

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 5 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	



S1-BH105 9.80 m to 11.30 m



S1-BH105 11.30 m to 12.80 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.	Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth

Sheet 6 of 11

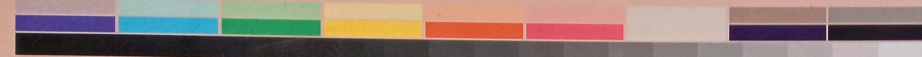
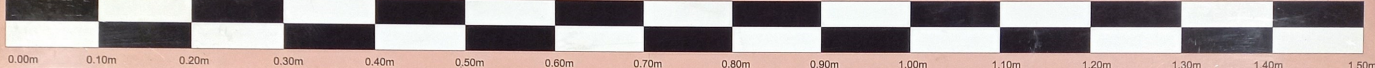
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Project Name	GCRE
Client	WALTERS GROUP
Exploratory Hole Number	S1-BH105
Depth (m) from	12.80 to 14.30

Project Number	G22069
Date	5 DEC' 2022
Box / Face Number	
Engineer	A



S1-BH105 12.80 m to 14.30 m

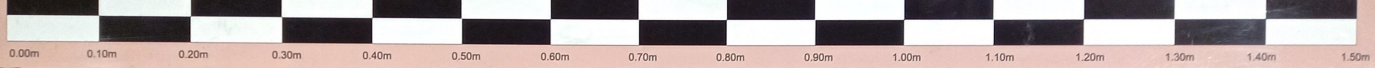
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Project Name	GCRE
Client	WALTERS GROUP
Exploratory Hole Number	S1-BH105
Depth (m) from	14.30 to 15.80

