

Geotechnical Investigation Report 1 & 1A Edward Street & 25-27 Rosedale Avenue, Gordon NSW

Prepared for: CPDM Pty Ltd

Reference: P3585

Date: 13 August 2025

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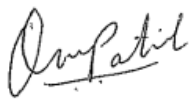
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	Full Name & Title	Signature
Author	Omkar Arun Patil Geotechnical Engineer	
Reviewer	Alan Morrow Principal Geotechnical Engineer	

1. Project Background

Morrow Geotechnics Pty Ltd has undertaken a geotechnical investigation to provide geotechnical advice and recommendations for the proposed development at 1 & 1A Edward Street & 25-27 Rosedale Avenue, Gordon NSW (the site) upon acceptance and authorisation of our proposal, Q5692.1 dated 28 July 2025 by CPDM Pty Limited (the client).

1.1 Proposed Development

Architectural drawings for the proposed development have been prepared by PMDL for Project No: 3304, Issue: A, dated May 2025. Based on the provided drawings, Morrow Geotechnics understands that the proposed development includes two multi-storey, multi-dwelling buildings constructed over a shared basement. From conversations with the client we understand that two levels of basement are proposed, requiring approximately 6 m of excavation.

1.2 Investigation Intent

The intent of the investigation is to provide geotechnical advice and recommendations specific to the ground conditions observed at site for the proposed development. These recommendations include:

- Expected subsurface conditions;
- Lot classification in accordance with AS2870 and geotechnical parameters for foundation design;
- Excavation support options, including lateral earth pressures and pile design parameters;
- Advice on possible seepage water associated with construction;
- Earthquake site classification in accordance with AS1170.4; and
- Geotechnical construction considerations.

1.3 Site Description

Topographically, the site located at Gordon, NSW comprises four adjoining residential lots bordered by Edward Street and Rosedale Avenue (refer to **Drawing 1**). The site is bounded to the north by Edward Street, to the west by Rosedale Road, and to the east and south by residential properties. Access to the site is provided via three access points along Edward Street, each serving separate properties, and two access points along Rosedale Road, each serving a separate property. The site contains existing dwellings, landscaped gardens, a swimming pool, and areas of dense vegetation. The site demonstrates a gentle slope in topography, generally falling from west to east, with ground elevations ranging from approximately RL 122.00 AHD at the western corner to approximately RL 117.00 AHD at the eastern corner, representing an elevation change of approximately 5 m across the site.

1.4 Published Geological Mapping

Information on regional sub-surface conditions, referenced from the Department of Mineral Resources Geological Map Sydney 1:100,000 (Geological Series Sheet 9130) indicate that the site is located on the boundary of (Rwa) Ashfield Shale of the Wianamatta Group, which is typically comprised of black to dark-grey shale and laminate, and (Rh) Hawkesbury Sandstone, which is typically comprised of medium to coarse-grained quartz sandstone, with very minor shale and laminite lenses.



Figure 1 Regional Geology

Notes:

- Geological mapping for the subject site and surrounding area (based on digital geology data from the New South Wales Seamless Geology dataset, version 2.1). The position of the subject site is outlined in red.
- Dark green = Ashfield Shale (Twia), Wianamatta group member (Rwa), approximate site boundary shown in red.

1.5 Published Soil Landscapes

Reference to the Soil Conservation Service of NSW, Sydney 1:100,000, Soil Landscape Series Sheet 9130 (Bannerman & Hazelton, 1990, 4th Edition) indicates that the site is predominantly underlain by the Glenorie soil landscape (9130gn), with the Lucas Heights soil landscape (9130lh) mapped along the northern boundary of the site, forming part of an erosional landform setting. The landscape generally consists of gently undulating to rolling low hills developed on Wianamatta Group shales, with slopes typically ranging from 5% to 20% (see **Figure 2**).

The Glenorie soil landscape is characterised by broad, gently undulating to rolling landforms developed on residual soils derived from Hawkesbury Sandstone with shale interbeds. Soils are typically shallow to moderately deep (<1.0 to 1.5 m), consisting of yellow and brown sandy loams to light clays, often containing gravel or fragments of weathered rock. Drainage is generally moderate, with corresponding permeability, and erosion risk increases on steeper slopes. Rock outcrops may occur locally. Upper slopes and ridgelines are commonly underlain by red and brown podzolic soils, which are moderately reactive and may include highly plastic, impermeable clay layers at lower slopes or drainage lines, contributing to a high erosion hazard in these positions.

The Lucas Heights soil landscape also occurs over Hawkesbury Sandstone and is distinguished by shallow sandy loams to clayey sands overlying highly weathered sandstone. These soils are typically well-drained, non-reactive to slightly reactive, and moderately to highly permeable. Topography is generally more dissected and rugged, with benches, steep slopes, and frequent sandstone outcrops. The skeletal soil profile and low natural fertility impose moderate constraints on urban development, particularly where excavation depth or landscaping is required.



Figure 2 Soil Landscapes

Note:

- Landscape mapping for the subject site and surrounding area based on digital data supplied by the NSW Department of Environment and Climate Change, 2008. The position of the subject site is shown with a red polygon.

2. Observations

2.1 Investigation Methods

Fieldwork was undertaken by Morrow Geotechnics on 6, 7 and 8 July. Work carried out as part of this investigation includes:

- Review of publicly available information from previous reports in the project area, published geological and soil mapping and government agency websites;
- Site walkover inspection and site meeting by a Geotechnical Engineer on 6 August 2025, to assess topographical features, condition of surrounding structures, site conditions, access constraints and mark out test locations;
- Drilling of five boreholes (BH101, BH102, BH103, BH104 and BH105) in total. Boreholes, BH101, BH102, BH103 and BH104 were drilled using a track-mounted drill rig with solid flight augers equipped with a tungsten-carbide (TC) bit. BH105 was drilled using a hand auger to depth

of 2.5m. BH101 through BH104 were extended using NMLC coring techniques to depths ranging from 9.0 to 15.0 mBGL. Rock core was boxed and photographed and point load tests were undertaken on selected core samples to assess rock strength. Borehole locations are shown on **Drawing 1**, and the borehole logs are attached to this report;

- Each borehole was logged by a geotechnical engineer, who obtained photographs of the recovered SPT soil samples and rock cores; and
- Groundwater observations within boreholes during drilling and installation of three groundwater monitoring wells within BH101, BH102, and BH103 immediately following drilling.

Weather conditions during the site work period ranged between wet to dry. Coordinates and site boundaries shown on drawings are inferred from provided plans and should be considered approximate.

2.2 Subsurface Conditions

The stratigraphy at the site is characterised by topsoil/ fill and residual soil overlying Shale and Sandstone bedrock. Observations taken during the investigation have been used to produce a stratigraphic model of the site. The observed stratigraphy has been divided into six geotechnical units.

A summary of typical sequence of subsurface conditions encountered within the site footprint is presented in **Table 1**. More detailed descriptions of subsurface conditions at the test locations are available in the borehole logs presented in **Appendix A**. The details of the method of soil and rock classification, explanatory notes and abbreviations adopted in the borehole logs are also presented in **Appendix A**.

Table 1 Summary of Inferred Subsurface Conditions

Unit	Material	Generalised Description
1	Topsoil/Fill	Silty to gravelly SAND and silty CLAY, loose to stiff, fine grained, with fine to coarse subangular to subrounded gravel. Inferred uncontrolled fill comprising reworked near-surface soils and imported material, variable in composition with organics, root matter and trace construction debris.
2	Residual Clay	Silty CLAY with ironstone gravel. Firm to very stiff, medium to high plasticity. With bands of extremely weathered rock and ironstone at the base of the unit.
3	Class V Shale	SHALE with LAMINITE, extremely to highly weathered, extremely low to very low strength, fine grained, with clay seams and trace ironstone fragments.
4	Class IV Shale	SHALE with LAMINITE, highly weathered, very low to low strength, fine grained, with closely spaced defects including joints inclined to 45° and clay seams.
5	Class III Shale	SHALE with LAMINITE, highly to moderately weathered, medium to high strength, fine grained, with thin clay seams and carbonaceous laminations. Joints generally closed or clay filled.
6	Class III-II Sandstone	SANDSTONE, fine to medium grained, medium to high strength, ranging from moderately weathered to fresh. Contains occasional thin shale or carbonaceous laminations.

A summary of the surface levels and depths at which various interpreted strata were encountered during investigation is presented in **Table 2**.

