

EXPLORATORY HOLE PHOTOGRAPHS

Exploratory Hole

S2-TP262

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284632.27	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210561.52	Method	TP
Project No	G23012	Level	234.73 mAOD	Termination Reason	Water ingress

Sheet 1 of 3



S2-TP262 Face D



S2-TP262 Face B

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284632.27	Equipment	JCB 220X 1c	Sheet 2 of 3
Client	Walters UK Ltd	Northing	210561.52	Method	TP	
Project No	G23012	Level	234.73 mAOD	Termination Reason	Water ingress	



S2-TP262 Face A



S2-TP262 Face C



EXPLORATORY HOLE PHOTOGRAPHS

Exploratory Hole

S2-TP262

Project	Global Centre of Rail Excellence (GCRC) Stage 2	Easting	284632.27	Equipment	JCB 220X 1c	Sheet 3 of 3
Client	Walters UK Ltd	Northing	210561.52	Method	TP	
Project No	G23012	Level	234.73 mAOD	Termination Reason	Water ingress	



S2-TP262 Spoil

		TRIAL PIT EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time			Exploratory Hole				
								Date and Time		Depth	Water Depth	S2-TP263			
								05/04/2023 13:20 05/04/2023 14:25		0.00 3.00	Wet				
Project	Global Centre of Rail Excellence (GCRE) Stage 2			Equipment	JCB 220X Ic			Sheet 1 of 1		Scale 1:20					
Client	Walters UK Ltd			Method	TP										
Project No	G23012	Level	233.91 mAOD	Orientation		340 degrees		Logged AE		Checked AP					
Easting	284526.03	Northing	210548.25	Length		4.20									
Termination Reason		Water ingress		Width		0.60									
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks		Depth (Thickness)	Level (mAOD)	Legend	Description	Scale	Backfill						
1 ES	0.20 - 0.30			0.00	233.41		Dark grey very sandy angular fine to coarse GRAVEL of siltstone and mudstone with low cobble content. Cobbles are angular of moderately weak to medium strong siltstone (120×110×65mm). Sand is fine to coarse. Rare fragments of concrete (up to 30mm) (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR	0.50							
2 B	0.30 - 0.50			(0.50)											
3 ES	0.50 - 0.60			0.50											
5 B	0.80 - 1.00			(0.70)	232.71		Dark grey very gravelly fine to coarse SAND with medium cobble content. Gravel is subangular to subrounded fine to coarse of siltstone and sandstone. Cobbles are subangular of medium strong siltstone. Occasional concrete fragments (up to 40mm) and occasional brick fragments (up to 120mm). Rare timber fragments (up to 20mm) (MADE GROUND) Geology Code: MGR 2nd Geology Code: SD	1.00							
4 ES	0.90 - 1.00														
6 B	1.30 - 1.50			1.20											
7 ES	1.90 - 2.00			(1.00)	231.71		Grey sandy angular fine to coarse GRAVEL of siltstone and mudstone with high cobble content and low boulder content. Cobbles are angular to subangular of moderately weak to medium strong siltstone (140×100×80mm) with frequent orangish brown staining. Boulders are angular to subangular of medium strong sandstone and siltstone (250×200×160mm). Sand is fine to coarse. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR	1.50							
8 B	2.50 - 2.70			2.20											
9 ES	2.70 - 2.80			(0.80)											
				230.91			Greyish brown clayey SAND and GRAVEL. Gravel is angular to subangular fine to coarse of siltstone and mudstone. Sand is fine to coarse. (GLACIAL TILL) Geology Code: MGR 2nd Geology Code: GR	2.50							
							End of Exploratory Hole at 3.00m	3.00							
								3.50							
								4.00							
Weather	Rain	Trial Pit Excavation Onsite Layout					Water Strikes								
Shoring	None						Date and Time					Strike	Rising to	Time	Remarks
Stability	Collapse 1.80m back to 0.30m (Face A and C)						05/04/2023 14:00					2.90	2.50	20mins	
Remarks															
Machine excavated trial pit from GL to 3.00m															

