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REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE SHININGTREE PROSPECT
OF TRINITY EXPLORATIONS, CONNAUGHT TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO

RESPECTFULLY SUBMITTED BY,

H. FERDERBER GEOPHYSICS LTD.

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APR 22 1991

MINING LANDS SECTION

Val d'Or (Québec)
April 17, 1991

R.A. Campbell, B.Sc.
Geology

Quail 2.6609



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REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE SHININGTREE PROSPECT
OF TRINITY EXPLORATIONS, CONNAUGHT TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO

INTRODUCTION

On February 18, 1991 airborne magnetic and VLF-electromagnetic surveys were completed out on the Shiningtree Prospect of Trinity Explorations in Connaught Township, Larder Lake Mining Division, Ontario. Magnetic and VLF-electromagnetic data was collected by the airborne division of H. Ferderber Geophysics Ltd. The survey was flown from a base at Val d'Or, Quebec. A total of 23.3 miles of data was collected.

The magnetic survey provides data which helps outline the underlying geological structures and helps identify any potential economic concentrations which may contain variations in accessory magnetic minerals. The results of the VLF-electromagnetic survey define conductive zones which may represent shear zones and/or sulphide deposits containing precious, platinum and/or base metal mineralization.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Shiningtree Prospect of Trinity Explorations is comprised of 20 claims covering approximately 320 hectares in the southeastern quarter of Connaught Township, Larder Lake Mining Division. The claims are registered with the office of the Mining Recorder in Kirkland Lake and are listed in Appendix 1.

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The property is located approximately 5 miles northwest of the village of Shining Tree, 80 miles southwest of the town of Kirkland Lake and 60 miles south of the City of Timmins. Provincial Highway 560 is situated 5 miles east of the claim group, so access is best obtained by float plane to the north end of Elephant Head Lake, which underlies the southern boundary. Most of the claims are forest covered. Three small ponds and two creeks are located on the property. Small swamps surround the ponds and creeks. Topographical relief appears to be low, with the southern end of south-southwest trending esker crossing the northeastern boundary. Outcrop exposure is fair over the eastern and northwestern claims.

Supplies, services and qualified manpower are available in the Kirkland Lake-Timmins-Shining Tree areas.

GEOLOGY AND MINERALIZATION

The claim block is located across the southwestern end of the Abitibi Volcanic Belt of the Superior Province of the Canadian Shield. The Abitibi Volcanic Belt extends for nearly 350 miles in a west-east direction from Timmins to Chibougamau. It is host to a variety of precious and base metal deposits including the Timmins, Kirkland Lake, Noranda, Val d'Or and Chibougamau mining camps.

The Abitibi Volcanic Belt is composed of a complex assemblage of interbedded volcanic and sedimentary rocks intruded by a variety of intrusives, from ultrabasic to granitic in composition. The rocks are Archean in age and have been metamorphosed to the green-schist facies. Numerous late Precambrian diabase dykes cut formations of the belt. The rocks generally strike east-west, have a vertical dip and are highly folded and faulted. Geological interpretation of the Abitibi Volcanic Belt is complicated by both the wide scattering of outcrops and the complex structural relationships.

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Various Ontario Government Geology Maps, including 43c (Makwa-Churchill Area), 2205 (Timmins-Kirkland Lake) and 2510 (Shining Tree Area) and accompanying reports outline and describe the geology thought to underlie the Shiningtree Prospect. Gold Deposits of Ontario, Part 2 and a Trinity Explorations Abstract on the Shiningtree Prospect describe the mineralization on the property.

The geology maps show that the claims are underlain by tholeiitic and calc alkalic metavolcanics and felsic intrusive rocks of the Miramichi Batholith. The eastern part of the property is underlain by south-southeast to southeast trending intercalated bands of mafic metavolcanic flows, intermediate metavolcanic flows and lapilli-tuff and felsic metavolcanic flows. Massive granodiorite and porphyritic granite of the Miramichi Batholith underlie the western and southeastern claims. A small unit of Espanola Formation limestone and associated magnetite has been found unconformably overlying the felsic metavolcanics, 0.5 miles north of Elephant Head Lake. Map 2205 also shows that a diabase dyke strikes south-southeast through the metavolcanic and granodiorites-granites in the western most claims. The parallel striking Elephant Head Lake Fault Zone cuts across the rocks underlying the central part of the property.

The Royal Agassiz or Saville Au-Ag-Cu-Zn Occurrence lies near the central part of the property. The occurrence lies in magnetite facies iron formation in contact with Espanola Formation calcite within felsic metavolcanics. In 1971 a grab sample from a 4 foot section of trench containing magnetite, massive chalcopyrite, pyrite, bornite, malachite and azurite, assayed 10.8% Cu, 0.23% Zn, 4.90 oz/ton Ag and 0.10 oz/ton Au.

In Asquith Township, numerous gold showing have been discovered in shear zones and quartz veins within intermediate to mafic metavolcanics, 5 to 7 miles east-southeast of the Shiningtree Prospect.

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INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a 1972 Cessna 172, fixed wing aircraft, call letters CF-EWK, owned and operated by H. Ferderber Geophysics Ltd. The pilot and navigator/operator were M. Turcotte and D. Monastesse respectively of Val d'Or and Vassan.

Magnetometer

The magnetometer used was a GEM Systems GSM-11, high sensitivity airborne proton (Overhauser) magnetometer. The instrument continuously measures the Earth's magnetic field at a 0.01 gamma sensitivity for 1 reading per second to 10 readings per second at a 0.1 gamma sensitivity. For this survey four readings per second were collected. The analog output is on 3 channels, from 1 to 10,000 gammas full scale.

VLF-EM System

A Herz Totem 2A VLF-EM System was used to measure the changes in the total field and in the vertical quadrature field on two frequencies simultaneously, with an accuracy of 1%. Because of the orientation of the flight lines the primary transmitting station (VLF-1) of Annapolis, Maryland (NSS), frequency 21.4 kHz and secondary station (VLF-2) at Seattle, Washington (NLK), frequency 24.8 kHz were used.

Radar Altimeter

The ground clearance was measured with a King 10/10 A radar altimeter. The survey was flown at a mean clearance of 300 feet with the altimeter producing an accuracy of 5% (15 feet) at this altitude.

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Tracking Camera and Video Centre

A RCA TC-200 colour video camera and Galaxy 200 video centre was used to record the flight path on standard VHF type video tapes. Manual fiducials were indicated on the picture frames for reference with digital printout. Flight path recovery was aided using a Panasonic Colour Video Monitor-S1300 and Video Cassette Recorder AG-2500.

Data Acquisition System

A Picodas Group Inc. PDAS 1100 data acquisition system featuring seven analog inputs with two frequency inputs and external interfacing was used. A Termiflex Corp. ST/32 Keyboard control unit and Sharp Corp. LCD display unit are connected to the data acquisition system. At present this system stores the altimeter VLF-1 in-phase, VLF-1 quadrature, VLF-2 in-phase, VLF-2 quadrature, magnetic field (coarse), magnetic field (fine), and the fourth difference (noise), and fiducials on 3.5 inch floppy disk drive. The data is then printed out in digital and profile form.

The survey was conducted on lines oriented at $035-215^{\circ}$ flown at an average aircraft altitude of 300 feet and a speed of approximately 90 miles per hour. Geophysical responses were collected at data points spaced at 33 foot intervals along the lines. The lines were spaced at 440 foot intervals. Navigation was visual using airphoto mosaics, at a scale of one inch to 1320 feet, manual fiducials, and the flight path recovery system as references.

DATA PRESENTATION

Flight lines, fiducial points and geophysical responses were reproduced from the airphoto mosaics at a scale of one inch to 1320 feet (1:15,840). The computer processing was performed utilizing

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the Geosoft Inc. 2-D Mapping System on an IBM compatible AGI computer. Plotting was done on a Houston Instruments DMPL-62 plotter driven by both the Geosoft and the AutoCad software. The outline of the claim block and claim map are shown on each map sheet.

The aeromagnetic data was corrected for diurnal variations by using a base line as reference. The data was then contoured at 20 gamma intervals and presented on Map MG-1.

The VLF-EM was transferred from the Totem 2AG memory to profiled form. Base values were determined for the VLF-EM profiled data. These values were used to correct for variations in transmitter strength and the corrected values were plotted on Maps EM-1 (Annapolis) and EM-2 (Seattle). The positive values were contoured at intervals of 2%. The conductor axes were determined and labelled 1A, 1B, 1C etc. (EM-1) and 2A, 2B, 2C etc. (EM-2). No priority was attached to the labelling system.

A map GI-1 showing a geological interpretation of the magnetic data, locations of the conductor axes and zones of mineralization is also included in the report.

SURVEY RESULTS AND INTERPRETATION

Magnetic Survey

The most prominent features presented on Map MG-1 are individual highs forming two parallel zones striking north-northwest across the property. These zones are probably caused by underlying Early to Late Precambrian diabase dykes (Map GI-1). The western dyke is located along the diabase dyke shown on Map 2205 and the eastern dyke lies along strike, between two outcrops of massive medium grained subalkalic diabase on Map 2510.

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An isolated east-northeast trending high was delineated on line 11, between the highs representing the diabase dykes. This high is probably caused by the zones of magnetite iron formation, in the Espanola Formation limestone, hosting the Cu-Zn-Au-Ag occurrence.

The magnetic high situated over the northwestern boundary may define the position of a Nipissing-Type diabase sill. Weaker highs underlie the northern claims indicating that these areas are underlain by units mafic metavolcanic rocks.

The north-northwest trending highs caused by the diabase dykes distort the general magnetic contour patterns over most of the property. Most of the property is underlain by rocks of low magnetic susceptibilities, felsic to intermediate metavolcanics and felsic intrusive rocks of the Miramichi Batholith. The contact with the granodioritic-granitic rocks of the batholith to the south and metavolcanic rocks to the north appears to trend west-northwest to north-northwest across the central part of the claim group.

North-northwest and east trending linear zones of distortions in the contour pattern and narrow sets of lows define the location of the Elephant Head Lake Fault (F1), a similar trending fault (F2), located 0.5 miles to the east, and a cross-fault (F5) striking east across the southern part of the property.

VLF-Electromagnetic Survey

Fourteen conductive zones, four with Annapolis and 10 with Seattle, strike north-northwest to west across the Shiningtree Prospect. Descriptions of each zone and possible geological environments are presented in the following table.

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Zone	Topography	Magnetics	Geological Setting
A1	Over a creek in the south.	Lies along series of lows or distortions in the contour pattern.	The Elephant Head Lake Fault Zone (F1) in metavolcanics and felsic intrusive rocks.
B1	Lies over a small swamp.	Across the contours.	Conductive overburden or a change in topographical relief.
C1	Just north of a creek.	Crosses the contour pattern.	Conductive overburden or a change in topographical relief.
D1	South of a creek.	Along the southern edge of a low.	Possible shear in felsic to intermediate metavolcanic rocks, just west of the Espanola limestone.
A2		Crosses the magnetic isogams.	Possible cross-cutting shear in diabase, felsic intrusives and felsic to intermediate metavolcanics, just west of fault F2.
B2	The central part overlies a creek and a swamp.	Along the northwestern edge of a low.	Possible shear zone in rocks of the Miramichi Batholith, crossing Zone A1.
C2	Overlies a creek and a swamp.	Crosses the contour pattern.	Same as one C1 - conductive overburden or a change in topographical relief.
D2		Along distortions in the magnetic contours.	Possible shear in felsic to intermediate metavolcanics.
E2	Lies along a creek.	Lies across a low.	Conductive overburden or a change in topographical relief.
F2	Near a creek and a pond.	Along the eastern edge of a low.	Conductive overburden or a change in topographical relief.
G2	The east end is located over a swamp.	It lies across the contour pattern.	Possible cross-cutting shear in felsic intrusives, diabase and felsic to intermediate metavolcanics. It lies along the southern limit of fault F2 and intersects zone A2.
H2	The east end is situated over a creek.	Along the northern edge of a broad low.	Possible shear zone in felsic intrusive rocks near a contact with felsic to intermediate metavolcanics and limestones to the north. Intersects with Zone A1 (F1) and Zone B2.
I2		Across a low.	Possible shear in metavolcanic rocks across Zone A1 (fault F1).
J2	Near a creek.		Possible shear across a diabase dyke.

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CONCLUSIONS AND RECOMMENDATIONS

The data collected by the airborne magnetic and VLF-electromagnetic surveys were helpful in further defining the geology and structures underlying the Shiningtree Prospect of Trinity Explorations. The magnetic results show that the property is underlain by felsic to mafic metavolcanics and felsic intrusive rocks of the Miramichi Batholith, intruded by two north-northwest trending diabase dykes. A small zone of Espanola Formation Limestone containing iron formation and the Cu-Zn-Au-Ag occurrence lies along the northern contact of the Miramichi Batholith and the surrounding felsic to intermediate metavolcanic rocks. The contacts between the felsic to intermediate metavolcanics and the granodioritic granitic rocks is not exact because of the distortions and interference caused by the highs defining the positions of the diabase dykes. Two north-northwest striking fault zones, F1 and F2, and an easterly trending fault zone F3, cross the property. Fault F1 lies along conductive zone A1, outlining the location of the Elephant Head Lake Fault Zone.

Nine of the fourteen conductive zones outlined on the property are thought to be caused by underlying shear zones. Zones D1, B2 and H2 lie near the Cu-Zn-Au-Ag showing. In Asquith Township, east-southeast of the property, gold has been found in north-northwest to west striking shear zones and quartz veins in metavolcanic rocks, sometimes found associated with north-northwest to north trending diabase dykes. Zones A1, D1, D2, G2, I2 and J2 lie in similar environments.

The property should be prospected, mapped and sampled with detailed work concentrated in the vicinity of the Cu-Zn-Au-Ag occurrence. Areas of shallow overburden cover near this occurrence should be stripped. Total field and vertical gradient magnetic surveys should then be completed over the prospect to better define contacts and structures covered by overburden. The strike lengths of conductive zones could be extended by performing a horizontal

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loop-electromagnetic survey on the property. Anomalous zones should then be tested by diamond drilling.

Respectfully submitted by,

H. FERDERBER GEOPHYSICS LTD.



Val d'Or (Québec)
April 17, 1991

R.A. Campbell, B.Sc.
Geology

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REFERENCES

- Ontario Department of Mines, 1934
Geology of the Makwa-Churchill Area-VolXLIII, Part III,
Geology Map 43C, by H.C. Laird.
- Ontario Division of Mines, 1972
Geological Compilation Map 2205, Timmins-Kirkland Lake.
- Ontario Ministry of Natural Resources, 1979
Gold Deposits of Ontario, Part 2, by J.B. Gordon, H.L. Lovell,
J. DeGrisjs and R.F. Davie.
- Ontario Ministry of Northern Development and Mines, 1985
Summary of Field work and Other Activities-Ontario Geological
Survey, Paper 126, Synoptic Mapping of the Kirkland Lake-
Larder Lake Areas, District of Timiskaming by L.S. Jensen,
p.112.
- Ontario Ministry of Northern Development and Mines, 1986
Report of Activities-1985, Regional and Resident Geologists,
Miscellaneous Paper 128, Kirkland Lake Geologist Area, p.179.
- Ontario Ministry of Northern Development and Mines, 1987
Geology of the Shining Tree Area, Ontario Geological Survey
Report 240 and Map 2510.
- Trinity Explorations, 1990
Abstract on the Shiningtree Prospect

APPENDIX 1 - CLAIM LIST

L1137455
L1137456
L1137457
L1137458
L1137459
L1137460
L1137461
L1137462
L1137463
L1137464
L1137465
L1137466
L1137467
L1137468
L1137469
L1137470
L1137471
L1137472
L1137473
L1137474



File _____

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) Airborne Magnetic and VLF-EM
 Township or Area Connaught Twp.
 Claim Holder(s) Glenn J. Mullan
 Survey Company H. Ferderber Geophysics Ltd.
 Author of Report R.A. Campbell
 Address of Author 169, Perreault Avenue, Val d'Or (Qc)
 Covering Dates of Survey February 18, 1991
 (linecutting to office)
 Total Miles of Line ~~OK~~ Flown: 23.3

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L1137455	
L1137456	
L1137457	
L1137458	
L1137459	
L1137460	
L1137461	
L1137462	
L1137463	
L1137464	
L1137465	
L1137466	
L1137467	
L1137468	
L1137469	
L1137470	
L1137471	
L1137472	
L1137473	
L1137474	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>DAYS</u> <u>per claim</u>
ENTER 40 days (includes line cutting) for first survey.	Geophysical -Electromagnetic _____ -Magnetometer _____ -Radiometric _____
ENTER 20 days for each additional survey using same grid.	-Other _____ Geological _____ Geochemical _____

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

Magnetometer 30.2 Electromagnetic 30.2 Radiometric _____
 (enter days per claim)

DATE: April 17, 1991 SIGNATURE: RA
 Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 20

OFFICE USE ONLY

FIELD INSTRUMENTS

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth — include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____ Magnetic and VLF-electromagnetic

Instrument(s) _____ Gem GSM-11 magnetometer and Herz Totem 2A VLF-EM

Accuracy _____ 0.04 gammas and 1%
(specify for each type of survey)

Aircraft used _____ Cessna 172 Fixed-Wing
(specify for each type of survey)

Sensor altitude _____ 300 feet

Navigation and flight path recovery method _____ Navigation was visual on airphoto mosaics. Flight path recovery was obtained with a RCA colour video camera and a Panasonic colour video monitor.

