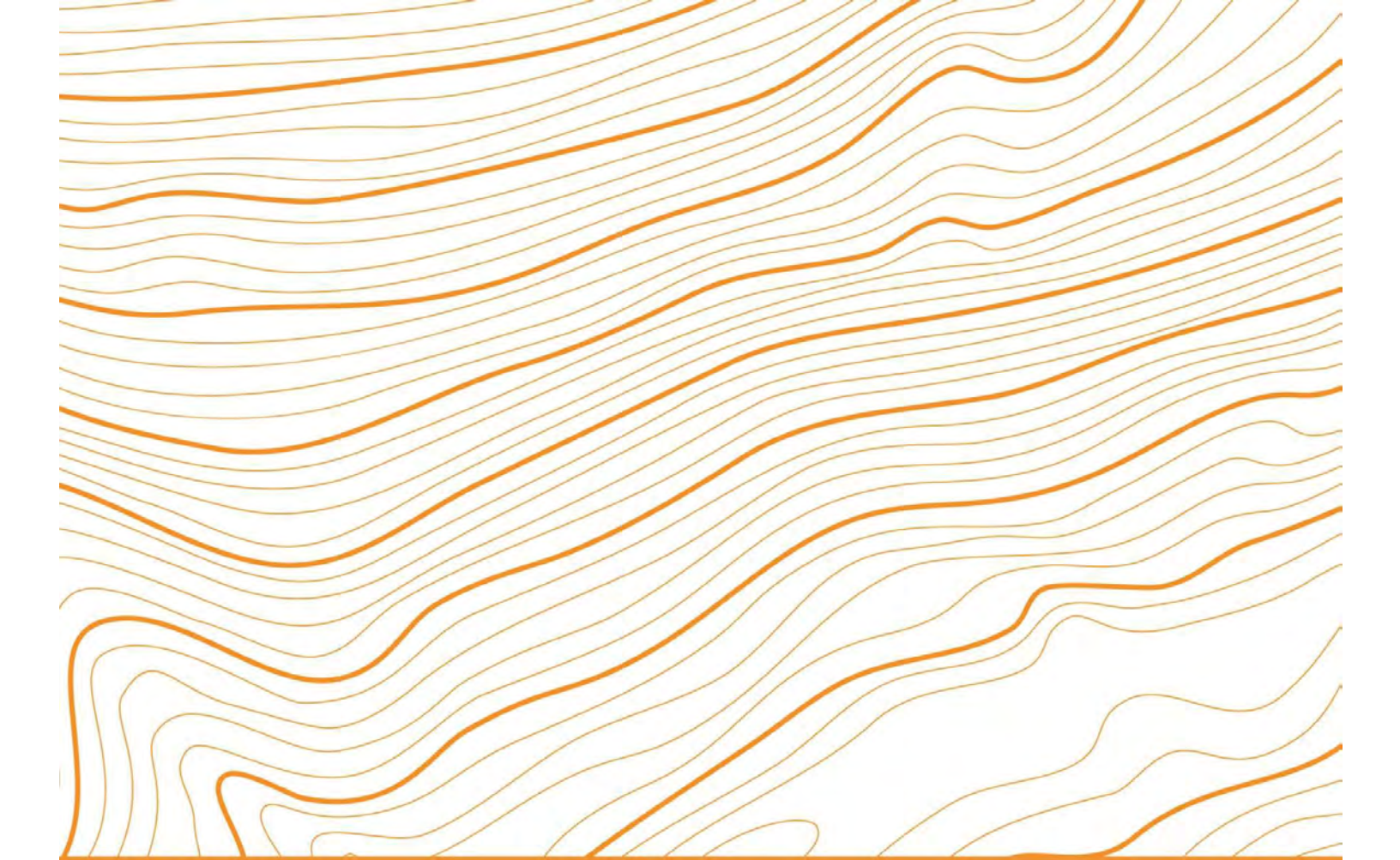




Appendix D – Exploratory Hole Logs



Date: 16/06/2022

Contractor: Cape Site Services

Drilling Equipment: Dando Terrier

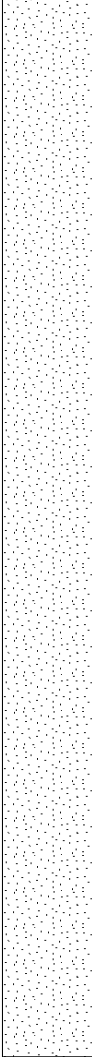
Page Number
Sheet 1 of 1[illegible]

Target depth achieved.



Borehole Log

Project Name: Cheetham Hill		Client: EuroGarages		Date: 16/06/2022	
Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL		Contractor: Cape Site Services			
Project No. : 1289		Crew Name:		Drilling Equipment: Dando Terrier	
Borehole Number WS2	Hole Type WS	Level	Logged By JH	Scale 1:25	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description						
		Depth (m)	Type	Results										
		0.30	PID	PID=0.0	0.10			Reinforced concrete.						
					0.11			MADE GROUND: Plastic membrane.						
					0.30			MADE GROUND: Fine to coarse, sub-angular to sub-rounded gravel of mixed lithology.						
								Brown, black, orange, gravelly SAND. Gravel is fine to coarse, sub-angular to sub-rounded sandstone.						
		0.80	PID	PID=0.0	0.50			Light brown, beige, orange coarse SAND. Darker brown, black sand from 1.5 m bgl.						
					1.30									
					1.80									
		2.30	PID	PID=0.0	2.80				3					
		3.30	PID	PID=0.0	4.00				4					
4.00	PID	PID=0.0	4.00		End of Borehole at 4.000m		4							
								5						

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks											
Refused on compact sand.											



