Logs of three geotechnical diamond drill holes 694 – 696 Sandy Bay Road, Hobart, Tasmania

Hole 1 Engineering log – Cored borehole Sheet 1 2 of Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH **Project** Location 696 Sandy Bay Road, Sandy Bay Coordinates 529367mE; Drill type Explorer 50 Hole started 17 July 2008 52**48**226mN HWT 112mm OD core Hole finished 21 July 2008 Equipment Datum GDA94 followed by HQ3 wireline Drilled by Darren Richardson Approx. 14.7+/- 0.2m ASL (triple tubing) KMR Drilling Pty. Ltd. 820 from horizontal Water and Polyplus Inclination Drill fluid(s) Logged by W. C. Cromer Bearing 316° magnetic (grid/magnetic angle 15.1°) lubricant Checked by W. C. Cromer Rock mass defects Drilling information Rock substance Notes Case type/size/lift loss/water Samples, tests. unit Defect description thickness, type, inclination, planarity, roughness, RQD metres Substance description Defect Geol Core recovery go Weathering Nature of defects Bit type/size strength rock type, grain characteristics, colour, structure, minor components weight (UW, g/co spacing interp nclined depth Vertical depth Graphic (mAHD) (mm) Visible reaction to 10% HCL Fluid 20% 40% 30% 30% 300000 చ ABC Significant Genera Hole collared in fill over breccia ΗWΗ Matrix notes 0.90m: Silty CLAY (CH BRECCIA: overall colour: light 1 1 bluish grey; matrix supported; HQ3 Joints; irregular rough; inclined at approx 30° to core axis matrix is friable, mainly sand-silteadings 2 pp>600 fine gravel mixtures (SP, GW, GM), with med grained angular quartz? gravel throughout, and -13 pp>600 significant locally with some to dominant clay ·2 2-(CH); light yellowish brown and light yellowish pink; mainly pp>600 nonplastic but locally moderate to ŝ high plasticity; clasts up to 50% by pp>600 -12 2 volume are well-graded angular light grey to dark grey MW-HW Densi y = 1909kg/m3 iametral = 248kPa 3 3 Iss50 (Joints; irregular, rough; inclined at approx 15 – 30° to core axis siltstone and fine sandstone to 25 - 50mm 3mm infill 3.50m: C seam at 3.4m scarp deposit -11 pp>600 4 4 andy GI EL (GW) pp>600 3 pp>600 BRECCIA: overall colour: bright 4.70m: G Joints; planar, rough <1mm; inclined at appro-30 <u>– 60° to core axi</u> 10 orange grading to yellowish olive; pp300 (?fault matrix supported; matrix is friable, mainly sand-silt-fine gravel mixtures (SP, GW, GM), locally 5 5.00m: G 5 pp400 pp300 with some to dominant clay (CH, CL); mainly nonplastic but locally -age 5.50m: G Joints; tight, plana rough, var. incline at 20 – 80° to cor axis; some tigh irregular joint subparallel to axi 9 pp500 moderate to high plasticity; clasts up to 50% by volume are well-**Fertiary** 6 6 graded angular light yellow MW-HW siltstone and fine sandstone pp300 pp400 to 75mm pp400 >6.6m. 8 7 material is clast supported with BRECCIA: overall colour grey blue due to numerous siltstone clasts; clasts show mod-strong No defect alignment: clast supported; matrix is friable, mainly orange/yellow/brown sand-siltv = 1980kg/m3 iametral = 73kPa 8 - 8 Iss50 fine gravel mixtures (SP, GW, GM); nonplastic; clasts up to 75% nonplastic matrix ٨ Joints; irregular; 20 40° to core ax by volume are well-graded angular fine quartz, and angular grey MW-HW siltstone (below 6 Below 6.5m, 6 vater evel 3.68n 9 8.8m, mainly fossiliferous with dominant fenestellids) 9 <108 Drilling
T = Triple tube coring
B = Blades
R = Roller/Tricone
A = Auger
W = Wash boring
DT = Double tube coring
