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

GPS CO-ORDINATES 15842.6 E 11312 N
GRID CO-ORDINATES 158+00 E 113+00 N
ELEVATION 281.04
DIP AT COLLAR -70°
BEARING 180°
TOTAL DEPTH 143 m CORE SIZE NQ
REMARKS

Tests Depth	Dip	Magnetic Bearing	Corrected Bearing

Project No. B-4293 Hole No. BE-97-25
Property Buchans River Ltd.
NTS 12A/15 Grid Name Buchans East
Date started Dec. 14/97 Completed Dec. 16/97
Contractor Logan Drilling Ltd.

Logged by J. Harris

Depth & Lithology	Description	Alteration	Mineralization
0 - 16.6 m	Overburden - ≈ 1.9 m of granite and altered felsic volcanic boulders in Box 1		
16.6 - 112.4	Altered felsic volcanic (with minor intermediate to mafic interbands) buff to pale pink and green fine grained, well banded/foliated, generally @ ≈ 60° to the core, but is locally folded locally appears tuffaceous with flattened chloritic pumice and/or shards, i.e. @ 21.5 21.5 - 22.5 - intermediate to mafic, lower 0.5 m appears to be altered mafic with felsic volcanic clasts 26.0 - 31.0 - intermediate to mafic below 31.0 - all altered felsic volcanic, grey to buff colours local darker coloured sections look like altered rhyolite (i.e. 39.5 - ≈ 40.6 and 46 - ≈ 48.5 fairly strong foliation at 60 - 75° to the core, angle increasing slowly down hole 59.4 - 59.5 - fault gouge and breccia 67.4 - 67.5 - small fault breccia ≈ 56.0 - 59.0 - a few fairly large quartz phenos, altered quartz porphyry? contact at 112.4 is strongly banded (mylonitic) may be a sheared contact, however rocks above and below are well foliated	Strong quartz sericite alteration, local chloritic alteration, epidote bands and stringers, especially in more mafic zones. Core has a baked look likely due to close proximity of Topsails Granite Below 31.0 - very strong quartz - sericite alteration with local black chlorite alteration, especially 68.0 - 89.0 m local epidote lined fractures, especially in more rhyolitic zones 83.0 - 86.0 - fairly common black chlorite alteration as wisps and bands with pyrite only very local chlorite below 86.0	SG @ 24.5 m = 2.8 SG altered pyritic "boulder"? at 16 m - 2.92 3 - 5% pyrite and locally up to 10% as disseminations and discontinuous bands parallel to foliation - local minor sphalerite and galena, i.e. 22.5 - ≈ 24.0 sp @ 29.1 m SG @ 32.3 m = 2.83 No apparent base metal sulphides from 34.0 - 44.5 m from ≈ 39.7 - ≈ 48.5 1 - 3% pyrite 44.5 - 50.0 minor fracture controlled sphalerite and galena and some disseminated 48.5 - 112.4 4 - 5% pyrite again with local zones of 8 - 10% 83.0 - 86.0 - 15-20% pyrite, often as semi-massive bands with black chlorite SG @ 38.0 m = 2.73 SG @ 52.0 m = 2.93 SG @ 68.0 m = 2.65 52.5 - 112.4 - minor sphalerite and galena @ 63.7 - 1 - 3 m band with 20% sphalerite SG @ 68.5 = 3.2 (25% py)

