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OPAP FINAL SUBMISSION PROJECT OP99-164 REPORT ON THE GEOPHYSICS, GEOLOGY, SHOWINGS AND PROSPECTING OF THE KELL PROPERTY, CORKILL TOWNSHIP

2.20275

PREPARED BY:

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January 17, 2000

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APPENDICIES

- Appendix 1: Report on Magnetometer Survey, Scintillometer Survey, and MAX-MIN Survey on the Kell East Grid, Corkill Township, Larder Lake Mining Division; with accompanying Figures, Sections and Plans, by C. Jason Ploeger.
- Appendix 2: Report on the Geology and Showings of the Kell Property, Corkill Township; with accompanying Figures and Plan, by F. R. Ploeger.

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Appendix 3: Prospecting Traverses

F. R. PLOEGER ENTERPRISES INC.

59 CONNELL AVE., SUITE 2 P.O. BOX 313 VIRGINIATOWN, ON, POK1X0. 705-634-2457

OPAP PROJECT OP99-164: FINAL SUBMISSION

This report was prepared by F. R Ploeger Enterprises Inc. who were also retained to supervise the line cutting and geophysical surveys as well as conduct geological surveys and map the various showings in detail. This work was conducted as part of OPAP project OP-164.

Property and Ownership

The property comprises one seven unit unpatented mining claim, 1226888, covering approximately 84 ha which is recorded in the name of C. Jason Ploeger. It is located in the southwest corner of Corkill Township (figure 1 and figure 2) against a buffer zone surrounding Lady Evelyn Park Reserve within the Larder Lake Mining Division. The map reference is 41-P-10E.

The property is named after Hugh Kell, the original discoverer of the silver showing on the group in 1909. Subsequent to the discovery, there was extensive physical work conducted on the claims including the sinking of an inclined shaft, and adit, and several open cuts. The shaft is centered at about N47°50'30" and W80°64'30".

Access

Access is gained to the property from Hwy 560 west from the town of Elk Lake to the Beauty Lake Road and following the Beauty Lake Road south for approximately 15 km to a logging road. This road has an old gate which was used to restrict access to the minesite and to an old MNR bush airstrip. The road becomes passable to 4 wheel vehicles only for the last 0.5 km to the minesite. The west portion of the claim group is accessed by another old logging road heading south of about 1.5 km further west along the Beauty Lake Road.

Regional Geology

Charters and Corkill Townships were mapped by McIlwaine in 1971. Much of the area is covered by Pleistocene glacial moraine and sandy outwash deposits which obscures the bedrock geology.

The geology is fairly simple overall. It comprises a sequence of dominantly quartzite, feldspathic quartzite, and arkose of the Lorrain Formation and lesser

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amounts of Firstbrook Formation siltstone, sandstone, greywacke, arkose and conglomerate. These are all members of the Cobalt Group of rocks.

Intruding this sequence are dikes and sills of Nipissing diabase. In places, silver bearing deposits are associated with the diabase and represent the main focus of economic activity in the area.

An inlier of Archean age appears to have formed a basement topographic high which has been exposed by erosion in northeast Lawson Township, adjacent to the property. According to old reports, it is composed of mafic to intermediate metavolcanics.

Property Geology - General

In general, the property is underlain by Lorrain quartzite which is intruded by a sill of Nipissing diabase. These units are exposed only in the southern end of the claim. The remainder of the property is obscured by glacial sand and outwash deposits. To date, the mineralization found on the group consists of silver and copper mineralization as well as accessory/ related minerals associated with calcite patches and veins cutting the Nipissing diabase.

Past Work

Silver was originally discovered on the property by Hugh Kell and associates in 1909. The Kell group, consisting of 5 claims, was subsequently optioned to J. G. Smith in 1919, who completed a 58° inclined shaft along the vein in 1920. The shaft measured 104 feet deep with 274 feet of development on the 54- foot level and 50 feet on the 100- foot level. A raise was driven to surface south of the shaft on the vein. Government reports indicate that at this time, a shipment of 1,584 pounds of ore yielded 1,620.9 ounces of silver.

In 1947, Silver Chest Mines Ltd acquired the property and constructed a camp on site. They built a headframe, dewatered the shaft, did about 900 feet of surface trenching and put down 3 diamond drill holes amounting to 120'.

Cobalt assessment files contain reports on the property from 1949-1957 at which time it was owned by George Pearson. The reports indicate that Pearson obtained \$2000 worth of silver by hand cobbing vein material from the adit and pits. A bulk sample of 253 pounds assayed 1703.8 opt silver and yielded 180 pounds of cobalt.

Ourgold Mining Company Ltd optioned the claims in 1962. Newspaper clippings from Cobalt area assessment files indicate that they drilled at least four holes in 1965. These intersected mineralized zones including: hole 1 with 15 feet assaying 1.11% Cu, 0.56 opt Ag, and 0.07% Co; 11.8' of 5.3 % Cu, 1.2 opt Ag, and 0.9% Co; and, hole 2 with 25 feet averaging 2.23 % Cu and 1.18 opt Ag.

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Plans were made to bring the property into production, however, they never materialized.

Following this work, the property fell under the influence of the Temagami Land Caution which caused all work and exploration to cease until the caution was recently lifted and the claims were staked by the current owner. As part of his OPAP program, Mr. Ploeger performed a number of geophysical surveys in addition to the work in this report.

Economic Geology

The main showing on the Kell property consists of a series of quartz calcite veinlets and veins containing native silver, argentite, smallite, millerite and niccolite. Small amounts of specularite, magnetite and pyrrhotite indicating higher temperature of formation were also reported. The veins occur along the easterly face of a narrow diabase ridge.

The main showing on which the shaft was sunk, comprises a fracture system up to 18 inches in width that roughly parallels the ridge and also the contact between the diabase dike and the surrounding quartzite. The main fracture has been traced by open cuts and trenches for several 100 m to the north end of the ridge. The main fracture system strikes at approximately 330° and dips at 55-60°W. In addition to the main fracture, there are occasional parallel and diagonal (conjugate?) veins which also contain high grade silver.

Current OPAP Work Program

The writer met with Mr. Jason Ploeger, the property owner, on several occasions to discuss the proposed work programs and accompanied the owner to the claims for an orientation prior to the work being conducted. Arrangements were made in August for contracting the linecutting on the main/ northerly part of the property, and subsequently, in October for adding extensions to these lines to the south to cover the diabase. In the absence of Mr. J. Ploeger, all the work was supervised by the writer.

Geophysical surveys were carried out by Keith Allen and helpers under the direction of C. J. Ploeger, who is a graduate geophysicist, and by Doug Robinson Consulting. The interpretation was all done by Mr. Ploeger.

The geological work was completed by the writer, F. Ploeger (F. R. Ploeger Enterprises Inc). Following the grid mapping, traverses were made across the diabase to attempt to locate contacts with the quartzite. Subsequently, the pits and open cuts were examined and mapped, and, finally, the extended grid was mapped as best as possible under the circumstances of early snow.

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The prospecting traverses were conducted by Mr. CJ Ploeger as an orientation prior to the commencement of the work and as a follow up to the geophysical surveys.

The work on this OPAP program resulted in the staking of additional claims in the adjacent townships.

GEOPHYSICAL REPORT

The following is a summary of the report on the geophysical surveys titled Report on Magnetometer Survey, Scintillometer Survey, and MAX-MIN Survey on the Kell East Grid, Corkill Township, Larder Lake Mining Division by C. Jason Ploeger which is appended to this OPAP report.

MAGNETOMETER SURVEY

The purpose of the magnetometer survey was to trace the path of the Nipissing Diabase sill across the property through the glacial outwash cover. Another reason for the magnetometer survey was to determine the origin and validity of the OGS magnetic target as seen on the OGS aero-magnetic map 8435G.

The *Kell East Grid* was established during the 1999 summer field program. It consisted of 9.0 km of line and 323 stations, at a spacing of 25m. The survey conducted by Keith Allen with help from Matthew Allen, required two days for completion and was performed in conjunction with the Scintillometer Survey.

The instrument used was a Sharpe Instruments MF-1 Fluxgate Magnetometer. The fluxgate magnetometer measures the vertical field at that point. The flux gate was chosen over a proton-procession on this grid, due to the high gradients usually exhibited by Nipissing diabase.

To take into account the diurnal shift that occurs during the span of a day, a "base station" was used. This was done by repeating the L3+00S 0+00E reading at the beginning, middle and end of each survey day. This indicated a magnetic drift of 16000 gammas over the day of the survey. Using the base station readings the data was corrected for drift and was contoured at a 5000 gamma interval with a commercial software package. This contouring was then imported into AutoCAD, where it was superimposed over the base map.

Interpretation of Results

Three anomalies were detected by the survey.

<u>Anomaly A</u> is a linear magnetic anomaly that crosses the entire property at an azimuth of 345 degrees. It appears to coincide with the Nipissing Diabase sill outcrop and extends under the glacial outwash along strike. In the Northern portion of the claim, the anomaly widens from 100m to over 200m on line zero. This could indicate an increased depth of overburden, widening of the sill or another magnetic rock unit masking the Diabase signature or a larger, more structurally altered complex.

<u>Anomaly B</u> appears as a linear structure that runs parallel to the Nipissing diabase. It appears as a low saddle point on Line 7 south at approximately 3+50m east in an area of green yellowish quartzite with quartz veining. The anomaly may be associated with oxidized sulfides, related to possible faulting or a bulge/ change in dip in the underlying diabase. This would also account for the slightly increased magnetic signature to the west of the anomaly.

<u>Anomaly C</u> appears on line 2 south and is roughly centered at 10+00 east. This anomaly is an east west magnetic low that seems to crossed by the Nipissing Diabase. This might represent a pre intrusion healed fault structure.

SCINTILLOMETER SURVEY

The scintillometer was chosen as a geological mapping aid in hopes that areas of increased alteration in the quartzite would be more easily pinpointed. This survey was also conducted by Keith Allen with help from Mathew and was done in conjunction with the magnetometer survey. The instrument used was a Scintrex Model BGS-1S Scintillation Counter. It measures the amount of radiation emitted by an object or rock unit. The same base station at 0+00 on line 3 was used to calibrate the scintillometer. Each reading over the two days was 102 counts per second confirming the repeatability and accuracy of the data collected. The readings were contoured at 20 gamma intervals with a commercial software package. This contouring was then imported into AutoCAD, where it was superimposed over the base map.

Interpretation of Results

<u>Anomaly D</u> is a large anomaly covering the northern portion of the grid. This area represents clear cut jack pine forest, with next to no vegetation or soil on the glacial sand, therefore, this anomaly represents overburden and can be ignored.

<u>Anomaly E</u> appears as an east west structure on line 2 south coinciding with the magnetic anomaly C. Being a radiometric low, this may indicate a change in rock type possibly related to a healed fault structure. This area definitely merits follow up work.

<u>Anomaly F</u> is a broad NNW trending anomaly. It seems to follow the apparent strike of the Nipissing Diabase sill and therefore is thought to represent it.

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MAX-MIN SURVEY

This type of electromagnetic survey was used to conduct an initial sweep of an area that had not previously been explored through geophysics. It was hoped that the mineralized structures in the Nipissing Diabase and quartzite could be traced with the Max-Min survey. It was run over lines L7S, L6S and L5S with L7S used as a control since it intersected the Nipissing Diabase ridge as well as an open cut on the main structure on the line at 5+25 east. In total, 2.325 km of max min surveying was performed by Doug Robinson Consulting. It was discontinued due to the lack of response.

The instrument used was a APEX MAXMIN I-9, with a coil spacing of 100m. The frequencies used were 3555Hz and 888Hz. The max-min operates by producing a primary electric field, which, when passed through a conducting body creates a secondary magnetic field. The magnetic field created can be measured as a percentage of the primary field

Interpretation of Results

There were no anomalies found over the surveyed area.

RECOMMENDATIONS

Recommendations made by Mr. C. J. Ploeger in his geophysical report, include:

a) Further exploration directly to the north of this claim block. This would involve the staking of an additional two units and a east west grid being cut over them. A magnetometer survey should then be conducted over the two lines to determine the extent of anomaly A.

b) Anomaly C is presently the most intriguing one. This seems to predate the intrusive structure and may represent an expression of the basement greenstone similar to that found less than two miles away in Donovan Township. If this is true, it could lead to finding the source of the anomalous gold and base metal mineralization in the fractures of the Nipissing diabase. It is recommended that a north south line be cut and a max min or IP survey performed over this anomaly.

c) A separate, more closely spaced grid should be cut perpendicular to the structure in the Nipissing diabase to allow for a dipole dipole IP survey to be done. This would better pin point mineralized veining.

d) A diamond drill hole should also be collared on the sill and be drilled perpendicular to the dip, providing a good cross-sectional representation of the sill.

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Mr. Ploeger summarizes by stating, "Interesting results have been recorded in the past. These are from bulk samples taken from the various surface pits on the property. The bulk samples of interest are a 1584 lbs sample producing 1620.9 ounces of silver and a 235 lbs sample producing 180 lbs of cobalt. The one intriguing assay comes from the Pearson Group, the north end of the property. This mentions a vein with high cobalt, native silver, native bismuth and one gold assay of .14 opt. In the trips made by myself to the site over the summer the shaft and adit were discovered, samples were also taken but not yet analyzed for any metals. One of the more interesting possibilities that will be examined in the future is the PGE content of the area. PGE's have been found in similar structures in the area east of Sudbury and might also be found on this property.

Even though the results of the geophysical surveys did not prove a larger deposit existed, it did not disprove it either. If anything the geophysics opened up many more questions that need to be answered."

GEOLOGICAL REPORT

The three phases of the current program are summarized in this report under the headings of: Property Geology: Examination of Shaft Area. Open Cuts and Adit: and, Mapping of Extended Grid. The complete report by the writer, F. Ploeger, titled Report on the Geology and Showings of the Kell Property, Corkill Township is appended to this OPAP report.

Property Geology .

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A grid consisting of 7.63 km of grid lines oriented east- west and a 700 m baseline oriented north south along the west boundary of the property was cut. Apart from a prominent ridge of diabase in the south central part and a few scattered exposures of quartzite in the west corner of the group, the property is covered with overburden. North of the creek in the north central part of the claims, the area is sand covered and has been clear cut.

Diabase

The diabase is in the form of an inclined sill which is reported to dip at 55W. Generally, the diabase ranges from fine to medium grained, medium to dark green grey, massive, equigranular and salt and pepper textured. In a few locations on the crest of the ridge and on the west slope, pieces of pink quartzite float were found but the contact with the diabase was not observed. The ridge normally begins on a talus slope with bluffs of outcrop exposed through the rubble.

The quartzite is poorly exposed in a few spots near the west boundary of the claim. It is generally medium to light orange pink in colour, fine grained,

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equigranular and massive. Locally, it was greenish yellow coloured and contained a patch of streaky quartz vein material.

Examination of Shaft Area, Open Cuts and Adit

Shaft Area

A 58° inclined shaft measuring 104 feet deep with development on the 54- foot and 100- foot levels was sunk along the main fracture system in 1920. A raise was driven to surface approximately 15m southeast of the shaft on the same structure, which, at this point strikes at 340° and dips 50W. It contains spotty irregular and lensoid patches of fine to coarsely crystalline calcite. A sample (# Kell 5) from this vein material yielded 10.4 ppm silver and 1135 ppm copper.

A second slip parallels the primary vein approximately 1 meter below. In addition, a series of secondary or conjugate slips/ veinlets splay from the main sets at 240°, 60S. Assays (# Kell 4) from these conjugate veinlets returned 65.6 ppm silver and 1.26% copper. A sample from the shaft muck pile (# Kell 7) containing a flake of silver assayed 157.79 opt (5410 g/ tonne).

A 25 foot (8m) deep cut has been made into the diabase cliff approximately 150' (45 m) north of the shaft area on a nest of fractures and mineralized veinlets that appear to be on- strike extensions of the main fracture system at the shaft. A chip sample (# Kell 1) over 1.5' on the south wall returned only traces of silver, cobalt and copper. A composite chip sample (# Kell 2) across three sets of splays in the face (5') of the cut, which trend at about 070 and dip steeply north and south, yielded 0.6 ppm silver, 32 ppm cobalt and 181 ppm copper. The most northerly slip, which is covered with malachite, continues along the wall of the open cut for about 10'. A chip sample (# Kell 3) from the north wall near the start of the cut returned 79.6 ppm silver, 167 ppm cobalt and 3.05% copper.

A piece of heavy arsenide rich material from the muck pile (# Kell 6) of the open cut, returned 8.4 ppm silver, >10,000 ppm arsenic, 4722 ppm cobalt, 3424 ppm copper and 5293 ppm nickel.

The upper brow and walls of the cut were blasted, stripped and washed following the initial mapping. Due to the weather and snow cover, follow up mapping could not be conducted this season, however, it is highly recommended for next year's program.

Approximately 200' (60m) northwest of the shaft, an adit has been driven about 50' into the wall of the diabase ridge, presumably to locate the extension of the mineralized fractures. A set of weakly calcitic fractures trending at 320° with a dip of 60W were observed in the back of the adit. No conjugate fracture/ vein sets or mineralization was observed, and therefore, no samples were taken.

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At line L7S @ 5+25E on the northerly tip of the diabase ridge, another cut has been made into the face. The cut appears to have been driven on a weak fracture set at about 310° dipping steeply at 75 west. Pieces of muck indicate that mineralization comprised a mix of calcite and quartz – calcite veinlets, meshed networks and gashes containing minor specks of pyrite and chalcopyrite.

MAPPING OF EXTENDED GRID

The main grid was extended southwards to cover the odd bulge which fits into the contour of the park boundary. This involved cutting a total of 1.38 line kilometers and 400 m of base line. Of the extra lines, only L8S extended west for 750 m to connect with the original baseline at 00. The remainder of the lines all stopped at the base of the massive diabase ridge to the west. Generally, the ridge begins on a talus slope with bluffs of outcrop exposed through the rubble. Although there was quartzite float observed on the backslope of the ridge, none was seen to be in place. Several small, poorly exposed outcrops of quartzite similar to that found as float occur around 1+60 to 2+00E on L8S

The north open cut was also reexamined following the stripping and attempts to remove the water from the face. The entrance to the cut had been stripped of the muck pile and overburden cover. There was, however, no evidence of the fracturing or veining seen in the face or previously observed in the broken muck.

Summary and Recommendations

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The following is summarized from the report by the writer.

The property comprises one seven unit unpatented mining claim, 1226888, located in the southwest corner of Corkill Township against a buffer zone surrounding Lady Evelyn Park. The property is named after Hugh Kell, the original discoverer of the silver showing on the group in 1909. Subsequent to the discovery, there was extensive physical work conducted on the claims including the sinking of an inclined shaft, and adit, and several open cuts. F. R Ploeger Enterprises Inc. was retained to supervise all the work on the claims and to map the grids and the workings in detail.

The Kell property is underlain by Lorrain quartzite which is intruded by a sill of Nipissing diabase. These units are exposed only in the southern and western ends of the claim. The remainder of the property is obscured by glacial sand and outwash deposits.

The main showing on the Kell property, on which a 58° inclined shaft measuring 104 feet deep with development on 2 levels was sunk in 1920. It consists of a quartz calcite filled fracture system up to 18 inches in width containing native silver, argentite, smaltite, millerite and niccolite. The veins occur along the easterly face of a narrow diabase ridge. The main fracture, which strikes at approximately 330° and dips at 55-60°W, has been traced by open cuts, an adit

and trenches for several 100 m to the north end of the ridge. In addition to the main fracture, there are occasional parallel and diagonal (conjugate?) veins which also contain high grade silver.

Various samples from structure yielded the following results: # Kell 5) near the raise to surface, 10.4 ppm silver and 1135 ppm copper; # Kell 4) from a conjugate fracture set, 65.6 ppm silver and 1.26% copper; # Kell 7) from the muck pile containing a flake of silver assayed 157.79 opt (5410 g/ tonne); # Kell 1) a chip sample over 1.5' on the south wall of cut 1 returned only traces of silver, cobalt and copper; # Kell 2) a composite chip sample across three sets of splays in the face (5') of cut 1, 0.6 ppm silver, 32 ppm cobalt and 181 ppm copper; # Kell 3) a chip sample from the north wall of cut 1, 79.6 ppm silver, 167 ppm cobalt and 3.05% copper; # Kell 6) a piece of heavy arsenide rich material from the muck pile of open cut 1, 8.4 ppm silver, >10,000 ppm arsenic, 4722 ppm cobalt, 3424 ppm copper and 5293 ppm nickel.

Approximately 200' (60m) northwest of the shaft, an adit has been driven about 50' into the wall of the diabase on a set of weakly calcitic fractures trending at 320° with a dip of 60W were observed in the back of the adit.

On the northerly tip of the diabase ridge, another cut has been made into the face on a weak fracture set at about 310° dipping steeply at 75 west.

The main grid was extended southwards to cover the odd bulge which fits into the contour of the park boundary. This involved cutting a total of 1.38 line kilometers and 400 m of base line. Of the extra lines, only L8S extended west for 750 m to connect with the original baseline at 00. The remainder of the lines all stopped at the base of the massive diabase ridge to the west. Several small, poorly exposed outcrops of quartzite similar to that found as float occur around 1+60 to 2+00E on L8S

The north open cut was also reexamined following the stripping. There was no evidence of the fracturing or veining seen in the face.

Additional work is required to reexamine the recently stripped areas around the showings since the weather/ snow conditions did not allow for proper examination. Gold values have been reported from the stripping on the top of open cut 1. This area should be mapped and sampled in detail.

Geophysical surveys that were conducted in conjunction with the geological program outlined the continuation of the diabase sill under the glacial cover. This area should be prospected between the grid lines to determine if there are any additional diabase exposures that may contain an extension of the fracture system. The quartzite on the hanging wall contact of the sill should be examined and sampled to check the possibility of the deposition of a hydrothermally generated alteration and/ or mineralized system.

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Prospecting traverses should be conducted outside the property to locate extensions of the sill. There are reports of an Archean inlier to the south. This should be checked because it represents a "Cobalt- type" environment in which there is the mix of basement volcanics, Cobalt Group sediments and Nipissing diabase intrusives. This is a perfect setting for a silver- cobalt deposit.

Diamond drilling under the showings and along strike is certainly warranted to trace the fracture system at depth. Cobalt- type silver veins tend to pinch and swell both vertically and laterally. Therefore, there may be significantly higher grade zones of enrichment along strike or at depth.

PROSPECTING

The property owner Mr. C. J. Ploeger, conducted several prospecting traverses over the property and on adjacent lands which are summarized below. The plans of the traverse lines are appended to the report and the descriptions are summarized in the applicant's log. The days spent prospecting were June 14, 15, 16, 23, September 3, 9, November 30, December 1 and 2, 1999.

Several prospecting excursions were conducted in June prior to the commencement of the major OPAP work programs. These were orientation surveys to determine the best approach to the detailed work and to locate areas of interest. It was through these traverses that the shafts and open cuts were located and the general trend and distribution of the rock units determined. This data was subsequently used to orient the grid.

Later traverses in December were conducted as a follow up to the results of the geophysical surveys to try to locate extensions of the diabase and to find additional high potential areas outside the property. This has lead to additional staking in the adjacent townships (pers. comm., CJ Ploeger).

Respectfully Submitted

F. R. Ploeger, B.Sc., P. Geo., FGAC, AGO

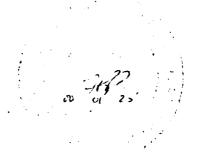
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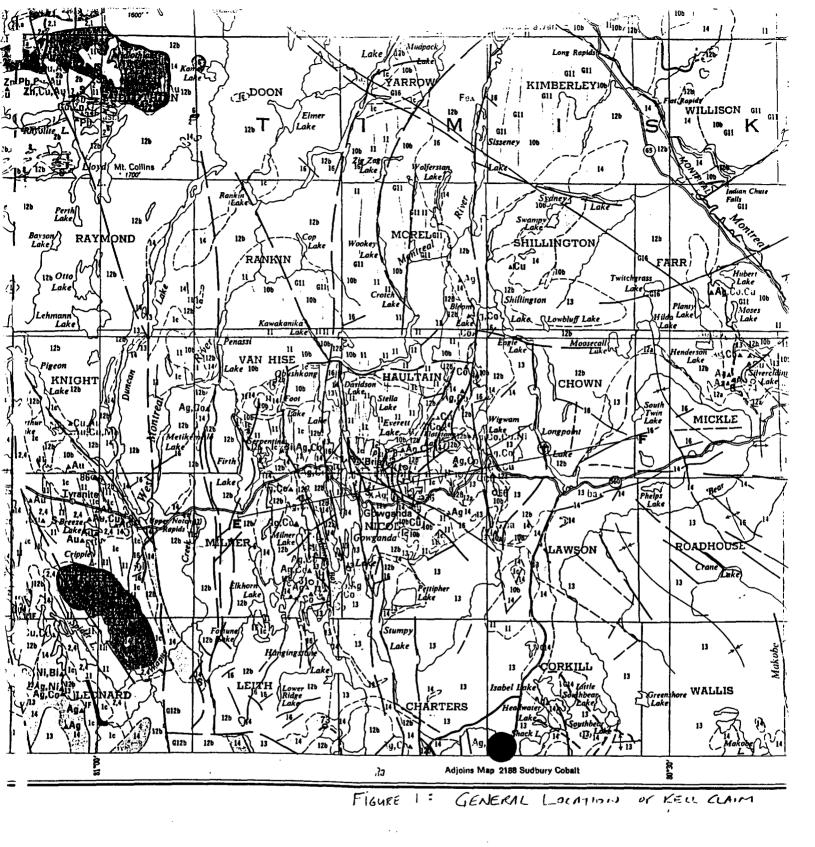
QUALIFICATIONS

I, Frank R. Ploeger, certify that:

- 1) I graduated from Queen's University with a BSc in Applied Science in 1973;
- 2) I completed 2 years of an MSc program at McMaster University in1982:
- 3) I have been practicing as a geologist since graduation;
- 4) I am a Fellow of the GAC;
- 5) I am a Registered Professional Geologist in Saskatchewan (APEGS);
- 6) I am member in good standing with the Association of Geoscientists of Ontario;
- 7) I currently reside at 59 Connell Ave., Suite 2, Virginiatown, ON, POK 1X0I
- 8) I personally supervised or participated in all the work on the property.
- 9) I have no interest in the property.

