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GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND

FINAL 17/03/2016

BOREHOLE No BH270A

Sheet 1 of 4

	1000	AT FIDELIS	i		_			SYN	ИBOLS	REFER FOR	M F:GEC	T 017/8-2014		REF	ERENCE No	H3	12422
PROJECT Mackay Ring Road																	
LOCATION Calrossie Ro			ssie Rd	l								COORDINA	coordinates 720894.7 E; 7657755.7 N				
PROJECT No FG6184		SURFACE RL	SURFACE RL 11.80m		NGE 9	0°		DATE STAI	RTED 27/09/201	15	GRID DATUM G	iDA 94 / N	ЛGA Z55				
OB No 242/10G/906		HEIGHT DATUM	HEIGHT DATUM A.H.D.		ING °			DATE COMPL	DATE COMPLETED 28/09/2015			DRILLER Saxon Drilling					
DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING	CORE DRILLING	RQD ()%	SAMPLE	MATERIAL DESC	CRIPTION	LITHOLOGY	USCS WEATHERING	INTAC STREN		DEFECT SPACING		ADDITION AN TEST RE	AL DATA D SULTS		SAMPLES TESTS
- 1 - 2 - 3 4 5 6 7 8 - 9 9	1.80					Washbore down to te depth of BH270 at 18 at 19.00m.	.45m. First SPT										
REMARKS: Kgwu = Wundaru Granodiorite								LOC	GGED BY	REVIE	WED BY						
								.Boyes	S.Foley								
							71.10	FOTEC	INICAL SO	DELIQUE LOS	ODE ATED	THE HOLEDACE CL					· · · · · · · · · · · · · · · · · · ·

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND

FINAL 17/03/2016

BOREHOLE No BH270A

Sheet 2 of 4

AUDAS AT	1000		Cililicite		SYI	MBOLS	REFER FORM F:GEO	T 017/8-2014		REFERENCE No	H1	.2422
PROJECT	Mackay	Ring R	oad									
LOCATION	Calrossie Rd								COORDINATES 720894.7 E; 7657755.7 N			
PROJECT No FG6184		SURFACE RI	SURFACE RL 11.80m		INGE S	90°	DATE START	TED 27/09/2015	GRID DATUM C	DA 94 / N	1GA Z55	
JOB No 242/10G/906		HEIGHT DATUM	A.H.D.	BEA	RING_		DATE COMPLET	Z8/09/2015	DRILLER S	axon Drilli	ng	
DEPTH (m) (B) ::	DRING RILLING	QD 1% 3N ORE C %	MATERIAL DES	CRIPTION	ПТНОГОСУ	USCS WEATHERING	INTACT STRENGTH 표주구구	DEFECT SPACING		ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
11		A	medium dense to de Fine to medium grain	um) own, moist, ense. ned.		(sc)					7, 10, 13 N=23	SPT
REMARKS: Kgwu = Wundaru Granodiorite							LOGGED BY	REVIE	WED BY			
							C.Boyes	S.F	oley			
				Th 40	CEOTEC	INUCAL D	ODELIOLE LOC CREATER W					

GEOTECHNICAL BOREHOLE LOG

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

FINAL 17/03/2016

BH270A BOREHOLE No

Sheet 3 of 4

H12422 REFERENCE No Mackay Ring Road PROJECT Calrossie Rd COORDINATES 720894.7 E; 7657755.7 N LOCATION FG6184 PLUNGE 90° DATE STARTED 27/09/2015 GRID DATUM GDA 94 / MGA Z55 SURFACE RL 11.80m PROJECT No 242/10G/906 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. DATE COMPLETED 28/09/2015 JOB No BEARING USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY AND TEST RESULTS STRENGTH RΙ DEPTH SAMP MATERIAL DESCRIPTION (m) CORE REC % ᇁᆂᆂᆂᅬᅿᅿᆿᅟᅴᇜᇰᄓॾᇂᆘᇂᇕ Clayey SAND (Alluvium) 10, 14, 22 Cont'd) N=36 20.10m: becomes blue and pale grey. Fine to coarse grained sand. (SC) SPT 12, 15, 15 N=30 -9.90 GRANODIORITE (Kgwu) XW: Recovered as grey speckled 22 dark grey, moist, hard, sandy silty SPT 8, 13, 17 clay. Fine to medium grained sand, low to medium plasticity. Trace pyrite. 23 Е SPT 30, 30/115 XW SPT 25, 28, 30/110 25 G 25.00m: Pyrite content increasing. -14.20 26 GRANODIORITE (Kgwu) HW: Orange, grey and dark grey, medium to coarse grained, massive, extremely low to very low strength. Highly fractured. Js: 5° to 15°; (<50/m); PI/Ro; OP-CD; 27 HW Fe St or Sinf: Js: 30° to 40°; (<4/m); PI/Sm; OP; Fe St or Sinf; 28.00m: No sample recovered A (28.10m) (0) D (28.15m)-28.33m-28.41m: HFZ; XW zone HW Is(50)=0.19 MPa 28.61m-28.87m: HFZ; XW, Sinf; XW Is(50)=0.10 MPa HW 100 29.00m-29.04m: XW zone, Cly FL; (0) XW Is(50)=0.06 MPa A (29.33m)_ HW Is(50)=0.09 MPa D (29.83m) Continued on next sheet REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** C.Boyes S.Foley TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

