

Appendix 04

**Records of Soil Bore Logs
(GD Drilling Ltd, December 2023)**



Borehole Log

Borehole No.

BH01

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258729.4 N: 666760.9	Hole Type:	CP
Location:	Glasgow	Level:	35.83	Scale:	1:51	Rig Type:	Dando 150
Client:	Mason Evans Partnership	Dates:	08/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30	ES		0.20	35.63	MADE GROUND: Tarmacadam.	
		0.50	B				MADE GROUND: Greyish brown slightly clayey sandy angular fine to coarse gravel of predominantly crushed aggregate. Sand is fine to coarse.	
		0.50	ES		0.70	35.13		
		1.00	B				MADE GROUND: Dense brown slightly silty very gravelly fine to coarse sand with occasional pockets of clay. Gravel is angular and subangular fine to coarse of various lithologies including frequent burnt shale and brick fragments. Traces of ash noted. Driller records occasional brick sized cobbles.	1
		1.00	ES					
		1.20	SPT	N=44 (5,10/11,10,12,11)				
	▼						<i>Driller records chiselling from 2.00m to 3.00m.</i>	2
					3.00	32.83	<i>No further progress, presumed boulder obstruction. End of Borehole at 3.00m</i>	3
								4
								5
								6
								7
								8
								9
								10

Remarks:
 Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 3.00m and terminated on possible boulder obstruction or bedrock. Water strike at 2.00 and remaining at this level after 20mins. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
JB	





Borehole Log

Borehole No.

BH01A

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258729.4 N: 666760.0	Hole Type:	CP
Location:	Glasgow	Level:	35.78	Scale:	1:51	Rig Type:	Dando 150
Client:	Mason Evans Partnership	Dates:	08/12/2023 - 09/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20			0.20	35.58	MADE GROUND: Tarmacadam.	
		0.50			0.50	35.28	MADE GROUND: Greyish brown slightly clayey sandy angular fine to coarse gravel of predominantly crushed aggregate. Sand is fine to coarse.	
		1.20	ES				MADE GROUND: Dense brown slightly silty very gravelly fine to coarse sand with occasional pockets of clay. Gravel is angular and subangular fine to coarse of various lithologies including frequent burnt shale and brick fragments. Traces of ash noted. Driller records occasional brick sized cobbles.	1
		1.20 - 1.65	D					
		1.20	SPT	N=45 (6,10/10,12,12,11)				
		2.00	ES		2.00	33.78	Stiff becoming very stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	2
		2.00 - 2.45	D	N=27 (8,5/7,7,6)				
		2.00	SPT					
		3.00 - 3.45	U100	Ublow=60				3
		4.00	ES					
		4.00 - 4.45	D	N=32 (7,8/7,9,8,8)				4
		4.00	SPT					
		4.50 - 4.95	D					
		5.00 - 5.45	U100	Ublow=68				5
		6.50	ES					
		6.50	SPT	N=37 (8,8/9,8,10,10)				6
		7.50 - 7.60	D		7.50	28.28	Weak dark grey MUDSTONE, recovered as a gravelly clay.	7
		7.50	SPT	50 (25 for 75mm/50 for 25mm)	7.60	28.18	End of Borehole at 7.60m	8
								9
								10

Remarks:
 Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 7.60m and terminated on possible boulder obstruction or bedrock. No groundwater encountered. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
JB	





Borehole Log

Borehole No.