Table 2 Summary of Inferred Subsurface Conditions

Unit	Material	Approx. Depth Range of Unit ¹ mBGL (RL mAHD)				
		BH101	BH102	BH103	BH104	BH105
1	Topsoil/Fill	0.00 to 0.40 (121.60 to 121.20)	0.00 to 0.20 (118.63 to 118.43)	0.00 to 0.30 (118.90 to 118.60)	0.00 to 0.50 (118.98 to 118.50)	0.00 to 1.10 (117.00 to 115.30)
2	Residual Clay	(0.40 to 2.30) (121.20 to 119.30)	0.20 to 2.30 (118.43 to 116.33)	0.30 to 1.60 (118.60 to 117.30)	0.50 to 0.95 (118.50 to 118.00)	1.10 to 2.45 (115.30 to 114.55)
3	Class V Shale	(2.30 to 4.20) (119.30 to 117.40)	2.30 to 4.70 (116.33 to 113.93)	1.60 to 5.60 (117.30 to 113.30)	0.95 to 5.80 (118.00 to 113.18)	-
4	Class IV Shale	(4.20 to 8.70) (117.40 to 112.90)	4.70 to 6.49 (113.93 to 112.14)	5.60 to 6.18 (113.30 to 112.72)	5.80 to 6.88 (113.18 to 112.10)	-
5	Class III Shale	(8.70 to 10.56) (112.90 to 111.04)	6.49 to 9.17 (112.14 to 109.46)	6.18 to 7.40 (112.72 to 111.50)	6.88 to 8.75 (112.10 to 110.23)	-
6	Class III-II Sandstone	10.56 to 15.00 (111.04 to 106.60)	-	7.40 to 9.00 (111.50 to 109.90)	8.75 to 9.13 (110.23 to 109.85)	-

Notes:

- Depth ranges shown are based on material observed within test locations and will vary across the site.
- RLs are inferred from the survey by TSS Total Surveying Solutions (Ref: 250373-2, dated 13/06/2025).

2.3 Groundwater Observations

Standpipe piezometers were installed within BH102, BH104, and BH105 as part of the geotechnical investigation with well details found in **Table 3** below. The monitoring well was constructed using 50mm diameter screw threaded PVC casing, sections of which were machine slotted. The annulus between the casing and borehole was backfilled using a 2 mm filter gravel pack to above the top of the screen. A bentonite plug with a minimum thickness of 0.5m was then installed above the gravel pack, the remaining annulus was backfilled with drill cuttings. The well was finished with a cement plug and a gatic cover.

Table 3 Piezometer Details

Piezometer	BH101	BH102	BH103
Top of Piezometer approx. RL (mAHD)	121.60	118.63	118.90
Piezometer Depth (m)	15.00	9.17	9.00
Bentonite Plug Depth (mBGL)	2.00 to 2.50	2.00 to 2.50	2.00 to 2.50
Screen Depth (mBGL)	3.00 to 15.00	3.00 to 9.17	3.00 to 9.00
Base of Piezometer RL (mAHD)	106.60	109.46	109.90

It is noted that groundwater levels are potentially transient and may fluctuate over time in response to climate variations of anthropogenic influences. Long term groundwater monitoring is underway at the time of preparation of this report and will be reported separately within the Site Hydrogeology Report for the project.

3. Discussions and Recommendations

3.1 Foundation Design

In accordance with AS2870 generally site classification is not applicable to this site as it involves basement development. However, the site has been classified as Class 'H1' in accordance with AS2870:2011 with a characteristic surface movement, y_s of 60 mm, should any high-level footings be required. The site classification has been provided on the basis that the performance expectations set out in Appendix B of AS2870–2011 are acceptable and that future site maintenance will be undertaken in accordance with CSIRO BTF 18. Due to the potential variability of fill material encountered at the site, it is not recommended to found any high level footings on Unit 1, material. Any high-level footings are to be founded into underlying natural material.

The parameters given in **Table 4** may be used for the design of pad footings and bored piles. Morrow Geotechnics recommends that a Preliminary Geotechnical Strength Reduction Factor (GSRF) of 0.4 is used for the design of piles in accordance with AS 2159:2009 if no allowance is made for pile testing during construction. Should pile testing be nominated, the GSRF may be reviewed and a value of 0.55 to 0.65 may be expected.

Selection of footing types and founding depth will need to consider the risk of adverse differential ground movements within the foundation footprint and between high level and deeper footings. Unless an allowance for such movement is included in the design of the proposed development, we recommend that all new structures found on natural materials with comparable end bearing capacities and elastic moduli.

Ultimate geotechnical strengths are provided for use in limit state design. Allowable bearing pressures are provided for serviceability checks. These values have been determined to limit settlements to an acceptable level for conventional building structures, typically less than 1% of the minimum footing dimension.

Table 4 Pad Footing and Pile Design Parameters

Material		Unit 1 TS/Fill	Unit 2 Residual Clay	Unit 3 Class V Shale	Unit 4 Class IV Shale	Unit 5 Class III Shale	Unit 6 Class III-II Sandstone
Allowable Bearing Pressure (kPa)		N/A	150	700	1000	2500	3500
Ultimate Vertical End Bearing Pressure (kPa)		N/A	450	2100	3000	7500	10500
Elastic Modulus (MPa)		5	15	75	150	250	600
Allowable Shaft Adhesion (kPa)	Compression	0	10	70	100	200	350
	Tension	0	5	35	50	100	175
Liquefaction Potential		Med	Low	Low	Low	Low	Low

Notes:

- Side adhesion values given assume there is intimate contact between the pile and foundation material. Design engineer to check both 'piston' pull-out and 'cone' pull-out mechanics in accordance with AS4678-2002 Earth Retaining Structures.
- Susceptibility to liquefaction during an earthquake is based on the following definition:
 Low - Medium to very dense sands, stiff to hard clays, and rock
 Medium - Loose to medium dense sands, soft to firm clays, or uncontrolled fill below the water table
 High - Very loose sands or very soft clays below the water table

To adopt these parameters, we have assumed that the bases of all pile excavations are cleaned of loose debris and water and inspected by a suitably qualified Geotechnical Engineer prior to pile construction to verify that ground conditions meet design assumptions. Where groundwater ingress is encountered during pile excavation, concrete is to be placed as soon as possible upon completion of pile excavation. Pile excavations should be pumped dry of water prior to pouring concrete, or alternatively a tremmie system could be used.

3.2 AS1170 Earthquake Site Risk Classification

Assessment of the material encountered during the investigation in accordance with the guidelines provided in AS1170.4-2007 indicates an earthquake subsoil class of Class B_e – Rock for the site.

3.3 Excavation Retention

Where sufficient space for batters is not available a shoring system should be installed prior to excavation. Shoring systems in sandstone generally comprise anchored soldier pile walls with piles socketing below bulk excavation level (BEL). Unit 5 and Unit 6 Sandstone will be self-supporting and may be cut vertically provided that allowance is made for geotechnical inspections and spot bolting/ shotcreting where required. Piles can be terminated within Class III Sandstone or better material above BEL provided that toe anchors are installed for lateral pile restraint. Geotechnical parameters for input to shoring design have been provided in **Table 5** below.

Table 5 Shoring Design Parameters

Material		Unit 1 TS/Fill	Unit 2 Residual Clay	Unit 3 Class V Shale	Unit 4 Class IV Shale	Unit 5 Class III Shale	Unit 6 Class III-II Sandstone
Unit Weight (kN/m ³)		18	19	23	24	24	24
Earth Pressure Coefficients	At Rest, K _o	0.53	0.56	0.53	0.50	0.46	0.36
	Passive, K _p	2.77	2.56	2.77	3.00	3.39	4.60
	Active, K _a	0.36	0.39	0.55	0.33	0.29	0.22
Drained Cohesion, c' (kPa)		0	6	15	35	70	300
Friction Angle, φ' (°)		28	26	28	30	33	40
Elastic Modulus (MPa)		5	15	75	150	250	600
Poisson's Ratio		0.30	0.30	0.25	0.22	0.20	0.20

Notes:

- 1 Unit Weight is based on visual assessment only and may vary by ±10%.
- 2 Earth pressures are provided on the assumption that the ground behind the retaining wall is flat and drained.

In addition, design of retaining walls should consider the following:

- Appropriate surcharge loading from construction equipment, vehicular traffic and neighbouring structures at finished surface level should be considered in the retention design. Surcharge loads on retention structures may be calculated using a rectangular stress block with an earth pressure coefficient of 0.5 applied to surcharge loads at ground surface level.

- Anchor design should ignore the contribution of any bonded length within a wedge which extends upwards at 45° from the top of Unit 5 material to account for a failure wedge forming behind the shoring system.

