medium dense to dense cream fine to medium SAND with frequent cobble size ragstone. (HYTHE FORMATION)	(1.20)	
	1.00-1.45	1	SPT	N=6					
	1.20-1.50	4	D						
								1.50	
								(0.30)	
								1.80	
							Borehole terminated at 1.80m.		



GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4F | 52254 - DITTON EDGE, EAST MALLING.GPJ - v10_01. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 22/04/21 - 11:13 | GT1 |

Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation. 2. UXO engineer checks during drilling. 3. Inspection pit hand dug to 1.00m depth. 4. No groundwater encountered. 5. Borehole refused at 1.80m depth due to the presence of ragstone cobbles. 6. Borehole backfilled with arisings upon completion.	
All dimensions in metres						Scale:	1:25
Method Used:	Inspection pit + Tracked window		Plant Used:	Premier 110		Drilled By:	KDS
						Logged By:	GTsoutsis
						Checked By:	ST



APPENDIX I GROUND GAS MONITORING DATA

IN-SITU GAS MONITORING RESULTS

	Start Date	End Date	[Pressures]	Previous	During	Start	End	Equipment Used & Remarks
Round 1	06/01/2021	06/01/2021		-	-	-	-	Weather: Overcast
Round 2	12/01/2021	12/01/2021		-	-	-	-	Weather: Overcast
Round 3	20/01/2021	20/01/2021		-	-	-	-	Weather: Light rain

Exploratory Position ID	Monitoring Round	Measured Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS1	1	3.45	06/01/2021 09:00:00	-	1016	0.0 _(SS)	DRY	0.1	0.0	19.8	0.0	
WS1	1	---	15 secs	-	-	-	-	0.1	0.0	19.8	0.0	
WS1	1	---	30 secs	-	-	-	-	0.1	0.0	19.8	0.0	
WS1	1	---	60 secs	-	-	-	-	0.2	0.0	19.6	0.0	
WS1	1	---	90 secs	-	-	-	-	0.2	0.0	19.6	0.0	
WS1	1	---	120 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS1	1	---	180 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS1	1	---	240 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS1	1	---	300 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS1	2	3.45	12/01/2021 09:00:00	-	1009	0.0 _(SS)	DRY	0.1	0.0	20.3	0.0	
WS1	2	---	15 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	2	---	30 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	2	---	60 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	2	---	90 secs	-	-	-	-	0.1	0.0	20.2	0.0	
WS1	2	---	120 secs	-	-	-	-	0.1	0.0	20.2	0.0	
WS1	2	---	180 secs	-	-	-	-	0.1	0.0	20.2	0.0	
WS1	2	---	240 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS1	2	---	300 secs	-	-	-	-	0.2	0.0	20.2	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

Anerley Court Half Moon Lane Hildenborough Tonbridge Kent, TN11 9HU	Compiled By	Date	Checked By	Date	Contract Ref:
		30/01/2021			52254
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS1	3	3.40	20/01/2021 09:00:00	-	989	0.0 _(SS)	3.30	0.1	0.0	20.3	0.0	
WS1	3	---	15 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	30 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	60 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	90 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	120 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	180 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS1	3	---	240 secs	-	-	-	-	0.1	0.0	20.2	0.0	
WS1	3	---	300 secs	-	-	-	-	0.1	0.0	20.2	0.0	
WS10	1	2.00	06/01/2021 10:00:00	-	1016	0.0 _(SS)	1.90	0.1	0.0	19.9	0.0	
WS10	1	---	15 secs	-	-	-	-	0.1	0.0	19.9	0.0	
WS10	1	---	30 secs	-	-	-	-	0.1	0.0	19.9	0.0	
WS10	1	---	60 secs	-	-	-	-	0.1	0.0	19.7	0.0	
WS10	1	---	90 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	1	---	120 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	1	---	180 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	1	---	240 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	1	---	300 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	2	2.00	12/01/2021 10:00:00	-	1009	0.0 _(SS)	1.95	0.2	0.0	20.1	0.0	
WS10	2	---	15 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS10	2	---	30 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS10	2	---	60 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS10	2	---	90 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	2	---	120 secs	-	-	-	-	0.2	0.0	19.7	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

Anerley Court Half Moon Lane Hildenborough Tonbridge Kent, TN11 9HU	Compiled By	Date	Checked By	Date	Contract Ref:
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	Contract: Ditton Edge, East Malling				Page:
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS10	2	---	180 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	2	---	240 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	2	---	300 secs	-	-	-	-	0.2	0.0	19.7	0.0	
WS10	3	2.00	20/01/2021 10:00:00	-	990	0.0 _(SS)	1.90	0.1	0.0	20.1	0.0	
WS10	3	---	15 secs	-	-	-	-	0.1	0.0	20.1	0.0	
WS10	3	---	30 secs	-	-	-	-	0.1	0.0	20.1	0.0	
WS10	3	---	60 secs	-	-	-	-	0.1	0.0	20.1	0.0	
WS10	3	---	90 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS10	3	---	120 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS10	3	---	180 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS10	3	---	240 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS10	3	---	300 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS3	1	2.50	06/01/2021 09:10:00	-	1018	0.0 _(SS)	2.40	0.1	0.0	19.8	0.0	
WS3	1	---	15 secs	-	-	-	-	0.1	0.0	19.8	0.0	
WS3	1	---	30 secs	-	-	-	-	1.3	0.0	18.7	0.0	
WS3	1	---	60 secs	-	-	-	-	1.3	0.0	18.7	0.0	
WS3	1	---	90 secs	-	-	-	-	1.9	0.0	18.7	0.0	
WS3	1	---	120 secs	-	-	-	-	1.9	0.0	17.3	0.0	
WS3	1	---	180 secs	-	-	-	-	2.4	0.0	17.3	0.0	
WS3	1	---	240 secs	-	-	-	-	2.6	0.0	16.9	0.0	
WS3	1	---	300 secs	-	-	-	-	2.6	0.0	16.9	0.0	
WS3	2	2.50	12/01/2021 09:10:00	-	1009	0.0 _(SS)	2.45	0.1	0.0	20.5	0.0	
WS3	2	---	15 secs	-	-	-	-	0.1	0.0	20.5	0.0	
WS3	2	---	30 secs	-	-	-	-	0.1	0.0	20.5	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS3	2	---	60 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS3	2	---	90 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS3	2	---	120 secs	-	-	-	-	0.3	0.0	20.4	0.0	
WS3	2	---	180 secs	-	-	-	-	0.3	0.0	20.4	0.0	
WS3	2	---	240 secs	-	-	-	-	0.3	0.0	20.4	0.0	
WS3	2	---	300 secs	-	-	-	-	0.3	0.0	20.4	0.0	
WS3	3	2.50	20/01/2021 09:10:00	-	990	0.0 _(SS)	2.40	0.1	0.0	20.3	0.0	
WS3	3	---	15 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS3	3	---	30 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS3	3	---	60 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS3	3	---	90 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS3	3	---	120 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS3	3	---	180 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS3	3	---	240 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS3	3	---	300 secs	-	-	-	-	0.2	0.0	20.1	0.0	
WS5	1	1.50	06/01/2021 09:20:00	-	1016	0.0 _(SS)	1.45	0.1	0.0	19.9	0.0	
WS5	1	---	15 secs	-	-	-	-	0.1	0.0	19.9	0.0	
WS5	1	---	30 secs	-	-	-	-	0.1	0.0	19.9	0.0	
WS5	1	---	60 secs	-	-	-	-	0.1	0.0	19.8	0.0	
WS5	1	---	90 secs	-	-	-	-	0.2	0.0	19.8	0.0	
WS5	1	---	120 secs	-	-	-	-	0.2	0.0	19.8	0.0	
WS5	1	---	180 secs	-	-	-	-	0.2	0.0	19.6	0.0	
WS5	1	---	240 secs	-	-	-	-	0.2	0.0	19.6	0.0	
WS5	1	---	300 secs	-	-	-	-	0.2	0.0	19.6	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS5	2	1.50	12/01/2021 09:20:00	-	1008	0.0 _(SS)	1.46	0.1	0.0	20.4	0.0	
WS5	2	---	15 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS5	2	---	30 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS5	2	---	60 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	2	---	90 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	2	---	120 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	2	---	180 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	2	---	240 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	2	---	300 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS5	3	1.50	20/01/2021 09:20:00	-	990	0.0 _(SS)	1.40	0.1	0.0	20.3	0.0	
WS5	3	---	15 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS5	3	---	30 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS5	3	---	60 secs	-	-	-	-	0.1	0.0	20.3	0.0	
WS5	3	---	90 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS5	3	---	120 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS5	3	---	180 secs	-	-	-	-	0.2	0.0	19.9	0.0	
WS5	3	---	240 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS5	3	---	300 secs	-	-	-	-	0.3	0.0	19.6	0.0	
WS7	1	1.50	06/01/2021 09:30:00	-	1016	0.0 _(SS)	DRY	0.1	0.0	19.5	0.0	
WS7	1	---	15 secs	-	-	-	-	0.1	0.0	19.5	0.0	
WS7	1	---	30 secs	-	-	-	-	0.1	0.0	19.5	0.0	
WS7	1	---	60 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS7	1	---	90 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS7	1	---	120 secs	-	-	-	-	0.2	0.0	19.4	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

Anerley Court Half Moon Lane Hildenborough Tonbridge Kent, TN11 9HU	Compiled By	Date	Checked By	Date	Contract Ref:
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS7	1	---	180 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS7	1	---	240 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS7	1	---	300 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS7	2	1.48	12/01/2021 09:30:00	-	1009	0.0 _(SS)	DRY	0.1	0.0	20.5	0.0	
WS7	2	---	15 secs	-	-	-	-	0.1	0.0	20.5	0.0	
WS7	2	---	30 secs	-	-	-	-	0.2	0.0	20.5	0.0	
WS7	2	---	60 secs	-	-	-	-	0.2	0.0	20.5	0.0	
WS7	2	---	90 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	2	---	120 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	2	---	180 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	2	---	240 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	2	---	300 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	3	1.48	20/01/2021 09:30:00	-	990	0.0 _(SS)	DRY	0.2	0.0	20.3	0.0	
WS7	3	---	15 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	3	---	30 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	3	---	60 secs	-	-	-	-	0.2	0.0	20.3	0.0	
WS7	3	---	90 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS7	3	---	120 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS7	3	---	180 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS7	3	---	240 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS7	3	---	300 secs	-	-	-	-	0.2	0.0	19.5	0.0	
WS8	1	1.50	06/01/2021 09:45:00	-	1017	0.0 _(SS)	DRY	0.1	0.0	19.5	0.0	
WS8	1	---	15 secs	-	-	-	-	0.1	0.0	19.5	0.0	
WS8	1	---	30 secs	-	-	-	-	0.1	0.0	19.5	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

Anerley Court Half Moon Lane Hildenborough Tonbridge Kent, TN11 9HU	Compiled By	Date	Checked By	Date	Contract Ref:
		30/01/2021			52254
	Contract:				Page:
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Monitoring Round	Installation Depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	
WS8	1	---	60 secs	-	-	-	-	0.1	0.0	19.4	0.0	
WS8	1	---	90 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS8	1	---	120 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS8	1	---	180 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS8	1	---	240 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS8	1	---	300 secs	-	-	-	-	0.2	0.0	19.4	0.0	
WS8	2	1.50	12/01/2021 09:45:00	-	1009	0.0 _(SS)	DRY	0.1	0.0	20.4	0.0	
WS8	2	---	15 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS8	2	---	30 secs	-	-	-	-	0.1	0.0	20.4	0.0	
WS8	2	---	60 secs	-	-	-	-	0.3	0.0	20.4	0.0	
WS8	2	---	90 secs	-	-	-	-	0.3	0.0	20.2	0.0	
WS8	2	---	120 secs	-	-	-	-	0.3	0.0	20.2	0.0	
WS8	2	---	180 secs	-	-	-	-	0.3	0.0	20.2	0.0	
WS8	2	---	240 secs	-	-	-	-	0.3	0.0	20.2	0.0	
WS8	2	---	300 secs	-	-	-	-	0.3	0.0	20.2	0.0	
WS8	3	1.50	20/01/2021 09:45:00	-	989	0.0 _(SS)	DRY	0.2	0.0	20.2	0.0	
WS8	3	---	15 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS8	3	---	30 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS8	3	---	60 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS8	3	---	90 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS8	3	---	120 secs	-	-	-	-	0.2	0.0	20.2	0.0	
WS8	3	---	180 secs	-	-	-	-	0.2	0.0	20.0	0.0	
WS8	3	---	240 secs	-	-	-	-	0.2	0.0	20.0	0.0	
WS8	3	---	300 secs	-	-	-	-	0.2	0.0	20.0	0.0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

Anerley Court Half Moon Lane Hildenborough Tonbridge Kent, TN11 9HU	Compiled By	Date	Checked By	Date	Contract Ref: 52254
		30/01/2021			
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**APPENDIX J LABORATORY CERTIFICATES FOR SOIL
ANALYSIS**

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/11074
Issue Number: 1
Date: 12 January, 2021

Client: RSK Environment Ltd Tonbridge
Anerley Court, Half Moon Lane, Hildenborough
Tonbridge
Kent
TN11 9HU

Project Manager: Giorgos Tsoutsis
Project Name: Ditton Edge, East Malling
Project Ref: 52254
Order No: N/A
Date Samples Received: 15/12/20
Date Instructions Received: 21/12/20
Date Analysis Completed: 11/01/21

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Richard Wong
Client Manager

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP3	TP4	TP5	TP6	TP7	TP8			
Depth to Top	0.50	0.00	0.00	0.00	0.00	0.00	0.60			
Depth To Bottom		0.30	0.30	0.30	0.30	0.30				
Date Sampled	11-Dec-20	11-Dec-20	11-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
% Stones >10mm _A	<0.1	<0.1	2.5	4.5	2.7	2.4	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	6.99	7.35	6.98	6.88	6.50	6.66	6.46	pH	0.01	A-T-031s
Total Organic Carbon _D ^{M#}	0.92	-	1.21	-	0.99	-	0.33	% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	24	14	10	16	11	18	9	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.9	0.7	0.6	0.8	0.7	0.8	0.7	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	10	13	19	19	22	8	mg/kg	1	A-T-024s
Chromium _D ^{M#}	28	22	20	21	23	27	24	mg/kg	1	A-T-024s
Lead _D ^{M#}	33	34	40	67	52	71	15	mg/kg	1	A-T-024s
Mercury _D	0.28	<0.17	0.18	0.43	0.49	3.76	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	22	20	16	20	19	20	20	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	49	43	43	58	57	60	39	mg/kg	5	A-T-024s
TPH total (>C6-C40) _A ^{M#}	<15	<15	-	-	-	-	<15	mg/kg	10	A-T-007s

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	TP1	TP3	TP4	TP5	TP6	TP7	TP8						
Depth to Top	0.50	0.00	0.00	0.00	0.00	0.00	0.60						
Depth To Bottom		0.30	0.30	0.30	0.30	0.30							
Date Sampled	11-Dec-20	11-Dec-20	11-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE						
Asbestos in Soil (inc. matrix)													
Asbestos in soil [#]	-	-	NAD	NAD	NAD	NAD	-			A-T-045			
Asbestos ACM - Suitable for Water Absorption Test? _D	-	-	N/A	N/A	N/A	N/A	-			A-T-045			

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP3	TP4	TP5	TP6	TP7	TP8			
Depth to Top	0.50	0.00	0.00	0.00	0.00	0.00	0.60			
Depth To Bottom		0.30	0.30	0.30	0.30	0.30				
Date Sampled	11-Dec-20	11-Dec-20	11-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	0.08	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	TP1	TP3	TP4	TP5	TP6	TP7	TP8						
Depth to Top	0.50	0.00	0.00	0.00	0.00	0.00	0.60						
Depth To Bottom		0.30	0.30	0.30	0.30	0.30							
Date Sampled	11-Dec-20	11-Dec-20	11-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20	09-Dec-20						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE						
TPH CWG													
Ali >C5-C6 _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
Ali >C6-C8 _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
Ali >C8-C10 _A	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Ali >C10-C12 _A ^{M#}	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Ali >C12-C16 _A ^{M#}	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Ali >C16-C21 _A ^{M#}	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Ali >C21-C35 _A ^{M#}	-	-	3	2	1	2	-	mg/kg	1	A-T-055s			
Total Aliphatics _A	-	-	3	2	1	2	-	mg/kg	1	A-T-055s			
Aro >C5-C7 _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
Aro >C7-C8 _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
Aro >C8-C10 _A	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Aro >C10-C12 _A	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Aro >C12-C16 _A	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Aro >C16-C21 _A ^{M#}	-	-	<1	<1	<1	<1	-	mg/kg	1	A-T-055s			
Aro >C21-C35 _A ^{M#}	-	-	10	3	3	5	-	mg/kg	1	A-T-055s			
Total Aromatics _A	-	-	10	3	3	5	-	mg/kg	1	A-T-055s			
TPH (Ali & Aro >C5-C35) _A	-	-	14	5	5	7	-	mg/kg	1	A-T-055s			
BTEX - Benzene _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
BTEX - Toluene _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
BTEX - Ethyl Benzene _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
BTEX - m & p Xylene _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
BTEX - o Xylene _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			
MTBE _A [#]	-	-	<0.01	<0.01	<0.01	<0.01	-	mg/kg	0.01	A-T-022s			

