GEOTECHNICAL SURVEY

FARR AND MICKLE TOWNSHIP PROPERTIES

BY

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FOR

LAKE SUPERIOR RESOURCES CORPORATION

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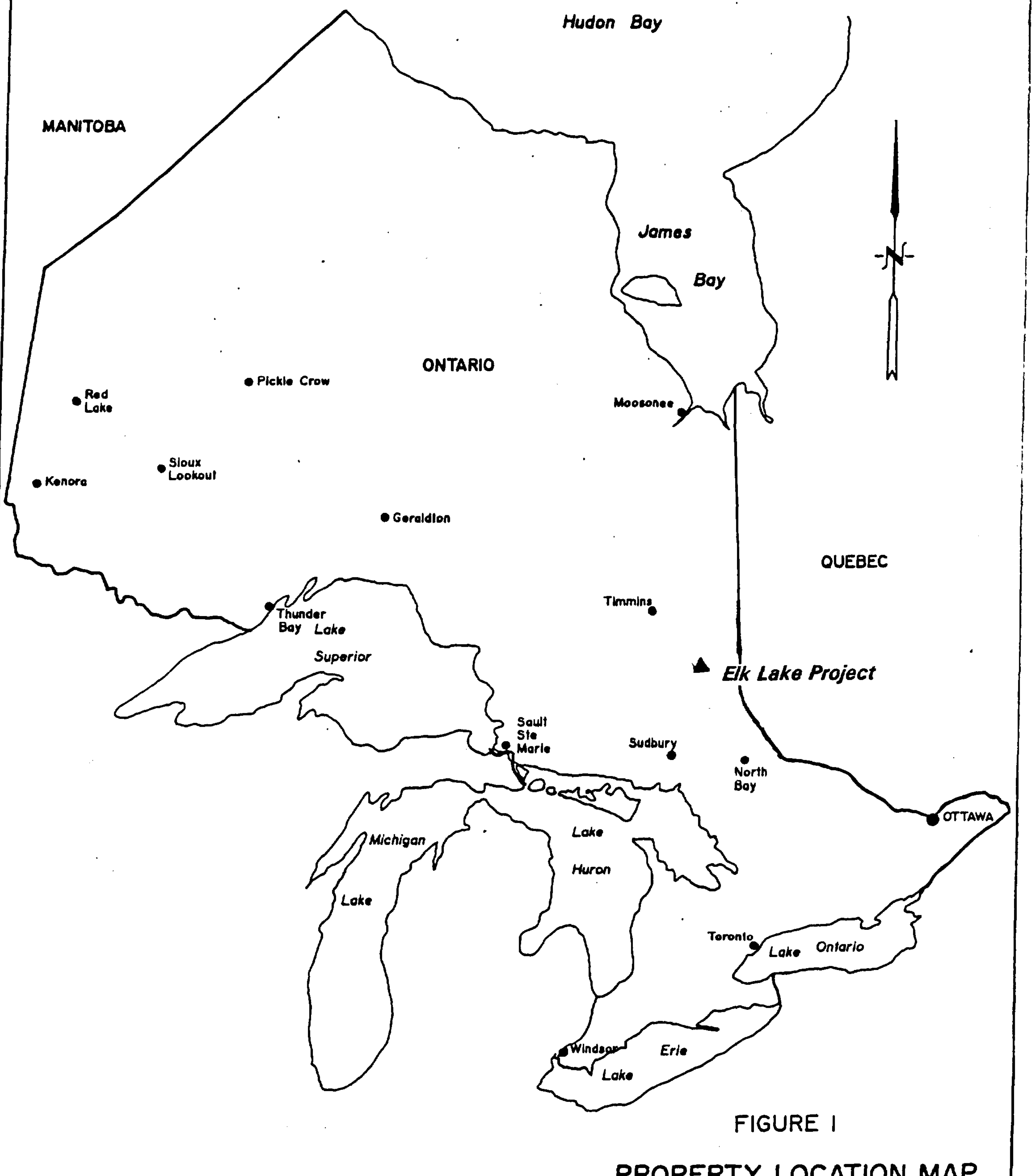
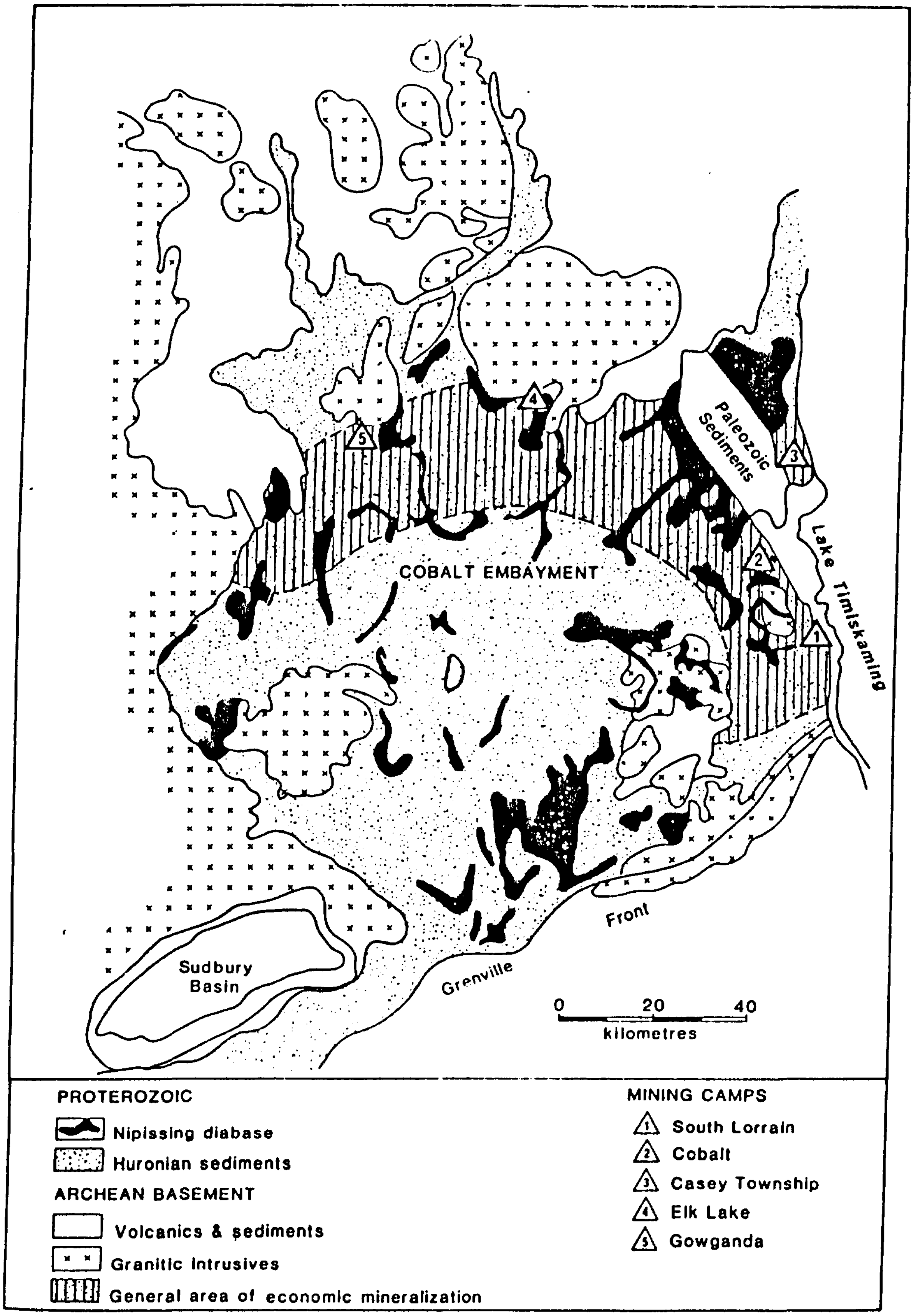


FIGURE I

PROPERTY LOCATION MAP

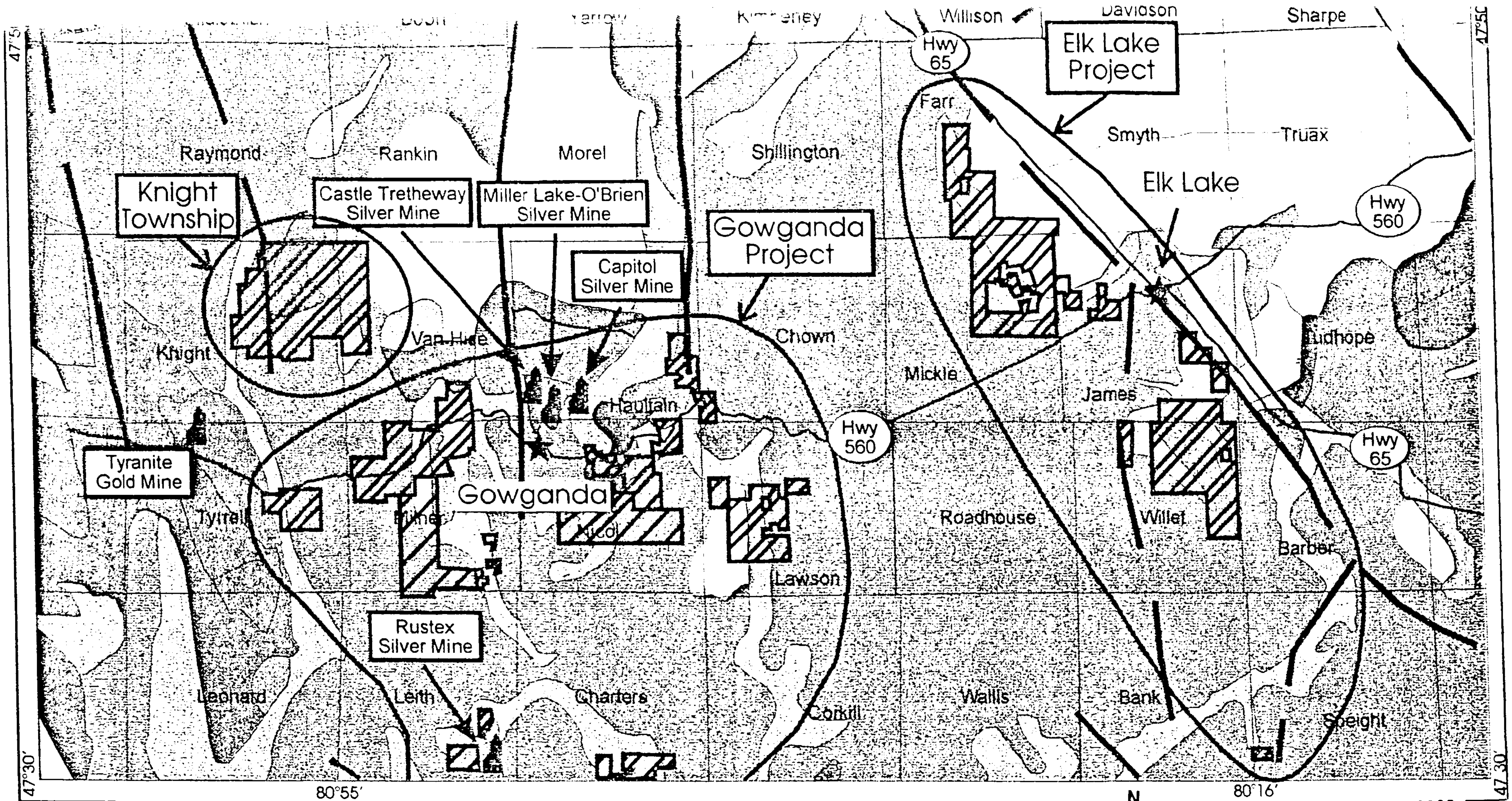
MICKLE-FARR PROPERTIES

FEBRUARY, 1997



Simplified geology of the Cobalt Embayment illustrating the general area emcompassing deposits and most occurrences of Ag - sulpharsenide mineralization (modified from Ontario Geological Survey Map 2391).
Source: Can. J. Earth Sciences Vol. 23, 1986 p. 1482.

Figure 2.



Scale: 1:250000

Fault

Claim block outline

Significant Past Producers

Tyranite Mine: 1939 - 42....31,352 oz Au
(current reserves of 60,000 oz Au)

Miller Lake-O'Brien Mine: prior to 1969...over 40 million oz Ag + 785,000 lbs Co

Lake Superior Resources Corp

General geology and claim location map Gowganda, Elk Lake, and Knight Township areas

Figure 3

Archean Volcanics

Nipissing Diabase

Huronian Group

Granodiorit

Granite

Diorite

GOWGANDA-ELK LAKE PROJECT - OVERVIEW

REGIONAL GEOLOGY

Most of the claims in the Gowganda-Elk Lake area occupy the north and northwestern margin of the Cobalt embayment, a somewhat irregular but circular shaped domain of Huronian-age clastic sediments (Figure 2). The embayment is about 120 km is diameter and is bounded on all sides by Archean basement rocks - except to the southeast, where it is in contact with rocks of the Grenville Front. Figure 3 illustrated the regional geology of the 3 projects in this area.

Near the northern perimeter of the embayment, Archean felsic to mafic meta-volcanic rocks (and associated sediments) of the Abitibi belt dominate. These volcanic rocks likely extend beneath the Huronian sediments which form the northern area of the embayment. They are exposed within the Cobalt Embayment as isolated inliers and are most numerous near the periphery of this domain. This may be due to a combination of factors such as:

i) a stratigraphic thinning against a gently sloping basement.
ii) more erosion near the periphery of the embayment.
iii) large-scale vertical movements of the basement along major cross-cutting faults.
iv) high relief in the basement caused by topography of doming as a result of an underliying intrusion.

