MURIEL LAKE PROPERTY

Pierre Gagne Contracting LTD.
1994 OMIP Program

Trenching

January, 1995

Aubrey J. Eveleigh
CLARK-EVELEIGH Exploration Services

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INTRODUCTION

The Muriel Lake area was identified as having potential to host a base metal deposit after research by Aubrey Eveleigh and Garry Clark turned up significant data in the assessment files at the Ministry of Northern Development and Mines in 1992. The Muriel Lake property was subsequently staked in February of 1992 to cover the historical showings and the airborne anomalies associated with them.

The property is located approximately 300km northeast of Thunder Bay, Ontario in the Beardmore-Geraldton Area. There are two separate claim blocks with a total of 96 claim units.

There are three separate zones of interest: North Zone (Holland-Chellew Occurrence), Galena Vein Zone and the J.J. Perry Zone. All three display significant base metal type mineralization.

Until recently access to this area was very difficult with a fixed wing aircraft having to be used in most cases. In 1989 Kimberly-Clark constructed a forest access road which runs along the south boundary of the property. This made exploration in the area more feasible.

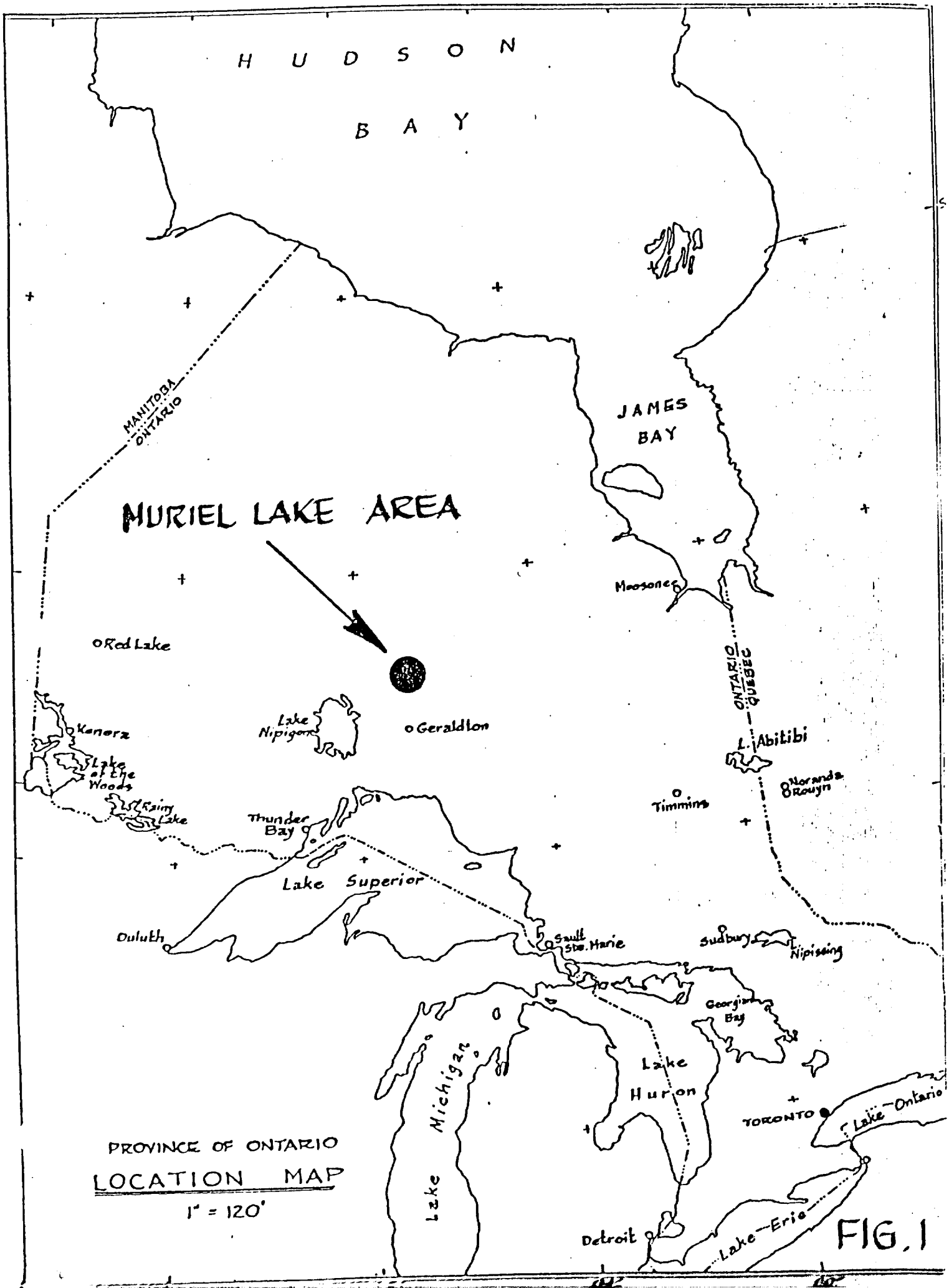
The property was first explored in 1929 but has not received a serious exploration program since. The Muriel Lake property, considered to be a favourable site for a Volcanogenic Massive Sulphide deposit, needs an aggressive exploration program to determine the extent of the base metal mineralization.