Borehole Log

Project Name: Cheetham Hill

Client: EuroGarages

Date: 16/06/2022

Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL

Contractor: Cape Site Services

Project No. : 1289

Crew Name:

Drilling Equipment: Dando Terrier

Borehole Number WS3	Hole Type WS	Level	Logged By JH	Scale 1:25	Page Number Sheet 1 of 1
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Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20 0.25 0.30			Reinforced concrete.	
		0.30	PID	PID=0.0				MADE GROUND: Plastic membrane. MADE GROUND: Grey, black, fine to coarse, sub-angular to sub-rounded gravel of mixed lithology. Light brown, beige, orange coarse SAND. Slightly damp at 1.3–1.5 m bgl.	
		0.80	PID	PID=0.0					1
		1.30	PID	PID=0.0					
		1.80	PID	PID=0.0					2
		2.30	PID	PID=0.0					
		2.80	PID	PID=0.0					3
		3.30	PID	PID=0.0					
		3.80	PID	PID=0.0					4
		4.30	PID	PID=0.0					
		5.00	PID	PID=0.0	5.00			End of Borehole at 5.000m	5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Target depth achieved.



Borehole Log

Project Name: Cheetham Hill		Client: EuroGarages		Date: 16/06/2022	
Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL		Contractor: Cape Site Services			
Project No. : 1289		Crew Name:		Drilling Equipment: Dando Terrier	
Borehole Number WS4	Hole Type WS	Level	Logged By JH	Scale 1:25	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30	PID	PID=0.0	0.20 0.25 0.30			Concrete conglomerate.	
		0.80	PID	PID=0.0				MADE GROUND: Fine to coarse, sub-angular to sub-rounded gravel of mixed lithology. MADE GROUND: Brown, black gravelly sand. Gravel is fine, sub-angular to sub-rounded mixed lithology including red brick. Light brown, beige, orange coarse SAND. Darker brown, black sand at 0.3–0.5 m bgl. Faded beige colour at 2 m bgl. Damp at 5 m bgl.	1
		1.30	PID	PID=0.0					
		1.80	PID	PID=0.0					2
		2.30	PID	PID=0.0					
		2.80	PID	PID=0.0					3
		3.30	PID	PID=0.0					
		3.80	PID	PID=0.0					4
		4.30	PID	PID=0.0					
		5.00	PID	PID=0.0	5.00			End of Borehole at 5.000m	5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks	
Target depth achieved.	



Borehole Log

Project Name: Cheetham Hill

Client: EuroGarages

Date: 16/06/2022

Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL

Contractor: Cape Site Services

Project No. : 1289

Crew Name:

Drilling Equipment: Dando Terrier

Borehole Number WS5	Hole Type WS	Level	Logged By JH	Scale 1:25	Page Number Sheet 1 of 1
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Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			Topsoil.	
					0.20			MADE GROUND: Dark brown, fine to coarse, sub-angular to sub-rounded gravel of red brick and sandstone.	
		0.30	PID	PID=0.0	0.30			MADE GROUND: Red sand.	
								MADE GROUND: Brown, reddish, grey, gravelly sand. Gravel is fine to coarse, sub-angular to sub-rounded red brick, concrete, sandstone, and clinker.	
		0.80	PID	PID=0.0					
					1.00				
		1.30	PID	PID=0.0				Light brown, fine SAND. Damp from 3.8 m bgl.	1
		1.80	PID	PID=0.0					2
		2.30	PID	PID=0.0					
		2.80	PID	PID=0.0					3
		3.30	PID	PID=0.0					
		4.00	PID	PID=0.0	4.00				4
								End of Borehole at 4.000m	
									5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Refused on compact sand.



Date: 16/06/2022

Contractor: Cape Site Services

Drilling Equipment: Dando Terrier

Page Number
Sheet 1 of 1[illegible]

Refused on a historic fuel tank.



Borehole Log

Project Name: Cheetham Hill

Client: EuroGarages

Date: 16/06/2022

Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL

Contractor: Cape Site Services

Project No. : 1289

Crew Name:

Drilling Equipment: Dando Terrier

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS7	WS		JH	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			Tarmac conglomerate.	
		0.30	PID	PID=0.0	0.30			MADE GROUND: Beige, brown, reddish sandy, fine to coarse, sub-angular to sub-rounded mixed lithology GRAVEL, including sandstone. Reddish, brown, beige, gravelly SAND. Gravel is fine to medium sub-angular to sub-rounded sandstone.	
		0.80	PID	PID=0.0	0.70			Light brown, beige, orange coarse SAND. Damp at 2.7–3 m bgl. Colour is black and darker red at 4–5 m bgl.	1
		1.30	PID	PID=0.0					
		1.80	PID	PID=0.0					2
		2.30	PID	PID=0.0					
		2.80	PID	PID=0.0					3
		3.30	PID	PID=0.0					
		3.80	PID	PID=0.0					4
		4.30	PID	PID=0.0					
		5.00	PID	PID=0.0	5.00			End of Borehole at 5.000m	5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Target depth achieved.



