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ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>BH6</u>
SHEET	<u>1</u> of <u>6</u>
REFERENCE No	<u>H12013</u>

PROJECT	DJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes									
LOCATION	At te	nsion fea	at <u>ure</u>	<u>s</u>				COC	ORDINATES <u>416286.3 E; 6937684.7</u>	7 N
PROJECT N	lo <u>FG6</u>	128		SURFACE R.L263.63m PLUNGE			DATE STARTED _2	<u>5/11/</u>	1 <u>4</u> GRID DATUM <u>MGA94</u>	
JOB No				HEIGHT DATUM <u>AHD</u> BEARING			DATE COMPLETED 2	<u>8/11/</u>	14_ DRILLER Hinterland _	
R.L. (m) HEADO 0 263.6	AUGER CASING WASH BORING CORE DRILLING	RQD ()%	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	INTACT DEFECT STRENGTH SPACING (AS1726) (AS1726) □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
				Sandy CLAY with Cobbles and Boulders (COLLUVIUM) Orange brown, moist. Generally comprises a hard Sandy Clay of intermediate plasticity which contains a mix of high strength cobbles and boulders.		(CI)			Rock roller used to advance through high strength material.	
REMARI	<s< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>LOGGED BY</td><td></td></s<>								LOGGED BY	
									TAH	



ENGINEERING BOREHOLE LOG

BOREHOLE No	BH6
SHEET	2 of6
REFERENCE No	H12013

PROJECT	DJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes									
LOCATION	At tension fe	<u>ature</u>	<u>s</u>					CO	OORDINATES <u>416286.3 E; 6937684.7 N</u>	<u> </u>
PROJECT No	FG6128		SURFACE R.L. <u>263.63m</u> PLUNGE _				DATE STARTED 2	<u>5/11</u>	/14 GRID DATUM MGA94	
JOB No			HEIGHT DATUM <u>AHD</u> BEARING _				DATE COMPLETED _2	<u>8/11</u>	/14 DRILLER Hinterland	
R.L. (m) H Ld H D 253.63	AUGER CASSING CORSH BORING CORE DRILLING BOD REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT DEFECT STRENGTH SPACING (AS1726) INTACT DEFECT SPACING (AS1726) INTACT DEFECT SPACING (AS1726)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMIPLES
	SON SON REC %		Sandy CLAY with Cobbles and Boulders (COLLUVIUM) as before SPT sample Silty CLAY, grey brown, mottled orange, moist, medium plasticity, with traces of organic material.	ОНИП	OSU CI		######################################	GRAP	Rock roller used to advance through high strength material. 15,30/130	SAMP SAMP SAMP SAMP SAMP SAMP SAMP SAMP
I SEIVICH STA						_ :			ТАН	



ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>BH6</u>
SHEET	<u>3</u> of <u>6</u>
REFERENCE No	<u>H12013</u>

PROJECT	Mt Whit	estone	e: Sle	ope Instability Investigation - Preliminary Inclin	<u>omet</u>	er_B	or	eholes			
LOCATION	At tensi	on fea	tures	<u>s</u>			_		СО	ORDINATES <u>416286.3 E; 6937684.7</u>	<u> </u>
PROJECT No	FG6128	3		SURFACE R.L. <u>263.63m</u> PLUNGE _				DATE STARTED 2	<u>5/11</u>	/14 GRID DATUM MGA94	
JOB No				HEIGHT DATUM <u>AHD</u> BEARING _				DATE COMPLETED _28	<u>8/11</u>	DRILLER Hinterland	
R.L. (m)	SORING	RQD)% CORE EC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT DEFECT STRENGTH SPACING (AS1726) SPACING (AS1726) SPACING (AS1726)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
	₹Ö R	EC %		Sandy CLAY with Cobbles and Boulders (COLLUVIUM) as before		<u>S</u> №			0	— Water loss 1lt per sec — Water loss increasing to 3lt per sec — Total water circulation loss	<u>8</u>
30								<u> </u>			=
REMARK	S		·							LOGGED BY TAH	



