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ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/5-2009

BOREHOLE No BH027
SHEET 1 of 1
REFERENCE No H10599

PROJECT BRUCE HIGHWAY (COOROY - CURRA) SECTION A GEOTECHNICAL INVESTIGATION
LOCATION Cut 11 COORDINATES 485804.3 E; 7080882.9 N
PROJECT No FG5825 SURFACE R.L. 167.60m PLUNGE _____ DATE STARTED 10/8/09 GRID DATUM MGA94
JOB No 128/10A/901 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 10/8/09 DRILLER R & D Drilling

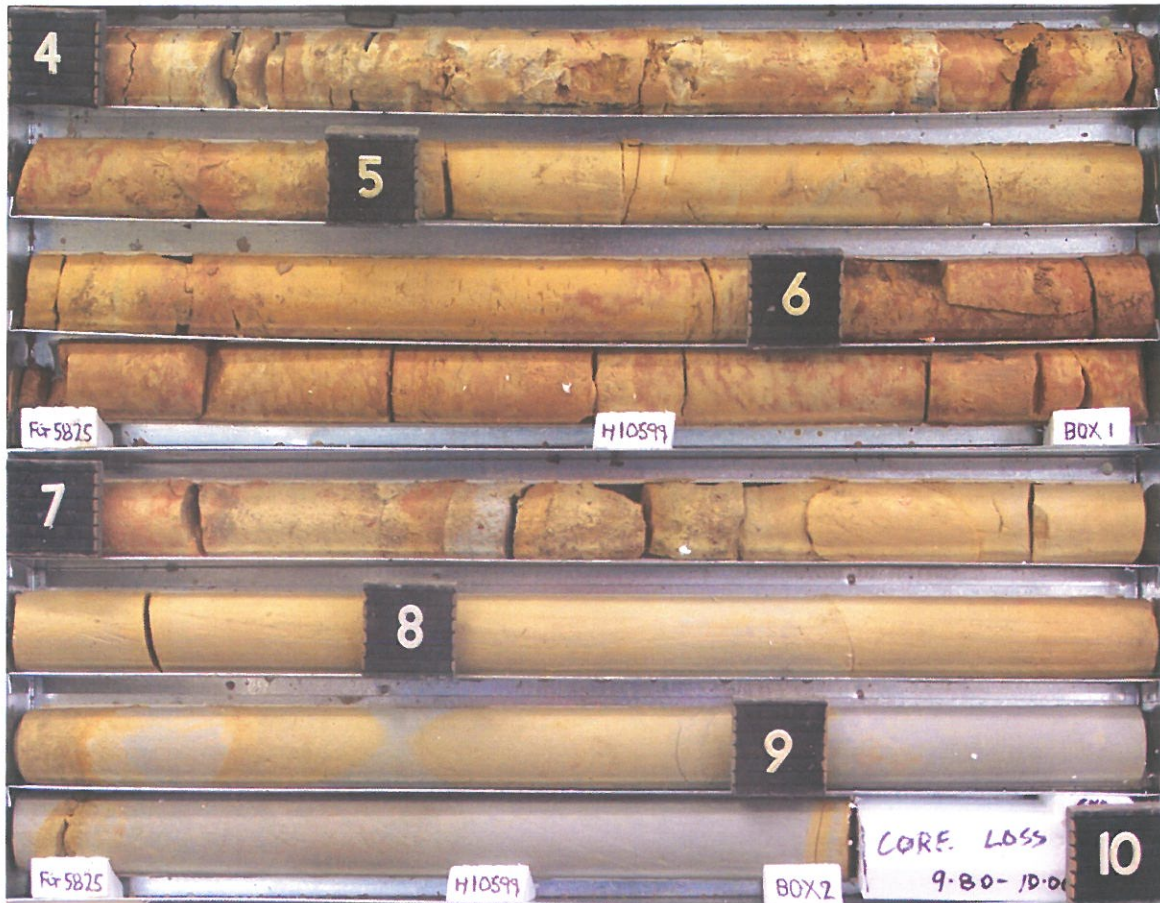
DEPTH (m)	R.L. (m)	AUGER WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	167.60												
1					A	Clayey SILT Pale grey to mottled brown-red, moist, stiff to very stiff. Low plasticity; iron cemented in parts; occasional iron cemented kernels.	(CI-ML)					4,6,7 N=13	SPT
2					B							2,9,13 N=22	SPT
3	165.10				C	SILTSTONE (XW): Generally exhibits the engineering properties of pale grey to mottled red, dry, hard clayey Silt of low plasticity.	XW					11,17,25 N=42	SPT
4	164.10				D	SILTSTONE (HW): Generally exhibits the engineering properties of pale grey to light brown, moist, hard clayey Silt.	HW					16,23,30/135 N>50	SPT
5	163.00					SANDSTONE (MW): Pale orange with red mottling, fine grained, indistinct bedding. Defects are close to medium spacing. Prominent defect sets generally dip at 10° and 70°. Defect surfaces are generally iron stained.	MW					Is(50) = 0.05MPa Is(50) = 0.02MPa	x o
6												Is(50) = 0.21MPa Is(50) = 0.15MPa	x o
7												Is(50) = 0.16MPa Is(50) = 0.38MPa	o x
8	160.11											Is(50) = 0.24MPa Is(50) = 0.20MPa	x o
9												Is(50) = 0.26MPa Is(50) = 0.20MPa	x o
10	157.60											Is(50) = 1.01MPa Is(50) = 0.39MPa	x o

Borehole terminated at 10m

REMARKS Detailed defect descriptions are shown on Form GEOT533/8 attached.