A trenching program was recommended based on new showings found earlier in the summer of 1994. The Ontario Mineral Incentive Program (OMIP) helped finance this trenching on the J.J. Perry Extension.

LOCATION AND ACCESS

The property lies approximately 300km northeast of Thunder Bay, Ontario within the Beardmore-Geraldton Area of the Thunder Bay Mining Division. The claim map sheet is Maun Lake (G-319) with latitude 50°27'57" longitude 86°49'55" in the NTS block 42 L 7/ NE.

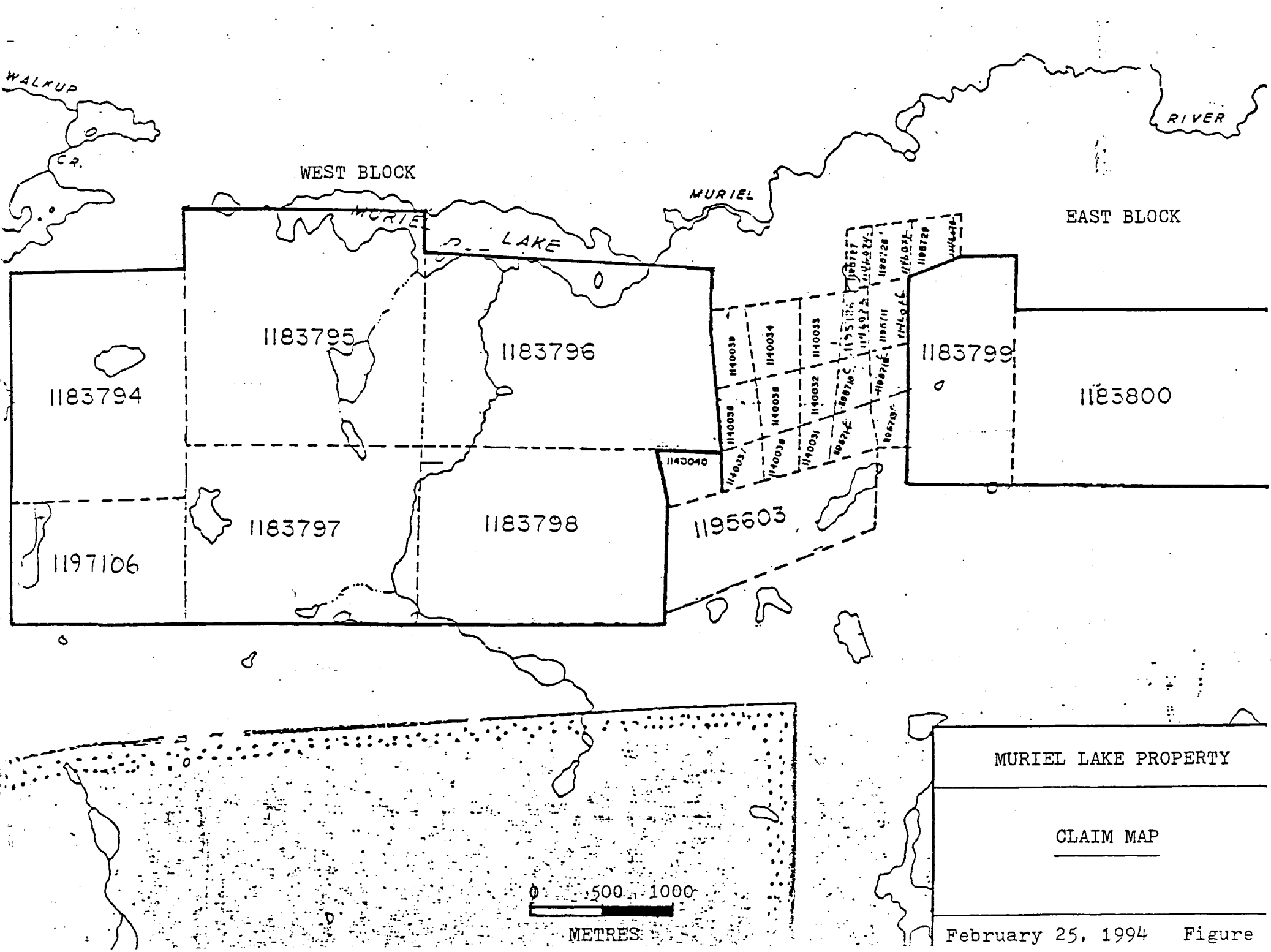
The Muriel Lake property can be accessed via the Anaconda Road (road 643) from Highway 584, which leads to Nakina. At a distance of 30.7km, the Maun Lake Road, a Kimberly-Clark forest road, heads northeast to the property. At kilometre 24, the road runs along the south boundary of the property with a spur road that heads north to access the mineralized zones, a distance of 0.5km. See figure 1 for general location.