3.4 Excavation Vibration Considerations

As a guide, safe working distances for typical items of vibration intensive plant are listed in **Table 6**. The safe working distances are quoted for both “cosmetic” damage (refer British Standard BS 7385:1993) and human comfort (refer NSW Environmental Protection Agency Vibration Guideline). The safe working distances should be complied with at all times, unless otherwise mitigated to the satisfaction of the relevant stakeholders.

Table 6 Recommended Safe Working Distances for Vibration Intensive Plant

Plant Item	Rating/Description	Safe Working Distance	
		Cosmetic Damage (BS 7385:1993) ¹	Human Response (EPA Vibration Guideline)
Vibratory Roller	< 50 kN (typically 1-2 tonnes)	5 m	15 m to 20 m
	< 100 kN (typically 2-4 tonnes)	6 m	20 m
	< 200 kN (typically 4-6 tonnes)	12 m	40 m
	< 300 kN (typically 7-13 tonnes)	15 m	100 m
	< 300 kN (typically 13-18 tonnes)	20 m	100 m
	< 300 kN (typically >18 tonnes)	25 m	100 m
Small Hydraulic Hammer	300 kg – 5 to 12 t excavator	2 m	7 m
Med Hydraulic Hammer	900 kg – 12 to 18 t excavator	7 m	23 m
Large Hydraulic Hammer	1600 kg – 18 to 34 t excavator	22 m	73 m
Vibratory Pile Driver	Sheet Piles	2 m to 20 m	20 m
Pile Boring	≤ 800 mm	2m (nominal)	N/A
Jackhammer	Handheld	1 m (nominal)	Avoid contact with structure

Notes:

- ¹ More stringent conditions may apply to heritage buildings or other sensitive structures.

In relation to human comfort (response), the safe working distances in **Table 6** relate to continuous vibration and apply to residential receivers. For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels, occurring over shorter periods are permitted, as discussed in British Standard BS 6472-1:2008.

The safe working distances provided in **Table 6** are given for guidance only. Monitoring of vibration levels may be required to ensure vibrations levels remain below threshold values during the construction period.

3.5 Soil and Rock Excavatability

The expected ability of equipment to excavate the soil and rock encountered at the site is summarised in **Table 7**. This assessment is based on available site investigation data and guidance on the assessment of excavatability of rock by Pettifer and Fookes (1994). The presence of medium to high strength bands in lower strength rock and the discontinuity spacing may influence the excavatability of the rock mass.

Table 7 Soil and Rock Excavatability

Unit	Material	Excavatability
1	Fill/Topsoil	Easy digging by 20t Excavator.
2	Residual Clay	Easy digging by 20t Excavator. Hydraulic hammering of ironstone banding.
3	Class V Shale	Moderate to hard ripping by 20t Excavator.
4	Class IV Shale	Hydraulic hammering required where medium strength shale is encountered.
5	Class III Shale	Hydraulic hammering required for Units 5 and 6.
6	Class III-II Sandstone	

The excavation methodology may also be affected by the following factors:

- Scale and geometry of the excavation;
- Availability of suitable construction equipment;
- Potential reuse of material on site; and
- Acceptable excavation methods, noise, ground vibration and other environmental criteria.

4. ADDITIONAL GEOTECHNICAL INPUT

Further input from a geotechnical professional during design and construction is advised in order to ensure a cost-effective design which can be constructed safely and efficiently. Areas for geotechnical input should include:

- All excavated material transported off site should be classified in accordance with NSW EPA 2014 - Waste Classification Guideline Part 1; Classifying Waste.
- A suitably qualified geotechnical engineer is to assess the condition of exposed material at foundation or subgrade level to assess the ability of the prepared surface to act as a foundation or as a subgrade.
- Observation of the material within pile excavations should be undertaken at the start of piling works to confirm that material across the site is in accordance with the geotechnical model presented in this report.

- Regular inspections of battered and unsupported excavations, where proposed, to confirm geotechnical conditions and to assess the suitability of design assumptions and to provide further advice with regards to excavation retention/ support and proposed construction methodologies, if required.

5. STATEMENT OF LIMITATIONS

The adopted investigation scope was limited by the investigation intent and the presence of structures onsite at the time of the investigation. Further geotechnical inspections should be carried out during construction to confirm the geotechnical model provided in this report.

Your attention is drawn to the document "Important Information", which is included in **Appendix B** of this report. The statements presented in this document are intended to advise you of what your realistic expectations of this report should be. The document is not intended to reduce the level of responsibility accepted by Morrow Geotechnics, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.

6. REFERENCES

AS1726:1993, *Geotechnical Site Investigations*, Standards Australia.

AS2159:2009, *Piling – Design and Installation*, Standards Australia.

AS2870:2011, *Residential Slabs and Footings*, Standards Australia.

Bannerman, S.M. and Hazelton, P.A., 1990. *Soil landscapes of the Sydney 1:100,000 sheet*. Soil Conservation Service of NSW, Sydney.

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Chapman, G.A. and Murphy, C.L. (1989), *Soil Landscapes of the Sydney 1:100,000 sheet*. Soil Conservation Services of NSW, Sydney.

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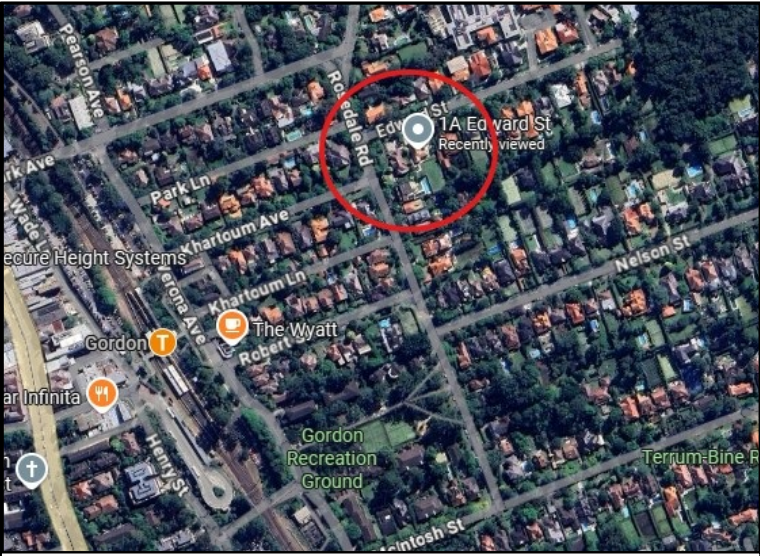
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Pettifer, G.S. and Fookes, P.G., 1994. A revision of the graphical method for assessing the excavatability of rocks. *Quarterly Journal of Engineering Geology and Hydrogeology*, 27(2), pp.123 - 135.



Site Locality



LEGEND

- Approximate Site Boundary
- Approximate Internal Lot Boundary
- Hand Auger Borehole Location
- Borehole Location
- Groundwater Monitoring Borehole Location
- 1m Contour

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56, adapted from aerial imagery from "SIX Maps", accessed 11/08/2025.
2. Elevation data sourced from ELVIS - Elevation and Depth - Foundation Spatial Data Framework, accessed 11/08/2025, provided by Geoscience Australia and NSW Government – Spatial Services.

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Approved:	RM
Date:	12/08/2025

CPDM Pty Ltd
Geotechnical Investigation
1 & 1A Edward Street & 25-27 Rosedale Avenue
NSW
Borehole Location Plan

Drawing:	1
Project:	P3585
Revision:	0

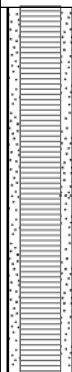
APPENDIX A

BOREHOLE LOGS AND EXPLANATORY NOTES

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329288.73	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263608.52	Logged By : Omkar Patil	Project : Gordon
RL : 121.60(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 15 m	Date : 06/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Testing	Elevation	Graphic Log	Material Type	Classification Code	Material Description	Depth (m)	Consistency	Weathering	Moisture
			SPT									
				121.4		Non - Soil	CCT	Pavement Concrete 200 mm.	0.2	S - F		
				0.2				FILL SILTY CLAY: soft to firm, low plasticity, dark black, Trace fine sand, with fine gravel, w < pl, low resistance.	0.4			
				121.2		Residual	CI	SILTY CLAY: stiff, medium plasticity, pale grey, trace fine gravel, w < pl, low resistance.	0.4	St		w < PL
				7,6,8 (N=14)								
				120.0				As above, but: very stiff, with xw shale bands, vl strength shale.	1.6			
				119.3		Rock	SHA	SHALE: highly weathered, very low to low strength, dark grey brown, very fine to fine grained, ironstained, with clay bands, low to medium resistance.	2.3	VSt		w < PL
				9,10,13 (N=23)								
				118.6		Rock	SHA			VLS - LS	HW	
				3				Commenced Coring at 3 m	3			