Aircraft altitude _____ 300 feet _____ Line Spacing ⁴⁴⁰ feet

Miles flown over total area _____ 23.3 _____ Over claims only _____ 15.1

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REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE
HUTT LAKE PROSPECT OF TRINITY EXPLORATIONS
MONTROSE TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO

RESPECTFULLY SUBMITTED BY,

H. FERDERBER GEOPHYSICS LTD.

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APR 23 1991

MINING LANDS SECTION

Val d'Or (Québec)
April 15, 1991

R.A. Campbell, B.Sc.
Geology

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APPENDIX 1: Claim List

REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE
HUTT LAKE PROSPECT OF TRINITY EXPLORATIONS
MONTROSE TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO

INTRODUCTION

On February 12, 1991 airborne magnetic and VLF-electromagnetic surveys were completed out on the Hutt Lake Prospect of Trinity Explorations in Montrose Township, Larder Lake Mining Division, Ontario. Magnetic and VLF-electromagnetic data was collected by the airborne division of H. Ferderber Geophysics Ltd. The survey was flown from a base at Val d'Or, Quebec. A total of 9.6 miles of data was collected.

The magnetic survey provides data which helps outline the underlying geological structures and helps identify any potential economic concentrations which may contain variations in accessory magnetic minerals. The results of the VLF-electromagnetic survey define conductive zones which may represent shear zones and/or sulphide deposits containing precious, platinum, and/or base metal mineralization.

PROPERTY DESCRIPTION, LOCATION & ACCESS

The six claims of the Hutt Lake Prospect of Trinity Explorations cover approximately 96 hectares in the southwest

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corner of Montrose Township, Larder Lake Mining Division, Ontario. The claims are registered with the Office of the Mining Recorder in Kirkland Lake and are listed in Appendix 1.

The Hutt Lake Prospect lies 48 miles west-southwest of the town of Kirkland Lake, 37 miles south of the City of Timmins and 18 miles west of the Village of Matachewan. A gravel road trends north, within 1000 feet of the eastern boundary, and logging roads cross the property.

The property overlies the eastern end of Hutt Lake, along the western edge of Montrose township. The northwestern claims appears to be forest covered while the airphoto mosaics indicate that the eastern 4 claims may have been slashed. Two small creeks, surrounded by small swamps, cross the property. Topographical relief appears to be low.

Supplies services and qualified manpower are available in the Kirkland Lake - Timmins area.

GEOLOGY AND MINERALIZATION

The claim block is located approximately 12 miles from southwestern end of the Abitibi Volcanic Belt of the Superior Province of the Canadian Shield. The Abitibi Volcanic Belt extends for nearly 350 miles in a west-east direction from Timmins to Chibougamau. It is host to a variety of precious and base metal deposits including the Timmins, Kirkland Lake, Noranda, Val d'Or and Chibougamau mining camps.

The Abitibi Volcanic Belt is composed of a complex assemblage of interbedded volcanic and sedimentary rocks intruded by a variety of intrusives, from ultrabasic to granitic in composition. The rocks are Archean in age and have been metamorphosed to the greenschist facies. Numerous late Precambrian diabase dykes cut formations of the belt. The rocks generally strike east-west, have

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a vertical dip and are highly folded and faulted. Geological interpretation of the Abitibi Volcanic Belt is complicated by both the wide scattering of outcrops and the complex structural relationships.

Maps 41a-Bannockburn Gold Area, Vol. XL1, 1932 and 2205-Timmings-Kirkland Lake Geological Compilation series of the Ontario Division of Mines; geology-prospecting map by Sylvanite Gold Mines Ltd.; and drill logs by United Buffadison Mines: define the geology thought to underlie the property. The Ontario Geological Survey, Mineral Deposits Circular 18, Gold Deposits of Ontario - Part 2, 1979, describes the old gold deposits, prospects and occurrences in the vicinity of the claim group.

It appears that over two-thirds of the property is underlain by felsic metavolcanic flows and pyroclastic rocks of the Skead Group Equivalents. Small bands of intermediate flows of the Larder Lake Group Equivalent rocks trend east-northeast near the north-western and southern boundaries. The eastern most claims are thought to be underlain by Temiskaming metasedimentary rocks. The contact with the metavolcanics in the west lies along or just east of the Mist Lake Fault zone which strikes south-southeast through the claim group. Map 41a also shows that a north striking vein and associated iron formation lies east of Hutt Lake, just south of a east-northeast shear.

The Matachewan area was first prospected in 1906. Exploration activity increased in the 1930's. Between 1934 and 1964 the Matachewan Consolidated Mines Ltd., Young-Davidson Mines Ltd. and Ryan Lake Mine produced Au-Ag (Matachewan Consolidated Mines Ltd. and Young-Davidson) and Au-Ag Cu (Ryan Lake) in Powell Twp., 17 miles east of the property. The Au-Ag mines produced 956,117 ounces of gold and 165,598 ounces of silver while the total production from the Ryan Lake Mine was 1,352 and 36,141 ounces of gold and silver, respectively and 4,995,745 pounds of copper.

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The recent Queenston Mining - Strike Minerals base metal discovery in Robertson Twp., located approximately 21 miles northeast of the Trinity claims, has sparked a staking rush in the Matachewan Area. A five hole drill program intersected four zones of banded, disseminated to semi-massive sulphide mineralization, including a 14.3 foot section grading 5.17% zinc and 0.93% copper.

The first prospecting on the property was thought to be carried out by the Ogiltree Mining Syndicate in the early part of 1900's on a sulphide showing near the northeast end of Hutt Lake. A few years later the Trump Line Syndicate prospected this showing uncovering a series of discontinuous north trending quartz lenses and veins, heavily mineralized with pyrite and a little chalcopryrite, in schistose rocks. The quartz was banded and cherty possibly representing iron formation. A east-northeast striking shear lies northwest of the mineralization.

In the summer of 1943 Sylvanite Gold Mines Ltd. prospected and staked the area of the present Trinity claim group. Fourteen trenches were excavated and the above-mentioned north striking quartz veins and stringers were uncovered across widths of 60 feet (see Map GI-1). Low gold assays were obtained. A major shear zone trending N70⁰E was traced for 3000 feet at widths of up to 400 feet, north of Hutt Lake. A N50⁰E shear, in rhyolite, cuts off the eastern extension of the N70⁰E major shear. Trenches on this NE-SW shear are thought to assay up to 0.16 oz/ton Au. South of this shear a north striking zone of sheared cherty quartz stringers mineralized with pyrrhotite and marcasite was also trenched. Low gold values, up to 0.10 oz/ton were reported on the north trending shear near the present day boundary between claims 1151410 and 1151412. Another shear, trending north-northeast was also delineated southeast of Hutt Lake. Most of rocks outcropping the property were mapped as rhyolites, generally sheared and containing rusty zones with cherty quartz thought to represent iron formation. Arkose was also found in a trench near the east end of the Trinity claims.

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United Buffadison prospected, staked and drilled 8 holes on the north trending sheared and mineralized quartz-rich zone just east of Hutt Lake. Values of 0.23, 0.20 and 0.05 oz/ton Au were reported in surface sampling. Eight short holes were drilled intersecting rhyolite and tuff, containing narrow zones sulphide mineralization and quartz stringers in 7 of the eight holes.

The extreme southwestern claim was flown by Kidd Creek Mines in 1984 as part of a larger block. This claim was thought to be underlain by mafic metavolcanic rocks, cut by a north striking fault zone near the Montrose-Hutt Townships boundary.

In Midlothian Township, 1.5 to 3 miles, south-southeast of the property, in the Stairs Mine, Riocanex Prospect and Sylvanite Occurrences gold has been discovered in quartz veins and shear zones in metasedimentary rocks and along metasedimentary-metavolcanic contacts. At the Stairs Mine, 2.5 miles south-southeast of the Trinity claims, 3,573 ounces of Au at a grade of 0.23 oz/ton and 1,767 oz of Ag were produced in 1965 and 1966, in N55⁰E striking quartz veins. Proven and probable reserves of 45,200 tons of 0.88 oz/ton Au and 95,700 tons of 0.25 oz/ton Au have been delineated to the 500 foot level.

INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a 1972 Cessna 172, fixed wing aircraft, call letters CF-EWK, owned and operated by H. Ferderber Geophysics Ltd. The pilot and navigator/operator were M. Turcotte and D. Monastesse respectively of Val d'Or and Vassan.

Magnetometer

The magnetometer used was a GEM Systems GSM-11, high sensitivity airborne proton (Overhauser) magnetometer. The instrument continuously measures the Earth's magnetic field at a 0.01 gamma

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sensitivity for 1 reading per second to 10 readings per second at a 0.1 gamma sensitivity. For this survey four readings per second were collected. The analog output is on 3 channels, from 1 to 10,000 gammas full scale.

VLF-EM System

A Herz Totem 2A VLF-EM System was used to measure the changes in the total field and in the vertical quadrature field on two frequencies simultaneously, with an accuracy of 1%. Because of the orientation of the flight lines the primary transmitting station (VLF-1) of Cutler, Maine (NAA) frequency 24.0 kHz and secondary station (VLF-2) at Seattle, Washington (NLK), frequency 24.8 kHz were used.

Radar Altimeter

The ground clearance was measured with a King 10/10 A radar altimeter. The survey was flown at a mean clearance of 300 feet with the altimeter producing an accuracy of 5% (15 feet) at this altitude.

Tracking Camera and Video Centre

A RCA TC-200 colour video camera and Galaxy 200 video centre was used to record to the flight path on standard VHF type video tapes. Manual fiducials were indicated on the picture frames for reference with digital printout. Flight path recovery was aided using a Panasonic Colour Video Monitor-S1300 and Video Cassette Recorder AG-2500.

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Data Acquisition System

A Picodas Group Inc. PDAS 1100 data acquisition system featuring seven analog inputs with two frequency inputs and external interfacing was used. A Termiflex Corp. ST/32 Keyboard control unit and Sharp Corp. LCD display unit are connected to the data acquisition system. At present this system stores the altimeter VLF-1 in-phase, VLF-1 quadrature, VLF-2 in-phase, VLF-2 quadrature, magnetic field (coarse), magnetic field (fine), and the fourth difference (noise), and fiducials on 3.5 inch floppy disk drive. The data is then printed out in digital and profile form.

The survey was conducted along lines oriented at 020° and 200° , flown at an average aircraft altitude of 300 feet and a speed of approximately 90 miles per hour. Geophysical responses were collected at data points spaced at 33 foot intervals along the lines. The lines were spaced at 440 feet intervals. Navigation was visual using airphoto mosaics, at a scale of one inch to 1320 feet, manual fiducials, and the flight path recovery system as references.

DATA PRESENTATION

Flight lines, fiducial points and geophysical responses were reproduced from the airphoto mosaics at a scale of one inch to 1320 feet (1:15,840). The computer processing was performed utilizing the Geosoft Inc. 2-D Mapping System on an IBM compatible AGI computer. Plotting was done on a Houston Instruments DMPL-62 plotter driven by both the Geosoft and the AutoCad software. The outline of the claim block and claim map are shown on each map sheet.

The aeromagnetic data was corrected for diurnal variations by using a base line as a reference. The data was then contoured at 10 gamma intervals and presented on Map MG-1.

-8-

The VLF-EM was transferred from the Totem 2AG memory to profiled form. Base values were determined for the VLF-EM profiled data. These values were used to correct for variations in transmitter strength and the corrected values were plotted on Maps EM-1 (Cutler) and EM-2 (Seattle). The positive values were contoured at intervals of 2%. The conductor axes were determined and labelled 1A, 1B, 1C, etc (Map EM-1) and 2A, 2B, 2C, etc. (Map EM-2). No priority was attached to the labelling system.

A geological interpretation of the magnetic data, conductor axes, mineralization and old drill hole and trench locations are shown on Map G1-1.

SURVEY RESULTS AND INTERPRETATION

Magnetic Survey

The relief of the total field magnetic survey is generally low, less than 80 gammas. The magnetic gradient increases southwestward and northeastward from a low in the central part of the property. The isogams trend north-northeastward across the claims. Lows also overlie the eastern and northwestern boundaries.

The most prominent magnetic feature is a high trending north-northeast across the western most claims. This high may be caused by the northeastern end of a mafic to intermediate metavolcanic unit or a similar trending diabase dyke (see Map GI-1). The results of the airborne magnetic survey by Kidd Creek Mines in 1984 suggest that the high is caused by the metavolcanic unit while Sylvanite Gold Mines Ltd. mapped diabase outcrops in 1944 along the southeastern shore of Hutt Lake.

A set of two discontinuous weak narrow highs strikes north across the eastern third of the claim group. This zone may define the position of a diabase dyke or pyrrhotite mineralization. Since the northern high lies over a zone of heavy pyrrhotite minerali-

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zation trenched and mapped and trenched by Sylvanite Gold Mines Ltd. and no diabase was found in surface mapping, it appears that these highs may be caused by underlying pyrrhotite mineralization.

The low across the eastern boundary could represent the western end of the Timiskaming Group metasediments. The magnetic relief over the remainder of the property is very low, less than 20 gammas, which suggest that these areas are underlain by felsic metavolcanic rocks, probably rhyolites mapped by Sylvanite Mines.

Three linear zones, as defined by breaks and distortions in the strike of the magnetic contour patterns, cross the property in a north-northwest, northeast and east-northeast directions. These zones define the locations of three potential fault zones. Fault F1, lies along the Mist Lake Fault zone near the sheared quartz lenses and veins hosting sulphide mineralization east of Hutt Lake. Fault F2 is situated over the N50°E trending shear outlined in the surface mapping by Sylvanite and assaying 0.16 oz/ton Au in trench #11. The third fault, F3 strikes east-northeast across the southern boundary offsetting the two magnetic high representing the zones of pyrrhotite mineralization.

VLF-Electromagnetic Surveys

The positions of ten VLF-electromagnetic anomalous zones are shown on Maps EM-1 and EM-2. Five zones were outlined using each transmitting station. Descriptions and probable geological environment of each zone is presented in the following table.

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ZONE	TOPOGRAPHY	MAGNETICS	GEOLOGICAL ENVIRONMENT
A1		Crosses the contours.	Possible shear in rhyolite, cut-off in the west by zone B2 at the intersection with a north trending mineralized shear. Cuts across faults F1 and F2 and intersects with Zones D1 and C1 in the east.
B1		The western conductor crosses the contour pattern and the eastern conductor lies along the northern edge of a weak high.	Possible shear in rhyolite, north of Fault F2. The western conductor lies along Zone E2.
C1		In a low.	Possible shear in metasediments.
D1		In a low.	Possible shear in rhyolite crossing fault F3, east of fault F1. The east end lies at the intersection of Zones A1, A2 and C2 potential pyrrhotite mineralization.
E1	In Hutt Lake.	In a high.	Conductive overburden lake sediments.
A2	The west end is in Hutt Lake and the extreme east end lies over a creek.	Crosses highs and a low.	Possible shear in rhyolite (same as Zone A1) and across a dyke or mafic to intermediate metavolcanics. It is bent at the intersections with faults F1 and F3. Zone A2 cuts-off the southern extension of the north trending mineralized shear zone, at the intersection with Zone B2, east of Hutt Lake and the northern extension of the north-northeast shear zone, southeast of Hutt Lake.
B2		Lies along the western edge of a low.	Possible shear in rhyolite near Fault F1 and the north trending mineralized shear zone. It cuts-off the western extension of Zone A1.
C2	Across aa creek.	In a high.	Possible shear in rhyolite crossing Fault F3 and contact with metasediments to the north near the pyrrhotite zone at the intersections with Zones A1, A2 and D1.
D2	In Hutt Lake.	In a high.	Conductive overburden - lake sediments.

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ZONE	TOPOGRAPHY	MAGNETICS	GEOLOGICAL ENVIRONMENT
E2	The west end is located near a creek.	Along the northern edge of a weak high.	Possible shear in rhyolite north of a contact with the metasediments, Fault F2 and mineralization in trenches.

