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	BOREHOLE RECORD							SHEET 1					
ARUP				D		BH0	3		OF 3				
CLIENT PROJECT	TMR BHAP C	attle an	d Fran	ices Cr	eeks Upgrade Project Ground Investigation	LOGGED CHECKE	D BY		Roberts				
CONTRACTOR DRILL MODEL DRILLER	Cairr MST	ns Drillin 1500 Bacon (g Pty	ANGLE BEARING -	DRILLED GROUNE LOCATIO ELEVATION COORDINA) LEVEL DN	Australia	-13 3 E 7928630 N In Height Datum d of Australia (MGA					
DRILLING		STRA	TA		MATERIAL DESCRIPTION	СС	NDITION	1994)	OBSERVATION				
SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.	DEPTH	GROUP SYMBOL	LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	MATER/ AOISTURE		NON DHESIVE	SOIL ORIGIN, STRUCTURE, ETC.				
-		0.15	-		PAVEMENT/BASE COURSE.				FILL				
- B 		0.85 1 1.10 2	SW CI CH		Gravelly Clayey SAND (SW) fine to coarse grained, orange brown, gravel is fine grained, subrounded, dry to moist. Gravelly CLAY (CI) intermediate to high plasticity, black, gravel is fine grained, subrounded moist. - CLAY trace Sand (CH) high plasticity, grey mottled black, becoming grey mottled orange brown, sand is fine grained, moist. 1.50m As above, grey mottled orange-brown	- M - M			FILL				
. SPTLS N=8 3;4,4 -	-	2.55 3	SP		- SAND trace Clay and Gravel (SP) medium to coarse grained, brown, gravel is fine grained, quartz rich, moist.	- M			ALV				
SPTLS N=6 1;2,4		4			3.50m SAND, as above, mainly quartz - 4.00m SAND with Clay, medium to coarse grained, grey								
В		5 5.00	GP	000	GRAVEL with Sand (GP) fine to medium grained, rounded to - subangular grey, brown and white, sand is coarse grained quartz,				ALV				
. SPTLS 30/130s		5.40 6	СН		angular, moist. CLAY trace Sand (CH) high plasticity, grey, sand is fine grained, moist. 	M			ALV				
- - - B					 angular, slow drilling (very hard), with chippings from indurated bands 6.50m Becomes grey mottled orange, driller notes easier drilling 	- - - M							
- - - SPTLS N=29 - 12;10,19		7 7.30				- M			-				
SPTLS N=11 3;5,6	+++++++++++++++++++++++++++++++++++++++	9 9	SP		SAND with Clay trace Gravel (SP) fine grained, quartz, subangular, grey and orange, gravel is fine grained quartz Dmax 3mm, moist.	- M			ALV				
NOTES									^{јов} 231518-07				

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ARL			BOREHOLE RECORD					BH03				OF 3	
CLIENT PROJECT	TMR BHAP C	MR BHAP Cattle and Frances Creeks Upgrade Project Ground Investigation						CHECKED BY Natha				n Shaw an Roberts	
CONTRACTOR DRILL MODEL DRILLER	MST	rns Drilling Pty Ltd ANGLE T 1500 BEARING - K Bacon (Cairns Drilling) HOLE DIAMETER ()						ELEVATION DATUM Austra				113 E 7928630 alian Height Datum Grid of Australia (MG	
DRILLING		STRA	CONDITIC				1994) ON		OBSERVAT				
Sample, test, Bit, support, Etc.		DEPTH	GROUP SYMBOL	LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER / MOISTURE	СОН	CON: HESIV	/E	NON COHES	IVE	SOIL ORIO STRUCTU ETC.	
SPTLS N=14 - 4;7,7 -	mAHD - -	m	SP		SAND with Clay trace Gravel (SP) fine grained, quartz, subangular, grey and orange, gravel is fine grained quartz Dmax 3mm, moist. (<i>continued</i>) 10.00m SAND with Clay, medium grained, grey, angular quartz sand	-	S o I	TS	°±≥	, 18		ALV	
- - - - SPTLS N=15 - 3;7,8 -		- 11 11.30	SP	· · · · · · · · · · · · · · · · · · ·	- - - Gravelly SAND with Clay (SP) coarse grained, grey, gravel is fine grained, angular to subrounded, moist. - -	-						ALV	
- - - - SPTLS N=16 - 4;9,7		- 13			12.60m As above, clay content increases 13.00m As above, gravel Dmax 25mm fine to coarse grained clasts - consist of sandy mudstone/grey cemented sand	-							
- - - - SPTLS N=48 - 12;24,24 - -		- 14 14.50 - 15	SP		- - - SAND with Clay trace Gravel (SP) medium to coarse grained, grey, gravel is fine to coarse grained, moist. -	- - - - - -	-					ALV	
- - - SPTLS N=21 - 8;9,12 - -	+	- 16			16.00m SAND with Clay trace Gravel, medium to coarse grained, - angular, brown-grey, gravel is fine grained	- - - - - -	-						
- - - SPTLS N=13 - 5;5,8	-				 17.50m As above, trace Gravel is medium to coarse grained, consists of subangular clasts of cemented sandstone 	-							
- - -		- 18			- - 18.30m SAND as above, no coarse gravel -	-							
SPTLS N=22 8;11,11	+	- 19			19.00m SAND with Gravel and Clay, coarse grained, grey, gravel is - fine to medium grained quartz, subrounded	-							

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ARU	Л		BOREHOLE RECORD				BH03			OF 3	
CLIENT	TMR					LOGGED BY R				obyn Shaw	
PROJECT		attle and	d Fran	ces Cr	eeks Upgrade Project Ground Investigation	CHECKED BY DRILLED DATE				n Roberts	
CONTRACTOR DRILL MODEL DRILLER	MST	ims Drilling Pty Ltd ANGLE T 1500 BEARING - k Bacon (Caims Drilling) HOLE DIAMETER ()						GROUND LEVEL LOCATION 409 ELEVATION DATUM Aust COORDINATE SYSTEM Map			
DRILLING		STRAT	ΓA			COND	TION	1994)	OBSERVA		
SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.	DEPTH	GROUP SYMBOL	LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER / MOISTURE	COHESIV	E COH	ON IESIVE	SOIL ORI STRUCTI ETC.	
_	mAHD	m	8 B		SAND with Clay trace Gravel (SP) medium to coarse grained, grey, gravel is fine to coarse grained, moist. (continued)		SV ST ST ST	, ⊥ , ⊥ ,	₽₀₽	ALV	
SPTLS N=22 7;8,14		21 22 22.00	CI		Sandy CLAY (CI) intermediate to high plasticity, grey stained orange-red, sand is medium grained, moist.	- - - - - -				ALV	
NOTES		22.29 23 24 25 26 27 28									
- - - - - - - - - - - - - - - - - - -		29			· · · · ·	-		JC			