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Total Depth : 15 m	Date : 06/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		RQD% and TCR%	Defect Spacing (mm)	Defect Description type, inclination, planarity, roughness, coating, thickness
			Depth (m)						Is (50)	Estimated Strength			
		A											
							1						
							2						
						Commenced Coring at 3m							
						Core Loss.	3						3-4.2, CORELOSS, °, °
					CL						RQD = 4% TCR = 55.56%		

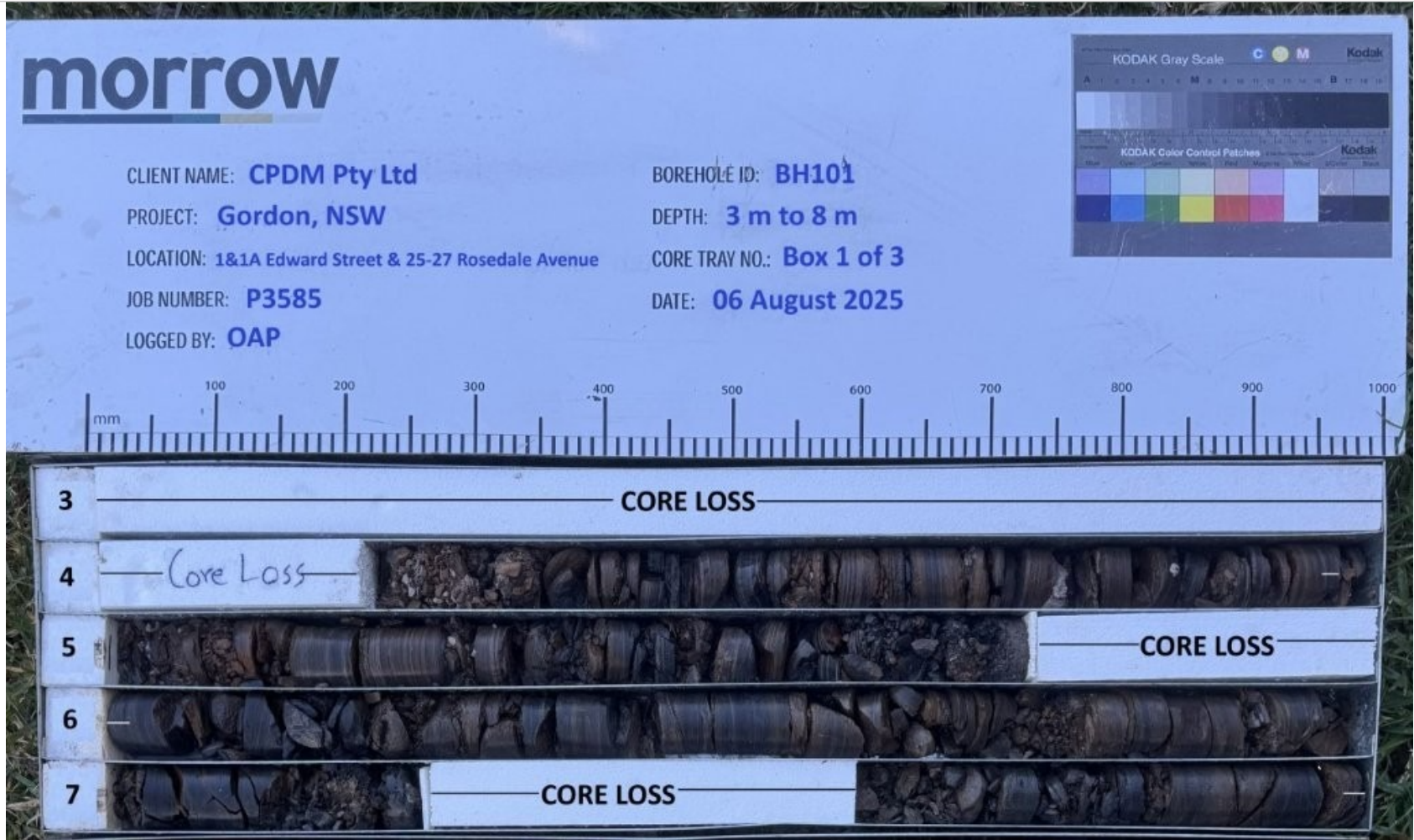
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Northing : 6263608.52	Logged By : Omkar Patil	Project : Gordon
RL : 121.60(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 15 m	Date : 06/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description											
			Depth (m)						Is (50)																
NMLC Coring	Outflow - 0% - 5%	50mm PVC Slotted	117.4	CL	CL	Core Loss. (continued)	4.2	HW	D:0.09 ; A:0.44	Very Low Low Medium High Very High Extremely High	RQD = 4% TCR = 55.56%	30 100 300 1000 3000	4.2-4.38, CS, °, ° 4.39, P, 2°, °, PL, RO, OP 4.41-5, CS, °, ° 4.53, P, 2°, °, PL, RO, STN, OP 4.58, P, 2°, °, PL, RO, STN, OP 4.61, P, 2°, °, PL, RO, STN, OP 4.64, P, 2°, °, PL, RO, STN, OP 4.68, P, 2°, °, PL, RO, CT, OP 4.7, P, 2°, °, PL, RO, STN, OP 4.71, P, 2°, °, PL, RO, STN, OP 4.72, P, 2°, °, PL, RO, STN, OP 4.75, XWS, °, ° 4.75, XWS, °, ° 4.79, P, 2°, °, PL, RO, VN, OP 4.81-4.9, CS, 2°, °, STN 4.92, P, 2°, °, PL, RO, STN, OP 4.93, P, 2°, °, PL, RO, STN, OP 4.97-5.15, CS, °, ° 5.2, P, 2°, °, PL, RO, STN, OP 5.26-5.28, CS, °, ° 5.31-5.39, CS, °, ° 5.41, JT, 15°, °, PL, RO, STN, OP 5.42-5.7, CS, °, °												
			4.2			SHALE: highly weathered, low to medium strength, dark grey brown, very fine to fine grained, ironstained, with clay bands.	5																		
			115.9	CL	CL	Core Loss.	5.73							HW	D:0.10 ; A:0.39	Very Low Low Medium High Very High Extremely High	RQD = 13% TCR = 83.55%	30 100 300 1000 3000	5.73-6, CORELOSS, °, ° 6.05-6.24, CS, °, ° 6.27, P, 2°, °, PL, RO, STN, OP 6.29-6.32, SZ, °, ° 6.29, JT, 3°, °, PL, RO, STN, OP 6.35, JT, 10°, °, PL, RO, STN, OP 6.39-6.43, CS, °, ° 6.47, P, 2°, °, PL, RO, STN, OP 6.54, P, 3°, °, PL, RO, STN, OP 6.59-6.77, CS, °, ° 6.81, P, °, °, PL, RO, STN, OP 6.82, P, 2°, °, PL, RO, STN, OP 6.83, JT, 2°, °, PL, RO, STN, OP 6.86, P, 3°, °, PL, RO, STN, OP 6.88-6.91, XWS, °, ° 6.96-7.05, CS, °, ° 7.07-7.7, JT, 15°, °, PL, RO, STN, OP 7.1, JT, 3°, °, PL, RO, STN, OP 7.14-7.2, CS, °, ° 7.25-7.6, CORELOSS, °, °						
			115.6			SHALE: highly weathered, medium strength, dark grey brown, very fine to fine grained, ironstained, with clay bands.	6																		
			114.3	CL	CL	Core Loss.	7.25													HW	D:0.10 ; A:0.39	Very Low Low Medium High Very High Extremely High	RQD = 20% TCR = 77.03%	30 100 300 1000 3000	7.25
			114.0			SHALE: highly weathered, medium strength, dark grey brown, very fine to fine grained, ironstained, with clay bands.	7.6																		

