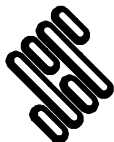


Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP25
Contract Ref: 765514	Start: 27.09.22 End: 27.09.22	Ground Level (m AOD): 65.37	National Grid Co-ordinate: E:446080.2 N:324450.2	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

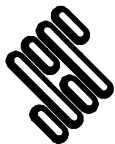


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP26
Contract Ref: 765514	Start: 30.09.22 End: 30.09.22	Ground Level (m AOD): 76.87	National Grid Co-ordinate: E:445943.0 N:324731.8		Sheet: 1 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20 0.20	1 2	ES D	$c_u > 140$			TOPSOIL	76.47	(0.40)	
0.60 0.60 0.60 0.60	3 4 5	ES D LB V				Very stiff dark purplish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular fine to coarse of siltstone.	75.92	(0.55)	
1.10 1.10 1.10	6 7 8	ES D LB				Stiff dark purplish brown mottled light grey and greenish grey slightly sandy CLAY with frequent mudstone lithorelicts (up to 10x10mm), occasional thick laminae (up to 20mm), and very thin beds (up to 30mm) of extremely weak light greenish grey siltstone. (MERCIA MUDSTONE GROUP)	75.37	(0.55)	
1.60 1.60 1.60	10 11 9	D LB ES				Stiff to very stiff friable dark reddish brown mottled greenish grey slightly sandy CLAY with frequent mudstone lithorelicts (up to 20x20mm) and occasional very thin beds (up to 30mm) of very weak dark reddish brown mudstone and light greenish grey siltstone. (MERCIA MUDSTONE GROUP)	74.87	(0.50)	
						Trial pit terminated at 2.00m depth.			

Plan (Not to Scale)		General Remarks	
		1. All faces similar and stable. 2. No groundwater encountered during excavation. 3. Soakaway carried out at 2.00m.	
All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL

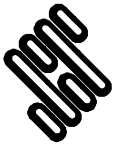
GINT LIBRARY V10.01.GLB LibVersion: v8.07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10.01. Structural Soils Ltd, Branch Office - Castleford, The Potteries, Pottery Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:10 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP26
Contract Ref: 765514	Start: 30.09.22 End: 30.09.22	Ground Level (m AOD): 76.87	National Grid Co-ordinate: E:445943.0 N:324731.8	Sheet: 2 of 3



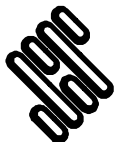
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP26
Contract Ref: 765514	Start: 30.09.22 End: 30.09.22	Ground Level (m AOD): 76.87	National Grid Co-ordinate: E:445943.0 N:324731.8	Sheet: 3 of 3



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

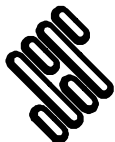


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP27
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 74.42	National Grid Co-ordinate: E:446148.2 N:324654.3		Sheet: 1 of 5

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20 0.20 0.20-0.30	1 2 3	ES D B	$c_u \Rightarrow 140$			TOPSOIL.	74.02	(0.40)	
0.50 0.50 0.50-0.60	4 5 6	ES D B				Very stiff light brown and light grey slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is angular to subangular tabular of siltstone. (MERCIA MUDSTONE GROUP)	73.77	0.65	
0.70 0.70 0.70-0.80	7 8 9	ES D B				Very stiff dark reddish brown slightly sandy CLAY with occasional mudstone lithorelicts (up to 10x10mm). Sand is fine to coarse. (MERCIA MUDSTONE GROUP)	72.92	(0.85)	
0.70		V						1.50	
1.60 1.60 1.60-1.70	10 11 12	ES D B				Stiff to very stiff friable dark reddish brown slightly sandy CLAY with frequent mudstone lithorelicts and occasional very thin beds (up to 25mm) of light grey siltstone. (MERCIA MUDSTONE GROUP)		(1.50)	
1.60		V							
2.60-2.70 2.60	13 14	B D				... 2.50m: With frequent thick laminate to very thin beds (<30mm) of reddish brown mudstone.	71.42	3.00	
						Trial pit terminated at 3.00m depth.			

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation.			
		All dimensions in metres		Scale:	1:25
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

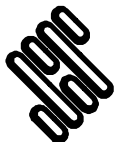
GINT LIBRARY V10.01.GLB LibVersion: v8.07.001 PnVersion: v8.07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10.01. Structural Soils Ltd, Branch Office - Castleford, The Potteries, Pottery Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:10 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP27
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 74.42	National Grid Co-ordinate: E:446148.2 N:324654.3	Sheet: 2 of 5



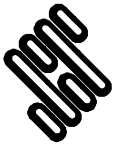
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP27
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 74.42	National Grid Co-ordinate: E:446148.2 N:324654.3	Sheet: 3 of 5



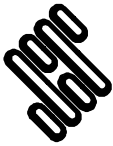
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP27
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 74.42	National Grid Co-ordinate: E:446148.2 N:324654.3	Sheet: 4 of 5



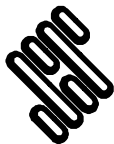
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP27
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 74.42	National Grid Co-ordinate: E:446148.2 N:324654.3	Sheet: 5 of 5



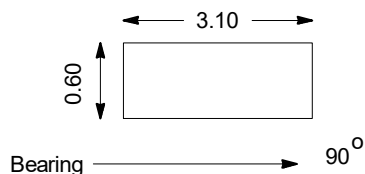
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP28
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 74.20	National Grid Co-ordinate: E:446254.6 N:324734.0	Sheet: 1 of 5

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.15 0.15	1 2	ES D	$c_u \Rightarrow 140$			TOPSOIL.	73.90	(0.30)	
0.50 0.50 0.50-0.60 0.50	3 4 5	ES D B V				Very stiff dark brown slightly sandy CLAY. Sand is fine to coarse.		(0.70)	
1.10 1.10 1.10-1.20 1.10	6 7 8	ES D B V				Stiff to very stiff friable dark reddish brown and light greenish grey slightly sandy CLAY with frequent closely to medium spaced very thin beds (up to 40mm) of very weak light greenish grey siltstone. (MERCIA MUDSTONE GROUP)	73.20	1.00	
1.60	10	D				... Below 2.00m: Occasional siltstone and frequent extremely weak reddish brown mudstone beds.		(2.30)	
3.30-3.40 3.35 3.35	11 10 9	B D ES				Extremely weak dark reddish brown MUDSTONE. (MERCIA MUDSTONE GROUP) Trial pit terminated at 3.40m depth.	70.90 70.80	3.30 3.40	

Plan (Not to Scale)



General Remarks

1. All faces similar and stable.
2. No groundwater encountered during excavation.

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

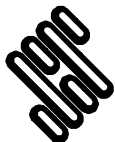
Tracked excavator

Logged By:

GKalaher

Checked By:

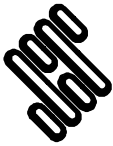
RL



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP28
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 74.20	National Grid Co-ordinate: E:446254.6 N:324734.0	Sheet: 2 of 5



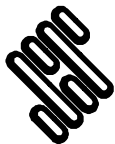
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP28
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 74.20	National Grid Co-ordinate: E:446254.6 N:324734.0	Sheet: 3 of 5



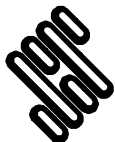
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP28
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 74.20	National Grid Co-ordinate: E:446254.6 N:324734.0	Sheet: 4 of 5



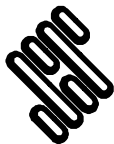
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP28
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 74.20	National Grid Co-ordinate: E:446254.6 N:324734.0	Sheet: 5 of 5

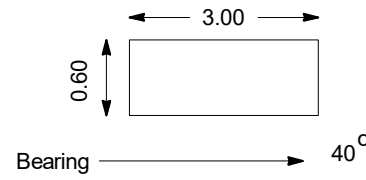


Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

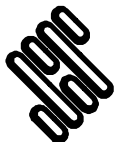


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP29
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 73.09	National Grid Co-ordinate: E:446243.6 N:324661.8		Sheet: 1 of 5

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20 0.20 0.20-0.30	1 2 3	ES D B				TOPSOIL	72.74	(0.35) 0.35	
0.50 0.50 0.50-0.60	4 5 6	ES D B				Stiff to very stiff dark orangish brown to reddish brown slightly sandy slightly gravelly clayey SILT. Sand is fine to coarse. Gravel is subangular fine to coarse of mudstone and quartzite. ... Below 0.70m: Friable.	71.79	(0.95) 1.30	
1.40 1.40 1.40-1.50	7 8 9	ES D B				Stiff dark reddish brown slightly sandy CLAY with frequent mudstone lithorelicts (up to 30x30m) and occasional thin beds (up to 40mm) of light greenish grey siltstone (spacing: 300 to 800mm). (MERCIA MUDSTONE GROUP) ... Below 1.60m: Friable.		(1.80)	
2.40-2.50 2.40	10 11	B D				... Below 2.80m: With occasional thin to thick laminae (<20mm) of orangish brown SILT.	69.99	3.10	
						Trial pit terminated at 3.10m depth.			

Plan (Not to Scale) 	General Remarks 1. All faces similar and stable. 2. No groundwater encountered during excavation.			
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

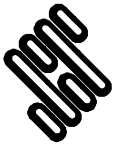
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Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP29
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 73.09	National Grid Co-ordinate: E:446243.6 N:324661.8	Sheet: 2 of 5



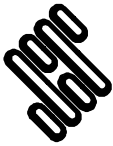
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP29
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 73.09	National Grid Co-ordinate: E:446243.6 N:324661.8	Sheet: 3 of 5



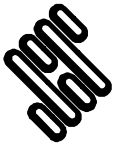
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP29
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 73.09	National Grid Co-ordinate: E:446243.6 N:324661.8	Sheet: 4 of 5



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP29
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 73.09	National Grid Co-ordinate: E:446243.6 N:324661.8	Sheet: 5 of 5



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

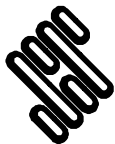


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP30
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.68	National Grid Co-ordinate: E:446232.9 N:324495.5		Sheet: 1 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
						TOPSOIL	66.48	0.20	
0.20-0.20	1	ES	1xT+1xJ+1xV			Very stiff dark reddish brown slightly sandy slightly gravelly SILT. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of sandstone and siltstone.			
0.20-0.20	2	D							
0.20-0.35	3	LB							
0.40-0.40	4	ES	1xT+1xJ+1xV					(0.60)	
0.40-0.40	5	D							
0.40-0.40	6	LB					65.88	0.80	
0.90-0.90	7	ES	1xT+1xJ+1xV			Stiff friable dark reddish brown slightly sandy CLAY with occasional very thin beds (up to 30mm) of light greenish grey siltstone. Sand is fine to coarse. (MERCIA MUDSTONE GROUP)			
0.90-0.90	8	D						(0.45)	
0.90-0.90	9	LB					65.43	1.25	
1.30-1.40	12	LB				Extremely weak friable dark reddish brown MUDSTONE with frequent very thin beds (up to 40mm) of very weak light greenish grey siltstone. (MERCIA MUDSTONE GROUP)			
1.40-1.40	10	ES	1xT+1xJ+1xV						
1.40-1.40	11	D						(0.75)	
							64.68	2.00	
						Trial pit terminated at 2.00m depth.			

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation.			
		All dimensions in metres		Scale:	1:25
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

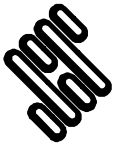
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Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP30
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.68	National Grid Co-ordinate: E:446232.9 N:324495.5	Sheet: 2 of 3



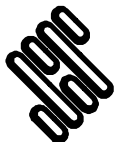
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



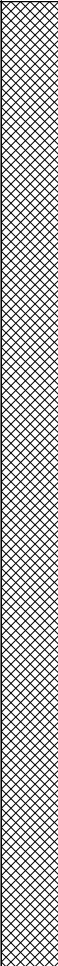
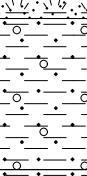
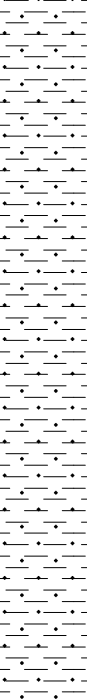
Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP30
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.68	National Grid Co-ordinate: E:446232.9 N:324495.5	Sheet: 3 of 3

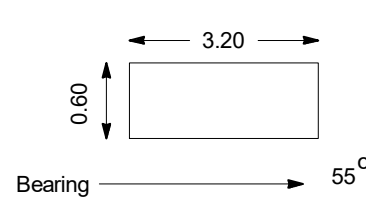


Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

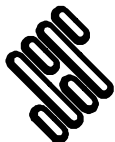


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP31
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 70.79	National Grid Co-ordinate: E:446338.0 N:324723.9		Sheet: 1 of 5

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.15 0.15	1 2	ES D	c _u =120			TOPSOIL	70.49	(0.30)	
0.40 0.40 0.40 0.50-0.60	3 4 5	ES D V B				Very stiff dark reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subrounded to rounded fine to coarse of quartzite.	69.99	(0.50)	
0.90 0.90 0.90-1.00 0.90	6 7 8	ES D B V				Stiff to very stiff friable dark orangish brown to reddish brown slightly sandy CLAY with frequent mudstone lithorelicts (up to 15x15mm), occasional very thin beds (up to 60mm) of very weak light greenish grey siltstone, and frequent very thin beds (up to 60mm) of extremely weak to very weak reddish brown mudstone. (MERCIA MUDSTONE GROUP)	67.59	(2.40)	
2.90 2.90-3.00 2.90	10 11 9	D B ES				Trial pit terminated at 3.20m depth.			

Plan (Not to Scale) 	General Remarks 1. All faces similar and stable. 2. No groundwater encountered during excavation.			
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

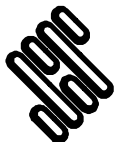
GINT LIBRARY V10.01.GLB LibVersion: v8.07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10.01. Structural Soils Ltd, Branch Office - Castleford, The Potteries, Pottery Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:11 | A4J |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP31
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 70.79	National Grid Co-ordinate: E:446338.0 N:324723.9	Sheet: 2 of 5



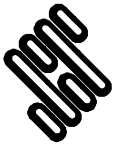
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP31
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 70.79	National Grid Co-ordinate: E:446338.0 N:324723.9	Sheet: 3 of 5



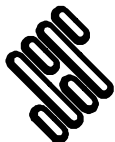
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP31
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 70.79	National Grid Co-ordinate: E:446338.0 N:324723.9	Sheet: 4 of 5



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalahar	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP31
Contract Ref: 765514	Start: 06.10.22 End: 06.10.22	Ground Level (m AOD): 70.79	National Grid Co-ordinate: E:446338.0 N:324723.9	Sheet: 5 of 5



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

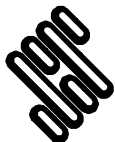


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP32
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 64.32	National Grid Co-ordinate: E:446337.6 N:324462.3		Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20 0.20 0.20-0.30	1 2 3	ES D B	c _u =90/105		TOPSOIL	63.97	(0.35) 0.35		
0.50 0.50 0.50-0.60	4 5 6	ES D B			Very stiff dark brown slightly sandy CLAY with frequent very thin beds (up to 30mm) of extremely weak light grey siltstone.	63.42	(0.55) 0.90		
1.10 1.10 1.10-1.20 1.10	7 8 9	ES D B V			Stiff to very stiff dark orangish brown to reddish brown slightly sandy CLAY. Sand is fine to coarse. (MERCIA MUDSTONE GROUP)	62.52	(0.90) 1.80		
1.80		V			Stiff to very stiff friable dark reddish brown slightly sandy CLAY with frequent mudstone lithorelicts (up to 20x20mm) and occasional very thin beds (up to 30mm) of extremely weak brown mudstone. Sand is fine to coarse. (MERCIA MUDSTONE GROUP)				
2.00 2.00 2.00-2.10	10 11 12	ES D B							
						61.32	3.00		

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation.			
All dimensions in metres		Scale: 1:25			
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

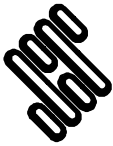
GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 PnVersion: v8_07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10_01. Structural Soils Ltd. Branch Office - Castleford, The Potteries, Potters Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:11 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP32
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 64.32	National Grid Co-ordinate: E:446337.6 N:324462.3	Sheet: 2 of 4



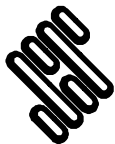
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP32
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 64.32	National Grid Co-ordinate: E:446337.6 N:324462.3	Sheet: 3 of 4



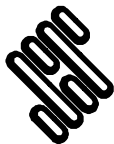
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP32
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 64.32	National Grid Co-ordinate: E:446337.6 N:324462.3	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

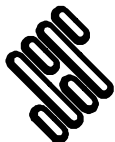


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP33
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9		Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20-0.20	1	ES	1xT+1xJ+1xV			TOPSOIL		(0.35)	
0.20-0.20	2	D					66.23	0.35	
0.20-0.35	3	LB							
0.40-0.40	4	ES	1xT+1xJ+1xV			Very stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of mudstone and siltstone. (MERCIA MUDSTONE GROUP) ... 0.50-0.60m: thin bedded (up to 100mm) of extremely weak light grey siltstone. ... 0.50-1.40m: become friable. ... 0.75-1.40m: frequent mudstone lithorelicts (up to 25x25x30mm) and thick laminate of extremely weak mudstone (up to 20mm)			
0.40-0.40	5	D							
0.40		V	$c_u=140$						
1.20-1.20	6	D							
1.20-1.40	7	LB					65.18	1.40	
1.50-1.50	8	ES	1xT+1xJ+1xV			Extremely weak friable dark reddish brown MUDSTONE with occasional closely spaced thin beds (up to 40mm) of light greenish grey siltstone. (MERCIA MUDSTONE GROUP)			
1.50-1.50	9	D							
1.50		V	$c_u=150$						
2.20-2.80	10	LB							
2.20-2.20	11	D							
2.90-2.90	12	ES	1xT+1xJ+1xV			Extremely weak dark reddish brown MUDSTONE with occasional thin beds of extremely weak and very weak light greenish grey siltstone. (MERCIA MUDSTONE GROUP)	63.78	2.80	
2.90-2.90	13	D							
2.90-3.20	14	LB					63.38	3.20	
Trial pit terminated at 3.20m depth.									

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation.			
		All dimensions in metres		Scale:	1:25
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

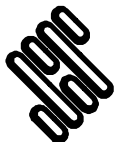
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Structural Soils Ltd, Branch Office - Castleford, The Potteries, Potters Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:11 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP33
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9	Sheet: 2 of 4



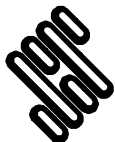
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP33
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9	Sheet: 3 of 4



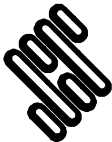
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP33
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

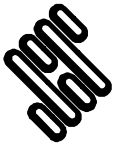


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP33A
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9		Sheet: 1 of 3

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
						TOPSOIL	66.23	0.35	
						Very stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of mudstone and siltstone. (MERCIA MUDSTONE GROUP)	65.18	1.40	
						Extremely weak friable dark reddish brown MUDSTONE with occasional closely spaced thin beds (up to 40mm) of light greenish grey siltstone. (MERCIA MUDSTONE GROUP)	64.58	2.00	
						Trial pit terminated at 2.00m depth.			

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation. 3. Soakaway carried out at 2.00m.			
		All dimensions in metres		Scale:	1:25
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

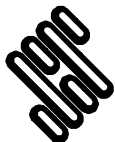
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Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP33A
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9	Sheet: 2 of 3



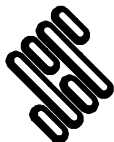
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP33A
Contract Ref: 765514	Start: 22.09.22 End: 22.09.22	Ground Level (m AOD): 66.58	National Grid Co-ordinate: E:446469.7 N:324711.9	Sheet: 3 of 3

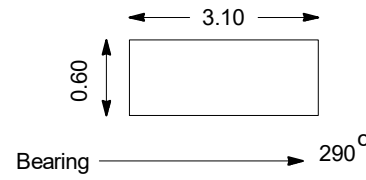


Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalahar	Checked By: RL	

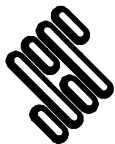


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP34
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 60.51	National Grid Co-ordinate: E:446451.3 N:324450.0		Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20 0.20 0.20-0.30	1 2 3	ES D B				TOPSOIL	60.11	(0.40) 0.40	
0.50 0.50 0.50-0.60	4 5 6	ES D B				Firm to stiff dark reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular fine to coarse of siltstone. (MERCIA MUDSTONE GROUP)		(0.80)	
1.30 1.30 1.30-1.40	7 8 9	ES D B				... 1.00-1.10m: Very thin bed (<100mm) of very weak light greenish grey siltstone. Stiff to very stiff friable dark reddish brown slightly sandy CLAY with frequent mudstone lithorelicts (up to 30x30mm). (MERCIA MUDSTONE GROUP)	59.31	1.20	
2.10 2.10 2.10-2.20	10 11 12	ES D B				Extremely weak dark purplish brown MUDSTONE with occasional light greenish grey reduction horizons (up to 20mm). (MERCIA MUDSTONE GROUP) ... 2.30-2.45m: Extremely weak light greenish grey siltstone. ... 2.60m: Friable.	58.51	2.00	
							57.41	3.10	
						Trial pit terminated at 3.10m depth.			

Plan (Not to Scale) 	General Remarks 1. All faces similar and stable. 2. No groundwater encountered during excavation.			
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

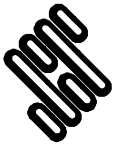
GINT LIBRARY_V10_01.GLB LibVersion: v8_07_001 ProjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10_01. Structural Soils Ltd, Branch Office - Castleford, The Potteries, Potters Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:12 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP34
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 60.51	National Grid Co-ordinate: E:446451.3 N:324450.0	Sheet: 2 of 4



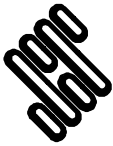
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP34
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 60.51	National Grid Co-ordinate: E:446451.3 N:324450.0	Sheet: 3 of 4



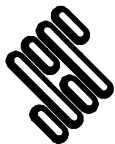
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP34
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 60.51	National Grid Co-ordinate: E:446451.3 N:324450.0	Sheet: 4 of 4



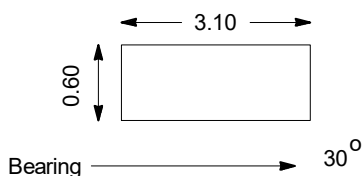
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP35
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 59.52	National Grid Co-ordinate: E:446518.6 N:324546.7	Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.20	1	ES				TOPSOIL	59.22	(0.30)	
0.20	2	D						0.30	
0.20-0.30	3	B				Friable dark orangish brown slightly sandy SILT with occasional pockets (up to 40x30mm) of light grey silt and black organic carbonaceous material. Sand is fine to coarse.			
0.40	4	ES							
0.40-0.50	5	B						(0.80)	
							58.42	1.10	
1.10		V	$c_u=110/116$			Stiff dark orangish brown slightly sandy slightly gravelly silty CLAY with occasional pockets (up to 30x30mm) of yellow and grey silt. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of quartzite and flint. ... 1.30m: Locally with frequent thin lenses (<20mm) of light yellow and orange silt. Becoming firm to stiff.			
1.20	6	ES						(0.50)	
1.20	7	D							
1.20-1.30	8	B							
1.30		V	$c_u=56/70/90$				57.92	1.60	
1.60		V	$c_u=40$			Firm to stiff dark reddish brown mottled light grey slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular fine to coarse of light grey siltstone. (MERCIA MUDSTONE GROUP)			
1.75	10	D						(1.20)	
1.75-1.85	11	B							
1.75	9	ES							
2.50		V	$c_u=52$			... 2.50m: Stiff.	56.72	2.80	
						Very stiff friable dark reddish brown CLAY with abundant mudstone and siltstone lithorelicts (up to 50x50mm). (MERCIA MUDSTONE GROUP) ... 2.80m: Groundwater seepage (low inflow insufficient for water sample) No significant/measurable rise. ... 3.00m: Becoming firm to stiff with frequent thin beds (<30mm) of light greenish grey siltstone. ... 3.2-3.40m: Friable.		(0.60)	
							56.12	3.40	
						Trial pit terminated at 3.40m depth.			

Plan (Not to Scale)



General Remarks

1. All faces similar and stable.
2. Water seepage at 2.80m.

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

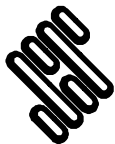
Tracked excavator

Logged By:

GKalaher

Checked By:

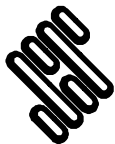
AS



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP35
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 59.52	National Grid Co-ordinate: E:446518.6 N:324546.7	Sheet: 2 of 4



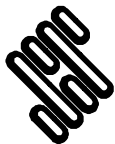
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: AS	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP35
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 59.52	National Grid Co-ordinate: E:446518.6 N:324546.7	Sheet: 3 of 4



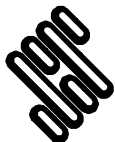
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: AS	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP35
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 59.52	National Grid Co-ordinate: E:446518.6 N:324546.7	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: AS	



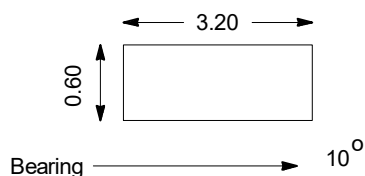
STRUCTURAL SOILS

TRIAL PIT LOG

Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP36
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 71.78	National Grid Co-ordinate: E:446687.0 N:324743.3	Sheet: 1 of 5

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.10-0.20	3	B				TOPSOIL		(0.30)	
0.20	1	ES					71.48	0.30	
0.20	2	D							
0.45	4	ES				Stiff to very stiff dark reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of quartzite and mudstone.		(0.45)	
0.45	5	D					71.03	0.75	
0.45	6	B							
0.80	7	ES				Stiff to very stiff dark reddish brown slightly sandy slightly gravelly CLAY with occasional very thin beds (up to 60mm) of very weak light grey siltstone. Sand is fine to coarse. Gravel is subangular fine to coarse of siltstone.		(0.35)	
0.80	8	D				(MERCIA MUDSTONE GROUP)	70.68	1.10	
0.80-0.90	9	B							
1.10-1.30	12	B				Stiff to very stiff friable dark orangish brown slightly sandy slightly gravelly CLAY with frequent thin to thick laminae (up to 15mm) of orange silt, occasional very thin beds (up to 30mm) of light greenish grey siltstone, and occasional pockets (up to 4x4mm) of black organic carbonaceous plant matter.		(0.80)	
1.30	10	ES				(MERCIA MUDSTONE GROUP)	69.88	1.90	
1.30	11	D				... Below 1.30m: Reddish brown.			
2.00	13	ES				Stiff dark reddish brown slightly sandy CLAY with frequent mudstone lithorelicts (up to 25x25mm) and frequent very thin beds (up to 35mm) of light grey and brown siltstone. Sand is fine to coarse.		(0.80)	
2.00	14	D				(MERCIA MUDSTONE GROUP)			
2.00-2.10	15	B							
2.00		V	c _r =62			... 2.50-2.70m: Thin bed (<200mm) of very weak light greenish grey siltstone.	69.08	2.70	
2.70-2.80	18	B				Extremely weak dark reddish brown locally light grey	68.98	2.80	
2.75	16	ES				MUDSTONE.			
2.75	17	D				(MERCIA MUDSTONE GROUP)			
						Trial pit terminated at 2.80m depth.			

Plan (Not to Scale)



General Remarks

1. All faces similar and stable.
2. No groundwater encountered during excavation.

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

Tracked excavator

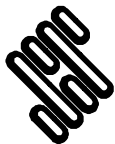
Logged By:

GKalaher

Checked By:

RL

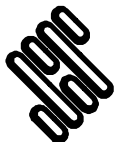




Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP36
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 71.78	National Grid Co-ordinate: E:446687.0 N:324743.3	Sheet: 2 of 5



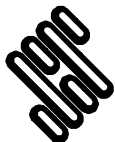
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP36
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 71.78	National Grid Co-ordinate: E:446687.0 N:324743.3	Sheet: 3 of 5



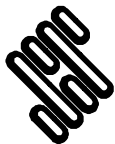
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP36
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 71.78	National Grid Co-ordinate: E:446687.0 N:324743.3	Sheet: 4 of 5



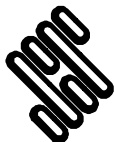
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP36
Contract Ref: 765514	Start: 23.09.22 End: 23.09.22	Ground Level (m AOD): 71.78	National Grid Co-ordinate: E:446687.0 N:324743.3	Sheet: 5 of 5



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	

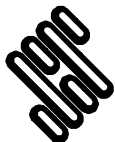


Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP37
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 55.37	National Grid Co-ordinate: E:446674.7 N:324413.8		Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.10-0.10	1	ES	1xT+1xJ+1xV			MADE GROUND: Stiff dark brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of quartzite, granodiorite, siltstone, glass, ceramic tile, and plastic sheet. (TOPSOIL)		(0.30)	
0.10-0.10	2	D					55.07	0.30	
0.10-0.10	3	LB				Stiff dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of quartzite and flint.			
0.40-0.40	4	ES	1xT+1xJ+1xV					(0.60)	
0.40-0.40	5	D				. . . 0.80-0.90m: gravel is subangular fine to coarse of flint.			
0.60		V	$c_u=90$				54.47	0.90	
1.00		V	$c_u=110$			Stiff dark brown locally mottled dark grey slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular fine to coarse of quartzite, sandstone, and siltstone.			
1.10-1.10	6	ES	1xT+1xJ+1xV					(0.45)	
1.10-1.10	7	D				Firm multicoloured (dark brown, light brown, yellowish brown, grey) slightly gravelly sandy SILT, locally silty clay. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of flint, sandstone, and siltstone	54.02	1.35	
1.10-1.10	8	LB							
1.40-1.40	10	D	1xT+1xJ+1xV			. . . 1.60-2.00m: becoming firm to stiff silty CLAY. Occasional very thin beds of fine to coarse sand.			
1.40-1.40	9	ES	$c_u=38$					(0.65)	
1.40		V				Trial pit terminated at 2.00m depth.			
1.50-1.50	11	LB					53.37	2.00	

Plan (Not to Scale)		General Remarks			
		1. All faces similar and stable. 2. No groundwater encountered during excavation. 3. Soakaway carried out at 2.00m.			
		All dimensions in metres		Scale:	1:25
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL		

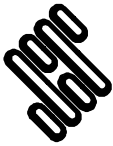
GINT LIBRARY V10.01.GLB LibVersion: v8.07.001 PnVersion: v8.07 | Log TRIAL PIT LOG - A4P | 765514. EAST_MIDLAND_AIRPORT.GPJ - v10.01. Structural Soils Ltd, Branch Office - Castleford, The Potteries, Pottery Street, Castleford, West Yorkshire, WF10 1NJ. Tel: 01977-552255, Fax: 01977-552299, Web: www.soils.co.uk, Email: ask@soils.co.uk | 08/05/23 - 21:12 | AJ4 |



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP37
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 55.37	National Grid Co-ordinate: E:446674.7 N:324413.8	Sheet: 2 of 4



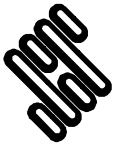
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP37
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 55.37	National Grid Co-ordinate: E:446674.7 N:324413.8	Sheet: 3 of 4



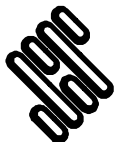
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP37
Contract Ref: 765514	Start: 21.09.22 End: 21.09.22	Ground Level (m AOD): 55.37	National Grid Co-ordinate: E:446674.7 N:324413.8	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKalaher	Checked By: RL	



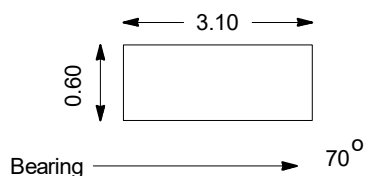
STRUCTURAL SOILS

TRIAL PIT LOG

Contract: EMG Phase 2			Client: SEGRO		Trial Pit: TP39
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 55.65	National Grid Co-ordinate: E:446595.2 N:324433.4		Sheet: 1 of 4

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
0.15	1	ES				TOPSOIL		(0.30)	
0.15	2	D					55.35	0.30	
0.15-0.25	3	B							
0.40	4	ES				Very stiff dark brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of quartzite and mudstone.	55.10	0.55	
0.40	5	D							
0.40-0.50	6	B				Firm to stiff thinly to thickly laminated dark brown slightly sandy CLAY. Sand is fine to coarse.			
0.70	7	ES				. . . 0.80m: Stiff greyish brown.		(0.65)	
0.70	8	D							
0.70-0.80	9	B					54.45	1.20	
1.30	10	ES				Firm dark greyish brown and reddish brown slightly sandy gravelly silty CLAY with frequent pockets (up to 40mm) and laminae (up to 20mm) of yellow and orange silt. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of quartzite.		(0.40)	
1.30	11	D					54.05	1.60	
1.30-1.40	12	B				Firm to stiff dark reddish brown mottled light grey slightly sandy CLAY with frequent mudstone lithorelicts (up to 30x30mm) and occasional very thin beds (up to 30mm) of extremely weak to very weak light grey siltstone. (MERCIA MUDSTONE GROUP)		(1.20)	
1.80	13	ES							
1.80	14	D					52.85	2.80	
1.80-1.90	15	B							
2.90	16	ES				Firm to stiff friable dark reddish brown slightly sandy silty CLAY with abundant mudstone lithorelicts (up to 60x60x30mm). (MERCIA MUDSTONE GROUP)		(0.80)	
2.90	17	D				. . . 3.00m: With frequent very thin beds (<50mm) of mudstone and siltstone.			
2.90-3.00	18	B					52.05	3.60	
						Trial pit terminated at 3.60m depth.			

Plan (Not to Scale)



General Remarks

1. All faces similar and stable.
2. Water strike at 2.80m rising to 2.63m after 20 minutes.

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

Tracked excavator

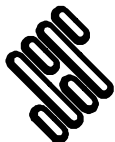
Logged By:

GKavanagh

Checked By:

AS

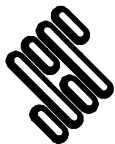




Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP39
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 55.65	National Grid Co-ordinate: E:446595.2 N:324433.4	Sheet: 2 of 4



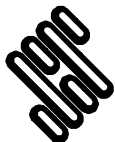
Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKavanagh	Checked By: AS	



Contract: EMG Phase 2		Client: SEGRO		Trial Pit: TP39
Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 55.65	National Grid Co-ordinate: E:446595.2 N:324433.4	Sheet: 3 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKavanagh	Checked By: AS	



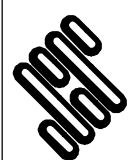
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Contract Ref: 765514	Start: 26.09.22 End: 26.09.22	Ground Level (m AOD): 55.65	National Grid Co-ordinate: E:446595.2 N:324433.4	Sheet: 4 of 4



Method Used: Machine dug	Plant Used: Tracked excavator	Logged By: GKavanagh	Checked By: AS	

SUMMARY OF INSTALLATION AND PIEZOMETER CHARACTERISTICS

Exploratory Position ID	Pipe Caption	Cover Level (m)	Pipe Top Level (m)	Ground Level (m AOD)	Length of Pipe (m)	Piezometer Depth (m)	Response Zone Top (m)	Response Zone Base (m)	Slotted Pipe Top (m)	Slotted Pipe Base (m)	Pipe Internal Diameter (mm)	Targetted Ground	Remarks
BH01	---	---	---	89.22	7.00	---	1.00	7.00	1.00	7.00	50	---	
BH02	NA	---	---	90.55	20.00	---	4.00	20.00	4.00	20.00	50	---	
BH04	NA	---	---	87.21	30.00	---	6.00	30.30	6.00	30.00	50	---	
BH04	NA	---	---	87.21	2.50	---	1.00	2.50	1.00	2.50	50	---	
BH05	---	---	---	87.17	7.00	---	5.00	7.00	5.00	7.00	50	---	
BH06	NA	---	---	80.29	30.80	---	18.00	30.80	18.00	30.80	50	---	
BH09	Deep	---	---	74.23	18.00	---	14.00	18.00	14.00	18.00	50	---	
BH09	Shallow	---	---	74.23	12.50	---	7.00	12.50	7.00	12.50	19	---	
BH10	---	---	---	87.35	20.20	---	3.00	20.20	3.00	20.20	50	---	
BH11	---	---	---	79.89	31.00	---	13.00	31.00	13.00	31.00	50	---	



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Contract Ref:



AJONES

05.05.23

765514

Contract:

EMG Phase 2

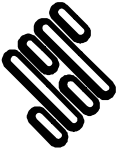
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1 of **4**



SUMMARY OF INSTALLATION AND PIEZOMETER CHARACTERISTICS

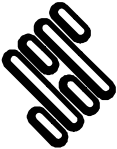
Exploratory Position ID	Pipe Caption	Cover Level (m)	Pipe Top Level (m)	Ground Level (m AOD)	Length of Pipe (m)	Piezo meter Depth (m)	Response Zone Top (m)	Response Zone Base (m)	Slotted Pipe Top (m)	Slotted Pipe Base (m)	Pipe Internal Diameter (mm)	Targetted Ground	Remarks
BH12	NA	---	---	80.23	30.80	---	16.00	30.80	16.00	30.80	50	---	
BH13	---	---	---	88.03	30.00	---	8.00	30.00	8.00	30.00	50	---	
BH14	NA	---	---	84.68	11.50	---	1.00	11.50	1.00	11.50	50	---	
BH16	---	---	---	73.98	20.00	---	2.00	20.00	2.00	20.00	50	---	
BH17	---	---	---	74.45	4.50	---	1.00	4.50	1.00	4.50	50	---	
BH18	---	---	---	77.62	16.00	---	4.50	16.00	4.50	16.00	50	---	
BH21	---	---	---	75.56	30.00	---	5.00	30.00	5.00	30.00	50	---	
BH23	---	---	---	70.77	8.00	---	1.00	8.00	1.00	8.00	50	---	

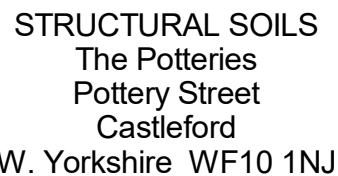
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
			AJONES	05.05.23	
	Contract: EMG Phase 2				Page: 2 of 4



SUMMARY OF INSTALLATION AND PIEZOMETER CHARACTERISTICS

Exploratory Position ID	Pipe Caption	Cover Level (m)	Pipe Top Level (m)	Ground Level (m AOD)	Length of Pipe (m)	Piezometer Depth (m)	Response Zone Top (m)	Response Zone Base (m)	Slotted Pipe Top (m)	Slotted Pipe Base (m)	Pipe Internal Diameter (mm)	Targetted Ground	Remarks
BH24	---	---	---	67.02	5.00	---	1.00	5.00	1.00	5.00	50	---	
BH25	---	---	---	63.15	20.00	---	4.00	20.00	4.00	20.00	50	---	
BH27	---	---	---	59.09	4.00	---	1.00	4.00	1.00	4.00	50	---	
CP01	---	---	---	91.40	7.50	---	1.00	7.81	1.00	7.50	50	---	
CP06	---	---	---	87.01	11.00	---	1.00	11.26	1.00	11.00	50	---	
CP10	Deep	---	---	75.02	8.50	---	1.00	8.60	1.00	8.50	50	---	
CP11	---	---	---	68.97	6.20	---	1.00	6.20	1.00	6.20	50	---	
CP16	Deep	---	---	77.24	9.00	---	5.75	9.10	5.75	9.00	50	---	
CP17	NA	---	---	82.31	17.00	---	14.00	17.21	14.00	17.00	50	---	

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
			AJONES	05.05.23	
	Contract: EMG Phase 2				

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Date _____

765514

EMG Phase 2

4 of 4



APPENDIX C - IN-SITU TESTING

- (i) Standard Penetration Test (SPT) Summary Sheet
- (ii) Permeability Test Results
- (iii) Soakaway Test Results

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH01	2.00	200	1.50	Dry	3,4	150	5,6,12,13		N=36	AR3104-2022	25/04/2022	64	38	
	3.00	200	3.00	Dry	6,10	150	12,13,13,13		N=51	AR3104-2022	25/04/2022	64	54	
	4.00	200	3.00	Dry	6,8	150	13,15,18,20		N=66	AR3104-2022	25/04/2022	64	70	
	6.75	146	4.45	6.10	4,10	150	14,23,25,29		N=91	AR3830-2021	19/11/2021	67	102	
BH02	2.00	200	1.50	Dry	4,6	150	8,8,9,10		N=35	AR3104-2022	25/04/2022	64	37	
	3.00	200	3.00	Dry	6,8	150	16,19,15+	210	6,8/16,19,15	AR3104-2022	25/04/2022	64		
									for 60mm					
	4.00	200	3.00	Dry	3,8	150	12,14,14,10+	265	3,8/12,14,14,10	AR3104-2022	25/04/2022	64		
									for 40mm					
	6.50	146	4.00	6.00	3,4	150	7,8,11,15		N=41	AR3830-2021	19/11/2021	67	46	
BH03	1.00	200	0.00	Dry	4,6	150	6,6,6,7		N=25	AR3104-2022	25/04/2022	64	27	
	2.00	200	1.50	Dry	4,6	150	7,8,8,8		N=31	AR3104-2022	25/04/2022	64	33	
	3.00	200	3.00	Dry	6,8	150	8,15,15,12+	285	6,8/8,15,15,12	AR3104-2022	25/04/2022	64		
									for 60mm					
	4.00	200	3.00	Dry	4,5	150	12,15,17,6+	240	4,5/12,15,17,6	AR3104-2022	25/04/2022	64		
									for 15mm					

Notes:

- Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
- Reported blows are for 75mm penetration unless indicated "+".
- Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
- Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
- Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 1 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH04	1.20	200	0.00	Dry	3,3	150	4,4,5,4		N=17	AR3104-2022	25/04/2022	64	18	
	3.00	200	3.00	Dry	4,8	150	8,9,9,10		N=36	AR3104-2022	25/04/2022	64	38	
	4.00	200	3.00	Dry	4,8	150	10,18,22	225	4,8/10,18,22	AR3104-2022	25/04/2022	64		
									for 75mm					
	5.00	200	3.00	Dry	15,10	125	18,21,11+	185	15,10/18,21,11	AR3104-2022	25/04/2022	64		
									for 35mm					
BH05	1.20	200	0.00	Dry	3,3	150	4,4,4,5		N=17	AR3104-2022	25/04/2022	64	18	
	3.00	200	3.00	Dry	3,4	150	20,30	150	3,4/20,30	AR3104-2022	25/04/2022	64		
									for 75mm					
	4.00	200	4.00	Dry	11,14	135	26,24+	120	11,14/26,24	AR3104-2022	25/04/2022	64		SPT(c)
									for 45mm					
	5.00	200	5.00	Dry	5,6	150	10,9,10,10		N=39	AR3104-2022	25/04/2022	64	42	SPT(c)
	6.00	200	6.00	Dry	3,4	150	4,6,6,7		N=23	AR3104-2022	25/04/2022	64	25	
	7.50	200	7.50	Dry	10,10	150	9,15,15,11+	270	10,10/9,15,15,11	AR3104-2022	25/04/2022	64		
									for 45mm					
	9.00	200	9.00	Dry	13,12	150	21,29+	145	13,12/21,29	AR3104-2022	25/04/2022	64		
									for 70mm					
	9.50	200	9.00	Dry	13,12	115	32,18+	115	13,12/32,18	AR3104-2022	25/04/2022	64		SPT(c)

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
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4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 2 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 40mm					
	10.00	200	9.00	Dry	5,7	150	12,18,20+	190	5,7/12,18,20	AR3293-2022	09/09/2022	73		
									for 40mm					
	13.00	200	9.00	Dry	3,5	150	5,6,9,15		N=35	AR3293-2022	09/09/2022	73	43	
	13.50	200	9.00	Dry	7,12	150	18,32+	135	7,12/18,32	AR3293-2022	09/09/2022	73		
									for 60mm					
	14.00	200	9.00	Dry	25	50	50+	40	25/50	AR3293-2022	09/09/2022	73		
									for 40mm					
	15.00	200	9.00	Dry	25	70	50+	50	25/50	AR3293-2022	09/09/2022	73		
									for 50mm					
BH06	2.00	200	1.50	Dry	3,4	150	4,3,4,5		N=16	AR3104-2022	25/04/2022	64	17	
	4.00	200	3.00	Dry	3,2	150	3,3,4,5		N=15	AR3104-2022	25/04/2022	64	16	
	6.00	200	6.00	Dry	4,3	150	4,4,5,5		N=18	AR3104-2022	25/04/2022	64	19	
	9.00	200	9.00	Dry	3,4	150	5,7,9,9		N=30	AR3104-2022	25/04/2022	64	32	
	12.00	200	12.00	Dry	4,4	150	6,6,8,7		N=27	AR3104-2022	25/04/2022	64	29	
	15.00	200	15.00	Dry	5,6	150	6,9,10,10		N=35	AR3104-2022	25/04/2022	64	37	
	18.00	200	16.50	Dry	10,15	125	24,26+	135	10,15/24,26	AR3104-2022	25/04/2022	64		
									for 60mm					

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
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$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 3 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH06	18.50	200	16.50	Dry	8,17	115	34,16+	105	8,17/34,16	AR3104-2022	25/04/2022	64		
									for 30mm					
BH07	1.20	200	1.20	Dry	3,5	150	8,8,9,11		N=36	JB14-2022	16/06/2022	63	38	
	2.00	200	1.50	Dry	5,8	150	9,11,14,15		N=49	JB14-2022	16/06/2022	63	51	
	3.00	200	3.00	Dry	5,7	150	9,12,13,16		N=50	JB14-2022	16/06/2022	63	52	
	4.00	200	3.00	Dry	11,14	133	19,24,7+	178	11,14/19,24,7	JB14-2022	16/06/2022	63		
									for 28mm					
	4.50	200	3.00	Dry	19,6	93	42,8+	80	19,6/42,8	JB14-2022	16/06/2022	63		
									for 5mm					
BH08	1.20	200	1.20	Dry	2,3	150	6,7,8,10		N=31					
	3.00	200	1.50	Dry	4,6	150	7,9,9,10		N=35					
	5.00	200	3.00	Dry	3,5	150	6,8,10,11		N=35					
	6.00	200	3.00	Dry	5,8	150	9,12,16,13		N=50					
	7.00	200	3.00	Dry	8,13	150	17,19,14+	190	8,13/17,19,14					
									for 40mm					
	8.00	200	3.00	Dry	11,14	137	18,23,9+	164	11,14/18,23,9					
									for 14mm					
BH08	26.00	150	8.00		25	70	50+	60	25/50					

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$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 4 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 60mm					
BH09	1.20	200	1.20	Dry	1,2	150	2,2,3,3		N=10	JB14-2022	16/06/2022	63	10	
	3.00	200	1.50	Dry	2,2	150	3,3,4,5		N=15	JB14-2022	16/06/2022	63	16	
	5.00	200	4.50	3.95	1,1	150	2,2,1,2		N=7	JB14-2022	16/06/2022	63	7	
	6.00	200	6.00	5.20	1,2	150	5,8,9,11		N=33	JB14-2022	16/06/2022	63	35	
	7.00	200	6.00	6.40	3,4	150	6,9,11,14		N=40	JB14-2022	16/06/2022	63	42	
	8.00	200	7.50	7.10	8,17	136	17,23,10+	189	8,17/17,23,10	JB14-2022	16/06/2022	63		
									for 39mm					
	9.00	200	7.50	8.65	15,10	134	24,26+	145	15,10/24,26	JB14-2022	16/06/2022	63		
									for 70mm					
BH10	1.20	150	0.00	Dry	3,3	150	3,4,4,8		N=19	LS01-2022	06/05/2022	64	20	
	2.20	150	0.00	Dry	8,10	150	10,11,16,13+	265	8,10/10,11,16,13	LS01-2022	06/05/2022	64		
									for 40mm					
BH11	2.00	200			1,2	150	5,5,4,6		N=20	JB05-2022	25/08/2022	68	23	
	4.00	200			1,2	150	4,5,6,9		N=24	JB05-2022	25/08/2022	68	27	
	6.00	200			2,3	150	5,5,7,10		N=27	JB05-2022	25/08/2022	68	31	
	9.00	200			4,10	150	10,11,12,17		N=50	JB05-2022	25/08/2022	68	57	
	9.60	200			10,13	150	15,15,12,8+	270	10,13/15,15,12,8	JB05-2022	25/08/2022	68		

Notes:

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4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 5 of 26 

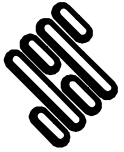
STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 45mm					
	11.00	200			10,15	115	40,10+	100	10,15/40,10	JB05-2022	25/08/2022	68		
									for 25mm					
	12.50	200			12,13	150	24,19,7+	165	12,13/24,19,7	JB05-2022	25/08/2022	68		
									for 15mm					
BH12	2.00	200	1.50	Dry	2,3	150	2,4,4,4		N=14	AR3104-2022	25/04/2022	64	15	
	4.00	200	3.00	Dry	3,2	150	3,4,4,4		N=15	AR3104-2022	25/04/2022	64	16	
	6.00	200	4.50	Dry	1,3	150	4,6,7,7		N=24	AR3104-2022	25/04/2022	64	26	
	9.00	200	9.00	Dry	4,5	150	4,6,7,8		N=25	AR3104-2022	25/04/2022	64	27	
	12.00	200	12.00	Dry	5,7	150	7,20,23+	220	5,7/7,20,23	AR3104-2022	25/04/2022	64		
									for 70mm					
	13.50	200	13.50	Dry	7,9	150	16,23,11+	190	7,9/16,23,11	AR3104-2022	25/04/2022	64		
									for 40mm					
	15.00	200	15.00	13.10	6,5	150	9,9,12,11		N=41	AR3104-2022	25/04/2022	64	44	
	16.50	200	16.50	14.20	7,9	150	50+	70	7,9/50	AR3104-2022	25/04/2022	64		
									for 70mm					
	16.70	200	16.50	16.20	25	60	50	75	25/50	AR3104-2022	25/04/2022	64		
									for 75mm					

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 6 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH13	1.20	200	0.00	Dry	4,5	150	6,4,5,5		N=20	AR3104-2022	25/04/2022	64	21	
	2.00	200	1.50	Dry	2,1	150	2,2,1,2		N=7	AR3104-2022	25/04/2022	64	7	
	4.00	200	3.00	Dry	3,2	150	3,5,6,6		N=20	AR3104-2022	25/04/2022	64	21	
	6.00	200	6.00	Dry	6,6	150	7,8,7,7		N=29	AR3104-2022	25/04/2022	64	31	
	7.50	200	7.50	Dry	6,6	150	9,12,15,14+	295	6,6/9,12,15,14	AR3104-2022	25/04/2022	64		
									for 70mm					
	9.00	200	7.50	8.00	8,12	150	14,16,20	225	8,12/14,16,20	AR3104-2022	25/04/2022	64		
									for 75mm					
BH14	2.00	200	1.50	Dry	1,2	150	3,2,3,4		N=12	AR3104-2022	25/04/2022	64	13	
	4.00	200	3.00	Dry	7,8	150	9,8,6,8		N=31	AR3104-2022	25/04/2022	64	33	
	5.00	200	4.50	Dry	6,5	150	4,3,4,4		N=15	AR3104-2022	25/04/2022	64	16	
	6.00	200	6.00	Dry	6,7	150	8,10,9,10		N=37	AR3104-2022	25/04/2022	64	39	
	7.50	200	7.50	Dry	5,6	150	6,8,9,9		N=32	AR3104-2022	25/04/2022	64	34	
	9.00	200	9.00	8.80	5,4	150	5,5,10,11		N=31	AR3104-2022	25/04/2022	64	33	
	10.50	200	10.50	10.30	3,5	150	7,8,7,7		N=29	AR3104-2022	25/04/2022	64	31	
	12.00	200	12.00	9.50	3,6	150	10,11,15,14+	280	3,6/10,11,15,14	AR3104-2022	25/04/2022	64		
									for 55mm					
BH14	12.50	200	12.00	10.10	13,12	125	24,26+	140	13,12/24,26	AR3104-2022	25/04/2022	64		

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 7 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 65mm					
BH15	2.00	200	1.50	Dry	3,4	150	6,7,6,11		N=30	AR3104-2022	25/04/2022	64	32	
	3.00	200	3.00	Dry	10,10	150	10,6,7,7		N=30	AR3104-2022	25/04/2022	64	32	
	4.00	200	4.00	3.00	4,6	150	8,7,8,9		N=32	AR3104-2022	25/04/2022	64	34	SPT(c)
	5.00	200	4.50	4.00	8,7	150	8,9,8,8		N=33	AR3104-2022	25/04/2022	64	35	SPT(c)
	6.00	200	6.00	5.20	4,6	150	7,7,10,9		N=33	AR3104-2022	25/04/2022	64	35	SPT(c)
	7.50	200	7.50	5.40	4,5	150	6,6,7,7		N=26	AR3104-2022	25/04/2022	64	28	
	9.00	200	9.00	8.20	4,5	150	7,26,17+	170	4,5/7,26,17	AR3104-2022	25/04/2022	64		
									for 20mm					
	10.50	200	10.50	10.00	4,6	150	5,6,4,8		N=23	AR3104-2022	25/04/2022	64	25	
	12.00	200	12.00	9.20	4,7	150	6,4,16,10		N=36	AR3104-2022	25/04/2022	64	38	
	13.50	200	13.50	12.10	3,4	150	19,31	150	3,4/19,31	AR3104-2022	25/04/2022	64		
									for 75mm					
	13.80	200	13.50	Dry	25	75	26,24+	145	25/26,24	AR3104-2022	25/04/2022	64		
									for 70mm					
BH16	2.00	200	1.50	Dry	3,5	150	7,8,8,9		N=32	AR3104-2022	25/04/2022	64	34	
	3.00	200	3.00	Dry	9,9	150	9,13,16,12+	280	9,9/9,13,16,12	AR3104-2022	25/04/2022	64		
									for 55mm					

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref:
				05.05.23	
	Contract: EMG Phase 2				Page: 8 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH16	4.00	200	3.00	Dry	9,12	150	16,18,16+	210	9,12/16,18,16	AR3104-2022	25/04/2022	64		
									for 60mm					
BH17	2.00	200	1.50	Dry	2,3	150	2,3,4,4		N=13	AR3104-2022	25/04/2022	64	14	
	3.00	200	3.00	Dry	3,3	150	4,3,4,5		N=16	AR3104-2022	25/04/2022	64	17	
	4.00	200	4.00	Dry	6,10	150	12,13,13,12+	285	6,10/12,13,13,12	AR3104-2022	25/04/2022	64		
									for 60mm					
	5.00	200	4.50	Dry	6,6	150	6,10,11,12		N=39	AR3104-2022	25/04/2022	64	42	
	5.50	200	4.50	Dry	8,12	150	15,21,14+	190	8,12/15,21,14	AR3104-2022	25/04/2022	64		
									for 40mm					
	6.00	200	4.50	Dry	12,13	135	19,24,7+	165	12,13/19,24,7	AR3104-2022	25/04/2022	64		
									for 15mm					
	16.50	150	6.00		25	60	50+	50	25/50	AR3784-2022	09/09/2022	71		
									for 50mm					
BH18	1.20	200	1.20	Dry	2,3	150	3,4,5,6		N=18	JB14-2022	16/06/2022	63	19	
	3.00	200	1.50	Dry	3,3	150	4,5,7,7		N=23	JB14-2022	16/06/2022	63	24	
	5.00	200	4.50	Dry	4,5	150	6,8,8,9		N=31	JB14-2022	16/06/2022	63	33	
	6.00	200	6.00	Dry	3,6	150	8,10,11,14		N=43	JB14-2022	16/06/2022	63	45	
	7.00	200	6.00	Dry	8,12	150	14,19,17+	211	8,12/14,19,17	JB14-2022	16/06/2022	63		

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 9 of 26 

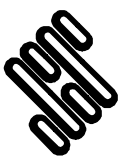
STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 61mm					
	7.50	200	6.00	Dry	10,13	150	18,26,6+	175	10,13/18,26,6	JB14-2022	16/06/2022	63		
									for 25mm					
	8.00	200	6.00	6.10	8,10	150	11,15,24	225	8,10/11,15,24	JB14-2022	16/06/2022	63		
									for 75mm					
	9.00	200	6.00	6.35	18,7	96	31,19+	117	18,7/31,19	JB14-2022	16/06/2022	63		
									for 42mm					
BH19	2.00	200	1.50	Dry	3,4	150	6,7,7,7		N=27	AR3104-2022	25/04/2022	64	29	
	3.00	200	3.00	Dry	6,7	150	10,13,13,14+	290	6,7/10,13,13,14	AR3104-2022	25/04/2022	64		
									for 65mm					
	4.00	200	3.00	Dry	10,13	150	13,13,13,11+	285	10,13/13,13,13,11	AR3104-2022	25/04/2022	64		
									for 60mm					
	5.00	200	5.00	Dry	8,12	150	13,16,16,5+	240	8,12/13,16,16,5	AR3104-2022	25/04/2022	64		
									for 15mm					
	6.50	200	5.00	Dry	5,7	150	10,14,16,10+	250	5,7/10,14,16,10	AR3104-2022	25/04/2022	64		No Sample number given
									for 25mm					
	8.00	200	5.00	Dry	2,10	150	19,31+	145	2,10/19,31	AR3104-2022	25/04/2022	64		No Sample number given
									for 70mm					

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 10 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH20	1.20	200	0.00	Dry	2,3	150	4,4,3,4		N=15	AR3104-2022	25/04/2022	64	16	
	3.00	200	3.00	Dry	3,5	150	7,7,8,8		N=30	AR3104-2022	25/04/2022	64	32	
	4.00	200	4.00	Dry	7,9	150	10,13,18,9+	255	7,9/10,13,18,9	AR3104-2022	25/04/2022	64		
									for 30mm					
	5.00	200	4.50	Dry	12,13	150	16,21,17+	205	12,13/16,21,17	AR3104-2022	25/04/2022	64		
									for 55mm					
BH21	1.20	200	0.00	Dry	2,3	150	3,4,3,4		N=14	AR3104-2022	25/04/2022	64	15	
	3.00	200	3.00	Dry	5,10	150	10,13,18,9+	245	5,10/10,13,18,9	AR3104-2022	25/04/2022	64		
									for 20mm					
	4.00	200	3.00	Dry	6,8	150	13,20,17+	215	6,8/13,20,17	AR3104-2022	25/04/2022	64		
									for 65mm					
BH22	2.00	200	1.50	Dry	3,2	150	3,4,7,8		N=22	AR3104-2022	25/04/2022	64	23	
	3.00	200	3.00	Dry	8,8	150	10,18,18,4+	235	8,8/10,18,18,4	AR3104-2022	25/04/2022	64		
									for 10mm					
	4.00	200	3.00	Dry	5,11	150	14,26,10+	215	5,11/14,26,10	AR3104-2022	25/04/2022	64		
									for 65mm					
BH23	2.00	200	1.50	Dry	4,6	150	7,10,10,13		N=40	AR3104-2022	25/04/2022	64	43	
	2.50	200	2.50	Dry	8,12	150	13,14,23	225	8,12/13,14,23	AR3104-2022	25/04/2022	64		

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 11 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 75mm					
	3.00	200	3.00	Dry	9,14	150	15,17,18+	220	9,14/15,17,18	AR3104-2022	25/04/2022	64		
									for 70mm					
	6.80	200	4.00		2,9	150	11,14,25+	220	2,9/11,14,25	AR3104-2022	25/04/2022	64		
									for 70mm					
	12.30	200	4.00		25	70	50+	60	25/50	AR3104-2022	25/04/2022	64		
									for 60mm					
BH24	1.20	200	1.20		3,4	150	6,12,14,17		N=49	JB14-2022	16/06/2022	63	51	
	2.00	200	1.50	Dry	6,11	150	11,10,12,12		N=45	JB14-2022	16/06/2022	63	47	
	3.00	200	1.50	Dry	3,9	150	14,23,13+	193	3,9/14,23,13	JB14-2022	16/06/2022	63		
									for 43mm					
	3.50	200	1.50	Dry	7,15	150	26,24+	125	7,15/26,24	JB14-2022	16/06/2022	63		
									for 50mm					
	11.80	200	3.50	Dry	26	65	50+	20	26/50	JB14-2022	16/06/2022	63		
									for 20mm					
BH25	1.20	200	1.20	Dry	1,1	150	2,4,4,5		N=15	JB14-2022	16/06/2022	63	16	
	2.00	200	1.50	Dry	2,3	150	4,4,5,6		N=19	JB14-2022	16/06/2022	63	20	
	3.00	200	1.50	Dry	5,18	150	18,18,14+	207	5,18/18,18,14	JB14-2022	16/06/2022	63		

Notes:

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- Reported blows are for 75mm penetration unless indicated "+".
- Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
- Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
- Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 12 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 57mm					
	3.50	200	1.50	Dry	7,18	140	21,29+	147	7,18/21,29	JB14-2022	16/06/2022	63		
									for 72mm					
	12.50	200	3.50	Dry	25	35	50+	45	25/50	JB14-2022	16/06/2022	63		
									for 45mm					
BH26	1.20	200	1.20	Dry	2,3	150	4,5,7,9		N=25	JB14-2022	16/06/2022	63	26	
	3.00	200	1.50	Dry	1,4	150	11,7,7,7		N=32	JB14-2022	16/06/2022	63	34	
	4.50	200	1.50	Dry	8,14	150	28,22+	126	8,14/28,22	JB14-2022	16/06/2022	63		
									for 51mm					
	5.00	200	1.50	Dry	19,6	86	39,11+	83	19,6/39,11	JB14-2022	16/06/2022	63		
									for 8mm					
BH27	1.20	150	0.00	Dry	1,2	150	2,2,2,3		N=9	LS01-2022	06/05/2022	64	10	
	2.20	150	2.00	Dry	6,8	150	12,21,17+	180	6,8/12,21,17	LS01-2022	06/05/2022	64		
									for 30mm					
	4.90	150	2.00	Dry	17,8	90	50+	50	17,8/50	LS01-2022	06/05/2022	64		
									for 50mm					
CP01	1.20	150		Dry	3,3	150	4,3,6,5		N=18	JB05-2022	25/08/2022	68	20	
	2.00	150		Dry	2,4	150	6,7,8,9		N=30	JB05-2022	25/08/2022	68	34	

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 13 of 26 

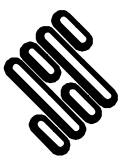
STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP01	3.00	150		Dry	13,12	150	18,22,10+	155	13,12/18,22,10	JB05-2022	25/08/2022	68		
									for 5mm					
	4.00	150		Dry	4,6	150	10,12,12,16		N=50	JB05-2022	25/08/2022	68	57	
	5.00	150		Dry	6,10	150	10,10,20,10+	230	6,10/10,10,20,10	JB05-2022	25/08/2022	68		
									for 5mm					
	6.00	150		Dry	6,8	150	10,11,12,16		N=49	JB05-2022	25/08/2022	68	56	
	7.50	150		Dry	6,8	150	17,23,10+	155	6,8/17,23,10	JB05-2022	25/08/2022	68		
									for 5mm					
CP02	1.20				3,7	150	5,5,5,6		N=21	JB05-2022	25/08/2022	68	24	
	3.00	150			5,5	150	13,13,15,9+	260	5,5/13,13,15,9	JB05-2022	25/08/2022	68		
									for 35mm					
	5.00	150			5,7	150	12,28,10+	155	5,7/12,28,10	JB05-2022	25/08/2022	68		
									for 5mm					
	6.00	150			8,14	150	25,25,25+	220	8,14/25,25,25	JB05-2022	25/08/2022	68		
									for 70mm					
	7.50	150			25	75	75+	55	25/75	JB05-2022	25/08/2022	68		
									for 55mm					
CP03	1.20	150			2,3	150	2,4,5,5		N=16	JB05-2022	25/08/2022	68	18	

Notes:

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$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 14 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP03	3.00	150			3,7	150	10,13,13,17		N=53	JB05-2022	25/08/2022	68	60	
	5.00	150			3,7	150	8,10,13,14		N=45	JB05-2022	25/08/2022	68	51	
	6.00	150			2,7	150	8,13,15,24		N=60	JB05-2022	25/08/2022	68	68	
	7.00	150			8,15	150	40,60+	95	8,15/40,60	JB05-2022	25/08/2022	68		
									for 20mm					
	7.30	150			13,12	150	20,40,15+	160	13,12/20,40,15	JB05-2022	25/08/2022	68		
									for 10mm					
CP04	1.20	150			1,2	150	2,3,3,3		N=11	JB05-2022	25/08/2022	68	12	
	3.00	150			1,2	150	3,4,6,6		N=19	JB05-2022	25/08/2022	68	22	
	5.00	150			3,4	150	6,7,10,12		N=35	JB05-2022	25/08/2022	68	40	
	7.00	150			4,6	150	6,8,11,12		N=37	JB05-2022	25/08/2022	68	42	
	8.00	150			3,4	150	7,8,9,11		N=35	JB05-2022	25/08/2022	68	40	
	9.00	150			3,4	150	7,8,9,10		N=34	JB05-2022	25/08/2022	68	39	
	10.00	150			4,6	150	7,8,9,11		N=35	JB05-2022	25/08/2022	68	40	
	11.00	150			4,6	150	7,7,8,12		N=34	JB05-2022	25/08/2022	68	39	
	12.00	150			4,7	150	11,13,20,23		N=67	JB05-2022	25/08/2022	68	76	
	13.00	150			7,11	150	13,15,30,40		N=98	JB05-2022	25/08/2022	68	111	
	14.00	150			5,12	150	15,20,20,20		N=75	JB05-2022	25/08/2022	68	85	

Notes:

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4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 15 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP04	15.00	150			5,8	150	10,13,15,20		N=58	JB05-2022	25/08/2022	68	66	
	16.50	150			5,7	150	11,12,23,42		N=88	JB05-2022	25/08/2022	68	100	
CP05	2.00	150	2.00	Dry	4,9	150	9,13,13,15+	295	4,9/9,13,13,15	DS5-1-22	10/01/2022	61		
									for 70mm					
	3.00	150	3.00	Dry	6,11	150	13,12,12,13+	290	6,11/13,12,12,13	DS5-1-22	10/01/2022	61		
									for 65mm					
	4.00	150	4.00	Dry	4,6	150	14,15,17,6+	235	4,6/14,15,17,6	DS5-1-22	10/01/2022	61		
									for 10mm					
	5.00	150	5.00	Dry	8,10	150	15,31,4+	150	8,10/15,31,4	DS5-1-22	10/01/2022	61		
									for 0mm					
	6.00	150	6.00	Dry	10,15	150	36,14+	100	10,15/36,14	DS5-1-22	10/01/2022	61		
									for 25mm					
	6.20	150	6.20	Dry	25	75	38,62+	135	25/38,62	DS5-1-22	10/01/2022	61		
									for 60mm					
CP06	2.00	150	2.00	Dry	4,4	150	4,6,6,7		N=23	DS5-1-22	10/01/2022	61	23	
	4.00	150	4.00	Dry	4,5	150	7,7,8,8		N=30	DS5-1-22	10/01/2022	61	30	
	6.00	150	6.00	Dry	6,7	150	7,9,10,11		N=37	DS5-1-22	10/01/2022	61	38	

Notes:

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 16 of 26 

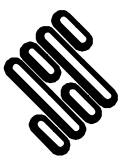
STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP06	9.00	150	9.00	8.50	12,13	150	20,24,12,10		N=66	DS5-1-22	10/01/2022	61	67	
	10.50	150	1.50	Dry	12,12	150	24,51,20+	180	12,12/24,51,20	DS5-1-22	10/01/2022	61		
									for 30mm					
	11.00	150	11.00	Dry	12,14	135	29,71+	125	12,14/29,71	DS5-1-22	10/01/2022	61		
									for 50mm					
CP07	2.50	200	1.50	Dry	3,4	150	4,5,5,6		N=20	AR3104-2022	25/04/2022	64	21	
	4.50	200	4.50	Dry	3,4	150	5,5,5,6		N=21	AR3104-2022	25/04/2022	64	22	
	7.50	200	7.50	Dry	3,4	150	4,5,5,6		N=20	AR3104-2022	25/04/2022	64	21	
	10.50	200	9.00	Dry	5,7	150	9,11,11,12		N=43	AR3104-2022	25/04/2022	64	46	
	13.50	200	9.00	8.40	21,4	85	32,40,28+	190	21,4/32,40,28	AR3104-2022	25/04/2022	64		
									for 40mm					
	14.00	200	9.00	8.10	25	70	54,46+	135	25/54,46	AR3104-2022	25/04/2022	64		
									for 60mm					
CP08	4.00	150	3.80	Dry	3,3	150	5,5,6,7		N=23	AR3469-2022	04/08/2022	84	32	
	6.00	150	4.50	Dry	2,4	150	4,7,7,7		N=25	AR3469-2022	04/08/2022	84	35	
	7.50	150	4.50	Dry	3,5	150	5,6,8,8		N=27	AR3469-2022	04/08/2022	84	38	
	9.00	150	8.80	5.80	6,7	150	10,9,9,9		N=37	AR3469-2022	04/08/2022	84	52	
	9.90	150	9.70	7.90	4,10	150	13,28,9+	170	4,10/13,28,9	AR3469-2022	04/08/2022	84		

Notes:

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5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 17 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 20mm					
	11.00	150	10.50	8.00	5,5	150	7,21,22,19		N=69	AR3469-2022	04/08/2022	84	97	
	11.50	150	11.30	10.00	10,13	150	19,24,32,25+	255	10,13/19,24,32,25	AR3469-2022	04/08/2022	84		
									for 30mm					
	12.10	150	12.00	10.00	10,14	150	21,26,26,27+	250	10,14/21,26,26,27	AR3469-2022	04/08/2022	84		
									for 25mm					
	12.30	150	12.00	10.30	12,12	150	25,40,35+	180	12,12/25,40,35	AR3469-2022	04/08/2022	84		
									for 30mm					
CP09	1.20	150	1.20	Dry	1,2	150	2,2,3,4		N=11	DS5-1-22	10/01/2022	61	11	
	3.00	150	2.00	Dry	7,8	150	10,90+	135	7,8/10,90	DS5-1-22	10/01/2022	61		
									for 60mm					
	4.00	150	4.00	Dry	4,5	150	6,9,8,8		N=31	DS5-1-22	10/01/2022	61	32	
	5.00	150	5.00	Dry	3,3	150	4,6,6,6		N=22	DS5-1-22	10/01/2022	61	22	
	6.00	150	6.00	Dry	7,11	150	17,19,22,20		N=78	DS5-1-22	10/01/2022	61	79	
	7.50	150	7.50	Dry	7,8	150	11,5,21,44		N=81	DS5-1-22	10/01/2022	61	82	
	8.00	150	8.00	Dry	25	75	31,24,26,21+	285	25/31,24,26,21	DS5-1-22	10/01/2022	61		
									for 60mm					
CP09	8.40	150	8.40	Dry	25	20	26,32,34,8+	225	25/26,32,34,8	DS5-1-22	10/01/2022	61		

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 18 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 0mm					
CP10	1.50	150	1.50	Dry	3,4	150	4,5,7,9		N=25	AR1862-2022	01/04/2022	65	27	
	3.50	150	3.00	Dry	4,6	150	11,10,9,7		N=37	AR1862-2022	01/04/2022	65	40	
	6.00	150	6.00	Dry	25	45	100	75	25/100	AR1862-2022	01/04/2022	65		
									for 75mm					
	7.50	150	7.50	7.30	6,10	150	25,25,50+	180	6,10/25,25,50	AR1862-2022	01/04/2022	65		
									for 30mm					
	9.00	150	9.00	8.80	8,16	150	40,60+	140	8,16/40,60	AR1862-2022	01/04/2022	65		
									for 65mm					
	10.50	150	9.00	8.00	13,12	120	20,30,50+	220	13,12/20,30,50	AR1862-2022	01/04/2022	65		
									for 70mm					
CP11	1.20	150	1.70	Dry	2,3	150	3,6,10,10		N=29	DS5-1-22	10/01/2022	61	29	
	3.00	150	2.00	Dry	2,4	150	17,11,8,31		N=67	DS5-1-22	10/01/2022	61	68	
	4.00	150	4.00	Dry	9,12	150	15,16,26,37		N=94	DS5-1-22	10/01/2022	61	96	
	5.00	150	5.00	Dry	6,9	150	15,20,26,29		N=90	DS5-1-22	10/01/2022	61	92	
	6.00	150	6.00	Dry	9,7	150	13,15,27,45+	295	9,7/13,15,27,45	DS5-1-22	10/01/2022	61		
									for 70mm					
CP11	7.00	150	6.00	Dry	16,9	125	41,44,15+	160	16,9/41,44,15	DS5-1-22	10/01/2022	61		

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 19 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 10mm					
CP12	1.20	150	1.20	Dry	2,3	150	4,3,3,3		N=13	DS5-1-22	10/01/2022	61	13	
	3.00	150	3.00	Dry	2,2	150	2,2,2,2		N=8	DS5-1-22	10/01/2022	61	8	
	5.00	150	5.00	Dry	1,0	150	1,1,1,1		N=4	DS5-1-22	10/01/2022	61	4	
	6.00	150	6.00	Dry	7,6	150	6,10,10,10		N=36	DS5-1-22	10/01/2022	61	37	
	7.50	150	7.50	Dry	4,10	150	16,24,29,31+	285	4,10/16,24,29,31	DS5-1-22	10/01/2022	61		
									for 60mm					
	9.00	150	9.00	Dry	10,11	150	26,37,37+	210	10,11/26,37,37	DS5-1-22	10/01/2022	61		
									for 60mm					
CP13	1.50	200	1.50	Dry	2,1	150	2,3,3,2		N=10	AR3104-2022	25/04/2022	64	11	
	2.50	200	2.50	Dry	2,2	150	3,1,2,3		N=9	AR3104-2022	25/04/2022	64	10	
	3.50	200	3.00	2.00	3,3	150	4,3,3,2		N=12	AR3104-2022	25/04/2022	64	13	
	4.50	200	4.50	4.10	2,3	150	1,0,0,4		N=5	AR3104-2022	25/04/2022	64	5	SPT(c)
	6.00	200	6.00	4.10	1,2	150	5,6,10,10		N=31	AR3104-2022	25/04/2022	64	33	
	7.50	200	7.50	5.30	6,9	150	11,20,19+	210	6,9/11,20,19	AR3104-2022	25/04/2022	64		SPT(c)
									for 60mm					
	8.50	200	8.50	3.20	25	75	42,58+	145	25/42,58	AR3104-2022	25/04/2022	64		
									for 70mm					

Notes:

- Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
- Reported blows are for 75mm penetration unless indicated "+".
- Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
- Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
- Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 20 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP13	9.00	200	8.50	3.30	20,5	80	34,56,10+	160	20,5/34,56,10	AR3104-2022	25/04/2022	64		
									for 10mm					
CP14	2.00	200	2.00	Dry	3,3	150	4,4,4,4		N=16	AR3104-2022	25/04/2022	64	17	
	3.00	200	3.00	Dry	3,3	150	4,4,4,5		N=17	AR3104-2022	25/04/2022	64	18	
	4.00	200	4.00	Dry	3,3	150	4,7,7,8		N=26	AR3104-2022	25/04/2022	64	28	
	5.00	200	5.00	4.00	10,10	150	18,8,8,8		N=42	AR3104-2022	25/04/2022	64	45	SPT(c)
	6.00	200	6.00	Dry	6,10	150	10,13,15,17		N=55	AR3104-2022	25/04/2022	64	59	
	7.50	200	7.50	Dry	6,11	150	13,20,32,35+	295	6,11/13,20,32,35	AR3104-2022	25/04/2022	64		
									for 70mm					
	8.00	200	8.00	Dry	10,14	150	18,28,41,13+	245	10,14/18,28,41,13	AR3104-2022	25/04/2022	64		
									for 20mm					
CP15	2.00	150	2.00	Dry	2,3	150	2,2,2,3		N=9	DS5-1-22	10/01/2022	61	9	
	3.00	150	3.00	Dry	2,3	150	3,3,3,3		N=12	DS5-1-22	10/01/2022	61	12	
	4.00	150	4.00	Dry	8,10	150	12,15,18,30		N=75	DS5-1-22	10/01/2022	61	76	
	5.00	150	5.00	Dry	4,6	150	8,8,13,19		N=48	DS5-1-22	10/01/2022	61	49	
	6.00	150	6.00	Dry	6,8	150	8,9,8,13		N=38	DS5-1-22	10/01/2022	61	39	
	7.50	150	7.50	Dry	10,15	150	21,32,47+	210	10,15/21,32,47	DS5-1-22	10/01/2022	61		
									for 60mm					

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 21 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP15	8.00	150	8.00	Dry	14,11	85	30,48,22+	170	14,11/30,48,22+	DS5-1-22	10/01/2022	61		
									for 20mm					
CP16	1.50	150	3.00	Dry	4,21	140	27,9,8,5		N=49	AR1862-2022	01/04/2022	65	0	
	3.50	150	3.00	Dry	1,2	150	3,5,5,6		N=19	AR1862-2022	01/04/2022	65	0	
	6.00	150	6.00	5.00	3,4	150	9,17,18,21		N=65	AR1862-2022	01/04/2022	65	0	
	9.00	150	9.00	5.00	6,10	150	10,12,12,14		N=48	AR1862-2022	01/04/2022	65	0	
	10.50	150	10.50	Dry	25	70	50,50+	130	25/50,50	AR1862-2022	01/04/2022	65		
									for 55mm					
	11.00	150	10.50	Dry	25	35	60,40+	115	25/60,40	AR1862-2022	01/04/2022	65		
									for 40mm					
CP17	2.50	200	2.50	Dry	3,4	150	5,6,7,7		N=25	AR3104-2022	25/04/2022	64	27	
	4.50	200	4.50	Dry	3,3	150	4,5,12,14		N=35	AR3104-2022	25/04/2022	64	37	
	6.00	200	6.00	Dry	2,3	150	6,6,6,7		N=25	AR3104-2022	25/04/2022	64	27	
	9.00	200	7.50	Dry	5,6	150	8,8,12,16		N=44	AR3104-2022	25/04/2022	64	47	
	10.50	200	7.50	Dry	5,6	150	9,12,16,23		N=60	AR3104-2022	25/04/2022	64	64	
	12.00	200	7.50	Dry	6,7	150	9,16,16,17		N=58	AR3104-2022	25/04/2022	64	62	
	13.50	200	7.50	Dry	8,7	150	11,13,16,16		N=56	AR3104-2022	25/04/2022	64	60	
	15.00	200	15.00	12.50	7,8	150	11,10,12,15		N=48	AR3104-2022	25/04/2022	64	51	SPT(c)

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 22 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP17	16.50	200	16.50	10.70	8,17	150	26,32,42	225	8,17/26,32,42	AR3104-2022	25/04/2022	64		
									for 75mm					
	17.00	200	16.50	11.10	25	70	46,54+	140	25/46,54	AR3104-2022	25/04/2022	64		
									for 65mm					
CP18	1.50	150	1.50	Dry	3,4	150	5,6,6,7		N=24	AR1862-2022	01/04/2022	65	26	
	3.50	150	3.00	Dry	6,10	150	16,25,36,23+	260	6,10/16,25,36,23	AR1862-2022	01/04/2022	65		
									for 35mm					
	4.50	150	3.00	Dry	15,10	130	17,27,56+	220	15,10/17,27,56	AR1862-2022	01/04/2022	65		
									for 70mm					
CP19	1.50	150	1.50	Dry	4,5	150	4,6,7,8		N=25	AR1862-2022	01/04/2022	65	27	
	3.50	150	3.00	Dry	7,12	150	17,23,28,32+	280	7,12/17,23,28,32	AR1862-2022	01/04/2022	65		
									for 55mm					
	4.50	150	3.00	Dry	8,10	150	20,30,50+	220	8,10/20,30,50	AR1862-2022	01/04/2022	65		
									for 70mm					
CP20	1.50	150	1.50	Dry	7,8	150	7,6,6,7		N=26	AR1862-2022	01/04/2022	65	28	
	3.50	150	3.00	Dry	5,12	150	20,25,35,20+	260	5,12/20,25,35,20	AR1862-2022	01/04/2022	65		
									for 35mm					
CP20	4.50	150	3.00	Dry	10,15	140	40,60	150	10,15/40,60	AR1862-2022	01/04/2022	65		

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By			Date	Contract Ref: 765514
				05.05.23	
	Contract: EMG Phase 2				Page: 23 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
									for 75mm					
CP21	2.00	150	2.00	Dry	1,4	150	4,6,6,7		N=23	JB05-2022	25/08/2022	68	26	
	4.00	150	3.00	Dry	11,14	150	15,24,40,21		N=100	JB05-2022	25/08/2022	68	113	
	5.00	150	3.00	Dry	13,12	150	27,30,43	225	13,12/27,30,43	JB05-2022	25/08/2022	68		
									for 75mm					
CP22	2.00	150	2.00	Dry	5,9	150	10,11,14,15		N=50	JB05-2022	25/08/2022	68	57	
	4.00	150	3.00	Dry	5,7	150	10,20,33,37+	265	5,7/10,20,33,37	JB05-2022	25/08/2022	68		
									for 40mm					
	5.00	150	3.00	Dry	10,15	150	42,58	150	10,15/42,58	JB05-2022	25/08/2022	68		
									for 75mm					
CP23	2.00	150	2.00	Dry	4,3	150	5,4,6,7		N=22	JB05-2022	25/08/2022	68	25	
	4.00	150	4.50	Dry	10,15	150	16,17,29,38+	275	10,15/16,17,29,38	JB05-2022	25/08/2022	68		
									for 50mm					
	5.00	150	4.50	5.40	15,10	135	22,21,25,32+	270	15,10/22,21,25,32	JB05-2022	25/08/2022	68		
									for 45mm					
CP24	2.00	150	2.00	Dry	2,4	150	10,10,12,10		N=42	JB05-2022	25/08/2022	68	48	
	4.00	150	4.00	Dry	5,10	150	17,25,34,24+	255	5,10/17,25,34,24	JB05-2022	25/08/2022	68		
									for 30mm					

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 24 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP24	5.00	150	4.50	Dry	7,8	150	16,33,34,17+	245	7,8/16,33,34,17 for 20mm	JB05-2022	25/08/2022	68		
CP25	1.20	150	1.20	Dry	4,6	150	9,14,14,13		N=50	JB05-2022	25/08/2022	68	57	
	3.00	150	3.00	Dry	3,7	150	9,14,15,18		N=56	JB05-2022	25/08/2022	68	63	
	5.00	150	5.00	Dry	8,17	150	20,26,37,17+	240	8,17/20,26,37,17 for 15mm	JB05-2022	25/08/2022	68		
	6.50	150	6.00	Dry	10,15	150	23,31,40,6+	230	10,15/23,31,40,6 for 5mm	JB05-2022	25/08/2022	68		
CP26	1.20	150	1.20		3,2	150	2,3,2,3		N=10	JB05-2022	25/08/2022	68	11	
	3.00	150	3.00		1,1	150	2,3,2,3		N=10	JB05-2022	25/08/2022	68	11	
	4.00	150	4.00		5,8	150	10,15,50	225	5,8/10,15,50 for 75mm	JB05-2022	25/08/2022	68		
	5.00	150	5.00		5,10	150	20,30,35+	195	5,10/20,30,35 for 45mm	JB05-2022	25/08/2022	68		
	6.50	150	6.00		8,17	95	33,47,20+	160	8,17/33,47,20 for 10mm	JB05-2022	25/08/2022	68		
CP27	1.20	150	1.20	Dry	1,2	150	2,2,2,2		N=8	JB05-2022	25/08/2022	68	9	
	2.00	150	2.00	Dry	1,1	150	1,2,2,3		N=8	JB05-2022	25/08/2022	68	9	

Notes:

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			05.05.23	
	Contract: EMG Phase 2			Page: 25 of 26 

STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N ₆₀	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
CP27	3.00	150	3.00	Dry	6,7	150	11,15,15,17		N=58	JB05-2022	25/08/2022	68	66	
	4.00	150	3.00	Dry	10,15	150	15,20,40+	195	10,15/15,20,40	JB05-2022	25/08/2022	68		
									for 45mm					
	4.60	150	3.00	Dry	15,10	150	20,30,25+	195	15,10/20,30,25	JB05-2022	25/08/2022	68		
									for 45mm					
CP28	1.20	150	1.20	Dry	1,2	150	2,3,3,3		N=11	JB05-2022	25/08/2022	68	12	
	2.50	150	2.50	Dry	1,2	150	3,2,3,5		N=13	JB05-2022	25/08/2022	68	15	
	4.00	150	3.00	Dry	6,12	150	13,17,33,35+	265	6,12/13,17,33,35	JB05-2022	25/08/2022	68		
									for 40mm					
	4.60	150	3.00	Dry	13,12	150	20,20,30,30+	245	13,12/20,20,30,30	JB05-2022	25/08/2022	68		
									for 20mm					

- Notes:**
1. Tests carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011.
 2. Reported blows are for 75mm penetration unless indicated "+".
 3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
 4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
 5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

	STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref:
				05.05.23	
		Contract: EMG Phase 2			Page: 26 of 26 

IN-SITU PERMEABILITY TEST - FALLING HEAD

In accordance with BS EN ISO 22282-2:2012

Borehole : **BH11**

Depth (m below GL): **12.50-13.10**

Test Number: **1**

Test Date: **29/09/2022**

Test Supervisor: **CJobson**

Ground Level (m AOD): **79.89**

National Grid Co-ordinates: **E:445759.5 N:325134.8**

TEST SETUP DETAILS

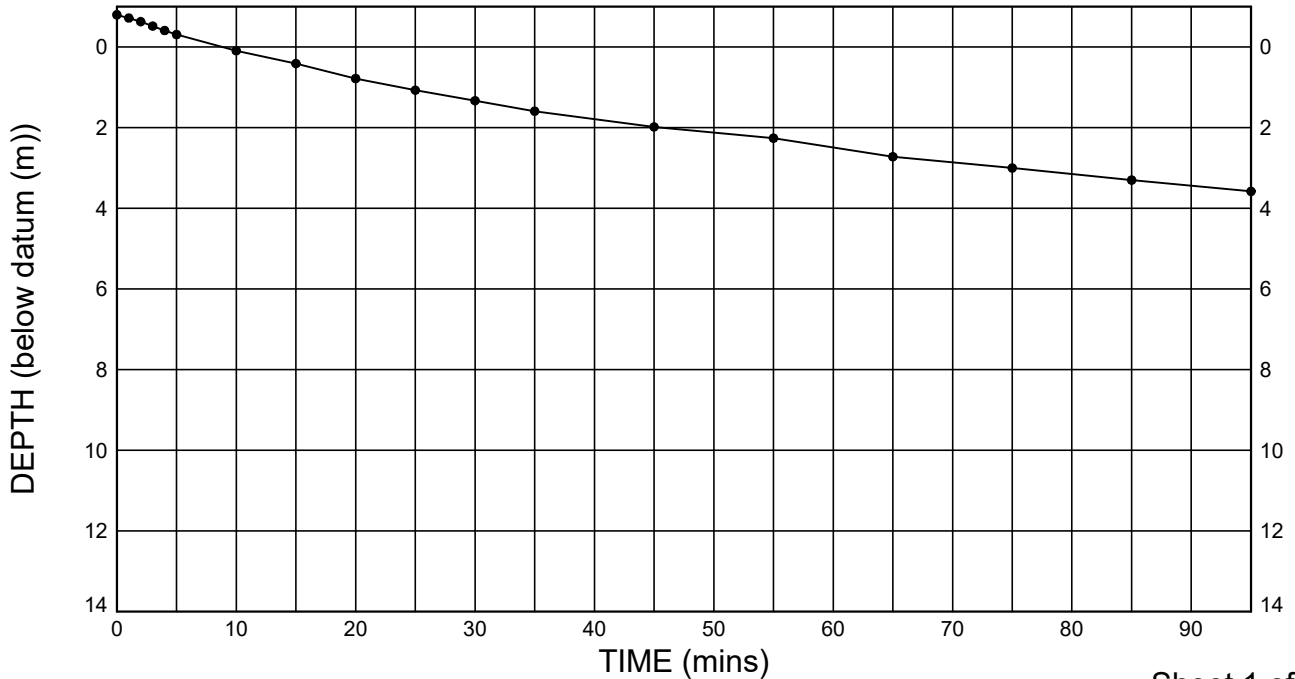
Depth measurements recorded from ground level.

Depth to top of response zone:	12.50 m	Borehole diameter:	200 mm
Depth to base of response zone:	13.10 m	Depth to base of casing:	12.50 m
Length of response zone:	0.60 m	Casing diameter:	200 mm
Initial groundwater level prior to test:	8.40 m	Soil/Rock Description:	Dense very sandy GRAVEL.
Depth to base of borehole at start of test:	13.10 m	Hydrogeological conditions:	Entire test section below GW
Depth to base of borehole at completion of test:	13.10 m	Weather:	-

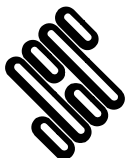
TEST MEASUREMENTS

Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho
08:00:00	-0.80	9.20	1.00	08:30:00	1.33	7.07	0.77								
08:01:00	-0.72	9.12	0.99	08:35:00	1.59	6.81	0.74								
08:02:00	-0.63	9.03	0.98	08:45:00	1.98	6.42	0.70								
08:03:00	-0.52	8.92	0.97	08:55:00	2.26	6.14	0.67								
08:04:00	-0.41	8.81	0.96	09:05:00	2.72	5.68	0.62								
08:05:00	-0.31	8.71	0.95	09:15:00	3.00	5.40	0.59								
08:10:00	0.09	8.31	0.90	09:25:00	3.30	5.10	0.55								
08:15:00	0.41	7.99	0.87	09:35:00	3.58	4.82	0.52								
08:20:00	0.78	7.62	0.83												
08:25:00	1.07	7.33	0.80												

PLOT OF WATER DEPTH AGAINST TIME



Sheet 1 of 2



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Test Operator	Checked By	Date
Christopher Jobson		04/05/23
Contract	Contract Ref:	
EMG Phase 2	765514	
	Client:	
	SEGRO	

IN-SITU PERMEABILITY TEST - FALLING HEAD

In accordance with BS EN ISO 22282-2:2012

Borehole : **BH11**

Depth (m below GL): **12.50-13.10**

Test Number: **1**

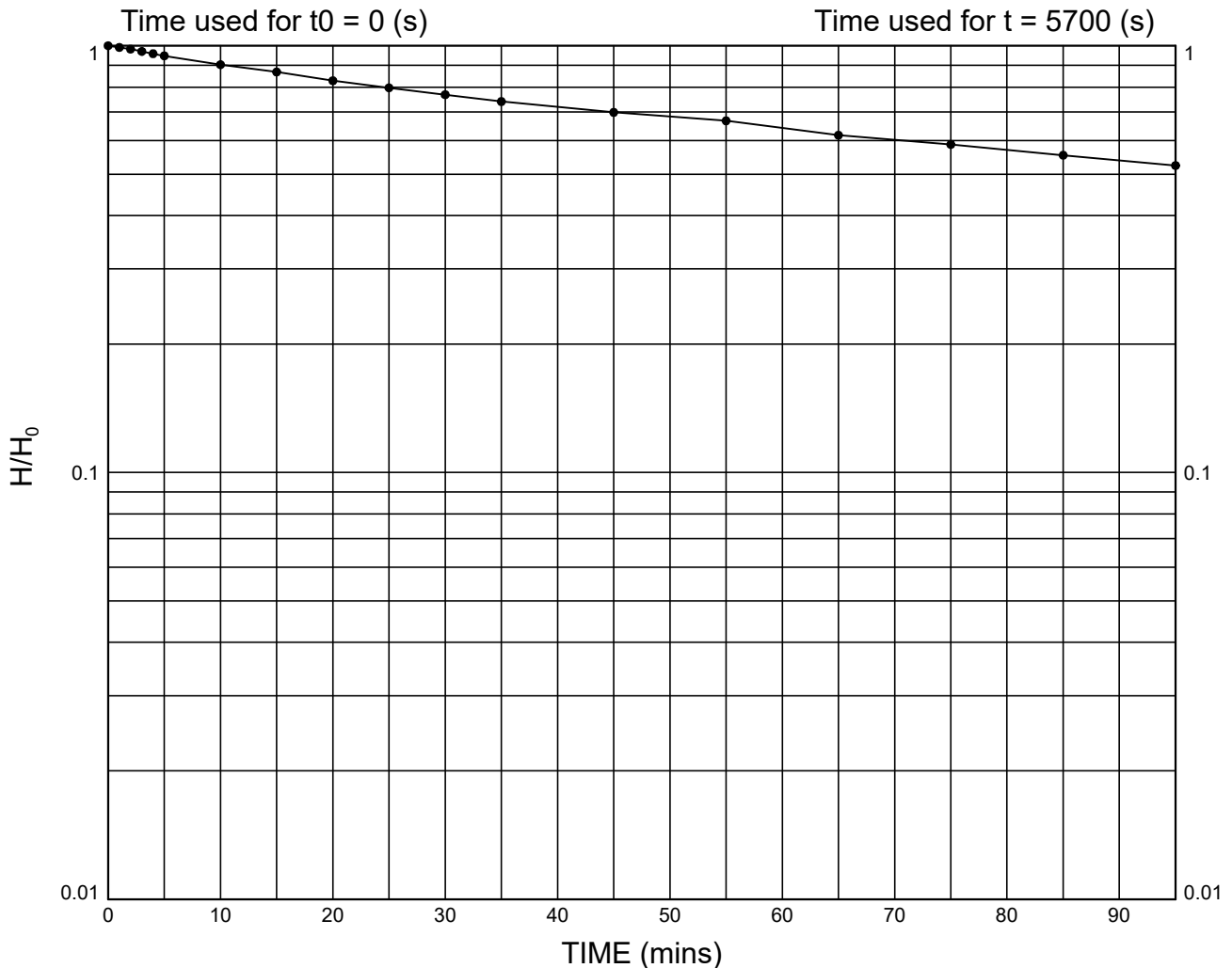
Test Date: **29/09/2022**

Test Supervisor: **CJobson**

Ground Level (m AOD): **79.89**

Co-ordinates: E:445759.5 N:325134.8

PLOT OF H/H₀ AGAINST TIME



Diameter of Test Section, D = **0.2** m

Cross Sectional Area of Liaison Tube, A = **0.03142** m²

Test Section Length, L = **0.60** m

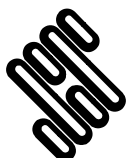
Shape Factor, F = **2.07** m

Time, t - t₀ = **5700** sec

In-situ Permeability, k = **1.719x10⁻⁶** m/sec

Notes : Permeability calculated using velocity graph method in accordance with BS EN ISO 22282-2 (2012). To enable calculation of permeability a measured standing water level of 8.4m below datum prior to the test was used to determine head, H. Test carried out with casing raised above ground level.

Sheet 2 of 2



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Test Operator	Checked By	Date
Christopher Jobson		04/05/23
Contract	Contract Ref:	
EMG Phase 2	765514	
	Client:	
	SEGRO	

IN-SITU PERMEABILITY TEST - FALLING HEAD

In accordance with BS EN ISO 22282-2:2012

Position ID : **CP06**

Depth (m below GL): **7.50-11.00**

Test Number: **1**

Test Date: **28/09/2022**

Test Supervisor: **NTopping**

Ground Level (m AOD): **87.01**

National Grid Co-ordinates: **E:446015.6 N:325200.5**

TEST SETUP DETAILS

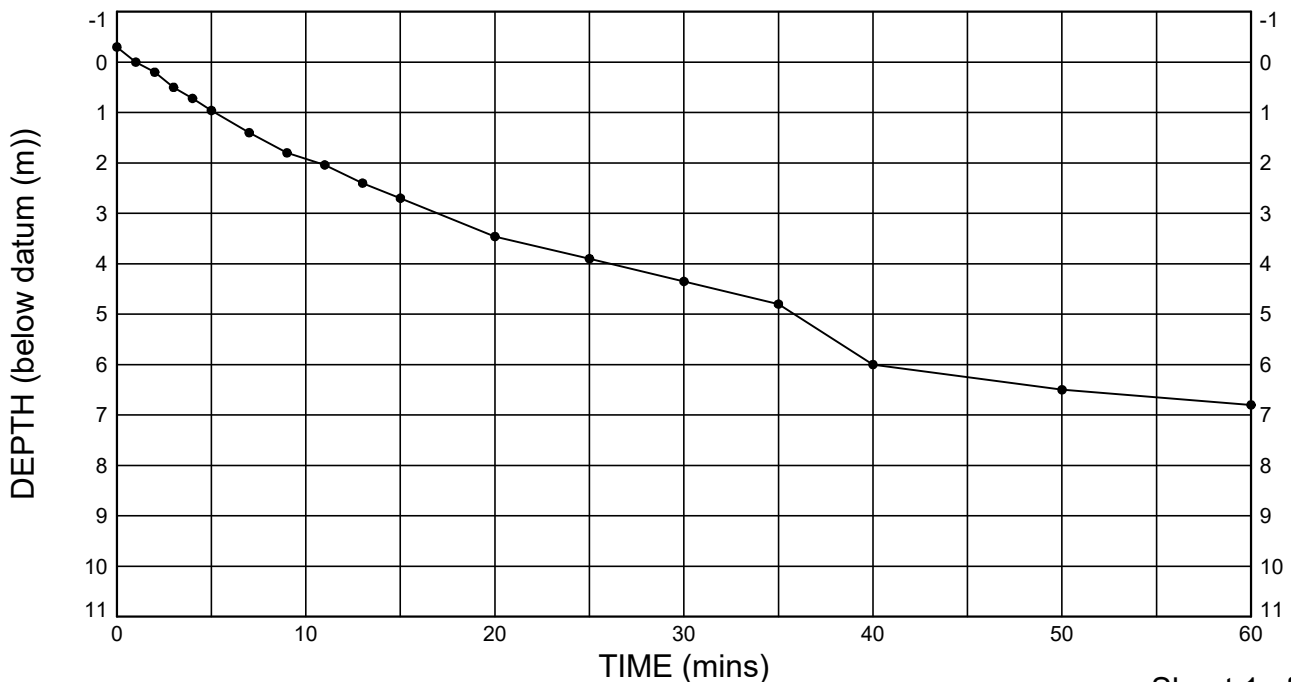
Depth measurements recorded from ground level.

Depth to top of response zone:	7.50 m	Borehole diameter:	150 mm
Depth to base of response zone:	11.00 m	Depth to base of casing:	7.50 m
Length of response zone:	3.50 m	Casing diameter:	150 mm
Initial groundwater level prior to test:	8.50 m	Soil/Rock Description:	Stiff sandy gravelly silty CLAY.
Depth to base of borehole at start of test:	11.00 m	Hydrogeological conditions:	Entire test section below GW
Depth to base of borehole at completion of test:	11.00 m	Weather:	Dry

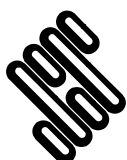
TEST MEASUREMENTS

Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho	Time (hh:mm:ss)	Water depth (m)	Head (m)	H/Ho
15:30:00	-0.30	7.50	1.00	15:45:00	2.70	4.50	0.60								
15:31:00	0.00	7.20	0.96	15:50:00	3.46	3.74	0.50								
15:32:00	0.20	7.00	0.93	15:55:00	3.90	3.30	0.44								
15:33:00	0.50	6.70	0.89	16:00:00	4.35	2.85	0.38								
15:34:00	0.72	6.48	0.86	16:05:00	4.80	2.40	0.32								
15:35:00	0.96	6.24	0.83	16:10:00	6.00	1.20	0.16								
15:37:00	1.40	5.80	0.77	16:20:00	6.50	0.70	0.09								
15:39:00	1.80	5.40	0.72	16:30:00	6.80	0.40	0.05								
15:41:00	2.04	5.16	0.69												
15:43:00	2.40	4.80	0.64												

PLOT OF WATER DEPTH AGAINST TIME



Sheet 1 of 2



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Test Operator	Checked By	Date
Nathan Topping		04/05/23
Contract	Contract Ref:	
EMG Phase 2	765514	
	Client:	
	SEGRO	

IN-SITU PERMEABILITY TEST - FALLING HEAD

In accordance with BS EN ISO 22282-2:2012

Position ID : **CP06**

Depth (m below GL): **7.50-11.00**

Test Number: **1**

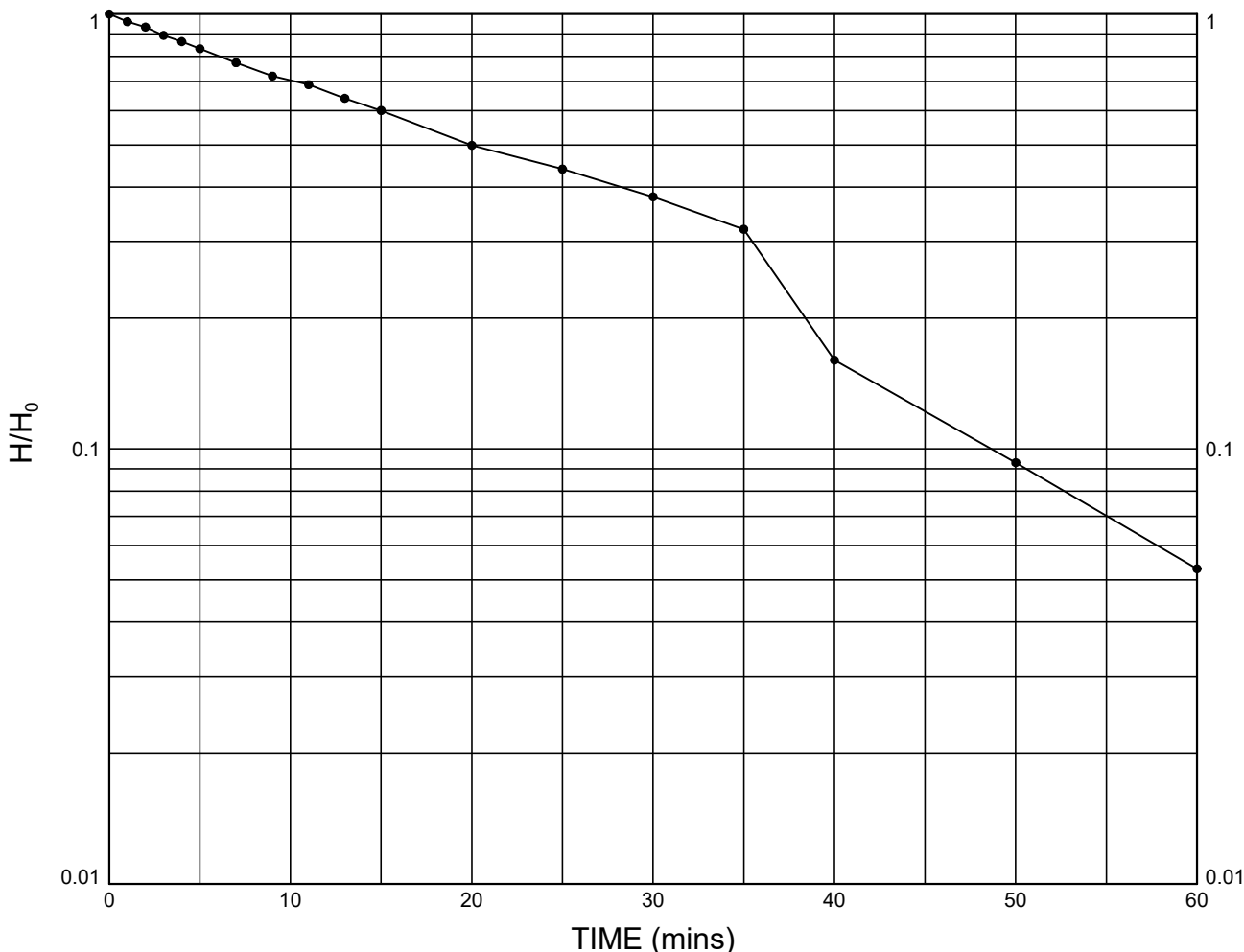
Test Date: **28/09/2022**

Test Supervisor: **NTopping**

Ground Level (m AOD): **87.01**

Co-ordinates: E:446015.6 N:325200.5

PLOT OF H/H₀ AGAINST TIME



Cross Sectional Area, A = **0.01767** m²

Intake Factor, F = **NA** m

Basic Time Lag, T (from plot) = **1847** sec

In-situ Permeability, k = **1.67x10⁻⁶** m/sec

Notes : Permeability calculated using Hvorslev method in accordance with BS EN ISO 22282-2 (2012). To enable calculation of permeability an assumed standing water level of 7.2m below datum was used to determine head, H. Although the previous assumed standing water level has been used in the calculation of permeability the measured groundwater level prior to the test was recorded as 8.5m below datum. Assumed standing groundwater level of 7.20m bgl based on groundwater observations during drilling. Test carried out with casing raised above ground level, and water level raised to top of casing.

Sheet 2 of 2



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Test Operator	Checked By	Date
Nathan Topping	<i>Nathan Topping</i>	04/05/23
Contract	Contract Ref:	
EMG Phase 2	765514	
	Client:	
	SEGRO	

FULL SCALE SOAKAWAY TEST

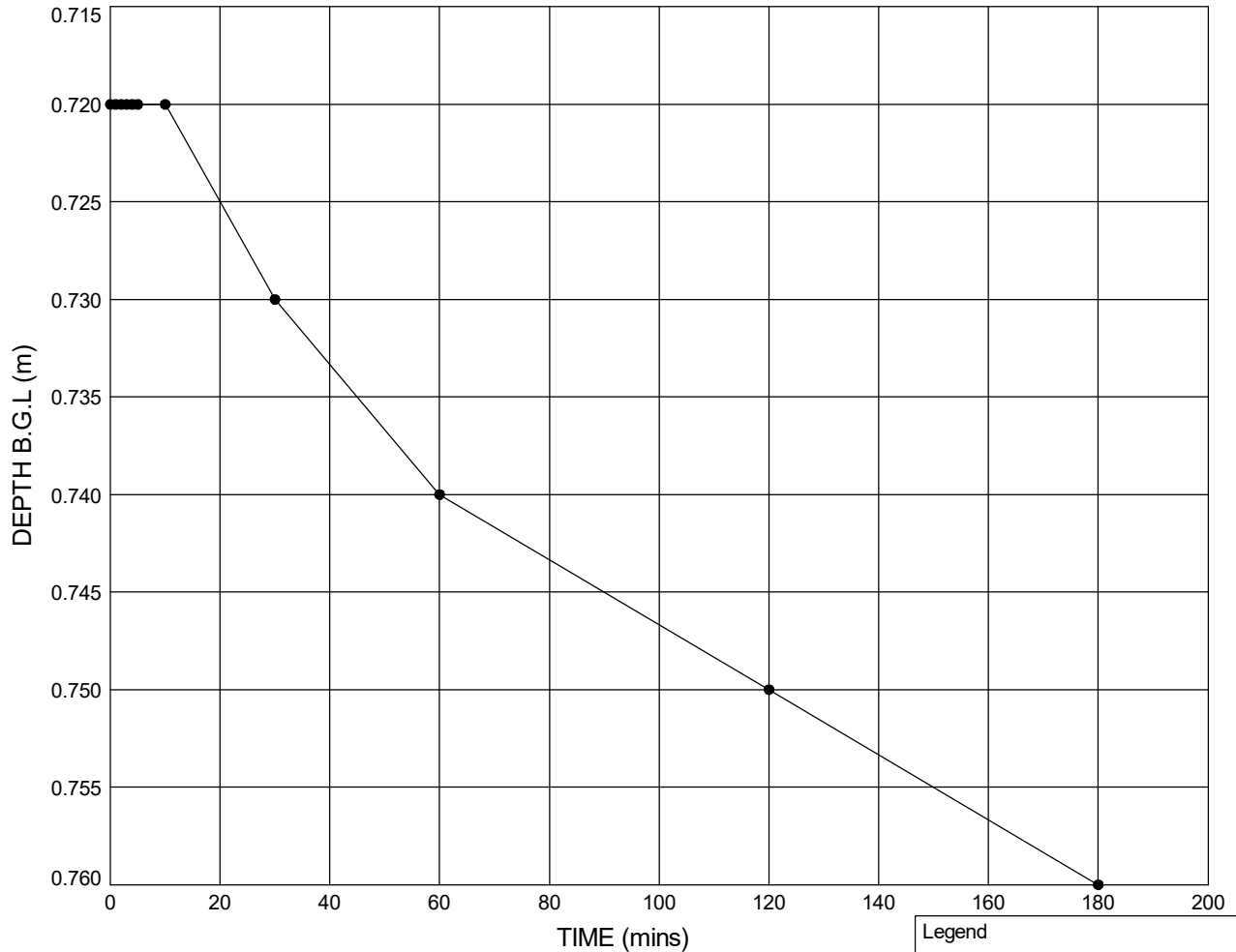
Non-standard test

Soakaway Test - Position ID : **TP01**

Ground Level (m AOD): **90.15**

National Grid Co-ordinates: **E:446482.7 N:325312.7**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

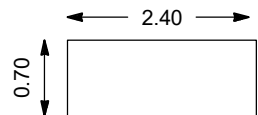
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **1.83** m
Effective depth, D_e = **1.11** m
Effective storage volume, V_{p75-25} = **0.9324** m³
Surface area, a_{s50} = **5.1210** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level.

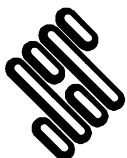
Legend

● Test 1 (27.09.22)

Plan (Not to scale)



Bearing → 70°



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

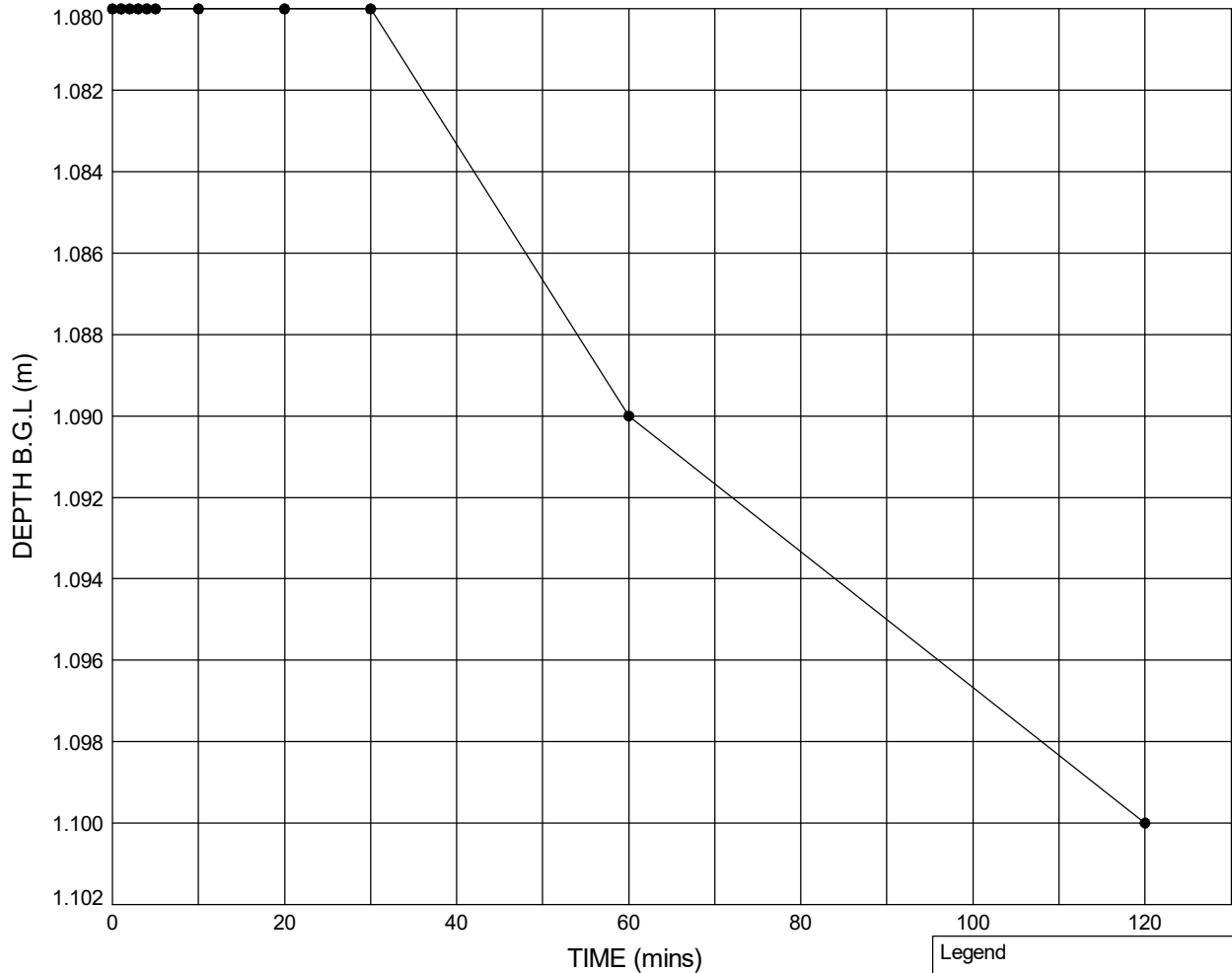
Non-standard test

Soakaway Test - Position ID : **TP02**

Ground Level (m AOD): **87.34**

National Grid Co-ordinates: **E:446247.8 N:325352.0**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

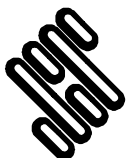
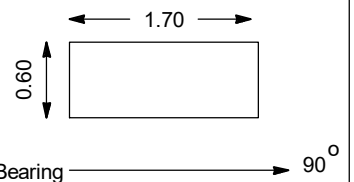
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **1.94** m
Effective depth, D_e = **0.86** m
Effective storage volume, V_{p75-25} = **0.4386** m³
Surface area, a_{s50} = **2.9980** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level.

Legend

● Test 1 (27.09.22)

Plan (Not to scale)



STRUCTURAL SOILS
The Potteries
Pottery Street
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W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

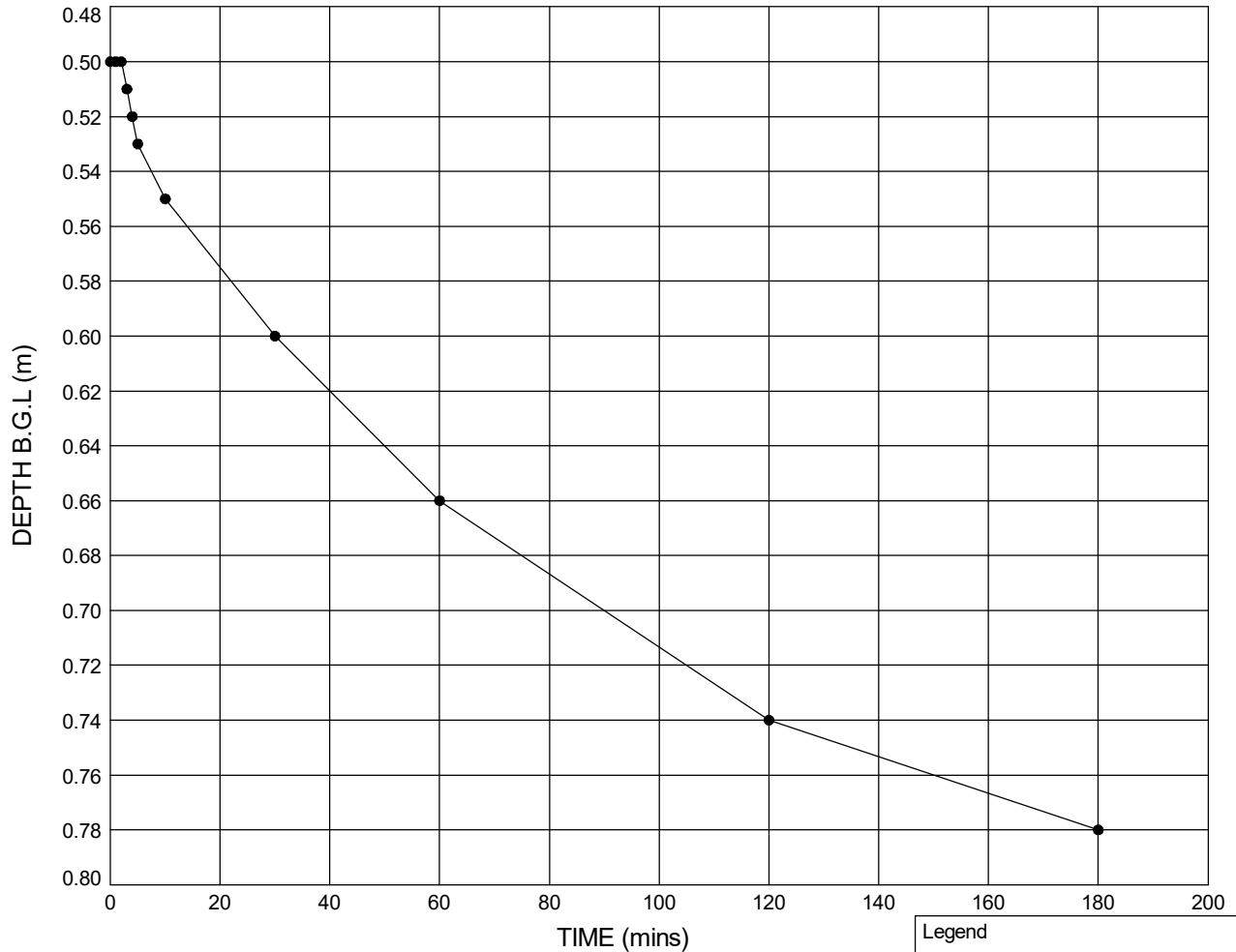
Non-standard test

Soakaway Test - Position ID : **TP15**

Ground Level (m AOD): **69.53**

National Grid Co-ordinates: **E:445583.3 N:325042.1**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

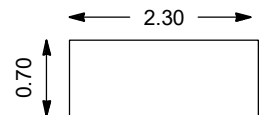
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **1.60** m
Effective depth, D_e = **1.10** m
Effective storage volume, V_{p75-25} = **0.8855** m³
Surface area, a_{s50} = **4.9100** m²
Time, t_{p75-25} = **49500.0** secs
Infiltration rate, f = **3.64×10^{-6}** m/s

Please note test data was extrapolated to obtain tp75-tp25.

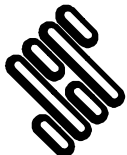
Legend

● Test 1 (29.09.22)

Plan (Not to scale)



Bearing $\rightarrow 20^\circ$



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

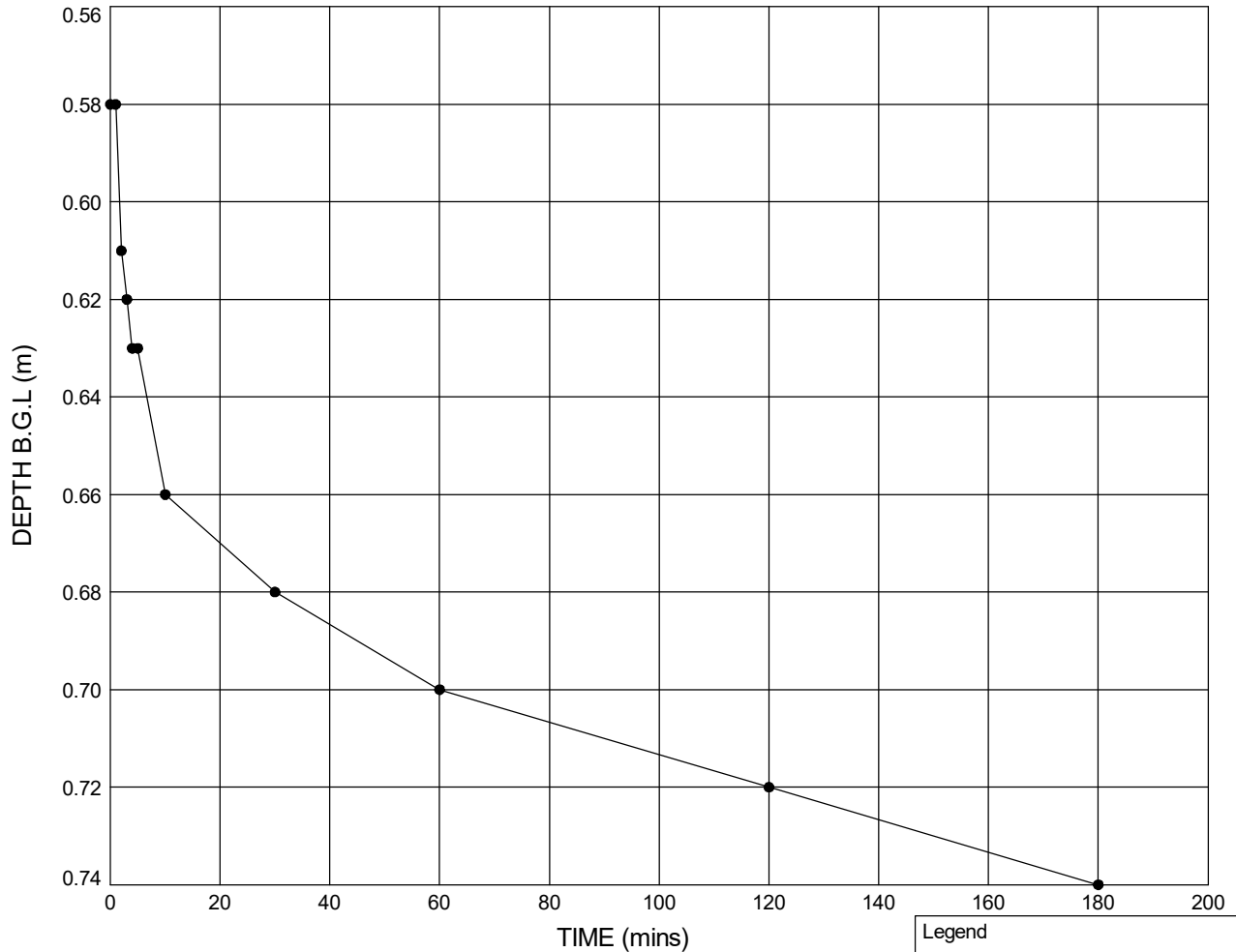
Non-standard test

Soakaway Test - Position ID : **TP18**

Ground Level (m AOD): **84.13**

National Grid Co-ordinates: **E:446580.8 N:325055.4**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

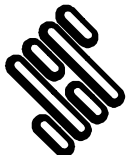
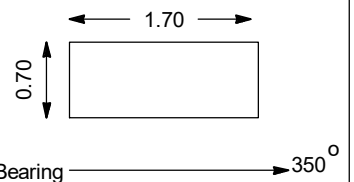
Pit start depth: RES 1 = **2.20** m
Pit final depth: = **1.83** m
Effective depth, D_e = **1.25** m
Effective storage volume, V_{p75-25} = **0.7438** m³
Surface area, a_{s50} = **4.1900** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level.

Legend

● Test 1 (27.09.22)

Plan (Not to scale)



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

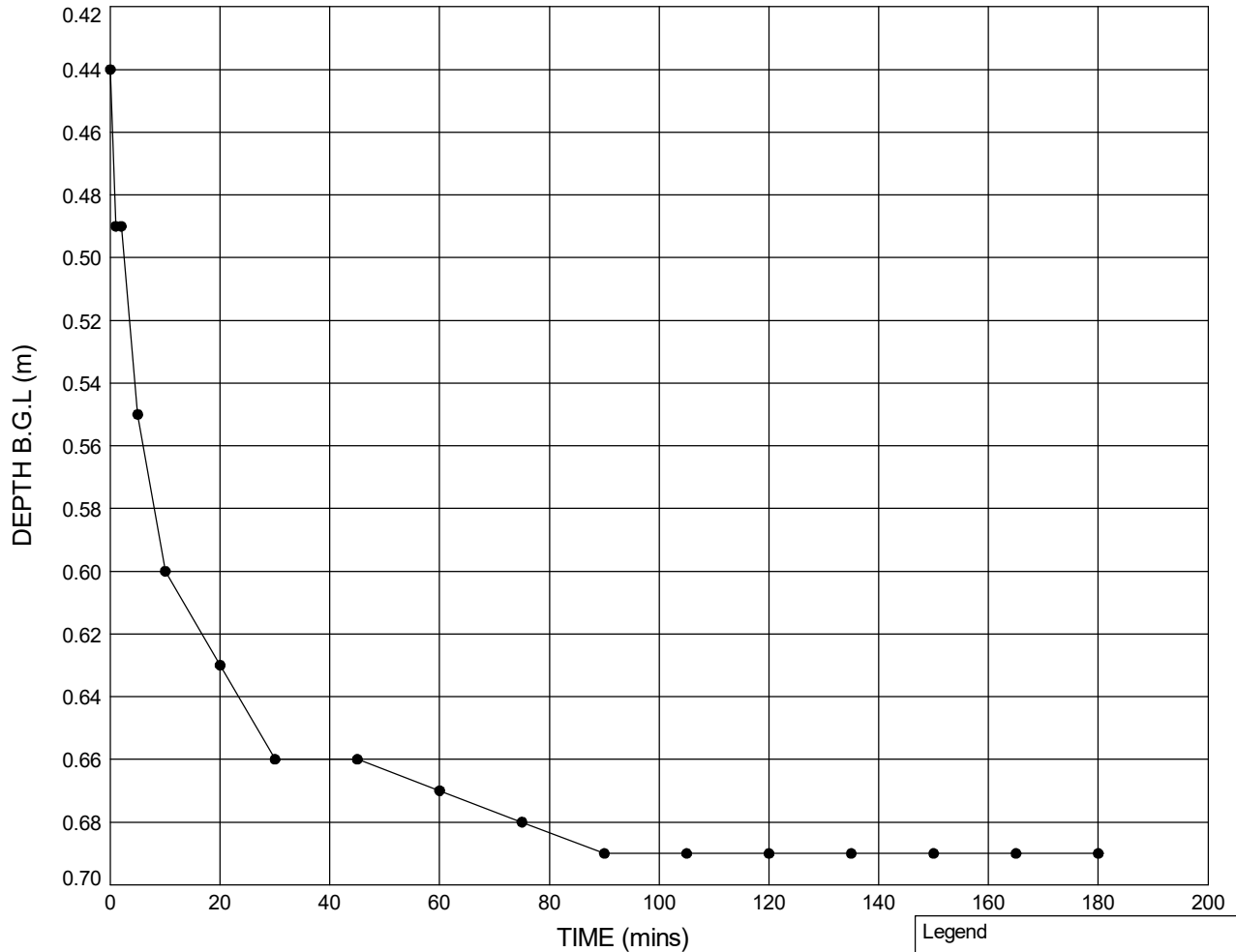
Non-standard test

Soakaway Test - Position ID : **TP26**

Ground Level (m AOD): **76.87**

National Grid Co-ordinates: **E:445943.0 N:324731.8**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

Pit start depth: RES 1 = **2.00** m

Pit final depth: = **1.61** m

Effective depth, D_e = **1.17** m

Effective storage volume, V_{p75-25} = **1.1261** m³

Surface area, a_{s50} = **5.9615** m²

Time, t_{p75-25} = **N/A** secs

Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level

Legend

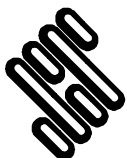
● Test 1 (30.09.22)

Plan (Not to scale)

← 2.75 →

0.70

Bearing → 120°



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

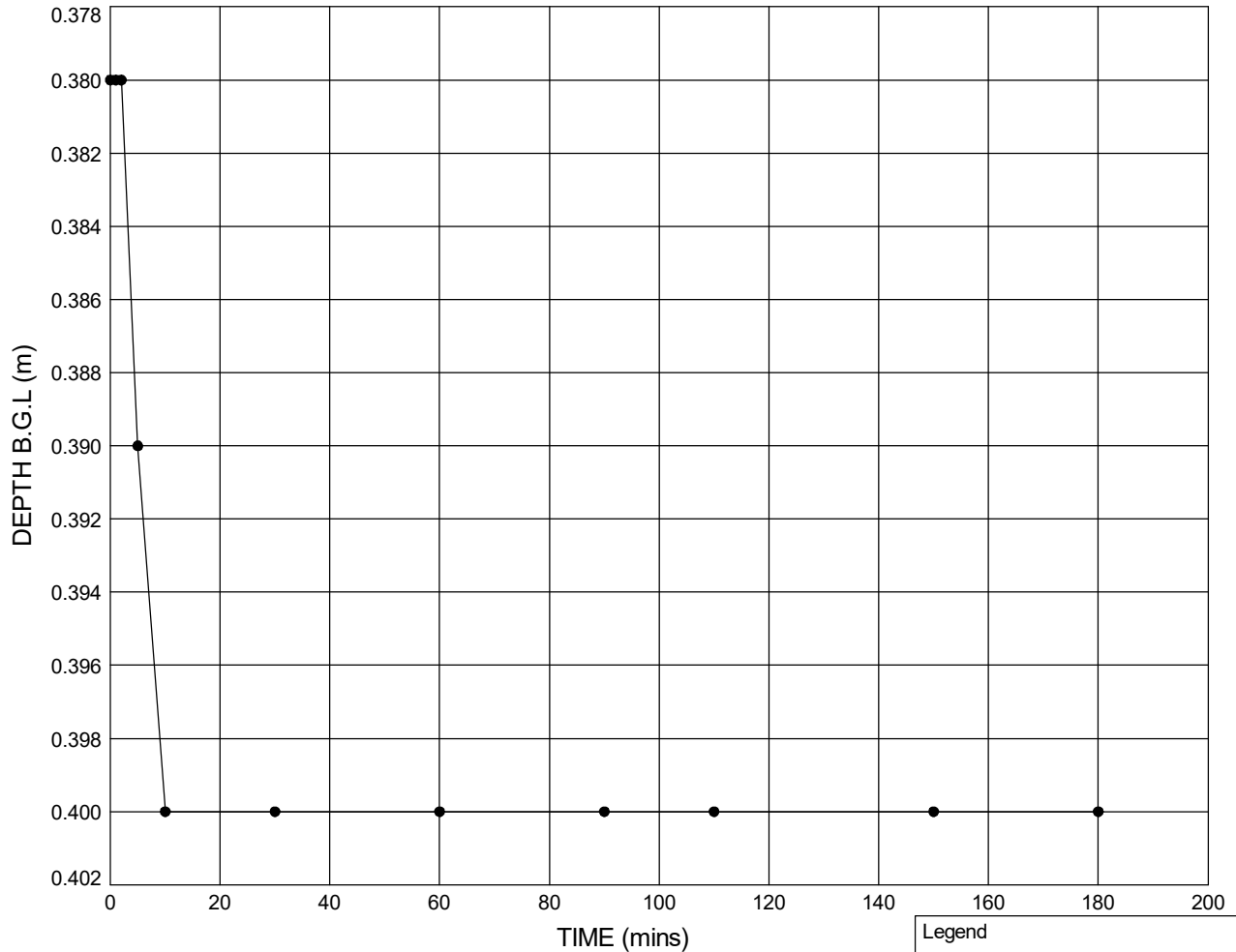
Non-standard test

Soakaway Test - Position ID : **TP30**

Ground Level (m AOD): **66.68**

National Grid Co-ordinates: **E:446232.9 N:324495.5**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

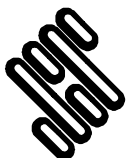
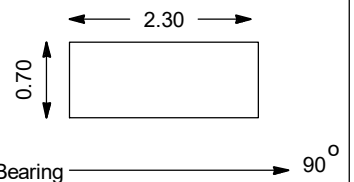
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **2.00** m
Effective depth, D_e = **1.62** m
Effective storage volume, V_{p75-25} = **1.3041** m³
Surface area, a_{s50} = **6.4700** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level

Legend

● Test 1 (22.09.22)

Plan (Not to scale)



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

Checked By

Date

16/01/23

Contract

EMG Phase 2

Contract Ref:

765514

FULL SCALE SOAKAWAY TEST

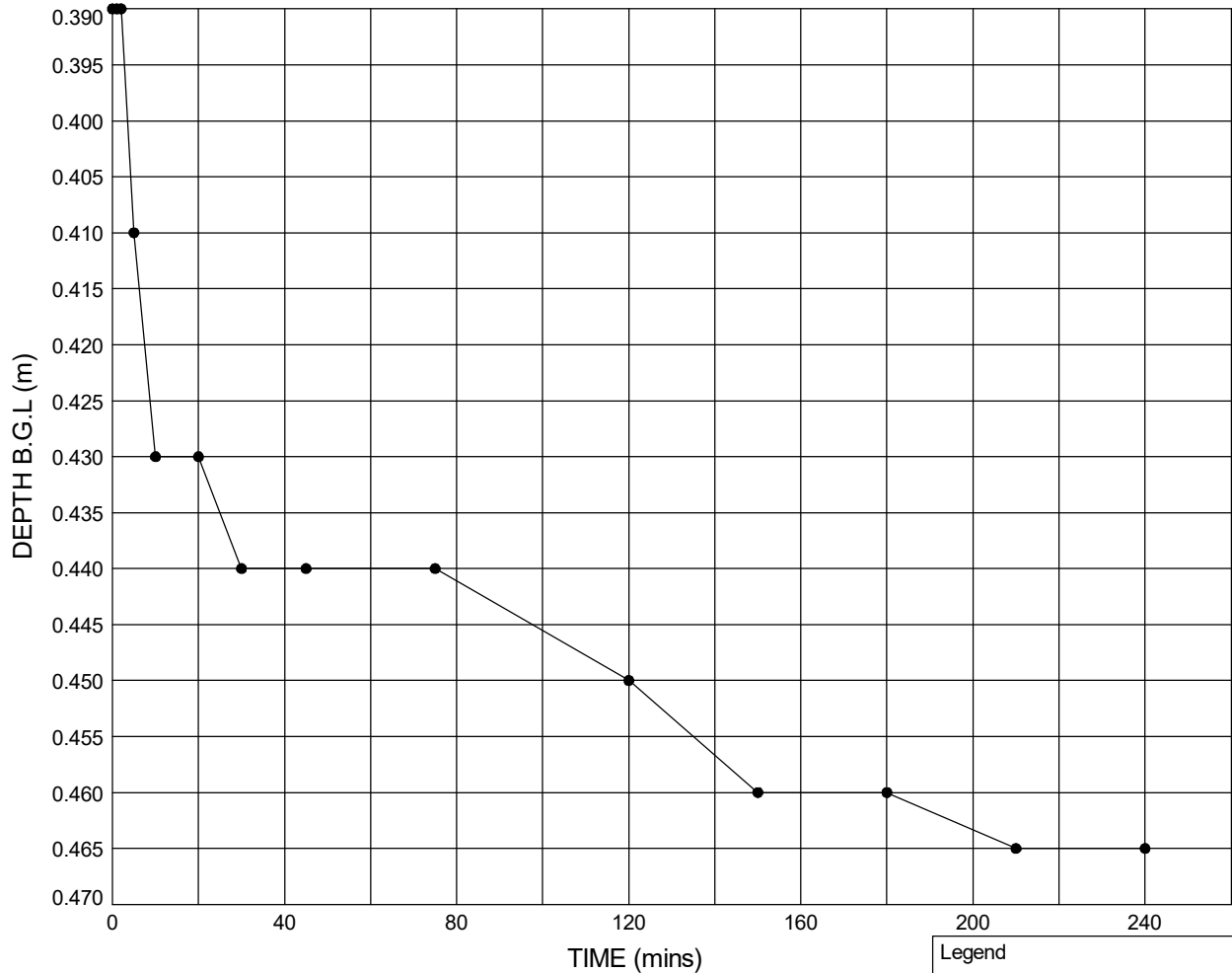
Non-standard test

Soakaway Test - Position ID : **TP33**

Ground Level (m AOD): **66.58**

National Grid Co-ordinates: **E:446469.7 N:324711.9**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

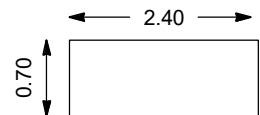
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **2.00** m
Effective depth, D_e = **1.61** m
Effective storage volume, V_{p75-25} = **1.3524** m³
Surface area, a_{s50} = **6.6710** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level

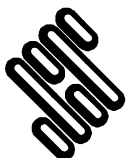
Legend

● Test 1 (22.09.22)

Plan (Not to scale)



Bearing → 20°



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FULL SCALE SOAKAWAY TEST

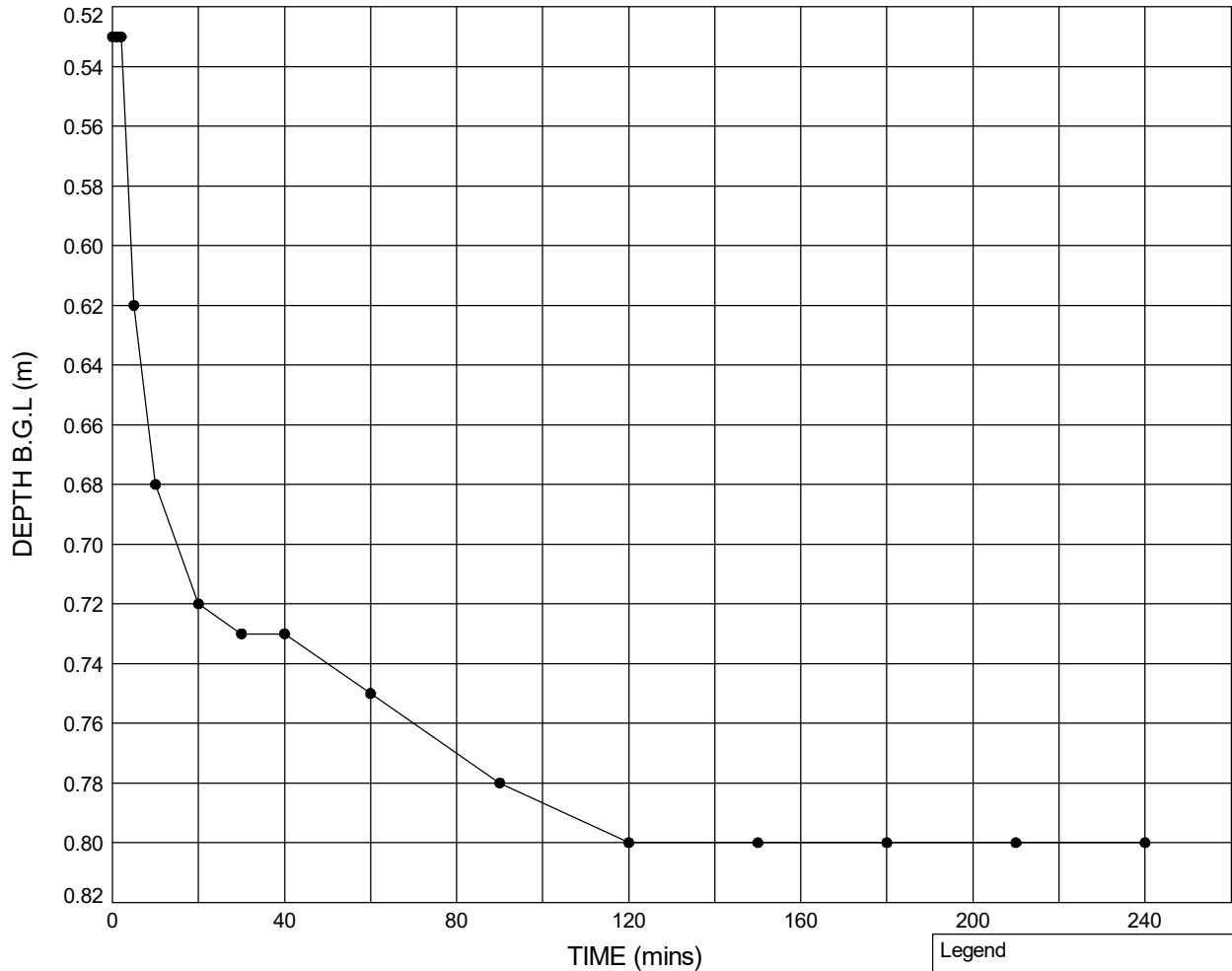
Non-standard test

Soakaway Test - Position ID : **TP37**

Ground Level (m AOD): **55.37**

National Grid Co-ordinates: **E:446674.7 N:324413.8**

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Test 1

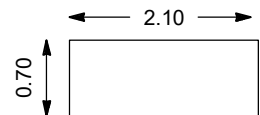
Pit start depth: RES 1 = **2.00** m
Pit final depth: = **2.00** m
Effective depth, D_e = **1.47** m
Effective storage volume, V_{p75-25} = **1.0805** m³
Surface area, a_{s50} = **5.5860** m²
Time, t_{p75-25} = **N/A** secs
Infiltration rate, f = **N/A** m/s

Notes: Test 1 - Unable to calculate infiltration rate due to insufficient drop in water level.

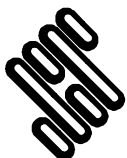
Legend

● Test 1 (21.09.22)

Plan (Not to scale)



Bearing → 20°



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APPENDIX D - GEOTECHNICAL LABORATORY TESTING

- (i) Laboratory Test Verification Sheet
- (ii) Laboratory Test Results

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: **09/03/2023 16:37:09**.

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

Approved Signatory
Luke Fisher (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



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Job No:

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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.

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Approved Signatory
Luke Fisher (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



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Contract:

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Job No:

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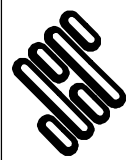


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP20	9	UT	2.50	10.6	37	18	19	90	Brpwn slightly gravelly CLAY

SYMBOLS: * denotes BS 1377



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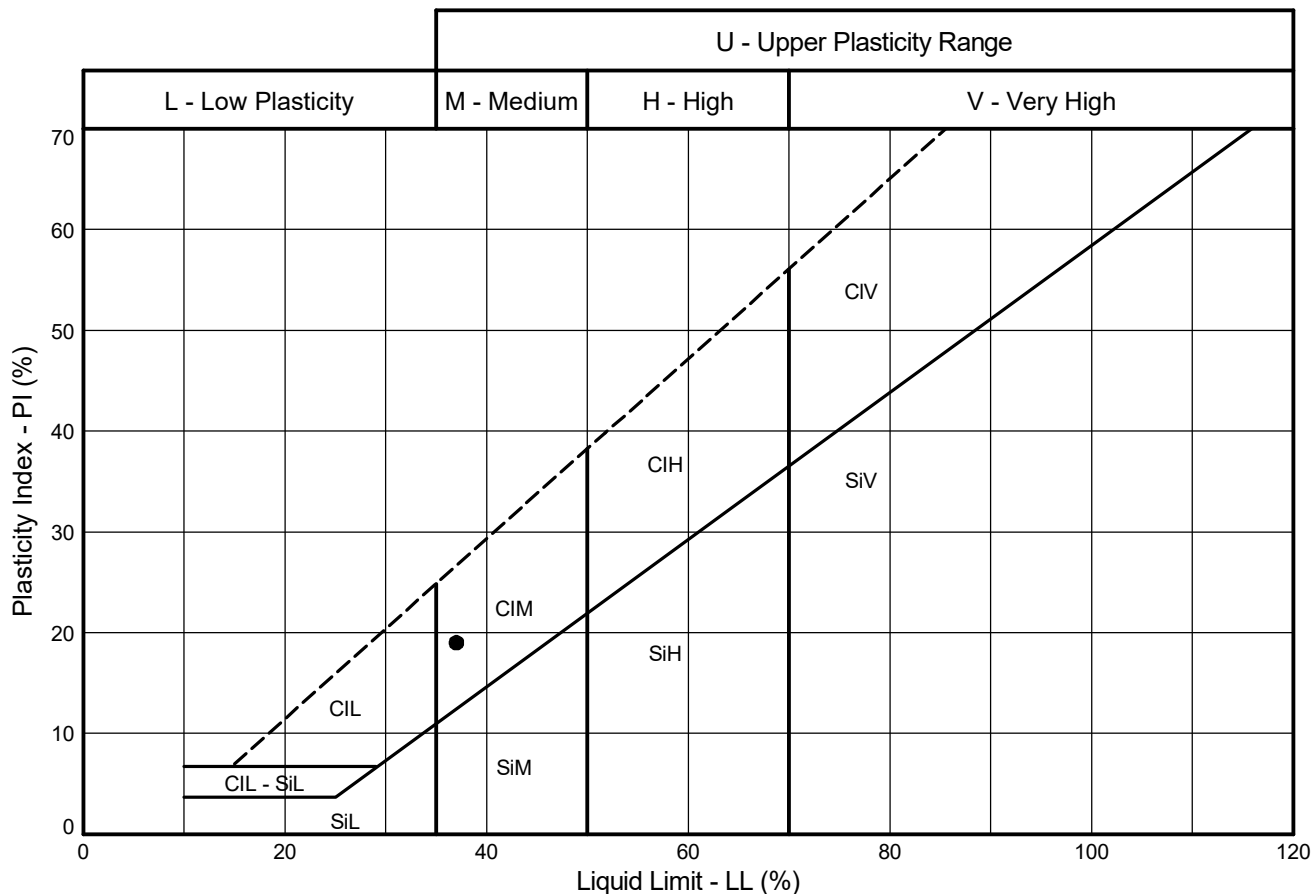
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According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021

[illegible]

Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

+ Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.2.1 - Natural State and 5.2.7 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic, I = Increasing WC, D = Decreasing WC.

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



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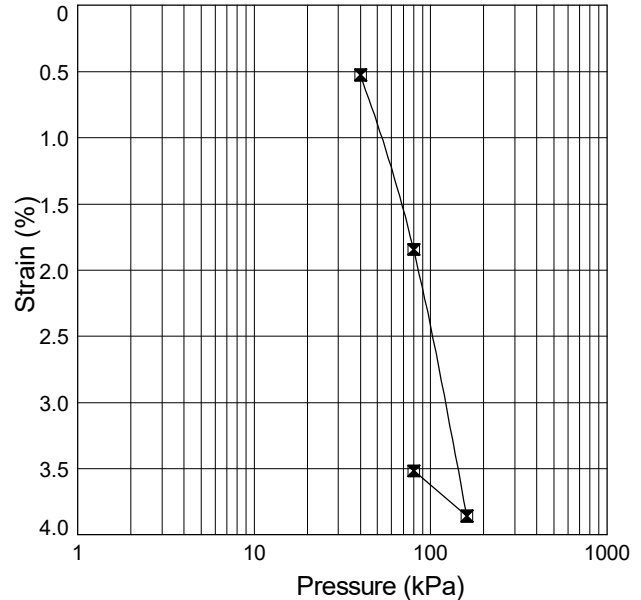
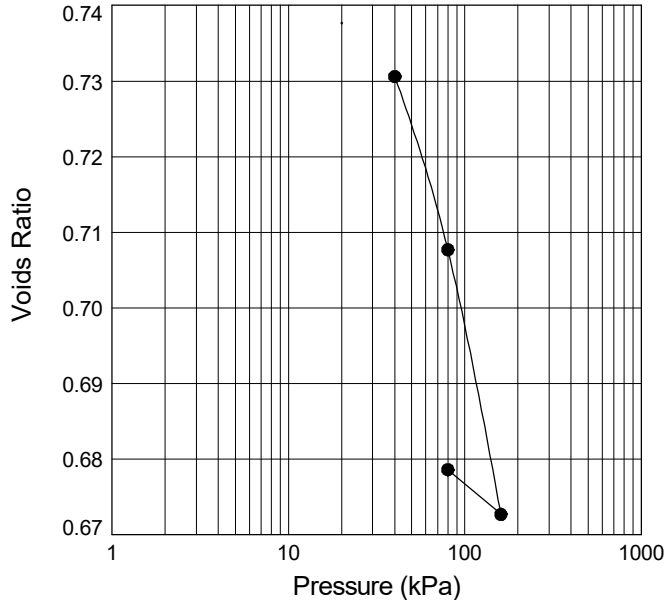


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH04** Sample Ref: **9** Sample Type: **UT** Depth (m): **2.00**

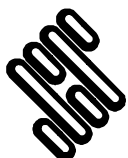
Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.05	75.05
Height (mm) :	19.96	19.26
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	28.7	28.4
Wet Density (Mg/m ³) :	1.96	2.03
Dry Density (Mg/m ³) :	1.52	1.58
Voids Ratio :	0.7398	0.6786

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 20	0.120	0.7377	NA	NA	NA	
Loading		20 - 40	0.526	0.7306	0.20	247	0.18	
Loading		40 - 80	1.844	0.7077	0.33	3587	0.012	
Loading		80 - 160	3.858	0.6727	0.26	2228	0.019	
Unloading		160 - 80	3.517	0.6786	NA	NA	NA	Unloading stage

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



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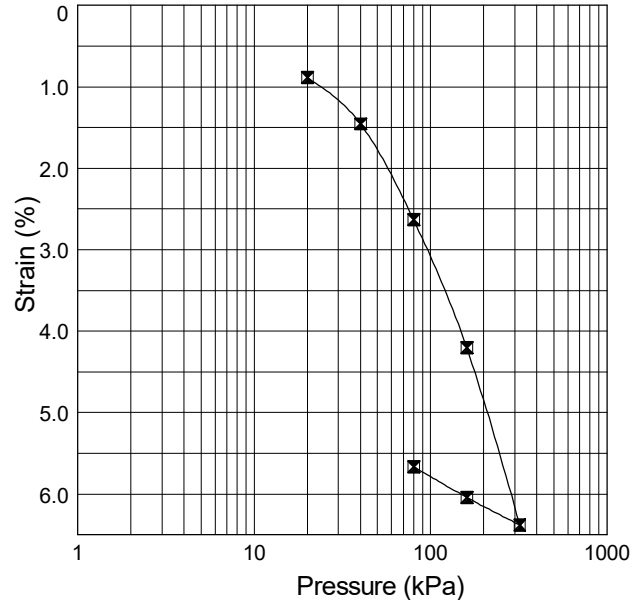
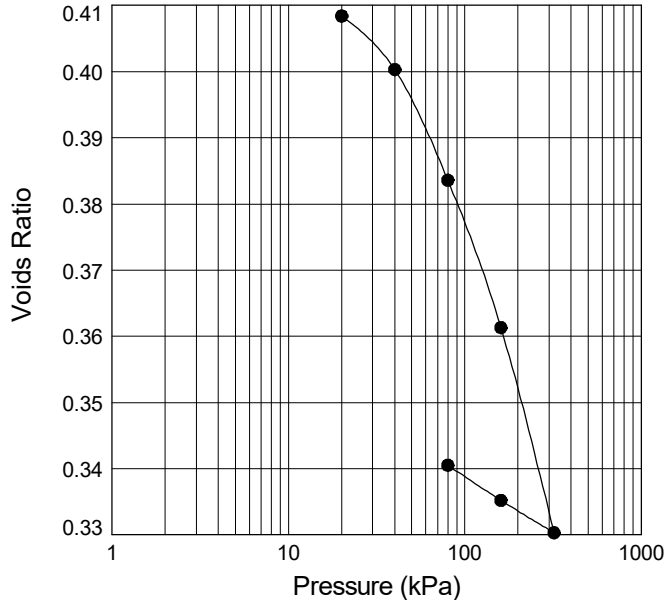


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH09** Sample Ref: **18** Sample Type: **UT** Depth (m): **2.00**

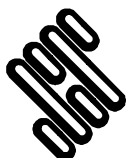
Description : **Brown slightly sandy slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.00	75.00
Height (mm) :	19.95	18.82
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	16.3	15.6
Wet Density (Mg/m ³) :	2.17	2.29
Dry Density (Mg/m ³) :	1.86	1.98
Voids Ratio :	0.4210	0.3405

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 20	0.887	0.4084	0.44	11	4.0	
Loading		20 - 40	1.454	0.4003	0.29	645	0.067	
Loading		40 - 80	2.632	0.3836	0.30	1850	0.023	
Loading		80 - 160	4.201	0.3613	0.20	1155	0.036	
Loading		160 - 320	6.381	0.3303	0.14	1825	0.022	
Unloading		320 - 160	6.040	0.3352	NA	NA	NA	
Unloading		160 - 80	5.664	0.3405	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



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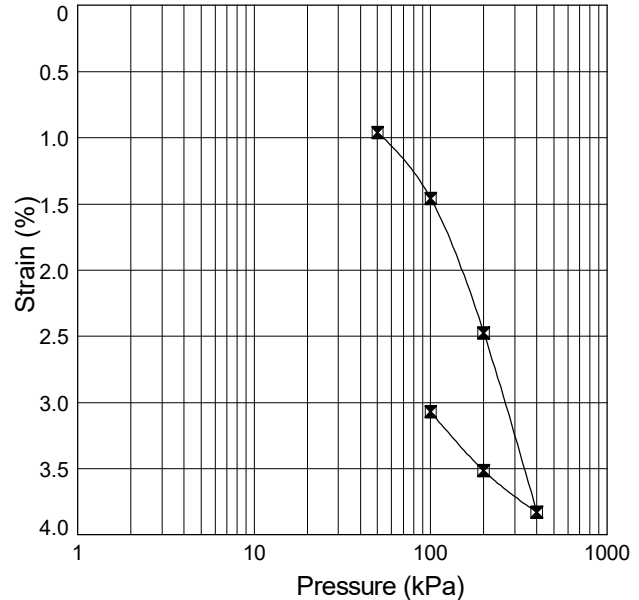
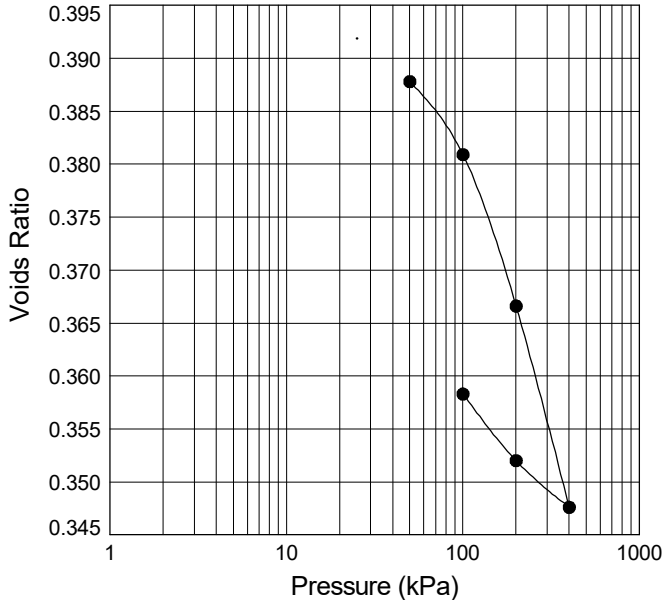


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH12** Sample Ref: **21** Sample Type: **UT** Depth (m): **5.00**

Description : **Dark brown slightly gravelly slightly sandy CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.03	75.03
Height (mm) :	19.48	18.88
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.6	15.3
Wet Density (Mg/m ³) :	2.19	2.25
Dry Density (Mg/m ³) :	1.89	1.95
Voids Ratio :	0.4013	0.3583

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 25	0.673	0.3919	NA	NA	NA	
Loading		25 - 50	0.960	0.3878	0.12	380	0.11	
Loading		50 - 100	1.458	0.3809	0.10	169	0.24	
Loading		100 - 200	2.474	0.3666	0.10	212	0.19	
Loading		200 - 400	3.830	0.3476	0.069	332	0.12	
Unloading		400 - 200	3.516	0.3520	NA	NA	NA	
Unloading		200 - 100	3.070	0.3583	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **17.1 - 23.2**.



