



42L07NE0004 OP93-468 MAUN LAKE

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**REPORT ON THE
MURIEL LAKE PROPERTY
1993 OPAP PROGRAM
RESULTS**

**November 1993
J. Garry Clark**



Introduction 1
 Location and Access 2
 Previous Work 4
 Claim Disposition 5
 Property Geology and Mineralization 6
 1992 OPAP Program 7
 1992 OPAP Results 8
 1993 OPAP Program 9
 1993 OPAP Results10
 Conclusions and Recommendations11
 References12
 Statement of Qualifications13

List of Figures

Figure 1: Location Map

Appendix

- Appendix I: Daily Log
- Appendix II: Assay Descriptions
- Appendix III: Assay Certificates

Maps

- Map 1: West Block Geology
- Map 2: East Block Geology
- Map 3: Main Showings and Area

INTRODUCTION

The Muriel Lake Property is located on the Maun Lake logging road approximately 30 kilometres west of the Town of Nakina. The property consists of two claim blocks staked to cover airborne anomalies and the historic showings. The historic showings have been evaluated for the base metal and gold potential prior to road access.

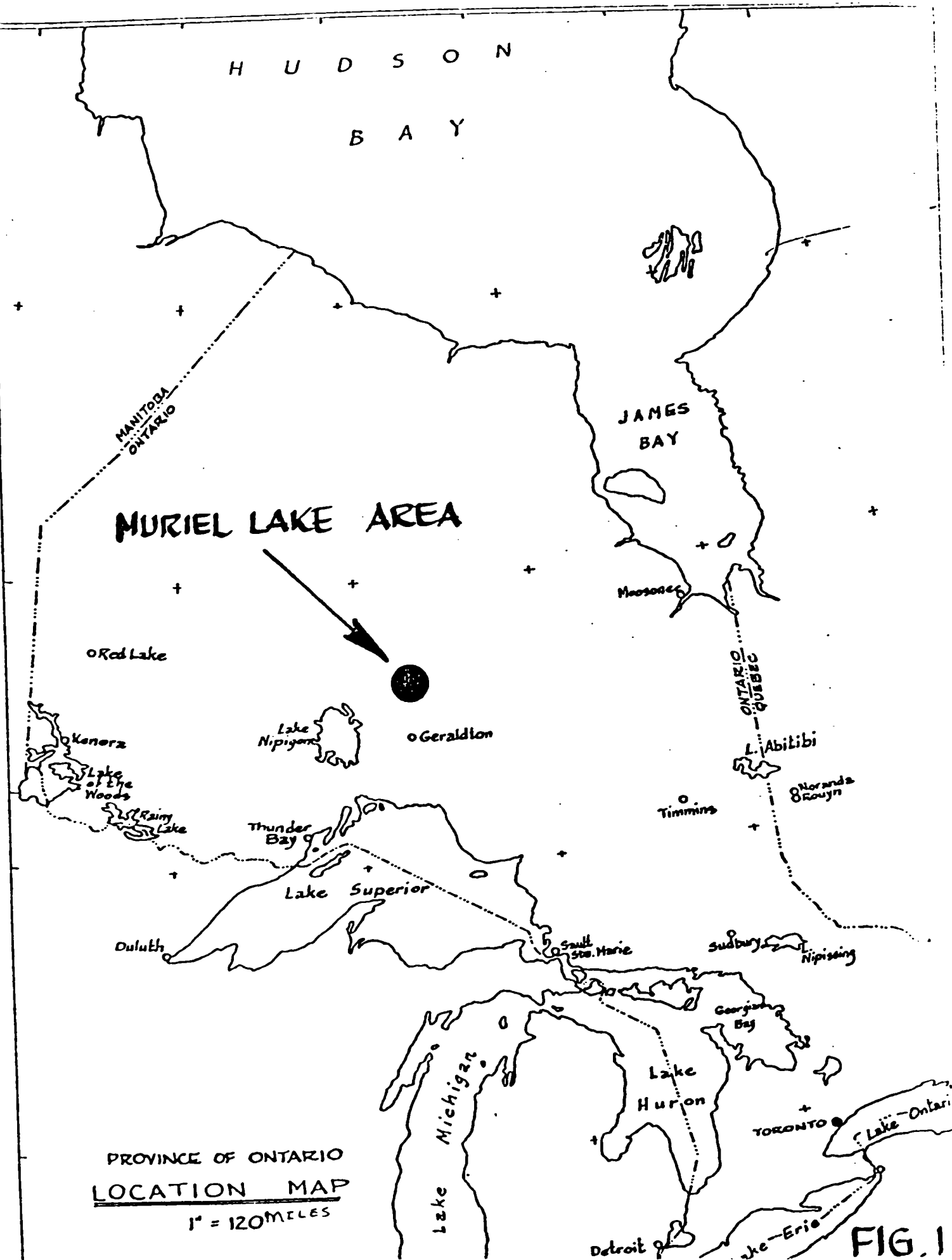
The property has been the OPAP supported exploration program target for 1992 and 1993. The work has concentrated on extending the known occurrences and evaluating the airborne conductors.

The exploration to date has been highly successful locating copper bearing zones (>13% copper) and alteration horizons. The success of the programs has indicated that further work should include linecutting, geophysics, detailed mapping, stripping and sampling.

LOCATION AND ACCESS

The claim group lies approximately 300km northeast of Thunder Bay, Ontario and 35km north of Nakina. The property is 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 42 L 7 NE.

Access is via logging road 643 north to O'Sullivan Lake and branching off on to a Kimberly Clark logging road northeast to Muriel Lake.



