

EXPLORATION

41009SE0061 2.3220 YEO

EASTERN DISTRICT

010

Yeo Twp.

ASP ASSESSMENT REPORT - 1979FEBRUARY, 1980E.S. BARNETT1. INTRODUCTIONA) Location and Access

The property is located at approximately 47°35'N latitude and 82°01'W longitude, adjacent to the southwest corner of Schist Lake, 27km (17 miles) southwest of Gogama, Ontario. Access to the property is via float plane from Gogama or by the 'Ramsey' Eddy Forest Products road to camp 603.

B) Ownership

The Asp property consists of 24 unpatented claims optioned by Cominco Ltd, Suite 1700, 120 Adelaide St.W., Toronto, from E.J. Blanchard of Sudbury, Ont. and J.P. McVittie of Bracebridge, Ont. Details of the claims are listed below:

<u>Claim Nos.</u>	<u>Date Staked</u>	<u>Date Recorded</u>
P514683	Dec. 20/78	Jan. 2/79
514682	"	"
514681	"	"
514680	Dec. 19/78	"
514679	"	"
514678	"	"
514677	Dec. 18/78	"
514676	"	"
514675	"	"
514674	Dec. 17/78	"
514673	"	"
514672	"	"
514671	Dec. 16/78	"
514670	"	"
514669	"	"
472917	June 14/78	June 29/78
472916	"	"
472790	June 9/78	"
472789	"	"
472787	June 5/78	"
472786	"	"
472785	"	"
472784	"	"
543750	Aug. 29/79	Sept 18/79

C) History

The early history of prospecting in the area is summarised by Laird (1932) in 'The Geology of the Three Ducks Lake', (O.D.M. Report, Vol XLI, Part III). The only pertinent in the government assessment files is a geological report by W. Gerrie (1950).

2. GEOLOGY

The attached geological map is based on 1 month field mapping, during the period September 21 - October 23 by the writer.

According to Laird (1932) the property is underlain by an extensive east-west trending belt of Timiskaming sedimentary rocks termed the Rideout series composed of conglomerate, greywacke, arkose, argillite, quartzite, sericite

schist, mica hornblende schist and banded iron formation, in approximate order of abundance. Although some epiclastic sedimentary rocks are present there is evidence that many, if not most, of the rocks within the surveyed area are volcanic; pyroclastics rocks predominate but flows are also present.

The pyroclastic rocks include tuffs, lapilli tuffs, lapillistone and pyroclastic breccias and range in composition from mafic to felsic (dacitic). Mafic tuffs and flows predominate in the southern portion of the property, whereas coarse fragmental rocks and intermediate to felsic tuffs are more abundant in the north.

The mafic tuffs are characteristically dark green, schistose and weather various shades of green and brown. Bedding, where visible, usually consists of alternating grey, granular bands and green, schistose bands. Very rarely narrow (<1cm) bands of alternating grey chert and mafic tuff is seen. The mafic tuffs contain variable amounts of calcite and chlorite. The more chlorite rich rocks are also more intensely carbonated and display a distinct pitted surface.

The intermediate to felsic tuffs are typically medium grey, weakly schistose and weather buff-brown to grey. Small ( $\frac{1}{2}$ mm) quartz clasts constitute about 5% of the rock. In places the rock is composed mostly of quartz and sericite, and is a pale yellowish green and very fine grained. In places these rocks are very fissile and are stained by hematite. This is particularly common in the east half of the property, immediately north of the base line.

Lapilli tuffs, lapillistones and lapilli breccias occur in irregular bands or lenses of variable thickness. Contacts are gradational between tuffs, lapilli tuffs and lapilli breccias. The fragments are usually polymictic. Volcanic rock fragments predominate, often constituting greater than 90% of the fragments. Chert, pumice and felsic intrusive rock fragments are less abundant. The felsic intrusive fragments (quartz diorite?) are well rounded, ellipsoidal and are generally the largest of the fragments. The volcanic rock fragments are commonly elongated and in places have ragged terminations. The lapillistones consist of lense shaped bombs tightly packed together with minor amounts of rounded felsic intrusive rock fragments.