There are at least four Archean inliers exposed on the subject claim blocks: in Knight, Van Hise, Nicol and Lawson townships.

Most of the volcanic rocks of these inliers are fine grained basaltic flows with pyroclastics and in places coarse-grained equivalents. Greenschist facies metamorphism predominates, but in places the rocks have been metamorphosed under amphibolite facies conditions.

There are some felsic metavolcanics, mainly in Nicol Township. An interesting observation was noted by W. McIlwaine in GR report 175 (page 9) where he concluded that rocks which were previously described as porphyry intrusives were more likely to be volcanic because of some associated tuffaceous rocks. Sulfide facies iron formation is also associated with this unit.

Two felsic intrusives dominate the northern contact of the Cobalt Embayment in this region. The extreme southern exposed edges of the Round Lake Batholith have been mapped in Farr, Mickle, James, Van Hise and Haultain Townships. Two distinct rock types are recognized in the batholith, quartz diorite and a younger albite trondhjemite phase.

Central Nicol Township contains a small area (3.8 km^2) of trondhjemite and syenodiorite known as the Wilson Lake inlier. Contact relationships with the nearby Round Lake Batholith have been obscured, and this inlier may just be a syenitic stock similar to others which occur adjacent to the Round Lake Batholith. This stock is similar to a syenite stock in the Matachewan area that is host to over 1,000,000 oz. of gold.

Feldspar porphyry dykes, emplaced contemporaneously with the granitic rocks, intrude the metavolcanics. They range from 0.3 m to 15 m in width and contain euhedral to anhedral plagioclase phenocrysts ranging from 2 mm to 2 cm in length. The dikes are also trondhjemite in composition. There is some indication that there is at least a spatial, if not a genetic relationship between these dykes and the gold mineralization.
Within the map area there are six small mafic and ultramafic plutons; four are in Van Hise Township and two are in Haultain Township.

A series of north-striking dikes referred to as Matachewan-type diabase dikes intrude the felsic and metavolcanic rocks of the area. Typically, they have a rust-brown weathered surface and occur as north-trending ridges. They are locally porphyritic with some of the plagioclase phenocrysts being up to 5 cm in length.

Subsequent to the igneous activity of the Early Precambrian intrusives, a period of uplift, basin formation and erosion occurred. Huronian sediments were deposited in what is now referred to as the Cobalt Embayment. Specifically, only rocks of the Cobalt Group were deposited and they currently underlie almost 50% of the Gowganda-Elk Lake area:

The Cobalt Group in the Gowganda area is subdivided as follows:

LORRAIN FORMATION

Pale green, white and pale pink feldspathic sandstones.

GOWGANDA FORMATION

Firstbrook Member - laminated argillite.

Coleman Member - conglomerate, siltstone, feldspathic sandstones and greywacke.

These generally flat-lying Huronian sediments form a folded undulating blanket over the steeply dipping Archean basement. Their thickness is extremely variable and is most likely related to the irregular basement paleotopography. Although sediment accumulations of 1259 m have been documented in the central portions of the Cobalt Embayment (Card et al, 1973) it is the opinion of the current Ontario Government Resident Geologist in Cobalt, that the Huronian sediment cover in some areas near the fringes of the Cobalt Embayment may only be about 100 - 150 m thick (Jim Ireland pers. comm.).

In the Cobalt and Casey mining camps, it is usually the Coleman Group sediments that are host to the silver vein deposits. But in the Gowganda-Elk Lake area, the best mineralization zones are found in the Archean basement rock.

Intruding into all of the various formations and the Archean basement is the Nipissing diabase, as large regional sills and steeply dipping dikes and plugs. The sills are horizontal to gently dipping, and form broad basin and dome like undulations. These undulations are considered primary and not the result of post-emplacement folding or warping prior to the emplacement of the diabase.

The overall composition of the diabase is that of an olivine tholeiite and in all instances the diabase sheets are differentiated into relatively consistent zones. The predominant 'phase' consists of fairly uniform hypersthene diabase that grades upward into a 'varied texture zone'. This 'varied texture zone' consists of irregular pockets of pegmatitic material. Granophyric diabase occurs at the upper and lower contacts.

The Nipissing diabase is dated at about 2100 - 2200 ma. Field observations and paleomagnetic observations suggest the possibility of at least two separate phases of intrusion.

The following Table of Formations (Table 1) shows the various units in this area.

TABLE 1 | TABLE OF LITHOLOGIC UNITS FOR THE GOWGANDA LAKE AND MILLER LAKE SILVER AREA.

CENOZOIC
QUATERNARY
RECENT
Swamp, lake, stream deposits
PLEISTOCENE
Glacial deposits

UNCONFORMITY

PRECAMBRIAN
LATE PRECAMBRIAN(?)
MAFIC INTRUSIVE ROCKS
Olivine diabase, porphyritic olivine diabase, diabase

INTRUSIVE CONTACT

MIDDLE PRECAMBRIAN
MAFIC INTRUSIVE ROCKS (NIPISSING DIABASE)
Pyroxene gabbro, amphibole gabbro, granophyre

INTRUSIVE CONTACT

HURONIAN SUPERGROUP
COBALT GROUP
Lorrain Formation
Micaceous sandstone, feldspathic sandstone, greywacke, quartzose sandstone, ferruginous sandstone conglomerate

Gowganda Formation
Firstbrook Member
Laminated argillite, quartzite

Coleman Member
Feldspathic greywacke, feldspathic sandstone, arkose, conglomerate, ferruginous sandstone, breccia, argillite, siltstone, protoquartzite, lithic greywacke

UNCONFORMITY

EARLY PRECAMBRIAN
MAFIC INTRUSIVE ROCKS (MATACHEWAN DIABASE)
Diabase, porphyritic diabase

INTRUSIVE CONTACT

FELSIC INTRUSIVE ROCKS
Trondhjemite, porphyritic trondhjemite, quartz diorite, syenodiorite, contaminated zone, pegmatite dikes, feldspar porphyry dikes

INTRUSIVE CONTACT

MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS
Metagabbro, serpentinized dunite

INTRUSIVE CONTACT

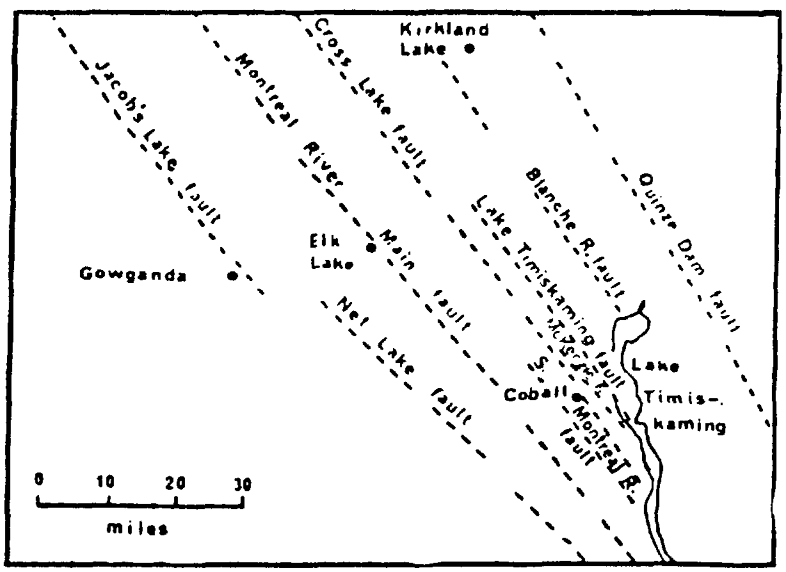
FELSIC METAVOLCANICS
Dacite, porphyritic dacite, tuff

MAFIC TO INTERMEDIATE METAVOLCANICS
Basalt, andesite, amphibolite, layered amphibolite, gabbroic flows, amygdaloidal basalt, pillow lava, pyroclastic rocks, andesite porphyry, schists, sedimentary rocks

Source: McIlaine W.H. Geology of the Gowganda Lake-Miller Lake Silver Area, District of Timiskaming: Ontario Geological Report 175 p 7, (1978).

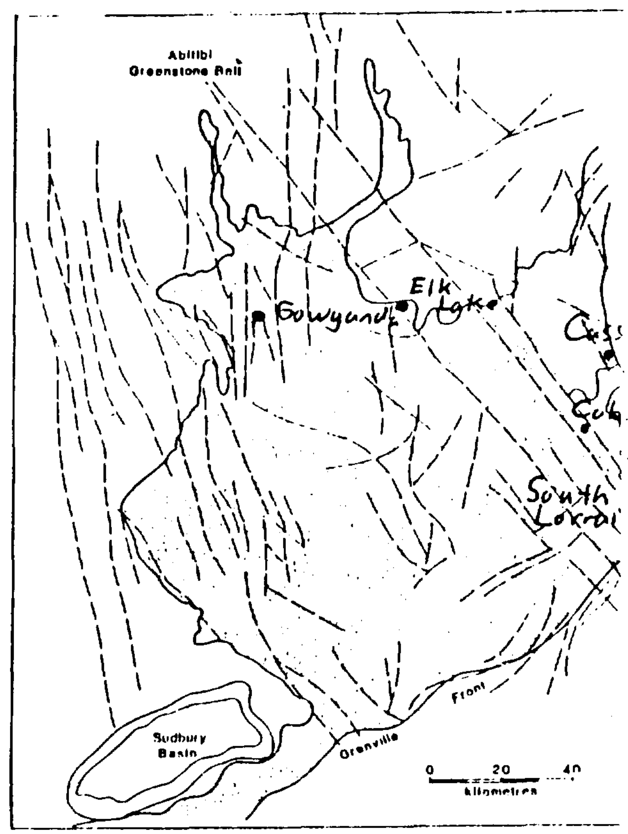
Large scale regional fault systems cut through all the rock units in the Cobalt Embayment and surrounding area. There are two principle orientations: a strong north to northwest trending set that extends into the Archean basement north of the embayment and the Grenville Front to the south. There is also a less pronounced northeast - trending set recognizable over a similar, broad area. On a local scale there are numerous second-order faults with variable orientations.

These faults, which were probably initiated in the late Archean, prior to the Huronian sedimentation have probably influenced subsequent geological events. (Andrews et al 1986). Because they were reactivated during and after Huronian sedimentation and intrusions of the Nipissing diabase, their influence is continual and probably critically related to the mineralization. Post Nipissing diabase fault activity is considered to be a major factor responsible for the structures that now host the Ag-sulpharsenide vein deposits. (Andrews et al, 1986). The following two figures show the major fault systems. (Figure 4a and Figure 4b.)



Part of the Timiskaming rift valley system (after Lovell & Caine, 1970).
Source: General geology of the Cobalt area, The Canadian Mineralogist II, Part 1, 1971 p. 22

Figure 4a.



Major fault systems crosscutting the Cobalt Embayment (modified from Ontario Geological Survey Map 2391).
Source: Can. J. Earth Sciences Vol. 23, 1986 p. 1487.

Figure 4b.

ECONOMIC GEOLOGY and ORE DEPOSIT MODELS
(An Overview)

The Ag-Sulpharsenide vein deposits occur along the north and northeastern margins of the Cobalt Embayment (Figure 2). The emayment is a large circular shaped domain, about 100-110 km wide, covered by Huronian clastic sediments and later intruded by Nipissing diabase sills. These sills were likely controlled by older basement faults, many of which have some sort of current day surface expression. In some instances, the expression of these structures is obvious, being expressed as a linear depression. Elsewhere it may be less obvious, as the apparent northwest alignment of numerous showings and past producers in Nicol Township, strongly suggests.

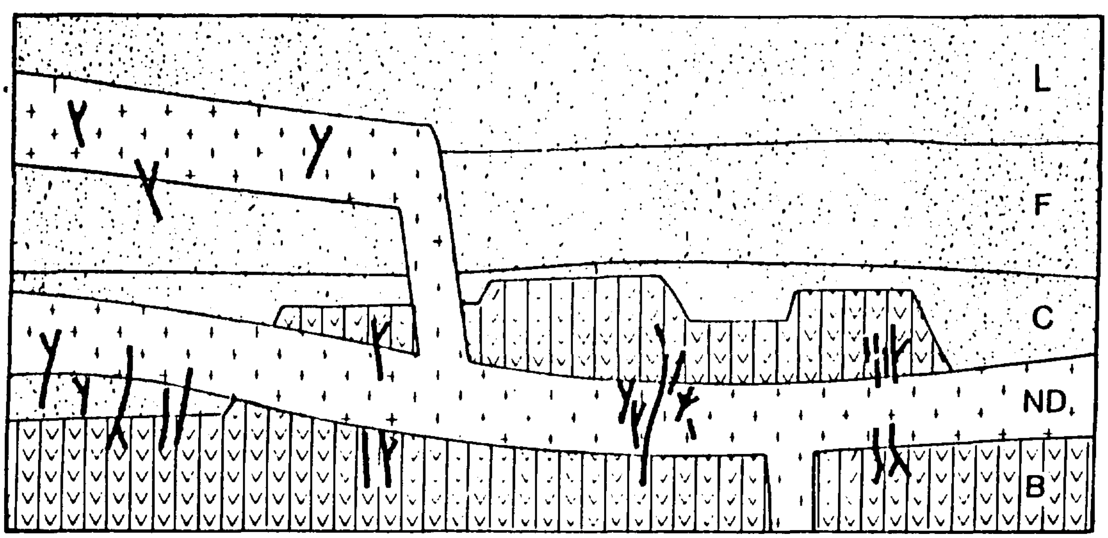
Previous research and mining activity have shown that all known deposits of economic grade regardless of the host lithology are spatially related to the Nipissing diabase and occur within 200 m of the upper or lower contacts. Even though the ore is localized, the vein systems themselves can be quite extensive and at times completely cut through the Nipissing diabase and continue into the country rock (i.e. Castle Mine in Gowganda).