F. R. Ploeger, BSc, FGAC, P. Geol., AGO





Map 2205

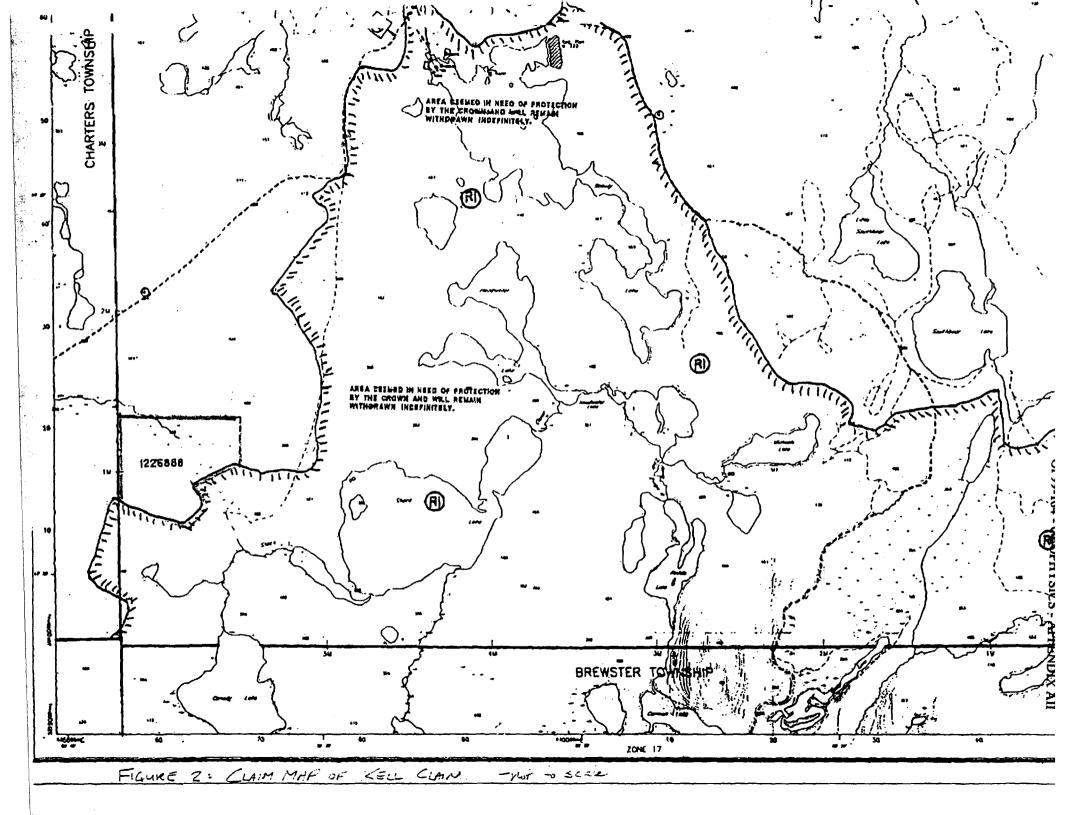
TIMMINS-KIRKLAND LAKE

Geological Compilation Series

COCHRANE, SUDBURY AND TIMISKAMING DISTRICTS

Scale 1:253.440 or 1 Inch to 4 Miles

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REPORT ON

MAGNETOMETER SURVEY, SCINTILLOMETER SURVEY, AND MAX-MIN SURVEY

ON THE KELL EAST GRID CORKILL TOWNSHIP

LARDER LAKE MINING DIVISION

C. Jason Ploeger, BSc Geophysicist January 8, 2000

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LOCATION

The Old Kell Mine Project consists of one seven unit claim (1226888) which is approximately 84 ha in size. The property is located in the southwest corner of Corkill Township bordering the buffer zone surrounding the Lady Evelyn Park, within the Larder Lake Mining Division. The NTS map reference is 41-P-10E and the old workings are located approximately N47°50'300" and W80°64'300'.

LOCATION MAP

- see attached map from "Timmins-Kirkland Lake Geological Compilation Series Map 2205"

- appendix A1

ACCESS

The Old Kell Mine Project can easily be accessed by vehicle from Elk Lake by proceeding westward highway 560, until the Beauty Lake road. Then by traveling south on the Beauty Lake road for approximately nine miles. A smaller bush road then goes to the main showing at the south end; however the last 300m of the road is overgrown but can be easily cleared. Access to the north portion of the property can be achieved via logging road about a mile further along the Beauty Lake road.

CURRENT CLAIM MAP

- see attached map

- appendix A2

PROSPECTING TARGETS AND PROPERTY POTENTIAL

The main showing is located on a ridge of north striking Nipissing diabase. The deposit is located in the footwall and consists of fractures of highgrade native silver (2000 opt) with

mineralization including smaltite, millerite, niccolite, magnetite, specularite and pyrrhotite. The diabase protrudes through the Huronian, which at this point is quartzite.

The quartzite which it protrudes through has an interesting aspect also. The area directly east of the Nipissing diabase exihibits a magnetic high, on the OGS aero-magnetic map 8435G (appendix A3). This area would be considered the head wall being diresctly above the intrusion and therefore mat have undergone some alteration or the precipitation of metals during the Nipissing Sill intrusion.

This shows that the property not only exhibits excellent silver potential but also major potential for base metals. The other minor target is the possibility of PGE's, similar to those found in the Sudbury area.

REGIONAL GEOLOGY

The geology of the Charters and Corkill Townships, in the District of Timiskaming was covered extensively by McIlwaine (1971).

The oldest lithological unit is a intermediate to mafic metavolcanic (andesite, basalt, tuff, agglomererate, quartz sericite schist) of Archean age. These rock types have been identified in outcrop and represent a basement topographic high in the adjacent Lawson Township. An early mafic intrusive rocks (Matachewan-type diabase dikes) represent the last of the Archean activity in this area and therefore have not been found to intrude in to Huronian rock.

Eighty-five percent of both Charters and Corkill Townships are underlain by the Cobalt Group within the Huronian Supergroup, primarily the Lorrain (quartzite, feldspathic quartzite, arkose) and Gowganda (siltstone, sandstone, greywacke, arkose, conglomerate) Formations.

Intruding all of the above rock units is the Nipissing Diabase (quartz diabase, granophyre). (This is of main geological interest due to the association between the diabase and silver deposits.) The Nipissing Diabase are emplaced within the Cobalt Group as both sills and dykes. The geomagnetic and diabase outcrop observations of the dyke systems have suggested an interpretation of a more north-south trend than east-west.

The townships were later (Pleistocene) covered with glacial moraine and out-wash deposits. This represents the majority of overburden that hinders the interpretation of the underlying rock units. The overburden has limited past prospecting activities to the few areas with thin drifts and high percentage of diabase exposure.

The regional mineralization of primary economic interest within both Charters and Corkill township is with in the Nipissing Diabase and/or alteration zone surrounding the mineralized veins. Although the bulk of the ore bearing veins have been found predominantly within the Nipissing diabase, some have been observed in the overlying sedimentary rocks.

PROPERTY GEOLOGY

The property is underlain by "multicolored" quartzite, ranging in colors from pink to grey, which is part of the Huronian Metasedimentary package. These have been intruded by a sill of Nipissing Diabase on which the main showing appears. The main mineralization, found to date, is exposed in quartz-calcite veins within the Nipissing Diabase.

The quartzite and Nipissing Diabase sill are exposed on the southern end of the claim. The Nipissing Diabase sill dips westerly at an angle of 55 degrees, underneath a quartzite on the western portion of the claim. The entire northern portion of the claim is covered by a glacial outwash of undetermined depth.

PROPERTY HISTORY

The previous work on this property is quite extensive, starting in 1909 and ending in 1968,

due to the land caution in the area. In 1909 an inclined shaft was sunk on a high grade silver vein. On four levels over 200 feet of lateral work was done. It was reported that one bulk sample was removed, the 1584 pound sample wielded 1621 ounces of silver.

In 1947 Silver Chest Mines Ltd acquired the property and constructed bunkhouses, headframe and a hoist was installed and the shaft dewatered. Following this they did over 900 feet of surface trenching and drilled three shallow diamond drill holes.

In 1966, Ourgold Mining Co Ltd, resumed drilling on the property, for a total of three more holes. This resulted in three press releases that mentioned sections including 15ft with assays of: 1.11% Cu; .56opt Ag; .07% Co. This was closely followed by another section of 11.8ft with 5.3% Cu; 1.2 opt Ag; .9% Co. The second drill hole had an intersection of 2.23% Cu and 1.18 opt Ag. In the later stages of exploration and development plans were introduced to bring the mine into production and for the construction of a mill on site; however, this area then became part of the Temagami Land Caution and had to be closed. This property then remained dormant until the caution was lifted and the present owner obtained the property, however none of the original plans, drill core or drill logs have been found.

REASON FOR EXPLORATION

This area hosts a known deposit with substantial assays as seen in the MDI # T0267. Since this area has been closed to staking and prospecting for twenty years it has never been looked at with geophysics. This combined with the inability of finding the original property information means that one must return and tackle this as a grass roots project. This means cutting of a grid, geological mapping, magnetometer and max-min surveys with stripping and trenching with possible IP and diamond drilling follow ups. This will give a better understanding of the area and its potential.

KELL EAST GRID

The *Kell East Grid* is the name given to the grid that was cut during the 1999 field season. It consists of approximately 9 km of cut and picketed line mostly on the north portion of the property. The south portion of the property as many lines as possible were cut, but due to the nature of the terrain (cliffs), linecutting and geophysics proved to be impossible.

MAGNETOMETER SURVEY – KELL EAST GRID

Purpose

The purpose of this magnetometer survey was to conduct an initial sweep of the property. With a good portion of the *Kell East Grid* consisting of glacial outwash a magnetometer survey would prove to be an important tool in tracing the path of the Nipissing Diabase sill across the property. Another reason for the magnetometer survey was to determine the origin and validity of the OGS magnetic target as seen on the OGS aero-magnetic map 8435G (appendix AIII).

Scope

The *Kell East Grid* was established during the 1999 summer field program. It consisted of 9.0 km of line and 323 stations, at a spacing of 25m. The survey conducted by Keith Allen with help from Matthew Allen, required two days for completion and was performed in conjunction with the Scintillometer Survey.

Instrumentation and Method

The instrument used was a Sharpe Instruments MF-1 Fluxgate Magnetometer. This fluxgate magnetometer measures the vertical field at that point. The flux gate was chosen over a proton-procession on this grid, due to the high gradients usually exhibited by Nipissing Diadase.

Almost everything on the earth has some form of magnetization. It can be either measured

as a positive magnetization or negative magnetization. This can be carried over to the properties of rocks and other buried objects. The magnetometer measures the distortions in the natural earth magnetic field caused by these subsurface bodies.

To take into account the diurnal shift that occurs during the span of a day, a "base station" was used. This was done by repeating the L3+00S 0+00E reading at the beginning, middle and end of each survey day. This indicated a magnetic drift of 16000 gammas over the day of the survey.

Using the base station readings the data was corrected for drift and was contoured at a 5000 gamma interval with a commercial software package. This contouring was then imported into AutoCAD, where it was superimposed over the base map.

Interpretation of Results

Anomaly A

Is a linear magnetic anomaly that crosses the entire property at an azimuth of 345 degrees. It appears on line 7 south at station 5+50E which coincides with the Nipissing Diabase sill outcrop and extends under the glacial outwash along strike. The indicates the source of this anomaly to be the Nipissing Diabase sill. The interesting part of *Anomaly A* is located on the Northern portion of the claim, after crossing the entire property with a width of approximately 100m the anomaly widens to over 200m on line zero. This could indicate a increase depth of overburden, another magnetic rock unit masking the Diabase signature or a larger structurally altered complex.

Anomaly B

This anomaly appears also as a linear structure that runs parallel to the Nipissing diabase. It appears as a low saddle point on Line 7 south at approximately 3+50m east. Outcrops at this point are sharp vertical structures approximately 4 feet in height. They are a green yellowish quartzite with

quartz veining. The color indicates possible oxidized sulfides, however the terrain indicates the possibility of faulting. I think the west block was upthrust slightly at this point after the intrusion of the diabase. This would also account for the slightly increased magnetic signature to the west of the anomaly.

Anomaly C

This anomaly appears on line 2 south and is roughly centered at 10+00 east. This anomaly is a east west magnetic low that seems to crossed by the Nipissing Diabase. This might represent a pre intrusion healed fault structure.

j) SCINTILLOMETER – KELL EAST GRID

Purpose

The purpose of this magnetometer survey was to conduct an initial sweep of an area that has not previously been explored through geophysics. The scintillometer was chosen as a geological mapping aid in hopes that areas of increased alteration in the quartzite would be more easily pinpointed.

Scope

The *Kell East Grid* was established during the 1999 summer field program. It consisted of 9.0 km of line and 323 stations, at a spacing of 25m. The survey which was conducted by Keith Allen with help from Mathew Allen required two days for completion and was done in conjunction with the magnetometer survey.

Instrumentation and Method

The instrument used was a Scintrex Model BGS-1S Scintillation Counter. It measures the amount of radiation emitted by an object or rock unit.

Most objects in the universe have slight radioactivity, in the case of rock units each tends to have a unique radioactive signature. To carry this even further the alteration process tends to increase the radioactive signature of the unit. This was the process I hoped would help identify altered areas of the quartzite.

The radiometric signature of a area should stay static. This was proven at station 0+00 on line 3 south, each time the magnetometer was tied in a scintillometer reading was also taken. Each reading over the two days was 102 counts per second. This proves the repeatability and accuracy of the data collected.

Using the base station readings the data was corrected for drift and was contoured at a 20 gamma interval with a commercial software package. This contouring was then imported into AutoCAD, where it was superimposed over the base map.

Interpretation of Results

Anomaly D

This is a large anomaly covering the northern portion of the grid. This area represents a recently clear cut jack pine forest, with next to no vegetation or soil on the glacial sand. This leads me to believe that this anomaly represents overburden and therefore can be ignored.

Anomaly E

This anomaly appears as an east west structure on line 2 south coinciding with the magnetic anomaly C. Being a radiometric low, this may indicates a change in rock type most likely a healed fault structure. This area definitely merits follow up work.

Anomaly F

This is a broad NNW trending anomaly. It seems to follow the apparent strike of the

Nipissing Diabase sill and therefore is thought to represent it.

k) MAX-MIN – KELL EAST GRID

Purpose

The purpose of this max-min survey was to conduct an initial sweep of an area that has not previously been explored through geophysics. It was hoped that the mineralized portions of Nipissing Diabase and quartzite would be visible with the Max-Min.

Scope

The grid used was established during the exploration program of summer 1999 field season. The max-min was performed on 3 lines L7S, L6S and L5S. L7S was used as a control because it was the only one that exhibited a Nipissing Diabase outcrop in the grid area plus the existence of a mineralized pit on the line at 5+25 east. In total 2.325 km of max min surveying was performed, before it was discontinued due to the lack of response.

Instrumentation and Method

The instrument used was a APEX MAXMIN I-9, with a coil spacing of 100m. The frequencies used were 3555Hz and 888Hz.

The max-min operates by producing a primary electric field which when passed through a conducting body creates a secondary magnetic field. The magnetic field created can be measured as a percentage of the primary field. Due to the affect of elevation changes between the loops slope measurements have to be taken into account.

Interpretation of Results

There was no anomalies found over the surveyed area.

RECOMMENDATIONS

I recommend further exploration occur directly to the north of this claim block. This would involve the staking of an additional two units and a east west grid being cut over them. A magnetometer survey should then be conducted over the two lines to determine the extent of anomaly A.

Anomaly C is presently the most intriguing one. This seems to predate the intrusive structure. This may represent the basement greenstone that can be found less than two miles away in Donovan Township. If this is true, it could lead to finding the source of the anomalous gold and base metals found as a secondary replacement structure within the mineralization in the Nipissing Diabase. Over this anomaly a north south line should be cut with a max min or IP survey performed.

Over the Nipissing Diabase structure in the south, if possible lines should be cut crossing the structure to allow for a dipole dipole IP survey to be done. This would better pin point mineralized veining. A diamond drill hole should also be collared on the sill and be drilled perpendicular to the dip, providing a good cross-sectional representation of the sill.

CONCLUSIONS

Interesting results have been recorded in the past. These are from bulk samples taken from the various surface pits on the property. The bulk samples of interest are a 1584 lbs sample producing 1620.9 ounces of silver and a 235 lbs sample producing 180 lbs of cobalt. The one intriguing assay comes from the Pearson Group, the north end of the property. This mentions a vein with high cobalt, native silver, native bismuth and one gold assay of .14 opt.

In the trips made by myself to the site over the summer the shaft and adit were discovered, samples were also taken but not yet analyzed for any metals. One of the more interesting possibilities that will be examined in the future is the PGE content of the area. PGE's have been found in similar structures in the area east of Sudbury and might also be found on this property.

Even though the results of the geophysical surveys did not prove a larger deposit existed, it did not disprove it either. If anything the geophysics opened up many more questions that need to be answered.

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OGS 1926, AR Vol 35, pt 3, p58-59

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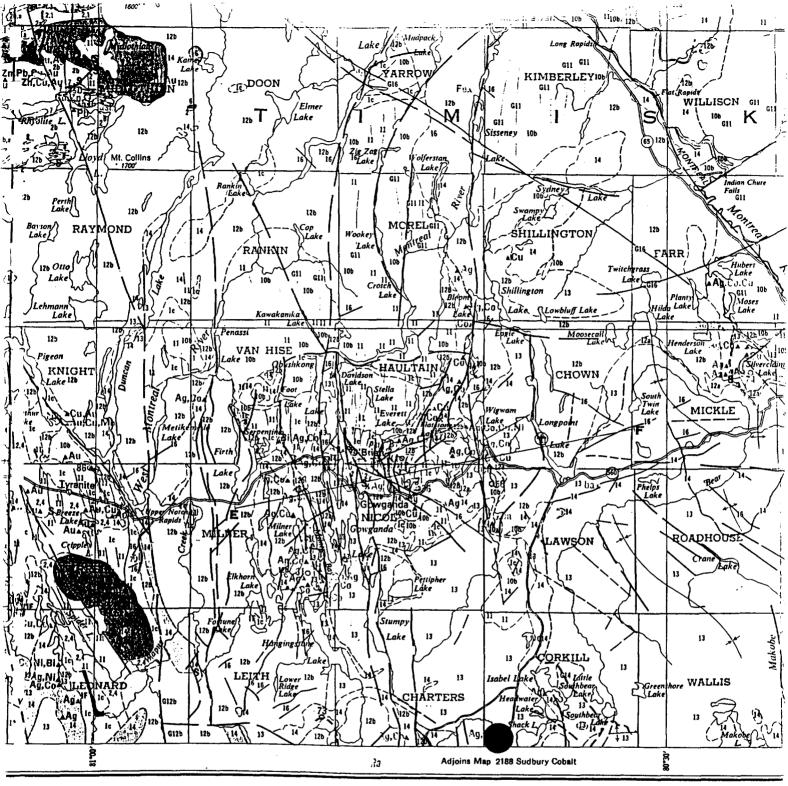
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AFCO ~1946, Silver Chest Mines Ltd

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OGS 1997, OFR 5962



PROPERTY LOCATION

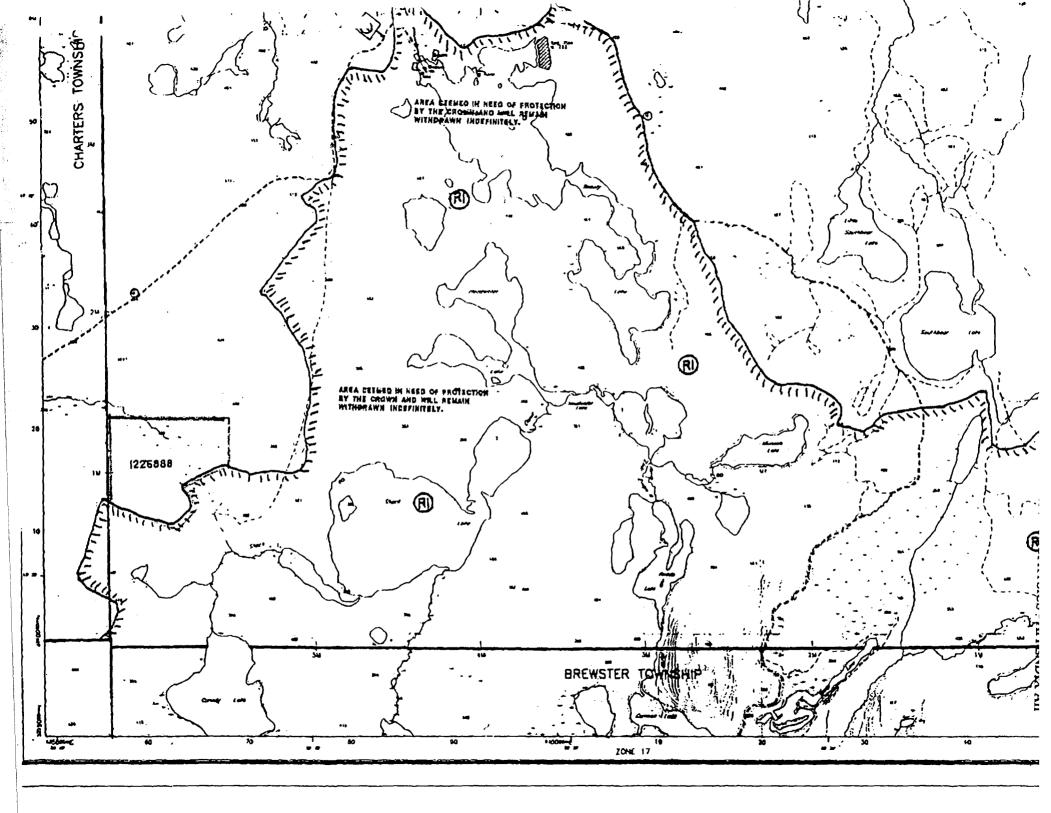
Map 2205

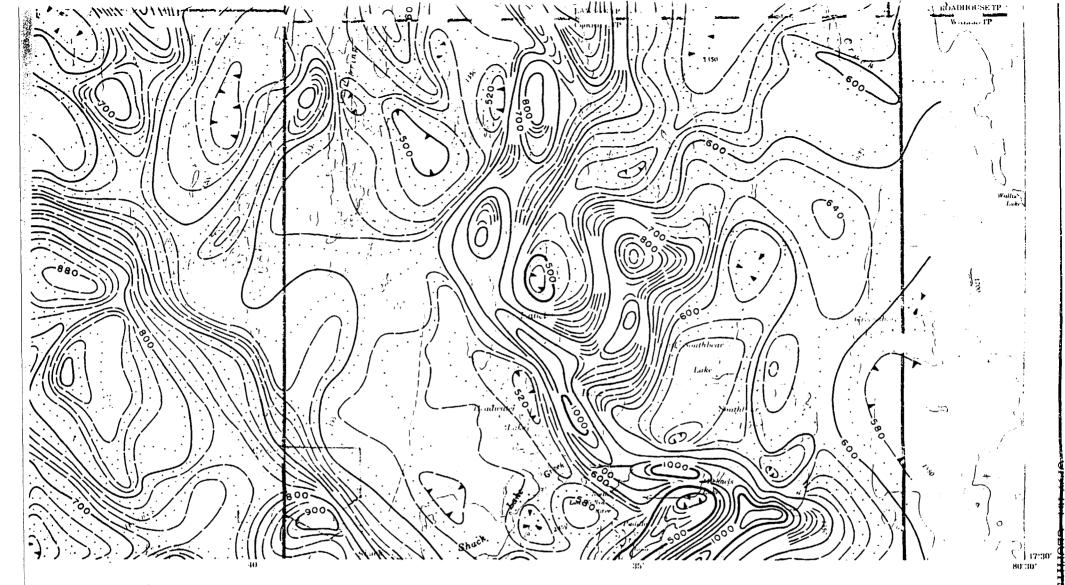
TIMMINS-KIRKLAND LAKE

Geological Compilation Series

COCHRANE, SUDBURY AND TIMISKAMING DISTRICTS

Scale 1:253,440 or 1 Inch to 4 Miles





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No correction has been made for regional variation.

