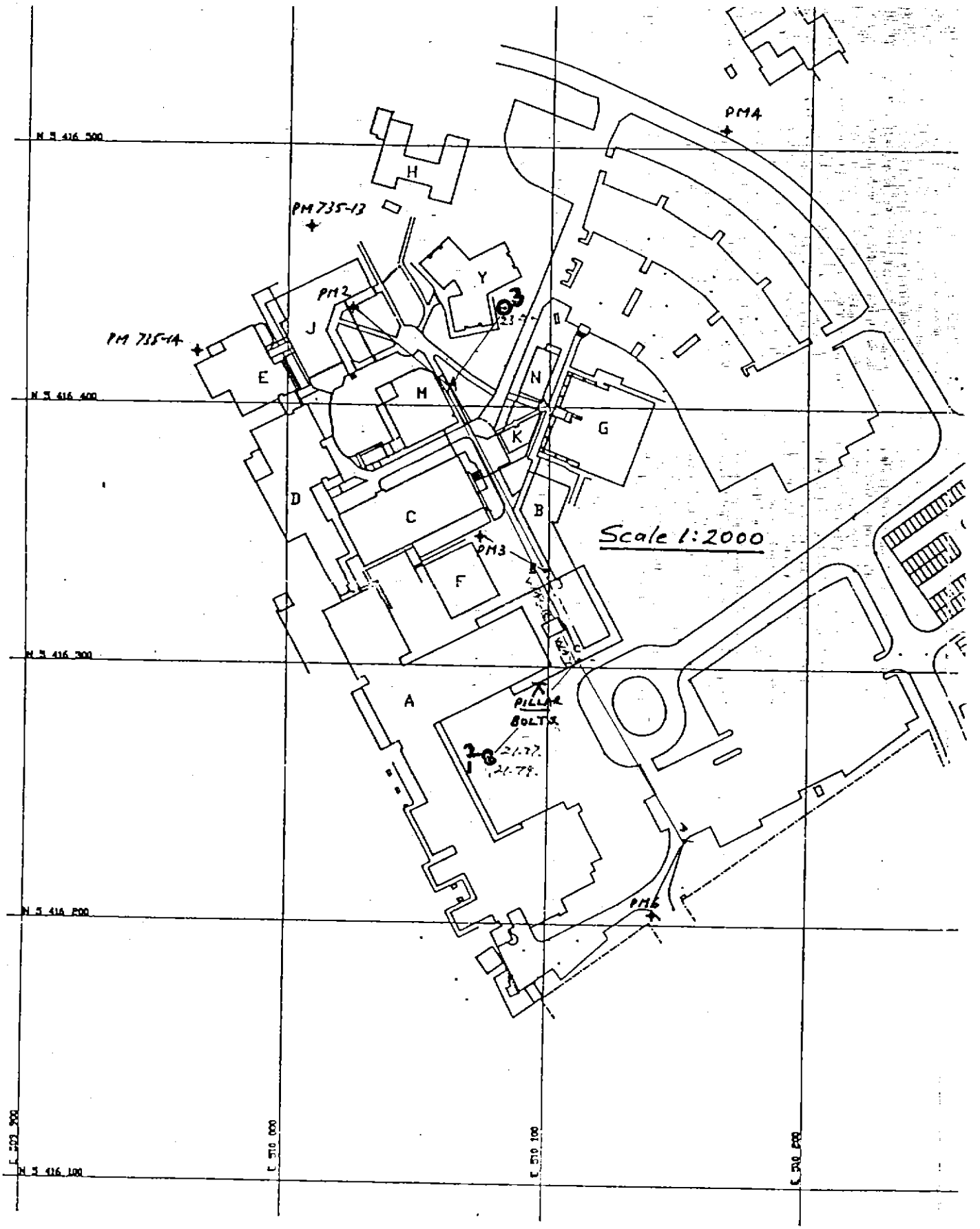
35 240

B.I.T.




