

Project: **PHIES STA 1** Hole commenced: **31 JAN 20** Completed:
Borehole location: Supervised by: **LV** Checked by:
Drill model and mounting: **KL 800 Track Mounted** Fluid: **H₂O** Company: **HDS**
Barrel type and length: **HQ 3 4.1m barrel** Bearing: **Vertical** Slope: Driller: **A. Pake**

Method/c-lift	Water	RL depth (m)	Graphic log core loss	Rock descriptions: ROCK NAME, grain size and type, colour, texture (porphyritic, amorphous, glassy) and fabric (distinct/indistinct bedding, lamination, foliation, cleavage), inclusions or minor components, moisture content, durability	Weathering	Strength	Defect spacing (mm)	RQD %	Rock mass descriptions (vertical) and significant defect descriptions (horizontal): defect type, orientation relative to core axis, shape, roughness, coating, aperture or thickness and composition
AR				QUARTZITE - Continued.	FR				
HQ		280.25		Irregular sided ven of waxy clear qtz, + Ksp? with trace euhedral pyrite.				58	280.30, PARTING, >80 deg CA. stepped / irregular very rough, associated with secondary silica + diss py.
		281.2						87	280.10 - 281.2, SHEARED zone, subaxial to CA, irregular, very rough, associated with fine stockwork of translucent, open space
		282.95		282.95 - 290.60, stockwork and thin peripheral alteration fronts.				78	Secondary silica with disseminated 6-3% euhedral pyrite, plus a white, soft, soapy, powdery coating - Kaolinite? sericite?
		281.00						67	281.00, JOINT 20 deg CA. Planar, smooth, and slickensided with white kaolin? sericite?
		282.10						90	282.10 - 282.60, Fine stockwork subaxial / undulating to CA, with soapy, white, soft Kaolin coating, or sericite?
		283.40							283.40, JOINTS, Conglomerate 45 deg to CA. Planar to undulating, rough, 3-5mm clay coating.
		282.90, 282.95, 284.05, 284.65, 285.00, 285.10, 285.20, 285.35, 285.45, 286.20, 286.30, 287.15, 287.20, 287.80, 288.25, 288.65, 289.20, PARTING							70 deg CA, planar to undulating rough, coating of frothy qtz-mica + pyrite. This hydrothermal event has preferentially exploited the 70 deg foliation.
		286.80		cf 280.25, 3cm wide					
		288.10		cf 280.25					

KEY

Method

SO sonic drilling

AD auger drilling

HFA hollow flight auger

RR roller/tricone

W_{size} washbore

DC_{size} diamond drilling

Case-lift

casing used

barrel withdrawn

6 May 20 water level, date shown

water inflow

partial drilling water loss

complete drilling water loss

Graphic log/ core loss

core recovered (hatching indicates material)

NCR no core recovered (NCR)

Grain size (mm)

fine medium coarse

0.06 to 0.2 0.2 to 0.8 0.8 to 2

mainly <0.06 0.06 to 2 mainly >2

Rock type SED IG-MET

Weathering

RS Residual soil

XW Extremely weathered

HW Highly weathered

MW Moderately weathered

SW Slightly weathered

Fr Fresh

DW = distinctly weathered

Rock material strength

(f₅₀) in MPa

VL Very low [0.3 to 0.1]

L Low [0.1 to 0.3]

M Medium [0.3 to 1]

H High [1 to 3]

VH Very high [3 to 10]

EH Extremely high [10+]

x Point Load Test