EXPLORATORY HOLE PHOTOGRAPHS

Exploratory Hole

S2-TP263

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284526.03	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210548.25	Method	TP
Project No	G23012	Level	233.91 mAOD	Termination Reason	Water ingress

Sheet 1 of 3



S2-TP263 Face D



S2-TP263 Face B

		EXPLORATORY HOLE PHOTOGRAPHS		Exploratory Hole	
				S2-TP263	
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284526.03	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210548.25	Method	TP
Project No	G23012	Level	233.91 mAOD	Termination Reason	Water ingress

Sheet 2 of 3



S2-TP263 Face A



S2-TP263 Face D

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284526.03	Equipment	JCB 220X 1c	Sheet 3 of 3
Client	Walters UK Ltd	Northing	210548.25	Method	TP	
Project No	G23012	Level	233.91 mAOD	Termination Reason	Water ingress	



S2-TP263 Spoil

		TRIAL PIT EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time			Exploratory Hole		
								Date and Time		Depth	Water Depth	S2-TP264	
								06/04/2023 13:45 06/04/2023 14:20		0.00 2.00	Dry		
Project	Global Centre of Rail Excellence (GCRE) Stage 2			Equipment	JCB 220X Ic			Sheet 1 of 1		Scale 1:20			
Client	Walters UK Ltd			Method	TP								
Project No	G23012	Level	232.36 mAOD	Orientation		260 degrees		Logged AE		Checked AP			
Easting	284400.79	Northing	210546.42	Length		4.30							
Termination Reason		Service encountered.			Width		0.60						
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks		Depth (Thickness)	Level (mAOD)	Legend	Description			Scale	Backfill		
1 ES	0.20 - 0.30	Possible concrete and brick footing, pit extended towards face D		0.00	231.66		Grey sandy angular fine to coarse GRAVEL of siltstone and mudstone. with high cobble content and medium boulder content. Cobbles are angular to subangular of moderately weak to medium strong siltstone (140×100×80mm) with rare orangish brown staining. Boulders are angular to subangular of medium strong siltstone (420×300×200mm). Sand is fine to coarse. Occasional concrete fragments (up to 100mm.) and brick fragments (up to 140mm). (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR			0.50			
2 B	0.40 - 0.60			(0.70)									
3 ES	0.50 - 0.60			0.70									
4 ES	0.90 - 1.00 1.00	Concrete pipe encountered in face C seeping water to 1.75m.		(1.30)	230.36		Brownish grey very sandy silty angular and subangular fine to coarse GRAVEL of siltstone and mudstone. Sand is fine to coarse. Frequent brick fragments (up to 230mm) and occasional concrete fragments. Rare timber fragments (up to 30mm). (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR			1.00			
5 B	1.40 - 1.60												
6 ES	1.60 - 1.90 1.90 - 2.00												
							End of Exploratory Hole at 2.00m			2.00			
										2.50			
										3.00			
										3.50			
										4.00			
Weather	Overcast	Trial Pit Excavation Onsite Layout					Water Strikes						
Shoring	None						Date and Time		Strike	Rising to	Time	Remarks	
Stability	Stable												
Remarks Machine excavated trial pit from GL to 2.00m													

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EXPLORATORY HOLE PHOTOGRAPHS

Exploratory Hole
S2-TP264

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284400.79	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210546.42	Method	TP
Project No	G23012	Level	232.36 mAOD	Termination Reason	Service encountered.

Sheet 1 of 3



S2-TP264 Face D



S2-TP264 Face B

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284400.79	Equipment	JCB 220X 1c	Sheet 2 of 3
Client	Walters UK Ltd	Northing	210546.42	Method	TP	
Project No	G23012	Level	232.36 mAOD	Termination Reason	Service encountered.	



S2-TP264 Face A

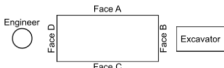


S2-TP264 Face C

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-TP264
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	284400.79	Equipment	JCB 220X 1c	Sheet 3 of 3
Client	Walters UK Ltd	Northing	210546.42	Method	TP	
Project No	G23012	Level	232.36 mAOD	Termination Reason	Service encountered.	



