

**GEOLOGICAL CONSULTANTS LTD  
DIAMOND DRILL CORE LOG**

Sheet No. 1

|                                                                                                      |                |             |                     |                      |                                                            |
|------------------------------------------------------------------------------------------------------|----------------|-------------|---------------------|----------------------|------------------------------------------------------------|
| UTM CO-ORDINATES <u>523560 E</u> <u>5406762 N</u>                                                    | Tests<br>Depth | Dip         | Magnetic<br>Bearing | Corrected<br>Bearing | Project No. <u>G-4973M</u> Hole No. <u>LS-2K-002</u>       |
| GRID CO-ORDINATES <u>L234 E</u> <u>7475 N</u>                                                        |                |             |                     |                      | Property <u>Buchans Highway</u>                            |
| ELEVATION <u>~250 m</u>                                                                              | <u>367 m</u>   | <u>-53°</u> | <u>184°</u>         | <u>207°</u>          | NTS <u>12A/15</u> Grid Name <u>Little Sandy</u>            |
| DIP AT COLLAR <u>-50°</u>                                                                            |                |             |                     |                      | Date started <u>02/03/2000</u> Completed <u>06/03/2000</u> |
| BEARING <u>155°</u>                                                                                  |                |             |                     |                      | Contractor <u>Lantech Drilling Services</u>                |
| TOTAL DEPTH <u>382.5 m</u> CORE SIZE <u>NQ</u>                                                       |                |             |                     |                      |                                                            |
| REMARKS <u>The depth 376.8, 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 - 8.9 m         | Overburden                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                 |                                                                                                                                                                                                    |
| 8.9 - 35.9 m      | Mafic sill or flow<br>- dark green to black, fine to medium grained<br>- light green plagioclase common<br>- locally very weakly magnetic<br>- minor bleaching locally<br>- minor calcite veining<br>- 35.6 - 35.9 m - abundant pink to orange feldspar crystals, also a few quartz grains                                                                                                                                              | small flecks of clay mineral (leucoxene) locally<br>some weak sericitic alteration of feldspars | generally minor pyrite but locally 1-3% in bleached zones, i.e. 21.3 - 22.4 m<br>34.6 - 34.8 m - 4-5% pyrite and ~ 1% sp along veins and/or fractures with calcite and sericite, maybe some barite |
| 35.9 - 36.6 m     | Sediment and tuffaceous sediment<br>- light grey green, some layers very similar to 35.6 - 35.9 m<br>- contact @ 35.9 m at ~ 75° to the core<br>- calcite veining and thin gouge at low angle to the core                                                                                                                                                                                                                               |                                                                                                 | 35.9 - 36.6 m 5-6% pyrite                                                                                                                                                                          |
| 36.6 - 43.4 m     | Mafic to intermediate flows (may be crystal tuff)<br>- similar to parts of 8.9 - 35.9 m<br>- grey-green, abundant greenish, altered plagioclase<br>- two "flows" 36.6 - 39.6 m and 39.8 - 43.4 m, both appear to become more felsic towards the base<br>- sharp slightly irregular contacts<br>- 39.6 - 39.8 m - breccia to conglomerate, black siltstone fragments, felsic and intermediate fragments and feldspar and quartz crystals | weak sericitic and clay alteration                                                              | 1-2% pyrite, disseminated and occasional thin stringers                                                                                                                                            |