HUDSON BAY
MANITOBA ONTARIO
JAMES BAY
MURIEL LAKE AREA
Moosonee
Red Lake
ONTARIO QUEBEC
Kenora
Lake of the Woods
Rainy Lake
Lake Nipigon
Geraldton
L. Abitibi
Noranda & Rouyn
Timmins
Thunder Bay
Lake Superior
Duluth
Sault Ste. Marie
Sudbury
Nipissing
Georgian Bay
Lake Michigan
Lake Huron
TORONTO
Lake Ontario
Detroit
Lake Erie
PROVINCE OF ONTARIO
LOCATION MAP
1" = 120'
FIG. 1

CLAIM STATUS

The Muriel Lake claim group consists of two separate blocks, a west block and an east block, with a total of 96 units. This represents a total area of 1536 hectares or 3840 acres. Ninety of the units were recorded on February 28, 1992 with the other six units (TB 1197106) being recorded on September 27, 1993 at the Mining Recorders Office in Thunder Bay. All claims are located on the claim map sheet Maun Lake (G-319). The property is owned 33.34% Garry Clark, 33.33% Aubrey Eveleigh and 33.33% Pierre Gagne. The following are the claim numbers for the Muriel Lake property (see figure 2 for claim sketch):

	Claim	Units
West Block	TB 1183794	12
	TB 1183795	16
	TB 1183796	12
	TB 1183797	15
	TB 1183798	12
	TB 1197106	6
East Block	TB 1183799	8
	TB 1183800	15
Total:	8 claims	96 units


WALKUP
CR.
WEST BLOCK
MURIEL
LAKE
MURIEL
RIVER
EAST BLOCK
1183795
1183796
1183794
1183799
1183800
1140040
1183797
1183798
1195603
1197106
0 500 1000
METRES
MURIEL LAKE PROPERTY
CLAIM MAP
February 25, 1994 Figure

PREVIOUS EXPLORATION

1993 During the summer of 1993, with the financial aid of an OPAP grant, Garry Clark and Aubrey Eveleigh carried out a prospecting and sampling program. New showings were found as well as existing showings extended.

1992 With the financial aid of two OPAP grants, Aubrey Eveleigh and Garry Clark carried out prospecting, trenching and sampling on the Muriel Lake property. The trenching and sampling revealed a more significant showing than was first thought to be on the property. (See Appendix A for assay and whole rock results.)

1980 Between July 5 and August 18, AMAX Minerals Exploration Limited performed pace and compass geological mapping on their 54 claim Muriel group. It was concluded that the property contains a dominantly mafic, submarine volcanic pile with several sulphide rich horizons associated with interflow tuffs and sediments.

1980 During March, Questor Limited flew an AMAG/AEM survey for AMAX Minerals Exploration Limited. The survey was flown in order to evaluate a narrow, approximately E-W trending "greenstone belt" which was found to be of interest from previous reconnaissance mapping of the area by AMAX staff. This airborne survey led to the staking of the Muriel group of claims.

1976 Texasgulf Inc. flew an airborne geophysical survey (AMAG/AEM) over 8 contiguous claims (TB 405081-84, TB 4050087-90) located south of Muriel Lake. This property would have covered the present day North Zone (Holland-Chellew Showing). A single conductive zone was detected with a near surface expression and a fairly strong response. It was suggested that a ground check be done, but was never performed.

1955 Quebec Chibougamau Gold Fields drilled 12 holes, of which 9 were targeted on the J.J. Perry or Galena Vein Horizons. The other 3 locations are unknown. Hole #1 contained 2 feet of sphalerite while several of the other holes contained significant mineralized sections. No assays were reported.

1950 Goldhar Resources drilled 7 short winkie drill holes on the North Zone (Holland-Chellew Showing). All the holes were drilled on either claim number 4763 or 4754. The drill logs are very brief, with only the mention of tuff and rhyolite. No assays were reported.

1932 L.R. Kindle of the Ontario Department of Mines reported on the Holland-Chellew occurrence south of Muriel Lake. It was reported on claim KK 1886, which is believed to be the J.J. Perry Horizon, a channel sample across 4 feet of mineralized material contained 12% copper, 5.4 oz/ton silver and .05 oz/ton gold.

1929 E.J. Holland and C. Chellew discovered the sulphide occurrences south of Muriel Lake. They subsequently carried out manual trenching to further expose these zones. At the Perry claims, approximately 1.5km southeast of the Holland-Chellew Occurrence, massive chalcopyrite, pyrrhotite and minor sphalerite is hosted by a limestone unit, which was trenched by J. Perry. This horizon is bounded on the north by a rhyolite and on the south by a coarse mafic flow. 50m north of the J.J. Perry showing Holland and Chellew uncovered what is known as the Galena Vein zone.