BH02

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258766.3 N: 666752.5	Hole Type:	CP
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Location:	Glasgow	Level:	40.29	Scale:	1:86
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Client:	Mason Evans Partnership	Dates:	04/12/2023	Rig Type:	Dando 2000
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Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20	ES		0.25	40.04		MADE GROUND: Concrete.	
		0.50	B		0.70	39.59		MADE GROUND: Dark brown sandy fine to coarse gravel of various lithologies including brick fragments, burnt shale and concrete. Frequent cobble sized brick and concrete (presumed demolition rubble). Sand is fine to coarse.	1
		0.50	ES						
		1.00	B						
		1.00	ES						
		1.20 - 1.65	D						
		1.20	SPT	N=8 (2,3/1,1,2,4)				MADE GROUND: Loose locally medium dense brown slightly silty very gravelly fine to coarse sand with occasional pockets of clay. Gravel is angular and subangular fine to coarse of various lithologies including frequent burnt shale. Traces of ash noted. Driller records occasional cobbles of sandstone.	2
		1.80	B						
		2.00	ES						
		2.00 - 2.45	D						
		2.00	SPT	N=10 (4,8/4,2,3,1)					
		2.80	B						
		3.00	ES						
		3.00 - 3.45	D						
		3.00	SPT	N=9 (2,1/2,3,2,2)	3.60	36.69		Firm brown slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of various lithologies.	4
		3.80	B						
		4.00	ES						
		4.00 - 4.45	D						
		4.00	SPT	N=10 (2,3/2,3,2,3)					
		4.80	B		4.80	35.49		Firm becoming stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone. Driller records occasional cobbles of sandstone.	5
		5.00 - 5.45	U100	Ublow=45					6
		6.30	B						
		6.50 - 6.95	D						
		6.50	SPT	N=17 (3,4/4,4,5,4)					7
		7.80	B						
		8.00 - 8.65	U100	Ublow=60					8
		9.00 - 9.45	D						
		9.00	SPT	N=25 (3,4/5,6,7,7)					9
		9.30	B						
		10.20	SPT	50 (25 for 0mm/50 for 0mm)	10.20	30.09		End of Borehole at 10.20m	10
									11
									12
									13
									14
									15
									16
									17

Remarks: Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 10.20m and terminated on possible boulder obstruction or bedrock. Water strike at 3.20 and remaining at this level after 20mins. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
KP	





Borehole Log

Borehole No.

BH03

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258776.1 N: 666701.8	Hole Type:	CP
Location:	Glasgow	Level:	40.28	Scale:	1:86	Rig Type:	Dando 2000
Client:	Mason Evans Partnership	Dates:	05/12/2023 - 06/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.30			0.30	39.98		MADE GROUND: Concrete.	
		0.50	ES		0.60	39.68		MADE GROUND: Dark brown sandy fine to coarse gravel of various lithologies including brick fragments, burnt shale and concrete. Frequent cobble sized brick and concrete (presumed demolition rubble). Sand is fine to coarse.	1
		0.70	ES						
		0.80	B						
		1.00	ES						
		1.20 - 1.65	D	N=12 (2,4/8,2,1,1)	1.60	38.68		MADE GROUND: Medium dense brown slightly silty very gravelly fine to coarse sand with occasional pockets of clay. Gravel is angular and subangular fine to coarse of various lithologies including frequent burnt shale. Traces of ash noted. Driller records occasional cobbles of sandstone.	2
		1.20	SPT						
		1.80	B						
		2.00	ES						
		2.00 - 2.45	D	N=7 (2,2/1,2,2,2)				Soft becoming firm brown slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of various lithologies.	3
		2.00	SPT						
		2.80	B						
		3.00 - 3.45	U100	Ublow=27					
		4.00 - 4.45	D		4.20	36.08		Firm becoming stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone. Driller records occasional cobbles of sandstone.	4
		4.00	SPT	N=14 (2,3/3,4,3,4)					
		5.00 - 5.45	U100	Ublow=60					5
		5.80	B						6
		6.30	B						
		6.50 - 6.95	D					Extremely weak white SANDSTONE, recovered as a sandy gravel (possible weathered bedrock). End of Borehole at 14.50m	7
		6.50	SPT	N=16 (3,4/3,4,4,5)					
		6.80	B						
		7.80	B						8
		9.00 - 9.45	U100	Ublow=60					9
		9.30	B						
		10.00 - 10.45	D						10
		10.00	SPT	N=24 (4,5/5,6,6,7)					
		10.80	B						11
		11.50 - 11.95	U100	Ublow=60					12
		12.30	B						
		13.00 - 13.45	D						13
		13.00	SPT	N=24 (3,4/5,6,7,6)					
		13.80	B						14
		14.40 - 14.50	D		14.40	25.88			
		14.40	SPT	50 (25 for 50mm/50 for 50mm)	14.50	25.78			15

Remarks: Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 14.50m and terminated on possible bedrock or boulder obstruction. No groundwater encountered. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
KP	





Borehole Log

Borehole No.