The topography for this map was reproduced from 150,000

The magnetic data on this map were compiled from information recorded along the flight lines shown. The anomalies expressed by the magnetic contours are dependent on the variable magnetic intensities of the underlying rocks, and may be due to conditions near, or at unknown depths below the surface. High magnetic anomalies normally indicate the presence of basic rocks, such as diabase, gabbro, or serpentinite, which have a relatively high iron content, but in special instances may be due, or partly due, to concentrations of magnetic minerals. By means of

OP99-164 - GEOPHYSICS - APPENDIX BI

| Line | Station | Ràw Mag | Raw Scint | Time | Diurnal Shifted Mag | Max Min Frequency 3555 Hz IP | Max Min Frequency 3555 Hz Quad | Max Min Frequency 888 Hz IP | Max Min Frequency 888 Hz Quad |
|--------------|----------|----------------|------------|----------------|---------------------------|------------------------------------|---|-----------------------------------|--|
| 0 | 0 | 94000 | 138 | 14.80 | 76920 | | | | |
| 0 | 25 | 86000 | 138 | 14.83 | 68911 | | | | |
| 0 | 50 | 84000 | 180 | 14.85 | 66906 | | | | |
| 0 | 75 | 90000 | 162 | 14.87 | 72902 | | | | |
| 0 | 100 | 92000 | 222 | 14.88 | 74897 | | | | |
| 0 | 125 | 94000 | 210 | 14.92 | 76888 | | | | |
| 0 | 150 | 86000 | 204 | 14.93 | 68883 | | | | |
| 0 | 175 | 108000 | 186 | 14.95 | 90879 | | | | |
| 0 | 200 | 102000 | 168 | 14.97 | 84874 | | | | |
| 0 | 225 | 102000 | 216 | 15.00 | 84865 | | | | |
| 0 | 250 | 102000 | 234 | 15.02 | 84860 | | | | |
| 0 | 275 | 114000 | 222 | 15.03 | 96856 | | | | |
| 0 | 300 | 120000 | 204 | 15.07 | 102847 | | | | |
| 0 | 325 | 108000 | 216 | 15.08 | 90842 | ļ | | | |
| 0 | 350 | 102000 | 216 | 15.10 | 84838 | | | | |
| 0 | 375 | 102000 | 228 | 15.12 | 84833 | | - | | |
| 0 | 400 | 102000 | 210 | 15.13 | 84828 | | | | |
| 0 | 425 | 108000 | 222 | 15.17 | 90819 | | | | |
| 0 | 450 | 78000 | 210 | 15.18 | 60815 | | | | |
| 0 | 475 | 86000 | 216 | 15.20 | 68810 | l | | | |
| 0 | 500 | 92000 | 216 | 15.23 | 74801 | | | | |
| 0 | 525 . | 84000 | 234 | 15.25 | 66796 | | | | |
| 0 | 550 | 80000 | 204 | 15.28 | 62787 | | | | |
| 0 | 575 | 60000 | 270 | 15.32 | 42778 | | | | |
| 0 | 600 | 68000 | 258 | 15.37 | 50764 | | | | |
| 0 | 625 | 64000 | 246 | 15.38 | 46760 | | | | |
| 0 | 650 | 66000 | 246 | 15.40 | 48755 | | | | |
| 0 | 675 | 52000 | 294 | 15.43 | 34746 | | | | |
| 0 | 700 | 52000 | 264 | 15.47 | 34737 | | | | |
| 0 | 725 | 58000 | 252 | 15.48 | 40732 | | | | |
| 0 | 750 | 64000 | 228 | 15.52 | 46723 | | | | ····· |
| 0 | 775 | 64000 | 234 | 15.53 | 46719 | | | | |
| 0 | 800 | 64000 | 234 | 15.55 | 46714 | | | | |
| 0 | 825 | 70000 | 240 | 15.58 | 52705 | | | | |
| 0 | 850 | 50000 | 198 | 15.82 | 32641 | | | | |
| 0 | 875 | 54000 | 180 | 15.83 | 36636 | | | | |
| 0 | 900 | 64000 | 150 | 15.85 | 46632 | | | | |
| 0 | 925 | 68000 | 126 | 15.98 | 50595 | | | | |
| 0 | 950 | 54000 | 120 | 16.00 | 36590 | | | | |
| | 975 | 70000 | 114 | 16.02 | 52586 | | | | |
| -100 -100 | 0 25 | 94000 90000 | 144 126 | 14.72 14.68 | 76943 72952 | | | | |
| -100 | 25 50 | 90000 | | 14.65 | 72952 | | | | |
| -100 | 75 | 92000 | 120 | 14.00 | 14901 | | | | |

:...

| -100 | 100 | 90000 | 126 | 14.53 | 72993 | 1 | T | r | 1 |
|------|------------|--------|-----------------|-----------------------|-----------------------|--------------|--------------|----------|----------|
| -100 | 125 | 94000 | 198 | 14.52 | 76998 | <u> </u> | <u>}</u> | <u> </u> | <u>}</u> |
| -100 | 150 | 88000 | 180 | 14.48 | 71007 | + | <u> </u> | <u> </u> | |
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| -100 | 200 | 94000 | 198 | 14.43 | 77021 | <u> </u> | <u>}</u> | <u> </u> | } |
| -100 | 225 | 78000 | 180 | 14.37 | 61039 | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
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| -100 | 300 | 94000 | 264 | 14.30 | 77066 | { | { | | <u> </u> |
| -100 | 300 | 90000 | 204 | 14.27 | 73076 | | <u> </u> | | |
| -100 | 350 | 96000 | 240 | 14.23 | 79085 | <u> </u> | <u> </u> | <u> </u> | |
| -100 | 375 | 102000 | 240 | 14.20 | 85089 | { | { | { | } |
| -100 | 400 | 102000 | 240 | 14.17 | 85094 | <u> </u> | <u> </u> | <u> </u> | |
| -100 | 400 | 86000 | 282 | 14.17 | 69103 | | | | <u> </u> |
| -100 | 425 | 74000 | 202 | 14.13 | 57108 | | | | } |
| -100 | 450 | 72000 | 270 | 14.12 | 55112 | <u> </u> | | | |
| -100 | 475 500 | 78000 | 270 | 14.10 | 61117 | <u> </u> | | | f |
| -100 | 525 | 72000 | 126 | 13.50 | 55277 | } | <u> </u> | | |
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| -100 | 625 | 64000 | 102 | 13.40 | 47304 | | <u> </u> | | |
| -100 | 650 | 68000 | 96 | 13.35 | 51318 | <u> </u> | | | |
| -100 | 675 | 66000 | 96 | 13.30 | 49332 | | | | |
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| -100 | 750 | 72000 | 114 | 13.27 | 55346 | <u> </u> | | | |
| -100 | 775 | 74000 | 108 | 13.22 | 57355 | { | <u> </u> | | <u> </u> |
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| -100 | 850 | 60000 | 96 | 13.17 | 43368 | | | | |
| -100 | 875 | 80000 | 114 | | | | | | |
| -100 | 900 | 86000 | 108 | <u>13.13</u> 13.12 | 63378 | <u> </u> | | | |
| -100 | 900 | 60000 | 96 | 13.12 | 69382 43391 | | | | |
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| -100 | 1000 | 48000 | 84 | 13.03 | | | | | |
| -100 | 1025 | 58000 | <u>64</u> 78 | 12.98 | 31410 41419 | | | | |
| -100 | 1025 | 68000 | 96 | 12.98 | <u>41419</u> 51428 | | | | |
| -100 | 1030 | 64000 | 102 | 12.95 | 47432 | | ,- <u></u> , | | |
| -100 | 1100 | 70000 | 114 | 12.93 | <u>47432</u> 53437 | | | | |
| -100 | 1125 | 66000 | 96 | 12.92 | 49446 | | | | |
| -100 | 1125 | 72000 | 126 | 12.85 | <u>49446</u> 55455 | | | | |
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| -100 | 1200 | 74000 | 120 | 12.82 | 49465 57474 | | | | |
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| -200 | 25 | 80000 | 96 96 | 17.93 | 62069 | | | | |
| -200 | | 84000 | 96 102 | 17.90 | | | | | |
| -200 | | 04000 | 102 | 17.0/ | 66078 | L | L <u> </u> | l | L |

| -200 | 75 | 90000 | 108 | 17.83 | 72087 | 1 | <u></u> | 1 | I |
|------|------|--------|-----|-------|--------|----------|---------|----------|---------|
| -200 | 100 | 78000 | 102 | 17.80 | 60096 | } | | | |
| -200 | 125 | 76000 | 102 | 17.77 | 58105 | | | | |
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| -200 | 1150 | 56000 | 132 | 16.37 | 38490 | | | | |
| -200 | 1175 | 56000 | 180 | 16.33 | 38499 | | | | |
| -200 | 1181 | 58000 | 156 | 16.30 | 40508 | | | | |
| -300 | 0 | 84000 | 102 | 10.87 | 68000 | | | | |
| -300 | 25 | 88000 | 96 | 10.88 | 71995 | | | | |

| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | |
|--|---|
| -300 100 92000 78 10.95 75977 -300 125 84000 78 10.98 67968 -300 150 100000 66 11.03 83954 -300 175 92000 84 11.07 75945 -300 200 92000 54 11.08 75941 -300 225 92000 66 11.10 75936 -300 250 92000 60 11.12 75931 | |
| -300 125 84000 78 10.98 67968 | |
| -300 150 100000 66 11.03 83954 -300 175 92000 84 11.07 75945 -300 200 92000 54 11.08 75941 -300 225 92000 66 11.10 75936 -300 250 92000 60 11.12 75931 | |
| -300 175 92000 84 11.07 75945 | |
| -300 200 92000 54 11.08 75941 -300 225 92000 66 11.10 75936 -300 250 92000 60 11.12 75931 | |
| -300 225 92000 66 11.10 75936 -300 250 92000 60 11.12 75931 | |
| -300 250 92000 60 11.12 75931 | |
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| -300 300 98000 66 11.15 81922 | |
| -300 325 98000 48 11.17 81918 | |
| -300 350 92000 60 11.20 75908 | |
| -300 375 96000 72 11.22 79904 | |
| -300 400 98000 66 11.23 81899 | |
| -300 425 114000 66 11.27 97890 | |
| -300 450 126000 90 11.30 109881 | |
| -300 475 108000 66 11.33 91872 | |
| -300 500 90000 54 11.35 73867 | |
| -300 525 90000 66 11.37 73863 | |
| -300 550 84000 90 11.40 67854 | |
| -300 575 72000 90 11.42 55849 | |
| -300 600 76000 84 11.43 59844 | |
| -300 625 82000 72 11.47 65835 | |
| -300 650 70000 78 11.48 53831 | |
| -300 675 76000 78 11.50 59826 | |
| -300 700 76000 84 11.53 59817 | |
| -300 725 74000 96 11.55 57812 | , |
| -300 750 70000 90 11.57 53808 | |
| -300 775 82000 90 11.82 65739 | |
| -300 800 74000 90 11.88 57721 | |
| -300 825 64000 90 11.90 47716 | |
| -300 850 64000 108 11.93 47707 | |
| -300 875 50000 96 11.95 33703 | |
| -300 900 64000 78 11.98 47693 | |
| -300 925 66000 108 12.00 49689 | |
| -300 950 80000 90 12.03 63680 | |
| -300 975 74000 90 12.07 57670 | |
| -300 1000 66000 90 12.08 49666 | |
| -300 1025 60000 66 12.12 43657 | |
| -300 1050 84000 96 12.13 67652 | |
| -300 1075 70000 72 12.17 53643 | |
| -300 1100 72000 60 12.18 55638 | |
| -300 1125 72000 84 12.20 55634 | |
| -300 1150 78000 72 12.22 61629 | |
| -300 1175 72000 102 12.25 55620 | |
| -300 1200 82000 102 12.28 65611 | |
| -400 0 98000 96 16.90 78186 | |

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| -400 | 25 | 94000 | 90 | 16.87 | 74280 | [| 1 | T | τ |
|------|------|--------|-----|-------|--------|----------|----------|----------|----------|
| -400 | 50 | 92000 | 90 | 16.83 | 72373 | | { | <u> </u> | |
| -400 | 75 | 80000 | 90 | 16.80 | 60466 | | <u> </u> | | <u> </u> |
| -400 | 100 | 96000 | 96 | 16.75 | 76606 | { | <u>}</u> | <u> </u> | 1 |
| -400 | 125 | 92000 | 120 | 16.70 | 72746 | | | | ┠┈╼╌╼╴╌╴ |
| -400 | 150 | 90000 | 84 | 16.67 | 70839 | <u> </u> | | | <u> </u> |
| -400 | 175 | 96000 | 96 | 16.57 | 77119 | <u>}</u> | <u> </u> | 1 | |
| -400 | 200 | 82000 | 102 | 16.53 | 63212 | | { | { | |
| -400 | 225 | 72000 | 96 | 16.50 | 53305 | | | | |
| -400 | 250 | 82000 | 132 | 16.47 | 63399 | <u> </u> | } | <u> </u> | |
| -400 | 275 | 96000 | 102 | 16.43 | 77492 | | | | |
| -400 | 300 | 114000 | 78 | 16.40 | 95585 | <u> </u> | { | | |
| -400 | 325 | 82000 | 72 | 16.37 | 63678 | | | <u> </u> | <u> </u> |
| -400 | 350 | 102000 | 66 | 16.33 | 83772 | <u>}</u> | <u> </u> | + | <u> </u> |
| -400 | 375 | 108000 | 90 | 16.32 | 89818 | | | | |
| -400 | 400 | 102000 | 90 | 16.28 | 83911 | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| -400 | 425 | 120000 | 90 | 16.27 | 101958 | | <u> </u> | <u> </u> | <u> </u> |
| -400 | 450 | 120000 | 90 | 16.25 | 102005 | | <u> </u> | | |
| -400 | 475 | 108000 | 96 | 16.22 | 90098 | | f | 1 | 1 |
| -400 | 500 | 90000 | 84 | 16.05 | 72564 | | 1 | | |
| -400 | 525 | 74000 | 60 | 15.98 | 56751 | | | | |
| -400 | 550 | 82000 | 90 | 15.95 | 64844 | | <u> </u> | 1 | f |
| -400 | 575 | 92000 | 84 | 15.93 | 74890 | | [| | |
| -400 | 600 | 76000 | 60 | 15.90 | 58984 | | | 1 | 1 |
| -400 | 625 | 72000 | 90 | 15.88 | 55030 | | [| | [|
| -400 | 650 | 72000 | 84 | 15.85 | 55124 | |] | | |
| -400 | 675 | 70000 | 96 | 15.82 | 53217 | | | | |
| -400 | 700 | 76000 | 96 | 15.78 | 59310 | | | | |
| -400 | 725 | 84000 | 96 | 15.75 | 67403 | | | | |
| -400 | 750 | 76000 | 96 | 15.72 | 59497 | | | | |
| -400 | 775 | 74000 | 132 | 15.68 | 57590 | | | | |
| -400 | 800 | 72000 | 114 | 15.65 | 55683 | | | | |
| -400 | 825 | 76000 | 132 | 15.58 | 59869 | | | | |
| -400 | 850 | 74000 | 120 | 15.55 | 57963 | | | | |
| -400 | 875 | 76000 | 120 | 15.50 | 60103 | | | | |
| -400 | 900 | 70000 | 120 | 15.47 | 54196 | | | | |
| -400 | 925 | 72000 | 132 | 15.43 | 56289 | | | | |
| -400 | 950 | 80000 | 96 | 15.42 | 64336 | | | | |
| -400 | 975 | 54000 | 84 | 15.38 | 38429 | | | | |
| -400 | 1000 | 94000 | 138 | 15.35 | 78522 | | | | |
| -400 | 1025 | 70000 | 126 | 15.32 | 54615 | | | | |
| -400 | 1050 | 74000 | 90 | 15.28 | 58709 | | | | |
| -400 | 1075 | 74000 | 108 | 15.27 | 58755 | | | | |
| -400 | 1100 | 80000 | 144 | 15.25 | 64802 | | | | |
| -400 | 1125 | 70000 | 150 | 15.22 | 54895 | | | | |
| -400 | 1150 | 68000 | 150 | 15.18 | 52988 | | | | L |
| -500 | 0 | 74000 | 72 | 13.30 | 64256 | | | | L |
| -500 | 25 | 92000 | 102 | 13.33 | 82163 | | | L | I |

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OP99-164 - GEOPHYSICS - APPENDIX BVI

| -500 | 50 | 90000 | 102 | 13.37 | 80070 | 4.5 | 5 | 3.4 | 0.5 |
|------|-----|--------|-----------|----------------|----------------|-----|----------|----------|------------|
| -500 | 75 | 84000 | 96 | 13.40 | 73977 | 5 | 5 | 3.5 | 0.5 |
| -500 | 100 | 88000 | 108 | 13.43 | 77883 | 4.5 | 5 | 3 | 0.8 |
| -500 | 125 | 92000 | 90 | 13.45 | 81837 | 3.9 | 5.5 | 2.3 | 0.6 |
| -500 | 150 | 78000 | 90 | 13.48 | 67744 | 5 | 5.5 | 3.9 | 0.6 |
| -500 | 175 | 84000 | 84 | 13.40 | 73697 | 3.6 | | | 0.8 |
| -500 | 200 | 78000 | 84 | 13.50 | | | 6 | 1.8 | |
| -500 | 200 | 82000 | 84 | 13.55 | 67604 71557 | 4.5 | 6 | 3.2 | 0.8 |
| -500 | 225 | 90000 | 90 | 13.55 | 79510 | 4 5 | 6 | 2.8 | 0.9 |
| -500 | 250 | 92000 | | | ÷ | 4 | 6 | | |
| -500 | 300 | 86000 | 102 84 | 13.58 13.62 | 81464 | 5 | 4 | 2.8 | 0.3 |
| | | | | | 75371 | | 3 | 3.4 | 0 |
| -500 | 325 | 84000 | 66 | 13.65 | 73277 | 4 | 2.5 | 2.5 | 0 |
| -500 | 350 | 84000 | 96 | 13.68 | 73184 | 5 | 3.7 | 3.2 | 0.1 |
| -500 | 375 | 76000 | 78 | 13.72 | 65091 | 4.5 | 5.5 | 2.5 | 0.7 |
| -500 | 400 | 80000 | 78 | 13.73 | 69044 | 4 | 4.5 | 2 | 0.5 |
| -500 | 425 | 94000 | 57 | 13.77 | 82951 | 6 | 3.4 | 3.8 | 0.2 |
| -500 | 450 | 114000 | 60 | 13.82 | 102811 | 5 | 3.4 | 3 | 0.1 |
| -500 | 475 | 108000 | 72 | 13.87 | 96671 | 5.5 | 5 | 3.2 | 0.6 |
| -500 | 500 | 102000 | 60 | 13.90 | 90578 | 5 | 5.5 | 3 | 0.7 |
| -500 | 525 | 72000 | 60 | 13.93 | 60485 | 6.5 | 5 | 3.8 | 0.6 |
| -500 | 550 | 60000 | 72 | 13.98 | 48345 | 5 | 3 | 3 | 0 |
| -500 | 575 | 70000 | 84 | 14.10 | 58019 | 5 | 3 | 2.8 | 0 |
| -500 | 600 | 64000 | 84 | 14.17 | 51832 | 5 | 3.8 | 2.8 | 0.2 |
| -500 | 625 | 68000 | 72 | 14.35 | 55319 | 5 | 3.4 | 3 | 0 |
| -500 | 650 | 70000 | 72 | 14.38 | 57226 | 4.5 | 3.4 | 2.2 | 0.1 |
| -500 | 675 | 74000 | 84 | 14.43 | 61086 | 4 | 3.4 | 2.2 | 0.2 |
| -500 | 700 | 78000 | 72 | 14.48 | 64946 | 4.5 | 4 | 2.5 | 0.2 |
| -500 | 725 | 74000 | 90 | 14.55 | 60760 | 5 | 4 | 3.4 | <u>0.3</u> |
| -500 | 750 | 60000 | 78 | 14.58 | 46667 | 5 | 6 | 3.2 | 0.8 |
| -500 | 775 | 66000 | 96 | 14.63 | 52527 | | | | L |
| -500 | 800 | 60000 | 96 | 14.68 | 46387 | | | | |
| -600 | 0 | 98000 | 96 | 12.97 | 89189 | | | | |
| -600 | 25 | 88000 | 102 | 12.93 | 79282 | | | <u> </u> | |
| -600 | 50 | 86000 | 66 | 12.88 | 77422 | 5 | 5 | 3 | 0.5 |
| -600 | 75 | 78000 | 102 | 12.83 | 69562 | 5.5 | 5 | 4 | 0.6 |
| -600 | 100 | 72000 | 102 | 12.80 | 63655 | 5 | 5 | 4 | 0.6 |
| -600 | 125 | 94000 | 90 | 12.75 | 85795 | 5.5 | 4 | 4 | 0.4 |
| -600 | 150 | 86000 | 102 | 12.70 | 77935 | 6 | 5 | 4 | 0.6 |
| -600 | 175 | 76000 | 114 | 12.67 | 68028 | 6.5 | 5 | 4.5 | 0.6 |
| -600 | 200 | 82000 | 72 | 12.63 | 74121 | 5 | 5 | 3.8 | 0.6 |
| -600 | 225 | 84000 | 90 | 12.57 | 76308 | 5 | 5.5 | 4 | 0.8 |
| -600 | 250 | 82000 | 90 | 12.53 | 74401 | 4 | 5.5 | 2.6 | 0.7 |
| -600 | 275 | 82000 | 84 | 12.50 | 74494 | 5 | 5.5 | 3 | 0.8 |
| -600 | 300 | 74000 | 72 | 12.48 | 66541 | 3.8 | 7 | 2.4 | 1 |
| -600 | 325 | 84000 | 90 | 12.45 | 76634 | 4 | 7 | 2.4 | 1 |
| -600 | 350 | 68000 | 90 | 12.42 | 60727 | 5.5 | 6 | 2.8 | 0.6 |
| -600 | 375 | 76000 | 96 | 12.38 | 68821 | 4 | 4 | 2.4 | 0.4 |
| -600 | 400 | 86000 | 66 | 12.35 | 78914 | 4 | 3.8 | 2.6 | 0.2 |

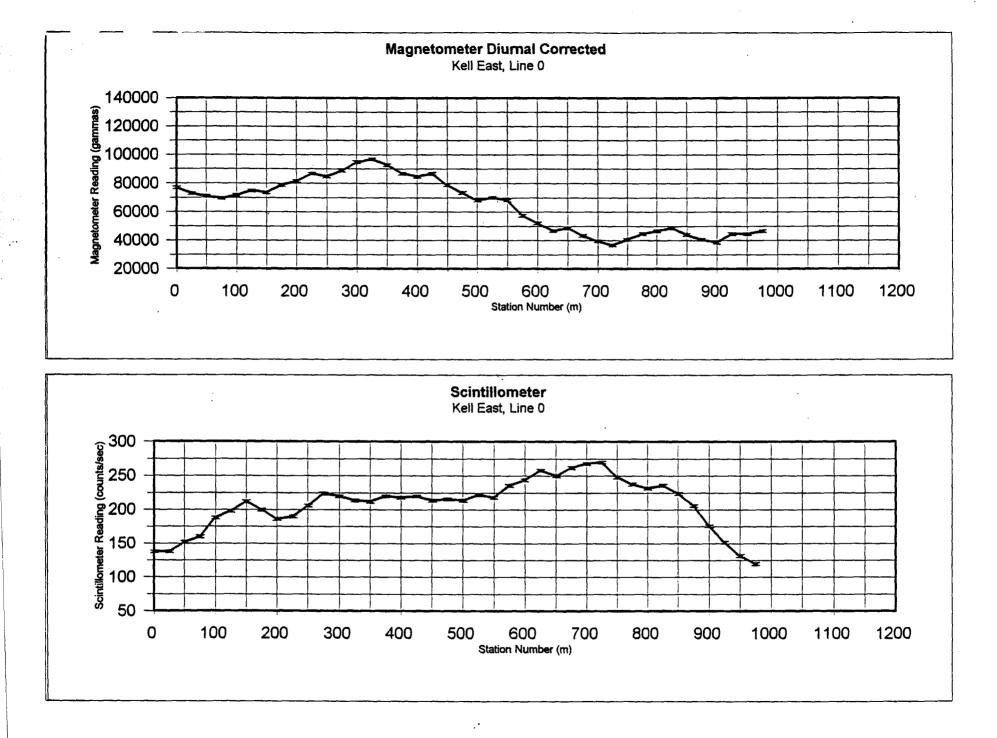
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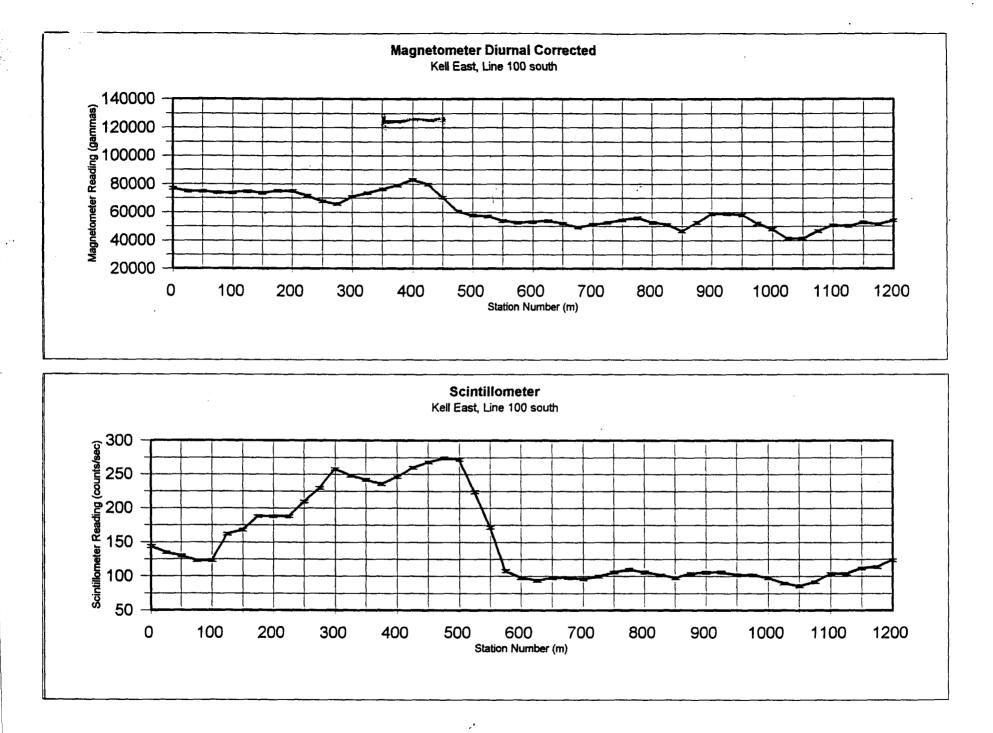
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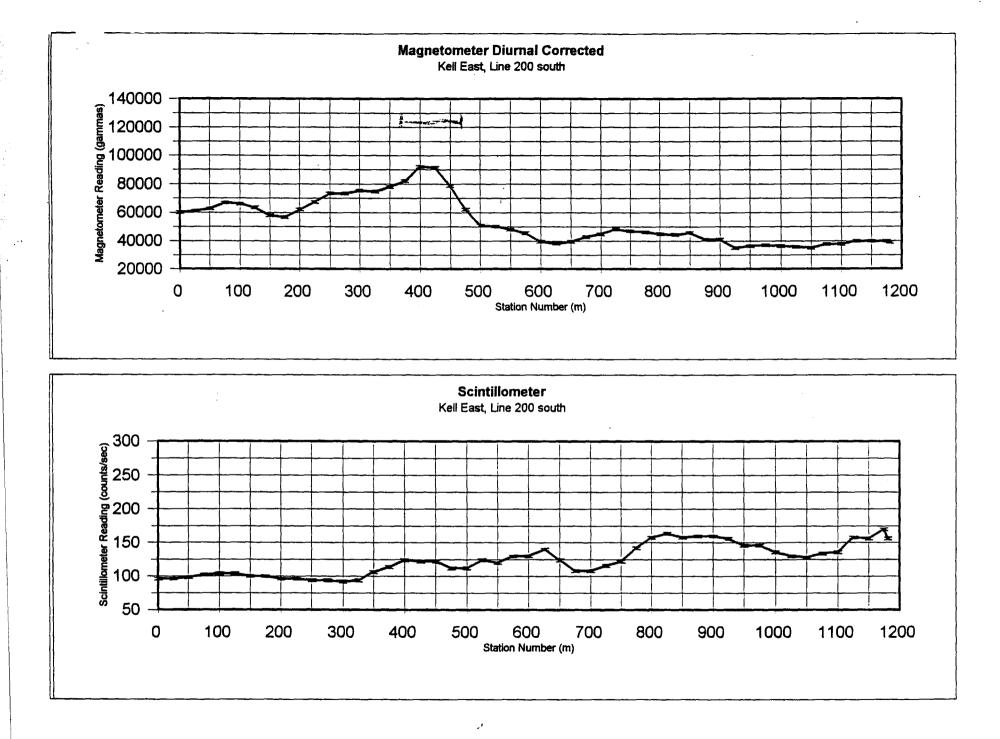
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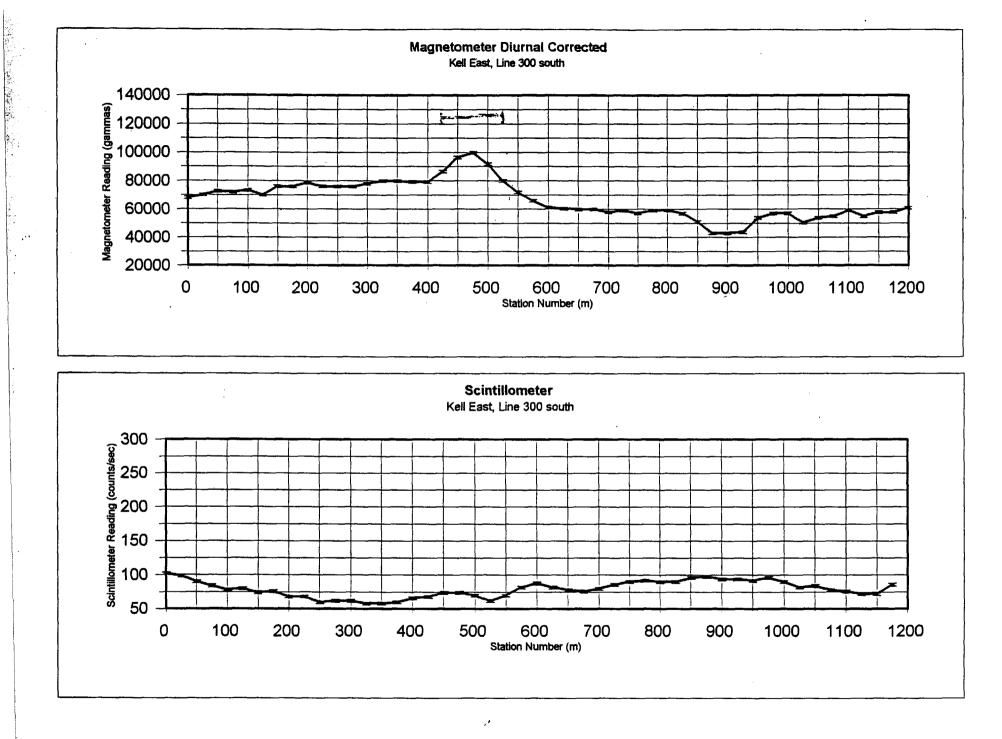
OP99-164 - GEOPHYSICS - APPENDIX BVII



