

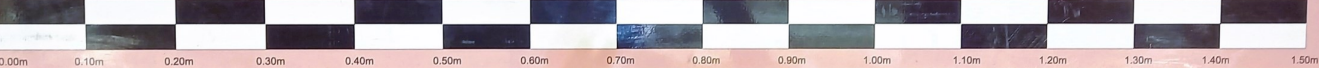
		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH220
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281810.25	Equipment	Insulated hand tools/Cornacchio 305	Sheet 2 of 4
Client	Walters UK Ltd	Northing	211843.17	Method	IP/RC/RO	
Project No	G23012	Level	241.48 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	31 MAR' 2023
Exploratory Hole Number	S2-BH220	Box / Face Number	
Depth (m) from	3300 to 3450	Engineer	A



3300m | 3450m

3600m | 3450m

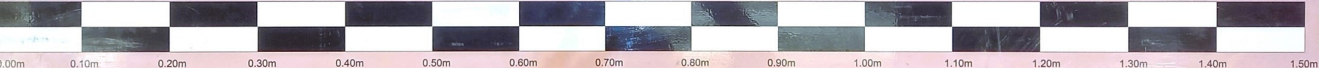
S2-BH220 33.00 m to 34.50 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	31 MAR' 2023
Exploratory Hole Number	S2-BH220	Box / Face Number	
Depth (m) from	3450 to 3600	Engineer	A



3300m | 3450m

3600m | 3450m

S2-BH220 34.50 m to 36.00 m

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH220
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281810.25	Equipment	Insulated hand tools/Cornacchio 305	
Client	Walters UK Ltd	Northing	211843.17	Method	IP/RC/RO	
Project No	G23012	Level	241.48 mAOD	Termination Reason	Scheduled depth	

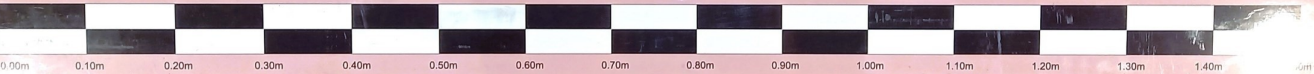
Sheet 3 of 4

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	31 MAR' 2023
Exploratory Hole Number	S2-BH220	Box / Face Number	
Depth (m) from	3600 to 37.50	Engineer	A



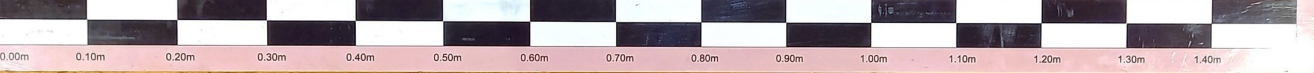
S2-BH220 36.00 m to 37.50 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	31 MAR' 2023
Exploratory Hole Number	S2-BH220	Box / Face Number	
Depth (m) from	37.50 to 39.00	Engineer	A

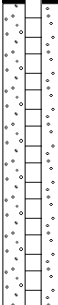
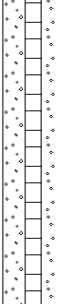
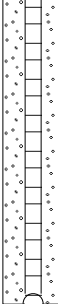





S2-BH220 37.50 m to 39.00 m

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	281810.25	Equipment	Insulated hand tools/Comacchio 305
Client	Walters UK Ltd	Northing	211843.17	Method	IP/RC/RO
Project No	G23012	Level	241.48 mAOD	Termination Reason	Scheduled depth

