

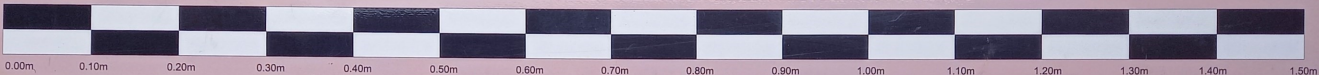
		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 7.00m depth. Rotary coring from 7.00m to 30.00m depth.		Exploratory Hole S1-BH102
Project	Global Centre of Rail Excellence	Easting	284544.49	Equipment	Insulated Hand Tools/Beretta T44	Sheet 7 of 11
Client	Walters UK Limited	Northing	210695.40	Method	IP/RC/WLS	
Project No	G22069	Level	230.73 mAOD	Termination Reason	Scheduled depth	

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Parc Busnes Edwards, Llantrisant
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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	SI-BH102	Box / Face Number	
Depth (m) from	17.50 to 18.00	Engineer	AF





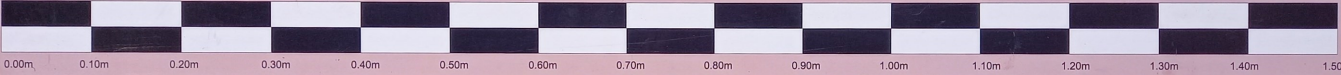
S1-BH102 17.50 m to 18.00 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	SI-BH102	Box / Face Number	
Depth (m) from	18.00 to 19.00	Engineer	AF





S1-BH102 18.00 m to 19.00 m

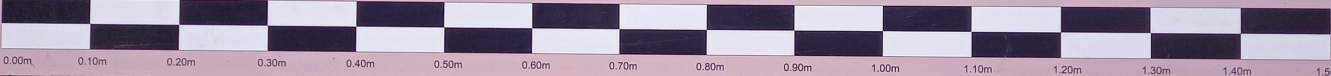
		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 7.00m depth. Rotary coring from 7.00m to 30.00m depth.		Exploratory Hole S1-BH102
Project	Global Centre of Rail Excellence	Easting	284544.49	Equipment	Insulated Hand Tools/Beretta T44	Sheet 8 of 11
Client	Walters UK Limited	Northing	210695.40	Method	IP/RC/WLS	
Project No	G22069	Level	230.73 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	S1-BH102	Box / Face Number	
Depth (m) from	19.00 to 20.50	Engineer	AF

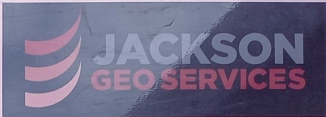




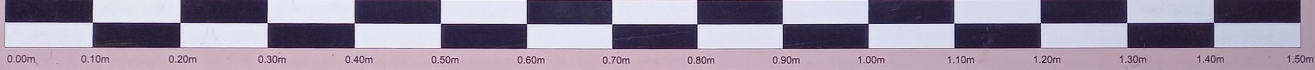
S1-BH102 19.00 m to 20.50 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	S1-BH102	Box / Face Number	
Depth (m) from	20.50 to 22.00	Engineer	AF





S1-BH102 20.50 m to 22.00 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 7.00m depth. Rotary coring from 7.00m to 30.00m depth.		Exploratory Hole S1-BH102
Project	Global Centre of Rail Excellence	Easting	284544.49	Equipment	Insulated Hand Tools/Beretta T44	Sheet 9 of 11
Client	Walters UK Limited	Northing	210695.40	Method	IP/RC/WLS	
Project No	G22069	Level	230.73 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	SI-BH102	Box / Face Number	
Depth (m) from	22.00 to 23.00	Engineer	AF

0.00m0.10m0.20m0.30m0.40m0.50m0.60m0.70m0.80m0.90m1.00m1.10m1.20m1.30m1.40m1.50m

20.50m

22.00m

23.00m

22.00m

23.00m

S1-BH102 22.00 m to 23.00 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	SI-BH102	Box / Face Number	
Depth (m) from	23.00 to 24.50	Engineer	AF

0.00m0.20m0.30m0.40m0.50m0.60m0.70m0.80m0.90m1.00m1.10m1.20m1.30m1.40m1.50m

23.00m

24.50m

23.00m

24.50m

26.00m

S1-BH102 23.00 m to 24.50 m

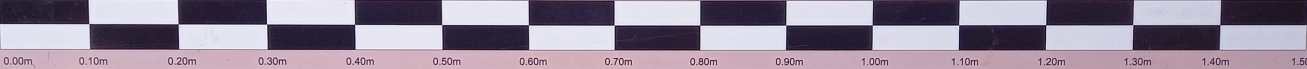
		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 7.00m depth. Rotary coring from 7.00m to 30.00m depth.		Exploratory Hole S1-BH102
Project	Global Centre of Rail Excellence	Easting	284544.49	Equipment	Insulated Hand Tools/Beretta T44	Sheet 10 of 11
Client	Walters UK Limited	Northing	210695.40	Method	IP/RC/WLS	
Project No	G22069	Level	230.73 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	S1-BH102	Box / Face Number	
Depth (m) from	24.50 to 26.00	Engineer	AF