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329288.73	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263608.52	Logged By : Omkar Patil	Project : Gordon
RL : 121.60(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 15 m	Date : 06/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description
			Depth (m)						Is(50)					
NMLC Coring	Outflow - 0% - 5%	50mm PVC Slotted	112.9		SHA	SHALE: highly weathered, medium strength, dark grey brown, very fine to fine grained, ironstained, with clay bands. (continued)	8.7	HW			Very Low Low Medium High Very High Extremely High	RQD = 20% TCR = 77.03%		8.03, P, 5°, °, PL, RO, STN, OP
										8.07, P, 3°, °, PL, RO, STN, OP				
										8.14, P, 2°, °, PL, RO, STN, OP				
										8.17, P, 3°, °, PL, RO, STN, OP				
								8.26, P, 2°, °, PL, RO, STN, OP						
								8.28, P, 2°, °, PL, RO, STN, OP						
								8.29, P, 3°, °, PL, RO, STN, OP						
								8.29, P, 2°, °, PL, RO, STN, OP						
								8.34-8.4, CS, °, °						
								8.47, P, 3°, °, PL, RO, STN, OP						
				8.47, P, 3°, °, PL, RO, STN, OP										
				8.55-8.73, CS, °, °										
			8.7			As above, but: moderately to slightly weathered, dark black, trace clay band.			D:0.73 ; A:0.99				8.79, JT, 2°, °, PL, RO, CL, OP	
							9							9.06, P, 2°, °, PL, RO, CL, OP
														9.2, P, 3°, °, PL, RO, CL, OP
					SHA			MW - SW	D:0.35 ; A:1.22		RQD = 73% TCR = 100%		9.65-9.71, JT, 45°, °, PL, RO, CL, OP	
													9.83-9.86, CS, °, °	
													9.87-9.91, SZ, °, °	
													9.97-10.05, JT, 45°, °, PL, SO, CL, OP	
							10							10.02-10.08, JT, 45°, °, PL, RO, CL, OP
														10.09-10.18, CS, °, °
														10.29, P, 2°, °, PL, RO, CL, OP
														10.31, P, 4°, °, PL, RO, CL, OP
														10.38, P, 3°, °, PL, RO, CL, OP
														10.41, P, 2°, °, PL, RO, CL, OP
														10.51-10.54, CS, °, °
			111.0				10.56			D:0.85 ; A:1.01		RQD = 70% TCR = 100%		10.71-10.72, P, °, °, PL, RO, CT, I
			10.56	LAM	LAMINITE: slightly weathered, medium to high strength, pale grey, very fine to fine grained, generally shale with embedded sandstone, with thinly embedded carbonaceous laminations.									10.92, P, 2°, °, PL, RO, CL, OP
							11	SW	D:0.97 ; A:1.89					11.13, P, 3°, °, PL, RO, CL, OP
														11.41, P, 2°, °, PL, RO, CL, OP
														11.54, P, 3°, °, PL, RO, CL, OP
														11.63, P, 3°, °, RO, CL, OP
														11.71, P, 2°, °, PL, RO, CL, OP
			109.8				11.79					RQD = 87% TCR = 100%		
			11.79	LAM	As above, but: high strength, generally sandstone with embedded shale, with thinly embedded carbonaceous		MW	D:1.34 ; A:1.88						

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description
			Depth (m)						Is (50)	Estimated Strength				
↑ NMLC Coring ↓	Water Outflow - 0% - 5%	50mm PVC Slotted	107.8 13.8		LAM	As above, but: high strength, generally sandstone with embedded shale, with thinly embedded carbonaceous laminations. (continued)	13	MW	D:1.07 ; A:1.11	Very Low Low Med-Low Med-High Very High Extremely High	RQD = 87% TCR = 100%		13.7, P, 1°, °, PL, RO, CL, OP 14.04, P, 2°, °, PL, VR, CL, OP 14.09, P, 2°, °, PL, VR, CL, OP 14.12, P, 2°, °, PL, VR, CL, OP 14.34, P, 2°, °, PL, RO, CL, OP 14.36, P, 2°, °, PL, RO, CL, OP 14.56, P, 2°, °, PL, SO, CL, OP	
									D:1.36 ; A:1.42					
									D:0.90 ; A:1.13					
									D:1.47 ; A:1.34					
									BH101 Reached Target Depth at 15 m					



morrow

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Photo description

BH101 Box 1 of 3

Client

Edwards St Residence DM Pty Ltd c/- CPDM

Location

1 Edward St, Gordon NSW 2072, Australia

Project name

Gordon

Project No

P3585

Scale

Not to Scale

BH No

BH101

BH Depth

3m to 8 m

morrow

CLIENT NAME: CPDM Pty Ltd

PROJECT: Gordon, NSW

LOCATION: 1&1A Edward Street & 25-27 Rosedale Avenue

JOB NUMBER: P3585

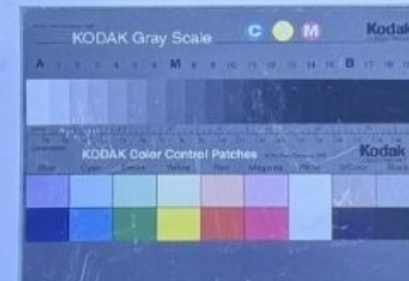
LOGGED BY: OAP

BOREHOLE ID: BH101

DEPTH: 8 m to 13 m

CORE TRAY NO.: Box 2 of 3

DATE: 06 August 2025



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Photo description

BH101 Box 2 of 3

Client

Edwards St Residence DM Pty Ltd c/- CPDM

Location

1 Edward St, Gordon NSW 2072, Australia

Project name

Gordon

Project No

P3585

Scale

Not to Scale

BH No

BH101

BH Depth

8m to 13m



CLIENT NAME: CPDM Pty Ltd

PROJECT: Gordon, NSW

LOCATION: 1&1A Edward Street & 25-27 Rosedale Avenue

JOB NUMBER: P3585

LOGGED BY: OAP

BOREHOLE ID: BH101

DEPTH: 13 m to 15 m

CORE TRAY NO.: Box 3 of 3

DATE: 06 August 2025

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Photo description	BH101 Box 3 of 3		
Client	Edwards St Residence DM Pty Ltd c/- CPDM		
Location	1 Edward St, Gordon NSW 2072, Australia		
Project name	Gordon		
Project No	P3585	Scale	Not to Scale
BH No	BH101	BH Depth	13m to 15m

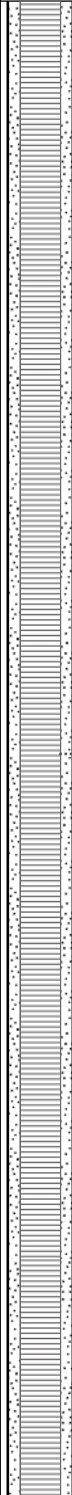
UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329350.03	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263624.00	Logged By : Omkar Patil / Omer Turkarslan	Project : Gordon
RL : 118.63(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.17 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Testing	Elevation	Graphic Log	Material Type	Classification Code	Material Description	Depth (m)	Consistency	Weathering	Moisture
			SPT	Depth (m)								
	GWNE		4,5,7 (N=12)	118.4		TOPSOIL	CL - CI	SILTY CLAY: firm, low to medium plasticity, dark brown, Trace fine sand, trace fine to medium gravel, w < pl, with rootlets, low resistance.	0.2	F		w < PL
				0.2		Residual	CI - CH	SILTY CLAY: stiff, medium to high plasticity, dark brown, trace fine gravel, w < pl, low resistance.		St		w < PL
				118.0		Residual	CI - CH	As above, but: pale grey mottled red brown.	0.6			
				0.6								
			3,21,25 (N=46)	116.5		Residual	CI - CH	As above, but: low to medium resistance, with extremely weathered shale, with low strength shale bands.	2.1	St		w < PL
				116.3					2.3			
						Rock	SHA	SHALE: highly weathered, very low to low strength, pale grey mottled dark brown, very fine grained, high resistance, trace clay bands.		VLS - LS	HW	
								Commenced Coring at 3 m				

Job Number : P3585
Client : Edwards St Residence DM Pty Ltd c/- CPDM
Project : Gordon
Location : 1 Edward St, Gordon NSW 2072, Australia
Loc Comment :

[illegible]