S2-BH220 39.00 m to 40.00 m

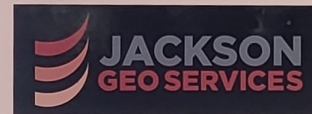
		SONIC DRILLING EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time				Exploratory Hole					
								Date and Time		Depth	Casing Depth	Water Depth	S2-BH221				
Project		Global Centre of Rail Excellence (GCRE) Stage 2				Equipment		Eijkelpamp-Fraste SRS ML Duo/Insulated hand tools				Sheet 1 of 1					
Client		Walters UK Ltd				Method		SNC/IP				Scale 1:50					
Project No		G23012		Level		252.85 mAOD		Inclination		90 degrees		Drilled AM					
Easting		283901.03		Northing		211683.73		SPT Hammer Serial Number				Logged AF/AE					
Termination Reason		Scheduled depth				SPT Hammer Energy Ratio		%				Checked AP					
Samples	Sampling and Testing Depths		Insitu Testing and Depth Related Remarks			Drill Runs	TCR	Depth (Thickness)	Level (mAOD)	Legend	Description		Scale	Backfill			
1 ES 4 B 2 D 3 ES	0.20 - 0.30 0.20 0.30 - 0.40 0.40 - 0.50		PID: 0.0ppmv					0.00			soft sandy very gravelly CLAY with medium cobble content. Gravel is angular to subrounded fine to coarse siltstone. Cobbles are sub angular to sub rounded siltstone (150×100×80m). Sand is fine to coarse. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR 0.00m - 2.00m Partial recovery of core run, unable to assign depth range for core loss due to variable nature of material.		0.50				
5 ES 6 D	0.50 - 0.60 0.50 0.90 - 1.00 0.90 - 1.00 0.90		PID: 0.0ppmv					(2.00)					1.00				
						1.00 - 2.00	100%						1.50				
101 ES	2.00 - 2.10 2.00		PID: 0.0ppmv					2.00	250.85		Stiff locally firm dark grey sandy very gravelly CLAY with probable low to medium cobble content. Gravel is angular to subrounded fine to coarse of siltstone, sandstone, mudstone and rare coal. Cobbles are subangular of moderately weak and medium strong siltstone. Sand is fine and medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CL		2.00				
102 D	2.40 - 2.50												2.50				
103 D 104 ES	2.90 - 3.00 3.00 - 3.10 3.00		PID: 0.0ppmv			2.00 - 4.00	100%	(2.00)					3.00				
105 D	3.50 - 3.60												3.50				
106 B 107 ES	4.00 - 4.10 4.00 - 4.36 4.00		PID: 0.0ppmv					4.00 (0.36) 4.36	248.85 248.49			Dark grey sandy very clayey angular to subrounded fine to coarse GRAVEL of siltstone and mudstone. Sand is fine and medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR Probable grey gravelly COBBLES and BOULDERS. Recovered as very sandy angular locally subangular fine to coarse GRAVEL of siltstone and mudstone with low cobble content. Cobbles are angular of moderately weak and medium strong siltstone. Sand is fine to coarse. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CO	4.00				
109 B	4.50 - 6.00												4.50				
108 ES	5.00 - 5.10 5.00		PID: 0.0ppmv			4.00 - 6.00	100%	(1.64)					5.00				
													5.50				
110 ES 111 B	6.00 - 6.10 6.00 - 8.00 6.00		PID: 0.0ppmv					6.00	246.85			Dark grey sandy very clayey angular and subangular fine to coarse GRAVEL of siltstone, mudstone, sandstone and rare coal with local bands of very gravelly CLAY. Sand is fine to coarse. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR 6.65m - 6.90m Firm sandy very gravelly CLAY. 6.90m - 7.30m Probable grey gravelly COBBLES. Recovered as very angular and subangular fine to coarse GRAVEL of siltstone. Sand is fine to coarse.	6.00				
112 ES	7.00 - 7.10 7.00		PID: 0.0ppmv			6.00 - 8.00	100%	(3.65)					7.00				
													7.50				
113 ES 114 B	8.00 - 8.10 8.00 - 9.40 8.00		PID: 0.1ppmv									8.00					
115 ES	9.00 - 9.10 9.00		PID: 0.1ppmv			8.00 - 10.00	100%						9.00				
								9.65 (0.35)	243.20				9.50				
									242.85			NO RECOVERY. Colliery spoil. (Driller's Description) (MADE GROUND) Geology Code: MGR End of Exploratory Hole at 10.00m	10.00				
Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
					10.00	101mm	10.00	177mm	1.00	10.00							
Remarks Hand excavated inspection pit GL to 1.00m. Sonic drilling from 1.00m to 10.00m.																	
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		EXPLORATORY HOLE PHOTOGRAPHS		Exploratory Hole S2-BH221	
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283901.03	Equipment	Eijkelpamp-Fraste SRS ML Duo/ Insulated hand tools
Client	Walters UK Ltd	Northing	211683.73	Method	SNC/IP
Project No	G23012	Level	252.85 mAOD	Termination Reason	Scheduled depth

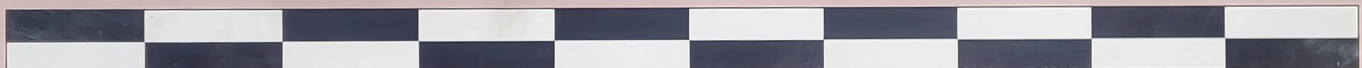
Sheet 1 of 3

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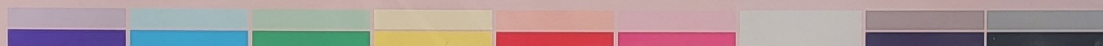
Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	23 MAY 2023
Exploratory Hole Number	S2-BH221	Box / Face Number	
Depth (m) from	0.00 to 2.00	Engineer	CE



S2-BH221 1.00 m to 2.00 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	23 MAY 2023
Exploratory Hole Number	S2-BH221	Box / Face Number	
Depth (m) from	2.00 to 4.00	Engineer	CE



S2-BH221 2.00 m to 4.00 m

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283901.03	Equipment	Eijkkamp-Fraste SRS ML Duo/ Insulated hand tools
Client	Walters UK Ltd	Northing	211683.73	Method	SNC/IP
Project No	G23012	Level	252.85 mAOD	Termination Reason	Scheduled depth