LOGGED BY
JA

Project: **Bruce Highway Upgrade (Cooroy – Curra) Section A**
Borehole No: **BH27**
Start Depth: 4.00m
Finish Depth: 10.00m
Project No: FG5825
H No: 10599



SCALE 1:5

F:GEOT043/1

DEFECT DESCRIPTIONS OF ENGINEERING BORELOGS

[CHARACTERISATION OF DEFECTS ARE IN ACCORDANCE WITH
GEOTECHNICAL TERMS AND SYMBOLS – FORM : GEOT 017/5 – 2009]

BOREHOLE NO.:	BH27
SHEET:	1 of 2
REFERENCE NO.:	H10599

PROJECT:	Bruce Highway (Cooroy to Curra) Section A Geotechnical Investigation					
LOCATION:	Cut 11					
PROJECT NO.:	FG5825	SURFACE R.L.:	167.60	DRILLER:	R & D Drilling	
JOB NO.:	128/10A/901	DATUM:	MGA94	DATE DRILLED:	10/08/09	

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
4.00	J	29	PI	S	C	FeSt	-
4.06	J	30	St	S	C	FeSt	
4.12-4.16	Bz	0	PI	S	C	FeSt	-
4.22	J	20	PI	S	C	FeSt	Cl, 3mm
4.31-4.36	J	85	UN-ST	R	O	FeSt	-
4.40	J	0	St	S	C	FeSt	-
4.54	J	5	PI	S	C	FeSt	-
4.59	J	5	PI	S	C	FeSt	-
4.65	J	10	PI	S	C	FeSt	-
4.72	J	20	PI	Sl	C	FeSt	-
4.75	J	10	PI	S	C	FeSt	-
4.82	J	5	Un	S	C	FeSt	-
4.87	J	5	PI	S	C	FeSt	-
4.99	J	15	PI	S	C	FeSt	-
5.03	J	10	PI	S	C	FeSt	-
5.16	J	0	PI	S	C	FeSt	-
5.38	J	15	PI	S	C	FeSt	-
5.53	J	10	PI	S	C	FeSt	-

Abbreviations (as per F: GEOT 017/5 – 2009)

ROUGHNESS		WALL ALTERATIONS		TYPE		OTHER	
R	Rough	FeSt	Iron Stained	J, Js	Joint, Joints	Cl	Clay Infill
Sr	Slightly Rough	W	Weathered	B	Bedding	CLy	Clayey
S	Smooth	Smn	Secondary Mineralisation	BP	Bedding Parting	Co	Coal Seam
SL	Slickensided	Cn	Clean	FP	Foliation Parting	Carb	Carbonaceous
PO	Polished	MnSt	Manganese Stained	LP	Lamination Parting	Sl	Sand Infill
PLANARITY		APERTURE		CLV	Cleavage	QZ	Quartz
PI	Planar	C	Closed	Fr	Fracture	CA	Calcite
St	Stepped	O	Open	SZ	Sheared Zone	Chl	Chlorite
Un	Undulating	F	Filled	CZ	Crushed Zone	In	Incipient
Cu	Curved	T	Tight	BZ	Broken Zone	Int	Intersecting
Ir	Irregular			HFZ	Highly Fractured Zone	Lam (s)	Lamination (s)
				WS	Weathered Seam	Di	Drilling Induced
				Vn	Vein	H	Horizontal
						V	Vertical

NOTE: This sheet should be read in conjunction with appropriate Engineering Borelog. Defect angles were measured with respect to horizontal plane.

BOREHOLE NO.:	BH 27
SHEET:	2 of 2
REFERENCE NO.:	10599

DEPTH	DEFECT TYPE	DIP°	PLANARITY	ROUGHNESS	APERTURE	WALL ALTERATION	OTHER
5.62	J	20	PI	S	C	FeSt	-
5.88	J	90	Un	S	C	FeSt	-
5.96	J	15	PI	S	C	FeSt plating n/mm	-
6.03	J	15	Un	S	C	FeSt	-
6.12	J	80	PI	S	C	FeSt	-
6.13	J	5	PI	S	C	FeSt	-
6.21	J	5	Un	S	C	FeSt	-
6.25	J	90	PI	S	C	FeSt	-
6.35	J	40	PI	SR	C	FeSt plating 1mm	-
6.47	J	90	PI	S	C	FeSt plating	-
6.60	J	35	Un	S	C	FeSt	-
6.66	J	90	PI	S	C	FeSt	-
6.71	J	20	Un	S	C	FeSt	-
6.73	J	15	Un	S	C	FeSt	-
6.76	J	-	Un	-	C		In
6.82	J	45	Un	S	C	FeSt	In
6.89	J	15	PI	S	C	FeSt	-
6.91	J	30	Un	SR	C	FeSt, MnSt	-
7.11	J	30	Un	S	C	FeSt	-
7.31	J	10	PI	SR	C	FeSt	-
7.52	J	30	PI	SR	C	FeSt , MnSt	-
7.60	J	30	PI	S	C	FeSt, MnSt	-
7.65	J	15	PI	S	C	FeSt	-
7.84	J	15	PI	S	C	FeSt, MnSt	-
8.29	J	25	PI	S	C		
8.64	J	35	Un-PI	S	C		
8.69	J	30	Un	S	C		
8.83	J	90	Un-St	S	C		
8.96	J	40	PI	S	C		
9.01	J	0	PI	S	C		
9.28	J	30	PI	S	C		
9.56	J	0	PI	S	C		
9.77	J	15	PI	S	C		