

COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department and author as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence, prepared by SMEC*". This licence does not apply to the Queensland Government logo or trademarks.

LIMITATION OF LIABILITY

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <http://ggd.org.au/>

This log has been contributed to the Queensland Geotechnical Database with the permission of SMEC.

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH02

PROJECT : GUS 2A - Mt Gravatt Capalaba Road
 LOCATION : Mt Gravatt

CLIENT :
 FEATURE :

FILE / JOB NO : 3003816
 SHEET : 1 OF 3

POSITION : E: 511322.000, N: 6953109.000 (56 MGA94)

SURFACE ELEVATION :

ANGLE FROM HORIZONTAL : 90°

RIG TYPE :

MOUNTING :

CONTRACTOR :

DRILLER :

DATE STARTED : 4/7/12

DATE COMPLETED : 4/7/12

DATE LOGGED : 4/7/12

LOGGED BY : JSM

CHECKED BY :

DRILLING				MATERIAL					
PROGRESS	DRILLING & CASING	WATER	DRILLING PENETRATION	SAMPLES & FIELD TESTS	ELEVATION (RL) DEPTH (m)	GRAPHIC LOG CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
	ADT				0.0	0.10m	Grass - TOPSOIL		
					0.50m		Sandy CLAY (CI), Dark grey, very soft, medium plasticity, fine to medium grained sand, saturated. Some GRAVEL and black ORGANIC bands. MC at PL		
				SPT 0, 0, 1 N=1	0.95m				VS
					2.00m	2.00m	Silty CLAY (CH), Dark grey, stiff, high plasticity, moist. MC at PL		
				U50	2.45m				St
					3.50m	3.50m	Sandy CLAY (CH), Grey, firm, high plasticity, moist. Increaseing SAND content to Clayey SAND. MC at PL		
				SPT 1, 3, 3 N=6	3.95m	3.80m	becomes Clayey SAND, firm to loose, medium plasticity. MC at PL		F
					5.00m	5.00m	Sandy GRAVEL, Grey mottled with white & black, loose to medium dense, medium sized gravel and coarse grained sand, some CLAY, QUARTZITE cobbles.	M	
				SPT 3, 6, 5 N=11	5.45m				F-L
					6.50m	6.30m	as previous, with COAL fragments.		L - MD
				SPT 5, 5, 6 N=11	6.95m				
					7.50m	7.50m	COAL, Dark brown to black, very dense, medium grained SAND.		VD
					8.00m	8.00m			

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

SMC AUSTRALIA



NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH02

PROJECT : GUS 2A - Mt Gravatt Capalaba Road
 LOCATION : Mt Gravatt

CLIENT :
 FEATURE :

FILE / JOB NO : 3003816
 SHEET : 2 OF 3

POSITION : E: 511322.000, N: 6953109.000 (56 MGA94)

SURFACE ELEVATION :

ANGLE FROM HORIZONTAL : 90°

RIG TYPE :

MOUNTING :

CONTRACTOR :

DRILLER :

DATE STARTED : 4/7/12

DATE COMPLETED : 4/7/12

DATE LOGGED : 4/7/12

LOGGED BY : JSM

CHECKED BY :

DRILLING					MATERIAL							
DRILLING & CASING	WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY	RELATIVE DENSITY	STRUCTURE & Other Observations
WB ↓				SPT 30/80mm N ^o =112 HB 8.08m 9.50m SPT 30/50mm N ^o =180 HB 9.55m 11.00m SPT 10/10mm, 10/10mm N ^o =600 HB 11.01m	8.0 9.0 10.0 11.0			COAL, black, fragmented.	M	VD		
					11.10m			Continued as Cored Drill Hole				
					12.0 13.0 14.0 15.0 16.0							

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

SMEC AUSTRALIA



CORED DRILL HOLE LOG

HOLE NO : BH02

PROJECT : GUS 2A - Mt Gravatt Capalaba Road
 LOCATION : Mt Gravatt

CLIENT :
 FEATURE :

FILE / JOB NO : 3003816
 SHEET : 3 OF 3

POSITION : E: 511322.000, N: 6953109.000 (56 MGA94)

SURFACE ELEVATION :

ANGLE FROM HORIZONTAL : 90°

RIG TYPE :

MOUNTING :

CONTRACTOR :

DRILLER :

DATE STARTED : 4/7/12

DATE COMPLETED : 4/7/12

DATE LOGGED : 4/7/12

LOGGED BY : JSM

CHECKED BY :

CASING DIAMETER :

BARREL (Length) :

BIT :

BIT CONDITION :

