

**J. TUACH GEOLOGICAL CONSULTANTS, INC.
DIAMOND DRILL CORE LOG**

Sheet No. 1

LATITUDE _____
 DEPARTURE 10.102.8N 12.441E
 ELEVATION 3816
 DIP AT COLLAR -90°
 BEARING _____
 TOTAL DEPTH 1256 CORE SIZE Ax to 1022
Ex 1022 - 1265
 REMARKS _____

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing

Project No. _____ Hole No. 1605
 Property Buchans - Middle Branch
 NTS _____ Grid Name Mine grid
 Date started 1957 Completed _____
 Contractor _____

 Logged by J. Harris - 1996

Depth & Lithology	Description	Alteration	Mineralization
0 - 97'	- Overburden		
97 - 199'	- Interbanded mafic and felsic to intermediate tuffs - Poor core recovery for most of unit - 97 - 146' - Well foliated mostly at 85 - 90° to the core but locally folded - 146 - 199 - Foliation commonly folded but roughly along the core for the most part - 146 - 156 - Only 2' of core with calcite vein breccia and some epidote - silica cemented breccia - fault zone - 97 - 114 - Mafic fragmental - calcite filled amygdules - 114 - ≈ 117 - Felsic - quartz sericite schist - 117 - ≈ 127 - Mainly mafic to intermediate - 127 - 146 - Mainly felsic to intermediate - 156 - 199 - Intermediate to felsic	Weak to moderate chloritic alteration 97 - 114' 114 - 199 moderate to strong quartz sericite alteration 182 - 195 strongly silicified	1 - 2% finely disseminated Pyrite and locally in tiny stringers Stronger in felsic zones
199 - 241'	- Rhyolite dyke/sill - felsite locally - Pink fine grained - altered and fresh tiny plagioclase phenos. - also flecks of chlorite - 214 - 216 - fault gouge - mainly white clay-kaolin - 236 - 240' - xenolith of mafic tuff - intrusive contacts	Locally altered a pale green - sericitic	

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Depth & Lithology	Description	Alteration	Mineralization
241 - 509'	- Mafic volcanic tuff - Dark green - obviously fragmental locally - some buff silicic fragments - Feldspar crystals common above $\approx$ 300' - 241 - 250' - Black and hornfelsed - foliated along the core to about 249' - weakly magnetic - Foliation folded from about 50° to along core down to $\approx$ 280' - Below 280' mainly 70 - 80° to the core - Lithic fragments and crystals flattened at 70 - 80° as well and may reflect layering - 459 - 470' - Some arkosic interbeds and also clasts of silicified material also fracture to brecciated zones with epidote - silica cement - 491 - 500' - Hematitized amygdoidal basalt to agglomerate abundant calcite filled amygdules - Sandy Lake Fm.?	West chloritic and locally sericitic 355 - 360' - silicified Patchy weak to moderate silicification below 459' 491 - 500' hematitized	<1% Py. disseminated 436 - 437 two thin 1 - 2" silicified interbeds with 5% and Py. and minor sphalerite
509 - 520'	- Interbedded tuffaceous sandstone and Arkosic conglomerate to breccia - Flooded with silica and epidote - Could be cemented fault breccia locally?	509 - 520' Moderate silicification	
520 - 612'	- Arkosic conglomerate - Upper 7' contains abundant hematitized amygdoidal basalt clasts - Mainly felsic volcanic clasts, many with prominent quartz phenos - also some mafic volcanic and granitic clasts - 577 - 596' - Arkose to Arkosic pebble conglomerate - 600 - 612' - Picks up high percentage of amygdoidal basalt boulders	Some epidote - silica stringers and local calcite veining	
612 - 616'	- Mafic dyke		
616 - 638'	- Mafic volcanic, basalt - Fine grained green to reddish amygdoidal basalt - Pink and white calcite filled amygdules - lower 2' agglomerate	Hematite alteration	
638 - 653'	- Arkose and cherty siltstone to shale - Bedding at $\approx$ 80° to the core - 646 - 649' - intermediate tuff	646 - 649 - some black chlorite on fractures - lower foot somewhat silicified and epidote veined	
653 - 837.5'	- Rhyolite - maroon porphyritic rhyolite - Plagioclase and a few quartz phenos - Maybe a crystal vitric tuff locally - A few jasper clasts 653 - 662' - Local epidote stringers - 794 - 797' - brecciated by hematite stringers - 822 - 823 - Some indistinct banding - flow banding? - 831 - 837.5' - Highly fractured to brecciated with epidote - silica cement could be a "fault"	Locally hematitized and earthy hematite veinlets to fracture infill Sericitic alteration of feldspars	