H U D S O N
B A Y

MANITOBA
ONTARIO

MURIEL LAKE AREA

JAMES BAY

o Red Lake

Moosonee

ONTARIO
QUEBEC

Lake Nipigon

o Geraldton

L. Abitibi

o Kenora

o Noranda Rouyn

Lake of the Woods
o Rainy Lake

o Timmins

Thunder Bay

Lake Superior

Sudbury

Nipissing

Duluth

o Sault Ste. Marie

Lake Michigan

Lake Huron

Georgian Bay

TORONTO

Lake Ontario

PROVINCE OF ONTARIO
LOCATION MAP

1" = 120 MILES

Detroit

Lake Erie

FIG. 1

PREVIOUS WORK

- 1980** **Between July 5 and August 18, AMAX Minerals Exploration Limited performed geological mapping on their 54 claim Muriel group. Waddington mentions one area of mineralization that is worth noting occurs in the southeast corner of claim TB 559277. This area corresponds well with a "bull's eye" MAG/EM anomaly.**
- 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. It was suggested that this survey be done in conjunction with a latter geological survey.**
- 1976** **Texasgulf Inc. flew an airborne geophysical survey (AMAG/AEM) over 8 contiguous claims (TB 405081-84, TB 405087-90) located south of Muriel Lake. A single conductive zone was detected with a near surface expression and a fairly strong response. It seems to have width or, possibly, there may be multiple zones. It was suggested that a ground check be done, but was never performed.**
- 1950** **Goldhar Resources drilled 7 short (100') winkle drill. Three holes were drilled on the southern zone while the other 4 locations are unknown.**
- 1932** **L.R. Kindle of the Ontario Department of Mines reported on the Hollard-Chellew occurrence south of Muriel Lake. It was reported on claim KK 1886 a channel sample across 4 feet of mineralized material contained 12% copper, 5.4 oz/ton silver and .05 oz/ton gold.**
- 1929** **Some prospecting and trenching were carried out by E.J. Holland and C. Chellew on this property located just south of Muriel Lake. J. Perry had claims adjoining the Holland-Chellew property, which had chalcopryrite and pyrrhotite occur in a lens of black schist.**

CLAIM DISPOSITION

The claim group consists of 2 separate blocks, a west block and an east block. Within these blocks the claims are contiguous unpatented mining claims recorded in good standing at the Mining Records Office in Thunder Bay on February 28, 1992. Claim map sheet Maun Lake G-319.

<u>West Block</u>	Claim	Units
	TB 1183794	12
	TB 1183795	16
	TB 1183796	12
	TB 1183797	15
	TB 1183798	12
Subtotal	5	67
<u>East Block</u>		
	TB 1183799	8
	TB 1183800	15
Subtotal	2	23
=====		
Total:	7 claims	90 units

PROPERTY GEOLOGY AND MINERALIZATION

The Holland-Chellew Occurrence is located in the extreme northeastern end of the KowKash Greenstone Belt where the belt appears to pinch out to approximately 7 to 8km wide. The claim group lies within the southern part of the greenstone belt, which strikes east-west.

Muriel Lake itself seems to contain a felsic intrusive/extrusive body of limited extent, now highly elongated along the strike of the belt. This is underlain and overlain by mafic submarine volcanic rock. The southern cycle is quite thick and well pillowed but has very persistent sulphide horizons exposed locally. These appear to be interflow felsic tuffs and siliceous sediment units carrying disseminated to massive pyrrhotite and pyrite. A number of samples have contained anomalous zinc and copper concentrations.

Some old trenches reported by Kindle in 1931, yielded a 4 foot channel sample with 12% Cu, 5.4% Ag and .05 oz/ton Au. Another sample assayed 5.7% Zn and 45 oz/ton Ag. AMAX sampling in 1980 turned up several anomalous assays with copper values ranging from 1.0 to 1.2% Cu and Zn values in the 1% range. Ministry of Northern Development and Mines Geologist, M. Hine, visited this property in 1987 and took a grab sample which assayed 2.56% Cu and 0.16 oz/ton Au.

The 1992 OPAP program came up with numerous significant assays which will have to be followed up on this grant.

There appears to be no shortage of interesting values coming from this area with these sulphide zones occurring over a strike length of at least 6km with a positive magnetic anomaly extending for approximately 20km. This would indicate a large amount of sulphide minerals present.

Alteration in the form of garnetiferous schists have been observed in the area and are well worth investigating. The area is considered to be favourable for a Volcanogenic Massive Sulphide deposit and therefore desperately needs an aggressive exploration program.

1992 OPAP PROGRAM

A total of 39 days were spent on the Muriel Lake property in 1992. One hundred and four (104) samples were taken, with 54 of these being analyzed for lithogeochemical results. The other 50 samples were analyzed for gold, copper and zinc.

The lithogeochemical samples were taken systematically on the west block on north-south lines spread approximately 400 metres apart. One line of litho sampling was done on the west boundary of the east block. These litho samples were labelled ML-L-1 to 54. The purpose of this sampling was to determine the extent of the base metal alteration in the area. Some rocks did return results consistent with base metal alteration.

The Au, Cu and Zn sampling was mostly done on the massive sulphide units found throughout the property. All these units returned anomalous copper and zinc.

In July a trenching program was implemented on the Perry showing and the Galena Vein showing. The better exposure helped us sample and to see more of the zones.

As a result of the work performed in 1992, four (4) companies have expressed interest in the property and will visit it this summer. The four companies are Placer Dome, Noranda Exploration, Inco Exploration and Tandem Resources.

1992 OPAP RESULTS

The following assays are the significant results obtained from this OPAP program:

West Block

(Grab Samples)

ML-1	5.8% Zn
ML-2	0.7% Zn
ML-3	0.2% Cu
ML-32	0.1% Zn
ML-33	0.1% Zn
ML-36	0.1% Cu
ML-37	0.4% Zn, 0.2% Cu
ML-38	0.2% Zn, 0.1% Cu
ML-43	0.2% Cu
222984	2.0% Zn
222985	1.3% Zn
222988	0.1% Zn, 3.9% Cu
222990	0.8% Cu

East Block

(Grab Samples)

ML-26	0.4% Zn, 0.2% Cu
-------	------------------

Together with these significant assay results were a number of anomalous lithogeochemical results which showed base metal alteration in this area.

1993 OPAP PROGRAM

The proposed 1993 OPAP program was modified when Aubrey Eveleigh was not awarded an OPAP program. The completed program consisted of 21 days of OPAP prospecting days and 35 samples (Daily Log). The prospecting concentrated on the extensions of the known showings and the evaluation of airborne conductors. Aubrey Eveleigh assisted in the prospecting and sampling as well as operated the VLF EM-16. The VLF was used to test the potential conductivity of zones not located by the government airborne.

The program was carried out from the O'Sullivan Lake Outfitters Camp instead of a tent camp. The Outfitters was more practical since no extended stays were possible and the main road is now well travelled and camp equipment may not have been safe.

All access was via truck except for the attempt to access the north side of Muriel Lake. During the attempt to traverse to Muriel Lake an ATV was used on a short section of logging skidder trails.

1993 OPAP RESULTS

The 1993 OPAP program concentrated on the East Block Airborne anomalies and the area East and West of the J.J. Perry and Galena Vein Showings. The program concentrated on evaluating and enhancing the areas to produce a property that would be in demand for optioning.