DRILLING				MATERIAL				ROCK MASS				
DRILLING & CASING	WATER	CORE LOSS (% LOSS)	SAMPLES & FIELD TESTS	ELEVATION (RL) DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Grain size, Colour, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50)		RQD (%)	DEFECT SPACING (mm)	DEFECTS (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
								● Axial	○ Diametral			
				8.0								
				11.0		11.10m START CORING AT 11.10m						
		0% LOSS		12.0		CARBONACEOUS MUDSTONE INTERBEDDED WITH SILTSTONE fine grained, grey and dark grey, thinly bedded, poorly fractured	FR			75		11.50: BP, 0°, PI, Sm, Cn 12.00: BP, 0°, PI, Sm, Cn
				12.90m		MUDSTONE INTERBEDDED WITH SILTSTONE fine grained, grey and dark grey, Siltstone content increasing with depth	SW					12.65: JT, 75°, PI, Sm, Cn 12.84: JT, 70°, Un, Sm-Ro, Cn
		13.50 0% LOSS		13.85m		SANDSTONE INTERBEDDED WITH SILTSTONE fine with coarse grained, Quartzite feldspatic sandstone, fine grained with coarse feldspar	FR			81		13.00: BP, 0°, PI, Sm, Cn 13.02: JT, 70°, St, Sm, Cn 13.10: BP, 0°, PI, Sm, Cn 13.25: CS, 80°, IR, Ro, Clay Ct
		14.20 0% LOSS		14.40m		MUDSTONE INTERBEDDED WITH SILTSTONE fine grained, grey and dark grey, as previous but increasing in mudstone content						13.45: BP, 0°, PI, Ro, Cn 13.50: JT, 80°, PI, Sm, Cn 13.55: BP, 0°, PI, Ro, Clay Ct 13.57: BP, 0°, PI, Sm, Cn 13.59: BP, 0°, PI, Sm, Cn 13.63: JT, 85°, Un, Ro, Cn, HEALED
		15.00 0% LOSS		15.00m		MUDSTONE glassy, dark brown to black, sub horizontal bedding				96		13.67: BP, 0°, PI, Sm, Cn 13.86: BP, 0°, Un, Sm, Cn 14.00: BP, 0°, PI, Sm, Cn 14.17: BP, 0°, PI, Sm, Cn 14.22: BP, 0°, PI, Sm, Cn 14.42: BP, 0°, PI, Sm, Cn 14.70: BP, 0°, St, Sm, Cn
				15.00m		BOREHOLE BH02 TERMINATED AT 15.00 m						15.00: BP, 0°, PI, Sm, Cn

SMC BRISBANE LIBRARY.GLB Log SMC CORED DRILL HOLE GUS 2A (SOIL SURVEY'S SJ),CPI <-DrawingFiles> 01/08/2012 14:37 8.30.002

DRILLING AD/T Auger Drilling with TC Bit AD/V Auger Drilling with V Bit AS Auger Screwing DB Washbore with Drag Bit DT Diatube HMLC HMLC Core Barrel HQ3 HQ3 Core Barrel NMLC NMLC Core Barrel NQ3 NQ3 Core Barrel PQ3 PQ3 Core Barrel R Rock Roller	WATER 10 Oct., 73 Water Level on Date shown water inflow water outflow WEATHERING FR Fresh SW Slightly Weathered MW Moderately Weathered HW Highly Weathered EW Extremely Weathered	STRENGTH EH Extremely High VH Very High H High M Medium L Low VL Very Low EL Extremely Low ROUGHNESS POL Polished RO Rough SM Smooth SL Slicksided VR Very Rough	DEFECT TYPE PT Bedding Plane CL Cleavage CS Crushed Seam CZ Crushed Zone DB Drilling Break FC Fracture HB Handling Break IS Infilled Seam JT Joint SM Seam SS Shear Seam SZ Shear Zone VN Vein VO Void FA Fault	COATING Cln Clean CT Coating (>= 1.0m) FILLED Filled Stn Stained VR Veneer (< 1.0mm) PLANARITY CU Curved DIS Discontinuous IR Irregular PR Planar ST Stepped UN Undulose	INFILL CA Calcite CLAY Clay FE Iron Oxide FE Iron Oxide Clay CLAY Clay KT Chlorite MS Secondary Mineral MU Unidentified Mineral OZ Quartz X Carbonaceous
--	--	---	---	--	---

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

SMC AUSTRALIA



NOTES RELATING TO GEOTECHNICAL REPORTS AND SITE INVESTIGATION LOGS

GEOTECHNICAL REPORTS AND SITE INVESTIGATION LOGS

Geotechnical reports/logs are prepared by qualified personnel on the information supplied or obtained and are based on current engineering standards of interpretation and analysis.

Information may be gained from limited subsurface testing, surface observations, previous work, and is supplemented by knowledge of the local geology and experience of the range of properties that may exhibited by the materials present. For this reason, geotechnical reports should be regarded as interpretative rather than factual documents, limited to some extent by the scope of information on which they rely.

Where the report/log has been prepared for a specific purpose (e.g. design of a three-storey building), the information and interpretation may not be appropriate if the design is changed (e.g. a twenty-storey building). In such cases, the report/log and the sufficiency of the existing work should be reviewed by SMEC in the light of the new proposal.

Every care is taken with the report/log content; however, it is not always possible to anticipate or assume responsibility for the following conditions:

- Unexpected variations in ground conditions. The potential for this depends on the amount of investigative work undertaken.
- Changes in policy or interpretation by statutory authorities
- The actions of contractors responding to commercial pressures

If these occur, SMEC would be pleased to resolve the matter through further investigation, analysis or advice.

UNFORESEEN CONDITIONS

Should conditions encountered on site differ markedly from those anticipated from the information contained in the report/log, SMEC should be notified immediately. Early identification of site anomalies generally results in any problems being more readily resolved and allows re-interpretation and assessment of the implications for future work.

SUBSURFACE INFORMATION

Logs of a borehole, recovered core, test pit, excavated face, or cone penetration test are an engineering and/or geological interpretation of the subsurface conditions. The reliability of the logged information depends on the drilling/testing method, sampling/observation spacing's and the ground conditions. It is not always possible or economic to obtain continuous high-quality data. It should also be recognised that the volume of material observed or tested is only a fraction of the total subsurface profile.

Interpretation of subsurface information and application to design and construction must take into consideration the spacing of the test locations, the frequency of observations and testing, and the possibility that geological boundaries may vary between observation points.

Groundwater observations and measurements outside of specially designed and constructed piezometers should be treated with care for the following reasons:

- In low permeability soils groundwater may not seep into an excavation or bore in the short time it is left open.
- A localised perched water table may not represent the true water table.
- Groundwater levels vary according to rainfall events or season.
- Some drilling and testing procedures mask or prevent groundwater inflow.

The installation of piezometers and long-term monitoring of groundwater levels may be required to adequately identify groundwater conditions.