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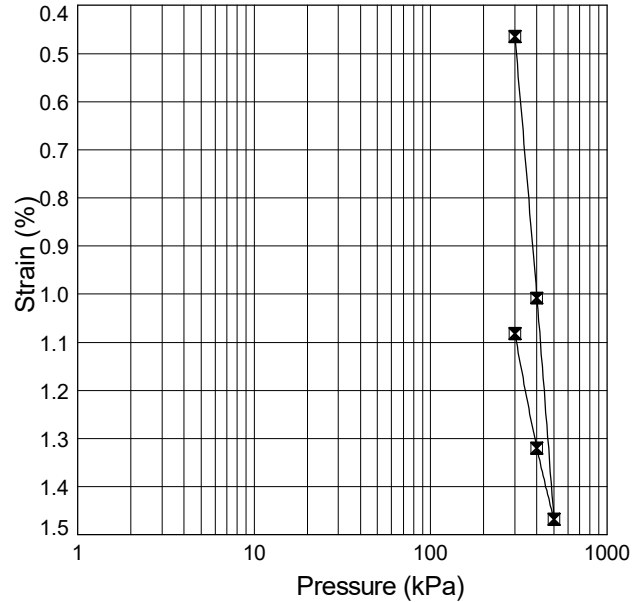
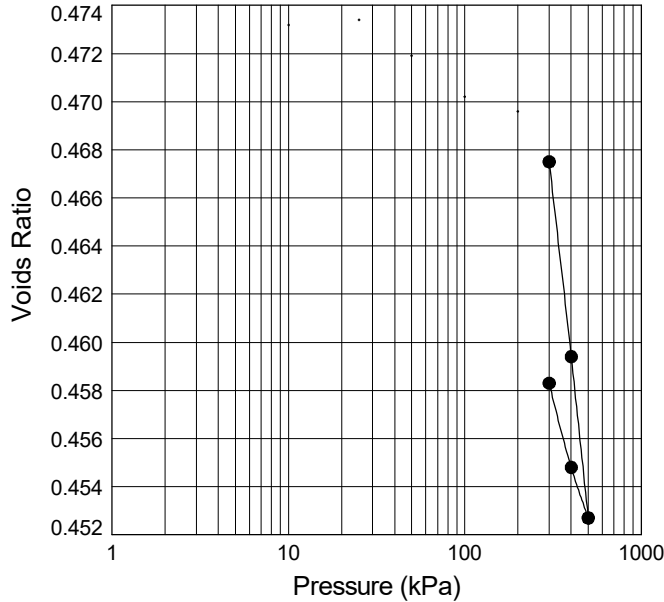


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH16** Sample Ref: **6** Sample Type: **UT** Depth (m): **1.20**

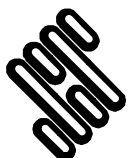
Description : **Brown gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.02	75.02
Height (mm) :	18.94	18.74
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	17.7	20.4
Wet Density (Mg/m ³) :	2.11	2.19
Dry Density (Mg/m ³) :	1.80	1.82
Voids Ratio :	0.4743	0.4583

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 10	0.074	0.4732	NA	NA	NA	
Swelling		10 - 25	0.058	0.4734	NA	NA	NA	
Swelling		25 - 50	0.164	0.4719	NA	NA	NA	
Swelling		50 - 100	0.280	0.4702	NA	NA	NA	
Swelling		100 - 200	0.322	0.4696	NA	NA	NA	
Loading		200 - 300	0.465	0.4675	0.014	1883	0.021	
Loading		300 - 400	1.008	0.4594	0.055	3463	0.011	
Loading		400 - 500	1.468	0.4527	0.046	2185	0.018	
Unloading		500 - 400	1.320	0.4548	NA	NA	NA	
Unloading		400 - 300	1.082	0.4583	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



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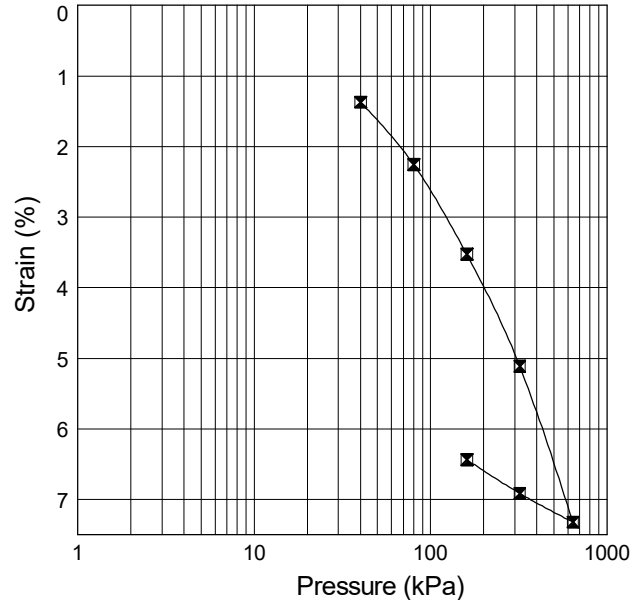
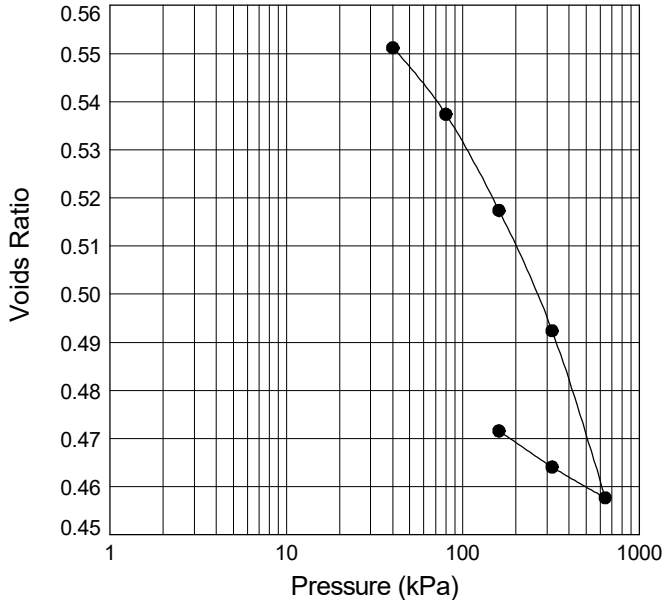


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP02** Sample Ref: **14** Sample Type: **UT** Depth (m): **4.00**

Description : **Brown grey slightly gravelly slightly sandy CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	74.98	74.98
Height (mm) :	19.18	17.95
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	20.2	18.9
Wet Density (Mg/m ³) :	2.03	2.14
Dry Density (Mg/m ³) :	1.68	1.80
Voids Ratio :	0.5728	0.4716

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 40	1.371	0.5512	0.34	0.4	101	
Loading		40 - 80	2.252	0.5374	0.22	129	0.31	
Loading		80 - 160	3.525	0.5174	0.16	600	0.064	
Loading		160 - 320	5.115	0.4924	0.10	463	0.081	
Loading		320 - 640	7.320	0.4577	0.073	268	0.13	
Unloading		640 - 320	6.914	0.4641	NA	NA	NA	
Unloading		320 - 160	6.434	0.4716	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



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ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

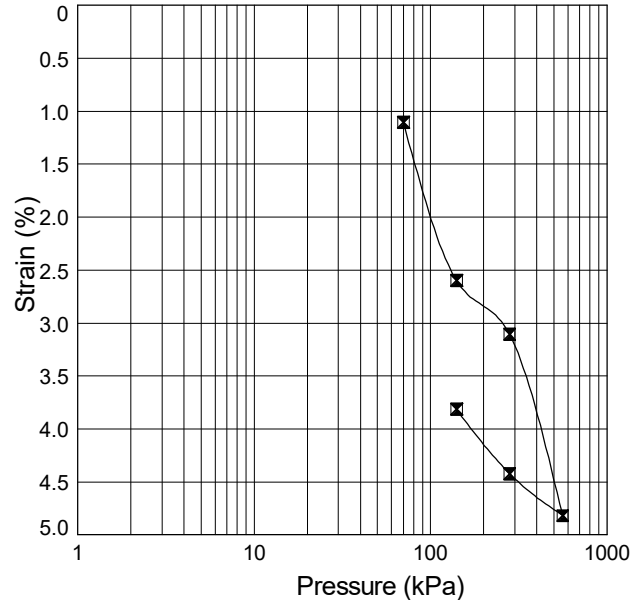
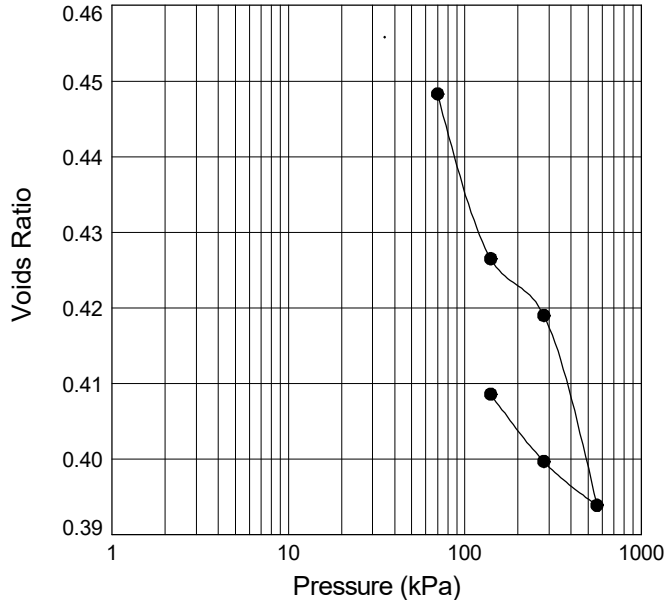
Position ID: **CP07**

Sample Ref: **12**

Sample Type: **UT**

Depth (m): **3.50**

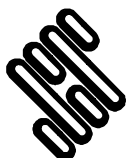
Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.01	75.01
Height (mm) :	18.90	18.18
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	18.2	17.5
Wet Density (Mg/m ³) :	2.14	2.21
Dry Density (Mg/m ³) :	1.81	1.88
Voids Ratio :	0.4645	0.4086

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 35	0.593	0.4558	NA	NA	NA	
Loading		35 - 70	1.106	0.4483	0.15	184	0.21	
Loading		70 - 140	2.598	0.4265	0.22	119	0.32	
Loading		140 - 280	3.106	0.4190	0.037	1850	0.020	
Loading		280 - 560	4.820	0.3939	0.063	223	0.16	
Unloading		560 - 280	4.423	0.3997	NA	NA	NA	
Unloading		280 - 140	3.815	0.4086	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



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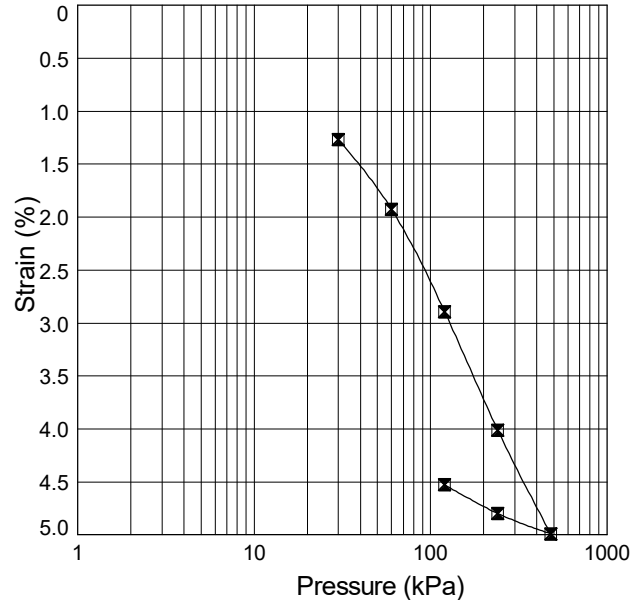
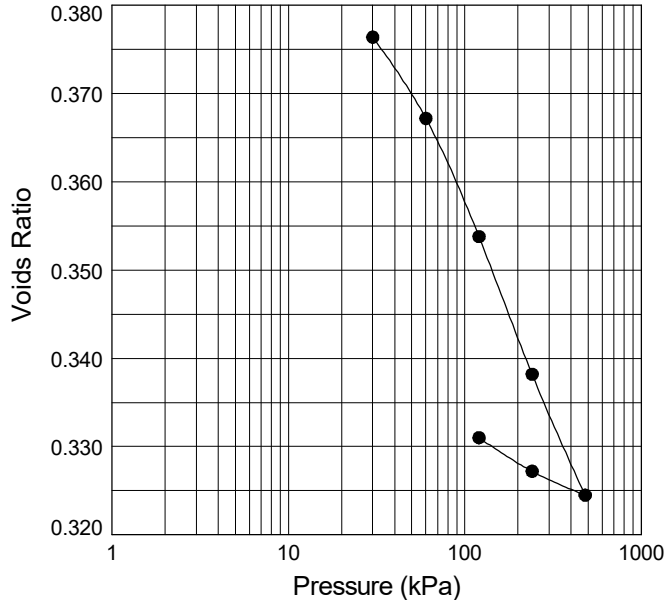


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP08** Sample Ref: **15** Sample Type: **U** Depth (m): **3.00**

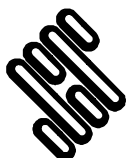
Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.01	75.01
Height (mm) :	19.57	18.68
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.7	14.5
Wet Density (Mg/m ³) :	2.20	2.28
Dry Density (Mg/m ³) :	1.90	1.99
Voids Ratio :	0.3941	0.3310

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 30	1.267	0.3764	0.42	19	2.3	
Loading		30 - 60	1.926	0.3672	0.22	380	0.11	
Loading		60 - 120	2.892	0.3538	0.16	327	0.12	
Loading		120 - 240	4.011	0.3382	0.096	431	0.092	
Loading		240 - 480	4.992	0.3245	0.043	248	0.16	
Loading		480 - 240	4.798	0.3272	0.009	0.0	0.16	
Loading		240 - 120	4.527	0.3310	0.024	0.0	0.16	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **16.5 - 24.2**.



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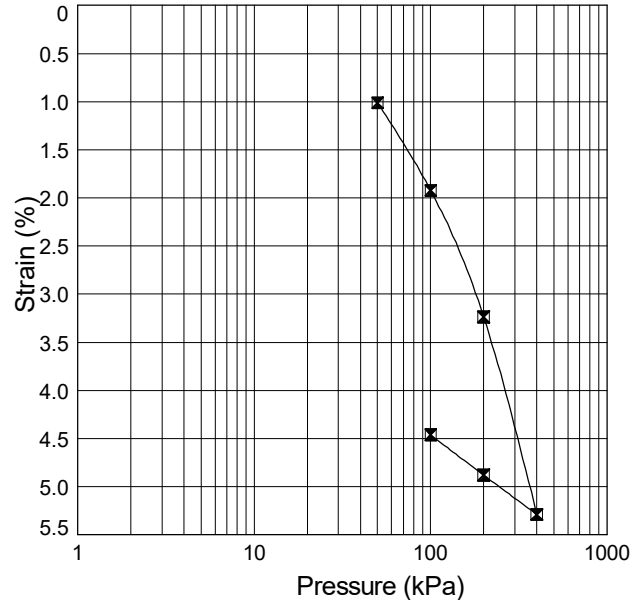
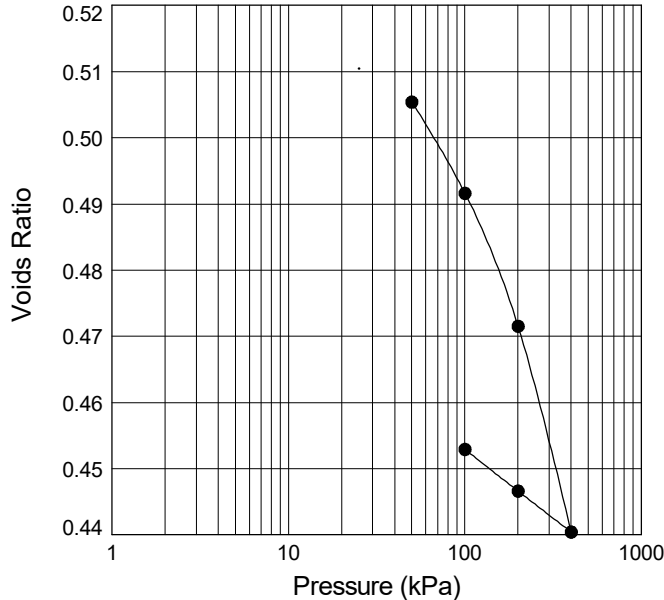


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP18** Sample Ref: **9** Sample Type: **UT** Depth (m): **2.50**

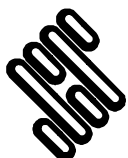
Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.05	75.05
Height (mm) :	19.36	18.50
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	17.3	19.7
Wet Density (Mg/m ³) :	2.04	2.18
Dry Density (Mg/m ³) :	1.74	1.82
Voids Ratio :	0.5208	0.4529

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 25	0.677	0.5105	NA	NA	NA	
Loading		25 - 50	1.012	0.5054	0.14	731	0.056	
Loading		50 - 100	1.922	0.4916	0.18	604	0.067	
Loading		100 - 200	3.239	0.4715	0.13	1020	0.039	
Loading		200 - 400	5.289	0.4404	0.11	189	0.20	
Loading		400 - 200	4.881	0.4466	0.022	0.0	0.20	
Unloading		200 - 100	4.463	0.4529	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

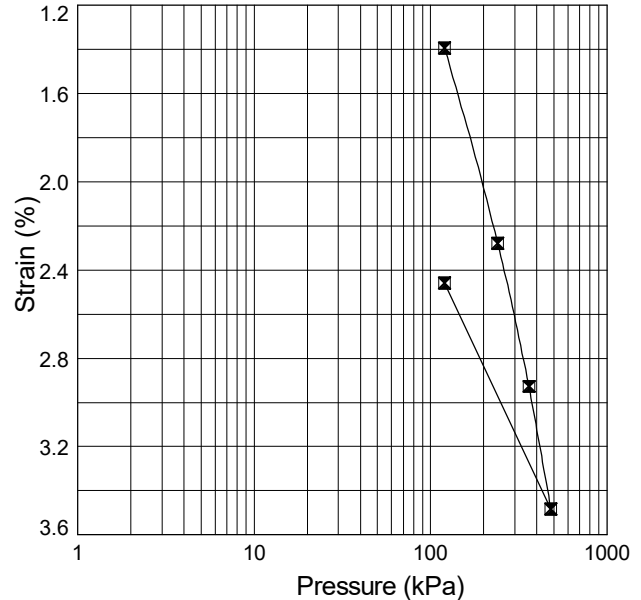
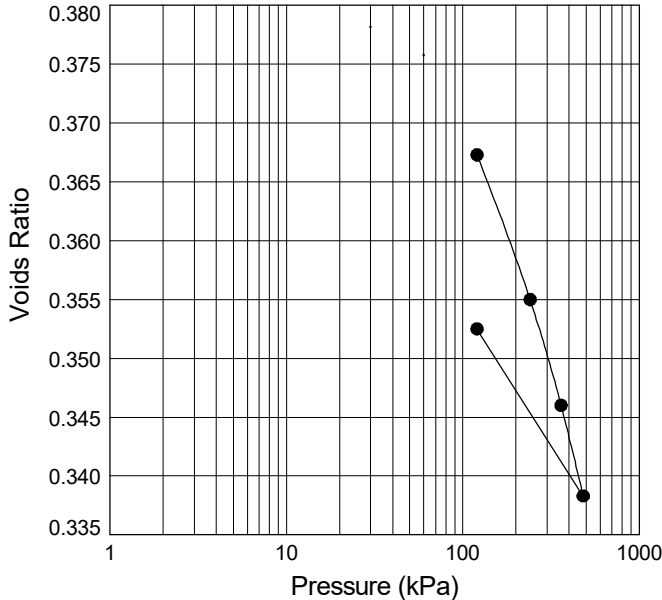


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP24** Sample Ref: **13** Sample Type: **UT** Depth (m): **3.00**

Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.03	75.03
Height (mm) :	19.44	18.96
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.0	16.7
Wet Density (Mg/m ³) :	2.20	2.29
Dry Density (Mg/m ³) :	1.91	1.96
Voids Ratio :	0.3866	0.3525

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 30	0.607	0.3782	NA	NA	NA	
Swelling		30 - 60	0.782	0.3758	NA	NA	NA	
Loading		60 - 120	1.394	0.3673	0.10	67	0.61	
Loading		120 - 240	2.279	0.3550	0.075	195	0.21	
Loading		240 - 360	2.927	0.3460	0.055	965	0.041	
Loading		360 - 480	3.483	0.3383	0.048	1075	0.037	
Unloading		480 - 120	2.459	0.3525	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514



ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

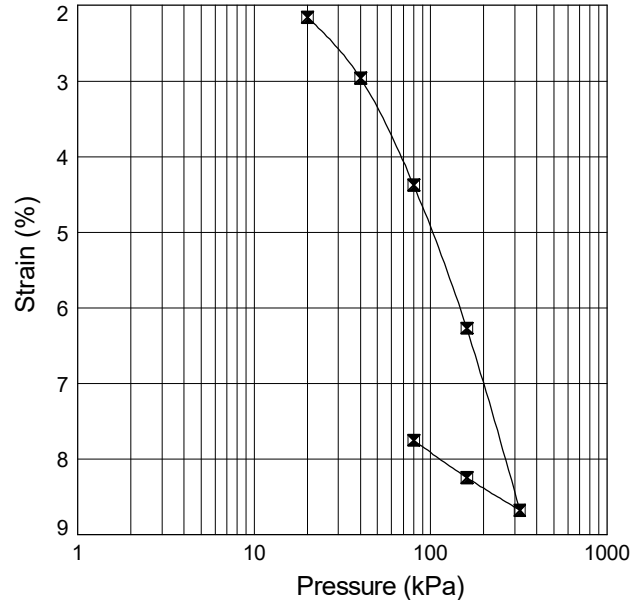
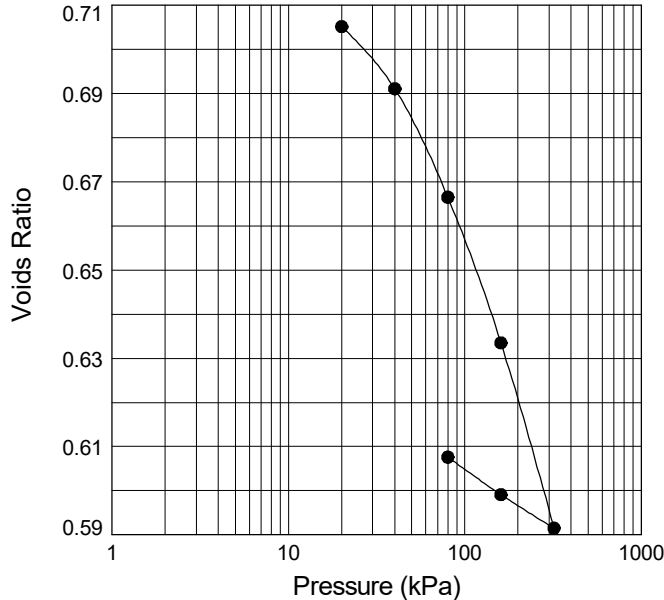
Position ID: **CP26**

Sample Ref: **15**

Sample Type: **UT**

Depth (m): **2.00**

Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	74.99	74.99
Height (mm) :	19.91	18.37
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	29.6	27.2
Wet Density (Mg/m ³) :	1.97	2.10
Dry Density (Mg/m ³) :	1.52	1.65
Voids Ratio :	0.7427	0.6076

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 20	2.155	0.7052	1.1	36	1.2	
Loading		20 - 40	2.963	0.6911	0.41	729	0.057	
Loading		40 - 80	4.375	0.6665	0.36	645	0.063	
Loading		80 - 160	6.268	0.6335	0.25	1389	0.028	
Loading		160 - 320	8.674	0.5915	0.16	1109	0.034	
Unloading		320 - 160	8.242	0.5991	NA	NA	NA	
Unloading		160 - 80	7.750	0.6076	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

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30/03/23

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765514

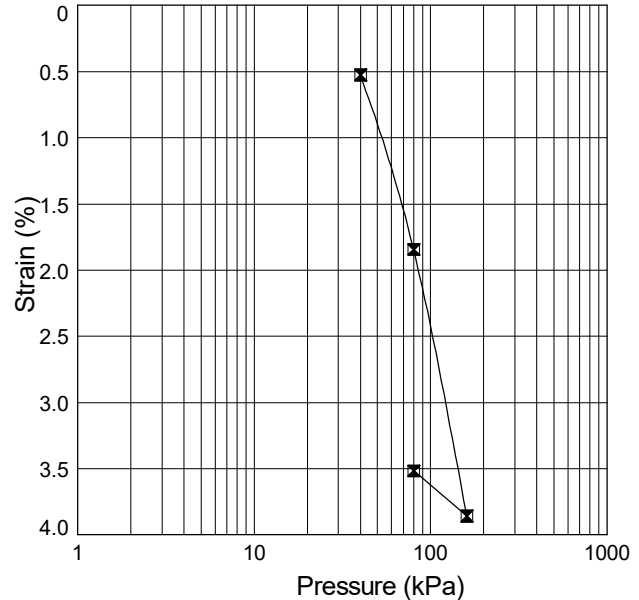
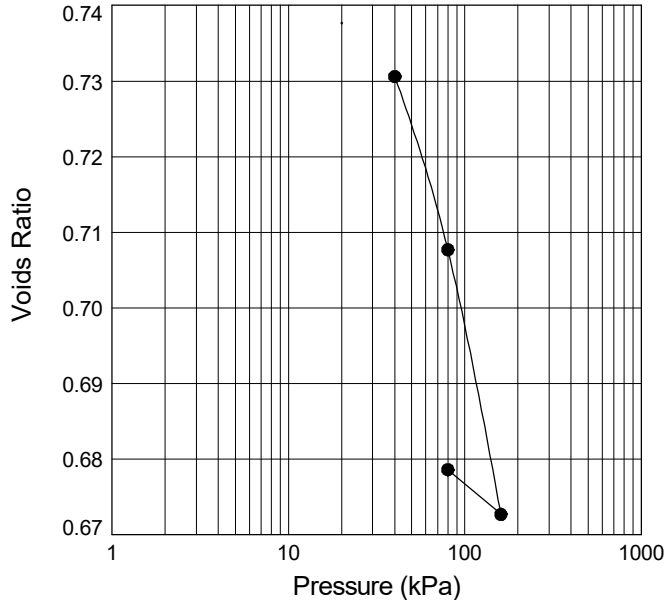


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH04** Sample Ref: **9** Sample Type: **UT** Depth (m): **2.00**

Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.05	75.05
Height (mm) :	19.96	19.26
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	28.7	28.4
Wet Density (Mg/m ³) :	1.96	2.03
Dry Density (Mg/m ³) :	1.52	1.58
Voids Ratio :	0.7398	0.6786

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 20	0.120	0.7377	NA	NA	NA	
Loading		20 - 40	0.526	0.7306	0.20	247	0.18	
Loading		40 - 80	1.844	0.7077	0.33	3587	0.012	
Loading		80 - 160	3.858	0.6727	0.26	2228	0.019	
Unloading		160 - 80	3.517	0.6786	NA	NA	NA	Unloading stage

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

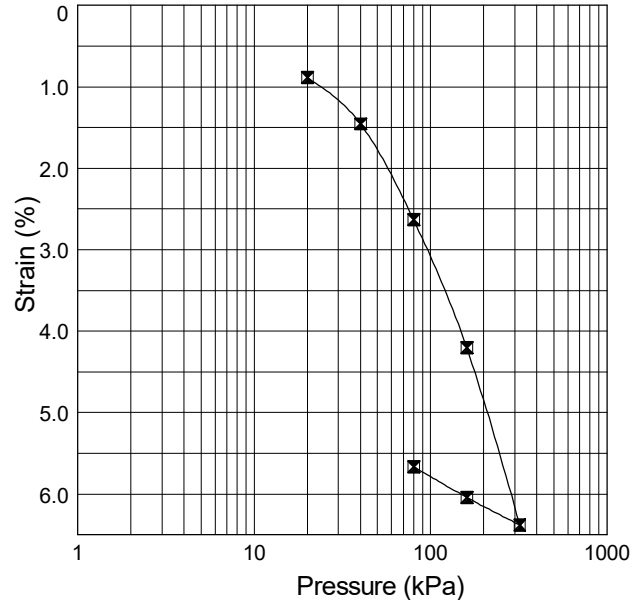
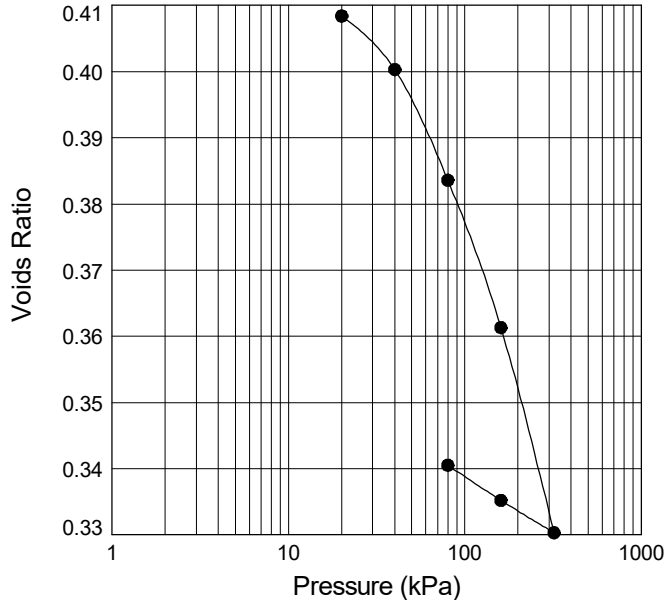


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH09** Sample Ref: **18** Sample Type: **UT** Depth (m): **2.00**

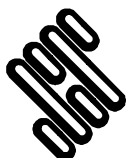
Description : **Brown slightly sandy slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.00	75.00
Height (mm) :	19.95	18.82
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	16.3	15.6
Wet Density (Mg/m ³) :	2.17	2.29
Dry Density (Mg/m ³) :	1.86	1.98
Voids Ratio :	0.4210	0.3405

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 20	0.887	0.4084	0.44	11	4.0	
Loading		20 - 40	1.454	0.4003	0.29	645	0.067	
Loading		40 - 80	2.632	0.3836	0.30	1850	0.023	
Loading		80 - 160	4.201	0.3613	0.20	1155	0.036	
Loading		160 - 320	6.381	0.3303	0.14	1825	0.022	
Unloading		320 - 160	6.040	0.3352	NA	NA	NA	
Unloading		160 - 80	5.664	0.3405	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract	Contract Ref:	
EMG Phase 2	765514	

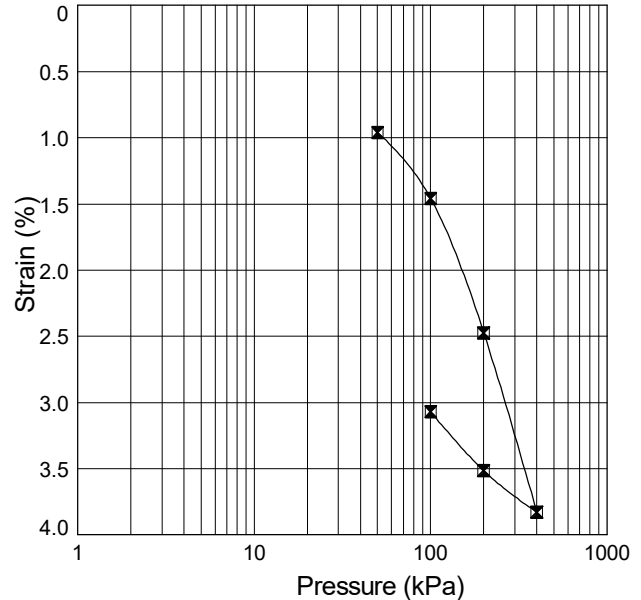
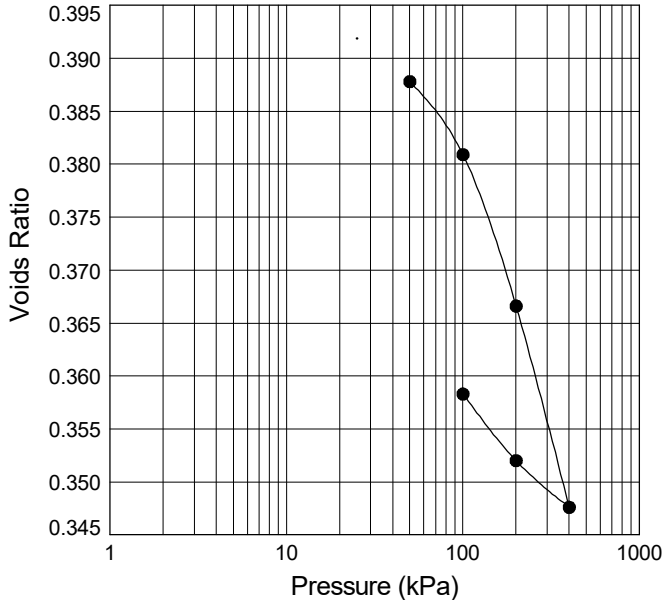


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH12** Sample Ref: **21** Sample Type: **UT** Depth (m): **5.00**

Description : **Dark brown slightly gravelly slightly sandy CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.03	75.03
Height (mm) :	19.48	18.88
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.6	15.3
Wet Density (Mg/m ³) :	2.19	2.25
Dry Density (Mg/m ³) :	1.89	1.95
Voids Ratio :	0.4013	0.3583

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 25	0.673	0.3919	NA	NA	NA	
Loading		25 - 50	0.960	0.3878	0.12	380	0.11	
Loading		50 - 100	1.458	0.3809	0.10	169	0.24	
Loading		100 - 200	2.474	0.3666	0.10	212	0.19	
Loading		200 - 400	3.830	0.3476	0.069	332	0.12	
Unloading		400 - 200	3.516	0.3520	NA	NA	NA	
Unloading		200 - 100	3.070	0.3583	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **17.1 - 23.2**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract	Contract Ref:	
EMG Phase 2	765514	

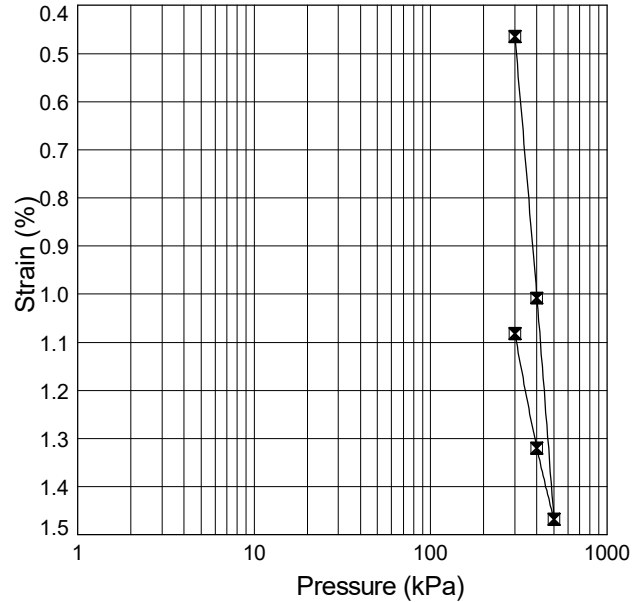
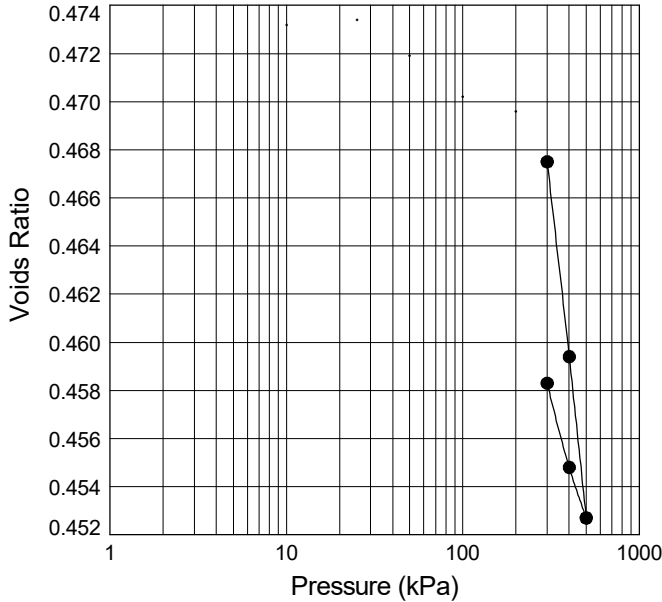


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Borehole: **BH16** Sample Ref: **6** Sample Type: **UT** Depth (m): **1.20**

Description : **Brown gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.02	75.02
Height (mm) :	18.94	18.74
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	17.7	20.4
Wet Density (Mg/m ³) :	2.11	2.19
Dry Density (Mg/m ³) :	1.80	1.82
Voids Ratio :	0.4743	0.4583

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 10	0.074	0.4732	NA	NA	NA	
Swelling		10 - 25	0.058	0.4734	NA	NA	NA	
Swelling		25 - 50	0.164	0.4719	NA	NA	NA	
Swelling		50 - 100	0.280	0.4702	NA	NA	NA	
Swelling		100 - 200	0.322	0.4696	NA	NA	NA	
Loading		200 - 300	0.465	0.4675	0.014	1883	0.021	
Loading		300 - 400	1.008	0.4594	0.055	3463	0.011	
Loading		400 - 500	1.468	0.4527	0.046	2185	0.018	
Unloading		500 - 400	1.320	0.4548	NA	NA	NA	
Unloading		400 - 300	1.082	0.4583	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract	Contract Ref:	
EMG Phase 2	765514	

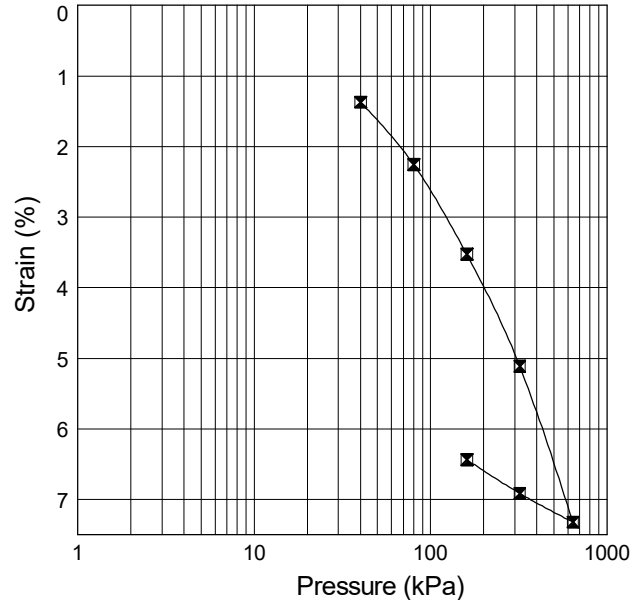
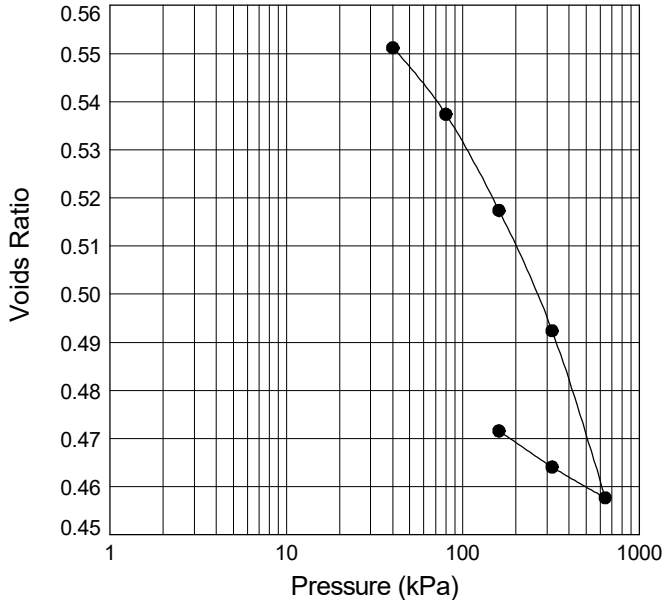


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP02** Sample Ref: **14** Sample Type: **UT** Depth (m): **4.00**

Description : **Brown grey slightly gravelly slightly sandy CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	74.98	74.98
Height (mm) :	19.18	17.95
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	20.2	18.9
Wet Density (Mg/m ³) :	2.03	2.14
Dry Density (Mg/m ³) :	1.68	1.80
Voids Ratio :	0.5728	0.4716

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 40	1.371	0.5512	0.34	0.4	101	
Loading		40 - 80	2.252	0.5374	0.22	129	0.31	
Loading		80 - 160	3.525	0.5174	0.16	600	0.064	
Loading		160 - 320	5.115	0.4924	0.10	463	0.081	
Loading		320 - 640	7.320	0.4577	0.073	268	0.13	
Unloading		640 - 320	6.914	0.4641	NA	NA	NA	
Unloading		320 - 160	6.434	0.4716	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

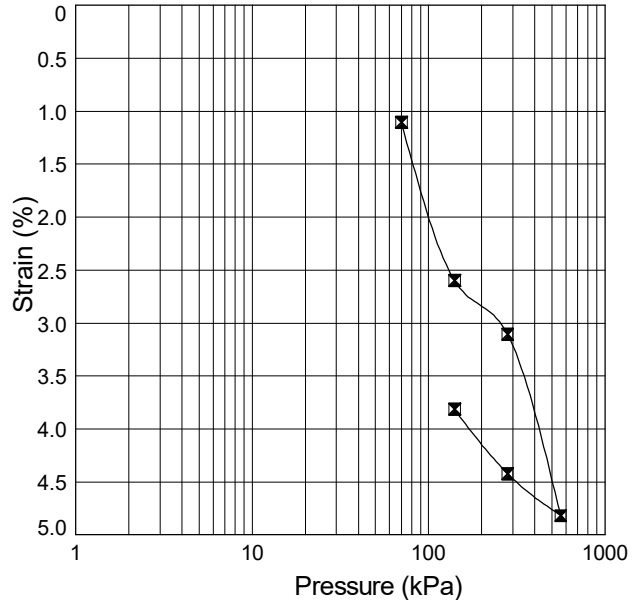
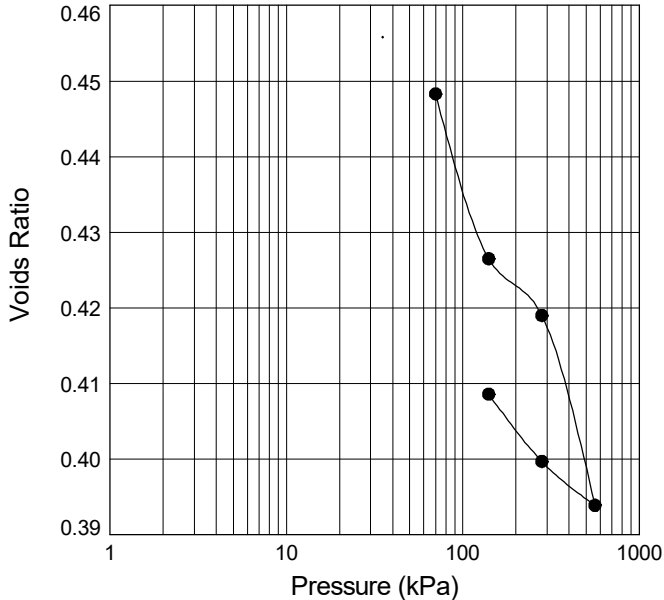


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP07** Sample Ref: **12** Sample Type: **UT** Depth (m): **3.50**

Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.01	75.01
Height (mm) :	18.90	18.18
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	18.2	17.5
Wet Density (Mg/m ³) :	2.14	2.21
Dry Density (Mg/m ³) :	1.81	1.88
Voids Ratio :	0.4645	0.4086

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 35	0.593	0.4558	NA	NA	NA	
Loading		35 - 70	1.106	0.4483	0.15	184	0.21	
Loading		70 - 140	2.598	0.4265	0.22	119	0.32	
Loading		140 - 280	3.106	0.4190	0.037	1850	0.020	
Loading		280 - 560	4.820	0.3939	0.063	223	0.16	
Unloading		560 - 280	4.423	0.3997	NA	NA	NA	
Unloading		280 - 140	3.815	0.4086	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

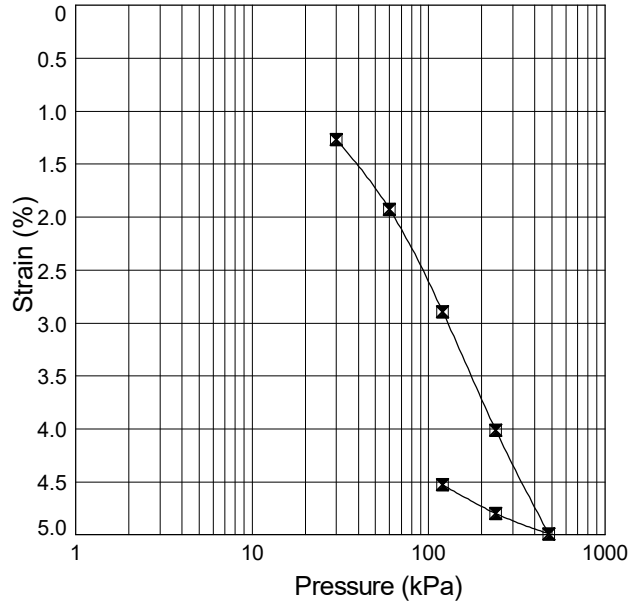
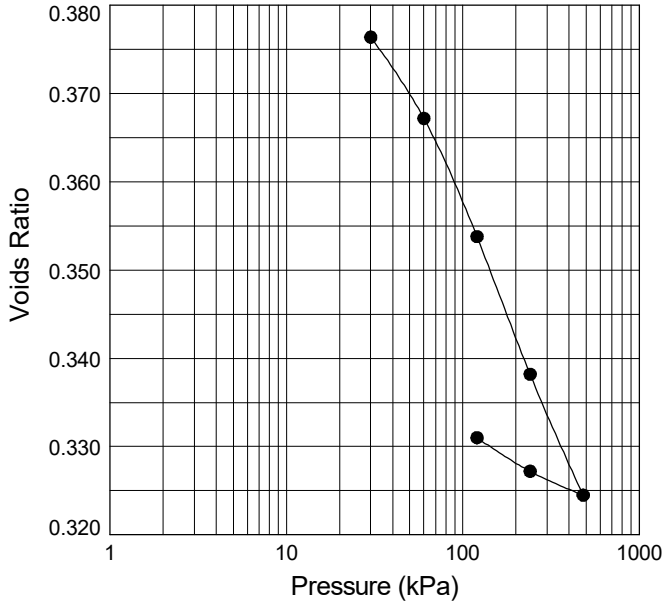


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP08** Sample Ref: **15** Sample Type: **U** Depth (m): **3.00**

Description : **Brown slightly gravelly CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.01	75.01
Height (mm) :	19.57	18.68
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.7	14.5
Wet Density (Mg/m ³) :	2.20	2.28
Dry Density (Mg/m ³) :	1.90	1.99
Voids Ratio :	0.3941	0.3310

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 30	1.267	0.3764	0.42	19	2.3	
Loading		30 - 60	1.926	0.3672	0.22	380	0.11	
Loading		60 - 120	2.892	0.3538	0.16	327	0.12	
Loading		120 - 240	4.011	0.3382	0.096	431	0.092	
Loading		240 - 480	4.992	0.3245	0.043	248	0.16	
Loading		480 - 240	4.798	0.3272	0.009	0.0	0.16	
Loading		240 - 120	4.527	0.3310	0.024	0.0	0.16	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **16.5 - 24.2**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

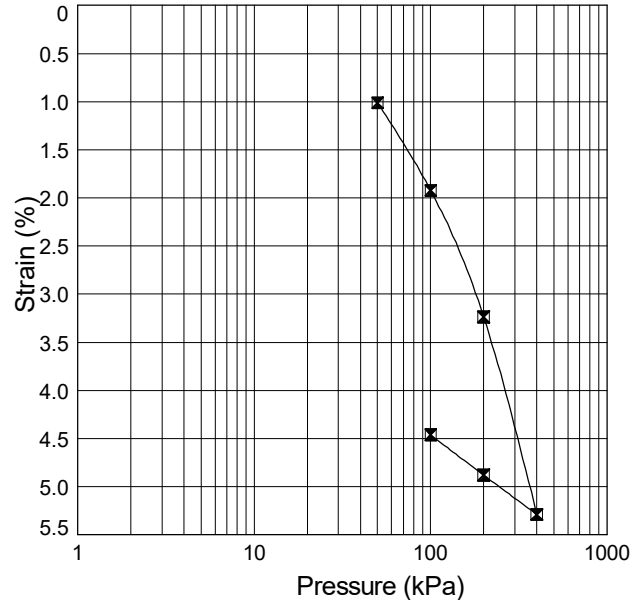
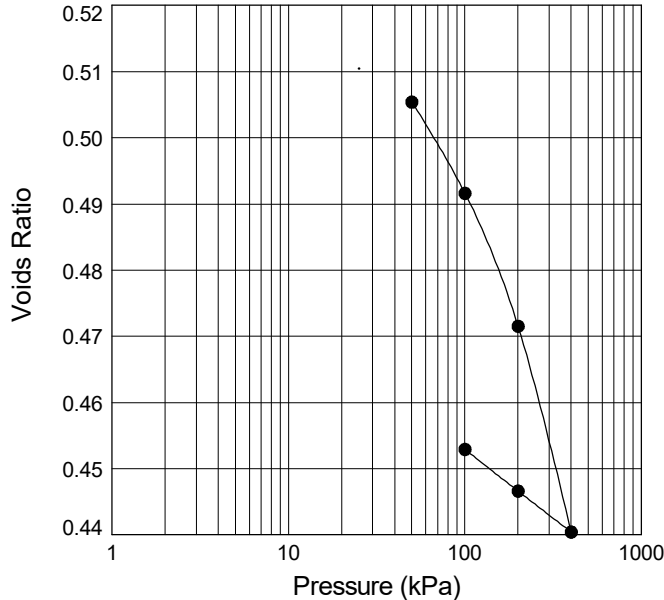


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP18** Sample Ref: **9** Sample Type: **UT** Depth (m): **2.50**

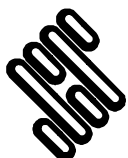
Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.05	75.05
Height (mm) :	19.36	18.50
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	17.3	19.7
Wet Density (Mg/m ³) :	2.04	2.18
Dry Density (Mg/m ³) :	1.74	1.82
Voids Ratio :	0.5208	0.4529

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 25	0.677	0.5105	NA	NA	NA	
Loading		25 - 50	1.012	0.5054	0.14	731	0.056	
Loading		50 - 100	1.922	0.4916	0.18	604	0.067	
Loading		100 - 200	3.239	0.4715	0.13	1020	0.039	
Loading		200 - 400	5.289	0.4404	0.11	189	0.20	
Loading		400 - 200	4.881	0.4466	0.022	0.0	0.20	
Unloading		200 - 100	4.463	0.4529	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

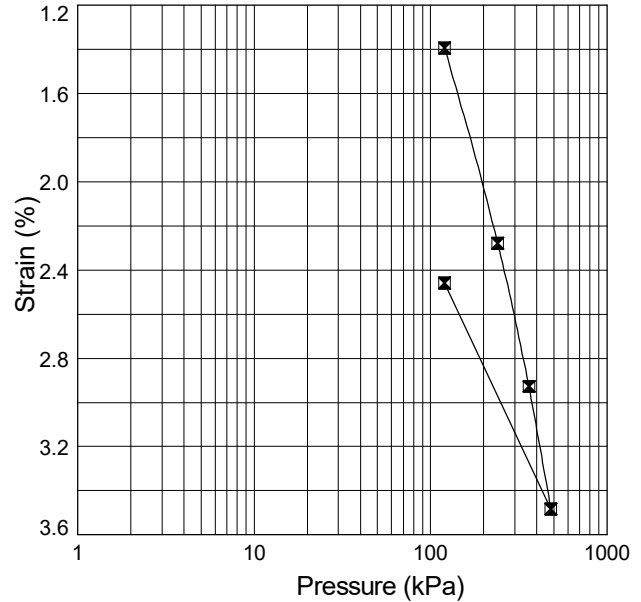
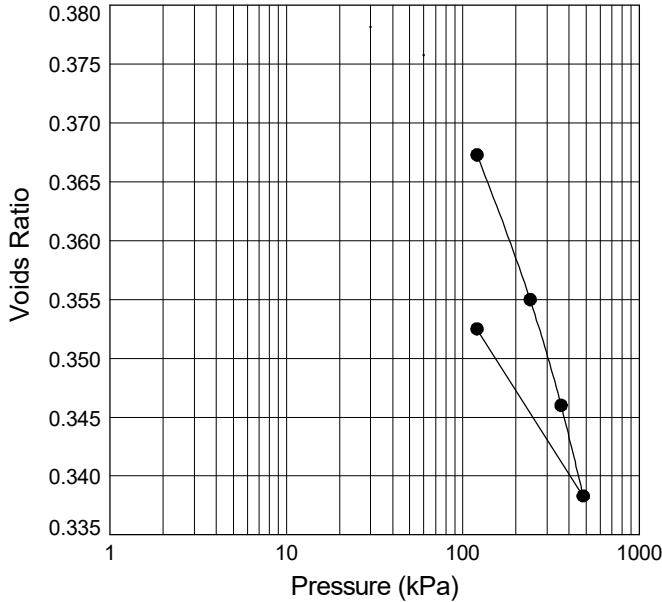


ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

Position ID: **CP24** Sample Ref: **13** Sample Type: **UT** Depth (m): **3.00**

Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	75.03	75.03
Height (mm) :	19.44	18.96
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	15.0	16.7
Wet Density (Mg/m ³) :	2.20	2.29
Dry Density (Mg/m ³) :	1.91	1.96
Voids Ratio :	0.3866	0.3525

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Swelling		0 - 30	0.607	0.3782	NA	NA	NA	
Swelling		30 - 60	0.782	0.3758	NA	NA	NA	
Loading		60 - 120	1.394	0.3673	0.10	67	0.61	
Loading		120 - 240	2.279	0.3550	0.075	195	0.21	
Loading		240 - 360	2.927	0.3460	0.055	965	0.041	
Loading		360 - 480	3.483	0.3383	0.048	1075	0.037	
Unloading		480 - 120	2.459	0.3525	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract	Contract Ref:	
EMG Phase 2	765514	



ONE-DIMENSIONAL CONSOLIDATION TEST

In accordance with BS EN ISO 17892 Part 5

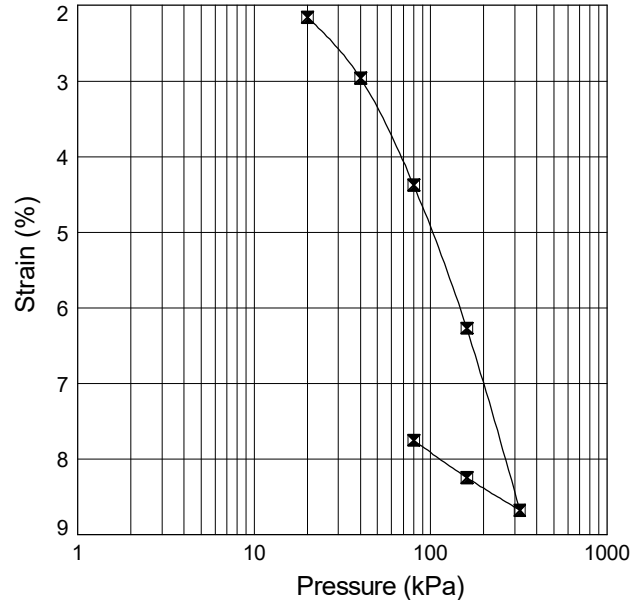
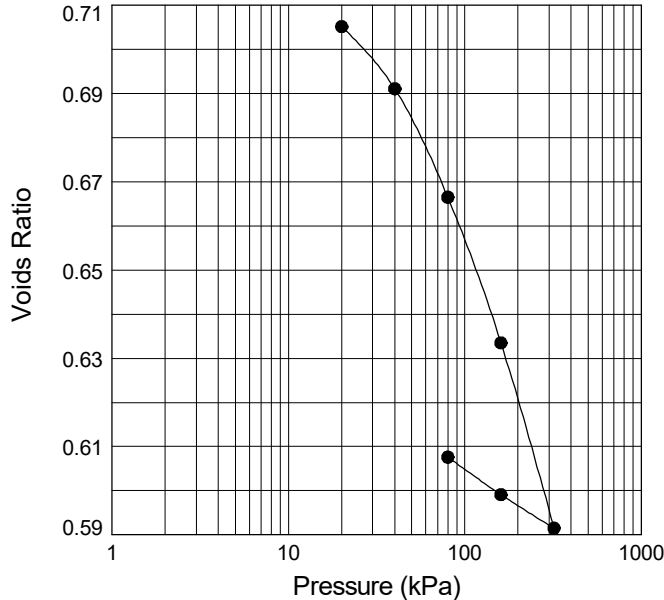
Position ID: **CP26**

Sample Ref: **15**

Sample Type: **UT**

Depth (m): **2.00**

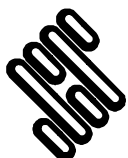
Description : **Brown CLAY**



SPECIMEN DETAILS	INITIAL	FINAL
Diameter (mm) :	74.99	74.99
Height (mm) :	19.91	18.37
Assumed Particle Density (Mg/m ³) :	2.65	2.65
Water Content (%) :	29.6	27.2
Wet Density (Mg/m ³) :	1.97	2.10
Dry Density (Mg/m ³) :	1.52	1.65
Voids Ratio :	0.7427	0.6076

TEST DETAILS								
Stage	Duration (days)	Pressure (kPa)	Strain (%)	Void Ratio	M _v (m ² /MN)	T ₉₀ (min)	C _v (m ² /yr)	Comments etc.
Loading		0 - 20	2.155	0.7052	1.1	36	1.2	
Loading		20 - 40	2.963	0.6911	0.41	729	0.057	
Loading		40 - 80	4.375	0.6665	0.36	645	0.063	
Loading		80 - 160	6.268	0.6335	0.25	1389	0.028	
Loading		160 - 320	8.674	0.5915	0.16	1109	0.034	
Unloading		320 - 160	8.242	0.5991	NA	NA	NA	
Unloading		160 - 80	7.750	0.6076	NA	NA	NA	

Notes: Method of time-setting used (min): **T₉₀**. Temperature range during test (degC): **13.2 - 23.4**.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

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Date

Contract

EMG Phase 2

LORNA WHITWORTH

30/03/23

Contract Ref:

765514

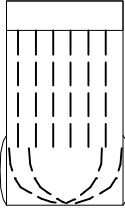


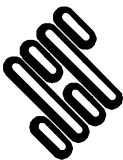
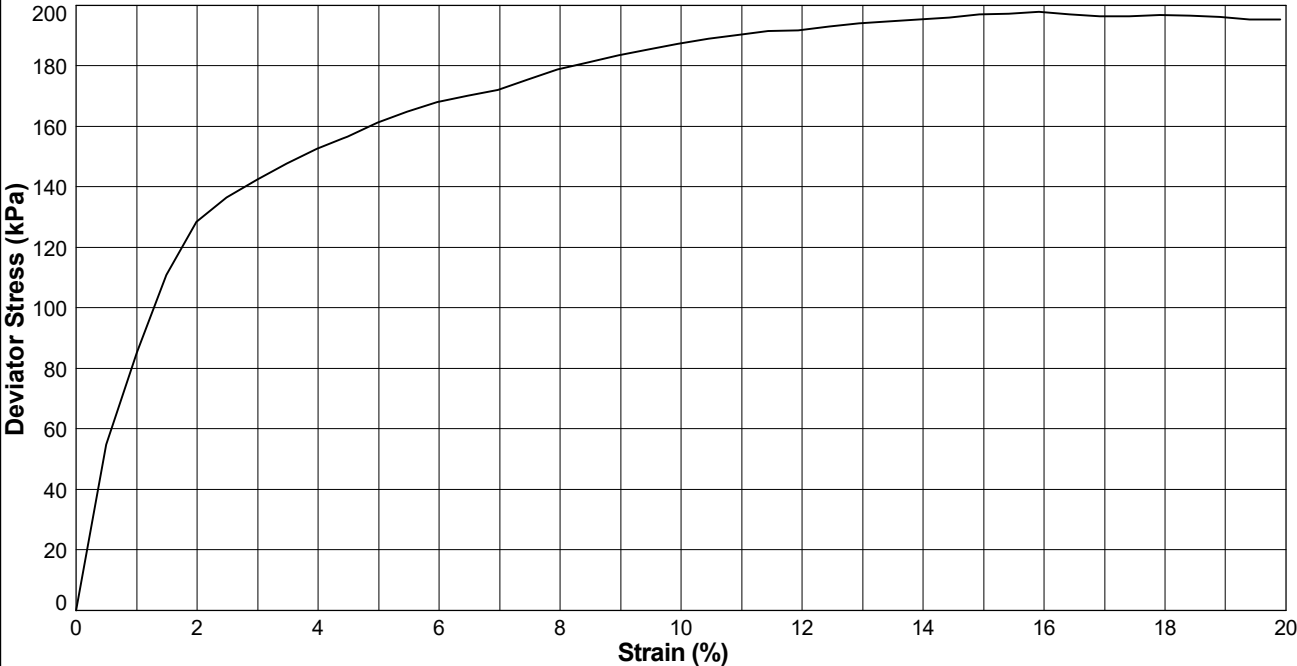
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

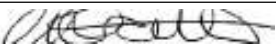
Position ID: **CP24** Sample Ref: **7** Sample Type: **UT** Depth (m): **1.20**

Description : **Brown slightly gravelly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.50		
	Height (mm)	201.00		
	Water Content (%)	17.9		
	Bulk Density (Mg/m ³)	2.17		
	Dry Density (Mg/m ³)	1.84		
	Void Ratio	0.4420		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.01		
	Cell Pressure (kPa)	24		
	Membrane Correction (kPa)	1.54		
	Corrected Deviator Stress (kPa)	197		
	Undrained Shear Strength (kPa)	99		
FAILURE DETAILS	Strain at Failure (%)	15.0		
	Mode of Failure	1 : Semi-plastic (bulging, shear & axial splitting)		



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

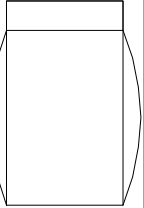


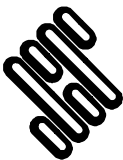
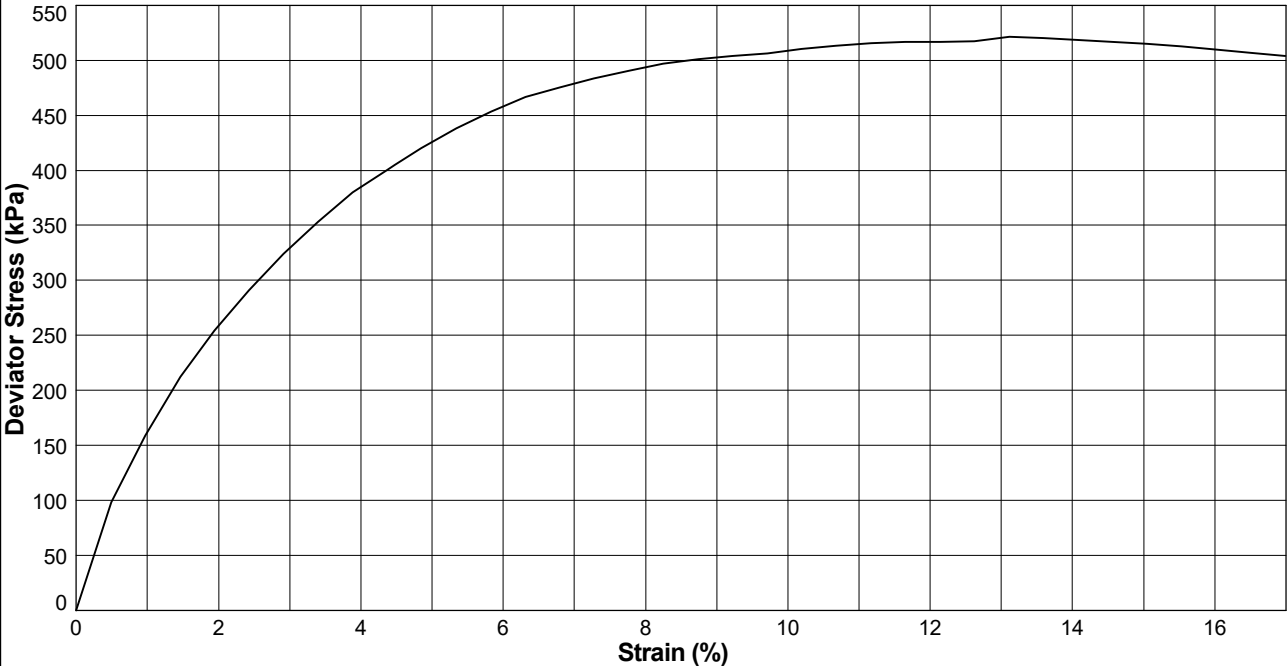
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In accordance with BS EN ISO 17892 Part 8

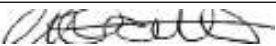
Position ID: **CP17** Sample Ref: **13** Sample Type: **UT** Depth (m): **3.50**

Description : **Brown gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.00		
	Height (mm)	206.00		
	Water Content (%)	14.1		
	Bulk Density (Mg/m ³)	2.40		
	Dry Density (Mg/m ³)	2.10		
	Void Ratio	0.2618		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	70		
	Membrane Correction (kPa)	1.40		
	Corrected Deviator Stress (kPa)	521		
	Undrained Shear Strength (kPa)	261		
FAILURE DETAILS	Strain at Failure (%)	13.1		
	Mode of Failure			
	1 : Plastic (Barrelling)			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

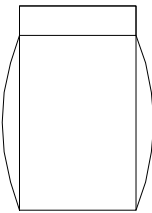


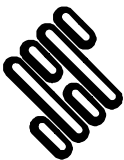
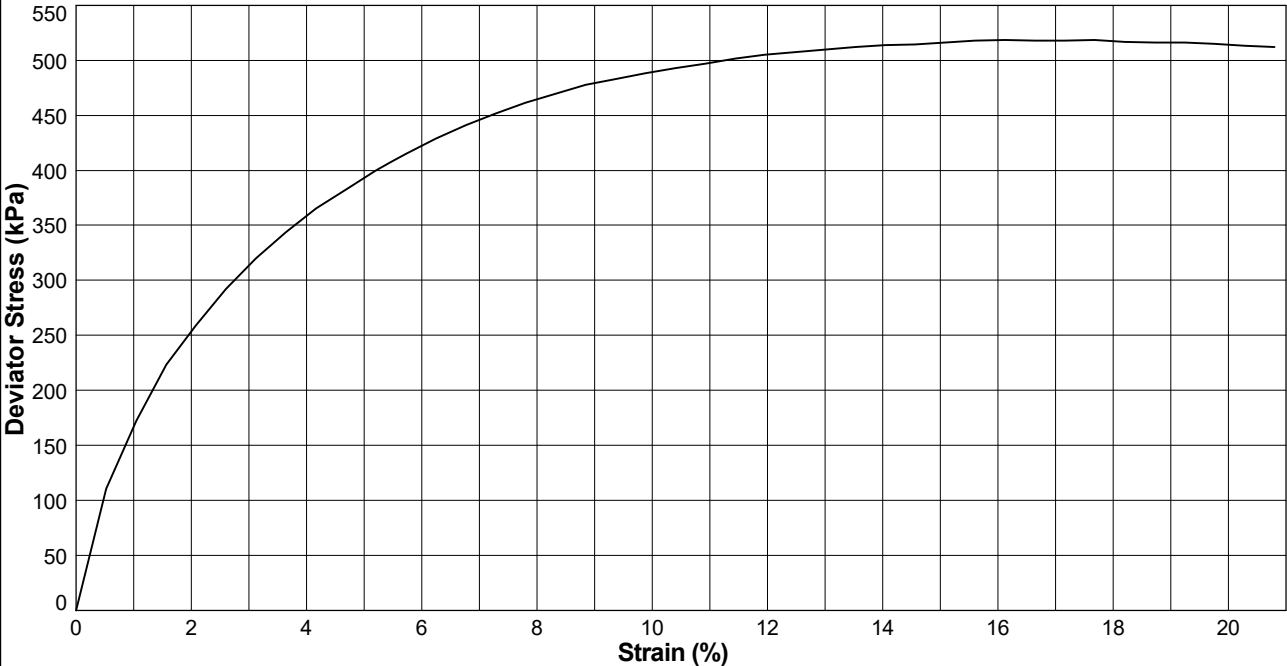
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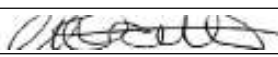
Position ID: **CP17** Sample Ref: **24** Sample Type: **UT** Depth (m): **7.50**

Description : **Brown slightly gravelly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.17		
	Height (mm)	192.33		
	Water Content (%)	14.2		
	Bulk Density (Mg/m ³)	2.41		
	Dry Density (Mg/m ³)	2.11		
	Void Ratio	0.2584		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	150		
	Membrane Correction (kPa)	1.55		
	Corrected Deviator Stress (kPa)	516		
	Undrained Shear Strength (kPa)	258		
FAILURE DETAILS	Strain at Failure (%)	15.0		
	Mode of Failure			
	1 : Plastic (Barrelling)			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

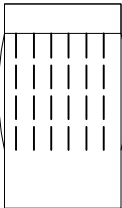


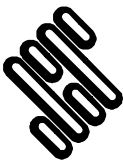
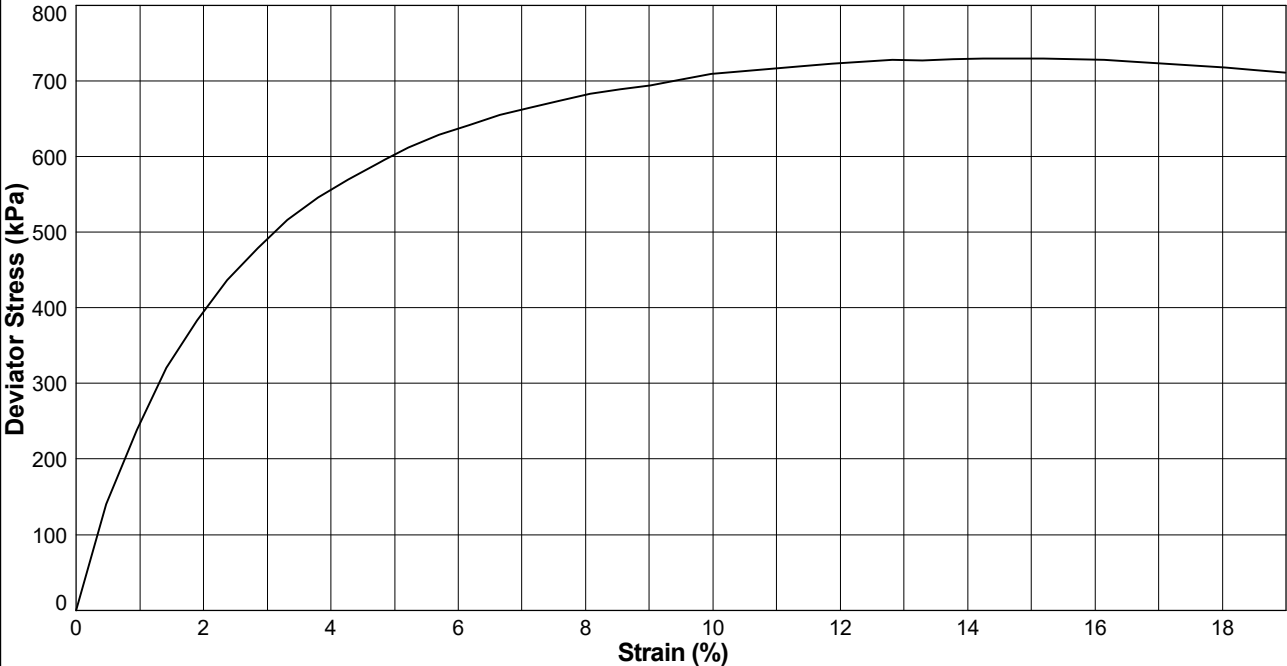
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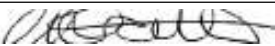
Borehole: **BH12** Sample Ref: **28** Sample Type: **UT** Depth (m): **7.50**

Description : **Dark brown gravelly slightly sandy CLAY with chalk**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	95.83		
	Height (mm)	210.67		
	Water Content (%)	13.5		
	Bulk Density (Mg/m ³)	2.57		
	Dry Density (Mg/m ³)	2.27		
	Void Ratio	0.1695		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	150		
	Membrane Correction (kPa)	1.54		
	Corrected Deviator Stress (kPa)	730		
	Undrained Shear Strength (kPa)	365		
FAILURE DETAILS	Strain at Failure (%)	14.2		
	Mode of Failure			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

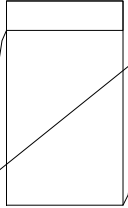


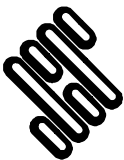
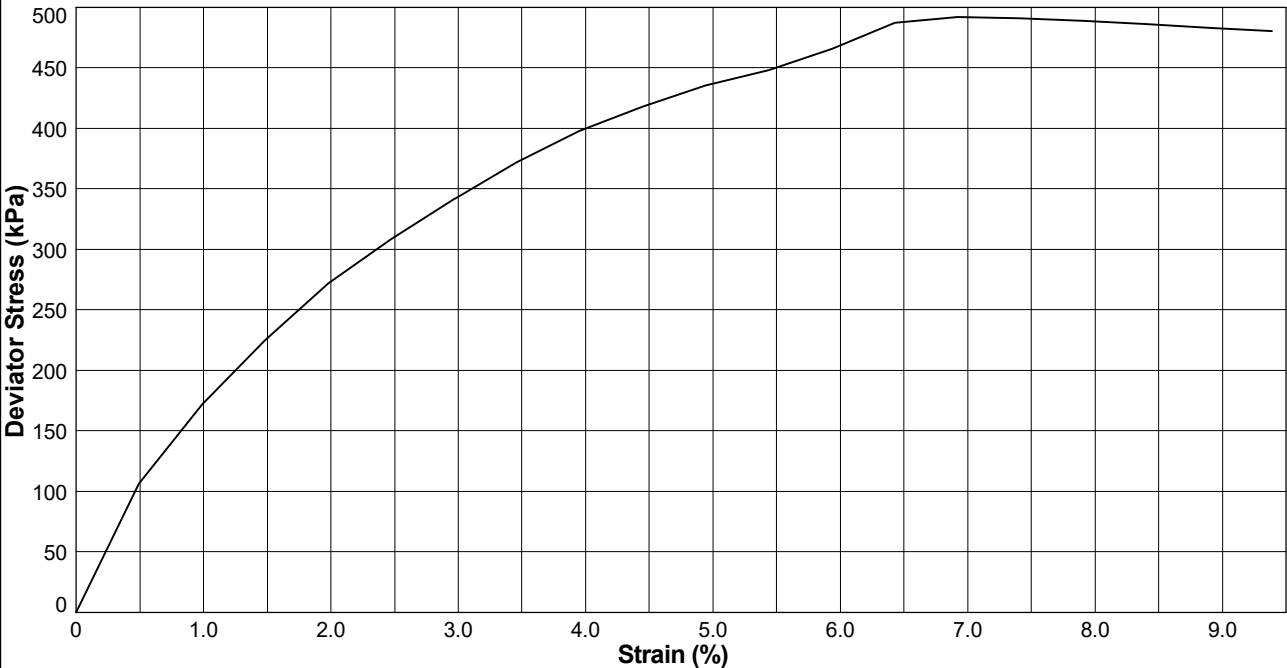
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

Borehole: **BH12** Sample Ref: **34** Sample Type: **UT** Depth (m): **10.50**

Description : **Dark brown slightly gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.00		
	Height (mm)	202.33		
	Water Content (%)	17.3		
	Bulk Density (Mg/m ³)	2.34		
	Dry Density (Mg/m ³)	2.00		
	Void Ratio	0.3257		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	210		
	Membrane Correction (kPa)	0.87		
	Corrected Deviator Stress (kPa)	492		
	Undrained Shear Strength (kPa)	246		
FAILURE DETAILS	Strain at Failure (%)	6.9		
	Mode of Failure			
	1 : Brittle (shear plane)			



STRUCTURAL SOILS
The Potteries
Pottery Street
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W. Yorkshire WF10 1NJ

Compiled By

LAURA SCHRAMM

Date

30/03/23

Contract

EMG Phase 2

Contract Ref:

765514

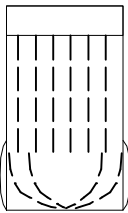


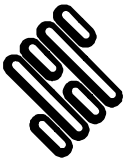
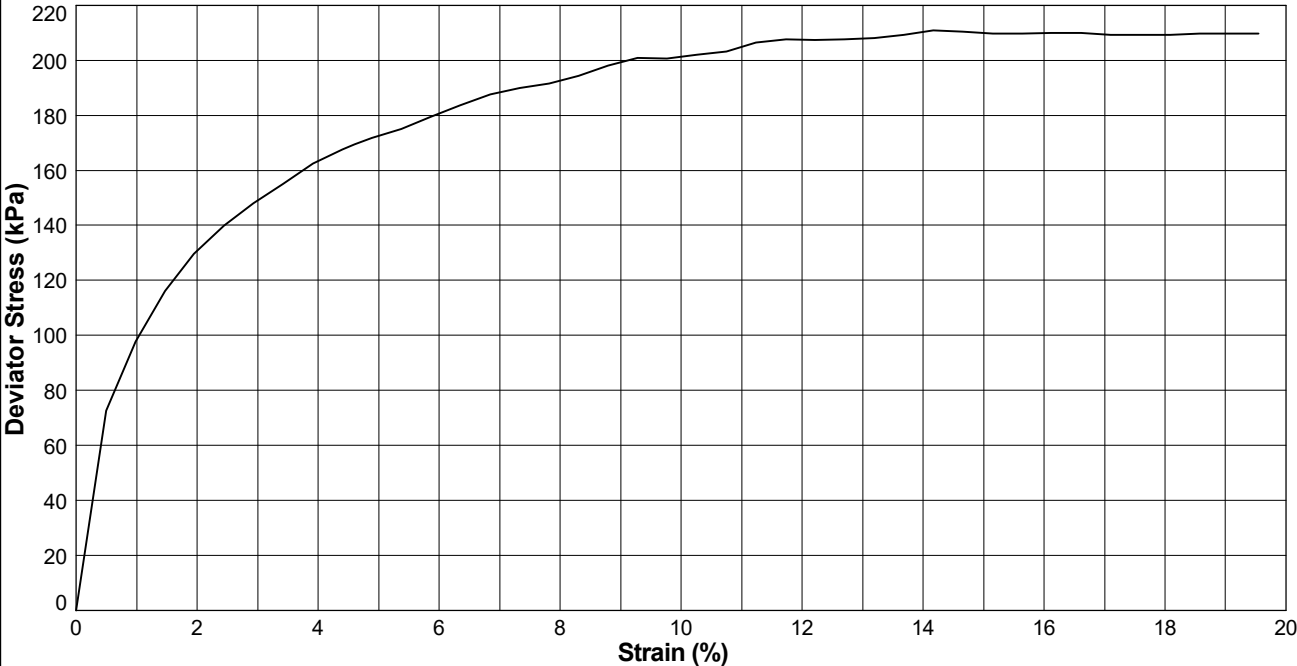
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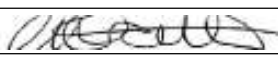
Borehole: **BH13** Sample Ref: **21** Sample Type: **UT** Depth (m): **5.00**

Description : **Brown slightly gravelly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	98.83		
	Height (mm)	204.67		
	Water Content (%)	19.0		
	Bulk Density (Mg/m ³)	2.37		
	Dry Density (Mg/m ³)	1.99		
	Void Ratio	0.3302		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	100		
	Membrane Correction (kPa)	1.49		
	Corrected Deviator Stress (kPa)	211		
	Undrained Shear Strength (kPa)	105		
FAILURE DETAILS	Strain at Failure (%)	14.2		
	Mode of Failure	1 : Semi-plastic (bulging, shear & axial splitting) 		



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

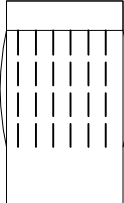


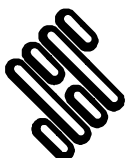
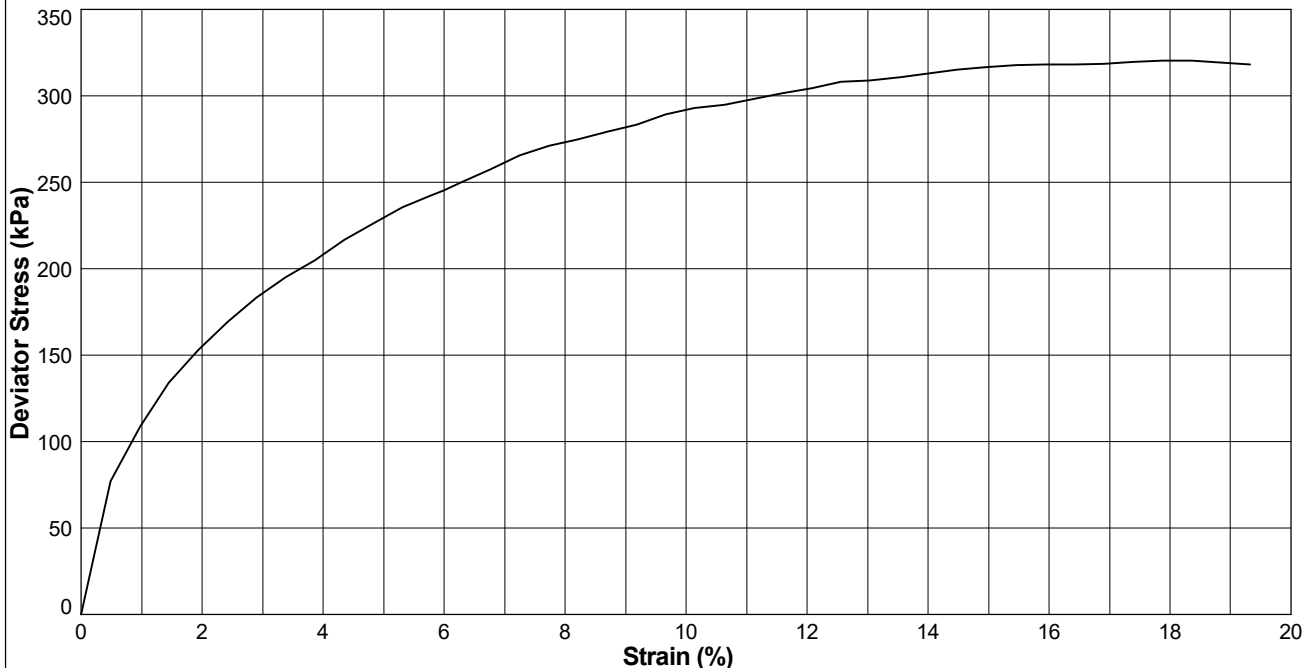
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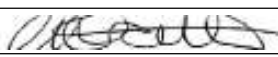
Position ID: **CP16** Sample Ref: **15** Sample Type: **UT** Depth (m): **4.50**

Description : **Dark brown slightly sandy slightly gravelly CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	100.67		
	Height (mm)	207.00		
	Water Content (%)	13.7		
	Bulk Density (Mg/m ³)	2.34		
	Dry Density (Mg/m ³)	2.06		
	Void Ratio	0.2894		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	24		
	Membrane Correction (kPa)	1.52		
	Corrected Deviator Stress (kPa)	316		
	Undrained Shear Strength (kPa)	158		
FAILURE DETAILS	Strain at Failure (%)	15.0		
	Mode of Failure			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

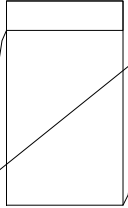


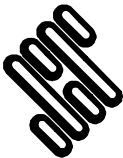
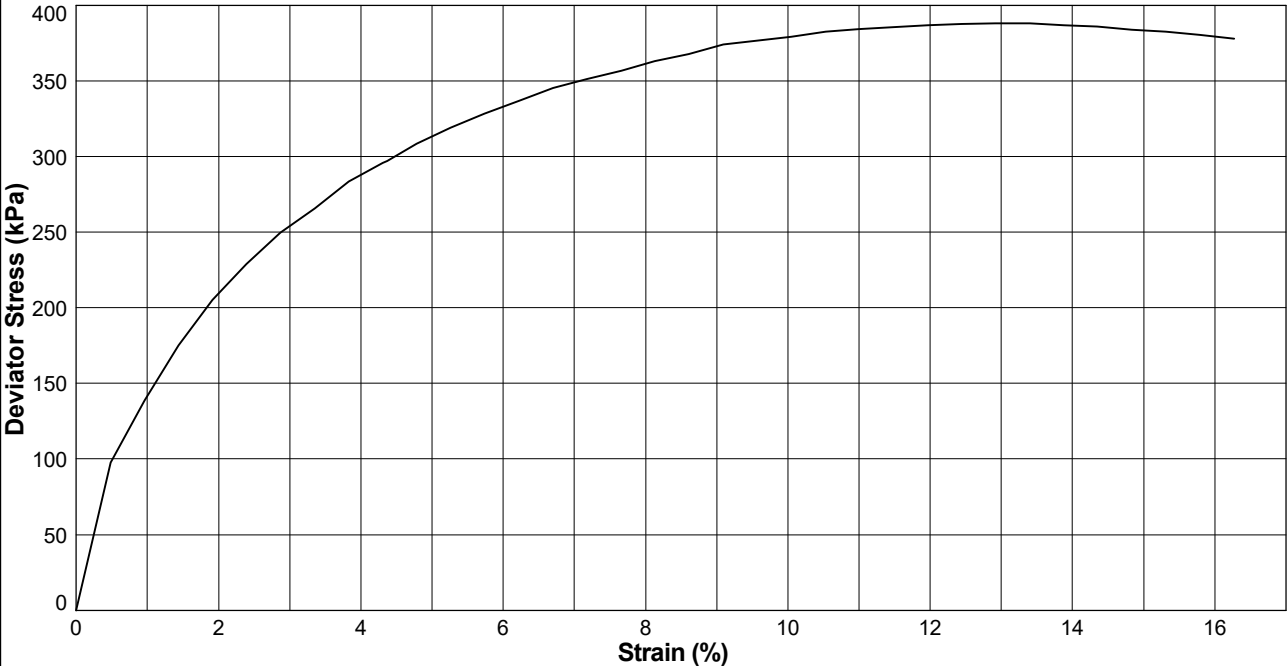
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In accordance with BS EN ISO 17892 Part 8

Position ID: **CP04** Sample Ref: **10** Sample Type: **UT** Depth (m): **2.00**

Description : **Dark brown slightly gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.00		
	Height (mm)	209.00		
	Water Content (%)	20.5		
	Bulk Density (Mg/m ³)	2.31		
	Dry Density (Mg/m ³)	1.92		
	Void Ratio	0.3810		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	40		
	Membrane Correction (kPa)	1.43		
	Corrected Deviator Stress (kPa)	388		
	Undrained Shear Strength (kPa)	194		
FAILURE DETAILS	Strain at Failure (%)	13.4		
	Mode of Failure			
	1 : Brittle (shear plane)			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

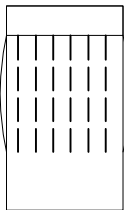


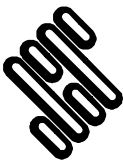
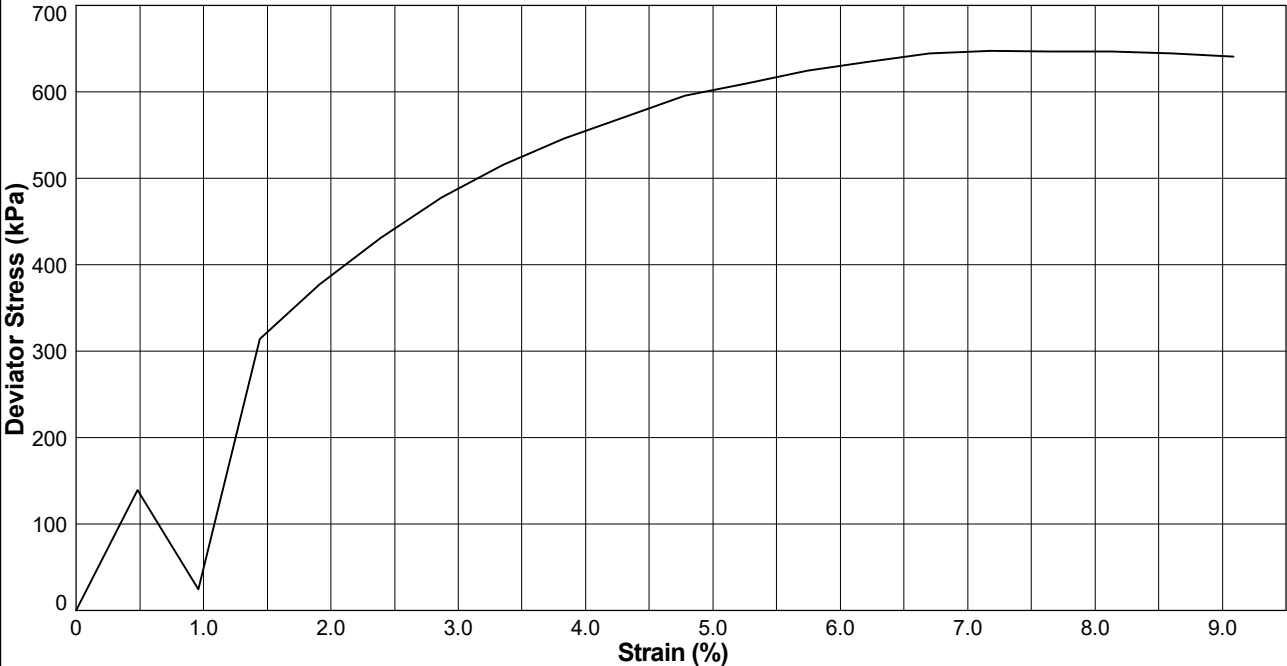
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In accordance with BS EN ISO 17892 Part 8

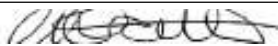
Position ID: **CP04** Sample Ref: **16** Sample Type: **UT** Depth (m): **4.00**

Description : **Dark brown slightly gravelly slightly sandy CLAY with chalk**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	98.83		
	Height (mm)	209.00		
	Water Content (%)	18.0		
	Bulk Density (Mg/m ³)	2.31		
	Dry Density (Mg/m ³)	1.96		
	Void Ratio	0.3520		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	80		
	Membrane Correction (kPa)	0.89		
	Corrected Deviator Stress (kPa)	647		
	Undrained Shear Strength (kPa)	324		
FAILURE DETAILS	Strain at Failure (%)	7.2		
	Mode of Failure			



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

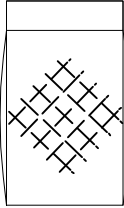


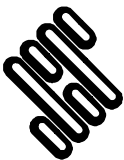
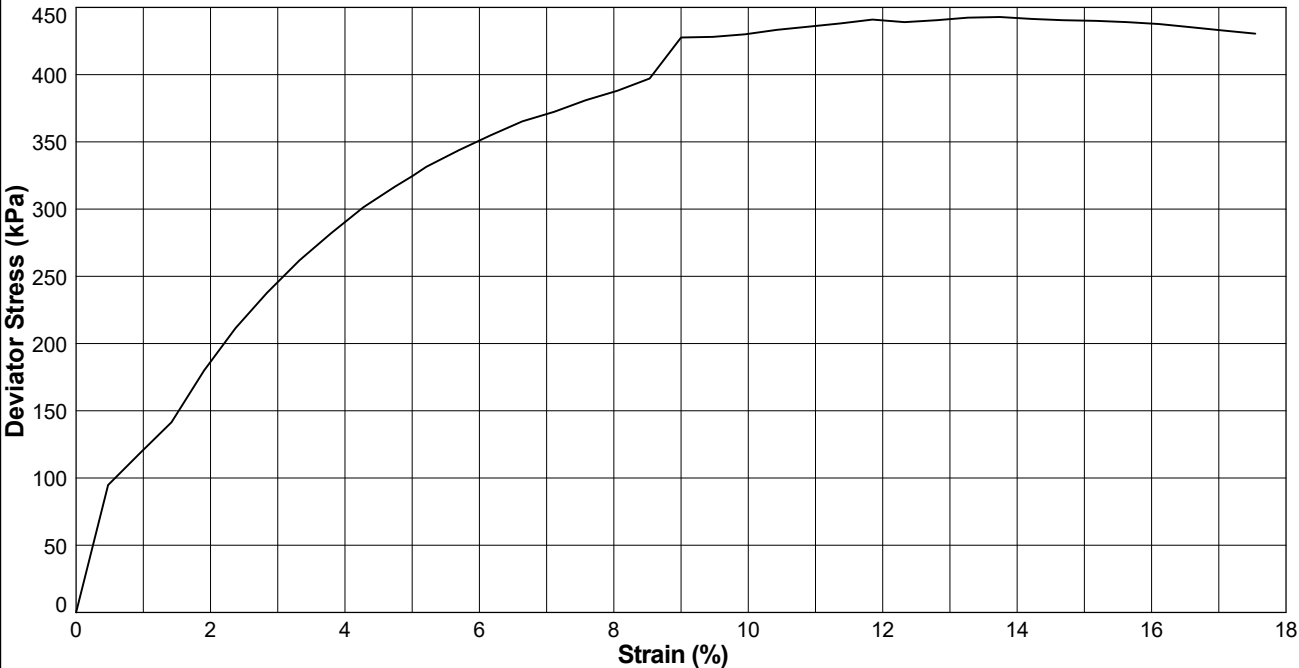
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

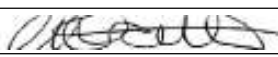
Borehole: **BH20** Sample Ref: **14** Sample Type: **UT** Depth (m): **2.00**

Description : **Brown slightly sandy slightly gravelly CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.17		
	Height (mm)	211.00		
	Water Content (%)	14.7		
	Bulk Density (Mg/m ³)	2.40		
	Dry Density (Mg/m ³)	2.10		
	Void Ratio	0.2638		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	40		
	Membrane Correction (kPa)	1.45		
	Corrected Deviator Stress (kPa)	443		
	Undrained Shear Strength (kPa)	221		
FAILURE DETAILS	Strain at Failure (%)	13.7		
	Mode of Failure			
	1 : Semi-plastic (intermediate)			



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EMG Phase 2		765514

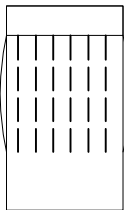


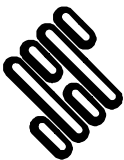
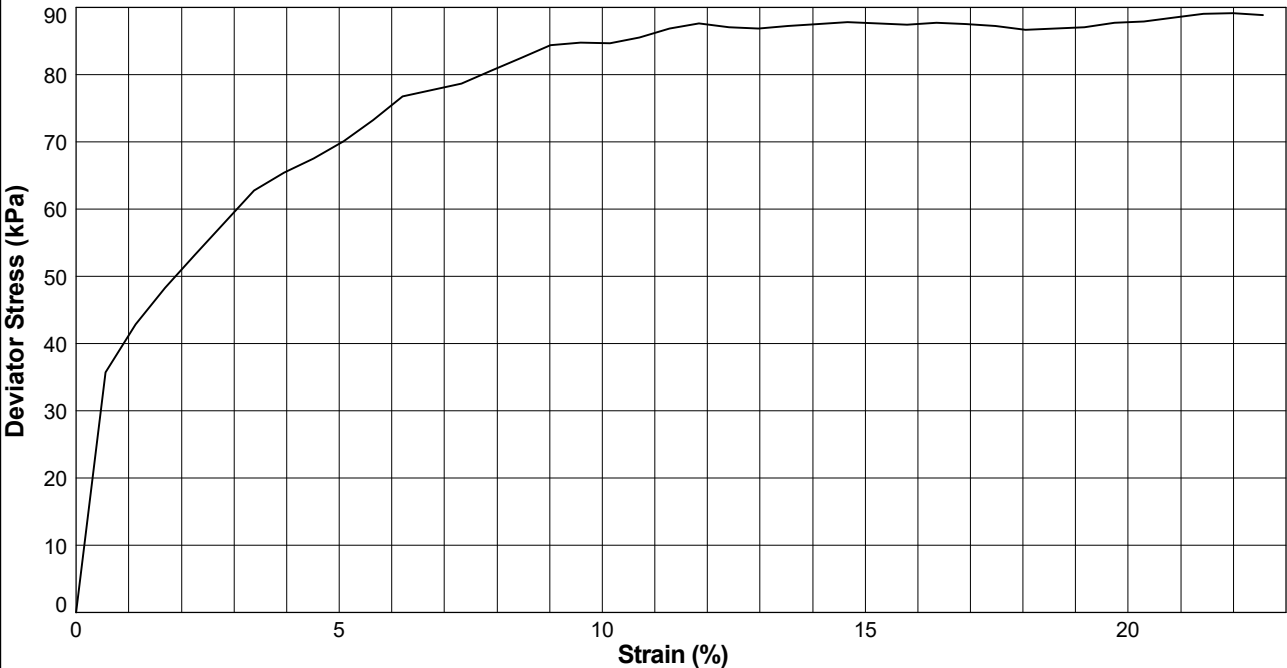
UNCONSOLIDATED UNDRAINED (QUICK) TRIAxIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

Position ID: **CP21** Sample Ref: **8** Sample Type: **U** Depth (m): **1.20**

Description : **Brown and grey slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	98.83		
	Height (mm)	177.33		
	Water Content (%)	24.8		
	Bulk Density (Mg/m ³)	2.18		
	Dry Density (Mg/m ³)	1.75		
	Void Ratio	0.5142		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	24		
	Membrane Correction (kPa)	1.55		
	Corrected Deviator Stress (kPa)	88		
	Undrained Shear Strength (kPa)	44		
FAILURE DETAILS	Strain at Failure (%)	15.0		
	Mode of Failure			



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EMG Phase 2		765514

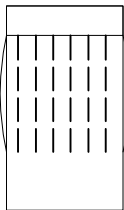


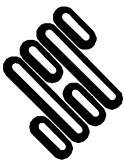
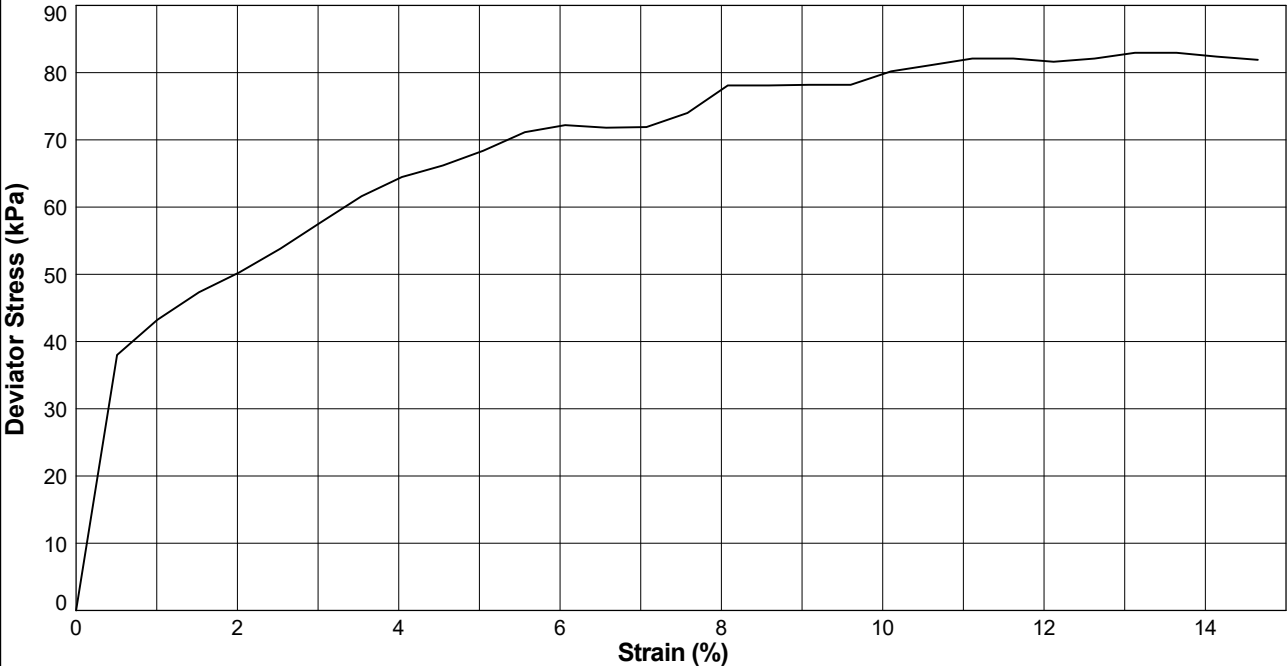
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

Borehole: **BH09** Sample Ref: **26** Sample Type: **UT** Depth (m): **4.00**

Description : **Brown slightly gravelly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	97.17		
	Height (mm)	198.00		
	Water Content (%)	19.4		
	Bulk Density (Mg/m ³)	2.45		
	Dry Density (Mg/m ³)	2.05		
	Void Ratio	0.2904		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	80		
	Membrane Correction (kPa)	1.43		
	Corrected Deviator Stress (kPa)	83		
	Undrained Shear Strength (kPa)	41		
FAILURE DETAILS	Strain at Failure (%)	13.1		
	Mode of Failure			



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Pottery Street
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Contract		Contract Ref:
EMG Phase 2		765514

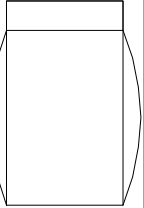


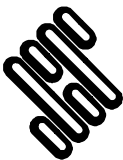
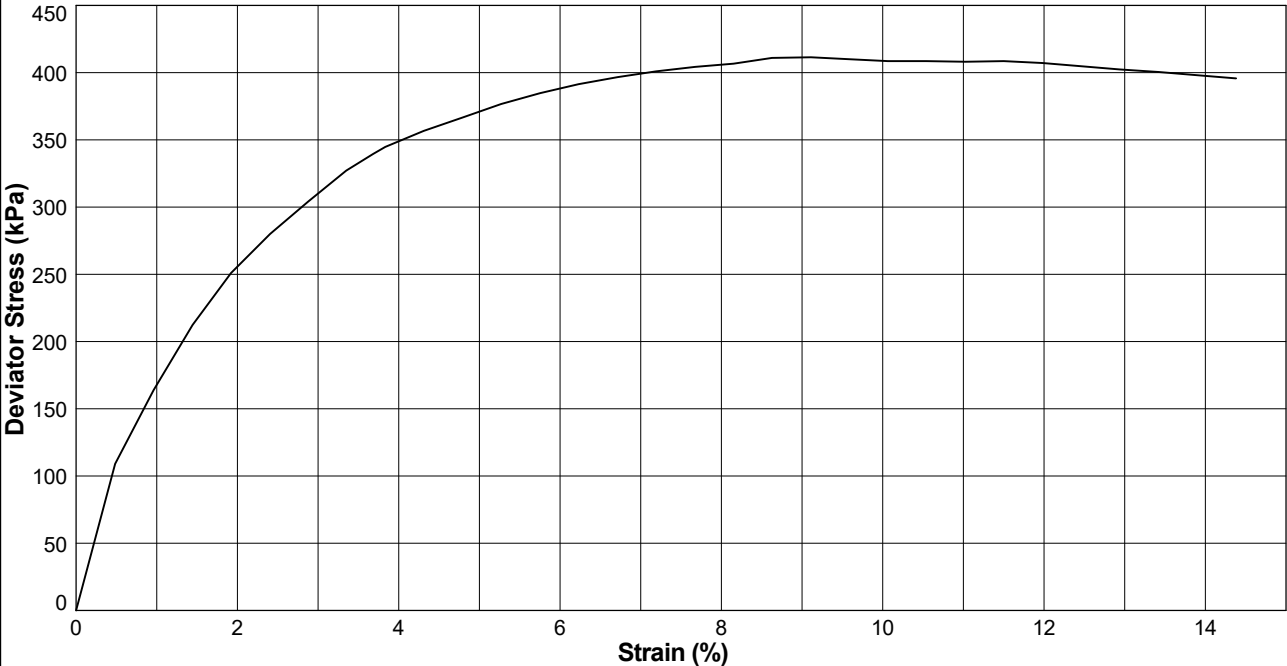
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

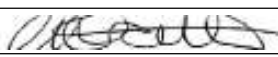
Position ID: **CP07** Sample Ref: **6** Sample Type: **UT** Depth (m): **1.50**

Description : **Brown gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	98.00		
	Height (mm)	208.67		
	Water Content (%)	17.2		
	Bulk Density (Mg/m ³)	2.34		
	Dry Density (Mg/m ³)	2.00		
	Void Ratio	0.3271		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	30		
	Membrane Correction (kPa)	1.09		
	Corrected Deviator Stress (kPa)	411		
	Undrained Shear Strength (kPa)	206		
FAILURE DETAILS	Strain at Failure (%)	9.1		
	Mode of Failure			
	1 : Plastic (Barrelling)			



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		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

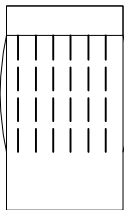


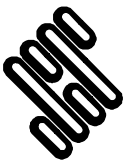
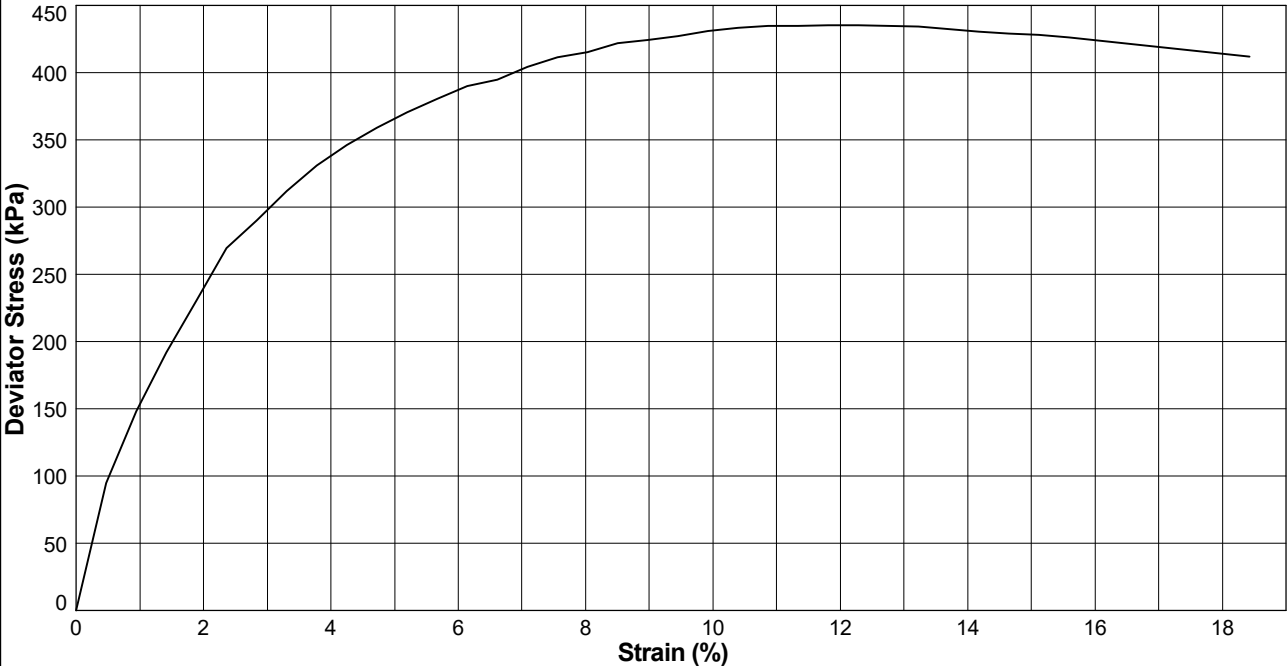
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

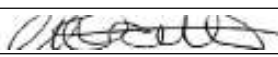
Position ID: **CP07** Sample Ref: **19** Sample Type: **UT** Depth (m): **6.00**

Description : **Brown slightly gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.17		
	Height (mm)	211.67		
	Water Content (%)	14.7		
	Bulk Density (Mg/m ³)	2.38		
	Dry Density (Mg/m ³)	2.08		
	Void Ratio	0.2750		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	120		
	Membrane Correction (kPa)	1.30		
	Corrected Deviator Stress (kPa)	435		
	Undrained Shear Strength (kPa)	218		
FAILURE DETAILS	Strain at Failure (%)	11.8		
	Mode of Failure			



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		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

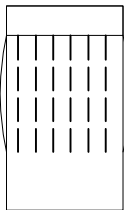


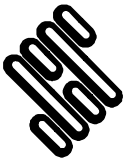
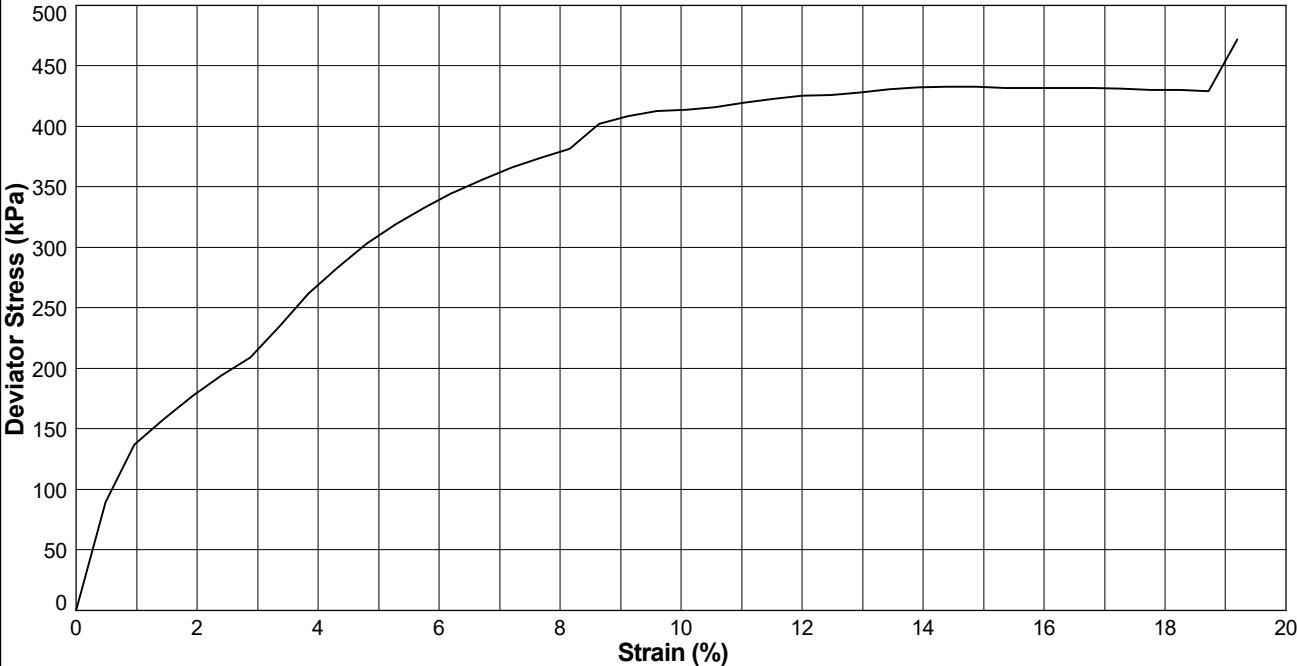
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

Position ID: **CP07** Sample Ref: **26** Sample Type: **UT** Depth (m): **9.00**

Description : **Brown gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.33		
	Height (mm)	208.33		
	Water Content (%)	14.7		
	Bulk Density (Mg/m ³)	2.40		
	Dry Density (Mg/m ³)	2.09		
	Void Ratio	0.2650		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	180		
	Membrane Correction (kPa)	1.54		
	Corrected Deviator Stress (kPa)	432		
	Undrained Shear Strength (kPa)	216		
FAILURE DETAILS	Strain at Failure (%)	15.0		
	Mode of Failure			



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The Potteries
Pottery Street
Castleford
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Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514

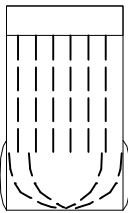


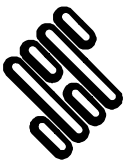
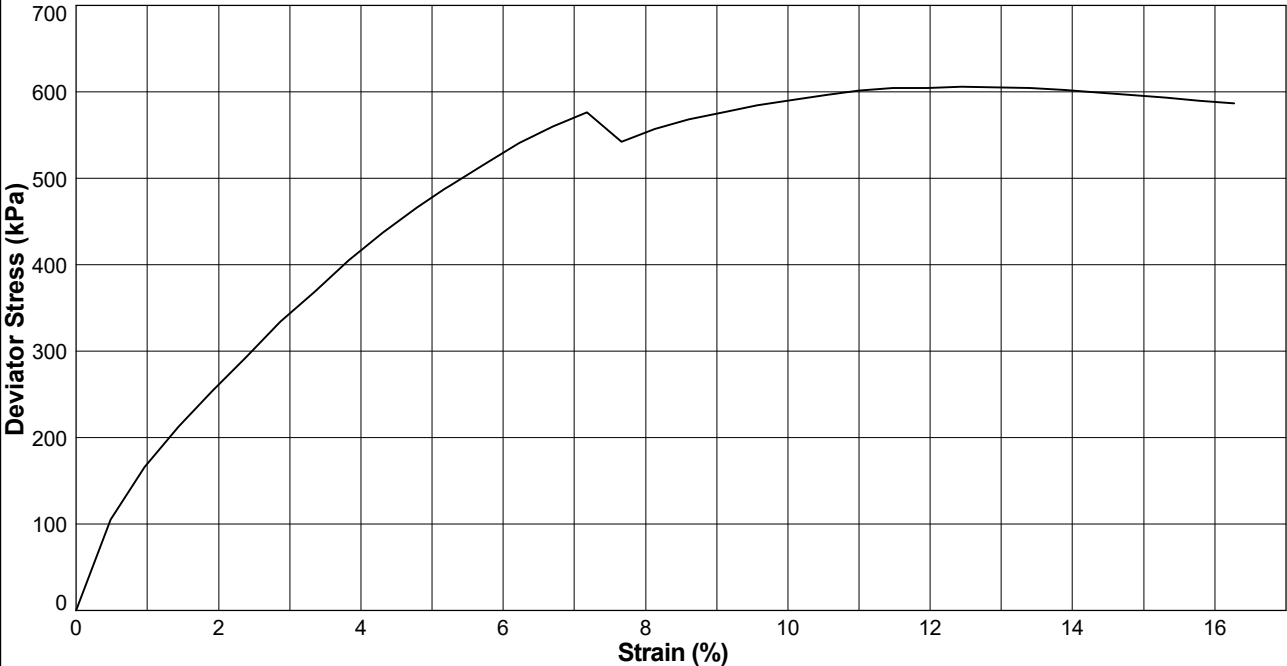
UNCONSOLIDATED UNDRAINED (QUICK) TRIAXIAL COMPRESSION TEST

In accordance with BS EN ISO 17892 Part 8

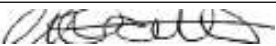
Position ID: **CP07** Sample Ref: **33** Sample Type: **UT** Depth (m): **12.00**

Description : **Brown slightly gravelly slightly sandy CLAY**

STAGE/SPECIMEN NUMBER		1	2	3
SPECIMEN DETAILS	Sample Condition	Undisturbed		
	Orientation of sample	Vertical		
	Diameter (mm)	99.00		
	Height (mm)	209.00		
	Water Content (%)	14.1		
	Bulk Density (Mg/m ³)	2.31		
	Dry Density (Mg/m ³)	2.02		
	Void Ratio	0.3112		
TEST DETAILS	Membrane Type	Rubber		
	Membrane Thickness (mm)	0.50		
	Rate of Axial Displacement (%/min)	2.00		
	Cell Pressure (kPa)	240		
	Membrane Correction (kPa)	1.35		
	Corrected Deviator Stress (kPa)	606		
	Undrained Shear Strength (kPa)	303		
FAILURE DETAILS	Strain at Failure (%)	12.4		
	Mode of Failure			



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Compiled By		Date
		30/03/23
Contract		Contract Ref:
EMG Phase 2		765514



SUMMARY OF HAND PENETROMETER & HAND VANE & TORVANE TEST RESULTS

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content (%)	Vane Type	Average Reading (kPa)	Sample Description	Lab location
BH05	11	UT	2.00	21	HVP	68	Brown slightly gravelly sandy CLAY	C
BH06	20	UT	5.00	16	HVP	132	Brown grey slightly gravelly CLAY	C
BH08	20	DSPT	3.00	15	HVP	63	Brown grey CLAY	C
BH12	7	UT	1.20	16	HVP	141	Brown slightly gravelly CLAY	C
BH12	14	UT	3.00	17	HVP	131	Grey brown slightly gravelly CLAY	C
BH13	14	UT	3.00	18	HVP	32	Brown slightly gravelly sandy CLAY	C
BH18	17	UT	2.00	17	HVP	45	Brown slightly sandy CLAY	C
BH18	26	UT	4.00	18	HVP	58	Brown CLAY	C

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

Key : HVP = Hand Vane (Peak), HVR = Hand Vane (Remoulded), PP = Pocket Penetrometer, TV = Torvane.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			30.03.23	
	Contract: EMG Phase 2			

SUMMARY OF HAND PENETROMETER & HAND VANE & TORVANE TEST RESULTS

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content (%)	Vane Type	Average Reading (kPa)	Sample Description	Lab location
BH21	11	UT	2.00	17	HVP	55	Brown CLAY	C
BH22	5	UT	1.20	16	HVP	48	Brown CLAY	C
BH23	6	UT	1.20	19	HVP	45	Brown grey CLAY	C
BH26	17	UT	4.00	15	HVP	56	Brown CLAY	C
CP02	8	UT	2.00	17	HVP	70	Brown grey CLAY	C
CP03	18	UT	4.00	15	HVP	43	Brown grey CLAY	C
CP04	22	UT	6.00	15	HVP	140	Dark brown slightly gravelly slightly sandy CLAY	C
CP06	10	UT	3.00	13	HVP	146	Dark brown CLAY	C

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

Key : HVP = Hand Vane (Peak), HVR = Hand Vane (Remoulded), PP = Pocket Penetrometer, TV = Torvane.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			30.03.23	
	Contract: EMG Phase 2			

SUMMARY OF HAND PENETROMETER & HAND VANE & TORVANE TEST RESULTS

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Moisture Content (%)	Vane Type	Average Reading (kPa)	Sample Description	Lab location
CP06	15	UT	5.00	13	HVP	139	Dark brown slightly gravelly CLAY	C
CP12	13	UT	4.00	14	HVP	55	Brown gravelly CLAY	C
CP19	9	UT	2.50	17	HVP	42	Brown CLAY	C
CP22	12	U	3.00	14	HVP	37	Brown grey CLAY	C
CP23	12	UT	3.00	17	HVP	64	Brown CLAY	C
CP25	15	UT	2.00	14	HVP	40	Brown CLAY	C
CP28	14	UT	3.10	27	HVP	92	Grey brown CLAY	C

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

Key : HVP = Hand Vane (Peak), HVR = Hand Vane (Remoulded), PP = Pocket Penetrometer, TV = Torvane.

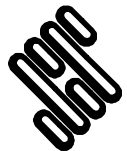
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			30.03.23	
	Contract: EMG Phase 2			

SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH01	7	D	1.50	23.8		42	24	18	68	Brown red slightly sandy slightly gravelly clayey SILT
BH02	3	D	0.70	19.1		41	19	22	95	Brown red slighty gravelly slightly sandy CLAY with organic material
BH02	7	D	1.55	13.2		35	20	15	98	Brown red slightly gravelly slightly sandy CLAY
BH02	14	DSPT	3.00	12.6		36	17	19	94	Brown slightly gravelly slightly sandy CLAY
BH03	1	D	0.40	12.5		36	20	16	84	Brown slightly gravelly sandy CLAY
BH03	13	D	2.70	18.2		38	19	19	84	Brown slightly gravelly sandy CLAY
BH03	21	D	5.80	21.2		37	20	17	73	Brown slightly sandy CLAY
BH04	5	D	0.90	23.0		46	20	26	75	Brown slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



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Contract:

EMG Phase 2

Contract Ref:

765514

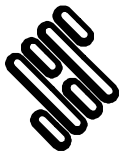


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH04	8	D	1.70	28.5		50	24	26	95	Brown gravelly sandy CLAY
BH04	12	DSPT	3.00	27.3		49	24	25	92	Brown red slightly gravelly slightly sandy CLAY
BH04	20	DSPT	5.00	11.1		34	18	16	77	Brown slightly gravelly slightly sandy CLAY
BH05	3	D	0.50	13.4		45	18	27	62	Brown slightly gravelly slightly sandy CLAY
BH05	10	D	1.70	25.8		46	21	25	73	Brown slightly gravelly slightly sandy CLAY
BH05	21	D	5.70	22.2		41	21	20	34	Brown gravelly sandy CLAY
BH05	35	D	11.20	8.4		35	17	18	68	Brown gravelly sandy CLAY
BH06	15	D	3.70	22.0		41	18	23	87	Grey slightly sandy gravelly CLAY

SYMBOLS: * denotes BS 1377



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EMG Phase 2

Contract Ref:

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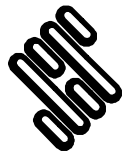


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH06	35	D	10.95	14.8		34	15	19	76	Brown gravelly slightly sandy CLAY
BH06	40	D	13.30	14.0		33	16	17	82	Dark brown gravelly sandy CLAY with chalk
BH07	17	D	2.50	18.9		39	18	21	85	Brown/red slightly gravelly slightly sandy CLAY
BH08	5	D	1.00	19.2		37	19	18	85	Brown slightly gravelly sandy CLAY
BH08	16	D	3.50	13.6		41	18	23	82	Brown grey slightly gravelly slightly sandy CLAY
BH08	22	D	5.50	20.7		35	19	16	81	Brown red slightly gravelly slightly sandy CLAY
BH09	10	D	0.80	14.6		41	19	22	95	Brown slightly sandy slightly gravelly CLAY
BH09	19	D	2.50	14.9		33	17	16	86	Brown/red slightly gravelly slightly sandy clayey SILT

SYMBOLS: * denotes BS 1377



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Contract:

EMG Phase 2

Contract Ref:

765514

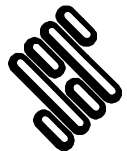


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH10	9	D	2.70	16.3		36	20	16	48	Red brown sandy CLAY
BH10	10	D	4.00	17.6		39	21	18	67	Red brown slightly silty gravelly sandy CLAY
BH11	10	D	2.00	20.4		42	22	20	93	Brown gravelly sandy chalky CLAY
BH11	17	D	4.00	20.4		33	17	16	88	Brown gravelly sandy chalky CLAY
BH12	13	D	2.70	25.1		40	19	21	81	Brown gravelly slightly sandy CLAY
BH12	23	D	5.70	17.5		33	15	18	85	Dark brown slightly gravelly silty CLAY with chalk
BH12	33	D	10.30	15.9		33	16	17	71	Dark brown slightly gravelly slightly sandy CLAY with chalk
BH12	43	D	14.70	22.5		27	19	8	93	Dark brown silty CLAY

SYMBOLS: * denotes BS 1377



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SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

765514



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH13	3	D	0.50	5.4		NP	NP	NP	63	Brown sandy slightly silty GRAVEL
BH13	13	D	2.70	20.6		46	28	18	55	Brown slightly gravelly sandy clayey SILT
BH13	22	D	5.45	20.1		32	19	13	76	Brown grey slightly gravelly slightly sandy CLAY
BH13	27	D	7.30	18.6		36	21	15	84	Brown slightly gravelly sandy CLAY
BH14	14	D	3.45	14.8		27	14	13	78	Brown sandy slightly silty CLAY
BH14	27	D	7.30	14.1		26	15	11	58	Brown sandy CLAY
BH14	39	D	11.70	24.4		34	18	16	51	Red sandy clayey GRAVEL
BH15	7	D	1.50	14.6		40	21	19	87	Brown sandy slightly gravelly CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

765514

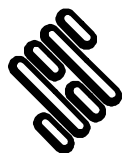


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH16	8	D	1.70	22.0		41	19	22	81	Brown slightly gravelly slightly sandy CLAY
BH16	16	D	3.70	12.6		32	20	12	79	Brown red sandy silty CLAY
BH16	20	D	4.90	17.3		37	18	19	73	Brown slightly sandy slightly silty CLAY
BH17	3	D	0.90	18.4		44	21	23	85	Brown slightly gravelly sandy CLAY
BH18	18	D	2.50	15.8		34	14	20	81	Brown gravelly CLAY
BH18	27	D	4.50	19.6		28	16	12	95	Brown sandy CLAY
BH18	37	D	6.50	16.4		32	20	12	85	Brown red slightly gravelly slightly sandy CLAY
BH18	40	D	7.50	21.4		35	19	16	79	Brown slightly sandy slightly gravelly CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

765514



SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH18	45	D	8.50	27.0		31	18	13	85	Brown grey gravelly slightly sandy CLAY
BH19	6	D	1.65	17.8		39	23	16	88	Red brown sandy slightly gravelly CLAY
BH19	21	DSPT	5.00	17.1		35	20	15	77	Brown gravelly sandy CLAY
BH20	24	D	4.70	16.6		34	18	16	69	Brown redish slightly gravelly sandy CLAY
BH21	5	D	0.80	17.8		40	19	21	83	Brown grey gravelly sandy CLAY
BH21	15	DSPT	3.00	21.6		34	21	13	80	Brown red slightly sandy slightly gravelly clayey SILT
BH22	6	D	1.65	16.4		42	26	16	69	Brown red slightly gravelly sandy CLAY
BH23	8	D	1.70	14.6		37	22	15	73	Brown slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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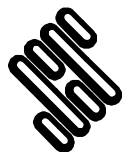


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
BH23	26	D	5.20	14.8		37	20	17	73	Brown slightly gravelly slightly sandy silty CLAY with mudstone
BH23	28	D	8.40	11.2		32	19	13	63	Brown red sandy clayey GRAVEL
BH24	7	D	0.40	10.0		31	18	13	88	Brown gravelly sandy CLAY
BH25	7	D	0.40	13.8		39	18	21	87	Brown red gravelly sandy CLAY
BH26	4	D	0.40	19.3		40	21	19	95	Brown red gravelly sandy CLAY
BH26	16	D	3.50	16.3		36	19	17	78	Brown grey slightly gravelly sandy CLAY
BH27	4	D	2.00	14.6		35	18	17	74	Brown red sandy CLAY
CP01	12	D	3.80	16.5		38	20	18	75	Brown slightly sandy slightly gravelly CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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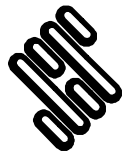


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP02	2	D	0.50	20.2		62	23	39	91	Brown slightly gravelly slightly sandy CLAY
CP02	22	D	6.80	25.5		37	21	16	98	Brown slightly gravelly slightly sandy
CP03	13	D	2.60	20.3		38	19	19	76	Brown red slightly gravelly slightly sandy CLAY
CP03	19	D	4.00	13.6		39	20	19	85	Brown slightly gravelly sandy CLAY
CP03	26	D	6.80	21.9		37	19	18	77	Brown slightly gravelly sandy CLAY
CP04	5	D	1.00	13.3		36	17	19	73	Brown sandy slightly gravelly CLAY
CP04	17	D	4.60	18.9		44	18	26	89	Brown sandy gravelly CLAY with chalk
CP04	42	D	12.50	13.9		34	16	18	84	Brown gravelly sandy CLAY with chalk

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

765514

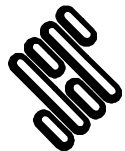


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP04	48	D	14.50	14.0		35	16	19	84	Brown gravelly sandy CLAY
CP05	4	D	0.70	17.0		28	16	12	86	Brown sandy CLAY
CP05	7.1	DSPT	2.00	16.3		36	18	18	84	Brown gravelly sandy CLAY
CP05	9	D	2.75	19.8		34	17	17	73	Brown slightly gravelly slightly sandy CLAY
CP05	18	D	5.75	16.6		40	17	23	87	Brown grey sandy CLAY
CP06	11	D	3.65	17.2		36	18	18	63	Dark brown gravelly slightly sandy CLAY
CP06	19	D	7.00	16.3		36	19	17	80	Brown red slightly gravelly sandy CLAY
CP07	5	D	1.30	18.6		45	19	26	91	Brown slightly gravelly slightly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

765514

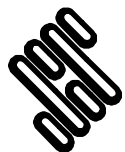


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP07	20	D	6.45	15.5		34	17	17	83	Brown gravelly sandy CLAY
CP07	25	D	8.70	16.4		33	17	16	84	Brown slightly sandy gravelly CLAY
CP08	13	B	2.00	18.7		42	16	26	81	Brown red slightly gravelly slightly sandy CLAY
CP08	18	DSPT	4.00	18.1		39	16	23	78	Brown slightly gravelly slightly sandy clayey SILT
CP08	22	D	5.50	12.4		34	18	16	65	Brown slightly gravelly slightly sandy
CP08	40	D	10.20	17.2		30	14	16	48	Brown sandy gravelly CLAY
CP09	4	D	0.70	12.1		36	14	22	93	Brown red slightly gravelly sandy CLAY with organic material
CP09	15	D	4.75	18.0		29	16	13	97	Brown slightly sandy silty CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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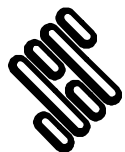


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP09	21	D	7.00	13.7		31	19	12	80	Grey brown sandy CLAY
CP10	4	D	0.50	12.0		43	19	24	86	Brown grey slightly sandy CLAY
CP10	11	D	2.95	19.9		41	19	22	90	Brown gravelly sandy CLAY
CP10	19	D	4.95	14.2		34	21	13	56	Brown sandy very gravelly CLAY with medium cobble content
CP11	7	D	1.75	15.2		33	17	16	82	Brown red sandy CLAY
CP11	15	D	4.75	23.7		29	16	13	91	Brown sandy CLAY
CP11	20	B	6.00	14.8		34	20	14	84	Brown grey slightly sandy slightly gravelly CLAY
CP12	7	D	1.75	15.6		40	17	23	48	Brown slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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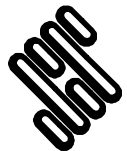


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP12	17	D	5.75	17.1		35	16	19	56	Brown slightly gravelly sandy CLAY
CP13	9	D	2.40	28.0		27	18	9	93	Brown slightly gravelly silty CLAY
CP14	3	D	0.70	13.8		45	20	25	69	Brown gravelly sandy CLAY
CP14	9	D	2.75	15.2		35	16	19	85	Brown red slightly gravelly sandy CLAY
CP15	4	D	0.70	9.5		30	16	14	86	Brown gravelly sandy CLAY
CP16	5	D	1.00	10.4		42	19	23	88	Brown slightly gravelly sandy CLAY
CP16	11	D	3.40	11.4		33	14	19	67	Brown slightly gravelly slightly sandy CLAY
CP16	21	D	7.00	20.8		31	17	14	88	Brown slightly gravelly slightly sandy silty CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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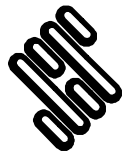


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP17	12	D	3.30	18.6		33	17	16	79	Grey brown slightly sandy gravelly CLAY
CP17	15	D	4.30	17.0		34	19	15	73	Brown gravelly sandy CLAY
CP18	10	D	3.00	26.9		42	21	21	96	Brown red slightly gravelly sandy CLAY
CP20	2	B	0.40	18.0		49	18	31	97	Brown slightly sandy gravelly CLAY
CP21	14	D	3.70	24.8		37	21	16	62	Brown slightly sandy CLAY
CP21	18	DSPT	5.00	11.4		32	17	15	83	Brown reddish grey sandy CLAY with mudstone
CP22	5	D	1.00	16.3		45	20	25	94	Brown slightly sandy slightly gravelly CLAY
CP22	16	D	4.50	17.4		37	18	19	76	Brown slightly sandy slightly gravelly CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

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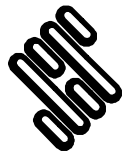


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP24	8	D	1.70	16.5		36	18	18	87	Brown red grey slightly gravelly slightly sandy silty CLAY
CP24	10	D	2.00	23.3		35	19	16	87	Brown red gravelly slightly sandy CLAY
CP26	10	D	1.00	18.3		51	24	27	97	Brown slightly gravelly sandy CLAY
CP26	16	D	2.60	27.3		40	18	22	86	Brown slightly gravelly slightly sandy CLAY
CP26	26	D	6.00	11.7		32	20	12	76	Brown red slightly gravelly sandy CLAY
CP27	7	D	1.00	19.6		56	26	30	93	Brown slightly gravelly sandy CLAY
CP27	19	D	3.00	15.0		34	19	15	84	Brown red sandy CLAY
CP27	24	D	4.00	25.1		34	20	14	86	Brown red slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

Contract Ref:

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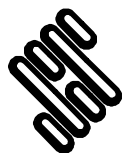


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
CP28	2	D	0.50	12.8		39	22	17	93	Brown red gravelly slightly clayey SAND
CP28	9	D	1.80	14.7		31	15	16	86	Brown red slightly gravelly sandy CLAY
CP28	15	D	3.60	16.8		38	20	18	82	Brown red slightly gravelly slightly sandy CLAY
TP01	7	D	0.60	11.9		40	17	23	76	Brown slightly sandy slightly gravelly CLAY
TP07	4	D	0.50	10.0		34	16	18	76	Brown slightly gravelly sandy CLAY
TP07	10	D	1.30	17.1	2.55	46	20	26	90	Brown slightly sandy slightly gravelly CLAY
TP08	11	D	2.40	23.9		67	24	43	90	Brown slightly gravelly CLAY
TP08	14	D	2.90	21.3		48	23	25	94	Brown sandy gravelly CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

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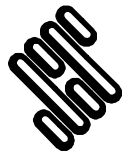


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP09	4	D	0.60	17.8		51	18	33	90	Brown slightly gravelly slightly sandy silty CLAY
TP09	10	D	3.30	21.7	2.54	49	23	26	85	Brown slightly gravelly slightly sandy CLAY
TP10	10	D	1.40	12.4		44	20	24	86	Brown slightly gravelly slightly sandy silty CLAY
TP11	4	D	0.60	5.1		NP	NP	NP	86	Brown red slightly gravelly slightly silty SAND
TP12	10	D	2.00	17.3		40	20	20	88	Brown sandy gravelly CLAY
TP13	8	D	1.50	17.0		37	17	20	95	Brown/red slightly gravelly sandy CLAY
TP14	9	D	1.80	14.7		39	21	18	82	Red slightly gravelly sandy CLAY
TP14	2	D	3.50	18.9		35	22	13	86	Red slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

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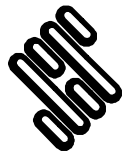


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP15	4	D	0.60	15.6		49	34	15	79	Brown slightly gravelly slightly sandy clayey SILT
TP16	4	D	0.40	11.9		40	20	20	86	Brown slightly sandy slightly gravelly CLAY
TP18	10	D	1.70	14.8		41	20	21	75	Brown slightly gravelly slightly sandy clayey SILT
TP20	4	D	0.50	7.9		20	11	9	86	Brown slightly gravelly clayey SAND
TP20	10	D	1.70	25.5		50	23	27	81	Brown red slightly gravelly slightly sandy CLAY
TP22	7	D	1.30	16.8		39	17	22	83	Brown slightly sandy slightly gravelly CLAY
TP23	10	D	3.00	12.1		34	21	13	64	Brown gravelly clayey SAND
TP24	4	D	0.30	10.0		45	22	23	92	Brown red gravelly slightly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

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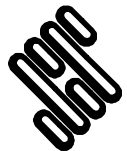


SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with Part 1,Part 3,Part 12 of BS EN ISO 17892

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Water Content %	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425um	Description of Sample
TP28	4	D	0.50	18.2		44	22	22	100	Brown red slightly gravelly sandy CLAY
TP28	7	D	1.10	19.2	2.64	46	18	28	100	Brown red slightly gravelly slightly sandy CLAY
TP28	10	D	1.60	20.2		47	20	27	93	Red slightly gravelly slightly sandy CLAY
TP36	15	B		24*						Brown red slightly sandy slightly gravelly CLAY
TP36	17	D	2.75	17.1		37	21	16	69	Brown red slightly gravelly sandy CLAY

SYMBOLS: * denotes BS 1377



**STRUCTURAL
SOILS LTD**

Contract:

EMG Phase 2

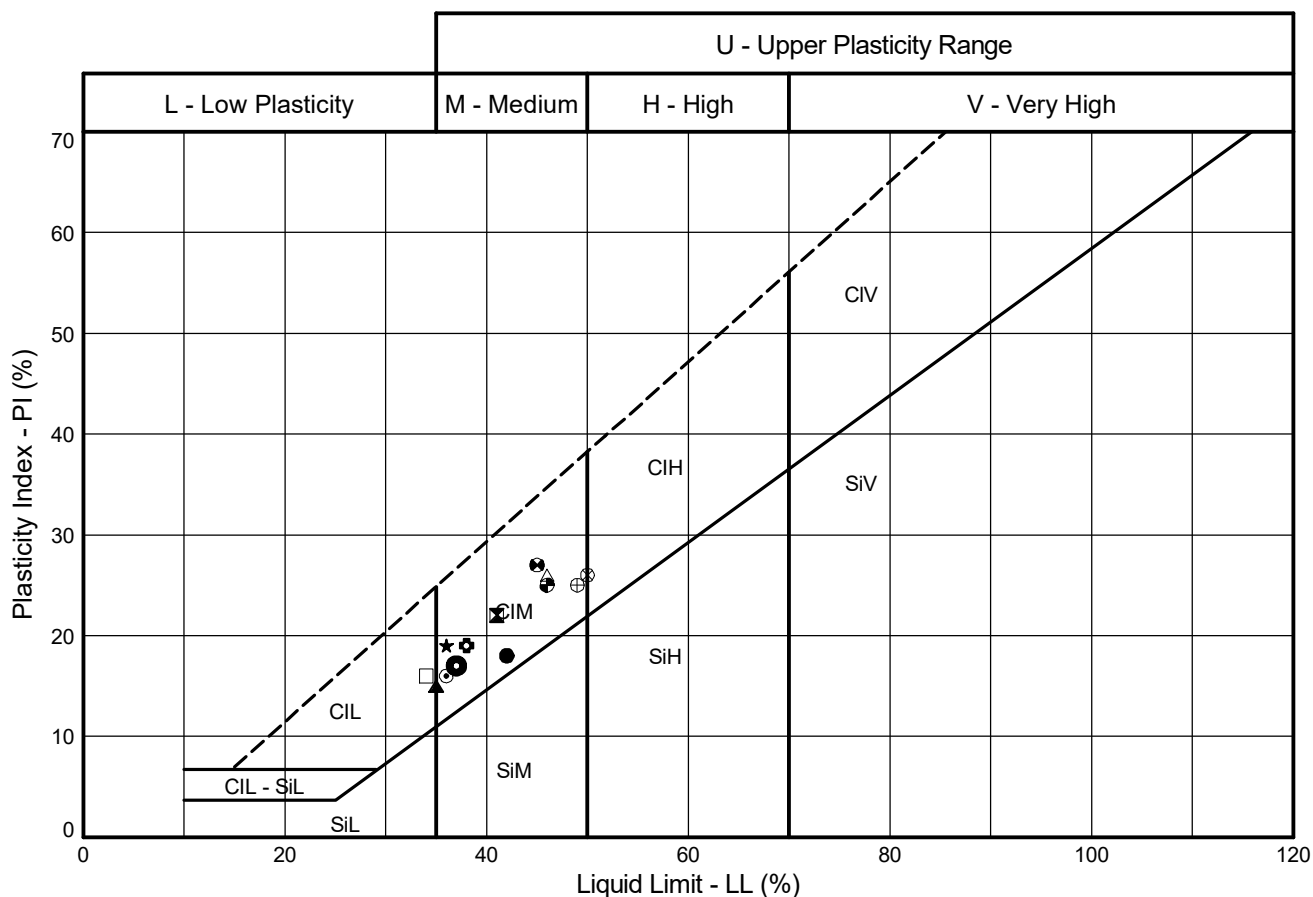
Contract Ref:

765514



PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	BH01	7D	1.50	5.3/5.5/6.5	5.2.7	23.8	42	24	18	68	C	
⊠	BH02	3D	0.70	5.3/5.5/6.5	5.2.7	19.1	41	19	22	95	C	
▲	BH02	7D	1.55	5.3/5.5/6.5	5.2.7	13.2	35	20	15	98	C	
★	BH02	14DSPT	3.00	5.3/5.5/6.5	5.2.7	12.6	36	17	19	94	C	
⊙	BH03	1D	0.40	5.3/5.5/6.5	5.2.7	12.5	36	20	16	84	C	
⊕	BH03	13D	2.70	5.3/5.5/6.5	5.2.7	18.2	38	19	19	84	C	
⊗	BH03	21D	5.80	5.3/5.5/6.5	5.2.7	21.2	37	20	17	73	C	
△	BH04	5D	0.90	5.3/5.5/6.5	5.2.7	23.0	46	20	26	75	C	
⊗	BH04	8D	1.70	5.3/5.5/6.5	5.2.7	28.5	50	24	26	95	C	
⊕	BH04	12DSPT	3.00	5.3/5.5/6.5	5.2.7	27.3	49	24	25	92	C	
□	BH04	20DSPT	5.00	5.3.14/5.5/6.5	5.2.7	11.1	34	18	16	77	C	
⊗	BH05	3D	0.50	5.3/5.5/6.5	5.2.7	13.4	45	18	27	62	C	
⊕	BH05	10D	1.70	5.3/5.5/6.5	5.2.7	25.8	46	21	25	73	C	

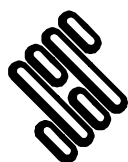
Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

+ Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.2.1 - Natural State and 5.2.7 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic, I = Increasing WC, D = Decreasing WC.

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



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By

Date

[Signature]

LORNA WHITWORTH

27/02/23

Contract

Contract Ref:

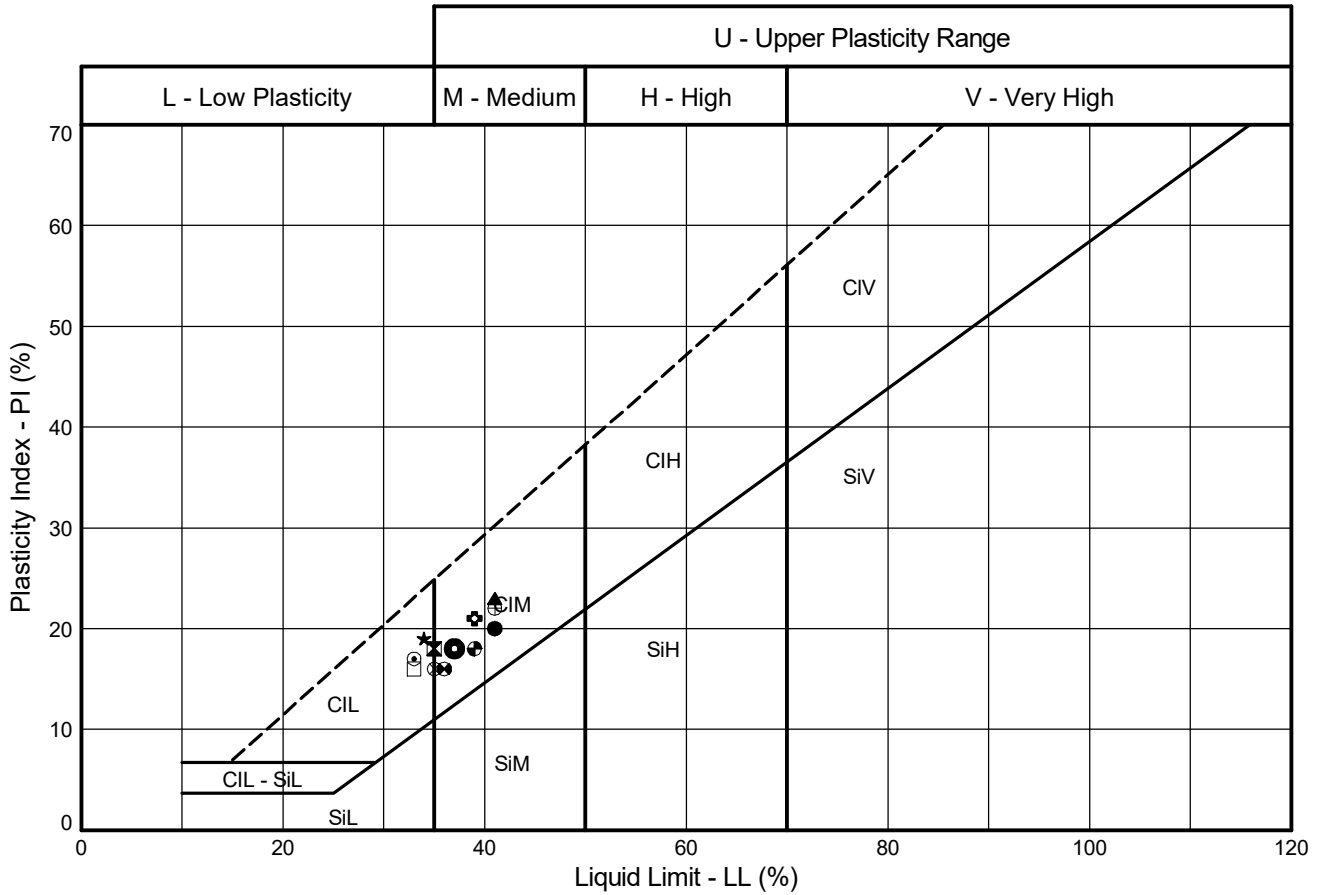
EMG Phase 2

765514



PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	BH05	21D	5.70	5.3/5.5/6.5	5.2.7	22.2	41	21	20	34	C	
⊠	BH05	35D	11.20	5.3/5.5/6.5	5.2.7	8.4	35	17	18	68	C	
▲	BH06	15D	3.70	5.3/5.5/6.5	5.2.7	22.0	41	18	23	87	C	
★	BH06	35D	10.95	5.3/5.5/6.5	5.2.7	14.8	34	15	19	76	C	
⊙	BH06	40D	13.30	5.3/5.5/6.5	5.2.7	14.0	33	16	17	82	C	
⊕	BH07	17D	2.50	5.3/5.5/6.5	5.2.7	18.9	39	18	21	85	C	
⊗	BH08	5D	1.00	5.3/5.5/6.5	5.2.7	19.2	37	19	18	85	C	
△	BH08	16D	3.50	5.3/5.5/6.5	5.2.7	13.6	41	18	23	82	C	
⊗	BH08	22D	5.50	5.3/5.5/6.5	5.2.7	20.7	35	19	16	81	C	
⊕	BH09	10D	0.80	5.3/5.5/6.5	5.2.7	14.6	41	19	22	95	C	
□	BH09	19D	2.50	5.3/5.5/6.5	5.2.7	14.9	33	17	16	86	C	
⊗	BH10	9D	2.70	5.3/5.5/6.5	5.2.7	16.3	36	20	16	48	C	
⊕	BH10	10D	4.00	5.3/5.5/6.5	5.2.7	17.6	39	21	18	67	C	

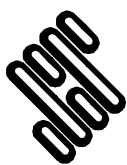
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5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

+ Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.2.1 - Natural State and 5.2.7 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic, I = Increasing WC, D = Decreasing WC.