Project Number	G22069
Date	5 DEC' 2022
Box / Face Number	
Engineer	A

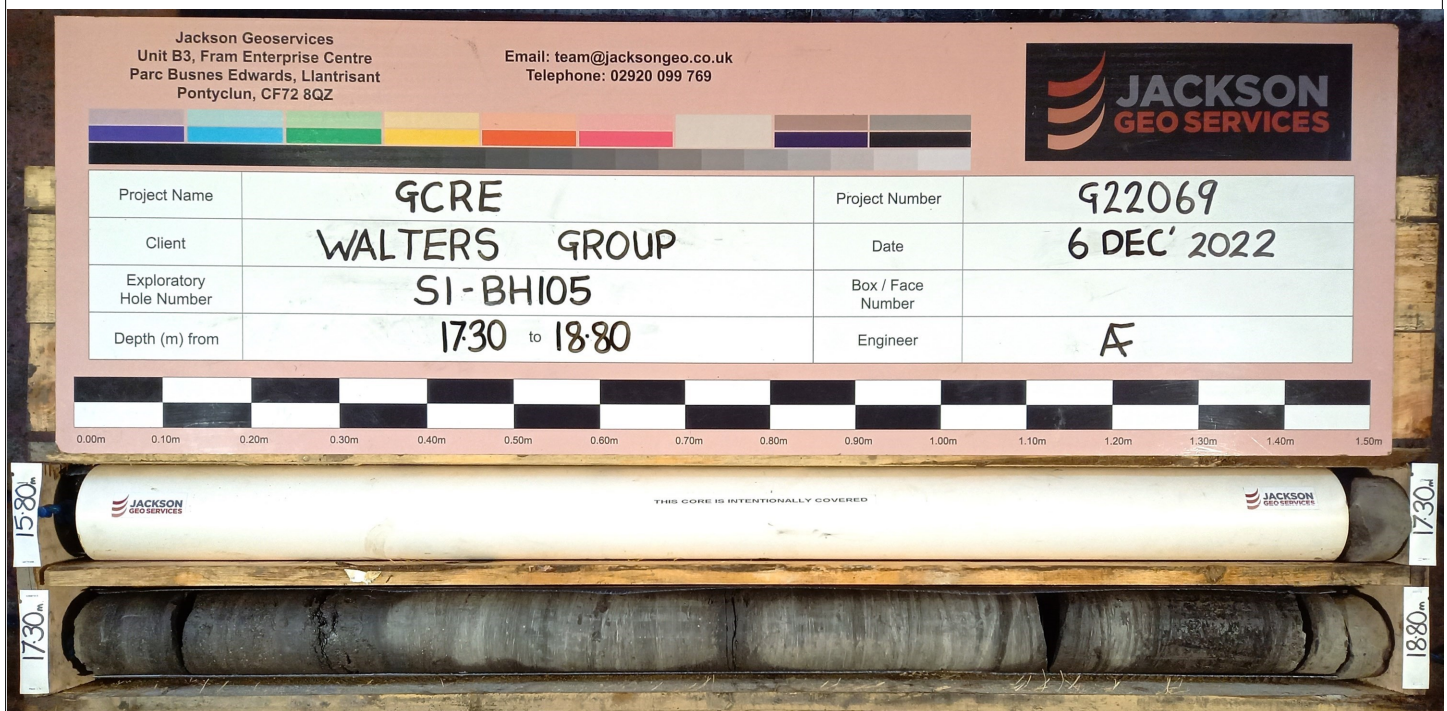


S1-BH105 14.30 m to 15.80 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 7 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	