HAM = Rotary hammer f 'sound' core pieces s divided by the total d as %. Core length Core drilling breaks Inflow | Outflow Water ▼ Level Samples and Notes Soil consistency Defects Samples and Notes
R = SPT penetration refusal
D = Disturbed sample
N = Standard Penetration Test
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SV = In-site Shear Vane test
CS = Core Sample
Ux = Undisturbed tube sample
(x mm diameter)
Nd = SPT and Disturbed Sample Soil consistency
Fine grained soils
VS = Very Soft
S = Soft
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H = Hard Joint Vein Unit_weight (UW, g/cc) A = >2.55 B = 2.40-2.55 C = 2.25-2.40 D = 2.10-2.25 E = <2.10 າາາ Shear ເດັ່ດ Crush zone Strength Hammer impact test Approx. point load strength index Is(50), MPa Infill III EW seam Approx. UCS MPa RQD (Rock Quality Designatic The sum of the lengths of 'st >100mm in a drilling run is di core run length. Expressed at measured along centreline. C not included Solid random breaks (SRB) A = rebound (RQ)
B = pit (PQ)
C = dent (DQ)
D = crater (CQ)
E = moldable, friable (MQ) >4 2-4 1-2 >103 55-103 21-55 7-21 <7 B = Solid preferential breaks (SPB C = Solid latent breaks (SLB) Case lift Fluid loss Weathering
A = Micro fresh state (MFS)
B = Visually fresh state (VFS)
C = Stained state(STS)
D = Partly decomposed state (PDS)
E = Completely decomposed state No loss D = Non intersecting planes (2-D) Soil density index U.25-1 7-21
E = moldable, friable (MQ) <0.25 7
Note: X on log is test result. Otherwise, strength is visually estimated. US = Unconfined Compress Strength pp = Pocket Penetrometer
Visible result: 0.25-1 Coarse grained soils
Fb = Friable
VY = Very Loose = Intersecting open planes (3-D) Core loss (interval know L = Loose
MD = Medium Dense
D = Dense
VD =Very Dense Core loss (interval unknown). Loss is shown in Graphic log column at top of run. Visible reaction to 10% HCL A, B and C = slow, moderate and rapid reaction resp

William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists

William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists Hole 1 Engineering log – Cored borehole Sheet 2 of Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH **Project** Location 696 Sandy Bay Road, Sandy Bay Coordinates 529367mE; Drill type Explorer 50 Hole started 17 July 2008 52**48**226mN HWT 112mm OD core Hole finished 21 July 2008 Equipment Datum GDA94 followed by HQ3 wireline Drilled by Darren Richardson RL Approx. 14.7+/- 0.2m ASL (triple tubing) KMR Drilling Pty. Ltd. 820 from horizontal Water and Polyplus Inclination Drill fluid(s) Logged by W. C. Cromer Bearing 316° magnetic (grid/magnetic angle 15.1°) lubricant Checked by W. C. Cromer Drilling information Rock substance Rock mass defects Notes Case type/size/lift Fluid loss/water Samples, tests, unit RQD metres Substance description Nature of defects Defect **Defect description** Geol Bit type/size Core recovery go Weathering Est. strength thickness, type, inclinatio planarity, roughness, coating rock type, grain characteristics, colour, structure, minor components weight (UW, g/co RL (mAHD) Inclined depth spacing interp Vertical depth Graphic (mm) Visible reaction to 10% HCL 20% 40% 30% 30% 85885 86885 86885 8888 8888 8888 АВС Significant Genera BRECCIA: as above 6 deposit HQ3 mostly no to slow reaction; Clasts 5 scarp 10 10 7 mainly as above ?fault 4 Tertiary-age -11 11 Vatrix: 8 3 **-**12 12 12.1: Infill seam: 1cm; light Possibly strongly