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



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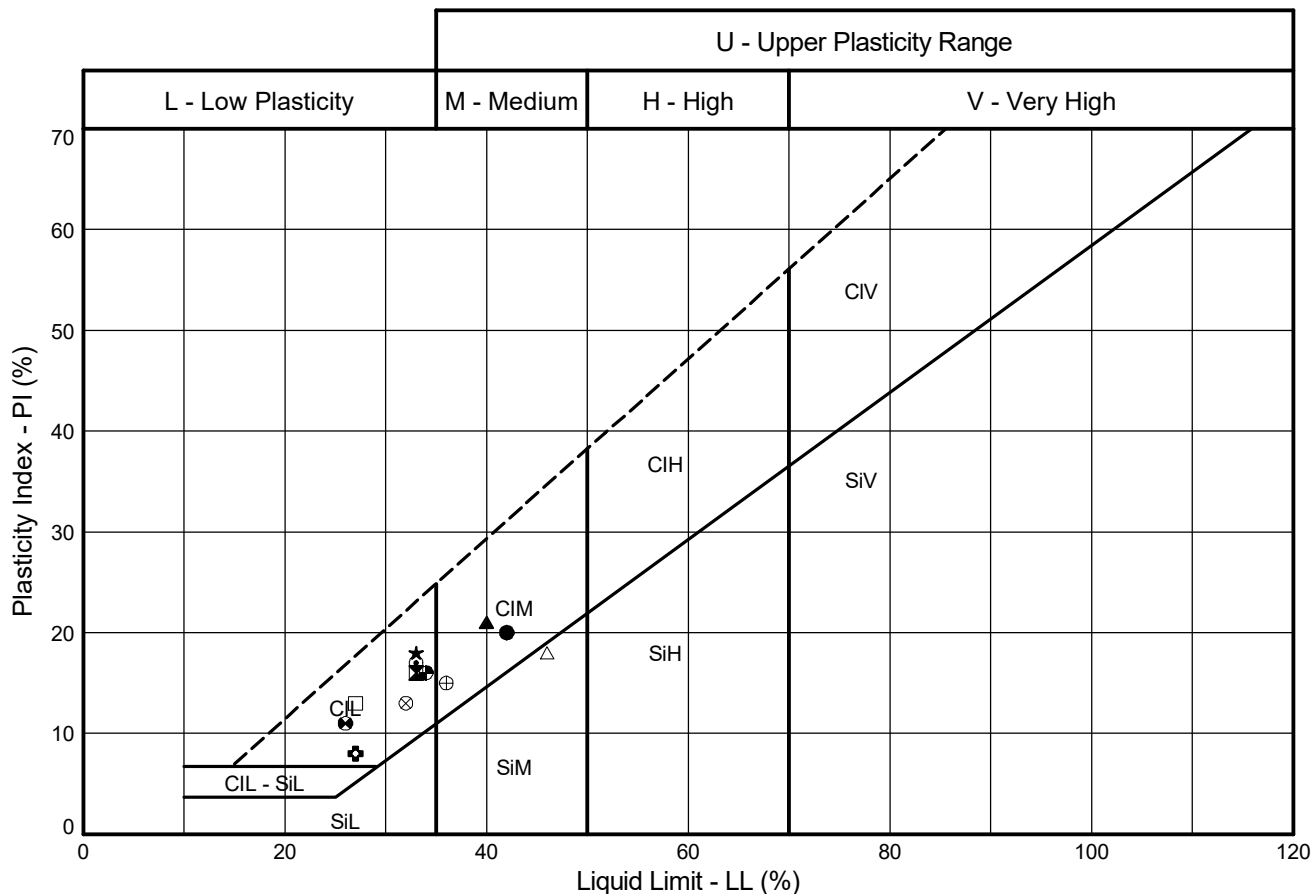
EMG Phase 2

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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	BH11	10D	2.00	5.3/5.5/6.5	5.2.7	20.4	42	22	20	93	C	
⊗	BH11	17D	4.00	5.3/5.5/6.5	5.2.7	20.4	33	17	16	88	C	
▲	BH12	13D	2.70	5.3/5.5/6.5	5.2.7	25.1	40	19	21	81	C	
★	BH12	23D	5.70	5.3/5.5/6.5	5.2.7	17.5	33	15	18	85	C	
⊙	BH12	33D	10.30	5.3/5.5/6.5	5.2.7	15.9	33	16	17	71	C	
⊕	BH12	43D	14.70	5.3/5.5/6.5	5.2.7	22.5	27	19	8	93	C	
	BH13	3D	0.50	5.3/5.5/6.5	5.2.7	5.4	NP	NP	NP	63	C	
△	BH13	13D	2.70	5.3/5.5/6.5	5.2.7	20.6	46	28	18	55	C	
⊗	BH13	22D	5.45	5.3/5.5/6.5	5.2.1	20.1	32	19	13	76	C	
⊕	BH13	27D	7.30	5.3/5.5/6.5	5.2.7	18.6	36	21	15	84	C	
□	BH14	14D	3.45	5.3/5.5/6.5	5.2.7	14.8	27	14	13	78	C	
⊗	BH14	27D	7.30	5.3/5.5/6.5	5.2.7	14.1	26	15	11	58	C	
●	BH14	39D	11.70	5.3/5.5/6.5	5.2.7	24.4	34	18	16	51	C	

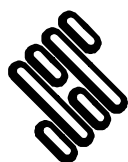
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5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

+ Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.2.1 - Natural State and 5.2.7 - Wet Sieved

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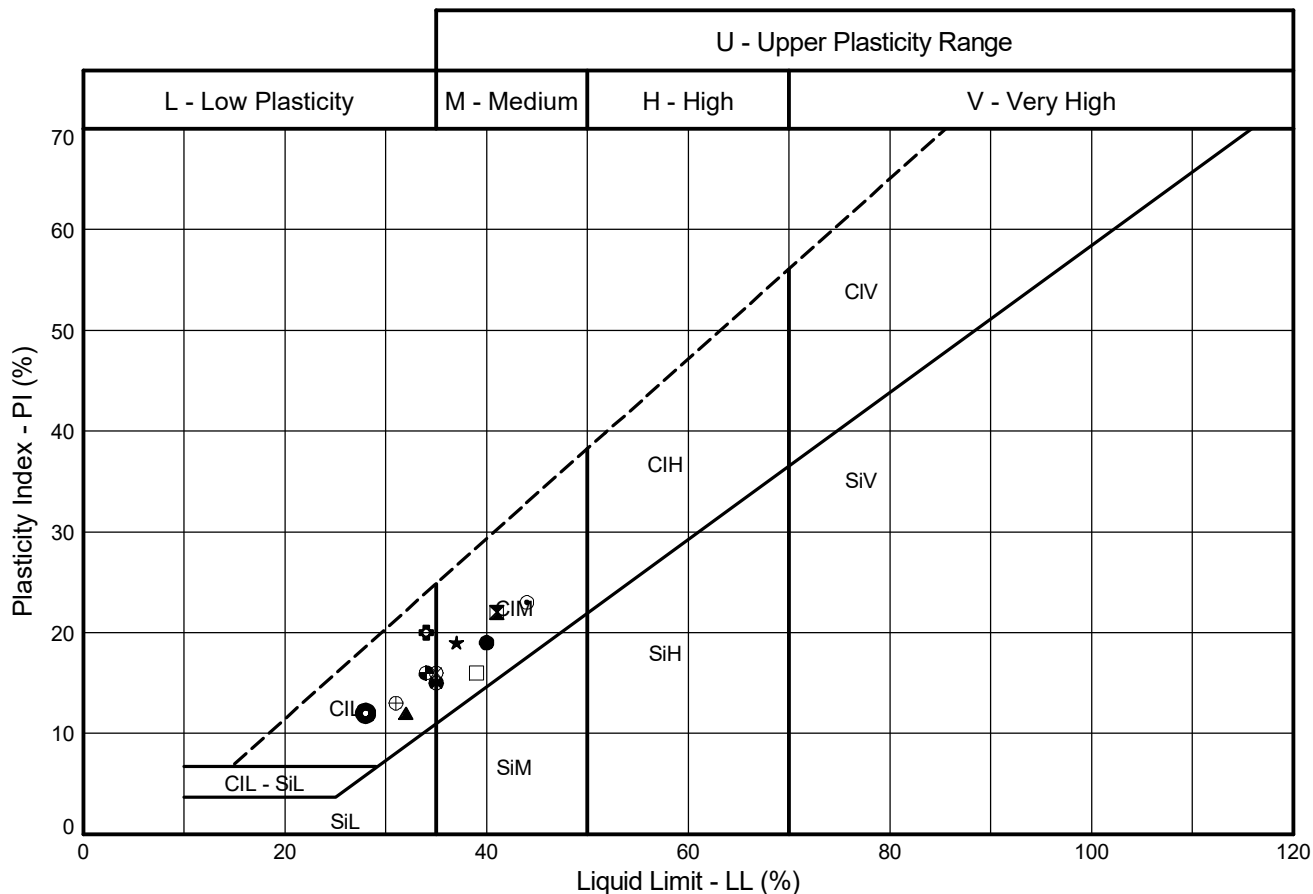
EMG Phase 2

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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	BH15	7D	1.50	5.3/5.5/6.5	5.2.7	14.6	40	21	19	87	C	
⊠	BH16	8D	1.70	5.3/5.5/6.5	5.2.7	22.0	41	19	22	81	C	
▲	BH16	16D	3.70	5.3/5.5/6.5	5.2.7	12.6	32	20	12	79	C	
★	BH16	20D	4.90	5.3/5.5/6.5	5.2.7	17.3	37	18	19	73	C	
⊙	BH17	3D	0.90	5.3/5.5/6.5	5.2.7	18.4	44	21	23	85	C	
⊕	BH18	18D	2.50	5.3/5.5/6.5	5.2.7	15.8	34	14	20	81	C	
⊗	BH18	27D	4.50	5.3/5.5/6.5	5.2.7	19.6	28	16	12	95	C	
△	BH18	37D	6.50	5.3/5.5/6.5	5.2.7	16.4	32	20	12	85	C	
⊗	BH18	40D	7.50	5.3/5.5/6.5	5.2.7	21.4	35	19	16	79	C	
⊕	BH18	45D	8.50	5.3/5.5/6.5	5.2.7	27.0	31	18	13	85	C	
□	BH19	6D	1.65	5.3/5.5/6.5	5.2.7	17.8	39	23	16	88	C	
⊗	BH19	21DSPT	5.00	5.3/5.5/6.5	5.2.7	17.1	35	20	15	77	C	
●	BH20	24D	4.70	5.3/5.5/6.5	5.2.7	16.6	34	18	16	69	C	

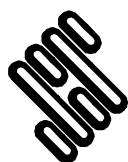
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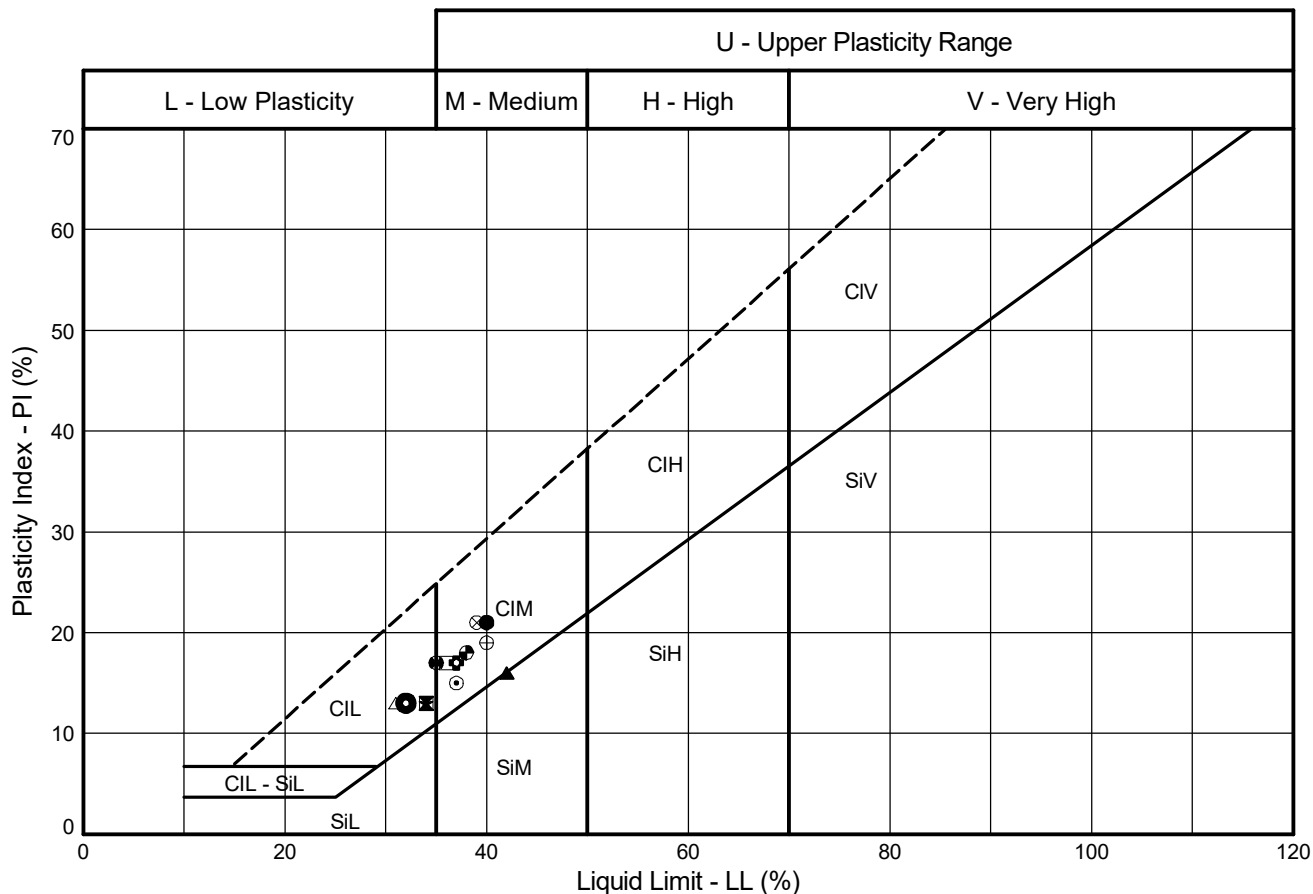
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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	BH21	5D	0.80	5.3/5.5/6.5	5.2.7	17.8	40	19	21	83	C	
⊠	BH21	15DSPT	3.00	5.3/5.5/6.5	5.2.7	21.6	34	21	13	80	C	
▲	BH22	6D	1.65	5.3/5.5/6.5	5.2.7	16.4	42	26	16	69	C	
★	BH22	14B	3.00	5.3/5.5/6.5	5.2.7	23.3	34	21	13	78	C	
⊙	BH23	8D	1.70	5.3/5.5/6.5	5.2.7	14.6	37	22	15	73	C	
⊕	BH23	26D	5.20	5.3/5.5/6.5	5.2.7	14.8	37	20	17	73	C	
⊗	BH23	28D	8.40	5.3/5.5/6.5	5.2.7	11.2	32	19	13	63	C	
△	BH24	7D	0.40	5.3/5.5/6.5	5.2.7	10.0	31	18	13	88	C	
⊗	BH25	7D	0.40	5.3/5.5/6.5	5.2.7	13.8	39	18	21	87	C	
⊕	BH26	4D	0.40	5.3/5.5/6.5	5.2.7	19.3	40	21	19	95	C	
□	BH26	16D	3.50	5.3/5.5/6.5	5.2.7	16.3	36	19	17	78	C	
⊗	BH27	4D	2.00	5.3/5.5/6.5	5.2.7	14.6	35	18	17	74	C	
⊕	CP01	12D	3.80	5.3/5.5/6.5	5.2.7	16.5	38	20	18	75	C	

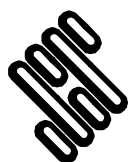
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Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

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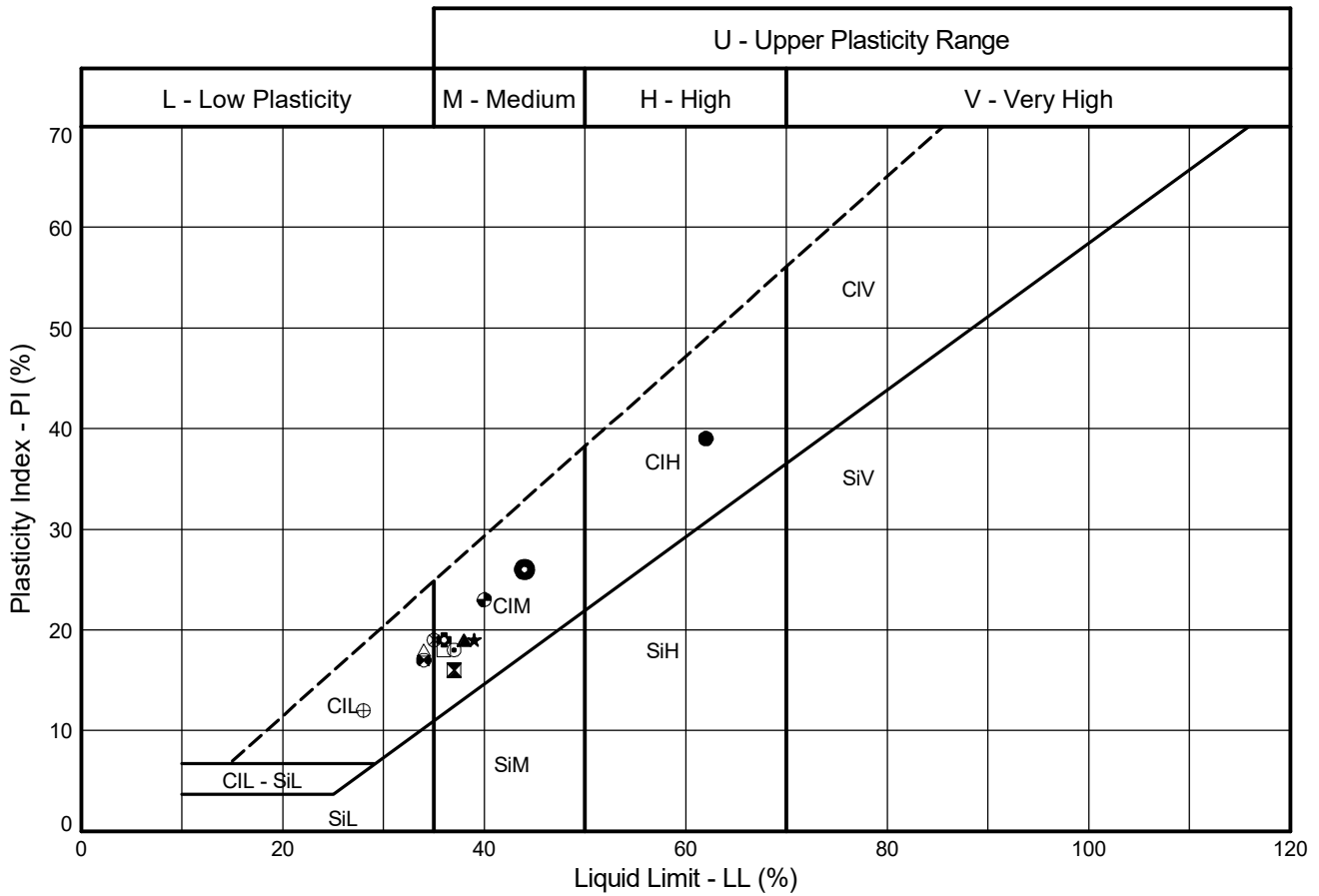
EMG Phase 2

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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	CP02	2D	0.50	5.3/5.5/6.5	5.2.7	20.2	62	23	39	91	C	
⊠	CP02	22D	6.80	5.3/5.5/6.5	5.2.7	25.5	37	21	16	98	C	
▲	CP03	13D	2.60	5.3/5.5/6.5	5.2.7	20.3	38	19	19	76	C	
★	CP03	19D	4.00	5.3/5.5/6.5	5.2.7	13.6	39	20	19	85	C	
⊙	CP03	26D	6.80	5.3/5.5/6.5	5.2.7	21.9	37	19	18	77	C	
⊕	CP04	5D	1.00	5.3/5.5/6.5	5.2.7	13.3	36	17	19	73	C	
⊗	CP04	17D	4.60	5.3/5.5/6.5	5.2.7	18.9	44	18	26	89	C	
△	CP04	42D	12.50	5.3/5.5/6.5	5.2.7	13.9	34	16	18	84	C	
⊗	CP04	48D	14.50	5.3/5.5/6.5	5.2.7	14.0	35	16	19	84	C	
⊕	CP05	4D	0.70	5.3/5.5/6.5	5.2.7	17.0	28	16	12	86	C	
□	CP05	7.1DSPT	2.00	5.3/5.5/6.5	5.2.7	16.3	36	18	18	84	C	
⊗	CP05	9D	2.75	5.3/5.5/6.5	5.2.7	19.8	34	17	17	73	C	
⊕	CP05	18D	5.75	5.3/5.5/6.5	5.2.7	16.6	40	17	23	87	C	

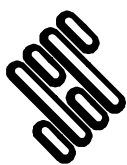
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5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

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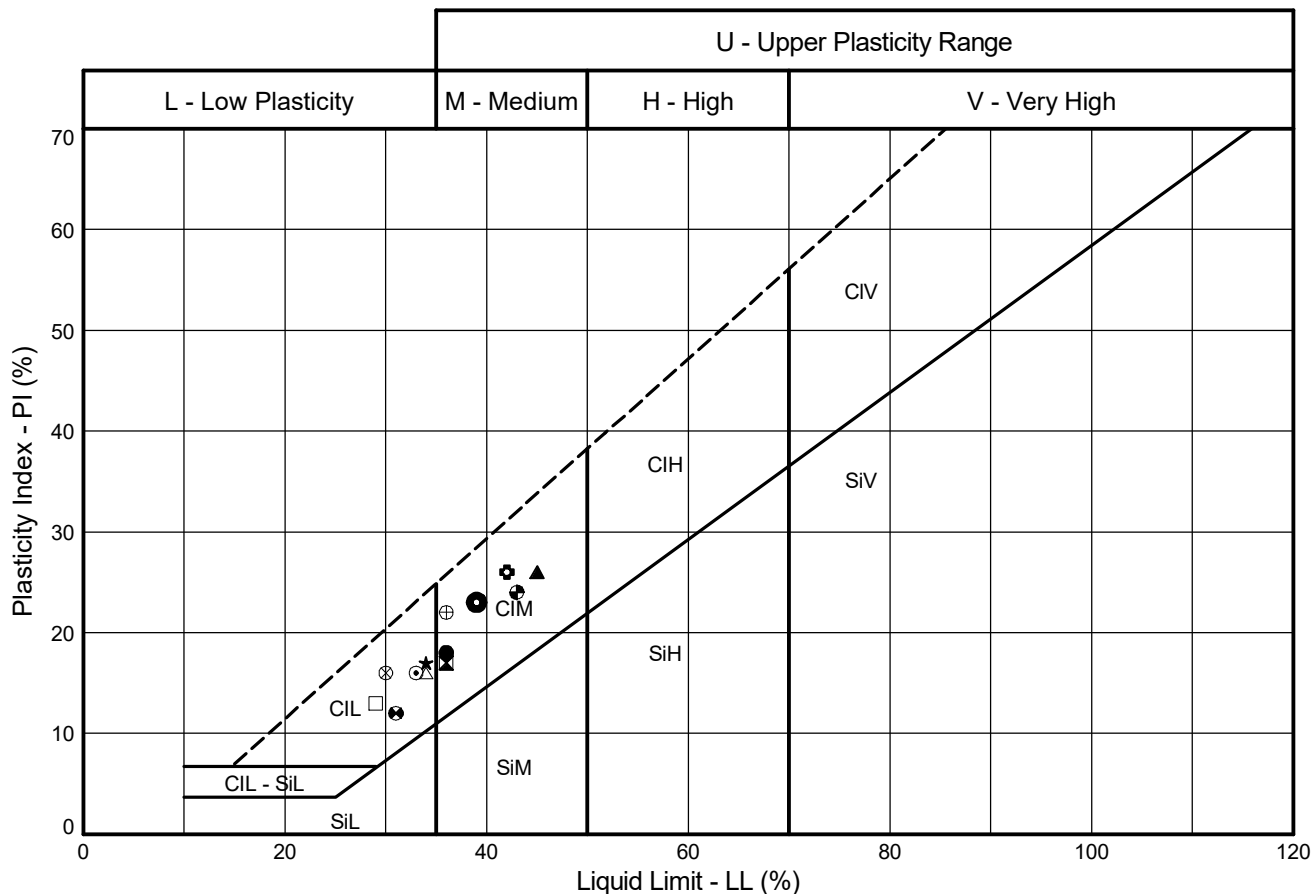
EMG Phase 2

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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	CP06	11D	3.65	5.3/5.5/6.5	5.2.7	17.2	36	18	18	63	C	
⊗	CP06	19D	7.00	5.3/5.5/6.5	5.2.7	16.3	36	19	17	80	C	
▲	CP07	5D	1.30	5.3/5.5/6.5	5.2.7	18.6	45	19	26	91	C	
★	CP07	20D	6.45	5.3/5.5/6.5	5.2.7	15.5	34	17	17	83	C	
⊙	CP07	25D	8.70	5.3/5.5/6.5	5.2.7	16.4	33	17	16	84	C	
⊕	CP08	13B	2.00	5.3/5.5/6.5	5.2.7	18.7	42	16	26	81	C	
⊗	CP08	18DSPT	4.00	5.3/5.5/6.5	5.2.7	18.1	39	16	23	78	C	
△	CP08	22D	5.50	5.3/5.5/6.5	5.2.7	12.4	34	18	16	65	C	
⊗	CP08	40D	10.20	5.3.14/5.5/6.5	5.2.7	17.2	30	14	16	48	C	
⊕	CP09	4D	0.70	5.3/5.5/6.5	5.2.7	12.1	36	14	22	93	C	
□	CP09	15D	4.75	5.3/5.5/6.5	5.2.7	18.0	29	16	13	97	C	
⊗	CP09	21D	7.00	5.3/5.5/6.5	5.2.7	13.7	31	19	12	80	C	
⊕	CP10	4D	0.50	5.3/5.5/6.5	5.2.7	12.0	43	19	24	86	C	

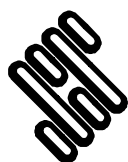
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Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

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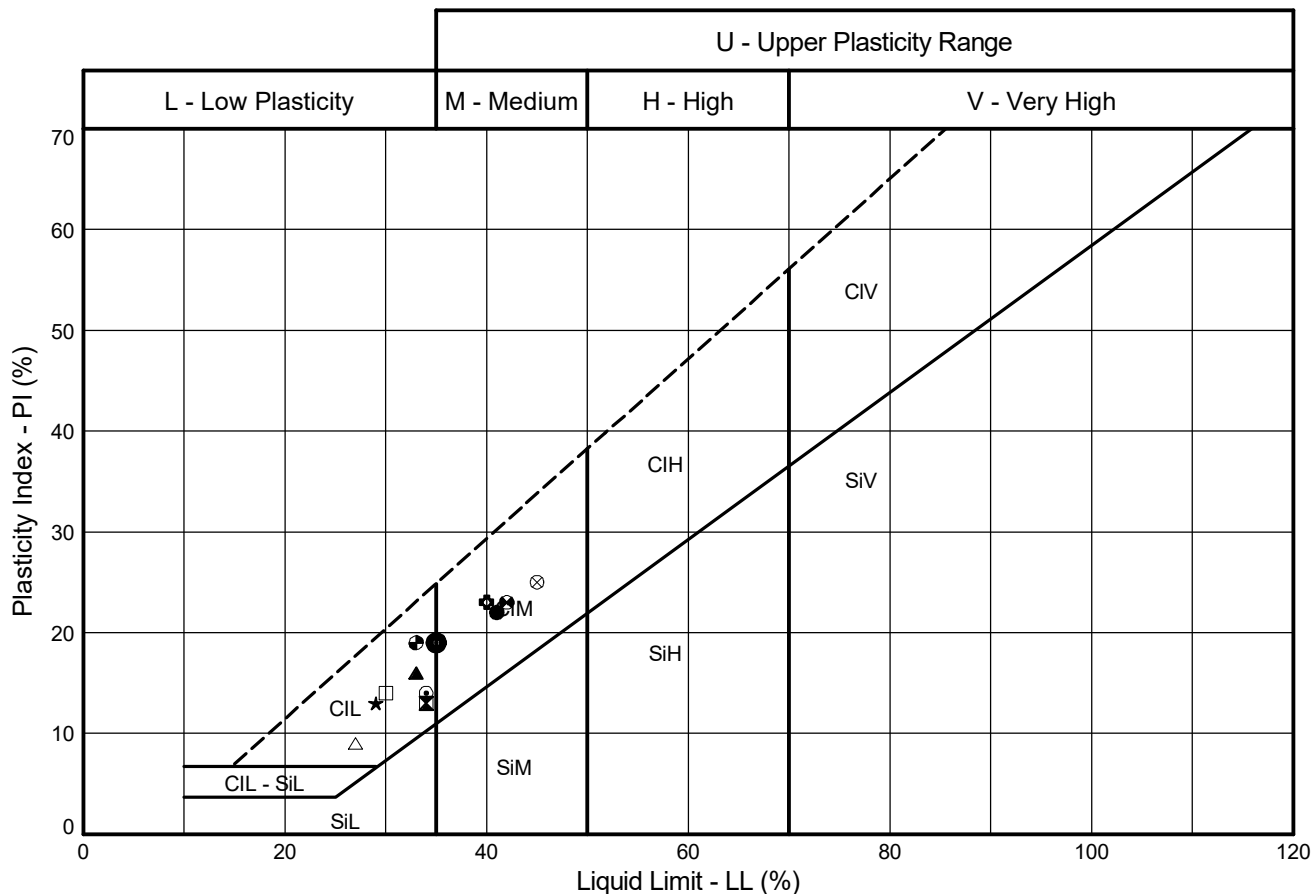
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Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	CP10	11D	2.95	5.3/5.5/6.5	5.2.7	19.9	41	19	22	90	C	
⊠	CP10	19D	4.95	5.3/5.5/6.5	5.2.7	14.2	34	21	13	56	C	
▲	CP11	7D	1.75	5.3/5.5/6.5	5.2.7	15.2	33	17	16	82	C	
★	CP11	15D	4.75	5.3/5.5/6.5	5.2.7	23.7	29	16	13	91	C	
⊙	CP11	20B	6.00	5.3/5.5/6.5	5.2.7	14.8	34	20	14	84	C	
⊗	CP12	7D	1.75	5.3/5.5/6.5	5.2.7	15.6	40	17	23	48	C	
⊕	CP12	17D	5.75	5.3/5.5/6.5	5.2.7	17.1	35	16	19	56	C	
△	CP13	9D	2.40	5.3/5.5/6.5	5.2.7	28.0	27	18	9	93	C	
⊗	CP14	3D	0.70	5.3/5.5/6.5	5.2.7	13.8	45	20	25	69	C	
⊕	CP14	9D	2.75	5.3/5.5/6.5	5.2.7	15.2	35	16	19	85	C	
□	CP15	4D	0.70	5.3/5.5/6.5	5.2.7	9.5	30	16	14	86	C	
⊗	CP16	5D	1.00	5.3/5.5/6.5	5.2.7	10.4	42	19	23	88	C	
⊕	CP16	11D	3.40	5.3.14/5.5/6.5	5.2.7	11.4	33	14	19	67	C	

Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

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LORNA WHITWORTH

27/02/23

Contract

Contract Ref:

EMG Phase 2

765514



According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



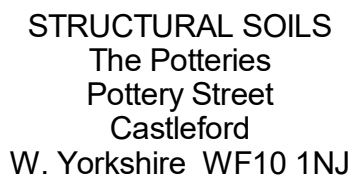
Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

Water Content (WC) tested in accordance with BS EN ISO 17892-1:2014

+ Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.2.1 - Natural State and 5.2.7 - Wet Sieved

Key: * = Non-standard test, NP = Non plastic, I = Increasing WC, D = Decreasing WC.

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



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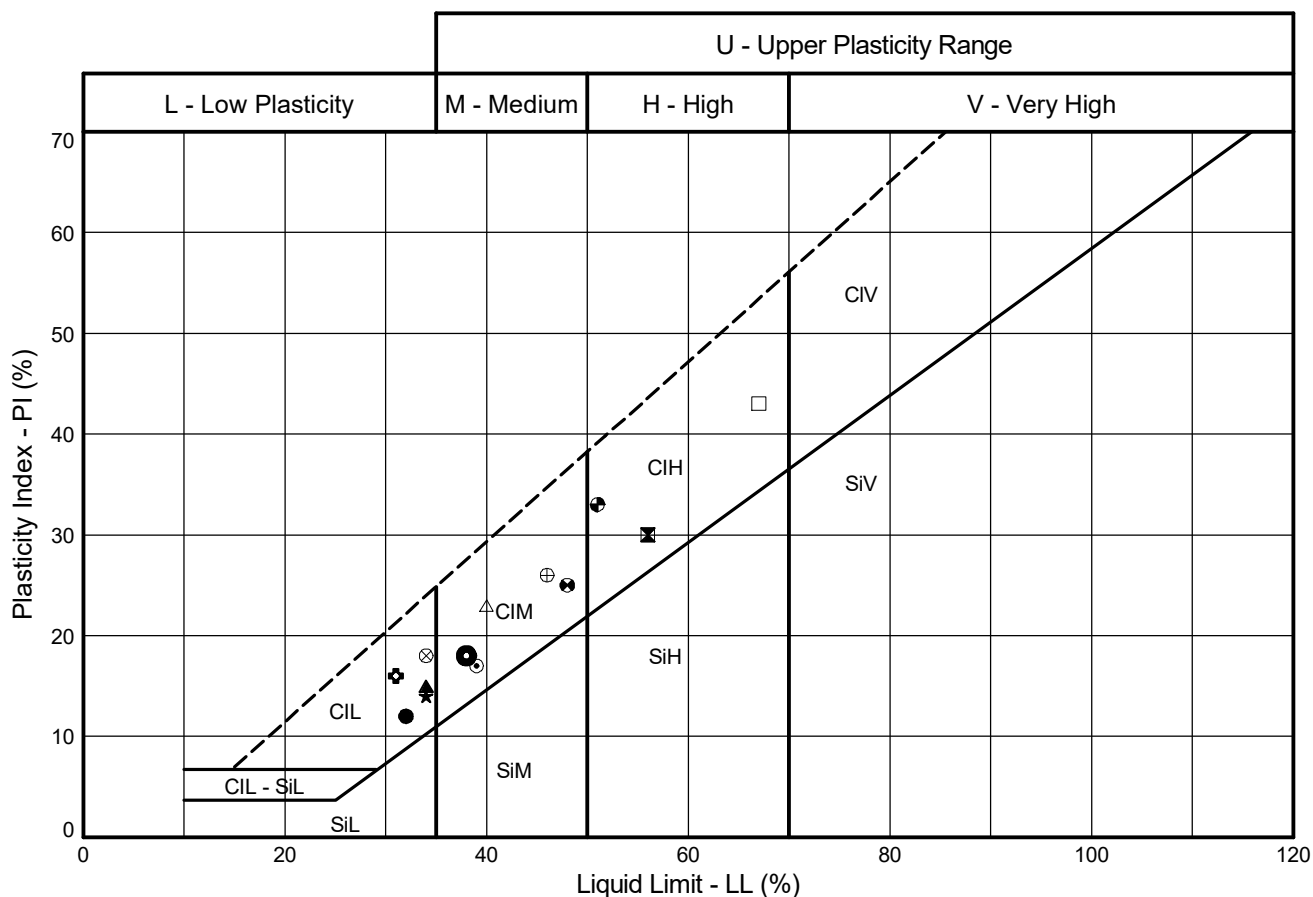
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According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location Notes
Exploratory Position ID	Sample	Depth (m)									
●	CP26	26D	6.00	5.3/5.5/6.5	5.2.7	11.7	32	20	12	76	C
☒	CP27	7D	1.00	5.3/5.5/6.5	5.2.7	19.6	56	26	30	93	C
▲	CP27	19D	3.00	5.3/5.5/6.5	5.2.7	15.0	34	19	15	84	C
★	CP27	24D	4.00	5.3/5.5/6.5	5.2.7	25.1	34	20	14	86	C
⊙	CP28	2D	0.50	5.3/5.5/6.5	5.2.7	12.8	39	22	17	93	C
⊕	CP28	9D	1.80	5.3/5.5/6.5	5.2.7	14.7	31	15	16	86	C
●	CP28	15D	3.60	5.3/5.5/6.5	5.2.7	16.8	38	20	18	82	C
△	TP01	7D	0.60	5.3/5.5/6.5	5.2.7	11.9	40	17	23	76	C
⊗	TP07	4D	0.50	5.3/5.5/6.5	5.2.7	10.0	34	16	18	76	C
⊕	TP07	10D	1.30	5.3/5.5/6.5	5.2.7	17.1	46	20	26	90	C
□	TP08	11D	2.40	5.3/5.5/6.5	5.2.7	23.9	67	24	43	90	C
⊗	TP08	14D	2.90	5.3/5.5/6.5	5.2.7	21.3	48	23	25	94	C
●	TP09	4D	0.60	5.3/5.5/6.5	5.2.7	17.8	51	18	33	90	C

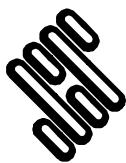
Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

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Key: * = Non-standard test, NP = Non plastic, I = Increasing WC, D = Decreasing WC.

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



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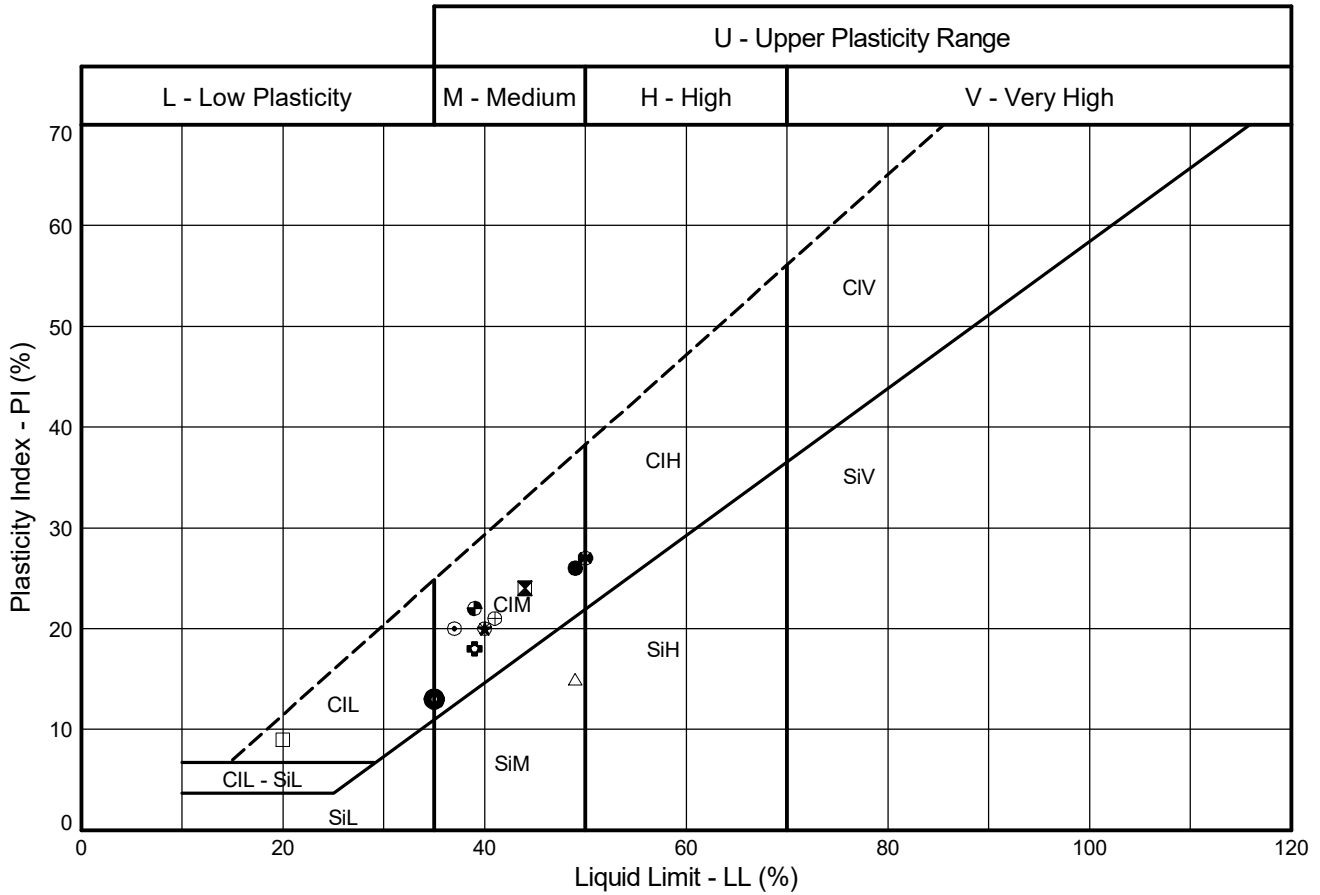
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PI vs LL CHART

According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Sample Identification				Test Method #	Preparation Method +	WC %	LL %	PL %	PI %	<425µm %	Lab location	Notes
Exploratory Position ID	Sample	Depth (m)										
●	TP09	10D	3.30	5.3/5.5/6.5	5.2.7	21.7	49	23	26	85	C	
⊗	TP10	10D	1.40	5.3/5.5/6.5	5.2.7	12.4	44	20	24	86	C	
	TP11	4D	0.60	5.3/5.5/6.5	5.2.7	5.1	NP	NP	NP	86	C	
★	TP12	10D	2.00	5.3/5.5/6.5	5.2.7	17.3	40	20	20	88	C	
⊙	TP13	8D	1.50	5.3/5.5/6.5	5.2.7	17.0	37	17	20	95	C	
⊕	TP14	9D	1.80	5.3/5.5/6.5	5.2.7	14.7	39	21	18	82	C	
⊗	TP14	2D	3.50	5.3/5.5/6.5	5.2.7	18.9	35	22	13	86	C	
△	TP15	4D	0.60	5.3/5.5/6.5	5.2.7	15.6	49	34	15	79	C	
⊗	TP16	4D	0.40	5.3/5.5/6.5	5.2.7	11.9	40	20	20	86	C	
⊕	TP18	10D	1.70	5.3/5.5/6.5	5.2.7	14.8	41	20	21	75	C	
□	TP20	4D	0.50	5.3/5.5/6.5	5.2.7	7.9	20	11	9	86	C	
⊗	TP20	10D	1.70	5.3/5.5/6.5	5.2.7	25.5	50	23	27	81	C	
⊕	TP22	7D	1.30	5.3/5.5/6.5	5.2.7	16.8	39	17	22	83	C	

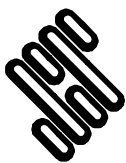
Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
5.3 - Cone Penetrometer Method; 5.3.14 - One-Point Cone Penetrometer Method; 5.4 - Casagrande Method; 5.5 - Plastic Limit Method; 6.5 - Plasticity Index

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According to BS EN 14688-2:2018
Testing in accordance with BS EN ISO 17892-12:2018+A1:2021



Tested in accordance with the following clauses of BS EN ISO 17892-12:2018+A1:2021
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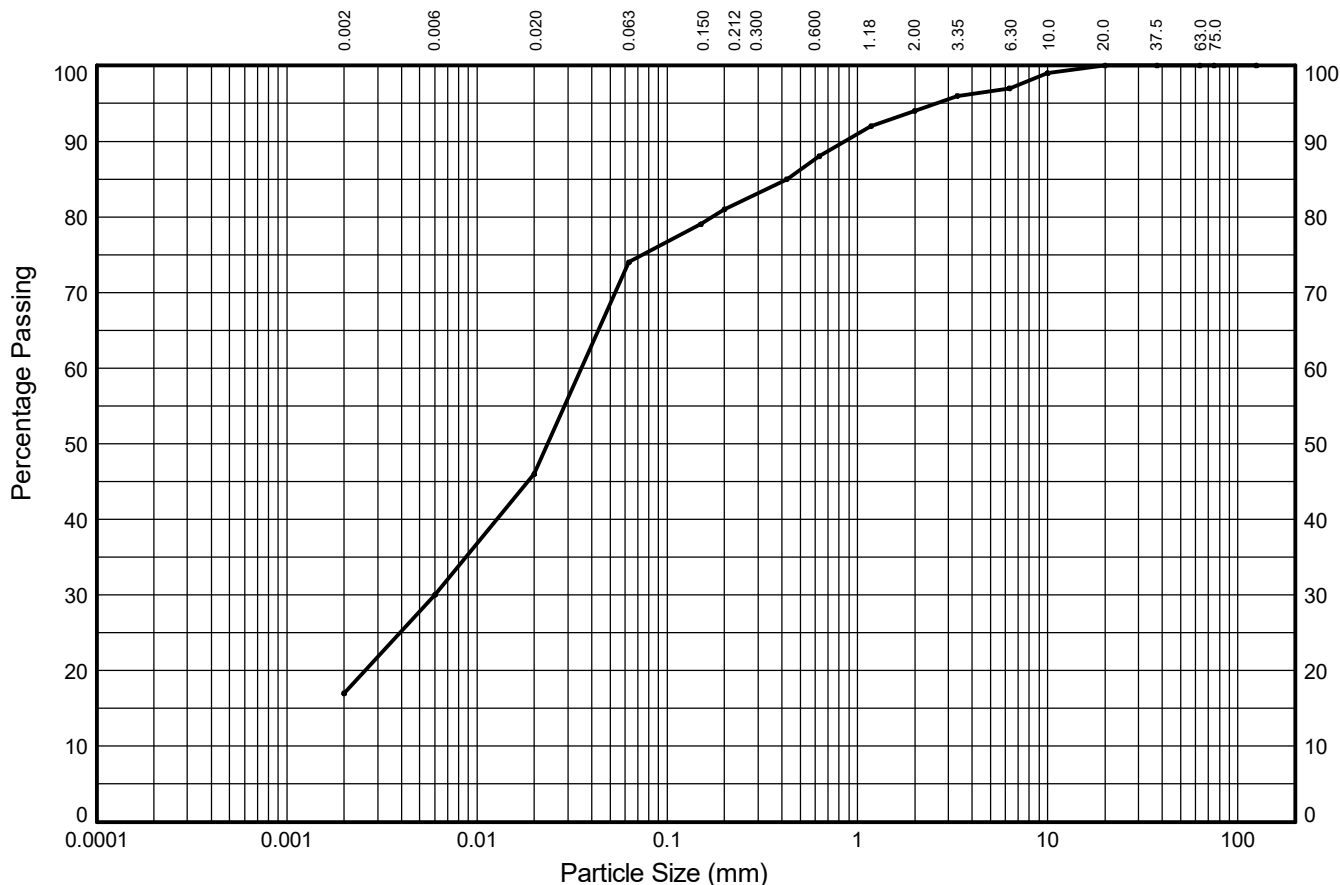
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

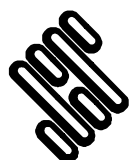
Borehole: **BH04** Sample Ref: **10** Sample Type: **D** Depth (m): **2.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	13%	16%	28%	7%	7%	6%	3%	3%	0%	
	SILT			SAND			GRAVEL			
17%	57%			20%			6%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	46	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.006
37.5	100	0.006	30	D ₅₀ (mm)	0.024
20.0	100			D ₆₀ (mm)	0.035
10.0	99			D ₈₅ (mm)	0.425
6.30	97	0.002	17	D ₉₀ (mm)	0.862
3.35	96			C _U	NA
2.00	94			C _C	NA
1.18	92	Sedimentation sample was not pre-treated			
0.630	88				
0.425	85				
0.200	81				
0.150	79				
0.063	74	Soil Description: Red brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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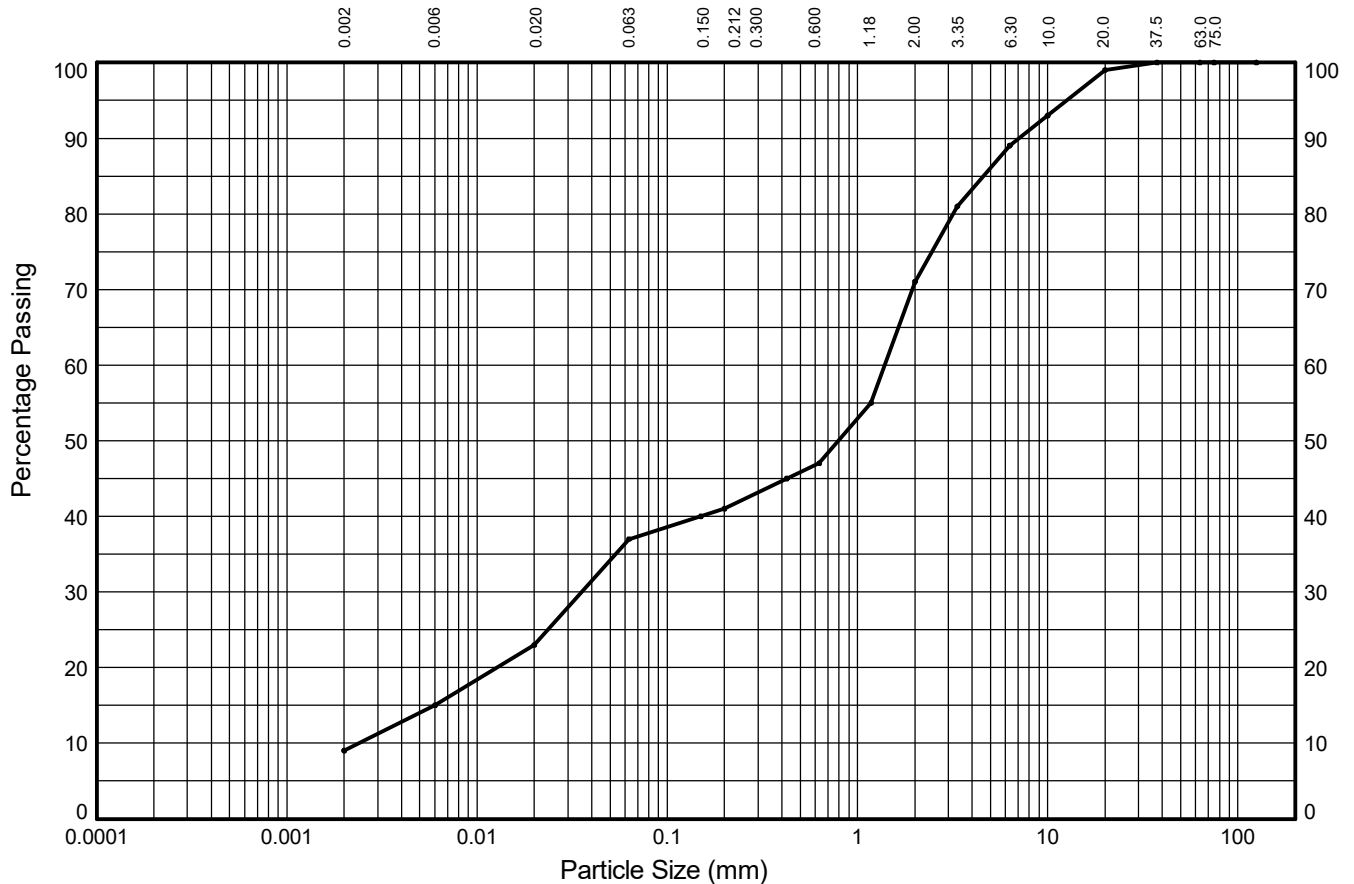
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

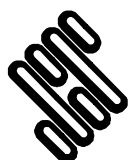
Borehole: **BH05** Sample Ref: **20** Sample Type: **B** Depth (m): **5.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	6%	8%	14%	4%	6%	24%	18%	10%	1%	
	SILT			SAND			GRAVEL			
9%	28%			34%			29%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	23	D ₁₀ (mm)	0.002
75.0	100			D ₁₅ (mm)	0.006
63.0	100	0.006	15	D ₃₀ (mm)	0.035
37.5	100			D ₅₀ (mm)	0.797
20.0	99	0.002	9	D ₆₀ (mm)	1.392
10.0	93			D ₈₅ (mm)	4.594
6.30	89	Sedimentation sample was not pre-treated		D ₉₀ (mm)	7.071
3.35	81			C _U	579
2.00	71	C _C 0.38			
1.18	55	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.630	47				
0.425	45				
0.200	41				
0.150	40				
0.063	37				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

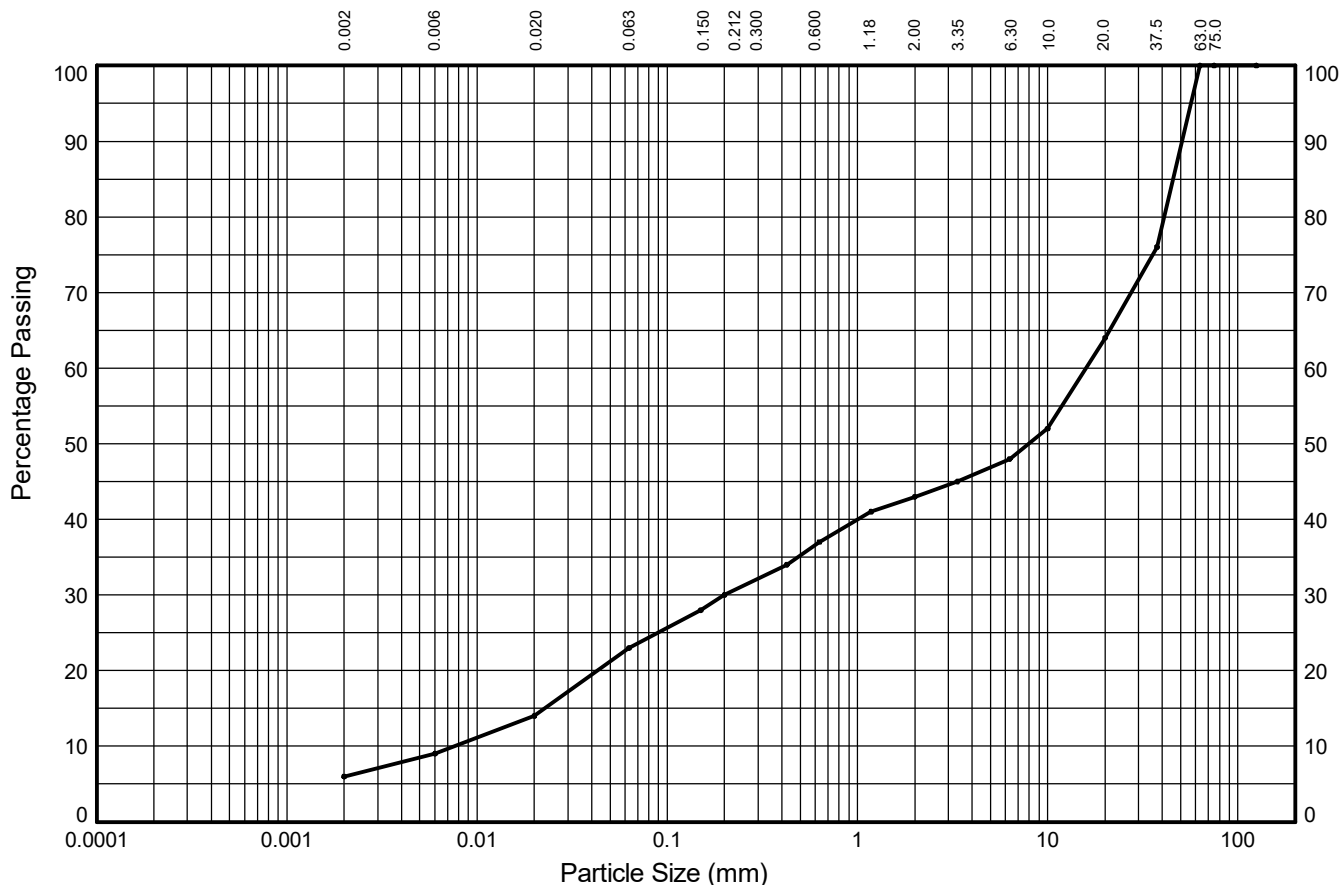
NON-STANDARD TEST

Borehole: **BH05**

Sample Ref: **28**

Sample Type: **B**

Depth (m): **7.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	3%	5%	9%	7%	7%	6%	5%	16%	36%	
	SILT			SAND			GRAVEL			
6%	17%			20%			57%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	76
20.0	64
10.0	52
6.30	48
3.35	45
2.00	43
1.18	41
0.630	37
0.425	34
0.200	30
0.150	28
0.063	23

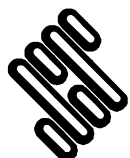
Particle Diameter (mm)	Percent Passing (%)
0.02	14
0.006	9
0.002	6
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.008
D ₁₅ (mm)	0.023
D ₃₀ (mm)	0.200
D ₅₀ (mm)	7.937
D ₆₀ (mm)	15.874
D ₈₅ (mm)	45.554
D ₉₀ (mm)	50.753
C _U	2080
C _C	0.33

Soil Description:

Brown sandy clayey silty GRAVEL

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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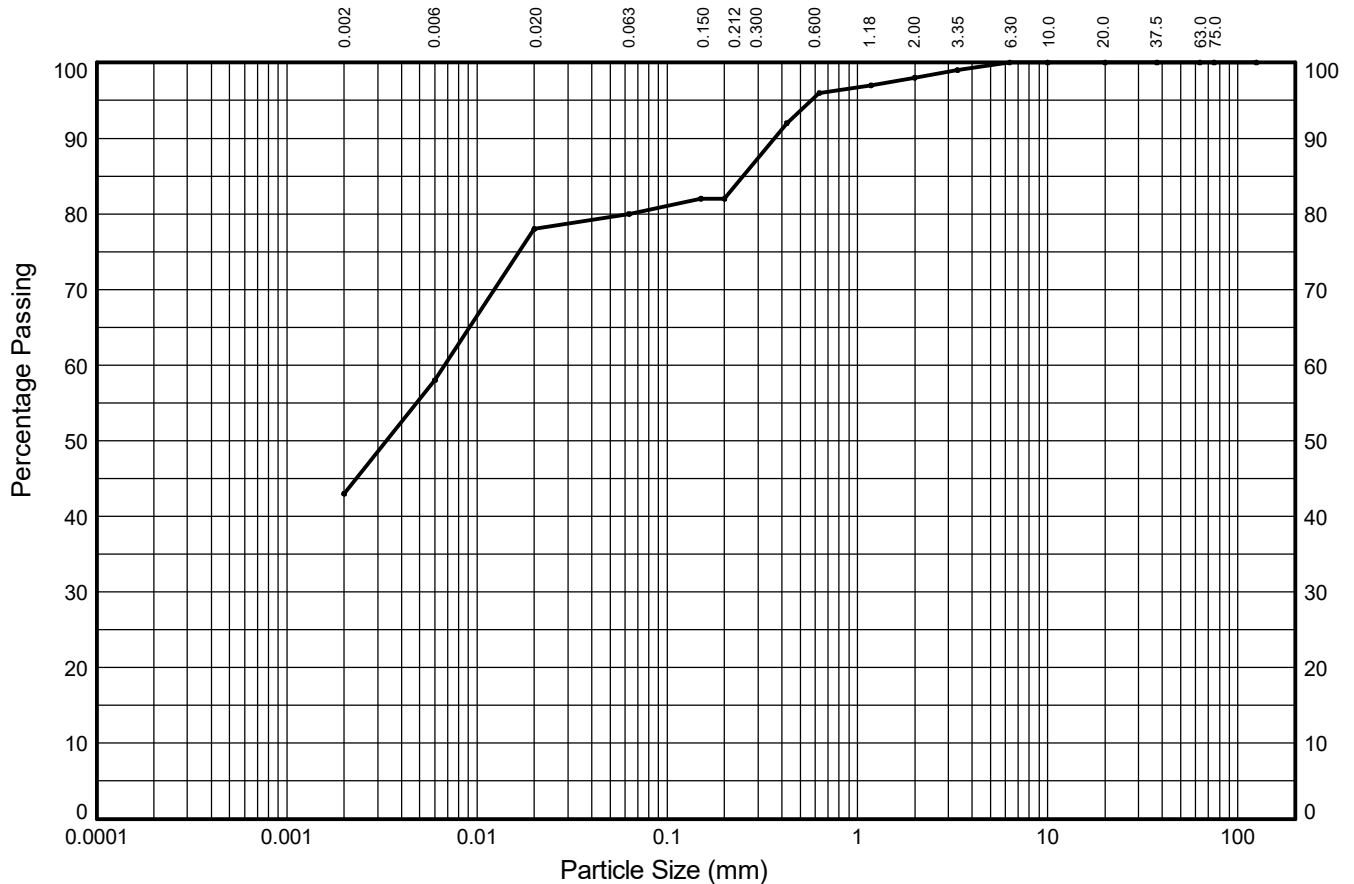
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

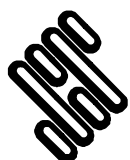
Borehole: **BH06** Sample Ref: **11** Sample Type: **B** Depth (m): **2.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	15%	20%	2%	2%	14%	2%	2%	0%	0%	
	SILT			SAND			GRAVEL			
43%	37%			18%			2%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients		
125.0	100	0.02	78	D ₁₀ (mm)	NA	
75.0	100			D ₁₅ (mm)	NA	
63.0	100			D ₃₀ (mm)	NA	
37.5	100	0.006	58	D ₅₀ (mm)	0.003	
20.0	100			D ₆₀ (mm)	0.007	
10.0	100			D ₈₅ (mm)	0.251	
6.30	100	0.002	43	D ₉₀ (mm)	0.366	
3.35	99			Sedimentation sample was not pre-treated	C _U	NA
2.00	98				C _C	NA
1.18	97	Soil Description: Brown slightly gravelly slightly sandy silty CLAY				
0.630	96					
0.425	92					
0.200	82					
0.150	82					
0.063	80					

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

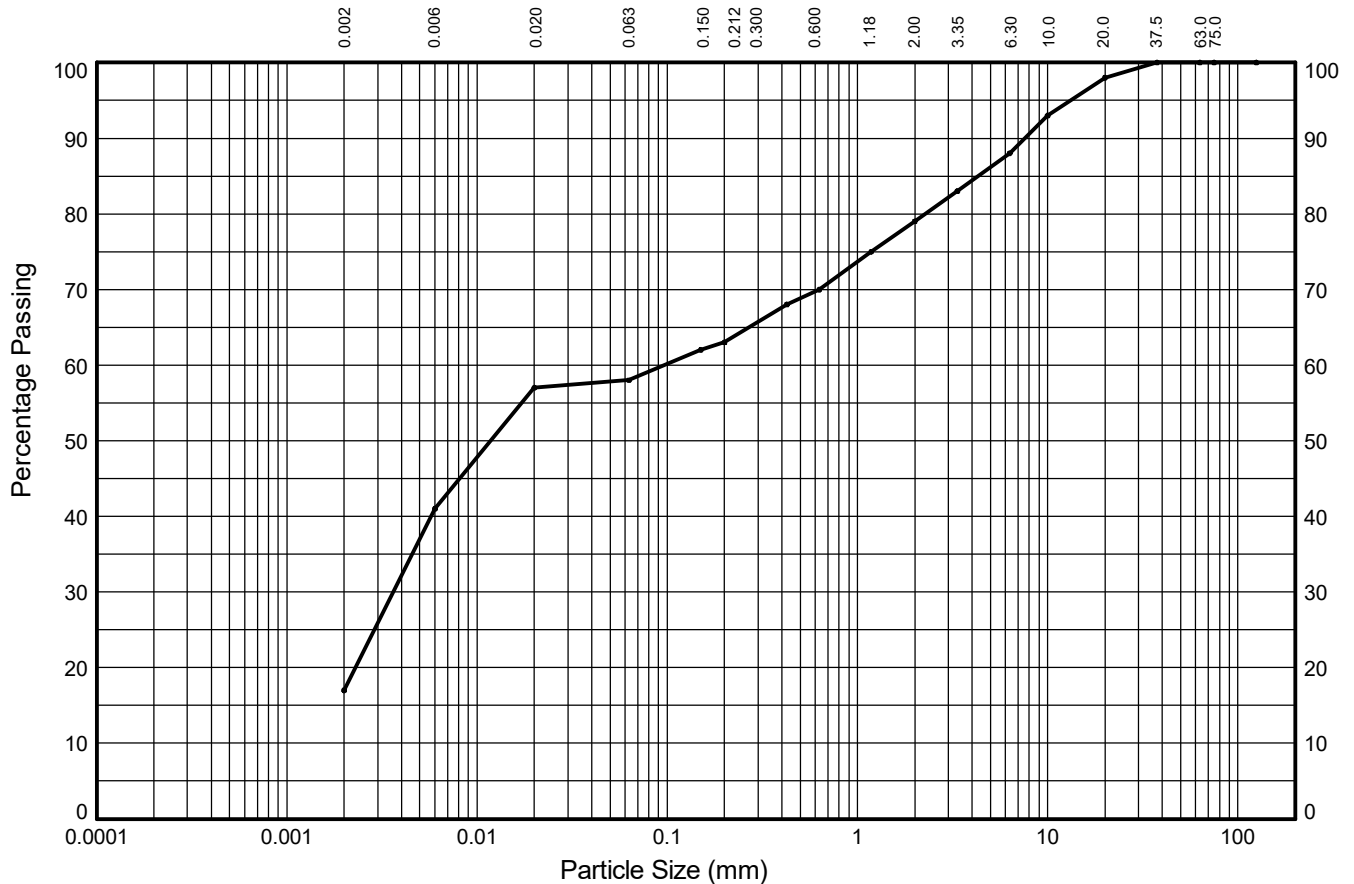
In accordance with clauses 9.2, 9.4 of BS1377:Part 2:1990

Borehole: **BH08**

Sample Ref: **19**

Sample Type: **B**

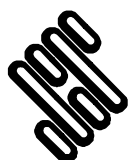
Depth (m): **4.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	24%	16%	1%	5%	7%	9%	9%	10%	2%	
	SILT			SAND			GRAVEL			
17%	41%			21%			21%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	57	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.004
37.5	100	0.006	41	D ₅₀ (mm)	0.012
20.0	98			D ₆₀ (mm)	0.097
10.0	93			D ₈₅ (mm)	4.313
6.30	88	0.002	17	D ₉₀ (mm)	7.579
3.35	83			C _U	NA
2.00	79			C _C	NA
1.18	75	Sedimentation sample was not pre-treated			
0.600	68	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.425					
0.212					
0.150					
0.063	58				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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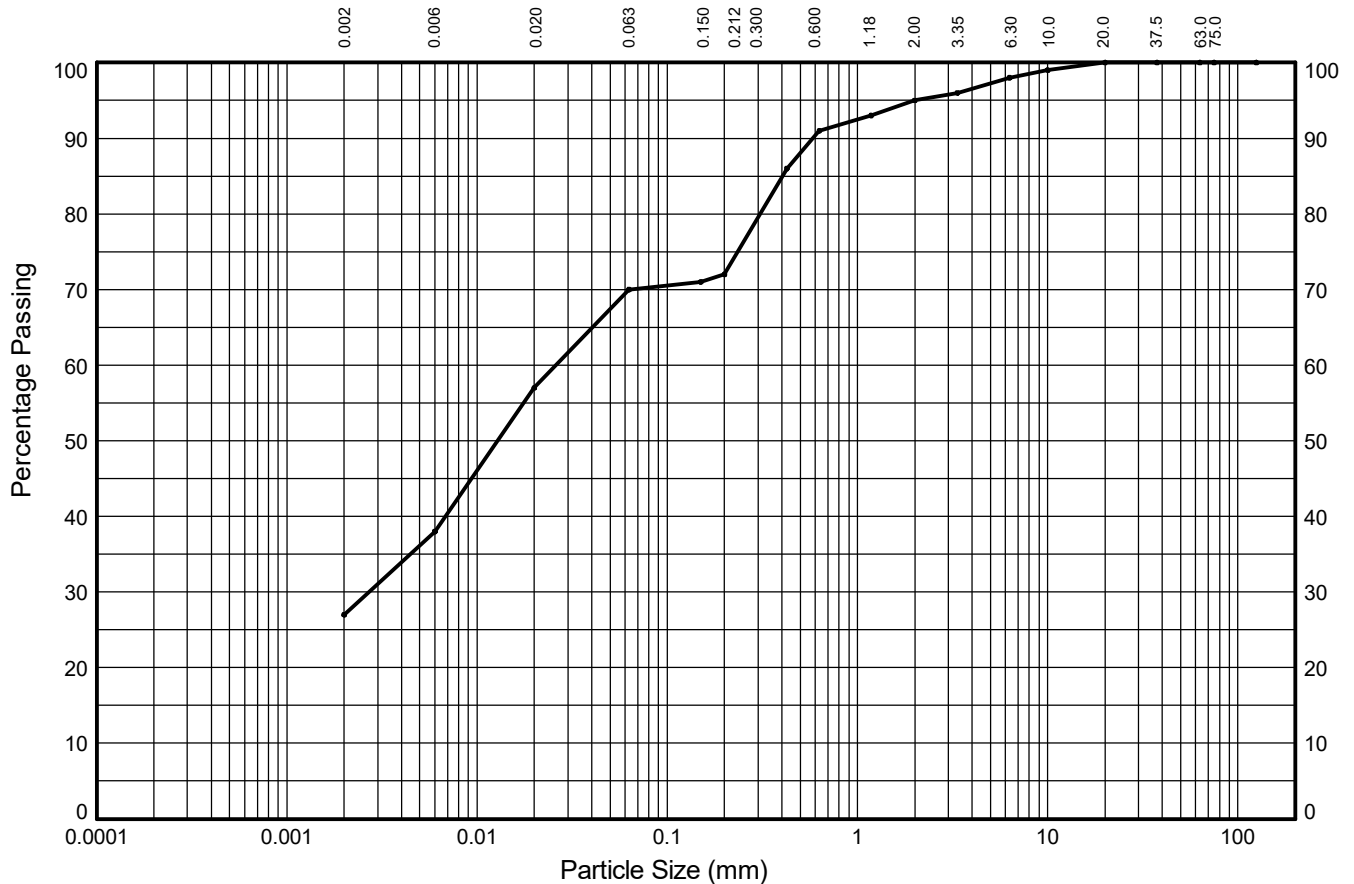
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

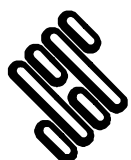
Borehole: **BH09** Sample Ref: **20** Sample Type: **B** Depth (m): **2.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	11%	19%	13%	2%	19%	4%	3%	2%	0%	
	SILT			SAND			GRAVEL			
27%	43%			25%			5%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	57	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.003
37.5	100	0.006	38	D ₅₀ (mm)	0.013
20.0	100			D ₆₀ (mm)	0.026
10.0	99			D ₈₅ (mm)	0.403
6.30	98	0.002	27	D ₉₀ (mm)	0.582
3.35	96			C _U	NA
2.00	95			C _C	NA
1.18	93	Sedimentation sample was not pre-treated			
0.630	91				
0.425	86				
0.200	72				
0.150	71				
0.063	70	Soil Description: Brown/red slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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LAURA SCHRAMM

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17/03/23

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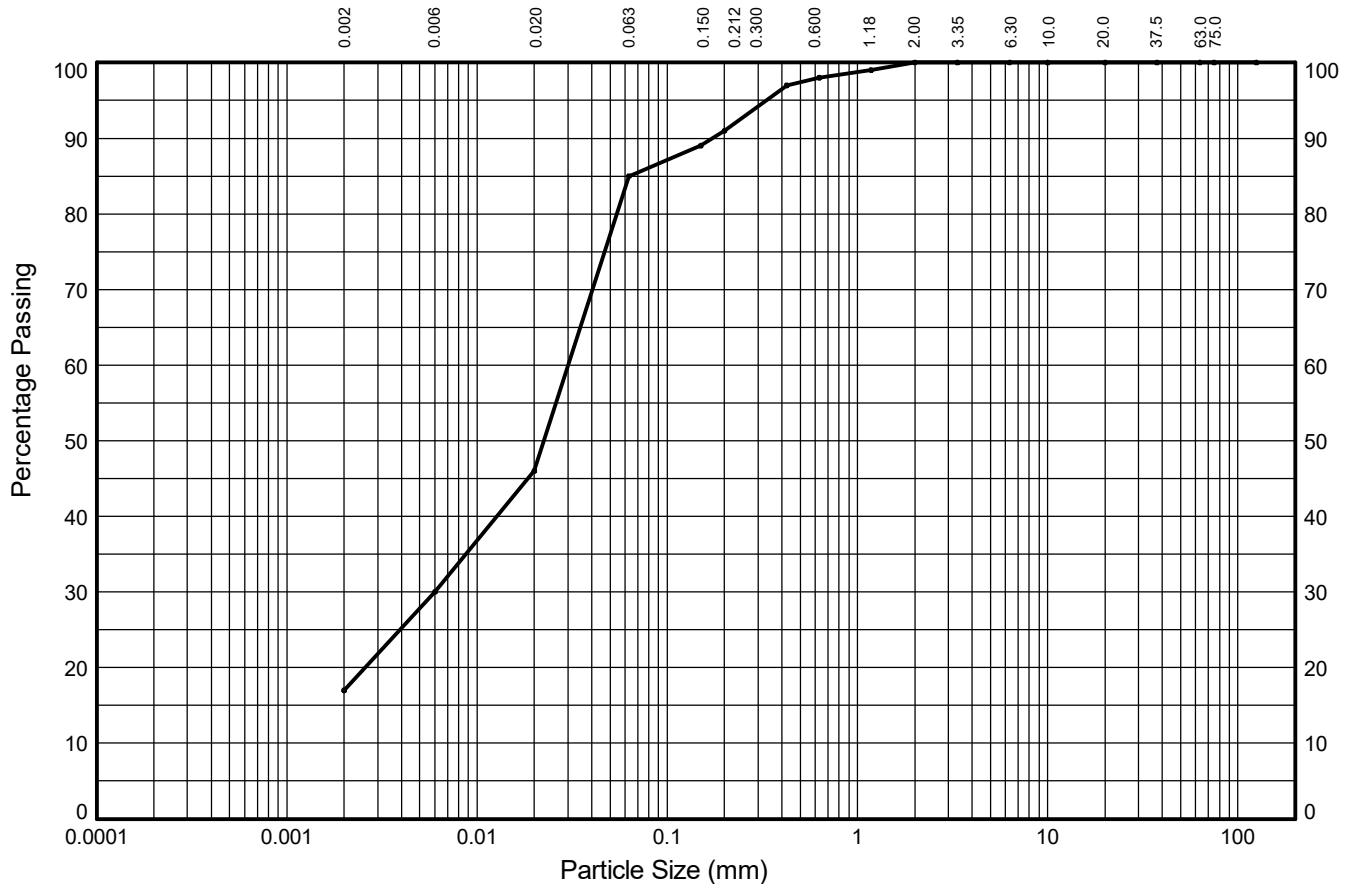
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

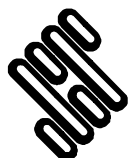
Borehole: **BH09** Sample Ref: **28** Sample Type: **B** Depth (m): **4.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	13%	16%	39%	6%	7%	2%	0%	0%	0%	
	SILT			SAND			GRAVEL			
17%	68%			15%			0%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	46	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.006
37.5	100	0.006	30	D ₅₀ (mm)	0.022
20.0	100			D ₆₀ (mm)	0.030
10.0	100			D ₈₅ (mm)	0.063
6.30	100	0.002	17	D ₉₀ (mm)	0.173
3.35	100			C _U	NA
2.00	100			C _C	NA
1.18	99	Sedimentation sample was not pre-treated			
0.630	98				
0.425	97				
0.200	91				
0.150	89				
0.063	85	Soil Description: Red brown slightly sandy clayey SILT			

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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LORNA WHITWORTH

Date

17/03/23

Contract

EMG Phase 2

Contract Ref:

765514



PARTICLE SIZE DISTRIBUTION TEST

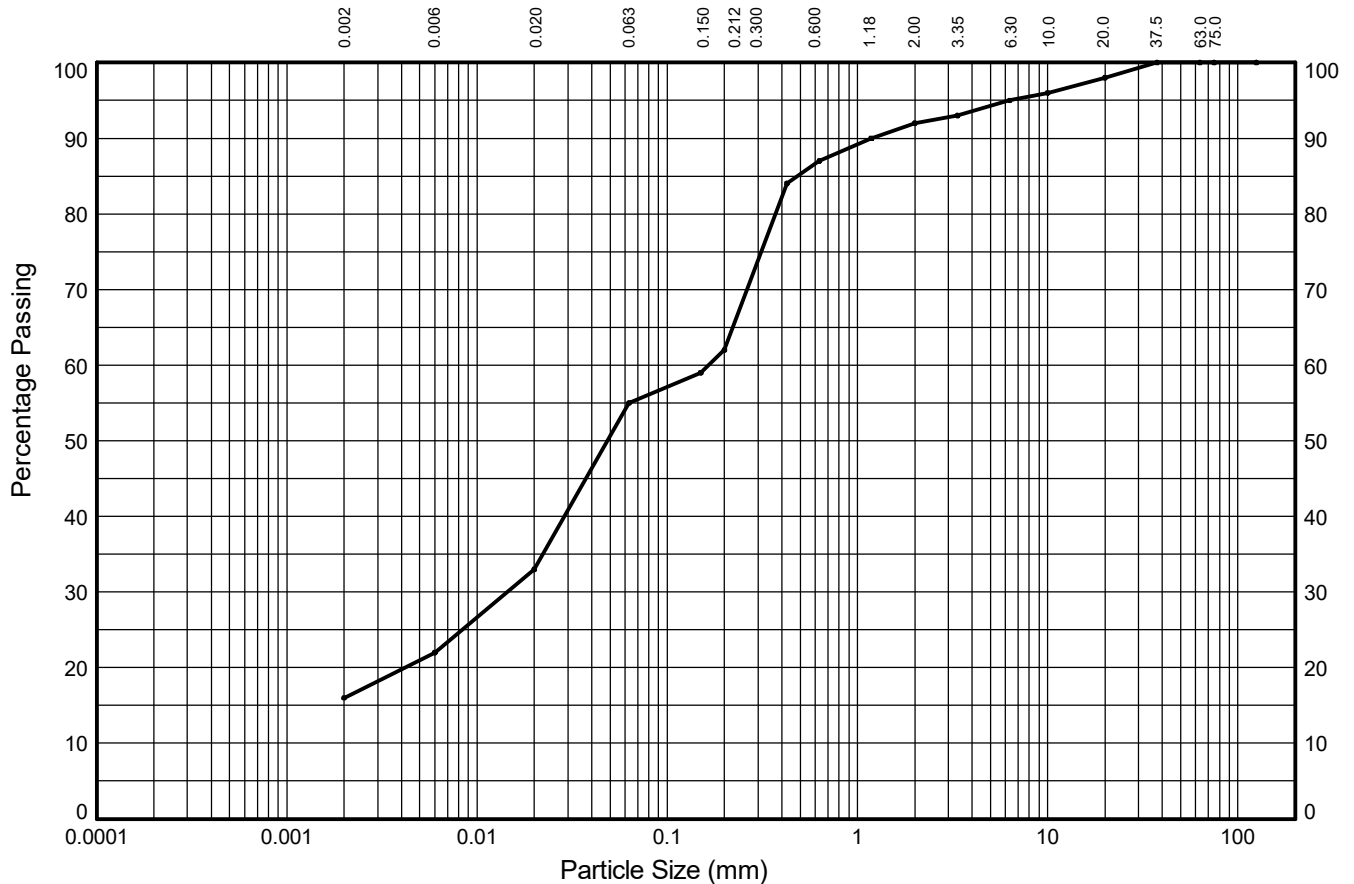
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Borehole: **BH10**

Sample Ref: **5**

Sample Type: **B**

Depth (m): **0.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	6%	11%	22%	7%	25%	5%	3%	3%	2%	
	SILT			SAND			GRAVEL			
16%	39%			37%			8%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	98
10.0	96
6.30	95
3.35	93
2.00	92
1.18	90
0.630	87
0.425	84
0.200	62
0.150	59
0.063	55

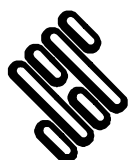
Particle Diameter (mm)	Percent Passing (%)
0.02	33
0.006	22
0.002	16
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	NA
D ₃₀ (mm)	0.014
D ₅₀ (mm)	0.049
D ₆₀ (mm)	0.165
D ₈₅ (mm)	0.485
D ₉₀ (mm)	1.180
C _u	NA
C _c	NA

Soil Description:

Brown grey slightly gravelly sandy clayey SILT

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

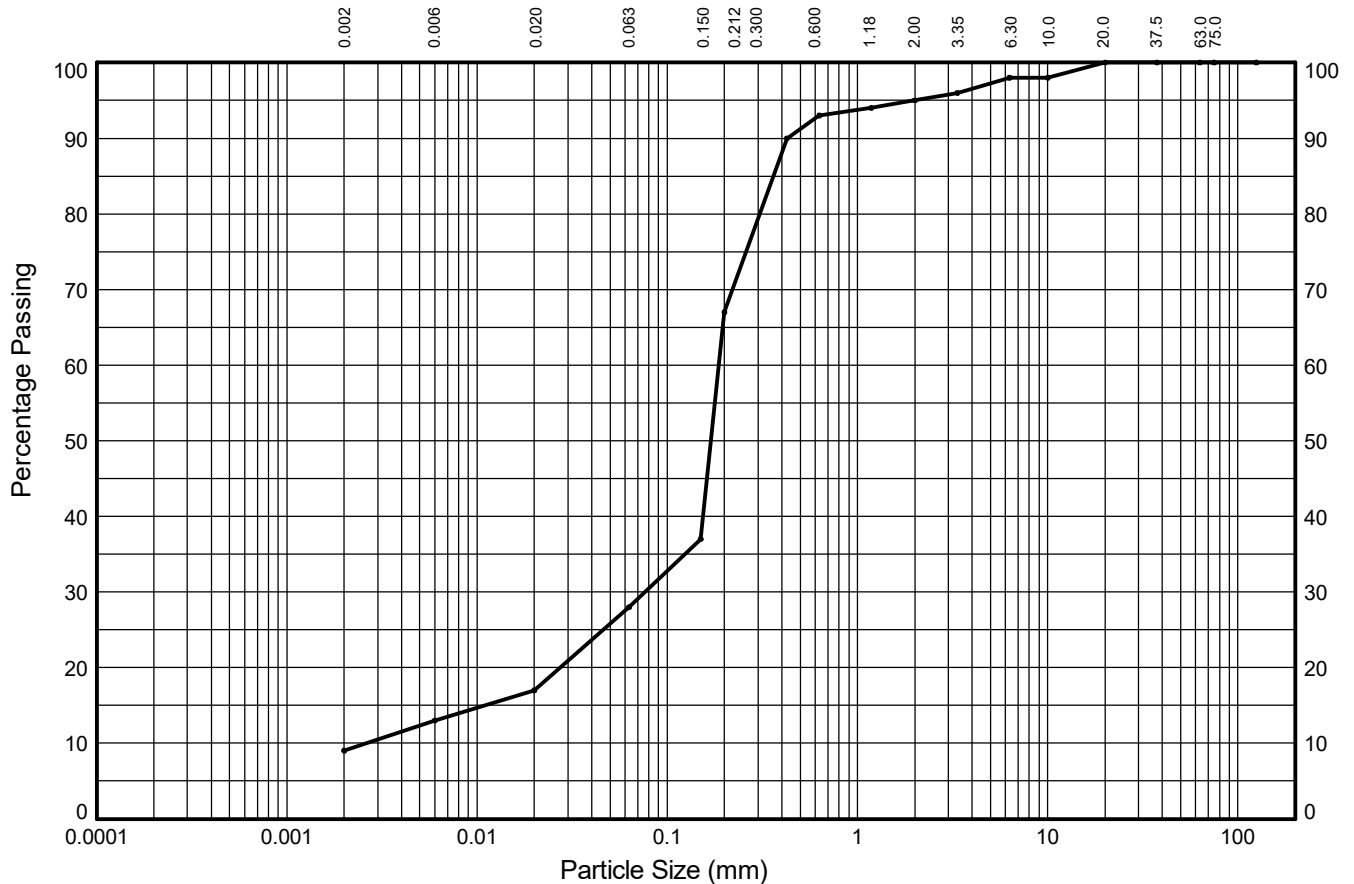
NON-STANDARD TEST

Borehole: **BH10**

Sample Ref: **6**

Sample Type: **D**

Depth (m): **0.90**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	4%	4%	11%	39%	26%	2%	3%	2%	0%	
	SILT			SAND			GRAVEL			
9%	19%			67%			5%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	100
10.0	98
6.30	98
3.35	96
2.00	95
1.18	94
0.630	93
0.425	90
0.200	67
0.150	37
0.063	28

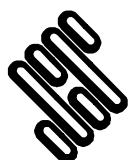
Particle Diameter (mm)	Percent Passing (%)
0.02	17
0.006	13
0.002	9
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.003
D ₁₅ (mm)	0.011
D ₃₀ (mm)	0.076
D ₅₀ (mm)	0.170
D ₆₀ (mm)	0.187
D ₈₅ (mm)	0.361
D ₉₀ (mm)	0.425
C _u	71
C _c	12

Soil Description:

Brown gravelly clayey silty SAND

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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Contract Ref:

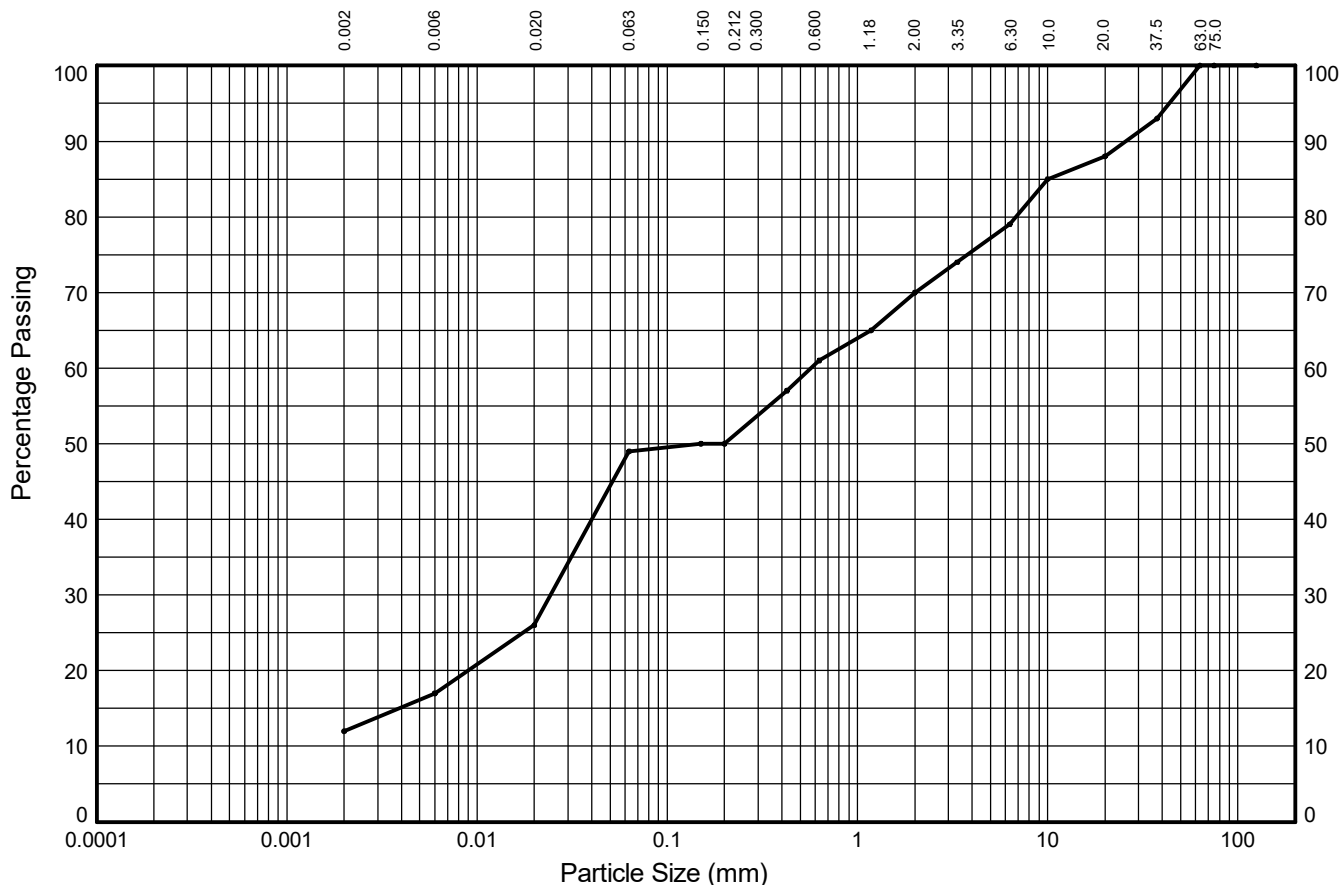
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Borehole: **BH13** Sample Ref: **26** Sample Type: **B** Depth (m): **6.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	5%	9%	23%	1%	11%	9%	9%	9%	12%	
	SILT			SAND			GRAVEL			
12%	37%			21%			30%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	93
20.0	88
10.0	85
6.30	79
3.35	74
2.00	70
1.18	65
0.630	61
0.425	57
0.200	50
0.150	50
0.063	49

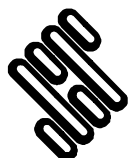
Particle Diameter (mm)	Percent Passing (%)
0.02	26
0.006	17
0.002	12
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	0.004
D ₃₀ (mm)	0.024
D ₅₀ (mm)	0.150
D ₆₀ (mm)	0.571
D ₈₅ (mm)	10.000
D ₉₀ (mm)	25.718
C _u	NA
C _c	NA

Soil Description:

Brown/red slightly sandy slightly gravelly clayey SILT

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

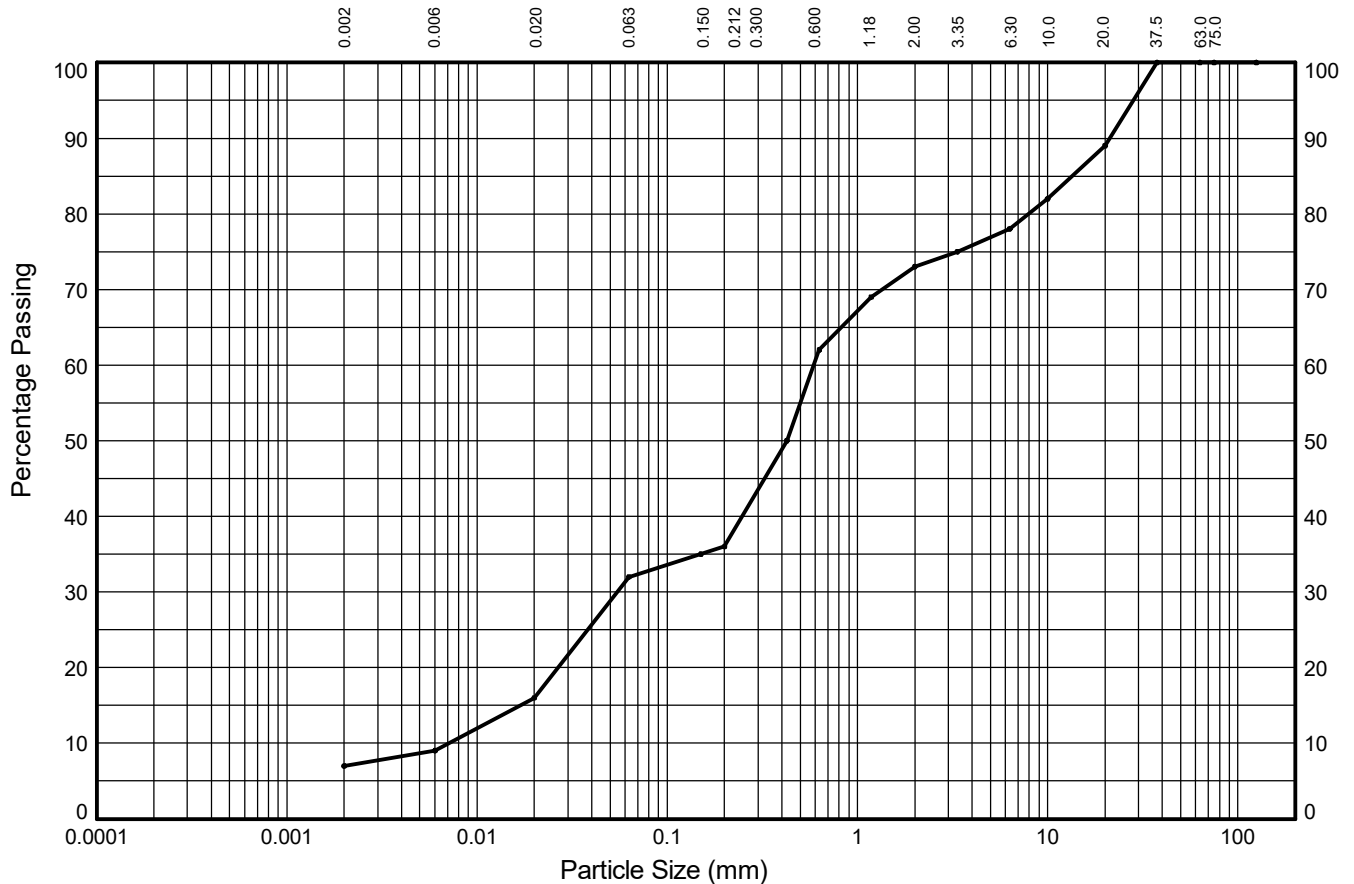
NON-STANDARD TEST

Borehole: **BH14**

Sample Ref: **26**

Sample Type: **B**

Depth (m): **6.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	7%	16%	4%	26%	11%	5%	11%	11%	
	SILT			SAND			GRAVEL			
7%	25%			41%			27%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	89
10.0	82
6.30	78
3.35	75
2.00	73
1.18	69
0.630	62
0.425	50
0.200	36
0.150	35
0.063	32

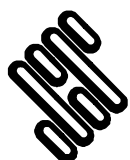
Particle Diameter (mm)	Percent Passing (%)
0.02	16
0.006	9
0.002	7
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.007
D ₁₅ (mm)	0.017
D ₃₀ (mm)	0.055
D ₅₀ (mm)	0.425
D ₆₀ (mm)	0.590
D ₈₅ (mm)	13.459
D ₉₀ (mm)	21.176
C _u	83
C _c	0.71

Soil Description:

Brown very gravelly clayey very silty SAND

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

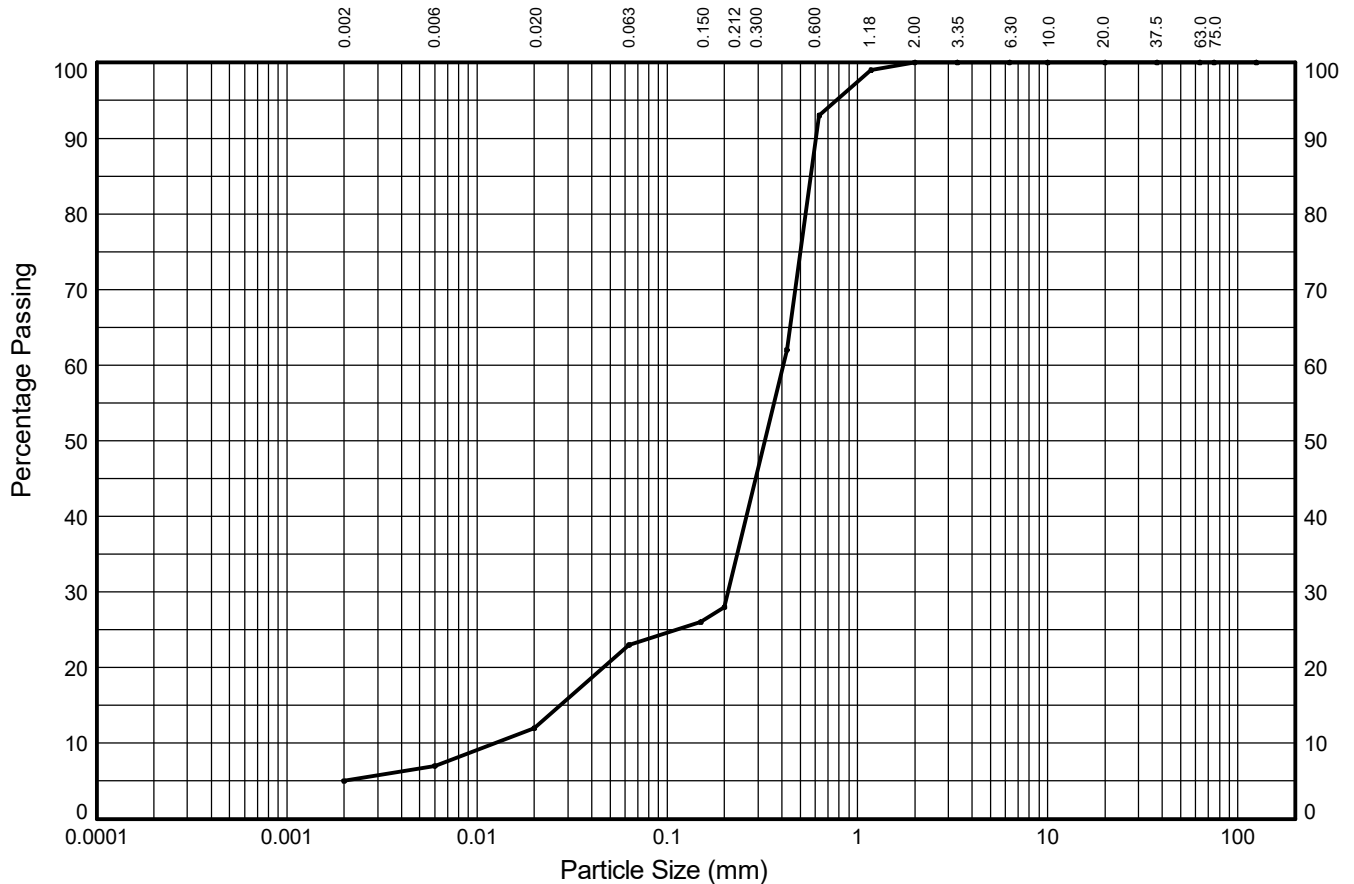
NON-STANDARD TEST

Borehole: **BH15**

Sample Ref: **24**

Sample Type: **B**

Depth (m): **6.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	5%	11%	5%	65%	7%	0%	0%	0%	
	SILT			SAND			GRAVEL			
5%	18%			77%			0%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	100
10.0	100
6.30	100
3.35	100
2.00	100
1.18	99
0.630	93
0.425	62
0.200	28
0.150	26
0.063	23

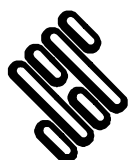
Particle Diameter (mm)	Percent Passing (%)
0.02	12
0.006	7
0.002	5
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.012
D ₁₅ (mm)	0.027
D ₃₀ (mm)	0.209
D ₅₀ (mm)	0.326
D ₆₀ (mm)	0.407
D ₈₅ (mm)	0.569
D ₉₀ (mm)	0.606
C _U	33
C _C	9

Soil Description:

Brown clayey silty SAND

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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Contract

EMG Phase 2

Contract Ref:

765514

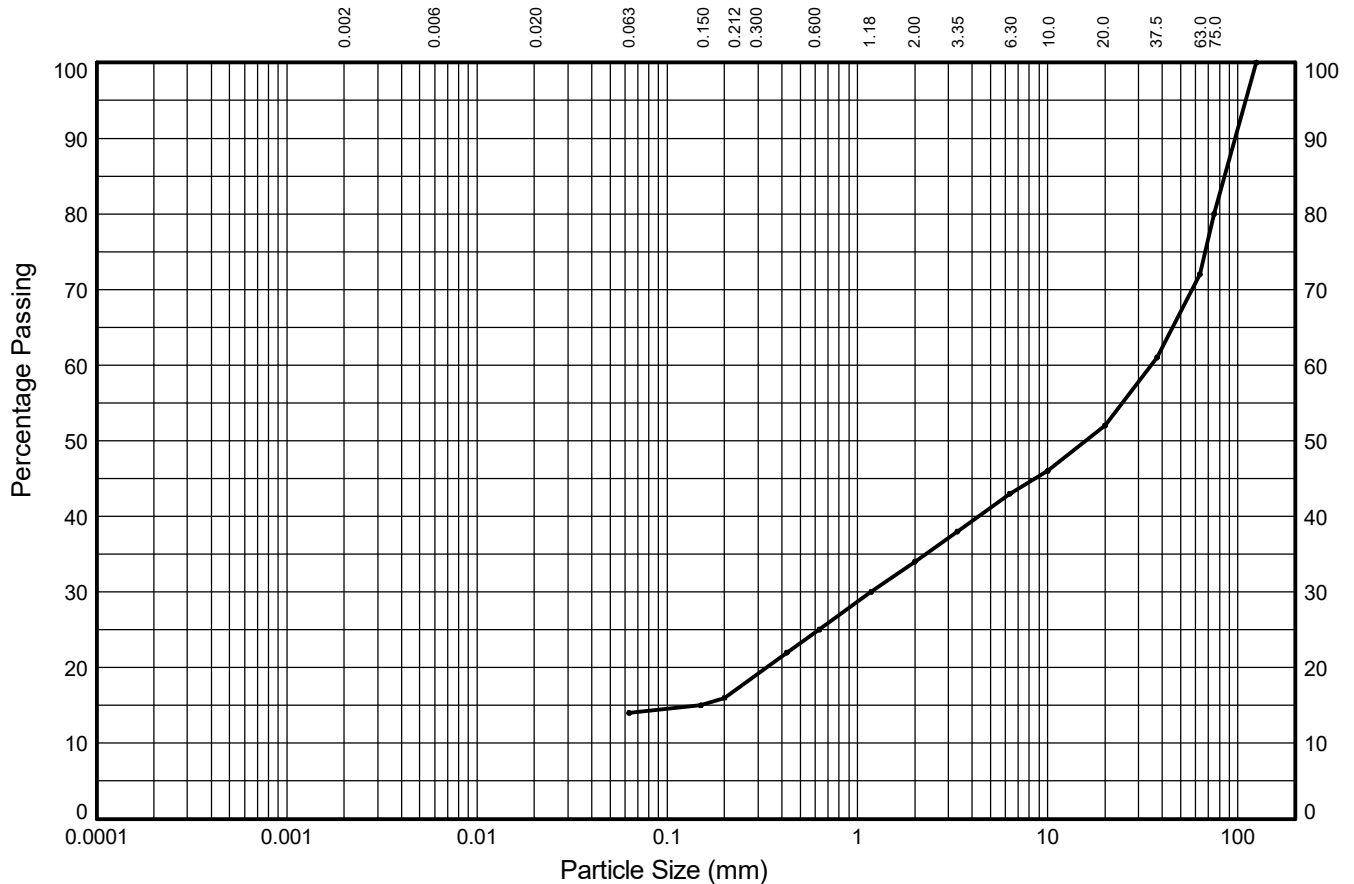


PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2 of BS EN ISO 17892:Part 4:2016

NON-STANDARD TEST

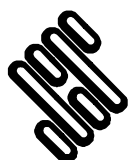
Borehole: **BH15** Sample Ref: **36** Sample Type: **B** Depth (m): **10.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	-	-	-	2%	9%	9%	9%	9%	20%	
	SILT			SAND			GRAVEL			
14%				20%			38%			28%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100			D ₁₀ (mm)	NA
75.0	80			D ₁₅ (mm)	0.150
63.0	72			D ₃₀ (mm)	1.180
37.5	61			D ₅₀ (mm)	15.874
20.0	52			D ₆₀ (mm)	34.970
10.0	46			D ₈₅ (mm)	85.216
6.30	43			D ₉₀ (mm)	96.825
3.35	38			C _U	NA
2.00	34			C _C	NA
1.18	30			Sedimentation sample was not pre-treated Soil Description: Red brown sandy silty/clayey GRAVEL with high cobble content	
0.630	25				
0.425	22				
0.200	16				
0.150	15				
0.063	14				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



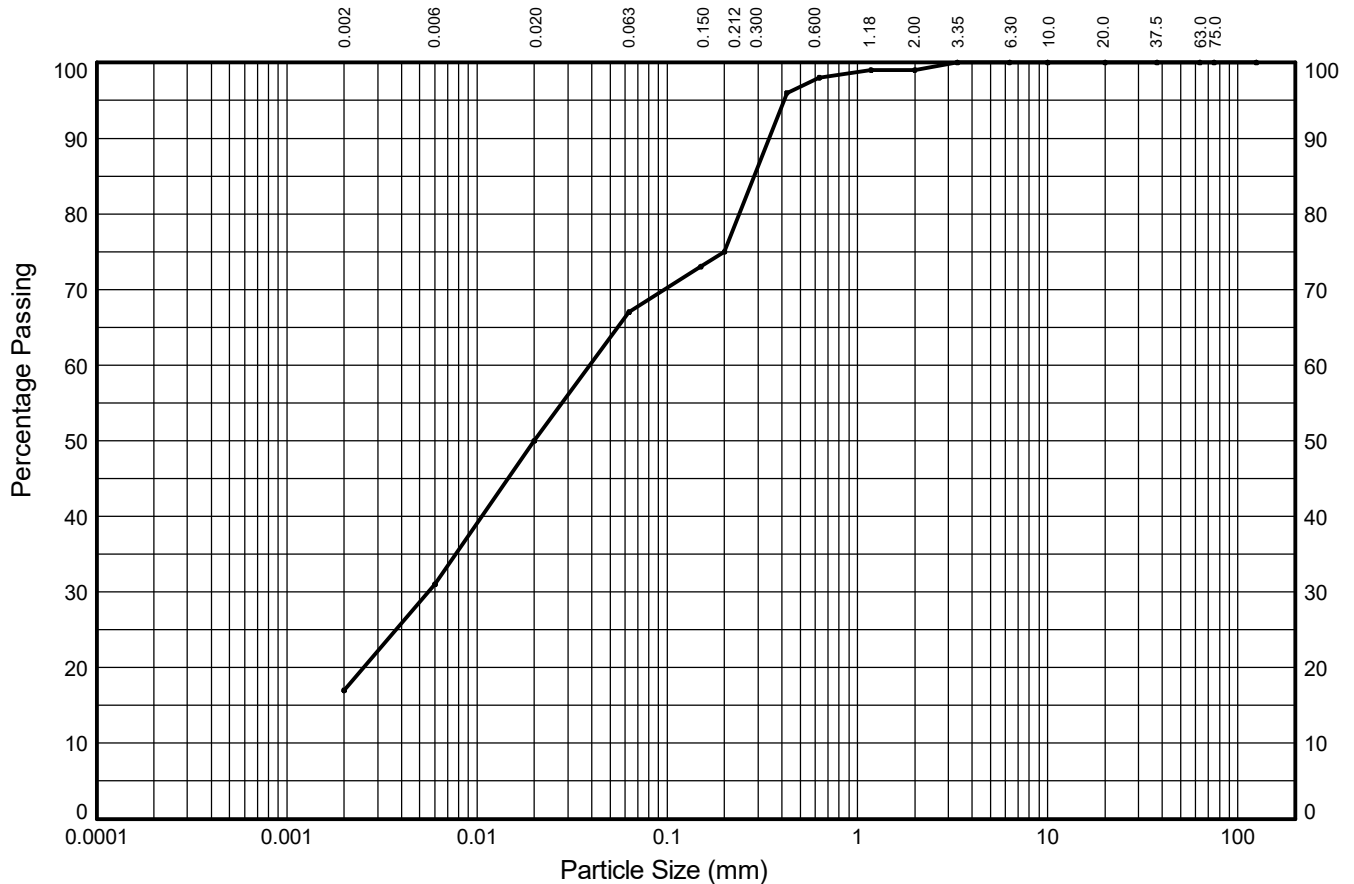
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Contract	Contract Ref:	
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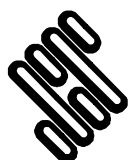
Borehole: **BH17** Sample Ref: **13** Sample Type: **B** Depth (m): **3.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	14%	19%	17%	8%	23%	1%	1%	0%	0%	
	SILT			SAND			GRAVEL			
17%	50%			32%			1%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	50	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.006
37.5	100	0.006	31	D ₅₀ (mm)	0.020
20.0	100			D ₆₀ (mm)	0.039
10.0	100			D ₈₅ (mm)	0.286
6.30	100	0.002	17	D ₉₀ (mm)	0.343
3.35	100				
2.00	99				
1.18	99	Sedimentation sample was not pre-treated			
0.630	98				
0.425	96				
0.200	75				
0.150	73				
0.063	67	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

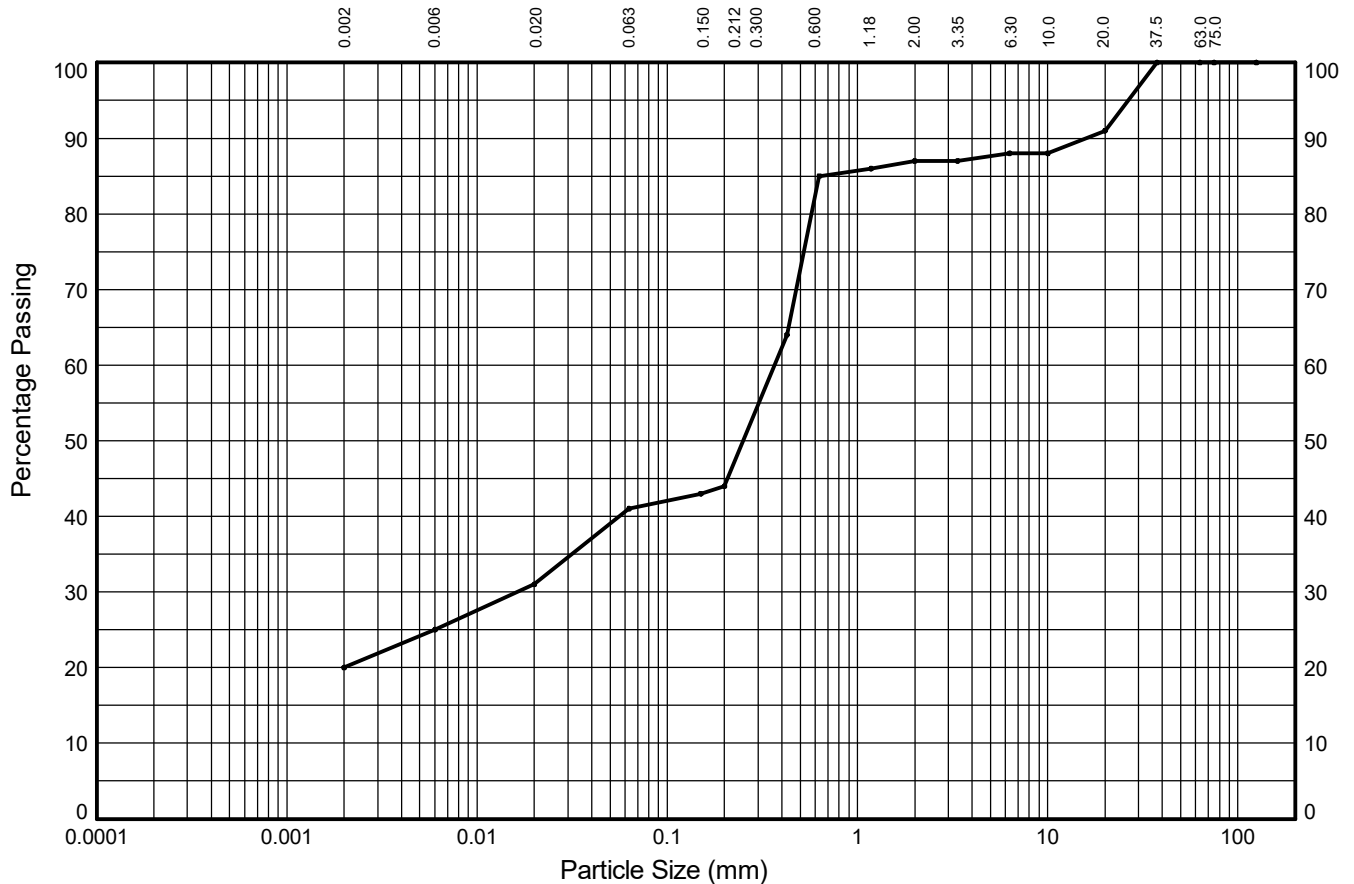
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Borehole: **BH20**

Sample Ref: **6**

Sample Type: **B**

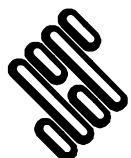
Depth (m): **0.60**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	5%	6%	10%	3%	41%	2%	1%	3%	9%	
	SILT			SAND			GRAVEL			
20%	21%			46%			13%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	31	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.016
37.5	100	0.006	25	D ₅₀ (mm)	0.251
20.0	91			D ₆₀ (mm)	0.366
10.0	88			D ₈₅ (mm)	0.630
6.30	88	0.002	20	D ₉₀ (mm)	15.874
3.35	87			C _U	NA
2.00	87			C _C	NA
1.18	86	Sedimentation sample was not pre-treated			
0.630	85				
0.425	64				
0.200	44				
0.150	43				
0.063	41	Soil Description: Brown/red slightly gravelly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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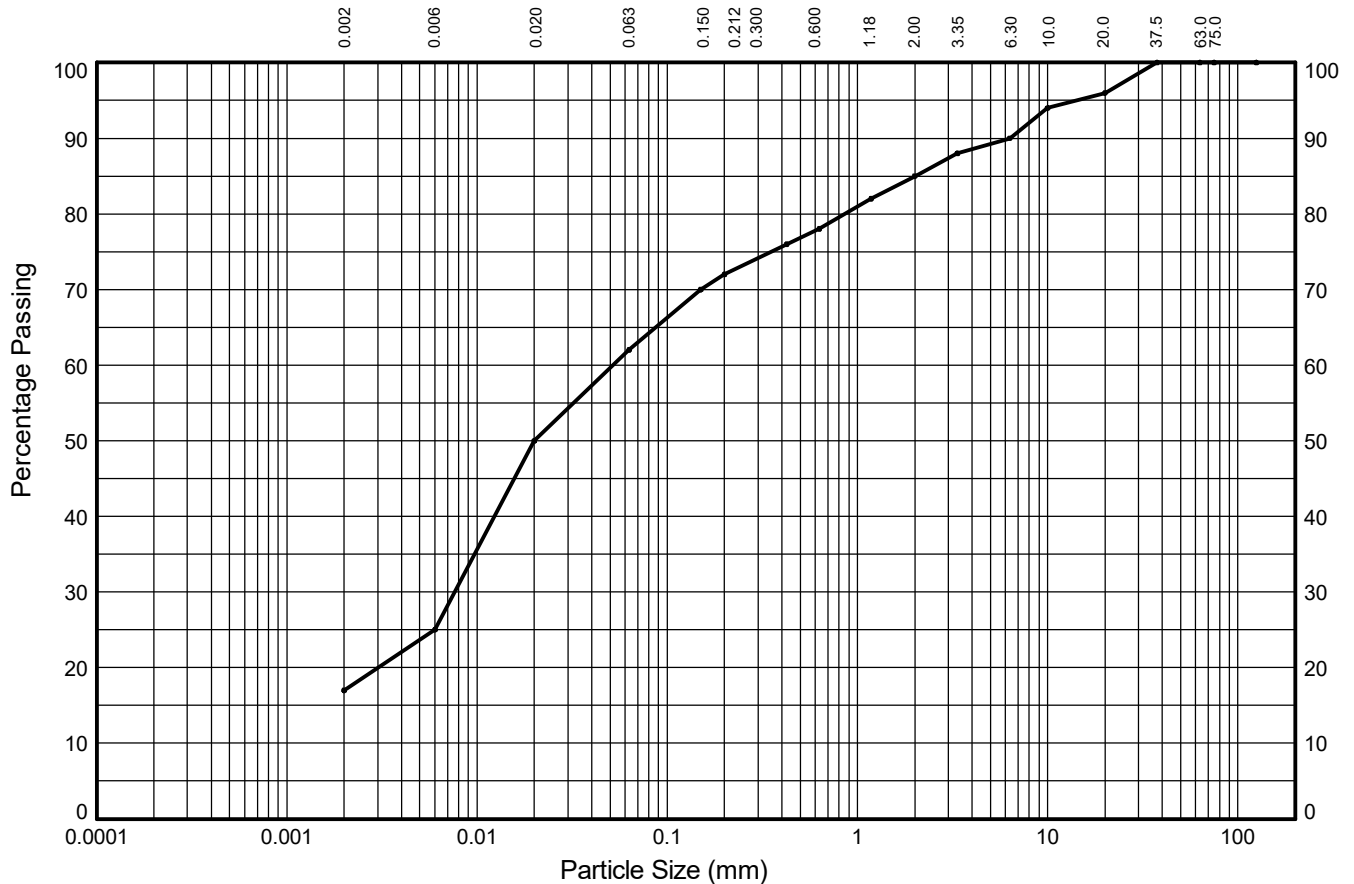
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

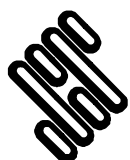
Borehole: **BH21** Sample Ref: **17** Sample Type: **D** Depth (m): **3.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	9%	24%	12%	10%	6%	7%	5%	6%	4%	
	SILT			SAND			GRAVEL			
17%	45%			23%			15%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	50	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.008
37.5	100	0.006	25	D ₅₀ (mm)	0.020
20.0	96			D ₆₀ (mm)	0.052
10.0	94			D ₈₅ (mm)	2.000
6.30	90	0.002	17	D ₉₀ (mm)	6.300
3.35	88			C _U	NA
2.00	85			C _C	NA
1.18	82	Sedimentation sample was not pre-treated			
0.630	78	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.425	76				
0.200	72				
0.150	70				
0.063	62				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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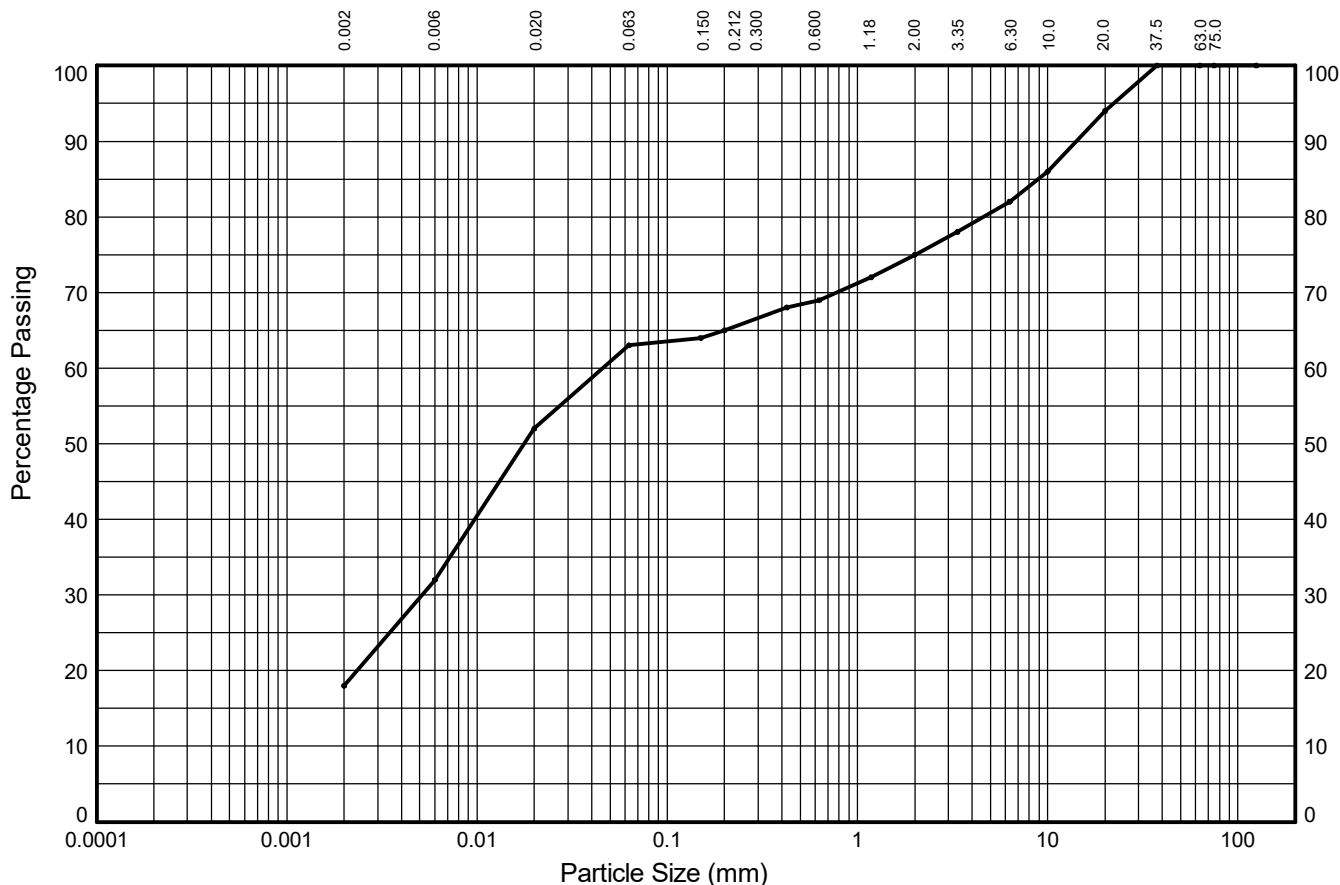
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

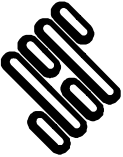
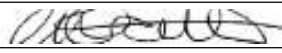
Borehole: **BH22** Sample Ref: **14** Sample Type: **B** Depth (m): **3.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	14%	20%	11%	2%	4%	6%	7%	12%	6%	
	SILT			SAND			GRAVEL			
18%	45%			12%			25%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	52	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.005
37.5	100	0.006	32	D ₅₀ (mm)	0.018
20.0	94			D ₆₀ (mm)	0.046
10.0	86			D ₈₅ (mm)	8.909
6.30	82	0.002	18	D ₉₀ (mm)	14.142
3.35	78			C _U	NA
2.00	75			C _C	NA
1.18	72	Sedimentation sample was not pre-treated			
0.630	69				
0.425	68				
0.200	65				
0.150	64				
0.063	63	Soil Description: Brown slightly sandy slightly gravelly clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018

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	Contract		Contract Ref:
EMG Phase 2		765514 	

PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

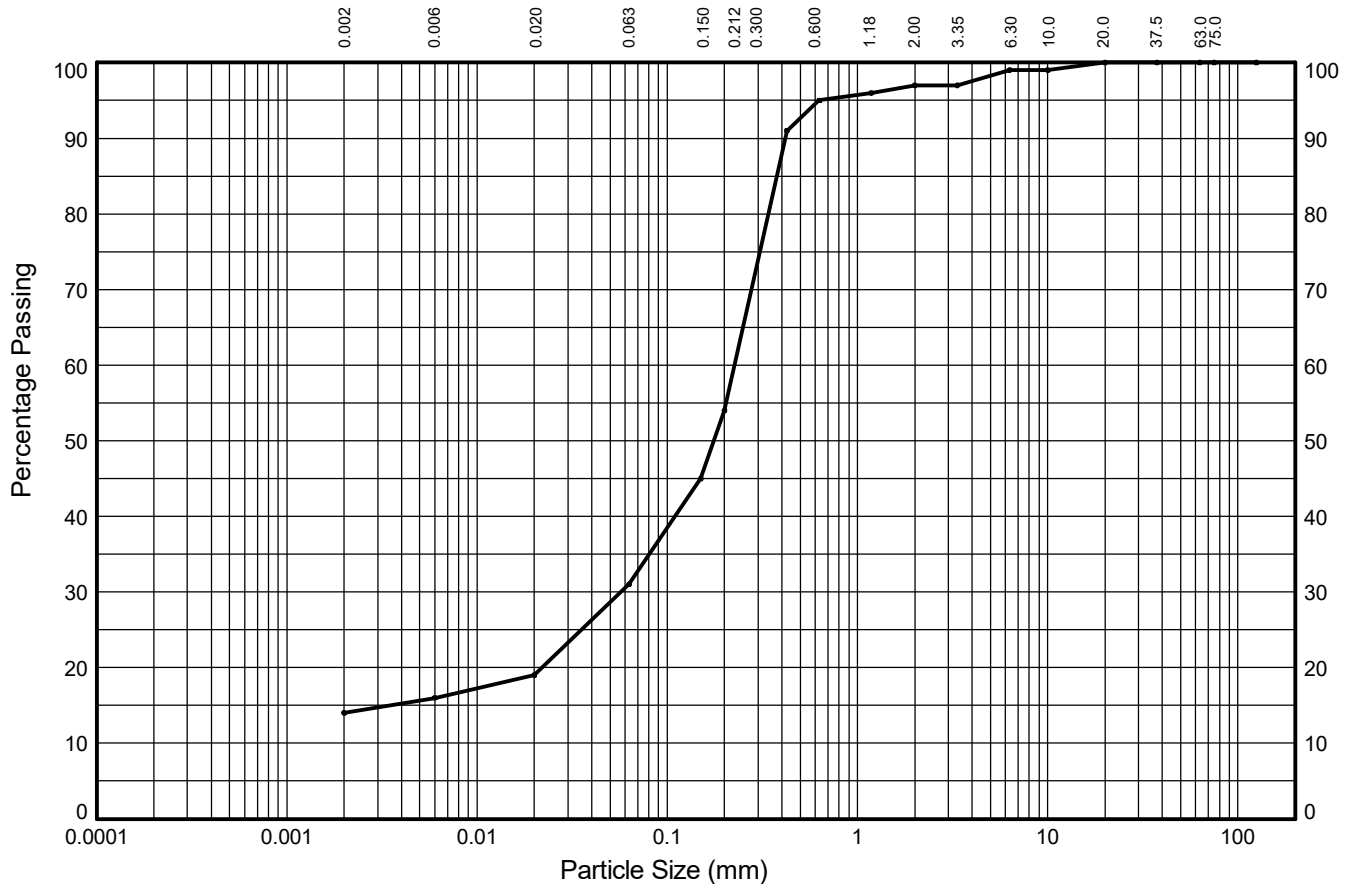
NON-STANDARD TEST

Borehole: **BH25**

Sample Ref: **13**

Sample Type: **B**

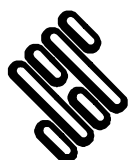
Depth (m): **1.20**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	3%	12%	23%	41%	2%	2%	1%	0%	
	SILT			SAND			GRAVEL			
14%	17%			66%			3%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	19	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	0.003
63.0	100			D ₃₀ (mm)	0.057
37.5	100	0.006	16	D ₅₀ (mm)	0.176
20.0	100			D ₆₀ (mm)	0.226
10.0	99			D ₈₅ (mm)	0.376
6.30	99	0.002	14	D ₉₀ (mm)	0.416
3.35	97			C _U	NA
2.00	97			C _C	NA
1.18	96	Sedimentation sample was not pre-treated			
0.630	95	Soil Description: Brown red slightly gravelly clayey silty SAND			
0.425	91				
0.200	54				
0.150	45				
0.063	31				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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Contract Ref:

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PARTICLE SIZE DISTRIBUTION TEST

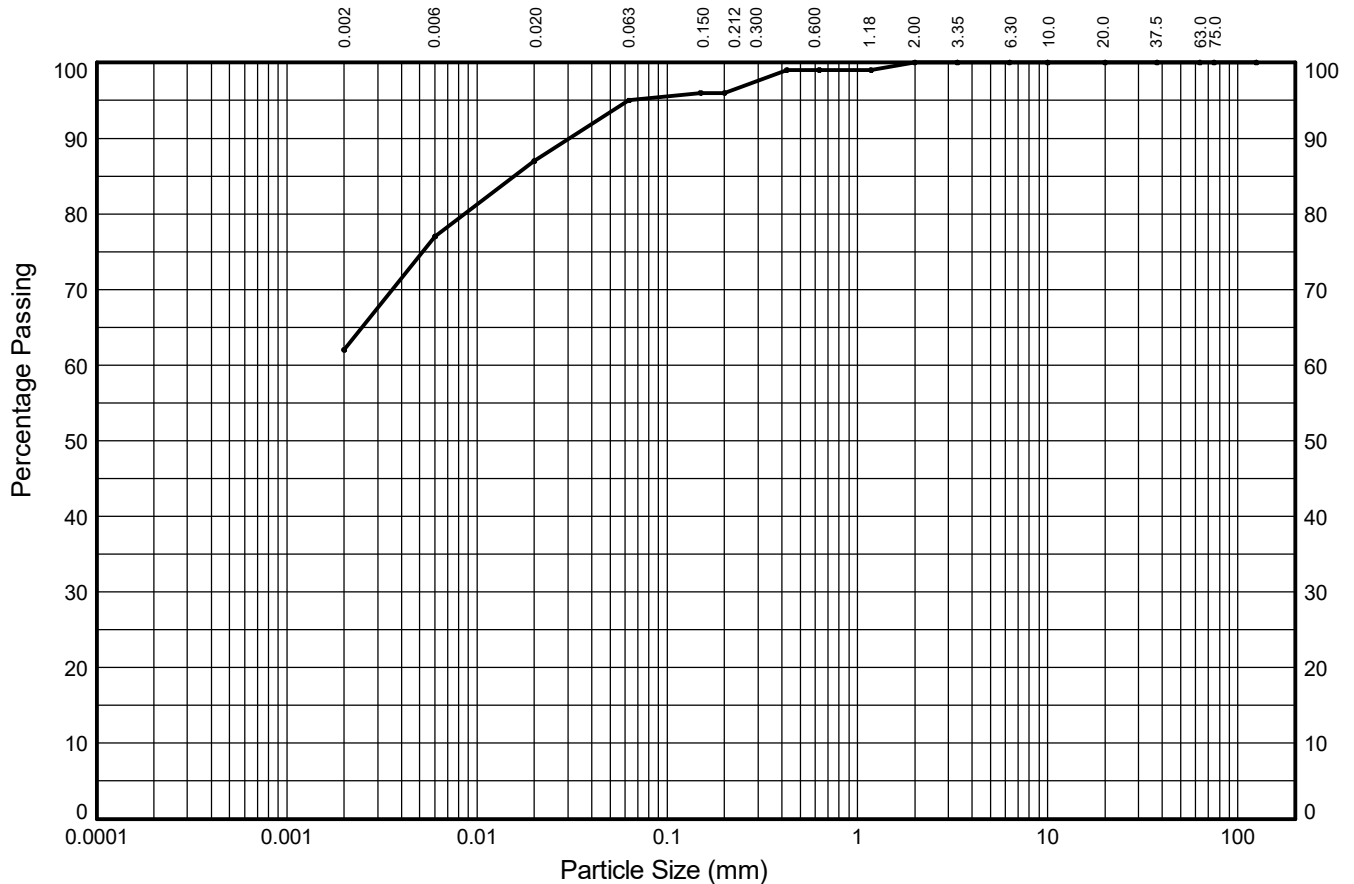
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Borehole: **BH26**

Sample Ref: **3**

Sample Type: **B**

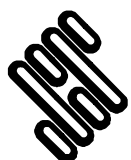
Depth (m): **0.10**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	15%	10%	8%	1%	3%	1%	0%	0%	0%	
	SILT			SAND			GRAVEL			
62%	33%			5%			0%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	87	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100	0.006	77	D ₅₀ (mm)	NA
20.0	100			D ₆₀ (mm)	NA
10.0	100			D ₈₅ (mm)	0.016
6.30	100	0.002	62	D ₉₀ (mm)	0.031
3.35	100			C _U	NA
2.00	100			C _C	NA
1.18	99	Sedimentation sample was not pre-treated			
0.630	99				
0.425	99				
0.200	96				
0.150	96				
0.063	95	Soil Description: Brown slightly sandy silty CLAY			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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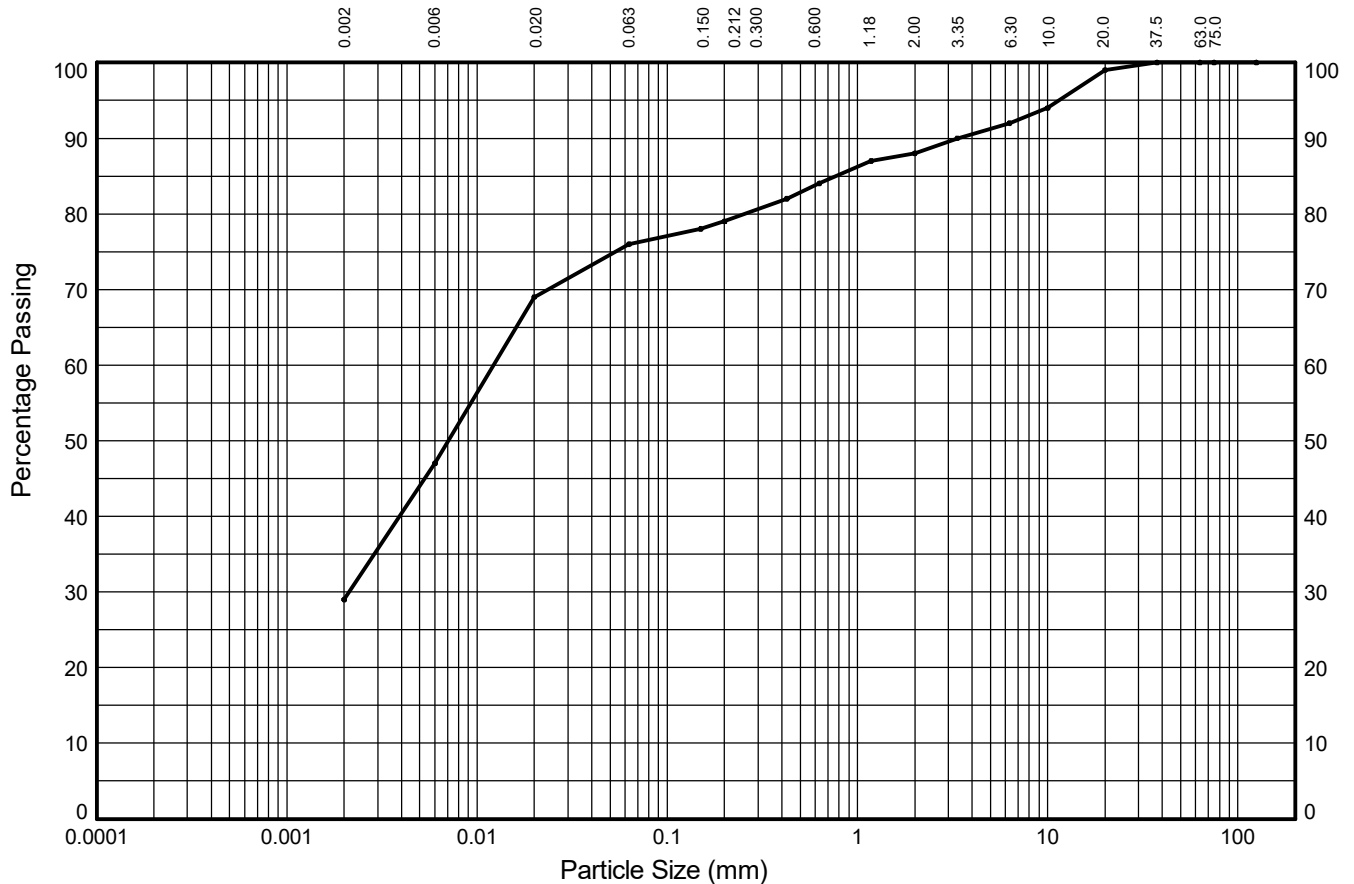
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

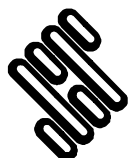
Position ID: **CP03** Sample Ref: **16** Sample Type: **B** Depth (m): **3.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	18%	22%	7%	3%	5%	4%	4%	7%	1%	
	SILT			SAND			GRAVEL			
29%	47%			12%			12%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	69	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.002
37.5	100	0.006	47	D ₅₀ (mm)	0.007
20.0	99			D ₆₀ (mm)	0.012
10.0	94			D ₈₅ (mm)	0.777
6.30	92	0.002	29	D ₉₀ (mm)	3.350
3.35	90			C _U	NA
2.00	88			C _C	NA
1.18	87	Sedimentation sample was not pre-treated			
0.630	84				
0.425	82				
0.200	79				
0.150	78				
0.063	76	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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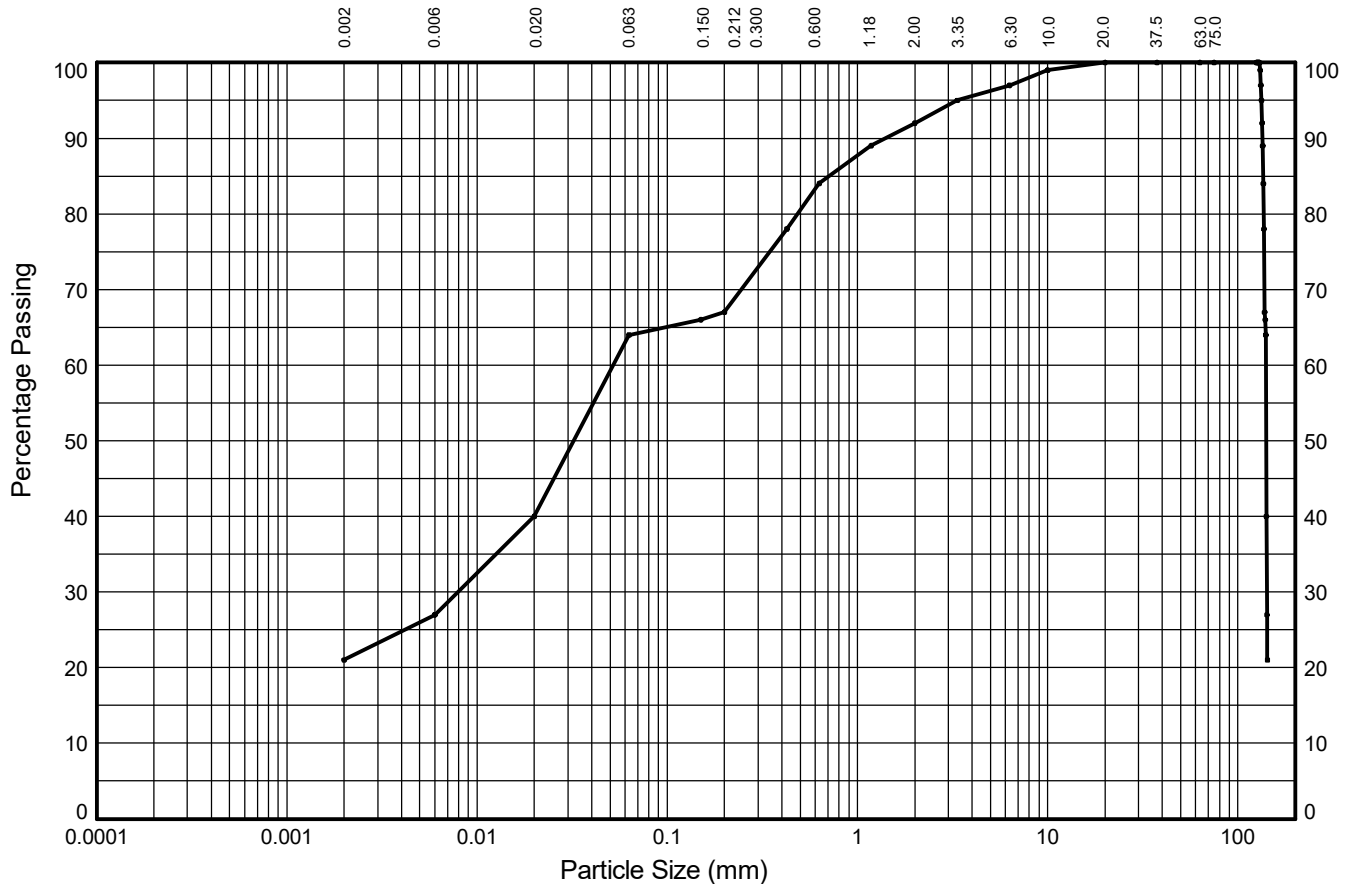
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

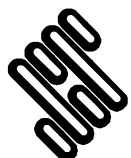
Position ID: **CP04** Sample Ref: **54** Sample Type: **B** Depth (m): **16.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	6%	13%	24%	3%	17%	8%	5%	3%	0%	
	SILT			SAND			GRAVEL			
21%	43%			28%			8%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	40	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.008
37.5	100	0.006	27	D ₅₀ (mm)	0.032
20.0	100			D ₆₀ (mm)	0.052
10.0	99			D ₈₅ (mm)	0.714
6.30	97	0.002	21	D ₉₀ (mm)	1.407
3.35	95			C _U	NA
2.00	92			C _C	NA
1.18	89	Sedimentation sample was not pre-treated			
0.630	84				
0.425	78				
0.200	67				
0.150	66				
0.063	64	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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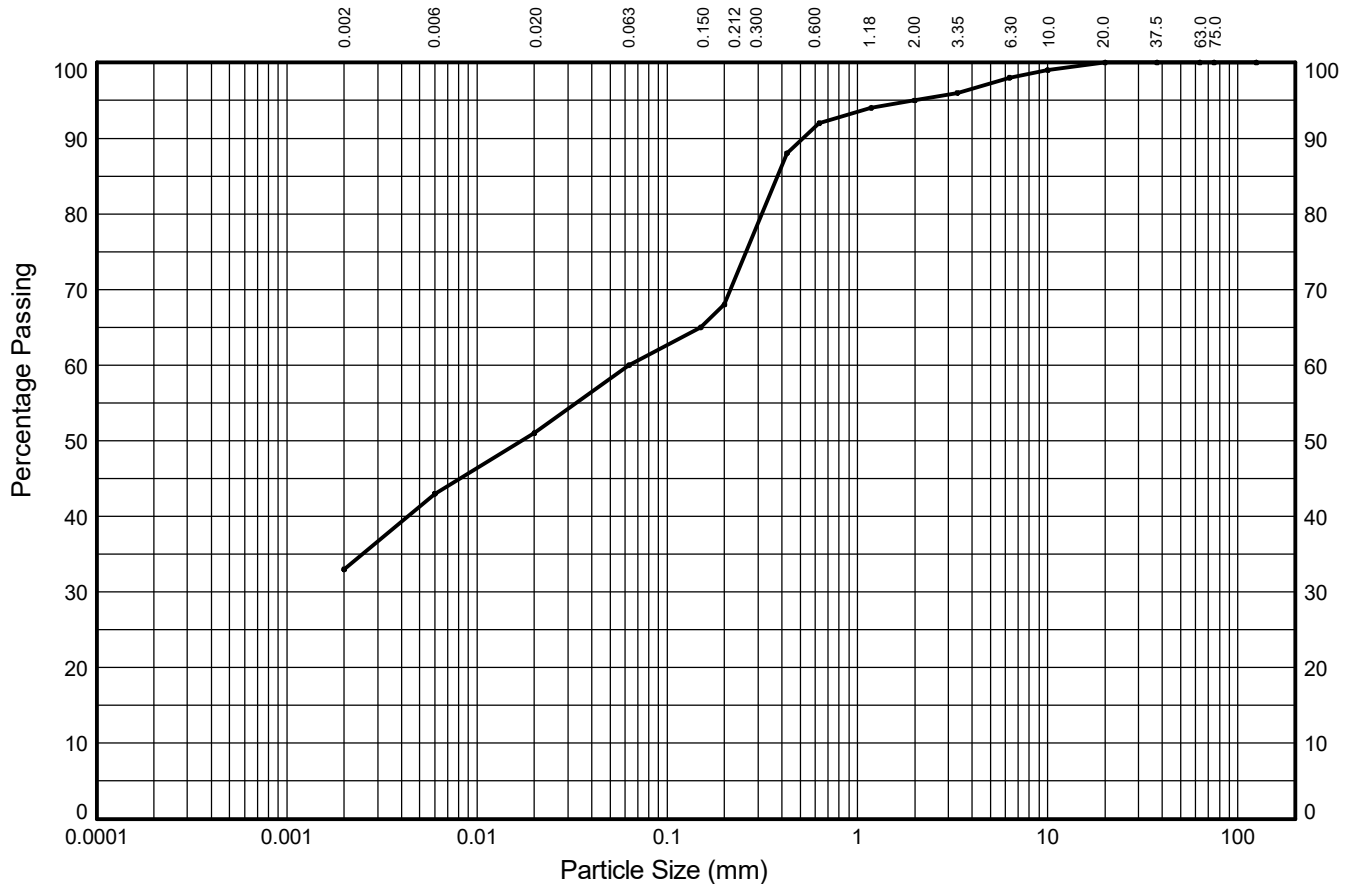
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Position ID: **CP05** Sample Ref: **3** Sample Type: **B** Depth (m): **0.50**



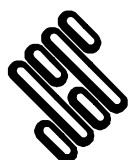
CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	10%	8%	9%	8%	24%	3%	3%	2%	0%	
	SILT			SAND			GRAVEL			
33%	27%			35%			5%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	51	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100			D ₅₀ (mm)	0.017
20.0	100	0.006	43	D ₆₀ (mm)	0.063
10.0	99			D ₈₅ (mm)	0.380
6.30	98			D ₉₀ (mm)	0.517
3.35	96			C _U	NA
2.00	95	0.002	33	C _C	NA
1.18	94			Sedimentation sample was not pre-treated	
0.630	92				
0.425	88				
0.200	68				
0.150	65				
0.063	60				

Soil Description:

Brown red slightly gravelly sandy silty CLAY

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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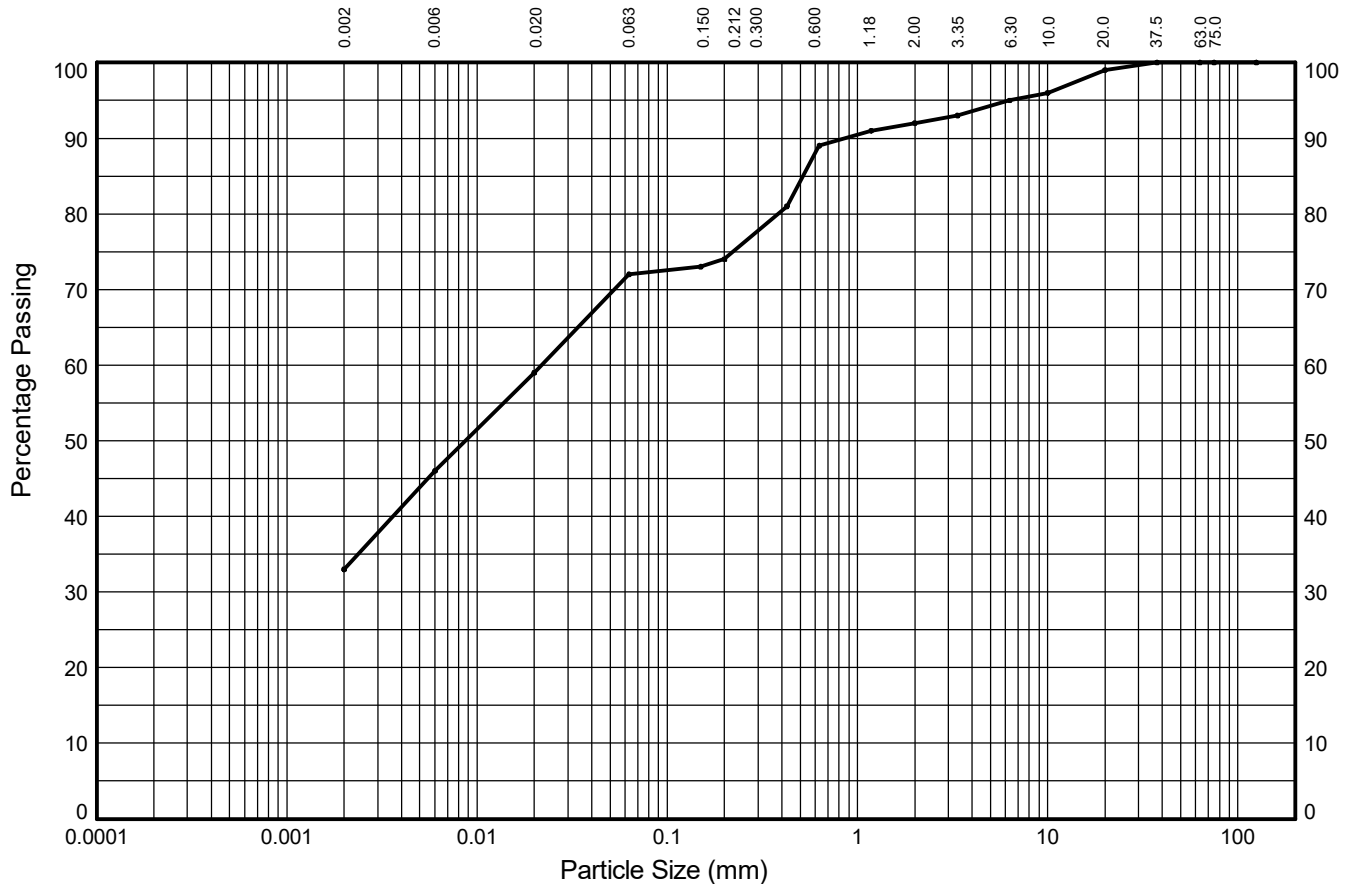
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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

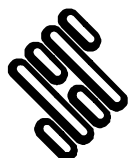
Position ID: **CP07** Sample Ref: **10** Sample Type: **B** Depth (m): **2.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	13%	13%	13%	2%	15%	3%	3%	4%	1%	
	SILT			SAND			GRAVEL			
33%	39%			20%			8%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	59	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100	0.006	46	D ₅₀ (mm)	0.009
20.0	99			D ₆₀ (mm)	0.022
10.0	96			D ₈₅ (mm)	0.517
6.30	95	0.002	33	D ₉₀ (mm)	0.862
3.35	93			C _U	NA
2.00	92			C _C	NA
1.18	91	Sedimentation sample was not pre-treated			
0.630	89				
0.425	81				
0.200	74				
0.150	73				
0.063	72	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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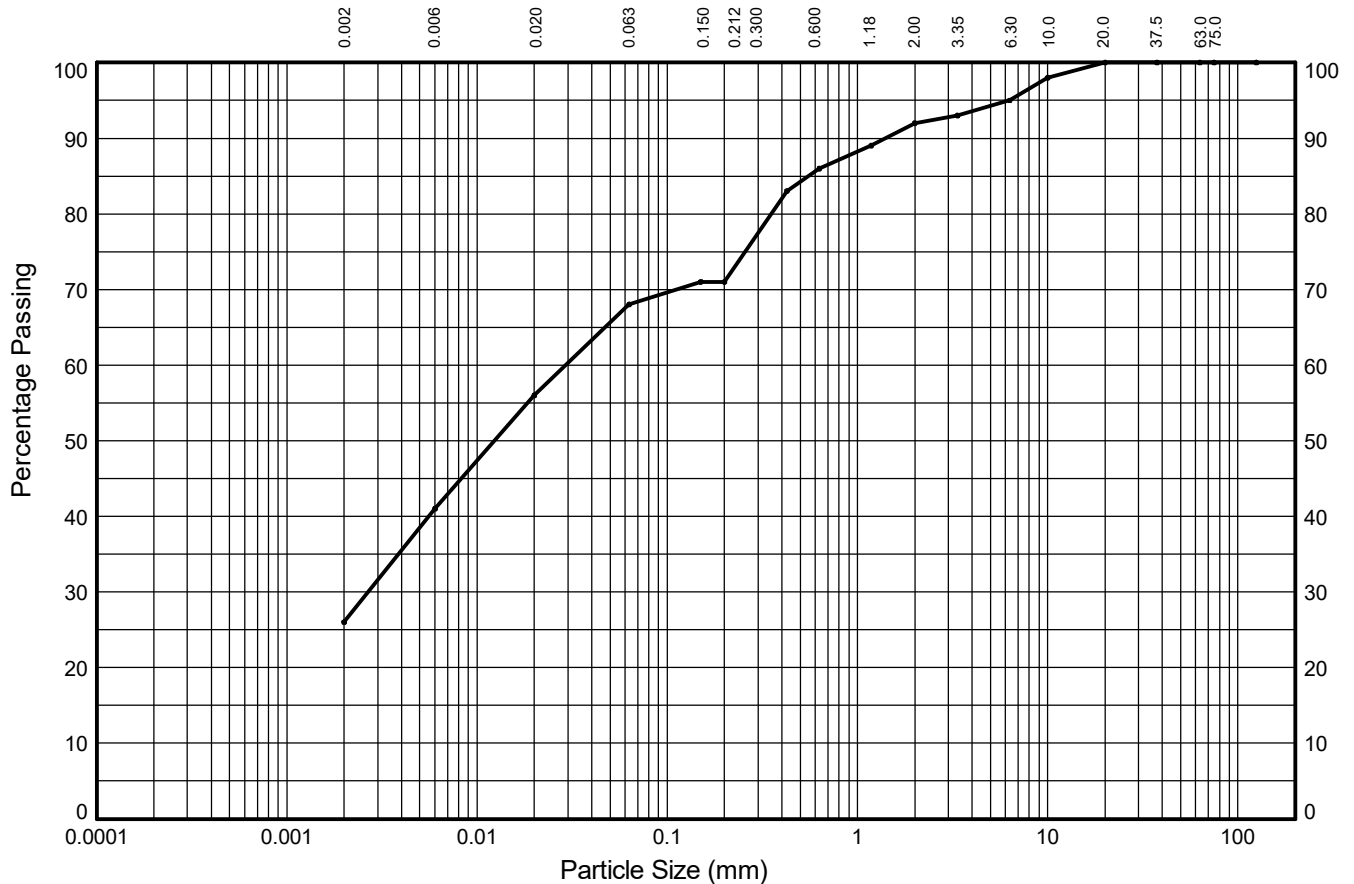
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

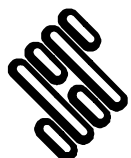
Position ID: **CP07** Sample Ref: **17** Sample Type: **B** Depth (m): **4.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	15%	15%	12%	3%	15%	6%	3%	5%	0%	
	SILT			SAND			GRAVEL			
26%	42%			24%			8%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	56	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.003
37.5	100	0.006	41	D ₅₀ (mm)	0.012
20.0	100			D ₆₀ (mm)	0.029
10.0	98			D ₈₅ (mm)	0.553
6.30	95	0.002	26	D ₉₀ (mm)	1.407
3.35	93			C _U	NA
2.00	92			C _C	NA
1.18	89	Sedimentation sample was not pre-treated			
0.630	86	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.425	83				
0.200	71				
0.150	71				
0.063	68				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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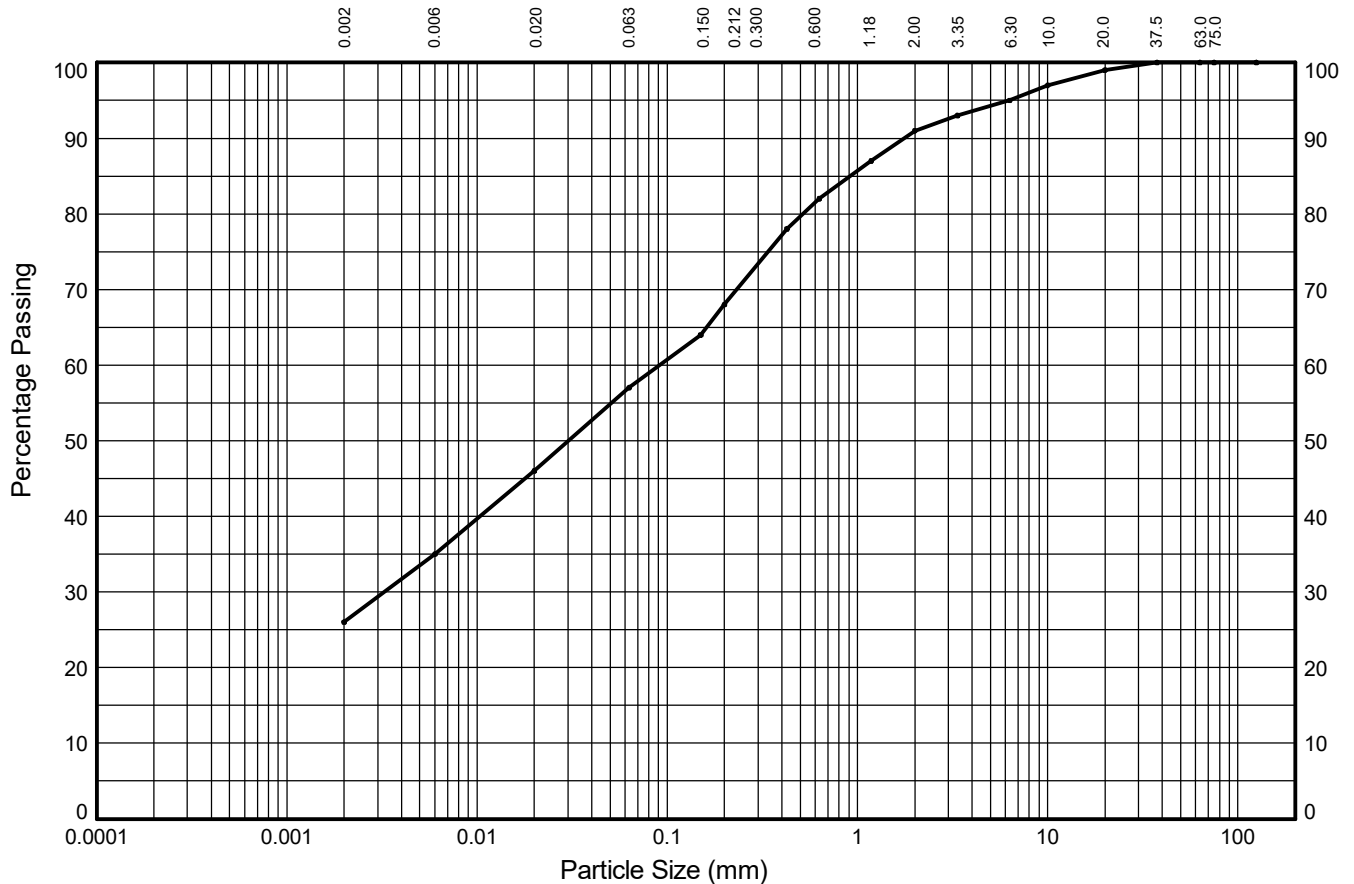
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Position ID: **CP08** Sample Ref: **19** Sample Type: **B** Depth (m): **4.00**



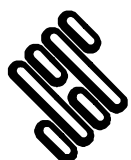
CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	9%	11%	11%	11%	14%	9%	4%	4%	1%	
	SILT			SAND			GRAVEL			
26%	31%			34%			9%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	46	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.003
37.5	100			D ₅₀ (mm)	0.030
20.0	99	0.006	35	D ₆₀ (mm)	0.091
10.0	97			D ₈₅ (mm)	0.918
6.30	95			D ₉₀ (mm)	1.753
3.35	93			C _U	NA
2.00	91	0.002	26	C _C	NA
1.18	87			Sedimentation sample was not pre-treated	
0.630	82				
0.425	78				
0.200	68				
0.150	64				
0.063	57				

Soil Description:

Brown slightly gravelly slightly sandy clayey SILT

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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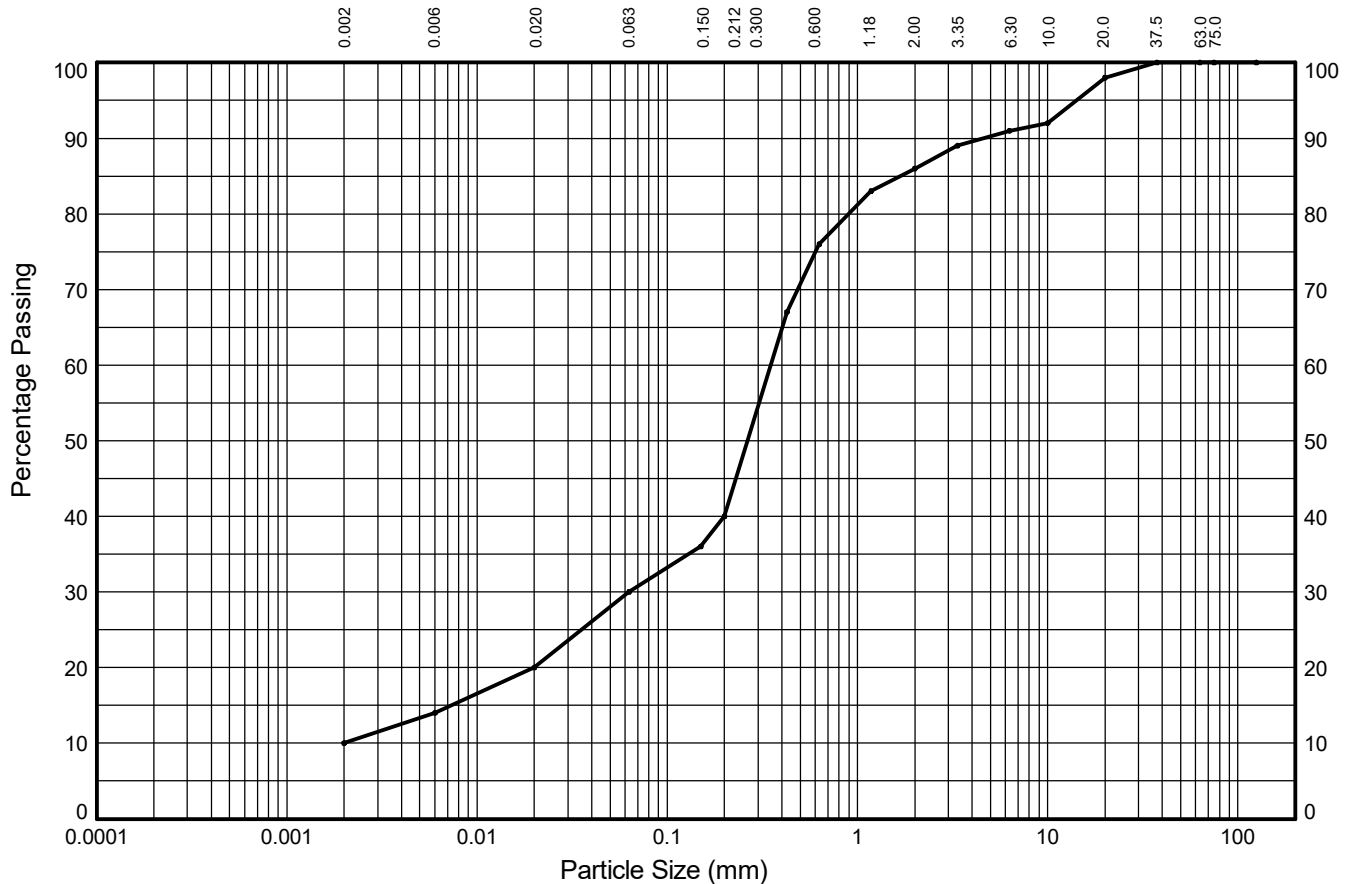
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

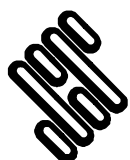
Position ID: **CP08** Sample Ref: **30** Sample Type: **B** Depth (m): **7.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	4%	6%	10%	10%	36%	10%	5%	7%	2%	
	SILT			SAND			GRAVEL			
10%	20%			56%			14%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	20	D ₁₀ (mm)	0.002
75.0	100			D ₁₅ (mm)	0.007
63.0	100			D ₃₀ (mm)	0.063
37.5	100	0.006	14	D ₅₀ (mm)	0.264
20.0	98			D ₆₀ (mm)	0.350
10.0	92			D ₈₅ (mm)	1.677
6.30	91	0.002	10	D ₉₀ (mm)	4.594
3.35	89			C _U	175
2.00	86			C _C	6
1.18	83	Sedimentation sample was not pre-treated			
0.630	76				
0.425	67				
0.200	40				
0.150	36				
0.063	30	Soil Description: Brown red gravelly clayey silty SAND			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