The work on the East Block (Map 2) revealed a garnet schist zone which corresponds to a 600 metre long airborne. This schist zone is underlain by massive pillowed volcanics with intercalated pyrite-chert horizons. Within the garnet schist to toward the northern edge of the zone a recrystallized sericite altered chert horizon is present. The whole rock analysis of the chert sample indicates a low volume of trace elements and is consistent to an altered chert. This package of rocks indicates the potential of an exhalite horizon associated to the airborne anomaly.

The prospecting East and West of the J.J. Perry and Galena Vein Occurrences concentrated on expanding the known mineralization, locating new occurrences and defining the stratigraphy and alteration of the zones (Map 3). The prospecting of the extensions of the zones extended the Galena Vein Horizon to a total known length of 2.2 kilometres and the J.J. Perry (Limestone) Horizon to a total known length of 800 metres (Map 3). The extension of the J.J. Perry occurrence was accomplished by locating the historic Kindle Occurrence which assayed up to 9% copper (sample by Inco). Within the extended strike zone a chalcopyrite bearing felsic tuff horizon was located with assays up to 13% copper (Map 3). Work on defining the stratigraphy interprets the younging direction as being south and the presence of two fold axis' plunging east 20 and west 45. The stratigraphy seems to consist of pillowed volcanics overlain by chert-pyrite and intermediate tuffs, dacite (intermediate volcanics) flows, felsic tuffs, limestone/argillite, felsic tuffs/sediments and mafic volcanics. The stratigraphic column is intruded by sublevel sills and dikes of medium grained mafic which may be coarse flow centres in some outcrops. The alteration of the rhyolite is dominantly sericite and of the limestone is garnet/pyroxene. Examination of the assays of the rocks in the area of the main showings show a constant copper value of > 100ppm. This indicates a broad copper alteration zone around the main showings. Consistent zinc values from the Galena Vein Occurrence were >400ppm.

CONCLUSIONS AND RECOMMENDATIONS

The 1993 OPAP prospecting program concentrated on evaluating the Muriel Lake properties potential for hosting a base metal deposit. The prospecting of the East Block indicates the association of the garnet schist alteration zone to the 600 metre long airborne anomaly. The prospecting in the Galena Vein and J.J. Perry showing area succeeded in extending both zones. The Galena Vein Showing has been extended to a known length of 2.2 kilometres with assays on the original showing averaging > 400 ppm zinc. The J.J. Perry showing has been extended to >800 metres. The extension of the zone was accomplished with the locating of the Kindle Occurrence (9% copper) and the felsic tuff zone (>13% copper).

The success of the OPAP program indicates the property has the potential of hosting a base metal deposit. Recommendations for further exploration include linecutting, geophysics, detailed mapping, stripping and sampling. The geophysics will include a Max Min and Magnetic survey to define the stratigraphy and conductor horizons. The detailed mapping coupled with sampling will evaluate and interpret the geophysics results. The stripping program will expose the areas defined by the mapping and geophysics and allow detailed sampling.

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**

Statement of Qualifications

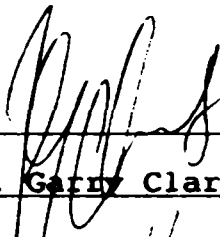
I, J. Garry Clark do hereby certify:

- I am a resident of Thunder Bay, Ontario, Canada with address 618 N. Vickers Street, P7C 4B7
- I have been engaged in base and precious metal exploration as a geologist since 1983
- I am a graduate of Lakehead University, Thunder Bay, Ontario (H.B.Sc., Geology, 1983)
- I have not received, directly or indirectly, or expect to receive any interest in the company and its properties

Signature: _____

Name: _____

Date: _____



J. Garry Clark

Dec 20, 1993

Appendix I

J.G.Clark
OPAP 1993
DAILY DIARY

TRIP 1:

- July 10th - Travel to property from Thunder Bay. Examine last years stripping and tried to work out structure and mineralization. Drove north on new logging roads. Possible access to north of Muriel Lake by new loop road.
- 11th - Followed trail in from road to west to the east boundary of west claim block. This area covers the iron formation identified by the airborne. Located old trenches in argillite-pyrite-pyrrhotite horizons.
- 12th - Same as Day before. Took a total of 5 samples over two days.
- 13th - Property visit by Inco, John Mason and Gerry White. Locate Kindle massive Chalcopyrite with limestone on strike to J.J. Perry. (NON-OPAP DAY)
- 14th - Prospecting in area west of Main Showings near newly located Kindle showing. One sample of massive chalcopyrite.
- 15th - Prospecting in area west of Main Showings trying to sort out the stratigraphy. Rainy wet day.
- 16th - Tried to access north side Muriel Lake from new logging areas. Wandered all day all sand plain and couldn't locate north side of lake. Ended up on Muriel River (possibly).
- 17th - Prospected the west boundary claim line of the East Block. The traverse started from end of the trail from road (iron formation) and travelled north and then back to road in north. Then travelled back to Thunder Bay.

TRIP 2:

- Sept. 4th - Travel to property and prospect Main Showings. Work on potential of JJ Perry Occurrence may be folded. Locate further massive chalcopyrite associated to felsic tuff 15 metres west of original showing.
- Sept. 5th - Prospecting west of Lake to follow pyrite-chert and felsic horizons. Located extensions and sampled.
- Sept. 6th - Prospect west boundary of claim area, complete two traverses to prospect the airborne anomalies. Mostly swamp and mafic volcanics\intrusives.
- Sept. 7th - Followed trail into East Block and further along north airborne trend. Almost get to airborne conductors near swamp. On and off misty rain all day.
- Sept. 8th - Headed directly for Conductors near swamp East Block. Located area of conductors on strike to wide zone of garnet alteration.
- Sept. 9th - Back into garnet alteration area tried to follow zone west. Numerous outcrops of garnet schist but outcrop less west to large esker and small pond at claim line.

TRIP 2 (Cont'd):

- Sept.10th - Hand stripping of area west of main showings and establish Baseline from Showings to Lake. Also flag north-south old line of Amax.
- Sept.11th - Hand stripping and prospecting west of main showings and on felsic tuff chalcopryrite showing.
- Sept.12th - Pouring rain- left for Thunder Bay.

TRIP 3:

- Sept.24th - Travel to property. Tried VLF-EM across Galena Vein Showing TO Check response. Vlf defines conductor why no airborne? Prospect east of Showings on Felsic horizon.
- Sept.25th - Prospect west and east of main showings. Hand stripping of felsic outcrops to help with interpretation of stratigraphy.
- Sept.26th - Blasting of various outcrops to help sampling. Tried Vlf across pyrite-chert showing near lake. Conductor strong but no airborne response.