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/18	20/11074/20	20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP10	TP11	TP12	TP13	TP14	TP15	TP16			
Depth to Top	0.00	0.00	0.6	0.00	0.5	0.00	0.5			
Depth To Bottom	0.30	0.30		0.30		0.30				
Date Sampled	09-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
% Stones >10mm _A	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	-	5.98	7.66	6.56	6.79	6.37	6.47	pH	0.01	A-T-031s
Total Organic Carbon _D ^{M#}	-	-	0.38	-	-	-	-	% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	-	11	5	9	10	11	6	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	-	0.7	0.6	0.7	0.9	0.7	0.6	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	-	45	11	40	9	16	14	mg/kg	1	A-T-024s
Chromium _D ^{M#}	-	23	24	19	28	18	18	mg/kg	1	A-T-024s
Lead _D ^{M#}	-	44	15	34	14	40	18	mg/kg	1	A-T-024s
Mercury _D	-	<0.17	<0.17	<0.17	<0.17	0.59	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	-	18	18	16	23	16	15	mg/kg	1	A-T-024s
Selenium _D ^{M#}	-	1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	-	67	40	59	41	47	41	mg/kg	5	A-T-024s
TPH total (>C6-C40) _A ^{M#}	-	<15	<15	<15	<15	<15	<15	mg/kg	10	A-T-007s

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/18	20/11074/20	20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP10	TP11	TP12	TP13	TP14	TP15	TP16			
Depth to Top	0.00	0.00	0.6	0.00	0.5	0.00	0.5			
Depth To Bottom	0.30	0.30		0.30		0.30				
Date Sampled	09-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine)										
Dichlobenil _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Tecnazene _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Trifluralin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
alpha-Hexachlorocyclohexane (HCH) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Hexachlorobenzene (HCB) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Simazine _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Atrazine _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
beta-Hexachlorocyclohexane (HCH) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Quintozene (PCNB) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Chlorothalonil _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
delta-Hexachlorocyclohexane (HCH) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Triallate _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Heptachlor _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Aldrin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Triadimefon _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Telodrin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Isodrin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Pendimethalin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Heptachlor epoxide _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
trans-Chlordane (Gamma) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
o,p-DDE (2,4) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Endosulphan I (Alpha) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
cis-Chlordane (Alpha) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
p,p-DDE (4,4) _A	0.05	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Dieldrin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
o,p-DDD (2,4) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Endrin _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Endosulphan II (Beta) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
p,p-DDD (4,4) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
o,p-DDT (2,4) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Endrin Aldehyde _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Endrin Ketone _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/18	20/11074/20	20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP10	TP11	TP12	TP13	TP14	TP15	TP16			
Depth to Top	0.00	0.00	0.6	0.00	0.5	0.00	0.5			
Depth To Bottom	0.30	0.30		0.30		0.30				
Date Sampled	09-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
Endosulphan Sulphate _A	<0.01	-	-	-	-	-	-			
p,p-DDT (4,4) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
o,p-Methoxychlor _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
p,p-Methoxychlor _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Permethrin I (cis) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Permethrin II (trans) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Dichlorvos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Mevinphos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Demeton-S _A	<0.50	-	-	-	-	-	-	mg/kg	0.5	A-T-056
Demeton-O _A	<0.50	-	-	-	-	-	-	mg/kg	0.5	A-T-056
Phorate _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Dimethoate _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Propetamphos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Diazinon (Dimpylate) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Disulfoton _A	<0.10	-	-	-	-	-	-	mg/kg	0.1	A-T-056
Etrimphos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Chlorpyrifos-methyl _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Parathion (Ethyl Parathion) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Methyl Parathion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Pirimiphos-methyl _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Fenitrothion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Fensulphothion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Fenthion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Malathion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Chlorfenvinphos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Chlorpyrifos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Trichloronate _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Prothiofos (Tokuthion) _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Ethion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Triazophos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Sulprofos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Carbophenothion _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Phosalone _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056
Azinphos-methyl _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/18	20/11074/20	20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	TP10	TP11	TP12	TP13	TP14	TP15	TP16						
Depth to Top	0.00	0.00	0.6	0.00	0.5	0.00	0.5						
Depth To Bottom	0.30	0.30		0.30		0.30							
Date Sampled	09-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE						
Azinphos-ethyl _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056			
Coumaphos _A	<0.01	-	-	-	-	-	-	mg/kg	0.01	A-T-056			

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/18	20/11074/20	20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP10	TP11	TP12	TP13	TP14	TP15	TP16			
Depth to Top	0.00	0.00	0.6	0.00	0.5	0.00	0.5			
Depth To Bottom	0.30	0.30		0.30		0.30				
Date Sampled	09-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20	10-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE	4AE			
PAH-16MS										
Acenaphthene _A ^{M#}	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	-	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	-	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	-	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/32							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP17									
Depth to Top	0.00									
Depth To Bottom	0.30									
Date Sampled	09-Dec-20									
Sample Type	Soil - ES									
Sample Matrix Code	4AE									
% Stones >10mm _A	<0.1									

Envirolab Job Number: 20/11074

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11074/32							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP17									
Depth to Top	0.00									
Depth To Bottom	0.30									
Date Sampled	09-Dec-20									
Sample Type	Soil - ES									
Sample Matrix Code	4AE									
Azinphos-ethyl _A	<0.01							mg/kg	0.01	A-T-056
Coumaphos _A	<0.01							mg/kg	0.01	A-T-056

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Tonbridge, Anerley Court, Half Moon Lane,
Hildenborough, Tonbridge, Kent, TN11 9HU

Project: Ditton Edge, East Malling

Clients Project No: 52254

Project No: 20/11074

Date Received: 21/12/2020 (am)

Cool Box Temperatures (°C): 3.6 - 4=5.1

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/11252
Issue Number: 1
Date: 14 January, 2021


Client: RSK Environment Ltd Tonbridge
Anerley Court, Half Moon Lane, Hildenborough
Tonbridge
Kent
TN11 9HU

Project Manager: Giorgos Tsoutsis/Gus Awoyomi/Svetislav Trajkovski
Project Name: Ditton Edge, East Malling
Project Ref: 52254
Order No: N/A
Date Samples Received: 22/12/20
Date Instructions Received: 24/12/20
Date Analysis Completed: 14/01/21

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Danielle Brierley
Client Manager

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12			
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5			
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50			
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A			
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.4				% w/w	0.1	A-T-044
pH _D ^{M#}	7.66	6.95	7.24	6.82	6.42	-	7.06	pH	0.01	A-T-031s
Total Organic Carbon _D ^{M#}	-	1.13	-	0.72	0.34	-	-	% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	18	12	14	10	8	-	17	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.6	0.7	1.1	0.6	0.6	-	1.2	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	8	17	4	13	10	-	5	mg/kg	1	A-T-024s
Chromium _D ^{M#}	22	23	25	21	20	-	35	mg/kg	1	A-T-024s
Lead _D ^{M#}	26	49	26	37	14	-	14	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	-	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	17	18	23	16	18	-	29	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	1	<1	<1	-	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	39	48	48	40	35	-	36	mg/kg	5	A-T-024s
TPH total (>C6-C40) _A ^{M#}	<10	<10	<10	-	<10	-	<10	mg/kg	10	A-T-007s

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12			
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5			
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50			
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	-	-	-	NAD	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? ^D	-	-	-	N/A	-	-	-			A-T-045
OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine)										
Dichlobenil _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Tecnazene _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Trifluralin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
alpha-Hexachlorocyclohexane (HCH) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Hexachlorobenzene (HCB) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Simazine _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Atrazine _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
beta-Hexachlorocyclohexane (HCH) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Quintozone (PCNB) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Chlorothalonil _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
delta-Hexachlorocyclohexane (HCH) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Triallate _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Heptachlor _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Aldrin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Triadimefon _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Telodrin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Isodrin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Pendimethalin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Heptachlor epoxide _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
trans-Chlordane (Gamma) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
o,p-DDE (2,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Endosulphan I (Alpha) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
cis-Chlordane (Alpha) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
p,p-DDE (4,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Dieldrin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
o,p-DDD (2,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Endrin _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12			
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5			
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50			
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A			
Endosulphan II (Beta) _A	-	-	-	-	-	<0.01	-				mg/kg	0.01	A-T-056
p,p-DDD (4,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
o,p-DDT (2,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Endrin Aldehyde _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Endrin Ketone _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Endosulphan Sulphate _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
p,p-DDT (4,4) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
o,p-Methoxychlor _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
p,p-Methoxychlor _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Permethrin I (cis) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Permethrin II (trans) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Dichlorvos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Mevinphos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Demeton-S _A	-	-	-	-	-	<0.50	-	mg/kg	0.5	A-T-056
Demeton-O _A	-	-	-	-	-	<0.50	-	mg/kg	0.5	A-T-056
Phorate _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Dimethoate _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Propetamphos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Diazinon (Dimpylate) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Disulfoton _A	-	-	-	-	-	<0.10	-	mg/kg	0.1	A-T-056
Etrimphos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Chlorpyrifos-methyl _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Parathion (Ethyl Parathion) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Methyl Parathion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Pirimiphos-methyl _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Fenitrothion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Fensulphothion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Fenthion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Malathion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Chlorfenvinphos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Chlorpyrifos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Trichloronate _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Prothiofos (Tokuthion) _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Ethion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12			
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5			
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50			
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A			
Triazophos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Sulprofos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Carbophenothion _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Phosalone _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Azinphos-methyl _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Azinphos-ethyl _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056
Coumaphos _A	-	-	-	-	-	<0.01	-	mg/kg	0.01	A-T-056

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12			
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5			
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50			
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	-	-	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	0.08	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	0.08	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	0.09	<0.05	<0.05	-	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	-	-	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	0.11	<0.06	<0.06	-	-	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	0.15	<0.08	<0.08	-	-	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	0.05	<0.03	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	0.05	0.05	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	0.14	<0.07	<0.07	-	-	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	0.75	<0.08	<0.08	-	-	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 20/11252

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/18	20/11252/23	Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	WS1	WS4	WS5	WS8	WS9	WS9	WS12						
Depth to Top	0.50	0.00	0.50	0.00	0.00	0.50	0.5						
Depth To Bottom	0.50	0.30	0.50	0.30	0.30	0.50	0.50						
Date Sampled	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20	17-Dec-20						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	6AE	6AE	6A	6A	5AE	5A	5A						
TPH CWG													
Ali >C5-C6 _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
Ali >C6-C8 _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
Ali >C8-C10 _A	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Ali >C10-C12 _A ^{M#}	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Ali >C12-C16 _A ^{M#}	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Ali >C16-C21 _A ^{M#}	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Ali >C21-C35 _A ^{M#}	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Total Aliphatics _A	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Aro >C5-C7 _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
Aro >C7-C8 _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
Aro >C8-C10 _A	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Aro >C10-C12 _A	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Aro >C12-C16 _A	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Aro >C16-C21 _A ^{M#}	-	-	-	<1	-	-	-	mg/kg	1	A-T-055s			
Aro >C21-C35 _A ^{M#}	-	-	-	2	-	-	-	mg/kg	1	A-T-055s			
Total Aromatics _A	-	-	-	2	-	-	-	mg/kg	1	A-T-055s			
TPH (Ali & Aro >C5-C35) _A	-	-	-	2	-	-	-	mg/kg	1	A-T-055s			
BTEX - Benzene _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
BTEX - Toluene _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
BTEX - Ethyl Benzene _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
BTEX - m & p Xylene _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
BTEX - o Xylene _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			
MTBE _A [#]	-	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s			

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: RSK Environment Ltd Tonbridge, Anerley Court, Half Moon Lane,
Hildenborough, Tonbridge, Kent, TN11 9HU

Project: Ditton Edge, East Malling

Clients Project No: 52254

Project No: 20/11252

Date Received: 24/12/2020 (am)

Cool Box Temperatures (°C): 7.4, 6.9

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/23
Client Sample No						
Client Sample ID/Depth	WS1 0.50-0.50m	WS4 0.00-0.30m	WS5 0.50-0.50m	WS8 0.00-0.30m	WS9 0.00-0.30m	WS12 0.5-0.50m
Date Sampled	17/12/20	17/12/20	17/12/20	17/12/20	17/12/20	17/12/20
Deviation Code						
F	✓	✓	✓	✓	✓	✓

Key

F

Maximum holding time exceeded between sampling date and analysis for analytes listed below

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/11252/2	20/11252/7	20/11252/10	20/11252/15	20/11252/17	20/11252/23
Client Sample No						
Client Sample ID/Depth	WS1 0.50-0.50m	WS4 0.00-0.30m	WS5 0.50-0.50m	WS8 0.00-0.30m	WS9 0.00-0.30m	WS12 0.5-0.50m
Date Sampled	17/12/20	17/12/20	17/12/20	17/12/20	17/12/20	17/12/20
TPH total (>C6-C40)	✓	✓	✓		✓	✓
PAH-16MS	✓	✓	✓	✓		✓
VPHCWG				✓		

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.



APPENDIX K LABORATORY CERTIFICATES FOR GEOTECHNICAL ANALYSIS



STRUCTURAL SOILS LTD
TEST REPORT



Report No. 584411-01 (00)

1774

Date 26-January-2021 Contract Ditton Edge, East Malling

Client RSK
Address Anerley Court
Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU

For the Attention of Svetislav Trakovski

Samples submitted by client	15-December-2020	Client Reference	52254
Testing Started	16-December-2020	Client Order No.	n/a
Testing Completed	22-January-2021	Instruction Type	Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests

- 1.01 Moisture Content (oven drying method) BS1377:Part 2:1990:clause 3.2 (superseded)*
- 1.03 Liquid Limit (one point method) & Plastic Limit BS1377:Part 2:1990,clause 4.4/5.3 (superseded)*
- 1.10 Particle Size Distribution wet sieve method BS1377:Part 2:1990,clause 9.2 (superseded)*
- 1.13a Particle Size Distribution sedimentation pipette method BS1377:Part 2:1990,clause 9.4 (superseded)*

Undertaken by a sub-contractor

- 2.07 pH value in accordance with BRE Special Digest 1:2005
- 2.04 Sulphate content (water extract) in accordance with BRE Special Digest 1:2005

* This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of .
Test were undertaken on samples 'as received' unless otherwise stated.
Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd 18 Frogmore Rd Hemel Hempstead HP3 9RT Tel.01442 416661 e-mail dimitris.xirouchakis@soils.co.uk

TESTING VERIFICATION CERTIFICATE



1774

The test results included in this report are certified as:-

ISSUE STATUS: **FINAL**

In accordance with the Structural Soils Ltd Laboratory Quality Management System, results sheets and summaries of results issued by the laboratory are checked by an approved signatory. The integrity of the test data and results are ensured by control of the computer system employed by the laboratory as part of the Software Verification Program as detailed in the Laboratory Quality Manual.

This testing verification certificate covers all testing compiled on or before the following datetime: **26/01/2021 16:43:25**.

Testing reported after this date is not covered by this Verification Certificate.