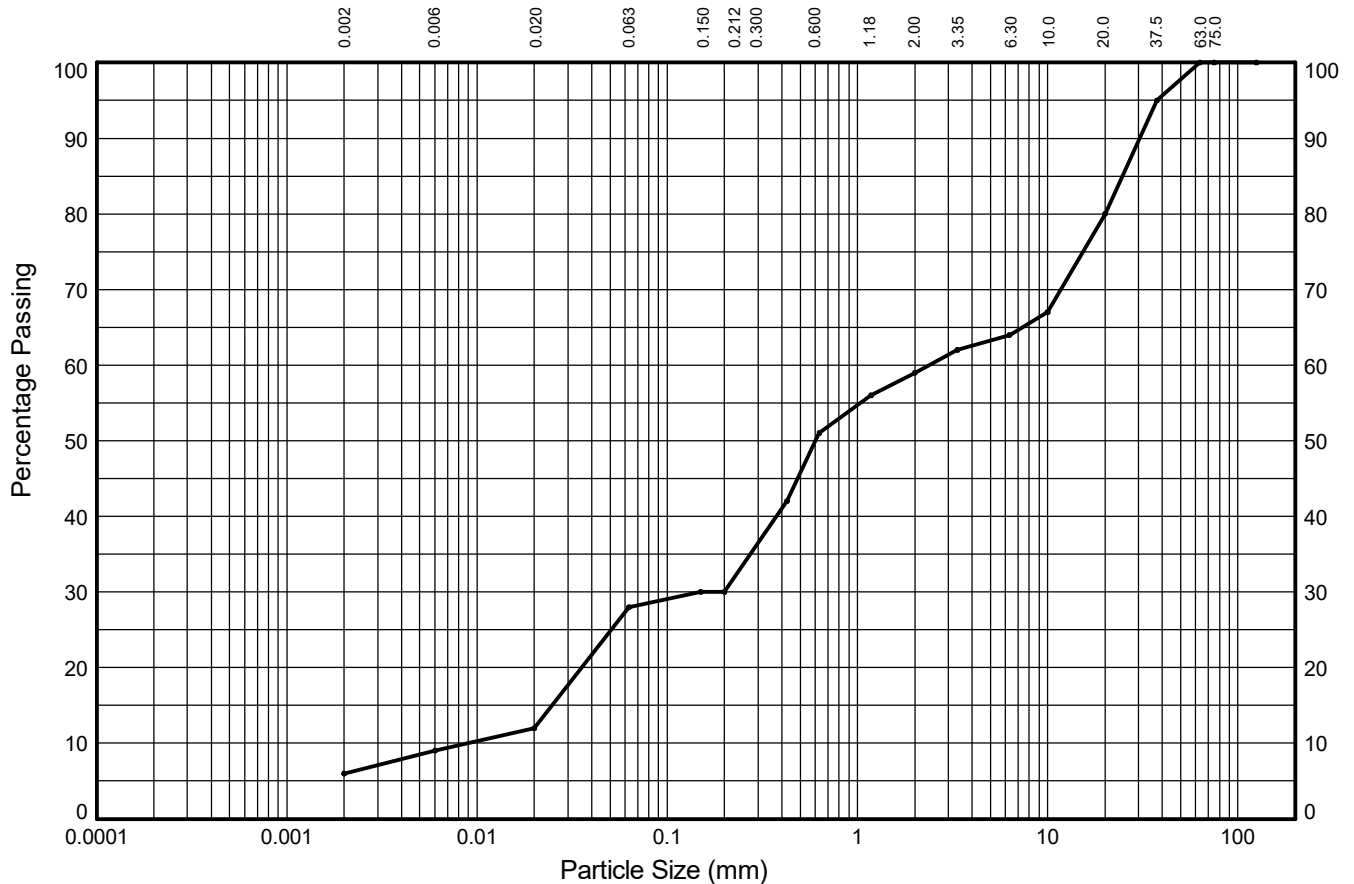
NON-STANDARD TEST

Position ID: **CP08**

Sample Ref: **35**

Sample Type: **B**

Depth (m): **9.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	3%	3%	16%	2%	21%	8%	5%	16%	20%	
	SILT			SAND			GRAVEL			
6%	22%			31%			41%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	95
20.0	80
10.0	67
6.3	64
3.35	62
2.0	59
1.18	56
0.63	51
0.425	42
0.200	30
0.150	30
0.063	28

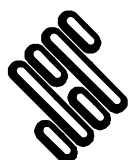
Particle Diameter (mm)	Percent Passing (%)
0.02	12
0.006	9
0.002	6
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.009
D ₁₅ (mm)	0.025
D ₃₀ (mm)	0.150
D ₅₀ (mm)	0.603
D ₆₀ (mm)	2.375
D ₈₅ (mm)	24.662
D ₉₀ (mm)	30.411
C _u	265
C _c	1

Soil Description:

Brown very sandy clayey very silty GRAVEL

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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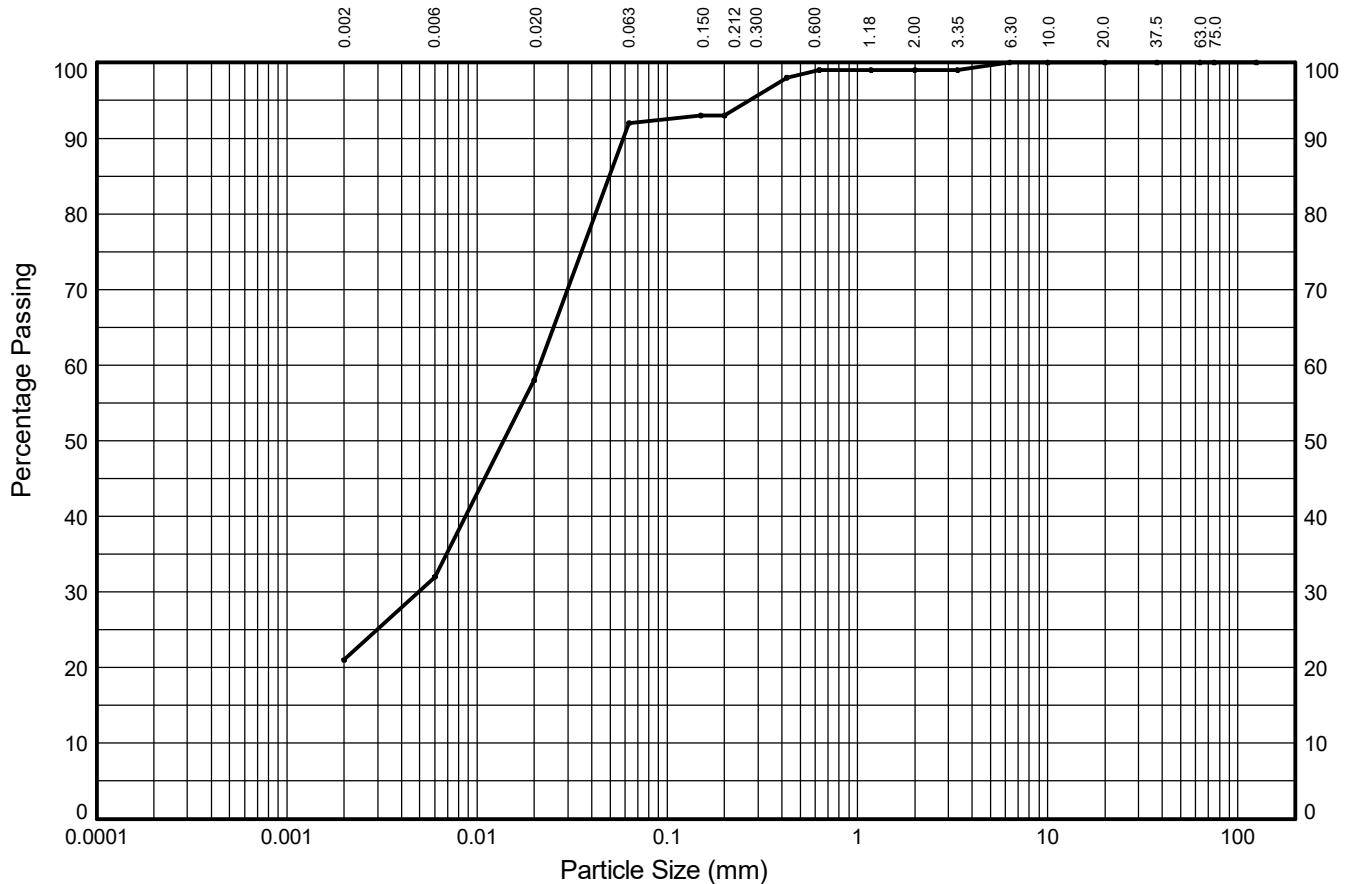
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

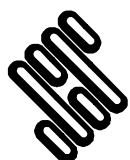
Position ID: **CP09** Sample Ref: **14** Sample Type: **B** Depth (m): **4.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	12%	25%	34%	1%	6%	0%	1%	0%	0%	
	SILT			SAND			GRAVEL			
21%	71%			7%			1%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	58	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.005
37.5	100	0.006	32	D ₅₀ (mm)	0.014
20.0	100			D ₆₀ (mm)	0.021
10.0	100			D ₈₅ (mm)	0.050
6.30	100	0.002	21	D ₉₀ (mm)	0.059
3.35	99			C _U	NA
2.00	99			C _C	NA
1.18	99	Sedimentation sample was not pre-treated			
0.630	99				
0.425	98				
0.200	93				
0.150	93				
0.063	92	Soil Description: Brown/red slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

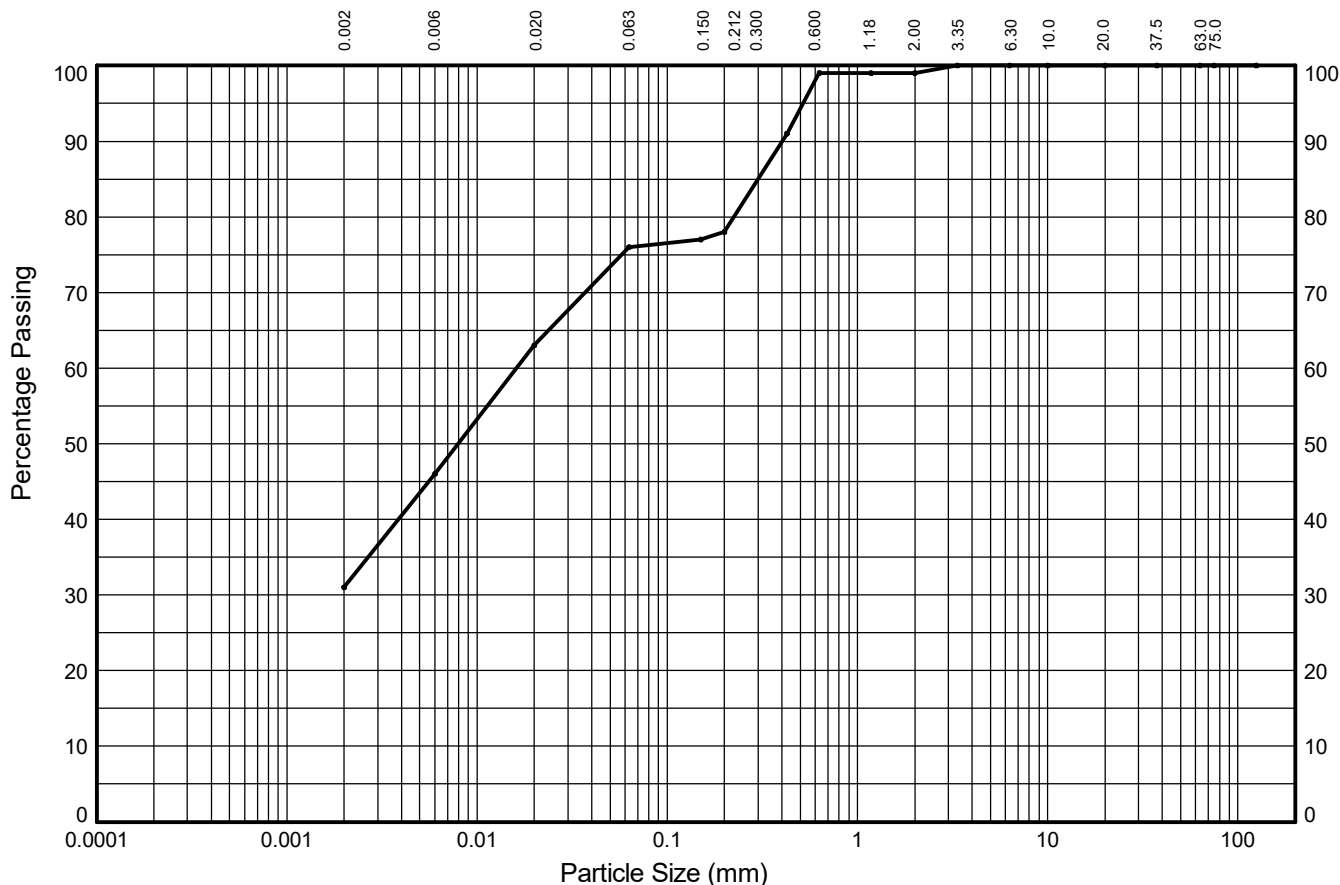
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Position ID: **CP11**

Sample Ref: **6**

Sample Type: **B**

Depth (m): **1.20**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	15%	17%	13%	2%	21%	0%	1%	0%	0%	
	SILT			SAND			GRAVEL			
31%	45%			23%			1%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	100
10.0	100
6.30	100
3.35	100
2.00	99
1.18	99
0.630	99
0.425	91
0.200	78
0.150	77
0.063	76

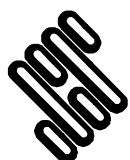
Particle Diameter (mm)	Percent Passing (%)
0.02	63
0.006	46
0.002	31
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	NA
D ₃₀ (mm)	NA
D ₅₀ (mm)	0.008
D ₆₀ (mm)	0.016
D ₈₅ (mm)	0.300
D ₉₀ (mm)	0.401
C _u	NA
C _c	NA

Soil Description:

Brown/red slightly gravelly slightly sandy clayey SILT

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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LAURA SCHRAMM

Date

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EMG Phase 2

Contract Ref:

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PARTICLE SIZE DISTRIBUTION TEST

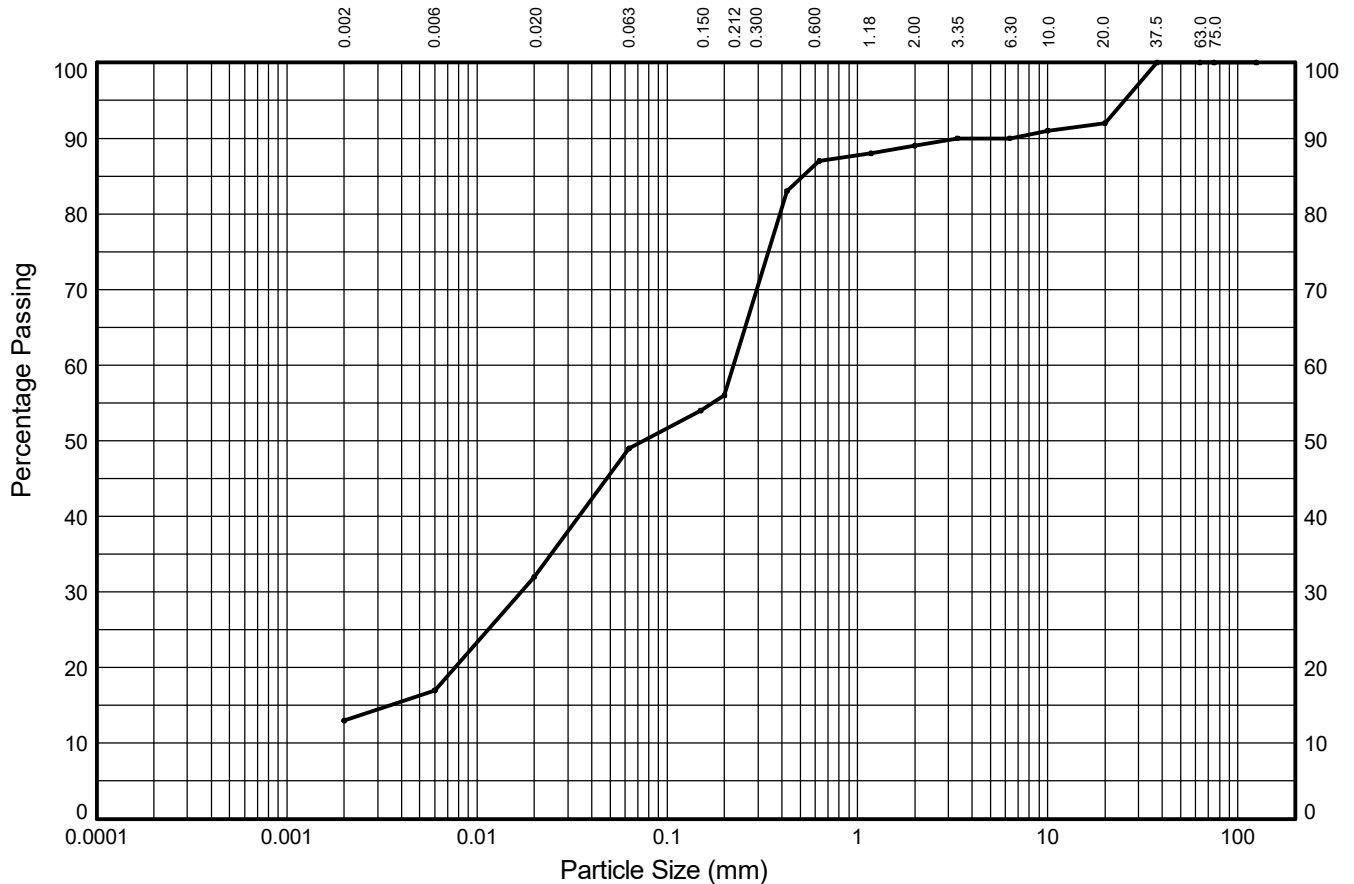
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Position ID: **CP13**

Sample Ref: **4**

Sample Type: **B**

Depth (m): **0.60**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	4%	15%	17%	7%	31%	2%	1%	2%	8%	
	SILT			SAND			GRAVEL			
13%	36%			40%			11%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	92
10.0	91
6.30	90
3.35	90
2.00	89
1.18	88
0.630	87
0.425	83
0.200	56
0.150	54
0.063	49

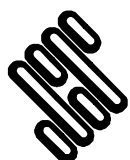
Particle Diameter (mm)	Percent Passing (%)
0.02	32
0.006	17
0.002	13
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	0.003
D ₃₀ (mm)	0.017
D ₅₀ (mm)	0.075
D ₆₀ (mm)	0.224
D ₈₅ (mm)	0.517
D ₉₀ (mm)	3.350
C _U	NA
C _C	NA

Soil Description:

Brown red slightly gravelly sandy clayey SILT

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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Contract Ref:

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In accordance with clauses 5.2 of BS EN ISO 17892:Part 4:2016

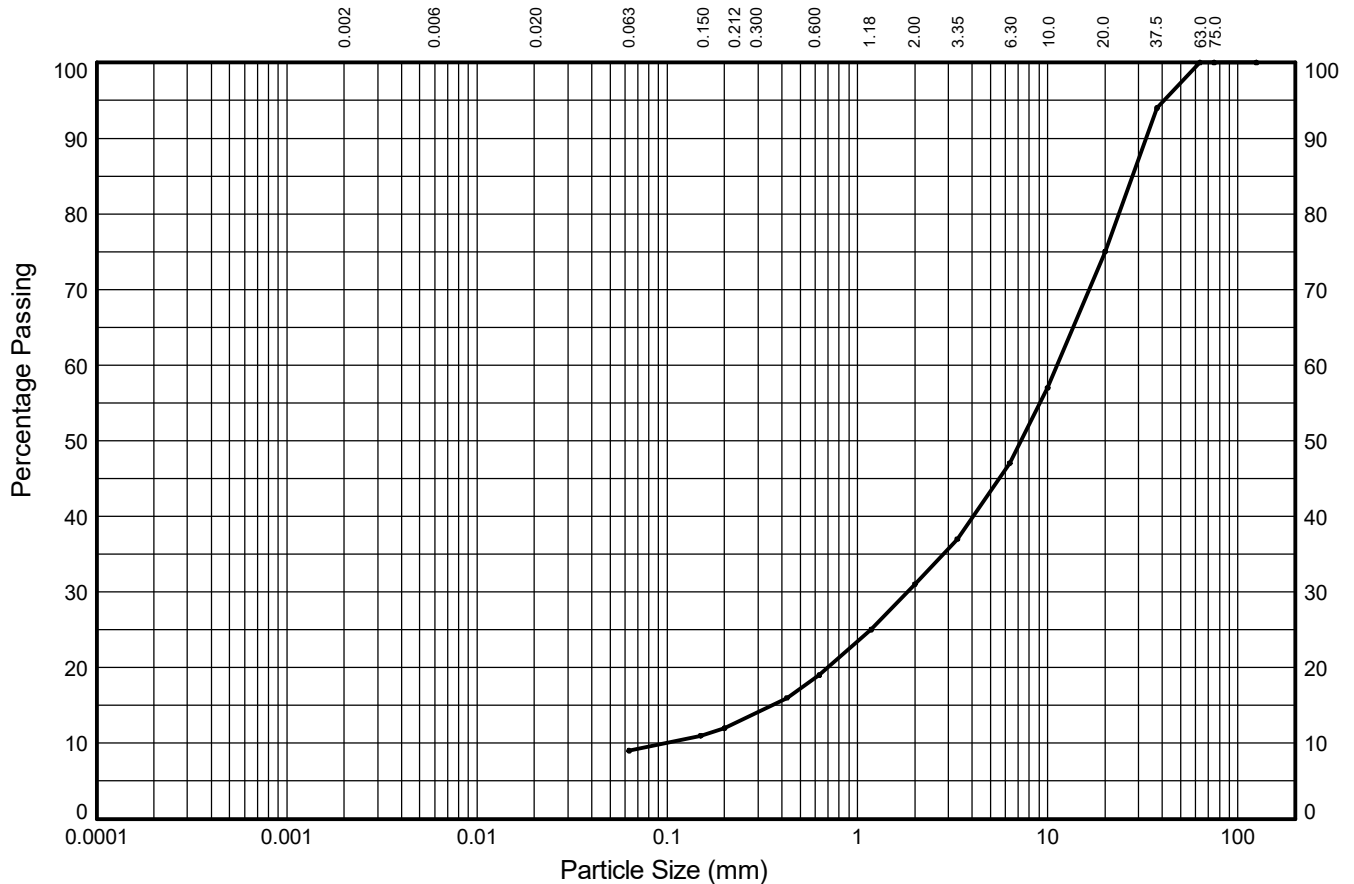
NON-STANDARD TEST

Position ID: **CP13**

Sample Ref: **19**

Sample Type: **B**

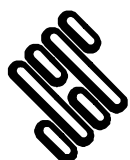
Depth (m): **4.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	-	-	-	3%	7%	12%	16%	28%	25%	
	SILT			SAND			GRAVEL			
9%				22%			69%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100			D ₁₀ (mm)	0.097
75.0	100			D ₁₅ (mm)	0.352
63.0	100			D ₃₀ (mm)	1.832
37.5	94			D ₅₀ (mm)	7.237
20.0	75			D ₆₀ (mm)	11.225
10.0	57			D ₈₅ (mm)	27.843
6.30	47			D ₉₀ (mm)	32.852
3.35	37			C _u	115
2.00	31			C _c	3
1.18	25			Sedimentation sample was not pre-treated Soil Description: Brown sandy silty/clayey GRAVEL	
0.630	19				
0.425	16				
0.200	12				
0.150	11				
0.063	9				

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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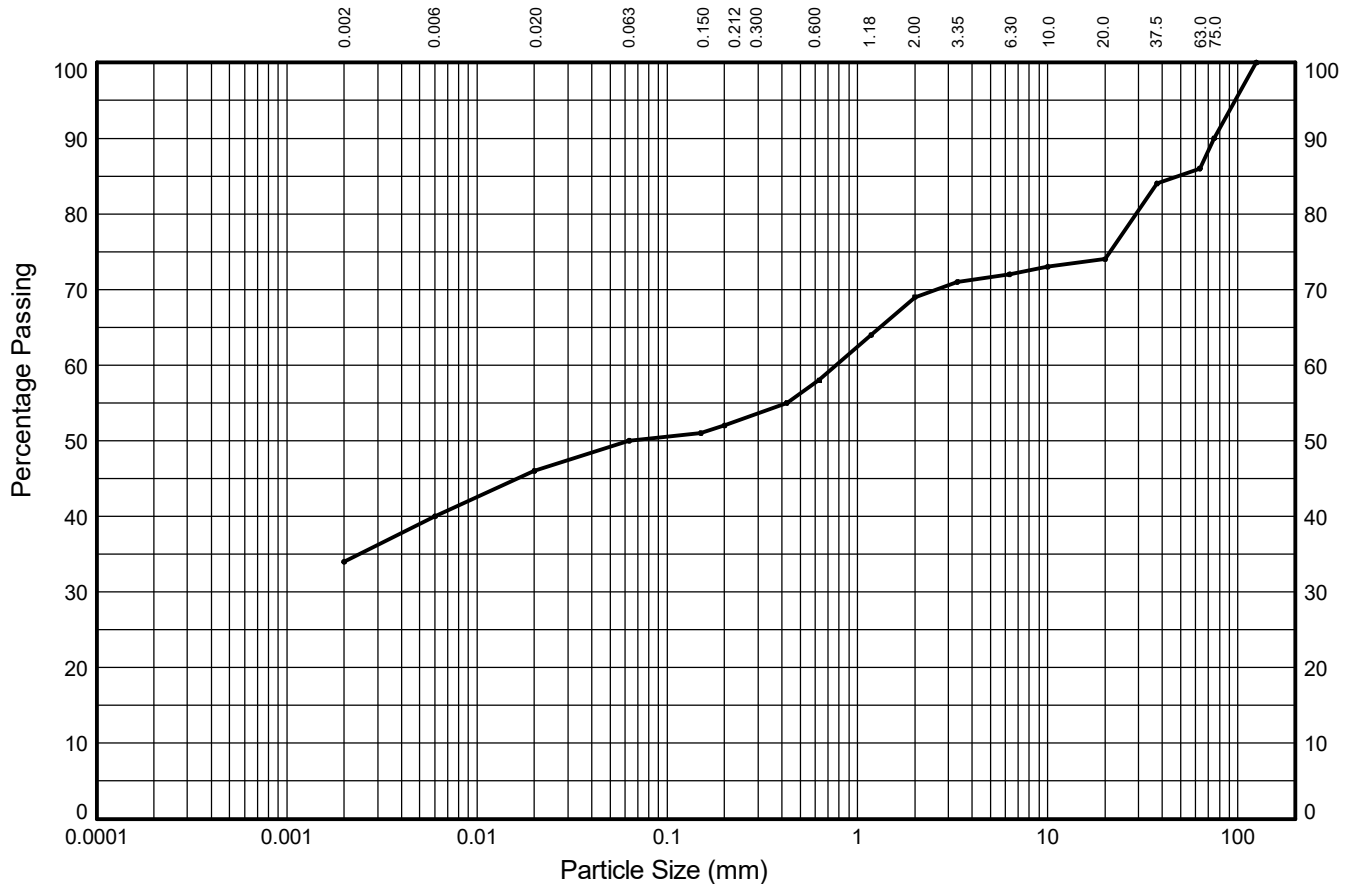
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

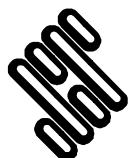
Position ID: **CP14** Sample Ref: **18** Sample Type: **B** Depth (m): **6.40**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	6%	6%	4%	2%	6%	11%	3%	2%	12%	
	SILT			SAND			GRAVEL			
34%	16%			19%			17%			14%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	46	D ₁₀ (mm)	NA
75.0	90			D ₁₅ (mm)	NA
63.0	86			D ₃₀ (mm)	NA
37.5	84	0.006	40	D ₅₀ (mm)	0.063
20.0	74			D ₆₀ (mm)	0.777
10.0	73			D ₈₅ (mm)	48.606
6.30	72	0.002	34	D ₉₀ (mm)	75.000
3.35	71			C _U	NA
2.00	69			C _C	NA
1.18	64	Sedimentation sample was not pre-treated			
0.630	58	Soil Description: Brown slightly gravelly slightly sandy silty CLAY with medium cobble content			
0.425	55				
0.200	52				
0.150	51				
0.063	50				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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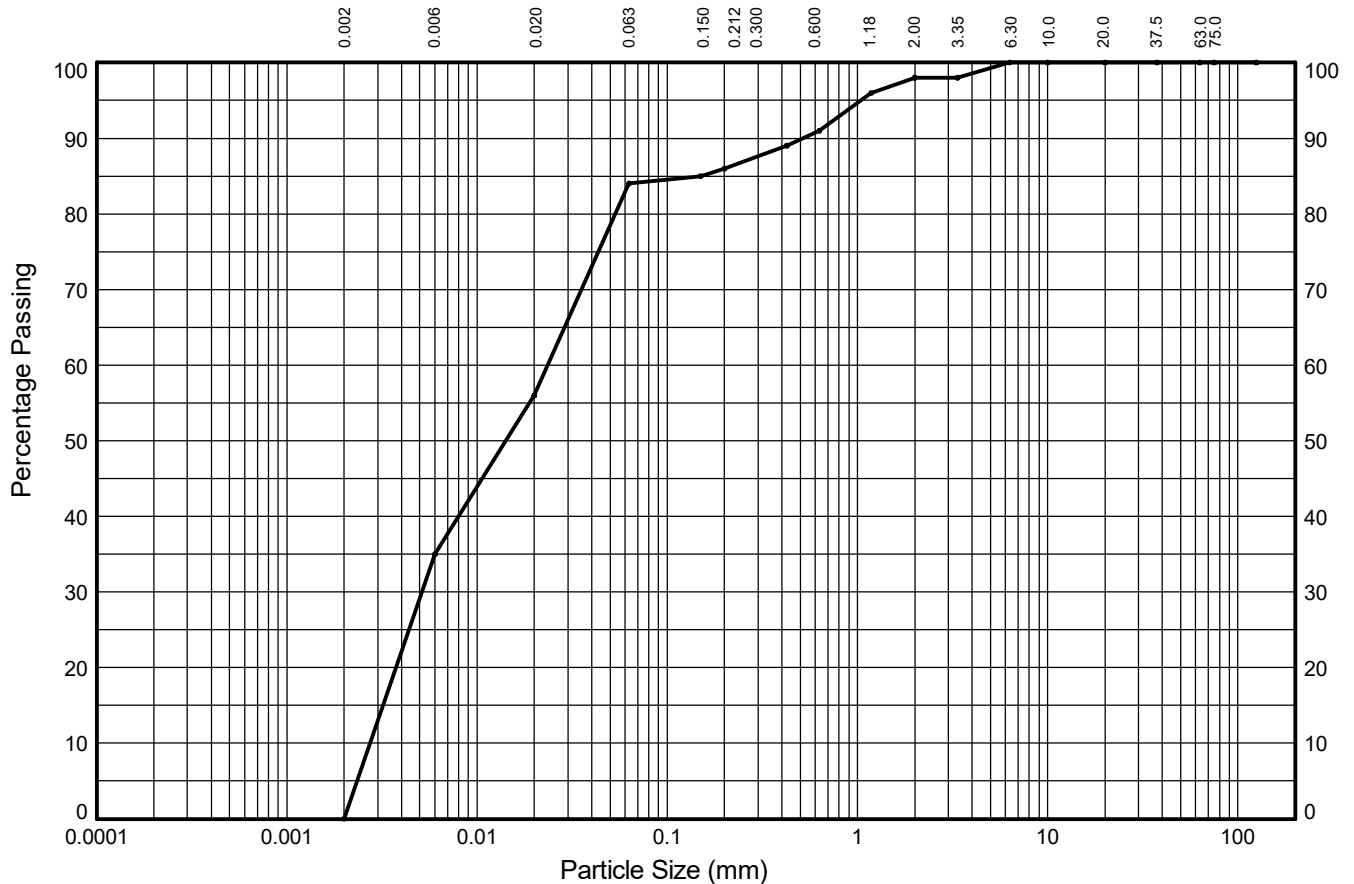
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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

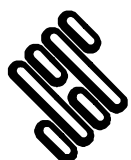
Position ID: **CP15** Sample Ref: **11** Sample Type: **B** Depth (m): **3.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	35%	21%	28%	2%	5%	7%	2%	0%	0%	
	SILT			SAND			GRAVEL			
0%	84%			14%			2%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	56	D ₁₀ (mm)	0.003
75.0	100			D ₁₅ (mm)	0.003
63.0	100	0.006	35	D ₃₀ (mm)	0.005
37.5	100			D ₅₀ (mm)	0.014
20.0	100	0.002	0	D ₆₀ (mm)	0.024
10.0	100			D ₈₅ (mm)	0.150
6.30	100	Sedimentation sample was not pre-treated		D ₉₀ (mm)	0.517
3.35	98			C _U	8.6
2.00	98			C _C	0.41
1.18	96			Soil Description: Brown/red slightly gravelly slightly sandy SILT	
0.630	91				
0.425	89				
0.200	86				
0.150	85				
0.063	84				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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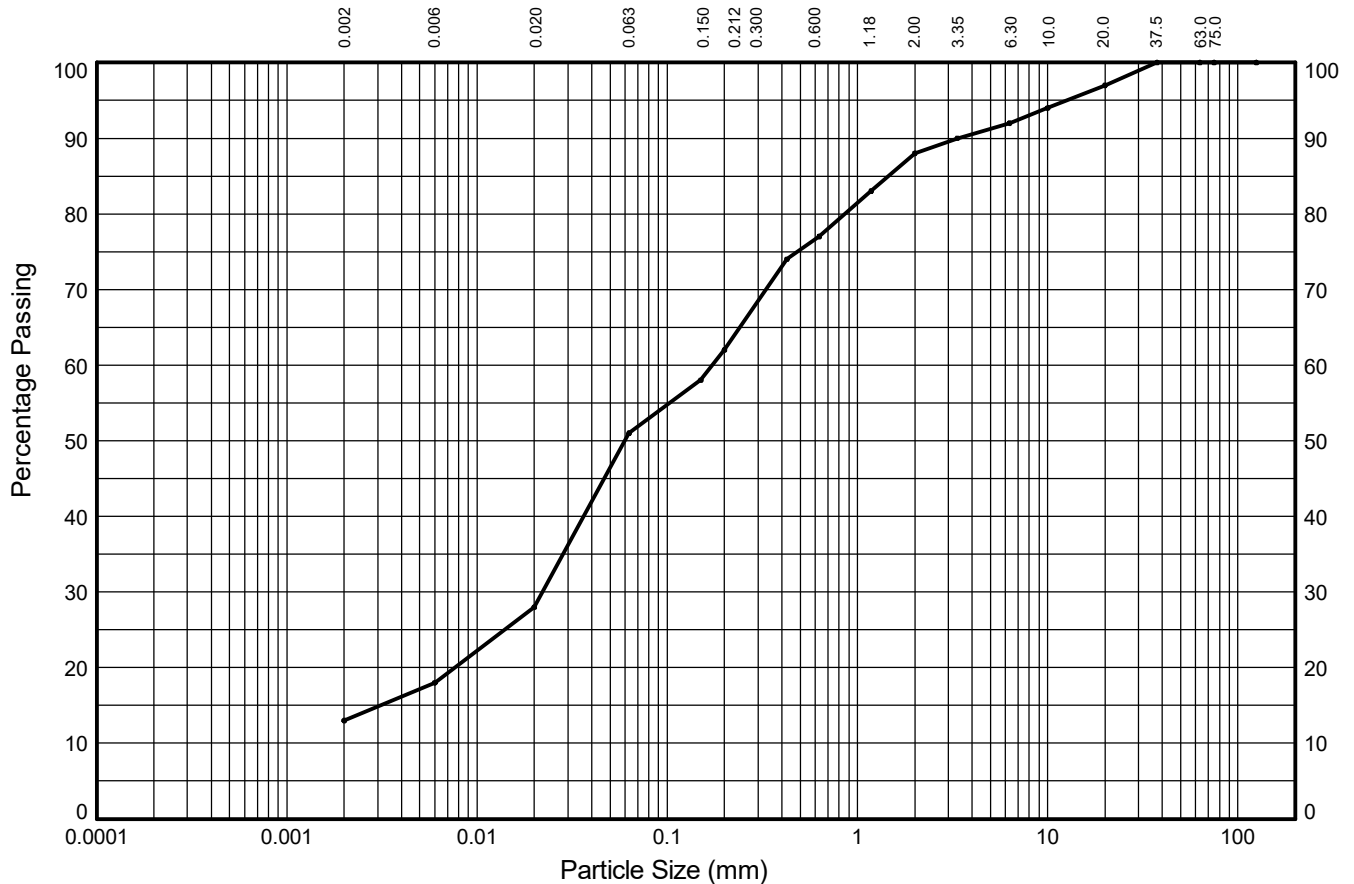
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

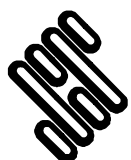
Position ID: **CP17** Sample Ref: **22** Sample Type: **B** Depth (m): **6.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	5%	10%	23%	11%	15%	11%	4%	5%	3%	
	SILT			SAND			GRAVEL			
13%	38%			37%			12%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	28	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	0.003
63.0	100			D ₃₀ (mm)	0.022
37.5	100	0.006	18	D ₅₀ (mm)	0.060
20.0	97			D ₆₀ (mm)	0.173
10.0	94			D ₈₅ (mm)	1.457
6.30	92	0.002	13	D ₉₀ (mm)	3.350
3.35	90			C _U	NA
2.00	88			C _C	NA
1.18	83	Sedimentation sample was not pre-treated			
0.630	77	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.425	74				
0.200	62				
0.150	58				
0.063	51				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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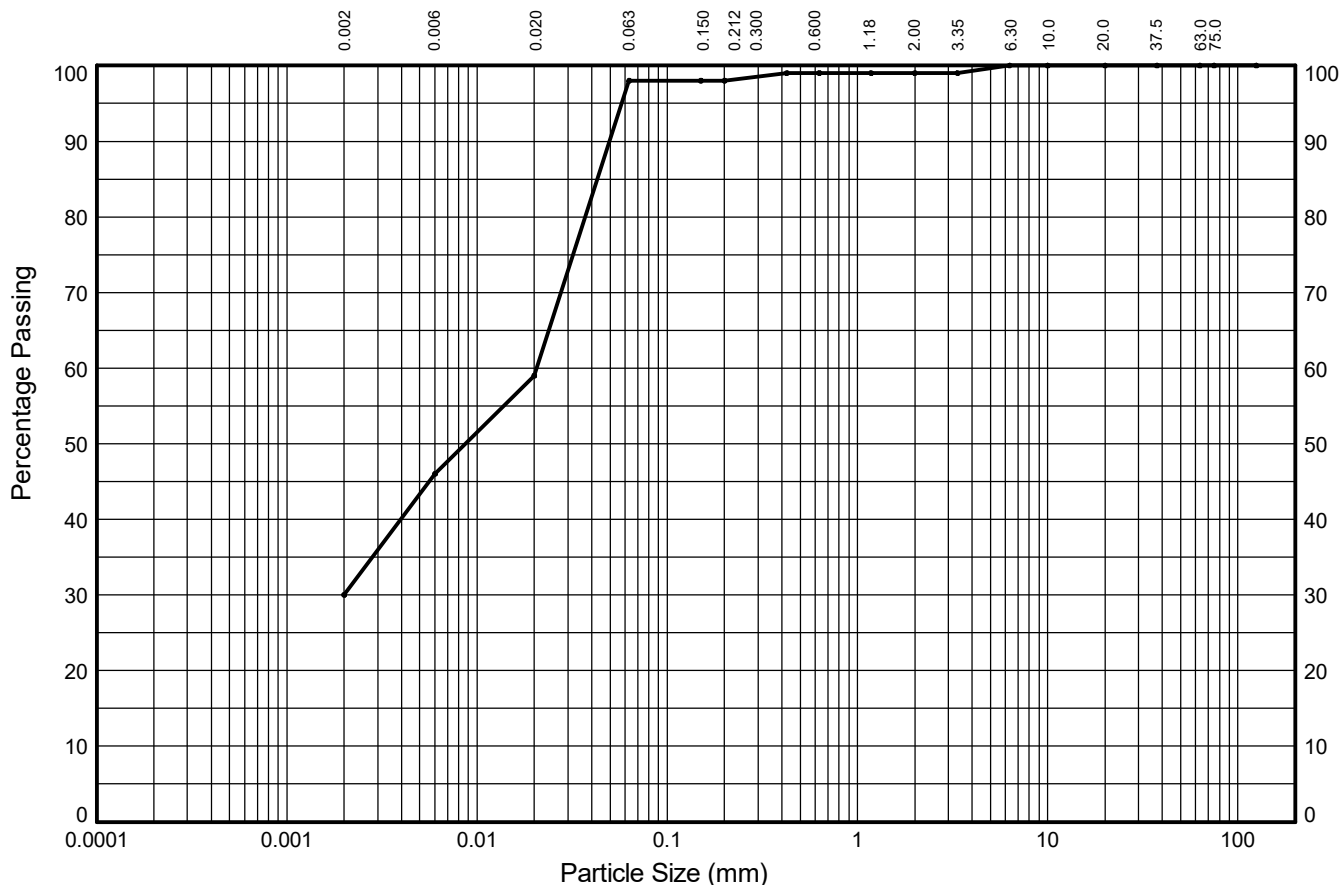
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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

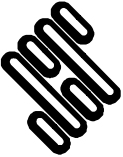
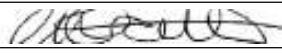
Position ID: **CP18** Sample Ref: **4** Sample Type: **B** Depth (m): **0.90**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	16%	13%	39%	0%	1%	0%	1%	0%	0%	
	SILT			SAND			GRAVEL			
30%	68%			1%			1%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients		
125.0	100	0.02	59	D ₁₀ (mm)	NA	
75.0	100			D ₁₅ (mm)	NA	
63.0	100			D ₃₀ (mm)	0.002	
37.5	100	0.006	46	D ₅₀ (mm)	0.009	
20.0	100			D ₆₀ (mm)	0.021	
10.0	100			D ₈₅ (mm)	0.043	
6.30	100	0.002	30	D ₉₀ (mm)	0.050	
3.35	99			Sedimentation sample was not pre-treated	C _U	NA
2.00	99				C _C	NA
1.18	99					
0.630	99					
0.425	99					
0.200	98					
0.150	98					
0.063	98					
Soil Description: Brown slightly gravelly slightly sandy clayey SILT						

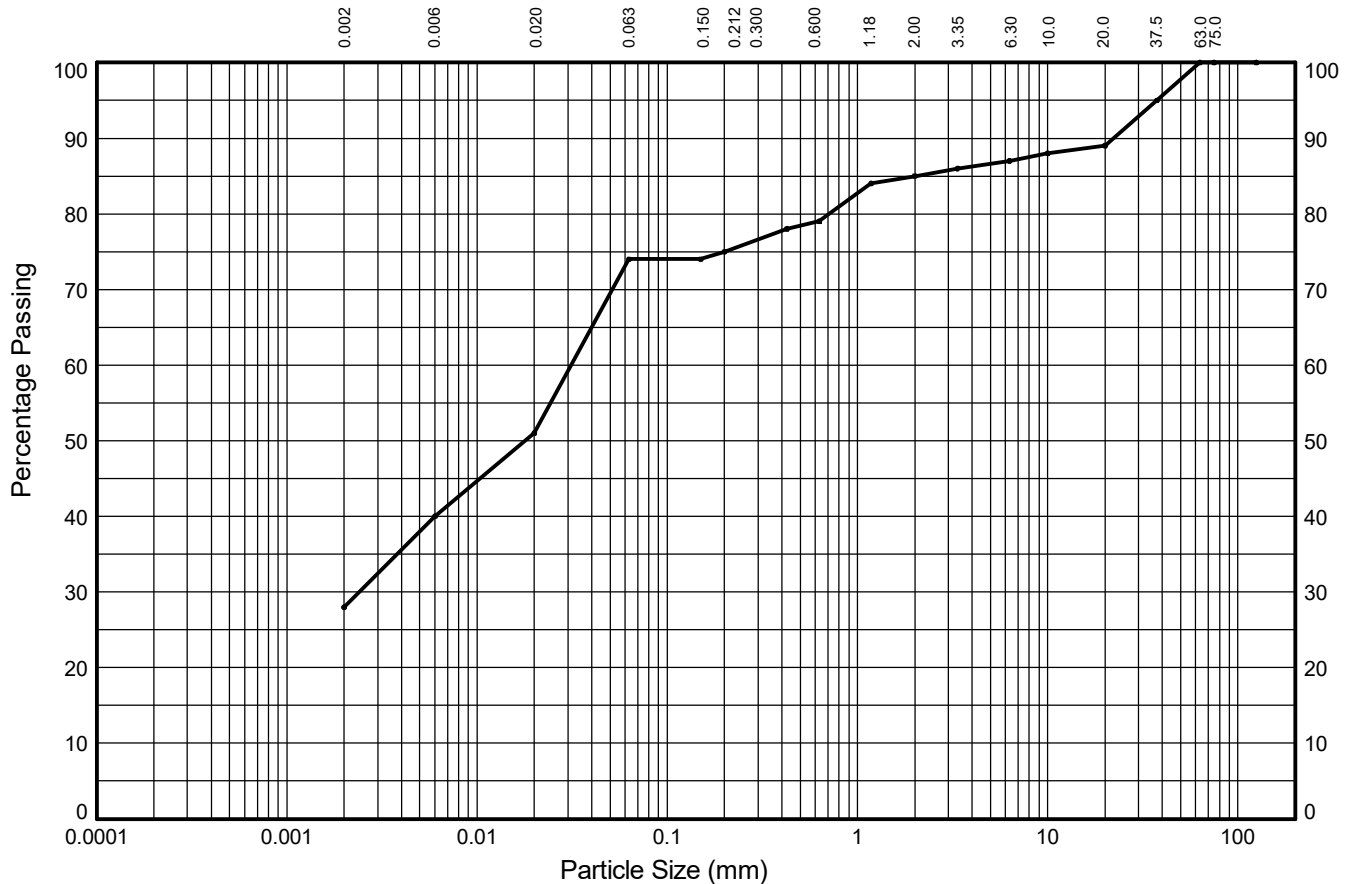
Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018

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	Contract		Contract Ref:
	EMG Phase 2		765514 

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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

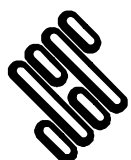
Position ID: **CP22** Sample Ref: **4** Sample Type: **B** Depth (m): **0.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	12%	11%	23%	1%	4%	6%	2%	2%	11%	
	SILT			SAND			GRAVEL			
28%	46%			11%			15%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	51	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.002
37.5	95	0.006	40	D ₅₀ (mm)	0.018
20.0	89			D ₆₀ (mm)	0.031
10.0	88			D ₈₅ (mm)	2.000
6.30	87	0.002	28	D ₉₀ (mm)	22.209
3.35	86			C _U	NA
2.00	85			C _C	NA
1.18	84	Sedimentation sample was not pre-treated			
0.630	79				
0.425	78				
0.200	75				
0.150	74				
0.063	74	Soil Description: Brown slightly sandy slightly gravelly clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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PARTICLE SIZE DISTRIBUTION TEST

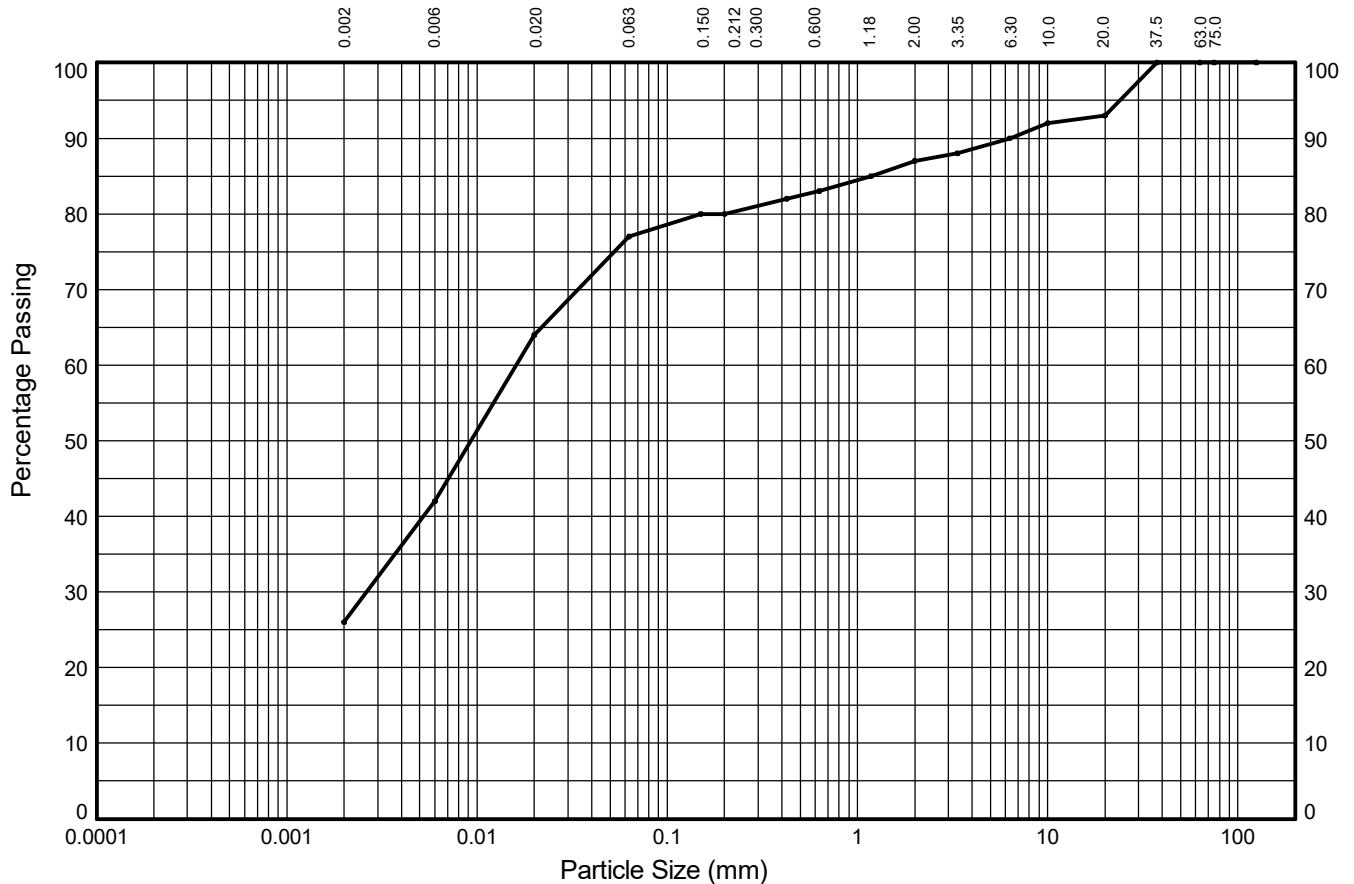
In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Position ID: **CP24**

Sample Ref: **5**

Sample Type: **B**

Depth (m): **1.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	16%	22%	13%	3%	3%	4%	3%	3%	7%	
	SILT			SAND			GRAVEL			
26%	51%			10%			13%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	93
10.0	92
6.30	90
3.35	88
2.00	87
1.18	85
0.630	83
0.425	82
0.200	80
0.150	80
0.063	77

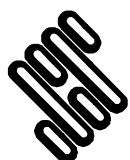
Particle Diameter (mm)	Percent Passing (%)
0.02	64
0.006	42
0.002	26
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	NA
D ₁₅ (mm)	NA
D ₃₀ (mm)	0.003
D ₅₀ (mm)	0.009
D ₆₀ (mm)	0.016
D ₈₅ (mm)	1.180
D ₉₀ (mm)	6.300
C _u	NA
C _c	NA

Soil Description:

Brown red slightly sandy slightly gravelly clayey SILT

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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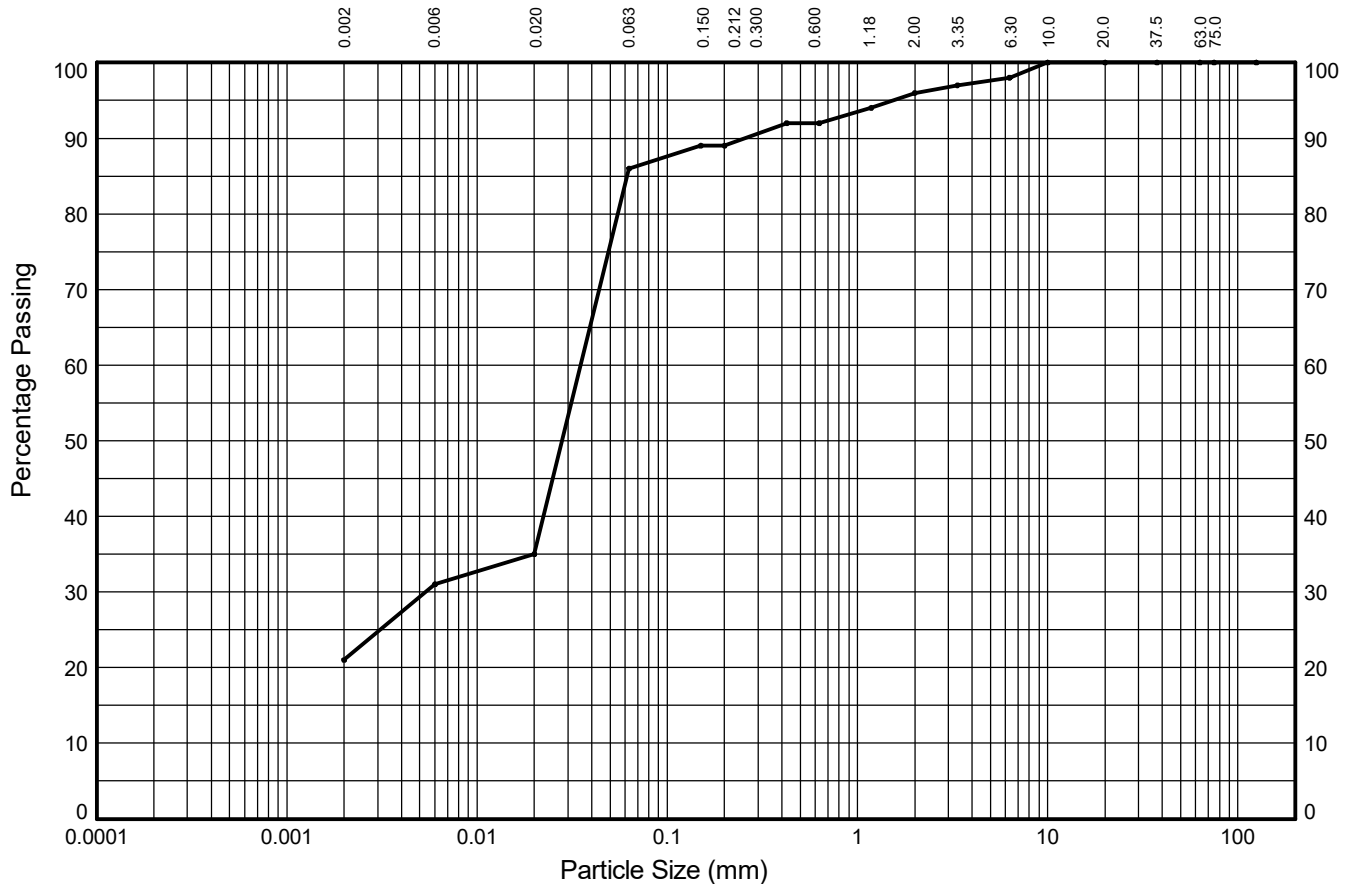
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Trial Pit: **TP02** Sample Ref: **7** Sample Type: **D** Depth (m): **0.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	10%	4%	51%	3%	3%	4%	2%	2%	0%	
	SILT			SAND			GRAVEL			
21%	65%			10%			4%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	35	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.005
37.5	100	0.006	31	D ₅₀ (mm)	0.028
20.0	100			D ₆₀ (mm)	0.035
10.0	100			D ₈₅ (mm)	0.062
6.30	98	0.002	21	D ₉₀ (mm)	0.257
3.35	97			C _U	NA
2.00	96			C _C	NA
1.18	94	Sedimentation sample was not pre-treated			
0.630	92	Soil Description: Red brown slightly gravelly slightly sandy slightly clayey SILT			
0.425	92				
0.200	89				
0.150	89				
0.063	86				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018

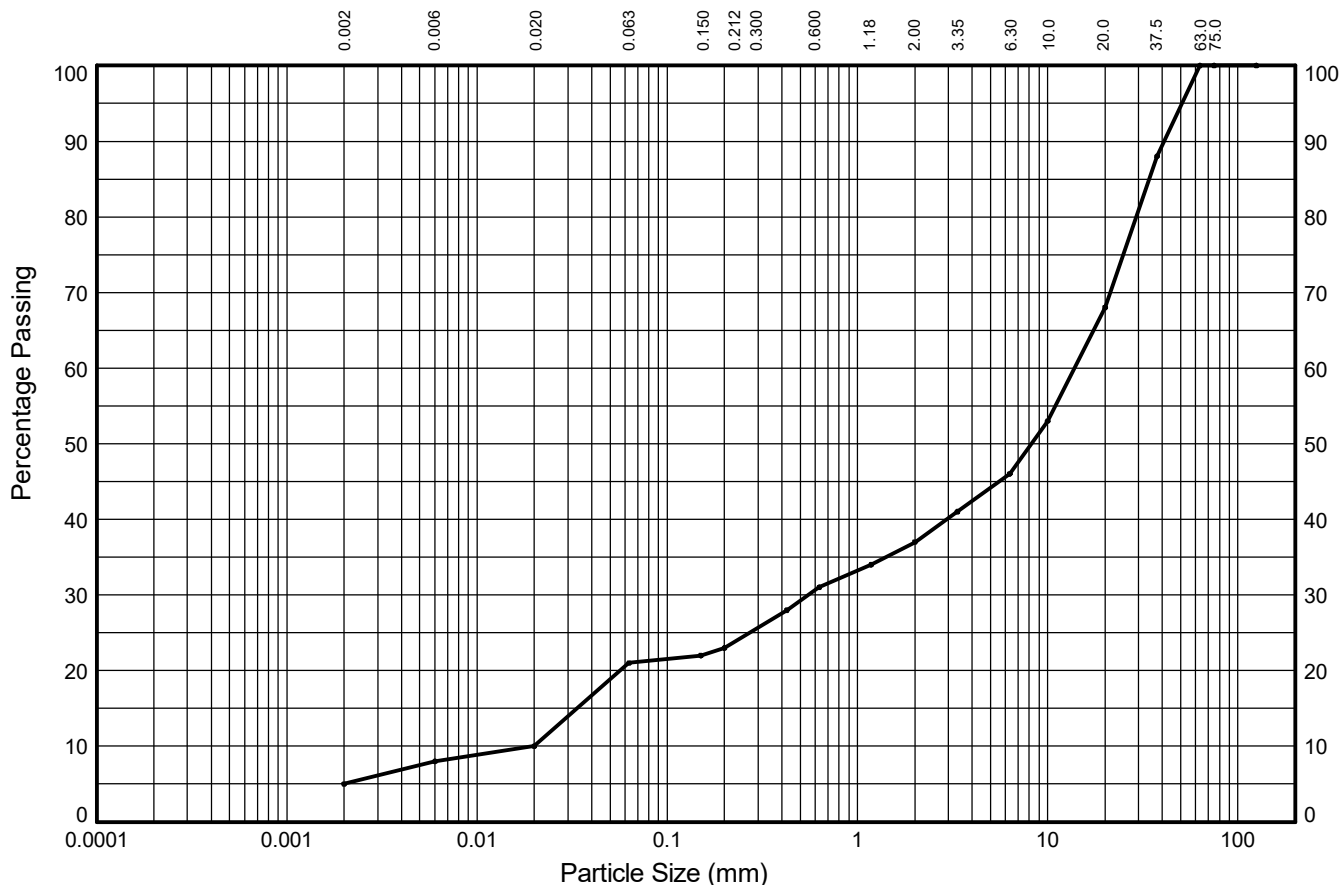
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	Contract		Contract Ref:
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

NON-STANDARD TEST

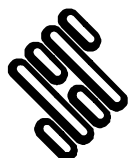
Trial Pit: **TP06** Sample Ref: **14** Sample Type: **B** Depth (m): **2.10**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	3%	2%	11%	2%	8%	6%	9%	22%	32%	
	SILT			SAND			GRAVEL			
5%	16%			16%			63%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	10	D ₁₀ (mm)	0.020
75.0	100			D ₁₅ (mm)	0.034
63.0	100			D ₃₀ (mm)	0.553
37.5	88	0.006	8	D ₅₀ (mm)	8.204
20.0	68			D ₆₀ (mm)	13.819
10.0	53			D ₈₅ (mm)	34.126
6.30	46	0.002	5	D ₉₀ (mm)	40.887
3.35	41			C _U	691
2.00	37			C _C	1
1.18	34	Sedimentation sample was not pre-treated			
0.630	31				
0.425	28				
0.200	23				
0.150	22				
0.063	21	Soil Description: Brown sandy clayey silty GRAVEL			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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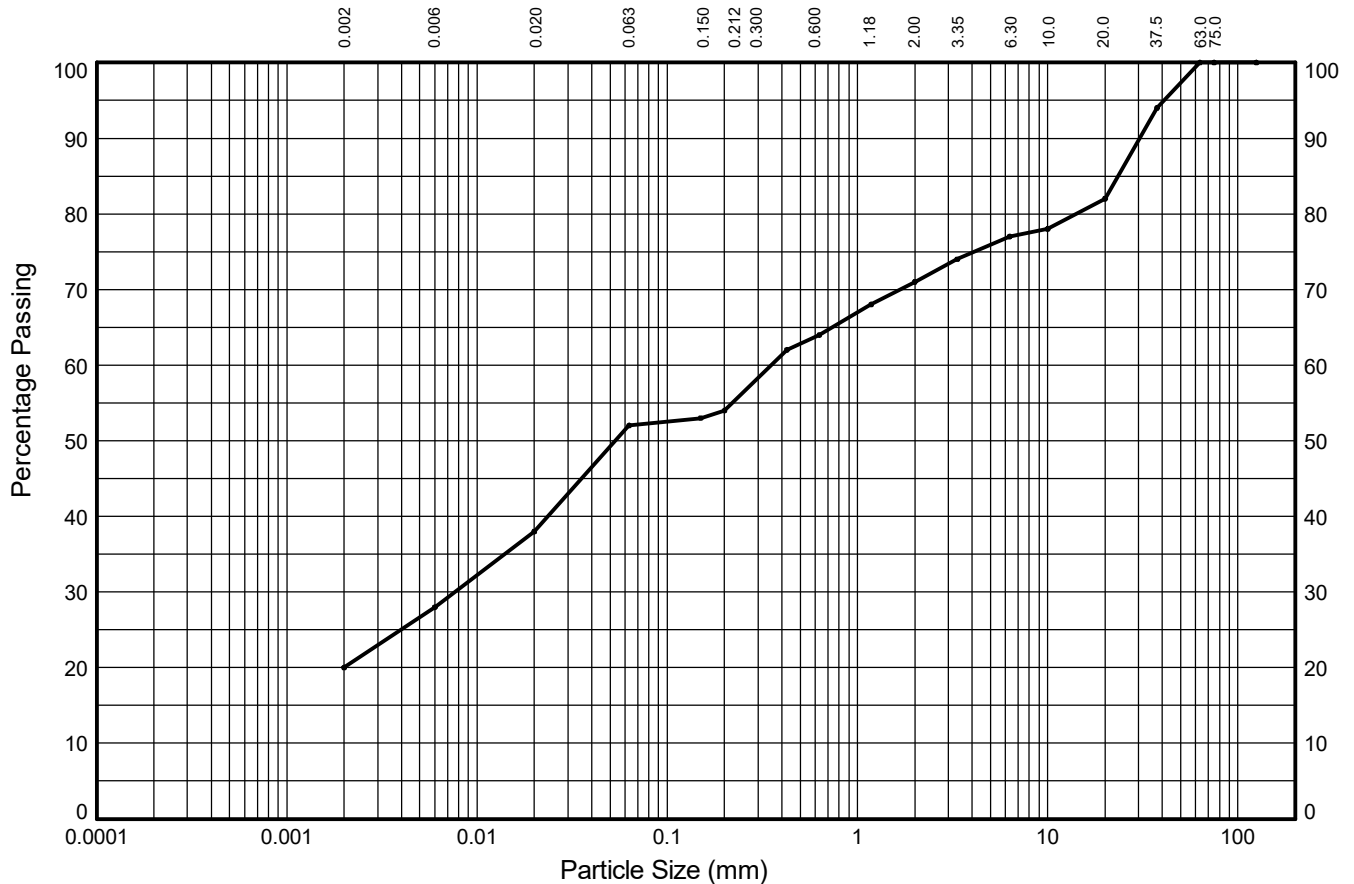
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In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

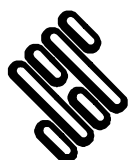
Trial Pit: **TP08** Sample Ref: **5** Sample Type: **LB** Depth (m): **0.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	8%	10%	14%	2%	10%	7%	6%	5%	18%	
	SILT			SAND			GRAVEL			
20%	32%			19%			29%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	38	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.008
37.5	94	0.006	28	D ₅₀ (mm)	0.053
20.0	82			D ₆₀ (mm)	0.352
10.0	78			D ₈₅ (mm)	23.403
6.30	77	0.002	20	D ₉₀ (mm)	30.411
3.35	74			C _U	NA
2.00	71			C _C	NA
1.18	68	Sedimentation sample was not pre-treated			
0.630	64	Soil Description: Brown slightly sandy slightly gravelly clayey SILT			
0.425	62				
0.200	54				
0.150	53				
0.063	52				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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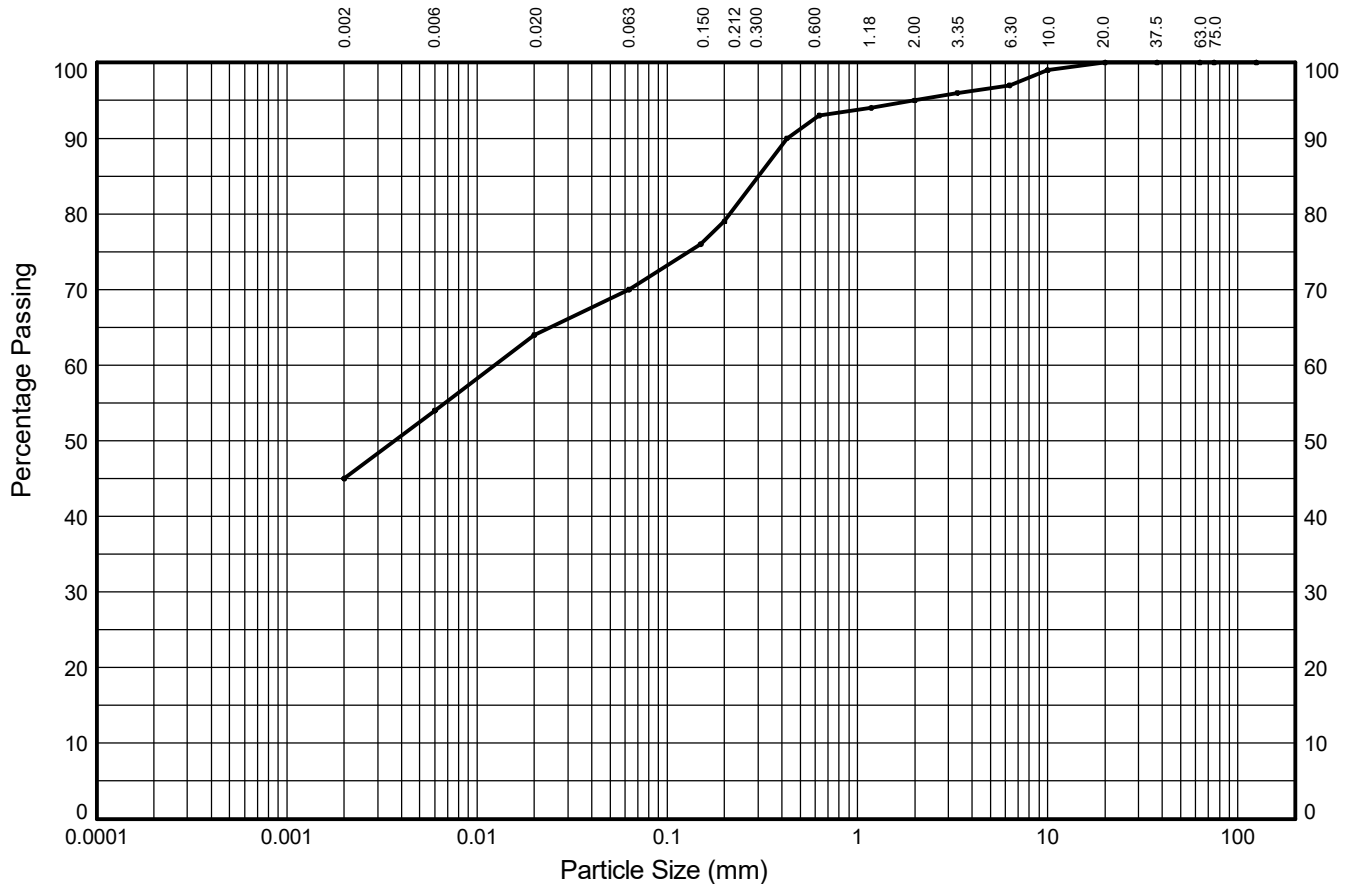
765514



PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

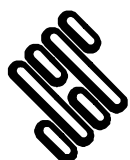
Trial Pit: **TP09** Sample Ref: **5** Sample Type: **LB** Depth (m): **0.60**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	9%	10%	6%	9%	14%	2%	2%	3%	0%	
	SILT			SAND			GRAVEL			
45%	25%			25%			5%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	64	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100			D ₅₀ (mm)	0.004
20.0	100	0.006	54	D ₆₀ (mm)	0.012
10.0	99			D ₈₅ (mm)	0.302
6.30	97	0.002	45	D ₉₀ (mm)	0.425
3.35	96			C _U	NA
2.00	95	C _C		NA	
1.18	94	Sedimentation sample was not pre-treated			
0.630	93				
0.425	90				
0.200	79				
0.150	76				
0.063	70	Soil Description: Brown slightly gravelly slightly sandy silty CLAY			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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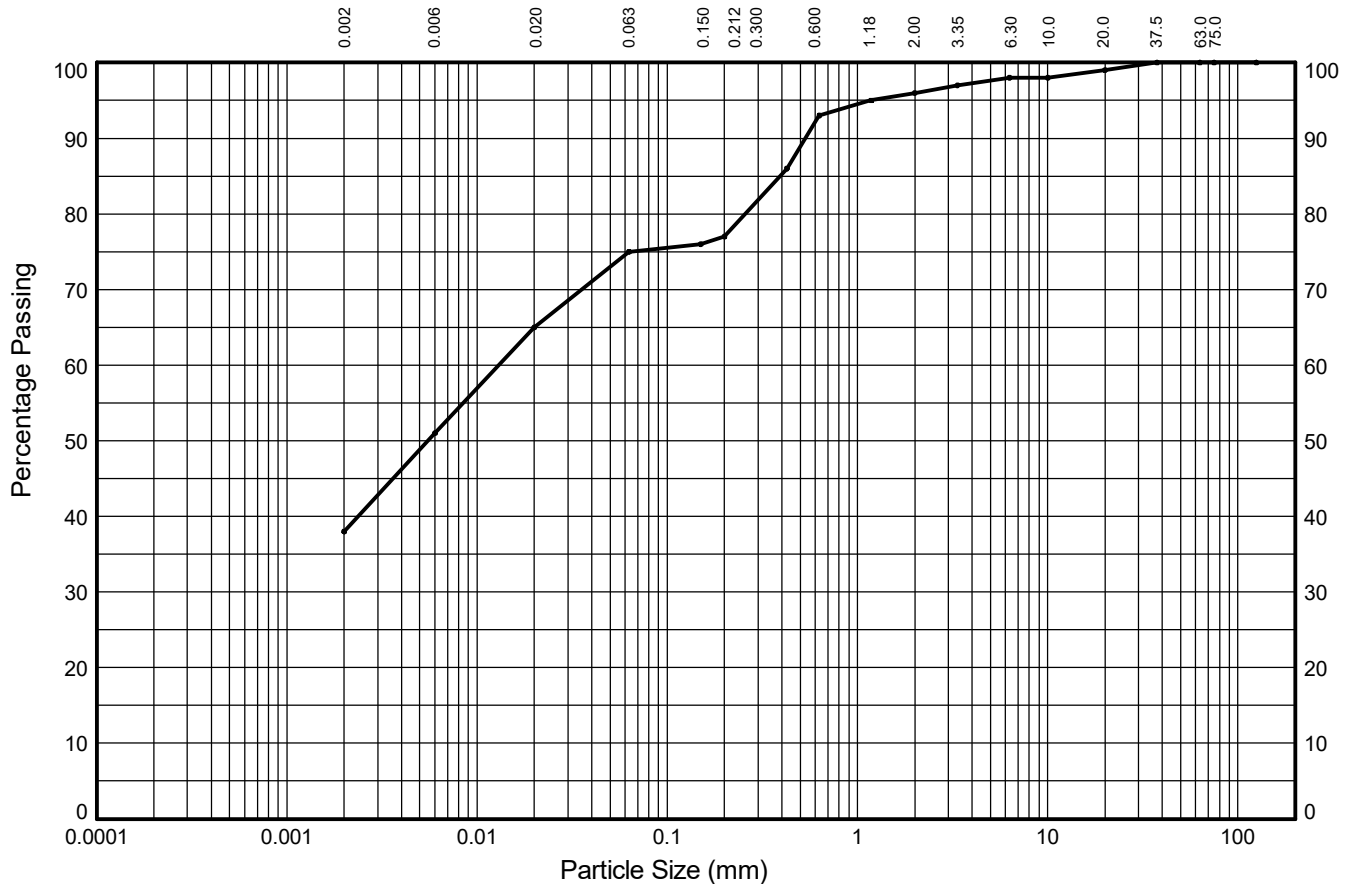
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

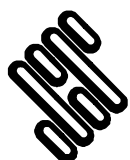
Trial Pit: **TP10** Sample Ref: **11** Sample Type: **LB** Depth (m): **1.40**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	13%	14%	10%	2%	16%	3%	2%	1%	1%	
	SILT			SAND			GRAVEL			
38%	37%			21%			4%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	65	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100	0.006	51	D ₅₀ (mm)	0.006
20.0	99			D ₆₀ (mm)	0.013
10.0	98			D ₈₅ (mm)	0.391
6.30	98	0.002	38	D ₉₀ (mm)	0.532
3.35	97			C _U	NA
2.00	96			C _C	NA
1.18	95	Sedimentation sample was not pre-treated			
0.630	93	Soil Description: Brown slightly gravelly slightly sandy silty CLAY			
0.425	86				
0.200	77				
0.150	76				
0.063	75				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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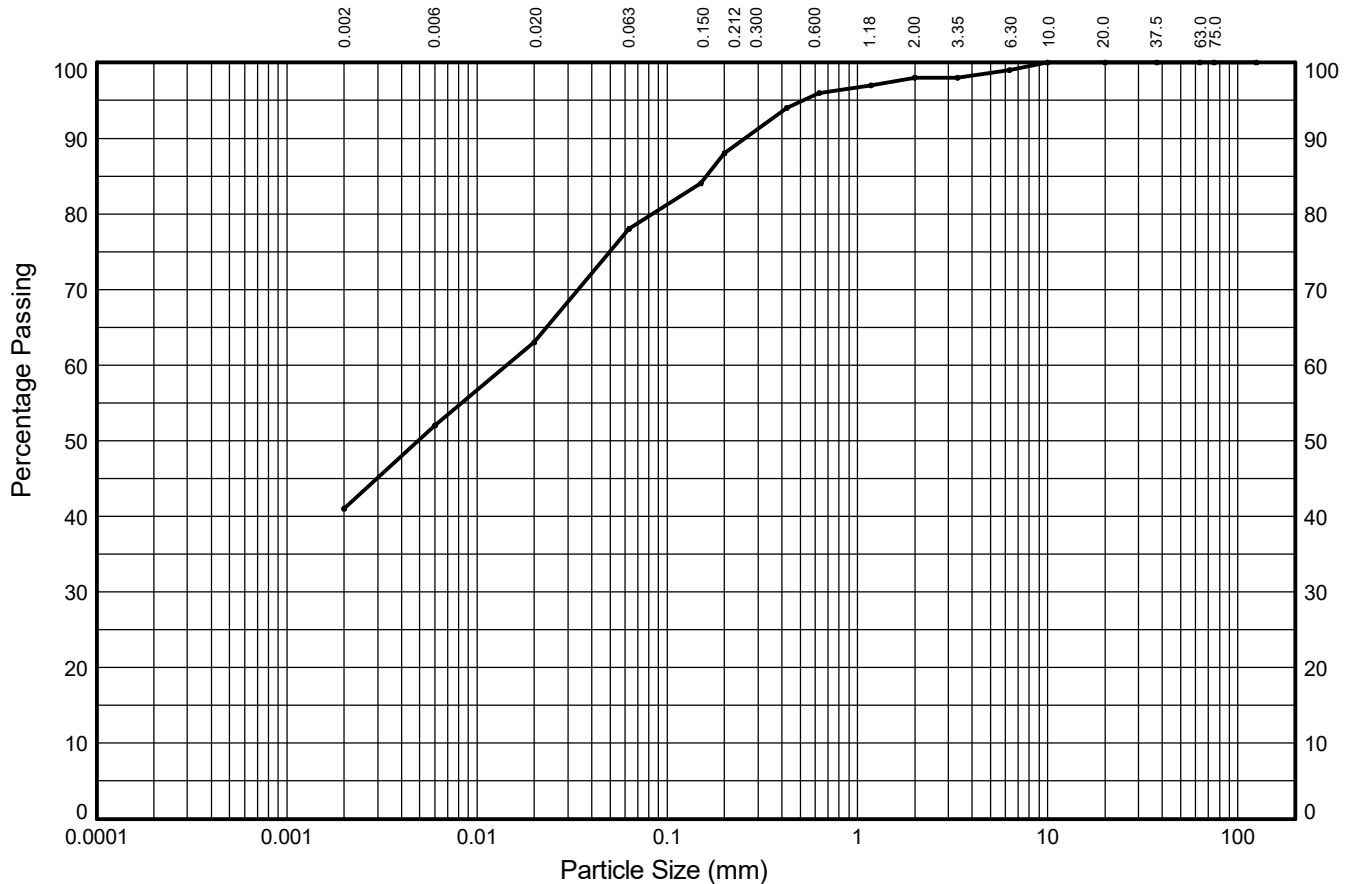
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

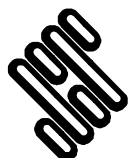
Trial Pit: **TP11** Sample Ref: **8** Sample Type: **B** Depth (m): **1.20**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	11%	11%	15%	10%	8%	2%	1%	1%	0%	
	SILT			SAND			GRAVEL			
41%	37%			20%			2%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	63	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100	0.006	52	D ₅₀ (mm)	0.005
20.0	100			D ₆₀ (mm)	0.014
10.0	100			D ₈₅ (mm)	0.161
6.30	99	0.002	41	D ₉₀ (mm)	0.257
3.35	98			C _U	NA
2.00	98			C _C	NA
1.18	97	Sedimentation sample was not pre-treated			
0.630	96				
0.425	94				
0.200	88				
0.150	84				
0.063	78	Soil Description: Brown slightly gravelly slightly sandy silty CLAY			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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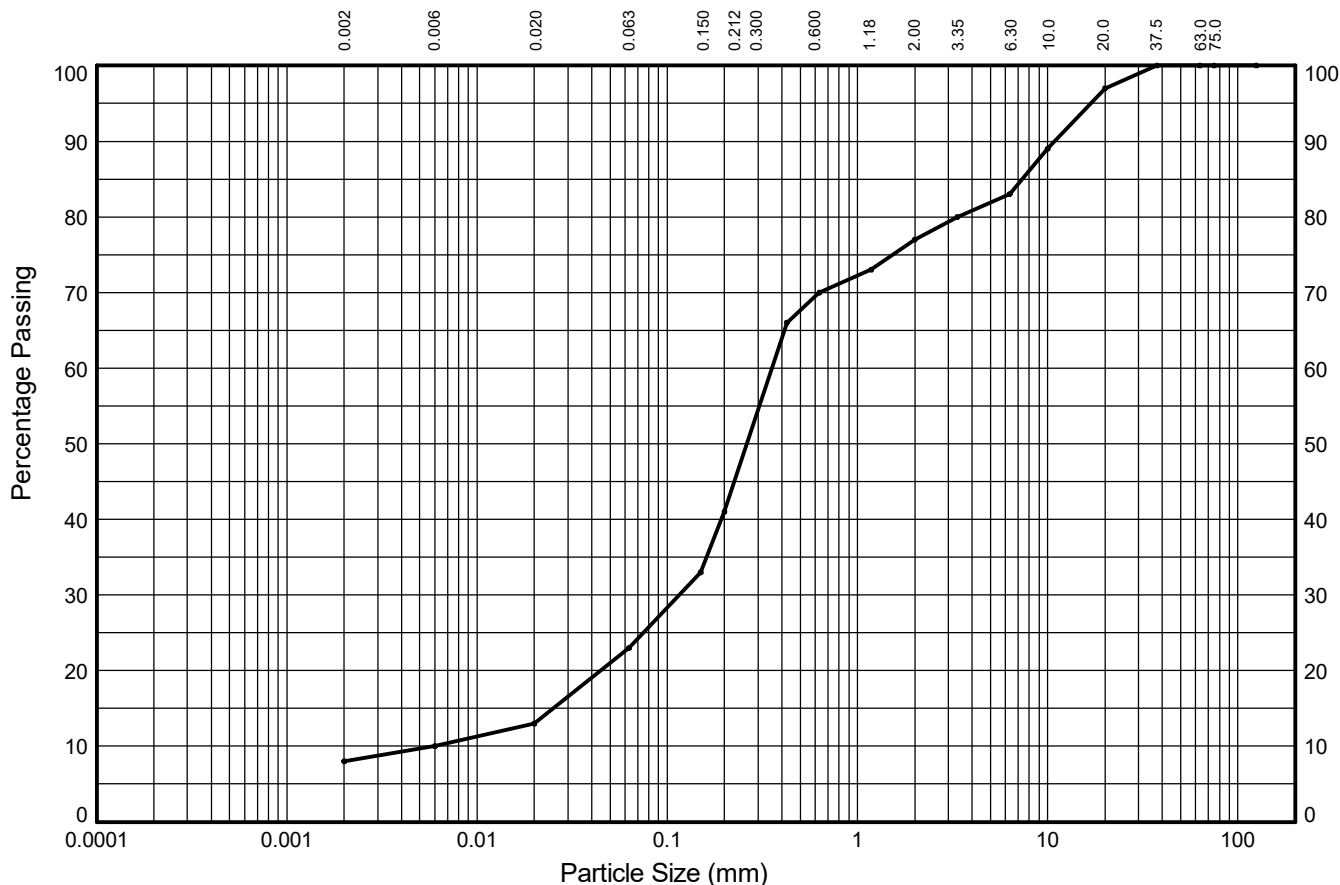


PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

NON-STANDARD TEST

Trial Pit: **TP13** Sample Ref: **5** Sample Type: **D** Depth (m): **1.00**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	2%	3%	10%	18%	29%	7%	6%	14%	3%	
	SILT			SAND			GRAVEL			
8%	15%			54%			23%			0%

Test Sieve (mm)	Percent Passing (%)
125.0	100
75.0	100
63.0	100
37.5	100
20.0	97
10.0	89
6.3	83
3.35	80
2.0	77
1.18	73
0.63	70
0.425	66
0.200	41
0.150	33
0.063	23

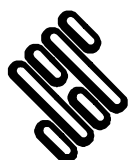
Particle Diameter (mm)	Percent Passing (%)
0.02	13
0.006	10
0.002	8
Sedimentation sample was not pre-treated	

Coefficients	
D ₁₀ (mm)	0.006
D ₁₅ (mm)	0.025
D ₃₀ (mm)	0.116
D ₅₀ (mm)	0.262
D ₆₀ (mm)	0.355
D ₈₅ (mm)	7.349
D ₉₀ (mm)	10.905
C _u	59
C _c	6

Soil Description:

Brown very gravelly clayey silty SAND

Key: C_u = Uniformity coefficient. C_c = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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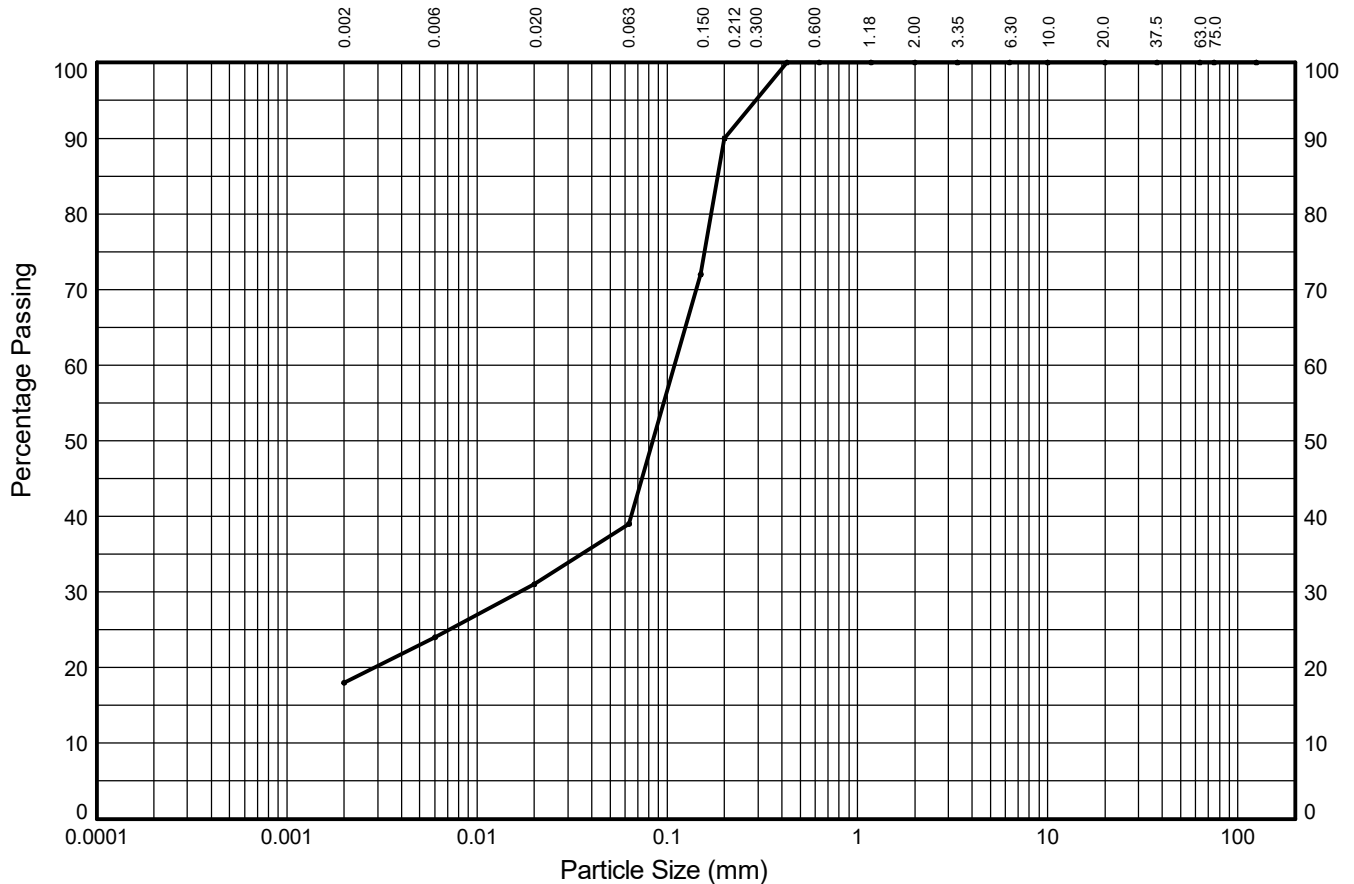
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

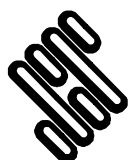
Trial Pit: **TP13** Sample Ref: **12** Sample Type: **B** Depth (m): **2.50**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	6%	7%	8%	51%	10%	0%	0%	0%	0%	
	SILT			SAND			GRAVEL			
18%	21%			61%			0%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	31	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.017
37.5	100	0.006	24	D ₅₀ (mm)	0.084
20.0	100			D ₆₀ (mm)	0.109
10.0	100			D ₈₅ (mm)	0.185
6.30	100	0.002	18	D ₉₀ (mm)	0.200
3.35	100			C _U	NA
2.00	100			C _C	NA
1.18	100	Sedimentation sample was not pre-treated			
0.630	100	Soil Description: Brown sandy clayey SILT			
0.425	100				
0.200	90				
0.150	72				
0.063	39				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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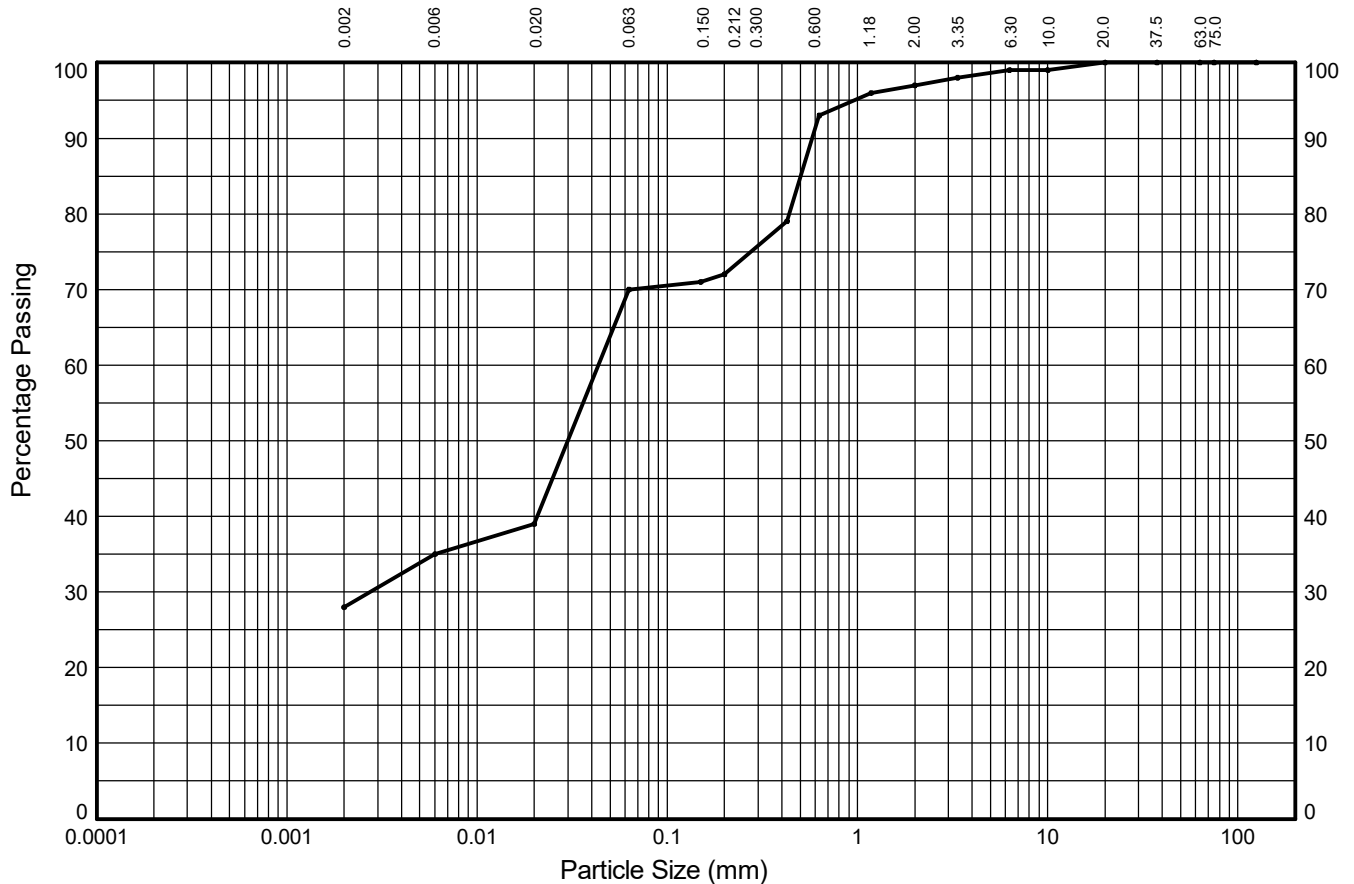
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

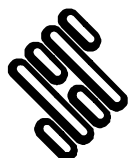
Trial Pit: **TP15** Sample Ref: **5** Sample Type: **B** Depth (m): **0.60**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	7%	4%	31%	2%	21%	4%	2%	1%	0%	
	SILT			SAND			GRAVEL			
28%	42%			27%			3%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	39	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.003
37.5	100	0.006	35	D ₅₀ (mm)	0.030
20.0	100			D ₆₀ (mm)	0.044
10.0	99			D ₈₅ (mm)	0.503
6.30	99	0.002	28	D ₉₀ (mm)	0.579
3.35	98			C _U	NA
2.00	97			C _C	NA
1.18	96	Sedimentation sample was not pre-treated			
0.630	93	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			
0.425	79				
0.200	72				
0.150	71				
0.063	70				

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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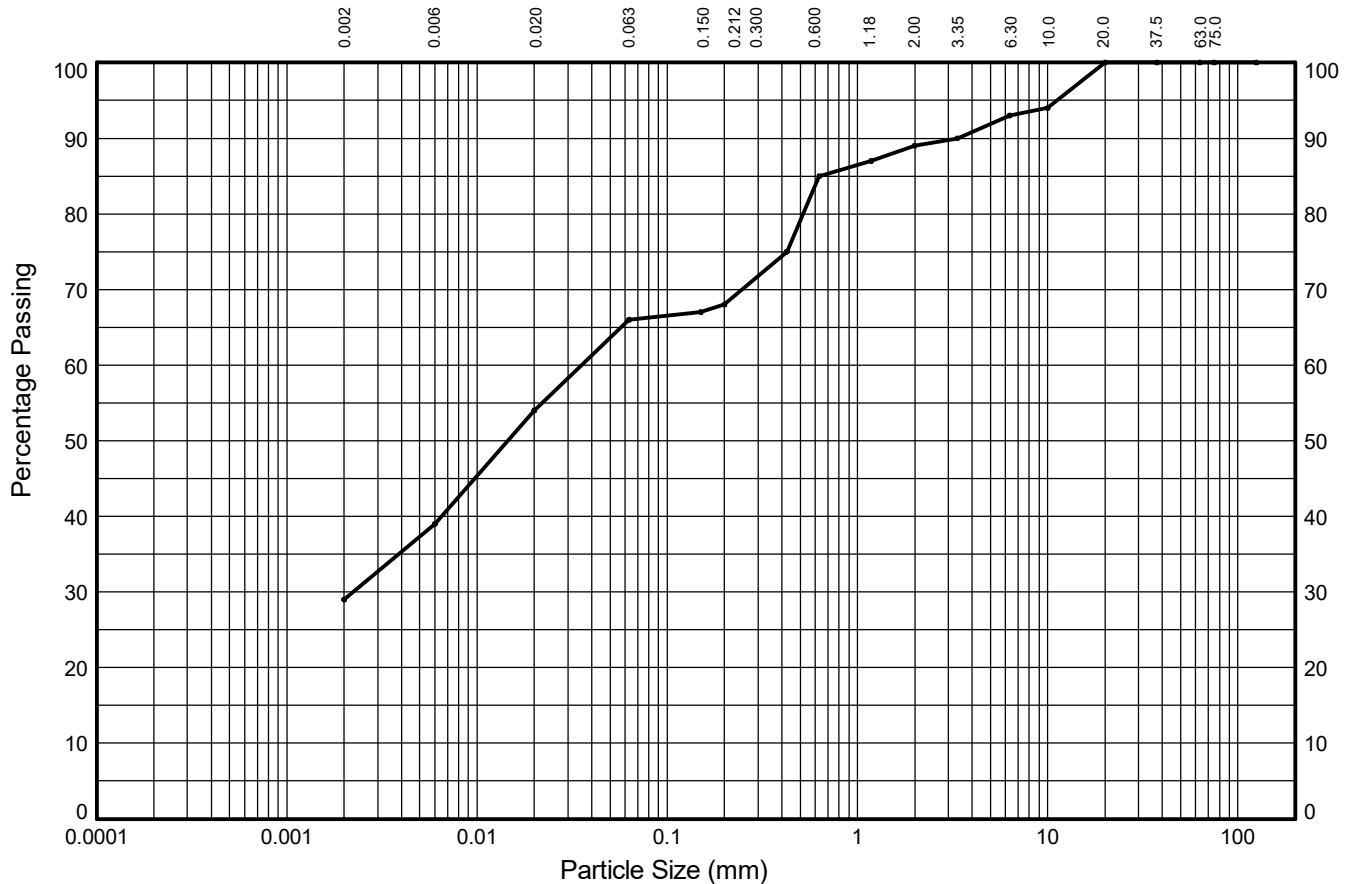
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

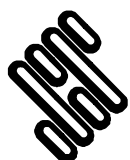
Trial Pit: **TP18** Sample Ref: **11** Sample Type: **LB** Depth (m): **1.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	10%	15%	12%	2%	17%	4%	4%	7%	0%	
	SILT			SAND			GRAVEL			
29%	37%			23%			11%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	54	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	0.002
37.5	100	0.006	39	D ₅₀ (mm)	0.015
20.0	100			D ₆₀ (mm)	0.035
10.0	94			D ₈₅ (mm)	0.630
6.30	93	0.002	29	D ₉₀ (mm)	3.350
3.35	90			C _U	NA
2.00	89			C _C	NA
1.18	87	Sedimentation sample was not pre-treated			
0.630	85				
0.425	75				
0.200	68				
0.150	67				
0.063	66	Soil Description: Brown slightly gravelly slightly sandy clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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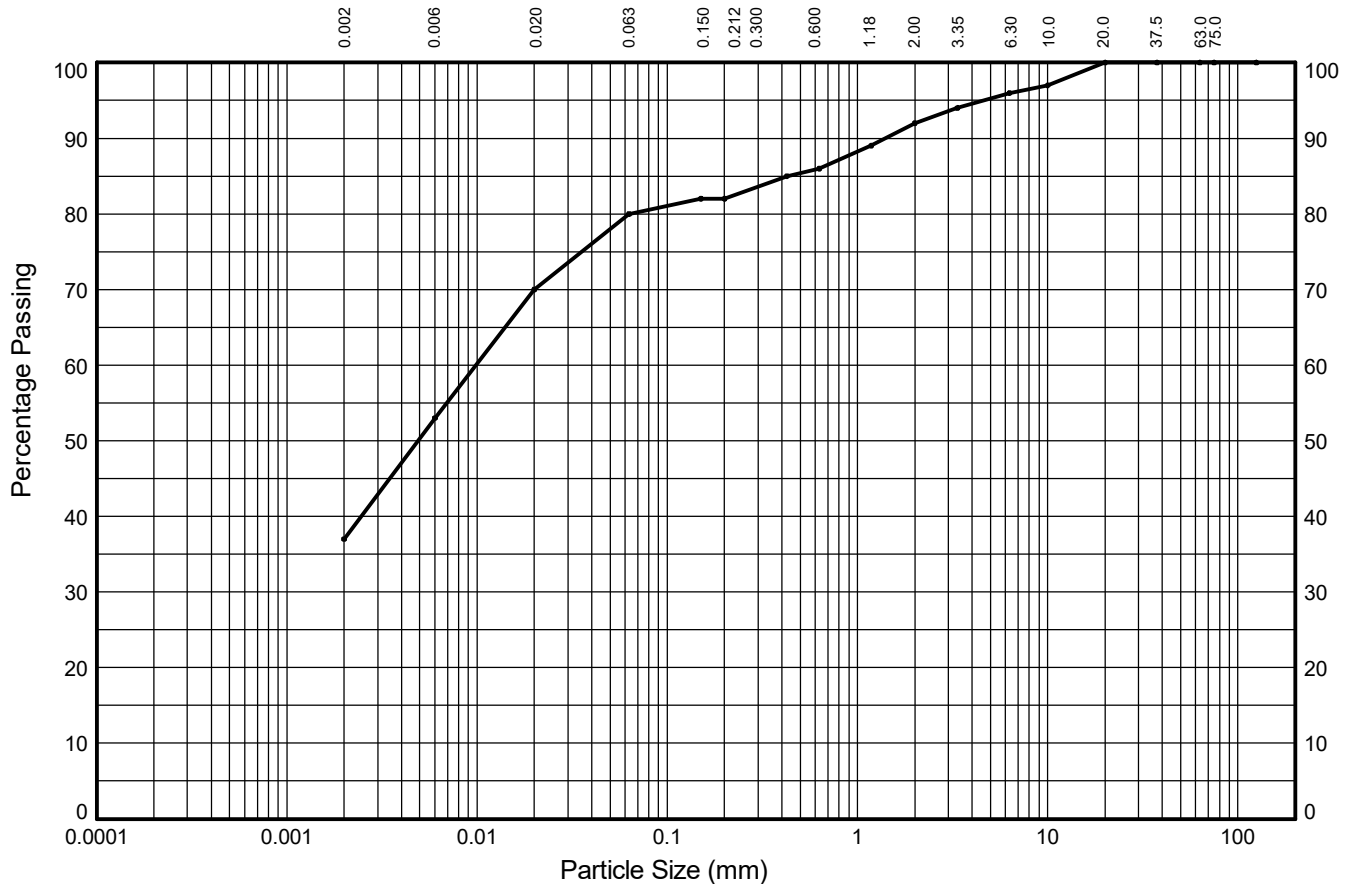
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PARTICLE SIZE DISTRIBUTION TEST

In accordance with clauses 5.2, 5.4 of BS EN ISO 17892:Part 4:2016

Trial Pit: **TP29** Sample Ref: **5** Sample Type: **D** Depth (m): **0.50**

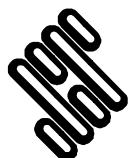


CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	16%	17%	10%	2%	4%	6%	4%	4%	0%	
	SILT			SAND			GRAVEL			
37%	43%			12%			8%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	70	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	NA
63.0	100			D ₃₀ (mm)	NA
37.5	100			D ₅₀ (mm)	0.005
20.0	100	0.006	53	D ₆₀ (mm)	0.010
10.0	97			D ₈₅ (mm)	0.425
6.30	96			D ₉₀ (mm)	1.407
3.35	94			C _U	NA
2.00	92	0.002	37	C _C	NA
1.18	89			Sedimentation sample was not pre-treated	
0.630	86				
0.425	85				
0.200	82				
0.150	82				
0.063	80				

Soil Description:
Brown slightly gravelly slightly sandy clayey SILT

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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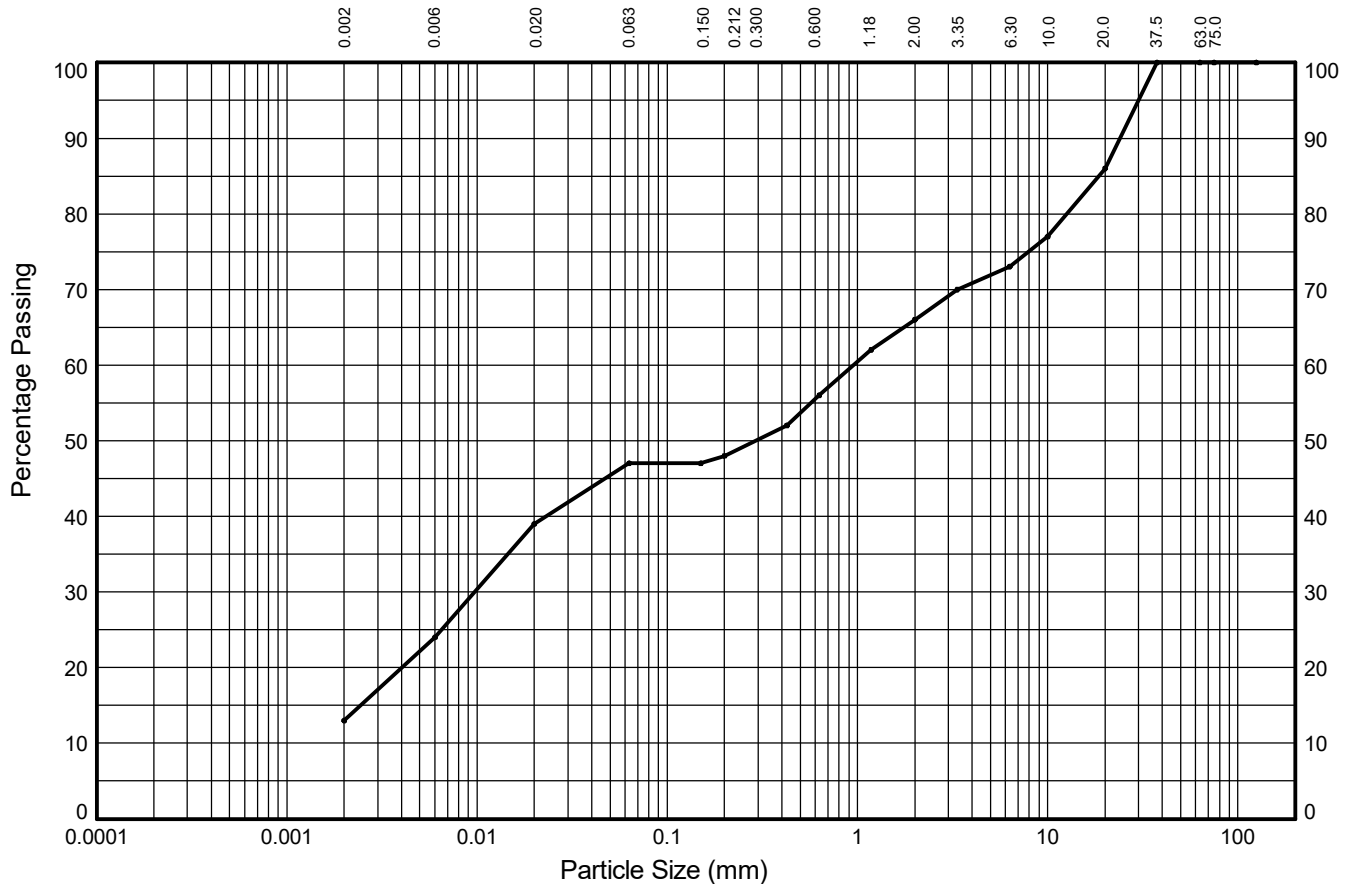
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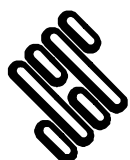
Trial Pit: **TP36** Sample Ref: **18** Sample Type: **B** Depth (m): **2.70**



CLAY	fine	medium	coarse	fine	medium	coarse	fine	medium	coarse	COBBLES
	11%	15%	8%	1%	8%	10%	7%	13%	14%	
	SILT			SAND			GRAVEL			
13%	34%			19%			34%			0%

Test Sieve (mm)	Percent Passing (%)	Particle Diameter (mm)	Percent Passing (%)	Coefficients	
125.0	100	0.02	39	D ₁₀ (mm)	NA
75.0	100			D ₁₅ (mm)	0.002
63.0	100			D ₃₀ (mm)	0.010
37.5	100	0.006	24	D ₅₀ (mm)	0.292
20.0	86			D ₆₀ (mm)	0.957
10.0	77			D ₈₅ (mm)	18.517
6.30	73	0.002	13	D ₉₀ (mm)	23.935
3.35	70			C _U	NA
2.00	66			C _C	NA
1.18	62	Sedimentation sample was not pre-treated			
0.630	56				
0.425	52				
0.200	48				
0.150	47				
0.063	47	Soil Description: Brown slightly sandy slightly gravelly clayey SILT			

Key: C_U = Uniformity coefficient. C_C = Coefficient of curvature as defined in BS EN ISO 14688-2:2018



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Contract Ref:

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SUMMARY OF PARTICLE DENSITY TESTS

In accordance with BS EN ISO 17892 - 3 : 2015

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Particle Density (Mg/m ³)	Test Type	Measured Water Density (Mg/m ³)	Description	Lab location
BH02	4	B	0.70	2.61	Liquid Pycnometer	0.9980	Brown red slightly gravelly slightly sandy CLAY with organic material	C
BH04	2	B	0.10	2.67	Liquid Pycnometer	0.9960	Brown slightly gravelly slightly sandy CLAY	C
BH05	4	B	0.50	2.62	Liquid Pycnometer	0.9980	Brown slightly gravelly slightly sandy CLAY	C
BH06	4	B	0.70	2.63	Liquid Pycnometer	0.9980	Brown slightly gravelly sandy CLAY	C
BH12	12	B	2.00	2.60	Liquid Pycnometer	0.9960	Brown slightly gravelly slightly sandy CLAY	C
BH13	19	B	4.00	2.66	Liquid Pycnometer	0.9980	Brown slightly gravelly slightly sandy CLAY	C
BH14	4	B	0.70	2.50	Liquid Pycnometer	0.9960	Brown red slightly gravelly sandy CLAY	C
BH15	21	B	5.00	2.65	Liquid Pycnometer	0.9980	Brown very sandy silty/clayey GRAVEL	C
BH19	18	B	4.00	2.73	Liquid Pycnometer	0.9970	Brown slightly gravelly slightly sandy CLAY	C
CP04	6	B	0.50	2.53	Liquid Pycnometer	0.9970	Brown slightly sandy slightly gravelly CLAY	C
CP08	4	B	1.00	2.67	Liquid Pycnometer	0.9970	Brown slightly gravelly clayey SAND	C
CP14	17	B	6.00	2.72	Liquid Pycnometer	0.9980	Brown red very gravelly CLAY	C
CP17	4	B	0.60	2.62	Liquid Pycnometer	0.9960	Brown slightly gravelly sandy CLAY	C
CP22	4	B	0.50	2.57	Liquid Pycnometer	0.9970	Brown slightly sandy slightly gravelly clayey SILT	C
CP28	8	B	1.20	2.51	Liquid Pycnometer	0.9970	Brown red slightly gravelly slightly sandy CLAY	C
TP01	8	LB	0.60	2.56	Liquid Pycnometer	0.9970	Brown slightly sandy slightly gravelly CLAY	C
TP04	9	B	2.00	2.57	Liquid Pycnometer	0.9960	Brown gravelly sandy CLAY with organic material	C
TP07	11	B	1.30	2.68	Liquid Pycnometer	0.9970	Brown slightly sandy slightly gravelly CLAY	C

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
			20.03.23	
	Contract: EMG Phase 2			

SUMMARY OF PARTICLE DENSITY TESTS

In accordance with BS EN ISO 17892 - 3 : 2015

Exploratory Position ID	Sample Ref	Sample Type	Depth (m)	Particle Density (Mg/m ³)	Test Type	Measured Water Density (Mg/m ³)	Description	Lab location
TP08	8	LB	1.50	2.43	Liquid Pycnometer	0.9980	Brown slightly sandy gravelly CLAY	C
TP09	10	D	3.30	2.61	Liquid Pycnometer	0.9980	Brown slightly gravelly slightly sandy CLAY	C
TP10	14	LB	2.10	2.61	Liquid Pycnometer	0.9980	Brown slightly sandy gravelly CLAY	C
TP14	10	B	2.50	2.71	Liquid Pycnometer	0.9960	Brown red slightly sandy gravelly CLAY	C
TP22	5	B	0.50	2.54	Liquid Pycnometer	0.9960	Brown slightly gravelly slightly sandy CLAY	C
TP24	11	B	1.20	2.69	Liquid Pycnometer	0.9970	Brown slightly sandy slightly gravelly CLAY	C
TP27	13	B	2.60	2.67	Liquid Pycnometer	0.9980	Brown red slightly gravelly sandy CLAY	C
TP28	5	B	0.50	2.65	Liquid Pycnometer	0.9980	Brown slightly gravelly slightly sandy CLAY	C
TP28	7	D	1.10	2.64	Liquid Pycnometer	0.9960	Brown red slightly gravelly slightly sandy CLAY	C
TP36	12	B	1.10	2.61	Liquid Pycnometer	0.9980	Brown red slightly gravelly slightly sandy CLAY	C

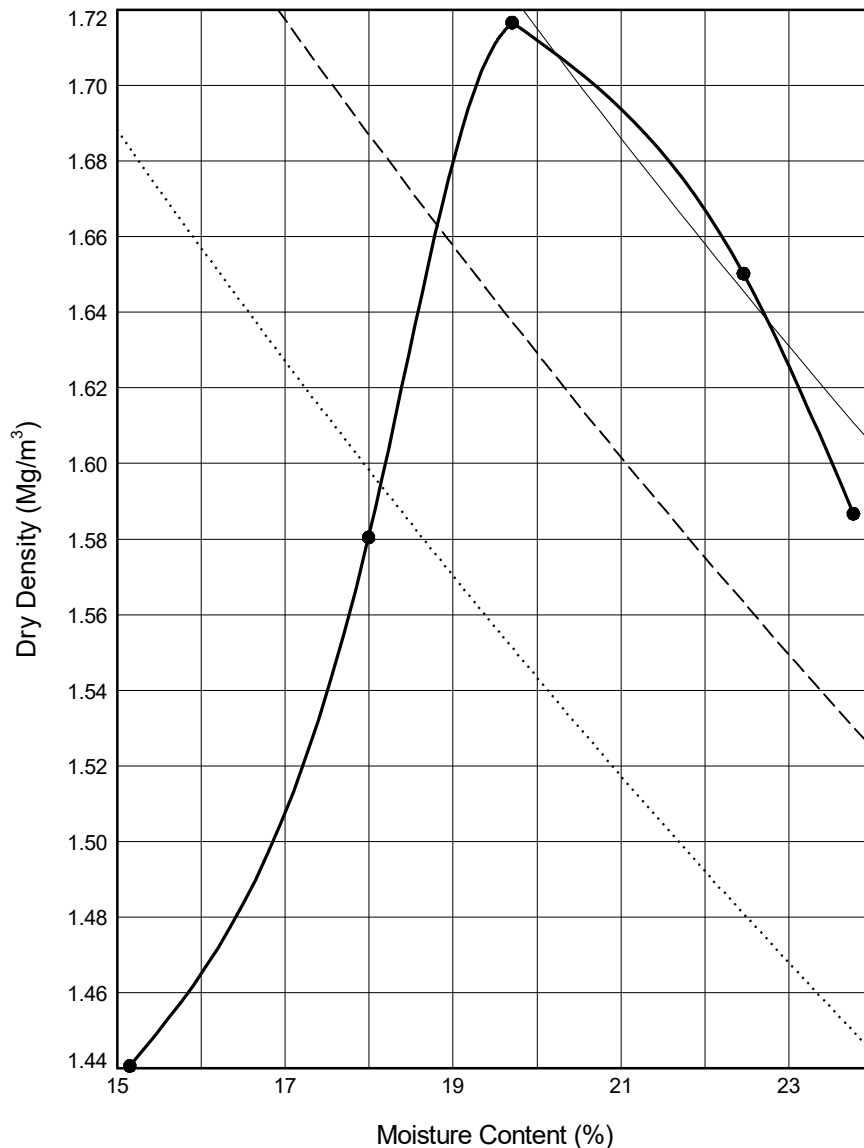
Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date	Contract Ref: 765514
	 LORNA WHITWORTH		20.03.23	
	Contract: EMG Phase 2			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH02** Sample Ref: **4** Sample Type: **B** Depth (m): **0.70**



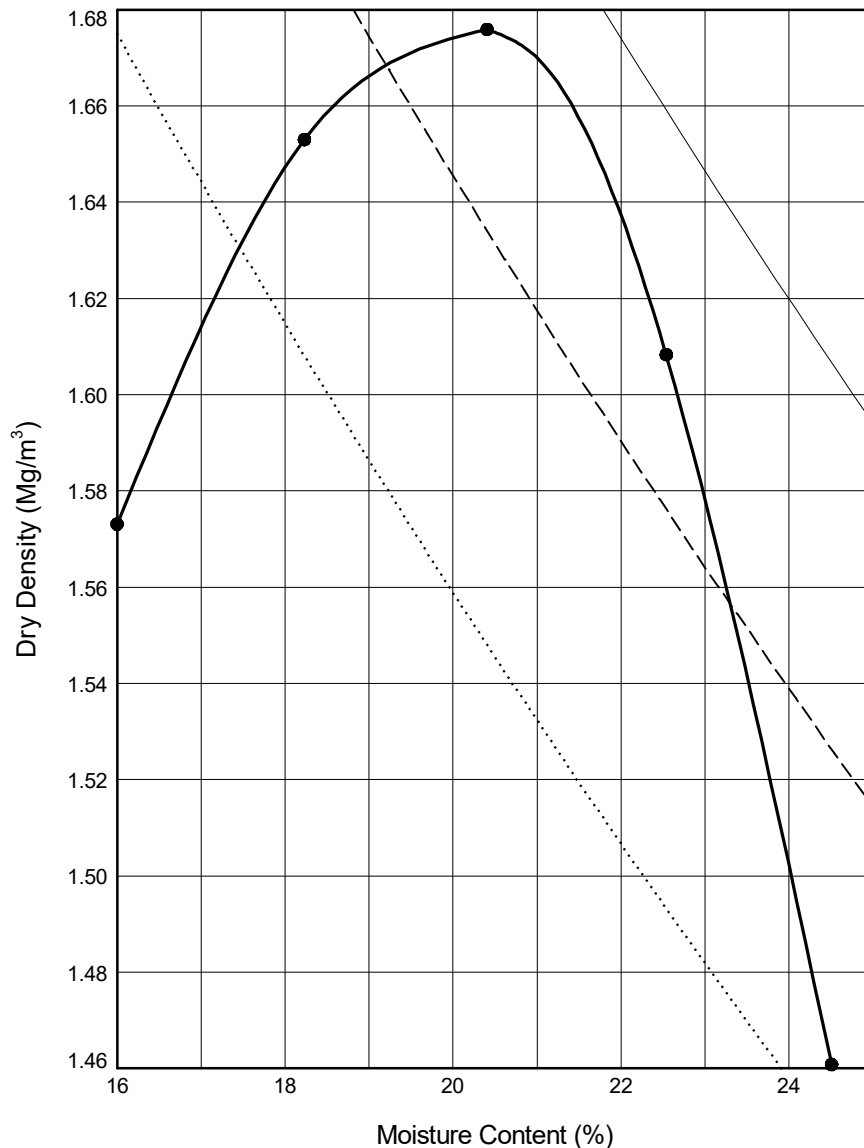
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 18	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.72
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 20
% Retained on 20.0mm BS Sieve : 0	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.61		Remarks:
Size of Soil Pieces : <20mm	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Brown red slightly gravelly slightly sandy CLAY with organic material		———— 0% - - - - 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH03** Sample Ref: **8** Sample Type: **B** Depth (m): **1.00**



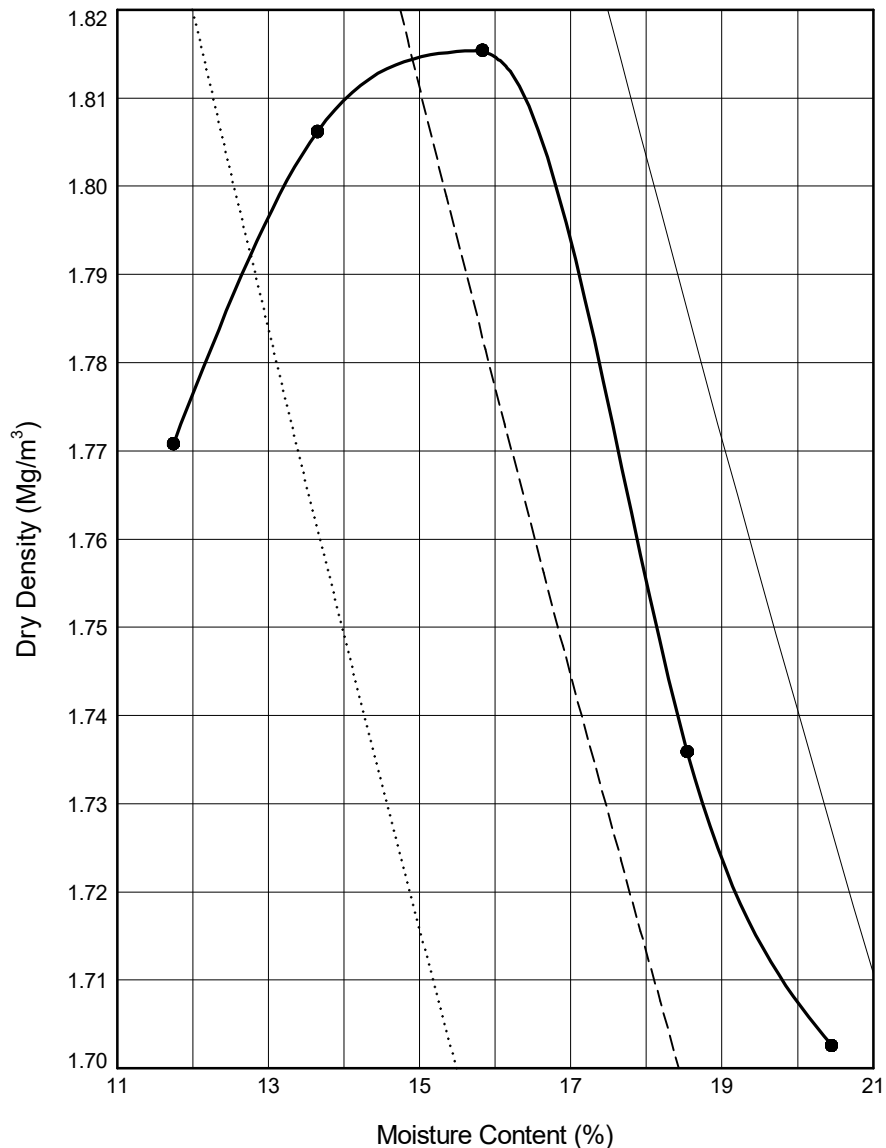
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 16	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.68
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 20
% Retained on 20.0mm BS Sieve	: 4	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly sandy slightly gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH04** Sample Ref: **2** Sample Type: **B** Depth (m): **0.10**



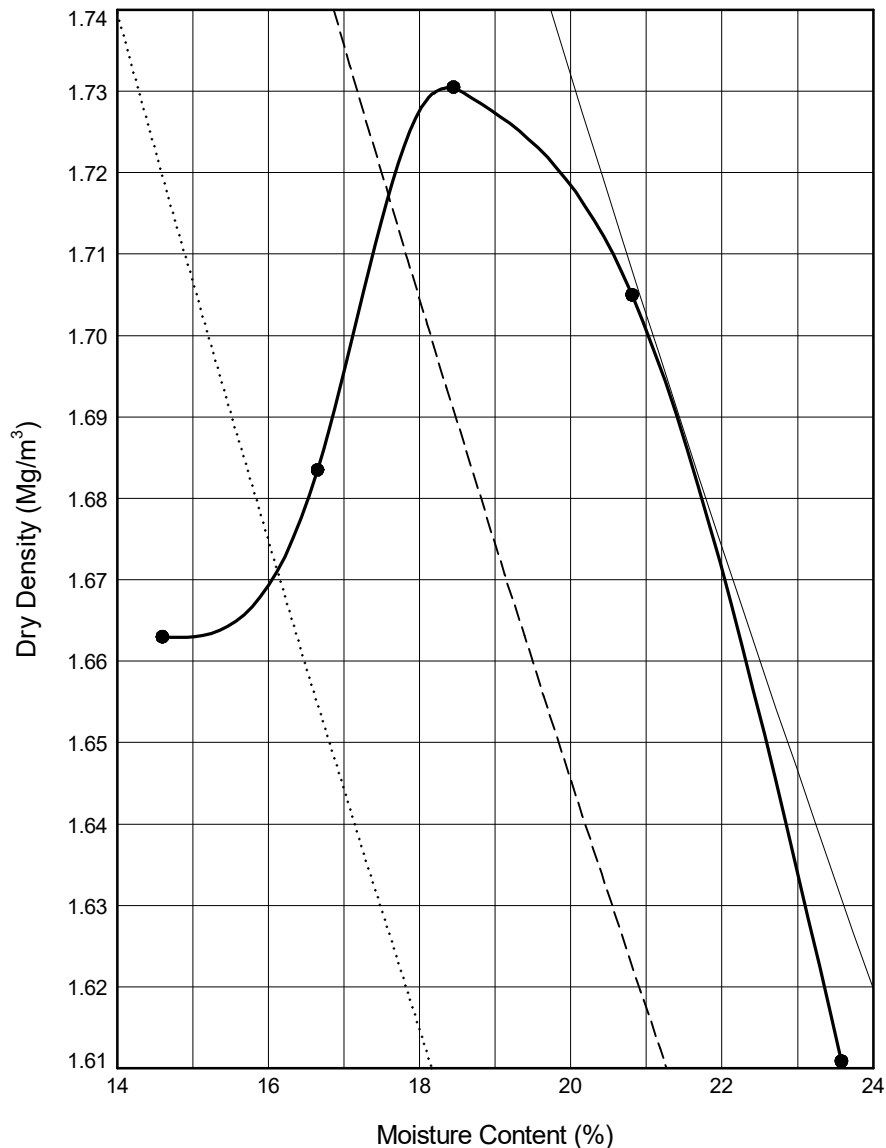
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 14	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.82
% Retained on 37.5mm BS Sieve	: 5	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 16
% Retained on 20.0mm BS Sieve	: 4	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.67	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH04** Sample Ref: **13** Sample Type: **B** Depth (m): **3.00**



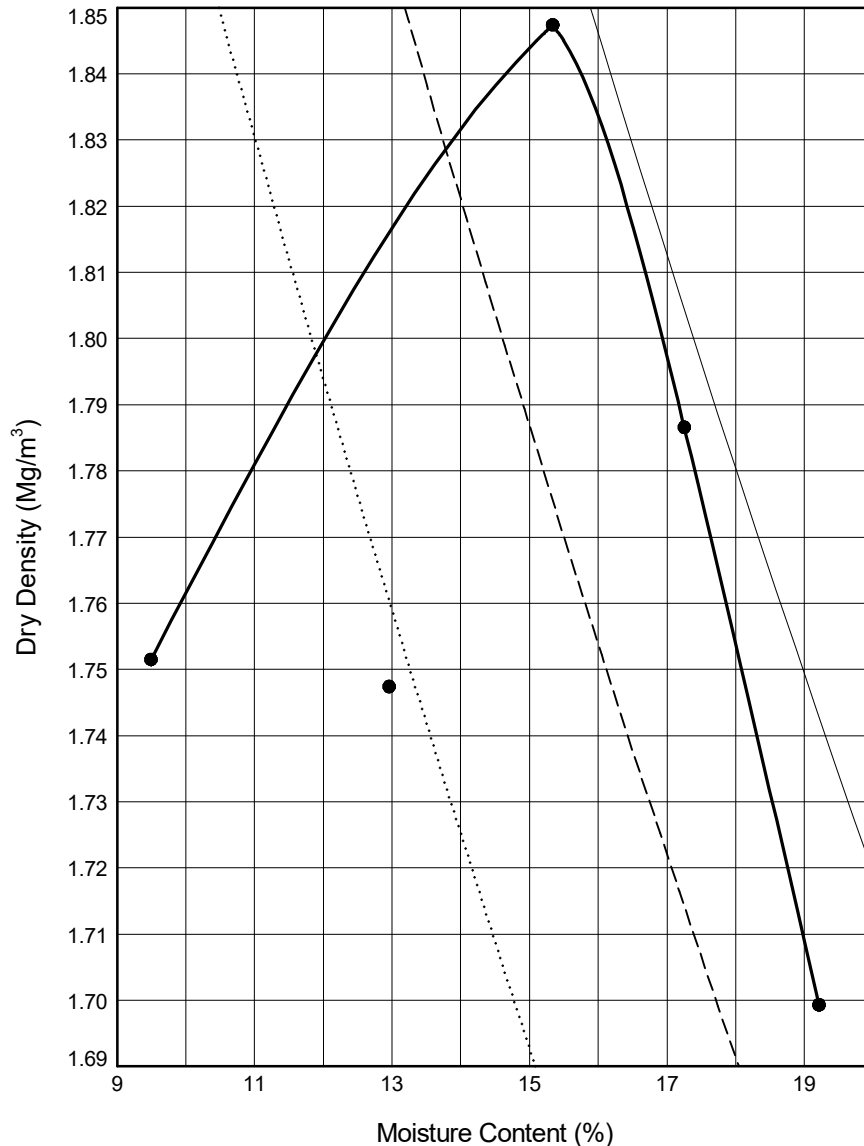
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.73
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 1	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH05** Sample Ref: **3** Sample Type: **D** Depth (m): **0.50**



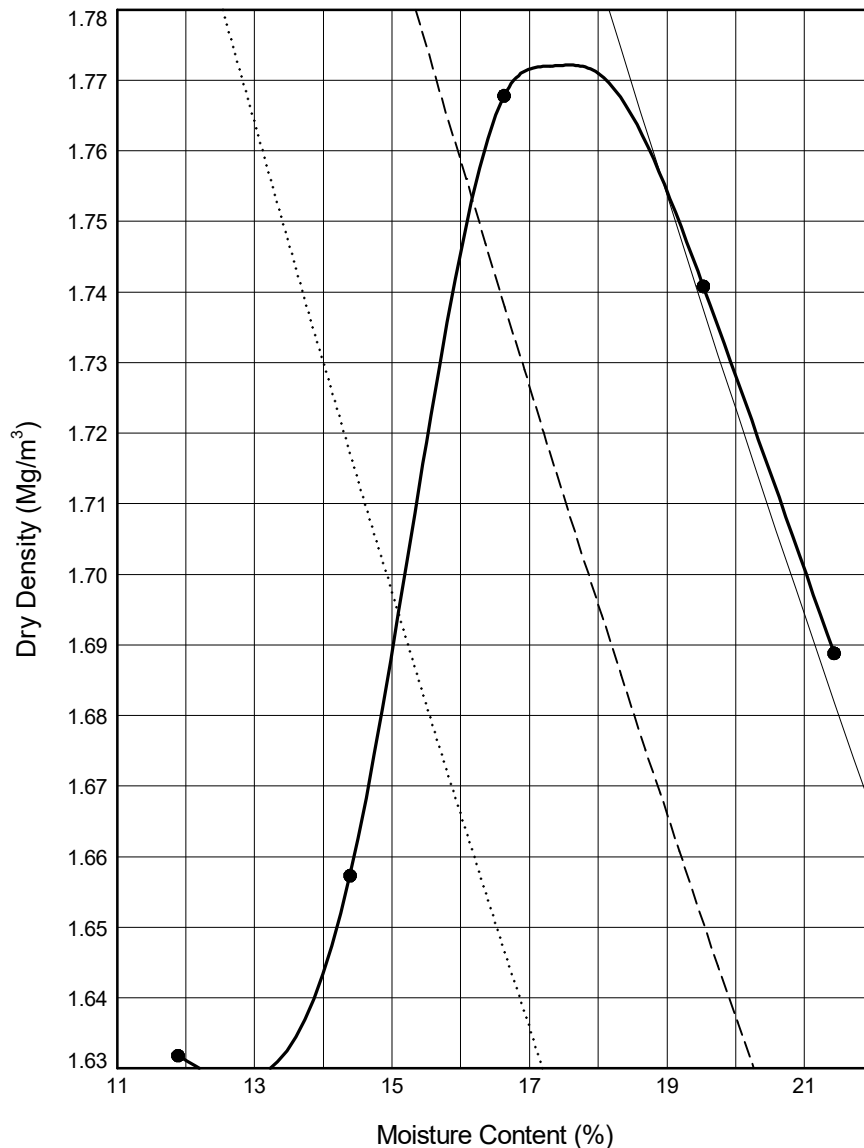
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 15	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.85
% Retained on 37.5mm BS Sieve : 7	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 15
% Retained on 20.0mm BS Sieve : 2	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.62		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly gravelly slightly sandy CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH06** Sample Ref: **4** Sample Type: **B** Depth (m): **0.70**



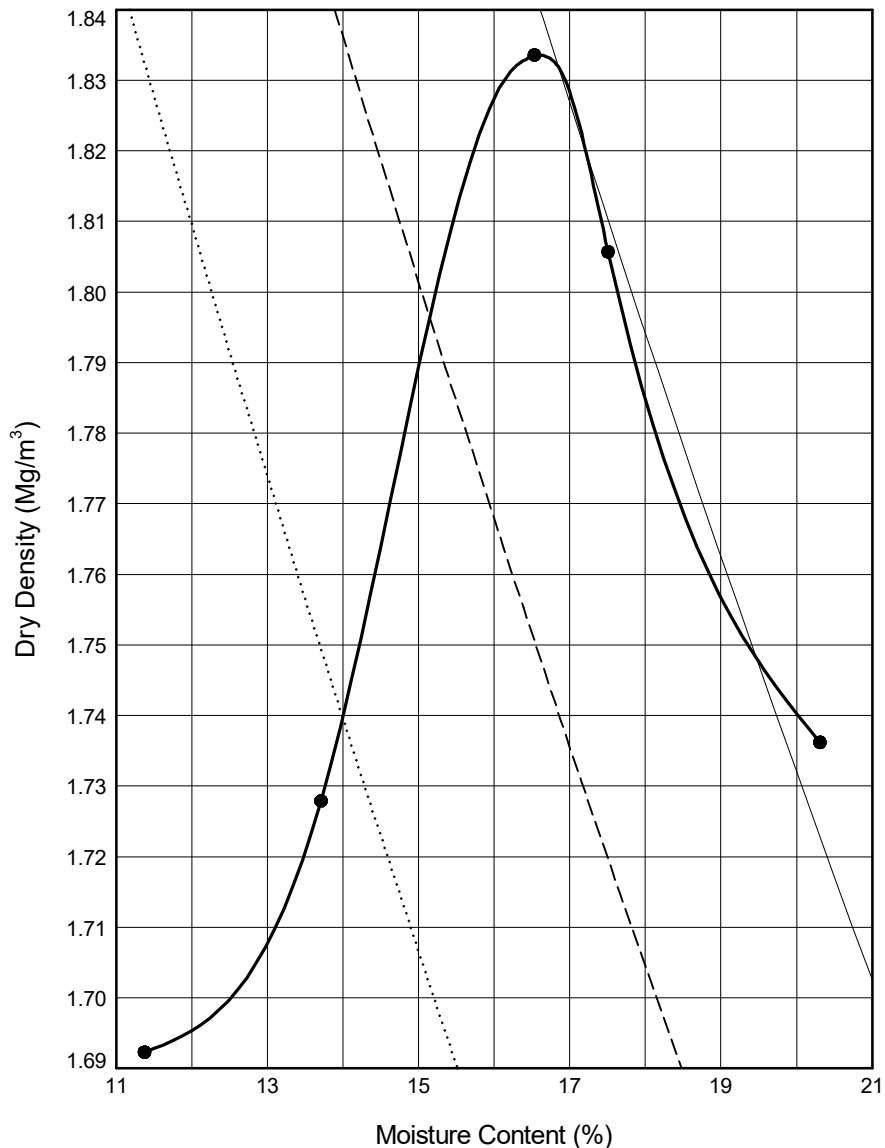
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 17	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.77
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 1	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.63	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH06** Sample Ref: **18** Sample Type: **B** Depth (m): **4.00**



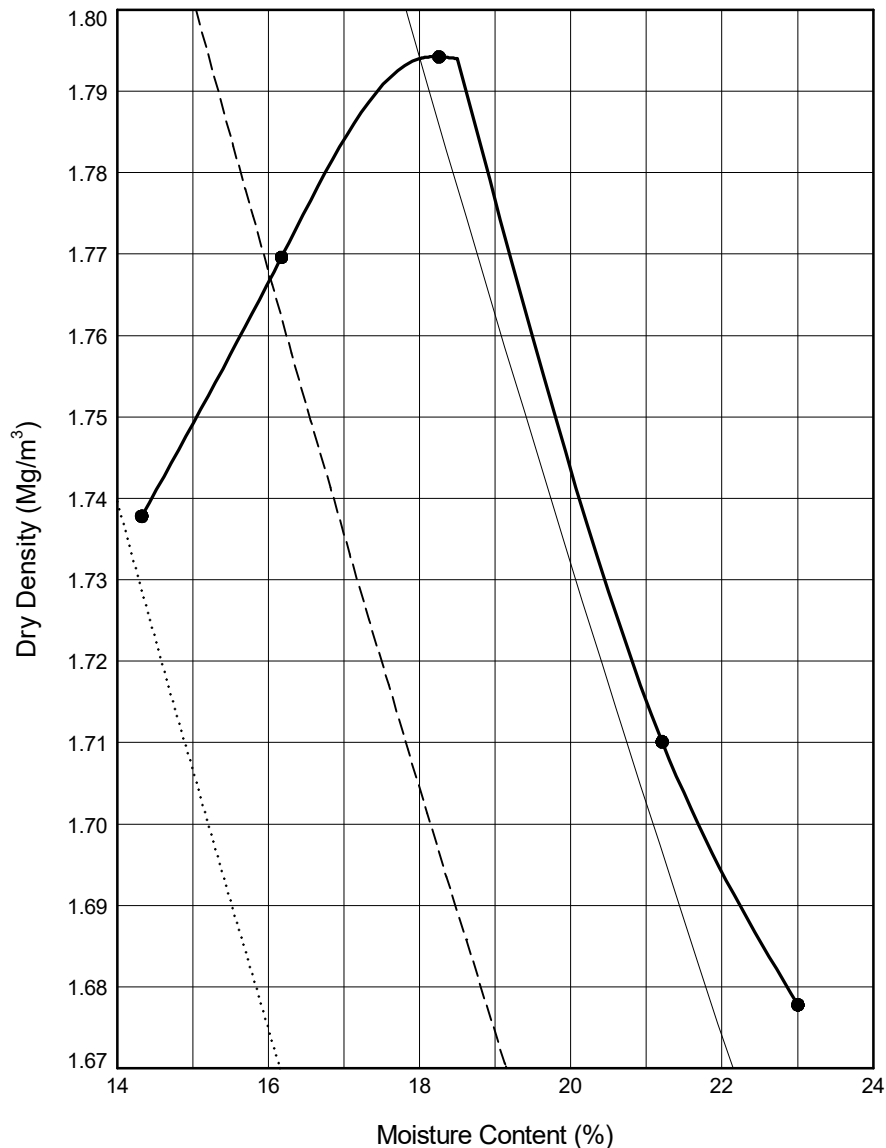
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 18	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.83
% Retained on 37.5mm BS Sieve	: 5	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 3	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly CLAY					
			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH07** Sample Ref: **13** Sample Type: **B** Depth (m): **1.20**



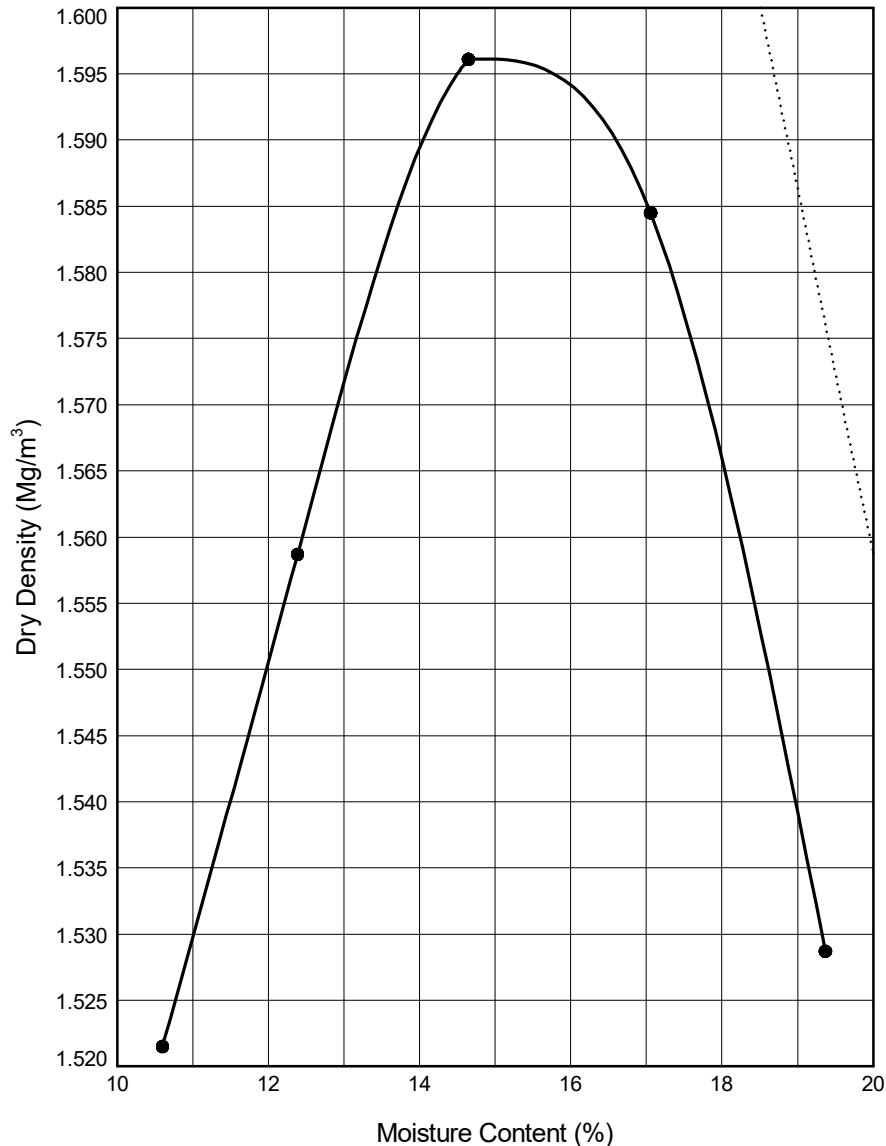
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 18	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.79
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Red brown slightly sandy slightly gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LUKE FISHER		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH10** Sample Ref: **3** Sample Type: **B** Depth (m): **0.30**



Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 11	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.60
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 16
% Retained on 20.0mm BS Sieve	: 8	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly CLAY					
			———— 0%	— — — — 5%	 10%

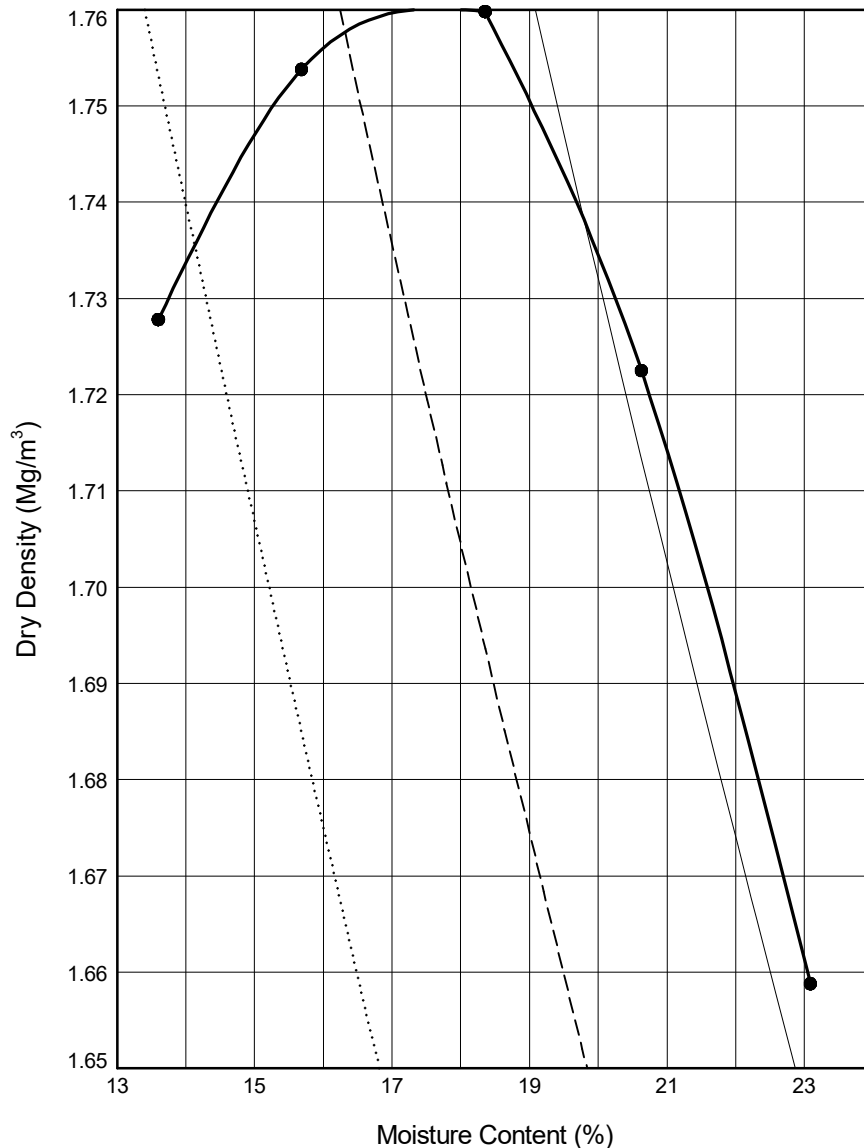
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990

NON-STANDARD TEST

Borehole: **BH12** Sample Ref: **12** Sample Type: **B** Depth (m): **2.00**



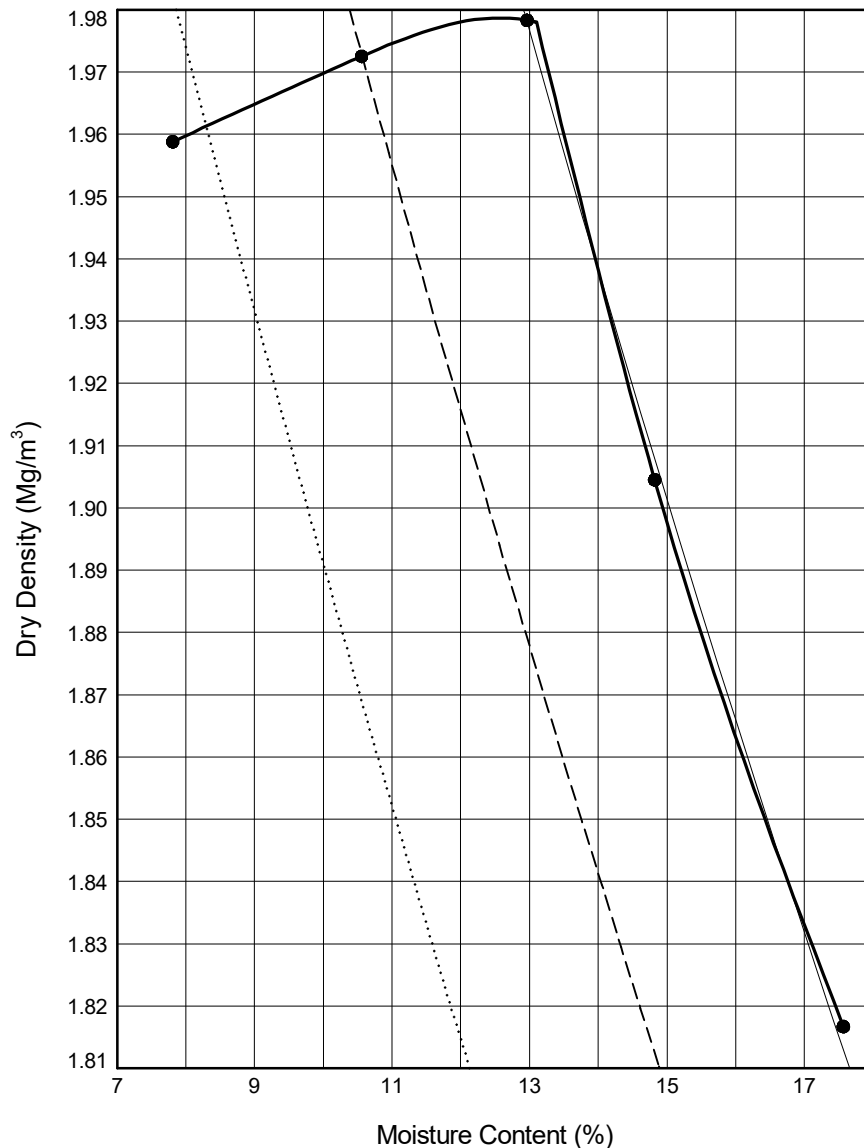
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.76
% Retained on 37.5mm BS Sieve	: 5	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 2	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH13** Sample Ref: **19** Sample Type: **B** Depth (m): **4.00**



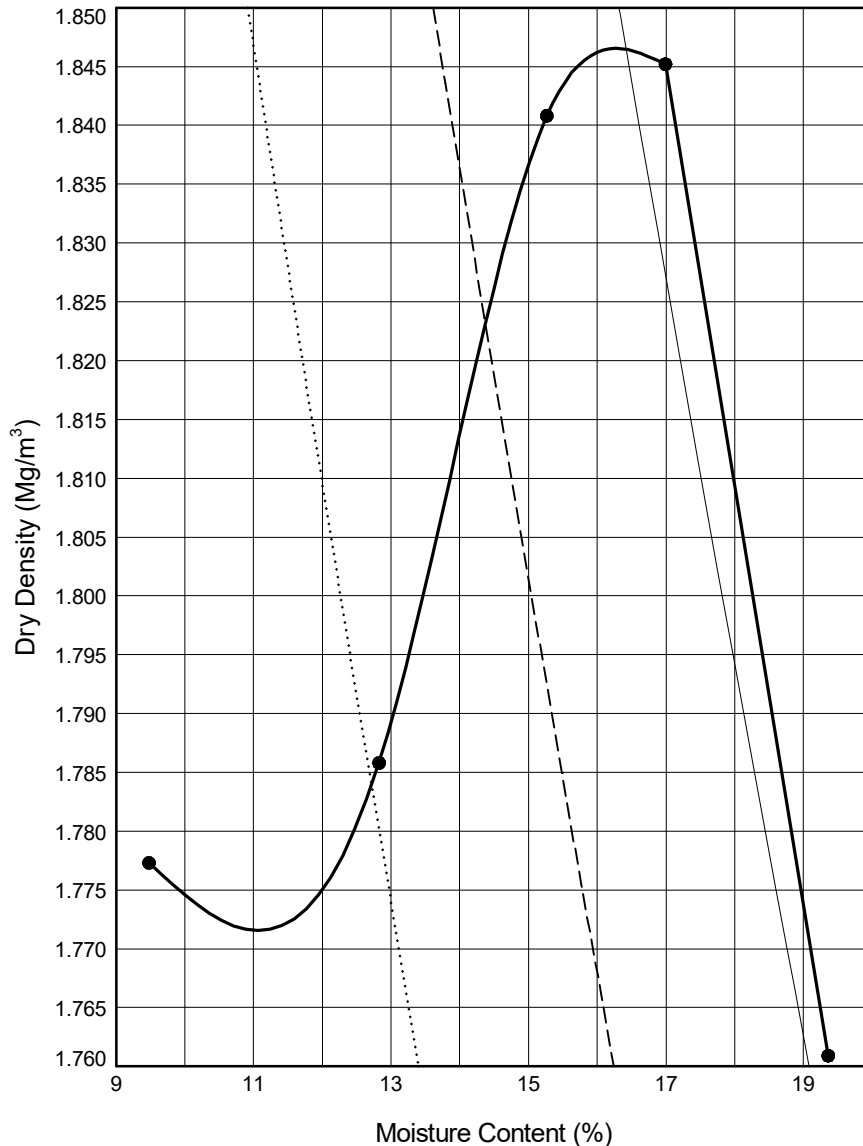
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 15	Compaction Type : Heavy	Maximum Dry Density (Mg/m³) : 1.98
% Retained on 37.5mm BS Sieve : 9	Mass of Rammer (kg): 4.5	Optimum Moisture Content (%) : 13
% Retained on 20.0mm BS Sieve : 4	Type of Mould : 1 LITRE	Method Used: Clause 3.5
Particle Density - measured (Mg/m³) : 2.66		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly gravelly slightly sandy CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH13** Sample Ref: **30** Sample Type: **B** Depth (m): **7.50**



Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 17	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.85
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 16
% Retained on 20.0mm BS Sieve	: 3	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

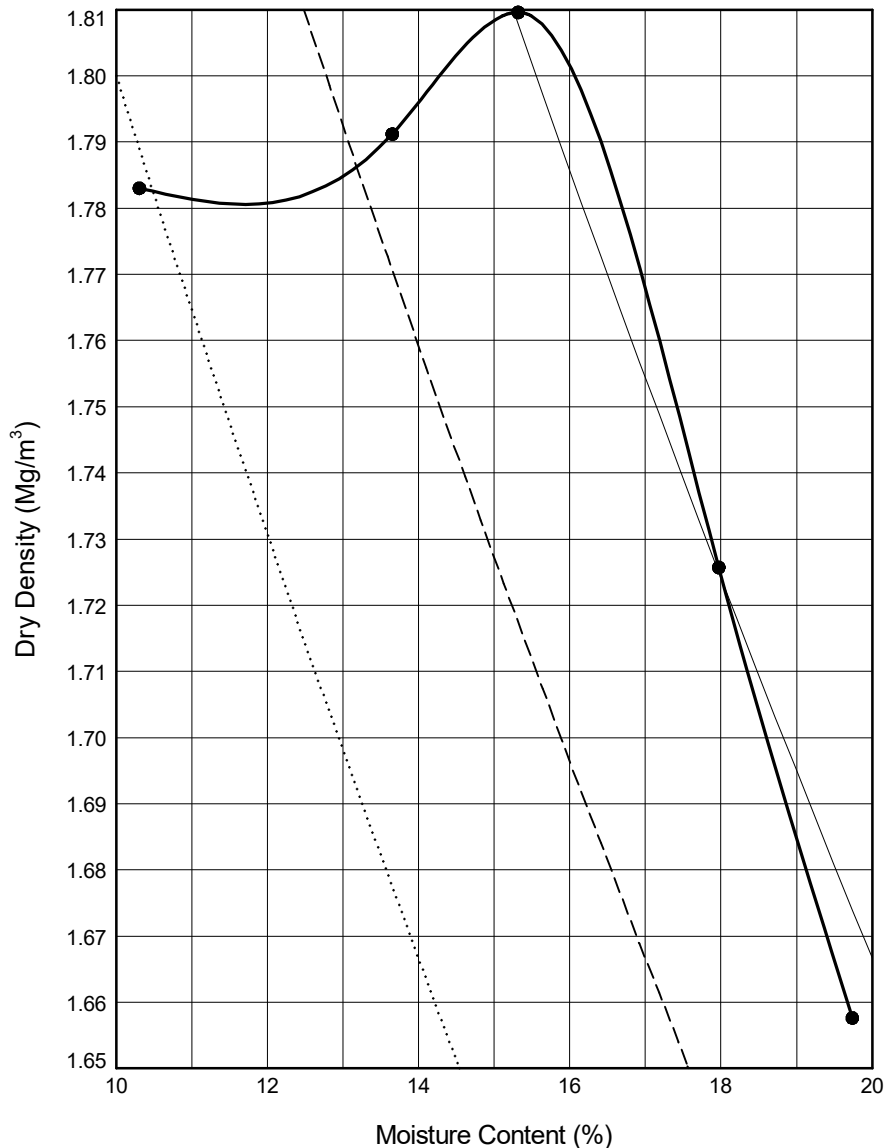
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

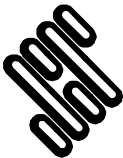
In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990