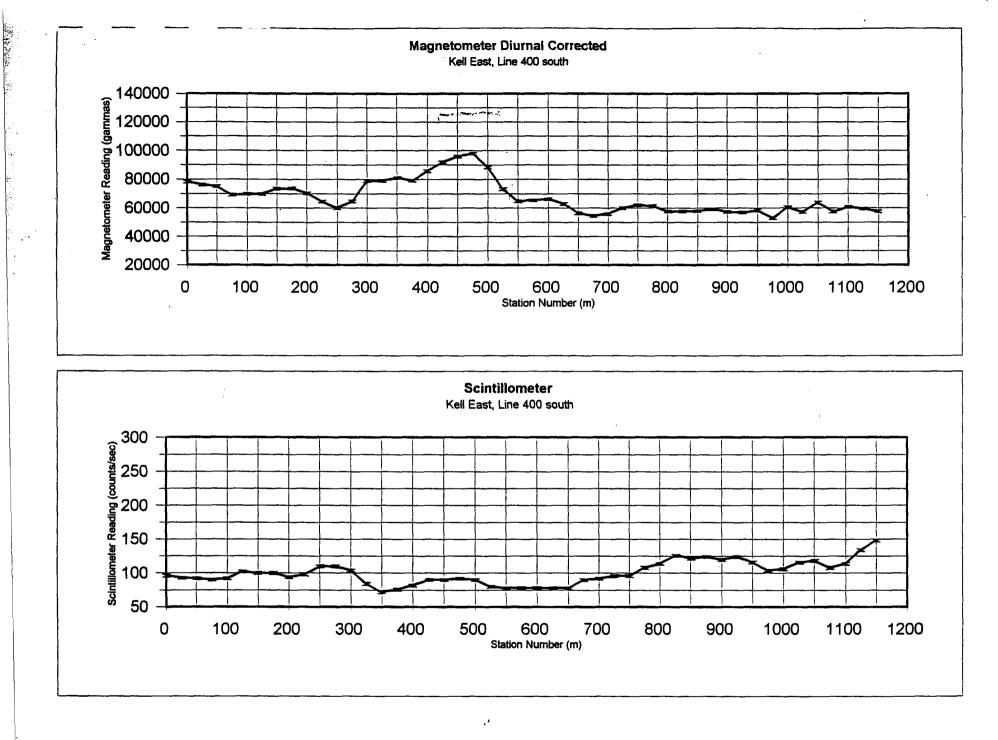


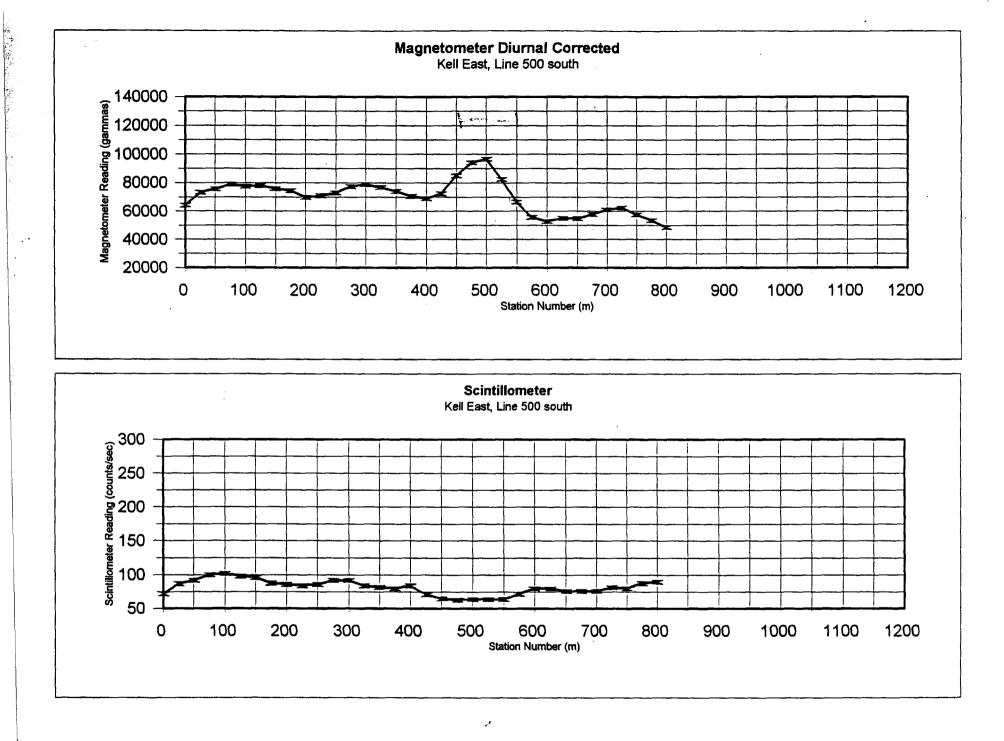
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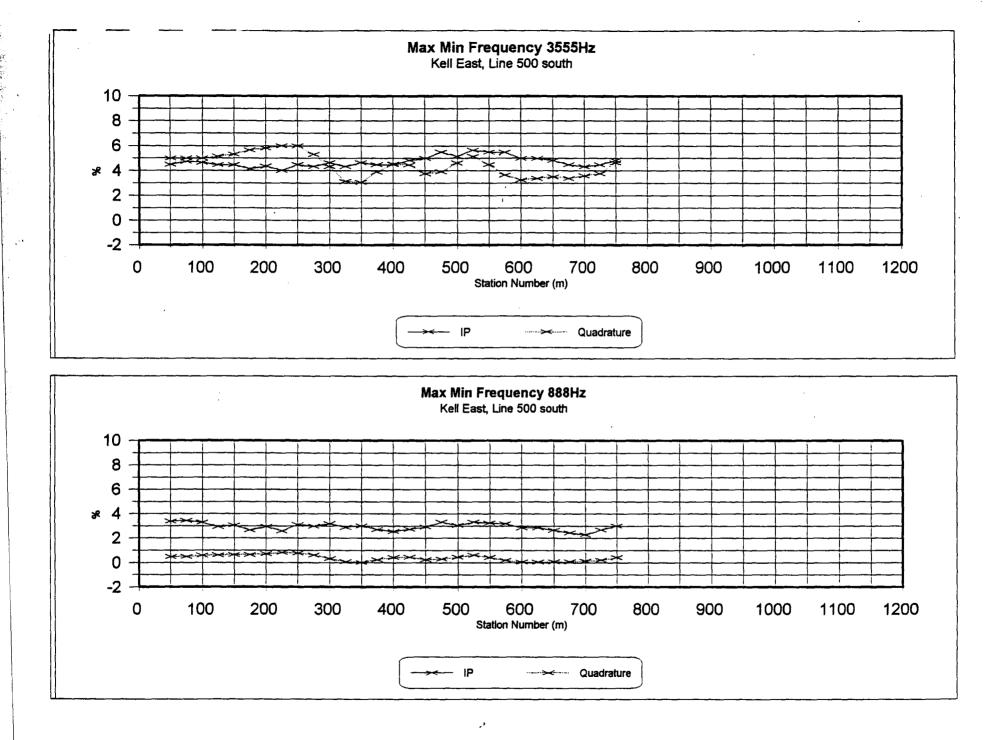




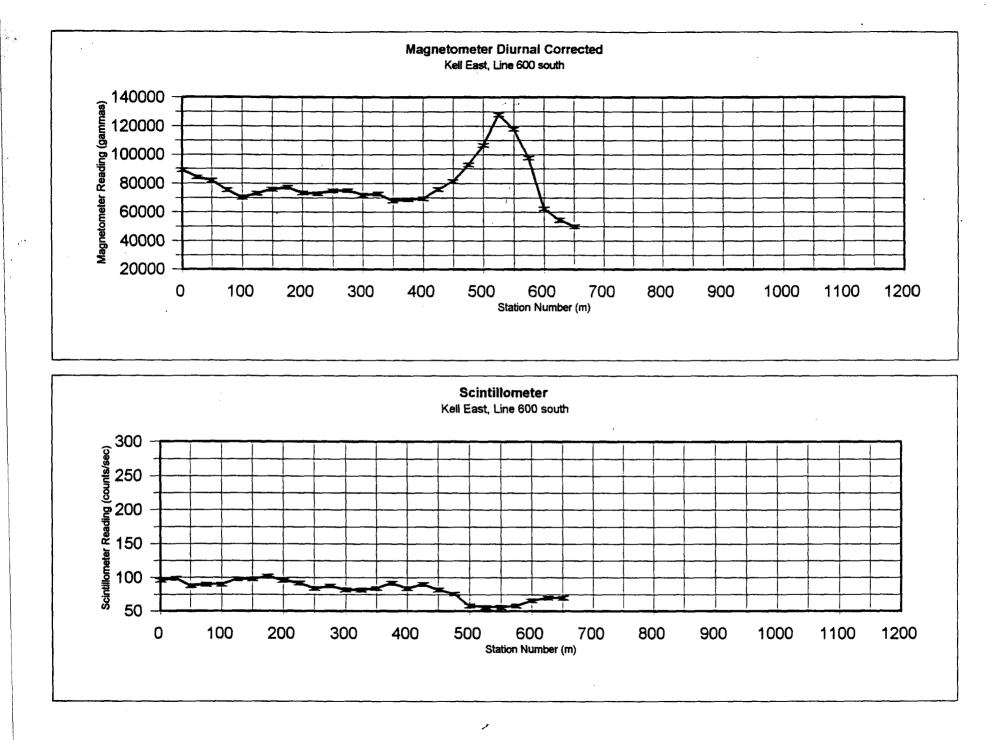
OP99-164 - GEOPHYSICS - APPENDIX BXI

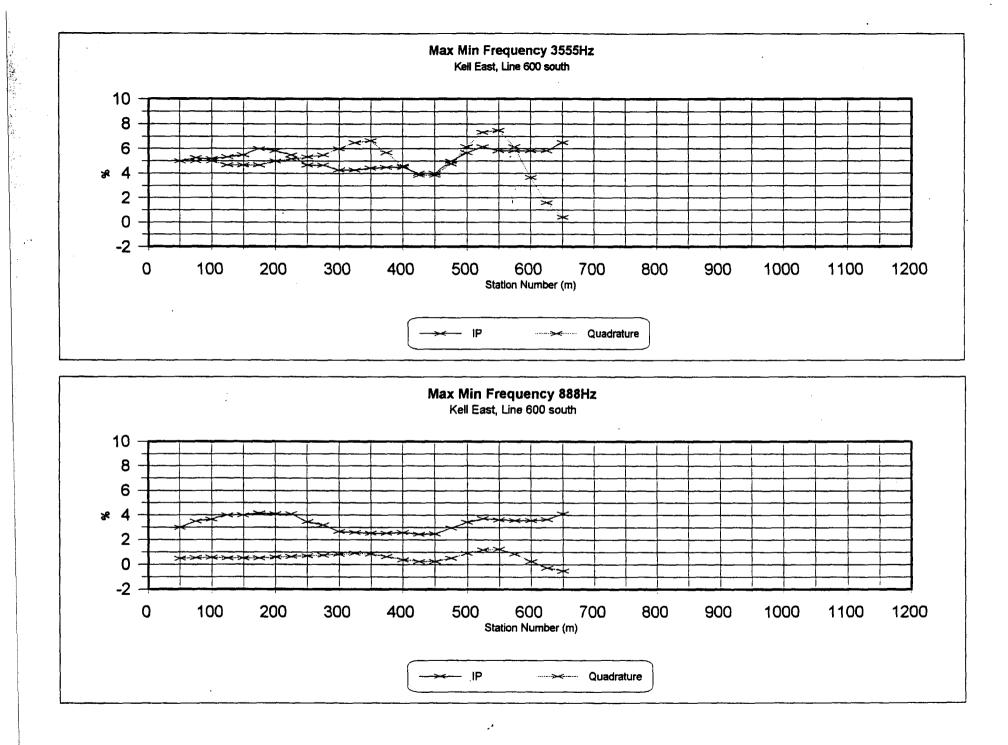




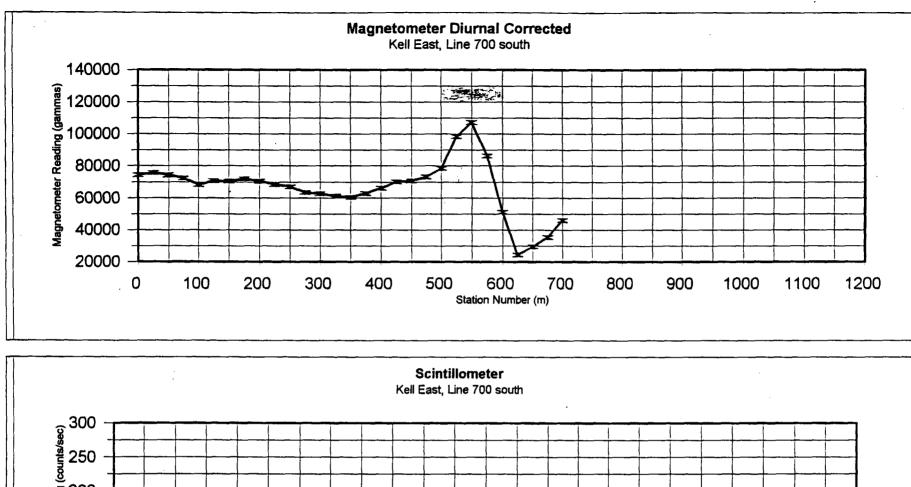


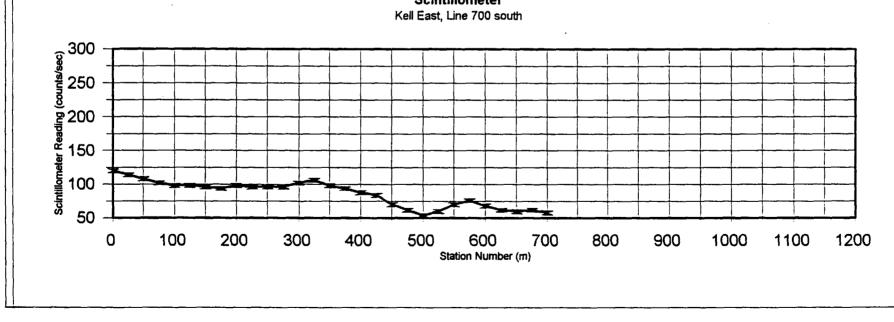
OP99-164 - GEOPHYSICS - APPENDIX BXIV





OP99-164 - GEOPHYSICS - APPENDIX BXVI

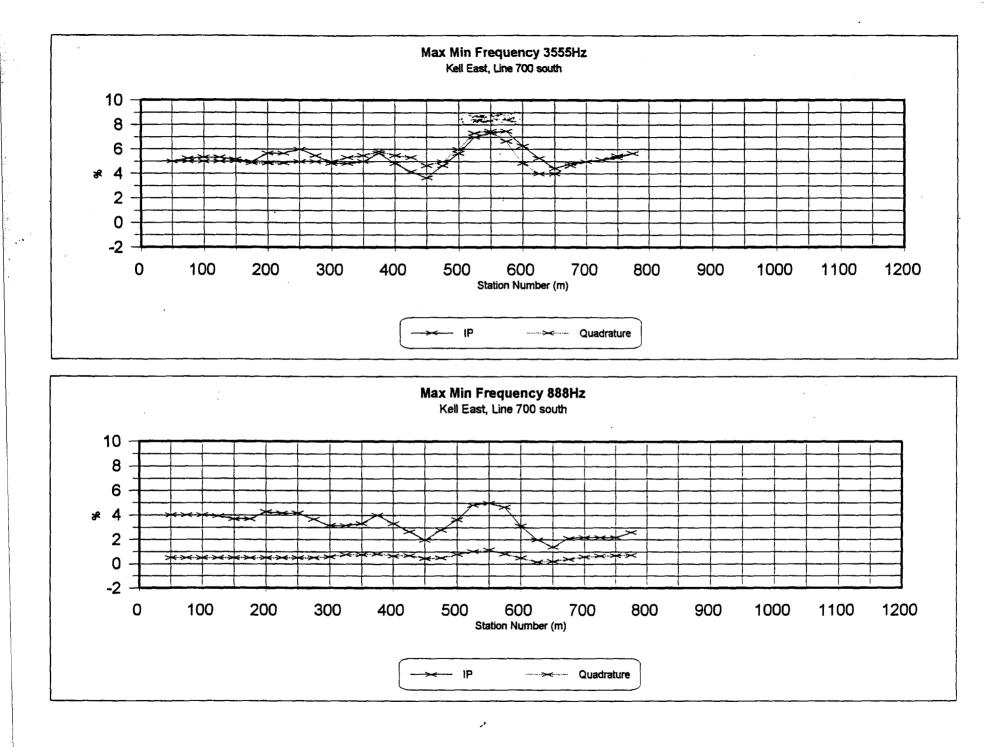




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NOTE: ALL GRAPHS NOT TO SCALE AND 3 POINT MOVING AVERAGE FILTERED

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OP99-164 - GEOPHYSICS - APPENDIX BXVIII

UP99-104 - GEUPHISICS - APPENDIX DI

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MAXMIN 1-9 SPECIFICATIONS:

| Frequencies: | 110, 220, 440, 880, 1760, 3520, 7040 and 14080 Hz, plus 50/60 Hz powerline frequency (receiver only). | Bignal Ritheologi | Powerline comb filter, continuous spherics noise clipping, autoadjusting time constant and other filtering. | |
|-----------------------------|---|---------------------------------------|---|--|
| Pilodest | MAX 1: Horizontal loop mode (Transmit- ter and receiver coil planes horizontal and coplanar). | Margan | Receiver signal and reference warning lights to indicate potential errors. | |
| | MAX 2: Vertical coplanar loop mode (Transmitter and receiver coil planes vertical and coplanar), | No. Setti | From surface down to 1.5 times coil separation used. | |
| | MAX 3: Vertical coaxial loop mode (Transmitter and receiver coil planes vertical and coaxial). | | 110 Hz: 220 Atm² 1760 Hz: 160 Atm² 220 Hz: 215 Atm² 3520 Hz: 80 Atm² 440 Hz: 210 Atm² 7040 Hz: 40 Atm² 880 Hz: 200 Atm² 14080 Hz: 20 Atm² | |
| | MIN 1: Perpendicular loop mode 1 (Transmitter coil plane horizontal and receiver coil plane vertical). | that sea abla i | Light weight unshielded 4/2 conductor teflon cable for maximum temperature range and for minimum friction. Please | |
| | MIN 2: Perpendicular loop mode 2 (Transmitter coil plane vertical and receiver coil plane horizontal). | Nga sa sa sa | specify cable lengths required. Voice communication link provided for | |
| at af Rage of the action | 12.5, 25, 50, 75, 100, 125, 150, 200, 250, 300, & 400 metres (stand- ard). | 8 3 13 4 1 4 1 - 12 4 | operators via the reference cable. Four standard 9V batteries (0.5Ah, alkaline). Life 30 hrs continuous duty, | |
| | 10, 20, 40, 60, 80, 100, 120, 160, 200, 240 & 320 metres (selected with grìd switch inside of receiver). | etter etter N | less in cold weather. Rechargeable bat- tery and charger option available. Rechargeable sealed gel type lead acid | |
| | 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200 & 1600 feet (selected with grid switch inside of receiver). | Travag te Alan Petropi Rappat g | 12V-13Ah batteries (4x6V-61/2Ah) in canvas belt. Optional 12V-8Ah light duty belt pack available. | |
| Parameters measured: | In-Phase and quadrature components of the secondary magnetic field, in % of primary (transmitted) field. | Transmitter battery charger: | For 110-120/220-240VAC, 50/60, 400 Hz and 12-15VDC supply operation. automatic float charge mode, three charge status indicator lights. Output 14.4V-1.25A nominal. | |
| | Field amplitude and/or tilt of 50/60 Hz powerline field. | Operating temp: | -40 to + 60 degrees Celsius. | |
| Readouts: | Analog direct readouts on edgewise panel meters for in-phase, quadrature and tilt, and for 50/60Hz amplitude. (Additional digital readouts when using the DAC, for | Receiver weight: | 8 kg, including the two integral ferrite cor- ed antennas (9 kg with data acq. computer). | |
| | which interfacing and controls are provid- ed for plug-in). | Transmitter weight: | 16 kg with standard 12V-13Ah battery pack. 14 kg with light duty 12V-8Ah pack. | |
| Ranges of readouts: | Analog in-phase and quadrature scales: $0 \pm 4\%$, $0 \pm 20\%$, $0 \pm 100\%$, switch activated. Analog tilt scale: $0 \pm 75\%$ grade. (Digital in-phase and quad. $0 \pm 102.4\%$). | Shipping weight: | 60 kg plus weight of reference cables at 2.8 kg per 100 metres plus other optional items if any. | |
| Readability: | Analog in-phase and quadrature 0.05% to 0.5%, analog tilt 1% grade. (Digital in-phase and quadrature 0.1%). | Standard spares: | One spare transmitter battery pack, one spare transmitter battery charger, two spare transmitter retractile corl- necting cords, one spare set receiver batteries. | |
| Repeatability: | $\pm 0.05\%$ to $\pm 1\%$ normally, depending on frequency, coil separation & conditions. | | ubject to change without notification. | |

APEX PARAMETRICS LIMITED

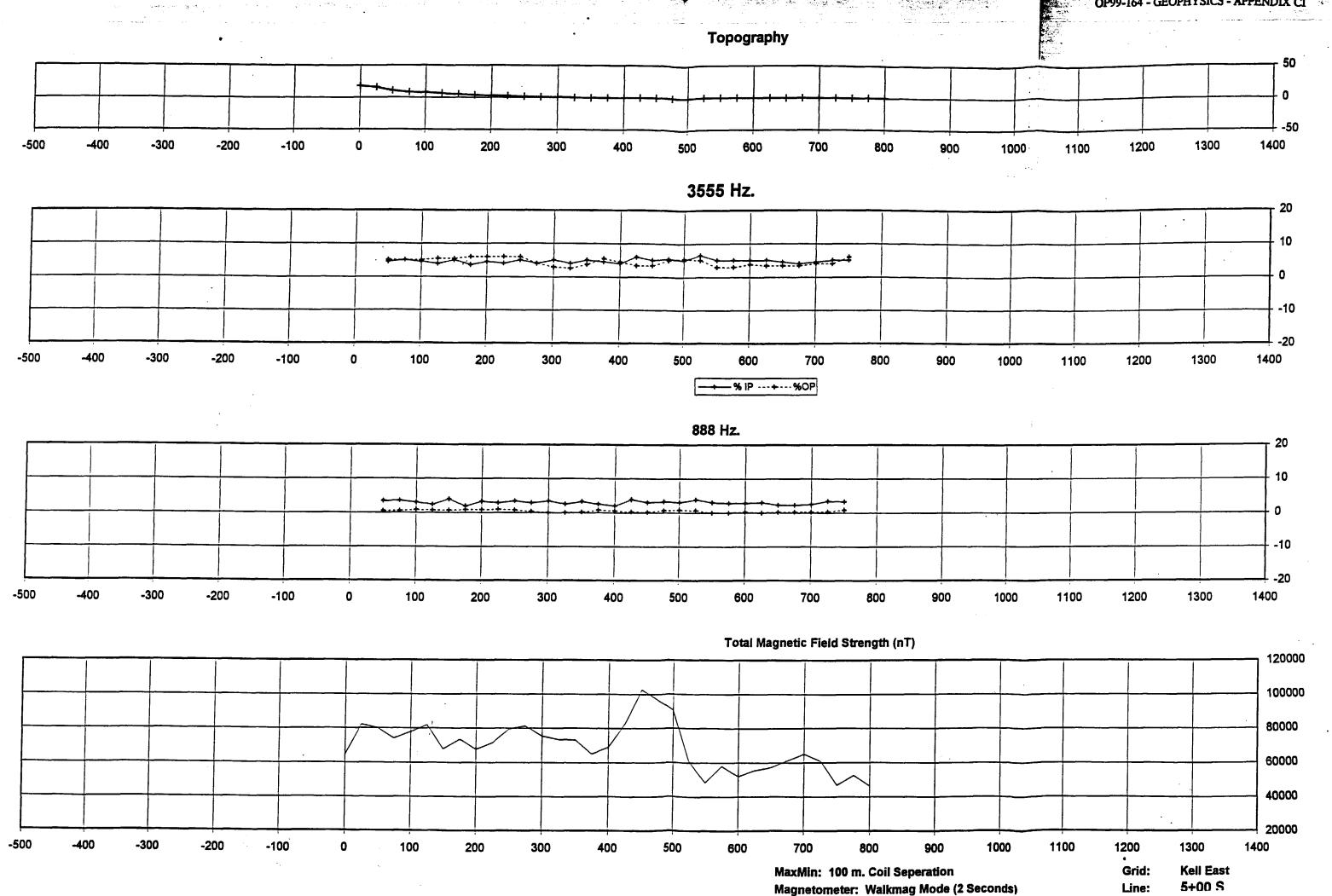
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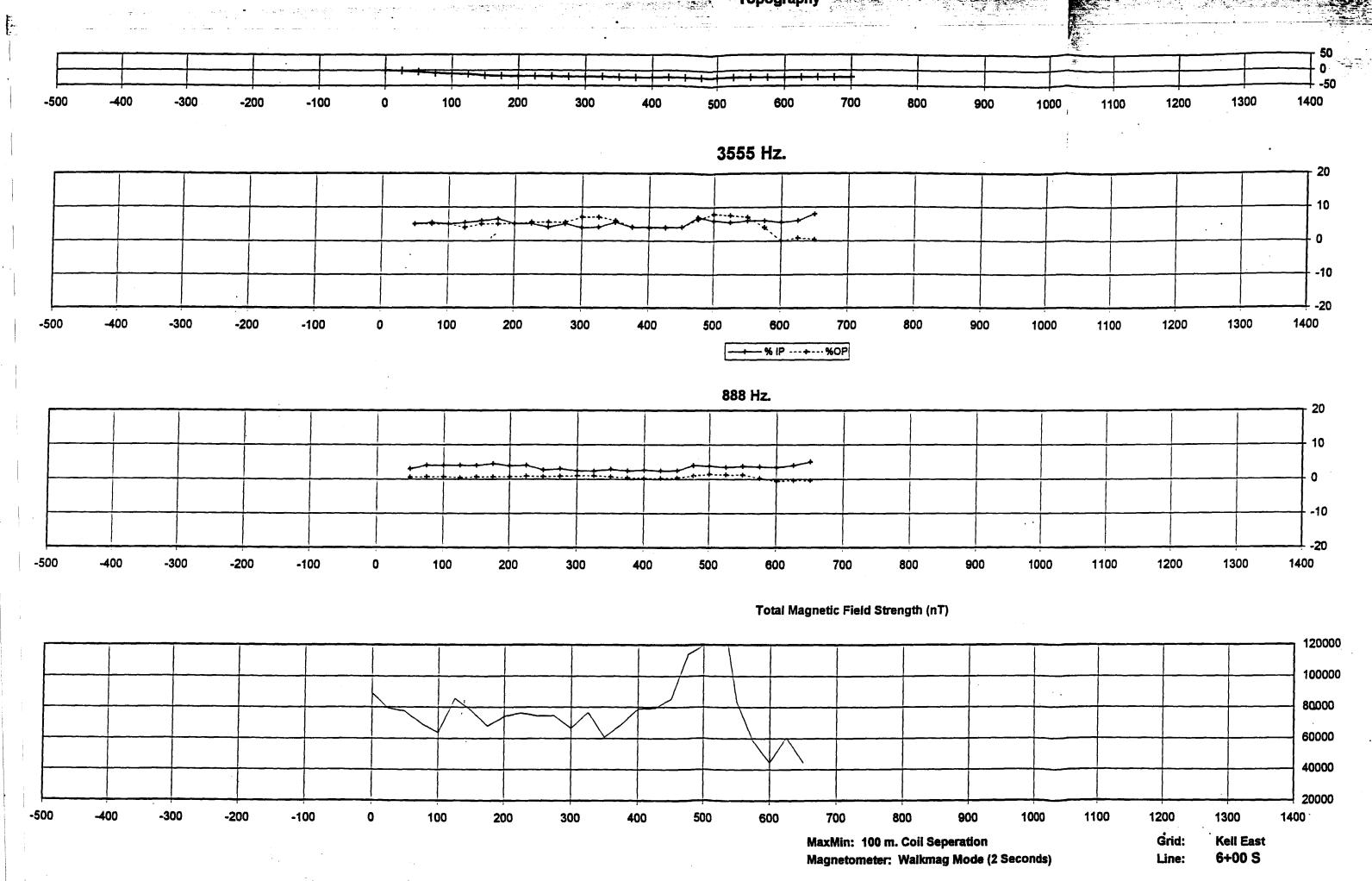
Telephones: 416-640-6102

