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GEOLOGICAL REPORT
OF THE
COLLINGWOOD ENERGY INC. PROPERTY
SWAYZE AREA
DISTRICT OF SUDBURY, ONTARIO

December 20, 1983
Timmins, Ontario

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1. SUMMARY

During the 1983 field season, David R. Bell Geological Services Inc. conducted a geological mapping program for Collingwood Energy Inc., on their 48 claim Swayze Area property. The project was undertaken to geologically assess the property and to determine the possibility of the existence of any economic mineralization.

The property was found to be underlain by two cycles of Precambrian volcanic rocks. The lower cycle consists of felsic to ultramafic metavolcanics, with minor metasediments, while the upper sequence consists of intermediate to ultramafic metavolcanics. Gabbro, diabase and quartz diorite plugs and sills are found to intrude these metavolcanics and metasediments.

Anomalous mineralization of both gold and copper have been located at various locations across the property. Two areas of interest have been delineated, one in the vicinity of the shaft area and the other on L16E at 38S. Further work in the nature of, an Induced Polarization Survey and diamond drilling have been recommended for both areas.

Aerial view of the property of Lee Gold Mines, Limited, Greenlaw township, June, 1934.

Figure 1

Camp of the Lee Gold Mines, Limited, 1934

Figure 2

2. INTRODUCTION

During the period from September 30, 1983 to October 22, 1983 a geological mapping program was conducted for Collingwood Energy Inc., on their Swayze Area claim group.

The purpose of this mapping program was three fold. First, to gain a better understanding of the local geology, for correlation with the exploration and development work of the previous ground holders (mainly Lee Gold Mines), as well as an aid in the planning of future exploration activities. Second, to locate and delineated any mineralized zones of possible economic interest, and last to explain several anomalous geophysical zones (EM, Mag) delineated during March of 1983.

3. PROPERTY (see Figures 1 & 2)

This geological survey covered a total of 48 unpatented mining claims (see Appendix 1). All claims which are presently in good standing, are held by Collingwood Energy Inc., 403-595 Howe Street, Vancouver, B.C. This report is being submitted for assessment credits by the aforementioned company.

3.1 Location and Access (see Figures 3, 4 & 5)

The Collingwood property is located in the vicinity of Lee Lake (Greenlaw Township) and is centred about the shaft and surface workings of Lee Gold Mines Ltd. The claim group covers ground in Greenlaw, Denyes, Halcrow and Tooms Townships (Swayze Area), Porcupine Mining Division, District of Sudbury, approximately 25 miles east-southeast of Chapleau and 90 miles southwest of Timmins.

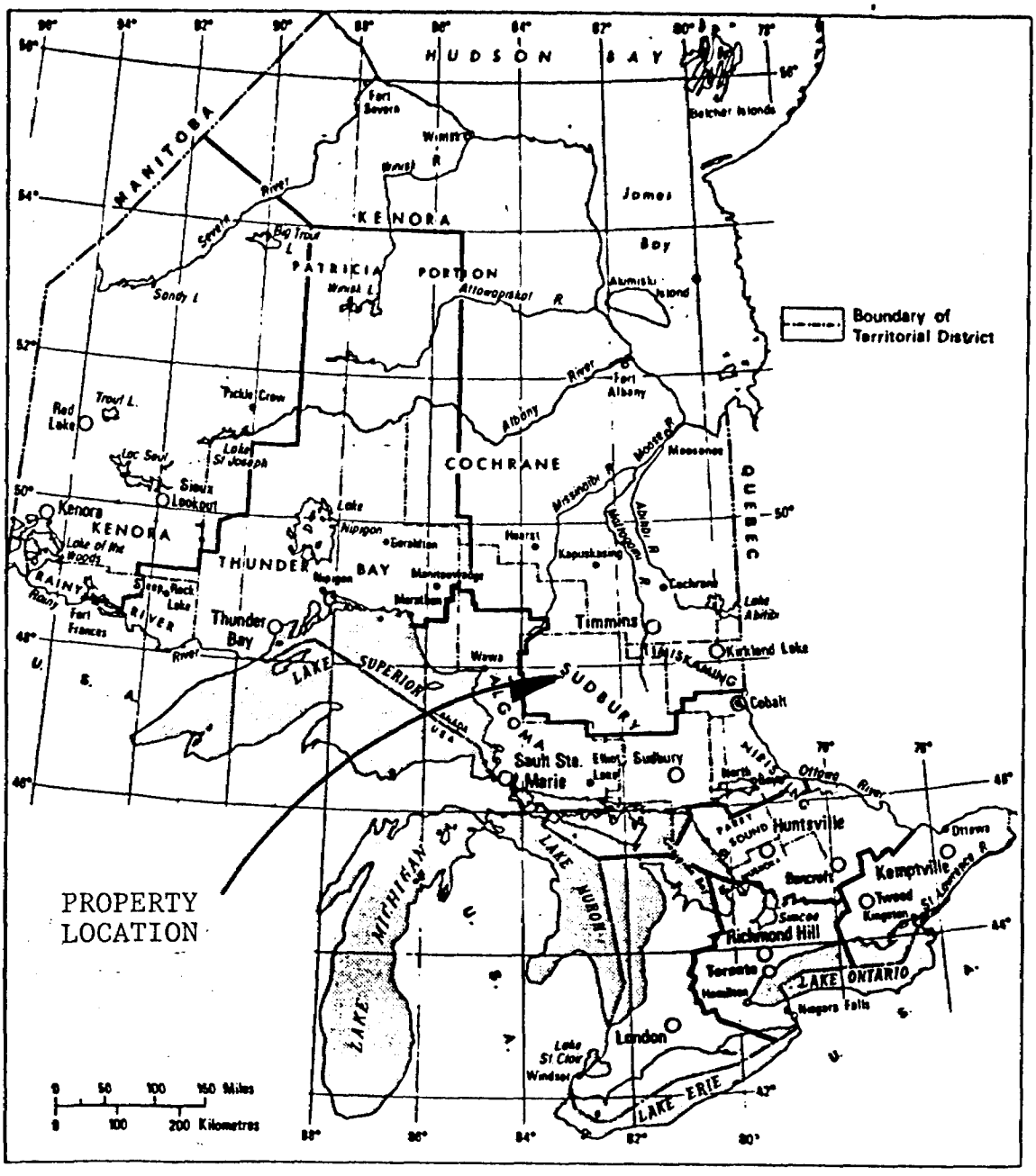
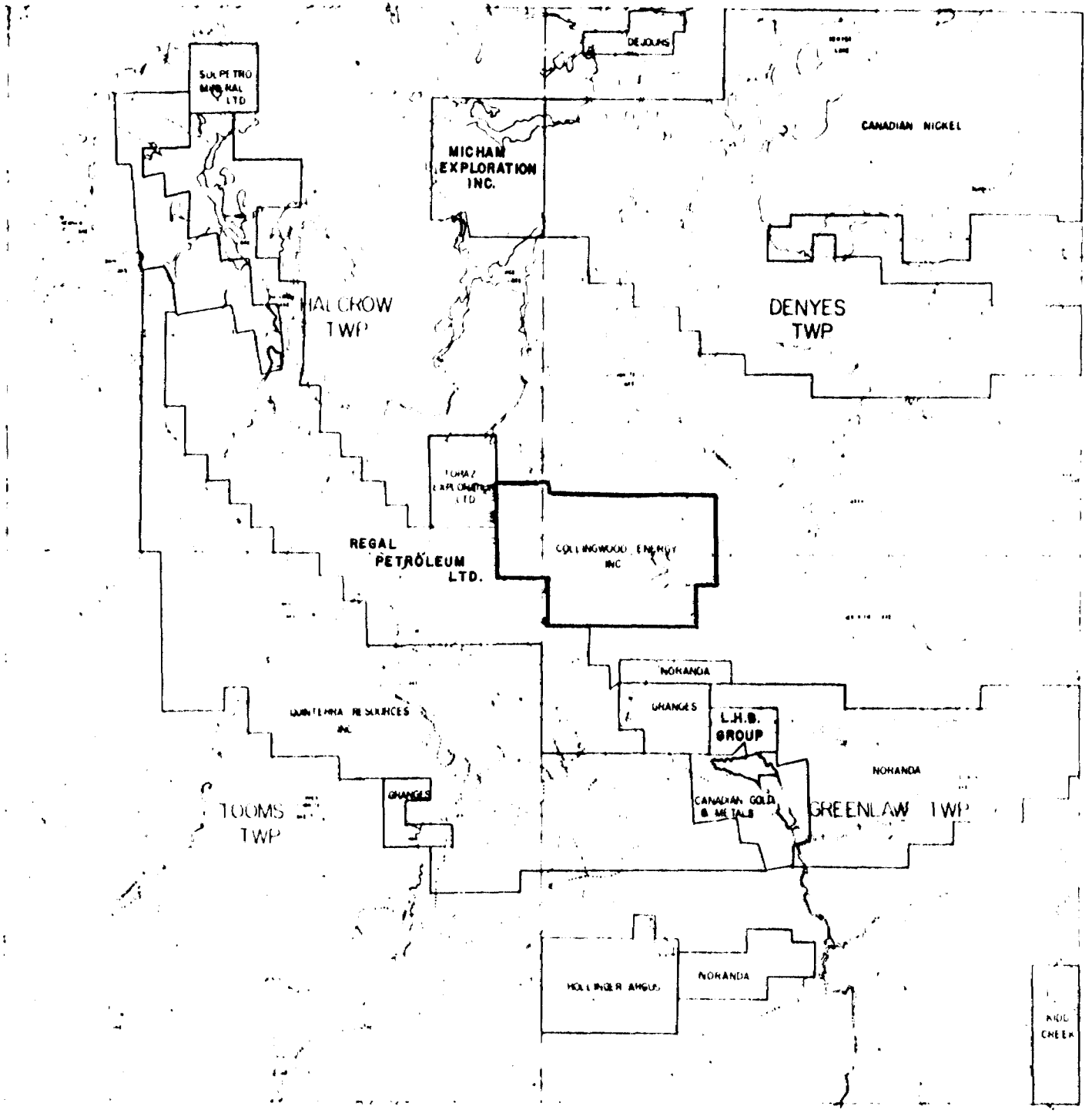
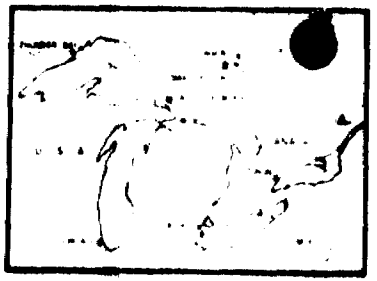


FIGURE 3: Approximate location of Collingwood Energy Inc. claim group

DAVID R. BELL GEOLOGICAL SERVICES INC.
COLLINGWOOD ENERGY INC.
LOCATION MAP DISTRICT OF SUDBURY, ONTARIO
December 20, 1983 | Figure 3





SWAYZE GOLD BELT

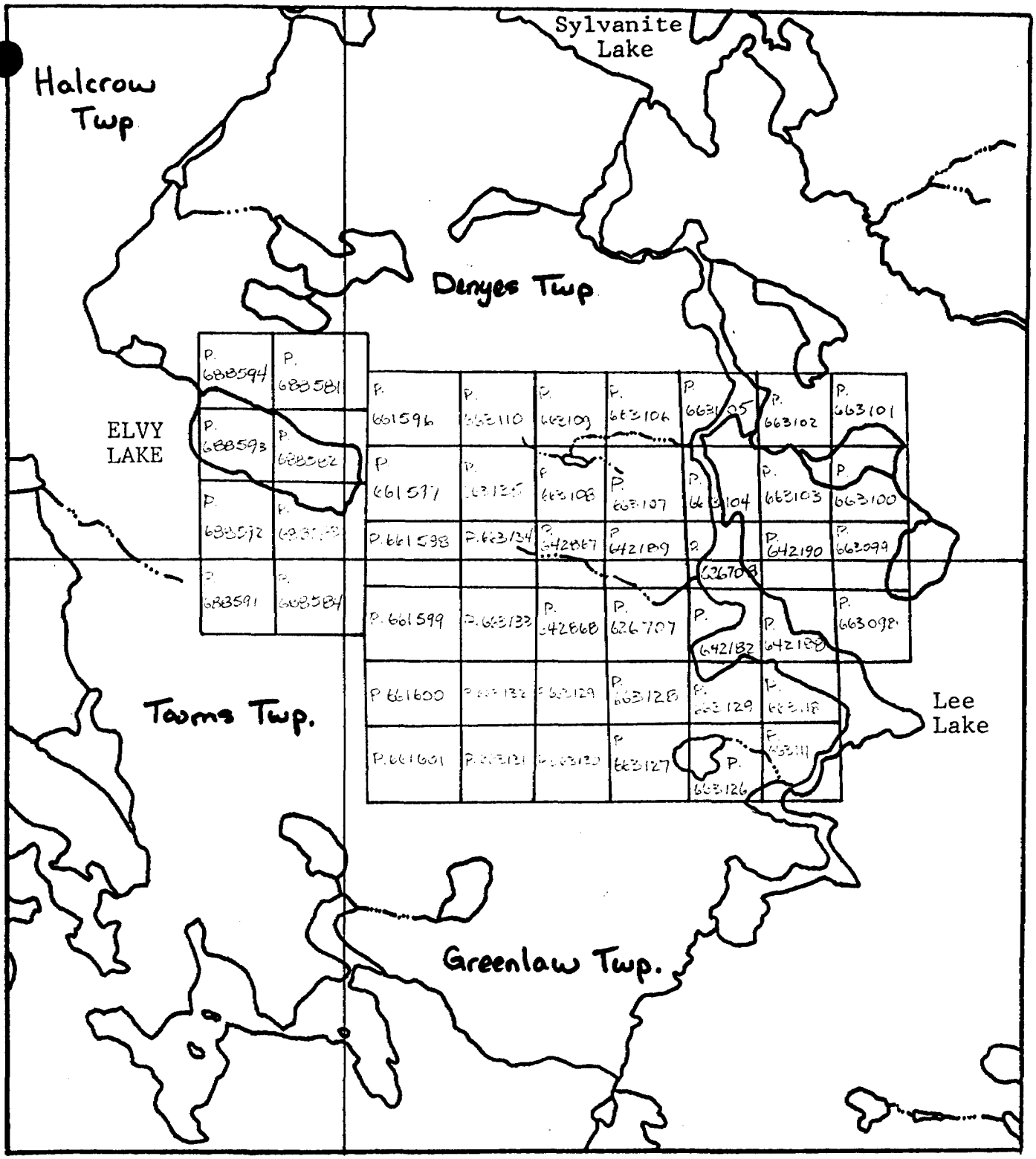
PORCUPINE MINING DIVISION

ONTARIO

N

PROPERTY MAP

Figure 4



DAVID R. BELL GEOLOGICAL SERVICES INC.

COLLINGWOOD ENERGY INC.

LOCATION MAP

CLAIMS

From MNR Claim Sheets M.758,M895,M906,M1159

Figure 5

Scale: 1 inch - ⅓ mile

Access to the property can best be achieved by float plane from both Chapleau and Ivanhoe Lake (south-west of Foleyet) or by helicopter from Timmins. As an alternate route a dry weather road runs from Kormak, on the C.P.R. line, to within 1.5 miles of the property. The final mile and a half to the property can be travelled via a tractor road.

4. PHYSIOGRAPHY

4.1 Topography

The topography of the Collingwood claim group can best be described as a series of west-northwest trending ridges and wet gulleys along with cedar swamps. Two open swamps are located on the property, one in the west-central portion and the other in the north-west section.

Glacial till covers most of the property, ranging from a few inches to a least 15 feet in thickness. The general ice direction on the Collingwood property can be taken as west-northwest, due to the presence of a west-northwest trending esker that cuts across the central portion of claims P626707 and P642868.

4.2 Vegetation

A wide variety of vegetation, consisting of trees, moss, lichens and grasses, are seen across the property. In the low, poorly drained sections of the property grasses and sphagnum moss are found in abundance (open swamps), with cedar and spruce occupying other swampy sections. Heavy to sparse growths of alders are located near the streams and creeks as well as the seasonal drainage channels. In the higher,

better drained areas jackpine, birch, poplar, balsam fir and spruce (bases generally less than 12 inches in diameter) are abundant with undergrowth varying from sparse to heavy. Lichens are seen on bedrock exposure, with caribou moss being found in the sandy areas.