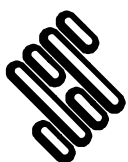
Approved Signatory
Sharon Cairns (Laboratory Manager)

(Head Office)
Bristol Laboratory
Unit 1A, Princess Street
Bedminster
Bristol
BS3 4AG

Castleford Laboratory
The Potteries, Pottery Street
Castleford
West Yorkshire
WF10 1NJ

Hemel Laboratory
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Tonbridge Laboratory
Anerley Court, Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU



**STRUCTURAL
SOILS LTD**

Contract:

Ditton Edge, East Mailling

Job No:

584411



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
TP1		B	1.40	16	37	19	18	53	Orangish brown mottled grey gravelly very sandy CLAY
TP2		B	0.80	11	34	22	12	36	Orangish brown clayey very gravelly SAND
TP5		D	0.80	18	36	18	18	80	Dark orangish brown slightly gravelly sandy CLAY
TP6		D	0.80	20	49	24	25	72	Dark orangish brown slightly gravelly sandy CLAY
TP8		D	0.80	16	26	20	6	70	Orangish brown slightly gravelly clayey SAND
TP9		D	0.80	17	35	18	17	67	Dark orangish brown slightly gravelly sandy CLAY
TP11		D	0.80	16	27	16	11	79	Orangish brown slightly gravelly clayey SAND
TP13		D	0.80	16	23	22	1	78	Orangish brown slightly gravelly clayey SAND



**STRUCTURAL
SOILS LTD**

Contract:

Ditton Edge, East Mailing

Contract Ref:

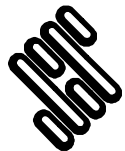
584411



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Description of Sample
TP14		B	1.30	22	52	25	27	79	Dark brown mottled orange gravelly sandy CLAY
TP16		D	0.80	16	NP	NP	NP	80	Orangish brown slightly gravelly clayey SAND
WS1		D	1.50	24	47	24	23	100	Orangish brown slightly gravelly sandy CLAY
WS3		D	0.80	12	31	17	14	56	Orangish brown gravelly sandy CLAY
WS4		D	0.80	14	34	18	16	55	Brown mottled orange slightly gravelly sandy CLAY
WS6		D	1.20	20	53	30	23	67	Orangish brown mottled dark brown slightly gravelly sandy CLAY
WS8		D	0.80	15	42	20	22	55	Brown mottled orange slightly gravelly sandy CLAY
WS11		D	0.80	12	37	28	9	30	Orangish brown sandy very gravelly CLAY



**STRUCTURAL
SOILS LTD**

Contract:

Ditton Edge, East Mailing

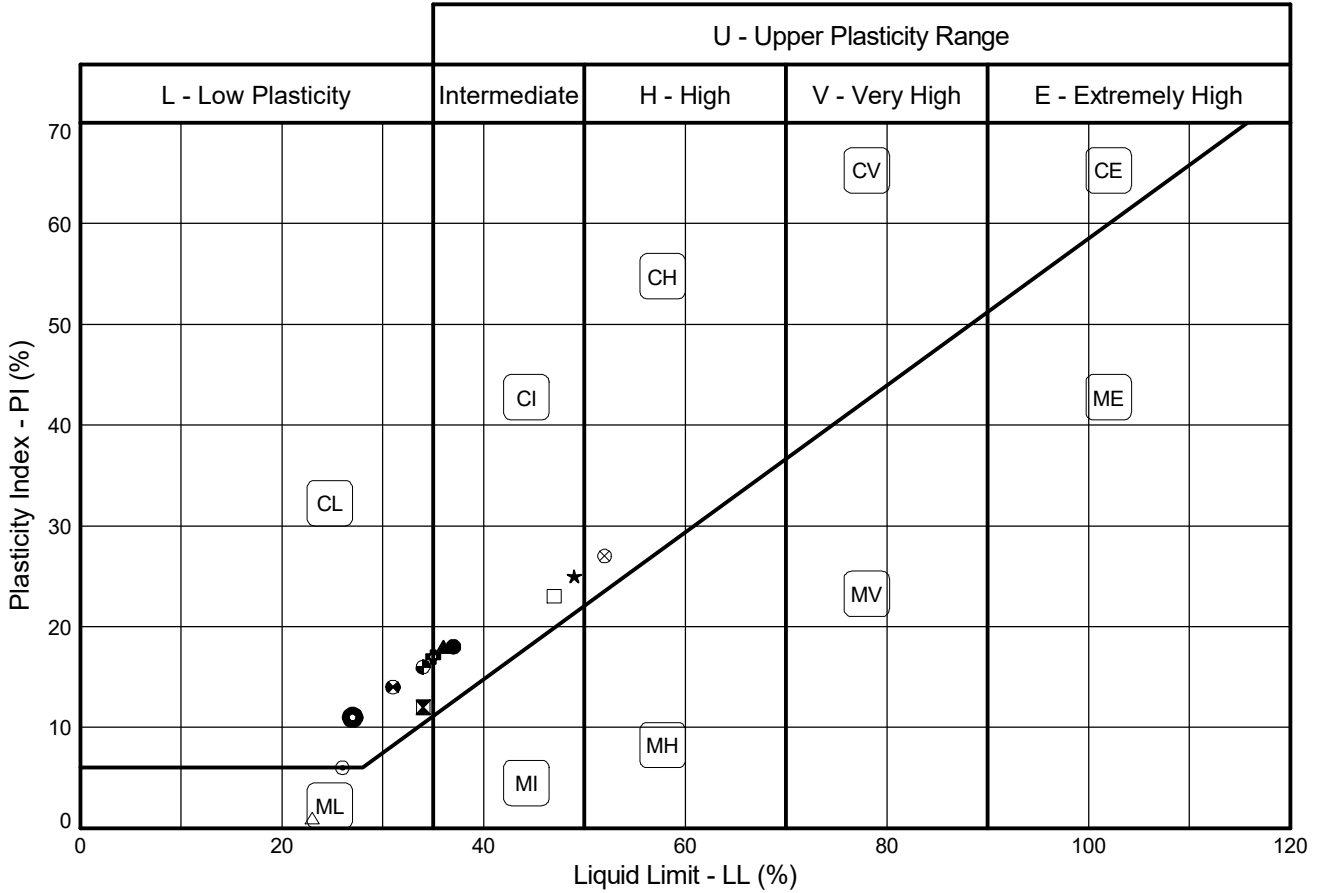
Contract Ref:

584411



PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990

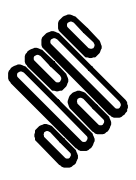


Sample Identification			BS Test Method #	Preparation Method +	MC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)									
●	TP1	B	1.40	3.2/4.4/5.3/5.4	4.2.4	16	37	19	18	53	T
⊠	TP2	B	0.80	3.2/4.4/5.3/5.4	4.2.4	11	34	22	12	36	T
▲	TP5	D	0.80	3.2/4.4/5.3/5.4	4.2.4	18	36	18	18	80	T
★	TP6	D	0.80	3.2/4.4/5.3/5.4	4.2.4	20	49	24	25	72	T
⊙	TP8	D	0.80	3.2/4.4/5.3/5.4	4.2.4	16	26	20	6	70	T
⊕	TP9	D	0.80	3.2/4.4/5.3/5.4	4.2.4	17	35	18	17	67	T
⊗	TP11	D	0.80	3.2/4.4/5.3/5.4	4.2.4	16	27	16	11	79	T
△	TP13	D	0.80	3.2/4.4/5.3/5.4	4.2.4	16	23	22	1	78	T
⊗	TP14	B	1.30	3.2/4.4/5.3/5.4	4.2.4	22	52	25	27	79	T
	TP16	D	0.80	3.2/4.4/5.3/5.4	4.2.4	16	NP	NP	NP	80	T
□	WS1	D	1.50	3.2/4.4/5.3/5.4	4.2.3	24	47	24	23	100	T
⊕	WS3	D	0.80	3.2/4.4/5.3/5.4	4.2.4	12	31	17	14	56	T
⊕	WS4	D	0.80	3.2/4.4/5.3/5.4	4.2.4	14	34	18	16	55	T

Tested in accordance with the following clauses of BS1377-2:1990.
3.2 - Moisture Content
4.3 - Cone Penetrometer Method
4.4 - One Point Cone Penetrometer Method
4.6 - One Point Casagrande Method
5.3 - Plastic Limit Method
5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.
4.2.3 - Natural State
4.2.4 - Wet Sieved
Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



STRUCTURAL SOILS
Anerley Court
Half Moon Lane
Hildenborough
Tonbridge TN11 9HU

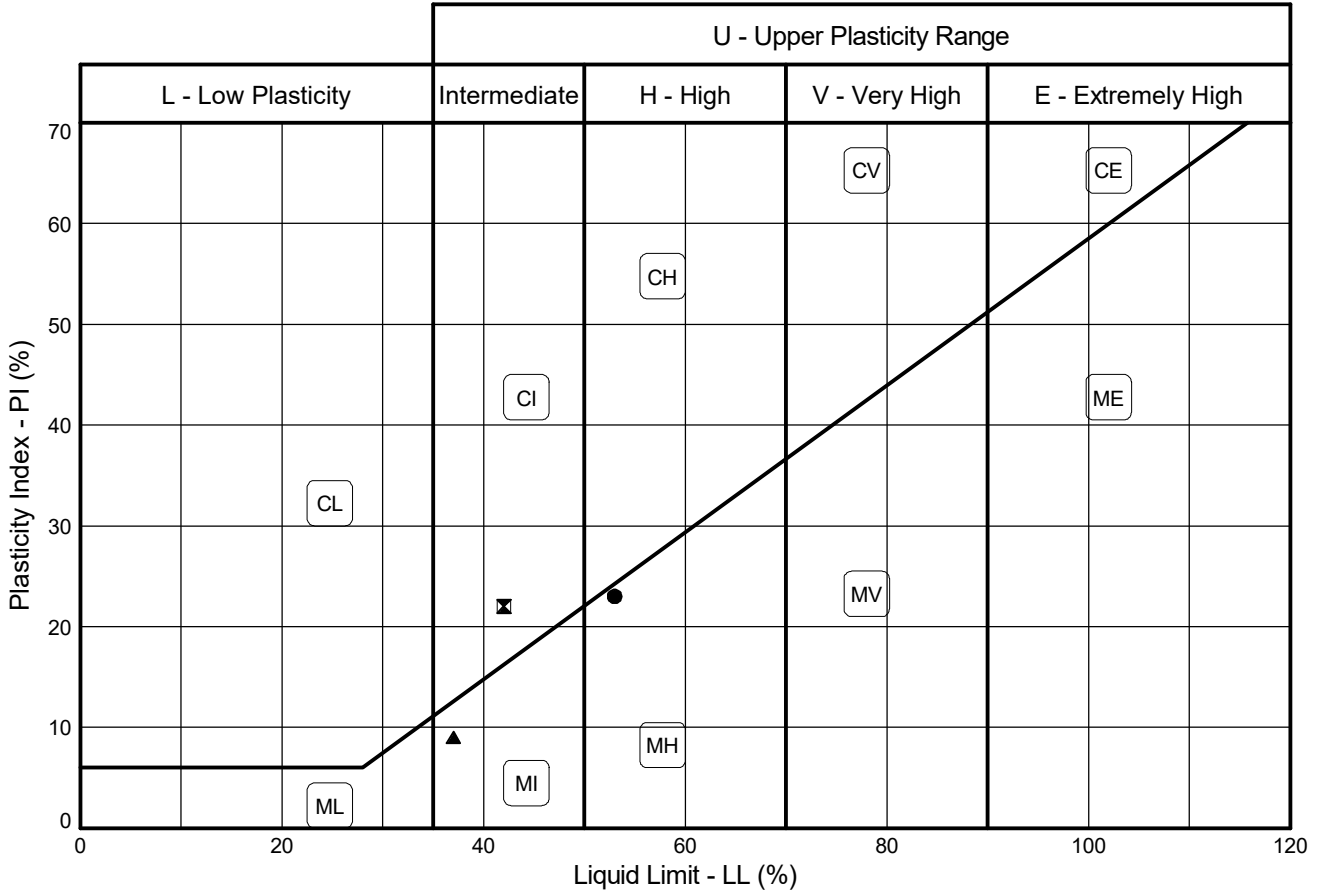
Compiled By		Date
<i>Francesca Bennett</i>		26/01/21
Contract		Contract Ref:
Ditton Edge, East Mailling		584411



GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Graph L - ALINE STANDARD - A4P | 584411-DITTON-EDGE-EAST-MAILING-RSK-52254.GPJ - v10_01 | 26/01/21 - 14:43 | FB1

PLASTICITY CHART - PI Vs LL

In accordance with BS5930:2015
Testing in accordance with BS1377-2:1990



Sample Identification			BS Test Method #	Preparation Method +	MC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)									
●	WS6	D	1.20	3.2/4.4/5.3/5.4	4.2.4	20	53	30	23	67	T
⊠	WS8	D	0.80	3.2/4.4/5.3/5.4	4.2.4	15	42	20	22	55	T
▲	WS11	D	0.80	3.2/4.4/5.3/5.4	4.2.3	12	37	28	9	30	T
	WS12	D	0.80	3.2/4.4/5.3/5.4	4.2.4	18	NP	NP	NP	77	T

Tested in accordance with the following clauses of BS1377-2:1990.

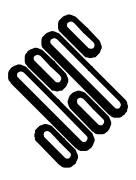
- 3.2 - Moisture Content
- 4.3 - Cone Penetrometer Method
- 4.4 - One Point Cone Penetrometer Method
- 4.6 - One Point Casagrande Method
- 5.3 - Plastic Limit Method
- 5.4 - Plasticity Index

+ Tested in accordance with the following clauses of BS1377-2:1990.

- 4.2.3 - Natural State
- 4.2.4 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic.

Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



STRUCTURAL SOILS
Anerley Court
Half Moon Lane
Hildenborough
Tonbridge TN11 9HU

Compiled By		Date
<i>Francesca Bennett</i>		26/01/21
Contract		Contract Ref:
Ditton Edge, East Mailling		584411

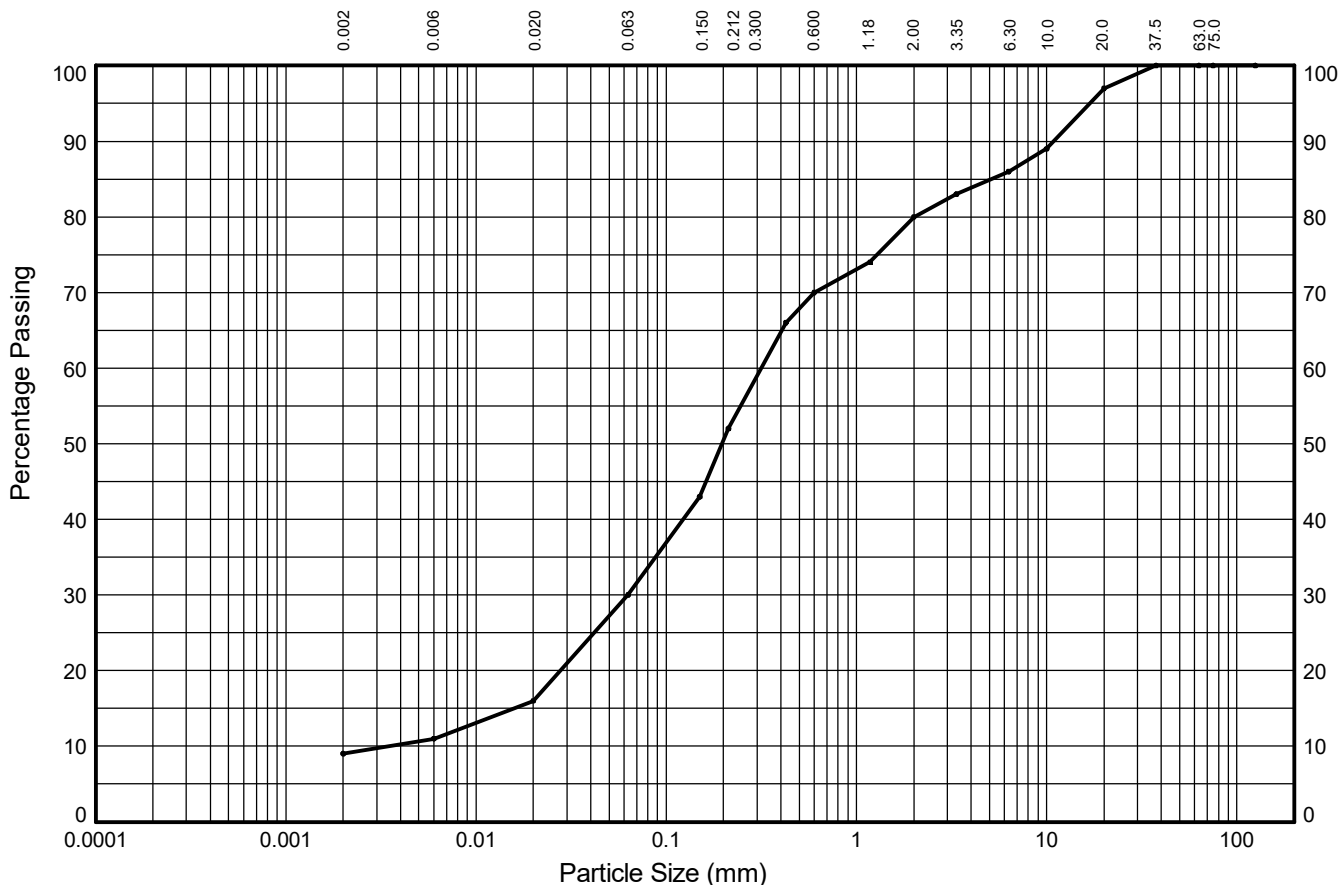


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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 9.2, 9.4 of BS1377:Part 2:1990

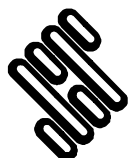
Trial Pit: **TP3** Sample Ref: Sample Type: **B** Depth (m): **1.10**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	5%	14%	20%	20%	10%	6%	11%	3%	
	SILT			SAND			GRAVEL			
9%	21%			50%			20%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	16	D ₁₀ (mm)	0.003
75.0	100			D ₁₅ (mm)	0.016
63.0	100	0.006	11	D ₃₀ (mm)	0.063
37.5	100			D ₅₀ (mm)	0.196
20.0	97			D ₆₀ (mm)	0.315
10.0	89	0.002	9	D ₈₅ (mm)	5.104
6.30	86			D ₉₀ (mm)	10.905
3.35	83			C _U	91
2.00	80			C _C	4
1.18	74	Sedimentation sample was not pre-treated			
0.600	70	Soil Description: Orangish brown clayey gravelly very silty SAND			
0.425	66				
0.212	52				
0.150	43				
0.075	30				
0.063	30				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2



STRUCTURAL SOILS
 Anerley Court
 Half Moon Lane
 Hildenborough
 Tonbridge TN11 9HU