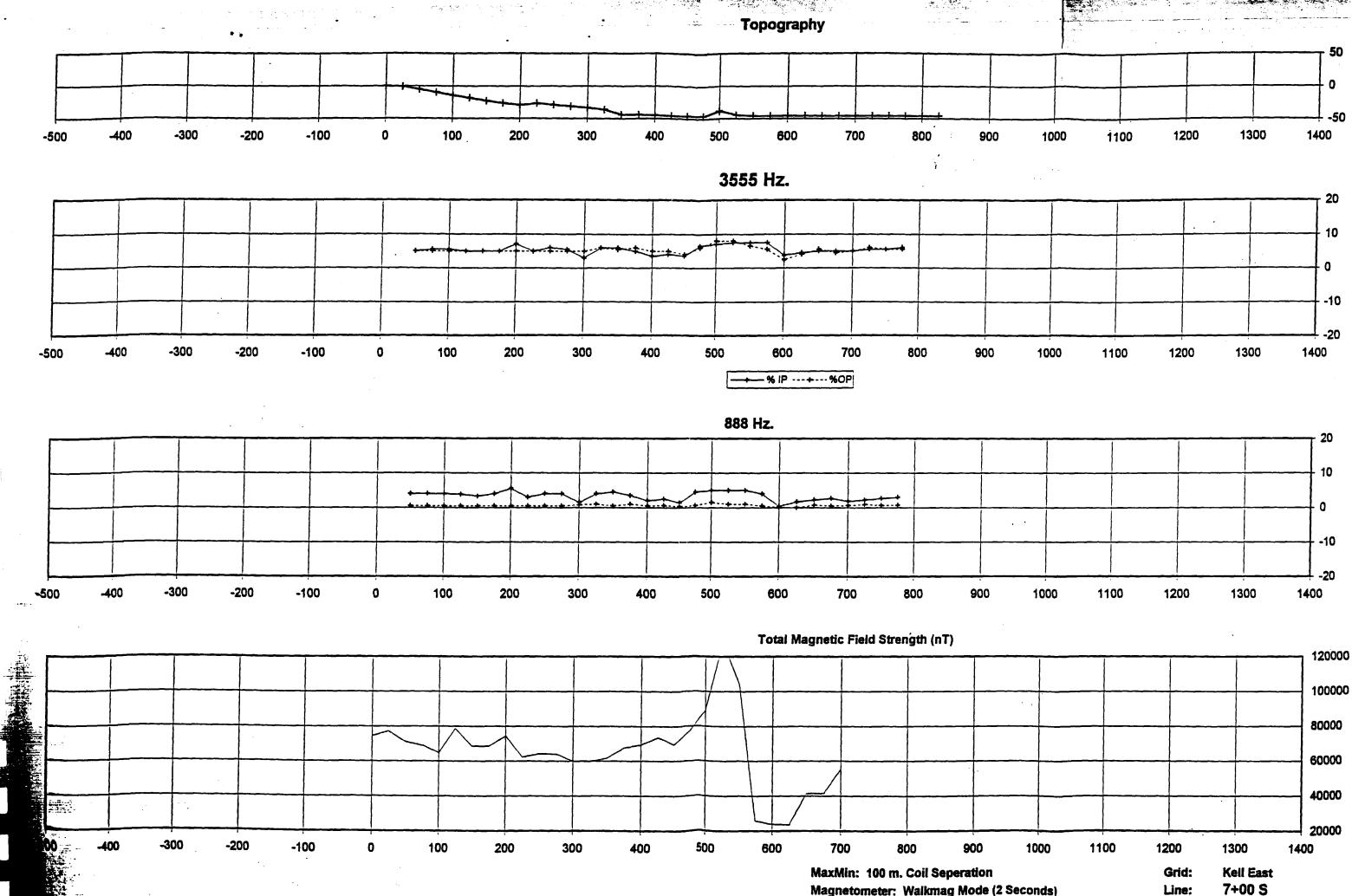
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905 Fax: 416-852-9688 P.O. Box 818, Uxbridge Ontario, Canada LOC 1KO 177-11/2

Telex: 06-966625 APEXPARA UXB Cables: APEXPARA TORONTO







Magnetometer: Walkmag Mode (2 Seconds)

REPORT ON THE GEOLOGY AND SHOWINGS OF THE KELL PROPERTY, CORKILL TOWNSHIP

PREPARED BY: F. R. PLOEGER F. R. PLOEGER ENTERPRISES INC. GEOLOGICAL CONSULTING SERVICES

January 7, 2000

F.R. PLOEGER ENTERPRISES INC. BOX 313 59 CONNELL AVE., SUITE 2 VIRGINIATOWN, ON POK 1X0

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| Current Work Property Geology Diabase Quartzite Examination of Shaft Area, Open Cuts and Adit Shaft Area Open Cut 1 Adit North Cut Mapping of Extended Grid | 3 3 4 4 4 4 5 6 7 |
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| Recommendations | 10 |
| Qualifications | |

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(to follow report)

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- Figure 2: Claim Map of Kell Claim
- Figure 3: Sketch Showing Kell Grids
- Figure 4: Geology of Kell Main Grid
- Figure 5: Location of Shaft and Other Showings
- Figure 6: Detailed Sketch of Shaft and Raise Area
- Figure 7: Detailed Sketch of Open Cut 1 Area
- Figure 8: Sketch of Adit Area
- Figure 9: Sketch of North Cut Area
- Figure 10: Geology of Extended Grid

F. R. PLOEGER ENTERPRISES INC.

59 CONNELL AVE., SUITE 2 P.O. BOX 313 VIRGINIATOWN, ON, POK1XO. 705-634-2457

Scope of Project

F. R Ploeger Enterprises Inc. was retained to supervise the line cutting and geophysical surveys as well as conduct geological surveys and map the various showings in detail. This work was conducted as part of an OPAP project.

Property and Ownership

The property comprises one seven unit unpatented mining claim, 1226888, covering approximately 84 ha which is recorded in the name of C. Jason Ploeger. It is located in the southwest corner of Corkill Township (figure 1 and figure 2) against a buffer zone surrounding Lady Evelyn Park Reserve within the Larder Lake Mining Division. The map reference is 41-P-10E.

The property is named after Hugh Kell, the original discoverer of the silver showing on the group in 1909. Subsequent to the discovery, there was extensive physical work conducted on the claims including the sinking of an inclined shaft, and adit, and several open cuts. The shaft is centered at about N47°50'30" and W80°64'30".

Access

Access is gained to the property from Hwy 560 west from the town of Elk Lake to the Beauty Lake Road and following the Beauty Lake Road south for approximately 15 km to a logging road. This road has an old gate which was used to restrict access to the minesite and to an old MNR bush airstrip. The road becomes passable to 4 wheel vehicles only for the last 0.5 km to the minesite. The west portion of the claim group is accessed by another old logging road heading south of about 1.5 km further west along the Beauty Lake Road.

Regional Geology

Charters and Corkill Townships were mapped by McIlwaine in 1971. Much of the area is covered by Pleistocene glacial moraine and sandy outwash deposits which obscures the bedrock geology.

The geology is fairly simple overall. It comprises a sequence of dominantly quartzite, feldspathic quartzite, and arkose of the Lorrain Formation and lesser amounts of Firstbrook Formation siltstone, sandstone, greywacke, arkose and conglomerate. These are all members of the Cobalt Group of rocks.

Intruding this sequence are dikes and sills of Nipissing diabase. In places, silver bearing deposits are associated with the diabase and represent the main focus of economic activity in the area.

An inlier of Archean age appears to have formed a basement topographic high which has been exposed by erosion in northeast Lawson Township, adjacent to the property. According to old reports, it is composed of mafic to intermediate metavolcanics.

Property Geology - General

In general, the property is underlain by Lorrain quartizte which is intruded by a sill of Nipissing diabase. These units are exposed only in the southern end of the claim. The remainder of the property is obscured by glacial sand and outwash deposits. To date, the mineralization found on the group consists of silver and copper mineralization as well as accessory/ related minerals associated with calcite patches and veins cutting the Nipissing diabase.

Past Work

Silver was originally discovered on the property by Hugh Kell and associates in 1909. The Kell group, consisting of 5 claims, was subsequently optioned to J. G. Smith in 1919, who completed a 58° inclined shaft along the vein in 1920. The shaft measured 104 feet deep with 274 feet of development on the 54- foot level and 50 feet on the 100- foot level. A raise was driven to surface south of the shaft on the vein. Government reports indicate that at this time, a shipment of 1,584 pounds of ore yielded 1,620.9 ounces of silver.

In 1947, Silver Chest Mines Ltd acquired the property and constructed a camp on site. They built a headframe, dewatered the shaft, did about 900 feet of surface trenching and put down 3 diamond drill holes amounting to 120'.

Cobalt assessment files contain reports on the property from 1949-1957 at which time it was owned by George Pearson. The reports indicate that Pearson obtained \$2000 worth of silver by hand cobbing vein material from the adit and pits. A bulk sample of 253 pounds assayed 1703.8 opt silver and yielded 180 pounds of cobalt.

Ourgold Mining Company Ltd optioned the claims in 1962. Newspaper clippings from Cobalt area assessment files indicate that they drilled at least four holes in 1965. These intersected mineralized zones including: hole 1 with 15 feet assaying 1.11% Cu, 0.56 opt Ag, and 0.07% Co; 11.8' of 5.3 % Cu, 1.2 opt Ag, and 0.9% Co; and, hole 2 with 25 feet averaging 2.23 % Cu and 1.18 opt Ag. Plans were made to bring the property into production, however, they never materialized.

Following this work, the property fell under the influence of the Temagami Land Caution which caused all work and exploration to cease until the caution was recently lifted and the claims were staked by the current owner. As part of his OPAP program, Mr. Ploeger performed a number of geophysical surveys in addition to the work in this report.

Economic Geology

The main showing on the Kell property consists of a series of quartz calcite veinlets and veins containing native silver, argentite, smallite, millerite and niccolite. Small amounts of specularite, magnetite and pyrrhotite indicating higher temperature of formation were also reported. The veins occur along the easterly face of a narrow diabase ridge.

The main showing on which the shaft was sunk, comprises a fracture system up to 18 inches in width that roughly parallels the ridge and also the contact between the diabase dike and the surrounding quartzite. The main fracture has been traced by open cuts and trenches for several 100 m to the north end of the ridge. The main fracture system strikes at approximately 330° and dips at 55-60°W. In addition to the main fracture, there are occasional parallel and diagonal (conjugate?) veins which also contain high grade silver.

Current Work

The writer met with Mr. Jason Ploeger, the property owner, on several occasions to discuss the proposed work programs and accompanied the owner to the claims for an orientation prior to the work being conducted. Arrangements were made in August for contracting the linecutting on the main/ northerly part of the property, and subsequently, in October for adding extensions to these lines to the south to cover the diabase. Following the grid mapping, traverses were made across the diabase to attempt to locate contacts with the quartzite. Subsequently, the pits and open cuts were examined and mapped, and, finally, the extended grid was mapped as best as possible under the circumstances of early snow. In the absence of Mr. J. Ploeger, all the work was supervised by the writer.

The three phases of the current program are covered in this report under the headings of: Property Geology; Examination of Shaft Area, Open Cuts and Adit; and, Mapping of Extended Grid.

Property Geology

A grid was cut on the north part of the property in early to mid August, 1999. It consisted of 7.63 km of grid lines oriented east- west and 700 m baseline oriented north south along the west boundary of the property. The 00S- 00E point of the grid originates a few meters south of the number 4 post of the claim.

Apart from a prominent ridge of diabase in the south central part and a few scattered exposures of quartzite in the west corner of the group, the property is covered with overburden. North and east of the diabase spine, the terrain is low and swampy with sphagnum grading into mainly black spruce and fine sand cover along the old access road. North of the creek in the north central part of the claims, the area is sand covered and has been clear cut.

Diabase

L7S intersects the northernmost end of the Nipissing diabase ridge at an old open cut. Several traverses were made across the ridge south of the grid in an attempt to observe the contact with the quartzite.

The diabase is in the form of an inclined sill rather then a dike. Although the contact with the quartzite was not directly observed, the sill is reported to dip at 55W. In places, the diabase was very fine grained indicating that the exposure was near a chilled contact zone. In a few locations on the crest of the ridge and on the west slope, pieces of pink quartzite float were observed, also indicating close proximity to the contact. Generally, the diabase ranges from fine to medium grained, medium to dark green grey, massive, equigranular and salt and pepper textured. It is moderately fractured and breaks easily into blocks. The ridge normally begins on a talus slope with bluffs of outcrop exposed through the rubble.

Quartzite

The quartzite is poorly exposed in a few spots near the west boundary of the claim along line 4S at about 0+50E and line 7S at 1+60E. The quartzite is generally medium to light orange pink in colour, fine grained, equigranular and massive.

On Line 7 south at approximately 3+50m east, outcrops occur as sharp vertical structures approximately 4 feet in height. They comprise greenish yellow quartzite with minor quartz veining. The color indicates possible oxidized sulfides, however the terrain indicates the possibility of faulting or possible alteration along slip planes in the hanging wall of the diabase.

Examination of Shaft Area, Open Cuts and Adit

Shaft Area

The shaft is located at the end of an old east- west access road that originated at the original mine townsite and compressor plant 300m to the east of the shaft. An old bush road and logging roads connect the old townsite with the Beauty Lake

Road. As part of the program, all the old roads were brushed out to allow access by 4 wheeler.

The shaft is situated on the east edge of a high northwest trending ridge of diabase. According to government publications and the MNDM assessment files, it was sunk on an 18 inch wide fracture system that strikes at approximately 330° and dips at 55-60°W. In addition to the main fracture, there are occasional parallel and diagonal (conjugate?) veins which also contain high grade silver. Smith completed the 58° inclined shaft along the vein in 1920. The shaft measured 104 feet deep with 274 feet of development on the 54- foot level and 50 feet on the 100- foot level. A raise was driven to surface south of the shaft on the vein.

The surface expression of this system was examined during the current program. Due to the steep cliffs surrounding the collar of the shaft, the vein could not be mapped in detail. However, the area where the old raise came to surface, approximately 15m southeast of the shaft was mapped and samples taken. The raise appears to have been driven up on the main vein which, at this point strikes at 340° and dips 50W. It contains spotty irregular and lensoid patches of fine to coarsely crystalline calcite. Although there was a green powdery stain on the rock which may have been malachite after chalcopyrite or oxidized niccolite, no native silver was observed in place. A sample (# Kell 5) from this vein material yielded 10.4 ppm silver and 1135 ppm copper. Locally, lacey calcite encompasses diabase fragments within the vein zone.

A second slip parallels the primary vein approximately 1 meter below. It is similar in appearance containing calcite infillings but is smaller in scope. In addition, a series of secondary or conjugate slips/ veinlets splay from the main sets at 240°, 60S. They occur as thin seams that contain chalcopyrite but little calcite gangue material. These may represent the silver bearing veinlets described in the old reports since assays (# Kell 4) from these conjugate veinlets returned 65.6 ppm silver and 1.26% copper.

Several samples containing native silver were observed on the muck pile below the shaft. The silver seems to occur as thin flakes and films on weak slips in the diabase host rock. There were no significant accessory metallic minerals or calcite gangue associated with the silver. A sample (# Kell 7) containing a flake of silver assayed 157.79 opt (5410 g/ tonne).

Open Cut 1

A 25 foot (8m) deep cut has been made into the diabase cliff approximately 150' (45 m) north of the shaft area. It was sunk on a nest of fractures and mineralized veinlets that appear to be on- strike extensions of the main fracture system at the shaft. The cut was mapped in detail (see accompanying sketch) and sampled.

The dominant vein/ fracture cuts through the cut near the face striking at 310-320° and dipping 60 - 75W. It contains weak cobalt bloom and narrow veinlets/ lenses of calcite. A chip sample (# Kell 1) over 1.5' on the south wall returned only traces of silver, cobalt and copper.

Several fractures parallel with the main set are evident in the face of the cut as are a number of cross fractures or conjugate splays. Three sets of splays in the face were found to trend at 070, 080 and 065° and corresponding dips of 80N, 75S and vertical as indicated on the plan sketch. Malachite staining with minor cobalt bloom are associated with the slips. A composite chip sample (# Kell 2) across the face (5') yielded 0.6 ppm silver, 32 ppm cobalt and 181 ppm copper. The most northerly slip, which is covered with malachite, continues along the wall of the open cut for about 10'. A chip sample (# Kell 3) from the north wall near the start of the cut returned 79.6 ppm silver, 167 ppm cobalt and 3.05% copper.

A piece of heavy arsenide rich material from the muck pile (# Kell 6) of the open cut, returned 8.4 ppm silver, >10,000 ppm arsenic, 4722 ppm cobalt, 3424 ppm copper and 5293 ppm nickel.

The upper brow and walls of the cut were blasted, stripped and washed following the initial mapping. Gold values were reported to have been associated with the fractures on the recently stripped upper brow of the cut. Due to the weather and snow cover, follow up mapping could not be conducted this season, however, it is highly recommended for next year's program.

Adit

Approximately 200' (60m) northwest of the shaft, an adit has been driven about 50' into the wall of the diabase ridge, presumably to locate the extension of the mineralized fractures. There is no record of this work in the assessment files. About 30 from the entrance, a set of weakly calcitic fractures trending at 320° with a dip of 60W were observed in the back of the adit. Both walls had been slashed to expose more of the on- strike extensions of the fractures. No conjugate fracture/ vein sets or mineralization was observed, and therefore, no samples were taken. There was no evidence of mineralization on the muck pile.

North Cut

At line L7S @ 5+25E on the northerly tip of the diabase ridge, another cut has been made into the face. The cut was filled with water at the time of the visit. This did not allow for detailed mapping of the face. The cut appears to have been driven on a weak fracture set at about 310° dipping steeply at 75 west. Pieces of muck indicate that mineralization comprised a mix of calcite and quartz – calcite veinlets, meshed networks and gashes containing minor specks of pyrite and chalcopyrite. The calcite was pale salmon pink and the quartz a glassy white

colour. This pit was subsequently cleaned up but weather/ snow did not allow for proper mapping.

Mapping of Extended Grid

The main grid was extended southwards to cover the odd bulge which fits into the contour of the proposed park boundary. This involved cutting a total of 1.38 line kilometers and 400 m of base line. Of the extra lines, only L8S extended west for 750 m to connect with the original baseline at 00. The remainder of the lines all stopped at the base of the massive diabase ridge to the west and were run up to about 100 m to the east into the swamp.

Base Line 2 intersects the diabase ridge at 9+20S and continues vertically/ steeply up about 80' to the crest of the ridge. It ends at L10S which also stops at the edge of the cliff (going down).

The ridge is comprised of typical Nipissing quartz diabase as described. It is fine to medium grained, medium to dark green grey, massive, equigranular and salt and pepper textured. Generally, the ridge begins on a talus slope with bluffs of outcrop exposed through the rubble. It is moderately fractured and breaks easily into blocks.

L8S intersects the diabase ridge at 6+45E and continues up and over the plateau to drop off the ridge at 4+95E. Although there was quartzite float observed on the backslope of the ridge, none was seen to be in place. The pieces of float were a medium to light orange pink colour, fine grained, equigranular and massive. Several small, poorly exposed outcrops of quartzite similar to that found as float occur around 1+60 to 2+00E on L8S. This series of exposures appears to align with those on the original L7E.

L9S terminates at the base of the Nipissing diabase cliff at 7+30E. As has been mentioned previously, the low swampy end of L10S ends at the base of the diabase and the plateau side runs from BL2 east to the top edge of the bluff.

The north open cut was also reexamined following the stripping and attempts to remove the water from the face. The face was still found to be inaccessible due to the ponded water. The entrance to the cut had been stripped of the muck pile and overburden cover. There was, however, no evidence of the fracturing or veining seen in the face or previously observed in the broken muck. The exposure consisted of fine to medium grained massive diabase.

Summary

The property comprises one seven unit unpatented mining claim, 1226888, located in the southwest corner of Corkill Township against a buffer zone surrounding Lady Evelyn Park. The property is named after Hugh Kell, the

original discoverer of the silver showing on the group in 1909. Subsequent to the discovery, there was extensive physical work conducted on the claims including the sinking of an inclined shaft, and adit, and several open cuts. F. R Ploeger Enterprises Inc. was retained to supervise all the work on the claims and to map the grids and the workings in detail.

The regional geology is fairly simple overall. It comprises a sequence of Cobalt Group quartzite and arkose of the Lorrain Formation and lesser amounts of Firstbrook Formation siltstone, sandstone, greywacke, arkose and conglomerate. Intruding this sequence are dikes and sills of Nipissing diabase. In places, silver bearing deposits are associated with the diabase and represent the main focus of economic activity in the area.

The Kell property is underlain by Lorrain quartzite which is intruded by a sill of Nipissing diabase. These units are exposed only in the southern end of the claim. The remainder of the property is obscured by glacial sand and outwash deposits.

The main showing on the Kell property consists of a quartz calcite filled fracture system up to 18 inches in width containing native silver, argentite, smaltite, millerite and niccolite. The veins occur along the easterly face of a narrow diabase ridge. The main fracture, which strikes at approximately 330° and dips at 55-60°W, has been traced by open cuts and trenches for several 100 m to the north end of the ridge. In addition to the main fracture, there are occasional parallel and diagonal (conjugate?) veins which also contain high grade silver.

Three phases of the current program were covered in this report under the headings of: Property Geology; Examination of Shaft Area, Open Cuts and Adit; and, Mapping of Extended Grid.

A grid was cut on the north part of the property in early to mid August, 1999. It consisted of 7.63 km of grid lines oriented east- west and 700 m of baseline. It was found that, apart from a prominent spine of diabase in the south central part and a few scattered exposures of quartzite in the west corner of the group, the property is covered with overburden.

A 58° inclined shaft measuring 104 feet deep with development on the 54- foot and 100- foot levels was sunk along the main fracture system in 1920. A raise was driven to surface approximately 15m southeast of the shaft on the same structure, which, at this point strikes at 340° and dips 50W. It contains spotty irregular and lensoid patches of fine to coarsely crystalline calcite. A sample (# Kell 5) from this vein material yielded 10.4 ppm silver and 1135 ppm copper.

A second slip parallels the primary vein approximately 1 meter below. In addition, a series of secondary or conjugate slips/ veinlets splay from the main sets at 240°, 60S. Assays (# Kell 4) from these conjugate veinlets returned 65.6 ppm

silver and 1.26% copper. A sample from the shaft muck pile (# Kell 7) containing a flake of silver assayed 157.79 opt (5410 g/ tonne).

A 25 foot (8m) deep cut has been made into the diabase cliff approximately 150' (45 m) north of the shaft area on a nest of fractures and mineralized veinlets that appear to be on- strike extensions of the main fracture system at the shaft. A chip sample (# Kell 1) over 1.5' on the south wall returned only traces of silver, cobalt and copper. A composite chip sample (# Kell 2) across three sets of splays in the face (5') of the cut, which trend at about 070 and dip steeply north and south, yielded 0.6 ppm silver, 32 ppm cobalt and 181 ppm copper. The most northerly slip, which is covered with malachite, continues along the wall of the open cut for about 10'. A chip sample (# Kell 3) from the north wall near the start of the cut returned 79.6 ppm silver, 167 ppm cobalt and 3.05% copper.

A piece of heavy arsenide rich material from the muck pile (# Kell 6) of the open cut, returned 8.4 ppm silver, >10,000 ppm arsenic, 4722 ppm cobalt, 3424 ppm copper and 5293 ppm nickel.

The upper brow and walls of the cut were blasted, stripped and washed following the initial mapping. Due to the weather and snow cover, follow up mapping could not be conducted this season, however, it is highly recommended for next year's program.

Approximately 200' (60m) northwest of the shaft, an adit has been driven about 50' into the wall of the diabase ridge, presumably to locate the extension of the mineralized fractures. A set of weakly calcitic fractures trending at 320° with a dip of 60W were observed in the back of the adit. No conjugate fracture/ vein sets or mineralization was observed, and therefore, no samples were taken.