fractured grey green clay (CH); subhoriz siltstone/sandstone boulder, o loint dips 150 to 0550M ige breccia or sedimentary rock bedrock loint dips 15° to 055°M Parting dips 45° to 145°M Parting dips 8° to 140°M Parting dips 4° to 145°M Joint dips 58° to 340°M Joint dips 45° to 105°M Joint dips 20° to 045°M 2 9 <u>13 13</u> BRECCIA: grey and orange; Tertiary-age b matrix silt/sand/fine gravel mix; nonplastic: clast and matrix supported; clasts angular to 13.4m: Infill seam: 1cm; subrounded siltstone; size <u> 1</u>4 14 orange clayey silt dips 15° to core axis 0°M 14.15m: Crush zone: increases to base Core 10 3cm clay/breccia 0 SII TSTONE finely laminated **-**15 15 with SANDSTONE: light grey, Permian-age sedimentary rock = 2468 Dens Iss50 g/m3 : 73kPa grey and dark grey; trace white clay pellets and angular black ametral Joint steeply dipping, iron stained, tight Densi y = 23851g/m3 rock fragments Iss50 diametral = 16 -16 Crush zone: 16.3-16.45m EOH at 16.65m inclined depth 17 Drilling
T = Triple tube coring
B = Blades
R = Roller/Tricone
A = Auger
W = Wash boring
DT = Double tube coring
HAM = Rotary hammer Soil consistency Fine grained soils VS = Very Soft S = Soft F = Firm St = Stiff VSt = Very stiff H = Hard ▼ Level Water - Inflow Outflow Samples and Notes Defects Samples and Notes
R = SPT penetration refusal
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(x mm diameter) Unit-weight (UW, g/cc) A = ≥2.55 B = 2.40-2.55 C = 2.25-2.40 D = 2.10-2.25 E = <2.10 າາງ Shear આ Crush zone ວ່າ Approx. point load Approx. strength index Is(50), MPa Strength Hammer impact test Infill III EW seam RQD (Rock Quality Designation The sum of the lengths of 'sc >100mm in a drilling run is di core run length. Expressed as measured along centreline. Con not included. (x mm diameter)
Nd = SPT and Disturbed Sample A = Solid random breaks (SRB) B = Solid preferential breaks (SPB >103 55-103 21-55 7-21 <7 >4 2-4 1-2 A = rebound (RQ) Case lift A = rebound (RQ)
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William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists Hole 2 Engineering log – Cored borehole Sheet 1 of 2 Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH 694 Sandy Bay Road, Sandy Bay Project Location Coordinates 529367mE; Drill type Explorer 50 Hole started 21 July 2008 52**48**246mN HWT 112mm OD core Hole finished 22 July 2008 Equipment Datum GDA94 followed by HQ3 wireline Darren Richardson Drilled by Approx. 16.6+/- 0.2m ASL (triple tubing) KMR Drilling Pty. Ltd. 83⁰ from horizontal Water and Polyplus Inclination Drill fluid(s) Logged by W. C. Cromer 351° magnetic (grid/magnetic angle 15.1°) lubricant Checked by W. C. Cromer Drilling information Rock mass defects Rock substance Notes Case type/size/lift Fluid loss/water Samples, tests, unit RQD metres Substance description Nature of defects Defect Defect description Geol <u>60</u> Weathering strength recover thickness, type, inclination planarity, roughness, coating Bit type/si: weight (UW, g/co Core rock type, grain characteristics, colour, structure, minor components spacing interp nclined depth Vertical depth Graphic (mm) RL (mAHD) Visible Measurements in red type reaction 1 10% HC Est. re on core with known 80808 80808 80808 20% 40% 80% 80% АВС Significant Genera Hole collared in tuffaceous fill over 16 Sandy SILT: mainly yellow and pp>600 light yellow with orange patches and streaks; locally weakly 0.95m: Silt 1.05m: Silt No