

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 as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence*". 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://qgd.org.au/>

ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH120</u>
SHEET	<u>1</u> of <u>4</u>
REFERENCE No	<u>12066</u>

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
 LOCATION Peak Downs Hwy Overpass Abutment B; CH: 5647m; COORDINATES 720966.1 E; 7658002.9 N
 PROJECT No FG6184 SURFACE R.L. 12.84m PLUNGE _____ DATE STARTED 7/10/14 GRID DATUM GDA 94 /MGA Zone 5
 JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 8/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	12.84					Silty CLAY (TOPSOIL) Dark brown, moist to dry, stiff. High plasticity.	(CH)						
0.50	12.34				A	Silty CLAY (ALLUVIUM) Orange-brown mottled pale grey, moist, stiff. High plasticity.	(CH)					4.4,7 N=11	SPT
1					B		(CH)					4.4,5 N=9	SPT
2					C							4.4,8 N=12	SPT
3													
3.70	9.14				D	Silty Clayey SAND (ALLUVIUM) Pale orange-brown, moist, medium dense. Fine grained.	(SC)					5.7,12 N=19	SPT
4													
4.80	8.04				E	Silty CLAY (ALLUVIUM) Pale brown and grey, moist, stiff to very stiff. High plasticity.						3.4,5 N=9	SPT
5													
6					F							4.5,6 N=11	SPT
7					G		(CH)					5.7,11 N=18	SPT
8					H							4.5,9 N=14	SPT
9					J							3.6,9 N=15	SPT
10													

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

LOGGED BY
ME



ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH120</u>
SHEET	<u>2</u> of <u>4</u>
REFERENCE No	<u>12066</u>

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1

LOCATION Peak Downs Hwy Overpass Abutment B; CH: 5647m; COORDINATES 720966.1 E; 7658002.9 N

PROJECT No FG6184 SURFACE R.L. 12.84m PLUNGE _____ DATE STARTED 7/10/14 GRID DATUM GDA 94 /MGA Zone 56

JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 8/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	WEATHERING											GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS					
								USC	EH	VH	H	M	J	VL	EL	EC	VC	W				WW	VW	EW		
10	2.84				K	Silty CLAY (ALLUVIUM) (Cont'd)	(CH)																		3,8,8 N=16	SPT
10.70	2.14				L	Sandy Clayey SILT (ALLUVIUM) Pale brown and grey, moist, stiff to very stiff. Low plasticity. Fine grained sand.	(ML)																		4,5,6 N=11	SPT
11					M																				4,7,10 N=17	SPT
12					N	Silty CLAY (ALLUVIUM) Pale grey and brown, moist, stiff to very stiff. High plasticity.	(CH)																		6,9,13 N=22	SPT
12.80	0.04				P																				5,7,9 N=16	SPT
13					Q																				5,6,7 N=13	SPT
15.70	-2.86				R	Silty Clayey SAND (ALLUVIUM) Pale orange-brown and grey, moist, medium dense. Fine to medium grained sand. Trace fine gravel.	(SC)																		8,11,9 N=20	SPT
16.80	-3.96				S	Silty CLAY (ALLUVIUM) Pale grey and brown, moist, very stiff. High plasticity.	(CH)																		9,12,13 N=25	SPT
17					T																				8,12,16 N=28	SPT
18					U																				8,13,15 N=28	SPT
19																										
20																										

TMR JAN 15.GLB Log A_ENGINERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Datget CPT Tool gInt.Add-In 04/03/2015 10:50

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

LOGGED BY
ME



ENGINEERING BOREHOLE LOG

BOREHOLE No **BH120**
 SHEET **3** of **4**
 REFERENCE No **12066**

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
 LOCATION Peak Downs Hwy Overpass Abutment B; CH: 5647m; COORDINATES 720966.1 E; 7658002.9 N
 PROJECT No FG6184 SURFACE R.L. 12.84m PLUNGE _____ DATE STARTED 7/10/14 GRID DATUM GDA 94 /MGA Zone 56
 JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 8/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	WEATHERING											GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS					
								USC	EH	VH	H	M	J	VL	EL	EC	VC	C				W	WV	WW	EW	
20	-7.16				V	Silty CLAY (ALLUVIUM) (Cont'd)	(CH)																		7,12,15 N=27	SPT
21					W		(CH)																		6,8,10 N=18	SPT
21.80	-8.96																									
22					X	Sandy Silty CLAY (RESIDUAL) Pale grey, moist, stiff. Low plasticity. Fine grained sand.	(CL)																		6,6,8 N=14	SPT
23					Y		(CL)																		hw, hw, 8 N=8	SPT
23.50	-10.66																									
24					Z	Silty Clayey SAND (RESIDUAL) Pale grey, moist, medium dense to dense. Fine grained.	(SC)																		10,16,17 N=33	SPT
25					AA		(SC)																		9,10,18 N=28	SPT
26					AB		(SC)																		6,7,16 N=23	SPT
26.80	-13.96					26.50m: Becoming medium grained sand.																				
27					AC	GRANODIORTIE (Kgwu) HW: Brown, medium to coarse grained, extremely low to very low strength.	(HW)																		15,22,30 N=52	SPT
28					AD		(HW)																		20,30/120	SPT
29					AE		(HW)																		30/85 hb	SPT
30							(HW)																			