At line L7S @ 5+25E on the northerly tip of the diabase ridge, another cut has been made into the face. The cut appears to have been driven on a weak fracture set at about 310° dipping steeply at 75 west. Pieces of muck indicate that mineralization comprised a mix of calcite and quartz – calcite veinlets, meshed networks and gashes containing minor specks of pyrite and chalcopyrite.

The main grid was extended southwards to cover the odd bulge which fits into the contour of the park boundary. This involved cutting a total of 1.38 line kilometers and 400 m of base line. Of the extra lines, only L8S extended west for 750 m to connect with the original baseline at 00. The remainder of the lines all stopped at the base of the massive diabase ridge to the west. Generally, the ridge begins on a talus slope with bluffs of outcrop exposed through the rubble. Although there was quartzite float observed on the backslope of the ridge, none was seen to be in place. Several small, poorly exposed outcrops of quartzite similar to that found as float occur around 1+60 to 2+00E on L8S The north open cut was also reexamined following the stripping and attempts to remove the water from the face. The entrance to the cut had been stripped of the muck pile and overburden cover. There was, however, no evidence of the fracturing or veining seen in the face or previously observed in the broken muck.

Recommendations

As has been stated in several instances, additional work is required to reexamine the recently stripped areas around the showings since the weather/ snow conditions did not allow for proper examination. Gold values have been reported from the stripping on the top of open cut 1. This area should be mapped and sampled in detail.

Geophysical surveys that were conducted in conjunction with the geological program outlined the continuation of the diabase sill under the glacial cover. This area should be prospected between the grid lines to determine if there are any additional diabase exposures that may contain an extension of the fracture system.

The quartzite on the hanging wall contact of the sill should be examined and sampled to check the possibility of the deposition of a hydrothermally generated alteration and/ or mineralized system.

Prospecting traverses should be conducted outside the property to locate extensions of the sill. There are reports of an Archean inlier to the south. This should be checked because it represents a "Cobalt- type" environment in which there is the mix of basement volcanics, Cobalt Group sediments and Nipissing diabase intrusives. This is a perfect setting for a silver- cobalt deposit.

Diamond drilling under the showings and along strike is certainly warranted to trace the fracture system at depth. Cobalt- type silver veins tend to pinch and swell both vertically and laterally. Therefore, there may be significantly higher grade zones of enrichment along strike or at depth.

Respectfully Submitted,

F. R. Ploeger, B.Sc., P. Geo., FGAC, AGO

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QUALIFICATIONS

I, Frank R. Ploeger, certify that:

- 1) I graduated from Queen's University with a BSc in Applied Science in 1973;
- 2) I completed 2 years of an MSc program at McMaster University in1982:
- 3) I have been practicing as a geologist since graduation;
- 4) I am a Fellow of the GAC;
- 5) I am a Registered Professional Geologist in Saskatchewan (APEGS);
- 6) I am member in good standing with the Association of Geoscientists of Ontario;
- 7) I currently reside at 59 Connell Ave., Suite 2, Virginiatown, ON, POK 1X01
- 8) I personally supervised or participated in all the work on the property.
- 9) I have no interest in the property.

F. R. Plbeger, BSc, FGAC, P! Geol., AGO



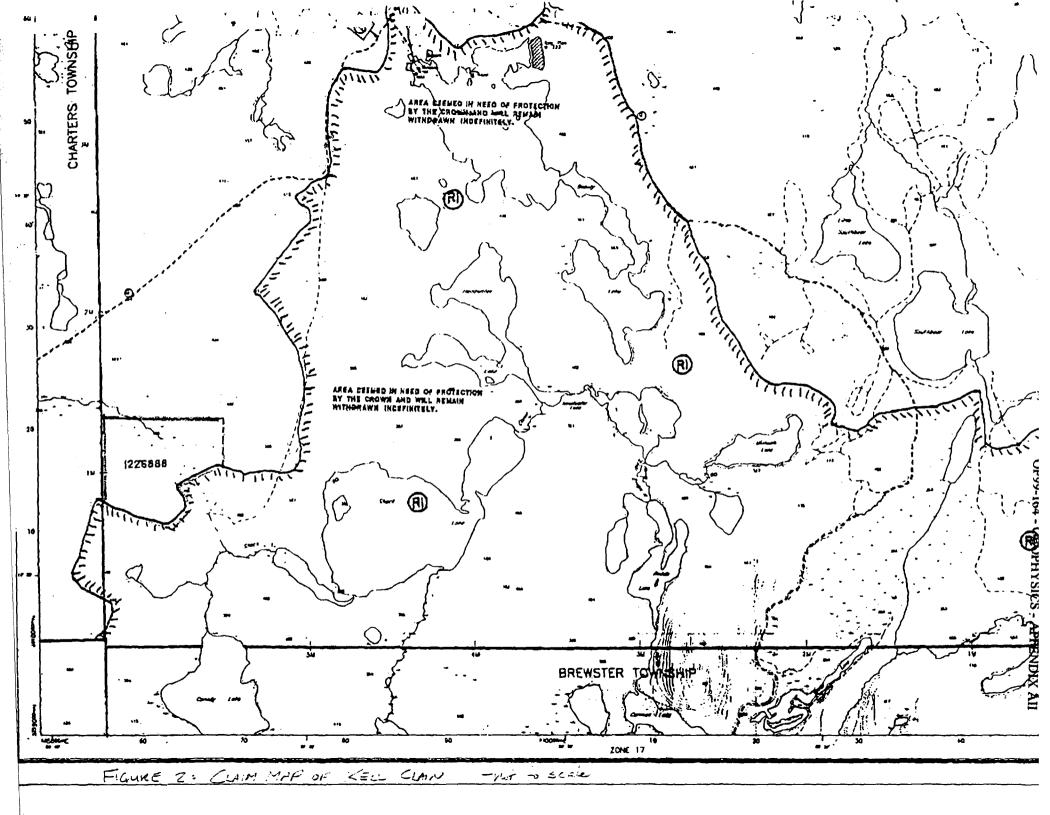
Map 2205

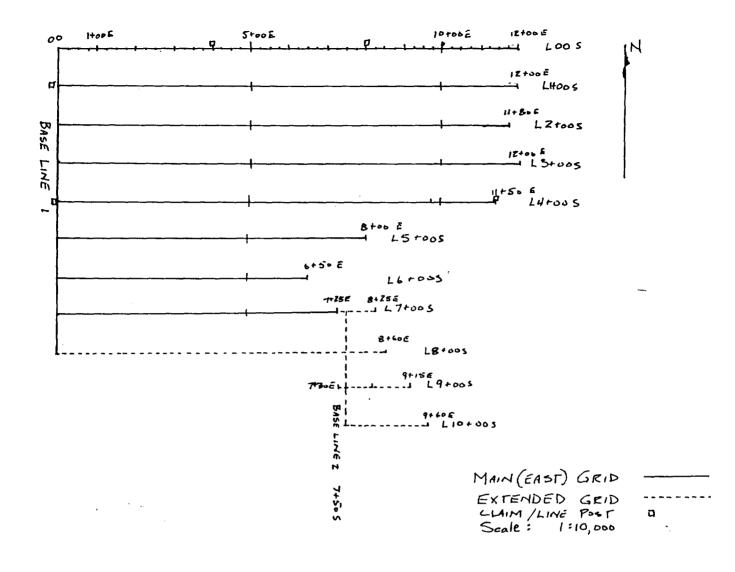
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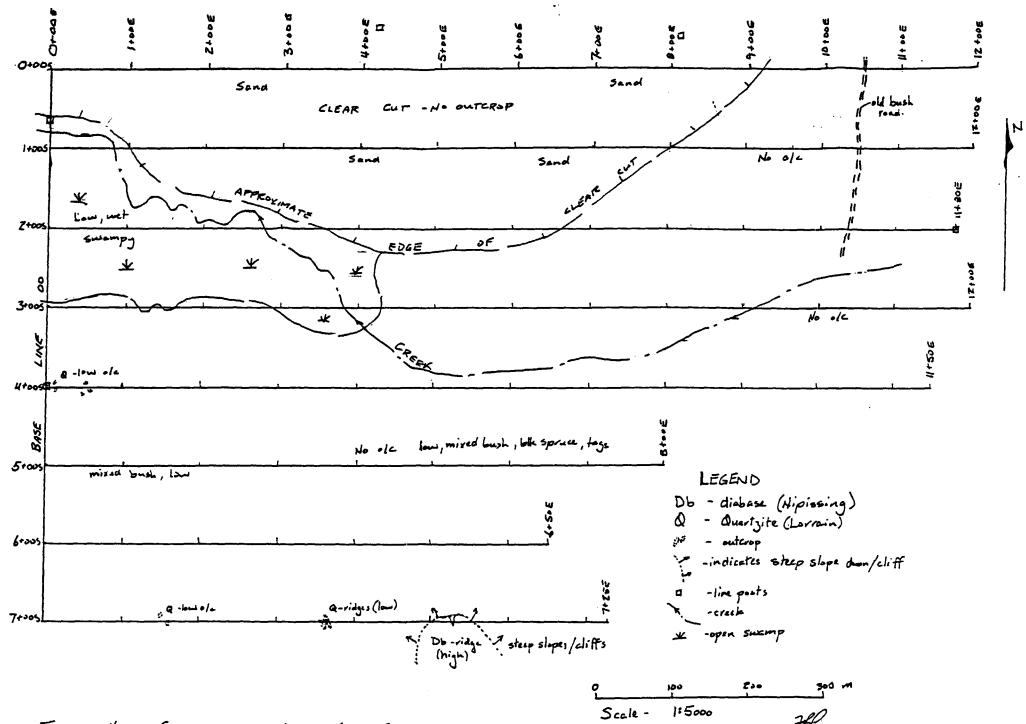


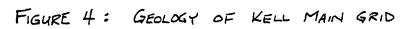


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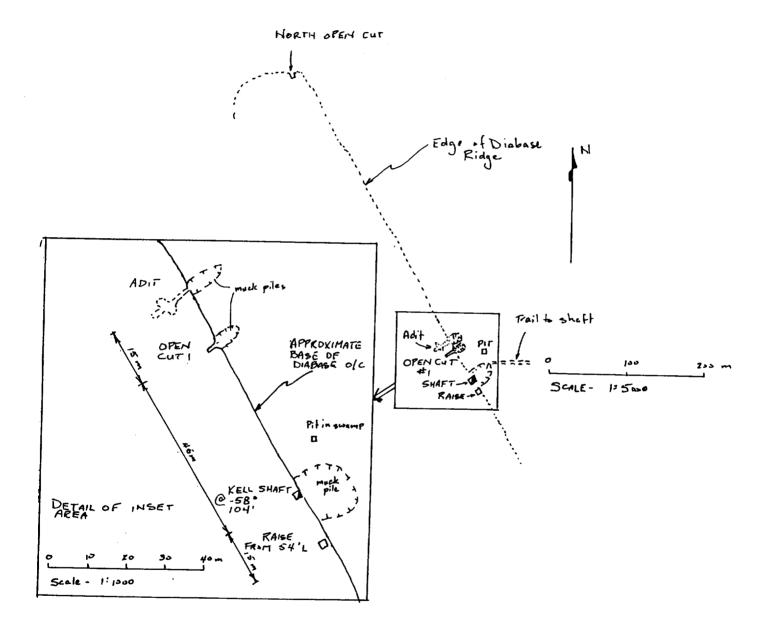
SKETCH SHOWING KELL GRIDS FIGURE 3: HP

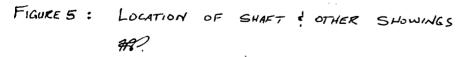
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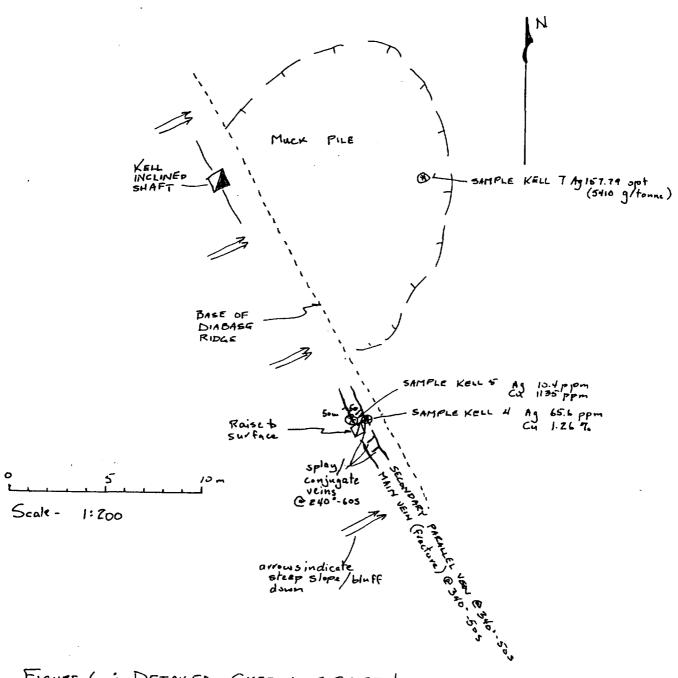


FIGURE 6 : DETAILED SKETCH OF SHAFT & RAISE AREA

1

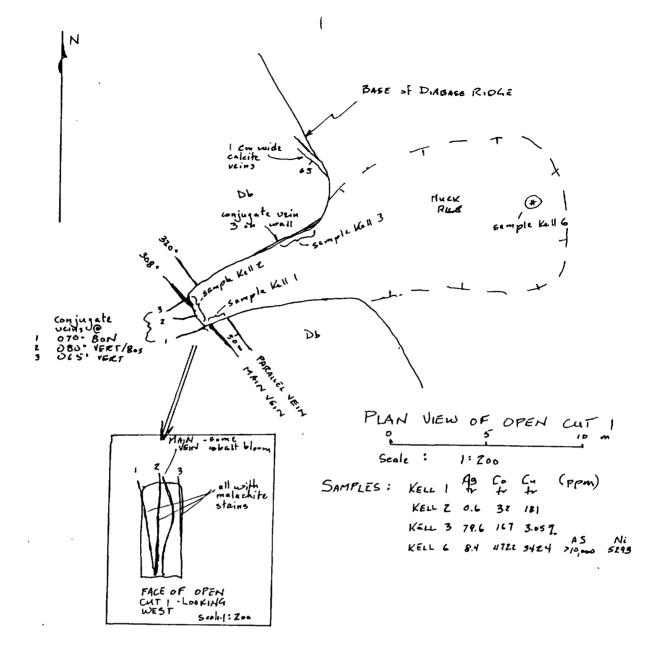
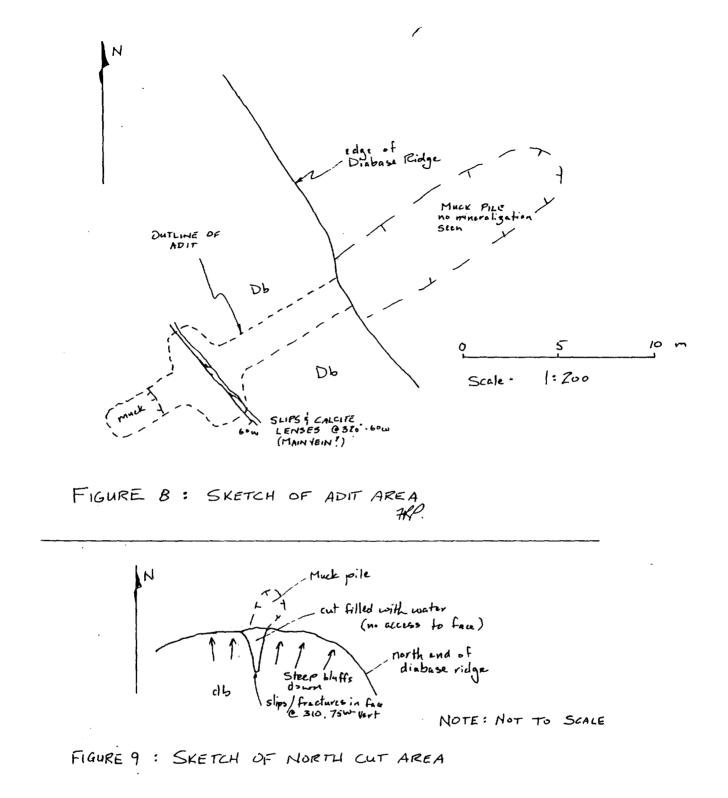


Figure 7: DETAILED SKETCH OF OPEN CUT 1 AREA

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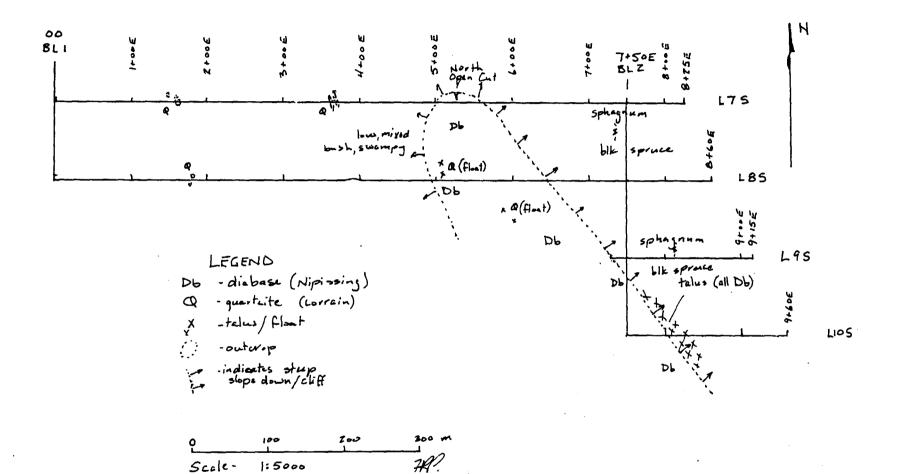


FIGURE 10 : GEOLOGY OF EXTENDED GRID

| | 5 P.03 | F. PLOEGE Attention: F. Ploe Project: Kell | | | | | | | | | | | TSL neron A (705) (| lve., | Swas | tika, | Ontar | io, P | | | | | | | | | Repo Date | rt No | : | | 3 167] v-03-9 | |
|-----|-----------|--|-----------|---------|-----------|-----------|-----------|------------|---------|-----------|------------|-----|---------------------------|---------|--------|---------|-------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|------------|-----------|--------------|----------|----------|----------|--------------------------|----|
| | No.003 F | Sample: Rock | | | | | | | | | 1 | MUL | TI-EI A | | | | PA stion | NAL | YSI. | IS | | | | | | | | | | | | |
| | 2:33 | Sample Number | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppan | Ca X | Cd ppm | Co ppan | Cr | Cu : ppat | Fe % | K % | Mg S | | Mo ppm | Na S | Ni ppm | P ppca | Pb ppm | Sb ppm | Sc ppm | Sa ppon | Sr ppm | Ti S | V ppm | W ppm | Y ppm | Zn ppan | Zr |
| | | Kell-1 | <0.2 | 0.36 | <5 | 40 | <0.5 | <5 | 0.03 | <1 | 1 | 396 | 13 | 0.55 | 0.29 | 0.01 | 40 | 4 | 0.01 | 11 | 40 | 2 | 5 | <1 | <10 | 4 | <0.01 | 3 | <10 | 1 | <1 | |
| ••• | | Kail-2 | 0.6 | 1.61 | <5 | 40 | <0.5 | <5 | 1.07 | <1 | 32 | 78 | 181 | 5.35 | 0.18 | 1.87 | 455 | ~2 | 80.0 | 69 | 500 | 14 | S | 7 | <10 | 24 | 0.20 | 186 | <10 | 9 | 83 | 2 |
| • | _ | Kell-3 | 79.6 | 3.30 | 15 | 10 | 0.5 | <5 | 1.73 | <1 | 167 | 91 | >10000 | 9.01 | 0.04 | 4.02 | 1115 | <2 | 0.06 | 163 | 930 | 52 | 5 | 19 | <10 | 84 | 0.36 | 227 | <10 | 11 | 87 | з |
| | 00 | Kall-4 | 65.6 | 3.01 | 210 | 20 | 1.5 | <\$ | 5.58 | <1 | 114 | 93 | >10000 | 8.73 | 0.12 | 1.47 | 2975 | <2 | 0.09 | 84 | 670 | 36 | 5 | 23 | <10 | 26 | 0.24 | 276 | <10 | 15 | 66 | 3 |
| | , 17 , | Kell-S | 10.4 | 1.30 | 405 | 10 | 1.0 | <5 | 14.43 | <1 | 263 | 131 | 1135 | 3.69 | 0.01 | 0.67 | 5930 | 4 | 0.02 | 79 | 250 | 28 | 5 | 14 | <10 | 30 | 0.01 | 85 | <10 | 10 | 30 | 1 |
| | | Kall-6 | . 8.4 | 3.12 | >10000 | 10 | 2.5 | 65 | 9.69 | <1 | 4722 | 52 | 3424 | 8.77 | 0.05 | 3.13 | 8125 | 18 | 0.03 | 5293 | 320 | - 44 | 75 | 20 | <10 | 34 | 0.01 | 155 | <10 | 20 | 84 | 1 |
| | JAN | Kall-7 | >100.0 | 3.46 | 890 | 10 | 0.5 | <5 | 5.26 | <1 | 271 | 112 | 801 | 8.43 | 0.08 | 1.56 | 2855 | <2 | 0.06 | 404 | 580 | 14 | 10 | 20 | <10 | 12 | 0.23 | 270 | <10 | 13 | 72 | 2 |

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ID:7056423300) Laboratories

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A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.LH20.

Signed:

Page 1 of 1

Swastika Laboratories

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Assaying - Consulting - Representation

Established 1928

Assay Certificate

9W-3167-RA1

1. UUU. UUU. 1. UUU. 1 1. **UUU.** 1. UUU . U I

Company: C. J. PLOEGER Project: Kell Aun: C. J. PLOEGER Date: NOV-30-99

We hereby certify the following Assay of 3 Pulp samples submitted OCT-20-99 by .

| Sample | Ag | Ag | Cu | |
|----------------------------|---------|--------|--------------|--|
| Number | g/tonne | oz/ton | % | |
| Kell 3 Kell 4 Kell 7 | 5410.0 | 157.79 | 3.05 1.26 | |

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705)642-3244 Fax (705)642-3300





Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

9W-3167-RG1

Date: OCT-26-99

Company: F. PLOEGER Project: Kell Atta: F. Ploeger

We hereby certify the following Geochemical Analysis of 7 Rock samples submitted OCT-20-99 by .

| Sample Number | Pd PPB | Multi- Element | |
|------------------|-----------|-------------------|--|
| Kell-1 | <5 | Results | |
| Kell-2 | <5 | to | |
| Ke11-3 | <5 | follow | |
| Ke11-4 | <5 | | |
| Kell-5 | <5 | | |
| Kell-6 | <5 | | |
| Kell-7 | - | | |

One assay ton portion used.

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario POK 1T0 Telephone (705)642-3244 Fax (705)642-3300

Applicants Log

June 14th, 1999 Prospecting

- helper (TC)
- found shaft, open cut, adit and mystery hole marked with flagging and 'OPEN HOLE' signs supplied by MNDM
- followed Nipissing North on ridge and back at base of outcrop
- 2 lunches, 400 km

June 15th, 1999 Prospecting

- helper (TC)
- found logging road access to North portion of property
- found post #4 for LOS 0+00E landmark
- orientation over NW portion of claim, found quartzite
- 2 lunches, 400 km

June 16th, 1999 Prospecting

- helper (TC)
- orientation over NE portion of claim, found quartzite
- 2 lunches, 400 km

June 17th Supplies

- Canadian Tire 39.28
- Gullevin International 37.61
- 1 lunch, 50 km

June 18th – 19th, 1999 Line Cutting

- I helper (BM)
- began baseline and cut most of line 0
- chainsaw rental, chainsaw accessories
- camped (prospectors tent rental)
- 4 breakfast, 4 lunches, 4 suppers, 400 km

June 22nd, 1999 Line Cutter Foreman Orientaion

- showed North access and grid beginning
- showed South access, shaft, adit, open cut and mystery hole (raise???) property hazards
- 2 breakfast, 2 lunches, 400 km

June 23rd, 1999 Prospecting

- 1 helper (TC)
- examination of Nipissing diabase for previous work
- majority of E side of Nip exhibits signs of old trenching, lots of large slough
- no indication of previous work noted on W side of Nip
- 2 lunches, 400 km

June 30, 1999 Supplies

- Giant Tiger 46.88
- 1 lunch, 50 km

September 3rd, 1999 Prospecting

- 1 helper (TC)
- checked with line cutter foreman on extent of grid and checked grid. Line 0, 1, 2, 3 completed and west baseline completed.
- Collected samples KELL 99-1 (veined quartzite), 2 (Nip), 3 (open cut)
- Looked for other geologists working in area (Clive Stephenson)
- 2 lunches, 400 km

September 8th, 1999 Geophysics Tech Orientation

- showed South access, shaft, adit, open cut and mystery hole (raise???) property hazards
- found Native Silver samples in Muck Pile
- Rented Mag & Scint
- 2 breakfast, 2 lunches, 400 km

September 9th, 1999 Prospecting

- I helper (TC)
- examination of area NNW of claim to determine whether another outcropping of Nip exists
- none found
- 2 tunches, 400 km

September 14th, 1999 Recon Geology with Consultant

- Indicated locations of known workings and exposures
- Canadian Tire 29.30
- 2 lunches, 400 km

September 17th, 1999 Supplies

- Canadian Tire 65.35
- 1 lunch, 50 km

September 20th -21st, 1999 Mag/Scint Surveys

- Applicant not present but vehicle and lunches previously paid for
- 2 breakfast, 4 lunch, 2 supper, 800km

November 30th, 1999 Prospecting

- helper (TC)
- examine area W and SW of claim for Nip exposure (charters)
- 2 breakfast, 2 lunch, 2 supper, 400km

December 1st, 1999 Prospecting

- helper (TC)
- examine area W and SW of claim for Nip exposure (charters/donovan)
- 2 breakfast, 2 lunch, 2 supper, 400 km

December 2nd, 1999 Prospecting

- helper (TC)
- examine area SW of etalm for Nip exposure (donovan)
- found Nip exposure with pits/trenches
- found greenstone with iron formation as seen on compilation map
- 2 breakfast, 2 lunch, 2 supper, 400 km