4.3 Water

Water can be found in abundance across the claim block. Lee Lake in the east and Elvy Lake to the northwest could be used as major sources of water for any stage of development. Smaller lakes, ponds, streams and creeks could also be used for various stages of development. The eastern half of the property is drained by the Lee Lake - Sylvanite Lake system, with the western portion being drained by Elvy Lake. Both systems eventually flow into the Kinogama River to the north.

4.4 Climate

Weather variations include warm, rainy springs, hot summers, cool rainy falls and cold, snowy winters.

5. POWER AND ANCILLARY SERVICES

The nearest major power line is located at Chapleau, with minor power lines located at Kormak (10 miles south-southwest). Therefore diesel generators may be adviseable for any early stages of development.

The acquisition of food and other sundry articles can be made in either Chapleau or Timmins. While major exploration or mining goods would have to be purchased in Timmins.

6. HISTORY OF EXPLORATION

6.1 Regional and Swayze Area

The earliest record of work in the Swayze area, are two geological surveys, one by Parks (1900) and the other by Emmons and Thomson (1929). The Ontario Geological Survey (previously O.D.M.) has published several geological reports on this area, Furse (1932), Rickaby (1934), Laird (1935) and Donovon (1965, 1968), as well as one regional report by Thurston et al.(1977). An aeromagnetic survey flown jointly by the OGS-GSC (1970), as well as a recent airborne magnetometer and VLF-EM survey flown by the OGS (1982), supply good geophysical data on a regional scale, for the Swayze area.

Numerous companies have been actively involved in the exploration for gold, in the Swayze area, since the early 1930's. A few of the more prominent companies are:

1) Kenty Gold Mines Ltd. - Swayze Township
   - -1931-1934; surface and underground work
   - -1936; 5 ton test mill installed and operated for 3 months
   - -1947-1949; No. 1 shaft dewatered, minor raising 100 ton mill installed, 1,634 feet of diamond drilling, 1,250 tons of ore hoisted
   - -1950; limited amount of work

2) Halcrow-Swayze Mines Ltd. - Halcrow Township
   - -1932-1935; Surface and underground work, installation of 25 ton pilot mill; processing of 211 tons of ore extracting 38.98 oz of gold
   - -1937; minor diamond drilling

3) Hotstone Minerals Ltd. - Greenlaw Township
   - -1932-1945; surface exploration and diamond drilling
   - -1946-1947; surface exploration, diamond drilling, EM survey
   - -1982; Noranda Exploration Co. - extent of work unknown

6.2 Property and Vicinity

In 1932 a group of 17 claims was staked by Martin Shunsby, shortly thereafter control of this claim group was passed to Lee Gold Mines Ltd. The early exploration and development (1932-1934) consisted of surface trenching (seven trenches across 300 feet), and diamond drilling (2,000 feet in 11 holes), while underground development consisted of a 250 foot shaft with 1,539 feet of lateral development on the 125 and 250 foot levels. Assay results were reported as, up to 0.10 oz Au/ton from surface samples and four of the 11 holes returned values from 0.25 to 0.64 oz Au/ton.

During 1935, Greenlee Mines Ltd. acquired the 17 claims controlled by Lee Gold Mines Ltd. as well as two claims controlled by Greenlaw Gold Mines Ltd., bringing the total to 19 claims. Whether these claims were patented by this time is unknown.

Sometime between 1935 and 1954 the size of the property was decreased to 9 patented mining claims. When in 1954 New Athona Mines Ltd. acquired all properties and interests of Greenlee Mines Ltd. Then circa 1969, the patents on New Athona's 9 claims, expired. During the intervening period from 1934 to the expiration of the patent leases in 1969, any new or additional exploration and development had not been reported.

During the early 1970's exploration activity, in the vicinity of the present claim group, increased dramatically. During 1971 Cana Exploration Consultants Ltd. undertook, electromagnetic and magnetic ground surveys, over a block of 15 claims, corresponding to the west-central portion of the present claim group. In 1972 this 15 claim, block, was acquired by Greenlaw Developments Ltd., who then conducted a second set of

geophysical surveys. From these surveys several anomalous EM and magnetic zones were delineated, prompting Broad Scope Developments Ltd. to option nine of Greenlaw Developments' claims.

During this same time period Broad Scope conducted EM and magnetometer surveys over their own group of 16 claims (ease half of present claim block). The results were encouraging enough such that a small diamond drilling program was initiated. This drill program consisted of four holes (totalling 1,207 feet), two of which were drilled on the Greenlaw Development option. The highest gold assay returned from this program was 0.01 oz Au/ton, across a 2.7 foot section in a rhyolite or silicified zone.

Activity in the area ceased until 1976 when UMEX conducted an airborne magnetometer survey over nine townships (including Greenlaw) in the Swayze Area.

As a result of this survey 222 mining claims were staked, with five of these being located in Greenlaw Township. No further work was reported, and at least these five claims were allowed to lapse.

Prior to the most recent flurry of exploration activity Granges Exploration AB (during 1977) conducted a four hole drill program, totalling 1,815 feet. The highest assay result reported was 0.95 g/t (0.028 oz Au/ton), although the results from three holes are missing. Granges' held a block of 20 claims, centered about Lee Lake and containing the ground formerly held by Lee Gold Mines Ltd.

At the present time, companies that are actively involved in exploration in this area are Sulpetro Minerals Ltd., Dejour Mines Ltd., Canadian Nickel Co. Ltd., Micham Exploration Inc., Topaz Exploration Ltd., Regal Petroleum Ltd., Noranda Exploration Ltd., Granges Exploration AB., Hollinger Argus and Kidd Creek Exploration.

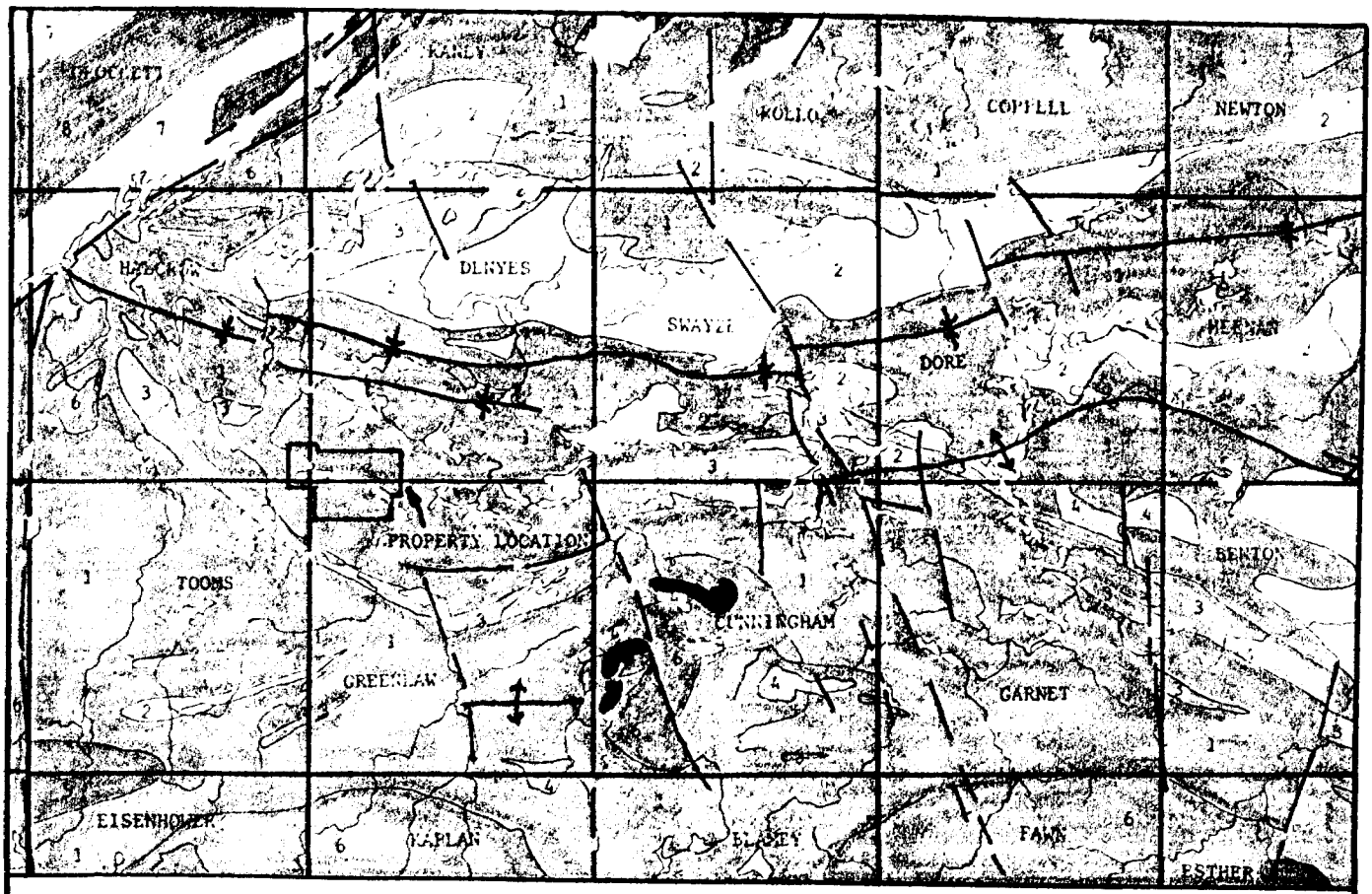
7. REGIONAL GEOLOGY AND STRUCTURE (see Figure 6)

The Collingwood property is underlain by rocks that are entirely Precambrian in age (Donovan, 1968), and are part of what has previously been called the Swayze Gold Area (Rickaby, 1934) and the Swayze "greenstone" Belt (Donovan, 1968). Thurston et al. (1977) have renamed this area as the Swayze Metavolcanic-Metasedimentary Belt. This Swayze Belt comprises part of the Abitibi Subprovince, a tectonically differentiated portion of the Superior Province of the Canadian Shield.

The Swayze Belt is approximately 28 miles long and 18 miles wide, with the Collingwood claim group being located in the west-central section. The Precambrian basement rocks comprise an older assemblage of felsic to mafic metavolcanic and metasedimentary rocks, with iron formation and younger granitic, dioritic and diabasic rocks.

7.1 Metavolcanics

The mafic to intermediate metavolcanics predominate throughout the Swayze Belt and include massive, pillowed, fragmental and prophyritic types. Occupying the central part of the Swayze Metavolcanic-Metasedimentary Belt are the felsic to intermediate metavolcanics. These metavolcanics are seen as centers of early Precambrian felsic volcanism, with associated shallow-water shelf and continental rise volcanogenic sediments. Examples of these volcanic centers are the Denyes-Swayze Townships center and the Raney Township center. The felsic to intermediate metavolcanics include rhyolite, dacitic and trachytic pyroclastic rocks and flows, with the rhyolitic component being the most dominent.



EARLY PRECAMBRIAN

SHAWMERE ANORTHOSITIC COMPLEX

7 KAPUSKASING STRUCTURAL ZONE ROCKS

FELSIC IGNEOUS AND METAMORPHIC ROCKS

Felsic Intrusive and Hybrid Rocks

Migmatitic Rocks

4 MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS

3 METASEDIMENTS

METAVOLCANICS

Felsic to Intermediate Metavolcanics

Mafic to Intermediate Metavolcanics

IRON FORMATION

MAJOR FOLD AXIS

FAULTS AND LINEAMENTS

DAVID R. BELL GEOLOGICAL SERVICES INC.

COLLINGWOOD ENERGY INC.

REGIONAL GEOLOGY

SWAYZE BELT (WESTERN PORTION)

From: O.D.M. Map 2221 | Scale: 1" = 4 miles

Figure 6

7.2 Metasediments

Metasediments form only a small part of the Swayze "greenstone" Belt, making up no more than 10 percent of the exposed area. The rock types, found in approximate order of abundance, are greywacke, arkose, conglomerate, quartzite and argillite. The north-easterly trending zone of metasediments in Halcrow and Denyes Townships, as well as the south-easterly trending zone in Halcrow, Tooms and Greenlaw Townships mark the northern and southern boundaries, respectively, of an east-west trending synclinal structure (Donovan, 1969). Iron formations in the Swayze Belt are for the most part, thin bands intercalated with metavolcanics and usually represent oxide facies conditions of sedimentation.

7.3 Intrusive and Migmatitic Rocks

Rocks of dioritic and gabbroic composition are seen as stocks and sill like bodies of small size, that intrude the felsic to mafic metavolcanics, as well as predate the granitic rocks. The ultramafic rocks, either partially or entirely serpentinized, occur as sills, dykes and stocks by themselves and associated with the gabbros. The main occurrences of the diorites, gabbros and ultramafic rocks are in the Garnet-Cunningham -Greenlaw Townships area. Diabasic rocks occur as dykes while intruding all other rock types.

The migmatitic rocks of the area are described by Thurston et al (1977) as having the "...appearance of a mixed rock in which fragments and inclusions of metamorphosed country rock are embedded and engulfed in lighter coloured rock which has intruded and partially

assimilated country rock." The granitic rocks are fine to coarse grained while ranging in composition from granite to quartz diorite, as well as having a massive to gneissic nature.

The Swayze "greenstone" Belt is surrounded by, the younger, granitic and migmatitic rocks. To the north, south, east and in part to the west these rocks are separated by an intrusive contact, while they are dominantly in fault contact to the west. To the north-west the "greenstones", to a minor extent, also lie in fault contact with the Kapuskasing Structural zone.

7.4 Regional Structure

The metasediments and metavolcanics of the Swayze Belt, are generally found to be steeply dipping in fold structures. These steeply dipping fold structures are controlled by the east-west trending synclinal-anticlinal structures. The synclinal axis runs through the central portion of Halcrow, Denyes, Swayze and Dore Townships, while the anticlinal axis lies to the south in southern Swayze, Dore and Heenan Townships. Lateral faulting has caused offsets that displace the synclinal axis to the north, and give it an east-northeast trend.

The faulting, in general, has a north-westerly trend and is localized in the south-central and central portions of the Swayze Belt. The effects of the faulting are made recognizable by the obvious displacements in the metasediments and the felsic metavolcanics as well as the linear nature of the major lakes and drainage channels.

8. PROPERTY GEOLOGY

The Collingwood claim group is underlain by metavolcanic, metasedimentary and intrusive rocks of Precambrian age. The metavolcanics range in composition from ultramafic to felsic and there appears to be, at least in part, a cyclical nature to their formation. The metasediments are predominantly argillaceous with only one arenaceous exposure being located during the mapping program.

The metavolcanics and metasediments have been intruded by quartz diorite and gabbroic plugs as well as diabase dykes. Where bedrock exposure is limited or non-existant some of the mafic intrusions have been inferred from magnetic data.

The geology of the Collingwood property, appears to be the result of two cycles of volcanism. The southern sequence consists of mafic metavolcanics ranging from intermediate to ultramafic in composition, with the porphyritic rhyolite (about 800' thick) sitting on top. To the east of the north-south diabase dyke the porphyritic rhyolite is overlain by mafic volcanic breccia, but to the west of the diabase dyke the rhyolites are overlain by ultramafic metavolcanics, in part, as well as the quartzite. The argillites overlie the volcanic breccia and the ultramafic flows to the east and west, respectively, of the diabase dyke. From surface exposure the argillites would appear to be 400 to 500 feet thick, but they die out at approximately L2E at 13+00S.

Resting on top of these argillites are units of porhyritic rhyolite, mafic volcanic breccia, a second small wedge of rhyolite and a felsic volcanic breccia with the average thickness of the four units being approximately 200 feet. Finally an 800 foot sequence of the mafic volcanic breccia sits atop these units.

These units excepting the 800 feet of volcanic breccia, do not extend west of the diabase dyke. These units pinch out to the east, suggesting that the trend for the front is in a north-west direction.