TRIP 4:

- Oct. 13th - Travel to property and prospect west of little lake. Try to extent pyrite-chert horizon through swamp. No luck.
- Oct. 14th - Woke up to 10cm. snow. Went to main showings snow melted off stripped areas. Worked on detail examination of outcrops to try to determine younging direction, alteration, mineralization and structure. Younging south, strong sericite alteration of felsics, chalcopryrite dominantly at limestone contact and zone highly folded.

TRIP 5:

- Oct. 19th - Travel to property. Snow melted. Prospcted east and west of showings. Tried to define folding on strike to main showings.
- Oct. 20th - Prospecting around lake west of showings and detailed sampling of main showings.

Appendix II

Sample Number	Description	Location	Significant Results
213851	Biotite altered felsic, cpy on fracture and disseminated pyrite	Map 3	76 ppm Zinc.
52	Dacite to intermediate intrusive	Map 3	61 ppm Zinc
53	Biotite altered sediment / felsic	Map 3	41 ppm Zinc.
54	Biotite altered sediment	Map 3	26 ppm Zinc.
55	Recrystallized, sericite altered chert	Map 2	see whole rock.
56	Coarse garnet schist	Map 2	74 ppm Copper
57	Fine to medium garnet schist	Map 2	52 ppm Copper
58	Coarse garnet schist	Map 2	67 ppm Copper
17142	Contact of felsic xenolith to mafic (gabbro) intrusive	Map 3	204 ppm Copper
43	Pyrite-chert horizon in pillowed flows	Map 2	118 ppm Copper
44	Fine grained mafic, trace pyrite.	Map 3	201 ppm Copper
45	Mafic tuff, minor pyrite	Map 3	136 ppm Copper
46	Sheared mafic tuff, coarse grained amphiboles	Map 3	140 ppm Copper
47	Hyaloclastic flow top, trace chalcopyrite and pyrite	Map 3	119 ppm Copper
48	Contact felsic xenolith to mafic (gabbro) intrusive	Map 3	298 ppm Copper
49	mafic flow/tuff, 1-2% pyrite	Map 3	274 ppm Copper
50	Sheared to foliated mafic to intermediate tuff	Map 3	112 ppm Copper
17993	Chip (1.5m) intermediate tuff (5% pyrite)	Map 3	896 ppm Zinc
94	"	Map 3	170 ppm Copper
	"	Map 3	701 ppm Zinc
	"	Map 3	162 ppm Copper
95	Rhyolite contact to limestone	Map 3	232 ppm Copper
96	Chalcopyrite, Lindie Trench	Map 3	>10,000 ppm Copper
97	Chalcopyrite, chert, J. S. Perry Trench	Map 3	>10,000 ppm Copper

Sample Number	Description	Location	Significant Results
AE-93-1	Argillite, pyrite, pyrrhotite, iron formation	Map 1	3778 ppm Zinc.
-2	Similar to AE-93-1	Map 1	144 ppm Zinc.
-3	Sugary quartz (recrystallized chert?) 5% pyrite iron formation	Map 1	137 ppm Zinc
-4	Garnet, chlorite schist. trace pyrite	Map 1	132 ppm Zinc
-5	same as AE-93-4	Map 1	see Whole rock.
-6	Massive chalcopyrite, Kindle trench	Map 3	>10,000 ppm Copper
M-1	Massive chalcopyrite, beside felsic schist, 15 m west J.S. Perry	Map 3	13.89% Copper 237 ppb Gold
-2	2-3% chalcopyrite in felsic tuff/pyroclastic	Map 3	1.86% Copper 123 ppb Gold
-3	Quartz vein, Crack and Seal trace pyrite	Map 3	35 ppb Gold
L-1	Amphibole biotite alteration of felsic sediment at Kindle Trench	Map 3	4064 ppm Copper
-2	Silica altered sediment at limestone contact	Map 3	139 ppm Copper
-3	Altered mafic volcanic, minor pyrite pyrrhotite, chalcopyrite	Map 3	350 ppm Copper
-4	Intermediate Tuff 3-5% pyrite galena vein trench	Map 3	494 ppm Zinc 190 ppm Copper

Appendix III



ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

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

Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

October 1, 1993

Job #934396

Accurassay	Sample # Customer	Zinc ppm	Copper ppm
	1 213851-	76	51
	2 213852-	61	5
	3 213853-	41	29
	4 213854-	26	18
	5 213855	16	18
	6 213856	18	74
	7 213857	6	52
	8 213858	52	67
	9 217142-	23	204
	10 217143	49	118
	11 217144-	6	201
	12 217145	37	136
	13 217146	29	140
	14 217147	42	119
	15 217148	16	298
	16 217149	24	274
	17 217150	81	112
	18 217993	896	170
	19 217994	701	162
	20 217995	46	232
	21 217996	301	>10000
	22 217997	163	>10000

Certified By: Chris Bevan



ACCURASSAY LABORATORIES

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Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
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September 22, 1993

Job #934396

Accurassay	Sample # Customer	Gold ppb	Gold Oz/t
	1 213851	<5	<0.001
	2 213852	<5	<0.001
	3 213853	7	<0.001
	4 213854	<5	<0.001
	5 213855	<5	<0.001
	6 213856	<5	<0.001
	7 213857	5	<0.001
	8 213858	<5	<0.001
	9 217142	<5	<0.001
	10 217143	<5	<0.001
	10 217143 Check	6	<0.001
	11 217144	7	<0.001
	12 217145	7	<0.001
	13 217146	<5	<0.001
	14 217147	5	<0.001
	15 217148	10	<0.001
	16 217149	6	<0.001
	17 217150	8	<0.001
	18 217993	13	<0.001
	19 217994	14	<0.001
	19 217994 Check	18	<0.001
	20 217995	13	<0.001
	21 217996	97	0.003
	22 217997	479	0.014

Certified By: *[Signature]*



ACCURASSAY LABORATORIES

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Page 1

MR. GARRY CLARK
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October 1, 1993

Job #934396

Sample #	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	La ppm
213851	0.1	2.96	7	100	<1	<3	0.15	1	21	15	51	5.27	<1	8
213852	0.1	1.30	7	458	<1	<3	0.09	1	6	209	6	2.26	<1	17
213853	0.1	2.44	3	201	<1	<3	0.10	1	17	28	29	3.66	<1	7
213854	0.1	1.69	5	74	<1	<3	0.20	1	11	300	22	3.15	<1	13
213855	0.1	0.29	4	19	<1	<3	0.10	1	2	12	22	0.60	<1	11
213856	0.1	1.29	5	40	<1	<3	0.18	1	13	53	72	2.51	<1	7
213857	0.1	2.06	5	110	<1	<3	0.14	1	22	62	68	4.40	<1	9
213858	0.1	2.76	6	175	<1	<3	0.08	1	14	273	83	3.85	<1	8

