

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

Sheet No. 1

GPS CO-ORDINATES <u>13611 E 9253 N</u>	Tests	Dip	Magnetic	Corrected	Project No. <u>B4293</u> Hole No. <u>BE-97-24</u>
GRID CO-ORDINATES <u>136+00 E 93+00 N</u>	Depth		Bearing	Bearing	Property <u>Buchans River Ltd.</u>
ELEVATION <u>262.34</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	NTS <u>12A/15</u> Grid Name <u>Buchans East</u>
DIP AT COLLAR <u>-70°</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Date started <u>11/12/97</u> Completed <u>13/12/97</u>
BEARING <u>180°</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Contractor <u>Logan Drilling Ltd.</u>
TOTAL DEPTH <u>134.0 m</u> CORE SIZE <u>NO</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
REMARKS <u>Drilled to test IP and lead in basal till</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Logged by <u>J. Harris</u>

Depth & Lithology	Description	Alteration	Mineralization
0 - 9.0 m	Overburden		
9.0 - 63.0	Altered felsic and mafic to intermediate volcanics "tuffs"? Mainly quartz-sericite ± chlorite schists light grey and green interbanded; fairly fine grained strong foliation to schistosity at ≈ 85° to the core with minor local folding quartz "sweats" common in felsic zones 9.0 - 10.9 - mainly all felsic 10.9 - 12.3 - commonly chloritic, small fault gouge at 12.3 m 12.3 - 16.0 - mostly felsic with small chloritic zones to 0.1 m 16.0 - 21.3 - all felsic @ 15.5 - small zone of banded "mylonite" 15.5 - 15.7 - small fault gouge zones @ 17.8 - small fault gouge 21.3 - 35.5 - more commonly chloritic local fragmental textures, some may be due to deformation, but locally appears to be primary, i.e. 56.0 - 58.0 small fault gouge @ 47.0 m 50.3 - 50.6 - some fault gouge and breccia, also at 51.5 ≈ 58.0 - 63.0 - altered felsic to intermediate tuff wispy chloritic "pumice"?	strong quartz-sericite-pyrite ± chlorite alteration green chloritic zones likely reflect more mafic protholith - some black chlorite developed locally, especially below 21.3 m 35.5 - mainly quartz - sericite - pyrite alteration 39.7 - 40.4 - stronger silicification	SG = 2.99 @ 12.3 m SG = 2.58 @ ≈ 20.0 m SG = 2.93 @ 83 m SG = 2.75 @ 77 m ≈ 10%pyrite throughout, locally more minor sphalerite and galena local zones with 1-2% stockwork chalcopyrite 12.3 - 12.4 ≈ 1% cpy minor sp and ga 23.0 - 24.5 < 1% cpy 30.3 - 34.2 common cpy stringers < 1% overall 38.0 - 40.4 to 1% sp-ga and cpy as thin stringers and stockwork, also some disseminated