BH04

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258777.6 N: 666662.8	Hole Type:	CP
Location:	Glasgow	Level:	40.27	Scale:	1:86	Rig Type:	Dando 2000
Client:	Mason Evans Partnership	Dates:	06/12/2023 - 07/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results									
		0.20			0.20	40.07		MADE GROUND: Concrete.					
		0.50	ES	50 (25 for 0mm/50 for 0mm)	2.20	38.07		MADE GROUND: Dark brown sandy fine to coarse gravel of various lithologies including brick fragments, burnt shale and concrete. Frequent cobble sized brick and concrete (presumed demolition rubble). Sand is fine to coarse. <i>From 1.20m to 2.20m- Driller records pushing cobbles- No recovery.</i>	1				
		0.70	ES										
		0.80	B										
		1.00	ES										
		1.20	SPT										
		2.50	B	Ublow=28	5.80	34.47		Firm brown slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of various lithologies.	2				
		2.50	ES										
		3.00 - 3.45	U100										
		3.50	B	N=11 (2,3/2,3,3,3)	5.80	34.47		Stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	3				
		4.00 - 4.45	D										
		4.00	SPT										
		4.50	B	Ublow=39	5.80	34.47			4				
		5.00 - 5.45	U100										
		6.00	B										
		6.50 - 6.95	D	N=24 (4,6/5,6,7,6)	5.80	34.47			5				
		6.50	SPT										
		7.50	B										
		8.20 - 8.65	U100	Ublow=57	5.80	34.47			6				
		9.00	B										
		9.70 - 10.15	D										
		9.70	SPT	N=25 (5,5/5,6,7,7)	5.80	34.47			7				
		10.50	B										
		12.00	B										
		12.30 - 12.75	U100	Ublow=63	5.80	34.47			8				
		13.50	B										
		13.80 - 14.25	D										
		13.80	SPT	N=24 (4,5/6,5,6,7)	5.80	34.47			9				
		15.00	B										
		15.30 - 15.50	D										
		15.30	SPT	50 (25 for 100mm/50 for 100mm)	15.30	24.97		Extremely weak brown SANDSTONE, recovered as a sandy gravel (possible weathered bedrock). <i>End of Borehole at 15.50m</i>	10				
		15.30	SPT		15.50	24.77					11		
									12				
									13				
									14				
									15				
									16				
									17				

Remarks: Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 15.50m and terminated on possible bedrock or boulder obstruction. No groundwater encountered. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
KP	





Borehole Log

Borehole No.

BH05

Sheet 1 of 1

Project Name: Rotterdam Wharf, Scottish Opera **Project No.:** GD 0663 **Co-ords:** E: 258783.5 N: 666628.1 **Hole Type:** CP

Location: Glasgow **Level:** 40.20 **Scale:** 1:86

Client: Mason Evans Partnership **Dates:** 08/12/2023 **Rig Type:** Dando 2000

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
	▼				0.20	40.00		MADE GROUND: Concrete.	
		0.70 0.80 1.00	ES B ES		0.50	39.70		MADE GROUND: Dark brown sandy fine to coarse gravel of various lithologies including brick fragments, burnt shale and concrete. Frequent cobble sized brick and concrete (presumed demolition rubble). Sand is fine to coarse.	1
		2.50 2.80 3.00 3.00 - 3.45 3.00 3.80 4.00 - 4.45	ES B ES D SPT B U100	N=13 (2,3/3,3,4,3)	2.60	37.60		MADE GROUND: Soft brownish grey slightly sandy gravelly clay (reworked). Gravel is angular and subangular fine to coarse of various lithologies including brick, concrete and burnt shale. Rare textile material noted.	2
		4.80 5.00 - 5.45 5.00	B D SPT	N=13 (3,4/3,4,3,3)				Firm brown slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of various lithologies including mudstone sandstone and coal.	3
		6.30 6.50 - 6.95	B U100	Ublow=42					4
		7.80 8.00 - 8.45 8.00	B D SPT	N=19 (3,5/4,5,5,5)	7.20	33.00		Stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	7
		9.30 9.50 - 9.95	B U100	Ublow=50					8
		10.80 11.00 - 11.45 11.00	B D SPT	N=23 (3,4/5,5,6,7)					9
		12.30 12.60 - 13.05	B U100	Ublow=60					10
		13.80 14.00 - 14.45 14.00	B D SPT	N=27 (4,6/5,7,8,7)					11
		15.30 15.50 - 15.80 15.80 - 15.90 15.80	B U100 D SPT	50 (25 for 50mm/50 for 50mm)	15.80 15.90	24.40 24.30		Extremely weak white SANDSTONE, recovered as a sandy gravel (presumed bedrock). End of Borehole at 15.90m	16
									17