A distinct siliceous pillowed unit, mapped as andesite crops out 1,000 to 1,500 feet south of the baseline between lines 0 and 24W. The rock on fresh surface is light greyish green to dark grey, with flattened, aligned patches of chlorite up to nearly a centimetre in diameter. More rarely the rock contains up to  $\frac{1}{2}$ % disseminated wisps of pyrite. In hand sample it resembles a felsic tuff, however, on outcrop distinct pillows up to 6 feet long can be seen. Selvages weather negative and are dark green with a brown margin which diffuses into the pillow. The selvages are more distinctly schistose. Pillow top directions were only rarely determinable but where seen indicated tops are to the north. The fragments of the lapilli breccia immediately north of the pillowed andesite appear to be almost exclusively derived from pillowed andesite also indicating tops are to the north.

An oxide-sulphide-silicate-carbonate facies iron formation, approximately 100 feet thick, is traceable along nearly the entire strike length of the property. The iron formation displays considerable variability both along and across strike. The most noticeable difference is the sulphide content. Along most of its strike length pyrite is absent or present in only very minor quantities. It usually forms nearly pure cross cutting veinlets but narrow near massive bands of pyrite parallel to bedding are also present. Most of the unit consists of alternating beds of white sugary chert, maroon coloured, iron carbonate and green silicate. The chert and iron carbonate beds are frequently auto brecciated, the chert forming angular 1cm. thick slabs surrounded by an iron carbonate matrix. This is most common towards the top of the unit. Intercalated within the iron formation are up to 4 narrow (usually about 5cm. wide) carbonaceous beds containing less than 10% pyrite, as nodules and massive beds less than 1cm. thick.

Two areas were found to contain sulphide rich iron formation, both of which had been previously trenched. The more spectacular of these showings is located at approximately 22+50W, 3+50S.

Here the iron formation consists of alternating beds, usually in the order of a meter in width, that are clearly distinct based on the color of the surface oxidation. These beds themselves are often clearly banded, consisting of dark green silicate, iron carbonate, chert, pyrite, arsenopyrite and very rarely magnetite. Arsenopyrite and pyrite are more abundant towards the base of the unit (south) where they constitute up to 30% of the rock. Sulphides occur as near massive beds and patches up to 2 to 3cm. thick and as stockworks or veinlets.

The second showing is located at 64+00W, 12++S. The iron formation here consists predominantly of alternating beds of chert and dark green silicate. Pyrite generally constitutes less than 10% of the rock and is usually associated with the silicates. Rarely narrow bands of near massive pyrite are seen. A pyrite bearing carbonaceous schist within the iron formation is also exposed.

Approximately 300 feet north of the iron formation is a narrow carbonaceous schist. Carbonaceous schist also crops out at 50+00W, 2+00N and in a trench at 23+50W, 15+30S.

Narrow bands of finely bedded greywacke, siltstone and argillite, possibly turbidites, crop out throughout the map area. The best exposure is at 21+00W, 1+00N. Bedding ranges up to tens of centimeters in the greywackes down to less than a centimeter in the argillites. Scour and fill textures, cross bedding and graded bedding all indicate tops are to the north. The cross bedding indicates a provenance from the east.

Discontinuous gabbroic sills and dykes are common in the southeast portion of the property. They are characteristically fine grained (1mm), though coarser than the volcanic rocks, as well as less schistose and more distinctly jointed.

Several irregular shaped feldspar porphyry bodies crop out in the north-west portion of the surveyed area. The rock usually weathers brown, pink, pale green or buff. On fresh surface it is greyish green, brownish grey or dark green. Feldspar phenocrysts usually constitute greater than 50% of the rock by volume and are usually 1-2mm. in diameter, euhedral and randomly oriented. In some of the smaller lenses of porphyry the feldspar phenocrysts grade from 1mm. in the south up to about 2mm. to the north with individual phenocrysts up to 6mm. The rock is strongly magnetic and locally contains up to 10% fine grained disseminated pyrite though typically only trace quantities of pyrite are present. Calcite is present in minor quantities disseminated throughout the matrix and more rarely in hairline veinlets. Minor quartz veining is also present. These veins locally contain patches of specular hematite up to 1cm. long. The feldspar porphyry is enriched in disseminated pyrite adjacent to the quartz veins. The porphyry very rarely contains mafic xenoliths. The contacts between the feldspar porphyry and country rock are often knife edge sharp but irregular with a raised siliceous, dark green edge which strongly resembles a chill. In places the contact is gradational with a diffuse contact whereby the porphyry becomes darker and less porphyritic and transforms into a tuff with lapilli size fragments up to 20cm. long, constituting 10% of the rock.