S1-BH105 15.80 m to 17.30 m

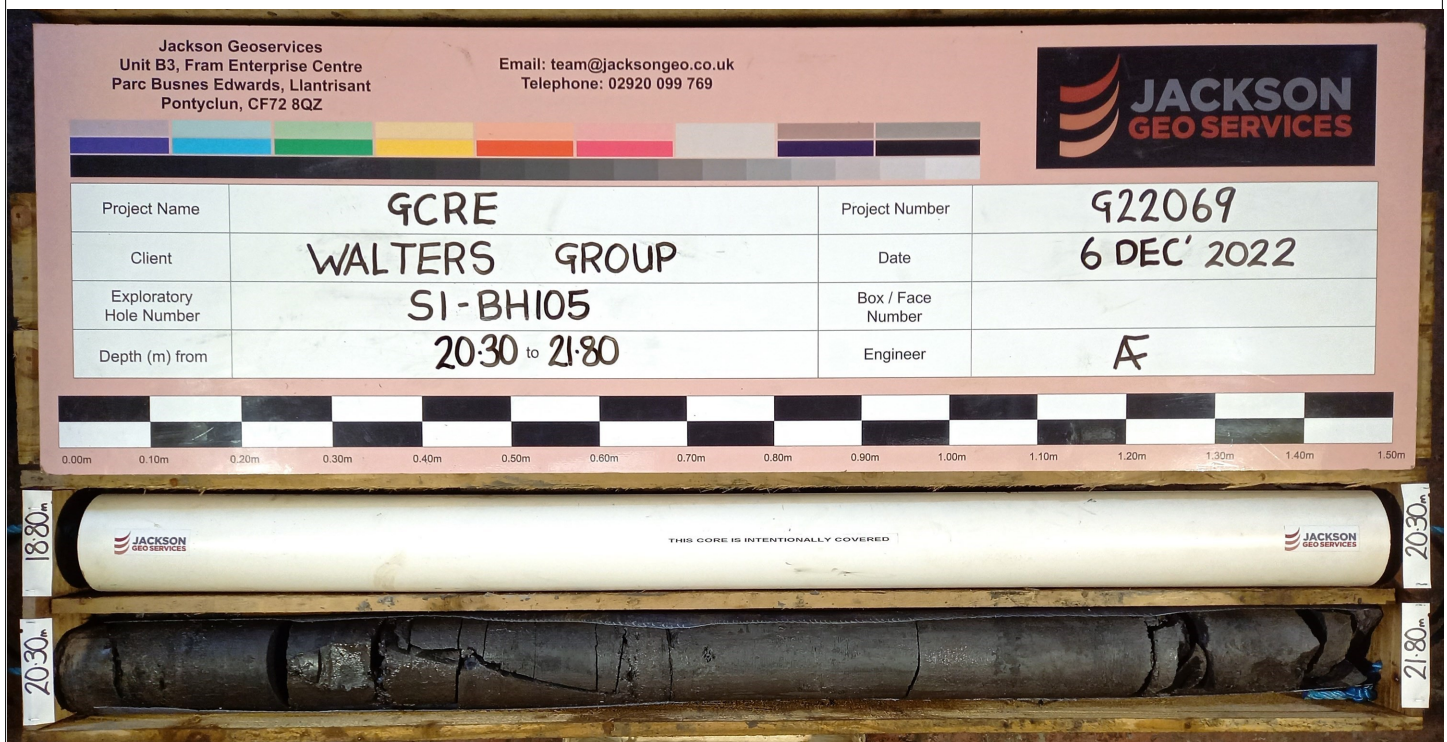


S1-BH105 17.30 m to 18.80 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 8 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	