December 3rd, 1999 · Supplies

207.98

- 1 Lunch, 50 km

Pauls New and Used

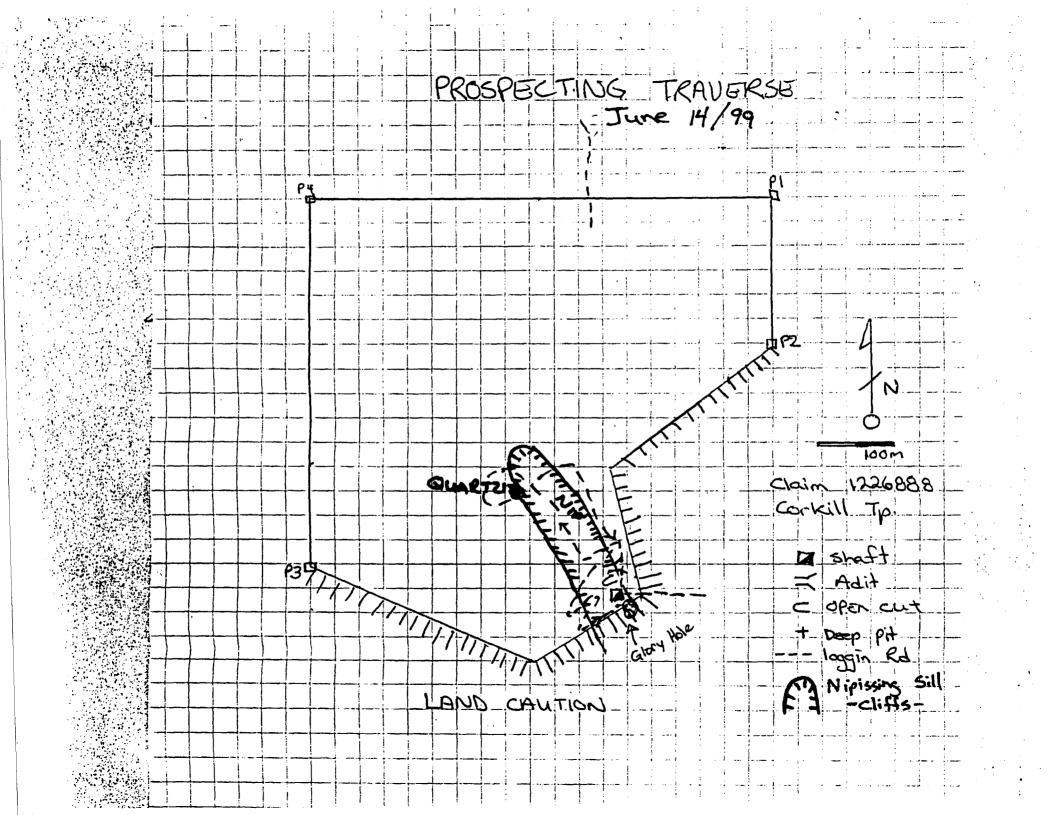
December 4^{th} , 1999 Staking \leftarrow not counted for OPAP

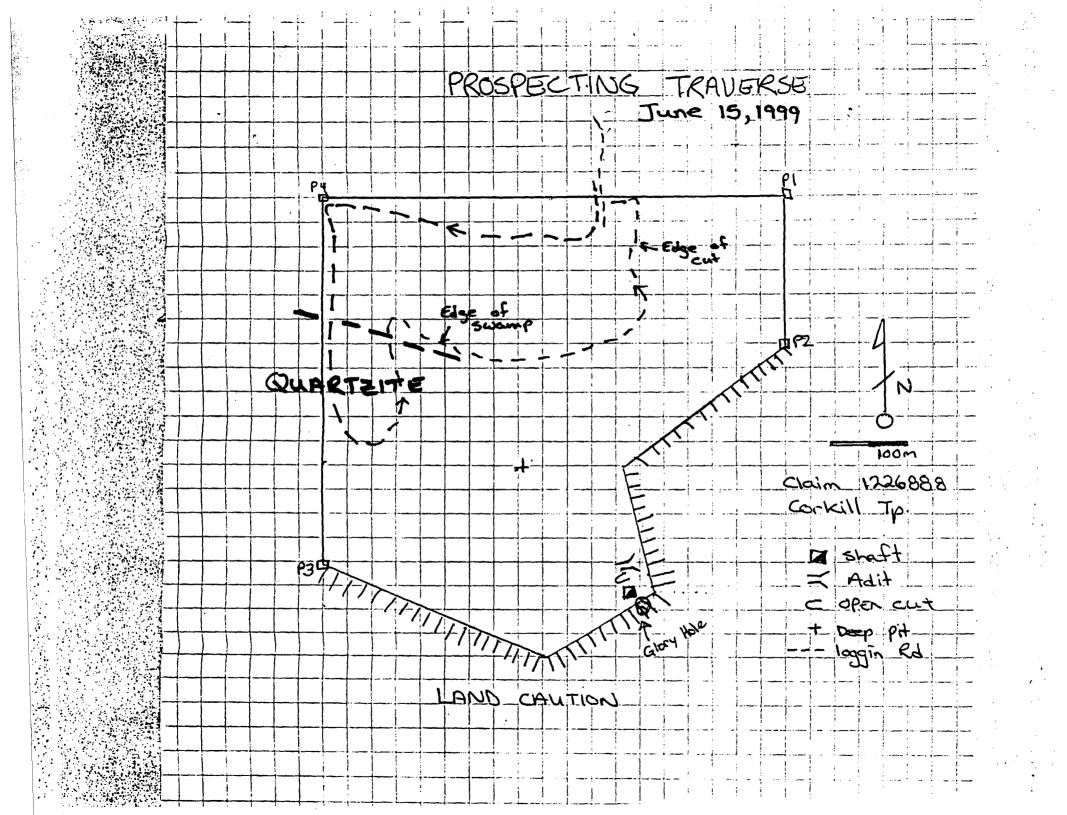
- Staked area found prospecting December 2nd
- 2 claims 1239094, 1239096 total 8 units
- covers showing and greenstone

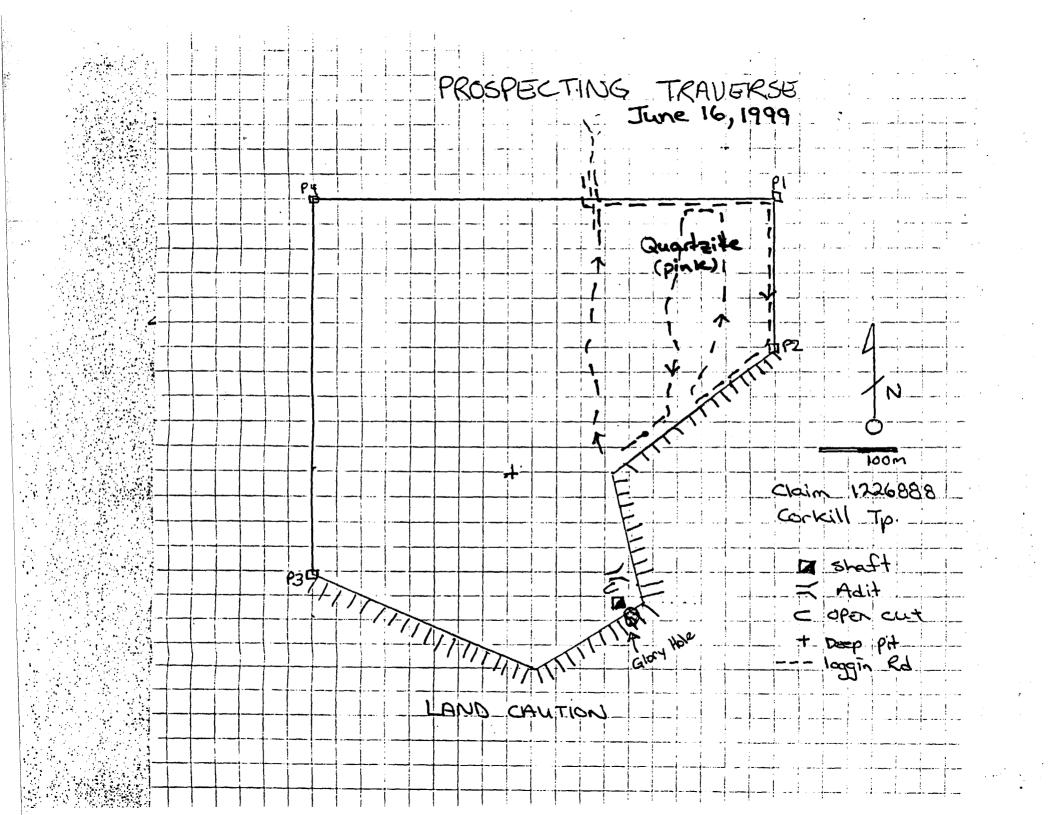
December 7th, 1999 Orientation and Supervision

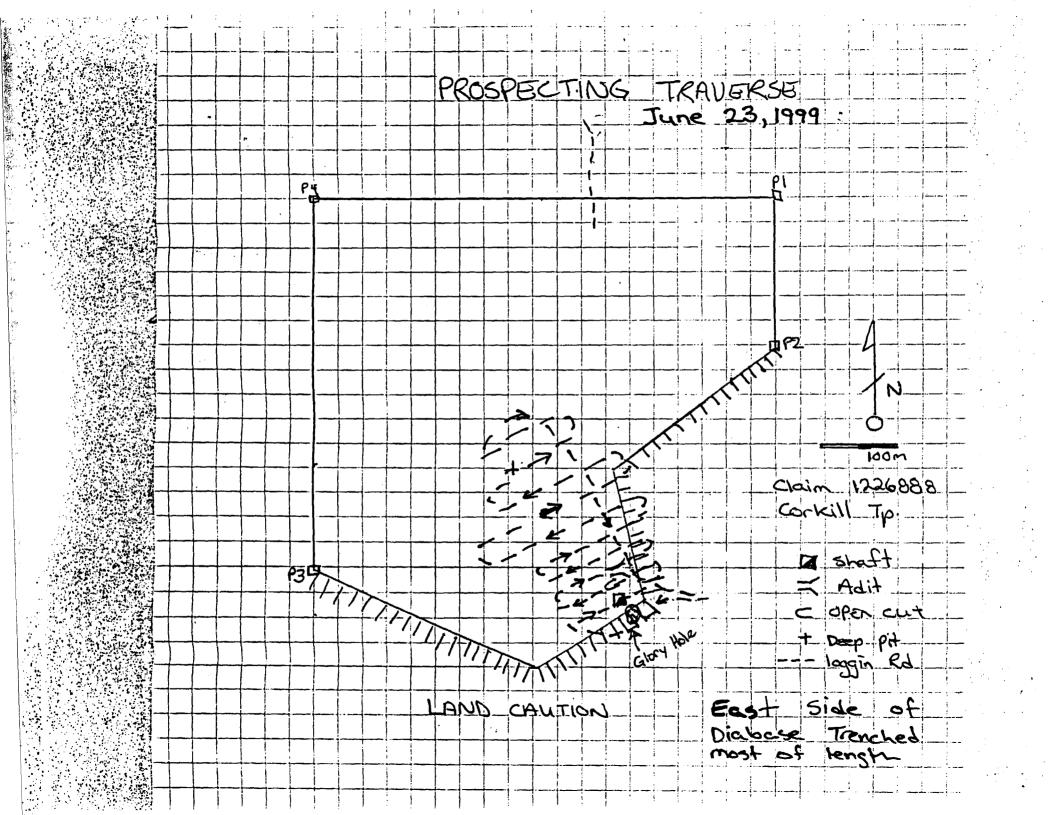
- Brought Max-Min crew to grid and oversaw the survey
- 1 lunch, 400 km

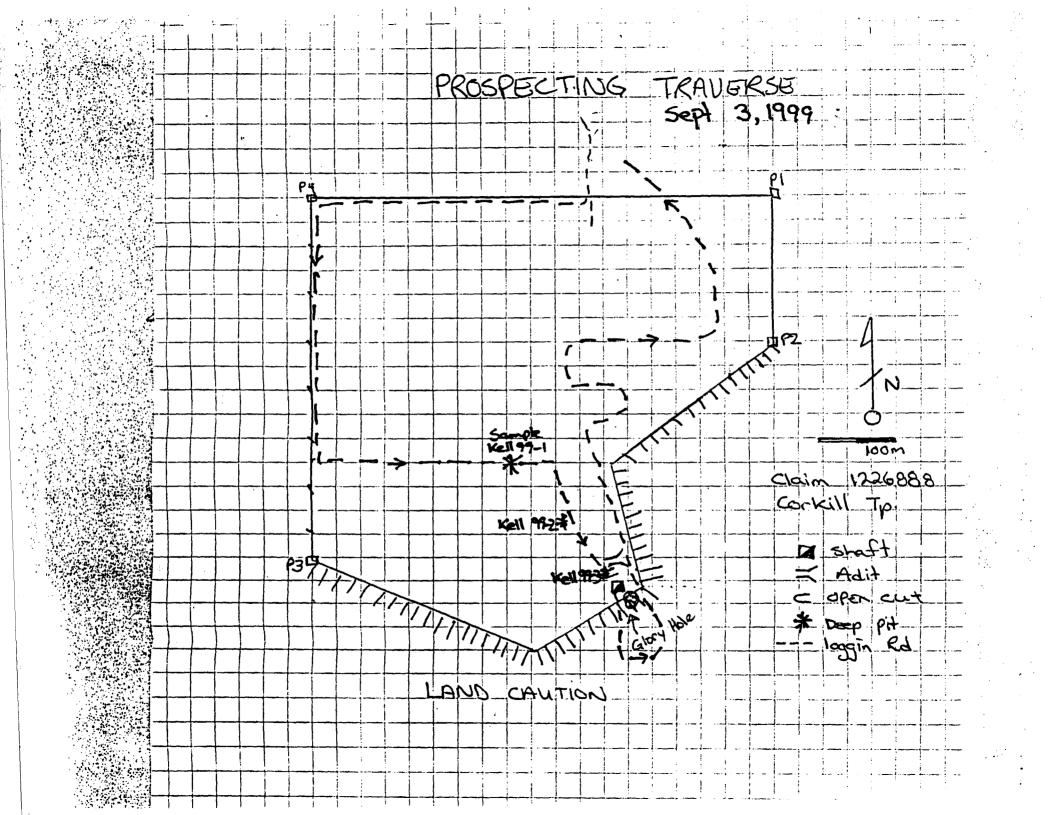
- January 6th- 8th, 1999 Geophysics Report report writing and digitizing 1 ink cartridge 3 lunches, 50 km
- January 9th, 1999 OPAP Report compilation of work done and costs involved
 - _ 1 lunch

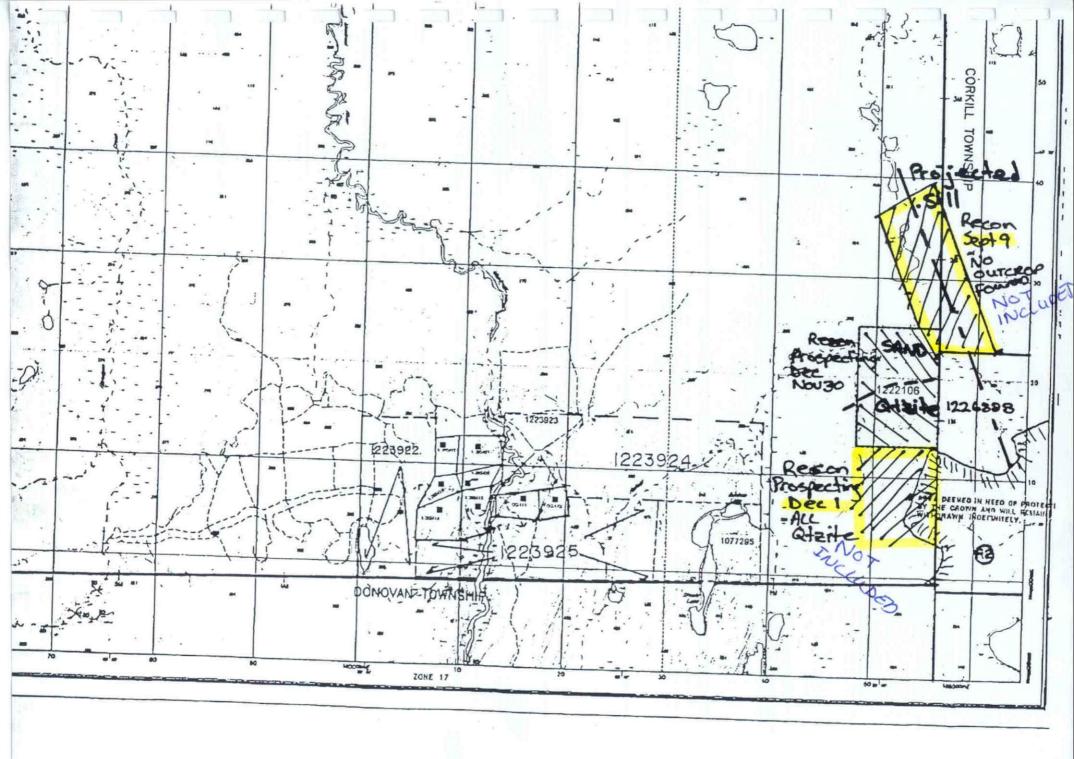












B. K. McCombe Mining Exploration

December 3,1999

In account with: C. Jason Ploeger for work done on the Kell Property, Corkhill Twp. August 4 to November 20, 1999.

Brush out road to site to bring in equipment-Cutter @ \$100/ day 2 days \$200.00 Helper @\$75/ day \$150.00 2 days Cut trails to open cuts, start site prep for blasting-Cutter @ \$100/ day 2.5 days \$250.00 2.5 days Helper @\$75/ day \$187.50 **Blasting-**Blaster @ \$125/ day 2 days \$250.00 Helper @ \$100 / day 2 days \$200.00 Stripping, Washing, Cleaning Overburden-Leader @ \$100/ day 3.5 days \$350.00 Helper @\$75/ day 3.5 days \$262.50 **Blasting Supplies-**1 case stick powder \$215.00 Caps (Masterdet) \$157.00 1 bag Amex \$27.00 **Rentals-**Wajex pump, hoses, etc: 3 days @\$60/ day \$180.00 1 chainsaw: 2 days @\$40/ day \$80.00 1 plugger: 2 days @\$100/ day \$200.00 1 4-wheeler bike: 10 days @\$50/ day \$500.00 Travel-Gas and oil: 400 km return/ trip @\$50.00/ trip 10 trips \$500.00 <u>Total</u> \$3,709.00 GST \$259.63 **Total This Invoice** \$3968.63

Barry McCombe

Party Mumbe.

F. R. PLOEGER ENTERPRISES INC.

59 CONNELL AVE., SUITE 2 P.O. BOX 313 VIRGINIATOWN, ON, POK 1XO. 705-634-2457

In Account With:

C. Jason Ploeger 71 Ninth Ave Larder Lake, ON, POK 1L0

January 14, 2000

Dear Mr. Ploeger,

Summarized below is a detailed breakdown of the geological and supervisional consulting services rendered to you with respect to the OPAP project (OP99-164) on the Kell Group in Corkill Township. As discussed prior to beginning the project, my rates are \$300.00/ day in the field in addition to a project supervision fee of \$500.00 and reports (Geological and Summary for OPAP) at \$300.00 each plus applicable expenses such as meals, supplies and return mileage to the site.

Supervision: <u>Meetings</u> with Mr. J. Ploeger, Linecutters, Geophysical Operators (magnetometer, scintillometer and Max-Min surveys) and Instrument Rental Agents- Aug 3, Sept 14, 16, 17, Oct 4, 18, 26, Dec 15, 1999, Jan 2, 5 & 8, 2000. (all part days) **\$500.00**

Arrange for Linecutting and Surveys. (see above dates)

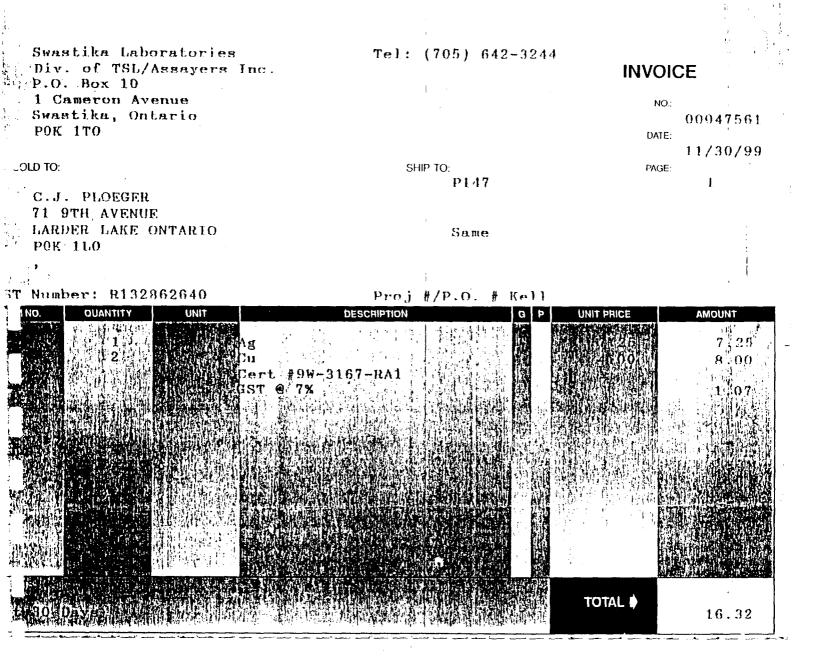
| | Initial Check for Access and Check Finished Grid-Au 1999. (2 days) | g 4 & 17, <u>\$600.00</u> |
|-----------|--|---|
| Mapping: | Reconnaissance Geology with owner- Sept 14, 1999. | (1 day) <u>\$300.00</u> |
| | Map Pits and Open Cuts- Oct 19, 1999. (1 day) | <u>\$300.00</u> |
| • | Map Extended Grid- Nov 24, 1999. (1 day) | <u>\$300.00</u> |
| | Geological Report | <u>\$300.00</u> |
| OPAP Repo | rt: | <u>\$300.00</u> |
| Expenses: | Assistant- 4 days @ \$100.00 | <u>\$400.00</u> |
| | Meals- @ \$15.00/ day in the field (breakfast- \$5.00 ar \$10.00) self- 5 days @ \$15.00 assistant- 4 days @ \$15.00 | nd lunch- <u>\$75.00</u> <u>\$60.00</u> |

| Mileage- 400km (return) @ 0.30/ km x 5 trips | <u>\$600.00</u> |
|---|------------------|
| Assays- | <u>\$156.81</u> |
| Miscellaneous- flagging, photocopying, prints etc | <u>\$100.00</u> |
| Subtotal | <u>\$3991.81</u> |
| <u>GST</u> - | <u>\$279.43</u> |
| Total this invoice | <u>\$4271.24</u> |
| | |

Respectfully Submitted, F. R. Ploeger, BSc, P. Geol., FGAC, AGO

Pd

)



SMASTIKA LAGDRATORIES -7 = 17 ---

| | Established 1928 Bablished 19 | of TSL/Assu sulting - astika, Oni 1244 | Represe ario P0K FAX (705 | ntation 1 1 TO 1) 642-3300 | | | | <u>C</u> | ERTIFICATE # |
|--|--|---|---|----------------------------------|--------------|------------|------------------|----------|--|
| Box 31 Viccinia Phone: 705 - Authorized by: | Frank Ploeger 3 Connell Ave + town On Pok -567-4377 Fax: Date Jason Ploeger 71 9th Ave, Larder | (1) 705 :: Oc | () - 56 1 a | 57 - ⁴ 20/ | 442 199 | 26 | - Proj P.O | .# | Ke11 |
| Type of analysis; | ay Methods: Au Ag oz./ton or g/tonne, Base Metal % seay Methods: Au PPB, Ag + Base metal in PPM | Dispor | <u>al of un</u> RE Discer Retain Retain | used m JECTS | s lays at | e: cost | | | PULPS Discard Retain 6 months Retain > 6 months at cost Return to |
| Type of Sample | Sample Numbers | Au | Ag | Cu/ | Pb | Zn | Co | NI | Other 🔨 |
| Bock | Kell-1 Kell-2 Kell-3 Kell-4 Kell-5 Kell-6 Kell-7 | | XXXXXX | XXXXXXXXXX | XXXXXXXX | XXXXXXX | XXXXXXXX | XXXXXX | Pd + multi Pd ', Pd ' |
| | $7 \operatorname{prep} at 3.50 = 24.5 6 9 at 7.00 = 48.0 7 milti at 8.40 = 58.8 131.30 + 6.5+ 140.49$ | | | | | | | | |

| (V) Ontario | Ministry of Northern Development | Declaration of | of Assessment | Work | Transaction Number (office use) |
|--|---|---|--|--------------------------|---|
| | and Mines | Performed of | n Mining Land | | W0080.00193 |
| | | Mining Act, Subsec | ction 65(2) and 66(3), R. | S.O. 1990 | Assessment Files Research Imaging |
| 41p10se2004 2.20275 | CORKILL | a a a a a a a a a a a a a a a a a a a | assesment work and corr | espond with I | ning Act. Under section 8 of the Mining the mining land holder. Questions about I Floor, 933 Ransey Lake Road, Sudt LARDER LAKE MINING DIVISION |
| | | | | | 9:15 AL LM |
| | <pre>c performed on Crow ype or print in ink.</pre> | n Lands before re | | (5) | 0. APR 20 2000 |
| | s) (Attach a list if ne | cessary) | 2.20 | | 5 |
| Name C. Jasc | ~· | | | Client Numb | 301/83 |
| A delana a | | <u>.</u> | | Telephone I | Number |
| Address 9th | AVE | | | 705 Fax Numbe | 5-643-2511 |
| LARDER | LAKE | ON | | | |
| Name 1366402 | . Ontario | o Coro | Fnc | Client Numl | ber 556 |
| Address | | | | Telephone | |
| | 385 | | | Fax Numbe | |
| Larder L | ake on | 7 | i | L | |
| | , | | | | |
| 2. Type of work perf | ormed: Check (🗸) a | nd report on only | ONE of the following | groups fo | r this declaration. |
| | ospecting, surveys, under section 18 (reg | | hysical: drilling strip enching and associa | | Rehabilitation s |
| Work Type | | | | | Office Use |
| Geophysics - ma | g, scint, May | L-Min | | Commodi | ty |
| Geology Prospecting | Stripping | /Trenching | \checkmark | Total \$ Va Work Clai | |
| | I and here in 1999 | To Cr | JAN Month Year 2000 | NTS Refe | rence |
| Performed Day 7 Global Positioning System Data (i | Month June Yeal 999 | Area CORV | | Mining Div | vision / |
| N47º 50' 300' | Mor G-Pia | n Number | | Resident | Coologist |
| WEO° 64' 300 | " | M2 | 19 | District | Kiklard jak |
| - | obtain a work permi provide proper notic complete and attack provide a map show include two copies of | e to surface rights a Statement of C ving contiguous mi | holders before star costs, form 0212; ining lands that are l | ting work; | |
| 3. Person or compa | nies who prepared | the technical rep | oort (Attach a list if | | |
| Name Jason | Ploeser | | | Telephone 705 | 0-643-2511 |
| Address 9th | Ave | ladar | Lake ON | Fax Numb | er |
| Name FR PI | | terprises | | Telephone | Number |
| Address | | e2, Virsini | | Fax Numb | er |
| 59 Connell Name | Ave. Suit | -~ vicsini | atown, ON | Telephone | Number |
| | | | | | • |
| Address | | | | Fax Numb | er |
| 1 C. Jason | (Print Name) essment Work havin | g caused the work | to be performed or | | nowledge of the facts set forth in the same during or after its |
| Signature of Recorded A | | | | | Peter 20 2000 |
| Signature of Necylded / | | | | | 1 M 7 A A A |

| Signature of Recorded Holder or Agent | Perci 20,200 |
|---------------------------------------|--|
| Agent's Address | Telephone Nymber 705-643-25 RECENT |
| 0241 (03/97) | RECEIVED |
| | APR 2 6 2300 |
| | GEOSCIENCE ASSESSMENT |
| | TIGE |

Barry McCombe 84 McKelvie Ave. Kirkland Lake, on P2N 2KB

Nicoli Garner

519 - 657 - 9269

705-568-8502

183 Walmer Grove London, ON NGG 468

9:15 A.F.