The youngest rocks within the surveyed area are several north trending diabase dykes, most being less than 100 feet wide, with the exception of the large diabase dyke found at the western most extent of the property. The diabase are characteristically magnetic.

Strata within the surveyed area have been folded to near vertical positions and trend approximately east-west. Pillow facing directions, graded bedding, cross bedding, scour and fill textures and the occurrence of distinct fragments of pillowed andesite caught up in the overlying lapilli breccia, all indicate tops to the north. Reverse grading of feldspar crystals, particularly in the feldspar porphyry and in fragment size in coarse pyroclastics is common.

Most rocks display at least two distinct schistositities. The dominant schistosity is east-west and within 10° of vertical. A second less distinct schistosity is commonly seen, however, it is nearly flat lying and beyond the limits of a Sylva for accurate measurements. Small scale S and Z folding of schistosity is not uncommon. Based on the limited determinations made, Z-folds are found in the center of the surveyed area and S-folds in both the east and west. Fold axis most frequently trend northwest with moderate to steep plunges.

Several north-south trending linaments can be seen on airphotos but only the fault outlined on the map has any detectable displacement.

Submitted by: ES Barnett

E.S. Barnett  
Geologist  
Exploration, E.D.

Qualifications 2.3070

Endorsed by: W.M. Little P. Eng

W.M. Little  
Senior Geologist  
Exploration, E.D.

Qualifications 2.2682



EXPLORATION

EASTERN DISTRICT

**RECEIVED**

FEB 13 1980

**MINING LANDS SECTION**

ASP ASSESSMENT REPORT - 1979

Claim Nos.

514669 - 514683 inclusive.  
472916 - 472917  
472784 - 472787 inclusive  
472787  
472789 - 472790  
543750

Latitude : 47°35'N  
Longitude : 82°01'W

FEBRUARY, 1980

E.S. BARNETT



41009SE0061 2.3220 YEO

900

316

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 Yeo  
Claim Holder(s) E. J. Blanchard  
J. P. McVittie  
Survey Company Cominco Ltd.  
Author of Report E. S. Barnett  
Address of Author 9/6 Cominco Ltd, Suite 1700, 120 Adelaide  
Covering Dates of Survey August, 1979 - Feb, 1980 <sup>S.F. W.</sup> Toronto  
(linecutting to office)  
Total Miles of Line Cut 31.5

MINING CLAIMS TRAVERSED  
List numerically

(prefix)

(number)

SPECIAL PROVISIONS  
CREDITS REQUESTED

DAYS  
per claim

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

ENTER 20 days for each  
additional survey using  
same grid.

Geophysical

--Electromagnetic

--Magnetometer

--Radiometric

--Other

Geological

Geochemical

40

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
Author of Report or Agent

Res. Geol. L.D Qualifications 2.2682 and 2.3070

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS \_\_\_\_\_

If space insufficient, attach list

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 \_\_\_\_\_

*Geologist* 2.3220

DATE OF ISSUE  
FEB 14 1980  
SURVEYS AND MAPPING  
BRANCH

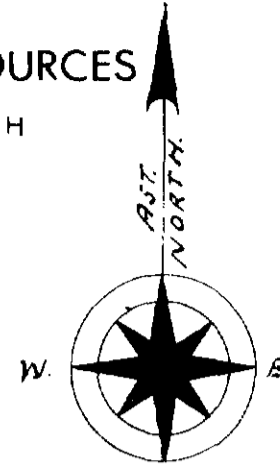
# PLAN OF YEO TWP.

FORCIPINE MINING DIVISION.