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Project Name

GCRE STAGE 2

Project Number

G23012

Client

WALTERS GROUP

Date

23 MAY 2023

Exploratory Hole Number

S2-BH221

Box / Face Number

Depth (m) from

4.00 to 6.00

Engineer

CE

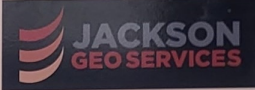




S2-BH221 4.00 m to 6.00 m

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Project Name

GCRE STAGE 2

Project Number

G23012

Client

WALTERS GROUP

Date

23 MAY 2023

Exploratory Hole Number

S2-BH221

Box / Face Number

Depth (m) from

6.00 to 8.00

Engineer

CE





S2-BH221 6.00 m to 8.00 m



EXPLORATORY HOLE PHOTOGRAPHS

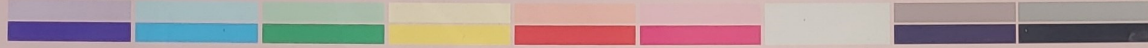
Exploratory Hole

S2-BH221

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283901.03	Equipment	Eijkelkamp-Fraste SRS ML Duo/ Insulated hand tools	Sheet 3 of 3
Client	Walters UK Ltd	Northing	211683.73	Method	SNC/IP	
Project No	G23012	Level	252.85 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	23 MAY 2023
Exploratory Hole Number	S2-BH221	Box / Face Number	
Depth (m) from	8.00 to 10.00	Engineer	CE



S2-BH221 8.00 m to 10.00 m

JACKSON GEO SERVICES		SONIC DRILLING EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time				Exploratory Hole					
								Date and Time		Depth	Casing Depth	Water Depth	S2-BH222				
Project	Global Centre of Rail Excellence (GCRE) Stage 2				Equipment	Eijkelpamp-Fraste SRS ML Duo											
Client	Walters UK Ltd				Method	SNC/RC											
Project No	G23012		Level	277.08 mAOD		Inclination		90 degrees									
Easting	283601.04		Northing	211550.85		SPT Hammer Serial Number											
Termination Reason	Scheduled depth				SPT Hammer Energy Ratio		%										
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks			Drill Runs	TCR	Depth (Thickness)	Level (mAOD)	Legend	Description			Scale	Backfill			
118 D 119 ES 120 B	10.50 - 10.60 10.60 - 10.70 10.60 - 11.50 10.60	PID: 0.1ppmv			10.00 - 12.00	100%	10.45	266.63		Stiff locally very stiff dark grey sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of siltstone, sandstone and mudstone. Sand is fine and medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CL <i>10.00m - 10.30m Sandy very clayey angular to subrounded fine to coarse GRAVEL of siltstone, sandstone and mudstone.</i>			10.50				
121 ES 122 ES 123 D	11.50 - 11.60 11.50 11.70 - 11.80 11.70 11.80 - 11.90	PID: 0.0ppmv PID: 0.0ppmv					(1.15)	265.48					11.00				
124 D	12.20 - 12.30				12.00 - 13.50	100%	(1.90)		Stiff grey locally mottled brown, slightly sandy, gravelly locally very gravelly CLAY with rare irregular pockets of pinkish brown medium sand (up to 40mm). Gravel is angular to rounded fine to coarse of siltstone, sandstone and mudstone. Sand is fine. (MADE GROUND (REWORKED TILL)) Geology Code: MGR 2nd Geology Code: CL Stiff grey mottled brown, slightly sandy gravelly CLAY with occasional pockets of pinkish brown and yellowish brown medium sand (up to 30mm) and rare fragments of black organic matter (up to 5mm). Gravel is subangular to rounded fine to coarse of siltstone, sandstone and mudstone. (DEVANSIAN GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL			11.50					
125 D	12.70 - 12.80											13.50	263.58		12.00		
										See next page for Geological Description.			12.50				
													13.00				
													13.50				
										See next page for Geological Description.			14.00				
													14.50				
													15.00				
													15.50				
													16.00				
										See next page for Geological Description.			16.50				
													17.00				
													17.50				
													18.00				
													18.50				
													19.00				
										See next page for Geological Description.			19.50				
													20.00				
										Continued on next Sheet							
Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
12.00	19.50	Water	Grey	100%	14.40	177mm	14.40	177mm	1.00	13.50							
19.50	21.00	Water	Grey	80%	25.00	146mm	25.00	146mm									
21.00	24.00	Water	Grey	50%													
Remarks Sonic drilling GL to 13.50m. Rotary coring 13.50m to 25.00m.																	

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Exploratory Hole Progress by Time				Exploratory Hole									
Date and Time		Depth	Casing Depth	Water Depth	S2-BH222 Sheet 3 of 4 <table><tr><td>Scale</td><td>1:50</td></tr><tr><td>Drilled</td><td>AM</td></tr><tr><td>Logged</td><td>AF</td></tr><tr><td>Checked</td><td>AP</td></tr></table>	Scale	1:50	Drilled	AM	Logged	AF	Checked	AP
Scale	1:50												
Drilled	AM												
Logged	AF												
Checked	AP												
15/05/2023 08:00		0.00											
18/05/2023 16:00		25.00	13.50	Dry									

Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
12.00	19.50	Water	Grey	100%	14.40	177mm	14.40	177mm	1.00	13.50							
19.50	21.00	Water	Grey	80%	25.00	146mm	25.00	146mm									
21.00	24.00	Water	Grey	50%													
Drill Bit Type			PCD		Drill Bit Condition		Good		Core Barrel Type		Conventional Double Tube		Core Barrel Length		1.50		