Sample #	Hg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Si %	Sr ppm	Ti %	V ppm	W ppm	Zn ppm
213851	1.35	559	2	0.06	51	574	5	9	0.02	2	0.11	118	9	59
213852	0.93	342	1	0.05	34	339	6	<2	0.01	1	0.15	42	<2	52
213853	1.27	418	1	0.08	46	402	6	6	0.01	2	0.23	141	7	33
213854	0.98	326	2	0.07	39	383	6	4	0.01	3	0.13	76	4	22
213855	0.12	65	<1	0.02	2	249	5	<2	0.01	1	<0.01	1	<2	11
213856	0.54	212	2	0.03	42	714	4	<2	0.02	1	0.07	64	<2	12
213857	0.70	212	2	0.07	76	662	5	5	0.01	2	0.19	113	4	7
213858	1.58	282	2	0.12	35	471	5	7	0.01	3	0.19	71	9	45

Certified By: 



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November 2, 1993

Job #934396

Sample #	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	TiO2 %	MnO %	BaO %	Cr2O3 %	SO %	LOI %	Total %
213851	64.42	14.81	9.65	2.55	2.11	1.34	1.79	0.113	0.723	0.104	0.021	0.015	0.004	2.2	99.0
213852	72.66	14.92	3.26	1.39	2.03	5.77	1.32	0.043	0.274	0.041	0.040	0.062	0.008	0.5	102.2
213853	62.26	18.00	5.63	1.96	3.36	3.12	2.48	0.048	0.723	0.075	0.024	0.011	0.007	1.0	98.7
213854	69.36	14.39	4.89	1.53	2.11	4.02	1.22	0.014	0.433	0.047	0.018	0.098	0.006	1.4	99.1
213855	74.38	14.25	0.92	0.18	0.85	5.80	1.87	0.014	0.019	0.010	0.029	0.004	0.005	0.7	99.0
213856	57.20	17.33	17.35	2.12	2.17	1.11	0.59	0.126	0.694	0.207	0.004	0.037	0.004	0.2	99.0
213857	58.42	17.74	17.35	1.65	1.24	0.90	1.58	0.090	0.702	0.206	0.010	0.039	0.008	0.2	100.0
213858	69.35	12.93	6.76	2.77	1.87	2.15	2.15	0.072	0.338	0.082	0.013	0.088	0.004	0.8	99.4

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

Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

July 30, 1993

Job #934274

Accurassay	Sample # Customer	Copper ppm	Lead ppm	Zinc ppm
	1 AE-93-1	280	129	3778
	2 AE-93-2	82	40	144
	3 AE-93-3	43	40	137
	4 AE-93-4	53	31	132
	5 AE-93-5	64	44	77
	6 AE-93-6	>10000	14	652



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FAX (807) 623-6820

Page 1

Garry Clark
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

July 26, 1993

Job #934274

Accurassay	Sample #	Customer	Gold ppb	Gold Oz/t
	1	AF-93-1	20	<0.001
	2	AF-93-2	2	<0.001
	3	AE-93-3	12	<0.001
	4	AE-93-6	135	0.004
	4	AE-93-6 Check	47	0.001



ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

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Page 1

MR. GARY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

July 30, 1993

Job #934274

Parameter (%)	AE-93-4	AE-93-5
SiO ₂	53.79	57.85
Al ₂ O ₃	15.09	14.25
Fe ₂ O ₃	16.14	14.36
MgO	3.77	2.8
CaO	3.88	6.34
Na ₂ O	2.08	0.51
K ₂ O	0.22	1.5
P ₂ O ₅	0.125	0.159
TiO ₂	1.329	1.338
MnO	0.307	0.237
BaO	0.007	0.016
Cr ₂ O ₃	0.055	0.063
SrO	0.013	0.021
LOI	2.2	1.8
Total	99.01	101.24



ACCURASSAY LABORATORIES

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FAX (807) 623-6820

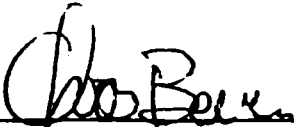
Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

November 2, 1993

Job #934537

Accurassay	Sample #	Customer	Gold ppb	Gold Oz/t
1		ML-1	28	<0.001
2		ML-2	<5	<0.001
3		ML-3	<5	<0.001
3		ML-3 Check	<5	<0.001
4		ML-4	12	<0.001
4		ML-4 Check	9	<0.001

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

Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

November 11, 1993

Job #934537

Accurassay	Sample # Customer	Zinc ppm	Copper ppm
	1 ML-1	179	4064
	2 ML-2	30	139
	3 ML-3	64	350
	4 ML-4	494	190

Certified By: *Chris Bever*



ACCURASSAY LABORATORIES

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1070 LITHIUM DRIVE, UNIT 2
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Page 1

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

September 29, 1993

Job #934439

Accurassay	Sample #	Customer	Gold ppb	Gold Oz/t
	1	M-1	237	0.007
	2	M-2	123	0.004
	3	M-3	35	0.001
	3	M-3 Check	22	<0.001