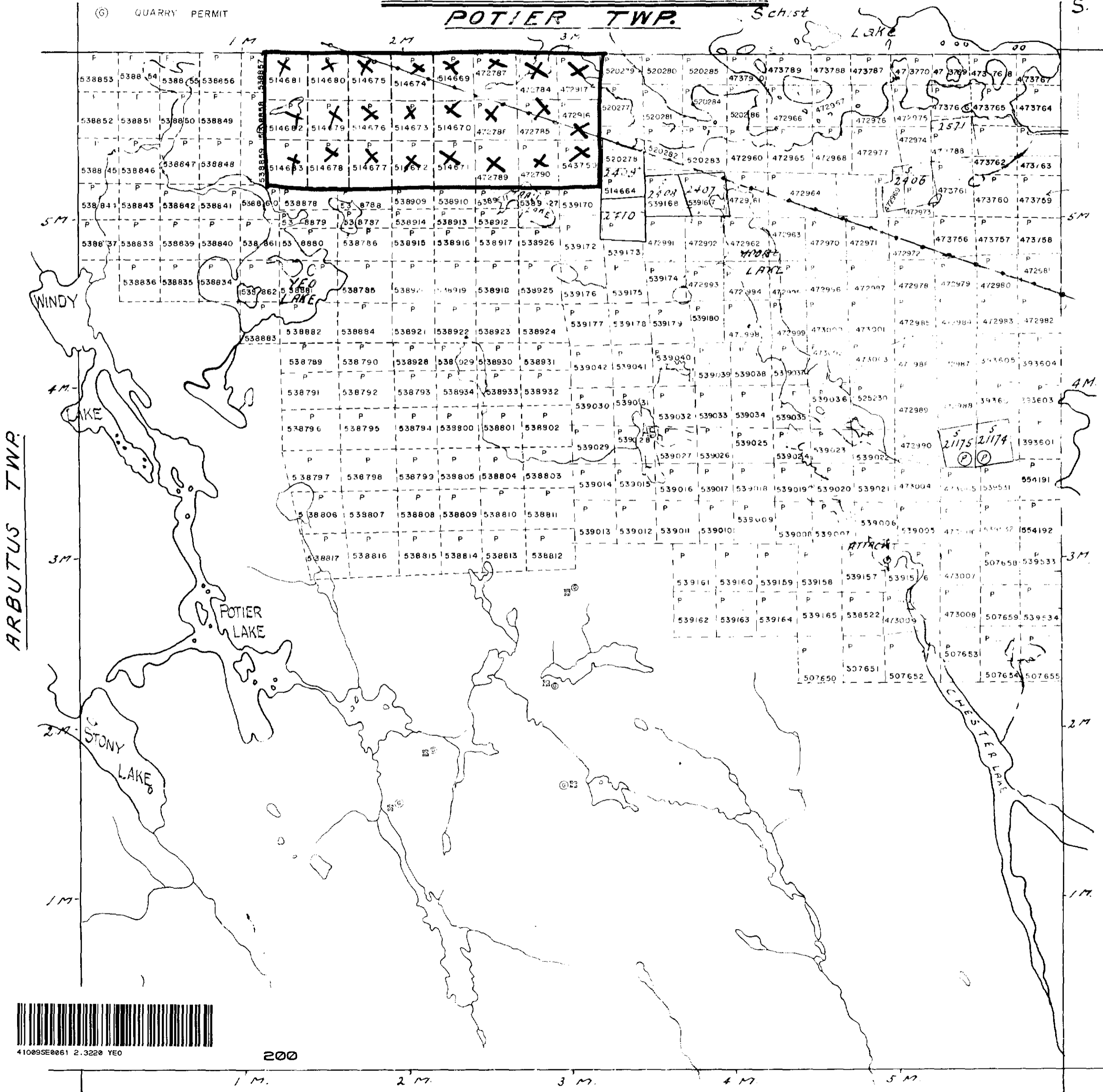
DISTRICT OF SUDBURY

Scale: 40 chains to an inch.

POTIER TWP. Schist



(G) QUARRY PERMIT



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Reserve to the Dept. of Lands & Forests

SMUTS TWP