Hydro Tasmania

Consulting Business Unit
Civil Engineering
Engineering Log - Borehole

Borehole no: GANTRY EAST
Sheet 1 of 2

Job n P207448 file:

Project: **George Town Substation Geotechnical Investigation**

Borehole Location: 490303E 5446902N

Borehole commenced: 9/12/08
Borehole completed: 9/12/08
Borehole Logged by: Bruce Taylor
Log Checked by: C J D

Drill model and mounting: Poltock Special
hole diameter: 56mm
slope: 90
bearing: n/a
R.L surface 55m
datum GDA
Driller: Mark Barnett

drilling information							material substance						
method	penetration 1 2 3	support	water	notes samples tests, etc	R.L	depth metres	graphic log	classification symbol	material: soil type; plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency, density index	hand penetrometer kPa 100 200 300 400	structure and additional observations
T				pp: 300kpa from 4-6					TOPSOIL				
				pp: 250 - 350kpa from 1.75 - 1.2		1		GC	Fill, Sand, gravel, silt, grey clayey GRAVELS AND SAND, orange brown, bulk sand, rock frags	D M	Fb VSt		
				pp: 400kpa @ 1.5				CL	Silty CLAY, medium plasticity, orange red brown, moderate, sand, gravel and minor rock frags	M	VSt		
				pp 550kpa @ 1.8		2							
Nq				pp: 250-350 kpa @ 2.3									
C				pp: 350kpa @ 2.5		3							
o				pp: 450kpa @ 2.8					CORE LOSS, Silty clay				
r						4							
e				pp: 150-250 kpa @ 4.0				CL	Silty CLAY	M	VSt		
V						5			Refer to core "Rock" Log from 4.3m to 7.05m				
						6							
						7							

KEY

method
- AS auger screwing*
- AD auger drilling*
- RR roller/tricone
- W washbore
- CT cable tool
- HA hand auger
- DT diatube
- B blank bit
- V V bit
- T TC bit
- * bit shown by suffix e.g. ADT

support
- T - timbering
- C - casing
- N - Nill

penetration
- 1 2 3 no resistance ranging to refusal

water
- level (date)
- inflow
- outflow

notes - samples and tests
- U_{50} undisturbed sample 50mm diameter
- D disturbed sample
- N standard penetration test (SPT)
- N SPT - sample recovered
- Nc SPT with solid cone
- V vane shear (kPa)
- P pressure meter
- Bs bulk sample
- R refusal

classification symbols and soil description based on Unified Classification System

moisture condition
- D dry
- M moist
- W wet
- Wp plastic limit
- Wl liquid limit

consistency/density index
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very looose
- L loose
- MD medium dense
- D dense
- VD very dense

Hydro Tasmania

Consulting Business Unit
Civil Engineering
Engineering Log - Corehole

corehole no: GANTRY EAST
Sheet 2 of 2

Job no: P207448 file:

Project: Georgetown Substation Geotech hole commenced: 9/12/08
corehole location: 490303E 5446902N hole logged by: B. Taylor hole checked by: CJD

drill model and mounting: Poltock Special hole inclination: 90° R.L surface:
barrel type and length: 1.5 metres fluid: water datum: GDA94 driller: M. Barnett

drill data			rock substance					rock mass defects		
method	water	depth metres	graphic log	substance description: rock name, grain size, texture and fabric, colour, minor components.	weathering	strength Is (50) EL VL L M H EH	PLT A= Axial test D= Diametral	defect spacing mm 50 100 300 1000 >3000	RQD %	defect description: type, orientation, planarity, roughness, thickness, coating — particular / general
		1								
		2		Refer to "Soil" Log from 0 to 4.3m.						
		3								
		4								
NQ Core ↓		5		BASALT, medium grained, vesicles, variably XW and SW.	XW	X	D=.17		0	very fractured, numerous orientations of joints. Some curvilinear defects associated with spheroidal weathering
					DW	X	D=.40			
		6			SW				95	
					SW/DW	X	D=7.9		0	
		7								
		8		Hole terminated @ 7.05m						

method
AS auger screwing
AD auger drilling
R roller/tricone
W washbore
T HQ tube
BQ core
NQ core
HQ core

water
6 May, 07 water level date shown
water inflow
partial drilling water loss
complete drilling water loss

graphic log/core loss
core recovered (hatching indicates material)
no core recovered

weathering
RS - residual soil
XW - extremely weathered rock
DW - distinctly weathered rock
SW - slightly weathered rock
FR - fresh rock

strength
(indirect tensile strength)
X = Point Load Test
EL- extremely low
VL- very low
L- low
M- medium
H- high
VH- very high
EH- extremely high