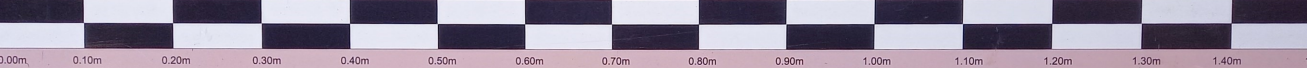
S1-BH102 24.50 m to 26.00 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	17 NOV' 2022
Exploratory Hole Number	S1-BH102	Box / Face Number	
Depth (m) from	26.00 to 27.50	Engineer	AF





S1-BH102 26.00 m to 27.50 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 7.00m depth. Rotary coring from 7.00m to 30.00m depth.		Exploratory Hole S1-BH102
Project	Global Centre of Rail Excellence	Easting	284544.49	Equipment	Insulated Hand Tools/Beretta T44	Sheet 11 of 11
Client	Walters UK Limited	Northing	210695.40	Method	IP/RC/WLS	
Project No	G22069	Level	230.73 mAOD	Termination Reason	Scheduled depth	



S1-BH102 27.50 m to 28.50 m



S1-BH102 28.50 m to 30.00 m



Exploratory Hole Progress by Time				Exploratory Hole	
Date and Time	Depth	Casing Depth	Water Depth	S1-BH103	
22/11/2022 14:00	0.00				
22/11/2022 16:30	1.20	0.00	Dry	Sheet 1 of 7	
23/11/2022 08:30	1.20	0.00	Dry		
23/11/2022 16:00	7.20	6.00	3.14	Scale	1:25
24/11/2022 08:00	7.20	6.00	2.94	Drilled	TP
24/11/2022 16:30	15.80	15.80	3.74	Logged	JJ/AF
25/11/2022 08:00	15.80	15.80	4.41	Checked	AP
25/11/2022 15:30	20.30	20.30	3.35		

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
11.30	30.80	Air/Mist	Grey	100%	7.50 30.80	200mm 146mm	7.50 30.80	200mm 146mm			23/11/2022 11:50	3.00	4.00		3.12	20mins	
Drill Bit Type		PCD			Drill Bit Condition		Good		Core Barrel Type		Wireline Triple 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	S1-BH103						
Project		Global Centre of Rail Excellence			Equipment		Insulated Digging Tools/Comacchio 305			28/11/2022 08:15		20.30	20.30	3.35	Sheet 2 of 7				
Client		Walters UK Limited			Method		IP/DS/RC			28/11/2022 16:30		24.80	24.80	15.70	Scale		1:25		
Project No		G22069	Level		234.33 mAOD		Inclination		90 degrees		29/11/2022 08:30		24.80	24.80	4.07	Drilled		TP	
Easting		284603.15		Northing		210646.48		SPT Hammer Serial Number		JD06		29/11/2022 16:30		30.80	30.80	4.47	Logged		JJ/AF
Termination Reason		Scheduled depth			SPT Hammer Energy Ratio		69 %										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		
7 D	5.20 - 5.65 5.20		SPT(S) N=15 (1,1/3,2,4,6) Casing: 4.50 Water: 3.16			DS 5.20 - 6.20	75% 0% 0%	5.60	228.73		Medium dense locally loose and very loose dark grey to black slightly ashy silty locally very silty very sandy very angular to subangular fine to coarse GRAVEL of mudstone, siltstone, sandstone and coal with a low cobble content. Sand is fine to coarse. Cobbles are subangular of siltstone and fine grained sandstone mudstone. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR				5.50				
37 EW	5.52		PID: 0.0ppmv								Medium dense black silty very gravelly fine to coarse SAND of coal. Gravel is angular fine of predominantly coal and rare angular medium to coarse mudstone and siltstone. (MADE GROUND) Geology Code: MGR 2nd Geology Code: SD								
38 EW	5.52																		
36 EW	5.54																		
113 ES	5.60 - 5.80																		
114 B	5.60 5.80 - 6.75										Firm brown oxidising to black pseudo-fibrous PEAT with many fibrous plant remains and rootlets. (PEAT) Geology Code: PEAT				7.00				
8 D	6.20 - 6.65 6.20		SPT(S) N=11 (1,1/2,2,3,4) Casing: 6.00 Water: 3.16			DS 6.20 - 7.20	100% 0% 0%	6.75	227.58		Soft to firm dark grey organic slightly sandy silty CLAY. (Possible DEVANSIAN GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL 7.60m - 7.65m Clayey.								
115 D	6.80 - 6.90		PID: 0.2ppmv								Soft grey to dark grey slightly sandy slightly gravelly silty CLAY. Gravel is angular to subrounded fine to coarse of grey siltstone and sandstone and rare angular to subrounded fine gravel of reddish brown sandstone. (DEVANSIAN GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL								
116 ES	7.00 - 7.20 7.00		Blows: 12 Rec: 100% Dia: 100mm Water: Dry								Stiff grey to dark grey slightly sandy slightly gravelly locally gravelly silty CLAY. Gravel is angular to subrounded fine to coarse of grey siltstone and sandstone, with rare fine gravel of reddish brown sandstone. (DEVANSIAN GLACIAL TILL) Geology Code: GT 2nd Geology Code: CL								
5 UT	7.20 - 7.65		UT Catcher/Shoe								Brownish grey very clayey gravelly locally very gravelly fine to coarse SAND. Gravel is very angular to subrounded fine to coarse of grey siltstone and sandstone with rare fine reddish brown sandstone gravel. (DEVANSIAN GLACIAL TILL) Geology Code: GT 2nd Geology Code: SD								
6 D	7.65 - 7.80														NO RECOVERY. (Possible DEVANSIAN GLACIAL TILL) Geology Code: GT				10.00
117 D	7.80 - 7.90																		
118 D 119 B 9 D	8.80 - 8.90		SPT(S) N=19 (3,3/3,5,5,6) Casing: 7.20 Water: Dry PID: 0.0ppmv			DS 8.80 - 9.80	100% 0% 0%	8.90	225.43	Continued on next Sheet									
	8.80 - 9.25																		
	8.80 - 9.80																		
	8.80																		
10 D	9.80 - 10.25 9.80 9.80 9.80		SPT(S) N=32 (5,5/6,7,8,11) Casing: 7.20 Water: 7.45 PID: 0.0ppmv					9.80	224.53										
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		
11.30	30.80	Air/Mist	Grey	100%	7.50	200mm 30.80 146mm	7.50	200mm 30.80 146mm			23/11/2022 11:50	3.00	4.00		3.12	20mins			
Drill Bit Type		PCD		Drill Bit Condition		Good		Core Barrel Type		Wireline Triple Tube		Core Barrel Length		1.50					
Remarks																			
Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.30m. Rotary coring from 11.30m to 30.80m.																			

