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# **Queensland** Government

### **GEOTECHNICAL BOREHOLE LOG**

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

FINAL 17/03/2016

**BH217A** BOREHOLE No

Sheet 1 of 4

H12418 REFERENCE No

Mackay Ring Road PROJECT Pioneer River Bridge, Pier 5 (CL) COORDINATES 721300.9 E; 7660178.2 N LOCATION GRID DATUM GDA 94 / MGA Z55 FG6184 SURFACE RL 7.51m PLUNGE 90° DATE STARTED 07/09/2015 PROJECT No DATE COMPLETED 08/09/2015 DRILLER Saxon Drilling 242/10G/906 BEARING ° HEIGHT DATUM A.H.D. JOB No ADDITIONAL DATA AND TEST RESULTS USCS WEATHERING INTACT STRENGTH DEFECT SPACING SAMPLES TESTS LITHOLOGY Ξ SAMPLE DEPTH ( RΙ MATERIAL DESCRIPTION CORE REC % ਜੁ\='='='='='='='='='='='='='= Washbore to depth of 19.50m. Not logged. Refer to BH217. Continued on next sheet REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** C.Boyes S.Foley TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

### Queensland Government

### GEOTECHNICAL BOREHOLE LOG

**FINAL** 17/03/2016

BOREHOLE No BH217A

Sheet 2 of 4

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014 H12418 REFERENCE No Mackay Ring Road PROJECT Pioneer River Bridge, Pier 5 (CL) COORDINATES 721300.9 E; 7660178.2 N LOCATION DATE STARTED 07/09/2015 GRID DATUM GDA 94 / MGA Z55 FG6184 SURFACE RL 7.51m PLUNGE 90° PROJECT No DATE COMPLETED 08/09/2015 DRILLER Saxon Drilling 242/10G/906 BEARING ° HEIGHT DATUM A.H.D. JOB No USCS WEATHERING ADDITIONAL DATA AND TEST RESULTS INTACT STRENGTH DEFECT SPACING SAMPLES TESTS LITHOLOGY Ξ SAMPLE DEPTH ( RΙ MATERIAL DESCRIPTION (m) CORE REC % ᇁᆂᆂᆂᅿᅿᅿᆿᆸᆔᇬᄓᄫᇂᇂᇦ Washbore to depth of 19.50m. Not logged. Refer to BH217. 12 13 15 16 19 Start coring at 19.50m -11.<u>9</u>9 (8) MICRODIORITE Is(50)=0.45 MPa A (19.70m) MW MW: ☐ 19.85m-19.91m: HW zone Is(50)=0.96 MPa A (19.92m) 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

**FINAL** 17/03/2016

BOREHOLE No BH217A

Sheet 3 of 4

REFERENCE No H12418

Mackay Ring Road PROJECT Pioneer River Bridge, Pier 5 (CL) COORDINATES 721300.9 E; 7660178.2 N LOCATION FG6184 SURFACE RL 7.51m PLUNGE 90° DATE STARTED 07/09/2015 GRID DATUM GDA 94 / MGA Z55 PROJECT No 242/10G/906 DRILLER Saxon Drilling DATE COMPLETED 08/09/2015 JOB No HEIGHT DATUM A.H.D. BEARING USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY STRENGTH TEST RESULTS RΙ DEPTH SAMP MATERIAL DESCRIPTION (m) CORE REC % ᅾᆂᆂᆂᅬᆛᅿᆿᅵᇝᆼᄓᄫᇂᇂᇦ MICRODIORITE MW MW: Green grey to orange brown, 20.35m-20.80m: VN: 60° to 70°; PI/ Sm; CA <50mm; 20.55m-20.66m: HFZ; Cly FL, some fine to medium grained, massive, HW medium to high strength. Large 100 brecciated material alcite veins <40mm thick. (50) hroughout. I (21.00m) Is(50)=1.20 MPa s: 5° to 15°; (<6/m); Pl-Un/Ro; OP; e St or Cly Vr; Is(50)=0.60 MPa D (21.36m) 21.41m-21.44m: HW zone, Cly FL; s: 35° to 55°; (<2/m); Pl-Un/Ro; OP MW TI; Cn or Fe St or Cly Vr; From 20.8m: Js: 5° - 15°(<10/m); PI-Un/Ro; OP-TI; Cn or Fe St or = 21.90m-21.92m: XW Cly zone; 22 100 (15) Is(50)=0.35 MPa D (22.15m)\_ MW Js: 30° -50°(<4/m); PI-Un/Ro; OP-22.27m-22.68m: J: 80°; PI/Sm-Ro; TI: Fe St: TI; Cn or Fe St or Cly Vr; 22.60m-22.91m: HFZ: some Clv FL: HW D (22.90m) Is(50)=1.90 MPa 23 Is(50)=0.45 MPa A (23.13m) 23.28m-23.29m: XW zone, brecciated; 23.44m-23.48m: HFZ; Cly FL; 100 MW ⇒ 23.75m-23.78m; SZ; 10°; PI/Sm; Clv FL, brecciated; 23.83m-23.97m: SZ: 10°;Pl/Ro; ₩W brecciated, Cly FL, clasts <40mm; ŃW AW 24.06m-24.10m: SZ; 5°, Pl/Ro, brecciated, Cly FL, clasts <20mm 24.10m-24.21m: HFZ; some Cly FL; 100 (56) From 24.46m: defect frequency 24.28m-24.29m: SZ; brecciated, Cly decreases MW Is(50)=2.00 MPa Is(50)=0.98 MPa A (24.71m) Brecciated Fault Zone, Cly 24.31m-24.40m: BZ; DIs 24.53m-25.06m: SZ: brecciated, D (24.81m)-25 calcite matrix.
Upper contact: 70°; PI/Sm-Ro; CD; MW some Fe St: -17.99 Lower contact: 70°; PI/Sm-Ro; CD; Cly; 25.02m-25.06m: Contact: 70°; PI/ MICRODIORITE (100) SW: Grey, fine grained, massive, Sm-Ro; Cly; 25.06m-25.31m: HFZ; 70° to 90°; Un/Ro; CD; Fe St; (25.93m)\_ very high strength. Pyrite 26 throughout. Js: 15° to 30°; (<1/m); PI/Sm; OP; Is(50)=6.90 MPa D (26.60m)-Js: 60° to 75°; (<1/m); PI/Sm-Ro; OP; SW Is(50)=8.50 MPa A (26.80m) 27 27.00m; DI (98) Is(50)=2.90 MPa A (27.67m)-Is(50)=7.30 MPa D (27.78m) -20.49 28 28.00m: Contact: 75°; St/Sm; TI; CA GRANODIORITE SW: Grey speckled dark grey and pink, medium to coarse grained, porphyritic, very high strength. Js: 5° to 15°; (<2/m); PI/Sm-Ro; OP; Is(50)=10.00 MPa D (28.84m) some Fe St or CA Vr <3mm. SW A (28.95m) UCS=142.00 MPa (29.25m) 29.93m: VN: PI/Ro; FL; CA <3mm; Continued on next sheet REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** S.Foley C.Boyes TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

