REF No 24407

SKM

GDA 94

# BOREHOLE No. BHP4

Sheet 1 of 1

| | | | | | |
|---|---|---|---|---|---|
| Project: Alinta Crossing | Client: Transend Networks | Driller: KMR Drilling | Northings: 5445712.6mN | Logged: ARE |
| Location: Bell Bay Power Station | Start - Finish Date: 08/08 - 08/08/07 | Rig: Explore 50 | Eastings: 492202.1mE | Checked: DJS |
| Job No: VT30282.2 | Bore dia: 100mm | Surface Conditions: Native bush | RL: 25.256m AHD | Oriented: -90 |

| LAB DATA | | MINOR DEFECT DATA | | FIELD DATA | | | | ROCK DESCRIPTION | | ROCK CONDITION | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| dry density (t/m³) | moisture content (%) | minor defect description: type, dip/dip direction, colour, coating, thickness (mm), roughness | minor defect spacing (mm) 5 20 100 500 2000 | field & other tests | sample type | field tests | ground water depth (m) | graphic log | rock type, degree of weathering, colour, grain size, texture and fabric, structure, angle of bedding dip, geological formation<br>major defect description - type, dip, colour, filling, thickness (mm), roughness | rock or soil strength | moisture condition | drilling method, well construction, water and additional observations |
| | | | | Suv=17<br>Sur=13 | X | | | | CLAY (CH)<br>high plasticity, brown, dolerite, fragments of angular fresh dolerite <30mm | VS | M | HQ3 diamond drilling<br>Regolith Dolerite<br>Overburned<br>Jurassic Dolerite<br>Bedrock |
| | | | | 0.20 | | | | | DOLERITE (FR)<br>medium grained, dark blue | H | | |
| | | Sv70(Fe)1(ro) | | | | | | | | | | |
| | | | RQD 25% | | | | 0% | | | | | |
| | | Sv70(Fe)1(ro) | | | | | | | | | | |
| | | Sv30(CH)10(sm) | | 0.80 | | | | | | | | |
| | | | | | | | 1 | | | | | |
| | | | RQD 84% | | | | 0% | | | | | |
| | | Sv10(Fe)1(ro) | | | | | | | | | | |
| | | Sv10(Fe)10(ro) | | 1.75 | | | | | | | | |
| | | | | | | | 2 | | | | | |
| | | | | | | | | | DOLERITE (DW) | M | | |
| | | | RQD 76% | | | | 0% | | | H | | |
| | | Sv30(Fe)1(ro) | | | | | | | | | | |
| | | Sv40(Fe)1(ro) | | | | | 3 | | | | | |
| | | Sv5(Fe)2(ro) | | | | | | | | | | |
| | | | | 3.25 | | | | | | | | |
| | | | | | | | | | Bore terminated at 3.25m in fresh dolerite bedrock as defined by scope of works.<br>Borehole backfilled with cement to surface level. | | | |
| | | | | | | | 4 | | | | | |
| | | | | | | | 5 | | | | | |

SKM 001 ROCK DRILL SITES ALINTA.GPJ SKM_001_20070906_DJS.GDT 11/9/07

**LABORATORY DATA**
UCN Unconfined Comp. Strength (MPa)
UCS Unconfined Comp. Strength (MPa)
TQN Unconsolidated Undrained Triaxial
TQS Unconsolidated Undrained Triaxial
N = Natural S = Saturated

**GROUNDWATER SYMBOLS**
▼ = Water level (static)
▽ = Water level (during drilling)
◀ ▶ = Outflow / Inflow

**MINOR DEFECT DATA** (<10mm thickness)
B Bedding plane joint
Sv Sub-vertical joint
Sh Sub-horizontal joint
T Transverse to bedding plane
RQD % core run >100mm long

**FIELD DATA ABBREVIATIONS**
Is(50) Point Load Index (MPa)
N SPT blows per 300mm
FPM Field permeability (packer)

**FIELD DATA SYMBOLS**
Packer Interval
Point Load Test
Standard Penetration Test (SPT top = start of N blowcount)
Core recovered
10% % Core Loss per Run
Large core >100mm long
Small core <100mm long

**MAJOR DEFECT DATA** (>10mm thickness)
SH Sheared seam
CR Crushed seam
NF Infilled seam
EW Extremely Weathered seam

**MOISTURE CONDITION**
D = Dry M = Moist W = Wet

**ROCK STRENGTH** (Is(50) Point Load Index)

| | | |
|---|---|---|
| EL | Ext. low | <0.03 |
| VL | Very low | 0.03-0.1 |
| L | Low | 0.1-0.3 |
| M | Medium | 0.3-1.0 |
| H | High | 1.0-3.0 |
| VH | Very high | 3-10 |
| EH | Ext. high | >10 |