CONCLUSIONS AND RECOMMENDATIONS

The maps produced by the data collected during the airborne magnetic and VLF-electromagnetic surveys were used to produce Map GI-1 which further defines and modifies the geology and structures underlying the Hutt Lake Prospect of Trinity Explorations. It appears that most of the property is underlain by relatively homogeneous, highly sheared rhyolites of the Skead Group in contact with Timiskaming metasediments, in the east. The contact trends northward near a trenched shear zone containing quartz veining and sulphide mineralization. An assay of 0.10 oz/ton Au is thought to have come from a trench across this zone. A faulted southern extension of the mineralized zone crosses the southern boundary. A diabase dyke or narrow mafic to intermediate metavolcanic unit strikes north-northeast through Hutt Lake, surrounded by rhyolites.

The rocks underlying the claim group appear to have been highly sheared and faulted. Numerous shears were delineated by prospecting and mapping and the locations of three potential fault zones cross the property. These shear zones and fault zones strike in four general directions: north, northeast, east-northeast and north-northeast. The most prominent set of fault-shear zones are the north to north-northwest trending fault F1, representing the Mist Lake Fault, and the two north striking mineralized shear zones containing quartz veining. Fault F1 lies near the western mineralized shear zone and quartz veining east of Hutt Lake. United Buffadison reported assays of 0.20 and 0.23 on surface and

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drilled 8 short holes across this shear zone. Faults F2 and F3 may be splays east from fault F1. The intersection of faults F1 and F2 lie near the possible location of the gold reported by United Buffadison. The eastern-most north trending shear mentioned-above is thought to be located along the metavolcanic-metasedimentary contact. Fault F2 is situated over the N50⁰E shear trenched by Sylvanite Mines and an assay of 0.16 oz/ton Au was obtained in trench near this fault. Fault F2 appears to cut-off the eastern extension of the N70⁰E trending shear, north of Hutt Lake, and the two north striking mineralized quartz bearing shear zones. No gold values have been found associated with the east-north trending shear, Fault F3 and the north-northeast shear, southeast of Hutt Lake.

Of the 10 VLF-electromagnetic anomalies, 8 appear to be caused by east-southeast, north-northeast and northeast striking shear zones. Zones B1 and D1 located near known mineralization and zone C1 trending parallel to F2 in metasediments have the potential to contain quartz veining and/or sulphide mineralization which may contain gold. Also good targets for auriferous deposition are at the intersections of the fault zones, conductive zones and mineralized shear zones in the southern part of the property, and the north trending mineralized shear zone thought to lie along the metavolcanic-metasediment contact. If possible the property position should be expanded by staking 6 more claims: three along the northern boundary over Zones B1 and E2, and the northeastern extension of Fault F2 which has been shown to contain gold; and along the southern boundary over the intersections of the fault and potential shear zones and the southern faulted extension of the eastern north trending, gold and quartz bearing shear zone.

The claims should then be prospected, mapped and sampled in an attempt to confirm the old assays and extend the gold bearing shear zones. Mineralized outcrops and old trenches could be stripped, excavated and sampled. Ground magnetic and horizontal

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loop-electromagnetic survey should be completed to trace the contacts and shear zones in overburden covered areas. The anomalous zones could be tested by diamond drilling.

Respectfully submitted by,
H. FERDERBER GEOPHYSICS LTD.



Val d'Or (Québec)
April 15, 1991

R.A. Campbell, B.Sc.
Geology

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REFERENCES

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Geophysical Report on the Airborne Magnetic and Electromagnetic Surveys, Halliday, Hutt and Montrose Twps., NTS: 41-P-14 by E. Honsberger.
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Memo on the Hutt Lake Claims.
- Trinity Explorations, 1991.
Matachewan Area Copper Discovery, General Geological and Location Sketch.
- United Buffadison Mines, 1962.
Eight Diamond Drill Logs and Location Map, G.P. Thoday.

APPENDIX 1 - CLAIM LIST

L1151410
L1151411
L1151412
L1151413
L1151414
L1151415



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) Airborne Magnetic and VLF-EM
Township or Area Montrose Twp.
Claim Holder(s) Glenn J. Mullan

Survey Company H. Ferderber Geophysics Ltd.
Author of Report R.A.. Campbell
Address of Author 169 Perreault Avenue, Val d'Or (Québec)
Covering Dates of Survey February 12, 1991
(linecutting to office)
Total Miles of Line ~~Out~~ Flown: 9.6

MINING CLAIMS TRAVERSED
List numerically

L1151410
.....
(prefix) (number)
L1151411
.....
L1151412
.....
L1151413
.....
L1151414
.....
L1151415
.....

If space insufficient, attach list

**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 _____

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

Magnetometer 35.3 Electromagnetic 35.3 Radiometric _____
(enter days per claim)

DATE: April 17, 1991 SIGNATURE: RA
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 6

OFFICE USE ONLY

POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIO-METRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) Magnetic and VLF-Electromagnetic

Instrument(s) Gem GSM-11 magnetometer and Herz Totem 2A VLF-EM
(specify for each type of survey)

Accuracy 0.04 gammas and 1%
(specify for each type of survey)

Aircraft used Cessna 172 Fixed-Wing

Sensor altitude 300 feet

Navigation and flight path recovery method Navigation was visual on airphoto mosaics. Flight

path recovery was obtained with a RCA colour video camera and a Panasonic colour video.

Aircraft altitude 300 feet Line Spacing 440 feet

Miles flown over total area 9.6 Over claims only 5.3

2.14066

REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE MEECH LAKE - MATACHEWAN PROSPECT
OF TRINITY EXPLORATIONS
ARGYLE, McNEIL AND ROBERTSON TOWNSHIPS
LARDER LAKE MINING DIVISION, ONTARIO

Respectfully submitted by,

H. FERDERBER GEOPHYSICS LTD.

RECEIVED

APR 22 1991

MINING LANDS SECTION

Val d'Or (Québec)
April 9, 1991

R.A. Campbell, B.Sc.
Geology

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REPORT ON THE
AIRBORNE MAGNETIC AND
VLF-ELECTROMAGNETIC SURVEYS
ON THE MEECH LAKE - MATACHEWAN PROSPECT
OF TRINITY EXPLORATIONS
ARGYLE, McNEIL AND ROBERTSON TOWNSHIPS
LARDER LAKE MINING DIVISION, ONTARIO

INTRODUCTION

On February 18, 1991 airborne magnetic and VLF-electromagnetic surveys were completed out on the Meech Lake - Matachewan Prospect of Trinity Explorations in Argyle, McNeil and Robertson Townships, Larder Lake Mining Division, Ontario. Magnetic and VLF-electromagnetic data was collected by the airborne division of H. Ferderber Geophysics Ltd. The survey was flown from a base at Val d'Or, Quebec. A total of 19.7 miles of data was collected.

The magnetic survey provides data which helps outline the underlying geological structures and helps identify any potential economic concentrations which may contain variations in accessory magnetic minerals. The results of the VLF-electromagnetic survey define conductive zones which may represent shear zones and/or sulphide deposits containing precious, platinum and/or base metal mineralization.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Meech Lake - Matachewan Prospect is comprised of 18 claims covering 720 acres in Argyle, McNeil and Robertson Townships, Larder Lake Mining Division, Ontario. Twelve claims are situated

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in the northeast corner of Argyle Twp., 3 in the southeast corner of McNeil Twp. and the remaining 3 in the southwestern edge of Robertson Twp. The claims are registered with the Office of the Mining Recorder at Kirkland Lake and are listed in Appendix 1.

The property is located 35 miles west of the town of Kirkland Lake and 12 miles north-northwest of the village Matachewan. Forestry roads north from Highway 566, 6 miles to the south, pass within 1000 feet of the western boundary.

Over 80 percent of the claim group is forest covered. Two small lakes, Meech and Muhquoh, lie in the central part of the property. Two branches of the East Whitefish River - Nokomis Creek system cross the claims. Small swamps surround the lakes and creeks. Topographical relief in the area is low and most of the claims are covered with a thin layer of overburden, so outcrop exposure is relatively poor.

Supplies, services and qualified manpower are available in the Kirkland Lake - Matachewan area.

GEOLOGY AND MINERALIZATION

The claim block is located near the southwestern end of the Abitibi Volcanic Belt of the Superior Province of the Canadian Shield. The Abitibi Volcanic Belt extends for nearly 350 miles in a west-east direction from Timmins to Chibougamau. It is host to a variety of precious and base metal deposits including the Timmins, Kirkland Lake, Noranda, Val d'Or and Chibougamau mining camps.

The Abitibi Volcanic Belt is composed of a complex assemblage of interbedded volcanic and sedimentary rocks intruded by a variety of intrusives, from ultrabasic to granitic in composition. The rocks are Archean in age and have been metamorphosed to the greenschist facies. Numerous late Precambrian diabase dykes cut

-3-

formations of the belt. The rocks generally strike east-west, have a vertical dip and are highly folded and faulted. Geological interpretation of the Abitibi Volcanic Belt is complicated by both the wide scattering of outcrops and the complex structural relationships.

The Ontario Division of Mines, Map 2205, the Timmins-Kirkland Lake Geological Compilation Series, at a scale of 1 inch equal to 4 miles, outlines the geology underlying the property. The Ontario Geological Survey, Mineral Deposits Circular 18, Gold Deposits of Ontario - Part 2, 1979, describes the old gold deposits, prospects and occurrences in the vicinity of the claim group and a description of the property by Trinity Explorations outlines the mineralization and geology on the prospect.

The geology maps indicate that over 90% of the property is underlain by rocks thought to belong to the Blake River Group. These are calc-alkaline basalt, andesite, dacite, and rhyolite flows and pyroclastic rocks, intercalated with minor Mg-rich tholeiitic basalts. The western end of a felsic intrusive body (trondhjemite, granodiorite and quartz monzonite) underlies the northeastern most claim.

The Montreal River - Whiskeyjack Creek and Mistinikon Lake Faults strike southeast, and south, respectively 1.5 to 1.9 miles east of the property, intersecting in the Matachewan River. Another southeast trending fault zone end 1.7 miles west of the claim group.

The Matachewan area was first prospected in 1906. Exploration activity increased in the 1930's. Between 1934 and 1964 the Matachewan Consolidated Mines Ltd., Young-Davidson Mines Ltd. and Ryan Lake Mine produced Au-Ag (Matachewan Consolidated Mines Ltd. and Young-Davidson) and Au-Ag Cu (Ryan Lake) in Powell Twp., 11 miles south of the property. The Au-Ag mines produced 956,117

-4-

ounces of gold and 165,598 ounces of silver while the total production from the Ryan Lake Mine was 1,352 and 36,141 ounces of gold and silver, respectively and 4,995,745 pounds of copper.

The recent Queenston Mining - Strike Minerals base metal discovery in Robertson Twp., approximately 4 miles northeast of the Trinity claims, has sparked a staking rush in the Matachewan area. A five hole drill program intersected four zones of banded, disseminated to semi-massive sulphide mineralization, including a 14.3 foot section grading 5.17% zinc and 0.93% copper.

Previous work on the Meech Lake - Matachewan Prospect uncovered Kell's Cu-Ni-Pt-Pd showing, the Water-Hole Au-Ag Showing New Kелore Mines East Au Showing and several gold showings over claims in Argyle Twp (see Map GI-1). Assays of up to 12.6% Cu, 6.0% Ni, 1.56 oz/ton Pt and 5.52 oz/ton Pd were reported in a sulphide lens within altered dunite at the Kell's showing in the northwestern part of the property. The Water-Hole gold-silver showing, 1200 feet southeast of Kell's Showing, is situated within a weak shear containing pyrite, chalcopyrite, sphalerite and galena. A grab sample assayed 0.14 oz/ton Au and 3.82 oz/ton Ag while a hole (DDH#1, New Kелore Mines Ltd., 1974) intersected 0.11 oz/ton and 0.21 oz/ton Au over 3.0 and 3.2 feet, respectively. In the eastern claims in Argyle Twp. gold showings have been discovered in surface mapping. In present claim 1137581, just south of Muhquoh Lake, a grab sample of 3 to 5% pyrite along a syenite-andesite contact assayed 2.74 oz/ton (New Kелore Mines East Showing).

East of the Meech Lake - Matachewan Prospect, in Baden Twp., the Thesaurus Gold Prospect, Baden Syndicate Au-Cu occurrence and the Richore Au occurrence have been found in metavolcanics and granitic-syenitic rocks, near the western end of the granitic intrusive. These showings appear to be in geological environment similar to the New Kелore Mines East Showing, 2 to 3 miles to the west and northwest. Between 1919 and 1923 underground development

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was carried out on three quartz veins and associated alteration zones in andesite tuff and hornblende - mica granite at the Thesaurus Prospect. The Baden Syndicate Occurrence reported assays of trace to 0.65 oz/ton in quartz veins mineralized with pyrite and minor chalcopyrite in andesite tuff, agglomerate and syenite, 1.75 miles southeast of the southeastern corner of the property. One half a mile north of the Baden Syndicate Occurrence, at the Richore Occurrence, a 300 foot long and 3 foot wide sheared-fractured zone cutting metavolcanics and granite and containing quartz-carbonate stringers and minor pyrite, hosts gold. Assays of grab samples from the dump ranged from 0.10 to 0.27 oz/ton.

Gold has also been discovered in metavolcanics and in felsite and quartz porphyry dykes, 1.5 miles northwest and west-northwest of the Trinity property. The Goldyke Gold Prospect lies in felsite and quartz porphyry dykes cutting north-northeast striking metavolcanic rocks. Native gold and gold associated with coarse pyrite mineralization was found in pits and assayed trace to 0.30 ounce Au/ton, while drill core assayed from trace to 0.137 oz/ton Au. West of the Goldyke Prospect at the Oliver Gold Syndicate Occurrence, native gold and assays ranging from 0.06 to 0.26 oz/ton Au were reported in a 100 foot wide, north striking zone of altered and sheared greenstone and tuff, containing quartz, pyrite and chalcopyrite.

INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a 1972 Cessna 172, fixed wing aircraft, call letters CF-EWK, owned and operated by H. Ferderber Geophysics Ltd. The pilot and navigator/operator were M. Turcotte and D. Monastesse respectively of Val d'Or and Vassan.

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Magnetometer

The magnetometer used was a GEM Systems GSM-11, high sensitivity airborne proton (Overhauser) magnetometer. The instrument continuously measures the Earth's magnetic field at a 0.01 gamma sensitivity for 1 reading per second to 10 readings per second at a 0.1 gamma sensitivity. For this survey four readings per second were collected. The analog output is on 3 channels, from 1 to 10,000 gammas full scale.

VLF-EM System

A Herz Totem 2A VLF-EM System was used to measure the changes in the total field and in the vertical quadrature field on two frequencies simultaneously, with an accuracy of 1%. Because of the orientation of the flight lines the primary transmitting station (VLF-1) of Annapolis, Maryland (NSS), frequency 21.4 kHz and secondary station (VLF-2) at Seattle, Washington (NLK), frequency 24.8 kHz were used.

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Flight lines, fiducial points and geophysical responses were reproduced from the airphoto mosaics at a scale of one inch to 1320 feet (1:15,840). The computer processing was performed utilizing the Geosoft Inc. 2-D Mapping System on an IBM compatible AGI computer. Plotting was done on a Houston Instruments DMPL-62 plotter driven by both the Geosoft and the AutoCad software. The outline of the claim block and claim map are shown on each map sheet.

-8-

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The VLF-EM was transferred from the Totem 2AG memory to profiled form. Base values were determined for the VLF-EM profiled data. These values were used to correct for variations in transmitter strength and the corrected values were plotted on Maps EM-1 (Annapolis) and EM-2 (Seattle). The positive values were contoured at intervals of 2%. The conductor axes were determined and labelled 1A, 1B, 1C etc. (EM-1) and 2A, 2B, 2C etc. (EM-2). No priority was attached to the labelling system.

A map GI-1 showing a geological interpretation of the magnetic data and locations of the conductor axes and zones of mineralization is also included.

SURVEY RESULTS AND INTERPRETATION

Magnetic Survey

The magnetic isogams on Map MG-1 trend east to northeast across the property. Except for series of weak magnetic highs striking northeast cross the eastern claims, isolated highs in the west and a high trending east across the northwestern boundary, the magnetic values are low and the magnetic relief is generally less than 20 gammas. This data suggests that approximately 60% of the property is underlain by rocks of low magnetic susceptibilities, probably felsic metavolcanic and/or felsic intrusive rocks (see Map GI-1). The shape of the magnetic contour pattern indicates that the lows in the southeastern claims are caused by underlying granitic rocks of the felsic intrusive crossing Baden and Robertson Townships. The linear north-northeast trending low, crossing the central part of the property, may be caused by a underlying unit of felsic metavolcanics or a syenite sill.