Borehole Log

Project Name: Cheetham Hill

Client: EuroGarages

Date: 16/06/2022

Location: Cheetham Hill Road, ESSO EG Shirley, M8 0PL

Contractor: Cape Site Services

Project No. : 1289

Crew Name:

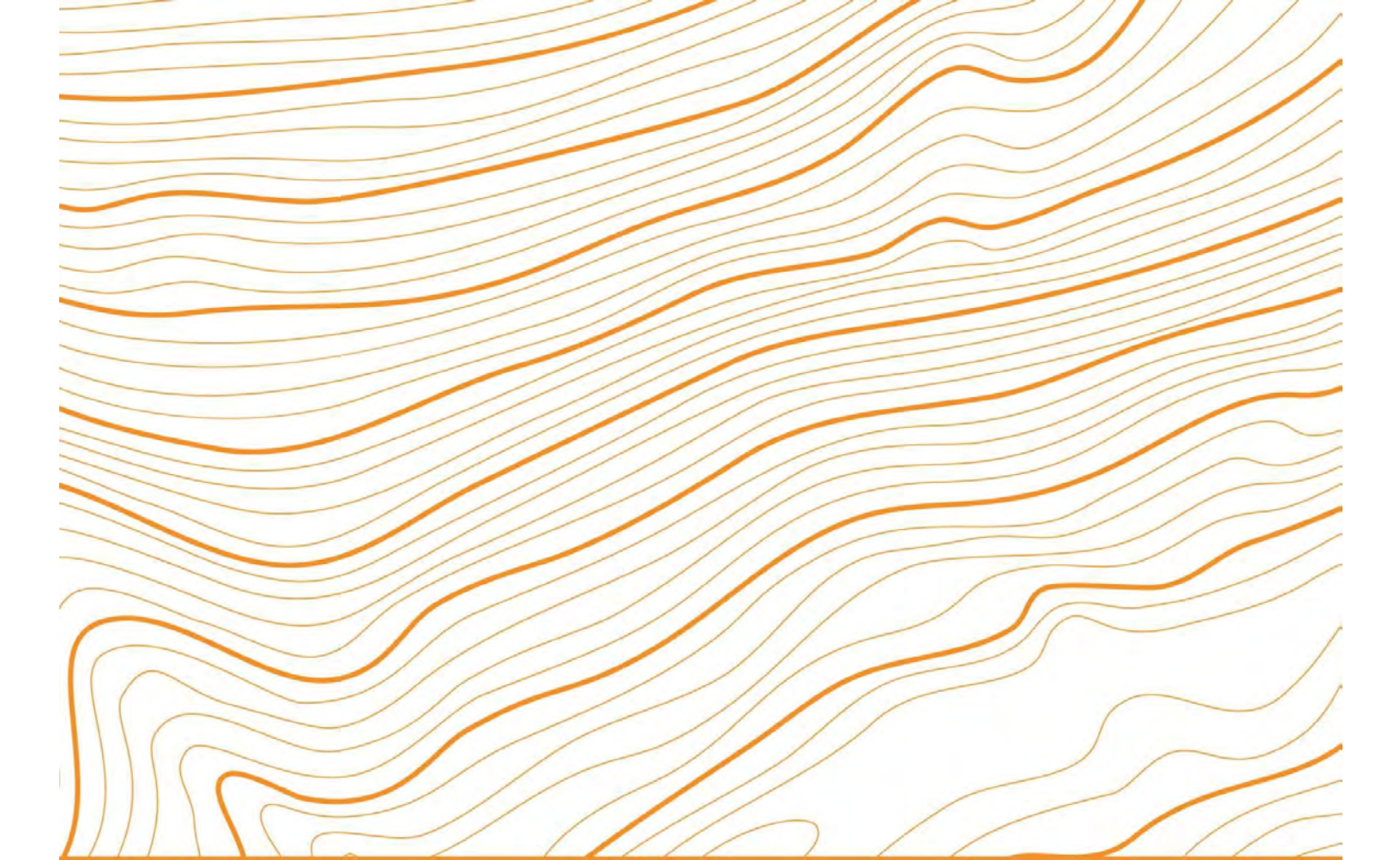
Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS8	WS			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			Concrete conglomerate.	
		0.30	PID	PID=0.0	0.50			MADE GROUND: Brown, black, grey, beige, sandy, fine to coarse, sub-angular to sub-rounded gravel of mixed lithology, including sandstone, red brick, and occasional rootlets.	
		0.80	PID	PID=0.0				Light brown, beige, orange coarse SAND. Reddish orange at 3–4 m bgl. Damp and darker brown/ black at 4.5–5 m bgl.	1
		1.30	PID	PID=0.0					
		1.80	PID	PID=0.0					2
		2.30	PID	PID=0.0					
		2.80	PID	PID=0.0					3
		3.30	PID	PID=0.0					
		3.80	PID	PID=0.0					4
		4.30	PID	PID=0.0					
		5.00	PID	PID=0.0	5.00			End of Borehole at 5.000m	5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks	
Target depth achieved.	