HOLE NO. LS-2K-002

**GEOLOGICAL CONSULTANTS LTD  
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Sheet No. 2

| Depth & Lithology | Description                                                                                                                                                                                                                                                                                                                                             | Alteration                                                                                                                         | Mineralization                                                                                                                                                      |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 43.4 - 49.1 m     | Interbedded tuffs and sediments<br>- green and black, bedded @ 60 - 70° to the core<br>- mafic to intermediate tuff<br>- mostly black carbonaceous sediment, but some chert<br>- 46.6 - 47.2 m - prominent quartz rhyolite<br>- soft sediment loading @ 48.7 m, tops up hole                                                                            | 5 cm pyrite/quartz band @ 48 m is conductive                                                                                       | ≈ 1% pyrite down to 46.2 m<br>46.2 - 49.1 m 4-5% pyrite, disseminated and a few bands/beds minor sp-ga, disseminated and with calcite stringers @ 48.5 - 48.7 m     |
| 49.1 - 66.0 m     | Prominent quartz rhyolite<br>- grey to buff<br>- quartz and feldspar phenos, feldspars altered to sericite locally, especially at the top                                                                                                                                                                                                               | weak to moderate quartz-sericite alteration<br>chlorite along hairline fractures locally                                           | 2-3% pyrite, disseminated and along fractures with chlorite and/or calcite-quartz veinlets, rare sphalerite                                                         |
| 66.0 - 89.9 m     | Felsic tuff to breccia<br>- prominent quartz unit<br>- grey to buff<br>- medium grained pumiceous lithic tuff at the top, becoming a coarser fragmental down hole<br>- fine siliceous or chloritic matrix<br>- fault breccia @ 78.1 m<br>- 82.7 - 89.9 m - finer grained green fragmental, some grey fragments but mainly green dacite or altered mafic | moderate quartz-sericite ± chlorite alteration, some strongly altered fragments<br><br>83.8 - 89.9 m silica flooding of the matrix | 2-3% pyrite, locally 5-6%<br><br>82.7 - 89.9 m - local chalcopyrite                                                                                                 |
| 89.9 - 126.7 m    | Prominent quartz rhyolite<br>- grey, as for 49.1 - 66.0 m<br>- somewhat more disseminated chlorite than above<br>- not chilled @ contacts                                                                                                                                                                                                               | weak quartz-sericite ± chlorite alteration                                                                                         | 1-2% disseminated pyrite, occasional thin pyrite stringer                                                                                                           |
| 126.7 - 128.25 m  | Sediments<br>- grey, black and pink, bedded at 75 - 80° to the core<br>- 126.7 - 127.1 m - fairly coarse felsic breccia to conglomerate<br>- 127.1 - 128.25 m - fine grained cherty sediments, some thin black carbonaceous bands                                                                                                                       | 126.7 - 127.1 m - some altered and pyritic fragments                                                                               | 126.7 - 127.1 m 2-3% py<br>127.1 - 128.25 m ≈ 10% pyrite, minor chalcopyrite as conformable fine grained bands, and along fractures (bands are strongly conductive) |
| 128.25 - 132.0 m  | Prominent quartz rhyolite<br>- as above                                                                                                                                                                                                                                                                                                                 | weak to moderate quartz-sericite alteration                                                                                        | 128.25 - 132.0 m 1-2% pyrite                                                                                                                                        |
| 132.0 - 149.0 m   | Prominent quartz tuffs and fragmentals<br>- light to dark grey<br>- may include some rhyolite flows<br>- crystal lithic tuff and coarse fragmentals<br>- contains a few chert fragments near 132.0 m<br>- moderately sheared over 5 cm at 140.0 m, also 1-2 cm of gouge<br>- 141.0 - 147.7 m - fairly massive rhyolite porphyry                         | moderate to locally strong quartz-sericite ± chlorite alteration<br>chlorite mainly in the matrix of coarse fragmental zones       | 2-4% pyrite locally to 10%, finely disseminated, as stringers and as clasts of very fine grained pyrite<br>132.3 - 132.4 m minor cpy                                |

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**GEOLOGICAL CONSULTANTS LTD  
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Sheet No. 3