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Depth & Lithology	Description	Alteration	Mineralization
837.5 - 843.5'	- Dacitic crystal vitric tuff - Similar to rhyolite but green matrix and double the plagioclase crystals	Locally hematitized Strong fracture infill	Disseminated hematite
843.5 - 852.5'	- Rhyolite as above - Upper 5' bleached	Pale green sericitic alteration of upper 3 - 4'	
852.5 - 880'	- Dacitic crystal vitric tuff - Plagioclase crystals and lithic fragments in a chloritic and sericitic matrix - Also a few quartz crystals - Grey green colour	Hematitized over upper 2 - 3' Chloritic and sericitic alteration of matrix	
880 - 886'	- Pink to greenish porphyritic rhyolite as above	Some sericitic alteration	886 - 905 - Minor Pyrite
886 - ≈ 905'	- Dacitic crystal vitric tuff - as above but more lithic fragments and clasts, some of rhyolite - matrix becomes gradationally more sedimentary downward ≈ 899 - 905' - tuffaceous siltstone matrix		
905 - 915'	- Sediments, bedded Pyritic siltstone and sandstone (Wacke) - Bedding at ≈ 60° to the core - may be overturned - graded bedding		3 - 5% Pyrite grains possible grains Pb - Zn in coarser sections - at least one definite
915 - 920'	- Heterolithic conglomerate - sulphide bearing - Variety of clasts including Pyritic alteration, Pyritic siltstone, rhyolite, etc. - Quite a few of underlying siltstone near base.	≈ 3' lost core - 916 - 926'	915 - 920' one "cobble" 1½ - 2" clast of barite, Pb-Zn and Py. Some chips of Pb-Zn and barite and Pyrite throughout overall may be 5% sulphides, mainly pyrite
920 - 930'	- Pyritic siltstone, fine grained, light grey, bedded at ≈ 60° to the core.		
930 - 978'	- Dacite - crystal vitric tuff - Green, fairly typical - Fragmental - tuff clasts, also silicified zones or clasts - Plag. crystal often altered to sericite	Chloritic and sericitic alteration of matrix - local silicified zones or more felsic clasts	Minor Pyrite, locally disseminated hematite
978 - 992.5'	- Interbedded siltstone and fine heterolithic pebble conglomerate to sandstone - Pyritic, variety of lithic fragments as in coarser sections - Lower 4" mainly jasper - Bedding mainly ≈ 70 - 80° to the core but close to 45° from 991 - 992'		Pyrite grains and disseminated in clasts - 2 - 4%. Some grains of sphalerite and may be some of barite.

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
992.5 - 1219'	- Dacite - crystal vitric tuff - Light grey green , locally fragmental - with tuff and rhyolite clasts - Harder maroon - possible rhyolite zones 1030 - 1035, 1043 - 1047, 1057 - 1064 and 1156 - 1170 - rhyolite - 1143 - 1156 - pale green epidote? altered - slickensides on fractures perpendicular to core, 1153 - 1156 - 2' lost core - Poor core recovery common - 1170 - 1215' - slickensides common on fractures - 1200 - 1215 - may be pumiceous tuff - light green sericitic	Moderate to locally strong sericitic alteration, variable - Some chloritic atleration 1094 - 1142 - quite strong sericitic alteration 1121 - 1156 - epidote - sericite alteration, black chlorite on fractures 1170 - 1215 - sericitic black chlorite on fractures	Disseminated hematite common ≈ 1% Some dissem. Py. 1200 - 1215
1219 - 1242'	- Mafic dyke - diabase - dark grey to black - magnetic - Poor core recovery		
1242 - 1256'	- Silicified felsic volcanic - Rhyolite breccia - ? buff to light grey - <50% core recovery	1242 - 1256 - strongly silicified, black chlorite on fractures	1242 - 1256 - Pyrite ≈ 1% disseminated
1256 - 1265'	- Intermediate pumiceous tuff - light grey, <30% recovery - slickensides on fractures	Sericitic alteration - moderate	1256 - 1265 - 1 - 2% Pyrite
E.O.H.			

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