Most of the mineralized veins occur in zones of intensely fractured rocks and are directly or indirectly related to vertical to subvertical fault systems. The relative timing of the fault activity, diabase intrusion and vein formation is not always obvious.

The Nipissing diabase forms local basin and dome structures up to several miles in diameter with the various ore deposits located at specific positions with respect to these structures (i.e. The Miller Lake basin and the Pettipher Lake basin in Nicol Township and the Milner Lake basin in Milner Township.) According to W. Petruk, "those above and in the upper part of the Nipissing diabase occur within the basin structures, and those below and in the lower part are under the dome structures". (**Canadian Mineralogist,** Vol. 11, Part.1, 1971)

Figure 5 is a simplified geological section showing the relationship between the major lithological units and the distribution of the Ag-sulpharsenide vein mineralization.

ANDREWS ET AL.

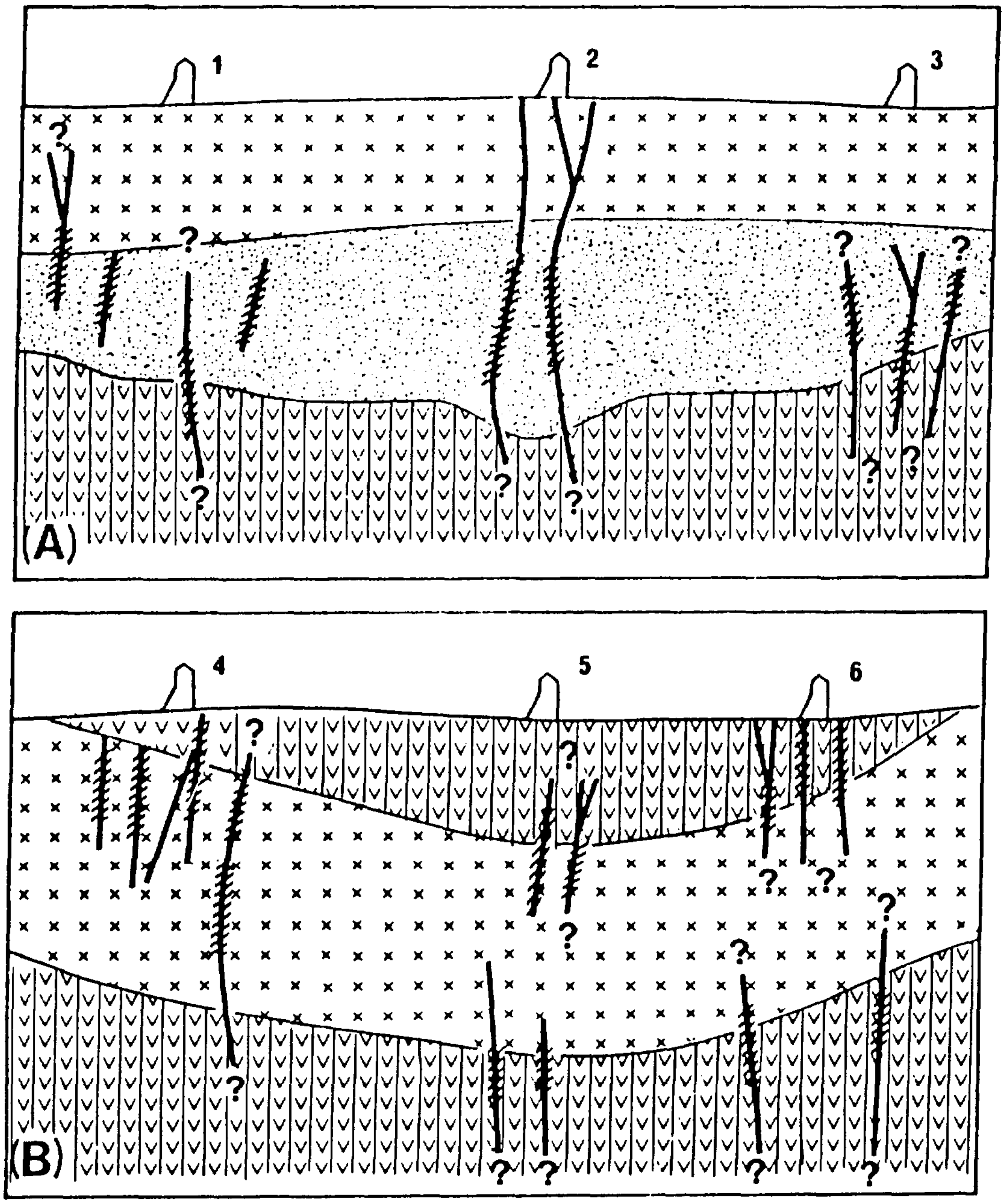


Simplified geological section showing the relationship between major lithological units and the distribution of Ag – sulpharsenide vein systems (black lines). Huronian sediments include Lorrain Formation (L), Firstbrook Member (F), and Coleman Member (C); the latter two are components of the Gowganda Formation. Archean basement rocks (B) are represented by steep-dipping volcanic sequences. All units are intruded by Nipissing diabases (ND).

Figure 5.

Source: Can. J. Earth Sciences Vol. 23, 1986 p. 1483.

There appears to be a general, but definite geologic control as to where the mineralized veins occur with respect to the Nipissing diabase. For instance: in the Cobalt area, although the veins are intimately associated with the diabase sill, they penetrate the sill into the underlying Huronian sediments and Archean basement. Even though the vein systems cut through all three lithologies, the ore grade mineralization is usually concentrated close to the upper or lower contacts of the sediments. This is referred to as Environment A type mineralization (Figure 6). In the Gowganda area the best mineralization is found within the Archean volcanic rocks, frequently where they come in contact with the Nipissing diabase, and especially the upper contact. Ore grade mineralization is also found within the diabase intrusive. Both types of mineralization are referred to as B type mineralization (Figure 6).



. Schematic diagrams illustrating the vein systems examined including (*A*) those at the Langis (*1*), Silverfields (*2*), and Pan Silver (*3*) mines, representing environment type A, and (*B*) the Castle (4), Silver Century (5), and Beaver—Temiskaming (6) mines, representing environment type B. Solid lines represent individual vein systems, often of unknown extent, with hatched areas indicating the location of ore.

Figure 6.

Source: Can J. Earth Sciences, Vol. 23, 1986 p. 1488.

Two key questions that have been investigated in the past centre on:

1. Whether the deposits formed during or after the emplacement of the Nipissing diabase, or whether they were they due to a later, totally unrelated event(?) and,

2. What is the origin of ore forming fluids? If the Nipissing diabase was not responsible as some previous research indicated, was it the Archean basement and volcanic sedimentary rocks, or the huge volume of Huronian sediments, or any combination of all three sources.

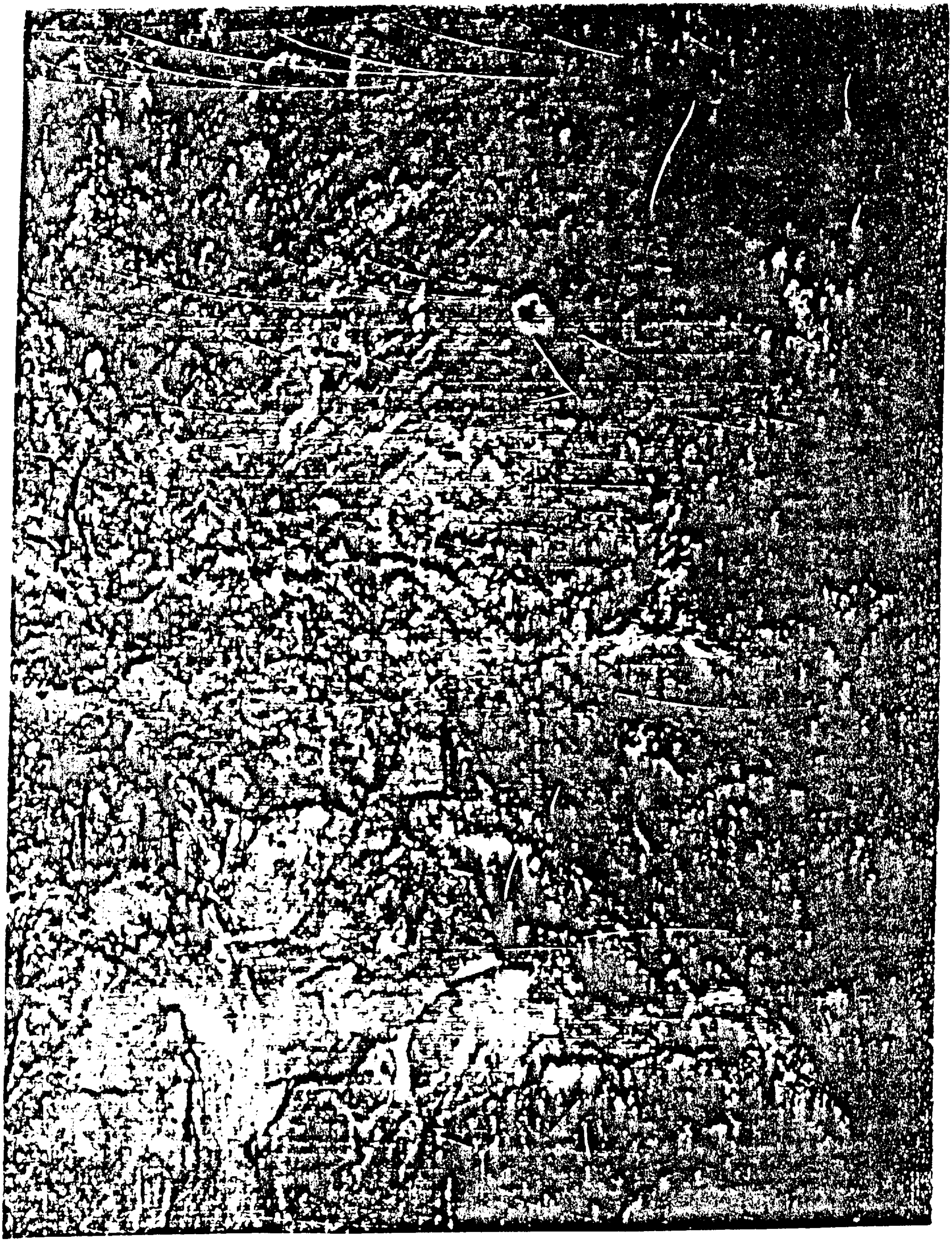
There is a lot of evidence that indicates the Huronian sediments could have been a likely source of metals for these deposits. The following description of sulphides in the Huronian is taken from Ontario Geological Survey (O.G.S.) Misc. Paper 84, p. 79 ".. in the Cobalt area silver is found in mudstone of the Gowganda Formation (Coleman Member) below the Nipissing Diabase or its projected horizon where removed by erosion, and in the basal 30 m above the uncomformity with the Early Precambrian 'greenstone'. The silver appears to be concentrated with discrete beds within the mudstone and is associated with sphalerite and galena. Some is present as the mineral mckinstryite. The sulphides occur as discrete grains that may be interpreted as detrital, a thesis that is reinforced by the presence in one locality of a boulder in conglomerate, 0.4 m in diameter, composed principally of chalcopyrite, presumably derived from a basement source." (See Figure 7). R.W. Boyle (1968) acknowledges the strong possibility that the Keewatin sulphide - rich interflow sediments (with minor contributions from volcanic flows) in the underlying Archean basement could have played a significant role in silver veins at cobalt.

Other sulphide pebbles and boulders have been reported from other mines in this are (i.e. Silverfields (Leo Owsiacki - Former Resident Geologist in Cobalt pers. comm.)) In the late 1980's, Owsiacki re-identified a new unit in the basal part of the Firstbrook Member. This gray slatey argillite unit was different from the regular maroon colour argillite in that it contained anomalous values in As, Co, Ag, Ni, Cu, Zn, Sb, Li, Pb and Cr. In 1995, the Lorrain Formation was prospected in Northern Williams Township, west of Cobalt because it contains sulphide mineralization occurring as fine-grained pyrite with minor chalcopyrite, bornite and chalcopyrite .

In addition to the strong evidence that the Huronian sediments were the source of the metals, the Archean basement must be considered as a source of metals based on the following two reasons. Firstly, the existence of pebbles, boulders and discrete grains of sulphides indicates they could have been detrital - i.e. mechanically weathered from sulphides located in the basement rocks.

Secondly, there are known base metal sulphide deposits found in Archean basement rocks of the area i.e. the Penn Cobalt mine - rich in silver, lead, zinc and copper and the LaRose Copper occurrence (which was also rich in silver).

Based on the previous descriptions of the discrete sulphides (albeit somewhat sketchy), Lovell and Ploeger (M.P. 1984 p. 79) preposed the somewhat speculative suggestion that "the silver and carbonate veins of the area may have originated from polymetallic sulphide deposits in the Early Proterozoic basement, and was remobilized as a result of thermal metamorphism related to the intrusion of the Nipissing Diabase. If this is the case, it may be that the silver-bearing carbonate veins associated with the diabase could serve as "pathfinders", indicating the presence of silver-bearing sulphide deposits of the Sturgeon Lake or Texasgulf type in the older formations at depth."