Certified By: *Chris Beck*



ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

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

MR. GARRY CLARK
618 North Vickers Street
Thunder Bay, Ontario
P7B 5B7

October 14, 1993

Job #934439

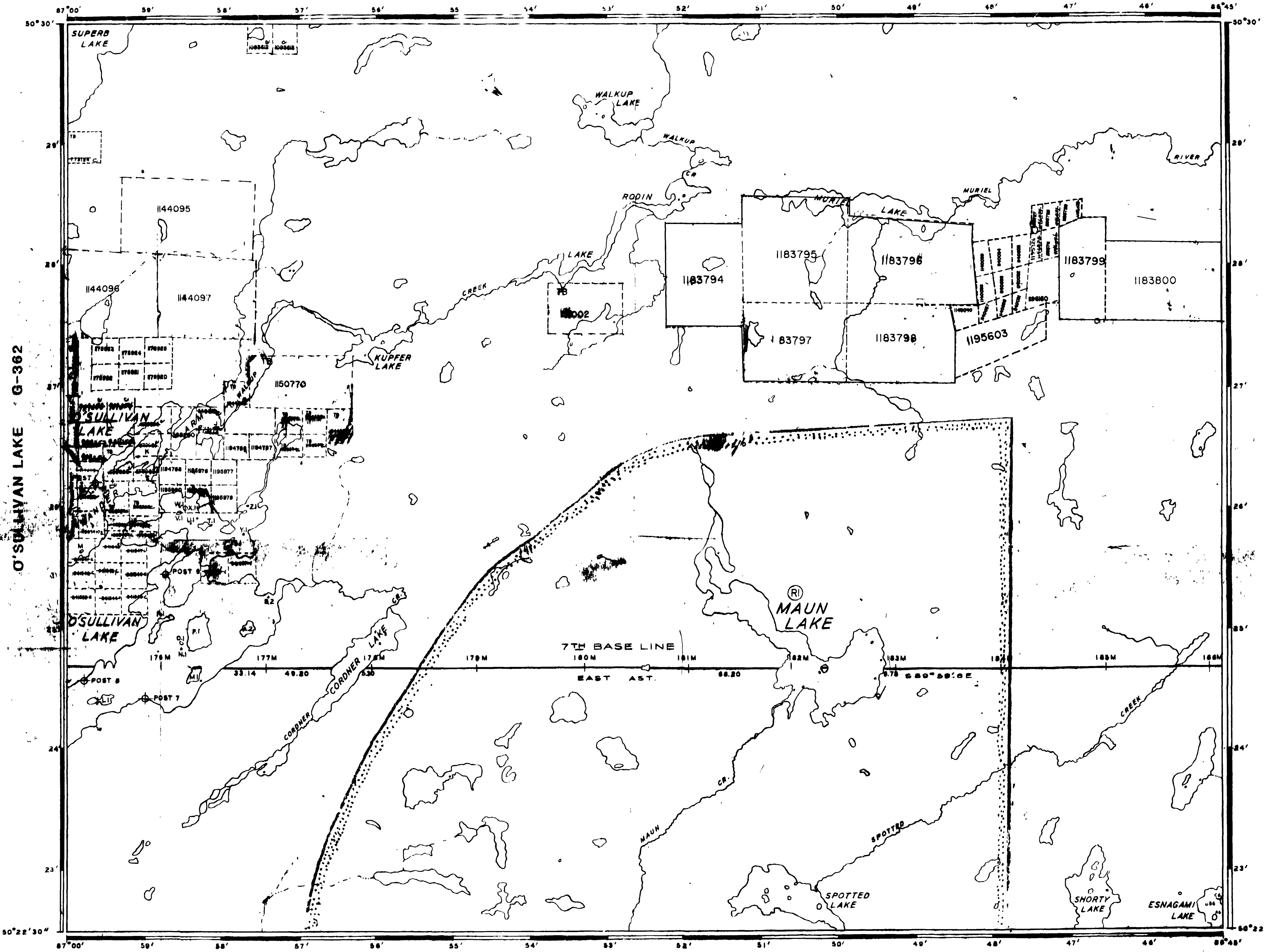
Accurassay	Sample # Customer	Zinc ppm	Copper %
1	M-1	483	13.89
2	M-2	106	1.86

Certified By: Chris Berr

REFERENCES

MINING RIGHTS WITHDRAWN FROM STAMPS
 1878-1879
 PROPOSED NATIVE RESERVE

TERRIER LAKE G-429



REFERENCES

THUNDER BAY
 MINING DIVISION
 93 JUN 18 AM 10 45

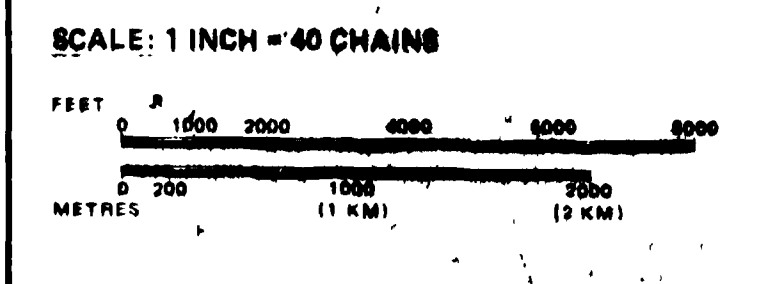
LEGEND

- 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 MUCKEG
- 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	◕
RESERVATION	◖
CANCELLED	◗
SAND & GRAVEL	◘
LAND USE PERMITS FOR COMMERCIAL TOURISM/OUTPOST CAMPS	◙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 1, 1915, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 306, SEC. 69, SUBSEC. 1



AREA

MAUN LAKE

M.N.R. ADMINISTRATIVE DISTRICT
GERALDTON

MINING DIVISION
THUNDER BAY

LAND TITLES / REGISTRY DIVISION
THUNDER BAY

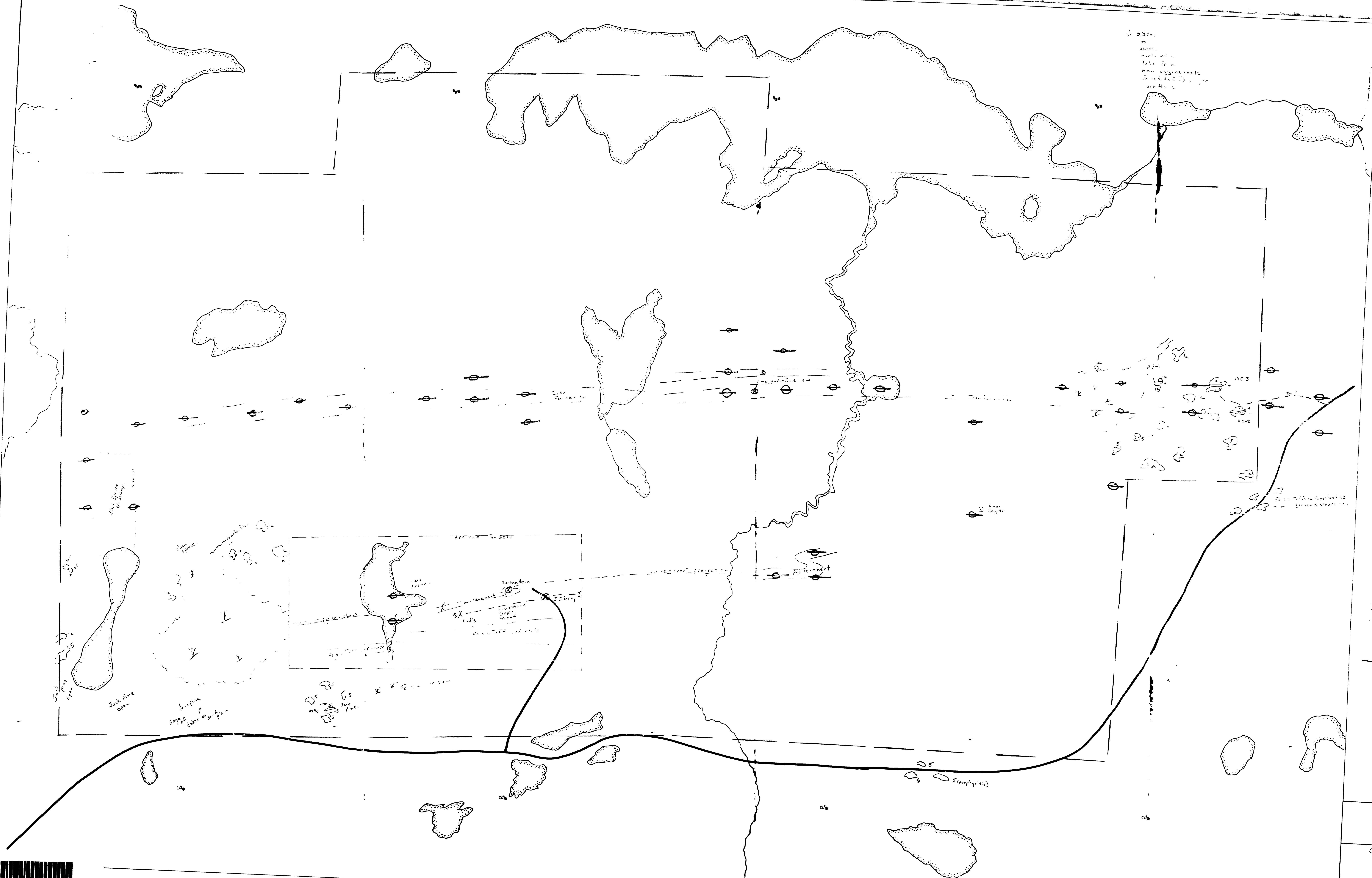
Ministry of Land Management
 Natural Resources Branch