S1-BH105 18.80 m to 20.30 m



S1-BH105 20.30 m to 21.80 m

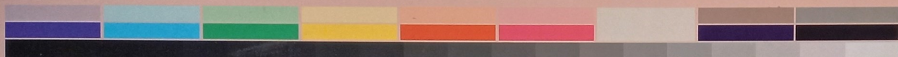
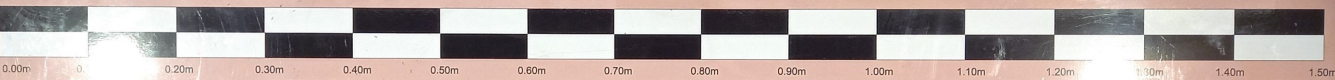
		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 9 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	6 DEC' 2022
Exploratory Hole Number	S1-BH105	Box / Face Number	
Depth (m) from	21.80 to 23.30	Engineer	A



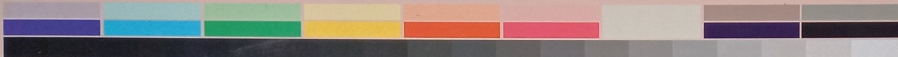
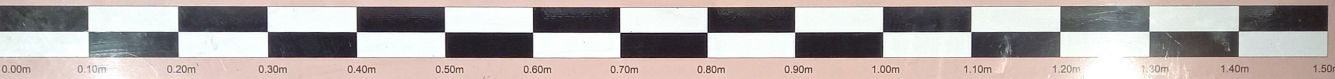
S1-BH105 21.80 m to 23.30 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	6 DEC' 2022
Exploratory Hole Number	S1-BH105	Box / Face Number	
Depth (m) from	23.30 to 24.80	Engineer	A



S1-BH105 23.30 m to 24.80 m

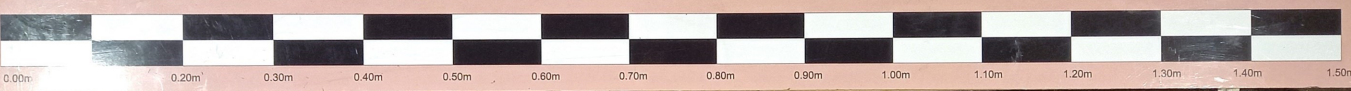
		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 10 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	6 DEC' 2022
Exploratory Hole Number	S1-BH105	Box / Face Number	
Depth (m) from	24.80 to 26.30	Engineer	A



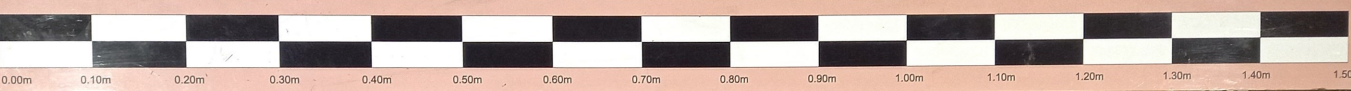
S1-BH105 24.80 m to 26.30 m

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	6 DEC' 2022
Exploratory Hole Number	S1-BH105	Box / Face Number	
Depth (m) from	26.30 to 27.80	Engineer	A



S1-BH105 26.30 m to 27.80 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m depth. Dynamic sampling from 1.20m to 9.80m depth. Rotary coring from 9.80m to 30.80m depth.		Exploratory Hole S1-BH105
Project	Global Centre of Rail Excellence	Easting	284718.99	Equipment	Commachio 305/Insulated Digging Tools	Sheet 11 of 11
Client	Walters UK Limited	Northing	210649.88	Method	RC/IP/DS	
Project No	G22069	Level	236.49 mAOD	Termination Reason	Scheduled depth	