| Depth & Lithology | Description                                                                                                                                                                                                                                                                                                                                                                    | Alteration                                                                                                                                                       | Mineralization                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 149.0 - 150.5 m   | Sediments - mainly chert<br>- black, green and grey, bedding at 80 - 85° to the core<br>- a few carbonaceous beds and sulphide beds<br>- minor fine grained tuff beds                                                                                                                                                                                                          | strongly conductive                                                                                                                                              | 8-10% pyrite as fine grained beds, stringers and disseminations<br>149.4 - 149.7 m 30% py                                                                                                                                                                                                                                                                                                   |
| 150.5 - 153.7 m   | Felsic pyroclastic breccia - lapalli tuff<br>- light grey, part of prominent quartz unit<br>- some fine grained beds, bedding at about 80° to the core<br>- mainly a medium grained breccia<br>- some chloritic pumice<br>- @ 153.1 m - rubbly chloritic zone ≈ 5-6 cm<br>- thin gouge @ 153.7 m                                                                               | weak quartz-sericite-chlorite alteration                                                                                                                         | ≈ 1% pyrite                                                                                                                                                                                                                                                                                                                                                                                 |
| 153.7 - 156.4 m   | Felsic sill or dyke<br>- grey to brown, fine grained<br>- altered plag phenos<br>- weakly chilled contacts<br>- looks like the prominent quartz unit near the contacts and grades in to a brown felsite                                                                                                                                                                        |                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                             |
| 156.4 - 159.0 m   | Felsic tuff<br>- as for 150.5 - 153.7 m                                                                                                                                                                                                                                                                                                                                        | weak to moderate alteration                                                                                                                                      | 1 - 2% pyrite                                                                                                                                                                                                                                                                                                                                                                               |
| 159.0 - 162.0 m   | Intermediate dyke or sill<br>- greenish brown colour, fine to medium grained<br>- fine grained chilled contacts<br>- approximately granodiorite composition                                                                                                                                                                                                                    |                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                             |
| 162.0 - 193.3 m   | Felsic lapalli tuff to breccia<br>- similar to units above the dyke<br>- mostly grey, flecked with black<br>- a few large quartz grains/crystals near the top<br>- mainly small feldspar (altered), and quartz phenos in rhyolite fragments, occasionally flow banded<br>- common chloritic flecks and pumice<br>- 172.7 - 173.2 m - weak shearing with calcite-quartz veining | moderate to strong quartz-sericite-chlorite alteration<br>stronger alteration below 173.3 m - some silica flooding<br>strong quartz-sericite-chlorite alteration | 2-3% pyrite to 173.2 m<br>166.45 - 166.55 m ≈ 50% pyrite as massive bands/veins @ 30-40° to the core (conductive)<br>173.2 - 173.3 m - massive pyrite band with chlorite, silica and <1% sp and ga<br>173.3 - 193.3 m - 3-5% pyrite, finely disseminated and as coarser disseminations and stringers associated with chlorite<br>locally 10% pyrite<br>1-2 m intervals<br>minor cpy locally |