NON-STANDARD TEST

Borehole: **BH14** Sample Ref: **4** Sample Type: **B** Depth (m): **0.70**



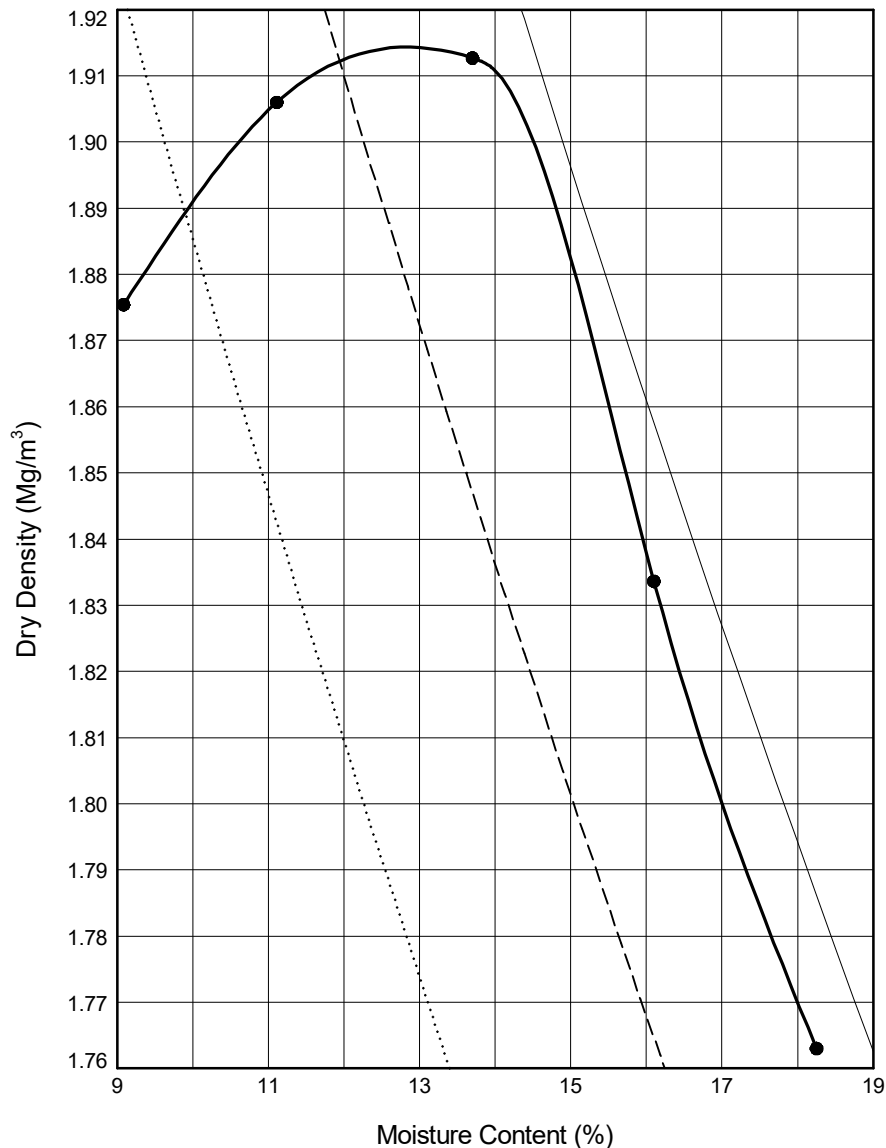
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 15	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.81
% Retained on 37.5mm BS Sieve	: 2	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 15
% Retained on 20.0mm BS Sieve	: 8	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.50	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH14** Sample Ref: **23** Sample Type: **B** Depth (m): **5.00**



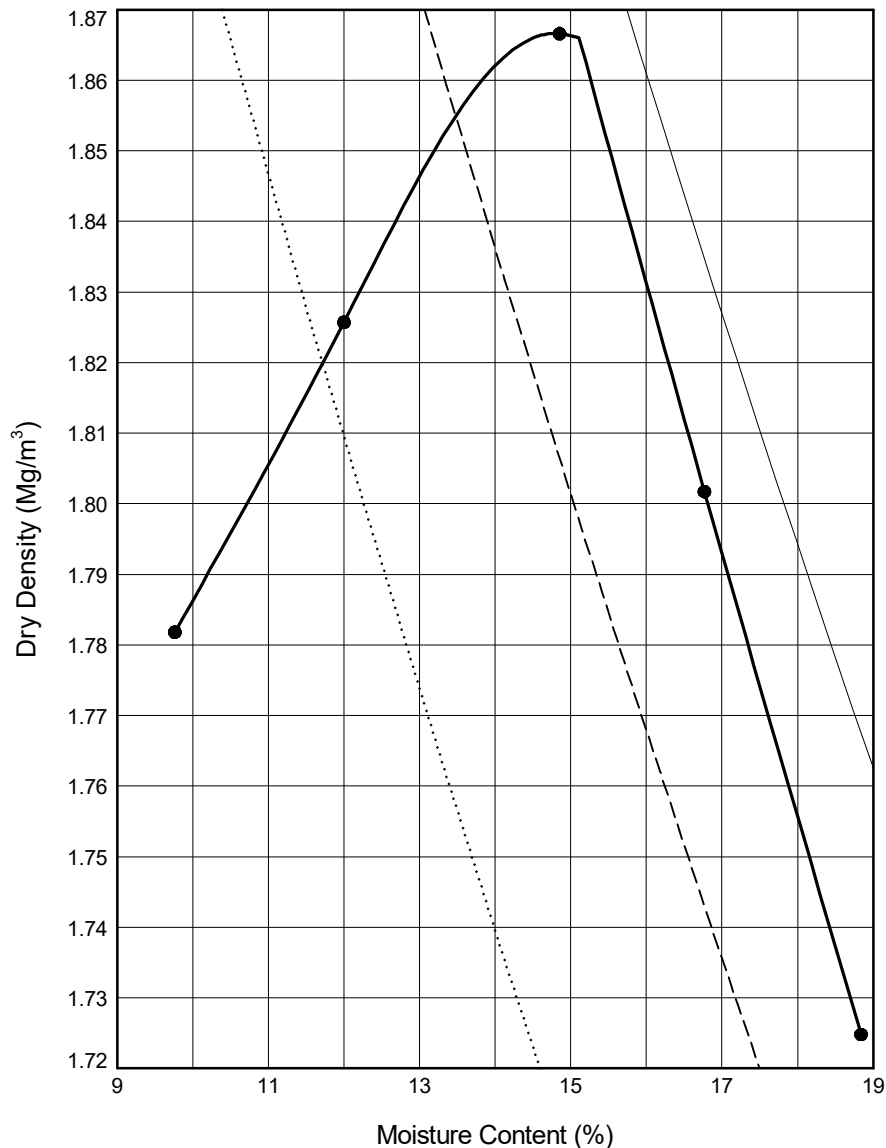
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 16	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.92
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 13
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly silty CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

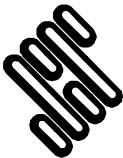
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH15** Sample Ref: **4** Sample Type: **B** Depth (m): **0.70**



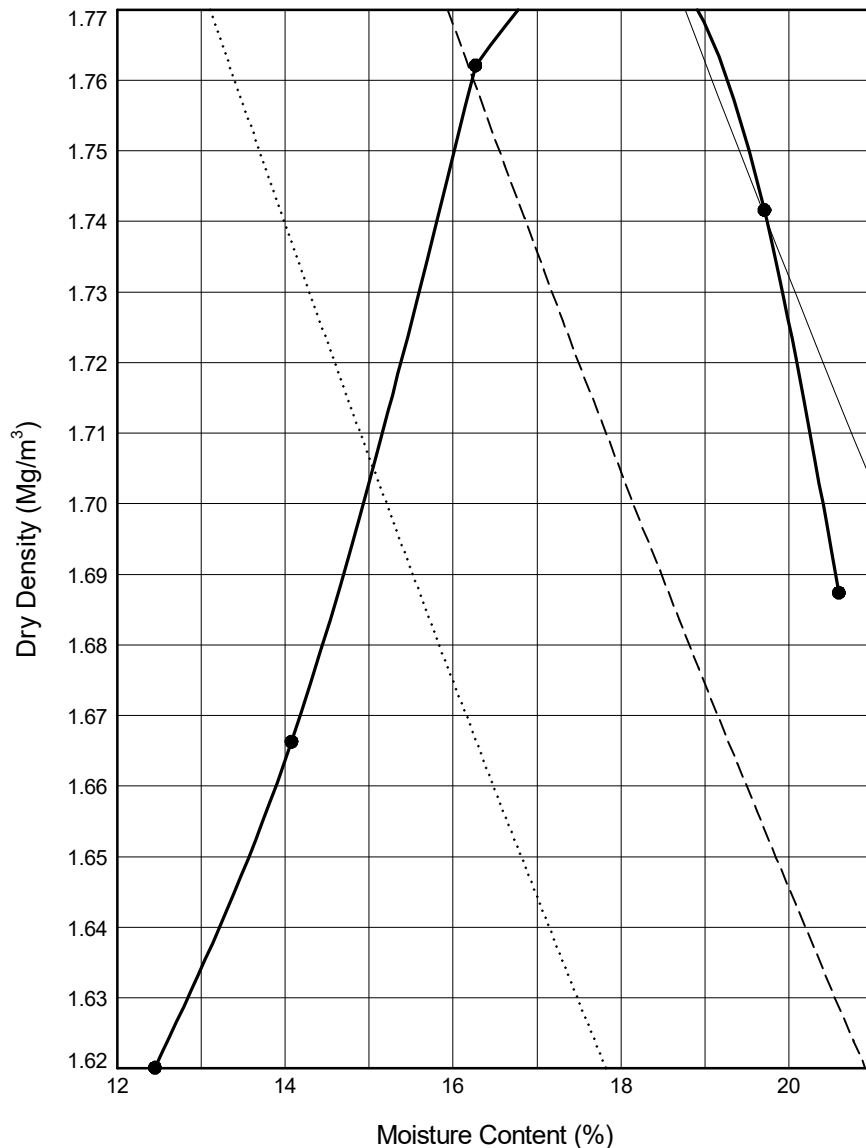
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 12	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.87
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 15
% Retained on 20.0mm BS Sieve	: 2	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly sandy slightly gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH15** Sample Ref: **21** Sample Type: **B** Depth (m): **5.00**



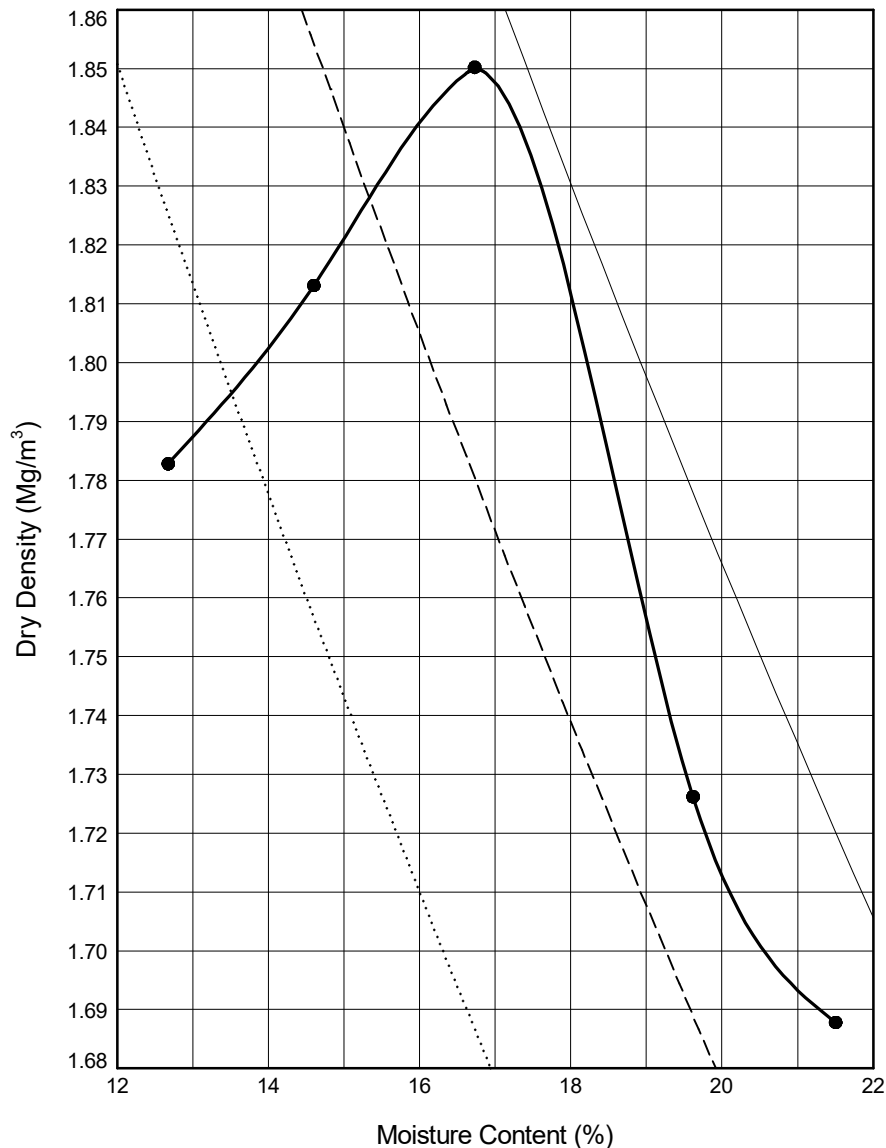
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 16	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.78
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 18
% Retained on 20.0mm BS Sieve : 0	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown very sandy silty/clayey GRAVEL		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH19** Sample Ref: **18** Sample Type: **B** Depth (m): **4.00**



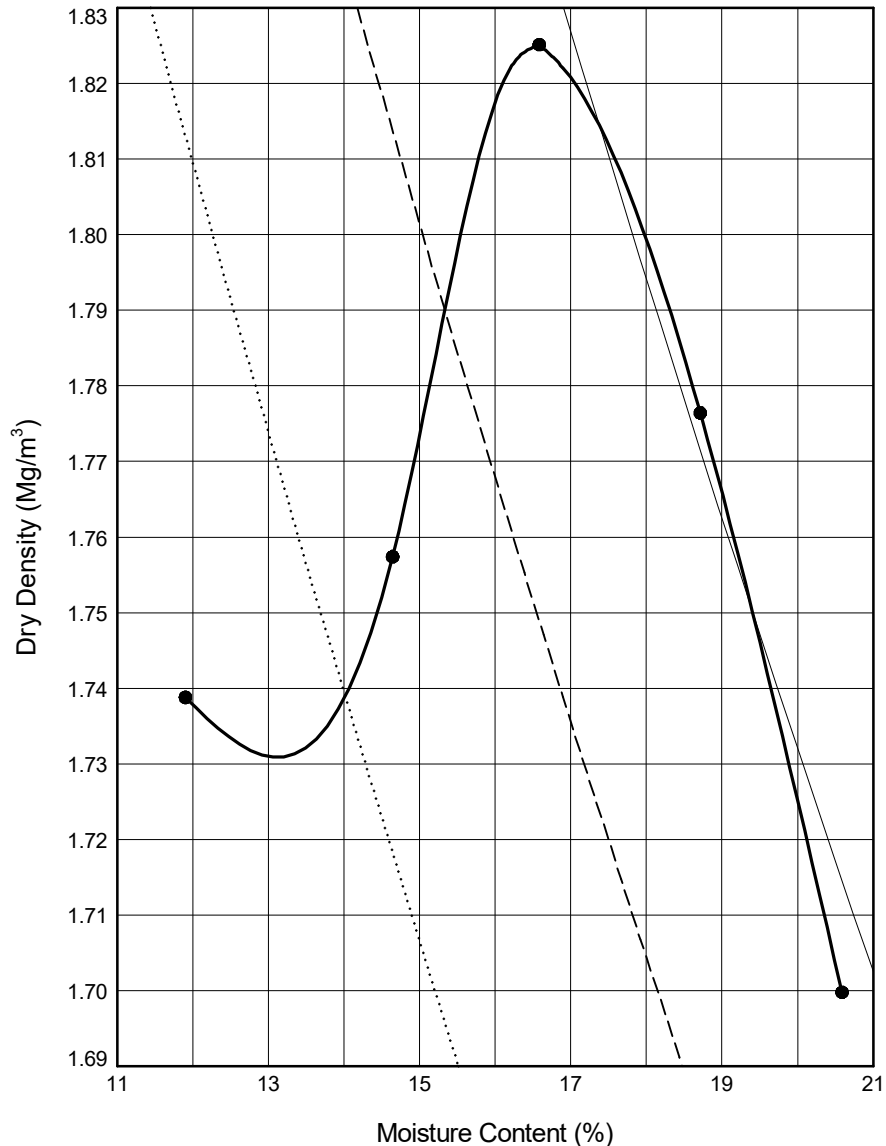
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 17	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.85
% Retained on 37.5mm BS Sieve	: 1	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 1	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.73	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract		Contract Ref:
EMG Phase 2		765514	
			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Borehole: **BH20** Sample Ref: **12** Sample Type: **B** Depth (m): **1.60**



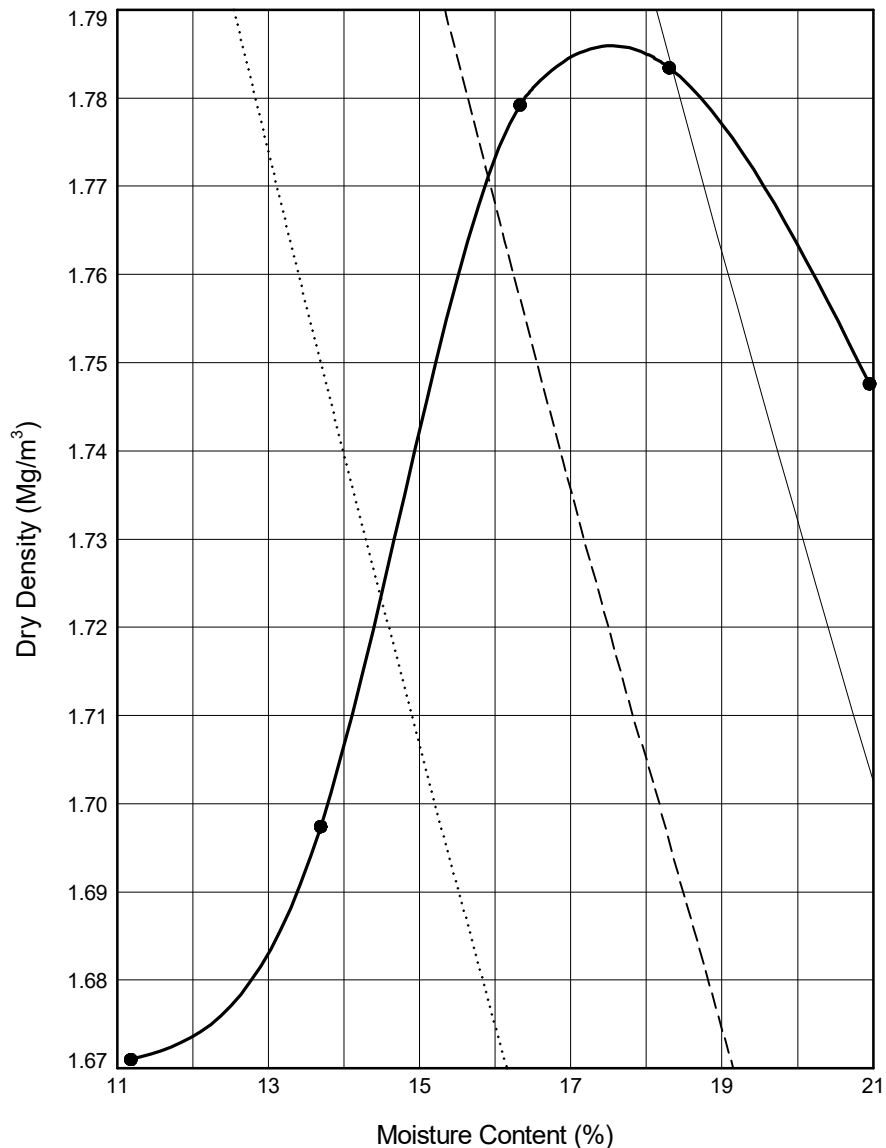
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 19	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.83
% Retained on 37.5mm BS Sieve	: 3	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 1	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH21** Sample Ref: **15** Sample Type: **DSPT** Depth (m): **3.00**



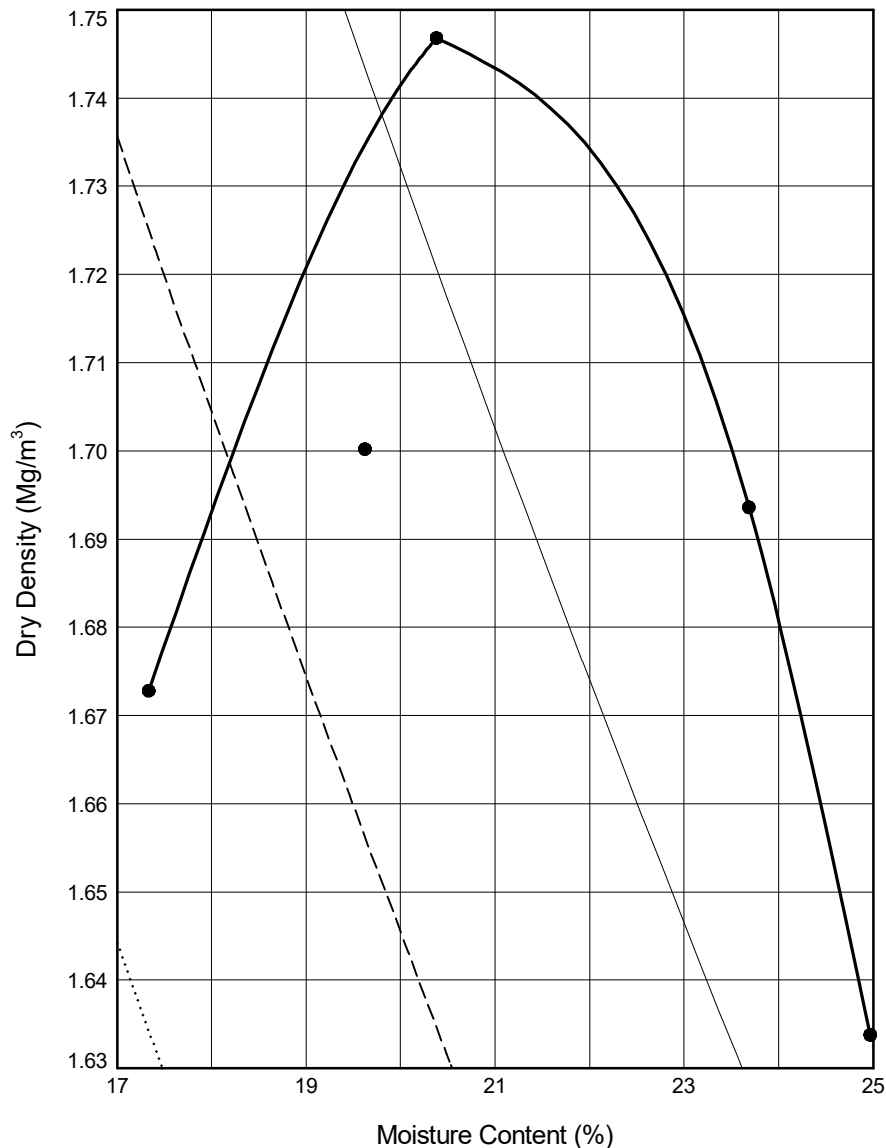
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.79
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 2	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20mm				
Sample Description				Key to Air Voids Lines	
Brown red slightly sandy slightly gravelly clayey SILT				———— 0%	— — — — 5%
				 10%	

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Borehole: **BH23** Sample Ref: **14** Sample Type: **B** Depth (m): **2.50**



Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 25	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.75
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 20
% Retained on 20.0mm BS Sieve : 7	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Red brown slightly gravelly slightly sandy CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

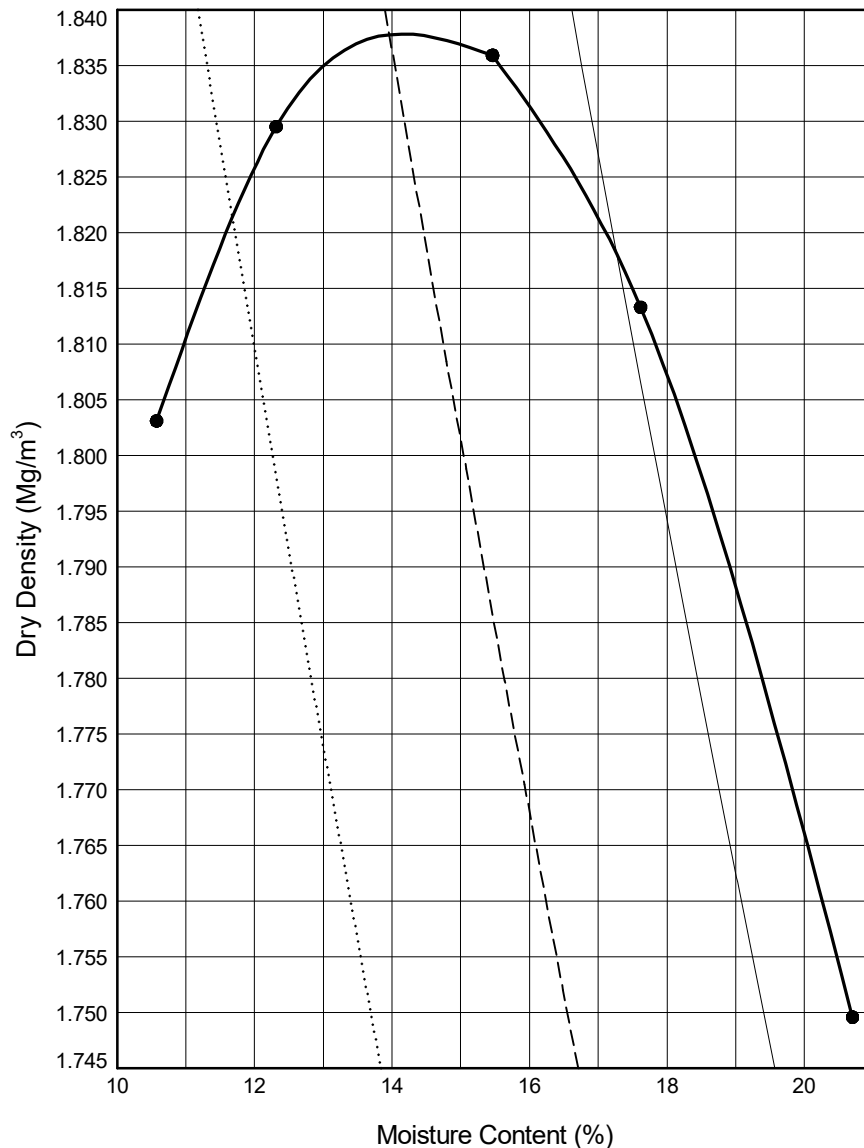
In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP03**

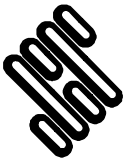
Sample Ref: **14**

Sample Type: **B**

Depth (m): **2.60**



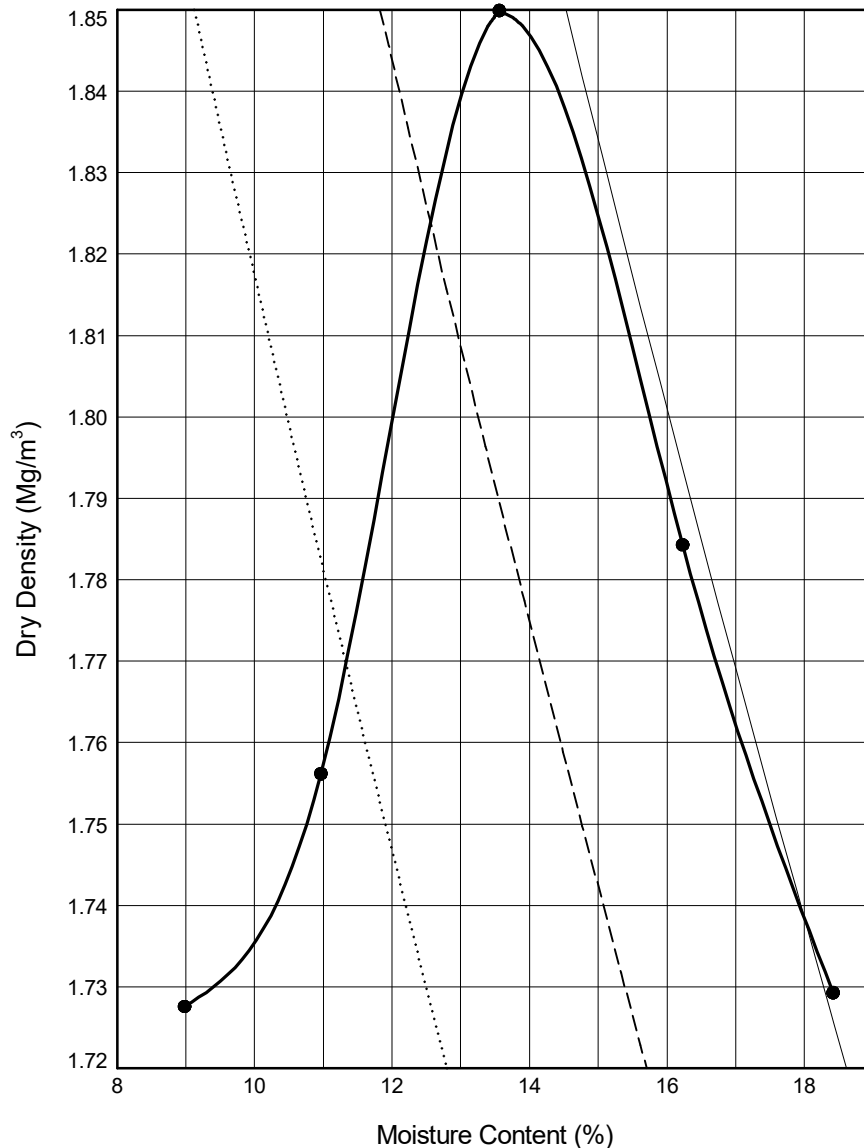
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 18	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.84
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 14
% Retained on 20.0mm BS Sieve : 8	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown red slightly gravelly CLAY		—— 0% - - - - 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			LAURA SCHRAMM
	Contract		Contract Ref:
EMG Phase 2		765514	
			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Position ID: **CP04** Sample Ref: **6** Sample Type: **B** Depth (m): **0.50**



Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 11	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.85
% Retained on 37.5mm BS Sieve : 9	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 14
% Retained on 20.0mm BS Sieve : 3	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.53		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy slightly gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

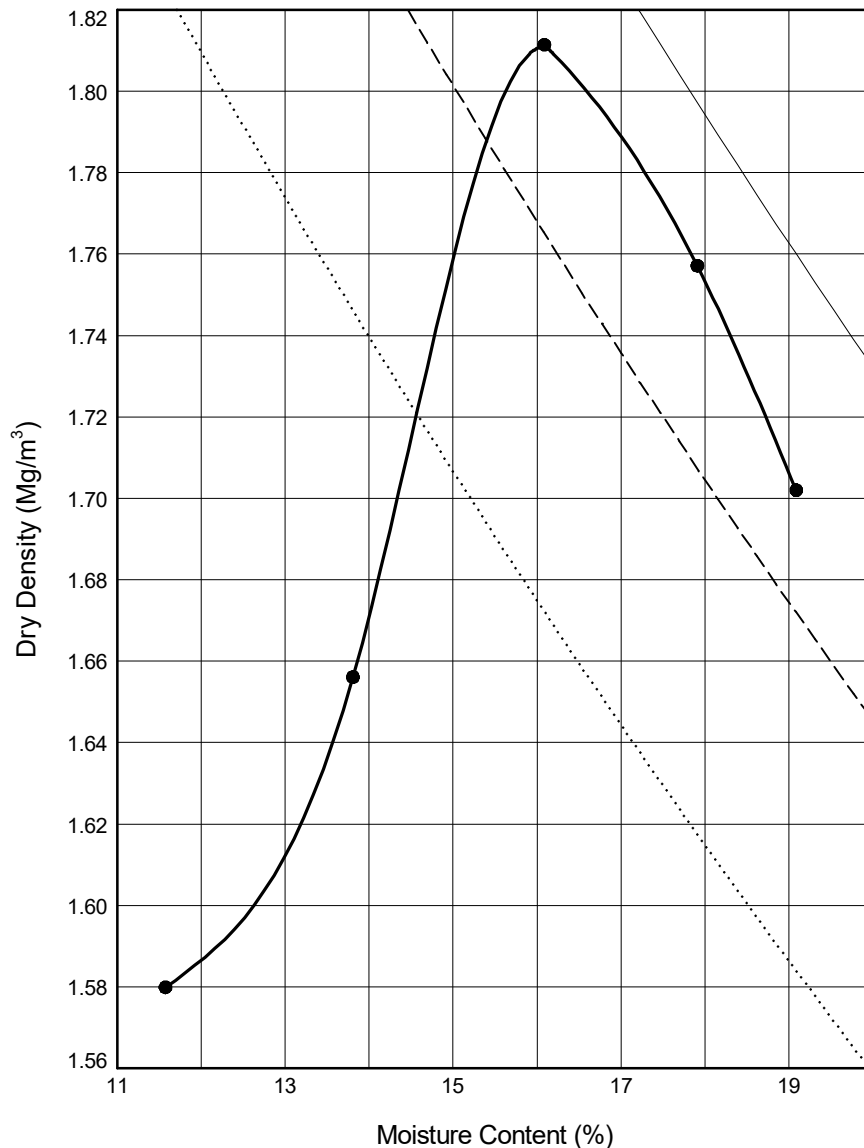
In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP06**

Sample Ref: **3**

Sample Type: **B**

Depth (m): **0.50**



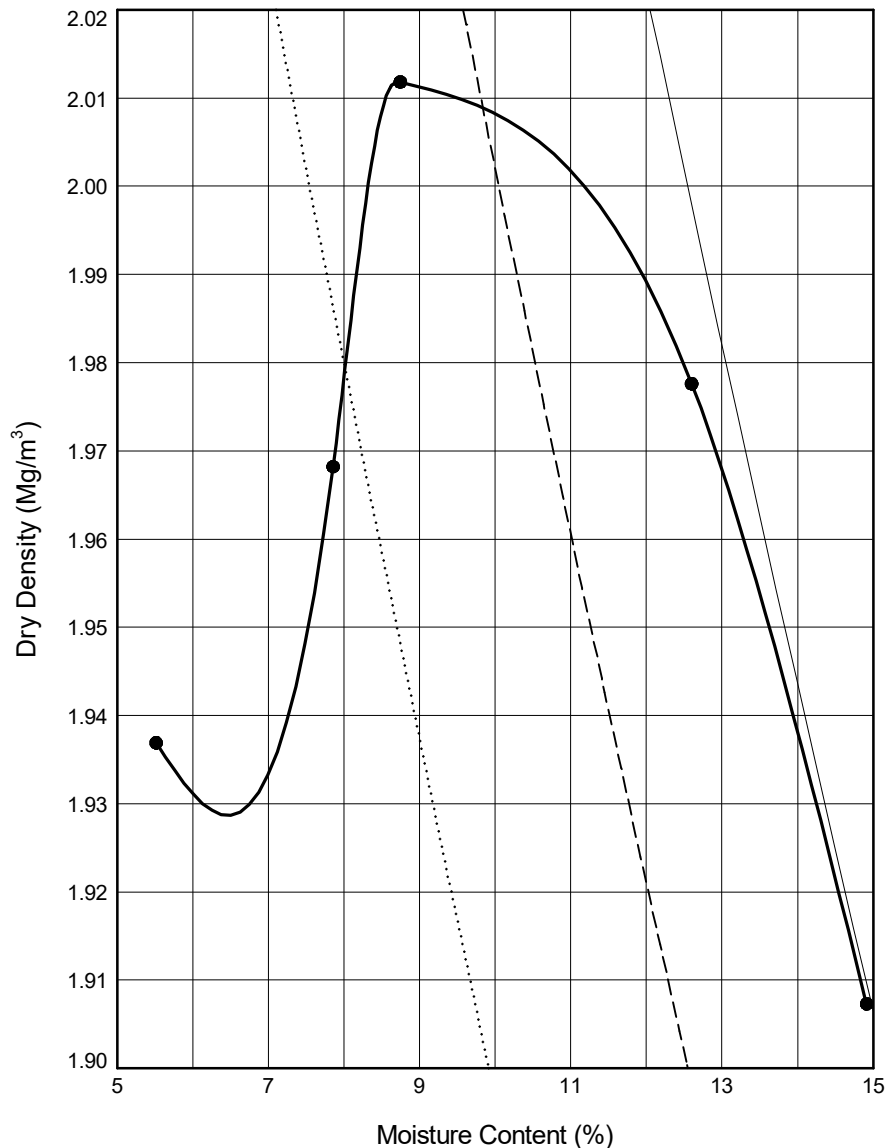
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 12	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.81
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 16
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Grey brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Position ID: **CP08** Sample Ref: **4** Sample Type: **B** Depth (m): **1.00**



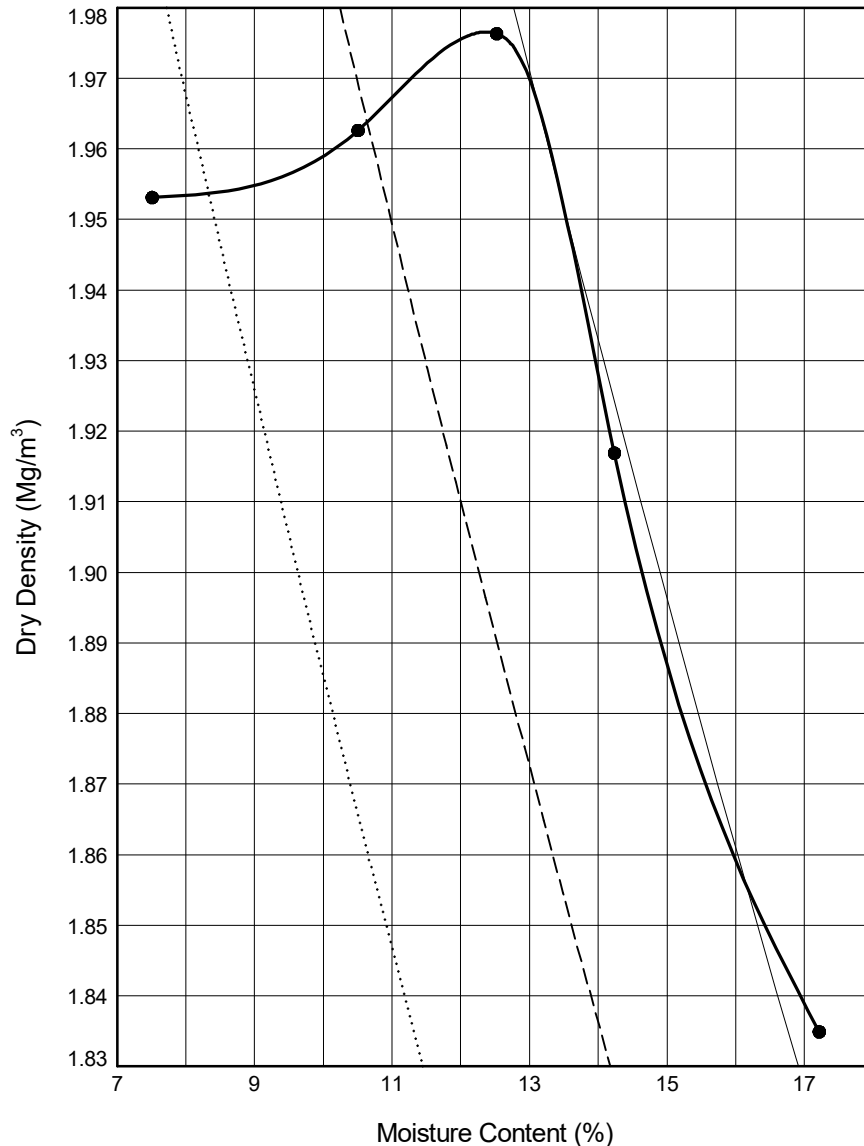
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 8.7	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 2.01
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 8.7
% Retained on 20.0mm BS Sieve	: 3	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - measured (Mg/m³)	: 2.67	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20mm				
Sample Description				Key to Air Voids Lines	
Brown slightly gravelly clayey SAND				———— 0%	
				- - - - 5%	
				 10%	

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP09** Sample Ref: **4** Sample Type: **D** Depth (m): **0.70**



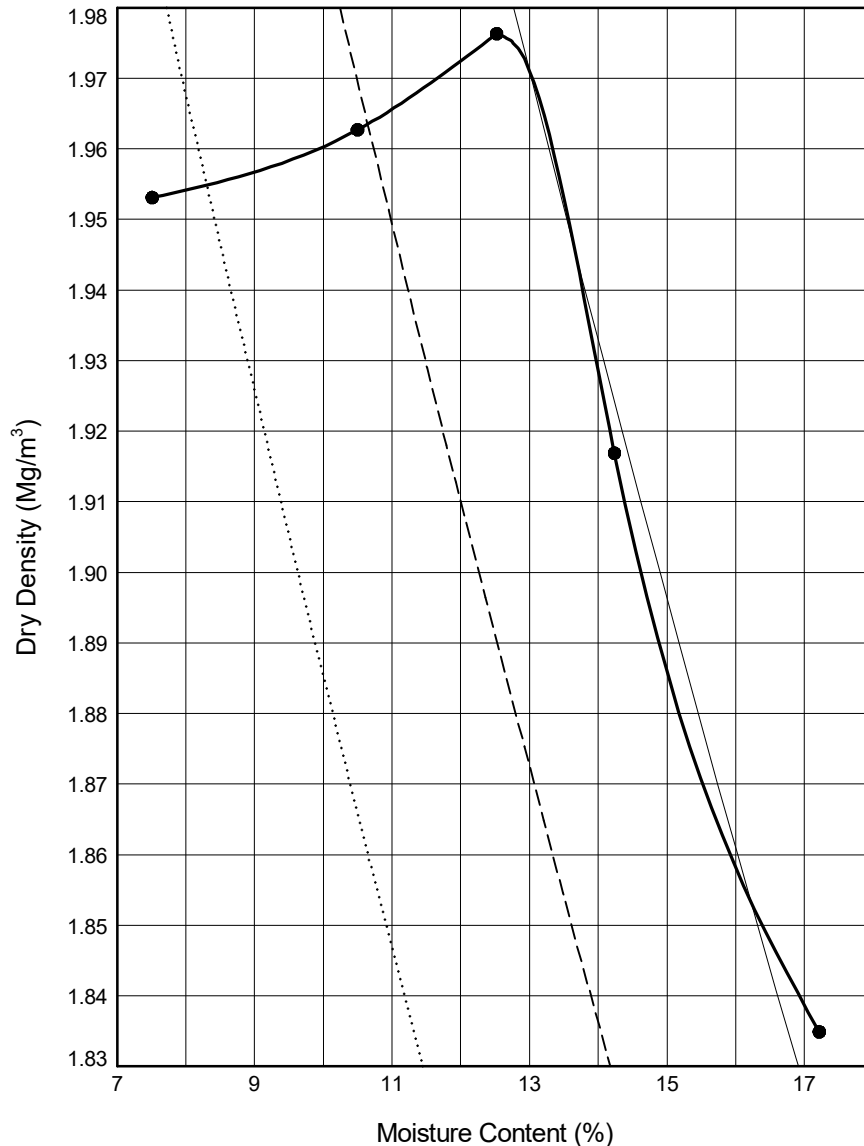
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 17	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 1.98
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 13
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - assumed (Mg/m³)	: 2.65	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly sandy CLAY with organic material			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP09** Sample Ref: **20** Sample Type: **B** Depth (m): **6.00**



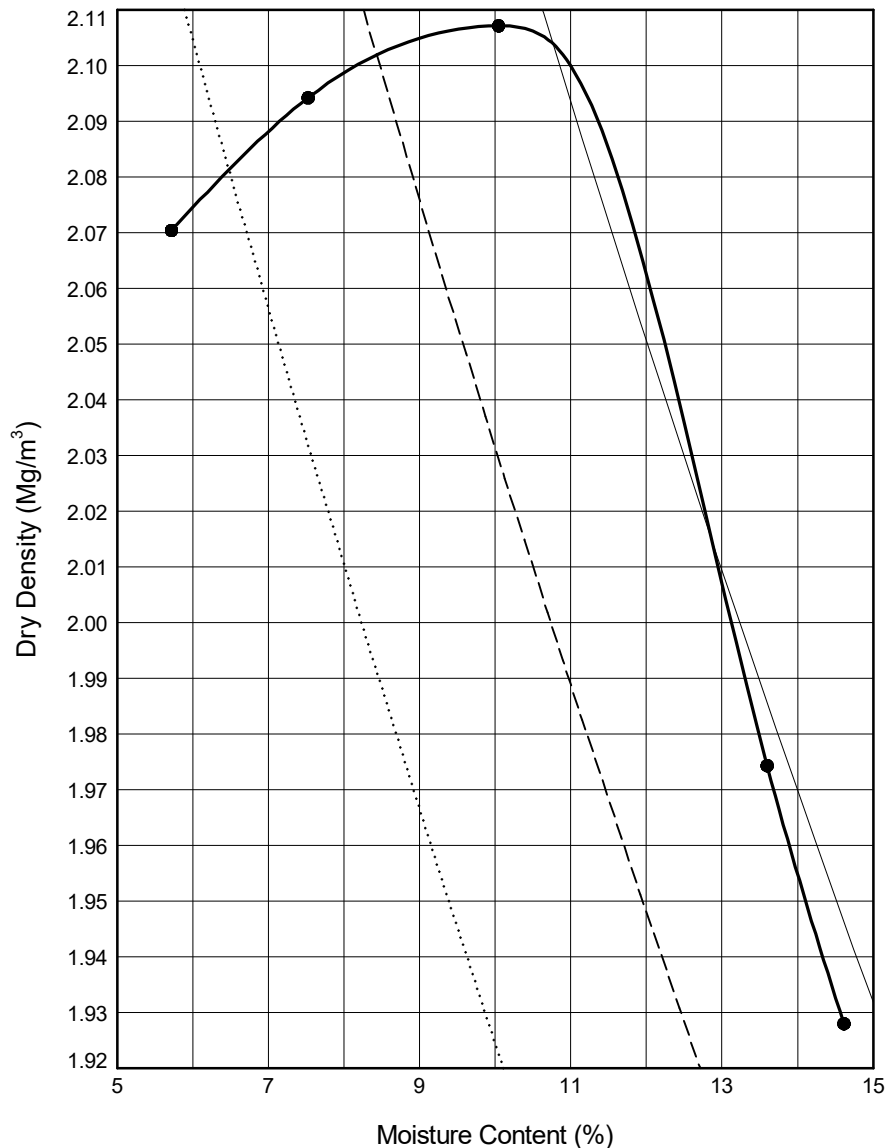
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 17	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 1.98
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 13
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Red brown slightly gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Position ID: **CP14** Sample Ref: **17** Sample Type: **B** Depth (m): **6.00**



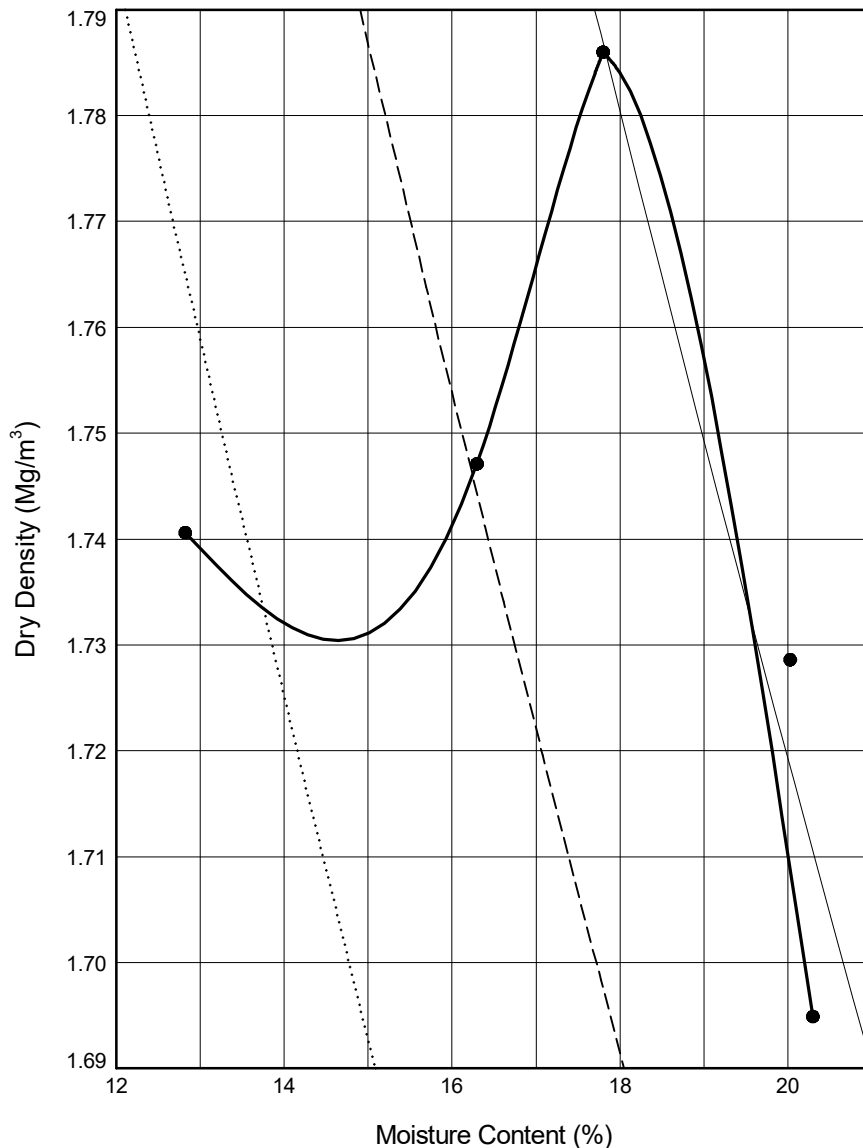
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 15	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 2.11
% Retained on 37.5mm BS Sieve	: 69	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 10
% Retained on 20.0mm BS Sieve	: 7	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - measured (Mg/m³)	: 2.72	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red very gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP17** Sample Ref: **4** Sample Type: **B** Depth (m): **0.60**



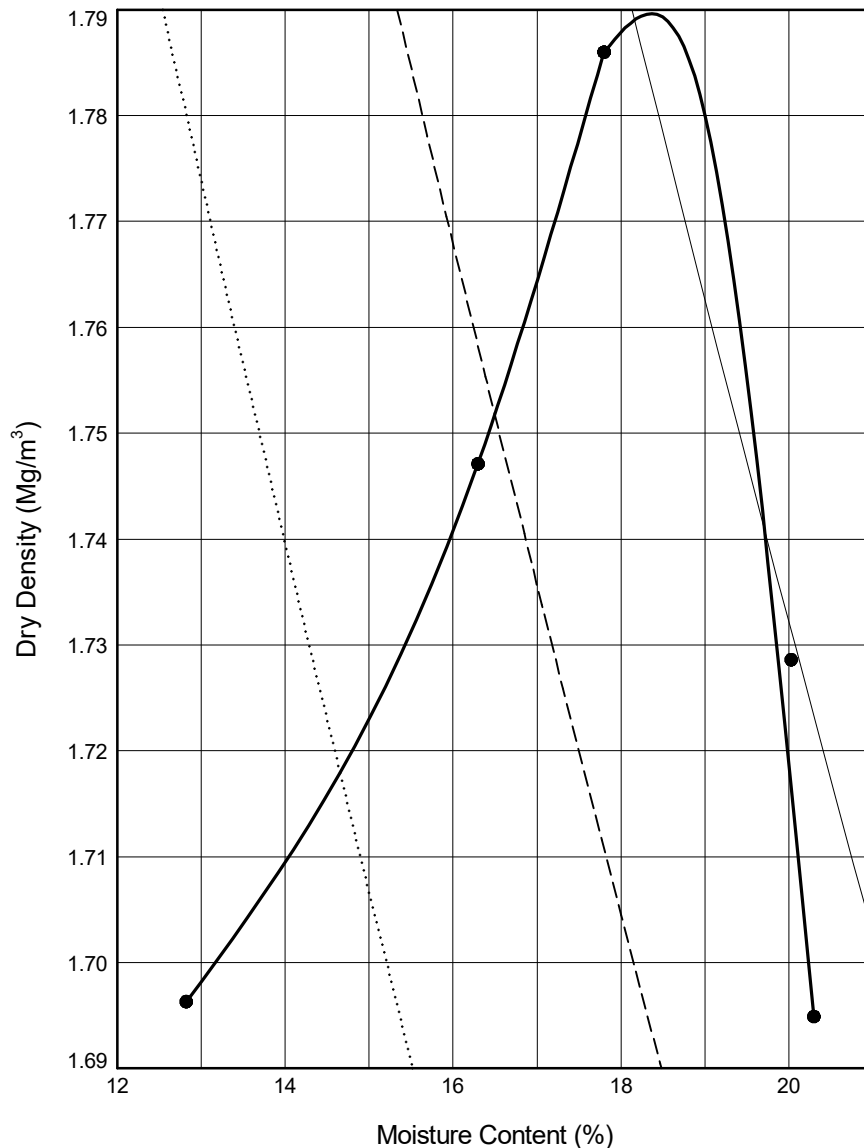
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 18	Compaction Type : Heavy	Maximum Dry Density (Mg/m³) : 1.75
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 4.5	Optimum Moisture Content (%) : 16
% Retained on 20.0mm BS Sieve : 3	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.62		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy silty gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP17** Sample Ref: **11** Sample Type: **B** Depth (m): **2.50**



Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 18	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.79
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 18
% Retained on 20.0mm BS Sieve : 3	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy slightly gravelly CLAY		———— 0% ----- 5% 10%

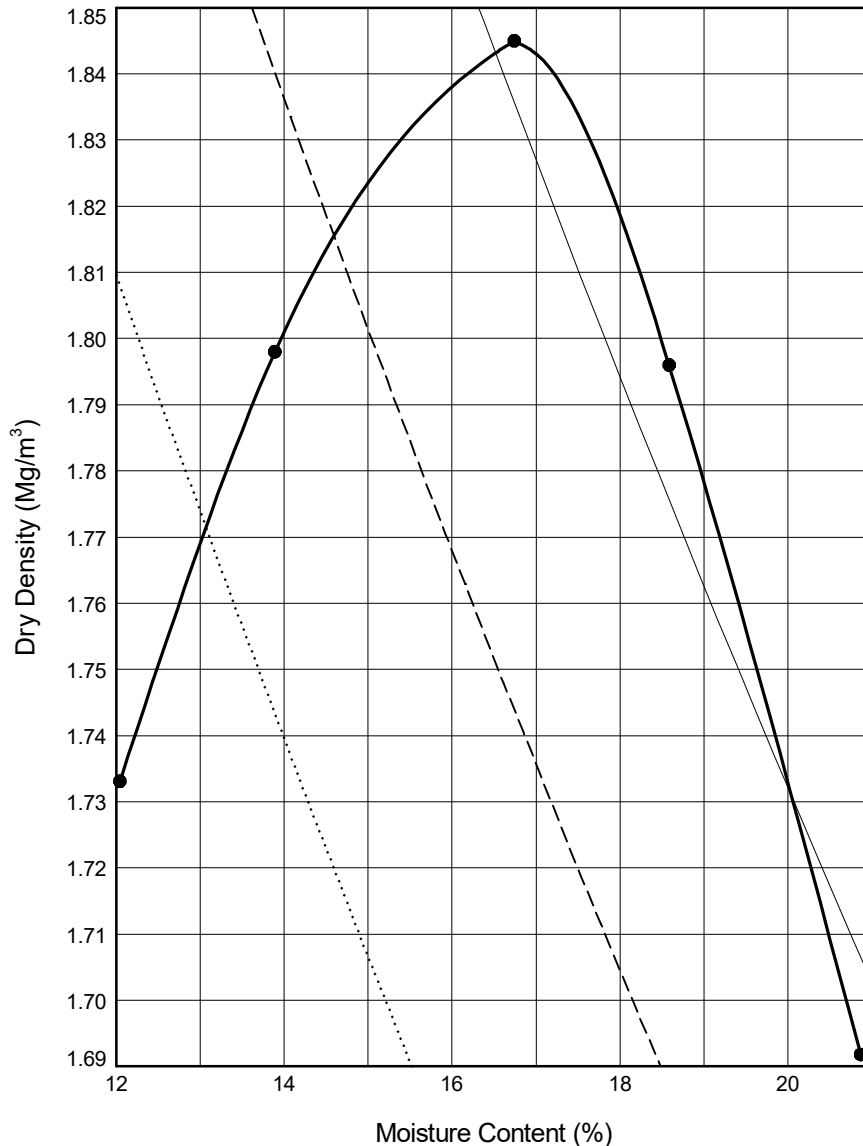
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990

NON-STANDARD TEST

Position ID: **CP21** Sample Ref: **16** Sample Type: **B** Depth (m): **4.00**



Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 21	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.85
% Retained on 37.5mm BS Sieve : 1	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 17
% Retained on 20.0mm BS Sieve : 2	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown red slightly gravelly CLAY		—— 0% - - - - 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			LAURA SCHRAMM
	Contract		Contract Ref:
EMG Phase 2		765514	
			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

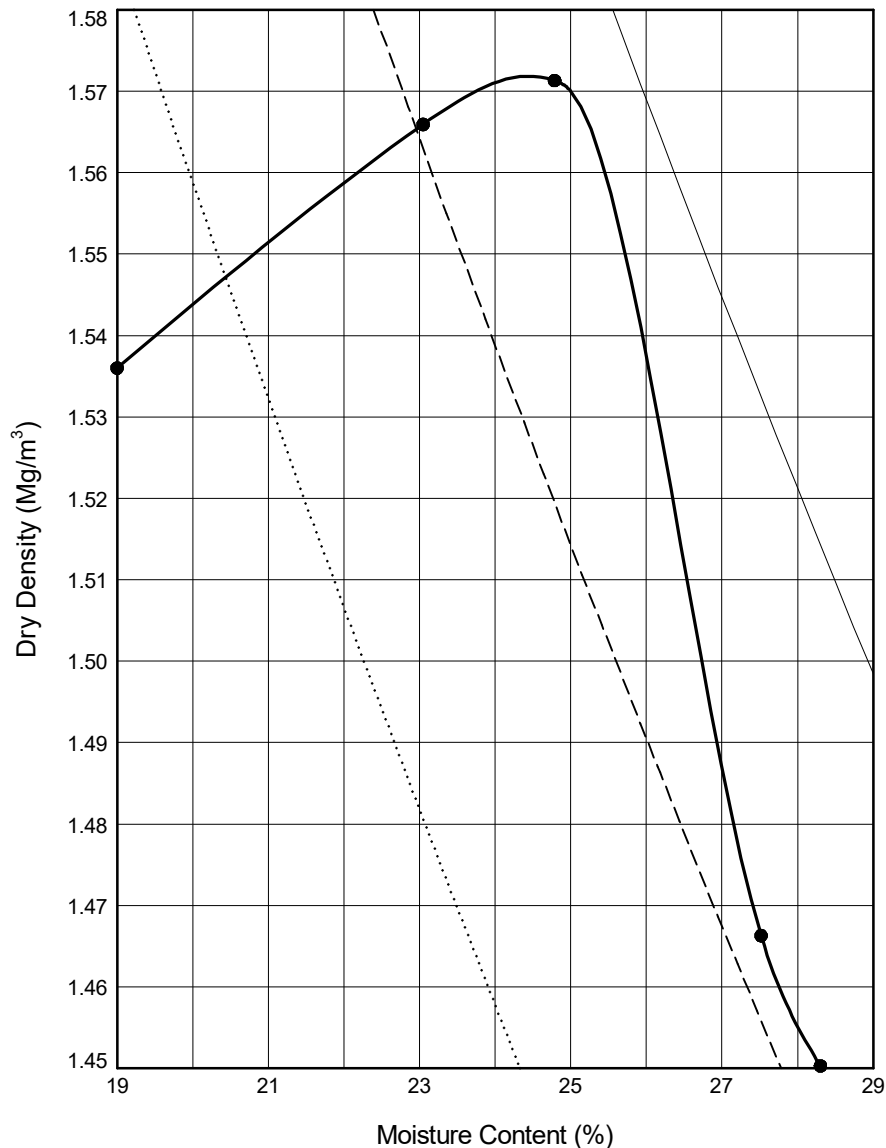
In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Position ID: **CP27**

Sample Ref: **8**

Sample Type: **B**

Depth (m): **1.00**



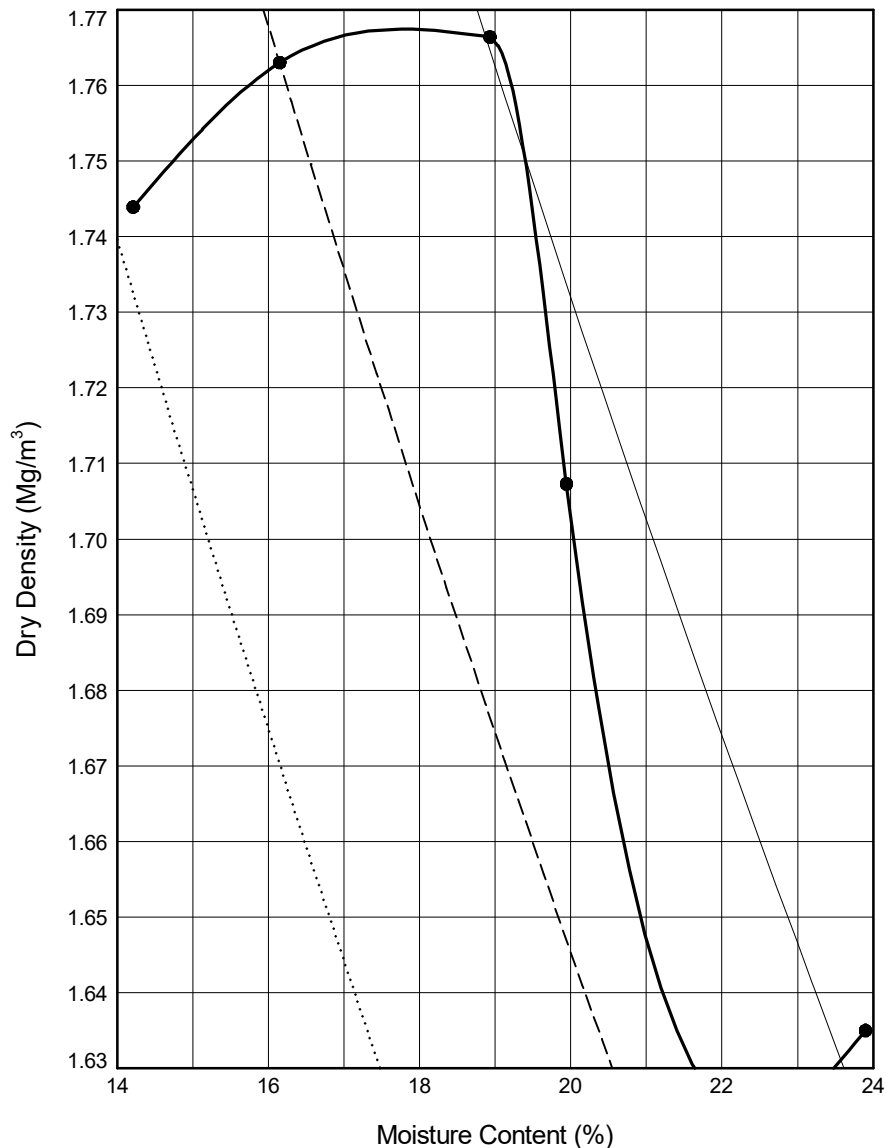
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 25	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.57
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 24
% Retained on 20.0mm BS Sieve	: 2	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Position ID: **CP28** Sample Ref: **8** Sample Type: **B** Depth (m): **1.20**



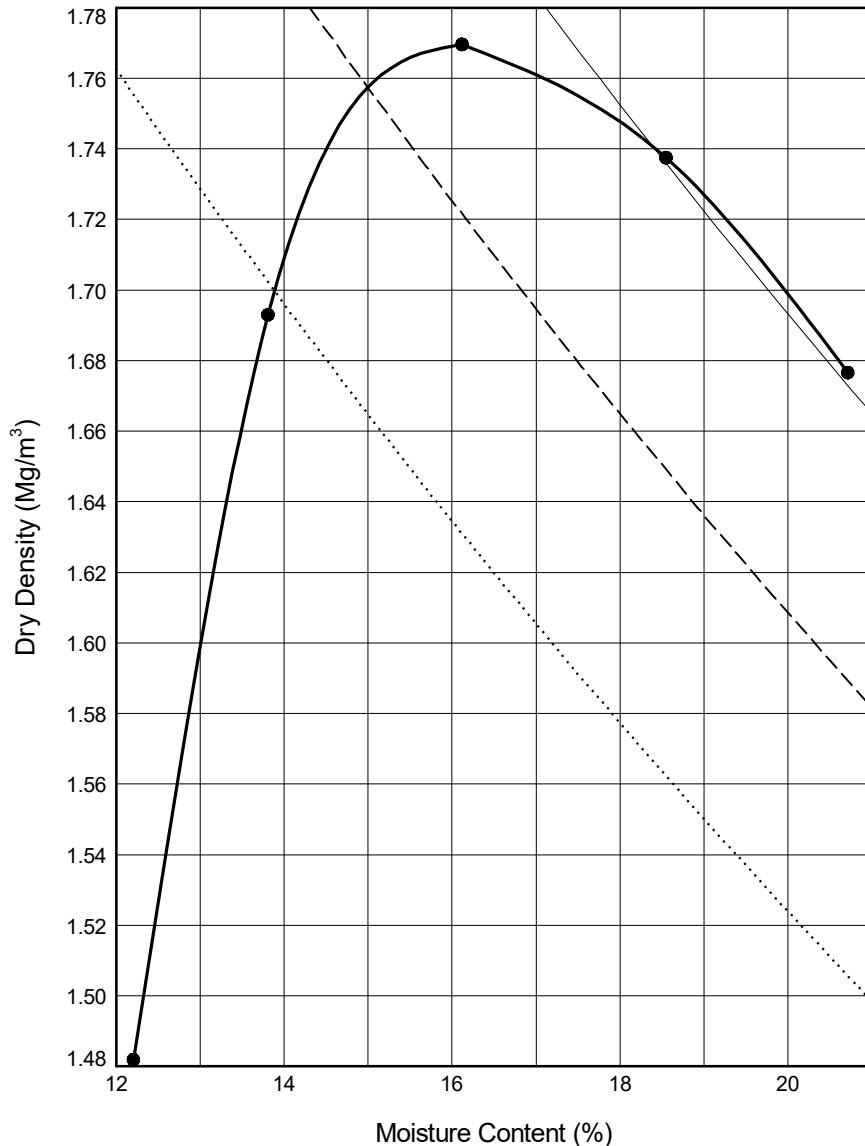
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 20	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.77
% Retained on 37.5mm BS Sieve : 1	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 18
% Retained on 20.0mm BS Sieve : 1	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown red slightly gravelly slightly sandy CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP01** Sample Ref: **7** Sample Type: **D** Depth (m): **0.60**



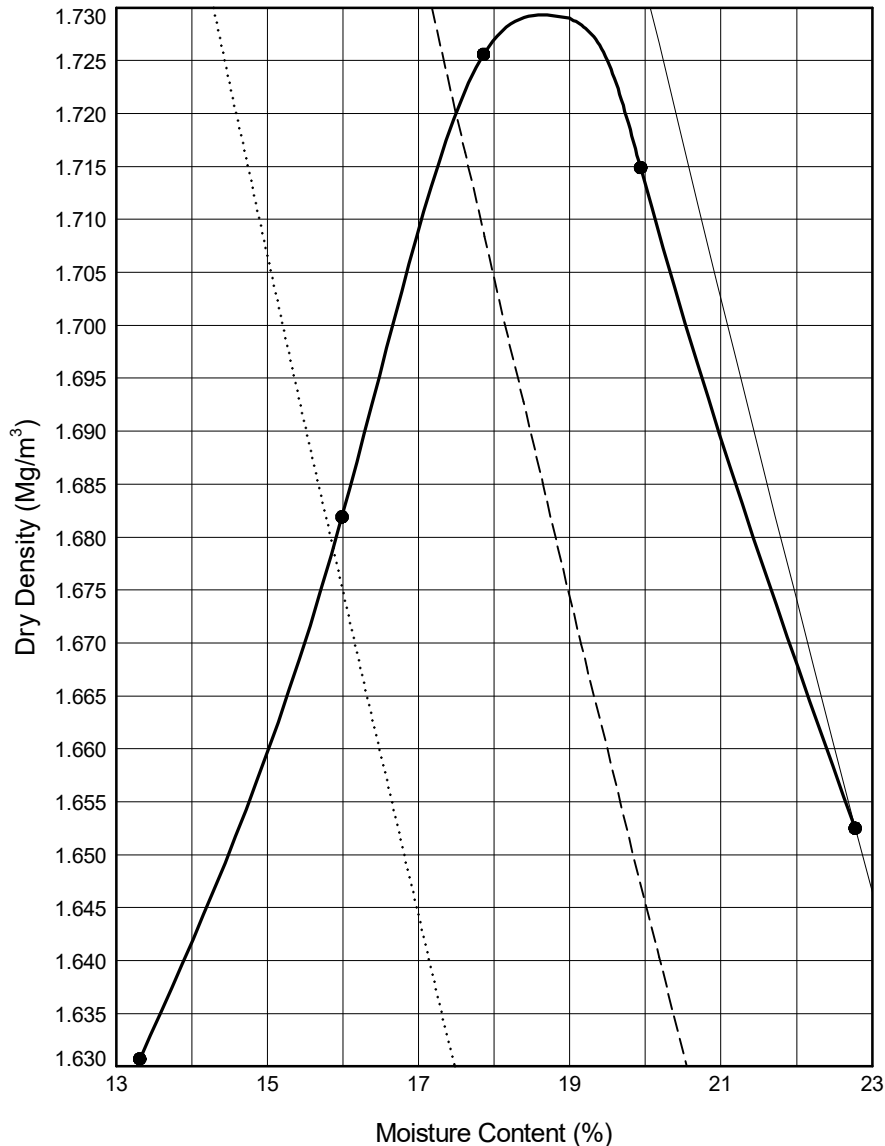
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 12	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.77
% Retained on 37.5mm BS Sieve : 2	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 16
% Retained on 20.0mm BS Sieve : 1	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.56		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy slightly gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP02** Sample Ref: **8** Sample Type: **LB** Depth (m): **0.70**



Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 16	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.73
% Retained on 37.5mm BS Sieve	: 3	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 19
% Retained on 20.0mm BS Sieve	: 7	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Red brown slightly gravelly slightly sandy slightly clayey SILT			———— 0%	— — — — 5%	 10%

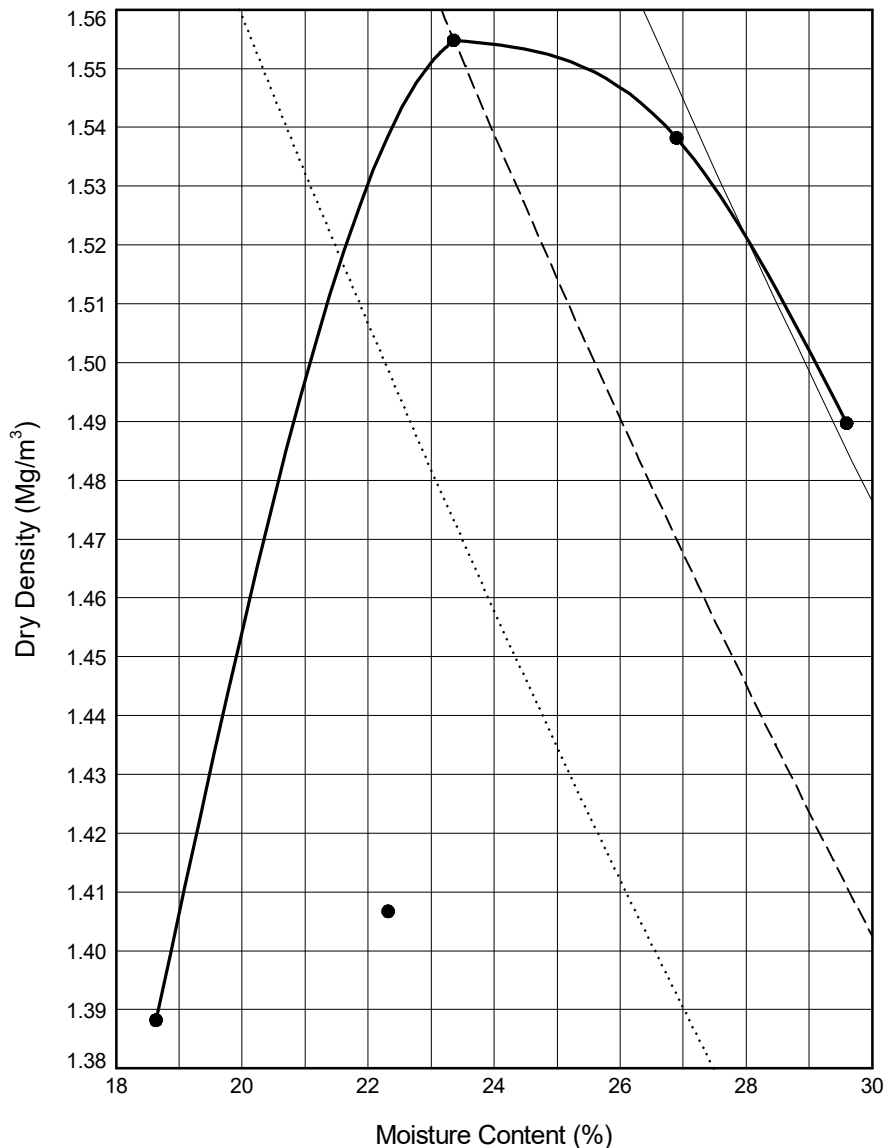
 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

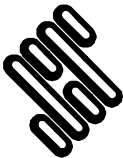
In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990

NON-STANDARD TEST

Trial Pit: **TP03** Sample Ref: **13** Sample Type: **B** Depth (m): **3.40**



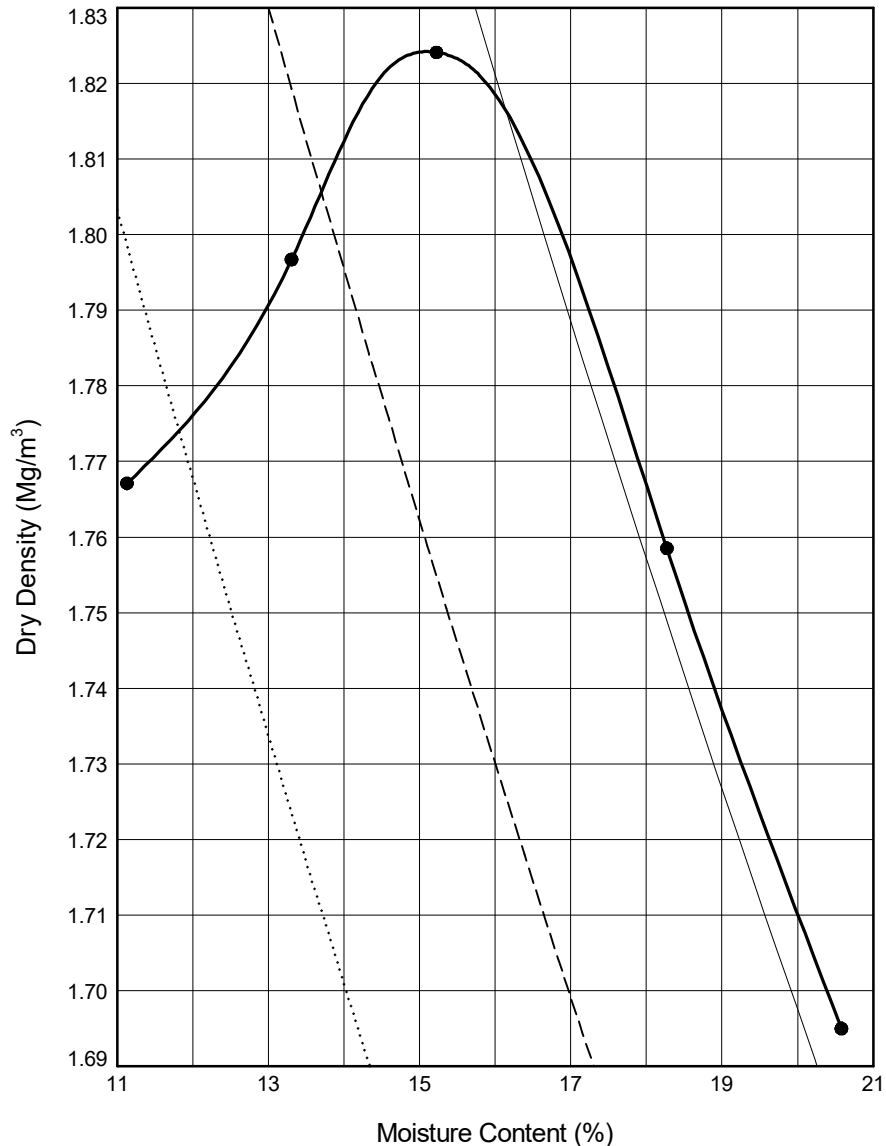
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 30	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.56
% Retained on 37.5mm BS Sieve : 7	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 23
% Retained on 20.0mm BS Sieve : 5	Type of Mould : CBR	Method Used: Clause 3.4
Particle Density - assumed (Mg/m³) : 2.65		Remarks:
Size of Soil Pieces : <20nn	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy slightly gravelly CLAY		—— 0% - - - - 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			LAURA SCHRAMM
	Contract		Contract Ref:
EMG Phase 2		765514	
			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP04** Sample Ref: **9** Sample Type: **B** Depth (m): **2.00**



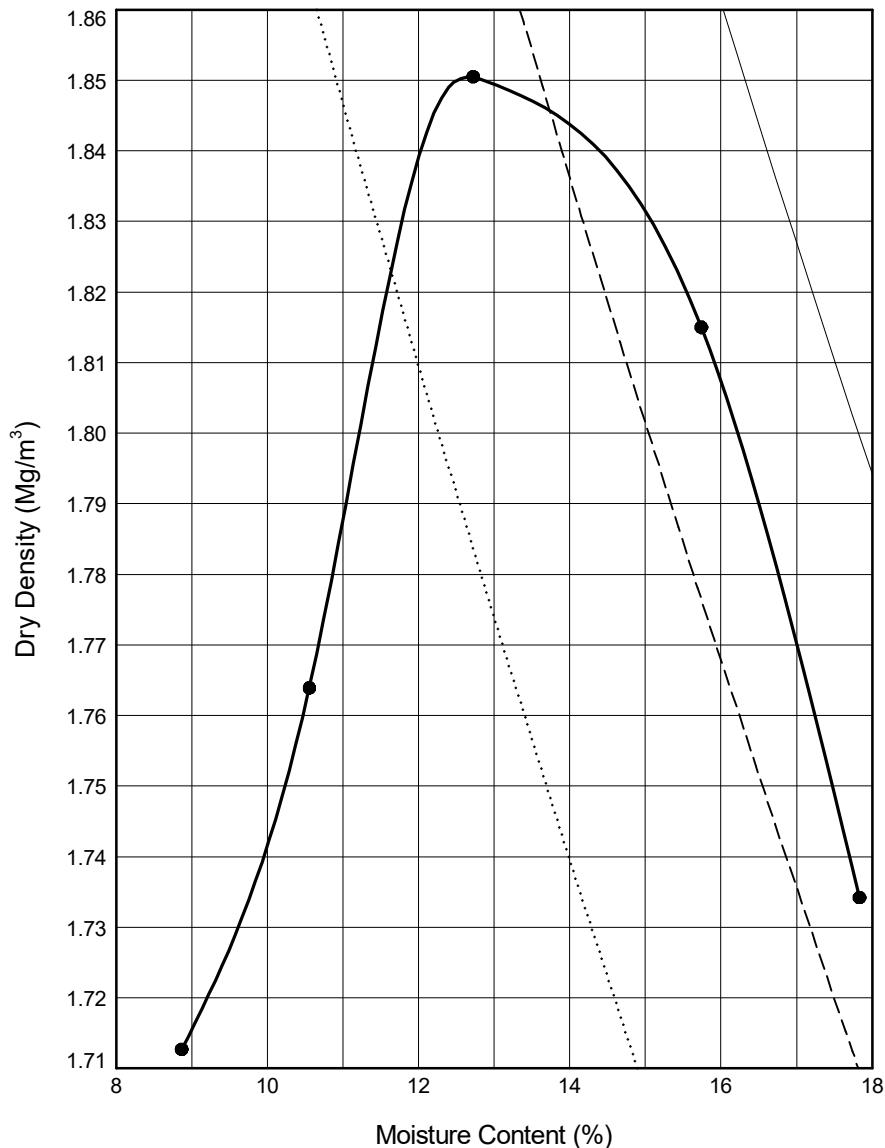
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 13	Compaction Type : Heavy	Maximum Dry Density (Mg/m³) : 1.82
% Retained on 37.5mm BS Sieve : 12	Mass of Rammer (kg): 4.5	Optimum Moisture Content (%) : 15
% Retained on 20.0mm BS Sieve : 5	Type of Mould : 1 LITRE	Method Used: Clause 3.5
Particle Density - measured (Mg/m³) : 2.57		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown gravelly sandy CLAY with organic material		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

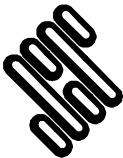
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP06** Sample Ref: **11** Sample Type: **B** Depth (m): **1.60**



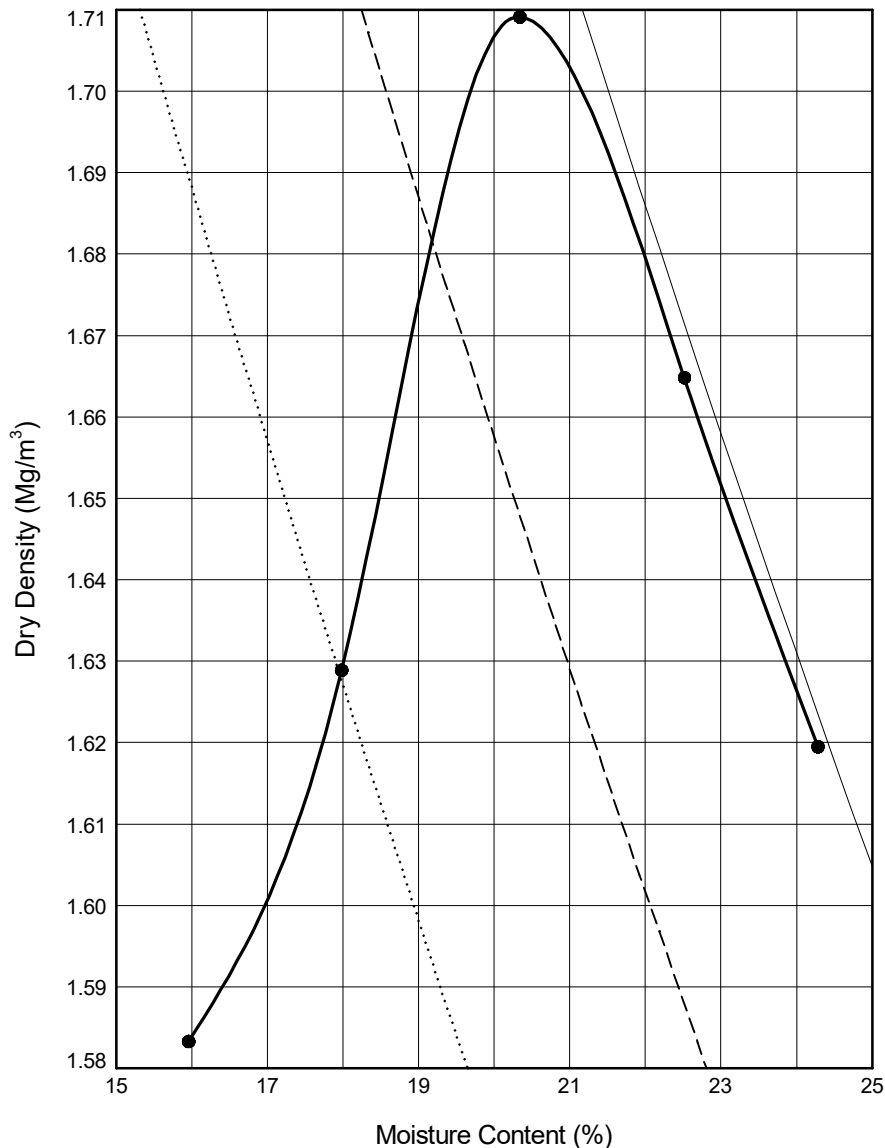
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 13	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.85
% Retained on 37.5mm BS Sieve	: 8	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 13
% Retained on 20.0mm BS Sieve	: 8	Type of Mould	: CBR	Method Used:	Clause 3.4
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP07** Sample Ref: **11** Sample Type: **B** Depth (m): **1.30**



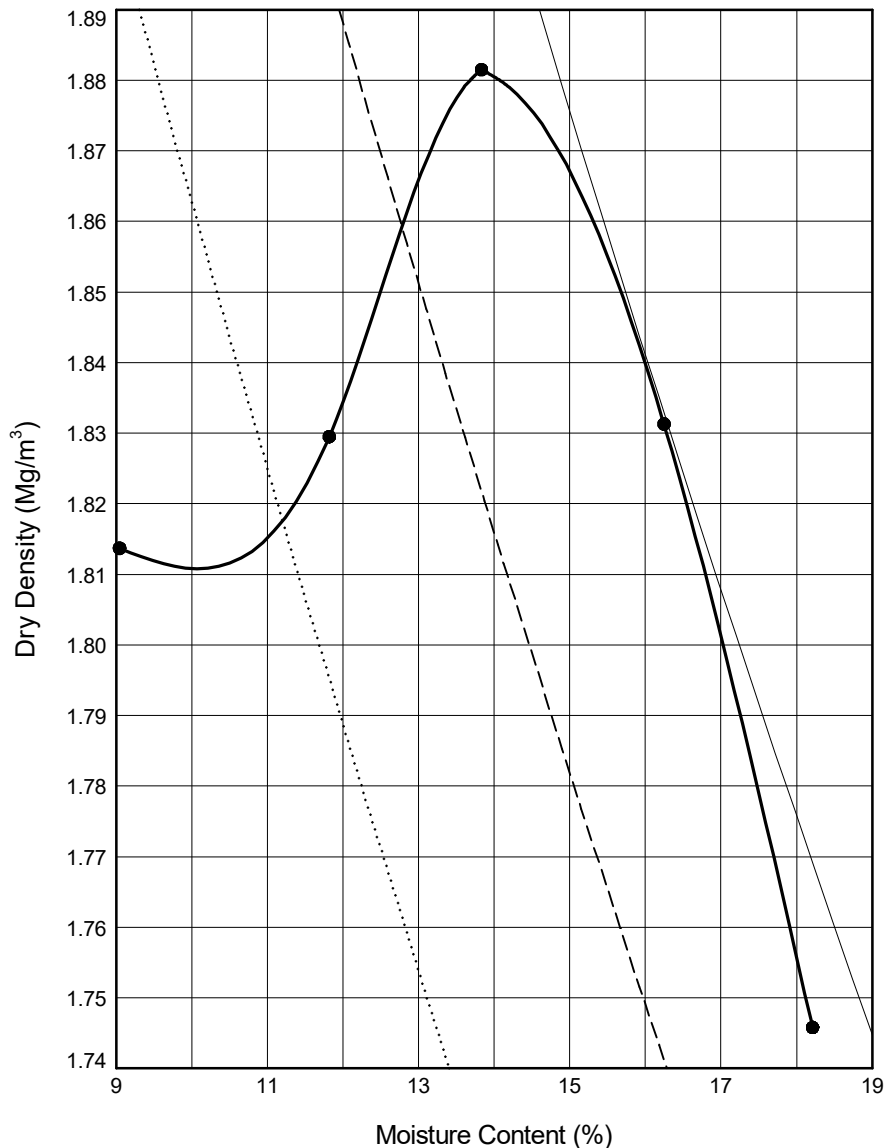
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 18	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 1.71
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 20
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - measured (Mg/m³)	: 2.68	Remarks:			
Size of Soil Pieces	: <20MM				
Sample Description				Key to Air Voids Lines	
Brown slightly sandy slightly gravelly CLAY				——— 0%	— — — — 5%
				 10%	

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

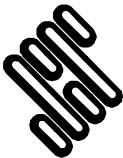
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP08** Sample Ref: **8** Sample Type: **LB** Depth (m): **1.50**



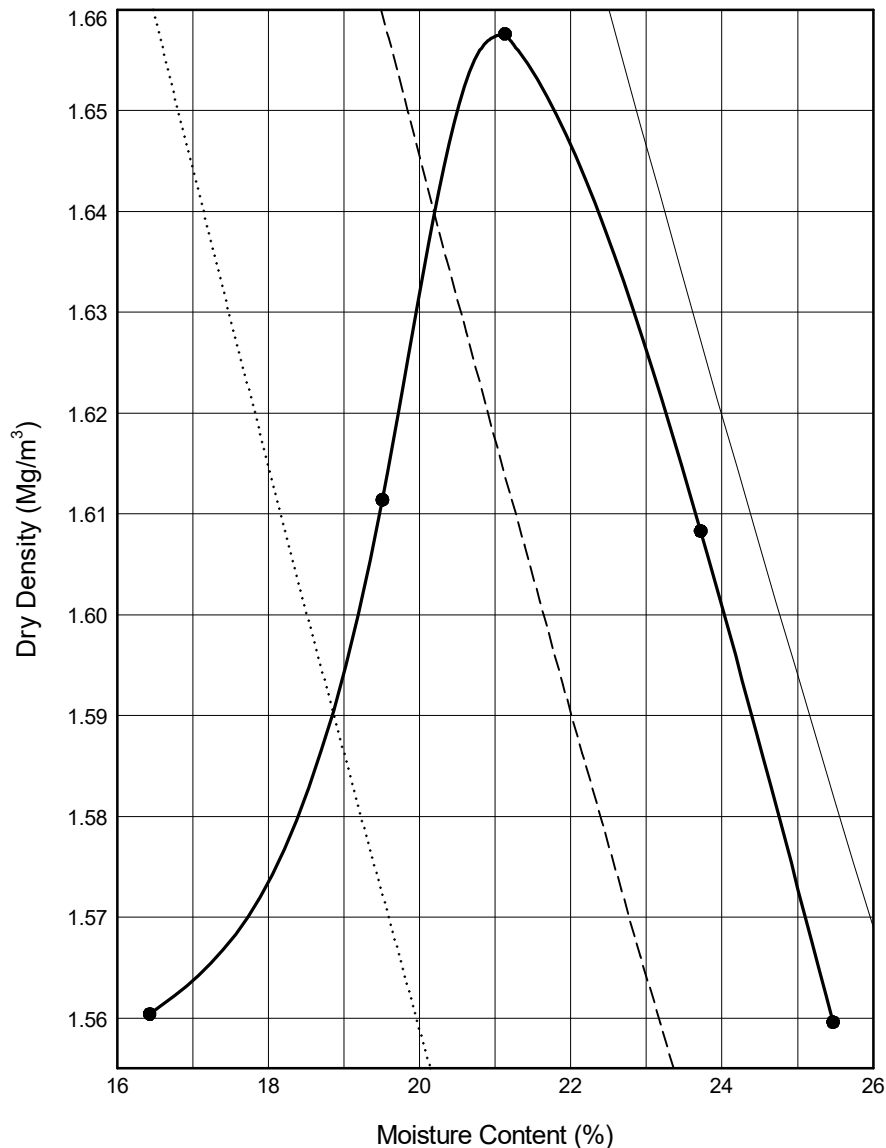
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 16	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 1.88
% Retained on 37.5mm BS Sieve	: 5	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 14
% Retained on 20.0mm BS Sieve	: 6	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - assumed (Mg/m³)	: 2.61	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly sandy gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP08** Sample Ref: **12** Sample Type: **LB** Depth (m): **2.40**



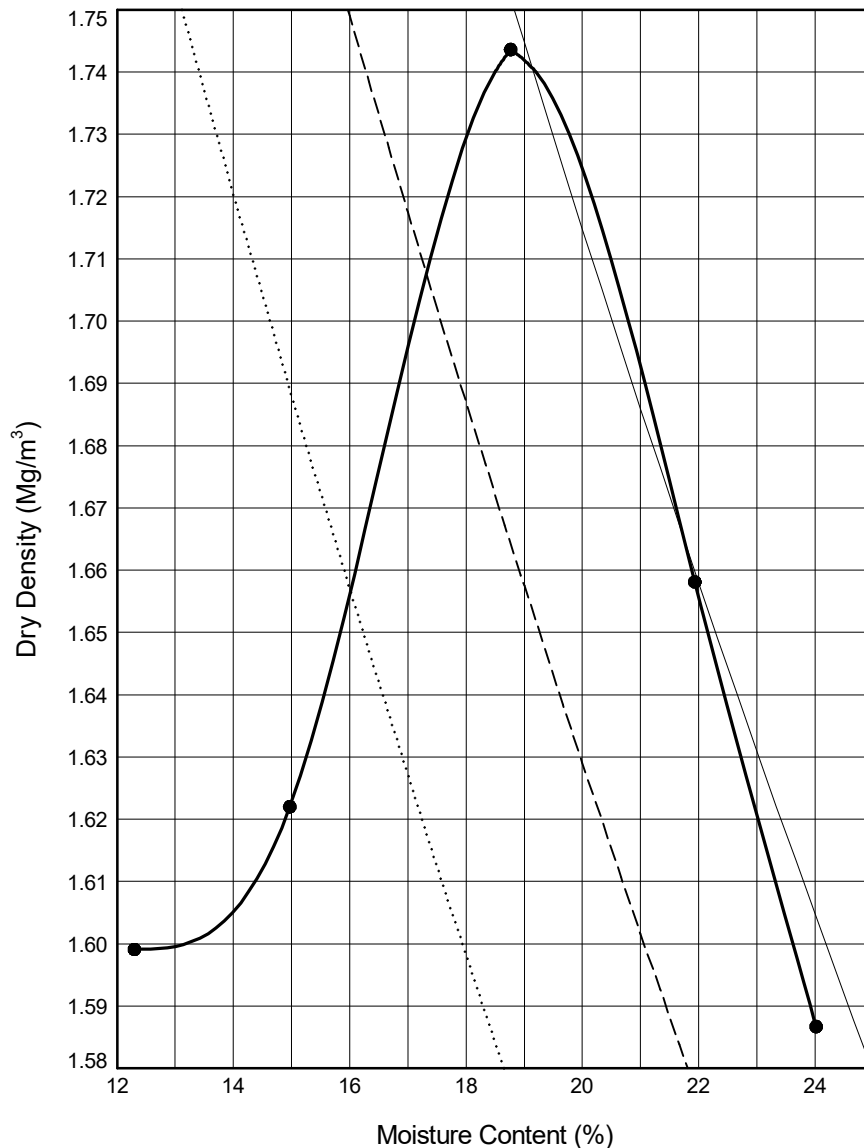
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.66
% Retained on 37.5mm BS Sieve	: 18	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 21
% Retained on 20.0mm BS Sieve	: 1	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly CLAY			———— 0%		
			— — — — 5%		
			 10%		

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP09** Sample Ref: **9** Sample Type: **LB** Depth (m): **3.30**



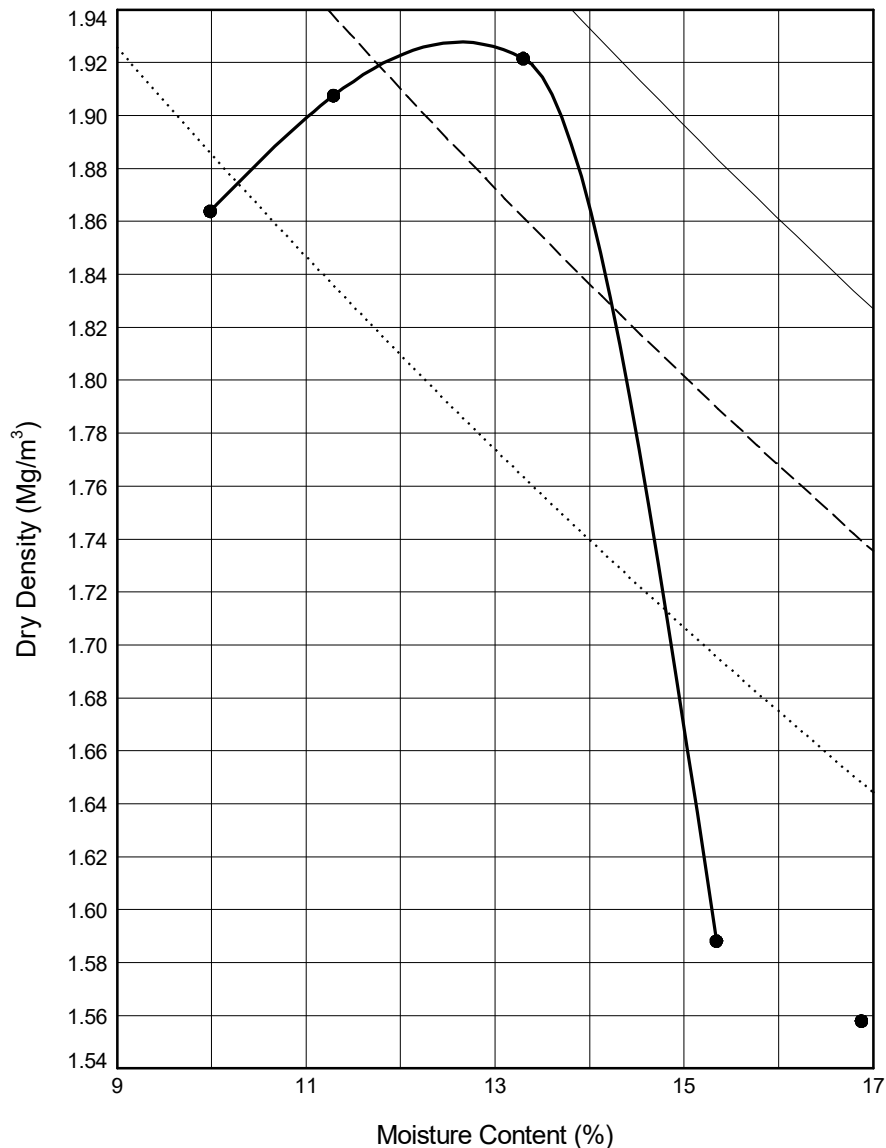
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 19	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.74
% Retained on 37.5mm BS Sieve : 8	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 19
% Retained on 20.0mm BS Sieve : 14	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.61		Remarks:
Size of Soil Pieces : <20mm	Single sample was used.	
Sample Description		Key to Air Voids Lines
Brown very sandy slightly gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

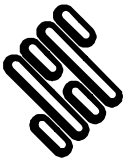
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP10** Sample Ref: **5** Sample Type: **LB** Depth (m): **0.50**



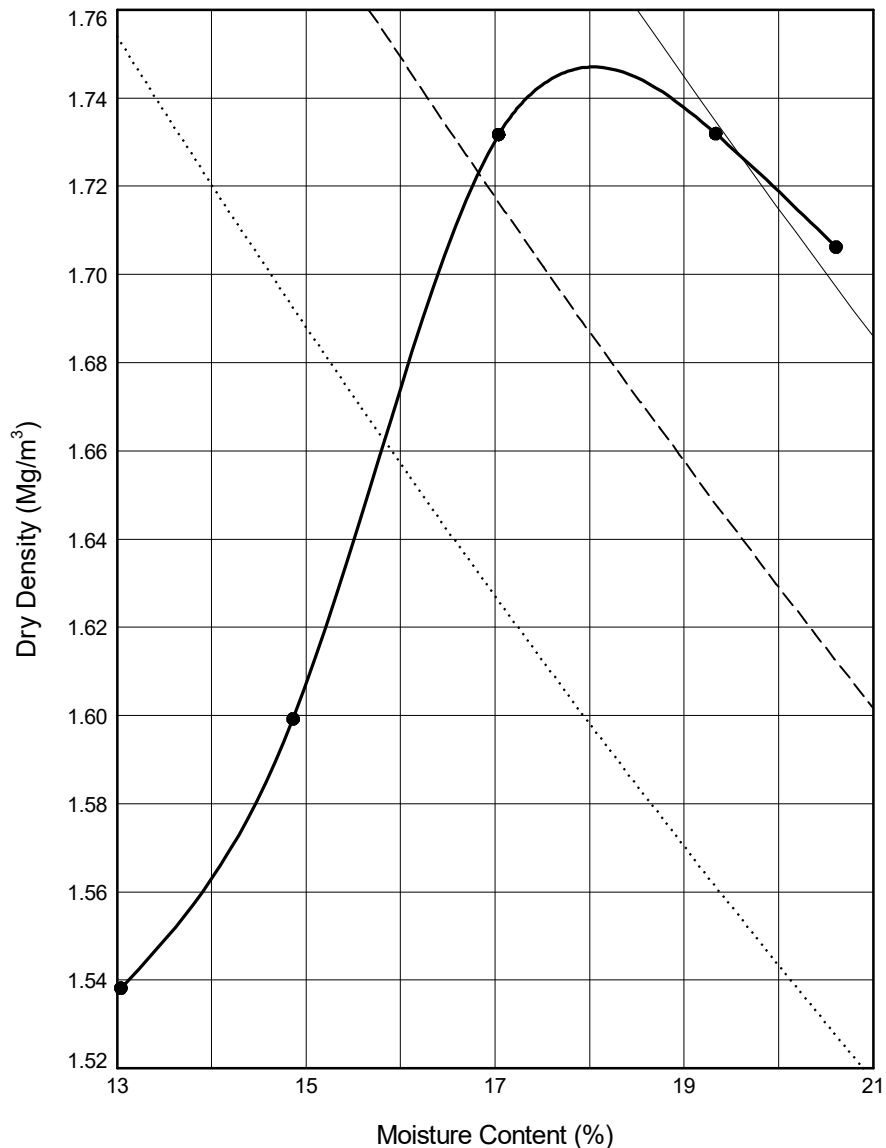
Initial Sample Conditions		Test Details	Test Results		
Initial Moisture Content (%)	: 11	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 1.93
% Retained on 37.5mm BS Sieve	: 2	Mass of Rammer (kg)	: 4.5	Optimum Moisture Content (%)	: 13
% Retained on 20.0mm BS Sieve	: 4	Type of Mould	: CBR	Method Used:	Clause 3.6
Particle Density - assumed (Mg/m³)	: 2.65	Single sample was used.			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly sandy slightly gravelly CLAY			———— 0%	----- 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP10** Sample Ref: **14** Sample Type: **LB** Depth (m): **2.10**



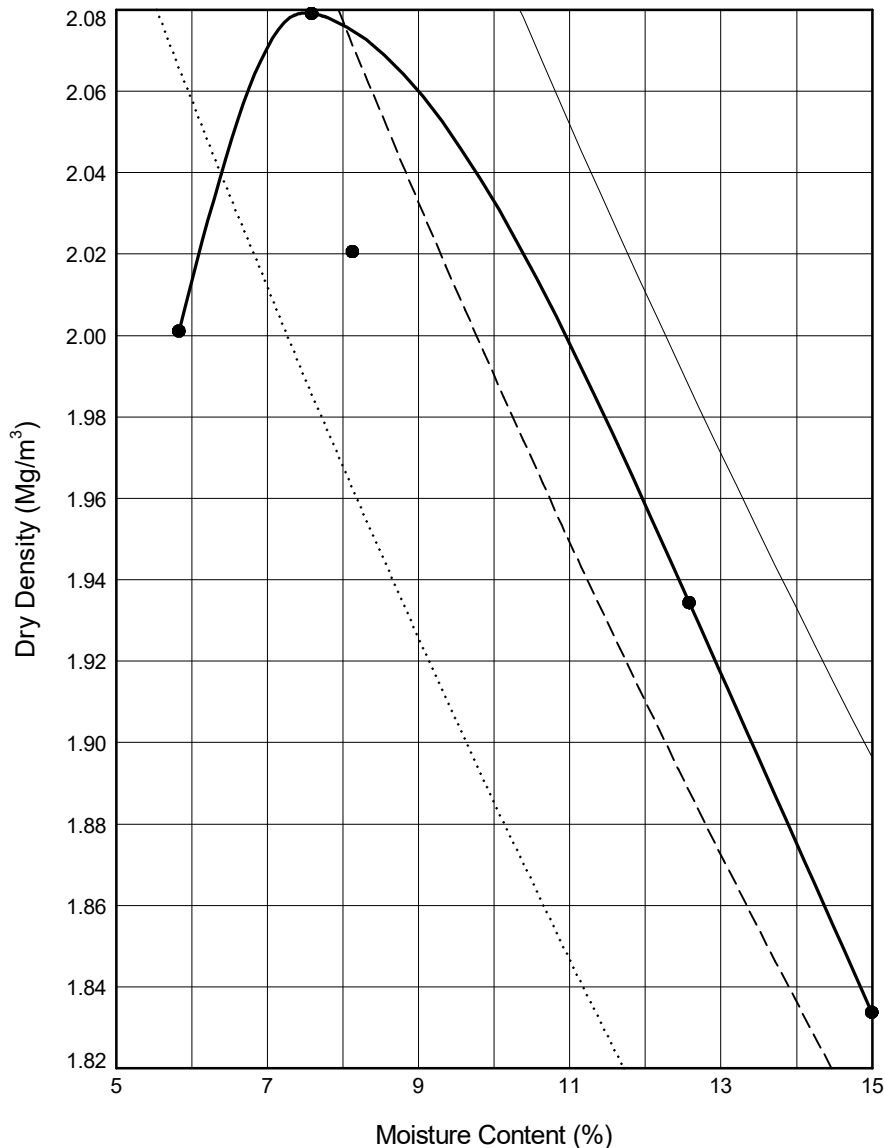
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 15	Compaction Type : Light	Maximum Dry Density (Mg/m³) : 1.75
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 2.5	Optimum Moisture Content (%) : 18
% Retained on 20.0mm BS Sieve : 1	Type of Mould : 1 LITRE	Method Used: Clause 3.3
Particle Density - measured (Mg/m³) : 2.61		Remarks:
Size of Soil Pieces : <20mm	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP13** Sample Ref: **6** Sample Type: **B** Depth (m): **1.00**



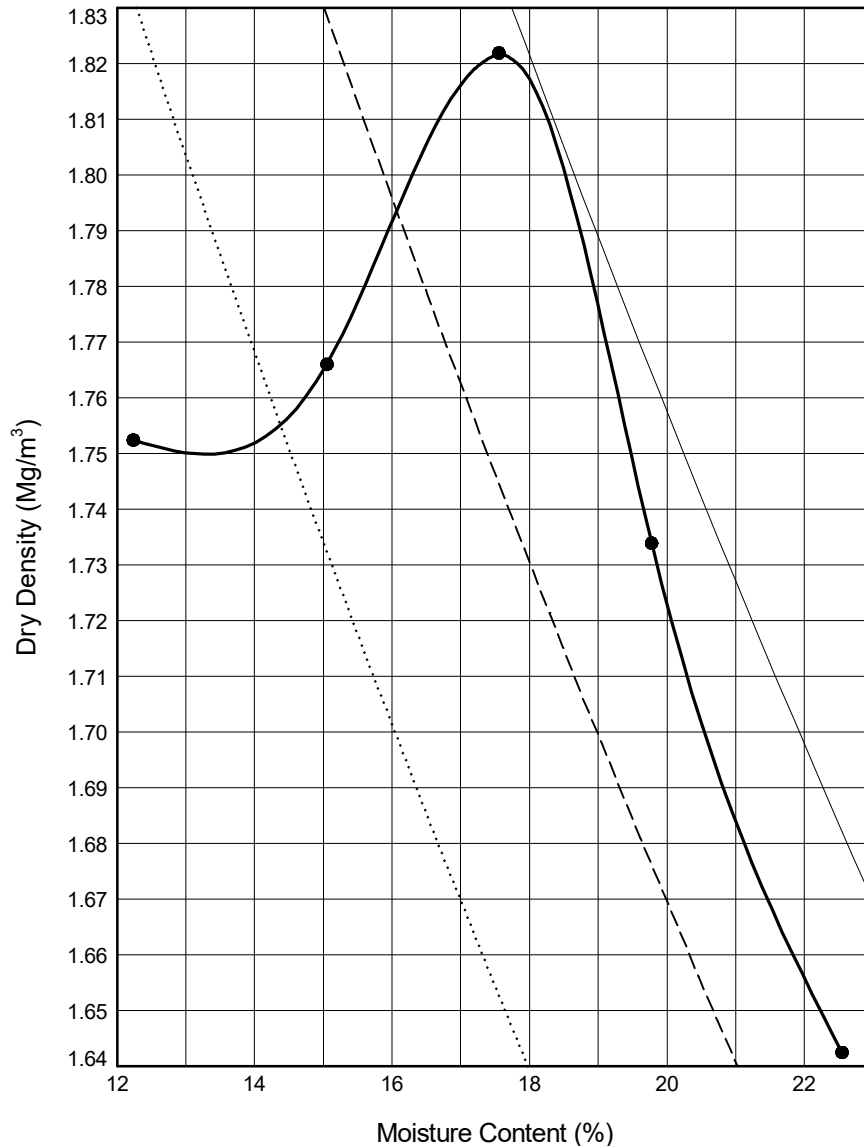
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 13	Compaction Type	: Heavy	Maximum Dry Density (Mg/m³)	: 2.08
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	4.5	Optimum Moisture Content (%)	: 7.6
% Retained on 20.0mm BS Sieve	: 3	Type of Mould	: 1 LITRE	Method Used:	Clause 3.5
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown very gravelly clayey silty SAND			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP14** Sample Ref: **10** Sample Type: **B** Depth (m): **2.50**



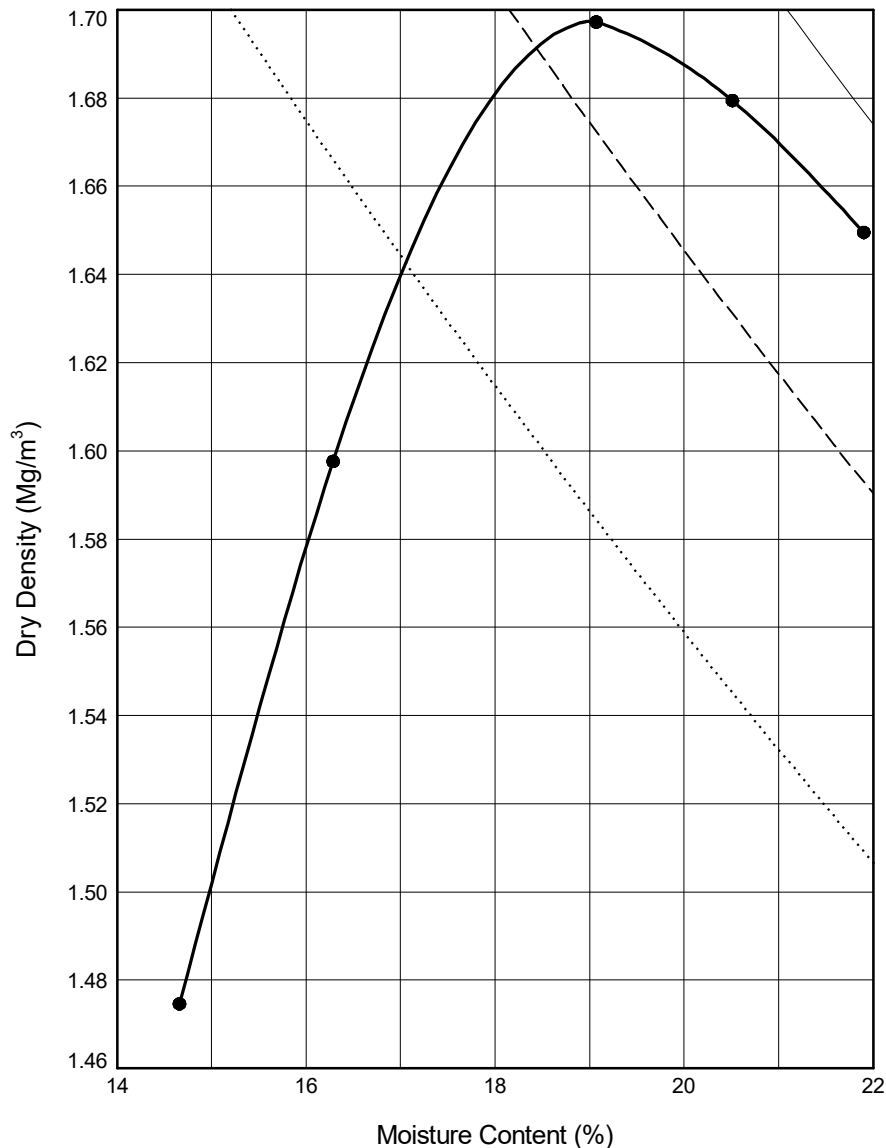
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 18	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.82
% Retained on 37.5mm BS Sieve	: 1	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 5	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.71	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly sandy gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP18** Sample Ref: **8** Sample Type: **LB** Depth (m): **0.80**



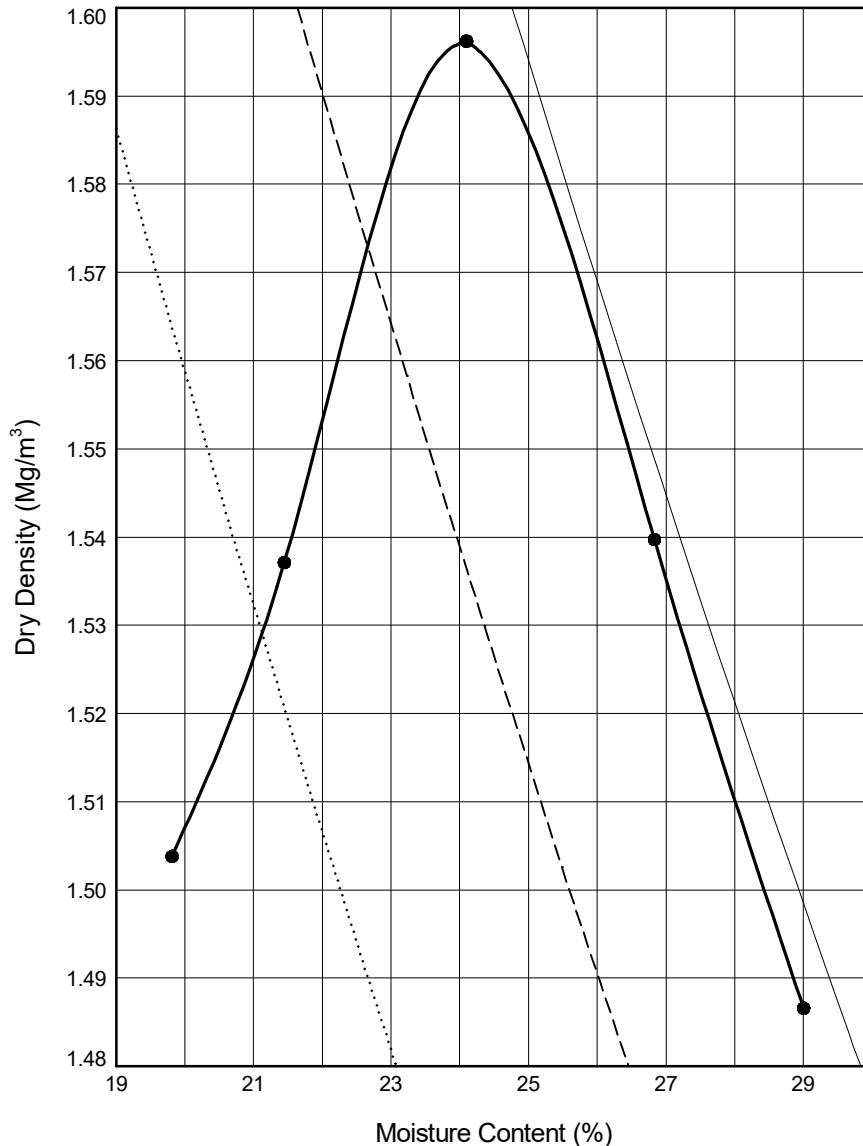
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 15	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.70
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 19
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP20** Sample Ref: **11** Sample Type: **B** Depth (m): **1.70**



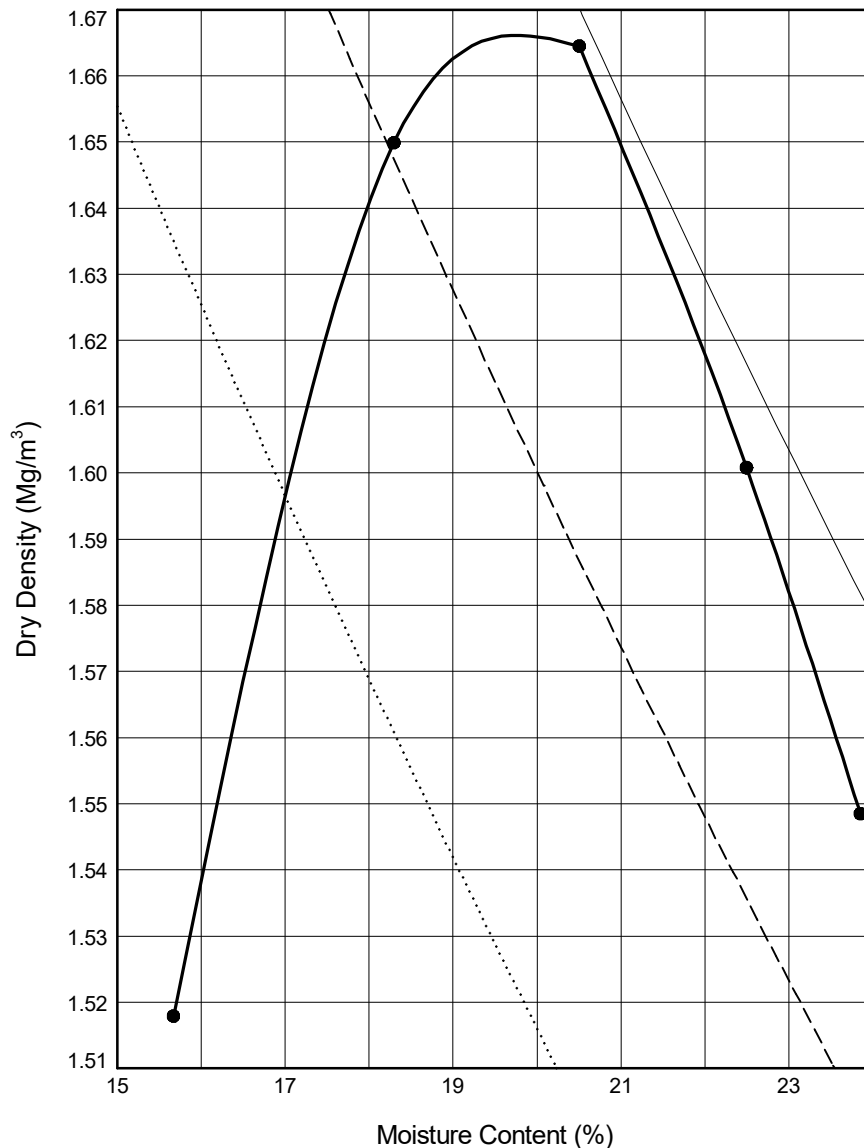
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.60
% Retained on 37.5mm BS Sieve	: 2	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 24
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP22** Sample Ref: **4** Sample Type: **D** Depth (m): **0.40**



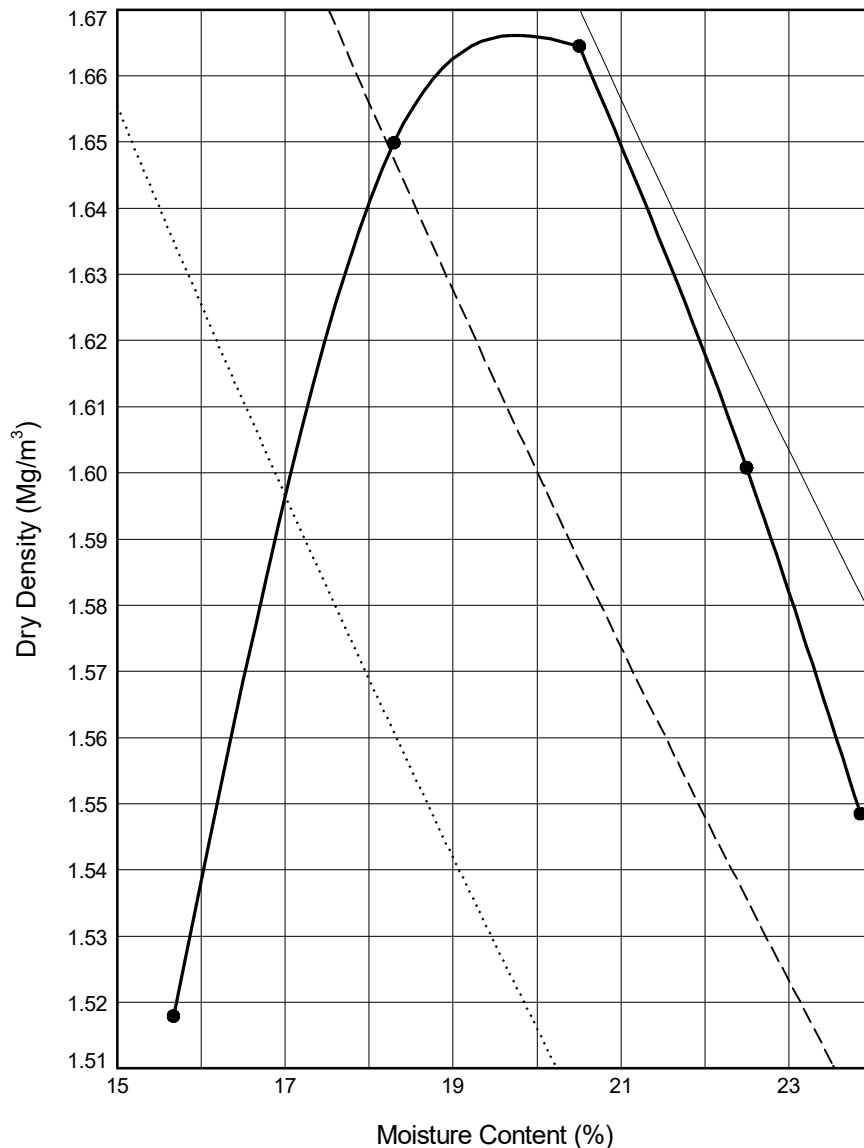
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 16	Compaction Type : Heavy	Maximum Dry Density (Mg/m³) : 1.67
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 4.5	Optimum Moisture Content (%) : 20
% Retained on 20.0mm BS Sieve : 2	Type of Mould : 1 LITRE	Method Used: Clause 3.5
Particle Density - measured (Mg/m³) : 2.54		Remarks:
Size of Soil Pieces : <20mm	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Brown slightly sandy slightly gravelly CLAY		———— 0% ----- 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP22** Sample Ref: **5** Sample Type: **B** Depth (m): **0.50**



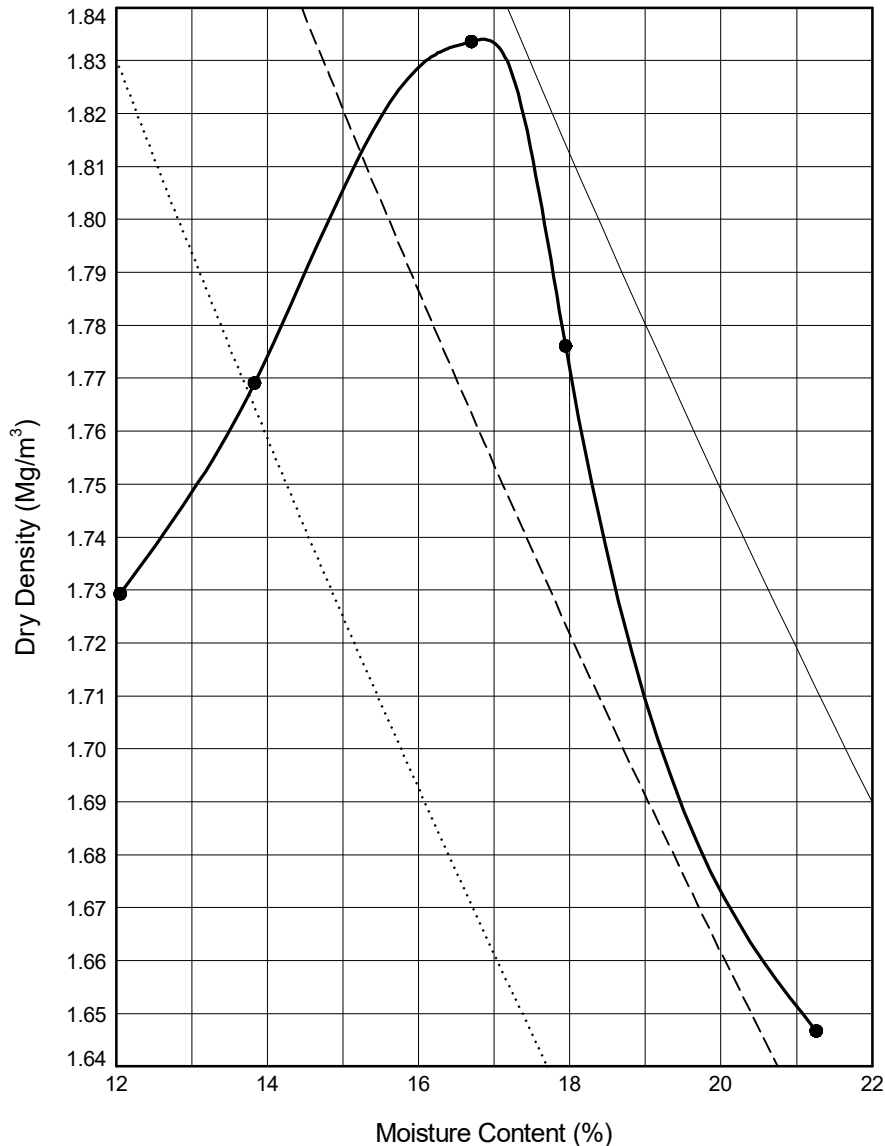
Initial Sample Conditions	Test Details	Test Results
Initial Moisture Content (%) : 16	Compaction Type : Heavy	Maximum Dry Density (Mg/m³) : 1.67
% Retained on 37.5mm BS Sieve : 0	Mass of Rammer (kg): 4.5	Optimum Moisture Content (%) : 20
% Retained on 20.0mm BS Sieve : 2	Type of Mould : 1 LITRE	Method Used: Clause 3.5
Particle Density - measured (Mg/m³) : 2.54		Remarks:
Size of Soil Pieces : <20mm	Separate samples were used.	
Sample Description		Key to Air Voids Lines
Brown slightly gravelly slightly sandy CLAY		—— 0% - - - - 5% 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			LAURA SCHRAMM
	Contract		Contract Ref:
EMG Phase 2		765514	
			

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP24** Sample Ref: **11** Sample Type: **B** Depth (m): **1.20**



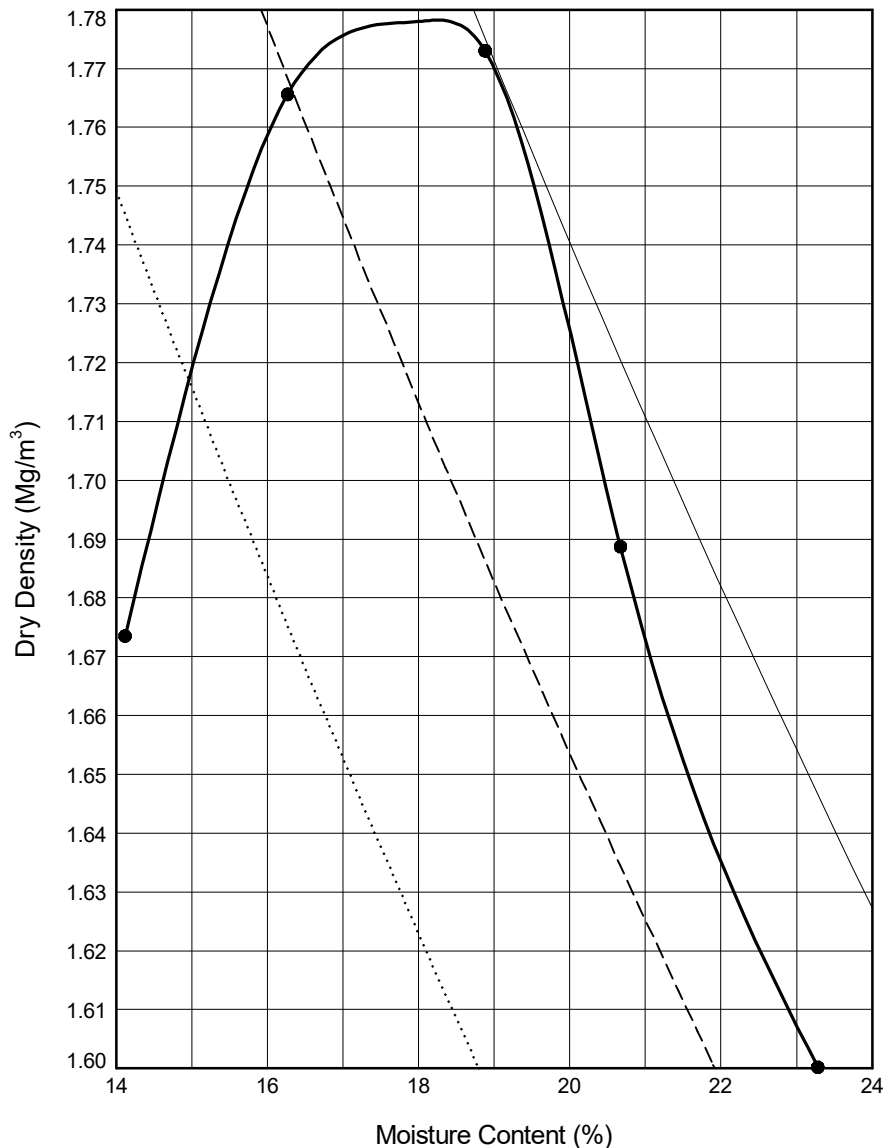
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 14	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.83
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.69	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20MM				
Sample Description			Key to Air Voids Lines		
Brown slightly sandy slightly gravelly CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3, 3.4, 3.5, 3.6, 3.7 of BS1377:Part 4:1990
NON-STANDARD TEST

Trial Pit: **TP27** Sample Ref: **13** Sample Type: **B** Depth (m): **2.60**



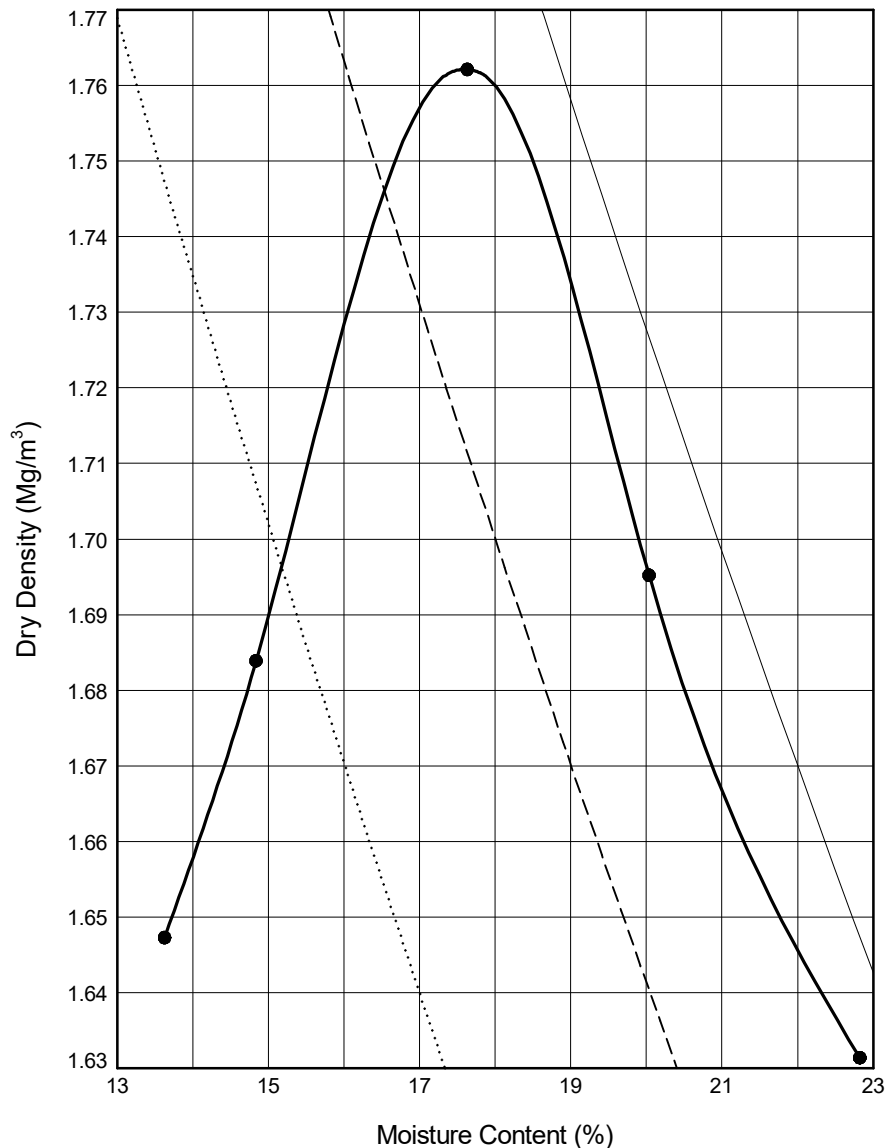
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 16	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.78
% Retained on 37.5mm BS Sieve	: 9	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 6	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.67	Single sample was used.		Remarks:	
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP28** Sample Ref: **5** Sample Type: **B** Depth (m): **0.50**



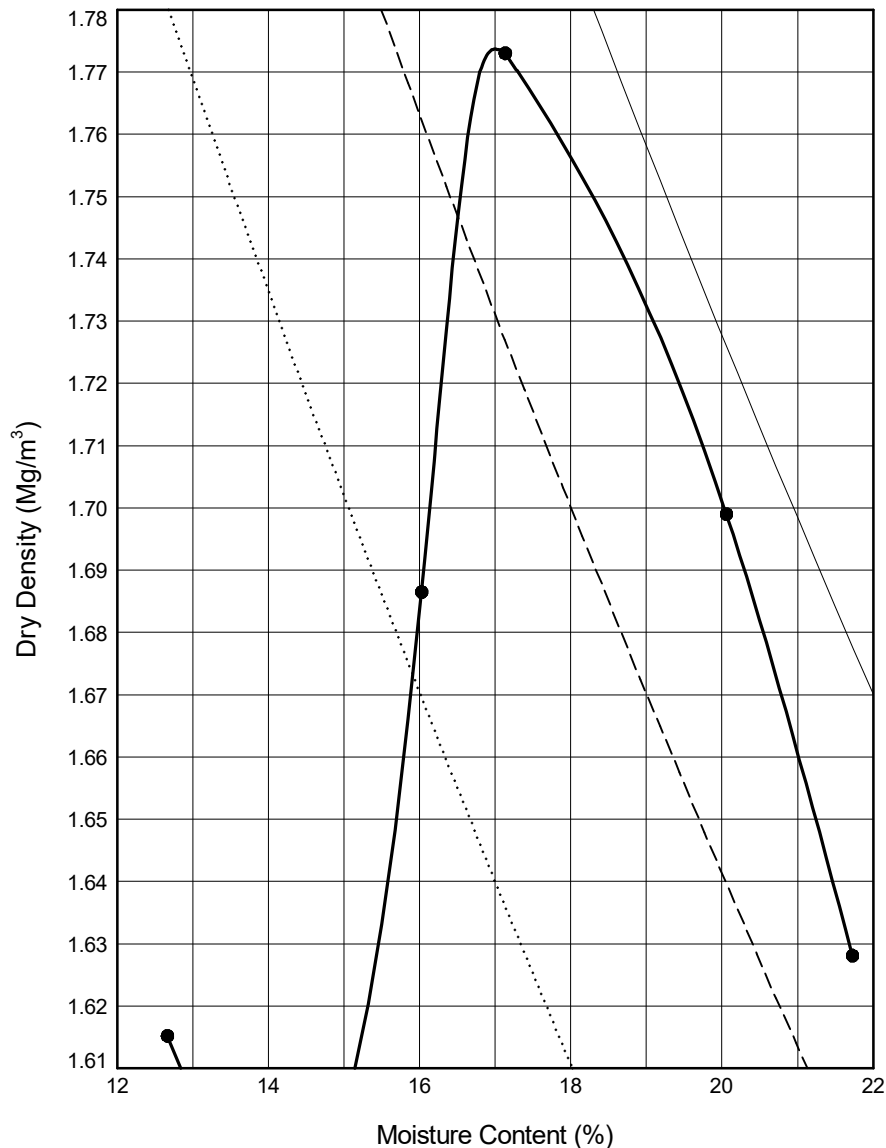
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 27	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.76
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 18
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.64	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
			09/03/23
	Contract	Contract Ref:	
EMG Phase 2		765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP28** Sample Ref: **8** Sample Type: **B** Depth (m): **1.10**



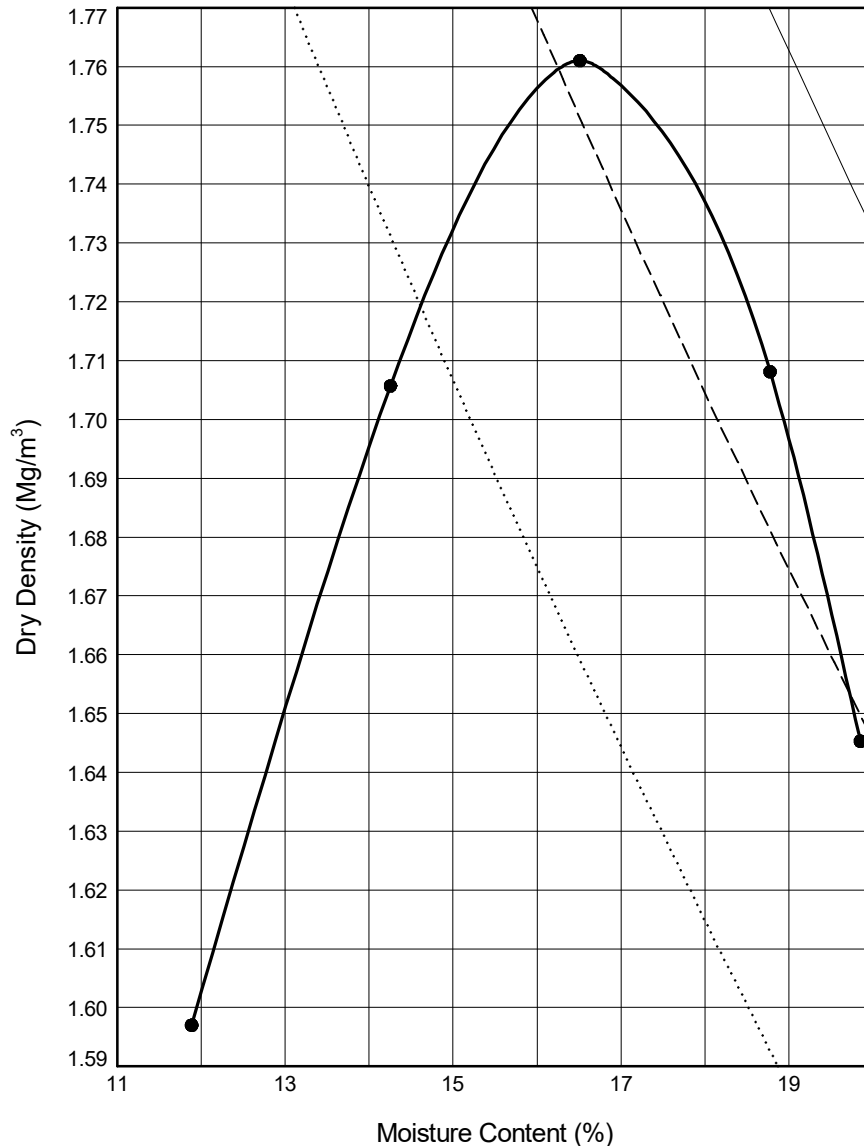
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 13	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.77
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 38	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.64	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract EMG Phase 2		Contract Ref: 765514 

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP29** Sample Ref: **6** Sample Type: **B** Depth (m): **0.50**



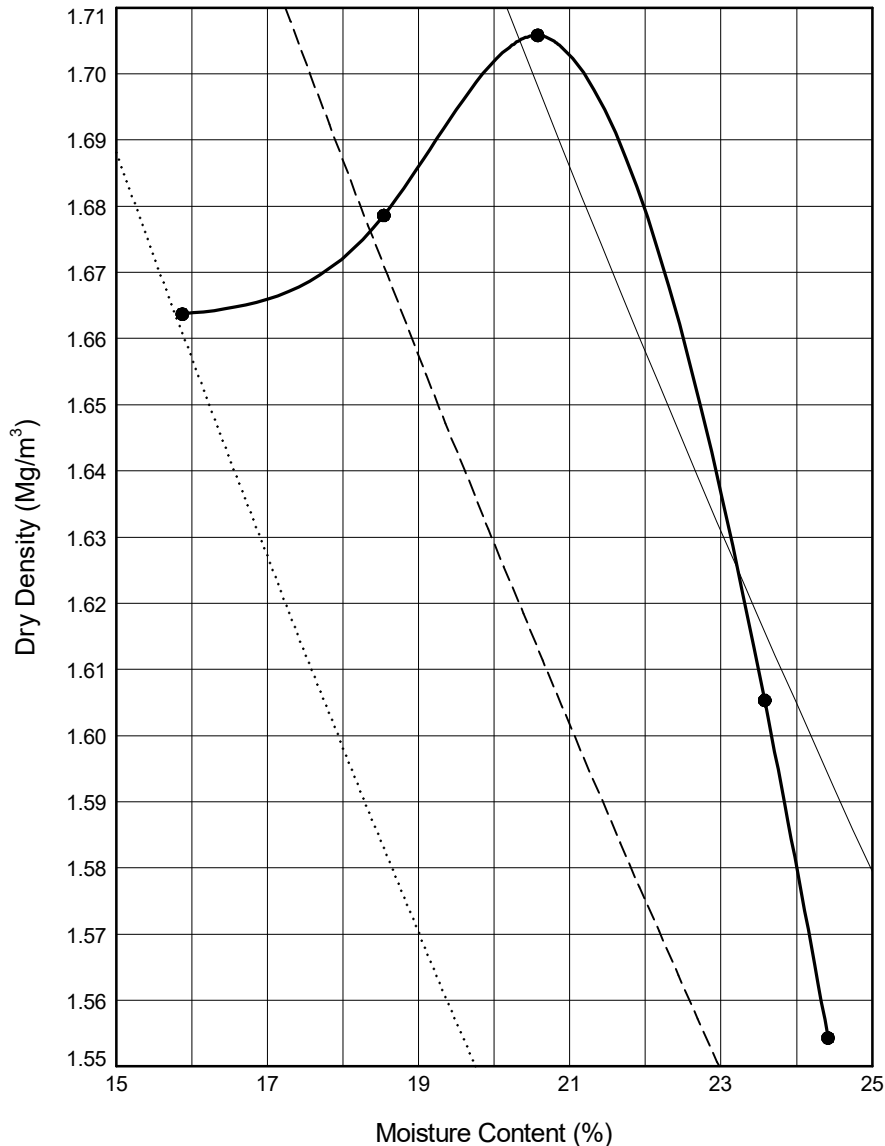
Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 12	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.76
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 17
% Retained on 20.0mm BS Sieve	: 0	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - assumed (Mg/m³)	: 2.65	Remarks:			
Size of Soil Pieces	: <20mm				
Sample Description			Key to Air Voids Lines		
Brown slightly gravelly slightly sandy clayey SILT			———— 0% — — — — 5% 10%		

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP TEST

In accordance with clauses 3.3,3.4,3.5,3.6,3.7 of BS1377:Part 4:1990

Trial Pit: **TP36** Sample Ref: **12** Sample Type: **B** Depth (m): **1.10**



Initial Sample Conditions		Test Details		Test Results	
Initial Moisture Content (%)	: 21	Compaction Type	: Light	Maximum Dry Density (Mg/m³)	: 1.71
% Retained on 37.5mm BS Sieve	: 0	Mass of Rammer (kg):	2.5	Optimum Moisture Content (%)	: 21
% Retained on 20.0mm BS Sieve	: 5	Type of Mould	: 1 LITRE	Method Used:	Clause 3.3
Particle Density - measured (Mg/m³)	: 2.61	Remarks:			
Size of Soil Pieces	: <20mm				
Single sample was used.					
Sample Description			Key to Air Voids Lines		
Brown red slightly gravelly slightly sandy CLAY			———— 0%	— — — — 5%	 10%

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By		Date
	 LAURA SCHRAMM		09/03/23
	Contract	Contract Ref:	
	EMG Phase 2	765514	

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: **09/03/2023 16:37:09**.

