



NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH-006

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 1 OF 5

POSITION : E: 527589.97, N: 5252384.82 (MGA2020-55)	SURFACE ELEVATION : 3.39 (AHD)	ANGLE FROM HORIZONTAL : 90°
RIG TYPE : MRS XL Max	MOUNTING : Track	CONTRACTOR : SWD
DRILLER : GB	DATE STARTED : 8/5/2024	DATE COMPLETED : 9/5/2024
DATE LOGGED : 9/5/2024	LOGGED BY : MIR	CHECKED BY : JRG

DRILLING				MATERIAL			
PROGRESS	DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	RELATIVE DENSITY	STRUCTURE & Other Observations
DRILLING & CASING WATER DRILLING PENETRATION GROUND WATER LEVELS SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG GROUP SYMBOL	Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components				
	0.0		ASPHALTIC CONCRETE.				ROAD SURFACE
	0.34		FILL Gravelly SAND: fine to coarse grained, dark grey, gravel is fine to medium grained, sub-angular, 0.2m: becoming green-grey	D			FILL Acid Sulfate Sampling every 0.5m to bedrock
	0.50m		FILL Sandy GRAVEL: fine to coarse, sub-angular to angular, dark grey.	D - M			
	1.0						
	1.4		FILL Gravelly SAND: fine to coarse grained, dark grey and red-brown, gravel is fine to medium grained, sub-angular to angular; trace shell and glass fragments.	M			
	1.50m						
	2.0		FILL Sandy CLAY: medium to high plasticity, brown, sand is fine to medium grained.				
	2.4						
	2.50m						
	3.0		FILL Sandy CLAY: medium to high plasticity, brown, sand is fine to medium grained.				
	3.04						
	3.00m		2.80m: becoming dark grey, with gravels, fine to coarse grained, sub-angular to angular, trace tile and glass fragments				
	3.4						
	3.45m						3.50-4.00: PP=145kPa
	4.0		FILL Gravelly SAND: fine to coarse grained, dark grey, gravel is fine to medium grained, sub-angular to angular; trace tile and glass fragments.	M - W			
	4.06						
	4.50m						
	5.0		FILL Sandy CLAY: medium to high plasticity, dark green-grey.				
	5.06						
	5.20m						
	5.60m		5.50m: organic layer (rootlets) for 100mm				
	5.80m		5.60m: inferred reworked natural material for 200mm				
	6.0		FILL SAND: fine to coarse grained, sub-rounded to sub-angular, grey, trace silt; trace sub-rounded gravel; with shell fragments.				ESTUARINE SOIL
	6.06		SAND: fine to coarse grained, sub-rounded, grey, trace silt; trace shell fragments.				
	6.45m						
	7.0						
	7.06						
	7.50m						
	7.0		CLAY: medium to high plasticity, green-grey, with fine to medium grained sand.				
	7.06						
	7.70m						
	7.95m						7.90-8.40: PP=50kPa

See Explanatory Notes for details of abbreviations & basis of descriptions.

WSP-AU-GLB Log IS AU BOREHOLE 2A PS212776_MASTER.GPJ <DrawingFiles> 18/6/2024 12:13 10.03.00.09 D:\git\Lab and H_Situ_Tech_DGD [Lib: WSP-5.05.2.2023-08-23 Proj: WSP-5.04.0.2023-04-11



NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH-006

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 2 OF 5

POSITION : E: 527589.97, N: 5252384.82 (MGA2020-55) SURFACE ELEVATION : 3.39 (AHD) ANGLE FROM HORIZONTAL : 90°
RIG TYPE : MRS XL Max MOUNTING : Track CONTRACTOR : SWD DRILLER : GB
DATE STARTED : 8/5/2024 DATE COMPLETED : 9/5/2024 DATE LOGGED : 9/5/2024 LOGGED BY : MIR CHECKED BY : JRG

DRILLING					MATERIAL						
PROGRESS		DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations	
DRILLING & CASING	WATER										
		F			8.0 -4.6		Cl-CH	CLAY: medium to high plasticity, green-grey, with fine to medium grained sand. (continued)	w=PL -w>PL VS	ESTUARINE SOIL	
					8.50m			SAND: fine to coarse grained, sub-rounded, grey, trace silt; trace shell fragments.	M - W L		
					9.00m SPT 3,1,2 N=3	9.0 -5.6			9.00-10.50m: No soil recovered from sonic run		
					9.45m		SW				
					10.0 -6.6						
					10.50m SPT 1,1,2 N=3	10.50m			SAND: fine to coarse grained, sub-rounded, grey, trace silt; trace shell fragments.		
					10.95m		SW				M - W L
					11.0 -7.6						
					12.00m SPT 2,1,1 N=2	12.0 -8.6					
					12.45m 12.50m U				CLAY: medium to high plasticity, green-grey, with fine to medium grained sand.		w>PL -w=LL VS
				12.70m		Cl-CH					
		H			13.0 -9.6			DOLERITE: green-grey, recovered as sandy gravel, inferred weathered rock.		ROCK	
					14.0 -10.6			13.80m: becoming pale brown-grey			
					15.0 -11.6			15.00m: becoming green-grey			
					15.30m			Continued as Cored Drill Hole			
					16.0 -12.6						