-9-

The rest of the property appears to be underlain by intermediate to mafic metavolcanic rocks (andesite and basalt) as defined by the locations of the northeast to east trending highs. The isolated north-northwest striking high located on lines 6 and 7 in the western part of claim group could be caused by a small metamorphosed mafic dyke.

Series of breaks and distortions in the magnetic contour pattern define the positions of three possible north-northwest striking fault zones. The gold showings in the eastern part of the property lie along the edges of the northeast trending high, representing the unit of intermediate to mafic metavolcanic rocks, in the vicinities of faults, F1 and F2. The Kell's Cu-Ni-Pt-Pd showing is thought to lie in metavolcanics near a felsic metavolcanic or felsic intrusive contact and the Water-Hole Au-Ag showing is situated near the northern edge of the high outlining the possible position of a metamorphosed mafic dyke.

VLF-Electromagnetic Survey

The locations of 8 conductive zones are shown on the VLF-electromagnetic maps EM-1 and EM-2. Five zones were outlined by the data collected using Annapolis transmitting station and 3 by the Seattle transmitting station. Descriptions and possible causes of these zones are presented in the following table.

Zone	Topography	Magnetics	Cause
A1	The southern part lies over a swamp and the northern part over a creek.	Crosses the magnetic contour pattern.	Conductive overburden a following a potential bedrock trend.
B1	The extreme southern part is located near a creek and the extreme northern part lies over Muhquoh Lake.	Crosses the contour pattern in the south and lies along the contours in the north.	A potential north-trending shear zone crossing felsic intrusive rocks, the metavolcanic unit and the felsic intrusive-felsic metavolcanics. The northern end cut-off at the intersection of fault F2 and zone 82. It lies near gold showings.

-10-

Zone	Topography	Magnetics	Cause
C1	The extreme northern end is located near a creek and the south-west limb lies in Meech Lake.	Along distortions in the magnetic contour pattern.	Along fault F3 in intermediate metavolcanics and felsic rocks. It bifurcates at its southern end.
D1	The south end is located near a small lake.	Crosses the contours.	Cross-cutting shear in intermediate to mafic metavolcanics and felsic rocks.
E1	The southeastern end starts at a creek.	It lies near distortions in the contour pattern.	Fault F1 across felsic intrusive rocks. The east end intersects with Zone A1 near the south end of a metavolcanic unit.
A2	The eastern end lies over a creek.	Along the northern edge of a low near distortions in the contour pattern.	Shear in felsic intrusive rocks ending at the intersection of F1 and Zone A1 at the southern contact of the metavolcanic unit.
B2	The eastern end is located over Muhquoh Lake.	The western conductor lies along the southern edge of a high. The eastern conductor crosses the contour pattern.	Potential shear zones in intermediate to mafic metavolcanics and across the felsic metavolcanic unit-syenite intrusive. The eastern end cuts-off the northern extension of Zone B1 at the intersection with fault F2. Crosses Fault F3 and Zone C1 near a contact.
C2	Lies along a creek.	In a magnetic low.	Conductive overburden.

CONCLUSION AND RECOMMENDATIONS

The data collected by the airborne geophysical surveys, presented on Maps MG-1, EM-1 and EM-2, provides information which helps define the geology and structures underlying the Meech Lake - Matachewan Prospect of Trinity Explorations. The magnetic results indicate that the eastern claims are underlain by granitic rocks of the western end of the felsic intrusive body trending west through Robertson and Baden Townships. The northwestern claims appear to be underlain by intermediate to mafic metavolcanic rocks (andesite-basalt). A narrow band of andesites or basalt lies along the western edge of the granitic intrusive body and a possible embayment of andesite crosses the eastern property boundary. A

-11-

northeast trending unit of felsic metavolcanics or a syenite type sill is situated between units of intermediate to mafic metavolcanic rocks, in the central part of the property. A small metamorphosed intrusive dyke cuts the metavolcanics, west of the felsic unit.

Three potential north-northwest striking fault zones and 4 shear zones cut across the rocks underlying the property. Two conductive zones, C1 and E1, lie along faults F3 and F1, respectively. Gold showings have been found at four places in the western part of the claim group. These showings lie within the northeast trending intermediate to mafic metavolcanic unit, near the contact with the granitic rocks of the large felsic intrusive body to the southeast and near the contact with the felsic metavolcanic unit-syenite sill to the northwest. The Water-Hole Au-Ag showing appears to be situated near the northern end of the mafic dyke, while the Cu-Ni-Pt-Pd showing is located between two flight lines in what is thought to be andesite or basalt.

Also the Meech Lake - Matachewan Prospect, is situated in an environment which exhibits the potential for the following types of mineralization:

- 1) Queenston Mining - Strike Minerals Cu-Zn bearing semi-massive type sulphide mineralization in the felsic metavolcanic unit - syenite sill thought to underlie the central part of the property.
- 2) Au in shear zones in the felsic metavolcanic unit-syenite sill, especially the northern end of Zone B1, at the intersection of Zone B2, and fault F2, and at the bifurcated southern end of Zone C1, near fault F3.
- 3) Au in shear zones in metavolcanics in the northwestern claims, like the Oliver Gold Syndicate Occurrence: Zones D1, the northern part of C1 and the western parts of Zone B2.

-12-

- 4) Au in the granitic rocks and andesite-basalt near the western end of the felsic intrusive body trending west through Robertson and Baden Twps (Thesaurus, Baden Syndicate and Richore occurrences): Zones E1, A2, and the southern part of B1.

The property should be prospected, mapped and sampled and ground vertical gradient and total field magnetic surveys and horizontal loop-electromagnetic survey completed in an attempt to extend areas of known Ni-Cu-Pt-Pd, Au-Ag and Au deposition and to delineate base metal and gold targets in the above-mentioned geological environments. Anomalous zones could then be tested by diamond drilling.

Respectfully submitted by,

H. FERDERBER GEOPHYSICS LTD.



Val d'Or (Québec)
April 9, 1991

R.A. Campbell, B.Sc.
Geology

-13-

REFERENCES

- Ontario Department of Mines, 1967
Geological Report 51-Geology of the Matachewan Area, by H.L. Lovell.
- Ontario Division of Mines, 1972
Map 2205-Timmins Kirkland Lake Geological Compilation Series.
- Ontario Ministry of Natural Resources, 1979
Gold Deposits of Ontario, Part 2, by J.B. Gordon, H.L. Lovell, J. deGrijs and R.F. Davie.
- Ontario Ministry of Northern Development and Mines, 1985
Summary of Field Work and Other Activities, Ontario Geological Survey Misc. Paper 126, Synoptic Mapping of the Kirkland Lake-Larder Lake Areas, District of Temiskaming, L.S. Jensen, p.112.
- Trinity Explorations, 1991
Matachewan Area Copper Discovery, General Geological and Location Sketch.
- Trinity Explorations, 1990
Abstract on the Meech Lake - Matachewan Prospect.

APPENDIX 1 - CLAIM LIST

L1137568
L1137569
L1137570
L1137571
L1137572
L1137573
L1137574
L1137575
L1137576
L1137577
L1137578
L1137579
L1137580
L1137581
L1137582
L1137583
L1137584
L1137585



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) Airborne Magnetic and VLF-EM
Township or Area Argyle, McNeil and Robertson
Claim Holder(s) Glenn J. Mullan

Survey Company H. Ferderber Geophysics Ltd.
Author of Report R.A. Campbell
Address of Author 169 Perreault Avenue, Val d'Or (Qc)
Covering Dates of Survey February 18, 1991
(linecutting to office)
Total Miles of Line Cut XXXX Flown: 19.7

MINING CLAIMS TRAVERSED
List numerically

- L1137568
- L1137569 (prefix) (number)
- L1137570
- L1137571
- L1137572
- L1137573
- L1137574
- L1137575
- L1137576
- L1137577
- L1137578
- L1137579
- L1137580
- L1137581
- L1137582
- L1137583
- L1137584
- L1137585

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>Geophysical</u>	<u>DAYS</u> <u>per claim</u>
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic _____	
	-Magnetometer _____	
	-Radiometric _____	
ENTER 20 days for each additional survey using same grid.	-Other _____	
	Geological _____	
	Geochemical _____	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer 32.9 Electromagnetic 32.9 Radiometric _____
(enter days per claim)

DATE: April 17, 1991 SIGNATURE: RA
Author of Report or Agent

Res. Geol. _____ Qualifications 2.6609

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 18

OFFICE USE ONLY

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIO-METRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) Magnetic and VLF-Electromagnetic

Instrument(s) Gem GSM-11 magnetometer and Herz Totem 2A VLF-EM
(specify for each type of survey)

Accuracy 0.04 gammas and 1%
(specify for each type of survey)

Aircraft used Cessna 172 Fixed-Wing

Sensor altitude 300 feet

Navigation and flight path recovery method Navigation was visual on airphoto mosaics. Flight path recovery was obtained with a RCA colour video camera and a Panasonic colour video.

Aircraft altitude 300 feet Line Spacing 440 feet

Miles flown over total area 19.7 Over claims only 14.8



Ministry of Northern Development and Mines

WORK

DOCUMENT No. 1
180-00183

MULTI-LAYER PROSPECT



41P14NE0204 2.14066 CONNAUGHT

900

Mining Act

Report of Work
(Geophysical, Geological and Geochemical Survey)

Type of Survey(s) Airborne Geophysical (Magnetic)	Mining Division hardrock	Township or Area MONTROSE
Recorded Holder(s) Glenn J. Mullan	2.14066	Prospector's Licence No. K-20,009
Address *76-First Street, Kirkland Lake, Ontario P3N 1N3		Telephone No. (705) 567-3896
Survey Company TRINITY EXPLORATIONS / M. Ferderber Geophysics Ltd., Val d'Or, Quebec		
Name and Address of Author (of Geo-Technical Report) Robert A. Campbell, 169 Ave. Perreault, Val d'Or, Quebec J9P 0M1		Date of Survey (from & to) 09 12 91 - 03 12 91

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid:	- Other	
Enter 20 days (for each),	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	35.3
	Magnetometer	35.3
	Other	
Total miles flown over claim(s):		9.6
Date	Recorded Holder or Agent (Signature)	
April 17, 1991		

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	115140				
	115141				
	115142				
	115143				
	115144				
	115145				
RECEIVED					
MAY 23 1991					
MINING LANDS SECTION					
Total number of mining claims covered by this report of work.					6

Certification Verifying Report of Work

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

Name and Address of Person Certifying
Glenn J. Mullan, *76-First Street, Kirkland Lake, Ontario P3N 1N3

Telephone No. **(705) 567-3896** Date **April 17, 1991** Certified By (Signature)

For Office Use Only

Total Days Cr. Recorded 423.6	Date Recorded Apr 19/91	Mining Recorder
	Date Approved as Recorded May 31/91	Provincial Manager, Mining Lands Tom C Goshinski

Received Stamp

RECEIVED

APR 18 11 19 AM '91

MINING LANDS SECTION

LANE LAKE

WORK WORK

DOCUMENT No.
9180-00184

MINING WORK PROSPECT
Connaught Twp.
A.E.M.

- Instructions
- Please type or print.
 - Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
 - If number of mining claims traversed exceeds space on this form, attach a list.
 - Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch;

Report of Work
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) Airborne Geophysical (Mags VLF)	Mining Division hardlake	Township or Area Connaught
Recorded Holder(s) Glenn J. Mullen	2.14066	Prospector's Licence No. K-20,009
Address *76-First Street, Kirkland Lake, Ontario P6N 1W3		Telephone No. (705) 567-3896
Survey Company TRINITY EXPLORATIONS (H. Ferderber Geophysics Ltd., Val d'Or, Quebec)		
Name and Address of Author (of Geo-Technical Report) Robert A. Campbell, 169 Ave. Paroisse, Val d'Or, Quebec		Date of Survey (from & to) 03 18 91 03 18 91

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days (This includes line cutting)	- Electromagnetic - Magnetometer	
For each additional survey: using the same grid Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic - Magnetometer - Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim 30.2
	Magnetometer	20.2
	Other	
Total miles flown over claim(s)		23.3
Date	Recorded Holder or Agent (Signature)	
April 17 1991	<i>[Signature]</i>	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	1137455	L	1137472		
	1137456		1137473		
	1137457		1137474		
	1137458				
	1137459				
	1137460				
	1137461				
	1137462				
	1137463				
	1137464				
	1137465				
	1137466				
	1137467				
	1137468				
	1137469				
	1137470				
	1137471				

RECEIVED

MAY 23 1991

MINING LANDS SECTION

Total number of mining claims covered by this report of work.

20

Certification Verifying Report of Work

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

Name and Address of Person Certifying
Glenn J. Mullen (as above)

Telephone No. _____ Date **April 17 1991** Certified by Signature *[Signature]*

For Office Use Only

Total Days Cr. Recorded 1208	Date Recorded Apr 18/91	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded May 31/91	Provincial Manager, Mining Lands Ron C Goshinski

Received Stamp

RECEIVED

ST RM 18 RM 11 19

MINING LANDS SECTION

LAKE

Instructions

- Please type or print
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch:

Agyle, McNeil, Robertson
A.E.M.

Mining Act Report of Work (Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) Airborne Geophysical (Mag & ULF)	Mining Division hardlake	Township or Area Agyle, McNeil, Robertson
Recorded Holder(s) Glenn J. Mullan	2.14066	Prospector's Licence No. K-20,009
Address #76-First Street, Kirkland Lake, Ontario, P2N 2N3		Telephone No. (705) 567-3896
Survey Company TANITA EXPLORATIONS (H. Ferderber Geophysics Ltd., Val d'Or Quebec)		
Name and Address of Author (of Geo-Technical Report) Robert A. Campbell, 169 Ave. Paré, Val d'Or Quebec 3H1		Date of Survey (from & to) 15 02 91 18 03 91

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic - Magnetometer	
For each additional survey using the same grid: Enter 20 days (for each)	- Other Geological Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical - Electromagnetic - Magnetometer - Other Geological Geochemical	Days per Claim
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys	Electromagnetic Magnetometer Other	329 329
Total miles flown over claim(s). Date April 17 1991		19.7

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
L	1137568	L	1137585		
	1137569				
	1137570				
	1137571				
	1137572				
	1137573				
	1137574				
	1137575				
	1137576				
	1137577				
	1137578				
	1137579				
	1137580				
	1137581				
	1137582				
	1137583				
	1137584				

RECEIVED
MAY 23 1991
MINING LANDS SECTION

Total number of mining claims covered by this report of work. **18**

Certification Verifying Report of Work

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

Name and Address of Person Certifying
Glenn J. Mullan (as above)

Telephone No. _____ Date **April 17, 1991** Certified By (Signature) _____

For Office Use Only

Total Days Cr. Recorded 1,1844	Date Recorded Apr 18/91	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded May 31/91	Provincial Manager, Mining Lands Ron C. Gashinski