Remarks:
 Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 15.90m and terminated on possible bedrock or boulder obstruction. Water in pit at 0.30m no other strike noted. Borehole scheduled for rotary follow on.

Logged By: KP **Checked By:**





Borehole Log

Borehole No.

BH06

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258748.1 N: 666599.7	Hole Type:	CP
Location:	Glasgow	Level:	35.83	Scale:	1:51	Rig Type:	Dando 2000
Client:	Mason Evans Partnership	Dates:	09/12/2023 - 10/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	ES		0.20	35.63	MADE GROUND: Tarmacadam.	
		0.50	B				MADE GROUND: Greyish brown slightly clayey sandy angular fine to coarse gravel of predominantly crushed aggregate. Sand is fine to coarse.	
		0.50	ES					
		1.00	B		1.10	34.73	MADE GROUND: Dense brown slightly silty very gravelly fine to coarse sand with occasional pockets of clay. Gravel is angular and subangular fine to coarse of various lithologies including frequent burnt shale and brick fragments. Traces of ash noted. Driller records occasional brick sized cobbles. Stiff brownish orange slightly sandy CLAY with rare gravel.	1
		1.00	ES					
		1.20	B					
		1.20 - 1.65	D	N=36 (8,7/9,9,9,9)				
		1.20	SPT		1.80	34.03		
		2.00	B		2.50	33.33	Stiff becoming very stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	2
		2.00 - 2.45	D	N=27 (6,4/6,5,8,8)				
		2.00	SPT					
		2.50 - 2.95	U100	Ublow=50				
		3.00	B					3
		3.00 - 3.45	D	N=28 (7,6/7,5,8,8)				
		3.00	SPT					
		4.00 - 4.45	U100	Ublow=55				4
		5.00	B					5
		5.00 - 5.45	D	N=33 (7,7/9,8,8,8)				
		5.00	SPT					
		6.40	D		6.40	29.43	Extremely weak white SANDSTONE, recovered as a sandy gravel (possible weathered bedrock). End of Borehole at 6.50m	6
					6.50	29.33		

Remarks: Inspection pit dug to a depth of 1.20m. Borehole progressed with cable percussion techniques to a depth of 6.50m and terminated on possible bedrock. No groundwater encountered. Borehole scheduled for rotary follow on.

Logged By:	Checked By:
JB	





Borehole Log

Borehole No.