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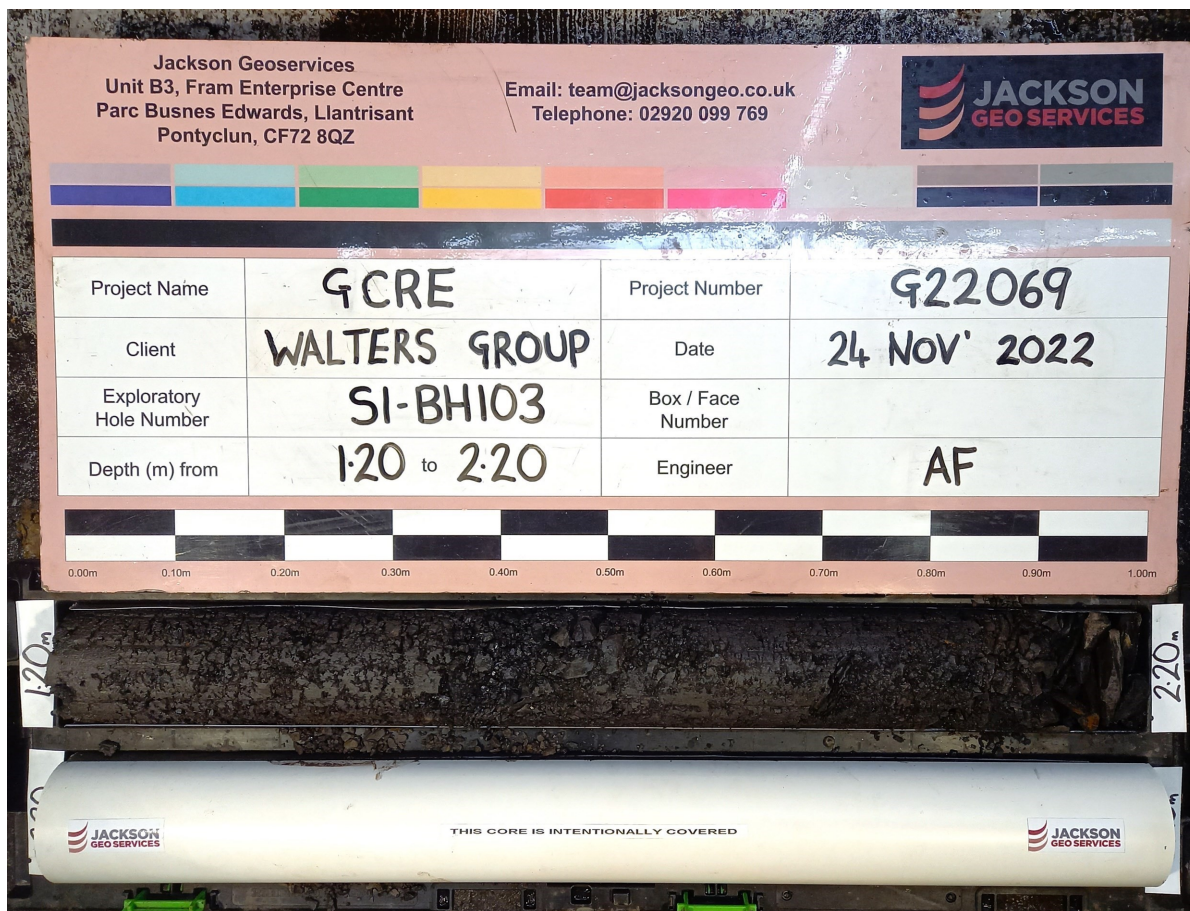
Exploratory Hole Progress by Time				Exploratory Hole	
Date and Time	Depth	Casing Depth	Water Depth	S1-BH103	
				Sheet 7 of 7	
				Scale	1:25
				Drilled	TP
				Logged	JJ/AF
				Checked	AP