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

Approved Signatory
Luke Fisher (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:

EMG Phase 2

Job No:

765514



MOISTURE CONDITION VALUE CALIBRATION

In accordance with clause 5.5 of BS1377:Part 4:1990

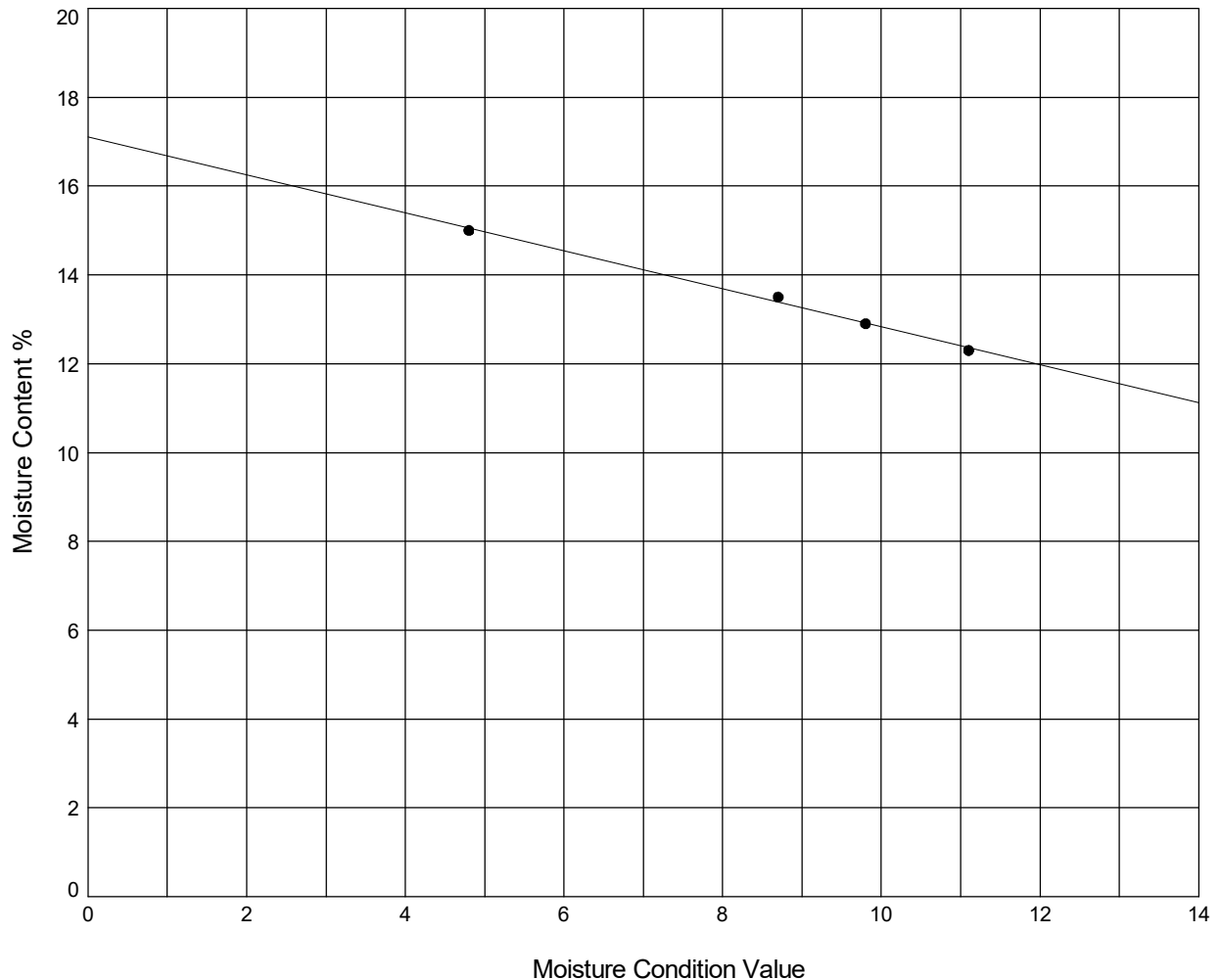
Borehole: **BH14** Sample Ref: **19** Sample Type: **B** Depth (m): **4.00**

Percentage retained on 20mm sieve : **0**

Description : **Brown slightly gravelly sandy CLAY**

Single/Separate Sample Used : **Single**

Test Number	1	2	3	4	5
Moisture Content	15.0	13.5	12.3	12.9	-
MCV	4.8	8.7	11.1	9.8	-
Interpretation Method	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	-



STRUCTURAL SOILS
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LORNA WHITWORTH

24/02/23

Contract

EMG Phase 2

Contract Ref:

765514



MOISTURE CONDITION VALUE CALIBRATION

In accordance with clause 5.5 of BS1377:Part 4:1990

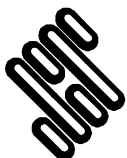
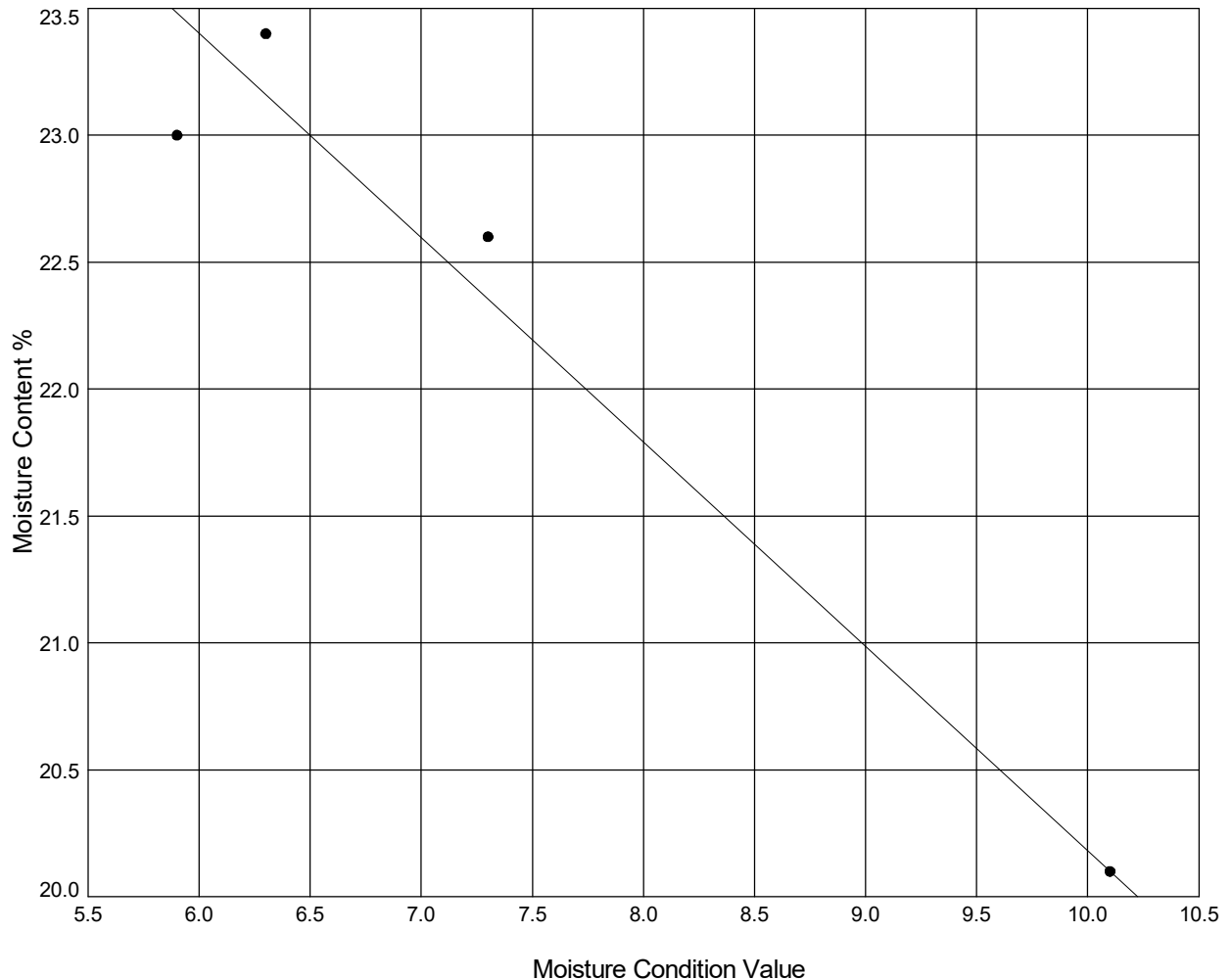
Borehole: **BH19** Sample Ref: **14** Sample Type: **B** Depth (m): **3.00**

Percentage retained on 20mm sieve : **0**

Description : **Red brown slightly sandy slightly gravelly CLAY**

Single/Separate Sample Used : **Single**

Test Number	1	2	3	4	5
Moisture Content	23.0	22.6	20.1	23.4	-
MCV	5.9	7.3	10.1	6.3	-
Interpretation Method	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	-



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Contract Ref:

EMG Phase 2

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MOISTURE CONDITION VALUE CALIBRATION

In accordance with clause 5.5 of BS1377:Part 4:1990

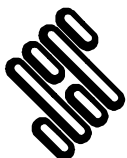
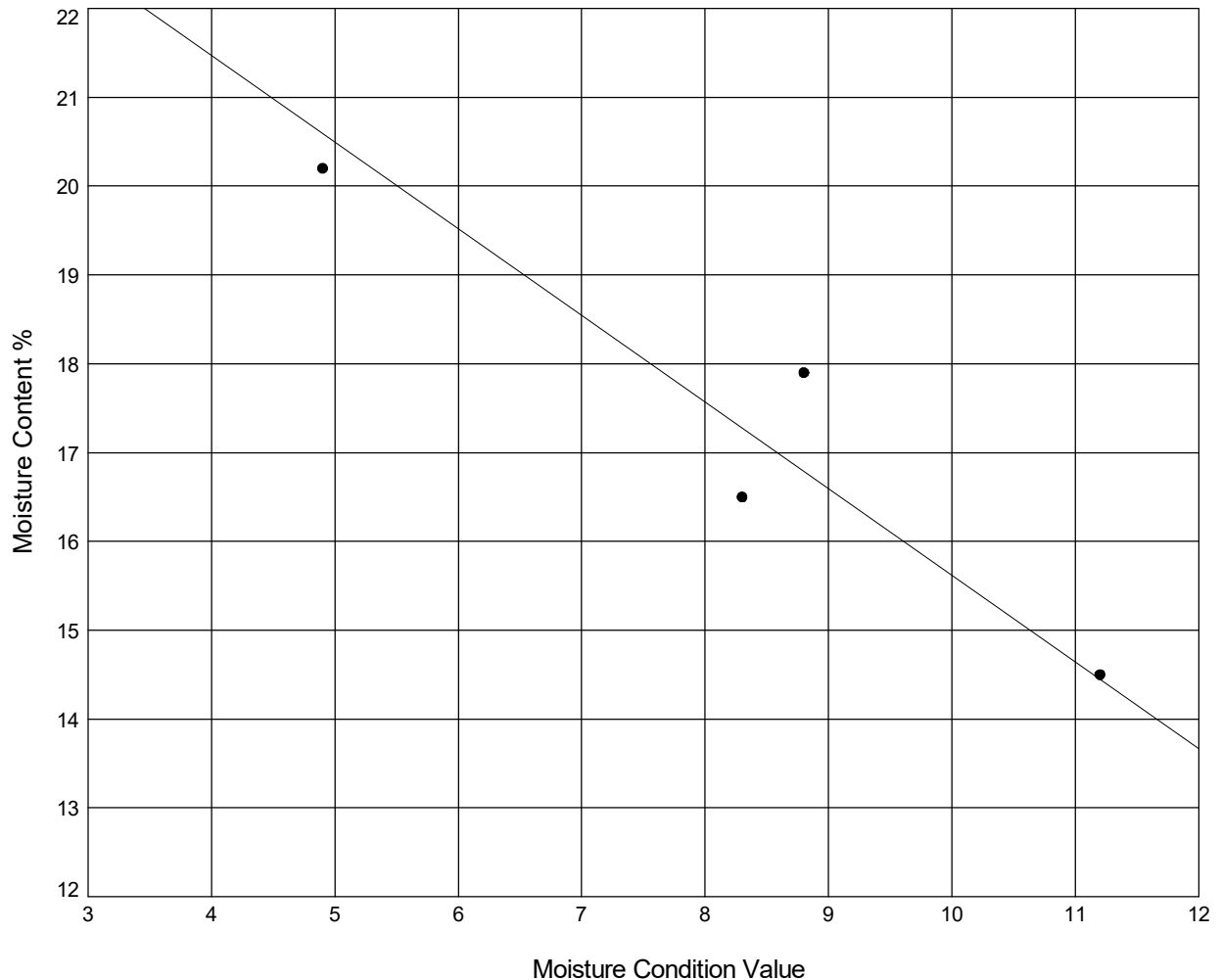
Position ID: **CP06** Sample Ref: **13** Sample Type: **B** Depth (m): **4.00**

Percentage retained on 20mm sieve : **15**

Description : **Grey slightly gravelly CLAY with medium cobble content**

Single/Separate Sample Used : **Single**

Test Number	1	2	3	4	5
Moisture Content	20.2	17.9	16.5	14.5	-
MCV	4.9	8.8	8.3	11.2	-
Interpretation Method	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	-



STRUCTURAL SOILS
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Contract Ref:

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MOISTURE CONDITION VALUE CALIBRATION

In accordance with clause 5.5 of BS1377:Part 4:1990

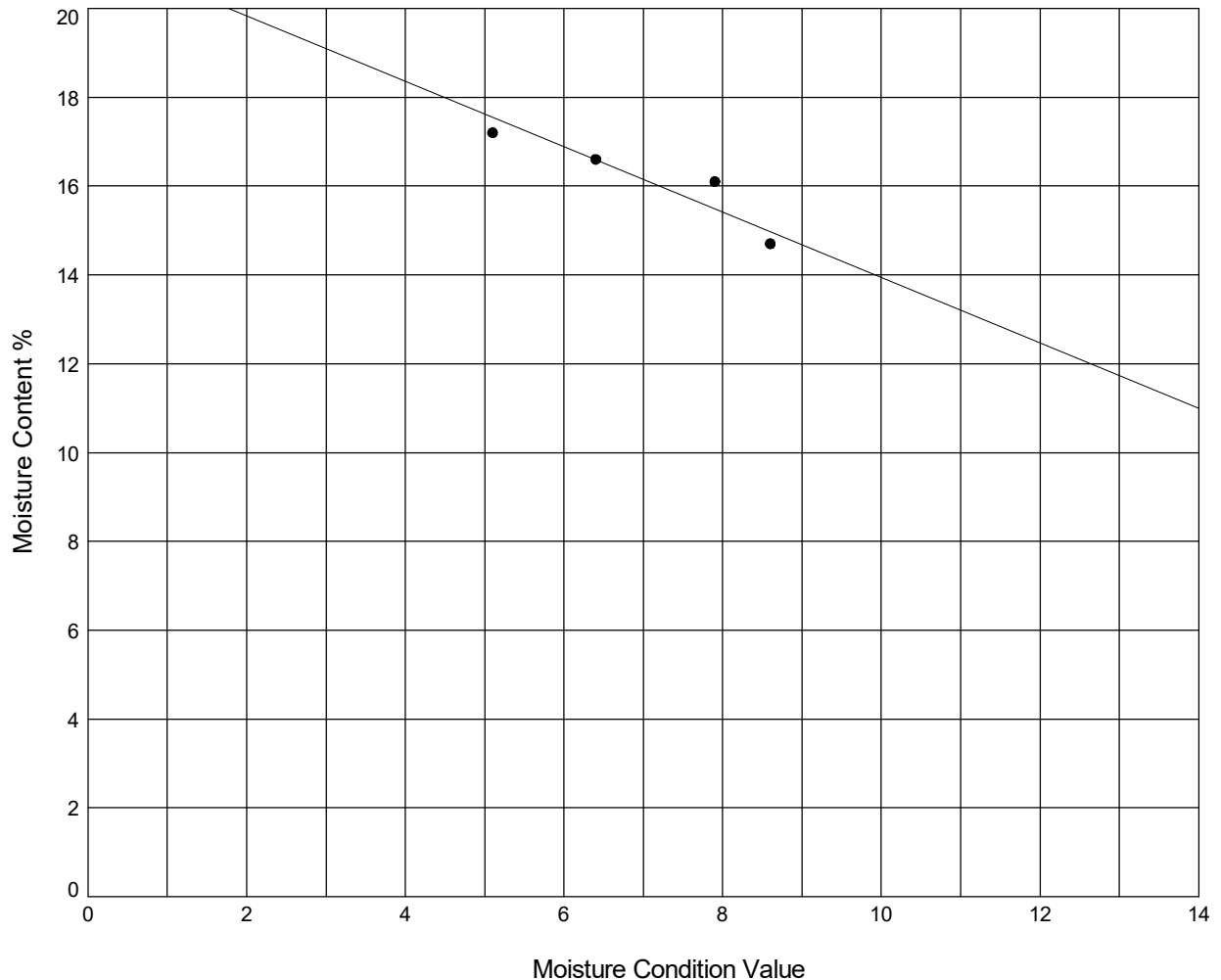
Position ID: **CP10** Sample Ref: **17** Sample Type: **B** Depth (m): **4.00**

Percentage retained on 20mm sieve : **26**

Description : **Brown slightly sandy gravelly CLAY**

Single/Separate Sample Used : **Separate**

Test Number	1	2	3	4	5
Moisture Content	17.2	16.6	16.1	14.7	-
MCV	5.1	6.4	7.9	8.6	-
Interpretation Method	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	Steepest straight line - Fig 9	-



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24/02/23

Contract

EMG Phase 2

Contract Ref:

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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

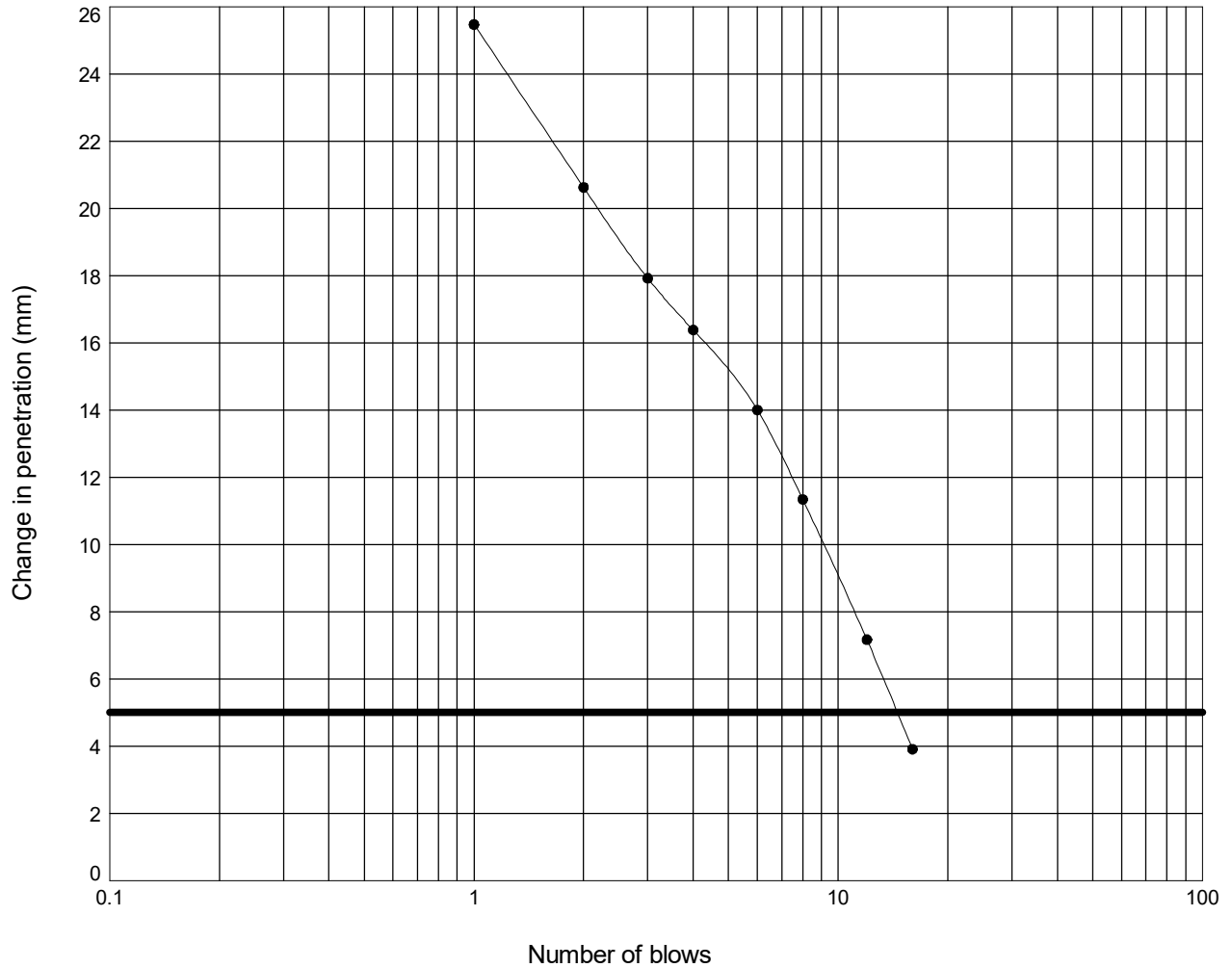
Borehole: **BH02**

Sample Ref: **11**

Sample Type: **B**

Depth (m): **2.00**

Description : **Brown slightly sandy CLAY**



Moisture Content : = 22 %

Percentage retained on 20 mm sieve : = 0 %

Moisture Condition Value : = 11.6

Interpretation of curve: = Steepest straight line - Fig 9



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Date

24/02/23

Contract

EMG Phase 2

Contract Ref:

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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

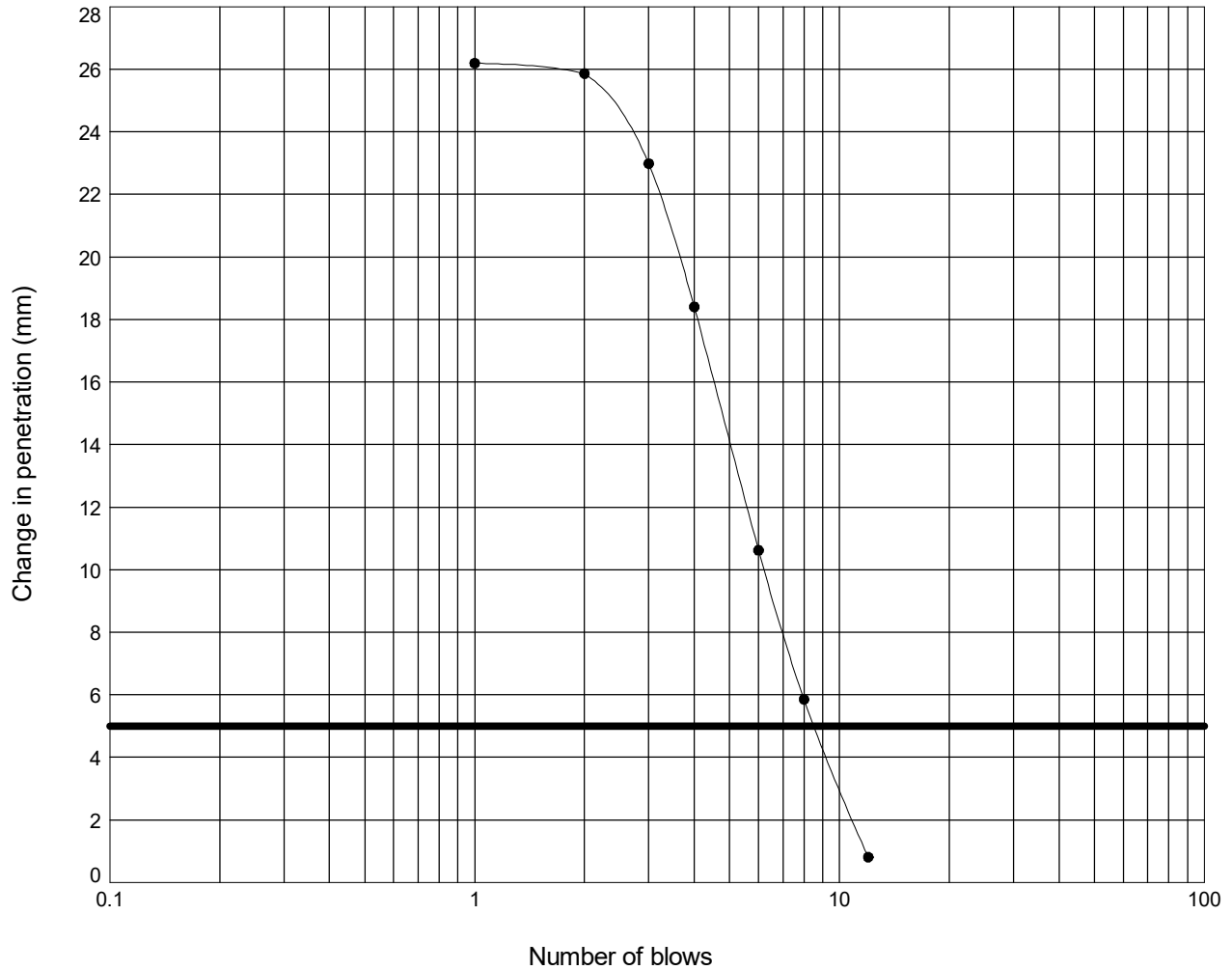
Borehole: **BH07**

Sample Ref: **19**

Sample Type: **B**

Depth (m): **3.00**

Description : **Red brown CLAY**



Moisture Content : = 21 %

Percentage retained on 20 mm sieve : = 7 %

Moisture Condition Value : = 9.1

Interpretation of curve: = Steepest straight line - Fig 9



STRUCTURAL SOILS
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Contract

EMG Phase 2

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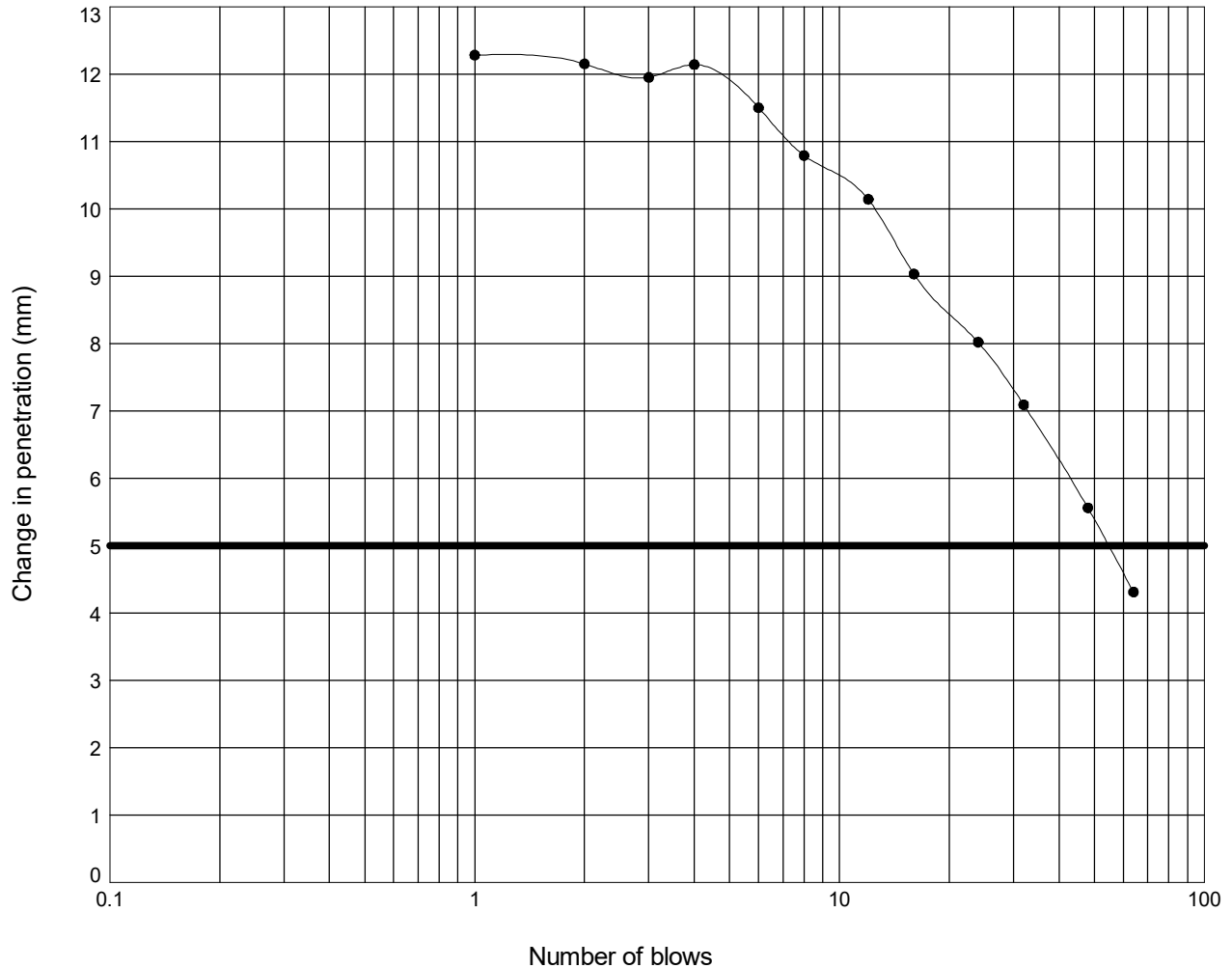
765514

MOISTURE CONDITION VALUE

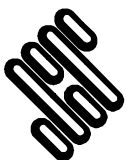
In accordance with clause 5 of BS1377:Part 4:1990

Borehole: **BH18** Sample Ref: **12** Sample Type: **B** Depth (m): **0.80**

Description : **Brown gravelly CLAY**



Moisture Content :	=	9.8	%
Percentage retained on 20 mm sieve :	=	28	%
Moisture Condition Value :	=	17.4	
Interpretation of curve:	=	Steepest straight line - Fig 9	



STRUCTURAL SOILS
The Potteries
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Date

Contract

EMG Phase 2

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24/02/23

Contract Ref:

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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

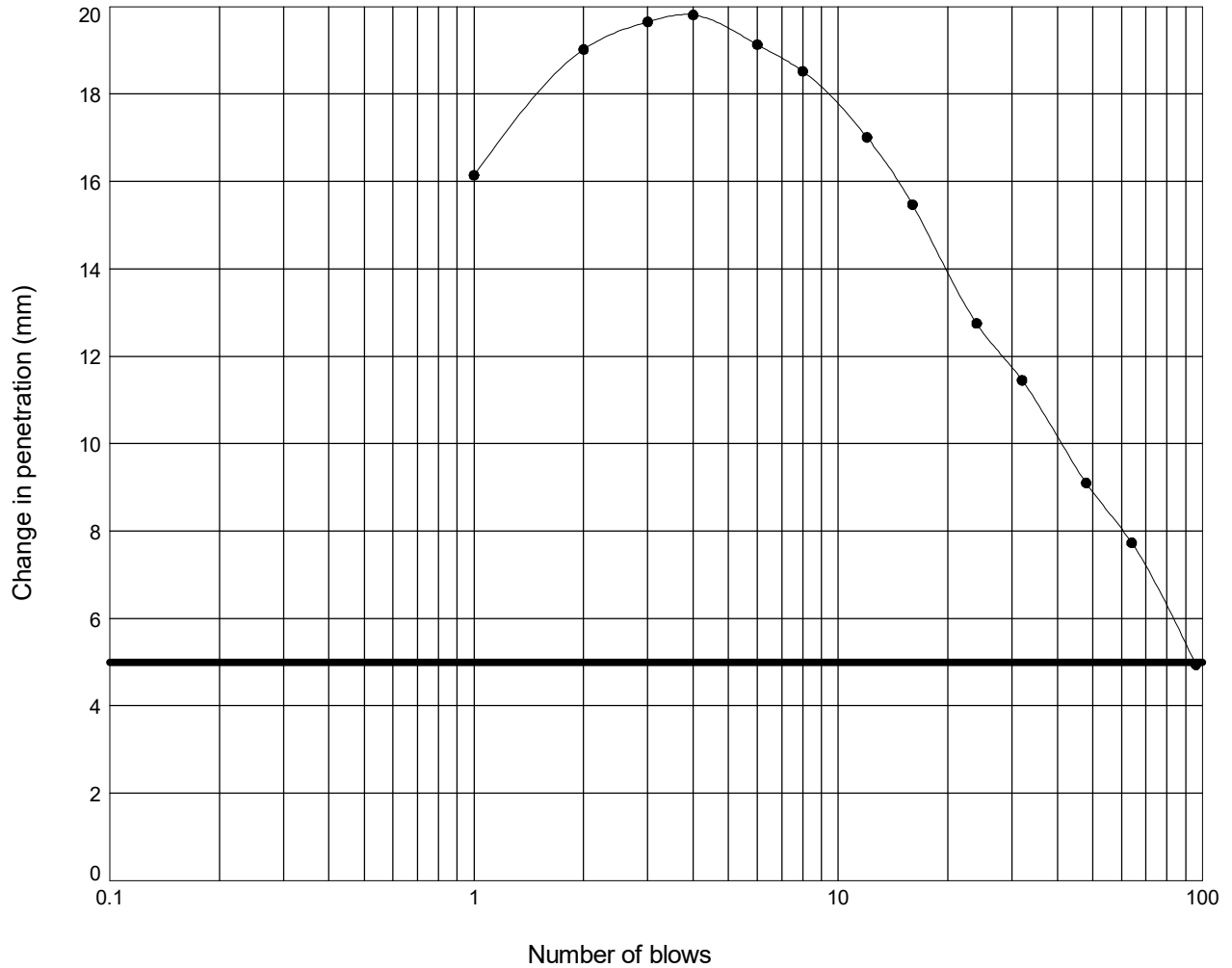
Borehole: **BH21**

Sample Ref: **4**

Sample Type: **B**

Depth (m): **0.40**

Description : **Brown slightly gravelly CLAY (TOPSOIL)**



Moisture Content : = 14 %

Percentage retained on 20 mm sieve : = 3 %

Moisture Condition Value : = >18

Interpretation of curve: = Steepest straight line - Fig 9



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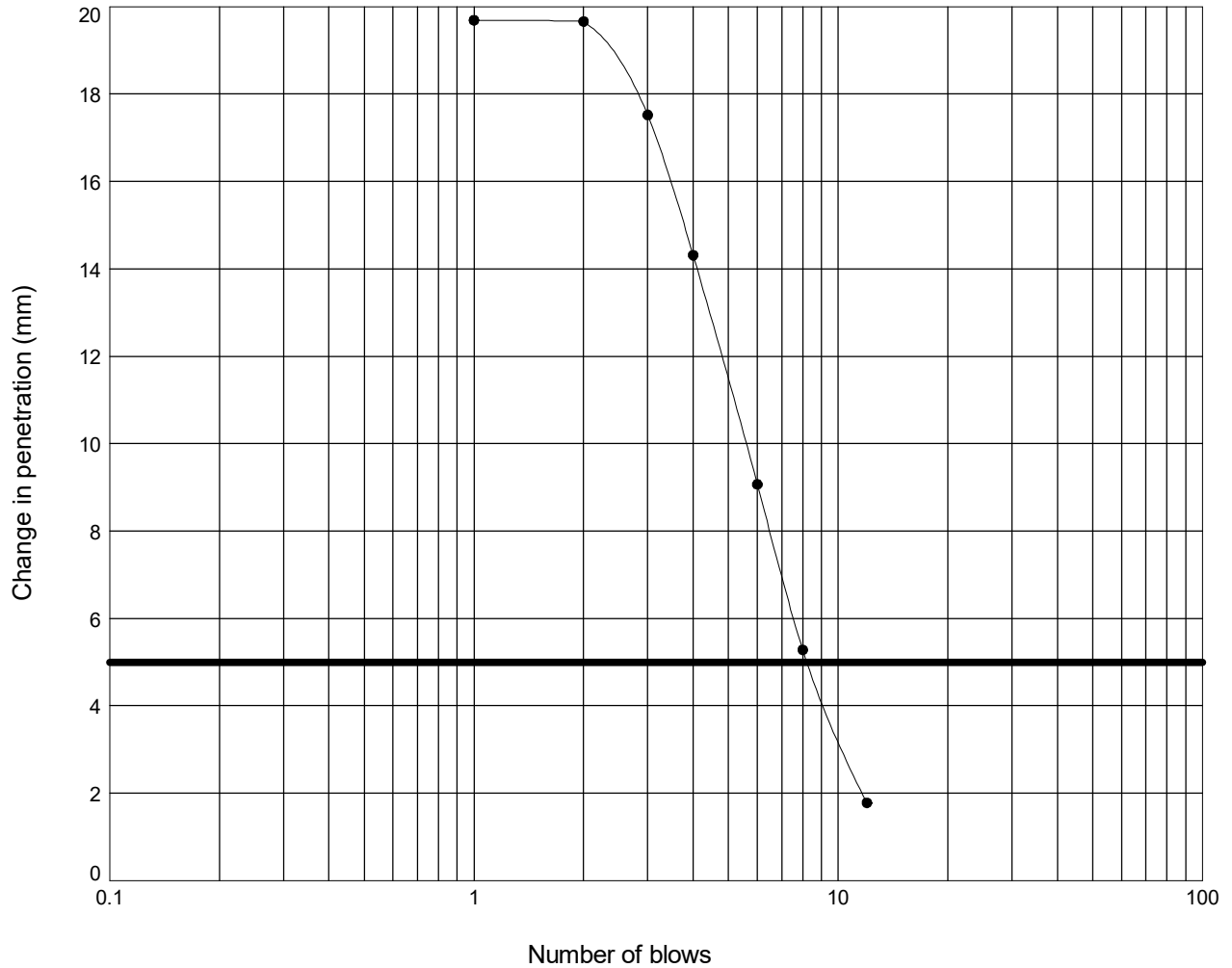
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Position ID: **CP12** Sample Ref: **22** Sample Type: **B** Depth (m): **7.50**

Description : **Red brown slightly sandy slightly gravelly CLAY**



Moisture Content : = 19 %

Percentage retained on 20 mm sieve : = 0 %

Moisture Condition Value : = 9.1

Interpretation of curve: = Steepest straight line - Fig 9



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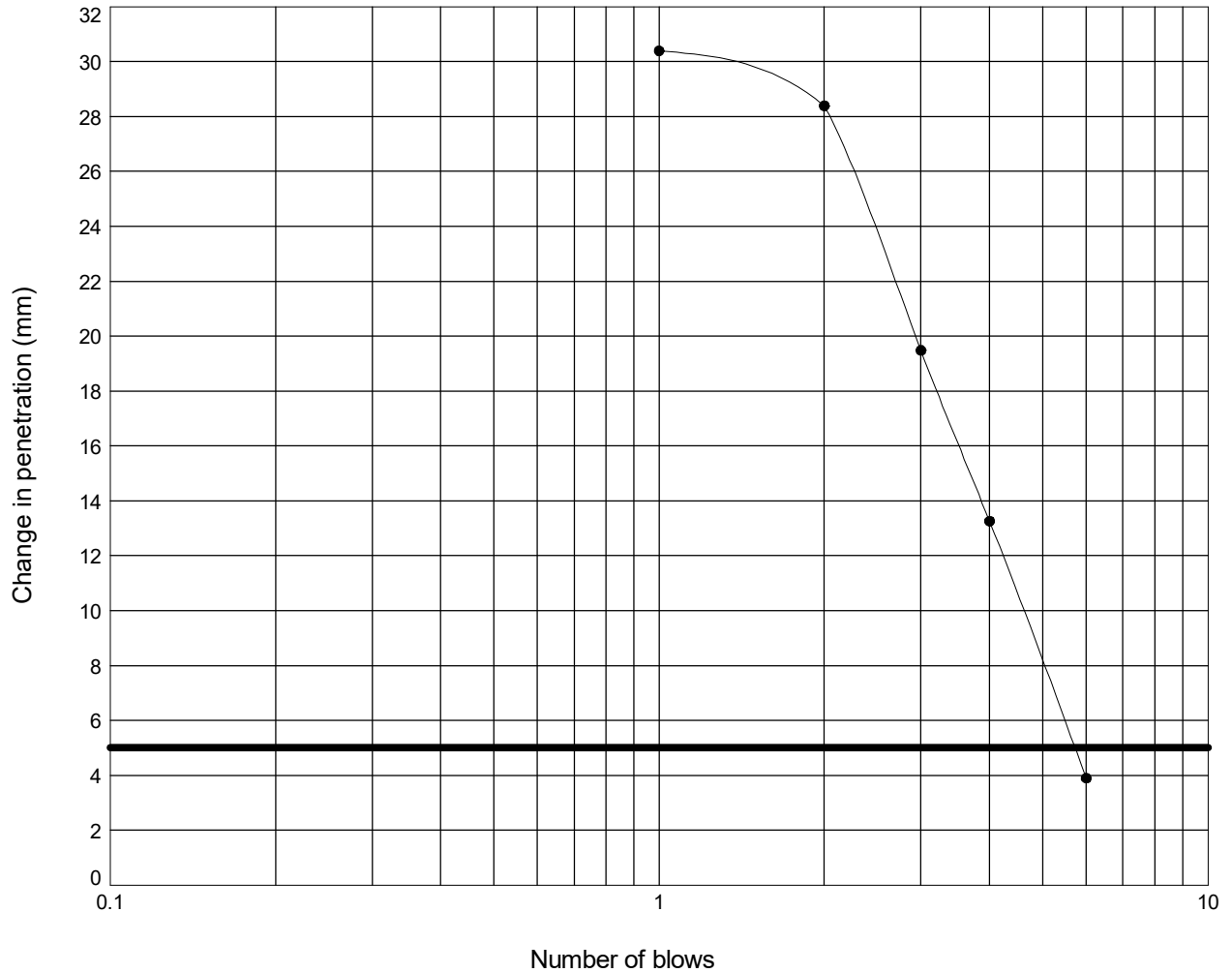
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Position ID: **CP17** Sample Ref: **11** Sample Type: **B** Depth (m): **2.50**

Description : **Brown slightly sandy slightly gravelly CLAY**



Moisture Content :	=	18	%
Percentage retained on 20 mm sieve :	=	8	%
Moisture Condition Value :	=	7.6	
Interpretation of curve:	=	Steepest straight line - Fig 9	



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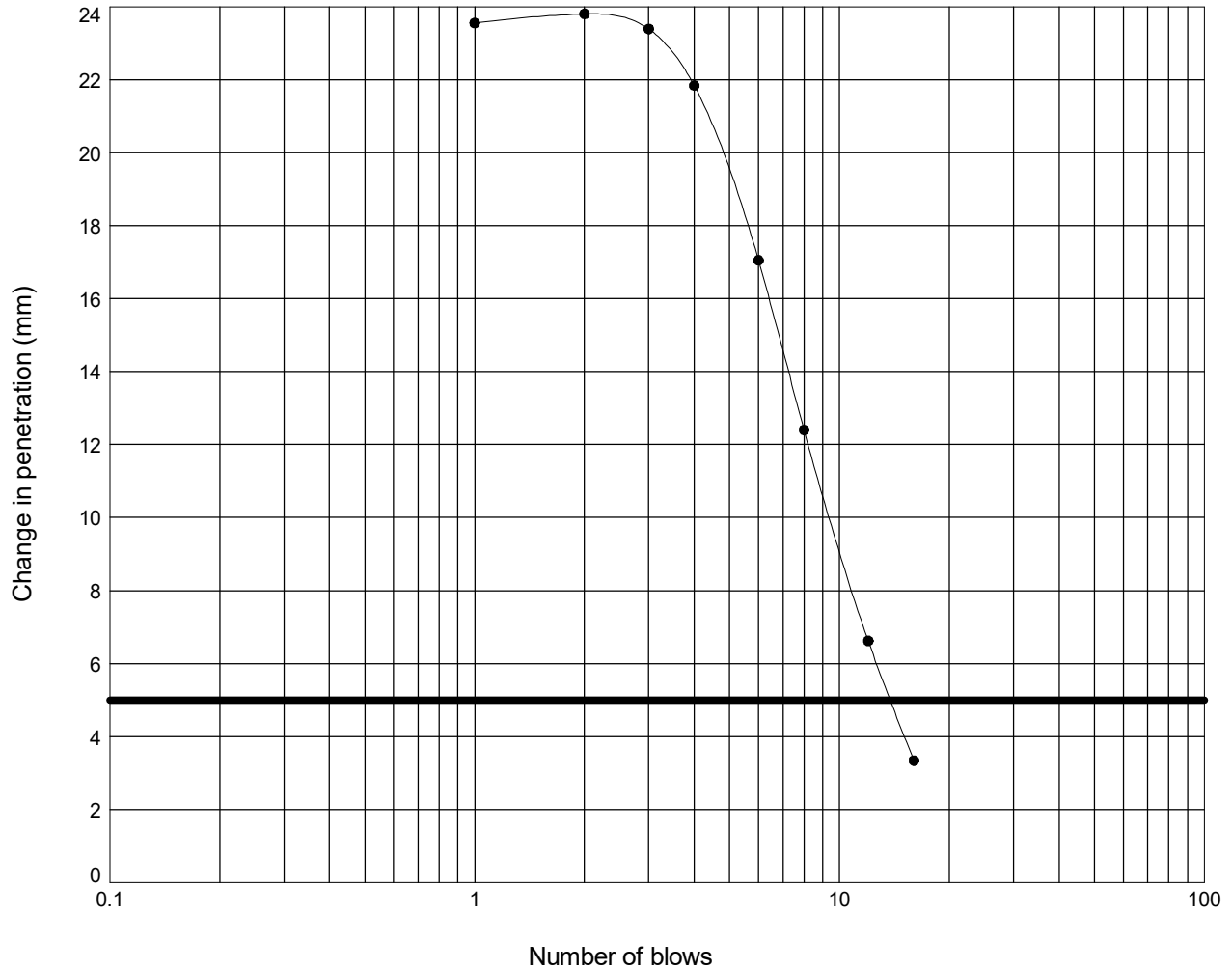
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Trial Pit: **TP07** Sample Ref: **8** Sample Type: **B** Depth (m): **1.00**

Description : **Red brown slightly sandy slightly gravelly CLAY**



Moisture Content : = 14 %

Percentage retained on 20 mm sieve : = 0 %

Moisture Condition Value : = 11.0

Interpretation of curve: = Steepest straight line - Fig 9



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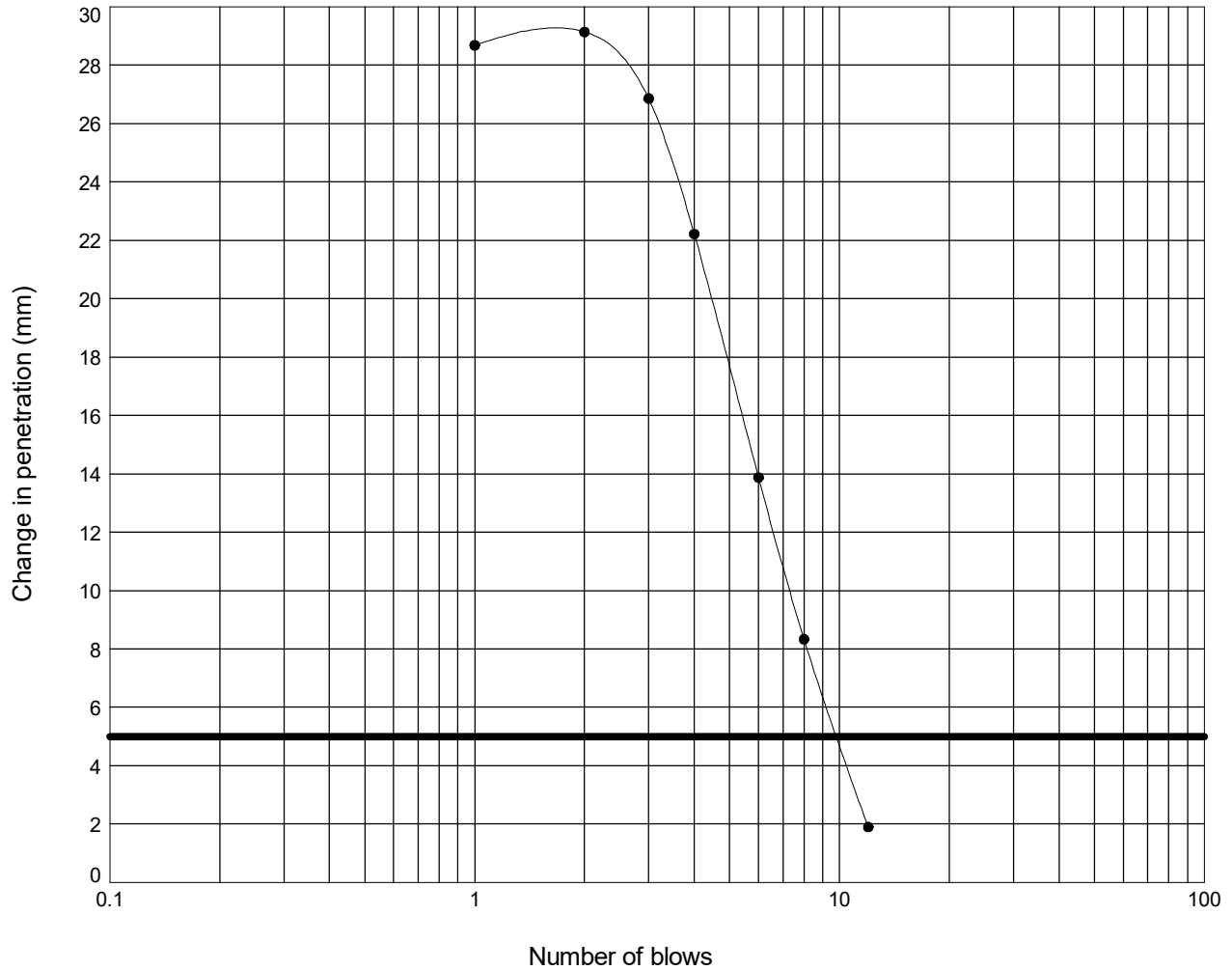
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Trial Pit: **TP14** Sample Ref: **3** Sample Type: **B** Depth (m): **0.40**

Description : **Brown slightly sandy slightly gravelly CLAY**



Moisture Content : = 23 %

Percentage retained on 20 mm sieve : = 2 %

Moisture Condition Value : = 9.7

Interpretation of curve: = Steepest straight line - Fig 9



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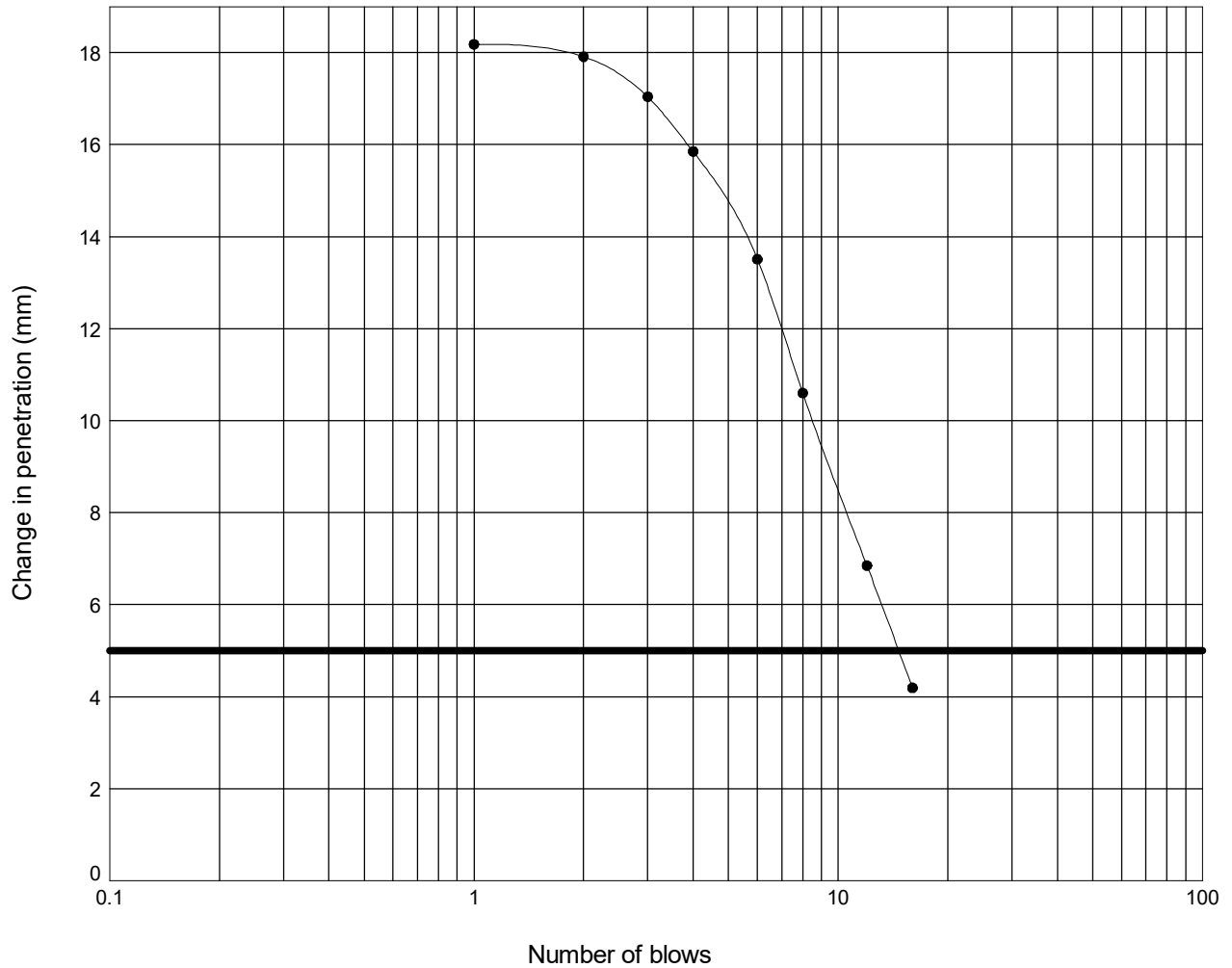
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Trial Pit: **TP33** Sample Ref: **10** Sample Type: **LB** Depth (m): **2.20**

Description : **Red slightly gravelly CLAY**



Moisture Content : = 16 %
Percentage retained on 20 mm sieve : = 1 %
Moisture Condition Value : = 11.4
Interpretation of curve: = Steepest straight line - Fig 9



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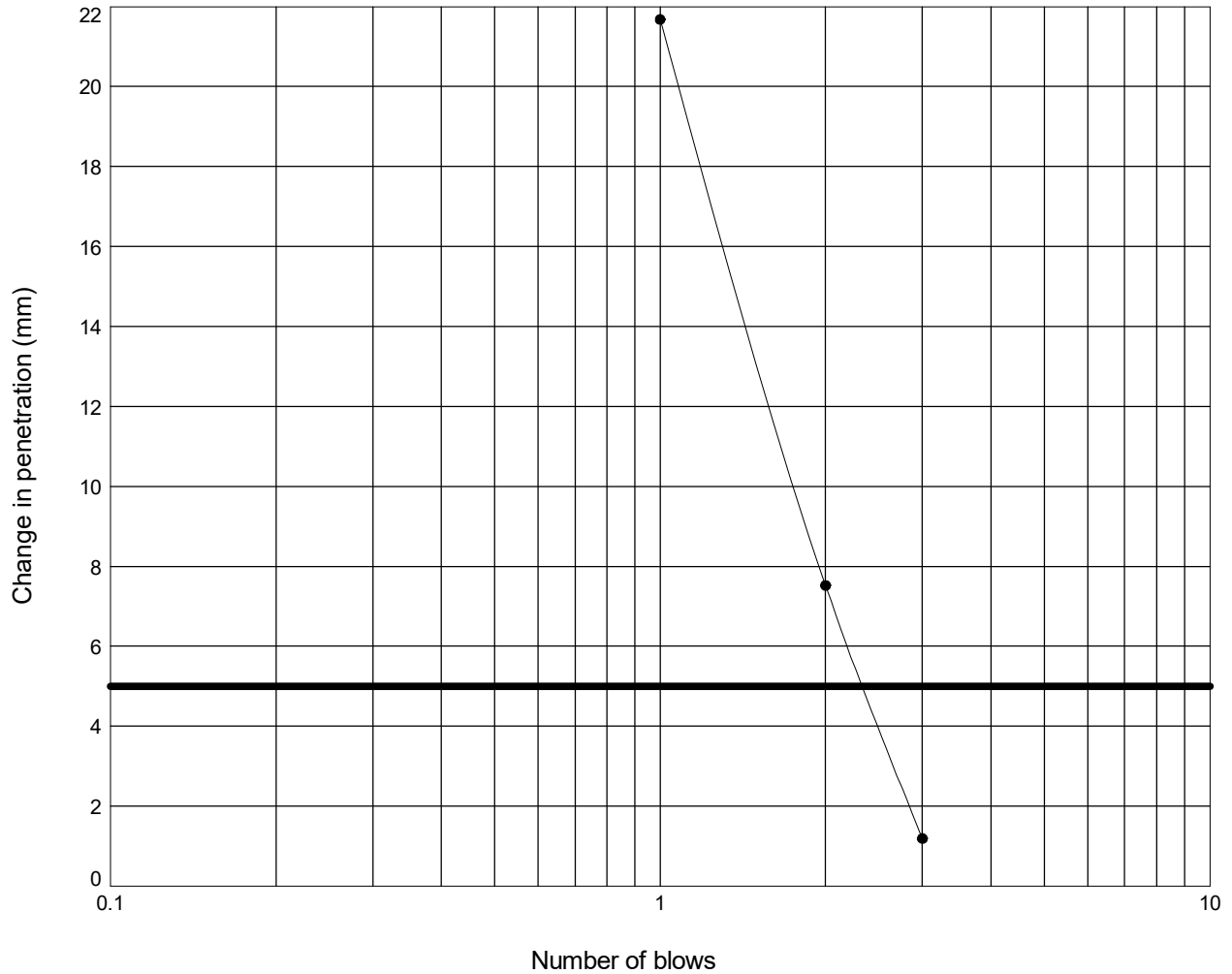
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MOISTURE CONDITION VALUE

In accordance with clause 5 of BS1377:Part 4:1990

Trial Pit: **TP36** Sample Ref: **15** Sample Type: **B** Depth (m): **2.00**

Description : **Brown red slightly sandy slightly gravelly CLAY**



Moisture Content :	=	24	%
Percentage retained on 20 mm sieve :	=	31	%
Moisture Condition Value :	=	3.5	
Interpretation of curve:	=	Steepest straight line - Fig 9	



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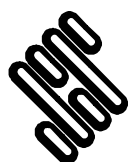
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SUMMARY OF WATER CONTENT TESTS

RT08 Water Content of Rock (in accordance with ISRM 2007)

Exploratory Position ID	Sample Ref	Depth (m)	Sample Type	Water Content (%)	Lab	
BH01	20	5.00	C	16.6	B	
BH01	22	7.40	C	13.1	B	
BH02	22	7.55	C	14.8	B	
BH03	25	9.94	C	20.4	B	
BH07	25	5.30	C	16.9	B	
BH13	36	10.05	C	15.0	B	
BH15	50	14.30	C	8.9	B	
BH16	21	5.55	C	15.3	B	
BH21	26	9.00	C	17.9	B	
BH22	18	4.30	C	14.7	B	
BH25	25	4.25	C	9.6	B	
BH25	28	8.60	C	9.9	B	
BH27	5	2.10	C	14.1	B	

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



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<i>Daria Ignaczak</i>		23/03/23
Contract:		Contract Ref:
EMG Phase 2		765514

DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.45** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

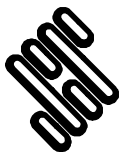
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (x) = excluded from mean calculations

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



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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.59** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

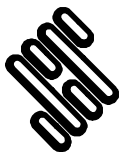
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.01** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

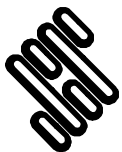
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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16.03.23

EMG Phase 2

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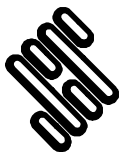
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.09** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



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EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²

$$I_s(50) \text{ Mean Irregular tests} = 0.05 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

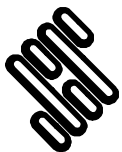
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Diametral tests} = 0.01 \text{ MN/m}^2$$

$I_a(50)$ Strength Anisotropy Index = **1.38** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

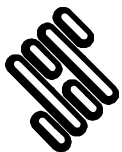
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.05 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.85** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

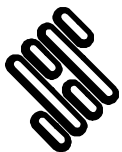
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.52** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

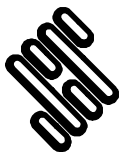
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.18** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

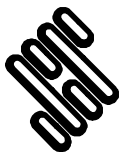
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$$I_s(50) \text{ Mean Irregular tests} = 0.01 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

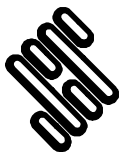
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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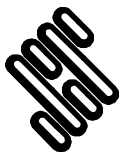
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.04** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.08** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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EMG Phase 2

Date

16.03.23

Contract Ref:

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.19** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

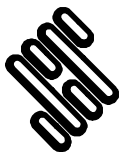
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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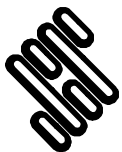
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.13** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$$I_s(50) \text{ Mean Irregular tests} = \mathbf{0.01} \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

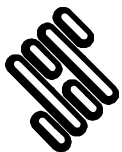
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.04 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Irregular tests} = \mathbf{0.04 \text{ MN/m}^2}$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

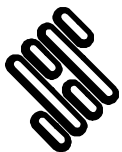
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.7** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

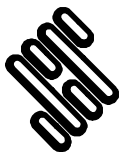
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.06 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **3.67** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

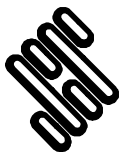
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.04 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.09** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

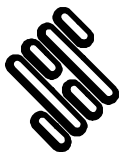
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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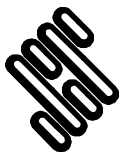
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.11** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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16.03.23

EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_o(50)$ Mean Axial tests = **0.1** MN/m²

$I_c(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **3.52** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

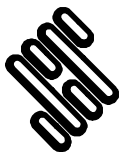
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Compiled By

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.06 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.02 MN/m²**

$I_a(50)$ Strength Anisotropy Index = **3.8** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

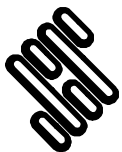
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Contract Ref:

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16.03.23

EMG Phase 2

765514



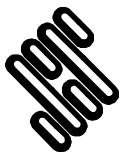
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.08** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **4.43** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



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16.03.23

EMG Phase 2

765514



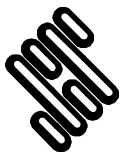
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **1.17** MN/m²
 $I_s(50)$ Mean Diametral tests = **1.37** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.17** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column:: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



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Contract Ref:

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.04 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.29** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

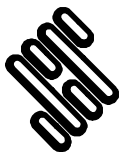
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Irregular tests} = \mathbf{0.18 \text{ MN/m}^2}$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

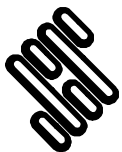
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (x) = excluded from mean calculations

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Date _____

Contract Ref:

Contract:

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Irregular tests} = 0.13 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

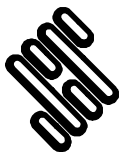
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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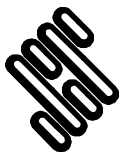
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.03** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.32** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.86** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

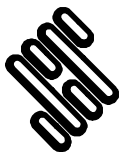
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.67** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

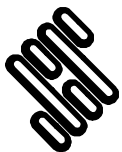
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.03** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

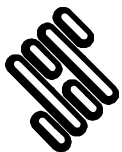
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

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765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.27** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

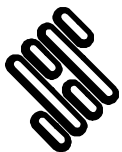
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.49** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

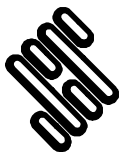
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.36 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Irregular tests} = 0.47 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

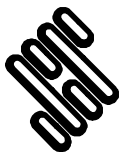
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.83** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

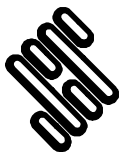
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.08 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.05** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.48** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

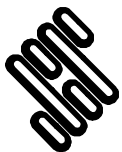
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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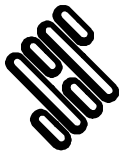
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.05** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.21** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, ^(NS) denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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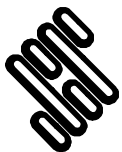
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.34** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.38** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.11** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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Contract Ref:

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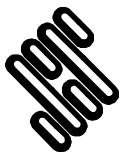
DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



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16.03.23

Contract Ref:

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **3.06** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

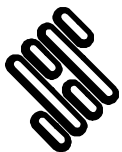
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract Ref:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.46** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

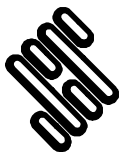
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Irregular tests} = 0.01 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

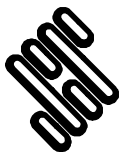
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column:, A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

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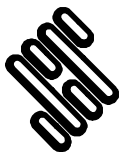
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.12** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **4.94** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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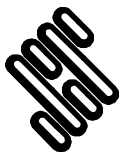
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.34** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.21** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

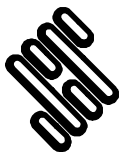
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.33** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

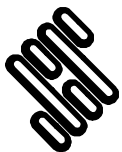
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Irregular tests = **0.04** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

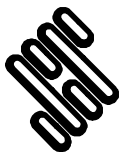
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.97** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

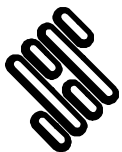
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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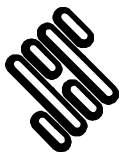
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.04** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.03** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.22** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.22** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

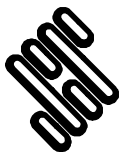
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.46** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

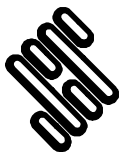
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.46** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

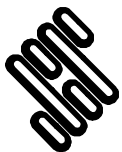
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.09** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

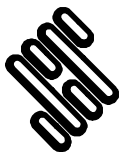
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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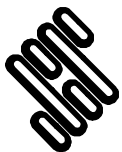
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.52** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.04 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.02** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

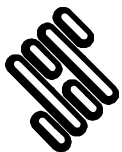
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.08** MN/m²

$I_c(50)$ Mean Diametral tests = **0.04** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.9** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

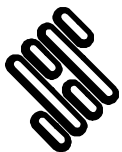
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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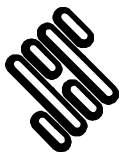
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.07** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.04** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.87** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.2 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.16** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

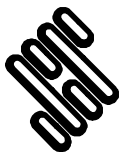
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Diametral tests = **1.6 MN/m²**

$$I_s(50) \text{ Mean Irregular tests} = 0.64 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

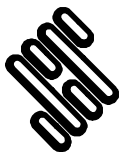
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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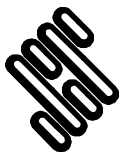
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.49** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.04** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **11.38** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_c/50)^{0.45}$ (where D_c is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.04** MN/m²

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.67** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

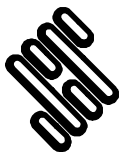
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.06 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.94** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

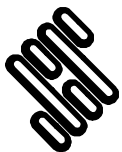
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.06** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

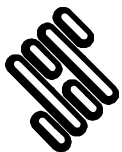
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.3** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

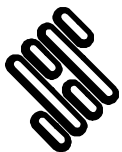
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23.03.23

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.34** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

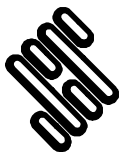
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Dania Ignaszak

DARIA IGNACZAK

Date

23.03.23

Contract Ref:

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.03** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

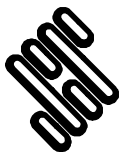
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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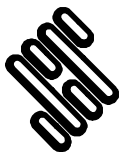
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **6.52** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **3.14** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

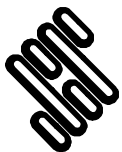
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.08 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.12** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

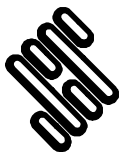
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column:, A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.03** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

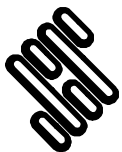
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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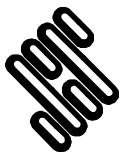
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.07** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.03** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.23** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.19 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **7.54** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

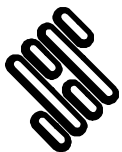
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.15 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **7.83** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

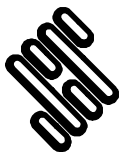
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.13 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **21.71** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

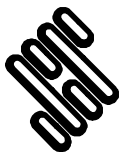
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.12 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **3.58** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

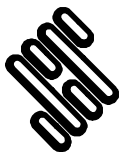
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.38** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

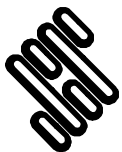
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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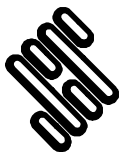
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.24** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.15 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **5.62** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

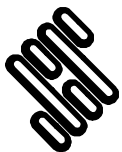
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.14** MN/m²
 $I_s(50)$ Mean Irregular tests = **0.1** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

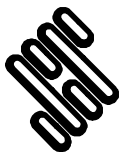
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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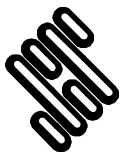
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.69** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.94** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

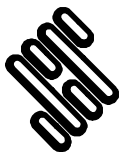
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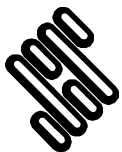
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.06** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.03** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.16** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.75** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

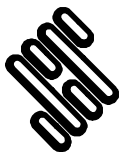
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Diametral tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Strength Anisotropy Index = **1.37** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

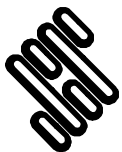
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Contract:

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EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.01** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

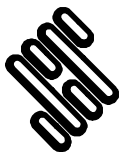
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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EMG Phase 2

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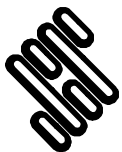
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.4** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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EMG Phase 2

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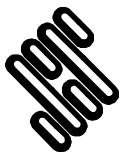
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.76** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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16.03.23

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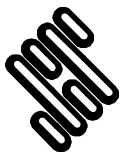
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.15** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.03** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **4.93** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.64** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

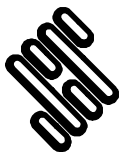
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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1a Princess Street
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Compiled By

Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.28 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **43.12** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

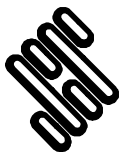
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Irregular tests = **0.06** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

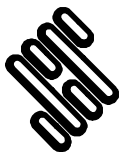
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.33 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.63** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.91** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

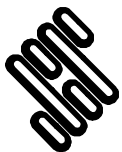
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 1.23 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **1.07 MN/m²**

$I_a(50)$ Strength Anisotropy Index = **1.16** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

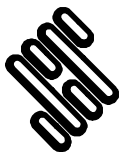
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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765514



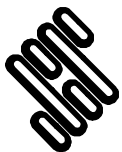
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.42** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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EMG Phase 2

765514



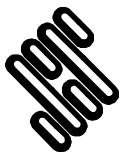
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.05** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **2.22** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.23** MN/m²

$I_s(50)$ Mean Irregular tests = **0.12 MN/m²**

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

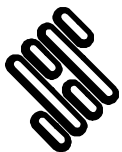
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Compiled By

Date

Contract Ref:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.08** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **6.15** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

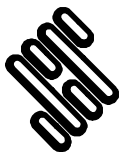
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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STRUCTURAL SOILS
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Compiled By

Date

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Diametral tests = 0 MN/m²

$I_s(50)$ Mean Irregular tests = **0.02** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

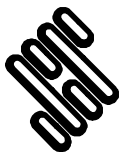
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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BS3 4AG

Compiled By

Date _____

Contract Ref:

Contract:

ALAN FROST

16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.08 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **4.86** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

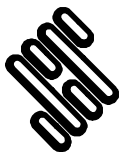
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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STRUCTURAL SOILS
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BS3 4AG

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Contract:

ALAN FROST

16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.04 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_{s(50)}$ Strength Anisotropy Index = **3.73** (calculated from highest and lowest diametral and axial $I_{s(50)}$ ratio)

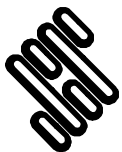
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Type of Test column:, A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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BS3 4AG

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Date _____

Contract Ref:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Diametral tests = **0.1** MN/m²

$I_s(50)$ Mean Irregular tests = **0.18** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

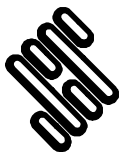
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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STRUCTURAL SOILS
1a Princess Street
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BS3 4AG

Compiled By

Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



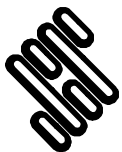
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_a(50)$ Strength Anisotropy Index = **5.35** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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EMG Phase 2

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Contract Ref:

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.05 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Irregular tests} = 0.13 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

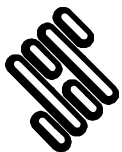
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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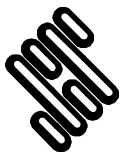
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.33** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.09** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **3.73** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.07** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **6.71** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

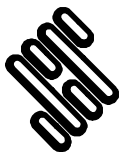
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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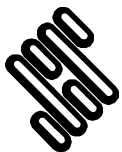
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.86** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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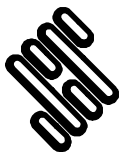
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **12.61** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.08 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.21** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

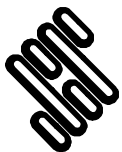
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.16 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **4.79** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

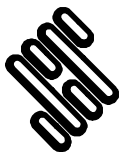
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_c(50)$ Mean Diametral tests = **0.02** MN/m²

$$I_s(50) \text{ Mean Irregular tests} = 0.06 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

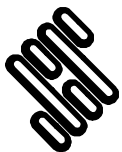
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Mean Irregular tests = **0.1** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

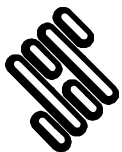
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.23** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

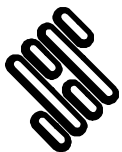
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²

$$I_s(50) \text{ Mean Diametral tests} = 0.01 \text{ MN/m}^2$$

$I_a(50)$ Strength Anisotropy Index = **2.75** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

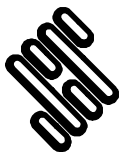
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.17 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **9.03** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

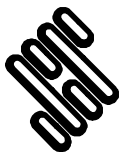
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.05 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.46** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

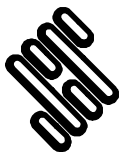
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.04** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

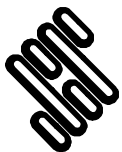
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Compiled By

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.12 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.02 MN/m²**

$I_a(50)$ Strength Anisotropy Index = **5.04** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

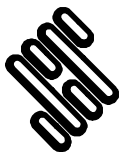
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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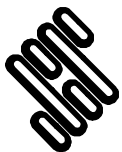
DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.12** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
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Contract Ref:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **6.3** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

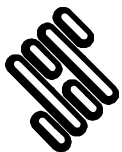
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_c(50)$ Mean Diametral tests = **0.02** MN/m²

$$I_s(50) \text{ Mean Irregular tests} = 0.05 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

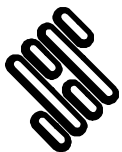
Note:Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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16.03.23

EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]

$I_s(50)$ Mean Axial tests = **0.02** MN/m²

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.23** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

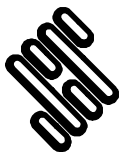
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EMG Phase 2

765514



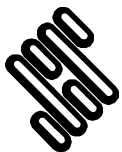
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **1.68** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.01** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **331.9** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
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Lab location: B = Bristol (BS3 4AG), C = Castleford (WF10 1NJ), H = Hemel Hempstead (HP3 9RT), T = Tonbridge (TN11 9HU)



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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Diametral tests} = 0.07 \text{ MN/m}^2$$
$$I_s(50) \text{ Mean Irregular tests} = 0.12 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

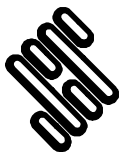
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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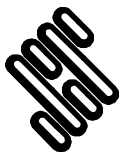
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.01** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.51** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.55 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.6** MN/m²

$I_s(50)$ Strength Anisotropy Index = 1.1 (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

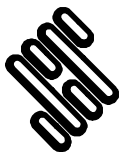
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **2.61** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

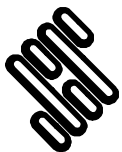
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract Ref:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **3.22** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

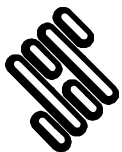
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.04** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

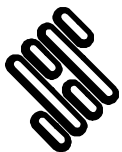
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.39 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **32.01** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

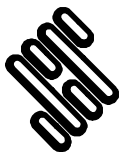
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.01** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

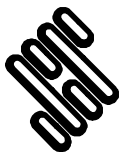
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.16** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

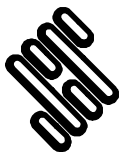
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.08 \text{ MN/m}^2$$

$I_c(50)$ Mean Diametral tests = **0.01** MN/m²

$I_{sa}(50)$ Strength Anisotropy Index = **9** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

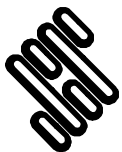
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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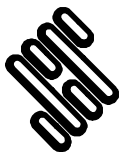
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.23** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.12** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.88** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_a(50)$ Strength Anisotropy Index = **4.26** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

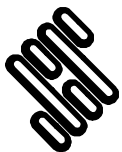
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.25** MN/m²

$I_s(50)$ Mean Diametral tests = **0.1 MN/m²**

$I_a(50)$ Strength Anisotropy Index = **2.5** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

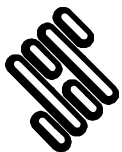
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Contract Ref:

Contract:

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16.03.23

EMG Phase 2

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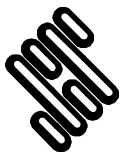
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.14** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **35.01** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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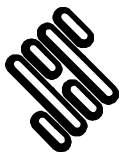
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.03** MN/m²
 $I_s(50)$ Mean Diametral tests = **0** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **11.04** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
 Note: Size Correction Factor (F) calculated using $F = (D_c/50)^{0.45}$ (where D_c is equivalent core diameter).

Key
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Date _____

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Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.09** MN/m²

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_a(50)$ Strength Anisotropy Index = **4.22** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

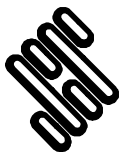
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Compiled By

Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **2.89** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

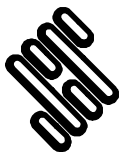
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Date _____

Contract Ref:

Contract:

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16.03.23

EMG Phase 2

765514



DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.24** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

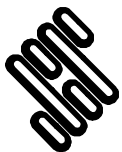
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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Contract:

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16.03.23

EMG Phase 2

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.19** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

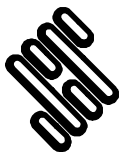
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

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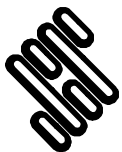
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.22** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.35** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.6** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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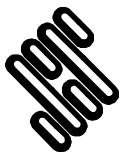
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.52** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.31** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **1.65** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.
Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.59** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

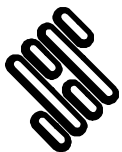
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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



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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.02 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.02** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.46** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

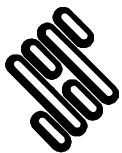
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column:, A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.03 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.01** MN/m²

$I_s(50)$ Strength Anisotropy Index = **3.79** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

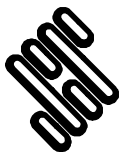
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.05 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

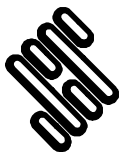
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

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DARIA IGNACZAK

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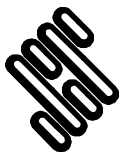
DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_s(50)$ Mean Axial tests = **0.09** MN/m²
 $I_s(50)$ Mean Diametral tests = **0.02** MN/m²
 $I_a(50)$ Strength Anisotropy Index = **6.02** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key
Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, ^(NS)
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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.06 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.03** MN/m²

$I_s(50)$ Strength Anisotropy Index = **1.87** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

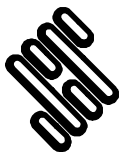
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.01 \text{ MN/m}^2$$

$I_s(50)$ Mean Irregular tests = **0.02** MN/m²

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

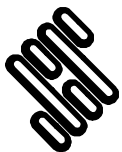
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]
$$I_s(50) \text{ Mean Irregular tests} = 0.1 \text{ MN/m}^2$$

Unable to calculate $I_a(50)$ Strength Anisotropy Index from this dataset.

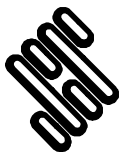
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

Type of Test column: A = Axial, D = Diametral, I = Irregular, B = Block, L = Parallel, P = Perpendicular, [NS] denotes Non-standard Test.

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DETERMINATION OF POINT LOAD STRENGTH

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[illegible]
$$I_s(50) \text{ Mean Axial tests} = 0.06 \text{ MN/m}^2$$

$I_s(50)$ Mean Diametral tests = **0.05** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.16** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

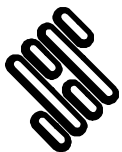
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

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DETERMINATION OF POINT LOAD STRENGTH

In accordance with ISRM 1974-2006

[illegible]

$I_o(50)$ Mean Axial tests = **0.3** MN/m²

$I_c(50)$ Mean Diametral tests = **0.41** MN/m²

$I_a(50)$ Strength Anisotropy Index = **1.38** (calculated from highest and lowest diametral and axial $I_s(50)$ ratio)

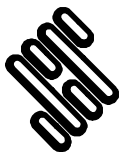
Note: Size Correction Factor (F) calculated using $F = (D_e/50)^{0.45}$ (where D_e is equivalent core diameter).

Key

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Point Load Index column: (✓) = included in mean calculations, (✗) = excluded from mean calculations

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH01**

Sample Ref: **39**

Sample Type: **C**

Depth (m) : **28.61**

Bulk Density (Mg/m^3): **2.28**

Dry Density (Mg/m^3): **2.00**

Moisture Content (%): **14**

Length (mm): **188.24**

Diameter (mm): **100.93**

Length/Diameter Ratio: **1.87**

Test Duration (mins:secs): **13:04**

Stress Rate (MPa/s): **0.0125**

Load at Failure (kN): **1.6**

UCS (MPa): **0.2**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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Compiled By

Date

D. Richards

DAISY RICHARDS

16/03/23

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Job No

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH05**

Sample Ref: **52**

Sample Type: **C**

Depth (m) : **23.00**

Bulk Density (Mg/m^3): **2.33**

Dry Density (Mg/m^3): **2.13**

Moisture Content (%): **9.7**

Length (mm): **209.56**

Diameter (mm): **105.97**

Length/Diameter Ratio: **1.98**

Test Duration (mins:secs): **03:58**

Stress Rate (MPa/s): **0.0227**

Load at Failure (kN): **59.0**

UCS (MPa): **6.7**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

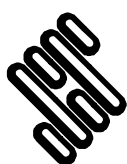


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH06**

Sample Ref: **64**

Sample Type: **C**

Depth (m) : **30.10**

Bulk Density (Mg/m^3): **2.22**

Dry Density (Mg/m^3): **1.95**

Moisture Content (%): **14**

Length (mm): **211.59**

Diameter (mm): **102.09**

Length/Diameter Ratio: **2.07**

Test Duration (mins:secs): **0:49**

Stress Rate (MPa/s): **0.0061**

Load at Failure (kN): **2.4**

UCS (MPa): **0.3**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH08**

Sample Ref: **46**

Sample Type: **C**

Depth (m) : **22.70**

Bulk Density (Mg/m^3): **2.47**

Dry Density (Mg/m^3): **2.33**

Moisture Content (%): **6.1**

Length (mm): **211.82**

Diameter (mm): **105.37**

Length/Diameter Ratio: **2.01**

Test Duration (mins:secs): **09:19**

Stress Rate (MPa/s): **0.0115**

Load at Failure (kN): **64.8**

UCS (MPa): **7.4**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown mottled grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

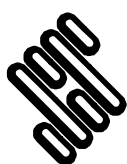


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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Date

Francesca Bennett

FRANCESCA BENNETT

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH08**

Sample Ref: **51**

Sample Type: **C**

Depth (m) : **33.10**

Bulk Density (Mg/m^3): **2.23**

Dry Density (Mg/m^3): **1.94**

Moisture Content (%): **15**

Length (mm): **205.26**

Diameter (mm): **104.74**

Length/Diameter Ratio: **1.96**

Test Duration (mins:secs): **05:08**

Stress Rate (MPa/s): **0.0035**

Load at Failure (kN): **2.7**

UCS (MPa): **0.3**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length : Diameter ratio < 2:1**



Front view (pre-test)



Rear view (pre-test)

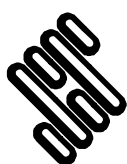


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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16/03/23

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EMG Phase 2

Job No

765514



UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH09**

Sample Ref: **44**

Sample Type: **C**

Depth (m) : **11.21**

Bulk Density (Mg/m^3): **2.45**

Dry Density (Mg/m^3): **2.29**

Moisture Content (%): **6.8**

Length (mm): **215.64**

Diameter (mm): **105.72**

Length/Diameter Ratio: **2.04**

Test Duration (mins:secs): **09:36**

Stress Rate (MPa/s): **0.0911**

Load at Failure (kN): **263.8**

UCS (MPa): **30.1**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

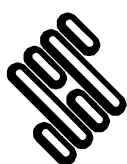


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
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EMG Phase 2

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH09**

Sample Ref: **51**

Sample Type: **C**

Depth (m) : **19.96**

Bulk Density (Mg/m^3): **2.25**

Dry Density (Mg/m^3): **2.01**

Moisture Content (%): **12**

Length (mm): **217.22**

Diameter (mm): **105.88**

Length/Diameter Ratio: **2.05**

Test Duration (mins:secs): **02:35**

Stress Rate (MPa/s): **0.0114**

Load at Failure (kN): **4.1**

UCS (MPa): **0.5**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown mottled grey MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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EMG Phase 2

Job No

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH10**

Sample Ref: **18**

Sample Type: **C**

Depth (m) : **15.40**

Bulk Density (Mg/m^3): **2.35**

Dry Density (Mg/m^3): **2.11**

Moisture Content (%): **11**

Length (mm): **183.66**

Diameter (mm): **104.00**

Length/Diameter Ratio: **1.77**

Test Duration (mins:secs): **05:44**

Stress Rate (MPa/s): **0.0235**

Load at Failure (kN): **51.7**

UCS (MPa): **6.1**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Brownish grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

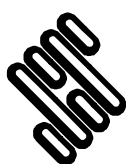


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH10**

Sample Ref: **19**

Sample Type: **C**

Depth (m) : **16.27**

Bulk Density (Mg/m^3): **2.45**

Dry Density (Mg/m^3): **2.29**

Moisture Content (%): **7.1**

Length (mm): **211.30**

Diameter (mm): **105.81**

Length/Diameter Ratio: **2.00**

Test Duration (mins:secs): **21:35**

Stress Rate (MPa/s): **0.0569**

Load at Failure (kN): **508.3**

UCS (MPa): **57.8**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Grey SANDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **PASS**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH12**

Sample Ref: **57**

Sample Type: **C**

Depth (m) : **20.50**

Bulk Density (Mg/m^3): **2.34**

Dry Density (Mg/m^3): **2.05**

Moisture Content (%): **14**

Length (mm): **204.20**

Diameter (mm): **100.02**

Length/Diameter Ratio: **2.04**

Test Duration (mins:secs): **01:36**

Stress Rate (MPa/s): **0.0127**

Load at Failure (kN): **1.8**

UCS (MPa): **0.2**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

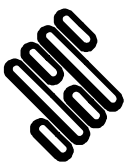


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH13**

Sample Ref: **46**

Sample Type: **C**

Depth (m) : **24.82**

Bulk Density (Mg/m^3): **2.29**

Dry Density (Mg/m^3): **2.04**

Moisture Content (%): **12**

Length (mm): **209.53**

Diameter (mm): **105.05**

Length/Diameter Ratio: **1.99**

Test Duration (mins:secs): **05:38**

Stress Rate (MPa/s): **0.0231**

Load at Failure (kN): **55.7**

UCS (MPa): **6.4**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
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Borehole: **BH13**

Sample Ref: **48**

Sample Type: **C**

Depth (m) : **27.50**

Bulk Density (Mg/m^3): **2.20**

Dry Density (Mg/m^3): **1.82**

Moisture Content (%): **21**

Length (mm): **197.67**

Diameter (mm): **102.42**

Length/Diameter Ratio: **1.93**

Test Duration (mins:secs): **06:40**

Stress Rate (MPa/s): **0.0121**

Load at Failure (kN): **6.4**

UCS (MPa): **0.8**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Grey mottled reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

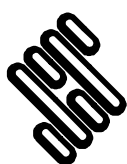


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH14**

Sample Ref: **53**

Sample Type: **C**

Depth (m) : **20.80**

Bulk Density (Mg/m^3): **2.26**

Dry Density (Mg/m^3): **1.98**

Moisture Content (%): **14**

Length (mm): **211.85**

Diameter (mm): **100.88**

Length/Diameter Ratio: **2.10**

Test Duration (mins:secs): **04:41**

Stress Rate (MPa/s): **0.0250**

Load at Failure (kN): **48.5**

UCS (MPa): **6.1**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recorded.**

Sample tolerance checks: Straightness: **PASS**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH16**

Sample Ref: **28**

Sample Type: **C**

Depth (m) : **14.25**

Bulk Density (Mg/m^3): **2.30**

Dry Density (Mg/m^3): **2.07**

Moisture Content (%): **11**

Length (mm): **210.77**

Diameter (mm): **105.25**

Length/Diameter Ratio: **2.00**

Test Duration (mins:secs): **07:20**

Stress Rate (MPa/s): **0.0230**

Load at Failure (kN): **29.2**

UCS (MPa): **3.4**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

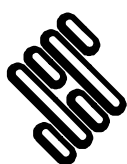


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH20**

Sample Ref: **39**

Sample Type: **C**

Depth (m) : **21.60**

Bulk Density (Mg/m^3): **2.38**

Dry Density (Mg/m^3): **2.18**

Moisture Content (%): **9.3**

Length (mm): **213.29**

Diameter (mm): **105.91**

Length/Diameter Ratio: **2.01**

Test Duration (mins:secs): **05:15**

Stress Rate (MPa/s): **0.0227**

Load at Failure (kN): **48.2**

UCS (MPa): **5.5**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown mottled grey MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

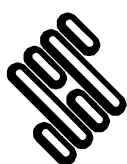


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH21**

Sample Ref: **35**

Sample Type: **C**

Depth (m) : **22.15**

Bulk Density (Mg/m^3): **2.35**

Dry Density (Mg/m^3): **2.16**

Moisture Content (%): **8.8**

Length (mm): **209.32**

Diameter (mm): **106.23**

Length/Diameter Ratio: **1.97**

Test Duration (mins:secs): **04:50**

Stress Rate (MPa/s): **0.0564**

Load at Failure (kN): **92.7**

UCS (MPa): **10.5**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **PASS**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH21**

Sample Ref: **40**

Sample Type: **C**

Depth (m) : **29.00**

Bulk Density (Mg/m^3): **2.33**

Dry Density (Mg/m^3): **2.08**

Moisture Content (%): **12**

Length (mm): **212.46**

Diameter (mm): **105.33**

Length/Diameter Ratio: **2.02**

Test Duration (mins:secs): **01:20**

Stress Rate (MPa/s): **0.0057**

Load at Failure (kN): **3.7**

UCS (MPa): **0.4**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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Job No

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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH24**

Sample Ref: **34**

Sample Type: **C**

Depth (m) : **16.81**

Bulk Density (Mg/m^3): **2.40**

Dry Density (Mg/m^3): **2.18**

Moisture Content (%): **10**

Length (mm): **211.33**

Diameter (mm): **104.95**

Length/Diameter Ratio: **2.01**

Test Duration (mins:secs): **03:46**

Stress Rate (MPa/s): **0.0231**

Load at Failure (kN): **1.4**

UCS (MPa): **0.2**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

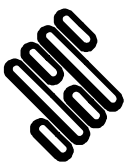


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH24**

Sample Ref: **36**

Sample Type: **C**

Depth (m) : **19.30**

Bulk Density (Mg/m³): **2.37**

Dry Density (Mg/m³): **2.12**

Moisture Content (%): **12**

Length (mm): **190.39**

Diameter (mm): **104.38**

Length/Diameter Ratio: **1.82**

Test Duration (mins:secs): **02:34**

Stress Rate (MPa/s): **0.0234**

Load at Failure (kN): **3.3**

UCS (MPa): **0.4**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

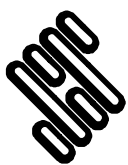


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures >4°C
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH25**

Sample Ref: **31**

Sample Type: **C**

Depth (m) : **11.60**

Bulk Density (Mg/m^3): **2.41**

Dry Density (Mg/m^3): **2.22**

Moisture Content (%): **8.7**

Length (mm): **212.47**

Diameter (mm): **105.71**

Length/Diameter Ratio: **2.01**

Test Duration (mins:secs): **14:52**

Stress Rate (MPa/s): **0.0285**

Load at Failure (kN): **261.2**

UCS (MPa): **29.8**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Grey SILTSTONE**

Specimen Preparation: **Specimen was not recorded.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)

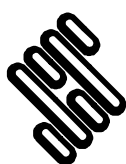


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



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UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH26**

Sample Ref: **31**

Sample Type: **C**

Depth (m) : **13.75**

Bulk Density (Mg/m^3): **2.34**

Dry Density (Mg/m^3): **2.07**

Moisture Content (%): **13**

Length (mm): **212.10**

Diameter (mm): **104.84**

Length/Diameter Ratio: **2.02**

Test Duration (mins:secs): **03:26**

Stress Rate (MPa/s): **0.0232**

Load at Failure (kN): **2.1**

UCS (MPa): **0.2**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.



Front view (pre-test)



Rear view (pre-test)



Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By

Date

Francesca Bennett

FRANCESCA BENNETT

16/03/23

Contract

Job No

EMG Phase 2

765514



UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH27**

Sample Ref: **15**

Sample Type: **C**

Depth (m) : **8.60**

Bulk Density (Mg/m^3): **2.42**

Dry Density (Mg/m^3): **2.24**

Moisture Content (%): **7.8**

Length (mm): **207.19**

Diameter (mm): **106.31**

Length/Diameter Ratio: **1.95**

Test Duration (mins:secs): **07:12**

Stress Rate (MPa/s): **0.0225**

Load at Failure (kN): **88.8**

UCS (MPa): **10.0**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **PASS**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

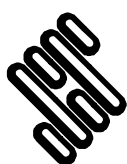


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By

Date

Daria Ignaczak

DARIA IGNACZAK

23/03/23

Contract

Job No

EMG Phase 2

765514



UNIAXIAL COMPRESSIVE STRENGTH

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH27**

Sample Ref: **31**

Sample Type: **C**

Depth (m) : **21.85**

Bulk Density (Mg/m^3): **2.48**

Dry Density (Mg/m^3): **2.30**

Moisture Content (%): **7.9**

Length (mm): **215.38**

Diameter (mm): **105.74**

Length/Diameter Ratio: **2.04**

Test Duration (mins:secs): **10:30**

Stress Rate (MPa/s): **0.0342**

Load at Failure (kN): **214.3**

UCS (MPa): **24.4**

Failure Type: **Vertical splitting**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **PASS**. Flatness: **PASS**. Perpendicularity: **PASS**.



Front view (pre-test)



Rear view (pre-test)

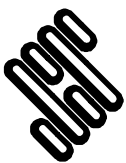


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By

Date

Daria Ignaczak

DARIA IGNACZAK

23/03/23

Contract

EMG Phase 2

Job No

765514



DEFORMABILITY OF ROCK IN UNIAXIAL COMPRESSION

Preparation in accordance with ASTM D4543-19
Testing in accordance with ISRM 1974-2006

Borehole: **BH10**

Sample Ref: **21**

Sample Type: **C**

Depth (m): **17.84**

Bulk Density (Mg/m^3): **2.30**

Dry Density (Mg/m^3): **2.03**

Moisture Content (%): **13**

Length (mm): **209.86**

Diameter (mm): **105.62**

Length/Diameter Ratio: **1.99**

Test Duration (mins:secs): **01:20**

Stress Rate (MPa/s): **0.0114**

Load at Failure (kN): **3.8**

UCS (MPa): **0.4**

Failure Type: **Multiple fracture**

Note: **Axis of loading parallel to core axis**

Description: **Reddish brown MUDSTONE**

Specimen Preparation: **Specimen was not recored.**

Sample tolerance checks: Straightness: **FAIL**. Flatness: **FAIL**. Perpendicularity: **FAIL**.

Non-standard notes: **Length/diameter ratio <2:1**



Front view (pre-test)



Rear view (pre-test)

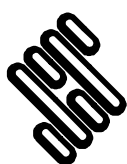


Front view (post-test)



Rear view (post-test)

Samples delivered from site to storage facility. Samples are stored in a frost free environment, at temperatures $>4^{\circ}\text{C}$
Compression machine: Impact CT340 2000kN Auto Compression Machine Serial No. CT340-22. SSL No. 011076



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By

Date

D. Richards

DAISY RICHARDS

16/03/23

Contract

Job No

EMG Phase 2

765514





STRUCTURAL SOILS
1A Princess Street
Bristol BS3 4AG

Test Date

03/02/2023

UNIAXIAL COMPRESSION TEST with DEFORMATION

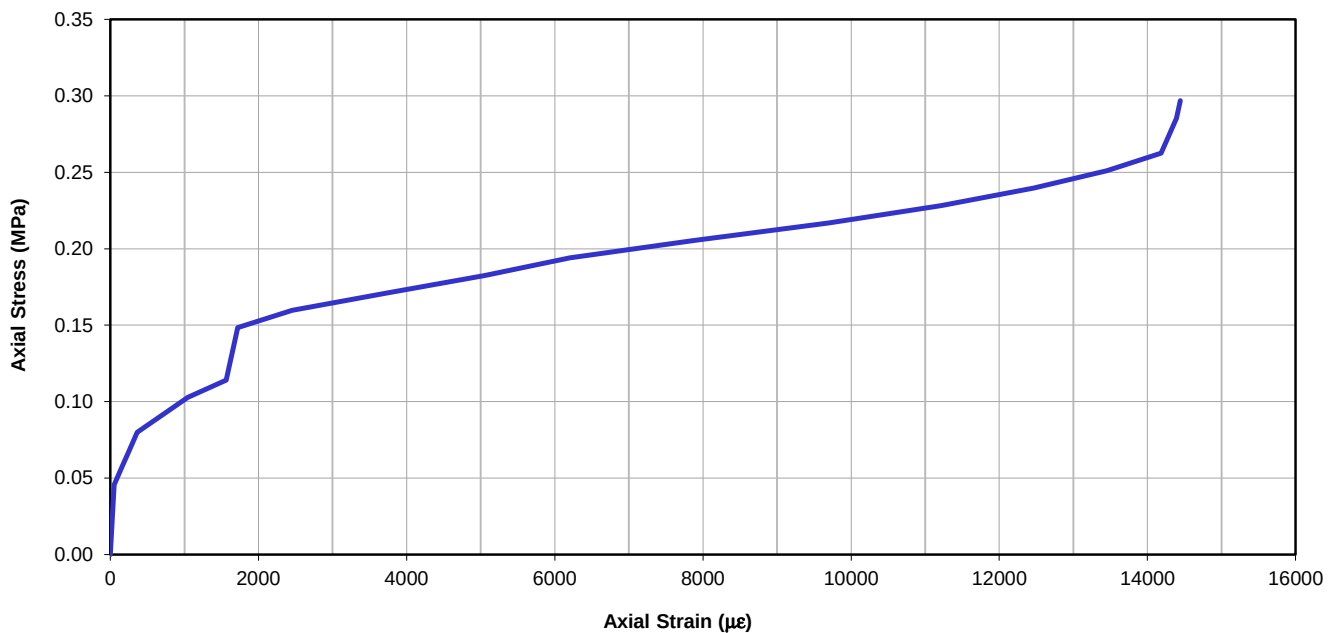
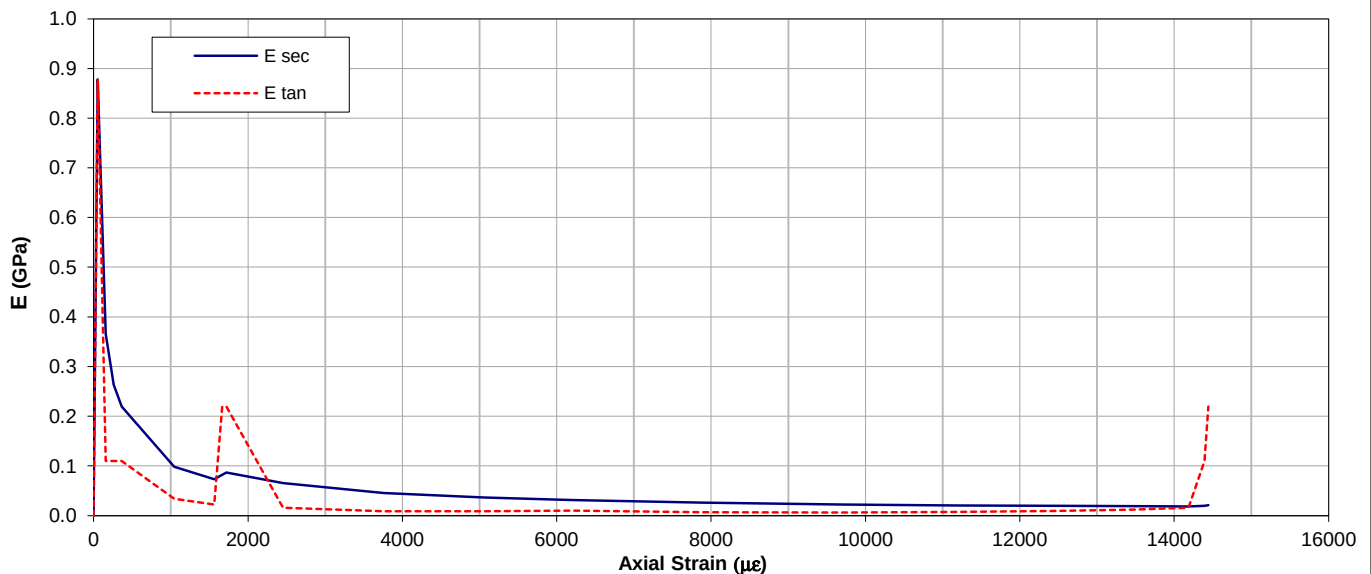
In accordance with ISRM 1974-2006

Job No 765514
Site EMG Phase 2
BH No BH10
Specimen Depth 17.84 - 18.28m
Sample Type/No. C21

Cross section area 87.62 cm²
Height 209.86 mm
Max logged strength 0.30 MPa
E_{tan} (*) 0.22 GPa
E_{sec} (^) 0.09 GPa

(*) Calculated for axial $\sigma = 0.15$ MPa(^) Calculated for axial $\sigma = 0.15$ MPa

NB 'Max logged strength' is the maximum value captured by the data logging process for the Youngs/Poissons measurement portion of the test. It is often less than the final strength of the specimen

Compression Curve**Strain Modulus**



STRUCTURAL SOILS
1A Princess Street
Bristol BS3 4AG

Test Date

03/02/2023

UNIAXIAL COMPRESSION TEST with DEFORMATION

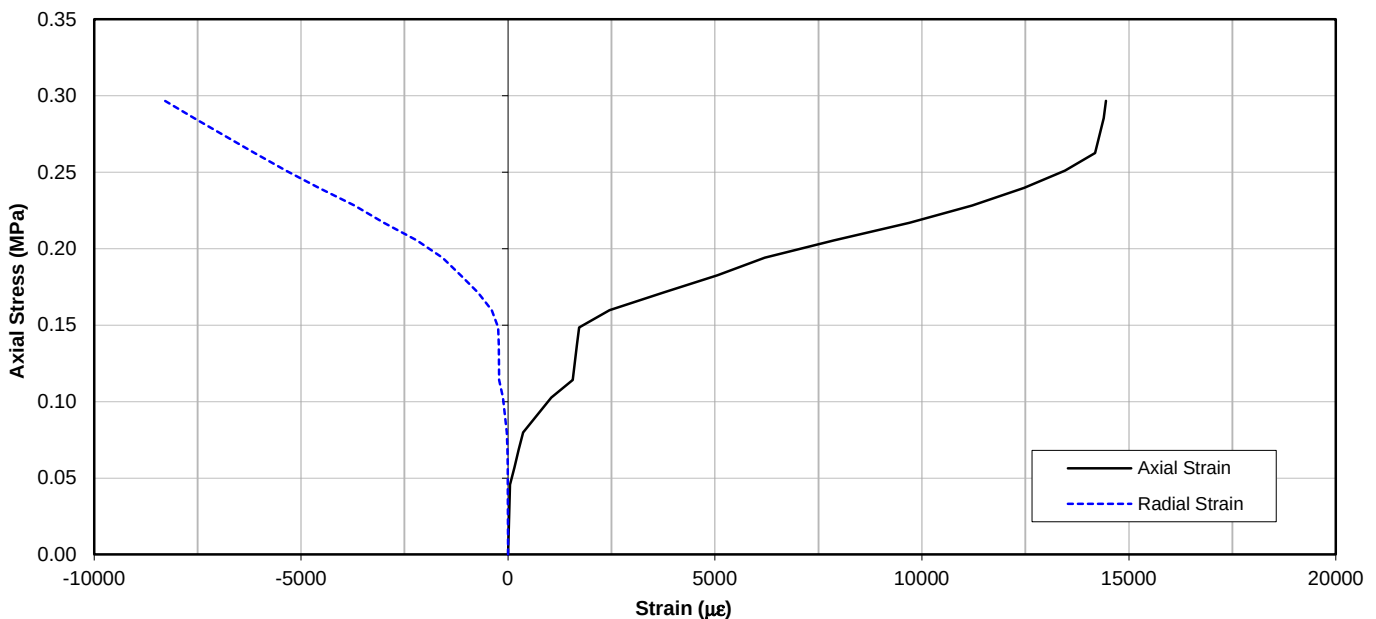
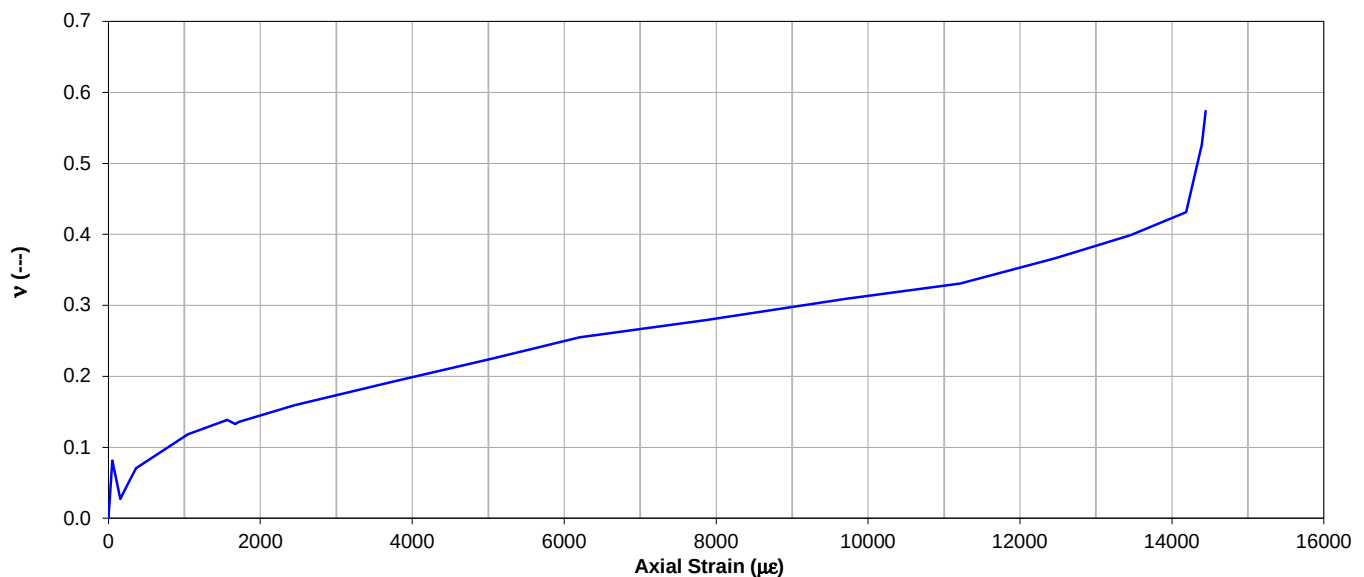
In accordance with ISRM 1974-2006 and ASTM D4543-08

Job No 765514
Site EMG Phase 2
BH No BH10
Specimen Depth 17.84 - 18.28m
Sample Type/No. C21

Cross section area 87.62 cm²
Height 209.86 mm
Max logged strength 0.30 MPa
Poisson at failure 0.574
Poisson (*) 0.136

(*) Calculated for axial $\sigma = 0.15$ MPa

NB 'Max logged strength' is the maximum value captured by the data logging process for the Youngs/Poissons measurement portion of the test. It is often less than the final strength of the specimen

Compression Curve**Poisson Ratio**

TEST REPORT

SLAKE DURABILITY INDEX

In accordance with ISRM 2007

Location ID: **BH13**

Sample Ref: **38**

Sample Type: **C**

Depth (m): **13.10**

Sample Description: **Reddish brown MUDSTONE**

Slaking Fluid Used: **Tap water**

Slaking Fluid Temperature (°C): **20**

First Cycle

Slake Durability (%): **48.3**

Description of Fragments in Drum: **Sub-rounded**

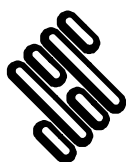
Description of Material Passing Drum: **Sand and silt**

Second Cycle

Slake Durability (%): **15.4**

Description of Fragments in Drum: **Sub-rounded**

Description of Material Passing Drum: **Sand and silt**



STRUCTURAL SOILS
1a Princess Street
Bedminster
Bristol
BS3 4AG

Compiled By

Date

DAISY RICHARDS

16/03/23

Contract

EMG Phase 2

Job No

765514



FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/11580
Issue Number: 1

Date: 30 November, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 23/11/22
Date Instructions Received: 24/11/22
Date Analysis Completed: 30/11/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/11580

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11580/1	22/11580/2	22/11580/3	22/11580/4	22/11580/5	22/11580/6	22/11580/7	Units	Limit of Detection	Method ref
Client Sample No	4	6	13	26	20	7	16			
Client Sample ID	CP11	CP10	TP11	BH08	BH07	TP08	BH02			
Depth to Top	0.70	1.00	3.30	6.50	3.50	1.50	3.70			
Depth To Bottom										
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	6AE	6A	6A	6A	6AE	6A			
% Stones >10mm _A	<0.1	3.1	14.8	4.5	<0.1	6.5	2.4	% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.92	8.94	9.20	8.76	8.98	8.63	9.21	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	13	25	14	356	20	<10	11	mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.03	0.03	0.03	0.70	0.05	0.05	<0.02	% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.02	0.02	0.02	0.42	0.03	0.03	<0.01	% w/w	0.01	A-T-024s

Envirolab Job Number: 22/11580

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11580/8	22/11580/9	22/11580/10	22/11580/11	22/11580/12	22/11580/13	22/11580/14	Units	Limit of Detection	Method ref
Client Sample No	3	18	5	9	3	14	10			
Client Sample ID	BH04	BH05	BH01	CP02	BH21	TP27	TP24			
Depth to Top	0.80	4.70	1.10	2.60	0.40	2.60	1.20			
Depth To Bottom	1.10									
Date Sampled				07-Sep-22						
Sample Type	Soil - D	Solid	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	7	5A	5A	6AE	6A	4A			
% Stones >10mm _A	<0.1	10.3	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.86	8.97	9.15	9.16	8.56	9.20	9.18	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	72	11	<10	<10	<10	11	<10	mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.05	0.04	0.03	0.03	0.03	0.03	0.03	% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.03	0.03	0.01	0.01	0.02	0.02	0.01	% w/w	0.01	A-T-024s

Envirolab Job Number: 22/11580

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11580/15	22/11580/16	22/11580/17					Units	Limit of Detection	Method ref
Client Sample No	7	10	7							
Client Sample ID	BH18	TP26	TP23							
Depth to Top	0.40	1.60	0.90							
Depth To Bottom	0.80									
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D							
Sample Matrix Code	6A	4A	5A							
% Stones >10mm _A	1.3	<0.1	<0.1					% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.69	9.10	8.08					pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	11	27	11					mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	<0.02	0.03	0.03					% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	<0.01	0.02	0.01					% w/w	0.01	A-T-024s

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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project No: 22/11580

Date Received: 24/11/2022 (am)

Project: East Midland Airport

Cool Box Temperatures (°C): 13.4, 13.0

Clients Project No: 765514

Lab Sample ID	22/11580/1	22/11580/2	22/11580/3	22/11580/4	22/11580/5	22/11580/6	22/11580/7	22/11580/8	22/11580/9	22/11580/10	22/11580/11	22/11580/12
Client Sample No	4	6	13	26	20	7	16	3	18	5	9	3
Client Sample ID/Depth	CP11 0.70m	CP10 1.00m	TP11 3.30m	BH08 6.50m	BH07 3.50m	TP08 1.50m	BH02 3.70m	BH04 0.80-1.10m	BH05 4.70m	BH01 1.10m	BP02 2.60m	BH21 0.40m
Date Sampled											07/09/22	
Deviation Code												
E (no date)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
F											✓	

Lab Sample ID	22/11580/13	22/11580/14	22/11580/15	22/11580/16	22/11580/17
Client Sample No	14	10	7	10	7
Client Sample ID/Depth	TP27 2.60m	TP24 1.20m	BH18 0.40-0.80m	TP26 1.60m	TP23 0.90m
Date Sampled					
Deviation Code					
E (no date)	✓	✓	✓	✓	✓
F					

Key

E (no date)

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

F

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/11580/11
Client Sample No	9
Client Sample ID/Depth	BP02 2.60m
Date Sampled	07/09/22
Sulphate BRE (water sol 2:1)	✓
Sulphate BRE (acid sol)	✓

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.

Envirolab Analysis Dates

Lab Sample ID	22/11580/1	22/11580/2	22/11580/3	22/11580/4	22/11580/5	22/11580/6	22/11580/7	22/11580/8	22/11580/9	22/11580/10	22/11580/11	22/11580/12
Client Sample No	4	6	13	26	20	7	16	3	18	5	9	3
Client Sample ID/Depth	CP11 0.70m	CP10 1.00m	TP11 3.30m	BH08 6.50m	BH07 3.50m	TP08 1.50m	BH02 3.70m	BH04 0.80-1.10m	BH05 4.70m	BH01 1.10m	BP02 2.60m	BH21 0.40m
Date Sampled											07/09/22	
A-T-024s	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
A-T-026s	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
A-T-028s	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
A-T-031s	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
A-T-044	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022

Lab Sample ID	22/11580/13	22/11580/14	22/11580/15	22/11580/16	22/11580/17
Client Sample No	14	10	7	10	7
Client Sample ID/Depth	TP27 2.60m	TP24 1.20m	BH18 0.40-0.80m	TP26 1.60m	TP23 0.90m
Date Sampled					
A-T-024s	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
A-T-026s	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
A-T-028s	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
A-T-031s	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
A-T-044	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/11581
Issue Number: 1

Date: 30 November, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher
Project Name: East Midland Airport
Project Ref: 765514-3
Order No: N/A
Date Samples Received: 23/11/22
Date Instructions Received: 24/11/22
Date Analysis Completed: 29/11/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/11581

Client Project Name: East Midland Airport

Client Project Ref: 765514-3

Lab Sample ID	22/11581/1	22/11581/2	22/11581/3	22/11581/4	22/11581/5	22/11581/6	22/11581/7	Units	Limit of Detection	Method ref
Client Sample No	11	17	7	45	41	4	4			
Client Sample ID	CP02	CP02	CP03	CP04	CP08	TP08	TP25			
Depth to Top	3.00	5.00	1.00	13.50	10.50	0.50	0.60			
Depth To Bottom	3.40	5.30								
Date Sampled	07-Sep-22	07-Sep-22								
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	5A	5AE	6A	4A	4A	4AE			
% Stones >10mm _A	<0.1	<0.1	9.7	<0.1	<0.1	21.2	<0.1	% w/w	0.1	A-T-044
Organic Matter ₀ ^{M#}	1.4	1.1	0.6	1.5	0.9	6.7	1.1	% w/w	0.1	A-T-032 OM

Envirolab Job Number: 22/11581

Client Project Name: East Midland Airport

Client Project Ref: 765514-3

Lab Sample ID	22/11581/8	22/11581/9	22/11581/10	22/11581/11	22/11581/12	22/11581/13	22/11581/14	Units	Limit of Detection	Method ref
Client Sample No	16	4	15	11	27	7	8			
Client Sample ID	CP26	TP22	BH18	TP36	BH09	TP12	TP17			
Depth to Top	2.60	0.40	1.70	1.30	4.50	1.10	0.80			
Depth To Bottom	3.00				5.00					
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	5A	6A	6A	6A	6A	6A			
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
Organic Matter ₀ ^{M#}	0.8	0.8	0.7	1.6	0.7	0.4	0.6	% w/w	0.1	A-T-032 OM

Envirolab Job Number: 22/11581

Client Project Name: East Midland Airport

Client Project Ref: 765514-3

Lab Sample ID	22/11581/15							Units	Limit of Detection	Method ref
Client Sample No	23									
Client Sample ID	BH13									
Depth to Top	5.70									
Depth To Bottom										
Date Sampled										
Sample Type	Soil - D									
Sample Matrix Code	6A									
% Stones >10mm _A	6.7							% w/w	0.1	A-T-044
Organic Matter ₀ ^{M#}	2.3							% w/w	0.1	A-T-032 OM

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project No: 22/11581

Date Received: 24/11/2022 (am)

Project: East Midland Airport

Cool Box Temperatures (°C): 13.4, 13.0

Clients Project No: 765514-3

Lab Sample ID	22/11581/1	22/11581/2	22/11581/3	22/11581/4	22/11581/5	22/11581/6	22/11581/7	22/11581/8	22/11581/9	22/11581/10	22/11581/11	22/11581/12
Client Sample No	11	17	7	45	41	4	4	16	4	15	11	27
Client Sample ID/Depth	CP02 3.00-3.40m	CP02 5.00-5.30m	CP03 1.00m	CP04 13.50m	CP08 10.50m	TP08 0.50m	TP25 0.60m	CP26 2.60-3.00m	TP22 0.40m	BH18 1.70m	TP36 1.30m	BH09 4.50-5.00m
Date Sampled	07/09/22	07/09/22										
Deviation Code												
E (no date)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	✓	✓										

Lab Sample ID	22/11581/13	22/11581/14	22/11581/15
Client Sample No	7	8	23
Client Sample ID/Depth	TP12 1.10m	TP17 0.80m	BH13 5.70m
Date Sampled			
Deviation Code			
E (no date)	✓	✓	✓
F			

Key

E (no date)

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

F

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/11581/1	22/11581/2
Client Sample No	11	17
Client Sample ID/Depth	CP02 3.00-3.40m	CP02 5.00-5.30m
Date Sampled	07/09/22	07/09/22
Organic Matter	✓	✓

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.

Envirolab Analysis Dates

Lab Sample ID	22/11581/1	22/11581/2	22/11581/3	22/11581/4	22/11581/5	22/11581/6	22/11581/7	22/11581/8	22/11581/9	22/11581/10	22/11581/11	22/11581/12
Client Sample No	11	17	7	45	41	4	4	16	4	15	11	27
Client Sample ID/Depth	CP02 3.00-3.40m	CP02 5.00-5.30m	CP03 1.00m	CP04 13.50m	CP08 10.50m	TP08 0.50m	TP25 0.60m	CP26 2.60-3.00m	TP22 0.40m	BH18 1.70m	TP36 1.30m	BH09 4.50-5.00m
Date Sampled	07/09/22	07/09/22										
A-T-032 OM	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
A-T-044	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022	28/11/2022

Lab Sample ID	22/11581/13	22/11581/14	22/11581/15
Client Sample No	7	8	23
Client Sample ID/Depth	TP12 1.10m	TP17 0.80m	BH13 5.70m
Date Sampled			
A-T-032 OM	29/11/2022	29/11/2022	29/11/2022
A-T-044	28/11/2022	28/11/2022	28/11/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 22/11889/1

Amendments: Request for project/sample information change

Envirolab Job Number: 22/11889
Issue Number: 2

Date: 12 January, 2023

Client: Structural Soils Limited (Castleford Lab)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher; Laura Schramm
Project Name: East Midlands Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 02/12/22
Date Instructions Received: 05/12/22
Date Analysis Completed: 07/12/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/11889

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/11889/1	22/11889/2	22/11889/3	22/11889/4				Units	Limit of Detection	Method ref
Client Sample No	9	6	18	26C						
Client Sample ID	CP04	BH04	BH24	BH21						
Depth to Top	1.80	1.20	2.50	9.00						
Depth To Bottom		1.65		9.27						
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D						
Sample Matrix Code	6A	6A	5A	6A						
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1				% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.54	8.73	7.83	8.67				pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	24	130	<10	11				mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.04	0.08	0.04	0.04				% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.02	0.04	0.01	0.02				% w/w	0.01	A-T-024s

REPORT NOTES

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 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 / 11550µS/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, 9 = INCINERATOR ASH.
 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
 Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.
 EPH CWG results have humics mathematically subtracted through instrument calculation
 TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

v2

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 (Castleford Lab), The Potteries, Pottery Street,
Castleford, West Yorkshire, UK, WF10 1NJ

Project: East Midlands Airport
Clients Project No: 765514

Project No: 22/11889
Date Received: 05/12/2022 (am)
Cool Box Temperatures (°C): 9.9

Lab Sample ID	22/11889/1	22/11889/2	22/11889/3	22/11889/4
Client Sample No	9	6	18	26C
Client Sample ID/Depth	CP04 1.80m	BH04 1.20-1.65m	BH24 2.50m	BH21 9.00-9.27m
Date Sampled				
Deviation Code				
E (no date)	✓	✓	✓	✓

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

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/11889/1	22/11889/2	22/11889/3	22/11889/4
Client Sample No	9	6	18	26C
Client Sample ID/Depth	CP04 1.80m	BH04 1.20-1.65m	BH24 2.50m	BH21 9.00-9.27m
Date Sampled				
A-T-024s	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-026s	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-028s	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-031s	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-044	07/12/2022	07/12/2022	07/12/2022	07/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/12067
Issue Number: 1

Date: 13 December, 2022

Client: Structural Soils Limited (Castleford Lab)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher; Laura Schramm
Project Name: East Midlands Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 08/12/22
Date Instructions Received: 09/12/22
Date Analysis Completed: 13/12/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/12067

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/12067/1	22/12067/2	22/12067/3	22/12067/4	22/12067/5	22/12067/6	22/12067/7	Units	Limit of Detection	Method ref
Client Sample No	10	2	21	7	26	2	35			
Client Sample ID	CP09	TP16	BH19	TP28	BH08	TP36	BH12			
Depth to Top	0.80	0.20	6.20	1.10	6.50	0.80	11.70			
Depth To Bottom										
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6AE	4AE	6A	5A	5A	6A	6A			
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH BRE _D ^{M#}	7.71	7.28	8.52	8.49	8.62	7.92	8.34	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	<10	10	10	12	<10	54	mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	<0.02	0.04	0.06	0.04	0.08	0.04	0.09	% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	<0.01	0.02	0.02	0.02	0.03	0.02	0.03	% w/w	0.01	A-T-024s
Organic Matter _D ^{M#}	-	-	-	-	3.8	-	-	% w/w	0.1	A-T-032 OM

Envirolab Job Number: 22/12067

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/12067/8	22/12067/9	22/12067/10	22/12067/11	22/12067/12	22/12067/13	22/12067/14	Units	Limit of Detection	Method ref
Client Sample No	33	9	15	14	12	20	3			
Client Sample ID	BH26	CP12	CP09	CP26	CP05	BH16	BH13			
Depth to Top	15.30	2.75	4.75	1.80	3.75	4.95	0.50			
Depth To Bottom		2.75			3.75					
Date Sampled										
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	5A	4A	5A	5A	4A	4AE			
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.17	-	-	-	-	-	-	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	-	-	-	-	-	-	mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.04	-	-	-	-	-	-	% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.01	-	-	-	-	-	-	% w/w	0.01	A-T-024s
Organic Matter _D ^{M#}	-	0.2	1.4	0.9	3.4	2.0	0.5	% w/w	0.1	A-T-032 OM

Envirolab Job Number: 22/12067

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/12067/15							Units	Limit of Detection	Method ref
Client Sample No	7									
Client Sample ID	CP07									
Depth to Top	2.30									
Depth To Bottom										
Date Sampled										
Sample Type	Soil - D									
Sample Matrix Code	6A									
% Stones >10mm _A	<0.1							% w/w	0.1	A-T-044
Organic Matter ₀ ^{M#}	0.8							% w/w	0.1	A-T-032 OM

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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@envirolab.co.uk

Client: Structural Soils Limited (Castleford Lab), The Potteries, Pottery Street,
Castleford, West Yorkshire, UK, WF10 1NJ

Project: East Midlands Airport

Clients Project No: 765514

Project No: 22/12067

Date Received: 09/12/2022 (am)

Cool Box Temperatures (°C): 6.0

Lab Sample ID	22/12067/1	22/12067/2	22/12067/3	22/12067/4	22/12067/5	22/12067/6	22/12067/7	22/12067/8	22/12067/9	22/12067/10	22/12067/11	22/12067/12
Client Sample No	10	2	21	7	26	2	35	33	9	15	14	12
Client Sample ID/Depth	CP09 0.80m	TP16 0.20m	BH19 6.20m	TP28 1.10m	BH08 6.50m	TP36 0.80m	BH12 11.70m	BH26 15.30m	CP12 2.75-2.75m	CP09 4.75m	CP26 1.80m	CP05 3.75-3.75m
Date Sampled												
Deviation Code												
E (no date)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Lab Sample ID	22/12067/13	22/12067/14	22/12067/15
Client Sample No	20	3	7
Client Sample ID/Depth	BH16 4.95m	BH13 0.50m	CP07 2.30m
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.

Envirolab Analysis Dates

Lab Sample ID	22/12067/1	22/12067/2	22/12067/3	22/12067/4	22/12067/5	22/12067/6	22/12067/7	22/12067/8	22/12067/9	22/12067/10	22/12067/11	22/12067/12
Client Sample No	10	2	21	7	26	2	35	33	9	15	14	12
Client Sample ID/Depth	CP09 0.80m	TP16 0.20m	BH19 6.20m	TP28 1.10m	BH08 6.50m	TP36 0.80m	BH12 11.70m	BH26 15.30m	CP12 2.75-2.75m	CP09 4.75m	CP26 1.80m	CP05 3.75-3.75m
Date Sampled												
A-T-024s	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022				
A-T-026s	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022				
A-T-028s	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022				
A-T-031s	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022				
A-T-032 OM					13/12/2022				13/12/2022	13/12/2022	13/12/2022	13/12/2022
A-T-044	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022	13/12/2022

Lab Sample ID	22/12067/13	22/12067/14	22/12067/15
Client Sample No	20	3	7
Client Sample ID/Depth	BH16 4.95m	BH13 0.50m	CP07 2.30m
Date Sampled			
A-T-024s			
A-T-026s			
A-T-028s			
A-T-031s			
A-T-032 OM	13/12/2022	13/12/2022	13/12/2022
A-T-044	13/12/2022	13/12/2022	13/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/12222
Issue Number: 1

Date: 15 December, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson
Project Name: EMG
Project Ref: 765514-3
Order No: N/A
Date Samples Received: 12/12/22
Date Instructions Received: 13/12/22
Date Analysis Completed: 15/12/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/12222

Client Project Name: EMG

Client Project Ref: 765514-3

Lab Sample ID	22/12222/1	22/12222/2	22/12222/3					Units	Limit of Detection	Method ref
Client Sample No	9	6	23							
Client Sample ID	BH12	BH17	BH07							
Depth to Top	1.70	1.70	4.50							
Depth To Bottom										
Date Sampled			21-Sep-22							
Sample Type	Soil - D	Soil - D	Soil - D							
Sample Matrix Code	6A	6AE	6A							
% Stones >10mm _A	2.3	2.9	5.1					% w/w	0.1	A-T-044
Organic Matter ₀ ^{M#}	0.9	0.9	1.7					% w/w	0.1	A-T-032 OM

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: EMG
Clients Project No: 765514-3

Project No: 22/12222
Date Received: 13/12/2022 (am)
Cool Box Temperatures (°C): 7.6

Lab Sample ID	22/12222/1	22/12222/2	22/12222/3
Client Sample No	9	6	23
Client Sample ID/Depth	BH12 1.70m	BH17 1.70m	BH07 4.50m
Date Sampled			21/09/22
Deviation Code			
E (no date)	✓	✓	
F			✓

Key

E (no date)

F

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

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/12222/3
Client Sample No	23
Client Sample ID/Depth	BH07 4.50m
Date Sampled	21/09/22
Organic Matter	✓

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.

Envirolab Analysis Dates

Lab Sample ID	22/12222/1	22/12222/2	22/12222/3
Client Sample No	9	6	23
Client Sample ID/Depth	BH12 1.70m	BH17 1.70m	BH07 4.50m
Date Sampled			21/09/22
A-T-032 OM	15/12/2022	15/12/2022	15/12/2022
A-T-044	15/12/2022	15/12/2022	15/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/02595
Issue Number: 1

Date: 22 March, 2023

Client: Structural Soils Limited (Castleford Lab)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher; Laura Schramm
Project Name: EAST MIDLANDS AIRPORT
Project Ref: 765514
Order No: N/A
Date Samples Received: 17/03/23
Date Instructions Received: 20/03/23
Date Analysis Completed: 22/03/23

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 23/02595

Client Project Name: EAST MIDLANDS AIRPORT

Client Project Ref: 765514

Lab Sample ID	23/02595/1	23/02595/2						Units	Limit of Detection	Method ref
Client Sample No	17	6								
Client Sample ID	CP21	BH10								
Depth to Top	4.80	0.90								
Depth To Bottom										
Date Sampled										
Sample Type	Soil - D	Soil - D								
Sample Matrix Code	6A	4AE								
% Stones >10mm _A	0.4	<0.1						% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.14	6.80						pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	493	<10						mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.20	0.04						% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.59	0.03						% w/w	0.01	A-T-024s

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford Lab), The Potteries, Pottery Street,
Castleford, West Yorkshire, UK, WF10 1NJ

Project: EAST MIDLANDS AIRPORT

Clients Project No: 765514

Project No: 23/02595

Date Received: 20/03/2023 (am)

Cool Box Temperatures (°C): 11.6

Lab Sample ID	23/02595/1	23/02595/2
Client Sample No	17	6
Client Sample ID/Depth	CP21 4.80m	BH10 0.90m
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.

Envirolab Analysis Dates

Lab Sample ID	23/02595/1	23/02595/2
Client Sample No	17	6
Client Sample ID/Depth	CP21 4.80m	BH10 0.90m
Date Sampled		
A-T-024s	21/03/2023	21/03/2023
A-T-026s	22/03/2023	22/03/2023
A-T-028s	22/03/2023	22/03/2023
A-T-031s	22/03/2023	22/03/2023
A-T-044	21/03/2023	21/03/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/12200
Issue Number: 1

Date: 15 December, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Jessica Robertson/Luke Fisher
Project Name: EMG
Project Ref: 765514-1
Order No: N/A
Date Samples Received: 12/12/22
Date Instructions Received: 13/12/22
Date Analysis Completed: 15/12/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/12200

Client Project Name: EMG

Client Project Ref: 765514-1

Lab Sample ID	22/12200/1	22/12200/2	22/12200/3	22/12200/4	22/12200/5	22/12200/6	22/12200/7	Units	Limit of Detection	Method ref
Client Sample No	3	13	6	16	5	6	20			
Client Sample ID	CP20	CP27	CP24	CP22	BH15	BH11	BH20			
Depth to Top	0.50	2.00	1.00	4.50	1.20	1.10	3.70			
Depth To Bottom										
Date Sampled	03-Oct-22	15-Sep-22	26-Sep-22	04-Oct-22						
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6	6A	6A	6A	6A	6A	6A			
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.30	7.90	8.67	8.76	8.64	8.32	8.82	pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	39	<10	11	<10	<10	14	mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.03	0.05	0.03	0.08	0.04	<0.04	0.03	% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	0.01	0.02	0.01	0.02	0.02	<0.01	0.02	% w/w	0.01	A-T-024s

Envirolab Job Number: 22/12200

Client Project Name: EMG

Client Project Ref: 765514-1

Lab Sample ID	22/12200/8	22/12200/9	22/12200/10					Units	Limit of Detection	Method ref
Client Sample No	11	23	20							
Client Sample ID	TP14	BH22	BH14							
Depth to Top	3.00	7.35	4.70							
Depth To Bottom										
Date Sampled	29-Sep-22									
Sample Type	Soil - D	Soil - D	Soil - D							
Sample Matrix Code	6A	6A	5A							
% Stones >10mm _A	2.9	19.2	<0.1					% w/w	0.1	A-T-044
pH BRE _D ^{M#}	8.83	8.80	8.80					pH	0.01	A-T-031s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	<10	<10					mg/l	10	A-T-026s
Sulphate BRE (acid sol) _D ^{M#}	0.04	0.04	0.04					% w/w	0.02	A-T-028s
Sulphur BRE (total) _D	<0.01	0.02	0.02					% w/w	0.01	A-T-024s

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project No: 22/12200

Date Received: 13/12/2022 (am)

Project: EMG

Cool Box Temperatures (°C): 7.6

Clients Project No: 765514-1

Lab Sample ID	22/12200/1	22/12200/2	22/12200/3	22/12200/4	22/12200/5	22/12200/6	22/12200/7	22/12200/8	22/12200/9	22/12200/10
Client Sample No	3	13	6	16	5	6	20	11	23	20
Client Sample ID/Depth	CP20 0.50m	CP27 2.00m	CP24 1.00m	CP22 4.50m	BH15 1.20m	BH11 1.10m	BH20 3.70m	TP14 3.00m	BH22 7.35m	BH14 4.70m
Date Sampled	03/10/22	15/09/22	26/09/22	04/10/22				29/09/22		
Deviation Code										
E (no date)					✓	✓	✓		✓	✓
F	✓	✓	✓	✓				✓		

Key

E (no date)

F

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

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/12200/1	22/12200/2	22/12200/3	22/12200/4	22/12200/8
Client Sample No	3	13	6	16	11
Client Sample ID/Depth	CP20 0.50m	CP27 2.00m	CP24 1.00m	CP22 4.50m	TP14 3.00m
Date Sampled	03/10/22	15/09/22	26/09/22	04/10/22	29/09/22
Sulphate BRE (water sol 2:1)	✓	✓	✓	✓	✓
Sulphate BRE (acid sol)	✓	✓	✓	✓	✓

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.

Envirolab Analysis Dates

Lab Sample ID	22/12200/1	22/12200/2	22/12200/3	22/12200/4	22/12200/5	22/12200/6	22/12200/7	22/12200/8	22/12200/9	22/12200/10
Client Sample No	3	13	6	16	5	6	20	11	23	20
Client Sample ID/Depth	CP20 0.50m	CP27 2.00m	CP24 1.00m	CP22 4.50m	BH15 1.20m	BH11 1.10m	BH20 3.70m	TP14 3.00m	BH22 7.35m	BH14 4.70m
Date Sampled	03/10/22	15/09/22	26/09/22	04/10/22				29/09/22		
A-T-024s	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022
A-T-026s	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022
A-T-028s	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022
A-T-031s	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022
A-T-044	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022	15/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

APPENDIX E - GEOENVIRONMENTAL TESTING

- (i) Laboratory Test Results
- (ii) Laboratory UKAS Accreditation Certificate

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/08923
Issue Number: 1

Date: 27 September, 2022

Client: Structural Soils Limited (Castleford Lab)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones/Tim Morris; Laura Schramm
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 12/09/22
Date Instructions Received: 12/09/22
Date Analysis Completed: 27/09/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
% Moisture at <40C _A	13.7	15.8	10.4	8.8	5.7	8.8		% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	4.2	15.0	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	7.83	7.70	7.63	6.10	8.70	9.17		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.01	0.01	<0.01	<0.01	<0.01	<0.01		g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	1.4	0.7	1.1	2.3	0.7	1.0		% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	3	2	6	9	<1		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.8	1.0	0.8	0.9	1.8	1.0		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	12	12	10	15	18	9		mg/kg	1	A-T-024s
Chromium _D ^{M#}	56	67	35	21	28	52		mg/kg	1	A-T-024s
Lead _D ^{M#}	10	7	11	20	14	3		mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	0.45	0.39		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	46	57	29	16	27	48		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	3	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	67	68	57	55	52	64		mg/kg	5	A-T-024s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
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: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
SVOC										
4-Bromophenyl phenyl ether _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Hexachlorobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Diethyl phthalate _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Dimethyl phthalate _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Dibenzofuran _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Carbazole _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<500	-	-	-	-	-		µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
4-Nitrophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
3+4-Methylphenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2-Nitrophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2-Methylphenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2-Chlorophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Acenaphthylene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Acenaphthene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Anthracene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Benzo(a)anthracene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
Benzo(b)fluoranthene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Benzo(k)fluoranthene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Benzo(a)pyrene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Benzo(ghi)perylene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Chrysene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Fluoranthene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Fluorene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Indeno(1,2,3-cd)pyrene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Phenanthrene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Pyrene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Naphthalene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Dibenzo(ah)anthracene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Phenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Pentachlorophenol _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
n-Dioctylphthalate _A	<500	-	-	-	-	-		µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Nitrobenzene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Isophorone _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Hexachloroethane _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
Perylene _A	<100	-	-	-	-	-		µg/kg	100	A-T-052s
TPH Banded 1 with ID										
>C6-C8 _A ^{M#}	-	-	<5	<5	<5	<5		mg/kg	5	A-T-007s
>C8-C10 _A ^{M#}	-	-	<1	<1	<1	<1		mg/kg	1	A-T-007s
>C10-C12 _A ^{M#}	-	-	<1	<1	<1	<1		mg/kg	1	A-T-007s
>C12-C16 _A ^{M#}	-	-	<2	<2	<2	<2		mg/kg	2	A-T-007s
>C16-C21 _A ^{M#}	-	-	<2	<2	<2	<2		mg/kg	2	A-T-007s
>C21-C40 _A ^{M#}	-	-	6	8	<5	<5		mg/kg	5	A-T-007s
TPH ID Interpretation _A	-	-	C16-C40 hydrocarbons with	C16-C40 hydrocarbons with	Concentration too low to identify	Concentration too low to identify				A-T-007s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
			unknown profile	unknown profile						
Total TPH Banded 1 with ID _A	-	-	6	8	<5	<5		mg/kg	5	A-T-007s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
VOC										
Dichlorodifluoromethane _A	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Chloromethane _A	<10	-	-	-	-	-		µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Dichloromethane _A	<5	-	-	-	-	-		µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	-	-	-	-	-		µg/kg	5	A-T-006s
Chloroform _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	-	-	-	-	-		µg/kg	2	A-T-006s
Benzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	-	-	-	-	-		µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Toluene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	-	-	-	-	-		µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
Chlorobenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Styrene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Bromoform _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	-	-	-	-	-		µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	-	-	-	-	-		µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	-	-	-	-	-		µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	-	-	-	-	-		µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	-	-	-	-	-		µg/kg	3	A-T-006s

Envirolab Job Number: 22/08923

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13		Units	Limit of Detection	Method ref
Client Sample No	102	102	101	101	3	3				
Client Sample ID	BH01	BH02	BH03	BH05	CP08	CP02				
Depth to Top	1.00	1.00	0.50	0.1	0.50	1.00				
Depth To Bottom										
Date Sampled	05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6AE	5A	4AE		5AE				
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	-	-	-	-		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	-	-	-	-		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	-	-	-	-		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1	-	-	-	-		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	-	-	-	-		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford Lab), The Potteries, Pottery Street,
Castleford, West Yorkshire, UK, WF10 1NJ

Project: East Midland Airport

Clients Project No: 765514

Project No: 22/08923

Date Received: 12/09/2022 (pm)

Cool Box Temperatures (°C): 15.4, 15.2

Lab Sample ID	22/08923/10
Client Sample No	3
Client Sample ID/Depth	CP08 0.50m
Date Sampled	06/09/22
Deviation Code	
F	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/08923/10
Client Sample No	3
Client Sample ID/Depth	CP08 0.50m
Date Sampled	06/09/22
PAH-16MS	✓
TPH Banded 1 with ID	✓

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.

Envirolab Analysis Dates

Lab Sample ID	22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13
Client Sample No	102	102	101	101	3	3
Client Sample ID/Depth	BH01 1.00m	BH02 1.00m	BH03 0.50m	BH05 0.1m	CP08 0.50m	CP02 1.00m
Date Sampled	05/09/22	06/09/22	07/09/22	08/09/22	06/09/22	07/09/22
A-T-006s	15/09/2022					
A-T-007s			22/09/2022	22/09/2022	22/09/2022	22/09/2022
A-T-019s	15/09/2022	15/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
A-T-022s	20/09/2022	20/09/2022				
A-T-024s	21/09/2022	21/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
A-T-026s	21/09/2022	21/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022
A-T-031s	21/09/2022	21/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
A-T-032 OM	23/09/2022	23/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022
A-T-044	20/09/2022	20/09/2022	22/09/2022	22/09/2022	23/09/2022	22/09/2022
A-T-052s	26/09/2022					
A-T-055s	20/09/2022	20/09/2022				
Calc-As Recd	20/09/2022	20/09/2022				

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09109
Issue Number: 1

Date: 28 September, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Asirport
Project Ref: 765514
Order No: N/A
Date Samples Received: 16/09/22
Date Instructions Received: 16/09/22
Date Analysis Completed: 28/09/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/24	22/09109/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH27	CP04			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.40	0.50			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	4AE	5A			
% Moisture at <40C _A	13.5	10.1	10.9	19.4	11.6	12.0	9.9	% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	8.72	8.07	8.89	8.76	8.16	8.41	7.29	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.01	<0.01	<0.01	0.03	<0.01	0.01	<0.01	g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.8	1.1	0.4	0.6	1.5	2.3	2.1	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	2	<1	2	<1	5	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.3	1.3	1.2	1.3	1.1	1.3	0.9	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	13	15	10	12	12	10	15	mg/kg	1	A-T-024s
Chromium _D ^{M#}	55	51	57	60	47	54	25	mg/kg	1	A-T-024s
Lead _D ^{M#}	6	14	4	6	16	7	20	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.62	0.37	<0.17	0.62	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	48	39	45	49	39	42	18	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#}	68	80	75	72	69	77	49	mg/kg	5	A-T-024s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/24	22/09109/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH27	CP04			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.40	0.50			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	4AE	5A			
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	<0.07	<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	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/24	22/09109/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH27	CP04			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.40	0.50			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	4AE	5A			
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	3	<1	<1	2	2	2	mg/kg	1	A-T-055s
Total Aliphatics _A	<1	3	<1	<1	2	2	2	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	1	<1	<1	1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics _A	<1	1	<1	<1	1	<1	<1	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	4	<1	<1	3	2	2	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<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	<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	<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	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09109
Project:	East Midland Asirport	Date Received:	16/09/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	17.0, 17.0, 17.2, 18.2

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.

Envirolab Analysis Dates

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/24	22/09109/25
Client Sample No							
Client Sample ID/Depth	BH21 1.00m	BH22 0.50m	BH24 2.00m	BH04 2.00m	BH23 0.6m	BH27 0.40m	CP04 0.50m
Date Sampled	13/09/22	13/09/22	13/09/22	12/09/22	12/09/22	12/09/22	12/09/22
A-T-019s	21/09/2022	21/09/2022	21/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022
A-T-022s	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
A-T-024s	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022
A-T-026s	22/09/2022	22/09/2022	22/09/2022	22/09/2022	22/09/2022	22/09/2022	22/09/2022
A-T-031s	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
A-T-032 OM	28/09/2022	28/09/2022	28/09/2022	28/09/2022	28/09/2022	28/09/2022	28/09/2022
A-T-044	21/09/2022	21/09/2022	21/09/2022	21/09/2022	21/09/2022	21/09/2022	21/09/2022
A-T-055s	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
Calc-As Recd	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 22/09109/1

Amendments: Request for Additional Analysis

Envirolab Job Number: 22/09109
Issue Number: 2

Date: 12 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Asirport
Project Ref: 765514
Order No: N/A
Date Samples Received: 16/09/22
Date Instructions Received: 16/09/22
Date Analysis Completed: 11/10/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/20	22/09109/24	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH25	BH27			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.50	0.40			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	13-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	5A	4AE			
% Moisture at <40C _A	13.5	10.1	10.9	19.4	11.6	10.3	12.0	% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	8.72	8.07	8.89	8.76	8.16	8.10	8.41	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.01	g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.8	1.1	0.4	0.6	1.5	1.7	2.3	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	2	<1	2	3	<1	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.3	1.3	1.2	1.3	1.1	0.7	1.3	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	13	15	10	12	12	11	10	mg/kg	1	A-T-024s
Chromium _D ^{M#}	55	51	57	60	47	36	54	mg/kg	1	A-T-024s
Lead _D ^{M#}	6	14	4	6	16	15	7	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.62	0.37	<0.17	<0.17	0.62	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	48	39	45	49	39	34	42	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#}	68	80	75	72	69	58	77	mg/kg	5	A-T-024s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/20	22/09109/24	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH25	BH27			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.50	0.40			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	13-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	5A	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	<0.07	<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	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/20	22/09109/24	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	BH22	BH24	BH04	BH23	BH25	BH27			
Depth to Top	1.00	0.50	2.00	2.00	0.6	0.50	0.40			
Depth To Bottom										
Date Sampled	13-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	13-Sep-22	12-Sep-22			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	5A	5A	4A	6AE	6AE	5A	4AE			
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	3	<1	<1	2	<1	2	mg/kg	1	A-T-055s
Total Aliphatics _A	<1	3	<1	<1	2	<1	2	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	1	<1	<1	1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics _A	<1	1	<1	<1	1	<1	<1	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	4	<1	<1	3	<1	2	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<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	<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	<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	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Asirport

Client Project Ref: 765514

Lab Sample ID	22/09109/25							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP04									
Depth to Top	0.50									
Depth To Bottom										
Date Sampled	12-Sep-22									
Sample Type	Soil									
Sample Matrix Code	5A									
% Moisture at <40C _A	9.9							% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1							% w/w	0.1	A-T-044
pH _D ^{M#}	7.29							pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01							g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	2.1							% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	5							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.9							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	15							mg/kg	1	A-T-024s
Chromium _D ^{M#}	25							mg/kg	1	A-T-024s
Lead _D ^{M#}	20							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	18							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	49							mg/kg	5	A-T-024s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	22/09109/25							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP04									
Depth to Top	0.50									
Depth To Bottom										
Date Sampled	12-Sep-22									
Sample Type	Soil									
Sample Matrix Code	5A									
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08							mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09109

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	22/09109/25							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP04									
Depth to Top	0.50									
Depth To Bottom										
Date Sampled	12-Sep-22									
Sample Type	Soil									
Sample Matrix Code	5A									
TPH CWG with Clean Up										
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#}	2							mg/kg	1	A-T-055s
Total Aliphatics _A	2							mg/kg	1	Calc-As Recd
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#}	<1							mg/kg	1	A-T-055s
Total Aromatics _A	<1							mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	2							mg/kg	1	Calc-As Recd
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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midland Asirport

Clients Project No: 765514

Project No: 22/09109

Date Received: 16/09/2022 (am)

Cool Box Temperatures (°C): 17.0, 17.0, 17.2, 18.2

Lab Sample ID	22/09109/20
Client Sample No	
Client Sample ID/Depth	BH25 0.50m
Date Sampled	13/09/22
Deviation Code	
F	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/09109/20
Client Sample No	
Client Sample ID/Depth	BH25 0.50m
Date Sampled	13/09/22
PAH-16MS	✓
VPHCWG	✓

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/09109/3	22/09109/4	22/09109/11	22/09109/13	22/09109/16	22/09109/20	22/09109/24	22/09109/25
Client Sample No								
Client Sample ID/Depth	BH21 1.00m	BH22 0.50m	BH24 2.00m	BH04 2.00m	BH23 0.6m	BH25 0.50m	BH27 0.40m	CP04 0.50m
Date Sampled	13/09/22	13/09/22	13/09/22	12/09/22	12/09/22	13/09/22	12/09/22	12/09/22
A-T-019s	21/09/2022	21/09/2022	21/09/2022	23/09/2022	23/09/2022	06/10/2022	23/09/2022	23/09/2022
A-T-022s	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	05/10/2022	26/09/2022	26/09/2022
A-T-024s	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	10/10/2022	23/09/2022	23/09/2022
A-T-026s	22/09/2022	22/09/2022	22/09/2022	22/09/2022	22/09/2022	10/10/2022	22/09/2022	22/09/2022
A-T-031s	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022	11/10/2022	26/09/2022	26/09/2022
A-T-032 OM	28/09/2022	28/09/2022	28/09/2022	28/09/2022	28/09/2022	10/10/2022	28/09/2022	28/09/2022
A-T-044	21/09/2022	21/09/2022	21/09/2022	21/09/2022	21/09/2022	04/10/2022	21/09/2022	21/09/2022
A-T-055s	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	07/10/2022	26/09/2022	26/09/2022
Calc-As Recd	22/09/2022	22/09/2022	22/09/2022	26/09/2022	26/09/2022	07/10/2022	26/09/2022	26/09/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09127
Issue Number: 1

Date: 27 September, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 16/09/22
Date Instructions Received: 16/09/22
Date Analysis Completed: 27/09/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09127

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09127/2	22/09127/12						Units	Limit of Detection	Method ref
Client Sample No	2	03								
Client Sample ID	CP01	BH26								
Depth to Top	0.50	1.00								
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6AE	6A								
% Moisture at <40C _A	12.9	13.1						% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1						% w/w	0.1	A-T-044
pH _D ^{M#}	7.68	8.21						pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.03						g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	1.2	1.2						% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	2	3						mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.3	1.0						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	20	12						mg/kg	1	A-T-024s
Chromium _D ^{M#}	42	45						mg/kg	1	A-T-024s
Lead _D ^{M#}	11	13						mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	57	46						mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	76	75						mg/kg	5	A-T-024s

Envirolab Job Number: 22/09127

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09127/2	22/09127/12						Units	Limit of Detection	Method ref
Client Sample No	2	03								
Client Sample ID	CP01	BH26								
Depth to Top	0.50	1.00								
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6AE	6A								
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08						mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09127

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09127/2	22/09127/12								
Client Sample No	2	03								
Client Sample ID	CP01	BH26								
Depth to Top	0.50	1.00								
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6AE	6A								
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1						mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1						mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1						mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s

REPORT NOTES

General

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midland Airport

Clients Project No: 765514

Project No: 22/09127

Date Received: 16/09/2022 (am)

Cool Box Temperatures (°C): 20.3, 18.2, 20.3

Lab Sample ID	22/09127/2
Client Sample No	2
Client Sample ID/Depth	CP01 0.50m
Date Sampled	05/09/22
Deviation Code	
F	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/09127/2
Client Sample No	2
Client Sample ID/Depth	CP01 0.50m
Date Sampled	05/09/22
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.

Envirolab Analysis Dates

Lab Sample ID	22/09127/2	22/09127/12
Client Sample No	2	03
Client Sample ID/Depth	CP01 0.50m	BH26 1.00m
Date Sampled	05/09/22	12/09/22
A-T-019s	27/09/2022	27/09/2022
A-T-022s	21/09/2022	21/09/2022
A-T-024s	22/09/2022	22/09/2022
A-T-026s	22/09/2022	22/09/2022
A-T-031s	23/09/2022	23/09/2022
A-T-032 OM	27/09/2022	27/09/2022
A-T-044	21/09/2022	21/09/2022
A-T-055s	23/09/2022	23/09/2022
Calc-As Recd	23/09/2022	23/09/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 22/09127/1

Amendments: Request for Additional Analysis

Envirolab Job Number: 22/09127
Issue Number: 2

Date: 07 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 16/09/22
Date Instructions Received: 16/09/22
Date Analysis Completed: 07/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09127

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09127/2	22/09127/12	22/09127/19					Units	Limit of Detection	Method ref
Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
% Moisture at <40C _A	12.9	13.1	10.7					% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
pH _D ^{M#}	7.68	8.21	7.56					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.03	0.02					g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	1.2	1.2	1.4					% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	2	3	3					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.3	1.0	<0.5					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	20	12	11					mg/kg	1	A-T-024s
Chromium _D ^{M#}	42	45	38					mg/kg	1	A-T-024s
Lead _D ^{M#}	11	13	11					mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	57	46	33					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	76	75	58					mg/kg	5	A-T-024s

Envirolab Job Number: 22/09127

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Lab Sample ID	22/09127/2	22/09127/12	22/09127/19					Units	Limit of Detection	Method ref
Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<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					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09127

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Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	-	-	<100					µg/kg	100	A-T-052s
Hexachlorobenzene _A	-	-	<100					µg/kg	100	A-T-052s
Diethyl phthalate _A	-	-	<100					µg/kg	100	A-T-052s
Dimethyl phthalate _A	-	-	<100					µg/kg	100	A-T-052s
Dibenzofuran _A	-	-	<100					µg/kg	100	A-T-052s
Carbazole _A	-	-	<100					µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	-	-	<100					µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	-	-	<500					µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	-	-	<100					µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	-	-	<100					µg/kg	100	A-T-052s
4-Nitrophenol _A	-	-	<100					µg/kg	100	A-T-052s
3+4-Methylphenol _A	-	-	<100					µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	-	-	<100					µg/kg	100	A-T-052s
2-Nitrophenol _A	-	-	<100					µg/kg	100	A-T-052s
2-Methylphenol _A	-	-	<100					µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	-	-	<100					µg/kg	100	A-T-052s
2-Chlorophenol _A	-	-	<100					µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	-	-	<100					µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	-	-	<100					µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	-	-	<100					µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	-	-	<100					µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	-	-	<100					µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	-	-	<100					µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	-	-	<100					µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	-	-	<100					µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	-	-	<100					µg/kg	100	A-T-052s
2-Chloronaphthalene _A	-	-	<100					µg/kg	100	A-T-052s
2-Methylnaphthalene _A	-	-	<100					µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	-	-	<100					µg/kg	100	A-T-052s
Phenol _A	-	-	<100					µg/kg	100	A-T-052s
Pentachlorophenol _A	-	-	<100					µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	-	-	<100					µg/kg	100	A-T-052s

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Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
n-Dioctylphthalate _A	-	-	<500					µg/kg	500	A-T-052s
n-Dibutylphthalate _A	-	-	<100					µg/kg	100	A-T-052s
Nitrobenzene _A	-	-	<100					µg/kg	100	A-T-052s
Isophorone _A	-	-	<100					µg/kg	100	A-T-052s
Hexachloroethane _A	-	-	<100					µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	-	-	<100					µg/kg	100	A-T-052s
Hexachlorobutadiene _A	-	-	<100					µg/kg	100	A-T-052s
Perylene _A	-	-	<100					µg/kg	100	A-T-052s

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Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
VOC										
Dichlorodifluoromethane _A	-	-	<1					µg/kg	1	A-T-006s
Chloromethane _A	-	-	<10					µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	-	-	<1					µg/kg	1	A-T-006s
Bromomethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Chloroethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	-	-	<1					µg/kg	1	A-T-006s
Dichloromethane _A	-	-	<5					µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	-	-	<1					µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Bromochloromethane _A [#]	-	-	<5					µg/kg	5	A-T-006s
Chloroform _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	-	-	<2					µg/kg	2	A-T-006s
Benzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Trichloroethene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Dibromomethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	-	-	<10					µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Toluene _A [#]	-	-	<1					µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	-	-	<3					µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	-	-	<1					µg/kg	1	A-T-006s

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Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
Chlorobenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	-	-	<1					µg/kg	1	A-T-006s
Ethylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
m & p Xylene _A [#]	-	-	<1					µg/kg	1	A-T-006s
o-Xylene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Styrene _A [#]	-	-	<1					µg/kg	1	A-T-006s
Bromoform _A [#]	-	-	<1					µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane _A	-	-	<1					µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	-	-	<1					µg/kg	1	A-T-006s
Bromobenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	-	-	<1					µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	-	-	<2					µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	-	-	<1					µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	-	-	<2					µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	-	-	<3					µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	-	-	<1					µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	-	-	<3					µg/kg	3	A-T-006s

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Client Sample No	2	03								
Client Sample ID	CP01	BH26	CP28							
Depth to Top	0.50	1.00	1.00							
Depth To Bottom										
Date Sampled	05-Sep-22	12-Sep-22	05-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6A	5A							
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1					mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1	<1					mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.
 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
 Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.
 EPH CWG results have humics mathematically subtracted through instrument calculation
 TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midland Airport

Clients Project No: 765514

Project No: 22/09127

Date Received: 16/09/2022 (am)

Cool Box Temperatures (°C): 20.3, 18.2, 20.3

Lab Sample ID	22/09127/2	22/09127/19
Client Sample No	2	
Client Sample ID/Depth	CP01 0.50m	CP28 1.00m
Date Sampled	05/09/22	05/09/22
Deviation Code		
F	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/09127/2	22/09127/19
Client Sample No	2	
Client Sample ID/Depth	CP01 0.50m	CP28 1.00m
Date Sampled	05/09/22	05/09/22
PAH-16MS	✓	✓
VPHCWG	✓	✓
Organic Matter		✓
Sulphate (water sol 2:1)		✓
VOC		✓
SVOC excluding PAH-16		✓

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/09127/2	22/09127/12	22/09127/19
Client Sample No	2	03	
Client Sample ID/Depth	CP01 0.50m	BH26 1.00m	CP28 1.00m
Date Sampled	05/09/22	12/09/22	05/09/22
A-T-006s			04/10/2022
A-T-019s	27/09/2022	27/09/2022	05/10/2022
A-T-022s	21/09/2022	21/09/2022	06/10/2022
A-T-024s	22/09/2022	22/09/2022	06/10/2022
A-T-026s	22/09/2022	22/09/2022	06/10/2022
A-T-031s	23/09/2022	23/09/2022	06/10/2022
A-T-032 OM	27/09/2022	27/09/2022	07/10/2022
A-T-044	21/09/2022	21/09/2022	04/10/2022
A-T-052s			05/10/2022
A-T-055s	23/09/2022	23/09/2022	04/10/2022
Calc-As Recd	23/09/2022	23/09/2022	06/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09221
Issue Number: 1

Date: 04 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 16/09/22
Date Instructions Received: 21/09/22
Date Analysis Completed: 04/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
% Moisture at <40C _A	13.7	18.3	8.2					% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
pH _D ^{M#}	9.18	8.92	7.53					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	0.02	<0.01					g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.5	3.1	0.9					% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.6	0.5	0.6					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	8	7	9					mg/kg	1	A-T-024s
Chromium _D ^{M#}	34	34	23					mg/kg	1	A-T-024s
Lead _D ^{M#}	6	5	12					mg/kg	1	A-T-024s
Mercury _D	0.46	0.52	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	29	29	19					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	2	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	55	55	43					mg/kg	5	A-T-024s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	-	-							A-T-045
Asbestos Matrix (visual) _D	-	-	-							A-T-045
Asbestos Matrix (microscope) _D	-	-	-							A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	-	-							A-T-045

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
PAH-16MS										
Acenaphthene _A ^{M#}	0.03	1.48	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	0.05	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	0.31	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	0.10	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	0.06	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	0.11	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	0.88	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	0.44	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	0.27	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.03	0.94	<0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	0.56	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	5.20	<0.08					mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	<1000	<100	-					µg/kg	100	A-T-052s
Hexachlorobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
Diethyl phthalate _A	<1000	<100	-					µg/kg	100	A-T-052s
Dimethyl phthalate _A	<1000	<100	-					µg/kg	100	A-T-052s
Dibenzofuran _A	<1000	529	-					µg/kg	100	A-T-052s
Carbazole _A	<1000	<100	-					µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<1000	<100	-					µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<5000	<500	-					µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<1000	<100	-					µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<1000	<100	-					µg/kg	100	A-T-052s
4-Nitrophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
3+4-Methylphenol _A	<1000	<100	-					µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2-Nitrophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2-Methylphenol _A	<1000	<100	-					µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
2-Chlorophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<1000	<100	-					µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<1000	<100	-					µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<1000	<100	-					µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<1000	132	-					µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<1000	<100	-					µg/kg	100	A-T-052s
Phenol _A	<1000	<100	-					µg/kg	100	A-T-052s
Pentachlorophenol _A	<1000	<100	-					µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<1000	<100	-					µg/kg	100	A-T-052s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
n-Dioctylphthalate _A	<5000	<500	-					µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<1000	286	-					µg/kg	100	A-T-052s
Nitrobenzene _A	<1000	<100	-					µg/kg	100	A-T-052s
Isophorone _A	<1000	<100	-					µg/kg	100	A-T-052s
Hexachloroethane _A	<1000	<100	-					µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<1000	<100	-					µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<1000	<100	-					µg/kg	100	A-T-052s
Perylene _A	<1000	<100	-					µg/kg	100	A-T-052s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
VOC										
Dichlorodifluoromethane _A	<1	<1	-					µg/kg	1	A-T-006s
Chloromethane _A	<10	<10	-					µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Dichloromethane _A	<5	<5	-					µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	<5	-					µg/kg	5	A-T-006s
Chloroform _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	<2	-					µg/kg	2	A-T-006s
Benzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	<10	-					µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Toluene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	<3	-					µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	<1	-					µg/kg	1	A-T-006s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
Chlorobenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	<1	-					µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Styrene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Bromoform _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,1,1,2,2-Tetrachloroethane _A	<1	<1	-					µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	<1	-					µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	6	-					µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	<2	-					µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	1	-					µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	<1	-					µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	<2	-					µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	<3	-					µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	<1	-					µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	<3	-					µg/kg	3	A-T-006s

Envirolab Job Number: 22/09221

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9					Units	Limit of Detection	Method ref
Client Sample No	18	23	8							
Client Sample ID	CP27	CP27	BH18							
Depth to Top	3.00	4.00	0.50							
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	14-Sep-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	5A	5A	4AE							
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	1	<1					mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	2	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	1	<1					mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	2	2					mg/kg	1	A-T-055s
Total Aliphatics _A	<1	7	2					mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	2	<1					mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	7	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	40	<1					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	37	<1					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	17	<1					mg/kg	1	A-T-055s
Total Aromatics _A	<1	104	<1					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	111	2					mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09221
Project:	East Midland Airport	Date Received:	21/09/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	15.2, 16.2, 16.0

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.

Envirolab Analysis Dates

Lab Sample ID	22/09221/5	22/09221/6	22/09221/9
Client Sample No	18	23	8
Client Sample ID/Depth	CP27 3.00m	CP27 4.00m	BH18 0.50m
Date Sampled	16/09/22	16/09/22	14/09/22
A-T-006s	26/09/2022	26/09/2022	
A-T-019s	26/09/2022	26/09/2022	30/09/2022
A-T-022s	26/09/2022	26/09/2022	29/09/2022
A-T-024s	29/09/2022	29/09/2022	03/10/2022
A-T-026s	28/09/2022	28/09/2022	30/09/2022
A-T-031s	29/09/2022	29/09/2022	30/09/2022
A-T-032 OM	29/09/2022	29/09/2022	30/09/2022
A-T-044	04/10/2022	04/10/2022	04/10/2022
A-T-045	22/09/2022		
A-T-052s	03/10/2022	28/09/2022	
A-T-055s	26/09/2022	26/09/2022	29/09/2022
Calc-As Recd	26/09/2022	26/09/2022	29/09/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09274
Issue Number: 1

Date: 04 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 20/09/22
Date Instructions Received: 22/09/22
Date Analysis Completed: 04/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09274

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09274/1	22/09274/2	22/09274/3	22/09274/4	22/09274/5	22/09274/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH19	BH20	BH16	CP26	BH09				
Depth to Top	1.00	1.00	0.10	0.70	0.10	0.50				
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	4AE	5A	4AE	6A				
% Moisture at <40C _A	14.1	17.4	9.7	10.2	13.7	12.4		% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	8.07	8.41	6.47	7.64	6.98	8.18		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.01	0.02	0.02	0.06	0.03	0.02		g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.9	0.8	2.3	0.9	4.8	1.0		% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	8	<1	2	<1	<1	<1		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.2	1.0	0.7	0.8	0.9	1.0		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	19	10	15	11	16	27		mg/kg	1	A-T-024s
Chromium _D ^{M#}	43	70	23	25	46	37		mg/kg	1	A-T-024s
Lead _D ^{M#}	14	5	26	12	28	15		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#}	42	60	18	22	39	32		mg/kg	1	A-T-024s
Selenium _D ^{M#}	1	2	<1	<1	1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	73	78	59	49	83	68		mg/kg	5	A-T-024s

Envirolab Job Number: 22/09274

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09274/1	22/09274/2	22/09274/3	22/09274/4	22/09274/5	22/09274/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH19	BH20	BH16	CP26	BH09				
Depth to Top	1.00	1.00	0.10	0.70	0.10	0.50				
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	4AE	5A	4AE	6A				
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: 22/09274

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09274/1	22/09274/2	22/09274/3	22/09274/4	22/09274/5	22/09274/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH19	BH20	BH16	CP26	BH09				
Depth to Top	1.00	1.00	0.10	0.70	0.10	0.50				
Depth To Bottom										
Date Sampled	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	4AE	5A	4AE	6A				
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	<1	10	1	5	<1		mg/kg	1	A-T-055s
Total Aliphatics _A	2	<1	10	1	5	<1		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	2	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	2	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	6	<1	1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	11	<1	1	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	2	<1	21	1	6	<1		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s

REPORT NOTES

General

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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.

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

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Results greater than 12900µS/cm @ 25°C / 11550µS/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, 9 = INCINERATOR ASH.

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,

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Key:

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US indicates Unsuitable Sample for analysis.

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NAD indicates No Asbestos Detected.

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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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09274
Project:	East Midland Airport	Date Received:	22/09/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	11.9 - 13.9

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.