S2-TP264 Spoil

				TRIAL PIT EXPLORATORY HOLE LOG				Exploratory Hole Progress by Time			Exploratory Hole	
Date and Time		Depth	Water Depth					S2-TP265				
18/04/2023 10:20 18/04/2023 11:00		0.00 3.41	Dry									
Project	Global Centre of Rail Excellence (GCRE) Stage 2			Equipment	JCB 220X Ic			Sheet 1 of 1				
Client	Walters UK Ltd			Method	TP			Scale	1:20			
Project No	G23012	Level	272.77 mAOD	Orientation	140 degrees			Logged	CE			
Easting	281646.67	Northing	210539.87	Length	4.00			Checked	AP			
Termination Reason	Terminated on bedrock			Width	0.60							
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks		Depth (Thickness)	Level (mAOD)	Legend	Description	Scale	Backfill			
1 ES	0.20 - 0.30 0.20	PID: 0.0ppmv		0.00 (0.20) 0.20	272.57		Dark grey sandy clayey SILT with frequent rootlets (up to 1mm). (MADE GROUND) Geology Code: MGR 2nd Geology Code: SL					
2 D	0.30 - 0.40						Firm grey mottled orangish brown slightly sandy silty CLAY with occasional relict rootlets (up to 5mm). (Possible MADE GROUND (REWORKED TILL)) Geology Code: MGR 2nd Geology Code: CL					
3 ES	0.50 - 0.60 0.50 0.50 0.50 0.50	HV: P: 38kPa R: 22kPa HV: P: 40kPa R: 28kPa HV: P: 45kPa R: 24kPa PID: 0.1ppmv		(0.80)				0.50				
4 D	0.80 - 0.90											
5 ES	0.90 - 1.00 0.90	PID: 0.1ppmv		1.00	271.77		Dark grey slightly gravelly sandy clayey SILT. Gravel is angular fine of mudstone. Sand is fine to coarse. (Possible MADE GROUND (REWORKED SOUTH WALES COAL MEASURES)) Geology Code: MGR 2nd Geology Code: SL	1.00				
6 B	1.40 - 1.60			(0.80)					1.50			
7 ES	1.90 - 2.00 1.90	PID: 0.1ppmv		1.80	270.97		Dark grey sandy angular fine to coarse GRAVEL of mudstone and siltstone. Sandy is fine to coarse. (Possible MADE GROUND (REWORKED SOUTH WALES COAL MEASURES)) Geology Code: MGR 2nd Geology Code: GR	2.00				
8 B	2.40 - 2.60			(1.60)				2.50				
9 ES	2.90 - 3.00 2.90	PID: 0.2ppmv		3.40 (0.01)	269.37 269.36			Grey medium strong SILTSTONE. (SOUTH WALES COAL MEASURES) Geology Code: SWCM 2nd Geology Code: SZT End of Exploratory Hole at 3.41m	3.50			
Weather	Sunny	Trial Pit Excavation Onsite Layout 				Water Strikes						
Shoring	None					Date and Time	Strike	Rising to	Time	Remarks		
Stability	Stable											
Remarks Machine excavated trial pit from GL to 3.41m												

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		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-TP265
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281646.67	Equipment	JCB 220X lc	Sheet 1 of 5
Client	Walters UK Ltd	Northing	210539.87	Method	TP	
Project No	G23012	Level	272.77 mAOD	Termination Reason	Terminated on bedrock	



S2-TP265 Spoil



S2-TP265 Face D

		EXPLORATORY HOLE PHOTOGRAPHS		Exploratory Hole S2-TP265	
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281646.67	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210539.87	Method	TP
Project No	G23012	Level	272.77 mAOD	Termination Reason	Terminated on bedrock