Scale

TASMANIA DEPARTMENT OF MINES

Ref No: 14678

# ENGINEERING LOG – CORED BOREHOLE

35 241

borehole no. 1

sheet 1 of 1

project TSIT NEWNHAM CAMPUS location 'A' BLOCK

co-ordinates 510 079.71
5416 262.60

R.L

inclination

bearing

drill type GEMCO 200 D

drill method NQTT

drill fluid polymer mud

hole commenced 25-11-87

hole completed 25-11-87

drilled by G. BAKER

logged by B. WELDON

checked by

| drilling information | | | | | | | rock substance | | | | rock mass defects | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| case-lift | fluid loss | water | notes | lugeons 0.3 3 10 30 100 | metres R.L | metres depth | graphic log | substance description rock type: grain characteristics, colour, structure, minor components. | weathering | strength VL L M H VH | defect spacing mm. 30 100 300 1000 3000 | defect description thickness, type, inclination, planarity, roughness, coating. significant / general |
| | | | | | | | | CORE LOSS | | | | |
| | | | | | | | | SILTY CLAY: med. plasticity M.C. > P.L. ORANGE - grey-red some sub-rnd fine-med size gisite and dol. gravel | | | | |
| | | | | | | 0.85 | | CORE LOSS | | | | |
| | | | LAB TEST | | | 1.40 | | SILTY CLAY: medium plasticity M.C. < P.L. GREY - orange - brown some sub-rnd med-coarse size sand (quartz and lithic fragments) | | | | |
| | | | | | | 1.70 | | | | | | |
| | | | | | | 2.10 | | SILTY CLAY: as above but M.C. > P.L. | | | | |
| | | | LAB TEST | | | 2.20 | | SILTY CLAY: medium plasticity M.C. < P.L. GREY - orange - brown some sub-rnd medium size sand | | | | |
| | | | | | | 2.50 | | SANDY CLAY: medium plasticity M.C. ≃ P.L. BROWN - yellow - grey some fine gravel size clay pellets fine - medium size sub-rnd sand | | | | |
| | | | LAB TEST | | | 3.80 | | CLAY: high plasticity M.C. ≃ P.L. red - grey - yellow | | | | |
| | | | | | | 3.94 | | SANDY CLAY: medium plasticity M.C. ≃ P.L. BROWN - grey | | | | |
| | | | | | | 4.00 | | SILTY CLAY: medium plasticity M.C. ≃ P.L. BROWN - GREY | | | | |
| | | | LAB TEST | | | | | Sandy texture in places fine - medium size sand sub-round lithic fragments dominant with traces of sub-round quartz | | | | |
| | | | LAB TEST | | | 5.50 | | Some ellipsoidal clay pellets up to 15mm across (longest dimension). | | | | |
| | | | LAB TEST | | | 7.00 | | | | | | From about 7m depth down core appears more lithified than material above |
| | | | LAB TEST | | | 8.50 | | | | | | |
| | | | LAB TEST | | | 9.25 | | | | | | |
| | | | END | | | 10.00 | | | | | | |

In general defects are bedding plane partings at 15°-20° from the horizontal
Defect surfaces are usually planar with moderate roughness. Some are clay coated and smooth. From about 6.5m depth some defects are coated with a dark brown to black substance - possibly manganese.

TASMANIA DEPARTMENT OF MINES

Ref No 16679

# ENGINEERING LOG – CORED BOREHOLE

35 242

borehole no. 2

sheet 1 of 1

project TSIT NEWNHAM CAMPUS location 'A' BLOCK

co-ordinates 510 079.00
5416 263.55

R.L

inclination

bearing

drill type GEMCO 200D

drill method NQTT

drill fluid polymer mud

hole commenced 25-11-87

hole completed 25-11-87

drilled by G. BAKER

logged by B. WELDON

checked by

| drilling information | | | | | | rock substance | | | | rock mass defects | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| case-lift | fluid loss | water | notes | lugeons 0.3 1 10 30 100 | metres R.L / depth | graphic log | substance description: rock type: grain characteristics, colour, structure, minor components. | weathering | strength | defect spacing mm. 30 100 300 1000 3000 | defect description: thickness, type, inclination, planarity, roughness, coating. significant / general |
| | | | | | 0.17 | | CORE LOSS | | | | |
| H | | | | | 0.45 | | SILTY CLAY: medium plasticity M.C. > P.L. GREY-orange - some gravel | | | | |
| | | | | | 0.65 | | CORE LOSS | | | | |
| H | | | | | 1.00 | | SILTY CLAY: medium plasticity M.C. > P.L. ORANGE - grey - red | | | | |
| | | | | | 1.06 | | CLAY: medium plasticity M.C. ≈ P.L. silty GREY-red-orange. MC < P.L below 1.20m | | | | |
| H | | | | | 1.60 | | | | | | |
| | | | | | | | CORE LOSS | | | | |
| | | | | | 2.22 | | | | | | |
| H | | | | | 2.50 | | SILTY CLAY: medium plasticity M.C. < P.L. GREY-orange | | | | |
| | | | | | | | Borehole terminated at 2.50m depth for installation of shallow depth survey marker | | | | |