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		DYNAMIC SAMPLING AND ROTARY DRILLING EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time				Exploratory Hole					
								Date and Time		Depth	Casing Depth	Water Depth	S2-BH222				
Project		Global Centre of Rail Excellence (GCRE) Stage 2				Equipment		Eijkelpkamp-Fraste SRS ML Duo				Sheet 4 of 4					
Client		Walters UK Ltd				Method		SNC/RC				Scale	1:50				
Project No		G23012		Level		277.08 mAOD		Inclination		90 degrees		Drilled	AM				
Easting		283601.04		Northing		211550.85		SPT Hammer Serial Number				Logged	AF				
Termination Reason		Scheduled depth				SPT Hammer Energy Ratio		%				Checked	AP				
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks				Drill Runs	TCR SCR RQD	Depth (Thickness)	Level (mAOD)	Legend	Description	If (min ave max)	Scale	Backfill			
129 C	21.57 - 21.70					RC 19.50 - 21.00	83% 0% 0%	20.30	256.78		Dark grey and black very weak and weak COAL locally interbedded with thin beds of grey moderately weak SILTSTONE. Non intact, recovered as dark grey and black slightly sandy, locally very clayey, angular and subangular fine to coarse gravel of coal, carbonaceous mudstone and siltstone. (POSSIBLE DEVENSIAN GLACIAL TILL) Geology Code: SWCM 2nd Geology Code: GR 20.05m - 20.15m NI, recovered as black angular fine to coarse gravel of COAL. Moderately weak grey SILTSTONE with occasional thin beds of black COAL . Non intact, recovered as angular and subangular locally subrounded fine to coarse GRAVEL of siltstone and rare carbonaceous mudstone and occasional coal. (POSSIBLE WEATHERED SOUTH WALES COAL MEASURES FORMATION) Geology Code: SWCM 2nd Geology Code: SZT 20.75m - 21.00m AZCL 21.00m - 21.50m AZCL 21.30m - 21.38m NI, recovered as black angular fine to coarse gravel of COAL. 22.90m - 23.05m NI, recovered as black angular fine to coarse gravel of COAL.						
						RC 21.00 - 22.50	67% 0% 0%							(3.40)			
						RC 22.50 - 24.00	93% 0% 0%	23.70	253.38								
						RC 24.00 - 25.00	0% 0% 0%							(1.30)	252.08	NO RECOVERY (POSSIBLE WEATHERED SOUTH WALES COAL MEASURES FORMATION) Geology Code: SWCM	
End of Exploratory Hole at 25.00m																	
														25.50			
														26.00			
														26.50			
														27.00			
														27.50			
														28.00			
														28.50			
														29.00			
														29.50			
														30.00			
Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
12.00	19.50	Water	Grey	100%	14.40	177mm	14.40	177mm	1.00	13.50							
19.50	21.00	Water	Grey	80%	25.00	146mm	25.00	146mm									
21.00	24.00	Water	Grey	50%													
Drill Bit Type		PCD			Drill Bit Condition		Good		Core Barrel Type		Conventional Double Tube		Core Barrel Length		1.50		
Remarks																	
Sonic drilling GL to 13.50m. Rotary coring 13.50m to 25.00m.																	

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth



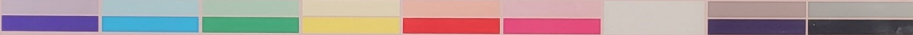
		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH222
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo	Sheet 2 of 7
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC	
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	18 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	4.00 to 6.00	Engineer	CE