The second volcanic sequence consists of predominantly mafic metavolcanics, ranging from intermediate to ultramafic. The ultramafic component lies on top of the mafic volcanic breccia in the eastern portion of the property. While it approximately grades through mafic to intermediate towards the north. Interspersed with the mafic metavolcanics are isolated pods of porphyritic rhyolite.

The gabbros, diabase and quartz diorites intrude at various locations within the volcanic pile.

8.1 Metavolcanic Rocks

The metavolcanic rocks that underlie the Collingwood property, show variable compositions ranging from ultramafic to felsic. During the mapping program rock types were broken down into two main catagories, mafic to intermediate and felsic metavolcanics. Upon receipt of the lithogeochemistry results it has become apparent that a larger breakdown in the rock classifications is warranted. The lithogeochemistry (or whole rock) results have delineated.

1) basaltic and ultramafic komatiites
2) iron, magnesium and rhyolitic tholeiites
3) rhyolitic, dacitic, andesitic and basaltic calc-alkaline rocks

Comparison of these results with the Jensen Cation plot (Jensen, 1976), shows an extremely wide variation in the rock geochemistry. Therefore, the map units have been divided into discrete units, where possible, to represent these lithological variations. (Table 1)

Table 1

Lithogeochemistry Groupings Developed to Represent Discrete Mappable Units

Map Unit	Lithogeochemical Classification
mafic to ultramafic metavolcanics	basaltic and ultramafic komatiites
mafic metavolcanics	iron and magnesium tholeiites
intermediate to mafic meta-volcanics	basaltic, andesitic and dacitic calc-alkaline
felsic metavolcanics	calc-alkaline and tholeiitic rhyolites

8.1a) Mafic to Intermediate Metavolcanics

The basaltic and ultramafic komatiites are massive, green-black rocks, that display alteration of the mafic components. This alteration may be the serpentinization of the olivines and pyroxenes. The bedrock exposures in the west-central portion of the property, have undergone shearing such that the rock takes on a minor schistose appearance.

The tholeiites, being iron and magnesium in composition, are pale grey in colour, massive and generally cryptocrystalline. Occasionally, bedrock exposures will exhibit plagioclase phenocrysts as well as smokey quartz eyes. Finally the calc-alkaline rocks, both andesitic and basaltic, are massive, grey-green to buff green in colour, with mineral development that does not allow identification with the hand lense. Several exposures exhibit well developed shearing especially samples from 10E, 33+75S and L16E, 34+70S.

The mafic volcanic breccias as mapped during the program were defined by the lithogeochemistry as ranging from basaltic to dacitic calc-alkaline. They have been grouped together due to the presence of granitic inclusions, ranging from 1/10" to 2" in longest dimensions. The ground mass, from field examination, looks like a mafic to intermediate flow, but being massive in appearance, they may very well be tuffaceous in nature. Three small exposures of mafic ash tuff were located during the mapping program. All exposures were localized to the south and east of the small lake in claim P663126. They were green to dark green in colour, showing tuffaceous characteristics.

8.1b) Felsic Metavolcanics

The felsic metavolcanics, as defined from field examination are dominantly porphyritic rhyolites. These rhyolites are pinkish-red to white in colour, being sheared as well as massive and very siliceous. They are

distinguished from the other felsic metavolcanics by the presence of quartz augen (eyes). Geochemically the porphyritic rhyolites range in composition from dacitic to rholitic calc-alkaline, with one sample being a rhyolitic tholeiite. There also, was a felsic volcanic breccia mapped (not sampled for whole rock), which sits just below (stratigraphically) the mafic volcanic breccia. This unit may in fact be part of the mafic breccia, but due to alteration would take on a more felsic appearance. One small exposure and one boulder of felsic tuff were also located during the mapping program. These tuffaceous exposures were well sheared and silicified and grey in colour.

8.2 Metasedimentary Rocks

Two types of metasedimentary rocks argillites and arenites, were encountered during the mapping program. The argillaceous rocks occupy a linear belt approximately 400 to 500 feet wide, that trend in a south-east direction through the central portion of the property. These argillites were black in colour, slightly graphitic and well laminated, but no visible metallic mineralization was observed. The arenite outcrop was quartzitic in nature, with a pale pink colour and quartz eyes as well as sheared. Although the arenites looked like a metasediment, they may in fact be a porphyritic rhyolite, due to the colour, shearing and to the presence of the quartz eyes.

8.3 Intrusive Rocks

The intrusive rocks located during the mapping program consisted of diabase, gabbros and quartz diorite. The diabase exposures were fine to medium grained rocks displaying the typical diabasic (salt and pepper) texture,

laths of plagioclase showing a random orientation set in a matrix of pyroxenes and amphiboles.

These diabase rocks were dyke like in nature, but did not show a magnetic response in all cases.

The gabbros were equigranular in nature, showing plagioclase, appearing to be, interstitial to the mafic component. They are pale green to grey in colour, with trace to 1% pyrite being seen. The gabbros occur as plugs, and discontinuous sills, with large areas being defined from geophysical data.

The other intrusive rock type that was observed during the mapping program was the quartz diorite. This rock type is medium to coarse grained and equigranular in nature. The main components are plagioclase, quartz and biotite, with no metallic mineralization being observed.

9. STRUCTURE

Very little structural information was acquired from the program. Strikes and dips from bedding, foliations and shearing would suggest a general northeast-southwest strike, with the units dipping approximately 70° to 80° to the north. Graded bedding was observed in the mafic volcanic breccias (11+50W, 4+00S) suggesting tops facing south while the units dip to the north. This would point to the fact that the metavolcanic-metasedimentary sequence is overturned. Unfortunately the exposure of this phenomena is limited, therefore making a definite statement, at this time, as to the orientation of the units impractical.

The main north-south trending diabase dyke appears to be the infilling of a fault zone, as would be suggested by the displacement of the units on either side. Other faults make themselves evident, especially from geophysical data and the great degree of shearing, but actual in field

observations of this phenomena was only minor. On L16E at 38+00S bedrock exposures, in an old trench, show slicken sides as well as a large amount of quartz veining. The quartz veining along with the sulphide mineralization is believed to be a result of a major north-south fault. Topography as well as a linearity to lakes and streams also suggests a large number of faults that have not been directly observed. At a later date problems may arise, due to the lack of information concerning the location and attitudes of these faults. The main fault directions should be approximately north-south and north-west-southeast.

10. MINERALIZATION

Metallic mineralization is seen in all rock types in at least trace amounts, but the mafic meta-volcanics are the best mineralized rock type found to date. All samples were analyzed for gold while other samples were assayed for copper, silver, molybdenum, nickel, tungsten, chromium and barium, depending on the rock sample and field conditions. Numerous samples returned assay of anomalous gold and copper. The highest results returned for each element were 0.157 oz Au/ton (sample 541-000-214, from mine dump) and 9.4% copper (sample 541-000-309, a grab from old trench L16E, 38S). Most of the anomalous results are widely scattered (see Appendix 2), with direct correlations between results being almost impossible to make. Pyrite and chalcopyrite with minor bornite were the only metallic minerals observed, while malachite was also seen.

Two areas of obvious interest present themselves, the shaft area and the old trench at L16E; 38+00S.

The shaft area presents itself as an area of interest not only due to the present assay results, but also due to the surface and underground work conducted by Lee Gold Mines Ltd. The new assay results range in values from 244 ppb to 3134 ppb in the porpyhritic rhyolite (excluding dump samples). Chip and grab samples from the old trench on L16E at 38+00S have returned sporadic gold and copper results. The high assays from chip samples (see general assay plan and trench plan for this area) were 170 ppb gold and 33,000 ppm copper, while grab samples returned 248 ppb gold and 94,000 ppm copper.

Due to the amount of work performed on this property to-date, coupled with a lack of information about the 1930's results, detailed programs would have to be conducted to investigate the nature and amount of possible economic mineralization.

11. ALTERATION

Alteration effects have been observed across the property, but no real association between mineralization and alteration or continuous zones of alteration have been observed or recognized to-date. Alteration types observed in the field are carbonatization, sericitization and silicification.

12. GEOPHYSICS

Several anomalously high magnetometer zones were delineated during the geophysical surveys conducted in March of 1983. The probable cause of some of these zones can be given as a result of the mapping program. The southeast trending anomalies, numbered 4 and 10

(Sutherland, 1983) are coincident with zones that are iron and magnesium tholeiites. These tholeiites are the probable cause of these magnetic highs. Anomalies 5 and 6 represent diabase dykes, while anomalies 1, 2, 3, 11, 12 and 13 are most likely caused by gabbroic intrusions. The anomalies numbered 8 and 9 represent accumulations of metallic artifacts from previous exploration work.

The results of the VLF-EM survey (March, 1983) cannot be directly explained, as no apparent causes of these conductors were observed during the mapping. Further detailed work would be required before proper explanations could be put forward.

13 GEOCHEMISTRY

Three types of geochemical sampling have been done, since work was initiated on the property. Rock geochemistry and lithogeochemistry were utilized during the mapping program. The rock geochemistry was used to ascertain where interesting or economic mineralization was present, (mainly for gold). Lithogeochemistry, (see Appendix 3) was used to help differentiate between discrete lighological units, where field mapping would only define extremely broad rock units, (especially the mafic metavolcanics). Soil geochemistry was conducted prior to the commencement of mapping with only 19 samples being collected, (see Appendix 2). The results were relatively low and sampling density was low, therefore results would be inconclusive at best.

14. CONCLUSIONS

From the mapping program, it can be concluded that the local geology consists of at least two volcanic cycles. One cycle consisting of mafic metavolcanics,

consisting entirely of mafic metavolcanics. These rocks strike generally northwest-southeast, while dipping between 70° to 80° to the north, as well as possibly being overturned.

Mineralization of an anomalous nature has been located at several locations across the property. Although the exact nature or extent of this mineralization is as yet unknown, two areas of interest present themselves for follow-up work. These two areas or zones are the shaft area and L16E, 38S.

1.5 RECOMMENDATIONS

On the basis of the earlier reported occurrence of gold within the shaft area and the success of the above geological survey, a diamond drill program is warranted. The diamond drilling is necessary to geologically investigate the aforementioned areas, due to the limited bedrock exposures, in the shaft area and the anomalous areas around L16E-38S.

A limited but detailed Induced Polarization (IP) survey should be carried out over these anomalous areas prior to spotting the sites for the diamond drill programs. The above (IP) survey should only take one week to complete, and will assist in better defining these drill targets.

The underground development plans for the old Lee Gold Mines Ltd. have been located in Toronto, will be made available in early January 1984, and will assist in the planning of the drill program, as to the dip and altitude of the previous structures that were followed underground.

15.1 COST ESTIMATES

I.	Detailed IP Survey (both areas)	
	-5 line miles @ $1,000./mile	$5,000.00
	-mobilization and camp supplies	750.00
	supervision, drafting and report	1,000.00
II	Diamond Drilling (5,000 ft) @ $25./feet	125,000.00
	-engineering & Supervision 2 months @ $10,000./month	20,000.00
	-Chemical analysis 500 samples @ $20./each	10,000.00
	-Transportation and supplies	15,000.00
	-Report writing and drafting, 15 days @ $450./day	6,500.00
	-15% Contingencies	27,487.50
	Total Cost	$210,737.50

Respectfully submitted,

December 20, 1983
Timmins, Ontario

Per: David R. Bell Geological Services Inc.
by: Stephen Conquer, B.Sc.

CERTIFICATE OF QUALIFICATIONS

I, Stephen W. Conquer hereby certify:

1. that I am a geologist employed by David R. Bell Geological Services Inc., Suite 4, 251 Third Ave., Timmins, Ontario.

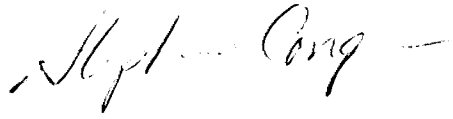
2. that I am a graduate of the University of Waterloo, holding a Bachelor of Science degree (1979).

3. that I have been practising my profession as a geologist since 1979.

4. that I do not have nor do I expect to receive either directly or indirectly, any interest in this property or the securities of Collingwood Energy Inc.

Timmins, Ontario
December 20, 1983

Per: David R. Bell Geological Services Inc.
by: Stephen W. Conquer, B.Sc



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APPENDIX 1

Unpatented Mining Claims

Collingwood Energy Inc.

APPENDIX 2

Sample Location and Assay Result Sheets

Appendix 1 - List of Collingwood Energy Inc. unpatented mining claims; Swayza area, District of Sudbury

Claim Number	Township	Date Recorded
P626707	Greenlaw	April 5, 1982
P626708	Greenlaw-Denyes	April 5, 1982
P642187	Greenlaw	April 5, 1982
P642188	Greenlaw	April 5, 1982
P642189	Greenlaw-Denyes	April 5, 1982
P642190	Greenlaw-Denyes	April 22, 1982
P642867	Greenlaw-Denyes	Sept. 29, 1982
P642868	Greenlaw	Sept. 29, 1982
P661596	Denyes	Oct. 21, 1982
P661597	Denyes	Oct. 21, 1982
P661598	Greenlaw-Denyes	Oct. 21, 1982
P661599	Greenlaw	Oct. 21, 1982
P661600	Greenlaw	Oct. 21, 1982
P661601	Greenlaw	Oct. 21, 1982
P663098	Greenlaw	Oct. 21, 1982
P663099	Greenlaw-Denyes	Oct. 21, 1982
P663100	Denyes	Oct. 21, 1982
P663101	Denyes	Oct. 21, 1982
P663102	Denyes	Oct. 21, 1982
P663103	Denyes	Oct. 21, 1982
P663104	Denyes	Oct. 21, 1982
P663105	Denyes	Oct. 21, 1982
P663106	Denyes	Oct. 21, 1982
P663107	Denyes	Oct. 21, 1982
P663108	Denyes	Oct. 21, 1982
P663109	Denyes	Oct. 21, 1982
P663110	Denyes	Oct. 21, 1982
P663111	Greenlaw	Oct. 21, 1982

Appendix 1 (cont'd) List of Collingwood Energy Inc. unpatented mining claims; Swayze area, District of Sudbury

Claim Number	Township	Date Recorded
P663118	Greenlaw	Oct. 21, 1982
P663119	Greenlaw	Oct. 21, 1982
P663126	Greenlaw	Oct. 21, 1982
P663127	Greenlaw	Oct. 21, 1982
P663128	Greenlaw	Oct. 21, 1982
P663129	Greenlaw	Oct. 21, 1982
P663130	Greenlaw	Oct. 21, 1982
P663131	Greenlaw	Oct. 21, 1982
P663132	Greenlaw	Oct. 21, 1982
P663133	Greenlaw	Oct. 21, 1982
P663134	Greenlaw-Denyes	Oct. 21, 1982
P663135	Denyes	Oct. 21, 1982
P688581	Denyes-Halcrow	March 4, 1983
P688582	Denyes-Halcrow	March 4, 1983
P688583	Denyes-Halcrow	March 4, 1983
P688584	Greenlaw-Tooms	March 4, 1983
P688591	Tooms	March 4, 1983
P688592	Halcrow	March 4, 1983
P688593	Halcrow	March 4, 1983
P688594	Halcrow	March 4, 1983

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SAMPLE LOCATION SHEET

COMPANY: [illegible] Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw & Deroche Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb				Remarks
541-000-[illegible]	[illegible]	3E'	[illegible]	[illegible]				[illegible]
[illegible]	[illegible]	10'	"	[illegible]				[illegible]
541-000-002	[illegible]		soil	16				clear [illegible]
-001	[illegible]		soil	[illegible]				
-003	33+50W/[illegible]		soil	13				
-006	33+50W/6+00S		soil	12				
-007	L2E/3+00S		soil	10				
-008	L2E/4+00S		soil	4				
-009	L2E/5+00S		soil	[illegible]				
-010	L2E/6+00S		soil	10				
-011	L2E/7+00S		soil	6				
-012	L2E/8+00S		soil	12				
-013	L2E/9+00S		soil	10				
-014	L4E/10+00S		soil	6				
-015	L4E/11+00S		soil	2				
-016	L4E/11+50S		soil	6				
-017	L2E/12+00S		soil	2				
-018	L2E/12+50S		soil	2				
-019	L2E/14+00S		soil	4				
-020	L2E/15+00S		soil	2				
541-000-021	L2E/15+75S		soil	2				
541-000-022	[illegible]	[illegible]	[illegible]	3				Altered [illegible]
-023	[illegible]			11				schist + qtz
-024	[illegible]		"	4				"
-025	[illegible]		"	11				"