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329350.03	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263624.00	Logged By : Omkar Patil / Omer Turkarslan	Project : Gordon
RL : 118.63(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.17 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description
			Depth (m)						Is (50)					
NMLC Coring	Outflow - 15% - 20%		113.9		SHA	SHALE (XW): Sandy Silty Clay - hard, pale grey and mottled dark grey and dark brown, medium plasticity, fine grained sand, very low to low strength shale bands. (continued)	4.7	XW			Very Low	RQD = 8% TCR = 69.29%	30	
			4.7		SHA	SHALE: highly weathered, low to medium strength, dark grey and mottled dark brown, fine grained, dry, ironstained.	5	HW			Low	RQD = 0% TCR = 100%	100	4.77, P, 5°, IR, VR, CL, OP 4.83, P, °, IR, VR, CL, OP 4.88-5.11, P, °, IR, VR, STN, OP, crushed zone
			112.9		CL	Core Loss Core Loss.	5.7				Medium		300	5.11-5.16, JT, 75°, UN, RO, CL, OP 5.22-5.24, P, °, STP, VR, CL, OP 5.26-5.27, IS, °, °
			112.7		LAM	LAMINITE: highly weathered, low strength, dark grey and mottled dark brown, fine grained, dry, ironstained.	5.91	HW			High		1000	5.39, P, 7°, UN, RO, CL, OP 5.4-5.7, XWS, °, °
			112.5		LAM	As above, but: moderately to slightly weathered.	6.16	MW - SW			Extremely High		3000	5.7-5.91, CORELOSS, °, °
			112.1		LAM	As above, but: medium to high strength.	6.5	MW - SW	D:1.20 ; A:1.39			RQD = 44% TCR = 87.65%		5.95-5.97, IS, °, ° 6.03, P, 3°, PL, RO, CL, OP 6.07, P, °, PL, RO, CL, OP 6.09, P, 3°, PL, RO, STN, OP 6.11, P, 5°, UN, VR, CL, OP 6.16, P, 5°, PL, SO, STN, OP 6.21-6.23, IS, °, ° 6.25-6.27, IS, °, ° 6.28-6.29, IS, °, ° 6.31, P, °, PL, SO, CL, OP 6.33, P, 3°, PL, SO, CL, OP 6.46, P, 2°, PL, SO, CL, OP 6.54, P, 3°, UN, SO, CL, OP 6.58, P, °, C 6.64, P, °, PL, SO, CL, OP
			112.0		LAM	As above, but: slightly to fresh weathered, dark grey and grey.	6.64	SW - F	D:0.95 ; A:1.67			RQD = 46% TCR = 100%		7.09, P, 3°, PL, RO, CL, OP 7.21, P, 3°, PL, SO, CL, OP 7.3, P, °, PL, SO, CL, OP
					LAM		7							7.85-8.67, JT, 70°, UN, RO, CL, OP 7.9, P, 5°, UN, RO, CL, OP

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329350.03	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263624.00	Logged By : Omkar Patil / Omer Turkarslan	Project : Gordon
RL : 118.63(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.17 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description type, inclination, planarity, roughness, coating, thickness
			Depth (m)						Is (50)					
					LAM	As above, but: slightly to fresh weathered, dark grey and grey. (continued)	9	SW - F				RQD = 46% TCR = 100%		8.02, P, 5°, UN, RO, CL, OP 8.13, P, 5°, UN, RO, CL, OP 8.17, P, °, UN, RO, CL, OP 8.25, P, 10°, UN, VR, CL, OP 8.28, P, 2°, PL, SO, CL, OP
									D:1.07 ; A:3.42			RQD = 1% TCR = 100%		
						BH102 Reached Target Depth at 9.17 m								

morrow

CLIENT NAME: Edwards St. Residence DM Pty Ltd. BOREHOLE ID: BH102
PROJECT: 1 - 1A Edward Street DEPTH: 3m to 8m
LOCATION: Gordon CORE TRAY NO.: Box 1
JOB NUMBER: P3585 DATE: 8/8/25
LOGGED BY: DT



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Photo description

BH102 Box 1 of 2

Client

Edwards St Residence DM Pty Ltd c/- CPDM

Location

1 Edward St, Gordon NSW 2072, Australia

Project name

Gordon

Project No

P3585

Scale

Not to Scale

BH No

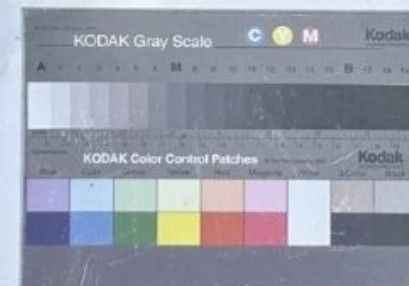
BH102

BH Depth

3m to 8m

morrow

CLIENT NAME: Edwards St. Residence DM Pty Ltd. BOREHOLE ID: BH102
PROJECT: 1 - 1A Edward Street DEPTH: 8m to 9.17m
LOCATION: Gordon CORE TRAY NO.: Box 2
JOB NUMBER: P3585 DATE: 8/8/25
LOGGED BY: DT



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Photo description

BH102 Box 2 of 2

Client

Edwards St Residence DM Pty Ltd c/- CPDM

Location

1 Edward St, Gordon NSW 2072, Australia

Project name

Gordon

Project No

P3585

Scale

Not to Scale

BH No

BH102

BH Depth

8m to 9.17m

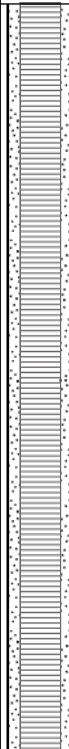
UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329355.28	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263600.17	Logged By : Omkar Patil	Project : Gordon
RL : 118.90(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Testing	Elevation	Graphic Log	Material Type	Classification Code	Material Description	Depth (m)	Consistency	Weathering	Moisture
				Depth (m)								
	GWNE			118.8		Non - Soil	PAV	Pavement Pavers.	0.15	S		w < PL
				0.15				FILL SILTY CLAY: soft, low plasticity, dark black, Trace fine sand, trace fine to medium gravel, w < pl, low resistance.	0.3			
				118.6		FILL	FILL	SILTY CLAY: stiff to very stiff, medium plasticity, red brown, Trace fine sand, trace fine to medium gravel, w < pl, low resistance, with ironstone, with xw shale bands, with very low strength shale bands.	1	St - VSt		w < PL
				0.3								
				117.3		Residual	CI		1.6			
				1.6								
				115.1		Rock	SHA	SHALE: highly weathered, very low to low strength, pale grey mottled dark brown, very fine to fine grained, ironstained, with clay bands.	2	VLS - LS	HW	
				3.8				As above, but: low strength, dark brown, high resistance, with clay bands.	3			
				3.8					3.8			
				115.1		Rock	SHA	As above, but: low strength, dark brown, high resistance, with clay bands.	3.8	LS	HW	

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329355.28	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263600.17	Logged By : Omkar Patil	Project : Gordon
RL : 118.90(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Testing	Elevation	Graphic Log	Material Type	Classification Code	Material Description	Depth (m)	Consistency	Weathering	Moisture
				Depth (m)								
				114.8		Rock	SHA	As above, but: low strength, dark brown, high resistance, with clay bands. (continued)	4.1	LS	HW	
				4.1				As above, but: very low to low strength, low resistance, with clay bands.				
						Rock	SHA		5	VLS - LS	HW	
				113.3					5.6			
				5.6		Rock	SHA	As above, but: grey, moist to dry, medium to high resistance.		VLS - LS	HW	M - D
									6			
								Commenced Coring at 6 m				

Job Number : P3585
Client : Edwards St Residence DM Pty Ltd c/- CPDM
Project : Gordon
Location : 1 Edward St, Gordon NSW 2072, Australia
Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing	Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description		
			Depth (m)						Is (50)			30 100 300 1000 3000			
						Commenced Coring at 6m									
NMLC Coring	Outflow - 0% - 5%		112.7 6.2		SHA	As above, but: grey, moist to dry, medium to high resistance.	6	MW	D:0.29 ; A:0.43		RQD = 33% TCR = 100%		6-6.1, XWS, °, ° — 6.25, P, 2°, °, PL, RO, STN, OP — 6.34, JT, 15°, °, CV, RO, STN, OP — 6.43, P, 2°, °, PL, RO, STN, OP — 6.5, P, 2°, °, PL, RO, STN, C — 6.59, JT, 15°, °, PL, RO, STN, OP — 6.59, P, 2°, °, PL, STN, C ~ 6.67, JT, 2°, °, PL, RO, STN, OP ~ 6.73, P, 2°, °, PL, RO, STN, OP — 6.91, P, 2°, °, PL, RO, STN, OP — 6.95, P, 2°, °, PL, RO, STN, OP — 7.09, P, 2°, °, PL, RO, STN, OP — 7.13, P, 3°, °, PL, RO, STN, OP — 7.19, P, 2°, °, PL, RO, STN, OP — 7.21-7.27, CORELOSS, °, ° — 7.29, JT, 2°, °, PL, RO, STN, OP — 7.31, JT, 45°, °, UN, VR, STN, OP — 7.35, P, 2°, °, PL, RO, STN, OP — 7.36, P, 3°, °, PL, RO, STN, OP — 7.37, P, 2°, °, PL, RO, STN, OP — 7.4, P, 2°, °, PL, RO, STN, OP — 7.41, P, 2°, °, PL, RO, STN, OP — 7.42, P, 2°, °, PL, RO, STN, OP — 7.48, P, 2°, °, PL, RO, STN, OP — 7.52-7.54, JT, 90°, °, PL, RO, STN, OP — 7.57, P, 2°, °, PL, RO, STN, OP — 7.62, P, 2°, °, PL, RO, STN, OP — 7.64-7.68, P, 2°, °, PL, RO, STN, OP		
					SHA	SHALE: moderately weathered, low to medium strength, dark brown, very fine to fine grained, ironstained.	6.2								
			111.7 7.27		SHA	SHALE: moderately weathered, medium strength, dark black, very fine to fine grained, ironstained.	7	MW			RQD = 40% TCR = 100%				
					CL	Core Loss.	7.21								
						111.5 7.42		SHA	SHALE: moderately weathered, medium strength, dark black, very fine to fine grained, ironstained.	7.27	MW				
								SST	SANDSTONE: highly weathered, medium strength, pale yellow, very fine to fine grained, iron stained, with carbonaceous laminations.	7.42					
						111.0 7.89			As above, but: moderately to slightly weathered, medium to	7.89	MW - SW				
								SST							