S2-BH222 4.00 m to 6.00 m

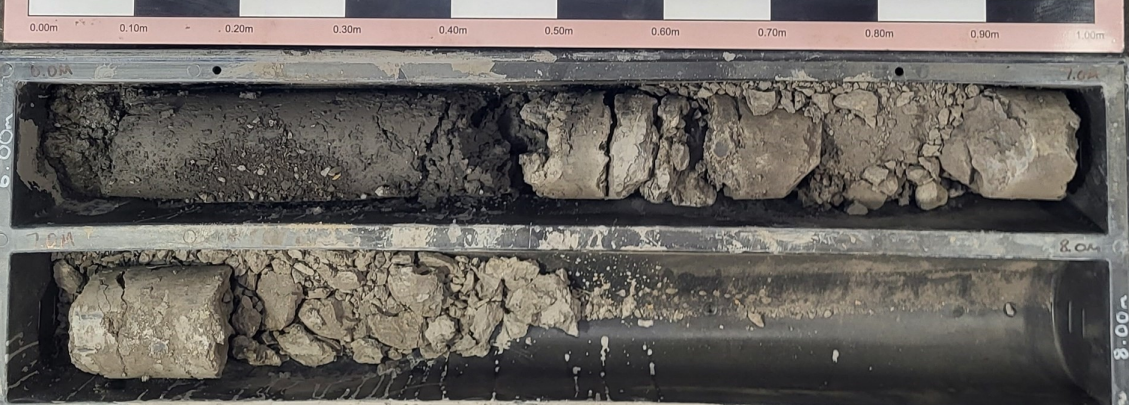
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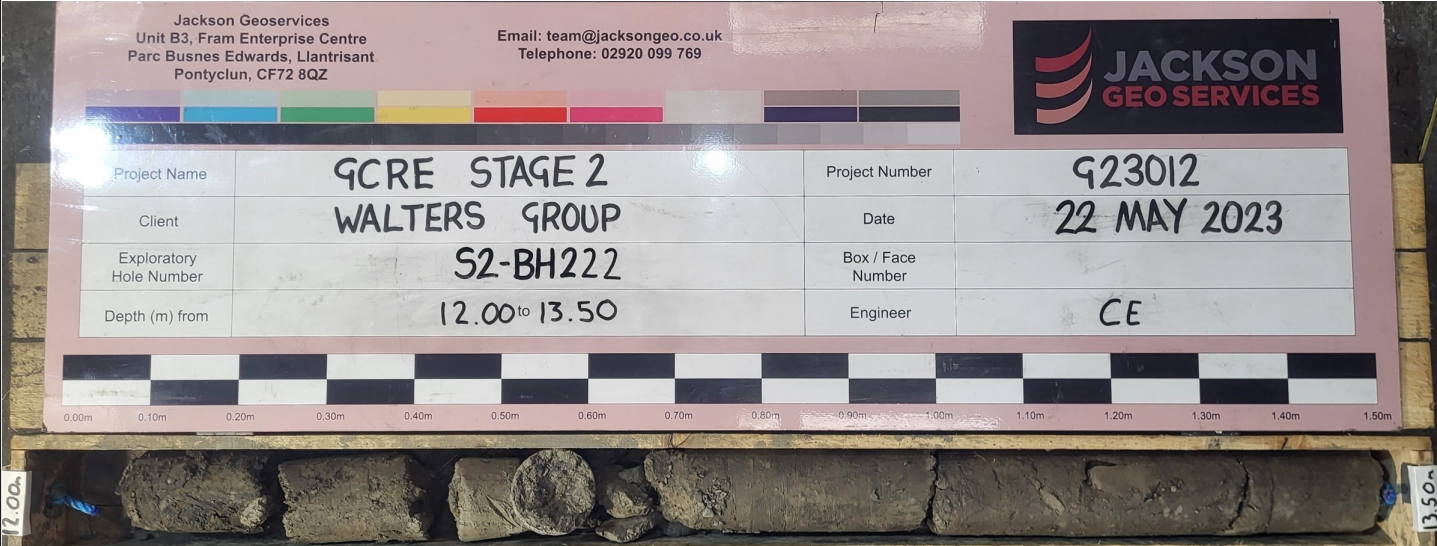
Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	18 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	6.00 to 8.00	Engineer	CE





S2-BH222 6.00 m to 8.00 m

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH222
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo	Sheet 4 of 7
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC	
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth	



S2-BH222 12.00 m to 13.50 m



S2-BH222 13.50 m to 15.00 m

Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth

A photograph of a geological core sample and its data label. The label is from Jackson Geoservices and contains project details: Project Name (GCRE STAGE 2 WALTERS GROUP), Project Number (Q23012), Client (WALTERS GROUP), Exploratory Hole Number (S2-BH222), Date (22 MAY 2023), Depth (16.50 to 18.00 m), and Engineer (CE). Below the label is a color calibration strip and a scale bar from 0.00m to 1.50m. The core sample itself is a long, dark, cylindrical object, partially covered by a black plastic sleeve with Jackson Geoservices labels. The core is resting on a wooden pallet.

S2-BH222 15.00 m to 16.50 m

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**JACKSON
GEO SERVICES**

Project Name	QCRE STAGE 2	Project Number	923012
Client	WALTERS GROUP	Date	22 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	16.50 to 18.00	Engineer	CE

0.00m 0.10m 0.20m 0.30m 0.40m 0.50m 0.60m 0.70m 0.80m 0.90m 1.00m 1.10m 1.20m 1.30m 1.40m 1.50m

16.50m

S2-BH222 16.50 m to 18.00 m

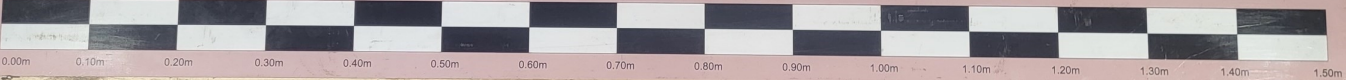
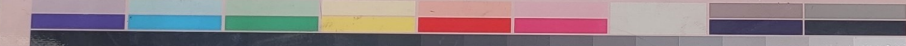
		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH222
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo	Sheet 6 of 7
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC	
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	22 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	18.00 to 19.50	Engineer	CE