RECEIVED
MAY 18 1991
MINING LANDS SECTION

TOWNSHIP SUBJECT
TO
FORESTRY OPERATIONS

DATE OF ISSUE

MAR 5 1991

GEOLOGY REFERENCE--COBALT
RESIDENT GEOLOGIST

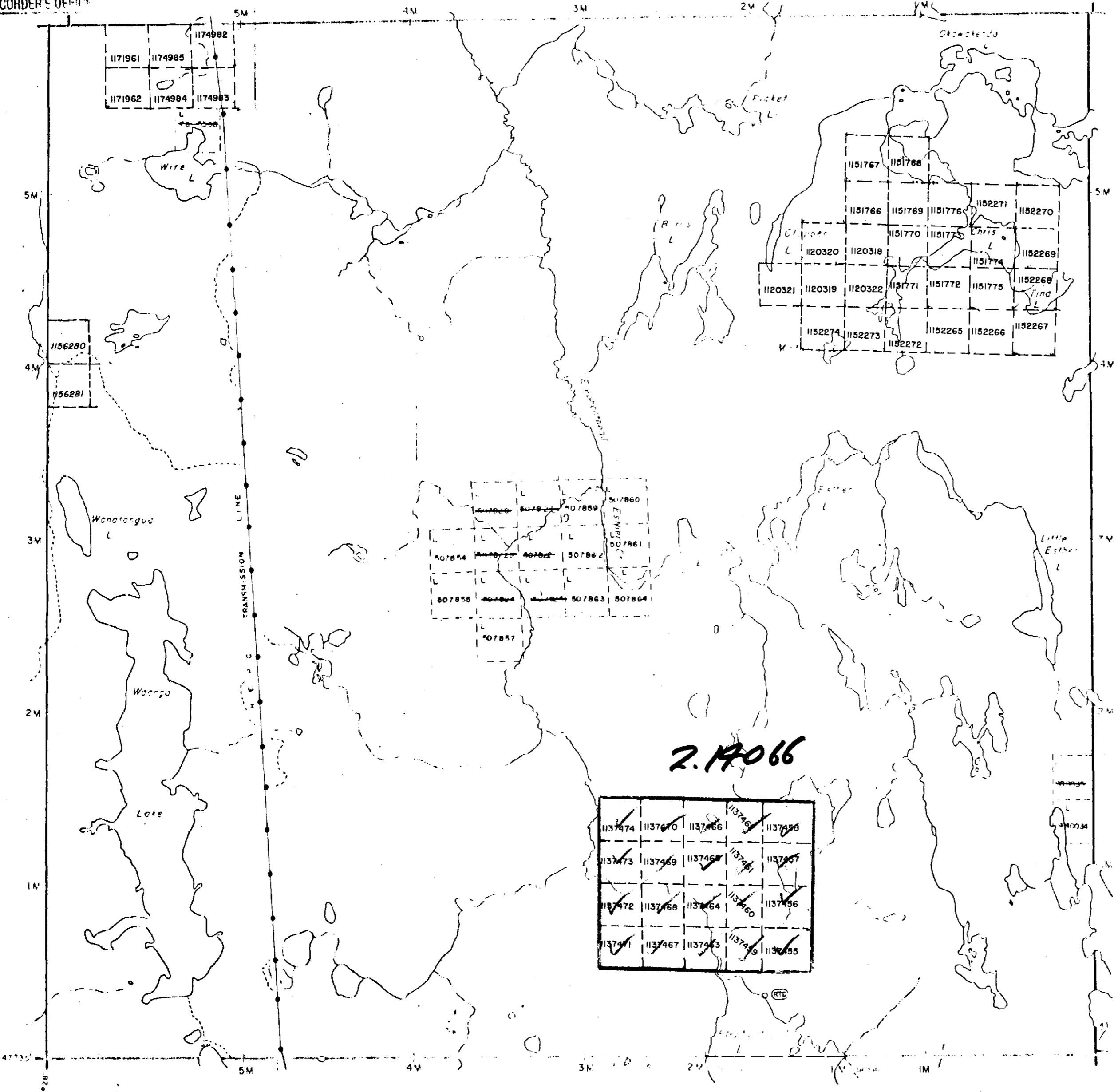
LARDER LAKE
MINING RECORDER'S OFFICE

CAROL TWP M. 695

BRUNSWICK TWP M. 684

CHURCHILL TWP M. 719

MIRAMICHI TWP M. 865



NOTES

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

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 RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE _____

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:

LEGEND

- PATENTED LAND
- PATENTED FOR SURFACE RIGHTS ONLY
- LEASE
- LEASE CO-OPERATION
- CHURCH AND STATE
- LOCATED LAND
- CAN BE LENT
- MINING RIGHTS ONLY
- SHORE ACQUISITION
- HOUSING DEVELOPMENT
- ROAD
- TRAIL
- RAILWAY
- ELECTRICITY
- MINING MINEFIELD
- MINE
- REMOTE TOURIST SETUP

TOWNSHIP OF

CONNAUGHT

DISTRICT OF
SUDBURY

LARDER LAKE
MINING DIVISION

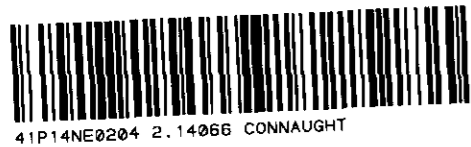
SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

PL. 57
DATE 12-08-88

PLAN NO. M.730

MINISTRY OF NORTHERN
DEVELOPMENT AND MINES

CIRCULATED JAN. 2, 1990



41P14NE8264 2.14066 CONNAUGHT

200

TRIM LINE

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

(R1) Mining and surface rights withdrawn from prospecting, staking out, sale or lease Section 36, The Mining Act R.S.O. 1980 Order No. NRW 65/83 Nov. 18, 1983 4:35 PM

(R2) Closed to staking subject to Sec. 38f of Mining Act Sept. 20, 1978

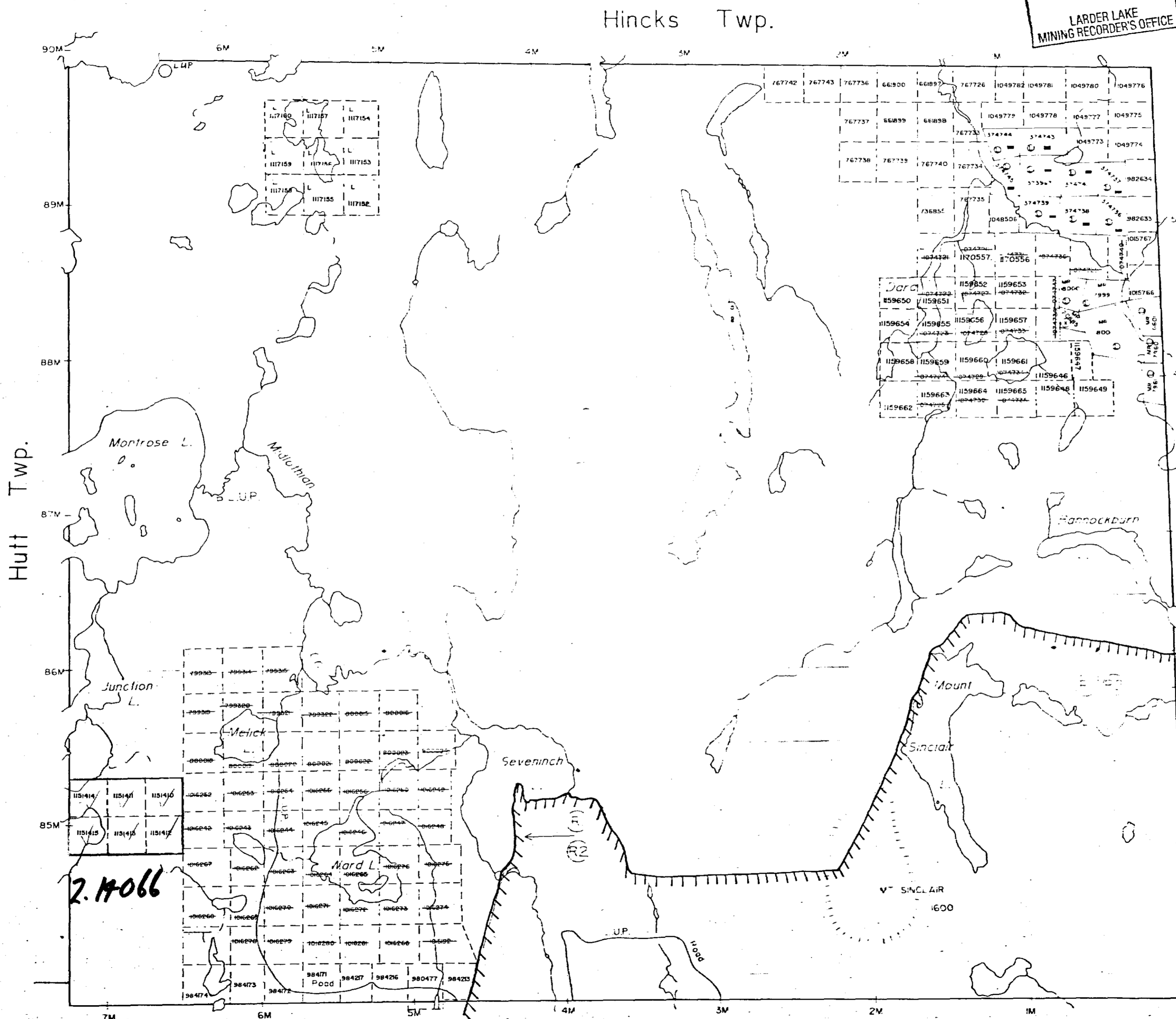
TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

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

"THIS MAP SHOWS THE APPROXIMATE LOCATION OF THE BOUNDARIES OF THE AREA WHICH IS THE SUBJECT OF CURRENT LITIGATION. THE EXACT LOCATION WILL BE SHOWN FOLLOWING CONFIRMATION BY THE PARTIES TO THE ACTION."

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE ELK LAKE MANAGEMENT UNIT



DATE OF ISSUE
MAR 5 1991
LARDER LAKE
MINING RECORDER'S OFFICE

LEGEND

ROADWAY	---
RAILROAD	----
TRAILS	.....
STAKE DITCHES	.....
WASHES	.....
MINING CLAIMS	.....
RAILWAY AND HIGHWAY	---
STAKE DITCHES	.....
WASHES	.....
MINING CLAIMS	.....
RAILWAY AND HIGHWAY	---
STAKE DITCHES	.....
WASHES	.....
MINING CLAIMS	.....

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT	●
LEASE	○
AGREEMENT	□
RIGHT OF WAY	▭
MINING CLAIMS
STAKE DITCHES
WASHES
RAILWAY AND HIGHWAY	---
STAKE DITCHES
WASHES
MINING CLAIMS

SCALE 1:50,000

TOWNSHIP
MONTROSE
MINING ADMINISTRATIVE DISTRICT
KIRKLAND LAKE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRAR DIVISION
TIMISKAMING

(R3)
MINISTRY OF NORTHERN DEVELOPMENT AND MINES
PLAN UPDATED NOV 30, 1990
LATE
PLAN NO. M-237

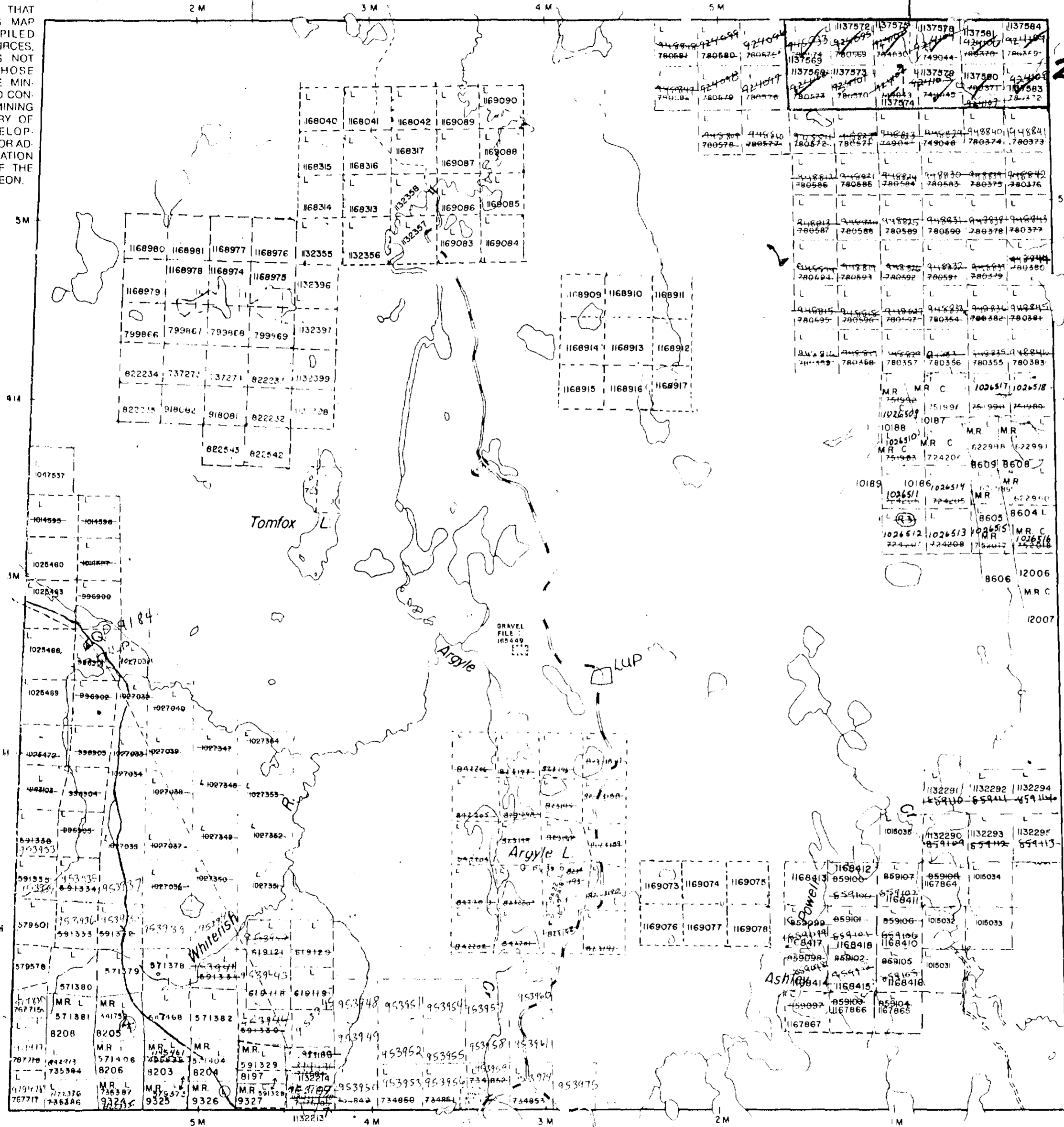
M-502

M-503

McNeil Twp.

Robertson Twp.

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 RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



2.14066

Baden Twp.

Bannockburn Twp.

THE TOWNSHIP OF

ARGYLE

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKOGEE
- MINES
- CANCELLED

NOTES

- 400' Surface rights reservation on the rivers.
- WITHDRAWALS AND REOPENINGS
- (R) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-8/86. O-12/88L OPENS W-8/86.
- (R) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-8/86.
- (R) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W-8/86.
- (R) AND PART (R) REOPENED FOR STAKING UNDER ORDER O-90/87 NR.

O-L23-90 NR OPENS PART OF WITHDRAWAL NOY 2/90

DATE OF ISSUE

APR 15 1991

LARDER LAKE MINING RECORDER'S OFFICE

PLAN NO.- M-203

MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH

ARGYLE TB

M-503

ARGYLE TB

M-503



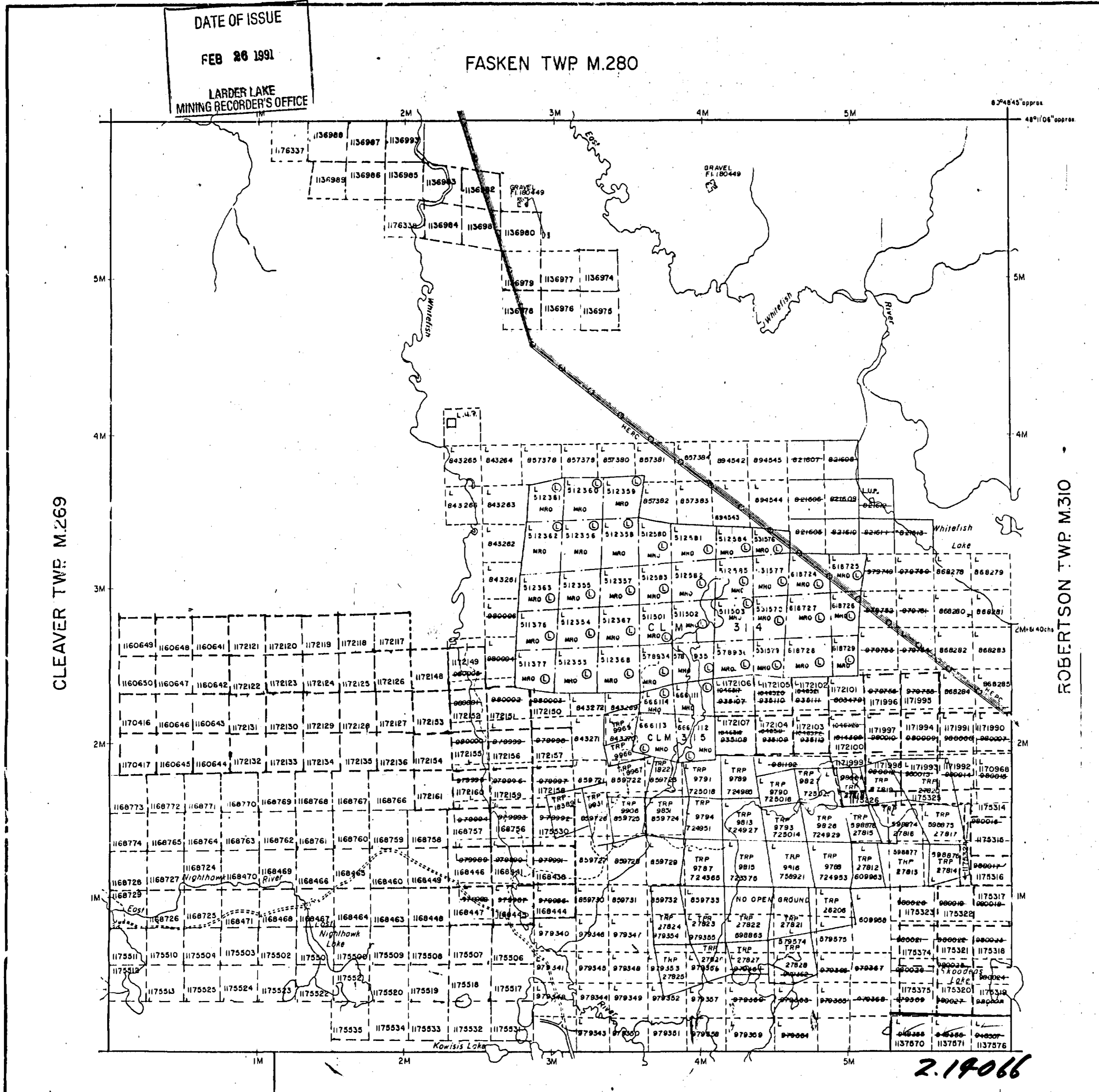
41P14NE8284 2.14066 CONNAUGHT

M.300

M.300

DATE OF ISSUE
FEB 26 1991
LARDER LAKE
MINING RECORDER'S OFFICE

FASKEN TWP. M.280



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

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 RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