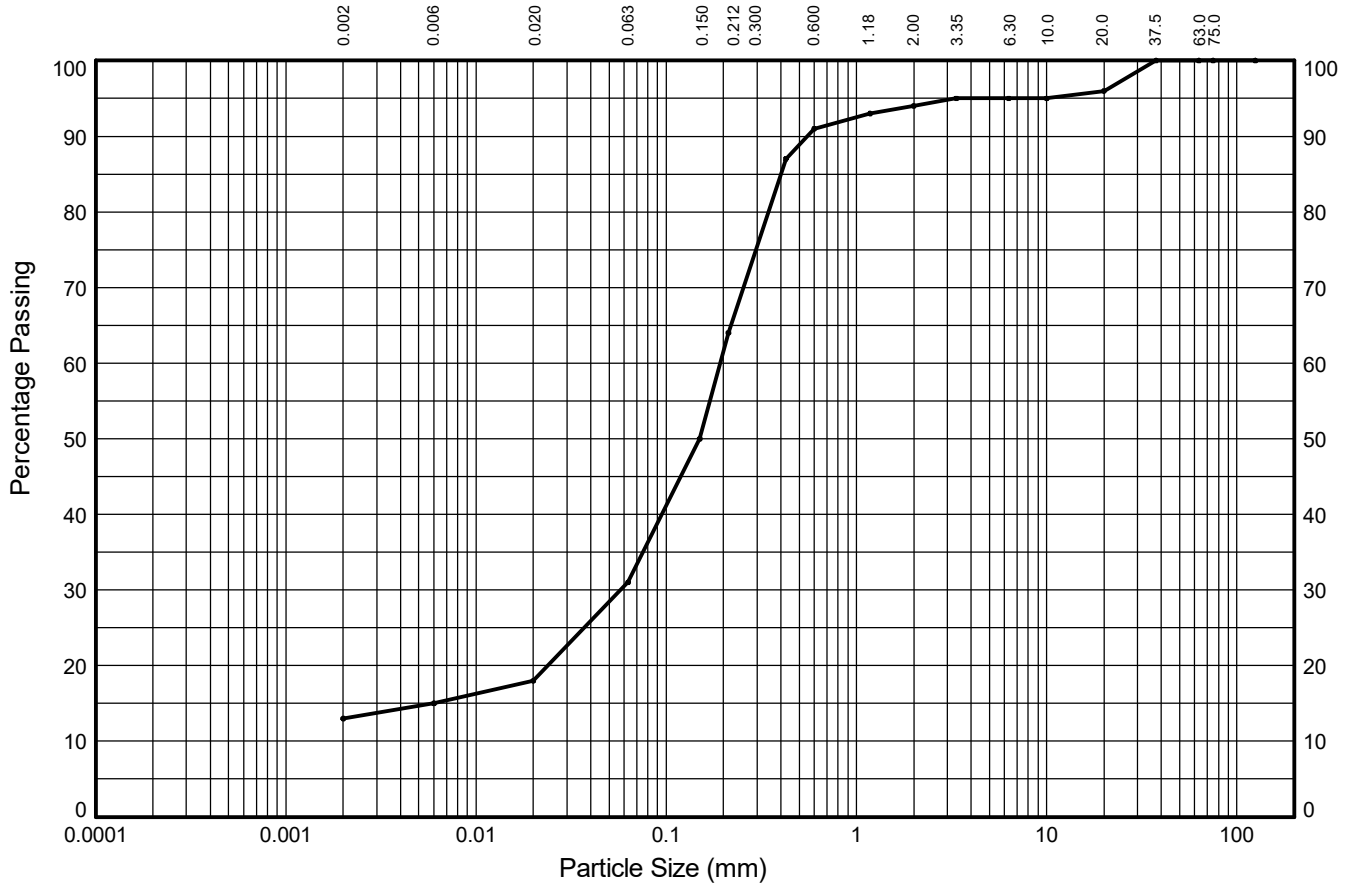
Compiled By		Date
<i>D. Richards</i>		26/01/21
Contract		Contract Ref:
Ditton Edge, East Mailing		584411



PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 9.2, 9.4 of BS1377:Part 2:1990

Trial Pit: **TP7** Sample Ref: Sample Type: **D** Depth (m): **1.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	3%	13%	30%	30%	3%	1%	1%	4%	
	SILT			SAND			GRAVEL			
13%	18%			63%			6%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	18	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	0.006
63.0	100	0.006	15	D ₃₀ (mm)	0.058
37.5	100			D ₅₀ (mm)	0.150
20.0	96			D ₆₀ (mm)	0.192
10.0	95			D ₈₅ (mm)	0.400
6.30	95	0.002	13	D ₉₀ (mm)	0.550
3.35	95			C _U	NA
2.00	94			C _C	NA
1.18	93	Sedimentation sample was not pre-treated			
0.600	91	Soil Description: Orangish brown gravelly clayey silty SAND			
0.425	87				
0.212	64				
0.150	50				
0.150	50				
0.063	31				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2

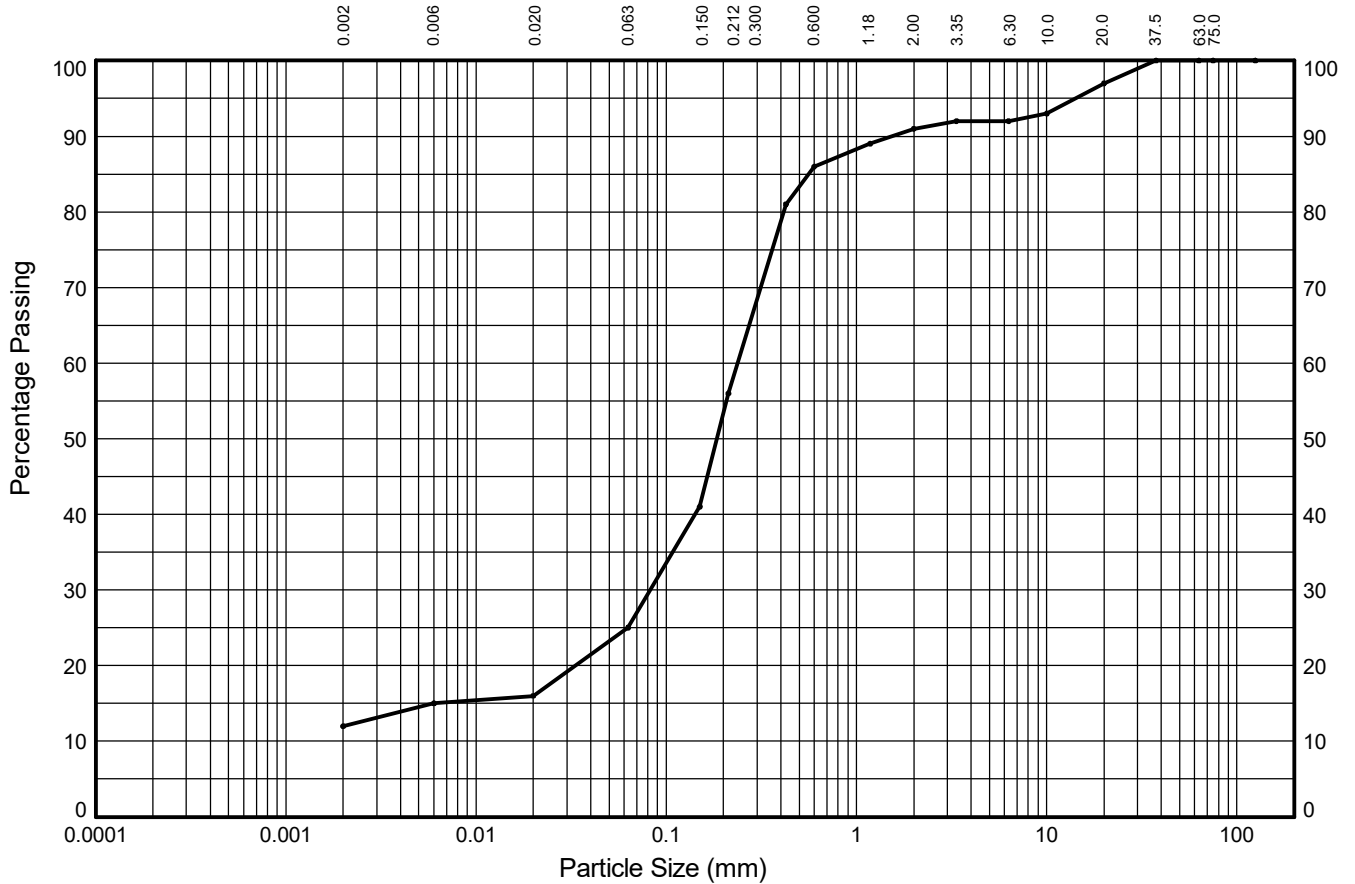
<p>STRUCTURAL SOILS Anerley Court Half Moon Lane Hildenborough Tonbridge TN11 9HU</p>	Compiled By		Date
	<i>D. Richards</i>		26/01/21
	DAISY RICHARDS		
Contract		Contract Ref:	
Ditton Edge, East Mailing		584411	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PjtVersion: v8_07 | Graph L - PSD - A4P | 584411-DITTON-EDGE-EAST-MAILING-RSK-52254.GPJ - v10_01. Structural Soils Ltd, Branch Office - Tonbridge Lab: Anerley Court, Half Moon Lane, Hildenborough, Tonbridge, TN11 9HU. Tel: 01732 833111. Fax: 01732 838549. Web: www.soils.co.uk. Email: ask@soils.co.uk. | 26/01/21 - 14:55 | DR1 |

PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 9.2, 9.4 of BS1377:Part 2:1990

Trial Pit: **TP10** Sample Ref: Sample Type: **D** Depth (m): **0.80**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	3%	1%	9%	28%	33%	5%	1%	5%	3%	
	SILT			SAND			GRAVEL			
12%	13%			66%			9%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	16	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	0.006
63.0	100	0.006	15	D ₃₀ (mm)	0.083
37.5	100			D ₅₀ (mm)	0.185
20.0	97			D ₆₀ (mm)	0.237
10.0	93	0.002	12	D ₈₅ (mm)	0.560
6.30	92			D ₉₀ (mm)	1.536
3.35	92			C _U	NA
2.00	91			C _C	NA
1.18	89	Sedimentation sample was not pre-treated			
0.600	86	Soil Description: Orangish brown gravelly clayey silty SAND			
0.425	81				
0.212	56				
0.150	41				
0.075	25				
0.063	25				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2

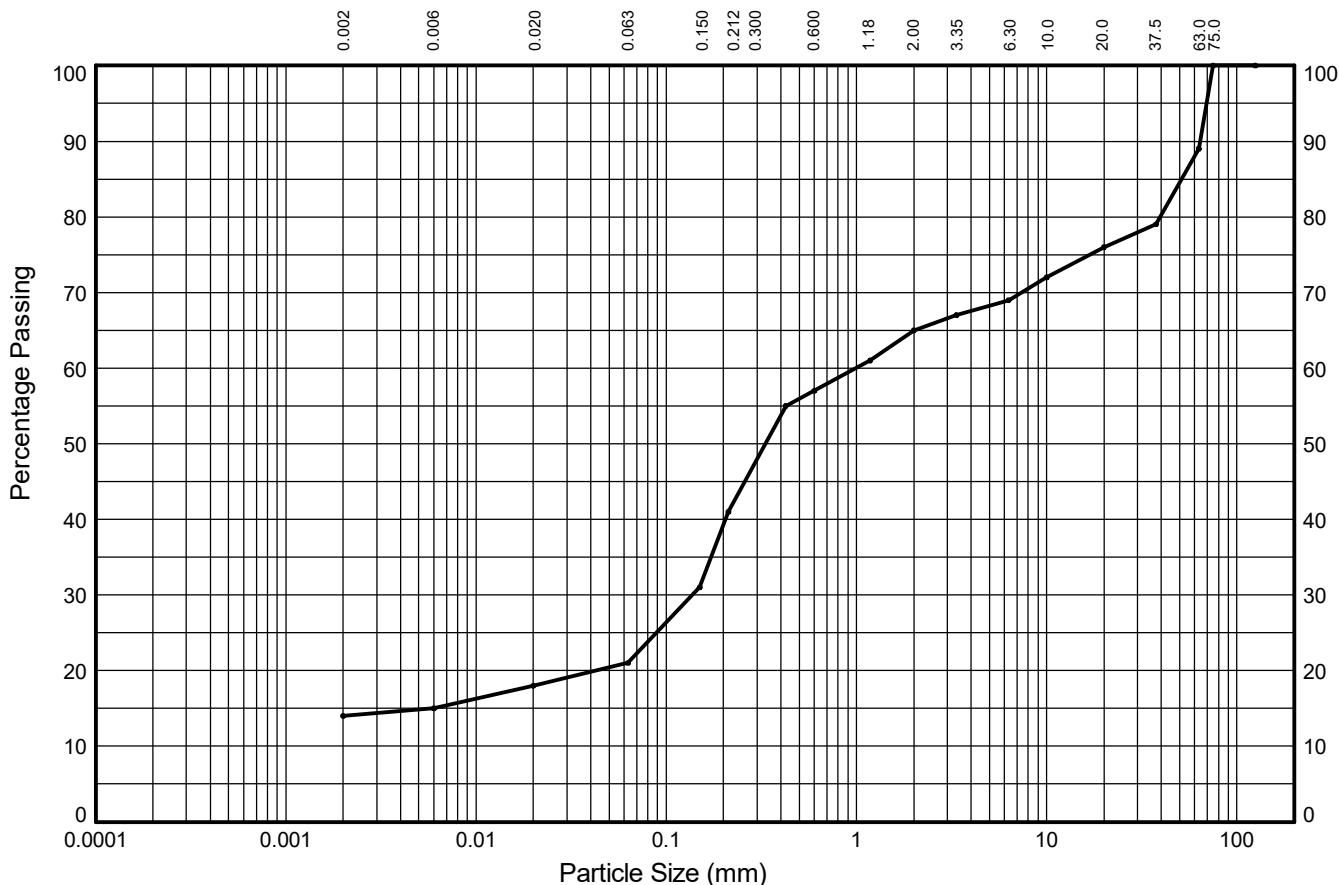
<p>STRUCTURAL SOILS Anerley Court Half Moon Lane Hildenborough Tonbridge TN11 9HU</p>	Compiled By		Date
	<i>D. Richards</i>		26/01/21
	DAISY RICHARDS		
Contract		Contract Ref:	
Ditton Edge, East Mailing		584411	

PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 9.2, 9.4 of BS1377:Part 2:1990

NON-STANDARD TEST

Window Sample: **WS9** Sample Ref: Sample Type: **B** Depth (m): **1.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	1%	3%	3%	18%	18%	8%	4%	7%	13%	
	SILT			SAND			GRAVEL			
14%	7%			44%			24%			11%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	89
37.5	79
20.0	76
10.0	72
6.3	69
3.35	67
2.0	65
1.18	61
0.600	57
0.425	55
0.212	41
0.150	31
0.063	21

Particle Diameter (mm)	Percent Passing (%)
0.02	18
0.006	15
0.002	14

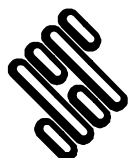
Sedimentation sample was not pre-treated

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	0.006
D ₃₀ (mm)	0.138
D ₅₀ (mm)	0.332
D ₆₀ (mm)	0.996
D ₈₅ (mm)	51.194
D ₉₀ (mm)	64.007
C _U	NA
C _C	NA

Soil Description:

Brown mottled orangish brown silty clayey very gravelly SAND with low cobble content

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2



STRUCTURAL SOILS
Anerley Court
Half Moon Lane
Hildenborough
Tonbridge TN11 9HU

Compiled By		Date
<i>D. Richards</i>		26/01/21
Contract		Contract Ref:
Ditton Edge, East Mailing		584411



GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Graph L - PSD - A4P | 584411-DITTON-EDGE-EAST-MAILING-RSK-52254.GPJ - v10_01. Structural Soils Ltd, Branch Office - Tonbridge Lab: Anerley Court, Half Moon Lane, Hildenborough, Tonbridge, TN11 9HU. Tel: 01732 833111. Fax: 01732 838549. Web: www.soils.co.uk. Email: ask@soils.co.uk. | 26/01/21 - 14:55 | DR1 |

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/11054
Issue Number: 1
Date: 23 December, 2020

Client: Structural Soils Limited (Tonbridge Lab)
Anerley Court
Half Moon Lane
Hildenborough
Kent
UK
TN11 9HU

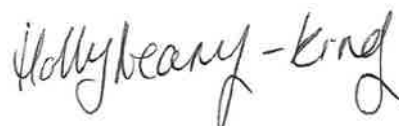
Project Manager: Richard Ashby
Project Name: Ditton Edge, East Malling
Project Ref: 52254
Order No: N/A
Date Samples Received: 18/12/20
Date Instructions Received: 18/12/20
Date Analysis Completed: 22/12/20

Prepared by:



Sophie France
Client Service Manager

Approved by:



Holly Neary-King
Client Services Supervisor

Envirolab Job Number: 20/11054

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11054/1	20/11054/2	20/11054/3	20/11054/4	20/11054/5	20/11054/6	20/11054/7	Units	Limit of Detection	Method ref
Client Sample No	1	1	2	1	3	2	1			
Client Sample ID	TP1	TP4	TP6	TP8	TP11	TP13	TP15			
Depth to Top	0.80	0.80	1.50	0.80	1.40	1.40	1.00			
Depth To Bottom	1.10	1.10	1.80	1.10	1.80		1.30			
Date Sampled										
Sample Type	Soil - B	Soil - B	Soil - B	Soil - D	Soil - B	Soil - D	Soil - D			
Sample Matrix Code	5A	4A	4A	5A	4A	4A	6A			
% Stones >10mm _A	2.2	4.5	6.4	15.1	6.8	17.0	<0.1				% w/w	0.1	A-T-044
pH BRE ₀ ^{M#}	8.12	8.01	8.55	7.35	8.71	7.67	7.69	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _b ^{M#}	32	<10	<10	<10	<10	<10	<10	mg/l	10	A-T-026s