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SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw + Denyes Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb		Ag ppm.		Remarks
41-000 - 201	100'E of L4W/[illegible]		grab	TR.		1.0		New Trench qtz
202	100'S of [illegible]		grab	0.00[illegible]		1.8		New trench carb.
203	100'E of L4W [illegible] N		grab	TR.		0.8		New trench rusty shear
204	100'E of L4W [illegible]		grab	TR.		0.6		New trench qtz carb
205	100'E of L4W [illegible] N		grab	TR.		0.6		new trench, FINE g SILICEOUS [illegible]
206	100'E of L4W [illegible] N		grab	TR.		1.0		new trench green carb qtz stringers
207	100'E of L4W [illegible] N		grab	TR.		1.6		new trench greys, qtz stringers
208	100'E of L4W [illegible] N		grab	TR.		1.2		New trench qtz stringers
209	100'E of L4W [illegible] N		grab	15		3.4		new trench fine grained chert
210	100'E of L4W [illegible]		grab	TR.		0.6		new trench qtz
211	150'E of L4W [illegible] N		grab	TR		0.8		new trench rusty shear
212	150'E of L4W [illegible] N		grab	TR.		0.4		new trench rusty shear
213	MINE DUMP		grab	0.052oz		0.8		
214	Mine Dump		grab	0.157oz		1.0		
215	L30W / 700'S.		grab	4		0.8		graphitic shear calcite stringers
216	L12E / 32+00 S.		grab	10		0.6		old trench shear
217	L12E / 32+50 S		grab	0.004oz		1.4		old trench qtz mi Sulphide
218	L12E / 33+00 S.		grab	12		2.4		old trench qtz minor pyrite
219	L12E / 33+50 S.		grab	TR.		1.6		old trench green carb schist SILICEOUS
220	L12E / 33+[illegible] S		grab	3		1.8		old trench rusty shear
221	L12E / 33+20 S.		grab	14		1.6		old trench schist
222	L12E / 33+20 S.		grab	TR.		1.2		schist carb.
223	L18E / 33+30 S.		grab	3		1.4		old trench shear
224	Mine Dump		grab	373		1.2		chalco pyrite
225	L12E / 13.40' S.		grab	204		0.8		old trench sugary qtz vein [illegible] pyrites
226	L8E / 35-50' ?		grab	116		1.4		E. side of Lake qtz. B chert minor sulphides
227	L8E / 36+50 S. ?		grab	2		1.2		E. side of Lake shear
228	L8E / 36+50 S.		grab	32		1.6		E. side of small [illegible] RD cherty sediments
229	L12E / 33+50' S		grab	2		20		old trench qtz Pyrites
[illegible]	L12E / 35+00 S.		grab	10		1.6		3-0' S. N trench qtz
[illegible]	L12E / 35+00 S.		grab	7		2.6		220'S. Trench qtz Carb.
[illegible]	L12E / 35+00 S.		grab	6		1.0		276'S [illegible] trench Mafic

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SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw + Deroches Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb		Ag ppb		Remarks
541-020-032	L12E/35+00 S.		grab	2		1.4		250'S. along trench qtz green carb
234	L12E/[illegible]		grab	10		1.0		245'S. along trench qtz [illegible]
235	L12E/[illegible] S.		grab	585		1.2		250'S. [illegible] schist, Fine Pyrite
236	L12E/35+00 S.		grab	12		0.8		255'S on trench qtz.
237	L12E/35+00 S.		grab	11		1.4		230'S. on trench Porphyry
238	L12E/34+00 S.		grab	16		0.8		200'S. in trench qtz pyrites
239	L12E/34+00 S.		grab	318		1.6		200'S. in trench qtz folded in shear 1200 Pyrites
240	L12E/34+15 S.		grab	7		0.6		215'S. in trench qtz chalco
241	L12E/34+00 S.		grab	7		0.4		220'S. on trench rusty qtz.
242	L12E/34+00 S.		grab	37		1.0		220'S. in trench shear
243	L12E/34+00 S.		grab	12		1.0		220'S on trench shear
244	L12E/34+00 S.		grab	5		1.2		275'S on trench qtz Carb.
245	L12E/34+00 S.		grab	3		1.2		275'S on trench qtz green carb
246	L12E/34+00 S.		grab	3		1.2		270'S. on trench shear
247	L12E/34+00 S.		grab	7		1.6		265'S. on trench qtz
248	L12E/34+00 S.		grab	7		1.6		310'S. on trench qtz Calc
249	L12E/35+00 S.		grab	8		1.2		330'S. on trench [illegible] qtz.
250	L12E/35+50 S.		grab	7		0.8		310'S. on trench qtz Calc.
251	L12E/33+40 S		grab	19		1.6		new blast qtz.
252	L12E/33+30 S.		grab	11		1.2		green carb. schist siliceous
253	L12E/33+20 S		grab	1616		1.2		qtz.
254	L12E/33+00 S.		grab	101		1.0		qtz.
255	75'W of L12W 19+00 S.		grab	0.00202		0.4		old trench, qtz. minor pyrites
256	75'W of L12W 19+00 S.		grab	10		0.2		qtz.
257	75'W of L12W. 19+00 S.		grab	7		0.6		old trench qtz.
258	75'W of L12W [illegible]		grab	7		0.6		old trench
259	75'W of L12W 19+00 S.		grab	5		0.4		old trench
260	75'W of L12W [illegible]		grab	5		0.4		old trench qtz.
261	75'W of L12W [illegible]		grab	5		0.4		old trench
262	75'W of L12W [illegible]		grab	5		0.6		old trench qtz.

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SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw + Dangers Twp NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb	Cu ppm	Ag ppm	Mo ppm	Remarks
541-000 - 263	Rock pile [illegible] TR.8-9		grab	3134	53000	9.2	8	[illegible]
264	[illegible] pile [illegible] TR.8-9		grab	3005	[illegible]	5.0	78	[illegible]
265	TR-8 S. END EAST SIDE		grab	732	[illegible]	2.6	6	[illegible]
266	TR.#5		grab	21	164	0.4	N.D	QTZ. CARB. VEIN [illegible]
267	TR#5 SAMPLE 2		grab	244	52	0.2	4	QTZ. CARB. & SILIC. HOST ROCK
268	TR.#6		grab	947	1500	1.2	6	SILICIFIED F.SW & C. CARB. VEIN, SOME MALACHITE
269	TR# 4 [illegible] W. SIDE		grab	7	74	0.6	6	BOUDED QTZ. CARB MA. IN ALTERED HOST ROCK GREEN MICA
270	TR. # I		grab	15	12	0.6	ND	SHEARED FLOW, RUSTY ON SHEAR PLANE. CARB
271	LIZW B+00N		grab	16	30	0.8	2	SERICITE SCHIST, SILI. SILICIFIED TRACE SULPH
272	OLD TRENCH L33W /10+00 N.		grab	2	36	0.4	N.D	MAFIC SANDSTONE, QTZ. [illegible] SULPHIDES
273	BL-90N OF L14W.		grab	8				INT. MAFIC, VOLCANIC B. FRAGS VARIED OTRIGI
274	L14W 90' N of BL		grab	whole	rock			INT. MAFIC, VOLCANIC FRAGS. VARIED LITH.
275	10+50 W. 1+60 S.		grab	"	"			SHEARED INT. BASIC VOL BX (FLOW)
276	10+20 W. 4+75 S.		grab	5				SHEARED INT BASIC VOL BX (FLOW)
277	14 W. 14+50 S.		grab	5				SERICITE SCHIST CHLORITE
278	L 18+00 S. 8+50 W		grab	4				SHEARED INT - BASIC F CA CO3
279	9+50 W 4+20 S.		grab	2				INT. - BASIC VOLCANIC (FLOW)
280	11+40 W 4+20 S.		grab	whole	Rock			INT. - BASIC VOLCANIC (FLOW)
281	L 6 W 1+60 S.		grab	3	Ni ppm 73			INT. - MAFIC VOLCANIC BX (FLOW)
282	L6W 8+00 S		grab	11				MAFIC FLOW
283	L6W [illegible] S		grab	7				SHEARED CARB. MAFIC FLOW
284	5+75 W 4+75 S		grab	14				DIABASE
285	5+75 W [illegible]		grab	whole	Rock			DIABASE
286	40' E of L 6 W 12+10 S.		grab	"	"			SHEARED INT - MAFIC VOLCANIC Bx
287	5+70 W. 4+85 S.		grab	"	"			INT. META VOLCANIC (ANDESITE)
288	L 6 W. 10+15 S.		grab	10				META SED. ARGILLITE.
289	11 W 17+40 S		grab	4				SERICITE SCHIST LOOSE FROM OLD TRE
290	LOOSE GRAB FROM [illegible]		grab	1012	6500	10.6	88	STRONGLY SULPHIDES IN CARB ANDESITE
291	2L 13+50 E.		grab	18	400	1.0	2	ANDESITIC F. W. MINOR SULPHIDES
292	[illegible] SEE LK. LINE - 3N.		grab	16	60	1.0	2	CARB. ANDESITE RED BROWN STAIN
293	TL 8S [illegible] 32E.		grab	[illegible]	[illegible]			DK. GREEN MAFIC FL
294	TL [illegible]		grab	[illegible]	[illegible]			DK GREEN MAFIC FL

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SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw + Rogers Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb	Cu ppm	Ag	Mo ppm	Remarks
41-000 - 295	L4W 0+30S.		grab	23		1.2		Sheared felsic tuff strongly silicified
296	L0 20+00S.		grab	19				Felsic tuff qtz porphyry
297	L0 14+40S.		grab	4		0.8	N.D	Argillaceous sediment
298	L8W 18+00S.		Soil	3	6	0.3		B. Horizon over mafic volcanics
299	L20E 22+30S 20'E		SLUDGE	3	78	1.2	Ni ppm 33	Sludge from old D.D. hole, blank.
300	L4W 17+00S		GRAB	Whole	rock			Felsic tuff, ov qtz porphyry stringer wk trace % cpy
301	OLD TRENCH LN 16E 39S.	0.0' TO 2.0'	2.0' CHIP	170	33000	4.0		Min'd qtz. vein (cpy, py, mal, bornite) & wall rock
302	OLD TRENCH LN 16E - 38S.	2.0' TO 4.3'	2.3' CHIP	12	92	1.6		Wall rock, material felsic silicified & slightly carb andesitic flow
303	OLD TRENCH L16E/38S	4.3' TO 6.3'	2.0' CHIP	16	110	1.4		Vein material (wall rock)
304	OLD TRENCH LN 16E 38S.	6.3' TO 8.3'	2.0' CHIP	23	118	1.0		Vein material (wall rock)
305	OLD TRENCH LN 16E 38S	8.3' TO 10.3'	2.0 CHIP	4	88	1.2		Altered wallrock
306	OLD TRENCH LN. 16E 38S.		GRAB	Whole	rock			Altered wall rock silicified & minor diss sulphides
307	LN. 16E 38S.		GRAB	152	44000	3.0		Qtz. vein & py cpy
308	L16E 38S		GRAB	88	29000	2.4		Qtz vein & sulphides chalcop. py. malachite
309	L16E 38S		GRAB	163	94000	4.2		Qtz. vein sulphides chalcop py. malachite azurite
310	L16E 38+50S.		GRAB	70	26500	1.8		Qtz. vein & sulphides chalcop. py. malachite azurite
311	L16E 38+00S.		GRAB	250	10000	2.0		Qtz. vein & cpy. py malachite
312	L16E 37+50S.		GRAB	248	92000	5.0	N.D	Qtz. vein & cpy, py malachite
313	L16E 38+00S		GRAB	7	118	1.2		Silicified Int. Mafic flow w/ 20m of qtz v
314	L2W 10+50S.		GRAB	8				Fine grained argill & sericite filling
								Bedding planes c 1% py.
315	L8W 4+20S.		GRAB	5				Int-mafic flow Bx
316	L2W 8+00S.		GRAB	2				Sheared chl, altered Int-mafic flow
317	200'W of L12E 33+50S.		GRAB	7				Sheared Int-mafic flow
318	200'W of L12E 33+00S		GRAB	4				Massive mafic - Int. flow ≤ 1% py.
319	200'W of L12E 33+75S.		GRAB.	4				Int. flow breccia
320	10'W of L12E 34-30S.		GRAB.	43	26	1.0	2	Qtz. vein & <1% cpy, ankerite
321	10'W of L12E 34+80S.		GRAB	3	26	0.4		Qtz vein < 1% cpy, ankerite
322	L16E 34+70S.		GRAB	3				Sheared Int-mafic flow
323	WASTE PILE [illegible]		GRAB	24				[illegible]
324	WASTE PILE [illegible]		GRAB	1565	2100			Sheared [illegible] sulphide str. & bx
325	WASTE PILE [illegible]		GRAB	999	20			[illegible]

DAVID R. BELL GEOLOGICAL SERVICES INC.

251 THIRD AVE. SUITE 6
BOX 1250
TIMMINS, ONTARIO
P4N 7J5
(705) 264-4286

SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc PROJECT No. 541

TWP. (AREA): Greenlaw + Deloges Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb				Remarks
541-000-326	L4W 43+00 S.		GRAB	Whole	rock			SHEARED MAFIC FLO
327	L 10 W 7+50 N		GRAB	"	"			MAFIC RHYOLLITE
328	L 12 W 6+00 N		GRAB	"	"			[illegible] MAFIC FELSIC CLASTS, WP TY
								% Coz % Ba
329	L 16 W 8+00 N		GRAB	"	"			BANDED CHERT. TRACE OF Py.
330	L 16 W 4+00 N		GRAB	"	"			PORPHYRITIC MAFIC
331	L 8 W 12+00 N.		GRAB	"	"			MAFIC FLOW
332	L 20 W 2+50 N.		GRAB	"	"			RYHOLLITE.
333	L 24 W. 14+00 N.		GRAB	"	"			COARSE MAFIC FLOW
334	L 48 W 4+30 S.		GRAB	"	"			BIOTITE SCHIST
335	L 44 W. 19+00 S		GRAB	"	"			COARSE MAFIC FL DY CUTS.
336	L 16 E 38+00 S.		GRAB	"	"			SILICIFIED INT. MAF FLOW FROM FAULT ZO
337	200' W of L 12 E 33+80 S.		GRAB	"	"			MASSIVE MAFIC INT. FLOW
338	200' W of L 12 E 33+75 S.		GRAB	"	"			INT. FLOW BRECCIA
339	L 16 E 34+70 S.		GRAB	"	"			SHEARED INT-MAFI FLOW
340	BL. 13+00 E 15S		GRAB	"	"			GABBROIC MAFIC FLO MINOR SULPHIDES.
341	BL 14+20 E		GRAB	"	"			MAFIC FLOW
342	L 4E 2+00 N		GRAB	"	"			MAFIC FLOW, MINOR FOLIATION
343	L 4 E 80 N		GRAB	"	"			SHEARED QTZ EYE PORPHYRY
344	L 20 22+50 S.		GRAB	"	"			SHEARED MAFIC FLOW
345	L 0 14 N		GRAB	"	"			SHEARED MAFIC FLOW
346	L 8 E 32+95 S.		GRAB	"	"			SHEARED MAFIC FLOW
347	BL 43S 44+95 W.		GRAB	"	"			SHEARED SILICEOU MAFIC FLOW
348	L 8W 9+80 S.		GRAB	"	"			QTZ EYE PORPHYRY
349	L 12 W 12+80 S.		GRAB	"	"			QTZ. EYE PORPHYRY
350	TRENCH # 2. 6.4m E 12+80 S.		GRAB.	"	"			SHEARED QTZ. EYE PORPHYRY
351	TRENCH SW OF		GRAB	"	"			SHEARED DIORITE CUTTING CARB. VEIN.
352	L 2W 15+25 S.		GRAB	"	"			SHEARED QTZ. EYE PORPHYRY
353	L 8E 6+[illegible] S.		GRAB	"	"			SILICIFIED ANDESITE
354	L 8E [illegible] S.		GRAB	"	"			PORPHYRITIC ANDESITE.
355	L 16 W 5+20 S.		GRAB	4				ARGILLACEOUS SEDIM FOLIATED & MINOR Py

DAVID R. BELL GEOLOGICAL SERVICES INC.

