



William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists										DDH – SF11										
Engineering log – Cored borehole										Sheet 1 of 1										
Incorporating the Unified Rock Classification System (URCS)																				
Project HYDRO TASMANIA DUNGROVE SCHEME						Location Southernfield (dam axis, western end)														
Coordinates			Drill type		Hole started		12 February 2008													
Approx 489970mE 5320630mN			Equipment		Hole finished		13 February 2008													
Datum GDA94			Drill fluid(s)		Drilled by		D. Roberts													
RL Approx. 554m ASL			Water		Checked by		D. Bear													
Inclination Vertical			Bearing		Logged by		W. Cromer													
Bit type/size			Rock substance			Rock mass defects														
Case type/size/lift			Substance description			Weathering		Est. strength		Nature of defects		Defect spacing (mm)		Defect description		Geol Interp				
Fluid loss/water			rock type, grain characteristics, colour, structure, minor components			A B C D E		A B C D E		A B C D E		30 100 300 1000 3000		Thickness type, inclination, planarity, roughness, coating						
Notes Sample test: unit weight (UW g/cc)			Core recovery			Vertical depth		Inclined depth		Graphic log		Significant		General						
20% 40% 60% 80%			20% 40% 60% 80%			metres		metres												
Casing advanced			Packer test 1.34m to 5.0m No flow			1		2		3		4		5		6		7		
1.34m			No flow			becoming more massive		X		A		Highly fractured 3.75-4.0m clean joints to 3mm, brown, oxide staining		1mm joints, closely spaced clean, planar		1mm joint, angular, clean, planar		Highly fractured, 1mm joints, closely spaced, clean planar		
End of hole 8.4m			9			End of hole 8.4m												Highly fractured Jurassic dolerite		
Drilling T = Triple tube coring B = Blade R = Roller/Troone A = Auger W = Wash boring DT = Double tube coring HAM = Rotary hammer Case lift Fluid loss Casing used No loss 50% loss 100% loss Barrel withdrawn			Water Unit weight (UW, g/cc) A = >2.55 B = 2.40-2.55 C = 2.25-2.40 D = 2.10-2.25 E = <2.10 Strength Hammer impact test Approx. point load strength index Is(50) MPa Approx. UCS MPa A = rebound (RO) >4 >103 B = pl (PO) 2-4 55-103 C = dent (DQ) 1-2 21-55 D = crater (CQ) 0.25-1 7-21 E = moldable, friable (MQ) <0.25 <7 Note: X on log is test result. Otherwise, strength is visually estimated. US = Unconfined Compressive Strength			Samples and Notes R = SPT penetration refusal D = Disturbed sample N = Standard Penetration Test pp = Hand penetrometer test SV = In-site Shear Vane test CS = Core Sample Ux = Undisturbed tube sample (x mm diameter) Nd = SPT and Disturbed Sample			Soil consistency Fine grained soils VS = Very Soft S = Soft F = Firm SI = Stiff VSI = Very stiff H = Hard			Defects Joint Shear zone Infill seam Ven Crush zone EW seam A = Solid random breaks (SRB) B = Solid preferential breaks (SPB) C = Solid latent breaks (SLB) D = Non intersecting planes (2-D) E = Intersecting open planes (3-D)			Soil density index Fine grained soils Fb = Frangible NY = Very Loose L = Loose MD = Medium Dense D = Dense VD = Very Dense			Core loss Core loss (interval known) Core loss (interval unknown) Loss is shown in Graphic log column at top of run		