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329355.28	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263600.17	Logged By : Omkar Patil	Project : Gordon
RL : 118.90(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9 m	Date : 07/08/2025	Loc Comment :

Drilling Method	Water	Well Diagram	Elevation	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing		Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description type, inclination, planarity, roughness, coating, thickness
			Depth (m)						Is (50)					
			110.4		SST	As above, but: moderately to slightly weathered, medium to high strength, pale grey mottled pale yellow, iron stained, trace infilled seams and carbonaceous laminations. (continued)	8.5	MW - SW			RQD = 40% TCR = 100%		8.02, JT, 2°, °, PL, RO, CL, OP 8.2-8.22, CS, °, ° 8.32-8.35, XWS, °, ° 8.38, P, °, °, PL, RO, STN, C 8.4, P, 2°, °, PL, RO, CT, OP 8.48, P, 2°, °, PL, RO, STN, OP 8.52, P, 2°, °, PL, RO, CL, OP 8.58, P, 3°, °, PL, RO, CL, OP	
			8.5		SST	As above, but: fresh weathered, high strength, pale grey, trace carbonaceous laminations.			F					D:0.69 ; A:1.02
						BH103 Reached Target Depth at 9 m								

CLIENT NAME:

CPDM Pty Ltd

PROJECT:

Gordon, NSW

LOCATION:

1&1A Edward Street & 25-27 Rosedale Avenue

JOB NUMBER:

P3585

LOGGED BY:

OAP

BOREHOLE ID:

BH103

DEPTH:

6 m to 9 m

CORE TRAY NO:

Box 1 of 1

DATE:

7 August 2025

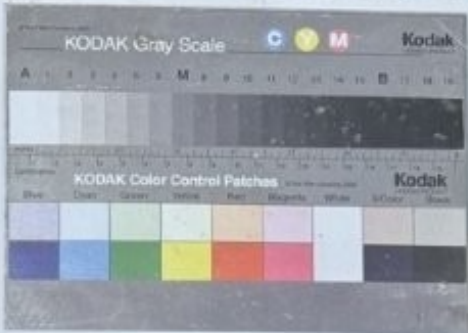


Photo description	BH103 Box 1 of 1		
Client	Edwards St Residence DM Pty Ltd c/- CPDM		
Location	1 Edward St, Gordon NSW 2072, Australia		
Project name	Gordon		
Project No	P3585	Scale	Not to Scale
BH No	BH103	BH Depth	6m to 9m

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329342.10	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263592.79	Logged By : Omer Turkarslan	Project : Gordon
RL : 118.98(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.13 m	Date : 08/08/2025	Loc Comment :

Drilling Method	Water	Testing	Depth (m)	Elevation (m)	Material Type	Graphic Log	Classification Code	Material Description	Elevation	Consistency/Density	Moisture
		SPT							Depth (m)		
	GWNE	3,4,16 (N=20) Bounced			TOPSOIL		CI - CH	SILTY SANDY CLAY: medium to high plasticity, dark brown, w < pl.			w < PL
					Residual		CH	SILTY CLAY: very stiff, high plasticity, brown and pale red, w < pl.	118.5 0.5	VSt	w < PL
					Residual		CH	As above, but: brown and pale red with slightly grey.	118.3 0.7	VSt	w < PL
			1	118.0	Rock		SHA	SHALE (XW): Silty Clay - hard, grey and dark brown, medium plasticity, iron stained with gravelly clay bands, low resistance.	118.0 0.95	H	M
			2	117.0							
			3	116.0							
				115.0							

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329342.10	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263592.79	Logged By : Omer Turkarslan	Project : Gordon
RL : 118.98(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.13 m	Date : 08/08/2025	Loc Comment :

Drilling Method	Water	Testing	Depth (m)	Elevation (m)	Material Type	Graphic Log	Classification Code	Material Description	Elevation	Consistency/Density	Moisture
		SPT							Depth (m)		
			5	114.0	Rock		SHA	SHALE (XW): Silty Clay - hard, grey and dark brown, medium plasticity, iron stained with gravelly clay bands, low resistance. (continued)		H	M
					Rock		SHA	SHALE: highly weathered, very low to low strength, grey slightly pale red and pale brown, fine to medium grained, low to medium resistance.	113.2 5.8		
				113.0					113.0 6	VLS - LS	
								Commenced Coring at 6 m			

Job Number : P3585
Client : Edwards St Residence DM Pty Ltd c/- CPDM
Project : Gordon
Location : 1 Edward St, Gordon NSW 2072, Australia
Loc Comment :

Page 3 of 4

UTM : 56H	Driller Rig : Massenza Rig	Job Number : P3585
Easting : 329342.10	Driller Supplier : Sytech Drilling Pty Ltd	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Northing : 6263592.79	Logged By : Omer Turkarslan	Project : Gordon
RL : 118.98(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 9.13 m	Date : 08/08/2025	Loc Comment :

Drilling Method	Water	Depth (m)	Elevation (m)	Graphic Log	Classification Code	Material Description	Depth (m)	Weathering	Testing	Estimated Strength	RQD% and TCR%	Defect Spacing (mm)	Defect Description type, inclination, planarity, roughness, coating, thickness
									Is (50)				
		8.50	110.5		LAM	LAMINITE: slightly to fresh weathered, medium to high strength, grey pale grey, fine to medium grained, sub - horizontal shale laminations. (continued)	8.50	SW - F	D:0.87 ; A:3.67		RQD = 88% TCR = 100%		8.3, P, 10°, °, UN, VR, CL, OP
		9	110.0		SST	SANDSTONE: fresh weathered, medium to high strength, pale grey, fine to medium grained, dry, generally massive.	9	F	D:0.66 ; A:1.38		RQD = 100% TCR = 100%		8.71, P, 5°, °, UN, VR, STN, OP 8.73-8.75, P, °, °, IR, VR, STN, OP, crushed bedding partings
						BH104 Reached Target Depth at 9.13 m							

morrow

CLIENT NAME: Edwards St. Residence DM Pty Ltd.

BOREHOLE ID: BH104

PROJECT: 1 - 1A Edward Street

DEPTH: 6m to 9.13m

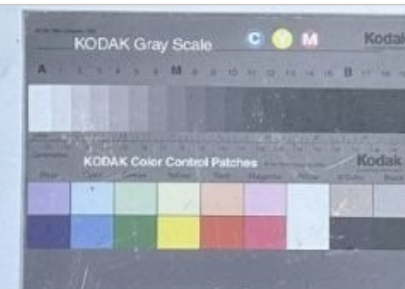
LOCATION: Gordon

CORE TRAY NO.: Box 1

JOB NUMBER: P3585

DATE: 8/8/25

LOGGED BY: OT



morrow

Morrow Geotechnics Pty Ltd ABN 42 605 892 126
2/5-7 Malta Street, Fairfield East NSW 2165
79/6 Bellambi Lane, Bellambi NSW 2518
E: info@morrowgeo.com.au
P: 02 8599 7579

Photo description

BH104 Box 1 of 1

Client

Edwards St Residence DM Pty Ltd c/- CPDM

Location

1 Edward St, Gordon NSW 2072, Australia

Project name

Gordon

Project No

P3585

Scale

Not to Scale

BH No

BH104

BH Depth

6m to 9.13m

UTM : 56H	Driller Rig : Hand Auger	Job Number : P3585
Latitude : -33.75430	Driller Supplier : MG	Client : Edwards St Residence DM Pty Ltd c/- CPDM
Longitude : 151.15751	Logged By : Omer Turkarslan	Project : Gordon
Elevation : 117(m)	Reviewed By : Mark Peach	Location : 1 Edward St, Gordon NSW 2072, Australia
Total Depth : 2.45 m	Date : 08/08/2025	Loc Comment :