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Depth & Lithology	Description	Alteration	Mineralization
63.0 - 82.4	Dacite or altered mafic volcanic mainly light green, fine grained massive rock moderately soft, local harder buff zones, mainly associated with fractures - likely alteration but could be more felsic interbands @ 74.7 - 0.05 m "fragment"? of mafic intrusive on one side of the core (medium grained) - edge of a dyke? 63.0 - 67.0 - mainly rubbly well fractured rock this unit has fairly sharp contacts and is not as strongly altered as the surrounding rocks, so it may be a sill intruded during alteration moderate to strong foliation, but foliation is hard to see due to fine grain nature (at 80 - 90° to the core)	moderate sericitic alteration and local silicification	≈ 1% pyrite, disseminated and as blebs associated with fractures some sphalerite throughout commonly along hairline fractures with calcite and/or quartz but also as wispy disseminations a variety of colours of sphalerite from almost white to black
82.4 - 106.6	Altered felsic and mafic volcanics, similar to 9.0 - 67.0 light grey and locally green mainly felsic very strongly foliated at 80 - 90° to the core with some local kink folding some fragmental textures with well flattened and elongate clasts. Whole zone is likely mostly tuffaceous 83.8 - 85.2 - altered mafic volcanic with some quartz amygdules and cut by brown strongly pyritic stockwork (very fine py mostly) 100.3 - 100.7 - weakly altered mafic dyke or flow 100.8 - 105.0 - rubbly, well fractured rock with common fault gouge - foliations commonly kinked somewhat arbitrary lower contact, gradationally more mafic looking	strong sericite - quartz - pyrite ± chlorite alteration local bright green mica, especially towards 106.6 m	strongly pyritic, generally 10% or more 82.4 - 89.0 ≈ 25% also locally below stringers and disseminations of sphalerite often associated with fractures or calcite stringers and mostly appears to be later than pyrite 89.8 - 89.95 ≈ 1-2% sphalerite-galena 90.5 - 91.1 to 1% sphalerite local chalcopyrite (i.e. 93.7 m)
106.6 - 113.5	Interbanded altered mafic and felsic tuffs? bands generally from about 0.1 to 0.6 m generally light to dark green with some grey bands strongly foliated at 85 - 90° to the core may be mostly mafic tuff with felsic fragments some "felsic" zones may be altered mafic somewhat gradational lower contact	moderate to strong sericite - chlorite - pyrite ± quartz alteration	5 - 8% fine pyrite
113.5 - 134.0	Mafic to intermediate tuffs generally dark green to black strongly foliated as above some felsic fragments, especially near the top of unit likely some included mafic flows locally magnetic @ 113.7 - small fault gouge 119.4 - 121.0 - intermediate pumiceous lithic tuff - flattened black chloritic pumice fragments, also grey quartz or felsic volcanic fragments mainly mafic below ≈ 122.0 m 131.2 - 131.7 - chilled black mafic dyke 127.4 - 127.5 - two small fault gouges - 134.0 E.O.H. -	weak to moderate chloritic and sericitic alteration - local silicification alteration and mineralization appears to decrease down hole	py 1 - 3% 113.5 - ≈ 122.0 122.0 - 134.0 - to 1% pyrite occasional sphalerite in thin calcite veinlets

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PROPERTY Buchans River Ltd.

Sample No.	From (metres)	To (metres)	Length (metres)	DESCRIPTION	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)			
BE-97-24	9.0	11.0	2.0	Altered Vf, 15 - 20% py, minor sp, ga and cpy	183	19	173	0.9	107			
	11.0	12.4	1.4	Altered Vint - 10% py - < 1%cpy	724	75	626	1.0	56			
	14.2	15.8	1.6	Altered Vf, Vm - 10% py, minor sp, ga and cpy	214	80	115	0.5	31			
	18.0	20.0	2.0	Altered Vf - 10 - 15% py	101	6	21	0.5	33			
	23.2	24.2	1.0	Chlorite alteration - 10-15% py, < 1% cpy	733	23	132	0.8	63			
	24.2	25.4	1.2	Altered Vf - 10% py, minor cpy	207	239	58	0.8	68			
	25.4	26.4	1.0	Altered Vf - 10% py, minor sp, ga, cpy	63	231	595	0.8	62			
	26.4	28.4	2.0	Altered vol. - 10% py, minor sp, cpy	276	69	241	0.7	21			
	28.4	30.4	2.0	Altered vol. - 10% py, minor sp, cpy	1063	12	150	0.9	28			
	30.4	32.4	2.0	Altered vol. - 10% py, minor sp, cpy	1198	11	133	0.8	27			
	32.4	34.2	1.8	Altered vol. - 10% py, cpy and tr, sp-ga	1341	98	575	0.7	26			
	38.0	39.7	1.7	Altered vol. - 10% py, minor sp-ga-cpy	255	331	0.32%	0.7	50			
	39.7	40.4	0.7	Altered vol. - 10% py, to 1% sp-ga and cpy	567	290	0.66%	3.2	2170			
	40.4	42.4	2.0	Altered vol. - 10% py, minor sp-ga	153	18	992	0.9	47			
	46.5	47.5	1.0	Altered vol. - 10% py, minor sp-ga	41	24	25	0.5	5			
	52.0	53.0	1.0	Altered felsic vol. - 10% py	28	11	39	0.5	18			
	56.0	58.0	2.0	Altered felsic vol. - 10% py, minor sp-ga	59	7	1451	0.5	5			
	58.0	60.0	2.0	Altered felsic vol. - 10% py, minor sp-ga	142	21	1508	0.5	290			
	74.0	75.0	1.0	Weakly altered dacite, minor sp	68	5	0.35%	0.5	5			

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