RECEIVED ADD 26 000 OSCIENCE ASSESSMENT

Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the minin 5. land where work was performed, at the time work was performed. A map showing the contiguous link must accompany thi form.

| | | Wee | SC. 66193 | | | | |
|---|---------------|---|--|--|--|---|--|
| Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map. | | Number of Claim Units. For other mining land, list hectares. | Value of work performed on this claim or other mining land. | Value of work applied to this claim. | Value of work assigned to other mining claims. | Bank. Value of wor to be distributed at a future date | |
| eg | TB 7827 | 16 ha | \$26,825 | N/A | \$24,000 | \$2,825 | |
| eg | 1234567 | 12 | 0 | \$24,000 | 0 | 0 | |
| eg | 1234568 | 2 | \$ 8,892 | \$ 4,000 | 0 | \$4,892 | |
| 1 | 1226888 | 7 | 19293 | 5600 | 2080 | 11613 | |
| 2 | 1222106 | 6 | 320 | 2400 | 0 | 0 | |
| 3 | | | | | | | |
| 4 | | | | | | | |
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| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | Column Totals | | | | | | |

C. Jason Ploeger (Print Full Name) , do hereby certify that the above work credits are eligible under ١, _

subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim

where the work was done.

| Signature of Recorded Holder or Agent Authorized in Writing | Date/10/11 20,2000 |
|---|--------------------|
| 7.9 | |

Instruction for cutting back credits that are not approved. 6.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- . 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

| For Office Use Only | | | | | | | |
|---------------------|--|---|--------------------------------|--|--|--|--|
| Received Stamp | | Deemed Approved Date | Date Notification Sent | | | | |
| | RECEIVED | Date Approved | Total Value of Credit Approved | | | | |
| 0241 (03/97) | MINING DIVISION | Approved for Recording by Mining Recorder (Signature) | | | | | |
| | 9:15 AM 20 APR 25 2000 | Ŕ | ECEIVED | | | | |
| | | | APR 2 6 2000 | | | | |
| | an a | GEOS | SCIENCE ASSESSMENT OFFICE | | | | |



Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)

WO080.00193

onal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Aining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Juestions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 685.

| Work Type | Units of work Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc. | Cost Per Unit of work | Total Cost |
|-----------------------------------|---|--------------------------|------------|
| Line cutting | 10.6 Km | 290 | 307400 |
| Magnetometer Survey | gkm | 90 | 8102 |
| Scintillometer Survey | 9 KM | 90 | 81000 |
| Max/Min Survey | 2.325 KM | 300 | 697 50 |
| Seatech Contractor | | Invoice | 3968 63 |
| Jeological Contractor | | Fnuoice | 4271 34 |
| Prospecting Applicant + Helper | 6 days | 200 | 1200 00 |
| Associated Costs (e.g. supplie | es, mobilization and demobilization). | | |
| 5 | upplies | | 500 °° |
| | tssays | | 156 81 |
| | | | |
| Report Prep | 4 days | 100 | 400 |
| • | ration (crew) and Supply | 200 | 1200 == |
| · · · · | ortation Costs | | |
| TRAVEL (TRUC | K) 6250 KM | 0.30 | 187500 |
| | | | |
| Food and | d Lodging Costs | | |
| Food | | | 650 |
| | | | |
| | | | 00 |

Total Value of Assessment Work | 19613

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.

2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

| TOTAL VALUE OF ASSESSMENT MORK | x 0.50 = | Total \$ value of worked claimed. |
|--------------------------------|----------|-----------------------------------|
| TOTAL VALUE OF ASSESSMENT WORK | X 0.50 - | Total & value of worked claimed. |

Note:

Work older than 5 years is not eligible for credit.

A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

| | , do hereby certify, that the amounts shown are as accurate as may reasonably |
|----------------------------|---|
| (olease print full narheit | |

be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

| Declaration of Work form a | s <u>Resorded</u> (recorded holder, agent, or | r state company position with signing authority) | I am authorized to make this certification. |
|----------------------------|---|--|---|
| 0212 (03/97) | 1990 - 1990 - 19 1999 - 1990 - 1990 - 1990 990 - 1990 - 1990 - 1990 1990 - 1990 - 1990 - 1990 1990 - 1990 - 1990 - 1990 - 1990 - 1990 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1 1990 - 19900 - 19900 - 19900 - 19900 - 19900 - 19900 - 19900 - 19900 - 19900 - 19900 - | Signature | APP 26 2000 GEOSCIENCS |
| | | | GEOSCIENCE ASSESSMENT |

Ministry of Northern Development and Mines

May 24, 2000

C. JASON PLOEGER 71 9TH AVENUE LARDER LAKE, ONTARIO P0K-1L0 Ministère du Développement du Nord et des Mines



Geoscience Assessment Office 933 Ramsey Lake Road 6th Floor Sudbury, Ontario P3E 6B5

Telephone: (888) 415-9845 Fax: (877) 670-1555

Visit our website at: www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.20275

Status
Subject: Transaction Number(s): W0080.00193 Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact JIM MCAULEY by e-mail at james.mcauley@ndm.gov.on.ca or by telephone at (705) 670-5880.

Yours sincerely,

terren B. Beneteri

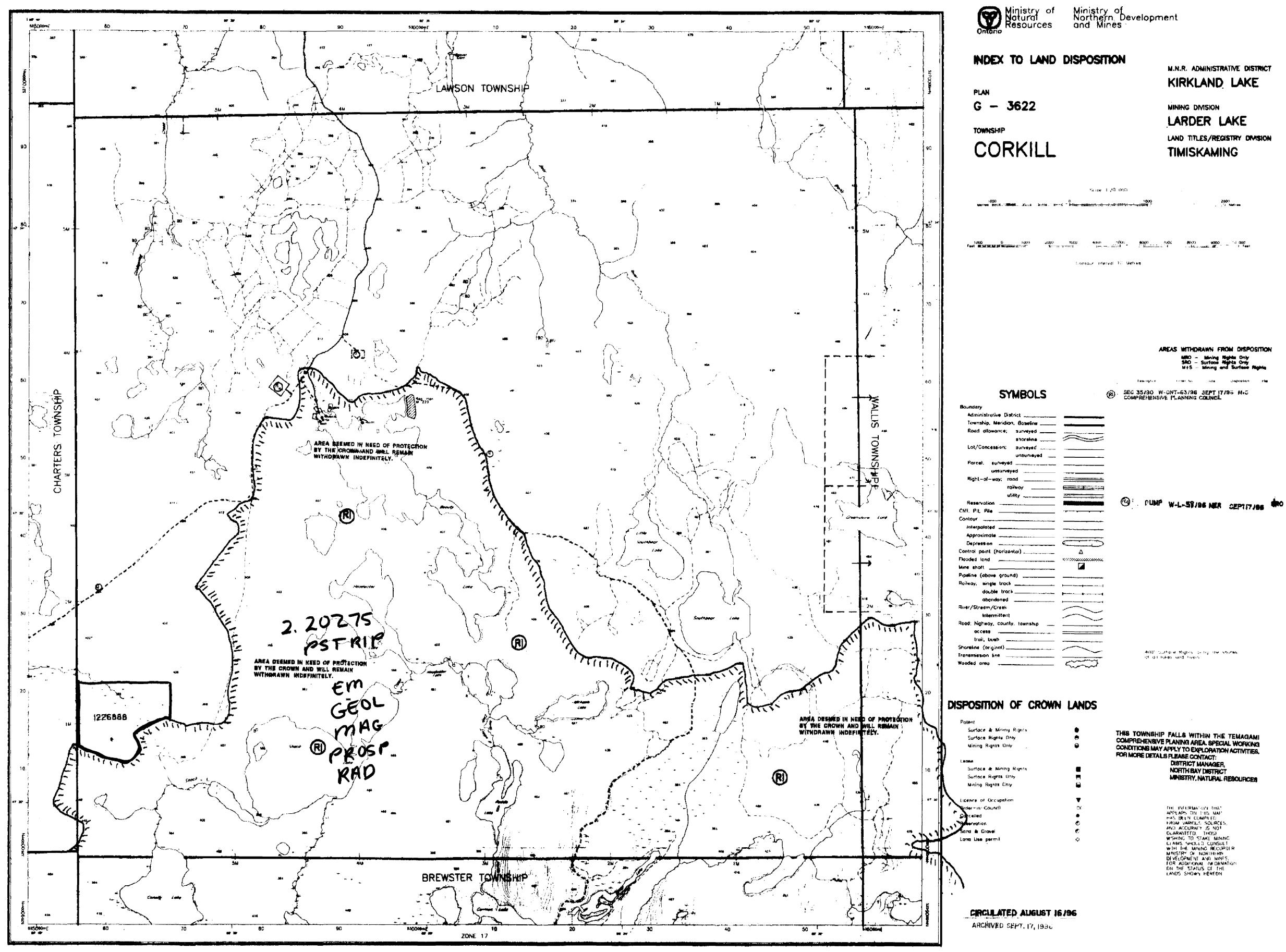
ORIGINAL SIGNED BY Steve B. Beneteau Acting Supervisor, Geoscience Assessment Office Mining Lands Section

Correspondence ID: 14896 Copy for: Assessment Library

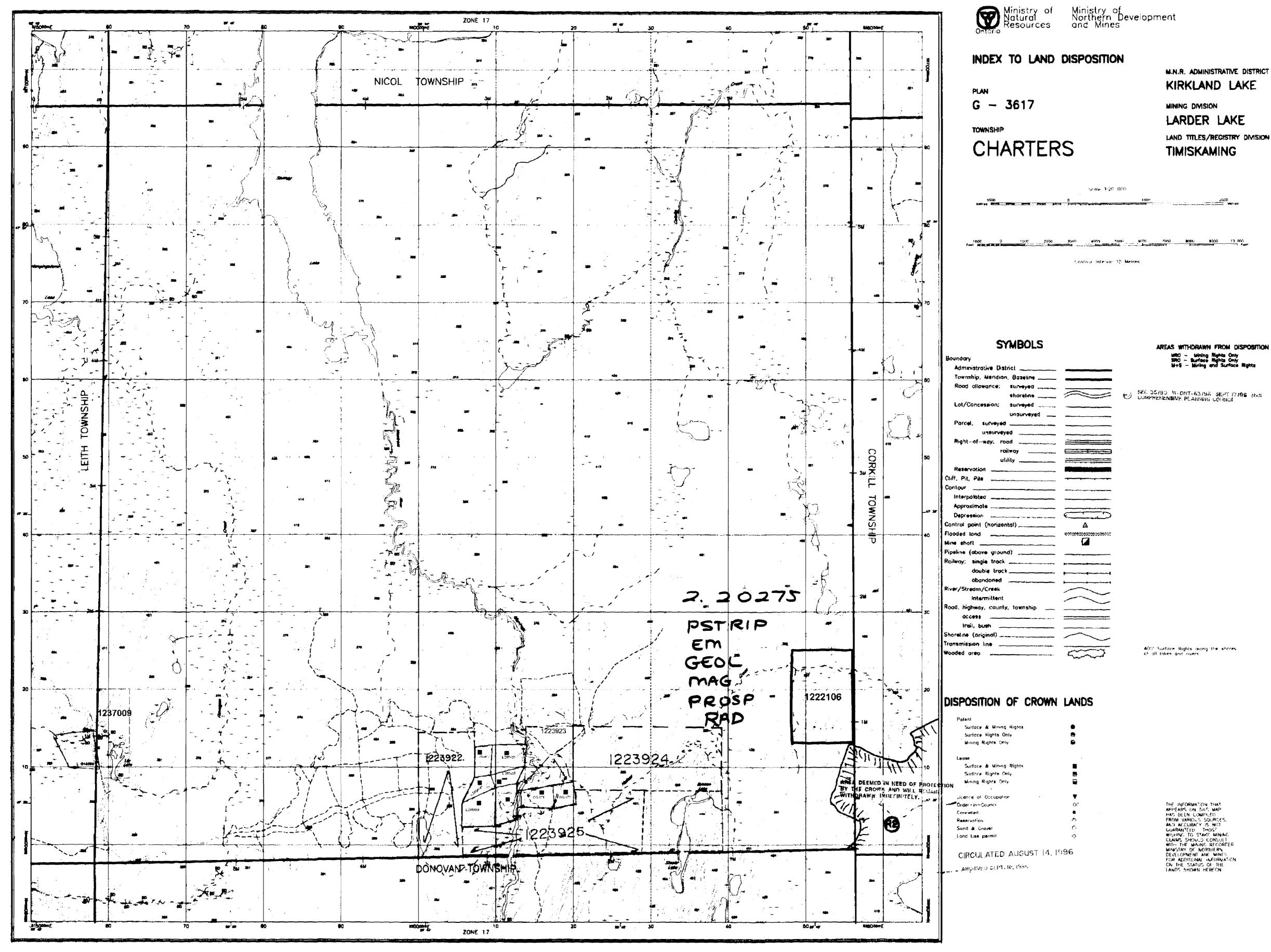
Work Report Assessment Results

| Date Correspondence Sent: May 24, 2000 | | 2000 | Assessor: JIM MCAULEY | | |
|--|-----------------------|--|---|--|--|
| Transaction Number | First Claim Number | Township(s) / Area(s) | Status | Approval Date | |
| W0080.00193 | 1226888 | CORKILL | Approval | May 23, 2000 | |
| Section: 10 Physical PSTR 14 Geophysical El 12 Geological GE 14 Geophysical M 9 Prospecting PR 14 Geophysical R | M OL AG OSP | | | | |
| Correspondence Resident Geologis Kirkland Lake, ON | st | | C. JASON PLC | Recorded Holder(s) and/or Agent(s): C. JASON PLOEGER LARDER LAKE, ONTARIO | |
| Assessment Files Library Sudbury, ON | | 1366402 ONTARIO INC. LARDER LAKE, ONTARIO | | | |
| | | · · · | BARRY KEN MCCOMBE KIRKLAND LAKE, ONTARIO | | |
| | | | NICOLI A. GARNER LONDON, ONTARIO | | |

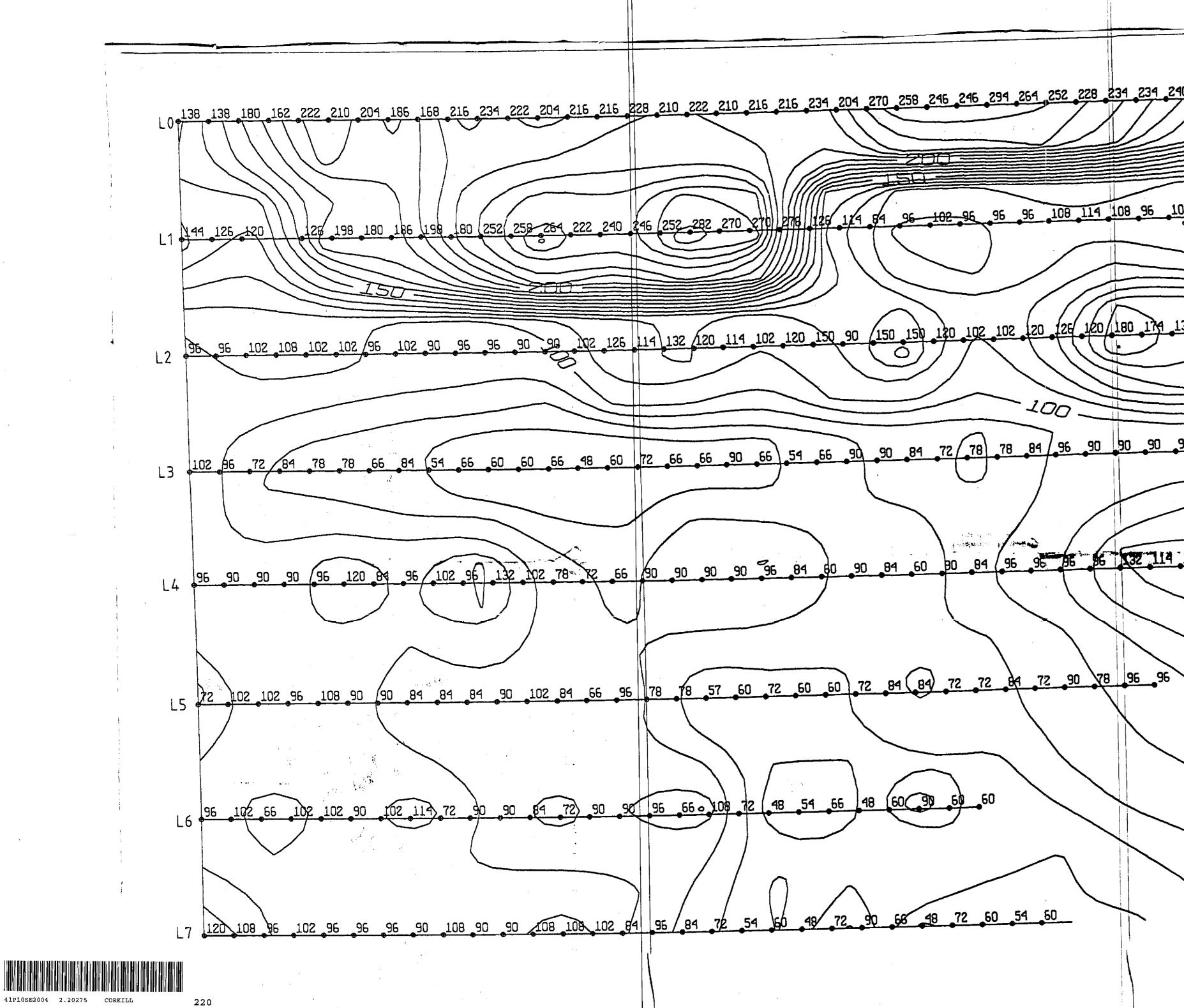
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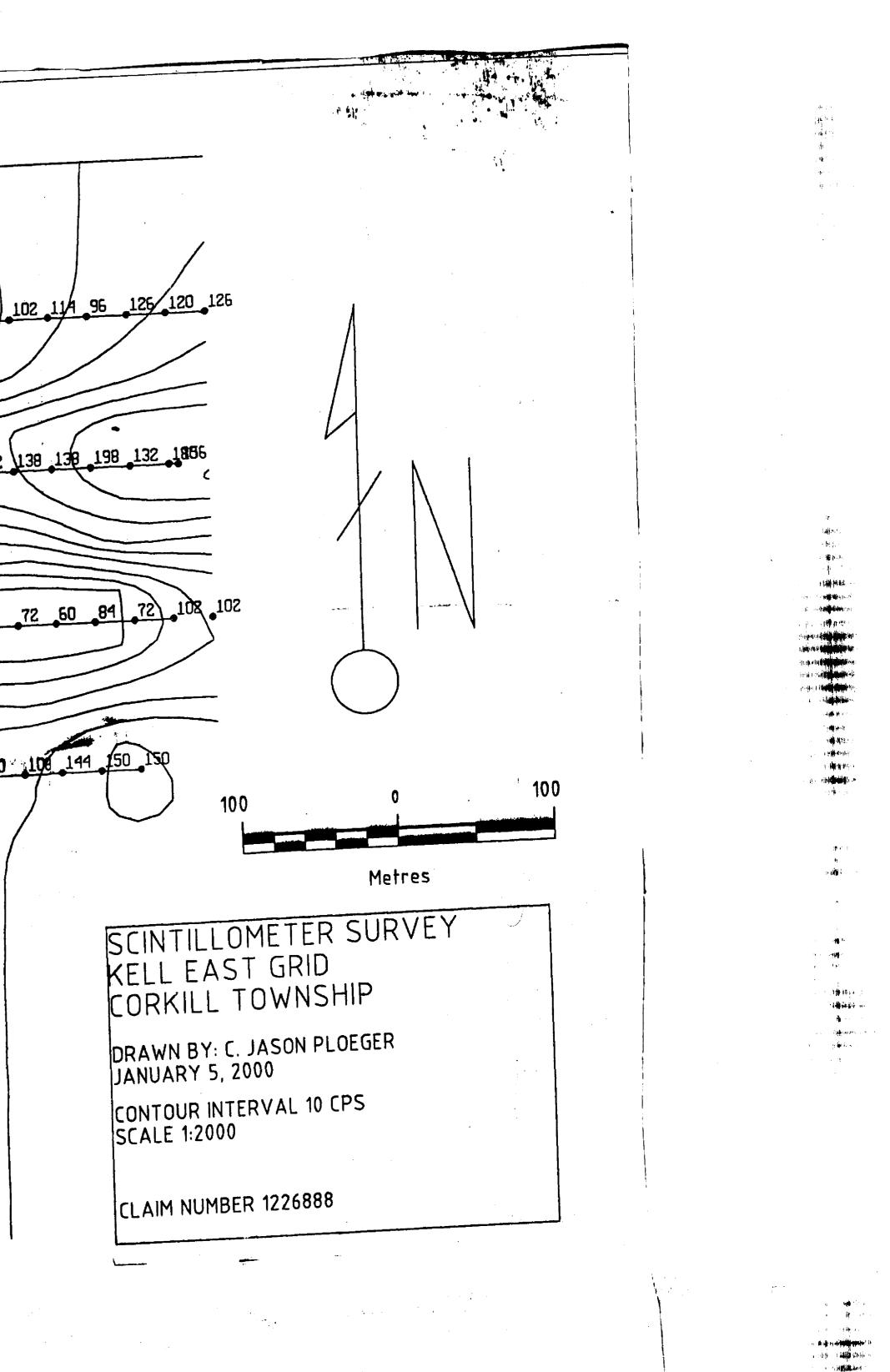


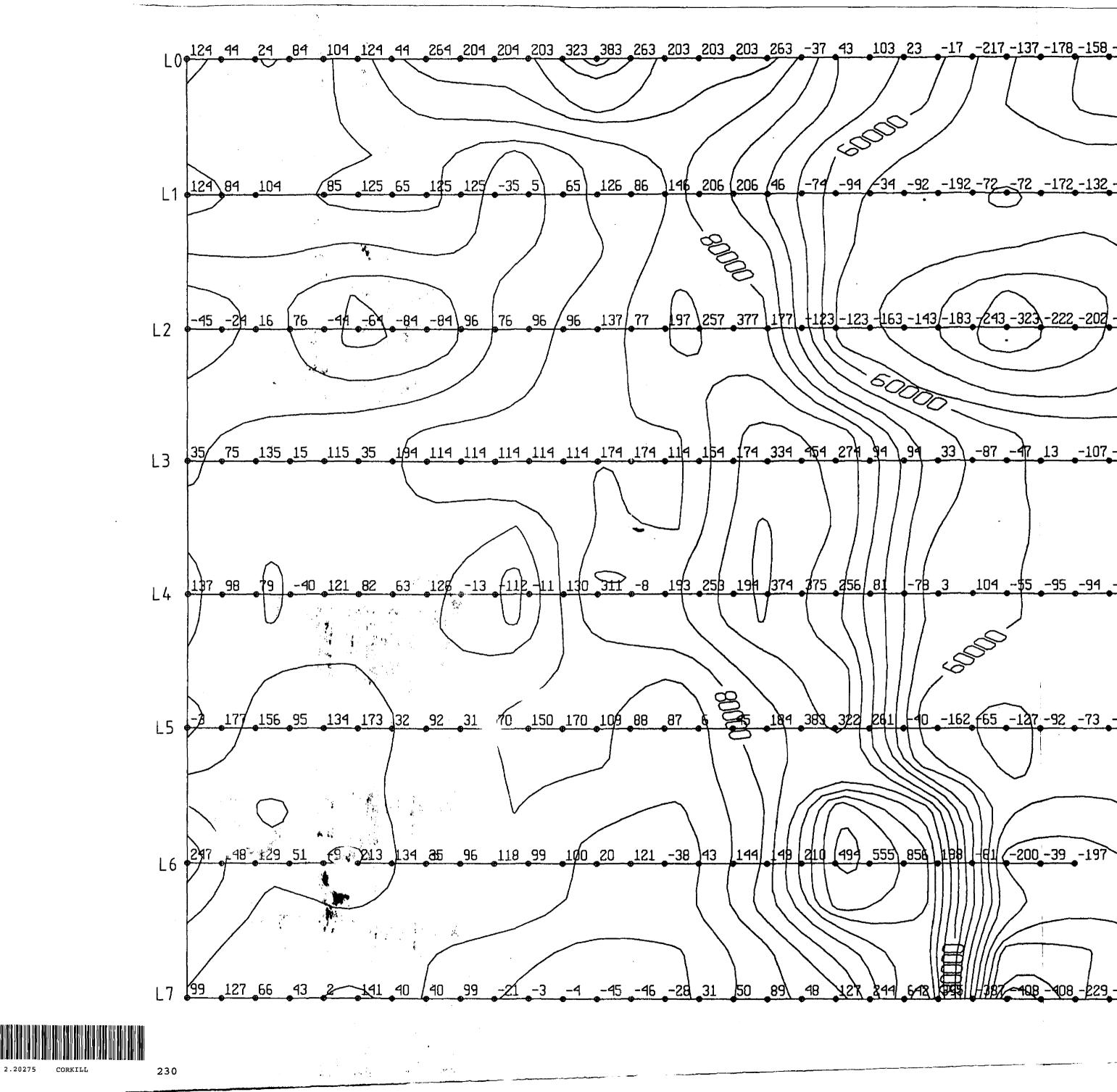






200 96 102 95 96 96 108 114 108 96 102 96 114 108 96 102 108 84 96 126 120 180 174 138 162 180 138 150 150 138 120 132 132 138 119 132 120 119 102 120 150 90 (150 150 120 102 102 120 Ó 100 100 66 96 72 60 84 90 108 96 78 108 90 90 90 84 72 78 78 84 96 90 90 59 .66 .90 100 96 96 86 132 114 132 120 120 120 132 36 84 138 126 90 96 84 60 96 84 90 , too 96 66 0 108 72 48 54 66 48 60 90 60 48 72 60 54 60 54





SOOD 9000 -EDDO. 194 114 114 114 114 114 174 114 154 174 334 454 274 94 33 -87 -47 13 -107 -47 -67 -107 12 +68 +168 -168 -308 -168 -148 -8 +68 -148 -209 31 193 258 194 374 375 256 81 -78 3 104 -55 -95 -94 -113 -52 29 -50 -69 -88 -46 -65 -44 -103 -82 -2 -261 140 -99 -58 -58 3 -96 -115 S 189 388 322 261 -0 -162 65 -127 -92 -73 -34 4 -38 +178 -120 -181 6/12 H387-108-008-229-230-91