Drilling Method	Water	Testing	Elevation Depth (m)	Material Type	Graphic Log	Classification Code	Material Description	Depth (m)	Consistency	Weathering XW DW LW MW SW F	Moisture
		DCP									
Hand Auger			116.8	TOPSOIL		CL - CI	SILTY CLAY: soft to firm, low to medium plasticity, dark brown, Trace fine sand, trace fine to medium gravel, w < pl, low resistance, with rootlets.	0.2	S - F		w < PL
		1	0.2	FILL		FILL	FILL firm to stiff, low to medium plasticity, orange mottled brown, Trace fine sand, w < pl, low to medium resistance.		F - St		w < PL
		2									
		3									
		3									
		5									
		4									
		4									
		3									
		5									
		15	115.9	FILL		FILL	As above, but: with fine to medium gravel.	1.1			w < PL
		10	1.1								
		13									
		7									
		5									
		4									
		5	115.3	Residual		CI - CH	SILTY CLAY: very stiff to hard, medium to high plasticity, orange red mottled, w = pl, with ironstone bands, with extremely weathered shale bands, with very low to low strength shale bands.	1.7	VSt - H		w = PL
		6	1.7								
		7									
		10									
		10									
		10									
		12									
		11					BH105 Refusal at 2.45 m				
		9									
		16									
		+25									

GENERAL

Information obtained from site investigations is recorded on log sheets. The "Cored Drill Hole Log" presents data from an operation where a core barrel has been used to recover material - commonly rock. The "Non-Core Drill Hole - Geological Log" presents data from an operation where coring has not been used and information is based on a combination of regular sampling and insitu testing. The material penetrated in non-core drilling is commonly soil but may include rock. The "Excavation - Geological Log" presents data and drawings from exposures of soil and rock resulting from excavation of pits, trenches, etc.

The heading of the log sheets contains information on Project Identification, Hole or Pit Identification, Location and Elevation. The main section of the logs contains information on methods and conditions, material substance description and structure presented as a series of columns in relation to depth below the ground surface which is plotted on the left side of the log sheet. The common depth scale is 8m per drill log sheet and about 3-5m for excavation logs sheets.

As far as is practicable the data contained on the log sheets is factual. Some interpretation is inevitable in the identification of material boundaries in areas of partial sampling, the location of areas of core loss, description and classification of material, estimation of strength and identification of drilling induced fractures. Material description and classifications are based on SAA Site Investigation Code AS 1726 - 1993 with some modifications as defined below.

These notes contain an explanation of the terms and abbreviations commonly used on the log sheets.

DRILLING

Drilling & Casing

ADV	Auger Drilling with V-Bit
ADT	Auger Drilling with TC Bit
WB	Wash-bore drilling
RR	Rock Roller
NMLC	NMLC core barrel
NQ	NQ core barrel
HMLC	HMLC core barrel
HQ	HQ core barrel

Drilling Fluid/Water

The drilling fluid used is identified and loss of return to the surface estimated as a percentage.

Drilling Penetration/Drill Depth

Core lifts are identified by a line and depth with core loss per run as a percentage. Ease of penetration in non-core drilling is abbreviated as follows:

VE	Very Easy
E	Easy
M	Medium
H	High
VH	Very High

Groundwater Levels

Date of measurement is shown.

Standing water level measured in completed boreholeLevel taken during or immediately after drilling

D	Disturbed
B	Bulk
U	Undisturbed
SPT	Standard Penetration Test
N	Result of SPT (sample taken)
PBT	Plate Bearing Test
PZ	Piezometer Installation
HP	Hand Penetrometer Test

EXCAVATION LOGS

Explanatory notes are provided at the bottom of drill log sheets. Information about the origin, geology and pedology may be entered in the "Structure and other Observations" column. The depth of the base of excavation (for the logged section) at the appropriate depth in the "Material Description" column. Refusal of excavation plant is noted should it occur. A sketch of the exposure may be added.

MATERIAL DESCRIPTION - SOIL

Classification Symbol - In accordance with the Unified Classification System (AS 1726-1993, Appendix A, Table A1)

Material Description - In accordance with AS 1726-1993, Appendix A2.3

Moisture Condition

D	Dry, looks and feels dry
M	Moist, No free water on remoulding
W	Wet, free water on remoulding

Consistency - In accordance with AS 1726-1993, Appendix A2.5

VS	Very Soft	< 12.5 kPa
S	Soft	12.5 – 25 kPa
F	Firm	25 – 50 kPa
St	Stiff	50 – 100 kPa
VSt	Very Stiff	100 – 200 kPa
H	Hard	> 200 kPa

Strength figures quoted are the approximate range of undrained shear strength for each class.

Density Index. (%) is estimated or is based on SPT results.

VL	Very Loose	< 15 %
L	Loose	15 – 35 %
MD	Medium Dense	35 – 65 %
D	Dense	65 – 85 %
VD	Very Dense	> 85 %

MATERIAL DESCRIPTION -ROCK

Material Description

Identification of rock type, composition and texture based on visual features in accordance with AS 1726-1993, Appendix A3.1-A3.3 and Tables A6a, A6b and A7.

Core Loss

Is shown at the bottom of the run unless otherwise indicated.

Bedding

Thinly Laminated	< 6 mm
Laminated	6 - 20
Very Thinly Bedded	20 - 60
Thinly Bedded	60 - 200
Medium Bedded	200 - 600
Thickly Bedded	600 - 2000
Very Thickly Bedded	> 2000

Weathering - No distinction is made between weathering and alteration. Weathering classification assists in identification but does not imply engineering properties.

Fresh (F)	Rock substance unaffected by weathering
Slightly Weathered (SW)	Rock substance partly stained or discoloured. Colour and texture of fresh rock recognisable.
Moderately Weathered (MW)	Staining or discolouration extends throughout rock substance. Fresh rock colour not recognisable.
Highly Weathered (HW)	Stained or discoloured throughout. Signs of chemical or physical alteration. Rock texture retained.
Extremely Weathered (EW)	Rock texture evident but material has soil properties and can be remoulded.

Strength - The following terms are used to described rock strength:

Rock Strength Class	Abbreviation	Point Load Strength Index, Is(50) (MPa)
Extremely Low	EL	< 0.03
Very Low	VL	0.03 to 0.1
Low	L	0.1 to 0.3
Medium	M	0.3 to 1
High	H	1 to 3
Very High	VH	3 to 10
Extremely High	EH	≥ 10

Strengths are estimated and where possible supported by Point Load Index Testing of representative samples. Test results are plotted on the graphical estimated strength by using:

Diametral Point Load Test

Axial Point Load Test

Where the estimated strength log covers more than one range it indicates the rock strength varies between the limits shown.

MATERIALS STRUCTURE/FRACTURES

ROCK

Natural Fracture Spacing - A plot of average fracture spacing excluding defects known or suspected to be due to drilling, core boxing or testing. Closed or cemented joints, drilling breaks and handling breaks are not included in the Natural Fracture Spacing.

Visual Log - A diagrammatic plot of defects showing type, spacing and orientation in relation to core axis.

Defects		Defects open in-situ or clay sealed
	-----	Defects closed in-situ
		Breaks through rock substance

Additional Data - Description of individual defects by type, orientation, in-filling, shape and roughness in accordance with AS 1726-1993, Appendix A Table A10, notes and Figure A2.

Orientation - angle relative to the plane normal to the core axis.

Type	BP JT SM FZ SZ VN FL CL DL HB DB	Bedding Parting Joint Seam Fracture Zone Shear Zone Vein Foliation Cleavage Drill Lift Handling Break Drilling Break
Infilling	CN X Clay KT CA Fe QZ MS MU	Clean Carbonaceous Clay Chlorite Calcite Iron Oxide Quartz Secondary Mineral Unidentified Mineral
Shape	PR CU UN ST IR DIS	Planar Curved Undulose Stepped Irregular Discontinuous
Roughness	POL SL S RF VR	Polished Slickensided Smooth Rough Very Rough

SOIL

Structures - Fissuring and other defects are described in accordance with AS 1726-1993, Appendix A2.6, using the terminology for rock defects.

Origin - Where practicable an assessment is provided of the probable origin of the soil, eg fill, topsoil, alluvium, colluvium, residual soil.

APPENDIX B

IMPORTANT INFORMATION

This Document has been provided by Morrow Geotechnics Pty Ltd subject to the following limitations:

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Conditions may exist which were undetectable given the limited nature of the enquiry Morrow Geotechnics was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required. No geotechnical investigation can provide a full understanding of all possible subsurface details and anomalies at a site.

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