

**GEOLOGICAL CONSULTANTS LTD
DIAMOND DRILL CORE LOG**

Sheet No. 1

UTM CO-ORDINATES <u>525061 E</u> <u>5407342 N</u>	Tests Depth	Dip	Magnetic Bearing	Corrected Bearing	Project No. <u>G-4973M</u> Hole No. <u>LS-2K-003</u>
GRID CO-ORDINATES <u>L250 E</u> <u>7350 N</u>	<u>278.9</u>	<u>-50°</u>	<u>181°</u>	<u>204°</u>	Property <u>Buchans Highway</u>
ELEVATION <u>245 m</u>					NTS <u>12A/15</u> Grid Name <u>Little Sandy</u>
DIP AT COLLAR <u>-50°</u>					Date started <u>06/03/2000</u> Completed <u>09/03/2000</u>
BEARING <u>155°</u>					Contractor <u>Lantech Drilling Services</u>
TOTAL DEPTH <u>278.9 m</u> CORE SIZE <u>NQ</u>					
REMARKS <u>The depth 274.5, drilled with metric rods but marked as if drilled with Imperial rods</u>					Logged by <u>J. Harris - 2000</u>

Depth & Lithology	Description	Alteration	Mineralization
0 - ~ 8.0 m	Overburden		
8.0 - 23.0 m	Mafic fragmental, (resembles Ski Hill fragmentals) - light green, bleached - mainly tightly packed mafic lapilli, local silica and chlorite amygdules - some altered pyritic fragments and occasional pyritic chert fragments down to ≈ 11.0 m - some possible felsic volcanic fragments - broken rubbly core, faulting between 14 and 21.0 m	weak sericite - quartz alteration	to 1% pyrite down to 11.0 m mainly finely disseminated in fragments minor disseminated py below 11.0 m
23.0 - 26.9 m	Felsic to intermediate dyke - brown, fine grained, granodiorite - thin gouge @ 26.9 m		minor pyrite
26.9 - 36.9 m	Mafic fragmental - similar to 8.0 - 23.0 m - light to medium green - local silica and chlorite amygdules - mostly small angular mafic lapilli in a lighter fine grained matrix - commonly fractured and broken, faulting at ≈ 30 - 30. m	weak sericitic alteration	rare pyrite occasional altered pyritic fragments
36.9 - 50.5 m	Mafic flow or sill - fine grained, green to black - black chlorite amygdules, some to 1 cm - 36.9 - 40.6 m - bleached, light green, flow - 40.6 - 41.1 m - fragmental, as above - 41.1 - 50.5 m - light green with amygdules for 1 - 2 m near contacts, black fine grained centerly - brecciated at 50.5 m	chloritic fractures	rare pyrite in amygdules