LEGEND

PATENTED LAND	
PATENTED FOR SURFACE RIGHTS ONLY	
LEASE	
LICENSE OF OCCUPATION	L.O.
CROWN LAND SALES	C.S.
LOCATED LAND	L.L.
CANCELLED	C.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADWAY & ROUTE NO.	
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

*used only with computer record file, unless otherwise specified

TOWNSHIP OF
MONEIL
DISTRICT OF
TIMISKAMING
LARDER LAKE
MINING DIVISION
SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

DR. DK
DATE 18 271
PLAN NO. **M.300**

MINISTRY OF NORTHERN
DEVELOPMENT AND MINES

CLEAVER TWP. M.269

ROBERTSON TWP. M.310

HINCKS TWP. M.223

ARGYLE TWP. M.203

2.19066



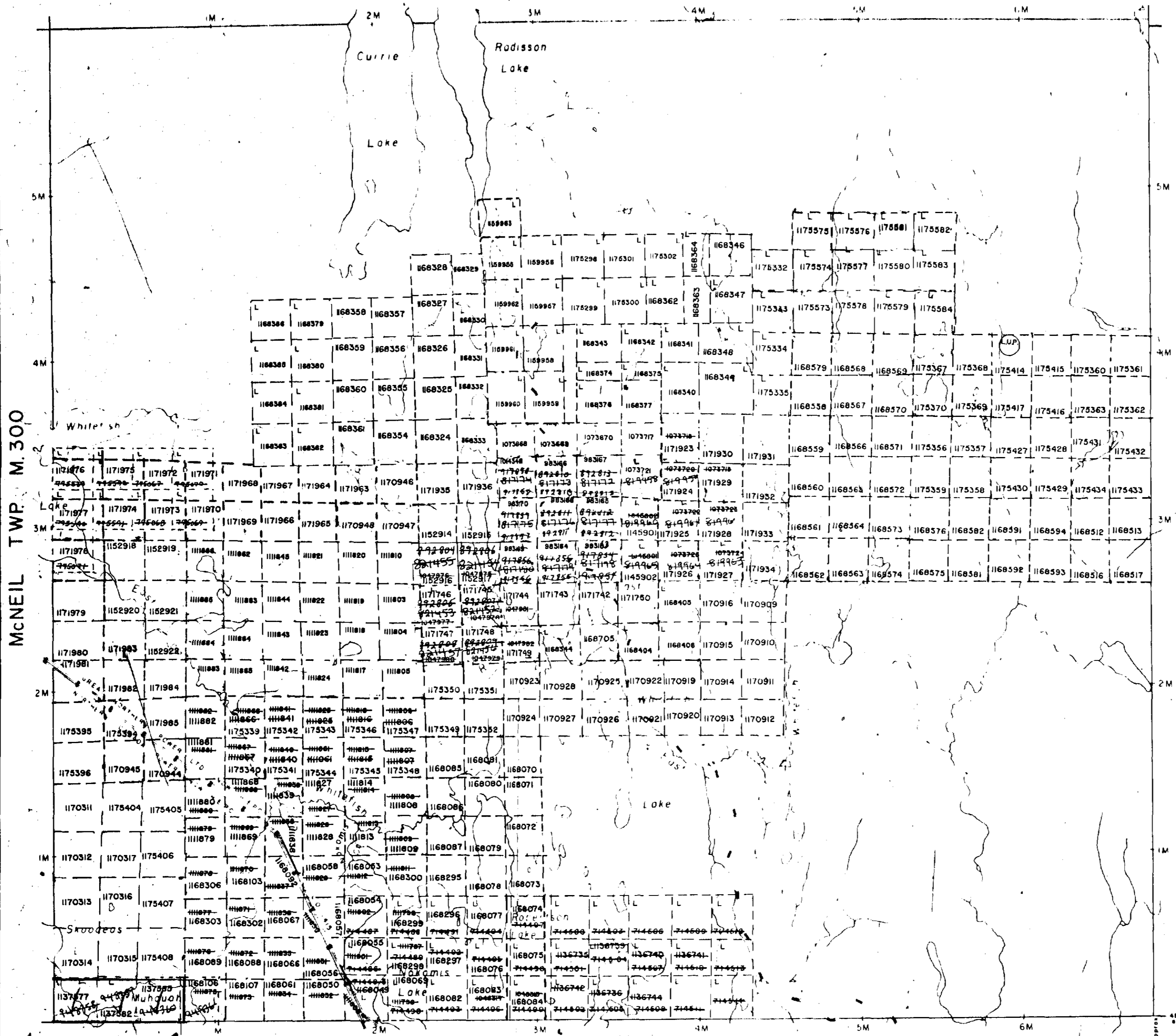
M.300

M.300

DATE OF ISSUE
 FEB 12 1991
 LARDER LAKE
 MINING RECORDER'S OFFICE

MICHIE TWP. M. 301

THE TOWNSHIP
 OF
ROBERTSON
 DISTRICT OF
 TIMISKAMING
 LARDER LAKE
 MINING DIVISION
 SCALE: 1-INCH 40 CHAINS



LEGEND

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

NOTES

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

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 RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

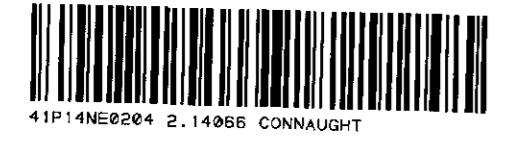
PLAN NO. **M. 310**
 ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEYS AND MAPPING BRANCH

McNEIL TWP. M. 300

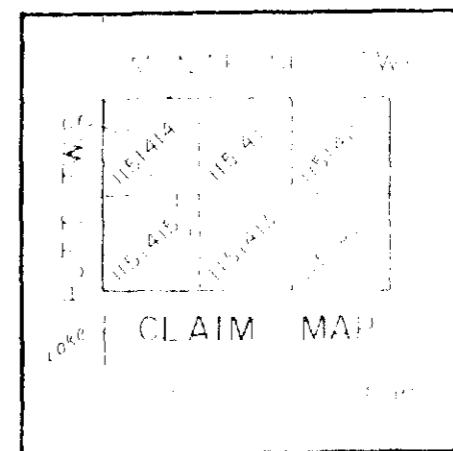
SHEBA TWP. M. 385

BADEN TWP. M. 205

2.14066




M. 310
 ROBERTSON TWP.
 O.I.C.M.



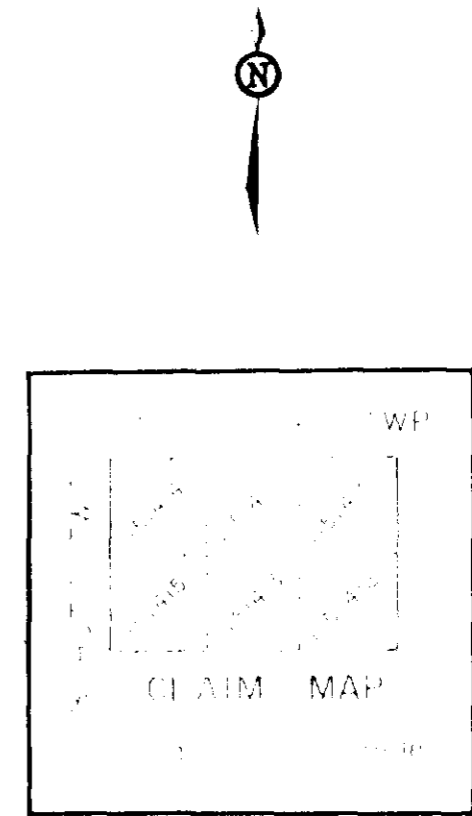
2.14066

LEGEND	
Total Field Contour Interval 2 %	
•	Inducted Point
—	Line Direction
---	Property Boundary
—	Conductor Axis
▼	VLF Low
—	2 %
—	0 %
STATION USED CUTLER Ma. FREQ. = 24.0 KHZ	

AIRBORNE VLF-EM SURVEY	
TRINITY EXPLORATIONS	
HUTT LAKE PROSPECT	MONTROSE Twp. Ont.
 R.A. FERDERBER GEOPHYSICS LTD.	MARCH 1991 EM I



250

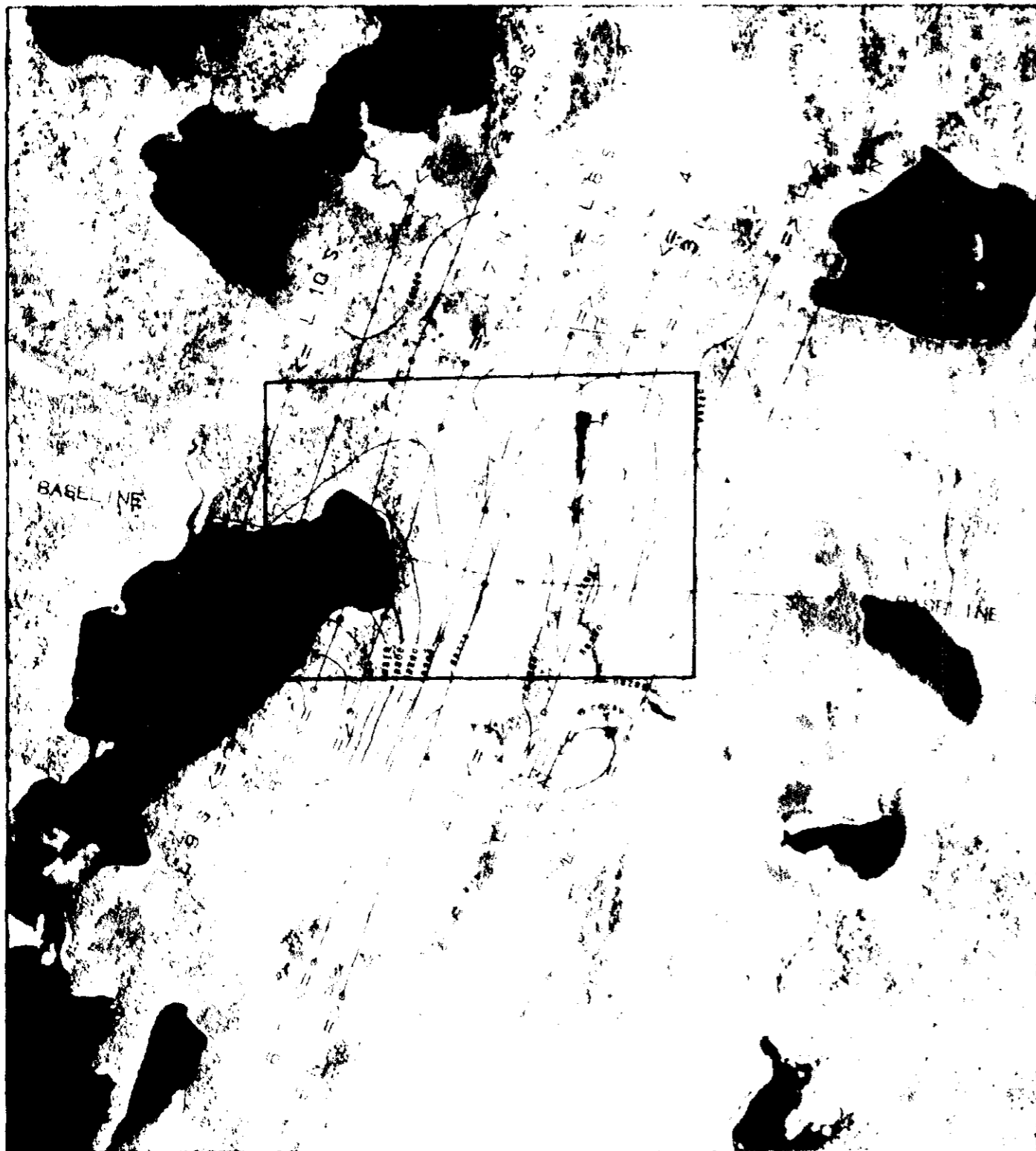


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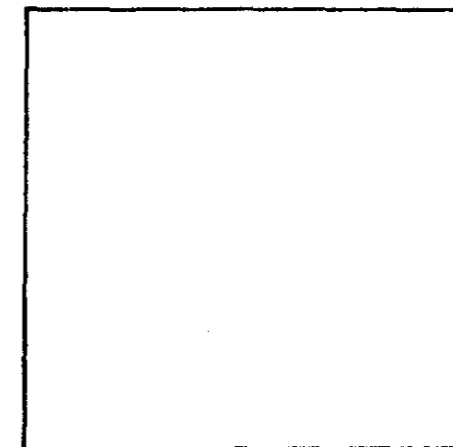
LEGEND	
—	Contour Interval 2 %
•	Point
—	Line Direction
—	Property Boundary
—	Conductor Axis
▲	VLF Low
—	10 %
—	2 %
—	0 %
STATION USED SEATTLE W. NLK FREQ. = 24.8 KHZ	

PROJECT		AIRBORNE VLF-EM SURVEY	
TRINITY EXPLORATIONS			
PROJECT		AREA	
HUTT LAKE PROSPECT		MONTROSE Twp. Ont.	
 H. FERDERBER GEOPHYSICS LTD.	SCALE	DATE	
	MARCH 1991 DRAWN BY EM 2	MAP OR SHEET NO. EM 2	





N




2.14066

LEGEND

TOTAL FIELD CONTOUR INTERVAL 10 gamma

- Fiducial Point
- Line Direction
- Property Boundary
- ▲ Magnetic low

QUILLOPS
GAMMAS

AIRBORNE MAGNETIC SURVEY	
TRINITY EXPLORATIONS	
PROJECT HUTT LAKE PROSPECT	AREA MONTROSE Twp. Ont.
 H. FERDERBER GEOPHYSICS LTD.	DATE MARCH 1991 DRAWN BY Adrian Gouette MAP OR SHEET NO. MG 1



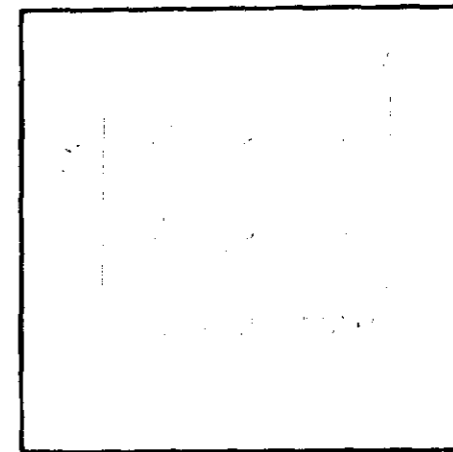
41P14NE0204 2.14066 CONNAUGHT

270



LEGEND

- 1. Hutt Lake
- 2. Metasediments
- 3. Volcanic Metamorphic Rocks
- 4. Metasediments with Intermediate Metamorphic Rocks




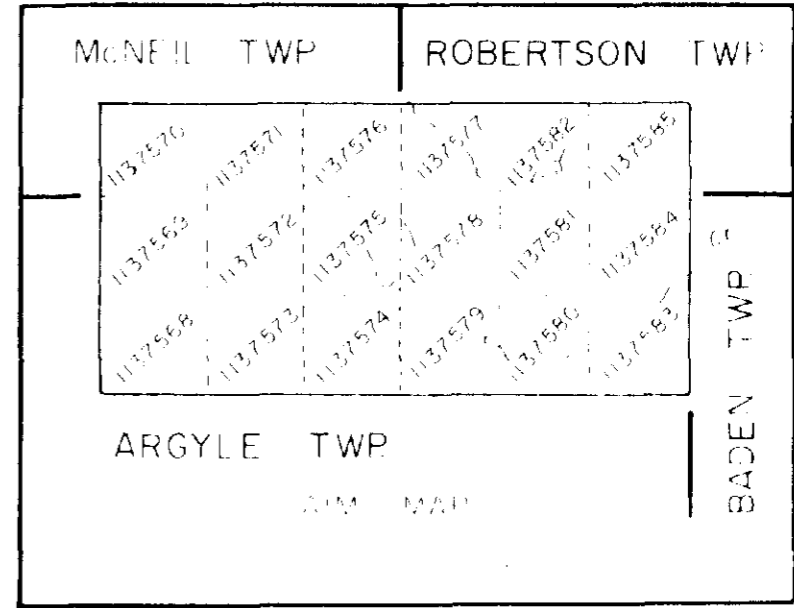
SYMBOLS

- (dashed line) Basin (inferred from geophysics)
- ~ (wavy line) Fault (inferred from geophysics)
- ~ (wavy line) Basin (mapped on surface)
- (solid line) Section Line (center)
- (solid line) Section Line (offset)
- x x x (crosses) Sample
- (dot) Sample
- (dot) Sample
- (dashed line) Fault (inferred from geophysics)