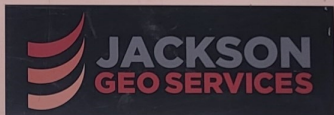




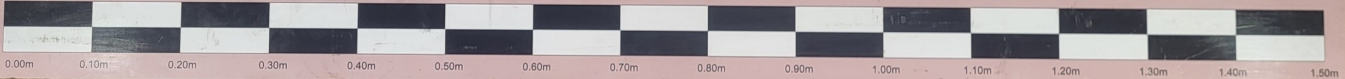
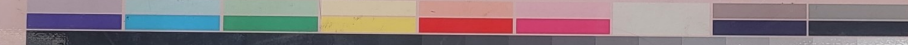
S2-BH222 18.00 m to 19.50 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	22 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	19.50 to 21.00	Engineer	CE





S2-BH222 19.50 m to 21.00 m

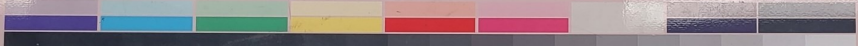
		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH222
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283601.04	Equipment	Eijkelkamp-Fraste SRS ML Duo	Sheet 7 of 7
Client	Walters UK Ltd	Northing	211550.85	Method	SNC/RC	
Project No	G23012	Level	277.08 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	22 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	21.00 to 22.50	Engineer	CE

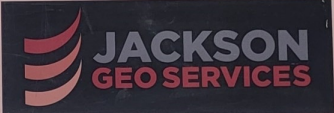




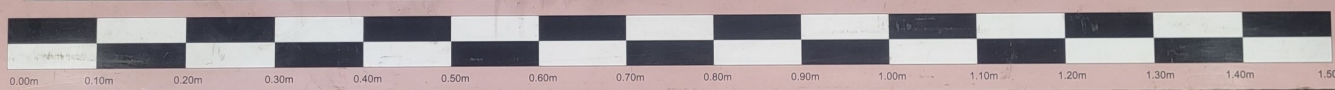
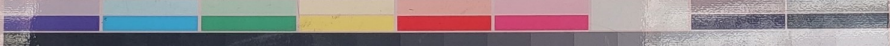
S2-BH222 21.00 m to 22.50 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	22 MAY 2023
Exploratory Hole Number	S2-BH222	Box / Face Number	
Depth (m) from	22.50 to 24.00	Engineer	CE



S2-BH222 22.50 m to 24.00 m

		SONIC DRILLING EXPLORATORY HOLE LOG						Exploratory Hole Progress by Time				Exploratory Hole					
								Date and Time		Depth	Casing Depth	Water Depth	S2-BH223				
Project		Global Centre of Rail Excellence (GCRE) Stage 2				Equipment		Eijkelpkamp-Fraste SRS XL Duo				Sheet 1 of 1					
Client		Walters UK Ltd				Method		SNC				Scale 1:50					
Project No		G23012		Level		257.00 mAOD		Inclination		90 degrees		Drilled JO					
Easting		283969.85		Northing		211404.08		SPT Hammer Serial Number				Logged KW					
Termination Reason		Scheduled depth				SPT Hammer Energy Ratio		%				Checked AP					
Samples	Sampling and Testing Depths	Insitu Testing and Depth Related Remarks				Drill Runs	TCR	Depth (Thickness)	Level (mAOD)	Legend	Description		Scale	Backfill			
1 ES 2 D 3 ES 4 B	0.20 - 0.30 0.20 0.30 - 0.40 0.50 - 0.60 0.50	PID: 0.0ppmv				0.00 - 2.00	60%	0.00 (0.40)	256.60		Firm slightly sandy gravelly CLAY with occasional rootlets (up to 1mm). Gravel is angular to subrounded fine to coarse mudstone. Sand is fine to medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CL	0.50					
101 ES	0.60 - 0.70 0.90 - 1.00 0.90	PID: 0.1ppmv						0.40 (0.30) 0.70									
								(0.50)									
								1.20									
102 ES	2.00 - 2.10 2.00	PID: 0.0ppmv				2.00 - 3.00	20%	(0.80)	255.80		Dark grey very sandy angular to subrounded fine to coarse GRAVEL of siltstone and mudstone. Sand is fine. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR 0.70m - 2.00m Partial recovery, unable to assign depth range for core loss due to variable nature of material. NO RECOVERY. Fill (Driller's description). (MADE GROUND) Geology Code: MGR	1.50					
								2.00									
								(1.30)									
103 ES 104 D	3.00 - 3.10 3.00 3.30 - 3.40	PID: 0.2ppmv				3.00 - 4.00	100%	3.30	253.70		Stiff locally very stiff dark grey slightly sandy gravelly CLAY. Gravel is angular and subangular fine to coarse of sandstone, siltstone and mudstone. Sand is fine. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CL	2.00					
105 ES	3.90 - 4.00							(0.70)									
106 B	4.60 - 5.00					4.00 - 5.00	50%	4.00	253.00		NO RECOVERY. Fill (Driller's description). (MADE GROUND) Geology Code: MGR	3.00					
107 ES 108 B	5.00 - 5.10 5.00 - 6.30 5.00	PID: 0.1ppmv						(0.60)									
109 ES	6.10 - 6.20 6.10	PID: 0.1ppmv				5.00 - 6.00	100%	4.60	252.40		Dark grey sandy slightly clayey angular to subrounded fine to coarse GRAVEL of siltstone and sandstone. Sand is fine and medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR 5.00m - 6.30m Locally clayey.	4.00					
110 ES 111 D	7.10 - 7.20 7.10 7.30 - 7.40	PID: 0.1ppmv				6.00 - 7.00	150%	7.00	250.00		Stiff locally very stiff dark grey slightly sandy very gravelly CLAY. Gravel is angular and subangular fine to coarse of sandstone, siltstone and mudstone. Sand is fine. (MADE GROUND) Geology Code: MGR 2nd Geology Code: CL	4.50					
113 B 112 ES	7.90 - 8.90 8.10 - 8.20 8.10	PID: 0.1ppmv				7.00 - 8.00	100%	7.90	249.10		Dark grey sandy very clayey angular to subrounded fine to coarse GRAVEL of siltstone and sandstone. Sand is fine and medium. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR	5.00					
				8.00 - 10.00	45%	8.90	248.10			NO RECOVERY. Fill (Driller's description). (MADE GROUND) Geology Code: MGR	5.50						
						(1.10)					6.00						
											6.50						
											7.00						
											7.50						
											8.00						
											8.50						
											9.00						
											9.50						
											10.00						
End of Exploratory Hole at 10.00m																	
Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
0.00	10.00	Water	N/A	0%	10.00	101mm	10.00	177mm									
Remarks Sonic drilling from GL to 10.00m.																	