REGIONAL GEOLOGY

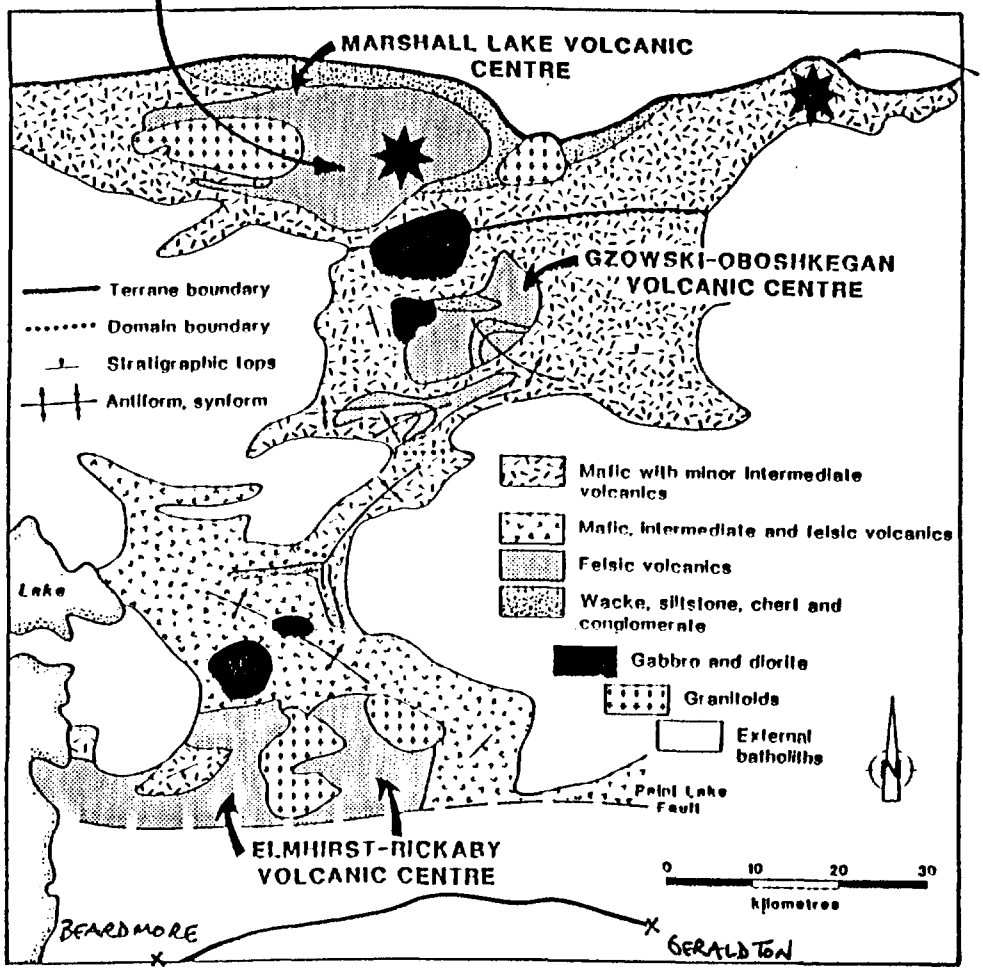
The Muriel Lake area is located in the Onaman-Tashota metavolcanic belt, at the extreme northeastern end where the belt appears to pinch out to approximately 10km wide. The area is predominantly underlain by metavolcanics, extending east from O'Sullivan Lake, consisting of mafic massive and pillowed mafic flows intruded by gabbro and diabase. Recently a considerable amount of felsic metavolcanics have been noted in the area comprised of pyroclastics and rhyolite to dacite flows.

The rocks of the area generally strike east-west with a vertical dip. Although tops direction seems to have evidence for north and south, the general consensus is south for this area.

The metamorphic grade of the Muriel Lake area seems to be upper greenschist to lower amphibolite facies.

The Muriel Lake metavolcanic area is bounded on south by massive to foliated granite to granodiorite and on the north by metasedimentary and gneissic rock units.

MARSHALL LAKE DEPOSIT
2.2 million tons
1.2% copper, 4.2% zinc,
2.45 oz/t Ag, 0.012 oz/t Au



Generalized geology of the eastern Wabigoon Subprovince between Lake Nipigon and Geraldton.

MURIEL LAKE PROPERTY

REGIONAL GEOLOGY

Feb. 25, 1994 Figure 3.