Picture of sulphide boulder 6" - 8" (15-20 cm) in size in Huronian sediments. Picture taken on 3rd level on vein '8W' at Silverfields Mine. Photo supplied by Hugh A. Moore.

Figure 7.

Since much of the research has demonstrated that old Archean structures played a significant role in the formation of these ore deposits the following questions should be considered if Lovell's suggestion is to be seriously considered:

i) Did these penetrative faults merely act as channelways for hydrothermal fluids that became metal rich as they migrated through the Huronian sediments and Archean basement rocks?

ii) Or was it necessary for these old faults to cut through existing sulphide mineralization in the Archean basement underlying the diabase.

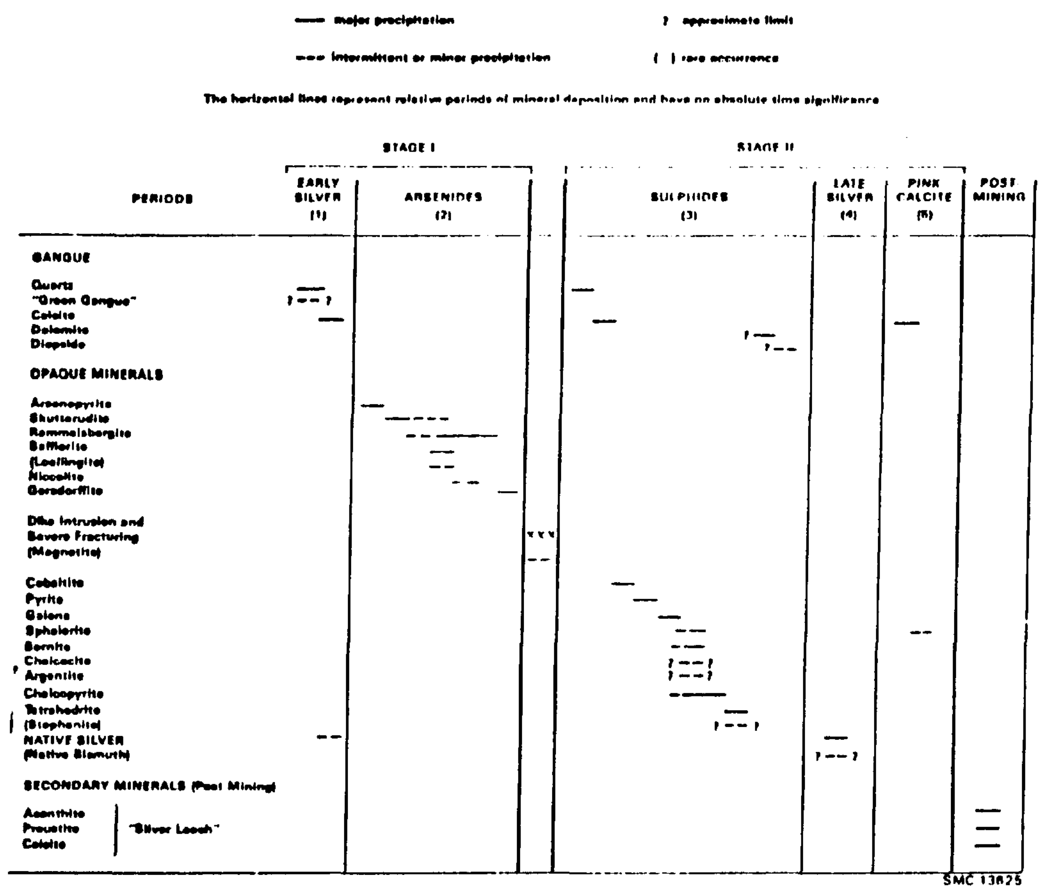
In any event, several geological exploration methods are proposed in the Recommendations for Exploration Sections, to test this "basement" silver source hypothesis. Although other models adequately account for many mineralized ore bodies, this hypothesis may account for some unusual areas of silver enrichment.

A special 1986 edition of the Canadian Journal of Earth Sciences - Vol. 23, 1986 contained a three-part paper entitled "The Silver deposits at Cobalt and Gowganda, Ontario", summarizing the geology, petrography, whole-rock geochemistry, age dating, paleomagnetic measurements, hydrothermal regimes, isotope and fluid inclusion. Collectively the data supported a hydrothermal structural model whereby hydrothermal fluids were active throughout a large area of the Cobalt Embayment. This resulted in the mobilization of mineralized fluids towards Nipissing diabase sills near the periphery of the embayment.

The model by Andrews et al, proposed that the diabase sills (and the Huronian sediments or Archean basement in places) acted as mechanically favourable sites that became intensely fractured during regional fault activity. This fracturing would likely have been caused by early faults in the Archean basement that became reactivated during and/or after the Nipissing diabase was emplaced. As well, the internal cooling fractures (including cylindrical/columnar jointing in some cases) of the diabase aided in accommodating the mineralization.

The 'structural preparedness' of the Nipissing diabase or the rocks in close proximity to it, combined with the advent of boiling and/or degassing of the mineralizing fluids are seen as two of the main factors responsible for localizing and depositing the silver-sulpharsenide ore. There is an interesting 'chicken and egg' relationship between these two factors. Was the initiation of boiling and/or degassing the result of rapid pressure decrease when a specific site (somehow associated with the Nipissing diabase!) became highly fractured during regional tectonism? Or were the sites (where ore mineralization was later deposited) already fractured and able to accommodate the mineralized fluids as they moved into the depositional sites?

Detailed studies of the mineralized vein systems indicate that their formation involved the precipitation of silicates (mainly quartz, chlorite, ± K-feldspar) during initial, limited dilation; this was followed by the introduction of significant quantities of carbonate (mainly calcite ± dolomite) during subsequent dilation episodes. Most of the ore was precipitated during the silicate to carbonate transition. The CO_2 effervescence and aqueous boiling of the hydrothermal fluids would induce an increase in the pH and thereby cause a rapid precipitation of the ore minerals coeval with and followed by carbonates. (See Figure 8 below.)



—Paragenetic sequence in the No.13 vein system in the Miller Lake O'Brien Mine (123) held in 1969 by United Siscoe Mines Limited (Scott 1964, p.56).

Source: McIlwaine W.H. GR 175 p 145 (1978).

Figure 8.

CLIMATE AND LOCAL RESOURCES

The climate of the property is typical of that for any temporal climatic zone. Temperatures during the summer months average in the high 20's to low 30's (degrees celcius) with a moderate amount of rainfall (4 to 6" per month). Temperature during the winter months averages in the mid to upper -20's (degrees celcius) with a rough snow accumulation of 4 to 5 feet.

This area is home to some old growth forest of the conifer type. Pine trees can be found in excess of 100 ft. tall. In general, tree types are conifers with a small amount of deciduous hard woods such as maples, poplar and oak.

Topography is generally a moderate relief, being about 250 ft. Locally, areas of low relief ar underlain by glaciolacustrian sands and silts. Most of the drainage in the area is in a north-western direction into the Arctic drainage basin.

Elk Lake Project Area

Township	Claim No.	Units	Acres
Farr	1217592	2	80
	1217593	16	640
	1217594	12	480
	1217595	1	40
	1217596	6	240
	1217597	12	480
	1217598	9	360
	1218931	6	240
	1218932	16	640
Mickle	1077201	3	120
	1077298	1	40
	1207400	10	400
	1213467	4	160
	1213475	9	360
	1213476	4	160
	1217589	1	40
	1217605	4	160
	1217606	1	40
	1217612	3	120
	1217613	3	120
	1218933	12	480
	1218936	2	80
	1223934	16	640
	1223935	6	240
	1223936	10	400
	1223937	12	480
	1223938	3	120
	1223940	1	40
	1223944	6	240

The owner of the above lands is Lake Superior Resources Corp.
35 Deloraine Ave., Toronto, Ontario, M5M 2A8.

FARR TOWNSHIP

Property Description

This property has of 9 contigous claims comprising 80 units for a total of 320 acres

Farr Township

Claim No.	Units
1217592	2
1217593	16
1217594	12
1217595	1
1217596	6
1217597	12
1217598	9
1218931	6
1218932	16

Total units = 80
Total acres = 3200

Location and Access

The properties in Farr Township can be reached by highway 65, 11 kilometers northwest of Elk Lake, than proceeding south on a series of well maintained logging roads for about 7 kilometers.

Property Geology

The geology for Farr Township is virtually identical to that of Mickle Township to the south.

The northeast portion of this claim block in Mickle and James Townships is underlain by an intrusion of Archean granite. Rimming this intrusion is an arcuate concave northward narrow band of Gowganda and Lorrain Formation sediments. The Nipissing Diabase conforms to this *shape and occurs as a sill with the inner contact being the lower contact. To a large extent the* bottom of the sill at the southwest edge of the granite is in faulted contact with the Lorrain Formation sediments. Numerous silver occurrences are situated within the thicker portion of this sill and generally near its upper contact.

The diabase sill extends from Mickle Township halfway into Farr Township with the granite intrusive forming the eastern contact and Huronian sediments to the west.

Previous Work

The description of the previous work sites in or near this claim block are listed below and shown on Figure 10.

Map Ref. No. — *Description and Claim No. (if applicable)*

48.* Roy Silver Mines Ltd. / Tiarra Mines Ltd, Property.
The Roy Silver Mines property No. 1 shaft is 390 feet deep with 750 feet of lateral workings on four levels. The mine was briefly in production in 1955, where 2,472 tons of ore processed, had an average head grade of 0.278% Co and 0.186% Cu. A total of 3,007 tons were mined.
Work was carried out on a north trending carbonate vein with silver, cobalt and copper mineralization in a Nipissing Diabase host.

48a.* Al Ross Property.
In 1956, Mr. Al Ross, in conversation with a government geolgist [Resident Geologist?], reportedly trenched an area on the east side of Little Fox Lake. He reported coarse diabase with a reddish tinge, and silver plus cobalt near the pit. Mr. Ross indicated the best assay of 71 oz Ag/ton.

48b. Leon Moreau Property
Stripping and trenching by Leon Moreau in 1992 found 2 small shafts. Best assay from surface sampling is 1.81 oz Ag/ton. Exact location of sample not known.

* Denotes property not on subject claim block.

Map Ref. No. — *Description and Claim No. (if applicable)*

49. Little Ottise Shaft. (1217595)
South of the Roy Silver Mines No. 1 shaft is the No. 2 or Little Ottisse shaft. Eight feet below the collar, a north trending, silver bearing carbonate vein four inches in width assayed 3,562 oz. Ag/ton. (Ref. MR Circ No. 10).

In addition to the field visits and grab samples taken from the five townships in the Elk Lake area (Farr, James , Willet, Mickel, and Speight) where Lake Superior has claims, other work has been done recently that indicates there may be some new gold potential in the area. The following quote is from the former resident geologist in Colbalt, Jim Ireland . This was presented in a 'Resident Geologists Report' at the 1996 Prospectors Convention OFR 5958.

In 1996, two prospectors and 1 junior mining company reported significant gold concentrations in quartz-carbonate veins cutting Nipissing gabbro intrusive rocks in the Colbalt and Elk Lake-Gowganda areas. In Gillies Limit Township, south of Colbalt, Ontario a grab sample gold assay of 17 g/t Au was reported, associated with Nipissing gabbro (see report on R. Gibson property in "Property Viists" section). In Tudhope Township, east of Elk Lake, Ontario, grab sample assays up to 16 g/t Au were reported, associated with chalcopyrite, specular hematite, pyrite and colbalt arsenide minerals in steeply dipping conjugate quartz-carbonate veins cutting Nipissing gabbro (see report on G. Pinkerton & Morris property in "Property Visits" section). In Mickel Township west of Elk Lake. Lake Superior Resorces Incorporated reported grab sample gold assay up to 16 g/t Au in chalcopyrite-specular hematite veins cutting Nipissing gabbro.

Historically, many chalcopyrite specular hematite-quartz -carbonate veins hosted in Nipissing gabbro have been evaluated for their silver potential, as pods of high-grade silver-colbalt mineralization are documented in the Elk Lake Gowganda and Donovan Township areas. In the early 1900's 1/2 ounce gold ore was worth $10 per ton, while 100 ounce silver ore was worth $50. The prospecting target was obvious, and few occurences had documented gold assays. Recent work indicates gold mineralization may be wide-spread. Areas where extensive conjugate and stockwork vein sets have developed may be prime targets for economic large-tonnage, low to modarate grade polymetallic gold deposits."

MICKLE TOWNSHP

Property Description

This property consists of 20 claims which are more or less contiguous. These claims consists o lll units over 4440 acres. The claims are listed below.

Mickle Township

Claim No.	Units	Claim No.	Units
1077201	3	1217613	3
1077298	1	1218933	12
1207400	10	1218936	2
1213467	4	1223934	16
1213475	9	1223935	6
1213476	4	1223936	10
1217589	1	1223937	12
1217605	4	1223938	3
1217606	1	1223940	1
1217612	3	1223944	6

Total units = 111
Total acres = 4440

Location and Access

The properties in Mickle Township can be reached by Highway 560, 7.6 kilometers west of Elk Lake to a secondary road which leads north to the south shore of Boland near site 42 (Figure 9).

Property Geology

The geology of the claim block in Mickle Township is very similar to that in Farr Township.

The northeast portion of the claim block in Mickle and James Townships is underlain by an intrusion of Archean granite. Rimming this intrusion is an arcuate concave northward narrow band of Gowganda and Lorrain Formation sediments. The Nipissing Diabase conforms to this shape and occurs as a sill with the inner contact being the lower contact. To a large extent the bottom of the sill at the southwest edge of the granite is in faulted contact with the Lorrain Formation sediments. Numerous silver occurrences are situated within the thicker portion of this sill and generally near its upper contact.