### Queensland Government

# GEOTECHNICAL BOREHOLE LOG

**FINAL** 17/03/2016

BOREHOLE No BH217A

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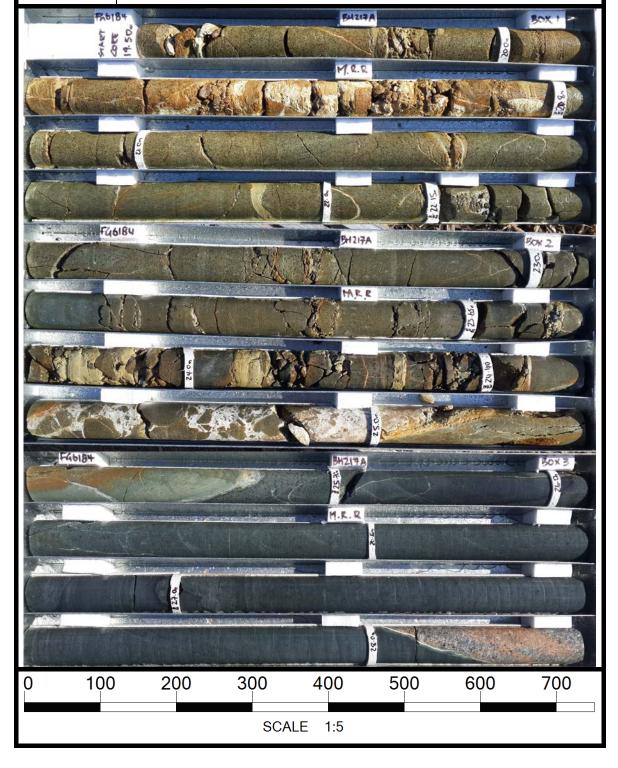
FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014 H12418 REFERENCE No Mackay Ring Road PROJECT Pioneer River Bridge, Pier 5 (CL) COORDINATES 721300.9 E; 7660178.2 N LOCATION SURFACE RL 7.51m DATE STARTED 07/09/2015 GRID DATUM GDA 94 / MGA Z55 FG6184 PLUNGE 90° PROJECT No 242/10G/906 DATE COMPLETED 08/09/2015 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. JOB No BEARING USCS WEATHERING ADDITIONAL DATA AND TEST RESULTS INTACT STRENGTH DEFECT SPACING LITHOLOGY SAMPLES TESTS Ξ SAMPLE DEPTH ( RΙ MATERIAL DESCRIPTION (m) CORE REC % ᇁᆂᆂᆂᅬᅿᅿᆿᅵᇚᆼᄓॾᇂᇂᇕ 100 GRANODIORITE (96) SW A (30.15m) -22.79 ŞW: (Cont'd) MICRODIORITE SW: Grey, fine grained, massive, SW Is(50)=6.50 MPa A (30.65m)\_ Is(50)=2.30 MPa very high strength. D (30.77m) -23.51 100 Js: 5° to 15°; (3/m); PI/Ro; OP; Borehole completed at 31.02m 33 35 37 REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** C.Boyes S.Foley 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	08/09/15
Borehole No.	BH 217A	TMR H No.	H12226
Location	Pioneer River Bridge	Start Depth (m)	19.50
Detail	Pier 5, centreline	Finish Depth (m)	31.02
Chainage		Submitted By	M.Ensor
Remarks			



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



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