2. QUANT. UNIT 2.14066



TYPE OF WORK GEOLOGICAL INTERPRETATION		
CLIENT TRINITY EXPLORATIONS		
PROJECT HUTT LAKE PROSPECT	AREA MONTROSE Twp. Qué.	
 H. FERDERBER GEOPHYSICS LTD.	SCALE 1" = 1/4 Mile	DATE MARCH 1991
	DRAWN BY Adrian Gouette	MAP OR SHEET NO. GI 1



2.14066

LEGEND

- Total Field Contour Interval 2.5
- Individual Point
- Direction
- Property Boundary
- Conductor Axis
- ▲ VLF Low

2%
0%

STATION USED SEATTLE Wa. NLX FREQ. = 24.8 kHz

AIRBORNE VLF-EM SURVEY

TRINITY EXPLORATIONS

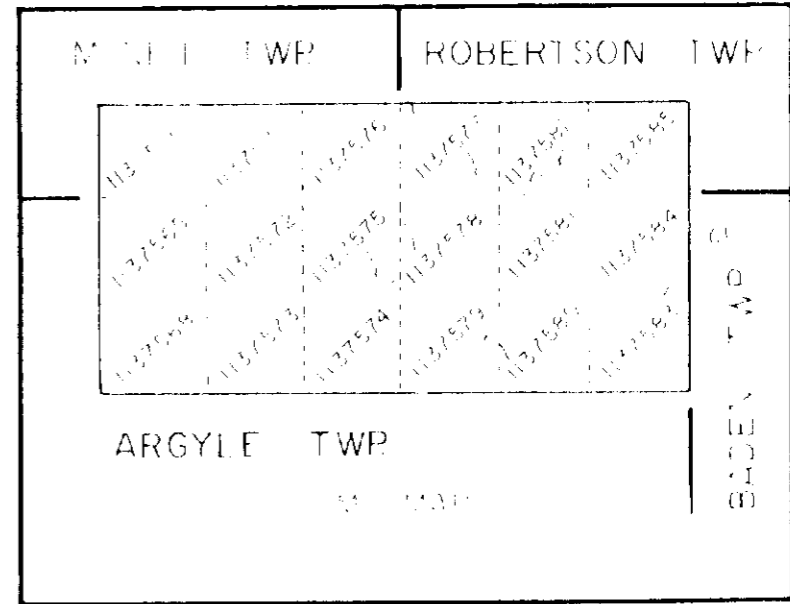
MEECH LAKE MATCHEWAN PROSPECT	ARGYLE, ROBERTSON + McNEIL Twps. Ont.
H. FERDERBER GEOPHYSICS LTD.	MARCH 1991

1 inch = 1.4 Mile





300



2.14066

LEGEND

- Total Field Contour Interval 2 %
- Fiducial Point
- = Line Direction
- Property Boundary
- Conductor Axis
- ▲ VLF Low

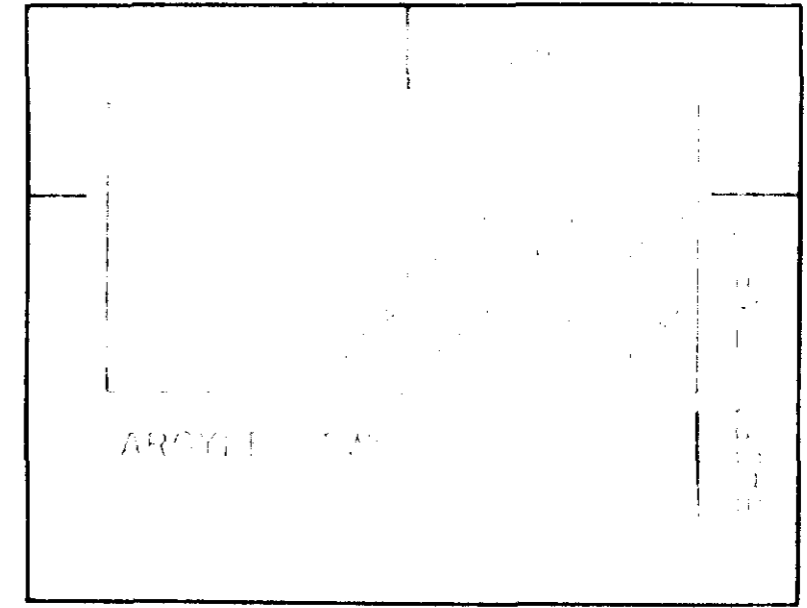
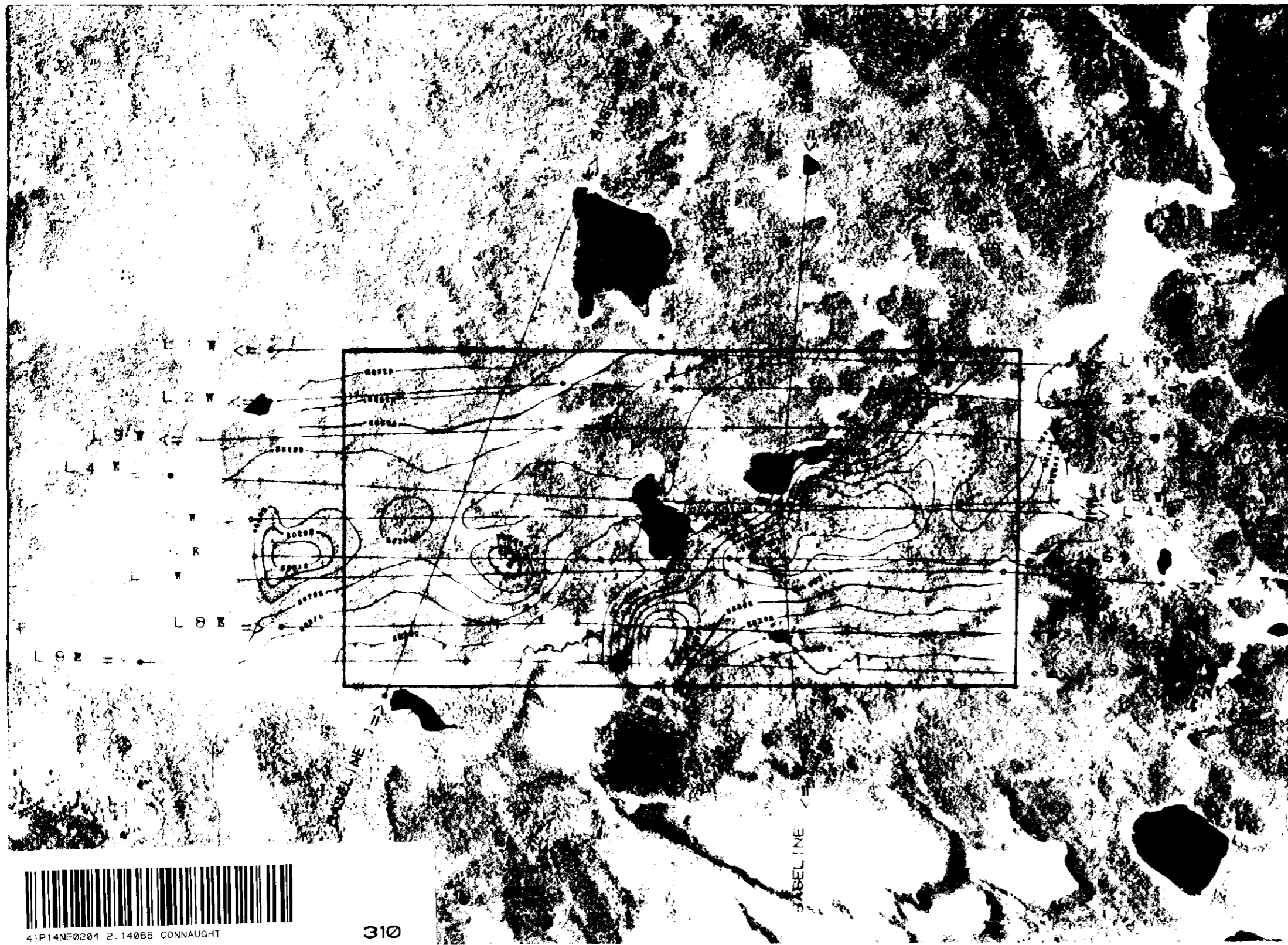
2 %
0 %

STATION USED ANNAPOLIS Md. NBS FREQ. = 21.4 KHZ

AIRBORNE VLF-EM SURVEY

TRINITY EXPLORATIONS

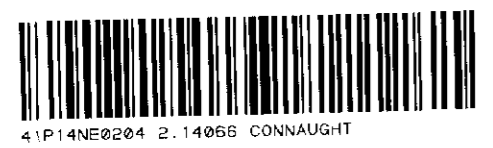
MEECH LAKE - MATCHEWAN PROSPECT	AREA ARGYLE, ROBERTSON + McNEIL Twps. Ont.
RA FERDERBER GEOPHYSICS LTD.	DATE MARCH 1991
SCALE 1 inch = 1/4 Mile	DATE OF SURVEY EM-1



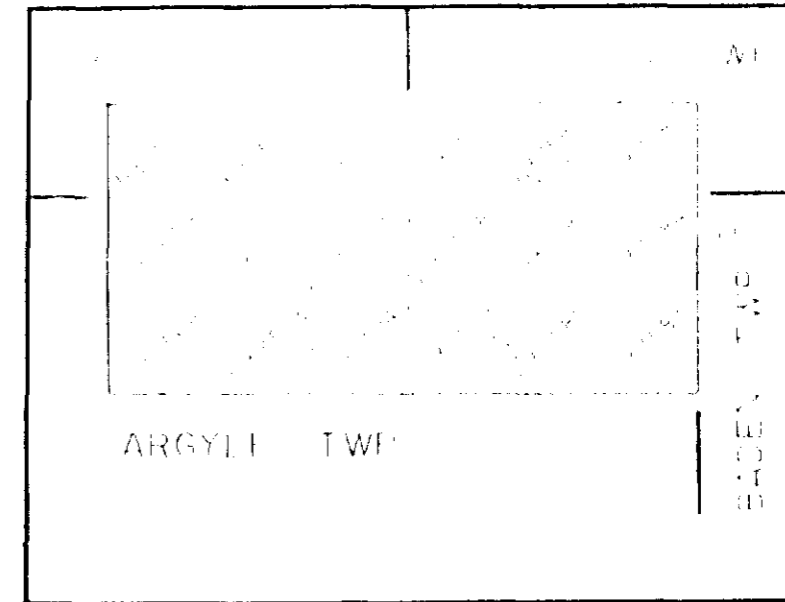
2.14066

LEGEND	
—	TOTAL FIELD CONTOUR INTERVAL 10 gammas
•	Fiducial Point
—	Line Director
—	Property Boundary
•	Magnetic Low
—	100 gammas
—	10 gammas

AIRBORNE MAGNETIC SURVEY	
TRINITY EXPLORATIONS	
MEECH LAKE - MATCHEWAN PROSPECT	ARGYLE, ROBERTSON McNEIL Twp. Ont.
RA	MARCH 1991
1:4 Mile	MAG 1




310



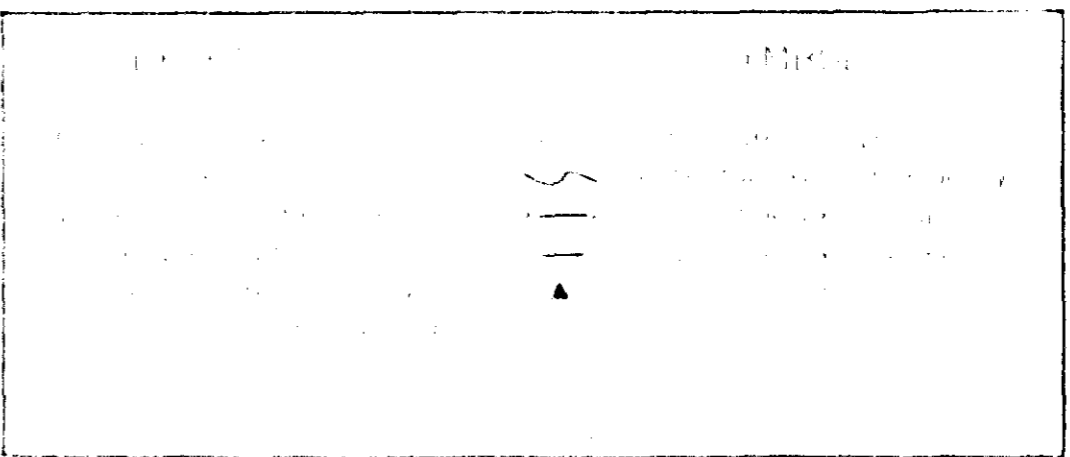
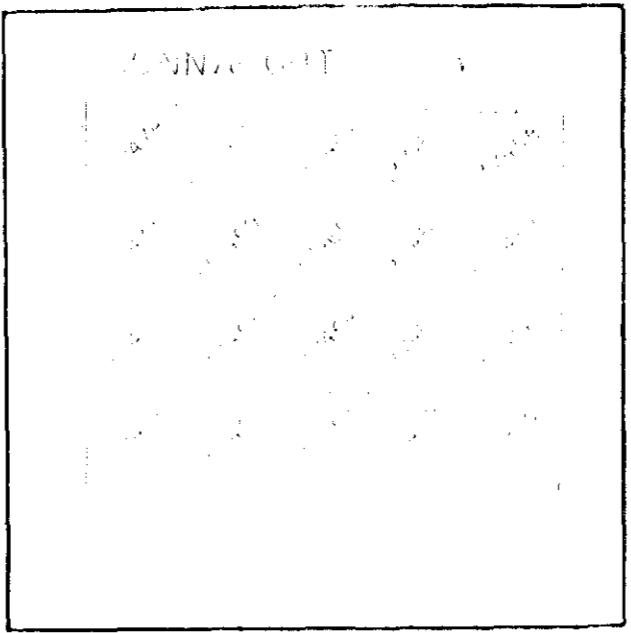
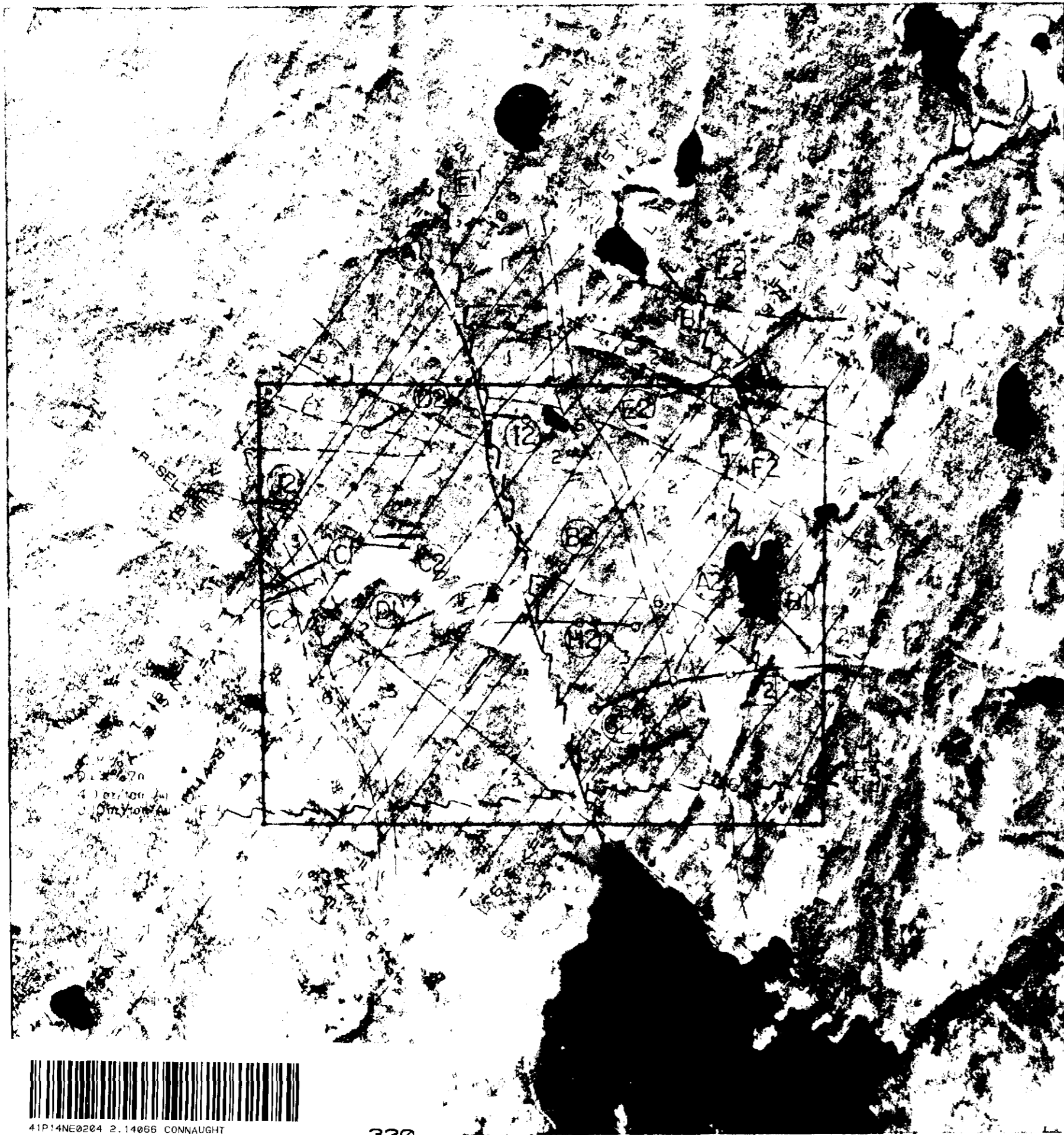
LEGEND