The diabase sill extends from Mickle Township halfway into Farr Township with the granite intrusive forming the eastern contact and Huronian sediments located to the west.

Previous Work

The following work has been preformed on or near the companys claim blocks in this township (see Figure 9).

MICKLE TOWNSHIP

Map Ref. No. Description and Claim No. (if applicable)

40. Cotley Mines Limited Property (1223934)
In the northwest portion of Mickle Township, work by Cotley Mines Ltd. in 1953, consisted of several exploration shafts on a north to northwest trending silver bearing carbonate vein in a Nipissing diabase host rock. Cotley Mines Ltd. became Silverclaim Lake Mines Ltd., a subsidiary of Siscoe Metals Ltd. in 1955, Under Siscoe Metals Ltd., 2106 tons of ore were removed and processed. Silver mineralization in the carbonate vein occurs as high grade pods separated by barren sections. One such pod averaged 66 oz. Ag/ton and was estimated to contain over 150,000 oz. of silver.
A grab sample collected near Outlet Creek analysed 0.16 oz Au/ton from a specular hematite vein. No follow-up work has been documented for evaluation of gold potential in this area. (circa 1964)

Map Ref. No. Description and Claim No. (if applicable)

41. Vermont Mines Ltd. Property (1207400)
In 1964, Vermont Mines Ltd. conducted work on a group of claims in Mickle and Farr Townships. They reported several old shafts sunk in the Nipissing diabase following north to northwest trending carbonate veins. A sample collected from a narrow, 2 inch wide silver bearing vein analysed 1,100 oz. Ag/ton. Diamond drilling of 12 holes was completed based on field work completed in 1960. In 1962, on the west shore of Boland Lake, in one hole (Hole No. 6 at 100°) was a 112' intersection, lightly mineralized with chalcopyrite, pyrite, pyrrhotite and magnetite. A value of 0.005 oz. Au/ton across 2.4 ft. was reported from a hematite rich carbonate vein.

A 300 foot hole was drilled by H. McAuly at the SW end of Boland Lake. The hole intersected 2 narrow quartz veins, with chalcopyrite in a diabase host. No analyses were reported.

A magnetometer survey was performed in 1963 by Silverore Zone Mines Ltd. on a property in what is now claim 1223937. The results indicate several strong magnetic anomalies associated with diabasic rocks. The area was mapped, but no sampling or results are reported.

42. In 1963 at the southeast end of Boland Lake a hole inclined at 45°, bearing 250° was drilled for 300 feet. The purpose of the hole was to intersect the easterly-trending

lineament south of the drillhole. No observable mineralization was found but carbonate was found in along fracture planes or as disseminated carbonate.

43.* North American Silver Mining Co. Ltd. Property.
In 1909, North American Silver Mining Co. Ltd. excavated several shafts and trenches including a 100 ft. deep shaft, with one working level at 70 ft. and a total of 590 ft. of lateral workings. This shaft was re-conditioned by Candore Explorations Ltd. in 1963-64. No production was reported. The initial shaft was sunk on a 4 inch wide calcite vein striking east.

44.* Otisse-Currie Consolidated Silver Mines Ltd. Property.
In 1909, a shaft was sunk to a depth of 100 ft. with 250 ft. of drifting. In 1960, Majortrans Oil Mines Ltd. acquired the property and dewatered the Otisse shaft. (100 ft. south of the above shaft). Underground work consisted of 2 levels at 75 ft. and 150 ft. and a total of 1355 ft. of lateral working. A 75 ft. silver vein was mined. In 1963, Candore Explorations dewatered the shaft and drilled 33 holes totalling 1665 ft. It was reported in 1908, that there were 6 major calcite veins all carrying silver. Each averaged 3 to 4 inches in width and had an east strike.
In 1964, a property visit by B.E. Macklean, on the work by Candore, described good grade silver values along the drifts on the 75 ft. level. Again, as in other properties in the Elk Lake area, no production was officially recorded.

*Denotes property not on subject claim block.

Map Ref. No.	Description and Claim No. (if applicable)

45.** Mapes Johnson Mining Company.
In 1918, a shaft was sunk to a depth of 200 ft. with 3 levels at 65 ft., 100 ft. and 200 ft. A winze was sunk on the vein from 200 ft. to 376 ft. with levels at 265 ft. and 310 ft. Lateral work totalled 1150 ft. In 1963, Alsof Mines Ltd. drilled 4 holes totalling 1,041 ft. from the 200 ft. level. The underground work was performed on a northeast trending calcite vein that was reported to have native silver and smaltite, specular hematite, chalcopyrite mineralogy. Metal mineralogy is variable along strike and depth of this vein structures. At several points in the mine, northwest trending specular hematite and carbonate veinlets are reported. Grades at the Mapes Johnson Mine have been reported to be 1,500 oz. Ag/ton (1915). No official production values.

46. At the north end of Silverclaim Lake, (Claim 1077201) a trench followed a carbonate vein that was up to 30 inches wide. Mineralization includes chalcopyrite, specular hematite, and minor boronite. The vein strikes 010°.

47.* Silverclaim Lake.
Near the south shore of Silverclaim Lake, Hasaga Gold Mines Ltd. drilled 8 holes in 1955 on a general north trending vein. Values intersected include 213.4 oz. Ag/ton over 7 inches and

170.9 oz. Ag/ton over 3 inches. Host rock for the carbonate vein is diabase. Samples from a dump nearby a shaft reportedly contained chalcopyrite, pyrite, carbonate and cobalt bloom.

The best reported mineralization from Mickle township was by the Mapes Johnson Mining Company. This property straddles the east boundary of claim 1217606 and is in close proximity to the north boundary of claim 1217589. A 1915 Canadian Mining Journal article mentioned a 2½ ton ore shipment estimated to be 1500 oz. Ag/ton. From another source B.E. Mackean in G.R report 62 (1968 p. 43) found assays for 2½ ton of ore dated 1915. The assays were as follows:

	1 ton assayed	1½ ton assayed
Ag	42.5 oz Ag/ton	407 oz Ag/ton
Co	11%	9%
Ni	8%	9%
Arsenic	35%	27%

The best historically reported mineralization from the claim group was from Vermont Mines Ltd. (Claim 1207400). A sample from a narrow two inch wide silver vein reportedly assayed 1,100 oz Ag/ton (circa 1947).

An interesting drillhole intersection from the west shore of Boland Lake (Site 41 Figure 9) was recorded in the assessment files. A drillhole here hit 112' of 'lightly' mineralized chalcopyrite, pyrrhotite, pyrite and magnetite in Nipissing diabase. It also hit two, 2" veins of chalcopyrite and galena.

Field Visit

On November 22, 1996 four grab samples (91351 - 91354 inclusive) were taken from an old trench just west of Boland Lake. (about 800 metres west-northwest of site 42 on Figure 9. Three of the samples were associated with a two inch calcite vein and minor chalcopyrite; the fourth sample was associated with a quartz vein. Values ranged from 109 g Ag/ton (3.2 oz Ag/ton) to 466 g Ag/ton (13.5 oz Ag/ton). Sample 91351 contained 2.54% Pb. Nine grab samples (91384 - 91392 inclusive) were taken from a narrow trench just south of site 42 on Figure 9. Sample 91385 assayed 15.39 g Au/ton (0.45 oz Au/ton) and sample 91386 assayed 27.74 g Au/ton (0.81 oz Au/ton). Both samples were associated with a 2-4" (5-10 cm) wide specular hematite vein in the Nipissing diabase. Six grab samples (91393 - 91395 inclusive - including duplicate samples) were taken from one of the old Mapes Johnson mine dumps on the property. (Just west of site 45 on Figure 9) Sample 91394 contained 178 g Ag/ton (5.1 oz Ag/ton). Sample 91394A contained 1280 g Ag/ton (36.6 oz Ag/ton) as well as 14% Cu, 3.3% Co and 3.6% Ni. This sample contained 15-20% chalcopyrite and associated bornite in a calcite vein within Nipissing diabase. Four samples (91396 - 91399 inclusive) were taken from a trench on the north end of Silverclaim on Site 46 (Figure 9). Results were negligible. Tables 5A and B show the assay results for all samples from this area.

The most interesting historical results reported from the project area were from the Little Otise Shaft (also referred to as the Roy No. 2 shaft, see Site description 49 and Figure 10). A silver bearing carbonate vein four inches in width assayed 3562 oz. Ag/ton. On November 23, 1996 a site visit was made to the area. Seven samples (91357 to 91360 inclusive and 91380 to 91382 inclusive) were taken from an old adit in the general vicinity of where the above mentioned shaft was expected. Four grab samples were also taken from nearby trenches (Table 2). Samples 91355, 91356, 91378 and 91379 (Claim 1217593). The best sample from this trench was No 91555 with 627 g Ag/ton (17.9 oz Ag/ton) in a small calcite vein (1cm) within Nipissing diabase. Sample 91358 taken from the adit contained 335 g Ag/ton (9.6 oz Ag/ton). This sample was taken from a thin, fractured calcite vein containing ½% chalcopyrite, minor malachite and erthyrite. The following tables shows the samples and their values.

TABLE 2
MICKLE-FARR PROPERTIES ASSAY RESULTS

Sample #	Ag ppm	Ag % Re-assay g/t	Au ppb	Co ppm	Cu ppm	Ni ppm	Zn ppm
91351	>100	446	<5	470	989	391	72
91352	>100	109	<5	339	1285	80	72
91353	>100	135	10	2980	>10000	405	452
91354	>100	281	55	6670	>10000	993	34
91384	2.6	--------------	8890	72	1315	45	5
91385	9.6	--------------	10000	167	>10000	71	90
91386	8.6	--------------	10000	318	5660	54	54
91387	0.4	--------------	220	59	2560	129	124
91388	<0.2	--------------	225	59	1130	124	98
91389	565	--------------	565	94	2680	101	40
91390	445	--------------	445	60	1355	116	60
91391	0.4	--------------	10	22	116	75	32
91392	1.2	--------------	1360	125	3820	74	44
91393	50.4	--------------	60	>10000	>10000	1880	238
91393A	4.2	--------------	30	2450	>10000	263	176
91394	>100	178	15	4270	>10000	444	88
91394A	>100	1280	50	>10000	>10000	3620	472
91394R	3.8	--------------	<5	405	232	32	<2
91395	17.2	--------------	30	3390	>10000	236	34
91396	2.0	--------------	<5	797	>10000	50	22
91397	1.6	--------------	<5	379	3280	28	16
91398	4.0	--------------	<5	47	>10000	50	16
91399	1.0	--------------	<5	559	4380	66	36

TABLE 2 (CONT'D)
MICKLE-FARR PROPERTIES ASSAY RESULTS

Sample #	Ag ppm	Ag % Re-assay	Au ppb	Co ppm	Cu ppm	Ni ppm	Zn ppm
91355	>100.0	--------------	<5	2520	2240	439	46
91356	6.4	--------------	<5	208	3530	29	70
91357	10.2	--------------	20	700	>10000	39	1470
91358	>100.0	--------------	<5	1700	>10000	105	26
91359	0.8	--------------	<5	29	124	15	64
91360	2.6	--------------	--------------	63	269	24	162
91378	64.8	--------------	95	>10000	>10000	1160	32
91379	7.2	--------------	5	2890	4720	154	20
91380	4.4	--------------	10	875	1370	74	52
91381	13.8	--------------	<5	505	4450	63	36
91382	3.6	--------------	<5	452	1850	48	116

Recommendations and Budget

Based on the high gold and silver samples taken from several grab samples, a phase one program is proposed in order to determine the extent and nature of the gold-silver mineralization on this claim block. Prospecting and geological mapping should be carried out on the grid system to determine the centres of mineralization. Soil geochemistry is recommended to search for buried vein systems and extensions of existing prospects. A first phase budget of $122,000 is proposed to provide this coverage (Table 3). Contingent on the results of this survey a phase two budget of up to $264,000 is proposed for follow up.

TABLE 3
Mickle/Farr Township Budget

Phase 1		
Preplanning		5000
Grids: cut baseline, flagged cross lines (64 km.)		20000
Geological mapping		15000
Prospecting		12000
Assaying 930 @ $15		14000
Accommodation 60 days @ $150/day X2		18000
Vehicles 60 days @ $100/day X2		12000
Management		8000
Reports		5000
Contingency		13000
	Total	$122,000
Phase 2		
Geochemical survey follow-up		25000
Trenching and rehabilitation		20000
Selected geophysics		20000
Prospecting and geology		15000
Grid improvement for geophysics		20000
Drilling 1000 m @ $100 per		100000
Field support. 60 days		18000
Vehicles, 60 days, two vehicles		12000
Management		10000
Contingency		24000
	Total	$264,000

CERTIFICATION

I, Frank C. Racicot, of the Town of Wahnapitae,
Province of Ontario,do hereby certifiy that:

1. I am a private consulting geologist working out of my home at 260 Dryden Rd. P.O. Box 114, Wahnapitae, Ontario, P0M 3C0.
2. I have a 1974 Bachelor of Science degree in geology from Laurentian University, Sudbury, Ontario.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta, registered as a professional geologist.
4. I am a member of the local Prospectors and Developers Association in Sudbury.
5. I have based this report on data listed in the bibliography on my experience gained over 20 years in the exploration industry.
6. I have no interest, direct or indirect in any of the properties owned or optioned by Lake Superior Resources Corp,or FSFC Developments Inc, nor do I expect to receive any. I have written this report as an independent consultant.