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Depth & Lithology	Description	Alteration	Mineralization
112.4 - 114.1	Altered mafic volcanic probable mafic tuff dark green, soft, chloritic well foliated @ ≈ 65° to the core some small felsic bands which may be fragments fault gouge @ ≈ 50° to the core at 114.1	Weak to moderate chloritic alteration	112.4 - 114.1 1 - 3% pyrite
114.1 - 120.8	Interbanded felsic and mafic to intermediate volcanic mainly grey altered felsic volcanic, fine grained well foliated/banded, mainly at 60 - 70° except for 117.5 - 120.7 where foliation is "folded" to almost along core in the central part some of the fine grained banded areas could be siltstone	strong quartz - sericite alteration - local chloritic alteration fairly common epidote stringers, especially in more mafic zones	pyrite 5 - 10%, often finely disseminated
120.8 - 135.6	Altered mafic volcanic dark green to black, fine grained strongly foliated @ 60° to the core occasional small lenses of hard, brown, felsic volcanic, likely felsic clasts in a mafic tuff 128.5 - 128.9 - light brown "rhyolite" band - also 130.2 - 130.5 131.2 - 135.0 - approximately 50% felsic volcanic - rhyolite 131.2 - 135.6 - broken rubbly core 134.6 - 134.7 and 135.0 - 135.6 - fault gouge and breccia	moderately chloritized patchy sericitic alteration black and green chlorite	5 - 6% pyrite as disseminated blebs and discontinuous bands 121.4 - 121.5 - semi-massive pyrite bands with black chlorite 131.2 - 135.6 - 1 - 2% py
135.6 - 143.0	Mafic volcanic dark green, chloritic upper meter well foliated at 60 - 70° to the core foliation dies out down hole occasional rounded quartz grains, likely amygdules common irregular calcite stringers, infilling fractures - 143.0 E.O.H. -	moderately chloritized (regional alteration)	minor pyrite

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DIAMOND DRILL CORE ASSAYS

SHEET NO. _____ PROJECT NO. B-4293

HOLE NO. BE-97-25 PROPERTY Buchans River Ltd.

Sample No.	From (metres)	To (metres)	Length (metres)	DESCRIPTION	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)			
BE-97-25	22.5	23.6	1.1	Altered felsic volcanic; 2 - 5% py, minor sp-ga	80	330	1258	0.6	12			
	31.0	33.0	2.0	Altered felsic volcanic; 2 - 5% py, minor sp-ga	19	13	124	0.5	5			
	40.0	42.0	2.0	Altered felsic volcanic; 2 - 5% py	19	7	23	0.5	5			
	46.4	48.4	2.0	Altered felsic volcanic; 2 - 5% py, minor sp and ga	25	15	23	0.5	5			
	52.5	54.5	2.0	Altered felsic volcanic; ≈ 5% py, minor sp-ga	13	19	12	0.5	5			
	56.5	58.5	2.0	Altered felsic volcanic; ≈ 5% py, minor sp-ga	12	19	13	0.5	5			
	62.0	63.6	1.6	Altered felsic volcanic; ≈ 5% py, minor sp-ga	17	22	83	0.5	20			
	63.6	64.2	0.6	Altered felsic volcanic; ≈ 5% py, minor sp-ga	15	96	387	0.5	5			
	68.0	70.0	2.0	Altered felsic volcanic; to 10% py, minor sp, ga	14	76	205	0.5	5			
	73.0	75.0	2.0	Altered felsic volcanic; 5% py	12	8	23	0.5	5			
	80.0	81.0	1.0	Altered felsic volcanic; 5% py, minor sp and ga	12	18	1642	0.5	5			
	84.3	85.3	1.0	Altered felsic volcanic, black chl., 20% minor sp and ga	48	242	95	0.5	5			
	92.0	94.0	2.0	Altered felsic volcanic; 5% py, minor sp and ga	17	5	1856	0.5	5			
	99.0	99.9	0.9	Altered felsic volcanic; 5% py to 1% sp and ga	29	8	0.51%	0.5	5			
	103.1	104.3	1.2	Altered felsic volcanic; 10% py, minor sp	11	6	228	0.5	5			
	110.6	112.6	2.0	Altered felsic volcanic; 10% py, minor sp	13	7	574	0.5	5			
	118.0	120.0	2.0	Altered felsic volcanic; to 10% py	65	5	43	0.5	5			
	120.8	121.6	0.8	Altered mafic; 10 - 15% py	91	14	58	0.5	5			