PROPERTY GEOLOGY

The Muriel Lake property contains all the units desirable for a base metal deposit. Although the property has not received a proper geological mapping survey, several of the main rock types have been observed on traverses and will be described as follows:

Mafic Metavolcanics

Most of the property is made up of this rock type, with the greatest percentage being pillowed metavolcanics. Quite often the pillow selvages are silicified, carbonatized and mineralized with sulphides. A number of outcrops were observed to be very coarse, suggesting either coarse flow centres or gabbroic units. Other mafic metavolcanic units observed were amphibolites, chlorite schists and massive flows. Thin section work by Inco Exploration Inc. on the altered pillow basalt revealed a strongly foliated, very fine grained assemblage of actinolite, quartz, epidote, carbonate and albite.

Felsic Metavolcanics

These rock types are represented by tuffs, lapilli tuffs, rhyolite and dacite. The fragments observed in the tuff units range in size from 1cm to 10cm with the majority of the rock unit being comprised of ash size particles. The rhyolite displays a spotted texture, which in thin section appears to be sericite clots. The felsic units occur in close proximity to the mineralized zones on the property. It has been observed, in the past, that Muriel Lake itself seems to contain a felsic intrusive/extrusive body of limited extent, now highly elongated along the strike of the greenstone belt (Waddington, 1982).

Metasedimentary Rocks

These occur has interflow units ranging in width from 1m to 5m wide. They are quite often altered to the point of being undistinguishable from some of the felsic metavolcanic units. The metasediments are usually altered to a biotite-garnet and garnet-staurolite schists. Thin section also revealed the presence of actinolite.

Mafic Intrusives

These are comprised of gabbro and diabase. The gabbro can be very coarse with the finer grained material being similar to the coarse mafic metavolcanic flows. The diabase dykes are usually narrow (5m wide) and run north-south across the property.

North Zone (Holland-Chellew Occurrence)

This horizon is a massive sulphide zone of pyrite, pyrrhotite and traces of chalcopyrite from 2m to 4m in width. It has a series of regional airborne EM conductors associated with it that stretches for approximately 9km. Consistent values of .4% Zn and .2% Cu are returned from this zone.

Galena Vein Zone

This horizon consists of a chert with massive to disseminated pyrite, sphalerite, chalcopyrite and galena. The sphalerite, chalcopyrite and galena can be traced at times along what appears to be bedding planes in the cherty exhalative unit. This zone is up to 20m wide and intensely folded at the trenched location. The cherty horizon is bounded on the north by pillowed volcanics and on the south by felsic metavolcanics (tuffs, dacite and rhyolite)and coarse mafic flows or gabbro. This horizon has been traced for approximately 2km on strike to the west. Assays from the Galena Vein Zone have returned values as high as 5.8% Zn, .86% Cu, 1.17% Pb, 1.52 oz/ton Ag and .01 oz/ton Au.

J.J. Perry Zone

The J.J. Perry occurrence is hosted by a limestone(marble) unit striking 85° and dipping 86° north in contact with mafic to felsic metavolcanic rocks and gabbro. The zone is bounded on the north by a rhyolite and on the south by a gabbro or coarse flow. The limestone unit is recrystallized and up to 2m wide. Chalcopyrite, pyrrhotite and minor sphalerite occurs as massive patches and fracture fillings within the limestone and proximal to the limestone along the contacts. This zone has been traced for approximately 1km. Assay values up to 16.22% Cu, .2% Zn, 6.46 oz/t Ag and .05 oz/ton Au were obtained from this horizon.

Structure

The strike of the rocks on the Muriel Lake property are generally east-west with dips varying from steep northwards to vertical. The pillows, mostly, indicate tops direction to be south, although there are outcrops that showed tops to be north. Folding is most prominent in the Galena Vein trench where plunge directions are vertical to 40°W.

Alteration

Several outcrops on the property display alteration that is potentially related to hydrothermal volcanogenic massive sulphide activity. Rock types such as garnetiferous schists, garnet-staurolite schists and chlorite-amphibolite schists may be the result of base metal type alteration. The thin sections by Inco Exploration prove the existence of these minerals. There have been a number of samples taken for whole rock analysis and several of them indicate a subtle presence of hydrothermal alteration.

1994 Discoveries

The first showing, which we have called the **J.J. Perry Extension**, is approximately 1 km west of our original J.J. Perry showing. Seven (7) samples were taken for assay. They all returned anomalous copper values, with the highest being 1.5% copper. The nature of the mineralization here appears to be very similar to the J.J. Perry Zone.

The other discovery was made on the east block of claims near the southern boundary. We were prospecting in this area to possibly explain the isolated airborne anomalies located here. This second showing, which we have called the **Crystal Showing**, had four (4) samples taken for assay. They all returned anomalous values with highest being 6038 ppb copper. This showing appears to be different from any mineralization we have seen to date on the property. It is a stockwork of quartz veins within a felsic intrusive (granodiorite) with up to 10% chalcopyrite and 2% magnetite.

1994 Trenching

The trenching program concentrated on a new showing found in the summer of 1994, which we have called the **J.J. Perry Extension.** During prospecting 7 samples were taken from this zone with all 7 returning values greater than 1100 ppm copper. The highest value being 1.5% copper. This new showing became a priority for trenching.