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
11.30	30.80	Air/Mist	Grey	100%	7.50 30.80	200mm 146mm	7.50 30.80	200mm 146mm			23/11/2022 11:50	3.00	4.00		3.12	20mins	
Drill Bit Type		PCD			Drill Bit Condition		Good		Core Barrel Type		Wireline Triple Tube		Core Barrel Length			1.50	

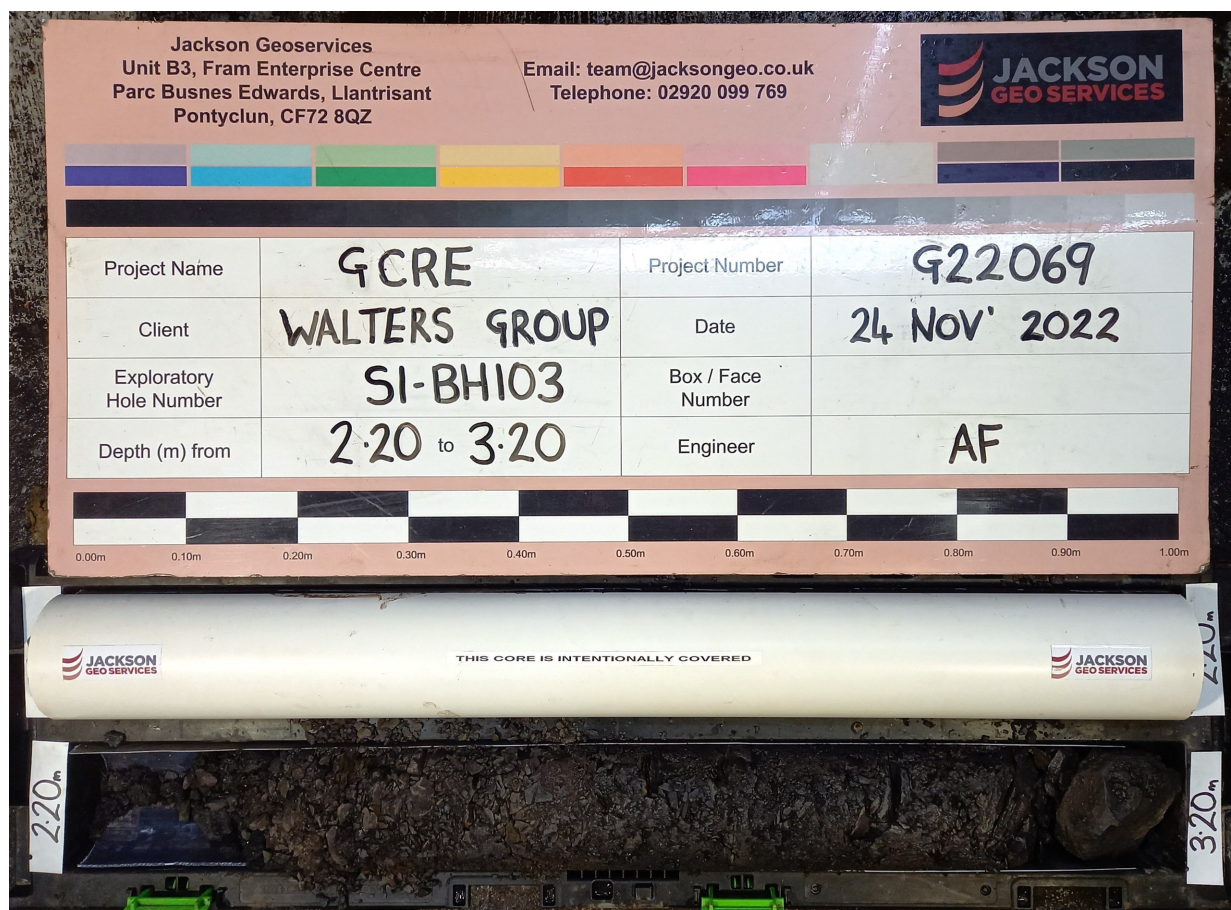
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		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.30m. Rotary coring from 11.30m to 30.80m.	Exploratory Hole S1-BH103
Project	Global Centre of Rail Excellence	Easting	284603.15	Equipment	Insulated Digging Tools/Comacchio 305
Client	Walters UK Limited	Northing	210646.48	Method	IP/DS/RC
Project No	G22069	Level	234.33 mAOD	Termination Reason	Scheduled depth