Appendix E – Environmental Testing Results



Final Report

Report No.: 22-23460-1
Initial Date of Issue: 28-Jun-2022
Client Geo2 Remediation
Client Address: Coniston House
Louisa Street
Idle
Bradford
BD10 8NE
Contact(s): Jeremy Ha
Paul Stapleton
Steven Jackson
Ugne Ankenaite
Project 1289 Cheetham

Quotation No.:		Date Received:	23-Jun-2022
Order No.:		Date Instructed:	23-Jun-2022
No. of Samples:	9		
Turnaround (Wkdays):	5	Results Due:	29-Jun-2022
Date Approved:	28-Jun-2022		

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: 1289 Cheetham

Client: Geo2 Remediation	Chemtest Job No.: 22-23460					22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460
Quotation No.:	Chemtest Sample ID.: 1453923					1453923	1453924	1453925	1453926	1453927	1453928	1453929	1453931
	Sample Location:					WS1	WS2	WS3	WS4	WS5	WS6	WS7	WS8
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.30	2.80	1.30	5.00	0.80	0.90	1.80	5.00
	Bottom Depth (m):												0.50
	Date Sampled:					20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022
	Asbestos Lab:					COVENTRY				COVENTRY			COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	Fibres/Clumps					-			-
Asbestos Identification	U	2192		N/A	Chrysotile					No Asbestos Detected			No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001	0.014								
Total Asbestos	U	2192	%	0.001	0.014								
Moisture	N	2030	%	0.020	2.6	5.6	15	19		9.9	7.7	19	16
Arsenic	U	2455	mg/kg	0.5	7.1				6.1				22
Cadmium	U	2455	mg/kg	0.10	0.45				0.59				0.31
Chromium	U	2455	mg/kg	0.5	16				8.8				13
Copper	U	2455	mg/kg	0.50	29				16				81
Mercury	U	2455	mg/kg	0.05	0.21				< 0.05				0.87
Nickel	U	2455	mg/kg	0.50	10				9.0				17
Lead	U	2455	mg/kg	0.50	110				29				330
Selenium	U	2455	mg/kg	0.25	0.55				0.43				0.68
Zinc	U	2455	mg/kg	0.50	84				79				120
Total Organic Carbon	U	2625	%	0.20		1.3		1.2			< 0.20		
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	81
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0	< 5.0	81
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	41	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	4500	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	380
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	4500	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0	< 5.0	380
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	4500	< 10	< 10	< 10		< 10	< 10	< 10	460
Dichlorodifluoromethane	U	2760	µg/kg	1.0							< 1.0		
Chloromethane	U	2760	µg/kg	1.0							< 1.0		
Vinyl Chloride	U	2760	µg/kg	1.0							< 1.0		

Results - Soil

Project: 1289 Cheetham

Client: Geo2 Remediation	Chemtest Job No.:				22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460
Quotation No.:	Chemtest Sample ID.:				1453923	1453924	1453925	1453926	1453927	1453928	1453929	1453930	1453931
	Sample Location:				WS1	WS2	WS3	WS4	WS5	WS6	WS7	WS8	WS8
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.30	2.80	1.30	5.00	0.80	0.90	1.80	5.00	0.20
	Bottom Depth (m):												0.50
	Date Sampled:				20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022
	Asbestos Lab:				COVENTRY				COVENTRY				COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Bromomethane	U	2760	µg/kg	20							< 20		
Chloroethane	U	2760	µg/kg	2.0							< 2.0		
Trichlorofluoromethane	U	2760	µg/kg	1.0							< 1.0		
1,1-Dichloroethene	U	2760	µg/kg	1.0							< 1.0		
Trans 1,2-Dichloroethene	U	2760	µg/kg	1.0							< 1.0		
1,1-Dichloroethane	U	2760	µg/kg	1.0							< 1.0		
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0							< 1.0		
Bromochloromethane	U	2760	µg/kg	5.0							< 5.0		
Trichloromethane	U	2760	µg/kg	1.0							< 1.0		
1,1,1-Trichloroethane	U	2760	µg/kg	1.0							< 1.0		
Tetrachloromethane	U	2760	µg/kg	1.0							< 1.0		
1,1-Dichloropropene	U	2760	µg/kg	1.0							< 1.0		
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0							< 2.0		
Trichloroethene	N	2760	µg/kg	1.0							< 1.0		
1,2-Dichloropropane	U	2760	µg/kg	1.0							< 1.0		
Dibromomethane	U	2760	µg/kg	1.0							< 1.0		
Bromodichloromethane	U	2760	µg/kg	5.0							< 5.0		
cis-1,3-Dichloropropene	N	2760	µg/kg	10							< 10		
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10							< 10		
1,1,2-Trichloroethane	U	2760	µg/kg	10							< 10		
Tetrachloroethene	U	2760	µg/kg	1.0							< 1.0		
1,3-Dichloropropane	U	2760	µg/kg	2.0							< 2.0		
Dibromochloromethane	U	2760	µg/kg	10							< 10		
1,2-Dibromoethane	U	2760	µg/kg	5.0							< 5.0		
Chlorobenzene	U	2760	µg/kg	1.0							< 1.0		
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0							< 2.0		
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0							< 1.0		
Tribromomethane	U	2760	µg/kg	1.0							< 1.0		
Isopropylbenzene	U	2760	µg/kg	1.0							< 1.0		
Bromobenzene	U	2760	µg/kg	1.0							< 1.0		
1,2,3-Trichloropropane	N	2760	µg/kg	50							< 50		
N-Propylbenzene	U	2760	µg/kg	1.0							< 1.0		
2-Chlorotoluene	U	2760	µg/kg	1.0							< 1.0		