The trenching program was carried out, with the financial assistance of the Ontario Mineral Incentive Program (OMIP), between the period of November 24 to 29, 1994. The showing, which is located approximately at line 1+00 E and 3+25 N, was trenched for an area of 25 metres by 50 metres using a Case 235 backhoe. A detail grid pattern was established over the trench to aid in the geological mapping. A zone of copper mineralization was exposed for the entire lenght (50 metres) of the trench with an average width of 5 metres. The copper is hosted within a felsic volcanic to metasedimentary unit bounded on either side by a mafic metavolcanic. The copper ranges in characteristics from semi-massive to stringer to disseminated and is usually associated with pyrite mineralization. A total of 14 grab samples were taken from the trench and analyzed for copper, lead, silver, zinc and gold content. All samples taken from the zone were anomalous in copper with the highest being 4328 ppm.

More trenching was done on the Galena Vein zone to extend the previously exposed mineralization. It was concluded from this trenching that the zone extends further to the east. No additional samples were taken.

TABLE 1
SAMPLE DESCRIPTION

Sample	Description (assay certificate in appendix)
PG-1	Semi-massive to stringer copper(20%) in felsic volcanic
PG-2	Stinger copper(5-8%) mineralization
PG-3	" " "
PG-4	Disseminated cpy(2-3%), py in felsic volc./sediment
PG-5	Stringer cpy mineralization
PG-6	Disseminated cpy, py in felsic volc./sediment
PG-7	Stringer cpy mineralization
PG-8	Felsic Intrusive with pyrite mineralization
PG-9	Stringer copper mineralization
PG-10	" " "
PG-11	Disseminated cpy in felsic volc./sediment
PG-12	" " " " "
PG-13	Felsic Intrusive with pyrite mineralization
PG-14	Disseminated cpy in Felsic volc./sediment

Conclusions and Recommendation

The two (2) new showings have extended the copper mineralization on the property for approximately 7 kilometres. The trenching program established copper mineralization within the J.J. Perry horizon for approximately 2km.

A two hole drill program is recommended to test the J.J. Perry zone along strike to the east. A drilling budget of approximately $50,000 is recommended to drill 1500 feet.

REFERENCES

Watts, A., 1980, Report on An Aeromagnetic Survey, Muriel Lake Area, N-W Ontario; AMAX Minerals Exploration Limited

Slankis, J.A., 1976, Texasgulf Inc., Report on Airborne Geophysical Survey in the Muriel Lake Area

Waddington, D.H., 1982, Geology of the Muriel Group, Muriel Lake Project 1087-5, AMAX Minerals Exploration

Kindle, L.F., 1932, Kowkash-Ogoki Gold Area, District of Thunder Bay, Ontario Department of Mines, Fortieth Annual Report, pp. 100-102

APPENDIX I
ASSAY CERTIFICATE

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

CLARK GEOLOGICAL
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

December 1, 1994

Job #9441447

ATTENTION: AUBREY EVELEIGH

Sample # Accurassay	Customer	Copper ppm	Lead ppm	Silver ppm	Zinc ppm
1	PG-1	4328	4	4	98
2	PG-2	2448	11	4	151
3	PG-3	1196	8	2	63
4	PG-4	345	<1	<1	36
5	PG-5	1164	8	2	66
6	PG-6	333	<1	2	13
7	PG-7	1160	2	2	80
8	PG-8	19	8	<1	<1
9	PG-9	3128	3	7	7
10	PG-10	3072	2	4	40
11	PG-11	768	<1	3	21
12	PG-12	572	<1	1	28
13	PG-13	171	6	<1	5
14	PG-14	228	3	2	162

Certified By: 

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

CLARK GEOLOGICAL
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

December 1, 1994

Job #9441447

Project: Muriel Lake

ATTENTION: AUBREY EVELEIGH

Accurassay	Sample # Customer	Gold ppb	Gold Oz/t
1	PG-1	40	0.001
2	PG-2	16	<0.001
3	PG-3	7	<0.001
4	PG-4	6	<0.001
5	PG-5	8	<0.001
6	PG-6	6	<0.001
7	PG-7	11	<0.001
8	PG-8	<5	<0.001
9	PG-9	26	<0.001
10	PG-10	25	<0.001
11	Check PG-10	31	<0.001
12	PG-11	6	<0.001
13	PG-12	11	<0.001
14	PG-13	<5	<0.001
15	PG-14	<5	<0.001

Certified By: Rick Beales

TERRIER LAKE G-429

87°00′ 59′ 58′ 57′ 56′ 55′ 54′ 53′ 52′ 51′ 50′ 49′ 48′ 47′ 46′ 86°45′

50°30′ 29′ 28′ 27′ 26′ 25′ 24′ 23′ 50°22′30″

SUPERB LAKE

WALKUP LAKE

WALKUP CR.