Envirolab Job Number: 20/11054

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	20/11054/8							Units	Limit of Detection	Method ref
Client Sample No	2									
Client Sample ID	TP17									
Depth to Top	1.50									
Depth To Bottom	1.80									
Date Sampled										
Sample Type	Soil - D									
Sample Matrix Code	4A									
% Stones >10mm _A	11.8									
pH BRE ₀ ^{M#}	8.80							pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) ₀ ^{M#}	<10							mg/l	10	A-T-026s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Structural Soils Limited (Tonbridge Lab), Anerley Court, Half Moon Lane,
Hildenborough, Kent, UK, TN11 9HU

Project No: 20/11054

Date Received: 18/12/2020 (am)

Project: Ditton Edge, East Malling

Cool Box Temperatures (°C): 11.8

Clients Project No: 52254

Lab Sample ID	20/11054/1	20/11054/2	20/11054/3	20/11054/4	20/11054/5	20/11054/6	20/11054/7	20/11054/8
Client Sample No	1	1	2	1	3	2	1	2
Client Sample ID/Depth	TP1 0.80-1.10m	TP4 0.80-1.10m	TP6 1.50-1.80m	TP8 0.80-1.10m	TP11 1.40-1.80m	TP13 1.40m	TP15 1.00-1.30m	TP17 1.50-1.80m
Date Sampled								
Deviation Code								
E (no date)	✓	✓	✓	✓	✓	✓	✓	✓

Key

E (no date) No sampling date provided (all results affected if not provided)

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/00150
Issue Number: 1
Date: 14 January, 2021

Client: Structural Soils Limited (Tonbridge Lab)
Anerley Court
Half Moon Lane
Hildenborough
Kent
UK
TN11 9HU

Project Manager: Richard Ashby
Project Name: Ditton Edge, East Malling
Project Ref: 52254
Order No: N/A
Date Samples Received: 08/01/21
Date Instructions Received: 08/01/21
Date Analysis Completed: 14/01/21

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Richard Wong
Client Manager

Envirolab Job Number: 21/00150

Client Project Name: Ditton Edge, East Malling

Client Project Ref: 52254

Lab Sample ID	21/00150/1	21/00150/2	21/00150/3	21/00150/4				Units	Limit of Detection	Method ref
Client Sample No	1	2	2	1						
Client Sample ID	WS2	WS5	WS7	WS10						
Depth to Top	0.80	1.20	1.20	0.80						
Depth To Bottom	1.10	1.60	1.40	1.10						
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D						
Sample Matrix Code	6AE	5A	4A	5A						
% Stones >10mm _A	1.5	<0.1	<0.1	4.4						
pH BRE ₀ ^{M#}	7.32	7.97	8.30	7.38				pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _b ^{M#}	<10	<10	<10	<10				mg/l	10	A-T-026s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Structural Soils Limited (Tonbridge Lab), Anerley Court, Half Moon Lane,
Hildenborough, Kent, UK, TN11 9HU

Project No: 21/00150
Date Received: 08/01/2021 (am)

Project: Ditton Edge, East Malling

Cool Box Temperatures (°C): 0.1

Clients Project No: 52254

Lab Sample ID	21/00150/1	21/00150/2	21/00150/3	21/00150/4
Client Sample No	1	2	2	1
Client Sample ID/Depth	WS2 0.80-1.10m	WS5 1.20-1.60m	WS7 1.20-1.40m	WS10 0.80-1.10m
Date Sampled				
Deviation Code				
E (no date)	✓	✓	✓	✓

Key

E (no date) No sampling date provided (all results affected if not provided)

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.



APPENDIX L GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH

Generic assessment criteria for human health: residential scenario with home-grown produce

Background

RSK's generic assessment criteria (GAC) were initially prepared following the publication by the Environment Agency (EA) of soil guideline value (SGV) and toxicological (TOX) reports, and associated publications in 2009⁽¹⁾. RSK GAC were updated following the publication of GAC by LQM/CIEH in 2009⁽²⁾. RSK GAC are periodically revised when updated information on toxicological, land use or receptor parameters is published.

Updates to the RSK GAC

In 2014, the publication of Category 4 Screening Levels (C4SL)^(3,4), as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3)⁽⁵⁾ used in the generation of SGVs.

C4SL were published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern (LLTC; see Section 2.3 of research project report SP1010⁽³⁾). Where a C4SL has been published, the RSK GAC duplicates the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and adopts them as GAC for these six substances.

For all other substances the C4SL exposure modifications, with the exception of the "top two" produce type approach taken in the C4SL, have been applied to the current RSK GAC. These include alterations to daily inhalation rates for residential and commercial scenarios, reducing soil adherence factors in children (age classes 1 to 12 only) for residential land use, reducing exposure frequency for dermal contact outdoors for residential land use, and updated produce type consumption rates (90th percentile) based on recent data from the National Diet and Nutrition Survey.

The RSK GAC have also been revised with updated toxicology published by LQM/CIEH in 2015⁽⁷⁾ or by the USEPA⁽¹⁴⁾, where a C4SL has not been published.

RSK GAC derivation for metals and organic compounds

Model selection

Soil assessment criteria (SAC) were calculated using the Contaminated Land Exposure Assessment (CLEA) tool v1.071, supporting EA guidance^(5,8,9) and revised exposure scenarios published for the C4SL⁽³⁾. The SAC are also termed GAC.

Conceptual model

In accordance with SR3⁽⁵⁾, the residential with home-grown produce scenario considers risks to a female child between the ages of 0 and 6 years old as the highest risk scenario. In accordance with Box 3.1 of SR3⁽⁵⁾, the pathways considered for production of the SAC in the residential with home-grown produce scenario are

- direct soil and dust ingestion

- consumption of home-grown produce
- consumption of soil attached to home-grown produce
- dermal contact with soil and indoor dust
- inhalation of indoor and outdoor dust and vapours.

Figure 1 is a conceptual model illustrating these linkages.

In line with guidance in the EA SGV report for cadmium⁽¹⁾, the RSK GAC for cadmium has been derived based on estimates representative of lifetime exposure. Although young children are generally more likely to have higher exposures to soil contaminants, the renal toxicity of cadmium, and the derivation of the TDI_{oral} and TDI_{inh} , are based on considerations of the kidney burden accumulated over 50 years or so. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period.

With respect to volatilisation, the CLEA model assumes a simple linear partitioning of a chemical in the soil between the sorbed, dissolved and vapour phase⁽⁹⁾. The upper boundaries of this partitioning are represented by the maximum aqueous solubility and pure saturated vapour concentration of the chemical. The CLEA model estimates saturated soil concentrations where these limits are reached⁽⁹⁾. The CLEA software uses a traffic light system to identify when individual and/or combined assessment criteria exceed the lower of either the aqueous- or vapour-based soil saturation limits. Model output cells are flagged red where the saturated soil concentration has been exceeded and the contribution of the indoor and outdoor vapour pathway to total exposure is greater than 10%. In this case, further consideration of the following is required⁽⁹⁾:

- Free phase contamination may be present.
- Exposure from the vapour pathways will be over-predicted by the model, as in reality the vapour phase concentration will not increase at concentrations above saturation limits
- Where the vapour pathway contribution is greater than 90%, it is unlikely the relevant health criteria value (HCV) will be exceeded at soil concentrations at least a factor of ten higher than the relevant HCV.

Where the vapour pathway is the predominant pathway (contributes greater than 90% of exposure) or the only exposure route considered and the cell is highlighted red (SAC exceeds saturation limit), the risk based on the assumed conceptual model is likely to be negligible as the vapour risk is assumed to be tolerable at maximum possible soil concentrations. In such circumstances, the vapour pathway exposure should be considered based on the presence of free phase or non-aqueous phase liquid sources and the measured concentrations of volatile organic compounds (VOC) in the vapour phase. Screening could be considered based on setting the SAC as the modelled soil saturation limits. However, as stated within the CLEA handbook⁽⁹⁾, this is likely to not be practical in many cases because of the very low saturation limits and, in any case, is highly conservative.

It should also be noted that for mixtures of compounds, free phase may be present where soil (or groundwater) concentrations are well below saturation limits for individual compounds.

Where the vapour pathway is only one of the exposure pathways considered, an additional approach can then be utilised as detailed within Section 4.12 of the CLEA model handbook⁽⁹⁾, which explains how to calculate an effective assessment criterion manually.

SR3⁽⁵⁾ states that, as a general rule of thumb, it is recognised that estimating vapour phase concentrations from dissolved and sorbed phase contamination by petroleum hydrocarbons are

at least a factor of ten higher than those likely to be measured on-site. RSK has therefore applied an empirical subsurface to indoor air correction factor of 10 into the CLEA model chemical database for all petroleum hydrocarbon fractions (including BTEX, trimethylbenzenes and the polycyclic aromatic hydrocarbons (PAH) naphthalene, acenaphthene and acenaphthylene) to reduce this conservatism.

Input selection

The most up-to-date published chemical and toxicological data was obtained from EA Report SC050021/SR7⁽¹⁰⁾, the EA TOX⁽¹⁾ reports, the C4SL SP1010 project report and associated appendices^(3,6), the 2015 LQM/CIEH report⁽⁷⁾ or the USEPA IRIS database⁽¹⁴⁾. Where a C4SL has been published, the RSK GAC have duplicated the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and has adopted them as GAC for these six substances. Toxicological and specific chemical parameters for 1,2,4-trimethylbenzene, barium and methyl tertiary-butyl ether (MTBE) were obtained from the CL:AIRE Soil Generic Assessment Criteria report⁽¹¹⁾.

For TPH, aromatic hydrocarbons C₅–C₈ were not modelled, as this range comprises benzene (>EC5-EC7) and toluene (>EC7-EC8), which are modelled separately.

Physical parameters

For the residential with home-grown produce scenario, the CLEA default building is a small, two-storey terrace house with a concrete ground-bearing slab. The house is assumed to have a 100m² private garden consisting of lawn and flowerbeds, incorporating a 20m² plot for growing fruit and vegetables consumed by the residents. SR3⁽⁵⁾ notes this residential building type to be the most conservative in terms of potential for vapour intrusion. The building parameters used in the production of the RSK GACs are the default CLEA v1.06 inputs presented in Table 3.3 of SR3⁽³⁾, with a dust loading factor detailed in Section 9.3 of SR3⁽⁵⁾. The parameters for a sandy loam soil type were used in line with Table 4.4 of SR3⁽⁵⁾. This includes a value of 6% for the percentage of soil organic matter (SOM) within the soil. In RSK's experience, this is rather high for many sites. To avoid undertaking site-specific risk assessments for SOM, RSK has produced an additional set of GAC for SOM of 1% and 2.5% for all substances using the CLEA tool.

Summary of modifications to the default CLEA SR3⁽⁵⁾ input parameters for residential with home-grown produce land-use scenario

In summary, the RSK GAC were produced using the default input parameters for soil properties, the air dispersion model, building properties and the vapour model detailed in SR3⁽⁵⁾. Modifications to the default SR3⁽⁵⁾ exposure scenarios based on the C4SL exposure scenarios⁽³⁾ are presented in Tables 2 and 3 below.

The final selected GAC are presented by pathway in Table 4 and the combined GAC in Table 5.

Figure 1: Conceptual model for residential scenario with home-grown produce

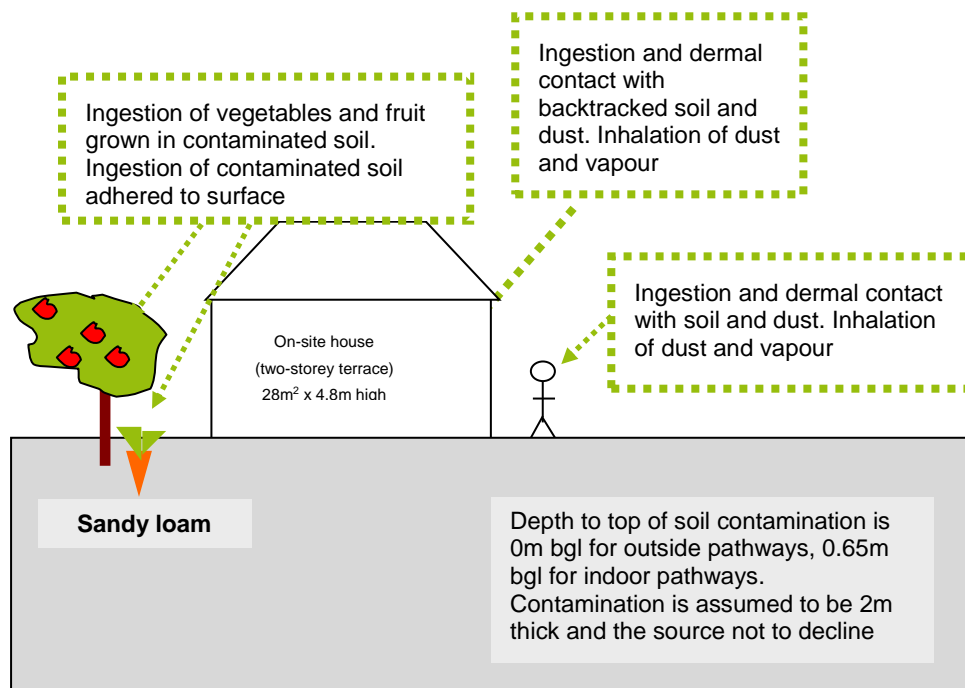


Table 1: Exposure assessment parameters for residential scenario with home-grown produce – inputs for CLEA model

Parameter	Value	Justification
Land use	Residential with homegrown produce	Chosen land use
Receptor	Female child age 1 to 6	Key generic assumption given in Box 3.1, SR3 ⁽⁵⁾
Building	Small terraced house	Key generic assumption given in Box 3.1, SR3. Small, two-storey terraced house chosen, as it is the most conservative residential building type in terms of protection from vapor intrusion (Section 3.4.6, SR3) ⁽⁵⁾
Soil type	Sandy Loam	Most common UK soil type (Section 4.3.1, from Table 3.1, SR3) ⁽⁵⁾
Start AC (age class)	1	Range of age classes corresponding to key generic assumption that the critical receptor is a young female child aged 0–6. From Box 3.1, SR3 ⁽⁵⁾
End AC (age class)	6	
SOM (%)	6	Representative of sandy loamy soil according to EA guidance note dated January 2009 entitled 'Changes We Have Made to the CLEA Framework Documents' ⁽¹³⁾
	1	To provide SAC for sites where SOM <6% as often observed by RSK
	2.5	
pH	7	Model default

Table 2: Residential with home-grown produce – modified home-grown produce data

Name	Consumption rate 90 th percentile (g FW kg ⁻¹ BW day ⁻¹) by age class						Dry weight conversion factor (g DW g ⁻¹ FW)	Home-grown fraction (average)	Home-grown fraction (high end)	Soil loading factor (g g ⁻¹ DW)	Preparation correction factor
	1	2	3	4	5	6					
Green vegetables	7.12	5.87	5.87	5.87	4.53	4.53	0.096	0.05	0.33	1.00E-03	2.00E-01
Root vegetables	10.7	2.83	2.83	2.83	2.14	2.14	0.103	0.06	0.4	1.00E-03	1.00E+00
Tuber vegetables	16	6.6	6.6	6.6	4.95	4.95	0.21	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	1.83	3.39	3.39	3.39	2.24	2.24	0.058	0.06	0.4	1.00E-03	6.00E-01
Shrub fruit	2.23	0.46	0.46	0.46	0.19	0.19	0.166	0.09	0.6	1.00E-03	6.00E-01
Tree fruit	3.82	10.3	10.3	10.3	5.16	5.16	0.157	0.04	0.27	1.00E-03	6.00E-01
Justification	Table 3.4, SP1010 ⁽³⁾						Table 6.3, SR3 ⁽⁵⁾	Table 4.19, SR3 ⁽⁵⁾		Table 6.3, SR3 ⁽⁵⁾	

Table 3: Residential with home-grown produce – modified and use and receptor data

Parameter	Unit	Age class					
		1	2	3	4	5	6
EF (soil and dust ingestion)	day yr ⁻¹	180	365	365	365	365	365
EF (consumption of home-grown produce)	day yr ⁻¹	180	365	365	365	365	365
EF (skin contact, indoor)	day yr ⁻¹	180	365	365	365	365	365
EF (skin contact, outdoor)	day yr ⁻¹	170	170	170	170	170	170
EF (inhalation of dust and vapour, indoor)	day yr ⁻¹	365	365	365	365	365	365
EF (inhalation of dust and vapour, outdoor)	day yr ⁻¹	365	365	365	365	365	365
Justification	Table 3.5, SP1010 ⁽³⁾ ; Table 3.1, SR3 ⁽⁵⁾						
Soil to skin adherence factor (outdoor)	mg cm ⁻² day ⁻¹	0.1	0.1	0.1	0.1	0.1	0.1
Justification	Table 3.5, SP1010 ⁽³⁾						
Inhalation rate	m ³ day ⁻¹	5.4	8.0	8.9/f	10.1	10.1	10.1
Justification	Mean value USEPA, 2011 ⁽¹²⁾ ; Table 3.2, SP1010 ⁽³⁾						
<p>Notes: For cadmium, the exposure assessment for a residential land use is based on estimates representative of lifetime exposure AC1-18. This is because the TDI_{oral} and TDI_{inh} are based on considerations of the kidney burden accumulated over 50 years. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period. See the Environment Agency Science Report SC05002/ TOX 3⁽¹⁾, Science Report SC050021/Cadmium SGV⁽¹⁾ and the project report SP1010⁽³⁾ for more information.</p>							

References

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GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE



Table 4
Human Health Generic Assessment Criteria by Pathway for Residential With Home-Grown Produce Scenario

