# ENGINEERING BOREHOLE LOG

Queensland Government

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No BH112
SHEET 1 of 3
REFERENCE No H10865

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - BAKER'S CREEK BRIDGE
LOCATION Pier 3, RHS COORDINATES 718802.6 E; 7655017.2 N
PROJECT No FG5635 SURFACE R.L. 6.81m PLUNGE DATE STARTED 14/10/10 GRID DATUM MGA94 Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 16/10/10 DRILLER Cairns Drilling

| DEPTH (m) | R.L. (m) | AUGER / CASING / WASH BORING / CORE DRILLING | RQD ( ) % CORE REC % | SAMPLE | MATERIAL DESCRIPTION | LITHOLOGY | USC | WEATHERING | INTACT STRENGTH (EH VH H M L VL EL) | DEFECT SPACING (mm) (20 60 200 600 2000) | GRAPHIC LOG | ADDITIONAL DATA AND TEST RESULTS | SAMPLES | TESTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6.81 | | | | **Silty CLAY (ALLUVIAL)**<br>Brown to mottled yellow-brown, moist, firm.<br><br>High plasticity; minor fine sand. | | | | | | | Based on Driller's logs only | | |
| 1 | | | | A | | | (CH) | | | | | 2,2,2<br>N=4; PP=70kPa | | SPT |
| 2 | | | | | | | | | | | | | | |
| 3 | 3.81 | | | B | **Sandy SILT (ALLUVIAL)**<br>Light brown-pale grey, moist, very stiff.<br><br>Low plasticity; minor fine grained sand with occasional coarse sand particles. | | (ML) | | | | | 8,10,19<br>N=29 | | SPT |
| 4 | | | | | | | | | | | | | | |
| | 2.31 | | | C | **GRANODIORITE**<br>**Intrusive, coarse grained, massive, crystalline, acidic igneous rock**<br>**XW:** Generally exhibits the engineering properties of pale brown, moist, occasionally stiff to mainly hard clayey sandy silt.<br><br>Minor subangular rock fragments. | | | | | | | 20,30/100mm<br>N>50 | | SPT |
| 5 | | | | D | | | | | | | | 30/100mm<br>N>50 | | SPT |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | E | | | XW | | | | | 8,13,20<br>N=33 | | SPT |
| 8 | | | | F | | | | | | | | 6,11,19<br>N=30 | | SPT |
| 9 | | | | G | | | | | | | | 6,11,17<br>N=28 | | SPT |
| 10 | | | | | | | | | | | | | | |

REMARKS

LOGGED BY
JLo / JA / ME

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BOREHOLE No **BH112**
SHEET 2 of 3
REFERENCE No **H10865**

PROJECT WALKERSTON BYPASS PROJECT GEOTECHNICAL INVESTIGATION - BAKER'S CREEK BRIDGE
LOCATION Pier 3, RHS COORDINATES 718802.6 E; 7655017.2 N
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JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 16/10/10 DRILLER Cairns Drilling