BH07

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258740.8 N: 666627.6	Hole Type:	WS
Location:	Glasgow	Level:	35.83	Scale:	1:25	Rig Type:	Competitor Dart
Client:	Mason Evans Partnership	Dates:	04/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Tarmacadam.	
		0.30	ES		0.23	35.60		
					0.35	35.48	MADE GROUND: Greyish brown slightly clayey sandy angular fine to coarse gravel of predominantly crushed aggregate. Sand is fine to coarse.	
		0.50	B					
		0.50	ES				MADE GROUND: Brown slightly clayey very gravelly fine to coarse sand. Gravel is subangular of various lithologies including brick fragments, burnt shale and crushed aggregate.	
					0.70	35.13	MADE GROUND: Soft becoming firm grey slightly sandy gravelly clay (reworked). Gravel is angular to subangular of various lithologies including brick fragments and burnt shale. Traces of ash noted.	
		1.00	B					
		1.00	ES					
		1.20 - 1.65	D					
		1.20	SPT	N=8 (2,2/2,2,2,2)				
		1.80	B					
		2.00	ES					
		2.00 - 2.45	D					
		2.00 - 3.00	U87 (B)	Ublow=77				
		2.00	SPT	N=11 (2,2/2,3,3,3)				
		2.50	ES					
		3.00 - 3.45	D		3.00	32.83	Firm dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	
		3.00 - 4.00	U87	Ublow=64				
		3.00	SPT	N=11 (1,2/3,2,3,3)				
		3.50	ES					
		4.00 - 4.25	D					
		4.00	SPT	50 (1,2/50 for 100mm)				
					4.25	31.58	End of Borehole at 4.25m	

Remarks: Inspection pit dug to a depth of 1.20m. Borehole progressed with windowless sampling techniques to a depth of 4.25m and terminated on possible bedrock or boulder obstruction. No groundwater encountered. Borehole fitted with a wellpoint on completion.

Logged By:	Checked By:
GD	





Borehole Log

Borehole No.

BH08

Sheet 1 of 1

Project Name:	Rotterdam Wharf, Scottish Opera	Project No.:	GD 0663	Co-ords:	E: 258744.7 N: 666738.8	Hole Type:	WS
Location:	Glasgow	Level:	35.83	Scale:	1:25	Rig Type:	Competitor Dart
Client:	Mason Evans Partnership	Dates:	04/12/2023				

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.25	35.58		MADE GROUND: Tarmacadam.
		0.30	ES					MADE GROUND: Greyish brown slightly clayey sandy angular fine to coarse gravel of predominantly crushed aggregate. Sand is fine to coarse.
		0.50	B		0.55	35.28		Firm becoming firm to stiff brown slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of various lithologies including mudstone sandstone and coal.
		0.60	ES					
		1.00	B					Ublow=77 N=11 (2,2/2,3,3,3)
		1.00	ES					
		1.20 - 1.65 1.20 - 2.00 1.20	D U87 SPT					
		2.00 - 2.45 2.00 - 3.00 2.00	D U87 SPT					Ublow=104 N=12 (1,2/2,3,3,4)
		3.00 - 3.45 3.00 - 4.00 3.00	D U87 SPT					Ublow=102 N=15 (1,2/2,3,4,6)
		4.00 - 4.45 4.00 - 4.50 4.00	D B SPT		4.00	31.83		Medium dense brown silty fine to medium SAND with rare gravel.
				4.70	31.13		Stiff dark grey slightly silty slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse of predominantly sandstone and mudstone.	
	5.00	B		5.00	30.83		End of Borehole at 5.00m	

Remarks:
 Inspection pit dug to a depth of 1.20m. Borehole progressed with windowless sampling techniques to a depth of 5.00m and terminated on Engineers' Instruction. No groundwater encountered. Borehole fitted with a wellpoint on completion.

Logged By:	Checked By:
GD	



Appendix 05

**Records of Rotary Bore Logs and Rock Core Photographs
(GD Drilling Ltd, December 2023)**



Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 12/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number RO1	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 2 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
			NI				78mm	10.25			Very weak dark grey coaly MUDSTONE. Non-intact	11
			8								Moderately strong pale grey fine to coarse grained SANDSTONE with occasional mudstone laminae. 2 fracture sets: #1 close to medium spaced, sub-horizontal, undulose, rough. #2 medium spaced, sub-vertical undulose, rough	
		10.80 - 13.80		100	97	17		12.90			Weak locally moderately strong grey SILTSTONE. 1 fracture set: #1 close to medium spaced, sub-horizontal, undulose, rough	13
								13.45			Moderately strong and strong cream fine to coarse grained SANDSTONE. 1 fracture set: #1 close to medium spaced, subhorizontal, undulose, rough	14
		13.80 - 16.80		100	100	90		16.80			Drillers description: SANDSTONE with mudstone bands	17
											18	
												19
												20