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Metals													
Arsenic	(a,b)	3.71E+01	5.26E+02	NR	NR	3.71E+01	5.26E+02	NR	NR	3.71E+01	5.26E+02	NR	NR
Barium	(b)	1.34E+03	NR	NR	NR	1.34E+03	NR	NR	NR	1.34E+03	NR	NR	NR
Beryllium		1.13E+02	1.72E+00	NR	NR	1.13E+02	1.72E+00	NR	NR	1.13E+02	1.72E+00	NR	NR
Boron		3.00E+02	5.20E+06	NR	NR	3.00E+02	5.20E+06	NR	NR	3.00E+02	5.20E+06	NR	NR
Cadmium	(a)	2.30E+01	4.88E+02	2.21E+01	NR	2.30E+01	4.88E+02	2.21E+01	NR	2.30E+01	4.88E+02	2.21E+01	NR
Chromium (III) - trivalent	(c)	1.84E+04	9.07E+02	NR	NR	1.84E+04	9.07E+02	NR	NR	1.84E+04	9.07E+02	NR	NR
Chromium (VI) - hexavalent	(a,d)	5.85E+01	2.06E+01	NR	NR	5.85E+01	2.06E+01	NR	NR	5.85E+01	2.06E+01	NR	NR
Copper		2.72E+03	1.41E+04	2.47E+03	NR	2.72E+03	1.41E+04	2.47E+03	NR	2.72E+03	1.41E+04	2.47E+03	NR
Lead	(a)	2.01E+02	NR	NR	NR	2.01E+02	NR	NR	NR	2.01E+02	NR	NR	NR
Elemental Mercury (Hg ⁰)	(d)	NR	2.35E-01	NR	4.31E+00	NR	5.60E-01	NR	1.07E+01	NR	1.22E+00	NR	2.58E+01
Inorganic Mercury (Hg ²⁺)		3.95E+01	3.63E+03	3.91E+01	NR	3.95E+01	3.63E+03	3.91E+01	NR	3.95E+01	3.63E+03	3.91E+01	NR
Methyl Mercury (Hg ⁺)		1.26E+01	1.87E+01	7.52E+00	7.33E+01	1.26E+01	3.62E+01	9.34E+00	1.42E+02	1.26E+01	7.68E+01	1.08E+01	3.04E+02
Nickel	(d)	1.27E+02	1.81E+02	NR	NR	1.27E+02	1.81E+02	NR	NR	1.27E+02	1.81E+02	NR	NR
Selenium	(b)	2.58E+02	NR	NR	NR	2.58E+02	NR	NR	NR	2.58E+02	NR	NR	NR
Vanadium		4.13E+02	1.46E+03	NR	NR	4.13E+02	1.46E+03	NR	NR	4.13E+02	1.46E+03	NR	NR
Zinc	(b)	3.86E+03	3.63E+07	NR	NR	3.86E+03	3.63E+07	NR	NR	3.86E+03	3.63E+07	NR	NR
Cyanide (free)		1.37E+00	1.37E+04	1.37E+00	NR	1.37E+00	1.37E+04	1.37E+00	NR	1.37E+00	1.37E+04	1.37E+00	NR
Volatile Organic Compounds													
Benzene	(a)	2.62E-01	9.01E-01	2.03E-01	1.22E+03	5.39E-01	1.68E+00	4.08E-01	2.26E+03	1.16E+00	3.48E+00	8.72E-01	4.71E+03
Toluene		1.53E+02	9.08E+02	1.31E+02	8.69E+02	3.49E+02	2.00E+03	2.97E+02	1.92E+03	7.95E+02	4.55E+03	6.77E+02	4.36E+03
Ethylbenzene		1.10E+02	8.34E+01	4.74E+01	5.18E+02	2.61E+02	1.96E+02	1.12E+02	1.22E+03	6.00E+02	4.58E+02	2.60E+02	2.84E+03
Xylene - m		2.10E+02	8.25E+01	5.92E+01	6.25E+02	5.01E+02	1.95E+02	1.40E+02	1.47E+03	1.15E+03	4.56E+02	3.27E+02	3.46E+03
Xylene - o		1.92E+02	8.87E+01	6.07E+01	4.78E+02	4.56E+02	2.08E+02	1.43E+02	1.12E+03	1.05E+03	4.86E+02	3.32E+02	2.62E+03
Xylene - p		1.98E+02	7.93E+01	5.66E+01	5.76E+02	4.70E+02	1.86E+02	1.33E+02	1.35E+03	1.08E+03	4.36E+02	3.10E+02	3.17E+03
Total xylene		1.92E+02	7.93E+01	5.66E+01	6.25E+02	4.56E+02	1.86E+02	1.33E+02	1.47E+03	1.05E+03	4.36E+02	3.10E+02	3.46E+03
Methyl tertiary-Butyl ether (MTBE)		1.54E+02	1.04E+02	6.22E+01	2.04E+04	2.97E+02	1.69E+02	1.08E+02	3.31E+04	6.03E+02	3.21E+02	2.10E+02	6.27E+04
1,1,1,2-Tetrachloroethane		5.39E+00	1.54E+00	1.20E+00	2.60E+03	1.27E+01	3.56E+00	2.78E+00	6.02E+03	2.92E+01	8.29E+00	6.46E+00	1.40E+04
1,1,2,2-Tetrachloroethane		2.81E+00	3.92E+00	1.64E+00	2.67E+03	6.10E+00	8.04E+00	3.47E+00	5.46E+03	1.36E+01	1.76E+01	7.67E+00	1.20E+04
1,1,1-Trichloroethane		3.33E+02	9.01E+00	8.77E+00	1.43E+03	7.26E+02	1.84E+01	1.80E+01	2.92E+03	1.62E+03	4.04E+01	3.94E+01	6.39E+03
1,1,2-Trichloroethane		1.95E+00	1.25E+00	7.62E-01	4.03E+03	4.21E+00	2.55E+00	1.59E+00	8.21E+03	9.35E+00	5.59E+00	3.50E+00	1.80E+04
1,1-Dichloroethane		1.93E+01	3.29E-01	3.23E-01	2.23E+03	3.85E+01	5.82E-01	5.74E-01	3.94E+03	8.15E+01	1.17E+00	1.16E+00	7.94E+03
1,2-Dichloroethane		3.17E-02	9.20E-03	7.13E-03	3.41E+03	5.73E-02	1.33E-02	1.08E-02	4.91E+03	1.09E-01	2.28E-02	1.88E-02	8.43E+03
1,2,4-Trimethylbenzene		NR	1.76E+00	NR	4.74E+02	NR	4.26E+00	NR	1.16E+03	NR	9.72E+00	NR	2.76E+03
1,3,5-Trimethylbenzene	(e)	NR	NR	NR	2.30E+02	NR	NR	NR	5.52E+02	NR	NR	NR	1.30E+03
1,2-Dichloropropane		4.28E+00	3.40E-02	3.37E-02	1.19E+03	8.44E+00	6.00E-02	5.96E-02	2.11E+03	1.77E+01	1.21E-01	1.20E-01	4.24E+03
Carbon Tetrachloride (tetrachloromethane)		3.10E+00	2.58E-02	2.57E-02	1.52E+03	7.11E+00	5.65E-02	5.62E-02	3.32E+03	1.62E+01	1.28E-01	1.27E-01	7.54E+03
Chloroethane		NR	1.17E+01	NR	2.61E+03	NR	1.59E+01	NR	3.54E+03	NR	2.57E+01	NR	5.71E+03
Chloromethane		NR	1.17E-02	NR	1.91E+03	NR	1.38E-02	NR	2.24E+03	NR	1.85E-02	NR	2.99E+03
Cis 1,2 Dichloroethene		1.56E-01	NR	NR	3.94E+03	2.66E-01	NR	NR	6.61E+03	5.18E-01	NR	NR	1.29E+04
Dichloromethane		7.04E-01	3.05E+00	6.24E-01	7.27E+03	1.27E+00	4.06E+00	1.08E+00	9.68E+03	2.33E+00	6.42E+00	1.92E+00	1.53E+04
Tetrachloroethene		4.49E+00	1.79E-01	1.76E-01	4.24E+02	1.04E+01	4.02E-01	3.94E-01	9.51E+02	2.38E+01	9.21E-01	9.04E-01	2.18E+03
Trans 1,2 Dichloroethene		6.45E+00	2.76E-01	NR	3.42E+03	1.29E+01	4.99E-01	NR	6.17E+03	2.74E+01	1.02E+00	NR	1.26E+04
Trichloroethene		2.83E-01	1.72E-02	1.62E-02	1.54E+03	6.26E-01	3.59E-02	3.40E-02	3.22E+03	1.41E+00	7.98E-02	7.55E-02	7.14E+03
Vinyl Chloride (chloroethene)		3.82E-03	7.73E-04	6.43E-04	1.36E+03	6.87E-03	1.00E-03	8.73E-04	1.76E+03	1.25E-02	1.53E-03	1.36E-03	2.69E+03
Semi-Volatile Organic Compounds													
2-Chloronaphthalene		2.76E+02	5.39E+00	5.29E+00	1.14E+02	6.59E+02	1.33E+01	1.30E+01	2.80E+02	1.45E+03	3.17E+01	3.10E+01	6.69E+02
Acenaphthene		2.27E+02	4.86E+04	2.26E+02	5.70E+01	5.41E+02	1.18E+05	5.38E+02	1.41E+02	1.18E+03	2.68E+05	1.17E+03	3.38E+02
Acenaphthylene		1.85E+02	4.59E+04	1.84E+02	8.61E+01	4.42E+02	1.11E+05	4.40E+02	2.12E+02	9.78E+02	2.53E+05	9.74E+02	5.06E+02
Anthracene		2.43E+03	1.53E+05	2.39E+03	1.17E+00	5.53E+03	3.77E+05	5.45E+03	2.91E+00	1.10E+04	8.76E+05	1.09E+04	6.96E+00

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE



Table 4

Human Health Generic Assessment Criteria by Pathway for Residential With Home-Grown Produce Scenario

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Benzo(a)anthracene		1.01E+01	2.47E+01	7.18E+00	1.71E+00	1.42E+01	4.37E+01	1.07E+01	4.28E+00	1.69E+01	6.26E+01	1.33E+01	1.03E+01
Benzo(a)pyrene	(a)	4.96E+00	3.51E+01	NR	9.11E-01	4.96E+00	3.77E+01	NR	2.28E+00	4.96E+00	3.89E+01	NR	5.46E+00
Benzo(b)fluoranthene		2.96E+00	1.93E+01	2.56E+00	1.22E+00	3.89E+00	2.13E+01	3.29E+00	3.04E+00	4.43E+00	2.22E+01	3.69E+00	7.29E+00
Benzo(g,h,i)perylene		3.77E+02	1.87E+03	3.14E+02	1.54E-02	4.09E+02	1.94E+03	3.38E+02	3.85E-02	4.23E+02	1.97E+03	3.48E+02	9.23E-02
Benzo(k)fluoranthene		8.92E+01	5.41E+02	7.66E+01	6.87E-01	1.10E+02	5.76E+02	9.22E+01	1.72E+00	1.21E+02	5.91E+02	1.00E+02	4.12E+00
Chrysene		1.66E+01	1.19E+02	1.46E+01	4.40E-01	2.54E+01	1.49E+02	2.17E+01	1.10E+00	3.19E+01	1.66E+02	2.67E+01	2.64E+00
Dibenzo(a,h)anthracene		2.90E-01	1.45E+00	2.41E-01	3.93E-03	3.43E-01	1.64E+00	2.84E-01	9.82E-03	3.69E-01	1.74E+00	3.04E-01	2.36E-02
Fluoranthene		2.87E+02	3.83E+04	2.85E+02	1.89E+01	5.63E+02	8.87E+04	5.60E+02	4.73E+01	9.00E+02	1.83E+05	8.96E+02	1.13E+02
Fluorene		1.77E+02	6.20E+03	1.72E+02	3.09E+01	4.19E+02	1.53E+04	4.07E+02	7.65E+01	8.98E+02	3.62E+04	8.77E+02	1.83E+02
Hexachloroethane		2.68E-01	NR	NR	8.17E+00	6.57E-01	NR	NR	2.01E+01	1.55E+00	NR	NR	4.81E+01
Indeno(1,2,3-cd)pyrene		3.09E+01	2.12E+02	2.70E+01	6.13E-02	4.22E+01	2.38E+02	3.59E+01	1.53E-01	4.92E+01	2.50E+02	4.11E+01	3.68E-01
Naphthalene		2.78E+01	2.33E+01	1.27E+01	7.64E+01	6.66E+01	5.58E+01	3.04E+01	1.83E+02	1.53E+02	1.31E+02	7.06E+01	4.32E+02
Phenanthrene		9.85E+01	7.17E+03	9.72E+01	3.60E+01	2.24E+02	1.76E+04	2.22E+02	8.96E+01	4.48E+02	4.07E+04	4.43E+02	2.14E+02
Pyrene		6.25E+02	8.79E+04	6.20E+02	2.20E+00	1.25E+03	2.04E+05	1.24E+03	5.49E+00	2.05E+03	4.23E+05	2.04E+03	1.32E+01
Phenol		1.60E+02	4.58E+02	1.20E+02	2.42E+04	2.96E+02	6.95E+02	2.09E+02	3.81E+04	5.86E+02	1.19E+03	3.93E+02	7.03E+04
Total Petroleum Hydrocarbons													
Aliphatic hydrocarbons EC ₅ -EC ₈		4.99E+03	4.24E+01	4.23E+01	3.04E+02	1.13E+04	7.79E+01	7.78E+01	5.58E+02	2.50E+04	1.61E+02	1.60E+02	1.15E+03
Aliphatic hydrocarbons >EC ₉ -EC ₉		1.49E+04	1.04E+02	1.03E+02	1.44E+02	3.43E+04	2.31E+02	2.31E+02	3.22E+02	7.11E+04	5.29E+02	5.28E+02	7.36E+02
Aliphatic hydrocarbons >EC ₉ -EC ₁₀		1.61E+03	2.68E+01	2.67E+01	7.77E+01	2.91E+03	6.55E+01	6.51E+01	1.90E+02	4.26E+03	1.56E+02	1.54E+02	4.51E+02
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₂		4.57E+03	1.33E+02	1.32E+02	4.75E+01	5.51E+03	3.31E+02	3.26E+02	1.18E+02	5.98E+03	7.93E+02	7.65E+02	2.83E+02
Aliphatic hydrocarbons >EC ₁₂ -EC ₁₆		6.27E+03	1.11E+03	1.06E+03	2.37E+01	6.34E+03	2.78E+02	2.41E+02	5.91E+01	6.36E+03	6.67E+03	4.34E+03	1.42E+02
Aliphatic hydrocarbons >EC ₁₆ -EC ₃₅	(b)	6.46E+04	NR	NR	8.48E+00	9.17E+04	NR	NR	2.12E+01	1.10E+05	NR	NR	5.09E+01
Aliphatic hydrocarbons >EC ₃₅ -EC ₄₄	(b)	6.46E+04	NR	NR	8.48E+00	9.17E+04	NR	NR	2.12E+01	1.10E+05	NR	NR	5.09E+01
Aromatic hydrocarbons >EC8-EC ₁₀		5.76E+01	4.74E+01	3.45E+01	6.13E+02	1.38E+02	1.16E+02	8.38E+01	1.50E+03	3.07E+02	2.77E+02	1.94E+02	3.58E+02
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂		8.29E+01	2.58E+02	7.52E+01	3.64E+02	1.96E+02	6.39E+02	1.79E+02	8.99E+02	4.25E+02	1.52E+03	3.91E+02	2.15E+03
Aromatic hydrocarbons >EC ₁₂ -EC ₁₆		1.47E+02	2.85E+03	1.45E+02	1.69E+02	3.36E+02	7.07E+03	3.32E+02	4.19E+02	6.81E+02	1.68E+04	6.74E+02	1.00E+03
Aromatic hydrocarbons >EC ₁₆ -EC ₂₁	(b)	2.63E+02	NR	NR	5.37E+01	5.45E+02	NR	NR	1.34E+02	9.34E+02	NR	NR	3.21E+02
Aromatic hydrocarbons >EC ₂₁ -EC ₃₅	(b)	1.09E+03	NR	NR	4.83E+00	1.47E+03	NR	NR	1.21E+01	1.70E+03	NR	NR	2.90E+01
Aromatic hydrocarbons >EC ₃₅ -EC ₄₄	(b)	1.09E+03	NR	NR	4.83E+00	1.47E+03	NR	NR	1.21E+01	1.70E+03	NR	NR	2.90E+01

Notes:

EC - equivalent carbon. SAC - soil assessment criteria.

The CLEA model output is colour coded depending upon whether the soil saturation limit has been exceeded.

Calculated SAC exceeds soil saturation limit and may significantly affect the interpretation of any exceedances as the contribution of the indoor and outdoor vapour pathway to total exposure is >10%.

Calculated SAC exceeds soil saturation limit but the exceedance will not affect the SAC significantly as the contribution of the indoor and outdoor vapour pathway to total exposure is <10%.

Calculated SAC does not exceed the soil saturation limit.

The SAC for organic compounds are dependant upon soil organic matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs naphthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway (Section 10.1.1, SR3)

(a) SAC for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead are derived using the C4SL toxicology data.