| DEPTH (m) | R.L. (m) | AUGER / CASING / WASH BORING / CORE DRILLING | RQD ( ) % CORE REC % | SAMPLE | MATERIAL DESCRIPTION | LITHOLOGY | USC | WEATHERING | INTACT STRENGTH (EH VH H M L VL EL) | DEFECT SPACING (mm) (20 60 200 600 2000) | GRAPHIC LOG | ADDITIONAL DATA AND TEST RESULTS | SAMPLES | TESTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | -3.19 | | | | **GRANODIORITE**<br>**XW:** (Cont'd) | | | | | | | | | |
| | | | | H | | | | | | | | 7,12,20<br>N=32 | SPT | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | J | | | XW | | | | | 6,11,19<br>N=30 | SPT | |
| 13 | | | | | | | | | | | | | | |
| | | | | K | Increasing plasticity and gravel content with depth. | | | | | | | 12,17,19<br>N=36 | SPT | |
| 14 | -7.69 | | | | | | | | | | | | | |
| | | | | L | **GRANODIORITE**<br>**HW:** Pale brown speckled white, dense to mainly very dense clayey sand or gravelly silty sand.<br><br>Becoming very low to low strength rock with depth. | | | | | | | 8,16,29<br>N=45 | SPT | |
| 15 | | | | M | Defects:<br>- Joints @ 20-50° (3-4/m)<br>- Joints @ 50° (1/m) | | | | | | | 17,26,30/95mm<br>N>50 | SPT | |
| 16 | | | | N | Defect surfaces are generally planar, slightly rough, open and clean. | | | | | | | 16,30/110mm<br>N>50 | SPT | |
| 17 | | | | | | | HW | | | | | | | |
| | | | | O | | | | | | | | 30/100mm<br>N>50 | SPT | o |
| 18 | | | (77) | | | | | | | | | Is(50) = 0.03MPa<br>Is(50) = 0.02MPa | | x |
| | | | 100 | | | | | | | | | | | |
| 19 | | | (39) | | | | | | | | | Is(50) = 0.03MPa<br>Is(50) = 0.03MPa | | o<br>x |
| 20 | | | 100 | | | | | | | | | Is(50) = 0.10MPa<br>Is(50) = 0.07MPa | | o<br>x |

REMARKS

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QLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY BAKERS FG5635- WALKERSTON BYPASS.GPJ <<DrawingFile>> Datgel CPT Tool gINt Add-In 01/09/2011 14:56

# ENGINEERING BOREHOLE LOG

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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No **BH112**
SHEET 3 of 3
REFERENCE No **H10865**

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LOCATION Pier 3, RHS COORDINATES 718802.6 E; 7655017.2 N
PROJECT No FG5635 SURFACE R.L. 6.81m PLUNGE DATE STARTED 14/10/10 GRID DATUM MGA94 Zone 55
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 16/10/10 DRILLER Cairns Drilling

| DEPTH (m) | R.L. (m) | RQD ( ) % / CORE REC % | MATERIAL DESCRIPTION | USC | WEATHERING | ADDITIONAL DATA AND TEST RESULTS | SAMPLES | TESTS |
|---|---|---|---|---|---|---|---|---|
| 20 | -13.19 | (61) | **GRANODIORITE**<br>**HW:** (Cont'd) | | | | | |
| 21 | | | | | | Is(50) = 0.05MPa<br>Is(50) = 0.32MPa | | o<br>x |
| | | 100<br>(56) | | | | | | |
| 22 | | | | | HW | Is(50) = 0.06MPa<br>Is(50) = 0.01MPa | | o<br>x |
| | | 100<br>63 | | | | CZ | | |
| 23 | | (0)<br>(0)<br>0<br>(40) | | | | CZ | | |
| | -16.99 | | | | | | | |
| 24 | | 100<br>(100) | **GRANODIORITE**<br>**SW:** Pale grey-black, speckled pink, medium to coarse grained, massive, mainly very high strength.<br><br>MW band <280mm. | | MW | Is(50) = 0.16MPa<br>Is(50) = 0.56MPa<br>UCS = 86.7 MPa<br>Is(50) = 7.19MPa<br>Is(50) = 6.12MPa | | x<br>o<br>o<br>x |
| 25 | | | Defects:<br>- Joints @ <10° (<1/m) | | SW | | | |
| 26 | -19.34 | 100 | Defect surfaces are planar, rough, open to closed and clean. | | | Is(50) = 9.52MPa<br>Is(50) = 4.70MPa | | o<br>x |
| | | | Borehole terminated at 26.15m | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |

INTACT STRENGTH: EH VH H M L VL EL
DEFECT SPACING (mm): 20 60 200 600 2000
GRAPHIC LOG: CZ

REMARKS

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JLo / JA / ME

Project: **Walkerston Bypass (Bakers Ck)**

Borehole No: **BH112**

Start Depth: 17.60 m
Finish Depth: 26.15 m
Project No: FG5635
H No:


0 100 200 300 400 500 600mm

SCALE 1:5

F:GEOT043/1