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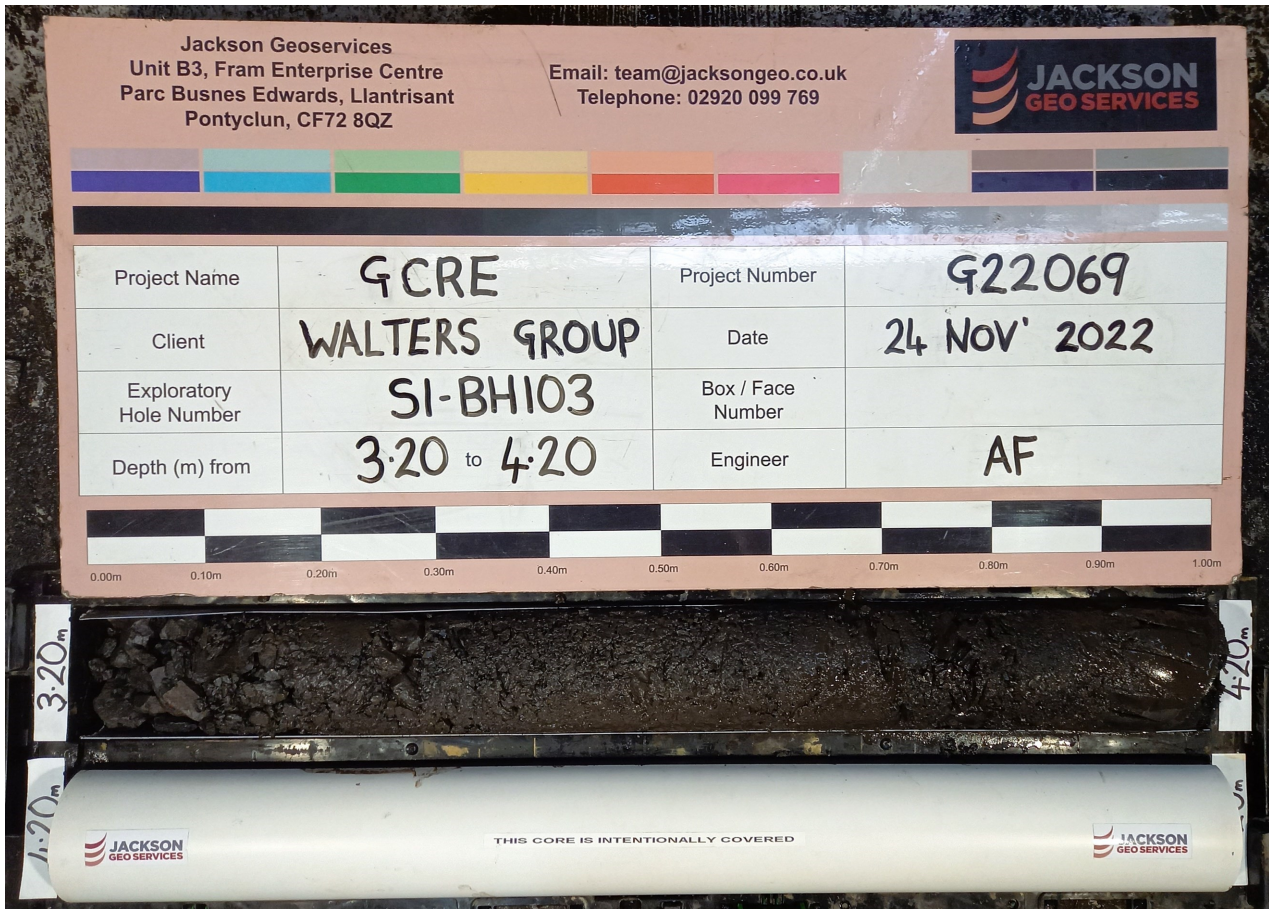
S1-BH103 1.20 m to 2.20 m