231 THIRD AVE. SUITE 6
BOX 1250
TIMMINS, ONTARIO
P4N 7J5
(705) 264-4286

SAMPLE LOCATION SHEET

COMPANY: Colleghical Energy Inc PROJECT No. 541

TWP. (AREA): Carnegie & Deagre Twp. NTS: 41-0/15 + 41-0/10

Sample No.	Location	Footage	Length	Au ppb	Cu ppm	Ag ppm	Mo ppm	Remarks
541-000 - 356	L 4W [illegible]		GRAB	32				NEAR DRILL PAD OUTCROP
357	L 4W [illegible]		GRAB	2				SLUGGE FROM DRILL HOLE
358	L12 [illegible]		GRAB	3				SOIL SAMPLE OF VLF ANOMALY
359	L 8 E. 33+00 S.		GRAB	3	BB	2.0		SHEARED MAFIC FLOW, MINOR Py.
360	L12 W. 12+00 S.		GRAB	4				QTZ. IN OLD TRENCH
361	TRENCH NW. SHAFT AREA		GRAB	2811				QTZ + SHEARED WALL ROCK MATERIAL
362	60'E of L 4E 9+40 S.		GRAB	14				SHEARED INT. MAFIC FLOW (ANDESITE)
363	L 32 W. 8+00 S.		grab	14				Light PINK METASED (QUARTZITE)
364	L 32W 4+50 S.		grab	4				BLACK ARGILLITE
365	L 60 W 1+80 N		grab	5				CARBONATIZED SHEAR MAFIC FLOW <1% Py
366	L 60 W 1+80 N		grab	Whole	rock			CARBONATIZED SHEAR MAFIC FLOW <1% Py
367	L 80 W 7+50 N.		grab	5				SHEARED CHLORATIZED INT.- MAFIC FLOW <1% Py
368	L 80 W 1+50 S		grab	7				MAFIC FLOW MILDLY SHEARED <1% Py CHLORATIZED 1% QUARTZ EYES.
369	L 80 W. 1+50 S.		grab	Whole	rock			MAFIC FLOW MILDLY SHEARED <1% Py CHLORATIZED FEW 1% 2mm QUARTZ EYES.
370	50'W OF L 56W. 8+50 N		grab	4				MASSIVE INT. MAFIC FLOW
371	10'W L 52W. 25+20 N		grab	7				MASSIVE INT. MAFIC FLOW
372	150'E of L 56W 17+00 N		grab	2				SHEARED MAFIC - INT. FLOW
373	150'E of L 56W 17+00 N		grab	Whole	rock			SHEARED MAFIC INT. FLOW
374	L 56W. 27+00 N		grab	2				MASSIVE INT. MAFIC FLOW
375	L 72 W 35 N.		grab	2				SHEARED INT. MAFIC FLOW
376	LN 68W 32+00N		grab	11				massive int to mafic flow
541-000 - 377	L20+20E 21+00N	?	old core grab	2				Pelagic volcanic Breccia
- 378	"	?	"	2				tr sulphides graphitic argillite

DAVID R. BELL GEOLOGICAL SERVICES INC.

251 THIRD AVE. SUITE 6
BOX 1250
TIMMINS, ONTARIO
P4N 7J5
(705) 264-4286

SAMPLE LOCATION SHEET

COMPANY: Collingwood Energy Inc. PROJECT No. 541

TWP. (AREA): Greenlaw + Rogers Twp. NTS: 410/15 + 410/10

Sample No.	Location	Footage	Length	Au ppb	Ag oz/ton	Cu %	W ppm	Cr ppm	Ba ppm		Remarks
541-000-501	L4E 12+50S	old trench beside dump	grab	0.02 0.03 oz/ton	0.22	5.12	3	65	300		10-15% cp in 3-4" qtz-cb vn, tr py

APPENDIX 3

Lithogeochemistry Results

Explanation of Rock Names as derived from Lithogeochemistry (Jensen, 1976)

Short Form	Proper Name
Uk	Ultramafic Komatiite
BK	Basaltic Komatiite
MT	Magnesium Tholeiite
FT	Iron Tholeiite
RT	Rhyolitic Tholeiite
BC	Basaltic Calc-Alkaline
AC	Andesite Calc-Alkaline
DC	Dacitic Calc-Alkaline
RC	Rhyolitic Calc-Alkaline

DAVID R. BELL GEOLOGICAL SERVICES INC.

LITHOGEOCHEMISTRY

PROJECT # 541

SAMPLE NUMBER	Co-od	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Mo ppm	Co ppm	Cd ppm	CO_2 %	SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI	Rb	Sr	Zr	Ba	Rock Name
541-000-274	L14W 90'N of BL	4	0.5	29	14	79	50	<1	18	3	2.4	60.6	15.1	4.05	2.81	6.26	1.29	4.82	0.07	0.49	0.36	0.01	3.70	30	820	160	780	AC
-275	10+50W 4+60S	<2	0.5	25	14	63	51	<1	14	4	2.6	61.9	15.5	3.49	2.19	4.92	2.43	4.20	0.06	0.45	0.26	0.01	4.54	60	730	150	890	DC
-276	11+40W 4+20S	<2	1.0	32	20	81	51	<1	18	3	2.2	63.0	14.8	4.09	2.90	5.98	1.22	4.02	0.06	0.45	0.27	0.01	3.47	40	990	140	1020	AC
-285	5+75W 4+25S	<2	0.5	140	8	76	77	<1	38	4	0.2	51.1	14.5	7.75	5.95	3.29	1.47	11.7	0.19	0.72	0.10	0.01	2.31	70	700	60	300	FT
-286	5+60W 6+10S	<2	0.5	13	18	37	35	<1	24	3	4.5	53.1	18.3	5.79	1.82	3.49	4.20	4.50	0.06	0.51	0.30	0.01	6.23	120	300	200	870	DC
-287	5+70W 4+25S	<2	0.5	63	8	65	100	<1	25	4	0.6	53.3	16.0	8.78	5.96	2.27	0.88	8.12	0.10	0.78	0.19	0.02	3.16	10	480	100	250	BC
-293	TL 18S 34+30E	<2	<0.5	65	8	42	280	<1	38	3	0.1	47.4	5.53	9.60	19.6	0.10	0.07	12.0	0.17	0.32	0.04	0.13	3.70	<10	<10	10	50	UK
-294	TL 18S 35+30E	<2	<0.5	38	4	40	130	<1	32	4	<0.1	47.2	13.2	11.1	13.0	1.45	0.50	9.26	0.15	0.35	0.04	0.15	3.39	10	70	<10	130	BK
-300	L4W 17+00S	<2	<0.5	33	6	31	18	<1	10	4	1.5	70.5	14.4	2.10	0.18	3.46	2.02	2.97	0.05	0.40	0.09	<0.01	3.62	60	280	110	470	RT
-306	OLD TRENCH L16E 30S	<2	1.0	210	18	51	51	<1	29	5	12.6	41.2	18.2	9.56	3.81	2.43	0.64	8.49	0.13	0.67	0.05	0.01	14.9	20	230	<10	80	AC
-326	L4W 43S	<2	0.5	52	10	86	110	<1	23	5	2.7	59.1	14.9	3.65	4.10	4.55	0.40	7.17	0.11	0.77	0.24	0.02	5.39	<10	210	120	110	BC
-327	L12W 7+50N	9	1.0	18	14	81	58	<1	21	4	2.5	57.5	14.2	5.49	4.13	4.26	1.61	6.12	0.09	0.57	0.39	0.01	5.08	30	1280	170	1150	BC
-328	L12W 6+00N	<2	0.5	43	12	66	55	<1	16	4	0.5	58.2	15.5	6.38	4.09	4.38	1.47	6.16	0.11	0.57	0.31	0.01	2.08	<10	1910	160	1200	AC
-329	L16W 8+00N	5	1.0	21	270	49	34	48	14	3	0.8	58.2	14.5	7.91	3.42	3.87	2.06	5.25	0.08	0.52	0.30	0.01	2.23	30	1790	130	650	AC
-330	L16W 4N	<2	0.5	48	10	65	130	<1	21	4	0.6	54.3	13.6	6.43	6.80	3.87	1.75	7.86	0.11	0.83	0.40	0.02	2.47	20	1210	130	810	MT
-331	L8W 12N	<2	<0.5	5	8	78	88	<1	27	5	0.8	62.7	14.6	1.62	4.11	5.11	0.44	6.73	0.08	0.67	0.17	0.02	3.54	20	170	160	190	BC

DAVID R. BELL GEOLOGICAL SERVICES INC.

LITHOGEOCHEMISTRY

PROJECT # 541

SAMPLE NUMBER	Co-od	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Mo ppm	Co ppm	Cd ppm	CO_2 %	SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI	Rb	Sr	Zr	Ba	Rock Name
541-000-332	L20W 25+50N	<2	1.0	58	14	100	130	<1	44	6	9.5	52.9	12.8	6.66	3.79	4.79	0.28	7.15	0.12	1.04	0.22	0.02	10.3	<10	210	100	80	BC
-333	L24W 14+00N	<2	1.0	85	8	120	110	<1	43	4	0.2	49.8	16.1	9.70	6.75	1.63	0.06	10.3	0.24	0.91	0.07	0.01	3.47	<10	210	30	150	MT
-334	L48W 4+30S	<2	2.0	55	46	70	700	<1	84	6	7.8	28.3	4.39	11.7	21.8	0.17	2.35	11.4	0.19	2.81	0.45	0.14	13.1	120	1280	250	1310	UK
-335	L44W 19 S	<2	1.0	140	8	89	43	<1	45	6	0.9	50.5	12.2	8.93	5.96	0.24	0.06	15.7	0.19	1.36	0.09	<0.01	3.93	<10	90	50	50	FT
-336	L16E 38S	<2	1.0	74	20	76	74	<1	33	6	12.2	39.7	18.3	10.1	4.10	2.54	0.25	9.30	0.14	0.73	0.06	0.01	15.0	20	140	20	60	AC
-337	10E 33+60S	<2	1.0	93	12	69	66	<1	35	6	3.0	45.8	16.6	7.58	6.49	1.87	0.17	11.9	0.15	0.95	0.07	0.02	8.08	20	140	20	100	MT
-338	10E 33+75S	<2	0.5	25	6	73	43	<1	17	5	0.6	59.6	16.4	3.83	4.02	5.23	0.06	6.40	0.08	0.74	0.17	<0.01	3.00	<10	150	140	50	AC
-339	L16E 34+70S	<2	1.0	40	12	88	110	<1	28	5	5.1	56.4	13.6	3.80	5.27	4.26	0.29	7.77	0.09	0.63	0.14	0.02	7.39	30	190	140	230	BC
-340	BL 13E 0+15S	6	0.5	120	10	56	35	<1	31	5	0.5	51.0	13.2	9.71	6.70	2.19	0.08	12.3	0.19	0.82	0.09	<0.01	2.70	<10	80	60	40	MT
-341	BL 14+20E	<2	<0.5	26	6	67	38	1	20	9	0.8	66.2	14.5	1.15	2.09	4.11	1.29	6.55	0.05	0.73	0.17	0.01	2.85	40	150	180	430	AC
-342	L4E 2+00N	6	0.5	42	8	90	53	<1	20	9	1.9	62.8	14.8	2.60	3.04	3.08	1.74	6.71	0.05	0.63	0.15	0.01	4.47	50	100	160	440	AC
-343	L4E 0+80N	<2	<0.5	18	10	67	9	<1	7	5	2.5	69.4	15.0	2.54	0.35	4.53	1.75	2.37	0.04	0.29	0.07	<0.01	3.85	50	370	90	400	RC
-344	L20W 28+50S	<2	1.0	120	14	69	130	<1	49	17	4.3	47.3	15.4	5.47	7.42	3.06	0.09	11.5	0.14	0.81	0.05	0.03	8.39	<10	40	20	90	MT
-345	LO 14N	<2	0.5	4	10	39	60	<1	20	0	2.7	61.2	14.3	4.33	3.16	4.21	0.86	5.76	0.06	0.55	0.13	0.01	5.39	30	240	140	200	AC
-346	L8E' 33+85S	<2	1.0	29	20	59	85	<1	36	14	9.3	41.4	16.8	11.3	5.12	1.27	0.49	9.45	0.12	1.83	0.10	0.01	12.8	10	110	80	90	BC
-347	TL 43S 16+25W	<2	1.0	10	16	93	44	<1	36	13	6.4	50.1	14.2	7.19	5.31	2.40	0.31	9.03	0.15	1.10	0.14	0.01	8.85	10	210	80	100	BC

DAVID R. BELL GEOLOGICAL SERVICES INC.

LITHOGEOCHEMISTRY

PROJECT # 541

SAMPLE NUMBER	Co-od	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Mo ppm	Co ppm	Cd ppm	CO_2 %	SiO_2	Al_2O_3	CaO	MgO	Na_2O	K_2O	Fe_2O_3	MnO	TiO_2	P_2O_5	Cr_2O_3	LOI	Rb	Sr	Zr	Ba	Rock Name
541-000-348	L8W 8+80S	<2	<0.5	29	6	80	9	<1	7	3	0.9	71.2	15.9	1.09	0.39	5.02	1.42	2.42	0.03	0.28	0.06	<0.01	2.47	50	450	80	370	RC
-349	L12W 12+80S	<2	<0.5	7	8	45	7	<1	4	6	3.5	69.8	13.2	3.64	0.34	5.05	0.99	2.42	0.06	0.24	0.07	<0.01	4.39	30	370	100	200	RC
-350	Trench #2 6+00E 12+87S	<2	0.5	23	12	55	30	<1	14	7	4.4	65.3	13.1	3.44	1.51	4.65	1.63	4.21	0.08	0.35	0.12	0.01	5.85	30	310	60	510	DC
-351	Trench SW of shaft	<2	1.0	16	18	100	71	<1	25	10	4.7	56.5	13.1	7.00	4.07	4.87	0.13	7.10	0.09	0.34	0.12	0.01	6.85	10	220	120	90	BC
-352	L8W 15+25S	<2	<0.5	16	6	47	7	<1	4	3	1.6	69.7	15.4	1.79	0.57	4.87	1.60	1.85	0.03	0.29	0.08	0.01	3.08	60	390	140	380	RC
-353	L8W 6+25S	<2	0.5	17	16	92	29	<1	14	5	3.6	61.3	14.2	4.34	2.11	6.12	1.25	4.38	0.07	0.45	0.36	<0.01	5.16	50	850	160	890	DC
-354	L8E 34+25S	<2	0.5	83	8	56	61	<1	31	8	0.5	47.2	20.3	11.4	4.66	1.88	0.08	9.80	0.13	0.67	0.06	0.02	4.16	<10	150	40	30	AC
-366	L60W 1+80S	<2	<0.5	47	22	89	310	<1	56	3	16.5	46.3	7.58	5.04	11.2	1.10	1.50	8.23	0.17	0.46	0.19	0.18	18.3	50	320	40	430	BK
-369	L80W 1+50S	4	<0.5	200	12	97	35	<1	43	4	1.5	49.2	12.2	8.26	5.53	1.53	0.09	16.0	0.23	1.35	0.10	<0.01	4.08	20	120	60	100	FT
-373	L56W 150'E 17+50N	<2	<0.5	33	20	56	31	<1	13	2	3.5	62.4	13.4	3.96	2.88	4.63	1.21	4.90	0.07	0.49	0.27	0.01	5.23	30	1210	140	700	AC

2.8764

	GC	GL
789955	✓	✓
56	1/2	1/2
57	✓	✓
58	1/4	✓
59	✓	✓
60	1/4	✓
61	✓	✓
62	1/2	1/4
63	✓	✓
64	1/4	1/4
65	✓	✓
66	3/4	3/4
75	NC	1/4
76	NC	✓
77	1/2	✓
78	1/4	✓
79	1/2	✓
80	3/4	✓
81	✓	✓
82	3/4	1/4
83	1/2	✓
95		✓
96		✓
97		3/4
98		3/4
99	3/4	3/4
790000	NC	NC
1	✓	✓
2	✓	✓
3		✓
4		✓
5		1/2

	GC	GL
790006		1/4
7	NC	1/4
8	NC	1/2
9	NC	✓
10	NC	✓
15		✓
16		✓
17		✓
18		✓
19		✓
20		✓
21		✓
22		✓
23		1/4
24		1/2
25		1/2
26		✓
27		✓
28		✓
29		✓

GL 1 NC

7.25 NC

45 × 40 = 1800

1800 ÷ 52.25 = 34.5

35

27 NB.

GL. 6 NC

5.75

13 × 20 = 260

260 ÷ 18.75 = 13.8

14

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geology

Township or Area Greenlaw, Denyes, Halcrow, Tooms Townships

Claim Holder(s) Collingwood Energy Inc.

