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BOREHOLE RECORD

HOLE **BH4**

SHEET 1
OF 3

PROJECT Yandina Highway Upgrading
Preliminary Geotechnical Investigation

LOCATION see Fig.2.
GROUND LEVEL

CONTRACTOR Christensen Drilling
DRILL MODEL Jacro 350
MOUNTING Truck

ANGLE 90
BEARING —
DIAMETER 100mm

LOGGED BY PFW/BS
DATE/S 19 OCT '93

| DRILLING | STRATA | | | MATERIAL DESCRIPTION | CONDITION | OBSERVATIONS |
|---|--------|-------|--------------|--|--------------------|------------------------------------|
| SAMPLE, TEST, BIT, SUPPORT ETC | R.L. | DEPTH | GROUP SYMBOL | LEGEND | WATER/ MOISTURE | CONSISTENCY |
| | AHD | m | | | | SOIL ORIGIN STRUCTURE, ETC |
| AD-T | | 1.5 | SM | TOPSOIL | M | TOPSOIL |
| | | 3.0 | CL | Silty SAND: brown, fine grained sand. Silty CLAY: grey, medium plasticity, containing some silt. | | RESIDUAL SOIL |
| | | 1.0 | | | | |
| | | 2.0 | | As Above: but change in colour to brown-grey. | | |
| SPT:10,21,32 *N=53 | | 3.0 | | As Above: mottled grey, appearance of some fine sand. | | RESIDUAL ROCK (texture evident) |
| AD-T | | 4.0 | | | | |
| | | 4.5 | | As Above: mottled grey colour, trace of fine gravel, clasts of volcanic rock (<10mm). | | EW ROCK |
| SPT:12,13,15 *N=28 | | 5.0 | | | | |
| | | 6.0 | | | | |
| | | 7.0 | | EW/HW VOLCANIC TUFF: (Hard drilling with TC bit). | | EW/HW ROCK (Volcanic Tuff) |
| | | 7.5 | | | | |
| SPT:30/50 refusal | | 8.0 | | | | |
| NOTES 1. 6.8m at 302' from PCP81 to BH4. 2. AD-T drilling from 7m: increased difficulty in drilling. 3. Bulk sample of drill cuttings 5.0m - 7.0m. | | | | | FIGURE | JOB 7472/4 |

BOREHOLE RECORD

HOLE **BH4**

SHEET 2
OF 3

| | | | | | |
|-------------|---|----------|-------|-----------|------------|
| PROJECT | Yandina Highway Upgrading Preliminary Geotechnical Investigation | | | LOCATION | see Fig.2. |
| CONTRACTOR | Christensen Drilling | ANGLE | 90 | LOGGED BY | PFW/BS |
| DRILL MODEL | Jacro 350 | BEARING | — | DATE/S | 19 OCT '93 |
| MOUNTING | Truck | DIAMETER | 100mm | | |

| DRILLING | STRATA | | | | MATERIAL DESCRIPTION | | CONDITION | | OBSERVATIONS | |
|--------------------------------------|--------|-------|--------------|--------|--|--------------------|-------------|--------|-------------------------------|--|
| SAMPLE, TEST, BIT, SUPPORT ETC | R.L | DEPTH | GROUP SYMBOL | LEGEND | SOIL TYPE Colour, Plasticity, Grain Size, Minor Components | WATER/ MOISTURE | CONSISTENCY | | SOIL ORIGIN STRUCTURE, ETC | |
| | AHD | m | | | | | SL | LL | | |
| AD-T | | 8.0 | | | EW/HW VOLCANIC TUFF | M | | | EW/HW ROCK (Volcanic Tuff) | |
| | | 8.8 | | | T.C bit refusal at 8.8m. Borehole continued by coring - see Sheet 3. | | | | | |
| | | 9.0 | | | | | | | | |
| | | | | | | | | | | |
| | | 10.0 | | | | | | | | |
| | | | | | | | | | | |
| | | 11.0 | | | | | | | | |
| | | | | | | | | | | |
| | | 12.0 | | | | | | | | |
| | | 4.5 | | | | | | | | |
| | | 13.0 | | | | | | | | |
| | | | | | | | | | | |
| | | 14.0 | | | | | | | | |
| | | | | | | | | | | |
| | | 15.0 | | | | | | | | |
| | | | | | | | | | | |
| NOTES | | | | | | FIGURE | | JOB | | |
| | | | | | | | | 7472/4 | | |

CORED BOREHOLE RECORD

HOLE **BH4**

SHEET 3
OF 3

PROJECT Yandina Highway Upgrading
Preliminary Geotechnical Investigation

LOCATION see Fig.2.
GROUND LEVEL

CONTRACTOR Christensen Drilling
DRILL MODEL Jacro 350
MOUNTING Truck

ANGLE 90
BEARING -
DIAMETER 100mm

LOGGED BY PFW/BS
DATE/S 20 OCT '93

| DRILLING | | STRATA | | MATERIAL DESCRIPTION | | DISCONTINUITIES | | | |
|------------------------------------|-------|-------------|------|----------------------|---|--|-------------------------|-------------------------|--|
| CASING RUN, REC. (%) | WATER | SAMPLE TEST | R.L. | DEPTH | SOIL TYPE Colour, Plasticity, Grain Size, Minor Components | WEATHERING | ESTIMATED ROCK STRENGTH | JOINT FREQUENCY (per m) | GENERAL CONDITION Planarity, Roughness, Coating, Infill |
| | | | AHD | m | | | | | |
| | | | | 8.0 | BH4 Auger drilled from 0.0m to 8.8m. Refer to Sheet 1 and 2 for description. | | | | |
| | | | | 8.8 | | | | | |
| 85% | | | | 9.0 | As Below: | EW | | | As Below: |
| | | | | 9.1 | CORE LOSS 50mm | | | | |
| 100% | | | | 10.0 | ALTERED SEDIMENTARY ROCK: green-purple, fine grained, extreme deformation of some bedding planes. | HW | | | Alteration and crushing common, possible faulting causing heavy fracturing at 9.8m, jointing 0-15 degrees. |
| | | | | 10.05 | | MW | | | |
| | | | | 10.05 | BH4 terminated at required depth 10.05m. | | | | |
| | | | | 11.0 | | | | | |
| | | | | 12.0 | | | | | |
| | | | | 13.0 | | | | | |
| | | | | 14.0 | | | | | |
| | | | | 15.0 | | | | | |
| | | | | 16.0 | | | | | |
| NOTES | | | | | | TYPE OF DISCONTINUITY | | FIGURE | JOB |
| 1. No water in BH4 after 14 hours. | | | | | | Jo-JOINT Be-BEDDING PLANE PARTING Fo-FOLIATED PARTING Ci-CLAY SEAM We-WEATHERED SEAM Cr-CRUSHED SEAM Sh-SHEARED ZONE | | | 747214 |