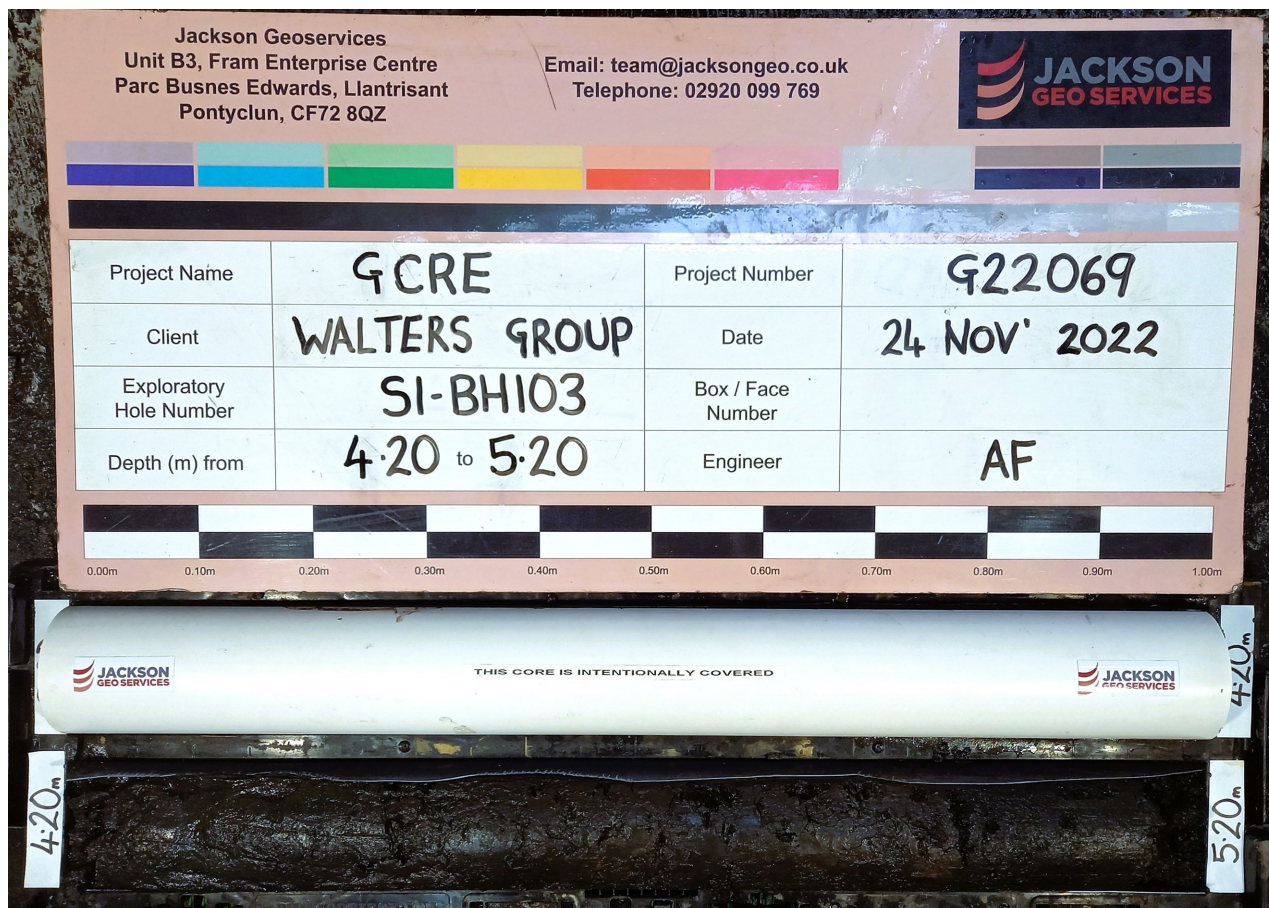
S1-BH103 2.20 m to 3.20 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.30m. Rotary coring from 11.30m to 30.80m.	Exploratory Hole S1-BH103
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Client	Walters UK Limited	Northing	210646.48	Method	IP/DS/RC
Project No	G22069	Level	234.33 mAOD	Termination Reason	Scheduled depth

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S1-BH103 3.20 m to 4.20 m



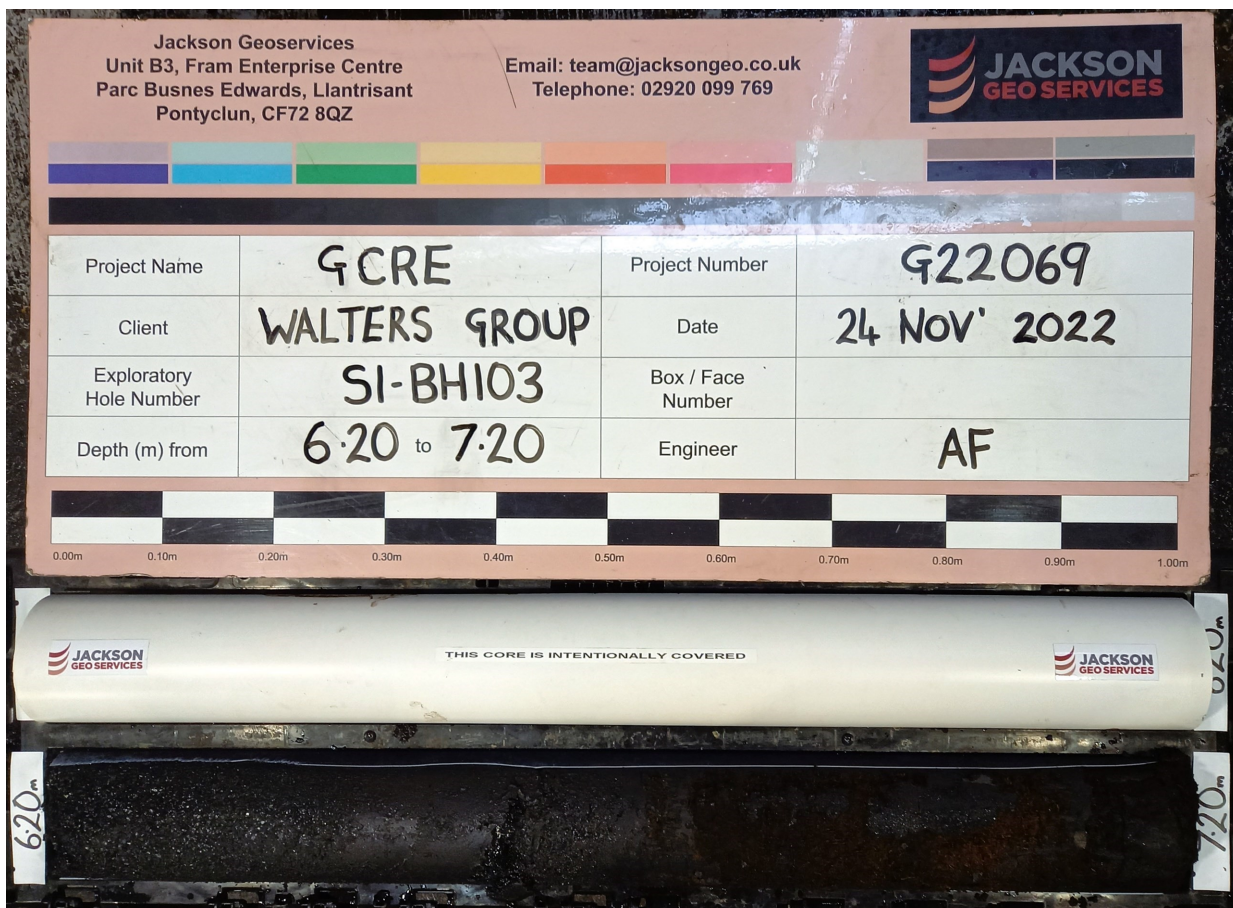
S1-BH103 4.20 m to 5.20 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.30m. Rotary coring from 11.30m to 30.80m.	Exploratory Hole S1-BH103
Project	Global Centre of Rail Excellence	Easting	284603.15	Equipment	Insulated Digging Tools/Comacchio 305
Client	Walters UK Limited	Northing	210646.48	Method	IP/DS/RC
Project No	G22069	Level	234.33 mAOD	Termination Reason	Scheduled depth