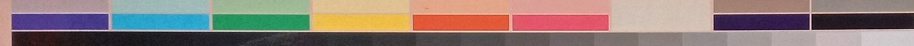
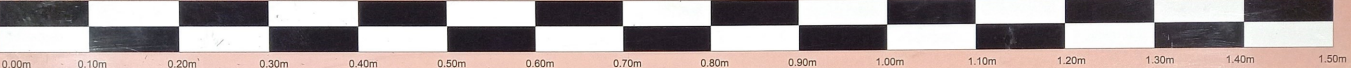
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Project Name	GCRE
Client	WALTERS GROUP
Exploratory Hole Number	SI-BH105
Depth (m) from	27.80 to 29.30

Project Number	G22069
Date	6 DEC' 2022
Box / Face Number	
Engineer	A



S1-BH105 27.80 m to 29.30 m

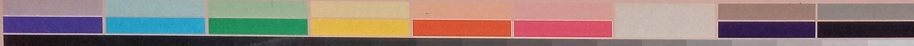
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Pontyclun, CF72 8QZ

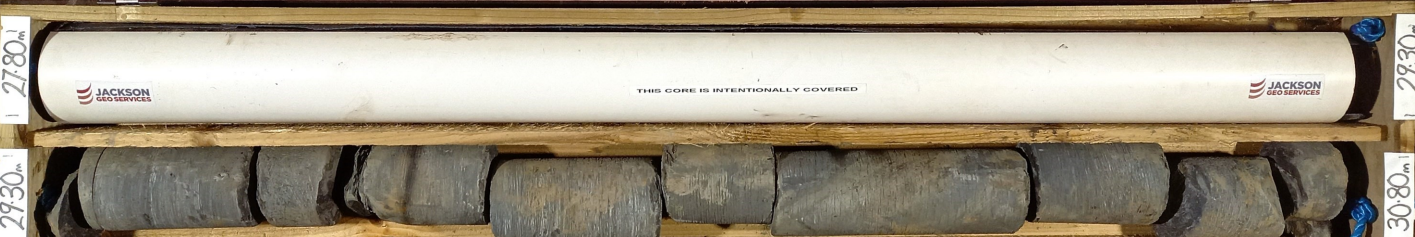
Email: team@jacksongeo.co.uk
Telephone: 02920 099 769



Project Name	GCRE
Client	WALTERS GROUP
Exploratory Hole Number	SI-BH105
Depth (m) from	29.30 to 30.80

Project Number	G22069
Date	6 DEC' 2022
Box / Face Number	
Engineer	A



S1-BH105 29.30 m to 30.80 m



Exploratory Hole Progress by Time				Exploratory Hole	
Date and Time	Depth	Casing Depth	Water Depth	S1-BH106	
20/12/2022 07:30	0.00				
20/12/2022 16:00	11.00	4.50	Dry	Sheet 1 of 5	
21/12/2022 07:30	11.00	4.50	Dry	Scale	1:25
21/12/2022 16:42	20.00	12.00	16.40	Drilled	KO
				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	16.40	Air/Mist	Black	100%	17.00	121mm	8.00	150mm			20/12/2022 08:53	0.00	1.00		0.75	20mins	
16.40	20.00	Air/Mist	Grey	0%	20.00	115mm	12.00	128mm									
Drill Bit Type		PCD			Drill Bit Condition		Good		Core Barrel Type		Conventional 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-BH106			
Project		Global Centre of Rail Excellence		Equipment		Hand tools/Beretta T44						Sheet 2 of 5				
Client		Walters UK Limited		Method		IP/DS/RO/RC						Scale	1:25			
Project No		G22069	Level	241.27 mAOD	Inclination		90 degrees						Drilled	KO		
Easting		284928.61	Northing	210637.41	SPT Hammer Serial Number		TECH1						Logged	AF		
Termination Reason		Scheduled depth			SPT Hammer Energy Ratio		66 %						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
109 B	5.00 - 7.00 5.00		SPT(S) N=29 (5,6/6,8,8,7) Casing: 5.00 Water: 4.60		DS 5.00 - 6.00	90% 0% 0%				Medium dense dark grey to black very silty SAND and GRAVEL. Sand is fine to coarse of predominantly coal and carbonaceous mudstone. Gravel is very angular to subangular fine to coarse of mudstone, siltstone, sandstone and coal. (MADE GROUND) Geology Code: MGR 2nd Geology Code: GR					5.50	
110 ES	5.50 - 5.70 5.50		PID: 0.0ppmv													
11 D	6.00 - 6.45 6.00		SPT(S) N=27 (3,7/7,6,7,7) Casing: 5.00 Water: 6.00													
111 ES	6.50 - 6.70 6.50		PID: 0.0ppmv													
112 B 12 D	7.00 - 10.00 7.00 - 7.45 7.00		SPT(S) N=13 (3,3/2,3,4,4) Casing: 5.00 Water: 7.00 DS 7.00-10.00m recovered as a combined B sample.													
					DS 6.00 - 7.00	100% 0% 0%									6.00	
					DS 7.00 - 8.00	50% 0% 0%	(5.00)								6.50	
					DS 8.00 - 9.00	50% 0% 0%									7.00	
					DS 9.00 - 10.00	50% 0% 0%									7.50	
					DS 10.00 - 10.45										8.00	
					DS 11.00 - 11.45										8.50	
					DS 12.00 - 12.45										9.00	
					DS 13.00 - 13.45										9.50	
					DS 14.00 - 14.45										10.00	
					DS 15.00 - 15.45										10.50	
					DS 16.00 - 16.45										11.00	
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					DS 138.00 - 138.45											