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Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283969.85	Equipment	Eijkelkamp-Fraste SRS XL Duo	Sheet 1 of 4
Client	Walters UK Ltd	Northing	211404.08	Method	SNC	
Project No	G23012	Level	257.00 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	0.00 to 2.00	Engineer	KW



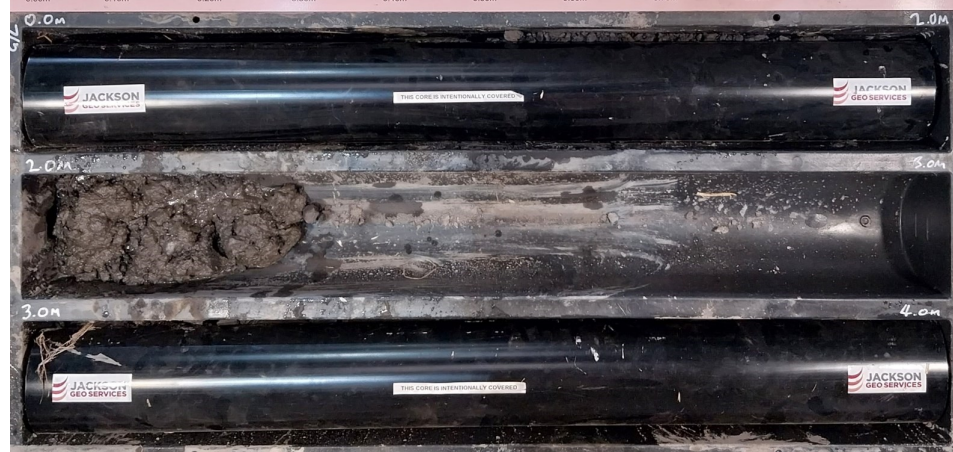
S2-BH223 0.00 m to 2.00 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	2.00 to 3.00	Engineer	KW



S2-BH223 2.00 m to 3.00 m

EXPLORATORY HOLE PHOTOGRAPHS

Exploratory Hole

S2-BH223

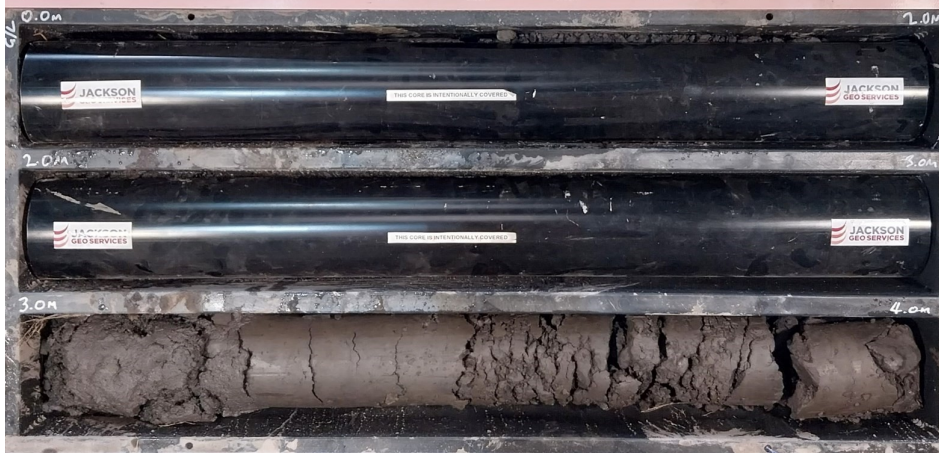
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283969.85	Equipment	Eijkelkamp-Fraste SRS XL Duo	Sheet 2 of 4
Client	Walters UK Ltd	Northing	211404.08	Method	SNC	
Project No	G23012	Level	257.00 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	3.00 to 4.00	Engineer	KW