Envirolab Analysis Dates

Lab Sample ID	22/09274/1	22/09274/2	22/09274/3	22/09274/4	22/09274/5	22/09274/6
Client Sample No						
Client Sample ID/Depth	BH17 1.00m	BH19 1.00m	BH20 0.10m	BH16 0.70m	CP26 0.10m	BH09 0.50m
Date Sampled	16/09/22	16/09/22	16/09/22	16/09/22	16/09/22	16/09/22
A-T-019s	29/09/2022	29/09/2022	29/09/2022	29/09/2022	29/09/2022	29/09/2022
A-T-022s	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022
A-T-024s	03/10/2022	03/10/2022	03/10/2022	03/10/2022	03/10/2022	03/10/2022
A-T-026s	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022
A-T-031s	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022
A-T-032 OM	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022	30/09/2022
A-T-044	04/10/2022	04/10/2022	04/10/2022	04/10/2022	04/10/2022	04/10/2022
A-T-055s	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022	26/09/2022
Calc-As Recd	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09662
Issue Number: 1

Date: 14 October, 2022

Client: Structural Soils Limited (Bristol)
The Old School
Stillhouse Lane
Bedminster
Bristol
UK
BS3 4EB

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 26/09/22
Date Instructions Received: 03/10/22
Date Analysis Completed: 14/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
% Moisture at <40C _A	13.7	10.9	20.7	14.0				% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	8.69	7.73	8.34	8.61				pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.03	<0.01	0.02	<0.01				g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.8	2.7	0.5	2.6				% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.7	<0.5	0.5	<0.5				mg/kg	0.5	A-T-024s
Copper _D ^{M#}	10	13	10	7				mg/kg	1	A-T-024s
Chromium _D ^{M#}	57	41	57	48				mg/kg	1	A-T-024s
Lead _D ^{M#}	6	19	4	4				mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	0.69				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	51	33	46	45				mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc _D ^{M#}	74	69	88	72				mg/kg	5	A-T-024s

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
PAH-16MS										
Acenaphthene _A ^{M#}	<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				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<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				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<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				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<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				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<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				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<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				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<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				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<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				mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	<100	-	-	-				µg/kg	100	A-T-052s
Hexachlorobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
Diethyl phthalate _A	<100	-	-	-				µg/kg	100	A-T-052s
Dimethyl phthalate _A	<100	-	-	-				µg/kg	100	A-T-052s
Dibenzofuran _A	<100	-	-	-				µg/kg	100	A-T-052s
Carbazole _A	<100	-	-	-				µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<100	-	-	-				µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<500	-	-	-				µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<100	-	-	-				µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<100	-	-	-				µg/kg	100	A-T-052s
4-Nitrophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
3+4-Methylphenol _A	<100	-	-	-				µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2-Nitrophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2-Methylphenol _A	<100	-	-	-				µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
2-Chlorophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<100	-	-	-				µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<100	-	-	-				µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<100	-	-	-				µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<100	-	-	-				µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<100	-	-	-				µg/kg	100	A-T-052s
Phenol _A	<100	-	-	-				µg/kg	100	A-T-052s
Pentachlorophenol _A	<100	-	-	-				µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<100	-	-	-				µg/kg	100	A-T-052s

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
n-Dioctylphthalate _A	<500	-	-	-				µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<100	-	-	-				µg/kg	100	A-T-052s
Nitrobenzene _A	<100	-	-	-				µg/kg	100	A-T-052s
Isophorone _A	<100	-	-	-				µg/kg	100	A-T-052s
Hexachloroethane _A	<100	-	-	-				µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<100	-	-	-				µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<100	-	-	-				µg/kg	100	A-T-052s
Perylene _A	<100	-	-	-				µg/kg	100	A-T-052s

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
VOC										
Dichlorodifluoromethane _A	<1	-	-	-				µg/kg	1	A-T-006s
Chloromethane _A	<10	-	-	-				µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Dichloromethane _A	<5	-	-	-				µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	-	-	-				µg/kg	5	A-T-006s
Chloroform _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	-	-	-				µg/kg	2	A-T-006s
Benzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	-	-	-				µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Toluene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	-	-	-				µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s

Envirolab Job Number: 22/09662

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
Chlorobenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-				µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Styrene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Bromoform _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane _A	<1	-	-	-				µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	-	-	-				µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	-	-	-				µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	-	-	-				µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	-	-	-				µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	-	-	-				µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	-	-	-				µg/kg	3	A-T-006s

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Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4				Units	Limit of Detection	Method ref
Client Sample No	1	1	10	7						
Client Sample ID	TP36	TP32	TP35	TP34						
Depth to Top	0.45	0.20	1.75	1.30						
Depth To Bottom										
Date Sampled	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5AE	5AE	5A	5A						
TPH CWG with Clean Up										
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#}	<1	8	<1	<1				mg/kg	1	A-T-055s
Total Aliphatics _A	<1	8	<1	<1				mg/kg	1	Calc-As Recd
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#}	<1	2	<1	<1				mg/kg	1	A-T-055s
Total Aromatics _A	<1	3	<1	<1				mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	11	<1	<1				mg/kg	1	Calc-As Recd
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

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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Bristol), The Old School , Stillhouse Lane, Bedminster, Bristol, UK, BS3 4EB	Project No:	22/09662
Project:	East Midland Airport	Date Received:	03/10/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	16.8

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.

Envirolab Analysis Dates

Lab Sample ID	22/09662/1	22/09662/2	22/09662/3	22/09662/4
Client Sample No	1	1	10	7
Client Sample ID/Depth	TP36 0.45m	TP32 0.20m	TP35 1.75m	TP34 1.30m
Date Sampled	23/09/22	23/09/22	23/09/22	23/09/22
A-T-006s	06/10/2022			
A-T-019s	10/10/2022	10/10/2022	10/10/2022	10/10/2022
A-T-022s	10/10/2022	10/10/2022	10/10/2022	10/10/2022
A-T-024s	12/10/2022	12/10/2022	12/10/2022	12/10/2022
A-T-026s	12/10/2022	12/10/2022	12/10/2022	12/10/2022
A-T-031s	14/10/2022	14/10/2022	14/10/2022	14/10/2022
A-T-032 OM	13/10/2022	13/10/2022	13/10/2022	13/10/2022
A-T-044	11/10/2022	11/10/2022	11/10/2022	11/10/2022
A-T-052s	07/10/2022			
A-T-055s	07/10/2022	07/10/2022	07/10/2022	07/10/2022
Calc-As Recd	10/10/2022	10/10/2022	10/10/2022	10/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09665
Issue Number: 1

Date: 18 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 26/09/22
Date Instructions Received: 04/10/22
Date Analysis Completed: 18/10/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/09665

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09665/1							Units	Limit of Detection	Method ref
Client Sample No	26									
Client Sample ID	BH14									
Depth to Top	6.00									
Depth To Bottom										
Date Sampled	26-Sep-22									
Sample Type	Soil - ES									
Sample Matrix Code	5A									
% Moisture at <40C _A	16.2							% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1							% w/w	0.1	A-T-044
pH _D ^{M#}	8.36							pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.04							g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	1.4							% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.8							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	9							mg/kg	1	A-T-024s
Chromium _D ^{M#}	46							mg/kg	1	A-T-024s
Lead _D ^{M#}	3							mg/kg	1	A-T-024s
Mercury _D	0.75							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	43							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	64							mg/kg	5	A-T-024s

Envirolab Job Number: 22/09665

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09665/1							Units	Limit of Detection	Method ref
Client Sample No	26									
Client Sample ID	BH14									
Depth to Top	6.00									
Depth To Bottom										
Date Sampled	26-Sep-22									
Sample Type	Soil - ES									
Sample Matrix Code	5A									
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08							mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09665

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09665/1									
Client Sample No	26									
Client Sample ID	BH14									
Depth to Top	6.00									
Depth To Bottom										
Date Sampled	26-Sep-22									
Sample Type	Soil - ES									
Sample Matrix Code	5A									
TPH CWG with Clean Up										
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	Calc-As Recd
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#}	<1							mg/kg	1	A-T-055s
Total Aromatics _A	<1							mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1							mg/kg	1	Calc-As Recd
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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09665
Project:	East Midland Airport	Date Received:	04/10/2022 (am)
		Cool Box Temperatures (°C):	10.8,10.4,10.3,10.2,10. 7
Clients Project No: 765514			

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/09665/1
Client Sample No	26
Client Sample ID/Depth	BH14 6.00m
Date Sampled	26/09/22
A-T-019s	07/10/2022
A-T-022s	10/10/2022
A-T-024s	13/10/2022
A-T-026s	14/10/2022
A-T-031s	18/10/2022
A-T-032 OM	13/10/2022
A-T-044	18/10/2022
A-T-055s	07/10/2022
Calc-As Recd	10/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09666
Issue Number: 1

Date: 18 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 23/09/22
Date Instructions Received: 04/10/22
Date Analysis Completed: 18/10/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/09666

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09666/1	22/09666/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH08	CP23								
Depth to Top	5.00	2.00								
Depth To Bottom										
Date Sampled	26-Sep-22	26-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	6A								
% Moisture at <40C _A	15.2	15.7						% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1						% w/w	0.1	A-T-044
pH _D ^{M#}	8.38	8.44						pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.04	0.04						g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.3	0.7						% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.8	0.8						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	10	10						mg/kg	1	A-T-024s
Chromium _D ^{M#}	48	49						mg/kg	1	A-T-024s
Lead _D ^{M#}	3	3						mg/kg	1	A-T-024s
Mercury _D	0.71	0.89						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	44	43						mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	66	64						mg/kg	5	A-T-024s

Envirolab Job Number: 22/09666

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09666/1	22/09666/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH08	CP23								
Depth to Top	5.00	2.00								
Depth To Bottom										
Date Sampled	26-Sep-22	26-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	6A								
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08						mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09666

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09666/1	22/09666/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH08	CP23								
Depth to Top	5.00	2.00								
Depth To Bottom										
Date Sampled	26-Sep-22	26-Sep-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	6A								
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1						mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1						mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1						mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09666
Project:	East Midland Airport	Date Received:	04/10/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	10.2,10.4

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/09666/1	22/09666/2
Client Sample No		
Client Sample ID/Depth	BH08 5.00m	CP23 2.00m
Date Sampled	26/09/22	26/09/22
A-T-019s	10/10/2022	10/10/2022
A-T-022s	10/10/2022	10/10/2022
A-T-024s	13/10/2022	13/10/2022
A-T-026s	13/10/2022	13/10/2022
A-T-031s	18/10/2022	18/10/2022
A-T-032 OM	17/10/2022	17/10/2022
A-T-044	07/10/2022	07/10/2022
A-T-055s	07/10/2022	07/10/2022
Calc-As Recd	10/10/2022	10/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09768
Issue Number: 1

Date: 21 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 30/09/22
Date Instructions Received: 05/10/22
Date Analysis Completed: 21/10/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
% Moisture at <40C _A	12.1	11.0	9.7	13.7	9.5	11.1	8.8	% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	0.9	<0.1	2.7	<0.1	0.2	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	9.68	8.56	8.72	8.75	8.05	8.51	7.30	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.6	0.6	0.3	1.3	2.2	1.1	2.4	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	27	<1	4	<1	<1	6	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.8	1.0	0.7	<0.5	0.6	0.7	0.7	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	12	24	9	15	10	7	14	mg/kg	1	A-T-024s
Chromium _D ^{M#}	54	37	49	29	31	44	28	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	54	37	49	29	31	44	28	mg/kg	1	Calc
Lead _D ^{M#}	10	13	3	5	23	4	24	mg/kg	1	A-T-024s
Mercury _D	<0.17	1.09	1.97	0.97	<0.17	1.35	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	48	33	41	24	26	38	24	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#}	72	67	59	55	58	57	62	mg/kg	5	A-T-024s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
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	0.05	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<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	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Diethyl phthalate _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Dimethyl phthalate _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Dibenzofuran _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Carbazole _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	-	<500	-	-	-	-	-	µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
4-Nitrophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
3+4-Methylphenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2-Nitrophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2-Methylphenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2-Chlorophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2-Chloronaphthalene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
2-Methylnaphthalene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Phenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Pentachlorophenol _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
n-Dioctylphthalate _A	-	<500	-	-	-	-	-	µg/kg	500	A-T-052s
n-Dibutylphthalate _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Nitrobenzene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Isophorone _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachloroethane _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobutadiene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s
Perylene _A	-	<100	-	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
VOC										
Dichlorodifluoromethane _A	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Chloromethane _A	-	<10	-	-	-	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Bromomethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Chloroethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Dichloromethane _A	-	<5	-	-	-	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Bromochloromethane _A [#]	-	<5	-	-	-	-	-	µg/kg	5	A-T-006s
Chloroform _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	-	<2	-	-	-	-	-	µg/kg	2	A-T-006s
Benzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Trichloroethene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Dibromomethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	-	<10	-	-	-	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Toluene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	-	<3	-	-	-	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
Chlorobenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Ethylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
m & p Xylene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
o-Xylene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Styrene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Bromoform _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1,2,2-Tetrachloroethane _A	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
Bromobenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	-	<2	-	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	-	<2	-	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	-	<3	-	-	-	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	-	<1	-	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	-	<3	-	-	-	-	-	µg/kg	3	A-T-006s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	Units	Limit of Detection	Method ref
Client Sample No	2	3	7	6	3	35	1			
Client Sample ID	CP09	CP10	TP14	TP15	TP16	BH13	TP19			
Depth to Top	0.50	0.90	0.80	1.50	0.40	10.00	0.15			
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	5AE	5AE	5AE	5A	4AE	5A	5E			
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	<1	<1	6	2	15	mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1	<1	6	2	15	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2	<2	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	2	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	<1	1	<1	4	mg/kg	1	A-T-055s
Total Aromatics _A	<2	<2	<2	<2	<2	<2	7	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<2	<2	<2	<2	7	2	22	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<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	<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	<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	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
% Moisture at <40C _A	12.7	6.6	9.2	9.8	14.8			% w/w	0.1	A-T-044
% Stones >10mm _A	8.0	21.9	<0.1	<0.1	<0.1			% w/w	0.1	A-T-044
pH _D ^{M#}	8.34	7.81	8.36	7.80	8.41			pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	1.1	0.6	1.0	3.2	0.9			% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	7	2	<1	1	<1			mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.7	0.5	<0.5	0.8	0.8			mg/kg	0.5	A-T-024s
Copper _D ^{M#}	14	12	9	17	20			mg/kg	1	A-T-024s
Chromium _D ^{M#}	44	21	32	38	34			mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1			mg/kg	1	A-T-040s
Chromium (trivalent)	44	21	32	38	34			mg/kg	1	Calc
Lead _D ^{M#}	9	10	7	26	14			mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.33	<0.17	0.94			mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	43	17	26	34	31			mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-024s
Zinc _D ^{M#}	62	45	52	72	54			mg/kg	5	A-T-024s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	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	<0.04	<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			mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<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			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	<0.06	<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			mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<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			mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<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			mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<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			mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08			mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Hexachlorobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Diethyl phthalate _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Dimethyl phthalate _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Dibenzofuran _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Carbazole _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<500	-	-	-	-			µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<100	-	-	-	-			µg/kg	100	A-T-052s
4-Nitrophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
3+4-Methylphenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2-Nitrophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2-Methylphenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2-Chlorophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Phenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Pentachlorophenol _A	<100	-	-	-	-			µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<100	-	-	-	-			µg/kg	100	A-T-052s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
n-Dioctylphthalate _A	<500	-	-	-	-			µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Nitrobenzene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Isophorone _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Hexachloroethane _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<100	-	-	-	-			µg/kg	100	A-T-052s
Perylene _A	<100	-	-	-	-			µg/kg	100	A-T-052s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
VOC										
Dichlorodifluoromethane _A	<1	-	-	-	-			µg/kg	1	A-T-006s
Chloromethane _A	<10	-	-	-	-			µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Dichloromethane _A	<5	-	-	-	-			µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	-	-	-	-			µg/kg	5	A-T-006s
Chloroform _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	-	-	-	-			µg/kg	2	A-T-006s
Benzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	-	-	-	-			µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Toluene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	-	-	-	-			µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
Chlorobenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-	-			µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Styrene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Bromoform _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,1,1,2,2-Tetrachloroethane _A	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	-	-	-	-			µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	-	-	-	-			µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	-	-	-	-			µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	-	-	-	-			µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	-	-	-	-			µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	-	-	-	-			µg/kg	3	A-T-006s

Envirolab Job Number: 22/09768

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12			Units	Limit of Detection	Method ref
Client Sample No	9	3	3	1	2					
Client Sample ID	TP18	TP17	CP11	TP26	CP07					
Depth to Top	1.70	0.50	1.00	0.20	0.40					
Depth To Bottom										
Date Sampled	29-Sep-22	29-Sep-22	30-Sep-22	30-Sep-22	30-Sep-22					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	5A	4AE	5AE	5AE	5A					
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<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	<0.01			mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	7	8	1			mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	7	8	1			mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<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	<0.01			mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2			mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	1	2	<1			mg/kg	1	A-T-055s
Total Aromatics _A	<2	<2	<2	2	<2			mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<2	<2	8	10	<2			mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<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	<0.01			mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<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	<0.01			mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<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	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09768
Project:	East Midland Airport	Date Received:	05/10/2022 (pm)
Clients Project No:	765514	Cool Box Temperatures (°C):	10.2 - 11.4

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.

Envirolab Analysis Dates

Lab Sample ID	22/09768/1	22/09768/2	22/09768/3	22/09768/4	22/09768/5	22/09768/6	22/09768/7	22/09768/8	22/09768/9	22/09768/10	22/09768/11	22/09768/12
Client Sample No	2	3	7	6	3	35	1	9	3	3	1	2
Client Sample ID/Depth	CP09 0.50m	CP10 0.90m	TP14 0.80m	TP15 1.50m	TP16 0.40m	BH13 10.00m	TP19 0.15m	TP18 1.70m	TP17 0.50m	CP11 1.00m	TP26 0.20m	CP07 0.40m
Date Sampled	29/09/22	29/09/22	29/09/22	29/09/22	29/09/22	29/09/22	29/09/22	29/09/22	29/09/22	30/09/22	30/09/22	30/09/22
A-T-006s		12/10/2022						12/10/2022				
A-T-019s	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
A-T-022s	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
A-T-024s	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-026s	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-031s	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022
A-T-032 OM	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-040s	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-044	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022	11/10/2022
A-T-052s		13/10/2022						13/10/2022				
A-T-055s	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022
Calc	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
Calc-As Recd	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09928
Issue Number: 1

Date: 25 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 04/10/22
Date Instructions Received: 10/10/22
Date Analysis Completed: 25/10/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
% Moisture at <40C _A	10.2	15.1	12.5	14.4	9.5	11.9	20.5	% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	7.98	8.62	7.99	8.26	8.60	8.52	8.50	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.02	0.01	0.04	<0.01	0.02	0.02	g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	5.3	0.9	0.2	0.4	2.2	1.1	0.7	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	6	5	6	8	<1	3	7	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.0	1.0	0.7	1.1	0.6	0.9	0.9	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	18	11	18	21	10	11	25	mg/kg	1	A-T-024s
Chromium _D ^{M#}	43	64	31	51	46	61	31	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	43	64	31	51	46	61	31	mg/kg	1	Calc
Lead _D ^{M#}	59	5	9	11	5	5	12	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	0.20	<0.17	0.69	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	38	60	22	48	41	53	28	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#}	90	84	52	71	68	74	65	mg/kg	5	A-T-024s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
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#}	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.07	<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	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	0.16	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Diethyl phthalate _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Dimethyl phthalate _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Dibenzofuran _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Carbazole _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<500	-	-	-	-	-	-	µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
4-Nitrophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
3+4-Methylphenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2-Nitrophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2-Methylphenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2-Chlorophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Phenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Pentachlorophenol _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
n-Dioctylphthalate _A	<500	-	-	-	-	-	-	µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Nitrobenzene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Isophorone _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachloroethane _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s
Perylene _A	<100	-	-	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
VOC										
Dichlorodifluoromethane _A	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Chloromethane _A	<10	-	-	-	-	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Dichloromethane _A	<5	-	-	-	-	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	-	-	-	-	-	-	µg/kg	5	A-T-006s
Chloroform _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	-	-	-	-	-	-	µg/kg	2	A-T-006s
Benzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	-	-	-	-	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Toluene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	-	-	-	-	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
Chlorobenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Styrene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Bromoform _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	-	-	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	-	-	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	-	-	-	-	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	-	-	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	-	-	-	-	-	-	µg/kg	3	A-T-006s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	Units	Limit of Detection	Method ref
Client Sample No	1	6	7	6	6	2	4			
Client Sample ID	CP21	TP23	TP13	TP22	TP24	CP22	CP13			
Depth to Top	0.10	0.90	1.50	1.30	0.60	0.50	2.40			
Depth To Bottom										
Date Sampled	03-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4A	5A	6AE	4A	5A	3			
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	10	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics _A	10	<1	<1	<1	<1	<1	<1	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2	<2	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	3	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics _A	4	<2	<2	<2	<2	<2	<2	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	14	<2	<2	<2	<2	<2	<2	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<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	<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	<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	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
% Moisture at <40C _A	14.6	10.1	11.0	12.5	12.7	9.7	14.2	% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	7.52	8.45	6.86	8.44	7.25	6.74	8.15	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.06	0.02	<0.01	0.06	0.01	<0.01	<0.01	g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	6.1	2.3	2.5	3.2	0.7	2.7	0.4	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	9	<1	8	3	10	8	14	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.0	0.8	1.0	1.0	1.2	1.1	1.2	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	24	16	18	21	21	22	25	mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	51	29	40	46	37	38	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	24	51	29	40	46	37	38	mg/kg	1	Calc
Lead _D ^{M#}	35	12	43	40	11	136	16	mg/kg	1	A-T-024s
Mercury _D	<0.17	0.44	<0.17	0.34	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	22	46	24	32	39	28	47	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#}	92	70	68	132	72	86	75	mg/kg	5	A-T-024s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	-	-	-	NAD	-	-	-			A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	-	-	-	N/A	-	-	-			A-T-045

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	0.48	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	0.55	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	0.62	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	0.31	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	0.24	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	0.51	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	0.88	<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	0.35	<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	0.26	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	0.86	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	5.22	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Hexachlorobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Diethyl phthalate _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Dimethyl phthalate _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Dibenzofuran _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Carbazole _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Butylbenzyl phthalate _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate _A	<500	-	-	<500	-	-	-	µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
4-Nitrophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
3+4-Methylphenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
4-Chloro-3-methylphenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2-Nitrophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2-Methylphenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2-Chlorophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,6-Dinitrotoluene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,4-Dinitrotoluene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,4-Dimethylphenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,4-Dichlorophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,4,6-Trichlorophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2,4,5-Trichlorophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
1,4-Dichlorobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
1,3-Dichlorobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
1,2-Dichlorobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2-Chloronaphthalene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
2-Methylnaphthalene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Phenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Pentachlorophenol _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
n-Diethylphthalate _A	<500	-	-	<500	-	-	-	µg/kg	500	A-T-052s
n-Dibutylphthalate _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Nitrobenzene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Isophorone _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Hexachloroethane _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Hexachlorocyclopentadiene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Hexachlorobutadiene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s
Perylene _A	<100	-	-	<100	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
VOC										
Dichlorodifluoromethane _A	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Chloromethane _A	<10	-	-	<10	-	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene) _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromomethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Chloroethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Carbon Disulphide _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dichloromethane _A	<5	-	-	<5	-	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromochloromethane _A [#]	<5	-	-	<5	-	-	-	µg/kg	5	A-T-006s
Chloroform _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane _A [#]	<2	-	-	<2	-	-	-	µg/kg	2	A-T-006s
Benzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Trichloroethene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dibromomethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromodichloromethane _A [#]	<10	-	-	<10	-	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Toluene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Tetrachloroethene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Dibromochloromethane _A [#]	<3	-	-	<3	-	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
Chlorobenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Ethylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
m & p Xylene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
o-Xylene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Styrene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromoform _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Isopropylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane _A	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
Bromobenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
n-Propylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene _A [#]	<2	-	-	<2	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene _A	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
n-Butylbenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP) _A	<2	-	-	<2	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene _A	<3	-	-	<3	-	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene _A [#]	<1	-	-	<1	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene _A	<3	-	-	<3	-	-	-	µg/kg	3	A-T-006s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12	22/09928/13	22/09928/14	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	3	3	1	6			
Client Sample ID	CP12	CP18	TP10	TP08	CP14	TP09	TP11			
Depth to Top	0.01	0.50	0.20	0.50	0.50	0.20	1.20			
Depth To Bottom										
Date Sampled	05-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	6AE	4ABE	4AE	6AE	4AE	6AE			
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	2	<1	<1	2	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	18	<1	8	31	<1	7	<1	mg/kg	1	A-T-055s
Total Aliphatics _A	20	<1	8	33	<1	7	<1	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2	<2	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	<1	<1	2	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	2	<1	1	25	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	8	<1	4	189	<1	2	<1	mg/kg	1	A-T-055s
Total Aromatics _A	12	<2	6	216	<2	2	<2	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	32	<2	13	249	<2	9	<2	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<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	<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	<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	<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	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/15	22/09928/16						Units	Limit of Detection	Method ref
Client Sample No	6	6								
Client Sample ID	TP12	TP06								
Depth to Top	1.10	0.80								
Depth To Bottom										
Date Sampled	04-Oct-22	04-Oct-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	4A								
% Moisture at <40C _A	12.6	10.5						% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1						% w/w	0.1	A-T-044
pH _D ^{M#}	8.50	8.41						pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.03	0.02						g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.5	0.4						% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	8	6						mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.9	0.6						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	19	19						mg/kg	1	A-T-024s
Chromium _D ^{M#}	31	24						mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1						mg/kg	1	A-T-040s
Chromium (trivalent)	31	24						mg/kg	1	Calc
Lead _D ^{M#}	10	11						mg/kg	1	A-T-024s
Mercury _D	1.01	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	32	26						mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	57	54						mg/kg	5	A-T-024s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/15	22/09928/16						Units	Limit of Detection	Method ref
Client Sample No	6	6								
Client Sample ID	TP12	TP06								
Depth to Top	1.10	0.80								
Depth To Bottom										
Date Sampled	04-Oct-22	04-Oct-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	4A								
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08						mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09928

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09928/15	22/09928/16								
Client Sample No	6	6								
Client Sample ID	TP12	TP06								
Depth to Top	1.10	0.80								
Depth To Bottom										
Date Sampled	04-Oct-22	04-Oct-22								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	6A	4A								
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1						mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2						mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Total Aromatics _A	<2	<2						mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<2	<2						mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/09928
Project:	East Midland Airport	Date Received:	10/10/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	8.3,8.1,8.8,8.9

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.

Envirolab Analysis Dates

Lab Sample ID	22/09928/1	22/09928/2	22/09928/3	22/09928/4	22/09928/5	22/09928/6	22/09928/7	22/09928/8	22/09928/9	22/09928/10	22/09928/11	22/09928/12
Client Sample No	1	6	7	6	6	2	4	1	2	1	3	3
Client Sample ID/Depth	CP21 0.10m	TP23 0.90m	TP13 1.50m	TP22 1.30m	TP24 0.60m	CP22 0.50m	CP13 2.40m	CP12 0.01m	CP18 0.50m	TP10 0.20m	TP08 0.50m	CP14 0.50m
Date Sampled	03/10/22	05/10/22	05/10/22	05/10/22	05/10/22	05/10/22	05/10/22	05/10/22	04/10/22	04/10/22	04/10/22	04/10/22
A-T-006s	13/10/2022							13/10/2022			13/10/2022	
A-T-019s	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022	14/10/2022
A-T-022s	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-024s	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022	19/10/2022
A-T-026s	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
A-T-031s	24/10/2022	24/10/2022	24/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022	25/10/2022
A-T-032 OM	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022	21/10/2022
A-T-040s	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
A-T-044	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-045											12/10/2022	
A-T-052s	14/10/2022							14/10/2022			14/10/2022	
A-T-055s	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022	17/10/2022
Calc	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Calc-As Recd	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022	18/10/2022

Lab Sample ID	22/09928/13	22/09928/14	22/09928/15	22/09928/16
Client Sample No	1	6	6	6
Client Sample ID/Depth	TP09 0.20m	TP11 1.20m	TP12 1.10m	TP06 0.80m
Date Sampled	04/10/22	04/10/22	04/10/22	04/10/22
A-T-006s				
A-T-019s	14/10/2022	14/10/2022	14/10/2022	14/10/2022
A-T-022s	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-024s	19/10/2022	19/10/2022	19/10/2022	19/10/2022
A-T-026s	20/10/2022	20/10/2022	20/10/2022	20/10/2022
A-T-031s	25/10/2022	25/10/2022	25/10/2022	25/10/2022
A-T-032 OM	21/10/2022	21/10/2022	21/10/2022	21/10/2022
A-T-040s	20/10/2022	20/10/2022	20/10/2022	20/10/2022
A-T-044	18/10/2022	18/10/2022	18/10/2022	18/10/2022
A-T-045				
A-T-052s				
A-T-055s	17/10/2022	17/10/2022	17/10/2022	17/10/2022
Calc	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Calc-As Recd	18/10/2022	18/10/2022	18/10/2022	18/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09935
Issue Number: 1

Date: 21 October, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 07/10/22
Date Instructions Received: 11/10/22
Date Analysis Completed: 21/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09935

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09935/2	22/09935/3	22/09935/4					Units	Limit of Detection	Method ref
Client Sample No	1	3	9							
Client Sample ID	TP21	TP28	TP31							
Depth to Top	0.15	0.50	2.90							
Depth To Bottom										
Date Sampled	06-Oct-22	06-Oct-22	06-Oct-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6AE	4A							
% Moisture at <40C _A	17.1	12.6	11.7					% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
pH _D ^{M#}	7.86	8.27	8.16					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.03	0.03					g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	4.3	0.7	1.4					% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	3					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.7	0.8	0.8					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	15	10	12					mg/kg	1	A-T-024s
Chromium _D ^{M#}	46	59	56					mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1					mg/kg	1	A-T-040s
Chromium (trivalent)	46	59	56					mg/kg	1	Calc
Lead _D ^{M#}	21	6	7					mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.48					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	37	54	51					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	78	79	81					mg/kg	5	A-T-024s

Envirolab Job Number: 22/09935

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09935/2	22/09935/3	22/09935/4					Units	Limit of Detection	Method ref
Client Sample No	1	3	9							
Client Sample ID	TP21	TP28	TP31							
Depth to Top	0.15	0.50	2.90							
Depth To Bottom										
Date Sampled	06-Oct-22	06-Oct-22	06-Oct-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6AE	4A							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<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					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/09935

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/09935/2	22/09935/3	22/09935/4					Units	Limit of Detection	Method ref
Client Sample No	1	3	9							
Client Sample ID	TP21	TP28	TP31							
Depth to Top	0.15	0.50	2.90							
Depth To Bottom										
Date Sampled	06-Oct-22	06-Oct-22	06-Oct-22							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	6AE	6AE	4A							
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	6	3	<1					mg/kg	1	A-T-055s
Total Aliphatics _A	6	3	<1					mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	1	<1	<1					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	2	<1	<1					mg/kg	1	A-T-055s
Total Aromatics _A	4	<1	<1					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	10	3	<1					mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midland Airport

Clients Project No: 765514

Project No: 22/09935

Date Received: 11/10/2022 (am)

Cool Box Temperatures (°C): 10.9,10.8,10.2

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.

Envirolab Analysis Dates

Lab Sample ID	22/09935/2	22/09935/3	22/09935/4
Client Sample No	1	3	9
Client Sample ID/Depth	TP21 0.15m	TP28 0.50m	TP31 2.90m
Date Sampled	06/10/22	06/10/22	06/10/22
A-T-019s	17/10/2022	17/10/2022	17/10/2022
A-T-022s	17/10/2022	17/10/2022	17/10/2022
A-T-024s	18/10/2022	18/10/2022	18/10/2022
A-T-026s	18/10/2022	18/10/2022	18/10/2022
A-T-031s	21/10/2022	21/10/2022	21/10/2022
A-T-032 OM	19/10/2022	19/10/2022	19/10/2022
A-T-040s	18/10/2022	18/10/2022	18/10/2022
A-T-044	14/10/2022	14/10/2022	14/10/2022
A-T-055s	17/10/2022	17/10/2022	17/10/2022
Calc	18/10/2022	18/10/2022	18/10/2022
Calc-As Recd	17/10/2022	17/10/2022	17/10/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/11826
Issue Number: 1

Date: 14 December, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones/Tim Clifford
Project Name: East Midland Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 22/09/22
Date Instructions Received: 01/12/22
Date Analysis Completed: 14/12/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/11826

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6		Units	Limit of Detection	Method ref
Client Sample No	26	24	9	6	12	6				
Client Sample ID	BH14	BH22	CP25	BH07	TP33	TP37				
Depth to Top	6.00	4.50	1.00	4.00	2.90	1.10				
Depth To Bottom										
Date Sampled	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	6A	4AE	6A	6AE				
% Moisture at <40C _A	9.4	10.4	15.4	9.1	15.4	13.2		% w/w	0.1	A-T-044
% Stones >10mm _A	36.2	<0.1	<0.1	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	8.54	8.72	8.69	7.31	8.66	7.58		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.01	0.01	<0.01	<0.01	<0.01		g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	0.4	1.6	0.3	0.9	<0.1	0.7		% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	8	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.5	0.7	0.7	0.6	0.6	0.7		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	10	8	11	10	10		mg/kg	1	A-T-024s
Chromium _D ^{M#}	13	53	52	35	72	54		mg/kg	1	A-T-024s
Lead _D ^{M#}	5	4	4	14	2	5		mg/kg	1	A-T-024s
Mercury _D	0.59	0.42	0.29	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	49	46	31	59	42		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	3	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	36	74	70	51	86	75		mg/kg	5	A-T-024s

Envirolab Job Number: 22/11826

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6		Units	Limit of Detection	Method ref
Client Sample No	26	24	9	6	12	6				
Client Sample ID	BH14	BH22	CP25	BH07	TP33	TP37				
Depth to Top	6.00	4.50	1.00	4.00	2.90	1.10				
Depth To Bottom										
Date Sampled	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	6A	4AE	6A	6AE				
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: 22/11826

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6		Units	Limit of Detection	Method ref
Client Sample No	26	24	9	6	12	6				
Client Sample ID	BH14	BH22	CP25	BH07	TP33	TP37				
Depth to Top	6.00	4.50	1.00	4.00	2.90	1.10				
Depth To Bottom										
Date Sampled	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22	21-Sep-22				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES				
Sample Matrix Code	6AE	6A	6A	4AE	6A	6AE				
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	<1	<1	25	<1	1		mg/kg	1	A-T-055s
Total Aliphatics _A	2	<1	<1	25	<1	1		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	23	<1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	23	1	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	2	<1	<1	48	1	1		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<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	<0.01	<0.01		mg/kg	0.01	A-T-022s

REPORT NOTES

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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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midland Airport

Clients Project No: 765514

Project No: 22/11826

Date Received: 01/12/2022 (pm)

Cool Box Temperatures (°C): 13.6

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6
Client Sample No	26	24	9	6	12	6
Client Sample ID/Depth	BH14 6.00m	BH22 4.50m	CP25 1.00m	BH07 4.00m	TP33 2.90m	TP37 1.10m
Date Sampled	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22
Deviation Code						
F	✓	✓	✓	✓	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6
Client Sample No	26	24	9	6	12	6
Client Sample ID/Depth	BH14 6.00m	BH22 4.50m	CP25 1.00m	BH07 4.00m	TP33 2.90m	TP37 1.10m
Date Sampled	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22
PAH-16MS	✓	✓	✓	✓	✓	✓
Organic Matter	✓	✓	✓	✓	✓	✓
Sulphate (water sol 2:1)	✓	✓	✓	✓	✓	✓
EPHCWG	✓	✓	✓	✓	✓	✓
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.

Envirolab Analysis Dates

Lab Sample ID	22/11826/1	22/11826/2	22/11826/3	22/11826/4	22/11826/5	22/11826/6
Client Sample No	26	24	9	6	12	6
Client Sample ID/Depth	BH14 6.00m	BH22 4.50m	CP25 1.00m	BH07 4.00m	TP33 2.90m	TP37 1.10m
Date Sampled	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22	21/09/22
A-T-019s	08/12/2022	08/12/2022	08/12/2022	08/12/2022	08/12/2022	08/12/2022
A-T-022s	06/12/2022	06/12/2022	06/12/2022	06/12/2022	06/12/2022	06/12/2022
A-T-024s	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-026s	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-031s	14/12/2022	14/12/2022	14/12/2022	14/12/2022	14/12/2022	14/12/2022
A-T-032 OM	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022
A-T-044	12/12/2022	12/12/2022	12/12/2022	12/12/2022	12/12/2022	12/12/2022
A-T-055s	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022
Calc-As Recd	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022	07/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/11895
Issue Number: 1

Date: 16 December, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Alex Jones
Project Name: East Midlands Airport
Project Ref: 765514
Order No: N/A
Date Samples Received: 27/09/22
Date Instructions Received: 05/12/22
Date Analysis Completed: 16/12/22

Approved by:



Gemma Berrisford
Client Manager

Envirolab Job Number: 22/11895

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4				Units	Limit of Detection	Method ref
Client Sample No	7	10	3	1						
Client Sample ID	TP29	TP27	BH12	CP24						
Depth to Top	1.40	1.60	1.00	0.10						
Depth To Bottom										
Date Sampled	27-Sep-22	27-Sep-22	27-Sep-22	27-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	6A	6A	6A	6AE						
% Moisture at <40C _A	13.1	14.5	15.8	12.1				% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	8.24	8.17	7.95	7.96				pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01				g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	2.1	2.1	1.0	3.2				% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.5	<0.5	0.5	0.6				mg/kg	0.5	A-T-024s
Copper _D ^{M#}	9	9	20	13				mg/kg	1	A-T-024s
Chromium _D ^{M#}	39	54	34	55				mg/kg	1	A-T-024s
Lead _D ^{M#}	6	6	11	16				mg/kg	1	A-T-024s
Mercury _D	0.41	<0.17	0.67	<0.17				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	37	47	27	43				mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc _D ^{M#}	56	63	45	72				mg/kg	5	A-T-024s

Envirolab Job Number: 22/11895

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4				Units	Limit of Detection	Method ref
Client Sample No	7	10	3	1						
Client Sample ID	TP29	TP27	BH12	CP24						
Depth to Top	1.40	1.60	1.00	0.10						
Depth To Bottom										
Date Sampled	27-Sep-22	27-Sep-22	27-Sep-22	27-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	6A	6A	6A	6AE						
PAH-16MS										
Acenaphthene _A ^{M#}	<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				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<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				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<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				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<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				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<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				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<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				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<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				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<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				mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/11895

Client Project Name: East Midlands Airport

Client Project Ref: 765514

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4				Units	Limit of Detection	Method ref
Client Sample No	7	10	3	1						
Client Sample ID	TP29	TP27	BH12	CP24						
Depth to Top	1.40	1.60	1.00	0.10						
Depth To Bottom										
Date Sampled	27-Sep-22	27-Sep-22	27-Sep-22	27-Sep-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	6A	6A	6A	6AE						
TPH CWG with Clean Up										
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#}	<1	<1	<1	3				mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1	3				mg/kg	1	Calc-As Recd
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#}	<1	<1	<1	1				mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	1				mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1	<1	5				mg/kg	1	Calc-As Recd
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

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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford,
West Yorkshire, UK, WF10 1NJ

Project: East Midlands Airport

Clients Project No: 765514

Project No: 22/11895

Date Received: 05/12/2022 (am)

Cool Box Temperatures (°C): 5.4

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4
Client Sample No	7	10	3	1
Client Sample ID/Depth	TP29 1.40m	TP27 1.60m	BH12 1.00m	CP24 0.10m
Date Sampled	27/09/22	27/09/22	27/09/22	27/09/22
Deviation Code				
F	✓	✓	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4
Client Sample No	7	10	3	1
Client Sample ID/Depth	TP29 1.40m	TP27 1.60m	BH12 1.00m	CP24 0.10m
Date Sampled	27/09/22	27/09/22	27/09/22	27/09/22
PAH-16MS	✓	✓	✓	✓
Organic Matter	✓	✓	✓	✓
Sulphate (water sol 2:1)	✓	✓	✓	✓
EPHCWG	✓	✓	✓	✓
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.

Envirolab Analysis Dates

Lab Sample ID	22/11895/1	22/11895/2	22/11895/3	22/11895/4
Client Sample No	7	10	3	1
Client Sample ID/Depth	TP29 1.40m	TP27 1.60m	BH12 1.00m	CP24 0.10m
Date Sampled	27/09/22	27/09/22	27/09/22	27/09/22
A-T-019s	09/12/2022	09/12/2022	09/12/2022	09/12/2022
A-T-022s	08/12/2022	08/12/2022	08/12/2022	08/12/2022
A-T-024s	13/12/2022	13/12/2022	13/12/2022	13/12/2022
A-T-026s	13/12/2022	13/12/2022	13/12/2022	13/12/2022
A-T-031s	13/12/2022	13/12/2022	13/12/2022	13/12/2022
A-T-032 OM	13/12/2022	13/12/2022	13/12/2022	13/12/2022
A-T-044	16/12/2022	16/12/2022	16/12/2022	16/12/2022
A-T-055s	08/12/2022	08/12/2022	08/12/2022	08/12/2022
Calc-As Recd	08/12/2022	08/12/2022	08/12/2022	08/12/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/10897
Issue Number: 1

Date: 18 November, 2022

Client: Structural Soils Limited (Castleford)
The Potteries
Pottery Street
Castleford
West Yorkshire
UK
WF10 1NJ

Project Manager: Tim Clifford
Project Name: EMG Phase 2
Project Ref: 765514
Order No: N/A
Date Samples Received: 04/11/22
Date Instructions Received: 04/11/22
Date Analysis Completed: 18/11/22

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
pH (w) _A [#]	7.25	7.26	7.32	7.45	7.91	7.30	7.35	pH	0.01	A-T-031w
Sulphate (w) _A [#]	216	237	59	75	77	194	66	mg/l	1	A-T-026w
Cyanide (total) (w) _A [#]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	0.005	A-T-042wTCN
Phenols - Total by HPLC (w) _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	0.01	A-T-050w
Arsenic (dissolved) _A [#]	<1	<1	<1	<1	<1	2	<1	µg/l	1	A-T-025w
Boron (dissolved) _A [#]	36	41	45	23	40	29	43	µg/l	10	A-T-025w
Cadmium (dissolved) _A [#]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/l	0.2	A-T-025w
Copper (dissolved) _A	7	10	9	4	17	5	6	µg/l	4	A-T-025w
Chromium (dissolved) _A [#]	8	11	10	14	9	5	<1	µg/l	1	A-T-025w
Chromium (total) _A	9	11	11	11	8	7	11	µg/l	1	A-T-025w
Chromium (hexavalent) (w) _A	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	mg/l	0.01	A-T-040w
Chromium (trivalent) (w)	<0.02	0.01	0.01	0.01	<0.02	<0.02	<0.02	mg/l	0.01	Calc
Lead (dissolved) _A [#]	<1	<1	2	<1	2	<1	<1	µg/l	1	A-T-025w
Mercury (dissolved) _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-025w
Nickel (dissolved) _A [#]	<2	2	<2	<2	12	<2	<2	µg/l	2	A-T-025w
Selenium (dissolved) _A [#]	<1	<1	16	<1	<1	<1	<1	µg/l	1	A-T-025w
Zinc (dissolved) _A [#]	3	16	23	17	30	15	8	µg/l	2	A-T-025w
OCP+OPP Combined Pest Suite (incl. Atrazine+Simazine) (w)										
Dichlobenil (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Tecnazene (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Trifluralin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
alpha-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Hexachlorobenzene (HCB) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Simazine (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Atrazine (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
beta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Quintozene (PCNB) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Triallate (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
delta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorothalonil (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Heptachlor (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Aldrin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Triadimefon (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Telodrin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Isodrin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Pendimethalin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Heptachlor epoxide (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
trans-Chlordane (Gamma) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDE (2,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan I (Alpha) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
cis-Chlordane (Alpha) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDE (4,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dieldrin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDD (2,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan II (Beta) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDD (4,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDT (2,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin Aldehyde (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan Sulphate (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDT (4,4) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin Ketone (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Permethrin I (cis) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Permethrin II (trans) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dichlorvos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Mevinphos (w) _A	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Demeton-S (w) _A	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Phorate (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dimethoate (w) _A	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Demeton-O (w) _A	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Propetamphos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Diazinon (Dimpylate) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Disulfoton (w) _A	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Chlorpyrifos-methyl (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Methyl Parathion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Pirimiphos-methyl (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fenitrothion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Malathion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorpyrifos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fenthion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Parathion (Ethyl Parathion) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Trichloronate (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorfenvinphos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fensulphothion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Prothiofos (Tokuthion) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Ethion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Triazophos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Carbophenothion (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Phosalone (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Azinphos-methyl (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Azinphos-ethyl (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Coumaphos (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
gamma-Hexachlorocyclohexane (HCH / Lindane) (w) _A	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
PAH 16MS (w)										
Acenaphthene (w) _A [#]	0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Acenaphthylene (w) _A [#]	0.15	<0.01	0.05	<0.01	<0.01	0.13	0.04	µg/l	0.01	A-T-019w
Anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(a)anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(a)pyrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Chrysene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Fluoranthene (w) _A [#]	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Fluorene (w) _A [#]	0.01	<0.01	0.03	<0.01	<0.01	0.01	<0.01	µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Naphthalene (w) _A [#]	1.14	0.02	<0.01	<0.01	0.05	0.95	0.14	µg/l	0.01	A-T-019w
Phenanthrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Pyrene (w) _A [#]	<0.01	<0.01	0.13	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Total PAH 16MS (w) _A [#]	1.31	0.02	0.29	<0.01	0.05	1.09	0.18	µg/l	0.01	A-T-019w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Speciated PCB-WHO12 (w)										
PCB BZ 81 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 105 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 114 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 118 (w) _A [#]	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	µg/l	0.002	A-T-004w
PCB BZ 123 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 126 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 156 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 157 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 167 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 169 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 189 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 77 (w) _A	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
Total Speciated PCB-WHO12 (w) _A	<0.002	<0.002	<0.002	-	<0.002	<0.002	<0.002	µg/l	0.001	A-T-004w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
VOC (w)										
Dichlorodifluoromethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chloromethane _A	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-006w
Vinyl Chloride _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromomethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Trichlorofluoromethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
trans 1,2-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dichloromethane _A	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-006w
Carbon Disulphide _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
cis 1,2-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromochloromethane _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-006w
Chloroform _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
2,2-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichloroethane _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,1,1-Trichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Benzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Carbon Tetrachloride _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dibromomethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromodichloromethane _A [#]	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-006w
Trichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
cis 1,3-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
trans 1,3-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1,2-Trichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Toluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,3-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dibromochloromethane _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
1,2-Dibromoethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Tetrachloroethene _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
1,1,1,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Ethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
m & p Xylene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromoform _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Styrene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1,2,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
o-Xylene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2,3-Trichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Isopropylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
2-Chlorotoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
n-propylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
4-Chlorotoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2,4-Trimethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
4-Isopropyltoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,3,5-Trimethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,4-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
sec-Butylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
tert-Butylbenzene _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,3-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
n-butylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dibromo-3-chloropropane _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,2,4-Trichlorobenzene _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
1,2,3-Trichlorobenzene _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
Hexachlorobutadiene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)			
Depth to Top	8.07	5.45	2.51	9.03	5.97	19.00	15.00			
Depth To Bottom										
Date Sampled	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
TPH CWG (w) with Clean Up										
Ali >C5-C6 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Ali >C6-C8 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Ali >C8-C10 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C10-C12 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C12-C16 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C16-C21 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C21-C35 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Total Aliphatics (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	Calc-As Recd
Aro >C5-C7 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Aro >C7-C8 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Aro >C8-C10 (w) _A	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C10-C12 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C12-C16 (w) _A [#]	<5	<5	22	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C16-C21 (w) _A [#]	<5	<5	22	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C21-C35 (w) _A	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-055w
Total Aromatics (w) _A	<10	<10	44	<10	<10	<10	<10	µg/l	10	Calc-As Recd
TPH (Ali & Aro >C5-C35) (w) _A	<10	<10	44	<10	<10	<10	<10	µg/l	10	Calc-As Recd
BTEX - Benzene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - Toluene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - Ethyl Benzene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - m & p Xylene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - o Xylene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
MTBE (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
pH (w) _A [#]	7.63	7.48	7.33	7.45	7.45	7.20	7.36	pH	0.01	A-T-031w
Sulphate (w) _A [#]	132	53	151	1340	24	53	74	mg/l	1	A-T-026w
Cyanide (total) (w) _A [#]	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	0.005	A-T-042wTCN
Phenols - Total by HPLC (w) _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	0.01	A-T-050w
Arsenic (dissolved) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-025w
Boron (dissolved) _A [#]	50	41	34	127	33	43	30	µg/l	10	A-T-025w
Cadmium (dissolved) _A [#]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/l	0.2	A-T-025w
Copper (dissolved) _A	12	10	<4	<4	5	6	12	µg/l	4	A-T-025w
Chromium (dissolved) _A [#]	13	8	<1	<1	9	11	11	µg/l	1	A-T-025w
Chromium (total) _A	12	8	2	3	11	11	10	µg/l	1	A-T-025w
Chromium (hexavalent) (w) _A	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	mg/l	0.01	A-T-040w
Chromium (trivalent) (w)	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	mg/l	0.01	Calc
Lead (dissolved) _A [#]	2	2	<1	<1	<1	<1	<1	µg/l	1	A-T-025w
Mercury (dissolved) _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-025w
Nickel (dissolved) _A [#]	2	<2	<2	3	<2	3	<2	µg/l	2	A-T-025w
Selenium (dissolved) _A [#]	3	<1	2	<1	<1	<1	<1	µg/l	1	A-T-025w
Zinc (dissolved) _A [#]	15	18	5	7	4	4	3	µg/l	2	A-T-025w
OCP+OPP Combined Pest Suite (incl. Atrazine+Simazine) (w)										
Dichlobenil (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Tecnazene (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Trifluralin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
alpha-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Hexachlorobenzene (HCB) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Simazine (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Atrazine (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
beta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Quintozone (PCNB) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Triallate (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
delta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorothalonil (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Heptachlor (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Aldrin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Triadimefon (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Telodrin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Isodrin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Pendimethalin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Heptachlor epoxide (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
trans-Chlordane (Gamma) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDE (2,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan I (Alpha) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
cis-Chlordane (Alpha) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDE (4,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dieldrin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDD (2,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan II (Beta) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDD (4,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-DDT (2,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin Aldehyde (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endosulphan Sulphate (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-DDT (4,4) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
o,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Endrin Ketone (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
p,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Permethrin I (cis) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Permethrin II (trans) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dichlorvos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Mevinphos (w) _A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Demeton-S (w) _A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Phorate (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Dimethoate (w) _A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Demeton-O (w) _A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Propetamphos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Diazinon (Dimpylate) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Disulfoton (w) _A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	0.5	A-T-056w
Chlorpyrifos-methyl (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Methyl Parathion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Pirimiphos-methyl (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fenitrothion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Malathion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorpyrifos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fenthion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Parathion (Ethyl Parathion) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Trichloronate (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Chlorfenvinphos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Fensulphothion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Prothiofos (Tokuthion) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Ethion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Triazophos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Carbophenothion (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Phosalone (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Azinphos-methyl (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Azinphos-ethyl (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
Coumaphos (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w
gamma-Hexachlorocyclohexane (HCH / Lindane) (w) _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
PAH 16MS (w)										
Acenaphthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Acenaphthylene (w) _A [#]	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(a)anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(a)pyrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Chrysene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Fluoranthene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Fluorene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Naphthalene (w) _A [#]	<0.01	<0.01	0.03	0.24	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Phenanthrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Pyrene (w) _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w
Total PAH 16MS (w) _A [#]	<0.01	<0.01	0.03	0.28	<0.01	<0.01	<0.01	µg/l	0.01	A-T-019w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Speciated PCB-WHO12 (w)										
PCB BZ 81 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 105 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 114 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 118 (w) _A [#]	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	µg/l	0.002	A-T-004w
PCB BZ 123 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 126 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 156 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 157 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 167 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 169 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 189 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
PCB BZ 77 (w) _A	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	µg/l	0.001	A-T-004w
Total Speciated PCB-WHO12 (w) _A	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	µg/l	0.001	A-T-004w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
VOC (w)										
Dichlorodifluoromethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chloromethane _A	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-006w
Vinyl Chloride _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromomethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Trichlorofluoromethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
trans 1,2-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dichloromethane _A	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-006w
Carbon Disulphide _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
cis 1,2-Dichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromochloromethane _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-006w
Chloroform _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
2,2-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichloroethane _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,1,1-Trichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Benzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Carbon Tetrachloride _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dibromomethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromodichloromethane _A [#]	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-006w
Trichloroethene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
cis 1,3-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
trans 1,3-Dichloropropene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1,2-Trichloroethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Toluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,3-Dichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Dibromochloromethane _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
1,2-Dibromoethane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Tetrachloroethene _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
1,1,1,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Chlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Ethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
m & p Xylene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromoform _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Styrene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,1,2,2-Tetrachloroethane _A	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
o-Xylene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2,3-Trichloropropane _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Isopropylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
Bromobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
2-Chlorotoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
n-propylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
4-Chlorotoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2,4-Trimethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
4-Isopropyltoluene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,3,5-Trimethylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,4-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
sec-Butylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
tert-Butylbenzene _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,3-Dichlorobenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
n-butylbenzene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w
1,2-Dibromo-3-chloropropane _A [#]	<2	<2	<2	<2	<2	<2	<2	µg/l	2	A-T-006w
1,2,4-Trichlorobenzene _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
1,2,3-Trichlorobenzene _A [#]	<3	<3	<3	<3	<3	<3	<3	µg/l	3	A-T-006w
Hexachlorobutadiene _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13			
Depth to Top	2.86	7.18	4.56	5.05	11.90	16.42	12.42			
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22			
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW			
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
TPH CWG (w) with Clean Up										
Ali >C5-C6 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Ali >C6-C8 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Ali >C8-C10 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C10-C12 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C12-C16 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C16-C21 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Ali >C21-C35 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Total Aliphatics (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	Calc-As Recd
Aro >C5-C7 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Aro >C7-C8 (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
Aro >C8-C10 (w) _A	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C10-C12 (w) _A [#]	<5	<5	<5	<5	<5	<5	<5	µg/l	5	A-T-055w
Aro >C12-C16 (w) _A [#]	<5	<5	7	<5	<5	16	<5	µg/l	5	A-T-055w
Aro >C16-C21 (w) _A [#]	<5	<5	<5	<5	<5	6	<5	µg/l	5	A-T-055w
Aro >C21-C35 (w) _A	<10	<10	<10	<10	<10	<10	<10	µg/l	10	A-T-055w
Total Aromatics (w) _A	<10	<10	<10	<10	<10	22	<10	µg/l	10	Calc-As Recd
TPH (Ali & Aro >C5-C35) (w) _A	<10	<10	<10	<10	<10	22	<10	µg/l	10	Calc-As Recd
BTEX - Benzene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - Toluene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - Ethyl Benzene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - m & p Xylene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
BTEX - o Xylene (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w
MTBE (w) _A [#]	<1	<1	<1	<1	<1	<1	<1	µg/l	1	A-T-022w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
pH (w) _A [#]	7.58	7.95	7.84					pH	0.01	A-T-031w
Sulphate (w) _A [#]	196	74	76					mg/l	1	A-T-026w
Cyanide (total) (w) _A [#]	<0.005	<0.005	<0.005					mg/l	0.005	A-T-042wTCN
Phenols - Total by HPLC (w) _A	<0.01	<0.01	<0.01					mg/l	0.01	A-T-050w
Arsenic (dissolved) _A [#]	<1	1	1					µg/l	1	A-T-025w
Boron (dissolved) _A [#]	30	71	63					µg/l	10	A-T-025w
Cadmium (dissolved) _A [#]	<0.2	<0.2	<0.2					µg/l	0.2	A-T-025w
Copper (dissolved) _A	6	6	5					µg/l	4	A-T-025w
Chromium (dissolved) _A [#]	<1	<1	<1					µg/l	1	A-T-025w
Chromium (total) _A	24	5	3					µg/l	1	A-T-025w
Chromium (hexavalent) (w) _A	<0.01	<0.02	<0.02					mg/l	0.01	A-T-040w
Chromium (trivalent) (w)	<0.01	<0.02	<0.02					mg/l	0.01	Calc
Lead (dissolved) _A [#]	<1	<1	<1					µg/l	1	A-T-025w
Mercury (dissolved) _A [#]	<0.1	<0.1	<0.1					µg/l	0.1	A-T-025w
Nickel (dissolved) _A [#]	<2	<2	<2					µg/l	2	A-T-025w
Selenium (dissolved) _A [#]	<1	<1	<1					µg/l	1	A-T-025w
Zinc (dissolved) _A [#]	5	14	14					µg/l	2	A-T-025w
OCP+OPP Combined Pest Suite (incl. Atrazine+Simazine) (w)										
Dichlobenil (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Tecnazene (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Trifluralin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
alpha-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Hexachlorobenzene (HCB) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Simazine (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Atrazine (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
beta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Quintozone (PCNB) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Triallate (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
delta-Hexachlorocyclohexane (HCH) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Chlorothalonil (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Heptachlor (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Aldrin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
Triadimefon (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Telodrin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Isodrin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Pendimethalin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Heptachlor epoxide (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
trans-Chlordane (Gamma) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
o,p-DDE (2,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endosulphan I (Alpha) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
cis-Chlordane (Alpha) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
p,p-DDE (4,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Dieldrin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
o,p-DDD (2,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endrin (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endosulphan II (Beta) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
p,p-DDD (4,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
o,p-DDT (2,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endrin Aldehyde (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endosulphan Sulphate (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
p,p-DDT (4,4) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
o,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Endrin Ketone (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
p,p-Methoxychlor (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Permethrin I (cis) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Permethrin II (trans) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Dichlorvos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Mevinphos (w) _A	<0.5	<0.5	<0.5					µg/l	0.5	A-T-056w
Demeton-S (w) _A	<0.5	<0.5	<0.5					µg/l	0.5	A-T-056w
Phorate (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Dimethoate (w) _A	<0.5	<0.5	<0.5					µg/l	0.5	A-T-056w
Demeton-O (w) _A	<0.5	<0.5	<0.5					µg/l	0.5	A-T-056w
Propetamphos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Diazinon (Dimpylate) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Disulfoton (w) _A	<0.5	<0.5	<0.5					µg/l	0.5	A-T-056w
Chlorpyrifos-methyl (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
Methyl Parathion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Pirimiphos-methyl (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Fenitrothion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Malathion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Chlorpyrifos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Fenthion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Parathion (Ethyl Parathion) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Trichloronate (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Chlorfenvinphos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Fensulphothion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Prothiofos (Tokuthion) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Ethion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Triazophos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Carbophenothion (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Phosalone (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Azinphos-methyl (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Azinphos-ethyl (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
Coumaphos (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w
gamma-Hexachlorocyclohexane (HCH / Lindane) (w) _A	<0.1	<0.1	<0.1					µg/l	0.1	A-T-056w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
PAH 16MS (w)										
Acenaphthene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Acenaphthylene (w) _A [#]	0.05	<0.01	0.02					µg/l	0.01	A-T-019w
Anthracene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Benzo(a)anthracene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Benzo(a)pyrene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Chrysene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Fluoranthene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Fluorene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Naphthalene (w) _A [#]	0.23	<0.01	0.18					µg/l	0.01	A-T-019w
Phenanthrene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Pyrene (w) _A [#]	<0.01	<0.01	<0.01					µg/l	0.01	A-T-019w
Total PAH 16MS (w) _A [#]	0.28	<0.01	0.20					µg/l	0.01	A-T-019w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
Speciated PCB-WHO12 (w)										
PCB BZ 81 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 105 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 114 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 118 (w) _A [#]	<0.002	<0.002	<0.002					µg/l	0.002	A-T-004w
PCB BZ 123 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 126 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 156 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 157 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 167 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 169 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 189 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
PCB BZ 77 (w) _A	<0.001	<0.001	<0.001					µg/l	0.001	A-T-004w
Total Speciated PCB-WHO12 (w) _A	<0.002	<0.002	<0.002					µg/l	0.001	A-T-004w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
VOC (w)										
Dichlorodifluoromethane _A	<1	<1	<1					µg/l	1	A-T-006w
Chloromethane _A	<10	<10	<10					µg/l	10	A-T-006w
Vinyl Chloride _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Bromomethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Chloroethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Trichlorofluoromethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
trans 1,2-Dichloroethene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Dichloromethane _A	<5	<5	<5					µg/l	5	A-T-006w
Carbon Disulphide _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,1-Dichloroethene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,1-Dichloroethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
cis 1,2-Dichloroethene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Bromochloromethane _A [#]	<5	<5	<5					µg/l	5	A-T-006w
Chloroform _A [#]	<1	<1	<1					µg/l	1	A-T-006w
2,2-Dichloropropane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2-Dichloroethane _A [#]	<2	<2	<2					µg/l	2	A-T-006w
1,1,1-Trichloroethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,1-Dichloropropene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Benzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Carbon Tetrachloride _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Dibromomethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2-Dichloropropane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Bromodichloromethane _A [#]	<10	<10	<10					µg/l	10	A-T-006w
Trichloroethene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
cis 1,3-Dichloropropene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
trans 1,3-Dichloropropene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,1,2-Trichloroethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Toluene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,3-Dichloropropane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Dibromochloromethane _A [#]	<3	<3	<3					µg/l	3	A-T-006w
1,2-Dibromoethane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Tetrachloroethene _A	<1	<1	<1					µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
1,1,1,2-Tetrachloroethane _A	<1	<1	<1					µg/l	1	A-T-006w
Chlorobenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Ethylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
m & p Xylene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Bromoform _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Styrene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,1,1,2,2-Tetrachloroethane _A	<1	<1	<1					µg/l	1	A-T-006w
o-Xylene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2,3-Trichloropropane _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Isopropylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
Bromobenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
2-Chlorotoluene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
n-propylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
4-Chlorotoluene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2,4-Trimethylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
4-Isopropyltoluene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,3,5-Trimethylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2-Dichlorobenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,4-Dichlorobenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
sec-Butylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
tert-Butylbenzene _A [#]	<2	<2	<2					µg/l	2	A-T-006w
1,3-Dichlorobenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
n-butylbenzene _A [#]	<1	<1	<1					µg/l	1	A-T-006w
1,2-Dibromo-3-chloropropane _A [#]	<2	<2	<2					µg/l	2	A-T-006w
1,2,4-Trichlorobenzene _A [#]	<3	<3	<3					µg/l	3	A-T-006w
1,2,3-Trichlorobenzene _A [#]	<3	<3	<3					µg/l	3	A-T-006w
Hexachlorobutadiene _A [#]	<1	<1	<1					µg/l	1	A-T-006w

Envirolab Job Number: 22/10897

Client Project Name: EMG Phase 2

Client Project Ref: 765514

Lab Sample ID	22/10897/15	22/10897/16	22/10897/17					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH21	SW2	SW3							
Depth to Top	10.44									
Depth To Bottom										
Date Sampled	03-Nov-22	03-Nov-22	03-Nov-22							
Sample Type	Water - EW	Water - EW	Water - EW							
Sample Matrix Code	N/A	N/A	N/A							
TPH CWG (w) with Clean Up										
Ali >C5-C6 (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
Ali >C6-C8 (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
Ali >C8-C10 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Ali >C10-C12 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Ali >C12-C16 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Ali >C16-C21 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Ali >C21-C35 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Total Aliphatics (w) _A [#]	<5	<5	<5					µg/l	5	Calc-As Recd
Aro >C5-C7 (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
Aro >C7-C8 (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
Aro >C8-C10 (w) _A	<5	<5	<5					µg/l	5	A-T-055w
Aro >C10-C12 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Aro >C12-C16 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Aro >C16-C21 (w) _A [#]	<5	<5	<5					µg/l	5	A-T-055w
Aro >C21-C35 (w) _A	<10	<10	<10					µg/l	10	A-T-055w
Total Aromatics (w) _A	<10	<10	<10					µg/l	10	Calc-As Recd
TPH (Ali & Aro >C5-C35) (w) _A	<10	<10	<10					µg/l	10	Calc-As Recd
BTEX - Benzene (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
BTEX - Toluene (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
BTEX - Ethyl Benzene (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
BTEX - m & p Xylene (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
BTEX - o Xylene (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w
MTBE (w) _A [#]	<1	<1	<1					µg/l	1	A-T-022w

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 / 11550µS/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, 9 = INCINERATOR ASH.

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

Subscript ""^" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

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 (Castleford), The Potteries, Pottery Street, Castleford, West Yorkshire, UK, WF10 1NJ	Project No:	22/10897
Project:	EMG Phase 2	Date Received:	04/11/2022 (am)
Clients Project No:	765514	Cool Box Temperatures (°C):	6.8-9.4

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.

Envirolab Analysis Dates

Lab Sample ID	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12
Client Sample No												
Client Sample ID/Depth	CP06 8.07m	CP10 5.45m	CP27 2.51m	BH02 9.03m	BH05 5.97m	BH06 19.00m	BH09 (D) 15.00m	BH17 2.86m	BH18 7.18m	BH24 4.56m	BH25 5.05m	BH04 (D) 11.90m
Date Sampled	02/11/22	02/11/22	02/11/22	02/11/22	02/11/22	02/11/22	02/11/22	03/11/22	03/11/22	03/11/22	03/11/22	02/11/22
A-T-004w	11/11/2022	11/11/2022	11/11/2022		11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-006w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-019w	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-022w	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022
A-T-025w	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022
A-T-026w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-031w	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-040w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-042wTCN	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-050w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-055w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-056w	15/11/2022	15/11/2022	15/11/2022		15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	18/11/2022	18/11/2022
Calc	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022
Calc-As Recd	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022

Lab Sample ID	22/10897/13	22/10897/14	22/10897/15	22/10897/16	22/10897/17
Client Sample No					
Client Sample ID/Depth	BH10 16.42m	BH13 12.42m	BH21 10.44m	SW2	SW3
Date Sampled	02/11/22	03/11/22	03/11/22	03/11/22	03/11/22
A-T-004w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-006w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-019w	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-022w	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022
A-T-025w	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022
A-T-026w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-031w	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-040w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-042wTCN	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
A-T-050w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-055w	11/11/2022	11/11/2022	11/11/2022	11/11/2022	11/11/2022
A-T-056w	18/11/2022	18/11/2022	18/11/2022	18/11/2022	18/11/2022
Calc	17/11/2022	17/11/2022	17/11/2022	17/11/2022	17/11/2022
Calc-As Recd	15/11/2022	15/11/2022	15/11/2022	15/11/2022	15/11/2022

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

APPENDIX F - MONITORING RECORDS

(i) Gas/Groundwater Monitoring Results

IN-SITU GAS MONITORING RESULTS

	Start Date	End Date	Previous	Pressures During	Start	End	Equipment Used & Remarks
Round 1	13/10/2022	14/10/2022	-	-	1009	1015	Weather: Dry and Bright Ground: Dry Wind: None Air Temp: 14°C Summary: Gas
Round 2	26/10/2022	27/10/2022	-	Rising	1003	1014	Weather: Overcast Ground: Wet Wind: Light Air Temp: 15°C Summary: Gas and water
Round 3	02/11/2022	03/11/2022	-	-	-	-	Weather: Overcast Ground: Wet Wind: Strong Summary: Water

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH01	1	50	1	7.00	---	1.00 to 7.00	13/10/2022 09:00:00	1006	1010	-0.9 _(I)	-	-	-	-	-	-	-	-
BH01	1	50	1	---	---	1.00 to 7.00	30 secs	1009	1010	-0.4 _(SS)	-	-	-	-	-	-	-	-
BH01	1	50	1 (2)	7.00	---	1.00 to 7.00	13/10/2022 09:01:00	-	-	-	-	0.2	0.0	20.1	0.0	0.3	1	0
BH01	1	50	1 (2)	---	---	1.00 to 7.00	15 secs	-	-	-	-	0.2	0.0	19.6	0.0	0.4	1	0
BH01	1	50	1 (2)	---	---	1.00 to 7.00	60 secs	-	-	-	-	0.3	0.0	19.5	0.0	0.3	3	0
BH01	1	50	1 (2)	---	---	1.00 to 7.00	90 secs	-	-	-	-	0.3	0.0	19.5	0.0	0.3	1	0
BH01	1	50	1 (2)	---	---	1.00 to 7.00	120 secs	-	-	-	-	0.3	0.0	19.5	0.0	0.3	3	0
BH01	1	50	1 (2)	---	---	1.00 to 7.00	180 secs	-	-	-	-	0.3	0.0	19.5	0.0	0.3	3	0
BH01	1	50	1 (3)	7.00	6.80	1.00 to 7.00	13/10/2022 09:05:00	-	-	-	5.73	-	-	-	-	-	-	-
BH02	1	50	1	20.00	---	4.00 to 20.00	13/10/2022 09:00:00	1007	1008	-0.4 _(I)	-	-	-	-	-	-	-	-
BH02	1	50	1	---	---	4.00 to 20.00	30 secs	1008	1008	-0.3 _(SS)	-	-	-	-	-	-	-	-
BH02	1	50	1 (2)	20.00	---	4.00 to 20.00	13/10/2022 09:01:00	-	-	-	-	0.0	0.0	20.0	0.0	0.4	5	0
BH02	1	50	1 (2)	---	---	4.00 to 20.00	15 secs	-	-	-	-	0.0	0.0	18.4	0.0	0.4	5	0
BH02	1	50	1 (2)	---	---	4.00 to 20.00	60 secs	-	-	-	-	0.1	0.0	17.4	0.0	0.5	5	0
BH02	1	50	1 (2)	---	---	4.00 to 20.00	90 secs	-	-	-	-	0.2	0.0	16.7	0.0	0.6	3	0
BH02	1	50	1 (2)	---	---	4.00 to 20.00	120 secs	-	-	-	-	0.2	0.0	16.4	0.0	0.6	3	0
BH02	1	50	1 (2)	---	---	4.00 to 20.00	180 secs	-	-	-	-	0.2	0.0	19.4	0.0	0.6	3	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract: EMG Phase 2				Page: 1 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH02	1	50	1 (3)	20.00	19.80	4.00 to 20.00	13/10/2022 09:05:00	-	-	-	7.72	-	-	-	-	-	-	-
BH02	1	50	2	20.00	---	4.00 to 20.00	26/10/2022 10:45:00	986	1000	-2.8 _(I)	-	-	-	-	-	-	-	-
BH02	1	50	2	---	---	4.00 to 20.00	30 secs	991	1000	-2.2 _(SS)	-	-	-	-	-	-	-	-
BH02	1	50	2 (2)	20.00	---	4.00 to 20.00	26/10/2022 10:45:45	-	-	-	-	0.2	0.0	15.6	0.0	0.4	6	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	30 secs	-	-	-	-	0.2	0.0	14.3	0.0	0.4	3	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	60 secs	-	-	-	-	0.2	0.0	14.0	0.0	0.3	1	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	90 secs	-	-	-	-	0.2	0.0	13.9	0.0	0.3	0	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	120 secs	-	-	-	-	0.2	0.0	13.9	0.0	0.2	0	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	180 secs	-	-	-	-	0.2	0.0	13.9	0.0	0.1	3	0
BH02	1	50	2 (2)	---	---	4.00 to 20.00	240 secs	-	-	-	-	0.2	0.0	13.9	0.0	0.0	3	0
BH02	1	50	2 (3)	20.00	19.78	4.00 to 20.00	26/10/2022 10:50:00	-	-	-	7.80	-	-	-	-	-	-	-
BH02	1	50	3	20.00	---	4.00 to 20.00	14/11/2022 12:09:37	997	997	-	-	-	-	-	-	-	-	-
BH02	1	50	3	---	---	4.00 to 20.00	5 secs	-	-	-	-	-	-	-	-	-	-	-
BH02	1	50	3 (2)	20.00	---	4.00 to 20.00	14/11/2022 12:10:20	-	-	-	-	0.3	0.0	21.4	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	15 secs	-	-	-	-	0.7	0.0	17.6	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	31 secs	-	-	-	-	0.7	0.0	16.6	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	61 secs	-	-	-	-	0.7	0.0	16.4	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	91 secs	-	-	-	-	0.7	0.0	16.4	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	121 secs	-	-	-	-	0.8	0.0	16.3	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	181 secs	-	-	-	-	0.8	0.0	16.0	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	241 secs	-	-	-	-	0.9	0.0	15.6	0.0	-	0	0
BH02	1	50	3 (2)	---	---	4.00 to 20.00	302 secs	-	-	-	-	0.8	0.0	15.3	0.0	-	0	0
BH02	1	50	3 (3)	20.00	19.81	4.00 to 20.00	14/11/2022 12:17:50	-	-	-	7.92	-	-	-	-	0.5	-	-
BH04	1	50	1	30.00	---	6.00 to 30.30	14/10/2022 09:00:00	1007	1002	1.1 _(I)	-	-	-	-	-	-	-	-

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				2 of 25	



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH04	1	50	1	---	---	6.00 to 30.30	30 secs	1005	1002	0.8 _(SS)	-	-	-	-	-	-	-	-
BH04	1	50	1 (2)	30.00	---	6.00 to 30.30	14/10/2022 09:01:00	-	-	-	-	0.7	0.0	16.6	0.0	0.5	6	0
BH04	1	50	1 (2)	---	---	6.00 to 30.30	30 secs	-	-	-	-	1.2	0.0	15.7	0.0	0.7	10	0
BH04	1	50	1 (2)	---	---	6.00 to 30.30	60 secs	-	-	-	-	1.6	0.0	13.9	0.0	1.0	3	0
BH04	1	50	1 (2)	---	---	6.00 to 30.30	90 secs	-	-	-	-	1.8	0.0	13.1	0.0	1.2	10	0
BH04	1	50	1 (2)	---	---	6.00 to 30.30	120 secs	-	-	-	-	1.8	0.0	12.9	0.0	1.2	8	0
BH04	1	50	1 (2)	---	---	6.00 to 30.30	180 secs	-	-	-	-	1.8	0.0	12.9	0.0	1.2	8	0
BH04	1	50	1 (3)	30.00	29.45	6.00 to 30.30	14/10/2022 09:05:00	-	-	-	10.70	-	-	-	-	-	-	-
BH04	1	50	2	30.00	---	6.00 to 30.30	26/10/2022 11:05:00	987	1001	-2.8 _(I)	-	-	-	-	-	-	-	-
BH04	1	50	2	---	---	6.00 to 30.30	30 secs	990	1001	-2.4 _(SS)	-	-	-	-	-	-	-	-
BH04	1	50	2 (2)	30.00	---	6.00 to 30.30	26/10/2022 11:05:45	-	-	-	-	1.7	0.0	16.0	0.0	0.5	5	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	30 secs	-	-	-	-	1.7	0.0	15.9	0.0	0.3	5	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	60 secs	-	-	-	-	1.8	0.0	15.8	0.0	0.2	0	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	90 secs	-	-	-	-	1.8	0.0	15.8	0.0	0.1	0	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	120 secs	-	-	-	-	1.8	0.0	15.7	0.0	0.1	0	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	180 secs	-	-	-	-	1.9	0.0	15.5	0.0	0.0	0	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	240 secs	-	-	-	-	1.9	0.0	15.3	0.0	0.0	1	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	300 secs	-	-	-	-	2.0	0.0	15.0	0.0	0.0	1	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	360 secs	-	-	-	-	2.0	0.0	14.9	0.0	0.0	5	0
BH04	1	50	2 (2)	---	---	6.00 to 30.30	420 secs	-	-	-	-	2.0	0.0	15.0	0.0	0.0	0	0
BH04	1	50	2 (3)	30.00	2.40	6.00 to 30.30	26/10/2022 11:13:00	-	-	-	2.32	-	-	-	-	-	-	-
BH04	1	50	3	30.00	---	6.00 to 30.30	14/11/2022 11:23:17	1021	998	4.1 _(I)	-	-	-	-	-	-	-	-
BH04	1	50	3	---	---	6.00 to 30.30	4 secs	-	-	8.1 _(SS)	-	-	-	-	-	-	-	-
BH04	1	50	3 (2)	30.00	---	6.00 to 30.30	14/11/2022 11:24:07	-	-	-	-	0.1	0.0	21.7	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	16 secs	-	-	-	-	2.4	0.0	7.8	0.0	-	1	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				3 of 25	



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH04	1	50	3 (2)	---	---	6.00 to 30.30	31 secs	-	-	-	-	2.4	0.0	5.0	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	62 secs	-	-	-	-	2.4	0.0	4.7	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	92 secs	-	-	-	-	2.4	0.0	4.7	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	122 secs	-	-	-	-	2.4	0.0	4.6	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	182 secs	-	-	-	-	2.5	0.0	4.5	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	242 secs	-	-	-	-	2.5	0.0	4.4	0.0	-	0	0
BH04	1	50	3 (2)	---	---	6.00 to 30.30	303 secs	-	-	-	-	2.5	0.0	4.3	0.0	-	0	0
BH04	1	50	3 (3)	30.00	28.92	6.00 to 30.30	14/11/2022 11:33:14	-	-	-	10.88	-	-	-	-	0.8	-	-
BH04	2	50	1	2.50	---	1.00 to 2.50	14/10/2022 10:00:00	996	1002	-1.5 _(I)	-	-	-	-	-	-	-	-
BH04	2	50	1	---	---	1.00 to 2.50	30 secs	996	1002	-1.0 _(SS)	-	-	-	-	-	-	-	-
BH04	2	50	1 (2)	2.50	---	1.00 to 2.50	14/10/2022 10:01:00	-	-	-	-	1.0	0.0	17.9	0.0	0.2	5	0
BH04	2	50	1 (2)	---	---	1.00 to 2.50	15 secs	-	-	-	-	1.1	0.0	17.4	0.0	0.1	10	0
BH04	2	50	1 (2)	---	---	1.00 to 2.50	30 secs	-	-	-	-	1.1	0.0	17.3	0.0	0.0	5	0
BH04	2	50	1 (2)	---	---	1.00 to 2.50	60 secs	-	-	-	-	1.1	0.0	17.3	0.0	0.0	0	0
BH04	2	50	1 (2)	---	---	1.00 to 2.50	90 secs	-	-	-	-	1.1	0.0	17.3	0.0	0.0	0	0
BH04	2	50	1 (2)	---	---	1.00 to 2.50	120 secs	-	-	-	-	1.1	0.0	17.3	0.0	0.0	0	0
BH04	2	50	1 (3)	2.50	2.40	1.00 to 2.50	14/10/2022 10:05:00	-	-	-	DRY	-	-	-	-	-	-	-
BH04	2	50	3	2.50	2.49	1.00 to 2.50	14/11/2022 11:35:57	-	-	-	2.08	-	-	-	-	-	-	-
BH05	1	50	1	7.00	---	5.00 to 7.00	14/10/2022 09:00:00	995	1001	-1.5 _(I)	-	-	-	-	-	-	-	-
BH05	1	50	1	---	---	5.00 to 7.00	60 secs	996	1001	-1.2 _(SS)	-	-	-	-	-	-	-	-
BH05	1	50	1 (2)	7.00	---	5.00 to 7.00	14/10/2022 09:05:00	-	-	-	-	0.2	0.0	18.5	0.0	-	5	0
BH05	1	50	1 (2)	---	---	5.00 to 7.00	30 secs	-	-	-	-	0.2	0.0	17.0	0.0	-	5	0
BH05	1	50	1 (2)	---	---	5.00 to 7.00	60 secs	-	-	-	-	0.2	0.0	16.9	0.0	-	5	0
BH05	1	50	1 (2)	---	---	5.00 to 7.00	90 secs	-	-	-	-	0.2	0.0	16.9	0.0	-	5	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract: EMG Phase 2				Page: 4 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH05	1	50	1 (2)	---	---	5.00 to 7.00	120 secs	-	-	-	-	0.2	0.0	16.9	0.0	-	5	0
BH05	1	50	1 (2)	---	---	5.00 to 7.00	180 secs	-	-	-	-	0.2	0.0	16.9	0.0	-	5	0
BH05	1	50	1 (3)	7.00	7.10	5.00 to 7.00	14/10/2022 09:10:00	-	-	-	4.92	-	-	-	-	-	-	-
BH06	1	50	1	30.80	---	18.00 to 30.80	14/10/2022 09:00:00	997	1001	-1.0 _(I)	-	-	-	-	-	-	-	-
BH06	1	50	1	---	---	18.00 to 30.80	60 secs	997	1001	-0.7 _(SS)	-	-	-	-	-	-	-	-
BH06	1	50	1 (2)	30.80	---	18.00 to 30.80	14/10/2022 09:05:00	-	-	-	-	0.0	0.0	19.6	0.0	1.0	6	0
BH06	1	50	1 (2)	---	---	18.00 to 30.80	30 secs	-	-	-	-	0.0	0.0	19.4	0.0	1.1	8	0
BH06	1	50	1 (2)	---	---	18.00 to 30.80	60 secs	-	-	-	-	0.0	0.0	19.3	0.0	1.1	10	0
BH06	1	50	1 (2)	---	---	18.00 to 30.80	90 secs	-	-	-	-	0.0	0.0	19.3	0.0	1.1	8	0
BH06	1	50	1 (2)	---	---	18.00 to 30.80	120 secs	-	-	-	-	0.0	0.0	19.3	0.0	0.9	10	0
BH06	1	50	1 (3)	30.80	30.75	18.00 to 30.80	14/10/2022 09:10:00	-	-	-	6.81	-	-	-	-	-	-	-
BH09	1	50	1	18.00	---	14.00 to 18.00	14/10/2022 09:00:00	998	1002	-1.0 _(I)	-	-	-	-	-	-	-	-
BH09	1	50	1	---	---	14.00 to 18.00	60 secs	1000	1002	-0.7 _(SS)	-	-	-	-	-	-	-	-
BH09	1	50	1 (2)	18.00	---	14.00 to 18.00	14/10/2022 09:05:00	-	-	-	-	0.0	0.0	20.0	0.0	0.7	5	0
BH09	1	50	1 (2)	---	---	14.00 to 18.00	30 secs	-	-	-	-	0.0	0.0	19.7	0.0	1.0	3	0
BH09	1	50	1 (2)	---	---	14.00 to 18.00	60 secs	-	-	-	-	0.0	0.0	19.6	0.0	1.0	8	0
BH09	1	50	1 (2)	---	---	14.00 to 18.00	90 secs	-	-	-	-	0.1	0.0	19.6	0.0	1.0	8	0
BH09	1	50	1 (2)	---	---	14.00 to 18.00	120 secs	-	-	-	-	0.1	0.0	19.6	0.0	1.0	6	0
BH09	1	50	1 (2)	---	---	14.00 to 18.00	180 secs	-	-	-	-	0.1	0.0	19.6	0.0	1.0	8	0
BH09	1	50	1 (3)	18.00	17.48	14.00 to 18.00	14/10/2022 09:10:00	-	-	-	3.68	-	-	-	-	-	-	-
BH10	1	50	1	20.20	---	3.00 to 20.20	14/10/2022 09:00:00	998	1003	-1.2 _(I)	-	-	-	-	-	-	-	-
BH10	1	50	1	---	---	3.00 to 20.20	60 secs	999	1003	-0.9 _(SS)	-	-	-	-	-	-	-	-

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				5 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH10	1	50	1 (2)	20.20	---	3.00 to 20.20	14/10/2022 09:05:00	-	-	-	-	0.6	0.0	18.7	0.0	0.7	1	0
BH10	1	50	1 (2)	---	---	3.00 to 20.20	15 secs	-	-	-	-	0.6	0.0	18.4	0.0	0.7	1	0
BH10	1	50	1 (2)	---	---	3.00 to 20.20	30 secs	-	-	-	-	0.6	0.0	18.3	0.0	0.7	3	0
BH10	1	50	1 (2)	---	---	3.00 to 20.20	60 secs	-	-	-	-	0.6	0.0	18.2	0.0	0.7	1	0
BH10	1	50	1 (2)	---	---	3.00 to 20.20	90 secs	-	-	-	-	0.6	0.0	18.2	0.0	0.6	1	0
BH10	1	50	1 (2)	---	---	3.00 to 20.20	120 secs	-	-	-	-	0.6	0.0	18.2	0.0	0.6	1	0
BH10	1	50	1 (3)	20.20	19.50	3.00 to 20.20	14/10/2022 09:10:00	-	-	-	15.22	-	-	-	-	-	-	-
BH10	1	50	2	20.20	---	3.00 to 20.20	27/10/2022 14:30:00	998	1013	-3.0 _(I)	-	-	-	-	-	-	-	-
BH10	1	50	2	---	---	3.00 to 20.20	30 secs	1007	1013	-1.5 _(SS)	-	-	-	-	-	-	-	-
BH10	1	50	2 (2)	20.20	---	3.00 to 20.20	27/10/2022 14:30:45	-	-	-	-	0.8	0.0	18.0	0.0	0.8	3	0
BH10	1	50	2 (2)	---	---	3.00 to 20.20	30 secs	-	-	-	-	0.8	0.0	17.4	0.0	1.0	1	0
BH10	1	50	2 (2)	---	---	3.00 to 20.20	60 secs	-	-	-	-	0.8	0.0	17.4	0.0	0.9	3	0
BH10	1	50	2 (2)	---	---	3.00 to 20.20	90 secs	-	-	-	-	0.8	0.0	17.4	0.0	0.8	3	0
BH10	1	50	2 (2)	---	---	3.00 to 20.20	120 secs	-	-	-	-	0.8	0.0	17.3	0.0	0.7	3	0
BH10	1	50	2 (2)	---	---	3.00 to 20.20	180 secs	-	-	-	-	0.8	0.0	17.3	0.0	0.6	3	0
BH10	1	50	2 (3)	20.20	19.39	3.00 to 20.20	27/10/2022 14:34:00	-	-	-	15.15	-	-	-	-	-	-	-
BH10	1	50	3	20.20	---	3.00 to 20.20	14/11/2022 10:12:30	-	-	0.0 _(I)	-	-	-	-	-	-	-	-
BH10	1	50	3	---	---	3.00 to 20.20	5 secs	999	999	0.0 _(SS)	-	-	-	-	-	-	-	-
BH10	1	50	3 (2)	20.20	---	3.00 to 20.20	14/11/2022 10:13:23	-	-	-	-	0.1	0.0	21.2	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	14 secs	-	-	-	-	0.1	0.0	21.2	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	30 secs	-	-	-	-	0.1	0.0	21.2	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	61 secs	-	-	-	-	0.1	0.0	21.1	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	91 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	121 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	182 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				6 of 25	



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH10	1	50	3 (2)	---	---	3.00 to 20.20	242 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
BH10	1	50	3 (2)	---	---	3.00 to 20.20	303 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
BH10	1	50	3 (3)	20.20	19.13	3.00 to 20.20	14/11/2022 10:21:09	-	-	-	15.32	-	-	-	-	0.2	-	-
BH11	1	50	1	31.00	---	13.00 to 31.00	14/10/2022 09:00:00	999	1003	-1.0 _(I)	-	-	-	-	-	-	-	-
BH11	1	50	1	---	---	13.00 to 31.00	60 secs	999	1003	-1.0 _(SS)	-	-	-	-	-	-	-	-
BH11	1	50	1 (2)	31.00	---	13.00 to 31.00	14/10/2022 09:05:00	-	-	-	-	0.0	0.0	20.3	0.0	0.3	1	0
BH11	1	50	1 (2)	---	---	13.00 to 31.00	15 secs	-	-	-	-	0.0	-	20.1	-	0.6	3	0
BH11	1	50	1 (2)	---	---	13.00 to 31.00	30 secs	-	-	-	-	0.0	-	20.0	-	0.9	3	0
BH11	1	50	1 (2)	---	---	13.00 to 31.00	60 secs	-	-	-	-	0.0	-	20.0	-	1.0	3	0
BH11	1	50	1 (2)	---	---	13.00 to 31.00	90 secs	-	-	-	-	0.0	-	20.0	-	1.1	1	0
BH11	1	50	1 (2)	---	---	13.00 to 31.00	120 secs	-	-	-	-	0.0	-	20.0	-	1.1	1	0
BH11	1	50	1 (3)	31.00	30.50	13.00 to 31.00	14/10/2022 09:10:00	-	-	-	8.71	-	-	-	-	-	-	-
BH12	1	50	1	30.80	---	16.00 to 30.80	13/10/2022 09:00:00	1009	1011	-0.6 _(I)	-	-	-	-	-	-	-	-
BH12	1	50	1	---	---	16.00 to 30.80	60 secs	1010	1011	-0.5 _(SS)	-	-	-	-	-	-	-	-
BH12	1	50	1 (2)	30.80	---	16.00 to 30.80	13/10/2022 09:05:00	-	-	-	-	0.0	0.0	20.6	0.0	0.9	3	0
BH12	1	50	1 (2)	---	---	16.00 to 30.80	30 secs	-	-	-	-	0.0	0.0	20.3	0.0	0.9	3	0
BH12	1	50	1 (2)	---	---	16.00 to 30.80	60 secs	-	-	-	-	0.0	0.0	20.1	0.0	1.0	3	0
BH12	1	50	1 (2)	---	---	16.00 to 30.80	90 secs	-	-	-	-	0.0	0.0	20.1	0.0	1.0	5	0
BH12	1	50	1 (2)	---	---	16.00 to 30.80	120 secs	-	-	-	-	0.0	0.0	20.0	0.0	1.1	5	0
BH12	1	50	1 (2)	---	---	16.00 to 30.80	180 secs	-	-	-	-	0.0	0.0	20.0	0.0	1.1	5	0
BH12	1	50	1 (3)	30.80	31.30	16.00 to 30.80	13/10/2022 09:10:00	-	-	-	6.75	-	-	-	-	-	-	-
BH13	1	50	1	30.00	---	8.00 to 30.00	13/10/2022 09:00:00	1012	1012	0.0 _(I)	-	-	-	-	-	-	-	-

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract:				Page:

EMG Phase 2

7 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH13	1	50	1	---	---	8.00 to 30.00	60 secs	1011	1012	-0.4 _(SS)	-	-	-	-	-	-	-	-
BH13	1	50	1 (2)	30.00	---	8.00 to 30.00	13/10/2022 09:05:00	-	-	-	-	0.6	0.0	17.2	0.0	1.8	8	0
BH13	1	50	1 (2)	---	---	8.00 to 30.00	15 secs	-	-	-	-	0.6	0.0	17.0	0.0	2.0	8	0
BH13	1	50	1 (2)	---	---	8.00 to 30.00	30 secs	-	-	-	-	0.7	0.0	16.3	0.0	2.4	10	0
BH13	1	50	1 (2)	---	---	8.00 to 30.00	60 secs	-	-	-	-	0.8	0.0	16.3	0.0	2.5	12	0
BH13	1	50	1 (2)	---	---	8.00 to 30.00	90 secs	-	-	-	-	0.8	0.0	15.8	0.0	2.5	13	0
BH13	1	50	1 (2)	---	---	8.00 to 30.00	120 secs	-	-	-	-	0.8	0.0	15.8	0.0	2.4	13	0
BH13	1	50	1 (3)	30.00	29.55	8.00 to 30.00	13/10/2022 09:10:00	-	-	-	11.20	-	-	-	-	-	-	-
BH13	1	50	2	30.00	---	8.00 to 30.00	27/10/2022 13:45:00	1015	1015	0.0 _(I)	-	-	-	-	-	-	-	-
BH13	1	50	2	---	---	8.00 to 30.00	30 secs	1025	1015	-2.1 _(SS)	-	-	-	-	-	-	-	-
BH13	1	50	2 (2)	30.00	---	8.00 to 30.00	27/10/2022 13:45:45	-	-	-	-	1.2	0.0	14.3	0.0	2.3	8	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	30 secs	-	-	-	-	1.3	0.0	13.0	0.0	2.9	15	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	60 secs	-	-	-	-	1.3	0.0	13.1	0.0	3.0	20	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	90 secs	-	-	-	-	1.3	0.0	13.1	0.0	3.1	22	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	120 secs	-	-	-	-	1.3	0.0	12.9	0.0	3.0	22	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	180 secs	-	-	-	-	1.3	0.0	13.0	0.0	2.9	22	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	240 secs	-	-	-	-	1.3	0.0	13.0	0.0	2.9	20	0
BH13	1	50	2 (2)	---	---	8.00 to 30.00	300 secs	-	-	-	-	1.3	0.0	13.0	0.0	2.9	20	0
BH13	1	50	2 (3)	30.00	29.10	8.00 to 30.00	27/10/2022 13:51:00	-	-	-	11.10	-	-	-	-	-	-	-
BH13	1	50	3	30.00	---	8.00 to 30.00	11/11/2022 10:49:01	-	-	0.0 _(I)	-	-	-	-	-	-	-	-
BH13	1	50	3	---	---	8.00 to 30.00	5 secs	1012	1012	0.0 _(SS)	-	-	-	-	-	-	-	-
BH13	1	50	3 (2)	30.00	---	8.00 to 30.00	11/11/2022 10:49:44	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	16 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	31 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	61 secs	-	-	-	-	0.1	0.0	21.2	0.0	-	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract: EMG Phase 2				

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH13	1	50	3 (2)	---	---	8.00 to 30.00	91 secs	-	-	-	-	0.1	0.0	21.2	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	122 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	183 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	243 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (2)	---	---	8.00 to 30.00	303 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH13	1	50	3 (3)	30.00	29.22	8.00 to 30.00	11/11/2022 10:57:59	-	-	-	11.82	-	-	-	-	1.3	-	-
BH14	1	50	1	11.50	---	1.00 to 11.50	13/10/2022 09:00:00	1007	1011	-0.9 _(I)	-	-	-	-	-	-	-	-
BH14	1	50	1	---	---	1.00 to 11.50	60 secs	1009	1011	-0.5 _(SS)	-	-	-	-	-	-	-	-
BH14	1	50	1 (2)	11.50	---	1.00 to 11.50	13/10/2022 09:05:00	-	-	-	-	0.5	0.0	20.5	0.0	0.6	3	0
BH14	1	50	1 (2)	---	---	1.00 to 11.50	30 secs	-	-	-	-	0.5	0.0	20.2	0.0	0.4	3	0
BH14	1	50	1 (2)	---	---	1.00 to 11.50	60 secs	-	-	-	-	0.6	0.0	20.0	0.0	0.4	3	0
BH14	1	50	1 (2)	---	---	1.00 to 11.50	90 secs	-	-	-	-	0.6	0.0	20.0	0.0	0.4	1	0
BH14	1	50	1 (2)	---	---	1.00 to 11.50	120 secs	-	-	-	-	0.6	0.0	20.0	0.0	0.4	1	0
BH14	1	50	1 (2)	---	---	1.00 to 11.50	180 secs	-	-	-	-	0.6	0.0	20.0	0.0	0.3	1	0
BH14	1	50	1 (3)	11.50	11.55	1.00 to 11.50	13/10/2022 09:10:00	-	-	-	8.61	-	-	-	-	-	-	-
BH16	1	50	1	20.00	---	2.00 to 20.00	13/10/2022 09:00:00	1007	1012	-1.3 _(I)	-	-	-	-	-	-	-	-
BH16	1	50	1	---	---	2.00 to 20.00	60 secs	1008	1012	-1.0 _(SS)	-	-	-	-	-	-	-	-
BH16	1	50	1 (2)	20.00	---	2.00 to 20.00	13/10/2022 09:05:00	-	-	-	-	0.5	0.0	19.8	0.0	1.2	3	0
BH16	1	50	1 (2)	---	---	2.00 to 20.00	15 secs	-	-	-	-	0.5	0.0	19.1	0.0	1.4	5	0
BH16	1	50	1 (2)	---	---	2.00 to 20.00	30 secs	-	-	-	-	0.6	0.0	18.7	0.0	1.5	5	0
BH16	1	50	1 (2)	---	---	2.00 to 20.00	60 secs	-	-	-	-	0.7	0.0	18.6	0.0	1.6	1	0
BH16	1	50	1 (2)	---	---	2.00 to 20.00	90 secs	-	-	-	-	0.7	0.0	18.4	0.0	1.7	1	0
BH16	1	50	1 (2)	---	---	2.00 to 20.00	120 secs	-	-	-	-	0.7	0.0	18.4	0.0	1.6	1	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:

EMG Phase 2

9 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH16	1	50	1 (3)	20.00	19.53	2.00 to 20.00	13/10/2022 09:10:00	-	-	-	4.55	-	-	-	-	-	-	-
BH17	1	50	1	4.50	---	1.00 to 4.50	13/10/2022 09:00:00	1011	1012	-0.5 _(I)	-	-	-	-	-	-	-	-
BH17	1	50	1	---	---	1.00 to 4.50	60 secs	1010	1012	-0.7 _(SS)	-	-	-	-	-	-	-	-
BH17	1	50	1 (2)	4.50	---	1.00 to 4.50	13/10/2022 09:05:00	-	-	-	-	0.0	0.0	19.0	0.0	1.7	0	0
BH17	1	50	1 (2)	---	---	1.00 to 4.50	15 secs	-	-	-	-	0.1	0.0	18.1	0.0	1.7	0	0
BH17	1	50	1 (2)	---	---	1.00 to 4.50	30 secs	-	-	-	-	0.0	0.0	18.0	0.0	1.7	0	0
BH17	1	50	1 (2)	---	---	1.00 to 4.50	60 secs	-	-	-	-	0.1	0.0	18.1	0.0	1.5	0	0
BH17	1	50	1 (2)	---	---	1.00 to 4.50	90 secs	-	-	-	-	0.0	0.0	18.2	0.0	1.4	0	0
BH17	1	50	1 (2)	---	---	1.00 to 4.50	120 secs	-	-	-	-	0.0	0.0	18.2	0.0	1.4	0	0
BH17	1	50	1 (3)	4.50	6.50	1.00 to 4.50	13/10/2022 09:10:00	-	-	-	1.71	-	-	-	-	-	-	-
BH17	1	50	2	4.50	---	1.00 to 4.50	27/10/2022 11:15:00	1008	1008	-0.3 _(I)	-	-	-	-	-	-	-	-
BH17	1	50	2	---	---	1.00 to 4.50	30 secs	996	1008	-2.6 _(SS)	-	-	-	-	-	-	-	-
BH17	1	50	2 (2)	4.50	---	1.00 to 4.50	27/10/2022 11:15:45	-	-	-	-	0.2	0.0	17.2	0.0	1.4	3	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	30 secs	-	-	-	-	0.3	0.0	16.3	0.0	1.5	3	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	60 secs	-	-	-	-	0.3	0.0	16.1	0.0	1.4	3	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	90 secs	-	-	-	-	0.3	0.0	15.9	0.0	1.2	3	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	120 secs	-	-	-	-	0.3	0.0	16.0	0.0	1.1	5	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	180 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.8	5	0
BH17	1	50	2 (2)	---	---	1.00 to 4.50	240 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.8	5	0
BH17	1	50	2 (3)	4.50	6.40	1.00 to 4.50	27/10/2022 11:20:00	-	-	-	1.67	-	-	-	-	-	-	-
BH17	1	50	3	4.50	---	1.00 to 4.50	11/11/2022 11:06:44	1014	1014	0.0 _(I)	-	-	-	-	-	-	-	-
BH17	1	50	3	---	---	1.00 to 4.50	5 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-	-
BH17	1	50	3 (2)	4.50	---	1.00 to 4.50	11/11/2022 11:07:30	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	15 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				10 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH17	1	50	3 (2)	---	---	1.00 to 4.50	30 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	60 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	91 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	121 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	181 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	242 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (2)	---	---	1.00 to 4.50	301 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH17	1	50	3 (3)	4.50	6.43	1.00 to 4.50	11/11/2022 11:15:24	-	-	-	1.72	-	-	-	-	0.5	-	-
BH18	1	50	1	16.00	---	4.50 to 16.00	13/10/2022 09:00:00	1008	1010	-0.6 _(I)	-	-	-	-	-	-	-	-
BH18	1	50	1	---	---	4.50 to 16.00	60 secs	1009	1010	-0.5 _(SS)	-	-	-	-	-	-	-	-
BH18	1	50	1 (2)	16.00	---	4.50 to 16.00	13/10/2022 09:05:00	-	-	-	-	0.4	0.0	19.3	0.0	1.4	1	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	30 secs	-	-	-	-	0.5	0.0	18.8	0.0	2.0	1	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	60 secs	-	-	-	-	0.6	0.0	18.5	0.0	2.3	1	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	90 secs	-	-	-	-	0.6	0.0	18.3	0.0	2.5	1	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	120 secs	-	-	-	-	0.6	0.0	18.2	0.0	2.7	5	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	180 secs	-	-	-	-	0.7	0.0	18.1	0.0	2.8	5	0
BH18	1	50	1 (2)	---	---	4.50 to 16.00	240 secs	-	-	-	-	0.7	0.0	18.1	0.0	2.8	5	0
BH18	1	50	1 (3)	16.00	20.01	4.50 to 16.00	13/10/2022 09:10:00	-	-	-	5.84	-	-	-	-	-	-	-
BH18	1	50	2	16.00	---	4.50 to 16.00	27/10/2022 11:35:00	1002	1010	1.8 _(I)	-	-	-	-	-	-	-	-
BH18	1	50	2	---	---	4.50 to 16.00	30 secs	1008	1010	-2.2 _(SS)	-	-	-	-	-	-	-	-
BH18	1	50	2 (2)	16.00	---	4.50 to 16.00	27/10/2022 11:35:45	-	-	-	-	1.2	0.0	17.2	0.0	2.3	5	0
BH18	1	50	2 (2)	---	---	4.50 to 16.00	30 secs	-	-	-	-	1.3	0.0	16.2	0.0	2.6	6	0
BH18	1	50	2 (2)	---	---	4.50 to 16.00	60 secs	-	-	-	-	1.3	0.0	16.0	0.0	2.8	8	0
BH18	1	50	2 (2)	---	---	4.50 to 16.00	90 secs	-	-	-	-	1.3	0.0	15.9	0.0	2.9	6	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				11 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH18	1	50	2 (2)	---	---	4.50 to 16.00	120 secs	-	-	-	-	1.3	0.0	15.9	0.0	3.0	6	0
BH18	1	50	2 (2)	---	---	4.50 to 16.00	180 secs	-	-	-	-	1.3	0.0	15.9	0.0	3.0	6	0
BH18	1	50	2 (2)	---	---	4.50 to 16.00	240 secs	-	-	-	-	1.3	0.0	15.9	0.0	3.0	6	0
BH18	1	50	2 (3)	16.00	19.96	4.50 to 16.00	27/10/2022 11:40:00	-	-	-	5.85	-	-	-	-	-	-	-
BH18	1	50	3	16.00	---	4.50 to 16.00	11/11/2022 11:31:45	1014	1014	0.0 _(I)	-	-	-	-	-	-	-	-
BH18	1	50	3	---	---	4.50 to 16.00	5 secs	-	-	0.1 _(SS)	-	-	-	-	-	-	-	-
BH18	1	50	3 (2)	16.00	---	4.50 to 16.00	11/11/2022 11:32:36	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	16 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	32 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	62 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	93 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	123 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	183 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	243 secs	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
BH18	1	50	3 (2)	---	---	4.50 to 16.00	303 secs	-	-	-	-	0.1	0.0	21.5	0.0	-	0	0
BH18	1	50	3 (3)	16.00	5.00	4.50 to 16.00	11/11/2022 11:40:26	-	-	-	2.05	-	-	-	-	1.5	-	-
BH21	1	50	1	30.00	---	5.00 to 30.00	13/10/2022 09:00:00	1012	1012	0.0 _(I)	-	-	-	-	-	-	-	-
BH21	1	50	1	---	---	5.00 to 30.00	60 secs	1012	1012	0.0 _(SS)	-	-	-	-	-	-	-	-
BH21	1	50	1 (2)	30.00	---	5.00 to 30.00	13/10/2022 09:05:00	-	-	-	-	0.7	0.0	20.0	0.0	1.1	0	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	30 secs	-	-	-	-	0.9	0.0	17.2	0.0	2.1	3	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	60 secs	-	-	-	-	0.9	0.0	17.1	0.0	2.3	3	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	90 secs	-	-	-	-	1.0	0.0	16.9	0.0	2.4	3	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	120 secs	-	-	-	-	1.0	0.0	16.9	0.0	2.4	3	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	180 secs	-	-	-	-	1.0	0.0	16.9	0.0	2.6	3	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:

EMG Phase 2

12 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH21	1	50	1 (2)	---	---	5.00 to 30.00	240 secs	-	-	-	-	1.0	0.0	16.7	0.0	2.8	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	300 secs	-	-	-	-	1.1	0.0	16.7	0.0	2.9	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	360 secs	-	-	-	-	1.1	0.0	16.6	0.0	2.9	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	420 secs	-	-	-	-	1.1	0.0	16.6	0.0	2.8	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	480 secs	-	-	-	-	0.9	0.0	16.7	0.0	2.5	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	540 secs	-	-	-	-	0.8	0.0	16.9	0.0	2.3	5	0
BH21	1	50	1 (2)	---	---	5.00 to 30.00	600 secs	-	-	-	-	0.8	0.0	16.9	0.0	2.3	5	0
BH21	1	50	1 (3)	30.00	29.90	5.00 to 30.00	13/10/2022 09:17:00	-	-	-	9.34	-	-	-	-	-	-	-
BH21	1	50	2	30.00	---	5.00 to 30.00	27/10/2022 11:55:00	1002	1015	-2.7 _(I)	-	-	-	-	-	-	-	-
BH21	1	50	2	---	---	5.00 to 30.00	30 secs	1003	1015	-2.5 _(SS)	-	-	-	-	-	-	-	-
BH21	1	50	2 (2)	30.00	---	5.00 to 30.00	27/10/2022 11:55:45	-	-	-	-	0.5	0.0	19.3	0.0	0.4	1	0
BH21	1	50	2 (2)	---	---	5.00 to 30.00	30 secs	-	-	-	-	0.5	0.0	18.6	0.0	0.4	1	0
BH21	1	50	2 (2)	---	---	5.00 to 30.00	60 secs	-	-	-	-	0.6	0.0	18.2	0.0	0.4	3	0
BH21	1	50	2 (2)	---	---	5.00 to 30.00	90 secs	-	-	-	-	0.7	0.0	18.0	0.0	0.5	3	0
BH21	1	50	2 (2)	---	---	5.00 to 30.00	120 secs	-	-	-	-	0.7	0.0	17.9	0.0	0.5	3	0
BH21	1	50	2 (2)	---	---	5.00 to 30.00	180 secs	-	-	-	-	0.7	0.0	17.9	0.0	0.5	3	0
BH21	1	50	2 (3)	30.00	29.29	5.00 to 30.00	27/10/2022 11:59:00	-	-	-	9.45	-	-	-	-	-	-	-
BH21	1	50	3	30.00	---	5.00 to 30.00	11/11/2022 09:25:13	-	-	0.0 _(I)	-	-	-	-	-	-	-	-
BH21	1	50	3	---	---	5.00 to 30.00	5 secs	1013	1013	-0.1 _(SS)	-	-	-	-	-	-	-	-
BH21	1	50	3 (2)	30.00	---	5.00 to 30.00	11/11/2022 09:26:01	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	15 secs	-	-	-	-	0.4	0.0	20.2	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	30 secs	-	-	-	-	0.4	0.0	19.8	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	60 secs	-	-	-	-	0.5	0.0	19.8	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	90 secs	-	-	-	-	0.5	0.0	19.4	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	120 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	1	0

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				13 of 25	



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH21	1	50	3 (2)	---	---	5.00 to 30.00	180 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	241 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	0	0
BH21	1	50	3 (2)	---	---	5.00 to 30.00	301 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	0	0
BH21	1	50	3 (3)	30.00	29.41	5.00 to 30.00	11/11/2022 09:34:45	-	-	-	9.51	-	-	-	-	0.5	-	-
BH23	1	50	1	8.00	---	1.00 to 8.00	13/10/2022 09:00:00	1007	1010	-0.8 _(I)	-	-	-	-	-	-	-	-
BH23	1	50	1	---	---	1.00 to 8.00	60 secs	1008	1010	-0.7 _(SS)	-	-	-	-	-	-	-	-
BH23	1	50	1 (2)	8.00	---	1.00 to 8.00	13/10/2022 09:05:00	-	-	-	-	0.6	0.0	19.3	0.0	0.0	1	0
BH23	1	50	1 (2)	---	---	1.00 to 8.00	15 secs	-	-	-	-	0.6	0.0	19.1	0.0	0.0	1	0
BH23	1	50	1 (2)	---	---	1.00 to 8.00	30 secs	-	-	-	-	0.6	0.0	19.0	0.0	0.0	1	0
BH23	1	50	1 (2)	---	---	1.00 to 8.00	60 secs	-	-	-	-	0.7	0.0	18.9	0.0	0.0	1	0
BH23	1	50	1 (2)	---	---	1.00 to 8.00	90 secs	-	-	-	-	0.7	0.0	18.9	0.0	0.0	1	0
BH23	1	50	1 (2)	---	---	1.00 to 8.00	120 secs	-	-	-	-	0.7	0.0	18.9	0.0	0.0	1	0
BH23	1	50	1 (3)	8.00	7.82	1.00 to 8.00	13/10/2022 09:10:00	-	-	-	6.20	-	-	-	-	-	-	-
BH23	1	50	2	8.00	---	1.00 to 8.00	27/10/2022 12:40:00	999	1014	-3.0 _(I)	-	-	-	-	-	-	-	-
BH23	1	50	2	---	---	1.00 to 8.00	30 secs	1002	1014	-2.7 _(SS)	-	-	-	-	-	-	-	-
BH23	1	50	2 (2)	8.00	---	1.00 to 8.00	27/10/2022 12:40:45	-	-	-	-	0.7	0.0	19.3	0.0	0.4	3	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	30 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.4	3	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	60 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.4	3	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	90 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.3	3	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	120 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.3	3	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	180 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.1	1	0
BH23	1	50	2 (2)	---	---	1.00 to 8.00	240 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.1	1	0
BH23	1	50	2 (3)	8.00	7.79	1.00 to 8.00	27/10/2022 12:45:00	-	-	-	6.25	-	-	-	-	-	-	-
BH23	1	50	3	8.00	---	1.00 to 8.00	11/11/2022 09:43:15	-	-	0.0 _(I)	-	-	-	-	-	-	-	-

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract:				Page:

EMG Phase 2

14 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH23	1	50	3	---	---	1.00 to 8.00	5 secs	1014	1014	0.0 _(SS)	-	-	-	-	-	-	-	-
BH23	1	50	3 (2)	8.00	---	1.00 to 8.00	11/11/2022 09:44:00	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	15 secs	-	-	-	-	0.7	0.0	19.6	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	31 secs	-	-	-	-	0.7	0.0	19.0	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	61 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	91 secs	-	-	-	-	0.6	0.0	19.4	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	121 secs	-	-	-	-	0.6	0.0	19.4	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	181 secs	-	-	-	-	0.5	0.0	19.5	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	243 secs	-	-	-	-	0.6	0.0	19.5	0.0	-	0	0
BH23	1	50	3 (2)	---	---	1.00 to 8.00	302 secs	-	-	-	-	0.6	0.0	19.3	0.0	-	0	0
BH23	1	50	3 (3)	8.00	7.93	1.00 to 8.00	11/11/2022 09:53:36	-	-	-	6.40	-	-	-	-	0.0	-	-
BH24	1	50	1	5.00	---	1.00 to 5.00	13/10/2022 09:00:00	1006	1014	-1.7 _(I)	-	-	-	-	-	-	-	-
BH24	1	50	1	---	---	1.00 to 5.00	60 secs	1011	1014	-0.8 _(SS)	-	-	-	-	-	-	-	-
BH24	1	50	1 (2)	5.00	---	1.00 to 5.00	13/10/2022 09:05:00	-	-	-	-	0.6	0.0	19.5	0.0	0.1	1	0
BH24	1	50	1 (2)	---	---	1.00 to 5.00	15 secs	-	-	-	-	0.6	0.0	19.2	0.0	0.2	1	0
BH24	1	50	1 (2)	---	---	1.00 to 5.00	30 secs	-	-	-	-	0.6	0.0	19.1	0.0	0.1	1	0
BH24	1	50	1 (2)	---	---	1.00 to 5.00	60 secs	-	-	-	-	0.6	0.0	19.1	0.0	0.1	1	0
BH24	1	50	1 (2)	---	---	1.00 to 5.00	90 secs	-	-	-	-	0.6	0.0	19.1	0.0	0.0	1	0
BH24	1	50	1 (2)	---	---	1.00 to 5.00	120 secs	-	-	-	-	0.6	0.0	19.1	0.0	0.0	1	0
BH24	1	50	1 (3)	5.00	4.95	1.00 to 5.00	13/10/2022 09:10:00	-	-	-	3.19	-	-	-	-	-	-	-
BH25	1	50	1	20.00	---	4.00 to 20.00	13/10/2022 09:00:00	1007	1012	-1.2 _(I)	-	-	-	-	-	-	-	-
BH25	1	50	1	---	---	4.00 to 20.00	60 secs	1007	1012	-1.1 _(SS)	-	-	-	-	-	-	-	-
BH25	1	50	1 (2)	20.00	---	4.00 to 20.00	13/10/2022 09:05:00	-	-	-	-	0.3	0.0	20.5	0.0	0.3	0	0

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 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				15 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
BH25	1	50	1 (2)	---	---	4.00 to 20.00	30 secs	-	-	-	-	0.0	0.0	20.2	0.0	1.7	5	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	60 secs	-	-	-	-	0.0	0.0	20.1	0.0	1.5	3	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	90 secs	-	-	-	-	0.0	0.0	20.1	0.0	1.2	1	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	120 secs	-	-	-	-	0.0	0.0	20.1	0.0	1.1	3	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	180 secs	-	-	-	-	0.0	0.0	20.1	0.0	0.9	3	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	240 secs	-	-	-	-	0.0	0.0	20.1	0.0	0.9	3	0
BH25	1	50	1 (2)	---	---	4.00 to 20.00	300 secs	-	-	-	-	0.0	0.0	20.1	0.0	0.9	3	0
BH25	1	50	1 (3)	20.00	20.03	4.00 to 20.00	13/10/2022 09:12:00	-	-	-	3.93	-	-	-	-	-	-	-
BH27	1	50	1	4.00	---	1.00 to 4.00	13/10/2022 09:00:00	1005	1010	-1.2 _(I)	-	-	-	-	-	-	-	-
BH27	1	50	1	---	---	1.00 to 4.00	60 secs	1006	1010	-1.1 _(SS)	-	-	-	-	-	-	-	-
BH27	1	50	1 (2)	4.00	---	1.00 to 4.00	13/10/2022 09:05:00	-	-	-	-	0.8	0.0	19.1	0.0	0.0	3	0
BH27	1	50	1 (2)	---	---	1.00 to 4.00	30 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.0	1	0
BH27	1	50	1 (2)	---	---	1.00 to 4.00	60 secs	-	-	-	-	0.8	0.0	18.3	0.0	0.0	1	0
BH27	1	50	1 (2)	---	---	1.00 to 4.00	90 secs	-	-	-	-	0.8	0.0	18.2	0.0	0.0	1	0
BH27	1	50	1 (2)	---	---	1.00 to 4.00	120 secs	-	-	-	-	0.8	0.0	18.1	0.0	0.0	1	0
BH27	1	50	1 (2)	---	---	1.00 to 4.00	180 secs	-	-	-	-	0.8	0.0	18.1	0.0	0.0	1	0
BH27	1	50	1 (3)	4.00	3.85	1.00 to 4.00	13/10/2022 09:10:00	-	-	-	3.04	-	-	-	-	-	-	-
CP01	1	50	1	7.50	---	1.00 to 7.81	13/10/2022 09:00:00	1004	1009	-1.3 _(I)	-	-	-	-	-	-	-	-
CP01	1	50	1	---	---	1.00 to 7.81	30 secs	1005	1009	-1.0 _(SS)	-	-	-	-	-	-	-	-
CP01	1	50	1 (2)	7.50	---	1.00 to 7.81	13/10/2022 09:01:00	-	-	-	-	0.3	0.0	4.5	0.0	0.8	0	0
CP01	1	50	1 (2)	---	---	1.00 to 7.81	30 secs	-	-	-	-	0.4	0.0	19.9	0.0	0.8	3	0
CP01	1	50	1 (2)	---	---	1.00 to 7.81	60 secs	-	-	-	-	0.4	0.0	19.8	0.0	0.8	0	0
CP01	1	50	1 (2)	---	---	1.00 to 7.81	90 secs	-	-	-	-	0.5	0.0	19.7	0.0	0.8	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				16 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP01	1	50	1 (2)	---	---	1.00 to 7.81	120 secs	-	-	-	-	0.4	0.0	19.7	0.0	0.7	0	0
CP01	1	50	1 (2)	---	---	1.00 to 7.81	180 secs	-	-	-	-	0.4	0.0	19.7	0.0	0.6	0	0
CP01	1	50	1 (3)	7.50	7.41	1.00 to 7.81	13/10/2022 09:05:00	-	-	-	7.11	-	-	-	-	-	-	-
CP01	1	50	2	7.50	---	1.00 to 7.81	26/10/2022 10:20:00	989	1003	-2.8 _(I)	-	-	-	-	-	-	-	-
CP01	1	50	2	---	---	1.00 to 7.81	30 secs	989	1003	-2.8 _(SS)	-	-	-	-	-	-	-	-
CP01	1	50	2 (2)	7.50	---	1.00 to 7.81	26/10/2022 10:21:00	-	-	-	-	0.6	0.0	18.4	0.0	0.2	3	0
CP01	1	50	2 (2)	---	---	1.00 to 7.81	60 secs	-	-	-	-	0.6	0.0	17.9	0.0	0.0	0	0
CP01	1	50	2 (2)	---	---	1.00 to 7.81	90 secs	-	-	-	-	0.6	0.0	17.9	0.0	0.0	0	0
CP01	1	50	2 (2)	---	---	1.00 to 7.81	120 secs	-	-	-	-	0.7	0.0	17.8	0.0	0.0	0	0
CP01	1	50	2 (2)	---	---	1.00 to 7.81	180 secs	-	-	-	-	0.7	0.0	17.8	0.0	0.0	0	0
CP01	1	50	2 (2)	---	---	1.00 to 7.81	240 secs	-	-	-	-	0.7	0.0	17.8	0.0	0.0	0	0
CP01	1	50	2 (3)	7.50	7.40	1.00 to 7.81	26/10/2022 10:25:00	-	-	-	7.20	-	-	-	-	-	-	-
CP01	1	50	3	7.50	---	1.00 to 7.81	14/11/2022 11:52:54	997	997	-	-	-	-	-	-	-	-	-
CP01	1	50	3	---	---	1.00 to 7.81	5 secs	-	-	-	-	-	-	-	-	-	-	-
CP01	1	50	3 (2)	7.50	---	1.00 to 7.81	14/11/2022 11:53:40	-	-	-	-	0.1	0.0	21.6	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	15 secs	-	-	-	-	0.9	0.0	20.7	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	30 secs	-	-	-	-	0.9	0.0	20.4	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	60 secs	-	-	-	-	0.9	0.0	20.3	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	90 secs	-	-	-	-	1.0	0.0	20.3	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	121 secs	-	-	-	-	1.0	0.0	20.3	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	182 secs	-	-	-	-	1.0	0.0	20.2	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	242 secs	-	-	-	-	1.1	0.0	20.1	0.0	-	0	0
CP01	1	50	3 (2)	---	---	1.00 to 7.81	302 secs	-	-	-	-	1.1	0.0	20.0	0.0	-	0	0
CP01	1	50	3 (3)	7.50	7.48	1.00 to 7.81	14/11/2022 12:00:56	-	-	-	7.34	-	-	-	-	0.0	-	-

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				17 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP06	1	50	1	11.00	---	1.00 to 11.26	14/10/2022 09:00:00	996	1002	-1.5 _(I)	-	-	-	-	-	-	-	-
CP06	1	50	1	---	---	1.00 to 11.26	30 secs	998	1002	-1.0 _(SS)	-	-	-	-	-	-	-	-
CP06	1	50	1 (2)	11.00	---	1.00 to 11.26	14/10/2022 09:01:00	-	-	-	-	0.0	0.0	19.0	0.0	0.0	6	0
CP06	1	50	1 (2)	---	---	1.00 to 11.26	60 secs	-	-	-	-	0.1	0.0	18.3	0.0	0.0	3	0
CP06	1	50	1 (2)	---	---	1.00 to 11.26	90 secs	-	-	-	-	0.1	0.0	18.3	0.0	0.0	3	0
CP06	1	50	1 (2)	---	---	1.00 to 11.26	120 secs	-	-	-	-	0.1	0.0	18.1	0.0	0.0	0	0
CP06	1	50	1 (2)	---	---	1.00 to 11.26	180 secs	-	-	-	-	0.1	0.0	18.1	0.0	0.0	3	0
CP06	1	50	1 (3)	11.00	10.98	1.00 to 11.26	14/10/2022 09:04:00	-	-	-	6.87	-	-	-	-	-	-	-
CP06	1	50	2	11.00	---	1.00 to 11.26	26/10/2022 11:20:00	985	1001	-3.0 _(I)	-	-	-	-	-	-	-	-
CP06	1	50	2	---	---	1.00 to 11.26	30 secs	990	1001	-2.5 _(SS)	-	-	-	-	-	-	-	-
CP06	1	50	2 (2)	11.00	---	1.00 to 11.26	26/10/2022 11:20:45	-	-	-	-	0.3	0.0	16.1	0.0	0.6	6	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	30 secs	-	-	-	-	0.3	0.0	16.0	0.0	0.6	3	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	60 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.5	3	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	90 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.5	1	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	120 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.4	1	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	180 secs	-	-	-	-	0.3	0.0	15.9	0.0	0.2	3	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	240 secs	-	-	-	-	0.3	0.0	15.8	0.0	0.1	3	0
CP06	1	50	2 (2)	---	---	1.00 to 11.26	300 secs	-	-	-	-	0.3	0.0	15.8	0.0	0.0	3	0
CP06	1	50	2 (3)	11.00	10.88	1.00 to 11.26	26/10/2022 11:26:00	-	-	-	6.92	-	-	-	-	-	-	-
CP06	1	50	3	11.00	---	1.00 to 11.26	14/11/2022 10:52:40	999	999	0.0 _(I)	-	-	-	-	-	-	-	-
CP06	1	50	3	---	---	1.00 to 11.26	5 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-	-
CP06	1	50	3 (2)	11.00	---	1.00 to 11.26	14/11/2022 10:53:23	-	-	-	-	0.1	0.0	21.4	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	15 secs	-	-	-	-	0.6	0.0	16.9	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	31 secs	-	-	-	-	0.6	0.0	15.7	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	61 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract:				Page:

EMG Phase 2

18 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP06	1	50	3 (2)	---	---	1.00 to 11.26	92 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	121 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	181 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	241 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0
CP06	1	50	3 (2)	---	---	1.00 to 11.26	301 secs	-	-	-	-	0.6	0.0	15.6	0.0	-	0	0
CP06	1	50	3 (3)	11.00	11.02	1.00 to 11.26	14/11/2022 11:01:39	-	-	-	7.06	-	-	-	-	0.3	-	-
CP10	1	50	1	8.50	---	1.00 to 8.60	14/10/2022 09:00:00	998	1003	-1.1 _(I)	-	-	-	-	-	-	-	-
CP10	1	50	1	---	---	1.00 to 8.60	30 secs	999	1003	-0.7 _(SS)	-	-	-	-	-	-	-	-
CP10	1	50	1 (2)	8.50	---	1.00 to 8.60	14/10/2022 09:00:45	-	-	-	-	0.8	0.0	17.9	0.0	0.5	0	0
CP10	1	50	1 (2)	---	---	1.00 to 8.60	30 secs	-	-	-	-	0.8	0.0	17.2	0.0	0.5	0	0
CP10	1	50	1 (2)	---	---	1.00 to 8.60	60 secs	-	-	-	-	0.8	0.0	17.1	0.0	0.5	1	0
CP10	1	50	1 (2)	---	---	1.00 to 8.60	90 secs	-	-	-	-	0.8	0.0	17.0	0.0	0.5	3	0
CP10	1	50	1 (2)	---	---	1.00 to 8.60	120 secs	-	-	-	-	0.8	0.0	16.9	0.0	0.5	1	0
CP10	1	50	1 (2)	---	---	1.00 to 8.60	180 secs	-	-	-	-	0.8	0.0	16.9	0.0	0.5	1	0
CP10	1	50	1 (3)	8.50	8.58	1.00 to 8.60	14/10/2022 09:04:00	-	-	-	4.32	-	-	-	-	-	-	-
CP10	1	50	2	8.50	---	1.00 to 8.60	27/10/2022 15:00:00	1004	1014	-2.2 _(I)	-	-	-	-	-	-	-	-
CP10	1	50	2	---	---	1.00 to 8.60	30 secs	1004	1014	-2.4 _(SS)	-	-	-	-	-	-	-	-
CP10	1	50	2 (2)	8.50	---	1.00 to 8.60	27/10/2022 15:00:45	-	-	-	-	0.8	0.0	17.9	0.0	0.7	1	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	30 secs	-	-	-	-	0.8	0.0	17.0	0.0	0.9	3	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	60 secs	-	-	-	-	0.8	0.0	16.8	0.0	1.0	5	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	90 secs	-	-	-	-	0.8	0.0	16.7	0.0	1.0	5	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	120 secs	-	-	-	-	0.9	0.0	16.7	0.0	1.0	5	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	180 secs	-	-	-	-	0.9	0.0	16.7	0.0	0.9	3	0
CP10	1	50	2 (2)	---	---	1.00 to 8.60	240 secs	-	-	-	-	0.9	0.0	16.7	0.0	0.8	1	0

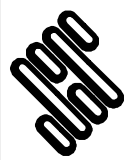
Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract: EMG Phase 2				

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP10	1	50	2 (3)	8.50	8.53	1.00 to 8.60	27/10/2022 15:05:00	-	-	-	4.27	-	-	-	-	-	-	-
CP10	1	50	3	8.50	---	1.00 to 8.60	14/11/2022 10:30:27	1000	1000	0.0 _(I)	-	-	-	-	-	-	-	-
CP10	1	50	3	---	---	1.00 to 8.60	5 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-	-
CP10	1	50	3 (2)	8.50	---	1.00 to 8.60	14/11/2022 10:31:12	-	-	-	-	0.1	0.0	21.5	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	16 secs	-	-	-	-	0.1	0.0	21.5	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	30 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	60 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	90 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	121 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	181 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	241 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (2)	---	---	1.00 to 8.60	301 secs	-	-	-	-	0.2	0.0	21.1	0.0	-	0	0
CP10	1	50	3 (3)	8.50	8.63	1.00 to 8.60	14/11/2022 10:39:53	-	-	-	4.27	-	-	-	-	0.3	-	-
CP11	1	50	1	6.20	---	1.00 to 6.20	14/10/2022 09:00:00	997	1003	-1.5 _(I)	-	-	-	-	-	-	-	-
CP11	1	50	1	---	---	1.00 to 6.20	30 secs	998	1003	-1.1 _(SS)	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	6.20	---	1.00 to 6.20	14/10/2022 09:00:45	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	---	---	1.00 to 6.20	30 secs	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	---	---	1.00 to 6.20	60 secs	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	---	---	1.00 to 6.20	90 secs	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	---	---	1.00 to 6.20	120 secs	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (2)	---	---	1.00 to 6.20	180 secs	-	-	-	-	-	-	-	-	-	-	-
CP11	1	50	1 (3)	6.20	2.65	1.00 to 6.20	14/10/2022 09:04:00	-	-	-	2.27	-	-	-	-	-	-	-
CP16	1	50	1	9.00	---	5.75 to 9.10	13/10/2022 09:00:00	1009	1012	-0.7 _(I)	-	-	-	-	-	-	-	-

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



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

Compiled By	Date	Checked By	Date	Contract Ref:
	05/05/2023		05/05/2023	765514
Contract:				Page:
EMG Phase 2				20 of 25

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP16	1	50	1	---	---	5.75 to 9.10	30 secs	1010	1012	-0.4 _(SS)	-	-	-	-	-	-	-	-
CP16	1	50	1 (2)	9.00	---	5.75 to 9.10	13/10/2022 09:00:45	-	-	-	-	0.0	0.0	19.7	0.0	1.3	3	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	30 secs	-	-	-	-	0.0	0.0	19.0	0.0	1.5	8	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	60 secs	-	-	-	-	0.0	0.0	18.6	0.0	1.6	10	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	90 secs	-	-	-	-	0.1	0.0	18.3	0.0	1.8	12	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	120 secs	-	-	-	-	0.1	0.0	18.0	0.0	1.9	17	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	180 secs	-	-	-	-	0.1	0.0	17.9	0.0	1.8	20	0
CP16	1	50	1 (2)	---	---	5.75 to 9.10	240 secs	-	-	-	-	0.1	0.0	17.0	0.0	1.7	22	0
CP16	1	50	1 (3)	9.00	8.88	5.75 to 9.10	13/10/2022 09:05:00	-	-	-	3.85	-	-	-	-	-	-	-
CP17	1	50	1	17.00	---	14.00 to 17.21	13/10/2022 09:00:00	1006	1010	-1.0 _(I)	-	-	-	-	-	-	-	-
CP17	1	50	1	---	---	14.00 to 17.21	30 secs	1006	1010	-0.8 _(SS)	-	-	-	-	-	-	-	-
CP17	1	50	1 (2)	17.00	---	14.00 to 17.21	13/10/2022 09:00:45	-	-	-	-	0.5	0.0	19.5	0.0	0.9	12	0
CP17	1	50	1 (2)	---	---	14.00 to 17.21	30 secs	-	-	-	-	0.7	0.0	18.3	0.0	0.9	27	1
CP17	1	50	1 (2)	---	---	14.00 to 17.21	60 secs	-	-	-	-	0.8	0.0	17.4	0.0	0.9	42	1
CP17	1	50	1 (2)	---	---	14.00 to 17.21	90 secs	-	-	-	-	0.9	0.0	17.0	0.0	0.9	51	0
CP17	1	50	1 (2)	---	---	14.00 to 17.21	120 secs	-	-	-	-	0.9	0.0	17.0	0.0	0.9	58	1
CP17	1	50	1 (2)	---	---	14.00 to 17.21	180 secs	-	-	-	-	0.9	0.0	16.9	0.0	0.9	65	2
CP17	1	50	1 (2)	---	---	14.00 to 17.21	240 secs	-	-	-	-	0.9	0.0	16.9	0.0	0.9	65	2
CP17	1	50	1 (3)	17.00	16.49	14.00 to 17.21	13/10/2022 09:05:00	-	-	-	7.20	-	-	-	-	-	-	-
CP21	1	50	1	5.00	---	1.00 to 5.38	13/10/2022 09:00:00	1008	1014	-1.4 _(I)	-	-	-	-	-	-	-	-
CP21	1	50	1	---	---	1.00 to 5.38	30 secs	1009	1014	-1.1 _(SS)	-	-	-	-	-	-	-	-
CP21	1	50	1 (2)	5.00	---	1.00 to 5.38	13/10/2022 09:00:45	-	-	-	-	0.6	0.0	19.9	0.0	0.5	6	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	30 secs	-	-	-	-	0.8	0.0	19.5	0.0	0.5	1	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract: EMG Phase 2				

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP21	1	50	1 (2)	---	---	1.00 to 5.38	60 secs	-	-	-	-	0.8	0.0	19.4	0.0	0.5	1	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	90 secs	-	-	-	-	0.8	0.0	19.3	0.0	0.5	1	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	120 secs	-	-	-	-	0.9	0.0	19.3	0.0	0.5	0	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	180 secs	-	-	-	-	0.9	0.0	19.3	0.0	0.4	0	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	240 secs	-	-	-	-	0.9	0.0	19.3	0.0	0.3	0	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	300 secs	-	-	-	-	0.9	0.0	19.3	0.0	0.3	0	0
CP21	1	50	1 (2)	---	---	1.00 to 5.38	360 secs	-	-	-	-	0.9	0.0	19.3	0.0	0.3	0	0
CP21	1	50	1 (3)	5.00	4.80	1.00 to 5.38	13/10/2022 09:07:00	-	-	-	DRY	-	-	-	-	-	-	-
CP21	1	50	2	5.00	---	1.00 to 5.38	27/10/2022 12:15:00	1004	1015	-2.5 _(I)	-	-	-	-	-	-	-	-
CP21	1	50	2	---	---	1.00 to 5.38	30 secs	1005	1015	-2.4 _(SS)	-	-	-	-	-	-	-	-
CP21	1	50	2 (2)	5.00	---	1.00 to 5.38	27/10/2022 12:15:45	-	-	-	-	0.9	0.0	19.4	0.0	0.8	0	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	30 secs	-	-	-	-	0.9	0.0	18.7	0.0	0.8	1	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	60 secs	-	-	-	-	0.9	0.0	18.6	0.0	0.8	1	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	90 secs	-	-	-	-	0.9	0.0	18.5	0.0	0.8	1	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	120 secs	-	-	-	-	1.0	0.0	18.5	0.0	0.7	3	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	180 secs	-	-	-	-	1.0	0.0	18.5	0.0	0.6	1	0
CP21	1	50	2 (2)	---	---	1.00 to 5.38	240 secs	-	-	-	-	1.0	0.0	18.5	0.0	0.6	1	0
CP21	1	50	2 (3)	5.00	4.81	1.00 to 5.38	27/10/2022 12:20:00	-	-	-	DRY	-	-	-	-	-	-	-
CP21	1	50	3	5.00	---	1.00 to 5.38	11/11/2022 08:47:30	-	-	0.0 _(I)	-	-	-	-	-	-	-	-
CP21	1	50	3	---	---	1.00 to 5.38	5 secs	1014	1014	0.0 _(SS)	-	-	-	-	-	-	-	-
CP21	1	50	3 (2)	5.00	---	1.00 to 5.38	11/11/2022 08:48:22	-	-	-	-	0.1	0.0	20.8	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	14 secs	-	-	-	-	0.5	0.0	20.6	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	30 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	60 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	91 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/2023	765514
	Contract: EMG Phase 2				Page: 22 of 25 

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP21	1	50	3 (2)	---	---	1.00 to 5.38	121 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	182 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	242 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (2)	---	---	1.00 to 5.38	302 secs	-	-	-	-	0.5	0.0	20.2	0.0	-	0	0
CP21	1	50	3 (3)	5.00	4.90	1.00 to 5.38	11/11/2022 09:14:52	-	-	-	4.90	-	-	-	-	0.3	-	-
CP27	1	50	1	3.00	---	1.00 to 3.00	13/10/2022 09:00:00	1007	1015	-1.8 _(l)	-	-	-	-	-	-	-	-
CP27	1	50	1	---	---	1.00 to 3.00	30 secs	1009	1015	1.4 _(ss)	-	-	-	-	-	-	-	-
CP27	1	50	1 (2)	3.00	---	1.00 to 3.00	13/10/2022 09:01:00	-	-	-	-	0.3	0.0	20.2	0.0	0.2	3	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	30 secs	-	-	-	-	0.3	0.0	19.8	0.0	0.3	3	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	60 secs	-	-	-	-	0.3	0.0	19.8	0.0	0.4	3	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	90 secs	-	-	-	-	0.3	0.0	19.7	0.0	0.4	3	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	120 secs	-	-	-	-	0.3	0.0	19.7	0.0	0.3	1	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	180 secs	-	-	-	-	0.3	0.0	19.7	0.0	0.2	1	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	240 secs	-	-	-	-	0.3	0.0	19.7	0.0	0.1	1	0
CP27	1	50	1 (2)	---	---	1.00 to 3.00	300 secs	-	-	-	-	0.3	0.0	19.7	0.0	0.0	1	0
CP27	1	50	1 (3)	3.00	3.13	1.00 to 3.00	13/10/2022 09:07:00	-	-	-	1.40	-	-	-	-	-	-	-
CP27	1	50	2	3.00	---	1.00 to 3.00	27/10/2022 13:00:00	1010	1019	-1.9 _(l)	-	-	-	-	-	-	-	-
CP27	1	50	2	---	---	1.00 to 3.00	30 secs	1010	1019	-2.0 _(ss)	-	-	-	-	-	-	-	-
CP27	1	50	2 (2)	3.00	---	1.00 to 3.00	27/10/2022 13:00:45	-	-	-	-	0.3	0.0	19.8	0.0	0.8	1	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	30 secs	-	-	-	-	0.4	0.0	19.3	0.0	1.0	1	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	60 secs	-	-	-	-	0.4	0.0	19.2	0.0	1.1	3	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	90 secs	-	-	-	-	0.4	0.0	19.2	0.0	1.1	3	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	120 secs	-	-	-	-	0.4	0.0	19.2	0.0	1.1	3	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	180 secs	-	-	-	-	0.3	0.0	19.4	0.0	0.8	3	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				23 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP27	1	50	2 (2)	---	---	1.00 to 3.00	240 secs	-	-	-	-	0.2	0.0	19.9	0.0	0.3	3	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	300 secs	-	-	-	-	0.1	0.0	19.9	0.0	0.1	3	0
CP27	1	50	2 (2)	---	---	1.00 to 3.00	360 secs	-	-	-	-	0.1	0.0	20.0	0.0	0.0	3	0
CP27	1	50	2 (3)	3.00	3.15	1.00 to 3.00	27/10/2022 13:07:00	-	-	-	1.25	-	-	-	-	-	-	-
CP27	1	50	3	3.00	---	1.00 to 3.00	11/11/2022 10:02:31	1016	1016	0.0 _(l)	-	-	-	-	-	-	-	-
CP27	1	50	3	---	---	1.00 to 3.00	5 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-	-
CP27	1	50	3 (2)	3.00	---	1.00 to 3.00	11/11/2022 10:03:22	-	-	-	-	0.2	0.0	21.3	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	15 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	30 secs	-	-	-	-	0.2	0.0	20.9	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	61 secs	-	-	-	-	0.2	0.0	20.9	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	91 secs	-	-	-	-	0.2	0.0	20.8	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	121 secs	-	-	-	-	0.2	0.0	20.9	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	181 secs	-	-	-	-	0.3	0.0	20.8	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	241 secs	-	-	-	-	0.3	0.0	20.7	0.0	-	0	0
CP27	1	50	3 (2)	---	---	1.00 to 3.00	301 secs	-	-	-	-	0.3	0.0	20.8	0.0	-	0	0
CP27	1	50	3 (3)	3.00	3.25	1.00 to 3.00	11/11/2022 10:12:31	-	-	-	1.40	-	-	-	-	0.3	-	-
CP28	1	50	1	4.60	---	1.00 to 5.00	13/10/2022 09:00:00	1003	1009	-1.4 _(l)	-	-	-	-	-	-	-	-
CP28	1	50	1	---	---	1.00 to 5.00	30 secs	1004	1009	-1.3 _(SS)	-	-	-	-	-	-	-	-
CP28	1	50	1 (2)	4.60	---	1.00 to 5.00	13/10/2022 09:00:45	-	-	-	-	0.8	0.0	20.3	0.0	0.0	0	0
CP28	1	50	1 (2)	---	---	1.00 to 5.00	30 secs	-	-	-	-	0.9	0.0	19.9	0.0	0.0	0	0
CP28	1	50	1 (2)	---	---	1.00 to 5.00	60 secs	-	-	-	-	0.9	0.0	19.6	0.0	0.0	3	0
CP28	1	50	1 (2)	---	---	1.00 to 5.00	90 secs	-	-	-	-	0.9	0.0	19.5	0.0	0.0	3	0
CP28	1	50	1 (2)	---	---	1.00 to 5.00	120 secs	-	-	-	-	0.9	0.0	19.5	0.0	0.0	3	0
CP28	1	50	1 (2)	---	---	1.00 to 5.00	180 secs	-	-	-	-	0.9	0.0	19.5	0.0	0.0	3	0

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				24 of 25 	

IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	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 (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
CP28	1	50	1 (3)	4.60	4.50	1.00 to 5.00	13/10/2022 09:04:00	-	-	-	DRY	-	-	-	-	-	-	-
CP28	1	50	2	4.60	---	1.00 to 5.00	27/10/2022 13:20:00	1005	1017	-2.6 _(I)	-	-	-	-	-	-	-	-
CP28	1	50	2	---	---	1.00 to 5.00	30 secs	1006	1017	-2.5 _(SS)	-	-	-	-	-	-	-	-
CP28	1	50	2 (2)	4.60	---	1.00 to 5.00	27/10/2022 13:20:45	-	-	-	-	0.9	0.0	19.6	0.0	0.4	3	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	30 secs	-	-	-	-	0.9	0.0	19.2	0.0	0.5	3	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	60 secs	-	-	-	-	0.9	0.0	19.0	0.0	0.4	2	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	90 secs	-	-	-	-	0.9	0.0	19.0	0.0	0.3	3	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	120 secs	-	-	-	-	1.0	0.0	19.0	0.0	0.2	3	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	180 secs	-	-	-	-	1.0	0.0	19.0	0.0	0.1	3	0
CP28	1	50	2 (2)	---	---	1.00 to 5.00	240 secs	-	-	-	-	1.0	0.0	19.0	0.0	0.0	3	0
CP28	1	50	2 (3)	4.60	4.47	1.00 to 5.00	27/10/2022 13:25:00	-	-	-	DRY	-	-	-	-	-	-	-
CP28	1	50	3	4.60	---	1.00 to 5.00	11/11/2022 10:25:47	1015	1015	0.0 _(I)	-	-	-	-	-	-	-	-
CP28	1	50	3	---	---	1.00 to 5.00	5 secs	-	-	0.0 _(SS)	-	-	-	-	-	-	-	-
CP28	1	50	3 (2)	4.60	---	1.00 to 5.00	11/11/2022 10:26:32	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	15 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	31 secs	-	-	-	-	0.1	0.0	21.3	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	60 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	90 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	120 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	181 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	241 secs	-	-	-	-	0.2	0.0	21.2	0.0	-	0	0
CP28	1	50	3 (2)	---	---	1.00 to 5.00	301 secs	-	-	-	-	0.2	0.0	21.3	0.0	-	0	0
CP28	1	50	3 (3)	4.60	3.81	1.00 to 5.00	11/11/2022 10:34:06	-	-	-	3.81	-	-	-	-	0.0	-	-

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

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/2023	
	Contract:				Page:
EMG Phase 2				25 of 25 	

IN-SITU WATER MONITORING RESULTS

	Start Date	End Date	Weather	Ground Conditions	Wind Conditions	Air Temperature (°C)	Equipment Used & Remarks
Round 1	13/10/2022	14/10/2022	Dry and Bright	Dry	None	14	
Round 2	26/10/2022	27/10/2022	Overcast	Wet	Light	15	
Round 3	02/11/2022	03/11/2022	Overcast	Wet	Strong	-	
Round 4	09/11/2022	14/11/2022	-	-	-	-	

Exploratory Position ID	Pipe Ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH01	1	50	2 / 1	7.00	6.87	1.00 to 7.00	26/10/2022 16:41	5.79	---	---	---	---	---	
BH01	1	50	4 / 1	7.00	6.81	1.00 to 7.00	09/11/2022 10:07	5.83	---	---	---	---	---	
BH02	1	50	3 / 1	20.00	19.98	4.00 to 20.00	02/11/2022 10:02	8.03	---	---	---	---	---	
BH02	1	50	3 / 1	---		---	02/11/2022 10:10	8.03	7.58	125	1039	11.1	5.7	
BH02	1	50	3 / 1	---		---	02/11/2022 10:13	8.03	7.32	125	0	11.2	3.2	
BH02	1	50	3 / 1	---		---	02/11/2022 10:16	8.03	7.29	129	1037	11.3	3.0	
BH02	1	50	3 / 1	---		---	02/11/2022 10:19	8.03	7.26	129	1037	11.3	3.0	
BH02	1	50	3 / 1	---		---	02/11/2022 10:22	8.03	7.26	129	1036	11.4	3.0	
BH04	1	50	3 / 1	30.00	29.01	6.00 to 30.30	02/11/2022 11:30	10.91	---	---	---	---	---	
BH04	1	50	3 / 1	---		---	02/11/2022 11:37	10.91	7.43	128	879	12.3	5.7	
BH04	1	50	3 / 1	---		---	02/11/2022 11:40	10.91	7.18	131	869	11.2	0.3	
BH04	1	50	3 / 1	---		---	02/11/2022 11:43	10.91	7.15	129	689	11.1	0.2	
BH04	1	50	3 / 1	---		---	02/11/2022 11:46	10.91	7.14	126	874	11.1	0.2	
BH04	1	50	3 / 1	---		---	02/11/2022 11:49	10.91	7.14	124	869	11.2	0.2	
BH04	1	50	3 / 1	---		---	02/11/2022 11:52	10.91	7.14	122	869	11.1	0.3	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
	 Contract:	05/05/2023	 EMG Phase 2	05/05/23	765514 Page: 1 of 7 

IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH05	1	50	2 / 1	7.00	7.24	5.00 to 7.00	26/10/2022 16:57	4.99	---	---	---	---	---	
BH05	1	50	3 / 1	7.00	7.25	5.00 to 7.00	02/11/2022 12:10	4.98	---	---	---	---	---	
BH05	1	50	3 / 1	---		---	02/11/2022 12:13	4.98	7.77	1139	720	12.4	3.1	
BH05	1	50	3 / 1	---		---	02/11/2022 12:16	4.98	7.78	141	721	12.4	2.6	
BH05	1	50	3 / 1	---		---	02/11/2022 12:19	4.98	7.77	142	720	12.4	2.2	
BH05	1	50	3 / 1	---		---	02/11/2022 12:22	4.98	7.77	141	719	12.4	2.1	
BH05	1	50	4 / 1	7.00	7.13	5.00 to 7.00	09/11/2022 12:45	4.84	---	---	---	---	---	
BH06	1	50	3 / 1	30.80	31.09	18.00 to 30.80	02/11/2022 11:30	7.08	---	---	---	---	---	
BH06	1	50	3 / 1	30.80	31.09	18.00 to 30.80	02/11/2022 12:01	7.08	6.85	-16	908	13.1	7.2	
BH06	1	50	3 / 1	---		---	02/11/2022 12:04	7.08	6.99	-59	922	12.3	2.8	
BH06	1	50	3 / 1	---		---	02/11/2022 12:07	7.08	7.00	-63	910	12.2	1.4	
BH06	1	50	3 / 1	---		---	02/11/2022 12:10	7.08	6.99	-63	918	12.1	0.7	
BH06	1	50	3 / 1	---		---	02/11/2022 12:13	7.08	6.99	-63	1312	12.1	0.4	
BH06	1	50	3 / 1	---		---	02/11/2022 12:16	7.08	7.00	-63	906	12.1	0.1	
BH06	1	50	3 / 1	---		---	02/11/2022 12:19	7.08	6.99	-63	899	12.1	0.0	
BH06	1	50	3 / 1	---		---	02/11/2022 12:22	7.08	6.99	-63	902	12.1	0.0	
BH06	1	50	4 / 1	30.80	30.72	18.00 to 30.80	09/11/2022 12:50	6.85	---	---	---	---	---	
BH09	1	50	1 / 1	18.00	12.30	14.00 to 18.00	14/10/2022 09:00	2.75	---	---	---	---	---	
BH09	1	50	2 / 1	18.00	17.60	14.00 to 18.00	26/10/2022 17:22	3.52	---	---	---	---	---	
BH09	1	50	3 / 1	18.00	17.69	14.00 to 18.00	02/11/2022 15:40	3.44	---	---	---	---	---	
BH09	1	50	3 / 1	---		---	02/11/2022 15:46	3.44	6.50	18	918	13.0	4.3	
BH09	1	50	3 / 1	---		---	02/11/2022 15:49	3.44	6.74	15	785	12.5	2.0	
BH09	1	50	3 / 1	---		---	02/11/2022 15:52	3.44	6.79	14	779	12.4	0.8	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref:
		05/05/2023		05/05/23	765514
	Contract:				Page:

EMG Phase 2

2 of 7 

IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH09	1	50	3 / 1	---		---	02/11/2022 15:55	3.44	6.80	13	773	12.5	0.3	
BH09	1	50	3 / 1	---		---	02/11/2022 15:58	3.44	6.83	11	757	12.4	0.0	
BH09	1	50	3 / 1	---		---	02/11/2022 16:01	3.44	6.83	11	760	12.5	0.0	
BH09	1	50	3 / 1	---		---	02/11/2022 16:04	3.44	6.83	10	753	12.4	0.0	
BH09	1	50	4 / 1	18.00	17.50	14.00 to 18.00	09/11/2022 13:15	6.52	---	---	---	---	---	
BH09	2	19	4 / 2	12.50	12.33	7.00 to 12.50	09/11/2022 13:20	3.11	---	---	---	---	---	
BH10	1	50	3 / 1	20.20	19.31	3.00 to 20.20	02/11/2022 14:44	15.43	---	---	---	---	---	
BH10	1	50	3 / 1	---		---	02/11/2022 14:49	15.43	7.31	146	1102	11.5	0.5	
BH10	1	50	3 / 1	---		---	02/11/2022 14:52	15.43	7.07	152	1102	11.5	0.5	
BH11	1	50	2 / 1	31.00	6.98	13.00 to 31.00	26/10/2022 17:55	2.16	---	---	---	---	---	
BH11	1	50	4 / 1	31.00	30.45	13.00 to 31.00	09/11/2022 13:30	8.68	---	---	---	---	---	
BH12	1	50	2 / 1	30.80	31.00	16.00 to 30.80	26/10/2022 17:00	6.97	---	---	---	---	---	
BH12	1	50	4 / 1	30.80	30.60	16.00 to 30.80	09/11/2022 11:30	6.97	---	---	---	---	---	
BH13	1	50	3 / 1	30.00	29.33	8.00 to 30.00	03/11/2022 08:22	11.42	---	---	---	---	---	
BH13	1	50	3 / 1	---		---	03/11/2022 08:25	11.42	7.87	145	1014	10.5	7.3	
BH13	1	50	3 / 1	---		---	03/11/2022 08:28	11.42	7.27	157	1013	10.6	5.7	
BH13	1	50	3 / 1	---		---	03/11/2022 08:31	11.42	7.21	159	1015	10.7	5.6	
BH13	1	50	3 / 1	---		---	03/11/2022 08:34	11.42	7.15	163	1013	10.7	5.5	
BH13	1	50	3 / 1	---		---	03/11/2022 08:37	11.42	7.18	162	1010	10.6	5.4	
BH14	1	50	2 / 1	11.50	11.68	1.00 to 11.50	26/10/2022 15:04	8.75	---	---	---	---	---	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
	 Contract:	05/05/2023	 EMG Phase 2	05/05/23	

IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH14	1	50	4 / 1	11.50	11.59	1.00 to 11.50	09/11/2022 10:20	8.79	---	---	---	---	---	
BH16	1	50	2 / 1	20.00	19.63	2.00 to 20.00	26/10/2022 15:18	4.48	---	---	---	---	---	
BH16	1	50	4 / 1	20.00	19.53	2.00 to 20.00	09/11/2022 10:30	4.42	---	---	---	---	---	
BH17	1	50	3 / 1	4.50	6.63	1.00 to 4.50	03/11/2022 10:24	1.87	---	---	---	---	---	
BH17	1	50	3 / 1	---	---	---	03/11/2022 10:28	1.87	7.44	144	1030	11.3	5.1	
BH17	1	50	3 / 1	---	---	---	03/11/2022 10:31	1.87	7.41	147	1030	11.8	0.8	
BH17	1	50	3 / 1	---	---	---	03/11/2022 10:34	1.87	7.40	145	1028	11.9	0.6	
BH17	1	50	3 / 1	---	---	---	03/11/2022 10:37	1.87	7.40	143	1034	12.0	0.5	
BH17	1	50	3 / 1	---	---	---	03/11/2022 10:40	1.87	7.40	141	1031	12.2	0.4	
BH18	1	50	3 / 1	16.00	20.22	4.50 to 16.00	03/11/2022 09:07	6.18	---	---	---	---	---	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:13	6.18	7.33	162	948	10.8	2.8	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:16	6.18	7.28	163	942	11.0	1.7	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:19	6.18	7.26	162	938	11.0	1.5	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:22	6.18	7.26	160	936	11.1	1.9	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:25	6.18	7.25	159	936	11.1	1.4	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:28	6.18	7.25	157	933	11.1	1.3	
BH18	1	50	3 / 1	---	---	---	03/11/2022 09:31	6.18	7.25	155	933	11.1	1.1	
BH21	1	50	3 / 1	30.00	29.30	5.00 to 30.00	03/11/2022 08:10	9.44	---	---	---	---	---	
BH21	1	50	3 / 1	---	---	---	03/11/2022 08:37	9.44	7.01	-43	1121	11.1	8.1	
BH21	1	50	3 / 1	---	---	---	03/11/2022 08:40	9.44	7.05	-99	1130	11.4	7.4	
BH21	1	50	3 / 1	---	---	---	03/11/2022 08:43	9.44	6.85	-54	1131	11.6	6.7	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
		05/05/2023		05/05/23	
	Contract: EMG Phase 2				

IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH21	1	50	3 / 1	---		---	03/11/2022 08:46	9.44	6.90	-45	1132	11.7	5.9	
BH21	1	50	3 / 1	---		---	03/11/2022 08:49	9.44	6.89	-40	1123	11.6	5.5	
BH21	1	50	3 / 1	---		---	03/11/2022 08:52	9.44	6.88	-35	1131	11.6	5.2	
BH21	1	50	3 / 1	---		---	03/11/2022 08:55	9.44	6.87	-29	1132	11.6	4.9	
BH21	1	50	3 / 1	---		---	03/11/2022 08:58	9.44	6.86	-24	1139	11.6	4.6	
BH21	1	50	3 / 1	---		---	03/11/2022 09:01	9.44	6.85	-20	1150	11.5	4.6	
BH21	1	50	3 / 1	---		---	03/11/2022 09:04	9.44	6.84	-15	1141	11.5	4.7	
BH24	1	50	2 / 1	5.00	5.05	1.00 to 5.00	26/10/2022 16:06	3.35	---	---	---	---	---	
BH24	1	50	3 / 1	5.00	5.25	1.00 to 5.00	03/11/2022 12:10	3.66	---	---	---	---	---	
BH24	1	50	3 / 1	---		---	03/11/2022 12:22	3.66	7.04	-3	1059	14.6	6.2	
BH24	1	50	3 / 1	---		---	03/11/2022 12:25	3.66	6.99	-42	1079	14.4	3.7	
BH24	1	50	3 / 1	---		---	03/11/2022 12:28	3.66	6.98	-47	1071	14.6	1.4	
BH24	1	50	3 / 1	---		---	03/11/2022 12:31	3.66	6.98	-49	1065	14.9	0.7	
BH24	1	50	3 / 1	---		---	03/11/2022 12:34	3.66	6.98	-50	1066	15.1	0.7	
BH24	1	50	3 / 1	---		---	03/11/2022 12:37	3.66	6.98	-49	1060	15.1	0.7	
BH24	1	50	4 / 1	5.00	4.97	1.00 to 5.00	09/11/2022 10:50	3.58	---	---	---	---	---	
BH25	1	50	2 / 1	20.00	20.02	4.00 to 20.00	26/10/2022 16:10	3.89	---	---	---	---	---	
BH25	1	50	3 / 1	20.00	20.09	4.00 to 20.00	02/11/2022 10:50	4.05	---	---	---	---	---	
BH25	1	50	3 / 1	---		---	02/11/2022 10:55	4.05	7.01	-53	1372	11.0	8.9	
BH25	1	50	3 / 1	---		---	02/11/2022 10:58	4.05	6.91	-43	1460	11.9	6.7	
BH25	1	50	3 / 1	---		---	02/11/2022 11:01	4.05	6.90	-37	1487	12.3	3.7	
BH25	1	50	3 / 1	---		---	02/11/2022 11:04	4.05	6.88	-24	1489	12.5	1.5	
BH25	1	50	3 / 1	---		---	02/11/2022 11:07	4.05	6.89	-34	1492	12.6	0.7	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
	 Contract:	05/05/2023	 EMG Phase 2	05/05/23	

IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
BH25	1	50	3 / 1	---		---	02/11/2022 11:10	4.05	6.91	-34	1509	12.6	0.4	
BH25	1	50	3 / 1	---		---	02/11/2022 11:13	4.05	6.90	-33	1499	12.6	0.2	
BH25	1	50	3 / 1	---		---	02/11/2022 11:16	4.05	6.90	-33	1491	12.7	0.0	
BH25	1	50	3 / 1	---		---	02/11/2022 11:19	4.05	6.91	-33	1495	12.7	0.0	
BH25	1	50	4 / 1	20.00	19.87	4.00 to 20.00	09/11/2022 10:55	4.20	---	---	---	---	---	
BH27	1	50	2 / 1	4.00	3.94	1.00 to 4.00	26/10/2022 15:33	2.90	---	---	---	---	---	
BH27	1	50	4 / 1	4.00	3.83	1.00 to 4.00	09/11/2022 10:40	2.57	---	---	---	---	---	
CP01	1	50	3 / 1	7.50	7.74	1.00 to 7.81	02/11/2022 09:55	7.52	---	---	---	---	---	
CP06	1	50	3 / 1	11.00	11.09	1.00 to 11.26	02/11/2022 14:30	7.07	---	---	---	---	---	
CP06	1	50	3 / 1	---		---	02/11/2022 14:39	7.07	6.85	-3	1061	13.3	7.3	
CP06	1	50	3 / 1	---		---	02/11/2022 14:42	7.07	6.87	-8	1068	13.1	3.4	
CP06	1	50	3 / 1	---		---	02/11/2022 14:45	7.07	6.88	-8	1080	13.1	1.7	
CP06	1	50	3 / 1	---		---	02/11/2022 14:48	7.07	6.86	-7	1081	13.1	1.1	
CP06	1	50	3 / 1	---		---	02/11/2022 14:51	7.07	6.86	-6	1098	13.1	0.9	
CP06	1	50	3 / 1	---		---	02/11/2022 14:54	7.07	6.86	-6	1107	13.1	0.8	
CP06	1	50	3 / 1	---		---	02/11/2022 14:57	7.07	6.85	-4	1088	13.1	0.7	
CP10	1	50	3 / 1	8.50	8.81	1.00 to 8.60	02/11/2022 15:56	4.46	---	---	---	---	---	
CP10	1	50	3 / 1	---		---	02/11/2022 16:01	4.46	7.29	149	1064	12.3	2.3	
CP10	1	50	3 / 1	---		---	02/11/2022 16:04	4.46	7.17	150	1066	12.2	0.7	
CP10	1	50	3 / 1	---		---	02/11/2022 16:07	4.46	7.14	149	1067	12.1	0.5	
CP10	1	50	3 / 1	---		---	02/11/2022 16:10	4.46	7.13	146	1066	12.1	0.4	

Key: NDA denotes 'no data available'.