Results - Soil

Project: 1289 Cheetham

Client: Geo2 Remediation	Chemtest Job No.:				22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460
Quotation No.:	Chemtest Sample ID.:				1453923	1453924	1453925	1453926	1453927	1453928	1453929	1453930	1453931
	Sample Location:				WS1	WS2	WS3	WS4	WS5	WS6	WS7	WS8	WS8
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.30	2.80	1.30	5.00	0.80	0.90	1.80	5.00	0.20
	Bottom Depth (m):												0.50
	Date Sampled:				20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022
	Asbestos Lab:				COVENTRY				COVENTRY				COVENTRY
Determinand	Accred.	SOP	Units	LOD									
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0							< 1.0		
4-Chlorotoluene	U	2760	µg/kg	1.0							< 1.0		
Tert-Butylbenzene	U	2760	µg/kg	1.0							< 1.0		
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0							< 1.0		
Sec-Butylbenzene	U	2760	µg/kg	1.0							< 1.0		
1,3-Dichlorobenzene	U	2760	µg/kg	1.0							< 1.0		
4-Isopropyltoluene	U	2760	µg/kg	1.0							< 1.0		
1,4-Dichlorobenzene	U	2760	µg/kg	1.0							< 1.0		
N-Butylbenzene	U	2760	µg/kg	1.0							< 1.0		
1,2-Dichlorobenzene	U	2760	µg/kg	1.0							< 1.0		
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50							< 50		
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0							< 1.0		
Hexachlorobutadiene	U	2760	µg/kg	1.0							< 1.0		
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0							< 2.0		
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50							< 0.50		< 0.50
Phenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50							< 0.50		< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50							< 0.50		< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Methylphenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50							< 0.50		< 0.50
Hexachloroethane	N	2790	mg/kg	0.50							< 0.50		< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Methylphenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
Nitrobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Isophorone	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50							< 0.50		< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50							< 0.50		< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50							< 0.50		< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Naphthalene	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50							< 0.50		< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50							< 0.50		< 0.50

Results - Soil

Project: 1289 Cheetham

Client: Geo2 Remediation	Chemtest Job No.:				22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460
Quotation No.:	Chemtest Sample ID.:				1453923	1453924	1453925	1453926	1453927	1453928	1453929	1453930	1453931
	Sample Location:				WS1	WS2	WS3	WS4	WS5	WS6	WS7	WS8	WS8
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.30	2.80	1.30	5.00	0.80	0.90	1.80	5.00	0.20
	Bottom Depth (m):												0.50
	Date Sampled:				20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022
	Asbestos Lab:				COVENTRY				COVENTRY				COVENTRY
Determinand	Accred.	SOP	Units	LOD									
2-Methylnaphthalene	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50							< 0.50		< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50							< 0.50		< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50							< 0.50		< 0.50
Acenaphthylene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50							< 0.50		< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Acenaphthene	U	2790	mg/kg	0.50							< 0.50		< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50							< 0.50		< 0.50
Dibenzofuran	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50							< 0.50		< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Fluorene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50							< 0.50		< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50							< 0.50		< 0.50
Azobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50							< 0.50		< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50							< 0.50		< 0.50
Phenanthrene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Anthracene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Carbazole	U	2790	mg/kg	0.50							< 0.50		< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50							< 0.50		< 0.50
Fluoranthene	U	2790	mg/kg	0.50							< 0.50		0.86
Pyrene	U	2790	mg/kg	0.50							< 0.50		0.78
Butylbenzyl Phthalate	U	2790	mg/kg	0.50							< 0.50		< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Chrysene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50							< 0.50		< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50							< 0.50		< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50							< 0.50		< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50							< 0.50		< 0.50

Results - Soil

Project: 1289 Cheetham

Client: Geo2 Remediation	Chemtest Job No.:				22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460	22-23460
Quotation No.:	Chemtest Sample ID.:				1453923	1453924	1453925	1453926	1453927	1453928	1453929	1453930
	Sample Location:				WS1	WS2	WS3	WS4	WS5	WS6	WS7	WS8
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.30	2.80	1.30	5.00	0.80	0.90	1.80	5.00
	Bottom Depth (m):											0.50
	Date Sampled:				20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022
	Asbestos Lab:				COVENTRY				COVENTRY			COVENTRY
Determinand	Accred.	SOP	Units	LOD								
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50						< 0.50		< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50						< 0.50		< 0.50

Test Methods

SOP	Title	Parameters included	Method summary
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS

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Key

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SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.: 22-23464-1
Initial Date of Issue: 01-Jul-2022
Client Geo2 Remediation
Client Address: Coniston House
Louisa Street
Idle
Bradford
BD10 8NE
Contact(s): Jeremy Ha
Paul Stapleton
Steven Jackson
Ugne Ankenaite
Project 1289 Cheetham

Quotation No.:		Date Received:	23-Jun-2022
Order No.:		Date Instructed:	23-Jun-2022
No. of Samples:	1		
Turnaround (Wkdays):	7	Results Due:	01-Jul-2022
Date Approved:	01-Jul-2022		