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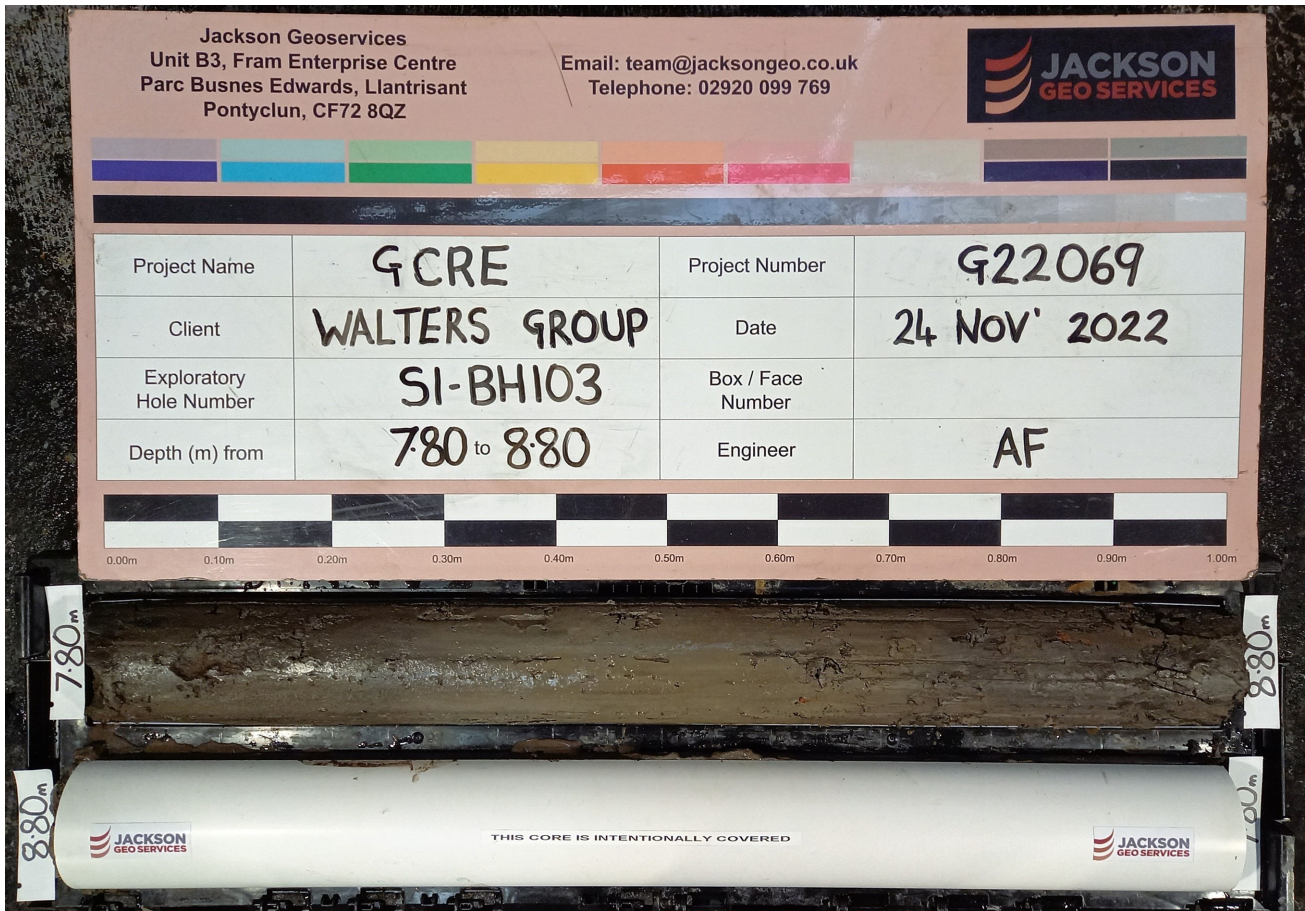
S1-BH103 5.20 m to 6.20 m