significant defects white silt infill seam at 2.1m SAND (S trace clay pp>600 cemented and sandier; trace to some clay; low plasticity; Firm to Defects are pp>600 mainly irregular, <1-5mm infill seams with Stiff after wet core retrieved and HQ3 15 washed; otherwise, Very stiff to brown soft CH clay; orientation variably subhorizontal to Hard after air drving 2 2 pp300 (F pp400 ŧξ subvertica dy SILT (S 14 2 pp400 3.00m: Sa ertiary-age 3 3 dy SILT (S 3.30m: Sa pp300 (I Gravelly silty SAND: variable pp300 (F 13 3.60m: Grav SAND(SF sand-silt-gravel mix; light yellow and yellow; matrix supported; nonplastic; variably, weakly cemented; with up to 40-50% pp>600 4 4 pp300 F 4 30m: Gr angular orange brown sand and pp400 (F fine to coarse tuffaceous gravel 12 4.65m: Gr pp300 (F clasts; occasional chalcedony patches; "silty" matrix appears to dilatancy 4.95m: Grav silty SAN 5 be largely amorphous material 5.30m: Gra pp500 (F 5.70m: \$ BRECCIA: overall colour light pp400 vellow with occasional orange deposit 6.10m; Sil 6 6 patches; matrix supported; matrix defects pp>600 is friable, mainly variable In breccia, occasional defects are tight, planar joints at +/-45° to core axis. At 6.9-7m, EW chalcedony? or opaline vein plasticity sand-silt-clay mixtures (SP, SC, CL, CH); clasts up to scarp No significant 10 20% by volume are well-graded (to 30mm) angular sandstone and pp>600 ?fault **ÈW** siltstone opaline veir inclined 30° to core age 9 Tertiary-= 1774kd/m3 8 - 8 Iss50 c CLAY (C ametral = 61kPa 8.50m: Silt Sandy SILT and silty SAND: SAND (S Tuff as -600 8 6 BB300 (F 9 9 9.10m: Silty SAND (SP 9.30m: Sandy silty CLA slow dilatancy (CL, CH) high plast BRECCIA: as above Fault scarp deposit abo Drilling
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William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists Hole 2 Engineering log – Cored borehole Sheet 2 of 2 Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH **Project** Location 694 Sandy Bay Road, Sandy Bay Coordinates 529367mE; **Drill type** Explorer 50 Hole started 21 July 2008 52**48**246mN HWT 112mm OD core Equipment Hole finished 22 July 2008 followed by HQ3 wireline Datum GDA94 Darren Richardson Drilled by (triple tubing) RL Approx. 16.6+/- 0.2m ASL KMR Drilling Pty. Ltd. Drill fluid(s) Water and Polyplus Inclination 830 from horizontal W. C. Cromer Logged by 351⁰ magnetic (grid/magnetic angle 15.1⁰) lubricant Bearing Checked by W. C. Cromer **Drilling** information Rock substance Rock mass defects Notes Case type/size/lift Fluid loss/water Samples, tests, unit Nature of defects RQD Substance description **Defect description** metres go Defect Geol Weathering Bit type/size Core recovery strength thickness, type, inclination planarity, roughness, coating Measurements in red type are on core with known 3D weight (UW, g/cc) rock type, grain characteristics, colour, structure, minor components spacing interp Graphic Vertical deptl (mm) (mAHD) Visible nclined reaction to 10% HCL orientation in space 20% 40% 80% 80% RL(АВС Significant Genera BRECCIA: as above, but higher Matrix n **E** 6 strength; matrix supported; matrix is friable, mainly variable p>600 p>600 plasticity light olive yellow sand-silt-clay mixtures (SP, SC, CL, n>600 10 10 Defect free 9-11.2m CH); clasts up to 20% by - 10. volume are mainly well-graded grey, orange and white angular XRD whole 50% quartz 35% smec 5% halloys p>600 CLAY (CH) siltstone, sandstone and quartzite