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - 2 Stage WAC

Project: 1289 Cheetham

Chemtest Job No: 22-23464 Chemtest Sample ID: 1453935 Sample Ref: Sample ID: Sample Location: WS8 Top Depth(m): 0.20 Bottom Depth(m): 0.50 Sampling Date: 20-Jun-2022							Landfill Waste Acceptance Criteria			
							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units							
Total Organic Carbon	2625	M	%				0.34	3	5	6
Loss On Ignition	2610	M	%				5.0	--	--	10
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg				3200	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg				96	100	--	--
pH	2010	M					6.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg				0.026	--	To evaluate	To evaluate
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1455	U	0.018	0.027	0.035	0.26	0.5	2	25	
Barium	1455	U	0.061	0.039	0.12	0.42	20	100	300	
Cadmium	1455	U	0.00012	0.00013	0.00024	0.0013	0.04	1	5	
Chromium	1455	U	0.060	0.061	0.12	0.61	0.5	10	70	
Copper	1455	U	0.0066	0.010	0.013	0.011	2	50	100	
Mercury	1455	U	0.00005	0.00044	0.00011	0.0040	0.01	0.2	2	
Molybdenum	1455	U	0.019	0.0054	0.037	0.067	0.5	10	30	
Nickel	1455	U	0.023	0.026	0.044	0.26	0.4	10	40	
Lead	1455	U	0.0055	0.030	0.011	0.28	0.5	10	50	
Antimony	1455	U	0.0074	0.0038	0.015	0.042	0.06	0.7	5	
Selenium	1455	U	0.0027	0.0015	0.0054	0.016	0.1	0.5	7	
Zinc	1455	U	0.018	0.010	0.035	0.11	4	50	200	
Chloride	1220	U	190	36	380	520	800	15000	25000	
Fluoride	1220	U	1.2	0.66	2.4	7.1	10	150	500	
Sulphate	1220	U	79	19	160	250	1000	20000	50000	
Total Dissolved Solids	1020	N	390	150	770	1700	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	8.5	12	< 50	120	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	14

Leachate Test Information	
Leachant volume 1st extract/l	0.322
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.180

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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I/S	Insufficient Sample
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Sample Retention and Disposal

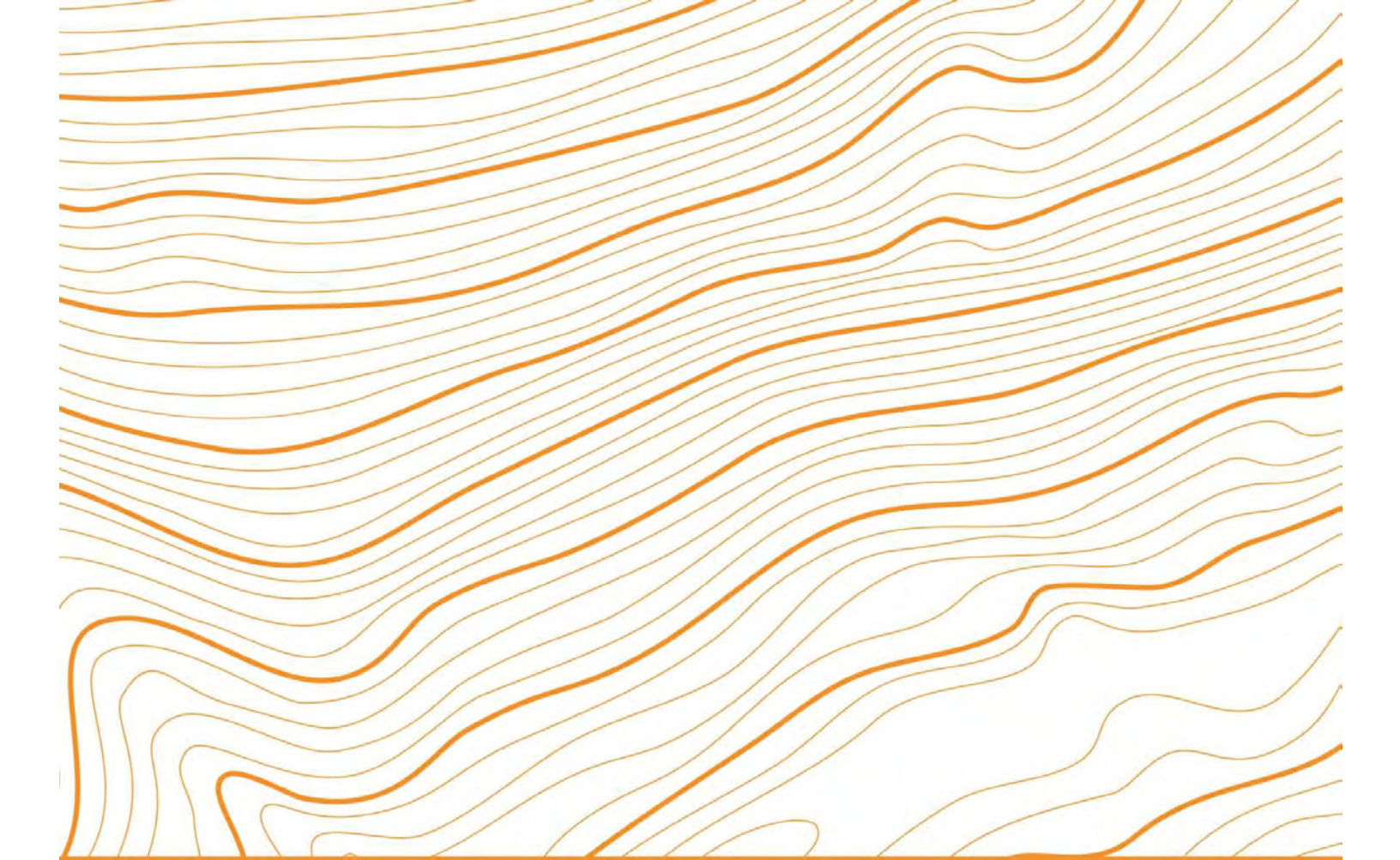
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All water samples will be retained for 14 days from the date of receipt

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If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Appendix F – Risk Assessment Terminology

Definitions and Classifications of Risk Assessment Terminology.

Probability

Probability can be defined as the chance of a particular event occurring in a given period of time.