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.80	152	7.80	140									7.80	31.00	Water	GREY	100	100
31.00	100																

Remarks
 Openhole from 16.80m to 31.00m ,Install pipe at 7.00m with 1.00m plain pipe 6.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans			Date: 12/12/2023		
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd					
Project No. : 41		Crew Name: TT/TT			Drilling Equipment: 205		
Borehole Number RO1	Hole Type CP+RC		Level		Logged By TT	Scale 1:50	Page Number Sheet 3 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
										Drillers description: SANDSTONE with mudstone bands	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.80	152	7.80	140									7.80	31.00	Water	GREY	100	100
31.00	100																

Remarks
 Openhole from 16.80m to 31.00m ,Install pipe at 7.00m with 1.00m plain pipe 6.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 12/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number RO1	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 4 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
								31.00			Drillers description: SANDSTONE with mudstone bands	31
											End of Borehole at 31.000m	31
												32
												33
												34
												35
												36
												37
												38
												39
												40

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
7.80	152	7.80	140									7.80	31.00	Water	GREY	100	100
31.00	100																

Remarks
 Openhole from 16.80m to 31.00m ,Install pipe at 7.00m with 1.00m plain pipe 6.00m slotted pipe



Box 1

Box 1
 139
 Rotterdam, W
 12/12/23
 1780 1080

108.01

000 010 020 030 040 050 060 070 080 090 100



52
Korom... W
17/12/13
10/20 13/20



13.80

13.80



16.80





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 08/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R02	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 1 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											CP follow-on see CP logs	
												1
												2
												3
												4
												5
												6
												7
												8
												9
								10.00				10

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
12.00	140	12.00	140									10.00	37.50	Water	GREY	100	100

Remarks
 Openhole from 21.20m to 37.50m ,Install pipe at 20.00m with 12.00m plain pipe and 8.00m of slotted





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 08/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R02	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 2 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											Drillers Description: Boulder CLAY with boulders	11
							78mm	12.00			Drillers Description: SANDSTONE	12
		12.00 - 14.20	6	100	77	41		12.75			Moderately strong pale cream fine to coarse grained SANDSTONE with frequent mudstone bands. 1 fracture set: #1 closely spaced subhorizontal undulose rough	
			8								Weak grey MUDSTONE with siltstone bands. Locally non-intact. 2 fracture sets: #1 closely spaced horizontal undulose rough #2 medium spaced sub-vertical undulose rough	13
							78mm	14.70				14
		14.20 - 17.20	4	100	90	40		15.95			Strong cream fine to coarse grained SANDSTONE with frequent roots and occasional mudstone laminations. 1 fracture set: #1 close and medium spaced sub-horizontal undulose rough	15
			6								Moderately strong pale cream fine to coarse grained SANDSTONE with frequent mudstone bands. 1 fracture set: #1 closely spaced subhorizontal undulose rough	16
			NI					16.95			Black bright COAL. Non-intact	17
			2				78mm	17.05			Moderately strong cream fine to coarse grained SANDSTONE with frequent roots and occasional mudstone laminations. 1 fracture set: #1 close and medium spaced sub-horizontal undulose rough	
			8	100	87	65		18.10			Moderately strong pale cream fine to coarse grained SANDSTONE with frequent mudstone bands. 1 fracture set: #1 closely spaced subhorizontal undulose rough	18
		17.20 - 20.20	1					18.80			Strong cream fine to coarse grained SANDSTONE.	19
			3					18.95			Moderately strong locally weak grey interbedded MUDSTONE and SILTSTONE with occasional sandstone laminations. 1 fracture set: #1 closely spaced subhorizontal undulose rough	
			NI					19.50				19
								19.90				20

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
12.00	140	12.00	140									10.00	37.50	Water	GREY	100	100
37.50	100																

Remarks
Openhole from 21.20m to 37.50m ,Install pipe at 20.00m with 12.00m plain pipe and 8.00m of slotted