to 5-10mm, with 6 p>600 occasional hard, indurated fine -600 10.95n Y (CH 41 11 sandstone to 75-150mm XRD clay f pp>600 pp200 (F 8 11.5m: Crush zon 5 Atterbergs LL = 47% PL = 24% LS = 12% 11.7m: pink earthy mineral in 50mr pp>600 matrix 12 12 12-13.8m colour darkens to Rault scarp deposit pinkish yellow 12.2 – 12.4 +/-50% angular and locally aligned hard, indurated SC); lo -600 sandstone clasts to 20mm 9 43 13 -600 3 No significant From 13.8 - 16m, colour 14.1m Joint iron staine yellowish orange; from 16 – 18.55m, colour bright orange; Tertiary-age 14 rough planar; inclined a 60° to core axis 44 10 Most defects are irregular latent breaks around clasts From 13.6 - 18.55m, both clast and matrix supported; clasts 2 angular light grey and grey sandstone and siltstone, well 45 15 11 graded from gravel to 75mm; silty GR matrix mainly silty sand and 15.30m: sandy silt, locally with trace-some clay; nonplastic to low Density Iss50 d = 2045kg/m3 iametral = 203kPa plasticity 46 16 12 0 17 17 13 000pp>600 48 ¹⁸ Density = 1965kg/m3 lss50 diametral = 41kPa End of hole at 18.55m inclined depth Inflow | Outflow RQD (Rock Quality Designation Index)
The sun of the lengths of sound core pieces
100mm in a drilling run is divided by the total
coor run length. Expressed as %. Core length
messured along centreline. Core drilling briefals 👤 Level Drilling
T = Triple tube coring Water Samples and Notes Soil consistency Defects Samples and Notes
R = SPT penetration refusal
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CS = Core Sample
Ux = Undisturbed tube sample
(x mm diameter)
Nd = SPT and Disturbed Sample Fine grained soils VS = Very Soft Joint Vein Unit_weight (UW, g/cc) A = >2.55 B = 2.40-2.55 C = 2.25-2.40 D = 2.10-2.25 E = <2.10 B = Blades R = Roller/Tricone Shear $\mathcal{N}_{\text{zone}}^{\text{Crush}}$ S = Soft F = Firm 777 zone A = Auger
W = Wash boring
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HAM = Rotary hammer St = Stiff VSt = Very stiff H = Hard Strength Hammer impact test Approx, point load Approx. UCS MPa Infill III EW seam strength index Is(50), MPa A = Solid random breaks (SRB)
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D = Non intersecting planes (2-D)
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B = Visually fresh state (VFS)
C = Stained state(STS) Coarse grained soils Fb = Friable E = moldable, friable (MQ) < 0.25 VY = Very Loose D = Partly decomposed state (PDS) E = Completely decomposed state L = Loose MD = Medium Dense VD =Very Dense

William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists Hole 3 Engineering log - Cored borehole Sheet 1 of 2 Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH **Project** Location 694 Sandy Bay Road, Sandy Bay Coordinates 529341mE; **Drill type** Explorer 50 Hole started 28 July 2008 52**48**242mN HWT 112mm OD core Equipment Hole finished 30 July 2008 GDA94 followed by HQ3 wireline Datum Darren Richardson Drilled by (triple tubing) RL Approx. 