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**GEOLOGICAL CONSULTANTS LTD  
DIAMOND DRILL CORE LOG**

Sheet No. 4

| Depth & Lithology | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Alteration                                                                                                                  | Mineralization                                                                                                                                                                                                                                                                                                                                               |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 193.3 - 229.6 m   | <p>Rhyolite - dacite</p> <ul style="list-style-type: none"> <li>- light grey to almost white, light green towards base</li> <li>- small altered feldspar phenos evident locally</li> <li>- small flecks of chlorite and sericite</li> <li>- 197.7 - 198.3 m - fragmental, as above</li> <li>- 212.3 - 213.2 m - light brown, may include some altered mafic</li> <li>- 213.2 - 213.3 m - chilled black, mafic dyke</li> <li>- 220.1 - 220.2 m - lapilli tuff to pebble conglomerate</li> <li>- 222.0 - 225.0 m - minor shearing @ 5-10° to the core, calcite veining along the shear</li> <li>- ≈ 228.0 - 229.6 m fragmental</li> </ul>                                                                                                                                                                                                                                                              | <p>strong quartz-sericite ± chlorite alteration</p> <p>chlorite as small flecks and locally along fractures</p>             | <p>1-2% pyrite disseminated and along fractures</p> <p>occasional disseminated cpy</p> <p>occasional sp and ga along fractures, locally with chlorite, i.e. @ 204.4 m</p> <p>213.2 - 213.5 m ≈ 15-20% pyrite</p> <p>215.2 - 215.6 m ≈ 20% py</p>                                                                                                             |
| 229.6 - 237.7 m   | <p>Altered mafic volcanic</p> <ul style="list-style-type: none"> <li>- black, fairly massive</li> <li>- may be mafic tuff near 237.7 m</li> <li>- common irregular thin calcite stringers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>strong sericite-chlorite alteration</p>                                                                                  | <p>229.6 - 229.7 m ≈ 30% pyrite in a fragmental</p> <p>2-5% pyrite as coarse disseminations and stringers</p>                                                                                                                                                                                                                                                |
| 237.7 - 342.0 m   | <p>Felsic tuff and breccia</p> <ul style="list-style-type: none"> <li>- grey pumiceous lapilli tuff</li> <li>- may be some flow breccia</li> <li>- fragmental textures commonly vague due to alteration</li> <li>- 248.9 - 249.2 m - minor fault breccia and gouge @ 15-20° to the core</li> <li>- 251.3 - 255.5 m - rhyolite flow</li> <li>- 255.5 - 259.3 m - fairly coarse fragmental</li> <li>- 259.3 - 261.3 m - mainly fine tuff</li> <li>- below 261.3 m mainly fairly coarse fragmental, some flow banded or flattened fragments</li> <li>- 296.1 - 296.5 m - weakly sheared and brecciated @ about 30 - 35° to the core</li> <li>- 307.6 - 308.1 m - minor fault gouge and breccia</li> <li>- 312.8 - 313.4 m - fault breccia and gouge, also @ 314.2 m</li> <li>- 321.3 - 342.0 m - rhyolitic flow and flow breccia</li> <li>- 338.6 - 340.6 m - common fault gouge and breccia</li> </ul> | <p>strong quartz-sericite ± chlorite alteration</p> <p>255.5 - 259.3 m - stronger chlorite alteration, also below 261 m</p> | <p>2-3% pyrite down to 249.2 m</p> <p>249.2 - 251.3 m - 3-4% pyrite and minor cpy</p> <p>251.3 - 255.5 m ≈ 1% py mainly along fractures</p> <p>255.5 - 261.3 m 2-3% pyrite</p> <p>261.3 - 338.6 m 3-5% pyrite often as clots in chlorite</p> <p>264.0 - 264.2 m ≈ 1% cpy with a sericitic fracture along the core</p> <p>338.6 - 342.0 m - &lt;1% pyrite</p> |
| 342.0 - 349.8 m   | <p>Mafic dyke</p> <ul style="list-style-type: none"> <li>- black, fine to medium grained, magnetic</li> <li>- chilled contacts, chilled from 348.7 - 349.8 m with the contact along the core locally</li> <li>- a few small chlorite and calcite amygdnales</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                             | <p>1-2% pyrrhotite and pyrite, as clots of 20 - 30% finely disseminated</p>                                                                                                                                                                                                                                                                                  |

HOLE NO. LS-2K-002

**GEOLOGICAL CONSULTANTS LTD  
DIAMOND DRILL CORE LOG**

Sheet No. 5

| Depth & Lithology | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Alteration                                                              | Mineralization                                                                                                                                                                                                                                                                                                                                        |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 349.8 - 381.2 m   | <p>Felsic pyroclastic breccia and tuff</p> <ul style="list-style-type: none"> <li>- light grey, altered, similar to above the dyke</li> <li>- 349.8 - 356.1 m - coarse breccia with some prominent quartz rhyolite fragments and quartz grains, also pink and grey rhyolite, some prominent quartz fragments appear almost granitic</li> <li>- 351.0 m - small fault gouge</li> <li>- below 356.1 m lithic tuff and breccia very similar to higher in the hole</li> <li>- 358.5 - 359.3 m - minor faulting/shearing at 30° to the core</li> <li>- 369.1 - 369.3 m - fault breccia</li> <li>- 363.2 - 365.3 m - rhyolite flow and flow breccia, also 369.3 - 374.9 m</li> <li>- small fault gouge @ 375.2 m</li> <li>- 380.3 - 381.2 m - sheared at 50 - 60° to the core 2 or 3 small fault gouge zones</li> </ul> | strong quartz-sericite-chlorite alteration                              | <p>generally 5-6% pyrite, (some possible py clasts) disseminated and as semi-massive bands and clots, mostly associated with chlorite</p> <p>362.3 - 362.36 m - massive pyrite band</p> <p>368.0 - 369.0 m - 40-50% pyrite and minor cpy, massive pyrite from 368.6 to 368.95 m</p> <p>368.6 - 368.7 m - 2-4% sphalerite and minor galena, zoned?</p> |
| 381.2 - 382.5 m   | <p>Felsic tuff or sediment</p> <ul style="list-style-type: none"> <li>- somewhat sheared</li> <li>- 381.2 - 381.6 m - fine grained light green rock, siltstone or fine tuff</li> <li>- 381.6 - 382.5 m - prominent quartz fragments in a small percentage of sediment or crystal tuff matrix</li> </ul> <p style="text-align: center;">- 382.5 m E.O.H. -</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | weak to moderate quartz-sericite alteration, likely related to shearing | minor pyrite                                                                                                                                                                                                                                                                                                                                          |