Dated in Wahnapitae, Ontario this fifteenth day of October, 1997.

Frank C. Racicot, BSc., PGeol.

REFERENCES

Andrews et al, "The Silver Deposits at Cobalt and Gowganda, Ontario," Canadian Journal of Earth Sciences, Vol.23, 1986.

McIlaine W.H., Geology of the Gowganda Lake-Miller lake Silver Area, District of Timiskaming: Ontario Geological Report 175, p.7. (1978).

Ontario Geological Survey (O.G.S.) Misc. Paper 84.

Petruk W., The Canadian Minerologist , Vol. 11, Part 1, 1971.

91347	Feldspar quartz porphyry with 30% phenocrysts.	Knight twp
91348	As above but on edge of main dike	Knight
91349	Small 1-2 m quartz feldspar porphyry 5 m. South of 91348 with light gray matrix and minor py.	"
91350	As above but with epidote and <1/4% py on fractures	"
91351	Minor cp with specular hematite. Some native silver in 2" calcite vein on west site of 3' trench at 100 (dips 80° east). Trench was cleaned out.	Mickle Twp Vermont mines Boland Lake
91352	As above. same vein (HS)	Mickle Twp 47 0 44'44"N 80 26 44 W
91353	1/2% cp in clots with erythrite on fractures and around small vugs. Diabasic rock and quartz carbonate vein	Mickle Twp
91354	3-5% cp along contact of quartz vein and mafic volcanics From pit at Vermont Mines. Veins at 10° and 100°. Some erthyrite and minor silver(?) (HS)	Mickle Twp
91355	Small 3/8" calcite/quartz vein with erthyrite on fracture planes. From pit	Farr Twp
91356	Slightly sheared volcanics with <1% cp and malachite From	Farr Twp From adit
91357	1/4" specular hematite and cp with malachite and azurite. (Vein sampled "thanks to" Bob's back and Fred's chin	"
91358	<1/2% cp in fractured calcite: minor malachite and erthyrite	"
91359	slightly altered, slightly magnetic gabbro	
91360	As above, but very small sample	"

No.	Description	Location
91375	1 Ft of fuchite in shear zone at 175° in mafic volcanics (HS)	Knight twp
91376	Argillaceous, micaceous lapilli tuffite (HS)	"
91377	Fault gouge at 40° on north edge of QFP	"
91378	3-5% in coarse grained calcite veins from pit	FARR twp 47°46'17 80 27 54
91379	1 piece flakey specular hematite from pit. S.S. sample (Beside 91378)	FARR twp
91380	Last sample on way out of adit. Small 3/4-1" qtz vein in MG gabbro	FARR
91381	Slightly altered, whitish medium grained gabbro - 1st sample close to shaft	FARR
91382	As above. Close to 91381	
91383	98% cp from F.S.	"
91384 ↓ 91394A	Already described and typed	
91394	60% (bn[90] cp[10]) plus some erythrite	Mickle twp
91393 A	1" cp vein (70% cp) with some erythrite associated with calcite in gabbro	"
91394 B	very coarse grained calcite vein with minor cobalt bloom	"
91395	semi massive (60-70%) (spec hematite[50] cp[50]) with minor cobalt bloom	"
91396	80% specular hematite with 5% cp clasts) from a 6" vein at end of trench near Silverclaim Lake. Cp fragments look angular. No. 1 vein	Mickle Twp Silver Claim Lake Trench
91397	Similar to above but with calcite/quartz veining and po (HS) No. 2 vein	"
91398	15-20% cp with hematite and minor quartz veining No. 3 vein	"

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

5175 Timberlea Blvd., Mississauga
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PHONE: 905-624-2806 FAX: 905-624-6163

To: LAKE SUPERIOR RESOURCES

DELORAINE AVE.
TORONTO, ON
M5M 2A8

Project :
Comments: ATTN: FRANK RACICOT

Certificate Date: 13-DEC-96
Invoice No. : 19642627
P.O. Number :
Account :OKB

* PLEASE NOTE

CERTIFICATE OF ANALYSIS A9642627

SAMPLE	PREP CODE		Au ppb FA+AA	Au FA g/t	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
N091365	205	226	< 5	-----	< 0.2	1.20	14	30	< 0.5	< 2	1.32	< 0.5	18	72	77	1.58	< 10	< 1	0.08	< 10	0.52
N091366	205	226	< 5	-----	< 0.2	3.93	< 2	20	< 0.5	< 2	1.66	< 0.5	47	282	79	6.19	10	< 1	0.03	< 10	2.93
N091367	205	226	< 5	-----	< 0.2	0.98	10	40	< 0.5	< 2	1.12	< 0.5	13	55	19	1.58	< 10	< 1	0.09	10	0.80
N091368	205	226	< 5	-----	< 0.2	0.72	2	40	< 0.5	< 2	0.45	< 0.5	6	58	8	0.87	< 10	< 1	0.16	10	0.41
N091369	205	226	< 5	-----	< 0.2	1.06	8	40	< 0.5	< 2	1.10	< 0.5	11	48	36	1.35	< 10	< 1	0.11	10	0.64
N091370	205	226	< 5	-----	< 0.2	4.63	8	10	< 0.5	< 2	1.05	< 0.5	40	78	137	7.53	10	< 1	0.02	< 10	3.08
N091370A	205	226	10	-----	< 0.2	3.55	4	30	< 0.5	< 2	4.08	< 0.5	35	179	93	6.06	< 10	< 1	0.05	< 10	2.32
N091371	205	226	< 5	-----	< 0.2	0.72	8	10	< 0.5	< 2	0.93	< 0.5	3	69	6	0.64	< 10	< 1	0.01	10	0.13
N091372	205	226	< 5	-----	< 0.2	3.75	8	10	< 0.5	2	1.40	< 0.5	34	341	1405	5.90	10	< 1	0.02	10	2.72
N091373	205	226	< 5	-----	< 0.2	3.04	8	30	< 0.5	2	1.33	< 0.5	28	275	2070	5.11	< 10	< 1	0.03	10	2.16
N091374	205	226	< 5	-----	< 0.2	3.37	2	30	< 0.5	< 2	1.83	< 0.5	31	213	2840	5.74	10	< 1	0.06	10	2.26
N091378	205	226	95	-----	64.8	0.97	>10000	< 10	< 0.5	224	9.82	< 0.5	>10000	20	>10000	4.96	< 10	< 1	< 0.01	10	1.00
N091379	205	226	5	-----	7.2	0.39	4170	< 10	< 0.5	24	5.51	< 0.5	2890	24	4720	13.95	< 10	< 1	< 0.01	30	0.37
N091380	205	226	10	-----	4.4	1.67	1245	30	< 0.5	10	2.43	< 0.5	875	31	1370	4.24	< 10	< 1	0.15	< 10	0.64
N091381	205	226	< 5	-----	13.8	1.10	572	80	< 0.5	8	7.77	< 0.5	505	43	4450	3.51	< 10	< 1	0.06	10	1.15
N091382	205	226	< 5	-----	3.6	1.22	636	40	< 0.5	26	2.15	< 0.5	452	21	1850	3.63	< 10	< 1	0.16	< 10	0.80
N091383	205	226	< 5	-----	42.4	0.39	38	10	< 0.5	Intf*	0.13	< 0.5	45	5	>10000	>15.00	< 10	< 1	< 0.01	< 10	0.34
N091384	205	226	8890	-----	2.6	1.32	12	10	< 0.5	< 2	0.10	< 0.5	72	66	1315	12.95	10	< 1	0.01	< 10	1.23
N091385	205	226	>10000	15.39	9.6	1.79	16	10	0.5	Intf*	0.19	0.5	167	58	>10000	13.10	10	< 1	0.02	10	1.64
N091386	205	226	>10000	27.74	8.6	1.52	12	10	0.5	12	0.11	< 0.5	318	39	5660	14.40	< 10	< 1	0.01	30	1.14
N091387	205	226	220	-----	0.4	2.42	8	20	0.5	< 2	0.90	< 0.5	59	73	2560	4.33	< 10	< 1	0.11	< 10	2.93
N091388	205	226	225	-----	< 0.2	2.66	< 2	20	0.5	< 2	1.27	< 0.5	59	103	1130	4.93	< 10	< 1	0.10	< 10	2.87
N091389	205	226	565	-----	0.6	3.46	4	< 10	0.5	6	0.36	< 0.5	94	179	2680	9.19	30	< 1	0.01	30	3.46
N091390	205	226	445	-----	< 0.2	2.97	6	30	0.5	2	1.67	< 0.5	60	154	1355	7.16	10	< 1	0.06	< 10	3.23
N091391	205	226	10	-----	0.4	2.67	8	30	< 0.5	< 2	1.94	< 0.5	22	41	116	3.57	< 10	< 1	0.13	< 10	1.61
N091392	205	226	1360	-----	1.2	1.96	2	< 10	0.5	2	0.14	< 0.5	125	107	3820	12.15	10	< 1	< 0.01	< 10	2.15
N091393	205	226	60	-----	50.4	1.24	>10000	< 10	< 0.5	Intf*	13.45	< 0.5	>10000	16	>10000	6.12	< 10	< 1	< 0.01	10	1.77
N091393A	205	226	30	-----	4.2	1.43	108	< 10	0.5	Intf*	1.62	< 0.5	2450	34	>10000	>15.00	10	< 1	0.06	< 10	1.31
N091394	205	226	15	-----	>100.0	1.35	7170	< 10	< 0.5	Intf*	13.90	< 0.5	4270	18	>10000	4.30	< 10	< 1	< 0.01	10	1.53
N091394A	205	226	50	-----	>100.0	0.29	>10000	< 10	< 0.5	Intf*	>15.00	< 0.5	>10000	< 1	>10000	8.59	< 10	< 1	< 0.01	10	0.60
N091394B	205	226	< 5	-----	3.8	0.07	764	< 10	< 0.5	4	>15.00	< 0.5	405	1	232	0.33	< 10	< 1	< 0.01	10	0.36
N091395	205	226	30	-----	17.2	0.18	704	< 10	< 0.5	Intf*	11.30	< 0.5	3390	14	>10000	11.80	< 10	< 1	< 0.01	40	0.49
N091396	205	226	< 5	-----	2.0	0.62	20	< 10	< 0.5	Intf*	12.70	< 0.5	797	15	>10000	6.83	< 10	< 1	< 0.01	40	0.95
N091397	205	226	< 5	-----	1.6	0.57	28	< 10	< 0.5	< 2	>15.00	< 0.5	379	11	3280	5.60	< 10	< 1	< 0.01	50	1.48
N091398	205	226	< 5	-----	4.0	2.10	12	< 10	< 0.5	Intf*	11.75	< 0.5	47	83	>10000	6.07	10	< 1	< 0.01	10	2.07
N091399	205	226	< 5	-----	1.0	1.58	22	< 10	< 0.5	< 2	1.25	< 0.5	559	77	4380	8.42	10	< 1	0.05	< 10	1.33
N091400	205	226	< 5	-----	0.2	2.38	6	40	< 0.5	< 2	1.55	< 0.5	44	90	410	5.23	< 10	< 1	0.27	< 10	1.96
N091401	205	226	< 5	-----	< 0.2	0.50	10	< 10	< 0.5	< 2	0.13	< 0.5	30	108	225	1.91	< 10	< 1	0.01	10	0.49
N091402	205	226	< 5	-----	< 0.2	0.44	12	10	< 0.5	< 2	0.06	< 0.5	9	143	141	1.17	< 10	< 1	< 0.01	< 10	0.42
N091403	205	226	< 5	-----	< 0.2	0.29	8	60	< 0.5	< 2	0.04	< 0.5	34	91	300	6.07	< 10	< 1	0.01	< 10	0.22

CERTIFICATION: (signature)