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CORED DRILL HOLE LOG

HOLE NO : BH-006

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 3 OF 5

POSITION : E: 527589.97, N: 5252384.82 (MGA2020-55) SURFACE ELEVATION : 3.39 (AHD) ANGLE FROM HORIZONTAL : 90°
 RIG TYPE : MRS XL Max MOUNTING : Track CONTRACTOR : SWD DRILLER : GB
 DATE STARTED : 8/5/2024 DATE COMPLETED : 9/5/2024 DATE LOGGED : 9/5/2024 LOGGED BY : MIR CHECKED BY : JRG
 CASING DIAMETER : 140 mm BARREL (Length) : 1.50 m BIT : IMPREG RC10 BIT CONDITION : Good

DRILLING				MATERIAL				FRACTURES							
PROGRESS		CORE LOSS (% OF DRILL DEPTH)	ROD (%)	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	WEATHERING	ESTIMATED STRENGTH				NATURAL FRACTURE (mm)	VISUAL	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
DRILLING & CASING	WATER								UCS-154 ₂₀₀	UCS	UCS	UCS			
					8.0										
					9.0										
					10.0										
					11.0										
					12.0										
					13.0										
					14.0										
					15.0										
					15.30m		15.30m START CORING AT 15.30m								
		0% LOSS	0		15.60		DOLERITE: fine to medium grained, dark orange-brown, crystalline, phaneritic.	MW							
		0% LOSS	0		16.00m										
				Is(50) f=1.88 MPa	16.0										SZ, Fe

See Explanatory Notes for details of abbreviations & basis of descriptions.

WSP-AU-GLB-Log-IS-AU-CORED-BOREHOLE-2A-PS212776-MASTER.GPJ <-DrawingFile> 18/8/2024 12:13 10.03.00.09 Datalab and In Situ Tool - DGD [Lib: WSP-5.03.2 2023-08-23 Proj: WSP-5.04.0 2023-04-11]



CORED DRILL HOLE LOG

HOLE NO : BH-006

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 4 OF 5

POSITION : E: 527589.97, N: 5252384.82 (MGA2020-55)	SURFACE ELEVATION : 3.39 (AHD)	ANGLE FROM HORIZONTAL : 90°
RIG TYPE : MRS XL Max	MOUNTING : Track	CONTRACTOR : SWD
DRILLER : GB	DATE STARTED : 8/5/2024	DATE COMPLETED : 9/5/2024
DATE LOGGED : 9/5/2024	LOGGED BY : MIR	CHECKED BY : JRG
CASING DIAMETER : 140 mm	BARREL (Length) : 1.50 m	BIT : IMPREG RC10
		BIT CONDITION : Good

DRILLING				MATERIAL				FRACTURES							
DRILLING & CASING	WATER	CORE LOSS (DEPTH OF RUN %)	ROD (%)	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	WEATHERING	ESTIMATED STRENGTH				NATURAL FRACTURE (mm)	VISUAL	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
									UCS=194 MPa	UCS=200 MPa	UCS=400 MPa	UCS=200 MPa			
		0% LOSS 16.20	0		16.0		16.10m: dark grey, fine to coarse grained	MW							EW, 55 - 65°, PR, clay, 5mm J, 30 - 40°, SN, PR, SM, Fe Jx3, 0 - 10°, SN, ST, RF, Fe J, 80°, SN, PR, RF, Fe J, 20 - 60°, SN, ST, RF, Fe J, 70 - 75°, SN, PR, RF, Fe J, 70 - 75°, SN, PR, RF, Fe, Cal
		0% LOSS	23		17.0										J, 80 - 90°, SN, UN, RF, Cal Jx2, 65 - 75°, CN, PR, RF J, 40 - 50°, SN, PR, RF, Fe J, 45°, CN, PR, RF Jx4, 10 - 30°, VN, PR, RF, Fe Jx2, 0 - 30°, SN, UN, RF, Fe SZ, 70 - 90°, UN, RF, brecciated gravelly clay J, 30 - 40°, CN, PR, SM
		17.75 0% LOSS	100	Is(50) D=5.14 MPa Is(50) A>5.18 MPa Is(50) A=2.22 MPa Is(50) D=6.88 MPa	18.0		18.50m: fine to medium grained								J, 50 - 60°, SN, PR, SM, Chl J, 60°, VN, PR, SM, Cal EW, 80 - 90°, VN, UN, RF, gravelly clay, Cal
		19.25 0% LOSS	100	Is(50) D=2.13 MPa Is(50) A=0.140 MPa	19.0										J, 60 - 70°, CN, PR, SM EW, 80 - 90°, IR, RF, Zeo, Cal, 3mm J, 45 - 55°, CN, CU, SM
		20.75 0% LOSS	100	Is(50) D=4.35 MPa Is(50) A>5.89 MPa	20.0		20.30-24.40m: multiple heated joints 20.50-20.83m: hydrothermal breccia, vuggy texture								J, 20 - 30°, SN, PR, SM J, 70 - 90°, SN, CU, SM, Cal, Qz
		22.26 0% LOSS	100	Is(50) D>5.88 MPa Is(50) A=6.35 MPa	21.0										J, 10 - 20°, CN, PR, SM J, 30 - 40°, CN, PR, SM J, 70 - 80°, CN, PR, RF
		23.86 0% LOSS	100	Is(50) D=6.09 MPa Is(50) A>5.78 MPa	22.0										J, 45 - 55°, SN, PR, SM, Chl J, 20 - 50°, CN, UN, SM J, 55 - 65°, SN, PR, RF, Fe, Chl
				Is(50) D=4.48 MPa Is(50) A>4.23 MPa	23.0		23.15-23.74m: brecciated healed vein, irregular, dolerite clasts, fine to medium grained, sub-angular to angular								J, 20 - 30°, VN, ST, RF, Chl
				Is(50) D=5.76 MPa	24.0										