HOLE NO. LS-2K-002

**GEOLOGICAL CONSULTANTS LTD.  
DIAMOND DRILL CORE ASSAYS**

SHEET NO. 1 of 1

PROJECT NO. \_\_\_\_\_

HOLE NO. LS-2K-002

PROPERTY Buchans Highway Lic 4293M

| Sample No. | From<br>(metres) | To<br>(metres) | Length<br>(metres) | DESCRIPTION                              | Cu<br>(ppm) | Pb<br>(ppm) | Zn<br>(ppm) | Ag<br>(ppm) | Au<br>(ppb) | Ba<br>(ppm) |
|------------|------------------|----------------|--------------------|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 36251      | 47.2             | 48.9           | 1.7                | Sed. 5% py, minor sp & ga                | 103         | 194         | 545         | -0.3        | 6           | 59          |
| 36252      | 127.1            | 128.2          | 1.1                | Sed. 10% py                              | 118         | 174         | 82          | 0.3         | 5           | 106         |
| 36253      | 149.0            | 150.0          | 1.0                | Seds. 20% py                             | 255         | 252         | 172         | 0.8         | 1           | 19          |
| 36254      | 172.9            | 173.9          | 1.0                | Alt. Vf. 0.1m massive py & minor sp & ga | 55          | 1020        | 750         | 0.4         | 8           | 168         |
| DUP-36254  |                  |                |                    |                                          | 52          | 966         | 763         | 0.4         | 11          | 165         |
| 36255      | 203.7            | 204.7          | 1.0                | Alt. Vf. 3 - 5% py, minor sp, ga & cpy   | 392         | 753         | 1410        | 0.6         | 2           | 138         |
| 36256      | 212.2            | 213.2          | 1.0                | Alt. Vf. 15 - 20% py                     | 25          | 218         | 77          | 0.4         | 5           | 213         |
| 36257      | 214.9            | 215.9          | 1.0                | Alt. Vf. 10% py                          | 11          | 180         | 100         | 1.1         | 5           | 42          |
| 36258      | 229.6            | 230.6          | 1.0                | Alt. Vm. 5 - 6% py                       | 135         | 206         | 211         | -0.3        | 6           | 31          |
| 36259      | 263.7            | 264.7          | 1.0                | Alt Vf. 3% py, minor cpy                 | 1150        | 148         | 45          | 0.5         | 7           | 265         |
| 36260      | 317.0            | 318.0          | 1.0                | Alt. Vf. 3 - 5% py                       | 28          | 156         | 48          | -0.3        | 2           | 336         |
| 36261      | 358.0            | 359.5          | 1.5                | Alt. Vf. 5 - 6% py                       | 469         | 235         | 162         | 0.5         | 19          | 205         |
| 36262      | 366.5            | 368.0          | 1.5                | Alt. Vf. 5 - 8% py                       | 478         | 192         | 140         | 0.4         | 8           | 171         |
| 36263      | 368.0            | 369.0          | 1.0                | Alt Vf. 40 to 50% py, minor sp & cpy     |             |             |             |             |             |             |
| 36264      | 369.0            | 370.0          | 1.0                | Alt. Vf. 5 to 6% py                      | 2020        | 383         | 1540        | 5.1         | 12          | 125         |
|            |                  |                |                    |                                          | 188         | 193         | 103         | -0.3        | 9           | 100         |