RODIN LAKE

MURIEL LAKE

MURIEL RIVER

KUPFER LAKE CREEK

WALKUP

1144095

1144096

1144097

1151002

1150770

1183794

1183795

1183796

1183797

1183798

1197106

1195603

1196160

1183799

1183800

1140036 1140039 1140037 1140038 1140040 1140035 1140034 1140033 1140032 1140031 1195727 1195726 1195725 1195729

O'SULLIVAN LAKE

O'SULLIVAN LAKE G-362

TRIDENT LAKE G-436

POST 1 POST 2 POST 3 POST 4 POST 5 POST 6 POST 7 POST 8 POST 9

1188200 P.M.

1194786 1194787 1194788 1195976 1195977 1195980 1195979 1195978 1195909 1195910 1195913

WANDER CR.

O'SULLIVAN LAKE

CORDNER LAKE CR.

CORDNER LAKE

7TH BASE LINE

176M 177M 179M 180M 181M 182M 183M 184M 185M 186M

33.14 49.20 330 68.20 9.75 S 89°59′ E

EAST AST.

MAUN LAKE

MAUN CR.

SPOTTED CREEK

SPOTTED LAKE

ESNAGAMI LAKE PARK RESERVE

File:160704

SHORTY LAKE

ESNAGAMI LAKE

ESNAGAMI LAKE G-244

504864

REFERENCES

RECEIVED
THUNDER BAY
MINING DIVISION
'94 MAR 24 PM 2 58

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	■
" , MINING RIGHTS ONLY	■
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	(C)
SAND & GRAVEL	(S)