ENGINEERING BOREHOLE LOG

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

BOREHOLE No _____BH6 ___

SHEET ___4 __ of __6 __

REFERENCE No ____H12013 ___

	JECT				ope Instability Investigation - Preliminary Incline	omet	ter B	ore!	holes					
	ATION		nsion fea									OORDINATE		. <u>7 N</u>
					SURFACE R.L263.63m PLUNGE									
JOB	No				HEIGHT DATUM _AHD BEARING			D	ATE COMP	PLETED	_28/1	1/14	DRILLER <u>Hinterland</u>	
	R.L. (m)	SG NG	RQD ()%						INTACT TRENGTH	DEFEC		Al	DDITIONAL DATA	
DEPTH (m)	, ,	SORING	(),,,		MATERIAL	γĐ	JAI G		TRENGTH (AS1726)	(AS1726)	S LOG		AND	S
DEPT		KGAHH		SAMPLE	DESCRIPTION	LITHOLOGY				1(1	- VW GRAPHIC		TEST RESULTS	SAMPLES
30	233.63	C ≪ C A	REC %	SAI		島	USC N		Ĭ Ĭ Ĭ	úŏo≅≷ ⊥LLLL	Γ1 B Β Β Ε		TEST RESULTS	SAN
-					Sandy CLAY with Cobbles and Boulders (COLLUVIUM) as before				<u> </u>					-
-					(002200000) 40 40000				<u> </u>	-: : : : :]
									<u> </u>					
- 31							(CI) :	= = = = = = = = = = = = = = = = = = = =	-: : : : :				-
-									<u> </u>]
-								:	· · · · · · ·	-: : : : :		SandstonTotal water	e boulder er circulation loss	-
-									<u> </u>		<u> </u>	Conglome	eratic band zone of movement.	
-32	231.68				SANDSTONE	:::			: 1			- Conglome		1 - 1
-					MW: Yellow brown, medium to coarse grained, generally medium strength.			:						
_			94		Bedding generally at 10-20°.						-	- Conglome	eratic band	-
-					Conglomeratic banding with sub rounded to sub angular clasts generally 5-10mm in size.									
-33					Ironstained throughout.	: : :						Conglome	eratic band	-
-					Defects: BP: 10°- 20° (1/m); PI/Ro, OP-TI			:				Conglome Conglome	eratic band	-
-					Js: 0°- 10° (2/m); Pl-Stp/Ro, Tl-OP, ClyFL	:::					-	- Conglome	eratic band	-
					Js: 50°- 60° (1/m); Pl-Stp/Ro, OP, ClyFL, FeSt]
- 34 -							MW	/ :]
-														-
-						:::								-
- 25														-
-35 - -						:::		:	: : : : <u>-</u>					
-			100											_
-	227.88					: : :		:] =
- 36					Interbedded SILTSTONE and SANDSTONE MW:Yellow brown, very low strength.							Siltstone	clast? 50mm	
-	227.45				Defects: LP: 10° (5/m); PI/Ro, TI			+		<u> </u>		 		
-	227.03				Js: 10° (1/m); Pl/Ro, TI									-
	227.00				Interbedded SILTSTONE and SANDSTONE SW: Grey, very low strength.	:::								1 1
- -37					Defects:			:						-
[LP: 0°- 5° (2/m); PI-Stp/Ro, TI-OP, ClyFL Js: 10°-20° (3/m); PI/Ro, TI	:::	sw	, :						
-					SANDSTONE SW: Light grey, medium to coarse grained,		300	:] -
-					generally low to medium strength.									
-38			100								-	Siltstone		
<u> </u>						: : :		:					pea	
F	225.09				SANDSTONE	:::		+:		-		 		
					MW:Yellow brown, medium to coarse			:		 ::				
- 39 -					grained, generally medium to high strength. Bedding generally at 0-5°.						-	h		-
					Conglomeratic banding with sub rounded to sub angular clasts generally 5-10mm in size.		MW	/ :		<u> </u>		Conclar	aratic hand	
<u> </u>					Ironstained throughout.							— Conglome	crauc Daliu	
40						::::						Н		
	EMARK	S										-	LOGGED BY	
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ENGINEERING BOREHOLE LOG

BOREHOLE No	BH6
SHEET	_ <u>5</u> _ of _ <u>6</u> _
REFERENCE No	<u>H12013_</u> _

PROJECT	Mt W	/hiteston	e: Sl	ope Instability Investigation - Preliminary Incline	met	er B	<u>oreh</u> c	oles				
LOCATION	At ter	nsion fea	at <u>ure</u> s	<u>s</u>						CC	OORDINATES <u>416286.3 E; 6937684.7</u>	<u>_N</u>
PROJECT N	lo <u>FG6</u>	128		SURFACE R.L. <u>263.63m</u> PLUNGE				DATE ST	TARTED .	25/11	/14 GRID DATUM MGA94	
JOB No				HEIGHT DATUM <u>AHD</u> BEARING			DA	TE COM	PLETED .	28/11	/14 DRILLER Hinterland	
(m) (E) HE d H 40 223.63	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	STF	TACT RENGTH AS1726)	DEFECT SPACING (AS1726)	- EW GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
		100		SANDSTONE MW: as before Defects: LP: 10°- 20° (<1/m); Pl/Ro, OP-TI Js: 5° (<1/m); Un/Ro, TI- Js: 20°- 30° (1/m); Un/Ro, OP Js: 60°- 80° (<1/m); Un/Ro, OP, ClyFL		MW						
221.32				SANDSTONE SW:Light grey, medium to		SW						_
220.32				coarse grained, generally medium to high strength. LP: 0° (1/m); Un/Ro, OP SANDSTONE MW:Yellow brown, medium to coarse grained, generally medium to high strength. Bedding generally at 5°. Conglomeratic banding with sub rounded to sub angular clasts generally 5-10mm in size. Ironstained throughout.		MW			-		Petrified wood	
- 44 		100		Js: 20°- 30° (3/m); Pl-Un/Ro, TI SANDSTONE SW:Pale grey, fine to medium grained, medium to high strength. Bedding at 0-5°. Conglomeratic banding with sub rounded to sub angular clasts generally 5-10mm in size. Occasional coal wisps, organic inclusions and sub-angular to sub rounded clasts up to 15mm in size. Defects: BP: 0° (<1/m); Un-Stp/Ro, OP-TI Js: 0°- 5° (<1/m); Un/Ro, TI Js: 10°- 20° (<1/m); Un/Ro, TI Js: 75° (1/m); Un/Ro, OP, ClyFL		SW						
		100						-			— Broken zone — Coal seam at 10° — Corposio inclusione	
											→ Organic inclusions → Coal seam at 20° → Inclinometer installed → Organic inclusions → Organic inclusions	
REMARK	(S										LOGGED BY TAH	
											·	