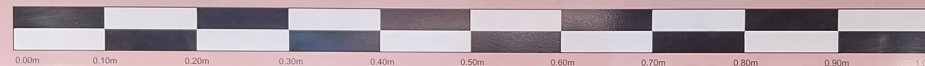
S2-BH223 3.00 m to 4.00 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	4.00 to 5.00	Engineer	KW



S2-BH223 4.00 m to 5.00 m

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH223
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283969.85	Equipment	Eijkelkamp-Fraste SRS XL Duo	Sheet 3 of 4
Client	Walters UK Ltd	Northing	211404.08	Method	SNC	
Project No	G23012	Level	257.00 mAOD	Termination Reason	Scheduled depth	

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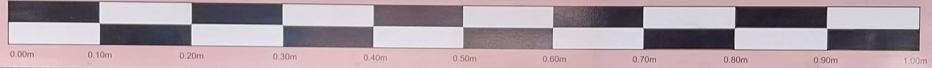
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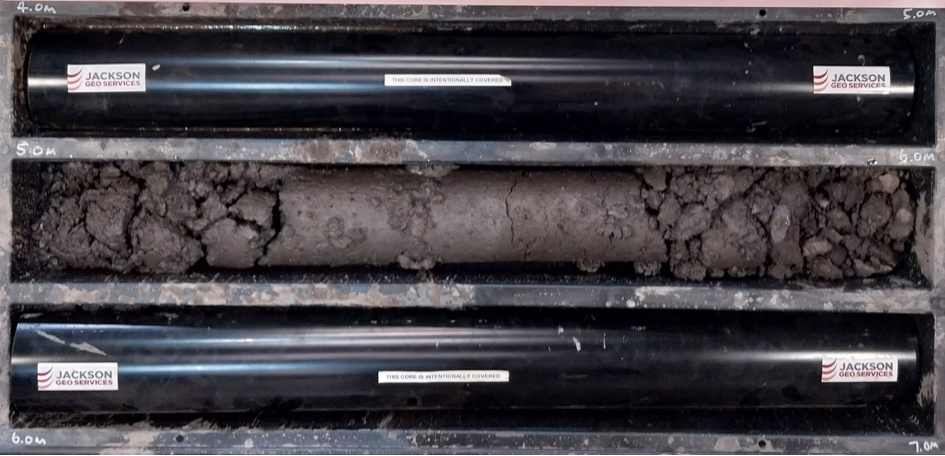
Telephone: 02920 099 769





Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	5.00 to 6.00	Engineer	KW





S2-BH223 5.00 m to 6.00 m

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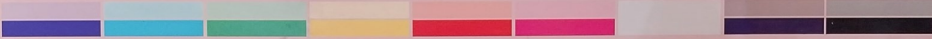
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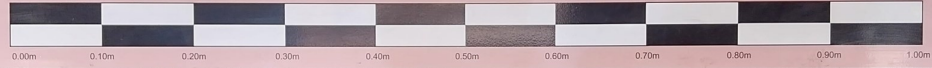
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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	6.00 to 7.00	Engineer	KW





S2-BH223 6.00 m to 7.00 m

		EXPLORATORY HOLE PHOTOGRAPHS				Exploratory Hole
						S2-BH223
Project	Global Centre of Rail Excellence (GCRE) Stage 2	Easting	283969.85	Equipment	Eijkelkamp-Fraste SRS XL Duo	Sheet 4 of 4
Client	Walters UK Ltd	Northing	211404.08	Method	SNC	
Project No	G23012	Level	257.00 mAOD	Termination Reason	Scheduled depth	

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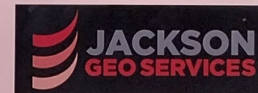
Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	7.00 to 8.00	Engineer	KW



S2-BH223 7.00 m to 8.00 m

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Project Name	GCRE STAGE 2	Project Number	G23012
Client	WALTERS GROUP	Date	15 MAY 2023
Exploratory Hole Number	S2-BH223	Box / Face Number	
Depth (m) from	8.00 to 10.00	Engineer	KW



S2-BH223 8.00 m to 10.00 m



Exploratory Hole Progress by Time				Exploratory Hole	
Date and Time	Depth	Casing Depth	Water Depth	S2-BH224	
09/06/2023 09:45	0.00	0.00	Dry		
09/06/2023 12:15	6.00	6.00	Dry		
12/06/2023 10:45	6.00	6.00	Dry		
12/06/2023 13:00	10.00	8.00	Dry	Sheet 1 of 1	
				Scale	1:50
				Drilled	AM
				Logged	AF
				Checked	AP

Drilling Flush					Hole Diameter		Casing Diameter		Water Added		Water Strikes						
Depth Top	Depth Base	Type	Colour	Returns	Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Date and Time	Casing	Strike	Sealed	Rising to	Time	Remarks
0.00	10.00	Water	Grey	100%	10.00	100mm	8.00	175mm									

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