STRUCTURAL SOILS
The Potteries
Pottery Street
Castleford
W. Yorkshire WF10 1NJ

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Date

05/05/23

Contract Ref:

765514

Contract:

EMG Phase 2

Page:

6 of 7



IN-SITU WATER MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe Diameter (mm)	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	pH	ORP (mV)	Conductivity (uS/cm)	Temperature (°C)	Dissolved Oxygen (mg/l)	Remarks
CP10	1	50	3 / 1	---		---	02/11/2022 16:13	4.46	7.12	144	1066	12.0	0.4	
CP11	1	50	3 / 1	6.20	6.65	1.00 to 6.20	09/11/2022 13:45	2.03	---	---	---	---	---	
CP16	1	50	3 / 1	9.00	8.85	5.75 to 9.10	09/11/2022 11:25	3.88	---	---	---	---	---	
CP17	1	50	2 / 1	17.00	16.36	14.00 to 17.21	26/10/2022 14:00	6.38	---	---	---	---	---	
CP17	1	50	3 / 1	17.00	16.50	14.00 to 17.21	09/11/2022 11:35	7.86	---	---	---	---	---	
CP27	1	50	3 / 1	3.00	3.44	1.00 to 3.00	03/11/2022 12:10	1.51	---	---	---	---	---	
CP27	1	50	3 / 1	---		---	03/11/2022 12:13	1.51	7.58	140	990	13.2	4.3	
CP27	1	50	3 / 1	---		---	03/11/2022 12:16	1.51	7.31	143	990	13.4	1.1	
CP27	1	50	3 / 1	---		---	03/11/2022 12:19	1.51	7.28	143	990	13.5	0.9	
CP27	1	50	3 / 1	---		---	03/11/2022 12:22	1.51	7.26	141	991	13.5	0.8	
CP27	1	50	3 / 1	---		---	03/11/2022 12:25	1.51	7.25	139	991	13.5	0.8	
SW1	1	NDA	3 / 1	NDA	0.00	NDA to NDA	02/11/2022 13:10	0.00	---	---	---	---	---	
SW2	1	NDA	3 / 1	NDA	0.00	NDA to NDA	02/11/2022 13:45	0.00	7.88	131	1085	13.9	8.3	
SW3	1	NDA	3 / 1	NDA	0.00	NDA to NDA	02/11/2022 13:30	0.00	---	---	---	---	---	
SW3	1	NDA	3 / 1	---		---	02/11/2022 13:45	0.00	6.86	-23	914	14.4	7.8	

Key: NDA denotes 'no data available'.

 STRUCTURAL SOILS The Potteries Pottery Street Castleford W. Yorkshire WF10 1NJ	Compiled By	Date	Checked By	Date	Contract Ref: 765514
	 Contract:	05/05/2023	 EMG Phase 2	05/05/23	

APPENDIX G - CALIBRATION CERTIFICATES

- (i) SPT Calibration Records
- (ii) Hand Vane Calibration Records
- (iii) Gas Analyser Calibration Records
- (iv) Photo ionisation Detector (PID) Calibration Records

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

ARCHWAY ENGINEERING UK LTD
AINLEYS INDUSTRIAL ESTATE
ELLAND
WEST YORKSHIRE
HX5 9JP

SPT Hammer Ref: AR1862
Test Date: 01/04/2022
Report Date: 01/04/2022
File Name: AR1862.spt
Test Operator: CM

Instrumented Rod Data

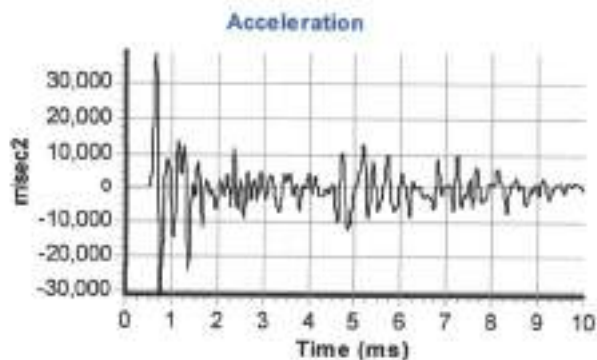
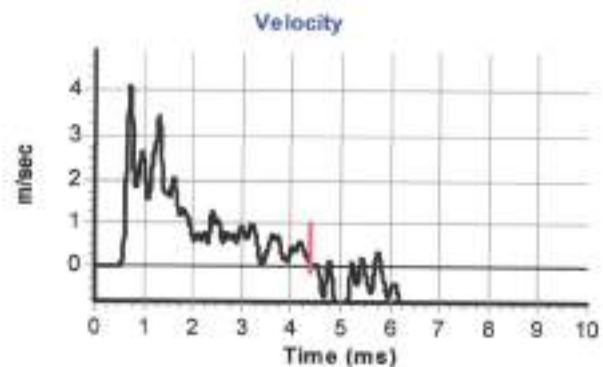
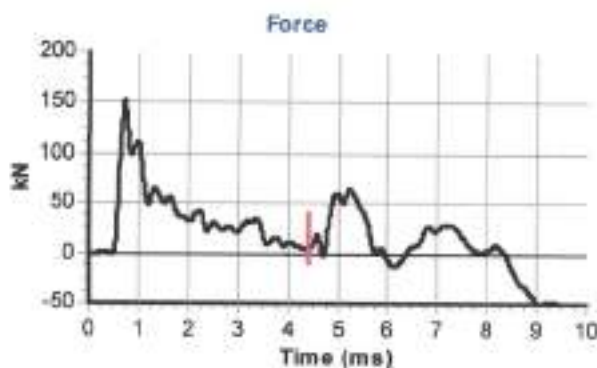
Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.0
Assumed Modulus E_a (GPa): 200
Accelerometer No.1: 7080
Accelerometer No.2: 11609

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 10.0

Comments / Location

STRUCTURAL SOILS LTD/79789



Calculations

Area of Rod A (mm²): 905
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 307

Energy Ratio E_r (%): **65**

Signed: C. McCLUSKEY
Title: FITTER

The recommended calibration interval is 12 months



Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Dynamic Sampling Uk Ltd
Unit 8 Victory Park
Victory Road
Derby
DE24 8ZF

Hammer Ref: AR3293
Test Date: 09/09/2022
Report Date: 12/09/2022
File Name: AR3293.spt
Test Operator: B.HUNTER

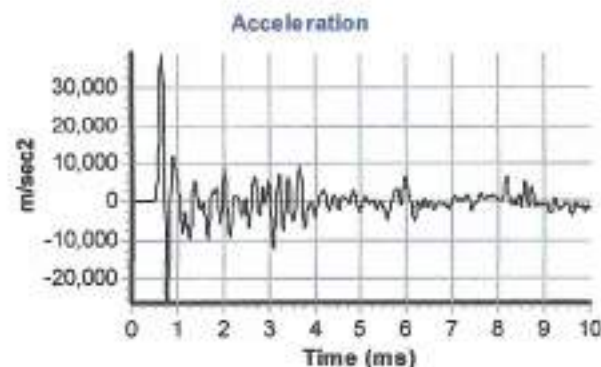
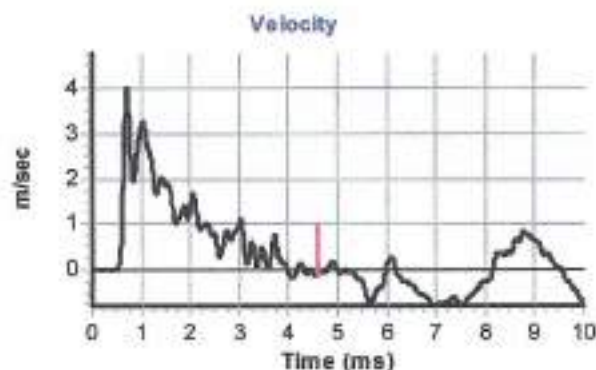
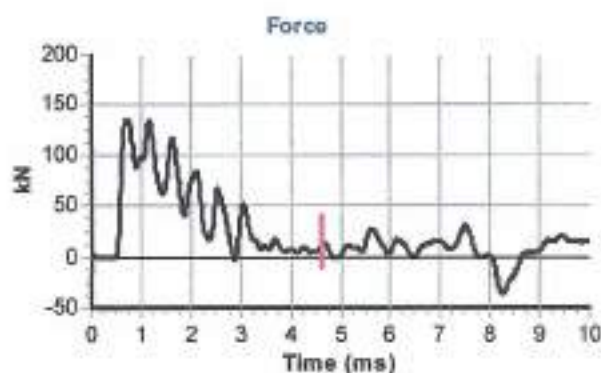
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.5
Assumed Modulus E_s (GPa): 208
Accelerometer No.1: 62901
Accelerometer No.2: 62902

Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
String Length L (m): 10.0

Comments / Location



Calculations

Area of Rod A (mm²): 970
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 347

Energy Ratio E_r (%): **73**

Signed: B.Hunter
Title: Operations Manager

The recommended calibration interval is 12 months



JB Site Investigations Ltd
Ramparts Business Park
Berwick upon Tweed
TD15 1TB
Tel: 01289 304646

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

SPT Hammer Ref: JB05
Test Date: 25/08/2022
Report Date:
File Name: JB05.spt
Test Operator: SP

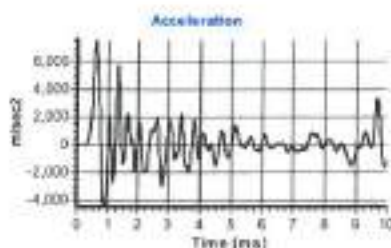
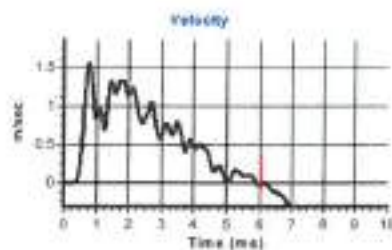
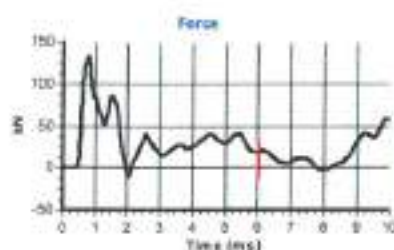
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.1
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 6178
Accelerometer No.2: 5843

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 13.0

Comments / Location



Calculations

Area of Rod A (mm²): 918
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 321

Energy Ratio E_r (%): **68**

Signed: Neil Redfern
Title: Operations Director

SPT Hammer Energy Test Report

In accordance with BSEN ISO 22476-3:2005

ARCHWAY ENGINEERING UK LTD
AINLEYS INDUSTRIAL ESTATE
ELLAND
WEST YORKSHIRE
HX5 9JP

SPT Hammer Ref: AR3104
Test Date: 25/04/2022
Report Date: 25/04/2022
File Name: AR3104.spt
Test Operator: JL

Instrumented Rod Data

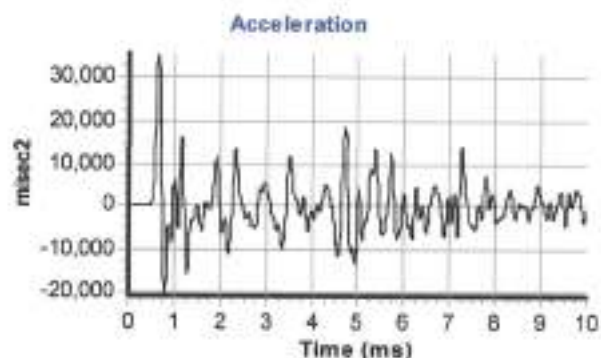
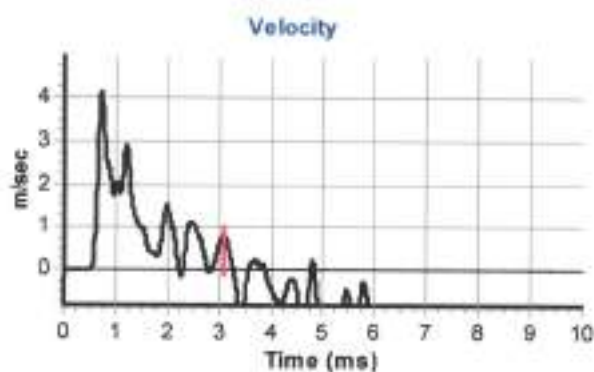
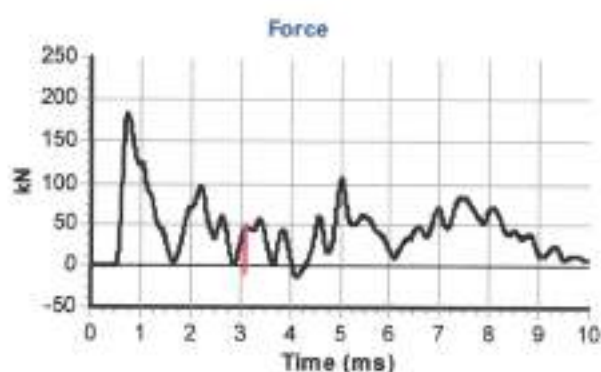
Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.5
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 72572
Accelerometer No.2: 72757

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 10.0

Comments / Location

STRUCTURAL SOILS



Calculations

Area of Rod A (mm²): 970
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 303

Energy Ratio E_r (%): **64**

Signed: J.LOCK
Title: FITTER

Unit 25 Stella Gill Industrial Estate
Pelton Fell
Chester-le-Street
DH2 2RG

SPT Hammer Energy Test Report

in accordance with BS EN ISO 22476-3:2005

SPT Hammer Ref: DSS-1-22
Test Date: 10/01/2022
Report Date: 10/01/2022
File Name: DSS-1-22.spt
Test Operator: BP

Instrumented Rod Data

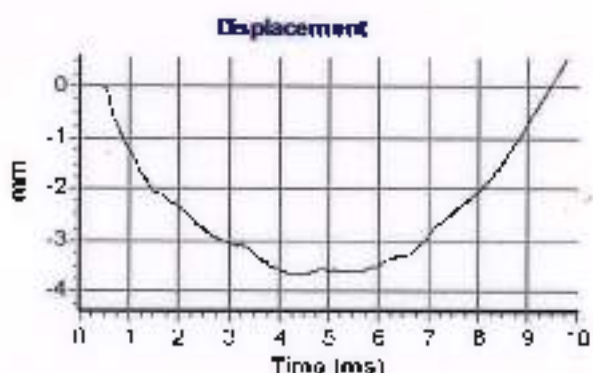
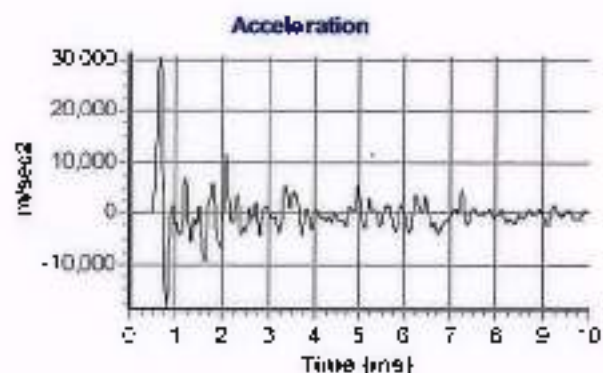
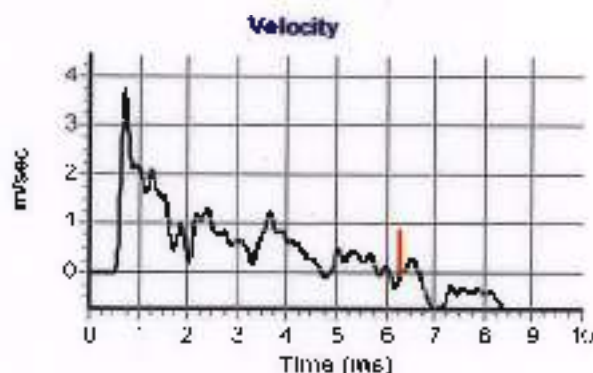
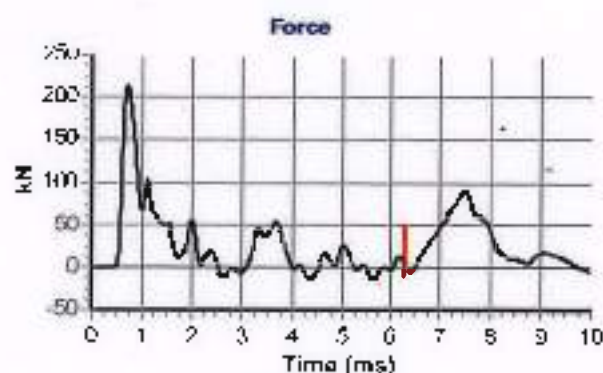
Diameter d_r (mm): 67
Wall Thickness t_r (mm): 8.6
Assumed Modulus E_r (GPa): 208
Accelerometer No.1: 65939
Accelerometer No.2: G62R6

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length l (m): 14.1

Comments / Location

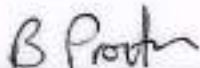
Mass and Drop supplied by client



Calculations

Area of Rod A_r (mm²): 1578
Theoretical Energy E_{Theor} (J): 473
Measured Energy E_{meas} (J): 288

Energy Ratio E_r (%): **61**

Signed: 
Title: Senior Technician

The recommended calibration interval is 12 months



Dynamic Sampling Uk Ltd
Unit 8 Victory Park
Victory Road
Derby
DE24 8ZF

Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Hammer Ref: LS01
Test Date: 06/05/2022
Report Date: 06/05/2022
File Name: LS01.spt
Test Operator: B.HUNTER

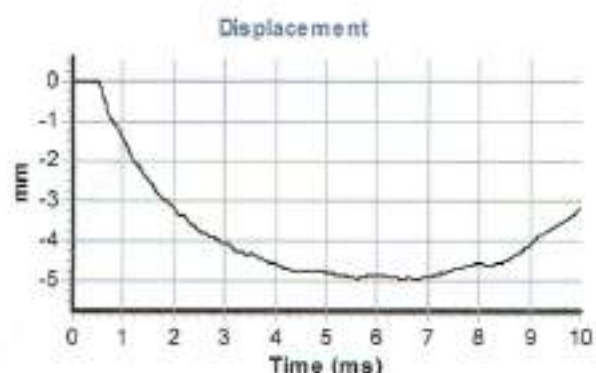
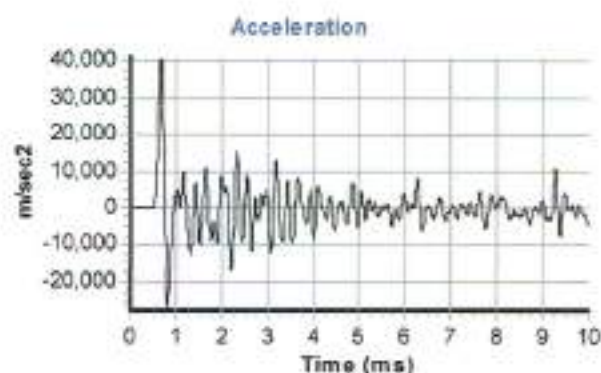
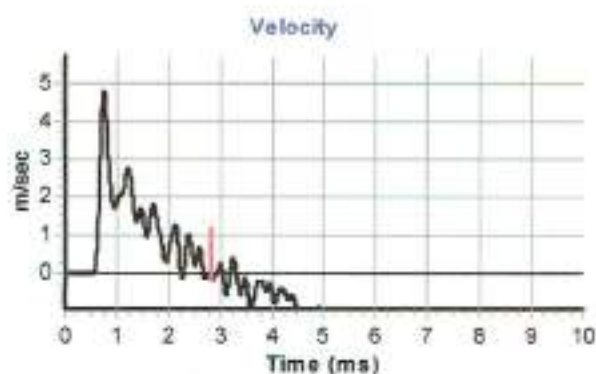
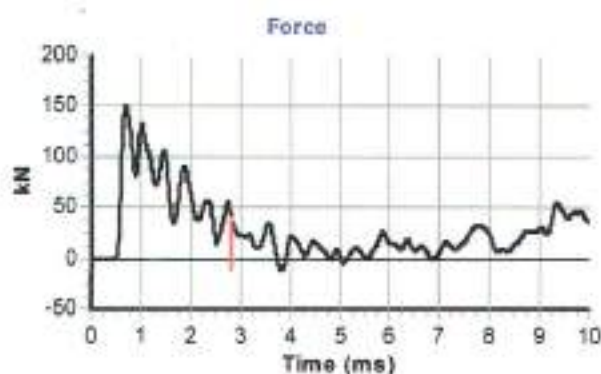
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.5
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 62901
Accelerometer No.2: 62902

Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
String Length L (m): 10.0

Comments / Location



Calculations

Area of Rod A (mm²): 970
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 303

Energy Ratio E_r (%):

64

Signed: B.Hunter
Title: Operations Manager

The recommended calibration interval is 12 months



Scott Pincher
JB Site Investigations
DC103/9
Windmill Way West
Ramparts Business Park

SPT Hammer Energy Test Report

In accordance with BSEN ISO 22476-3:2005



SPT Hammer Ref: AR3469
Test Date: 04/08/2022
Report Date: 04/08/2022
File Name: AR3469.spt
Test Operator: SP

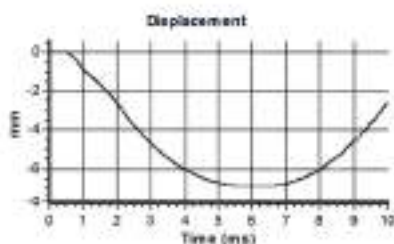
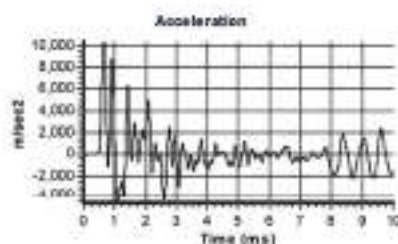
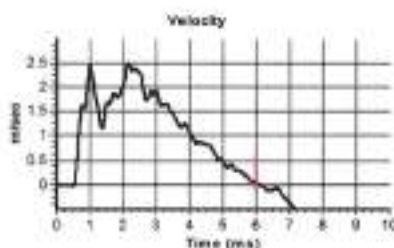
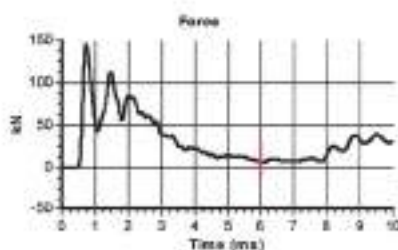
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.1
Rod Length l_r (m): 1.0
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 6178
Accelerometer No.2: 5843

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 13.5

Comments / Location



Calculations

Area of Rod A (mm²): 918
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 397

Energy Ratio E_r (%): **84**

Signed: S. Pincher
Title: Director

SPT Hammer Energy Test Report

In accordance with BSEN ISO 22476-3:2005

ARCHWAY ENGINEERING (UK) LTD
AINLEYS INDUSTRIAL ESTATE
ELLAND
WEST YORKSHIRE
HX5 9JP

SPT Hammer Ref: AR3830
Test Date: 19/11/2021
Report Date: 19/11/2021
File Name: AR3830.spt
Test Operator: JL

Instrumented Rod Data

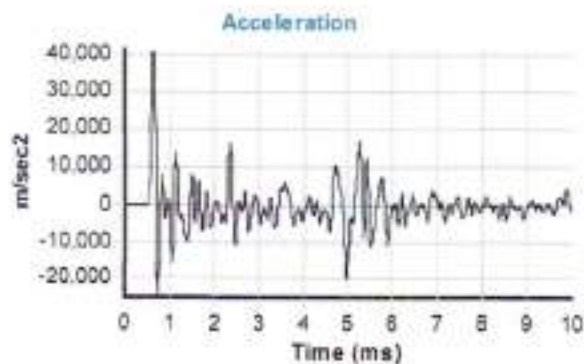
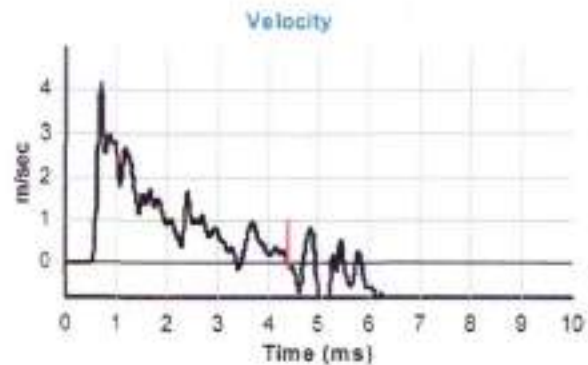
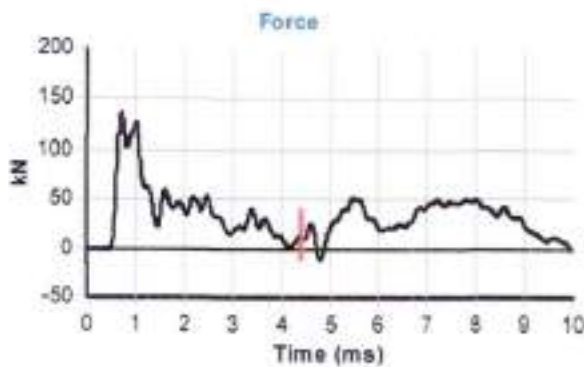
Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.0
Assumed Modulus E_s (GPa): 200
Accelerometer No.1: 7080
Accelerometer No.2: 11609

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 10.0

Comments / Location

STRUCTURAL SOILS LTD - 78193



Calculations

Area of Rod A (mm^2): 905
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 315

Energy Ratio E_r (%): **67**

Signed: J.LOCK
Title: FITTER

The recommended calibration interval is 12 months

JB Site Investigation
Ramparts Business Park
Berwick upon Tweed
TD15 1TB
Tel: 01289 304646

SPT Hammer Ref: JB14
 Test Date: 16/06/2022
 Report Date: 14/07/2022
 File Name: JB14.spt
 Test Operator: JB

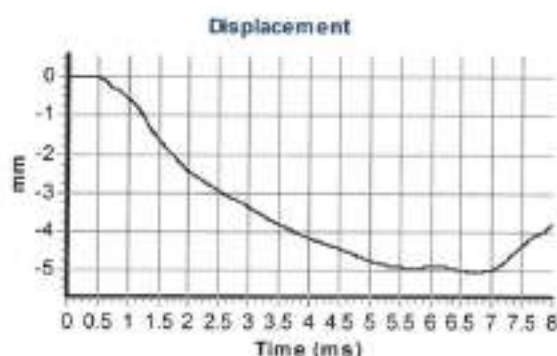
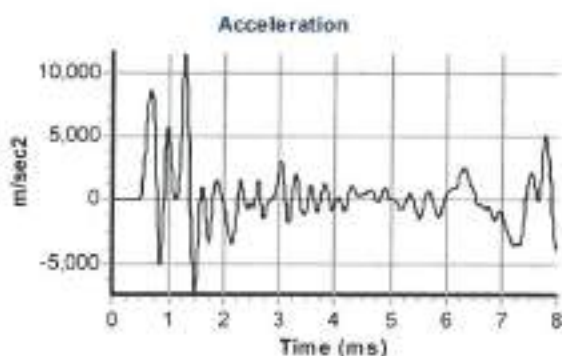
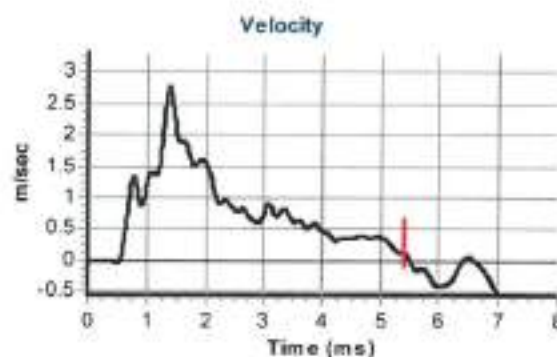
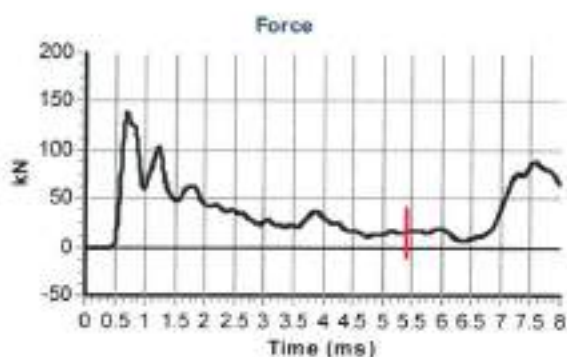
Instrumented Rod Data

Diameter d_r (mm): 54
 Wall Thickness t_r (mm): 6.1
 Assumed Modulus E_a (GPa): 208
 Accelerometer No.1: 6178
 Accelerometer No.2: 5843

SPT Hammer Information

Hammer Mass m (kg): 63.3
 Falling Height h (mm): 760
 SPT String Length L (m): 11.0

Comments / Location



Calculations

Area of Rod A (mm²): 918
 Theoretical Energy E_{theor} (J): 473
 Measured Energy E_{meas} (J): 300

Energy Ratio E_r (%): **63**

Signed:
 Title:





Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Dynamic Sampling Uk Ltd
Unit 8 Victory Park
Victory Road
Derby
DE24 8ZF

Hammer Ref: AR3784
Test Date: 09/09/2022
Report Date: 12/09/2022
File Name: AR3784.spt
Test Operator: B.HUNTER

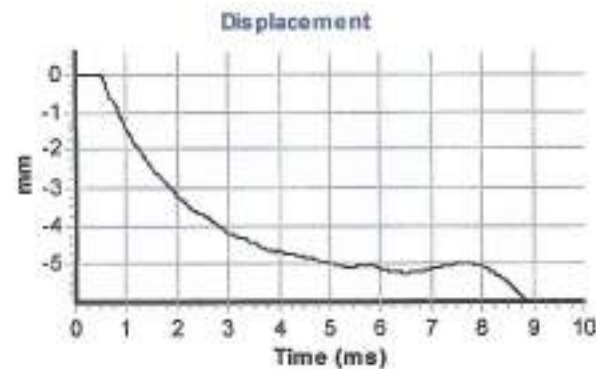
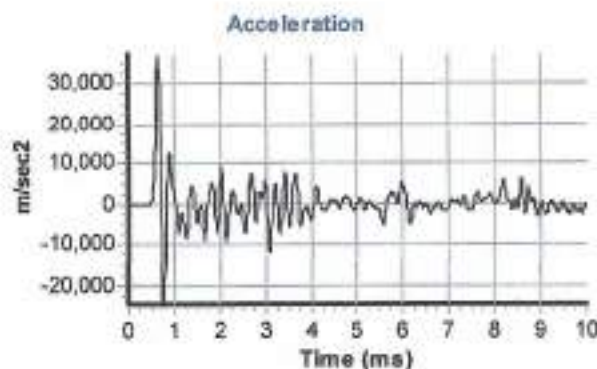
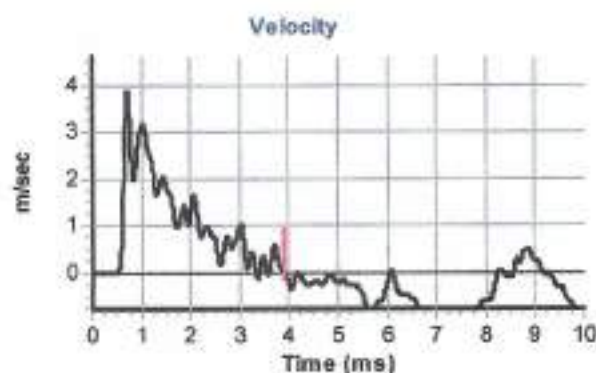
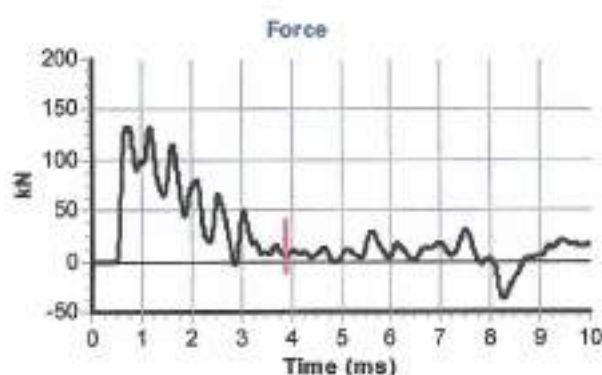
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.5
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 62901
Accelerometer No.2: 62902

Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
String Length L (m): 10.0

Comments / Location



Calculations

Area of Rod A (mm²): 970
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 337

Energy Ratio E_r (%): **71**

Signed: B.Hunter
Title: Operations Manager

The recommended calibration interval is 12 months

CERTIFICATE OF CALIBRATION

ISSUED BY: LAMBDA CALIBRATION LTD

DATE OF ISSUE

31-May-22

CERTIFICATE No: 717655



Lambda
CALIBRATION LTD

11-13 Chorley Central
Business Park
Stump Lane
Chorley
PR6 0BL
Tel 0845 241 1533

Page 1 of 1
APPROVED SIGNATORY


W Pope A Scurr P Davies
M Darbyshire K Quigley

Customer: Structural Soils Ltd, Castleford WF10 1NJ

Item No: 003293 (1418)

Manufacturer: Impact

Description: Hand Held Shear Vane

Date of Cal: 31-May-22

Basis & Method: The unit under test (UUT) was calibrated by comparison with a digital torque analyser according to the methodology outlined in BS EN ISO 6789: 2003, at approximately 20%, 60% & 95% of its full scale deflection. Shear strength was then calculated in accordance with BS 1377, 1990 and is reported in the table at the foot of this certificate.

Equipment Used: LTQA-03, LMB-2A-23

Temperature & RH: Start: 20 degC Finish: 20 degC RH <90%

Axis of Torque: Vertical Axis of Tool Handle: Vertical

Visual Examination: Stop pin found to be bent

Adjustments: None

Measured Vane Sizes (mm):

Vane 1 (H)	51.4	Vane 1 (D)	33.0	Large Vane
Vane 2 (H)	29.1	Vane 2 (D)	19.0	Small Vane

Actual Torque generated by the UUT:

Scale Setting	Torque Analyser Readings (Nm)					Mean Torque N.m	U (+/-) N.m	k
28.00	0.951	0.958	0.951	0.949	0.949	0.952	0.01	2.00
84.00	2.633	2.621	2.620	2.621	2.655	2.630	0.05	2.18
134.00	5.082	5.080	5.076	5.048	4.922	5.042	0.20	2.85

Calculated Shear Strength Values:

Scale Setting	Mean Torque (N.m)	Vane 1 Shear Strength (kPa)	Vane 1 Conv Factor for BS 1377	Vane 2 Shear Strength (kPa)	Vane 2 Conv Factor for BS 1377
28.00	0.952	8.8	0.32	47.4	1.69
84.00	2.630	24.6	0.28	130.9	1.56
134.00	5.042	47.2	0.35	250.9	1.87

1 kPa = 1kNm² = 0.101272 tonne/m² (1 tonne/m² = 9.80665 kPa)

The reported expanded uncertainty for torque U, is based on a standard uncertainty multiplied by a coverage factor k, providing a level of confidence of approximately 95%.

This certificate provides traceability of measurement to recognised national standards, and to the units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full without the prior written approval of the issuing laboratory.

CTM-113A Shear Vane (Impact type - 1 scale 2 vanes)

TEST DATE AND CONDITIONS			
Date	09/06/2022		
Atmospheric Pressure	996	mB	
Ambient Temperature	19.7	°C	
EnviroNics Serial No.	5089		

**GFM430 Final Inspection & Calibration
Check Certificate**

GAS DATA LTD

Unit 1, Fairfield Court

Seven Stars Estate

Wheeler Rd

Coventry

CV4 4JJ

Tel: 02476303311



GAS DATA

GREEN - ANALYSIS - LABS LTD

Fax: 02476107711

Customer	Structural Soils Ltd
Certificate Number	123259
Order Number	330734

Serial Number	10131
Software Version	G430-00.0024/0013

Recalibration DUE Date	09/06/23

Instrument Checks					
Keyboard	✓		Display Contrast	✓	
Pump Flow In	500	Acceptable	Pump Flow @ 240mmB	300	Acceptable
Clock Set / Running	✓		Labels Fitted	✓	

Gas Checks						
Sensor	CH ₄		CO ₂		O ₂	
	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %
	Readings %		Readings %		Readings %	
	59.8	60	39.8	40	20.9	20.9
	Acceptable		Acceptable		Acceptable	
	5.0	5	5.0	5	6.0	6
	Acceptable		Acceptable		Acceptable	
Zero Reading 100% N2	0.0	0	0.0	0	0.0	0
	Acceptable		Acceptable		Acceptable	

Optional Gas Checks						
Applied Gas & Range		Concentration Tested @ (ppm)	Instrument Readings (ppm)			
Toxic Gas	Range (ppm)		Zero Reading		Instrument Gas Reading	
H2S	2000	100	0	Acceptable	1502	Acceptable
CO	2000	1000	0	Acceptable	1000	Acceptable

Cross Gas Effects									
Applied Gas (ppm)		Instrument Readings (ppm)							
Toxic Gas	Concentration	Toxic 1:	H2S	Toxic 2:	CO	Toxic 3:			
H2S	1000	1502		0					
CO	1000	78		1000					
Pressure Checks									
Atmospheric Pressure (AP) (mB)					Static Pressure (SP) (mB)				
Current Atmospheric Pressure (mB)		Instrument Atmospheric Pressure Reading (mB)			Applied Pressure (mB)		Instrument Pressure (mB)		
All Ports		Accepted	996	Accepted	0 mB		N/A	Accepted	0.0
AP Port (Internal)		Accepted	000	Accepted	0 mB		N/A	Accepted	0.0
AP Port (Internal)		Accepted	1200	Accepted	0 mB		N/A	Accepted	0.0
Flow Checks									
Borehole Flow				Differential Pressure					
Applied Reading (l/h)	Instrument Reading (l/h)			Applied Pressure (Pa)	Instrument Reading (Pa)				
10	-28.8	Accepted	Accepted	-277	-265	Accepted	Accepted	Accepted	Accepted
3	-3.0	Accepted	Accepted	-14	-14	Accepted	Accepted	Accepted	Accepted
0	0.0	Accepted	Accepted	0	0	Accepted	Accepted	Accepted	Accepted
3	2.9	Accepted	Accepted	14	13	Accepted	Accepted	Accepted	Accepted
10	20.8	Accepted	Accepted	289	279	Accepted	Accepted	Accepted	Accepted
10	58.1	Accepted	Accepted	859	851	Accepted	Accepted	Accepted	Accepted
10	87.1	Accepted	Accepted	1609	1600	Accepted	Accepted	Accepted	Accepted
Temperature Checks									
Calibration Temperature				Instrument Temperature Reading °C					
Applied Temperature °C									
-10				-10.0	Accepted	Accepted	Accepted	Accepted	Accepted
0				0.0	Accepted	Accepted	Accepted	Accepted	Accepted
20				20.0	Accepted	Accepted	Accepted	Accepted	Accepted
40				40.0	Accepted	Accepted	Accepted	Accepted	Accepted
60				60.0	Accepted	Accepted	Accepted	Accepted	Accepted
100				100.0	Accepted	Accepted	Accepted	Accepted	Accepted

Technician:
Jack Ryeland

Date Tested:
10/06/2022

The instrument identified by the serial number stated above has been tested by Gas Data personnel for calibration accuracy on the date and under the ambient conditions stated. Gas Data Ltd. adheres to BS EN ISO 9001:2015, BS EN ISO 14001:2015, BS EN ISO 45001:2018 compliant working procedures were followed to apply known calibration test gases, gas flow rates, pressures and temperatures of the values stated.

The results displayed on the instrument at each stage are recorded above.

Gas Data Ltd is certified to BS EN ISO 9001:2015, BS EN ISO 14001:2015, BS EN ISO 45001:2018.

TEST DATE AND CONDITIONS			
Date	9.6.22		
Atmospheric Pressure	976	mB	
Ambient Temperature	19.7	°C	
Electronics Serial No.	5089		

GAS DATA LTD Unit 4 Fairfield Court Seven Stars Estate Coventry CV3 4LJ UK +44 (0)24 7630 3311	 GAS DATA TESTING • ANALYSIS • TRAINING

GFM430 - I OUTWARD INSPECTION & QUALITY CHECK SHEET

INSTRUMENT DETAILS			
SO Number	Instrument Type	Instrument Serial Number + SW Version	Job Number(s)
330734	GFM430	10131 G420 - 24/13	123259

Calibration Technician John

Date 9.6.22

Inspection Technician JD

Date 10.6.22

INSTRUMENT CHECKS		Pass (P), Fail (F) or not applicable (N/A)	INSTRUMENT PACKING LIST		Tick if included
Function Tests	Dust Caps Fitted	P	Instrument		✓
	Keyboard Test (All Keys)	P	Leather Case		✓
	Backlight	P	Instrument Strap		✓
	Clock Set - Running	P	AC Battery Charger (UK)		✓
	Comms Test	P	AC Battery Charger (EU/US)		✓
	Pump Flow Test (In & Out)	P	AC Battery Charger (US)		✓
	Overall Leak Test (30ml)	n/a	AC Battery Charger (US)		✓
	Battery Charge Test	P	Hard Carry Case		✓
	Service Date set to?	9.6.22	Gas Sample Tube (new / old)		✓
Channel Test	Data Logging Enabled?	P	Flow Sample Tube (new / old)		✓
	Verify CH4/LEL	P	Spares Pot		✓
	Verify CO2	P	Allen Key		✓
	Verify O2	P	Temperature Probe		✓
	Verify LEL	P	Vane Anemometer		✓
	Verify 1 st Option Gas	H2S	USB Cable		✓
	Verify 2 nd Option Gas	CO	USB Memory stick		✓
	Verify 3 rd Option Gas	N/A	Suam Software	Ver 4.15	✓
	Verify 4 th Option Gas	N/A	Internal Filter Pack	Qty	✓
	Verify Atmospheric pressure	P	External Filter Pack	Qty	✓
	Verify static pressure	N/A	Field Guide		✓
	Verify differential pressure	P	Operation Manual (hard copy)		✓
	Verify flow	P	Extra Items: <u>Sample Tube</u>		
	Verify temperature probe input	P			
Database Checks	Verify vane anemometer input	P	Comments:		
	Jobcard(s) completed and signed	P			
	Jobcard(s) booked off database	P			
	Calibration certificate completed	P			
Label Checks	Complete & print QI record	n/a			
	No. of Calibration label fitted	600	11469		
H2S Range	Warranty label fitted	P			
	H2S Range from Sales Order	2000	ppm		
	H2S Range from Cal Cert	2000	ppm		
	Over-range value correct?	✓			

CERTIFICATION OF CALIBRATION



Date Of Calibration: 06-Oct-2022

Certificate Number: G503220_2/91356

Issued by: QED Environmental Systems Ltd.

Customer: Structural Soils Limited
Spring Lodge 172 Chester Road Helsby
Frodsham Cheshire WAG 0AR UNITED KINGDOM

Description: Gas Analyser

Model: GA5000

Serial Number: G503220

UKAS Accredited results:

Results after adjustment :

Methane (CH ₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.072
15.0	14.9	0.13
60.0	59.7	0.42

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.074
15.0	14.9	0.13
40.0	40.0	0.29

Oxygen (O ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.2	21.3	0.25

The inwards assessment was carried out 08-Aug-2022.

The maximum adjustment is larger than the specification limit.

Inwards assessment data is available if requested.

All concentrations are molar.

CH₄, CO₂ readings recorded at : 31.6 °C ± 2.5 °C

O₂ readings recorded at : 22.8 °C ± 2.5 °C

Barometric Pressure : 1015 mbar ± 4 mbar

Method of Test : The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP004.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The results relate only to the item calibrated

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institution. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 114 JGC Instance: 114

Page 1 of 2 | J015G1UKAS-2.5

www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd, Cyn Park, Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM
Registered in England and Wales 1898734

CERTIFICATION OF CALIBRATION



Date Of Calibration: 06-Oct-2022

Certificate Number: G503220_2/31356

Issued by: QED Environmental Systems Ltd.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

Non-UKAS accredited results after adjustment:

Barometer (mbar)	
Reference	Instrument Reading
1015	1015

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
CO	499	499
H ₂ S	52.6	53

Date of Issue: 06-Oct-2022

Approved by Signatory

Seelay Knight

Laboratory Inspection

End of Certificate

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Scheme. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 134 16C Instance: 134

Page: 2 of 2 | LP01SGIUKAS-2.5

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QED Environmental Systems Ltd, Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales: 1698714



Instrument Service Report

Page 1 of 3

Unit Type: GA5000	Part Number: GA5KB0B0-101	Date: 06-Oct-2022	Next Service Due: 06-Apr-2023	Customer Name: Structural Soils Limited
Serial Number: G503220				
Actions/Investigation Description		Result	Comments	
Serial Number Check		Yes		
Battery Requires Replacing		No		
Internal Flow Calibrated		Yes		
Full Automatic Calibration		Pass		
Serial Comms Test (USB)		Pass		
Service history of instrument reviewed		Yes		
Inwards gas check data reviewed		Yes		
Instrument turns on		Pass		
Backlight operates correctly		Yes		
External visual inspection performed		Pass		
Internal visual inspection performed		Pass		
All screws tightened to correct torque		Yes		
All connectors are secure		Pass		
Check diagnostic channels		Pass		
Case compression test		Pass		
Impact and stability test		Pass		
Pressure transducer test(s) as per user operation		Pass		

Instrument Service Report

Unit Type: GA5000	Part Number:	Date:	Next Service Due:	Customer Name:
Serial Number: G603220	GA5KB0B0-101	06-Oct-2022	06-Apr-2023	Structural Soils Limited
Actions/Investigation Description			Result	Comments
Final visual inspection on instrument			Pass	
Case assembly closed and screws tightened to correct torque			Yes	
PTFE filters replaced			Yes	
Pump flow greater than 550 ml/min			Pass	
Automated instrument pressure system test (leak test)			Pass	
Pump vacuum greater than -400 mb and flow falls			Pass	
GPS function test			NA	
Temperature probe tested			Pass	
Anemometer tested			Pass	
Chemical gas sensors calibrated - refer to Calibration Certificate			Pass	
Check main PCB and sensor PCB have the latest software			Yes	
Transducers calibrated			Pass	
As Received Chemical Cell Gas Assessment Performed (CAL16)			Yes	
As Received Gas Assessment Performed (CAL01 or CAL02)			Yes	
Chemical sensor(s) replacement over 2yrs UK and 21mths overseas			Yes	
O2 sensor replacement over 3yrs UK, 30mths overseas			Pass	



Instrument Service Report

Unit Type: GAS000	Part Number:	Date:	Next Service Due:	Customer Name:
Serial Number: G503220	GASRB080-101	08-Oct-2022	08-Apr-2023	Structural Soils Limited
Actions/Investigation Description		Result	Comments	
Verification of Instrument				

Customer Comments

Returned for full service and calibration
Check O2 cell

General Comments/Feedback

This instrument was tested against known certified gas values and the user calibration was seen to be worse than the factory calibration for the following channels: CO2. Common reasons for this are an out of date or poor user calibration. Regular user calibrations carried out in accordance with our operating manual will help to optimise performance. For further information on user calibration please visit the FAQ section of our website. Thank you for returning your gas analyser to the QED Service Centre for full service and calibration. We are pleased to inform you that the analyser was received and fully assessed by one of our experienced Service Engineers.

The O2 electrochemical sensor has been replaced due to it being over 3 years old in accordance with the manufacturer's recommendations, and also as a proactive measure based on our experience of the typical lifetime of this type of sensor.

Our extensive service was carried out, and any necessary components replaced. The analyser has successfully passed all of our rigorous testing and quality checks and has been calibrated using our bespoke, state of the art calibration facility.

For further information about how to get the best use from your instrument please visit our YouTube channel <http://www.youtube.com/GeotechTV> and on our Website <http://www.qedenv.com>

If you require any further assistance with your instrument please email our Technical Support Team at technical@qedenv.co.uk or call us on +44 (0) 333 800 0088 (Monday to Thursday 08.30 - 17.00 & Friday 08.30 - 15.30) UK time zone.

Service Details: Service Scheme	☒	Service Engineer:	Calibration Engineer:	Approved By:	Signature:
Standard Service	☐	Nick Slogwick	Andy Townsend	Keeley Knight	



JOB NUMBER: 74666
INSTRUMENT: Phocheck Tiger
SERIAL NUMBER: T-115108
DATE RECEIVED: 20/09/2022
FIRMWARE: V8.14
UPGRADED TO: V9.04

ITEMS RECEIVED	Received	RTN?
Instrument	YES	
Rubber Boot	YES	
Battery Charger		
Charging Cradle		
Operation Manual		
Quick Start Guide		
Spares Kit		
Comms Cable		
Probe FLEXI		
Peli Case	YES	
Tubing		
Regulator		
Software (Memory Stick)		
PLASTIC CASE		
silver case		
	SIGNED:	

TESTS	Pre Service	Post Service
Charger Test		OK
Battery charge Test		OK
Lamp Test		OK
Air Flow Test ≥ 220ml/min		260ml/min
Block Flow Test ≤ 15ml/min		3ml/min
Moisture Sensitivity = 0.0ppm		0.0ppm
Switch Test		OK
Sensor Test		OK
Alarm Test		OK
PC Comms Test		OK
Datalog Test		OK
Display Test		OK
Physical Inspection		OK
PAT Test		OK
Firmware Upgrade		OK
Software Upgrade (usb)		N/A
Function Test		OK
Run time	138:26	138:51

Comments:	
Firmware upgraded to current version V9.04 from V8.14	
Sensor stack and seal, PTFE filter and inlet/outlet seals replaced as per annual service	
Lamp replaced as per biennial scheduled service	
Pneumatics contaminated, replaced	
Instrument calibrated and bump tested	
Power supply PAT tested - passed	

Bookman

DATE: 03/10/2022

CALIBRATION CERTIFICATE NO: 74666

ISSUED BY: SHAWCITY LIMITED
DATE: 03/10/2022

APPROVED SIGNATORY: 

NAME: Jacob Jackson

CUSTOMER: Structural Soils Ltd
INSTRUMENT: PhoCheck Tiger
SERIAL NUMBER: T-115108

CALIBRATION METHOD: CM03
AMBIENT CONDITIONS: 20°C ± 2°C and 50% (± 20%) RH

Prior to calibration the instrument was allowed to stabilise in the laboratory for at least 30 minutes.
The instrument was calibrated by exposing the sensor to known values of gas concentrations.
All gases were sampled through the complete probe and in line filter, where applicable.
The reference value is that generated by the certified source and the indicated value is that measured by the instrument.

CALIBRATION RESULTS

GAS	LOT No	REF. VALUE	INDICATED VALUE
Isobutylene	WO366634-1	100 ppm	100 ppm
Isobutylene	WO364996-1	1000 ppm	1000 ppm

COMMENTS:

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$.
This provides a level of confidence of uncertainty of approximately 95%.
The uncertainty of measurement is $\pm 2\%$
The results indicate that the instrument conforms to the applicable parts of the published specification.

HEALTH & SAFETY, OCCUPATIONAL HYGIENE AND ENVIRONMENTAL MONITORING INSTRUMENTS

PARTS REQUIRED FOR JOB NUMBER: 74666

DESCRIPTION	PART NO.	QTY	Serial No.	LOC
10.6 Lamp	LA4TM600	1	166339	S4H B1
11.7 Lamp	LA4SM700			S4D B1
Lamp Stack	A-846267	1		S4H B3
PTFE Filter Disk	A-861632	1		S4H B2
Probe O-Ring	5/OV-02			S4H B4
Sensor seal	A-861214	1		S4H B1
Probe	880207			S4E B1
Probe Kit	A-880210			S4H B4
Filter Clamp (black)	880201			S4E B1
Probe Seal	880202			S4E B5
Filter Clamp (clear)	861219			S4H B6
Pump	A-861298			S4F B2
Manifold	861213			S4E B6
Outlet Barbs	5/JHS-03			S4E B6
Nozzle O-Ring	5/OV-04			S4H B2
Probe pipe	A-861286a			S4G B5
Tubing Inv Cone	5/JO-01			S4D B1
Inlet Outlet Seal	861215	2		S4H B5
Display	1/OM-05			S4E B3
Battery Charging Cradle/Dock	A-861220			S4F B2
Charger Lead	1/VS-22			S4F B3
Fuse FU100/101/103/105/106	1/FB-10			S4G B3
FU1 fuse	1/FB-12			S3A B1
Standard Top Housing	A-861551			service
LT Top Housing	A-880218			
Charging Dock Magnet	2/AP-08			S4C B2
Bottom Housing	861203-2			S4F B4
Pneumatics Kit	A-861509	1		S4F B3
Tiger Battery	A-861240			S4G B1
Sensor PCB	A-861103			S4E B5
Orange stack for Tiger LT	A-846496			S4C B1
PAT Test	PAT 1	1		
Mainboard Assembly	A-861120			

APPENDIX C

ENVIRONMENTAL TESTING RESULTS WITH GENERIC ASSESSMENT CRITERIA THRESHOLDS

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09109/13	22/09666/1	22/09274/6	22/11895/3	22/09768/6	22/09665/1	22/09274/4
												BH04	BH08	BH09	3	35	26	BH16
												2.00	5.00	0.50	1.00	10.00	6.00	0.70
												12-Sep-22	26-Sep-22	16-Sep-22	27-Sep-22	29-Sep-22	26-Sep-22	16-Sep-22
												Soil	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												6AE	6A	6A	6A	5A	5A	5A
972	% Moisture at <40C					% w/w			0.1	A-T-044		19.4	15.2	12.4	15.8	11.1	16.2	10.2
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1
599	pH					pH			0.01	A-T-031s		8.76	8.38	8.18	7.95	8.51	8.36	7.64
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		0.03	0.04	0.02	<0.01	<0.01	0.04	0.06
712	Organic Matter					% w/w			0.1	A-T-032 OM		0.6	0.3	1	1	1.1	1.4	0.9
691	Arsenic					mg/kg			1	A-T-024s	640	<1	<1	<1	<1	<1	<1	<1
694	Cadmium					mg/kg			0.5	A-T-024s	190	1.3	0.8	1	0.5	0.7	0.8	0.8
696	Copper					mg/kg			1	A-T-024s	68000	12	10	27	20	7	9	11
697	Chromium					mg/kg			1	A-T-024s	8600	60	48	37	34	44	46	25
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33					<1		
980	Chromium (trivalent)					mg/kg			1	Calc	8600					44		
699	Lead					mg/kg			1	A-T-024s	2330	6	3	15	11	4	3	12
701	Mercury					mg/kg			0.17	A-T-024s	320	0.37	0.71	<0.17	0.67	1.35	0.75	<0.17
703	Nickel					mg/kg			1	A-T-024s	980	49	44	32	27	38	43	22
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1
707	Zinc					mg/kg			5	A-T-024s	730000	72	66	68	45	57	64	49
Asbestos in Soil (inc. matrix)										A-T-045								
1817	Asbestos in soil																	
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?									A-T-045								
PAH-16MS																		
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenz(a,h)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																		
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	2	<1	1
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		<1	<1	<1	<1	2	<1	1
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<1	<1	<1	<1	<2	<1	<1
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	<1	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4969	Total Aromatics					mg/kg			1	Calc-As Recd		<1	<1	<1	<1	<2	<1	<1
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		<1	<1	<1	<1	2	<1	1
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	59000-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s								
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110							
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000							
1640	Dimethyl phthalate					µg/kg			100	A-T-052s								
1636	Dibenzofuran					µg/kg			100	A-T-052s								
1634	Carbazole					µg/kg			100	A-T-052s								
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000							
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000							
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s								
1630	Bis(2-chloroethyl)ether					µg/kg			100	A-T-052s								
1918	4-Nitrophenol					µg/kg			100	A-T-052s								
1916	3+4-Methylphenol					µg/kg			100	A-T-052s								

Client Project Ref: 765514

Lab Sample ID	Units for test results				Commercial Soil Assessment Criteria (mg/kg)	22/09274/1	22/09221/9	22/09274/2	22/09274/3	22/09109/3	22/09109/4	22/09109/16
Client Sample No	Limit of Detection					BH17	8					
Client Sample ID	Method					BH18	BH19	BH19	BH20	BH21	BH22	BH23
Depth to Top						1.00	0.50	1.00	0.10	1.00	0.50	0.60
Depth to Bottom												
Date Sampled						16-Sep-22	14-Sep-22	16-Sep-22	16-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22
Sample Type						Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil	Soil	Soil
Sample Matrix Code					6AE	4AE	6A	4AE	5A	5A	6AE	
972	% Moisture at <40C	% w/w	0.1	A-T-044		14.1	8.2	17.4	9.7	13.5	10.1	11.6
625	% Stones >10mm	% w/w	0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH	pH	0.01	A-T-031s		8.07	7.53	8.41	6.47	8.72	8.07	8.16
660	Sulphate (water sol 2:1)	g/l	0.01	A-T-026s		0.01	<0.01	0.02	0.02	0.01	<0.01	<0.01
712	Organic Matter	% w/w	0.1	A-T-032 OM		0.9	0.9	0.8	2.3	0.8	1.1	1.5
691	Arsenic	mg/kg	1	A-T-024s	640	8	<1	<1	2	<1	<1	2
694	Cadmium	mg/kg	0.5	A-T-024s	190	1.2	0.6	1	0.7	1.3	1.3	1.1
696	Copper	mg/kg	1	A-T-024s	68000	19	9	10	15	13	15	12
697	Chromium	mg/kg	1	A-T-024s	8600	43	23	70	23	55	51	47
716	Chromium (hexavalent)	mg/kg	1	A-T-040s	33							
980	Chromium (trivalent)	mg/kg	1	Calc	8600							
699	Lead	mg/kg	1	A-T-024s	2330	14	12	5	26	6	14	16
701	Mercury	mg/kg	0.17	A-T-024s	320	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
703	Nickel	mg/kg	1	A-T-024s	980	42	19	60	18	48	39	39
704	Selenium	mg/kg	1	A-T-024s	12000	1	<1	2	<1	<1	<1	<1
707	Zinc	mg/kg	5	A-T-024s	730000	73	43	78	59	68	80	69
Asbestos in Soil (inc. matrix)												
1817	Asbestos in soil			A-T-045								
Asbestos ACM - Suitable for												
3251	Water Absorption Test?			A-T-045								
PAH-16MS												
224	Acenaphthene	mg/kg	0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene	mg/kg	0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene	mg/kg	0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene	mg/kg	0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene	mg/kg	0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene	mg/kg	0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene	mg/kg	0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
622	Benzo(k)fluoranthene	mg/kg	0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene	mg/kg	0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenzo(ah)anthracene	mg/kg	0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene	mg/kg	0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene	mg/kg	0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene	mg/kg	0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene	mg/kg	0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene	mg/kg	0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene	mg/kg	0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS	mg/kg	0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up												
298	AlI >C5-C6	mg/kg	0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	AlI >C6-C8	mg/kg	0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	AlI >C6-C10	mg/kg	1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	AlI >C10-C12	mg/kg	1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	AlI >C12-C16	mg/kg	1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	AlI >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4870	AlI >C21-C35	mg/kg	1	A-T-055s	28000	2	2	1	10	<1	3	2
4968	Total Aliphatics	mg/kg	1	Calc-As Recd		2	2	<1	10	<1	3	2
304	Aro >C5-C7	mg/kg	0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10	mg/kg	1	A-T-055s	3800	<1	<1	<1	2	<1	<1	<1
4877	Aro >C10-C12	mg/kg	1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16	mg/kg	1	A-T-055s	36000	<1	<1	<1	1	<1	<1	<1
4879	Aro >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1	<1	2	<1	<1	<1
4881	Aro >C21-C35	mg/kg	1	A-T-055s	28000	<1	<1	<1	6	<1	1	<1
4969	Total Aromatics	mg/kg	1	Calc-As Recd		<1	<1	<1	11	<1	1	1
4979	TPH (AlI & Aro >C5-C35)	mg/kg	1	Calc-As Recd		2	2	<1	21	<1	4	3
286	BTEX - Benzene	mg/kg	0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene	mg/kg	0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene	mg/kg	0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene	mg/kg	0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE	mg/kg	0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16												
1021	4-Bromophenyl phenyl ether	µg/kg	100	A-T-052s								
1648	Hexachlorobenzene	µg/kg	100	A-T-052s								
1638	Diethyl phthalate	µg/kg	100	A-T-052s	150000							
1640	Dimethyl phthalate	µg/kg	100	A-T-052s								
1636	Dibenzofuran	µg/kg	100	A-T-052s								
1634	Carbazole	µg/kg	100	A-T-052s								
1626	Butylbenzyl phthalate	µg/kg	100	A-T-052s	940000							
1663	Bis(2-ethylhexyl)phthalate	µg/kg	500	A-T-052s	85000							
1628	Bis(2-chloroethoxy)methane	µg/kg	100	A-T-052s								
1630	Bis(2-chloroethyl)ether	µg/kg	100	A-T-052s								
1918	4-Nitrophenol	µg/kg	100	A-T-052s								
1916	3+4-Methylphenol	µg/kg	100	A-T-052s								

Client Project Ref: 765514

Lab Sample ID	Units for test results				Commercial Soil Assessment Criteria (mg/kg)	22/09/19/11	22/09/19/20	22/09/12/12	22/09/19/24	22/09/12/72	22/09/19/25	22/09/76/12
Client Sample No	Limit of Detection					BH24	BH25	BH26	BH27	CP01	CP04	CP07
Client Sample ID	Method					2.00	0.50	1.00	0.40	0.50	0.50	0.40
Depth to Top												
Depth to Bottom												
Date Sampled						13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22	05-Sep-22	12-Sep-22	30-Sep-22
Sample Type						Soil	Soil	Soil - ES	Soil	Soil - ES	Soil	Soil - ES
Sample Matrix Code					4A	5A	6A	4AE	6AE	5A	5A	
972	% Moisture at <40C	% w/w	0.1	A-T-044		10.9	10.3	13.1	12	12.9	9.9	14.8
625	% Stones >10mm	% w/w	0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH	pH	0.01	A-T-031s		8.89	8.1	8.21	8.41	7.68	7.29	8.41
660	Sulphate (water sol:2:1)	g/l	0.01	A-T-026s		<0.01	<0.01	0.03	0.01	<0.01	<0.01	<0.01
712	Organic Matter	% w/w	0.1	A-T-032 OM		0.4	1.7	1.2	2.3	1.2	2.1	0.9
691	Arsenic	mg/kg	1	A-T-024s	640	2	3	3	<1	2	5	<1
694	Cadmium	mg/kg	0.5	A-T-024s	190	1.2	0.7	1	1.3	1.3	0.9	0.8
696	Copper	mg/kg	1	A-T-024s	68000	10	11	12	10	20	15	20
697	Chromium	mg/kg	1	A-T-024s	8600	57	36	45	54	42	25	34
716	Chromium (hexavalent)	mg/kg	1	A-T-040s	33							<1
980	Chromium (trivalent)	mg/kg	1	Calc	8600							34
699	Lead	mg/kg	1	A-T-024s	2330	4	15	13	7	11	20	14
701	Mercury	mg/kg	0.17	A-T-024s	320	0.62	<0.17	<0.17	0.62	<0.17	<0.17	0.94
703	Nickel	mg/kg	1	A-T-024s	980	45	34	46	42	57	18	31
704	Selenium	mg/kg	1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1
707	Zinc	mg/kg	5	A-T-024s	730000	75	58	75	77	76	49	54
Asbestos in Soil (inc. matrix)												
1817	Asbestos in soil			A-T-045								
3251	Asbestos ACM - Suitable for Water Absorption Test?			A-T-045								
PAH-16MS												
224	Acenaphthene	mg/kg	0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene	mg/kg	0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene	mg/kg	0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene	mg/kg	0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene	mg/kg	0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene	mg/kg	0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene	mg/kg	0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
622	Benzo(k)fluoranthene	mg/kg	0.06	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene	mg/kg	0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenzo(ah)anthracene	mg/kg	0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene	mg/kg	0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene	mg/kg	0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene	mg/kg	0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene	mg/kg	0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene	mg/kg	0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene	mg/kg	0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS	mg/kg	0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up												
298	Ali >C5-C6	mg/kg	0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8	mg/kg	0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C6-C10	mg/kg	1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C10-C12	mg/kg	1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16	mg/kg	1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35	mg/kg	1	A-T-055s	28000	<1	<1	<1	2	<1	2	1
4968	Total Aliphatics	mg/kg	1	Calc-As Recd		<1	<1	<1	2	<1	2	1
304	Aro >C5-C7	mg/kg	0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10	mg/kg	1	A-T-055s	3800	<1	<1	<1	<1	<1	<1	<2
4877	Aro >C10-C12	mg/kg	1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16	mg/kg	1	A-T-055s	36000	<1	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4881	Aro >C21-C35	mg/kg	1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4969	Total Aromatics	mg/kg	1	Calc-As Recd		<1	<1	<1	<1	<1	<1	<2
4979	TPH (Ali & Aro >C5-C35)	mg/kg	1	Calc-As Recd		<1	<1	<1	<1	<1	<1	<2
286	BTEX - Benzene	mg/kg	0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene	mg/kg	0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene	mg/kg	0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene	mg/kg	0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE	mg/kg	0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16												
1021	4-Bromophenyl phenyl ether	µg/kg	100	A-T-052s								
1648	Hexachlorobenzene	µg/kg	100	A-T-052s								
1638	Diethyl phthalate	µg/kg	100	A-T-052s	150000							
1640	Dimethyl phthalate	µg/kg	100	A-T-052s								
1636	Dibenzofuran	µg/kg	100	A-T-052s								
1634	Carbazole	µg/kg	100	A-T-052s								
1626	Butylbenzyl phthalate	µg/kg	100	A-T-052s	940000							
1663	Bis(2-ethylhexyl)phthalate	µg/kg	500	A-T-052s	85000							
1628	Bis(2-chloroethoxy)methane	µg/kg	100	A-T-052s								
1630	Bis(2-chloroethyl)ether	µg/kg	100	A-T-052s								
1918	4-Nitrophenol	µg/kg	100	A-T-052s								
1916	3+4-Methylphenol	µg/kg	100	A-T-052s								

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09768/1	22/09768/2	22/09768/10	22/09928/8	22/09928/7	22/09928/12	22/09928/9
												2	3	3	1	4	3	2
												CP09	CP10	CP11	CP12	CP13	CP14	CP18
												0.50	0.90	1.00	0.01	2.40	0.50	0.50
												29-Sep-22	29-Sep-22	30-Sep-22	05-Oct-22	05-Oct-22	04-Oct-22	04-Oct-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												5AE	5AE	5AE	4AE	3	6AE	6AE
972	% Moisture at <40C					% w/w			0.1	A-T-044		12.1	11	9.2	14.6	20.5	12.7	10.1
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	0.9	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH					pH			0.01	A-T-031s		9.68	8.56	8.36	7.52	8.5	7.25	8.45
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		<0.01	<0.01	<0.01	0.06	0.02	0.01	0.02
712	Organic Matter					% w/w			0.1	A-T-032 OM		0.6	0.6	1	6.1	0.7	0.7	2.3
691	Arsenic					mg/kg			1	A-T-024s	640	<1	27	<1	9	7	10	<1
694	Cadmium					mg/kg			0.5	A-T-024s	190	0.8	1	<0.5	1	0.9	1.2	0.8
696	Copper					mg/kg			1	A-T-024s	68000	12	24	9	24	25	21	16
697	Chromium					mg/kg			1	A-T-024s	8600	54	37	32	24	31	46	51
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33	<1	<1	<1	<1	<1	<1	<1
980	Chromium (trivalent)					mg/kg			1	Calc	8600	54	37	32	24	31	46	51
699	Lead					mg/kg			1	A-T-024s	2330	10	13	7	35	12	11	12
701	Mercury					mg/kg			0.17	A-T-024s	320	<0.17	1.09	0.33	<0.17	0.69	<0.17	0.44
703	Nickel					mg/kg			1	A-T-024s	980	48	33	26	22	28	39	46
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1
707	Zinc					mg/kg			5	A-T-024s	730000	72	67	52	92	65	72	70
Asbestos in Soil (inc. matrix)																		
1817	Asbestos in soil									A-T-045								
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?									A-T-045								
PAH-16MS																		
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenz(a,h)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																		
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	2	<1	<1	<1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	7	18	<1	<1	<1
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		<1	<1	7	20	<1	<1	<1
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<2	<2	<2	<2	<2	<2	<2
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	<1	<1	<1	1	<1	<1	<1
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	2	<1	<1	<1
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	1	8	<1	<1	<1
4969	Total Aromatics					mg/kg			1	Calc-As Recd		<2	<2	<2	12	<2	<2	<2
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		<2	<2	8	32	<2	<2	<2
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	59000-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s			<100		<100			
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110		<100		<100			
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000		<100		<100			
1640	Dimethyl phthalate					µg/kg			100	A-T-052s			<100		<100			
1636	Dibenzofuran					µg/kg			100	A-T-052s			<100		<100			
1634	Carbazole					µg/kg			100	A-T-052s			<100		<100			
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000		<100		<100			
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000		<500		<500			
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s			<100		<100			
1630	Bis(2-chloroethoxy)ether					µg/kg			100	A-T-052s			<100		<100			
1918	4-Nitrophenol					µg/kg			100	A-T-052s			<100		<100			
1916	3+4-Methylphenol					µg/kg			100	A-T-052s			<100		<100			

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09768/1	22/09768/2	22/09768/10	22/09928/8	22/09928/7	22/09928/12	22/09928/9
Client Sample No					2	3	3	1	4	3	2
Client Sample ID					CP09	CP10	CP11	CP12	CP13	CP14	CP18
Depth to Top					0.50	0.90	1.00	0.01	2.40	0.50	0.50
Depth to Bottom											
Date Sampled					29-Sep-22	29-Sep-22	30-Sep-22	05-Oct-22	05-Oct-22	04-Oct-22	04-Oct-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code					5AE	5AE	5AE	4AE	3	6AE	6AE
1614 4-Chloro-3-methylphenol	µg/kg	100	A-T-052s			<100		<100			
1606 2-Nitrophenol	µg/kg	100	A-T-052s			<100		<100			
1602 2-Methylphenol	µg/kg	100	A-T-052s			<100		<100			
1671 1,2,4-Trichlorobenzene	µg/kg	100	A-T-052s	220		<100		<100			
1598 2-Chlorophenol	µg/kg	100	A-T-052s			<100		<100			
1594 2,6-Dinitrotoluene	µg/kg	100	A-T-052s	1900		<100		<100			
1592 2,4-Dinitrotoluene	µg/kg	100	A-T-052s	3700		<100		<100			
1590 2,4-Dimethylphenol	µg/kg	100	A-T-052s	16000		<100		<100			
1588 2,4-Dichlorophenol	µg/kg	100	A-T-052s			<100		<100			
1586 2,4,6-Trichlorophenol	µg/kg	100	A-T-052s			<100		<100			
1584 2,4,5-Trichlorophenol	µg/kg	100	A-T-052s			<100		<100			
1677 1,4-Dichlorobenzene	µg/kg	100	A-T-052s	4400		<100		<100			
1675 1,3-Dichlorobenzene	µg/kg	100	A-T-052s	30		<100		<100			
1673 1,2-Dichlorobenzene	µg/kg	100	A-T-052s	2000		<100		<100			
1596 2-Chloronaphthalene	µg/kg	100	A-T-052s	390		<100		<100			
1600 2-Methylnaphthalene	µg/kg	100	A-T-052s			<100		<100			
1632 Bis(2-chloroisopropyl)ether	µg/kg	100	A-T-052s			<100		<100			
1709 Phenol	µg/kg	100	A-T-052s	440		<100		<100			
1660 Pentachlorophenol	µg/kg	100	A-T-052s	400		<100		<100			
1658 n-Nitroso-n-dipropylamine	µg/kg	100	A-T-052s			<100		<100			
1644 n-Diethylphthalate	µg/kg	500	A-T-052s			<500		<500			
1642 n-Dibutylphthalate	µg/kg	100	A-T-052s			<100		<100			
1656 Nitrobenzene	µg/kg	100	A-T-052s			<100		<100			
1654 Isophorone	µg/kg	100	A-T-052s			<100		<100			
1652 Hexachloroethane	µg/kg	100	A-T-052s	22		<100		<100			
1650 Hexachlorocyclopentadiene	µg/kg	100	A-T-052s			<100		<100			
1703 Hexachlorobutadiene	µg/kg	100	A-T-052s	31		<100		<100			
2951 Perylene	µg/kg	100	A-T-052s			<100		<100			
VOC											
1028 Dichlorodifluoromethane	µg/kg	1	A-T-006s			<1		<1			
1029 Chloromethane	µg/kg	10	A-T-006s	1		<10		<10			
1031 Vinyl Chloride (Chloroethene)	µg/kg	1	A-T-006s	0.059		<1		<1			
1033 Bromomethane	µg/kg	1	A-T-006s			<1		<1			
1035 Chloroethane	µg/kg	1	A-T-006s			<1		<1			
1037 Trichlorofluoromethane	µg/kg	1	A-T-006s			<1		<1			
1045 1,1-Dichloroethene	µg/kg	1	A-T-006s	26		<1		<1			
1043 Carbon Disulphide	µg/kg	1	A-T-006s	11		<1		<1			
1041 Dichloromethane	µg/kg	5	A-T-006s	270		<5		<5			
1039 trans 1,2-Dichloroethene	µg/kg	1	A-T-006s	22		<1		<1			
1047 1,1-Dichloroethane	µg/kg	1	A-T-006s	280		<1		<1			
1051 cis 1,2-Dichloroethene	µg/kg	1	A-T-006s	14		<1		<1			
1057 2,2-Dichloropropane	µg/kg	1	A-T-006s			<1		<1			
1053 Bromochloromethane	µg/kg	5	A-T-006s			<5		<5			
1055 Chloroform	µg/kg	1	A-T-006s	99		<1		<1			
1061 1,1,1-Trichloroethane	µg/kg	1	A-T-006s	660		<1		<1			
1063 1,1-Dichloropropene	µg/kg	1	A-T-006s			<1		<1			
1071 Carbon Tetrachloride	µg/kg	1	A-T-006s			<1		<1			
1059 1,2-Dichloroethane	µg/kg	2	A-T-006s	0.67		<2		<2			
1069 Benzene	µg/kg	1	A-T-006s	27		<1		<1			
1079 Trichloroethene	µg/kg	1	A-T-006s	1.2		<1		<1			
1075 1,2-Dichloropropane	µg/kg	1	A-T-006s	3		<1		<1			
1073 Dibromomethane	µg/kg	1	A-T-006s			<1		<1			
1077 Bromodichloromethane	µg/kg	10	A-T-006s	2		<10		<10			
1081 cis 1,3-Dichloropropene	µg/kg	1	A-T-006s			<1		<1			
1087 Toluene	µg/kg	1	A-T-006s	56000		<1		<1			
1083 trans 1,3-Dichloropropene	µg/kg	1	A-T-006s			<1		<1			
1085 1,1,2-Trichloroethane	µg/kg	1	A-T-006s	94		<1		<1			
1089 1,3-Dichloropropane	µg/kg	1	A-T-006s			<1		<1			
1095 Tetrachloroethene	µg/kg	1	A-T-006s	19		<1		<1			
1091 Dibromochloromethane	µg/kg	3	A-T-006s			<3		<3			
1093 1,2-Dibromoethane	µg/kg	1	A-T-006s			<1		<1			
1099 Chlorobenzene	µg/kg	1	A-T-006s	56		<1		<1			
1097 1,1,1,2-Tetrachloroethane	µg/kg	1	A-T-006s	110		<1		<1			
1101 Ethylbenzene	µg/kg	1	A-T-006s			<1		<1			
1103 m & p Xylene	µg/kg	1	A-T-006s			<1		<1			
1111 o-Xylene	µg/kg	1	A-T-006s			<1		<1			
1107 Styrene	µg/kg	1	A-T-006s	3300		<1		<1			
1105 Bromoform	µg/kg	1	A-T-006s	760		<1		<1			
1115 Isopropylbenzene	µg/kg	1	A-T-006s	1400		<1		<1			
1109 1,1,2,2-Tetrachloroethane	µg/kg	1	A-T-006s	270		<1		<1			
1113 1,2,3-Trichloropropane	µg/kg	1	A-T-006s			<1		<1			
1117 Bromobenzene	µg/kg	1	A-T-006s	97		<1		<1			
1121 n-Propylbenzene	µg/kg	1	A-T-006s	4100		<1		<1			
1119 2-Chlorotoluene	µg/kg	1	A-T-006s			<1		<1			
1129 1,3,5-Trimethylbenzene	µg/kg	1	A-T-006s			<1		<1			
1123 4-Chlorotoluene	µg/kg	1	A-T-006s			<1		<1			
1137 tert-Butylbenzene	µg/kg	2	A-T-006s			<2		<2			
1125 1,2,4-Trimethylbenzene	µg/kg	1	A-T-006s	42		<1		<1			
1135 sec-Butylbenzene	µg/kg	1	A-T-006s			<1		<1			
1127 4-Isopropyltoluene	µg/kg	1	A-T-006s			<1		<1			
1139 1,3-Dichlorobenzene	µg/kg	1	A-T-006s	30		<1		<1			
1133 1,4-Dichlorobenzene	µg/kg	1	A-T-006s	4400		<1		<1			
1141 n-Butylbenzene	µg/kg	1	A-T-006s			<1		<1			
1131 1,2-Dichlorobenzene	µg/kg	1	A-T-006s	2000		<1		<1			
1143 (DCBP)	µg/kg	2	A-T-006s			<2		<2			
1145 1,2,4-Trichlorobenzene	µg/kg	3	A-T-006s	220		<3		<3			
1150 Hexachlorobutadiene	µg/kg	1	A-T-006s	31		<1		<1			
1149 1,2,3-Trichlorobenzene	µg/kg	3	A-T-006s	102		<3		<3			

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09928/1	22/09928/6	22/09666/2	22/11895/4	22/09274/5	22/09221/5	22/09221/6
												1	2	CP23	1	CP26	18	23
												CP21	CP22		CP24		CP27	CP27
												0.10	0.50	2.00	0.10	0.10	3.00	4.00
												03-Oct-22	05-Oct-22	26-Sep-22	27-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												6AE	5A	6A	6AE	4AE	5A	5A
972	% Moisture at <40C					% w/w			0.1	A-T-044		10.2	11.9	15.7	12.1	13.7	13.7	18.3
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH					pH			0.01	A-T-031s		7.98	8.52	8.44	7.96	6.98	9.18	8.92
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		<0.01	0.02	0.04	<0.01	0.03	0.02	0.02
712	Organic Matter					% w/w			0.1	A-T-032 OM		5.3	1.1	0.7	3.2	4.8	0.5	3.1
691	Arsenic					mg/kg			0.5	A-T-024s	640	1	3	<1	<1	<1	<1	<1
694	Cadmium					mg/kg			0.5	A-T-024s	190	1	0.9	0.8	0.6	0.9	0.6	0.5
696	Copper					mg/kg			1	A-T-024s	68000	18	11	10	13	16	8	7
697	Chromium					mg/kg			1	A-T-024s	8600	43	61	49	55	46	34	34
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33	<1	<1					
980	Chromium (trivalent)					mg/kg			1	Calc	8600	43	61					
699	Lead					mg/kg			1	A-T-024s	2330	59	5	3	16	28	6	5
701	Mercury					mg/kg			0.17	A-T-024s	320	<0.17	<0.17	0.89	<0.17	<0.17	0.46	0.52
703	Nickel					mg/kg			1	A-T-024s	980	38	53	43	43	39	29	29
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	1	<1	2
707	Zinc					mg/kg			5	A-T-024s	730000	90	74	64	72	83	55	55
Asbestos in Soil (inc. matrix)																		
1817	Asbestos in soil									A-T-045							NAD	
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?									A-T-045							N/A	
PAH-16MS																		
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	1.48
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.31
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.1
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
236	Benzo(ghi)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.11
241	Dibenzo(ah)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.88
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.44
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.27
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.94
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.56
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		0.16	<0.08	<0.08	<0.08	<0.08	<0.08	5.2
TPH CWG with Clean Up																		
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	2
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	10	<1	<1	3	5	<1	2
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		10	<1	<1	3	5	<1	7
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<2	<2	<1	<1	<1	<1	2
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	7
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	1	<1	<1	<1	<1	<1	40
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	37
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	3	<1	<1	1	1	<1	17
4969	Total Aromatics					mg/kg			1	Calc-As Recd		4	<2	<1	1	1	<1	104
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		14	<2	<1	5	6	<1	111
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s		<100					<1000	<100
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110	<100					<1000	<100
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000	<100					<1000	<100
1640	Dimethyl phthalate					µg/kg			100	A-T-052s		<100					<1000	<100
1636	Dibenzofuran					µg/kg			100	A-T-052s		<100						529
1634	Carbazole					µg/kg			100	A-T-052s		<100					<1000	<100
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000	<100					<1000	<100
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000	<100					<5000	<500
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s		<100					<1000	<100
1630	Bis(2-chloroethyl)ether					µg/kg			100	A-T-052s		<100					<1000	<100
1918	4-Nitrophenol					µg/kg			100	A-T-052s		<100					<1000	<100
1916	3+4-Methylphenol					µg/kg			100	A-T-052s		<100						

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09928/1	22/09928/6	22/09666/2	22/11895/4	22/09274/5	22/09221/5	22/09221/6
Client Sample No					1	2		1		18	23
Client Sample ID					CP21	CP22	CP23	CP24	CP26	CP27	CP27
Depth to Top					0.10	0.50	2.00	0.10	0.10	3.00	4.00
Depth to Bottom											
Date Sampled					03-Oct-22	05-Oct-22	26-Sep-22	27-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code					6AE	5A	6A	6AE	4AE	5A	5A
1614 4-Chloro-3-methylphenol	µg/kg	100	A-T-052s		<100					<1000	<100
1606 2-Nitrophenol	µg/kg	100	A-T-052s		<100					<1000	<100
1602 2-Methylphenol	µg/kg	100	A-T-052s		<100					<1000	<100
1671 1,2,4-Trichlorobenzene	µg/kg	100	A-T-052s	220	<100					<1000	<100
1598 2-Chlorophenol	µg/kg	100	A-T-052s		<100					<1000	<100
1594 2,6-Dinitrotoluene	µg/kg	100	A-T-052s	1900	<100					<1000	<100
1592 2,4-Dinitrotoluene	µg/kg	100	A-T-052s	3700	<100					<1000	<100
1590 2,4-Dimethylphenol	µg/kg	100	A-T-052s	16000	<100					<1000	<100
1588 2,4-Dichlorophenol	µg/kg	100	A-T-052s		<100					<1000	<100
1586 2,4,6-Trichlorophenol	µg/kg	100	A-T-052s		<100					<1000	<100
1584 2,4,5-Trichlorophenol	µg/kg	100	A-T-052s		<100					<1000	<100
1677 1,4-Dichlorobenzene	µg/kg	100	A-T-052s	4400	<100					<1000	<100
1675 1,3-Dichlorobenzene	µg/kg	100	A-T-052s	30	<100					<1000	<100
1673 1,2-Dichlorobenzene	µg/kg	100	A-T-052s	2000	<100					<1000	<100
1596 2-Chloronaphthalene	µg/kg	100	A-T-052s	390	<100					<1000	<100
1600 2-Methylnaphthalene	µg/kg	100	A-T-052s		<100					<1000	132
1632 Bis(2-chloroisopropyl)ether	µg/kg	100	A-T-052s		<100					<1000	<100
1709 Phenol	µg/kg	100	A-T-052s	440	<100					<1000	<100
1660 Pentachlorophenol	µg/kg	100	A-T-052s	400	<100					<1000	<100
1658 n-Nitroso-n-dipropylamine	µg/kg	100	A-T-052s		<100					<1000	<100
1644 n-Diethylphthalate	µg/kg	500	A-T-052s		<500					<5000	<500
1642 n-Dibutylphthalate	µg/kg	100	A-T-052s		<100					<1000	286
1656 Nitrobenzene	µg/kg	100	A-T-052s		<100					<1000	<100
1654 Isophorone	µg/kg	100	A-T-052s		<100					<1000	<100
1652 Hexachloroethane	µg/kg	100	A-T-052s	22	<100					<1000	<100
1650 Hexachlorocyclopentadiene	µg/kg	100	A-T-052s		<100					<1000	<100
1703 Hexachlorobutadiene	µg/kg	100	A-T-052s	31	<100					<1000	<100
2951 Perylene	µg/kg	100	A-T-052s		<100					<1000	<100
VOC											
1028 Dichlorodifluoromethane	µg/kg	1	A-T-006s		<1					<1	<1
1029 Chloromethane	µg/kg	10	A-T-006s	1	<10					<10	<10
1031 Vinyl Chloride (Chloroethene)	µg/kg	1	A-T-006s	0.059	<1					<1	<1
1033 Bromomethane	µg/kg	1	A-T-006s		<1					<1	<1
1035 Chloroethane	µg/kg	1	A-T-006s		<1					<1	<1
1037 Trichlorofluoromethane	µg/kg	1	A-T-006s		<1					<1	<1
1045 1,1-Dichloroethene	µg/kg	1	A-T-006s	26	<1					<1	<1
1043 Carbon Disulphide	µg/kg	1	A-T-006s	11	<1					<1	<1
1041 Dichloromethane	µg/kg	5	A-T-006s	270	<5					<5	<5
1039 trans 1,2-Dichloroethene	µg/kg	1	A-T-006s	22	<1					<1	<1
1047 1,1-Dichloroethane	µg/kg	1	A-T-006s	280	<1					<1	<1
1051 cis 1,2-Dichloroethene	µg/kg	1	A-T-006s	14	<1					<1	<1
1057 2,2-Dichloropropane	µg/kg	1	A-T-006s		<1					<1	<1
1053 Bromochloromethane	µg/kg	5	A-T-006s		<5					<5	<5
1055 Chloroform	µg/kg	1	A-T-006s	99	<1					<1	<1
1061 1,1,1-Trichloroethane	µg/kg	1	A-T-006s	660	<1					<1	<1
1063 1,1-Dichloropropene	µg/kg	1	A-T-006s		<1					<1	<1
1071 Carbon Tetrachloride	µg/kg	1	A-T-006s		<1					<1	<1
1059 1,2-Dichloroethane	µg/kg	2	A-T-006s	0.67	<2					<2	<2
1069 Benzene	µg/kg	1	A-T-006s	27	<1					<1	<1
1079 Trichloroethene	µg/kg	1	A-T-006s	1.2	<1					<1	<1
1075 1,2-Dichloropropane	µg/kg	1	A-T-006s	3	<1					<1	<1
1073 Dibromomethane	µg/kg	1	A-T-006s		<1					<1	<1
1077 Bromodichloromethane	µg/kg	10	A-T-006s	2	<10					<10	<10
1081 cis 1,3-Dichloropropene	µg/kg	1	A-T-006s		<1					<1	<1
1087 Toluene	µg/kg	1	A-T-006s	56000	<1					<1	<1
1083 trans 1,3-Dichloropropene	µg/kg	1	A-T-006s		<1					<1	<1
1085 1,1,2-Trichloroethane	µg/kg	1	A-T-006s	94	<1					<1	<1
1089 1,3-Dichloropropane	µg/kg	1	A-T-006s		<1					<1	<1
1095 Tetrachloroethene	µg/kg	1	A-T-006s	19	<1					<1	<1
1091 Dibromochloromethane	µg/kg	3	A-T-006s		<3					<3	<3
1093 1,2-Dibromoethane	µg/kg	1	A-T-006s		<1					<1	<1
1099 Chlorobenzene	µg/kg	1	A-T-006s	56	<1					<1	<1
1097 1,1,1,2-Tetrachloroethane	µg/kg	1	A-T-006s	110	<1					<1	<1
1101 Ethylbenzene	µg/kg	1	A-T-006s		<1					<1	<1
1103 m & p Xylene	µg/kg	1	A-T-006s		<1					<1	<1
1111 o-Xylene	µg/kg	1	A-T-006s		<1					<1	<1
1107 Styrene	µg/kg	1	A-T-006s	3300	<1					<1	<1
1105 Bromoform	µg/kg	1	A-T-006s	760	<1					<1	<1
1115 Isopropylbenzene	µg/kg	1	A-T-006s	1400	<1					<100	<1
1109 1,1,2,2-Tetrachloroethane	µg/kg	1	A-T-006s	270	<1					<1	<1
1113 1,2,3-Trichloropropane	µg/kg	1	A-T-006s		<1					<1	<1
1117 Bromobenzene	µg/kg	1	A-T-006s	97	<1					<1	<1
1121 n-Propylbenzene	µg/kg	1	A-T-006s	4100	<1					<1	<1
1119 2-Chlorotoluene	µg/kg	1	A-T-006s		<1					<1	<1
1129 1,3,5-Trimethylbenzene	µg/kg	1	A-T-006s		<1					<1	6
1123 4-Chlorotoluene	µg/kg	1	A-T-006s		<1					<1	<1
1137 tert-Butylbenzene	µg/kg	2	A-T-006s		<2					<2	<2
1125 1,2,4-Trimethylbenzene	µg/kg	1	A-T-006s	42	<1					<1	1
1135 sec-Butylbenzene	µg/kg	1	A-T-006s		<1					<1	<1
1127 4-Isopropyltoluene	µg/kg	1	A-T-006s		<1					<1	<1
1139 1,3-Dichlorobenzene	µg/kg	1	A-T-006s	30	<1					<1	<1
1133 1,4-Dichlorobenzene	µg/kg	1	A-T-006s	4400	<1					<1	<1
1141 n-Butylbenzene	µg/kg	1	A-T-006s		<1					<1	<1
1131 1,2-Dichlorobenzene	µg/kg	1	A-T-006s	2000	<1					<1	<1
1143 (DCBP)	µg/kg	2	A-T-006s		<2					<2	<2
1145 1,2,4-Trichlorobenzene	µg/kg	3	A-T-006s	220	<3					<3	<3
1150 Hexachlorobutadiene	µg/kg	1	A-T-006s	31	<1					<1	<1
1149 1,2,3-Trichlorobenzene	µg/kg	3	A-T-006s	102	<3					<3	<3

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09127/19	22/09928/16	22/09928/11	22/09928/13	22/09928/10	22/09928/14	22/09928/15
												CP28	TP06	TP08	TP09	TP10	TP11	TP12
												1.00	0.80	0.50	0.20	0.20	1.20	1.10
												05-Sep-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22	04-Oct-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												5A	4A	4AE	4AE	4ABE	6AE	6A
972	% Moisture at <40C		% w/w	0.1	A-T-044							10.7	10.5	12.5	9.7	11	14.2	12.6
625	% Stones >10mm		% w/w	0.1	A-T-044							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH		pH	0.01	A-T-031s							7.56	8.41	8.44	6.74	6.86	8.15	8.5
660	Sulphate (water sol 2:1)		g/l	0.01	A-T-026s							0.02	0.02	0.06	<0.01	<0.01	<0.01	0.03
712	Organic Matter		% w/w	0.1	A-T-032 OM							1.4	0.4	3.2	2.7	2.5	0.4	0.5
691	Arsenic		mg/kg	1	A-T-024s	640						3	6	3	8	8	14	8
694	Cadmium		mg/kg	0.5	A-T-024s	190	<0.5	0.6	1	1.1	1	1	1	1	1	1.2	0.9	
696	Copper		mg/kg	1	A-T-024s	68000	11	19	21	22	18	25	19					
697	Chromium		mg/kg	1	A-T-024s	8600	38	24	40	37	29	38	31					
716	Chromium (hexavalent)		mg/kg	1	A-T-040s	33	<1	<1	<1	<1	<1	<1	<1					
980	Chromium (trivalent)		mg/kg	1	Calc	8600		24	40	37	29	38	31					
699	Lead		mg/kg	1	A-T-024s	2330	11	11	40	136	43	16	10					
701	Mercury		mg/kg	0.17	A-T-024s	320	<0.17	<0.17	0.34	<0.17	<0.17							
703	Nickel		mg/kg	1	A-T-024s	980	33	26	32	28	24	47	32					
704	Selenium		mg/kg	1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1					
707	Zinc		mg/kg	5	A-T-024s	730000	58	54	132	86	68	75	57					
Asbestos in Soil (inc. matrix)																		
1817	Asbestos in soil				A-T-045									NAD				
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?				A-T-045									N/A				
PAH-16MS																		
224	Acenaphthene		mg/kg	0.01	A-T-019s	84000	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene		mg/kg	0.01	A-T-019s	83000	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene		mg/kg	0.02	A-T-019s	520000	<0.02	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene		mg/kg	0.04	A-T-019s	170	<0.04	<0.04	0.48	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene		mg/kg	0.04	A-T-019s	35	<0.04	<0.04	0.55	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene		mg/kg	0.05	A-T-019s	44	<0.05	<0.05	0.62	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene		mg/kg	0.05	A-T-019s	3900	<0.05	<0.05	0.31	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene		mg/kg	0.07	A-T-019s	1200	<0.07	<0.07	0.24	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene		mg/kg	0.06	A-T-019s	350	<0.06	<0.06	0.51	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenz(a,h)anthracene		mg/kg	0.04	A-T-019s	3.5	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene		mg/kg	0.08	A-T-019s	23000	<0.08	<0.08	0.88	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene		mg/kg	0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene		mg/kg	0.03	A-T-019s	500	<0.03	<0.03	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene		mg/kg	0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene		mg/kg	0.03	A-T-019s	22000	<0.03	<0.03	0.26	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene		mg/kg	0.07	A-T-019s	54000	<0.07	<0.07	0.86	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS		mg/kg	0.01	A-T-019s		<0.08	<0.08	5.22	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																		
298	Ali >C5-C6		mg/kg	0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8		mg/kg	0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10		mg/kg	1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12		mg/kg	1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16		mg/kg	1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21		mg/kg	1	A-T-055s	28000	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35		mg/kg	1	A-T-055s	28000	<1	<1	31	7	8	<1	<1	<1	<1	<1	<1	<1
4968	Total Aliphatics		mg/kg	1	Calc-As Recd		<1	<1	33	7	8	<1	<1	<1	<1	<1	<1	<1
304	Aro >C5-C7		mg/kg	0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8		mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10		mg/kg	1	A-T-055s	3500	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4877	Aro >C10-C12		mg/kg	1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16		mg/kg	1	A-T-055s	36000	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21		mg/kg	1	A-T-055s	28000	<1	<1	25	<1	<1	<1	<1	<1	<1	<1	<1	<1
4881	Aro >C21-C35		mg/kg	1	A-T-055s	28000	<1	<1	189	2	4	<1	<1	<1	<1	<1	<1	<1
4969	Total Aromatics		mg/kg	1	Calc-As Recd		<1	<2	216	2	6	<2	<2	<2	<2	<2	<2	<2
4970	TPH (Ali & Aro >C5-C35)		mg/kg	1	Calc-As Recd		<1	<2	249	9	13	<2	<2	<2	<2	<2	<2	<2
286	BTEX - Benzene		mg/kg	0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene		mg/kg	0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene		mg/kg	0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene		mg/kg	0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene		mg/kg	0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE		mg/kg	0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether		µg/kg	100	A-T-052s		<100		<100									
1648	Hexachlorobenzene		µg/kg	100	A-T-052s	110	<100		<100									
1638	Diethyl phthalate		µg/kg	100	A-T-052s	150000	<100		<100									
1640	Dimethyl phthalate		µg/kg	100	A-T-052s		<100		<100									
1636	Dibenzofuran		µg/kg	100	A-T-052s		<100		<100									
1634	Carbazole		µg/kg	100	A-T-052s		<100		<100									
1626	Butylbenzyl phthalate		µg/kg	100	A-T-052s	940000	<100		<100									
1663	Bis(2-ethylhexyl)phthalate		µg/kg	500	A-T-052s	85000	<500		<500									
1628	Bis(2-chloroethoxy)methane		µg/kg	100	A-T-052s		<100		<100									
1630	Bis(2-chloroethyl)ether		µg/kg	100	A-T-052s		<100		<100									
1918	4-Nitrophenol		µg/kg	100	A-T-052s		<100		<100									
1916	3+4-Methylphenol		µg/kg	100	A-T-052s		<100		<100									

Envirolab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsirt

Client Project Ref: 765514

Lab Sample ID	Client Sample No Client Sample ID Depth to Top Depth to Bottom Date Sampled Sample Type Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09127/19	22/09928/16	22/09928/11	22/09928/13	22/09928/10	22/09928/14	22/09928/15
CP28						6	3	1	1	6	6	
TP06						TP06	TP08	TP09	TP10	TP11	TP12	
1.00						0.80	0.50	0.20	0.20	1.20	1.10	
Soil - ES						Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	
5A						4A	4AE	4AE	4ABE	6AE	6A	
1614	4-Chloro-3-methylphenol	µg/kg	100	A-T-052s	220	<100		<100				
1606	2-Nitrophenol	µg/kg	100	A-T-052s		<100		<100				
1602	2-Methylphenol	µg/kg	100	A-T-052s		<100		<100				
1671	1,2,4-Trichlorobenzene	µg/kg	100	A-T-052s		<100		<100				
1598	2-Chlorophenol	µg/kg	100	A-T-052s		<100		<100				
1594	2,6-Dinitrotoluene	µg/kg	100	A-T-052s		1900	<100		<100			
1592	2,4-Dinitrotoluene	µg/kg	100	A-T-052s		3700	<100		<100			
1590	2,4-Dimethylphenol	µg/kg	100	A-T-052s		16000	<100		<100			
1588	2,4-Dichlorophenol	µg/kg	100	A-T-052s		<100		<100				
1586	2,4,6-Trichlorophenol	µg/kg	100	A-T-052s		<100		<100				
1584	2,4,5-Trichlorophenol	µg/kg	100	A-T-052s		<100		<100				
1677	1,4-Dichlorobenzene	µg/kg	100	A-T-052s		4400	<100		<100			
1675	1,3-Dichlorobenzene	µg/kg	100	A-T-052s		30	<100		<100			
1673	1,2-Dichlorobenzene	µg/kg	100	A-T-052s		2000	<100		<100			
1596	2-Chloronaphthalene	µg/kg	100	A-T-052s		390	<100		<100			
1600	2-Methylnaphthalene	µg/kg	100	A-T-052s		<100		<100				
1632	Bis(2-chloroisopropyl)ether	µg/kg	100	A-T-052s		<100		<100				
1709	Phenol	µg/kg	100	A-T-052s		440	<100		<100			
1660	Pentachlorophenol	µg/kg	100	A-T-052s		400	<100		<100			
1658	n-Nitroso-n-dipropylamine	µg/kg	100	A-T-052s		<100		<100				
1644	n-Dioctylphthalate	µg/kg	500	A-T-052s	<500		<500					
1642	n-Dibutylphthalate	µg/kg	100	A-T-052s	<100		<100					
1656	Nitrobenzene	µg/kg	100	A-T-052s	<100		<100					
1654	Isophorone	µg/kg	100	A-T-052s	<100		<100					
1652	Hexachloroethane	µg/kg	100	A-T-052s	22	<100		<100				
1650	Hexachlorocyclopentadiene	µg/kg	100	A-T-052s	<100		<100					
1703	Hexachlorobutadiene	µg/kg	100	A-T-052s	31	<100		<100				
2951	Perylene	µg/kg	100	A-T-052s	<100		<100					
VOC												
1028	Dichlorodifluoromethane	µg/kg	1	A-T-006s	0.059	<1		<1				
1029	Chloromethane	µg/kg	10	A-T-006s		<10		<10				
1031	Vinyl Chloride (Chloroethene)	µg/kg	1	A-T-006s		<1		<1				
1033	Bromomethane	µg/kg	1	A-T-006s		<1		<1				
1035	Chloroethane	µg/kg	1	A-T-006s		<1		<1				
1037	Trichlorofluoromethane	µg/kg	1	A-T-006s		<1		<1				
1045	1,1-Dichloroethene	µg/kg	1	A-T-006s		26	<1	<1				
1043	Carbon Disulphide	µg/kg	1	A-T-006s		11	<1	<1				
1041	Dichloromethane	µg/kg	5	A-T-006s		270	<5	<5				
1039	trans 1,2-Dichloroethene	µg/kg	1	A-T-006s		22	<1	<1				
1047	1,1-Dichloroethane	µg/kg	1	A-T-006s		280	<1	<1				
1051	cis 1,2-Dichloroethene	µg/kg	1	A-T-006s		14	<1	<1				
1057	2,2-Dichloropropane	µg/kg	1	A-T-006s		<1		<1				
1053	Bromochloromethane	µg/kg	5	A-T-006s		<5		<5				
1055	Chloroform	µg/kg	1	A-T-006s		99	<1	<1				
1061	1,1,1-Trichloroethane	µg/kg	1	A-T-006s		660	<1	<1				
1063	1,1-Dichloropropene	µg/kg	1	A-T-006s		<1		<1				
1071	Carbon Tetrachloride	µg/kg	1	A-T-006s		<1		<1				
1059	1,2-Dichloroethane	µg/kg	2	A-T-006s		0.67	<2	<2				
1069	Benzene	µg/kg	1	A-T-006s		27	<1	<1				
1079	Trichloroethene	µg/kg	1	A-T-006s	1.2	<1	<1					
1075	1,2-Dichloropropane	µg/kg	1	A-T-006s	3	<1	<1					
1073	Dibromomethane	µg/kg	1	A-T-006s	<1		<1					
1077	Bromodichloromethane	µg/kg	10	A-T-006s	2	<10	<10					
1081	cis 1,3-Dichloropropene	µg/kg	1	A-T-006s	<1		<1					
1087	Toluene	µg/kg	1	A-T-006s	56000	<1	<1					
1083	trans 1,3-Dichloropropene	µg/kg	1	A-T-006s	<1		<1					
1085	1,1,2-Trichloroethane	µg/kg	1	A-T-006s	94	<1	<1					
1089	1,3-Dichloropropane	µg/kg	1	A-T-006s	<1		<1					
1095	Tetrachloroethene	µg/kg	1	A-T-006s	19	<1	<1					
1091	Dibromochloromethane	µg/kg	3	A-T-006s	<3		<3					
1093	1,2-Dibromoethane	µg/kg	1	A-T-006s	<1		<1					
1099	Chlorobenzene	µg/kg	1	A-T-006s	56	<1	<1					
1097	1,1,1,2-Tetrachloroethane	µg/kg	1	A-T-006s	110	<1	<1					
1101	Ethylbenzene	µg/kg	1	A-T-006s	<1		<1					
1103	m & p Xylene	µg/kg	1	A-T-006s	<1		<1					
1111	o-Xylene	µg/kg	1	A-T-006s	<1		<1					
1107	Styrene	µg/kg	1	A-T-006s	3300	<1	<1					
1105	Bromoform	µg/kg	1	A-T-006s	760	<1	<1					
1115	Isopropylbenzene	µg/kg	1	A-T-006s	1400	<1	<1					
1109	1,1,2,2-Tetrachloroethane	µg/kg	1	A-T-006s	270	<1	<1					
1113	1,2,3-Trichloropropane	µg/kg	1	A-T-006s	<1		<1					
1117	Bromobenzene	µg/kg	1	A-T-006s	97	<1	<1					
1121	n-Propylbenzene	µg/kg	1	A-T-006s	4100	<1	<1					
1119	2-Chlorotoluene	µg/kg	1	A-T-006s	<1		<1					
1129	1,3,5-Trimethylbenzene	µg/kg	1	A-T-006s	<1		<1					
1123	4-Chlorotoluene	µg/kg	1	A-T-006s	<1		<1					
1137	tert-Butylbenzene	µg/kg	2	A-T-006s	<2		<2					
1125	1,2,4-Trimethylbenzene	µg/kg	1	A-T-006s	42	<1	<1					
1135	sec-Butylbenzene	µg/kg	1	A-T-006s	<1		<1					
1127	4-Isopropyltoluene	µg/kg	1	A-T-006s	<1		<1					
1139	1,3-Dichlorobenzene	µg/kg	1	A-T-006s	30	<1	<1					
1133	1,4-Dichlorobenzene	µg/kg	1	A-T-006s	4400	<1	<1					
1141	n-Butylbenzene	µg/kg	1	A-T-006s	<1		<1					
1131	1,2-Dichlorobenzene	µg/kg	1	A-T-006s	2000	<1	<1					
1,2-Dibromo-3-chloropropane												
1143	(DCBP)	µg/kg	2	A-T-006s	<2		<2					
1145	1,2,4-Trichlorobenzene	µg/kg	3	A-T-006s	220	<3	<3					
1150	Hexachlorobutadiene	µg/kg	1	A-T-006s	31	<1	<1					
1149	1,2,3-Trichlorobenzene	µg/kg	3	A-T-006s	102	<3	<3					

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09928/3	22/09768/3	22/09768/4	22/09768/5	22/09768/9	22/09768/8	22/09768/7
												7	7	6	3	3	9	1
												TP13	TP14	TP15	TP16	TP17	TP18	TP19
												1.50	0.80	1.50	0.40	0.50	1.70	0.15
												05-Oct-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												5A	5AE	5A	4AE	4AE	5A	5E
972	% Moisture at <40C					% w/w			0.1	A-T-044		12.5	9.7	13.7	9.5	6.6	12.7	8.8
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	<0.1	2.7	<0.1	21.9	8	<0.1
599	pH					pH			0.01	A-T-031s		7.99	8.72	8.75	8.05	7.81	8.34	7.3
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
712	Organic Matter					% w/w			0.1	A-T-032 OM		0.2	0.3	1.3	2.2	0.6	1.1	2.4
691	Arsenic					mg/kg			1	A-T-024s	640	6	<1	4	<1	2	7	6
694	Cadmium					mg/kg			0.5	A-T-024s	190	0.7	0.7	<0.5	0.6	0.5	0.7	0.7
696	Copper					mg/kg			1	A-T-024s	68000	18	9	15	10	12	14	14
697	Chromium					mg/kg			1	A-T-024s	8600	31	49	29	31	21	44	28
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33	<1	<1	<1	<1	<1	<1	<1
980	Chromium (trivalent)					mg/kg			1	Calc	8600	31	49	29	31	21	44	28
699	Lead					mg/kg			1	A-T-024s	2330	9	3	5	23	10	9	24
701	Mercury					mg/kg			0.17	A-T-024s	320	<0.17	1.97	0.97	<0.17	<0.17	<0.17	<0.17
703	Nickel					mg/kg			1	A-T-024s	980	22	41	24	26	17	43	24
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1
707	Zinc					mg/kg			5	A-T-024s	730000	52	59	55	58	45	62	62
Asbestos in Soil (inc. matrix)																		
1817	Asbestos in soil									A-T-045								
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?									A-T-045								
PAH-16MS																		
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenz(a,h)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																		
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	<1	6	<1	<1	15
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		<1	<1	<1	6	<1	<1	15
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<2	<2	<2	<2	<2	<2	<2
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	<1	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	2
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	<1	1	<1	<1	4
4969	Total Aromatics					mg/kg			1	Calc-As Recd		<2	<2	<2	<2	<2	<2	7
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		<2	<2	<2	7	<2	<2	22
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s							<100	
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110						<100	
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000						<100	
1640	Dimethyl phthalate					µg/kg			100	A-T-052s							<100	
1636	Dibenzofuran					µg/kg			100	A-T-052s							<100	
1634	Carbazole					µg/kg			100	A-T-052s							<100	
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000						<100	
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000						<500	
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s							<100	
1630	Bis(2-chloroethyl)ether					µg/kg			100	A-T-052s							<100	
1918	4-Nitrophenol					µg/kg			100	A-T-052s							<100	
1916	3+4-Methylphenol					µg/kg			100	A-T-052s							<100	

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09928/3	22/09768/3	22/09768/4	22/09768/5	22/09768/9	22/09768/8	22/09768/7
Client Sample No					7	7	6	3	3	9	1
Client Sample ID					TP13	TP14	TP15	TP16	TP17	TP18	TP19
Depth to Top					1.50	0.80	1.50	0.40	0.50	1.70	0.15
Depth to Bottom											
Date Sampled					05-Oct-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22	29-Sep-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code					5A	5AE	5A	4AE	4AE	5A	5E
1614 4-Chloro-3-methylphenol	µg/kg	100	A-T-052s							<100	
1606 2-Nitrophenol	µg/kg	100	A-T-052s							<100	
1602 2-Methylphenol	µg/kg	100	A-T-052s							<100	
1671 1,2,4-Trichlorobenzene	µg/kg	100	A-T-052s	220						<100	
1598 2-Chlorophenol	µg/kg	100	A-T-052s							<100	
1594 2,6-Dinitrotoluene	µg/kg	100	A-T-052s	1900						<100	
1592 2,4-Dinitrotoluene	µg/kg	100	A-T-052s	3700						<100	
1590 2,4-Dimethylphenol	µg/kg	100	A-T-052s	16000						<100	
1588 2,4-Dichlorophenol	µg/kg	100	A-T-052s							<100	
1586 2,4,6-Trichlorophenol	µg/kg	100	A-T-052s							<100	
1584 2,4,5-Trichlorophenol	µg/kg	100	A-T-052s							<100	
1677 1,4-Dichlorobenzene	µg/kg	100	A-T-052s	4400						<100	
1675 1,3-Dichlorobenzene	µg/kg	100	A-T-052s	30						<100	
1673 1,2-Dichlorobenzene	µg/kg	100	A-T-052s	2000						<100	
1596 2-Chloronaphthalene	µg/kg	100	A-T-052s	390						<100	
1600 2-Methylnaphthalene	µg/kg	100	A-T-052s							<100	
1632 Bis(2-chloroisopropyl)ether	µg/kg	100	A-T-052s							<100	
1709 Phenol	µg/kg	100	A-T-052s	440						<100	
1660 Pentachlorophenol	µg/kg	100	A-T-052s	400						<100	
1658 n-Nitroso-n-dipropylamine	µg/kg	100	A-T-052s							<100	
1644 n-Dioctylphthalate	µg/kg	500	A-T-052s							<500	
1642 n-Dibutylphthalate	µg/kg	100	A-T-052s							<100	
1656 Nitrobenzene	µg/kg	100	A-T-052s							<100	
1654 Isophorone	µg/kg	100	A-T-052s							<100	
1652 Hexachloroethane	µg/kg	100	A-T-052s	22						<100	
1650 Hexachlorocyclopentadiene	µg/kg	100	A-T-052s							<100	
1703 Hexachlorobutadiene	µg/kg	100	A-T-052s	31						<100	
2951 Perylene	µg/kg	100	A-T-052s							<100	
VOC											
1028 Dichlorodifluoromethane	µg/kg	1	A-T-006s							<1	
1029 Chloromethane	µg/kg	10	A-T-006s	1						<10	
1031 Vinyl Chloride (Chloroethene)	µg/kg	1	A-T-006s	0.059						<1	
1033 Bromomethane	µg/kg	1	A-T-006s							<1	
1035 Chloroethane	µg/kg	1	A-T-006s							<1	
1037 Trichlorofluoromethane	µg/kg	1	A-T-006s							<1	
1045 1,1-Dichloroethene	µg/kg	1	A-T-006s	26						<1	
1043 Carbon Disulphide	µg/kg	1	A-T-006s	11						<1	
1041 Dichloromethane	µg/kg	5	A-T-006s	270						<5	
1039 trans 1,2-Dichloroethene	µg/kg	1	A-T-006s	22						<1	
1047 1,1-Dichloroethane	µg/kg	1	A-T-006s	280						<1	
1051 cis 1,2-Dichloroethene	µg/kg	1	A-T-006s	14						<1	
1057 2,2-Dichloropropane	µg/kg	1	A-T-006s							<1	
1053 Bromochloromethane	µg/kg	5	A-T-006s							<5	
1055 Chloroform	µg/kg	1	A-T-006s	99						<1	
1061 1,1,1-Trichloroethane	µg/kg	1	A-T-006s	660						<1	
1063 1,1-Dichloropropene	µg/kg	1	A-T-006s							<1	
1071 Carbon Tetrachloride	µg/kg	1	A-T-006s							<1	
1059 1,2-Dichloroethane	µg/kg	2	A-T-006s	0.67						<2	
1069 Benzene	µg/kg	1	A-T-006s	27						<1	
1079 Trichloroethene	µg/kg	1	A-T-006s	1.2						<1	
1075 1,2-Dichloropropane	µg/kg	1	A-T-006s	3						<1	
1073 Dibromomethane	µg/kg	1	A-T-006s							<1	
1077 Bromodichloromethane	µg/kg	10	A-T-006s	2						<10	
1081 cis 1,3-Dichloropropene	µg/kg	1	A-T-006s							<1	
1087 Toluene	µg/kg	1	A-T-006s	56000						<1	
1083 trans 1,3-Dichloropropene	µg/kg	1	A-T-006s							<1	
1085 1,1,2-Trichloroethane	µg/kg	1	A-T-006s	94						<1	
1089 1,3-Dichloropropane	µg/kg	1	A-T-006s							<1	
1095 Tetrachloroethene	µg/kg	1	A-T-006s	19						<1	
1091 Dibromochloromethane	µg/kg	3	A-T-006s							<3	
1093 1,2-Dibromoethane	µg/kg	1	A-T-006s							<1	
1099 Chlorobenzene	µg/kg	1	A-T-006s	56						<1	
1097 1,1,1,2-Tetrachloroethane	µg/kg	1	A-T-006s	110						<1	
1101 Ethylbenzene	µg/kg	1	A-T-006s							<1	
1103 m & p Xylene	µg/kg	1	A-T-006s							<1	
1111 o-Xylene	µg/kg	1	A-T-006s							<1	
1107 Styrene	µg/kg	1	A-T-006s	3300						<1	
1105 Bromoform	µg/kg	1	A-T-006s	760						<1	
1115 Isopropylbenzene	µg/kg	1	A-T-006s	1400						<1	
1109 1,1,2,2-Tetrachloroethane	µg/kg	1	A-T-006s	270						<1	
1113 1,2,3-Trichloropropane	µg/kg	1	A-T-006s							<1	
1117 Bromobenzene	µg/kg	1	A-T-006s	97						<1	
1121 n-Propylbenzene	µg/kg	1	A-T-006s	4100						<1	
1119 2-Chlorotoluene	µg/kg	1	A-T-006s							<1	
1129 1,3,5-Trimethylbenzene	µg/kg	1	A-T-006s							<1	
1123 4-Chlorotoluene	µg/kg	1	A-T-006s							<1	
1137 tert-Butylbenzene	µg/kg	2	A-T-006s							<2	
1125 1,2,4-Trimethylbenzene	µg/kg	1	A-T-006s	42						<1	
1135 sec-Butylbenzene	µg/kg	1	A-T-006s							<1	
1127 4-Isopropyltoluene	µg/kg	1	A-T-006s							<1	
1139 1,3-Dichlorobenzene	µg/kg	1	A-T-006s	30						<1	
1133 1,4-Dichlorobenzene	µg/kg	1	A-T-006s	4400						<1	
1141 n-Butylbenzene	µg/kg	1	A-T-006s							<1	
1131 1,2-Dichlorobenzene	µg/kg	1	A-T-006s	2000						<1	
1143 1,2-Dibromo-3-chloropropane (DCBP)	µg/kg	2	A-T-006s							<2	
1145 1,2,4-Trichlorobenzene	µg/kg	3	A-T-006s	220						<3	
1150 Hexachlorobutadiene	µg/kg	1	A-T-006s	31						<1	
1149 1,2,3-Trichlorobenzene	µg/kg	3	A-T-006s	102						<3	

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/09935/2	22/09928/4	22/09928/2	22/09928/5	22/09768/11	22/11895/2	22/09935/3
												1	6	6	6	1	10	3
												TP21	TP22	TP23	TP24	TP26	TP27	TP28
												0.15	1.30	0.90	0.60	0.20	1.60	0.50
												06-Oct-22	05-Oct-22	05-Oct-22	05-Oct-22	30-Sep-22	27-Sep-22	06-Oct-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												6AE	6AE	4A	4A	5AE	6A	6AE
972	% Moisture at <40C					% w/w			0.1	A-T-044		17.1	14.4	15.1	9.5	9.8	14.5	12.6
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH					pH			0.01	A-T-031s		7.86	8.26	8.62	8.6	7.8	8.17	8.27
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		<0.01	0.04	0.02	<0.01	<0.01	<0.01	0.03
712	Organic Matter					% w/w			0.1	A-T-032 OM		4.3	0.4	0.9	2.2	3.2	2.1	0.7
691	Arsenic					mg/kg			1	A-T-024s	640	<1	8	5	<1	1	<1	<1
694	Cadmium					mg/kg			0.5	A-T-024s	190	0.7	1.1	1	0.6	0.8	<0.5	0.8
696	Copper					mg/kg			1	A-T-024s	68000	15	21	11	10	17	9	10
697	Chromium					mg/kg			1	A-T-024s	8600	46	51	64	46	38		59
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33	<1	<1	<1	<1	<1		<1
980	Chromium (trivalent)					mg/kg			1	Calc	8600	46	51	64	46	38	54	59
699	Lead					mg/kg			1	A-T-024s	2330	21	11	5	5	26	6	6
701	Mercury					mg/kg			0.17	A-T-024s	320	<0.17	<0.17	<0.17	0.2	<0.17	<0.17	<0.17
703	Nickel					mg/kg			1	A-T-024s	980	37	48	60	41	34	47	54
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	<1	<1	<1
707	Zinc					mg/kg			5	A-T-024s	730000	78	71	84	68	72	63	79
Asbestos in Soil (inc. matrix)																		
1817	Asbestos in soil									A-T-045								
Asbestos ACM - Suitable for																		
3251	Water Absorption Test?									A-T-045								
PAH-16MS																		
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(g,h)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenz(a,h)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																		
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	6	<1	<1	<1	8	<1	3
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		6	<1	<1	<1	8	<1	3
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<1	<2	<2	<2	<2	<1	<1
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	<1	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1	<1
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	2	<1	<1	<1	2	<1	<1
4969	Total Aromatics					mg/kg			1	Calc-As Recd		4	<2	<2	<2	2	<1	<1
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		10	<2	<2	<2	10	<1	3
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	5900-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																		
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s								
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110							
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000							
1640	Dimethyl phthalate					µg/kg			100	A-T-052s								
1636	Dibenzofuran					µg/kg			100	A-T-052s								
1634	Carbazole					µg/kg			100	A-T-052s								
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000							
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000							
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s								
1630	Bis(2-chloroethyl)ether					µg/kg			100	A-T-052s								
1918	4-Nitrophenol					µg/kg			100	A-T-052s								
1916	3+4-Methylphenol					µg/kg			100	A-T-052s								

EnviroLab Job Number: 22/09109

Client: Structural Soils Limited (Castleford)

Client Project Name: East Midland Airsport

Client Project Ref: 765514

Lab Sample ID	Client Sample No	Client Sample ID	Depth to Top	Depth to Bottom	Date Sampled	Sample Type	Sample Matrix Code	Units for test results	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	22/11895/1	22/09935/4	22/09662/2	22/09662/4	22/09662/3	22/09662/1
												7	9	1	7	10	1
												TP29	TP31	TP32	TP34	TP35	TP36
												1.40	2.90	0.20	1.30	1.75	0.45
												27-Sep-22	06-Oct-22	23-Sep-22	23-Sep-22	23-Sep-22	23-Sep-22
												Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
												6A	4A	5AE	5A	5A	5AE
972	% Moisture at <40C					% w/w			0.1	A-T-044		13.1	11.7	10.9	14	20.7	13.7
625	% Stones >10mm					% w/w			0.1	A-T-044		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
599	pH					pH			0.01	A-T-031s		8.24	8.16	7.73	8.61	8.34	8.69
660	Sulphate (water sol 2:1)					g/l			0.01	A-T-026s		<0.01	0.03	<0.01	<0.01	0.02	0.03
712	Organic Matter					% w/w			0.1	A-T-032 OM		2.1	1.4	2.7	2.6	0.5	0.8
691	Arsenic					mg/kg			1	A-T-024s	640	<1	3	<1	<1	<1	<1
694	Cadmium					mg/kg			0.5	A-T-024s	190	0.5	0.8	<0.5	<0.5	0.5	0.7
696	Copper					mg/kg			1	A-T-024s	68000	9	12	13	7	10	10
697	Chromium					mg/kg			1	A-T-024s	8600		56	41	48	57	57
716	Chromium (hexavalent)					mg/kg			1	A-T-040s	33		<1				
980	Chromium (trivalent)					mg/kg			1	Calc	8600	39	56				
699	Lead					mg/kg			1	A-T-024s	2330	6	7	19	4	4	6
701	Mercury					mg/kg			0.17	A-T-024s	320	0.41	0.48	<0.17	0.69	<0.17	<0.17
703	Nickel					mg/kg			1	A-T-024s	980	37	51	33	45	46	51
704	Selenium					mg/kg			1	A-T-024s	12000	<1	<1	<1	<1	<1	<1
707	Zinc					mg/kg			5	A-T-024s	730000	56	81	69	72	88	74
Asbestos in Soil (inc. matrix)																	
1817	Asbestos in soil									A-T-045							
3251	Asbestos ACM - Suitable for Water Absorption Test?									A-T-045							
PAH-16MS																	
224	Acenaphthene					mg/kg			0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene					mg/kg			0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene					mg/kg			0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene					mg/kg			0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene					mg/kg			0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene					mg/kg			0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene					mg/kg			0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene					mg/kg			0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene					mg/kg			0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenzo(ah)anthracene					mg/kg			0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene					mg/kg			0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene					mg/kg			0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene					mg/kg			0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene					mg/kg			0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene					mg/kg			0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene					mg/kg			0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS					mg/kg			0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TPH CWG with Clean Up																	
298	Ali >C5-C6					mg/kg			0.01	A-T-022s	3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
300	Ali >C6-C8					mg/kg			0.01	A-T-022s	7800	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4876	Ali >C8-C10					mg/kg			1	A-T-055s	2000	<1	<1	<1	<1	<1	<1
4863	Ali >C10-C12					mg/kg			1	A-T-055s	9700	<1	<1	<1	<1	<1	<1
4868	Ali >C12-C16					mg/kg			1	A-T-055s	59000	<1	<1	<1	<1	<1	<1
4869	Ali >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1
4870	Ali >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	8	<1	<1	<1
4968	Total Aliphatics					mg/kg			1	Calc-As Recd		<1	<1	8	<1	<1	<1
304	Aro >C5-C7					mg/kg			0.01	A-T-022s	26000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
306	Aro >C7-C8					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4885	Aro >C8-C10					mg/kg			1	A-T-055s	3500	<1	<1	1	<1	<1	<1
4877	Aro >C10-C12					mg/kg			1	A-T-055s	16000	<1	<1	<1	<1	<1	<1
4878	Aro >C12-C16					mg/kg			1	A-T-055s	36000	<1	<1	<1	<1	<1	<1
4879	Aro >C16-C21					mg/kg			1	A-T-055s	28000	<1	<1	<1	<1	<1	<1
4881	Aro >C21-C35					mg/kg			1	A-T-055s	28000	<1	<1	2	<1	<1	<1
4969	Total Aromatics					mg/kg			1	Calc-As Recd		<1	<1	3	<1	<1	<1
4970	TPH (Ali & Aro >C5-C35)					mg/kg			1	Calc-As Recd		<1	<1	11	<1	<1	<1
286	BTEX - Benzene					mg/kg			0.01	A-T-022s	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
288	BTEX - Toluene					mg/kg			0.01	A-T-022s	56000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
290	BTEX - Ethyl Benzene					mg/kg			0.01	A-T-022s	5700	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
294	BTEX - m & p Xylene					mg/kg			0.01	A-T-022s	59000-6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
292	BTEX - o Xylene					mg/kg			0.01	A-T-022s	6600	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
296	MTBE					mg/kg			0.01	A-T-022s		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SVOC excluding PAH-16																	
1021	4-Bromophenyl phenyl ether					µg/kg			100	A-T-052s							<100
1648	Hexachlorobenzene					µg/kg			100	A-T-052s	110						<100
1638	Diethyl phthalate					µg/kg			100	A-T-052s	150000						<100
1640	Dimethyl phthalate					µg/kg			100	A-T-052s							<100
1636	Dibenzofuran					µg/kg			100	A-T-052s							<100
1634	Carbazole					µg/kg			100	A-T-052s							<100
1626	Butylbenzyl phthalate					µg/kg			100	A-T-052s	940000						<100
1663	Bis(2-ethylhexyl)phthalate					µg/kg			500	A-T-052s	85000						<500
1628	Bis(2-chloroethoxy)methane					µg/kg			100	A-T-052s							<100
1630	Bis(2-chloroethyl)ether					µg/kg			100	A-T-052s							<100
1918	4-Nitrophenol					µg/kg			100	A-T-052s							<100
1916	3+4-Methylphenol					µg/kg			100	A-T-052s							<100

EnviroLab Job Number: 22/08923

Client: Structural Soils Limited (Castleford Lab)

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID					22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13
Client Sample No					102	102	101	101	3	3
Client Sample ID					BH01	BH02	BH03	BH05	CP08	CP02
Depth to Top					1.00	1.00	0.50	0.1	0.50	1.00
Depth to Bottom										
Date Sampled					05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code	Units	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	6AE	6AE	5A	4AE		5AE
972	% Moisture at <40C	0.1	A-T-044		13.7	15.8	10.4	8.8	5.7	8.8
625	% Stones >10mm	0.1	A-T-044		<0.1	<0.1	4.2	15	<0.1	<0.1
599	pH	0.01	A-T-031s		7.83	7.7	7.63	6.1	8.7	9.17
660	Sulphate (water sol 2:1)	0.01	A-T-026s		0.01	0.01	<0.01	<0.01	<0.01	<0.01
712	Organic Matter	0.1	A-T-032 OM		1.4	0.7	1.1	2.3	0.7	1
691	Arsenic	1	A-T-024s	640	<1	3	2	6	9	<1
694	Cadmium	0.5	A-T-024s	190	0.8	1	0.8	0.9	1.8	1
696	Copper	1	A-T-024s	68000	12	12	10	15	18	9
697	Chromium	1	A-T-024s	8600	56	67	35	21	28	52
699	Lead	1	A-T-024s	2330	10	7	11	20	14	3
701	Mercury	0.17	A-T-024s	320	<0.17	<0.17	<0.17	<0.17	0.45	0.39
703	Nickel	1	A-T-024s	980	46	57	29	16	27	48
704	Selenium	1	A-T-024s	12000	<1	<1	<1	<1	3	<1
707	Zinc	5	A-T-024s	730000	67	68	57	55	52	64
PAH-16MS										
224	Acenaphthene	0.01	A-T-019s	84000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
226	Acenaphthylene	0.01	A-T-019s	83000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
228	Anthracene	0.02	A-T-019s	520000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
230	Benzo(a)anthracene	0.04	A-T-019s	170	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
232	Benzo(a)pyrene	0.04	A-T-019s	35	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
234	Benzo(b)fluoranthene	0.05	A-T-019s	44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
236	Benzo(ghi)perylene	0.05	A-T-019s	3900	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
822	Benzo(k)fluoranthene	0.07	A-T-019s	1200	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
239	Chrysene	0.06	A-T-019s	350	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
241	Dibenzo(ah)anthracene	0.04	A-T-019s	3.5	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
243	Fluoranthene	0.08	A-T-019s	23000	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
245	Fluorene	0.01	A-T-019s	63000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
247	Indeno(123-cd)pyrene	0.03	A-T-019s	500	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
249	Naphthalene	0.03	A-T-019s	190	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
251	Phenanthrene	0.03	A-T-019s	22000	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
253	Pyrene	0.07	A-T-019s	54000	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
GS46	Total PAH-16MS	0.01	A-T-019s		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SVOC										
1021	4-Bromophenyl phenyl ether	µg/kg	A-T-052s		<100					
1648	Hexachlorobenzene	µg/kg	A-T-052s		<100					
1638	Diethyl phthalate	µg/kg	A-T-052s	150000	<100					
1640	Dimethyl phthalate	µg/kg	A-T-052s		<100					
1636	Dibenzofuran	µg/kg	A-T-052s		<100					
1634	Carbazole	µg/kg	A-T-052s		<100					
1626	Butylbenzyl phthalate	µg/kg	A-T-052s	940000	<100					
1663	Bis(2-ethylhexyl)phthalate	µg/kg	A-T-052s	85000	<500					
1628	Bis(2-chloroethoxy)methane	µg/kg	A-T-052s		<100					
1630	Bis(2-chloroethyl)ether	µg/kg	A-T-052s		<100					
1918	4-Nitrophenol	µg/kg	A-T-052s		<100					
1916	3+4-Methylphenol	µg/kg	A-T-052s		<100					
1614	4-Chloro-3-methylphenol	µg/kg	A-T-052s		<100					
1606	2-Nitrophenol	µg/kg	A-T-052s		<100					
1602	2-Methylphenol	µg/kg	A-T-052s		<100					
1671	1,2,4-Trichlorobenzene	µg/kg	A-T-052s	220	<100					
1598	2-Chlorophenol	µg/kg	A-T-052s		<100					
1594	2,6-Dinitrotoluene	µg/kg	A-T-052s	1900	<100					
1592	2,4-Dinitrotoluene	µg/kg	A-T-052s	3700	<100					
1590	2,4-Dimethylphenol	µg/kg	A-T-052s	16000	<100					
1588	2,4-Dichlorophenol	µg/kg	A-T-052s		<100					
1586	2,4,6-Trichlorophenol	µg/kg	A-T-052s		<100					
1584	2,4,5-Trichlorophenol	µg/kg	A-T-052s		<100					
1677	1,4-Dichlorobenzene	µg/kg	A-T-052s	4400	<100					
1675	1,3-Dichlorobenzene	µg/kg	A-T-052s	30	<100					
1673	1,2-Dichlorobenzene	µg/kg	A-T-052s	2000	<100					

EnviroLab Job Number: 22/08923

Client: Structural Soils Limited (Castleford Lab)

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID					22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13
Client Sample No					102	102	101	101	3	3
Client Sample ID					BH01	BH02	BH03	BH05	CP08	CP02
Depth to Top					1.00	1.00	0.50	0.1	0.50	1.00
Depth to Bottom										
Date Sampled					05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code	Units	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	6AE	6AE	5A	4AE		5AE
1596 2-Chloronaphthalene	µg/kg	100	A-T-052s	390	<100					
1600 2-Methylnaphthalene	µg/kg	100	A-T-052s		<100					
1681 Acenaphthylene	µg/kg	100	A-T-052s		<100					
1679 Acenaphthene	µg/kg	100	A-T-052s		<100					
1683 Anthracene	µg/kg	100	A-T-052s		<100					
1685 Benzo(a)anthracene	µg/kg	100	A-T-052s		<100					
1689 Benzo(b)fluoranthene	µg/kg	100	A-T-052s		<100					
1693 Benzo(k)fluoranthene	µg/kg	100	A-T-052s		<100					
1687 Benzo(a)pyrene	µg/kg	100	A-T-052s		<100					
1691 Benzo(ghi)perylene	µg/kg	100	A-T-052s		<100					
1695 Chrysene	µg/kg	100	A-T-052s		<100					
1699 Fluoranthene	µg/kg	100	A-T-052s		<100					
1701 Fluorene	µg/kg	100	A-T-052s		<100					
1705 Indeno(1,2,3-cd)pyrene	µg/kg	100	A-T-052s		<100					
1707 Phenanthrene	µg/kg	100	A-T-052s		<100					
1711 Pyrene	µg/kg	100	A-T-052s		<100					
1714 Naphthalene	µg/kg	100	A-T-052s		<100					
1697 Dibenzo(ah)anthracene	µg/kg	100	A-T-052s		<100					
1632 Bis(2-chloroisopropyl)ether	µg/kg	100	A-T-052s		<100					
1709 Phenol	µg/kg	100	A-T-052s	440	<100					
1660 Pentachlorophenol	µg/kg	100	A-T-052s	400	<100					
1658 n-Nitroso-n-dipropylamine	µg/kg	100	A-T-052s		<100					
1644 n-Diethylphthalate	µg/kg	500	A-T-052s		<500					
1642 n-Dibutylphthalate	µg/kg	100	A-T-052s		<100					
1656 Nitrobenzene	µg/kg	100	A-T-052s		<100					
1654 Isophorone	µg/kg	100	A-T-052s		<100					
1652 Hexachloroethane	µg/kg	100	A-T-052s	22	<100					
1650 Hexachlorocyclopentadiene	µg/kg	100	A-T-052s		<100					
1703 Hexachlorobutadiene	µg/kg	100	A-T-052s	31	<100					
2951 Perylene	µg/kg	100	A-T-052s		<100					
TPH Banded 1 with ID										
335 >C6-C8	mg/kg	5	A-T-007s				<5	<5	<5	<5
337 >C8-C10	mg/kg	1	A-T-007s				<1	<1	<1	<1
339 >C10-C12	mg/kg	1	A-T-007s				<1	<1	<1	<1
341 >C12-C16	mg/kg	2	A-T-007s				<2	<2	<2	<2
343 >C16-C21	mg/kg	2	A-T-007s				<2	<2	<2	<2
345 >C21-C40	mg/kg	5	A-T-007s				6	8	<5	<5
							C16-C40 hydrocarbons with unknown profile	C16-C40 hydrocarbons with unknown profile	Concentration too low to identify	Concentration too low to identify
							6	8	<5	<5
363 TPH ID Interpretation			A-T-007s							
GS321 Total TPH Banded 1 with ID	mg/kg	5	A-T-007s							
VOC										
1028 Dichlorodifluoromethane	µg/kg	1	A-T-006s		<1					
1029 Chloromethane	µg/kg	10	A-T-006s		<10					
1031 Vinyl Chloride (Chloroethene)	µg/kg	1	A-T-006s	0.059	<1					
1033 Bromomethane	µg/kg	1	A-T-006s		<1					
1035 Chloroethane	µg/kg	1	A-T-006s		<1					
1037 Trichlorofluoromethane	µg/kg	1	A-T-006s		<1					
1045 1,1-Dichloroethene	µg/kg	1	A-T-006s	26	<1					
1043 Carbon Disulphide	µg/kg	1	A-T-006s	11	<1					
1041 Dichloromethane	µg/kg	5	A-T-006s	270	<5					
1039 trans 1,2-Dichloroethene	µg/kg	1	A-T-006s	22	<1					
1047 1,1-Dichloroethane	µg/kg	1	A-T-006s	280	<1					
1051 cis 1,2-Dichloroethene	µg/kg	1	A-T-006s	14	<1					
1057 2,2-Dichloropropane	µg/kg	1	A-T-006s		<1					
1053 Bromochloromethane	µg/kg	5	A-T-006s		<5					
1055 Chloroform	µg/kg	1	A-T-006s	99	<1					
1061 1,1,1-Trichloroethane	µg/kg	1	A-T-006s	660	<1					
1063 1,1-Dichloropropene	µg/kg	1	A-T-006s		<1					
1071 Carbon Tetrachloride	µg/kg	1	A-T-006s		<1					
1059 1,2-Dichloroethane	µg/kg	2	A-T-006s	0.67	<2					
1069 Benzene	µg/kg	1	A-T-006s	27	<1					

EnviroLab Job Number: 22/08923

Client: Structural Soils Limited (Castleford Lab)

Client Project Name: East Midland Airport

Client Project Ref: 765514

Lab Sample ID					22/08923/2	22/08923/4	22/08923/5	22/08923/7	22/08923/10	22/08923/13
Client Sample No					102	102	101	101	3	3
Client Sample ID					BH01	BH02	BH03	BH05	CP08	CP02
Depth to Top					1.00	1.00	0.50	0.1	0.50	1.00
Depth to Bottom										
Date Sampled					05-Sep-22	06-Sep-22	07-Sep-22	08-Sep-22	06-Sep-22	07-Sep-22
Sample Type					Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES
Sample Matrix Code	Units	Limit of Detection	Method	Commercial Soil Assessment Criteria (mg/kg)	6AE	6AE	5A	4AE		5AE
1079 Trichloroethene	µg/kg	1	A-T-006s	1.2	<1					
1075 1,2-Dichloropropane	µg/kg	1	A-T-006s	3	<1					
1073 Dibromomethane	µg/kg	1	A-T-006s		<1					
1077 Bromodichloromethane	µg/kg	10	A-T-006s	2	<10					
1081 cis 1,3-Dichloropropene	µg/kg	1	A-T-006s		<1					
1087 Toluene	µg/kg	1	A-T-006s	56000	<1					
1083 trans 1,3-Dichloropropene	µg/kg	1	A-T-006s		<1					
1085 1,1,2-Trichloroethane	µg/kg	1	A-T-006s	94	<1					
1089 1,3-Dichloropropane	µg/kg	1	A-T-006s		<1					
1095 Tetrachloroethene	µg/kg	1	A-T-006s	19	<1					
1091 Dibromochloromethane	µg/kg	3	A-T-006s		<3					
1093 1,2-Dibromoethane	µg/kg	1	A-T-006s		<1					
1099 Chlorobenzene	µg/kg	1	A-T-006s	56	<1					
1097 1,1,1,2-Tetrachloroethane	µg/kg	1	A-T-006s	110	<1					
1101 Ethylbenzene	µg/kg	1	A-T-006s		<1					
1103 m & p Xylene	µg/kg	1	A-T-006s		<1					
1111 o-Xylene	µg/kg	1	A-T-006s		<1					
1107 Styrene	µg/kg	1	A-T-006s	3300	<1					
1105 Bromoform	µg/kg	1	A-T-006s	760	<1					
1115 Isopropylbenzene	µg/kg	1	A-T-006s	1400	<1					
1109 1,1,2,2-Tetrachloroethane	µg/kg	1	A-T-006s	270	<1					
1113 1,2,3-Trichloropropane	µg/kg	1	A-T-006s		<1					
1117 Bromobenzene	µg/kg	1	A-T-006s	97	<1					
1121 n-Propylbenzene	µg/kg	1	A-T-006s	4100	<1					
1119 2-Chlorotoluene	µg/kg	1	A-T-006s		<1					
1129 1,3,5-Trimethylbenzene	µg/kg	1	A-T-006s		<1					
1123 4-Chlorotoluene	µg/kg	1	A-T-006s		<1					
1137 tert-Butylbenzene	µg/kg	2	A-T-006s		<2					
1125 1,2,4-Trimethylbenzene	µg/kg	1	A-T-006s	42	<1					
1135 sec-Butylbenzene	µg/kg	1	A-T-006s		<1					
1127 4-Isopropyltoluene	µg/kg	1	A-T-006s		<1					
1139 1,3-Dichlorobenzene	µg/kg	1	A-T-006s	30	<1					
1133 1,4-Dichlorobenzene	µg/kg	1	A-T-006s	4400	<1					
1141 n-Butylbenzene	µg/kg	1	A-T-006s		<1					
1131 1,2-Dichlorobenzene	µg/kg	1	A-T-006s	2000	<1					
1,2-Dibromo-3-chloropropane										
1143 (DCBP)	µg/kg	2	A-T-006s		<2					
1145 1,2,4-Trichlorobenzene	µg/kg	3	A-T-006s	220	<3					
1150 Hexachlorobutadiene	µg/kg	1	A-T-006s	31	<1					
1149 1,2,3-Trichlorobenzene	µg/kg	3	A-T-006s	102	<3					
TPH CWG with Clean Up										
298 Ali >C5-C6	mg/kg	0.01	A-T-022s	3200	<0.01	<0.01				
300 Ali >C6-C8	mg/kg	0.01	A-T-022s	7800	<0.01	<0.01				
4876 Ali >C8-C10	mg/kg	1	A-T-055s	2000	<1	<1				
4863 Ali >C10-C12	mg/kg	1	A-T-055s	9700	<1	<1				
4868 Ali >C12-C16	mg/kg	1	A-T-055s	59000	<1	<1				
4869 Ali >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1				
4870 Ali >C21-C35	mg/kg	1	A-T-055s	28000	<1	<1				
4968 Total Aliphatics	mg/kg	1	Calc-As Recd		<1	<1				
304 Aro >C5-C7	mg/kg	0.01	A-T-022s	26000	<0.01	<0.01				
306 Aro >C7-C8	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01				
4885 Aro >C8-C10	mg/kg	1	A-T-055s	3500	<1	<1				
4877 Aro >C10-C12	mg/kg	1	A-T-055s	16000	<1	<1				
4878 Aro >C12-C16	mg/kg	1	A-T-055s	36000	<1	<1				
4879 Aro >C16-C21	mg/kg	1	A-T-055s	28000	<1	<1				
4881 Aro >C21-C35	mg/kg	1	A-T-055s	28000	<1	<1				
4969 Total Aromatics	mg/kg	1	Calc-As Recd		<1	<1				
4970 TPH (Ali & Aro >C5-C35)	mg/kg	1	Calc-As Recd		<1	<1				
286 BTEX - Benzene	mg/kg	0.01	A-T-022s	27	<0.01	<0.01				
288 BTEX - Toluene	mg/kg	0.01	A-T-022s	56000	<0.01	<0.01				
290 BTEX - Ethyl Benzene	mg/kg	0.01	A-T-022s	5700	<0.01	<0.01				
294 BTEX - m & p Xylene	mg/kg	0.01	A-T-022s	5900-6200	<0.01	<0.01				
292 BTEX - o Xylene	mg/kg	0.01	A-T-022s	6600	<0.01	<0.01				
296 MTBE	mg/kg	0.01	A-T-022s		<0.01	<0.01				

Envirolab Job Number: 22/10897
Client: Structural Soils Limited (Castleford)
Client Project Name: EMG Phase 2
Client Project Ref: 765514

Lab Sample ID Client Sample No Client Sample ID Depth to Top Depth to Bottom Date Sampled Sample Type Sample Matrix Code				Units	Limit of Detection	Method	Generic Assessment Criteria - commercial	22/10897/1	22/10897/2	22/10897/3	22/10897/4	22/10897/5	22/10897/6	22/10897/7	22/10897/8	22/10897/9	22/10897/10	22/10897/11	22/10897/12	22/10897/13	22/10897/14	22/10897/15	22/10897/16	22/10897/17		
								CP06	CP10	CP27	BH02	BH05	BH06	BH09 (D)	BH17	BH18	BH24	BH25	BH04 (D)	BH10	BH13	BH21	SW2	SW3		
								8.07	5.45	2.51	9.03	5.97	19.00	15.00	2.86	7.18	4.56	5.05	11.90	16.42	12.42	10.44				
								02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	02-Nov-22	02-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22	03-Nov-22		
								Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	
								N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
								7.25	7.26	7.32	7.45	7.91	7.3	7.35	7.63	7.48	7.33	7.45	7.45	7.2	7.36	7.58	7.95	7.84		
								216	237	59	75	77	194	66	132	53	151	1340	24	53	74	196	74	76		
								0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
								0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
								10	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1	
								1000	46	41	45	23	40	29	43	50	41	34	127	33	43	30	71	63	30	
								5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
								2000	7	10	9	4	17	5	6	12	10	<4	<4	5	6	12	6	5	5	
								1	1	11	10	14	9	5	<1	13	8	<1	9	11	11	<1	<1	<1		
								50	9	11	11	11	8	7	11	12	8	2	3	11	11	10	24	5	3	
								0.01	<0.02	<0.01	0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.02
								0.01	Calc	0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.01	<0.02	<0.01	<0.02	<0.02
								0.01	25	<1	2	<1	2	<1	<1	2	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
								1	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
								20	<2	2	<2	<2	12	<2	<2	2	<2	<2	3	<2	3	<2	<2	<2	<2	
								1	1	10	<1	16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
								2	3	16	23	17	30	15	8	15	18	5	7	4	3	5	14	14	14	
OCP+OPP Combined Pest Suite (incl. Atrazine+Simazine) (w)																										
5444	Dichlobenil (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5446	Teconazene (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5448	Trifluralin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
alpha-Hexachlorocyclohexane (HCH) (w)								µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5449	Heptachlorobenzene (HCB) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5452	Simazine (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5454	Atrazine (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5456	beta-Heachlorocyclohexane (HCH) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5458	Quintozene (PCNB) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5460	Triallate (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5468	delta-Hexachlorocyclohexane (HCH) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5466	Chlorothalonil (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5470	Heptachlor (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5472	Aldrin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5474	Triadimefon (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5476	Teledrin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5478	Isoflin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5480	Pendimethalin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5482	Heptachlor epoxide (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5484	trans-Chlordane (Gamma) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5486	o,p-DDE (2,4) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5488	Endosulphan I (Alpha) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5490	cis-Chlordane (Alpha) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5492	p,p-DDE (4,4) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5494	Dieldrin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5578	o,p-DDD (2,4) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5496	Endrin (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5498	Endosulphan II (Beta) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
5500	p,p-DDD (4,4) (w)	µg/l	0.1	A-T-056w	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<												

Client: Structural Soils Limited (Castleford)
Client Project Name: EMG Phase 2
Client Project Ref: 765514

[illegible]

APPENDIX D

GROUND GAS ASSESSMENT

Borehole No.	Date	Gas Concentrations					Max Flow Rate, l/hr	PID, ppm	CO ₂	CH ₄	Water Level (m bgl)	Ground Conditions
		Min O ₂ , %	Max CO ₂ , %**	Max CH ₄ ,%	Max H ₂ S, ppm	Max			GSV,	GSV*,		
						CO, ppm			l/hr	l/hr		
BH01	13/10/2022	19.5	0.3	0.1	0.1	3	-0.4	0.4	-0.0012	-0.0004	5.73	GM
BH02	13/10/2022	16.4	0.2	0.1	0.1	5	-0.3	0.6	-0.0006	-0.0003	7.72	GM
	26/10/2022	13.9	0.2	0.1	0.1	0	-2.2	0.4	-0.0044	-0.0022	7.8	
	14/11/2022	15.3	0.9	0.1	0.1	0	-	0.5	-	-	7.92	
BH04 (s)	14/10/2022	17.3	1.1	0.1	0.1	10	-1	0.1	-0.011	-0.001	Dry	WGM
	26/10/2022	14.9	2	0.1	0.1	5	-2.4	0.3	-0.048	-0.0024	2.32	
	14/11/2022	-	-	-	-	-	-	-	-	-	2.08	
BH04 (d)	14/10/2022	12.9	1.8	0.1	0.1	10	0.8	1.2	0.0144	0.0008	10.7	GM
	14/11/2022	4.3	2.5	0.1	0.1	0	8.1	0.8	0.2025	0.0081	10.88	
BH05	14/10/2022	16.9	0.2	0.1	0.1	5	-1.2	-	-	-	4.92	GFC/GFG
BH06	14/10/2022	19.3	0.1	0.1	0.1	10	-0.7	1.1	-	-	3.08	WGM/GM
BH09	14/10/2022	19.6	0.1	0.1	0.1	8	-0.7	1	-	-	3.68	WGM/GM
BH10	14/10/2022	18.2	0.6	0.1	0.1	3	-0.9	0.7	-0.0054	-0.0009	15.22	WGM/GM
	27/10/2022	17.3	0.8	0.1	0.1	3	-1.5	1	-0.012	-0.0015	15.15	
	14/11/2022	21.1	0.2	0.1	0.1	0	0.1	-	0.0002	0.0001	15.32	
BH11	14/10/2022	20	0.1	0.1	0.1	3	-1	1.1	-0.001	-0.001	8.71	GFG/GM
BH12	13/10/2022	20	0	0.1	0.1	5	-0.5	1.1	-	-	6.75	WGM/GM
BH13	13/10/2022	15.8	0.8	0.1	0.1	13	-0.4	2.5	-0.0032	-0.0004	11.2	WGM/GM
	27/10/2022	12.9	1.3	0.1	0.1	22	-2.1	3.1	-0.0273	-0.0021	11.1	
	11/11/2022	21.2	0.1	0.1	0.1	0	0.1	1.3	0.0001	0.0001	11.82	
BH14	13/10/2022	20	0.6	0.1	0.1	3	-0.5	0.4	-0.003	-0.0005	8.61	OM/GFC/WGM
BH16	13/10/2022	18.4	0.7	0.1	0.1	5	-1	1.7	-0.007	-0.001	4.55	WGM/GM

Borehole No.	Date	Gas Concentrations					Max Flow Rate, l/hr	PID, ppm	CO ₂	CH ₄	Water Level (m bgl)	Ground Conditions
		Min O ₂ , %	Max CO ₂ , %**	Max CH ₄ ,%	Max H ₂ S, ppm	GSV,			GSV*,			
						Max CO, ppm			l/hr	l/hr		
BH17	13/10/2022	18.1	0.1	0.1	0.1	0	-0.7	1.5	-0.0007	-0.0007	1.71	GFC/GFG/WGM
	27/10/2022	15.9	0.3	0.1	0.1	5	-2.6	1.5	-0.0078	-0.0026	1.67	
	11/11/2022	21.4	0.1	0.1	0.1	0	0.1	0.5	0.0001	0.0001	1.72	
BH18	13/10/2022	18.1	0.7	0.1	0.1	5	-0.5	1.1	-0.0035	-0.0005	5.84	GFC/WGM/GM
	27/10/2022	15.9	1.3	0.1	0.1	8	-2.2	3	-0.0286	-0.0022	5.85	
	11/11/2022	21.3	0.1	0.1	0.1	0	0.1	1.5	-	-	2.05	
BH21	13/10/2022	16.6	1.1	0.1	0.1	5	0.1	2.9	0.0011	0.0001	9.34	GM
	27/10/2022	17.9	0.7	0.1	0.1	3	-2.5	0.5	-0.0175	-0.0025	9.45	
	11/11/2022	19.3	0.6	0.1	0.1	1	-0.1	0.5	-0.0006	-0.0001	9.51	
BH23	13/10/2022	18.9	0.7	0.1	0.1	1	-0.7	0	-0.0049	-0.0007	6.2	WGM/GM
	27/10/2022	18.3	0.8	0.1	0.1	3	-2.7	0.4	-0.0216	-0.0027	6.25	
	11/11/2022	19	0.7	0.1	0.1	0	0.1	0	0.0007	0.0001	6.4	
BH24	13/10/2022	19.1	0.6	0.1	0.1	1	-0.8	0.2	-0.0048	-0.0008	3.19	WGM/GM
BH25	13/10/2022	20.1	0.1	0.1	0.1	5	-1.1	1.7	-0.0011	-0.0011	3.93	WGM/GM
BH27	13/10/2022	18.1	0.8	0.1	0.1	1	-1.1	0	-0.0088	-0.0011	3.04	WGM
CP01	13/10/2022	19.7	0.5	0.1	0.1	3	-1	0.8	-0.005	-0.001	7.11	WGM
	26/10/2022	17.8	0.7	0.1	0.1	0	-2.8	0	-0.0196	-0.0028	7.2	
	14/11/2022	20	1.1	0.1	0.1	0	0.1	0	0.0011	0.0001	7.34	
CP06	14/10/2022	18.1	0.1	0.1	0.1	3	-1	0	-0.001	-0.001	6.87	WGM
	26/10/2022	15.8	0.3	0.1	0.1	3	-2.5	0.6	-0.0075	-0.0025	6.92	
	14/11/2022	15.6	0.6	0.1	0.1	0	0.1	0.3	0.0006	0.0001	7.06	

Borehole No.	Date	Gas Concentrations					Max Flow Rate, l/hr	PID, ppm	CO ₂	CH4	Water Level (m bgl)	Ground Conditions
		Min O ₂ , %	Max CO ₂ , %**	Max CH4,%	Max H2S, ppm	GSV,			GSV*,			
						CO, ppm			l/hr	l/hr		
CP10	14/10/2022	16.9	0.8	0.1	0.1	3	-0.7	0.5	-0.0056	-0.0007	4.32	OM/GFC/GFG
	27/10/2022	16.7	0.9	0.1	0.1	5	-2.4	1	-0.0216	-0.0024	4.27	
	14/11/2022	21.1	0.2	0.1	0.1	0	0.1	0.3	0.0002	0.0001	4.27	
CP11	14/10/2022	-	-	-	-	-	-1.1	-	-	-	2.27	WGM
CP16	13/10/2022	17	0.1	0.1	0.1	22	-0.4	1.9	-	-	3.85	GFC
CP17	13/10/2022	16.9	0.9	0.1	2	65	-0.8	0.9	-	-	7.2	GFG
	13/10/2022	19.3	0.9	0.1	0.1	1	-1.1	0.5	-0.0099	-0.0011	Dry	
	27/10/2022	18.5	1	0.1	0.1	3	-2.4	0.8	-0.024	-0.0024	Dry	
CP21	11/11/2022	20.2	0.5	0.1	0.1	0	0.1	0.3	0.0005	0.0001	4.9	WGM
	13/10/2022	19.7	0.3	0.1	0.1	3	1.4	0.4	0.0042	0.0014	1.4	
	27/10/2022	19.2	0.4	0.1	0.1	0	-2	1.1	-0.008	-0.002	1.25	
CP27	11/11/2022	20.7	0.3	0.1	0.1	0	0.1	0.3	0.0003	0.0001	1.4	MG
	13/10/2022	19.5	0.9	0.1	0.1	3	-1.3	0	-0.0117	-0.0013	Dry	
	27/10/2022	19	1	0.1	0.1	3	-2.5	0.5	-0.025	-0.0025	Dry	
CP28	11/11/2022	21.2	0.2	0.1	0.1	0	0.1	0	0.0002	0.0001	3.81	WGM

Italics indicate where groundwater was sat within the non-perforated section of pipe therefore rendering the readings invalid. Therefore, GSVs have not been calculated in these instances.

APPENDIX E

PRINCIPLES OF ENVIRONMENTAL RISK ASSESSMENT

Risk Classification Matrix

		Consequence			
		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)
Probability	High (Hi)	Very high risk	High Risk	Moderate Risk	Moderate/low risk
	Likely (Li)	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood (Lw)	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely (Ul)	Moderate/low risk	Low risk	Very low risk	Very low risk

After CIRIA Report C552, Contaminated Land Risk Assessment A Guide to Good Practice, 2001

Classification of Consequence

Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem or organisation forming part of such ecosystem (note: the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ("significant harm" as defined in DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem or organism forming part of such ecosystem, (note: the definitions of ecological systems within Draft Circular on Contaminated Land, DETR, 2000).	Concentration of a contaminant from site exceeds the generic or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve. Lesser toxic and asphyxiate effects of carbon dioxide
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ("significant harm" as defined in the Draft Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discoloration of concrete.

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