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WSP-AU-GLB Log IS AU CORED BOREHOLE 2A PS212776_MASTER.GPJ -DrawingFiles>> 18/6/2024 12:13 10.03.00.09 Dangel Lab and In Situ Tool -DGD [Lib: WSP-5.03.2 2023-08-23 Proj: WSP-5.04.0 2023-04-11 HQ3 -95-100% Polymer RETURN



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FILE / JOB NO : PS212776
SHEET : 5 OF 5


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DRILLER : GB	DATE STARTED : 8/5/2024	DATE COMPLETED : 9/5/2024
DATE LOGGED : 9/5/2024	LOGGED BY : MIR	CHECKED BY : JRG
CASING DIAMETER : 140 mm	BARREL (Length) : 1.50 m	BIT : IMPREG RC10
		BIT CONDITION : Good

DRILLING				MATERIAL				FRACTURES							
DRILLING & CASING	WATER	CORE LOSS DRILL DEPTH	ROD (%)	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	WEATHERING	ESTIMATED STRENGTH				NATURAL FRACTURE (mm)	VISUAL	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
									UCS-194 ₂₀₀	UCS-200	UCS-400	UCS-200			
HQS	95-100% Polymer RETURN	0% LOSS	100	IS(50) A=1,12 MPa	24.0		24.00-24.30m: brecciated heated pocket, irregular dolerite clasts, fine to medium grained, sub-angular to angular	SW	●	○	○	○	20-1000		J, 40 - 50°, CN, PR, RF J, 70 - 80°, VN, PR, RF, Chi J, 65 - 75°, SN, PR, RF, Chi
		25.40		25.08m UCS =172 MPa	25.0		25.40m	FR							
					26.0		Hole Terminated at 25.40 m Target depth Grouted to Surface								
					27.0										
					28.0										
					29.0										
					30.0										
					31.0										
					32.0										

See Explanatory Notes for details of abbreviations & basis of descriptions.




PointID : BH-006 Depth Range: 0.00 - 2.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-006 Depth Range: 2.00 - 4.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-006 Depth Range: 4.00 - 5.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No PS212776	FIGURE No 3/12	




PointID : BH-006 Depth Range: 5.00 - 7.00 m

	TITLE	DRAWN	DATE
	MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	CHECKED	DATE
		SCALE	FIGURE No
		PROJECT No	FIGURE No
		PS212776	4/12




PointID : BH-006 Depth Range: 7.00 - 8.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-006 Depth Range: 8.00 - 10.50 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE
		CHECKED	DATE
		SCALE	A4
		PROJECT No	FIGURE No
		PS212776	6/12




PointID : BH-006 Depth Range: 10.50 - 13.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No PS212776	FIGURE No 7/12	




PointID : BH-006 Depth Range: 13.00 - 15.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-006 Depth Range: 15.00 - 15.30 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE
		CHECKED	DATE
		SCALE	A4
		PROJECT No	FIGURE No
		18/6/2024	18/6/2024
		Not To Scale	9/12
		PS212776	




PointID : BH-006 Depth Range: 15.30 - 19.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-006 Depth Range: 19.00 - 23.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No PS212776	FIGURE No 11/12	



PointID : BH-006 Depth Range: 23.00 - 25.40 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-006	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No