Sheet 2 of 5



S2-TP265 Spoil

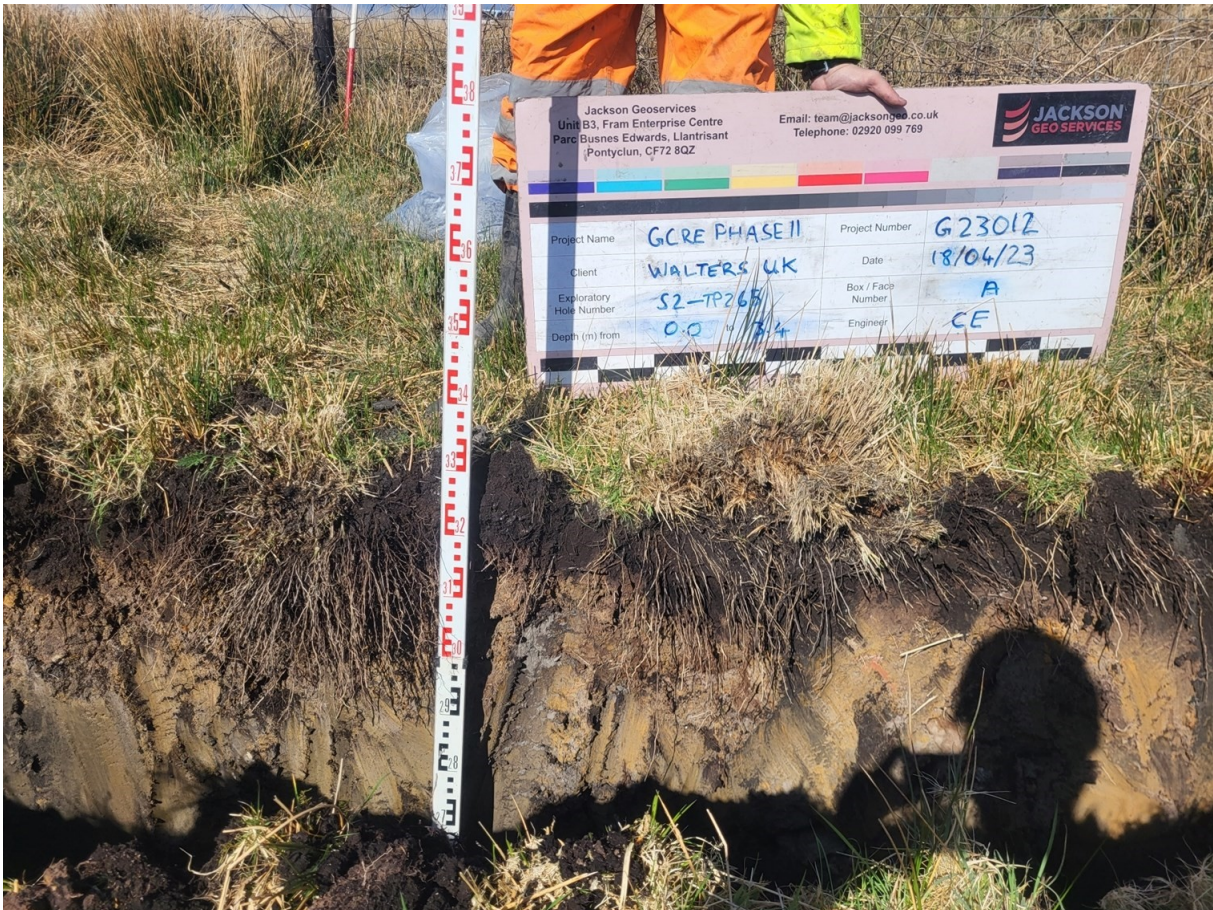


S2-TP265 Post Excavation

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281646.67	Equipment	JCB 220X 1c	Sheet 3 of 5
Client	Walters UK Ltd	Northing	210539.87	Method	TP	
Project No	G23012	Level	272.77 mAOD	Termination Reason	Terminated on bedrock	



S2-TP265 Face B



S2-TP265 Face A

		EXPLORATORY HOLE PHOTOGRAPHS		Exploratory Hole S2-TP265	
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281646.67	Equipment	JCB 220X 1c
Client	Walters UK Ltd	Northing	210539.87	Method	TP
Project No	G23012	Level	272.77 mAOD	Termination Reason	Terminated on bedrock