Survey Company David R. Bell Geological Services Inc.

Author of Report Stephen Conquer

Address of Author 251 Third Ave., Suite 4, Timmins, Ont.

Covering Dates of Survey Sept 30/83 to Dec 29/83
(linecutting to office)

Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

See attached list
(prefix) (number)

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
–Electromagnetic _____
–Magnetometer _____
–Radiometric _____
–Other _____
Geological 20
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE Dec. 30/83 SIGNATURE: Stephen Conquer
Author of Report or Agent

Res. Geol. _____ Qualifications 2.5873

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS _____

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

Technical Data Statement List of Claims December 29, 1983
Geological Survey Credits Requested: 20 days per claim as listed below
Collingwood Energy Inc. Project 541 - 48 claims Swayze Area
Porcupine Mining Division, District of Sudbury

Claim Number	Township	Date Recorded
P626707	Greenlaw	April 5, 1982
P626708	Greenlaw-Denyes	April 5, 1982
P642187	Greenlaw	April 5, 1982
P642188	Greenlaw	April 5, 1982
P642189	Greenlaw-Denyes	April 5, 1982
P642190	Greenlaw-Denyes	April 22, 1982
P642867	Greenlaw-Denyes	Sept. 29, 1982
P642868	Greenlaw	Sept. 29, 1982
P661596	Denyes	Oct. 21, 1982
P661597	Denyes	Oct. 21, 1982
P661598	Greenlaw-Denyes	Oct. 21, 1982
P661599	Greenlaw	Oct. 21, 1982
P661600	Greenlaw	Oct. 21, 1982
P661601	Greenlaw	Oct. 21, 1982
P663098	Greenlaw	Oct. 21, 1982
P663099	Greenlaw-Denyes	Oct. 21, 1982
P663100	Denyes	Oct. 21, 1982
P663101	Denyes	Oct. 21, 1982
P663102	Denyes	Oct. 21, 1982
P663103	Denyes	Oct. 21, 1982
P663104	Denyes	Oct. 21, 1982
P663105	Denyes	Oct. 21, 1982
P663106	Denyes	Oct. 21, 1982
P663107	Denyes	Oct. 21, 1982
P663108	Denyes	Oct. 21, 1982
P663109	Denyes	Oct. 21, 1982
P663110	Denyes	Oct. 21, 1982
P663111	Greenlaw	Oct. 21, 1982

Technical Data Statement List of Claims December 29, 1983
Geological Survey Credits Requested: 20 days per claim as listed below
Collingwood Energy Inc. Project 541 - 48 claims Swayze Area
Porcupine Mining Division, District of Sudbury

Claim Number	Township	Date Recorded
P663118	Greenlaw	Oct. 21, 1982
P663119	Greenlaw	Oct. 21, 1982
P663126	Greenlaw	Oct. 21, 1982
P663127	Greenlaw	Oct. 21, 1982
P663128	Greenlaw	Oct. 21, 1982
P663129	Greenlaw	Oct. 21, 1982
P663130	Greenlaw	Oct. 21, 1982
P663131	Greenlaw	Oct. 21, 1982
P663132	Greenlaw	Oct. 21, 1982
P663133	Greenlaw	Oct. 21, 1982
P663134	Greenlaw-Denyes	Oct. 21, 1982
P663135	Denyes	Oct. 21, 1982
P688581	Denyes-Halcrow	March 4, 1983
P688582	Denyes-Halcrow	March 4, 1983
P688583	Denyes-Halcrow	March 4, 1983
P688584	Greenlaw-Tooms	March 4, 1983
P688591	Tooms	March 4, 1983
P688592	Halcrow	March 4, 1983
P688593	Halcrow	March 4, 1983
P688594	Halcrow	March 4, 1983

	Geol			Geol		2.6276	Geol
P 626707	✓		663107	✓		P 688593	✓
08	✓		08	✓		94	✓
642187	✓		09	✓			
88	✓		110	✓			
89	✓		11	✓			
90	✓		663118	✓			
642867	✓		19	✓			
68	✓		126	✓			
661596	✓		27	✓			
97	✓		28	✓			
98	✓		29	✓			
99	✓		30	✓			
600	✓		31	✓			
01	✓		32	✓			
663698	✓		33	✓			
99	✓		34	✓			
100	✓		35	✓			
01	✓		688581	✓			
02	✓		82	✓			
03	✓		83	✓			
04	✓		84	✓			
05	✓		591	✓			
06	✓		92	✓			
			MEA				

Page 1 of 2 Your file 2.1771

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

11/84

#1

The Minin

41015SW0057 2.6276 DENYES

900

Type of Survey(s)
Geological

2.6276

Township or Area
Greenlaw, Denyes, Halcrow and Teams Townships

Claim Holder(s)
Collingwood Energy Inc.

Prospector's Licence No.
T-1498

Address
403 - 595 Howe Street, Vancouver, B.C.

Survey Company
David R. Bell Geological Services Inc.

Date of Survey (from & to)
30 / 9 / 83 to 29 / 12 / 83
Day / Mo. / Yr. Day / Mo. / Yr.

Total Miles of line Cut

Name and Address of Author (of Geo-Technical report)
Stephen Conquer 251 Third Ave., Suite 4, Timmins, Ontario - P4N 7J5

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
MAY 11 1984
MINING LANDS SECTION

RECORDED
JAN 13 1984
Receipt No. 9

RECEIVED
JAN 13 1984, P.M.
A.M. 7,8,9,10,11,12, 1,2,3,4,5,6

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P.	626 707	
	626 708	
	642187	
	642188	
	642189	
	642190	
	642867	
	642868	
	661596	
	661597	
	661598	
	661599	
	661600	
	661601	
	663098	
	663099	
	663100	
	663101	
	663102	
	663103	
	663104	
	663105	
	663106	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	663107	
	663108	
	663109	
	663110	
	663111	
	663118	
	663119	
	663126	
	663127	
	663128	
	663129	
	663130	
	663131	
	663132	
	663133	
	663134	
	663135	
	688581	
	688582	
	688583	
	688584	
	688591	
	688592	

Total number of mining claims covered by this report of work: 48

For Office Use Only

Total Days Cr. Recorded: 960

Date Recorded: Jan 13/84

Mining Recorder: B Stanley

Date Approved as Recorded: 84.05.15

Branch Director / Mining Recorder

Date: Dec 28, 1983

Recorded Holder or Agent (Signature): Stephen Conquer

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
Stephen Conquer c/o David R. Bell Geological Services Inc. 251 Third Ave. Suite 4 Timmins, Ontario P4N 7J5

Date Certified: Dec 28 1983

Certified by (Signature): Stephen Conquer

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological	Creelman, Dempsey, Halcrow and Toms Townships
Claim Holder(s)	**Prospector's Licence No.**
Collingwood Energy Inc.	T-1498
Address	
403 - 595 Howe Street, Vancouver, B.C.	
Survey Company	**Date of Survey (from & to)** / **Total Miles of line Cut**
David R. Bell Geological Services Inc.	30 Day 9 Mo. 83 Yr. to 29 Day 12 Mo. 83 Yr.
Name and Address of Author (of Geo-Technical report)	
Stephen Conquer, 251 Third Ave., Suite 4, Timmins, Ontario	

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	20
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	688593				
	688594				

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	

RECEIVED
JAN 13 1984
P.M.
A.M. 7 8 9 10 11 12 1 2 3 4 5 6
MINING DIVISION
SUDBURY, ONTARIO

RECEIVED
MAY 11 1984
MINING LANDS SECTION

Calculation of Expenditure Days Credits

Total Expenditures $ ____ + 15 = Total Days Credits ____

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 48

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded: 84.5.18	Branch Director

Date	Recorded Holder or Agent (Signature)
Dec 28, 1983	Stephen Conquer

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying	Date Certified	Certified by (Signature)
Stephen Conquer c/o David R. Bell Geological Services Inc. 251 Third Ave. Suite 4 Timmins Ontario P4N 1J5	Dec 28 1983	Stephen Conquer

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.6276

Feb. 24/84

Mining Lands Comments

O.K.

☐ To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☑ To: Geology - Expenditures Mr. Kustra.

Comments

☑ Approved ☐ Wish to see again with corrections | Date March 5/84 | Signature C. Kustra

☐ To: Geochemistry

Comments

L.D.

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

R.K.

Assessor

Approved Reports of Work sent out

Notice of Intent filed

Approval after Notice of Intent sent out

Duplicate sent to Resident Geologist

Duplicate sent to A.F.R.O.

1984 01 19 Our File: 2.6276

Mr. Bruce Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geological survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 626707 et al in the Townships of Greenlaw, Denyes, Halcrow and Tooms.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

J.R. Morton
Acting Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: Collingwood Energy Inc
Suite 401
595 Howe Street
Vancouver, B.C.
V6C 2T5

cc: David R. Bell Geological Services Inc
251 Third Avenue
Suite 14
Box 1250
Timmins, Ontario
P4N 7J5
Attention: Stephen Conquer

DAVID R. BELL GEOLOGICAL SERVICES INC.

251 THIRD AVE., SUITE 14
BOX 1250
TIMMINS, ONTARIO
P4N 7J5
(705) 264-4286

REGISTERED

January 16, 1984

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Attention: Mr. Fred Mathews

Dear Sir:

Re: Geological Report of the Collingwood Energy Inc. Property, Swayze Area, District of Sudbury, Ontario Claims P626707 et al

I have enclosed two (2) copies of the above report as per Ministry of Natural Resources requirements for assessment credits. Would you kindly acknowledge receipt of said reports.

Respectfully submitted,

Stephen Conquer
Per: David R. Bell
Geological Services Inc.

SC/kg

Encl.

File - 541 - assessment
corresp.

DAVID R. BELL GEOLOGICAL SERVICES INC.

251 THIRD AVE., SUITE 14
BOX 1250
TIMMINS, ONTARIO
P4N 7J5
(705) 264-4286

REGISTERED

January 16, 1984

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Attention: Mr. Fred Mathews

Dear Sir:

Re: Geological Report of the Collingwood Energy Inc. Property,
Swayza Area, District of Sudbury, Ontario
Claims P626707 et al

It has come to my attention that two of the claim numbers recorded on Figure 5 from the Collingwood geology report are incorrect. Enclosed you will find two (2), updated and corrected versions of this map. It would be greatly appreciated if you would replace the incorrect copies with the correct ones.

Sincerely yours,

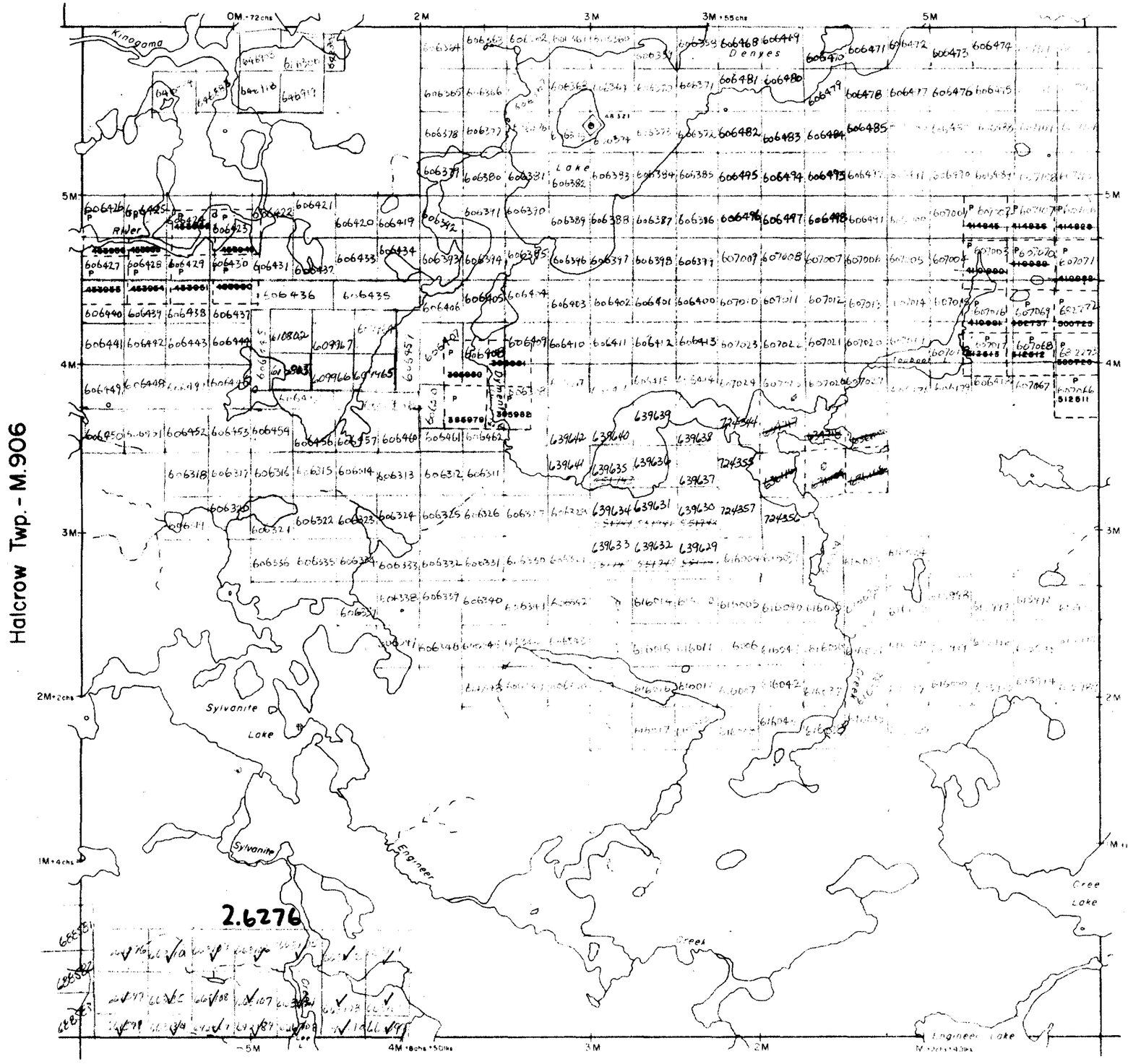
Stephen Conquer
Regional Geologist

SC/kg

Encl.

File - corresp.