Descriptions of each of the four qualitative terms to be used in this report to describe the perceived probability of any identified pollutant linkage becoming realised are shown below in Table W.

Term	Description
High Likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.
Likely	There is pollutant linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term.
Low Likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place, and is less likely in the shorter term.
Unlikely	There is pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long-term.

Table W. Description of Probability Classifications

Severity

Severity (consequence) can be defined as the adverse effects (or harm) arising from a defined hazard, which impairs the quality of human health or the environment in the short or longer term.

Descriptions of each of the four qualitative terms to be use in this report to describe the perceived potential severity of any identified pollutant linkage becoming realised are shown below in Table X.

Term	Description
Severe	Highly elevated concentrations likely to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.
Medium	Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.
Mild	Exposure to human health unlikely to lead to "significant harm". Equivalent to EA Category 3 pollution incident including minimal or short-lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short-lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.

Table X. Description of Severity Classifications

Once the severity and probability of a pollutant linkage has been determined the risk can be assessed using the risk matrix shown overleaf on Table Y.

Risk Matrix

By cross referencing the derived severity and probability in Table Y, below the perceived potential risk can be determined.

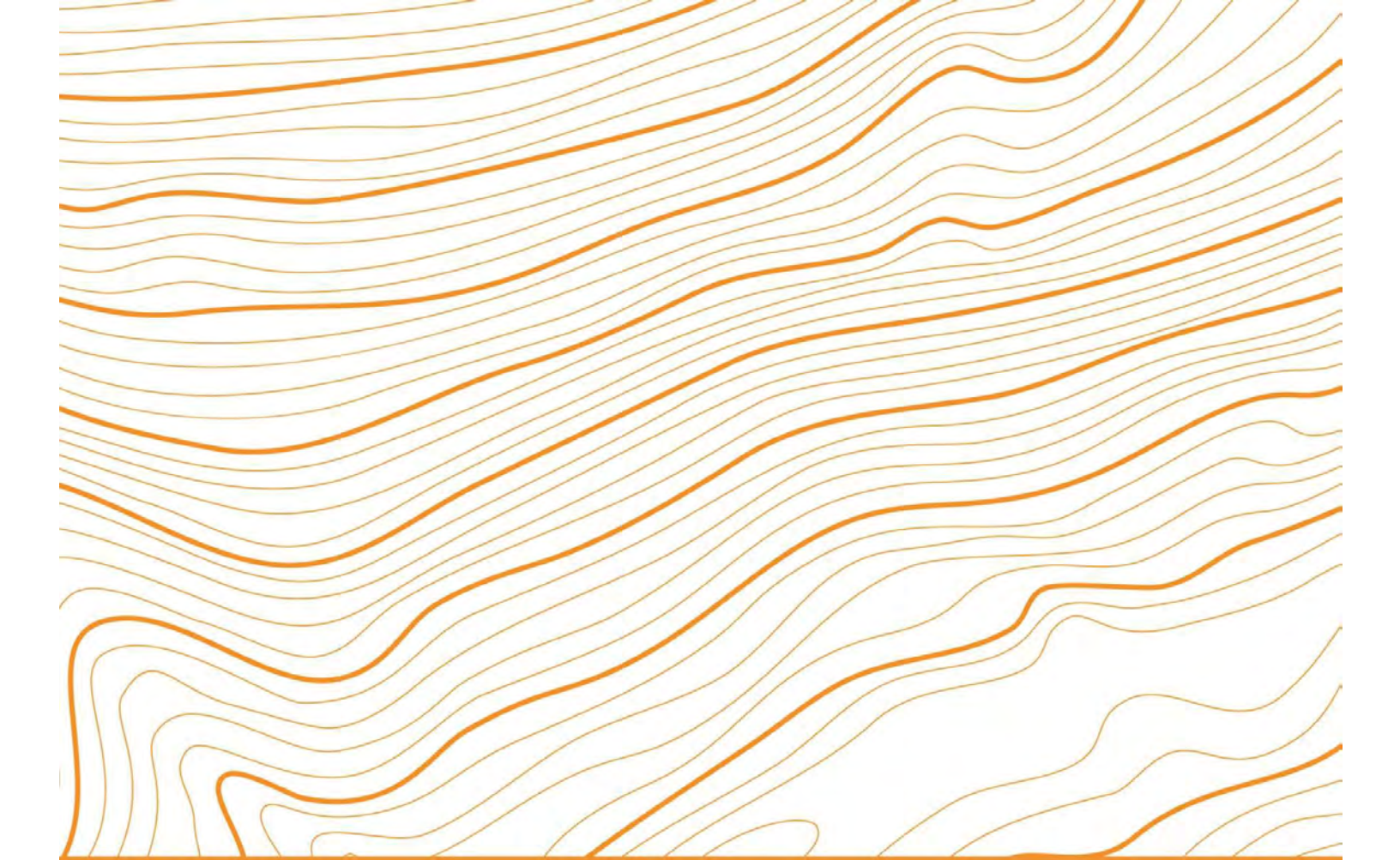
		Severity			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table Y. Risk Assessment Matrix

The risk categories detailed above are defined below in the following Table Z.