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Sheet No. 2

Depth & Lithology	Description	Alteration	Mineralization
50.5 - 64.5 m	Mafic fragmental - altered - grey-green lapilli tuff and pillow breccia - sheared and brecciated to 51.7 m, shearing at $\approx 80^\circ$ to the core - 58.0 - 58.7 m - fine grained flow or pillow	moderate to strong quartz-sericite-chlorite alteration matrix to lapilli tuff is flooded with silica pillow breccia zones have a black chloritic matrix below 58.7 m - moderate alteration	50.5 - 51.2 m 2-4% pyrite and local sp-ga 2 pieces of massive py - sp and ga with chlorite looks like a 2-3 cm band at a moderate angle to the core, (30 - 40°) 51.2 - 58.0 m $\approx$ 2% pyrite and local cpy with chlorite or silica in the matrix locally 5-6% py
64.5 - 71.5 m	Rhyolite to dacite - light grey, hard - small quartz and feldspar phenos - small flecks of chlorite	weak to moderate alteration	minor pyrite
71.5 - 74.7 m	Volcanoclastic breccia to conglomerate - subrounded to angular mafic and a few felsic pebbles in a chloritic matrix - fragments commonly have altered rims	moderate to strong sericite - chlorite $\pm$ quartz alteration	$\sim$ 2% pyrite, commonly along fragment boundaries last 10 - 15 cm appear heavy - barite?
74.7 - 95.9 m	Mafic fragmental - light to medium green - silica and calcite amygdules common in tightly packed fragments - matrix of smaller fragments, chlorite and sericite - variable alteration of fragments and matrix - weak shearing @ 60° to the core 95.4 - 95.7 m	moderate sericite - chlorite $\pm$ quartz alteration silicification more common below $\approx$ 84.0 m some brown sericite - pyrite fragments	74.7 - 78.1 m 1-3% pyrite 78.1 - 84.3 m 3-4% pyrite and to 1% sp, ga and cpy disseminated and along fractures below 84.3 m 2-4% py and local sp, ga and cpy disseminated and more commonly in amygdules maybe some barite veining rare base metal sulphides below 92.5 m
95.9 - 98.5 m	Mafic to intermediate flow - dark grey-green, fine grained, may be pillowed - 95.9 - 96.6 m - lighter coloured, hard and silicic, dacite?	95.9 - 96.6 m may be silicified weak to moderate chloritic and sericitic alteration	$\approx$ 5% pyrite as discontinuous veinlets along fractures and disseminated
98.5 - 105.4 m	Mafic volcanic - pillow basalt - dark green - common white and pinkish calcite amygdules - weakly hematitized locally - 99.1 - 99.8 m - bleached lighter green and resembles overlying unit - 99.8 - 99.9 m - weakly sheared at $\approx 70^\circ$ to the core	weak chloritic and sericitic alteration	generally minor pyrite along fractures 99.1 - 100.1 m 2-3% pyrite, mainly fracture controlled

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Sheet No. 3

Depth & Lithology	Description	Alteration	Mineralization
105.4 - 129.5 m	Volcanic breccia - grey, green and black, some buff and pink fragments - mafic and rhyolitic fragments, $\approx 75 - 80^\circ$ mafic - pink and buff rhyolite fragments - fragments are tightly packed, some fine siliceous matrix, may be rhyolite?, chloritic matrix locally - 105.4 - 110.0 m - common fault breccia - unit looks like mixed flows locally, but also good fragmental textures locally - 117.3 - 129.5 m - mainly felsic - green dacite to rhyolite, some chloritic mafic fragments - some large felsic fragments or flows - shore zones of rubbly core common, some minor fault breccia	moderate chloritic and sericitic alteration some local stockwork quartz veining	105.4 - 106.3 m $\approx 5\%$ py and to 1% cpy locally, i.e. 105.8 - 106.2 m 106.3 - 129.5 m 2-3% py locally to 5% @ 107.6 m - 5 cm semi-massive pyrite vein
129.5 - 132.3 m	Mafic volcanic - dark green, chloritic - hard green dacite "intruding" the mafic locally	moderate chloritic alteration	1 - 2% pyrite
132.3 - 137.7 m	Felsic and mafic flows - grey, buff and green - mainly rhyolite and rhyolite breccia - short mafic flows or fragments, i.e. 132.8 - 133.3 m and 135.8 - 136.6 m - 132.3 - 132.8 m - fractured to brecciated - 135.8 - 136.6 m - common fault breccia - 137.5 - 137.7 m - fault breccia and gouge	weak to moderate chloritic alteration	
137.7 - 167.4 m	Mafic volcanic - dark green to black mafic flow, could be a sill - 137.7 - 138.0 m - fault gouge and breccia - fine to medium grained, massive - small calcite stringers locally - 152.9 - 153.9 m - bands of green to black cherty sediment, interpillow? - 161.1 - 161.2 m - fault breccia - 161.1 - 161.4 m - fractured rhyolite or chert - small chert band @ 167.2 m	patchy epidote alteration and epidote veining 153.9 - 167.1 m - weak chloritic and sericitic alteration	137.7 - 139.3 m - $\approx 1\%$ py and local cpy 139.3 - 152.9 m - rare py 148.5 - 148.8 m - chloritic zone with 1% py 152.9 - 153.9 m - $\approx 1\%$ pyrite as 2-3% py with minor cpy in cherty bands 153.9 - 167.1 m - 1% pyrite as coarse disseminations and stringers
167.4 - 169.9 m	Chert - grey-brown, cut by hairline fractures - 169.6 - 169.9 m - cherty wacke, chert grains and small pink feldspar or felsic grains		minor pyrite
169.9 - 195.2 m	Mafic volcanic, as for 137.7 - 167.4 m - dark green, fairly massive - some thin chert bands to 170.7 m	patchy epidote alteration 187.4 - 189.8 m - weak to moderate sericitic alteration	169.9 - 170.7 m - $\approx 1\%$ py 170.2 - 170.4 m - 3-4% py and 1% cpy as stringers and a thin vein at 20° to the core, with chlorite 170.7 - 187.8 m - rare pyrite 187.8 - 189.8 m - 2-3% pyrite as disseminated clots and along fractures 189.8 - 195.2 m - <1% pyrite as local concentrations