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

LOGGED BY
ME

ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No BH120
SHEET 4 of 4
REFERENCE No 12066

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Peak Downs Hwy Overpass Abutment B; CH: 5647m; COORDINATES 720966.1 E; 7658002.9 N
PROJECT No FG6184 SURFACE R.L. 12.84m PLUNGE DATE STARTED 7/10/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/10/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING											DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS			
									EH	VH	H	M	J	VL	EL	EC	VC	C	W					VW	WW	EW
30	-17.16				AF	GRANODIORTIE (Kgwu) HW: (Cont'd)	+																		30/80 hb	SPT
31					AG		+																		30/100 hb	SPT
32	-19.16		(100)			MICRODIORITE (Kgwu) SW: Grey, medium grained, massive, high to very high strength. Frequent thin calcite veins throughout (<20mm). Defects: - Js; 0°-30° (2/m); PI/Ro, OP; - Js; 30°-60° (<1/m); PI/Ro, OP;	+																	Is(50) = 1.98MPa Is(50) = 1.93MPa	D (32.05m) A (32.10m)	
33			(87)				+																	Is(50) = 1.03MPa; # Is(50) = 0.83MPa; #	D (32.90m) A (32.95m)	
34			(98)				+																	Is(50) = 4.56MPa Is(50) = 6.67MPa	A (33.58m) D (33.64m)	
35							+																	Is(50) = 0.41MPa; #	D (34.23m)	
36	-23.41		100				+																	34.90m-35.10m: J; 70°, CA; Is(50) = 1.28MPa; # Is(50) = 4.53MPa	A (35.23m) D (35.33m)	
36.25						Borehole terminated at 36.25m .																				
37																										
38																										
39																										
40																										

REMARKS Kgwu - Wundaru Granodiorite;
 # Sample failed along existing defect surface.

LOGGED BY
ME

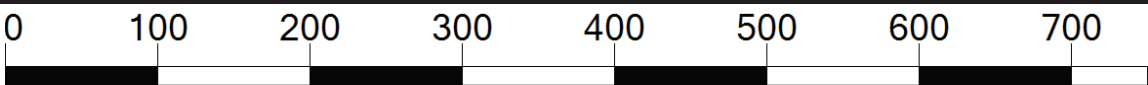
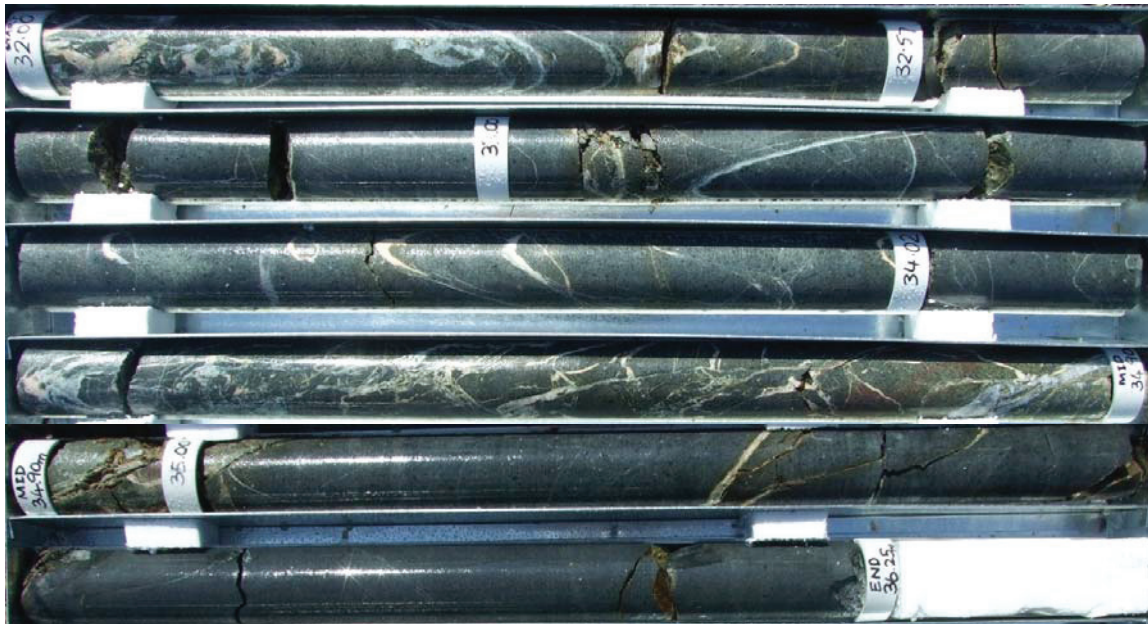
CORE PHOTO LOG

DEPARTMENT OF TRANSPORT & MAIN ROADS
 Geotechnical Branch
 35 Butterfield Street, HERSTON Qld 4006
 Phone 07 3066 3336



Department of
Transport and Main Roads

Project Name	Mackay – Ring Road		
Project No	FG6184	Date	08/10/14
Borehole No	BH 120	TMR H No	12066
Location	Peak Downs Highway Overpass	Start Depth (m)	32.0
Detail	Abutment B	Finish Depth (m)	36.25
Chainage	5647	Submitted By	M.Ensor
Remarks			



SCALE 1:5