Exploratory Hole Progress by Time				Exploratory Hole	
Date and Time	Depth	Casing Depth	Water Depth		
				S1-BH106	
				Sheet 3 of 5	
				Scale	1:25
				Drilled	KO
				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	16.40	Air/Mist	Black	100%	17.00	121mm	8.00	150mm			20/12/2022 08:53	0.00	1.00		0.75	20mins	
16.40	20.00	Air/Mist	Grey	0%	20.00	115mm	12.00	128mm									
Drill Bit Type		PCD			Drill Bit Condition		Good		Core Barrel Type		Conventional Triple Tube		Core Barrel Length			1.50	

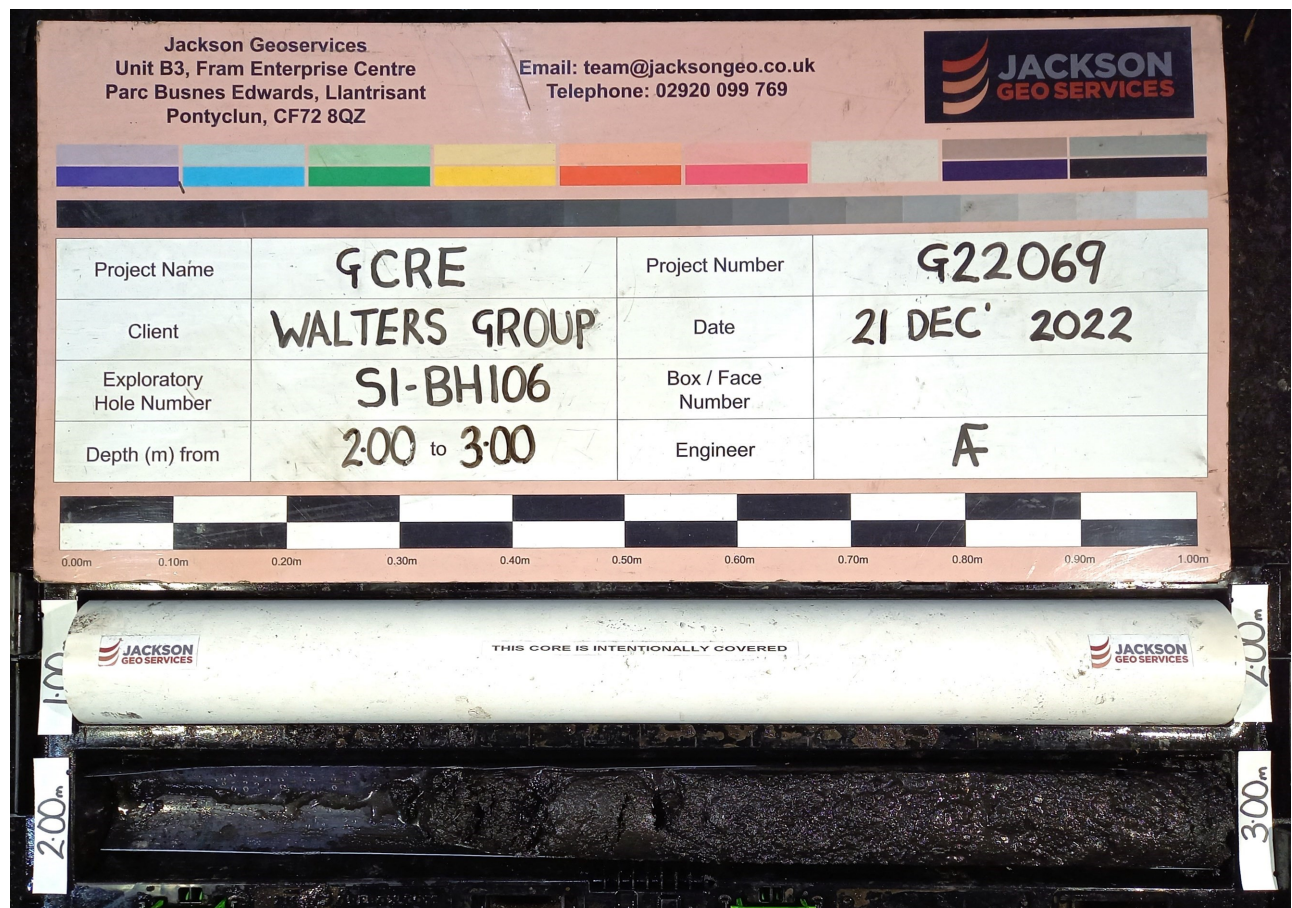
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		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.00m. Rotary open hole from 11.00m to 12.00m. Rotary coring from 12.00m to 17.00m. Rotary open hole from 17.00m to 20.00m.		Exploratory Hole
S1-BH106						
Project	Global Centre of Rail Excellence	Easting	284928.61	Equipment	Hand tools/Beretta T44	Sheet 1 of 5
Client	Walters UK Limited	Northing	210637.41	Method	IP/DS/RO/RC	
Project No	G22069	Level	241.27 mAOD	Termination Reason	Scheduled depth	