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Sheet No. 4

Depth & Lithology	Description	Alteration	Mineralization
195.2 - 225.1 m	Rhyolite to dacite - grey to grey-green, very hard, massive - a few small quartz phenos and small chlorite flecks	local chlorite along fractures	<1% pyrite as local concentration and thin stringers and occasionally with chlorite on fractures
225.1 - 241.0 m	Mafic volcanic - dark green, fine grained, fairly massive - 226.5 - 226.6 m - fault gouge and breccia - 225.8 - 226.0 m - quartz vein breccia	patchy epidote alteration and veining 239.0 - 241.0 m - moderate chloritic alteration	small bleb of cpy @ 225.3 m 225.8 - 226.0 m 4-5% py 225.1 - 231.5 m <1% py as local blebs and stringers 231.5 - 239 m rare py 239 - 241.0 m 3-5% py and minor cpy as thin bands and clots
241.0 - 244.6 m	Mafic tuff - medium green - fine grained, massive mafic tuff with a few mafic and pink felsic lithic fragments - also minor chloritic pumice		241.0 - 244.6 m - <1% py
244.6 - 247.9 m	Mafic lapilli tuff - angular mafic lapilli and a few pinkish felsic or chert fragments in a fine grained grey to white cherty matrix - 245.0 - 245.1 m - chert		1 - 2% pyrite as coarse disseminations 2 cm py band with chlorite @ 245.2
247.9 - 253.1 m	Interlayered fine grained mafic tuff and chert - may include some mafic pillows - dark green to grey - 249.6 - 249.9 m - grey chert - 248.1 - 248.3 m - minor quartz veining	local chloritic alteration	2-3% pyrite as thin stringers and disseminated clots 248.1 - 248.3 m - $\approx$ 1% cpy with py
253.1 - 254.1 m	Chert - light green - faint bedding at 40 - 45° to the core		
254.1 - 271.1 m	Mafic volcanic - dark green, fairly fine grained - fairly massive - 262.8 - 263.3 m - rhyolite inclusion or thin flow - thin fault @ 263.8 m - sharp irregular contact @ 271.1 m	epidote veining and flecks	minor pyrite
271.1 - 278.9 m	Dacite to andesite - light green, fine grained, massive - varies from fairly hard to soft - local pink calcite amygdules	rare chloritic fracture (could be silicified mafic)	2-3% pyrite as thin veins to stringers and clots
	- 278.9 m E.O.H. -		

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GEOLOGICAL CONSULTANTS LTD.
DIAMOND DRILL CORE ASSAYS

SHEET NO. 1 of 1

PROJECT NO. G-4973M

HOLE NO. LS- 2K-003

PROPERTY Buchans Highway

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