* INTERFERENCE: Cu on Bi and P

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: LAKE SUPERIOR RESOURCES

DELORAINE AVE.
TORONTO, ON
M5M 2A8

Project :
Comments: ATTN: FRANK RACICOT

Certificate Date: 13-DEC-96
Invoice No. : 19642627
P.O. Number :
Account :OKB

* PLEASE NOTE

CERTIFICATE OF ANALYSIS A9642627

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
N091301	205	226	330	5	< 0.01	42	140	22	< 2	4	9	0.08	< 10	< 10	30	< 10	238
N091302	205	226	705	4	0.01	71	360	36	2	11	8	0.16	< 10	< 10	75	< 10	466
N091304	205	226	500	4	0.01	97	310	76	< 2	7	7	0.17	< 10	< 10	68	< 10	470
N091305	205	226	1440	< 1	0.13	114	290	44	4	4	4	0.08	< 10	< 10	41	< 10	64
N091306	205	226	1465	< 1	< 0.01	1285	50	10	< 2	5	574	< 0.01	< 10	< 10	53	< 10	42
N091307	205	226	390	1	0.03	53	590	8	< 2	5	49	0.09	< 10	< 10	56	< 10	32
N091308	205	226	450	< 1	< 0.01	21	30	4300	< 2	4	15	0.01	< 10	< 10	26	< 10	496
N091309	205	226	365	< 1	0.03	23	510	104	< 2	5	7	0.17	< 10	< 10	334	< 10	248
N091310	205	226	2050	58	< 0.01	85	120	54	< 2	17	59	0.07	< 10	< 10	170	< 10	26
N091311	205	226	900	< 1	< 0.01	29	350	20	< 2	17	21	0.31	< 10	< 10	468	< 10	152
N091312	205	226	600	2	< 0.01	28	170	1960	< 2	7	15	0.09	< 10	< 10	150	< 10	124
N091313	205	226	1365	< 1	< 0.01	< 1	< 10	32	< 2	21	59	< 0.01	< 10	< 10	6	< 10	8
N091315	205	226	230	1	0.14	32	300	16	< 2	2	26	0.09	< 10	< 10	143	< 10	56
N091316	205	226	3260	1	< 0.01	16	10	2	< 2	42	103	0.01	< 10	< 10	59	< 10	12
N091317	205	226	695	17	0.03	34	350	10	< 2	11	18	0.11	< 10	< 10	155	< 10	42
N091318	205	226	1170	9	0.02	25	160	10	< 2	15	30	0.07	< 10	< 10	72	< 10	14
N091334	205	226	280	1	0.04	13	800	104	< 2	5	13	0.08	< 10	< 10	54	< 10	106
N091335	205	226	1275	4	< 0.01	7	< 10	12	< 2	9	170	0.03	< 10	< 10	74	< 10	38
N091336	205	226	1085	< 1	< 0.01	4	< 10	8	< 2	8	170	< 0.01	< 10	< 10	22	< 10	20
N091337	205	226	1310	< 1	< 0.01	10	Intf*	4	< 2	9	203	0.06	< 10	< 10	37	< 10	14
N091338	205	226	350	37	< 0.01	66	500	64	< 2	7	192	0.10	< 10	< 10	49	< 10	14
N091339	205	226	765	1	0.02	51	180	4	2	23	9	0.01	< 10	< 10	250	< 10	54
N091340	205	226	2040	< 1	0.01	19	Intf*	2	< 2	12	36	0.01	< 10	< 10	51	< 10	14
N091341	205	226	705	< 1	0.04	7800	500	44	6	10	15	0.12	< 10	< 10	223	< 10	58
N091342	205	226	345	33	0.02	217	70	118	< 2	2	9	0.04	< 10	< 10	64	< 10	40
N091343	205	226	450	< 1	0.03	485	110	38	< 2	< 1	5	0.03	< 10	< 10	50	< 10	56
N091351	205	226	1605	83	< 0.01	391	< 10	>10000	8	8	71	0.01	< 10	< 10	252	< 10	72
N091352	205	226	2760	17	< 0.01	80	50	4980	< 2	9	77	0.03	< 10	< 10	191	< 10	72
N091353	205	226	1440	73	< 0.01	405	Intf*	384	1800	9	58	0.03	< 10	< 10	156	< 10	452
N091354	205	226	1380	69	< 0.01	993	Intf*	628	24	13	105	0.02	< 10	< 10	150	< 10	34
N091355	205	226	1865	82	< 0.01	439	210	1880	24	12	64	0.03	< 10	< 10	154	< 10	46
N091356	205	226	370	1	0.03	29	120	402	< 2	5	15	0.08	< 10	< 10	100	< 10	70
N091357	205	226	840	3	0.01	39	Intf*	700	< 2	8	27	0.06	< 10	< 10	122	< 10	1470
N091358	205	226	1655	19	< 0.01	105	Intf*	432	24	11	38	0.01	< 10	< 10	51	< 10	26
N091359	205	226	300	< 1	0.04	15	350	32	< 2	5	16	0.15	< 10	< 10	182	< 10	64
N091360	205	226	895	< 1	0.01	24	290	40	6	15	39	0.20	< 10	< 10	223	< 10	162
N091361	205	226	770	< 1	0.02	27	490	6	< 2	7	21	0.17	< 10	< 10	226	< 10	86
N091362	205	226	740	< 1	0.02	22	490	6	< 2	8	30	0.20	< 10	< 10	245	< 10	86
N091363	205	226	155	< 1	0.03	10	100	18	< 2	4	48	0.10	< 10	< 10	46	< 10	46
N091364	205	226	155	< 1	0.01	5	130	6	< 2	3	100	0.14	< 10	< 10	43	< 10	16

CERTIFICATION: Hart Bichler

* INTERFERENCE: Cu on Bi and P

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W9880. 00529

Assessment Files Research Imaging

...bsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, ...nent work and correspond with the mining land holder. Questions about this collec... ...ment and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

41P16SW2005 2.18736 FARR 900

Instructions: - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name Lake Superior Resources Corp.	Client Number 302231
Address 35 Deloraine Ave	Telephone Number 416-488-1345
Toronto Ontario M5M 2A8	Fax Number 416-488-0473
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

- [X] Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
- [ ] Physical: drilling stripping, trenching and associated assays
- [ ] Rehabilitation

Work Type Geology + assays		Office Use
		Commodity
		Total $ Value of Work Claimed 7545
Dates Work Performed From Day 23 Month 9 Year 96 To Day 15 Month 10 Year 97		NTS Reference
Global Positioning System Data (if available)	Township/Area Mickle, Farr	Mining Division Larder Lake
	M or G-Plan Number G3683, G3635	Resident Geologist District Kirkland Lake.

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name Frank Racicot	Telephone Number 705-694-5920
Address Box 114, Wahnapitae, Ontario	Fax Number 705-694-5920
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

2.18736

4. Certification by Recorded Holder or Agent

I, Michael Opara (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent [signature]		Date August 27, 199[illegible]
Agent's Address 35 Deloraine Ave, Toronto M5M 2A8	Telephone Number 416-488-1345	Fax Number 416-488-0473

0241 (03/97)

RECEIVED AUG 28 1998 GEOSCIENCE ASSESSMENT OFFICE

Deemed Nov. 26/98

Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use): W9880.00526

* Amendment

	…ing Claim Number. Or if …k was done on other eligible …ing land, show in this column …location number indicated …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 work to be distributed at a future date.
1	1218933	12	476	4800	0	
2	1218936	2	78	800	0	
3	1077201	3	117	0	117	
4	1077298	1	39	0	39	
5	1207400	10	396	0	396	
6	1213467	4	509	0	158	351
7	1213475	9	351	0	351	
8	1213476	4	158	0	158	
9	1217589	1	39	0	39	
10	1217605	4	158	0	158	
11	1217606	1	39	0	39	
12	1217612	3	117	0	117	
13	1217613	3	117	0	117	
14	1223934	16	634	0	634	
15	1223935	6	238	0	238	
16	1223937	12	476	0	476	
17	1223938	3	117	0	117	
18	1223940	1	39	0	39	
19	1223944	6	238	0	238	
20	1223936	10	396	0	396	
21	1217592	2	78	0	78	
22	1217593	16	634	0	0	634
23	1217594	12	476	0	476	
24	1217595	1	39	0	31	8
25	1217596	6	238	0	0	238
26	1217597	12	476	0	0	476
27	1217598	9	0	0	0	0
28	1218931	6	238	0	0	238
29	1218932	16	634	0	634	0
		Column Totals	*7545	*5600	5046	1945

290 (02/96)

2.18736

AUG 28 '98 11:28 416 488 0473 PAGE.02

Column Totals	*7545	*5600	5046	1945	

290 (02/96)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use) W9880.00529

Personal 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 Mi Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about t collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cos
Geology + report preparation			$4172.7
Assays	34	$23.27	791.2
Associated Costs (e.g. supplies, mobilization and demobilization).			
Maps, copying/typing, supplies, mapping, drafting, phone, misc. etc., shipping			1249.80
Transportation Costs	mileage		450.00
	ATV/QUAD		300.00
	BOAT		150.00
Food and Lodging Costs			455.00
		Total Value of Assessment Work	7568.00

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 WORK x 0.50 = Total $ value of worked claimed.

2.18736

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:

I, Michael Opara (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as President of Recorded Holder (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification

RECEIVED 9:50 AUG 28 1998 GEOSCIENCE ASSESSMENT OFFICE

Signature [signature] Date August 27, 1998

0212 (03/97)

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (877) 670-1555

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

March 3, 1999

Michael Opara
LAKE SUPERIOR RESOURCES CORPORATION
35 DELORAINE AVENUE
TORONTO, ONTARIO
M5M-2A8

Submission Number: 2.18736

Dear Sir or Madam:

		Status
Subject: Transaction Number(s):	W9880.00529	Approval After Notice

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 Lucille Jerome by e-mail at lucille.jerome@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 13438

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.18736

Date Correspondence Sent: March 03, 1999 **Assessor:** Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9880.00529	1207400	MICKLE, FARR	Approval After Notice	January 04, 1999

Section:
17 Assays ASSAY

The 45 days outlined in the Notice dated November 17, 1998, have passed. The cost of collecting 24 samples and reporting have been approved at $2649.00.

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

Correspondence to:
Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
Michael Opara
LAKE SUPERIOR RESOURCES CORPORATION
TORONTO, ONTARIO

Correspondence ID: 13438

Distribution of Assessment Work Credit

The following credit distribution reflects the value of assessment work performed on the mining land(s).

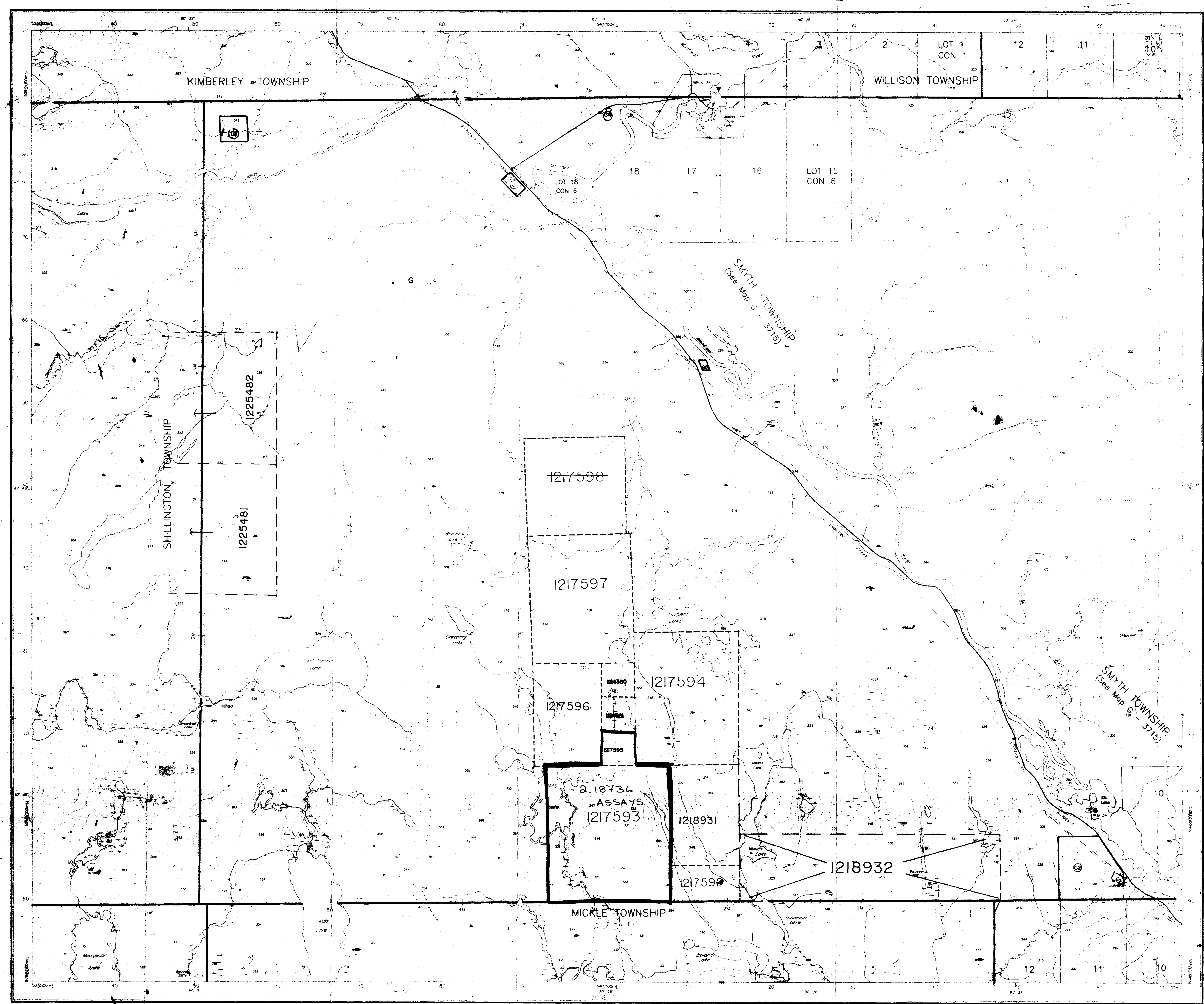
Date: March 03, 1999

Submission Number: 2.18736

Transaction Number: W9880.00529

Claim Number	Value Of Work Performed
1207400	440.00
1213467	999.00
1217593	440.00
1217595	770.00
Total: $	2,649.00

Correspondence ID: 13438



Ontario

Ministry of Natural Resources

Ministry of Northern Development and Mines

INDEX TO LAND DISPOSITION

PLAN

G-3635

TOWNSHIP

FARR

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES/REGISTRY DIVISION

TIMISKAMING

DATE OF ISSUE

APR 0 1 1999

PROVINCIAL RECORDING OFFICE - SUDBURY

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M+S - Mining and Surface Rights