ENGINEERING BOREHOLE LOG

BOREHOLE No	BH6
SHEET	<u>6</u> of <u>6</u>
REFERENCE No	H12013

PRO	JECT	Mt W	/hiteston	e: S	lope Instability Investigation - Preliminary Incline	met	ter E	Bore	eholes				
LOC	ATION	At ter	nsion fea	at <u>ure</u>	<u>s</u>	. — .					CC	ORDINATES <u>416286.3 E; 6937684.</u>	7 N
PRO	JECT No	FG6	128		SURFACE R.L. <u>263.63m</u> PLUNGE				DATE S	TARTED 2	<u>5/11</u>	/14 GRID DATUM MGA94	
JOB	No				HEIGHT DATUM AHD BEARING			ı	DATE COM	IPLETED _2	<u>8/11</u>	DRILLER Hinterland	
DEPTH (m)	R.L. (m)	UGER ASING VASH BORING ORE DRILLING	RQD ()%	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	JSC	VEATHERING EH	INTACT STRENGTH (AS1726)	DEFECT SPACING (AS1726) UO SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
_ 50 -	213.63 213.43	 40≥0	REC %	S	SANDSTONE MW: as before	:::	⊃ : SV	N			9		o ⊢
-	213.43		100		Borehole terminated at 50.2m		00	-		- : : : : :		Inclinometer installed	-
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CORE PHOTO LOG

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



			/
Project Name	Mt Whitestone (Detailed Investigation)		
Project No.	FG6196	Start Date	25/11/14
Borehole No.	BH 6	Finish Date	28/11/14
Location		Start Depth (m)	31.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	50.20
Chainage	15.04-15.40km	Submitted By	TH
Remarks			



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CORE PHOTO LOG

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



Project Name	Mt Whitestone (Detailed Investigation)		
Project No.	FG6196	Start Date	25/11/14
Borehole No.	BH 6	Finish Date	28/11/14
Location		Start Depth (m)	31.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	50.20
Chainage	15.04-15.40km	Submitted By	TH
Remarks			



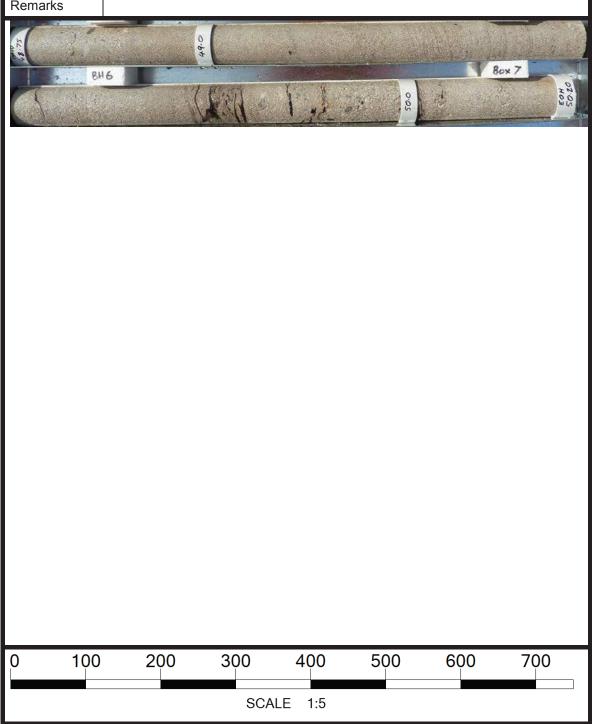
Page 2 GEOT043/2

CORE PHOTO LOG

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



Project Name	Mt Whitestone (Detailed Investigation)			
Project No.	FG6196	Start Date	25/11/14	
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Detail	Gatton Clifton Rd -313	Finish Depth (m)	50.20	
Chainage	15.04-15.40km	Submitted By	TH	
Remarks				
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Stand Pipe Details - SP6