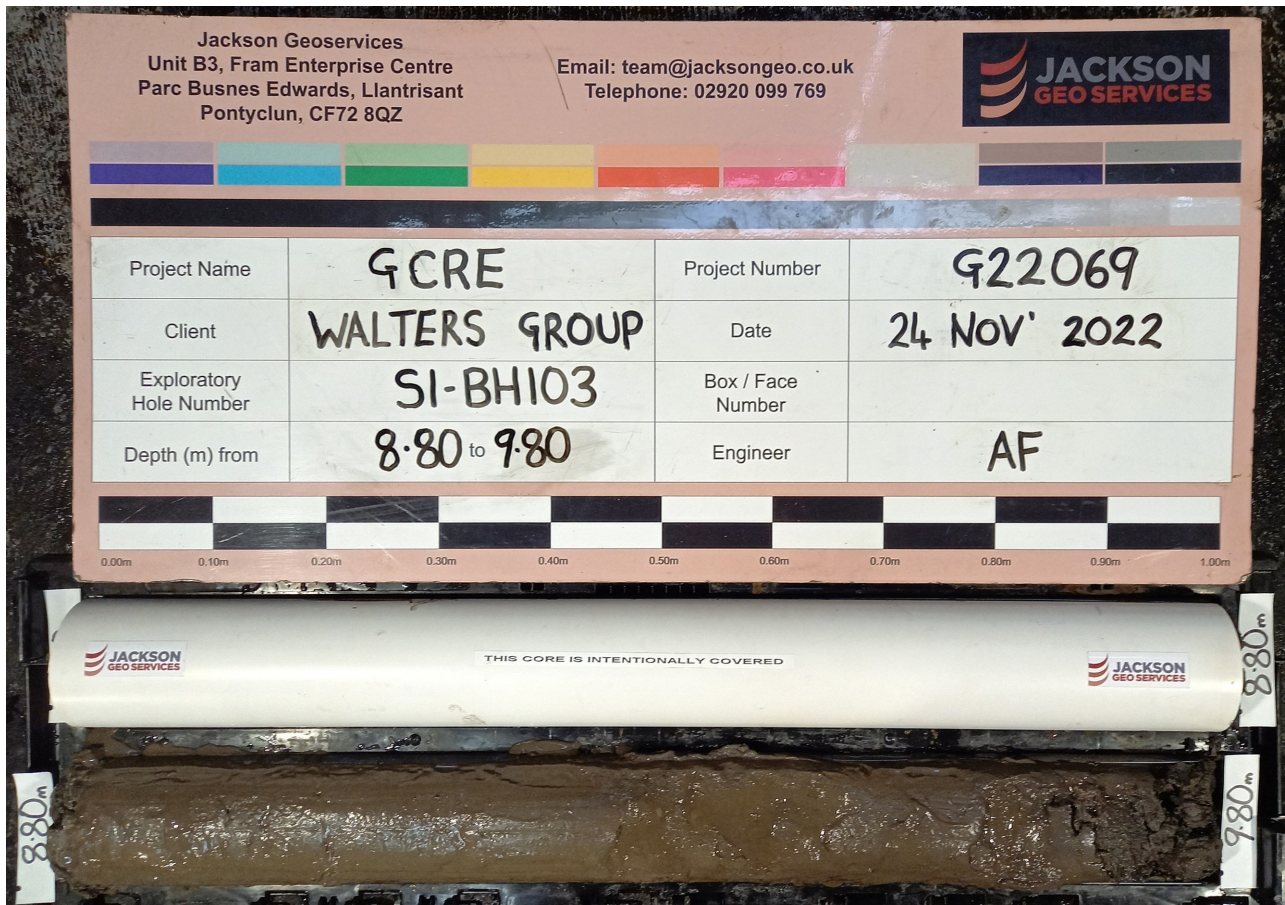
S1-BH103 6.20 m to 7.20 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.30m. Rotary coring from 11.30m to 30.80m.	Exploratory Hole S1-BH103
Project	Global Centre of Rail Excellence	Easting	284603.15	Equipment	Insulated Digging Tools/Comacchio 305
Client	Walters UK Limited	Northing	210646.48	Method	IP/DS/RC
Project No	G22069	Level	234.33 mAOD	Termination Reason	Scheduled depth

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S1-BH103 7.80 m to 8.80 m



S1-BH103 8.80 m to 9.80 m