SYMBOLS

M.T.C. PIT FILE 193407

M.T.C. PIT NO.210

GRAVEL FILE 127307

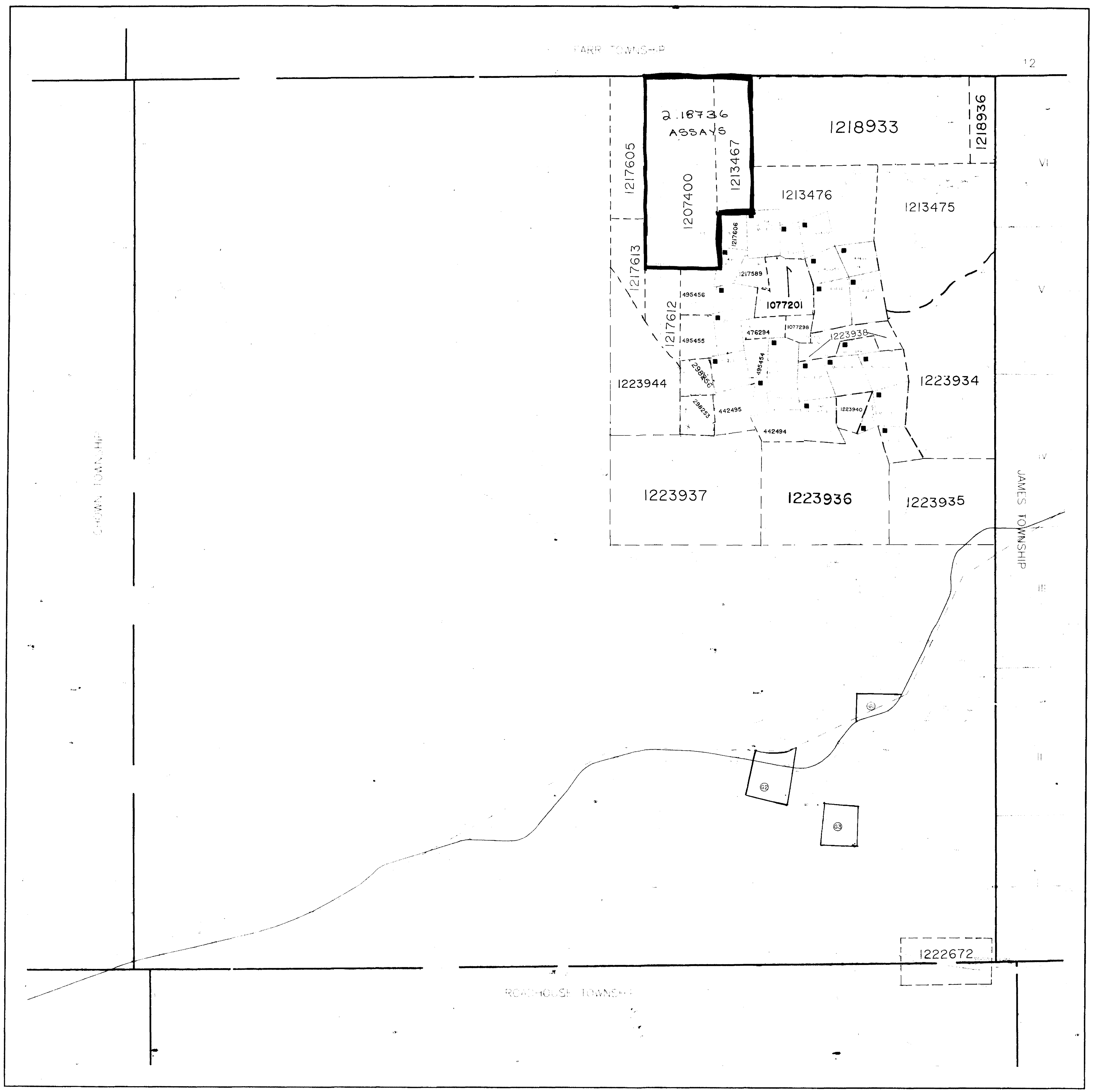
PROPOSED SITE NORTHERN TELEPHONE

DISPOSITION OF CROWN LANDS

ARCHIVED SEPT. 18, 1996

CIRCULATED AUGUST 16/96

42P16NW2005 2.18736 FARR 200



Ministry of Natural Resources / Ministry of Northern Development and Mines — Ontario

INDEX TO LAND DISPOSITION

PLAN
G – 3683

TOWNSHIP
MICKLE

M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE

MINING DIVISION
LARDER LAKE

LAND TITLES/REGISTRY DIVISION
TIMISKAMING

AREAS WITHDRAWN FROM DISPOSITION

SYMBOLS

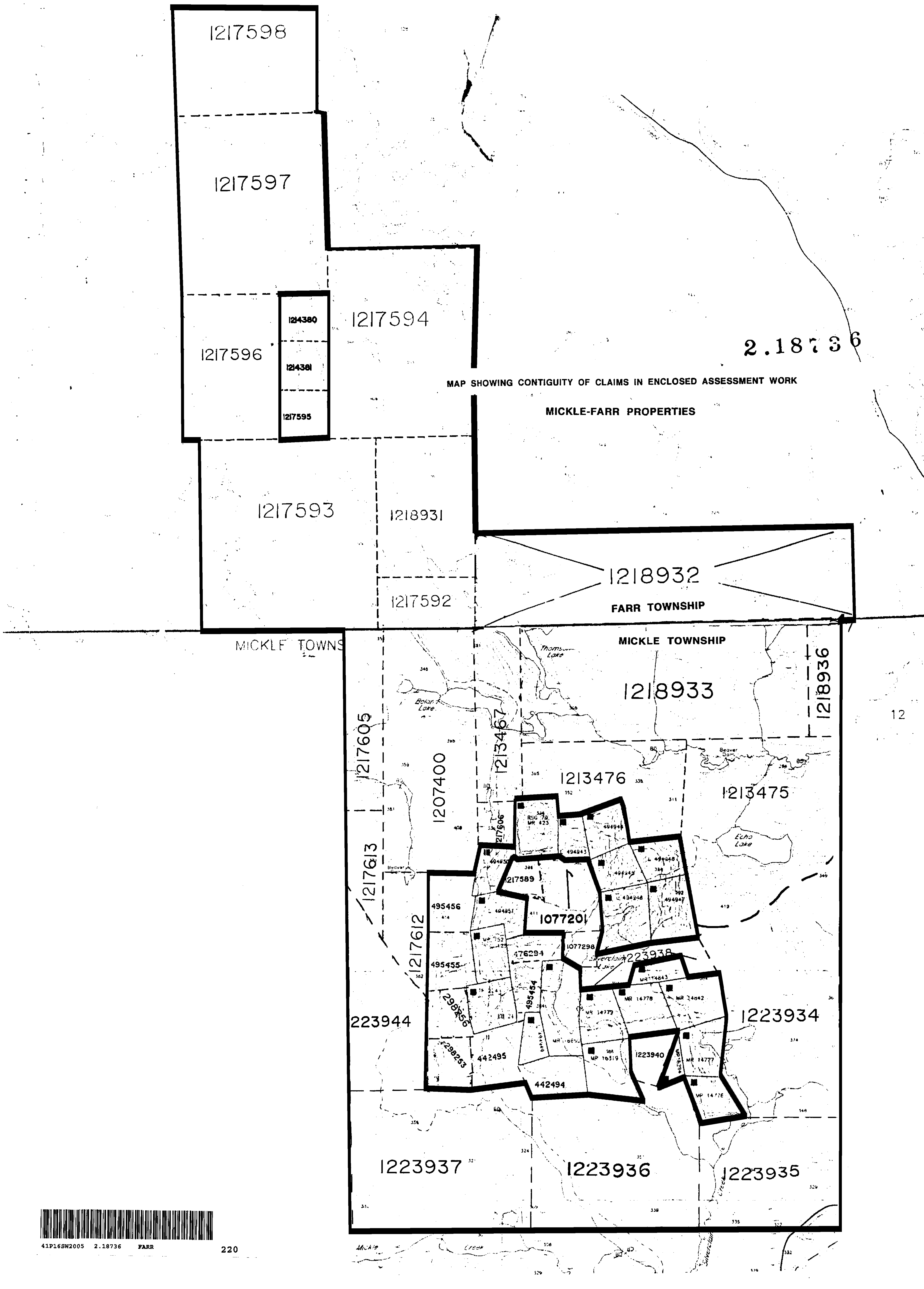
DATE OF ISSUE
APR 0 1 1999
PROVINCIAL RECORDING OFFICE - SUDBURY

MTC PIT 1296
MTC PIT 1281 FILE 177499
MTC PIT 1534

DISPOSITION OF CROWN LANDS

ARCHIVED SEPT. 19, 1996
CIRCULATED AUGUST 19, 1996

41P16SW2005 2.18736 FARR 210


2.18736
MAP SHOWING CONTIGUITY OF CLAIMS IN ENCLOSED ASSESSMENT WORK
MICKLE-FARR PROPERTIES
1217598
1217597
1217596
1214380
1214381
1217595
1217594
1217593
1218931
1217592
1218932
FARR TOWNSHIP
MICKLE TOWNSHIP
1218933
1218936
1217605
1207400
1213467
1213476
1213475
1217613
1217612
1217606
1217589
1077201
1077298
495456
495455
476294
495454
442495
442494
1223938
1223944
1223934
1223940
1223937
1223936
1223935
Echo Lake
12

220

Scale 1: 5000 — 250 — 500 METRES

N Astronomic

FIGURE 9

MICKLE-FARR SITE LOCATION MAP

LAKE SUPERIOR RESOURCES CORPORATION

Frank Racicot

41P16SW2005 2.18736 FARR 230

Scale 1: 5000 | 250 | 500 | METRES

N | Astronomic

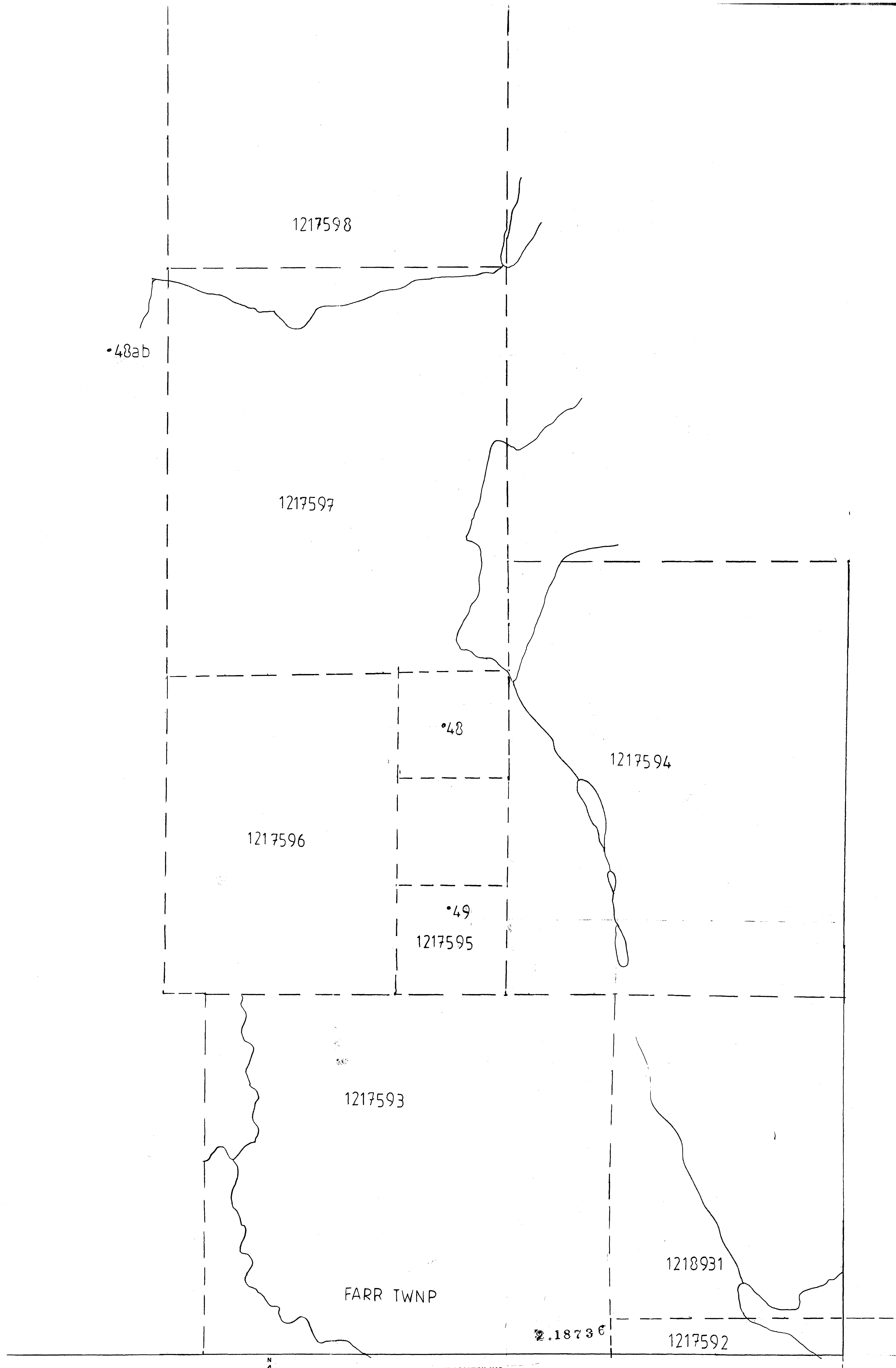
FIGURE 9

MICKLE-FARR SITE LOCATION MAP

LAKE SUPERIOR RESOURCES CORPORATION

Frank Racicot

41P16SW2005 2.18736 FARR 240



Scale 1: 5000 — 0 250 500 METRES

N — Astronomic

MICKLE-FARR SITE LOCATION MAP
FIGURE 10
LAKE SUPERIOR RESOURCES CORPORATION

Frank Racicot

MICKLE-FARR SITE LOCATION MAP

FIGURE 10

LAKE SUPERIOR RESOURCES CORPORATION

Frank Racicot