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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH610
SHEET 1 of 5
REFERENCE No H11579

PROJECT Townsville Ring Road Section 4
LOCATION Dalrymple Overpass COORDINATES 467133.4 E; 7867000.9 N
PROJECT No FG6020 SURFACE R.L. 16.72m PLUNGE _____ DATE STARTED 3/10/13 GRID DATUM MGA94 Zone 55
JOB No 268/10M/5 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 5/10/13 DRILLER Saxon

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	16.72													
16.42						Sandy SILT (Topsoil): Pale brown, dry, soft to firm. Some tree roots.								
						Sandy SILT Pale brown, dry, hard.								
1					A								17,25,24 N=49	SPT
2					B	Becoming grey to brown.	(ML)						11,16,20 N=36	SPT
3					C								12,19,29 N=48	SPT
4	12.72				D	Silty SAND Brown, moist, very dense. Fine grained sand.							30/130 N>50	SPT
5					E								30/140 N>50	SPT
6														
7					F		(SM)						13,23,28 N>50	SPT
8					G	Becoming dense.							13,17,23 N=40	SPT
9														
10	6.72				H	Fine to coarse grained sand.							14,23,24 N=47	SPT

REMARKS _____

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SHEET 2 of 5
REFERENCE No H11579

PROJECT Townsville Ring Road Section 4
LOCATION Dalrymple Overpass COORDINATES 467133.4 E; 7867000.9 N
PROJECT No FG6020 SURFACE R.L. 16.72m PLUNGE _____ DATE STARTED 3/10/13 GRID DATUM MGA94 Zone 55
JOB No 268/10M/5 HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 5/10/13 DRILLER Saxon

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
10	6.72					Sandy SILT Pale grey brown, moist, hard.								
11					J								10,14,21 N=35	SPT
12														
13					K								10,14,17 N=31	SPT
14														
15					L	Becoming very stiff.							5,7,11 N=18	SPT
16					M	Becoming hard.	(ML)						15,15,21 N=36	SPT
17					N	Colour change to yellow brown.							14,22,29 N>50	SPT
18														
19					P								22,21,20 N=41	SPT
20	-3.28					19.80m: Thin lense of dense, Clayey SAND. Fine to coarse grained sand.								

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BOREHOLE No BH610
SHEET 3 of 5
REFERENCE No H11579

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LOCATION Dalrymple Overpass COORDINATES 467133.4 E; 7867000.9 N
PROJECT No FG6020 SURFACE R.L. 16.72m PLUNGE _____ DATE STARTED 3/10/13 GRID DATUM MGA94 Zone 55
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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
20	-3.28													
21					Q	Clayey Sandy SILT: Grey to brown, moist, hard.							10,16,21 N=37	SPT
22					R								10,13,21 N=34	SPT
23					S	Becoming very stiff.							10,11,17 N=28	SPT
24					T	Becoming hard.							11,21,26 N=47	SPT
25					U		(ML)						11,21,22 N=43	SPT
26					V								13,23,26 N=49	SPT
27					W	Colour change to dark brown, grey.							14,20,23 N=43	SPT
28														
29														
30														

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BOREHOLE No BH610
SHEET 4 of 5
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PROJECT Townsville Ring Road Section 4
LOCATION Dalrymple Overpass COORDINATES 467133.4 E; 7867000.9 N
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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
30	-13.28												
					X	Clayey Sandy SILT: (Cont'd)	(ML)					12,17,26 N=43	SPT
31	-14.28					Silty SAND: Brown, moist, dense. Fine to medium grained sand.							
					Y		(SM)					15,17,22 N=39	SPT
32													
					Z	Becoming Gravelly Clayey Sand. Fine to coarse grained sand and angular gravel.						18,25,24 N=49	SPT
33													
					AA	Gravelly Clayey SAND (Residual Soil): Pale grey to brown, moist, very dense. Fine to coarse grained sand. Fine to medium gravel (XW rock particles).						28,30/50 N>50	SPT
34	-18.28												
					AB		(SP)					30/50 N>50	SPT
35													
					AC	Becoming Clayey Gravelly Sand. Colour Change to brown.						30/90 N>50	SPT
36													
					AD							30/100 N>50	SPT
37													
38													
39													
40													

REMARKS _____

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BOREHOLE No BH610
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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
40	-23.28												
41					AE	Gravelly Clayey SAND (Residual): (Cont'd)							30/40 N>50 SPT
42					AE		(SP)						30/60 N>50 SPT
43	-26.28												
44					AG	GRANITE Medium to coarse grained, intrusive, igneous rock of felsic composition. XW: Generally exhibits engineering properties of a orange brown grey, moist, very dense, Clayey Gravelly Sand. Fine to coarse grained sand. Fine to coarse HW rock fragments.							30/15 N>50 SPT
45													
46	-29.28				AH								5,14,30/40 N>50 SPT
47			(0)			HW: Orange brown grey, medium to coarse grained, massive, mainly very low to low strength. HW-MW in parts. Defects: -Joints at 10°-30° (3-4/m)							
48			100 (16)			Defects are generally extremely close to closely spaced, irregular, rough, open, weathered and iron stained.							
49	-32.13		100 (13)										
50	-33.28		100 (26)										
			100 (35)			SW: Grey orange pink, medium to coarse grained, massive, high strength. Defects: -Joints at 75° (6/m) -Joints at 30° (1/m) Defects are generally close to medium spaced, planar, rough, open and clayey coated.		SW XW SW					

REMARKS Borehole terminated at 50m

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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	Townsville Ring Road Section 4		
Project No	FG 6020	Date	03/10/13
Borehole No	BH 610	TMR H No	11579
Location	Dalrymple Overpass	Start Depth (m)	46.00
Detail		Finish Depth (m)	50.00
Chainage		Submitted By	J. Lopez
Remarks			