LAND USE PERMIT FOR COMMERCIAL TOURISM, OUTPOST CAMPS

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

AREA

MAUN LAKE

M.N.R. ADMINISTRATIVE DISTRICT

GERALDTON

MINING DIVISION

THUNDER BAY

LAND TITLES / REGISTRY DIVISION

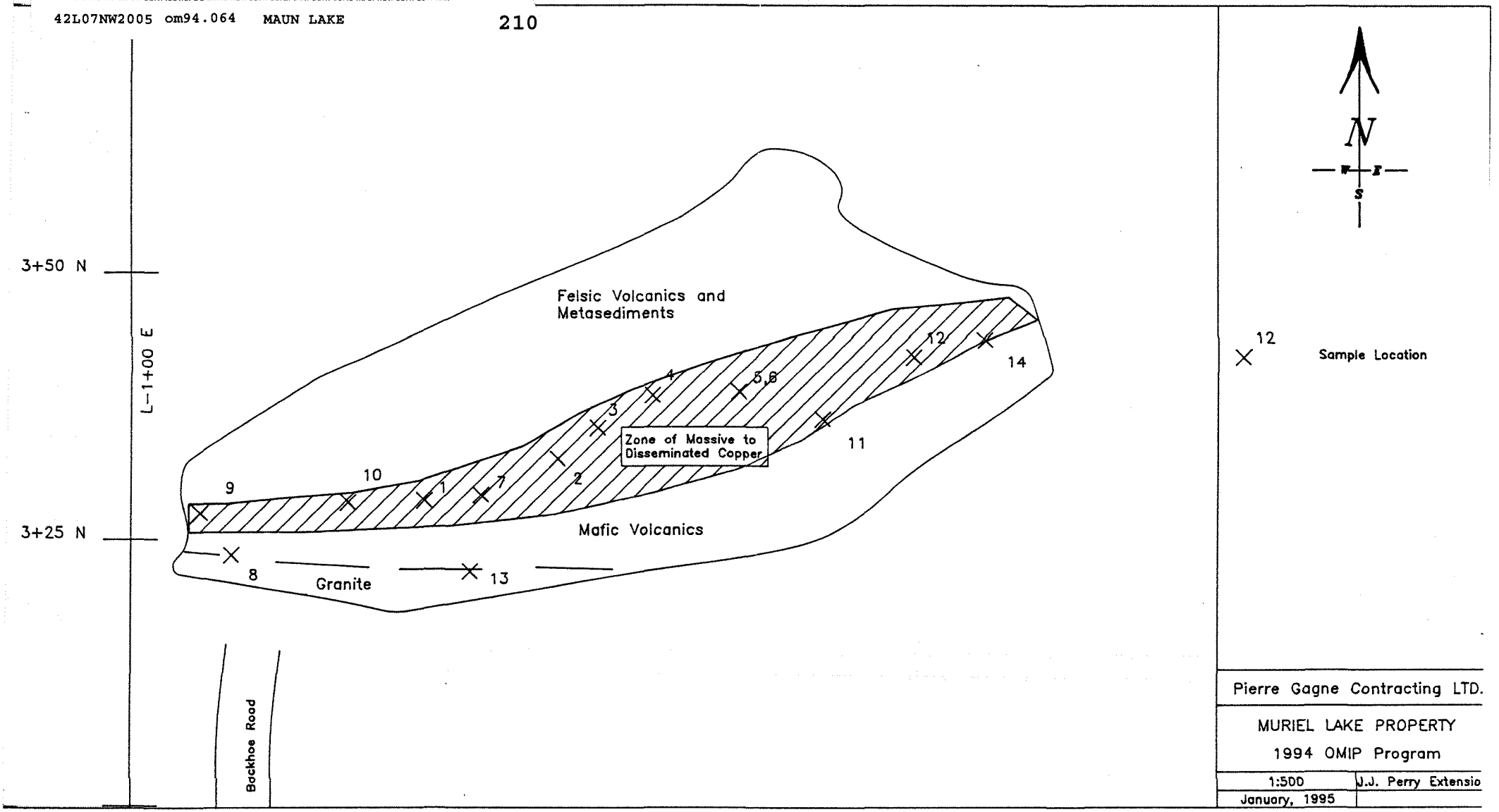
THUNDER BAY

Ontario Ministry of Natural Resources — Land Management Branch

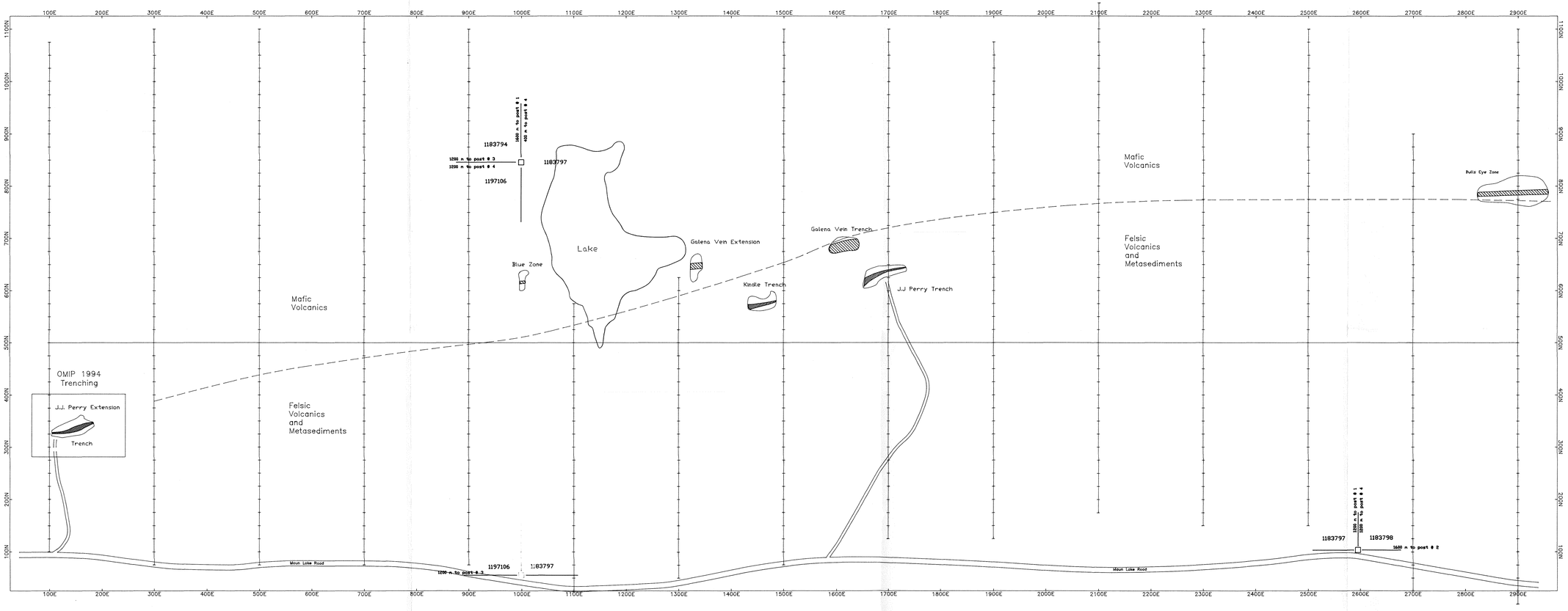
Date JULY, 1981

Number **G-319**

In service Apr. 15/93.



Pierre Gagne Contracting LTD.	
MURIEL LAKE PROPERTY	
1994 OMIP Program	
1:500	J.J. Perry Extensio
January, 1995	



Galena Vein Zone: shorty zone with 60 - 70% sulphides; pyrite, sphalerite, cholcopyrite and galena

J.J. Perry Zone: massive to disseminated sulphides; cholcopyrite, pyrrhotite, magnetite and sphalerite

Scale 1: 3500

50 0 50 100 150 (meters)

Pierre Gagne Contracting LTD.

1994 OMIP Program

Clark/Eveleigh

Muriel Lake Geological Map