Raney Twp. - M.1069



Halcrow Twp. - M.906

Swayze Twp. - M.1150

Greenlaw Twp. - M.895

THE TOWNSHIP
OF

DENYES

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C
PATENTED FOR S.R.O	

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

PLAN NO. M.758

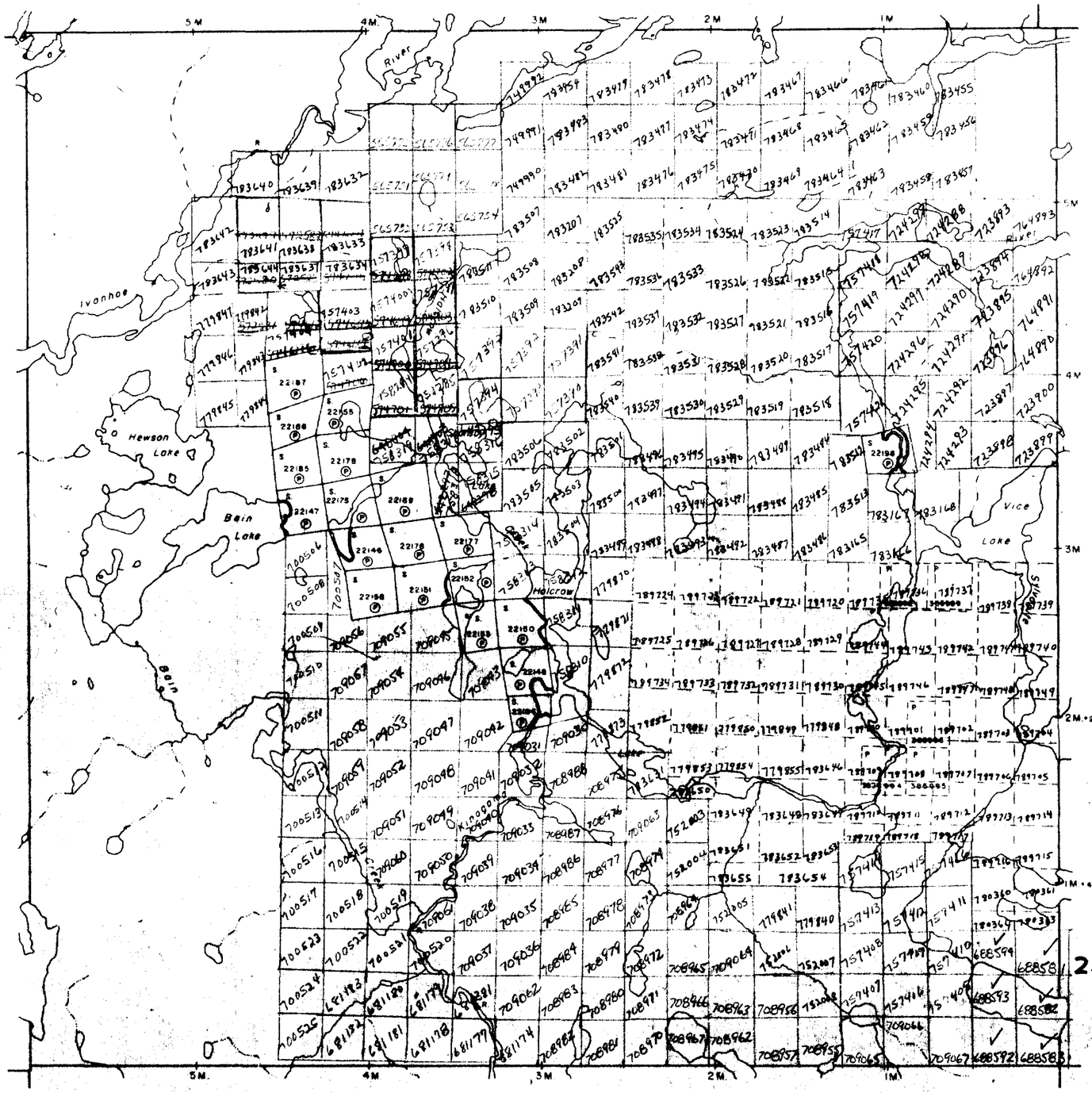
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Crockett Twp. - M.740

Lackner Twp. - M.975

Denyes Twp. - M.758

Tooms Twp. - M.1159



THE TOWNSHIP
OF

HALCROW

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S
LEASES	L
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L.O
MINING RIGHTS ONLY	M.R.O
SURFACE RIGHTS ONLY	S.R.O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C

NOTES

400' Surface Rights Reservation around all lakes and rivers

PLAN NO. M.906

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

2.6276.

Halcrow Twp. M.906

Mountbatten Twp. - M.875
INDIAN RESERVE No.76 A

Greenlaw Twp. - M.895

Kinogama

Eisenhower Twp. M.781

THE TOWNSHIP
OF

TOOMS

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

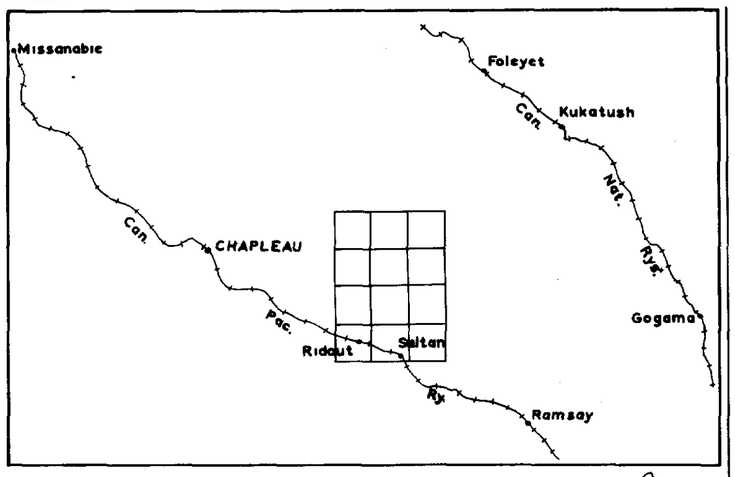
PATENTED LAND	(P)
CROWN LAND SALE	C.S
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L.O
MINING RIGHTS ONLY	M.R.O
SURFACE RIGHTS ONLY	S.R.O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C

NOTES

400' Surface Rights Reservation around all lakes and rivers.

PLAN NO. M.1159

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEY AND MAPPING BRANCH



LOCATION MAP
SCALE 1 in = 20 mi

CROCKETT
RANEY
ROLLO
HALCROW
DENYES
SWAYZE
GREENLAW
TOOMS
CUNNINGHAM
EISENHOWER
22

GR
GN
SED
IF
QV
S
G

RIVER
IVANHOE
KINOGAMA
BIGGS CR.
LITTLE RIDLEY L.
RIDLEY L.
ROLLO L.
RANEY L.
Camp 6
Camp 7
DENYES L.
SOUTHORN L.
SHUNSBY L.
Camp 4
VICE L.
Camp 5
TOPBOOT L.
DYMENT L.
SWAYZE L.
BRETT L.
ACKERMAN L.
TO KENTY GOLD MINE
Road
SYLVANITE L.
JEAN L.
CARMEN L.
ELVA L.
CREE L.
ENGINEER L.
RANSOM L.
Camp 3
SAWBILL L.
BETTY L.
LEE L.
GERTRUDE L.
RIDOUT L.
Camp 8
HOTSTONE L.
LITTLE RIDOUT L.
WAKAMI R.
ISAIAH CR.
PETER L.
SULTAN CR.
Camp 9
Camp 10
Camp 2
UPPER SYLVANITE L.
TOOMS L.
SYLVANITE CR.
RIDOUT R.
Camp 1
KORMAK
CANADIAN PACIFIC RAILWAY
RIDOUT
VALOIS L.
HEPBURN L.
SULTAN

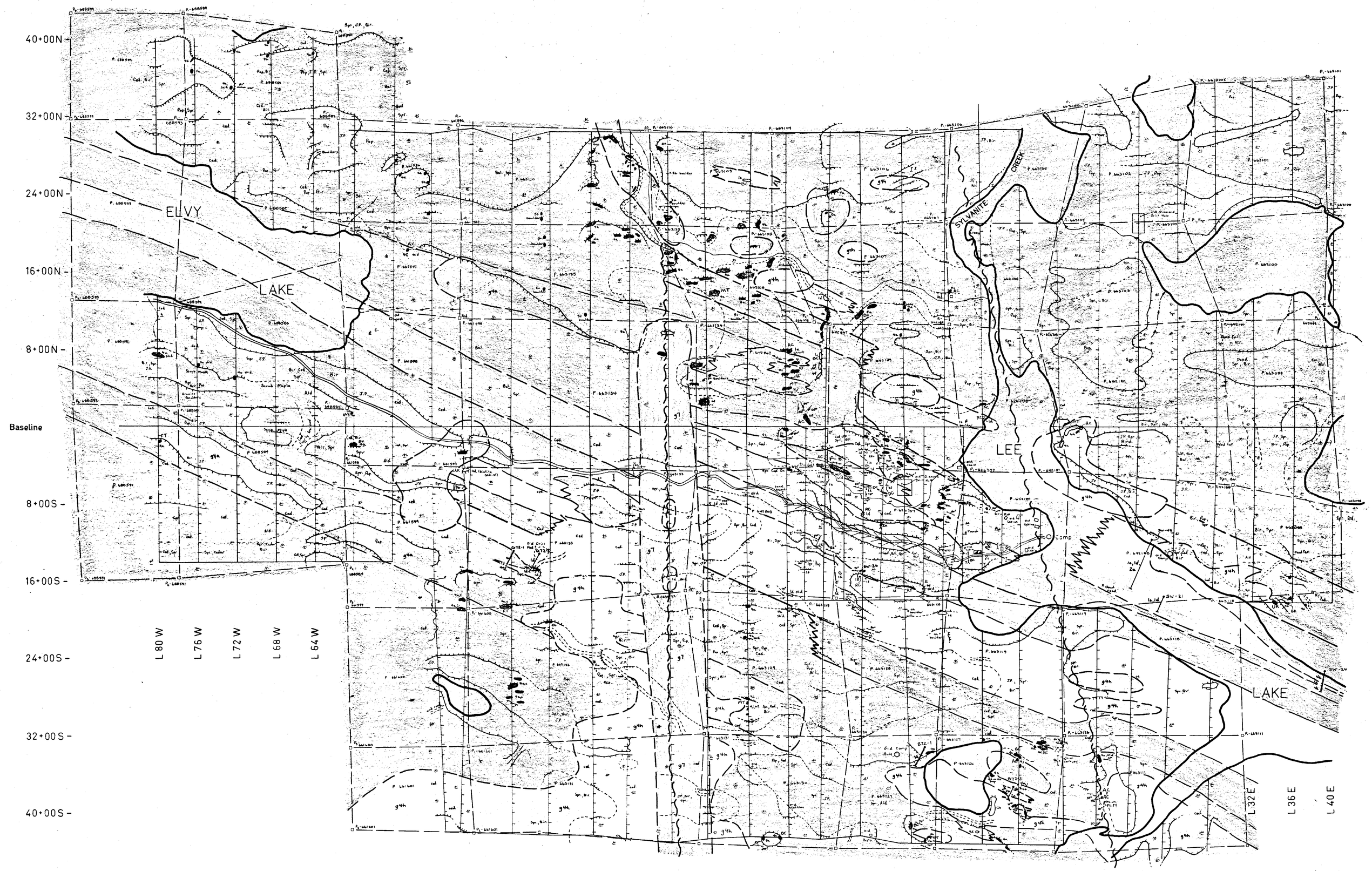
LEGEND

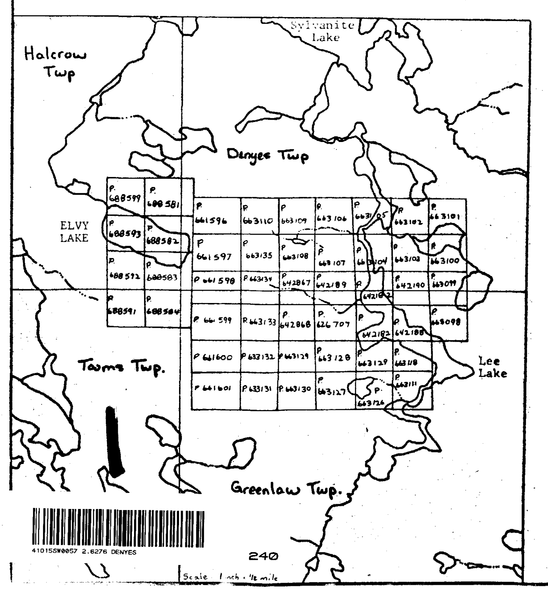
----	FORMATION BOUNDARIES
GR	GRANITE
SED	SEDIMENTS
GN	GREENSTONE
IF	IRON FORMATION
QV	QUARTZ VEIN
S	SULPHIDE SHEAR
G	GOLD
S	SULPHIDE

CANADIAN PACIFIC RAILWAY CO.
INDUSTRIAL DEVELOPMENT

RIDOUT - SWAYZE AREA
SUDBURY DISTRICT
ONTARIO
SCALE: 1 in = 1 mi

1959





MN TN.

LEGEND

PRECAMBRIAN

INTRUSIVE ROCKS

MAFIC INTRUSIVE ROCKS

- diabase

INTRUSIVE CONTACT

GRANITIC ROCKS

- massive granite
- massive quartz diorite

INTRUSIVE CONTACT

INTERMEDIATE TO ULTRAMAFIC INTRUSIVE ROCKS

- diorite, gabbro

INTRUSIVE CONTACT

INTERMEDIATE TO ULTRAMAFIC VOLCANIC ROCKS

- massive basalt - (basaltic and ultramafic komatiites)
- massive & porphyritic basalts - (iron & magnesium tholeiites)
- massive basalts & andesites - (basaltic & andesitic calc-alkaline)
- mafic tuff
- volcanic breccia - (basaltic, andesitic & dacitic calc-alkaline)

SEDIMENTARY ROCKS

- shale, argillites
- quartzites

FELSIC VOLCANIC ROCKS

- massive rhyolites
- felsic tuff
- volcanic breccia
- porphyritic rhyolites - (calc-alkaline & tholeiitic rhyolites)

g Geophysically interred

- foliation or schistocity
- elevation contours
- swamp or bog
- geological contacts- assumed
- claim post & post number
- claim number
- streams - permanent, seasonal
- faults - assumed
- anker
- grid lines & station indicators
- bedding - tops from grain gradation
  - overturned
- bedrock exposure - large, small
- trench
- shaft - 2 compartment
- diamond drill hole
- holes drilled by Broad Scope Development Ltd.
- holes drilled by Granges Exploration AB
- camp location
- old roads

TREE TYPES

- J.P. Jack Pine
- Bir. Birch
- Spr. Spruce
- Ced. Cedar
- Pop. Poplar
- Ald. Alder
- Bal. Balsam

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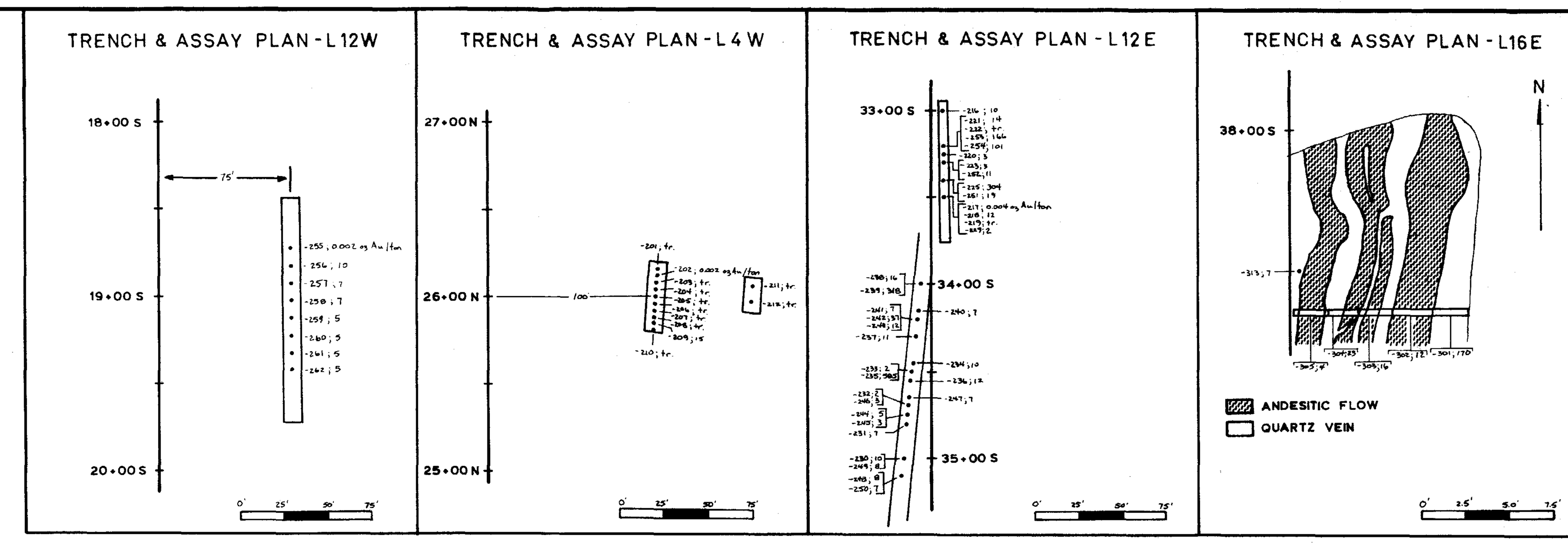
David R. Bell Geological Services Inc.