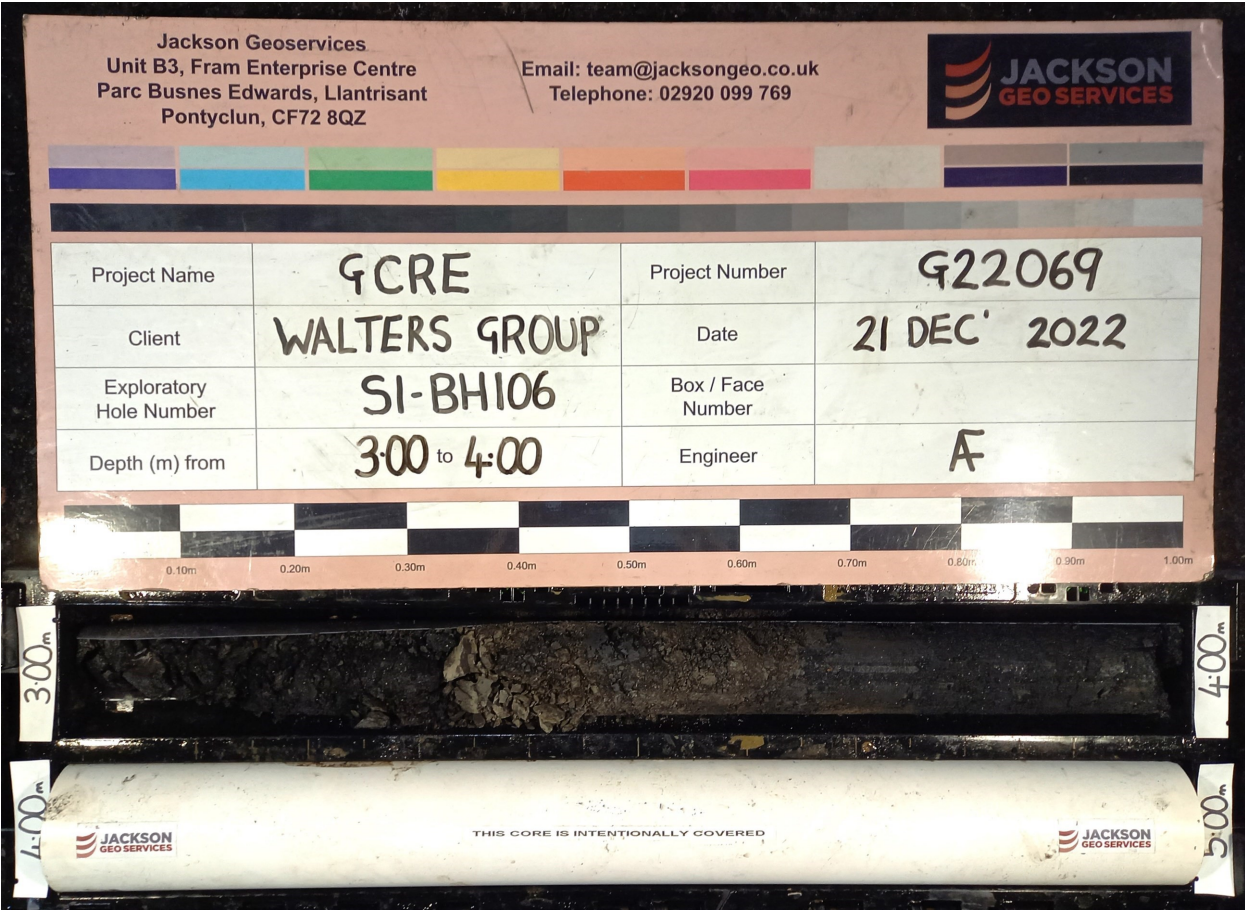


S1-BH106 1.00 m to 2.00 m

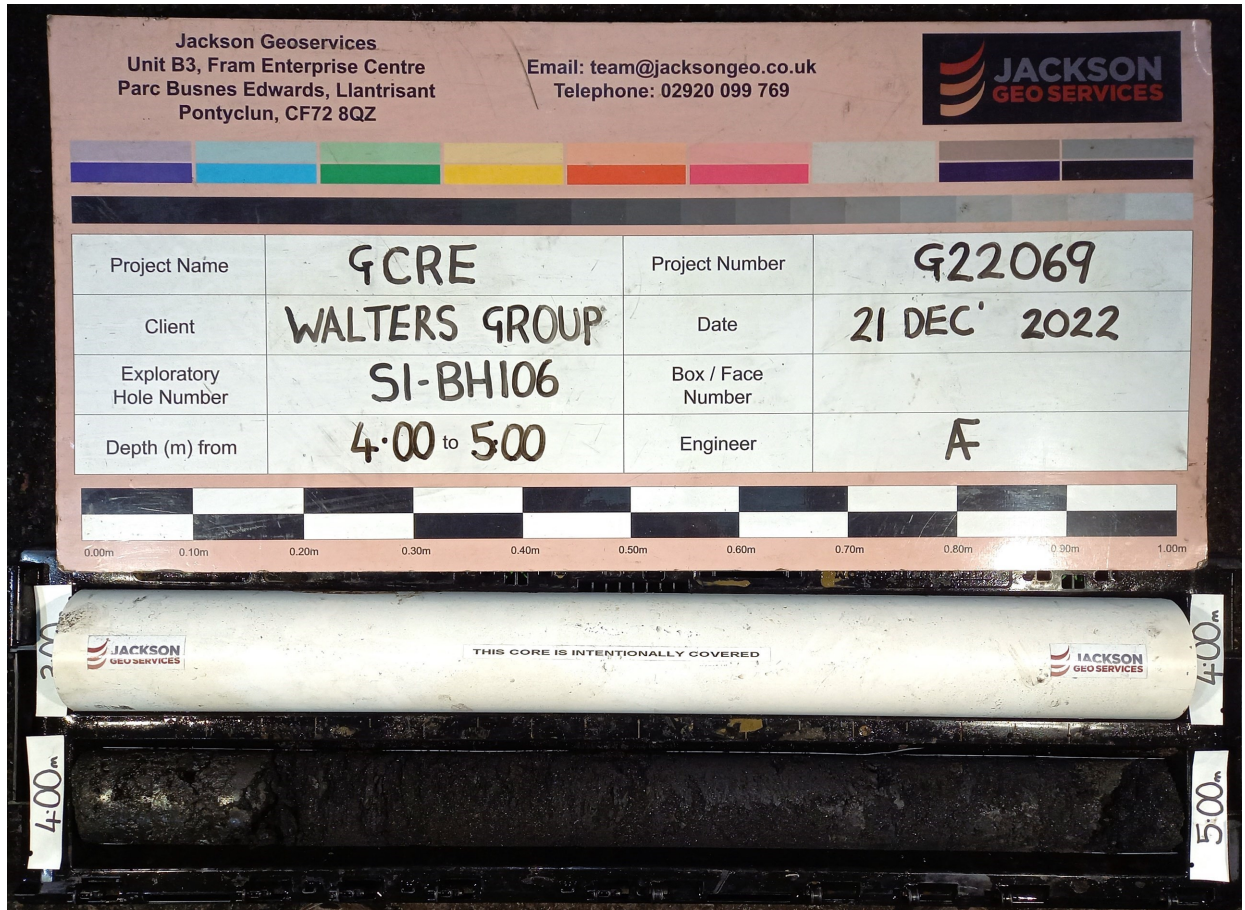


S1-BH106 2.00 m to 3.00 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.00m. Rotary open hole from 11.00m to 12.00m. Rotary coring from 12.00m to 17.00m. Rotary open hole from 17.00m to 20.00m.		Exploratory Hole S1-BH106
Project	Global Centre of Rail Excellence	Easting	284928.61	Equipment	Hand tools/Beretta T44	Sheet 2 of 5
Client	Walters UK Limited	Northing	210637.41	Method	IP/DS/RO/RC	
Project No	G22069	Level	241.27 mAOD	Termination Reason	Scheduled depth	



S1-BH106 3.00 m to 4.00 m



S1-BH106 4.00 m to 5.00 m

		EXPLORATORY HOLE PHOTOGRAPHS		Remarks Hand excavated inspection pit from GL to 1.20m. Dynamic sampling from 1.20m to 11.00m. Rotary open hole from 11.00m to 12.00m. Rotary coring from 12.00m to 17.00m. Rotary open hole from 17.00m to 20.00m.		Exploratory Hole S1-BH106