Ontario
 FEBRUARY 10, 1987

Date: JULY, 1987

Number: **G-319**

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDS, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



LEGEND

- 1a Flowed in case
- 1b Flowed in case
- 2
- 3
- 4
- 5
- 6
- 7
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SYMBOLS

- 8 Swamping
- 9 Airborne EM anomaly
- 10 Swamp
- 11 Trenches in respect to outcrop
- 12 Sample No. & loc.

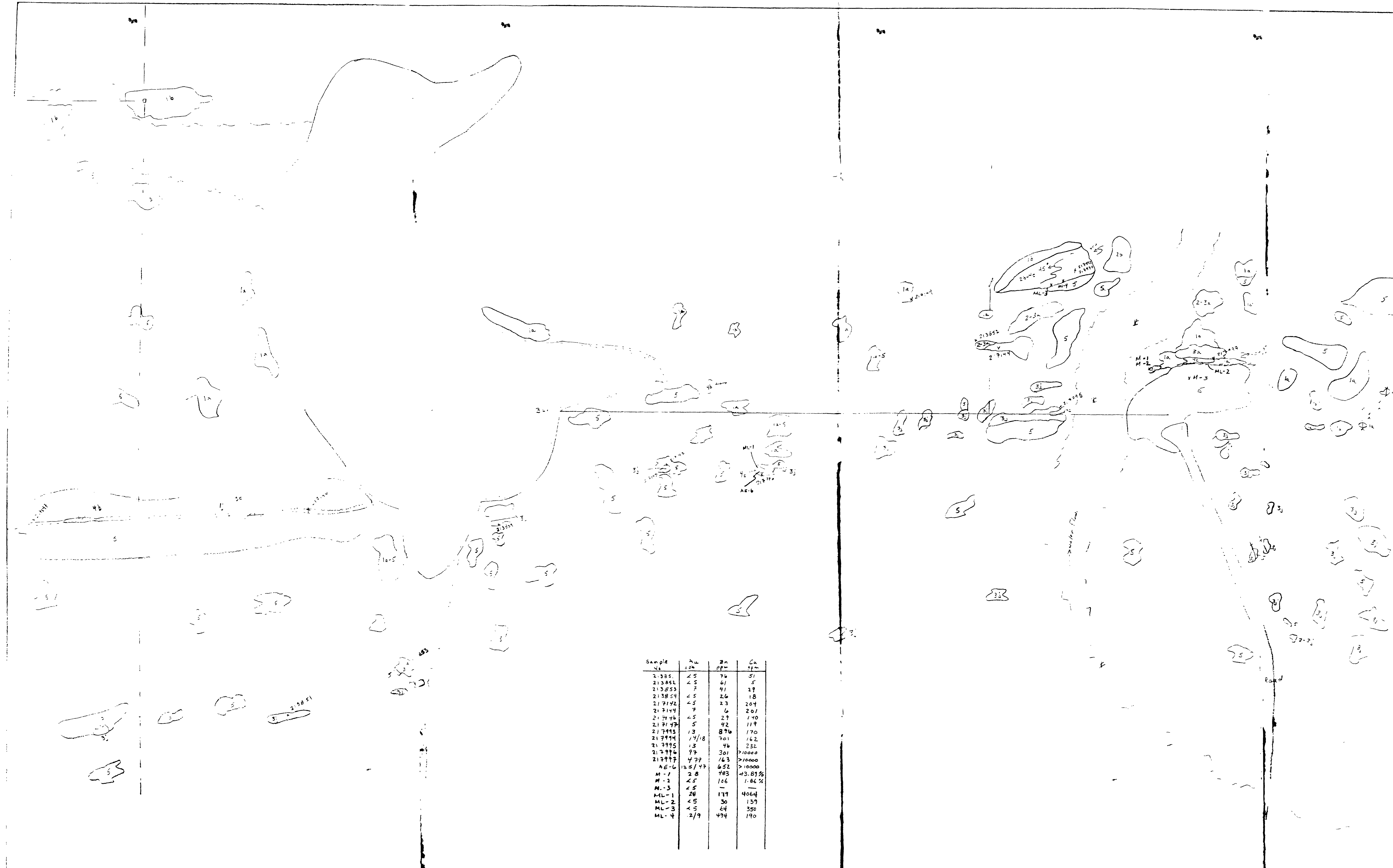


Muriel Lake
(West Zone)

Geology, Sampling and
Interpretation.