Sheet 4 of 5



S2-TP265 Spoil

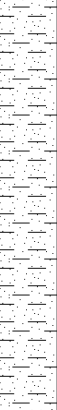
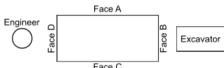


S2-TP265 Face C

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-TP265
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281646.67	Equipment	JCB 220X 1c	Sheet 5 of 5
Client	Walters UK Ltd	Northing	210539.87	Method	TP	
Project No	G23012	Level	272.77 mAOD	Termination Reason	Terminated on bedrock	



S2-TP265 Pre Excavation

				TRIAL PIT EXPLORATORY HOLE LOG				Exploratory Hole Progress by Time			Exploratory Hole						
Date and Time		Depth	Water Depth					S2-TP266									
04/04/2023 13:54 04/04/2023 14:53		0.00 3.50	Dry														
Project	Global Centre of Rail Excellence (GCRE) Stage 2			Equipment	JCB 220X Ic			Sheet 1 of 1									
Client	Walters UK Ltd			Method	TP			Scale		1:20							
Project No	G23012	Level	235.30 mAOD	Orientation		198 degrees		Logged		AE							
Easting	284581.21	Northing	210533.86	Length		3.80		Checked		AP							
Termination Reason	Unable to progress through boulders			Width		0.80											
Samples	Sampling and Testing Depths		Insitu Testing and Depth Related Remarks		Depth (Thickness)	Level (mAOD)	Legend	Description			Scale	Backfill					
1 ES	0.20 - 0.30				0.00	234.50		Grey sandy angular fine to coarse GRAVEL of sandstone and siltstone with high cobble content and high boulder content. Cobbles are angular to subangular of moderately weak to medium strong sandstone and siltstone (140×100×80mm). Boulders are angular to subangular of medium strong sandstone and siltstone (up tp740×330×280mm). Sand is fine to coarse. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR			0.50						
2 B	0.30 - 0.60				(0.80)												
3 ES	0.50 - 0.60																
4 B	0.80 - 1.00				0.80	233.50		Dark grey gravelly fine to coarse SAND with medium cobble content. Gravel is subrounded to rounded fine to coarse of siltstone and rare coal. Cobbles are subangular to subrounded occasionally tabular of moderately weak to medium strong siltstone and rare coal (180×130×80mm). Rare brick fragments (up to 140mm) and rare timer (up to 190mm). (MADE GROUND) Geology Code: MGR 2nd Geology Code: SD			1.00						
5 ES	0.90 - 1.00				(1.00)												
6 D	1.80 - 1.90		HV: P: 40kPa R: 12kPa HV: P: 45kPa R: 30kPa HV: P: 68kPa R: 30kPa		1.80	232.90		Soft to firm grey mottled greyish brown slightly gravelly sandy CLAY. Gravel is angular to subangular fine to medium of mudstone and coal. Sand is fine. (Possible GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL			2.00						
7 ES	1.90 - 2.00				(0.60)												
	2.00 2.00 2.00																
8 D	2.40 - 2.50		HV: P: 16kPa R: 9kPa HV: P: 18kPa R: 9kPa HV: P: 24kPa R: 18kPa		2.40	231.80		Soft grey mottled brownish yellow sandy CLAY with low cobble content and low boulder content. Cobbles are rounded of medium strong sandstone (130×80×50mm). Boulders are rounded of medium strong to strong sandstone (in excess of 1000mm). Sand is fine. (GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL			2.50						
	2.50 2.50 2.50																
9 D	2.90 - 3.00				(1.10)			End of Exploratory Hole at 3.50m			3.50						
10 D	3.40 - 3.50		HV: P: 32kPa R: 16kPa HV: P: 36kPa R: 17kPa HV: P: 42kPa R: 18kPa								4.00						
	3.50 3.50 3.50																
Weather		Sunny		Trial Pit Excavation Onsite Layout 				Water Strikes									
Shoring		None						Date and Time		Strike		Rising to		Time		Remarks	
Stability		Stable															
Remarks																	
Machine excavated trial pit from GL to 3.50m																	

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