(b) SAC for boron and selenium should not include the inhalation pathway as no expert group HCV has been derived; aliphatic and aromatic hydrocarbons >EC16 should not include inhalation pathway due to their non-volatile nature and inhalation exposure being minimal (oral, dermal and inhalation exposure is compared to the oral HCV); arsenic should only be based on oral contribution (rather than combined) owing to the relative small contribution from inhalation in accordance with the SGV report. The Oral SAC should be adopted for zinc and benzo(a)pyrene.

(c) SAC for CrIII should be based on the lower of the oral and inhalation SAC (see LQM/CIEH 2015 Section 6.8)

(d) SAC for elemental mercury, chromium VI and nickel should be based on the inhalation pathway only.

(e) SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4 trimethylbenzene may be used.

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE



Table 5
Human Health Generic Assessment Criteria for Residential with home-grown produce

Compound	SAC for Soil SOM 1% (mg/kg)	SAC for Soil SOM 2.5% (mg/kg)	SAC for Soil SOM 6% (mg/kg)
Metals			
Arsenic	37	37	37
Barium	1,300	1,300	1,300
Beryllium	1.7	1.7	1.7
Boron	300	300	300
Cadmium	22	22	22
Chromium (III) - trivalent	910	910	910
Chromium (VI) - hexavalent	21	21	21
Copper	2,500	2,500	2,500
Lead	200	200	200
Elemental Mercury (Hg ⁰)	0.2	0.6	1.2
Inorganic Mercury (Hg ²⁺)	39	39	39
Methyl Mercury (Hg ²⁺)	10	10	10
Nickel	130	130	130
Selenium	258	258	258
Vanadium	410	410	410
Zinc	3,900	3,900	3,900
Cyanide (free)	1.4	1.4	1.4
Volatile Organic Compounds			
Benzene	0.20	0.41	0.87
Toluene	130	300	680
Ethylbenzene	50	110	260
Xylene - m	59	140	327
Xylene - o	61	143	332
Xylene - p	57	133	310
Total xylene	57	133	310
Methyl tertiary-Butyl ether (MTBE)	60	110	210
1,1,1,2-Tetrachloroethane	1.20	2.78	6.46
1,1,2,2-Tetrachloroethane	1.6	3.5	7.7
1,1,1-Trichloroethane	9	18	39
1,1,2-Trichloroethane	0.8	1.6	3.5
1,1-Dichloroethane	0.32	0.57	1.16
1,2-Dichloroethane	0.007	0.011	0.019
1,2,4-Trimethylbenzene	1.8	4.3	9.7
1,3,5-Trimethylbenzene	NR	NR	NR
1,2-Dichloropropane	0.034	0.060	0.120
Carbon Tetrachloride (tetrachloromethane)	0.026	0.056	0.127
Chloroethane	11.7	15.9	25.7
Chloromethane	0.012	0.014	0.019
Cis 1,2 Dichloroethene	0.16	0.27	0.52
Dichloromethane	0.62	1.08	1.92
Tetrachloroethene	0.2	0.4	0.9
Trans 1,2 Dichloroethene	0.28	0.50	1.02
Trichloroethene	0.02	0.03	0.08
Vinyl Chloride (chloroethene)	0.0006	0.0009	0.0014
Semi-Volatile Organic Compounds			
2-Chloronaphthalene	5	13	31
Acenaphthene	230	540	1,170
Acenaphthylene	180	440	970
Anthracene	2,400	5,500	10,900
Benzo(a)anthracene	7	11	13
Benzo(a)pyrene	5	5	5
Benzo(b)fluoranthene	2.6	3.3	3.7
Benzo(g,h,i)perylene	310	340	350
Benzo(k)fluoranthene	77	92	100
Chrysene	15	22	27
Dibenzo(a,h)anthracene	0.24	0.28	0.30
Fluoranthene	290	560	900
Fluorene	170	410	880
Hexachloroethane	0.27	0.66	1.55
Indeno(1,2,3-cd)pyrene	27	36	41
Naphthalene	13	30	71
Phenanthrene	100	220	440
Pyrene	620	1,240	2,040
Phenol	120	210	390
Total Petroleum Hydrocarbons			
Aliphatic hydrocarbons EC ₅ -EC ₆	42	78	160
Aliphatic hydrocarbons >EC ₆ -EC ₈	100	230	530
Aliphatic hydrocarbons >EC ₈ -EC ₁₀	27	65	154
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₂	130 (48)	330 (118)	760 (283)
Aliphatic hydrocarbons >EC ₁₂ -EC ₁₆	1,100 (24)	2,400 (59)	4,300 (142)
Aliphatic hydrocarbons >EC ₁₆ -EC ₃₅	65,000 (8)	92,000 (21)	110,000
Aliphatic hydrocarbons >EC ₃₅ -EC ₄₄	65,000 (8)	92,000 (21)	110,000
Aromatic hydrocarbons >EC ₈ -EC ₁₀	30	80	190
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂	80	180	390
Aromatic hydrocarbons >EC ₁₂ -EC ₁₆	140	330	670
Aromatic hydrocarbons >EC ₁₆ -EC ₂₁	260	540	930
Aromatic hydrocarbons >EC ₂₁ -EC ₃₅	1,100	1,500	1,700
Aromatic hydrocarbons >EC ₃₅ -EC ₄₄	1,100	1,500	1,700
Minerals			
Asbestos	Stage 1 test – No asbestos detected with ID; Stage 2 test - <0.001% dry weight (exceedance of either equates to an exceedance of the GAC) ¹		
Notes:			
* - Generic assessment criteria not calculated owing to low volatility of substance and therefore no pathway, or an absence of toxicological data.			
NR - SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4-trimethylbenzene may be used			
EC - equivalent carbon. SAC - soil assessment criteria.			
¹ LOD for weight of asbestos per unit weight of soil calculated on a dry weight basis using PLM, handpicking and gravimetry.			
The SAC for organic compounds are dependent on Soil Organic Matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.			
SAC for TPH fractions, PAHs naphthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway, section 10.1.1, SR3.			
(VALUE IN BRACKETS)			
RSK has adopted an approach for petroleum hydrocarbons in accordance with LQM/CIH whereby the concentration modelled for each petroleum hydrocarbon fraction has been tabulated as the SAC with the corresponding solubility or vapour saturation limits given in brackets.			



APPENDIX M GENERIC ASSESSMENT CRITERIA FOR PHYTOTOXIC EFFECTS

GENERIC ASSESSMENT CRITERIA FOR PHYTOTOXIC EFFECTS

Several compounds can inhibit plant growth; hence it is important to have generic assessment criteria (GAC) to promote healthy plant growth. In the absence of other published GAC, the GAC have been obtained from legislation (UK and European) and guidance related to the use of sewage sludge on agricultural fields.

The Council of European Communities Sewage Sludge Directive (86/278/EEC) dated 1986, has been transposed into UK law by Statutory Instrument No. 1263, The Sludge (use in Agriculture) Regulations 1989 (Public Health England, Wales and Scotland), as amended in 1990 and The Sludge (use in Agriculture) Regulations (Northern Ireland) SR No, 245, 1990. In addition the Department of Environment (DoE) produced a Code of Practice (CoP) (Updated 2nd Edition) in 2006 which provided guidance on the application of sewage sludge on agricultural land (however the status of this document is unclear as it is on the archive section of the Defra website).

The directive seeks to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to “**prevent harmful effects on soil, vegetation, animals and man**”. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil. Treated sludge is defined as having undergone "biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use". To provide protection against potential health risks from residual pathogens, sludge must not be applied to soil in which fruit and vegetable crops are growing, or less than ten months before fruit and vegetable crops are to be harvested. Grazing animals must not be allowed access to grassland or forage land less than three weeks after the application of sludge.

The specified limits of concentrations of selected elements in soil are presented in Table 4 of the updated 2nd Edition of the DoE Code of Practice and are designed to protect plant growth. It is noted that these values are more stringent than the values set in current UK regulations. However since they were amended following recommendations from the Independent Scientific Committee in 1993. (MAFF/DOE 1993). The GAC are presented in Table 1.

Table 1: Generic assessment criteria

Determinant	Generic assessment criteria (mg/kg)			
	pH 5.0 < 5.5	pH 5.5 < 6.0	pH 6.0 < 7.0	pH >7.0
Zinc	200	200	200	300
Copper	80	100	135	200
Nickel	50	60	75	110
Lead	300	300	300	300
Cadmium	3	3	3	3
Mercury	1	1	1	1

Note: Only compounds with assessment criteria documented within the Directive 86/278/EEC have been included, although criteria for 5 additional compounds have been presented within the 2006 CoP.

APPENDIX N GENERIC ASSESSMENT CRITERIA FOR POTABLE WATER SUPPLY PIPES

A range of pipe materials is available and careful selection, design and installation is required to ensure that water supply pipes are satisfactorily installed and meet the requirements of the Water Supply (Water Fittings) Regulations 1999 in England and Wales, the Byelaws 2000 in Scotland and the Northern Ireland Water Regulations. The regulations include a requirement to use only suitable materials when laying water pipes and laying water pipes without protection is not permitted at contaminated sites. The water supply company has a statutory duty to enforce the regulations.

Contaminants in the ground can pose a risk to human health by permeating potable water supply pipes. To fulfil their statutory obligation, UK water supply companies require robust evidence from developers to demonstrate either that the ground in which new plastic supply pipes will be laid is free from specific contaminants, or that the proposed remedial strategy will mitigate any existing risk. If these requirements cannot be demonstrated to the satisfaction of the relevant water company, it becomes necessary to specify an alternative pipe material on the whole development or in specific zones.

In 2010, UK Water Industry Research (UKWIR) published *Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites* (Report Ref. No. 10/WM/03/21). This report reviewed previously published industry guidelines and threshold concentrations adopted by individual water supply companies.

The focus of the UKWIR research project was to develop clear and concise procedures, which provide consistency in the pipe selection decision process. It was intended to provide guidance that can be used to ensure compliance with current regulations and to prevent water supply pipe failing prematurely due to the presence of contamination.

The report concluded that in most circumstances only organic contaminants pose a potential risk to plastic pipe materials and Table 3.1 of the report provides threshold concentrations for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The report also makes recommendations for the procedures to be adopted in the design of site investigations and sampling strategies, and the assessment of data, to ensure that the ground through which water supply pipes will be laid is adequately characterised.

Risks to water supply pipes have therefore been assessed against the threshold concentrations for PE and PVC pipe specified in Table 3.1 of Report 10/WM/03/21, which have been adopted as the GAC for this linkage and are reproduced in Table A3 below.

Since water supply pipes are typically laid at a minimum depth of 0.75 m below finished ground levels, sample results from depths between 0.5 m and 1.5 m below finished level are generally considered suitable for assessing risks to water supply. Samples outside these depths can be used, providing the stratum is the same as that in which water supply pipes are likely to be located. The report specifies that sampling should characterise the ground conditions to a minimum of 0.5 m below the proposed depth of the pipe.

It should be noted that the assessment provided in this report is a guide and the method of assessment and recommendations should be checked with the relevant water supply company.

Table N1: Generic assessment criteria for water supply pipes

		Pipe material	
		GAC (mg/kg)	
	Parameter group	PE	PVC
1	Extended VOC suite by purge and trap or head space and GC-MS with TIC (Not including compounds within group 1a)	0.5	0.125
1a	<ul style="list-style-type: none"> BTEX + MTBE 	0.1	0.03
2	SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C ₅ –C ₁₀) (Not including compounds within group 2e and 2f)	2	1.4
2e	<ul style="list-style-type: none"> Phenols 	2	0.4
2f	<ul style="list-style-type: none"> Cresols and chlorinated phenols 	2	0.04
3	Mineral oil C ₁₁ –C ₂₀	10	Suitable
4	Mineral oil C ₂₁ –C ₄₀	500	Suitable
5	Corrosive (conductivity, redox and pH)	Suitable	Suitable
Specific suite identified as relevant following site investigation			
2a	Ethers	0.5	1
2b	Nitrobenzene	0.5	0.4
2c	Ketones	0.5	0.02
2d	Aldehydes	0.5	0.02
6	Amines	Not suitable	Suitable
Notes: where indicated as 'suitable', the material is considered resistant to permeation or degradation and no threshold concentration has been specified by UKWIR.			



APPENDIX O WM3 ASSESSMENT



Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!".
If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

TP1	TP3	TP4	TP5	TP6	TP7	TP8	TP10	TP11
0.50	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0.60	0-0.3	0-0.3
20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	20/11074/18	20/11074/20

Asbestos in Soil	Thresholds
Asbestos detected in Soil (enter Y or N)	Y

		N	N	N	N			
--	--	---	---	---	---	--	--	--

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)	see "Carc HP7 % Asbestos in Soil (Fibres)" below	%
Carcinogenic HP7 % Asbestos in Soil (fibres or micro pieces)	≥0.1%	
<i>Please be advised, if the calculation cell is "0.00000" DOES NOT MEAN asbestos testing has been undertaken and the result is zero.</i>		

If Asbestos in Soil above is "Y", the soil is Hazardous Waste HP5 and HP7

0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
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Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)	Y
---	---

If Asbestos in Soil above is "Y", but Asbestos % above is "<0.1%", the soil is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % results when visual identifiable pieces are present.

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If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05. Therefore, if Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces visible with the naked eye is "Y", the soil is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose Fibres.

All visual asbestos pieces need to be removed leaving only fibres (or micro pieces) with an Asbestos % Composition in Soil result of <0.1% for the soil to become non-hazardous waste.

Hazardous Property	Thresholds	Cut Off Value
Corrosive HP8	≥5%	<1%
Irritant HP4	≥10%	<1%
Irritant HP4	≥20%	<1%
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥20%	
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥10%	
Aspiration Toxicity HP5	≥10%	
Acute Toxicity HP6 (Oral)	≥0.1%	<0.1%
Acute Toxicity HP6 (Oral)	≥0.25%	<0.1%
Acute Toxicity HP6 (Oral)	≥5%	<0.1%
Acute Toxicity HP6 (Oral)	≥25%	<1%
Acute Toxicity HP6 (Dermal)	≥0.25%	<0.1%
Acute Toxicity HP6 (Dermal)	≥2.5%	<0.1%
Acute Toxicity HP6 (Dermal)	≥15%	<0.1%
Acute Toxicity HP6 (Dermal)	≥55%	<1%
Acute Toxicity HP6 (Inhal)	≥0.1%	<0.1%
Acute Toxicity HP6 (Inhal)	≥0.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥3.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥22.5%	<1%
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥1%	
Carcinogenic HP7 Unknown TPH with ID	≥1,000mg/kg	
Carcinogenic HP7 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
pH Corrosive HP8 pH (soil or leachate)	H8 ≥11.5	
pH Corrosive HP8 pH (soil or leachate)	H8 ≤2	
Toxic for Reproduction HP10	≥0.3%	
Toxic for Reproduction HP10	≥3%	
Mutagenic HP11	≥0.1%	
Mutagenic HP11 Unknown TPH with ID	≥1,000mg/kg	
Mutagenic HP11 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
Mutagenic HP11	≥1%	
Produces Toxic Gases HP12 Sulphide	≥1,400mg/kg	
Produces Toxic Gases HP12 Cyanide	≥1,200mg/kg	
Produces Toxic Gases HP12 Thiocyanate	≥2,600mg/kg	
HP13 Sensitising	≥10%	

If cells below turn yellow and the text turns red, the samples should be classified as Hazardous Waste.

0.00854	0.00607	0.00516	0.00614	0.00587	0.00756	0.00580	0.00000	0.00587
0.00441	0.00298	0.00279	0.00426	0.00360	0.00486	0.00209	0.00000	0.00654
0.00570	0.00518	0.00472	0.00620	0.00600	0.00654	0.00496	0.00000	0.00874
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00538	0.00422	0.00384	0.00404	0.00442	0.00518	0.00461	0.00000	0.00442
0.00330	0.00340	0.00400	0.00670	0.00520	0.00710	0.00150	0.00000	0.00440
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00320	0.00187	0.00134	0.00216	0.00150	0.00275	0.00121	0.00000	0.00147
0.00552	0.00437	0.00398	0.00417	0.00456	0.00533	0.00475	0.00001	0.00456
0.00909	0.00866	0.00878	0.01298	0.01127	0.01372	0.00653	0.00000	0.01321
0.00003	0.00002	0.00002	0.00004	0.00005	0.00038	0.00002	0.00000	0.00002
0.00538	0.00422	0.00384	0.00403	0.00442	0.00518	0.00461	0.00000	0.00442
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00009	0.00007	0.00006	0.00008	0.00007	0.00008	0.00007	0.00000	0.00007
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00549	0.00431	0.00392	0.00416	0.00454	0.00564	0.00470	0.00000	0.00450
0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00000	0.00014
0.00899	0.00857	0.00870	0.01289	0.01119	0.01363	0.00644	0.00000	0.01312
0.00538	0.00422	0.00400	0.00670	0.00520	0.00710	0.00461	0.00000	0.00442
0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6.99	7.35	6.98	6.88	6.50	6.66	6.46	0.00	5.98
6.99	7.35	6.98	6.88	6.50	6.66	6.46	0.00	5.98
0.00444	0.00404	0.00400	0.00670	0.00520	0.00710	0.00404	0.00000	0.00440
0.00538	0.00422	0.00384	0.00403	0.00442	0.00518	0.00461	0.00000	0.00442
0.00538	0.00422	0.00384	0.00403	0.00442	0.00518	0.00461	0.00000	0.00442
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
0.00444	0.00404	0.00323	0.00404	0.00384	0.00404	0.00404	0.00000	0.00364
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.00538	0.00422	0.00384	0.00404	0.00442	0.00518	0.00461	0.00000	0.00442



Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!".
If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

TP1	TP3	TP4	TP5	TP6	TP7	TP8	TP10	TP11
0.50	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0.60	0-0.3	0-0.3
20/11074/2	20/11074/5	20/11074/7	20/11074/8	20/11074/10	20/11074/12	20/11074/15	20/11074/18	20/11074/20

Ecotoxic HP14 amended v6	≥25%	<0.1%	0.02398	0.02031	0.01952	0.02661	0.02450	0.02934	0.01740	0.00001	0.02765
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	0.02398	0.02031	0.01952	0.02661	0.02450	0.02935	0.01740	0.00001	0.02765
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	2.39750	2.03050	1.95150	2.66050	2.44980	2.93440	1.74030	0.00120	2.76520
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000100	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000
Persistent Organic Pollutant (Individual Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000

If other contaminants need adding to Haswaste, please contact Envirolab.



Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!".
If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

TP12	TP13	TP14	TP15	TP16	TP17	WS1	WS4	WS5
0.60	0-0.3	0.50	0-0.3	0.50	0-0.3	0.50	0-0.3	0.50
20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	20/11074/32	20/11252/2	20/11252/7	20/11252/10

Asbestos in Soil	Thresholds
Asbestos detected in Soil (enter Y or N)	Y

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)	see "Carc HP7 % Asbestos in Soil (Fibres)" below	%
Carcinogenic HP7 % Asbestos in Soil (fibres or micro pieces)	≥0.1%	
<i>Please be advised, if the calculation cell is "0.00000" DOES NOT MEAN asbestos testing has been undertaken and the result is zero.</i>		

Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)	Y
---	---

If Asbestos in Soil above is "Y", the soil is Hazardous Waste HP5 and HP7								
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
If Asbestos in Soil above is "Y", but Asbestos % above is "<0.1%", the soil is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % results when visual identifiable pieces are present.								

If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05. Therefore, if Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces visible with the naked eye is "Y", the soil is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose Fibres.

All visual asbestos pieces need to be removed leaving only fibres (or micro pieces) with an Asbestos % Composition in Soil result of <0.1% for the soil to become non-hazardous waste.

Hazardous Property	Thresholds	Cut Off Value
Corrosive HP8	≥5%	<1%
Irritant HP4	≥10%	<1%
Irritant HP4	≥20%	<1%
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥20%	
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥10%	
Aspiration Toxicity HP5	≥10%	
Acute Toxicity HP6 (Oral)	≥0.1%	<0.1%
Acute Toxicity HP6 (Oral)	≥0.25%	<0.1%
Acute Toxicity HP6 (Oral)	≥5%	<0.1%
Acute Toxicity HP6 (Oral)	≥25%	<1%
Acute Toxicity HP6 (Dermal)	≥0.25%	<0.1%
Acute Toxicity HP6 (Dermal)	≥2.5%	<0.1%
Acute Toxicity HP6 (Dermal)	≥15%	<0.1%
Acute Toxicity HP6 (Dermal)	≥55%	<1%
Acute Toxicity HP6 (Inhal)	≥0.1%	<0.1%
Acute Toxicity HP6 (Inhal)	≥0.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥3.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥22.5%	<1%
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥1%	
Carcinogenic HP7 Unknown TPH with ID	≥1,000mg/kg	
Carcinogenic HP7 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
pH Corrosive HP8 pH (soil or leachate)	H8 ≥11.5	
pH Corrosive HP8 pH (soil or leachate)	H8 ≤2	
Toxic for Reproduction HP10	≥0.3%	
Toxic for Reproduction HP10	≥3%	
Mutagenic HP11	≥0.1%	
Mutagenic HP11 Unknown TPH with ID	≥1,000mg/kg	
Mutagenic HP11 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
Mutagenic HP11	≥1%	
Produces Toxic Gases HP12 Sulphide	≥1,400mg/kg	
Produces Toxic Gases HP12 Cyanide	≥1,200mg/kg	
Produces Toxic Gases HP12 Thiocyanate	≥2,600mg/kg	
HP13 Sensitising	≥10%	

If cells below turn yellow and the text turns red, the samples should be classified as Hazardous Waste.								
0.00527	0.00484	0.00670	0.00491	0.00425	0.00000	0.00660	0.00600	0.00665
0.00190	0.00571	0.00234	0.00326	0.00237	0.00000	0.00328	0.00351	0.00230
0.00489	0.00777	0.00568	0.00505	0.00463	0.00000	0.00435	0.00558	0.00511
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
0.00461	0.00365	0.00538	0.00346	0.00346	0.00000	0.00422	0.00442	0.00480
0.00150	0.00340	0.00140	0.00400	0.00180	0.00000	0.00260	0.00490	0.00260
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00068	0.00121	0.00134	0.00151	0.00081	0.00000	0.00239	0.00160	0.00187
0.00475	0.00379	0.00552	0.00360	0.00360	0.00001	0.00437	0.00456	0.00494
0.00645	0.01124	0.00717	0.00913	0.00649	0.00000	0.00701	0.01055	0.00783
0.00002	0.00002	0.00002	0.00006	0.00002	0.00000	0.00002	0.00002	0.00002
0.00461	0.00365	0.00538	0.00346	0.00346	0.00000	0.00422	0.00442	0.00480
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00006	0.00007	0.00009	0.00007	0.00006	0.00000	0.00006	0.00007	0.00011
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00469	0.00374	0.00548	0.00359	0.00353	0.00000	0.00430	0.00450	0.00493
0.00014	0.00014	0.00014	0.00014	0.00014	0.00000	0.00014	0.00014	0.00014
0.00638	0.01115	0.00706	0.00904	0.00641	0.00000	0.00694	0.01046	0.00770
0.00461	0.00365	0.00538	0.00400	0.00346	0.00000	0.00422	0.00490	0.00480
0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7.66	6.56	6.79	6.37	6.47	0.00	7.66	6.95	7.24
7.66	6.56	6.79	6.37	6.47	0.00	7.66	6.95	7.24
0.00364	0.00340	0.00465	0.00400	0.00303	0.00000	0.00343	0.00490	0.00465
0.00461	0.00365	0.00538	0.00346	0.00346	0.00000	0.00422	0.00442	0.00480
0.00461	0.00365	0.00538	0.00346	0.00346	0.00000	0.00422	0.00442	0.00480
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
0.00364	0.00323	0.00465	0.00323	0.00303	0.00000	0.00343	0.00364	0.00465
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.00461	0.00365	0.00538	0.00346	0.00346	0.00000	0.00422	0.00442	0.00480



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Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

TP12	TP13	TP14	TP15	TP16	TP17	WS1	WS4	WS5
0.60	0-0.3	0.50	0-0.3	0.50	0-0.3	0.50	0-0.3	0.50
20/11074/23	20/11074/24	20/11074/27	20/11074/28	20/11074/31	20/11074/32	20/11252/2	20/11252/7	20/11252/10

Ecotoxic HP14 amended v6	≥25%	<0.1%	0.01693	0.02365	0.01919	0.02015	0.01606	0.00001	0.01869	0.02278	0.02068
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	0.01693	0.02365	0.01919	0.02015	0.01606	0.00001	0.01869	0.02278	0.02068
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	1.69250	2.36510	1.91920	2.01530	1.60630	0.00120	1.86910	2.27780	2.06760
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000100	0.00000000	0.00000000	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000
Persistent Organic Pollutant (Individual Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000

If other contaminants need adding to Haswaste, please contact Envirolab.



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Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

WS8	WS9	WS9	WS12					
0-0.3	0-0.3	0.50	0.50					
20/11252/15	20/11252/17	20/11252/18	20/11252/23					

% Moisture
pH (soil)
pH (leachate)

%								
	6.82	6.42		7.06				

Arsenic
Cadmium
Copper
CrVI or Chromium
Lead
Mercury
Nickel
Selenium
Zinc

mg/kg	10	8		17				
mg/kg	0.6	0.6		1.2				
mg/kg	13	10		5				
mg/kg	21	20		35				
mg/kg	37	14		14				
mg/kg	0.17	0.17		0.17				
mg/kg	16	18		29				
mg/kg	1	1		1				
mg/kg	40	35		36				

Barium
Beryllium
Vanadium
Cobalt
Manganese
Molybdenum
Antimony
Aluminium
Bismuth
CrIII
Iron
Strontium
Tellurium
Thallium
Titanium
Tungsten
Ammoniacal N
ws Boron

mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								
mg/kg								

PAH (Input Total PAH OR individual PAH results)

Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Chrysene
Dibenzo(ah)anthracene
Fluoranthene
Fluorene
Indeno(123cd)pyrene
Naphthalene
Phenanthrene
Pyrene
Coronene
Total PAHs (16 or 17)

mg/kg	0.01			0.01				
mg/kg	0.01			0.01				
mg/kg	0.02			0.02				
mg/kg	0.04			0.04				
mg/kg	0.04			0.04				
mg/kg	0.05			0.05				
mg/kg	0.05			0.05				
mg/kg	0.07			0.07				
mg/kg	0.06			0.06				
mg/kg	0.04			0.04				
mg/kg	0.08			0.08				
mg/kg	0.01			0.01				
mg/kg	0.03			0.03				
mg/kg	0.03			0.03				
mg/kg	0.03			0.03				
mg/kg	0.07			0.07				
mg/kg								
mg/kg								

TPH
Petrol
Diesel
Lube Oil

mg/kg								
mg/kg								
mg/kg								

Crude Oil

--	--	--	--	--	--	--	--	--

White Spirit / Kerosene

mg/kg								
-------	--	--	--	--	--	--	--	--

Creosote

mg/kg								
-------	--	--	--	--	--	--	--	--

Unknown TPH with ID

mg/kg								
-------	--	--	--	--	--	--	--	--

Unknown TPHCWG

mg/kg								
-------	--	--	--	--	--	--	--	--

Total Sulphide

mg/kg								
-------	--	--	--	--	--	--	--	--

Complex Cyanide

mg/kg								
-------	--	--	--	--	--	--	--	--

Free (or Total) Cyanide

mg/kg								
-------	--	--	--	--	--	--	--	--

Thiocyanate

mg/kg								
-------	--	--	--	--	--	--	--	--

Elemental/Free Sulphur

mg/kg								
-------	--	--	--	--	--	--	--	--

Phenols Input Total Phenols HPLC OR individual Phenol results.

Phenol

mg/kg								
-------	--	--	--	--	--	--	--	--

Cresols

mg/kg								
-------	--	--	--	--	--	--	--	--

Xylenols

mg/kg								
-------	--	--	--	--	--	--	--	--

Resourcinol

mg/kg								
-------	--	--	--	--	--	--	--	--

Phenols Total by HPLC

mg/kg								
-------	--	--	--	--	--	--	--	--

BTEX Input Total BTEX OR individual BTEX results.

Benzene

mg/kg	0.01							
-------	------	--	--	--	--	--	--	--

Toluene

mg/kg	0.01							
-------	------	--	--	--	--	--	--	--

Ethylbenzene

mg/kg	0.01							
-------	------	--	--	--	--	--	--	--

Xylenes

mg/kg	0.01							
-------	------	--	--	--	--	--	--	--

Total BTEX

mg/kg								
-------	--	--	--	--	--	--	--	--

PCBs (POPs)

--	--	--	--	--	--	--	--	--

PCBs Total (eg EC7/WHO12)

mg/kg								
-------	--	--	--	--	--	--	--	--

PBBs (POPs)

--	--	--	--	--	--	--	--	--

Hexabromobiphenyl (Total or PBB153; 2,2',4,4',5,5'- if only available)

mg/kg								
-------	--	--	--	--	--	--	--	--



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Haswaste, developed by Dr. Iain Haslock.

52254 Ditton Edge, East Malling

TP/WS/BH
Depth (m)
Envirolab reference

WS8	WS9	WS9	WS12					
0-0.3	0-0.3	0.50	0.50					
20/11252/15	20/11252/17	20/11252/18	20/11252/23					

Asbestos in Soil	Thresholds
Asbestos detected in Soil (enter Y or N)	Y

N								
---	--	--	--	--	--	--	--	--

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)	see "Carc HP7 % Asbestos in Soil (Fibres)" below	%
Carcinogenic HP7 % Asbestos in Soil (fibres or micro pieces)	≥0.1%	
<i>Please be advised, if the calculation cell is "0.00000" DOES NOT MEAN asbestos testing has been undertaken and the result is zero.</i>		

If Asbestos in Soil above is "Y", the soil is Hazardous Waste HP5 and HP7

0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
---------	---------	---------	---------	---------	---------	---------	---------	---------

Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)	Y
---	---

If Asbestos in Soil above is "Y", but Asbestos % above is "<0.1%", the soil is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % results when visual identifiable pieces are present.

--	--	--	--	--	--	--	--	--

If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05. Therefore, if Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces visible with the naked eye is "Y", the soil is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose Fibres.

All visual asbestos pieces need to be removed leaving only fibres (or micro pieces) with an Asbestos % Composition in Soil result of <0.1% for the soil to become non-hazardous waste.

Hazardous Property	Thresholds	Cut Off Value
Corrosive HP8	≥5%	<1%
Irritant HP4	≥10%	<1%
Irritant HP4	≥20%	<1%
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥20%	
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥10%	
Aspiration Toxicity HP5	≥10%	
Acute Toxicity HP6 (Oral)	≥0.1%	<0.1%
Acute Toxicity HP6 (Oral)	≥0.25%	<0.1%
Acute Toxicity HP6 (Oral)	≥5%	<0.1%
Acute Toxicity HP6 (Oral)	≥25%	<1%
Acute Toxicity HP6 (Dermal)	≥0.25%	<0.1%
Acute Toxicity HP6 (Dermal)	≥2.5%	<0.1%
Acute Toxicity HP6 (Dermal)	≥15%	<0.1%
Acute Toxicity HP6 (Dermal)	≥55%	<1%
Acute Toxicity HP6 (Inhal)	≥0.1%	<0.1%
Acute Toxicity HP6 (Inhal)	≥0.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥3.5%	<0.1%
Acute Toxicity HP6 (Inhal)	≥22.5%	<1%
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥1%	
Carcinogenic HP7 Unknown TPH with ID	≥1,000mg/kg	
Carcinogenic HP7 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
pH Corrosive HP8 pH (soil or leachate)	H8 ≥11.5	
pH Corrosive HP8 pH (soil or leachate)	H8 ≤2	
Toxic for Reproduction HP10	≥0.3%	
Toxic for Reproduction HP10	≥3%	
Mutagenic HP11	≥0.1%	
Mutagenic HP11 Unknown TPH with ID	≥1,000mg/kg	
Mutagenic HP11 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
Mutagenic HP11	≥1%	
Produces Toxic Gases HP12 Sulphide	≥1,400mg/kg	
Produces Toxic Gases HP12 Cyanide	≥1,200mg/kg	
Produces Toxic Gases HP12 Thiocyanate	≥2,600mg/kg	
HP13 Sensitising	≥10%	

If cells below turn yellow and the text turns red, the samples should be classified as Hazardous Waste.

0.00535	0.00490	0.00000	0.00896	0.00000	0.00000	0.00000	0.00000	0.00000
0.00279	0.00219	0.00000	0.00281	0.00000	0.00000	0.00000	0.00000	0.00000
0.00472	0.00477	0.00000	0.00644	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000
0.00370	0.00140	0.00000	0.00140	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00134	0.00107	0.00000	0.00226	0.00000	0.00000	0.00000	0.00000	0.00000
0.00417	0.00398	0.00001	0.00686	0.00000	0.00000	0.00000	0.00000	0.00000
0.00848	0.00623	0.00000	0.00796	0.00000	0.00000	0.00000	0.00000	0.00000
0.00002	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00006	0.00006	0.00000	0.00012	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00411	0.00392	0.00000	0.00686	0.00000	0.00000	0.00000	0.00000	0.00000
0.00014	0.00014	0.00000	0.00014	0.00000	0.00000	0.00000	0.00000	0.00000
0.00840	0.00617	0.00000	0.00782	0.00000	0.00000	0.00000	0.00000	0.00000
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000
0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6.82	6.42	0.00	7.06	0.00	0.00	0.00	0.00	0.00
6.82	6.42	0.00	7.06	0.00	0.00	0.00	0.00	0.00
0.00370	0.00364	0.00000	0.00586	0.00000	0.00000	0.00000	0.00000	0.00000
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
0.00323	0.00364	0.00000	0.00586	0.00000	0.00000	0.00000	0.00000	0.00000
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.00403	0.00384	0.00000	0.00672	0.00000	0.00000	0.00000	0.00000	0.00000



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TP/WS/BH
Depth (m)
Envirolab reference

WS8	WS9	WS9	WS12						
0-0.3	0-0.3	0.50	0.50						
20/11252/15	20/11252/17	20/11252/18	20/11252/23						

Ecotoxic HP14 amended v6	≥25%	<0.1%	0.01903	0.01566	0.00001	0.02163	0.00000	0.00000	0.00000	0.00000	0.00000
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	0.01903	0.01566	0.00001	0.02163	0.00000	0.00000	0.00000	0.00000	0.00000
Ecotoxic HP14 amended v6	≥25%	<0.1% / 1.0%	1.90310	1.56550	0.00120	2.16250	0.00000	0.00000	0.00000	0.00000	0.00000
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000100	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000
Persistent Organic Pollutant (Individual Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000

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