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 08/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R02	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 3 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
		20.20 - 21.20	5	100	100	70	78mm	21.20			Extremely weak grey coaly MUDSTONE. Fully destructured, possible waste. Moderately strong cream fine to coarse grained SANDSTONE with frequent roots and occasional mudstone laminations. 1 fracture set: #1 close and medium spaced sub-horizontal undulose rough	21
											SANDSTONE with mudstone bands	22
												23
												24
												25
												26
												27
												28
												29
												30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
12.00	140	12.00	140					10.00	37.50			10.00	37.50	Water	GREY	100	100
37.50	100																

Remarks
Openhole from 21.20m to 37.50m ,Install pipe at 20.00m with 12.00m plain pipe and 8.00m of slotted





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 08/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R02	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 4 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
										SANDSTONE with mudstone bands	31
											32
											33
											34
											35
											36
								37.50		.....		37
										End of Borehole at 37.500m	38
											39
											40

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
12.00	140	12.00	140									10.00	37.50	Water	GREY	100	100
37.50	100																

Remarks
 Openhole from 21.20m to 37.50m ,Install pipe at 20.00m with 12.00m plain pipe and 8.00m of slotted



Box 1
ROTTERDAM WHARF
21/12/73
CONTAINER NO.
R02 12:00 15:20

12:00



14

14:20

15:20

18.30

Box 3
ROTTERDAM WHARF
21.23
K02
30 21.20

15.00 m 7

19.50

cat 1

21.20





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 09/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number RO3	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 1 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											CP follow-on see CP logs	
												1
												2
												3
												4
												5
												6
												7
												8
												9
												10

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
14.00	140	14.00	140									14.00	38.00	Water	GREY	100	100

Remarks
 Openhole from 23.5m to 38.00m , Install pipe at 16.00m with 3.00m plain pipe and 13.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 09/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number RO3	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 3 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
			8				78mm	20.20		xxxxxxx xxxxxxx	Weak and moderately strong grey SILTSTONE. 1 fracture set: #1 closely spaced subhorizontal smooth	
								20.50		.....	Extremely weak black dull and bright COAL. Locally non intact.	
		20.50 - 23.50	2					21.80		.....	Moderately strong and strong grey fine to coarse thickly bedded SANDSTONE with occasional mudstone laminations, rooty at top. 1 fracture set: #1 subhorizontal undulose rough	21
			10	100	80	43			22.40	xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx	Moderately strong thinly bedded grey SILTSTONE with sandstone laminations. 1 fracture set: #1 closely spaced subhorizontal planar smooth	22
			NI						22.50	.....	Black COAL non intact.	
			10						23.10	xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx	Moderately strong and strong grey SILTSTONE locally non-intact. 1 fracture set: #1 15° planar rough	23
			NI						23.25	.....	Black COAL non intact.	
			2					23.50		.....	Moderately strong grey SANDSTONE	
										Drillers description: SANDSTONE with mudstone bands	24
											25
											26
											27
											28
											29
											30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
14.00	140	14.00	140									14.00	38.00	Water	GREY	100	100

Remarks
Openhole from 23.5m to 38.00m , Install pipe at 16.00m with 3.00m plain pipe and 13.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 09/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number RO3	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 4 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
										Drillers description: SANDSTONE with mudstone bands	31
											32
											33
											34
											35
											36
											37
								38.00		.....	End of Borehole at 38.000m	38
											39
											40

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
14.00	140	14.00	140									14.00	38.00	Water	GREY	100	100
38.00	100																

Remarks
 Openhole from 23.5m to 38.00m , Install pipe at 16.00m with 3.00m plain pipe and 13.00m slotted pipe





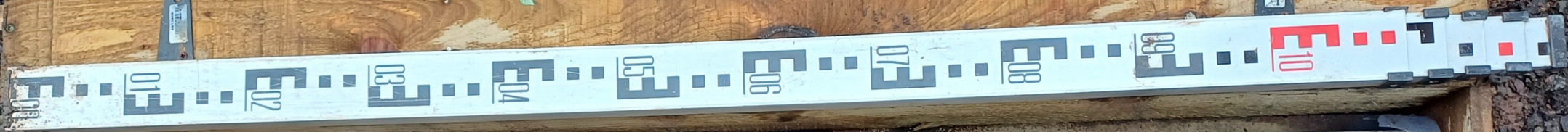
00 01 02 03 04 05 06 07 08 09 10

1750



05.02





0102



0103





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans			Date: 10/12/2023		
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd					
Project No. : 41		Crew Name: TT/TT			Drilling Equipment: 205		
Borehole Number R04	Hole Type CP+RC		Level		Logged By TT	Scale 1:50	Page Number Sheet 1 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											CP follow-on see CP logs	
												1
												2
												3
												4
												5
												6
												7
												8
												9
												10