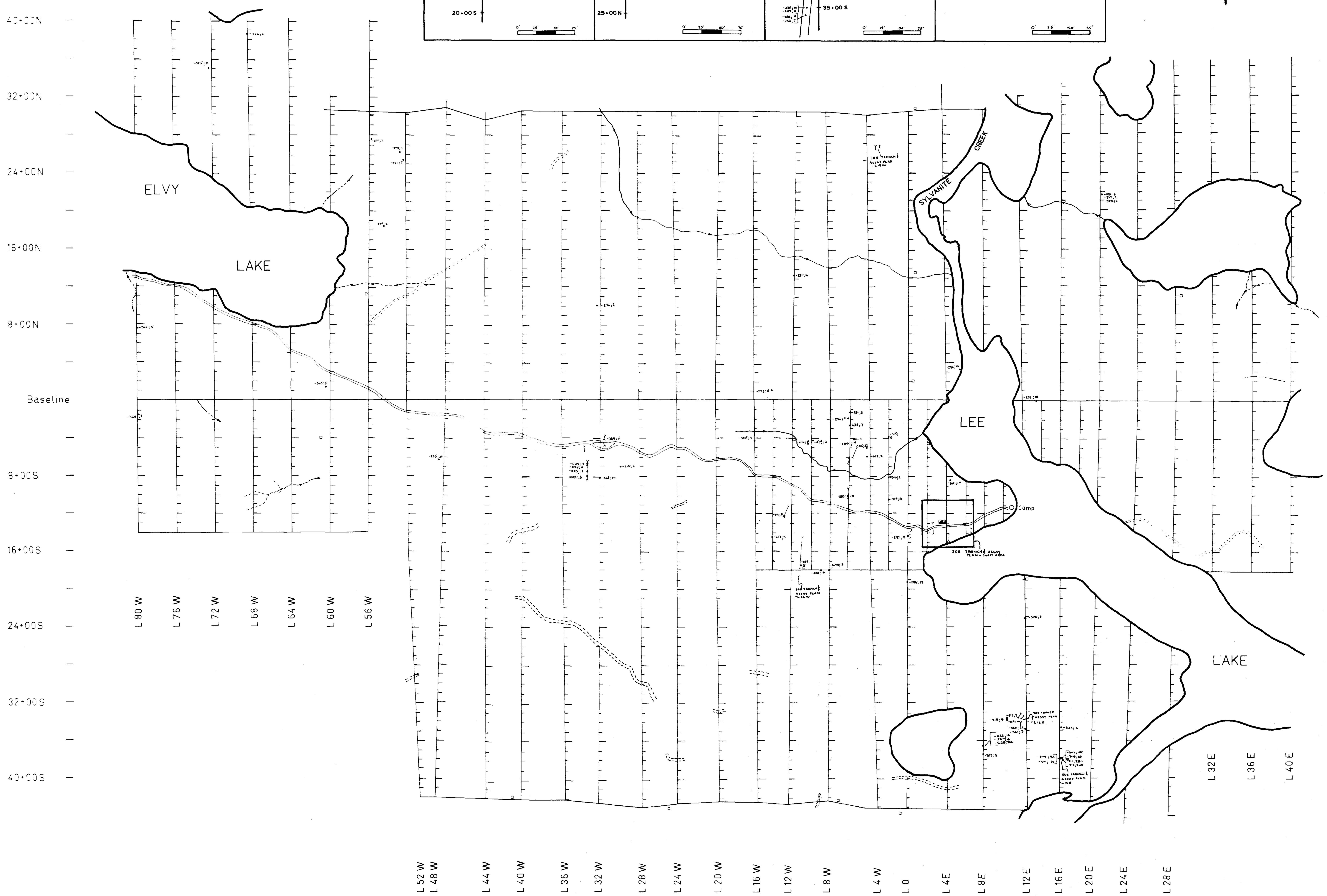
COLLINGWOOD ENERGY INC.

Map 541-83-1

GEOLOGICAL SURVEY PLAN

TWP/AREA: Greenlaw & Denyes Townships		PROV.: Ontario
MINING DIVISION: Porcupine		PROJECT NO.: 541
REFERENCE: O.D.M. - Geological Report 63		NTS: 41-O/15 ; 41-O/10
DRAWN: R.J.R./M.R.S./S.W.C.	DRAFTED: S.W.C.	CHECKED: D.R.B.
SCALE: 1" = 400'	DATE: Nov. 83	SHEET NO.: 1 of 1





All sample numbers should be preceeded by 541-000

SAMPLE #	LOCATION	Au (ppb)	Ag (ppm)	Cu (ppm)	Mo (ppm)	Ni (ppm)
-001	L6E+80'W / 14S	36				
-002	joins -001 on west	7				
-022	L33+50W / 8+00S	3				
-023	/ 7+30S	11				
-024	/ 6+85S	4				
-025	/ 6+70S	11				
-201	3+00W / 26+00N	tr.	1.0			
-202	/ 26+00N	0.002 oz/ton	1.8			
-203	/ 26+00N	tr.	0.8			
-204	/ 26+00N	tr.	0.4			
-205	/ 26+00N	tr.	0.6			
-206	/ 26+00N	tr.	1.0			
-207	/ 26+00N	tr.	1.6			
-208	/ 26+00N	tr.	1.2			
-209	/ 26+00N	15	3.4			
-210	/ 26+00N	tr.	0.6			
-211	3+00W / 26+00N	tr.	0.8			
-212	/ 26+00N	tr.	0.4			
-213	Mine Dump	0.052 oz/ton	0.8			
-214	" "	0.117 oz/ton	1.0			
-215	L30W / 3+00S	4	0.8			
-216	L12E / 33+00S	10	0.6			
-217	/ 33+30S	0.004 oz/ton	1.4			
-218	/ 33+50S	12	2.4			
-219	/ 33+50S	tr.	1.6			
-220	/ [illegible]	3	1.8			
-221	/ 33+[illegible]	14	1.6			
-222	/ 33+[illegible]	tr.	1.2			
-223	/ 33+[illegible]	3	1.4			
-224	Mine Dump	373	1.2			
-225	L12E / 33+[illegible]	304	0.8			
-226	L16E / 36+[illegible]	16	1.4			
-227	/ 36+[illegible]	2	1.2			
-228	/ 36+50S	32	1.6			
-229	L12E / 33+50S	2	2.0			
-230	/ 35+00S	10	1.6			
-231	/ 35+00S	7	2.6			
-232	/ 35+00S	2	1.0			
-233	/ 35+00S	2	1.4			
-234	/ 35+00S	10	1.0			
-235	/ 35+00S	585	1.2			
-236	/ 35+00S	12	0.8			
-237	/ 35+00S	11	1.4			
-238	/ 34+00S	16	0.8			
-239	/ 34+00S	318	1.6			
-240	/ 34+00S	7	0.6			
-241	/ 34+00S	1	0.4			
-242	/ 34+00S	57	1.0			
-243	/ 34+00S	12	1.0			
-244	/ 34+00S	5	1.2			

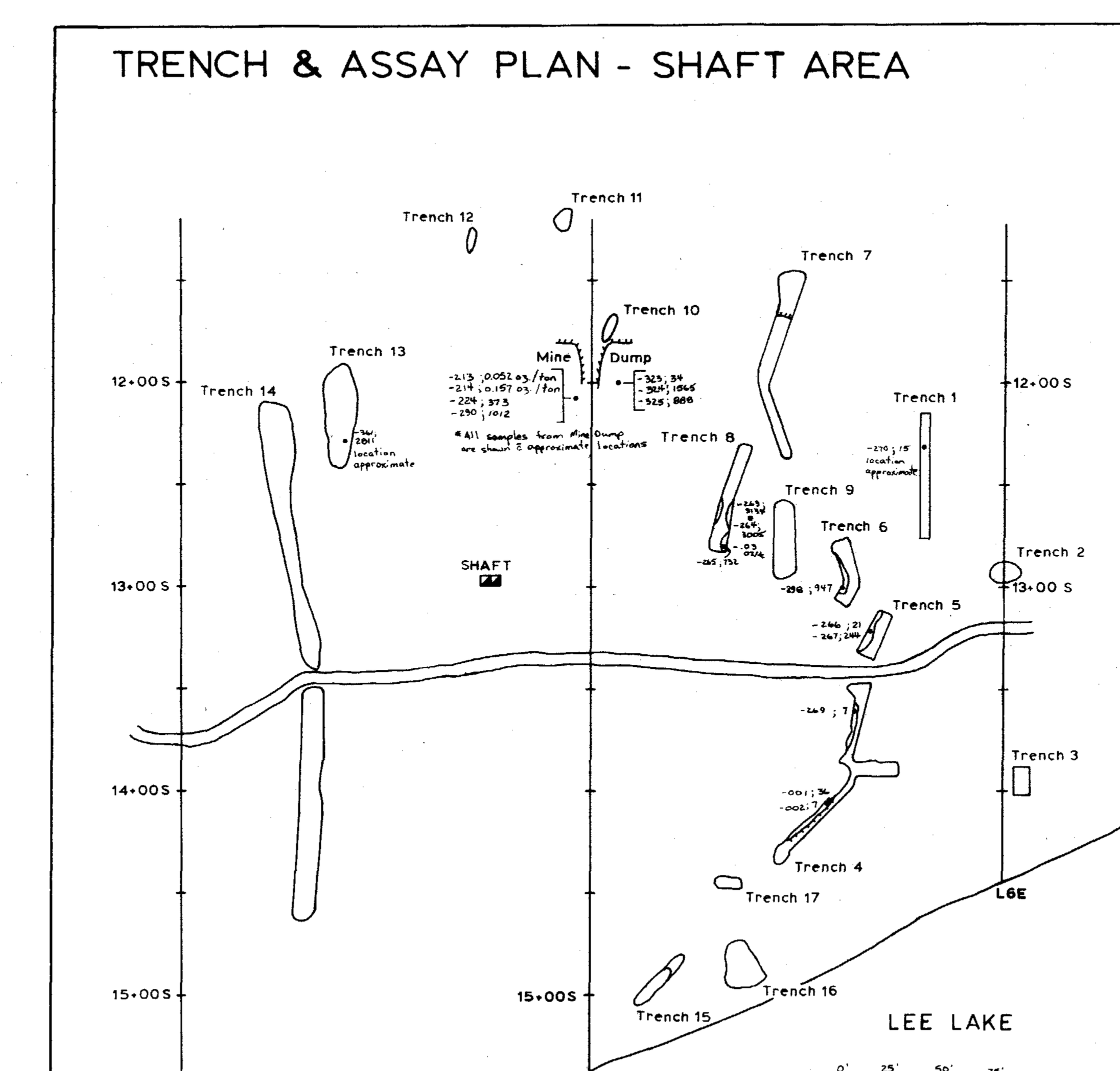
SAMPLE #	LOCATION	Au (ppb)	Ag (ppm)	Cu (ppm)	Mo (ppm)	Ni (ppm)
-245	L12E / 34+00S	5	1.2			
-246	/ 34+00S	3	1.2			
-247	/ 34+00S	7	1.6			
-248	/ 34+00S	8	1.6			
-249	/ 35+00S	8	1.2			
-250	/ 35+50S	7	0.8			
-251	/ 33+40S	19	1.6			
-252	/ 33+50S	11	1.2			
-253	/ 33+20S	166	1.2			
-254	/ 33+28S	101	1.0			
-255	11+25W / 19+00S	0.002 oz/ton	0.4			
-256	/ 19+00S	10	0.2			
-257	/ 19+00S	7	0.6			
-258	/ 19+00S	7	0.6			
-259	/ 19+00S	5	0.4			
-260	/ 19+00S	5	0.4			
-261	/ 19+00S	5	0.4			
-262	/ 19+00S	5	0.6			
-263	between trench 8&9	2134	9.2	53,000	18	
-264	" " "	3005	5.0	26,000	78	
-265	trench 8, SE corner	732	2.6	22,500	6	
-266	trench #5	21	0.4	164	N.D.	
-267	" "	244	0.2	52	4	
-268	trench #6	947	1.2	1500	6	
-269	trench [illegible]	7	0.6	74	8	
-270	trench 1	15	0.6	12	ND	
-271	L12W / 13+00N	16	0.8	30	2	
-272	L32W / 10+00N	2	0.4	36	ND	
-273	BL - 90' of L46W	8				
-276	10+20W / 4+75S	5				
-277	L14W / 14+50S	5				
-278	8+50W / 18+00S	4				
-279	9+50W / 4+20S	2				
-281	L6W / 1+60S	3				78
-282	L6W / 2+00S	11				
-283	L6W / 2+78S	7				
-284	5+75W / 4+25S	14				
-288	L6W / 10+15S	10				
-289	11W / 17+45S	4				
-290	Mine Dump	1012	10.6	6500	88	
-291	BL / 13+90E	18	1.0	400	3	
-292	L4E / 3W	16	1.0	60	2	
-293	L48W / 6+30S	23	1.2		2	
-296	L0 / 20+00S	19	0.6		N.D.	
-297	L0 / 14+40S	4	0.8		N.D.	
-298	L6W / 18+00S	3	0.8	6		
-299	20+20E / 32+30N	3	1.2	78		88
-301	L16E / 38+00S	170	4.0	32000		
-302	/ 38+00S	12	1.6	92		
-303	/ 38+00S	16	1.4	110		

SAMPLE #	LOCATION	Au (ppb)	Ag (ppm)	Cu (ppm)	Mo (ppm)	Cr (ppm)
-304	L16E / 38+00S	23	1.8	178		
-305	/ 38+00S	4	1.2	88		
-307	/ 38+00S	152	3.0	44000		
-308	/ 38+00S	88	2.4	29000		
-309	/ 38+00S	163	4.2	94000		
-310	/ 38+00S	70	1.8	26500		
-311	/ 38+00S	250	2.0	10000		
-312	/ 38+00S	248	5.0	92000	N.D.	
-313	/ 38+00S	7	1.2	118		
-314	L2W / 10+50S	8				
-315	L2W / 4+20S	5				
-316	L2W / 8+20S	2				
-317	10+00E / 33+80S	7				
-318	/ 33+60S	4				
-319	/ 33+75S	4				
-320	11+90E / 34+00S	43	1.0	26	2	
-321	11+90E / 34+00S	3	0.4	26		
-322	L16E / 34+70S	3				
-323	Mine Dump	34				
-324	" "	1565		2100		
-325	" "	808		70		
-355	L16W / 5+30S	4				
-356	L4W / 6+00S	32				
-357	/ 6+00S	2				
-358	L12E / 23+00S	3				
-359	L8E / 38+40S	3	2.0	88		
-360	L12W / 12+00S	4				
-361	Trench NW Shaft Area	2811				
-362	4+60E / 8+40S	14				
-363	L32W / 8+00S	14				
-364	/ 4+50S	4				
-365	L60W / 14+30N	5				
-367	L80W / 7+50N	5				
-368	L80W / 14+50S	7				
-370	52+50W / 26+50N	4				
-371	58+40W / 25+25N	7				
-372	54+50W / 17+50N	2				
-374	L56W / 27+00N	2				
-375	L72W / 35+00N	2				
[illegible]	L68W / 38+20N	11				
-501	L4E / 12+90S	0.03 oz/t	0.22	5.12%	W-5ppm	[illegible]
-377	L20+20E / 21+80N	2				
-379	/ 21+80N	2				

LEGEND

• - sample location

-311;250 - sample number; gold assay



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Map 541-83-2

ASSAY PLAN

TWP/AREA: Greenlaw & Denyes Townships		PROV.: Ontario
MINING DIVISION: Porcupine		PROJECT NO.: 541
REFERENCE:		NTS: 41-O/15 ; 41-O/10
DRAWN: S.W.C.	DRAFTED: S.W.C.	CHECKED:
SCALE: 1" = 400'	DATE: DEC, 83	SHEET NO.: 1 of 1

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