GEOTECHNICAL BOREHOLE LOG

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

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BOREHOLE No BH270A

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REFERENCE No H12422

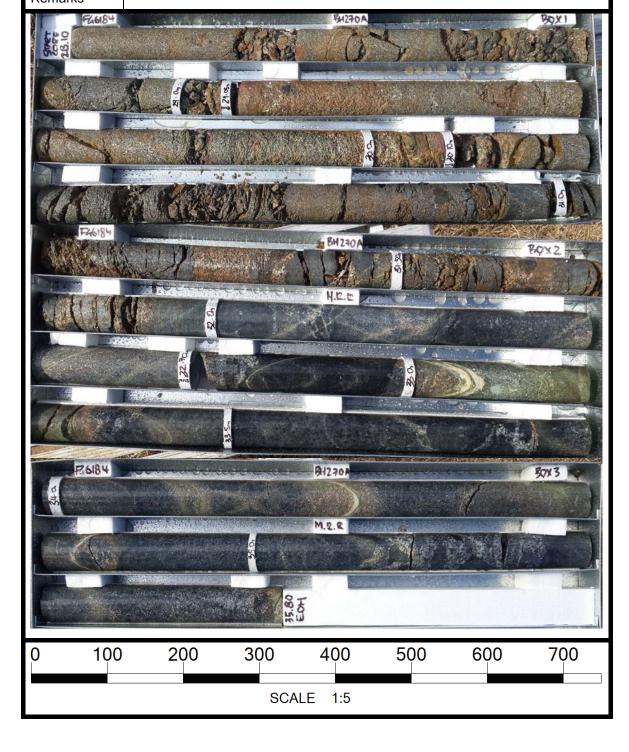
Mackay Ring Road PROJECT Calrossie Rd COORDINATES 720894.7 E; 7657755.7 N LOCATION FG6184 PLUNGE 90° DATE STARTED 27/09/2015 GRID DATUM GDA 94 / MGA Z55 SURFACE RL 11.80m PROJECT No 242/10G/906 DRILLER Saxon Drilling DATE COMPLETED 28/09/2015 JOB No HEIGHT DATUM A.H.D. BEARING USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY AND TEST RESULTS STRENGTH RΙ DEPTH SAMP MATERIAL DESCRIPTION CORE REC % GRANODIORITE (Kgwu) 30.05m-30.11m: SZ; Cly, brecciated HW: (Cont'd) MW 30.32m-30.62m: HFZ Is(50)=0.24 MPa A (30.68m)--19.10 MW GRANODIORITE (Kgwu) 31 30.98m-31.14m: HFZ; Sinf; MW: Grey speckled dark grey, fine D (31.27m)-Is(50)=0.09 MPa MW to coarse grained, massive, medium 31.47m-31.64m: HFZ; Sint to high strength. Highly fractured. HW With frequent Microdiorite Is(50)=0.28 MPa A (31.70m) MW ¬ 31.76m-31.90m: HFZ; -20.10 xenoliths up to 100mm. 32 Js: 5° to 15°; (~50/m); PI/Ro; OP-CD; Sinf or Fe St; s: 70° to 85°; (<2/m); PI/Sm; OP; Fe SW (99) GRANODIORITE (Kgwu) 32.75m: Upper contact; Un/Sm, SW: Grey speckled dark grey, fine to 33.00m: Lower contact; Un/Sm, 33 Is(50)=1.20 MPa D (33.05m)_ coarse grained, massive, very high Is(50)=3.40 MPa A (33.14m) 33.00m-33.34m: GRANODIORITE, -21.54 strength. Frequent Microdiorite green grey 33.09m: VN; CA, 70°, PI/Sm, 20mm xenoliths up to 100mm. SW 33.34m: Contact irregular Js; 5°-15° (<1/m); Un/Sm, Cn; -22.05 MICRODIORITE (Kgwu) 33.85m: Contact irregular, granodiorite intruded through dolerite \$W: Dark grey, fine grained, Is(50)=11.00 MPa D (34.22m) massive, very high strength. GRANODIORITE (Kgwu) 34.40m: VN; CA, 70°, PI/Sm, 10mm SW: Grey speckled dark grey and pink, fine to coarse grained, massive, very high strength. 35 Frequent Microdiorite xenoliths up to 100mm. s: 5°-15°; (<2/m); Pl-Un/Sm; OP; Cn; Js: 60° -70°; (<1/m); PI/Ro; OP; Is(50)=10.00 MPa A (35.68m) -24.00 100 UCS=199.00 MPa (35.68m) _ E=68.5 GPa 35.40 to 35.46m: DOLERITE (SW): v= 0.083 dark grey, fine grained, massive, very high strength. Borehole completed at 35.80m 37 REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** S.Foley C.Boyes TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

CORE PHOTO LOG

DEPARTMENT OF TRANSPORT AND MAIN ROADS Geotechnical Section 35 Butterfield Street, Herston Qld 4006 Phone 07 3066 3336



Project Name	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	28/09/15
Borehole No.	BH 270A	TMR H No.	H12422
Location	Pioneer River Bridge	Start Depth (m)	28.10
Detail	Abutment B, LHS	Finish Depth (m)	35.80
Chainage		Submitted By	M.Ensor
Remarks			



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Project Name	Mackay – Ring Road (Stage 2)		
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