SYMBOLS

- | | |
|--|--|
| <ul style="list-style-type: none"> — Boundary of project area — Boundary of Matchewan — Boundary of Argyle — Boundary of McNeil — Boundary of Township — Boundary of Range | <ul style="list-style-type: none"> ○ Well location (with depth) ○ Well location (without depth) ○ Well location (with depth and direction) ○ Well location (with depth and direction and flow) ○ Well location (with depth and direction and flow and casing) |
|--|--|

<h2>GEOLOGICAL INTERPRETATION</h2>	
<h2>TRINITY EXPLORATIONS</h2>	
MEECH LAKE - MATCHEWAN PROSPECT	ARGYLE, ROBERTSON + McNEIL Twps. Ont.
 TRINITY EXPLORATIONS LTD.	SCALE: 1 inch = 1/4 Mile DATE: MARCH 1991
DRAWN BY: <i>[Signature]</i>	MAP OR SHEET NO.: G1

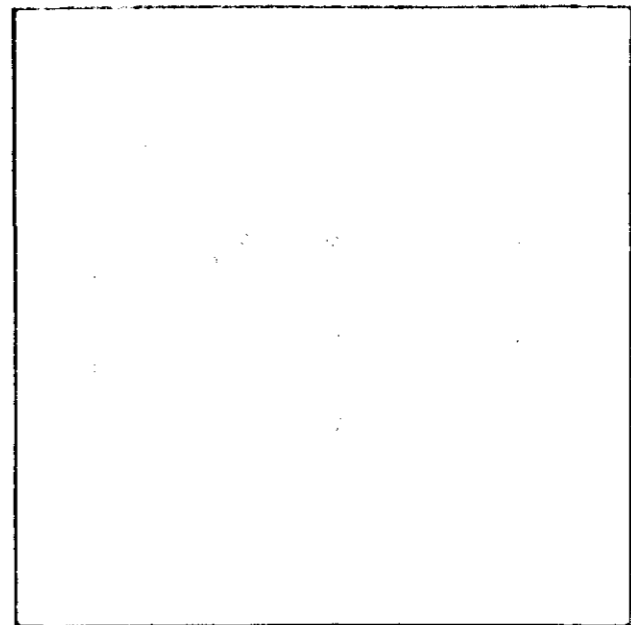




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GEOLOGICAL INTERPRETATION	
TRINITY EXPLORATIONS	
SHININGTREE PROSPECT	CONNAUGHT Twp. Ont.
RA ORDER REBR GEOLOGICAL INT.	1 Inch = 1/4 Mile MARCH 1991





2.14066

LEGEND

Total Field Contour Interval: 1 V

• Radial Point

— Line Direction

— Property Boundary

— Conductor Axis

▲ VLF low

— 10 %

— 2 %

— 0 %

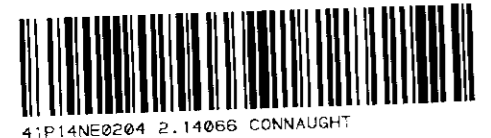
STATION USED SEATTLE Wa. NIK FREQ = 24.8 KHZ

AIRBORNE VLF-EM SURVEY

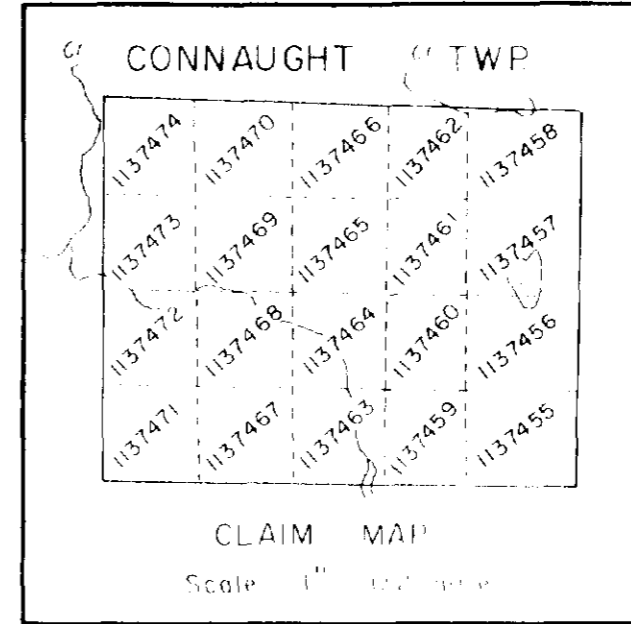
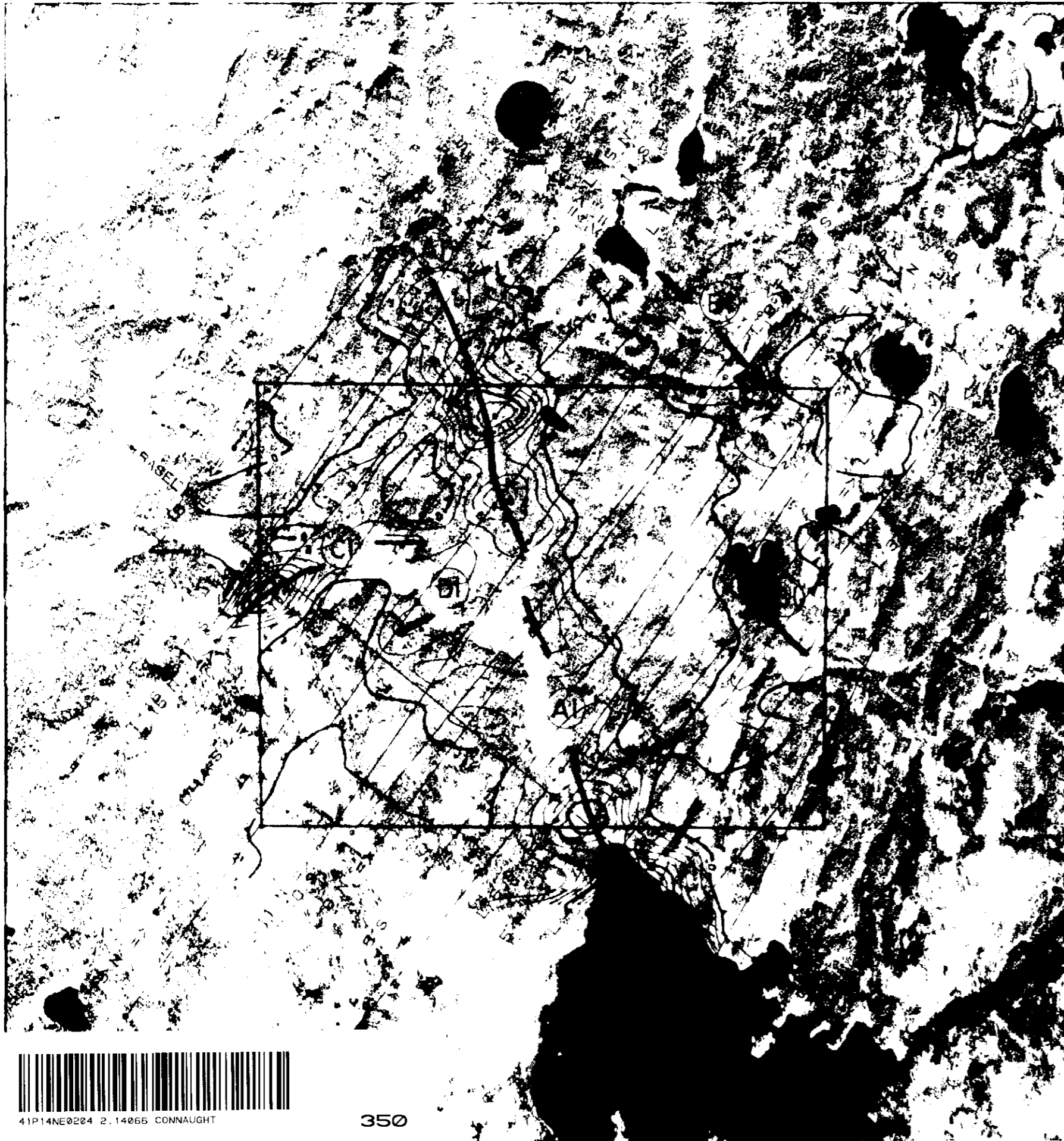
TRINITY EXPLORATIONS

SHINGTREE PROSPECT	CONNAUGHT Twp. Ont.
H. PURDERRER GEOPHYSICS LTD.	MARCH 1991

1 inch = 1.4 Mile



340




2.14066

LEGEND

Total Field Contour Interval 2 %

- Fiducial Point
- = Line Direction
- Property Boundary
- Conductor Axis
- 10 %
- 2 %
- 0 %

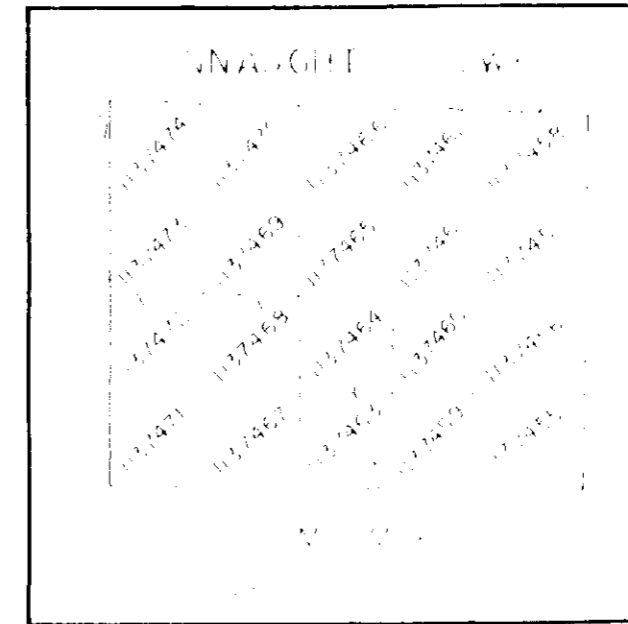
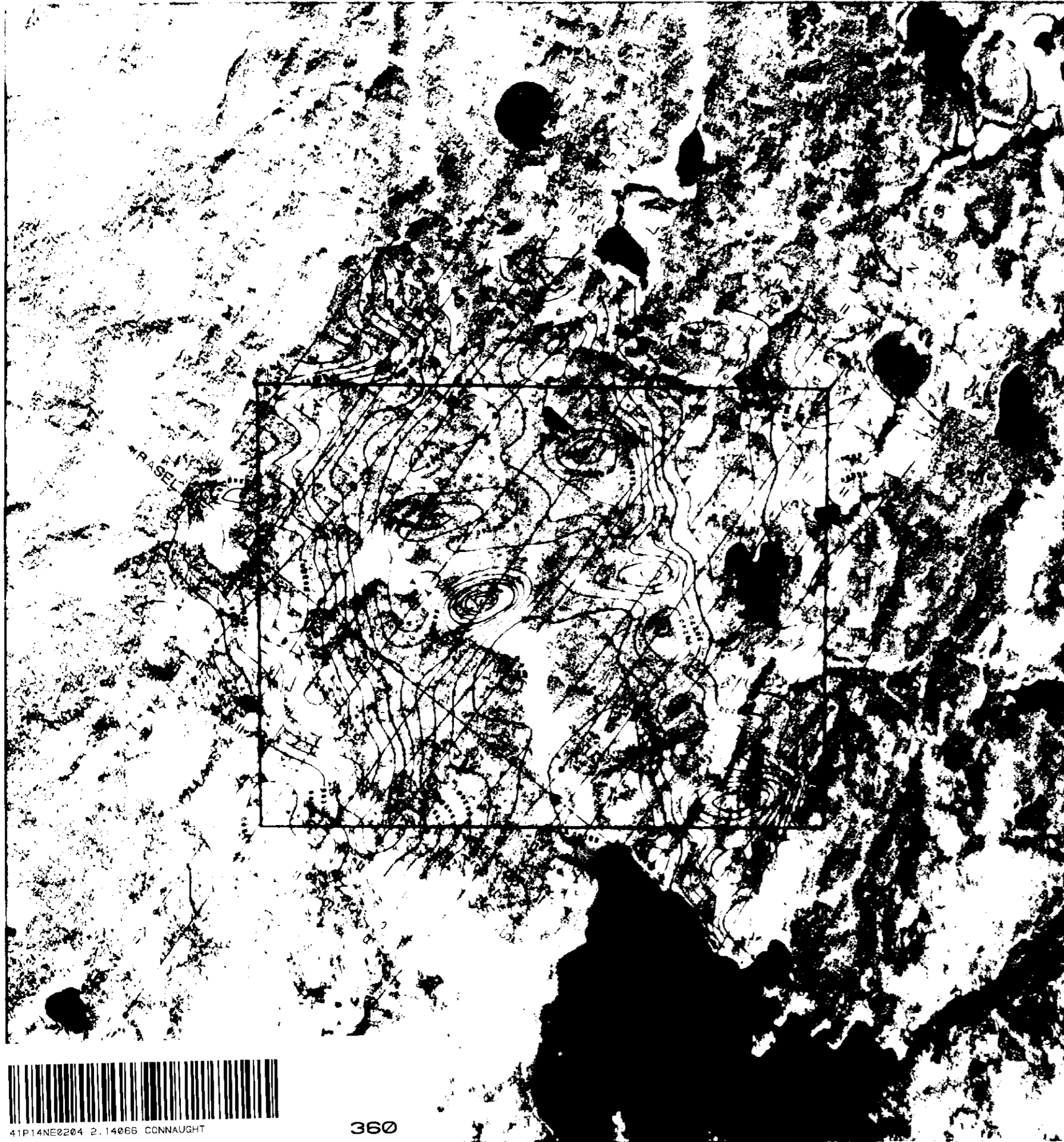
STATION USED ANNAPOLIS Md. NBS FREQ. = 21.4 KHZ

AIRBORNE VLF-EM SURVEY	
TRINITY EXPLORATIONS	
SHININGTREE PROSPECT	CONNAUGHT Twp. Ont.
 RA ERDREBER GEOPHYSICS LTD.	1 inch = 1/4 Mile MARCH 1991 EM 1



41P14NE0204 2.14066 CONNAUGHT

350



2.14066

LEGEND

TOTAL FIELD CONTOUR INTERVAL 20 gammas

• Fiducial Point

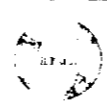
— Line Direction

— Property Boundary

▲ Magnetic Low

— 100 gammas

— 20 gammas

AIRBORNE MAGNETIC SURVEY	
TRINITY EXPLORATIONS	
SHININGTREE PROSPECT	CONNAUGHT Twp. Ont.
 <p style="text-align: center;">H. BERDERBER GEOPHYSICS LTD.</p>	<p style="text-align: center;">MARCH 1991</p> <p style="text-align: center;">SCALE: 1 inch = 1/4 Mile</p>



41P14NE204 2.14066 CONNAUGHT

360