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
15.50	140	15.50	140									15.00	38.80	Water	GREY	100	100

Remarks
 Openhole from 24.05m to 38.50m , install pipe at 24.00m with 16.00m plain pipe and 8.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 10/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R04	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 2 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											CP follow-on see CP logs	
												11
												12
												13
												14
								15.00				15
								15.50			Drillers Description: SANDSTONE	15
		15.50 - 18.05		100	100	67	78mm				Moderately strong and strong thinly bedded fine to coarse grained SANDSTONE with mudstone laminations increasing towards base. 1 fracture set: #1 medium spaced subhorizontal undulose rough. Locally non-intact.	16
												17
							78mm					18
		18.05 - 21.05		100	92	33		19.05				19
											Weak and moderately strong grey SILTSTONE. Locally fully desructured due to weathering. 2 fracture sets: #1 medium spaced subhorizontal planar smooth #2 widely spaced 80° planar smooth.	20

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
15.50	140	15.50	140									15.00	38.80	Water	GREY	100	100
38.50	100																

Remarks
 Openhole from 24.05m to 38.50m , install pipe at 24.00m with 16.00m plain pipe and 8.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans		Date: 10/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd			
Project No. : 41		Crew Name: TT/TT		Drilling Equipment: 205	
Borehole Number R04	Hole Type CP+RC	Level	Logged By TT	Scale 1:50	Page Number Sheet 3 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
G		21.05 - 24.05		100	87	35	78mm	20.20		xxxxxxx xxxxxxx	Weak and moderately strong grey SILTSTONE. Locally fully desructured due to weathering. 2 fracture sets: #1 medium spaced subhorizontal planar smooth #2 widely spaced 80° planar smooth. Non-intact 19.10 - 19.15 and 19.45 - 19.55	21
								20.60					Weak dark grey and black MUDSTONE and COAL. Locally non-intact
								22.25			Strong cream thinly bedded fine to coarse grained SANDSTONE with frequent mudstone bands at top. 1 fracture set: #1 widely spaced 20° undulose rough	22
								23.45			Weak and moderately strong grey thinly bedded MUDSTONE. 1 fracture set: #1 medium spaced subhorizontal planar smooth	23
								24.05			Weak dark grey and black dull and bright COAL. Non-intact.	24
											Drillers description: SANDSTONE with mudstone bands	25
												26
												27
												28
												29
												30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
15.50	140	15.50	140									15.00	38.80	Water	GREY	100	100
38.50	100																

Remarks
Openhole from 24.05m to 38.50m , install pipe at 24.00m with 16.00m plain pipe and 8.00m slotted pipe





Rotary Core Log

Project Name: Rotterdam Wharf		Client: Mason Evans			Date: 10/12/2023	
Location: Port Dundas ,Glasgow		Contractor: Teasdale Drilling Services Ltd				
Project No. : 41		Crew Name: TT/TT			Drilling Equipment: 205	
Borehole Number R04	Hole Type CP+RC		Level	Logged By TT	Scale 1:50	Page Number Sheet 4 of 4

Well	Water	Depth (m)	Type /FI	Coring			Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD						
											Drillers description: SANDSTONE with mudstone bands	31
												32
												33
												34
												35
												36
												37
												38
								38.50			End of Borehole at 38.500m	39
												40

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)
15.50	140	15.50	140									15.00	38.80	Water	GREY	100	100
38.50	100																

Remarks
 Openhole from 24.05m to 38.50m , install pipe at 24.00m with 16.00m plain pipe and 8.00m slotted pipe