23.8+/- 0.2m ASL KMR Drilling Pty. Ltd. 76° from horizontal Drill fluid(s) Water and Polyplus W C Cromer Inclination Logged by 270⁰ magnetic (grid/magnetic angle 15.1⁰) lubricant Bearing Checked by W. C. Cromer **Drilling** information Rock substance Rock mass defects Notes Case type/size/lift loss/water Samples, tests, unit Nature of defects **Defect description** RQD metres go Substance description Defect Geol Weathering Core recovery strength thickness, type, inclination planarity, roughness, coating weight (UW, g/cc) rock type, grain characteristics, colour, structure, minor components spacing interp Graphic Vertical dept (mm) (mAHD) Visible Measurements in red type are on core with known 3D Fluid nclined 蓝 reaction to 10% HCL 20% 40% 80% 80% RL(orientation in space Significant ABC Hole collared in black surface clavs ¥ 23 1 or Bed pp>60 Densit Gravelly SAND: brown: matrixsupported; with well-graded clasts = 2265kHQ3 1 of angular cream siltstone. lss50 Boulder Most defects are latent, irregular breaks Quaternary? distinctive red siltstone, sandstone 22 and dolerite to 50mm; 20-30% 2 2 hard fresh grey rounded dolerite cobbles to 0.2m Tertiary? pp>600 around clasts pp>600 pp>600 2 Gravelly silty SAND: variable sand-silt-gravel mix; light yellow and yellow flecked with angular brown; matrix supported; nonplastic; variably, weakly cemented; with up to 40-50% angular orange brown sand and fine to coarse tuffaceous gravel clasts; occasional chalcedony patches: "Silty" matrix close to 3 3 1472kg/ (SP): At 3.4m: 5mm grey CL-CH Iss50 diametral = pp>600 pp>600 0kPa clayey silt infill ash pp300 F volcanic pp>600 chalcedony patches; "silty" matrix appears to be largely amorphous material; bedding laminations dip at 30⁶ 4 pp>600 4 se gra dding dips 35° to 02 3 pp>600 pp400 (F to core axis All defects y silty C (CH); m Tertiary-age BRECCIA: overall colour light yellow o dilatancy v silty SANI v sandy CLA plasticity; n 4.75m: Gra 5.00m: Silt plasticity; s are latent irregular with occasional orange patches; matrix supported; matrix is friable, mainly variable plasticity; silt with some sand and trace day (SP, SC, CL); occasional clasts increasing at base to 20% by (\$P, GW); (CH); mo pp500 19 breaks 5 5 4 volume are well-graded (to 30mm) angular light yellow fossiliferous sandstone and EW siltstone pp>600 -18 3m: 5mm light green Ity clay infill seam dip 100°M 6 Calcareous SILTSTONE and 5 6 fine SANDSTONE: light grey and grey; finely laminated with cream Permian-age siltstone/sandstone 6 laminations dipping approx 300 to Joint dips 60° to 180°M Joint dips 20° to 020°M core axis 7 r<u>n</u>37 7 Bedding dips 40° to 010°M Il seam dips 55° to 160°M Bedding dips 35° to 010°N Bedding dips 30° to 350° Density = Iss50 dia 2129kg/ netral 8 8 At 7.7m: 5mm light brown CH sandy clay 8 9 infill seam parallel to aminations Slow to rapid HCL Defects are mainly 15₉ partings along and parallel to laminations 10 9 Aock Quality Designation Index)
Imm of the lengths of 'sound' core pieces
Imm in a drilling run is divided by the total
In length. Expressed as %. Core length
red along centreline. Core drilling brights Water Level Inflow | Outflow Samples and Notes Soil consistency Defects **Drilling**T = Triple tube coring Fine grained soils VS = Very Soft R = SPT penetration refusal Joint Vein R = SPT penetration refusal
D = Disturbed sample
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Note: X on log is test result. Otherwise, strength is visually estimated. US = Unconfined Compress Strength pp = Pocket Penetrometer Coarse grained soils Fb = Friable Core loss VY = Very Loose Core loss (interval know D = Partly decomposed state (PDS) E = Completely decomposed state L = Loose MD = Medium Dense SSS Core loss (interval unknown). Loss is shown in Graphic log column at Visible reaction to 10% HCL
A, B and C = slow, moderate and rapid reaction resp (CDS) VD =Very Dense top of run.