Project	Global Centre of Rail Excellence	Easting	284928.61	Equipment	Hand tools/Beretta T44	Sheet 3 of 5
Client	Walters UK Limited	Northing	210637.41	Method	IP/DS/RO/RC	
Project No	G22069	Level	241.27 mAOD	Termination Reason	Scheduled depth	

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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	21 DEC' 2022
Exploratory Hole Number	SI-BH106	Box / Face Number	
Depth (m) from	5.00 to 6.00	Engineer	A





S1-BH106 5.00 m to 6.00 m

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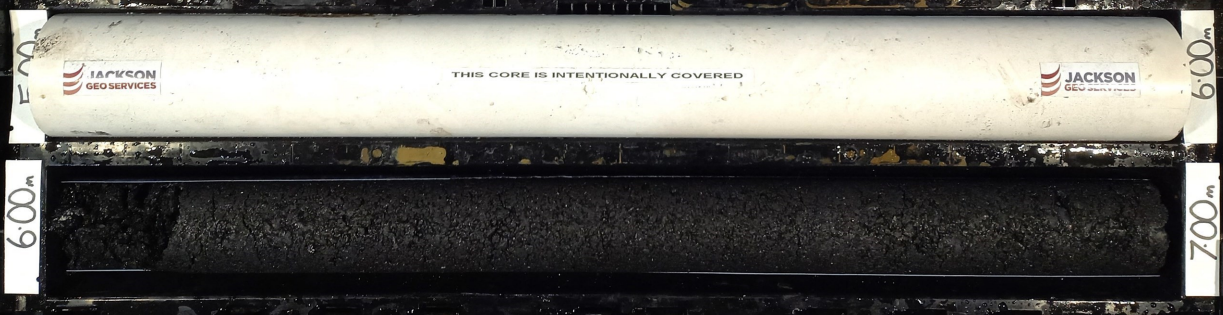
Email: team@jacksongeo.co.uk
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Project Name	GCRE	Project Number	G22069
Client	WALTERS GROUP	Date	21 DEC' 2022
Exploratory Hole Number	SI-BH106	Box / Face Number	
Depth (m) from	6.00 to 7.00	Engineer	A





S1-BH106 6.00 m to 7.00 m