Ref No 14680

TASMANIA DEPARTMENT OF MINES

# ENGINEERING LOG – CORED BOREHOLE

35 243

borehole no. 3
sheet 1 of 1

project TSIT NEWNHAM CAMPUS location 'Y' BLOCK

co-ordinates 510 083.5
5416 437.0
R.L
inclination
bearing

drill type GEMCO 200D
drill method NQTT
drill fluid polymer mud

hole commenced 26-11-87
hole completed 26-11-87
drilled by G. BAKER
logged by B. WELDON
checked by

| drilling information | | | | | | rock substance | | | | rock mass defects | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| case-lift | fluid loss | water | notes | lugeons 0.3 1 3 10 30 100 | metres R.L | depth | graphic log | substance description rock type: grain characteristics, colour, structure, minor components. | weathering | strength VL L M H VH | defect spacing mm. 30 100 300 1000 3000 | defect description thickness, type, inclination, planarity, roughness, coating. significant / general |
| | | | | | 0.27 | | | core lost<br>SILTY SAND low plasticity Grey with rootlets | | | | |
| | | | LAB TEST | | 0.35<br>0.55 | | | SILTY to SANDY CLAY: medium to high plasticity M.C. > P.L. ORANGE - red-grey to 0.43m depth Then GREY - orange - red. fine - medium size sand - mostly lithic fragments with some quartz; laterised tense 0.82 - 0.83m depth | | | | |
| | | | | | 0.63 | | | | | | | |
| | | | | | 1.45 | | | | | | | |
| | | | LAB TEST | | 1.65 | | | SILTY CLAY: medium - high plasticity; M.C. < P.L.; GREY - red - brown - orange; some fine size sand | | | | |
| | | | LAB TEST | | 2.50 | | | | | | | |
| | | | | | 3.40 | | | | | | | |
| | | | LAB TEST | | 3.48 | | | core loss<br>SILTY CLAY: medium - high plasticity M.C. < P.L. RED - brown - grey | | | | |
| | | | | | 3.72 | | | SANDY CLAY: medium plasticity M.C. ≃ P.L. medium size sand | | | | |
| | | | | | 4.00 | | | SILTY CLAY: medium plasticity M.C. < P.L. BROWN - yellow | | | | grey clay on defects at 4.11 + 4.13 m |
| | | | LAB TEST | | | | | | | | | |
| | | | LAB TEST | | 5.50 | | | CLAYEY SAND: moderately dense Medium plasticity; MC > P.L.; brown; medium - coarse sand size; clay pellets | | | | |
| | | | | | 5.70 | | | | | | | |
| | | | | | 5.95 | | | SILTY SANDY CLAY: medium plasticity M.C. < P.L. LIGHT BROWN - yellow - orange. medium size sand mostly lithic fragments | | | | from about 5m depth on core appears more lithified than material above |
| | | | LAB TEST | | | | | | | | | |
| | | | | | 7.00 | | | | | | | |
| | | | LAB TEST | | | | | | | | | |
| | | | | | 7.80 | | | | | | | |
| | | | | | 8.00 | | | | | | | |
| | | | LAB TEST | | 8.50 | | | GRAVELLY SILTY CLAY: medium plasticity M.C. ≃ P.L. BROWN - yellow - grey medium to coarse size dolerite gravel (dolerite variably weathered from moderate to slightly) | | | | |
| | | | | | 9.20 | | | SILTY CLAY: medium plasticity M.C. ≃ P.L. BROWN - yellow some medium size sand mostly lithic fragments | | | | |
| | | | END | | | | | | | | | |

In general defects are bedding plane partings at 15°-20° from the horizontal. Defect surfaces are usually planar with moderate roughness. Some are clay lined (grey) and smooth. Below 7m dark grey - black coating, probably manganese.