Term	Description
Very High Risk	There is a high probability that significant harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
High Risk	Significant harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
Moderate Risk	It is possible that without appropriate remedial action, harm could arise to a designated receptor but it is relatively unlikely that any such harm would be severe and if any harm were to occur, it is likely that such harm would be relatively mild.
Low Risk	It is possible that significant harm could arise to a designated receptor from an identified hazard but it is likely that at worst this harm if realised would normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table Z. Definition of Risk



Appendix G – Watching Brief



Geo2 Remediation Ltd
Coniston House,
Louisa St. Idle
Bradford
BD10 8NE

Phone 0113 257 5397
Email info@geo2.co.uk
Web www.geo2.co.uk

Generic Watching Brief Method Statement

This method statement aims to establish a structure by which site works / development contractors will be able to effectively meet the requirements of a watching brief. A watching brief is frequently proposed as part of planning conditions imposed onto any brownfield site, or a site potentially affected by contaminants. This methodology proposed a strategy which allows the site workers to effectively undertake these works themselves without the need for a full time environmental specialist.

Requirements of a Nominated Competent Person (CP)

The party undertaking the site works will nominate a Competent Person (CP) who will be responsible for providing a watching brief over all excavation, soil handling works associated with construction and for ensuring site workers conform to appropriate PPE requirements at all times. The CP will be on-site during all enabling, and construction works.

The CP will be briefed by Geo² on environmental management during or in advance of the groundworks at an on-site meeting to be held prior to the commencement of works. This would typically address the following issues;

- A review of any existing site information with regard to areas of potential contamination both identified and unidentified,
- Types of contamination which may be encountered and also potential for unexpected contamination, and means of identification,
- Potential risks associated with contaminants, with regard to health and safety concerns of construction workers,
- Potential for waste disposal issues,
- Ensuring that the CP is confident and capable of undertaking the practical responsibilities identified,
- Any additional site specific concerns or factors which may prove relevant to works, such as any visual monitoring / inspection requirements (e.g. daily observations of adjacent streams etc).

The CP would be required to maintain records of any issues, as detailed above, which would be encountered during the programme of works. Records should detail the time and date, nature of any incident, or detail of potentially contaminated soils encountered, location of this material, where possible extent and the actions undertaken to ensure this was appropriately classified. These would be required to be submitted to the client and Geo² to ensure that an appropriate validation report

could be complied to enable the planning conditions to be lifted. Records should be available onsite at all times for inspection as required.

The CP is also responsible for contacting Geo² in the event of encountering situations requiring environmental management. A Geo² contact will be ascribed to each site, so suitable site specific advice will be available over the phone as necessary. Site visits can be arranged at short notice to assist with any potentially significant issues.

Unexpected Contamination

Unexpected contamination may comprise impacted sub-soil, or structures such as underground storage tanks (UST), subsurface features, pipes, sumps or chambers with associated contamination observed beneath the site during the redevelopment works.

Where apparently contaminated sub-soils (or waters) are encountered, the permanent nominated CP should be contacted for assessment.

As a guide, apparently contaminated sub-soils or waters may comprise visually impacted and strongly odorous material. Encountered odours could be petrol, diesel, solvents or oil-like. Should materials of this description, or other description following a site specific briefing, be encountered and this material be considered to be unidentified, Geo² should be contacted. In such circumstances, the affected area should be isolated and work in the area stopped, pending the Geo² consultant visit to sample or assess the soil. The area should remain isolated whilst the samples are analysed at an appropriate laboratory, if considered necessary.

Based on the results and in comparison with adopted screening criteria, Geo² will determine whether the identified materials present a significant environmental risk. Should the soil need to be removed in line with the proposed development programme, or as a result of a risk based analysis, validation samples will be collected from the edge of the excavation by a Geo² site engineer.

All waste should be appropriately isolated and stored to prevent spreading contamination across the site. Waste should then be classified and disposed of in accordance with the applicable waste management regulations under full duty of care documentation. Potential exists for hazardous waste to be present, and this should also be dealt with in accordance with the relevant legislation.

Should unidentified underground features be encountered, such as tanks or fuel delivery lines, that require removal in line with the proposed development, they should be appropriately decommissioned. Decommissioning should comprise pumping and removal of waste water and any sediment in accordance with the applicable waste management regulations under full duty of care documentation. Water and sediment waste may need to be sampled and analysed to determine whether it needs to be disposed of as hazardous.

Should any structure encountered remain in situ, Geo² should be contacted to ensure that any potential impact that may be associated with this feature can be appropriately addressed, if necessary. This process may entail additional sampling works, which would require the identified area to be isolated until Geo² site staff are able to attend site.

Following removal of any such structure, the CP should inspect the excavations for apparently impacted materials. Should apparently contaminated material be identified beneath or adjacent to the structure, Geo² should be contacted to undertake further sampling and analysis. All results will be included in the Validation Report.

The relevant planning authorities will be notified should any unexpected contamination be identified and any remedial actions that are required as a result of encountered materials will be agreed prior to the work being carried out.

Sampling Procedure

All samples obtained by Geo² will be stored in appropriate vessels for the required analysis and stored in controlled conditions prior to submission to an appropriately accredited laboratory. All samples will be obtained in line with standard industry guidance.

Validation Report

This typically forms the final part of any contaminated land planning condition and allows the client or local authority certainty that any contaminated land encountered during works has been appropriately addressed and the condition of remaining soils (and groundwater if applicable) is understood. This may be compiled by Geo² (typically in the event of unexpected contamination being encountered) or by the Client (this may take the form of a brief letter, stating the completed nature of the site and a brief description of conditions encountered).

Geo² Contact

A Geo² contact will be prescribed to the site upon implementation of the watching brief. If there are any other queries Geo² can be contacted on the office number at 0113 257 5397