William C. Cromer Pty. Ltd. Environmental, engineering and groundwater geologists Hole 3 Engineering log - Cored borehole Sheet 2 of 2 Incorporating the Unified Rock Classification System (URCS) and Unified Soil Classification System (USCS) R. and B. FRENCH 694 Sandy Bay Road, Sandy Bay **Project** Location Coordinates 529341mE; **Drill type** Explorer 50 Hole started 28 July 2008 52**48**242mN Equipment HWT 112mm OD core Hole finished 30 July 2008 followed by HQ3 wireline GDA94 Datum Darren Richardson Drilled by (triple tubing) RL Approx. 23.8+/- 0.2m ASL KMR Drilling Pty. Ltd. Drill fluid(s) Water and Polyplus 76⁰ from horizontal W. C. Cromer Inclination Logged by 270⁰ magnetic (grid/magnetic angle 15.1⁰) lubricant Bearing Checked by W. C. Cromer **Drilling information** Rock substance Rock mass defects Notes Case type/size/lift Fluid loss/water Samples, tests, unit Nature of defects RQD metres go Substance description Weathering Defect Defect description Geol Bit type/size Core recovery strength thickness, type, inclination planarity, roughness, coating weight (UW, g/cc) rock type, grain characteristics, colour, structure, minor components spacing interp Vertical depth nclined depth Graphic (mm) RL (mAHD) Visible Measurements in red type are on core with known 3D reaction to 10% HCL Est. 20% 40% 80% 80% orientation in space АВС Significant Calcareous SILTSTONE and fine SANDSTONE: light grey and Permian-age siltstone/sandstone HQ3 10 grey; finely laminated with cream laminations dipping approx 30° to 9.4-9.9m Crush zone? core axis; brecciated 9.4-9.9m Defects are mainl **14**10 partings along and parallel to laminations **-1**0 = 2570kg Joint dips 60° to 130°N Joint dips 50° to 270°N Dens lss50 12 diametral 1182kF ₁₃11 **-1**1 13 0% End of hole at 11.60m inclined depth ₁₂12 RQD (Rock Quality Designation Index)
The sum of the lengths of 'sound' core pieces s-100mm in a drilling run is divided by the total core run length. Expressed as %. Core length measured along centreline. Core drilling briqaks not irjouled Water Level Inflow | Outflow Samples and Notes Soil consistency Defects **Drilling**T = Triple tube coring Samples and Notes
R = SPT penetration refusal
D = Disturbed sample
N = Standard Penetration Test
pp = Hand penetrometer test
SV = In-site Shear Vane test
CS = Core Sample
Ux = Undisturbed tube sample
(x mm diameter)
Nd = SPT and Disturbed Sample Fine grained soils VS = Very Soft Joint Vein Unit weight (UW, g/cc) A = >2.55 B = 2.40-2.55 C = 2.25-2.40 D = 2.10-2.25 E = <2.10 B = Blades R = Roller/Tricone Shear $\mathcal{N}_{\text{zone}}^{\text{Crush}}$ S = Soft F = Firm 777 zone A = Auger
W = Wash boring
DT = Double tube coring
HAM = Rotary hammer St = Stiff VSt = Very stiff H = Hard Strength Approx, point load Approx. UCS MPa Infill III EW seam Hammer impact test strength index Is(50), MPa A = Solid random breaks (SRB)
B = Solid preferential breaks (SPB)
C = Solid latent breaks (SLB)
D = Non intersecting planes (2-D)
E = Intersecting open planes (3-D) Case lift Fluid loss No loss Weathering Soil density index A = Micro fresh state (MFS)
B = Visually fresh state (VFS)
C = Stained state(STS) Coarse grained soils
Fb = Friable
VY = Very Loose Core loss Core loss (interval know D = Partly decomposed state (PDS) E = Completely decomposed state L = Loose MD = Medium Dense Core loss (interval unknown). Loss is shown in Graphic log column at SSS Visible reaction to 10% HCL
A, B and C = slow, moderate and rapid reaction resp (CDS) VD =Very Dense top of run.