OPAP 1993

Map 1



Legend

- 1. mafic volcanic
 - a) massive flow
 - b) pillowed
- 2. Intermediate
 - a) flow
 - b) tuff
- 3. Fabric
 - a) flow
 - b) tuff
- 4. Sediment of Limestone
- 5. Mafic Intrusive

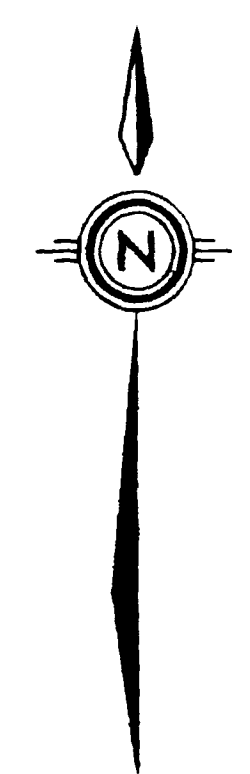
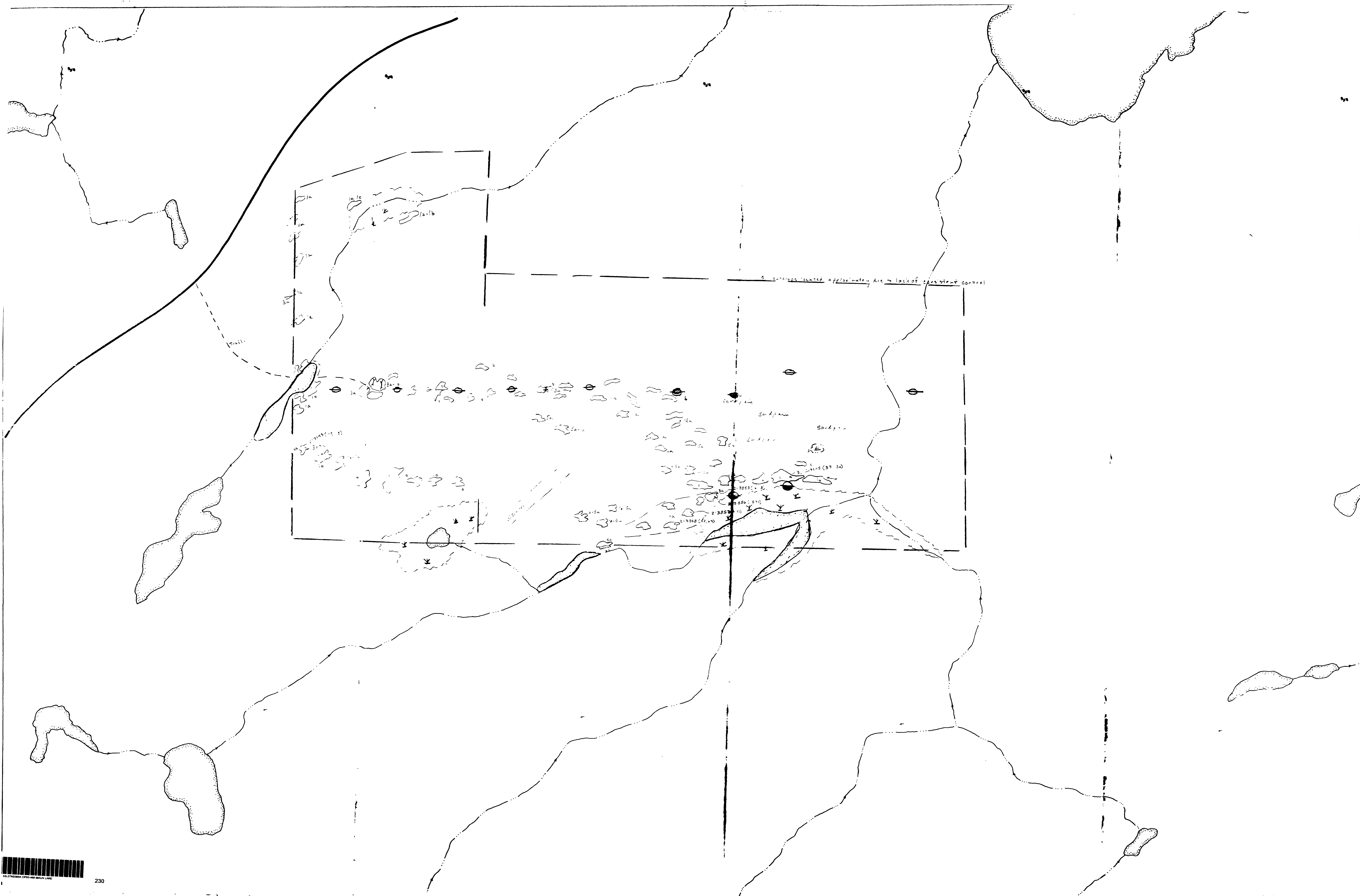
Symbols

- strike, dip
- trench
- fold and plunge
- swamp
- sample no. + loc.
- shear zone
- foliation

0 20 metres

Muriel Lake
Shear and West
Geology and Sampling
OPAP, 1993
1:1000
Map 3 J.G.C.

Sample No.	Al (%)	Si (%)	Ca (%)
21385	45	54	51
21386	45	41	5
21387	45	41	17
21388	45	26	18
21712	45	23	207
21714	45	6	201
21716	45	27	110
21717	5	42	119
21718	13	876	170
21719	17/18	701	162
21720	13	46	232
21721	97	301	10000
21722	477	163	10000
AE-6	13.5/47	652	>10000
M-1	2.8	785	43.87%
M-2	4.5	106	1.84%
M-3	4.5	-	-
ML-1	28	177	4064
ML-2	45	30	137
ML-3	4.5	64	350
ML-4	279	494	170

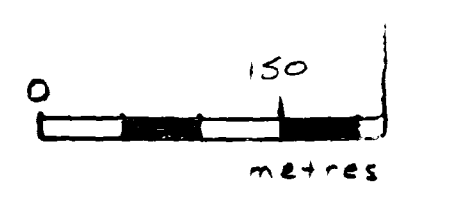


LEGEND

- 1 mafic volcanics
 - a) flows (massive)
 - b) sillowed
- 3 sediments
 - a) grey wacke
 - b) iron formation
 - c) argillite-pyrite-sphalerite
 - d) chert = quartz
- 4 garnet schist
- 5 mafic intrusive
 - a) magnetite (flow)
 - b) gabbro
- 6a, grey ss

SYMBOLS

- ⊕ outcrop
- foliation
- a barren EM conductive sample location, and (Zn, Cu) ppm.
- 50 metres



11 of 2
 Muriel Lake
 (East Block)
 OPAP 1992
 Geology and Sampling
 Scale
 1:5000
 Nov. 93

