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QLD_DMR_LIB_01.GLB Log A_ENGINEERING BOREHOLE LOG FG5779 IPSWICH MWY_ROCKLEA TO DARRA.GPJ <<DrawingFile>> Datgel CPT Tool gliNt Add-in 14/02/2011 17:35

ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No	BH119
SHEET	<u>1</u> of <u>4</u>
REFERENCE No	H10892

PRO	JECT	Ipswich Motorway Upgrade - Rocklea to Darra															
LOCA	NOITA	N New Kimberley Street Off-ramp COOF									OORDINATES <u>496672.8 E; 6950416.</u>	<u> 6 N</u>					
PRO	JECT N	o_F	<u>G57</u>	<u> 79</u>		SURFACE R.L. <u>21.26m</u> PLUNGE <u>-90°</u>	_		DATE S	TARTED _	11/1	1/10 GRID DATUM <u>GDA94</u>					
JOB 1	No	_14	<u>40/L</u>	J <u>16/9</u> 02	- — -	HEIGHT DATUM <u>AHD</u> BEARING	_	-	DATE COM	IPLETED _	<u>15/1</u>	1/10 DRILLER R&D Drilling F	Pty Ltd _				
DEPTH (m)	R.L. (m)	GER	SH BORING RE DRILLING	RQD ()%	SAMPLE	MATERIAL DESCRIPTION	0	ATHERING	INTACT STRENGTH ボデェミュラゴ	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS				
0	21.26	SAC	ŠŌ	REC %			nsc	WE	ijޱ≥」⋛ᆒ	78888 11111	GR,	TEST RESULTS	SAN				
			'			Clayey GRAVEL (Fill)						Based on Drillers logs only	=				
- 1 - 1 1 	20.86					Sandy CLAY (Alluvium) Grey to brown, moist, mainly firm. Low to medium plasticity. Sand fraction fine grained; layers of silty clay.		_				₽ 11/11/2010					
- - - - - - - -					A			CL- CI)				— Ground water at 2.0m	U100 -				
- - - - - - - -	17.26				В	Silty CLAY (Residual)		_		1,3,3 N=6							
- 5					С	Pale grey, moist, stiff to very stiff. High plasticity.						8,8,12 N=20	SPT -				
										D	Becoming stiff clay below 6m depth.	(C	CH)				7,9,11 N=20
- - - - - - - - -	14.26				E							13,5,5 N=10	SPT				
- - - - - - - - - 8					F	CLAYSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF CLAY SIZED PARTICLES XW: Generally exhibits engineering properties of grey, moist, hard silty clay.						19,25,30/140mm N>50	SPT -				
- - - - - - - - - - - - - - - - - - -							G	Low to medium plasticity; minor sand fraction in parts.	×	(W				7,14,18 N=32	SPT		
- - - - - - - 10					Н	(See over)						9,12,20 N=32	SPT -				
	EMARK	s O	bser	vation w	ell in	stalled, infiltration zone from 2.0m to 35.5m.	_					LOGGED BY					
									JA / SG								



ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No __BH119__

SHEET __2_ of __4__

REFERENCE No __H10892__

PROJECT Ipswich Motorway Upgrade - Rocklea to Darra COORDINATES 496672.8 E; 6950416.6 N LOCATION New Kimberley Street Off-ramp SURFACE R.L. 21.26m PLUNGE _ -90 ° _ DATE STARTED <u>11/11/10</u> PROJECT No_FG5779 _ _ _ _ GRID DATUM GDA94 _ _ _ JOB No DATE COMPLETED 15/11/10 DRILLER R&D Drilling Pty Ltd _ INTACT R.L RQD DEFECT ADDITIONAL DATA STRENGTH SPACING ()% (m) P00 $\widehat{\mathbf{E}}$ MATERIAL (mm) DEPTH AND SAMPLES GRAPHIC DESCRIPTION **TESTS** CORE TEST RESULTS REC % 11.26 10 **CLAYSTONE HW: (Cont'd)** 6,15,30/95mm SPT N>50 <u>¥</u> 2/2/2011 11/2/2011 13,21,30 SPT K XW N>50 12 24,30/140mm SPT N > 508.76 (78)MW: Grey, massive, low strength. Is(50) = 0.03MPaх Datgel CPT Tool gINt Add-In 14/02/2011 17:35 MW 8.26 - 13 MUDSTONE Clay zone 100 SW: Dark grey to black, massive with Is(50) = 0.07MPainterlamination, mainly low strength. (100) Is(50) = 0.07MPa0 $DD = 1.72t/m^3$; $WD = 2.06t/m^3$; Contains interbeds of siltstone in parts. MC = 19.5%; UCS=558KPa Generally defects are rare. - Drilling induced lamination / bedding partings @ 5-10° (<1/m) - Irregular fractured / joint @ 15° and 25° (<1/m) Defects are medium to wide spaced, planar, 100 smooth, closed and clean or clay infill. (95)- 15 Is(50) = 0.10MPaHigh strength. Is(50) = 0.11MPao ROCKLEA TO DARRA.GPJ DD = 1.74t/m³; WD = 2.09t/m³; MC = 19.7%; UCS=1178KPa 100 FG5779 IPSWICH MWY (100)SW Is(50) = 0.07MPaIs(50) = 0.07MPa0 High strength. 17 Is(50) = 0.08MPaIs(50) = 0.09MPa8 BOREHOLE L 100 (100)- 18 A_ENGINEERING I $DD = 1.62t/m^3$; $WD = 1.98t/m^3$; MC = 22.4%; UCS=1441KPa Pog - 19 100 LIB_01.GLB (100)Is(50) = 0.05MPa- Irregular joint @ 15° Is(50) = 0.14MPa - High strength. 0 (See over) LOGGED BY REMARKS Observation well installed, infiltration zone from 2.0m to 35.5m. JA / SG



ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No __BH119__

SHEET __3_ of __4__

REFERENCE No __H10892__

PROJECT <u> Ipswich Motorway Upgrade - Rocklea to Darra</u> New Kimberley Street Off-ramp COORDINATES 496672.8 E; 6950416.6 N LOCATION PROJECT No_FG5779 _____ SURFACE R.L. 21.26m PLUNGE _ -90 ° DATE STARTED <u>11/11/10</u> GRID DATUM GDA94 _ _ _ _ JOB No DATE COMPLETED 15/11/10 DRILLER R&D Drilling Pty Ltd RQD INTACT R.L DEFECT ADDITIONAL DATA STRENGTH SPACING (m) ()% P00 Ξ MATERIAL (mm) DEPTH AND SAMPLES DESCRIPTION TESTS CORE TEST RESULTS REC % 1.26 20 100 **MUDSTONE SW: (cont'd)** (95)2 ls(50) = 0.16MPa0 100 (90)- 22 Is(50) = 0.08MPaIs(50) = 0.18MPa0 XW clay zone SW XW clay zone Datgel CPT Tool gINt Add-In 14/02/2011 17:35 100 - 23 (88)- 24 Is(50) = 0.08MPax o Is(50) = 0.15MPaHigh strength 100 (95)DD = 1.84t/m³; WD = 2.14t/m³; MC = 16.7%; UCS=2229KPa - 25 -3.84 **CLAYSTONE** TO DARRA.GPJ MW: Pale grey, massive, fine grained, low strength. Is(50) = 0.11MPaх о Is(50) = 0.13MPaDefects are almost nil. MW Clay seam app. 3mm ROCKLEA 100 - 26 (100) FG5779 IPSWICH MWY -5.24 **SANDSTONE** FINE TO COARSE GRAINED, MASSIVE POORLY CEMENTED SEDIMENTARY ROCK 100 - 27 MW: Grey-brown, massive with minor (90)laminated, fine to coarse grained, very low strenath. MW BOREHOLE LOG Defects: - Drilling induced lamination / bedding partings @ 5° (1-2/m) - 28 Defects are mainly close to wide spaced, A_ENGINEERING $DD = 1.66t/m^3$; $WD = 2.02t/m^3$; -7.04 irregular, slightly rough, open and closed with MC = 21.7%; UCS=341KPa 100 sand or carbonaceous material infill. (80)HW: Grey-brown, massive medium to coarse grained, extreamly low to very low strength. Log - 29 01.GLB HW ₽, XW highly erodable sand. 100 (See over) REMARKS Observation well installed, infiltration zone from 2.0m to 35.5m. LOGGED BY JA / SG



ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

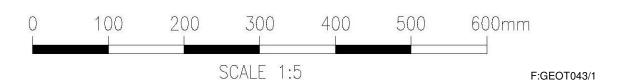
PROJECT				y Upgrade - Rocklea to Darra						
				treet Off-ramp				OORDINATES <u>496672.8 E; 6950416</u>	5.6 <u>N</u>	
PROJECT No				SURFACE R.L. 21.26m PLUNGE -90						
JOB No	<u> 140/L</u>	J16/ <u>9</u> 02		HEIGHT DATUM <u>AHD</u> BEARING		DATE COM	IPLETED _	<u> 15/11</u>	1/10 DRILLER R&D Drilling	Pty Ltd
R.L. (m) HLLL 30 -8.74	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
- 30 -0.74	7 7 1	(42)		SANDSTONE HW: (cont'd)					XW loose highly erodable and indurated coarse sand.	-
- - - - - -				Contains highly erodable and poorly indurated sand layers in parts. Exhibits properties of very dense medium to					Gravelly sand with black — carbonaceous band (possible shear zone).	- - - -
-31				coarse grained sand.					Is(50) = 0.05MPa	x -
		79	X						Highly erodable and indurated coarse	
		(58)							sand. Highly erodable and indurated coarse sand.	-
- 32 - - -									Is(50) = 0.05MPa Is(50) = 0.02MPa	
<u> </u>		68	X		HW	v				-
33		(58)							— Possible sheared zone.	-
5 - 5 - 5 - 5 - 7 - 34								36167363	Highly erodable and indurated coarse	-
		80	X					100000	sand.	-
		(0)								-
35			X							-
-14.24		56		Borehole terminated at 35.5m	+					-
				Doronolo terminatos at oc.om						-
36							+:::::::			-
2										-
							<u> </u>			-
										:
37							F: : : : : :			-
-										-
<u></u> 2 − 38						: : : : : <u>-</u>	-::::::::::::::::::::::::::::::::::::::			
										-
<u> </u>							<u> </u>			-
										-
3 - 39										-
							†			-
40							‡ : : : : :			-
	S Obse	rvation w	ell in	stalled, infiltration zone from 2.0m to 35.5m.					LOGGED BY JA / SG	
									- JA / 3G	

Project: **Ipswich Motorway Upgrade - Rocklea to Darra**

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Borehole No: BH 119
Start Depth: 12.50m
Finish Depth: 35.50m
Project No: FG5779
H No: H10892



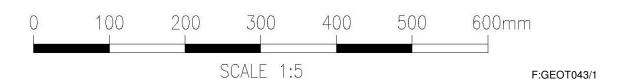


Project: **Ipswich Motorway Upgrade - Rocklea to Darra**

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Borehole No: BH 119
Start Depth: 12.50m
Finish Depth: 35.50m
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Project: **Ipswich Motorway Upgrade - Rocklea to Darra**

Borehole No: BH 119
Start Depth: 12.50m
Finish Depth: 35.50m
Project No: FG5779



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